BLA

boatinglifestyleadventure

PRODUCT CATALOGUE

EDITION 13 | 2017

BLA.COM.AU | BLA.CO.NZ

The **PRODUCTS** you want
The **KNOWLEDGE** you need
The **SERVICE** you rely on

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EXPLANATION OF SYMBOLS USED THROUGHOUT THE CATALOGUE

SPECIAL ORDER

A blue BLA product code, or the appearance of this logo indicates that BLA does not carry stock of these products. These products are a 'buy in' item, and a special ordering process is required. Please contact BLA on **1300 252 725** for information on these products.

DANGEROUS GOODS

The appearance of this logo indicates that products are classed as 'Dangerous Goods' for freight purposes. As such, these products need to meet specific freight conditions, including, but not limited to, incurring freight surcharges. Please contact BLA on **1300 252 725** for specific product information.

NAVIGATION RIBBON

For more batteries *See Section 11*

Throughout the catalogue, you will see this product navigation ribbon. Many of BLA's products complement each other and if the complementary products aren't on the surrounding pages, the ribbon will show you where in the catalogue these products are located. The ribbon is also used to navigate you to other product models.

SOLAS APPROVED

SOLAS Approved

The International Convention for the Safety of Life at Sea (SOLAS) is an international maritime safety treaty. It ensures that ships flagged by signatory States comply with minimum safety standards in construction, equipment and operation. SOLAS Approved products relate to the International Maritime Organisation's Life-Saving Appliances (LSA) Code which is Chapter 3 of the SOLAS Convention. The Chapter includes requirements for life-saving appliances and arrangements, including requirements for life boats, rescue boats and life jackets according to type of ship. The LSA Code gives specific technical requirements for LSAs and is mandatory under Regulation 34, which states that all life-saving appliances and arrangements shall comply with the applicable requirements of the LSA Code.

RCM

The Australian Government introduced a new regulatory regime for electrical devices as of March 1st 2016 called the Regulatory Compliance Mark, or RCM. Any device which uses, provides or is operated by electricity falls under the ACMA, the government body which is managing RCM compliance. Although there are some exceptions, any electrical device which meets the ACMA criteria for medium or high risk should be marked with the RCM symbol. This symbol represents that the importer or supplier has certified that the device meets the applicable Australian Standard and that the device is certified to not cause any electromagnetic interference.

CE LOGO

CE represents "Conformité Européenne". CE marking indicates that a product may be legally sold in all Member States of the European Economic Area. It denotes that a product conforms to the relevant essential requirements and other applicable provisions of the European Commission's New Approach Directives, and that the product has been through the appropriate conformity assessment procedures. Manufacturers put the CE mark on products to show that it complies with essential requirements of relevant European health, safety and environmental protection legislations. While these requirements are not completely applicable to the Australian market, a CE marking on a product is testament to the quality of the product.

CERTAIN PRODUCTS SHOWN IN THIS CATALOGUE ARE UNAVAILABLE TO NEW ZEALAND AND EXPORT CUSTOMERS. PLEASE CONTACT YOUR SALES REPRESENTATIVE FOR FURTHER DETAILS.

FOR THE MOST UP TO DATE PRODUCT INFORMATION PLEASE VIEW THE ONLINE CATALOGUE.

bla.com.au
bla.co.nz > **Info Centre > Product Catalogues**

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Find The Perfect Finder.

It doesn't matter what you're fishing for—any Humminbird® fishfinder will help you see your prey and its surroundings more clearly. To find the Humminbird that's right for you, consider your boat type, fishing style, and the features you can or can't live without.

Use the chart below to select the Series that best meets your needs.

	HELIX 12 Series with MEGA IMAGING	***HELIX 10 Series with MEGA IMAGING***	***HELIX 9 Series with MEGA IMAGING***
	Our largest screen plus all of our most advanced features. The included unit cover and mounting kit make the HELIX 12 Series a great choice for in-dash installations. Perfect for anglers with big boats or big ambitions.	Ready to take your game to the next level? View charts and SONAR graphs side-by-side on a striking, widescreen colour display. Get maximum transmit power, plus your choice of our most advanced SONAR and GPS options. Protect your display with the included unit cover.	If you've got room on your dash or bow for a larger format display, start with the full-featured HELIX 9 Series. View SONAR images and charts side-by-side with a full range of technology options. Includes unit cover.
Display	12.1" | 1280H x 800V	10.1" | 1024H x 600V	9" | 800H x 480V
SONAR Technologies	SF, DUAL+, CHIRP — *all models* SI, DI, MEGA SI, MEGA DI — *select models*	SF, DUAL+, CHIRP — *all models* SI, DI, MEGA SI, MEGA DI — *select models*	SF, DUAL+, CHIRP — *all models* SI, DI, MEGA SI, MEGA DI — *select models*
Cartography & GPS Features (Select Models)	PRECISION GPS, UNIMAP, AC LIVE — ***STANDARD*** HUMMINBIRD AutoChart, AutoChart Pro, AutoChart Live; NAVIONICS Platinum+, NAVIONICS+ — ***COMPATIBLE***	PRECISION GPS, UNIMAP, AC LIVE — ***STANDARD*** HUMMINBIRD AutoChart, AutoChart Pro, AutoChart Live; NAVIONICS Platinum+, NAVIONICS+ — ***COMPATIBLE***	PRECISION GPS, UNIMAP, AC LIVE — ***STANDARD*** HUMMINBIRD AutoChart, AutoChart Pro, AutoChart Live; NAVIONICS Platinum+, NAVIONICS+ — ***COMPATIBLE***
Ethernet Compatibility	ETHERNET • 360 Imaging • i-Pilot Link • NMEA 2000® • Radar	ETHERNET • 360 Imaging • i-Pilot Link • NMEA 2000® • Radar	ETHERNET • 360 Imaging • i-Pilot Link • NMEA 2000® • Radar
Mounting	Gimbal or Optional In-Dash	Gimbal or Optional In-Dash	Gimbal or Optional In-Dash
Custom Preset Views	3 Programmable Buttons	3 Programmable Buttons	3 Programmable Buttons
SD Card Slots	Dual SD Card Slots	Dual SD Card Slots	Dual SD Card Slots
Portable Models	N/A	N/A	N/A
Power Output	Up to 8000 W (PTP) | 1000 W (RMS) 8000 W with optional 50kHz deepwater transducer	Up to 8000 W (PTP) | 1000 W (RMS) 8000 W with optional 50kHz deepwater transducer	Up to 8000 W (PTP) | 1000 W (RMS) 8000 W with optional 50kHz deepwater transducer
Max Depth	Up to 457m (SF) | 106m (DI) | 45m (SI) 1060m with optional transducers	Up to 457m (SF) | 106m (DI) | 45m (SI) 900m with optional transducers	Up to 457m (SF) | 106m (DI) | 45m (SI) 900m with optional transducers

AutoChart Live software update may be required
SF – SwitchFire DI – Down Imaging SI – Side Imaging DSP – Digital Signal Processing

Humminbird® Technologies

- ***MEGA Side Imaging***
- ***MEGA Down Imaging***
- ***SwitchFire***
- ***HD Broadband***
- ***Side Imaging***
- ***Single Beam***
- ***GPS-Ready***
- ***AutoChart Live***
- ***Down Imaging***
- ***DualBeam***
- ***Multiple Cartography***
- ***Compatible***
- ***Digital SONAR***
- ***DualBeam PLUS***
- ***Build-In Map***
- ***Networking***

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	HELIX 7 Series	HELIX 5 Series	PiranhaMax™	Fishin' Buddy®
	One of the most popular units, top to bottom, thanks to great screen resolution and tons of features. Choose from SONAR only and GPS combo units, with SwitchFire Sonar, Down Imaging and Side Imaging.	Didn't think a fishfinder could be easy on the eyes and easy on the wallet? It's time to widen your horizons with the big, colourful display, powerful SONAR and other leading features.	Ideal for those who value simplicity over sophistication in a high-value colour display. Choose from Down Imaging or Dual Beam.	Use Fishin' Buddy on a boat, canoe or car topper. Position it almost anywhere with no rigging, wiring or a transducer to mount.
	7" | 800H x 480V	5" | 800H x 480V	4.3" | 480H x 372V	3.5" | 240H x 320V
	SF, DUAL*, CHIRP — all models SI, DI — select models	SF, DUAL*, CHIRP — all models SI, DI — select models	DI, DUAL — select models	DI, DUAL — select models
	GPS, UNIMAP, AC LIVE — STANDARD HUMMINBIRD AutoChart / AutoChart Pro / AutoChart Live, NAVIONICS, NAVIONICS+ — COMPATIBLE	GPS, UNIMAP, AC LIVE — STANDARD HUMMINBIRD AutoChart / AutoChart Pro / AutoChart Live, NAVIONICS, NAVIONICS+ — COMPATIBLE	N/A	N/A
	• 360 Imaging • NMEA 2000® • i-Pilot Link • Radar On select models	N/A	N/A	N/A
	Gimbal or Optional In-Dash	Gimbal or Optional In-Dash	Tilt & Swivel or Optional In-Dash	Portable Clamp
	N/A	N/A	N/A	N/A
	Micro SD Card Slot (Select Models)	Micro SD Card Slot (Select Models)	N/A	N/A
	N/A	N/A	Yes	Yes
	Up to 4000 W (PTP) 500 W (RMS)	Up to 4000 W (PTP) 500 W (RMS)	Up to 2400 W (PTP) 300 W (RMS)	Up to 2400 W (PTP) 300 W (RMS)
	Up to 457m (SF) | 106m (DI) | 45m (SI)	Up to 457m (SF) | 106m (DI) | 45m (SI)	Up to 182m (2D) | 95 (DI)	Up to 182m (2D) | 95 (DI)

Features and specifications subject to change without notice.
For full model specifications, see pages 20-24.

Humminbird® MEGA Imaging™ with CHIRP

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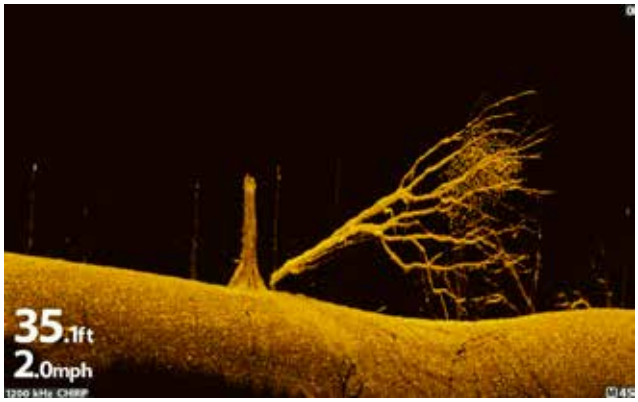
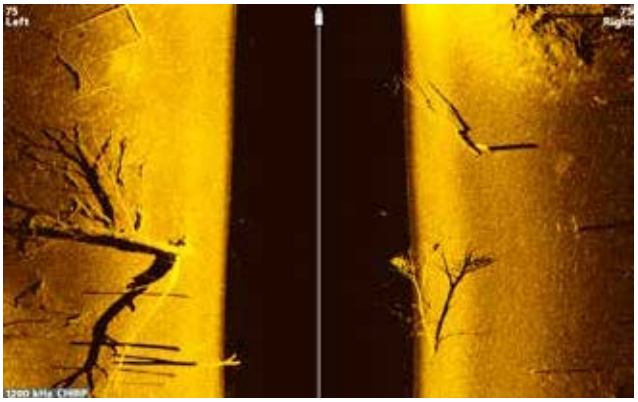
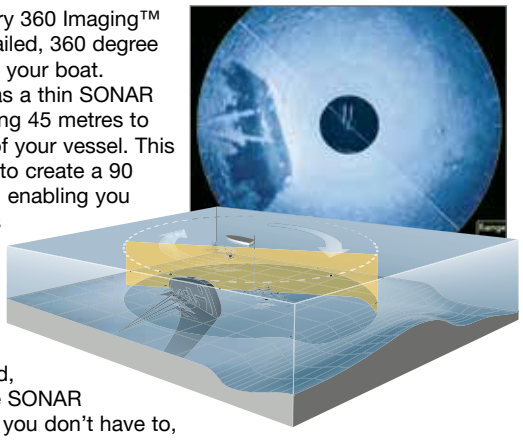
Digital sonar delivers unprecedented detail with a sonar frequency nearly 3-times greater than traditional 455 kHz frequencies, Humminbird is the first to take fish-finding sonar to the megahertz range, resulting in the clearest, sharpest underwater views. The quantum leap to megahertz frequency provides vastly improved MEGA Side Imaging and MEGA Down Imaging, giving anglers a clear choice when it comes to underwater sonar.





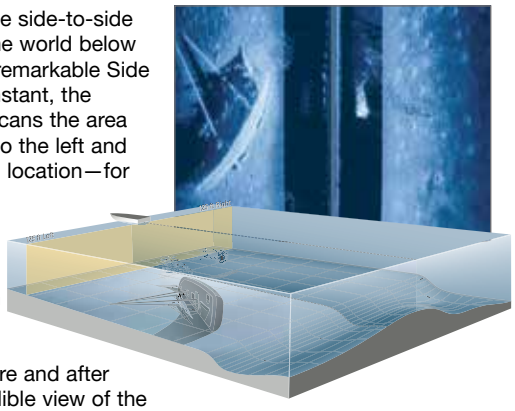
360 Imaging™

Revolutionary 360 Imaging™ offers a detailed, 360 degree view around your boat. Visualise it as a thin SONAR wall extending 45 metres to either side of your vessel. This wall rotates to create a 90 metre circle, enabling you to see areas virtually impossible to reach with other types of SONAR. And, because the SONAR wall moves, you don't have to, so you can see where fish are before they see you.



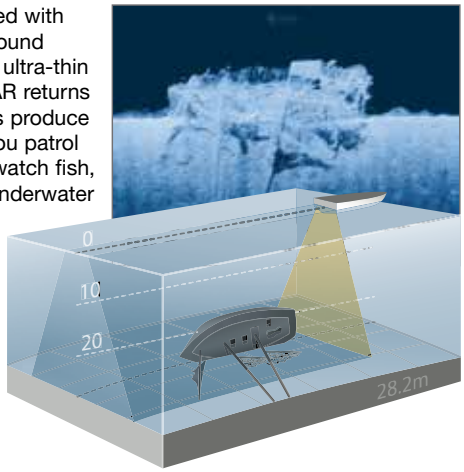
Side Imaging®

Gain a 180 degree side-to-side perspective on the world below the surface with remarkable Side Imaging®. In an instant, the ultra-thin beam scans the area up to 75 metres to the left and right of your boat location—for total coverage of up to 150 metres. The return image for each slice is then added to the images taken immediately before and after to build an incredible view of the sea bottom.



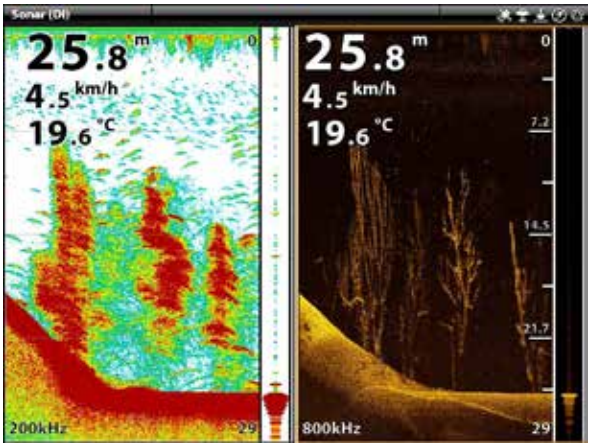
Down Imaging®

Get a fish-eye's view of what's happening below your boat with Down Imaging®. These incredible images are created with high-frequency sound waves emitted in ultra-thin slices. The SONAR returns from these waves produce a "portrait." As you patrol the water, you'll watch fish, reefs and other underwater habitat pop with stunning detail.



SwitchFire

This view provides complete understanding of what exactly is going on below your boat. Quickly identify cover and structure with Down Imaging, while using SwitchFire® to locate and target fish. Together, they take the guesswork out of SONAR fish-finding.



Humminbird® 360 Imaging

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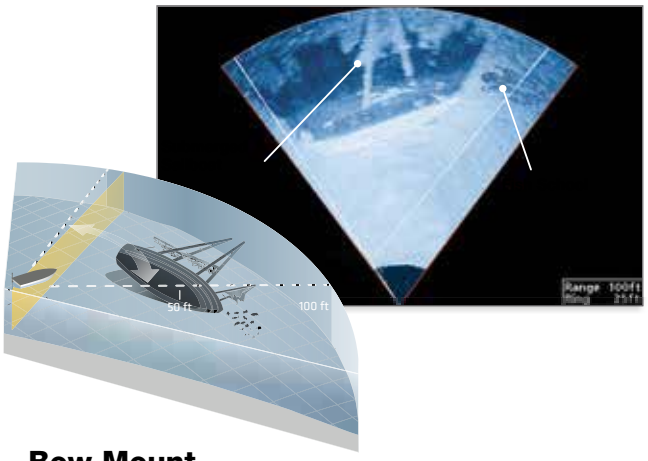
Forward-looking Mode

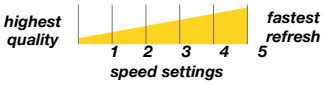
360 Imaging allows you to isolate your sweep area over a section of water from 10 to 360 degrees. You can lock in your beam anywhere—but the area in front of your boat is especially useful. With valuable intelligence on fish-holding structure and cover waiting up ahead, you can cast to productive areas without spooking fish. Because your beam has less ground to cover, you'll also benefit from a faster refresh rate.



Preset Views

Isolate Sweep Area

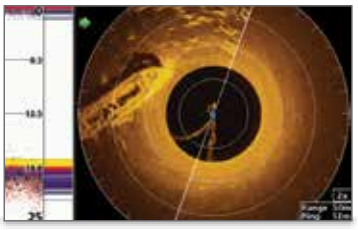
Five Beam Speeds



For greater on-water flexibility, 360 Imaging lets you choose from five beam speed settings. Lower beam speeds lead to higher image quality but lower refresh rates. Conversely, higher beam speeds result in lower image quality but higher refresh rates.

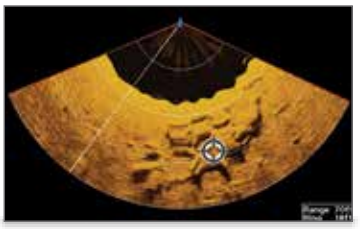
Split-Screen Views

View 360 Imaging side-by-side with SwitchFire or GPS cartography. SwitchFire lets you see what's going on below your boat while GPS gives you waypoints, routes and other navigational information. Here we see fish holding tight to a wreck at 10 o'clock.



Waypoint Navigation

Mark fish-holding structure like this bridge rubble as a waypoint directly on your 360 Imaging screen. The exact location will be stored in your unit's memory and is viewable on GPS cartography.



Bow Mount

If the front of your boat is your prime fishing turf, mount up. Clamped to your Minn Kota® Fortrex™ or Maxxum® trolling motor, 360 Imaging Bow Mount gives you a 360-degree, detail-rich view of the water—with you standing literally in the middle of your SONAR return as you troll. So you'll be at the centre of the action—without becoming the centre of attention.

Note: This will only fit Fortrex & Maxxum bow mount trolling motors. It will not fit any electric steer motors due to stow & deployment and the turning shaft.

Quick Dismount

In seconds and with the pull of a latch, you can unclamp 360 Imaging Bow Mount from your Fortrex™ trolling motor, for easy storage at home and away.

Transom Mount

Deployed from the transom of your boat, 360 Imaging Transom Mount delivers amazing, 360-degree images of the world below. And with this freestanding system, you won't need a trolling motor in the water to see what lies ahead.

Drop In Without Causing A Stir

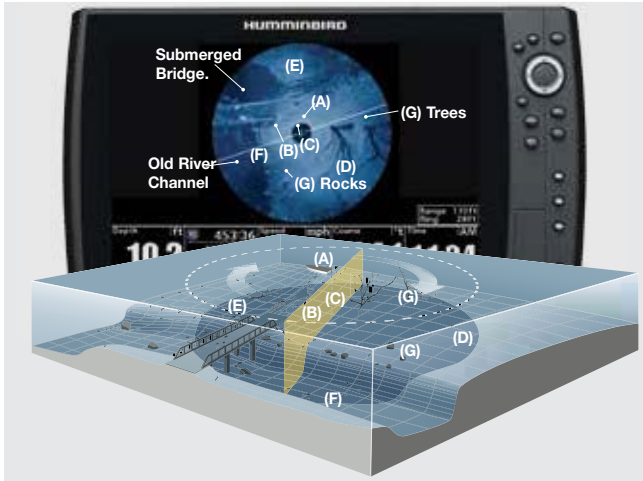
Deploy 360 Imaging using your Humminbird® unit or the control buttons found on the Transducer Deployment System (TDS). The transducer drops below your boat's hull and prop for an unobstructed, 360-degree view. Easily set deployment depth based on your prop clearance and it will be stored in the TDS memory. The system operates quietly, escaping the notice of nearby fish.

Portable Mounting Bracket

For quick install and removal, clamp your 360 Imaging Transom Mount transducer to your boat.

360 Imaging	HELIX Series
	O
Models	HELIX 12SI, 12DI, 10SI, 10DI, 9SI, 9DI

O *Optional*



We've broken down a screenshot to help you make the most of 360 Imaging™ and its unprecedented coverage area.

(A) Boat Location
The position of your boat in relation to the on-screen image.

(B) Beam Location
The position of the beam as it sweeps around your boat.

(C) Water Column
The dark circle around your boat shows cover and activity between the transducer and the bottom.

(D) Flat Terrain
Neutral shades of blue represent flat terrain.

(E) Rising Terrain
Lighter shades of blue typically represent terrain rising from the bottom. Sometimes, very hard bottoms appear as a whiter shade.

(F) Descending Terrain
Dark shades of blue represent descending terrain.

(G) Cover/Structure/Fish
Objects standing off the bottom will appear as a clearly defined bright shape with an adjacent, dark SONAR "shadow." Generally, long shadows indicate the object is tall, and small shadows indicate something short. It's important to note that the shadow will often tell you more about the object than the primary SONAR reflection.

Humminbird® CHIRP Side Imaging

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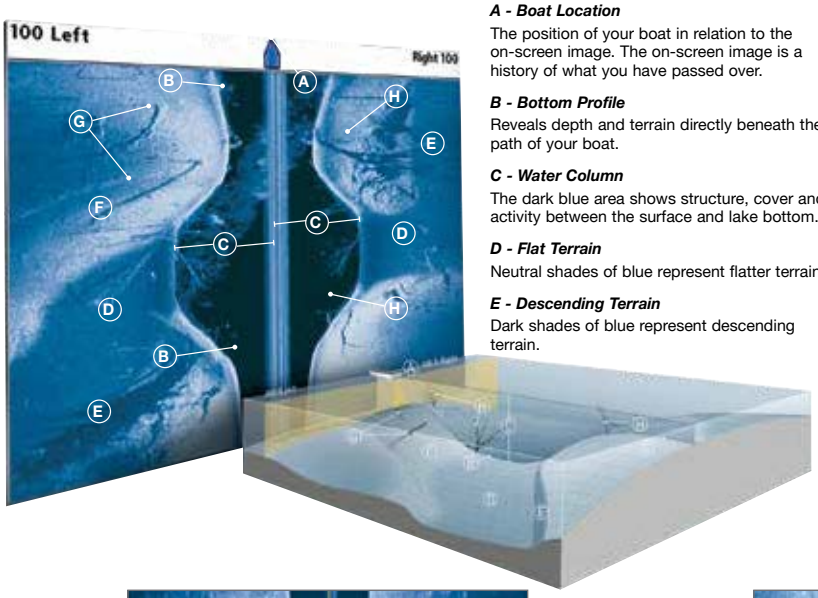
Interpreting the Returns

Humminbird Side Imaging SONAR uses an ultra-thin beam to take a “SONAR snapshot” of the area up to 45 metres deep and 75 metres to the left and right of your location. The return image for this slice is then added to the images taken immediately before and after to build an incredibly detailed view of the lake bottom.



A - Boat Location
The position of your boat in relation to the on-screen image. The on-screen image is a history of what you have passed over.

B - Bottom Profile
Reveals depth and terrain directly beneath the path of your boat.

C - Water Column
The dark blue area shows structure, cover and activity between the surface and lake bottom.

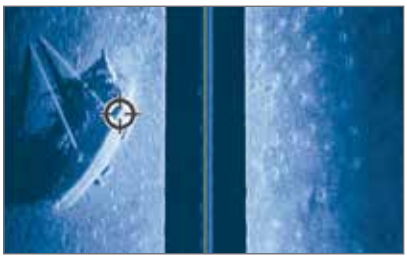
D - Flat Terrain
Neutral shades of blue represent flatter terrain.

E - Descending Terrain
Dark shades of blue represent descending terrain.

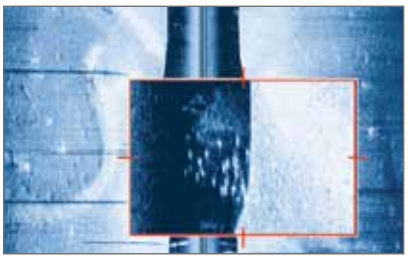
F - Rising Terrain
Lighter shades of blue typically represent terrain rising from the bottom. Sometimes, very hard bottoms appear as a whiter shade.

G - Fallen Log
The shortened horizontal shadows indicate cover very close to the bottom of the lake. The angle of the shadow gives away the orientation of the log.

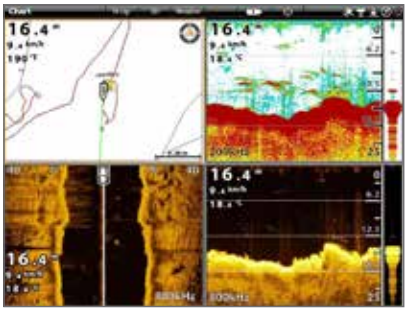
H - Standing Timber
Objects standing off the bottom directly below the boat will appear in the water column. Structure to the left or right of the boat will appear as a clearly defined bright shape with an adjacent, dark SONAR “shadow.” Generally, long shadows indicate the object is tall, and small shadows indicate something short.



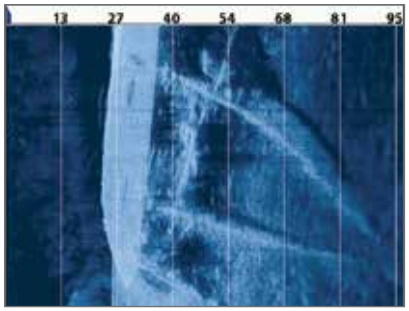
See something interesting like the sunken sailboat shown here? Save its exact GPS location as a waypoint on your Humminbird® Imaging screen for easy return trips.



Enable zoom mode to hone in on the tiniest details. Here we’re able to identify predators feeding on baitfish in the water column.

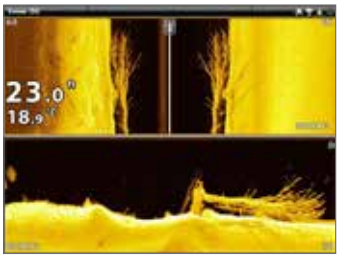


View multiple Humminbird® SONAR technologies at once for a complete picture. Here, we're fishing for King Fish over reef also using GPS to re-run productive ground.



Enable range lines to judge the distance between your boat and underwater objects. Here, we can easily see the main hull of this wreck is 27 metres from our starboard side.

Use Contour Mode to remove the water column. Note how this submerged railroad track now appears as though we’re looking straight down at it from our boat.



Adjust colour palette, sensitivity and sharpness to match conditions, enhance detail of structure and fish.

Side Imaging	HELIX Series
	●
Models	HELIX 12SI, 10SI, 9SI, 7SI, 5SI

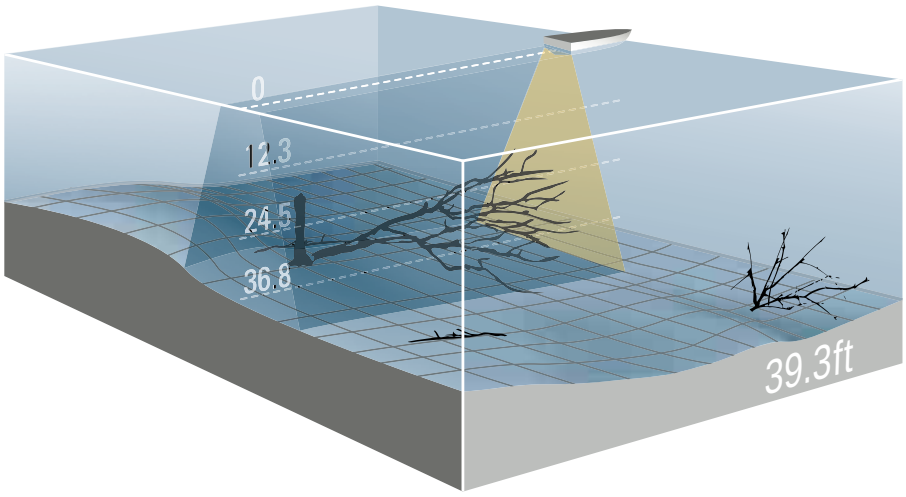
● ***Standard***

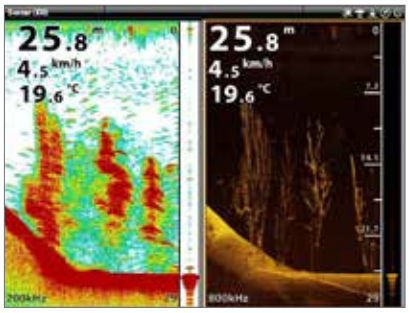
Humminbird® CHIRP Down Imaging

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Understanding Down Imaging®

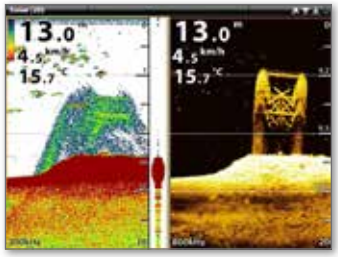
The detailed images of Down Imaging® are created with high-frequency sound waves emitted in ultra-thin slices. The SONAR returns from these waves produce a “snapshot” of what’s below your boat.

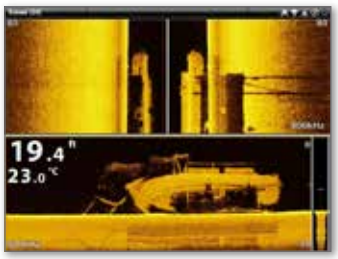


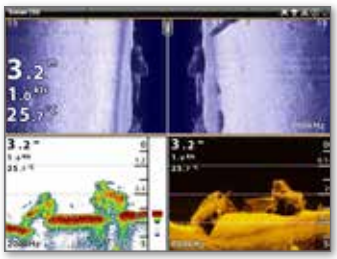


Threadfin Salmon

Split-Screen Views







Switchfire® / Down Imaging®

This view provides complete understanding of what exactly is going on below your boat. Quickly identify cover and structure with Down Imaging®, while using SwitchFire® to locate and target fish. Together, they take the guesswork out of SONAR fishfinding.

Down Imaging® / Side Imaging®

Get a complete 180° view. Down Imaging® provides incredible detail below your boat, while Side Imaging® extends 75 metres to either side of your boat. These two detailed images are unlike anything you’ve ever seen.

Down Imaging® / Switchfire® / Side Imaging®

Don’t miss a thing with these three Humminbird® technologies working together. Use SwitchFire® and Down Imaging® together for a straight down view, while Side Imaging® reaches out to both sides.

Divide And Conquer

Take the water by force with the world’s most powerful SONAR technologies together in more models than ever before. For a complete, uncompromised view of structure and activity below your boat, opt for one of our Down Imaging® units also featuring SwitchFire™.

Down Imaging	HELIX Series	PiranhaMAX	Fishin’ Buddy
Models	● HELIX 12SI, 12DI, 10SI, 10DI, 9SI, 9DI, 7SI, 7DI, 5SI, 5DI	● 4 DI	● MAX DI

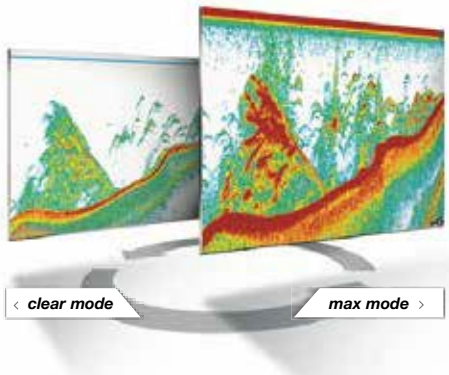
● *Standard*

SwitchFire

Take command of how your SONAR returns appear. With the two display modes of exclusive SwitchFire SONAR, you can adjust to your fishing conditions on the fly. Add or remove detail; account for water depth, temperature and turbulence; even see lure and bait presentations—all at the push of a button.

SwitchFire	HELIX Series
Models	●

● *Standard*



Clear Mode

Filter out noise for easy viewing in rough water or reduce clutter in the water column.

Max Mode

See cover, fish, thermoclines, water currents and even jigging with incredible detail.

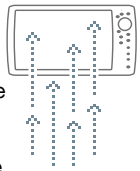
Humminbird® CHIRP SONAR

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Standard on HELIX 12, 10 & 9 series and selected HELIX 7 & 5 units.

All forms of CHIRP are not created equal. While competitors were flooding the market with technologies that barely qualify for the term, Humminbird was developing and perfecting a true Broadband CHIRP worthy of its innovative legacy. We did not cut corners—with full broadband capabilities built into select HELIX™ CHIRP models. And while our competition picks just a few frequencies for you, we give you full spectrum capability, plus the power to select your own start and end frequencies.

Superior Data Processing



Unless you have a PhD in SONAR interpretation, raw CHIRP information is meaningless without the right software to connect the data points. Humminbird's CHIRP Processing Engine uses proprietary algorithms to more efficiently compare and crunch CHIRP data, instantly drawing an easy-to-understand image.

Ultra-Wide Broadband

CHIRP scans the water for fish similar to the way the seek function on your car radio scans the airwaves for FM stations. Some so-called versions of CHIRP SONAR only sweep a narrow range of frequencies, giving you a very limited view of the underwater world. By comparison, Humminbird CHIRP unlocks your transducer's full CHIRP capability, scanning its widest possible band of frequencies. With more frequencies to compare, Humminbird's CHIRP Processing Engine can more effectively filter out noise, delivering a clearer, more precise picture.

Greater Power

By bouncing more energy off the bottom, Humminbird CHIRP is able to provide more detailed returns, especially in deep water.

Two Solutions, Limitless Possibility

Broadband CHIRP

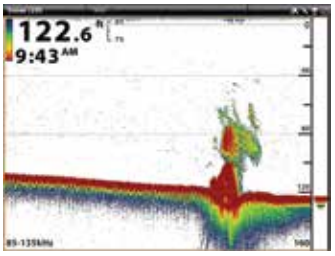
Humminbird Broadband CHIRP delivers impressive detail and accuracy in many saltwater applications. Compared to peer technologies, this best-in-class CHIRP sweeps more frequencies, while using superior transducer and data processing to deliver unrivaled fish-finding precision. For maximum convenience, this technology is built into your Humminbird HELIX™ 12 head unit.

More Pulses

Traditional transducers put you on hold, wasting valuable time "charging up" before each SONAR pulse. Humminbird CHIRP transducers are engineered to minimise charge time, firing off more pulses in a given period of time. More pulses mean more information and improved target separation.

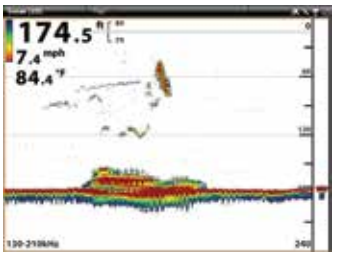
Improved Fish Detail

Nothing fishy here. With CHIRP, you can tell the difference between a sport fish, a baitfish and a weed based on the finely detailed arches.



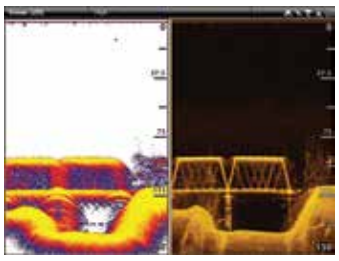
Reduced Noise

Filter out the nonsense. CHIRP scans multiple frequencies to eliminate confusing noise and interference. For example, see separation between fish and brush.



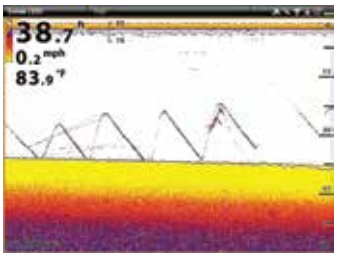
Greater Clarity

Don't miss a thing. Thanks to the precision of CHIRP, you can clearly identify subtle structural details, like bridge cables, that can clue you in to where the fish are.



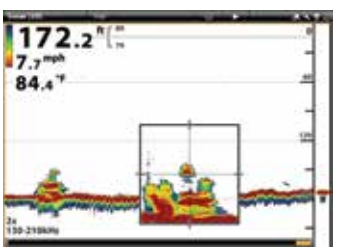
Unmatched Precision

Dial it in. CHIRP allows you to select individual frequencies, enabling you to see the smallest details. For instance, monitor your jigging action on screen.



More Target Separation

No more "blobs." In traditional 2D SONAR, it can be difficult to tell where one object begins and another ends. That's not the case with the target separation of CHIRP.



Increased Depth

Get to the bottom of it. By blasting more energy below the surface, CHIRP SONAR can take you deeper, all the way to the ocean floor, with greater accuracy.

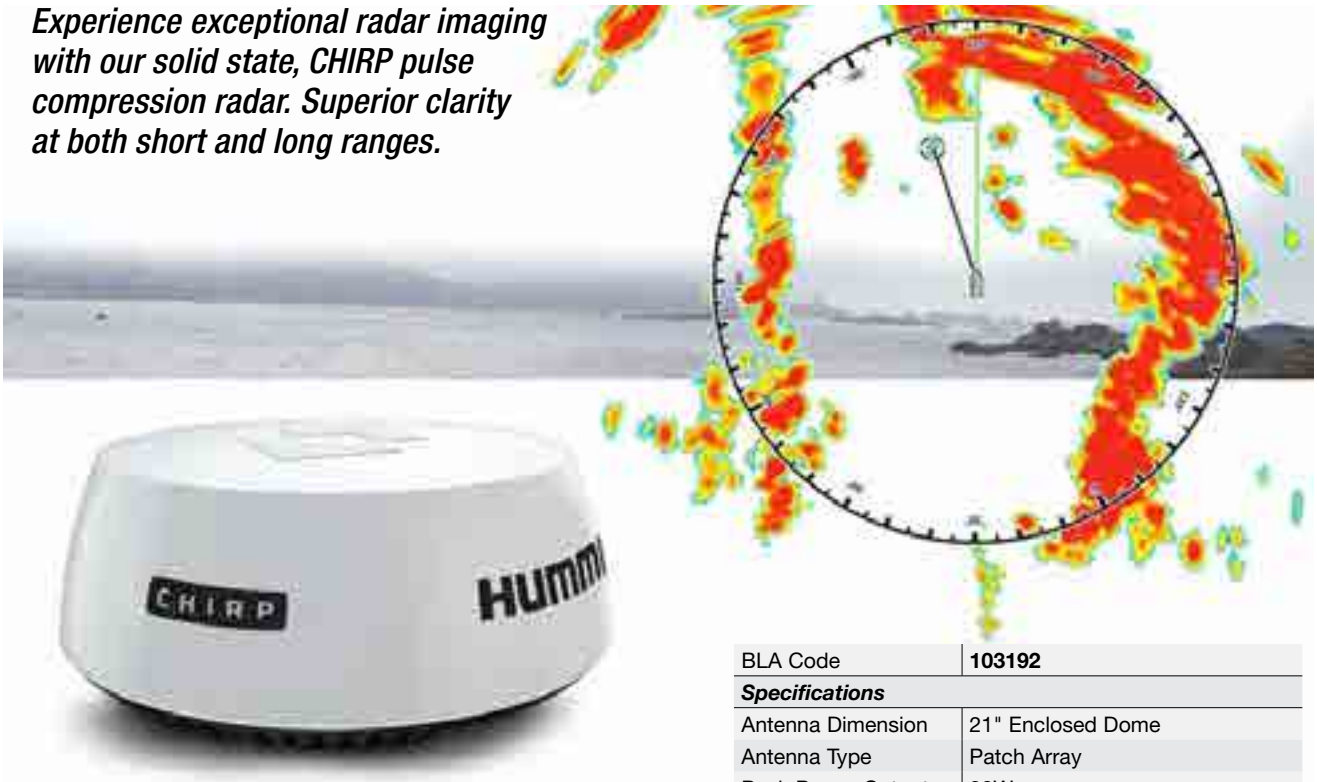
CHIRP SONAR	HELIX Series
	●
Models	HELIX 12, 10, 9, 7, 5 GPS Combos

● *Standard*

Humminbird® CHIRP Radar

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Experience exceptional radar imaging with our solid state, CHIRP pulse compression radar. Superior clarity at both short and long ranges.



Introducing the next generation of marine radar: new Humminbird CHIRP Radar, featuring CHIRP pulse compression. Setting a new standard for compact solid state radar, this Humminbird technology delivers superior radar imaging on both long and extremely short ranges. An energy efficient, lightweight design provides safe radiated emissions and substantially reduced power consumption. See things more clearly with Humminbird CHIRP Radar. Shorelines, buoys, other boats and weather - watch it all take shape on your fishfinder for maximum safety and a competitive edge.

Features:

- **Superior Radar Imaging -** Humminbird's advanced MARPA target separation displays targets with unsurpassed resolution and quality
- **CHIRP Pulse Compression -** Along with excellent short-range detection and detail, CHIRP Pulse compression ensures more energy reaches each target for superior imaging at long ranges
- **Small Target Detection -** Humminbird's CHIRP Pulse compression identifies small or weak targets, even while positioned close to strong returns
- **Immediate Awareness -** Our solid-state technology is ready to use in seconds, without a length warm-up period

BLA Code	**103192**
Specifications	
Antenna Dimension	21" Enclosed Dome
Antenna Type	Patch Array
Peak Power Output	20W
Transmit Frequency	9354 to 9446 MHz
Beamwidth (nominal)	4.9° Horizontal, 20° Vertical
Input Voltage	12 or 24 Vdc (Min: 10.8V; Max 31.2V)
Networking	Ethernet
Power Consumption	Transmit mode 17W; standby mode 7W; sleep mode 2W
Max. Range Scale	1/16 to 24 nautical miles
Duplexer	Circulator
Pulse Widths (3 dB)	40 ns to 14.7 µs
CHIRP lengths	40 ns to 20 µs
CHIRP Bandwidth	Up to 32 MHz
IF Bandwidth	26 MHz
Noise	Less than 4 dB
Polarisation	Horizontal
Waterproofing	IPX6
Weight	5.6kg (12.3 lb)

Humminbird® NMEA 2000®

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Boat performance, weather or water conditions, make sense of it all with Humminbird® NMEA 2000® Networking. Easily connect sensor after sensor to your vessel's Humminbird® system. Bearing, depth, engine status, tank level, electrical—you name it, we can display it. Conserve valuable fuel, make informed decisions and see red flags with an at-a-glance view of all relevant information. You'll fully understand the present—and anticipate what's next.

103160

Black Box Solution
This waterproof black box allows you to create an NMEA 2000® network using your Humminbird® HELIX 12, 10 and 9 Series™ fishfinder.

NMEA 2000®	HELIX Series
Models	O HELIX 12, 10, 9, 7

O *Optional*

Multi-Sensor Support
Display and easily interpret virtually any NMEA 2000® sensor with intuitive, high-colour graphics and text. You can even view data for multiple engines and fuel tanks.

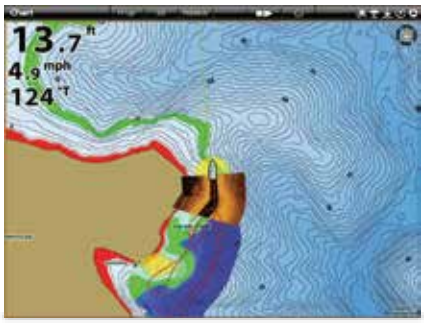
Simple Customisation
Easily customise data boxes to suit your fishing and navigation situation. Focus on a single reading or view multiple gauges at once for a more complete picture.

Humminbird® Autochart Live

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Standard on all HELIX GPS Combos.

Create richly detailed maps of your favourite fishing spots in real time with Humminbird AutoChart Live™, a free feature available with all the HELIX 12, 10, 9, 7 and 5 GPS Combo units. Map the water as you drive the boat, with eight hours of built-in recording time. Once your map is live, layer it with Side Imaging® detail—or use it with i-Pilot Link's Follow the Contour and other Humminbird Autochart Live features. No added fees. No need to upload your data for the world to see. The future of digital charting has arrived. Better get on-board.

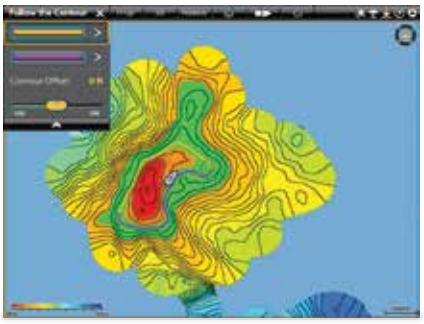


Side Imaging® Mosaic

Once you've created your new maps, you can overlay them with your Side Imaging graph to create a custom, full-detail view.

Humminbird® Autochart Features

Your Autochart Live maps offer powerful features including highlighted depths, shallow water highlight and water level offset



i-Pilot® Link™ Follow The Contour

Follow your newly created depth contours automatically with i-Pilot® Link™. All maps built with AutoChart Live are compatible with i-Pilot Link features (see page 1069).

Store And Share

Select HELIX models have eight hours of recording memory built in. For years of recording memory, switch to an AutoChart ZeroLine SD Card (**103648**), which also lets you export and share your secret fishing spots with a buddy.

i-Pilot LINK®

MINN KOTA®

Autochart Live Contour Labels

Depth Line contour labels are now shown on data as it is being recorded. These labels are dynamic based on depth units as you record them. Labels adjust based on water level offset. Added dynamic depth ranges on AutoChart Live colour bar.

Now Built Into All Helix™ GPS Models

We're redrawing the boundaries yet again by making AutoChart Live part of the new HELIX Series. This innovative technology is built into all HELIX 12, 10, 9, 7 and 5 Series models with GPS.

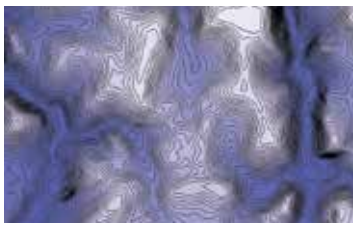
Autochart Live	HELIX Series
	●
Models	HELIX 12, 10, 9, 7, 5 GPS Combos

● *Standard*

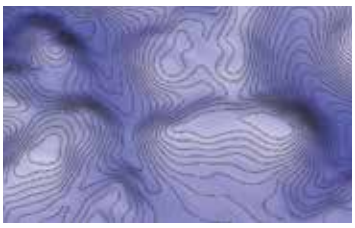
Humminbird® AutoChart

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

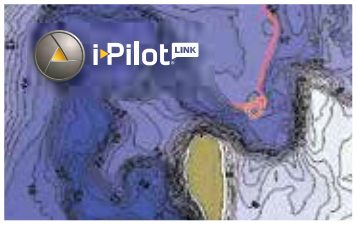
Leave no waters uncharted. New AutoChart ZeroLine SD cards give you access to the zero lines for ten million bodies of water—the starting point for creating accurate, detailed maps of any fishing spot. AutoChart's proprietary software uses your Humminbird's SONAR returns and GPS to automatically build your charts. No subscriptions or hidden fees. No need to submit your data and wait weeks for a finished chart. AutoChart does it in just three simple steps—and your data is kept private, so your competition is none the wiser.



Amazing Detail
AutoChart gives you amazing detail and features including water level offset, highlight depth, mark waypoints and more.



3D Views
When viewing your AutoChart maps on your PC, you will be able to see the underwater world in incredible 3D detail.



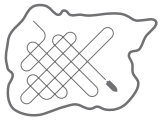
i-Pilot Link Compatible
AutoChart enables you to use the i-Pilot Link Follow Your Contour feature on unmapped bodies of water (see page 1069).

Aerial Photography Overlay
Overlay satellite photography onto cartography for a detailed, aerial view of your surroundings.

Easily Create Your Own Chart

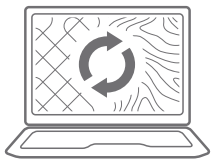
Step 1:

Record Survey Data
Travel back and forth then up and down water in a zig-zag pattern with your Humminbird in record mode.



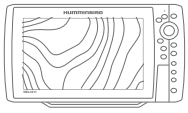
Step 2:

Convert Data
Transfer the saved survey data from your Humminbird to your PC via AutoChart SD card. AutoChart converts it into a detailed map.



Step 3:

Export Map
Save the newly created map onto your AutoChart SD card for use in your Humminbird.



AutoChart software includes ZeroLine SD card and PC-compatible disc. Internet access required to activate software.

MINN KOTA i-Pilot LINK

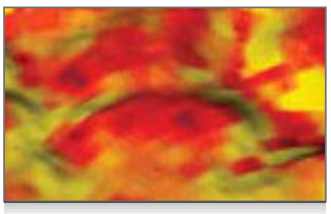
AutoChart	HELIX Series
111720	O

O *Optional*

Humminbird® AutoChart Pro

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Add another layer of detail to your AutoChart cartography. New AutoChart PRO™ offers all the leading features of AutoChart—but with two key enhancements designed to give tournament anglers a competitive edge. Bottom Hardness Indication delivers a crucial tip-off to where fish are hiding, while Side Imaging Mosaic allows you to overlay your Side Imaging returns onto your AutoChart map for a 3D visualisation of fish-holding habitat. With AutoChart PRO, you'll have all the tools you need to bring your next trophy into sight.



Bottom Hardness Indication
Identify areas likely to hold fish based on the hardness of the bottom. Exclusive to AutoChart PRO.

AutoChart PRO software includes ZeroLine SD card and PC-compatible disc. Internet access required to activate software.

Side Imaging Mosaic
Overlay Side Imaging returns onto your map for a 3D visualisation of contours. Exclusive to AutoChart PRO.

AutoChart Pro	HELIX Series
111730	O HELIX 12SI, 10SI, 9SI, 7SI, 5SI

O *Optional*

Mapping

Navionics® Platinum+

3D Bathymetry

View troughs and ridges in the sea floor with remarkable definition. Rotate the view any direction for the best perspective.

Satellite Photo Overlay

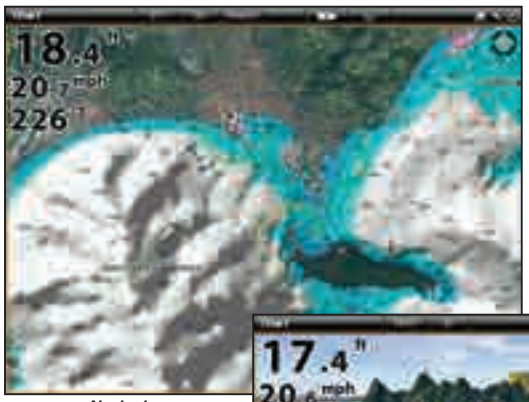
See high-resolution satellite photos of land and sea areas overlaid on your navigation chart. Easily correlate landmarks with your navigation plan.

Enhanced Port Services And Points Of Interest

Easily access area services, phone numbers and other valuable cruising information.

Panoramic Photos

More than 15,000 XGA panoramic aerial photos give you a clear picture of approaches and landmarks—for confident entry to new harbours.



Navionics® Platinum+ Charts with Turboview

Adjustable 3D Presentation of Topography and Bathymetry Information

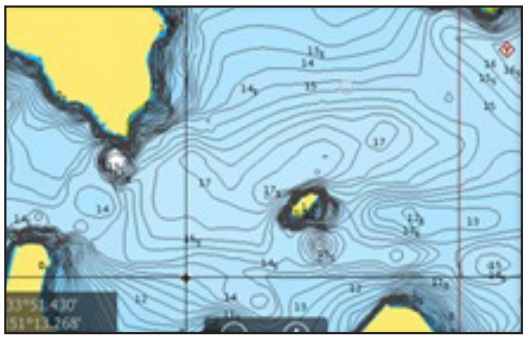
Navionics Platinum +	HELIX Series
Models	O HELIX 12, 10, 9

O *Optional*

BLA Code	Description
111618	Navionics XL3 platinum Australia North & West
111619	Navionics XL3 platinum Australia South
111620	Navionics XL3 platinum Australia East

Navionics® +

Navionics+ provides more marine content than ever before, as well as the best value for new customers presented in an easy-to-use and interactive display of navigation aids, tides and currents, port plane, user-selectable safety depth contours, marine services with phone numbers, drying areas and more. Most importantly, Navionics+ provides access to SonarCharts™, the HD bathymetry map you can enhance.



Navionics+	HELIX Series
Models	O

O *Optional*

BLA Code	Description
111656	Navionics XL9 50xg Australia NZ
111627	Navionics XL9 31xg Indian & S/China seas

Navionics® Silver

Australian All-in-One Coverage, Navionics Silver includes coastlines, drying lines, all navigation aids, depth information up to 10 metres (30 ft), plus other information as recommended by international standards for safe navigation with a simplified, uncluttered chart.

Navionics Silver	HELIX Series
Models	O

O *Optional*

BLA Code	Description
111630	Navionics 97S Silver Australia

Humminbird® Fishfinder HELIX 12 CHIRP G2N

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Every family needs a patriarch. With a full armoury of digital weaponry and a massive widescreen rivaling those found in some man caves, the new HELIX 12 is our rarest beast yet. From precise Humminbird Broadband CHIRP and incredible Imaging SONAR to the map-making power of AutoChart Live, the only mode this big daddy knows is attack. Fish beware. The water has a new alpha.

HUMMINBIRD PRO STORE

Only available through approved Pro Stores

HD 1080H X 800V 12.1" DISPLAY | **REFLEX** INTERFACE | 2 SD SLOTS **DUAL SD CARD SLOTS** | **FREE UPGRADABLE SOFTWARE** | Bluetooth™

HELIX 12 CHIRP GPS G2N

SONAR

Digital Signal Processing (DSP)
DualBeam PLUS w/ SwitchFire
200kHz / 20° @-10dB
83kHz / 60° @-10dB
Broadband CHIRP
28kHz–540kHz‡

Depth: 457m (1067m*)

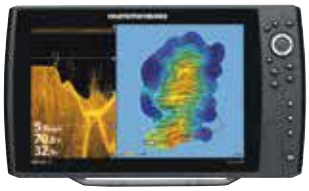
8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Digital SONAR | SwitchFire | DualBeam PLUS | Broadband | Internal | Built-In Map | Networking | AutoChart Live

HELIX 12 CHIRP DI GPS G2N



SONAR

Down Imaging
455kHz / 75° @-10dB
800kHz / 45° @-10dB

DualBeam PLUS w/ SwitchFire
200kHz / 28° @-10dB
455kHz / 16° @-10dB
Broadband CHIRP
28kHz–540kHz‡

Depth: 106m (DI) | 182m (1067m*)

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Down Imaging | Digital SONAR | SwitchFire | DualBeam PLUS | Broadband | Internal | Built-In Map | Networking | AutoChart Live

HELIX 12 CHIRP MEGA SI GPS G2N

SONAR

HD Side Imaging/
HD Down Imaging
180° coverage
455kHz / (2) 86° @-10dB
800kHz / (2) 55° @-10dB
1.2mHz MEGA SI & DI

Digital Signal Processing (DSP)
DualBeam PLUS w/ SwitchFire
200kHz / 20° @-10dB
83kHz / 60° @-10dB
Broadband CHIRP
28kHz–540kHz‡

Depth: 45m (SI/DI) | 457m (1067m*)

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Side Imaging | Down Imaging | Digital SONAR | SwitchFire | DualBeam PLUS | Broadband | Internal | Built-In Map | Networking | AutoChart Live | MEGA SI | MEGA DI

BLA Code	Description
104494	HELIX 12X CHIRP MEGA SI GPS G2N
104492	HELIX 12X CHIRP DI GPS G2N
104490	HELIX 12X CHIRP SONAR GPS G2N

Accessories:

102226	Cover Head Unit T/S HELIX 12
102585	Mount Kit In Dash T/S HELIX 12
103727	Gimble Mount T/S T/S HELIX 12
111720	Humminbird AutoChart PC Software
111730	Humminbird AutoChart Pro PC Software
111656	Navionics XL9 50xg Australia NZ

* *Optional transducers available for extreme deepwater use.*
** *To obtain 1000 watts, optional deepwater transducer required.*
‡ *To target frequencies from 28kHz-540kHz a CHIRP transducer is required.*

+ ADD ONS | *Navionics® + & Platinum+ | Humminbird AutoChart & AutoChart Pro | Minn Kota i-Pilot Link 360 Imaging | Bluetooth® Remote | HD Radar NMEA 2000® | GPS Heading Sensor | 5-Port Ethernet Switch*

2 YEAR WARRANTY

Humminbird® Fishfinder HELIX 10 CHIRP G2N

Fish with a perfect 10. Boasting an impressive widescreen display, plus Humminbird's legendary fishfinding pedigree, the new HELIX 10 G2N offers CHIRP sonar performance in 2D, DI and SI creating the ideal blend of beauty and brainpower. Identify interesting contours and structure using Humminbird Imaging SONAR, then map them in real time with AutoChart Live. Once you've got the fish right where you want 'em, it's time for the knockout.

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

HUMMINBIRD PRO STORE

Only available through approved Pro Stores and Stockists

HD 1024H X 600V 10.1" DISPLAY | **REFLEX** INTERFACE | 2 DUAL SD CARD SLOTS | FREE UPGRADABLE SOFTWARE | Bluetooth™

HELIX 10 CHIRP SONAR GPS G2N

SONAR

DualBeam PLUS w/ SwitchFire
200kHz / 20° @-10dB
83kHz / 60° @-10dB

Depth: 457m (1060m*)

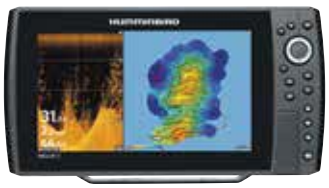
8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

SwitchFire, DualBeam PLUS, Internal, Built-In Map, Networking, AutoChart Live, Digital SONAR, Broadband

HELIX 10 CHIRP DI GPS G2N



SONAR

Down Imaging	**DualBeam PLUS w/ SwitchFire**
455kHz / 75° @-10dB	200kHz / 28° @-10dB
800kHz / 45° @-10dB	455kHz / 16° @-10dB
Depth: 106m (DI)	182m (1060m*)

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Down Imaging, SwitchFire, DualBeam PLUS, Internal, Built-In Map, Networking, AutoChart Live, Digital SONAR, Broadband

HELIX 10 CHIRP MEGA SI GPS G2N

SONAR

HD Side Imaging/ HD Down Imaging	**DualBeam PLUS w/ SwitchFire**
180° coverage	200kHz / 20° @-10dB
455kHz / (2) 86° @-10dB	83kHz / 60° @-10dB
800kHz / (2) 55° @-10dB	
1.2mHz MEGA SI & DI	
Depth: 45m (SI/DI)	457m (1060m*)

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Side Imaging, Down Imaging, SwitchFire, DualBeam PLUS, Internal, Built-In Map, Networking, AutoChart Live, Digital SONAR, Broadband, MEGA SI, MEGA DI

BLA Code	Description
104484	HELIX 10X CHIRP MEGA SI GPS G2N
104482	HELIX 10X CHIRP DI GPS G2N
104480	HELIX 10X CHIRP SONAR GPS G2N

Accessories:

102224	Cover Head Unit T/S HELIX 9 / 10
102591	Mount Kit In Dash T/S HELIX 9 / 10
103725	Gimble Mount T/S T/S HELIX 9 / 10
111720	Humminbird AutoChart PC Software
111730	Humminbird AutoChart Pro PC Software
111656	Navionics XL9 50xg Australia NZ

* *Optional transducers available for extreme deepwater use.*
** *To obtain this depth a CHIRP transducer is required.*

+ ADD ONS

Navionics+ & Platinum+
Humminbird AutoChart & AutoChart Pro | Minn Kota i-Pilot Link | 360 Imaging | Bluetooth® Remote | HD Radar
NMEA 2000® | GPS Heading Sensor | 5-Port Ethernet Switch

2 YEAR WARRANTY

Humminbird® Fishfinder HELIX 9 CHIRP G2N

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Want to rise to the top of the food chain? Dominance better be your dominant gene. The new HELIX 9 G2N Series is tough on fish and easy on the eyes, delivering CHIRP SONAR performance in 2D, DI and SI creating clear SONAR Imaging performance as well as built in AutoChart Live, along with a large, bright widescreen display. Whether this jaw-dropper is the main attraction on your dash or your sidekick at the bow, your prey is gonna wish it had nine lives.

HUMMINBIRD PRO STORE

Only available through approved Pro Stores and Stockists

HD 800H X 480V 9.1" DISPLAY | **REFLEX** INTERFACE | 2 DUAL SD CARD SLOTS | FREE UPGRADABLE SOFTWARE | Bluetooth™

HELIX 9 CHIRP SONAR GPS G2N

SONAR

DualBeam PLUS w/ SwitchFire
200kHz / 20° @-10dB
83kHz / 60° @-10dB

Depth: 457m (1060m*)

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

SwitchFire · DualBeam PLUS · Internal · Built-In Map · Networking · AutoChart Live · Digital SONAR · Broadband

HELIX 9 CHIRP DI GPS G2N

SONAR

Down Imaging	**DualBeam PLUS w/ SwitchFire**
455kHz / 75° @-10dB	200kHz / 28° @-10dB
800kHz / 45° @-10dB	455kHz / 16° @-10dB
Depth: 106m (DI)	182m

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Down Imaging · SwitchFire · DualBeam PLUS · Internal · Built-In Map · Networking · AutoChart Live · Digital SONAR · Broadband

HELIX 9 CHIRP MEGA SI GPS G2N

SONAR

Side Imaging/ Down Imaging	**DualBeam PLUS w/ SwitchFire**
180° coverage	200kHz / 20° @-10dB
455kHz / (2) 86° @-10dB	83kHz / 60° @-10dB
800kHz / (2) 55 @ -10db	
1.2mHz MEGA SI & DI	
Depth: 45m (SI/DI)	457m (1060m*)

8000 Watts (PTP), 1000 Watts (RMS)**

10hz Precision GPS

Built-In Cartography: Humminbird UniMap

Side Imaging · Down Imaging · Switch-Fire · DualBeam PLUS · Internal · Built-In Map · Networking · AutoChart Live · Digital SONAR · Broadband · MEGA SI · MEGA DI

BLA Code	Description
104474	HELIX 9X CHIRP MEGA SI GPS G2N
104474B	HELIX 9X CHIRP MEGA SI GPS G2N (inc Navionics+ Card)
104472	HELIX 9X CHIRP DI GPS G2N
104472B	HELIX 9X CHIRP DI GPS G2N (inc Navionics+ Card)
104470	HELIX 9X CHIRP GPS G2N

Accessories:

102224	Cover Head Unit T/S HELIX 9 / 10
102584	Mount Kit In Dash T/S HELIX 9 / 10
103725	Gimble Mount T/S T/S HELIX 9 / 10
111720	Humminbird AutoChart PC Software
111730	Humminbird AutoChart Pro PC Software
111656	Navionics XL9 50xg Australia NZ

* *Optional transducers available for extreme deepwater use.*
** *To obtain this depth a CHIRP transducer is required.*

ADD ONS

Navionics+ & Platinum+
Humminbird AutoChart & AutoChart Pro | Minn Kota i-Pilot Link
360 Imaging | Bluetooth® Remote | HD Radar
NMEA 2000® | GPS Heading Sensor | 5-Port Ethernet Switch

2 YEAR WARRANTY

Humminbird® Fishfinder HELIX 7 CHIRP G2N

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

One look at the HELIX 7 CHIRP G2N Series and there's no mistaking its Humminbird bloodline. The GPS combo units feature CHIRP SONAR performance in 2D, DI and SI SONAR as well as full Ethernet networkability. Experience jaw-dropping resolution and a clear, bright presentation of fish and fish-holding structure. The GPS units also include AutoChart Live built in for personal mapping of your favourite fishing spots. The ultra-wide aspect ratio gives you ample room to view incredible Humminbird Imaging or versatile SwitchFire SONAR side-by-side with detailed cartography screens. No matter your target. No matter conditions. Game on.

HUMMINBIRD PRO STORE

Only available through approved Pro Stores and Stockists

HD 800H X 480V 7" DISPLAY | MICRO SD CARD SLOT (SELECT MODELS) | FREE UPGRADABLE SOFTWARE

HELIX 7 CHIRP SI GPS G2N

SONAR

Side Imaging/ Down Imaging	**DualBeam PLUS w/ SwitchFire**
180° coverage	200kHz / 20° @-10dB
455kHz / (2) 86° @-10dB	83kHz / 60° @-10dB
Depth: 30m (SI/DI)	457m (DualBeam PLUS)

4000 Watts (PTP), 500 Watts (RMS)

Precision GPS

Built-In Cartography: Humminbird UniMap, AutoChart Live

Side Imaging, Down Imaging, SwitchFire, DualBeam PLUS, Internal, Built-In Map, Networking, AutoChart Live, Broadband, Digital SONAR

HELIX 7 CHIRP DI GPS G2N

SONAR

Down Imaging	**DualBeam PLUS w/ SwitchFire**
455kHz / 75° @-10dB	200kHz / 28° @-10dB
800kHz / 45° @-10dB	455kHz / 16° @-10dB
Depth: 106m (DI)	182m (DualBeam PLUS)

4000 Watts (PTP), 500 Watts (RMS)

Precision GPS

Built-In Cartography: Humminbird UniMap, AutoChart Live

Down Imaging, SwitchFire, DualBeam PLUS, Internal, Built-In Map, Networking, AutoChart Live, Broadband, Digital SONAR

HELIX 7 CHIRP SONAR GPS G2N

SONAR

DualBeam PLUS w/ SwitchFire
200kHz / 20° @-10dB
83kHz / 60° @-10dB

Depth: 457m

4000 Watts (PTP), 500 Watts (RMS)

Precision GPS

Built-In Cartography: Humminbird UniMap, AutoChart Live

SwitchFire, DualBeam PLUS, Internal, Built-In Map, Networking, AutoChart Live, Broadband, Digital SONAR

HELIX 7 CHIRP DI G2

SONAR

Down Imaging	**DualBeam PLUS w/ SwitchFire**
455kHz / 75° @-10dB	200kHz / 28° @-10dB
800kHz / 45° @-10dB	455kHz / 16° @-10dB
Depth: 106m (DI)	182m (DualBeam PLUS)

4000 Watts (PTP), 500 Watts (RMS)

Down Imaging, SwitchFire, DualBeam PLUS, Broadband

HELIX 7 SONAR G2

SONAR

DualBeam PLUS w/ SwitchFire
200kHz / 20° @ -10dB
83kHz / 60° @ -10dB

Depth: 457m

4000 Watts (PTP), 500 Watts (RMS)

SwitchFire, DualBeam PLUS

BLA Code	Description
104468	HELIX 7X CHIRP SI GPS G2N
104468B	HELIX 7X CHIRP SI GPS G2N (inc Navionics+ Card)
104466	HELIX 7 CHIRP DI GPS G2N
104466B	HELIX 7 CHRIP DI GPS G2N (inc Navionics+ Card)
104464	HELIX 7X CHIRP GPS G2N
104462	HELIX 7X CHIRP DI G2
104460	HELIX 7X SONAR G2

Accessories:

102222	Cover Head Unit T/S HELIX 7
102581	Mount Kit In Dash T/S HELIX 7
103723	Mount Bracket T/S HELIX 7
111720	Humminbird AutoChart PC Software
111730	Humminbird AutoChart Pro PC Software
111656	Navionics XL9 50xg Australia NZ

HELIX 7 SI GPS, DI GPS & GPS

+ ADD ONS — ***Navionics+ Humminbird AutoChart & AutoChart Pro***

HELIX 7 DI & SONAR

+ ADD ONS — ***Paddlewheel Speed Sensor***

2 YEAR WARRANTY

Humminbird® Fishfinder HELIX 5 CHIRP G2

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

If fishing is in your DNA, there's no such thing as "too early" or "too far." High expectations go with the territory. The HELIX 5 Series answers the call with an uncompromising, widescreen colour display. Powerful CHIRP Side Imaging, Down Imaging and SwitchFire SONAR reveal the lake bottom. The GPS units also include AutoChart Live built in for personal mapping of your favourite fishing spots. Feature for feature, it has what it takes to win the day. Do you? No doubt.

HD 800H X 480V 5" DISPLAY

MICRO SD CARD SLOT (SELECT MODELS)

FREE UPGRADABLE SOFTWARE

HELIX 5 CHIRP SI GPS G2

Sonar

Side Imaging/ Down Imaging	DualBeam PLUS w/ SwitchFire
180° coverage 455kHz / (2) 86° @-10dB	200kHz / 20° @-10dB 83kHz / 60° @-10dB
Depth: 30m (SI/DI)	457m (DualBeam PLUS)

4000 Watts (PTP), 500 Watts (RMS)

Precision GPS

Built-In Cartography: Humminbird UniMap, AutoChart Live

Side Imaging · Down Imaging · SwitchFire · DualBeam PLUS · Internal · Built-In Map · AutoChart Live · Broadband

HELIX 5 CHIRP DI GPS G2

SONAR

Down Imaging	DualBeam PLUS w/ SwitchFire
455kHz / 75° @-10dB 800kHz / 45° @-10dB	200kHz / 28° @-10dB 455kHz / 16° @-10dB
Depth: 106m (DI)	182m (DualBeam PLUS)

4000 Watts (PTP), 500 Watts (RMS)

Precision GPS

Built-In Cartography: Humminbird UniMap, AutoChart Live

Down Imaging · SwitchFire · DualBeam PLUS · Internal · Built-In Map · AutoChart Live · Broadband

HELIX 5 CHIRP SONAR GPS G2

SONAR

DualBeam PLUS w/ SwitchFire
200kHz / 20° @-10dB
83kHz / 60° @-10dB

Depth: 457m

4000 Watts (PTP), 500 Watts (RMS)

Precision GPS

Built-In Cartography: Humminbird UniMap, AutoChart Live

SwitchFire · DualBeam PLUS · Internal · Built-In Map · AutoChart Live · Broadband

HELIX 5 DI G2

SONAR

Down Imaging
455kHz / 75° @-10dB
800kHz / 45° @-10dB

DualBeam PLUS w/ SwitchFire
200kHz / 28° @-10dB
455kHz / 16° @-10dB

Depth: 106m (DI)
182m (DualBeam PLUS)

4000 Watts (PTP), 500 Watts (RMS)

Down Imaging · SwitchFire · DualBeam PLUS

HELIX 5 SONAR G2

SONAR

DualBeam PLUS w/ SwitchFire
200kHz / 20° @ -10dB
83kHz / 60° @ -10dB

Depth: 457m

4000 Watts (PTP), 500 Watts (RMS)

SwitchFire · DualBeam PLUS

BLA Code	Description
104450	HELIX 5X SONAR G2
104452	HELIX 5X DI G2
104454	HELIX 5X CHIRP GPS G2
104456	HELIX 5X CHIRP DI GPS G2
104456B	HELIX 5X CHIRP DI GPS G2 (inc Aus Navionics+ card)
104458	HELIX 5X CHIRP SI GPS G2
104458B	HELIX 5X CHIRP SI GPS G2 (inc Aus Navionics+ card)

Accessories:

102220	Cover Head Unit T/S HELIX 5
102579	Mount Kit In Dash T/S HELIX 5
103719	Mount Bracket T/S HELIX 5
111720	Humminbird AutoChart PC Software
111730	Humminbird AutoChart Pro PC Software
111656	Navionics XL9 50xg Australia NZ

+ ADD ONS — ***HELIX 5 SI GPS, DI GPS & GPS***
Navionics+ Humminbird AutoChart & AutoChart Pro

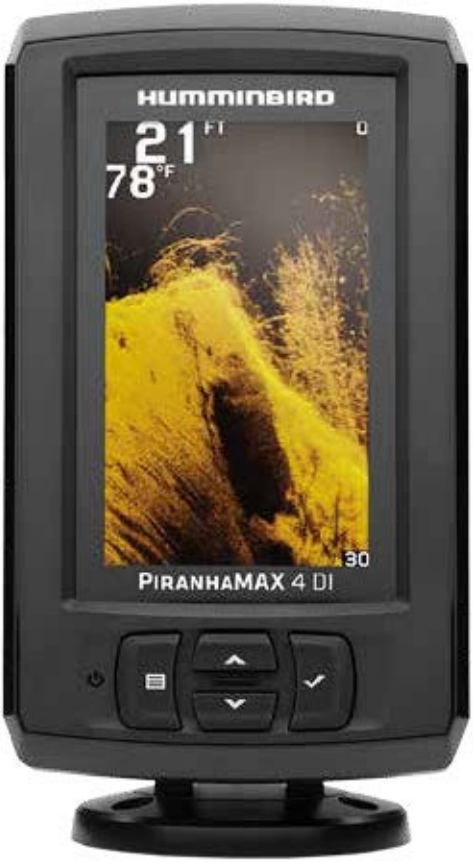
+ ADD ONS — ***HELIX 5 DI & SONAR***
Paddlewheel Speed Sensor

2 YEAR WARRANTY

Humminbird® Fishfinder PiranhaMax 4

HUMMINBIRD
SIMPLY. CLEARLY. BETTER.

Nowadays, the PiranhaMAX™ Series is giving you more to chew on with a 4.3" display and the addition of Down Imaging on select models. So you can see what's below your boat with great clarity. Thanks to an easy-to-use interface, unlocking the power of Fish ID+™, fish alarms, depth alarms and zoom has never been simpler. Feature for feature, it packs a technological chomp that no fishfinder in its class can match.



240H X 320V
3.5" DISPLAY

TILT AND SWIVEL MOUNTS

PiranhaMax 4 DI

SONAR

Down Imaging and Dual Frequency
200kHz / 28° @-10dB
455kHz (2) 16° & 74° @-10dB

Depth: 95m (DI) 182m (DualBeam)

2400 Watts (PTP), 300 Watts (RMS)

Down Imaging · DualBeam PLUS

PiranhaMax 4

SONAR

Dual Frequency
200kHz / 28° @ -10dB
455kHz / 16° @ -10dB

Depth: 182m

2400 Watts (PTP), 300 Watts (RMS)

DualBeam PLUS

BLA Code	Description
104448	PiranhaMax 4 DI
104446	PiranhaMax 4

2 YEAR WARRANTY

Humminbird® Fishfinder Fishin' Buddy Max

Mount this pint-sized pal on your boat, your friend's boat, a dock or even a float tube. With the multi-directional mount, you can clamp Fishin' Buddy® almost anywhere, with no rigging or wiring, or even a transducer to mount. It also delivers easy One-Touch™ control and AA battery power. For the first time ever, Fishin' Buddy now offers Down Imaging, shedding an entirely new light on structure and fish.

HUMMINBIRD®
SIMPLY. CLEARLY. BETTER.

240H X 320V
3.5" DISPLAY

TILT AND SWIVEL MOUNTS

Fishin' Buddy Max DI

SONAR

Down Imaging and Dual Frequency
200kHz / 28° @-10dB
455kHz (2) 16° & 74° @-10dB

Depth: 95m (DI) 182m (DualBeam)

2400 Watts (PTP), 300 Watts (RMS)

Telescopic Pole 24" - 40"

Down Imaging · DualBeam PLUS

Fishin' Buddy Max

SONAR

Dual Frequency
200kHz / 28° @-10dB
455kHz / 16° @-10dB

Depth: 182m

2400 Watts (PTP), 300 Watts (RMS)

Fixed Pole 24"

DualBeam PLUS

BLA Code	Description
102146	Fishin' Buddy Max DI
102144	Fishin' Buddy Max

ADD ONS — *Carrying Case*
Float Tube Strap

2 YEAR WARRANTY

HELIX 12 Series
HELIX 10 Series
HELIX 9 Series

HELIX 12 CHIRP MEGA SI GPS G2N
104494

HELIX 12 CHIRP DI GPS G2N
104492

HELIX 12 CHIRP GPS G2N
104490

HELIX 10 CHIRP MEGA SIGPS G2N
104484

HELIX 10 CHIRP DI GPS G2N
104482

Model Options	–	–	–	–	–
Interface	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)
Display Size	12.1" Diagonal	12.1" Diagonal	12.1" Diagonal	10.1" Diagonal	10.1" Diagonal
Display Pixel Matrix	1280H x 800V	1280H x 800V	1280H x 800V	1024H x 600V	1024H x 600V
Display Type	Colour TFT	Colour TFT	Colour TFT	Colour TFT	Colour TFT
Display Colours/Greyscale	65,000 Colours	65,000 Colours	65,000 Colours	65,000 Colours	65,000 Colours
SONAR - Standard	CHIRP HD MEGA Side Imaging, Down Imaging, DualBeam PLUS	CHIRP HD Down Imaging, DualBeam PLUS	CHIRP DualBeam PLUS	CHIRP MEGA Side Imaging, Down Imaging, DualBeam PLUS	CHIRP HD Down Imaging, DualBeam PLUS
SONAR Coverage	20°, (2) 55°, 60° & (2) 86° @ -10dB (Total of 180°)	16°, 28°, 45° & 75° @ -10dB	20°, 60° @ -10dB	20°, (2) 55°, 60° & (2) 86° @ -10dB (Total of 180°)	16°, 28°, 45° & 75° @ -10dB
SONAR Frequency Supported	50*/83/200/455/800/1200 kHz	50*/83/200/455/800 kHz	50*/83/200 kHz	50*/83/200/455/800/1200 kHz	50*/83/200/455/800 kHz
Target Separation	6.4 cm	6.4 cm	6.4 cm	6.4 cm	6.4 cm
Power Output (max)	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**
Power Draw	1.75 Amps	1.75 Amps	1.75 Amps	1.2 Amps	1.2 Amps
Depth Capability	46m (SI/DI), 457m & 1,067m*	107m (DI), 457m & 1,067m*	457m & 1,067m*	46m (SI/DI), 457m & 914m*	107m (DI), 183m
Water Surface Temp	Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer
Speed	GPS Speed Included	GPS Speed Included	GPS Speed Included	GPS Speed Included	GPS Speed Included
Backlight	LED	LED	LED	LED	LED
Waterproof Class	IPX7	IPX7	IPX7	IPX7	IPX7
Unit Size - Gimbal Mount	37.7cm W x 22.4cm H x 10.8cm D	37.7cm W x 22.4cm H x 10.8cm D	37.7cm W x 22.4cm H x 10.8cm D	34cm W x 18.1cm H x 10.7cm D	34cm W x 18.1cm H x 10.7cm D
Unit Size - In-Dash Mount	37.7cm W x 21.6cm H x 3.5cm D	37.7cm W x 21.6cm H x 3.5cm D	37.7cm W x 21.6cm H x 3.5cm D	34cm W x 18.1cm H x 3.4cm D	34cm W x 18.1cm H x 3.4cm D
Mounting Options	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit
Transducer Mounting - Standard	Transom	Transom	Transom	Transom	Transom
Power Input	10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC
Cartography And GPS Features					
GPS Receiver	Internal	Internal	Internal	Internal	Internal
GPS Trackplotting	●	●	●	●	●
GPS Chartplotting	●	●	●	●	●
Waypoints, Routes, Tracks/ Points	2,500, 47, 50/20,000	2,500, 47, 50/20,000	2,500, 47, 50/20,000	2,500, 47, 50/20,000	2,500, 47, 50/20,000
Humminbird AutoChart Live	●	●	●	●	●
Humminbird AutoChart Pro	○	○	○	○	○
Humminbird AutoChart	○	○	○	○	○
Humminbird TriFuel	–	–	–	–	–
Navionics® +	○	○	○	○	○
Navionics® Platinum+	○	○	○	○	○
C-Map® 4-D by Jeppesen®	–	–	–	–	–
Network Capable Options					
360 Imaging	○	○	○	○	○
Radar	○	○	○	○	○
NMEA 2000®	○	○	○	○	○
5-Port Expansion Module	○	○	○	○	○
Minn Kota i-Pilot Link	○	○	○	○	○
IP Marine Camera	–	–	–	–	–
Optional Add-Ons					
Bluetooth® Remote	○	○	○	○	○
External GPS Receiver	○	○	○	○	○
AIS Compatibility	○	○	○	○	○
Autopilot	○	○	○	○	○
GPS with Heading Sensor	○	○	○	○	○
User Features					
SwitchFire SONAR	●	●	●	●	●
Screen Snap Shot to Memory Card	●	●	●	●	●
SONAR Recording	●	●	●	●	●
HumminbirdPC	●	●	●	●	●
Upgradeable Internal Software	●	●	●	●	●
Split Screen Zoom	●	●	●	●	●
Split Screen Bottom Lock	●	●	●	●	●
3D Chart View	●	●	●	●	●
Large Digits View	●	●	●	●	●
Wide/Narrow Cone Split Screen	●	●	●	●	●
Custom View Selections	●	●	●	●	●
Custom Digital Readout Selection	●	●	●	●	●
Selectable Display Colours	●	●	●	●	●
View Pre-Set Keys	●	●	●	●	●
Temperature Graph	●	●	●	●	●
Temperature Alarm	●	●	●	●	●
Freeze Frame	●	●	●	●	●
Instant Image Update	●	●	●	●	●
Mark Structure on SONAR	●	●	●	●	●
Selective Fish ID+	●	●	●	●	●
Real Time SONAR	●	●	●	●	●
SONAR Echo Enhancement	●	●	●	●	●
Triplog	●	●	●	●	●

	HELIX 10 CHIRP SONAR GPS G2N **104480**	HELIX 9 CHIRP MEGA SI GPS G2N **104474**	HELIX 9 CHIRP DI GPS G2N **104472**	HELIX 9 CHIRP SONAR GPS G2N **104470**
	—	HELIX 9 SI·GPS with Navionics Card **104474B**	HELIX 9 DI·GPS with Navionics Card **104472B**	—
Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)
10.1" Diagonal	9" Diagonal	9" Diagonal	9" Diagonal	9" Diagonal
1024H x 600V	800H x 480V	800H x 480V	800H x 480V	800H x 480V
Colour TFT	Colour TFT	Colour TFT	Colour TFT	Colour TFT
65,000 Colours	65,000 Colours	65,000 Colours	65,000 Colours	65,000 Colours
CHIRP DualBeam PLUS	CHIRP HD MEGA Side Imaging, Down Imaging, DualBeam PLUS	CHIRP HD Down Imaging, DualBeam PLUS	CHIRP DualBeam PLUS	CHIRP DualBeam PLUS
20° & 60° @ -10dB	20°, 60° & (2) 86° @ -10dB (Total of 180°)	16°, 28°, 45° & 75° @ -10dB	20° & 60° @ -10dB	20° & 60° @ -10dB
50*/83/200 kHz	50*/83/200/455/800/1200 kHz	50*/83/200/455/800 kHz	50*/83/200 kHz	50*/83/200 kHz
6.4 cm	6.4 cm	6.4 cm	6.4 cm	6.4 cm
1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**	1000 Watts (RMS)**; 8000 Watts (Peak-to-Peak)**
1.2 Amps	1 Amp	1 Amp	1 Amp	1 Amp
457m & 914m*	46m (SI/DI), 457m & 914m*	107m (DI), 183m	457m & 914m*	457m & 914m*
Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer
GPS Speed Included	GPS Speed Included	GPS Speed Included	GPS Speed Included	GPS Speed Included
LED	LED	LED	LED	LED
IPX7	IPX7	IPX7	IPX7	IPX7
34cm W x 18.1cm H x 10.7cm D	34cm W x 18.1cm H x 10.7cm D	34cm W x 18.1cm H x 10.7cm D	34cm W x 18.1cm H x 10.7cm D	34cm W x 18.1cm H x 10.7cm D
34cm W x 18.1cm H x 3.4cm D	34cm W x 18.1cm H x 3.4cm D	34cm W x 18.1cm H x 3.4cm D	34cm W x 18.1cm H x 3.4cm D	34cm W x 18.1cm H x 3.4cm D
Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit
Transom	Transom	Transom	Transom	Transom
10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC
Internal	Internal	Internal	Internal	Internal
●	●	●	●	●
●	●	●	●	●
2,500, 47, 50/20,000	2,500, 47, 50/20,000	2,500, 47, 50/20,000	2,500, 47, 50/20,000	2,500, 47, 50/20,000
●	●	●	●	●
○	○	○	○	○
○	○	○	○	○
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●	●	●	●	●
●	●	●	●	●

HELIX 7 Series
HELIX 5 Series

	HELIX 7 CHIRP SI·GPS G2N **104468**	HELIX 7 CHIRP DI·GPS G2N **104466**	HELIX 7 CHIRP SONAR·GPS G2N **104464**	HELIX 7 CHIRP DI G2 **104462**	HELIX 7 SONAR G2 **104460**
Model Options	HELIX 7 SI·GPS with Navionics Card **104468B**	HELIX 7 DI·GPS with Navionics Card **104466B**	–	–	–
Interface	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)
Display Size	7" Diagonal	7" Diagonal	7" Diagonal	7" Diagonal	7" Diagonal
Display Pixel Matrix	800H x 480V	800H x 480V	800H x 480V	800H x 480V	800H x 480V
Display Type	Colour TFT	Colour TFT	Colour TFT	Colour TFT	Colour TFT
Display Colours/Greyscale	256 Colours	256 Colours	256 Colours	256 Colours	256 Colours
SONAR - Standard	CHIRP Side Imaging, Down Imaging, DualBeam PLUS	CHIRP Down Imaging, DualBeam PLUS	CHIRP DualBeam PLUS	CHIRP Down Imaging, DualBeam PLUS	DualBeam PLUS
SONAR Coverage	20°, 60° & (2) 85° @ -10dB (Total of 180°)	16°, 28°, 45° & 75°@ -10dB	20° & 60° @ -10dB	16°, 28°, 45° & 75° @ -10dB	20°, 60° @ -10dB
SONAR Frequency Supported	83/200/455 kHz	200/455 455/800 kHz	83/200 kHz	200/455 455/800 kHz	83/200 kHz
Target Separation	6.4 cm	6.4 cm	6.4 cm	6.4 cm	6.4 cm
Power Output (max)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)
Power Draw	800 mA	800 mA	800 mA	800 mA	800 mA
Depth Capability	30m (SI), 457m	107m (DI) & 183m (2D)	457m	107m (DI) & 183m (2D)	457m
Water Surface Temp	Included	Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer
Speed	GPS Speed Included	GPS Speed Included	GPS Speed Included	Capable	Capable
Backlight	LED	LED	LED	LED	LED
Waterproof Class	IPX7	IPX7	IPX7	IPX7	IPX7
Unit Size - Gimbal Mount	26.8cm W x 14.7cm H x 9.3cm D	26.8cm W x 14.7cm H x 9.3cm D	26.8cm W x 14.7cm H x 9.3cm D	26.8cm W x 14.7cm H x 9.3cm D	26.8cm W x 14.7cm H x 9.3cm D
Unit Size - In-Dash Mount	26.8cm W x 13.8cm H x 2.9cm D	26.8cm W x 13.8cm H x 2.9cm D	26.8cm W x 13.8cm H x 2.9cm D	26.8cm W x 13.8cm H x 2.9cm D	26.8cm W x 13.8cm H x 2.9cm D
Mounting Options	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit	Gimbal or Optional In-Dash Mounting Kit
Transducer - Standard	**103262**	**103306**	**103303**	**103306**	**103303**
Transducer Mounting - Standard	Transom	Transom	Transom	Transom	Transom
Power Input	10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC
Cartography And GPS Features					
GPS Receiver	Internal	Internal	Internal	–	–
GPS Trackplotting	●	●	●	–	–
GPS Chartplotting	●	●	●	–	–
Waypoints, Routes, Tracks/ Points	2,500, 45, 50/20,000	2,500, 45, 50/20,000	2,500, 45, 50/20,000	–	–
Humminbird AutoChart Pro	○	○	○	–	–
Humminbird AutoChart	○	○	○	–	–
Humminbird TriFuel	–	–	–	–	–
Navionics® +	○	○	○	–	–
Navionics® Platinum+	–	–	–	–	–
C-Map® 4-D by Jeppesen®	–	–	–	–	–
Network Capable Options					
360 Imaging	○	○	○	–	–
Radar	○	○	○	–	–
NMEA 2000®	○	○	○	–	–
5-Port Expansion Module	○	○	○	–	–
Minn Kota i-Pilot Link	○	○	○	–	–
IP Marine Camera	○	○	○	–	–
Optional Add-Ons					
Bluetooth® Remote	○	○	○	–	–
External GPS Receiver	–	–	–	–	–
AIS Compatibility	–	–	–	–	–
Autopilot	–	–	–	–	–
GPS with Heading Sensor	–	–	–	–	–
User Features					
SwitchFire SONAR	●	●	●	●	●
Screen Snap Shot to Memory Card	●	●	●	–	–
SONAR Recording	●	●	●	–	–
HumminbirdPC	●	●	●	●	●
Upgradeable Internal Software	●	●	●	○	○
Split Screen Zoom	●	●	●	●	●
Split Screen Bottom Lock	●	●	●	●	●
3D Chart View	●	●	●	–	–
Large Digits View	●	●	●	●	●
Wide/Narrow Cone Split Screen	●	●	●	●	●
Custom View Selections	●	●	●	●	●
Custom Digital Readout Selection	●	●	●	●	●
Selectable Display Colours	●	●	●	●	–
View Pre-Set Keys	–	–	–	–	–
Temperature Graph	–	–	–	–	–
Temperature Alarm	●	●	●	●	●
Freeze Frame	●	●	●	●	●
Instant Image Update	●	●	●	●	●
Mark Structure on SONAR	●	●	●	–	–
Selective Fish ID+	●	●	●	●	●
Real Time SONAR	●	●	●	●	●
SONAR Echo Enhancement	●	●	●	●	●
Triplog	●	●	●	○	○

HELIX 5 CHIRP SI·GPS G2 **104458**	HELIX 5 CHIRP DI·GPS G2 **104456**	HELIX 5 CHIRP SONAR·GPS G2 **104454**	HELIX 5 DI G2 **104452**	HELIX 5 SONAR G2 **104450**
HELIX 5 SI·GPS with Navionics Card **104458B**	HELIX 5 DI·GPS with Navionics Card **104456B**	–	–	–
Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)	Keypad Control (X-Press Menu System)
5" Diagonal	5" Diagonal	5" Diagonal	5" Diagonal	5" Diagonal
800H x 480V	800H x 480V	800H x 480V	800H x 480V	800H x 480V
Colour TFT	Colour TFT	Colour TFT	Colour TFT	Colour TFT
256 Colours	256 Colours	256 Colours	256 Colours	256 Colours
CHIRP Side Imaging, Down Imaging, DualBeam PLUS	CHIRP Down Imaging, DualBeam PLUS	CHIRP DualBeam PLUS	Down Imaging, DualBeam PLUS	DualBeam PLUS
20°, 60° & (2) 85° @ -10dB (Total of 180°)	16°, 28°, 45° & 75° @ -10dB	20° & 60° @ -10dB	16°, 28°, 45° & 75° @ -10dB	20° & 60° @ -10dB
83/200/455 kHz	200/455 455/800 kHz	83/200 kHz	200/455 455/800 kHz	83/200 kHz
6.4 cm	6.4 cm	6.4 cm	6.4 cm	6.4 cm
500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)	500 Watts (RMS); 4000 Watts (Peak-to-Peak)
615 mA	615 mA	615 mA	615 mA	615 mA
457m (2D) & 30m (SI)	107m (DI) & 183m (2D)	457m	107m (DI) & 183m (2D)	457m
Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer	Built-In Transducer
GPS Speed Included	GPS Speed Included	GPS Speed Included	Optional	Optional
LED	LED	LED	LED	LED
IPX7	IPX7	IPX7	IPX7	IPX7
19.2 cm W x 11.8 cm H x 8.4 cm D	19.2 cm W x 11.8 cm H x 8.4 cm D	19.2 cm W x 11.8 cm H x 8.4 cm D	19.2 cm W x 11.8 cm H x 8.4 cm D	19.2 cm W x 11.8 cm H x 8.4 cm D
19.2 cm W x 10.9 cm H x 2.9 cm D	19.2 cm W x 10.9 cm H x 2.9 cm D	19.2 cm W x 10.9 cm H x 2.9 cm D	19.2 cm W x 10.9 cm H x 2.9 cm D	19.2 cm W x 10.9 cm H x 2.9 cm D
Gimbal or Optional In-Dash Mounting Kit **103262**	Gimbal or Optional In-Dash Mounting Kit **103306**	Gimbal or Optional In-Dash Mounting Kit **103303**	Gimbal or Optional In-Dash Mounting Kit **103306**	Gimbal or Optional In-Dash Mounting Kit **103303**
Transom	Transom	Transom	Transom	Transom
10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC	10-20 VDC
Internal	Internal	Internal	–	–
●	●	●	–	–
●	●	●	–	–
2,500, 45, 50/20,000	2,500, 45, 50/20,000	2,500, 45, 50/20,000	–	–
○	○	○	–	–
○	○	○	–	–
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○	○	○	–	–
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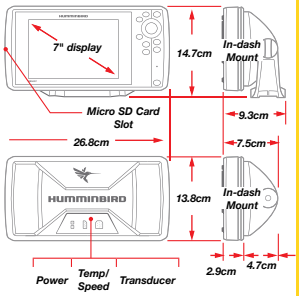
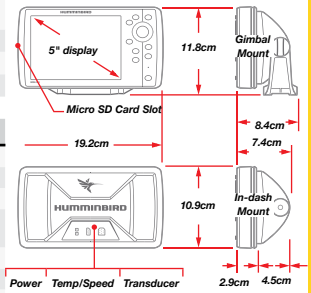
HELIX 7



HELIX 5



● *Included* ○ *Optional*
– *Not supported*

* *Optional 50kHz transducers available for extreme deepwater use.*
** *To obtain 1000 watts, optional deepwater transducer required.*
Features and specifications subject to change without notice.

PiranhaMax

PiranhaMax 4 DI
104448

PiranhaMax 4
104446

	PiranhaMax 4 DI 104448	PiranhaMax 4 104446
Display Size	4.3" Diagonal	4.3" Diagonal
Display Pixel Matrix	480H x 272W	480H x 272W
Display Type	Colour TFT	Colour TFT
Display Colours/Greyscale	256 Colours	256 Colours
SONAR	Down Imaging, Dual Beam	Dual Beam
SONAR Coverage	16°, 28°, & 74° @ -10dB	16° & 28° @ -10dB
SONAR Frequency	200/455/455 kHz	200/455 kHz
Target Separation	2.5"	2.5"
Power Output	300 Watts (RMS); 2400 Watts (Peak-to-Peak)	300 Watts (RMS); 2400 Watts (Peak-to-Peak)
Power Draw	220 mA	220 mA
Depth Capability	97m (DI) & 182m	182m
Water Surface Temp	Built-In Transducer	Built-In Transducer
Backlight	LED	LED
Waterproof Class	IPX7	IPX7
Unit Size	—	—
Unit Size–Gimbal Mount	9.8cm W x 16.5cm H x 8.9cm D	3.875" W x 6.5" H x 3.5" D
Unit Size–In-Dash Mount*	9.8cm W x 14.3cm H x 3.5cm D	3.875" W x 5.625" H x 1.375" D
Mount	Tilt and Swivel or Optional In-Dash Mounting Kit	Tilt and Swivel or Optional In-Dash Mounting Kit
Transducer - Standard	**103306**	**103303**
Transducer Mounting - Standard	Transom	Transom
Power Input	10-20 VDC	10-20 VDC

● *Included* ○ *Optional* — *Not supported*

**In-Dash Mounting Kit for PiranhaMAX does not support models manufactured before 2009.*
Features and specifications subject to change without notice.

Fishin' Buddy Max

Fishin' Buddy MAX DI
102146

Fishin' Buddy MAX
102144

	Fishin' Buddy MAX DI 102146	Fishin' Buddy MAX 102144
Display Size	3.5" Diagonal	3.5" Diagonal
Display Pixel Matrix	240H x 320V	240H x 320V
Display Type	Colour TFT	Colour TFT
Display Colours/Greyscale	256 Colours	256 Colours
SONAR	Down Imaging, Dual Beam	Dual Beam
SONAR Coverage	16°, 28°, & 74° @ -10dB	16° & 28° @ -10dB
SONAR Frequency	200/455/455 kHz	200/455 kHz
Target Separation	2.5"	2.5"
Power Output	300 Watts (RMS); 2400 Watts (Peak-to-Peak)	300 Watts (RMS); 2400 Watts (Peak-to-Peak)
Power Draw	220 mA	220 mA
Depth Capability	97m (DI) & 182m	182m
Water Surface Temp	Built-In Transducer	Built-In Transducer
Backlight	LED	LED
Waterproof Class	IPX7	IPX7
Unit Size	10.7cm W x 14.6cm H x 6.9cm D	10.7cm W x 14.6cm H x 6.9cm D
Unit Size–Gimbal Mount	—	—
Unit Size–In-Dash Mount*	—	—
Mount	Portable Clamp	Portable Clamp
Transducer - Standard	Telescopic Pole	Fixed Pole
Transducer Mounting - Standard	61cm - 101.6cm Telescopic Pole	61cm Fixed Pole
Power Input	8 AA (12 VDC)	8 AA (12 VDC)

● *Included* ○ *Optional* — *Not supported*

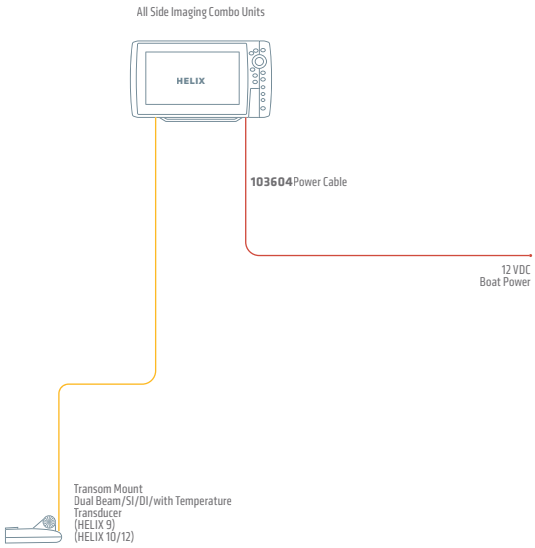
Features and specifications subject to change without notice.

HELIX Configuration Diagrams

Build a formidable fishing system using the HELIX 12, 10, 9 and 7 G2N Series, each with advanced features and full networking capability. See below for configuration examples.

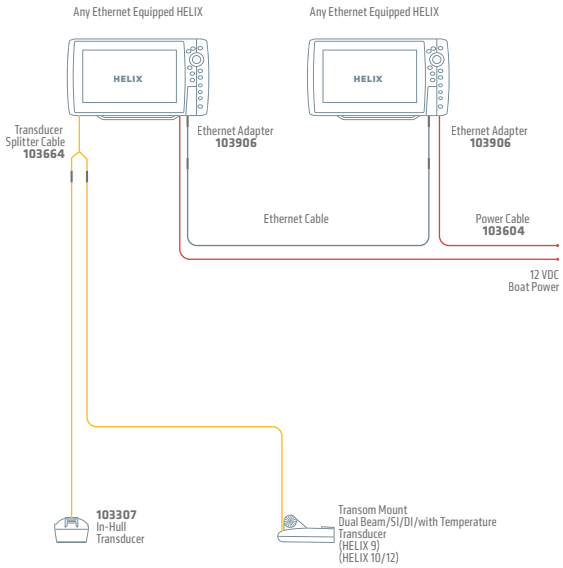
HELIX Integration (Option 1)

Transom Mount Transducer (Dual Beam/Side Imaging/Down Imaging)



Dual HELIX Integration—In Shore (Option 2)

Ethernet, In-Hull Transducer, Transom Mount Transducer (Dual Beam/Side Imaging/ Down Imaging)



Accessories

For the latest accessories on G2 HELIX including Mega Imaging contact BLA on **1300 252 725**.

Model Group Number

1	HELIX 12 CHIRP GPS, HELIX 10 SONAR GPS HELIX 9 SONAR GPS, HELIX 7 SONAR, HELIX 7 SONAR GPS, HELIX 5 SONAR, HELIX 5 SONAR GPS | 1159ci HD, 1158c HD, 1158c, 1157c | 959ci HD, 958c HD, 958c, 957c, 917c | 859ci HD, 858c HD, 858c | 788ci HD, 788c, 788ci, 778c HD, 768c, 728, 718 | 688ci HD, 678c HD | 597ci HD, 597ci, 596c HD, 596c, 587ci HD, 587ci, 586c HD, 586c, 581ci | 386ci, 385ci, 365, 345c, 325 | PiranhaMAX 190c, 170, 160, 155, 153, 150, 143
2	HELIX 7 SI GPS | HELIX 5 SI GPS | 899ci HD | 798ci HD, 798ci, 798c | 698ci HD | 598ci HD | 398ci
3	HELIX 12 CHIRP SI GPS, HELIX 10 SI GPS, HELIX 9 SI GPS, 1199ci HD, 1198c, 1197c | 999ci HD, 998c HD, 998c | 898ci HD, 898c
4	HELIX 12 CHIRP DI GPS, HELIX 10 DI GPS, HELIX 9 DI GPS | 1159ci HD DI, 1158c DI | 959ci HD DI, 958c HD DI | 859ci HD DI, 858c HD DI, 858c DI
5	HELIX 7 DI GPS, HELIX 7 DI, HELIX 5 DI GPS, HELIX 5 DI | 788ci HD DI | 688ci HD DI, 688c DI | 597ci HD DI, 596c HD DI, 581i HD DI, 571 HD DI, 570 DI, 561 DI | 386ci DI, 385ci DI, 346c DI, 345c DI | PiranhaMAX 197c DI
6	PiranhaMAX 176i, 195c, 196ci, 197c
7	ONIX – 200/83 kHz, ONIX – 200/50 kHz
8	ONIX – Down Imaging
9	ONIX – Side Imaging – 200/83 kHz
10	ONIX – Side Imaging – 200/50 kHz
11	ION/ONIX – SM1000, 1kW – 200/50 kHz or 200/83 kHz, Ethernet SONAR Module

Transducers

Transom

Mount on the transom (back of the boat).

Available on many models, the impact release feature pivots transducer out of the way if struck by an object.

Trolling Motor

Mount on most trolling motors.

Low-profile shape reduces drag and hang-ups on weeds.

In-Hull

Mount to inside of most single-layer fibreglass hulls using slow-cure epoxy.

(Cored fibreglass, metal or wood hulls not acceptable. Hull must be free of trapped air and voids.)

Portable

Mount on transom or side of most smooth-surface wood, aluminum or fibreglass boats.

Heavy-duty suction cup holds transducer at trolling speeds only.

Bronze

Ideal for large boats and boats with in-board motors.

Not recommended for trailered boats. Professional installation recommended.

Plastic

Economic alternative to bronze transducer. Mounts on thinner hulls such as aluminum.

Not recommended for trailered boats. Professional installation recommended.

1	103303	102550	103307 | 103311	102566	103318	103319 | 103321
2	103262	103266	–	–	–	103268
3	103260	103264	–	–	–	103268
4	103306	103308	–	–	–	103294
5	103306	103308	–	–	–	103294
6	103290	–	–	–	–	–
7	103520 | 103524	103548	103542 | 103540	–	–	103572 | 103576
8	103528	103552	–	–	–	103580
9	103532	103558	–	–	103566	103584
10	103536	–	–	–	–	103588

Switches

Switches

Fishfinder

Connect two fishfinders to one transducer. Ideal for directing output from one transducer to a bow station or a second helm.

Transducer Cables

Extension

3.0 M And 9.1 M

Add extra length to standard transducer cable. Available in two lengths, cable plugs into existing transducer and your fishfinder.

Splitter

Dual Beam

Continuously splits the Side Imaging signal and the Dual Beam signal. For use with a second transducer without a switch.

Left/Right

Splits Side Imaging source signal into left and right output for two Side Imaging transducers.

Adapters

Old To New

Allows older model transducers or fishfinders to connect to newer model Humminbird® units or transducers.

1	103805	103626 | 103628	–	–	103630
2	103805	103626 | 103628	–	–	103630
3	103805	103626 | 103628	103664	103666	103630
4	103805	103626 | 103628	103664	103666	103630
5	103805	103626 | 103628	–	–	103630
6	103805	103626 | 103628	–	–	103630
7	103805	102644 | 102638	–	–	103632
8	–	102644 | 102638	–	–	103636
9	–	102644 | 102638	103676	103672	103632
10	–	102644 | 102638	103676	103672	103636

Transducer Insert Wedge

102792

Transducer spray prevention plug to suit **103303**, **103306**, **103262** and any transducers that have the **103731** hardware.

Spray Deflector

103756

Aluminium unpainted spray deflector designed to be mounted on the transom above transducers or other protrusions that may cause spray. Hole pattern suits all Humminbird® transducers, except 898, 998 & 1198, but with the addition of new holes, it will suit just about any transducer. 130mm long x 75mm deep x 65mm high.

Transducer Mounting Hardware

Transom

Mounting hardware for transom-mount transducers. Kits include all mounting brackets, hardware and cable clamps required for installation.

Trolling Motor

Mounting hardware kit adapts our standard transom-mount transducers for use on the trolling motor. Kits include all mounting brackets, hardware and wire ties required for installation.

Portable

For use with portable transducers. Includes all hardware and suction cup.

Kayak

Transducer mounting hardware for installation in a kayak. Kit includes surface preparation products in addition to a transducer cradle and adhesive products.

1	103731	103514	103738	103744
2	103731	103514	103738	–
3	103734	103510	–	–
4	103734	103510	–	103326
5	103731	103514	103738	103326
6	103731	103514	103738	103744
7	103731	103516	103738	–
8	103731	103516	103738	–
9	103734	103516	–	–
10	103734	103516	–	–

360 Imaging Transducers

Want to add 360 Imaging to your boat?
See page 5 for an overview of 360.
and for compatibility.

Bow Mount 103204

Transom Mount 103200

Ethernet Black Box Sonar

SM3000
Broadband CHIRP
+ 2D + DI + SI SONAR

103972

Compatible Models	ONIX Series
Frequency	Low, Medium or High Frequencies
Power Output	2000 Watts
Sonar	DPS, DI, SI, 360 Imaging
Communications	Ethernet
Depth Capability	3048 m

AIRMAR® Saltwater Transducers

AIRMAR® TECHNOLOGY CORPORATION

Humminbird® is proud to offer Airmar® transducers. Durable, precise and innovative, these industry-leading transducers are available through your Humminbird® dealer. You'll find a few of the many transducer options listed here. For more information, contact your local Humminbird® stockist or visit airmartechnology.com

BLA Code	Description	Plug Pin Qty & Supplied Cable	
103400	Transducer Thru Hull B260	18 PIN HB	Bronze Thru Hull Transducer 1kW 50/200kHz. 18 PIN Plug To Suit SM 3000.
103309	Transducer In Hull M260-MM	MM with 103623	Wet Box In Hull Transducer T/S Fibreglass Boats. 1kW 50/200kHz. Mix Match & Inc 103623
103390	Transducer In Hull M260	18 PIN HB	Wet Box In Hull Transducer T/S Fibreglass Boats. 1kW 50/200kHz. 18 PIN Plug T/S SM 3000
103380	Transducer Thru Hull B164	18 PIN HB	Bronze Thru Hull Transducer Low Profile 20 Deg Tilt. 1kW 50/200kHz. 18 PIN Plug T/S SM 3000
103360	Transducer Trans TM260-MM	MM no Cable	Transom Mount Transducer. 1kW 50/200kHz. Mix Match Requires An Adaptor Cable.
103384	Transducer Thru Hull SSW200	18 PIN HB	S/S Low Profile Transducer 1kW 200kHz. 18 PIN Plug T/S SM 3000
103388	Transducer Thru Hull SSW50	18 PIN HB	S/S Low Profile Transducer 1kW 50kHz. 18 PIN Plug T/S SM 3000
103409	Transducer Thru Hull R99	18 PIN HB	In Hull Transducer 2kW 50/200kHz. 18 PIN Plug T/S SM 3000

AIRMAR® Saltwater Transducers Cables

BLA Code	Description	
103623	Adaptor Cable HELIX 9 PIN To Airmar	Adaptor cable to suit Airmar transducer to HELIX 9, 10 & 12 & Legacy
103373	Adaptor Cable SM 3000 To Airmar 18 PIN	Adaptor cable to suit Airmar transducer to SONAR Module 3000.
103375	Adaptor Cable ONIX To Airmar 14 PIN	Adaptor cable to suit Airmar transducer to ONIX.

Unit Mounts, Cases, Hardware And Accessories

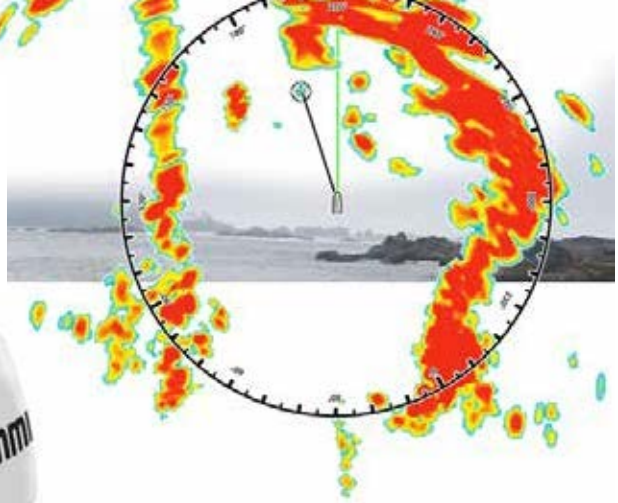
Series	Unit Mounts	Mounting Knobs	Mount Covers	In-Dash Mounting Kits	Unit Covers	Portable Case
	103712 103714 Use for a second mounting location on your boat or as a great replacement for a worn original.	Replacement knobs for gimbal bracket units.	Quick Disconnect mounting system cover helps protect the connectors from rain and dirt accumulation.	Rugged in-dash mounting kits let you panel-mount your Humminbird® for a fully integrated appearance. Includes all mounting hardware.	Cover protects your Humminbird® for storage. Hard plastic or neoprene covers depending on model.	102203 Portable case to use with legacy Humminbird products under 5" screen & current PMax and HELIX 5 products. Case does not include a battery or charger **526224**.
HELIX 12	**103727**			**102585**	**102226**	–
HELIX 10	**103725**			**102591**	**102224**	–
HELIX 9	**103725**			**102591**	**102224**	–
HELIX 7	**103723**			**102581**	**102222**	–
HELIX 5	**103719**				**102220**	**102203**
ONIX 10	**103728**	–	–	**103694**	**102234**	–
ONIX 8	**103726**	–	–	**103692**	**102230**	–
1100 Series	**103716**	**102567**	–	**102575**	**102208**	–
900/800 Series	**103714**	**102587**	–	**102577**	**102569**	–
700 Ethernet (HD) Series	**103710**	–	**103729**	**102578**	**102214**	**102203**
700/500 Series	**103712**	–	**103729**	**102578**	**102214**	**102203**
600 Series	**103710**	–	**103729**	**102578**	**102214**	**102203**
300 Series	**103712**	–	**103729**	**102580**	–	**102203**
PiranhaMAX 197DI & 197	**102592**		–	–	–	–
PiranhaMAX 196ci, 195c, 176i, 175, 165	–	**102586**	–	–	**102588**	**102203**
Piranha & PiranhaMAX all others excluding above	–	–	–	–	**102588**	**102203**
Fishin' Buddy 110, 120, 130, 140c	**103718**	–	–	–	**102588**	**102203**

Series	Cable Management Hardware	Power Cables
	Replacement hardware for managing your power, transducer and other accessory cables through the mounting system.	103602 103604 103600 105920 Features plug on one end and soldered bare leads on opposite. Comes in standard 1.8-metre length, but can be extended with 18awg multi-strand wire. Connect power to a fuse panel, or through inline fuse holder (not included) if hooked directly to the battery.
HELIX 12		**103604**
HELIX 10		**103604**
HELIX 9		**103604**
HELIX 5 & 7 Series	–	**103604**
ONIX 10	–	**103600**
ONIX 8	–	**103600**
1100 Series	**103717**	**103604**
900/800 Series	**103715**	**103604**
700 Ethernet (HD) Series	**103721**	**103604**
700/500 Series	**103721**	**103602**
600 Series	**103721**	**103602**
300 Series	**103721**	**103602**
PiranhaMAX 196ci, 195c, 176i, 175, 165	–	**103604**
Piranha & PiranhaMAX all others excluding above	–	**103602**
Fishin' Buddy 110, 120, 130, 140c	–	**103602**

Series	Temp/Speed Combo	Temp/Speed, Temp And Speed Sensor Extension
	103102 Combines two of the most popular accessory inputs into one compact transom-mount unit. Monitor temperature from -3.9°C to 38.2°C and speed from 3 to 103 kph. Includes 6.1-metre cable and hardware.	103640 A 3-metre extension for the Speed Wheel (SW), Temperature/Speed Wheel (TS W) and Temperature Sensor (103108).
HELIX 12		
HELIX 10		
HELIX 9		
HELIX 5 & 7 Series	**103102**	**103640**
ONIX 10	**103634** plus **103102**	**103640**
ONIX 8	**103634** plus **103102**	**103640**
1100 Series	**103102**	**103640**
900/800 Series	**103102**	**103640**
700 Ethernet (HD) Series	**103102** plus **103674**	**103640**
700/500 Series	**103102**	**103640**
600 Series	**103102** plus **103674**	**103640**
300 Series	**103102**	**103640**
PiranhaMAX 196ci, 195c, 176i,	–	–
Piranha & PiranhaMAX all others excluding above	–	–
Fishin' Buddy 110, 120, 130, 140c	–	–

Radar and Wireless Components

Next generation of marine radar: Humminbird CHIRP Radar, featuring CHIRP pulse compression. Setting a new standard for compact solid state radar, this Humminbird technology delivers superior radar imaging on both long and extremely short ranges. An energy efficient, lightweight design provides safe radiated emissions and substantially reduced power consumption.



103192

Network Cable Selection Guide

Ethernet Cables

103900 (.6 m) ***103903 (6.1 m)*** ***103905 (4.5m)***
103902 (3 m) ***103904 (9.1 m)***

Quickly set up an Ethernet connection between two Humminbird® Ethernet-capable units. Available in five lengths—you select the length you need.

Ethernet Extension Cable

103908 (9.1 m)

Easily extend the reach of your Ethernet connection with this 9.1-metre cable.

Ethernet Adapter Cable

103906

Allows Ethernet connection to Ethernet-ready HELIX 9, 10, 12, 800/900/1100 Series and 700 HD Series units. Cable is .3 metres long.

Step 1: Find The Group Numbers For The Two Models You Plan To Network

1	ONIX 8ci ONIX 8ci SI ONIX 8ci NT ONIX 8ci SI NT	ONIX 10ci ONIX 10ci SI ONIX 10ci NT ONIX 10ci SI NT
2	HELIX 9 SONAR·GPS HELIX 9 DI·GPS HELIX 9 SI·GPS HELIX 10 SONAR·GPS HELIX 10 DI·GPS HELIX 10 SI·GPS HELIX 12 CHIRP·SONAR·GPS	HELIX 12 CHIRP·DI·GPS HELIX 12 CHIRP·SI·GPS HELIX 7G2N COMBO'S HELIX 9G2N COMBO'S HELIX 10G2N COMBO'S HELIX 12G2N COMBO'S
3	1199ci HD 1159ci HD DI 1159ci HD 999ci HD 959ci HD DI	959ci HD 899ci HD 859ci HD DI 859ci HD
4	1198c 1197c 1158c DI 1158c 1157c 998c HD 998c 958c HD DI	958c DI 958c 898c HD 898c 858c HD DI 858c DI 858c HD 858c
5	798ci HD 788ci HD DI	788ci HD

Step 2: Cross Reference The Group Numbers To Find The Required Cables To Network Your Models

first model to network ↓ / *second model to network* →	1	2	3	4	5
1	Ethernet Cable	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable*	Ethernet Cable plus **103906**
2	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**
3	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**
4	Ethernet Cable*	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable*	Ethernet Cable plus **103906**
5	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**	Ethernet Cable plus **103906**

**** ONIX only shares waypoints with these models***

Networking Extensions

Product	*103900 | 103902 | 103903 | 103904*	*101086*	*101088*	*103652*	*103610*
Extension Cable Required	*103908*	*103650*	*103650*	*103650*	*103650*

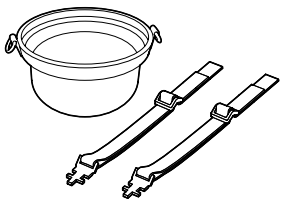
Networking And Advanced Accessory Module Compatibility

Series/Models	Video Output Cables 103660 Output video from your Humminbird® to another device. Cable is approximately 1.8-metres long with two standard male RCA connectors on the output side and one connector that is standard to select ONIX, 1100, 900 and 800 Series products for hook up.	As Ec Chart 103646 Link your fishing system to your laptop. One end connects to your boat's Ethernet network, the opposite connects to your PC's Ethernet port. This is for use with AutoChart.	As Syslink 103652 Connects two units to one GPS receiver. Does not share waypoints, routes or tracks.	Serial Port Splitter Cables 103670 103686 Add two serial accessories, such as an AIS transceiver and a supported third-party GPS.	Temperature Adaptor Cable 103634 Allows Ethernet connection of Temperature Sensor (**103108**) and Speed Sensor (SW) to your Humminbird® fishfinder.
ION	–	● **103646**	–	–	–
ONIX	–	● **103646**	–	–	○ **103634**
1199ci HD, 1159ci HD DI, 1159ci HD	–	○ **103646** plus **103906**	● **103652**	● **103670**	–
1198c, 1197c, 1158c DI, 1158c, 1157c	● **103660**	● **103646**	● **103652**	● **103670**	–
999ci HD, 959ci HD DI, 959ci HD	–	○ **103646 plus 103906**	● **103652**	● **103670**	–
998c HD, 998c, 958c HD DI, 958c DI, 958c HD, 958c	● **103660**	● **103646**	● **103652**	● **103670**	–
997c, 987c, 981c, 957c, 947c, 937c, 931c, 917c	–	● **103646**	● **103652**	–	–
899ci HD, 859ci HD DI, 859ci HD	–	○ **103646** plus **103906**	● **103652**	● **103670**	–
898c HD, 898c, 858c HD DI, 858c DI, 858c HD, 858c	● **103660**	● **103646**	● **103652**	● **103670**	–
798ci HD	–	○ **103646** plus **103906**	● **103652**	–	–
788ci HD DI, 788ci HD	–	○ **103646** plus **103906**	● **103652**	–	–
798ci, 788ci, 788c, 778c, 768, 728, 718	–	–	● **103652**	–	–
HELIX 9, 10, 12	–	○ **103646** plus **103906**	● **103652**	● **103670**	–

360 Cover

Replacement cover for 360 imaging transducer.

103201



360 Imaging

Add the revolutionary detail of 360 Imaging to your boat—now with options to mount on bow or transom. Some models require an additional cable listed below.

Optional Mounting Brackets

For mounting to your boat's jackplate or between outboard and transom, use Universal Modular Adapter Bracket. For more details and local stockist minnkota.com.au

103200

103204

606144

5-Port Ethernet Switch

103175

Easily create a network using Ethernet-capable Humminbird® fishfinders. Allows five Ethernet items to connect. Waterproof. Simple plug-n-play.

Some models require an additional cable listed below.

Series/Models		
ION	●	○ **103900/103902/103903/103904***
ONIX	●	○ **103900/103902/103903/103904***
1199ci HD, 1159ci HD DI, 1159ci HD	○ 1199ci HD only (1) **103906** Required	○ **103900/103902/103903/103904 /103906**
1198c, 1197c, 1158c DI, 1158c, 1157c	● 1198c only	○ **103900/103902/103903/103904***
999ci HD, 959ci HD DI, 959ci HD	○ 999ci HD only (1) **103906** Required	○ **103900/103902/103903/103904 /103906**
998c HD, 998c, 958c HD DI, 958c DI, 958c HD, 958c	● 998c HD and 998c only	○ **103900/103902/103903/103904***
997c, 987c, 981c, 957c, 947c, 937c, 931c, 917c	–	–
899ci HD, 859ci HD DI, 859ci HD	○ 899ci HD only (1) **103906** Required	○ **103900/103902/103903/103904 /103906**
898c HD, 898c, 858c HD DI, 858c DI, 858c HD, 858c	● 899cxi SI/859cxi DI only	○ **103900/103902/103903/103904***
798ci HD	○ (1) **103906** Required	○ **103900/103902/103903/103904 /103906**
788ci HD DI, 788ci HD	–	–
798ci, 788ci, 788c, 778c, 768, 728, 718	–	–
HELIX 9, 10, 12	○ **103906** Required	○ **103900/103902/103903/103904 /103904**
HELIX 7 G2N	○ **103906** Required	○ **103900/103902/103903/103904 /103904**

● *Compatible* ○ *Compatible with listed cable* — *Not applicable* ***For ethernet cables, you select the length you need. See page 29.***

Handheld GPS Connection Kits

103686

103610

103678

Kit includes: NMEA connection cable, Y cable and detailed instructions. This connection kit requires the handheld GPS manufacturer's NMEA data cable to complete the connection to your handheld GPS.

NMEA 2000

103160

Get an at-a-glance view of fuel consumption, engine performance and other vessel data.
Some models require an additional adapter listed below.

–	Built in
● 103678	Built in
● 103610	○ 103900/103902/103903/103904 plus 103904
● 103610	●
● 103610	○ 103900/103902/103903/103904 plus 103904
● 103610	●
● 103610	–
● 103610	○ 103900/103902/103903/103904 plus 103904
● 103610	●
● 103610	–
● 103610	○ 103900/103902/103903/103904 plus 103904
● 103610	–
● 103610	○ 103900/103902/103903/103904 plus 103906

Bluetooth® Remote

Take wireless control of your Humminbird. Our all-new remote lets you mark waypoints on the fly, zoom in and out, adjust SONAR sensitivity, and toggle through your favorite custom views. Each key has a short press and long press function, enabling you to customise the remote's capabilities to reflect your fishing style. For instance, a long press of the Mark button can be programmed to power your unit on or off, deploy your 360 Imaging transducer, or even create an i-Pilot Link Spot-Lock.

Everything's visible and controllable from anywhere on the boat, so you don't have to stop fishing to control your Humminbird.

Bluetooth®

Wireless Dongle

The remote comes with this wireless dongle, which plugs into the back of your fishfinder to receive the remote's signal.

103178

USB Connection Kit

USB connection kit allows software upgrades to units without a card reader including Matrix, 300, 500, 700, HELIX 5 & 7.

103608

Radar Modules

103192

Introducing the next generation of marine radar: new Humminbird CHIRP Radar, featuring CHIRP pulse compression. Setting a new standard for compact solid state radar, this Humminbird technology delivers superior radar imaging on both long and extremely short ranges. An energy efficient, lightweight design provides safe radiated emissions and substantially reduced power consumption.

External GPS Modules

101086

101088

Choose from three external GPS solutions. The **101086** provides fast and precise position fixes accurate within 2.5 metres, even in lower signal areas. With an integrated heading sensor, the **101088** lets you see compass information and your boat's orientation while moving or sitting still.
Some models require an additional adapter listed below.

●	○ 101092
●	○ 101086/101088 plus 103678
○ 103906	● 101086/101088
●	● 101086/101088
○ 103906	● 101086/101088
●	● 101086/101088
–	● 101086
○ 103906	● 101086/101088
●	● 101086/101088
–	● 101086/101088
–	● 101086
–	● 101086
○ 103906	● 101086/101088
○ 103906	● 101086/101088

Autopilot Series Accessories

Autopilot Control Head

Control and monitor your Autopilot System with this bright, full-colour 3.5-inch display. Features a QVGA 320x240 screen, saltwater-proof performance and a NMEA 0183 bus.

106140

Fluxgate Compass

This reliable electronic compass maintains your course based on magnetic heading reference. Features automatic self-compensation, durable construction and ensures relevant magnetic reference..

106180

Autopilot System

Hold to your course, no matter the seas or winds. The components of your Humminbird® Autopilot System add up to superior course stability and steering performance, as well as reduced fuel use. Your Humminbird® representative can help you choose the options and configuration right for you.

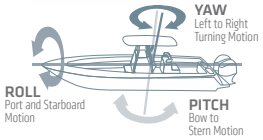
106120 Kit available excludes rubber feedback

106110

HRS 1 Three-Axis Heading Sensor

Stabilise your Autopilot, radar and chartplotter with this solid-state, three-axis heading sensor. Combines a digital compass, three-axis accelerometer and rate gyro to achieve one to two degrees of dynamic heading accuracy, even in rough seas.

106181



Autopilot Course Computer

Experience maximum course stability with this high-speed computer optimising rudder movement. Features 32 bit microprocessor, NMEA 0183 standard interface and integrated rate gyro.

106160

Rudder Feedback Unit

This brushless RFU features a unique, linear variable transformer—providing decades of reliable performance.

106170

Autopilot Joystick Control

Use this control to conveniently steer your vessel from a remote onboard location. This flush-mount joystick offers stand-by, auto select and follow-up modes.

106190

Unit Cover

Shield your SC 110 Autopilot head unit from the sun and harsh saltwater conditions when not in use.

102250

Scanstrut ROKK Mini Adjustable Body Mounting System

SCANSTRUT

Step 1: Start with the ROKK Mini Body

A universal, compact and multi-adjustable mounting system for smart phones, tablets, small fishfinders, digital and action cameras & more! Perfect for kayaking, freshwater and saltwater fishing and for use on all sailboats & powerboats. Rated to 1.2kg.

Versatile

A choice of base mounts to mount your devices how you want, where you want.

More than a Mount

Designed, not just made; with features that you'll feel and hear more than you'll see.

Quick Fit - Quick Release

Install your devices instantly onboard. With one reassuring click your tech is both secured and released.

Solid Install

A metal-on-metal locking system multiplies your clamping efforts to achieve 100% locking force. Your electronics will never move; until you want them to.

BLA Code
106210

Step 2: Choose the Top Plate based on which device you want to mount

Scanstrut Universal Clamp - Tablet

SCANSTRUT

Secure mount for mini and full size tablets. Ratchet Adjustable. Fits devices from 125mm to 210mm.

BLA Code
106234

Scanstrut Universal Clamp - Phone

SCANSTRUT

Secure mount for smart phones, handheld GPS and other small devices. Ratchet adjustable. Fits devices from 45mm to 95mm.

BLA Code
106236

Scanstrut GoPro Plate

SCANSTRUT

Fits directly to GoPro Camera (all models) + Garmin Virb X/XE.

BLA Code
106238

Scanstrut Camera Plate - ¼" Thread

SCANSTRUT

Standard ¼" thread mount for digital and action cameras. Fits a wide range of devices featuring a ¼" thread mounting point.

BLA Code
106240

Scanstrut Mount - Raymarine Dragonfly 4 & 5

SCANSTRUT

Fits directly to Raymarine Dragonfly 4 & 5 for a low profile install. Standard Raymarine ball & socket mount not required.

BLA Code
106242

Step 3: Choose the Base Mount depending on how you want to mount your device

Scanstrut ROKK Mini Mount - Surface

SCANSTRUT

Screw Down Base Mount. Fits any flat surface

BLA Code
106212

Scanstrut ROKK Mini Mount - Rail

SCANSTRUT

Rail Mount Base. Fits wide range of rails from 19mm – 34mm. Includes 3 x soft rail grip pad inserts for the perfect fit.

BLA Code
106214

Scanstrut ROKK Mini Mount - Cable Tie

SCANSTRUT

Over-size rail mount base. Fits wide range of non standard rail sizes. Includes soft rail grip pad inserts.

BLA Code
106216

Scanstrut ROKK Mini Mount - Self Adhesive Surface

SCANSTRUT

3M self-adhesive base mount. Fits any flat surface. No drilling required to install.

BLA Code
106218

Scanstrut ROKK Mini Safety Tether

SCANSTRUT

Use your devices safely and in confidence after detaching from ROKK Mini Body. Attaches to fixture point on ROKK Mini Body Base.

BLA Code
106250

Scanstrut ROKK Midi Fishfinder Mounting System

A multi-mount, install fishfinders and chartplotters at the helm, RIB console, fishing boat dashboard, nav station and more. Introducing a new modular ROKK design including a new Railblaza Starport compatible option. Simply select the required top, the base is included. Easy! Rated to 3kg.

Modular Design

- Designed to be versatile. Mount anywhere onboard
- Corrosion resistant alloy castings, anodised and powder coated for extreme marine durability
- Engineered to withstand high shock loads of up to 6G

Step 1: Choose the ROKK Midi based on where you want to mount your device

Scanstrut Deck Mount

- Adjustable

With 360 degree of rotation, this 'Set & Forget' system ensures zero loss of clamping force over time with minimal user effort.

BLA Code
106200

Scanstrut Rail Mount

- Adjustable

Fit the Adjustable Rail Mount to rails from 24.4mm to 33.7mm diameter.

BLA Code
106202

Scanstrut Adjustable Mount

- Railblaza

All the functionality of the Adjustable Deck Mount with a Railblaza Starport Compatible Base. Fit and remove your marine electronics with ease.

BLA Code
106204

Scanstrut Rail Mount

Install instruments directly onto pushpit or pedestal rails. Fits rails from 25.4mm to 33.7mm diameter.

BLA Code
106206

Step 2: Choose the Top Mount to suit your device

Scanstrut Midi Top Mount

Suits Humminbird PMax, Garmin Echo & Stryker marine electronics.

BLA Code
106220

Scanstrut Midi Top Mount

Suits Elite 4 and Elite 5 marine electronics.

BLA Code
106222

Scanstrut Midi Top Mount

Suits Humminbird 800, 900 HDS 5/7/9 Raymarine E7 marine electonics.

BLA Code
106224

Scanstrut Midi Top Mount

Suits Life edge surface mount kits.

BLA Code
106226

Scanstrut Midi Top Mount

Suits Humminbird HELIX 5 Raymarine A6/7 series marine electronics.

BLA Code
106228

Scanstrut Midi Top Mount

Suits Garmin Echo map marine electronics.

BLA Code
106230

Scanstrut Midi Top Mount

Universal mount suits Humminbird ONIX 8 and HELIX 7 Garmin, Raymarine marine electronics

BLA Code
106232

Scanstrut Self Levelling Radar Mount – Mast

SCANSTRUT

Self-Levelling Radar Mount range ensures your radar stays level with the horizon at all times for optimum antenna performance. As the boat heels or rolls, the radar is kept horizontal preventing target loss and giving the best possible radar picture. The Mast mounted version raises the antenna clear of the deck and any obstructions for increased radar horizon.

Features:

- Hydraulic damping
- Lightweight head unit
- Secure installation
- Suitable for any yacht

BLA Code
106300

Scanstrut Mast Mount – Mast

SCANSTRUT

For radomes and small satcom/TV antenna. Still the first choice for boat owners the world over, Scanstrut leads the way with a new generation of Mast Mounts. The larger mounting foot is stronger, stiffer and now even easier to fit.

Features:

- Universal and compact mounting
- Strong fixing
- Safety wire kit
- Recommended by and compatible with Humminbird, Garmin, Raymarine, Furuno and Navico

BLA Code
106302

Scanstrut Radar Guard

SCANSTRUT

Polished stainless guards protect radome from damage and reduce wear on the sails.

Features:

- Mounted using radome bolts, no extra fastenings required
- Easy to fit – between mast mount and radar antenna
- Manufactured from marine 316 grade stainless steel

BLA Code
106303

Scanstrut Mast Mount – Mast

SCANSTRUT

For radomes and small satcom/TV antenna. Still the first choice for boat owners the world over, Scanstrut leads the way with a new generation of Mast Mounts. The larger mounting foot is stronger, stiffer and now even easier to fit.

Features:

- Universal mounting
- Strong fixing
- Compact mounting
- Safety wire kit
- Suits Raymarine 2 kW radome

BLA Code
106304

Scanstrut PowerTower®

SCANSTRUT

- Composite

For radomes and small satcom/TV antenna. Expertly designed to install your antenna on the cabin roof, flybridge or radar arch of your powerboat, providing a clear view of the horizon for maximum antenna performance. Scanstrut's Composite PowerTower offers a single "monocoque" structure for outstanding strength and surface finish. Its aerodynamic shape and high gloss finish makes a product that is as strong as it is attractive.

Features:

- Watertight installation
- Ease of install
- Choice of heights
- Aesthetic single piece moulding

106320

106322

BLA Code	Size mm
106320	350
106322	150

Scanstrut PowerTower®

SCANSTRUT

- Stainless Steel

For radomes, open array and small satcom/TV antenna. Expertly designed to install your antenna on the cabin roof, flybridge or radar arch of your powerboat, providing a clear view of the horizon for maximum antenna performance. Scanstrut's Stainless PowerTower® is created using a highly polished stainless steel, which makes a great looking installation on any boat.

Features:

- Small footprint
- Ease of install
- Marine grade stainless steel

BLA Code
106324

Scanstrut PowerTower®

- Aluminium

For radomes, open array and small satcom/TV antenna. Expertly designed to install your antenna on the cabin roof, flybridge or radar arch of your powerboat, providing a clear view of the horizon for maximum antenna performance.

Features:

- Choice of heights
- Ease of install
- Internally mounted scanstrut DS30 cable seal
- Marine sealant not required
- No need to cut cable or remove plugs
- Inserts included to fit cables from all major radomes

BLA Code	Size mm
106326	150
106328	250

106326

Accessories:

106310	New Central GPS/ VHF Antenna Bar
106314	New Central Lightbar
106316	New Central Bar for 2 x Antenna and 1 x Navlight

Scanstrut Antenna Mount

- GPS / VHF / Navtex

Install GPS & VHF antennas above the radar for maximum visibility and performance. Compatible with all Scanstrut PowerTowers.

Features:

- All mounting holes pre-drilled for easy retro-fit installation, attach using mounting bolts, no extra fastenings required
- Cables run internally via watertight seal
- Options to mount port or starboard side of radar antenna
- Marine 316 grade stainless steel

BLA Code	Description
106308	Mount GPS/VHF GPS Starboard Mount
106312	Mount GPS/VHF GPS Port Mount

Scanstrut Central Antenna Bar - GPS / VHF

For use with **106323** and **106328** only. Compatible with all GPS/VHF antenna with 1" x 14 TPI thread.

BLA Code
106310

Scanstrut Central Lightbar

For use with **106323** and **106328** only.

Compatible with:

- Hella NaviLED Pro
- Hella 2984 Series
- Aquasignal Series 40
- Aquasignal Series 25
- Perko 0200 Tri-Colour/White All Round Navigation Light
- Perko 0455 and 0406
- Lopolight

BLA Code
106314

Scanstrut Central Bar

- 2 x Antenna, 1 x Navlight

For use with **106323** and **106328** only.

Compatible with the following lights:

- Hella NaviLED Pro
- Hella 2984 Series
- Aquasignal Series 40
- Aquasignal Series 25
- Perko 0200 Tri-Colour/White All Round Navigation Light
- Perko 0455 and 0406
- Lopolight

VHF/GPS Antenna

- 1" x 14 TPI thread

BLA Code
106316

Scanstrut Nav Light Mount

Installs navigation lights above antenna for maximum visibility and performance. Compatible with all Scanstrut PowerTowers.

Features:

- All mounting holes pre-drilled for easy retro-fit installation, attach using mounting bolts, no extra fastenings required
- Cables run internally via watertight seal
- Mount port side of radar antenna
- Marine 316 grade stainless steel

BLA Code
106306

Photo courtesy of Maritimo

ELECTRICAL

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Mastervolt

The power to be independent

Onboard power that you can rely on at all times, wherever you may be in the world: This is Mastervolt's mission. Their products and systems provide you with the power to be independent, regardless of where you may sail or which equipment you choose to use onboard. To ensure your autonomy, Mastervolt has always opted for the highest quality and the potency that comes from ongoing innovation. Moreover, Mastervolt have added something else to the mix… A desire to be the very best at what they do. The results are clear to see in the exceptional products that you will find in the following pages. And the same passion is also apparent in Mastervolt's comprehensive and intelligent systems.

Worldwide A-brand

Whether you opt for an individual product or a complete system, you can rely on Mastervolt for an efficient process and the security that comes with a global A-brand. You'll find Mastervolt in over 80 countries around the world.

Professional or recreation - Marine / Off Road / Off Grid

Tugboat or luxurious sailing yacht. Cruising boat or launch. Whether you sail professionally or for your pleasure, Mastervolt has the products and systems you need. No where else will you find a wider choice or more options for your power system. Batteries, battery chargers, inverters, information panels, digital switchboards, electrical steering and fully integrated systems: The breadth and the depth of the Mastervolt range offers a solution for every onboard requirement. From 12, 24, 48 volt DC and 230 volt to American 120 volt, 50 and 60 hertz.

Why buy Mastervolt?

- Complete systems and system solutions
- Compact and lightweight by the latest technology
- High efficiency
- Easy to install
- Sturdy and safe connections
- Optimal communication between Mastervolt equipment via MasterBus
- Intuitive controls; central, local or remote
- Meets the most important marine safety classifications
- Service network in over 80 countries
- Numerous award-winning innovations
- The first choice of yachtbuilders and yards worldwide

Mastervolt Reinforced Batteries

All Mastervolt batteries are equipped with shock-proof positive and negative battery plates with rubber separation, while the electrolyte is absorbed in gel or glass fibre (AGM). A high-grade lead/calcium compound guarantees you a constant capacity and minimum self-discharging. Mastervolt has the right battery for every marine application.

Features:

- Maintenance-free
- Safe; no gas formation
- Easy to install
- Designed for cyclic use (charge/discharge)
- Leak-proof
- Two year warranty
- Issues to take into account

Determining the correct battery capacity for your new battery/batteries is very important.

Choosing the right battery charger lengthens the lifespan of your batteries considerably. Mastervolt's modern 3-step⊕ charge technology charges your batteries safely and quickly. A control panel is the best way to make the most of your batteries. To choose the right battery, refer to the table below.

Which battery is best for your application?

	Traditional open batteries	MLI Lithium Ion ❶	MVG gel semi-traction ❷	MVSV 2V gel traction ❸	AGM semi-traction ❹
Maintenance free	poor	very good	very good	very good	very good
Gas formation during charging	inadequate	excellent	good	good	good
Self discharge while inactive	poor	good	very good	very good	good
Lifespan with complete discharge	inadequate	excellent	good	very good	adequate
Lifespan with limited discharge	adequate	excellent	very good	very good	good
Sensitivity to excessive charge voltage	adequate	excellent	good	very good	adequate
Suitable for selection of battery bank with high capacity	inadequate	very good	good	very good	adequate
Suitable for E-propulsion	inadequate	excellent	good	very good	very good
Starting motors	adequate	very good	good	good	very good
Shock-resistance	inadequate	very good	very good	very good	very good
Number of charge/discharge cycles	inadequate	excellent	good	very good	adequate
Temperature-resistance	inadequate	very good	very good	very good	adequate
Installation/angle of inclination	poor	very good	very good	very good	very good
Return on investment with limited use	inadequate	good	good	very good	good
Return on investment with intensive use	inadequate	excellent	good	very good	adequate
Product warranty	1 year	2 year	2 year	7 year	2 year
Worldwide onboard service	inadequate	very good	very good	very good	very good

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1 *Lithium Ion batteries (LIB)*

Lithium ion batteries have a high energy density and are perfect for cyclic applications. They offer savings of up to 70% in volume and weight compared to traditional lead-acid batteries, with three times as many charging cycles (2000 full cycles).

Another major benefit of the Mastervolt LIB is that it is equipped with a Battery Management System (BMS), which automatically compensates for any imbalance between the cells. This guarantees you a constant high capacity and longer battery lifespan. The new Lithium Ion Ultra series now includes integrated battery monitoring.

2 *Gel batteries*

In gel batteries, the electrolyte is absorbed by a gel. This type of battery is entirely maintenance-free and has no gas formation with normal use. As no extra ventilation is required gel batteries can be installed anywhere. They are ideal as a service battery and for cyclical use, and can be charged very quickly.

3 *Traction batteries*

This robust gel battery is designed for regular and deep discharging (1000 full cycles), and is ideal for large systems that require intensive use and a very long lifespan.

4 *AGM batteries*

In AGM batteries, the electrolyte (mixture of water and sulphuric acid) is largely absorbed in glass fibre. This type of battery is entirely maintenance-free and there is no gas formation with normal use. Not requiring any ventilation, these batteries can be installed anywhere. Their construction gives a very fast discharge at very high currents so AGM batteries are ideal for systems that require high currents (for instance when starting an engine).

The battery poles can be unscrewed and this type of battery can be combined with every standard battery terminal.

Mastervolt Battery - Lithium Ion Ultra Series

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Having perfected the legendary Lithium Ion battery in a few key areas, Mastervolt has developed an unrivalled 5000 and 2500 Wh powerhouse. The MLI Ultra has an ultra-long lifespan that offers over 2000 cycles; a recharge time of less than an hour; active cell balancing for efficient and safe use of the Li-ion cells; and integrated battery monitoring to further simplify your system. What's more, the Ultra takes up 70% less space and weight compared to lead acid batteries. Add in the MasterBus compatibility and you'll see why this battery is the ultimate choice.

Features:

- Highly advanced technology
- Multifunctional battery of 5kWh and 2.5kWh
- Saves up to 70% in space
- Saves up to 70% in weight
- Three times the lifespan of traditional batteries (2000 cycles)
- Ultra-fast charging and discharging
- High efficiency
- MasterBus communication with every Mastervolt battery charger
- Integrated Battery Management System (BMS)
- Common-rail technology optimises series connection: up to 2 batteries in series
- Safest Lithium Ion technology available
- Integrated battery monitoring
- LiFePO4 technology
- M8 battery terminals
- Two year warranty

111121/111123

The Ultra communicates directly with the Mastervolt battery charger via MasterBus to ensure the best possible recharging.

BLA Code	Description	Nom. battery voltage V	Battery capacity range Ah	Nom. battery power Wh	Battery monitoring	Switch off relay controls	MasterBus compatible	Max. outer dimensions, L x W x H mm	Weight kg
111118	MLI Ultra 12/2500	13.25	180	2500	Integrated	up to 2 batteries in series		339 x 199 x 355	29
111121	MLI Ultra 12/5000	13.25	360	5000	Integrated	up to 2 batteries in series		622 x 197 x 355	56
111123	MLI Ultra 24/5000	26.5	180	5000	Iintegrated	up to 2 batteries in series		622 x 197 x 355	56

DANGEROUS GOODS

Mastervolt Battery – Lithium Ion MLS Series

The MLS series is the MLI Ultra's smaller brother, for use in a small system where reducing weight/ volume and/or increasing cycle life is key. It is specifically designed to be as easy as possible to install. The MLS series comes with an integrated safety disconnect. This saves installation and commissioning time, but reduces the maximum allowable charge/discharge rate. While the MLS series is a little less heavy duty than the MLI Ultra series, it gives an ideal entry to Lithium Ion technology. A perfect alternative to replace existing lead-acid batteries.

Features:

- Easy entry into Lithium Ion technology
- Drop-in replacement for lead-acid batteries
- Saves up to 70 % in space and weight
- Three times the lifespan of traditional batteries (2000 cycles)
- High cycle efficiency
- Fast charging up to one hour
- High discharge rate up to 1C
- Integrated Battery Management System (BMS) with passive balancing
- Integrated automatic safety disconnect.
- Safest Lithium Ion chemistry available (LiFePO4)
- Tested and certified according to UN38.3
- Two year warranty

DANGEROUS GOODS

BLA Code	111110	111112	111114	111116
Description	12/80	12/130	12/260	12/390
General specifications				
Nominal battery voltage	12V	12V	12V	12V
No-load voltage, fully charged	12.8V	12.8V	12.8V	12,8V
Nominal battery capacity	6Ah	10Ah	20Ah	30Ah
Nominal battery energy capacity	77Wh	128Wh	256Wh	384Wh
Max. continuous discharge current	6 A (1 C)	10 A (1 C)	20 A (1 C)	30 A (1 C)
Max. short discharge current	for 30 seconds 12 A (2 C)	for 30 seconds 25 A (2,5 C)	for 30 seconds 40 A (2 C)	for 30 seconds 60 A (2 C)
Peak discharge current	for 2 seconds 24 A (4 C)	for 2 seconds 48 A (4,8 C)	for 2 seconds 85 A (4 C)	for 2 seconds 100 A (3,3 C)
Cycle life	2000 at 80 % DoD	~2000 at 80 % DoD	~2000 at 80 % DoD	~2000 at 80 % DoD
Max. charge current	6 A (1 C)	10 A (1 C)	20 A (1 C)	20 A (0,67 C)
Battery terminals	M5	M5	M5	M5
Mounting position	upright or either long side	upright or either long side	upright or either long side	upright or either long side
Max. outer dimensions (incl. terminals/ grip handles), L x W x H mm	90 x 70 x 109	151 x 65 x 102	180 x 77 x 161	182 x 126 x 140
Weight kg	0.8	1.5	3	4.9
Technical specifications				
Battery chemistry	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate
Protection degree	IP65 (electronics cabinet)	IP65 (electronics cabinet)	IP65 (electronics cabinet)	IP65 (electronics cabinet)
Parallel connection	yes, max. 3 batteries	yes, max. 3 batteries	yes, max. 3 batteries	yes, max. 3 batteries
Series connection	no	no	no	no
Protections	over voltage, under voltage, over temperature	over voltage, under voltage, over temperature	over voltage, under voltage, over temperature	over voltage, under voltage, over temperature
Safety disconnect	yes, electronic	yes, electronic	yes, electronic (automatic)	yes, electronic

Mastervolt Battery - AGM Series

- Ideal universal battery
- Excellent starter function
- Perfect upgrade for wet lead acid batteries
- Same initial power surge in an AGM 12/90Ah as in a 180Ah wet lead-acid battery
- Glass-fibre technology ensures low internal resistance
- Use of thicker plates allows deep discharging
- Also for cyclic use
- Two year warranty

111070

111072

111074

111076

111078

111080

111082

BLA Code	Description	Nominal voltage	Capacity C20*	CCA to DIN	CCA to SAE	Max. outer Dimensions** L x W x H	Weight
		V	Ah	A	A	mm	kg
111070	AGM 12/55	12	55	300	480	257 x 132 x 207	17
111072	AGM 12/70	12	70	385	615	348 x 167 x 183	21.5
111074	AGM 12/90	12	90	535	850	330 x 173 x 237	28
111076	AGM 12/130	12	130	585	935	410 x 177 x 228	37.6
111078	AGM 12/160	12	160	630	1000	485 x 170 x 245	42.3
111080	AGM 12/225	12	225	815	1300	522 x 240 x 241	63.5
111082	AGM 12/270	12	270	1000	1600	522 x 268 x 243	73

**C20 = battery capacity at a discharge time of 20 hours, till 1.75V per cell. **Including terminals and grip handles*

Mastervolt Battery - AGM SlimLine Series

- Ideal universal battery; also for starter functions
- Compressed AGM technology
- Saves up to 15% in volume
- Saves up to 15% in weight
- Miniscule footprint; 2x 200Ah for a 200Ah battery footprint
- Two year warranty

111088

BLA Code	Description	Nominal voltage	Capacity C20*	CCA to DIN	CCA to SAE	Max. outer Dimensions** L x W x H	Weight
		V	Ah	A	A	mm	kg
111086	AGM-SL 12/150	12	150	610	1020	560 x 110 x 280	40.5
111088	AGM-SL 12/220	12	200	750	1250	560 x 126 x 280	51.2

**C20 = battery capacity at a discharge time of 20 hours, till 1.75V per cell. **Including terminals and grip handles*

Mastervolt Battery - MVG Gel Series

- Perfect service battery for medium and large 12V and 24V systems
- Extremely long lifespan
- No gas formation with normal use
- Fast recharge, high charge current possible
- For intensive cycle use with a high number of charge/discharge cycles
- Very low self discharge
- Two year warranty

111094

111096

111098

111100

111104

111106

BLA Code	Description	Nominal voltage	Capacity C20*	CCA to DIN	CCA to SAE	Max. outer Dimensions** L x W x H	Weight
		V	Ah	A	A	mm	kg
111094	MG 12/25	12	25	110	175	167 x 176 x 126	9.6
111096	MG 12/55	12	55	230	380	261 x 136 x 230	19
111098	MG 12/85	12	85	270	450	330 x 171 x 236	32.6
111100	MG 12/120	12	120	450	760	513 x 189 x 223	41
111104	MG 12/140	12	140	540	920	513 x 223 x 223	49
111106	MG 12/200	12	200	630	1100	518 x 274 x 238	70

**C20 = battery capacity at a discharge time of 20 hours, till 1.75V per cell. **Including terminals and grip handles*

Mastervolt Battery - AGM 6 Volt Series

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- Ideal solution for cyclic applications, such as electric propulsion, wheelchairs, golf carts and similar
- Easy configuration of 12/24/48V battery terminals, with high capacity
- Double pole for easy installation
- No gas formation with normal use
- Two year warranty

55-61002600

55-61003400

55-61004000

BLA Code	Description	Nominal voltage V	Capacity C20* Ah	Max. outer Dimensions** L x W x H mm	Weight kg
55-61002600	AGM 6/260	6	260	295 x 180 x 298	35.3
55-61003400	AGM 6/340	6	340	295 x 180 x 366	47.5
55-61004000	AGM 6/400	6	400	295 x 180 x 428	53

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

*C20 = battery capacity at a discharge time of 20 hours, till 1.75V per cell. **Including terminals and grip handles*

Mastervolt Battery - MVSV 2 Volt Gel Series

MASTERVOLT
THE POWER TO BE INDEPENDENT

- Long lifespan
- Many charging and discharging cycles
- Charges quickly
- Extremely sustainable battery for large installations
- Robust build for longer lifespan
- Deep discharging without problems
- Can be installed horizontally or vertically
- Seven year warranty (pro rata)

55-68000280

55-68000500

55-68001250

55-68001500

55-68002200

55-68002700

BLA Code	Description	Nominal voltage V	Capacity C10* Ah	Max. outer Dimensions** L x W x H mm	Weight kg
55-68000280	MS 280	2	280	126 x 208 x 399	23
55-68000420	MS 420	2	420	126 x 208 x 515	30
55-68000500	MS 500	2	500	147 x 208 x 515	35
55-68000580	MS 580	2	580	168 x 208 x 515	39
55-68000750	MS 750	2	750	147 x 208 x 690	49
55-68001000	MS 1000	2	1000	212 x 193 x 690	66
55-68001250	MS 1250	2	1250	212 x 235 x 690	80
55-68001500	MS 1500	2	1500	212 x 277 x 690	95
55-68001650	MS 1650	2	1650	212 x 277 x 759	115
55-68002200	MS 2200	2	2200	216 x 400 x 816	160
55-68002700	MS 2700	2	2700	214 x 489 x 816	198

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

*C10 = battery capacity at a discharge time of 10 hours, till 1.8V per cell. **Including terminals and grip handles*

Mastervolt Battery Chargers - PowerCharger, ChargeMaster & Mass

A long life for your battery!

Do you want to charge your batteries safely, reliably, and preferably quickly, even when you are in a marina with poor shore power or a limited power supply? Do you also value batteries that have a long lifespan while maintaining their capacity? Mastervolt offers you the best possible solution. The Mastervolt 3-step⊕ charging method ensures more power and a longer life for your batteries. Our battery chargers integrate multiple functions, charging your battery safely and completely even when they are depleted. Fast battery charging is guaranteed by the efficient use of the available shore or generator power (all Mastervolt battery chargers have a power factor correction). Mastervolt is Green by Heart.

Which battery charger best meets your needs?

We offer three types of battery chargers:

ChargeMaster: Suitable for recreational and semi-professional use. Easy to install, it includes a detailed display and easy three-button controls. The ChargeMaster safely charges multiple battery banks at the same time.

Mass: For the tougher tasks in professional and semi-professional situations. With its integrated alarm functions and various certificates, the Mass is the best choice for professionals.

Charging Lithium Ion batteries

Although Lithium Ion batteries are increasingly popular, there can be a lack of clarity when it comes to the charging process. This is not a problem with a Mastervolt system as the Mastervolt battery charger communicates directly with the Li-ion battery.

MasterBus compatible

All ChargeMaster and Mass battery chargers can be easily connected to a MasterBus network with only one cable and one connection. What's more, you have the option for central, local or remote monitoring, configuration and control of your system.

Make the most of your shore power

The current control function allows you to easily switch the battery charger back to shore power to prevent blowing the shore fuse, even when the shore power drops.

Robust connections

Solid metal-to-metal connections prevent corrosion and/or overheating.

Choosing your battery charger?

Determine:

- How many battery banks do I want to charge?
- What voltage do I need to supply. The battery charger must have the same voltage as the battery bank.
- Rule of thumb is that 25% of the battery capacity (up to 50% for gel batteries) as a charge capacity is sufficient to safely and quickly charge batteries while still supplying power to the onboard network. For instance, a battery charger of 50 amps is sufficient for a 200Ah battery.

The best battery charger for every application

The ChargeMaster can charge multiple battery banks at once, providing the ease and comfort of combined functionalities. The Mass battery charger has one main outlet to optimally charge a battery bank and guarantee a long lifespan for your batteries even with daily and intensive use. The second outlet is used for the maintenance charge of your starter battery.

Mastervolt Battery Charger - PowerCharger & ChargeMaster 12V

BLA Code	110296	110298	110300	110302
Description	PowerCharger 12/20-3	PowerCharger 12/40-3	ChargeMaster 12/10-1	ChargeMaster 12/15-2
General Specifications				
Nominal output voltage	12V	12V	12V	12V
Total charge current	20A	40A	10A at 14.25V	15A at 14.25V
Number of battery outlets	3	3	1	2
Charge current second output	20A	40A	n.a.	15A
Charge current third output	20A	40A	n.a.	n.a.
Recommended battery capacity	50–250Ah	100–450Ah	25–100Ah	30–150Ah
Nominal input voltage	120/230V (50/60 Hz)	120/230V (50/60 Hz)	230V (180–265V) – 50/60Hz	230V (180–265V) – 50/60Hz
AC connection	6.5 ft AC cable	connector strips	socket	socket
Supplies your system without battery	yes	yes	no	no
Display/read-out	LED display	LED display	1 LED	1 LED
Dimensions, H x W x D mm	234 x 132 x 60	291 x 210 x 131	180 x 121 x 50	206 x 121 x 50
Weight kg	1.8	4	1	1
Fastening	screw	mounting bracket/ screws	screw	screw
Approvals	CE, E-mark (95/54/EG), SAE J1171/ISO 8846 ignition protected, ABYC A-31, UL (incl, marine suppl)		CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
Technical Specifications				
Charge characteristic*	IUoUo, automatic / 3-step⊕ for gel/AGM/wet/ Lithium Ion		IUoUo, automatic / 3-step⊕ for gel/AGM/wet/ Lithium Ion	
Charge voltage Bulk (25°C)**	14.4V	14.4V	14.25V (6 hours)	14.25V (6 hours)
Charge voltage Absorption (25°C)**	14.25V	14.25V	14.25V (6 hours)	14.25V (6 hours)
Charge voltage Float – wet (25°C)**	13.25V	13.25V	13.25V	13.25V
Charge voltage Float – gel/AGM (25°C)**	13.8V	13.8V	13.8V	13.8V
Temperature compensation	13.8V, -22 mV/°C or -7.6 mV/°F		no	no
Voltage compensation	automatic	automatic	automatic	automatic
DC consumption	<2 mA	<5 mA	<1 mA	<1 mA
Full load consumption (230V AC)	420 W	700 W	170 W	250 W
Current Control function	no	no	no	no
Cos phi	>0.98	>0.98	>0.95	>0.95
Temperature range (ambient temp.)	-25°–65°C -13°–149°F	-25°–70°C -13°–158°F	-25°C–60°C, >40°C derating -13°F–140°F, >104°F derating	
Cooling	natural cooling	vario fan	maintenance vario fan to ensure optimised cooling	
Sound level	<52 dbA at 1 mtr	<52 dBA at 1 mtr	<30 dbA at 1 mtr	<52 dBA at 1 mtr
Protection degree	IP23	IP23	IP65	IP21
Protections	over temperature, over load, short circuit, high battery, low battery			
MasterBus compatible	no	no	no	no
CSI/DC alarm	no	no	no	no
Options				
MasterView Read-out **110668**	n.a.	n.a.	n.a.	n.a.
MasterView Easy **110660**	n.a.	n.a.	n.a.	n.a.
MasterShunt **110550**	n.a.	n.a.	n.a.	n.a.
MasterBus USB Interface **110564**	n.a.	n.a.	n.a.	n.a.
Multipurpose Contact Output **110586**	n.a.	n.a.	n.a.	n.a.
6m cable with battery temperature sensor **110610**	delivered as standard	delivered as standard	delivered as standard	delivered as standard
15m cable with battery temperature sensor **110612**	option	option	n.a.	n.a.

The charge characteristic can be set to your requirements.
****The battery charge current can sometimes be specified at 20°C/68°F, so take temperature compensation into account.***

110304	110306	110308	110310	110312
ChargeMaster 12/25-3	ChargeMaster 12/35-3	ChargeMaster 12/50-3	ChargeMaster 12/70-3	ChargeMaster 12/100-3
12V	12V	12V	12V	12V
25A at 13.25V	35A at 14.4V	50A at 14.4V	70A at 14.4V	100A at 14.4V
3	3	3	3	3
25A	35A	50A	10A	10A
25A	35A	50A	10A	10A
50–250Ah	70–350Ah	100–500Ah	140–700Ah	200–1000Ah
120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz
2 mtr AC cable	connector strips	connector strips	connector strips	connector strips
yes	yes	yes	yes	yes
LED display	LED display	LED display	LCD display	LCD display
234 x 132 x 60	291 x 210 x 131	291 x 210 x 131	362 x 277 x 150	362 x 277 x 150
1.8	4	4	7	7
screw	with the supplied mounting bracket or 4x screw for wall mounting or 4x screw for floor installation			
CE, E-mark, ABYC A-31, SAE...	J1171/ISO 8846 ignition protected			
IUoUo, automatic / 3-step⊕ for gel/AGM/wet/Lithium Ion				
14.4V (8 hours)	14.4V (8 hours)	14.4V (8 hours)	14.4V (8 hours)	14.4V (8 hours)
14.25V (4 hours)	14.25V (4 hours)	14.25V (4 hours)	14.25V (4 hours)	14.25V (4 hours)
13.25V	13.25V	13.25V	13.25V	13.25V
13.8V	13.8V	13.8V	13.8V	13.8V
-30 mV/°C or -17 mV/°F	-30 mV/°C or -17 mV/°F	-30 mV/°C or -17 mV/°F	-30 mV/°C or -17 mV/°F	-30 mV/°C or -17 mV/°F
automatic	automatic	automatic	automatic	automatic
<2 mA	<5 mA	<5 mA	<5 mA	<5 mA
450 W	575 W	825 W	1200 W	1700 W
no	yes, through MasterBus	yes, through MasterBus	yes, through MasterBus	yes, through MasterBus
≥0.98	≥0.98	≥0.98	≥0.98	≥0.98
-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating		-25°C–60°C, >40°C derating -13°F–140°F, >104°F derating		
maintenance vario fan to ensure optimised cooling				
<52 dBA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr
IP23	IP23	IP23	IP23	IP23
over temperature, over load, short circuit, high battery, low battery				
●	●	●	●	●
yes, using a Multipurpose Contact Output (**110586**)				
Remote panel for reading the charge status of your battery charger, including error notifications. Refer page 74.				
Touch screen panel for reading charge status, current fold-back and/or Power Sharing setting. Refer page 74.				
MasterBus integrated battery monitor, with detailed information on the status of your batteries for a optimised charging process, including voltage, current, remaining time and consumption capacity in percentage. Refer page 75.				
Communication port between MasterBus and the USB port of your PC; makes possible reading and configuration of your MasterBus system on the PC when combined with MasterView System software from mastervolt.com.au. Refer page 76.				
MasterBus controllable potential-free contact, with alarm notification on the onboard system (low voltage or no AC), replacement of the CSI alarm contact. Refer page 77.				
delivered as standard	delivered as standard	delivered as standard	delivered as standard	delivered as standard
option	option	option	option	option

Mastervolt Battery Charger - ChargeMaster 24V

BLA Code	110314	110316	110318	110320
Description	ChargeMaster 24/6-1	ChargeMaster 24/12-3	ChargeMaster 24/20-3	ChargeMaster 24/30-3
General Specifications				
Nominal output voltage	24V	24V	24V	24V
Total charge current	6A at 28.5V	12A at 26.5V	20A at 28.8V	30A at 28.8V
Number of battery outlets	1	3	3	3
Charge current second output	n.a.	12A	20A	30A
Charge current third output	n.a.	12A	20A	30A
Recommended battery capacity	25–70Ah	24–120Ah	40–200Ah	60–300Ah
Nominal input voltage	230V (180–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz
AC connection	socket	2 mtr AC cable	connector strips	connector strips
Supplies your system without battery	no	yes	yes	yes
Display/read-out	1 LED	LED display	LED display	LED display
Dimensions, H x W x D mm	180 x 121 x 50	234 x 132 x 60	291 x 210 x 131	291 x 210 x 131
Weight kg	1	1.8	4	4
Fastening	4x screw	4x screw	4x screw	4x screw
Approvals	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31, SAE J1171/ISO 8846 ignition protected		
Technical Specifications				
Charge characteristic*	IUoUo, automatic / 3-step⊕ for gel/AGM/wet/Lithium Ion			
Charge voltage Bulk (25°C)**	28.5V (6 hours)	28.8V (8 hours)	28.8V (8 hours)	28.8V (8 hours)
Charge voltage Absorption (25°C)**	28.5V (6 hours)	28.5V (4 hours)	28.5V (4 hours)	28.5V (4 hours)
Charge voltage Float – wet (25°C)**	26.5V	26.5V	26.5V	26.5V
Charge voltage Float – gel/AGM (25°C)**	27.6V	27.6V	27.6V	27.6V
Temperature compensation	no	-60 mV/°C or -33 mV/°F	-60 mV/°C or -33 mV/°F	-60 mV/°C or -33 mV/°F
Voltage compensation	automatic	automatic	automatic	automatic
DC consumption	<1 mA	<2 mA	<2.5 mA	<2.5 mA
Full load consumption (230V AC)	210 W	435 W	660 W	925 W
Current Control function	no	no	yes, through MasterBus	yes, through MasterBus
Cos phi	>0.95	≥0.98	≥0.98	≥0.98
Temperature range (ambient temp.)	-25°C–60°C, >40°C derating -13°F–140°F, >104°F derating	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating	-25°C–60°C, >40°C derating -13°F–140°F, >104°F derating	
Cooling	natural cooling	-13°F–140°F, >77°F derating		
Sound level	<30 dbA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr
Protection degree	IP65	IP23	IP23	IP23
Protections	over temperature, over load, short circuit, high battery, low battery			
MasterBus compatible	no			
CSI/DC alarm	no	yes, using a Multipurpose Contact Output (**110586**)		
Options				
MasterView Read-out **110668**	n.a.	Remote panel for reading the charge status of your battery charger, including error notifications.		
MasterView Easy **110660**	n.a.	Touch screen panel for reading charge status, current fold-back and/or Power Sharing setting.		
MasterShunt **110550**	n.a.	MasterBus integrated battery monitor, with detailed information on the status of your batteries for an optimised charging process, including voltage, current, remaining time and consumption capacity in percentage.		
MasterBus USB Interface **110564**	n.a.	Communication port between MasterBus and the USB port of your PC; makes possible reading and configuration of your MasterBus system on the PC when combined with MasterView System software from mastervolt.com.au.		
Multipurpose Contact Output **110586**	n.a.	MasterBus controllable potential-free contact, with alarm notification on the onboard system (low voltage or no AC), replacement of the CSI alarm contact.		
6m cable with battery temperature sensor **110610**	delivered as standard	delivered as standard	delivered as standard	delivered as standard
15m cable with battery temperature sensor **110612**	n.a.	option	option	option

The charge characteristic can be set to your requirements.
****The battery charge current can sometimes be specified at 20°C/68°F, so take temperature compensation into account.***

110322	110324	110326	110328
ChargeMaster 24/40-3	ChargeMaster 24/60-3	ChargeMaster 24/80-3	ChargeMaster 24/100-3
24V	24V	24V	24V
40A at 28.8V	60A at 28.8V	80A at 28.8V	100A at 28.8V
3	3	3	3
10A	10A	10A	10A
10A	10A	10A	10A
80–400Ah	120–600Ah	160–800Ah	200–1000Ah
120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz	120/230V (90–265V) – 50/60Hz
connector strips	connector strips	connector strips	connector strips
yes	yes	yes	yes
LCD display	LCD display	LCD display	LCD display
362 x 277 x 150	362 x 277 x 150	432 x 277 x 150	432 x 277 x 150
7	7	8	8
with the supplied mounting bracket or 4x screw for wall mounting or 4x screw for floor installation			
CE, E-mark, ABYC A-31, SAE J1171/ISO 8846 ignition protected			
IUoUo, automatic / 3-step⊕ for gel/AGM/wet/Lithium Ion			
28.8V (8 hours)	28.8V (8 hours)	28.8V (8 hours)	28.8V (8 hours)
28.5V (4 hours)	28.5V (4 hours)	28.5V (4 hours)	28.5V (4 hours)
26.5V	26.5V	26.5V	26.5V
27.6V	27.6V	27.6V	27.6V
-60 mV/°C or -33 mV/°F	-60 mV/°C or -33 mV/°F	-60 mV/°C or -33 mV/°F	-60 mV/°C or -33 mV/°F
automatic	automatic	automatic	automatic
<5 mA	<5 mA	<5 mA	<5 mA
1400 W	2000 W	2700 W	3375 W
yes, through MasterBus	yes, through MasterBus	yes, through MasterBus	yes, through MasterBus
≥0.98	≥0.98	≥0.98	≥0.98
-25°C–60°C, >40°C derating -13°F–140°F, >104°F derating		-25°C–60°C, >40°C derating -13°F–140°F, >104°F derating	
maintenance free vario fan for optimal cooling			
<52 dBA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr	<52 dBA at 1 mtr
IP23	IP23	IP23	IP23
over temperature, over load, short circuit, high battery, low battery			
●	●	●	●
yes, using a Multipurpose Contact Output			
Remote panel for reading the charge status of your battery charger, including error notifications. Refer page 74.			
Touch screen panel for reading charge status, current fold-back and/or Power Sharing setting. Refer page 74.			
MasterBus integrated battery monitor, with detailed information on the status of your batteries for an optimised charging process, including voltage, current, remaining time and consumption capacity in percentage. Refer page 75.			
Communication port between MasterBus and the USB port of your PC; makes possible reading and configuration of your MasterBus system on the PC when combined with MasterView System software from mastervolt.com.au. Refer page 76.			
MasterBus controllable potential-free contact, with alarm notification on the onboard system (low voltage or no AC), replacement of the CSI alarm contact. Refer page 77.			
delivered as standard	delivered as standard	delivered as standard	delivered as standard
option	option	option	option

Mastervolt Battery Charger - Mass 24 & 48V

BLA Code	110356	110358	110386	110360
Description	Mass 24/15-2	Mass 24/25-2	Mass 24/25-2 DNV	Mass 24/50-2
General Specifications				
Nominal output voltage	24V	24V	24V	24V
Total charge current	15A at 28.5V	25A at 28.5V	25A at 28.5V	50A at 28.5V
Number of battery outlets	2	2	2	2
Charge current second output	3A	3A	3A	3A
Recommended battery capacity	30–150Ah	50–250Ah	50–250Ah	100–500Ah
Nominal input voltage	230V (180–265V) – 50/60Hz		230V (180–265V) – 50/60Hz	
Supplies your system without battery	yes	yes	yes	yes
Display/read-out	LED display	LED display	LED display	LED display
Dimensions, H x W x D mm	325 x 220 x 111	325 x 220 x 111	365 x 220 x 111	340 x 261 x 130
Weight kg	3.3	3.3	3.5	4.6
Approvals*	CE, E-mark, ABYC A-31 / RRR, RS		CE, E-mark, ABYC A-31 / RRR, RS, DNV	CE, E-mark, ABYC A-31 / RRR, RS
Technical Specifications				
Charge characteristic**	IUoUo, automatic / 3-step⊕ for gel/AGM/wet/Lithium Ion			
Charge voltage Bulk (25°C)***	28.5V (8 hours)	28.5V (8 hours)	28.5V (8 hours)	28.5V (8 hours)
Charge voltage Absorption (25°C)***	28.5V (4 hours)	28.5V (4 hours)	28.5V (4 hours)	28.5V (4 hours)
Charge voltage Float – wet (25°C)***	26.5V	26.5V	26.5V	26.5V
Charge voltage Float – gel/AGM (25°C)***	27.6V	27.6V	27.6V	27.6V
Temperature compensation	-33 mV/°F -60 mV/°C	-33 mV/°F -60 mV/°C	-33 mV/°F -60 mV/°C	-33 mV/°F -60 mV/°C
Voltage compensation	voltage drop compensation in DC cables up to 3 volt			
DC consumption	<1 mA	<1 mA	<1 mA	<1 mA
Full load consumption (230V AC)	550 W	880 W	880 W	1800 W
Cos phi	>0.95	>0.95	>0.95	>0.95
Temperature range (ambient temp.)	-25°C–80°C, >45°C derating		-25°C–80°C, >45°C derating	
Cooling	vario fan	vario fan	vario fan	vario fan
Sound level	<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr
Protection degree	IP23	IP23	IP23	IP23
Protections	over temperature, over load, short circuit, high battery, low battery			
MasterBus compatible	●	●	●	●
CSI/DC alarm (Charger Status Interface)	integrated in the battery charger as standard			
GMDSS function	GMDSS panel is available for all models			
Options				
MasterView Read-out **110668**	Remote panel for reading the charge status of your battery charger, including error notifications.			
MasterView Easy **110660**	Touch screen panel for reading charge status, current fold-back and/or Power Sharing setting.			
MasterShunt **110550**	MasterBus integrated shunt, with detailed information on the status of your batteries for a optimised charging process, including voltage, current, remaining time and consumption capacity in percentage.			

The charge characteristic can be set to your requirements.
****The battery charge current can sometimes be specified at 20°C/68°F, so take temperature compensation into account.***

110364	110366	55-40031006	110380	110382
Mass 24/75	Mass 24/100	Mass 24/100-3ph	Mass 48/25	Mass 48/50
24V	24V	24V	48V	48V
75A at 28.5V	100A at 28.5V	100A at 28.5V	25A at 57V	50A at 57V
1	1	1	1	1
n.a.	n.a.	n.a.	n.a.	n.a.
150–750Ah	200–1000Ah	200–1000Ah	100–500Ah	100–500Ah
230V (180–265V) – 50/60Hz		3x400V (360–485V)	230V (180–250V) – 50/60Hz	
yes	yes	yes	yes	yes
LED display	LED display	LED display	LED display	LED display
340 x 261 x 130	340 x 261 x 130	420 x 318 x 130	420 x 318 x 130	420 x 318 x 130
7.7	7.7	7.7	4.6	7.7
CE, E-mark, ABYC A-31 / RRR, RS, Lloyds, Bureau Veritas, Germanischer Lloyds		CE, E-mark, ABYC A-31 / RRR, RS		
IUoUo, automatic / 3-step⊕ for gel/AGM/wet/Lithium Ion				
28.5V (8 hours)	28.5V (8 hours)	28.5V (8 hours)	57V (8 hours)	57V (8 hours)
28.5V (4 hours)	28.5V (4 hours)	28.5V (4 hours)	57V (4 hours)	57V (4 hours)
26.5V	26.5V	26.5V	53V	53V
27.6V	27.6V	27.6V	55.2V	55.2V
-33 mV/°F -60 mV/°C	-33 mV/°F -60 mV/°C	-33 mV/°F -60 mV/°C	-62 mV/°F -120 mV/°C	-62 mV/°F -120 mV/°C
voltage drop compensation in DC cables up to 3 volt				
<1 mA	<1 mA	<1 mA	<1 mA	<1 mA
2600 W	3500 W	3500 W	1800 W	3500 W
>0.95	>0.95	>0.95	>0.95	>0.95
-25°C–80°C, >45°C derating		-25°C–80°C, >45°C derating		
vario fan	vario fan	vario fan	vario fan	vario fan
<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr
IP23	IP23	IP23	IP23	IP23
over temperature, over load, short circuit, high battery, low battery				
●	●	●	●	●
integrated in the battery charger as standard				
GMDSS panel is available for all models				
Remote panel for reading the charge status of your battery charger, including error notifications. Refer page 74.				
Touch screen panel for reading charge status, current fold-back and/or Power Sharing setting. Refer page 74.				
MasterBus integrated shunt, with detailed information on the status of your batteries for a optimised charging process, including voltage, current, remaining time and consumption capacity in percentage. Refer page 75.				

For more battery chargers
See Page 157

Mastervolt Sine Wave Inverters

- AC Master & Mass Sine

An onboard AC installation offers you a wealth of benefits by making possible the use of any domestic appliance, from microwave oven to hair dryer, DVD player to power tools. An inverter allows you to easily convert the voltage of your 12V or 24V battery to 230V/50Hz or 120V/60Hz, so you enjoy all the comforts of home wherever you choose to cruise.

Complete range

Mastervolt offers a complete range of inverters from 300 Watt to 15kWatt in AC Master and Mass Sine models. The AC Master is ideal for small and medium sized vessels, while Mass Sine inverters are mainly intended for larger systems on superyachts and for (semi) professional purposes. Mastervolt offers inverters for 230V/50Hz as well as 120V/60Hz (American voltage).

Proven technology

Mastervolt's Mass Sine sine wave inverters have proven themselves in the most extreme conditions for over ten years. Although the dimensions and connections of the various models have remained the same, the technology has evolved with the times, resulting in a fast, efficient, one-on-one replacement with minimal downtime.

The Mastervolt AC Master inverters are small, lightweight and silent. Installation and operation are incredibly easy.

Completely independent on shore power

Shore power regularly fluctuates and can cause your lights to flicker. Sometimes it may even drop below 180 volt, causing some onboard devices to stop functioning. The Mastervolt sine wave inverter ensures a perfect 230 volt onboard, and makes shore power problems a thing of the past. The pure sine wave current also helps protect your equipment against failures, humming or lines on your TV and ensure a longer lifespan. Ensure you have the correct match between your inverter power and the connected load.

An end to humming with HF technology

Our use of high-frequency switch technology means you can say goodbye to humming transformers. Mastervolt inverters are also small and lightweight to ensure easy installation.

High peak power during start up

The Mastervolt sine wave inverter can provide up to 200% capacity to equipment that requires extra power during start up.

110427 110442 110454

Simple and safe to connect

The inverters benefit from robust connection technology with internal connections for the larger models and a cable and plug and play inlet for smaller models.

Efficient use of batteries

A high degree of efficiency when inverting and the automatic economy mode when there is no consumption gives you longer use of your batteries and more hours on the water.

MasterBus compatible

Thanks to the MasterBus Inverter Interface or AC power analyser, every Mass Sine inverter can be easily connected to a MasterBus network with only one cable and one connection. You can also choose for central, local or remote monitoring, configuration and control of your system.

Optimal ease of operation

Mastervolt's Mass Sine inverters are easy to operate via controls on the device, via a control panel or remote control text messaging. Plus numerous options for central or local control and monitoring via the MasterBus platform.

Mastervolt SineWave Inverter - AC Master 230V

MASTERVOLT
THE POWER TO BE INDEPENDENT

BLA Code	110424	110427	110430
Description	AC Master 12/300	AC Master 12/500	AC Master 24/300
General Specifications			
Nominal battery voltage	12V	12V	24V
Recommended battery capacity	≥60Ah	≥100Ah	≥30Ah
Output voltage (± 5%)	230V – 50Hz (± 0.1%)	230V – 50Hz (± 0.1%)	230V – 50Hz (± 0.1%)
Continuous power at 25°C, cos phi 1	300 W	500 W	300 W
Continuous power at 40°C, cos phi 1	250 W	400 W	250 W
Peak load	600 W	800 W	600 W
Output waveform	true sine	true sine	true sine
Efficiency	90%	90%	91%
Display/read out	LED display	LED display	LED display
Dimensions, H x W x D mm	210 x 130 x 60	210 x 130 x 60	210 x 130 x 60
Weight kg	1.16	1.22	1.16
Approvals	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
Technical Specifications			
Technology	HF switch mode	HF switch mode	HF switch mode
Low battery voltage, switches off at	10V, ± 0.5V	10V, ± 0.5V	20V, ± 0.5V
Low battery voltage, switches on at	11V, ± 0.5V	11V, ± 0.5V	22V, ± 0.5V
High battery voltage, switches off at	16V, ± 0.5V	16V, ± 0.5V	32V, ± 0.5V
High battery voltage, switches on at	14.5V, ± 0.5V	14.5V, ± 0.5V	29V, ± 0.5V
Max. ripple on DC (battery)	10% RMS	10% RMS	10% RMS
Input current (nominal load)	22.5A	37.5A	11A
No load power consumption: • "on" mode (230V) • standby (scan mode)	 0.58A – 7 W 0.33A – 4 W	 0.58A – 7 W 0.33A – 4 W	 0.29A – 7 W 0.16A – 4 W
Minimal DC fuse (slow blow)*	40A	80A	20A
Minimal cable size	included	included	included
Harmonic distortion typical	<6%	<6%	<6%
Cos Phi	all power factors allowed	all power factors allowed	all power factors allowed
Temperature range (ambient temp.)	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating
Cooling	natural/forced	natural/forced	natural/forced
Sound level	53 dBA at 1 mtr	53 dBA at 1 mtr	53 dBA at 1 mtr
Protection degree	IP23	IP23	IP23
Protections	over temperature, over load, short circuit, high battery, low battery		
MasterBus compatible	no	no	no
AC connection	universal	universal	universal

DC fuse depends on the cable size.

Mastervolt Sine Wave Inverter - Mass Sine 230V

BLA Code	110440	110442	110444	110448
Description	Mass Sine 12/800	Mass Sine 12/1200	Mass Sine 12/2000	Mass Sine 24/800
General Specifications				
Nominal battery voltage	12V	12V	12V	24V
Minimum battery capacity	>100Ah	>150Ah	>200Ah	>50Ah
Output voltage (± 5%)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)
P30 power at 40°C, cos phi 1	800 W	1200 W	2000 W	800 W
Continuous power at 40°C, cos phi 1	650 W	1000 W	1800 W	650 W
Peak load	1600 W	2400 W	4000 W	1600 W
Output waveform	true sine	true sine	true sine	true sine
Efficiency	92%	92%	92%	92%
Display/read-out	LED display	LED display	LED display	LED display
Dimensions, H x W x D mm	325 x 220 x 111	340 x 261 x 130	420 x 318 x 136	325 x 220 x 111
Weight kg	3.9	8	14.6	3.9
Approvals	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
Technical Specification				
Technology	HF switch mode	HF switch mode	HF switch mode	HF switch mode
Low battery voltage, switches off at	10V, ± 0.5V	10V, ± 0.5V	10V, ± 0.5V	19V, ± 0.5V
Low battery voltage, switches on at	11V, ± 0.5V	11V, ± 0.5V	11V, ± 0.5V	22V, ± 0.5V
High battery voltage, switches off at	15.5V, ± 0.5V	15.5V, ± 0.5V	15.5V, ± 0.5V	32V, ± 0.5V
High battery voltage, switches on at	14.5V, ± 0.5V	14.5V, ± 0.5V	14.5V, ± 0.5V	30V, ± 0.5V
Max. ripple on DC (battery)	5% RMS	5% RMS	5% RMS	5% RMS
Input current (nominal load)	73A	110A	183A	36A
No load power consumption: • 'on' mode (230V) • stand-by (scan mode)	 470 mA – 5.6 W 65 mA – 0.8 W	 450 mA – 5 W 43 mA – 0.5 W	 480 mA – 6 W 50 mA – 0.6 W	 240 mA – 5.6 W 35 mA – 0.8 W
Minimal DC fuse (slow blow)**	100A	150A	250A	63A
Minimal cable size	25 mm²	50 mm²	70 mm²	16 mm²
Harmonic distortion typical	<5%	<5%	<5%	<5%
Cos Phi	all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed
Temperature range (ambient temp.)	-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating		-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating	
Cooling	natural/forced	natural/forced	natural/forced	natural/forced
Protection degree	IP23	IP23	IP23	IP23
Protections	over temperature, over load, short circuit, high battery, low battery			
MasterBus compatible	yes, using a MasterBus Inverter Interface or AC power analyser			
AC connection	internal	internal	internal	internal
Options				
Model C4-RI **55-70404110**	Remote control on/off for the Mass Sine inverter.			
Masterlink/MICC **110688**	Battery consumption meter for 2 batteries, 12/24V DC with LCD read-out, remote control for Mass Sine inverter and Mass battery charger or Mass Combi.			
MasterBus Inverter Interface **110568**	Integrates the Mass Sine inverter in a MasterBus network in a MasterBus network.			
Transfer system	The Masterswitch and Systemswitch can be connected to all inverters.			

Also available in 60 Hz; item # 2500 W model = 55-24122500 / item # 5000 W model = 55-24195100.
****DC fuse depends on the cable size.***

110450	110452	110454	110453
Mass Sine 24/1500	Mass Sine 24/2500*	Mass Sine 24/5000*	Mass Sine Ultra 24/4000
24V	24V	24V	24V
>150Ah	>200Ah	>400Ah	>350Ah
230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)
1500 W	2500 W	5000 W	-
1200 W	2000 W	4000 W	4000 W
2900 W	5000 W	9000 W	7000 W
true sine	true sine	true sine	true sine
92%	92%	92%	92%
LED display	LED display	LED display	LED display
340 x 261 x 130	420 x 318 x 130	470 x 315 x 254	472 x 318 x 178
8	14.6	25	15
CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
HF switch mode	HF switch mode	HF switch mode	HF switch mode
19V, ± 0.5V	19V, ± 0.5V	19V, ± 0.5V	19V, ± 0.5V
22V, ± 0.5V	22V, ± 0.5V	22V, ± 0.5V	24V, ± 0.5V
32V, ± 0.5V	33V, ± 0.5V	32V, ± 0.5V	32V, ± 0.5V
30V, ± 0.5V	31V, ± 0.5V	30V, ± 0.5V	29V, ± 0.5V
5% RMS	5% RMS	5% RMS	5% RMS
68A	115A	230A	200A
200 mA – 5 W 25 mA – 0.6 W	250 mA – 6 W 25 mA – 0.6 W	250 mA – 6 W n.a.	300 mA – 7 W 25 mA – 0.6 W
100A	160A	1x 250A or 2x 125A	250A
25 mm²	50 mm²	2x 70 mm²	70 mm²
<5%	<5%	<5%	<1%
all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed
-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating		-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating	-25°C–60°C, >40°C derating -13°F–140°F,
natural/forced	natural/forced	natural/forced	natural/forced
IP23	IP23	IP23	IP23
over temperature, over load, short circuit, high battery, low battery			
yes, using a MasterBus Inverter Interface or AC power analyser			yes
internal	internal	internal	internal
Remote control on/off for the Mass Sine inverter.			
Battery consumption meter for 2 batteries, 12/24V DC with LCD read-out, remote control for Mass Sine inverter and Mass battery charger or Mass Combi.			
Integrates the Mass Sine inverter in a MasterBus network in a MasterBus network. The Masterswitch and Systemswitch can be connected to all inverters.			

Mastervolt Mass Combi

Continuous power and peace of mind in all conditions

Mass Combi: charging, inverting and power support in one device

The Mastervolt Mass Combi combines the best of both worlds, with an advanced battery charger and silent inverter rolled into one compact device. It is ideal for most boats, from sloops to 16-metre yachts, as well as for heavy mobile applications. 48 V are now also available upon request.

Versatile power supply

One of the key reasons for the Mass Combi's popularity is its versatility in power supply. The starter and service batteries are charged quickly and completely, while the inverter provides silent and clean power. The Combi also has two separate AC outputs for light and heavy consumers. To prevent unnecessary depletion of the batteries, heavy consumers such as washing machines or air conditioning are only powered when mains voltage or a generator is available.

Modern technology

The design of the Mass Combi is both unique and characteristic of Mastervolt. Rather than installing heavy transformers, our lightweight, high-frequency technology offers major benefits regarding size, weight and sound (no hum!). The technology also ensures an exceptionally high efficiency with a minimal conversion loss and a low no-load consumption. The Mass Combi meets all your requirements and more!

Combined functionality

- Powerboost from battery when mains voltage is limited (mains/generator support)
- Charging two individual battery banks
- Invert to 230 V/50 Hz pure sine wave voltage
- Available in 12, 24 or 48 V version
- Multiple distribution and switching systems
- Parallel function; two parallel Combis for even more power
- The Mass Combi is CE and E-mark certified (E-mark does not apply for Mass Combi 12/1600, 24/1800, 12/2200 & 24/2600)

Mass Combi in a MasterBus network

The Mass Combi fits seamlessly within a MasterBus system. All components can be easily connected, the system is simple and intuitive to use and requires far fewer cables for installation. One MasterView Easy touch screen panel controls the entire system, displays information about the Combi as well as the batteries (via the MasterShunt) and operates the generator. The system can also be combined with Mastervolt's decentralised Digital Switching system.

A Mastervolt Combi for extra power

If you require more power than the grid or generator can provide, the Mass Combi will make up the shortfall by inverting from the battery. The Combi also ensures that the battery is recharged once the peak demand has passed.

Invert to 230 V pure sine voltage

Don't worry about connecting your 230 V equipment. From coffee maker to laptop, flat screen, microwave, electric tools or even air conditioning, all will be provided with constant power just as they are at home. The pure sine wave voltage also ensures a longer lifespan for your more sensitive equipment.

Ease of installation

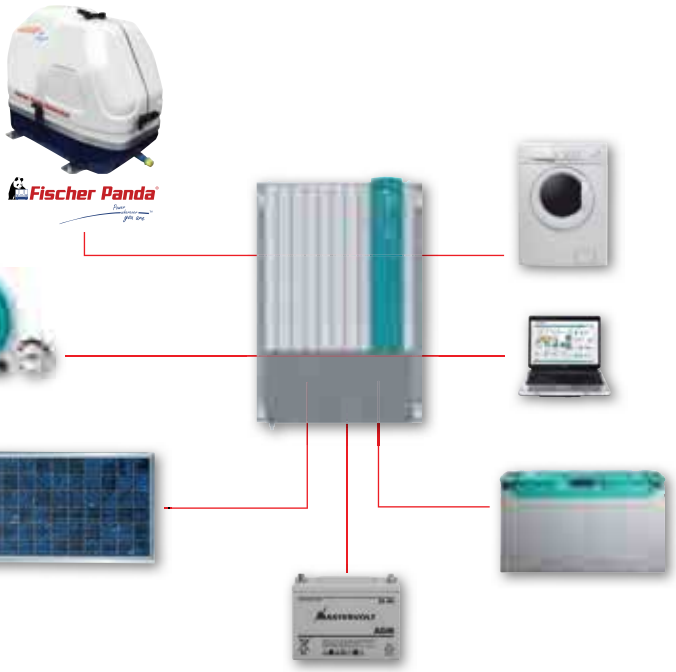
A small and lightweight chassis makes a huge difference to the ease of installation, and there is also the added advantage of robust connection terminals optimised for installers; this all drastically reduces labour time and costs.

Intuitive operation

Each Mass Combi can be operated easily and intuitively. The Mass Combi includes LED indication of charging phase and charge current, the 230 V system load and 12/24 or 48 V system, 'yes/no' availability of 230 V and an on/off switch with a 'charge only' position during periods of inactivity. Mastervolt also offers a complete selection of control panels, ranging from the compact 3.5-inch panel called MasterView Easy to a large 10.4-inch touchscreen panel.

Not just any battery charger

The built-in battery charger uses Mastervolt's proven 3-step+ charging technology to allow the optimal charging of all battery types, including our advanced Lithium Ion models. The battery charger supplies a maximum charge current, even with a higher charge voltage, and speeds up the complete recharging of your batteries.



Mastervolt Mass Combi - 230V

MASTERVOLT
THE POWER TO BE INDEPENDENT

BLA Code	110455	110456	110465	110466
Description	Mass Combi 12/1600-60	Mass Combi 12/2200-100	Mass Combi 24/1800-35	Mass Combi 24/2600-60
Replaces	**110460**	**110462, 110464**	-	**110472, 110474**
General Specifications				
Display/read-out	LED display	LED display	LED display	LED display
Dimensions, H x W x D	371 x 318 x 143 mm	496 x 318 x 156 mm	371 x 318 x 143 mm	496 x 318 x 156 mm
	14.6 x 12.5 x 5.6 inch	19.5 x 12.5 x 6.1 inch	14.6 x 12.5 x 5.6 inch	19.5 x 12.5 x 6.1 inch
Weight	7.8 kg 17.2lb	11 kg 24.3lb	7.5kg 17.2lb	11kg 24.3lb
Approvals	CE, ABYC, E4	CE, ABYC, E4	CE, ABYC, E4	CE, ABYC, E4
Technical Specifications				
Charge characteristic	IUoUo, automatic / 3-step+ for gel/ AGM/MLI/wet/spiral/ traction	IUoUo, automatic / 3-step+ for gel/ AGM/MLI/wet/spiral/ traction	IUoUo, automatic / 3-step+ for gel/ AGM/MLI/wet/spiral/ traction	IUoUo, automatic / 3-step+ for gel/ AGM/MLI/wet/spiral/ traction
Max. current power output	50 A	50 A	50 A	50 A
Max. current shortbreak / inverter output	25 A	25 A	25 A	25 A
Transfer time	10 ms	10 ms	10 ms	10 ms
Ground relay	yes, configurable	yes, configurable	yes, configurable	yes, configurable
Temperature range (ambient temp.)	-25 °C to 60 °C, derating > 25 °C	-25 °C to 60 °C, derating > 25 °C	-25 °C to 60 °C, derating > 25 °C	-25 °C to 60 °C, derating > 25 °C
	-13 to 140 °F	-13 to 140 °F	-13 to 140 °F	-13 to 140 °F
Cooling	maintenance-free vario fans	maintenance-free vario fans	maintenance-free vario fans	maintenance-free vario fans
Sound level	≤ 48 dBA at 1 mtr	≤ 48 dBA at 1 mtr	≤ 48 dBA at 1 mtr	≤ 48 dBA at 1 mtr
Protection degree	IP23 (vertical mounting)	IP23 (vertical mounting)	IP23 (vertical mounting)	IP23 (vertical mounting)
Safety protections	over temperature, over load, short circuit, high/low battery voltage	over temperature, over load, short circuit, high/low battery voltage	over temperature, over load, short circuit, high/low battery voltage	over temperature, over load, short circuit, high/low battery voltage
MasterBus compatible	yes, in combination with a MasterBus Combi Interface	yes, in combination with a MasterBus Combi Interface	yes, in combination with a MasterBus Combi Interface	yes, in combination with a MasterBus Combi Interface
Specifications Sine Wave Inverter				
Nom. battery voltage	12 V (10-15 V)	12 V (10-15 V)	24 V (19-31 V)	24 V (19-31 V)
Output waveform	true sine, Thd < 2.5% under standard conditions	true sine, Thd < 2.5% under standard conditions	true sine, Thd < 2.5% under standard conditions	true sine, Thd < 2.5% under standard conditions
Cont. power at 25 °C, cos phi 1	1600 W – 7 A	2150 W – 9.3 A	1800 W – 7.8 A	2550 W – 11 A
Surge capability	3000 W – 13 A	4000 W – 17.4 A	3000 W – 13 A	4000 W – 17.4 A
Parallel configuration	no	yes, up to 2	no	yes, up to 2
Parallel with grid/generator	yes	yes	yes	yes
Output voltage (± 5%)	230 V (± 5%), adjustable 180-250 V	230 V (± 5%), adjustable 180-250 V	230 V (± 5%), adjustable 180-250 V	230 V (± 5%), adjustable 180-250 V
Efficiency	≥ 90 %	≥ 90 %	≥ 90 %	≥ 90 %
DC consumption at 230 V	< 9 W	< 9 W	< 9 W	< 9 W
Energy saving mode consumption	0.5 W	0.5 W	0.5 W	0.5 W
Specifications Battery Charger				
Nom. input voltage	180-265 V	180-265 V	180-265 V	180-265 V
Max. charge current (adjustable)	60 A at 14.25 V	100 A at 14.25 V	35 A at 28.5 V	60 A at 28.5 V
Primary AC consumption (full charge)	1035 W – 4.5 A	1656 W – 7.2 A	1170 W – 5.1 A	1965 W – 8.5 A
Charge voltage 25 °C (Absorption/ Float)	14.25/13.25 V	14.25/13.25 V	28.5/26.5 V	28.5/26.5 V
Charge current second output	5:00 AM	5:00 AM	5:00 AM	5:00 AM
Battery temperature sensor	delivered as standard with 6m cable and telejack plug	delivered as standard with 6m cable and telejack plug	delivered as standard with 6m cable and telejack plug	delivered as standard with 6m cable and telejack plug
Options				
With ICC and APC included as standard	**110459**	**110461**	**110479**	**110470**
With MasterBus Combi Interface included as standard	**110457**	**110458**	**110467**	**110468**

Mass Combo with ICC and APC included

Mass Combi with MasterBus Combi Interface included

Mastervolt Mass Combi Ultra

MASTERVOLT

Powerful, complete and versatile

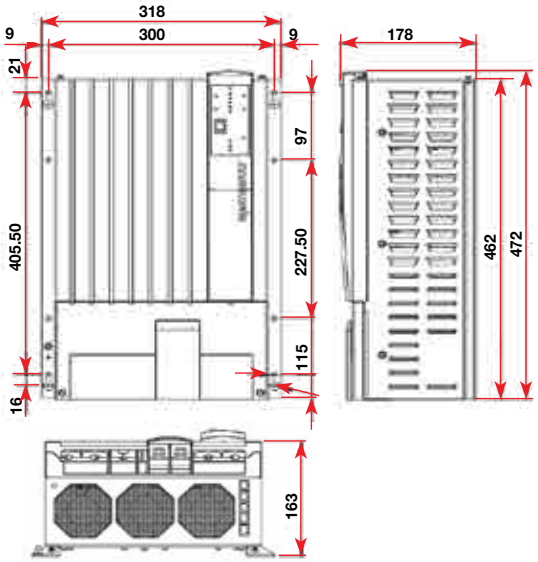
The Mass Combi Ultra series comprises five models, varying from 3000W to 5000W. For higher capacities up to 40kW the Combi Ultra can be used in parallel or 3-phase configurations. An efficient and integrated solar charge regulator helps make the most of your solar panels.

The Mass Combi Ultra is equipped with the latest technologies. The new 'V6' inverter technology ensures a uniquely low stand-by use, while an ultra-fast Digital Signal Processor guarantees seamless switching between all available energy sources. Power Assist prevents power dips and failures, even with a weak electricity connection or small generator. Moreover, all Mass Combi Ultra models are equipped with MasterBus.

Higher yield from solar energy

At Mastervolt we used our knowledge gained in the grid connected solar sector to make a super-efficient built-in MPPT solar charge regulator. Compared to most solar charge regulators on the market, the MPPT offers up to 30% more yield from solar panels. The solar panels power 'hidden' consumers and keep your batteries in optimal condition.

110484
24V 3500W 100A
Mass Combi UltraT



Ease of wiring installation and logical layout

Active Optima Cooling ensures quiet operation

BLA Code	110482	110484
General Specifications		
Display/read out	LED Display	LED Display
Approvals	CE, E-mark, ABYCCE,	CE, E-mark, ABYC
Technical Specifications		
Charge characteristic	IUoU, automatic,3 step+ for gel/AGM/Lithium Ion/flooded/flooded traction/spiral/NiCad	
Ground relay	Adjustable	Adjustable
Temperature range (ambient temp.)	-25° C to 80°C, derating > 40°C	
Protections	Over temp, AC overload, AC short circuit, DC short circuit, high battery, low battery	
MasterBus compatible	Yes	Yes
Sine Wave Inverter		
Nominal DC voltage	12V (9.5-15.5V)	24V (19-32V)
Output voltage (± 2%)	230V -50/60Hz (± 0.005%) selectable	
Output waveform	True sine wave, Thd < 1% under standard conditions	
Continual power at 40°C, cos phi I	3000w	3500W
Surge capacity	12V (9.5-15.5V)	24V (19-32V)
Charge current second output	6000W	7000W
Parallel configuration	Yes, up to 10 standard	Yes, up to 10 standard
3-Phase configuration	Yes	Yes
Max efficiency	90%	92.00%
Max ripple on DC (battery)	< 10%	< 10%
No load power usage On/inv. Off/Off	16W / 2W / 0W	16W / 2W / 0W
Battery Charger		
Nominal input voltage	180-275V	180-275V
Nominal battery voltage	12V	24V
Max. charge current at 40°C	150 A up to 14.25V	100 A up to 28.5V
Charge method secondary charge	IUoU, automatic,3 step+ or constant voltage	
Secondary charge output current	10A10A	10A
Temperature sensor battery	Yes, included	Yes, included
Transfer System		
Generator input (switched)	50A	50A
Mains input (switched)	30A	30A
AC output 1	67A	67A
AC output 2 (switched)	50A	50A
Transfer time	Seamless (UPS, < 1 ms)	Seamless (UPS, < 1 ms)
Transfer voltage range (adjustable)	180-275V	180-275V
Transfer frequency range (adj.)	35-65Hz	35-65Hz
Power sharing/generator/mains sup.	Yes	Yes

CE

Mastervolt Mass Combi in a MasterBus System

The Mastervolt Mass Combi fits perfectly within a MasterBus system. The system allows all components to be connected easily, provides a simple and intuitive operation and requires far fewer cables for installation. One MasterView Easy touch screen panel controls the entire system, displays information about the Combi as well as the batteries (via the MasterShunt) and operates the generator. The system can also be combined with Mastervolt's decentralised Digital Switching system.

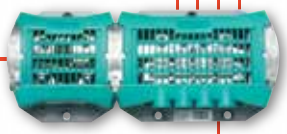
For more MasterBus information, refer to page 70.

1. AC generator
2. MasterView Easy
3. Mass Combi
4. Masterswitch
5. Shore connection
6. AGM starter battery
7. MVG gel battery
8. MasterShunt
9. DC Distribution

'power' output for:
- hot water heater
- washing machine

'short break' output for:
- computer
- AC outlet
- AC outlet

DC users:
- switch panel
- Digital Switching
- alternator
- solar panel
- etc.



grounding

Mastervolt DC-DC Converters - DC Master, Mac & Magic

For 12V, 24V & 48V

The voltage required for direct current (DC) can vary considerably onboard a yacht. A bowthruster or a winch often works at 24V, while navigation and communication equipment mostly requires 12V. By using a DC-DC converter, other voltages than applied in your basic system can be reached. They also ensure that all your onboard equipment has a stable power supply with the right voltage.

DC Master series

- Recreational and semi-professional use
- Easy to install using included mounting bracket
- Excellent price/performance ratio
- More power available for two minute intervals, ideal for active marine telephone use
- Supplied with mounting bracket, screws and fasteners

Mac & Magic series

- Professional use
- Battery charger and dimmer function
- Parallel connection
- Adjustable output voltage
- Voltage stabilisation for a longer lifespan of halogen lights, etc.

The Magic models can regulate the voltage both up and down to ensure an optimal voltage stabilisation, even when the battery voltage fluctuates due to heavy loads. The galvanic isolation between input and output prevents disruptions to, for instance, communication equipment.

Programmable via a desktop or laptop PC

Remote control the Mac or Magic via your laptop or PC or configure your personal preferences. The device has a communication port and easy installation with a PC-Link and MasterAdjust software.

3-Step⊕ battery charger

Connected to the 24V main battery, the converter can also be used as advanced 3-step⊕ chargers for 12/24V gel, AGM, wet or Lithium Ion batteries (Mac and Magic models only).

Masterstrokes

- No unnecessary heat development due to the use of smart electronics
- Continuous output voltage
- Easy to install

Please note:

- Choose the right input/output voltage
- Do you require galvanic isolation?
- Desired capacity

Energy-saving dimmer function

Many standard light dimmers convert part of the energy to heat and also lose unnecessary energy. The Mastervolt Mac and Magic converters regulate the power supply efficiently and without excessive heat build-up, up to 250 Watt for optimal safety (multiple Mac or Magic converters can be used for multiple lamps).

Over 90% efficiency

Advanced high-frequency technology with modern microprocessors ensures minimum power loss when switching from 24 to 12V and vice versa. If you have many power consuming devices on-board, the parallel use of several units allows capacities of 40, 60 or more amps.

Solid connections

Chrome plated brass connection block with screw terminal or chrome plated fast-on for DC in/out.

Complete package DC Master

All DC Master converters are supplied with mounting bracket, screws and fasteners.

Mastervolt DC-DC Converter - DC Master

MASTERVOLT
THE POWER TO BE INDEPENDENT

BLA Code	55-81400100	110496	55-81400300	55-81400330	55-81400400	110490	55-81400600	55-81400700	55-81400800
Description	24/12-3A	24/12-6A	24/12-12A	24/12-24A	12/24-3A	12/24-7A	48/12-6A	48/12-9A	48/12-20A
Input Specifications									
Nominal input voltage	24V	24V	24V	24V	12V	12V	48V	48V	48V
Input range	20–32V DC	20–32V DC	20–32V DC	20–32V DC	10–15.5V DC	10–15.5V DC	40–62V DC	40–62V DC	40–62V DC
Output Specifications									
Nominal output voltage	13.6V	13.6V	13.6V	13.6V	27.2V	27.2V	13.6V	13.6V	13.6V
Maximum power	82 W	136 W	245 W	408 W	109 W	245 W	109 W	132 W	326 W
Nominal power	41 W	82 W	164 W	326 W	82 W	191 W	82 W	108 W	272 W
Current max. 2 minutes* / continuous	6A / 3A	10A / 6A	18A / 12A	30A / 24A	4A / 3A	9A / 7A	8A / 6A	11A / 9A	24A / 20A
DC consumption	<10 mA	<10 mA	<10 mA	<10 mA	<110 mA	<120 mA	<15 mA	<15 mA	<15 mA
General Specifications									
Dimensions, HxWxD mm	67x87x50	89x87x50	127x87x50	167x87x50	89x87x50	167x87x50	89x87x50	127x87x50	217x87x50
Weight kg	0.225	0.270	0.405	0.635	0.290	0.610	0.415	0.415	0.765
Approvals	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
Galvanic isolation	no	no	no	no	no	no	no	no	no
Stabilised	yes	yes	yes	yes	yes	yes	yes	yes	yes
Connections input/output	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on
Temperature range (ambient temp.)	-25°C–80°C, >30°C derating / -13°F–176°F, >86°F derating								
Cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling
Sound level	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr
Protection degree	IP53	IP53	IP53	IP53	IP53	IP53	IP53	IP53	IP53

Mastervolt DC-DC Converter - DC Master

MASTERVOLT
THE POWER TO BE INDEPENDENT

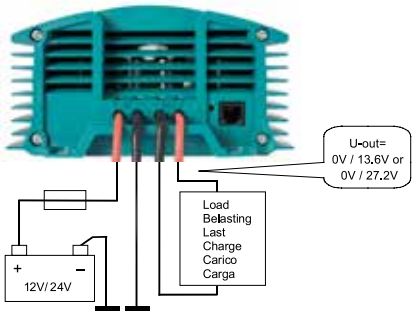
BLA Code	55-81500600	55-81500700	55-81500100	55-81500200	110498	55-81500350	110593	55-81500400	55-81500500
Description	12/12-3A	12/12-6A	24/12-3A	24/12-6A	24/12-12A	24/12-24A	24/12-50A	24/24-3A	24/24-7A
Input Specifications									
Nominal input voltage	12V	12V	24V	24V	24V	24V	24V	24V	24V
Input range	10–15.5V DC	10–15.5V DC	20–32V DC	20–32V DC	20–32V DC	20–32V DC	20–32V DC	20–32V DC	20–32V DC
Output Specifications									
Nominal output voltage	13.6V	13.6V	13.6V	13.6V	13.6V	13.6V	13.6V	27.2V	27.2V
Maximum power	54 W	108 W	82 W	136 W	245 W	408 W	720 W	109 W	245 W
Nominal power	41 W	81 W	41 W	82 W	164 W	326 W	500 W	82 W	191 W
Current max. 2 minutes* / continuous	3A / 4A	8A / 6A	6A / 3A	10A / 6A	18A / 12A	24A / 30A	60A / 50A	4A / 3A	9A / 7A
DC consumption	<100 mA	<100 mA	<10 mA	<10 mA	<10 mA	<10 mA	<10 mA	<25 mA	<25 mA
General Specifications									
Dimensions, HxWxD mm	89x87x50	217x87x50	89x87x50	127x87x50	167x87x50	217x87x50	283x125x74	127x87x50	185x87x50
Weight kg	0.290	0.820	0.290	0.410	0.590	0.850	1.8	0.590	0.820
Approvals	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
Galvanic isolation	yes	yes	yes	yes	yes	yes	no	yes	yes
Stabilised	yes	yes	yes	yes	yes	yes	yes	yes	yes
Connections input/output	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on	fast-on
Temperature range (ambient temp.)	-25°C–80°C, >30°C derating / -13°F–176°F, >86°F derating				-25°C–80°C, >30°C derating / -13°F–176°F, >86°F derating				
Cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling
Sound level	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr	<30 dBA at 1 mtr
Protection degree	IP53	IP53	IP53	IP53	IP53	IP53	IP53	IP53	IP53

More power available for two minute intervals, ideal for active marine telephone use.

Mastervolt DC-DC Converter - Mac & Magic

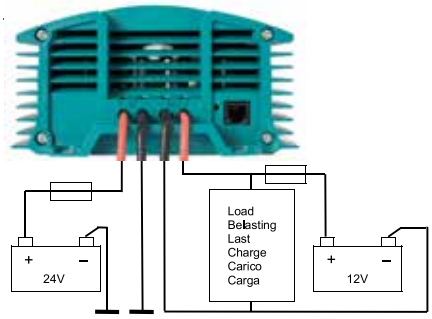
BLA Code	110510	110516	110518	110512	110514
Description	Mac 24/12-20	Magic 24/12-20	Magic 24/24-20	Magic 12/12-20	Magic 12/24-10
Specifications Input					
Nominal input voltage	24V	24V	24V	12V	12V
Input range	20–32V DC	19–32V DC	19–32V DC	11–16V DC	11–16V DC
Input range, 3-step⊕ charge mode	24–32V DC	24–32V DC	24–32V DC	12–16V DC	12–16V DC
Lower input set point	20V DC*	20V DC*	20V DC*	10V DC*	10V DC*
Delay lower input set point	30 sec.*	30 sec.*	30 sec.*	30 sec.*	30 sec.*
Specifications Output					
Factory setting	13.6V DC*	13.6V DC*	27.2V DC*	13.6V DC*	27.2V DC*
Voltage adjustable*	10–15V DC	10–15V DC	20–28.5V DC	10–15V DC	20–28.5V DC
Output voltage dimmer*	4–13V DC	4–13V DC	8–26V DC	4–13V DC	8–26V DC
Stabilised	2% at extremes of temperatures, load and input				
Ripple	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak
Power (max./nominal)	300 / 270 W	300 / 300 W	580 / 580 W	300 / 300 W	300 / 300 W
Max. current	20A	20A	20A	20A	10A
Charge current – 3-step⊕ mode	16A	16A	16A	16A	8A
General Specifications					
Galvanic isolation	no	yes	yes	yes	yes
Voltage limited	yes	yes	yes	yes	yes
Efficiency	>90% (at nominal input voltage, full load); 92% peak				
Protected against over load	yes	yes	yes	yes	yes
Protected against over temperature	yes	yes	yes	yes	yes
Dimmer function	yes, by external momentary switch via fast-on connection, to be activated by DIP-switch setting				
Alarm contact	no	yes (fast-on connector)	yes (fast-on connector)	yes (fast-on connector)	yes (fast-on connector)
Dimensions, H x W x D mm	190 x 130 x 61	227 x 154 x 81	227 x 154 x 81	227 x 154 x 81	227 x 154 x 81
Weight kg	1.0	1.8	1.8	1.8	1.8
Approvals	CE	CE	CE	CE	CE
Technical Specifications					
3-Step⊕ charge option	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)
DC consumption	<30 mA	<115 mA	<115 mA	<115 mA	<115 mA
Connections input/output	screw terminals, maximum wire size 16 mm2 / AWG5				
Temperature range (ambient temp.)	-25°C–80°C, >40°C derating / -13°F–176°F, >104°F derating				
Cooling	natural cooling	maintenance free vario fans		maintenance free vario fans	
Sound level	<30 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr	<48 dBA at 1 mtr
Protection degree	IP21	IP21	IP21	IP21	IP21
MasterBus compatible	yes, by means of MasterBus Serial Interface (**110572**)				
Options					
MasterView Easy **110660**	Touch screen panel for reading status and dimmer function settings.				
MasterBus Serial Interface **110572**	Integrates the Mac & Magic converters in a MasterBus network.				

Adjustable with MasterAdjust software.



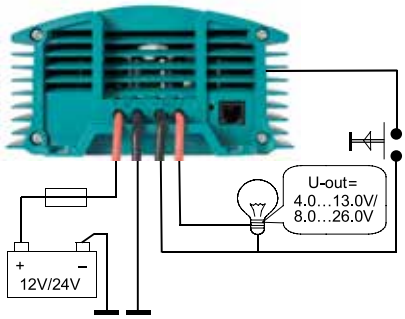
Magic as power supply

The Magic models can be fully used as a stabilised power supply: From 12–24V, from 24–12V or from 24–24V. Inputs and outputs are galvanically isolated.



Mac & Magic as battery charger

A 12V starter or emergency power battery can be charged as well as maintained by Mac or Magic units. The charging method is identical to the Mass 3-step⊕ with voltage levels adjustable by means of MasterBus PC-Link/MasterAdjust software.



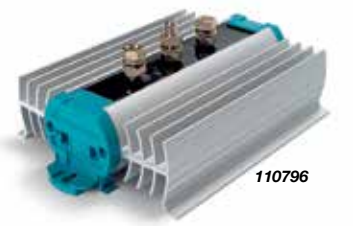
Mac & Magic as dimmer

Light can be dimmed by means of a push button or plus switch, with a maximum load of 250 Watt for the Mac. A second Mac can be installed if there are multiple lamps.

Mastervolt BI Battery Isolators

Mastervolt's BI battery isolators are based on conventional diode technology. The diode voltage drop (ca. 0.6V) can be compensated for by adapting the output voltage of the connected charger. Mastervolt battery chargers and Alpha Pro alternator regulators come as standard with automatic compensation for voltage drops.

110792


110796

BLA Code	Model	Max. Output Charger	Max. Output Alternator	Compensation diode	Dimensions H x W x D mm	Weight kg	No. of battery banks
110792	BI 702-S	25/50A	70A	yes	157 x 140 x 80	0.58	2
110796	BI 1202-S	80A	120A	yes	207 x 140 x 80	1.2	2
110798	BI 1203-S	80A	120A	yes	207 x 140 x 80	1.3	3

Mastervolt Battery Mate

The Battery Mate is compatible with any type of alternator/ battery charger, in both existing and new systems. As the voltage loss between the alternator and battery is negligible, the Battery Mate performs far better than conventional battery isolators. This ensures fast and complete charging of your batteries without having to make additional adjustments to the alternator. Weighs one kilogram.

110812

BLA Code	Model	Max. Output Charger	Max. Output Alternator	Dimensions H x W x D mm	No. of battery banks
110810	IG 1602	120A	160A	207x140x80	2
110812	IG 1603	120A	160A	207x140x80	3
110814	IG 2503	200A	250A	207x140x80	3

Mastervolt Battery Watch

The Battery Watch is an essential element of any well equipped battery system, offering you a 0.6kg electronic watchdog that ensures a much longer lifespan for your batteries. The unit switches off loads when batteries are nearly empty, to keep your batteries in optimum condition. LED lights provide a clear read out and the undervoltage can be set using DIP switches.

110818

BLA Code	Max. load	Input voltage	Switch off under voltage 12V	Switch off under voltage 24V	Dimensions H x W x D mm
110818	150A	8-32V DC	9-12V DC	18-24V DC	80x140x157

Marinco® 70 Amp Battery Isolator

Isolator featuring optimised heat sink design for maximum performance with minimised voltage drop across isolation barrier using Schottky type diodes.

Features:

- Each output individually capable of carrying the full alternator load
- Fixed cable posts for secure connections
- Fully potted, marine grade construction
- Waterproof components for harsh environment performance
- Operation: 12V to 48V
- Two year warranty

BLA Code	Max. Output Alternator Amp	Width	Overall Length	Height	Usage Alternators	Usage Batteries
114380	70	145	115	90	1	2

N.B. If used on a 24V system, boat must be equipped with 24V DC alternator

Pro Mariner Galvanic Isolators

FailSafe technology with peace of mind dependability. The ProSafe FS Series of FailSafe 30 and 60 Amp Galvanic Isolators will interrupt galvanic current flow with other boats at a marina when installed on a boat which is connected to AC Shore Power. This technology maintains AC safety ground and solves the most common forms of corrosion and premature zinc loss within a boats bonding system.

Features:

- Insures shore power safety ground wire is maintained through the isolator
- Flat pack high power semiconductors: Robust high power diodes allow the FS Series to meet the new FailSafe criteria for conducting inrush currents 3,000 and 5,000 amps (FS30 and FS60 respectively)
- Innovative design: The FS60 will cool itself in the event it must conduct current insuring cooler operation in this mode
- Ignition protected
- Gold plated terminations

114481

114483

BLA Code	Model	Ratings VAC / Amps / Hz	Max. Temp	Dimensions H x W x D cm	Weight kg
114481	FAILSAFE30	120/240 VAC / 41A / 50 or 60 Hz	50° C	17.1 x 17.8 x 6.4	1.4
114483	FAILSAFE60	120/240 VAC / 82A / 50 or 60 Hz	50° C	18.4 x 16.5 x 9.5	1.7

Mastervolt Regulator - Alpha Pro MB Charge

Features:

- Alpha Pro MB charge regulators suitable for 12 and 24V
- Plug and play connection cable included, also for Bosch alternators
- Automatic voltage and temperature compensation
- MasterBus compatible
- The charge voltage is automatically adjusted if there is any risk of gas formation
- Electronics permanently regulate the voltage, ensuring that the battery is always kept in good condition

BLA Code	110771
Link to MasterShunt	yes
Connection to Mastervolt alternator	yes
Connection to Bosch alternator	yes
Cooling	fanless
Nominal output voltage	12V / 24V
Cable length regulator/alternator	5' (1.5 m) oil resistant connection cable
Cable length temperature sensor	20' (6 m)
Connection plug regulator/alternator	Alpha/Mastervolt
Display/read-out	LED display
Dimensions, H x W x D mm	90 x 109 x 30
Weight kg	0.4
Approvals	CE
Charge characteristic	IUoUo, automatic / 3-step⊕ for gel/AGM/ wet/Lithium Ion
Charge voltage bulk	14.25V / 28.5V
Charge voltage absorption	14.25V / 28.5V
Absorbtion time	4 hours, adjustable from 2 minutes to 12 hours
Charge voltage float	13.25V / 26.5V
Temperature compensation	-22 mV / °F (-30 mV / °C)
Voltage compensation	voltage drop compensation in DC cables up to 3V
Alternator type	various
Protection degree	IP65
MasterBus compatible	

110771

Connection cable delivered as standard

Plus connection cable for Bosch alternator

Mastervolt Alternators and Charge Regulators

For rapidly charged batteries

The Mastervolt Alpha alternator with Alpha Pro MB charge regulator were specifically designed for charging service batteries, and allows you to charge quickly and turn off your engine when you moor.

For all engine types

Alpha alternators are equipped with several fixations for customized alternator brackets, available from your installer or engine supplier. Some engine brands come with Mastervolt alternator brackets as an option.

Performs above 40°C

Forced cooling via the ventilator action of the pulley provides a lot of power in higher temperatures, even in enclosed engine rooms where the temperature can easily rise above 40°C.

Alpha Pro MB charge regulator: Easy to install

The Alpha Pro MB charge regulator is designed as a 'fit all' solution, just one unit is needed for both 12 and 24V applications, with a simple selector switch to set the regulator to the right voltage. The unit can also be used on any other brand of alternator that has a standard Bosch connector, with a cable supplied as standard in the box. Easy operation LEDs on the body of the regulator indicate the charge phase.

Multi-belt pulley

The 12/130 and 24/75 models are also available with a multi-belt pulley.

Fast charging, even at a stationary rpm

Standard alternator only supply the specified capacity at a high rpm. The Mastervolt Alpha generator was specifically designed to charge powerfully, even with a low engine rpm.

Mastervolt Alternators - Alpha Series

Features:

- Fast and complete charging of starter/service/bow thruster batteries
- Power supply for all consumers
- 12V and 24V models
- 75A to 150A charge current
- Standard delivered with Alpha Pro MB charge regulator for an optimal performance and longer-lasting batteries
- Alpha Pro charge regulator is standard
- 1.5 metre oil resistant marine connection cable included
- 2xA belt section
- Isolated from mass
- 2 directions of revolutions

55-48512090

55-48524150

BLA Code	Description	Type cabinet	Charge current A	Charge voltage absorption V	Charge voltage float V	Pulley (double) diameter mm	Weight kg	Mounting
55-48512090	12/90	A	90	14.25	13.25	ø 73 mm	5.5	five to six, six o'clock & five past six
55-48512130	12/130*	B	130	14.25	13.25	ø 88 mm	10.1	six o'clock
55-48524075	24/75*	B	75	28.5	26.5	ø 88 mm	10.1	six o'clock
55-48524110	24/110	B	110	28.5	26.5	ø 88 mm	10.1	six o'clock
110775	24/150	C	150	28.5	26.5	ø 92 mm	13.1	five to six, six o'clock & five past six

Available with multi-belt pulley (12/130 model = 48512131, 24/75 model = 48524076).

Mastervolt Isolation Transformers

- Mass GI, IVET-D & IVET Heavy Duty

MASTERVOLT
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From shore power to onboard network

You need to be careful when introducing shore power onboard, especially when the yacht is made of aluminium or steel. An incorrectly configured system can result in electrolysis, which will slowly but surely corrode the metal components. It is also important to protect the engine, rudder, rudderstock, propeller and thruster on composite yachts. A Mastervolt isolation transformer will help preserve your valuable boat and provide you with the security of a correctly earthed 230V system.

Select the right transformer for your system:

Lightweight Mass GI transformer

- Ultra modern high frequency electronic switch technology
- Lightweight and compact
- Integrated Soft Start function
- Connect to power from 90–255V and from 45–65Hz
- Units can be parallel coupled for higher capacity
- Higher efficiency, limited heat development

IVET-D isolation transformers

- High quality toroidal transformer in robust casing, including circuit breaker
- Standard Soft Start for the suppression of inrush current at shore connection
- Multi tap version for both 230V/50Hz and 120V/60Hz shore voltage

IVET heavy-duty series

- High-quality isolation transformers without casing (for self installation)
- Optional Soft Start, in synthetic casing
- Capacities of 25–22kW

Modern transformer technology: Light, silent, reliable and easy

Mastervolt's Mass GI offers the latest high frequency switching technology as well as Soft Start for peak loads when connecting to the shore.

Weighing a mere six kilograms, LED lights on the casing indicate load and overload. The transformer can be remote controlled via a panel and has the option of automatically starting the generator when there is a shore current overload.

Higher capacity via parallel switching

Parallel switching of the Mass GI units increases the shore power capacity. Two 16A/3.5kW units ensures 32A/7kW, four units give 64A/14kW.

Global solution

The IVET-D multi-tap is suitable for 230V/50Hz and 120V/60Hz (American or Caribbean).

Install anywhere

With its maritime, aluminium casing, this isolation transformer can be fitted in any position on a wall or floor. No rubber mountings are necessary because the unit does not vibrate or hum. The Mass GI also features professional connections with strain relief cable glands.

111260

55-850006000

55-55010600

55-55003300

Practical tips:

- Determine shore and onboard current: 230V, 120V or both
- Determine the capacity. Maximum load with onboard power usage: amount of amps and kW
- Note sizes and weight; the mass GI is 75% lighter and 60% smaller compared to low frequency transformers

Remember:

- Detection system for IVET heavy duty automatically supplies onboard system with 230V in case of a 120V/60Hz shore connection (or vice versa)
- Systemswitch or Masterswitch for integrating shore power, generator and/or inverter
- Connects to 12V or 24V system, battery charger or Mass Combi

BLA Code	Description kVA	Voltage V	Power kW	Max. input current	Dimensions H x W x D mm	Weight kg
55-55010600	6	120/230	6	60A at 120 30A at 230	400 x 300 x 210	12
55-55010900	9	120/230	9	80A at 120 40A at 230	400 x 300 x 210	12.5
55-55011300	13	120/230	13	130A at 120 70A at 230	400 x 300 x 210	13
55-55003300	13	230	2.5–13	n.a.	200 x 180 x 115	1.2
55-55003400	22	230	13–22	n.a.	200 x 180 x 115	1.5

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Mastervolt Isolation Transformers

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BLA Code	111260	111262	55-85000600	55-85000800	55-85001000	55-85001300
Description	Mass GI 3.5	Mass GI 7	IVET 6	IVET 8	IVET 10	IVET 13
Input						
Input voltage	90–255V	90–255V	110/220/240V	110/220/240V (adjustable)	110/220/240V (adjustable)	110/220/240V (adjustable)
Input frequency	45–65Hz	45–65Hz	45–65Hz	45–65Hz	45–65Hz	45–65Hz
Nominal input current at 230V	16A	32A	26A	35A	44A	57A
No load consumption	22 W	44 W	<10 W	<10 W	<10 W	<10 W
Earth leakage protection	no	no	no	no	no	no
Output						
Output voltage (equal to input)	90–255V, ± 5%	90–255V, ± 5%	120/220/240V, ± 5%	120/220/240V, ± 5%	120/220/240V, ± 5%	120/220/240V, ± 5%
Output frequency (equal to input)	45–65Hz	45–65Hz	45–65Hz	45–65Hz	45–65Hz	45–65Hz
Soft Start	yes	yes	option	option	option	option
Switch off behaviour breaker	B-characteristic	B-characteristic	n.a.	n.a.	n.a.	n.a.
Efficiency	>93%	>93%	>93%	>93%	>93%	>93%
General Specifications						
Power	3500 W*	7000 W	6000 W	8000 W	10kW	13kW
Technology	high frequency	high frequency	E-core	E-core	E-core	E-core
Dimensions, HxWxD mm	340x261x144	340x261x250	380x240x215	430x280x210	430x280x240	490x320x230
Weight kg	6	10	50	59	75	90
Ambient temperature	0–40°C, derating with 5% per °C (40–60°C) / 32–104°F, derating with 5% per °F (104–140°F)					
Switch off at	80°C / 176°F	80°C / 176°F	n.a.	n.a.	n.a.	n.a.
Cooling	variofan	variofan	natural cooling	natural cooling	natural cooling	natural cooling
Operating humidity	max. 95%	max. 95%	max. 95%	max. 95%	max. 95%	max. 95%
Protection degree	IP23	IP23	IP00	IP00	IP00	IP00
MasterBus compatible	●	●	no	no	no	no
Optional remote control **110660**. Refer page 74.	yes, MasterView Easy	no	no	no	no	no

**Up to 4 units parallel (14kW).*

Mastervolt Transfer Systems

- Masterswitch & Mass Systemswitch

The Mastervolt transfer system helps you manage your 120 volt and 230 volt shore, generator or inverter power and automatically selects the right power sources at the right time. With Mastervolt you can cook and do laundry at the same time or watch TV with the air-con on full blast. In addition, Mastervolt transfer systems are suitable for every installation. Mastervolt makes onboard 230 volt a breeze.

Masterswitch: The simple solution

- Two AC inputs: Inverter, shore power or generator
- One outlet to AC power group
- Automatic switching
- Power transfer up to 25kW, input/output from 20–125 amp
- Can be combined with circuit breakers (Masterswitch Fuses)
- Functional casing

Mass Systemswitch: The complete system solution

- Three 230V inputs: Inverter, shore power and generator
- Three or four outlets to 230V power groups
- Automatic switching
- Power transfer from 4.5–16kW, input/output from 25–63 amp
- Information source for central energy management via the MasterBus data network
- Optional automatic fuses; for larger systems this usually requires an extra casing
- Luxury C-casing or installation casing (System Manager model)
- MasterBus compatible

The Mastervolt transfer system controls the following:

- Switching on and selecting 230V sources: Shore power, inverter and generator (adjustable to amperage of shore power, for instance 6A)
- Stable transfer to connected groups
- Prevents damaging contact between the inverter and other 230V sources
- Fully compatible with Mastervolt systems, and suitable for installations from other brands, other generators and/or inverters

111250

111240

55-55006060

55-55003500

Smart electronics

The intelligent electronics control the switching to ensure equipment does not use too much power. Its double pole relay is sustainable and incredibly safe.

LED indications on Systemswitch

Read out of the basic functions on the display, including indication of available power source, generator, shore power or inverter and 'load on inverter' function.

Suitable for MasterBus

As the Mass Systemswitch is suitable for MasterBus, all the information can also be read out on, for instance, a MasterView display, including the status of the charge current and the inverter.

Mastervolt Transfer Systems

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BLA Code	111240	55-55003500	55-55006060	111252	55-55106000	55-55106100*
Description	Masterswitch 5kW	Masterswitch 25kW	Masterswitch Fuses 5kW	Mass Systemswitch 16kW	Masterswitch 3kW	
Input						
Nominal input voltage	230V (50/60Hz)	230V (50/60Hz)	230V (50/60Hz)	230V (50/60Hz)	120V (50/60Hz)	120V (50/60Hz)
Input voltage range	200-250V AC	200-250V AC	200-250V AC	200-250V AC	100-125V AC	100-125V AC
Number of inputs	2	2	2	3	2	2
Number of outputs	1	1	2	4	1	1
Dimensions: H x W x D mm	200 x 110 x 115	291 x 241 x 168	200 x 255 x 115	340 x 261 x 144	200 x 110 x 115	200 x 154 x 148
Weight kg	1.2	3.8	2.1	5	1.2	2.5
Version						
With automatic circuit breakers	no	no	no	no	no	no
Connection for remote control	no	no	no	yes	no	no
MasterBus compatible	no	no	no	yes	no	no
LED indication on cabinet	no	no	no		no	no
Nominal input current generator	20A	125A	16A	63A	25A	60A
Nominal input current shore	20A	125A	16A	40A	25A	60A
Nominal input current inverter	n.a.	n.a.	20A	25A	n.a.	n.a.
Earth leakage switch	n.a.	n.a.	yes (1x)	no	n.a.	n.a.
Generator input switch	no	no	no		no	no
Time delay generator input	0-10 sec (adjustable)	0-10 sec (adjustable)	0-10 sec (adjustable)	0-10 sec (adjustable)	0-10 sec (adjustable)	0-10 sec (adjustable)
Output						
Nominal current shortbreak output	n.a.	n.a.	6A + 6A + 6A	25A	n.a.	n.a.
Nominal current power output	20A	125A	6A + 10A	40A	n.a.	n.a.
Nominal current generator output	n.a.	n.a.	n.a.	63A	25A	60A
Automatical circuit breakers	no, system dependent	no, system dependent	yes	no, system dependent	no, system dependent	no, system dependent
Technical Specifications						
Power consumption (AC all inputs)	7VA	26VA	7VA	33VA	7VA	7VA
Power consumption (only inverter power)	no load consumption	no load consumption	no load consumption	<1VA	no load	no load
Temperature range (specified)	-5°C to 60°C	-5°C to 60°C	-5°C to 60°C	-5°C to 60°C	-5°C to 60°C	-5°C to 60°C
Temperature range (allowed)	-25°C to 70°C (may not meet the specified tolerancies)					
Temperature range (storage/non operating)	-60°C to 80°C	-60°C to 80°C	-60°C to 80°C	-60°C to 80°C	-60°C to 80°C	-60°C to 80°C
Relative humidity	maximum 95%, non condensing	maximum 95%, non condensing			maximum 95%, non condensing	
Transfer time	switch on 12-22 ms / switch off 4-19 ms					
Frequency watch	no	no	no	yes	no	no
Mechanical						
Cable size	0.5-10 mm2/AWG 20-7	4-50 mm2/AWG 10-1/0	0.5-10 mm2/AWG 20-7		0.5-10 mm2/AWG 20-7	0.5-10 mm2/AWG 20-7
Protection degree	IP55	IP55	IP55	IP23	IP55	IP55

Also available in 9kW, 55106200. Specifications identical to 7kW, except current is 80A.

Mastervolt Solar ChargeMaster

The sun as an extra energy source

As photovoltaic cells generate energy when exposed to sunlight, they can provide a sustainable energy source and charge the batteries on your yacht.

All Mastervolt's know-how in the field of solar power has been included in the Solar ChargeMaster, which offers maximum efficiency from the often irregular availability of sunlight. Power electronics provide a pure charge current in all conditions while the 3-step⊕ charging method ensures a safe charging process and a longer lifespan for your batteries.

Features:

- Works with nearly all solar panels (PV-modules)
- Suitable for 12V and 24V
- Clear LCD display and graphics
- 3-Step⊕ charging method adjustable for all battery types
- Automatic night detection
- Extensive alarm system (buzzer)
- Automatically switches off load when battery current is low
- Comes as standard with temperature sensor for batteries
- Optional PC-Link for PC and laptop

110780

BLA Code	110780	110782
Description	SCM-N 20	SCM-N 40
Charge current	20A	40A
Max. DC load	20A	40A
Solar input voltage window	12–50V DC	12–50V DC
System voltage (battery)	12/24V auto detect	12/24V auto detect
No load	< 4 mA	< 4 mA
Functions LCD display	battery status/V/A/charge & discharge	
Connections	screw terminal	screw terminal
Settings	load/disconnect, 3-step⊕ charge characteristic	
Dimensions, hxwxd mm	140x105x41	140x105x41
Protection degree cabinet	IP20	IP20
Weight kg	0.189	0.189
PC-Link	55-21730400 option	55-21730400 option

Mastervolt MPPT Solar Chargers

MASTERVOLT
THE POWER TO BE INDEPENDENT

Charges up to 30% faster with the same number of solar panels.

Mastervolt solar charge regulators can be used flexibly to complement your energy system, or in places where no electricity is available.

Features:

- Fewer cables, quick installation and lower losses
- Suitable for all solar panels, including the inexpensive 60-cell panels
- Suitable for humid environments (IP23)
- Large, clear LCD display
- Audible signal (SCM25 MPPT)
- Monitoring and control via MasterBus (SCM60 MPPT-MB)
- High efficiency: your batteries are charged quickly
- Capacity for solar panel configurations of up to 3600 Wp
- Suitable for AGM, gel, wet and Mastervolt Lithium Ion batteries
- Battery temperature sensor for long lifespan
- Automatic 12 V/24 V/48 V detection SCM25 12/24 volt only
- Switchable output
- LCD display
- Fully protected against overtemperature, overload, high/low battery voltage, high/low PV voltage, short circuit and reverse polarity

110783

110784

Specifications		
BLA Code	**110783**	**110784**
Description	Mastervolt solar chargemaster scm-25	Mastervolt solar chargemaster scm-60
Features		
Buzzer	Yes	No
Communication	n.a.	MasterBus
Lcd Display Features	Backlit LCD with PV power, load power, battery voltage, charge current, warnings, battery state of charge, battery setting	
Protections	Over temperature, over load, high/low battery voltage, high/low PV voltage, short circuit, reverse polarity & HV transients	
PV (Solar) Input		
Nom. PV Current	18 A (at 40 °C)	50 A (at 40 °C)
PV Start Voltage (12/24 V)	15 V/27 V	n.a.
PV Start Voltage (12/24/48 V)	n.a.	15 V/27 V/51 V
Nom. PV Voltage (12 V)	15 - 66 V	13.2 - 115 V
Nom. PV Voltage (24 V)	27 - 66 V	26.4 - 115 V
Nom. PV Voltage (48 V)	n.a.	52.8 - 115 V
Max. PV Voltage At Tmin	75 V	145 V
Max. PV Power (12 V)	350 Wp	900 Wp
Max. PV Power (24 V)	700 Wp	1800 Wp
Max. PV Power (48 V)	n.a.	3600 Wp
Max. Efficiency	> 98%	> 98%
Static Mpp Efficiency	99.9%	99.9%

DC Output		
BLA Code	**110783**	**110784**
System Voltage 12 V	12 V/24 V auto select	12 V/24 V/48 V auto select
Battery Type	AGM, gel, wet, Lithium Ion	
Battery Temp. Sensor	Yes	Yes
Lithium Ion Protection	Yes, via Multipurpose Contact Output, art.no 77030500	Yes, via via Masterbus connection
Max. Charging Current	25 A (at 40 °C)	60 A (at 40 °C)
Switchable Output (Max. Current)	25 A	n.a.
Energy Consumption (Night)	5 mA	< 1 mA
General		
Technology	MPPT	MPPT
Max. Cable Size	10 mm² Litz wire	35 mm² Litz wire
Dimensions, H x W x D mm	135 x 190 x 75	398 x 168 x 104
Weight	1.3 kg	5.5 kg
Temperature Range	-20 to 55 °C	-20 to 55 °C
Humidity	95% non-condensing	95% non-condensing
Protection Degree	IP23	IP23
Cooling	Passive	Passive
Grounding	(-) terminal	(-) terminal

Accessories:

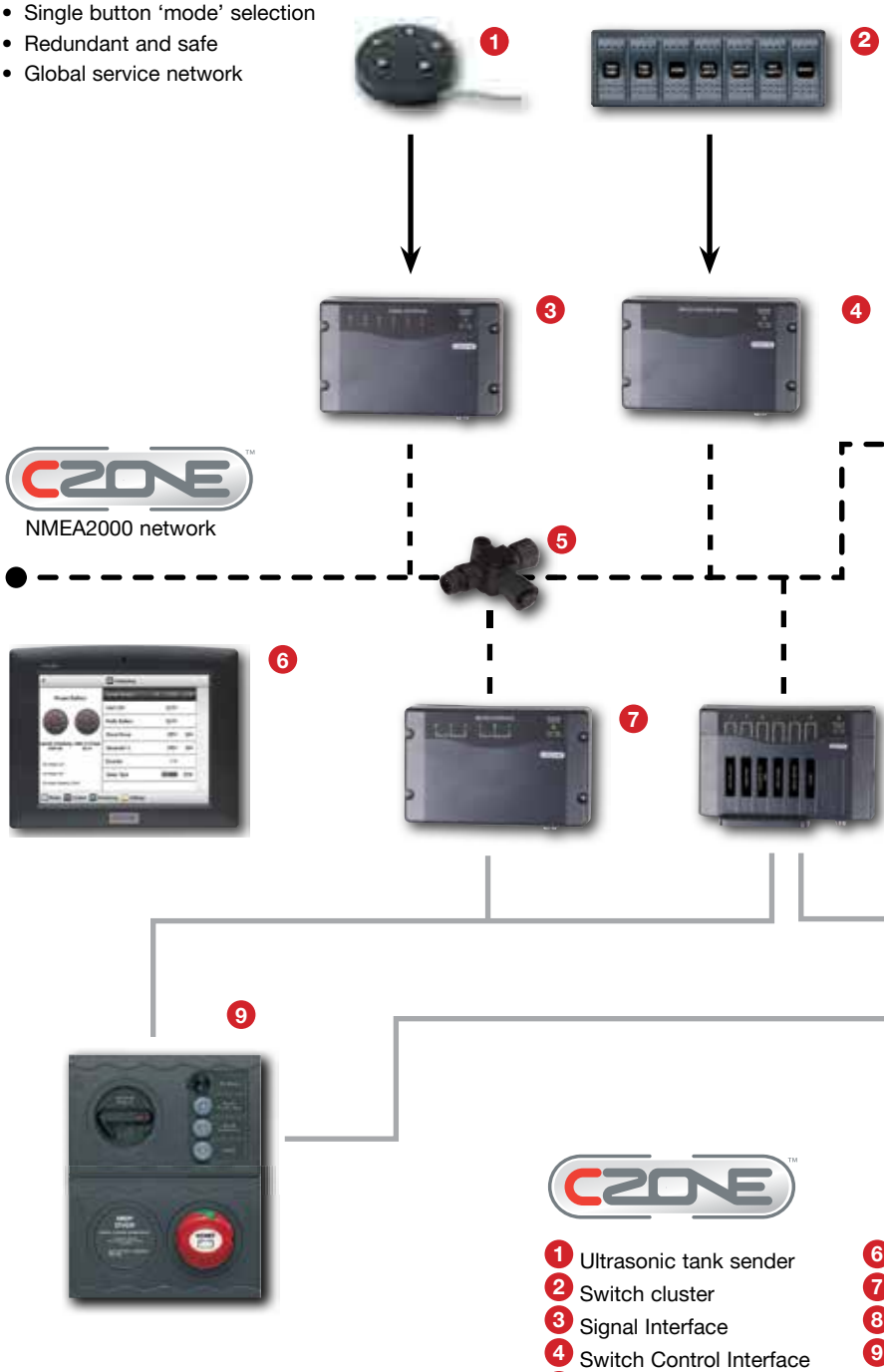
110595 USB Interface for solar Chargemaster

MasterBus & CZone™

Fully Integrated CZone™ & MasterBus System

Advantages of one system:

- Fewer cables
- Less weight
- Installation time savings
- Increased flexibility in terms of design changes
- 'Super Yacht' power and load management capabilities
- Remotely accessible
- Easy to maintain
- Integrated solution
- Single button 'mode' selection
- Redundant and safe
- Global service network

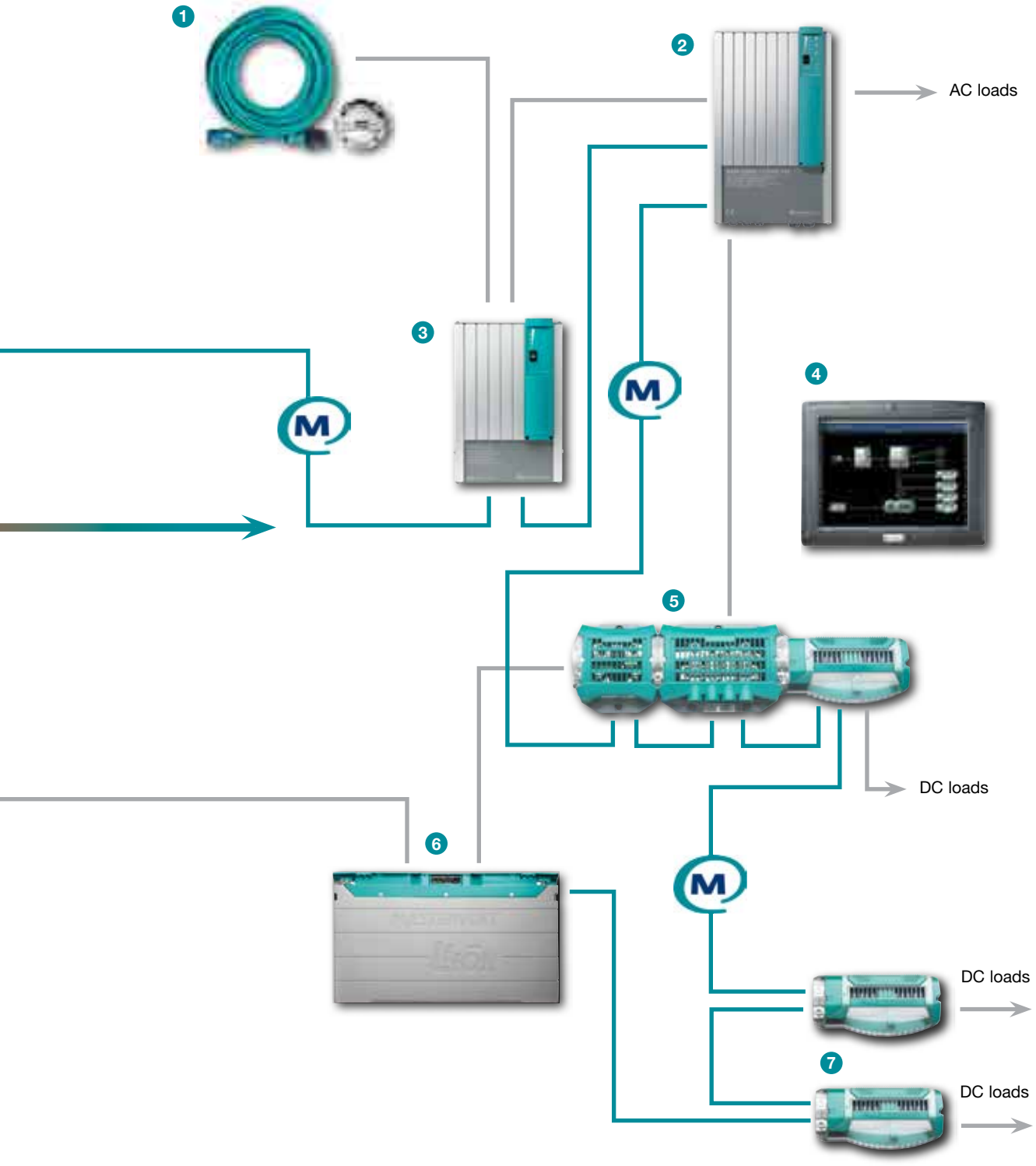


CZone MasterBus Bridge Interface

The CZone MasterBus Bridge Interface physically connects the MasterBus and CZone™ networks, allowing you to pick and choose the best products for your application. The two networks will communicate and act as one, providing seamless control and monitoring of devices on both networks, from either MasterBus or CZone™ displays.

1. Ultrasonic tank sender
2. Switch cluster
3. Signal Interface
4. Switch Control Interface
5. NMEA T-connector
6. 10" Touch screen
7. Meter Interface
8. Output Interface
9. Battery distribution panel

1. Shore power
2. Mass Combi
3. Mass GI isolation transformer
4. MasterView System
5. MasterShunt, DC Distribution, Digital DC 10x10
6. Lithium Ion 12V (service battery)
7. Digital DC 10x10



Mastervolt Digital Switching

The future is now.

By de-centralising your installation, it is possible to create smarter systems with less cables and installation work. Central switchboards are replaced by de-centralised power output modules, which are controlled via a bus system. These output modules power equipment like lights, pumps and navigation equipment. Different input modules can be connected to this bus as well. These input modules – from switches to touch screen panels – control the output modules. This way you can control your yacht from anywhere, even from your mobile phone via text messages. With digital switching systems you have greater flexibility and more intelligence to be integrated. Without additional components like relays, timer modules and extensive cable trees, it is possible to design a smart system. Digital switching systems result in systems that are easy to operate.

Two platforms one system: MasterBus and CZone™

The CZone™ digital control and monitoring system utilises the NMEA 2000 architecture for its network, fit as a standalone system or add NMEA 2000 compliant components to build a fully integrated system including the latest Simrad and B&G multifunction marine displays (Chartplotters, fishfinder, radar, Autopilot). Carrying a high Ingress protection level (IPX5 and higher) CZone™ components are ideal for harsh environment installations.

MasterBus is based on the proprietary MasterBus network, used for all Mastervolt products. This system is perfectly suited for integration of Digital switching with the power electronics from Mastervolt.

Both systems can be interconnected via an interface.

The ease of digital distribution

The MasterBus and CZone™ systems bring features and automated functionality normally reserved for superyachts to the everyday boat user. CZone™ and MasterBus systems provide intelligent automation of complex onboard systems leaving the boat user free to enjoy their boating experience.

Customiseable modes of operation allow the boat to be configured to suit the use of the boat, at the push of a single button the boats systems can be transformed from 'Dock Mode' to 'Cruise Mode' preparing the boat for a day at sea.

Thanks to galvanic isolation, nearly all devices can supply power to the MasterBus, ensuring a safe and stable network. The wide range of interfaces and modules allows you to connect any equipment you wish to your MasterBus system and manage, monitor or operate it locally, centrally or even from your home address.

Professional perspective

The MasterBus and CZone™ systems make life easier for designers, builders and installers of power systems with less material, less work, less fuss and an easy testing method. Moreover, the MasterBus system is available in ten languages. Both systems provide a range of displays for controlling and monitoring onboard systems such as inverters, chargers, circuits, power and tank levels. The range of displays offer a consistent, intuitive user interface.

Digital switching makes your life easier.

Mastervolt MasterView Control Panels

Well informed and in full control!

Fast and clear information is essential if you are to enjoy the sun, water, wind and fresh air to the max, either actively or passively. After all, the boat is supposed to be there for you, not the other way round.

With MasterView panels you only require one panel, even for larger electrical systems, and can save time on making connections, interpreting data and finding the latest system information.

The smartest solution: MasterView System

Mastervolt's intelligent MasterView System brings an end to cluttered, unclear and excessive information. The system is based on our in-house developed software combined with a user-friendly 10.4-inch colour touchscreen. The simple yet brilliant set-up of the MasterView System intelligently connects all the power sources and loads (generator, charger, bilge pump, engine, lighting, air conditioning, etc.) via the MasterBus. It provides all the information you need on your electric system in one clear overview on an organised, intuitively operated panel. The MasterView System is the next step up from simpler options such as MasterView Read-out (for load status) and MasterView Easy (status of a limited number of products) in terms of practicality and ease of operation.

Multifunctional touch screen remote panel: MasterView Easy

This multifunctional display can monitor every MasterBus product. Connected to the MasterShunt it functions as a battery monitor, connected to the generator as a generator panel. These and other functions can also take place simultaneously and you can create a favourites page showing all your main information.

Mastervolt CZone™ Wireless Interface

For smart phones and tablets

Allows wireless monitoring and control of onboard systems from smart phones and tablets.

Features:

- User-friendly home page to monitor and control onboard circuits
- Integrated control and monitoring of power products including battery chargers and inverters
- Monitor AC/DC power and batteries
- Monitor tank levels
- Receive visible and audible alarms
- Connect a maximum of 3 devices simultaneously
- Ability to personalise homepage to display favourite circuits & monitoring

Hardware:

- The Wi-Fi Interface acts as the hub between Mastervolt/ CZone™ Networks and local Wi-Fi devices
- Two CAN channels – bridges two separate CAN networks
- Ethernet connection to connect to other LANs
- USB connection for data recording and configuring system
- **112808** WI MasterBus Connector required

112806

112808

Tablet not included

BLA Code	Description
112806	Wireless Interface Module
112808	WI MasterBus Connector

Mastervolt System Panel Controller

- Connect the MasterView System or your PC with the MasterBus network.
- Provides the power and software license key for the MasterView System panel.
- Delivered as standard with MasterView System (also available separately).

BLA Code
55-77031900

Mastervolt MasterView Easy

Control panel for all MasterBus products

This touch screen panel offers excellent readability and easy operation. The grey button allows you to turn the display on and off or (un)lock the touch screen. Further operation is via the touch screen. The first (of three) operation level shows a quick system overview - the information you need on a day-to-day basis. Product overview and configuration offers more detailed information and the option to change settings. As the MasterBus plug and play connection offers both data and power, only one cable is needed to connect the panel. For MasterBus connection cables, refer page 78.

Features:

- Clearly lit display
- Push button for on/off and blockade for unwanted operation
- Touchscreen operation for all functions
- White background lighting - red colour for alarm function or night lights
- Buzzer and alarm function
- Installation requires only one MasterBus cable for both data and power supply
- Low power consumption
- Easy to install, the panel can be flush and surface mounted

BLA Code	Display	Dimensions H x W mm	MasterBus connection	Powered by	Power consumption	Protection degree	Weight kg	Languages
110660	3.5" touch screen	110 x 110	yes	MasterBus	160 mW	IP21	0.23	ENG, NL, DE, SP, IT, FRA, FIN, SWE, DEN, NOR

Mastervolt MasterView Read-out

Remote panel for reading the charge status of your battery charger, including error notifications. For MasterBus connection cables, refer page 78.

BLA Code	Display	Dimensions H x W mm	MasterBus connection	Powered by	Power consumption	Protection degree	Weight kg
110668	7 LEDs	60 x 65	yes	MasterBus	144 mW	IP21	0.7

Mastervolt MasterShunt 500

This ultra-modern battery monitor provides detailed information on the status of your batteries, including voltage, current, remaining time and used capacity in percentages so no more unpleasant surprises. With an intelligent connection system, the MasterShunt is easily connected to the DC Distribution. The integrated system clock combined with command-based events automates your system according to your needs. A good example of such system automation: The generator should start automatically when the batteries are almost depleted. The MasterShunt also has a built-in robust main fuse that can safely break short-circuit currents of 50,000 amps.

BLA Code	110550
Dimensions, H x W x D mm	150 x 150 x 65
Weight kg	1
Battery types	gel, AGM, wet, Lithium Ion, spiral
Battery voltage	12, 24 or 48V DC
Current	300A continuous / 500A for 5 minutes
MasterBus powering	yes
Main fuse	500A T-fuse (300A continuous at 40 °C)
System functionality	alarm, timers, auto start/stop for the generator
Programmable alarms	warning low voltage, warning low state of charge, high voltage
Protection degree	IP21
Delivered with	MasterShunt, temperature sensor, MasterBus Terminator, MasterBus cable, cable protections for DC connections

Mastervolt DC Distribution 500

The DC Distribution 500 is the smallest distribution model available. It connects up to four DC devices to the DC groups, such as a battery charger, inverter, alternators and solar panels. With the included plug and play cable it can be easily connected to the MasterBus network. The MasterView panel gives all fuses logical names, for instance, referring to the connected equipment, to ensure you receive understandable error notifications (for example: battery charger fuse defect). For additional ANL fuses, refer page 129.

BLA Code	110554
Dimensions, H x W x D mm	150 x 216 x 65
Weight kg	1.2
Battery voltage	12, 24 or 48V DC
Current	300A continuous / 500A for 5 minutes
MasterBus powering	no
Standard fuses	80, 80, 125, 160A - ANL type (deviating values can be ordered separately)
Spare fuse	125A ANL type
Alarm	fuse monitoring
Protection degree	IP21
Delivered with	5 fuses, hex tool, MasterBus Terminator, MasterBus cable, cable protections for DC connections

Mastervolt Digital DC 10x10A

As the pinnacle of system intelligence, the Mastervolt Digital DC 10x10A has ten 10A outputs for all functions including lighting, pumps or electronics. It comes standard with intelligent alarm functions and luxury options include:

- Follow me home (light stays on for a specific time after you leave the vessel)
- (Delayed) dimming of lights (including ten built-in dimmers)
- Alarm signal for overload
- Every output has a hardware and software fuse
- Reset the fuses via the MasterBus network
- Possibility of higher currents (up to 100A) with parallel switching of multiple outputs

BLA Code	110558
MasterBus powering	yes
Power consumption	<2 mA at 12V / <2 mA at 24V (off board situation)
Protection degree	IP21
Weight kg	0.75
DC Output	
Connection	cable max. 4mm²
Maximum software fuse current	10A per channel
Hardware fuse current	15A per channel
DC Input	
Connections	max. 95mm² or directly connected to MasterShunt or DC Distribution
Maximum current	100A
Supply voltage	8-30V DC

Mastervolt MasterBus Interfaces

The special MasterBus Interfaces increase the versatility of your MasterBus network. Connect multiple components to distribute information to your MasterBus products or connect products that require information from the MasterBus network, such as a NMEA2000 or Modbus network, and vice versa.

All interfaces (and modules) can be installed in various ways, from DIN rails to surface mounting. Available in ten languages: English, Dutch, German, French, Spanish, Italian, Norwegian, Swedish, Finnish and Danish.

Mastervolt Inverter Interface

The MasterBus Inverter Interface integrates the Mastervolt Mass Sine inverter in a MasterBus network and allows it to be operated and monitored via MasterView or PC. Supplied with Interface connection cable, MasterBus cable, MasterBus Terminator, user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110568	no	66 x 78 x 32	± 0.8	IP21

Mastervolt USB Interface

Allows you to read and configure your MasterBus system from your PC. Supplied with USB connection cable, MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110564	yes (when the PC is switched on)	66 x 78 x 32	0.8	IP21

Mastervolt Modbus Interface

The MasterBus Modbus Interface can provide all information from the 'closed' MasterBus network for other monitoring and operating systems by means of the Modbus protocol. Supplied with MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110566	no	66 x 78 x 32	± 0.8	IP21

Mastervolt Combi Interface

This interface integrates a Mastervolt Mass Combi in a MasterBus network and allows it to be operated or monitored via a MasterView panel or PC. Supplied with Interface connection cable, MasterBus Terminator, user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110570	yes	66 x 78 x 32	± 0.8	IP21

Mastervolt Serial Interface

The MasterBus Serial Interface connects conventional Mastervolt products to the MasterBus. Data becomes permanently available to allow configuration, operation and monitoring via MasterView panels. Supplied with Interface connection cable, MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110572	no	66 x 78 x 32	± .8	IP21

Mastervolt NMEA2000 Interface

The MasterBus NMEA2000 Interface provides the MasterBus network with NMEA2000 information, and vice versa. Supplied with NMEA connection cable, MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110574	no	66 x 78 x 32	± 0.1	IP21

Mastervolt Digital Input

Connect up to four switches to the MasterBus network. Delivery includes cables from interface to switches. Supplied with cable with plug, MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110582	no	66 x 78 x 32	± 0.8	IP21

Mastervolt Digital AC 1x6A

The Digital AC 1x6A switches all AC loads up to 6A directly and higher loads via a relay, anywhere onboard. Maximum relay current is 6A (230V AC single pole). Supplied with MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110584	no	66 x 78 x 32	± 0.8	IP21

Mastervolt Multipurpose Contact Output

This programmable free switch contact provides your MasterBus network with unprecedented options, such as controlling a ventilator in the engine room or operating a generator from a different brand. Potential free contact is NO-C-NC - 1A / 30V DC. Supplied with MasterBus cable, MasterBus Terminator and user's manual

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110586	no	66 x 78 x 32	± 0.8	IP21

Mastervolt Tank Level Interface

This interface converts analogue sensor input signals to MasterBus data. Selectable input signals: 4-20 mA, 0-300, 8-70V DC. Supplied with MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110588	no	66 x 78 x 32	± 0.8	IP21

Mastervolt Repeater

Extends the maximum length of your MasterBus network. With integrated isolated power supply to power the MasterBus. Supplied with MasterBus cable, MasterBus Terminator and user's manual.

BLA Code	MasterBus powering	Dimensions H x W x D mm	Weight kg	Protection Degree
110592	yes	66 x 78 x 32	± 0.9	IP21

Mastervolt MasterBus Communication Cable

Suitable for data traffic and powering peripheral equipment, this is the only cable you need for your MasterBus network. MasterBus compatible products come standard with two ports, while other equipment requires an interface. A DIY kit is optional.

BLA Code	Length m
110620	0.2
110622	0.5
110624	1
110626	3
110628	6

BLA Code	Length m
110630	10
110632	15
55-77045000	100

Mastervolt MasterBus Terminator

The Terminators at both ends of the cable ensure interference-free operation, prevent reflection of data signals and ensure high communication speeds.

BLA Code
110646

Mastervolt MasterBus DIY Kit

Cut your own cables to length and finish, comprising:

- Professional RJ45 crimping tool
- 50 x MasterBus RJ45 connectors
- 50 x green MasterBus RJ45
- Protection boots
- 100m green MasterBus
- CAT5E UTP cable

BLA Code
55-77050000

Separately available:

MasterBus RJ45 Connectors

- 8-pole
- 25 pcs

BLA Code
55-77040010

Green Isolation Caps for RJ45 Connector

- 25 pcs

BLA Code
55-77040015

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

CZone™ Digital Control & Monitoring

The CZone™ digital control & monitoring system is designed for manufacturers and installers of Marine, RV and Specialty Vehicles. It simplifies installation of electrical systems through the replacement of complicated, cumbersome wiring to switch and fuse panels, with state of the art, robust interfaces and light NMEA 2000 network cable. It also provides the end user a sophisticated solution through the automation of complicated control and monitoring issues associated with today's onboard systems.

Installation

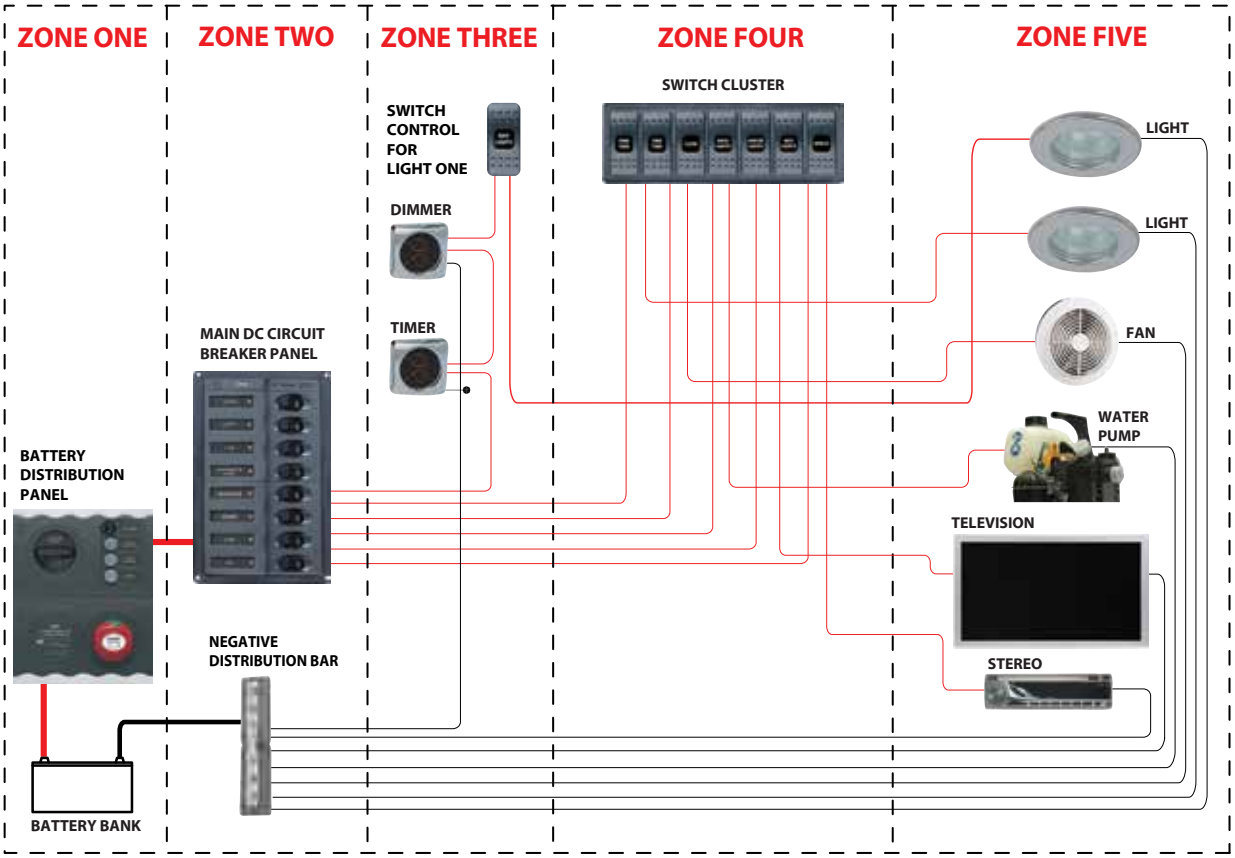
Builders recognise an immediate benefit with reductionsin cable usage, harness weights and installation times. The CZone™ system also integrates many stand alone components into one intuitive system. Wiring is dramatically simplified, because the CZone™ system is designed to remove complex switching clusters and wiring runs. Integrated diagnostics ensures fault finding is simple. The CZone™ system is the digital networking system that is both cost effective and scalable. Modules can easily be added into the system to best suit the OEM and end-users' needs.

Traditional Electrical DC Wiring

Wiring DC systems can be complex and installation time can be extensive. The larger the system, the more wire is required, which creates weight and space concerns, not to mention increased cost and complexity of design and manufacturing. Basic maintenance and trouble shooting of traditional wiring systems can be difficult to manage.

- Switch panel wiring is complicated and extremely labor intensive to install
- Cable runs are long and have multiple conductors. Switching of common circuits is complex
- Long wire runs require larger cable, adding weight, increasing cost and reducing space.

112799



DC Wiring

The CZone™ system decentralises the DC power distribution system, locates circuit control and protection modules closer to loads to shorten cable runs and reduce the size of conductors, significantly decreasing the cost and weight of the electrical wiring harness. The system replaces complex wiring with a single data wire.

- Complex electrical design and wiring is replaced by a more simpler intelligent CZone program
- Complex switch panel wiring removed, replaced with single data cable connection
- The grouping of multiple loads into common areas (Zones) with Output Interfaces is the key to the system
- Heavy-duty battery mains cable, replaced by multiple smaller conductors

Configuration

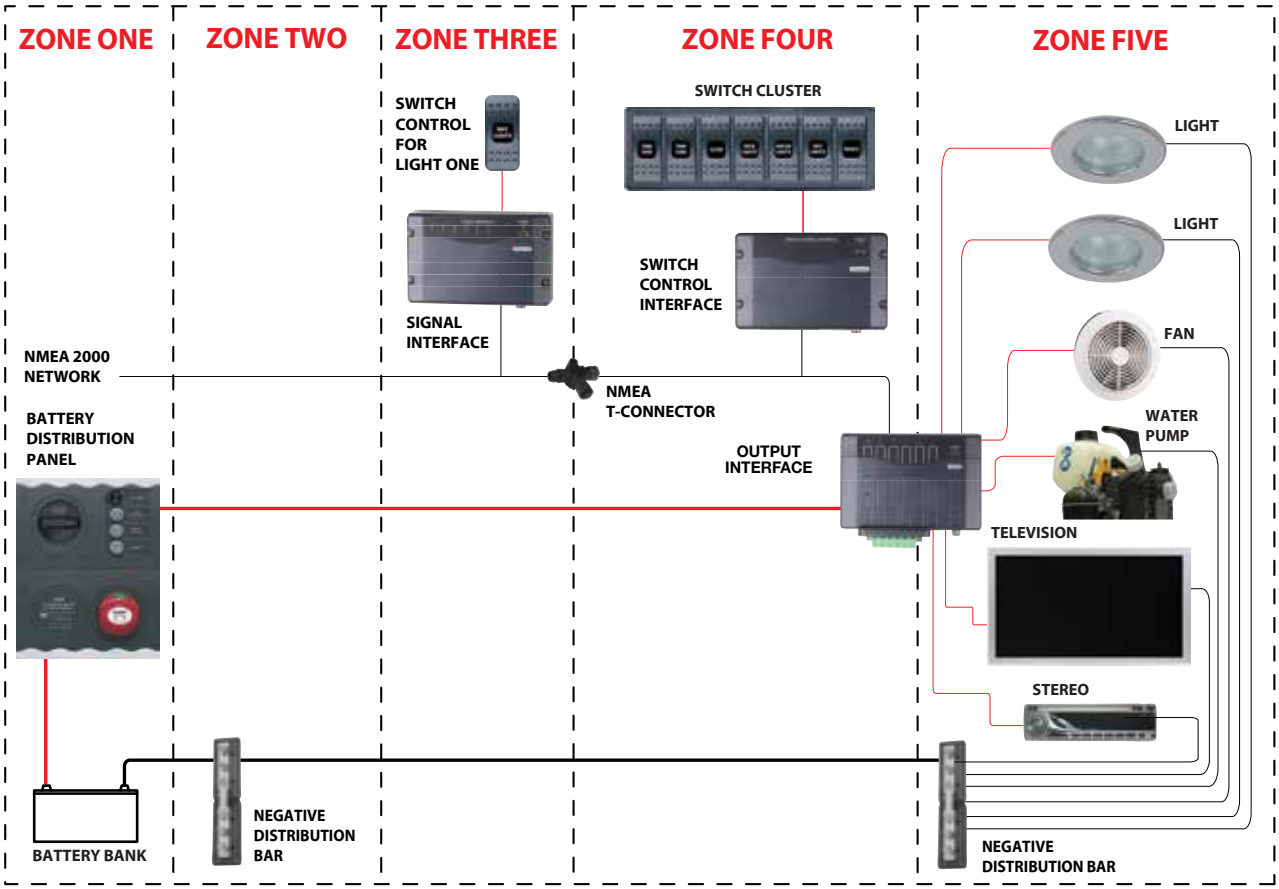
We provide the tools to help you determine the modules needed based on your specific requirements. Then, simply program with the CZone™ intuitive configuration tool.

Integration

The CZone™ system is NMEA 2000 compliant and uses the standard Micro cables and connectors. Being NMEA 2000 compliant you can have trust in the network. This also allows a single network backbone to be installed for multiple systems (CZone™ and other NMEA 2000 devices). Additionally, the CZone™ system can share certain monitoring functions with other NMEA 2000 compliant screens.

Versatility & Security

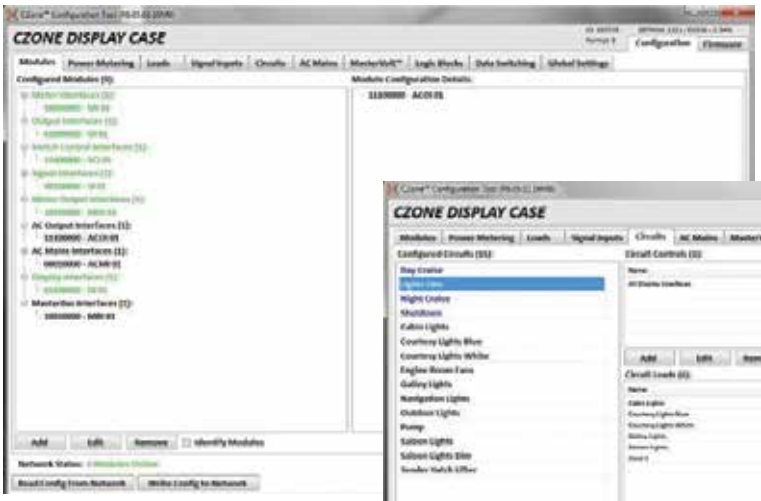
The CZone™ system, designed for 9-32V systems, features built-in timers, dimmers (including support for halogen lighting), alarms, voltage reducers and load shedding. With safety in mind, the CZone™ system features a manual bypass. Our No-Single-Failure-Point technology ensures a plug-n-play system that is designed to handle mishaps. If a module is damaged, the system will automatically program the replacement module, when it is plugged in. This means any module can be replaced without using high tech service people. Our security features allow custom configurations that can be locked.

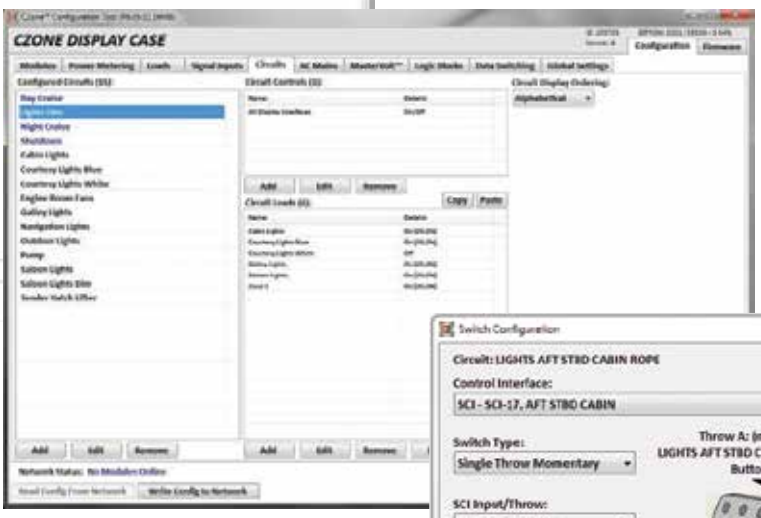


CZone™ Configuration Made Easy

Historically, generating a configuration for and programming a system is a chore that requires a significant amount of training. The configuration tool of the CZone™ system offers simple, straightforward programming that is easy to learn and to use.

The CZone™ system Configuration Tool allows the manufacturer to set up programming parameters on a standard PC (use USB CAN Adapter **112902,** refer page 90), upload a saved configuration into the CZone™ network and simultaneously program every interface on-board. Changes and customisations can also be made from the Display Interface and downloaded back to the PC overriding the master configuration. The master template file is now ready to go and can be used on multiple vessels or vehicles during manufacturing.





CZone™ LCD Displays

The CZone™ displays are designed with both the manufacturer and end-user in mind. The easy to use display screens put the control of all components directly at your fingertips. Multiple Display Interfaces can be used in the same system. The scroll and click interface is simple to use in the roughest of seas or bumpiest of roads.

Power Control

- Turn circuits on and off including timer and light dimming control
- Set modes of operation

Monitoring DC power meter

- Displays voltages of multiple battery banks, includes low and high voltage alarms
- Displays charge and discharge (amps) of multiple battery banks.
- Displays battery capacity in ampere hours and % charge/discharge, includes low ampere hour alarm
- Logging of battery minimum and maximum voltage levels
- Logging of minimum battery capacity level

AC power meter

- Displays multiple line voltages (230 and 120V), includes high and low voltage alarm
- Displays AC line frequencies, includes high and low frequency alarm and AC power consumption in kW
- Logging of minimum and maximum voltage and frequency levels
- Logging of maximum AC current

Tank levels

- View tank level information for multiple tanks and fluid types

Data

- Displays standard NMEA2000 information
- Displays temperature and pressure values

Alarms/diagnostics

- Logging of circuit run time and on cycles
- CZone™ network status reporting
- Presents alarms for onboard faults in audible and visual form (bilge pump running, smoke alarm)

Control: Breaks down the circuits into easy to identify groups for quick control, ie. to turn on freshwater pump open “pumps” group. User can open pumps group and select freshwater pump. This screen also allows the user to monitor the status of the circuit i.e. on, off, fault and current draw.

Monitoring: Allows user to easily monitor AC and DC power, tanks, data, alarms, and circuit status. Presents data in analog and digital form.

Modes: Key to the ease of operation. With one key press the user can turn on a group of circuits, without having to scroll, search for, and turn on the individual circuits that they need for operation of their vessel/vehicle. When leaving vessel or vehicle, simply press “systems off” to turn off all non-essential circuits. Entertainment mode allows preset activation of salon lights, music etc. All functions can be controlled remotely with The CZone™ system remote.

Settings: Allows OEM or technician access to the configuration (via password) of a system. No need for computer to set or change configuration settings such as circuit labels, circuit breaker sizes, etc. (DI only)

CZone™ 5" Touch Screen Kit

The gateway to your CZone digital switching and Mastervolt power electronics system is now also available on a compact 5" model, the new CZone Touch 5. The sleek, attractive screen design will complement the interior of any high-end vessel or recreational vehicle, while offering the very latest generation capacitive touch screen technology. The high bright display outperforms in sunlight and the improved screen resolution provides a detailed and crisp graphical user interface. All of this has been packaged into an innovative, splash-proof marine mounting system to provide an outstanding 'human-machine' experience.

Features:

- Easy to use touch interface
- Glass dash styling
- Super bright widescreen display
- Low profile flush mounting
- IPX7 water ingress protection
- Built-in WiFi connectivity
- Micro SD Card Slot
- NMEA 2000 compatible

User Interface

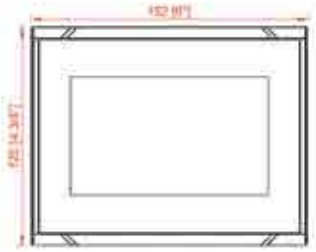
Easy to use touch interface, consistent across CZone displays

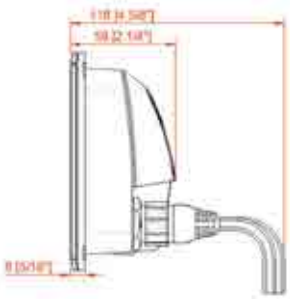
Control

Monitoring

Modes

Tanks





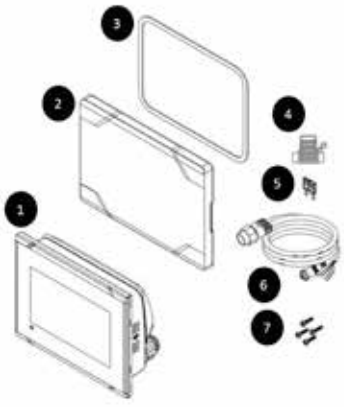
WiFi Connectivity

- Internal WiFi allows direct connection of iPad for on-board wireless control and monitoring
- Reduced system cost and complexity, combines Display and Wireless Interface functionality in to one unit

Rear Connections

1. 12VDC Power and NMEA 2000
2. MicroSD Card Reader
3. Unused

BLA Code	112800
Description	Czone Touch 5 Kit
Display Type	WVGA Colour TFT LCD
Display Size	5-inch Widescreen
Display Resolution	480 x 800 pixels
Backlight Levels	LED/1200 nits
Operating Temperature	-15°C to +55°C (5°F to 131°F)
Waterproof Standard	IPX7
Power Consumption	900mA @ 13.5V
Power Supply	12VDC
Conformity	CE, C Tick
Dimensions H x W x D mm	120 x 152 x 57.9 mm

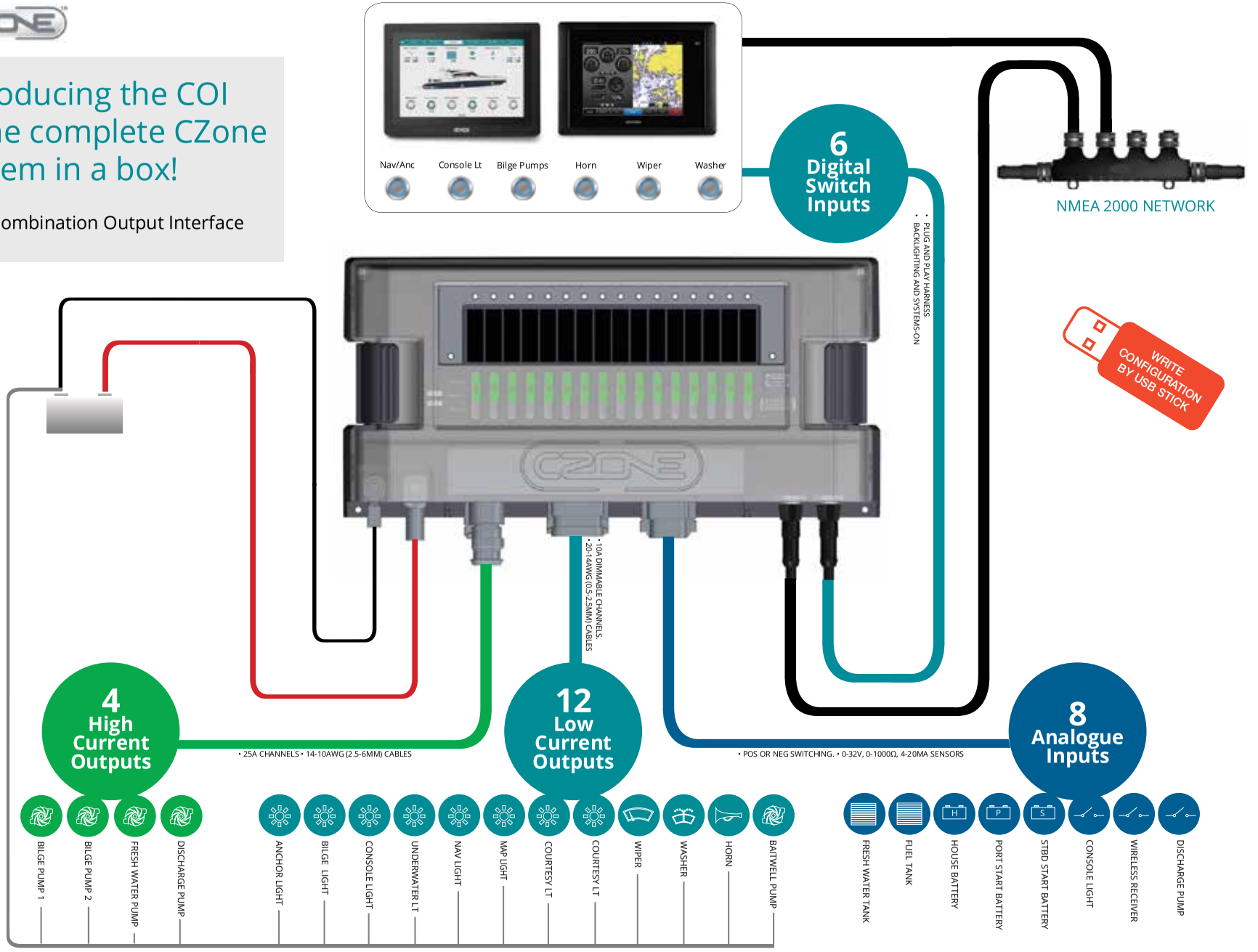


Standard Inclusions:

1. Touch 5
2. Sun Cover
3. Panel mount gasket
4. Fuse holder (ATC blade)
5. Fuse (3 amp)
6. Power / NMEA cable
7. Panel mount screws

Introducing the COI – The complete CZone system in a box!

COI - Combination Output Interface



CZone™ Combination Output Interface

The Combination Output Interface (COI) combines multiple input and output devices in to one module, providing a high density 30 channel module which minimises installation, interconnections and footprint, while delivering best value per circuit. The COI features the same proven, rugged CZone design including IPX5 water ingress protection and complete mechanical fuse plus bypass on all circuits as required by ABYC/CE. Industry standard Deutsch connectors provide "plug and play" installation.

WRITE CONFIGURATION BY USB STICK

Features:

- High density 30 channel module minimises installation, interconnections and footprint, while delivering best value per circuit
- Complete mechanical fuse plus bypass on all circuits as required by ABYC/CE
- Industry standard Deutsch connectors provide “plug and play” installation
- Optional cable cover (**112916**) offers improved aesthetics and greater mounting flexibility
- Proven, rugged CZone design includes IPX5 Water Ingress Protection and NMEA 2000 certification
- High power bilge pump channels allow manual control plus “pump running” feedback from a single channel – without additional wiring
- USB port provides easy system update from USB flash drive

BLA Code	112912
Description	COI With Connectors
Total Channels	30 Channels
Output Channels High	4 x 25A (Deutsch SKU) 4 x 30A (Phoenix SKU)
Output Channels Low	12 x 10A Dimmable
Analogue Inputs	8 x Analogue Inputs: Positive or Negative Switching, 0-32 Volt, 0-1000 Ohm Resistance, & 4-20mA Current
Push Button Switch Inputs	6 x Digital Inputs: With systems on/ backlighting, via breakout harness
Circuit Current Monitoring	Yes
Alarms	Overcurrent, Short Circuit, Low Run Current and Fuse Tripped Alarm
Connectors	Deutsch or Phoenix
Maximum Current	150A
Power Supply	m8 (5/16") Stud Positive, M6 (1/4") Negative
Voltage	9-32V (with Power Available LED on Module)
Ingress Protection	IPX5 (Mounted at 0°, ±90°
Communication	NMEA 2000
Bilge Pump Circuits	2x Channels High: Integrated manual control & pump running detection
Circuit Bypass/Over-ride	Mechanical Protection/Bypass All Output Channels (Required by ABYC)
Software/Configuration Update	Via Integrated USB Port
Status LED's	Power Available, Output Channels x16, NMEA Network
Compliance	CE, ABYC, NMEA, RCM

Accessories:

112916 CZone COI Cable Cover

CZone™ Combination Output Interface - Cable Cover

Optional cable cover for COI module that provides a clean finish by covering connectors and cables.

112916

BLA Code	Description
112916	CZone COI Cable Cover

CZone 10" Touch Screen Kit

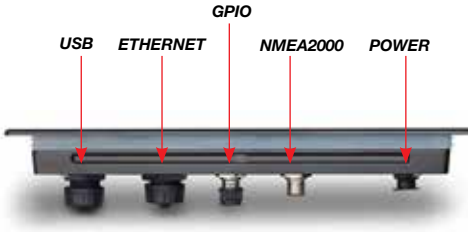
The gateway to your CZone digital switching and Mastervolt power electronics system has just been transformed by the new 'state of the art' CZone Touch 10. The sleek, attractive screen design will complement the interior of any high-end vessel or recreational vehicle, while offering the very latest generation capacitive touch screen technology. The high bright display outperforms in sunlight and the improved screen resolution provides a detailed and crisp graphical user interface. All of this has been packaged into an innovative, splash-proof marine mounting system to provide an outstanding 'human-machine' experience.

Features

- Attractive Low Profile (4mm) black aluminium design
- 10.1" Widescreen Capacitive Touch Panel
- IPS LCD Technology for High Contrast and Wide Viewing Angles
- High Bright LED backlight with full range dimming
- High Resolution providing a much sharper UI
- Marine spec custom mounting bracket allowing easy access to rear connections

Specifications

- Aspect Ratio: Widescreen 16:10
- Resolution: 1280 by 800 pixels
- Ingress protection: IP66
- Brightness: 500 cd/m2
- Power Supply: 8-32V
- Power Consumption: 1A@12V, 500mA@24V
- Interfaces: NMEA2000, USB2.0, Ethernet
- Dimensions: 196mm height x 275mm width x 41mm depth



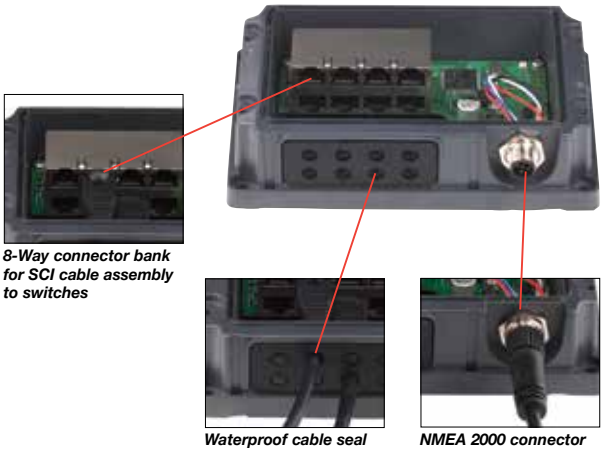
BLA Code
112799

CZone™ Switch Control Interface

The Switch Control Interface (SCI) provides an interface between the CZone™ network and traditional mechanical switches that manufacturers and users are familiar with. The SCI simplifies your wiring, supports your existing choice of switches, protects against failures and allows for expanding installation options. Refer to page 93 for cable and switch assemblies.

Features:

- Single switch position can control multiple OI channels
- Attaches to switch panels via custom SCI cable
- Multiple SCI switches can control single OI channel
- Output for backlighting of switch labels (dimmable)
- Outputs systems on and function/fault codes to systems on LED of switches (dimmable)
- Dimensions, WxHxD: 156x100x42mm
- IPX5 water ingress protection
- 8 inputs per module (16 individual controls)
- Programmable switch types
- Sequential button press functionality



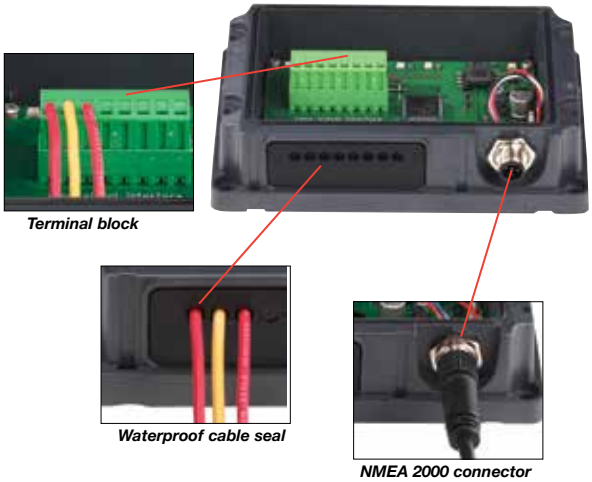
BLA Code
112824

CZone™ Signal Interface

The Signal Interface (SI) connects the CZone™ system to your external sensors, alarms and switching devices. The SI allows intelligent, automated operation of circuits depending on the state of the input.

Features:

- Accepts inputs from traditional switch types being used to control outputs
- Accepts inputs from switches to trigger alarm i.e. high water float switch
- Accepts inputs from industry standard tank senders (0-5V, 10-180 Ohm, 240-33 Ohm)
- Accepts inputs from general voltaic or resistive signals can be used for controlling outputs or to display a physical position i.e. show a hatch is partially open
- LED status indicators for each input
- Dimensions, WxHxD: 156x100x42mm
- IPX5 water ingress protection
- Resistive input range 0–1000 Ohms
- Outputs standard NMEA 2000 sentences
- Voltage sensing input range 0–34V DC



BLA Code
112828

CZone™ Meter Interface

The Meter Interface (MI) accepts inputs from external AC and DC power metering sensors such as: AC and DC voltage and amps, AC kilowatts, and DC battery capacity in amp hours and % remaining. All with user definable high and low alarms.

AC

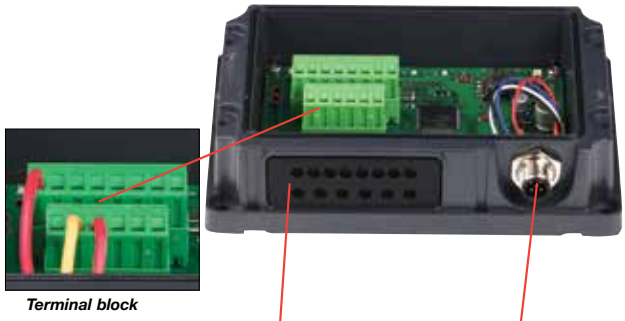
- 3 x AC voltage inputs (multi voltage)
- 2 x AC current inputs
- Calculates true RMS power

DC

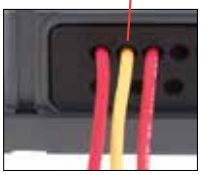
- 3 x DC voltage inputs (multi voltage)
- 2 x DC current inputs
- Calculates battery capacity as ampere hours and percentage charge remaining for two battery banks
- Resolution for current metering down to 0.1A

General

- Dimensions, WxHxD: 156 x 100 x 42mm
- IPX5 water ingress protection
- Outputs standard NMEA2000 power monitoring sentences



Terminal block



Waterproof cable seal

NMEA 2000 connector

Optional Accessories

112888

112886

113457

112887

BLA Code
112812

Accessories:

112888 AC voltage transducer
112886 AC current transformer
112887 Heavy duty AC current transducer
113457 DC shunt

CZone™ Motor Output Interface

The Motor Output Interface (MOI) has an output pair for controlling DC motors which require a reversal of polarity to change the direction of their mechanical operation. For example, a DC motor for an electric window mechanism will move the window up or down depending on the polarity of the feed to the motor. The MOI also incorporates two standard output channels such as is found on the OI.

- Single motor control and two normal channels per unit, 20A per output
- Built-in circuit protection
- IPX5 water ingress protection
- Dimensions, WxHxD: 200 x 128 x 45mm

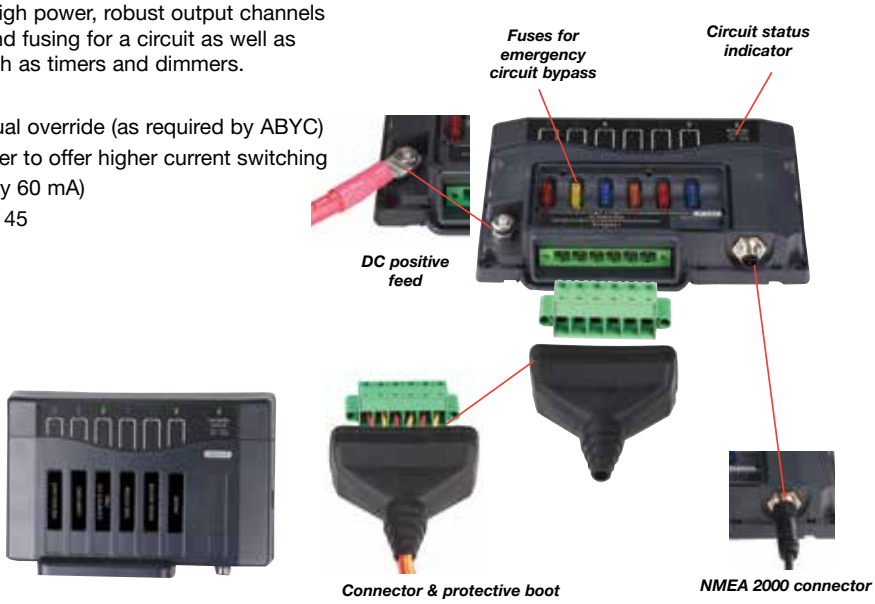
BLA Code
112816

CZone™ Output Interface

The Output Interface (OI) provides an intelligent replacement for traditional circuit breaker and fuse panels. It has 6x high power, robust output channels which provide the power supply, control and fusing for a circuit as well as integrating many other built in features such as timers and dimmers.

Features:

- 4 levels of backup fusing including manual override (as required by ABYC)
- Multiple channels can be bridged together to offer higher current switching
- Power consumption 12V: 85 mA (standby 60 mA)
- Dimensions W x H x D mm: 200 x 128 x 45
- 6 x 20 amps circuits
- IPX5 water ingress protection
- Programmable software 'fuse' sizes



BLA Code
112820

CZone™ AC Output Interface (ACOI)

Network, monitor and control onboard AC circuits. Configure and operate the digital control system with pre-wired components for quick connections. It has eight outputs (up to 50 amp each), supports multiple pole designs and two separate buss feeds. Status LEDs and manual bypass are located at the enclosure.

Features:

- 8 outputs at up to 50 amps each
- Multiple ACOI can be paralleled to achieve more outputs
- Circuit status and run current displayed for each circuit
- Customisable to suit installation requirements
- Pre-wired for quick connection
- Staggered start up of loads
- 110V, 240V, 110/220V
- IPX5 enclosure
- Supports multiple pole designs, i.e. double, triple, four pole
- Utilises standard DIN rail mounted components for circuit protection and control
- Can support two separate buss feeds i.e. 2 load groups in one box
- Delay before circuits come on to allow generators to come up to speed
- Dimensions H x W x D mm: 295 x 458 x 130 (enclosure dimensions may change depending on installation requirements)
- Provides circuit protection and control
- Status LEDs at enclosure
- Manual bypass at enclosure
- Provision for MCB/RCD's
- Built in timer control
- 50 or 60 Hertz

BLA Code
55-80-911-0069-00

SPECIAL ORDER — CONTACT BLA SALES — 1300 252 725

CZone™ AC Mains Interface (ACMI)

A sophisticated source selector or transfer switch, the AC Mains Interface enables the user to specify which AC power source is actively supplying power to the ship (generator, inverter, shore power). Developed for use with the CZone™ digital control system, but may also be used as a stand-alone device. The ACMI can be programmed to automatically change the supply source when the current rating is exceeded, and includes a manual bypass and user-friendly display screen that ensures easy current, voltage, frequency, and power monitoring. Other features include six monitored, over-current protected main power inputs of up to 100 A each, as well as two outputs, which enables two separate load groups and a parallel option for use with a single source. To simplify installation, the ACMI comes pre-wired for easy installation.

Features:

- 6 Source inputs up to 100 A (eg. 2x shore power, 2x generator)
- Monitoring of channel status (On/off/fault)
- Provides circuit protection and control
- Manual override at enclosure and via remote panel
- Customisable to suit installation requirements
- Supports multiple pole designs, i.e. double, triple, four pole
- 110V, 240V, 110/220V
- IPX5 enclosure
- Utilises standard DIN rail mounted components for circuit protection and control
- Physical and software lockouts between source controls (prevents two sources from becoming connected)
- Reverse polarity and bad power supply alarms including auto disconnect and lockouts
- Current, voltage, frequency and power monitoring incorporated (six channels)
- 2 Outputs (load groups), allows for two separate load groups with parallel option for use with single source
- Dimensions, H x W x D mm: 403 x 630 x 130 mm (enclosure dimensions may change depending on installation requirements)
- Auto changeover
- Provision for RCD's
- Load shedding
- Status LEDs at enclosure
- Pre-wired for quick connection
- Built in timer controls
- 50 or 60 Hertz

BLA Code
55-80-911-0068-00

SPECIAL ORDER — CONTACT BLA SALES — 1300 252 725

CZone™ Wireless Remote Kit

A simple to set up, wireless remote control.

Features:

- Buttons configurable for momentary on or latching control of circuits
- Control up to 4 separate 5A circuits; eg. battery switches, anchor light, navigation lights, and courtesy lights
- No more lifting hatches to turn on battery switches — it's now all controlled from the remote key fob
- 80m operating range
- Rolling code
- Kit includes 2 remotes

BLA Code
112790

CZone™ Network Bridge Interface

- For isolating sections of an NMEA 2000 network to decrease standby current draw
- Isolation when bridging between two CAN networks, (eg connecting CZone™ to Simrad Simnet)
- For expansion of the NMEA 2000 network when the maximum node limit (node = any device connected to the NMEA 2000 network) for the network has been reached
- Once fitted, a further 40 nodes can be added

BLA Code
112830

CZone™ Surge Protection Module

Protect your electronics from becoming damaged by harmful high voltage spikes. When fitted to the battery supply these modules look for sudden increases in voltage then switch into protection mode to absorb and suppress the high energy spike.

112882

BLA Code	Volts
112882	12
112884	24

CZone™ MasterBus Bridge Interface

The CZone™ MasterBus bridge has been developed to connect two great systems together to bring you the best of both worlds. The bridge physically connects the MasterBus and CZone™ networks together enabling the two networks to communicate and act as one, providing seamless control and monitoring of devices on both networks from either Masterbus or CZone™ displays.

Features/Functions:

- Control Mastervolt inverters and chargers from CZone™ displays and switches
- Control of MasterBus output devices (turn lights, pumps, etc. on/off)
- Control of CZone™ output devices (turn lights, pumps, etc. on/off) via MasterBus displays and switches
- Display CZone™ acquired systems information such as tank and power levels on Masterbus displays
- Display MasterBus acquired systems information such as tank and power levels on CZone™ displays
- Transfers alarms between both systems
- 69 x 69 x 50mm

BLA Code
112831

CZone™ USB CAN Adapter

Connects PC to the CZone™ network for configuration and system set up.

BLA Code
112902

CZone™ NMEA 2000 Micro C Accessories

CZone™ offer a premium range of NMEA 2000 network accessories.

Features:

- Extension cables have larger gauge power conductors than standard NMEA 2000 cables (0.8mm²) and comply with requirements of ABYC and US Coastguard, smaller cores do not comply with NMEA 2000 network (physical layer specifications)
- IP68 rated (submersible to 1m underwater)
- Gold plated, copper alloy pins and sockets for superior connections
- PVC sheathing
- Conforms to UL1007/TR64 cable ratings

CZone™ Power Cable

NMEA 2000 network, one metre.

BLA Code
112880

CZone™ Ext. Cable

Carries power and data along backbone to NMEA 2000 devices.

BLA Code	Length m
112860	0.5
112862	2
112866	5
112870	10

CZone™ Power Cable for Display Interface

Supplies power for the 3.5" display interface. Two pin, two metres.

BLA Code
112885

CZone™ Connectors

NMEA 2000 network.

112874

112944

112940

BLA Code	Description
112874	Single tee
112942	2 way tee
112944	4 way tee
112940	90˚ elbow

CZone™ Blanking Caps

Protects unused Tee Connector from dust and water NMEA 2000 network.

112952

112954

BLA Code	Description
112952	Male
112954	Female

CZone™ Terminating Resistors

Use at either end of the NMEA backbone to complete the network. Each network must have a make and female terminator. NMEA 2000 network.

112876

112878

BLA Code	Description
112876	Female
112878	Male

CZone™ Cable Glands

Black silicon cable glands.

112970

112972

112974

BLA Code	Suits
112970	MI
112972	SCI
112974	SI

CZone™ Terminal Blocks

Used for terminating wires in the CZone™ system.

112984

112982

BLA Code	Suits
112982	MI 6 Way
112984	SI/MI 8 Way

CZone™ Seal Boot

Black silicon boot to suit OI and MOI.

BLA Code
112994

CZone™ Shunt

- 450A/50mV shunt
- 83(l) x 45(w) x 44(h) mm

BLA Code
113457

CZone™ AC Transducer

- The AC-VSEN-4 includes three voltage transformers for up to three voltage inputs
- 140(l) x 69(w) x 50(h) mm
- For use on the backbone to transition through a waterproof bulkhead or can be used to connect removable equipment such as a computer interface

112956

112960

112962

BLA Code	Description
112956	Through bulkhead adaptor
112960	Female field serviceable connector
112962	Male field serviceable connector

CZone™ Current Transformer

- Maximum current 150A AC
- One CT-10-3 current transformer is supplied with ACSM. If a twin line system is in use, a second CT must be ordered.
- 37.5(w) x 39.2(h) x 13.7(d) mm
- Hole size: 12mm

BLA Code
112886

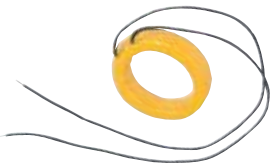
CZone™ AC Transducer

- The AC-VSEN-4 includes three voltage transformers for up to three voltage inputs
- 140(l) x 69(w) x 50(h) mm

BLA Code
112888

CZone™ Heavy Duty Current Transformer

- Maximum current 150A AC
- CT-HD is available for systems with large mains cables, too large for CT-10-3 (**112886**)
- CT-HD dimensions: Ø 47 x 10.5mm
- Hole size: 32mm



BLA Code
112887

CZone™ Custom Switches

Suitable for use with CZone™ only.

Features:

- Red backlighting LED
- Status indication LED
- Custom legends available by preorder
- Modular mounting panels available

112832

112856

112840

Completed switch with Actuator

BLA Code	Description
112832	On/off (red LED) excl. fascia
112834	Mom on/off (red LED)
112836	On/off/on (red LED)
112838	Mom on/off/mom (red LED)
55-80-911-0066-00	Mom on/off (blue LED)
55-80-911-0071-00	Mom on/off/mom on (blue LED)
112854	Carling switch contura escutcheon single
112856	Carling switch contura escutcheon end
112858	Carling switch contura escutcheon middle
112910	Blank window actuator
112908	Blank window actuator with status bar indicator

Accessories:

112840	0.5m cable assembly to suit custom switches
112842	1m cable assembly to suit custom switches
112844	2m cable assembly to suit custom switches
112846	3m cable assembly to suit custom switches
112850	5m cable assembly to suit custom switches

CZone™ Push Buttons

Suitable for use with CZone™ systems only.

Features:

- Momentary and latched actuation options available
- Blue and red circuit status indication LEDs works on 3V
- 19mm mounting hole
- IP67 protection
- Stainless steel components

For 12V & 24V versions refer to page 144.

112926

112928

55-80-911-0085-00

BLA Code	Description	LED
112928	Momentary (on) off	red
112922	Latching on/off	red
112926	Momentary (on) off	blue
112920	Latching on/off	blue

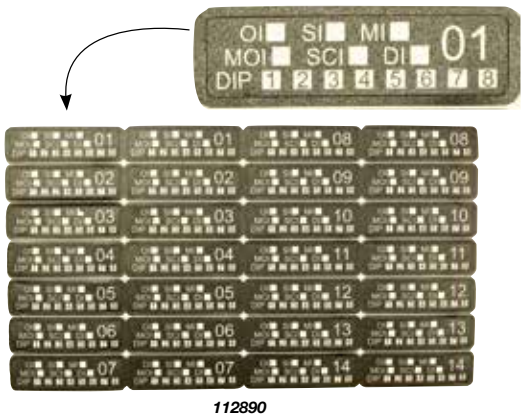
Accessories:

55-80-911-0085-00	0.5m cable assembly to suit push buttons
55-80-911-0086-00	1m cable assembly to suit push buttons
55-80-911-0087-00	2m cable assembly to suit push buttons
55-80-911-0088-00	5m cable assembly to suit push buttons
55-80-911-0089-00	8m cable assembly to suit push buttons

CZone™ Label Set

Nameplates for C-Zone™ circuit identification.
Black adhesive labels with white lettering.

SET-1
OI, SI, MI, MOI, SCI, DI, DIP numbers 01-14



112890

BLA Code	Description
112890	Set 1
112892	Set 2

BEP 'Contour' Circuit Breaker Panels - No Meters

Circuit breaker panels with stylish curved front facia incorporating recesses for circuit breaker toggles preventing them from being switched on accidentally. For replacement circuit breakers refer page 127. For other label options refer pages 100 and 101.

Features:

- Durable grey powder coated marine grade aluminium base panel
- Marine quality, magnetic, hydraulic, UL listed trip free breakers
- Backlit labels supplied, refer page 100
- Suitable size negative busbar supplied, refer page 122
- Red LED indication for circuits 'on'
- Green LED back lighting for meters and labels
- Double pole configurations available for survey or additional safety

With the flexibility of the 'Contour' four way plastic modules, BEP can build panels to custom requirements if requested.

113140

113142

113151

113152

113144

113153

113175

113160

113176

BLA Code	Circuits	Overall Size W x H mm	Cut Out Size W x H mm	Intrusion mm	Mount Screws Gauge	Power Volt	Label Sheet	Circuit Breakers 5 amp	10 amp	15 amp	20 amp	25 amp	30 amp
113140	4	127 x 115	107 x 95	65	6 r/h	12-24	1	1	2	1			
113142	8	127 x 200	107 x 180	65	6 r/h	12-24	1	2	2	3	1		
113144	8	239 x 115	219 x 95	65	6 r/h	12-24	1	2	2	3	1		
113151	12	351 x 115	331 x 95	65	6 r/h	12-24	1	3	4	4		1	
113152	12	239 x 200	219 x 180	65	6 r/h	12-24	1	3	4	4		1	
113153	12	127 x 285	107 x 265	65	6 r/h	12-24	1	3	4	4		1	
113160	16	239 x 200	219 x 180	65	6 r/h	12-24	1	4	5	5	1	1	
113175	24	239 x 370	219 x 331	65	6 r/h	12-24	1, 2 & 3	5	8	8	1	1	1
113176	24	351 x 200	331 x 180	65	6 r/h	12-24	1, 2 & 3	5	8	8	1	1	1

Drop resistors required for LEDs in 24 volt installations:

113461 Drop resistor BEP 8 way suits **113142** & **113144**
113462 Drop resistor BEP 12 way suits **113151**, **113152** & **113153**
113463 Drop resistor BEP 16 way suits **113160**
113465 Drop resistor BEP 24 way suits **113175** & **113176**

BEP 'Contour' Circuit Breaker Panels - with Analogue Meters

Circuit breaker panels with stylish curved front facia incorporating recesses for circuit breaker toggles preventing them from being switched on accidentally.

Available with 12 volt (AV12) or 24 volt (AV24) analogue expanded scale meter with three way selector switch to monitor multiple battery banks. Larger panels include both voltmeter and ammeter. Analogue ammeters are supplied standard in 0-50 amp scale (AA50) and include a 50 amp shunt. An alternative 100 amp meter can be substituted with a corresponding 100 amp shunt. For secondary shunts refer page 138. For other label options refer pages 100 and 101. For replacement circuit breakers refer page 127.

Features:

- Analogue meters - 2.5% of full scale accuracy
- 1x shunt supplied
- Durable grey powder coated marine grade aluminium base panel
- Marine quality, magnetic, hydraulic, UL listed, trip free breakers
- Green LED back lighting for meters and labels
- Backlit labels supplied, refer page 100
- Suitable size negative busbar supplied, refer page 122
- Red LED indication for circuits 'on'
- Double pole configurations available for survey or additional safety

With the flexibility of the 'Contour' four way plastic modules, BEP can build panels to custom requirements if requested.

113170 – 12V
113172 – 24V

113143

113146 – 12V
113148 – 24V

113177

113192 – 24V

113154 –12V

113141 – 12V

BLA Code	Circuits	Overall Size W x H mm	Cut Out Size W x H mm	Intrusion mm	Mount Screws Gauge	Power Volt	Meter	Label Sheet	Circuit Breakers 5 amp	10 amp	15 amp	20 amp	25 amp	30 amp
113141	4	127 x 200	107 x 180	65	6 r/h	12	AV12	1	1	2	1			
113143	8	127 x 295	107 x 275	65	6 r/h	12	AV12	1	2	2	3	1		
113145	12	127 x 380	107 x 360	65	6 r/h	12	AV12	1	3	4	4		1	
113146	12	239 x 200	219 x 180	65	6 r/h	12	AV12	1	3	4	4		1	
113148	12	239 x 200	219 x 180	65	6 r/h	24	AV24	1	3	4	4		1	
113154	16	239 x 295	219 x 275	65	6 r/h	12	AV12, AA50	1&2	4	5	5	1	1	
113170	24	351 x 295	331 x 275	65	6 r/h	12	AV12, AA50	1,2&3	5	8	8	1	1	1
113172	24	351 x 295	331 x 275	65	6 r/h	24	AV24, AA50	1,2&3	5	8	8	1	1	1
113192	24	239 x 385	219 x 365	65	6 r/h	24	AV24, AA50	1,2&3	5	8	8	1	1	1
113177	32	239 x 455	219 x 435	65	6 r/h	12	AV12, AA50	1,2,3&4	7	11	11	1	1	1

BEP 'Contour' Circuit Breaker Panels - with Digital Meters

Circuit breaker panels with stylish curved front facia incorporating recesses for circuit breaker toggles preventing them from being switched on accidentally.

Digital panel functions include volts for up to three battery banks and current discharge/charge as well as ampere hours used and remaining for two banks. The digital meter can also be used as a tank monitor. For meter specifications refer page 133. For secondary shunts refer page 138. For other label options refer pages 100 and 101. For replacement circuit breakers refer page 127.

Features:

- Durable grey powder coated marine grade aluminium base panel
- Marine quality, magnetic, hydraulic, UL listed trip free breakers
- Backlit labels supplied, refer page 100
- Suitable size negative busbar supplied, refer page 122
- 1x 450A/50mA shunt supplied, refer page 138
- Red LED indication for circuits 'on'
- Green LED back lighting for meters and labels
- Double pole configurations available for survey or additional safety
- DC digital meters - 200 mV sensitivity, 1% accuracy including alarms. 12mm high numerals

With the flexibility of the 'Contour' four way plastic modules, BEP can build panels to custom requirements if requested.

113150

113147

113158

113174

113194

113166

BLA Code	Circuits	Overall Size W x H mm	Cut Out Size W x H mm	Intrusion mm	Mount Screws Gauge	Power Volt	Label Sheet	Circuit Breakers 5 amp	10 amp	15 amp	20 amp	25 amp	30 amp
113147	12	127 x 380	107 x 360	65	6 r/h	12-24	1	3	4	4		1	
113150	12	239 x 200	219 x 180	65	6 r/h	12-24	1	3	4	4		1	
113158	16	239 x 295	219 x 275	65	6 r/h	12-24	1&2	4	5	5	1	1	
113166	20	351 x 200	331 x 180	65	6 r/h	12-24	1,2&3	5	6	7	1		1
113174	24	351 x 295	331 x 275	65	6 r/h	12-24	1,2&3	5	8	8	1	1	1
113194	24	239 x 385	219 x 365	65	6 r/h	12-24	1,2&3	5	8	8	1	1	1

Drop resistors required for LEDs in 24 volt installations.

113462 Drop resistor BEP 12 way suits **113147** & **113150**
113463 Drop resistor BEP 16 way suits **113158**
113464 Drop resistor BEP 20 way suits **113166**
113465 Drop resistor BEP 24 way suits **113174** & **113194**
113467 Drop resistor BEP 32 way suits **113182**

BEP 'Millennium' Circuit Breaker Panels - with Digital Meters

Circuit breaker panels with stylish curved front facia incorporating recesses for circuit breaker toggles preventing accidental switching.

Digital panel functions include volts for up to three battery banks and current discharge/charge as well as ampere hours used and remaining for two banks. The digital meter can also be used as a tank monitor. For meter specifications refer page 133. For secondary shunts refer page 138. For other label options refer pages 100 and 101. For replacement circuit breakers refer page 127.

Features:

- DC digital meters - 200 mV sensitivity, 1% accuracy including alarms. 12mm high numerals
- Durable black powder coated marine grade aluminium base panel
- Marine quality, magnetic, hydraulic, UL listed, trip free breakers
- Backlit labels supplied, refer page 100
- Suitable size negative busbar supplied, refer page 122
- 1x 450A/50mA shunt supplied, refer page 138
- Red LED indication for circuits 'on'
- Green LED back lighting for meters and labels
- Double pole configurations available for survey requirements or additional safety

With the flexibility of the 'Millennium' four way plastic modules, BEP can build panels to custom requirements if requested.

113208

113210

113212

113216

113214

BLA Code	Circuits	Overall Size W x H mm	Cut Out Size W x H mm	Intrusion mm	Mount Screws Gauge	Power Volt	Label Sheet	Circuit Breakers 5 amp	10 amp	15 amp	20 amp	25 amp	30 amp
113208	28	239 x 370	219 x 350	65	6 r/h	12	1,2,3 & 4	8	8	8	2		2
113210	32	351 x 285	331 x 265	65	6 r/h	12	1,2,3,4 & 6	7	11	11	1	1	1
113212	44	351 x 370	331 x 350	65	6 r/h	12	1,2,3,4 & 6	10	14	14	3	1	2
113214	44	463 x 285	443 x 265	65	6 r/h	12	1,2,3,4 & 6	10	14	14	3	1	2
113216	56	351 x 455	331 x 435	65	6 r/h	12	1,2,3,4 & 6	12	18	18	4	2	2

Drop resistors required for LEDs in 24 volt installations.

113467 Drop resistor BEP 32 way suits **113210**

BEP 'Contour Cruiser' Circuit Breaker Panels

- with Analogue or Digital Meters

Circuit breaker panels with stylish curved front facia incorporating recesses for circuit breaker toggles preventing them from being switched on accidentally. Available with 12 or 24 volt analogue expanded scale metering with a three way selector switch or digital LCD. Digital panel functions include volts for up to three battery banks and current discharge/charge as well as ampere hours used and remaining for two banks. The digital meter can also be used as a tank monitor. Analogue ammeters are supplied standard in 0-50 amp scale and include a 50 amp shunt module. For meter specifications refer page 133. For secondary shunts refer page 138. For other label options refer pages 100 and 101. For replacement circuit breakers refer page 127.

Features:

- Analogue meters - 2.5% of full scale accuracy
- DC digital meters - 200 mV sensitivity, 1% accuracy including alarms 12mm high numerals
- Durable black powder coated marine grade aluminium base panel
- Marine quality, magnetic, hydraulic, UL listed, trip free breakers
- Backlit labels supplied, refer page 100
- Suitable size negative busbar supplied, refer page 122
- Red LED indication for circuits 'on'
- Green LED back lighting for meters and labels
- Double pole configurations available for survey requirements or additional safety
- Mimic panel for quick identification of circuits in operation

Launch - Standard depiction; port and starboard navigation lights, stern light, steaming light, three bilge pumps.

Yacht - Standard depiction; steaming light, deck light, port and starboard navigation lights, stern light, masthead light, tri-colour, and two bilge pumps.

Catamaran -Standard depiction; same as yacht.

With the flexibility of the 'Contour' four way plastic modules, BEP can build panels to custom requirements if requested.

113200

113204

BLA Code	Circuits	Overall Size W x H mm	Cut Out Size W x H mm	Intrusion mm	Power Volt	Meter	Mimic Panel	Label Sheet	Circuit Breakers 5 amp	10 amp	15 amp	20 amp	25 amp	30 amp
113200	32	351 x 385	331 x 365	65	12-24	DAVDC	Yacht	1,2,3,4&6	7	11	11	1	1	1
113204	36	351 x 385	331 x 365	65	24	AV24, AA50	Launch	1,2,3,4&6	8	12	12	2	1	1

Drop resistors required for LEDs in 24 volt installations.

113465 Drop resistor BEP 24 way suits **113195**
113467 Drop resistor BEP 32 way suits **113200**
113468 Drop resistor BEP 36 way suits **113206**

Meter Legend:

AA50 - Analogue ammeter 50amp DC
AV12 - Analogue volt meter 12 volt DC
AV24 - Analogue volt meter 24 volt DC
DAVDC - Digital amps and volts DC
Alternative meters can be substituted, refer page 136 for meters available.
Alternative analogue ammeters will require corresponding shunt.

BEP 'Contour AC' Circuit Breaker Control Panels

Contour style circuit breaker control panels with two double pole mains circuit breakers and change over control slide. Ship/shore transfer switch features a slide gate that will only allow either shore power or ship power to be operational at any one time (**113219** and **113221** excluded). For standard twin input systems such as one shore power and one genset input use **113218** or like. Supplied with either analogue or digital metering: analogue meters for either AC volts or amps; digital meters switchable to show AC volts, amps and frequency. For digital meter specifications refer page 132.

Features:

- Analogue volt meters, 2.5% of full scale accuracy
- AC digital meters, high resolution 12mm high figures in LCD display, low power dissipation, 200 mV sensitivity, 1% accuracy
- Durable black powder coated marine grade aluminium base panel
- Stylish curved plastic facias covering all circuit breakers
- Marine quality, magnetic, hydraulic, UL listed, trip free breakers
- Backlit labels (set five supplied), refer page 101
- Suitable sized negative busbar supplied, refer page 122
- Red LED identification for circuits 'on'
- Green LED back lighting for meters and labels
- Two double pole mains circuit breakers with change over control slide for ship or shore power input (**113219** and **113221** excluded)
- Rated to 250v AC (110 volt option available)
- Digital metered panels supplied with AC volt transducer module and 2 x current transformers
- Reverse polarity indicator

With the flexibility of the 'Contour' four way plastic modules, BEP can build panels to custom requirements if requested.

113220

113221

113226

113222 Digital Meter
113224 Analogue Meter

113219

113218

113230

113234 Digital Meter

BLA Code	Circuits	Overall Size W x H mm	Cut Out Size W x H mm	Intrusion mm	Meter	Label Sheet	System Circuit Breakers Single Pole 5 amp	10 amp	15 amp	20 amp	25 amp	Mains Circuit Breakers Double Pole 20 amp	25 amp	30 amp	50 amp
113218	2 + mains	127 x 115	107 x 95	65	None	5						2			
113219	2 + mains	127 x 115	107 x 95	65	None	5		2				1			
113220	4 + mains	239 x 115	219 x 95	65	None	5		2	2			2			
113221	6 + mains	127 x 200	107 x 180	65	None	5	1	2	3	1		1			
113222	8 + mains	239 x 200	219 x 180	65	Digital	5	1	3	3	1			1	1	
113224	8 + mains	239 x 200	219 x 180	65	Analogue	5	1	3	3	1			1	1	
113226	8 + mains	127 x 385	107 x 365	65	Digital	5	1	3	3	1			1	1	
113230	12 + mains	351 x 200	331 x 180	65	Digital	5	1	4	5	1	1			1	
113234	16 + mains	351 x 200	331 x 180	65	Digital	5	1	5	7	2	1	1			1

12 volt supply is also required to power LEDs. On 24 volt vessels, the drop resistors below will be required to supply 12 volt to the LED circuit.

113461 Drop resistor BEP 8 way suits **113220** & **113221**
113462 Drop resistor BEP 12 way suits **113224** & **113226**
113463 Drop resistor BEP 16 way suits **113230**
113464 Drop resistor BEP 20 way suits **113234**

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering to suit BEP Contour, Contour AC, Cruiser and Millenium Breaker Panels. 43(w) x 10(h) mm.

ANCHOR LIGHT ●

SET-8

Anchor Light
Baragraph Power
Cabin Fans
Cabin Fans Fwd
Cabin Fans Aft
Courtesy Lts
Courtesy Lts Fwd
Courtesy Lts Mid
Courtesy Lts Aft
Diesel Heater
Fire System
Fuel Pump
Hailer
Lectrasan
Lectrasan Fwd
Lectrasan Stbd
Port Engine Controls
Port Ignition
Sat Com
Shower Light
Spare
Spare
Spare
Stabilizer
Stbd Engine Controls
Stbd Ignition
Toilet Light
Waste Treatment

BLA Code **113731**

BOILER/HEATER ●

SET-9

Boiler/Heater
Bow Thruster
DC/DC Converter
Deck Lights Forward
Decklights Aft
Decklights Mid
Decklights Upper
Defroster
Galley Lights
Grey Water Pump
Guest State Lights
Head Pump 1
Head Pump 2
Master State Lights
Nav Lights
Oil Pump
Pilot House Lights
Saloon Lights
Search Light
Spare
Spare
Stereo
Trim Tab Control
V-Berth Lights
VHF Lower
VHF Upper
Wash Down Pump
Windlass

BLA Code **113732**

AIR COMPRESSOR ●

SET-10

Air Compressor
Air Con Galley
Air Con Guest Room
Air Con Master State
Air Con Pilot House
Air Con Saloon
Air Con Saloon
Air Con State Room
Air Con V-Berth
Air Conditioning
Air Conditioning 1
Air Conditioning 2
Air Conditioning 3
Central Vacuum
Charger Generator
Charger House
Charger Inverter
Compactor
Engine Room Fans
Hot Circ Pump
Ice Maker Lower
Ice Maker Upper
Outlets Engine Room
Outlets External
Outlets Galley
Outlets Lower Deck
Outlets Upper Deck
Water Heater

BLA Code **113733**

12-24V REDUCER ●

SET-12

12-24V Reducer
Aerator
Ballast Aft
Ballast Control
Ballast Fwd
Black Tank Aft
Black Tank Fwd
Black Water Pump
Boom Light
Bridge Lights
Bridge Supply
Dining Lights
Fire Alarm
Flow Alarm
Interior Lights
Luff Light
Modem
Nav Area Fan
Outlets Aft
Outlets Fwd
Outlets Mid
Outlets Port
Outlets Stbd
Port Engine
Stbd Engine
Step Lights
Strobe
Riding Light

BLA Code **113735**

AFT BILGE ALARM ●

SET-13

Aft Bilge Alarm
Bilge Alarm
Bilge Alarm Test
Bilge Auto
Bilge Lights
Bilge Manual
Bilge Pump Auto/Manual
Fwd Bilge Alarm
High Water Alarm
Mid Bilge Alarm
Port Aft Bilge Alarm
Port Aft Bilge Auto
Port Aft Bilge Manual
Port Fwd Bilge Alarm
Port Fwd Bilge Auto
Port Fwd Bilge Manual
Port Mid Bilge Alarm
Port Mid Bilge Auto
Port Mid Bilge Manual
Stbd Aft Bilge Alarm
Stbd Aft Bilge Auto
Stbd Aft Bilge Manual
Stbd Fwd Bilge Alarm
Stbd Fwd Bilge Auto
Stbd Fwd Bilge Manual
Stbd Mid Bilge Alarm
Stbd Mid Bilge Auto
Stbd Mid Bilge Manual

BLA Code **113736**

210KHZ TX ●

SET-14

210KHz TX
33KHz TX
Aft Hold Light
Cockpit Freezer
Engine Controls
Fridge/Freezer
Fire Pump
Fluxgate Compass
Flybridge Freezer
Fuel Gauge
Fuel Transfer Port
Fuel Transfer Stbd
Fwd Hold Light
Gantry Lights
Holding Tank Port
Holding Tank Stbd
Masthead Light
Pilot Light Red
Pilot Light White
Port Fuel Filter
Rudder Indicator
Stbd Fuel Filter
Steering
Toilet Aft
Toilet Fwd
Towing Light Amber
Towing Light White
Tuna Tubes

BLA Code **113737**

12V OUTLETS FLYBRIDGE ●

SET-15

12v Outlet Flybridge
Arch Lights
Bilge Pump Clutch
Cabin Heater
Compass
Dry Head Pump
Demister
Engine Clutch Pump
Flybridge Hatch
Flybridge Wipers
Freezer Clutch
Fwd Stateroom Lights
Greywater Pump 1
Greywater Pump 2
Guest Cabin Stereo
Inmarsat
Instrument Lights
Instruments Flybridge
Instruments Pilothouse
Master Head Lights
Nav Area Lights
Overhead Lights
Overhead Saloon Lights
Saloon Wipers
Security System
Underfloor Lights
24v DC Mains
Bow Bilge High Water

BLA Code **113738**

AC OUTLETS AFT ●

SET-16

AC Outlets Aft
AC Outlets Aft Cabin
AC Outlets Cockpit
AC Outlets Deck
AC Outlets Fwd
AC Outlets Fwd Cabin
AC Outlets Galley
AC Outlets Guest Cabin
AC Outlets Mid
AC Outlets Port
AC Outlets Saloon
AC Outlets Saloon
AC Outlets Staterooms
AC Outlets Stbd
AC Outlets Wheelhouse
Aircon Aft
Aircon Aft Deck
Aircon Cabin
Aircon Fwd
Aircon Fwd Deck
Aircon Helm
Aircon Pump
Aircon Port
Aircon Stbd
Airhandler Fwd Stateroom
Airhandler Mstr Stateroom
Airhandler Pilothouse
Airhandler Saloon

BLA Code **113739**

24 HOUR CIRCUITS ●

SET-17

24 Hour Circuits
Aft Bilge Pump Auto / Man
Aft Head
Alarm Mute
Depth/Speed
Electronics
Engine Alarm
Fans
Fwd Bilge Pump Auto / Man
Fwd Head
Galley/Head Vent
Galley Fridge
Gas Stove
Gauges
Head Pump
Level Indicator Lights
Mid Bilge Pump Auto/ Man
Nav & Inst Lights
Oil Pressure
Pt Engine
Pt Engine Start/Stop
Stbd Engine
Stb Engine Start/Stop
Sum Log
Synchronizer
Water Temp
Windshield

BLA Code **113740**

27MEG ●

SET-18

27 Meg
Aft Holding Tank
Aft Water Heater
Cabin Outlets
Cockpit Fridge
DC Mains 1
DC Mains 2
Dehumidifier
DVD
Engine Blower
Engine Room Outlets
Entertainment
Flybridge Main
FWD Holding Tank
FWD Water Heater
Galley
Gas Solenoid
Generator
GFCI Outlet
Hatch Lifter
Helm Main
Hour Meter
Laundry
LPG/Cooktop
Navigation
Range
TV/DVD
UHF

BLA Code **113741**

12V BATTERY CHARGER ●

SET-19

12V Battery Charger
24 hour Bilge Pump
24V Battery Charger
Bilge Pump Port Fwd
Bilge Pump Port Mid
Bilge Pump Stbd Aft
Bilge Pump Stbd Fwd
Bilge Pump Stbd Mid
Boarding Platform
Bulwark Lights
Bunk Lights
Cable Master
Desalinator
Dishwasher
Electric Windows
Engine Controls
Macerator
Oil Pump
Pitch Control
Port Air Con
Port Engine
Sonar
Storeroom Lights
Spa
Stbd Air Con
Stbd Engine
TV

BLA Code **113742**

12V AUX HORN ●

SET-20

12v Aux Horn
Aft Fridge
Alternator
Anchor Winch
Bathroom Fan
Bathroom Outlets
Bridge Supply
Docking Lights
Engine Room Bilge Alarm
Fax
Fish Finder
Holding Tank Gauge
Icemaker
Inverter/Charger
Lake Water
Master Head
RCD
Reset
Saloon Lights
Shaver Outlets
Sounder
Speed
Sum Log
Toilet Port
Toilet
Stbd Trolling
TV Lift
Wind Instruments

BLA Code **113743**

ALARMS ●

SET-22

Alarms
CCTV
Cockpit Fridge
Communications
Control Max 2.0
Deck Lights
Earth Leakage Lights
Emergency Parallel
Engine Room Main
Equipment Room
Flybridge Lights
Fresh Water Pump Port
Fresh Water Pump Stbd
Genset Start
Genset Stop
Grill
Head/Galley Vent
HF Radio
Ignition Start
Mid Hold Lights
Radio Light
Radios
Refrigerator
Reverse Polarity Test
UHF Radio
VHF Radio
Wheelhouse Lights
Wine Cooler

BLA Code **113745**

AIR CON FLYBRIDGE ●

SET-23

Air Con Flybridge
Air Con Fwd
Air Con Port
Air Con Stbd
Berth Lights
Blower
Cabin Lights Main
Cooling Pump 1
Cooling Pump 2
Discharge
Discharge
Discharge
Discharge
Emergency Lights
Galley Fridge
Helm Lights
Macerator
Master Cabin Lights
Port Engine Controls
Port Engine Controls
Port Engine Controls
Quartz Lights
Stbd Engine Controls
Stbd Engine Controls
Stbd Engine Controls
Stereo Memory
Storage Bin Pump
Waterblaster

BLA Code **113746**

BEP Circuit Breaker Toggle Lock

Moulded black plastic, removable locking mechanism designed to prevent accidental or unintended actuation of essential circuit breakers from either the on or off position. As used on the BEP Battery Management panels, **113667-79**. Suitable for use with breakers on Contour, Contour AC, Cruiser and Millenium breaker control panels. When installed, a breaker will still trip in the event of overload even with the lever locked in the on position.

BLA Code **113501**

BEP Slide Lockout

Replacement slide lockout to suit double pole AC circuits on the BEP AC contour panels.

Panel not included

113502

BLA Code **113502**

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering to suit BEP Contour, Contour AC, Cruiser and Millenium Breaker Panels. 43 (w) x 10 (h) mm. Custom labels are available, please contact BLA on **1300 252 725** for more information.

ACCESSORIES

SET-1

Accessories
Anchor Light
Auto Pilot
Bilge Pump
Cabin Lights
Cockpit Lights
Compass Lights
DC Outlets
Depth Sounder
Freezer
Freshwater Pump
GPS
Instruments
LPG Control
Mast Light
Navigation Lights
Saltwater Pump
Shower Drain
Spare
Spotlight
Spreader Light
Steaming Light
Stereo
Trim Tabs
VHF
Winch
Wiper

BLA Code **113700**

BAIT TANK PUMP

SET-2

Bait Tank Pump
Bilge Pump Aft
Bilge Pump Forward
Bilge Pump Mid
Bilge Pump Port
Bilge Pump Starboard
Blower
Boarding Light
Cabin Lights Aft
Cabin Lights Fwd
Cabin Lights Mid
Cabin Lights Port
Cabin Lights Starboard
Deck Wash Pump
Electric Toilet
Engine Room Lights
Fridge
Horn
Nav Lights Port
Nav Lights Starboard
Panel Lights
Radar
Saloon Lights
SSB
Start
Stern Light
Stop
Tri Light

BLA Code **113704**

12V OUTLETS

SET-3

12V Outlets
24V Outlets
Aft Deck Light
Bilge Auto Man.
Bow Lights
Docking Lights
Emergency Parallel
Engine Alarm
Engine Blowers
Extraction Fan
Flood Lights
Fore Deck Light
Galley Light
Generator Lights
Holding Tank Pump
House Batteries
Lazerette Light
Port
Radio Battery
Search Light
Starboard
Start Batteries
Step Light
Strobe Light
Toilet Light
Weather Fax
Windex Light
Window Washers

BLA Code **113706**

AFT LIGHTS

SET-4

Aft Lights
Bedroom/Converter
Davit Winch
Engine Alternator
Fire System
Fish Finder
Fishing Light
Galley/Bath
House Alternator
Intercom
Load
Locker Light
Mid Wiper
Mid Lights
Mizzen Spreader Light
Plotter
Port Wiper
Preheat
Sole Light
Heater Fans
Starboard Wiper
Sub Main
Sump Pump
Tank Room Lights
Toilet Pump
Towing Light
TV/Stereo
Walvac

BLA Code **113708**

AC MAINS

SET-5

AC Mains
AC Outlets
AC Outlets
Air Conditioning
Battery Charger
Cook Top
Dishwasher
Dive Compressor
Dryer
Frequency
Genset
Heater
Hotwater Cylinder
Ice Maker
Inverter
Inverter Outlets
Microwave
Oven
Refrigeration
Reverse Polarity
Ships Power
Shore Power
Trash Compactor
TV
Video
Washing Machine
Waste Master
Water Maker

BLA Code **113710**

AC MAINS

SET-6

AC Mains
Accessories
Anchor Wash
Automatic
Autopilot
Auxiliary
Bilge Auto Manual
Bilge Lights
Boom Furl
Bridge Lights
Burglar Alarm
Cabin Fan
CB Radio
Cell Phone
Computer
DC Mains
Fuel Transfer
Galley Fan
Hatch Controls
Hydraulics
Loud Hailer
Macerator
Manual
Night Lights
Pelmet Lights
Solar Panel
Stove
TV Antenna

BLA Code **113712**

AFT PEAK LIGHT

SET-7

Aft Peak Light
Deck Flood Lights Fwd
Deck Flood Lights Aft
Deck Lights
Deck Lights Port
Deck Lights Starboard
Deck Lights Forward
Deck Lights Aft
Fishing Lights
Fishing Lights White
Fishing Lights Red
Fishing Lights Green
Fish Room Lights
Fish Room Pump
Fore Deck Light
Focsle Light
Mast Flood Lights Fwd
Mast Flood Lights Aft
Net Recorder
Not Under Command
NUC Lights
Plotter
Port Flood Lights
Shower Lights
Stbd Flood Lights
Toilet Fan
Toilet Light
Winch Flood Lights

BLA Code **113730**

ACCOMMODATION

SET-24

Accommodation
Accommodation Lights
Aft Spot Light
Bedroom Lights
Ceiling Lights
Deck Flood Lights
Diesel Heater
Discharge Pump
Extract Fan
Flybridge Stereo
Fridge Clutch
Fwd Cabin Stereo
Fwd Spot Light
Gas Heater
LPG/Cooktop
Macerator Pump
Network
Outside Lights
Port Cabin Stereo
Port Macerator
Reading Lights
Running Lights
Salon Stereo
Stbd Cabin Stereo
Stbd Macerator
Underwater Lights
Wardrobe Lights
Water Gauge

BLA Code **113747**

12V DOOR

SET-25

12V Door
12V Spare
Aft Fans
Aft Toilet lights
Black Water Discharge
Engine Room Exhaust
Engine Room Intake
Fwd Fans
Fwd Toilet Lights
Helm Deck Lights
Helm Fridge
High Water Bilge Pump
Port Bilge Pump Auto/Manual
Port Engine Ignition
Port Engine Start
Port Head
Port Toilet Light
Port Vent
Satelitte
Slow Vessel Mode
Stbd Bilge Pump Auto/Manual
Stbd Engine Ignition
Stbd Engine Start
Stbd Head
Stbd Toilet Lights
Stbd Vent
Sunroof
Toilet Lights

BLA Code **113748**

DC FRIDGE

SET-26

DC Fridge
Deck & Courtesy Lights
Electronics Overhead Panel
Engine Room & Lazarette Lights
Engine Room Sump Pump
Genset Charger
Head Vent
High Exhaust Temp. Port
High Exhaust Temp. Stbd
Lower 12V Mains
Lower 24V Mains
Port & Stbd Cabin Lights
Port Electric Head
Port Engine Fault
Port Engine Maintenance
Port Engine Start/Stop
Stbd Electric Head
Stbd Engine Fault
Stbd Engine Start/Stop
Stbd Enigne Maintenance
Stereo Inverter
Upper 12V Mains
Upper 24V Mains
Vacuum Flush
Vacuum Pump
Wait To Start Port
Wait To Start Stbd
Windshield Lift

BLA Code **113749**

AC MAINS 1

SET-27

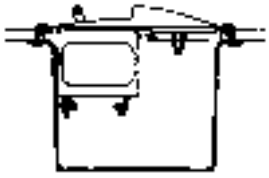
AC Mains 1
AC Mains 2
Air Con 5
AIS
Blank
Blank
Blank
Caterpillar Controls
Cummins ETS
Galvanic Isolator
Group 1 Main
Group 2 Main
Guest Cabin Lights
Hardtop
Hydraulic Clutch
Inverter Circuits
Module
Oil transfer
Port Battery Charger
Rod Locker
Saloon Main
Shaft Brake
Stbd Battery Charger
Stbd Bus Supply
Tender Winch
Voltmeter
Water Transfer

BLA Code **113750**

BEP 'Contour AC' Panel Back Covers

BEP

Designed to insulate the exposed terminals at the rear of BEP 'Contour AC' circuit breaker panels. Made from flame retardant PVC. Flange mounted to the rear of the same substrate as the panel. Covers are supplied complete with hazard label. Available in two heights to suit panels with between 8 and 12 circuit breakers per column, with or without a meter.



BLA Code	Columns	No. of Breakers	Meter	Width mm	Height mm	Depth mm
113235	1	8-12	Yes	127	380	90
113236	2	8-12	Yes	239	380	90
113237	1	8-12	No	127	285	90
113238	2	8-12	No	139	285	90

Marinco® Shore Power Systems 220-250 Volt

MARINCO

Utilising a 'locking style' design, which provides superior waterproofing, corrosion resistance, and peace of mind from the knowledge your shore power system is safely locked in place. The easylock™ system provides locked power connection with a quarter of a turn. Inlet covers also have threaded boss for additional security as well. Glass filled polyester body, incorporating brass electrical connectors. Available in a choice of 16 amp or 32 amp systems depending on the current capacity required. These two systems are not interchangeable. 240 volt AC shore power system power points and plugs to be fitted by a licensed electrician or a registered electrical contractor.

Marinco® Power Inlet Points - Polyester

MARINCO

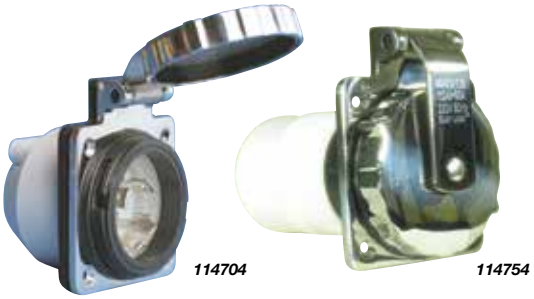
Marine grade U.V. stabilised glass filled polyester construction with tinned brass electrical connectors and easy lock quarter turn system. A special cam feature on the hinged cap allows it to stay open during connection. A soft touch unlocks the watertight cap for closing. Cap is trimmed with a stainless steel centre trim piece. Rear safety enclosure provides eight positions for cable entry.

BLA Code	Rated amps	Face Size mm	Protrusion mm	Intrusion mm	Cut Out Dia. mm
114700	16	99 x 109	21	74	58
114750	32	99 x 109	21	102	61

Marinco® Power Inlet Points - Stainless Steel

MARINCO

Solid cast 316 grade stainless steel face plate with waterproof cap. Tinned brass electrical connectors and easy lock quarter turn system. Cap holds in the open position, a soft touch releases the cap for closing. Rear safety enclosure provides eight positions for cable entry.

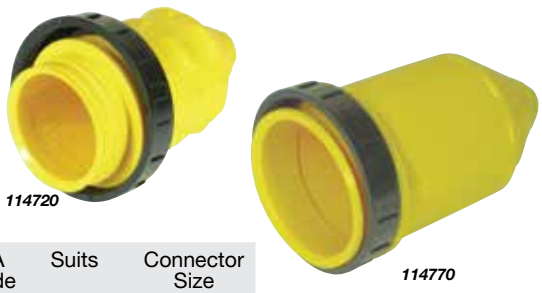


BLA Code	Rated amps	Face Size mm	Protrusion mm	Intrusion mm	Cut Out Dia. mm
114704	16	82 x 105	30	74	58
114754	32	82 x 105	30	102	61

Marinco® Power Inlet Connectors Cover

MARINCO

Marine grade flexible plastic cover with threaded ring to waterproof and further secure the power inlet socket. Internal ribs provide secure push fit on the socket.



BLA Code	Suits	Connector Size
114720	**114715**	16A
114770	**114765**	32A

Marinco® Power Inlet Connectors

MARINCO

Marine grade moulded construction with stainless steel fastenings and tinned brass electrical contacts. Ribbed cover provides grip. Connects positively with quarter turn. Provided with weatherproof sealing cap. Supplied with female connector, waterproof cover and waterproof cap.

BLA Code	Description
114715	16 Amp
114765	32 Amp

Marinco® Shore Power Leads

MARINCO

Marine grade, fine stranded, soft annealed copper wire for maximum flexibility. Covered with a bright yellow outer for high visibility. Rated to 600 volts, supplied in a choice of 16 or 32 amp rated capacity with the corresponding easy lock quarter turn connector with waterproof cover and threaded boss fitted to one end only. The other end is left blank to enable matching to shore power socket.

BLA Code	Rated amps	Length m	OutsideDia. mm
114730	16	15	11
114780	32	15	22

Rewireable 240VAC 10 Amp 3 pin Power Plug

Rewireable extension cord plug with partially insulated active and neutral pins suitable for use with 3 core ordinary duty flexible cord.

N.B. Plug to be fitted by a licensed electrician or registered electrical contractor.

BLA Code
114922

Shore Power Plug

Rewireable extension cord plug with partially insulated active and neutral pins. Earth pin is the larger 15 amp style commonly used on marina power supply sockets.

N.B. Plug to be fitted by a licensed electrician or registered electrical contractor.

BLA Code
114919

Power Outlet Socket

Single 10 amp double pole 240V AC power outlet socket in a flush mount white plastic housing with weatherproof hinged flap and sealing gasket. Waterproof to IP34 standard. Accepts standard 10 amp household type plugs.

N.B. Socket to be fitted by a licensed electrician or registered electrical contractor.

BLA Code	Height mm	Width mm	Depth mm
114916	101	80	38

Power Inlet Point

Single 15 amp 240V AC power inlet point in a flush mount white plastic housing with hinged flap and seating gasket. Partially insulated active and neutral pins. Earth pin is the larger 15 amp style.

N.B. Installation requires a licensed electrician or registered electrical contractor.

BLA Code	Height mm	Width mm	Depth mm
114918	101	80	38

BEP Digital Voltage Sensing Relay

Dual Battery Charging Made Easy

The Digital Voltage Sensing Relay (DVSR) allows the charging of a second battery bank from any single charging source. When the voltage on the charged bank rises sufficiently, the DVSR engages allowing the 2nd battery bank to charge. When charging stops and voltage falls, the DVSR automatically isolates the battery banks, ensuring that engine start batteries are kept fully charged. Digital circuitry provides superior reliability and extremely low power consumption.

Features:

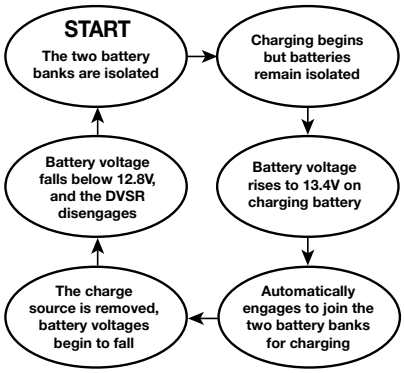
- Safely charge two or more independent battery banks from one charge source (alternator, battery charger)
- Charges engine starting batteries before combining auxiliary bank for charging
- Protects start batteries from becoming flattened by domestic loads
- Isolates electronics from harmful electrical surges from starter motors
- Simple to install 3 wire connection, leaves alternator wiring intact
- No volt drop vs. diode isolators
- Ignition protected
- Surface or panel mountable
- Replaces previous models **113646**, **113647** and **113649**

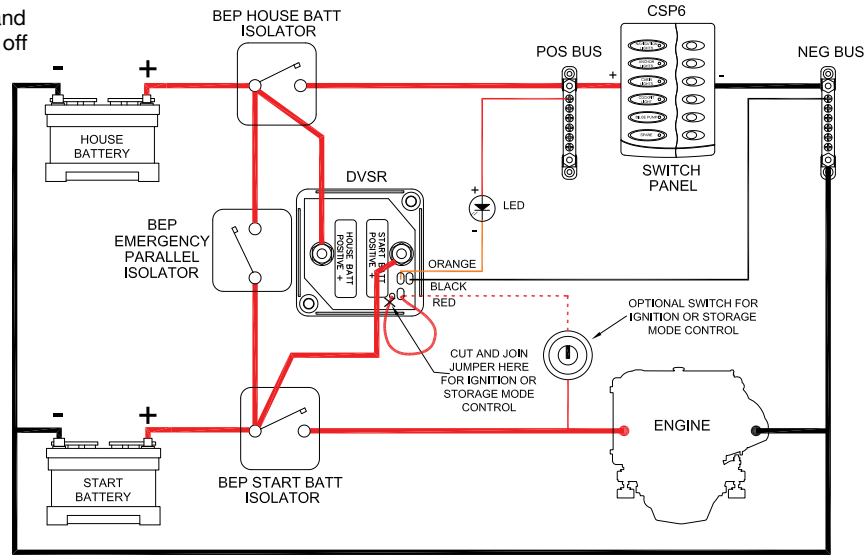
Digital enhancements:

- Multi voltage, auto selects between 12 and 24V DC operation
- Digital circuits provide very low power consumption and enhanced performance
- Remote sensing circuitry allows optional connection from ignition switch, provides same functionality as single sense VSR and zero power consumption when engine is off
- Zero stand by current draw when remote sensing circuit utilised with storage mode switch fitted (switch in open position)
- Remote status LED output option

DVSR Operation

(shown for 12V system)





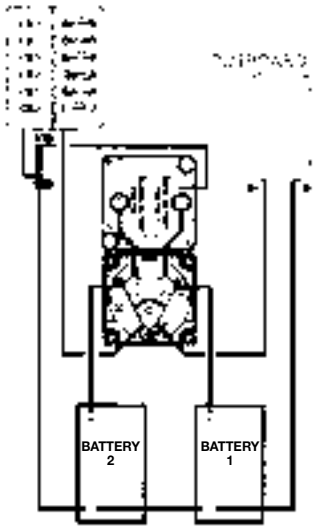
Wiring diagrams indicative of installation only, for full instructions call BLA on 1300 252 725.

BLA Code	L x W x H mm	Volts V	Rating (A) Continuous	Rating (A) Intermittent	Engages V DC	Disengages V DC
113668	69 x 69 x 50	12/24	125	140	13.4/26.8	12.8/25.6

BEP Battery Distribution Cluster with DVSR

- Single Engine Two Battery Banks

Pre-wired module combining **113553** Mini Battery Selector Switch and a dual sensing Voltage Sensitive Relay. With the selector switch in position 1, it becomes the sensing battery for the VSR. When the engine is first started the relay is open and remains open until the selected battery reaches a preset 13.4 volt. The relay closes at the rated voltage providing charge to both batteries. When the selected battery voltage drops below 12.8 volt, the DVSR disengages, separating the batteries and ensuring that battery 1 is not discharged by house loads. When the selector switch is in position 2, this becomes the sensing battery and the reciprocal occurs. When the selector switch is in the both position the DVSR is inactive and the charge and load is distributed evenly between the batteries. With this system the loads are run off the same battery as the engine starting battery.



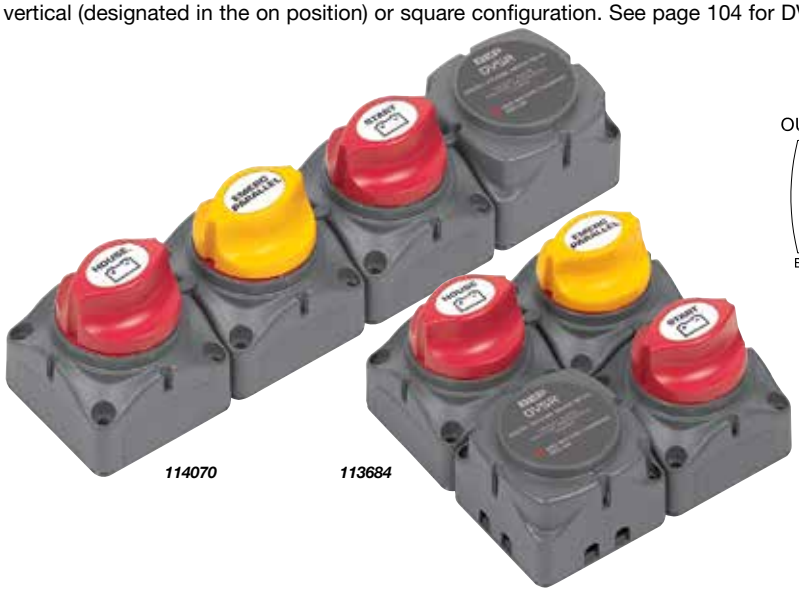
BLA Code	Base mm	Height mm	Mount Holes mm
113654	138 x 69	69	5 r/h

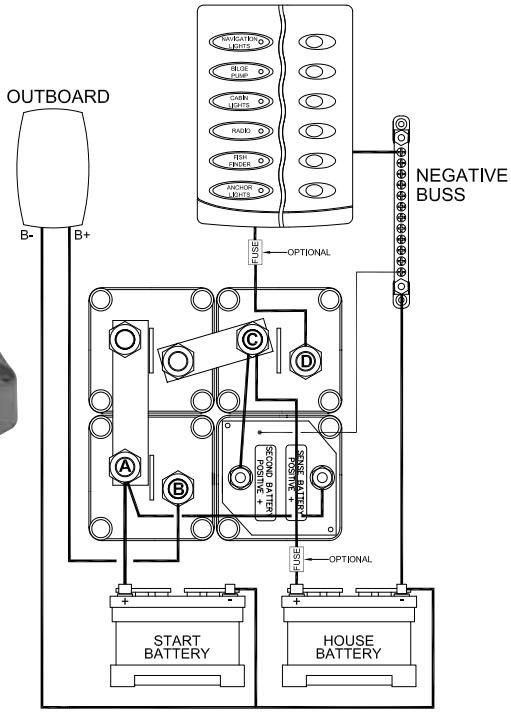
TWIN BATTERY
CHARGING MADE EASY

BEP Battery Distribution Cluster with DVSR

- Single Engine Two Battery Banks

Preassembled module with solid links and application labels combining three **113550** Mini Battery Master Switches with a 140 amp Voltage Sensitive Relay. This system is an ideal replacement for an existing four position battery selector switch, easily connected to the existing wires, to provide a fully automatic battery management system. Provides for isolation of start and house batteries independently with the ability to emergency parallel supply from both. The DVSR will automatically prioritise the charging of the start battery. When the engine is first started the relay is open and remains open until the start battery has reached a preset 13.4 volt. At the rated voltage, the relay closes providing charge to both batteries (start and house). When the voltage drops below 12.8 volt (when the engine is stopped), the DVSR disengages, separating the batteries. This system eliminates the possibility of draining the start battery and protects electronics powered by the house battery from harmful engine starting spikes. Available in horizontal, vertical (designated in the on position) or square configuration. See page 104 for DVSR Charging Characteristics.



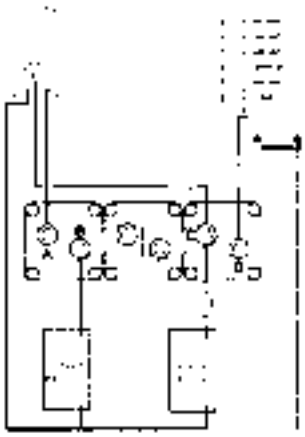


BLA Code	Configuration	Base mm	Height mm	Mount Holes mm
114070	Horizontal	276 x 69	69	5 r/h
113684	Square	138 x 138	69	5 r/h
114074	Vertical	69 x 276	69	5 r/h

BEP Battery Distribution Cluster

- Single Engine Two Battery Banks

Preassembled module with solid links and application labels, based on the **113550** Mini Battery Master Switch. Provides for isolation of start battery and house batteries independently with the ability to emergency parallel supply from both. Ignition protected. Available in horizontal or vertical configuration (designated in on position).

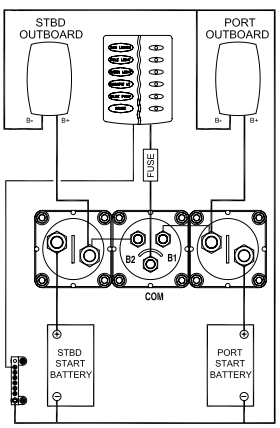


BLA Code	Configuration	Base mm	Height mm
113552	Horizontal	207 x 69	69
113554	Surface	69 x 207	69

BEP Battery Distribution Cluster

- Two Engines Two Battery Banks

Preassembled module with solid links and application labels with two **113550** Mini Battery Master Switches and one **113557** Mini Battery Selector Switch. The Battery Master Switches isolate the port battery and the starboard battery independently. The Battery Selector Switch is used to switch the house load between the port battery and the starboard battery. It can also be used to parallel the batteries when in the both position.

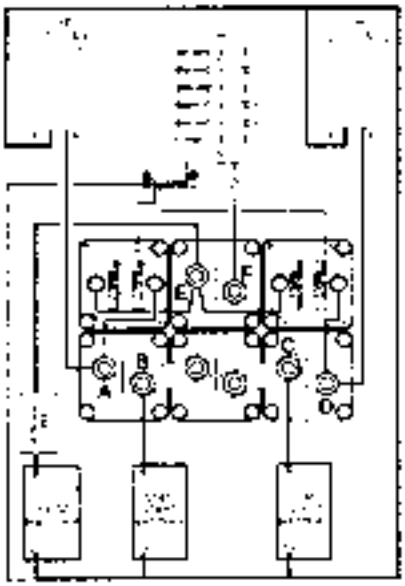


BLA Code	Base mm	Height mm
113666	207 x 69	69

BEP Battery Distribution Cluster with DVSR

- Twin Outboard Three Battery Banks

This system is designed to provide automatic battery management for twin outboard installations using outboards without AUX outputs. It is a preassembled module with solid links and application labels. Provides independent isolation of port start, starboard start and house batteries with the ability to emergency parallel both starting batteries, combined with a 140 amp DVSR connected to each engine. It will control the port engine to charge the port start battery first and then the house battery when the port start battery is fully charged. It will also control the starboard engine to charge the starboard start battery first and then charge the house battery when the starboard start battery is fully charged, giving a combined charge from both engines to the house battery until the voltage regulators of both engines control the charge. It will also allow the house battery to be charged if running on one engine.
Refer page 104 for DVSR operating characteristics.



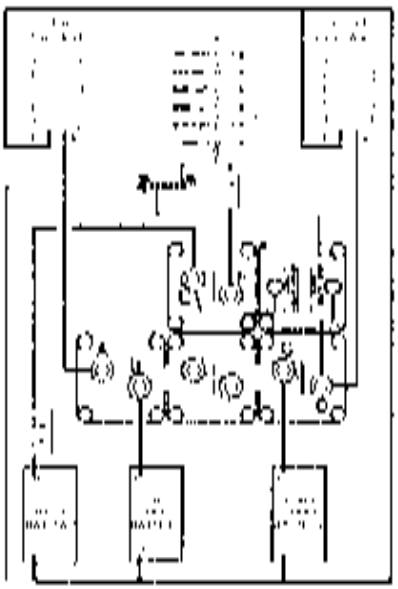
TWIN BATTERY
CHARGING MADE EASY

BLA Code	Base mm	Height mm	Mount Holes mm
113688	207 x 138	69	5 r/h

BEP Battery Distribution Cluster with DVSR

- Twin Inboard Three Battery Banks

This system is used in installations when it is not practical to have both engine alternators in parallel because of the types of regulators. It provides isolation of the port start, starboard start and house batteries independently with the ability to emergency parallel both starting batteries. A 140 amp Voltage Sensitive Relay (VSR) is connected to the port engine. When the port engine is first started the relay is open and remains open until the port start battery reaches a preset 13.4 volt. At the rated voltage, the relay closes providing charge to both the port start battery and the house battery. When the port start battery voltage drops below 12.8V (when the engine is stopped), the VSR disengages, separating the batteries, ensuring the port start battery is not discharged by house loads. The starboard start battery is always isolated to start and be charged by the starboard engine unless the emergency parallel is on.
Refer page 104 for DVSR operating characteristics.



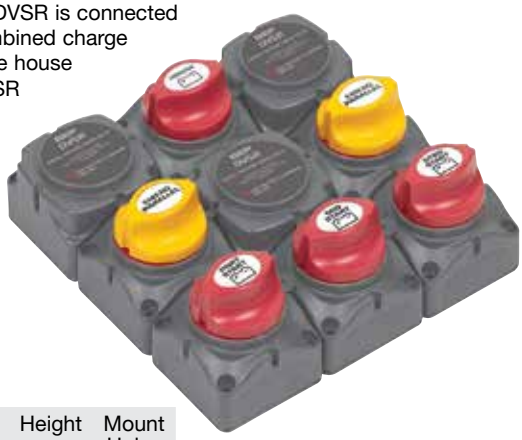
TWIN BATTERY
CHARGING MADE EASY

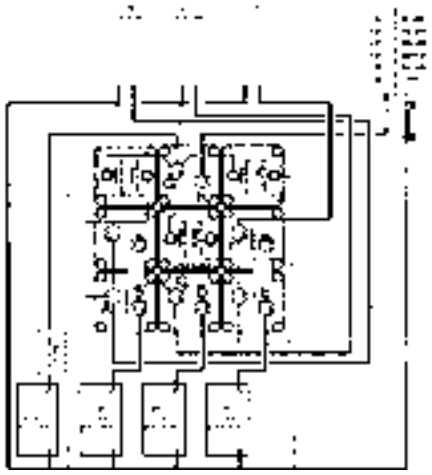
BLA Code	Base mm	Height mm	Mount Holes mm
114078	207 x 138	69	5 r/h

BEP Battery Distribution Cluster with DVSR

- Triple Outboard Four Battery Banks

Designed to provide automatic battery management for triple outboard installations. It is a preassembled module providing independent isolation of the house battery and each start battery. It also has the ability to emergency parallel the start batteries. A 140 amp DVSR is connected to each engine providing a combined charge from all three outboards into the house battery. Refer page 104 for DVSR operating characteristics.





CONTACT BLA SALES SPECIAL ORDER 1300 252 725

BLA Code	Base mm	Height mm	Mount Holes mm
55-719-140A-dvsr	207 x 207	69	5 r/h

BEP Contour Connect Battery Distribution Cluster with DVSR

- Single Engine Two Battery Banks

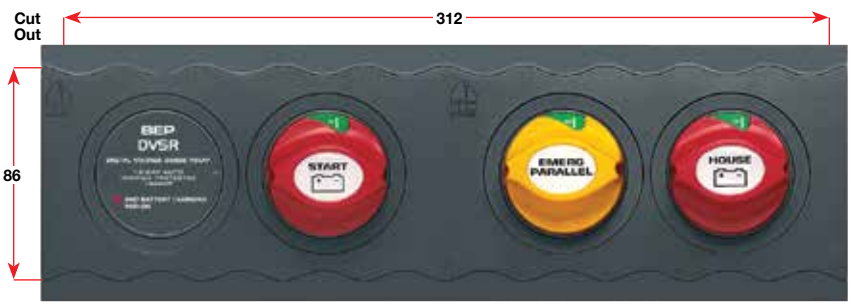
Pre-wired, flush mount module that combines the 113553 battery selector switch and a 140 amp dual sensing Voltage Sensitive Relay in an aesthetically pleasing, modular housing. Operation is identical to 113654 on page 104. Panel fastening is concealed by interchangeable clip-on strips (light grey is supplied as standard, refer page 109 for other options) and clip-on cover at rear ensures ABYC compliance of the installation. Supplied with one interlink joiner enabling simplified system expansion. Refer page 104 for DVSR operating characteristics.

BLA Code	Width mm	Height mm	Intrusion mm	Cut Out mm
113010	166	106	55	146 x 86

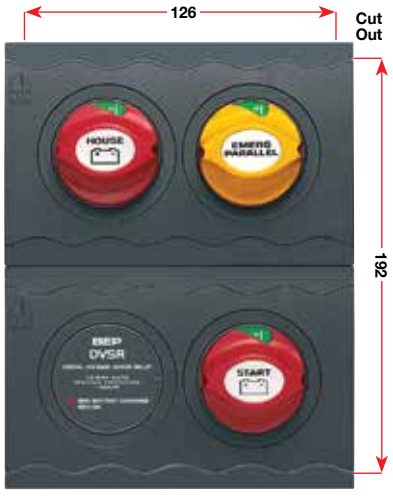
BEP Contour Connect Battery Distribution Cluster with VSR

- Single Engine Two Battery Banks

Flush mount module that combines three **113548** battery switches with a 140 amp dual sensing Voltage Sensitive Relay. Operation is identical to **114070** on page 106. Supplied loosely assembled with links and joiners that allow it to be installed in either the vertical or horizontal plane as depicted below. Panel fastening is concealed by interchangeable clip-on strips (light grey is supplied as standard, refer page 109 for other options) and clip-on cover at rear ensures ABYC compliance of the installation. Supplied with one interlink joiner enabling simplified system expansion. Refer page 104 for DVSR operating characteristics.



Horizontal: 332mm W x 106mm H x 55mm Intrusion overall



Vertical: 166mm W x 212mm H x 55mm Intrusion overall

BLA Code
113014

BEP Contour Connect Battery Distribution Cluster

- Single Engine Two Battery Banks

Preassembled, flush mount module with three 701 battery switches connected by solid links in an aesthetically pleasing, modular housing. Operation is identical to **113552** on page 105. Panel fastening is concealed by interchangeable clip-on strips. Supplied with one interlink joiner enabling simplified system expansion. Auto charging option available on request.

113022

BLA Code	Width mm	Height mm	Intrusion mm	Auto charging	Cut Out mm
113022	233	106	55	no	213 x 86
55-80-700-0054-00	233	106	55	yes	213 x 86

BEP Contour Connect Battery/Switch Panels

Combination, pre-wired flush mount panels to compliment the range of Contour Connect Battery Distribution Clusters. Select from the table below the panel that best suits your installation. Panel fastening is concealed by interchangeable clip-on strips (light grey is supplied as standard, refer page 109 for other options) and clip-on cover at rear ensures ABYC compliance of the installation. Supplied with one interlink joiner enabling simplified system expansion. Dimensions: 166mm W x 106mm H x 55mm Intrusion.

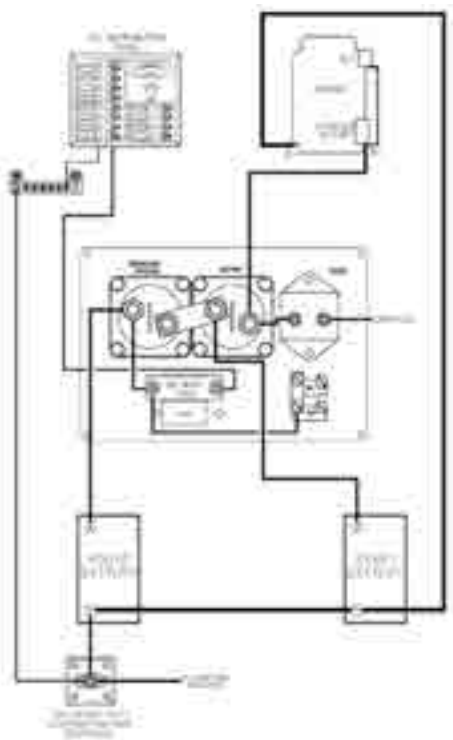
113026

BLA Code	Description
113026	1 x 50 amp CB, 2 x 15 amp & 1 x 10 amp thermal CB's and 1 x 135 amp HD CB

BEP Battery Management Panel

- Type Four Single Engine Two Battery Banks

Preassembled module with black powder coated aluminium recessed face plate containing two **113548** Mini Battery Master Switches, Bussmann heavy duty circuit breaker for anchor winch, two 24 hour essential power supply thermal circuit breakers and a 100 amp 'C' Series circuit breaker for the DC main supply. One battery master switch isolates the start battery. The other battery switch parallels the start and house batteries for charging and load applications where required. There is also provision for an additional 'C' Series circuit breaker for other high load applications such as davit winches, toilet treatment systems etc. Supplied with comprehensive circuit breaker label set.



BLA Code	Overall Size mm	Intrustion mm	Protrusion mm	Mount Holes mm
113669	239 x 160	55	35	3 r/h

Build your own Battery Distribution Centre

BEP

BEP Contour Connect Kitset Panels

A range of blank Contour Connect housings enabling the user to create a custom panel or modify an existing installation by using the below panels, the battery switches **113553**, **113548** and the DVSR **113668.** For suitable circuit breaker switches, refer to page 114. All mouldings are supplied with mounting hardware to fit compatible components and, where relevant, a cc-joiner for attachment to other modules.

113050

113052

113056

BLA Code
113050
113052
113056

Rear - Power studs not included

113553 Battery Switch

113548 Battery Switch

113668 DVSR

BEP Contour Connect Breaker Mount

BEP

Rear mount moulding for Contour Connect panels to suit the Bussmann® heavy duty circuit breakers on page 127. Supplied with fastenings for both the circuit breaker and attachment to panel.

BLA Code
113064

BEP Contour Connect Labels

BEP

Adhesive labels to suit the Contour Connect range of battery switches and switch panels.

BATTERY CHARGER	BILGE PUMP STBD	ELECTRONICS	FRESH WATER PUMP	LECTRASAN	STEREO
BILGE PUMP AFT	CATHODIC PROTECTION	ENGINE CONTROLS	FRIDGE	LIGHTS	STEREO MEMORY
BILGE PUMP ENGINE ROOM	CO DETECTOR	ENGINE CONTROLS PORT	FUEL TRANSFER PUMP	PORT BATTERY CHARGER	SUMP PUMP
BILGE PUMP FWD	DAVIT	ENGINE CONTROLS STBD	HIGH WATER	SPARE	TOILET
BILGE PUMP MID	DC MAIN	ENGINE ROOM LIGHTS	HOLDING TANK	SPARE	TRIM TABS
BILGE PUMP PORT	DC OUTLETS	FIRE SYSTEM	HOUSE BATTERY CHARGER	STBD BATTERY CHARGER	WINCH

BLA Code
113696

ANCHOR WINCH	HELM MAIN
DAVIT	LECTRASAN
DC MAINS	PUMPS
DECK WINCH	SALOON MAINS
DOCKING WINCH	TOILET
FLYBRIDGE MAINS	WINCH

BLA Code
113697

HOUSE

EMERG PARALLEL

START

BLA Code
113691

BEP Contour Connect Wave Strip

BEP

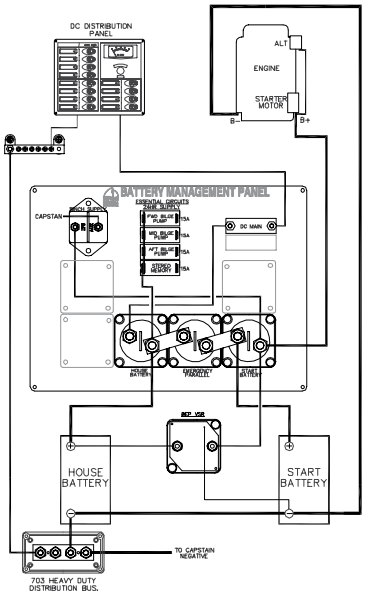
Contour Connect panels are supplied with one pair of light grey wave strips.
Change the appearance of the panel by fitting a charcoal coloured wave strip. Sold as a pair.

BLA Code
113082

BEP Battery Management Panel

- Type One Single Engine Two Battery Banks

Preassembled module with white powder coated aluminium recessed face plate containing four **113548** Mini Battery Master Switches, Bussmann heavy duty circuit breaker for anchor winch, four 24 hour essential power supply ‘B’ Series circuit breakers and a 100 amp ‘C’ Series circuit breaker for the DC main supply. Start and house batteries can be isolated independently with the ability to emergency parallel both batteries. A spare battery master switch is supplied for radio, genset, anchor winch etc. Space is available to fit an additional two battery switches and a second ‘C’ Series circuit breaker for other high load applications such as davit winches, toilet treatment systems, DVSR etc. Supplied with a comprehensive circuit breaker label set.

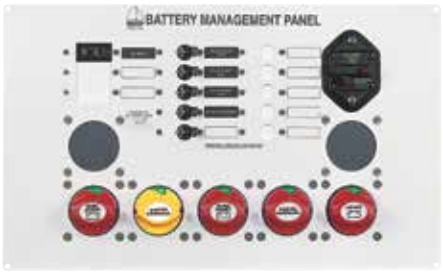


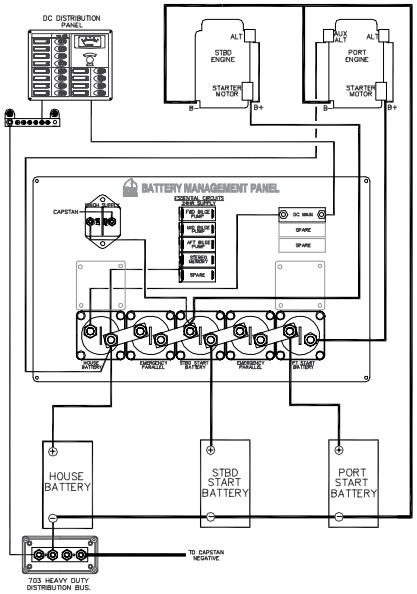
BLA Code	Overall Size mm	Base mm	Height mm	Mount Holes mm
113677	351 x 260	55	35	4 r/h

BEP Battery Management Panel - Type Two

Twin Engine Three Battery Banks

Preassembled module with white powder coated aluminium recessed face plate containing five **113548** Mini Battery Master Switches, Bussmann heavy duty circuit breaker for anchor winch, five 24 hour essential power supply ‘B’ Series circuit breakers and a 100 amp ‘C’ Series circuit breaker for the DC main supply. Port start, starboard start and house batteries can be isolated independently with the ability to emergency parallel batteries in pairs or altogether. Space is available to fit an additional two battery switches for radio, genset, anchor winch, bow thruster type applications or DVSR. It is also possible to fit an additional two ‘C’ Series circuit breakers for high load applications and up to five more essential circuits ‘B’ Series circuit breakers.



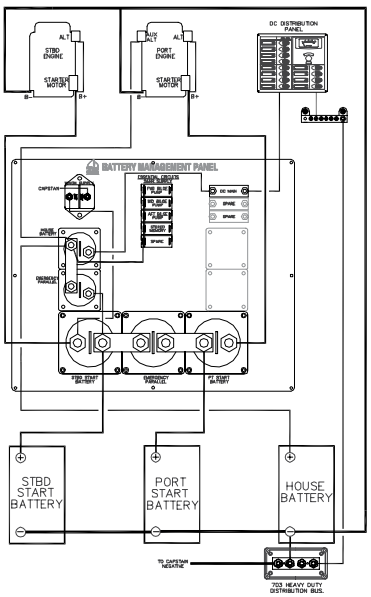


BLA Code	Overall Size mm	Base mm	Height mm	Mount Holes mm
113678	463 x 281	55	35	4 r/h

BEP Battery Management Panel

- Type Three Twin Engine Three Battery Banks

Preassembled module with white powder coated aluminium recessed face plate containing **113551** heavy duty Battery Master Switches to cater for higher start up current of larger diesels, two **113548** Mini Battery Master Switches, Bussmann heavy duty circuit breaker for anchor winch, five 24 hour essential power supply ‘B’ Series circuit breakers and a 100 amp ‘C’ Series circuit breaker for the DC main supply. Space is available to fit additional battery switches and circuit breakers as above. Supplied with a comprehensive circuit breaker label set.



BLA Code	Overall Size mm	Base mm	Height mm	Mount Holes mm
113679	463 x 380	55	35	4 r/h

BEP Remote Operated Battery Switches

Due to the increased load requirements and large increases in the cost of copper battery cable, the MD range of battery switches allow you to install the battery switch very close to the battery, reducing cable lengths to starter motor. They are also ideal for remote isolation of bow thrusters. Available in 275A and 500A, both switches are operated by the **113546** dash mounted switch or alternatively, any standard on/off switch can be used.

Functionality of **113671** is near identical to that of the previous model, however additional advanced wiring options are now possible, and installation has been simplified for standard systems by minimising the number of connections required. Standard installation is the same for both **113670** and **113671** switches.

113671 features digital circuitry and optical sensor positioning that automatically adjusts for either 12V or 24V input, and offers convenient remotely activated battery switching, combined with low power consumption. Designed and constructed for longevity in the marine environment, both switches utilise tinned copper conductors, stainless steel nuts, and high temperature, fibre reinforced plastics. The units are ignition protected, provide on/off switching operation, and may be recessed or surface mounted.

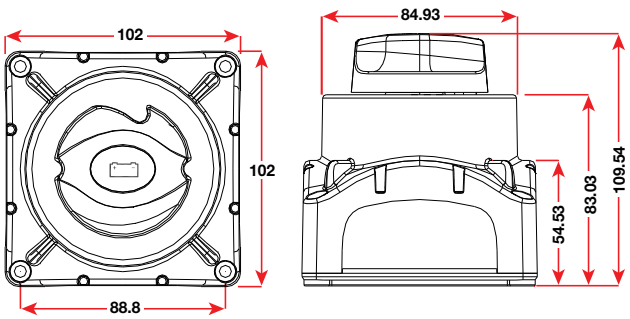
113671 offers additional installation options, whereby the motor/circuit board can be fed from either one, or two fully independent 12V or 24V supplies so the battery switch contacts are completely isolated.

Features:

- Control higher voltage circuits e.g. 32 or 48 volt circuits
- Control negative cables in circuits
  (e.g. full remote isolation in metal hulled craft)
- Ensure engine electronics are fully isolated from all other circuits
- Can still be operated in case of a flat battery

113670

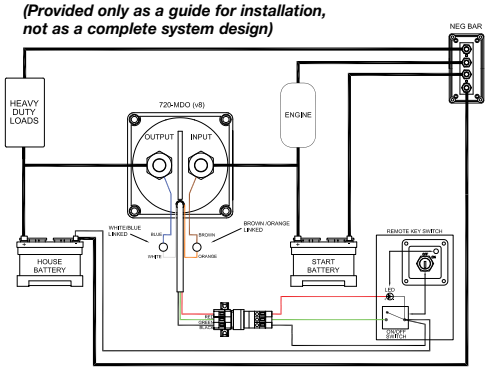
113671



113670 & 113671

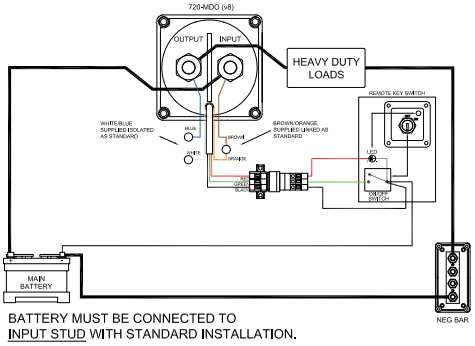
Standard installation drawing:

(Provided only as a guide for installation, not as a complete system design)



113671 Optional installation:

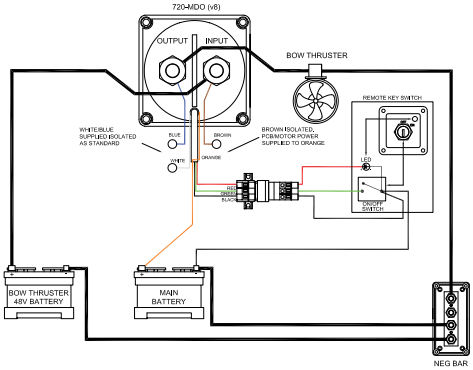
Switch contacts isolated from circuit board/motor supply



BATTERY MUST BE CONNECTED TO
INPUT STUD WITH STANDARD INSTALLATION.

113671 Optional installation:

As a Parallel Switch



BLA Code	Continuous	Rating (A DC) Intermittent	Cranking	Voltage (V DC)	Function	Stud Size Studs x (in/mm)	Base mm	Height mm
113670	275	455	1250	9.5-32	On/off	2 x (3/8" / 10mm)	68 x 68	101
113671	500	700	2500	9.5-32	On/off	2 x (1/2" 12mm)	102 x 102	110

BEP Remote Operated Voltage Sensitive Switches (VSS)

These Voltage Sensitive Switches automatically sense voltage to provide optimal, automatic charging of a second independent battery bank. The dual sensor VSSs allow the battery banks to be combined or isolated based on the presence of any charging source (such as an engine alternator or battery charger), while also offering remotely activated, high current, emergency parallel connection of the banks.

Designed and constructed for longevity in the marine environment with tinned copper conductors, stainless steel nuts and high temperature, fibre reinforced plastics. The units are ignition protected, provide On/Off switching operation, and may be recessed or surface mounted.

114080 features digital circuitry and optical sensor positioning which provides:

- Up to 67% reduction in stand-by current draw (5mA)
- Multi voltage - auto selects between 12V and 24V DC operation (both battery banks must be either 12 volt, or both 24 volt)
- Increased accuracy of voltage measurement through digital circuitry
- Lowered cut in voltage 13.3V (26.6V for 24V) also suits low output alternators, and high temperature environments
- Same easy installation with Wago plug provided as **113672** and **113680**

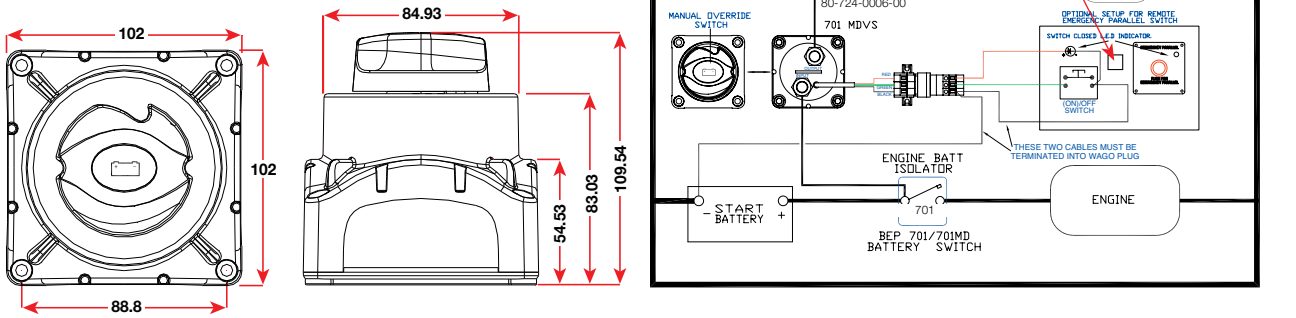
The Voltage Sensitive Switches can be operated through a momentary switch (**113545**) on the dash which will parallel the batteries for the preset time of 10 minutes. Once the 10 minutes has passed, if the voltage has increased sufficiently through charging, it will stay engaged. If not, it will disengage and isolate the battery banks.

55-720-MDO-EP

114080

113672

113545



BLA Code	Volts	Continuous Amps	Intermittent Amps	Cranking Amps	Base mm	Height mm	Stud Size Studs x (in/mm)
113672	12	275	455	1250	68x68	101	2 x (3/8" / 10mm)
113680	24	275	455	1250	68x68	101	2 x (3/8" / 10mm)
114080	12-24	500	700	2500	102x102	110	2x (1/2" / 12mm)
55-80-701-0018-00	12/24	275	455	1250	68x68	101	2x (3/8" / 10mm) Emergency parallel only
55-720-MDO-EP	12/24	500	700	1250	102x102	110	2x (1/2" / 12mm) Emergency parallel only

Accessories:

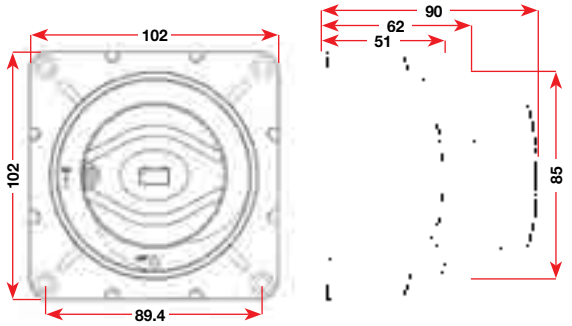
113545 Momentary Switch

BEP Contour Heavy Duty Battery Master Switch

The 720 heavy duty Contour Master Switch is designed for larger vessels with higher amp loads. It offers 600 amps continuous and 2500 amps cranking capacity. The switch can be recess mounted in a 85mm hole or surface mounted. Screw holes 5mm roundhead. Interchangeable labelling system on the control knob allows a full range of applications. Switches come standard with the battery symbol label. Alternative label sets **113691** are available. Removable rear cover insulates the rear terminals against any short circuits and ensures the switch meets ABYC requirements. Non corrosive construction, self cleaning sliding contacts. Ignition protected.

Specifications:

- Continuous rating: 600 amps DC
- Intermittent rating: 800 amps DC
- Cranking rating: 2500 amps DC for 10 seconds
- Voltage rating: 48 volts DC maximum
- Terminal stud size: 2 x 12mm



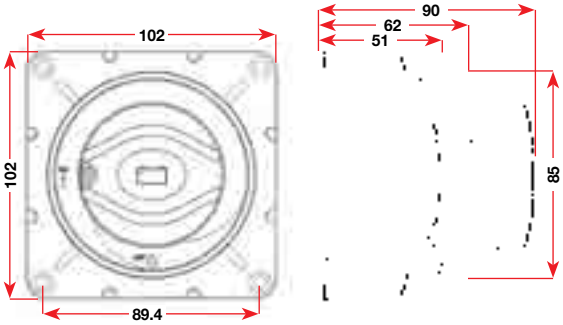
BLA Code
113551

BEP Double Pole Battery Master Switch

Designed to isolate both positive and negative circuits as required in some commercial vessel installations. It is not recommended for switching house and start battery systems at the same time for safety reasons. Removable rear cover insulates the rear terminals against short circuit and removable side plates provide access for heavy duty battery cables. Suitable for surface mounting or recessed mounting in a 85mm hole. Screw holes 5mm roundhead. Ignition protected.

Specifications:

- Continuous rating: 400 amps DC
- Intermittent rating: 525 amps DC
- Cranking rating: 1500 amps DC for 10 seconds
- Voltage rating: 48 volts DC maximum
- Terminal stud size: 4 x 12mm



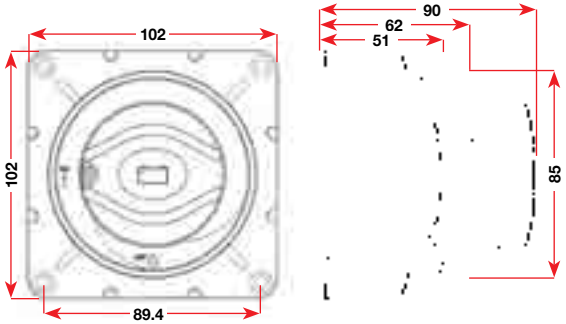
BLA Code
113527

BEP Heavy Duty Four Position Battery Switch

The 721 heavy duty selector switch provides four possible operation settings, Off, Battery 1, Both and Battery 2 giving the choice of charging a selected battery or isolating current draw to a single battery. The switch can be recess mounted in a 85mm hole or surface mounted. Screw holes 5mm roundhead. Removable rear cover insulates the rear terminals against short circuit and removable side plates provide access for heavy duty battery cables. Please note this system will not protect electronics from harmful engine starting spikes.

Specifications:

- Continuous rating: 350 amps DC between common and B1 or B2
  500 amps DC between common and B1 and B2
- Intermittent rating: 500 amps DC
- Cranking rating: 1500 amps DC for 10 seconds
- Voltage rating: 48 volts DC maximum
- Terminal stud size: 3 x 10mm



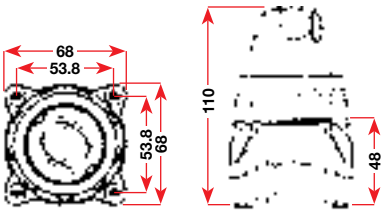
BLA Code
113556

BEP Easyfit Battery Master Switch

Through panel mount battery master switch with removable threaded ring allows for fast installation in panel thicknesses up to 19mm. Control knob cannot be removed whilst in the on or off position, but is removable at an anti-theft position at 45° past the off position. Removable back cover protects terminals and meets ABYC specifications. The switch can also be surface mounted. Ignition protected.

Specifications:

- Continuous rating: 275 amp DC
- Intermittent rating: 455 amp DC
- Cranking rating: 1250 amp DC (10 seconds)
- Voltage rating: 48 volts DC maximum
- Moulded in high temperature, fibre-reinforced plastics



BLA Code
113547

BEP Battery Switch Knob

For applications where an emergency parallel switch needs to be highlighted. Suits BEP 701 Series switches. Ordered separately and replaces existing knob.

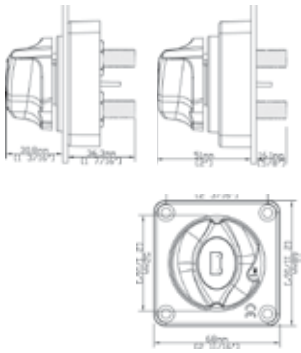
BLA Code	Colour
113590	Yellow
113549	Red

BEP Contour Battery Master Switch - Surface and Panel Mount

The 701 Contour Battery Master Switch is a simple on/off switch which offers a number of unique features. The contour lock system allows it to be a stand alone unit or locked together with other switches. The 701 also features a control knob which cannot be removed whilst in the on or off position, however can be removed by switching to an anti-theft position. Interchangeable labelling system on the control knob allows a full range of applications. Switches come standard with the battery symbol label. Alternative label sets **113691** are available. Removable rear cover insulates the rear terminals against any short circuits and ensures the switch meets ABYC requirements. Removable side plates on 4 sides provide access for heavy duty battery cables. Surface mount or recess mount in a 52mm hole. Screw holes 5mm roundhead. Ignition protected. Non-corrosive construction.

Specifications:

- Continuous rating: 275 amps DC
- Intermittent rating: 455 amps DC
- Cranking rating: 1250 amps DC for 10 seconds
- Voltage rating: 48 volts DC maximum
- Terminal stud size: 2 x 10mm
- Moulded in high temperature, fibre-reinforced plastics



113548 Panel Mount

113550 Surface Mount

BLA Code	Mounting Type
113548	Panel
113550	Surface

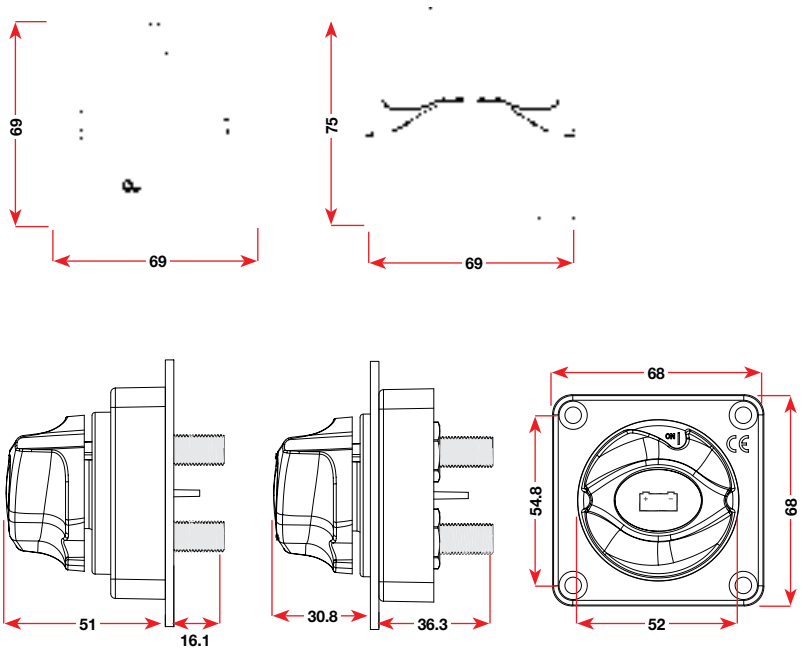
BEP Mini Four Position Battery Switch

The 701-S is the smallest selector switch on the market. This battery switch offers a simple and economical way of separating two batteries. Four position rotating switch provides off, Battery 1, Both and Battery 2 alternatives. Removable rear cover insulates the rear terminals against any short circuits. Removable side plates on four sides provide access for heavy duty battery cables. Surface mount or recess mount in a 52mm hole. Mount holes 5mm roundhead. The 7015-PM is designed specifically for panel mounting with the option of full recess or shallow intrusion. This flush mounting version accepts 5mm countersunk screws. Please note this switch will not protect electronics from harmful engine starting spikes.

Specifications:

- Continuous rating: 200 amps DC
- Intermittent rating: 300 amps DC
- Cranking rating: 1000 amps DC for 10 seconds
- Voltage rating: 48 volts DC maximum
- Terminal stud size: 3 x 8mm
- Moulded in high temperature, fibre-reinforced plastics

113357 Surface mount



113553 Panel mount

BLA Code	Mounting Type
113553	Panel
113557	Surface

BEP Momentary Switch

Panel mounted momentary toggle switch to activate the emerency parallel function of the remote operated VSRs above.

BLA Code	Suits
113545	**113672, 114080, 113680**

BEP On/off Switch

Panel mounted, key operated remote switch to activate the remote operated battery switches.

BLA Code	Suits
113546	**113670, 113671**

Marinco® Pro Installer Battery Distribution Accessories

Onboard power demands continue to increase as boaters request the comforts of home on their boats. Marinco looked at the common products used by electrical installers every day and made significant improvements to their design and construction. The result is a robust product line with greater capacity and extended product life.

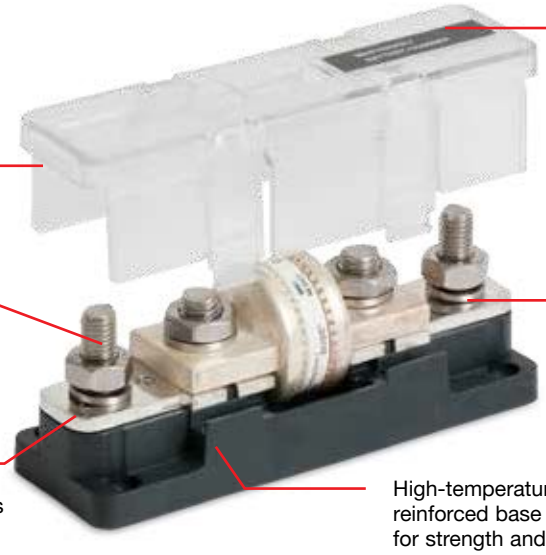
The valuable space saved onboard gives builders or installers greater flexibility when designing power systems. Since Pro Installer modular assemblies are designed for fast, flexible installation in tight spaces, it's easy to “cluster” products and reduce their mounting footprint. The common interconnection height enables solid link bars to connect multiple Pro Installer products — a smart design feature for watercraft. Like all Marinco products, you can be assured of durable construction engineered specifically to handle the challenging marine environment. High-temperature, fibre reinforced base material provides strength and chemical resistance.

All Pro Installer products include a common interconnection height, label recess on the cover, ability to “cluster” and a compact footprint. All studs, washers and nuts are made of stainless steel.

Features and Benefits:

- Common interconnection height makes it easy to ‘cluster’ products
- Modular assemblies offer unrivalled flexibility in design/layout
- Reduced individual footprints save additional space for the most compact installations
- Robust construction for the harshest of marine environments

114089
EZ Mount Dual Bank Control Switch



Innovative clear covers insulate/protect on three sides, and include recesses for convenient labeling

Use any label maker with ½" stock to create your label

Covers feature snap-out side skirts for additional cable entry as required

Stainless steel studs, washers and nuts

Tin plated copper conductors

Radiused bar ends and generous stud lengths improve cable routing options for large cables

High-temperature, fibre reinforced base materials for strength and chemical resistance

Typical Cluster example

Marinco® Pro Installer Series Medium Duty Battery Switches

A new range of premium quality battery switches that feature an industry standard mounting footprint. This enables easy mounting into existing or new installations. Improved design and ergonomics provide clear intuitive operation, while attention to all aspects of switch function and use has created superior installation options, high power capacity and improved reliability. The many innovations include a number for which patent applications have been made for switch mounting and functionality.

Marinco® Pro Installer On/off Battery Switch - 770 & 770EZ

A powerful new generation battery switch with outstanding performance and features for both the installer, and end user. Three mounting options: surface, rear panel, and front panel mounting, plus optimised cable access makes installation a breeze. Pro Installer switches set the new benchmark with outstanding ergonomics, intuitive look/feel, and are engineered from the finest materials to withstand the harsh marine environment. Also available in EZ Mount version for quick wiring from the front.

114082

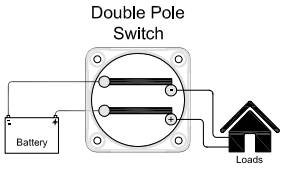
114081

BLA Code	Model	L x W x H mm	Rating (A DC) Cont	Inter	Crank	Voltage (V DC)	Operation	Stud Detail
114081	770EZ	98 x 98 x 92	400	600	1500	48	On/off	2x (3/8" / 10mm)
114082	770	98 x 98 x 92	400	600	1500	48	On/off	2x (3/8" / 10mm)

Marinco® Pro Installer Double Pole Battery Switch - 770-DP & 770-DP EZ

Same industry standard mounting with on/off operation. Used where positive and negative supplies must be isolated at the same time. Also available in EZ Mount version for quick wiring from the front.

SAFETY NOTE: For safety reasons Marinco® BEP does not recommend this for switching house and start battery systems at the same time. You may need to isolate your engine battery in an emergency, but not your house battery which typically powers the communications. For this application please use the new Dual Bank Control Switch (114088) or one of Marinco® BEP's battery switch clusters.



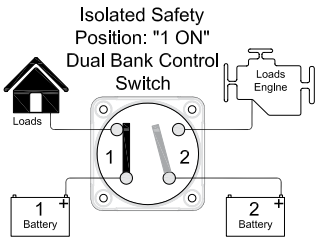
BLA Code	Model	L x W x H mm	Rating (A DC) Cont	Inter	Crank	Voltage (V DC)	Operation	Stud Detail
114084	770-DP	98 x 98 x 92	2x 400	2x 600	2x 1500	48	On/off (x2)	4x (3/8" / 10mm)
114085	770-DP EZ	98 x 98 x 92	2x 400	2x 600	2x 1500	48	On/off (x2)	4x (3/8" / 10mm)

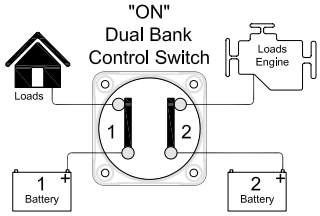
Marinco® Pro Installer Dual Bank Control Switch - 772-DBC & 772-DBC EZ

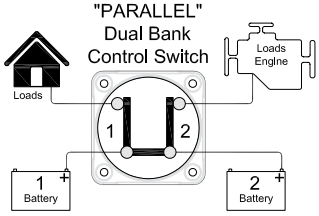
This innovative switch combines the functions of 3 battery switches into one (House, Start, and Emergency Parallel) to intuitively manage 2 battery banks and 2 loads. A unique safety position isolates one load e.g. House "On", Start "Off" in case of engine malfunction, so an emergency radio call can still be made. Significant savings in both space and installation cost can be made, without compromising functionality or safety. Also available in EZ Mount version for quick wiring from the front.

114088

114089







BLA Code	Model	L x W x H mm	Rating (A DC) Cont	Inter	Crank	Voltage (V DC)	Operation	Stud Detail
114088	772-DBC	98 x 98 x 92	2x 400	2x 600	2x 1500	48	1, 1+2, Parallel, Off	4x (3/8" / 10mm)
114089	772-DBC EZ	98 x 98 x 92	2x 400	2x 600	2x 1500	48	1, 1+2, Parallel, Off	4x (3/8" / 10mm)

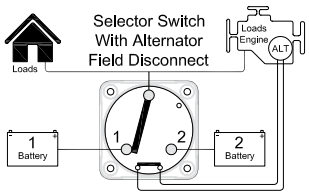
Marinco® Pro Installer Battery Switches

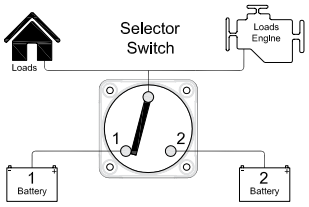
- Selector 771-S & Selector with Field Disconnect 771-SFD

Power requirements on boats have increased, and these 2 Selector switches offer high power capacity (400 amps continuous), the ability to easily fit doubled cables, and conform to the industry standard mounting footprint (Guest, Perko, Blue Sea).

N.B. Please note selector switches will not separate electronics from harmful engine starting spikes.

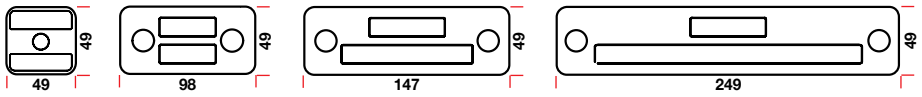
For more battery switches
See Page 155





BLA Code	Description	L x W x H mm	Rating (A DC) Cont	Inter	Crank	Voltage (V DC)	Operation	Stud Detail
114086	Selector	98 x 98 x 92	400	600	1500	48	1-2-Both-Off	3x (3/8" / 10mm)
114087	Selector Field Disconnect	98 x 98 x 92	400	600	1500	48	1-2-Both-Off	3x (3/8" / 10mm)

Marinco® Pro Installer Product Footprints



		.5x	1x	1.5x	2.5x
Heavy-duty Busbars					
114602P	4 Stud		✔		
114600P	3 Stud		✔		
114604P	5 Stud			✔	
114606P	8 Stud				✔
Z Busbars					
114614P	10 Way		✔		
114616P	18 Way			✔	
ANL Fuseholders					
114640	ANL		✔		
114644	ANL with additional cable clamping studs			✔	
114642	ANL Through Panel		✔		
Insulated Studs					
114620	Single 8mm	✔			
114624	Double 8mm	✔			
114626	Double 10mm/8mm	✔			
114628	Single 10mm	✔			
114632	Double 10mm	✔			
114622	Single 8mm with power tapping plate	✔			
114630	Single 10mm with power tapping plate	✔			

Marinco® Pro Installer Insulated Studs

Pro Installer Insulated Studs are available in single and twin stud versions, featuring 8mm (5/16") and 10mm (3/8") variants. A double stud version with 10mm and 8mm studs is also included for extending outboard motor cables. The Power Tapping Plate single stud models provide convenient termination points for additional small cables. Pro Installer family features are replicated with these insulated studs, generous stud length, modular footprint, insulating covers with label recess, common interconnection height.

Specifications:

- Power tapping plate: 4 x 4mm (5/16") terminals
- Maximum current through power tapping plate: 50A per terminal (4 x 50A maximum)
- Note: no power passes through the stud so no amp rating is given
- 50 VDC
- High temperature, fibre reinforced plastic base provides strength and chemical resistance
- Clear polycarbonate cover with snap-out extra cable access
- Insert moulded studs with metric threads
- Stainless steel studs, screws and nuts for longevity in the marine environment
- Double studs feature 'snap out' insulating partition, to allow linking of studs

BLA Code	Description	Stud Size mm	Qty	Footprint*
114620P	Single	8	1	0.5 x
114624P	Double	8	1	0.5 x
114626P	Double	10/8	1	0.5 x
114626B10	Double	10/8	10	0.5 x
114628P	Single	10	1	0.5 x
114628B10	Single	10	10	0.5 x
114632P	Double	10	1	0.5 x
114632B10	Double	10	10	0.5 x
114622P	Single with power Tapping Plate	8	1	0.5 x
114622B10	Single with power Tapping Plate	8	10	0.5 x
114630P	Single with power Tapping Plate	10	1	0.5 x
114630B10	Single with power Tapping Plate	10	10	0.5 x

'B' - Denotes bulk packed item
'P' - Denotes packaged item

** See page 118 for Footprint details*

Double stud

Single stud with power tapping plate

Single stud

Marinco® Pro Installer Heavy Duty

Pro Installer Heavy Duty busbars provide a robust means to connect (bus) together the multitude large cables found in modern electrical installations. These offer unrivalled flexibility to meet the requirements of any installation, saving significant cost and space.

Specifications:

- Studs treated with anti-seize lubricant
- 50VDC
- Tinned CDA102 Copper conductors
- Stainless steel studs, washers, nuts for longevity in the marine environment
- Generous stud lengths, metric threads
- Busbar current ratings are measured from end stud to end stud

114606P

114602P

114604P

114600P

BLA Code	Description	Stud Size mm	Qty	Footprint*	Current Rating Amps
114600P	3 Stud busbar	10	1	1 x	650
114602P	4 Stud busbar	8	1	1 x	500
114602B10	4 Stud busbar	8	10	1 x	500
114604P	5 Stud busbar	10	1	1.5 x	650
114604B10	5 Stud busbar	10	10	1.5 x	650
114606P	8 Stud busbar	10	1	2.5 x	650
114606B5	8 Stud busbar	10	5	2.5 x	650

'B' - Denotes bulk packed item
'P' - Denotes packaged item

** See page 118 for Footprint details*

Marinco® Pro Installer Z Busbars

Marinco Products have created a completely new concept for small cable termination with the Z-Bar range. These busbars maximise power density by utilising high and low level bars to optimise cable runs, saving even more installation space.

Specifications:

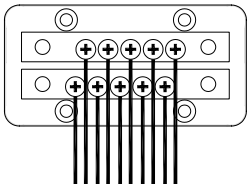
- 10 Way and 18 Way versions
- 4x 6mm (1/4") studs with anti-seize lubricant
- 4mm (5/32") terminals with captive lock washers
- 200A maximum per bar (2 x 200A)
- 50VDC
- Tinned CDA102 Copper conductors
- Stainless steel studs, washers, nuts for longevity in the marine environment
- Metric threads

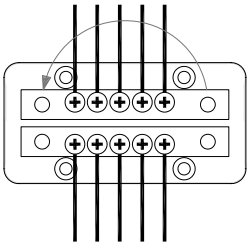
114616

114614

BLA Code	Description	Qty	Footprint*
114614P	10 way, Z busbar	1	1 x
114614B10	10 way, Z busbar	10	1 x
114616P	18 way, Z busbar	1	1.5 x
114616B10	18 way, Z busbar	10	1.5 x

** See page 118 for Footprint details*


Cable Entry Same Side


Cable Entry Both Sides (Rotate Top Bar 180°)

Marinco® Pro Installer ANL Fuse Holders

These ANL fuseholders offer unparalleled circuit protection choice for both the installer and end-user. The innovative Through-Panel fuseholder (**114642**) provides superior access for fuse inspection and replacement. Small electrical loads are catered to with the compact **114640** unit while additional cable security and highest capacity is provided by the **114644**, featuring additional studs for separate clamping of cables. Refer page 129 for ANL Fuses.

Specifications:

- Cable connection studs: Shared 8mm (5/16") on **114642**.
- Fuse mounting studs: 8mm (5/16")
- Double washers allow any ANL fuse brand to be fitted
- Fuse type: ANL or ANN (fast blow)
- Swinging fuse style allows changing fuse without removal of fastening nuts
- 50VDC (or determined by fuse fitted)
- Tinned CDA102 copper conductors **114644**
- Tinned CDA260 high conductivity brass conductors **114642**

114644 114640 114642

BLA Code	Description	Cable Stud mm	Amperage	Qty	Footprint*
114640P	Fuseholder, ANL	8	35-300A	1	1 x
114640B10	Fuseholder, ANL	8	35-300A	10	1 x
114644P	Fuseholder, ANL with additional cable clamping studs	10	35-750A	1	1.5 x
114644B10	Fuseholder, ANL with additional cable clamping studs	10	35-750A	10	1.5 x
114642P	ANL Through Panel	10	35-500A	1	1 x
114642B10	ANL Through Panel	10	35-500A	10	1 x

** See page 118 for Footprint details*

Marinco® Pro Installer Class-T Fuse Holders

Class-T fusing provides the ultimate protection for high power circuits, and where extremely fast fuse blow characteristics are required. Modern battery technologies such as Mastervolt Lithium Ion or AGM are capable of very high short circuit currents which may be beyond the interrupt rating of standard circuit breakers and other types of fuse. Two sizes of Pro Installer Class-T Fuseholder are available which accommodate fuses from 225-400 amps, and 450-600 amps respectively. Refer page 129 for T-Class Fuses.

Specifications:

- Fuse type: Class-T (JLLN / TJN / A3T)
- Maximum amperage: Determined by fuse sizing, either 400A or 600A
- 50VDC
- High temperature, fibre reinforced plastic base provides strength and chemical resistance
- Clear polycarbonate cover
- Stainless steel studs, washers and nuts for longevity in the marine environment
- Tinned CDA102 Copper conductors
- Metric threads

114650

BLA Code	Description	Cable Stud mm	Fuse Stud mm	Amperage	Qty	Footprint*
114650P	Fuseholder, Class-T	10	10	225–400A	1	1.5 x
114650B10	Fuseholder, Class-T	10	10	225–400A	10	1.5 x
114652P	Fuseholder, Class-T	10	12	450–600A	1	1.5 x

** See page 118 for Footprint details*

BEP Insulated Power Studs with Covers - Packaged

BEP

High temperature moulded plastic base, colour coded for polarity studs are tinned copper in 10mm and tinned brass in 6mm versions. Push fit colour coded covers are included to protect exposed lugs, conforming to ABYC standards.

113525

113517

113519

113478

BLA Code	Description	Includes
113477	Stud single 6mm with red cover	1 x **113515** + 1 x **113523**
113478	Stud single 6mm with black cover	1 x **113517** + 1 x **113525**
113483	Stud single 10mm with black cover	1 x **113519** + 1 x **113525**

BEP Insulated Dual Power Studs with Covers – Packaged

BEP

High temperature moulded plastic base with tinned brass studs in 6mm version. Commonly used for isolated positive and negative connections. Push fit colour coded covers for polarity are included. Conforms to ABYC standards.

113529

113520

113489

BLA Code	Description	Includes
113489	Stud dual 6mm with black cover	1 x **113520** + 1 x **113529**

BEP Insulated Power Stud

BEP

High temperature moulded plastic base, colour coded for polarity. Studs are tinned copper in 10mm and tinned brass in 6mm versions. Push fit covers are available to protect exposed lugs, conforming to ABYC standards.

BLA Code	Stud Size mm	Base Colour	Base Size mm	Height mm
113448	8	Red	44 x 18	36
113449	8	Black	44 x 18	36
113515	6	Red	44 x 18	36
113517	6	Black	44 x 18	36
113518	10	Red	44 x 18	36
113519	10	Black	44 x 18	36

113517

113525

Accessories:

113523 Red cover to suit single stud
113525 Black cover to suit single stud

BEP Insulated Dual Power Studs

BEP

High temperature moulded plastic base with tinned copper studs in 8 to 10mm and tinned brass in 6mm version. Commonly used for isolated positive and negative connections. A version with 10mm stud for the positive cable and 8mm stud for the negative is also available. Push fit covers, colour coded for polarity are available. Conforms to ABYC standards.

BLA Code	Stud Size mm	Base Size mm	Height mm
113520	6	48 x 43	38
113521	10/8	48 x 43	38
113522	10	48 x 43	38

113522

113520

113529

Accessories:

113526 Red cover to suit dual stud
113529 Black cover to suit dual stud

BEP Busbar With Cover - Packaged

Tin plated brass busbar with insulated mounting bases. Mounting holes are recessed to avoid accidental shorts. Includes cover that meets ABYC standards.

BLA Code	Description	Includes
113512	Busbar 6 way with black cover	1 x **113504** + 1 x **113443**

113512

BEP Twin Busbars with Cover

- Packaged

Tin plated brass busbars with twin rows of six terminals each and insulated mounting bases to enable both positive and negative DC, or earth and neutral buses on one block. Alternatively the rows may be bridged to increase capacity. Push fit colour coded covers are included for each single row of busbars.

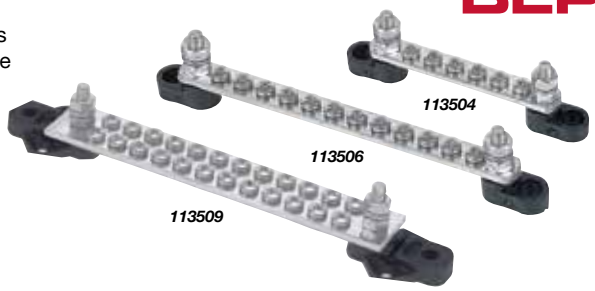
BLA Code	Description	Includes
113531	Busbar 2 x 6 way with red/black cover	1 x **113505** + 1 x **113442** + 1 x **113443**

113531

BEP Busbars

Tin plated brass busbars with insulated mounting bases. Mounting holes are recessed to avoid accidental shorts. Polarity colour coded covers are available to meet ABYC standards.

BLA Code	Take Offs	Base mm	Height mm	Current Rating	Output Screws mm	Input Studs mm
113504	6	117	15	100	4	6
113506	12	177	15	100	4	6
113509	24	177	35	150	4	6



BEP Twin Busbars

Tin plated brass busbars with twin rows of terminals and insulated mounting bases to enable both positive and negative DC, or earth and neutral buses on one block. Alternatively the rows may be bridged to increase capacity. Twin busbars accept the same colour coded covers on each row as the single busbars. Meets ABYC standards.

BLA Code	Take Offs	Base mm	Height mm	Current Rating	Output Screws mm	Input Studs mm
113505	2 x 6	100	42	100	4	6
113507	2 x 12	160	42	100	4	6

BEP Heavy Duty Busbar

Tin plated brass busbar with insulated mounting base and four heavy duty studs. Meets ABYC standards.

BLA Code	Take Offs	Length mm	Height mm	Current Rating	Voltage Rating
113503	4	120	25	150	48V DC max

BEP Busbar Covers

Moulded in flame resistant plastic and colour coded for polarity. Simple push on fit. Meet ABYC standards.

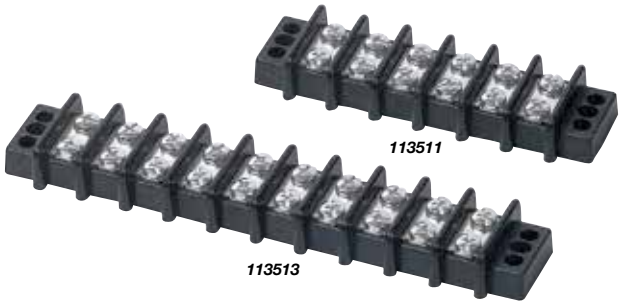
BLA Code	Colour	Suits
113442	Red	**113503, 113504, 113505**
113443	Black	**113503, 113504, 113505**
113444	Red	**113506, 113507**
113445	Black	**113506, 113507**
113446	Red	**113509**
113447	Black	**113509**

BEP Terminal Blocks

Terminal block with phenolic resin insulated base and nickel plated brass contact strips. Each pair of terminals are isolated from the next.

Features:

- Terminal screws: 4mm
- Current rating: 30 amps
- 300V AC/DC



BLA Code	Connections	Length mm	Width mm	Height mm
113511	6	111	32	16
113513	10	169	32	16

BEP Contour Busbar Cover

Contour style, moulded grey plastic busbar cover to suit 6 way or 2 x 6 way busbars. Designed to match all other BEP Contour power distribution products with modular sizing and lock mouldings which facilitates easy grouping. Meets ABYC standards for exposed terminals. 138(l) x 69(w) x 50(h) mm.

BLA Code	Suits	Base mm	Height mm
113516	**113503**, **113504**, **113505**	138 x 69	50

BEP Contour Busbar

2 x 6 way tin plated brass busbars with insulated base in Contour style housing. Supplied complete with link between the terminal rows. Link may be removed to enable both positive and negative DC or earth and neutral AC busbars to combine in one housing, separated by the insulated partition supplied.

Specifications:

- Output screws: 4mm
- Input studs: 6mm
- Current rating: 100amps DC

BLA Code	Take Offs	Base mm	Height mm
113508	4	138x69	50

BEP Contour Power Stud Cover

Contour style, moulded grey plastic cover to suit single or dual insulated power studs. Designed to match all other Marinco® BEP Contour power distribution products with modular sizing and lock mouldings to facilitate easy grouping. Meets ABYC standards for exposed terminals.

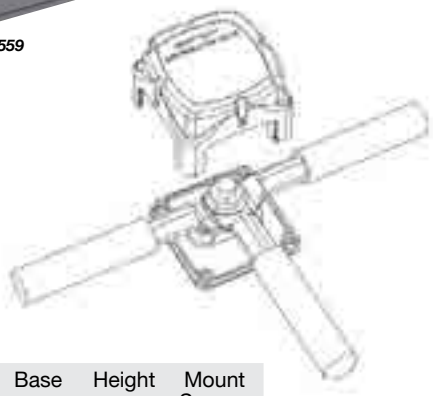
BLA Code	Base Size mm	Height mm
113524	69 x 69	50

BEP Contour Distribution Stud

BEP

The Contour Distribution Stud allows termination of heavy duty cables for one or more connections. Removable side plates allow for connections from all sides. Designed to match all other Contour power distribution products with modular sizing and lock mouldings to facilitate easy grouping. Meets ABYC standards for exposed terminals. A secondary buss may be fitted to the distribution stud to provide connections for smaller wires without cluttering the main stud (refer **113562** below).

113559



BLA Code	Stud Dia. mm	Base mm	Height mm	Mount Screws mm
113559	2 x 10	69 x 69	50	5 r/h

BEP Distribution Stud, Secondary Buss

BEP

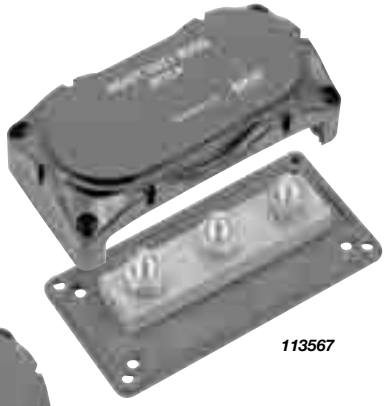
Fitted to a distribution stud, it allows for small wire connections without cluttering main stud. Tinned brass construction.

BLA Code	Length mm	Width mm	Main Stud mm	Take Offs mm
113562	75	12	10	4

BEP Contour Heavy Duty Distribution Buss

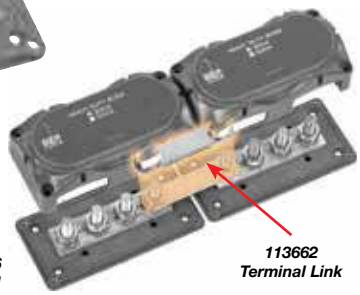
BEP

The Contour Distribution Buss allows multiple terminations of heavy duty negative or positive connections. Removable side plates allow for connections from all sides. Designed to match all other Contour power distribution products with modular sizing and lock mouldings to allow easy grouping. Meets ABYC standards for exposed terminals. The **113567** is commonly used on heavy duty starter circuits. The taller cover provides for more bulky cables and lugs.



113567

113566



113566 Linked

113662 Terminal Link

BLA Code	Amp	Stud Dia. mm	Base mm	Height mm	Mount Screws mm
113566	300	10 x 4	138 x 69	50	5 r/h
113567	500	10 x 3	138 x 69	75	5 r/h

BEP Terminal Links - Flexible

BEP

Used to link contour power distribution modules in some installations where the solid links do not suit or will not reach the correct terminal.

113676

BLA Code	Wire mm^2	Centre mm	Amp
113676	25	300	275
115110	25	500	275

BEP Terminal Links - Solid

BEP

Solid links are designed for space saving interconnections of terminals when contour power distribution modules are linked together. Six standard solid links are available.

BLA Code	Hole Centres mm	Amp	Stud mm
113656	-	-	10
113658	70	-	10
113660	42.5	275	10
113661	54.5	275	10
113662	64.5	275	10
113663	68.5	275	10
113664	62	550	12
113665	102	550	12

113660

113656

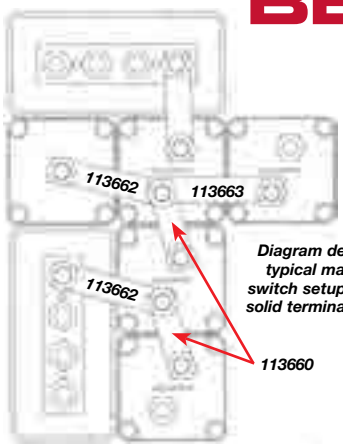


Diagram depicts typical master switch setup using solid terminal links.

BEP Contour Essential Circuits Module

BEP

These modules offer 24 hour protection to essential circuits so that they are not switched off by the main battery switch allowing protected power to supply bilge pumps, security systems and electronic memory circuits. They incorporate thermal type circuit breakers with push to reset function to ensure that essential circuits cannot be switched off inadvertently. Designed to match all other Contour power distribution products with modular sizing and lock mouldings to facilitate easy grouping. Label sheet **113696** or **113697** (refer page 109) ordered separately.

113637

113638

BLA Code	Circuits no. x amps	Base mm	Height mm	Mount Screws mm
113637	2 x 10	69 x 69	70	5 r/h
113638	1 x 5, 3 x 15	138 x 69	70	5 r/h

BEP Residual Current Device

BEP

For installations in Australia and New Zealand to comply with AS/NZ3004, an approved double pole mains circuit breaker must be mounted upstream of the BEP control panel in the form of an RCD or MCB. A residual current device is designed to disconnect a circuit whenever it detects an imbalance between the energised conductor and the return neutral conductor. Such an imbalance can be caused by current leakage through the body of a person who is grounded and touching an energised part of the circuit. A lethal shock can result from these conditions. RCDs are designed to prevent electrocution by detecting the leakage current, which can be far smaller (typically 5-30 milliamperes) than the currents needed to operate conventional circuit breakers or fuses. RCDs are intended to operate within 25-40 milliseconds, before electric shock can drive the heart into ventricular fibrillation, the most common cause of death through electric shock.

N.B. Must be installed by a licensed electrician.

113594

113599

BLA Code	Amp Rating	Earth Leakage
113593	16	30mA
113594	32	30mA

Accessories:

113599 Weatherproof (IP65) enclosure

BEP Residual Current Device Panels

BEP

Recess mount panels housing a Residual Current Device (RCD). Produced to compliment the BEP Contour Circuit Breaker Panel range but due to the difference in style of the RCD's the panels need to be mounted separately from the main AC panel. The RCD is a circuit breaker that disconnects the circuit on detection of current leakage (such as current leaking to the earth wire).

N.B. Must be installed by a licensed electrician.

113642

113644

113645

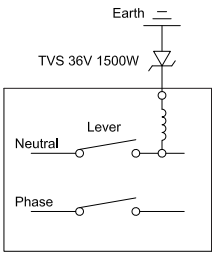
BLA Code	Amp Rating	30ma RCD	Face Size mm	Intrusion mm	Cut Out Size mm
113642	16	1	115 x 127	65	95 x 107
113643	32	1	115 x 127	65	95 x 107
113644	16	2	115 x 127	65	95 x 107
113645	16/32	2	115 x 127	65	95 x 107

BEP Airpax® Reverse Polarity D-Pole Circuit Breaker

Now standard on all 230V, 50Hz panels (Euro Asia-Pacific). This will automatically trip when it detects reverse polarity.

113563

Wiring Diagram for Trip Coil Breaker kits



BLA Code	Description
113563	CB 15A
113565	CB 30A

BEP Contour Heavy Duty Circuit Breakers

Allows switchable protection for heavy duty circuits like anchor windlass or davit winches. Utilises Bussmann® heavy duty thermal circuit breakers. Designed to match all other Contour power distribution products with modular sizing and lock mouldings to facilitate easy grouping. LED to indicate circuit on. Label sheet **113697** or **113696** (refer page 109) ordered separately. Available in sizes from 80-150amps.

113635

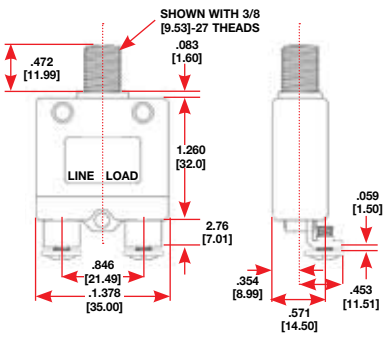
BLA Code	Amp	Base mm	Height mm	Mount Screws mm
113634	80	138 x 69	75	5 r/h
113635	100	138 x 69	75	5 r/h
113636	135	138 x 69	75	5 r/h
113641	150	138 x 69	75	5 r/h

BEP Carling® CLB Circuit Breakers

Single pole, push to reset thermal type circuit breakers to suit the Contour Connect switch panels. UL and CE approved. Comes with 4mm spacer collar and rubber boot.

113607

113601



BLA Code	Amp
113600	7
113601	5
113602	10
113603	15
113604	20
113605	30
113606	40

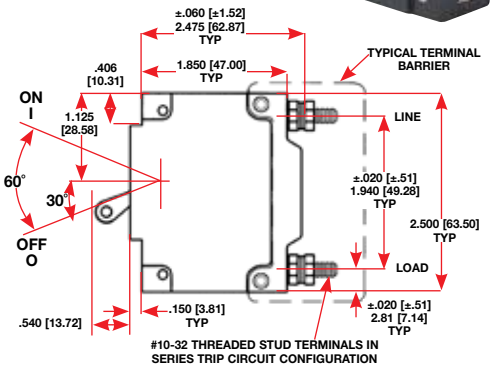
Accessories:

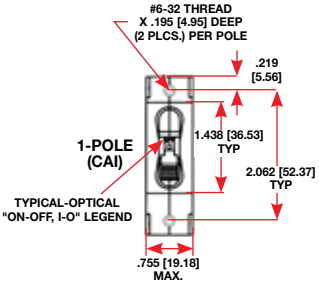
113607 Replacement Rubber Boot

BEP Circuit Breaker Switches

Airpax® magnetic circuit breakers are current sensing devices employing a time proven hydraulic magnetic design. They are temperature stable and the hydraulic-magnetic sensing mechanism reacts only to changes of current. There is no warm up or cool down period to slow response. VDE approved and UL recognised.

BLA Code	Pole	Amps
113474	Single	50
113475	Single	75
113476	Single	100
55-CBL-60A-SP	Single	60
55-CBL-60A-DP	Double	60
55-CBL-100A-DP	Double	100
55-CBL-80A-DP	Double	80
55-CBL-80A-TP	Triple	80





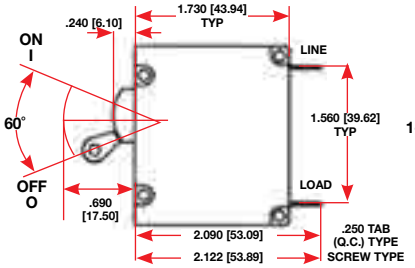
BEP Circuit Breaker Switches

Airpax® magnetic circuit breakers are current sensing devices employing a time proven hydraulic magnetic design. They are temperature stable and the hydraulic-magnetic sensing mechanism reacts only to changes of current. There is no warm up or cool down period to slow response. VDE approved and UL recognised.

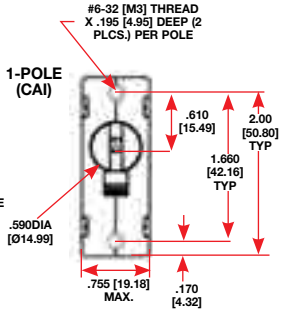
Features:

- Spacing compliance: IEC specifications 601, 950; VDE 0804, 0805
- UL recognised; CSA certified; VDE 0660 approved; Part 101 and CE compliant
- Available in single or double pole; triple pole available, please contact BLA on **1300 252 725** for more information

BLA Code Single Pole	Double Pole	Amp
113479		2.5
113480	**113528**	5
113482	**113530**	10
113484	**113532**	15
113486	**113534**	20
113485	**113536**	25
113487	**113538**	30
113488	**113540**	40
113490	**113542**	50



Triple Pole	Amp
55-CBS-58-TP/50	50



BEP Heavy Duty Circuit Breakers

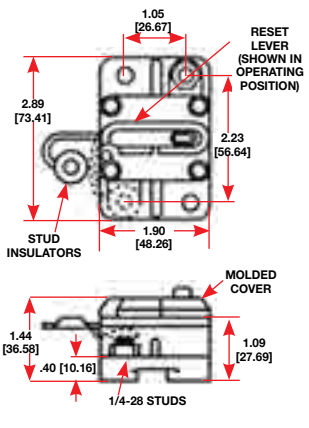
Single pole thermal type switchable reset circuit breakers. Typically used in auxiliary and accessory circuits. Sealed for engine compartment and bilge area applications. Visual indicator of tripped condition.

Specification:

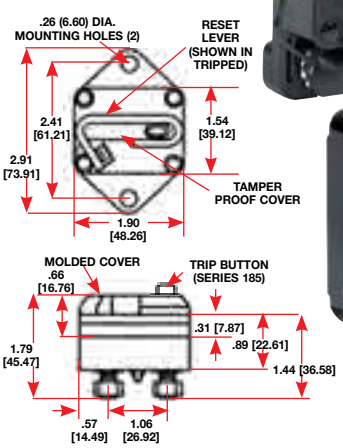
- 30VDC, 3000 amp interrupt capacity
- -32°C to 82°C operating temperature
- Complies with SAEJ1625

BLA Code	Amp	Mount
114049	50	Surface
114050	50	Panel
114052	80	Panel
114053	100	Surface
114054	100	Panel
114056	135	Panel
114057	150	Surface
114058	150	Panel
55-185080F-01-01	80	Surface
55-185040F-01-01	40	Surface
55-185040P-01-01	40	Panel
55-185120P-01-01	120	Panel

SURFACE MOUNT



PANEL MOUNT



Marinco® Heavy Duty Circuit Breakers

MARINCO

These heavy circuit breakers are designed for DC power systems to 48 volt where reliability and functionality for both switching and circuit protection is essential. Ideally suited to a wide range of marine, truck, bus and RV applications where add on circuit protection of accessories to 200A is required. Manufactured to comply with CE, ABYC E-11 and SAE J1171 these circuit breakers are external ignition protected, weatherproof to IP66 and available in either panel or surface mount configurations.

Specifications:

- Rating: 200A, 48V DC
- Interrupt Rating: Main Breaker Protection Interrupt Rating (5,000A@ 14V DC, 3,000A@ 28V DC and 1,500A@ 48V DC)
- Operating Temperature Rating: -40°F (-40°C) to 185°F (85°C)
- Storage Temperature Rating: -40°F (-40°C) to 260°F (125°C)
- Materials: Black UL-rated 94V0 thermoset plastic body
- Cover and lever are UL-rated 94V0 thermoplastic
- Marking: Standard marking includes amp/volt ratings
- Termination: $^{5}/_{16}$-18 threaded studs
- Torque Rating: 75 in-lbs (8.5Nm) max
- Mounting Torque Rating: Panel or surface-mount options; 50 in-lbs (5.6 Nm) max
- Ingress Protection Rating: IP66

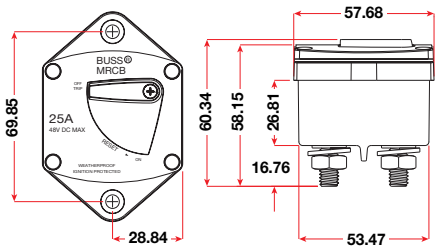
Features:

- Weatherproof IP66 design
- Trip free safety feature
- Switchable circuit protection
- Easy installation for either surface
- Panel mount or recess
- Easy single lever operation
- Ignition protected
- Safe for installation on petrol powered boats
- Heavy duty $^{5}/_{16}$"-18 terminals
- ABYC E-11, CE, SAE J1171 (ignition protected)

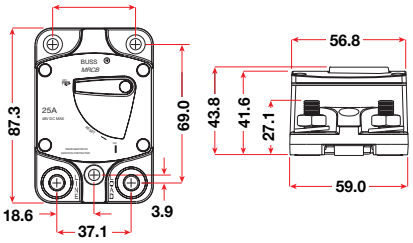
114061

114060

BLA Code	Description
114060	Surface Mount
114061	Panel Mount



114061



114060

Marinco® Terminal Mount Fuse Holder and Fuses

MARINCO

Simply mounted to a 3/8" battery post, battery switch or bus bar the holder utilises space saving ignition protected fuses for DC systems of 80 to 200A to a maximum of 58 volts. Designed for the most demanding environment, these high current fuses provide protection within tightly constrained areas.

Features:

- Heavy duty protection in space saving design
- Weatherproof to IP66
- Ignition protected
- Supplied with insulated cap
- Easy installation onto any $^{3}/_{8}$" post
- Clear status viewing window in fuse
- Colour coded fuses for easy amperage identification
- ABYC E-11, SAE J1171 (ignition protected) compliance

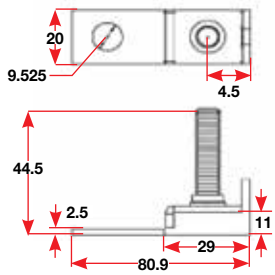
Specifications:

- Voltage Rating: 58Vdc maximum
- Amperage Rating: 30A - 300A
- Ingress Protection: IP66
- Ignition Protected: Per SAEJ1117
- Interrupt Rating: 10000A @ 14Vdc, 5000A @ 32Vdc, 2000A @ 58Vdc
- Torque Rating: Maximum 12Nm (106 in-lbs)
- Material: Body – Ceramic, Housing & Cover: UL-rated 94V0
- Thermoplastic, Ring Terminals - Tin Plated
- Compliances: ISO 8820-6
- Available in 30–300 Amps upon request, contact BLA on **1300 252 725**

Fuses to suit
114122

114122
Fuse holder
(sold separately)

BLA Code	Description	Rating Amps	Qty/ Pkg
114122	Fuse holder & cover terminal mount		1
114124	Fuse battery terminal mount	80	1
114126	Fuse battery terminal mount	100	1
114128	Fuse battery terminal mount	125	1
114130	Fuse battery terminal mount	150	1
114132	Fuse battery terminal mount	200	1



Marinco® Pro Installer ANL Fuses

Use with Pro Installer (**114640P**, **1146142P** or **114644P**; refer page 120); and DC Distribution 500 (refer page 75).

BLA Code	Rating (A)	Qty/ Pkg	L x W mm	Stud Clearance mm
113608	80	1	82 x 22	11
113610	100	1	82 x 22	11
113612	150	1	82 x 22	11
113614	200	1	82 x 22	11
113616	250	1	82 x 22	11
113618	300	1	82 x 22	11
113619	355	1	82 x 22	11
113620	425	1	82 x 22	11
55-77049500	500	1	82 x 22	11

Marinco® Pro Installer Heavy-duty ANL Fuse

Use with 8mm mounting studs and Pro Installer ANL Fuse Holders (refer page 120).

BLA Code	Rating (A)	Qty/ Pkg
114142	750	5

Waterproof In-Line Blade Fuse Holder

Heavy duty waterproof blade fuse holder with mounting cap that clips together and accepts single standard blade type fuses to 25 amps. Sold in packs of 5.

BLA Code
115716

Stackable Blade Fuse Holder

These blade fuse holders accept up to four fuses and can be clipped together to provide for multiple circuits. Mounting holes provided at each end.

BLA Code
115718

Marinco® Pro Installer Medium-duty Class T Fuses

Use with Pro Installer Class T Fuse Holders (refer page 120).

BLA Code	Rating (A)	Qty/ Pkg	Interrupt Capacity A DC	Maximum voltage V DC	Diameter mm	Length mm
114670	225	1	20,000	160	34	70
114672	250	1	20,000	160	34	70
114674	300	1	20,000	160	34	70
114676	350	1	20,000	160	34	70
114678	400	1	20,000	160	34	70

Marinco® Pro Installer Heavy-duty Class T Fuses

Use with Pro Installer Class T Fuse Holders (refer page 120).

BLA Code	Rating (A)	Qty/ Pkg	Interrupt Capacity A DC	Maximum voltage V DC	Diameter mm	Length mm
114680	450	1	20,000	160	41	77
114684	600	1	20,000	160	41	77

Waterproof Fuse Holder - 3AG

Black nylon, push close, waterproof in-line fuse holder. 65 x 27 x 14mm. Supplied with 200mm of 2mm² wire and 2 x 10 amp 3AG fuses - one active and one spare. Sold individually.

BLA Code
115690

Waterproof Fuse Holder - Blade

In-line waterproof fuse holder. Accepts standard AF blade fuse. Supplied with 230mm of 2.5mm² wire.

BLA Code
115714

Fuses - Blade

Automotive style, AF blade fuse. 19(l) x 19(h) x 4(w)mm. Sold in packs of 10.

BLA Code	Reference	Amp	Colour
115780	AF3	3	Violet
115784	AF5	5	Tan
115786	AF7.5	7.5	Brown
115788	AF10	10	Red
115790	AF15	15	Blue
115792	AF20	20	Yellow
115794	AF25	25	Clear
115796	AF30	30	Green

115780

BEP Maxi Fuse Holder

An economical way of fusing heavy loads 30-80A. Ideal for battery charger outputs or mains feeds. ¼" (6 mm) studs accept ring terminals and cables up to 25 mm² (4 gauge). Fuse is clamped between tinned brass clamps for positive connection. Covers enclose exposed terminals to meet ABYC standards. 71(l) x 53(h) x 36(w) mm. Suits heavy duty blade fuses above.

BLA Code
113623

BEP ATC Fuse Holder

The BEP ATC fuse holder includes a patented contour lock system (as used in the battery management products) which allows linking of as many fuse holders as desired. Pairs may also be electrically linked by using the solid link included with each pack. Comes with 22 most common white on black labels.

Specifications:

- Number of circuits: 6
- Number of spares: 2
- Maximum amperage per circuit: 30 amps
- Maximum amperage per block: 100 amps
- Maximum voltage: 32 volts
- Base material: Polycarbonate
- Cover material: Clear polycarbonate

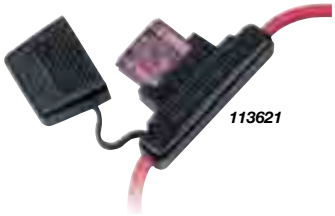
113632

BLA Code	Description	Length mm	Width mm	Height mm
113632	Screw	80	90	42
113633	Spade	80	90	42

BEP Heavy Duty Blade Fuse and Holder

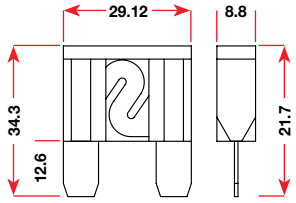
In-line heavy duty fuse holder for installations where space is limited. Supplied with 8mm² wire tails. Fuses are sold separately. Fuse holder is 80(l) x 55(h) x 15(w) mm.

113626



113621

BLA Code	Description
113621	Fuse holder only
113626	30 amp fuse only
113627	40 amp fuse only
113628	50 amp fuse only
113629	60 amp fuse only
113630	70 amp fuse only
113631	80 amp fuse only



BEP ATC Bus Bar

The expandable ATC negative Bus Bar uses the BEP Contour Lock system to allow it to be joined to the ATC fuse holder. This keeps wiring tidy and conveniently located. Current rating 100A.

113510

ATC Bus Bar and Fuse Holder

BLA Code	Length mm	Width mm	Height mm
113510	30	90	42

Mini ATM Blade Fuses

Mini ATM fuses feature enclosed elements for protection against shocks and sparks. Suits Marinco® BEP CMP range. ATM fuses use the same universal colour coding as ATC style. Sold in packs of 10.

115776

BLA Code	Amp	Colour
115762	3	Violet
115764	5	Tan
115766	7.5	Brown
115768	10	Red

BLA Code	Amp	Colour
115770	15	Blue
115772	20	Yellow
115774	25	Clear
115776	30	Green

Fuse Holder - 3AG

White nylon, snap close, in-line type fuse holder to accept 3AG fuses. Rated for up to 20 amp fuses. Brass terminals crimp directly to the fuse. Length 60mm. Maximum width 18mm. Sold in packs of 10.

BLA Code
115704

Fuses

Standard 3AG glass style fuse. Length 32mm, diameter 6.6mm. Sold in packs of 10.

BLA Code	Reference	Amp
115740	3AG1	1
115742	3AG2	2
115744	3AG3	3
115746	3AG5	5
115748	3AG7.5	7.5
115750	3AG10	10
115752	3AG15	15
115754	3AG20	20
115756	3AG25	25
115758	3AG30	30

115740

Mastervolt Battery Monitors – BattMan Pro & BattMan Lite

The BattMan models are an affordable battery monitor providing critical information about the status of your battery bank under all circumstances. The monitor has a large splashproof LCD display with backlight that selectively displays voltage, charge and discharge current, consumed amp hours and remaining battery capacity. Moreover it will warn you when your battery bank is empty. The monitor has a second battery input that can be used to monitor an auxiliary battery like a starter battery and is easy to install due to its quick nut mounting construction. BattMan is available in 2 versions; Lite and Pro. BattMan Pro displays the remaining time before your battery needs to be charged and stores special battery status events. BattMan is supplied with a 500 A shunt, screwdriver, clear installation and operation instruction manual in English, Dutch, German and French.

Features:

- Large splash proof LCD display with backlight (IP65)
- Reliable display showing the status of your battery bank (V, A, Ah & remaining capacity)
- Monitors two battery banks
- Quick nut mounting construction
- Programmable alarm relay
- Includes a 500A shunt & screwdriver
- CE certified
- Made in Holland
- Clear installation and operation instruction manual
- Remaining time (BattMan Pro)
- Remembers special battery status events (BattMan Pro)

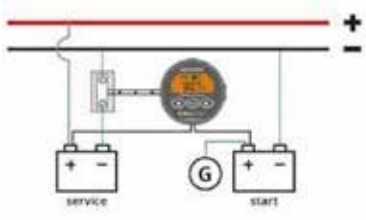
Applications:

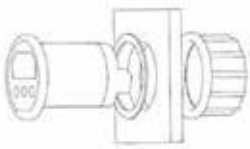
- BattMan can be used in many applications like recreational or professional use in marine and mobile applications, industrial systems, off-grid solar power systems or for remote homes

110670

110672

500 A shunt and screwdriver





BLA Code	**110670**	**110672**
Description	Mastervolt Battman Lite	Mastervolt Battman Pro
Max. Ah Capacity	999 Ah	9999 Ah
Supply Voltage	9 - 35 V	9 - 35 V
Voltage Range	0 - 35 V	0 - 35 V
Current Consuption (backlight off)	8 mA / 12 V - 6 mA / 24 V	8 mA / 12 V - 6 mA / 24 V
Current Consumption (backlight on)	30 mA / 12 V - 17 mA / 24 V	30 mA / 12 V - 17 mA / 24 V
Voltage Resolution	0.1 V	0.01 V
Voltage Accuracy	± 0.3 %	± 0.3 %
Shunt Specification	500 A / 50 mV (sevice set)	500 A / 50 mV (sevice set)
Current Measurement Range	0 - 500 A (optional 900 A)	0 - 500 A (optional 900 A)
Current Accuracy	± 0.4%	± 0.4%
Battery Alarm Contact	yes, potential free	yes, potential free
Remaining Time	no	yes
Historic Data	no	yes
Languages Display	Universal	Universal

BEP AC Digital Monitoring System

Designed and manufactured by BEP, this state of the art full colour AC monitor provides a range of system monitoring functions suitable to today's modern vessels. With the complexities of modern AC electrical installations and the need for a wider array of monitoring combinations the new ACSM provides a functional multi-purpose display system suitable for a variety of applications. The ACSM display features a clear, extra large type face allowing for more detailed on-screen information and increased clarity. The simple menu, positive touch buttons and back lit screen make the multi-function monitoring system easy and intuitive to use. When fitted, the gasket provides a water ingress protection level of IPX5 (Protection against low pressure jets of water) for AC and DC systems monitors.

Monitor:

- 2.8" Colour QVGA LCD display
- Input voltage 8-32VDC
- AC volts, amps, frequency and true power

Features:

- Three generic user configurable inputs
- Displays data in analogue, digital and graphic forms
- Output for load shedding
- Programmable high/low audio/visual alarms for each input
- Supplied Installation Kit Includes:
- BLA Code **112888** – AC Voltage transducer for up to 3 voltage inputs
- BLA Code **112886** x 2 – AC current transformer

55-GAS-SM

112888

112886

BLA Code	Description	Width mm	Height mm	Intrusion mm
113418	Surface mounted	89	99	12
113424	Panel mounted ACSM 600	127	115.55	20x

Accessories

55-600-ACSM-kit	Conversion Kit – meter only + panel conversion
55-GAS-SM	Spray Proof Gasket

Mastervolt Masterlink Battery Monitor - BTM-III

Provides an accurate indication of the current, amp-hours, remaining time and remaining capacity of battery bank 1, and the voltage and estimated capacity of battery banks 2 and 3. The built-in microprocessor calculates the remaining capacity and stores historic data.

BLA Code	**110678**
Description	Masterlink Battery Monitor - BTM-III
Voltage range measurement	7-35V DC
Amps measurement range	0-500A (optional 1000A/50mV)
Max. amp-hour capacity	9999Ah
Current consumption (backlight off)	14mA/12V - 11mA/24V
Current consumption (backlight on)	100mA/12V - 50mA/24V
Supply voltage	9-35V DC
Dimensions instrument, wxh mm	120x65
Built-in depth incl./excl. cover box mm	55/40
Weight instrument incl. shunt kg	0.9

BEP DC Systems Monitor (DCSM)

BEP

This state of the art full colour DC monitor provides a range of system monitoring functions suitable for today's modern vessels. With the complexities of modern DC electrical installations and the need for a wider array of monitoring combinations the new DCSM provides a functional multi-purpose display system suitable for a variety of applications. With the development of new, more accurate tank monitoring technology, BEP is now better able to satisfy multiple information requirements for such things as fuel, freshwater, grey water and black water. The DCSM display features a clear, extra large type face allowing for more detailed on-screen information and increased clarity. The simple menu, positive touch buttons and back lit screen make this multi-function monitoring system easy and intuitive to use.

Features:

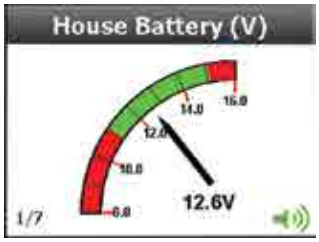
- Eight generic, user configurable inputs
- Programmable high/low audio/visual alarms for volts, amps and tank levels
- Backlit keypad and dimmable screen
- Can be panel or surface mounted

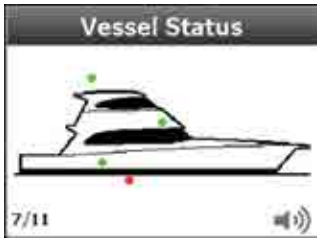
Kit Includes:

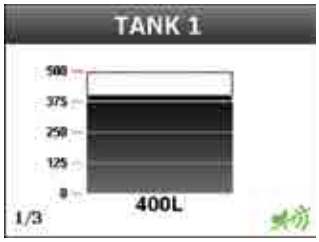
- BLA Code 113403 - 5m x two core pre-terminated screened cable
- BLA Code 113457 - 450A / 50 mV shunt

Monitor:

- 2.8" Colour QVGA LCD display
- Input voltage 8-32VDC
- Charge/discharge amps for up to two banks
- Capacity remaining in A/h and %
- Battery condition
- Tank fluid level
- Circuit status







DC Power Meter

- Displays voltages of multiple battery banks (0-32V DC)
- Displays charge and discharge (amps) of 2 battery banks
- Displays battery capacity in amp hours
- High/Low level alarms

Display Type

- Configure the DCSM to show the data in analog, digital and graphic form

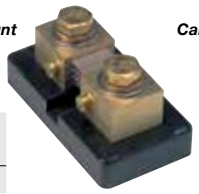
Circuit Status

- View the status of important circuits (On/off)
- In graphic and numeric form

Tank Level

- View tank level information for multiple tanks in numeric and graphic forms. Resetable when leaving boat

Shunt



Cable

BLA Code	Description	Inclusions	Volt DC	Width mm	Height mm	Intrusion mm
113386	DCSM	1x shunt and cable	8-32	89	99	12

Accessories

113385	Meter only
113383	600 DCSM kit – meter only + panel conversion for old DCM to DCSM
55-GAS-SM	Spray Proof Gasket

BEP AC & DC Systems Monitors (DCSM, ACSM)

BEP

- Panel Mounted

Contour 1000 frame provides for simple modular installation with other 1000 series panels. Not waterproof, suitable for protected installation only. Supplied complete with meter and inclusions.

113408

113424

BLA Code	Description	Overall Size W x H mm	Cut Out W x H mm	Intrusion mm
113408	Panel mounted DCSM (**113386**)	127 x 115.5	107 x 95	20
113424	Panel mounted ACSM (**113418**)	127 x 115.55	107 x 95	20

BEP Tank Sender Interface Module

BEP

Only required when using VDO or Centroid (10-180) ohm or SeaStar Solutions® (240-33) ohm senders to produce a 0-5V signal to operate the DCSM (**113386**). Switchable link for VDO or SeaStar Solutions® signal. 10-32V supply. One unit per sender is required.

113396

BLA Code	Length mm	Width mm	Height mm
113396	60	34	22

BEP Ultrasonic Tank Sender

The BEP TS1 is an ultrasonic tank sender unit that has no moving parts and can be used in fuel tanks (petrol or diesel), freshwater, grey water or black water tanks. The TS1 can be used on any shape tank with a minimum depth of 200mm and a maximum depth of 2m. The unit operates on the same principle as a depth sounder and can be configured to be used in conjunction with BEP, Veethree, Faria, VDO and many other analogue gauges from most popular instrument manufacturers (not to be used with electronic gauges). It is suitable for top mount installations only. The low profile sender unit can be fitted in metal or plastic tanks, and is resistant to petrol, diesel, water and toilet chemicals. It has a 10-32V operating range and an operating temperature range of 4-65°C.

The TS1 sender unit is available in 2 configurations;

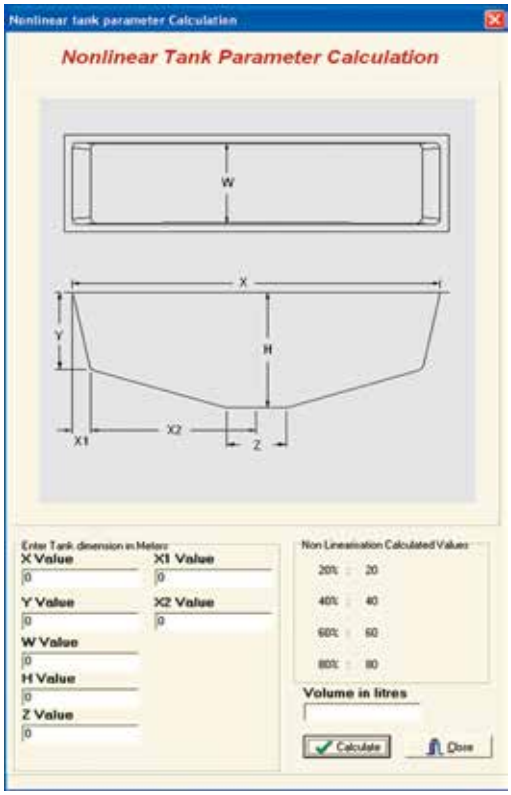
1. **113060** - TS1 sender unit non programmed. Suitable for OEM's wishing to program their own units (**113362** required).

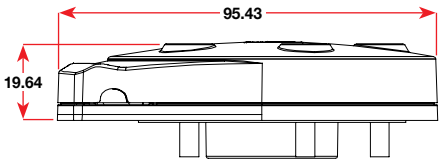
2. **113361** - For retail sales, the TS1 is available as a fully programmed unit. Information relating to tank shape, size, fluid type and gauge type must be forwarded to BLA on the corresponding paper work available from the bla.com.au web site or from your BLA Territory Manager.

To complement the TS1 sender, Marinco® BEP produce the DCSM (**113386** refer page 133), enabling the user to view tank level information for multiple tanks in numeric and graphic forms. Suitable for fuel, freshwater, grey water and black water.

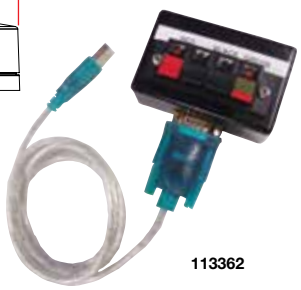
Features:

- Handles common outputs – 240-33, 10-180, Vetus 10-300 and 0-5V tanks from Marinco® BEP, SeaStar Solutions®, Faria, VDO and many other popular instrument brands. (When connecting to non-adjustable gauges the TS1 must be pre-calibrated)
- Can be set for tank dimensions via computer using Marinco® BEP's proprietary TS1 software, avoiding experimental tank filling on site
- Connects directly to the DC systems monitors (**113386,** refer page 133) when configured to a 0-5V output
- Is set for 0-2000mm depth off the shelf (not suitable for tank depths less than 200mm)
- 2 Year warranty
- Operating voltage: 10-32V
- Current draw: 25 mA with 5V gauge output
- Measurement method: Acoustic sonic measurement
- Tank depth: 0–6.5 ft (2000 mm)
- Accuracy Distance: 0–6.5 ft (2000mm) at 2mm accuracy
- Mounting: SAE 5 stud mounting pattern with gasket, seal and screws (top mount only).
- Environmental temperature: 39.2–149°F (4–65°C)
- Chemical resistance: Petrol, diesel, water, toilet chemicals
- Tank type style: Metal and plastic with non linear capacity
- Works with petrol, diesel, freshwater, grey water and black water





BLA Code	Description
113360	TS1 non programmed
113361	TS1 programmed



BEP's proprietary Window's based software application allows for TS1 senders to be programmed specific to tank shape, size and fluid type via a computer's USB port.

Programming is a simple process and can be carried out by downloading free software and purchasing a programming kit TS1-PK.

Once programmed, the specific tank parameters are stored in the non-volatile memory of the TS1. For more detailed information contact BLA on **1300 252 725**.

Accessories

113362 TS1-PK programming kit

N.B. The TS1 signal is not a true resistive signal and cannot be used with an electronic engine monitoring system. The TS1 is ideally suited to analogue instruments that have a resistive range of 10-180ohm, 240-33ohm or 10-300ohm.

BEP Tank Senders

Available in side mount configuration to suit either fuel or water tanks. These easy to install probe senders feature no moving parts and are length adjustable. Senders are 0-5 volt output and are compatible with **113386** meter on page 133. 10-180 ohms output senders are available, contact BLA on **1300 252 725** for more information.

113371 *113380*

BLA Code	Description	Tank Depth mm	Output v
113374	Fuel tank side mount	150-900	0-5
113380	Water tank side mount	150-900	0-5
113371	Fuel tank top mount	50-900	0-5
113377	Water tank top mount	50-900	0-5
55-TSTMF-60-100	Fuel top mount	50-900	10-180 ohms
55-TSTMW-60-100	Water top mount	50-900	10-180 ohms
55-TSSMF-60-100	Fuel side mount	150-900	10-180 ohms
113384	Water side mount	150-900	10-180 ohms

BEP Systems in Operation Panels

Available with four or eight 10mm red LEDs indicating important 'systems in operation' information (pumps, engine room, lights etc). Ideally suited for flybridge or remote dash position. Back lighting on labels. **113271** include alarm and mute switch. Four gang panel supplied with **113700** label set. Eight gang panel supplied with **113700** and **113704** label sets, refer pages 100 and 101.

Features:

- 40mm intrusions and 3 r/h mount screws

113270

113272

BLA Code	Volts	LEDs	Dimension wxh mm	Cut Out mm	Alarm & Mute
113270	12-24	4	127 x 115	107 x 95	No
113271	12-24	3 + 1 switch	127 x 115	107 x 95	Yes
113272	12-24	8	239 x 115	219 x 95	No

Drop resistors required for LEDs in 24 volt installations.

113461 Drop resistor BEP 8 way suits **113272**

BEP Contour Matrix LED Tank Gauge

An economical tank monitor for freshwater or grey water tanks. It is recommended for use with plastic or fibreglass tanks only. Supplied with one sender kit. The sender kit consists of five sensors which are strategically mounted through the side of the tank to indicate four tank levels. A second sensor kit may be added to monitor two tanks. The sensor kit is supplied with a five metre lead and receives its power from the gauge.

113398

113397

BLA Code	Base	Depth mm	Mount Screws mm	Tanks	Included senders
113398	67 x 88	17	3 r/h	2	1 x **113397**
113399	67 x 88	17	3 r/h	3	0

Accessories

113397 Tank sensor kit
113382 Side mount sender

BEP Tank Sender

Suits tanks with maximum depth of 280mm and a maximum wall thickness of 10mm, and a maximum hole size of 22mm. Supplied with 5m cable.

BLA Code
113382

BEP Contour Ammeter Shunt Enclosure

Contour style, moulded grey plastic enclosure with removable side covers. Suits Marinco® BEP ammeter shunts which are sold separately (refer page 127). Meets ABYC standards by covering all exposed terminals. Accepts two mini shunts or one maxi shunt as used on digital meters.

Features:

- Digital large: 450A - 50mV
- Analog small: 50A - 50mV, 100A - 50mV, 150A - 50mV

BLA Code	Base Size mm	Height mm	Mount Screws mm
113648	138 x 69	50	5 r/h

BEP DC Monitor Cable Kit

Two core screened cable used to connect any BEP DC monitor to the ammeter shunt supplied.

BLA Code	Length m	OD mm	Eye Term mm
113403	5	5.6	4
113405	10	5.6	4

BEP Contour 1000 Voltmeter

Analogue voltmeter with expanded 8-16 volt range colour coded for easy viewing. Recessed mounting in injection moulded plastic, Contour 1000 frame provides for simple modular installation with other 1000 series panels in horizontal or vertical configuration. Not waterproof, suitable for protected installation only.

113348

BLA Code	Overall Size mm	Cut Out Size mm	Intrusion mm
113348	108 x 108	60 x 60	40

BEP Contour 1000 Ammeters

Analogue ammeters with 0-50 or 0-20 amps internal shunt DC scale in 2 amp increments. Supplied complete with 50A - 50mV external shunt. Suitable for use with solar panel or battery charger installations. Recessed mounting in injection moulded plastic, Contour 1000 frame provides for simple modular installation with other 1000 series panels in horizontal or vertical configuration. Not waterproof, suitable for protected installation only.

113344

Shunt included

BLA Code	Overall Size mm	Cut Out Size mm	Intrusion mm	Range Amps
113343	108 x 108	60 x 60	40	0-20
113344	108 x 108	60 x 60	40	0-50

BEP Analogue Ammeter Panels

Switchable for use on up to three different ammeter shunts. Supplied with one shunt depending on meter scale. Meter scales available; 0-50, 0-100 and 0-150. Durable powder coated aluminium chassis panel with contour styled dress cover. Green LED backlit meter.

113410

Shunt included

BLA Code	Meter Scale amps	Overall Size W x H mm	Cut Out Size mm	Intrusion mm	Mount Screws mm
113410	0-50	127 x 115	107 x 95	47	3 r/h
113414	0-100	127 x 115	107 x 95	47	3 r/h
55-80-601-0026-00	0-150	127 x 115	107 x 95	47	3 r/h

BEP Analogue Voltmeter Panels

Expanded scale gauge, switchable to show voltage on three different battery banks. Durable black powder coated aluminium chassis panel with contour styled dress cover. Green LED backlit meter, colour coded for easy viewing.

113400

BLA Code	Volt	Overall Size W x H mm	Cut Out Size mm	Intrusion mm	Mount Screws mm	Inputs
113400	12 DC	127 x 115	107 x 95	47	3 r/h	3
113402	24 DC	127 x 115	107 x 95	47	3 r/h	3
55-80-601-0022-00	0-150 AC	127 x 115	107 x 95	47	3 r/h	1
55-80-601-0023-00	0-300 AC	127 x 115	107 x 95	47	3 r/h	1

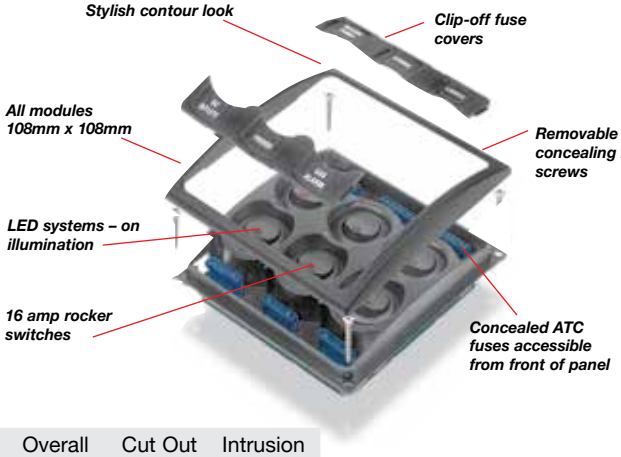
BEP Contour 1000 Series

The Contour 1000 Series, modular injection moulded plastic control panels provide an economical option to the Contour circuit breaker panels. Ideally suited for interior use on smaller sail boats or cruisers. The range consists of 6 gang switch panel, analogue voltmeter, analogue ammeter and a frame only. The panels are fully modular and can be stacked in a vertical or horizontal configuration. Each module is 108 x 108mm overall. A removable contoured frame conceals the mounting screws.

113332 Switch panel *113348 Ammeter* *113343 Voltmeter*

BEP Contour 1000 Switch Panel

Injection moulded plastic panel with contoured design includes six simple two position rocker switches and individual ATC fuses for each circuit. ATC fuses are accessible from the front cover. Square dimensions allow for modular mounting of multiple panels in vertical or horizontal configuration. Each switch features an integral system on red LED and is rated to 16 amps. Suitable for 12 volt power supply only. Supplied standard with **113715**, 24 piece label set (below). Symbol label set, **113716** is also available. The panel is not waterproof and should be used in interior applications only.



113332 Switch panel

BLA Code	Overall Size mm	Cut Out Size mm	Intrusion mm
113332	108 x 108	96 x 96	28

Accessories

113716 Label set

N.B. Panels are modular for vertical or horizontal stacking. Spacer supplied for accurate mounting spacing.

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering or symbols to suit the BEP Contour 1000 switch panel **113332**.
Square shape (12 x 12mm) allows the same labels to be used in both vertical and horizontally installed panels.

Set 1000

Set 1002

BLA Code	Description
113715	Label set 1000
113716	Label set 1002

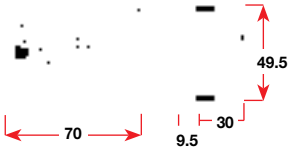
Make your own meter

BEP Analogue Meters

BEP analogue meters have a white face with black graphics and pointer. Ammeter shunts required for ammeter.

113430

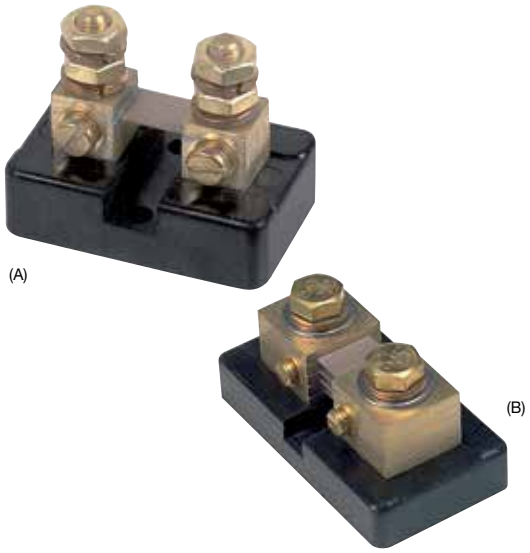
113436



BLA Code	Description
113430	8-16 volts DC
113432	16-32 volts DC
113434	0-300 volts AC
113436	0-50 amps DC
113438	0-100 amps DC

BEP Ammeter Shunts

Shunts are required when using both analogue and digital ammeters. Main negative supply wire is cut and shunt inserted in line. Type (A) mini shunts are used with analogue meters and type (B) with the digital meters.



BLA Code	Amp. A	Amp. mV	Base mm	Height mm	Terminal Stud mm	Mount Screws mm
(A) **113450**	50	50	51 x 32	43	6 main 4 meter	5 r/h
(A) **113454**	100	50	51 x 32	43	6 main 4 meter	5 r/h
(A) **113456**	150	50	51 x 32	43	6 main 4 meter	5 r/h
(B) **113457**	450	50	51 x 32	44	10 main 4 meter	5 r/h

BEP Contour 1000 Meter Frame

Designed to accept any analogue meter enabling modular installation with other 1000 series panels in horizontal or vertical configuration. Meters available include digital volts both AC and DC. Suits the above meters.

Meter frame

Completed example

BLA Code	Overall Size mm	Suits
113428	108 x 108	Analogue meters
113350	108 x 108	Matrix gas detectors

BEP Contour Matrix Gas Detectors

These gas detectors have the capability to control two sensors which detect both LPG and petrol, with visual and audible alarms. Features include test switch to check operation of sensors as well as outputs for external audible alarm and bilge blower operation. Units are supplied standard with one sensor with five metre lead. The **113122** detector also has an LPG shut off feature that shuts off gas supply when in alarm mode. An on/off button is also incorporated to control gas supply remotely. This is achieved through a pulse and hold output that is connected to the **113137**/**113138** LPG shut off solenoid which is purchased separately. The pulse and hold circuitry incorporated in the **113122** detector pulls the valve in at 12 volts and then, once energised, will step down the voltage whilst still holding the valve open. This reduces power consumption and heat generation while the gas is on.

Specifications:

- Solenoid sold separately
- 350mA current draw with two sensors
- 20% lower explosive limit sensitivity
- 800mA max power output
- 700mA pulse, 250mA hold solenoid output
- 88 x 66mm base, 27mm overall depth, 4mm roundhead mount screws

113130

113122

113350

113121

BLA Code	Detector	Power volts
113121	With one sensor	10-35
113122	With one sensor and LPG shut off	10-32

Accessories

113130 Extra sensor with five metre lead
113137 LPG shut off solenoid 12V
113138 LPG shut off solenoid 24V
113350 Contour 1000 Meter frame

N.B. Gas sensor to be kept dry at all times. Do not install in environments approaching more than 100% humidity. Solenoid sold separately.

BEP Contour Matrix LPG Control Panel

This Contour design control panel is used in conjunction with **113137** and **113138** shut off solenoids for electronic control of the boat's gas supply.

BLA Code	Face mm	Cut Out mm	Intrusion mm	Volt	Mount Screws mm
113134	88 x 66	38x40	27	12/24	3 c/s

Accessories

113350 Contour 1000 Meter frame

BEP Self Contained Gas Detector

Just connect power and you have a fully operational gas detector. The sensor is incorporated into the facia. Designed for surface mounting at the lowest point of area being monitored. Detects LPG and petrol. Panel mounted self test button and sensor status light confirm functionality. Commonly used in caravans and RV's.

Specifications:

- 70mA current draw
- 20% lower explosive limit sensitivity

BLA Code	Face mm	Depth Overall mm	Mount Screws mm	Power volts
113124	88 x 66	27	4 r/h	10-35

Accessories

113350 Contour 1000 Meter frame

BEP Contour Matrix Fume Detector

Single sensor economical fume detector that is capable of detecting LPG and combustible gases. Features include clearly visible LEDs for safe and alarm mode, audible alarm with mute and test function and output for external audio alarm. Supplied with sensor and five metre cable.

Specifications:

- 250mA max current draw
- 20% LEL (lower explosive limit) alarm sensitivity

BLA Code	Base mm	Depth Overall mm	Mount Screws mm	Power volts
113125	88 x 66	27	4 r/h	10-35

Accessories

113130 Replacement sensor with five metre lead
113350 Contour 1000 Meter frame

LPG Shut Off Solenoid

A gas shut off valve which is electronically controlled from a remote location such as the galley via a two position switch. Also used in conjunction with a gas detector to shut off gas supply in alarm mode. ¼" BSP thread, 9 watt power consumption.

113137

BLA Code	Power volts	Max. Pressure KPa
113137	12	0-2250
113138	24	0-2250

BEP Contour Generation 2 Splash Proof Switch Panels

Injection moulded plastic panel with modern contour styling. The switch tray features a rubber mounting gasket and integral cover seal. The cover includes a clear plastic membrane with rubber over-mould allowing the flexibility to operate the switches while providing a clear window for label backlighting. Red LED indicates systems on. Both grey and blue interchangeable contour wave strips are included and custom colours are available, subject to minimum quantities. Mounting screws are bidden beneath the cover. Panels can be mounted horizontally or vertically due to the unique label design. A joiner is available for multiple panel installations. Available in 2, 4 or 6 gang versions with a choice of grey or white facia and with or without fuses. Fused versions have each pair of switches connected to a behind panel mounted AF type blade fuse holder. Supplied as standard with two position, on/off switches and **113694**, 28 piece label set. Three position switches, momentary switches and label set **113695** (below) are also available. Suitable for 12 or 24 volt systems. Switches rated to 16 amp. Overall width 63mm. Cut out width 42mm. Intrusion 25mm. Mount screws 3mm roundhead.

BLA Code	Facia Colour	Gang	Fuses	Overall Length mm	Cut Out Length mm
113756	Black	2	No	71	36
113757	White	2	No	71	36
113761	Black	2	Yes	71	36
113762	White	2	Yes	71	36
113766	Black	4	No	119	84
113767	White	4	No	119	84
113771	Black	4	Yes	119	84
113772	White	4	Yes	119	84
113776	Black	6	No	167	132
113777	White	6	No	167	132
113781	Black	6	Yes	167	132
113782	White	6	Yes	167	132

Accessories

113787 Panel joiner black
113792 On/off replacement switch
113793 Momentary on/off switch
113794 On/off/on switch
113795 Momentary on/off/mom on

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering to suit BEP Contour Generation 2 splash proof switch panels.

SET-1

ACCESSORIES
AERATOR
ANCHOR LT
BAIT TANK
BILGE PUMP
AUTO B/P MAN
BLOWER
CABIN LIGHTS
COCKPIT LTS
DC OUTLETS
DECK WASH
DN WINCH UP
ELECTRONICS
ENGROOM LTS
FLOOD LIGHTS
FW PUMP
FRIDGE
GPS
HORN
INST. LIGHTS
INSTRUMENTS
NAV LIGHTS
RADIO
SW PUMP
SPOT LIGHTS
UP PORT DN
UP STBD DN
WIPER

SET-2

B/PUMP PORT
B/PUMP STBD
B/PUMP FWD
B/PUMP MID
B/PUMP AFT
B/PUMP ENG RM
COMPASS LT
DECK LTS
STEAMING LT
NAV LTS PT
NAV LTS STBD
STEP LTS
STERN LT
WIPER PT
WIPER MID
WIPER STBD
WASHERS
FREEZER
H/TANK PUMP
SUMP PUMP
LOCKER LTS
PANEL LTS
TRI LT
BOW LTS
SHOWER LT
SHOWER PUMP
SPARE
SPARE

SET-3

BOARDING LIGHTS
COURTESY LIGHTS
DVD
ENTERTAINMENT
FUEL TRANSFER
GALLEY LIGHTS
GAUGES
HARDTOP LIGHTS
HATCH LIFTER
INTERIOR LIGHTS
LIGHTS LIVEWELL
NAV LIGHTS ANC
NIGHT LIGHTS
OVERHEAD LIGHTS
PARALLEL
PLOTTER
POLE LIGHT
RIDING LIGHTS
SALOON LIGHTS
SOUNDER
STEREO
TARGA LIGHTS
TOILET
TOILET LIGHTS
TV
VHF
WINDLASS

BLA Code
113694

BLA Code
113695

BLA Code
113699

BEP Micro Modular Switch Panels

The micro range of switches offer the unique ability to select the size and orientation of switch panels by adding the compact modules together horizontally or vertically. Injection moulded plastic panel with high quality toggle switches covered by a neoprene rubber boot combined with LED indicator lights, mix and matched to suit most applications. Contour design protects from accidental switching. Supplied with one label set as per table. Labels are round to suit installation vertically or horizontally. Suitable for 12 volt systems only. Switches rated to 20 amp. Labels are back lit with green LED, changing to red when system on. Face 58 x 86mm, cut out 48 x 60mm, intrusion 28mm.

113280

113288

113284

113292

113296

BLA Code	Colour	Labels	Description
113280	Black	**113717**	2 x On/off toggle switch
113282	White	**113717**	2 x On/off toggle switch
113284	Black	**113718**	1 x 2 way & 1 x 3 way momentary switch
113288	Black	**113717**	1 x 2 way & 1 x 3 way switch
113292	Black	Fitted	Bilge alarm – visual & audible
113296	Black	**113717**	2 x LEDs showing systems in operation

Accessories

113471	On/off/on switch	**113491**	Rubber Boot
113472	On/off switch	**115714**	Fuse Holder
113473	2 Posn mom on/off toggle switch	**113520**	Dual 6mm insulated stud

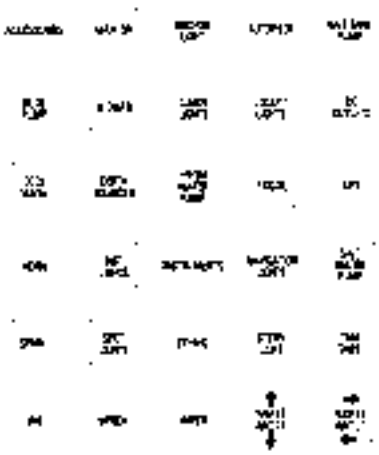
115714

113520

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering to suit the Micro Modular panels above.
Round shape 19mm diameter. A label set as above is supplied as standard with the panel.

Mic 1 labels



Mic 2 labels

Mic 3 labels

BLA Code	Description
113717	Mic 1 labels
113718	Mic 2 labels
113719	Mic 3 labels

BEP Contour Interior Switches

Replicating the same lines as the Contour Switch Panels and Meters, these interior switches compliment the décor of modern boat interiors. The Contour switch can be either, surface or recessed, vertical or horizontal mounted. The switches have a backlit label with systems on indicator. Supplied with 10 piece, symbol label set. Dimensions 60(l) x 30(w) x 18(h) mm (single), 90(l) x 30(w) x 18(h) mm (double). Switch current rating 10amp, 12VDC.

N.B. Switches can be rotated 90° to suit installation

113319

113310

BLA Code	Colour	Style	Switch
113310	Black	Single	On/off
113319	Black	Double	On/off

Accessories

113324	Replacement switch on/off/on
113326	Replacement switch momentary

BEP Contour Exterior Switches

Replicating the same lines as the Contour interior switches, these exterior switches complement the décor of modern boat exteriors. The contour switch can be surface, recessed, vertical or horizontal mounted. The switches have a backlit label with systems on indicator. On/off and on/off/on switches are three pin. Momentary switches are two pin and spring return to off position. Supplied with symbol label set. Suitable for horizontal or vertical mounting. Supplied with 10 piece, symbol label set. Dimensions 60(l) x 30(w) x 18(h) mm (single), 90(l) x 30(w) x 18(h) mm (double). Switch current rating: 10amp 12VDC.

N.B. Switches can be rotated 90° to suit installation

113302

113305

BLA Code	Colour	Style	Switch
113302	Black	Single	On/off
113305	Black	Double	On/off

Accessories

113471 On/off/on switch
113472 On/off switch
113491 Rubber boot
113473 2 Posn mom on/off toggle switch

BEP Splash Proof Switch Fuse Panels

Injection moulded plastic panel with high quality two position toggle switches covered by neoprene rubber boots to provide splash proof (IP56) protection from the front face. Each pair of toggle switches is connected to a behind panel mounted AF type blade fuse (**115714**). Available in 4 or 6 gang versions with a choice of grey or white facia. Supplied complete with **113714** 28 piece label set (refer page 143). Switches are rated to 20 amp.

113241

113240

BLA Code	Facia Colour	Gang	Overall Size mm	Cut Out Size mm	Intrusion mm	Power volt	Mount Screws mm
113240	Grey	4	107 x 95	87 x 45	75	12-24	3 c/s
113241	White	4	107 x 95	87 x 45	75	12-24	3 c/s
113250	Grey	6	107 x 95	87 x 45	75	12-24	3 c/s
113251	White	6	107 x 95	87 x 45	75	12-24	3 c/s

115714

Accessories

113471 On/off/on switch
113472 On/off switch
113491 Rubber boot
113473 2 Posn mom on/off toggle switch
115714 Fuse holder
113520 Dual 6mm insulated stud

BEP Splash Proof Switch Fuse Panels

- With Power Socket

Injection moulded plastic panel with high quality two position switches rated to 20 amp, covered by rubber boots and a cigarette lighter type power socket rated to 16 amp. Panel is splash proof to IP56 standard from the front face. Each pair of toggle switch/power socket is connected to a behind panel mounted AF type blade fuse holder (**115714**). Available in 3 or 5 gang versions with a choice of grey or white facia. Supplied complete with **113714** 28 piece label set (refer page 143). Power plug is not included with the panel and is available as a separate part. Now supplied with Marinco power socket.

113244

113253

BLA Code	Facia Colour	Gang	Overall Size mm	Cut Out Size mm	Intrusion mm	Power Volt	Mount Screws mm
113243	Grey	3	107 x 95	87 x 45	75	12-24	3 c/s
113244	White	3	107 x 95	87 x 45	75	12-24	3 c/s
113253	Grey	5	107 x 95	87 x 45	75	12-24	3 c/s
113254	White	5	107 x 95	87 x 45	75	12-24	3 c/s

115714

Accessories

113256 Marinco power plug
113471 On/off/on switch
113472 On/off switch
113491 Rubber boot
113473 2 Posn mom on/off toggle switch
115714 Fuse holder
113520 Dual 6mm insulated stud

113256

BEP Splash Proof Switch Panels

Stylish contoured, moulded plastic panel with removable cover plate over the switches to conceal screws and water drain. Six gang switched circuits with high quality, two position toggle switches covered by neoprene rubber boots providing splash proof protection from the front face to IP56 standard. Features red LEDs for systems on and green LED back-lit labels. Choice of three models - Unfused for installation with separate fuses, fused with each pair of toggle switches connected to a behind panel mounted AF type blade fuse or PTC fused. Positive Temperature Coefficient (PTC) fuses are solid state 9 amp resettable fuses (turn switch off for 10 secs to reset). Supplied complete with **113702**, 29 piece label set below. Additional label set **113703** is also available, below. Switches are rated to 20 amp.

BLA Code	Facia Colour	Fuses	Overall Size mm	Cut Out Size mm	Intrusion mm	Power volt	Mount Screws mm
113260	Grey	No	110 x 158	92 x 130	65	12	4 c/s
113262	Grey	Blade	110 x 158	92 x 130	75	12	4 c/s
113263	White	Blade	110 x 158	92 x 130	75	12	4 c/s
113264	Grey	PTC	110 x 158	92 x 130	75	12	4 c/s

Accessories

113471 On/off/on switch
113472 On/off switch
113491 Rubber boot
113473 2 Posn mom on/off toggle switch
115714 Fuse holder
113520 Dual 6mm insulated stud

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering to suit Marinco® BEP splash proof panels **113240-113254**. Oval shaped, 26 x 9mm.

NAVIGATION LIGHTS

Accessories
Aerator
Anchor Lights
Autopilot
Bait Tank Pump
Bilge Pump
Blower
Cabin Lights
Cockpit Lights
DC Outlets
Deck Wash
Depth Sounder
Freshwater Pump
Fridge
GPS
Horn
Inst. Lights
Instruments
Log
Navigation Lights
Radar
Spare
Spot Lights
Stereo
Stern Light
Trim Tabs
VHF
Wiper

BLA Code
113714

BEP Nameplates for Circuit Identification

Black adhesive labels with white lettering to suit Marinco® BEP splash proof panels **113260-113264**. Oval shaped, 41 x 11mm.

ACCESSORIES

Anc. Light Nav. Lights
Accessories
Aerator
Anchor Light
Autopilot
Bait Tank Pump
Bilge Pump
Bilge Pump
Auto Man
Blower
Cabin Lights
Cockpit Lights
DC Outlets
Deck Wash
Depth Sounder
Flood Lights
Freshwater Pump
Fridge
GPS
Horn
Inst. Lights
Instruments
Navigation Lights
Radio
Saltwater Pump
Spot Lights
Trim Tabs
Winch
Wiper

BLA Code
113702

ANCHOR LIGHT

Anchor Light
Bilge Auto Man
Boom Light
Cabin Light
Cockpit Lights
Compass Light
Deck Lights
Depth Sounder
E/R Blower
Freezer
Hot Tub Light
Hot Tub Pump
Instruments
Locker Lights
Nav Lights
Port Nav Lights
Port Wiper
Shower Drain Pump
Spare 1
Spare 2
Spare 3
Stbd Nav Lights
Stbd Wiper
Steaming Light
Stern Light
Sumlog
Transom Lights
Tri Light

BLA Code
113703

BEP Stainless Steel Push Button Switches & Buzzers

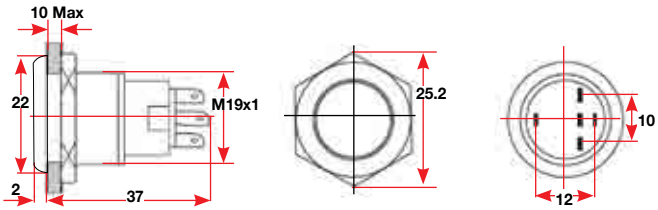
Introducing a range of stainless steel push button switches and buzzers suitable for a wide variety of uses and applications.

Manufactured using 304 grade stainless steel, these IP67 rated panel mount switches when installed are ideal for light switching or being used in custom switch and dash panels. The switches have the ability to be wired to allow the light rings, available in either red or blue surrounds, to show power to a system or may be utilised as convenient switch back lighting. Also included in the range are matching stainless steel warning buzzers with a loud 80dB tone and LED light rings.

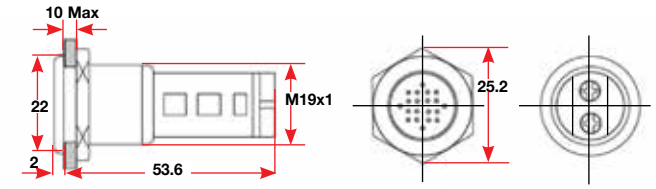
This new switch range is available in a variety of combinations, including momentary and latched actuation. Available in either 12 or 24 volts each switch carries a maximum of 5 amps.

Features:

- Momentary and latched actuation options available
- Blue and red circuit status indication LED options
- 304 grade stainless steel components, silver alloy contacts
- Maximum switch current rating to 5 amps
- Small 19mm mounting hole allowing for 10mm panel thickness
- Waterproof to IP67 for switches only
- IP50 rating for buzzer only
- Buzzer sound intensity to 80dB

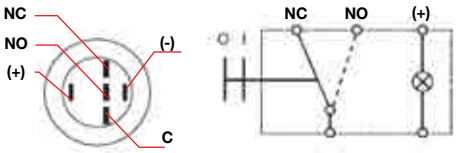


Push Button Dimensions



Buzzer Dimensions

BLA Code	Description	Volts
114210	On/off S/S red illumination	12
114212	Momentary/off S/S red illumination	12
114216	On/off S/S blue illumination	12
114218	Momentary/off S/S blue illumination	12
114222	On/off S/S red illumination	24
114224	Momentary/off S/S red illumination	24
114228	On/off S/S blue illumination	24
114230	Momentary/off S/S blue illumination	24
114240	Buzzer S/S with warning red illumination	12
114244	Buzzer S/S with warning red illumination	24



Fuse Holder - Square

Panel mount, square face, quick inspection style, spring loaded fuse holder with side release. Suits 32 x 6mm (3ag) glass fuses. 12/24 volt, 10 amp maximum. Fuses not included.

BLA Code	Panel Thickness mm	Face Size mm	Overall Length mm	Mount Hole mm
114100	6	17 x 17	51	15

Fuse Holder - 3AG

Panel mount, round screw cap, spring loaded fuse holder. Suits 32 x 6mm (3ag) glass fuses. 12/24 volt, 10 amp maximum. Fuses not included.

BLA Code	Panel Thickness mm	Dia. mm	Overall Length mm	Mount Hole mm
114102	6	18	51	15

Momentary Switch - Plastic

Push button momentary switch. Black neoprene waterproof protector. Suitable for 12/24 volt applications.

BLA Code	Panel Thickness mm	Dia. mm	Protrusion mm	Intrusion mm	Mount Hole mm
114150	6	30	18	22	22

Momentary Switch - Brass

Brass, waterproof starter switch supplied complete with removable rubber cover over brass switch. Chromed above dash button and trim ring. 12/24 volt, 25 amp.

BLA Code	Bezel Dia. mm	Stem Dia. mm	Dash Thickness mm	Overall Length mm	Intrusion mm
114152	21	16	23	72	54

BEP Toggle Switches

Toggle switches as used in BEP splash proof and Micro switch panels. Chrome plated brass toggle. 12-24 volt, 20 amp DC. Dash thickness 5mm. Thread diameter 12mm, 55(h) x 28(w) x 14(d) mm. Available in two position and three position versions with the option of momentary contact on one side. The neoprene rubber boot is purchased separately (**113491**).

113491

113472

BLA Code	Position
113471	On/off/on
113472	On/off
113473	Momentary On/off

Accessories:

113491 Rubber boot

Toggle Switch

Chrome plated mini switch. Two positions: On/off. 12/24 volt, 15 amp. Waterproof boot sold separately (**114162**).

114160

114162

BLA Code	Dash Thickness mm	Stem Dia. mm	Overall Length mm	Width mm	Protrusion mm	Intrusion mm
114160	8	12	45	32	18	23

Accessories:

114162 Waterproof boot

Single and Double Pole Toggle Switches

Three position black toggle switch. 12/24 volt, 15 amp. Available in single and dual pole configurations.

114164

114166

BLA Code	Poles	Dash Thickness mm	Stem Dia. mm	Overall Length mm	Width mm	Intrusion mm
114164	2	6	12	59	35	35
114166	1	6	12	59	35	31

Marine Town® Push-Pull Switch

Mini, two position push-pull switch. Chrome plastic knob.12 volt, 5 amp.

BLA Code	Dash Thickness mm	Stem Dia. mm	Overall Length mm	Width mm	Intrusion mm
114202	3	8	44	31	25

Push-Pull Switch

On/off black knob has integral red indicator light that illuminates when switch is in on position. 12 volt, 15 amp.

BLA Code	Dash Thickness mm	Stem Dia. mm	Overall Length mm	Width mm	Intrusion mm
114200	6	12	69	17	33

Sierra® RotoSwitch®

Quality rotary switches with optional light module to display different light colours to designate differing positions of the switch. Rated to 20 amps at 12 volts. Durable can design for long life. An optional illumination module is available for both two and three position switches. Switch body is 24(w) x 34(h) mm.

SMP78710

BLA Code	Positions			Knob Dia. mm	Intrusion mm
	Centre	Left	Right		
SMP78710	-	Off	On	30	67
SMP78720	-	Off	On (Mom)	30	67
SMP78730	On(1)	Off	On(2)	30	67
SMP78820	On(2)	Off	On(1&2)	30	67

Accessories:

SMP78870	Light module - clear/red

Sierra® Contura® II Rocker Switches

Modern styled rocker switches that blend in with the mounting panel to be less obtrusive visually than toggle type switches. Single pole switches rated to 20 amps at 12 volts, available with or without internal illumination.

SRK22170

SRK19460

BLA Code	Description	Face Size mm	Cut Out mm	Intrusion mm
SRK19400-1	Off/on - SPST	25x50	21x37	38
SRK19410-1	Off/on (mom) - SPST	25x50	21x37	38
SRK19420-1	On/off/on - SPST	25x50	21x37	38
SRK19440-1	Off/on Illum - SPST	25x50	21x37	38
SRK19460-1	On/off/on Illum - SPST	25x50	21x37	38

Accessories:

SRK22160	Actuator black Contura II
SRK22170	Actuator red Contura II

Push-Pull Switch

Three position push-pull switch with off/on1/on1&2 positions. Brass with chrome plastic knob. 12 volt, 20 amp.

BLA Code	Dash Thickness mm	Stem Dia. mm	Overall Length mm	Width mm	Intrusion mm
114206	20	9	98	27	72

Push-Pull Switch

Two position standard push-pull switch. Brass with chrome plastic knob. 12 volt, 20 amp.

BLA Code	Dash Thickness mm	Stem Dia. mm	Overall Length mm	Width mm	Intrusion mm
114204	20	9	79	22	54

BEP Rocker Switches

Rocker switch as used in BEP Contour Generation 2 splash proof switch panels. 12 to 24 volt, 16 amp DC. Panel thickness 3mm, 6mm blade terminals. Available in two and three position switches with the option of momentary contact.

113792

BLA Code	Switch	Face Size mm	Cut Out mm	Intrusion mm
113792	Off/on	14 x 32	11 x 30	26
113793	Momentary/off	14 x 32	11 x 30	26
113794	On/off/on	14 x 32	11 x 30	26
113795	Mom/off/mom	14 x 32	11 x 30	26

Sierra® Rocker Switches

Traditional rectangular sectioned rocker switches, available with or without internal lighting. Single pole switches rated to 20 amps at 12 volts.

SRK40110

BLA Code	Description	Face Size mm	Cut Out mm	Intrusion mm
SRK40100	Off/on Illum - SPST	25 x 44	22 x 37	38
SRK40110	On/off/on Illum - SPST	25 x 44	22 x 37	38
SRK40140	Off/on - SPST	25 x 44	22 x 37	38
SRK40150	Off/on (mom) - SPST	25 x 44	22 x 37	38
SRK40170	On/off/on - SPST	25 x 44	22 x 37	38

Sierra® Contura® III Rocker Switches

Modern styled rocker switches that blend in with the mounting panel to be less obstructive visually than toggle type switches. Constructed of non-corrosive black plastice with IP66 and IP68 certification against prolonged exposure to spray. Meets UL 1500 and ISO8846 ignition protection requirements.

Features:

- Red LED illumination when in "on" position
- Supplied with neoprene mounting gasket
- Rated 20A at 12V

SRK19700

SRK22130

BLA Code	Description	Face Size mm	Cut Out mm	Intrusion mm
SRK19700	Off/on Illuminated SPST	24 x 49	21 x 37	38
SRK19740	On/off/on Illuminated SPDT	24 x 49	21 x 37	38
SRK19780	Mom/on/off/on Illuminated SPDT	24 x 49	21 x 37	38

Accessories:

SRK22120	Actuator black Contura III with lense
SRK22130	Actuator grey Contura III with lense
SRK22140	Actuator black Contura III with 2 lenses
SRK22150	Actuator grey Contura III with 2 lenses

Sierra® Heavy Duty Power Trim & Tilt Switch

- Super tough zinc die cast construction
- Heavy copper screw terminals
- 50 amps at 12VDC
- Momentary on/off/momentary on

BLA Code
STG21600

Sierra® Marine Ignition Switch

Die cast zinc housing with 4 position access off-run-start. Chromed knurled face nut. Four screw stud terminals.

Specifications:

- 4 position conventional accessory off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 15 amps at 12VDC accessories
- 14.5mm mounting hole
- 16mm panel thickness (max)

BLA Code
UN12140

Sierra® Ignition Switch

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts. 20 amp rating.

Specifications:

- 3 position magneto off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 23mm mounting hole
- 29mm panel thickness (max)
- No choke

BLA Code
SMP39100

Sierra® Ignition Switch

- with Choke

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 3 position magneto off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 7 amps at 12VDC choke
- Terminal to power separately controlled choke circuit
- 23mm mounting hole
- 29mm panel thickness (max)

BLA Code
SMP39830

Sierra® Ignition Switch

- with Choke

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 3 position magnet to off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 7 amps at 12VDC choke
- 23mm mounting hole
- 16mm panel thickness (max)
- Push to choke

BLA Code
SMP41000

Sierra® Mercury Ignition Swtich

- with Choke

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 3 position magnet to off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 7 amps at 12VDC choke
- 23mm mounting hole
- 16mm panel thickness (max)
- Push to choke

BLA Code
SMP41070-2

Sierra® Marine Ignition Switch - Brass

Brass housing with corrosion resistant construction, with three screw tab terminals. Brass back nut and chrome hex front nut.

Specifications:

- 3 position conventional off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 23mm mounting holes
- 29mm panel thickness (max)

BLA Code
SMP39060-1

Sierra® Marine Ignition Switch - Short Shaft

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 3 position conventional off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 23mm mounting hole
- 16mm panel thickness (max)

BLA Code
SMP41030

Sierra® Ignition Switch - With Choke

Marine grade glass-filled polyester constructed ignition switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 4 position magneto accessory off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 15 amps at 12VDC accessory
- 16mm panel thickness (max)
- 7 amps at 12VDC choke
- Push to choke

BLA Code
SMP39710-1

Sierra® Marine Ignition Switch

- Short Shaft 6 Terminals

Marine grade glass-filled polyester constructed ignition switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 4 position magneto accessory off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 15 amps at 12VDC accessory
- 7 amps at 12 VDC choke
- 16mm panel thickness (max)
- Push to choke

BLA Code
SMP39730

Sierra® Marine Ignition Switch

- Long Shaft

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 3 position conventional off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 23mm mounting hole
- 29mm panel thickness (max)

BLA Code
SMP39200

Sierra® OMC®/BRP® Ignition Switch - With Choke

Marine grade glass-filled polyester switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 7 amps at 12VDC choke
- 23mm mounting hole
- 16mm panel thickness (max)
- Push to choke
- Suits many OMC®/BRP® applications

BLA Code
SMP39760

Sierra® Marine Ignition Switch

- Short Shaft 5 Leads

Marine grade glass-filled polyester constructed ignition switch with an inner seal between cylinder lock and contact plate providing ultimate protection against corrosion. Non-conductive housing eliminates potential shorts.

Specifications:

- 3 position magento off-run-start
- 15 amps at 12VDC ignition
- 30 amps at 12VDC solenoid
- 15 amps at 12VDC accessory
- 16mm panel thickness (max)
- No choke circuit

BLA Code
SMP39740-1

Sierra® Emergency Cut-Off Switch

- Emergency cut-off switch with coiled lanyard
- Will provide a "normally open" or "normally closed" circuit
- Kills ignition when lanyard is pulled
- For use with conventional or magneto ignitions

BLA Code
SMP40970-1

Accessories:
SMP40990 Lanyard only

Sierra® Emergency Cut-Off Switch

- Emergency cut-off switch with coiled lanyard
- Will provide a "normally open" or "normally closed" circuit
- Kills ignition when lanyard is pulled
- For use with conventional or magneto ignitions
- Replaces OMC®/BRP® 585134

BLA Code
SMP28870

Sierra® Lanyard and Clip

Replaces: Yamaha 682-82556-00-00

BLA Code
SMP28860

Sierra® Lanyard and Clip

Replaces: OMC 432230. 1995-older

BLA Code
SMP28880

Sierra® Lanyard and Clip

Replaces: OMC 176288, 1996 and newer

BLA Code
SMP28890

Sierra® Lanyard and Clip

Replaces: OMC 398602, Tiller Steer Models - All

BLA Code
S18-1282

Sierra® Emergency Cut-Off Switch

Replaces: Yamaha 6E9-82575-02-00. Push button kill feature

BLA Code
S18-65450

Sierra® Lanyard

Replaces: OMC 432230. 1995-Older

BLA Code
SMP28900

Boat Kill Switch Key Set and Lanyard

A great kill switch key set that includes seven of the most popular emergency cut off switch keys to satisfy almost any sales enquiry. Includes seven moulded plastic keys to fit all Johnson®, Evinrude®, Mercury®, Yamaha®, Suzuki®, Tohatsu® and Honda® kill switches. Driver attachment end features a tough swivel snap hook designed to prevent tangles while both keys and clip are securely held in place with stainless steel crimps.

The corrosion resistant coiled pig tail lanyard also allows plenty of movement ranging from 500 to 1500mm maximum length. Supplied in hang sell clam packaging for convenience.

BLA Code
114334

USB and Power Sockets

A range of practical flush panel and surface mount power charging sockets to suit appliances with USB and Power Socket cable ends. Designed to be quickly and easily installed they are suited to a wide range of marine, RV, camping and caravan applications.

For USB plugs, the two charging sockets with five volt output, are designed to provide maximum charge to a wide range of appliances. The 1 Amp socket is ideal for iPhones, iPods and other compatible smartphones and devices while the 2.1 Amp socket provides maximum fast charging speed for iPads. A convenient LED power indication light glows when either socket is in use. The standard power socket is designed for 12 volt charging applications with a maximum rating of 10 amps.

The rugged mount panels and surface housings include a water resistant plug type sealing cap and gasket to help prevent water ingress and dust when not in use. Each item is supplied in convenient blister packaging which includes insulated spade connectors and mounting screws.

Features:

- Flush or surface mounts available
- Two USB sockets charge at 1 and 2.1 Amps
- Water and dust resistant sealing cap and gasket
- Removable flush mounting panel
- Power socket included in twin models
- LED power indication light
- Supplied in blister pack with fasteners and terminals

114340

114344

113429

BLA USB Power Sockets - Flush Mount

Features two charging sockets designed to provide maximum charge to a wide range of appliances. The 1 Amp socket is ideal for iPhones, iPods and other compatible smartphones and devices. The 2.1 Amp socket provides maximum fast charging speed for iPads. The mounting panel may be removed to allow flush mounting of the sockets only.

114340
2 x USB Ports
Flush mount without mount panel

114340
2 x USB Ports
Flush mount with mount panel

BLA Code	Description	Mount Type	Volts	Amps		Socket Facia mm	Intrusion mm	Mount Hole mm
114340	2 x USB	Flush Panel	12/24	1 x 1	1 x 2.1	60 x 43	47	29

BLA USB and Power Sockets

- Dual Flush Mount

Features two USB sockets, 1 x 1 Amp and 1 x 2.1 Amp as well as a one common power socket designed to charge a wide range of appliances. The two USB sockets are ideal for iPhones, iPods, iPads and other compatible smartphones and devices. The popular 10 Amp power socket suits a wide range of products including spotlights, chart lights and 12 volt extension cables. The mounting panel may be removed to allow flush mounting of the sockets only.

114344
2 x USB Ports,
1 x Power Socket
Flush mount with mount panel

BLA Code	Description	Mount Type	Volts USB	Volts Power Socket	Amps USB		Amps Pwr	Socket Facia mm	Intrusion mm	Mount Hole mm
114344	2 x USB 1 x Pwr	Flush Panel	12/24	12	1 x 1	1 x 2.1	10	105 x 43	47	29

BLA USB Power Sockets

- Surface Mount

Features two charging sockets designed to provide maximum charge to a wide range of appliances. The 1 Amp socket is ideal for iPhones, iPods and other compatible smartphones and devices. The 2.1 Amp socket provides maximum fast charging speed for iPads. The heavy duty surface mounted housing protects the power sockets and may be mounted in vertical or horizontal positions.

114348
2 x USB Ports
Surface mount

BLA Code	Description	Mount Type	Volts	Amps		Width mm	Height mm	Length mm
114348	2 x USB	Surface	12/24	1x1	1x2.1	55	50	80

BLA USB and Power Sockets - Dual Surface Mount

Features two USB sockets, 1 x 1 Amp and 1 x 2.1 Amp as well as a one common power socket designed to charge a wide range of appliances. The two USB sockets are ideal for iPhones, iPods, iPads and other compatible smartphones and devices. The popular 10 Amp power socket suits a wide range of products including spotlights, chart lights and 12 volt extension cables. The heavy duty surface mounted housing protects the power sockets and may be mounted in vertical or horizontal positions.

114352
2 x USB Ports,
1 x Power Socket
Surface mount

BLA Code	Description	Mount Type	Volts USB	Volts Power Socket	Amps USB		Pwr	Width mm	Height mm	Length mm
					1 x 1	1 x 2.1				
114352	2 x USB 1 x Pwr	Surface	12/24	12			10	112	50	80

BLA Mini Digital DC Voltmeter

Self powered, auto-ranging digital DC voltmeter that accurately measures and displays the output of the status of the on-board battery system. The meter connects to either 12 or 24 volts and provides an input range between 6~30V DC, with red LED digits providing a clear readout to 0.2 volt resolution at a low power draw of only 10 milliamps.

The meter is set into a rugged housing that provides protection against moisture and vibration. Supplied with a mounting panel that may be removed to allow flush mounting of the meter only to a maximum panel thickness of 6.5mm.

113429
Volt meter
Flush mount with
mount panel

113429
Volt meter
Flush mount without
mount panel

BLA Code	Description	Mount Type	Volts	Input Range Voltage DC	Socket Facia mm	Intrusion mm	Mount Hole mm
113429	Voltmeter	Flush Panel	12/24	6-30	60 x 43	24	29

Scanstrut Dual USB Charge Socket - Waterproof 12-24V

Waterproof on-board charging, whatever the weather. Dual socket will connect and charge devices including phones, tablets, fishfinders, chart plotters and more. Perfect for kayaks, RIBs, sail and powerboats of any size.

Universal
- Works with any USB Type-A Connector
- Charge up to 2 devices at a time

Waterproof charging
- IPX4 waterproof with cover closed
- Waterproof with 1, 2 and even no cables plugged in

Marine ready
- Anti-corrosion coating on circuit board
- U.V. resistant
- 316 grade stainless hinge and spring

Great Design
- Easy to open/close, even with gloves on
- Low profile, small footprint
- Easy install

Retrofit
- Standard barrel size also fits existing USB sockets
- Technical Information
- Internal electrics anti-corrosion protected
- Input voltage: 6V-30V DC
- Output voltage: 5V +/-5%
- Cut out dimensions: 29mm dia.

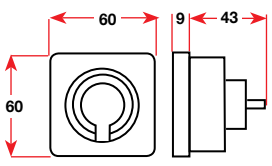
BLA Code
106296

Accessories:

106297 Cable Lightning USB/Synch 2.0m suit **106296**

FriLight Power Sockets

12 to 24 volt auxiliary power socket.



122438

122436

113256

BLA Code	Trim Colour
122436	White
122438	Chrome

Accessories:

113256 Auxiliary plug suits power socket

Power Plug and Socket

Rectangular cigarette lighter style, injection moulded black nylon, with secured plastic cover. Supplied as a set, socket and plug. 10 amps maximum.

BLA Code	Socket Facia mm	Socket Overall Length mm	Intrusion mm	Mount Screws mm	Mount Hole mm
114236	56 x 32	58	50	4 c/s	28

Power Socket

Stainless steel cigarette lighter style socket with secured plastic cover. Supplied with power, earth wires and terminals. 10 amps maximum.

BLA Code	Socket Facia mm	Socket Overall Length mm	Intrusion mm	Mount Screws mm	Mount Hole mm
114238	56 x 38	63	54	4 r/h	28

Extension Cord

Two core cable with 12 volt cigarette lighter style plug one end, cigarette lighter style socket the other.

BLA Code	Cable Length m	Max. amps
114254	3	10

Cigarette Lighter/Map Light

All stainless steel cigarette lighter incorporating a chart light and switch. 12 volt, 20 amp.

BLA Code	Bezel mm	Overall Length mm	Intrusion mm	Mount Screws mm	Mount Hole mm
114252	38 x 53	125	77	4 r/h	22

Power Socket Multi Adaptor

Two core cable, 12 volt cigarette lighter style plug one end, triple lighter style socket the other. LED power indicator at socket end. Plug has an integral fuse to protect overload. Supplied with double sided tape to fix triple socket.

BLA Code	Cable Length m	Max. amps	Socket Housing mm
114258	3	10	90 x 50 x 34

Power Socket Adaptor

Adaptor for connecting appliances with cigarette lighter style plug to battery terminals.

BLA Code	Cable Length m	Max. amps
114256	1	10

Power Plug

Cigarette lighter style plug to suit common sockets. Suitable for use on 12 or 24 volt systems with appliances drawing up to 16 amps. Screws apart for fast simple connection with screw terminals. A range of power sockets in housings to match the Frilight interior light switches are also available.

BLA Code	Description	Overall Length mm	Dia. mm
113256	Power Plug	70	20
113257	Packaged Power Plug	70	20
114239	Power Socket	–	–

Minn Kota® Heavy Duty Power Plug and Socket

Universal design for two or three wire configuration to suit 12 to 36 volt systems and up to 40 amp current draw. Watertight sealing cap, corrosion resistant, plated brass electrical components. Locks into receptacle to provide a watertight seal.

BLA Code	Socket Facia mm	Intrusion mm	Mount Screws mm	Mount Hole mm
114276	60 x 43	45	4 c/s	29

Sierra® S.P.A.R.K.

- Sierra Power and Recharge Kit

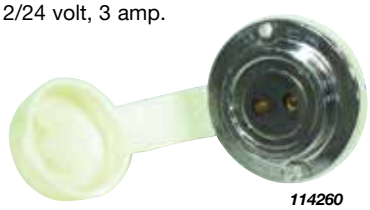
Convenient and powerful. Jump your automobile, motorcycle, speed boat and more! Charge your mobile devices and use the handy LED flashlight.

- Size: 6.69" x 3.23" x 1.26"
- Output: 5V/2A, 19V/3.5A, 12V jump start
- Input: 12V/1A, 5V/1A
- 4 hour approx. charging time
- LED light modes (illumination, strobe, SOS)
- Short circuit, over charge and discharge protections

BLA Code
S18-9149

Two Pin Cable Connector

Chrome brass, flush mount cable connector base with two pin rubber booted plug. Supplied with plastic weatherproof cap. 12/24 volt, 3 amp.



114260

114261

BLA Code	Base Dia. mm	Overall Length mm	Intrusion mm	Deck Hole mm	Mount Screws mm
114260	38	43	15	16	3 c/s

Accessories:

114261 Two pin plug only

Weatherproof Connectors

Chromed brass base and plug housings. Screw on electrical plug and weatherproof cap. Plug has rubber gland to weatherproof cable entry. Cap supplied complete with stainless steel security chain. Pins are configured to prevent accidental reverse polarity connection.

114264

BLA Code	Pin	Amp	Overall Length mm	Base Dia. mm
114264	2	3	56	36
114266	3	3	56	36
114268	4	3	56	36

Heavy Duty Weatherproof Connectors

Chrome plated brass, flanged base and plug housing with bakelite insulator and brass screw terminals. Plug has a rubber cable entry gland and screw locking mechanism. Plastic screw cap with security chain for when plug is not fitted. Pins are sized to prevent reverse polarity connection.

114272

BLA Code	Pin	Amp	Overall Length mm	Base Dia. mm
114270	2	5	65	45
114272	3	5	65	45

Nylon Cable Connector

Glass reinforced black nylon base and plug housing with bakelite insulator and brass screw terminals. Plug has a rubber gland to accept sealant to weatherproof cable entry and a screw locking mechanism. Includes screw on cap and security chain. Pins are sized to protect polarity.

BLA Code	Pin	Amp	Overall Length mm	Base Dia. mm
114280	2	5	76	48

Anderson Plugs

Heavy duty, DC rated two circuit connectors. Feature a self cleaning contact design that resists arcing. Grey plastic housing with silver plated solid copper contacts, spring loaded to resist vibration arcing. Ideal for high load applications such as trailer winches, trolling motors and battery connections. Sold individually. Two required to make a connection.

115612

BLA Code	Max. amps	Max. Cable mm^2	Base mm	Height mm
115612	50	8	48 x 35	16
115614	175	32	80 x 55	25

Jumper Leads

Fully insulated spring loaded clamps. High specification copper cable with double insulation. 3 metres long. 400 amp rated. Colour coded for polarity.

BLA Code	Length m	Max. amps
114330	3	400

Battery Selector Switch

Battery selector switch with off/1/all/2 positions. Enables isolation of one battery or battery bank from the other. Also provides the ability to link both batteries in parallel. Suitable for surface or partial recessed mounting options.

Specifications:

- Voltage: 6-32V DC
- Continuous Rating: 250amps DC
- Intermittent Rating: 360amp DC

BLA Code	Base Dia. mm	Cut Out Dia. mm	Overall Depth mm	Mount Screws mm	Terminal Stud mm
114294	134	96	70	5 r/h	8

Battery Selector Switch - With Key

Battery selector switch with key lock providing added security to engine starting. Four position options enable isolation of one battery or battery bank from the other. Also provides the ability to link both batteries in parallel. The unit can be surface or partially recess mounted.

Specifications:

- Voltage: 6-32V DC
- Continuous Rating: 250 amps DC
- Intermittent Rating: 360 amps DC

BLA Code	Base Dia. mm	Cut Out Dia. mm	Overall Depth mm	Mount Screws mm	Terminal Stud mm
114296	134	96	70	5 r/h	8

Battery Selector Switch - Alt Field Disconnect

Four positions battery selector switch with 0/1/1+2/2 options. Enables isolation of one battery or battery bank from the other, or to link up both batteries in parallel for additional power. Alternator field disconnect allows switching to any position when engine is running without damaging alternator. Designed for surface mounting. Plastic caps cover the mounting screws.

Specifications:

- Voltage: 6-32V DC
- Continuous Rating: 250 amps
- Intermittent Rating: 360 amps

BLA Code	Base Size mm	Overall Depth mm	Mount Screws mm	Terminal Stud mm	Alt. Field Stud mm
114298	140	73	5 r/h	8	3

Battery Selector Switch

Battery selector switch with off/1/both/2 positions. Enables isolation of one battery or battery bank from the other, or link up both batteries in parallel for additional power. Engines must be shut down before turning to 'off' position. Rotary dial has a spring loaded keeper to positively lock the selected position. Designed to be surface mount with cable entry from below.

Specifications:

- Voltage: 6-32V DC
- Continuous Rating: 235 amps
- Intermittent Rating: 300 amps

BLA Code	Base Size mm	Overall Depth mm	Mount Screws mm	Terminal Stud mm
114304	137 x 137	72	5 c/s	10

Battery Switch

Simple key type, two position switch with insulated black plastic housing, red removable plastic key and all brass electrical contacts. Suitable for 12 or 24 volt. Unit may be surface mounted or partially recessed behind the panel with just the stem protruding. Engines must be shut down before turning to 'off' position. Rated maximum load, 500 amps for ten seconds. Overall length includes key.

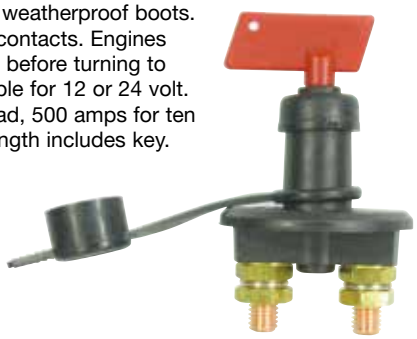
BLA Code	Base Dia. mm	Overall Length mm	Stem Length mm	Stem Dia. mm	Mount Screws mm	Terminal Stud mm
114308	65	102	33	23	6 r/h	10

Accessories:

114309 Spare key only (without boot)

Battery Switch - Weatherproof

Key type, on/off switch with removable plastic key for security. Key and switch are both fitted with weatherproof boots. All brass electrical contacts. Engines must be shut down before turning to 'off' position. Suitable for 12 or 24 volt. Rated maximum load, 500 amps for ten seconds. Overall length includes key.



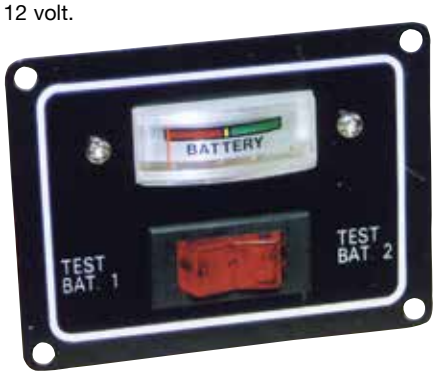
BLA Code	Base Dia. mm	Overall Length mm	Stem Length mm	Stem Dia. mm	Mount Screws mm	Terminal Stud mm
114314	65	102	33	23	6 r/h	10

Accessories:

114309 Spare key only (without boot)

Marine Town® Battery Condition Tester

Black finished aluminium panel with simple colour coded gauge. Illuminated rocker switch selects test condition of battery one or two. Suits 12 volt.



BLA Code	Face Size mm	Intrusion mm	Mount Screws mm
114028	83 x 63	35	4 r/h

Bilge Pump Control Panel

Three position switch - manual/off/auto - to control electric submersible bilge pumps in conjunction with float switches. Features red and green indicator lights. Black finished alloy face with white graphics. Screw top fuse holder. Supplied with 5 amp fuse. Suitable for 12 volt applications only.

BLA Code	Width mm	Height mm	Cut Out mm	Intrusion mm	Mount Screws mm
114030	90	50	74 x 36	40	3 r/h

Bilge Pump Control Panel - With Alarm

Black finished aluminium panel with three position switch, fuse and audible and visual alarm function. Used to control any submersible bilge pump up to 10amp current draw, fitted with a float switch. Switch has manual/off/auto positions with spring return to off from the manual position. Red indicator light and audible alarm activates if bilge pump fails when in auto mode. A green light shows when operating correctly. Suitable for 12 volt DC applications only.

BLA Code	Width mm	Height mm	Cut Out mm	Intrusion mm	Mount Screws mm
114032	115	64	85 x 40	40	3 r/h

Perko® Battery Master Switches

Two position, On/off battery isolation switches. Surface mount. Available with or without key lock. Engines must be shut down before turning to 'off' position.

Specifications:

- Voltage: 6-32V DC max
- Continuous Rating: 250 amps DC
- Intermittent Rating: 360 amps DC

BLA Code	Key Lock	Base Dia. mm	Height mm	Mount Screws mm	Terminal Stud mm
401101	No	134	67	5 r/h	8
401102	Yes	134	67	5 r/h	8

Perko® Battery Switch

- Alternator Field Disconnect

Four position isolation switch - off/1/all/2. Select between batteries for starting, charging, load or both batteries in parallel. Alternator field disconnect prevents damage to alternator if switched to 'off' while engine is running.

Specifications:

- Voltage: 6-32V DC max
- Continuous Rating: 250 amps DC
- Intermittent Rating: 360 amps DC

For more battery switches
See Page 118

BLA Code	Base Dia. mm	Height mm	Mount Screws mm	Terminal Stud mm
401113	134	67	5 r/h	8

Perko® Battery Selector Switches

Four position isolation switches, off/1/all/2. Select between batteries for starting, charging, load or parallel both batteries. Surface mount. Also available with key lock for added security. Engines must be shut down before turning to 'off' position.

Specifications:

- Voltage: 6-32V DC max
- Continuous Rating: 250 amps DC
- Intermittent Rating: 360 amps DC

401111

401112

BLA Code	Key Lock	Base Dia. mm	Height mm	Mount Screws mm	Terminal Stud mm
401111	No	134	67	5 r/h	8
401112	Yes	134	67	5 r/h	8

Perko® Heavy Duty Battery Selector Switch

- Alternator Field disconnect

Four position isolation switch - off/1/all/2. Select between batteries for starting, charging, or both batteries in parallel. Surface mount, fibre reinforced polycarbonate body, brass terminals. Alternator field disconnect prevents damage to alternator if switched to 'off' while engine is running.

Specifications:

- Voltage: 6-32V DC max
- Continuous Rating: 300 amps DC
- Intermittent Rating: 850 amps DC (5 mins on / 5 mins off)

BLA Code	Base Size mm	Height mm	Mount Screws mm	Terminal Stud mm
401120	139 x 139	86	6 r/h	12

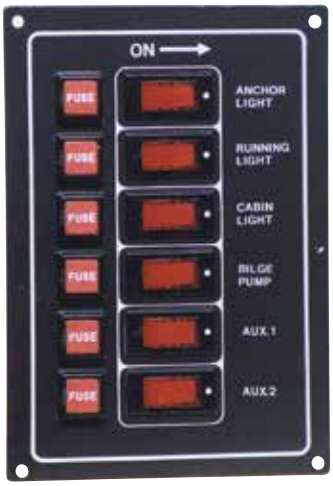
Switch Panels - Bakelite

Economical switch panels. Bakelite face panel pre-wired with common supply to fuse. Screw top fuse holders and chromed brass toggle switches. 12/24 volt. Supplied with 15 amp fuses. Available in three and six gang configurations. Nameplates included.

BLA Code	Gang	Height mm	Width mm	Cut Out mm	Intrusion mm	Mount Screws mm
114000	3	93	115	70 x 85	35	4 c/s
114002	6	165	115	145 x 85	35	4 c/s

Switch Panel - Black Alloy

Six gang vertical switch panel. Black finished aluminium panel with white graphics. Pre-wired with common supply to fuses and switch illumination. Red illuminated rocker switches. Quick inspection fuse holders. Labelled - anchor light, running lights, cabin light, bilge pump, aux one, aux two (alternative nameplates supplied). Supplied with 5 amp fuses. Suitable for 12 volt applications.



BLA Code	Gang	Height mm	Width mm	Cut Out mm	Intrusion mm	Mount Screws mm
114010	6	167	116	125 x 60	45	4 r/h

Marine Town® Switch Panel - Black Alloy

Six gang horizontal switch panel. Black finished aluminium panel with white graphics. Pre-wired with common supply to fuses and switch illumination. Red illuminated rocker switches. Quick inspection fuse holders. Labelled - anchor light, running lights, cabin light, bilge pump, aux one, aux two (alternative nameplates supplied). Supplied with 5 amp fuses. Suitable for 12 volt applications.

BLA Code	Gang	Height mm	Width mm	Cut Out mm	Intrusion mm	Mount Screws mm
114012	6	116	167	60 x 125	45	4 r/h

Switch Panel - Black Alloy

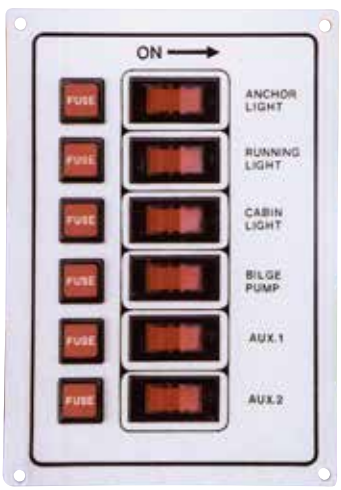
Black finished aluminium, three gang switch panel with battery test meter and cigarette lighter. Rocker switches are illuminated red and are connected to panel mounted fuse holders. The battery test meter can independently test two different batteries. Cigarette lighter is connected to panel mount fuse holder and may be used as a 12 volt power outlet. Common power supply to fuses. Common negative to switch light. Supplied with three 5 amp and one 10 amp fuses.

BLA Code	Height mm	Width mm	Cut Out mm	Intrusion mm	Mount Screws mm
114250	167	116	82 x 120	80	4 r/h

Switch Panels - Silver Alloy

Vertical switch panels. Silver aluminium panel with black graphics. Red illuminated rocker switches. Quick inspection fuse holders pre-wired with negative buss. Supplied with assorted labels. Suitable for 12 volt applications, 10 amp maximum. Supplied with 5 amp fuses.

114016



114018

BLA Code	Gang	Height mm	Width mm	Cut Out mm	Intrusion mm	Mount Screws mm
114014	3	97	116	63 x 60	50	4 r/h
114016	4	127	116	63 x 85	50	4 r/h
114018	6	167	116	63 x 125	50	4 r/h

Marinco® Sine Wave Inverters - NZ/AU AC Output plugs

Marinco inverters convert battery power into 240V AC sine wave power to enable the use of various appliances. Models from 300 watts to 2000 watts are available in 12V and 24V versions to operate entertainment systems, hair dryers, microwave ovens and power tools with the appropriate size inverter and battery.

All inverter models have an Australian 240V power socket and the 2000 watt model can also be wired to the loads.

Clean, true sine wave inverter technology that delivers AC power for onboard devices

- For sensitive onboard electronics such as monitors, TV and entertainment centres
- Prevents draining the battery: low battery alarm and low battery shutdown
- Protected against: Over-current, low voltage, reverse polarity and temperature
- Easy to install and operate
- 240V models comply to CE/RCM/AS/NZ Standards
- Optional remote control panel (**110412**)

N.B. remote is only available for the 1000 & 2000 watt inverters

110401

110412
Optional

110405

BLA Code	Description	Dimensions L X W X H mm	Weight kg
110400	12V, 300W 240V/50HZ	215 x 154 x 73	3.5
110401	12V, 1000W 240V/50HZ	340 x 182 x 88	4.0
110402	12V, 2000W 240V/50HZ	368 x 209 x 166	9.7
110404	24V, 300W 240V/50HZ	215 x 154 x 73	3.5
110405	24V, 1000W 240V/50HZ	340 x 182 x 88	4.0
110406	24V, 2000W 240V/50HZ	368 x 209 x 166	9.7

Accessories:

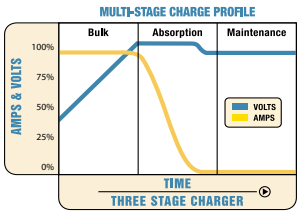
110412 INVR-1 Remote Panel for 1000W and 2000W c/w 7.5m cable 57(W) x 73.5(H)

Minn Kota® Battery Charger - On-Board

Suitable for permanent on-board mounting. Available in two models to suit single or dual battery bank installations. Provides fully automatic, multi-stage charging to maintain the batteries. By controlling the current and voltage during the charging cycle, Minn Kota® chargers recharge faster than conventional automotive battery chargers while preventing over charging which can damage and shorten battery life. They include an automatic temperature compensation feature that adjusts the output voltage to assure the battery reaches its gassing threshold and achieves a full charge. The temperature compensation feature also protects the batteries from 'boiling'.

- **Fully Automatic 3-Stage Charging –** bulk, absorption and maintenance cycles
- **Automatic Temperature Compensation –** Delivers fast charging recovery, even in extreme temperatures, while protecting batteries from overcharging
- **LED Display –** Indicates power on, charging, full charge and faulty connection
- **Waterproof, Shock and Vibration Resistant –** Heavy duty construction, waterproof to IPX7
- **Short Circuit, Reverse Polarity & Ignition Protected –** A safety feature which prevents the charger from operating if incorrectly connected to the battery
- **Saltwater Tested**
- **For use with 12V/6 cell batteries –** Suitable for 50 to 130 amp hour rated, flooded wet cell, maintenance free or starved electrolyte (AGM) batteries only

114584



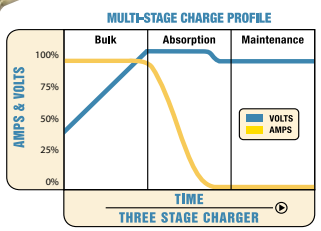
BLA Code	Model	Battery Banks	Output Per Bank amp	Total Output amps	Input Volts	Length mm	Width mm	Height mm	Weight kg
114584	MK210A	2	5	10	230/240	292	190	102	4.9
114586	MK220A	2	10	20	230/240	343	190	102	6.8

N.B. The two outputs of the 114584 & 114586 can be connected to a single battery providing 10 or 20 amps respectively charging power to a single battery.

Minn Kota® Battery Charger - Portable

Portable marine battery charger that is designed to deliver a precise charge to marine batteries without over or under charging as can happen with standard automotive battery chargers. It utilises a multi-stage charging system to charge up to 50% faster than a single stage (bulk) 10 amp portable charger, while properly protecting the batteries. Over charging can damage the useful life of the battery. Likewise, under charging over time will reduce the discharge time and shorten the battery life by as much as 20%.

- **Fully Automatic 3-Stage Charging –** bulk, absorption and maintenance cycles
- **10 Amps total output –** on MK110PA
- **LED Display –** Indicates power on, charging, full charge and faulty connection
- **Short Circuit and Reverse Polarity Protection –** A safety feature which prevents the charger from operating if improperly connected to the battery
- **For use with 12V/6 cell batteries –** Suitable for 50 to 130 amp hour rated, flooded wet cell, maintenance free or starved electrolyte (AGM) batteries only



BLA Code	Model	Output Amps	Input Volts	Length mm	Width mm	Height mm	Weight kg
114580	MK110PA	10	230/240	178	229	197	2.9

Battery Boxes

Sturdy, black plastic boxes to suit most common marine batteries. Supplied complete with webbing strap and tie down brackets. Moulded carry handles. Reinforced bottom contains battery acid. Lid facilitates side and end entry of battery leads. Eight gauge mount screws supplied.

115101

BLA Code	Inside Length mm	Inside Width mm	Inside Height mm	Outside Height mm	Mount Screws mm
115100	265	175	210	272	4 c/s
115101	395	185	194	260	4 c/s
115102	325	180	213	272	4 c/s

Accessories:

115103 Replacement strap 35 x 1020mm
115104 Replacement strap 35 x 1400mm

Battery Box With Master Switch

Sturdy black plastic battery boxes fitted with Marinco® BEP 701 mini battery master switch, 500 mm length of 200 amp tinned wiring and marine quality battery terminals.

115105

BLA Code	Inside Length mm	Inside Width mm	Inside Height mm	Outside Height mm	Mount Screws mm
115105	265	180	210	272	4 c/s
115106	325	180	210	272	4 c/s

Power Battery Box

Impact resistant case with a heavy duty handle and strap making the battery portable. Additional hardware supplied enables the box to be mounted securely to flat surfaces. Indicator measures battery condition at the press of a button. Two cigarette lighter type power sockets are mounted externally and prewired internally with a 10 amp fuse. Heavy duty external terminals with insulated wing nuts are pre wired internally via a 30 amp fuse to connect directly to the battery. Maximum battery dimensions: 330(l) x 185(w) x 210(h) mm.

115108

BLA Code	Description
115108	Power battery box
115109	60A & 10A CCT Breakers

Battery Tray - Heavy Duty

Manufactured from injection moulded plastic. Heavy duty base has four recessed 6mm screw holes. Upper frame is secured to base via nylon bolts.

BLA Code	Overall Size mm	Max. Battery Base mm	Max. Battery Height mm	Min. Battery Height mm
115114	323 x 189	260 x 170	210	165

Battery Tray

Heavy duty moulded high density polyethylene tray, top bracket and support bolts. The tray provides protection to the hull and contains minor acid spills. Maximum overall height is 270mm. Suits battery heights 170-225mm. 6mm roundhead mount screws.

115119

BLA Code	Inside Length mm	Inside Width mm
115118	280	175
115119	320	175

Battery Tie Down

White, polypropylene battery clamp down set. Nylon bolts and wing nuts will not rust or corrode. Impervious to battery acid. Maximum battery height 200mm and minimum height 155mm, maximum width 170mm. 4mm countersunk mount screws.

BLA Code
115120

Battery Tie Down

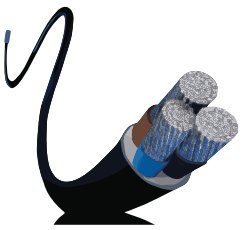
Stainless steel battery tie down set. Pressed stainless steel angled base mounts. 6mm diameter uprights with hex nuts and cross bar to secure battery.

BLA Code	Battery Width mm	Battery Height mm	Mount Holes mm
115122	165-187	170-227	5 c/s

Wiring Harnesses - Pre Fabricated and Custom - All ABYC Compliant

Professionally designed and packaged DC wiring harnesses compliant to internationally recognised ABYC standards.

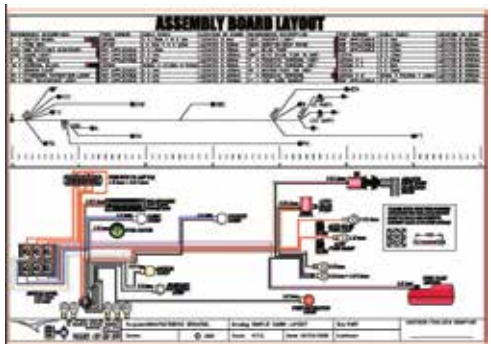
By using only the highest quality marine grade tinned copper wire, our electrical DC harnesses are manfactured to the highest standards and are being installed by some of Australia's leading OEM's.



Wiring Harnesses

- Pre Fabricated to suit 4 to 6.5 metres

Complete wiring harnesses to suit vessels up to 6.5 metres. Harnesses are fully sleeved for protection, supplied with all terminations for cable ends, colour coded and manufactured from tinned copper wire. All harnesses include an in-line fuse holder in the positive line feed from the battery.

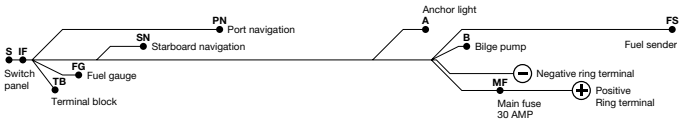


Wiring Harness

4 to 4.5 metres runabout

- Complete harness to suit 4-4.5m runabout
- Quality BEP fused 4 gang switch panel
- Colour coded, tinned copper wire
- Fully sleeved for chafe protection
- Includes terminal pack and nameplates

BLA Code	Suits
113720	4 - 4.5 metre runabout



Take Offs:

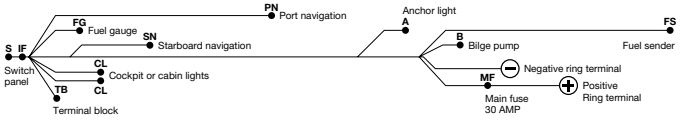
- Port and Starboard navigation lights
- Stern pole light
- Fuel sender
- Bilge pump
- Positive and negative studs for extra accessories

Wiring Harness

4.5 to 5.5 metres half cabin

- Complete harness to suit 4.5-5.5m half cabin
- Quality BEP fused 4 gang switch panel
- Colour coded, tinned copper wire
- Fully sleeved for chafe protection
- Includes terminal pack and nameplates

BLA Code	Suits
113722	4.5 - 5.5 metre half cabin



Take Offs:

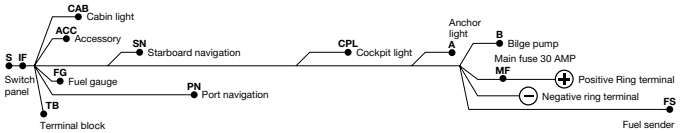
- Port and Starboard navigation lights
- Stern pole light
- Fuel sender
- Bilge pump
- Cabin light
- Positive and negative studs for extra accessories

Wiring Harness

6 to 6.5 metres cabin cruiser

- Complete harness to suit 6-6.5m half cabin
- Quality BEP fused 6 gang switch panel
- Colour coded, tinned copper wire
- Fully sleeved for chafe protection
- Includes terminal pack and nameplates

BLA Code	Suits
113726	6 - 6.5 metre cabin cruiser



Take Offs:

- Port and Starboard navigation lights
- Stern pole light
- Fuel sender
- Bilge pump
- Cabin light
- Spotlight
- Cockpit light
- Cabin light
- Positive and negative studs for extra accessories

Twin Core Twisted Shielded Wire

The ideal wire for wiring electronic instruments such as sounders, radios, stereos, etc. Also suitable for fuel and water gauge senders, sensitive electronics and data communication. Twisted aluminium/polyester laminate tape screen with a 7/0.20mm tinned copper drain wire to minimise stray RF interference and inductive potentials. Conducting wires are copper with V90 PVC installation. Grey external sheath to AS3808: 1998 for additional protection. Supplied in 100m coils.

BLA Code	Nominal Area mm²	Resist @ 20° C ohm/km	Strand O/D #/mm	Nominal O/D mm
115914	0.34	55.9	7/0.25	4.6

Twin Core Twin Sheathed Wire - Tinned

Marine quality, twin core low voltage wiring with external sheath for extra protection in vulnerable applications. V90 PVC insulation and sheath to AS3808: 1998, tin coated copper wire conductor. Supplied in 50 and 100 metre coils. Red/black core with white outer sheath.

BLA Code 50m	100m	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm
115916	**115917**	3	1.13	16	16/0.30	3.5 x 5.9
115922	**115923**	4	1.84	22	26/0.30	3.9 x 6.7
115924	**115925**	6	4.59	40	65/0.30	5.5 x 9.5

Triple Core Twin Sheathed Wire - Tinned

Marine quality, triple core low voltage wiring with external sheath for extra protection in vulnerable applications. V90 PVC insulation and sheath to AS3808: 1998, tin coated copper wire conductor. Supplied in 50 and 100 metre coils. Brown/yellow/white core with white outer sheath.

BLA Code 50m	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm
115928	4	1.84	19	26/0.30	6.8

Battery Cable

Single core, high amp, low voltage, battery, starter, winch motor wire. V90 PVC insulation to AS3808: 1998, plain copper wire conductor. Supplied in 30 metre coils.

BLA Code 30m	Near Size (B&S) (AWG)	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm	Colour
115930	8	7.92	74	112/0.30	5.4	Red
115931	8	7.92	74	112/0.30	5.4	Black
115934	6	13.36	103	189/0.30	6.9	Red
115935	6	13.36	103	189/0.30	6.9	Black
115938	4	20.25	135	287/0.30	8	Red
115939	4	20.25	135	287/0.30	8	Black
115942	3	25.70	170	364/0.30	9.8	Red
115943	3	25.70	170	364/0.30	9.8	Black
115946	2	32.15	190	455/0.30	10.7	Red
115947	2	32.15	190	455/0.30	10.7	Black
115948	1	39.55	210	560/0.30	11.5	Red
115949	1	39.55	210	560.0.30	11.5	Black
115950	0	49.45	246	700/0.30	12.5	Red
115951	0	49.45	246	700/0.30	12.5	Black

Battery Cable - Tinned

Marine quality, single core high amp, low voltage cable commonly used in battery, starter, winch motor and other high load applications. V90 PVC insulation to AS3808:1998, tin coated copper wire conductor. Supplied in 50 metre coils.

BLA Code 50m	Near Size (B&S) (AWG)	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm	Colour
115960	8	7.92	74	112/0.30	5.4	Red
115961	8	7.92	74	112/0.30	5.4	Black
115966	2	32.15	190	455/0.30	10.7	Red
115967	2	32.15	190	455/0.30	10.7	Black

Single Core Wire

For general purpose low voltage applications. V90 PVC insulation to AS3808: 1998, plain copper wire conductor. Supplied in 30 metre coils.

BLA Code	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm	Insulation Colour
115840	3	1.13	20	16/0.30	2.4	Red
115841	3	1.13	20	16/0.30	2.4	Black
115844	4	1.84	28	26/0.30	2.7	Red
115845	4	1.84	28	26/0.30	2.7	Black
115852	6	4.59	51	65/0.30	4	Red
115853	6	4.59	51	65/0.30	4	Black

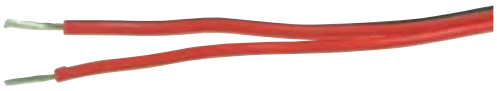
Single Core Wire - Tinned

Marine quality single core low voltage wire. V90 PVC insulation to AS3808: 1998, tin coated copper wire conductor. Supplied in 50 and 100 metre coils.

BLA Code 50m	100m	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm	Insulation Colour
115860	**115862**	4	1.84	28	26/0.30	2.9	Red
115861	**115863**	4	1.84	28	26/0.30	2.9	Black
115864	**115866**	6	4.59	51	65/0.30	4.2	Red
115865	**115867**	6	4.59	51	65/0.30	4.2	Black

Twin Core Wire - Tinned

Marine quality, twin core, low voltage wire. V90 PVC insulation to AS3808: 1998, tin coated copper wire conductor. Supplied in 50 and 100 metre coils - red/black insulation.



BLA Code 50m	100m	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm
115870	**115871**	3	1.13	16	16/0.30	2.5 x 5.2
115872	**115873**	4	1.84	22	26/0.30	2.8 x 5.9

Twin Core Wire

Figure 8 twin core general purpose low voltage wiring. V90 PVC insulation to AS3808: 1998, plain copper wire conductor. Supplied in 30 and 100 metre coils - red/black insulation.

BLA Code 30m	100m	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm
115890	**115891**	3	1.13	16	16/0.30	2.5 x 5.2
115892	**115893**	4	1.84	22	26/0.30	2.8 x 5.9

Twin Core Twin Sheathed Wire

A general purpose two core low voltage wire with external sheath for extra protection in vulnerable applications. V90 PVC insulation and sheath to AS3808: 1998, plain copper wire conductor. Supplied in 30 and 100 metre coils - red/black core, black outer sheath.

BLA Code 30m	100m	Auto Area mm	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm
115900	**115901**	3	1.13	16	16/0.30	3.4 x 6.8
115902	**115903**	4	1.84	22	26/0.30	3.9 x 6.6
115904	**115905**	5	2.90	29	41/0.30	4.6 x 8
115906	**115907**	6	4.59	40	65/0.30	5.5 x 9.3
115908	**115909**	8	7.92	74	112/0.30	8 x 13.4

Speaker Wire

High quality audio figure 8 twin core wire. V90 PVC insulation to AS3808: 1998, plain copper wire conductor. Supplied in 100 metre coils.

BLA Code 30m	Nominal Area mm²	Rating @ 30° C amp	Strand O.D. #/mm	Nominal O.D. mm
115920	0.40	2.5	14/0.20	1.8 x 3.8

Marine Town® Crimping Tool Set

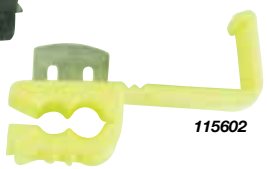
3 in 1 electrical tool. Comfortable hand grips provide ample leverage for electrical wire cutting, stripping and crimping. Length 237 mm. Suits wire up to 5mm². Complete set including 100 assorted terminals. Case dimensions 250(w) x 110(d) x 26(h) mm.

BLA Code
115590

Wire Taps

Simple power connection splice. No cutting or stripping of wire or insulation required. Plated contact, moulded housing with snap close tab. Sold in packs of 100.

115600


115602

BLA Code	Colour	Wire Size mm²	Length mm	Width Closed mm	Height mm
115600	Black	0.5-2.5	18	16	10
115602	Yellow	1.5-5	21	18	13

Terminal Blocks with Covers

Brass terminal block on insulated base with transparent cover, colour coded for positive or negative connections. Cover is retained by a single screw. Terminals accept wire up to 5mm².

115616

115619

BLA Code	Cover Colour	Terminals No.of	Base Size mm	Height mm
115616	Red	6	65 x 46	43
115617	Black	6	65 x 46	43
115618	Red	12	86 x 57	40
115619	Black	12	86 x 57	40

Screw Connector Strips

12 pole screw connector strip. Each pair of terminals is insulated from the next.

115622

BLA Code	Wire Size mm²	Length mm	Width mm	Depth mm
115620	1.5-2.5	94	18	13
115622	4-6	119	20	14

Soldering Iron

12 volt, 30 watt, wired with cigarette lighter type plug.

BLA Code	Length mm	Cable Length m
115598	200	3.5

Minn Kota® Quick Connect Power Plug

Heavy duty, two pin in line flat connector with short 5mm² cables fitted with bullet terminals one end and eye terminals the other. Moulded nylon body with tinned copper contacts. Two parts are polarity conscious.

BLA Code	Max amps	Length mm
115626	25	500

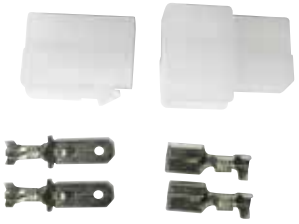
Weatherproof Sealed Connectors

Weatherproof connectors made for harsh environments. Rated to 20 amps DC, the black moulded housing incorporates a positive locking latch. Each connector includes housing, seals and contacts to suit 2mm² wire. Sold in pairs (2 x A + 2 x B).

BLA Code	Circuits	a Length mm	b Length mm	Width mm	Depth mm
115651	1	40	45	15	21
115652	2	40	45	23	21
115653	3	40	45	32	21
115654	4	40	45	38	21

Clip Electrical Connectors

Polarised, catch type connection. These connectors have a white moulded housing that protects the tin plated crimp contacts. Sold individually. Each connector includes housings and contacts.



BLA Code	Poles	Length Plug mm	Length Socket mm	Wire Size mm
115632	2	25	28	0.8-3

Electrical Insulation Tape

Flame retardant, easy to unwind PVC electrical insulation tape for providing insulation to most electrical wires. Manufactured to BSEN 60454 Type 2 & IEC454-2 with elongation to breaking point of 200%. Sold in 33 metre rolls.

262702

262706

BLA Code	Colour
262701	Black
262702	Green
262704	Red
262706	White

Standard Cable Ties

Black, U.V. resistant cable ties. A quick and reliable method for securing cables, etc. Manufactured from black polyamid 6.6 nylon. Self locking with or without tools. Cable ties are self extinguishing. Fuel, oil and grease resistant. Sold in packs of 100. **115020** has moulded mount hole to suit 5mm screws.

BLA Code	Bundle Dia. mm	Tensile Strength kg	Length mm	Width mm
(A) **115000**	21	8.16	98	2.5
(A) **115002**	35	13	140	3.6
(B) **115004**	50	22	200	4.8
(B) **115006**	79	22	290	4.8
(B) **115008**	103	22	360	4.8
(C) **115020**	54	20	200	4.8

Self-Cutting Cable Ties

Save time and frustration using this innovative product – a self-cutting cable tie. Simply lock and twist to finish the job, with no need for additional tools. This leaves a clean cut, which improves appearance and eliminates the sharp tail while maintaining a 50 pound tensile strength.

Black *Natural*

BLA Code	Description	Colour	Pack Qty
110530	8" UVB	Black	20
110531	8" UVB	Black	50
110532	8" UVB	Black	500
110534	11" UVB	Black	20
110535	11" UVB	Black	50
110536	11" UVB	Black	500
110537	14" UVB	Black	20
110538	14" UVB	Black	50
110539	14" UVB	Black	500
110540	8"	Natural	20
110541	8"	Natural	50
110542	8"	Natural	500
110543	11"	Natural	20
110544	11"	Natural	50
110545	11"	Natural	500
110546	14"	Natural	20
110547	14"	Natural	50
110548	14"	Natural	500

Simply twist the tie for an exact cut

The end of the tie easily cuts off with no tools needed

Cable Tie Mount Bases

Screw or adhesive base. Double entry type. Moulded in black polyamid 6.6 nylon. Sold in packs of 100.

BLA Code	Max. Cable Tie Width mm	Base Dim. mm	Height mm	Mount Screws mm
115030	3.6	19 x 19	6	4 c/s
115032	4.8	27 x 27	8	4 c/s

Cable 'P' Clamps

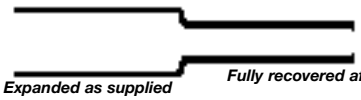
Black nylon 'P' clamps. Provides simple, single fastening and clamping of wiring harnesses and looms.

115810

BLA Code	Wire Bundle dia. mm	Length mm	Width mm	Mount Holes mm	Bag Qty
115810	3	20	10	4 r/h	25
115812	5	20	10	4 r/h	25
115814	6	22	10	4 r/h	25
115816	8	22	10	4 r/h	25
115818	10	24	12	4 r/h	25
115820	13	31	12	4 r/h	10
115826	25	44	12	4 r/h	10

Heat Shrink

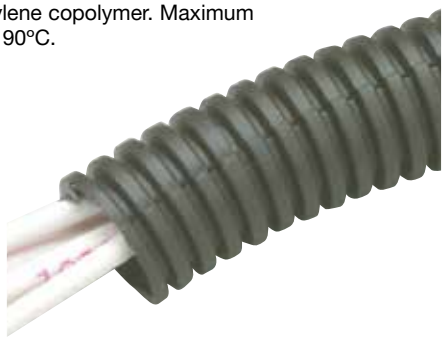
This flexible heat shrink tubing is primarily designed for use in electrical installation but also used to prevent fraying on ropes etc. Shrink temperature is 90ºC and the shrink ratio is 2:1. Tubing is sized by the tubing diameter, not lay flat dimension.


Expanded as supplied *Fully recovered after heating*

BLA Code	Colour	Supplied Flat mm	Supplied Dia. mm	Recovered Wall Thick mm	Length m
115070	Red	-	1.6	0.43	1.2
115071	Black	-	1.6	0.43	1.2
115072	Red	-	2.5	0.44	1.2
115073	Black	-	2.5	0.44	1.2
115074	Red	-	3.5	0.44	1.2
115075	Black	-	3.5	0.44	1.2
115076	Red	8	5.4	0.56	1.2
115077	Black	8	5.4	0.56	1.2
115078	Red	11	6.4	0.56	1.2
115079	Black	11	6.4	0.56	1.2
115080	White	11	6.4	0.56	1.2
115081	Red	16	10.4	0.56	1.2
115082	Black	16	10.4	0.56	1.2
115083	White	16	10.4	0.56	1.2
115084	Red	20	13.5	0.69	1.2
115085	Black	20	13.5	0.69	1.2
115086	White	20	13.5	0.69	1.2
115087	Red	31	21.2	0.77	1.2
115088	Black	31	21.2	0.77	1.2
115089	White	31	21.2	0.77	1.2
115090	Red	39	26.1	0.87	1.2
115091	Black	39	26.1	0.87	1.2
115092	White	39	26.1	0.87	1.2

Loom Tube

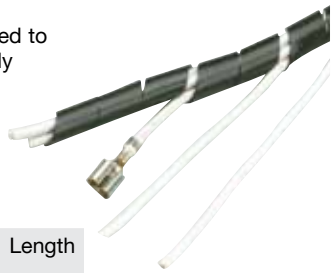
Loom tube is a split corrugated black conduit designed for quick, neat, cost effective wire harnessing and protection. Manufactured from black, flame retardant (UL94-V2) polyethylene copolymer. Maximum temperature rating 90°C.



BLA Code	Inside Dia. mm	Outside Dia. mm	Roll Length m
115060	7.4	10.2	10
115061	10.7	14.1	10
115062	13.2	17.5	10
115063	15	19.5	10
115064	19.3	23.8	10
115066	28	34	10
115067	36	39.5	25
115068	48	54	25
115069	21.2	25.8	50

Spiral Wrap

Flexible polyethylene tubing used to wrap multiple wires into one tidy lead. The length is at the unstretched nominal diameter.



BLA Code	Nominal Overall Dia. mm	Bundle Range mm	Length m
115038	8	8-50	10
115040	12	12-100	10

Flex Sleeving

Flex sleeving is a lightweight continuous jacketing for bundling and protecting wires, cables and hoses. Braided from black polypropylene yarns. The unique expansion characteristics allow the sleeve to expand up to four times its normal diameter. Ends can be heat welded to prevent fraying.

BLA Code	I.D. Closed mm	I.D. Open mm	Length Closed m
115050	13	35	30
115052	20	50	30
115054	32	75	15

Pre-Insulated Joiners

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm
115430	**115431**	Red	0.5-1.5	25
115434	**115435**	Blue	1.5-2.5	25
115438	**115439**	Yellow	2.5-6	27

Pre-insulated External Spade Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Tab Width mm
115446	**115447**	Red	0.5-1.5	21	6.3
115450	**115451**	Blue	1.5-2.5	21	6.3
115454	**115455**	Yellow	2.5-6	23	6.3

Fully Insulated External Spade Terminals

Retail ready packaging.

BLA Code 100 Pack	Colour	Wire Size mm²	Length mm	Tab Width mm
115471	Red	0.5-1.5	22	6.3
115475	Blue	1.5-2.5	22	6.3
115479	Yellow	2.5-6	25	6.3

Pre-insulated External Spade Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Tab Width mm
115480	**115481**	Red	0.5-1.5	22	6.3
115484	**115485**	Blue	1.5-2.5	22	6.3

Pre-insulated Internal Spade Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Tab Width mm
115492	**115493**	Red	0.5-1.5	22	6.3
115496	**115497**	Blue	1.5-2.5	22	6.3

Pre-insulated External Spade Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Tab Width mm
	115517	Red	0.5-1.5	23	6.3
115520	**115521**	Blue	1.5-2.5	23	6.3

Pre-insulated Internal Bullet Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Bullet Dia. mm
115528	**115529**	Red	0.5-1.5	22	4
115532	**115533**	Blue	1.5-2.5	22	4
	115537	Yellow	2.5-6	24	5

Pre-insulated External Spade Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Bullet Dia. mm
115540	**115541**	Red	0.5-1.5	23	4
115544	**115545**	Blue	1.5-2.5	23	4
	115549	Yellow	2.5-6	25	5

Pre-Insulated Fork Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Stud Size mm
115374		Red	0.5-1.5	21	3.2
115390	**115391**	Blue	1.5-2.5	22	4.2
115406		Yellow	2.5-6	25	5.3

Waterproof Pre-insulated Joiners

Unique range of sealed, waterproof crimp terminals are the perfect solution for single wire terminations in corrosive or marine environments. The tin plated copper terminals feature a tough, heat shrinkable, adhesive lined, colour coded insulation. After completion of the standard crimping process, the terminal insulation is then heated with a heat gun or small gas torch. Within seconds, the terminal insulation then shrinks and the internal adhesive sealant melts and flows to provide a permanent seal and bond to the wire insulation.

BLA Code	Colour	Wire Size mm²	Length mm	Pack Qty
115294	Red	0.5-1.5	36	25
115296	Blue	1.5-2.5	36	25
115298	Yellow	2.5-6	42	25

Pre-Insulated Ring Terminals

Retail ready packaging.

BLA Code 10 Pack	100 Pack	Colour	Wire Size mm²	Length mm	Stud Size mm
115302	**115303**	Red	0.5-1.5	18	3.2
115306	**115307**	Red	0.5-1.5	20	4.2
115310	**115311**	Red	0.5-1.5	21	5.3
115314	**115315**	Red	0.5-1.5	27	6.4
	115319	Red	0.5-1.5	29	8.5
	115327	Blue	1.5-2.5	19	3.2
115330	**115331**	Blue	1.5-2.5	22	4.2
115334	**115335**	Blue	1.5-2.5	22	5.3
115338	**115339**	Blue	1.5-2.5	27	6.4
115342	**115343**	Blue	1.5-2.5	29	8.5
	115347	Blue	1.5-2.5	33	10.5
	115355	Yellow	2.5-6	23	4.2
115358	**115359**	Yellow	2.5-6	26	5.3
115362	**115363**	Yellow	2.5-6	29	6.4
115364	**115365**	Yellow	2.5-6	34	8.3
115366	**115367**	Yellow	2.5-6	39	10.5

Battery Terminals

Battery terminals in either lead or brass, specifically for the marine environment. Equipped with wing nut terminals for easy disconnection for safety when the boat is stored or unattended. Positive studs are 10mm diameter, negative studs 8mm diameter. Blister packaged in pairs.

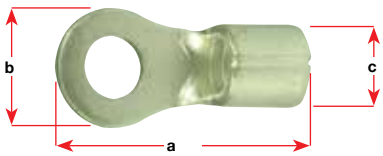
115144

115146

BLA Code	Material	Polarity	Pack Qty
115144	Brass	Pos/neg	1 pr
115146	Lead	Pos/neg	1 pr

Crimp Battery Lugs

Fabricated in one piece from the finest electrical quality copper then electro-tinned for optimum electrical performance. Suited for most marine applications. Sold in bags of ten.



BLA Code	Size	Stud Size mm	Cable Size mm²	a mm	b mm	c mm
115202	8-6	6	6.6-10.5	24	12	4.5
115204	8-8	8	6.6-10.5	30	15	4.5
115206	8-10	10	6.6-10.5	30	15	4.5
115208	8-12	12	6.6-10.5	41	22	4.5
115212	14-8	8	10.5-16.7	33	16	5.8
115214	14-10	10	10.5-16.7	33	16	5.8
115220	22-8	8	16.7-27	34	16	7.7
115222	22-10	10	16.7-27	34	16	7.7
115228	38-8	8	27-42	43	16	13.3
115230	38-10	10	27-42	43	22	13.3
115232	38-12	12	27-42	43	22	13.3
115236	60-10	10	42-66	50	22	15.4
115238	60-12	12	42-66	50	22	15.4

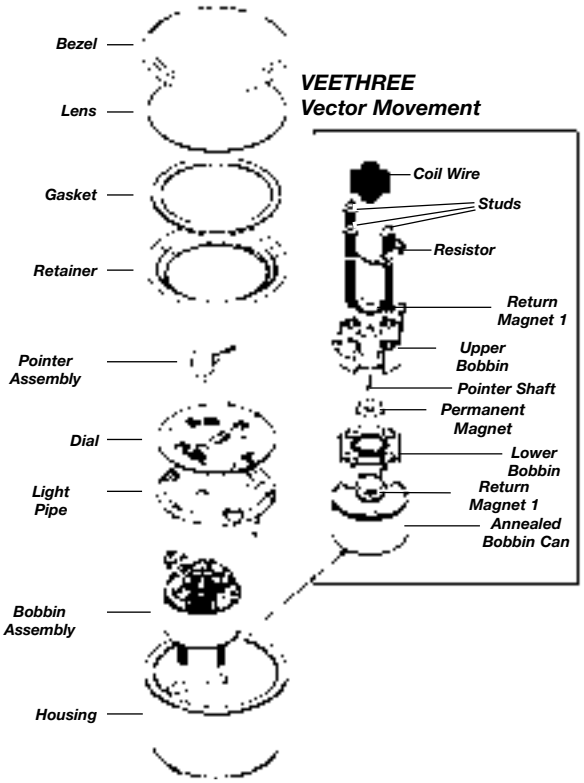
Electrical Gauges

Veethree Tachometer Selection Guide

Tachometers listed in this catalogue designated as being suitable for inboards and outboards feature SeaStar Solutions® pulse selection switch. This feature enables the tachometers to be connected to standard ignition 4 stroke engines with 4, 6 or 8 cylinders, as well as outboard engines with 4, 6, 10 and 12 pole alternators. 20 pole outboards require a special tacho.

Features:

- Highest accuracy (better than automotive, more consistent than competitors) in temperature ranges from -40°C to +85°C
- Precision vector movement in all electrical units is silicone dampened to minimise pointer bounce and magnetically shielded so compasses and other gauges are not affected
- Premium materials resist corrosion, U.V. and chemicals
- Glass lenses for clarity and scratch resistance
- Reverse polarity and over voltage protection
- Easy-to-install
- Automotive type wedge base lighting used where possible for easy bulb replacement
- Suitable for 24 volt applications with addition of drop resistor and 24 volt bulb



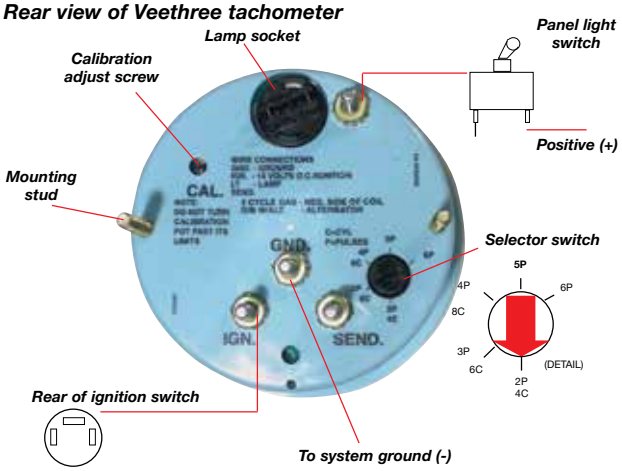
The Vector Movement

The heart of all Veethree electrical instruments is the vector air-core movement. This simple, durable movement was pioneered by Veethree for marine use and is featured in every electrical instrument.

The Vector movement utilises a permanent magnet that is rotated magnetically in an electrical field. All coil windings and attachments are designed to withstand extremes in vibration, temperature, humidity, salt spray, etc. Electrical studs are tin plated to aid in solderability and to minimise corrosion in the marine environment.

All coils are placed in an annealed metal bobbin can to prevent the gauge from affecting compasses and other electronic equipment. At the same time, the bobbin can protects the gauges from other negative magnetic effects often found in a wiring harness.

Rear view of Veethree tachometer



Tachometer Application Chart

Suitable for use with engines listed below. 4-cycle gas automotive, marine inboard, & I/O engines: with standard or factory electronic ignition, except early Mercruisers with Thunderbolt I ignition. Outboard engines (alternator equipped models only). Not compatible with older Chrysler and Force outboards with 20 pole alternators.

Make/Model	Alt. Poles	Switch Position
CHRYSLER®		
35,70HP & up (1968-1983)	12	6P
EVINRUDE®/JOHNSON®		
Less than 70HP 2 cylinder, 2 stroke	10	5P
All other models including 'C' drive	12	6P
Engine with warning light tacho require similar replacements		
FORCE®		
35HP (1986-date), 40HP (1993 to date)	12	6P
50HP through early 1987 (A, B models)	8	4P
50HP 1992 revision 'B' & newer, 70HP 1991 to date	12	6P
70HP 1991 to date	12	6P
90-120HP 1991 revision 'H' & newer	12	6P
150HP 1991 revision 'B' & newer	12	6P
L-drive, 90-120HP 1991 revision 'B' to date	12	6P
L-drive, 145HP 1991 to date	12	6P
HONDA®		
35, 40**, 45 & 50HP** with alternator	6	6P
All other models with alternators	4	2P
MERCURY®*/MARINER®*		
2 stroke models:		
Mariner 18, 25, 48, 60HP (through 1983)	4	2P
8, 9.9, 15HP	6	3P
35, 40HP 2 cylinder Australian series II 8070639 & up	8	4P
4 stroke models:		
2 cylinder, 2 stroke electric start models 40HP & less	4	2P
All other 2 stroke models with alternators	12	6P
8, 9.9HP	6	3P
All other 4 stroke models	12	6P
SUZUKI®		
2 stroke models:		
25, 30HP (1993 to date)	6	3P
All under 55HP, 50-60HP Cabrea models except those noted above	4	2P
60 & 65HP (1984 & older)	4	2P
75HP & up 1985 to date	12	6P
All 4 stroke models	12	6P
TOHATSU®		
2 stroke models:		
All 2 cylinder models with alternator	4	2P
All 3 cylinder models with alternator	6	3P
4 stroke models:		
All 4 stroke models except tiller model	12	6P
Tiller steered 40HP engine with warning light tacho similar replacement		
YAMAHA®		
2 stroke models:		
9.9 & 15Hp	4	2P
25 to 70HP	6	3P
90 to 250HP	12	6P
4 stroke models:		
F/T9.9, F15HP	6	3P
F/T25 to F/T225HP	12	6P

***** May require Honda module 06383-ZV 5305.***
Guide only detailed fitting instructions supplied with Tacho.

Veethree Instuments Digital Depth Gauges

The Veethree Digital Depth Gauge compliments all dash layouts and is colour coordinated to match most all Veethree Marine engine gauge series. Water depth reading to 60m with instant depth readings at speeds up to 100 Kph. Transducer can be transom or in hull mounted.

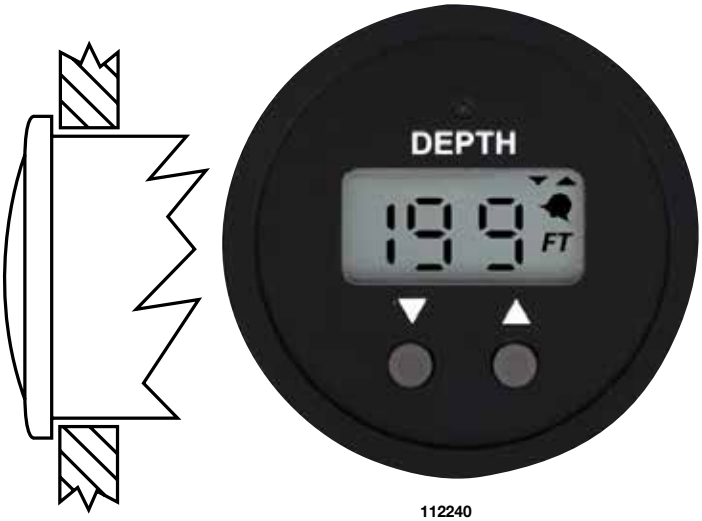
Features:

- Easy programming
- 4 year warranty
- User selectable read out in feet or metres
- Unit dimensions, same as 2" electrical gauges
- Gauge kits include gauge and transducer kit*
- Algorithmic programming significantly reduces false readings and produces unmatched precision
- Triple Warning System signals alarms three ways to alert operator of shallow water
- High speed dual mount transducer allows mounting on transom or in hull
- Programmable keel offset automatically adjusts depth readings for vessel's draft requirements

112350

Specifications:

- Power requirement - 11-14 VDC, 200mA Max
- Current draw - 40mA Nominal
- Transducer frequency - 200 KHZ
- Transducer beam angle - 25 degrees, -10 db
- Transducer cable length - 9m
- Master pack quantity, 24 per box
- 50.8mm diameter / 44.45mm depth
- Polarised LCD display 41.91mm x 19.81mm
- Backlit dial and buttons
- Unit of measure - feet or metres
- Readout 1-30m / 30-60m
- Alarm signaling - audible, red LED, blinking LCD icons
- Upper alarm range - 1-60m
- Lower alarm range - 1-60m



112240

BLA Code	Description	Bezel Style
112350	Lido	Stainless Steel
112240	Premier	Black
112482	Transducer Kit	N/A

N.B. Transducer kit includes transducer, transom mounting bracket, mounting hardware and instructions.
N.B. These gauges replace the Humminbird 102140 & 102142

Veethree Instruments GPS Speedometer

This instrument provides accurate speed over ground readings and heading information all in one attractive package. Available in various speed ranges to meet your application. The GPS speedo is offered in a number of popular styles to match the colours in your boat. The GPS speedo can be connected to an existing NMEA 0183 receiver if you have one already installed or you can purchase separately the custom designed GPS receiver/antenna. This product is ideal for all speed applications and is particularly useful for slower speed craft and higher speed craft where traditional speed sensors like pitot tubes and paddle-wheels do not perform well. An added advantage is there is nothing in the water to corrode or break.

112344

112110

112238

112292

BLA Code	Description
112109	Arctic White 0-35 mph
112110	Arctic White 0-60 mph
112236	Premier Pro Black 0-35 mph
112238	Premier Pro Black 0-60 mph
112290	Amega Black 0-35 mph
112292	Amega Black 0-60 mph
112344	LIDO Pro White 0-35 mph
112346	LIDO Pro White 0-60 mph

Accessories:

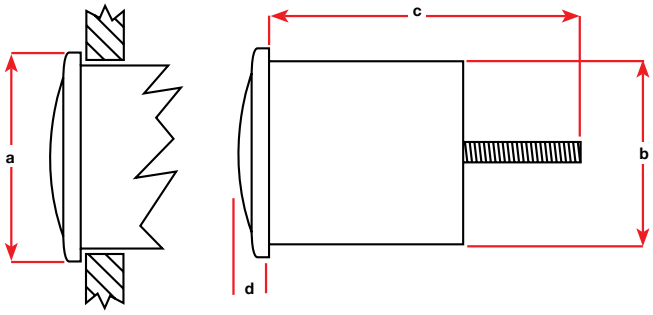
112478	GPS Receiver 1.2m cable
112480	GPS Receiver 7.6m cable

112480

Veethree Instruments Black Amega Domed Gauges

Features:

- Very low profile black bezel follows the curve of the lens to eliminate any water 'trapping'
- Red and white graphics on a black dial background
- Through dial and perimeter lighting is provided for night visibility
- Domed convex glass is scratch resistant
- Pointers are white with a black hub
- Shielded to prevent magnetic interference
- Silicone dampened
- Suitable for 24 volt application with the addition of a drop resistor (**112394, 112396**) and 24 volt bulb **112390**.
- Hourmeter 10 - 32 volt



112278

112284

Dimensions:

	a mm	b mm	c mm	d mm
75mm Tacho	96	86	70	13
75mm Speedometer	96	86	82	13
50mm Electrical	61	53	63	11

BLA Code	Description	Face Dia. mm	*Sender Style
	Tachometers:		
112278	Tacho 7000 RPM inboard & outboard	75	Coil & O/B alt
112282	Tacho 4000 RPM diesel alternator ***N.B. Refer to page 166 for tachometer application guide***	75	Motor alternator
	Speedometer:		
112284	Speedo kit 35 MPH	75	G included
112286	Speedo kit 50 MPH	75	G included
112288	Speedo kit 65 MPH ***Kits include 20' of pitot hose***	75	G included
	Water:		
112294	Water temperature 120ºF - 240ºF	50	D
112296	Water Pressure Kit 0 - 40 psi	50	
	Oil pressure:		
112298	Oil pressure 0 - 80 PSI	50	C
112300	Oil pressure 0 - 100 PSI	50	C
	Hourmeter:		
112306	Hourmeter, 10,000 Hrs 10-32 volt	50	Not required
	Voltmeter:		
112314	Voltmeter, 8 - 18 volt	50	Not required
	Ammeter:		
112318	Ammeter 60 - 0 - 60	50	Not required
	Fuel:		
112322	Fuel	50	F
	Trim:		
112326	Evinrude®/Johnson® outboards	50	Engine manufacturer
112328	Mercury®/Mariner®, Cobra®, Volvo® DP & SX, Yamaha® O/B 2001 on	50	Engine manufacturer

112322

112298

Accessories:

112394 Drop resistor suit 75mm gauge
112396 Drop resistor suit 50mm gauge
112390 24 volt bulb

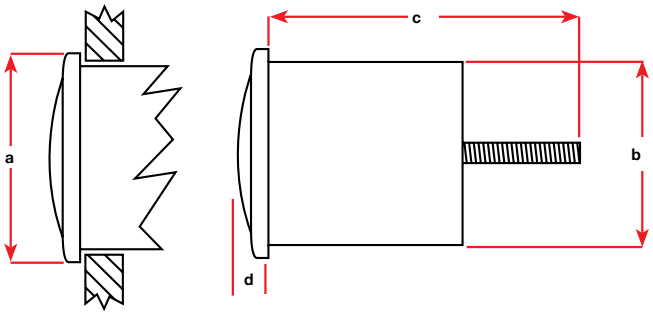
*** For Sender style refer page 174***

Veethree Instruments Arctic Gauges

Veethree introduces the new range of Arctic instruments. Stylish white bezel design, black on white graphics, accurate and reliable, these tough instruments look good on a wide range of boats.

Features:

- Arctic instruments are available for most outboards, stern drives and petrol powered inboards
- Domed glass design sheds water and resists scratching for long lasting appeal
- Enhanced illumination featuring through-dial and perimeter lighting for excellent readability at night
- Imperial and metric scales with ISO symbols where appropriate
- Easy to read flame tipped pointer
- Suitable for 24 volt application with the addition of a drop resistor (**112394, 112396**) and 24 volt bulb **112390**
- Replaces former White Domed range
- Hourmeter 10 - 32 volt



112096

112106

112134

112120

Dimensions:

	a mm	b mm	c mm	d mm
75mm Tacho	96	86	70	13
75mm Speedometer	96	86	82	13
50mm Electrical	61	53	63	11

BLA Code	Description	Face Dia. mm	*Sender Style
	Tachometers:		
112096	Tacho 7000 RPM inboard & outboard	75	Coil and O/board alt
112098	Tacho 4000 RPM diesel alternator	75	Motor Alternator
	N.B. Refer to page 166 for tachometer application guide		
	Speedometer:		
112104	Speedo kit 35 MPH	75	G included
112106	Speedo kit 65 MPH	75	G included
112108	Speedo kit 80 MPH	75	G included
	Water temperature gauge:		
112112	Water temperature 120ºF - 240ºF	50	D
112116	Water pressure gauge kit 0 - 40 psi	50	WP Included
	Oil pressure:		
112120	Oil pressure 0 - 80 PSI	50	C
112122	Oil pressure 0 - 100 PSI	50	C
	Hourmeter:		
112126	Hourmeter, 10,000 Hrs 10 - 32 volt	50	Not required
	Voltmeter:		
112130	Voltmeter, 8 - 18 volt	50	Not required
	Ammeter:		
112134	Ammeter 60 - 0 - 60	50	Not required
	Fuel:		
112138	Fuel	50	F
	Trim:		
112142	Evinrude®/Johnson® outboards	50	Engine manufacturer
112146	Mercury®/Mariner®, Cobra®, Volvo® DP & SX, Yamaha® O/B 2001 on	50	Engine manufacturer

Accessories:

112394 Drop resistor suit 75mm gauge
112396 Drop resistor suit 50mm gauge
112390 24 volt bulb

** For Sender style refer page 174*

Veethree Instruments Premier Pro Domed Gauges

Features:

- Very low profile black bezel follows the curve of the lens to eliminate any water 'trapping'
- White graphics and pointer on a black dial background
- Where applicable, metric information is shown in blue
- Light piping directs red light behind the translucent dial and white light to the pointer for optimal night vision
- Fog free domed glass lens is scratch resistant
- Suitable for 24 volt application with the addition of a drop resistor (**112394, 112396**) and 24 volt bulb **112390**
- Shielded to prevent magnetic interference
- Silicone dampened

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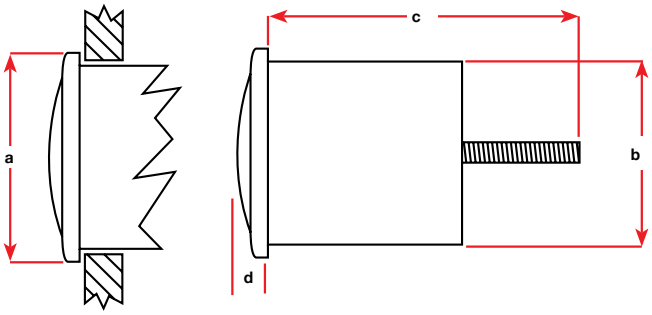

112224

112234

112262

112267

Dimensions:

	a mm	b mm	c mm	d mm
75mm Tacho	96	86	70	13
75mm Speedometer	96	86	82	13
50mm Electrical	61	53	63	11

BLA Code	Description	Face Dia. mm	*Sender Style
	Tachometers:		
112224	Tacho 7000 RPM inboard & outboard	75	Coil and O/board alt
112226	Tacho 4000rpm diesel alternator	75	Motor Alternator
	N.B. Refer to page 166 for tachometer application guide		
	Speedometer:		
112230	Speedo kit 35 MPH	75	G included
112232	Speedo kit 50 MPH	75	G included
112234	Speedo kit 65 MPH	75	G included
	Kits include 20' of pitot hose		
	Water temperature gauge:		
112242	Water temperature 100ºF - 240ºF	50	D
112246	Water pressure gauge kit 0 - 40 psi	50	WP Included
	Oil pressure:		
112252	Oil pressure 0 - 80 PSI	50	C
112254	Oil pressure 0 - 100 PSI	50	C
	Hourmeter:		
112258	Hourmeter, 10,000 Hrs	50	Not required
	Voltmeter:		
112262	Voltmeter, 10 - 16 volt	50	Not required
	Ammeter:		
112267	Ammeter 60 - 0 - 60	50	Not required
	Fuel:		
112268	Fuel	50	F
	Trim:		
112272	Evinrude®/Johnson® outboards	50	Engine manufacturer
112273	Honda® outboards	50	Engine manufacturer
112274	Mercury®/Mariner®, Cobra®, Volvo® DP & SX, Yamaha® O/B 2001 on	50	Engine manufacturer

Accessories:

112394 Drop resistor suit 75mm gauge
112396 Drop resistor suit 50mm gauge
112390 24 volt bulb

*** For Sender style refer page 174***

Veethree Instruments Premier Pro Domed Gauges - Stainless Steel

Veethree Instruments

Features:

- Highly polished, curved stainless steel bezel that eliminates water trapping
- White graphics and pointer on a black dial background
- Where applicable, metric information is shown in blue
- Light piping directs red light behind the translucent dial and white light to the pointer for optimal night vision
- Fog free domed glass lens is scratch resistant
- Suitable for 24 volt application with the addition of a drop resistor (**112394, 112396**) and 24 volt bulb **112390**
- Shielded to prevent magnetic interference
- Silicone dampened
- Hourmeter 10-32 volt

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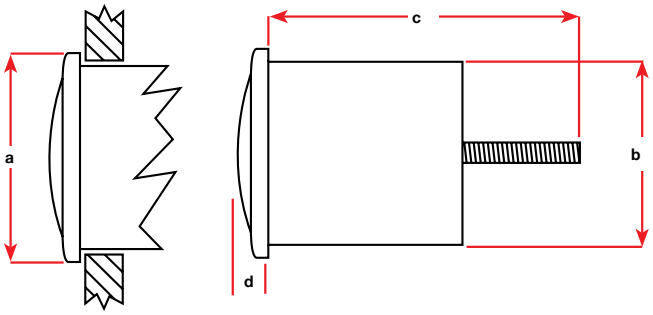
112378

112388

112380

112379



Dimensions:

	a mm	b mm	c mm	d mm
75mm Tacho	96	86	70	13
75mm Speedometer	96	86	82	13
50mm Electrical	61	53	63	11

112384

BLA Code	Description	Face Dia. mm	*Sender Style
	Tachometer:		
112378	Tacho 6000 RPM inboard & outboard ***N.B. Refer to page166 for tachometer application guide***	75	Coil and O/board alt
	Speedometer:		
112379	Speedo kit 65 MPH	75	G included
	Water temperature gauge:		
112380	Water temperature 120°F - 240°F	50	D
	Oil pressure:		
112382	Oil pressure 0 - 80 PSI	50	C
	Hourmeter:		
112388	Hourmeter, 10,000 Hrs, 10-32 volt	50	Not required
	Voltmeter:		
112384	Voltmeter, 10 - 16 volt	50	Not required
	Fuel:		
112386	Fuel	50	F

112382

Accessories:

112394 Drop resistor suit 75mm gauge
112396 Drop resistor suit 50mm gauge
112390 24 volt bulb

** For Sender style refer page 174*

Veethree Instruments Lido Pro Domed Gauges

Features:

- Highly polished, curved stainless steel bezel that eliminates water trapping
- Black graphics on a white dial background
- Pointers are black with a fire orange tip
- White perimeter and red through dial lighting
- Fog free, scratch resistant curved glass lenses
- Shielded to prevent magnetic interference
- Silicon dampening to eliminate pointer bounce
- Suitable for 24 volt application with the addition of a drop resistor (**112394, 112396**) and 24 volt bulb **112390**
- Kits include 20' of pitot hose

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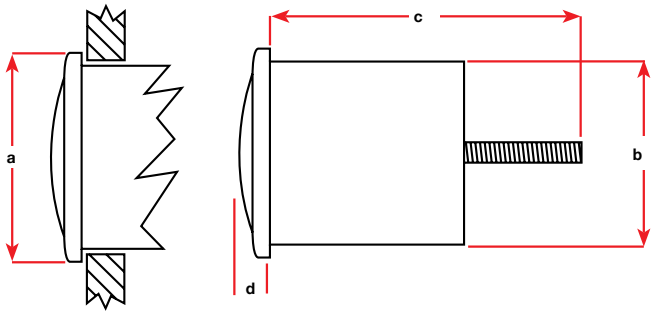


112342

112334

112352

112356

Dimensions:

	a mm	b mm	c mm	d mm
75mm Tacho	96	86	70	13
75mm Speedometer	96	86	82	13
50mm Electrical	61	53	63	11

BLA Code	Description	Face Dia. mm	*Sender Style
	Tachometers:		
112332	Tacho 7000 RPM inboard & outboard	75	Coil and O/board alt
112334	Tacho 7000 RPM c/w hourmeter	75	Motor Alternator
	N.B. Refer to page 166 for tachometer application guide		
	Speedometer:		
112338	Speedo kit 35 MPH	75	G included
112340	Speedo kit 50 MPH	75	G included
112342	Speedo kit 65 MPH	75	G included
	Water temperature gauge:		
112352	Water temperature 120°F - 240°F	50	D
	Oil pressure:		
112356	Oil pressure 0 - 80 PSI	50	C
112358	Oil pressure 0 - 100 PSI	50	C
	Hourmeter:		
112360	Hourmeter, 10,000 Hrs, 10 - 32 volt	50	Not required
	Ammeter:		
112365	Ammeter 60 - 0 - 60	50	Not required
	Fuel:		
112368	Fuel	50	F
	Water Tank:	50	Refer page 135
112376	Water		
	Trim:		
112370	Evinrude®/Johnson® outboards	50	Engine manufacturer
112372	Mercury®/Mariner®, Cobra®, Volvo® DP & SX, Yamaha® O/B 2001 on	50	Engine manufacturer

Accessories:

112394 Drop resistor suit 75mm gauge
112396 Drop resistor suit 50mm gauge
112390 24 volt bulb

** For Sender style refer page 174*

Oil Pressure Senders - Sender style C

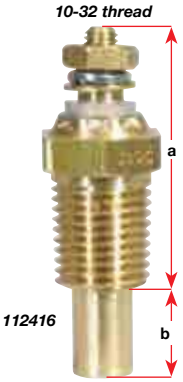
- 1/8" NPT thread
- Single station (240-33 Ohm)

BLA Code	Station	PSI Gauge
112401	Single	80
112404	Single	100

Veethree Instruments Water Temperature Senders

- Sender style D

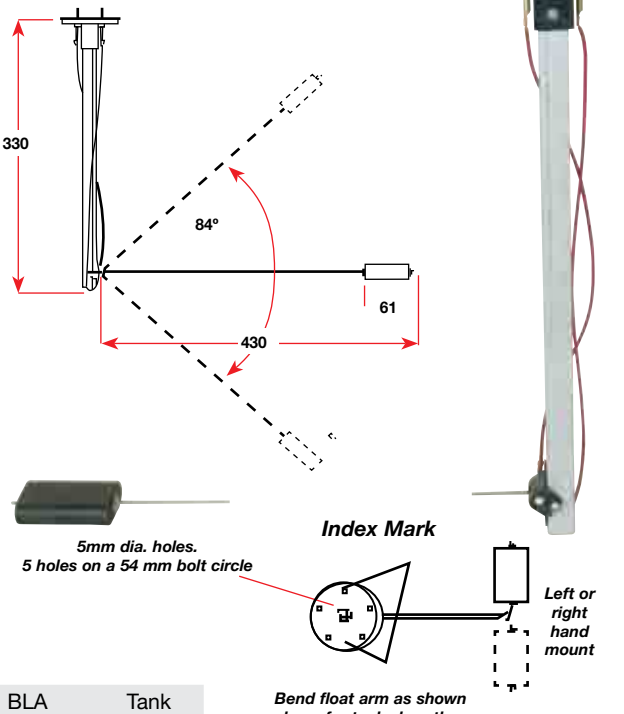
- Temp range 120ºF - 240ºF
- Single station (240 Ohm at 120ºF)
- Dual station (120 Ohm at 120ºF)



BLA Code	Station	Thread Size NPT	a mm	b mm
112414	Single	1/4	44	10
112416	Single	3/8	43	10
112420	Dual	3/8	44	8
112422	Single	1/8	42	12

Veethree Instruments Fuel Gauge Sender - Sender style F

240 - 33 Ohm range (empty to full). Five hole mount flange. Adjustable for tank depth. Float arm can be left or right hand mounted. 100% corrosion proof construction.
Also see senders on pages 134 and 135. Works with all analogue gauges with the same Ohm rating.



BLA Code	Tank Depth mm
112446	150-610

Veethree Instruments 24 volt gauge conversions

Veethree engine gauges require the addition of a drop resister and 24 volt bulb when used with a 24 volt power supply. A green bulb filter is also available as an option for 12 or 24 volt bulbs.

112394

BLA Code	Description
112390	24 volt bulb
112394	Drop resistor suit 75mm gauge
112396	Drop resistor suit 50mm gauge

12 Volt Tank Senders

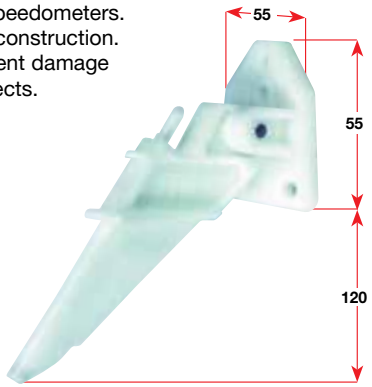
These 10 Ohm to 180Ohm liquid senders are level indicating devices compatible with VDO and Faria type petrol and water level gauges. Manufactured from AISI316 stainless steel with a watertight rating of IP687 they are suitable for fuel, sea water and are acid resistant. The sender top flange has an international standard five hole pattern and is supplied with sealing gasket, terminal ends, stainless steel fasteners and instructions. Also see senders on pages 134 and 135.

BLA Code	Length mm
112470	200
112472	250
112474	290

112470

Veethree Instruments Pitot Tube - Sender style G

Suits 35 - 80 MPH speedometers.
Durable white nylon construction.
Pitot retracts to prevent damage from submerged objects.
5mm mount holes.



BLA Code
112428

Veethree Instruments Tacho Wiring Harness - Mercury®/Mariner®

Provides fast and easy plug-in wiring connections of outboard tacho's to Mercury®/Mariner® outboard forward controls. Five wire plug. Colour coded harness eliminates field wiring problems.

BLA Code
112454

Veethree Instruments Pitot Hose

Tubing to suit speedometers 30 - 80 MPH.
Available in up to 30 metre lengths, 4mm inside diameter. Sold per metre.

BLA Code
112432

Compact Horn

Electric horn with 304 grade stainless steel cover. Black plastic base. 12 volt.

BLA Code	Length Overall mm	Width mm	Height mm	Mount Screws mm
116030	94	84	55	6 r/h

Marinco® Compact Hidden Electric Horn

Externally flush mounted, 12 volt concealed horn with white ABS plastic housing and grill. Stylish mylar lined grill makes the installation totally waterproof, whilst allowing maximum sound transfer (111dB at one metre). Maximum current draw 4 amps. Black and white grills available separately.

BLA Code	Face Size mm	Cut Out Dia. mm	Mount Screws mm	Colour	With Grill
116032	135 x 85	70	4 r/h	White	Yes
116031	135 x 85	70	4 r/h	Black	Yes
116029	135 x 85	70	4 r/h	Black	No

Accessories:

116033 Black grill only
116035 White grill only

116032

116033

116032 without cover

Marinco® Dual Trumpet Air Horns

- Non-corrosive Lexan® polycarbonate diaphragm
- Includes compressor, air tubing, fittings, and hardware
- Dimensions: 17" L x 7" W x 3.75" H
- Maximum amp draw: 12 volt: 20 amps, 24 volt: 10 amps
- dB rating: 121 at one metre, 1/3 octave band
- Fundamental frequency: 375±15/315±15Hz

BLA Code	Description	Volts
116020	White epoxy coated	24
55-10624	Chrome plated	24
55-10122	White epoxy coated	12
55-10106	Chrome plated	12

Accessories:

55-1012-12V Replacement 12V air compressor
55-10224-24V Replacement 24V air compressor

N.B. 12V compressor produces 9–11 PSI

Marinco® Single Trumpet Mini Air Horns - Brass

- Non-corrosive Lexan® polycarbonate diaphragm
- Includes compressor, air tubing, fittings, and hardware
- Dimensions: 9.5" L x 3.5" W x 3.5" H
- Dual dimensions: 9.5" L x 5" W x 3.75" H
- Maximum amp draw: 12 volt: 20 amps, 24 volt: 10 amps
- dB rating: 126 at one metre, 1/3 octave band
- Fundamental frequency: 630±15Hz
- Loudest single air horn at 126 dB

Compressor

BLA Code	Description	Trumpet
116022	White epoxy coated	Single
55-10107	Chrome plated	Single
55-10121	White epoxy coated	Dual
55-10108	Chrome plated	Dual

Accessories:

55-1012-12V Replacement 12V air compressor
55-10224-24V Replacement 24V air compressor

N.B. 12V compressor produces 9–11 PSI

Marinco® Premium Electric Trumpet Horns

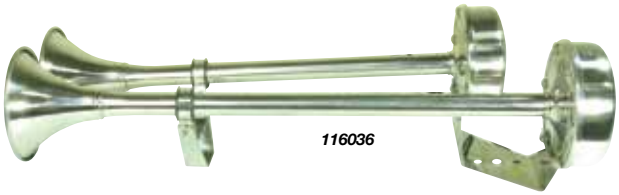
High quality, 100% stainless steel exterior with 304 grade stainless steel diaphragm. Five year warranty. Single horn rating 118 dB at 1m. Dual horn rating 123 dB at 1m. Maximum current draw 10 amps, 12 volt.

CE

BLA Code	Trumpet	Length mm	Width mm	Height mm	Mount Screws mm	Volts
116024	Single	410	114	102	5 r/h	12
116026	Dual	460	200	122	5 r/h	12
55-10018XLP	Dual	460	200	122	5 r/h	24

Electric Trumpet Horns

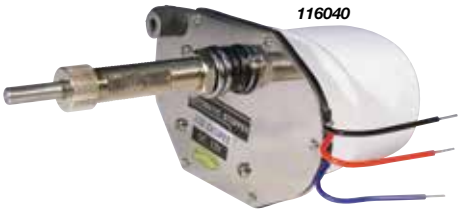
All stainless steel housing, trumpet and mount brackets. Approximately 110 dB. 12 volt. Rubber insulating pads are included for the base of the mounts.



BLA Code	Trumpet	Length mm	Width mm	Height mm	Mount Screws mm
116034	Single	405	101	130	5 r/h
116036	Dual	465	185	130	5 r/h

TMC Wiper Motor - Waterproof

Waterproof wiper motor. White U.V. stabilised plastic motor housing. 110° sweep angle. Self parking. 12 volt. Blade and arm sold individually.



BLA Code	Motor Width mm	Motor Height mm	Motor Length mm	Overall Length mm	Mount Shaft mm
116040	107	71	88	170	46 x 12.7

Accessories:

116044	Adjustable 200-305mm arm only
116046	280mm wiper blade only
116048	356mm wiper black only

Standard Wiper

Sweep angle 110°, self parking motor with stainless steel cover. 12 volt. Complete with adjustable stainless steel arm and 280mm blade. Arm length 200mm - 305mm. Replacement blades and arms are available as listed.

BLA Code	Motor Width mm	Motor Height mm	Motor Length mm	Overall Length mm	Mount Shaft mm
116042	102	57	85	141	30 x 9

Accessories:

116044	Adjustable 200-305mm arm only
116046	280mm wiper blade only
116048	356mm wiper black only

TMC Wiper Motors - Heavy Duty

Heavy duty, self parking two speed wiper with adjustable sweep angle of 80° to 120°. Black finish with stainless steel and brass exposed shaft. Mounting bracket is stainless steel. The range of blades and arms are listed below. Sold individually.

BLA Code	Volts	Overall Length mm	Height mm	Overall Depth mm	Motor Depth mm	Mount Shaft mm
116060	12	200	101	118	54	16 x 42
116062	24	200	101	118	54	16 x 42

TMC Wiper Motors - Heavy Duty Covered

Heavy duty, self parking two speed wiper with 110° sweep angle. Motor is shrouded by a white plastic cover. Exposed shaft is brass with stainless steel spline drive. Suitable for use with the blades and arms below. Sold individually.

116061

BLA Code	Volts	Overall Length mm	Height mm	Overall Depth mm	Motor Depth mm	Mount Shaft mm
116061	12	218	112	133	67	16 x 42
116063	24	218	112	133	67	16 x 42

Wiper Arms - Heavy Duty

Choice of straight, articulated or pantographic wiper arms for use with the heavy duty wiper motors above and opposite. The pantographic arm produces a straight wipe across the screen. For wiper blade options refer page 179.

BLA Code	Description
(A) **116064**	Stainless steel wiper arm, 285-355mm
(B) **116074**	Articulated stainless steel wiper arm 335-415mm
(B) **116114**	Articulated stainless steel wiper arm 350-490mm
(C) **116116**	Pantograph action, s/steel, wiper arm 310-435mm
(C) **116118**	Pantograph action, s/steel, wiper arm 435-550mm

TMC Wiper Blades

- Heavy Duty Straight

Choice of two lengths for use with any of the heavy duty wiper arms listed above.

BLA Code	Description
116070	280mm stainless steel
116072	356mm stainless steel

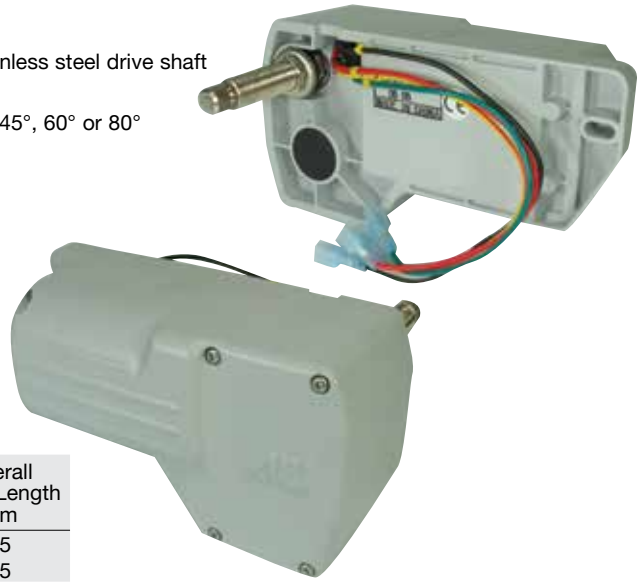
Marinco® AFI 2.5 Waterproof Wiper Motors

MARINCO

Fully sealed powder coated aluminium waterproof base and housing, powers up to 660mm sweeps. For suitable wiper arm combinations see page 179.

Features:

- Chrome plated solid brass knurled drive nut with brass and stainless steel drive shaft
- M16 Brass shaft
- Factory pre-set sweep angles of 110°, with easy adjustment to 45°, 60° or 80°
- Two speed motor
- Coast to park with adjustable right or left self parking
- Sealed 150mm 16AWG wire leads, with RF shielded circuitry
- Stall torque: 160 kgf/cm; 15.7 Nm (139 in – lbs)
- Stall current: 9 – 10.5 amps at 12V
- No load current: 1 – 1.6 amps at 12V
- 3 year warranty



BLA Code	Volts	Motor Length mm	Motor Depth mm	Motor Width mm	Thread Shaft Length mm	Overall Shaft Length mm
116096	12	201	76.8	108	50	65
116098	24	201	76.8	108	50	65

Marinco® AFI 1.5 Waterproof Wiper Motors

MARINCO

Fully sealed powder coated aluminium waterproof base and housing, powers up to 500mm sweeps. For suitable wiper arm options see page 179.

Features:

- Chrome plated solid brass knurled drive nut with brass and stainless steel drive shaft
- Factory pre set sweep angles of 110°, with easy adjustment to 45°, 60° or 80°
- Coast to park with adjustable right or left self parking
- M16 mm diameter shaft (5/8")
- Two speed motor
- Sealed 150mm, 16AWG wire leads, with RF shielded circuitry
- Stall torque: 125 kgf/cm; 12.3 Nm (109 in - lbs)
- Stall current: 11.5-13 amps at 12V
- No load current: 0.5-1.2 amps at 12V
- Available in 23mm (12V only) and 50mm effective shaft lengths
- 3 year warranty

116088

BLA Code	Volts	Motor Length mm	Motor Depth mm	Motor Width mm	Thread Shaft Length mm	Overall Shaft Length mm
116088	12	197	70.28	101	50 x 16	65

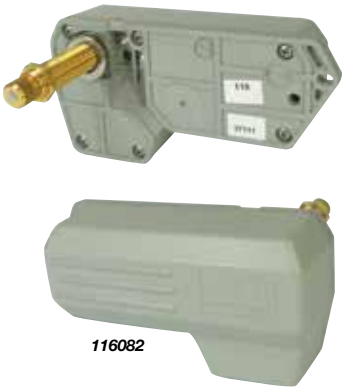
Marinco® AFI 1000 Waterproof Wiper Motors

MARINCO

The 12 volt single speed motor is protected by a fully sealed waterproof housing, constructed of U.V. stabilised high temperature, high impact thermoplastic.
For suitable wiper arm options see page 179.

Features:

- Adjustable right or left self parking
- Factory pre set sweep of 110 degrees, can be adjusted to 50, 65, or 80 degrees
- Powers up to 460mm (18") Deluxe arm and 460mm (18") Deluxe blade combination at sweep sets of 80° or less
- Powers up to 405mm (16") Deluxe arm and 405mm (16") Deluxe blade combinations at a sweep set of 110° or less
- 12 volt heavy duty motor with anti-rotation knurled drive shaft and solid brass arm drive nut
- M16 Brass shaft
- Coast to park with adjustable right or left self parking
- RF shielded circuitry
- Stall torque: 63 kgf/cm; 6.2 Nm (55 in-lbs)
- Stall current: 9.8-10 amps at 12V
- No load current: 0.8-1.2 amps at 12V
- 3 year warranty



116082

BLA Code	Volts	Motor Length mm	Motor Depth mm	Motor Width mm	Thread Shaft Length mm	Overall Shaft Length mm
116080	12	168.4	50.8	83.8	28	42
116082	12	168.4	50.8	83.8	53	63

Marinco® AFI Deluxe Curved Wiper Blade

MARINCO

All AFI Deluxe wiper blade frames are constructed using stainless steel materials. High quality silicone rubber compounds provide maximum durability and smooth wiping motion. Work efficiently on both curved and flat windshields. Suits all BLA range wiper arms.

116124

BLA Code	Description
116124	405mm stainless steel curved wiper blade
116126	460mm stainless steel curved wiper blade
116138	500mm stainless steel curved wiper blade

Marinco® AFI Premier Curved Wiper Blades

MARINCO

Premier wiper blade frames are constructed using stainless steel materials and are fitted with marine grade silicone squeegee to provide smooth and efficient operation. Extra squeegee “claws” spread pressure evenly over the length of the blade, allow the blade to conform more easily to a curved windshield. Suits all BLA range wiper arms.

116150

BLA Code	Length mm
116148	500
116150	550
116152	610

Wiper Blades - Heavy Duty Curved

Black polymer framed wiper blades to suit the range of heavy duty wiper arms opposite. Suits all BLA range wiper arms.

116130

BLA Code	Description
116127	305mm black polymer frame curved blade
116128	405mm black polymer frame curved blade
116130	460mm black polymer frame curved blade

N.B. Curved blades also suit flat screens

Marinco® AFI Below Deck Windshield Washer Kit

MARINCO

Supplied complete with water bottle and 12 volt pump motor, mount, 4.8 metres of clear hose, under deck ‘T’ piece, through hull fittings and hardware. To be used in conjunction with Premier wet wiper arms **116162**, **116164** and **116168**.

BLA Code
116174

Marinco® AFI Intelligent Wiper Switch

MARINCO

The new AFI microcontroller based intelligent switch operates all necessary wiper motor functions at the touch of a button. Settings for two continuous speed functions and three intermittent speed functions (2, 4 and 8 second delays) and washer system function. Blinking LED function lights. Suitable for both 12 and 24 volt motors. Connectors included.

BLA Code
116178

Marinco® AFI Premier Wet Wiper Arms

MARINCO

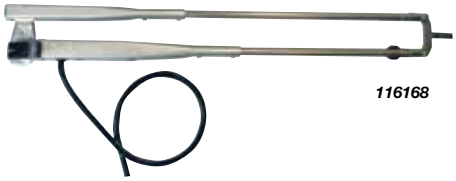
AFI Premier wet wiper arms feature heavy duty construction from quality materials along with a built-in wet delivery system that allows for an easily installed washer system to keep your windshield clean. The Premier wet arm features black PVC hose that runs up the centre of the arm and ends in a four nozzle spray fixture that is an integral part of the wiper arm itself. Each solid brass spray nozzle is adjustable to provide a maximum coverage spray pattern for almost any windshield.

Premier wet arms can tie into an existing pressurised water system, or can be used with the deck washer kit **116174** above.

Features:

- Suits the Marinco® BEP Afi wipers
- Stainless steel and heavy duty component design
- "Articulating/Bend-Back" design that locks arm in upright position for windshield cleaning
- Motor shaft mount with notched “teeth” and set screw for secure installation and operation
- Available in standard and pantographic styles
- The strength to drive larger wiper blades
- Pantograph arms will only function properly on the wiper motor sweep arms 80º or less

116162



116168

BLA Code	Description	Adjustable Length mm	Suits Wiper Motors
116162	Standard arm	380-500	1.5 + 2.5 Afl
116164	Standard arm	500-635	2.5 Afl
116168	Pantograph arm	435-550	2.5 Afl

Scanstrut Cable Deck Seals

The only guaranteed and proven watertight installation for your antenna and navlight cables. Pass cables into the boat, anywhere on deck. No need to remove cable plug.

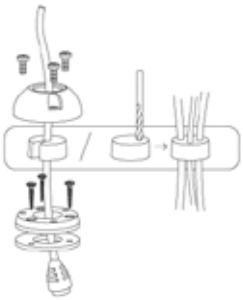
Features

- Low profile shape for a stronger, impact resistant seal. No sharp edges to hit your foot on
- Supplied with blank and pre-drilled inner seals
- Split seal eliminates need to remove cable connectors during install
- Captive nuts in base provide easy assembly and allow reliable repeat installations
- Available in impact resistant and U.V. stable plastic or marine grade 316 stainless steel
- Waterproof rating IPX7

Step 1: Choose the Deck Seal option

Micro Deck Seal

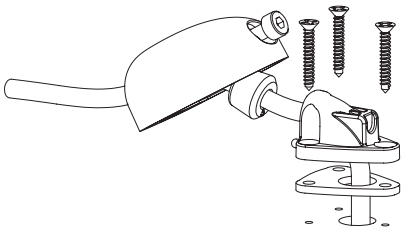
Designed with the same great aesthetics and marine grade materials as the standard Deck Seal range, and with a 100% waterproof rating.



BLA Code
115658

Horizontal Deck Seal

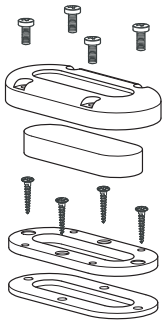
Waterproof Deck Seal with horizontal cable entry; designed to incorporate an innovative compact seal compression system. Ideal for solar panel installation.



BLA Code
115656

Multi-Deck Seal

Designed to fit multiple cables up to 15mm (0.59") dia. Supplied with an undrilled seal and made from marine grade aluminium with a hard anodised finish to resist impact marks.



BLA Code
115682

Step 2: Choose Connector/Cable based on size and material desired

Connector Size	Cable Size - mm													
	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Up to 16mm	**115660 / 115672**													
Up to 21mm			**115662 / 115676**					**115664 / 115678**						
Up to 30mm								**115668 / 115680**						

BLA Code	Description	Cable Size mm	Material
115660	Deck Seal mini 16mm conector/cable	2-8	Plastic
115662	Deck Seal mini 21mm conector/cable	4-9	Plastic
115664	Deck Seal mini 21mm conectr/cable	9-14	Plastic
115668	Deck Seal med 30mm conector/cable	9-14	Plastic
115672	Deck Seal mini 16mm conector/cable	2-8	Stainless Steel
115676	Deck Seal sml 21mm conector/cable	4-9	Stainless Steel
115678	Deck Seal sml 21mm conector/cable	9-14	Stainless Steel
115680	Deck Seal med 30mm conector/cable	9-14	Stainless Steel

115660

115678

Cobra Marine VHF Radio - Class-D Fixed Mount With GPS

The latest in Class-D Digital Selective Calling (DSC) Technology.

Cobra Marine's complete line of handheld & fixed mount marine products offer innovative, easy to use features that help keep you safe during your boating voyage. This technology is all backed by 50 years of Cobra Marine® quality.

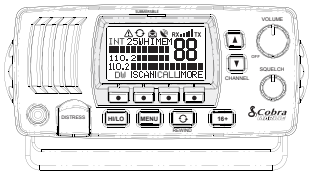
Features:

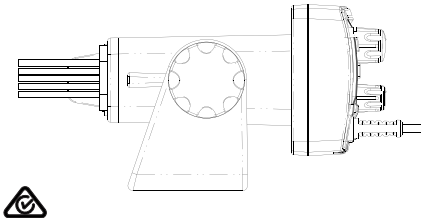
- **Built in GPS Receiver -** Simply connect the radio to power and the radio will know your location
- **Rewind-Say-Again®** - Replay missed VHF calls. Automatically records the last 20 seconds with a digital voice recorder
- **Large LCD screen** - Large and bright LCD screenfor easy viewing
- **PA Output -** PA function for public address to external speaker (**117130/32** recommended)
- **Submersible -** Designed to IPX8 (JIS8) standards
- **Softkey Operation -** Easily make calls, activate advance features and navigate through menus
- **Radio Check -** Checks battery voltage when transmitting, RF power output, and antenna output

Replay Missed VHF Calls

118130

118132





BLA Code	Colour	Face Plate Dimensions W x D x H cm
118130	Dark Grey	15.9 x 15.5 x 7.5
118132	White	15.9 x 15.5 x 7.5

Unit Specifications	
DSC (Digital Selective Calling)	Compliant with the latest specifications for Class-D VHF Radios. Digital Selective Calling allows you to send a distress signal at the touch of a button or exchange position information with other boats or stations. DSC features on this Class-D radio include; A Dedicated Channel 70 (DSC Channel) Receiver, GPS Position Display Capability, Illuminated Distress Button, Easy MMSI Entry, Position Send and Request, Position Input Reminder, Coast Guard DSC Check Capability, etc.
1 or 25 Watts	Dual output power for short and long communication.
International, U.S.A. & Canada Channels	Allows operation on any of the three (3) different channel maps established for these areas.
Rewind-Say-Again®	Replay missed calls. Automatically records the last 20 seconds of incoming radio transmissions. Handy when in noisy conditions.
Radio Check	Checks battery voltage when transmitting, RF power output, and antenna output.
Instant Channel 16	Instant access to channel 16 for emergency situations.
GPS Inside	Simply connect the radio to power and the radio will know your location. You can send your position information in case of emergency, or exchange position information with other boats.
Dual Watch	Monitors two (2) channels at once - Channel 16 and one (1) user selected channel.
Scan / Memory Scan	Scan all channels to find conversations in progress, or scan channels placed into memory.
Channel Names	Friendly VHF channel names under the channel number.
Signal Strength Meter	Shows the strength of incoming signal.
Illuminated Keys	Allows high visibility of keys.
Illuminated LCD Display: Large	See radio settings from practically anywhere with the largest LCD available on a fixed radio.
Noise Cancelling Microphone	Blocks background noise.
External Speaker and PA Speaker	Connect an external speaker and a PA (Public Address) speaker.
NMEA In and Out	NMEA in for GPS input. NMEA output to display other vessels and their information transmitted by DSC on your chartplotter.
Submersible	Meets JIS8/IPX8 standards; Submersible for 30 minutes in 1.5 metre deep water.
External Alarm Input	Senses the alarm from your chartplotter and uses the speaker on the radio to amplify the alarm for waypoint arrival, MOB, etc.
ATIS	Capable of operating within the Automatic Transponder Identification System. ATIS includes data at the end of a transmission for station identification.

Included Accessories	
Flush & Surface Mount Kit	Easy installation of radio in or on almost any flat surface with supplied hardware.
NMEA Input Cable	Allows input from NMEA 0183 devices.

General	
Number of Channels	All: International, U.S.A. & Canadian Channels
Channel Spacing	25 kHZ
Modulation	5 kHz Max.
Input Voltage	13.8 VDC
Current Drain: Stand-by Receive Transmit	 200 mA 300 mA 5 A @ High Power 1 A @ Low Power
Temperature Range	-20ºC to 60ºC
Unit Dimensions	159mm x 57mm x 180mm (6.25” x 2.25” x 7.125”)
Unit Weight (Lbs)	1100g (2lbs., 6.8oz.)

GPS	
Receiver	56 channels
Acquisition Times: Hot Warm Cold Update Rate	 Nominal: < 1 second, Limit: +/- 5 seconds Nominal: < 33 second, Limit: +/- 5 seconds Nominal: < 35 second, Limit: +/- 10 seconds Up to 5 Hz
Antenna Type	Internal patch antenna
GPS receiver first lock sensitivity	Nominal: -144dBm, Limit: 142dBm
GPS receiver tracking sensitivity	Nominal: -160dBm, Limit: 155dBm
Differential System Compatibility	EGNOS (Europe), WAAS (United States), MSAS (Japan), GAGAN (India)
NMEA Info: Output Specification Selectrical Standard NMEA Sentences	 NMEA 0183- ASCII serial output EIA-422 DTM, GGA, GLL, GRS, GSA, GSV, RMC, VTG

Receiver	
Frequency Range	156.025 to 163.275 MHz
Receiver Type	Double Conversion Super-Heterodyne
Sensitivity: 20 dB Quieting 12 dB Sinad	 0.35 uV 0.30 uV
AF Output	4 Watts @ 8 Ohms

Transmitter	
Frequency Range	156.025 to 157.425 MHz
RF Output Power	1 or 25 Watts
Spurious Emissions	-75 dB @ High Power -72 dB @ Low Power
Microphone Type	Electret
Microphone Impedance	2000 Ohms
Frequency Stability	+/-10 ppm
FM Hum & Noise	50 dB

Specifications subject to change without notice.

Cobra Marine VHF Radio - Class-D Fixed Mount

The latest in Class-D Digital Selective Calling (DSC) Technology.

Cobra Marine's complete line of fixed mount marine products offer innovative, easy to use features that help keep you safe during your boating voyage. This technology is all backed by 50 years of Cobra Marine® quality.

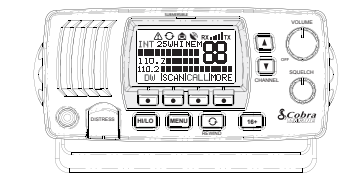
Features:

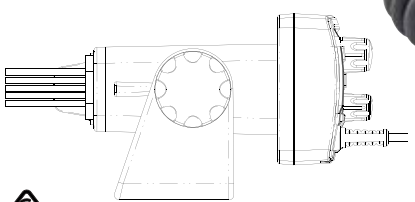
- **Submersible -** Designed to IPX8 (JIS8) standards
- **Rewind-Say-Again®** - Replay missed VHF calls. Automatically records the last 20 seconds with a digital voice recorder
- **PA Output -** PA function for public address to external speaker (**117130/32** recommended)
- **Softkey Operation -** Easily make calls, activate advance features and navigate through menus
- **Radio Check -** Checks battery voltage when transmitting, RF power output, and antenna output
- **Flush mount kit included -** Everything you need for quick and easy install

Replay Missed VHF Calls

118120

118122





BLA Code	Colour	Face Plate Dimensions W x D x H cm
118120	Dark Grey	15.9 x 15.5 x 7.5
118122	White	15.9 x 15.5 x 7.5

118140

Accessories:

118140 Marine Radio GPS ext to suit fixed mnt Dark Grey

Unit Specifications	
DSC (Digital Selective Calling)	Compliant with the latest specifications for Class-D VHF Radios. Digital Selective Calling allows you to send a distress signal at the touch of a button or exchange position information with other boats or stations. DSC features on this Class-D radio include; A Dedicated Channel 70 (DSC Channel) Receiver, GPS Position Display Capability, Illuminated Distress Button, Easy MMSI Entry, Position Send and Request, Position Input Reminder, Coast Guard DSC Check Capability, etc.
1 or 25 Watts	Dual output power for short and long communication.
International, U.S.A. & Canada Channels	Allows operation on any of the three (3) different channel maps established for these areas.
Rewind-Say-Again®	Replay missed calls. Automatically records the last 20 seconds of incoming radio transmissions. Handy when in noisy conditions.
Radio Check	Checks battery voltage when transmitting, RF power output, and antenna output.
Instant Channel 16	Instant access to channel 16 for emergency situations.
GPS Capability	Plug-and-Play using the new C.P.S. (Cobra Positioning Systems) external GPS. No other connections required. You can send your position information in case of emergency, or exchange position information with other boats.
Dual Watch	Monitors two (2) channels at once - Channel 16 and one (1) user selected channel.
Scan / Memory Scan	Scan all channels to find conversations in progress, or scan channels placed into memory.
Channel Names	Friendly VHF channel names under the channel number.
Signal Strength Meter	Shows the strength of incoming signal.
Illuminated Keys	Allows high visibility of keys.
Illuminated LCD Display: Large	Allows high visibility of display.
Noise Cancelling Microphone	Blocks background noise.
External Speaker and PA Speaker	Connect an external speaker and a PA (Public Address) speaker.
NMEA In and Out	NMEA in for GPS input. NMEA output to display other vessels and their information transmitted by DSC on your chartplotter.
Submersible	Meets JIS8/IPX8 standards; Submersible for 30 minutes in 1.5 metre deep water.
External Alarm Input	Senses the alarm from your chartplotter and uses the speaker on the radio to amplify the alarm for waypoint arrival, MOB, etc.
ATIS	Capable of operating within the Automatic Transponder Identification System. ATIS includes data at the end of a transmission for station identification.

Included Accessories	
Flush & Surface Mount Kit	Easy installation of radio in or on almost any flat surface.
GPS Interface Cable	Allows connection of a GPS receiver or NMEA 0183 devices.

General	
Number of Channels	All: International, U.S.A. & Canadian Channels
Channel Spacing	25 kHZ
Modulation	5 kHz Max.
Input Voltage	13.8 VDC
Current Drain: Stand-by Receive Transmit	 200 mA 300 mA 5 A @ High Power 1 A @ Low Power
Temperature Range	-20°C to 60°C
Unit Dimensions	159mm x 57mm x 180mm (6.25” x 2.25” x 7.125”)
Unit Weight (Lbs)	1100g (2lbs., 6.8oz.)

Transmitter	
Frequency Range	156.025 to 157.425 MHz
RF Output Power	1 or 25 Watts
Spurious Emissions	-75 dB @ High Power -72 dB @ Low Power
Microphone Type	Electret
Microphone Impedance	2000 Ohms
Frequency Stability	+/-10 ppm
FM Hum & Noise	50 dB

Receiver	
Frequency Range	156.025 to 163.275 MHz
Receiver Type	Double Conversion Super-Heterodyne
Sensitivity: 20 dB Quieting 12 dB Sinad	 0.35 uV 0.30 uV
AF Output	4 Watts @ 8 Ohms

Specifications subject to change without notice.

Cobra Marine Handheld VHF Radio

Cobra Marine's complete line of handheld marine products offer innovative, easy to use features that help keep you safe during your boating voyage. This technology is all backed by 50 years of Cobra Marine® quality.

Features:

- **Floating** - Never lose your radio. Floating design and orange core makes retrieving radio easy if dropped overboard (excluding **118100**)
- **5 Watt VHF** - Select between 1, 3 and 5 Watts for short and long range communication
- **Noise-cancelling microphone** - Blocks background noise for clearer conversations
- **BURP** - Vibrates water out of the speaker grill and improves speaker performance
- **JIS7** - Rated submersible and rugged to JIS7 (IPX7) specifications, Rated water proof and rugged to JIS4 specifications (**118100**)
- **Make and receive phone calls** - Using Bluetooth® Wireless Technology (**118104** only), keeping your cell phone safe and dry

Pairs to Your Cell Phone

Floats if Dropped

Replay Missed VHF Calls

118100

118102

118104

BLA Code	Description
118100	Marine Radio Cobra h/h VHF 1-3 watts (non floating)
118102	Marine Radio Cobra h/h VHF 5w floating
118104	Marine Radio Cobra h/h VHF 5w floating w/bluetooth

Unit Specifications - 118102, 118104	
Floating	Never lose your radio. Floating design and orange core makes retrieving radio easy if dropped overboard.
Noise Cancelling Microphone	Blocks background noise for cleaner conversations.
5 Watt VHF	Select between 1, 3 and 5 Watts for short and long range communication.
International, Canada & U.S.A Channels	Allows operation on any of the three (3) different channel maps established for these areas.
BURP	Vibrates water out of the speaker grill and improves speaker performance.
Rated Submersible	Meets JIS7 (IPX7) standards; submerible for 30 minutes in one metre deep water.
External Speaker/ Microphone Jack	Connect Cobra speaker mic accessories for hip or body worn operation.
Instant Channel 16	Instant access to channel 16 for emergency situations.
Unlimited Memory Channels	Allows programming of unlimited channels for easy retrieval or scanning.
Tri-Watch	Monitors three (3) channels at once - channel 16 and two (2) user selected channels.
Scan	Scan all channels to find conversations in progress.
Memory Scan	Scan channels programmed in memory to find conversations in progress.
Signal Strength Metre	Shows the strength of the receiving and transmitting signal
Button/Key Lock	Locks function buttons/keys to eliminate accidental change of settings.
Battery With Charge Contacts	Allows charging of batteries in unit.
Illuminated Function Keys	Allows high visibility of function keys.
Selectable Key Tone Beep	Key tone press beeps can be turned off to silent operation.
Large, Illuminated LCD Display	Allows high visibility of display.
ATIS	Capable of operating within the Automatic Transponder Identification System. ATIS includes data at the end of a transmission for station identification.

Included Accessories
Locking Desktop Charger
12V DC Accessory Plug
Replacement Antenna
Spring-Loaded Belt Clip

Blue Tooth EXTRA Features - 118104	
Bluetooth® Wireless Technology	Make and receive phone calls using Bluetooth® Wireless Technology, keeping your cell phone safe and dry.
Rewind-Say-Again™	Replay missed VHF calls.

Bluetooth®	
Classification	Class 2, 1
Version	2.0
Range	10 Metres

Included Accessories
1000mAh LiON Polymer Rechargeable Battery (black colour).

General	
Number of Channels	All: International, Canadian, U.S.A.
Channel Spacing	25 kHZ
Modulation	5 kHz Max.
Input Voltage	7.4 VDC
Battery Life: 5% TX, 5% RX, 90% Standby	Alkaline: 8 Hours @ 5 Watts* 16 Hours @ 1 Watt
Battery Requirements	Cobra Battery Pack CM 110-021
Current Drain: Stand-by Receive Transmit	 40 mA 200 mA 1.8 A @ High Power 700 mA @ Low Power
Temperature Range	-20°C to 50°C
Unit Dimensions	121mm x 67mm x 53mm (4.75” H x 2.66” W x 2.09” D) (not including antenna)
Unit Weight (Lbs)	262g. (0lb., 9.24oz.) with Lithium-Ion Battery

Receiver	
Frequency Range	156.025 to 163.275 MHz
Receiver Type	Double Conversion Super-Heterodyne
Sensitivity: 20 dB Quieting 12 dB Sinad	 0.35 uV 0.30 uV
Adjacent Channel Selectivity	-70 dB
Intermodulation and Rejection	-68 dB
Spurious & Image Rejection	-70 dB
AF Output	250 mW @ 8 Ohms

Transmitter	
Frequency Range	155.450 to 162.425 MHz
RF Output Power	1, 3 or 5 Watts*
Spurious Emissions	-36 dB
Frequency Stability	+/-5 ppm
FM Hum & Noise	40 dB

Specifications subject to change without notice.

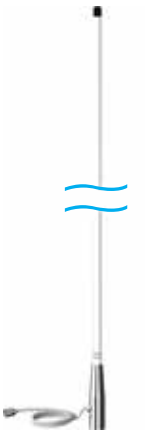
Marine Electronics For Navigation, Communication and Entertainment

Shakespeare® marine antennas are the result of decades of continuous improvement of design and manufacturing, and close collaboration with marine professionals.

Whether you are a commercial or recreational boater, you can rest assured that our best-in-class antennas are built with unmatched quality and will enable you to stay connected – anywhere.

Shakespeare Classic VHF AIS Antenna - 1.2m

This antenna has been specially designed to meet the broader bandwidth requirements of all popular AIS transceivers. Commercial-grade construction with a mast mounting sleeve.



Features:

- 1.2m Mast mount AIS antenna, 3dB
- Brass and copper elements
- SO-239 connector at the base
- Suggested mount: U-Bolts included. Can be strapped to a larger mast using steel banding (not supplied).
- One section
- Coax cable sold separately
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119300	50	1.5:1 at 158	6 MHz within 2.0:1 VSWR	VHF/AIS Marine Band

Shakespeare Classic VHF AIS Antenna - 0.9m

Sailboat owners will love this version of their longtime favourite, Shakespeare's Style 5215. Its the same light weight, low-profile, stainless steel antenna, specially designed for masthead mounting and built with extra bandwidth for all popular AIS transceivers.

Features:

- 0.9m length, 3dB
- Designed specifically for AIS transceivers
- Sealed, tin-plated copper wire coil
- Stainless steel body and 36" whip
- SO-239 connector
- Mount: Stainless steel "L" bracket is supplied.
- One section
- 50-ohm impedance
- Coax cable sold separately
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119302	50	1.5:1 at 162	7 MHz within 2.0:1 VSWR	VHF Marine Band

Shakespeare PHASE III VHF AIS Antenna - 1.2m

Specially engineered for the extra bandwidth required by AIS transceivers, this great performer puts Phase III quality where it counts.

Features:

- 1.2m VHF AIS antenna, 3dB gain
- Collinear-phased 5/8-wave elements
- Silver-plated outer conductor, copper inner conductor
- Stainless steel mounting sleeve
- Type "N" connector inside mounting sleeve for easy mounting and dismounting for stowage
- Suggested mount: **119352** Ratchet Mount
- DC Grounding: Yes
- 50-ohm impedance
- 5 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119304	50	Less than 1.5:1 at 156.8	5 MHz within 2.0:1 VSWR	VHF

Shakespeare Classic VHF Marine Antenna - 5.8m

The top choice for charter boat captains and experienced sport fishing enthusiasts. This long-distance VHF antenna is rigid enough to stay erect in rough seas, yet exceptionally lightweight.

Features:

- 5.8m Length, 9dB
- Phased ½-wave elements in a collinear array with a coaxial choking sleeve to suppress cable radiation
- Brass and copper elements
- Chrome plated brass ferrule
- Standard 1"-14 thread for mounting
- Includes 6m RG-58 cable and a PL-259 connector
- Suggested mount: **119366** or **119368** Mounting kit for deck or side mounting
- Two sections: Base 411cm; Tip 168cm
- 50-ohm impedance
- 2 year limited warranty

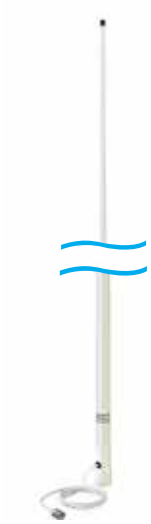
BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119318	50	1.5:1 at 158	3 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119368 Mount Kit Swivel S/S
119366 Mount Kit 4 Way CP

Shakespeare Classic VHF Antenna - 2.4m

2.4m, economical and lightweight, self-supporting antenna for good communications where range is not the predominant factor. This antenna has a nylon ferrule.



Features:

- 2.4m length, 6dB
- End-fed with matching stub
- Quality copper cable elements for good range and efficiency
- Nylon ferrule with standard 1"-14 thread
- Includes 4.5m RG-58 cable and a PL-259 connector
- Suggested mount: Shakespeare style **119364** mount
- One section
- 50-ohm impedance
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119314	50	1.3:1 at 156.8	5 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119364 Mount Lift and Lay Nylon

Shakespeare Classic VHF Antenna - 1.2m

1.2m, antenna with a great selection of high-end features. Brass and copper elements for performance, plus a smooth, high-gloss, polyurethane finish that won't turn yellow in the sun. Superb value, and excellent performance in a great looking antenna.

Features:

- 1.2m VHF 3dB gain
- End-fed with matching stub
- Brass and copper elements
- Chrome-plated brass ferrule with standard 1"-14 thread
- Includes 4.5m RG-58 cable and a PL-259 connector
- Suggested mount: Style **119352** ratchet mount
- One section
- Smooth, durable, high gloss finish
- 50-ohm impedance
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119312	50	1.5:1 at 156.8	5 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119352 Mount folding S/S

Shakespeare Classic VHF Antenna - 0.9m

A favourite with Sailboat owners, this lightweight, low profile, stainless steel antenna is specially designed for masthead mounting. Coax cable sold separately.

Features:

- 0.9m length, 3dB
- Sealed, tin-plated copper wire coil
- Stainless steel whip
- SO-239 connector
- Mount: Stainless steel “L” bracket supplied for mast mounting
- One section
- 50-ohm impedance
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119310	50	1.5:1 at 156.8	7 MHz within 2.0:1 VSWR	VHF Marine Band

Shakespeare Classic VHF Antenna - 0.9m

The perfect choice for bass boats, center console fishing boats, or any vessel where compact size is most important. Comes with a heavy-duty stainless steel whip for extra stability at high speeds. Chrome plated brass canister minimises de-tuning.

Features:

- 0.9m length, 3dB
- Chrome plated brass canister minimises de-tuning
- Sealed, tin-plated copper wire coil
- Stainless steel whip (36")
- PL-259 connector included
- Suggested mount: **119352** Ratchet Mounts
- Requires mount with centre hole for passage of the supplied 4.5m RG-58 cable
- One section
- 50-ohm impedance
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119316	50	1.5:1 at 156.8	7 MHz within 2.0:1 VSWR	VHF Marine Band

Shakespeare Galaxy VHF Antenna - 5.4m

This highly sophisticated design is outstanding for long distance communications. Extra rugged for saltwater durability, and stability in high seas. Surprisingly light weight.

Features:

- 5.4m VHF, 9dB Gain
- Brass and copper elements for maximum range and efficiency
- Stainless steel ferrule with standard 1"-14 thread
- 6m RG-8/X low-loss cable plus a PL-259 connector
- Suggested Mount: **119366** or **119368** Mounting kits (pictured mount not included)
- Two sections: Base 266cm, Tip 266cm
- 50-ohm impedance
- 5 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119320	150	1.5:1 at 158	3 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119368 Mount Kit Swivel S/S
119366 Mount Kit 4 Way CP

Shakespeare Galaxy World Band Cellular Antenna - 0.23m

The Galaxy 5239 antenna is our smallest Galaxy antenna, but don't let the size fool you. This World-band antenna provides coverage for 2G/3G/4G and WLAN systems for Cellular, PCS, AWS and LTE frequencies, as well as 802.11n Wi-Fi. This compact, feature rich antenna is at home on virtually any watercraft, and is fitted with a stainless steel ferrule and N-connector that are compatible with nearly all Shakespeare 1" -14 threaded mounts.

Features:

- 2G/3G/4G and WLAN systems
- Wi-Fi 802.11n compatible
- Designed for marine use
- Omni-directional antenna 3-4dB Gain
- Easy to install
- 50-ohm impedance
- 5 year limited warranty

BLA Code	Power Rating Watts	Dimensions H x D cm	Operating Temperature C°	Frequency
119340	10	23 x 7	-30° to +80°	698-960 / 1700-2700 MHz

Shakespeare QuickConnect VHF Antenna - 2.43m

Stemming from the popularity of the quick connecting feature on Shakespeare's high-end Phase III® marine antennas, the new QuickConnect™ product line brings you the ease of connecting and disconnecting your marine antenna in a series of entry-level antennas. All QuickConnect™ aerials must be used with a QuickConnect™ base. All bases come with a 4.5m (15ft) cable.

Features:

- 2.43m VHF Marine Band, 6dB
- QuickConnect™ system, screw or unscrew antenna to disconnect or connect
- High quality connection so that no noise is generated due to vibrations
- Splash protection cap to protect the connector on the mount when antenna is disconnected
- Centerpin® PL-259 Connector is an easy crimp-on type connector
- Standard mount design to easily upgrade to a high-end Shakespeare antenna without purchasing a new mount
- 50-ohm impedance
- White fibreglass
- Chrome plated brass ferrule
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119326	50	1.3:1 at 156.8	5 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119354 QuickConnect Ratchet Mount - Ratchet Mount
119362 QuickConnect Rail Mount - Ratchet Rail Mount
119356 QuickConnect SS Ratchet Mount - Stainless Steel Ratchet Mount

Shakespeare QuickConnect VHF Antenna - 1.21m

Stemming from the popularity of the quick connecting feature on Shakespeare's high-end Phase III® marine antennas, the new QuickConnect™ product line brings you the ease of connecting and disconnecting your marine antenna in a series of entry-level antennas. All QuickConnect™ aerials must be used with a QuickConnect™ base. All bases come with a 4.5m (15ft) cable.

Features:

- 1.21m VHF Marine Band 3dB
- QuickConnect™ system, screw or unscrew antenna to disconnect or connect
- High quality connection so that no noise is generated due to vibrations
- Splash protection cap to protect the connector on the mount when antenna is disconnected
- Centerpin® PL-259 connector is an easy crimp-on type connector
- Standard mount design to easily upgrade to a high-end Shakespeare antenna without purchasing a new mount
- 50-ohm impedance
- White fibreglass
- Chrome plated brass ferrule
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119324	50	1.3:1 at 156.8	5 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119354 QuickConnect Ratchet Mount - Ratchet Mount
119362 QuickConnect Rail Mount - Ratchet Rail Mount

Shakespeare QC-3 QuickConnect VHF Antenna - 0.9m

Stemming from the popularity of the quick connecting feature on Shakespeare's high-end Phase III® marine antennas, the new QuickConnect™ product line brings you the ease of connecting and disconnecting your marine antenna in a series of entry-level antennas. All QuickConnect™ aerials must be used with a QuickConnect™ base. All bases come with a 4.5m (15ft) cable.

Features:

- QuickConnect™ system, screw or unscrew antenna to disconnect or connect
- High quality connection so that no noise is generated due to vibrations
- Splash protection cap to protect the connector on the mount when antenna is disconnected
- Centerpin® PL-259 Connector is an easy crimp-on type connector
- Standard mount design to easily upgrade to a high-end Shakespeare antenna without purchasing a new mount
- Chrome plated brass ferrule
- Stainless steel whip / white plastic body
- 50-ohm impedance
- 2 year limited warranty

BLA Code	Max. Power Input Watts	SWR Nominally MHz	Bandwidth	Frequency
119322	50	1.3:1 at 156.8	5 MHz within 2.0:1 VSWR	VHF Marine Band

Accessories:

119354 QuickConnect Ratchet Mount - Ratchet Mount
119362 QuickConnect Rail Mount - Ratchet Rail Mount
119356 QuickConnect SS Ratchet Mount - Stainless Steel Ratchet Mount

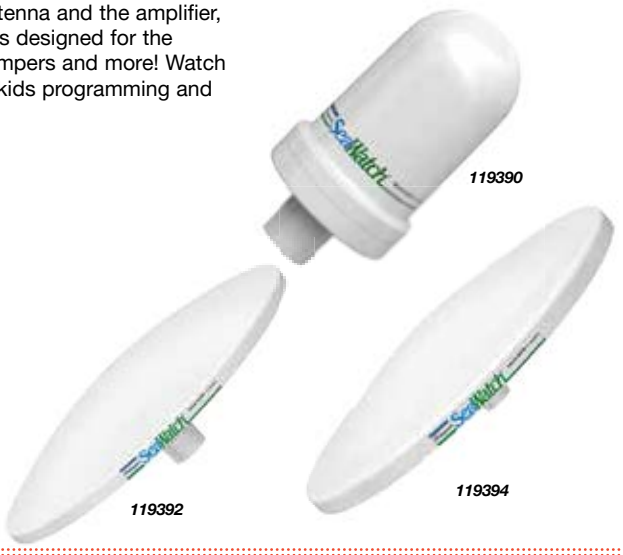
Shakespeare SeaWatch® HDTV Antenna

The Shakespeare® SeaWatch® series of TV antennas are omni-directional, over-the-air digital HDTV solutions that bring sleek lines and 360° high-performance coverage to your watercraft or RV. Designed to accept common 1"-14 threaded mounts, the antennas are well suited to fit virtually any application.

When paired with an optional 2-way band separator between the antenna and the amplifier, these antennas can also receive AM/FM radio signals. The antenna is designed for the mobile lifestyle and can be used on marine vessels, RVs, pop-up campers and more! Watch your favourite sports, reality TV, crime dramas, local news, weather, kids programming and more for FREE and in 1080 HD!

Features:

- Multiple diameters available
- No assembly required
- Low noise amplifier
- Omni-directional
- Receives ALL local HD broadcast signals
- AC and DC power adapter
- Coax cable sold separately



BLA Code	Diametre cm
119390	10
119392	38
119394	48

Shakespeare Classic Emergency VHF Flex Antenna - 25cm

Comes packed in a 30cm weather-resistant, plastic tube which can "stow away" in an easy-to-reach location for instant emergency capability if your main antenna becomes broken or disabled. Complete with 3.7m cable, connector, and rubber suction cup for fast, easy mounting to any smooth horizontal surface.

Features:

- Loaded 1/4 wave emergency antenna
- Flexible vinyl outer covering
- 25cm overall length
- Velcro strips for storage included
- One section
- Adequate across Marine Band. Precise SWR depends upon antenna location on boat
- 50-ohm impedance
- 2 year limited warranty

BLA Code	Max. Power Input Watts	Frequency
119328	25	VHF Marine Band

Shakespeare QuickConnect

- Ratchet Mount

Versatile four-way ratchet action and fast-release handle design for quick and easy laydown. For deck or side mounting of QuickConnect antennas. All QuickConnect™ aerials must be used with a QuickConnect™ base. All bases come with a 4.5m (15ft) cable.

Features:

- QuickConnect: Easy removal of an antenna without the hassle of re-installing cables
- Thread: 1" -14 / Bolt holes: 7.14mm dia., 76.2mm x 12.7mm on centre
- Water and dust protection cap: Stays fastened to mount to prevent it from getting lost
- Centerpin® PL-259 Connector: Included for easy solder-free installation
- Handles antennas up to 1.2m
- Nylon construction
- Supplied with 4.5m (15ft) cable

BLA Code
119354

Shakespeare QuickConnect

- Ratchet Rail Mount

Two-way ratchet action and fast-release handle design for quick and easy laydown. For rail mounting of QuickConnect antennas on 22.2mm and 25.4mm vertical, horizontal or angled rails. All QuickConnect™ aerials must be used with a QuickConnect™ base. All bases come with a 4.5m (15ft) cable.

Features:

- QuickConnect: Easy removal of an antenna without the hassle of re-installing cables
- Thread: 1" -14
- Handles antennas up to 1.2m
- Nylon constuction
- Water and dust protection cap: Stays fastened to mount to prevent it from getting lost
- Centerpin® PL-259 Connector: Included for easy solder-free installation
- Supplied with 4.5m (15ft) cable

BLA Code
119362

Shakespeare QuickConnect

- Stainless Steel Ratchet Mount

Versatile four-way ratchet action and fast-release handle design for quick and easy laydown.
For deck or side mounting of QuickConnect antennas.

Features:

- QuickConnect: Easy removal of an antenna without the hassle of re-installing cables
- Thread: 1" -14 / Bolt holes: 7.14mm, 76.2mm x 12.7mm on centre
- Water and dust protection cap: Stays fastened to mount to prevent it from getting lost
- Centerpin® PL-259 Connector: Included for easy solder-free installation
- Handles antennas up to 2.4m
- Stainless steel
- Supplied with 4.5m (15ft) cable

BLA Code
119356

Shakespeare Rail Mount

- Nylon Ratchet

Attaches to 2.2cm and 2.5cm vertical, horizontal and angled rails. Lever action makes lowering antenna quick and easy. Has hole for passing coaxial cable.

Features:

- Standard 1"-14 thread (male)

BLA Code
119358

Shakespeare Rail Mount

This sturdy plastic mount attaches to 7/8" and 1" horizontal rails and has a side slot in the 1"-14 thread section for antennas with coax exiting the bottom center of their ferrule.

BLA Code
119360

Shakespeare Mount

- Stainless Steel Ratchet

Versatile four-way ratchet design for deck or side mounting. Quick-action handle makes operation easy.

Features:

- Ratchet mount stainless steel
- Slot for cable feed-through
- Bolt holes: 5/16" diameter, 3" x 1½" on centre
- Standard 1"-14 thread (male)

BLA Code
119362

Shakespeare Ratchet Mount - Unassembled

Four-way ratchet design with handle, for deck or side mounting. Not for use with antennas longer than 8ft in self-supporting mode, as this nullifies all warranties.

Features:

- Bolt holes: 5/16" dia., 3" x 1½" on centre
- Standard 1"-14 thread (male)
- Stainless steel

BLA Code
119350

Shakespeare Coaxial Cable

This cable has PL-259 connectors factory installed on each end. It's great for connecting meters and switches (sold separately).

Features:

- 1 metre length
- Shakespeare white

BLA Code
119382

Shakespeare Centrepin® Connector

PL-259-CP-G is a Centerpin® PL-259 connector for RG-8X or RG-58/AU coax. Our connectors are gold-plated brass to better withstand the elements and to minimise traditional connector-borne signal loss.

The perfect solution to the troublesome task of installing a PL-259 connector or splicing RG-58 A/U, RG-8/X or Lo-Max® coaxial cables. Shakespeare's revolutionary Centerpin® connectors are solderless, fretless, and botchless. They go on without a hitch, without soldering skills. No measuring, no critical stripping of coax insulation, no fussing with the coax's braid, and no "tinning."

BLA Code
119398

Shakespeare Coaxial Cable - Low-Loss Cable

The cable that connects your antenna to your radio can make or break signal quality – literally. Shakespeare's coaxial cables are tailored to the needs of marine communications, and can withstand the rigours of the boating environment.

Features:

- 15.2m of RG-8X cable
- 50-ohm impedance
- White

BLA Code
119380

Shakespeare Marine Band Separator - AM/FM/VHF

Eliminate the need for separate AM/FM antennas and operate AM/FM and VHF radios at the same time without interfering with VHF radio performance.

Complete with 3m RG-62 AM/FM cable, 0.9m RG-58 VHF cable, and connector installed. Works with all types of marine VHF antennas.

BLA Code
119330

Shakespeare Extended Hailer Speaker

Shakespeare's External Hailer Speaker is a 12.7cm, white plastic horn speaker of 4 ohms, handling 15 watts (RMS) input.

BLA Code
117136

Shakespeare External Speaker - 5.7cm

A 5.7cm external speaker with a Mylar® cone in a compact white housing to withstand the rigours of the marine environment. The ES-2 is a 4-ohm speaker for input power up to 5 watts (RMS).

It comes with a ratchet-action mounting bracket, hardware mounting kit and 1.8m of cable with "mini phone" plug installed.

BLA Code
117132

Shakespeare External Speaker - 10cm

A 10cm, 4-ohm, deluxe speaker with a Mylar® cone and white plastic cabinet for protection against moisture. Maximum input power is 8 watts (RMS). Comes with swivel mounting bracket, hardware mounting kit and six feet of cable with "mini phone" plug installed.

BLA Code
117134

Shakespeare Mounting Kit - Heavy Duty Swivel

Combines the versatile Style 407 Heavy-duty Swivel Mount with the Shakespeare Style 408-R Insulated Stand-off Bracket. The bracket features an insert to accept 1" or 1½" diameter antennas or extension masts. Includes an 1 1/8" insert.

Features:

- Swivel mount is chrome-plated brass construction
- Standard 1"-14 thread (male)

BLA Code
119366

Shakespeare Mounting Kit - Swivel

Combines the Style 81.5 Swivel Mount with the Shakespeare Style 408-R. The moulded upper bracket features an insert to accept 1" or 1½" diameter antennas or extension masts. Includes an 1 1/8" insert.

Features:

- Swivel mount is stainless steel construction
- Standard 1"-14 thread (male)

BLA Code
119368

Shakespeare Mount - Lift-N-Lay

This innovative mount enables your antenna to Lift-n-Lay with positive snap action. Leveling plate provided for mounting to a sloping deck. Standard 1"-14 thread. Insert included to accommodate 3/8"-24 thread antennas.

Features:

- Lift-n-lay mount
- Nylon construction
- Includes 3/8"-24 thread brass insert
- Handles antennas up to 2.4m

BLA Code
119364

Weatherproof Stereo Cover

Moulded white plastic housing with smoked grey acrylic hinged window. A short shelf at the back of the housing supports the stereo. Accepts any standard DIN mount stereo system.

BLA Code	Face Size mm	Cut Out Size mm	Stereo Cavity mm
117044	230 x 102	200 x 70	182 x 52

Weatherproof Stereo Enclosure

Fully enclosed protection from the marine environment for most 12 volt stereos. Fits 'DIN style', dual post or removable stereos. Trunion mount for deck or overhead installation. White ABS housing and trunion bracket. Smoked polycarbonate front cover with gasket seal. Integral through housing antenna socket, power and four speaker wiring harness.

BLA Code	Width mm	Height mm	Depth mm	Internal Dim. H x W x D mm
117160	260	130	260	61 x 190 x 165

BEP Dynaplate

BEP

The easy and effective answer to hull bonding and grounding. Improves performance of electronics and reduces RF interference. Sintered porous bronze spheres for maximum conductivity in a compact size. Low drag, non fouling shape. Scrapes clean with a wire brush. Includes gold plated mount hardware.

BLA Code	Length mm	Width mm	Height mm
119230	152	51	13

12 Volt Hair Dryer

Compact design with folding handle. Cigarette plug power supply with 2 metre lead.

BLA Code
116998

Microphone Holder

Black injection moulded nylon microphone holder clip. Supplied complete with stainless steel fasteners.

BLA Code	Base mm	Mount Screws mm
118900	33 x 36	4 c/s

Canister Vacuum Cleaner - Wet/dry

- 12 volt cigarette plug power supply with 2.7m lead
- Supplied with 1 metre suction hose, two crevice attachments and brush
- Internal hose and attachment storage
- Inflating capability with adaptor
- 3.8 litre dirt storage bin
- On/off switch on unit
- 120 watt motor

BLA Code
116992

Twin Cone Water Proof Round Speakers

Designed for permanent outdoor installation in a marine environment. Made from high grade, moulded white plastic with waterproof polypropylene and rubber cones. Two–way marine speaker providing ultra crisp sound. Peak power is per speaker.

Features:

- Waterproof
- Polypropylene/rubber cones
- 4 ohms impedance
- Sold as a pair

BLA Code	Face Dia. mm	Intrusion mm	Cut Out Dia. mm	Peak Power Watts
117100	132	46	93	50
117102	149	54.5	112	70
117104	179	63	133	110

Extension Speaker - Waterproof

Waterproof 8 watt communication speaker. White finish.

Features:

- Polypropylene cone
- White powder coated stainless steel grill and mount bracket
- Supplied with three metre lead fitted with 3.5mm mini plug to suit most VHF/27MHz radios

BLA Code	Width mm	Height mm	Depth mm	Cone mm
117130	75	73	33	62

Sunglasses Case with Built-In Speakers

Take your music anywhere with this extremely compact, portable and practical dual purpose music amplifier, sunglass and general items case. Listen to iPods®, MP3 or MP4 compatible systems through high power, distortion free, built in speakers.

Easy to connect and use. Simply plug the jack into any earphone socket of iPods®, MP3, MP4, PSP®, NDS®, Walkman®, compact radios, notebooks, mobile phones and the like. Universally connects to most entertainment devices fitted with a standard 3.5mm stereo plug.

The hard case provides additional protection for iPods® and other similar devices and may be zipped shut when operational without muting the speakers.

C-Tick approved and powered by two AA batteries (included) the system provides up to 15 hours use. An internal on-off slide switch with blue LED light acknowledges power on.

Features:

- Hard case with soft mesh front
- Able to connect to a wide range of appliances
- 2 x 40mm built-in speakers
- Secure sunglasses compartment
- Additional key or money compartment
- Up to 15 hours run time using 2 x AA Alkaline batteries
- LED power on indicator
- 3.5mm gold plated stereo connector
- Note that this product is not waterproof
- Compact 190(l) x 95(h) x 75(d) mm

BLA Code
117144

N.B. Glasess and MP3 player not included.

Subcompact Box Speaker

Designed to fit in difficult locations and still offer quality sound.

Features:

- Waterproof dual cone speakers
- U.V. stabilised ABS enclosure
- White powder coated stainless steel grill and mount bracket
- Low magnetic field for minimal effect on compass
- 4 ohm impedance
- 40 watts peak power each
- Sold as a pair

BLA Code	Width mm	Height mm	Depth mm	Cone mm
117140	120	125	115	75

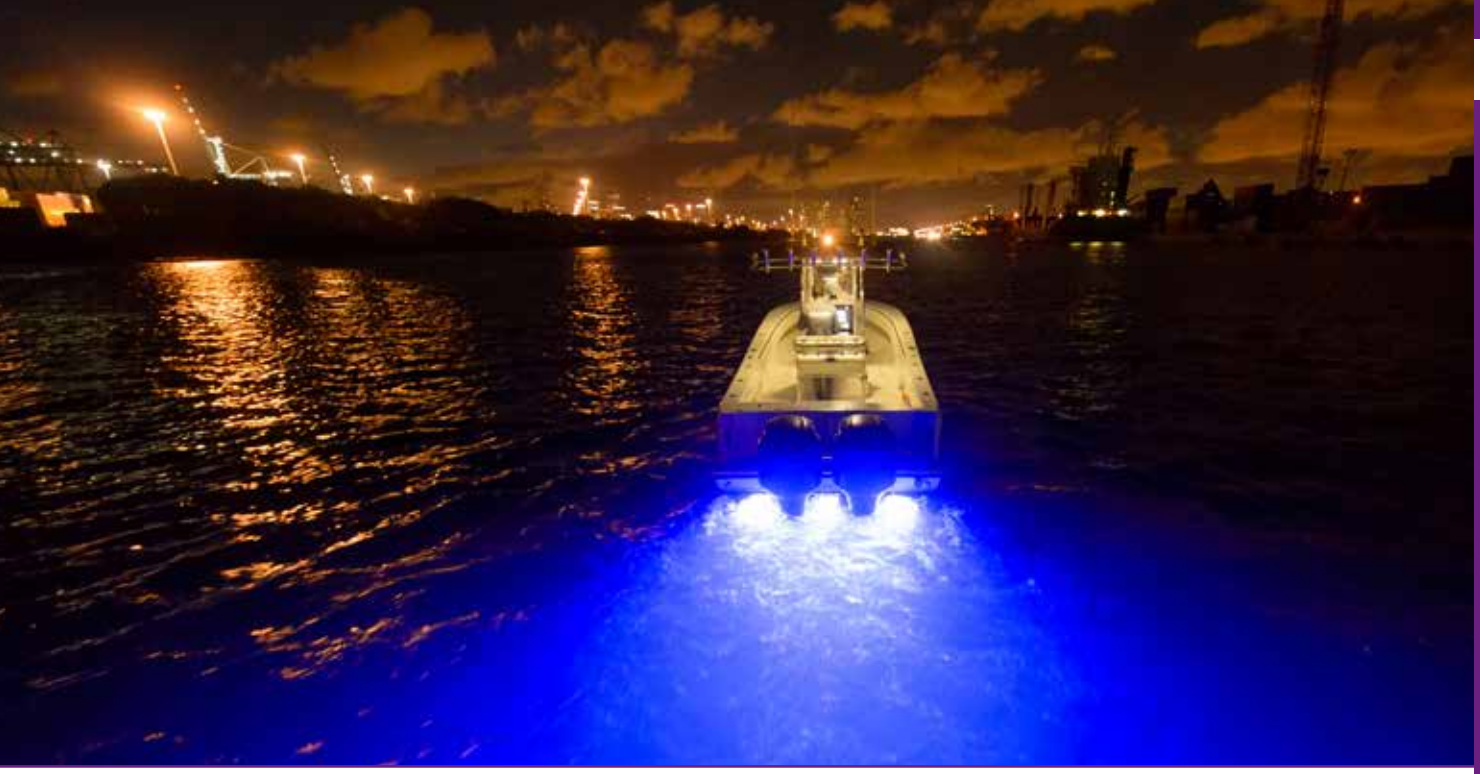
Platinum Panel Speakers

Two way high-power waterproof panel speakers.

Features:

- Waterproof - can be hosed down when cleaning the boat
- Corrosion proof design for permanent outdoor mounting in a saltwater environment
- 200 watts peak power each speaker
- Off-white U.V. stabilised ABS housing
- Excellent sound quality
- Off-white powder coated stainless steel grill.
- 125mm polypropylene woofer with 25mm mylar dome tweeter
- 4 metre lead per speaker included
- Sold as a pair

BLA Code	Width mm	Height mm	Cut Out mm Ø	Protrusion mm	Intrusion mm
117150	230	153	112	40	28



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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Underwater LED Lighting

Deliver the ultimate customer experience by the most innovative and successful Marine LED lighting company in the world.

OceanLED has been making underwater lights since 2005 and is recognised as the industry leader. They have earned this by continually innovating and always specifying the highest grade LEDs. Others have copied and whilst they claim 'bright' they fail to deliver where it matters – lighting up the water. OceanLED's optics are all bespoke and are designed to direct light where it's needed, so no light is lost giving much more penetration and a superior result. With products for all boat sizes and budgets in a variety of colour options, OceanLED is the No.1 choice for those who demand the best.

The current product line serves a multitude of uses – whether for fishing or for fun – for all sizes of boats; from 3 metre RIBs to the largest of superyachts. Continuing projects at some of the world's most prestigious boat yards and boat builders along with a loyal dealer network across the globe are testament to OceanLED's advanced technical achievements, industry recognition and constant pursuit of excellence in the field of marine lighting.

Light. Years Ahead.

Three words that express the very essence of OceanLED. Light. Years Ahead. Not just a slogan, it's their way of seeing the world. It is the driving force behind OceanLED's history of innovation that continues to drive the company forward. Indeed, many technologies that OceanLED has pioneered are still found in their lights today, some of which remain as milestones in the history of marine lighting.

With a heritage in marine lighting dating back to 1991, OceanLED not only understand what the marine environment demands in terms of performance and quality, but also understand the importance of creating unique solutions for the Marine industry.

OceanLED Features:

- Pioneered and patented the first underwater LED light in 2005
- Design and/or manufacture every part of their products
- Products are purpose built with marine-grade components
- Use American-made LEDs by the market leader in LED technology
- Offer a product range to suit any size vessel and budget
- OceanLED is the most approved underwater lighting company in the world
- Lights feature low power consumption with no start-up current
- Products feature reverse polarity protection
- With LED lighting there's no more expensive bulbs to change
- With OceanLED you can run with the lights on
- OceanLED was the first to offer underwater LED lights with dimming capabilities, unlimited colour-change, panic-mode strobe
- OceanLED have made substantial investments in R&DD

	Above/Underwater Lighting Xtreme Trailer Series			Underwater Lighting Xtreme Pro Series			Underwater Lighting Allure Series Hd Gen2			Underwater Lighting Pro Series Hd Gen2		
Description	XT4	XT8	XT16	XP4	XP8 XP8-DMX	XP16 XP16-DMX	50XFM HD Gen2	150XFM HD Gen2	250XFM HD Gen2	2010 HD Gen2	3010 HD Gen2	COLOURS HD Gen2
Recommended boat size	Up to 30' (9m)	Up to 33' (10m)	Up to 50' (15m)	Up to 30' (9m)	Up to 50' (15m)	Up to 65' (20m)	Up to 65' (20m)	Up to 65' (20m)	Over 65' (20m)	Up to and over 65' (20m)	Over 65' (20m)	Up to and over 65' (20m)
Recommended transom spacing	2-3' (0.5-1m)	2-3' (0.5-1m)	2-4' (0.5-1.2m)	2-3' (0.5-1m)	2-4' (0.5-1.2m)	2-4' (0.5-1.2m)	3-5' (1-1.5m)	3-5' (1-1.5m)	3-6' (1-1.8m)	3-5' (1-1.5m)	3-6' (1-1.8m)	3-5' (1-1.5m)
Recommended transom quantity	2	2-4	2-4	2-4	2-4	2-6	2-6	2-6	4+	2-6	4+	2-6
Recommended installation depth (to top of fixture)	FOR ABOVE AND BELOW WATER USE			4-8" (10-20cm)	4-8" (10-20cm)	4-8" (10-20cm)	4-8" (100 -200mm)	4-8" (100 - 200mm)	4-8" (100 - 200mm)	8-10" (200 - 250mm)	10-12" (250 - 300mm)	8-10" (200 - 250mm)
Current @ 12 / 24V DC	12V DC 0.5A 24V DC 0.25A	12V DC 1.0A 24V DC 0.5A	12V DC 2.15A 24V DC 1.0A	12V DC 0.8A 24V DC 0.4A	12V DC 1.65A 24V DC 0.75A	12V DC 3.2A 24V DC 1.5A	12V DC 3.1A 24V DC 1.5A	12V DC 5.3A 24V DC 2.4A	12V DC 6.8A 24V DC 3.4A	12V DC 5.3A 24V DC 2.7A	12V DC 8.2A 24V DC 4A	n/a
Current @ 110 / 240V AC 50/60 HZ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	110v AC 600mA 240V AC 275mA	110v AC 750mA 240V AC 345mA	110V AC 0.76A 240V AC 0.35A	110V AC 1.3A 240V AC 0.6A	110V AC 1.1A 240V AC 0.5A
Lumens	970	1950	3900	1450	2900	5800	5260	9900	14300	11400	19600	11400
Fixture lumens	750	1500	2900	1150	2300	4500	3000	6500	8500	7000	10000	7000
Light output similar to conventional underwater light	80W Halogen	35W Xenon	100W Xenon	Some 35W Xenons	50w Xenon	Some 150W HIDs	50w HID/ Metal Halide	150W HID/ Metal Halide	250W HID/ Metal Halide	250w HID/ Metal Halide	2 x 150W HID/Metal Halide	250w HID/ Metal Halide
App. Light penetration in average water conditions	16.5' (5m)	23' (7m)	29' (9m)	20' (6m)	26' (8m)	40' (12m)	27' (8.5m)	36' (11m)	44' (13.5m)	59' (18m)	72' (22m)	59' (18m)
Approx. Light penetration in perfect water conditions (I.E. Bahamas, caribbean, greece)	up to 42' (13+m)	up to 70' (21+m)	up to 85' (25+m)	up to 45' (13+m)	up to 72' (21+m)	up to 100' (30+m)	up to 78' (24+m)	up to 85' (26+m)	up to 104' (32+m)	up to 140' (45+m)	up to 165' (50+m)	up to 140' (45+m)
Tritonium™ marine growth resistant	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fish strobe	n/a	n/a	n/a	✓	✓	✓	n/a	n/a	n/a	n/a	n/a	n/a
Colour (blue and green lights are the best choice for fishing)												
Mount	Surface			Surface			Exchangeable Flush Mount			Exchangeable Flush Mount		
	For above and below water use			*For underwater use only*			*For underwater use only. Ac power option available*			*For underwater use only. Ac power option. Available (colours models ac power only)*		

OceanLED Underwater & Above Water Lights - Xtreme Trailer Series

Create an impressive lighting ambiance both above and below water with the Xtreme Trailer Series from OceanLED. Light up your wake, create incredible night time lighting effects and attract fish and bait. Xtreme models have a sleek bezel design and an extremely robust body which is highly impact resistant.

Exceptionally easy to install on the transom, hull, or above water on your T-top, engine brackets or cowling, under your gunnels, in your engine compartment, and even on your trailer or tailgate for night launching. Maintenance is easy due to its Tritonium™ coating (available on all OceanLED lights); just wipe away marine growth.

Built-in driver, ultra low power draw, no start-up current required, reverse polarity protection. Suitable for all types of hulls. Xtreme Trailer Series lights are designed for underwater or above water use on boats. Not intended for use as dock lighting; please see the Dock Light Series.

Features:

- Robust body design
- Improved bezel design
- 12.5mm hole in hull
- Equal to 80W halogen
- Highly impact resistant
- 9-32V
- 40,000+ Hour life
- Chemically resistant polymer
- Twin core wire
- Factory sealed unit
- XT Series can be used above and below waterline
- 60˚ Beam
- Includes LED light and cable, bezel, in-line fuse, mounting screws & installation guide

125214

BLA Code	Description	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity	Boat Size m	Length mm	Width mm
125200	XT4	Ultra White	9-32	750	970	0.5-0.5	5-23	2	Up to 9	137	74
125202	XT4	Midnight Blue	9-32	750	970	0.5-0.5	5-23	2	Up to 9	137	74
125204	XT4	Sea Green	9-32	750	970	0.5-0.5	5-23	2	Up to 9	137	74
125206	XT8	Ultra White	9-32	1500	1950	1.0/0.5	7-21	2-4	Up to 10	219	78
125208	XT8	Midnight Blue	9-32	1500	1950	1.0/0.5	7-21	2-4	Up to 10	219	78
125210	XT8	Sea Green	9-32	1500	1950	1.0/0.5	7-21	2-4	Up to 10	219	78
125212	XT16	Ultra White	9-32	2900	3900	3.2/1.5	12-30	2-6	Up to 15	250	109
125214	XT16	Midnight Blue	9-32	2900	3900	3.2/1.5	12-30	2-6	Up to 15	250	109
125216	XT16	Sea Green	9-32	2900	3900	3.2/1.5	12-30	2-6	Up to 15	250	109

Accessories:

125360 Junction Box 4 Way
125362 Bezel S/S to suit XT4
125364 Bezel S/S to suit XT8
125366 Bezel S/S to suit XT16

Utilising Tritonium™ Optical Technology

Colours Available:

OceanLED Underwater Lights - Xtreme Pro Series

Create an impressive lighting ambiance below the water with the Xtreme Pro Series from OceanLED. The Xtreme Pro Series has a higher lumen output than previous models with a sleek 316L stainless steel bezel design and robust body which is highly impact resistant. Exceptionally easy to install on the transom or hull. Maintenance is easy due to its Tritonium™ coating (available on all OceanLED lights); just wipe away marine growth. Built-in driver, ultra low power draw, no start-up current required, reverse polarity protection. Suitable for all types of hulls.

The XP8 and XP16 are available in 'Colours' colour-change models which allow the user to cycle smoothly between red, green, blue and white and choose virtually any colour to display. Xtreme Pro Series lights are designed for underwater use on boats. Not intended for use as dock lighting; please see the Dock Light Series.

Features:

- Underwater only
- Robust body design
- 316L stainless steel bezel
- 12.5mm hole in hull
- 9-32V
- 40,000+ Hour life
- Chemically resistant polymer
- Twin core wire
- Factory sealed uni
- Includes LED light and cable, bezel, in-line fuse, mounting screws & installation guide

125236

BLA Code	Description	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity	Boat Size m	Length mm	Width mm
125220	XP4	Ultra White	9-32	1150	1450	0.8/0.4	6-13	2-4	Up to 10	137	74
125222	XP4	Midnight Blue	9-32	1150	1450	0.8/0.4	6-13	2-4	Up to 10	137	74
125224	XP4	Sea Green	9-32	1150	1450	0.8/0.4	6-13	2-4	Up to 10	137	74
125226	XP8	Ultra White	9-32	2300	2900	1.65/.75	8-21	2-4	Up to 15	219	78
125228	XP8	Midnight Blue	9-32	2300	2900	1.65/.75	8-21	2-4	Up to 15	219	78
125230	XP8	Sea Green	9-32	2300	2900	1.65/.75	8-21	2-4	Up to 15	219	78
125232	XP8	Colour Change	9-32	2300	2900	1.65/.75	8-21	2-4	Up to 15	219	78
125234	XP16	Ultra White	9-32	4500	5800	3.2/1.5	12-30	2-6	Up to 20	250	109
125236	XP16	Midnight Blue	9-32	4500	5800	3.2/1.5	12-30	2-6	Up to 20	250	109
125238	XP16	Sea Green	9-32	4500	5800	3.2/1.5	12-30	2-6	Up to 20	250	109
125240	XP16	Colour Change	9-32	4500	5800	3.2/1.5	12-30	2-6	Up to 20	250	109

Accessories:

125360 Junction Box 4 Way

Utilising Tritonium™ Optical Technology

Available for Selected Models:

Colours Available:

OceanLED Underwater Lights - Xchangeable Flush Mount Allure Series HD Gen2

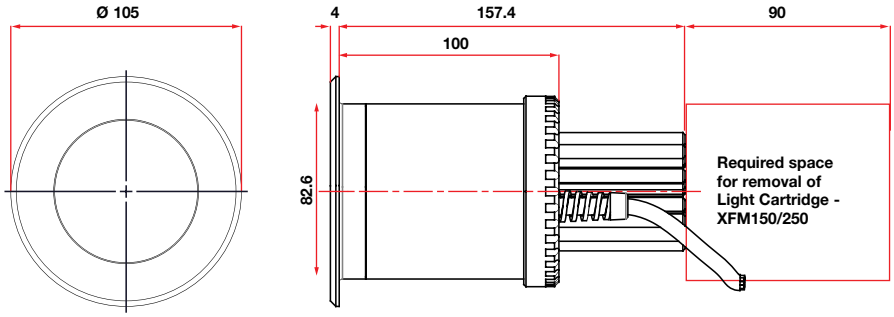
Xchangeable Flush Mount (XFM) is designed to be exchanged without hauling should servicing ever be needed. XFM features an exceptionally low profile giving it virtually unlimited hull mounting options and can be retro-fitted into most existing underwater lighting hole cut-outs, offering immediate benefits of no startup power surge, low heat, minimal maintenance and improved light output. The new Allure 50XFM Gen2 mk2 comes with an improved locking clip that is easier to access and remove when upgrading or maintenance is required.

Suitable for fibreglass, GRP and wooden hulls up to 20m using 2-6 lights with spacing of 1-1.5m. Deutsch plug-and-play quick connectors make this light a quick fit. Also suitable for aluminium/steel hulls using the Delrin Isolation Sleeve accessory.

Features:

- Xchangeable from inside the hull
- 12V DC / 24V DC
- 150XFM/250XFM models also have 110/240V AC options available
- 40,000+ Hour life
- Aluminium bronze AB2 bezel/hard anodised aluminium body
- Plug & play
- Factory sealed unit
- External driver
- Underwater only
- 60˚ beam
- In water replacement

125250



BLA Code	Description	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity m	Boat Size m	Diameter mm
125242	50XFM	Ultra White	10-32	3000	5260	4.1/2.4	8.5-24	1-1.5	Up to 20	80
125244	50XFM	Midnight Blue	10-32	3000	5260	4.1/2.4	8.5-24	1-1.5	Up to 20	80
125246	150XFM	Ultra White	10-32	6500	9900	4.1-2.4	8.5-24	1-1.5	Up to 20	105
125248	150XFM	Midnight Blue	10-32	6500	9900	4.1-2.4	8.5-24	1-1.5	Up to 20	105
125249	150XFM	Colour Change	24	6500	9900	4.1-2.4	8.5-24	1-1.5	Up to 20	105
125252	150XFM	Midnight Blue	110-240	6500	9900	600MA - 275MA	8.5-24	1-1.5	Up to 20	105
125253	150XFM	Colour Change	110-240	6500	9900	600MA - 275MA	8.5-24	1-1.5	Up to 20	105
125254	250XFM	Ultra White	10-32	8500	14300	6.8/3.4	18-45	1-1.8	20+	105
125256	250XFM	Midnight Blue	10-32	8500	14300	6.8/3.4	18-45	1-1.8	20+	105
125260	250XFM	Midnight Blue	110-240	8500	14300	750MA - 345MA	18-45	1-1.8	20+	105

Accessories:

125368	Isolation Sleeve Suit 50XFM
125370	Isolation Sleeve Suit 150XFM / 250XFM
125372	Cable Connection 2m
125374	Cable Connection 6m
125360	Junction Box 4 Way

Utilising Tritonium™ Optical Technology

Available for Selected Models:

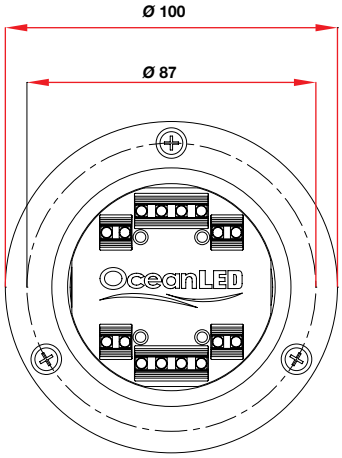
Colours Available:

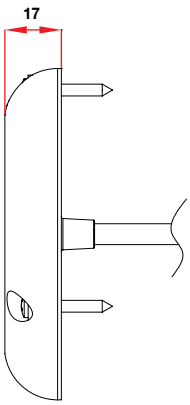
OceanLED Underwater Lights - Sports Series

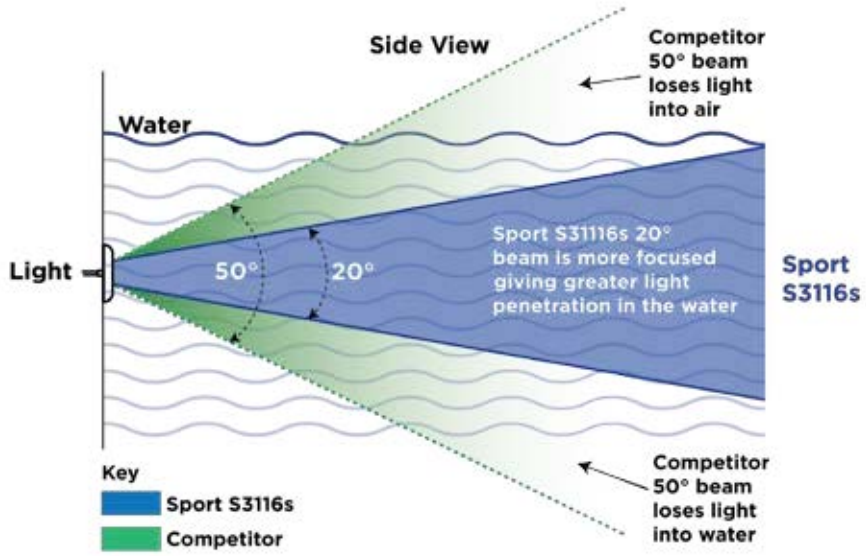
OceanLED Sport S3116s is the perfect underwater LED light for fishing and cruising in small and medium sized boats. Packing an impressive 9,800 lumens into a low profile, compact design with Midnight Blue and Ultra White light options. Advanced optics, designed exclusively by OceanLED, offer a truly striking 90˚ surface beam angle with a focused 20˚ side beam angle providing greater water penetration and a significantly larger area illuminated without any loss.

Features:

- **9,840 Lumens / 5,000 Fixture Lumens** - Best-in-class performance from this ultra-bright light makes it the obvious choice for those who want to stand out from the crowd.
- **90˚/20˚ Beam Angle** - A true wide-angled, focused beam lights up a large area of the water.
- **Compact and simple design** - Made from corrosion resistant Alu Bronze, there is a lot packed into this 10cm light. Installation needs only a small, 1/2" (12.5mm) hole in the hull to feed the cable through and 3 screws in place. No bonding required.
- **Easy to clean** - Thanks to its Tritonium coating, a simple wipe of the lens removes any underwater growth saving hours of scrubbing each time you use it.
- **Fish-Strobe Mode** - Exceptionally bright, randomised strobing of the light is proven to attract more fish and catch more bait.







Colours Available:

Utilising Tritonium™ Optical Technology

BLA Code	Description	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Transom Quantity	Boat Size m	Diameter mm
125231	S3116s	Ultra White	9-32	5000	9840	5/2.4	2-6	Up to 20	100
125233	S3116s	Midnight Blue	9-32	5000	9840	5/2.4	2-6	Up to 20	100

Accessories:

125360 Junction Box 4 Way

OceanLED Underwater Lights - Thru Hull Pro Series

The original Thru-Hull with the world's smallest hole cut-out for a thru hull light at only 1". The Pro Series HD Gen2 model is 67% brighter than its predecessor by exploiting the next generation of High Definition LEDs from Cree.

With 11,400-19,600 lumen brightness and a 25mm profile head, makes the 2010TH-3010TH the ideal underwater light for transom mount applications. Suitable for all hull types up to and over 65' (20m) using 2-6 lights with spacing of 1-1.5m. For metal hulls, choose the Delrin Isolation Sleeve accessory. Deutsch plug-and-play quick connectors make this light a quick fit. Maintenance is easy; just wipe away marine growth from its scratch resistant Tritonium™ glass lens. Three super bright LED colour options.

Features:

- 1" hole in hull
- 9-32V DC (AC upgrade option) 12/24V DC
- 40,000+ hour life
- Aluminium bronze AB2
- Plug & play
- Factory sealed unit
- No breakable parts
- 60˚/140˚ beam
- External driver
- Includes 12/24V DC driver w/power cable & 2m connection cable

125280

BLA Code	Description	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity	Boat Size m	Diameter mm
125280	2010TH	Ultra White	9-32	7000	11400	5.3/2.9	18-45	2-6	Up to & over 20	140
125282	2010TH	Midnight Blue	9-32	7000	11400	5.3/2.9	18-45	2-6	Up to & over 20	140
125284	2010TH	Sea Green	9-32	7000	11400	5.3/2.9	18-45	2-6	Up to & over 20	140
125286	3010TH	Ultra White	9-32	10,000	19600	8.2/4.0	22-50	4+	Over 20	150
125290	3010TH	Midnight Blue	9-32	10,000	19600	8.2/4.0	22-50	4+	Over 20	150
125292	3010TH	Sea Green	9-32	10,000	19600	8.2/4.0	22-50	4+	Over 20	150

Accessories:

125376 Isolation Sleeve Suit 2010TH
125378 Isolation Sleeve Suit 3010TH
125380 Locking Nut Suit 2010/3010TH
125372 Cable Connection 2M
125374 Cable Connection 6M
125382 Pro Series Driver suit 2010TH 12/24V
125384 Pro Series Driver suit 3010TH 12/24V
125386 Pro Series A/C Mains Power Pack
125360 Junction Box 4 Way

Utilising Tritonium™ Optical Technology

Colours Available:

OceanLED Underwater Lights - Thru Hull Pro Series Colours

Colours by OceanLED are the first high-powered colour change underwater LED lights for boats that allow boat owners to choose the colour of their lights from an unlimited colour pallet, and now they're even brighter!

Colours utilise the very latest 4-channel RGBW (Red/Green/Blue/White) High Definition LEDs. Controlled via DMX-512 through the vessels onboard systems, or wirelessly via third party devices such as an iPad, iPhone or Android, Colours allows you to pre-program more than 40 static and dynamic colour scenes to set the mood, enhance an onboard event, strobe to attract fish, or even change colour with the time of day.

The Colours Thru-Hull model with the world's smallest hole cut-out for a thru hull light at only 1" and a 1" (25mm) profile head make it the ideal underwater light for transom mount applications. Suitable for all hull types up to and over 20m using 2-6 lights with spacing of 1-1.5m. For metal hulls, add the Delrin Isolation Sleeve accessory. Deutsch plug-and-play quick connectors make this light a quick fit. Maintenance is easy; just wipe away marine growth from its scratch resistant Tritonium™ glass lens. For a colour-change light with a lower profile head for hull mount applications, or that can be exchanged without hauling, choose Colours XFM (**125328**). Single-colour models are also available.

Features:

- 1" hole in hull
- 110/240V AC
- 12/24V DC (AC upgrade option)
- 90-270V AC
- 40,000+ hour life
- Aluminium bronze AB2
- Plug & play
- Factory sealed unit
- No breakable parts
- Underwater only
- 60˚ primary 140˚ secondary beam
- Includes Colours TH HD underwater LED light w/cable, mounting kit, Colours AC driver w/cable & ethernet connection cable

BLA Code	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity	Boat Size m	Diameter mm
125326	Colour Change	90-270	7000	11400	1.1/5	18-45	2-6	Up to & over 20	140

Accessories:

125390	Pro Series DMX App Controller Kit
125391	Pro Series Colour Driver & Ethernet Kit
125392	Pro Series Ethernet Cap 1868
125394	Pro Series Colours Connection Cable 3m
125395	Pro Series Colours Touch Panel Controller
125396	Pro Series Colours Touch panel Controller Wi-Fi

Utilising Tritonium™ Optical Technology

Colour Change Model

OceanLED Underwater Lights - Xchangeable Flush Mount Pro Series

Xchangeable Flush Mounts (XFM) are exchangeable without hauling should servicing ever be needed. Their exceptionally low profile head offers virtually unlimited hull mounting options, including retro-fitting into most existing underwater lighting hole cut-outs, yielding immediate benefits of no startup power surge, low heat, minimal maintenance, and improved light output.

At 7,000-fixture lumen brightness the 2010XFM HD Gen2 model is 67% brighter than its predecessor by exploiting the next generation of High Definition LEDs from Cree.

Suitable for all hull types up to and over 20m using 2-6 lights with spacing of 1-1.5m. For metal hulls, add the Delrin Isolation Sleeve accessory. Deutsch plug-and-play quick connectors make this light a quick fit.

Maintenance is easy; just wipe away marine growth from its scratch resistant Tritonium™ glass lens. Three super bright LED colour options.

Features:

- Xchangeable from inside the hull
- 4" hole
- 12/24V DC (AC upgrade option)
- 40,000+ hour life
- Aluminium bronze AB2 bezel
- Hard anodised aluminium body
- Plug & play
- Factory sealed unit
- Underwater only
- 60˚ primary 140˚ secondary beam
- External driver
- Includes driver w/power cable & 2m connection cable

BLA Code	Description	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity	Boat Size m	Diameter mm
125300	2010XFM	Ultra White	9-32	7000	11400	5.3/2.9	18-45	2-6	Up to & over 20	160
125302	2010XFM	Midnight Blue	9-32	7000	11400	5.3/2.9	18-45	2-6	Up to & over 20	160
125304	2010XFM	Sea Green	9-32	7000	11400	5.3/2.9	18-45	2-6	Up to & over 20	160
125306	3010XFM	Ultra White	9-32	10,000	19600	8.2/4.0	22-50+	4+	Over 20	180
125308	3010XFM	Midnight Blue	9-32	10,000	19600	8.2/4.0	22-50+	4+	Over 20	180
125310	3010XFM	Sea Green	9-32	10,000	19600	8.2/4.0	22-50+	4+	Over 20	180

Accessories:

125376	Isolation Sleeve Suit 2010TH
125378	Isolation Sleeve Suit 3010TH
125380	Locking Nut Suit 2010/3010TH
125372	Cable Connection 2M
125374	Cable Connection 6M
125382	Pro Series Driver Suit 2010TH 12/24V
125384	Pro Series Driver Suit 3010TH 12/24V
125386	Pro Series A/C Mains Power Pack
125360	Junction Box 4 Way

Utilising Tritonium™ Optical Technology

Colours Available:

OceanLED Underwater Lights

- Xchangeable Flush Mount Pro Series Colours

Colours by OceanLED are the first high-powered colour change underwater LED lights for boats that allow boat owners to choose the colour of their lights from an unlimited colour pallet, and now they're even brighter!

Colours utilise the very latest 4-channel RGBW (Red/Green/Blue/White) High Definition LEDs. Controlled via DMX-512 through the vessels onboard systems, or wirelessly via third party devices such as an iPad, iPhone or Android; Colours allows you to preprogram more than 40 static and dynamic colour scenes to set the mood, enhance an onboard event, strobe to attract fish, or even change colour with the time of day. XFM models, or Xchangeable Flush Mounts, are just that – they're exchangeable without hauling should servicing ever be needed. Their exceptionally low profile head offers virtually unlimited hull mounting options, including retro-fitting into most existing underwater lighting hole cut-outs, yielding immediate benefits of no startup power surge, low heat, minimal maintenance, and improved light output. Suitable for all hull types up to and over 20m using 2-6 lights with spacing of 1-1.5m. For metal hulls, add the Delrin Isolation Sleeve accessory. Deutsch plug-and-play quick connectors make this light a quick fit. Maintenance is easy; just wipe away marine growth from its scratch resistant Tritonium™ glass lens.

Features:

- Xchangeable from inside the hull
- 100mm hole
- 110/240V DC
- 40,000+ hour life
- Aluminium bronze AB2 bezel
- Hard anodised aluminium body
- Plug & play
- Factory sealed unit
- Underwater only
- 60˚ primary 140˚ secondary beam
- External driver
- Includes colours XFM HD underwater LED light w/cable, mounting kit, colours AC driver w/cable & ethernet connection cable

BLA Code	Colour	Volts	Fixture Lumens	Lumens	Amps 12/24	Light Penetration m	Transom Quantity	Boat Size m	Diameter mm
125328	Colour Change	90-270	7000	11400	1.1/5	18-45	2-6	Up to & over 20	160

Accessories:

125390 Pro Series DMX App Controller Kit
125391 Pro Series Colour Driver & Ethernet Kit
125392 Pro Series Ethernet Cap 1868
125394 Pro Series Colours Connection Cable 3m
125395 Pro Series Colours Touch Panel Controller
125396 Pro Series Colours Touch panel Controller Wi-Fi

Utilising Tritonium™ Optical Technology

Colour Change Model

OceanLED Underwater Dock Lights

- Xtreme Dock Series

The Xtreme Dock Series underwater LED lights are extremely bright, and are the perfect choice for your dock, bulkheads, pilings or piers. Enhance the natural beauty of your waterfront property while enhancing security. Attract fish to create a natural aquarium.

Maintenance is easy due to its Tritonium™ coating (available on all OceanLED lights); just wipe away marine growth. Built-in driver, ultra low power draw, no start-up current required, reverse polarity protection.

Features:

- Robust body design
- 316L stainless steel bezel
- 12.5mm hole in hull
- 12/24V DC
- 40,000+ hour life
- Chemically resistant polymer
- Twin core wire
- Factory sealed unit/ean
- Includes XD16 dock light, 10m cable, in-line fuse, mounting screws & installation guide

125450

Utilising Tritonium™ Optical Technology

Colours Available:

BLA Code	Colour	Volts	Amps 12/24	Light Penetration m	Spacing m	Fixture Lumens	Lumens	Length mm	Width mm
125450	Ultra White	20-32	1.5	12-30	2-4	4500	5800	314	173
125452	Midnight Blue	20-32	1.5	12-30	2-4	4500	5800	314	173
125454	Sea Green	20-32	1.5	12-30	2-4	4500	5800	314	173

Accessories:

125360 Junction Box 4 Way

OceanLED Spreader Lights - Mast Series

The M6 Mast Series light from OceanLED is perfect for illuminating your rigging. The narrow beam angle helps focus the powerful LEDs, enhancing the natural beauty of your vessel.

Equivalent to an 80w halogen bulb but with a fraction of the power consumption. Suitable for aluminium, steel and composite rigs on all sizes of boats ranging from sportfishing to larger yachts. Easy to install, sturdy, weatherproof and exceptionally easy to maintain. Ultra low power draw, no start-up current required, reverse polarity protection.

125340

Features:

- 13mm hole
- Equal to 80W halogen
- 12/24V DC
- 40,000+ hour life
- Chemically resistant polymer
- Twin core wire
- Factory sealed unit
- No breakable parts
- Thermal protection

Utilising Tritonium™ Optical Technology

Colours Available:

BLA Code	Colour	Volts	Amps 12/24	Beam Angle	Spacing	Fixture Lumens	Lumens	Length mm	Width mm
125340	Ultra White	9-32	.5/.3	36°	0.6-2	312	400	164	58
125452	Midnight Blue	9-32	.5/.3	36°	0.6-2	312	400	164	58

Accessories:

125360 Junction Box 4 Way

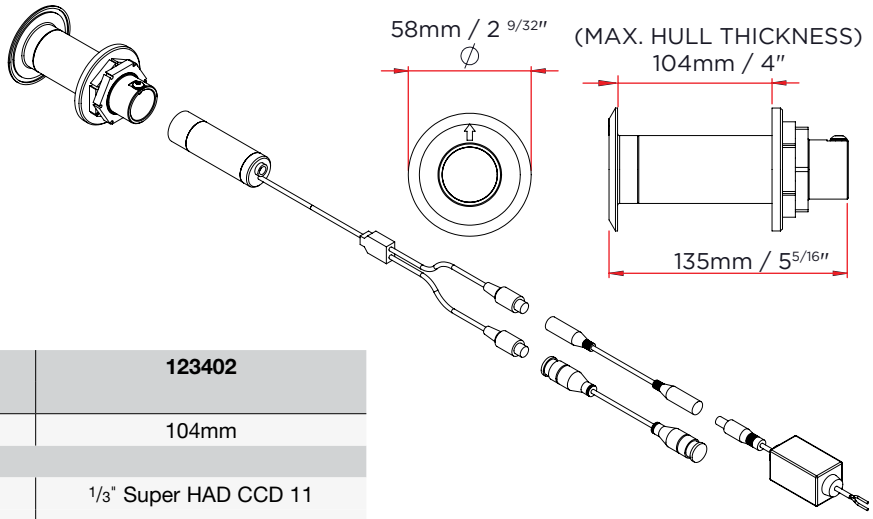
OceanLED Underwater Camera - EYES Gen2

EYES Ocean Camera can be mounted anywhere allowing you to capture the magic of your own underwater aquarium beneath your boat, increase security, and provide evidence of your winning tournament catch. Standard VGA output connects to any screen.

Suitable for fibreglass, GRP and wooden hulls, and also suitable for aluminium/steel hulls using the Delrin Isolation Sleeve accessory. Tritonium™ optical lens is scratch and sea growth resistant.

Features:

- 1 3/8" hole in hull
- Standard VGA
- 12V DC
- Aluminium bronze AC2 bezel
- Tritonium™ optical lens
- Plug & play
- Factory sealed unit
- No breakable parts
- Includes Eyes Gen2 Ocean camera, 10 metre extension cable, power in plug-and-play harness, locking kit & 12V DC current regulator



BLA Code	123402
Mounting Recommendations	
Maximum hull thickness	104mm
Technical	
CCD Chip	1/3" Super HAD CCD 11
Minimum Illumination	0.01 LUX at F2.0 / 30IRE
Minimum-Maximum operating voltage DC	9-14V DC
Current / Amp draw (DC)	12V DC 83mA MAX
Effective Pixels - NTSC	976 (H) x 494 (v)
Effective Pixels - PAL	976 (H) x 582 (V)
H. Resolution	720 TV Lines
Video Output	1 Vp-p 75 ohm composite
S/N Ratio	Over 50dB
Electronic Iris (Auto)	1/50 to 1/120,000s (PAL) 1/60 to 1/120,000s (NTSC)
Gain Control	Automatic 4dB~30dB
Lens	3.6mm
Field of View	82° - 90°
Physical	
Overall Length	135mm
Diametre of Bezel	58mm
Total Weight	260g
Extension Cable Length (Standard)	10m
Hole Cut-Out for Body	35mm
Material	Aluminium Hard Anodised Body; Aluminium Bronze AB2
Lens	Tritonium™ Optical Lens

Accessories:

123410 Isolation Sleeve Suit Eyes Camera
123412 Cable Extension Suit Eyes Camera 10M
123414 Cable Extension Suit Eyes Camera 20M
123416 Regulator Ocean LED 12VDC

Utilising Tritonium™ Optical Technology

OceanLED Pro Series Colours Controller Kit

Take control of your OceanLED Pro Series Colours lights via your iOS or Android device.

With the new OceanDMX App for Android and iOS, you have all the control and customisation you need to create any scene or light display you wish, with full control over sensitivity, speed and brightness.

Choose between standard static, cycle or strobe modes. Alternatively, use audio or wave motion modes to control the colour scheme of your choice.

The OceanDMX App has been custom designed with an easy to use menu structure for use solely with the new OceanDMX Controller, which transmits its own unique Wi-Fi network for your mobile device to connect with.

To use audio control, simply attach your vessels sound system to the DMX controller via a standard audio jack. In wave motion mode, you can create a dramatic display whilst on the move upon wave impact.

OceanLED Colours App Features:

- Free download for iOS / Android
- Compatible with OceanLED Pro Series Colours HD
- Unlimited Colour Control
- 6 storeable presets
- Strobe / dimming / cycle modes
- Dynamic Audio control mode
- Dynamic Motion control mode
- Easy to use menu system

DMX Wi-Fi Controller:

- Dedicated Wi-Fi access point
- IP66 Control Box
- Compatible with OceanLED Pro Series Colours HD
- Semi transparent LID
- LED indicators
- 12/24V DC
- Robust polycarbonate design

BLA Code
125390

OceanLED Pro Series Colours Controller

- Wi-Fi Touch Panel

DMX Wi-Fi Touch Panel Controller lets you control the colour of your Pro Series HD Colours underwater lights at the touch of a button. This touch sensitive intelligent control keypad enables the user to easily program more than 40 lighting effects with a choice of up to 16 million colours.

The Colours application includes a strobe feature which can be used to attract fish or flash a warning using the panic mode feature.

The Wi-Fi controller can be easily programmed to create individual colour scenes, which can then be selected at the touch of a button. With more than 40 dynamic or static scenes and live setting of the intensity and colour of a scene, any boat owner can turn their Pro Series Colours HD underwater lights into an integrated part of your boating experience. With a Wi-Fi enabled network, Colours can also be controlled via mobile devices such as an iPhone, iPad, or Android.

Features:

- 100-240V AC
- Touch Sensitive Intelligent Control
- Splash Resistant
- Compatible with OceanLED Pro Series Colours HD
- Wi-Fi Compatible
- Easy-to-use

BLA Code
125396

OceanLED Pro Series Colours Controller

- Touch Panel

DMX Touch Panel Controller lets you control the colour of your Pro Series HD Colours underwater lights at the touch of a button. This touch sensitive intelligent control keypad enables the user to easily program up to 8 lighting scenes with up to 24 dynamic or static scenes (8 first visualised by a led).

Full RGBW control through a touch sensitive display. Programmable through the included USB cable and control software. Compatible with OceanLED Pro Series HD.

For Wi-fi control, see the DMX Wi-Fi Touch Panel Controller (**125396**).

Not for use with Xtreme DMX Series lights. Please see the OceanDMX App Controller Kit (**125390**).

Features:

- 128 individually addressable lighting fixtures as standard
- Up to 24 dynamic or static scenes
- 3 touch sensitive buttons (on/off/mode, previous, next)
- 5.5-12V DC
- Splash resistant
- Compatible with OceanLED Pro Series HD Colours models
- Easy to use

BLA Code
125395

Step up to LED

The advantages of LED (Light Emitting Diode) make conventional lighting pale into insignificance.

- 10 to 15 times less power draw than equivalent incandescent navigation lights
- Minimal heat build up, so gasket and sealing designs do not have to allow for significant expansion and contraction
- Vibration resistance. Planing hulls subject navigation lights to sustained pounding. Hot fragile incandescent bulb filaments are very susceptible to breaking with the constant vibration and pounding experienced at high speed and by small craft. LEDs on the other hand are solid state and have no hot fragile filaments to fail
- LED navigation lights are multi cluster LEDs; there are multiple LEDs in each light, so in the unlikely event that one LED should fail the navigation light is still operational to get you to your destination safely. With incandescent lighting, when the bulb blows you have no navigation light

Navigation Lights - LED Compact Side Mount

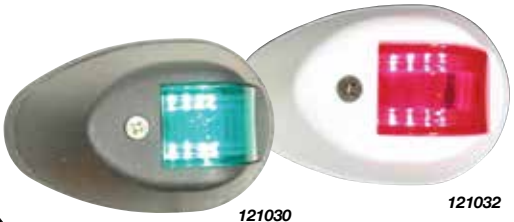
LED illumination for reliability, energy efficiency and low heat. Side mounting, supplied with EVA self adhesive base gasket. U.V. stabilised plastic housing. 12 volt, sold as a pair.

121021 121023

BLA Code	Cover Colour	Base mm	Depth mm	Mount Screws mm
121021	Black	72 x 52	35	4 r/h
121023	White	72 x 52	35	4 r/h

Navigation Lights - LED Side Mount

LED illumination for less power demand, less heat and more durability. U.V. stabilised plastic housing with acrylic lens. Side mount port and starboard lights. 12 volt, sold as a pair.



121030 121032

BLA Code	Cover Colour	Base mm	Depth mm	Mount Screws mm
121030	Black	90 x 57	35	5 r/h
121032	White	90 x 57	35	5 r/h

BLA Navigation Lights

- LED Side Mount

Clean contoured shape to blend with the boat aesthetics. No edges to catch on ropes or crew. LED reliability, energy efficiency and low heat generation. Clear lens for maximum illumination. The red and green colour is created by the LED. High quality, U.V. stabilised plastic housing. 12 volt, sold as a pair. Meets 72 COLREGS.

121038 121040

BLA Code	Cover Colour	Base mm	Depth mm	Mount Screws mm
121038	Black	90 x 56	37	4 c/s
121040	White	93 x 56	37	4 c/s

BLA Navigation Lights

- LED Side Mount Stainless Steel

The 316 grade stainless steel cover and clear lens, chrome reflective LED pod, provides a distinctive appearance. LED reliability, efficiency and low heat. Clear lens, the red and green light colour is created by the LED. 12 volt, sold as a pair. Meets 72 COLREGS.

BLA Code	Base mm	Depth mm	Mount Screws mm
121042	93 x 56	37	4 c/s

BLA Navigation Lights

- LED Side Mount

Our most popular selling navigation light style. Lenses are separately gasket sealed at the base and the housing is manufactured from U.V. stabilised injection moulded plastic. 12 volt, sold as a pair.

121007

BLA Code	Cover Colour	Length mm	Height mm	Depth mm	Mount Screws mm
121007	Black	136	61	47	4 c/s
121009	White	136	61	47	4 c/s

BLA Navigation Lights

- Side Mount Stainless Steel

Same basic shape as **121042** but with conventional incandescent bulbs and coloured lenses. 'O' ring sealed lens with PVC mount base gasket. Stainless steel bulb contacts. Pressed 316 grade stainless steel cover. 12 volt, sold as a pair.

BLA Code	Base mm	Depth mm	Mount Screws mm
121054	93 x 58	34	4 c/s

Navigation Lights - Side Mount

Fitted with incandescent bulbs and coloured lenses. 'O' ring sealed lens with PVC mount base gasket. Stainless steel bulb contacts. Smooth finish, high quality, U.V. stabilised plastic housing. 12 volt, sold as a pair.

BLA Code	Cover Colour	Base mm	Depth mm	Mount Screws mm
121050	Black	93 x 56	34	4 c/s
121052	White	93 x 56	34	4 c/s

Navigation Lights - Side Mount

Navigation side lights, available in black, white or stainless steel. Wired in tinned multi-strand copper wire for long, corrosion resistant life. Stainless steel contacts with a hidden installation screw attachment. Meets EC and US specifications for two mile visible navigation lights. 12 volt, sold as a pair.

BLA Code	Cover Colour	Length mm	Height mm	Depth mm	Mount Screws mm
121014	Black	89	56	35	4 r/h
121015	White	89	56	35	4 r/h
121016	Stainless Steel	89	56	35	4 r/h

Spare Parts:
124037 Replacement bulb 10W/12V

Navigation Lights - Side Mount

Port and starboard side lights with black or white U.V. stabilised plastic housing and one piece tinted acrylic lens for longevity. 12 volt, sold as a pair.

BLA Code	Cover Colour	Base mm	Depth mm	Mount Screws mm
121024	Black	90 x 57	35	4 r/h
121025	White	90 x 57	35	4 r/h

Spare Parts:
124031 Replacement bulb 5W/12V

BLA Navigation Lights - Side Mount

Our most popular selling navigation lights. Lenses are separately gasket sealed at the base. U.V. stabilised injection moulded plastic housing. Chrome brass and bronze bulb contacts. 12 volt, sold as a pair.

BLA Code	Cover Colour	Length mm	Height mm	Width mm	Mount Screws mm
121006	Black	136	61	47	4 c/s
121008	White	136	61	47	4 c/s

Spare Parts:
124031 Replacement bulb 5W/12V

Navigation Light - Surface Mount Bi-Colour

Simple deck mount installation with bi-colour lens. Has a U.V. stabilised plastic base and cover. 12 volt, sold individually.

BLA Code	Cover Colour	Length mm	Height mm	Width mm	Mount Screws mm
121019	White	100	45	78	4 c/s

Spare Parts:
124034 Replacement bulb 5W/12V

Navigation Lights - Compact Side Mount

Side mount, port and starboard navigation lights. Polypropylene housing with acrylic lens. Supplied with EVA self adhesive base gasket. Internal lens and gasket design forms an air pocket to prevent water entry, but allow humidity to evaporate out. 12 volt, sold as a pair.

BLA Code	Cover Colour	Base mm	Depth mm	Mount Screws mm
121020	Black	75 x 52	35	4 r/h
121022	White	75 x 52	35	4 r/h

Spare Parts:
124087 Replacement bulb 6W/12V

Perko® Navigation Lights

- Compact Low/Profile

Port and starboard lights. Approved to meet 72 COLREGS. Suitable for power vessels to 20 metres. Two mile visibility. Black or white ASA plastic base and cover. Lenses are gasket sealed to base. Non-ferrous bulb contacts. **401210** and **401212** sold as a pair. **401220** and **401222** sold individually.

CE

BLA Code	Type	Cover Colour	Mount	Length mm	Width mm	Height mm
401210	P&S	Black	Side	89	57	34
401212	P&S	White	Side	89	57	34
401220	Bi-colour	Black	Top	89	57	40
401222	Bi-colour	White	Top	89	57	40

Spare Parts:

124037 Replacement bulb (12V/10W)

Perko® Navigation Lights

- Side Mount

Approved to meet 72 COLREGS two mile visibility. Suitable for power and sail vessels to 20 metres. Curved design prevents ropes, lines and clothing from catching. Choice of black or white cover. Lenses are gasket sealed to base. Non-ferrous bulb contacts. 12 volt bulbs. Sold individually.

BLA Code Black	White	Lens	Arc	Base mm	Depth mm	Mount Holes mm
401230		Bi-Colour	225°	101 x 90	54	5 r/h
401232	**401242**	Port	112.5°	101 x 90	54	5 r/h
401234	**401244**	Starboard	112.5°	101 x 90	54	5 r/h
401236	**401246**	Stern	135°	101 x 90	54	5 r/h
401238	**401248**	Steaming	225°	101 x 90	54	5 r/h

Spare Parts:

124052 Replacement bulb for all lights except stern (12V/18W)
124057 Replacement bulb for stern light only (12V/10W)

BLA Navigation Lights - LED Deck Mount

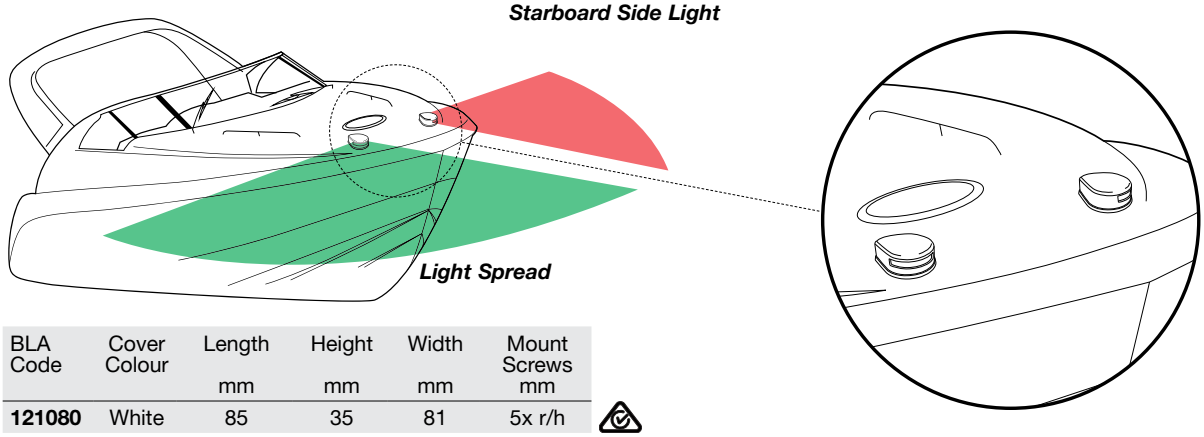
Smoothly contoured LED lights designed for use on boats up to 20m. Approved to 72 COLREGS with 2nm visibility.

Features:

- Simple snap out base for ease of mounting
- Insulated non corrosive base
- Pre-wired with 100mm wire
- Port and starboard identified with colour dot for correct mounting
- Low current draw
- Sold as a pair

Port Side Light

Starboard Side Light



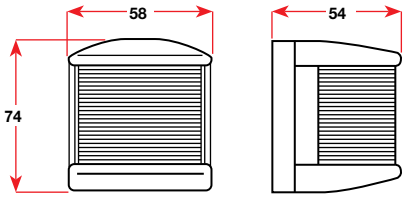
BLA Code	Cover Colour	Length mm	Height mm	Width mm	Mount Screws mm
121080	White	85	35	81	5x r/h

Trem® Navigation Lights

Approved to meet 72 COLREGS for boats up to 12 metres.

Features:

- Stainless steel bulb contacts
- Polycarbonate housing
- Press button fast removal of lens and cover for easy bulb replacement
- Integrated silicone seals to one piece lens and around mount screws ensures waterproofing to IP56
- Air lock breathing port in base allows humidity to escape but prevents water from entering



Mount holes 4mm roundhead

CE

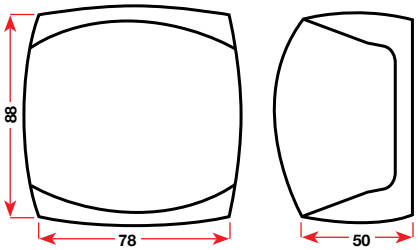
BLA Code Black	White	Lens	Arc
(A) **121172**	**121176**	Port	112.5°
(B) **121174**	**121178**	Starboard	112.5°
(C) **121180**		Bi-Colour	225°
(D) **121184**	**121186**	Steaming	225°
(E) **121188**	**121190**	Stern	135°

Spare Parts:

124057 Replacement bulb (12V/10W)

Navigation Lights – LED Side Mount

Approved to meet 72 COLREGS two mile visibility, RINA and ABYC A-16. Attractive curved design suitable for power and sail vessels to 20 metres. Easy installation on flat vertical surfaces with simple snap in lens body with concealed fastenings. Pre-wired with 2.2 metres of wire, the watertight fully sealed universal 12/24 volt LED design consumes only 2 watts of power. Available in a choice of either black or white surround with coloured lens. Supplied complete and includes base gasket and stainless steel fasteners.



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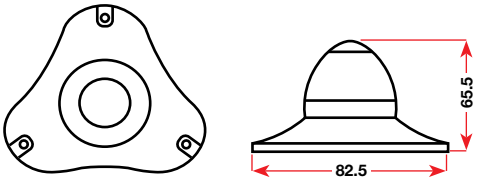

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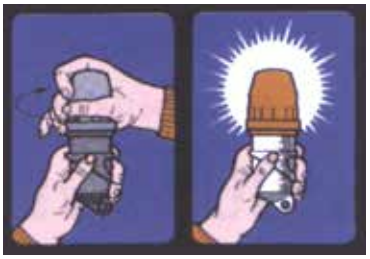
BLA Code Black	White	Lens	Arc	Voltage	Height mm	Width mm	Depth mm
(A) **121210**	**121214**	Port	112.5°	12/24	88	78	50
(B) **121212**	**121216**	Starboard	112.5°	12/24	88	78	50
(C) **121218**	**121220**	Bi-Colour	225°	12/24	88	78	50
(D) **121222**	**121224**	Steaming	225°	12/24	88	78	50
(E) **121226**	**121228**	Stern	135°	12/24	88	78	50
(F) **121230**	**121232**	Anchor	360°	12/24	65.5	82.5	-

Trem® Portable Navigation Light - Battery Operated

Set of three – port, starboard and stern. Durable ABS plastic housing. High reflective chrome look deflector, incorporated in snap on mounting brackets.'O' ring sealed lens. Stern light can be hung from halyard for use as an anchor light. Each light requires one 'D' cell battery (not included).

BLA Code	Length mm
121460	130



Twist lens on/off

Spare Parts:

124260 Replacement bulb 1.5V/0.3A

Perko® Navigation Lights - Base Mount

Approved to meet 72 COLREGS visibility. Suitable for vessels to 20 metres. Tri-colour and tri-white lights are only suitable for sail boats. Easy installation on flat horizontal surfaces. Black high impact plastic top and base. Simple twist lock removal of lens assembly for bulb replacement. Supplied standard with 12 volt bulbs. For 24 volt applications, purchase bulbs individually.

401338

401340

401342

BLA Code	Lens	Arc	Height mm	Dia. mm	Mount Holes mm
401332	Red	360°	122	84	6 r/h
401336	White	360°	122	84	6 r/h
401338	Tri-Colour	360°	122	84	6 r/h
401340	Yellow	135°	122	84	6 r/h
401342	Tri-White	360°	222	84	6 r/h

Spare Parts:

124110 12V/10W bulb for **401336/40** and base bulb for **401342**
124114 12V/25W bulb for **401332/38** and top bulb for **401342**
124116 24V/10W bulb (24V/10W)
124118 24V/12W bulb (24V/25W)

BLA Navigation Lights - Portable Clear

360° clear lens. High impact resistant ABS housing. Rubber suction cup mount. Battery operated by two 'D' cell batteries (not included). **121425** features LED lighting for dramatically increased battery life. LED lights take three 'C' cell batteries.

121424

BLA Code	Light	Height mm	Base Dia. mm
121424	Incandescent	250	80
121425	LED	250	80

Spare Parts:

124270 Replacement bulb 2.5V/0.5A (incandescent)

BLA Navigation Lights - Portable Bi-Colour

Bi-colour lens. High impact resistant ABS housing. Fast fit rubber suction cup mount or 'G' clamp mount. Battery operated by two 'D' cell batteries (not included). **121423** and **121431** feature LED lighting for dramatically increased battery life. LED lights take three 'C' cell batteries.

121422

121430

BLA Code	Light	Mount	Length mm	Width mm	Height mm
121422	Incandescent	Suction cup	210	70	110
121423	LED	Suction cup	210	70	110
121430	Incandescent	Clamp	210	70	160
121431	LED	Clamp	210	70	160

Spare Parts:

124270 Replacement bulb 2.5V/0.5A (incandescent)

Pole Riding Lights - LED Fold Down

LED durability and efficiency with only 1 watt power consumption. 360° 12 volt white riding light mounted on anodised aluminium pole. Simple plastic locking base allows light to be folded flat when not in use. Available in two heights. Meets 72 COLREGS.

121317

121318

BLA Code	Type	Base mm	Height Above Deck mm
121317	Folding	64 x 47	230
121318	Folding	64 x 47	600

Pole Riding Light - LED Removable

LED durability and efficiency with only 1 watt power consumption. 360° 12 volt white riding light mounted on anodised aluminium pole. Light is held in base by plastic locking collar, allowing it to be removed when not in use. Rubber sealing cap helps prevent water ingress. Meets 72 COLREGS.

BLA Code	Type	Base mm	Height Above Deck mm
121319	Removable	94 x 40	550

Pole Riding Lights - LED Removable Telescopic

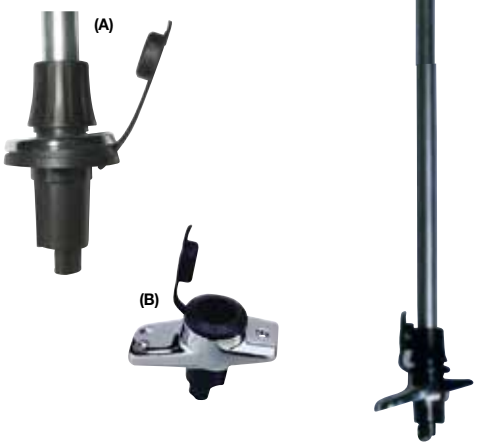
Telescopic 360° 12 volt white riding lights with LED efficiency and durability. Simple screw lock telescopic function allows extension when installed or in operation. Anodised aluminium pole with plug-in design is supplied complete including round mount base with stainless steel cover plate, socket cover and fasteners. Meets 72 COLREGS. Low 1 watt power consumption. Ideal for boats with biminis.

121321 *121322*

BLA Code	Base mm	Height Above Deck mm	Max. Height Above Deck mm
121321	60	610	1220
121322	60	820	1520

Perko® Anchor Riding Lights - Removable

Approved to meet 72 COLREGS, for vessels to 20 metres, two mile visibility. Clear anodised aluminium tube with plastic mount plug and white translucent lens. Electrical contacts are gold plated for maximum longevity and guaranteed electrical connection. Base 'A' is moulded in U.V. stabilised plastic with a chrome brass cover plate. Base 'B' is chromelex finished zinc alloy. 12 volt bulb.



BLA Code	Base mm	Height mm	Pole Dia. mm	Mount Base mm	Rake	Mount Screws mm
401383	A	1100	19	98ø	0°	4 c/s
401386	B	920	19	95 x 41	16°	4 c/s
401387	B	1110	19	95 x 41	16°	4 c/s

Spare Parts:

401397 Replacement lens
124090 Replacement bulb (12V/10W)

Perko® Anchor Riding Lights - Removable Reduced Glare

Approved to meet 72 COLREGS, for vessels to 20 metres, two mile visibility. Features the original reduced glare fluted lens that helps preserve night vision. Anodised alloy pole. Electrical contacts are gold plated for maximum longevity and guaranteed electrical connection. 'A' base is chromelex finished cast zinc alloy. Base 'B' is moulded in U.V. stabilised black plastic with a chromed brass cover plate. 12 volt bulb.

BLA Code	Base	Pole Length mm	Pole Dia. mm	Rake	Mount Screws mm
401390	A	900	19	5°	4 c/s
401392	B	900	19	5°	4 c/s

Spare Parts:

124144 Replacement bulb (12V/9W)

Perko® Anchor Riding/Steaming Light

- Folding

Fore and aft lights, forward light on for steaming, both lights on for 360° anchor light. Approved to meet 72 COLREGS, for vessels to 12 metres, two mile visibility. Features the reduced glare lens that helps preserve night vision. Anodised alloy pole, U.V. stabilised black plastic fold down base with adaptor for flat or 'V' mount. 2 x 12 volt bulbs.

CE

BLA Code	Height mm	Mount Base mm	Mount Screws mm
401388	330	57 x 20	4 c/s

Spare Parts:

124143 Replacement bulb (12V/5W)

Perko® Anchor Riding Lights

- Telescopic

Approved to meet 72 COLREGS, for vessels to 20 metres, two mile visibility. Clear anodised aluminium tube, white translucent lens and chrome plated zinc alloy base angled at 16°. Pole is height adjustable telescoping below deck and secured by a clamping ring on the base. 12 volt bulb.

CE

BLA Code	Max. Height mm	Base mm	Pole Dia. mm	Mount Screws mm
401394	750	95 x 41	19	4 c/s

Spare Parts:

401397 Replacement lens
124090 Replacement bulb (12V/10W)

Perko® Anchor Riding/Steaming Light

- Fixed

Fore and aft lights, forward light on for steaming, both lights on for 360° anchor light. Approved to meet 72 COLREGS, for vessels to 12 metres, two mile visibility. High impact black plastic base and top with anodised alloy pole. 2 x 12 volt bulbs.

BLA Code	Height mm	Base mm	Mount Screws mm
401380	133	65 x 25	4 r/h

Spare Parts:

124143 Replacement bulb 12V/5W

Perko® Anchor Riding Light

- Fixed

Approved to meet 72 COLREGS. For use on sail or power vessels to 20 metres, two mile visibility. White translucent lens with black plastic base. 12 volt bulb.

CE

BLA Code	Height mm	Base mm	Mount Screws mm
401378	132	65 x 25	4 r/h

Spare Parts:

401397 Replacement lens
124090 Replacement bulb (12V/10W)

Perko® Pole Light Storage Clips

Manufactured from black U.V. stabilised PVC. Accepts 19mm tubing. Can be mounted on either a vertical or horizontal plane. Sold as a pair.

BLA Code	Height mm	Base mm	Mount Screws mm
401398	40	56 x 19	5 r/h

Steaming Deck Light - Mast Mount

Combined 12 volt deck light and 225° steaming light. 20 watt quartz halogen downlight/decklight. Soft wrap around mast type fitting. Conforms to IMCO 1972 regulations for navigation lights.

BLA Code	Height Up mm	a mm	b mm	Mount Screws mm
121300	135	68	54	4 r/h

Spare Parts:
124048 Replacement steaming bulb
124135 Replacement deck light bulb

Anchor Riding Lights

- Folding & Removable

Available in both LED and incandescent with 360° white screw on lens. Light weight aluminium pole. **121325/26** and **121330/33** have plastic folding bases. **121327/28** is a push in removable type, with an all plastic base.

BLA Code	Type	Base mm	Height Above Deck mm
121325	LED Folding	64 x 47	650
121326	Folding	64 x 47	650
121327	LED Removable	94 x 40	610
121328	Removable	94 x 40	610
121330	LED Folding	64 x 47	275
121333	Folding	64 x 47	275

Spare Parts:
121364 Replacement lens - only for **121326/28/33**
124090 Replacement bulb (12V/10W) - only for **121326/28/33**

Anchor Riding Lights

- Folding & Retracting

Available in folding or retracting mount 360° clear fluted 'O' ring sealed push on lens. U.V. stabilised plastic lens mount. 19mm stainless steel pole. Deck bases are chromed cast zinc alloy. **121332** has a 10° rake, 12 volt bulb.

BLA Code	Type	Base mm	Height Above Deck mm	Mount Screws mm
121332	Retracting	123 x 58	580	4 c/s
121334	Folding	70 x 38	620	4 c/s

Spare Parts:
124090 Replacement bulb

Attwood Anchor Riding Lights

attwood

- Removable

360° visibility. High impact resistant, screw on opaque lens. Lightweight aluminium pole to reduce whip. Fits plug-in bases **121350**, **121352** and **121354**. Meets 72 COLREGS. 12 volt bulb.

BLA Code	Pole Length mm	Pole Dia. mm	Lens Dia. mm
121342	560	19	49
121344	860	19	49
121345	1210	19	49

Spare Parts:
121358 Replacement lens
124144 Replacement bulb (12V/9W)

Pole Light Bases

Two pin sockets that suit the pole lights **121342**, **121344** and **121345** above. **121350** is constructed from die-cast Zamak with Perma-Plate® finish, whilst the **121352** and **121354** are constructed from PVC plastic. Solid brass electrical contacts. All bases have a locking arrangement to secure pole.

BLA Code	Colour	Mount Base mm	Intrusion mm	Protrusion mm	Mount Screws mm
121350	Chrome	101 x 42	73	20	5 c/s
121352	Black	61 x 44	76	14	4 r/h
121354	White	61 x 44	76	14	4 r/h

Attwood Anchor Riding Light

- Folding

360° visibility. Anodised aluminium pole. Fold down glass filled polymer base that allows the light to pivot 205°. Screw on opaque lens. Positive cam action lock secures the light in desired position. Meets 72 COLREGS. 12 volt bulb.

BLA Code	Mount Base mm	Height Up mm	Lens Dia. mm	Height Down mm	Mount Screws mm
121348	76 x 27	320	49	49	5 r/h

Spare Parts:
121358 Replacement lens
124144 Replacement bulb

Marine Town® Anchor Riding Light - Removable

Removable pole. 360° clear fluted lens with 316 grade stainless steel mount and socket base with two brass pin electrical connections. Base has weather proof cap for when pole is removed. 20mm diameter stainless steel pole. 10° rake. 'O' ring sealed screw on lens. 12 volt bulb.

BLA Code	Base mm	Height Above Deck mm	Lens Dia. mm
121314	79 x 45	560	49

Spare Parts:
121360 Replacement lens
124090 Replacement bulb (12V/10W)

Anchor Riding Lights - LED Deck Mount

LED durability and efficiency with only 1 watt power consumption. 360° 12 volt white riding light mounted on anodised aluminium pole with plastic base. Available in two heights, 100mm and 190mm. Meets 72 COLREGS.

121315

121316

BLA Code	Base mm	Height Above Deck mm
121315	75 x 31	100
121316	75 x 31	190

Marine Town® Anchor Riding Light - Fixed

360° all round clear fluted lens. Stainless steel mount base and pole. Fixed mount. 'O' ring sealed screw on lens. 12 volt bulb.

BLA Code	Base mm	Height mm	Pole Dia. mm	Mount Screws mm
121312	64 x 25	150	20	4 c/s

Spare Parts:
121360 Replacement lens
124090 Replacement bulb (12V/10W)

Marine Town® Anchor Light

- Deck Mount

Deck mounted with 360° clear fluted lens. Black plastic base. Supplied with PVC mount gasket. 'O' ring sealed screw on lens. 12 volt bulb.

BLA Code	Base ø mm	Height mm	Mount Screws mm
121028	53	75	5 c/s

Spare Parts:
121360 Replacement lens
124090 Replacement bulb (12V/10W)

Anchor Riding Lights - Folding & Removable

360° clear dioptic lens. Stainless steel poles, cast stainless steel bases. **121336** has a two pin socket base with splash proof cover to protect connections when pole is removed. **121335** has a folding base. 12 volt bulb.

121335

121336

BLA Code	Type	Base mm	Height Above Deck mm	Mount Screws mm
121335	Folding	78 x 38	230	3 c/s
121336	Removable	84 x 41	615	3 c/s

Spare Parts:
121362 Replacement lens
124090 Replacement bulb (12V/10W)

Anchor Riding Light

360° dioptic clear lens. Deck mount. Manufactured from black polypropylene and clear acrylic. Brass bulb contacts. Twist lock lens. 12 volt bulb.

BLA Code	Base mm	Pole Length mm	Pole Dia. mm	Mount Screws mm
121026	64 x 35	60	102	4 c/s

Spare Parts:
124090 Replacement bulb (12V/10W)

Anchor Riding Lights - Clamp On Clear

360° clear lens. High impact resistant ABS housing, supplied with two versatile plastic mounting brackets, providing three mounting options. Battery operated by two 'D' cell batteries (not included) **121433** features LED lighting for dramatically increased battery life.

Side Mount *Clamp Mount*

121433

121432

BLA Code	Light	Height mm	a mm	b mm	c mm
121432	Incandescent	600	70	55	65
121433	LED	600	70	55	65

Spare Parts:
124270 Replacement bulb 2.5V/0.5A (incandescent)

BLA Cockpit Light - Round

Ideal flush lighting for cockpits, walkways and similar. Polished pressed stainless steel dress cover, clear plastic lens and chrome plastic reflector. Supplied with weatherproofing gasket. 12 volt, 5 watt bulb.

BLA Code	Overall Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
123002	75	51	36	9	4 c/s

Spare Parts:
124086 Replacement bulb (12V/5W)

Perko® Stern Light - Round

Approved to international standard. Meets 72 COLREGS. For power and sail vessels to 20 metres, two mile visibility. Also ideal for flush lighting in cockpits, walkways and similar. Suitable for exterior or interior installations. Chromed brass cover with black plastic base. Non-ferrous bulb contacts.

BLA Code	Overall Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
401440	132 x 87	51	15	12	4 c/s

Spare Parts:
124057 Replacement bulb (12V/10W)

Anchor Light - LED Deck Mount

Deck mounted black plastic anchor light with 360° fluted clears lens. 12 volt LED efficiency and durability.

BLA Code	Base mm	Lens Dia. mm	Height mm	Mount Screws mm
121027	75 x 31	55	95	4 c/s

Marine Town® Cockpit Light

- Rectangular

Flush mounting. Pressed stainless steel construction. Clear plastic lens. Supplied with mount gasket. 12 volt, 10 watt bulb.

BLA Code	Overall Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
123004	130 x 78	100 x 65	30	4	5 c/s

Spare Parts:
124048 Replacement bulb

BLA Transom Light

- LED Weatherproof

Highly efficient low energy LED transom light. The four bright white LEDs mounted in a stainless steel housing easily provide adequate illumination to meet 72 COLREGS and ABYC A-16 regulations that require 2nm visibility for vessels less than 12 metres in length. Rubber seal provides weatherproofing when mounted on flat surface. Weatherproof.

BLA Code	Face mm	Cut Out mm	Protrusion mm	Power volt
121200	76	35 x 41	17	12

Perko® Stern Light - Rectangular

Approved to international standard. Meets 72 COLREGS. For power and sail vessels to 20 metres, two mile visibility. Also ideal for flush lighting in cockpits, walkways and similar. Suitable for exterior or interior installation. Chromed brass cover with black plastic base. Non-ferrous bulb contacts.

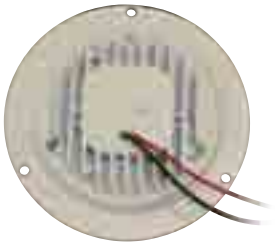
BLA Code	Outside Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
401442	132 x 87	51	15	12	4 c/s

Spare Parts:
124057 Replacement bulb (12V/10W)

Exterior Lights - LED High Power

High powered LED lights designed for interior and exterior use. Each body is constructed from heavy duty die-cast aluminium and feature extra large heat sink fins for excellent heat dispersion. Designed for the harsh marine environment, they are finished in a white powder coating for maximum longevity. Each light features eight extra large super bright LEDs drawing only 9.8 watts with an output of 840 lumens and a colour temperature of 6101K. The LEDs are fully sealed behind an extra thick polycarbonate diffuser lens which provides excellent light distribution. Available in two models (semi-recessed and surface mount), the lights are pre-wired and have an operating multi-voltage of 9 to 36 volts.

N.B. These lights are not designed for underwater use.



122092
Semi-recessed mount with sink fins

122092
Semi-recessed

122094
Surface mount with sink fins

122094
Surface mount

BLA Code	Mount Type	Overall Dia. mm	Face Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
122092	Semi Recessed	146	102	115	27	20	5 r/h
122094	Surface	146	102	–	–	40	5 r/h

Exterior Light - LED Waterproof

18 super bright 12 volt LEDs with bright or power save option sealed to an IP66 waterproof rating. Plastic lens set into white surface mount surround with rear exiting three lead wires. 3.6 watt output providing brightness of 126 Lumens.

BLA Code	Overall Dia. mm	Face Dia. mm	Protrusion mm
122080	150	102	26

Exterior Light - LED Waterproof

18 super bright 12 volt white LEDs set into white low profile IP66 waterproof recess mount body. Three rear exiting lead wires for remote switch with no visible fastenings. 3.6 watt output providing brightness of 126 Lumens.

BLA Code	Overall Dia. mm	Face Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm
122090	132	102	105	10	7

Exterior Light - LED Waterproof

30 super bright, LEDs sealed to an IP66 waterproof rating. Extremely small protruding profile with clear lens and white end plates. Spade connections for 12 volt power attached externally.

BLA Code	Length mm	Width mm	Height mm	Cut Out mm
122062	164	102	9	129x84

Exterior Light - LED Waterproof with Night Light

18 super bright 12 volt white plus 9 red LEDs for night vision use. Plastic lens set into white surface mount surround with weatherproof built in three position switch. 3.6 watt output providing brightness of 126 Lumens.

BLA Code	Overall Dia. mm	Face Dia. mm	Protrusion mm
122086	150	102	26

Exterior Light - LED Waterproof

18 super bright 12 volt LEDs with bright or power save option sealed to an IP66 waterproof rating. Plastic lens set into white surface mount surround with weather proof built in three position switch. 3.6 watt output providing brightness of 126 Lumens.

BLA Code	Overall Dia. mm	Face Dia. mm	Protrusion mm
122084	150	102	26

Exterior Light - LED Waterproof with Night Light

18 super bright 12 volt white plus red LEDs for night vision use. Plastic lens set into white surface mount surround with rear exiting three lead wires sealed to an IP66 waterproof rating. 3.6 watt output providing brightness of 126 Lumens.

BLA Code	Overall Dia. mm	Face Dia. mm	Protrusion mm
122082	150	102	26

Interior Lights - LED Low Profile

96 super bright white LEDs plus 6 blue or red LEDs for night use. Integral three position soft touch switch for 12 volt to 30 volt operation. Silver grey or white surface mount plastic housing with a clear plastic lens with no visible fastenings.

122043

122044

BLA Code	Length mm	Width mm	Height mm	Night use LEDs	Housing
122043	175	175	20	Red	White
122044	175	175	20	Blue	Silver grey

BLA Interior Lights - LED Super White

Four energy efficient super white, 12 volt LEDs illuminate these cabin lights with minimal power consumption which provides negligible drain on the battery system. Supplied with interchangeable white and chrome trim rings to suit any interior decor.

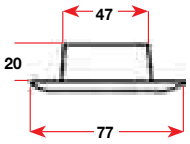
BLA Code	LED Colour	Face Dia. mm	Intrusion mm	Protrusion Dia. mm	Cut Out mm
122374	Super White	75	16	7	50
122378	White	75	16	7	50

FriLight Interior Lights - LED Nova

Semi recessed interior light with 10 energy efficient white LEDs. Smooth finish moulded plastic housing. Frosted polycarbonate lens. No visible fastenings. Dual voltage, 12 volt and 24 volt. 2 watt. Available with or without switch.

122320

122322



BLA Code No Switch	Switch	Trim Colour
122318	**122322**	White
122320	**122324**	Chrome

Mini Dome Light - LED Surface

Nine super bright 12 volt LEDs set into surface mounted white plastic body with push button on/off switch. Clear cover lens helps protect LEDs while mounting presents no visible fastenings.

BLA Code	Overall Dia. mm	Face Dia. mm	Protrusion mm
122388	84	50	20

Mini Dome Lights - LED Recessed

9 super bright 12 volt LEDs recessed into a rounded compact low profile white or silver plastic body. Clear cover lens helps protect LEDs while mounting presents no visible fastenings.

122385

BLA Code	Overall Dia. mm	Face Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Trim Colour
122384	80	50	49	13	8	Silver
122385	80	50	49	13	8	White

Mini Dome Light - LED Recessed

9 bright white 12 volt LEDs recessed into a compact low profile white plastic body. Integral spring clip secures semi recessed light in position while clear cover lens helps protect LEDs.

BLA Code	Overall Dia. mm	Face Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm
122382	72	50	49	22	6

Mini Dome Light - LED Recessed Switched

9 bright white 12 volt LEDs recessed into a compact low profile white plastic body. Mini toggle switch is mounted on the body for easy operation. Integral spring clip secures semi recessed light in position while clear cover lens helps protect LEDs.

BLA Code	Overall Dia. mm	Face Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm
122383	72	50	49	22	6

Mini Dome Light - LED Recessed Switched

9 super bright 12 volt LEDs recessed into a rounded low profile white plastic body with push button on/off switch. Clear cover lens helps protect LEDs while mounting presents no visible fastenings.

BLA Code	Overall Dia. mm	Face Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm
122386	80	50	49	13	8

Cabin Lights - LED

48 or 96 LED slim lights with extruded aluminium base and integrated on/off push switch one end. Low 12 volt power consumption makes this light suitable for a wide range of interior uses. Finished in silver grey or white with no visible fastenings.

122039

122042

BLA Code	Number of LED	Length mm	Width mm	Height mm	Trim Colour
122039	48	200	90	15	White
122040	48	200	90	15	Silver grey
122041	96	300	90	15	White
122042	96	300	90	15	Silver grey

Courtesy Lights - LED Waterproof

12 white 12 volt LEDs sealed into an IP66 waterproof rated housing. Large clear plastic lens provides ample light distribution. Built-in waterproof on/off rocker switch set into silver grey surround.

122059

122060

BLA Code	Trim Colour	Length mm	Width mm	Height mm
122059	White	174	110	55
122060	Silver grey	174	110	55

Cabin Light - LED

36 super bright 12 volt LEDs with mini rocker switch. Clear plastic lens set into white ABS surround. May be either surface or recess mounted. 7.2 watt output providing brightness of 252 Lumens.

BLA Code	Length mm	Width mm	Height Surface Mnt. mm	Height Recess Mnt. mm
122052	185	110	24	16

Cabin Light - LED Battery Operated

12 super bright white LEDs with three position switch for six or twelve LED operation. Low power draw ensures long 4 x AAA battery life (batteries not included).

BLA Code	Length mm	Width mm	Height mm
122050	185	115	24

Cabin Light - LED Waterproof

36 super bright 12 volt LEDs sealed to an IP66 waterproof rating. Clear plastic lens set into white ABS surround with rear exiting wires. May be either surface or recess mounted. 7.2 watt output providing brightness of 252 Lumens.

BLA Code	Length mm	Width mm	Height Surface Mnt. mm	Height Recess Mnt. mm	Cut Out mm
122054	185	110	24	16	150 x 102

Cabin Reading Lights - 9 LED

Surface mounted 12 volt interior light with 9 super bright fixed LEDs. Integral rocker switch conveniently mounted on light body. White or silver finished ABS base and body with swivelling head and hidden fastenings.

122372

122373

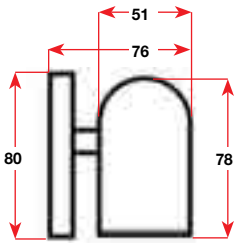
BLA Code	Trim Colour	Lens Dia. mm	Overall Base mm	Protrusion mm
122372	White	56	42 x 80	86
122373	Silver	56	42 x 80	86

FriLight Lights - LED Tube

Adjustable LED spotlight with switch. A stylish and practical bunk light with minimal power consumption and virtually no heat generation. Smooth finish moulded plastic housing with integral rocker switch. No visible fastenings.

122366

122368



BLA Code	Colour
122366	White
122368	Chrome

Bar Lights - LED Swivel

6 or 24 LED strip lights can be rotated through 180° for optimum light illumination. Silver aluminium body with integrated rocker switch, plastic lens and plastic end covers. Low 12 volt power consumption and zero interference to TVs and radios. **122030** output of 1.2 watts providing brightness of 42 Lumens. **122032** output of 4.8 watts providing brightness of 168 Lumens.

122030

BLA Code	Number of LED	Length mm	Width mm	Height mm
122030	6	223	34	32
122032	24	470	34	32

Cabin Light - LED Turn Strip

Low profile 18 LED rail strip light can be rotated through 180° for optimum light illumination. Aluminium body with integrated rocker switch, plastic lens and plastic end covers. Low 12 volt power consumption and zero interference to TVs and radios. 3.6 watt output providing brightness of 126 Lumens.

BLA Code	Length mm	Width mm	Height mm
122034	347	25	23

Chart Lights - LED Removable/Fixed

12 super bright 12 volt LEDs provide excellent direct illumination. Long 325mm flexible arm allows for a wide range of movement. Mini rocker switch mounted on head. Removable model has cigarette plug at other end. 2.4 watt output providing brightness of 84 Lumens.

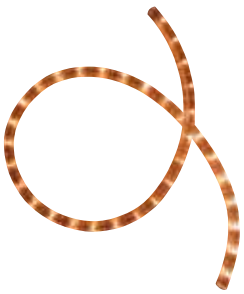
122020

BLA Code	Mount
122020	Removable
122022	Fixed

Fixed mount

FriLight Light - LED String

Also known as rope lighting, 12.5mm diameter continuous flexible clear PVC with low heat, energy efficient LEDs every 25mm. Simply cut to desired length, attach power joiner and connect to 12 volt DC. Optional flexible transparent mount channel makes installation a snap. Provides soft even background lighting for pelmets, instrument panels, show cases, emergency lighting and similar. Sold per metre. Maximum continuous illuminated run per power connection is 4 metres. 12 volt, 16 watt per metre.



122203

122204

BLA Code	Description
122200	String light per metre

Accessories:

122203 Joiner for power supply
122204 Clear mounting channel per metre

BLA Strip Lighting - LED

Continuous one or five metre lengths of highly flexible, low profile and super bright LED strip lighting. Ideal for a wide range of marine, caravan, RV and general purpose applications. Use for under pelmets, interior floor and stair lighting, under gunwales, cupboard and locker lighting.

Features:

- Up to 50,000 hour lifespan from 60 LEDs per metre
- Pre-wired and have the ability to be cut and soldered every 50mm
- High shock and vibration resistance
- Virtually zero maintenance for life of the product
- IP67 rating designed for indoor or outdoor use
- 12 volt, low amperage, low heat, 120° wide angle LEDs
- Can be fixed in place by the self adhesive backing or use the optional mounting clips if additional security is required

122240

Warm White

Blue

Cool White

Red

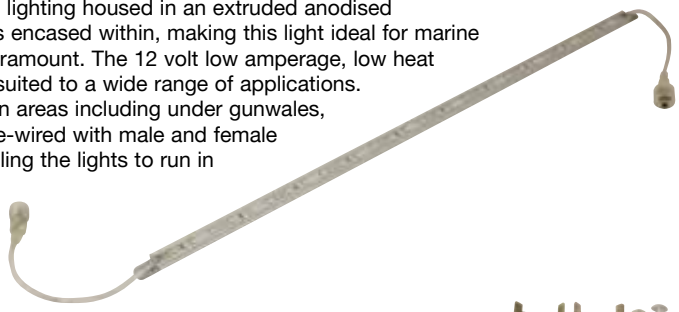
BLA Code	LED Colour	Length	LEDs per metre	Rating	LED SMD Type	Total Amps per 5m	Power Usage Watts per 5m	Luminous Flux (lm) per metre (approx.)	Luminous Intensity / Brightness (mcd) per metre (approx.)
122210	Warm White	5	60	IP67	3528	<2	<24	300	320
122211	Warm White	1	60	IP67	3528	<0.5	<5	300	320
122214	Cool White	5	60	IP67	3528	<2	<24	360	400
122215	Cool White	1	60	IP67	3528	<0.5	<5	360	400
122218	Blue	5	60	IP67	3528	<2	<24	120	100
122219	Blue	1	60	IP67	3528	0.5	<5	120	100
122222	Red	5	60	IP67	3528	<2	<24	180	160
122223	Red	1	60	IP67	3528	0.5	<5	180	160
122226	Cool White	5	30	IP67	5050	<3	<36	400	700

Accessories:

122240 Mount clips 10 pack

BLA Strip Lighting - LED Aluminium Housed Waterproof

Continuous 500mm length of low profile super bright LED strip lighting housed in an extruded anodised aluminium casing providing extreme protection for the 30 LEDs encased within, making this light ideal for marine and general outdoor use where robustness and durability is paramount. The 12 volt low amperage, low heat long life LEDs provide excellent light coverage and are ideally suited to a wide range of applications. Each end features a cast mounting plate for permanent fixing in areas including under gunwales, on bait tables, floor areas and storage lockers. Each light is pre-wired with male and female plugs and is supplied with additional matching plug ends enabling the lights to run in sequence or allowing them to be unplugged and removed. Kit also includes two snap in mounting clips and associated hardware.

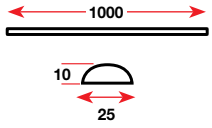


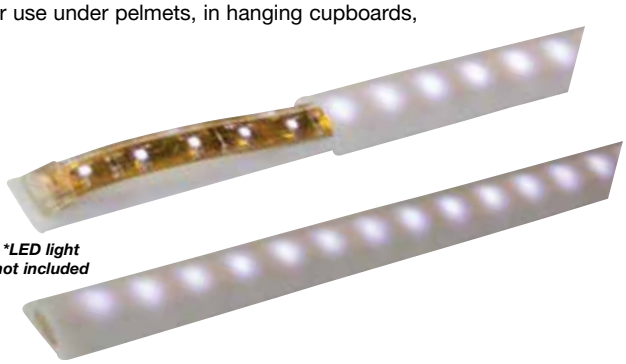
BLA Code	LED Colour	LEDs	LED SMD Type	Working Current mA	Power Usage Watts	Luminous Flux (approx.)	Length mm	Width mm	Height mm
122234	Warm White	30	3528	<200	<2.44	110	525	12	7

Mount clips and hardware

FriLight Low Profile Lens

10mm low profile, milk white frosted lens for use with any flexible LED lighting. 'D' shaped profile creates an elegant lighting atmosphere. Can be cut to any length to suit almost any area. Supplied in one metre lengths consisting of separate base and lens, complete with one finishing end cap. Ideal for use under pelmets, in hanging cupboards, storage lockers, galley and bedrooms.





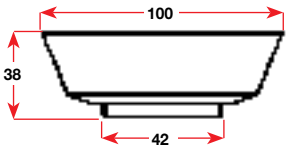
****LED light not included***

BLA Code	Length mm	Width External mm	Width Internal mm	Protrusion mm
122242	1000	25	18.5	10

FriLight Light - Comet Surface Mount

Surface mount directional eye ball interior downlight with integral toggle switch. Gloss chrome finish moulded plastic housing. Frosted polycarbonate lens. 10 watt, 12 volt halogen bulb.

BLA Code
122261

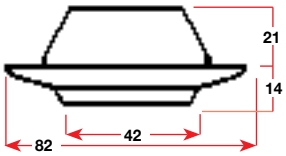


Spare Parts:
124138 Replacement bulb

FriLight Light - Comet Semi Recessed

Semi recessed directional eye ball interior down light available with or without integral toggle switch. Gloss finished moulded plastic housing. Frosted polycarbonate lens. No visible mount screws. 10 watt, 12 volt halogen bulb.

BLA Code	Trim Colour	Switch
122248	Chrome	No



Spare Parts:
124138 Replacement bulb

FriLight Lights - Nova

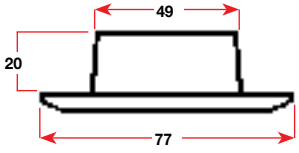
Semi recessed interior light. Gloss finish moulded plastic housing, frosted polycarbonate lens. No visible fastenings. 10 watt, 12 volt halogen bulb.

122262

122263

122264

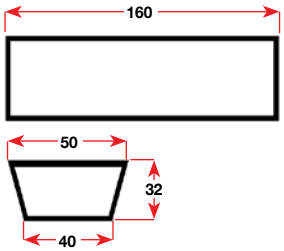
BLA Code	Trim Colour
122262	White
122263	Gold
122264	Chrome



Spare Parts:
124138 Replacement bulb

FriLight Light - Unilight

A compact rectangular interior light. 10 watt, 12 volt halogen bulb. Integral rocker switch. Stipple finish moulded plastic housing.



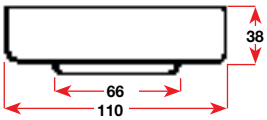
BLA Code
122192

Spare Parts:
124138 Replacement bulb

FriLight Light - Sun

Surface mount interior light with integral rocker switch. Available in off white or chrome. Gloss finish moulded plastic housing. No visible mount screws. Frosted plastic lens. 10 watt, 12 volt halogen bulb.

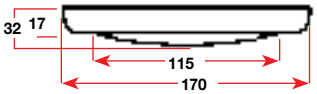
BLA Code	Trim Colour
122166	Off white



Spare Parts:
124138 Replacement bulb

FriLight Light - Saturn Chrome

Surface mount interior light with integral rocker switch. Used by boat manufacturers around the world. Gloss finish moulded plastic housing. No visible mount screws. Frosted plastic lens. 10 watt, 12 volt halogen bulb.

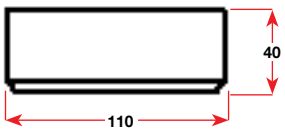


BLA Code	Trim Colour
122174	Chrome

Spare Parts:
124138 Replacement bulb

FriLight Square Light

Surface mount interior light with integral rocker switch. White gloss finish moulded plastic housing. 10 watt, 12 volt halogen bulb. No visible fastenings. Diffuser lens.

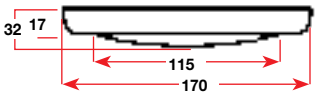


BLA Code
122184

Spare Parts:
124138 Replacement bulb

FriLight Light - Saturn Off White

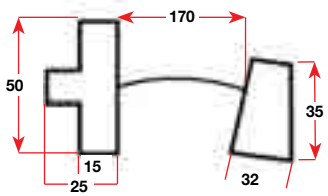
Surface mount interior light with integral rocker switch. Used by boat manufacturers around the world. Gloss finish moulded plastic housing. No visible mount screws. Frosted plastic lens. 10 watt, 12 volt halogen bulb.



BLA Code
122172

FriLight Smart Light - Auto On/Off

Internal light with door switch operation. Light turns on automatically when door is opened. A practical safe and convenient system that is easy to install. Moulded plastic construction. Positive switch action. 12 volt.



BLA Code
122198

Spare Parts:
124139 Replacement bulb

Dome Lights - Stainless Steel

Pressed stainless steel housing with integral chrome plated zinc alloy toggle switch. Glass prism lens will not distort with heat. **122110** is a dual light with a red and a clear globe and a three way switch (clear light on/off/red light on) ideal for navigation areas.

122102

BLA Code	Overall Dia. mm	Face Dia. mm	Height mm	Volt	Watt	Mount Screws mm
122102	110	65	35	12	18	3 r/h
122104	140	95	45	12	18	3 r/h
122106	165	110	55	12	18	4 r/h
122110	165	110	55	12	18	4 r/h

Spare Parts:
124052 Replacement clear bulb 12V/18W
124057 Replacement clear bulb 12V/10W

Dome Lights - Zinc Alloy

Suitable for exterior or interior installation. Ivory powder coated, cast zinc alloy base. Push button switch with rubber boot cover. Non-corrosive bulb socket.

BLA Code	Overall Dia. mm	Face Dia. mm	Height mm	Volt	Watt	Mount Screws mm
401420	128	90	48	12	10	5 r/h
401422	150	115	58	12	10	5 r/h

Spare Parts:
124090 Replacement bulb

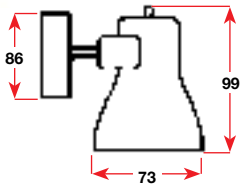
Dome Light - Waterproof

Very solid construction, cast 316 grade stainless steel base with bright polished finish and frosted, screw in glass. Epoxy potted toggle switch with rubber boot. Halogen G4 12 volt, 20 watt globe. Lens and base mount surface are rubber sealed to ensure waterproofing. Suitable for interior and exterior use.

BLA Code	Overall Dia. mm	Lens Dia. mm	Height mm	Mount Screws mm
122120	128	105	50	4 c/s

Light - Halogen Bulkhead

Polished brass with anti-corrosion protective lacquer layer. Built-in alloy reflector helps insulate heat from the decorative brass surround. Rocker switched. 10 watt, 12 volt halogen bulb.

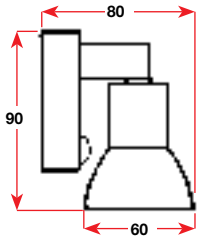


BLA Code	Colour
122356	Brass

Spare Parts:
124138 Replacement bulb

FriLight Lights - Mini

A directional mini halogen cabin light. Smooth finish moulded plastic housing. Swivel and pivot adjustment. Frosted polycarbonate lens. Integral rocker switch. 10 watt, 12 volt halogen bulb.

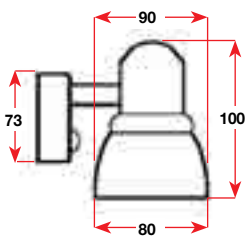


BLA Code	Colour
122364	Chrome

Spare Parts:
124138 Replacement bulb

Light - Halogen Cabin

Beautifully finished in polished brass. All brass body with anti-corrosion protective lacquer. Moulded chrome look internal reflector. Rocker switched. Swivel and tilt adjustable. 10 watt, 12 volt halogen bulb.

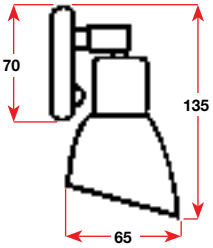


BLA Code	Trim Colour
122278	Brass

Spare Parts:
124138 Replacement bulb

FriLight Light - Opal

Interior bulkhead light. Polished brass with a white glass shade. All brass body with anti corrosion protective lacquer. Integral rocker switch. Swivel and pivot directional adjustment. 10 watt, 12 volt halogen bulb.

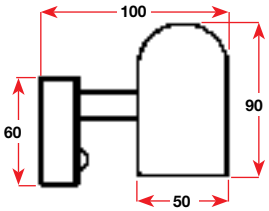


BLA Code
122163

Spare Parts:
124138 Replacement bulb

FriLight Light - Bayspot

Contemporary styled interior light. All brass body with anti-corrosion protective lacquer. White lacquer coated shade interior. Integral rocker switch. Pivot swivel directional adjustment.
10 watt, 12 volt halogen bulb.

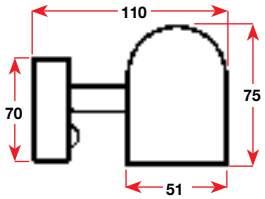


BLA Code	Trim Colour
122266	Chrome

Spare Parts:
124138 Replacement bulb

Lights - Halogen Bulkhead

Polished brass or chrome with anti-corrosion protective lacquer. Clear glass lens. Multi-adjustable to any angle. Rotary switched.
10 watt, 12 volt halogen bulb.



BLA Code	Trim Colour
122292	Brass

Courtesy Light - Submersible

Manufactured from clear acrylic. Suitable for mounting in livewells, open cockpits or anywhere a waterproof light is required. Bulb and socket mount from behind. 5 watt, 12 volt bulb.

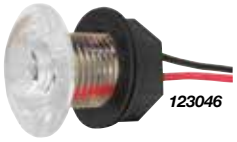
BLA Code	Lens Dia. mm	Protrusion mm	Intrusion mm	Mount Hole mm
123056	47	12	65	25

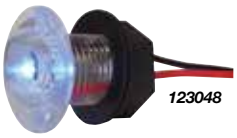
Spare Parts:
124143 Replacement bulb

BLA Universal Lights

- LED Water Resistant

These fully encased energy efficient bright LED lights draw minimal current and are suitable for all outdoor applications. Easy mounting through one hole and are retained by a single large nut and weatherproofed with two rubber washers. Can be used to illuminate bait tanks, stairs, cockpits or stowage compartments. LED colours available in white or blue. Weatherproof. Low power consumption.


123046


123048

BLA Code	LED Colour	Face mm	Intrusion mm	Protrusion mm	Cut Out mm	Max Wall Thickness mm
123046	White	38	32	9	22	20
123048	Blue	38	32	9	22	20

BLA Courtesy Lights

- LED Interior/Exterior

Three LEDs per light provide just the right amount of illumination for those areas where primary lighting is not available or is overkill. These 12 volt power miserly LEDs can be left on without worrying about battery drainage and are ideal for cockpits, stairs and stowage areas. Weatherproof, supplied with gasket for added weather protection. Available in white or blue lighting. Low power consumption.

122990

122992

BLA Code	LED Colour	Face mm	Intrusion mm	Protrusion mm	Cut Out mm	Mount Screws mm
122990	White	84 x 29	17	9	44 x 17	3 c/s
122992	Blue	84 x 29	17	9	44 x 17	3 c/s

Courtesy Lights - LED Interior/Exterior

Only 0.35 watts of power consumption with intensity of an 8 watt incandescent bulb. Polycarbonate housing with stainless steel dress plate. Prismed lens. No visible fastenings. Weatherproof but not submersible. Ideal for cockpits, stairs, storage compartments and similar. Available in three LED colours. 12 volt.

122998

122996

123000

BLA Code	LED Colour	Face mm	Intrusion mm	Protrusion mm	Mount Screws mm
122996	White	82 x 39	37	7	3 c/s
122998	Yellow	82 x 39	37	7	3 c/s
123000	Blue	82 x 39	37	7	3 c/s

Courtesy Light - LED

Ultra small surface mount courtesy light featuring two 12 volt LEDs. Housed in a sturdy weather resistant nylon shell. Complete with attached wiring.

BLA Code	Overall Height mm	Width mm	Depth mm
123024	20	44	15

Courtesy Light - Waterproof

Suitable for both interior and exterior use. Low profile, flush mounting for original equipment look. White trim with opaque lens. High impact polycarbonate construction. Convex lens moulded into flange provides maximum strength and waterproofing. Wide caulking flange for assured water tightness. Brass bulb contacts. 12 volt, 7 watt incandescent bulb.

BLA Code	Outside Dia. mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
123014	107	70	37	10	5 r/h

Spare Parts:
124048 Replacement bulb

Cockpit Light - Waterproof

Mounts anywhere you need additional light and is especially useful in cockpit, companionways and around stairs. White housing with clear fluted lens. Made from high impact, U.V. stabilised polycarbonate. 'O' ring sealed to ensure water tightness. Electrical components are stainless steel.

BLA Code	Length mm	Height mm	Depth mm	Voltage	Watts	Mount Screws mm
123022	82	46	37	12	7	4 r/h

Spare Parts:
124056 Replacement bulb

Courtesy Light - Shielded

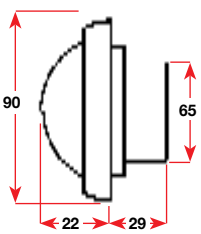
Mini shielded courtesy light for companion ways, stepwells or for anywhere soft, unobtrusive light is required. Black polypropylene plastic dress face, black polypropylene housing and clear lens. 5 watt, 12 volt incandescent bulb.

BLA Code	Base Size mm	Cut Out Dia. mm	Intrusion mm	Protrusion mm	Mount Screws mm
122252	58 x 58	44	28	8	4 c/s

Spare Parts:
124036 Replacement bulb

FriLight Light - Targa Cap

Versatile, interior/exterior semi recessed side mount light that can be hosed down. 'O' ring sealed plastic pearl lens. Gloss finish, moulded plastic cover housing. 10 watt, 12 volt halogen bulb.



BLA Code	Trim Colour
122254	White
122255	Chrome

Spare Parts:
124138 Replacement bulb

BEP® Interior Switches - Contour

Interior switches fashioned to complement the decor of modern boat interiors. The contour switch can be either surface or semi recessed, vertical or horizontal mounted. The switches have a backlit label with lights on indicator. Satin finish moulded plastic housing. Concealed mount screws. Rated to 10 amp at 12VDC.

BLA Code	Colour	Switch	Base mm	Mount Screws mm
113310	Black	Single	60 x 30	3 r/h
113319	Black	Double	90 x 30	3 r/h

N.B. Mount block dimensions same as switch plate.

FriLight System Matched Switches and Outlets

FriLight have taken interior light switching and outlets to a new level with this integrated range. These European styled 60mm square modules can be installed individually or ganged horizontally, vertically or even square to suit any installation. The colour range will match virtually any boat decor from traditional to contemporary. Housings and cover faces are smooth finish plastic moulded. Snap on covers hide mount screws.

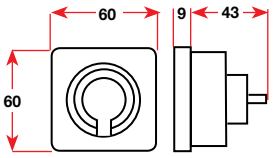
FriLight Power Sockets

12 to 24 volt auxiliary power socket.

122438

122436

113256



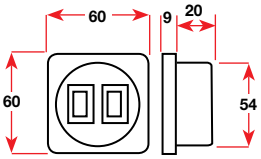
BLA Code	Trim Colour
122436	White
122438	Chrome

Accessories:

113256 Auxiliary plug suits power socket

FriLight Switches

Two position rocker switch in single or double configuration. 12 volt.

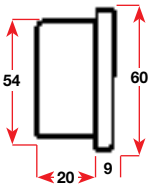


BLA Code	Trim Colour
122420	White

FriLight Dimmers

Precise lighting control. Suitable for use with either 12 volt or 24 volt lights to 100 watt. Short circuit protection. Not for use with fluoro lighting. A brief press of the up or down button will start an automatic fade to full light or off. Constant depressing of the up or down button enables manual control of light intensity to any desired level.

122408



BLA Code	Trim Colour
122406	White
122408	Chrome

Light Switches - Stainless Steel

Single or double switch configuration with polished stainless steel dress cover. Semi recessed mount. Rated to 10 amps at 12VDC.

122394

122398

BLA Code	Switch	Base mm	Intrusion mm	Mount Screws mm
122394	Single	63 x 51	27	4 r/h
122398	Double	63 x 51	27	4 r/h

Marinco® Spotlight - Precision™

MARINCO

Versatile, durable, reliable and easy to use marine spotlight. The Marinco® Precision™ spotlight features a wide area of visibility while the optimised reflector and quality Lexan® lens provide an extremely consistent and bright light pattern, ideal for long range viewing. A simple snap in mounting system and the ability for the light to be mounted upside down means it is ideal for almost any installation.

Each control features glow in the dark buttons with a one touch automatic sweep and one touch S.O.S function, all with micro touch pointing accuracy. Additionally, the spotlight has been designed to accept either a 12 or 24 volt interchangeable super bright 100 watt H3 halogen bulbs (supplied).

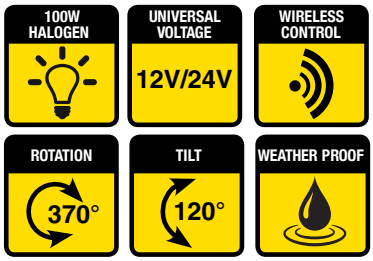
U.V. resistant case utilises materials that protect against cracking, warping and discoloration while the double 'O' ring seal provides optimal durability and protection against the rigors of continual outdoor exposure. Kit includes spotlight, one each 12 and 24 volt bulb, dash mount wireless remote control, mounting bracket and template.

123404
Included

123400

Features:

- Replaceable super bright 100W H3 halogen bulb
- IP56 weatherproof U.V. resistant ASA housing
- Double 'O' ring seal housing deters water ingress
- Quiet all weather dual speed motor with limit stops
- Wireless remote control with one touch functions
- Snap in mount system, light can be mounted upside down
- 370° sweep rotation
- 120° total tilt; +75° and -45° from horizontal
- Universal 12 & 24 volt circuit
- Supplied with one each 12 and 24 volt H3 halogen bulbs
- Auto-programming remote controls, no dip switches
- Reversible programmable remotes for upside down lights
- Limited five year warranty



BLA Code	Description	Outside Dimensions W x D x H mm	Voltage	Peak Beam Intensity Cp	Peak Beam Distance m
123394	White spotlight	190 x 190 x 235	12 or 24 (bulbs supplied)	210,000	280

Standard Inclusions:

123404 Hard wired remote control

Accessories:

123400 Wireless floating hand held remote

Replacement Bulbs:

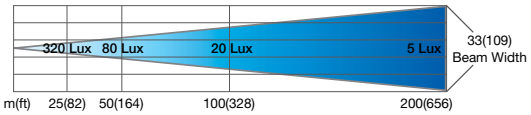
123396 Light Bulb H3 24V T/S **123394**
123395 Light Bulb H3 12V T/S **123394**

Golight® Spotlight – Stryker™

Powerful fixed mount light available in a range of control configurations and voltages. Command to the powerful two speed motor is via a choice of controls, including a six function wireless push button dash mounted remote, hard-wired dash mounted joystick control or cordless hand remote. The exclusive Cr5 Pentabeam™ II provides a crisp 10° beam angle while concentrating the powerful 500,000 candlepower light up to 895 metres with a peak beam intensity of 200,000 candela. The Golight® Stryker™ can be tilted vertically 85° above and 45° below horizontal while providing full 370° rotation. This modern slimline design is available in a white body in 12 volts.

BLA Code	Control Type	Voltage
123360	Wireless hand	12
123362	Wireless dash	12
123368	Hard wired	12
123370	Hard wired & wireless hand	12

Stryker Light Beam Dimensions



Illuminance (Lux) 320 80 20 5
Peak beam intensity: 200,000 candela
Maximum beam distance: 894m
Beam angle: 10°

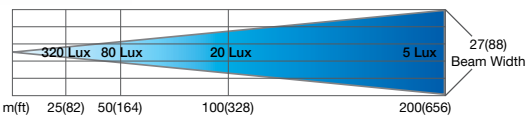
Golight® Spotlight – Radioray

Fixed-mount 400,000 candlepower light with a hard-wired control panel which operates the light and motor via a joystick providing simple intuitive control. The Golight® Radioray has two speeds of movement, pressing the joystick momentarily activates slow speed, while holding it longer engages the higher gear. Rotation is a full 360° combined with a maximum angle of movement of 135° ensuring excellent beam concentration of up to 950 metres with a maximum beam intensity of 225,000 candela. Quality U.V. materials are utilised in the impact resistant housing to protect against cracking, warping and discoloration. Standard kit includes light, a hard wired joystick control panel and 6.1m wiring harness to connect the light to the control panel. Quick disconnects on the wiring harness make control panel connection easy.

Hard wired in-dash joystick

BLA Code	Control Type	Voltage
123350	Hard wired	12

Golight® LED Light Beam Dimensions



Illuminance (Lux) 128 32 8 1.3
Peak beam intensity: 200,000 candela
Maximum beam distance: 894m
Beam angle: 8°

Mini Spotlight - LED High Powered

Combining excellent lens design with a robust die-cast body has resulted in a rugged, compact, extra bright spot light with low amperage draw, adding to an already wide range of LED spot and flood lights available from BLA. The four extra bright LEDs provide an overall spot brightness output of 664 Lumens, with a colour temperature range of 5500 to 6300K. The compact die-cast aluminium body features large rear heat sink fins to quickly dissipate any heat build-up within the waterproof housing, which is rated at IP67. The mini spotlight is supplied complete with a stainless steel swivel mount and is pre-wired for installation convenience. Sold individually in retail clam shell packaging.

Features:

- High output extra bright LEDs
- Overall output 664 Lumens
- Compact, rugged die-cast aluminium case
- 9-36 multi-voltage, 12 watts power consumption
- Large heat sink fins for heat dispersion
- IP67 waterproof housing
- Stainless steel swivel mount and hardware

Rear view highlighting deep heat dispersion fins

BLA Code	Volts	Lumens	Colour Temp. K	Overall Height mm	Width mm	Depth mm	Mount Bolt mm
123068	9-36	664	5500 - 6300	95	72	40	6

Floodlight - LED Waterproof Deck

LED floodlight with 12 extra bright diodes operating at a range between 9 to 36 volts with a low 0.4 to 1.5 amperage draw. Specially designed lens helps spread light beam and is set within a fully waterproof aluminium housing. Includes stainless steel mount adjustable both horizontally and vertically.

BLA Code	Overall Height mm	Width mm	Depth mm	Mount Bolt mm
123072	120	110	45	8

Spotlight - LED Waterproof Deck

LED spotlight with 10 extra bright diodes operating at a range between 9 to 36 volts with a low 0.4 to 1.5 amperage draw. Specially designed lens helps concentrate light beam and is set within a fully waterproof aluminium housing. Includes stainless steel mount adjustable both horizontally and vertically.

BLA Code	Overall Height mm	Width mm	Depth mm	Mount Bolt mm
123070	120	110	45	8

Spotlight/Floodlight

- LED Waterproof Deck Combination

LED combination spot and floodlight featuring 10 extra bright diodes with a total output of 922 Lumens at a colour temperature of 5735K. Operating at a range between 9 to 36 volts with a low 1.5 amperage draw the specially designed multi-lens concentrates the central spotlight beam while the outer LEDs provide an excellent flood pattern. Set within a fully waterproof aluminium housing. Includes stainless steel mount adjustable both horizontally and vertically.

BLA Code	Overall Height mm	Width mm	Depth mm	Mount Bolt mm
123078	115	90	70	8

Floodlight - Deck

Halogen floodlight, 12 volt, 55 watt. White ABS housing with glass lens. Stainless steel mount hardware adjusts both horizontally and vertically.

BLA Code	Lens mm	Overall Height mm	Depth mm	Mount Bolt mm
123057	120	110	45	8

Spare Parts:

124192 Replacement bolt

Light Kit - Docking

Two quartz halogen 12 volt, 35 watt spotlights with white ABS plastic high impact housing and stainless steel mounting brackets with white rubber boots. Kit contains illuminated rocker switch, wiring harness, mount hardware and in-line fuse.

BLA Code	Light Outside wxdxh mm	Switch Cut Out mm	Wire Length m
123058	144 x 72 x 105	12 x 30	9

Spare Parts:

124192 Replacement bulb

Spotlight - Rubber Hand Held

Black, neoprene rubber encased waterproof and shockproof spotlight with rear hand grip. 150mm beam, 12 volt, 100 watt quartz halogen bulb. On/off toggle switch. Complete with 2.4 metre, coiled stretch cord with a two pin plug as well as deck socket with
waterproof cap.

Deck Socket

BLA Code	**123122**
Spotlight - Rubber Hand Held	
Outside Dia. mm	170
Depth mm	165
Deck Socket	
Mount Screws mm	3 c/s
Cut Out mm	17
Intrusion mm	15

Spare Parts:

124194 Replacement bulb

Spotlight - Rubber Pistol Grip

Tough black neoprene rubber encased waterproof spotlight. Pistol style hand grip with integral rocker switch. Three metre coiled stretch cord with cigarette lighter plug. 55 watt, 12 volt quartz halogen bulb.

BLA Code	Outside Dia. mm	Depth mm	Height mm	Lens Dia. mm
123132	120	146	160	105

Spare Parts:

124192 Replacement bulb

Spotlight - Rechargable AGM Battery

Quartz halogen, rechargable spotlight with internal six volt sealed, absorbed glass matt battery. Features lockable on/off switch with signalling function, 5/16" UNC internal thread in handle for post mounting. Supplied with 240 volt AC charger as well as a 12 volt DC cigarette lighter charger. 6 volt 55 watt bulb.

BLA Code	Outside Dia. mm	Depth mm	Height mm	Lens Dia. mm	Candle Power
123190	130	150	230	120	500,000

Spotlight - Halogen

Plastic general purpose spotlight. 12 volt, 55 watt quartz halogen bulb produces 500,000 candlepower. Supplied with two metre spiral cord fitted with cigarette lighter plug. Trigger action on/off switch. 5/16" UNC internal thread in base of handle for post mounting.

BLA Code	Outside Dia. mm	Depth mm	Height mm	Lens Dia. mm
123144	125	130	220	110

Spare Parts:

124192 Replacement bulb

Spotlight - Blue Eye

Glare free sealed beam. Blue ABS high impact resistant housing with white trim. Switch is protected by waterproof cover. Heavy duty coil lead with a cigarette lighter plug, extends to 1.7 metres. Blue eye sealed beam virtually eliminates reflective glare, pierces through rain, fog, smoke, haze, even windscreens and water.

BLA Code	Overall mm	Lens Dia. mm	Volts	Candle Power
123194	157 x 120 x 267	150	12	400,000

Spotlight - Halogen Dual Purpose

Quartz halogen spotlight that can be hand held or free standing by utilising the unique tripod located in the screw-off handle. Powerful 200mm 1,500,000 candle power beam. Adjustable head inclination. 12 volt, three metre power lead fitted with a cigarette lighter plug.

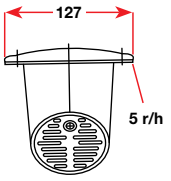
BLA Code	Outside Dia. mm	Depth mm	Height mm	Lens Dia. mm	Candle Power	Watts
123149	205	105	395	170	1,500,000	100

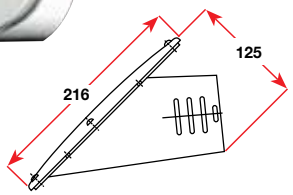
Spare Parts:

124194 Replacement bulb 12V/100W

Barnegat Light Hull Light - Mini Medium Flare

In bow installation provides forward illumination without reflected glare from rails, deck hardware etc. Hull housings manufactured from white U.V. stabilised nylon. These sleek hull lights mount at 40°, to the hull. High intensity reflector coupled with 12 volt, 55 watt quartz halogen bulb projects a powerful beam with 21° horizontal spread. Smooth outer contour polycarbonate lens eliminates snags and protects beam. Bulb replacement can be carried out internally or externally. Sold as a pair.





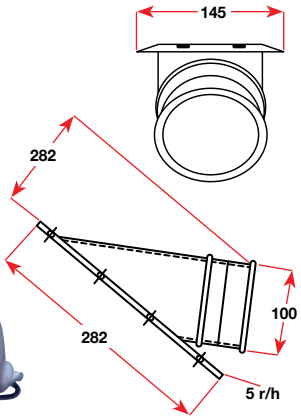
BLA Code
123280

Spare Parts:

124192 Replacement bulb

Barnegat Light Bow Light - Pronounced Flare

Flush, bow mounted spotlights that provide forward illumination without reflected glare from rails or deck hardware. Lights mount at 32° to the hull making them most suitable for vessels with pronounced bow flare. High impact, resistant anti-snag, U.V. stabilised white lexan housing with polycarbonate lens, 12 volt, 50 watt sealed halogen beam with a 7° wide to 5° high beam. Adjustment of the beam direction can be made via the internal swivelling eyeball that holds the sealed beam. Bulb replacement is from inside the vessel. Sold as a pair.



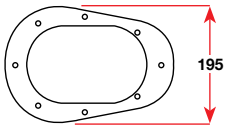
BLA Code
123282

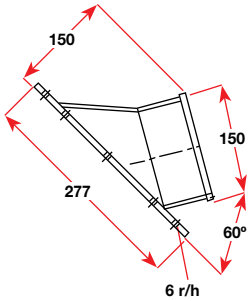
Spare Parts:

124227 Replacement bulb

Barnegat Light Bow Light - Subtle Flare

Flush, bow mounted spotlights that provide forward illumination without reflected glare from rails and deck hardware. Lights mount at 60° to the hull making them most suitable for vessels with subtle bow flare. Manufactured from U.V. stabilised white nylon, these lights are supplied with 12 volt, 50 watt sealed halogen beams with a 7° wide to 5° high beam. Adjustment to the beam direction can be made via the internal swivelling eyeball that holds the sealed beam. Beam replacement is from inside the vessel. Sold as a pair.





BLA Code
123286

Spare Parts:

124227 Replacement bulb

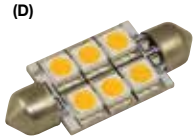
BEP LED Replacement Bulbs

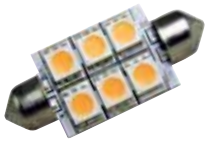
Quality LED replacement bulbs in a wide range of popular sizes and configurations suitable for navigation, interior and trailer applications. LEDs operate on minimal power requirements with a typical lifespan of 50,000 hours while saving up to 80% power when compared to a normal incandescent bulb.

(A) *124168*

(B) *124172*

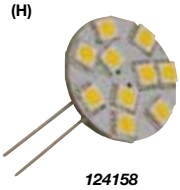
(C) *124120*


(D) *124078*


(E) *124079*

(F) *124134*

(G) *124132*


(H) *124158*

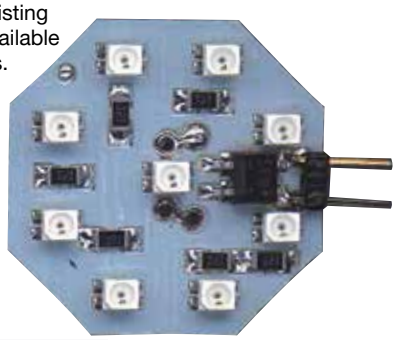
(I) *124154*

BLA Code	Type	Volt	Watt	Overall Length mm	Base
(A) **124168**	Navigation	10-30	3.5	45	BA15S
(B) **124172**	Navigation	10-30	3.5	45	BA15D
(C) **124120**	Interior	10-30	0.9	36	BA15S
(D) **124078**	Interior/Trailer	10-30	0.6	36	SV8.5

BLA Code	Type	Volt	Watt	Overall Length mm	Base
(E) **124079**	Interior/Trailer	10-30	0.6	42	SV8.5
(F) **124134**	Interior	10-30	2.5	40	MR16
(G) **124132**	Interior	10-30	1.5	27	MR11
(H) **124158**	Interior Side Pin	10-30	1.8	30	G4
(I) **124154**	Interior Rear Pin	10-30	1.8	30	G4

LED Pods - 12 volt, 1 watt

LED efficient and durable pods designed to replace G4 halogen bulbs in pre-existing lighting applications. Available in white pod assemblies.



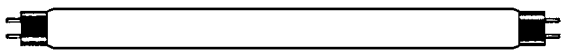
BLA Code	Colour	Board mm	Base mm
124156	White	30 x 30	8.3

Bulb - LED 360°

360° LED bulb, twin contacts with parallel pin base (BA15D).

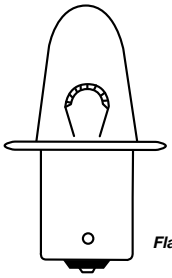
BLA Code	Volt	Watt	Overall Length mm	Base
124170	12	1.5	44	BA15D

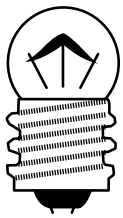
Fluoro Tubes



BLA Code	Volt	Watt	Overall Length mm	Base
124010	12	8	300	G5

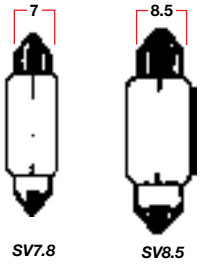
Bulbs - Torch


Flange


E10

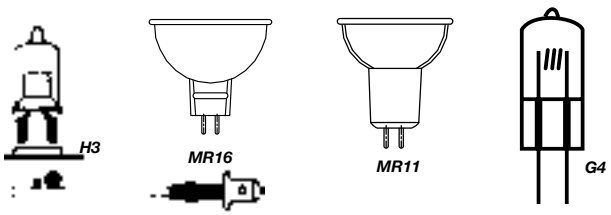
BLA Code	Volt	Amp	Watt	Overall Length mm	Base mm
124260	1.5	0.3	–	23	E10
124262	4.5	–	1.6	23	E10
124270	2.5	0.5	–	29	Flange

Bulbs - Festoon



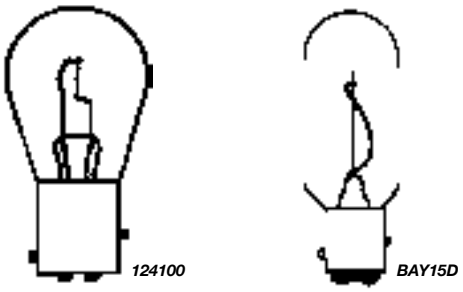
BLA Code	Volt	Watt	Overall Length mm	Base	Colour
124031	12	5	29	SV7.8	Clear
124032	12	3	31	SV7.8	Clear
124034	12	5	36	SV8.5	Clear
124036	12	5	29	SV8.5	Clear
124037	12	10	31	SV8.5	Clear
124048	12	10	36	SV8.5	Clear
124052	12	18	41	SV8.5	Clear
124057	12	10	44	SV8.5	Clear
124075	24	10	36	SV8.5	Clear

Bulbs - Quartz Halogen



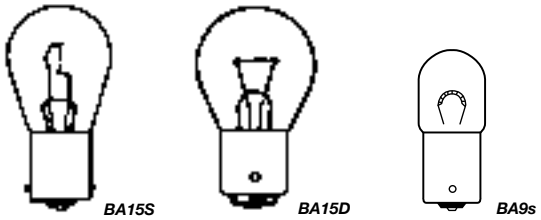
BLA Code	Volt	Watt	Overall Length mm	Base
124128	12	10	27	MR11
124130	12	20	37	MR16
124135	12	20	31	G4
124138	12	10	31	G4
124139	12	5	31	G4
124192	12	55	39	H3
124194	12	100	39	H3

Bulbs - Bayonet Staggered Pins



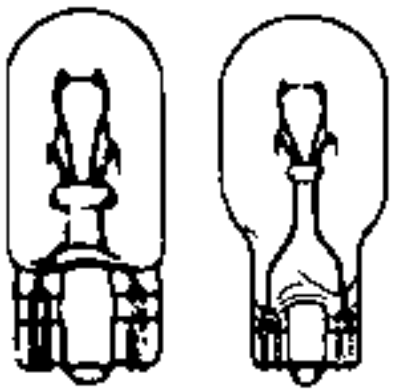
BLA Code	Volt	Watt	Overall Length mm	Base
124100	12	21/5	47	BAY15D
124114	12	25	68	BAY15D
124116	24	10	68	BAY15D
124118	24	25	68	BAY15D

Bulbs - Bayonet Parallel Pins



BLA Code	Volt	Watt	Overall Length mm	Base
124087	12	6	28	BA9S
124090	12	10	32	BA15D
124099	12	18	48	BA15S
124101	24	15	53	BA15D

Bulbs - Wedge Base



BLA Code	Volt	Watt	Overall Length mm	Base
124143	12	5	24	2.1W x 9.5D
124144	12	9	35	2.1W x 9.5D

Sealed Beams

BLA Code	Volt	Watt	Dia mm
124227	12	50	110ø
		C.P.	34
124230	12	100,000	150x85
124234	12	72,000/30,000	110ø

Photo by Sam Frysteen

PUMPS, PLUMBING & GALLEY

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Pump Overview

The key to getting the most out of your pump is to select the correct model for your boat. The size, model and build of your boat will greatly factor in the choice of which pump you will ultimately select.

There is an alarming number of boaters that operate their vessels on Australia's waterways without a bilge pump, or for that matter, without a quality bilge pump. If the integrity of your vessel becomes compromised then your bilge pump, if it is the right one, will give you the best possible chance of staying afloat. BLA stock a selection of pumps that offer the boating public a comprehensive range to choose from. They have sourced the best quality products for the marine industry that will offer peace of mind boating. Whale®, SPX Johnson Pumps, TMC and Henderson are leading brands that boast years of history in the boating industry. Their pumps are renowned for their longevity and problem free operation.

Manual Pumps

Manual operated pumps require the water to be physically pumped out. They can move large quantities of water but can be tiring to use. Manual pumps can be a valued addition to a boat as a standby failsafe in the event of your electrics failing.

Centrifugal Pumps

The most common and well established model of pump, these are high capacity electrical pumps that rely on a spinning "wheel" driven by a shaft to pump the water. These are a popular pump and can move a lot of water quickly. A big plus with centrifugal pumps is that they are able to run without water for short periods of time without doing any immediate damage to the pump.

Diaphragm Pumps

These pumps move fluid by making use of a membrane that increases and decreases the volume of a pumping chamber. They draw the fluid in and push it out through a set of one-way check valves. They are a self–priming pump which is a big plus. In some cases they require a strainer on the intake side as any form of debris can inhibit the performance of the pump.

Pressure Pumps

Pressure pumps are mostly used for galley or head sink water supply and deck wash down pumps. They incorporate a pressure activated switch which turns the pump on as the tap is opened and pressure is reduced. They come in a variety of pressure and flow settings depending on the number of outlets and other factors. These pumps require a strainer on the intake side.

Submersible Bilge Pumps

These pumps are placed low in the bilge of a boat and operate either via an on-off switch, float or electronic sensor switch.

Float Switch

A switch that engages an electric pump. It works on the level of water in the vessels bilge, as the water level increases to a point that is above the float on the switch it will engage your pump. Once the level of the water decreases below that of the float it will automatically switch off the pump.

Electronic Sensor Switch

A switch that automatically switches your pump on or off by sensing the presence of water through the plastic housing. A key feature about these switches is that they have no moving parts so wear and tear is not an issue.

Boat Size

All electric bilge pumps are rated according to how much water they can move. This unimpeded flow rate is measured in gallons per hour or gallons per minute. The size of the pump that you choose will generally depend on the size of the boat that you own; but don't fall into the trap of thinking that a small boat only needs a small pump. Lower sides and smaller compartments mean that they are affected a lot quicker by water ingress. Fitting an oversize pump is a very good idea.

In small to medium sized powered vessels a good rule of thumb is the following:

Vessel size:	under 18 feet - 300 to 500 gallons per hour	under 5.5 metres - 1135 to 1892 litres per hour
	18 to 23 feet - 450 to 700 gallons per hour	5.5 to 7 metres - 1703 to 2649 litres per hour
	22 to 26 feet - 100 to 1100 gallons per hour	7 to 7.9 metres - 378 to 4163 litres per hour

In larger powerboats:

As your vessel size increases you would need to look at the addition of a manual pump as well as your electrical pump. This will give you peace of mind if your electrical pump fails, you will still be able to pump the water out manually. If your vessel has several compartments in, then fitting a pump to each compartment can be a very good idea. Its always better to have too many pumps than too few!

Vessel size:	26 to 30 feet - 800 to 1200 gallons per hour	7.9 metres to 9.1 metres - 3028 to 4542 litres per hour
	30 to 35 feet - 1000 to 1600 gallons per hour	9.1 to 10.7 metres - 3785 to 6056 litres per hour
	35 to 40 feet - 1600 to 2200 gallons per hour	10.7 to 12.2 metres - 6056 to 8327 litres per hour
	40 to 45 feet - 2000 to 4000 gallons per hour	12.2 to 13.7 metres - 7570 ot 15141 litres per hour

In sailboats:

Sailing boats can fall into another category altogether as they can list steeply while under sail, their bilges can be a lot deeper than standard vessels; and they can operate in rougher conditions than most other boats. Due to these facts, multiple pumps as well as a manual standby pump would be a good idea.

Vessel size:	22 to 26 feet - 600 to 800 gallons per hour	6.7 to 7.9 metres - 2271to 3028 litres per hour
	26 to 30 feet - 800 to 1000 gallons per hour	7.9 to 9.1 metres - 3028 to 3785 litres per hour
	30 to 35 feet - 1000 to 1600 gallons per hour	9.1 to 10.7 metres - 3785 to 6056 litres per hour
	35 to 40 feet - 1600 to 2200 gallons per hour	10.7 to 12.2 metres - 6056 ot 7570 litres per hour
	40 to 45 feet - 2000 to 4000 gallons per hour	12.2 to 13.7 metres - 7570 to 15141 litres per hour

Installation hints:

- Always ensure that you stick to the manufacturers recommendations with regards to wire grades and thicknesses
- Keep discharge hoses as short as possible
- Use smooth bore hoses - corrugated hosing can affect the performance of your pumps
- Use vented loops if the through hull fitting on the outlet side can be submerged, or for example on sailboats that heel over while under sail

Whale® Intelligent Control™

A New Era of Fresh & Waste Water Control on Board

Whale® has developed a revolutionary and innovative range of pumps and accessories which use a built-in electronic control circuit to communicate directly with each other. Known as Intelligent Control (IC)™, this complete system allows the built-in software to control the pumps automatically in reaction to the accessory commands. The IC technology is not just an on/off pump control but a complete monitor of all relevant aspects of the system. Intuitive IC pumps are matched with IC accessories such as shower gulleys, manifolds and bilge strainers which sense waste and bilge levels, alerting the Gulper IC and providing automatic operation.

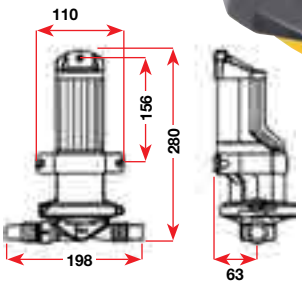
The Fresh IC freshwater pump monitors voltage, pressure and current, and provides for soft start and stop running with no mechanical switching, meaning less on/off cycling and longer system life. The new IC technology monitors relevant aspects of the system via integrated sensors with no moving parts. Designed with reliability in mind all IC components are fully protected against water ingress with fully potted circuitry. High integrity pre-wired connection systems feature marine grade waterproof electric connectors for quick and easy fit up. With continuous monitoring and self diagnosis the pump performance is continually scrutinised and adjusted depending on demand and supply voltage.

Whale® Gulper® IC Grey Water Pump

High capacity grey waste pump with Intelligent Control electronics built-in ensuring that the pump operates only when required. When grey water is detected via an electronic signal received from either the Gulley IC or Two Way Manifold IC, the Gulper IC pump is automatically activated, minimising wear and reducing operating times.

Features:

- Automatic control receives electrical signals to turn on/off as required
- Soft start protects the pump for long life
- Electronics enable use with lower current switches
- Electronics are all internally housed
- One pump handles waste from multiple drains
- Fast drainage with high capacity up to 19L/m
- Self primes and runs dry without damage
- Easy to install, even on uneven surfaces



BLA Code	Power v	Power amp	Capacity L/m	Capacity g/m	Max Head m	Hose Size mm
132020	12	7.5	19	5	3	19/25
132026	24	3.25	17.4	4.6	3	19/25

Whale® Strainer® IC

The Strainer IC with integral automatic Intelligent Control provides for quick system fit-up and connection. It operates by sending signals to a remotely mounted Gulper IC pump switching it on and off automatically when water is detected. Supplied with 4m of cable for direct connection to Gulper IC.

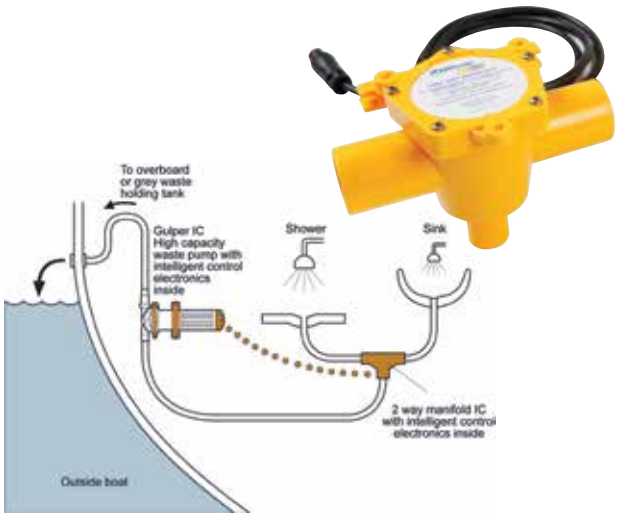
Features:

- Small footprint strainer fits into very confined bilge spaces
- Low current controlled switching means no burn outs from high currents
- On/off delay prevents cycling
- Environmentally friendly with no toxic mercury component
- Non-choke valves with no filter to block or clean
- Easy to install, even on uneven surfaces

BLA Code	Hose Size mm	Length mm	Width mm	Height mm	Mount Screws mm
131672	19	148	60	58	4 r/h

Whale® Two Way Manifold IC

The Two Way Manifold IC unit consists of two waste inputs and one outlet with Intelligent Control built-in. The intelligent built-in IC design allows waste from multiple drains to be detected, automatically activating the remote Gulper IC pump. Supplied with 4m of cable for direct connection to Gulper IC.



BLA Code	Hose Size mm	Width mm	Height mm	Depth mm	Mount Screws mm
132070	19	140	114	103	5 r/h
132074	25	140	114	103	5 r/h
132080	38	140	114	103	5 r/h

Waste Water Handling

Whale® Gulper® Grey Waste Pump - 320 High Capacity

The Gulper 320 self-priming pump is specifically designed to pump waste grey water from the shower tray, galley sink or to be used as a small bilge pump. Adjustable clamping ring allows the head assembly to be rotated 360° to accommodate plumbing position. Suitable for either 19mm or 25mm hose connection.

Features:

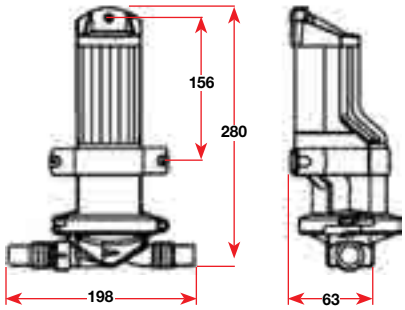
- Quiet running
- Self priming to 3 metres
- Large single diaphragm
- Dual non-choke valves
- Pumps a mixture of air and water
- Secure mount – new wrap around mounting feature

Capacity:

- 19 L/m at open flow 19mm hose
- Maximum lift 3 metres
- Maximum head 3 metres
- Lift and head combined 4 metres

Materials:

- Made from glass filled nylon, acetal, EPDM, stainless steel, santoprene, brass and aluminium



BLA Code	Power v	Power amp	Length mm	Width mm	Height mm
132014	12	7.5	280	200	115
132015	24	3.25	280	200	115

Accessories:

131336 Service Kit

SPX Viking Power Diaphragm Pumps - 16

The Viking Power 16 is self-priming up to a height of 3 metres. With its low pulse and muffled rubber bracket, this pump offers quiet operation. Specifically designed to pump waste water, the Viking Power 16 has been built to last, and engineered for easy maintenance. When it comes time to replace the premium grade reinforced nitrile rubber diaphragm, you can put in a spare without even removing the pump from the system. Supplied with 1" hose and ¾" hose ½" BSP KlickTite™ XL connectors. 90° KlickTite™ XL connectors available as extra accessory.

Specifications:

- Motor: 2.3 amp (12V), 1.2 amp (24V) at 0.1 bar
- Body: Nylon, glass-fibre reinforced
- Valves: Nitrile rubber
- Diaphragm: Reinforced nitrile rubber
- Capacity: open flow 16 L/m, 4.0 GPM at 0.1 bar
- Max lift: 3m
- Max head: 3m

BLA Code	Volts	Length mm	Width mm	Height mm	Weight kg
133390	12	186	238/181	118/204	2.6
133392	24	186	238/181	118/204	2.6

SPX Viking Power Diaphragm Pumps - 32

The Viking Power 32 diaphragm pumps have been designed to meet the rigorous demands of the world's leading manufacturers of boats, recreational vehicles and busses. Thanks to its single-chamber design and non-choke valves, the Viking Power 32 can be used to pump un-macerated sewage to a holding tank or transfer it onwards to a septic tank.

Specifications:

- Motor: 3.3 amp (12V), 1.6 amp (24V) at 0.1 bar
- Body: Nylon
- Valves: Nitrile rubber
- Diaphragm: Reinforced nitrile rubber
- Capacity: Open flow 32 L/m, 7.9 GPM at 0.1 bar
- Max lift: 2.5m
- Max head: 4m

133394

BLA Code	Volts	Connection	Length mm	Width mm	Height mm	Weight kg
133394	12	38mm / 1½"	277	264	192	5
133396	24	38mm / 1½"	277	264	192	5

SPX Viking Power Vacuum Diaphragm Pumps

The Viking Power Vacuum has double check-valves and can therefore also be used in vacuum toilet systems. Naturally, pumping ordinary shower or sink drain water or bilge water is no problem for this pump.

Specifications:

- Motor: 3.3 amp (12V), 1.6 amp (24V) at 0.1 bar
- Body: Nylon
- Valves: Nitrile rubber
- Diaphragm: Reinforced nitrile rubber
- Capacity: Open flow 24 L/m, 9.3 GPM at 0.1 bar
- Max lift: 5m
- Max head: 4m

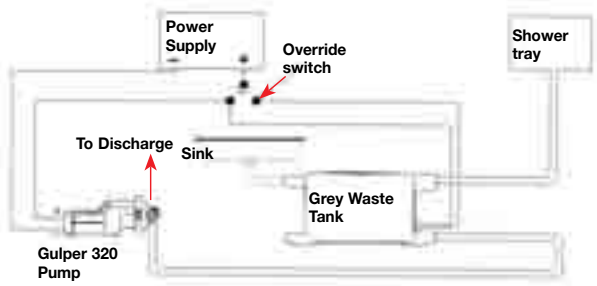
133398

BLA Code	Volts	Connection	Length mm	Width mm	Height mm	Weight kg
133398	12	38mm / 1½"	357	271	192	5.1
133399	24	38mm / 1½"	357	271	192	5.1

Whale® Grey Waste Tank

Where shower drains or galley sinks are near or below the waterline, preventing drainage by gravity, the Whale® Grey Waste tank provides a low position sump for collection of water with single outlet to pump overboard or to a holding tank. Fitment of the Gulper 320 pump can be direct to well nuts moulded in side of tank, or installed remotely depending on requirements. Simplified wiring includes an electronic field sensor switch with no moving parts to activate the remote pump. Multi-dimensional inlet ports enable a variety of hose sizes to be connected from showers, sinks, ice makers, air conditioners, and similar. Feature easy quick access for cleaning.

Typical Remote Pump Installation



132003

BLA Code	Volt	Max. Pump amp	Outlet Dia. mm	Inlet Dia. mm	Capacity L	Length mm	Width mm	Height mm
132003	12/24	30	1x19 / 1x25	2x19 / 3x25 / 3x38	8.15	255	230	170
851302	12/24	30	2x25	4x25 / 4x35	16	600	260	170

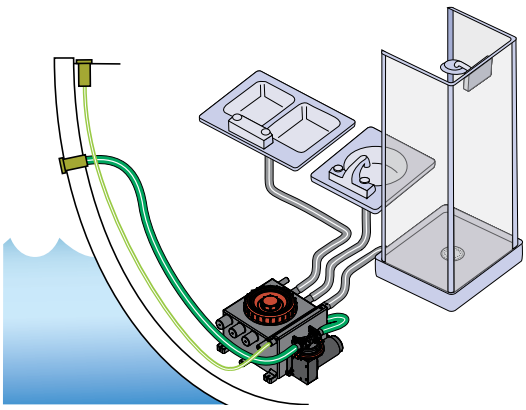
Spare Parts:

131988 Replacement clear lid including **131691** field sensor

SPX Grey Water Tank

The Grey Water Tank is designed to be used as a collection tank for waste water from showers, sinks, dishwashing machines, and similar. The tank includes an Ultima Switch for automatic operation and is easy to connect to any 12V/24V pump up to 20 amp. The tank is prepared for Viking Power 16, with pre-drilled holes for the pump.

Pump not included



BLA Code	Volt	Max. Pump amp	Outlet Dia. mm	Inlet Dia. mm	Length mm	Width mm	Height mm
132005	12/24	20	19/25/38	19/25/38	340	280	185

Whale® Grey Waste System with Pump

Fully self contained sump with Whale® 500GPH submersible pump, multiple inlets and automatic electronic field sensor switch designed to pump grey waste overboard, or to holding tank, via a single outlet hose. Quick access clear snap shut lid with integrated seal provides instant visibility of stainless steel filter for build up and allows easy access for cleaning. Multi-sized outlet hose connection (19mm to 25mm) is open while the three multi-size inlet connections ranging from 19mm to 38mm are closed ready to be drilled or cut open as required. For additional inlets, skin fittings may be installed in the side of the box.

BLA Code	Volt	Amp Draw	Output @ 1/m head	
			L/m	gph
132000	12	2	20	315

SPX Aqua Duo WPS - 10.4

This high demand unit consists of two parallel connected Aqua Jet WPS five-chamber diaphragm pumps integrated with a pre-pressurised 2L accumulator tank and inline strainer. The unit's design allows fo either vertical or horizontal installation.

Features:

- Whisper quiet operation
- Five-chamber construction
- Smooth flowing
- Self-priming
- Easy, low cost maintenance
- Quick-connect hose
- Integrated pressure switch
- Long service life
- Corrosion resistant base

BLA Code	Volts	Capacity		Cut Out Pressure		Fuse Size	Configuration	Connections
		L/m	GPM	bar	psi			mm
133360	12	40	10.4	2.8	41	25A	STD	19 hose
133362	24	40	10.4	2.8	41	15A	STD	19 hose
133364	12	40	10.4	2.8	50	25A	STD/VAR	19 hose
133366	24	40	10.4	2.8	50	15A	STD/VAR	19 hose
133368	12	40	10.4	2.8	71	25A	VAR/HP	19 hose
133370	24	40	10.4	2.8	71	15A	VAR/HP	19 hose
133372	12	40	10.4	2.8	71	25A	HP/HP	19 hose
133374	12	40	10.4	2.8	71	15A	HP/HP	19 hose

Spare Parts:

131738 Strainer Aqua Jet Inlet
133470 Pressure Switch Aqua Jet Micro

SPX Jet Uno Max WPS - 2.9 & 3.5

SPXFLOW Johnson Pump

This medium demand unit from SPX Johnson Pump consists of an Aqua Jet WPS five-chamber diaphragm pump integrated with a pre-pressurised 2L accumulator tank and inline strainer. The unit's design allows for either verical or hoizontal installation.

Features:

- Whisper quiet operation
- Five-chamber construction
- Smooth flowing
- Self-priming
- Easy, low cost, maintenance
- Quick-connect hose
- Integrated pressure switch
- Long service life

BLA Code	Volts	Capacity		Cut Out Pressure		Fuse Size	Connections
		L/m	GPM	bar	psi		mm
133376	12	11	2.9	2.8	41	10A	19 hose
133378	24	11	2.9	2.8	41	5A	19 hose
133380	12	13	3.5	2.8	41	10A	19 hose
133382	24	13	3.5	2.8	41	5A	19 hose

Spare Parts:

131738 Strainer Aqua Jet Inlet
133470 Pressure Switch Aqua Jet Micro

SPX Aqua Jet Flow Master 5.0 WPS – Variable Flow

SPXFLOW Johnson Pump

The whisper quiet Flow Master 5.0 incorporates state-of-the-art electronics to automatically control pump speed. The digital controller adjusts water flow as the demand is increased and decreased while maintaining a very smooth flow. The unique variable flow feature of the Flow Master pump allows the pump to be mounted without an accumulator tank and still maintain an even flow regardless if one or multiple taps are being used.

133324

Specifications:

- Motor: WPS 5.0 – 150 W, 12/24V DC (with built-in thermal protection)
- Body: Nylon/Polypropylene
- Valves: Santoprene/EPDM
- Diaphragm: Santoprene
- Connection: 3/8" BSP / hose 1/2", 1/2" BSP / hose 3/4"

BLA Code	Description	Weight kg	Length mm	Width mm	Height mm	Capacity	Fuse Size	Pressure Cut Off*
133324	WPS FM 5.0, 12V	2	239	209	113	19 L/m – 5 GPM	15A	3.5 bar / 50 psi
133326	WPS FM 5.0, 24V	2	239	209	113	19 L/m – 5 GPM	8A	3.5 bar / 50 psi

Spare Parts:

131738 Strainer Aqua Jet Inlet
133470 Pressure Switch Aqua Jet Micro

N.B. *Cut off pressure 2.1 bar/30 psi and 1.4 bar/20 psi available on request

***** NPT-connection available on request***

SPX Aqua Jet Base Suit Duo/Uno

SPXFLOW Johnson Pump

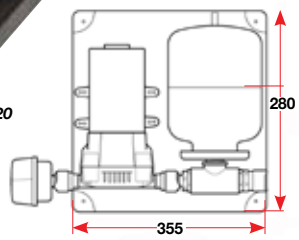
The UNO Base assembly complete with 2L accumulator tank allows you to convert WPS 4.0, 5.2 and Flow Master pumps including wash down into a compact pressurised system.

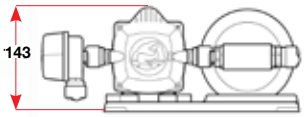
BLA Code	Description
133350	Aqua Jet UNO Base

Whale Accumulator Pump Kit

Combined pump and accumulator kit ensures smooth even flow of water to all outlets. Reduced noise and vibration by preventing pump cycling. One piece kits include a 2 litre compact accumulator tank. Pre-assembled, easy to install, can be fitted to new or existing systems. Connection directly to Whale 15mm Quick Connect pipe work (refer page 279) as well as 1/2" flexible hose using included adaptors.

133220





BLA Code	Volt	Fuse size Amps	Open Flow Rate L/m	Cut Out Pressure psi	Weight kg	Max Suction Lift m	Max Discharge Head m
133220	12	10	11.5	30	3.9	20	3
133222	24	5	11.5	30	3.9	30	3
133224	12	10	11.5	45	3.9	20	3
133226	24	5	11.5	45	3.9	30	3

Spare Part:

133228 Accumulator tank only 2L

SPX Accumulator Tank

The use of an accumulator tank is recommended to ensure effective and reliable system function. With an accumulator tank incorporated in the system, the intervals between cut-in and cut-out will be longer when only small amounts of water are drawn off. Less wear and tear on the pump with fewer starts and stops. Pre-pressurised at 0.8 bar / 12 psi.

133340

Specifications:

- Connection: 1/2" & 3/4" hose (**133340**), 3/4" hose (**133342**),

BLA Code	Description	Weight kg	Volume L	Dia. mm	Height mm
133340	Accumulator includes all fittings	1.2	2	160	315
133342	Accumulator tank only	-	5	-	-

Whale Accumulator Tank

2L Accumulator tank. Connects directly to Whale Quick Connect 15 mm plumbing system.

BLA Code
133228

Whale® Automatic Watermaster Pressure Pump

Whale® are a leader in pressure pump design and manufacture, renowned for reliability, efficiency, performance. The Watermaster range is suitable for both salt or freshwater applications and providing extremely smooth and consistent water flow rates to a variety of outlets with minimal noise.

The self priming automatic Watermaster pressure pump features a fully protected high specification motor encased in a tough outer housing with integrated adjustable rubber mounts. Designed for easy installation each pump is pre-wired and includes built in Quick Connect inlet and outlet for fast connection directly to System 15 plumbing.

The attractive retail boxed units include a pre strainer/filter that pivots to suit plumbing direction and 2 x 13mm barbed hose connections plus 2 x 1/2" BSP threaded tails for connection to non Quick Connect 15 plumbing. The OEM pump is supplied with strainer/filter only. Each pump is ideally suited to a wide range of applications suitable for marine, caravan, motor home, plus off road vehicles and are available in a selection of 12 and 24 volt models.

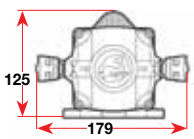
133240

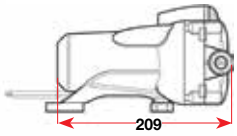
Available in retail display box or bulk OEM

Features:

- A range of models for 1 to 2 and 3 to 4 outlets
- Capacity of 8 and 11.5L/m available
- Adjustable mounting feet provides excellent insulation
- Smooth constant flow
- Can be run dry without damage
- Extra protection and safety with wires and pressure switch housed internally
- Self-priming up to 3 metres
- Fully sealed protective motor housing with integrated electronics
- IP65 Rated, meaning no water ingress

Retail kit includes strainer and variety of connections. OEM supplied with strainer only





BLA Code	Packaging	Volts	Open Flow L/m	No. of Outlets	Max. Head m	Lift m	Cut Out Preassure bar	Cut Out Preassure psi
133240	Retail	12	8	1-2	30	3	2	30
133241	OEM	12	8	1-2	30	3	2	30
133244	Retail	12	11.5	3-4	30	3	3	45
133245	OEM	12	11.5	3-4	30	3	3	45
133246	Retail	24	11.5	3-4	30	3	3	45
133247	OEM	24	11.5	3-4	30	3	3	45

Whale® Universal Pressure Pumps

Supplied with Quick Connect inlet and outlet for fast connection directly to System 15 plumbing. Includes pre-strainer/filter that pivots to suit plumbing direction. 2 x 13mm barbed hose connections and 2 x 1/2" BSP threaded tails also included for connection to non Quick Connect 15 plumbing.

Features:

- Probably the marine world's quietest range of pressure pumps
- A range of models for two, four and six outlet or wash down application in 12 or 24 volts
- Capacity of 8, 12 and 18 litres per minute
- Universal mounting feet arrangement fits almost any existing pressure pump mount hole configuration
- Suitable for use with fresh or saltwater
- Smooth constant flow
- Can be run dry without damage
- Extra protection and safety with wires and pressure switch housed internally
- Self priming up to three metres
- Aluminium motor housing
- Run indicator wire allows tell tale light and/or buzzer to operate remotely

Pump Head Materials:

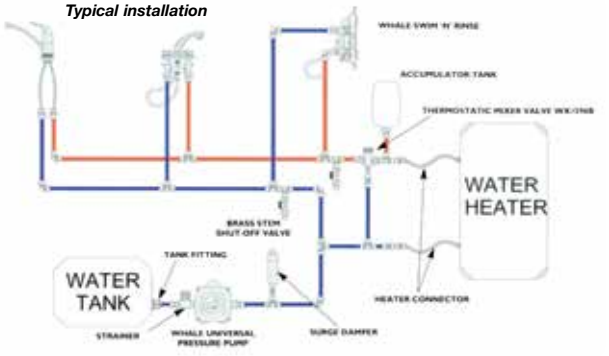
- Glass filled polypropylene, neoprene, nitrile, stainless steel, butyl

136653

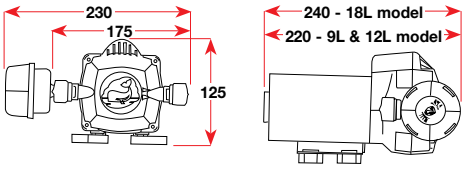
136657

133252

Typical installation



BLA Code	Volt	Open Flow	No. of Outlets	Max. Head	Lift	Cut Out Preassure	
		L/m		m	m	bar	psi
133230	12	8	2-3	30	3	3	45
133233	24	12	3-4	30	3	3	45
133234	12	12	3-4	30	3	3	45
133235	12	18	4-6	30	3	3	45
133236	24	18	4-6	30	3	3	45



Accessories:

133251 Replacement pump head assembly
133252 Filter assembly
136653 1/2" BSP tail
136657 13mm barbed hose tail

SPX Aqua Jet WPS Diaphragm Pumps

Quiet and pulsation-free even at low speeds, the Aqua Jet five chamber diaphragm pump provides the perfect water pressure solution for both small and medium sized leisure and commercial boats. Efficient and compact, Aqua Jet pumps are particularly suitable where low amperage and sound levels in relation to water flow are placed at a premium - such as in shower and galley applications. Operates in fresh or sea water. Self-priming.

133322

Specifications:

- Diaphragm: Santoprene
- Valves: EPDM Rubber
- Body: PP Food Grade Composite
- Motor: 85W
- Connection: 3/8" hose (**133300**), 3/8" BSP / hose 1/2", 1/2" BSP / hose 3/4" (**133306 - 133322**)

133306

BLA Code	Description	Weight kg	Length mm	Width mm	Height mm	Capacity	Fuse Size	Pressure Cut Off*
133300	Aqua Jet Mini 3.8, 12V	1.1	-	-	-	3.8 L/m	4A	2.4 bar / 35 psi
133306	Aqua Jet WPS 2.9, 12V	1.6	204	197	116	11 L/m – 2.9 GPM	10A	2.8 bar / 41 psi
133308	Aqua Jet WPS 2.9, 24V	1.6	204	197	116	11 L/m – 2.9 GPM	5A	2.8 bar / 41 psi
133312	Aqua Jet WPS 3.5, 12V	2	236.5	210	110	13 L/m – 3.5 GPM	10A	2.8 bar / 41 psi
133314	Aqua Jet WPS 3.5, 24V	2	236.5	210	110	13 L/m – 3.5 GPM	5A	2.8 bar / 41 psi
133316	Aqua Jet WPS 4.0, 12V	2	240	214	110	15 L/m – 4.0 GPM	10A	2.8 bar / 41 psi
133318	Aqua Jet WPS 4.0, 24V	2	240	214	110	15 L/m – 4.0 GPM	5A	2.8 bar / 41 psi
133320	Aqua Jet WPS 5.2, 12V	2	240	214	110	20 L/m – 5.2 GPM	15A	2.8 bar / 41 psi
133322	Aqua Jet WPS 5.2, 24V	2	240	214	110	20 L/m – 5.2 GPM	8A	2.8 bar / 41 psi

N.B. *Cut off pressure 2.1 bar/30 psi and 1.4 bar/20 psi available on request

***** NPT-connection available on request***

SPX Aqua Jet Wash Down Pumps - 3.5 & 5.2

SPXFLOW Johnson Pump

Complete with trigger nozzle, pump protector inlet strainer and hose connections for ½" hose. Both BSP and NPT connections included in package.

Specifications:

- Motor: WD 2.9 - 90 W, 12/24V DC, WD 3.5 - 120 W, 12/24V DC, WD 5.2 - 185 W, 12/24V DC (with built-in thermal protection)
- Body: PP Food Grade Composite
- Valves: Nitrile
- Diaphragm: Santoprene
- Connection: 3/8" BSP / hose 1/2"
- **133298** includes 4.5 metre hose

133336

BLA Code	Description	Weight kg	Length mm	Width mm	Height mm	Capacity	Fuse Size	Pressure Cut Off*
133336	WD 3.5, 12V	2	236.5	210	116	13 L/m – 3.5 GPM	15A	5 bar / 70 psi
133298	WD 3.5, 12V with hose	2	236.5	210	116	13 L/m – 3.5 GPM	15A	5 bar / 70 psi
133337	WD 3.5, 24V	2	236.5	210	116	13 L/m – 3.5 GPM	8A	5 bar / 70 psi
133338	WD 5.2, 12V	2	240	214	110	20 L/m – 5.2 GPM	20A	5 bar / 70 psi
133339	WD 5.2, 24V	2	240	214	110	20 L/m – 5.2 GPM	10A	5 bar / 70 psi

Spare Parts:

131738 Strainer Aqua Jet Inlet
133470 Pressure Switch Aqua Jet Micro

N.B. *Cut off pressure 2.1 bar/30 psi and 1.4 bar/20 psi available on request ***** NPT-connection available on request***

SPX Aqua Jet WD/Livewell Pump Kit - 5.2

SPXFLOW Johnson Pump

A wash down kit including a high capacity Aqua Jet WD 5.2, 5 bar (70 psi) pump, a 500 GPH Twin Port livewell pump, pump protector inlet strainer, spray nozzle, bulk head fitting with valve, 7.5 metres (25') of coiled wash down hose and two illuminated panel switches all in one package. Aqua Jet wash down/ livewell pump kit makes it easy to add a wash down and livewell pump to any boat.

133334

131728

BLA Code
133334

Spare Part:

131728 Panel Switch 12V
131738 Strainer Aqua Jet Inlet
133470 Pressure Switch Aqua Jet Micro

SPX Aqua Jet Wash Down Pump Kit - 5.2

SPXFLOW Johnson Pump

20 L/min (5.2 GPM) wash down kit conveniently includes a high capacity Aqua Jet WD 5.2, 5 bar (70 psi), pump protector inlet strainer, spray nozzle, bulk head fitting with valve, 7.5 metres (25') of coiled wash down hose and an illuminated panel switch – all in one package.

133330

BLA Code	Volts
133330	12
133332	24

Spare Parts:

131738 Strainer Aqua Jet Inlet
133470 Pressure Switch Aqua Jet Micro

Whale® High Pressure Washdown Kits

Supplied with Quick Connect inlet and outlet for fast connection directly to System 15 plumbing. Includes pre strainer/filter that pivots to suit plumbing direction. 2 x 13mm barbed hose connections and 2 x ½" BSP threaded tails also included for connection to non Quick Connect 15 plumbing.

Features:

- Arguably the marine world's quietest range of pressure pumps
- A range of models for 2, 4 and 6 outlet or wash down application in 12 or 24 volts
- Capacity of 8, 12 and 18 litres per minute
- Universal mounting feet arrangement fits almost any existing pressure pump mount hole configuration
- Suitable for use with fresh or saltwater
- Smooth constant flow
- Can be run dry without damage
- Extra protection and safety with wires and pressure switch housed internally
- Self-priming up to three metres
- Aluminium motor housing
- Run indicator wire allows tell tale light and/or buzzer to operate remotely

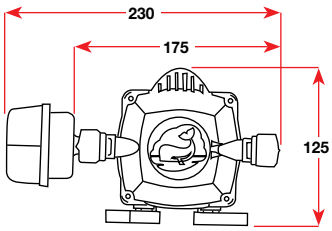
Pump Head Materials:

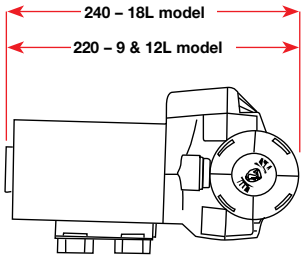
- Glass filled polypropylene, neoprene, nitrile, stainless steel, butyl

133201

133290

BLA Code	Volt	Open Flow L/m	Max Head m	Lift m	Cut Out Pressure bar	Cut Out Pressure psi
133290	12	18	30	3	3	45
133292	24	18	30	3	3	45





Accessories:

133201 Deck wash nozzle complete
133150 Coiled deck wash hose
133151 Coiled wash down hose
133199 Deck wash hose gun

Whale® High Pressure Washdown Kits

PRODUCT AVAILABLE **JULY 2017**

Choose from either 19 L/m, 70 psi pump or 13 L/m, 60 psi pump. Applicable models include an easy-to-use trigger handset for targeted water flow featuring a soft grip and non-slip trigger with deck protect nozzle. An easy stow, kink-resistant 7.6m coiled hose with stowage bag is included on certain models. The **133274** - **133276** kits include a unique 4 in 1 deck fittng, featuring a patented discrete integrated sliding lid which includes hose connection, switch and fuse in one fast installation solution.

Pump with Strainer & Fittings

Pump including Gun

Pump including Gun and Hose

BLA Code	Description	Volts	Capacity L/m	Cut Put Pressure psi	Connections
133265	Pump with Strainer & Fittings	12	13	60	2x ¾" barbed
133266	Pump with Strainer & Fittings	12	19	70	2x ¾" barbed
133267	Pump with Strainer & Fittings	24	19	70	2x ¾" barbed
133268	Pump including Gun	12	13	60	2x ¾" barbed
133269	Pump including Gun	12	19	70	2x ¾" barbed
133270	Pump including Gun	24	19	70	2x ¾" barbed
133271	Pump including Gun and Hose	12	13	60	2x ¾" barbed
133272	Pump including Gun and Hose	12	19	70	2x ¾" barbed
133273	Pump including Gun and Hose	24	19	70	2x ¾" barbed
133274	Pump including Deck Fitting & Switch	12	13	60	2x ¾" barbed
133275	Pump including Deck Fitting & Switch	12	19	70	2x ¾" barbed
133276	Pump including Deck Fitting & Switch	24	19	70	2x ¾" barbed

Pump including Deck Fitting & Switch

Deck Wash Hose Gun

Multi-function hand spray includes rubber grip handle. Has 7 settings and stop valve to shut off water flow. Suits **133151** wash down hose.

BLA Code	Weight g
133199	140

BLA Coiled Wash Down Hose - 7.6m

Blue polyurethane coiled hose ideal for wash down applications, supplied with standard click on garden hose connectors.

BLA Code	Length m
133151	7.6

Deck Wash Nozzle

Trigger action compact deck wash hose nozzle. Adjustable spray jet and flow control. Available as a complete unit with quick connect fitting to suit 13mm (½") hose, or components can be purchased separately.

BLA Code
133201

133200

133204

133202

Standard Inclusions:

133200 Replacement nozzle
133202 Hose connector
133204 Nozzle adaptor to suit connector

Coiled Deck Wash Hose

This coiled deck wash hose is the neat solution to deck clutter and elimination of kinked hoses. The 7.6 metre coiled hose stows neatly in its plastic pod and is supplied with a spray nozzle and fitting accessories for connection of water supply.

BLA Code	Depth mm	Width mm	Height mm
133150	115	475	255

Whale® Orca 1300 Automatic Bilge Pumps

The Whale® Orca Auto 1300 automatic bilge pumps are designed to complement the intelligently controlled IC pump range. For ease of installation, wiring simplicity and security and to effect the removal of bilge water automatically and efficiently, Whale® has integrated a field sensor, innovative electronic control circuitry and powerful motor into one compact case. The large footprint ensures maximum surface area exposure to the bilge water and ensures lowest water level detection. The robust ABS housing contains the integrated microprocessor electronics which are sealed for protection against water ingress while the snap off motor housing enables easy cleaning of the acetal impellor and filter base.

131419

Features:

- High performance 1300 US GPH flow rate in either 12 or 24 volt models
- Fully protected integrated microprocessor electronics means no moving parts
- Built in automatic water sensor makes installation simple
- No separate bilge float switch required
- Low amp draw extends battery life
- Neat, compact shape with large foot print fits most areas
- ABS fuel resistant housing, nitrile seal, acetal impellor
- Large filter provides maximum surface area exposed to bilge water
- Unaffected by wave motion
- CE approved
- 1 year warranty

BLA Code	Volt	Open Flow		Output @ 1m	Hose Size	Max Head	Max Amp	Fuse	Height	Width	Depth
		L/m	gph	gph	mm	m	Draw	amp	mm	mm	mm
131419	12	82	1300	1100	25 & 28.5	4.5	5	7	129	168	121
131423	24	82	1300	1100	25 & 28.5	4.5	2.5	5	129	168	121

Whale® Orca Electric Bilge Pumps

The Whale® Orca electric bilge pumps are compact and powerful high performance pumps most suitable for recreational vessels. The housing is manufactured of robust fuel-resistant ABS plastic which is easily removed from the large filter base for easy cleaning and maintenance. ISO 8849 marine standard 3 year warranty.

BLA Code	Open Flow	Outlet Dia.	Power		Height	Width	Depth
	gph	mm	v	amps	mm	mm	mm
131410	500	19	12	1.5	83	102	78.5
131414	950	28.5	12	3.5	109	135	103
131418	1300	28.5	12	5	129	168	121
131422	1300	28.5	24	2.5	129	168	121

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level. Specified output is US gph open flow.

SPX Low Boy Bilge Pump

SPXFLOW › Johnson Pump

Low profile pump design for ease of mounting and removal in tight bilge areas. Perfect for boats where bilge pumps are mounted beneath inboard or I/O engines. Removable cartridge style.

For L550 LB we have easy-to-install Dura-Port discharge ports to eliminate stress cracking caused by over-tightened hose clamps. The pumps are delivered including both a straight and a 90° smooth elbow Dura-Port.

Specifications:

- Capacity 1m head 700 gph
- Capacity straight 800 gph
- Fuse Size 5A
- Connection 3/4"

BLA Code	Power		Max Length	Height
	v	amps	mm	mm
131840	12	3A	146	72

Spare Part:

131799 Replacement cartridge

SPX First Mate Bilge Pump

SPXFLOW › Johnson Pump

Designed as a low budget alternative for boat owners who nonetheless are looking for a quality product.

Specifications:

- Capacity 1m head 400 gph

BLA Code	Volts	Weight kg	Max ø	Max Height mm	Connection
131800	12	0.35	115	100	¾" hose

SPX Side Mount Bracket

SPXFLOW › Johnson Pump

Gives opportunity to mount the pump on a wall. Suitable for Cartridge and Cartridge Duo.

BLA Code
131825

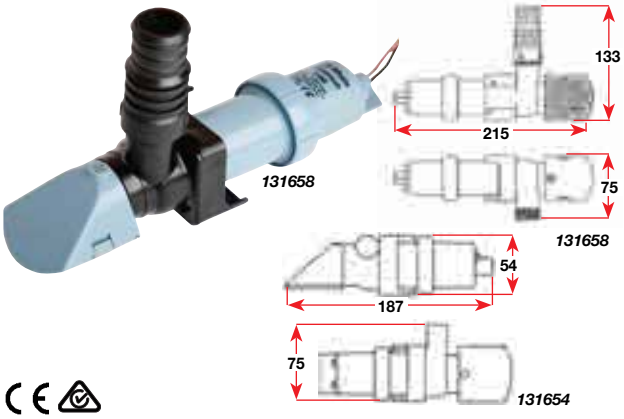
Whale® Supersub Electric Bilge Pumps

Whale®

The Whale® Supersub 500 and 1100 electric bilge pumps have a super slim, low profile design and feature an easy to clean integral strum box.

Features:

- Extremely low profile, only 54mm high
- Vertical or horizontal outlet position
- Vertical or horizontal mounting
- Removable strainer for easy cleaning
- Strainer design leaves minimum water level
- **131658/131660** features 25/28mm stepped hose connector



BLA Code	Open Flow		Outlet Dia.	Power		Mount Screws
	L/m	gph	mm	v	amps	gauge
131654	31.5	502	19	12	2.6	4 r/h
131658	66	1050	25/28	12	4.3	4 r/h
131660	66	1050	25/28	24	2.2	4 r/h

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level. Specified output is US gph open flow.

Whale® Supersub Smart Automatic Bilge Pumps

Whale®

The Whale® Supersub range of Smart automatic bilge pumps are a super slim, low profile design making them ideal for areas where space is at a premium. An integral electric field sensor automatically switches on and off with the detection of fluctuating bilge water levels. Designed for quick and easy installation, the multi-position pump head and outlet fits neatly into almost any area and position.

Features:

- Unaffected by wave motion
- Solid state switching with no moving parts
- Environmentally friendly and mercury free
- Integrated bleed ball prevents airlocks
- Electric field sensor technology
- Easy to clean built-in strum box, low maintenance design
- **131662/131664** includes built in non-return valve
- **131662/131664** features 25/28mm stepped hose connector
- CE certified and conforms to ISO8849 and ISO15083

BLA Code	Open Flow		Outlet Dia.	Power		Mount Screws
	L/m	gph	mm	v	amps	gauge
131656	40	650	19	12	3.4	4 r/h
131662	66	1050	25/28	12	4.3	4 r/h
131664	66	1050	25/28	24	2.2	4 r/h

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level. Specified output is US gph open flow.

SPX Cartridge Bilge Pumps - L450-L750 Series

SPXFLOW
Johnson Pump

Our cartridge pumps incorporate some of the most advanced features in the industry, features developed from service in a wide variety of uses including racing, cruising, sport fishing and demanding commercial duties.

For L450, L550, and L650, the design has been improved with easy-to-install Dura-Port discharge ports to eliminate stress cracking caused by over-tightened hose clamps. Where applicable the pumps are delivered including both a straight and a 90° smooth elbow Dura-Port as well as a removable check valve.

131802

BLA Code	Model	Capacity 1m head		Capacity straight (13.6 V)		Power		Fuse Size	Max Height	Height	Connection
		L/m	gph	L/m	gph	v	amps		mm	mm	
131802	L450 - 600 gph	33	525	40	630	12	2.5	5A	1.3	149	¾"
131804	L550 - 800 gph	44	700	50	800	12	3	5A	1.3	149	¾"
131810	L650 - 1000 gph	50	800	63	1000	12	3.2	5A	2.7	177	¾"
131812	L650 - 1000 gph	50	800	63	1000	24	2	3A	2.7	177	¾"
131814	L750 - 1000 gph	60	952	73	1150	12	3	5A	2.45	216	1⅛"
131816	L750 - 11500 gph	60	952	73	1150	24	2	3A	2.45	216	1⅛"

Spare Part:

131799 Replacement cartridge t/s **131802**, **131804**, **131810** and **131814**

SPX Replacement Bilge Pump Cartridge

SPXFLOW
Johnson Pump

Replacement cartridge with capacity of 55L/m. Suits L450 (**131802**), L550 (**131804**), L650 (**131810**) and L750 (**131814**) bilge pumps.

BLA Code
131799

Changing the replacement cartridge

SPX Ultima Bilge Pump With Integrated Switch

SPXFLOW
Johnson Pump

Sleek, reliable and compact unit with integrated switch (Ultima Switch™) ready to install and run for years of unerring service. Available in 600-800-1000-1250 GPH versions. Voltage is 12V DC. All Ultima Bilge™ pumps have easy-to-install Dura-Port discharge ports to eliminate stress cracking caused by over-tightened hose clamps. Where applicable the pumps are supplied including both a straight and a 90° smooth elbow Dura-Port and a removable check valve.

131834

BLA Code	Model	Capacity 1m head		Capacity straight (13.6 V)		Power		Fuse Size	Weight	Height	Width	Connection
		L/m	gph	L/m	gph	v	amps		kg	mm	mm	
131830	600 gph	32	500	38	600	12	2.5	5A	0.66	105	82	¾"
131832	800 gph	38	600	51	800	12	3	5A	0.66	105	82	¾"
131834	1000 gph	44	700	64	1000	12	3.2	5A	0.66	105	82	¾"
131836	1250 gph	51	800	79	1250	12	3	3A	0.66	117	82	1⅛" and 1¼"

SPX Heavy Duty Bilge Pump – L1600 Series

SPXFLOW
Johnson Pump

Designed to meet and exceed the tough demands of commercial and recreational duty. This pump has a liquid cooled, 12-pole motor with double ball bearings for extended service life. The L2200 motor is sealed off by a mechanical seal design, while the L1600 model has lipseal. The impeller is carefully designed and tested to maximise head and flow. The L4000 features a robust motor design, mechanical shaft seal, high impact ABS plastic and unique threaded port design. Universal base plate and a choice of 1½" or 2" ports makes for a simple installation. Removable check valve included.

Specifications:

- Shaft: 2343 grade stainless steel
- Wire size: 1.3 mm^2 – 16 GA
- Wire length: 1.8 m
- Max ø: 108

131818

BLA Code	Model	Capacity 1m head		Capacity straight (13.6 V)		Power		Fuse Size	Max Length	Height	Connection
		L/m	gph	L/m	gph	v	amps		mm	mm	
131806	L1600	98	1550	100	1600	12	7	10A	1.3	149	1⅛" and 1¼"
131808	L1600	98	1550	100	1600	24	3.5	6A	1.3	149	1⅛" and 1¼"
131818	L2200	120	1900	130	2060	12	7.5	12A	2.7	177	1⅛" and 1¼"
131820	L2200	120	1900	130	2060	24	4.5	6A	2.7	177	1⅛" and 1¼"
131823	L4000	164	2600	252	4000	12	15	25A	2.45	216	1½" and 2"
131824	L4000	164	2600	252	4000	24	7.5	15A	2.45	216	1½" and 2"

Whale® Premium Submersible Pumps

A compact, highly efficient centrifugal pump with high performance. Designed to be dropped into a water tank or container, this submersible pump has a built-in strainer to prevent suspended particles from entering the system. Suitable for freshwater, saltwater and diesel transfer. Constructed from ABS plastic, stainless steel and nitrile rubber. Suitable for use with ⅜" or ½" I.D. hose. For connection to system 15 use adaptor **136638**. One year warranty.

BLA Code	Cap Open Flow L/m	Power v	Power amp	Length mm	Overall Dia. mm
133102	13.2	12	3.6	117	36

N.B. Ensure that wiring connections remain above water level.

Whale® High Flow Submersible Pump

High flow submersible centrifugal electric pump. This pump features a self bleed valve that allows any air trapped in the pump to escape for greater pumping efficiency. A built-in strainer incorporated in the base prevents suspended particles from entering the system. Suitable for freshwater, saltwater and diesel transfer. Constructed from ABS plastic, stainless steel and nitrile rubber. For connection to system 15 use adaptor **136638**. 12 volt, 3.8 amp with 15.8 L/m capacity at open flow. One year warranty.

BLA Code	Hose Size mm	Hose Size in	Length mm	Overall Dia. mm
133104	10 & 13	⅜ & ½	160	39

N.B. Ensure that wiring connections remain above water level.

TMC Submersible And In Line Pumps

Handy small diameter pumps for marine and RV, designed for use in confined spaces. Each pump is water tested for delivery head, volume and AMP draw before leaving the factory.

131698 ***131697***

BLA Code	Open Flow Output L / hour	Outlet Dia. mm	Power v	Power amp	Max. Head m	Height mm	Base Dia. mm
131697	1060	13	12	3	7	139	42
131698	606	9 & 11	12	2.5	4.5	110	54

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water lever.

Whale® In-line Electric Pumps

Designed for confined spaces, these pumps can be fitted below a water tank and gravity-primed, or above the water tank with a manual priming pump. Can be fitted in-line with a submersible pump to boost the performance when higher pressure for a shower/water heater is needed. Constructed from ABS plastic, stainless steel and nitrile rubber. Suitable for diesel, fresh water or saltwater. For connection to system 15 adaptor use **136638**. One year warranty.

BLA Code	Capacity Open Flow L/m	Power v	Power amp	Hose Size mm	Hose Size in	Length mm	Overall Dia. mm
133106	13.2	12	3.6	10 & 13	⅜ & ½	144	36
133108	15.75	12	3.8	10 & 13	⅜ & ½	144	36

TMC Auto-Eye Fully Automatic Bilge Pumps

All in one fully automatic bilge pumps with built-in compact efficient long life motor, stainless steel shaft, high impact durable plastic housing with quick release strainer for easy cleaning and the added security of a built in electronic controlled reed sensor system.

Features:

- Auto eye sensor
- No separate float switch
- No power use until pump switches on
- 2 year limited warranty

131620 131622 131626

BLA Code	Open Output Flow		Power		Max Head	Base	Height
	lph	gph	v	amps	mm	mm	mm
131620	1890	500	12	1.6	2.5	136	110
131622	3786	1000	12	4.5	4	165	130
131624	3786	1000	24	2.5	4	165	130
131626	5676	1500	12	9	4	191	150
131628	5676	1500	24	4.5	4	191	150

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.

TMC Heavy Duty Electric Submersible Bilge Pumps

The highest quality submersible bilge pumps available from TMC. Aluminium motor enclosure base dissipates motor heat while the electrodeposition coating resists corrosion.

Features:

- Permanent magnet motor
- Snap-on mount base strainer
- Two year limited warranty
- Every pump is water tested to ensure delivery head, voltage and amp draw are within specifications

131618 131616 131614 131603

BLA Code	Open Flow		Outlet Dia.	Power		Max Head	Base Dia.	Height
	L/m	gph	mm	v	amp	m	mm	mm
131600	31.5	500	19	12	3.5	4.6	88	140
131602	63	1000	28	12	5.5	4.6	88	140
131603	94.5	1500	28	12	8	3.3	120	170
131604	126	2000	28	12	12	3.9	120	170
131606	158	2500	32	12	18	4.5	132	197
131608	190	3000	32	12	18	4.5	132	197
131613	94.5	1500	28	24	4	3.3	120	170
131614	126	2000	28	24	5	3.9	120	170
131616	158	2500	32	24	7.5	4.5	132	197
131618	190	3000	32	24	9	4.5	132	197

Spare Parts:

131540 Repair kit to suit 500 and 1000 models
131542 Repair kit to suit 1500 and 2000 models
131544 Repair kit to suit 2500 and 3000 models

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.
Specified output is US gph open flow.

TMC Compact Bilge Pumps

An economical submersible electric bilge pump available in 450 or 900gph. Compact low profile design for confined bilge areas. Snap-on mount base strainer. Every pump is water tested to ensure delivery head volume and amp draw are within design specification before leaving the factory. 12 months limited warranty.

131592

BLA Code	Open Flow		Outlet Dia.	Power		Max. Head	Base Dia.	Height
	L/m	gph	mm	v	amps	m	mm	mm
131590	28.3	450	19	12	1.5	2	75	84
131592	56.6	900	25	12	3.5	3.5	98	107

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.
Specified output is US gph open flow.

SPX Automatic Switch - AS888

SPXFLOW Johnson Pump

For full automatic bilge pumping operation, connect the automatic switch to your bilge pump. The AS888 automatic switch has a time-proven micro switch without mercury. When water exceeds the acceptable level, the pump is turned on by a rolling steel ball, which changes the pressure on the micro switch. The AS888 attaches to any of SPX's Johnson Pump marine brand bilge pumps through the clip on "T-slot" and can be used with 12V and 24V systems.

BLA Code	Amps
131686	15A

Whale® Float Switch

Whale

Easily converts electric bilge pump to automatic operation by sensing rising water level. Can be used on any low voltage electric pump (6-32V) with a load current up to 15 amps. Can be installed horizontally or vertically. Environmentally friendly – no toxic mercury. Can be used as a high water alarm when mounted vertically.

BLA Code	Power Rating		Length	Width	Height	Mount Screws
	v	amp	mm	mm	mm	mm
131688	6-32	15	110	59	106	4 r/h

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.

Sure Bail Float Switches

Super reliable float switch with cover, converts electric bilge pumps to automatic operation. High impact resistant polypropylene case protects the float mechanism from physical damage and fouling. Polyurethane foam filled float. Closed tube mercury switch. Pump cuts in at water depth of 45mm, cut out is at 20mm of water depth. **131693** is supplied unpackaged.

BLA Code	Power Rating		Length	Width	Height	Mount Screws
	v	amp	mm	mm	mm	mm
131692	6-32	15	140	65	75	4 r/h
131693	6-32	15	140	65	75	4 r/h

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.

TMC Float Switch

TMC

Economical, spark-proof, plastic float switch. Running ball contact type with on/off switch, activated with rising water level. When water level lowers, the switch automatically turns the bilge pump off.

BLA Code	Power Rating		Length	Width	Height	Mount Screws
	v	amp	mm	mm	mm	mm
131694	12-24	15	116	72	82	5 r/h

Attwood Float Switch with Cover

attwood

Converts bilge pumps into fully automatic pumping systems. Protected float switch with running ball actuated switch (not a mercury switch) assures the reliability of these quality units. The float switch will actuate when the water level exceeds 50mm above the set point. Switch can be mounted onto the bottom of boats with deadrise of up to 24°, so virtually any bottom position will be suitable. There is a test knob for convenient testing of pump operation. Electrical wires do not move and subsequently deteriorate as the float moves, providing further reliability.

BLA Code	Power Rating	Height	Width	Depth	Mount Screws
		mm	mm	mm	mm
131696	12V-12A, 24V-6A	72	98	135	4 r/h

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.

Whale® Automatic Bilge Field Switch

Whale

The electric field sensor senses the water level in bilges or grey waste tanks and automatically controls the operation of a 12 or 24 volt bilge pump. The switch automatically turns the pump on when it senses a water level of 51mm and turns off when the water level returns to below 13mm. Designed for pleasure boat applications and not suitable for flammable liquids, diesel and chemicals.

BLA Code	Power Rating		Length	Widht	Height	Mount Screws
	v	amp	mm	mm	mm	mm
131691	12-24	20	92	62	20	4 r/h

SPX Ultima Float Switch

Uses the patented Mirus field effect detector cells producing micro-electrical fields that detect disruptions caused by water and fluids. Detector cells are totally sealed and are never in contact with the water, will not corrode and are not affected by oil or foreign debris. No moving parts, totally sealed solid state electronics and field detectors, no mercury and no exposed sensors eliminate corrosion possibilities and makes the Ultima switch environmentally sensitive. Ultima activates at a 50mm (2") fluid level and deactivates at a 20mm (¾") fluid level. A 3 second delay prevents false starts. Ultima switch is rated to handle pumps up to 20 amps at 12 or 24 volts.

BLA Code
131684

SPX Electronic Float Switch

Compact mechanical switch offers a combination of reliable solid state electronics and a sealed float switch. False start prevention, no mercury, high impact plastic and encapsulated electronics adds up to dependability. Activates pump at 50mm (2") water level, deactivates pump at 20mm (¾") water level. 12V and 24V unit available.

131680

BLA Code	Volts	Amps
131680	12	15A
131682	24	8A

Whale® Strum Box

An essential fitting for any manual bilge pump pick up hose to prevent debris entering and blocking the hose or jamming the pump. Multi-directional port options facilitate optimal pick up position by utilising either top or side entry. Built-in non-return valve prevents backflow into the bilge and aids pump prime.

Features:

- Ideal for use with remote mounting pumps (e.g. Gulper 320)
- Easy installation – multi-directional port options for either top or side entry
- Non-return valve prevents back flow into the bilge
- Designed to fit deep down in the bilge
- Compact design fits into tight spaces
- Easy cleaning and maintenance

BLA Code	Hose Size mm	Length mm	Width mm	Height mm	Mount Screws mm
131120	19/38	150	60	60	4 r/h

SPX Bilge Pump Control

Switch panel that gives full control of your equipment. Just push the button for manual or automatic bilge pumping. The automatic feature operates in combination with the automatic bilge switches or the electronic float switch. The three-position switch panel in matte black finish has an integrated fuse holder and operating light. Fuses included.

BLA Code	Volts	Length mm	Width mm	Height mm
131690	12	73	40	60

SPX Bilge Alert

High water alarm featuring digital technology using the patented Mirus field effect cell. Totally sealed fluid detectors are never in contact with water, will not corrode and are not affected by oil or debris. Bilge Alert detects water and sends a signal (3 seconds delay) to the alarm and switch conveniently mounted on a panel. Three way rocker switch allows alarm to be tested, turned off and armed.

131678

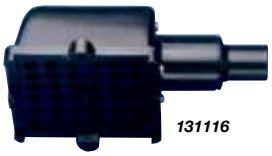
BLA Code	Volts
131678	12
131674	24

Whale® Strum Boxes

Fitted at the end of a manual bilge pump suction hose deep in the bilge, a Whale® strum box prevents debris from entering and blocking the hose or bilge pump. Available in top entry for deeper bilges or side entry for shallow bilges. They are suitable for 25mm hose and can be cut to accept 38mm hose.

Features:

- Allows maximum amount of water to be pumped from the bilge
- Fitted non-return valve prevents drain back
- Removable strainer for ease of cleaning
- Pump out of bilge water as shallow as 5mm



131116

131118

BLA Code	Entry	Length mm	Width mm	Height mm	Mount Screws mm
131116	Side	170	120	58	5 r/h
131118	Top	147	56	104	5 r/h

SPX Livewell Timer

Livewell timer will turn on or cycle your aerator to increase the life of the pump motor. On cycle pumps for 30 seconds, off cycle is variable from 0-5 minutes.

BLA Code
131724

SPX Pro Series 1600 GPH Livewell/Baitwell

SPXFLOW Johnson Pump

Features heavy duty bronze bottom inlet, 1600 GPH of pumping power, dual port capability, mega torque motor, double ball bearings, quiet running design, 1" NPT female intake. Built for the serious fisherman!

BLA Code	Volts	Amps	Fuse Size	Connection	Capacity Straight (13.6V)	Capacity 0.9m head (13.6V)
131866	12	7A	10A	1⅛" and 1¼"	1600GPH	1550GPH

SPX Cartridge Aerator Pump

SPXFLOW Johnson Pump

Livewell pumps in 500 GPH and 750 GPH capacities with two different intake configurations of straight and 90°. Smaller profiles to fit in more confined spaces. Easy to change motor cartridge.

131876

131862

BLA Code	Description
131862	500 GPH straight
131864	750 GPH straight
131876	500 GPH 90°
131878	750 GPH 90°

Spare Part:

131799 Replacement cartridge pump L550 55L/m

SPX Twin Port Pumps

SPXFLOW Johnson Pump

Offer the convenience of using only one intake for both the livewell and raw water wash down pump. The ¾" tapered inlet connects directly to the sea cock and the upper outlet port provides a continuous flow of water through the ¾" discharge to the livewell while the lower outlet port connects to the wash down pump through either a ½" or ¾" ports. New high pressure inlet seal easily handles the higher pressures created by high speed pickups commonly used.

131872

BLA Code	Description
131872	500 GPH
131874	750 GPH
131873	1000 GPH
131875	1200 GPH

Spare Part:

131799 Replacement cartridge t/s **131872** and **131874**

SPX Ice Chest Aerator Kit

SPXFLOW Johnson Pump

Converts any good sized Esky into your own portable live bait tank. The Ice Chest Aerator will keep your live bait alive, or catch fresh, even during the heat of the day. Includes a sturdy Bilge Mate pump, hose, spray bar, press on clamp, battery clamps and clear-cut instructions. Since there are no holes to drill the chest can always be returned to its original purpose.

BLA Code
131870

Spare Parts:

131725 Esky Aerator Head

SPX In-Well Aerator Kit

SPXFLOW Johnson Pump

The easiest way to add oxygen to your live bait well. Use it as your primary aerator, or to recirculate while you are making a long run across the bay, or if you are towing the boat, you can stop for fuel and be aerating your catch while the boat is on the trailer. A dependable 500 GPH forces water through the aerating head to provide vital oxygen for respiration ensuring your bait stays fresh longer. To empty the well at the end of the day, merely open the valve, activate the pump and water passes through a discharge fitting.

BLA Code
131860

TMC Multi-Purpose Aerator Kit

Aerator system supplied complete with 28 L/m (450 US gph) submersible pump, 3 metres of electrical wire fitted with alligator clips, 1.5 metres of 19mm spiral hose, two suction cup spray rail mounting brackets, one 310mm long spray rail and one 130mm long spray rail. Recirculates water in live-wells via spray rail to maintain oxygen level. Every pump is water tested to ensure volume and amp draw are within specification.

BLA Code
131712

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.

TMC Bait Bubbler

Self contained, portable aeration system. Operates from two 'D' cell batteries (not included) for approximately ten hours. Supplied complete with 800mm of tubing, weighted glass bead air stone and adjustable stainless steel mounting bracket. Ideal for beach anglers to keep bait live for hours in a bucket.

BLA Code	Height mm	Width mm	Depth mm
131718	160	105	55

Aerator Head

For use with aerator pumps in live-wells with built-in overflows. Black U.V. stabilised injection moulded plastic. Simple flow adjustment incorporated in the head.

BLA Code	Max. Wall Thickness mm	Width mm	Height mm	Mount Screws mm
131722	8	135	19	27

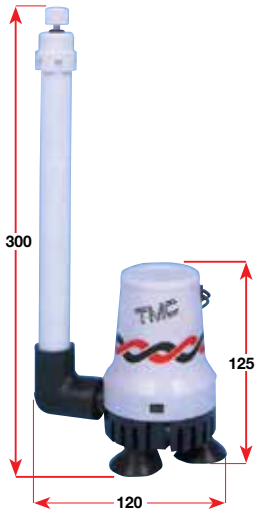
BLA Stainless Steel Thru Hull Water Pick-Up

Designed to suit a variety of outlet aerator system combinations.

BLA Code	Thread BSP	O/all Length mm	Flange O.D. mm
131964	¾"	70	40

TMC Anglers Aerator

Portable single piece live bait aerator to suit almost any application. Supplied with 1.2 metres of electrical wire fitted with alligator clips. 12 volt, 16 L/m (250 US gph) submersible pump fitted with three suction cup mounts and riser spray tube with adjustable flow control. Every pump is water tested to ensure volume and amp draw are within specification.



BLA Code
131714

N.B. As with all submersible electrics, attention is needed during installation to ensure that wiring connections remain above water level.

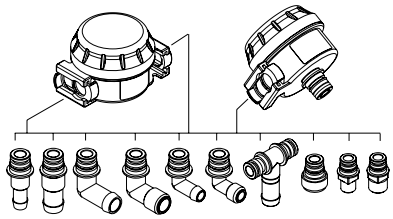
Livewell Aerator Control

This unit features a solid state timer with adjustable cyclic run times. Run time is approximately 1.5 minutes, off time is variable from 1–10 minutes. Three way toggle switch-off/ manual/auto. Suitable for all livewell pumps to 10 amps. Black moulded plastic face with white raised lettering.

BLA Code	Face Size mm	Cut Out mm	Intrusion mm	Mount Screws mm
131726	85 x 85	60 x 52	55	4 c/s

SPX Klicktite™ Port Connectors

KlickTite™ port connectors are available for virtually any hose diameter and make it possible to remove the entire unit for thorough cleaning wherever it's most convenient. They also make it possible to drain the system quickly without the use of any tools.



BLA Code	Description	Quantity
131850	T-connection, ¾" barb	1
131852	T-connection, ¾" barb	2
131854	90°, ¾" hose	1

Marine Town® Live-well/Bait Tank Pick Up

Installed through the transom for connection to self priming live-well pumps. The cast 316 stainless steel head fitting is installed above waterline and can be fitted with a ¾" ball valve for added security. The 16mm stainless steel pick up tube fits into the head assembly via a rubber cup gasket allowing easy removal for clearing of debris. The pick up tube can be cut to length if required and is supplied standard with an angled tip to provide water flow when under way, without pump. The lower mount saddle has a rubber insert that allows connection at any height and also secures the pickup tube into the head assembly.

BLA Code	Thru Hull BSP	Max. Hull Thickness mm	Pick Up Tube mm	Mount Screws mm
131966	¾"	90	16 x 300	4 c/s

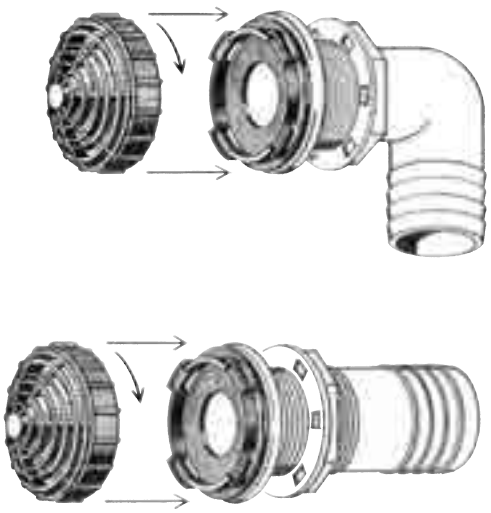
Attwood Aerator Rail

Combination adjustable flow control ball valve and spray rail in one. Non-corrosive black thermo plastic construction makes it suitable for salt and freshwater. Overhead or side mounting.

BLA Code	Hose Size mm	Length mm	Height mm	Depth mm	Mount Screws mm
131730	19	265	42	42	5 r/h

Overflow Fittings with Filters

Designed principally for livewells and bait tanks, these straight or 90° elbow filtered drains allow maximum overflow, yet retain the bait or fish. Twist off cap for easy removal and cleaning.



BLA Code	Description	Hose mm	Flange mm	Cut Out mm	Intrusion mm
131972	Straight outlet	38	74	48	84
131974	90° elbow outlet	38	74	48	98

SPX Aerating Heads

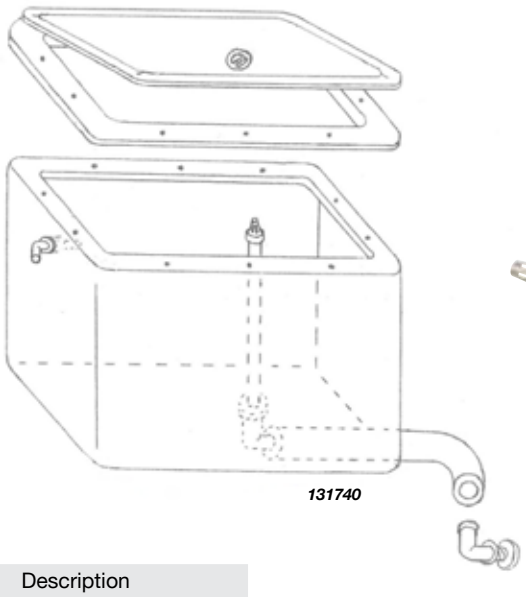
Spray head assemblies can be custom made to required fit, size and flow capacity. A variety of shapes, configuration and options allow us to build these aerating heads to your specifications. Prototyping kits available.

131721

BLA Code	Description	Length mm	Length in	Thru Hull mm	Thru Hull in
131721	Short 18cm	171	6¾	19	¾
131723	Long 25cm	247	9¾	19	¾

SPX Live Bait Tank

Johnson offers a complete “packaged” live bait tank kit with hatch, spray bar, overflow plumbing, hose and skin fittings or choose the components separately. The pump design varies from through transom, skin fitting or submersible and the flow rate varies from 450 gph to a market leading 4,000 gph.


131740

131744

131741

131724

131742

BLA Code	Description
131740	Live Bait Tank Kit 30 L

Standard Inclusions:

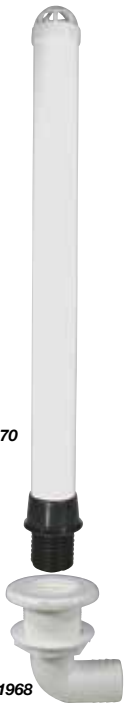
131744 Live Bait O/Flow Plumbing Kit
131741 Live Bait Tank Hatch
131742 Live Bait Tank

Accessories:

131724 Live Well Aerator Timer

Livewell Overflow Drain

90° injection moulded drain fitting installs in base of live tank, for connection to through hull, with minimal space requirement under live tank. The plastic and PVC overflow tube is fitted into drain fitting to keep livewell water depth at desired level. Grate at top of overflow tube prevents catch or live bait from blocking overflow tube. To empty live tank remove the overflow tube. Over flow tube is 450mm long but can be cut down as required. Tube and drain purchased separately.


131970

131968

BLA Code	Outlet	Hose Size mm	Flange Overall Dia. mm	Cut Out Dia. mm	Intrusion mm
131968	90°	38	74	48	100

Accessories:

131970 Overflow tube

Sant Marine Live Bait Tank

Ready to install, moulded polyethylene live bait tank. Supplied complete with transom mount water pick-up and 12 volt submersible pump. Incorporates storage recess hinged lid. 20mm overflow outlet with filter and 20mm inlet that connects via hose (not included) to the pump.

BLA Code	Length mm	Width mm	Height mm
395202	585	340	335

Accessories:

193666 Replacement hinges

N.B. Pump is not self priming, requiring gravity feed.

Henderson Single Action Manual Pump - Mk5

The free flow valve design makes the Mk5 ideal for a variety of pumping applications such as bilge, diesel transfer, emptying effluent tanks and vacuum toilet pump out. Suitable for both floor and bulkhead installations and can also be converted to through deck installation. The quick release cover makes for easy access and inspection of the diaphragm and valves, as well as clearing obstructions. Constructed from stainless steel, phosphor bronze, acetal, glass reinforced polypropylene and nitrile rubber.

BLA Code	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
	L/m	g/m	m	m	mm	mm
131016	56	12.3	4.5	4.5	38	6r/h

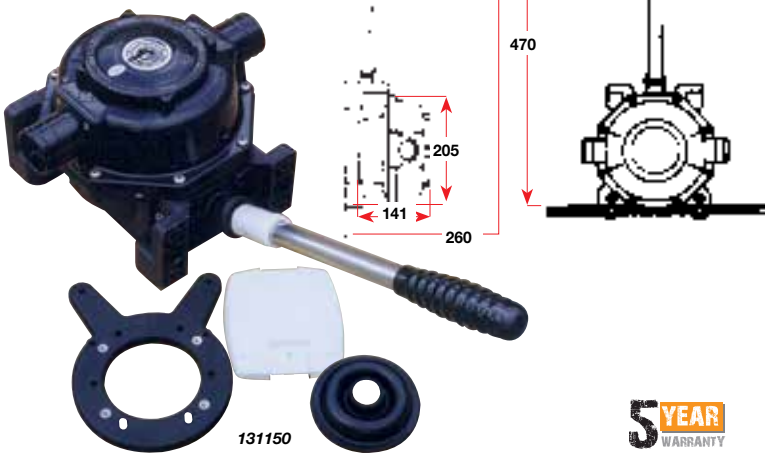
Accessories:

131150 Through deck conversion kit

Spare Parts:

131240 Service kit – nitrile
131242 Spare removable handle
131243 Rocker arm assembly – through deck
131244 Rocker arm assembly kit – bulkhead mount
131246 Diaphragm plate and pivot
131249 Diaphragm only – nitrile

N.B. Capacity measured at 60 strokes per minute.



5 YEAR WARRANTY

Henderson Double Action Manual Pump - Mk5

The Mk5 double action pump consists of two Mk5 pumps mounted back to back and operated by the one handle. It may be fitted either to the floor/deck, or through the deck with purchase of optional through deck conversion kit. Twin diaphragms allow the Mk5 double action pump to empty two separate bilge compartments at the same time, or one twice as quickly using the two manifolds supplied. Even if one bilge runs dry, pumping of the other can continue unimpaired. Suitable for saltwater, bilge water, waste water, effluent and diesel. Made from aluminium alloy, stainless steel, phosphor bronze, acetal copolymer, polypropylene, nitrile rubber and neoprene rubber.

BLA Code	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
	L/m	g/m	m	m	mm	mm
131022	104	23	4.5	4.5	38	8r/h

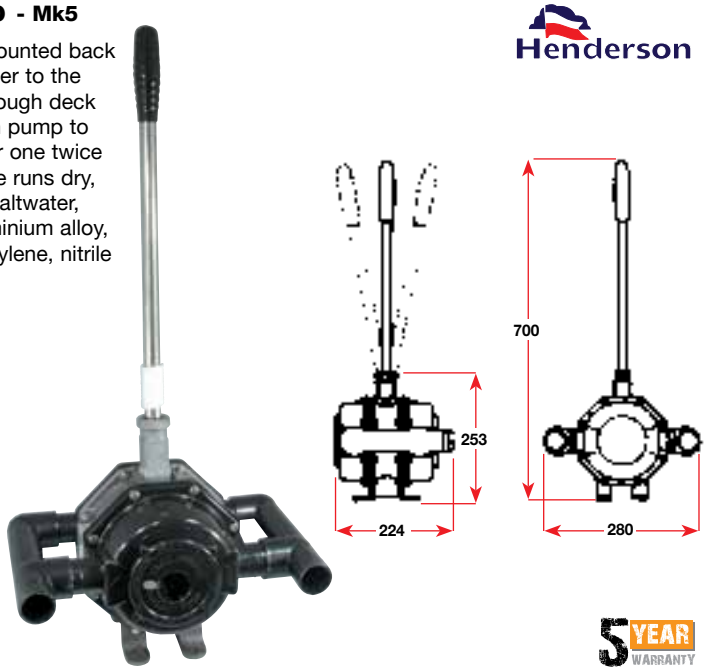
Accessories:

131150 Through deck conversion kit

Spare Parts:

131250 Service kit – nitrile
131256 Clamp plate kit

N.B. Capacity measured at 60 strokes per minute.



5 YEAR WARRANTY

Whale® Toilet Waste Pump

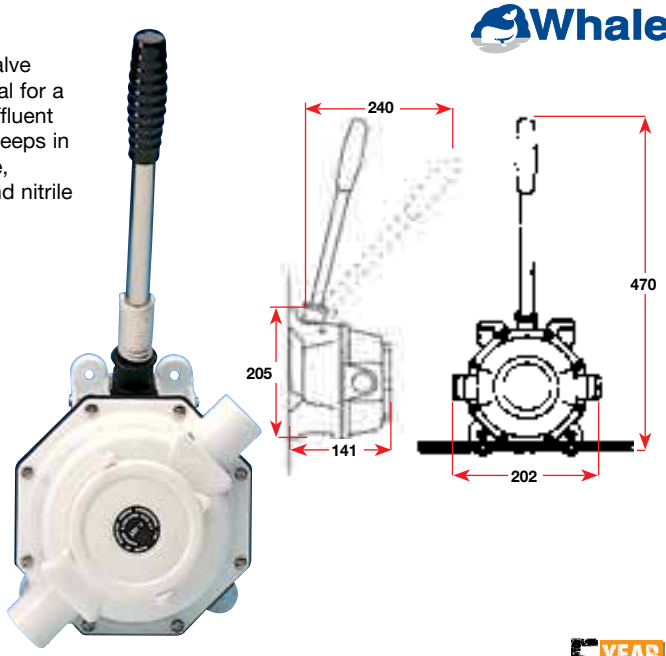
Principally used as a manual toilet waste pump. The free flow valve design and quick release inspection cover makes this pump ideal for a variety of applications such as bilge, diesel transfer, emptying effluent tanks and vacuum toilet pump out. White ABS plastic housing keeps in nasty smells. Constructed from stainless steel, phosphor bronze, acetal, glass reinforced polypropylene, glass reinforced nylon and nitrile rubber.

BLA Code	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
	L/m	g/m	m	m	mm	mm
131019	56	12.3	4.5	4.5	38	6r/h

Spare Parts:

131240 Service kit – nitrile
131242 Spare removable handle
131244 Rocker arm assembly kit – bulkhead mount
131246 Diaphragm plate and pivot
131249 Diaphragm only – nitrile

N.B. Capacity measured at 60 strokes per minute.



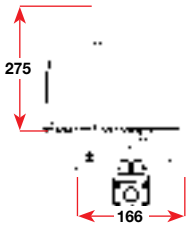
5 YEAR WARRANTY

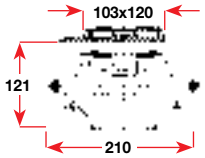
Henderson Manual Pump - Compac 50

Designed specifically for low profile installations where space is limited. Quick and easy to fit and offers a wide variety of possible installation configurations. Suitable for saltwater, bilge water and even diesel. Constructed from stainless steel, glass reinforced polypropylene, acetal copolymer, nylon, PBDT, nitrile and EPDM rubber.

Features:

- Mounting hole positions are square – giving a choice of pump stroke directions relative to the position of the deckplate
- Inlet and outlet mount bases are set at 45° relative to the pump body and have a square base that can be rotated, giving four possible hose directions on each side
- Pump body can be rotated to accommodate different hose direction requirements
- Supplied complete with deck plate





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BLA Code	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
	L/m	g/m	m	m	mm	mm
131012	43	9.5	3	4	25	6 c/s

Spare Parts:

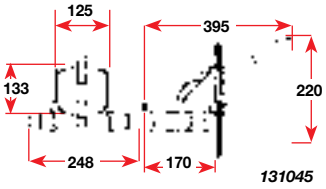
131230 Service kit - nitrile
131231 Deck plate kit
131232 Spare removable handle
131236 Ring clamping kit

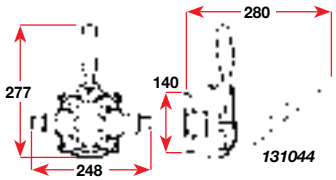
N.B. Capacity measured at 60 strokes per minute.

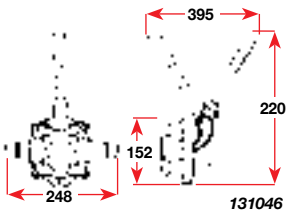
5 YEAR WARRANTY

Whale® Manual Bilge Pumps - Gusher Urchin

Manual bilge pumps for small to medium sized craft. These sturdy pumps are self-priming. Handles can be orientated in any direction and the diaphragm can be easily accessed for maintenance or removing debris. Stepped hose attachments allow either 25mm or 38mm hose connection. Suitable for saltwater, bilge water, waste water and effluent. Made from acetal copolymer, glass filled polypropylene, nylon, stainless steel and neoprene. Nitrile rubber service kit available for use with oils and diesel.







CE

BLA Code	Handle	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
		L/m	g/m	m	m	mm	mm
131044	Fixed	47	10	4	3	25/38	6 r/h
131045	Through deck	47	10	4	3	25/38	6 c/s
131046	Removable	47	10	4	3	25/38	6 r/h

Spare Parts:

131300 Service kit – nitrile
131301 Service kit – neoprene
131302 Spare removable handle
131304 Fixed handle kit
131306 Removable handle kit
131308 Clamp ring kit above deck
131320 Diaphragm neoprene

N.B. Capacity measured at 60 strokes per minute with 38mm hose.

5 YEAR WARRANTY

Whale® Manual Bilge Pump - Gusher 30

The Gusher 30 is the largest capacity manual pump in the Whale® range. Made from anodised and epoxy coated marine grade LM6 aluminium alloy. Floor/deck or through deck mounted with purchase of optional through deck conversion kit.

Features:

- Neoprene valves and diaphragms
- Twin diaphragms (retains suction even if one diaphragm is damaged)
- Easy access for cleaning and servicing via large nylon hand nuts (no tools required)
- Free flow, non-choke valves
- Stainless steel fastenings
- Acetal copolymer bushes
- Suitable for survey vessels

BLA Code	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
	L/m	g/m	m	m	mm	mm
131030	100	22	4	4	38	8 r/h

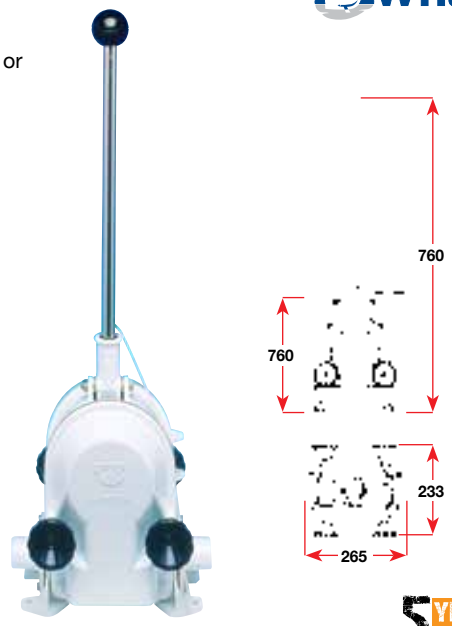
Accessories:

131154 Through deck conversion kit

Spare Parts:

131260 Service kit – neoprene
131262 Spare removable handle
131264 Gaiter kit

N.B. Capacity measured at 60 strokes per minute.



5 YEAR WARRANTY

Whale® Manual Bilge Pump - Gusher 10 Mk3

A bilge pump with a world wide reputation for reliability. The large valves ensure smooth flow and reduce the likelihood of blockage by any stray debris in the bilge water. Used extensively for manual pump-out of effluent holding systems. Variable mounting positions enable the pump to be installed either on bulkhead, floor or through deck with the purchase of optional through deck kit. The design gives instant access to all parts for maintenance. Made from epoxy resin coated alloy, stainless steel, and neoprene rubber. Suitable for use with oils and diesel transfer if fitted with nitrile service kit.

BLA Code	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
	L/m	g/m	m	m	mm	mm
131034	100	22	4	4	38	8 r/h

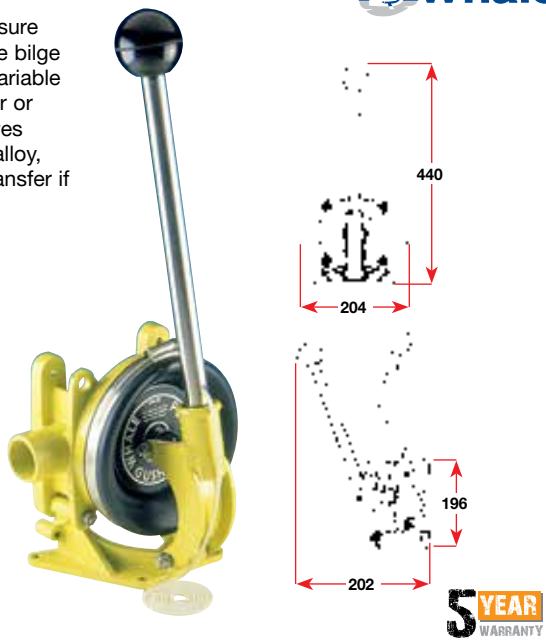
Accessories:

131156 Through deck conversion kit – alloy
131158 Through deck conversion kit – plastic

Spare Parts:

131280 Service kit – nitrile
131281 Service kit – neoprene
131282 Spare removable handle
131284 Eye bolt assembly

N.B. Capacity measured at 60 strokes per minute.



5 YEAR WARRANTY

Whale® Manual Bilge Pumps - Gusher Titan

The Titan is a very powerful, compact bilge pump available in a choice of bulkhead or through deck mount. Its large, single pump chamber and generous valve ports have been designed to give a smooth, high volume flow rate. The diaphragm and handle assembly can be rotated for variable pumping positions. Suitable for saltwater, bilge water, waste water and effluent. Nitrile service kit available for use with oils and diesel.

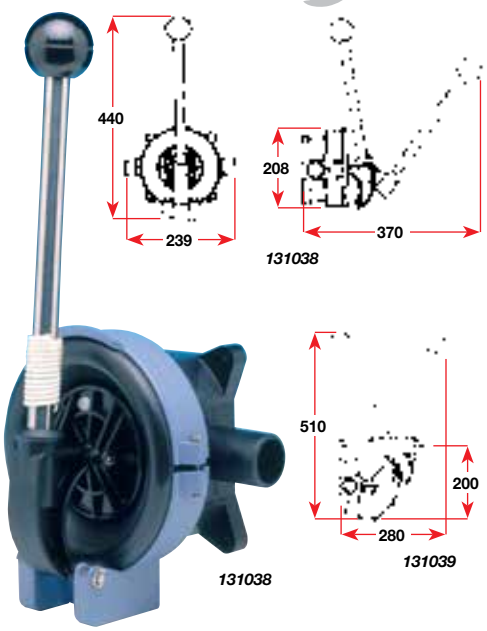
Made from moulded acetal copolymer, glass filled polypropylene, nylon, stainless steel, chromed phosphor bronze, nitrile and neoprene rubber.

BLA Code	Mount	Capacity		Max Lift	Max Head	Hose Size	Mount Screws
		L/m	g/m	m	m	mm	mm
131038	Bulkhead	89	19.5	4	4	38	6 r/h
131039	Through deck/bulkhead	89	19.5	4	4	38	6 c/s

Spare Parts:

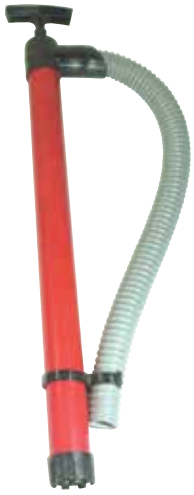
131282 Spare removable handle
131290 Service kit – neoprene
131292 Clamp plate kit
131296 Bulkhead clamp ring kit
131283 Under deck lever kit
131291 Service kit – nitrile
131298 Under deck clamp ring kit

N.B. Capacity measured at 60 strokes per minute.



Portable Hand Bilge Pump

A versatile hand held bilge pump for dinghys, small boats or as a backup pump. Rigid plastic and PVC, corrosion free construction.



BLA Code	Barrel Length mm	Outlet Hose mm
131060	600	32 x 600

Whale® Piping Connectors

The Whale® 90° elbows are useful in many bilge pump installations, especially in confined spaces. One end clamps externally over a Whale®/ Henderson manual bilge pump inlet or outlet while the other end fits internally into the bilge hose that would normally be connected to the bilge pump to create a 90° plumbing bend at the hose to pump connection.

131104

BLA Code	Hose Size mm	Max Length mm	Max Width mm
131102	25	45	54
131104	38	60	75

Superceded Whale®/Henderson Pump Spares

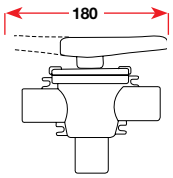
BLA Code	Description	Whale®/ Henderson Number
131188	Chimp Mk 1 & 2 diaphragm stud	405.03
131189	Chimp Mk 1 & 2 diaphragm plate	405.04
131190	Chimp Mk 1 & 2 diaphragm nut	405.05
131197	Chimp Mk 1 & 2 fulcrum pin	406.45
131198	Chimp Mk 1 & 2 hinge pin	406.46
131199	Chimp Mk 1, 2 & Urchin circlip	733.40
131220	Chimp Mk 2 neoprene service kit	AK8015
131222	Chimp Mk 2 nitrile service kit	AK8017
131227	Chimp Mk 2 neoprene diaphragm	406.37
131228	Chimp Mk 2 inlet valve	733.08
131229	Chimp Mk 2 outlet valve	733.09
131270	Gusher 25 nitrile service kit	AK3528
131324	Gusher 8 Mk 3 neoprene service kit	SK8813

Whale® Diverter Valves

High quality two-way valves, normally installed in the suction or discharge line of bilge pumps, they also have many other uses including toilet waste diversion. They are precision machined to eliminate seepage and odour problems.

Features:

- Allows one pump to draw from two locations
- Teflon lubricated smooth lever operation



BLA Code	Hose Size mm	Width mm	Height mm	Depth mm	Mount Screws mm
131124	25	139	146	103	5 r/h
131126	38	159	153	103	5 r/h

5 YEAR WARRANTY

'Y' Valve

Provides controlled diversion of 2 x 38mm lines into one or vice versa. Typical uses include connection of one bilge pump to two separate bilge areas or installation in a toilet system to control discharge to holding tank, or deck waste pump out, or discharge overboard (if permitted). Manufactured from ABS plastic to retain odours. Stainless steel fastenings used throughout. Locking tab enables the valve to be locked in one line open position. Valve configuration has common port always open with one of the other ports selectably open or both open. It is only possible to close one port at any one time.

BLA Code	Hose Size mm	Width mm	Depth mm	Height Handle Up mm	Mount Screws mm
131138	38	139	110	157	5 r/h

Whale® The Elegance Range

Suitable for pressure or micro switched systems.
Use **136639** adaptor for connection to Whale® System 15 pipework.

Features:

- Microswitch supplied with **134100**, **134004**, **134102** and **134106** is easily installed without tools. Turns on and off non pressure pumps with turn of tap
- Pillar valve for fine flow control
- Internal joints and seals are not under pressure when taps are closed
- Available as single or mixer units
- Robust ABS construction
- Elegance faucets and showers are serviceable, they are not sealed units

Whale® Combination Faucet Showers

The swivelling faucet features a socket base unit with a retractable hose that enables use as a faucet or shower. Water flow can be temporarily shut off at the shower head. Wall mount for shower head included. Available as single or mixer tap.

134106

BLA Code	Description	Mount Base mm	Hose Size mm	Height Above Bench mm	Mount Screws mm
134106	Single	112 x 53	12	120	4 c/s
134108	Mixer	164 x 55	12	120	4 c/s

Spare Parts:

134602 Tap service kit
134603 Tap knob, stem, red and blue rings
134609 Replacement handset – ½" BSP
136637 Adaptor to connect to system 15 (2 pack)

Superceded Parts

134604 Replacement hose, ⅜" BSP plastic ends, 1.7m
134606 Replacement handset – ⅜" BSP

N.B. Space must be available beneath tap for shower hose storage.

Whale® Single Faucet Tap

Swivelling standard faucet for cold water only systems.

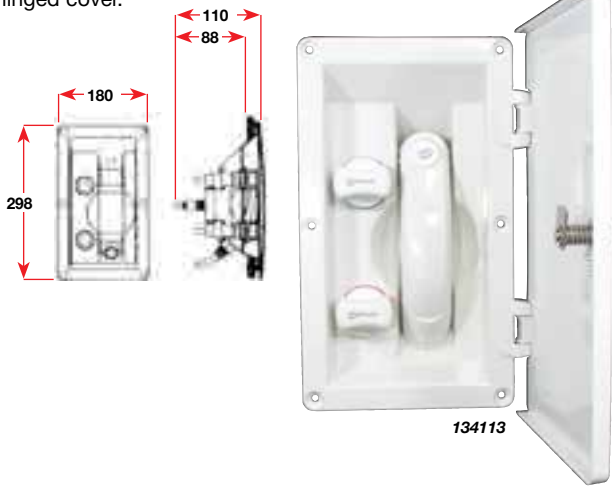
BLA Code	Mount Base mm	Hose Size mm	Height Above Bench mm	Mount Screws mm
134100	112 x 53	12	120	4 c/s

Spare Parts:

134602 Tap service kit
134603 Tap knob, stem, red and blue rings
136637 Adaptor to connect to system 15 (2 pack)

Whale® Swim-N-Rinse Showers

Ideal for the swim platform of any boat. This recess mounted unit features a retracting hose and multi adjustable shower head. Available as a single or mixer tap with or without hinged cover.



134113

BLA Code	Description	Cover	Tap Tall BSP	Mount Screws mm
134112	Mixer swim/rinse	No	½" ext.	6 c/s
134113	Mixer swim/rinse	Yes	½" ext.	6 c/s

Spare Parts:

134602 Tap service kit
134603 Tap knob, stem, red and blue rings
134608 Replacement hose, ½" and ⅜" BSP metal ends, 2.1m
134609 Replacement handset – ½" BSP

Superceded Parts:

134606 Replacement handset – ⅜" BSP

N.B. Space must be available beneath tap for shower hose storage.

Whale® Mixer Faucet Tap

Swivelling mixer faucet for hot and cold water systems. Available in short or long faucet configuration.

134104

BLA Code	Description	Mount Base mm	Hose Size mm	Height Above Bench mm	Mount Screws mm
134102	Mixer short	164 x 55	12	120	4 c/s
134104	Mixer long	164 x 55	12	184	4 c/s

Spare Parts:

134602 Tap service kit
134603 Tap knob, stem, red and blue rings
136637 Adaptor to connect to system 15 (2 pack)

Whale® Twist Hand Showers

A truly innovative and versatile deck shower combining real shower feel with performance and functionality. Fast, simple installation requiring only one circular hole and easy plumbing connection. The design incorporates integral twist control allowing simple flow adjustment. For neat under deck stowage of hose use the twist stowage bag, **134170**.

Features:

- Lightweight rubber Deck Protect™ end cap design prevents damage to gelcoat and deck
- Wipe clean nozzles for easy removal of lime scale
- Twist control adjusts temperature if connected to hot water supply
- High quality ceramic valves for maximum efficiency and accurate control
- Streamlined ergonomic design
- Manufactured from high quality U.V. resistant ASA materials
- Unique unobtrusive housing available in two holder styles (mixer only)
- Can be conveniently mounted on flat or curved surfaces
- 2.5m patented single D hose carries hot and cold water (mixer only)
- Rubberised end cap makes handset easy to pull out for use and acts as a seal when stowed, no need for cover or lid

BLA Code	Description	Outside Dia. mm	Cut Out Size mm	Max. Intrusion mm	Plumbing Connection BSP
134160	Cold only handset with angled housing	119	88	330	½" int
134162	Mixer handset with straight housing	53	48	330	½" ext
134170	Hose storage bag				

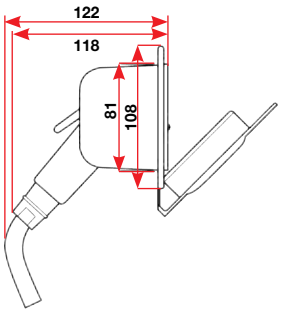
134162

Whale® Swim 'n' Rinse Compact Deck Shower

This easy to use compact shower is the simple deck shower solution. The shower boasts high performance levels while the one touch trigger allows effortless control and uses high quality marine grade materials ensuring reliability. The shower is also simple to install with an angled holder and is virtually maintenance free.

Features:

- Easy to use - One hand trigger
- High performance - Great flow and pressure
- Ease of Installation - Straight or angled holder
- Quality and reliability - Long-life marine grade materials



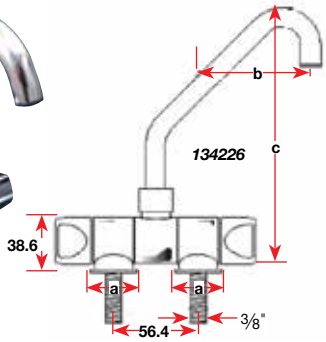
BLA Code
134117

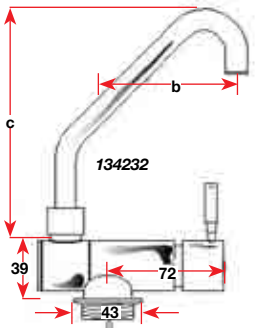
Bora Tapware Range

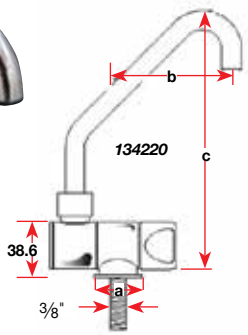
Italian made chrome plated brass. Range includes single and double tap controls in a variety of handle styles plus hot and cold mixer unit. Faucet (**134226** excluded) can be laid flat for easy and convenient storage under a sink in-fill. Ideal for use in restricted areas such as caravans, RVs and smaller boats. All controls feature hot or cold water indicators where applicable.

Features:

- Elegant Euro styling
- All bright chrome finish over heavy duty brass
- Swivelling faucets on all models
- Lay flat faucet design (**134226** excluded)
- Standard ⅜" plumbing connections
- **134232** mixer includes braided connector hoses and single lever mixer control







BLA Code	Type	a mm	b mm	c mm	Thread BSP
134220	Single faucet	36	105	180	⅜" ext
134226	Dual faucet	36	105	180	⅜" ext
134232	Mixer faucet	43	105	182	⅜" ext

Whale® Manual Galley Pump - 'V' Pump Mk6

This simple, adjustable height, vertical hand pump is self-priming and is ideal for installations where space is limited. The narrow mounting base allows neat fitting between two sinks to serve both. Fits directly into Whale® System 15 plumbing. Constructed from acetal copolymer, anodised aluminium, neoprene, nitrile rubber and stainless steel.

Features:

- Adjustable height
- Suitable for fresh and salt water
- Smooth double action

BLA Code	Cap L/m	Max. Lift m	Hose Size mm	Mount Base mm	Above Bench mm	Mount Screws mm
133050	8.2	3	15	32 x 80	90-390	4 c/s

Spare Parts:

133420 Service kit

Mini Electric Galley Pump

12 volt centrifugal pump with mount bracket. The pump comes complete with compact chrome plated swivel faucet with integral switch. Faucet dimensions are, base 90 x 43mm, height 117mm.

BLA Code	Power v	Power amp	Capacity L/m	Head m	Pump Width mm	Pump Length mm
133120	12	3	6.6	2	67	120

Whale® Manual Galley Foot Pump - Baby Foot Mk2

Designed for simple and space saving floor mounting, the Baby Foot pump is a single action pump that incorporates efficient flap valves, providing maintenance of prime. Can also be used as a primer and standby pump with a Whale® electric centrifugal pump in a combined electric/manual system. Constructed from moulded acetal copolymer, nylon, stainless steel and neoprene rubber. Self-priming.

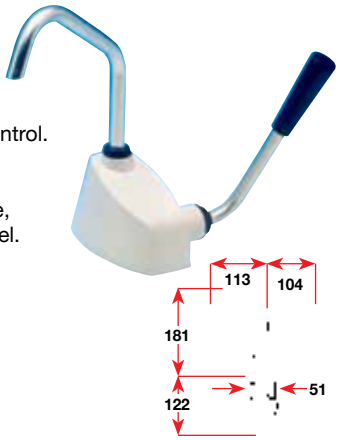
BLA Code	Cap	Max. Lift m	Hose Size mm	Depth mm	Width mm	Height mm	Mount Screws mm
133058	8	1.5	13	137	100	70	4 r/h

Spare Parts:

133440 Service kit

Whale® Manual Galley Pump - Flipper Mk4

A self-priming rocker action, hand galley pump that is simple to install and service. Swivelling faucet, single action output with fine flow control. Constructed from acetal copolymer, nylon, polystyrene, anodised aluminium, neoprene, nitrile rubber and stainless steel.



BLA Code	Cap L/m	Max. Lift m	Hose Size mm
133054	7	3	13

Spare Parts:

133430 Service kit

Manual Vertical Galley Pumps

Simple but reliable self priming double action vertical pump mechanism. Suitable for salt and fresh water. Easy single 32mm hole installation. Available in alloy pump barrel. Gloss finish injection moulded head assembly with anodised alloy spout. Seals carry FDA food grade certification. Applications include boat galleys and heads, caravans, campers, relocatables and portable toilet sinks, and similar. 5 litre per minute capacity.

BLA Code	Head Colour	Barrel	Protrusion mm	Intrusion mm	Hose Size mm
133038	Black	Alloy	95	180	13
133040	White	Alloy	95	180	13

Whale® Manual Galley Foot Pump - Gusher Mk3

The Gusher Galley Mk3 has been fitted by thousands of satisfied users worldwide and is probably the most popular marine foot pump ever made. Easy, smooth double action gives fine control from a trickle to full flow. Three mounting arrangements: on floor, behind bulkhead or on a bulkhead. Very neat when installed with pedal through bulkhead. Ideal as a backup pump for an electric water system and fits directly into Whale® System 15 plumbing. Multi-directional inlet and outlet hose connections. Suitable for salt and freshwater. Constructed from acetal copolymer, nylon, neoprene, nitrile rubber and stainless steel.

BLA Code	Cap L/m	Max. Lift m	Hose Size mm	Width mm	Height mm	Front To Back mm	Mount Screws mm
133062	15	2	15	152	131	196	4 r/h

Spare Parts:

133446 Service kit

Marine Town® Manual Sump Pump

Designed for the removal of sump oil through the dipstick hole. Brass and neoprene construction. Complete with pick up and outlet tubes.

BLA Code	Intake Tubes mm	Outlet Tube mm	Pump Length mm	Pump Dia. mm
132100	8 x 600 & 6 x 600	12x240	230	38

Whale® Pressure Switch MK2

Recommended for use with the Whale® in-line submersible and non-automatic pumps installed in conjunction with Whale® Elegance faucets. The pressure switch detects pressure drop with the opening of any tap in the system and activates the pump instantly. Adjustable pressure setting to a maximum of 2.6 bar (30 psi). Requires 1 x pack, (pair) **136637** for use with Quick Connect 15 system, additionally 2 x **136657** for use with 1/2" hose.

BLA Code	Power v	amp	Length mm	Width mm	Height mm
133471	12	10	102	35	79
	24	5			

Manual Galley Foot Pump – Double Action

Universal mounting via floor or bulkhead fastenings, with rotatable inlet/outlet connections. Mounts inside galley cupboard with pedal access through bulkhead. Injection moulded plastic housing with diecast alloy pedal, neoprene diaphragm and valves. Applications include boats, caravans, campers, portable toilet sinks and similar.

BLA Code	Capacity L/m	Hose Size mm	Hose Size in	Width mm	Height mm	Front to Back mm
133002	15	13	½	152	123	205

Whale® Surge Damper

Prevents water hammer and also reduces switch hunting. Designed for pressurised water systems using Whale® system 15. The surge damper should be mounted in a vertical position immediately after the pump discharge side. Connection is via a 15mm nipple. For connection to Whale® Quick Connect 15 pipework, use a **136624** 'T' piece for hot and cold water systems. Completely sealed unit requiring no servicing. Supplied with mount bracket.

BLA Code	Overall Height mm	Diameter mm	Mount Screws mm
133820	210	51	4 c/s

Portable Shower Kit

Submersible in-line pump supplied with 3.1 metres of electrical cord fitted with a cigarette lighter plug, waterproof in-line on/off switch, 2 metres of 10mm ID hose and adjustable flow shower head with suction cup mount. Ideal for camping and boating.

BLA Code	Power v	amp
133118	12	1.5

Whale® Aquasource Clear Disposable Filters

Aquasource Clear gives a refreshing taste to the water you drink by removing unpleasant smells and particles. The Aquasource filters are not bacterial filters. Its longer length (30cm) means that water is better filtered through longer contact with the silver activated carbon. Its slim and compact size enables it to be located in confined spaces. Supplied with 12mm nipples and mount bracket. To fit Whale® semi-rigid pipework Quick Connect 15, use adaptor **136637**. Whale® has designed the filter to last one season or 4500 litres and recommends that the filter be replaced after this period. Maximum pressure 4 bar.

BLA Code	Diameter mm	Length mm	Mount Screws mm	Inlet/ Outlet mm
133804	51	300	4 c/s	12
133806	51	300	4 c/s	15

Capri Tapware Range

Contoured hollow grip handle and a slim profile make the Capri range the ideal choice for compact areas.

Features:

- Single lever flick mixer control
- Maintenance free ceramic disc valves
- Bright chrome finish
- Connector hoses and under bench mount hardware included

134240 has a pull out handset/shower with trigger on/off control. The water can also be adjusted from stream to spray by moving the rose surround in or out.

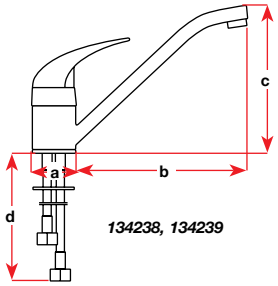
134238

134240

134239

BLA Code	Type	a mm	b mm	c mm	d mm	Plumbing Connection BSP
134238	Short swivel faucet	45	140	140	250	½" ext
134239	Long swivel faucet	45	175	140	250	½" ext
134240	Combo tap/shower	45	150	140	250	½" ext

N.B. 134240 also requires space below for shower hose storage.



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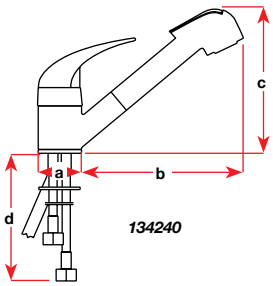


134240

SPX Faucet

SPXFLOW
Johnson Pump

Sleek faucet design.

BLA Code
134020

Whale® Portable Pump Kit

Whale®

Versatile 12 volt submersible pump with hose and nozzle. Suitable for cold and warm water, diesel, light oils, detergents and most pesticides. Not suited to petrol, highly flammable or corrosive liquids.

Kit inclusions:

- Supersub centrifugal pump with 3.5 metre lead fitted with two alligator clips and cigarette lighter style plug
- Nozzle – adjustable on/off, fine spray or a jet of water
- 3.75 metre food quality clear hose

BLA Code	Capacity L/m	Power v	amp
133114	13.4	12	6.5

Compact Shower

Off white U.V. stabilised polypropylene body and cover can easily be mounted on most common surfaces.

ABS shower handset body with removable rose for cleaning and brass on/off valve with stainless steel return spring. Suitable for cold water only with 2 metres of hose attached.

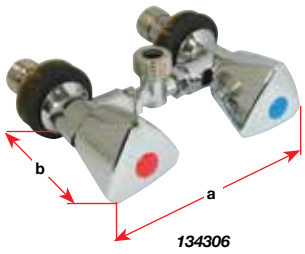
Features:

- Low profile compact housing
- Splash proof U.V. stabilised cover
- On/off control in shower head
- 2 metre reinforced retracting hose
- ⅜" BSP internal thread hose connection

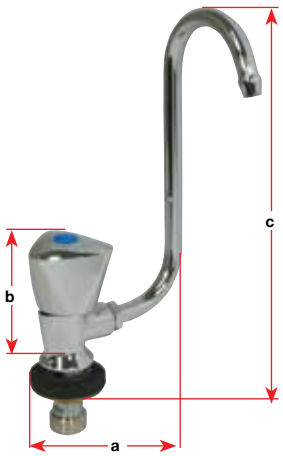
BLA Code	Intrusion mm	Cut Out mm	Thread BSP
134312	150	65	⅜" int

Mini Taps - Chrome Plated Brass

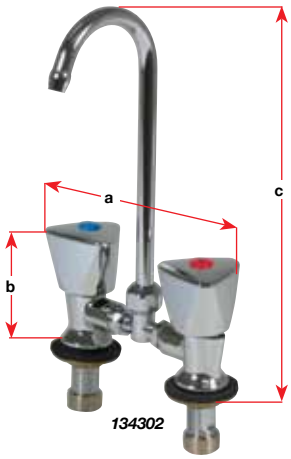
Italian made chrome plated brass mini single tap, double tap and double shower mixer unit taps have chrome ABS handles with red and blue indicators. Suitable for bench or wall mounting.



134306



134304



134302

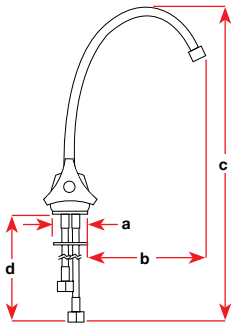
BLA Code	Style	Tap Tall BSP	a mm	b mm	c mm
134302	Mixer faucet	3/8" & 1/2"	135	65	240
134304	Single faucet	3/8" & 1/2"	95	65	225
134306	Shower mixer	3/8" & 1/2"	135	65	–

Bermuda Mixer Tap

Timeless styling in a twin control but compact form.

Features:

- Tall swing away mixer faucet with soft flow head
- Individual hot and cold control
- Solid chrome brass construction
- Simple one hole installation
- All bright chrome finish
- Stainless steel braided connector hoses and under bench mount hardware included



BLA Code	a mm	b mm	c mm	d mm	Plumbing Connection BSP
134290	46	115	210	340	½" INT

Telescopic Faucet

For use with foot operated galley pumps and non-pressurised electric galley pumps. Twist on/off valve. 20mm mount hole. Suits 10 and 13mm hose.

BLA Code
134018

Whale® Tuckaway and Telescopic Faucets

Simple and lightweight Whale® faucets. Easy to install and available with an optional on/off valve. For use with Whale® foot or non-pressurised electric pumps. Moulded acetal and anodised aluminium construction.
Suits 10 and 13mm hose.

134006

134004

BLA Code	Style	On/Off Valve	Colour
134004	Tuckaway	Yes	White
134006	Telescopic	No	White
134008	Telescopic	Yes	White

Coral Tapware Range

A unique look and feel for the discerning boat owner.

Features:

- Single lever flick mixer control
- Maintenance free ceramic disc valves
- All bright chrome finish
- Fixed and swivelling faucets include stainless steel braided connector hoses and under bench mount hardware
- **134266** has a pull out handset/shower with press button control of water stream (flow or shower spray)

A range of shower hardware to match with Coral tapware is available and detailed on page 273.

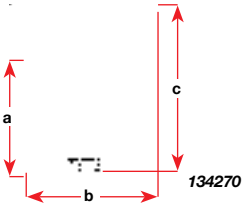
134260

134262

134266

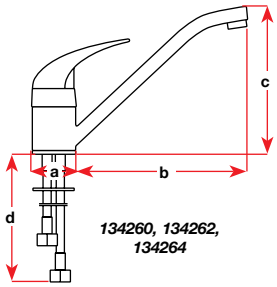
134270

134264



134270

BLA Code	Type	a	b	c	d	Plumbing Connection BSP
		mm	mm	mm	mm	
134260	Fixed faucet	48	95	140	340	½" int
134262	Short swivel faucet	52	140	150	340	½" int
134264	Long swivel faucet	52	200	150	340	½" int
134266	Combo tap/shower	52	190	170	340	½" int
134270	Shower mixer	70	80	100	–	½" ext



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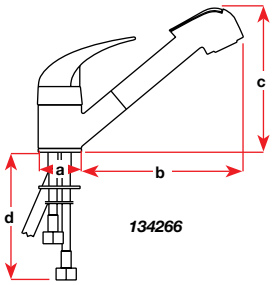


134266

N.B. 134266 also requires space below for shower hose storage.

Adriatic Tapware Range

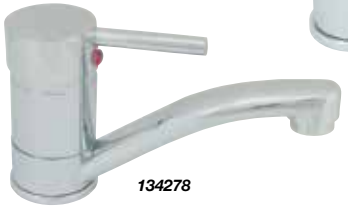
Minimalist euro styling for those who prefer simple form.

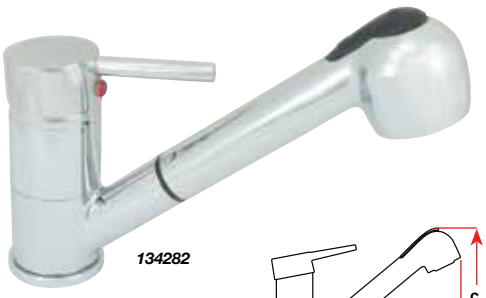
Features:

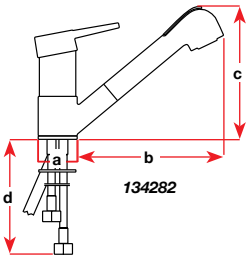
- Single lever flick mixer control
- Maintenance free ceramic disc valves
- All bright chrome finish
- Fixed and swivelling faucets include stainless steel braided connector hoses and under bench mount hardware
- **134282** has a pull out handset/shower with press button control of water stream (flow or shower spray)

A range of shower hardware to match with Adriatic tapware is available and detailed on page 273.

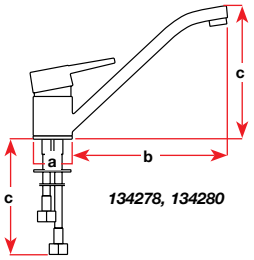
134280


134278


134282



134282



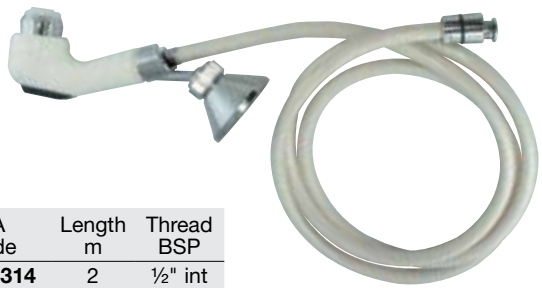
134278, 134280

BLA Code	Type	a	b	c	d	Plumbing Connection BSP
		mm	mm	mm	mm	
134278	Short swivel faucet	52	140	150	340	½" int
134280	Long swivel faucet	52	200	150	340	½" int
134282	Combo tap/shower	52	190	170	340	½" ext

N.B. 134282 also requires space below for shower hose storage.

Hand Shower

Installed in conjunction with shower mixer taps. White reinforced hose. Compact white handset with integral on/off button and adjustable flow control (stream/spray). Chrome finish ABS plastic wall mount bracket included.



BLA Code	Length m	Thread BSP
134314	2	½" int

Shower Handset

White moulded ABS plastic shower head with chrome trim. Lever action on/off flow thumb control. Chrome trim ring slides in and out to control flow (stream/spray). Accepts **134326** and **134328** hoses.

BLA Code	Length mm	Width mm	Height mm	Thread BSP
134324	130	48	75	½" ext

Hand Shower Wall Brackets

Chrome finish ABS plastic wall brackets that provide angled wall mounting for shower hand sets. All brackets accept the **134326** and **134328** shower hose end fitting and also accept the shower hand set of **134240**.

BLA Code	Protrusion mm	Height mm	Width mm
134342	95	75	62
134344	40	44	44
134346	82	49	70

Shower Handset

Chrome finish ABS plastic shower rose. Easy clean flexible PVC jets. Accepts **134326** and **134328** hoses.

BLA Code	Capacity L/m	Length mm	Width mm	Height mm	Thread BSP
134325	10	200	69	40	½" ext

Shower Hoses

Available in white finish reinforced PVC or chrome finish spiral reinforced PVC hose. Swaged chrome and stainless steel end fittings. Fits all wall brackets above and all handsets above.

BLA Code	Hose Colour	Height mm	Width mm
134326	Chrome	1.5	½" int
134328	White	1.5	½" int

SSI Cold Water Stowaway Shower

Cold water tap set in flush mount, U.V. resistant, white ABS plastic housing. Incorporates shower head on a 1.8m long hose. Has a built in 12/24 volt switch for pump control. Pull switch to activate pump, connection closing the door, automatically switches pump off. ½" BSP external thread plumbing connection.

BLA Code	Cut Out Size mm	Overall Width mm	Overall Height mm	Overall Depth mm
134352	180 x 152	209	185	92

N.B. Space must be available underneath panel for showerhead and hose storage.

Rectangular Sinks

Top quality, polished 304 grade stainless steel sinks with flange. hole to suit 90mm waste fittings. Supplied complete with plug and waste.

BLA Code	Length Int. mm	Width Int. mm	Depth mm	Flange mm
135001	280	225	125	10
135007	380	320	150	15

Square Sink

Top quality polished 304 grade stainless steel sink with flange. hole to suit 25mm waste fittings. Supplied complete with plug and waste.

BLA Code	Length Int. mm	Width Int. mm	Depth mm	Flange mm
135020	305	305	165	15

Round Sink

Top quality polished 304 grade stainless steel sinks with hole to suit 25mm waste fittings. Supplied complete with plug and waste.

BLA Code	Diameter Int. mm	Depth mm	Flange mm
135026	280	110	15

Oval Basin - Plastic

Made from U.V. resistant, white ABS plastic, this versatile basin is suitable for use in the galley, head or the aft deck. Supplied complete with plug and 25mm plastic waste fitting.

BLA Code	Length Int. mm	Width Int. mm	Depth mm	Flange mm
135034	300	260	125	25

Flush Drains/Sink Wastes

Countersunk flush drains. Suit sinks listed on this page or can be used for ice boxes, livewells, roof drains and similar. Moulded in white nylon. Plug sold separately.

135212

135202

BLA Code	Outside Dia. mm	Mount Hole mm	Intrusion mm	Hose Size mm	Hose Size in
135210	44	34	50	19	¾
135212	45	33	41	25	1

Accessories

135202 25mm rubber plug

Flush Drain/Sink Waste

Countersunk flush drain, 90° elbow configuration moulded from white nylon. Suits all sinks listed on this page or can also be used for ice boxes, live-wells and similar. Plug sold separately.

BLA Code	Outside Dia. mm	Mount Hole mm	Intrusion mm	Hose Size mm	Hose Size in
135211	46	34	49	19	¾

Flush Drain/Sink Waste

Moulded white nylon. Unique design provides 90° elbow or straight mounting. The countersunk inner sink fitting is in itself a tail, simply cut down the outer elbow section for straight installation. Fits all sinks listed on this page or it can also be used for iice boxes, live-wells and similar. Plug sold separately.

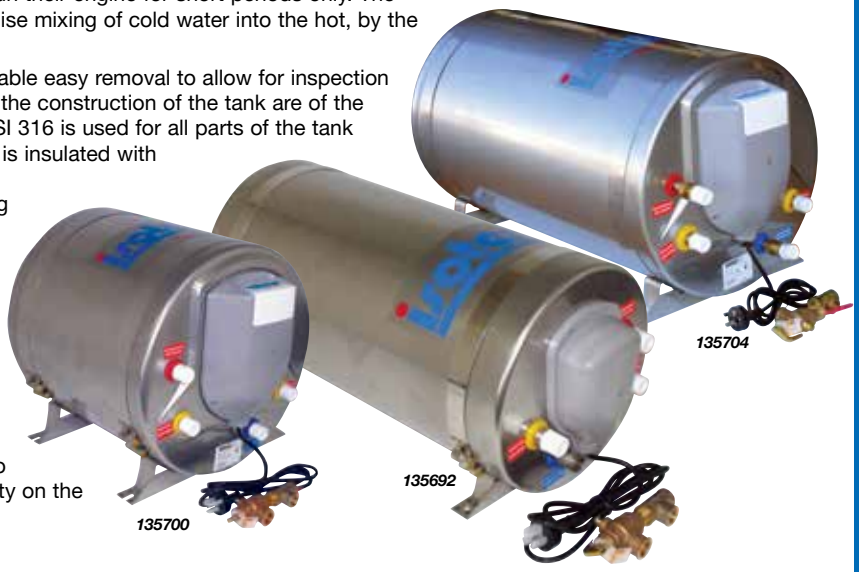
BLA Code	Outside Dia. mm	Mount Hole mm	Intrusion Straight mm	Intrusion Elbow mm	Hose Size mm
135214	46	33	41	64	25

Isotherm® Stainless Steel Water Heaters - Australian Standards Approved

Smart finish in a brushed stainless steel exterior, the quality of the Isotemp Basic by Isotherm®, is not just skin deep. Optimal water heating is achieved in two ways, firstly by an immersed electric heating element (immersion heater) and secondly by utilising the boat's engine water heat (heat exchange). Isotemp water heaters may be used with freshwater or saltwater cooled engine systems. The immersion heater and heat exchanger are positioned in the lowest part of the tank, providing even thermostatic cycle heating of the water in the system. The engine water heat exchanger coil is extra long for faster heating, especially handy on sailing yachts which may run their engine for short periods only. The water inlets and outlets are positioned to minimise mixing of cold water into the hot, by the incoming water.

The immersion heater has been designed to enable easy removal to allow for inspection and cleaning of the tank. The materials used in the construction of the tank are of the highest quality. Acid resistant stainless steel AISI 316 is used for all parts of the tank that are in contact with water. The internal tank is insulated with expanded polyurethane insulation ensuring low temperature loss. The outer cover and mounting feet have been crafted from non-magnetic stainless steel AISI 304. The fixing feet are adjustable to 360°, allowing the tank to be mounted horizontally or vertically.

An optional accessory to the range is the thermostatic mixing valve, **135840**, (controls the maximum temperature of water at the tap) which adds to safety, particularly important if having young children on board. The Isotemp range of water heaters by Isotherm® have a two year full warranty and a five year limited warranty on the tank.



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BLA Code	Volume L	Style	Dimensions Length x Dia. mm	Weight kg	Max. Pressure bar	Immersion Heater Volt	Watt
135692	20	Slim	655 x 295	9	5.0	240	750
135696	25	Slim	780 x 295	11	5.0	240	750
135700	24	Basic	460 x 395	11	5.0	240	750
135702	40	Basic	630 x 395	17	5.0	240	750
135704	50	Basic	750 x 395	20	5.0	240	750
135706	75	Basic	1040 x 395	24	5.0	240	750

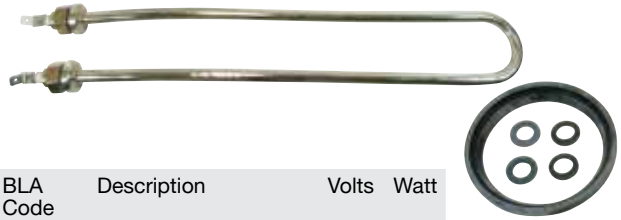
Whale® Heater Connector

Stainless steel reinforced heater hose installed between water heater outlet and system 15 plumbing. ½" NPT external thread one end and ½" NPT internal thread the other. 400mm in length.

BLA Code
136663

Isotherm® Immersion Heater Element

Isotherm® stainless steel water heaters are supplied standard with 240 volt, 750 watt immersion heating elements. For vessels travelling to or being exported to USA, the 240 volt element can be replaced with a 110 volt 750 watt element. Element to be fitted by a licensed electrician or registered electrical contractor.



BLA Code	Description	Volts	Watt
135720	Replacement element	240	750
135722	Replacement element	115	750

Pressure Relief Valve

Replacement hot water pressure relief valve to suit Isotemp water heaters. Threaded ½" BSP and preset to 500kPa. Requires **135730** and a **135734** if retro-fitting to existing systems.

BLA Code
135728

Standard Inclusions

135730 15mm Brass 'T'
135734 Brass Nipple

Isotherm® Water Heater Hose Tail Kit

Set of five brass tails to provide connection of hoses from both engine cooling system and fresh water supply to Isotemp Slim and Basic water heaters. Kit includes 2 x 16mm barbed tails with ½" BSP internal thread, 2 x 13mm straight tails with ½" BSP internal thread and 1 x 13mm barbed tail with ½" BSPM external thread. The engine connection tails accept 16mm hose and the fresh water connections accept 13mm hose.

BLA Code
135640

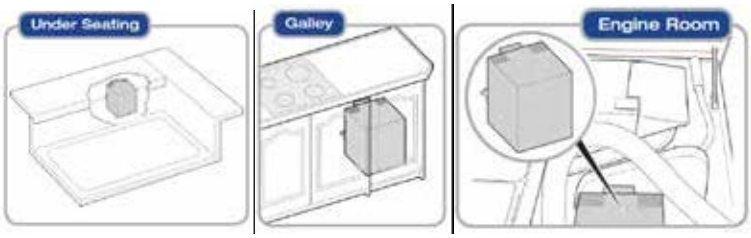
Whale Electric Water Heater - 11L 12V

Features:

- 12V Power Supply
  - No generator / inverter/ shore power required
- Rapid Heat
  - Hot water in less than 1 hour
  - Heat up time 40˚C in 41 minutes, 60˚C in 80 minutes
- Heat Retention 40-60˚C ~ 10 hours
- Remote switch capable (dash mount etc)
- Safety features
  - Low current switching
  - Integrated temperature and pressure valve
  - Thermal cut out
  - Heating Indication output
  - Ignition protected

  (ABYC E-11)
- Compact Design
  - Fits in restrictive places
  - ALCLAD tank
  - White aluminium casing
- Connections - 1/2" NPT Female

Typical Installations



Ideal System Operating Parameters:

- 15mm Whale Quick Connect System
- Whale Watermaster Automatic Pressure Pump
- Whale Twist® Deck Shower

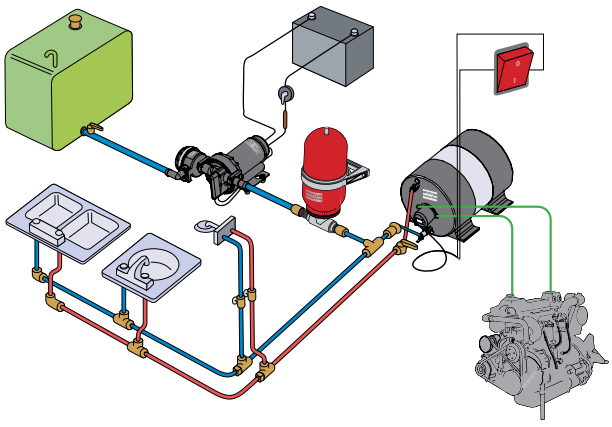
BLA Code	Tank Material	Capacity L	Fuse Size Amps	Width mm	Depth mm	Height mm	Weight kg	Mounting Arrangement	T&P Valve Specs	Max. Tested Pressure	Connectors	Current Draw
135680	ALCLAD	11	35	368	356	330	6.8	Horizontal	99°C, 75PSI (5.2bar)	300PSI (20.7bar)*	1/2" NPT Female	<30Amps

N.B. ABYC requirements 125psi, H-23

SPX Marine Water Heaters - AquaH

Stainless steel water heaters with dual heating as standard - electrical heating and indirect heating based on a second heat source, for example based on the cooling system from the marine engine or generator set. AquaH is an innovative series of AISI 316 grade stainless steel water heaters, with a storage capacity of 22 up to 80 litres (5.3 to 19.3 gal.). The heaters are cased in AISI grade 304 stainless steel and are supplied with a sturdy compact plastic end cover which also includes the mounting brackets.

Electrical heating elements are available in Incoloy at 500 & 1200 Watts allowing hot water production when engine heat is not available but when 230 volts AC is. Supplied with an adjustable safety thermostat for temperature adjustment while on electrical heating.



135804

BLA Code	Volts	Electrical Supply w	Storage Capacity L	Water Temperature in ˚C 20	25	30	35	40	45	50	55
135824	220	1200	80	23	46	69	93	116	139	162	186
135804	220	500	22	15	30	46	61	76	92	107	122
135808	220	500	30	20	41	62	83	104	125	146	167
135812	220	500	45	31	62	94	125	156	188	219	251
135820	220	500	60	41	83	125	167	209	251	293	334

Accessories:

135840 AquaH Thermostat Water Mixer Kit
135844 Pressure Relief Valve

Clear PVC Hose

Non-toxic, clear vinyl tubing for general use.

BLA Code	Inside Dia. mm	Length m
136004	6	30
136006	8	30
136008	10	30
136010	13	30
136016	19	30
136018	25	30

Shields Multiflex Hose

Non kink hose with a reinforced black vinyl helix in crystal clear vinyl tube. Smooth bore. Suitable for potable water fill, sinks, bilge pumps, showers, ice boxes and live-well drains (above the waterline). Sold in 30 metre rolls.

BLA Code	Inside Dia. mm
136020	19
136022	25
136024	28
136026	32
136028	38

Spiralflex Bilge Pump Hose

A very flexible smooth bore black plasticised PVC, abrasion resistant and U.V. resistant hose. Reinforced with a spiral wound rigid white PVC coil that maintains form under suction even when bent to the minimum radius. Bend radius is about twice the hose ID thickness. Resists oils, diesel and detergents. Supplied in 30 metre coils.

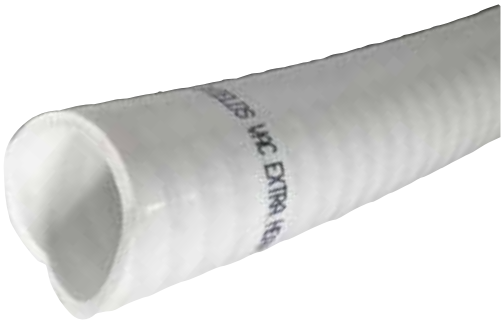
BLA Code	Inside Dia. mm
136030	19
136031	25
136032	28
136033	32
136034	38

Shields VAC Sanitation/Bilge Hose

Smooth white PVC hose with hard vinyl helix reinforcement, vacuum rated and resistant to odour permeation, mild chemicals and salt water. Sold in 30 metre rolls.

Applications include:

- Sanitation – toilet to holding tank, holding tank pump out
- Bilge pump – intake and outlet
- Drains – sinks, scupper, showers
- Deckfill – potable water
- Livewells – intake and outlet



BLA Code	Inside Dia. mm
136126	19
136128	25
136136	38

Spigoted Bilge Pump Hose

An economical convoluted hose commonly used with submersible electric bilge pumps for bilge water discharge. Convoluted form resists kinking but still bends to a tight radius. Spigots at regular intervals providing a smooth bore, smooth outer section for connection with hose clamp to pump, or above waterline skin fitting. Sold in 15 metre rolls.

BLA Code	Inside Dia. mm	Spigot Centres mm
136052	19	300
136054	28	300

Fuel Deck Filler Hose

A premium grade reinforced rubber type hose, commonly used to connect deck filler to fuel tank, for both diesel and petrol. Black NBR/PVC blended compound with textile cord and spiral wire reinforced interior. SAE J1527, USCG, Type A1, ISO 7840-A1CE approved. Also suitable for use as wet exhaust hose. Sold in 15 metre rolls.

Image for illustration purposes only

BLA Code	Inside Dia. mm
136060	38
136062	50

Reinforced Clear Food/Fuel Hose

Petrol resistant, multi-purpose (air/water). Meets AS2070 food contact requirements. Suitable for fuel TRANSFER ONLY. For other fuel hoses refer Section 20.

BLA Code	Inside Dia. mm	Length m
136072	6	20
136074	8	20
136076	10	20
136078	13	20
136080	16	20
136082	19	20
136084	25	20
136088	32	20
136092	38	20
136096	50	20

Odour Free Sanitation Hose

Odour permeation in marine sanitation systems is not only unpleasant but also presents health risks. Odour free sanitation hose has up to five times better resistance to odour permeation than competitor PVC sanitation hoses. Vacuum rated to 90kPa. Smooth bore and easy clean smooth finish white outer surface. Sold in 20 metre rolls.

BLA Code	Inside Dia. mm
136142	19
136144	25
136146	38

Bilge Pump Installation Kits

Convenient and practical submersible bilge pump installation kits available in two variants to suit 19mm (¾") or 28mm (1⅛") bilge systems.

Kit **131144** consists of 1.5 metres (5 feet) of 19mm (¾") convoluted spigoted bilge pump hose providing excellent bend characteristics, one 19mm (¾") quality nylon skin fitting and two marine grade stainless steel hose clamps to suit.

Kit **131146** consists of 1.8 metres (6 feet) of 28mm (1⅛") convoluted spigoted bilge pump hose providing excellent bend characteristics, one 28mm (1⅛") quality nylon skin fitting and two marine grade stainless steel hose clamps to suit.

Each kit is clam shell packaged. Where longer hose lengths are required BLA stocks 15 metre rolls of 19mm (**136052**) and 28mm (**136054**) spigoted bilge hose for workshop use and retail cut length sales.

131146

131144

BLA Code	Hose Size mm
131144	19
131146	28

Accessories:

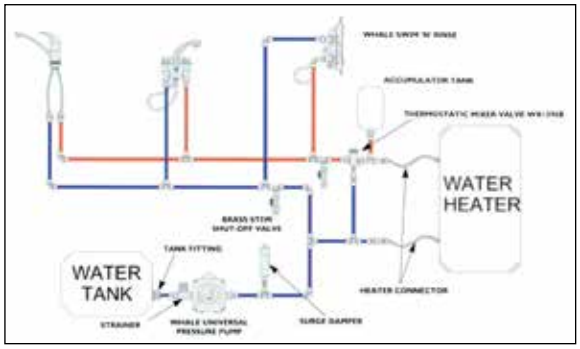
131330 Service Kit t/s Gulper 220 AK1550

Whale® Quick Connect 15

The Quick Connect 15 water system offers a simple, reliable, time and cost effective, high integrity plumbing system. The only tool required for assembly is a tube cutter. Plumbing can be disconnected and reassembled at any time without tools. All connections are external for minimal flow restriction. All components are manufactured from non-toxic food grade materials.

Features:

- Unique 'double gripper' provides secure lifelong tube retention even at excessive pressures
- Collet has internal support ring ensuring O-ring seal is held in position and does not distort or leak under pressure
- The innovative, tube supporting, 'cage collet' design eliminates leaks where fittings are close to tight bends
- High integrity single piece moulding for reliability and strength
- Outer sleeve incorporates collet cover preventing accidental tube release



Typical Installation

To assemble

Fig 1

Cut to length by making a straight clean cut (use Whale® tube cutters on a mark).

Fig 2

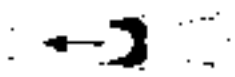
Simply push the tube into the fitting up to the internal stop.

To Disconnect

Fig 3

Push back on the grey collet against the face of fitting.

Fig 4



Hold the collet in and pull out the tube

Whale® Quick Connect 15 Tubing

Semi rigid tubing. 15mm OD, 11mm ID. Available in red, blue and green, all manufactured to food grade.

Ratings:

- Cold: 12 bar at 20ºC
- Hot: 6 bar at 65ºC

75mm minimum bend radius

BLA Code	Length m	Colour
136602	10	Blue
136604	10	Red
136605	10	Green
136606	50	Blue
136608	50	Red
136610	50	Green

Accessories:

136664 Whale® Quick Connect 15 Clip

Whale® Straight Joiner

In-line connection for Quick Connect 15 tubing.

BLA Code **136620**

Whale® Elbow Joiner

Elbow fitting for use with Quick Connect 15 tubing.

BLA Code **136622**

Whale® 'T' Joiner

'T' piece for use with Quick Connect 15 tubing.

BLA Code **136624**

Whale® Stem 'T'

Accepts Quick Connect 15 hose on two ends. 15mm stem fitting the other. Can be linked in a manifold fashion.

BLA Code **136625**

Whale® End Plug

Internal brass end plug for Quick Connect 15 fittings.

BLA Code **136626**

Whale® End Stop 15mm

End stop fitting for use with Quick Connect 15 tubing.

BLA Code **136628**

Whale® Push-On Adaptors

Adapt existing 11mm or 12mm stems to suit Quick Connect 15 fittings.

BLA Code	Inside Dia. mm	Outside Dia. mm
136638	11	15

Whale® Hose Tail

13mm barbed straight hose tail to Quick Connect 15 tubing.

BLA Code
136642

Whale® Thread Adaptors

Used to adapt ½" BSP and ¾". BSP threads to Quick. Connect 15 tubing. **136647** sold as a pair.

136648

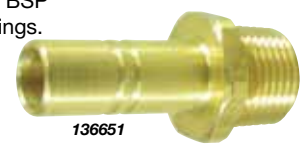
136650

136649

BLA Code	Thread BSP	Material
136647	3/8"	Plastic
136648	1/2"	Plastic
136649	1/2"	Brass
136650	3/4"	Plastic

Whale® Hose Tails - Brass

Used to adapt ½" NPT and ½" BSP thread to Quick Connect 15 fittings.



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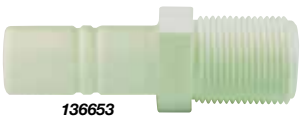


136653

BLA Code	Thread BSP	Material
136651	1/2" NPT	Brass
136653	1/2" BSP	Plastic

Whale® Ball Valve

Polysulphur ball valve with Quick Connect 15 connections both ends. Large easy grip valve control.

BLA Code
136658

Whale® System Converters

Converts from System 12 to System 15.

136636

136637

BLA Code	Pack Qty
136636	1
136637	2

Whale® Stem Elbow

Elbow fitting accepts Quick Connect 15 tubing one end. 15mm stem fitting the other.

BLA Code
136640

Whale® Elbow Adaptor

Elbow fitting that accepts Quick Connect 15 tubing one end, ½" BSP brass internal thread the other end.

BLA Code
136641

Whale® Thread Adaptors

Used to adapt ½" BSP and ¾" BSP threads to Quick Connect 15 tubing.

BLA Code	Thread BSP	Material
136634	3/8"	Plastic
136635	3/8"	Brass
136644	1/2"	Plastic white
136645	1/2"	Brass
136646	3/4"	Plastic white

Whale® Barbed Adaptors

Adapts Quick Connect 15 to hose.

136655 and **136660** sold as a pair.

136657

136661

BLA Code	Description	Suits Hose Internal Dia.
136655	Straight	19
136656	Straight	16
136657	Straight	13
136660	Elbow	13
136661	Elbow	19

Whale® Non-Return Valve

An in-line non-return valve designed to accept Quick Connect 15 tube fittings either end.

BLA Code
136654

Whale® Non-Return Valves

The Whale® non-return valves offer a simple way to maintain prime in a suction or discharge line. Designed to fit in-line, they can also be dismantled for ease of cleaning. **131114** accepts 25mm hose but can be cut to accept 38mm hose. Totally non corrosive construction.

131112

131114

BLA Code	Length mm	Width mm	Height mm	Hose Size mm
131112	89	32	32	19
131114	127	45	53	25/38

Spare Parts:

131229 Replacement valve for **131114**

Whale® Tank Fitting

Designed to mount through up to 6mm material for direct connection of Quick Connect 15 tubing to the water tank.

BLA Code
136662

Whale® Quick Connect 15 Clip

Used to mount Quick Connect 15 pipe work.

BLA Code
136664

Whale® Tube Cutters

Heavy duty cutter designed to cut Quick Connect 15 tubing squarely.

BLA Code
136666

Whale® Non-Return Valve

Incorporates a specially moulded base to prevent it being sucked flat to the base of a water tank when used in the end of a supply hose. Ensures maintenance of prime. White plastic body. Constructed from acetal and nitrile rubber.

BLA Code	Hose Size mm	Hose Size in	Length mm	Base Dia. mm
133850	13	½	47	13

Water Holding Tanks

Roto moulded in 5mm minimum thickness polypropylene, suitable for drinking water. Nine plumbing connection ports all utilising 1½" BSP threads. Tanks are supplied with all ports blank except the top deck filler port. Simply cut out any required port with a 40mm hole saw and screw in 1½" BSP fitting. A range of reducers are available to convert the 1½" BSP port to smaller BSP diameters.

BLA Code	Litres mm	Length mm	Width mm	Height mm
135304	60	400	400	400
135306	120	800	400	400

Accessories:

138486 1½" to 1¼" BSP reducer
138487 1½" to 1" BSP reducer
138488 1½" to ¾" BSP reducer
138489 1½" to ½" BSP reducer

Whale® Thermostatic Mixer Valve

Temperature adjustable with integral non return valves on the supply side. Installed in conjunction with water heaters to control the maximum temperature of water at the tap or shower. Factory reset at 43ºC. ½" BSP external threaded ports accept Whale® System 15 fittings. Nickel plated brass body, stainless steel and heat resistant plastic internals.

BLA Code
136686

Whale® Pressure Relief Valve

Designed for mounting in-line within the water pressure system for protection of pipes and fittings against over pressure. Pressure relief is preset at (87PSI) 6 BAR. Brass body with ½" NPT internal threaded ports.

BLA Code
136680

Whale® Three Way Valve Quick Connect Adaptor

Three way ball valve provides two different flow directions. Housing constructed of brass with plastic System 15 Quick Connect Adaptors.

BLA Code
136659

Hose Clamps - 'T' Bolt Tridon

Used where optimum clamping security is essential i.e. engine cooling/exhaust systems, bilge pumping systems and sanitation plumbing. Solid 304 grade stainless steel construction. Rolled edges to prevent clamp cutting into hose. Hex head adjustor bolt.

BLA Code	Size mm
136518	48-51
136520	52-55
136522	56-59
136524	60-63
136525	62-65
136529	71-76
136535	89-94
136539	101-107
136542	113-121
136550	162-174

136520

BLA Stainless Steel Hose Clamps - Bulk Bagged

A range of popular common stainless steel hose clamps, packaged in bulk bags for ease of ordering and shipping and offered at a reduced price.

Each hose clamp is in turn individually slim line tagged which states BLA code, description, size and barcode for your convenience.

This line complements BLA's comprehensive range of popular stainless steel products packaged on blister cards. This range includes shackles, thimbles, snap hooks and wire rope grips.

Product specific details on outer bulk bag label

136422B10
Bag of 10 hose clamps

136416B50
Bag of 50 hose clamps

BLA Code	Size mm	Qty
136412	5.5-16	1
136412B	5.5-16	200
136412B10	5.5-16	10
136412B50	5.5-16	50
136414	11-20	1
136414B	11-20	200
136414B10	11-20	10
136414B50	11-20	50
136416	13-23	1
136416B	13-23	200
136416B10	13-23	10
136416B50	13-23	50
136418	14-27	1
136418B	14-27	100
136418B10	14-27	10
136420	17-32	1
136420B	17-32	100
136420B10	17-32	10
136422	21-38	1
136422B	21-38	100
136422B10	21-38	10
136424	21-44	1
136424B	21-44	100
136424B10	21-44	10

BLA Code	Size mm	Qty
136426	27-51	1
136426B	27-51	100
136426B10	27-51	10
136428	33-57	1
136428B	33-57	100
136428B10	33-57	10
136430	40-64	1
136430B	40-64	100
136430B10	40-64	10
136432	46-70	1
136432B	46-70	100
136434	57-76	1
136434B	57-76	100
136436	65-89	1
136436B	65-89	100
136437	84-108	1
136437B	84-108	50
136438	105-127	1
136438B	105-127	50
136439	130-150	1
136439B	130-150	50
136440	155-178	1
136440B	155-178	50

Outer Bag Label

Outer bag label includes:
136416B50 – BLA product code
'B' denotes bulk quantity bagged and sold under one product code
Detailed product description
QTY50 – Bulk quantity contained within bag

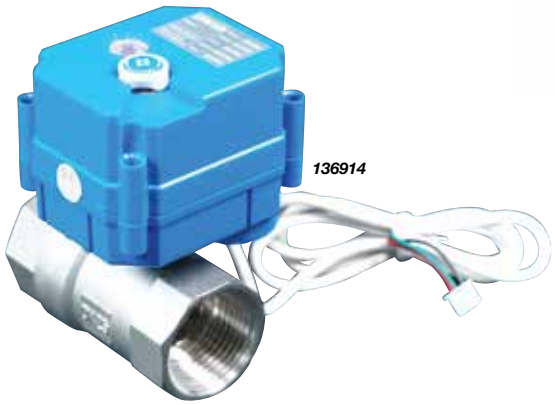
Each hose clamp contained within the bag is individually labelled with details including BLA product code, product description and measurement plus individual bar code.

Electrical Actuated Ball Valves

A range of convenient electric actuators combined with 304 grade stainless steel two way ball valves to provide remote operation allowing the ball valve to be opened or closed electronically from a single position. The electric actuators are operated via a standard three position electrical switch (not supplied). For added safety a simple yet efficient built in manual override function is standard for use in the event of a power failure (valve accessibility required). An easy to view ball position window is recessed into the top housing ensuring total valve closure.

For ¾" and 1" valves the actuator mechanisms are housed in a tough heavy duty polyamide shell, providing excellent corrosion resistance and protection against accidental knocks. The 1½" actuator mechanism is enclosed in a heavy duty die cast aluminium housing providing excellent protection. All actuators are fully sealed to IP67 specifications to prevent water ingress. With a quick open and closing time of less than 12 seconds per direction these actuators have been manufactured with a long service life in mind, typically 70,000 to 100,000 life cycles.

136918


136914

136912

BLA Code	Thread BSP	Volts	Max Torque Nm	Operating time in Sec	Max Power Watts	Max Pressure Mpa
136912	¾"	12	2	5-7	4	1.6
136913	¾"	24	2	5-7	4	1.6
136914	1"	12	2	5-7	4	1.6
136915	1"	24	2	5-7	4	1.6
136918	1½"	12	20	10-12	40	2.5

Ball Valves - PVC

Totally non-corrosive PVC construction with internal BSP thread. 'T' grip handle. One piece injection moulded housing. Alkali and acid resistant. Every valve is factory pressure tested. ISO PSI working pressure.

136694

BLA Code	Thread BSP	Length mm	Width mm	Height mm
136690	1/2"	80	32	65
136692	3/4"	92	39	76
136694	1"	98	48	88
136696	1 1/4"	113	58	102
136698	1 1/2"	131	68	113

Ball Valves - Bronze

Bronze ball valves. Stainless steel handle. BSP thread for direct connection to through hull fitting.

137010

BLA Code	Thread BSP	Length mm	Width mm	Height mm	Handle Radius mm
137004	1/2"	53	29	60	80
137006	3/4"	60	37	73	100
137008	1"	74	47	90	125
137010	1 1/4"	82	57	96	125
137012	1 1/2"	92	66	112	160
137014	2"	105	84	130	160

Three Way Ball Valves - Chrome Plated Brass

Chrome plated brass. Three way ball valves provide two different flow directions and is perfect for control of separate fuel tanks. Nickel plated handle. BSP threaded ports.

137072

BLA Code	Thread BSP	Length mm	Width mm	Height mm	Handle Radius mm
137072	3/8"	52	28	68	95
137074	1/2"	64	35	76	95

Ball Valves - Chrome Plated Brass

Chrome plated brass ball valve with stainless steel handle, ideal for fuel line installations. BSP threaded ports.

137054

BLA Code	Thread BSP	Length mm	Width mm	Height mm	Handle Radius mm
137050	1/4"	44	24	50	85
137052	3/8"	44	24	50	85
137054	1/2"	50	30	60	85

Marine Town® Ball Valves

- Stainless Steel

Cast 316 grade housing. Stainless steel ball, stem, handle, nut and spring washer. Two piece, full bore design with teflon seals for smooth operation. Suitable for survey. Slide gate on handle, locks in fully open or fully closed position.

136908

136900

BLA Code	Thread BSP	Length mm	Width mm	Height mm	Handle Radius mm
136900	½"	62	32	70	105
136902	¾"	74	42	85	130
136904	1"	86	50	105	145
136906	1¼"	90	64	110	155
136908	1½"	120	74	130	190

Skin Fittings - Stainless Steel

Cast 316 grade stainless steel construction. Highly polished mount flange. Internal lugs to hold fitting during installation. Fully threaded for direct connection to ball valve. Suitable for survey.

136942

BLA Code	Threaded BSP	Overall Length mm
136940	1/2"	64
136942	3/4"	74
136944	1"	78
136946	1 1/4"	87
136948	1 1/2"	87
136950	2"	96

Hose Tails - Stainless Steel

Cast 316 grade stainless steel construction. Suitable for survey.

136924

BLA Code	Threaded BSP	Hose Size mm	Hose Size in	Overall Length mm
136920	½"	13	½	51
136922	¾"	19	¾	51
136924	1"	25	1	64
136926	1¼"	32	1¼	70
136928	1½"	38	1½	78
136930	2"	50	2	87

Marine Town® Scoop Skin Fittings - Stainless Steel

Combines a thru-hull skin fitting cast into a water scoop strainer. 316 grade solid cast construction. Earth/anode wire connection tab is included on ½" to 1½" sizes. Suitable for survey.

136976

BLA Code	Thread BSP	Thread Length mm	Width mm	Scoop Depth mm	Scoop Length mm
136970	½"	57	48	18	64
136972	¾"	62	58	25	100
136974	1"	62	60	25	100
136975	1¼"	85	65	32	120
136976	1½"	88	70	32	120
136978	2"	88	85	32	150

Marine Town® Skin Fittings

- Mega Flow Stainless Steel

Lightweight high strength construction ensures maximum water flow made from high density marine grade 316 stainless steel includes watertight gasket.

138279

BLA Code	Hose Size mm	Hose Size in	Length mm
138271	19	3/4	75
138273	25	1	75
138275	28	1 1/8	75
138279	38	1 1/4	88
138281	50	1 1/2	88

Skin Fittings - Bronze

Cast bronze through hull fittings.
BSP thread. Suitable for survey.

138034

BLA Code	Thread BSP	Overall Length mm	Flange OD mm
138034	1/2"	68	48
138036	3/4"	74	52
138038	1"	78	54
138040	1 1/4"	86	70
138042	1 1/2"	91	72
138044	2"	108	89

Scoop Filters - Cast Bronze

Mounts over existing through hull fitting to strain and scoop water.

138853

BLA Code	Overall Length mm	Width mm	Scoop Depth mm	Mount Screws mm
138853	125	84	20	3 c/s
138855	160	110	21	4 c/s
138857	210	140	25	5 c/s

Scoop Skin Fittings - Bronze

Combines a through hull skin fitting cast into a water scoop and strainer. BSP thread.

138074

BLA Code	Thread BSP	Length mm	Width mm	Scoop Depth mm	Mount Screws mm
138074	1/2"	100	72	25	4 c/s
138076	3/4"	100	72	25	4 c/s

Hose Tails - Bronze

Cast bronze tails to suit most hose sizes.
BSP threaded, suitable for survey.

138004

BLA Code	Hose Size mm	Hose Size in	Thread BSP	Overall Length mm
138004	13	1/2	1/2"	48
138006	19	3/4	3/4"	53
138008	25	1	1"	68
138010	32	1 1/4	1 1/4"	78
138012	38	1 1/2	1 1/2"	83
138014	50	2	2"	88

Marine Town® Skin Fittings

- Plastic

Marine Town

White moulded plastic through hull fittings.
Suitable for most above waterline outlets.

138230

BLA Code	Hose Size mm	Hose Size in	Mount Hole mm	Overall Length mm
138230	15	5/8	24	75
138232	19	3/4	27	83
138234	25	1	34	94
138235	28	1 1/8	34	84
138236	32	1 1/4	42	98
138238	38	1 1/2	48	103

Elbow Tails - Bronze

90° cast bronze elbow with a BSP thread one end and a barbed hose tail on the other end.

138066

BLA Code	Thread BSP	Hose Size mm	Hose Size in
138060	3/4"	19	3/4
138062	1"	25	1
138064	1 1/4"	32	1 1/4
138066	1 1/2"	38	1 1/2
138068	2"	50	2

Skin Fittings - Acetal

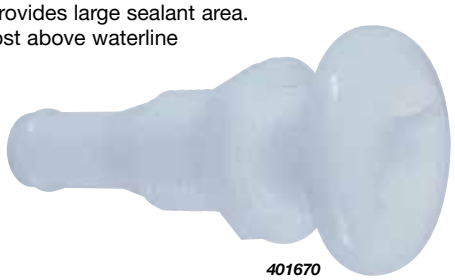
White acetal through hull fittings. Suitable for most above waterline outlets.

138240

BLA Code	Hose Size mm	Hose Size in	Mount Hole mm	Overall Length mm
138240	13	1/2	21	90
138241	16	5/8	22	90
138242	19	3/4	26	105
138244	25	1	32	105
138246	32	1 1/4	41	108
138248	38	1 1/2	47	108

Perko® Skin Fittings - Plastic

White moulded plastic through hull fittings. Broad flange provides large sealant area. Suitable for most above waterline outlets.



401670

BLA Code	Hose Size mm	Hose Size in	Flange Overall Dia. mm	Hull Thickness mm
401670	13	1/2	38	32
401672	16	5/8	39	32
401671	19	3/4	47	37
401673	25	1	57	38
401674	28	1 1/8	57	38
401677	38	1 1/2	76	38

Hose Tails - Acetal

Top quality white acetal hose tails. BSP thread.

138304

BLA Code	Hose Size mm	Hose Size in	Thread BSP	Overall Length mm
138304	13	1/2	1/2"	68
138306	19	3/4	3/4"	81
138308	25	1	1"	81
138310	32	1 1/4	1 1/4"	81
138312	38	1 1/2	1 1/2"	81

Marine Town® Skin Fittings - Stalon

Nylon and stainless steel combined. Glass reinforced nylon with a 316 grade stainless steel stamped face. Combining the strength and lightweight of a reinforced nylon with the aesthetics of polished stainless steel. Suitable for above waterline outlets.

138250

138263

BLA Code	Tail	Hose Size mm	Overall Length mm	Thread Dia. mm	Flange Dia. mm	Hull Thickness mm
138249	Straight	13	76	21	35	36
138250	Straight	16	81	34	48	28
138251	Straight	19	86	34	48	28
138253	Straight	25	86	34	48	28
138254	Straight	28	86	34	48	28
138256	Straight	32	104	41	60	33
138258	Straight	38	104	41	60	33
138260	Straight	50	134	57	82	46
138263	90°	19	88	34	48	28
138265	90°	25	95	34	50	28
138266	90°	28	115	41	60	28
138268	90°	38	119	41	60	28

'L' Head Skin Fittings

Manufactured from U.V. stabilised, white acetal. Features 'L' shaped head for lowest possible drainage point. Ideal for cockpit and livewell drains.

138294

BLA Code	Hose Size mm	Hose Size in	Mount Hole mm	Overall Length mm	Max. Hull Thickness mm
138290	19	3/4	26	84	34
138292	25	1	41	112	37
138294	38	1 1/2	47	137	60

Marine Town® Cockpit Scupper

Cast 316 grade stainless steel housing. Removable strainer with a rubber check ball to prevent back flow. Outlet is angled at 45°. Screw removal key included.

BLA Code	Hose Size mm	Hose Size in	Flange O.D. mm	Grate O.D. mm	Intrusion mm	Cut Out mm	Mount Screws mm
138817	38	1½	92	58	120	60	4 c/s

Drain Cover - Stainless Steel

Polished stainless cover for floor drains and vents.

BLA Code	Diameter mm	Mount Screws mm
138822	83	4 r/h

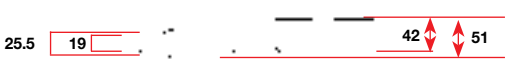
Marine Town® Cockpit Scupper

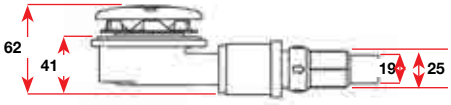
316 Grade stainless steel hose pipe with removable strainer for easy cleaning. Low profile easy clean removable strainer features large hole size to maximise water flow while covering mounting screws for clean look. Outlet is angled at 90°.

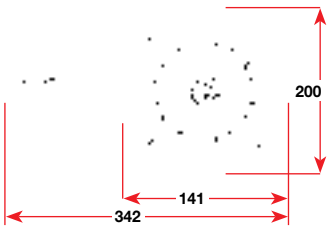
BLA Code	Hose Size mm	Hose Size in	O.D. mm	Intrusion mm	Cut Out mm	Mount Screws mm
138820	38	1½	82	76	50	5 r/h

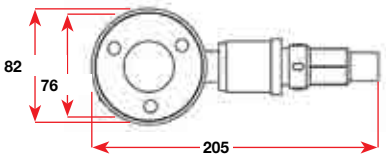
Whale® Shower Wastes

The Whale® range of shower wastes (also knows as Gulleys) are available in two sizes to suit 19mm hose in both IC and non IC versions. Features include modern compact design, easily removed cover for cleaning and simplistic mounting. IC models are pre-wired with 4m of cable for direct connection to Gulper IC and are supplied with hose tail and non-return valve as shown in the line drawings below.









CE

BLA Code	Size	IC
134370	Small	No
134382	Small	Yes
134384	Large	Yes

Through Transom Scupper

Designed for installation in transom of boats with self-draining cockpits. The rubber flapper opens to dump water out and closes to prevent backwash from entering the cockpit. Tough acetal construction. Above waterline installation only.

BLA Code	Hose Size mm	Hose Size in	Max. Thickness mm	Overall Length mm	Scupper Dia. mm	Mount Hole mm
138812	38	1½	78	153	75	47

Scupper Valve

Designed as a water exit for boats with self-draining cockpits. Scupper mounts over flush transom drains above the waterline. The rubber flapper opens to dump water out and closes to prevent backwash. Tough acetal mount flange.

BLA Code	Diameter OD mm	ID mm	Mount Screws mm
138814	70	38	4 c/s

Cockpit Drain with Screen

Drain design features a short stem and narrow flange for installing through cockpit floors. Removable screen to prevent hose clogging. Narrow flange allows recessed installation for complete draining. Durable polypropylene construction.

BLA Code	Overall Length mm	Flange Dia. mm	Hose Size mm	Mount Hole mm
138816	105	55	38	48

Overflow Drain with Strainer

These overflow drains for baitwells incorporate a strainer that stands off the flange 6mm to prevent live bait going out the overflow or clogging the drain. White U.V. stabilised injection moulded plastic with stainless steel screws.

131780 *131779*

BLA Code	Mount	Max. Hull Thickness mm	Overall Length mm	Hose Size mm	Mount Hole mm
131779	Straight	28	101	38	48
131780	90°	28	105	38	48

Perko® Water Strainers - Bronze

Perko water strainers are designed for easy mounting and cleaning. They have cast bronze top and bottom housings and a drain plug in the base for easy sediment removal and draining. 304 grade stainless steel strainer.

138018 *401642*

BLA Code	Port NPT	Height mm	Width mm	Depth mm
401642	¾"	230	115	115
401644	1"	255	138	138
401648	1½"	335	175	182

Bronze NPT straight tails to suit above:

BLA Code	Thread NPT	Hose Size mm	Length mm
138018	¾"	19	45
138020	1"	25	45
138024	1½"	38	58

Water Strainers

Utility water filter. ABS plastic housing. Clear Marelon cover. Nylon filter element. Easily dismantled for cleaning.

138866

138864

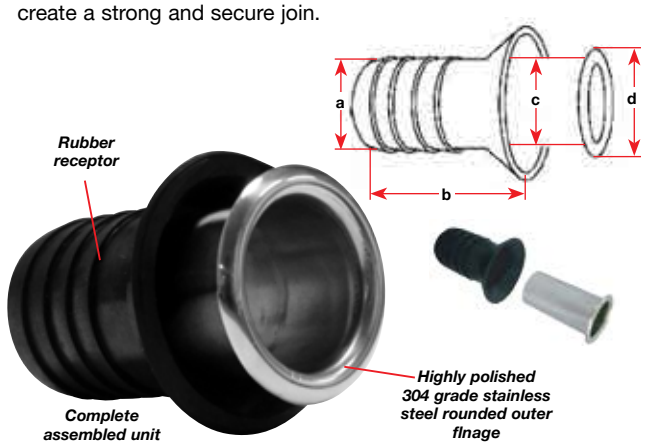
BLA Code	Capacity L/m	Port Thread BSP	Dia. mm	Height mm
138864	150	¾"	142	120
138866	300	1½"	142	180

Marine Town® Mini Through Hull Outlets

A simple, neat and practical solution to overboard drainage. The range of mini through hull outlets are designed to be used for a wide variety of overboard drainage solutions. These include cup holders, cleats, rod holders, hatch guttering, deck drainage, bait tank and ice box drainage.

The through hull outlet tube with rounded exterior flange is manufactured from highly polished 304 grade stamped stainless steel to provide excellent corrosion resistance while presenting a high quality, attractive exterior finish.

The barbed internal rear rubber receptor allows for simple, secure and quick fit up. For assembly the stainless steel outlet tube simply pushes firmly into the receptor. Drainage hose from the item is then attached and hose clamped into place to create a strong and secure join.



BLA Code	a Hose Size mm	b Intrusion mm	c Thru Hull Dia. mm	d External Dia. mm
138220	16	30	13	19
138222	19	35	16	22
138224	25	35	22	29

Tails - Brass

Brass hose tails suitable for use with fuel valves and fuel lines. Thread one end and barbed hose tail connection on the other end.

BLA Code	Thread	Hose Size mm	Overall Length mm
138130	1/4" NPT	6	40
138132	1/8" BSP	8	34
138134	1/4" BSP	8	40
138136	1/4" BSP	6	40
138137	1/4" BSP	10	42
138138	3/8" BSP	6	40
138140	3/8" BSP	8	40
138142	3/8" BSP	10	43
138148	3/8" NPT	10	43
S18-8109	3/8" NPT	8	44

Through Bulkhead Connector

Installed where hoses need to pass through bulkheads, even watertight bulkheads. Nylon construction suitable for potable water, saltwater or bilge water.

BLA Code	Hose Size mm	Bulkhead Max. Thick. mm	Length mm	Flange OD mm
138802	19	26	128	45

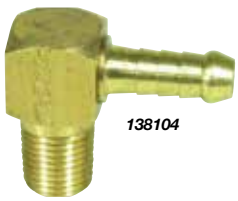
Impact Drain

Moulded in black or white high impact U.V. resistant plastic. Features low profile flush head, raised ribs for maximum grip and large bore for optimal drainage. Easy installation, simply drill hole and tap into place.

BLA Code	Colour	Flange OD mm	Length mm	Hose Size mm	Mount Hole mm
138164	Black	26	39	16	17
138166	White	26	39	16	17
138172	Black	39	44	25	26
138174	White	39	44	25	26
138182	White	44	51	28	32

Elbow Tails - Brass

90° brass elbow with a BSP thread one end and a barbed hose tail connection on the other end.



BLA Code	Thread BSP	Hose Size mm
138102	1/4"	6
138104	1/4"	8
138106	1/4"	10
138108	3/8"	10
138114	1/2"	19

Well Drains - Nylon

Serrated press fit installation. Use of sealant recommended. Two piece injection moulded nylon construction.

BLA Code	Mount Hole mm	Outside Dia. mm	Overall Length mm
138206	25	30	14
138208	22	32	57
138210	22	32	83

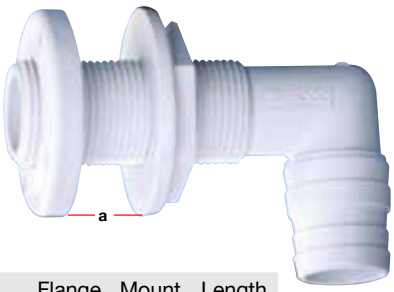
Marine Town® Covered Drains

These covered drains combine smart aesthetics with easy single hole installation for anchor wells, motor wells and similar. Rounded no catch, cast and highly polished 316 grade stainless steel head coupled with glass reinforced nylon stem.

BLA Code	Hose Size mm	Cover mm	Mount Hole mm	Length mm	Max. Hull Thickness mm
138212	–	47 x 40	25	76	50
138214	19	49 x 40	25	114	50

90° Through Hull Tails

90° through hulls or bulkhead tails are ideal for tight spots where hose is difficult to route without kinking. Durable polypropylene construction. Suitable for potable water, saltwater or bilge water.



BLA Code	Hose Size mm	a Max. mm	Flange Dia. mm	Mount Holes mm	Length mm
138804	19	22	38	22	64
138808	28 & 30	47	61	31	111

Hose Tail – Poly

Barbed poly hose tail that is 19mm x ¾ BSPF.

BLA Code
138393

Hose Tails

BSP external thread to barbed hose tail, for connecting flexible hose to valves, etc. Made from polypropylene.

BLA Code	Thread BSP	Hose Size mm	Hose Size in
138324	½"	13	½
138325	¾"	19	3/4
138326	1"	25	1
138327	1¼"	32	1¼
138328	1½"	38	1½
138329	2"	50	2

Elbow Hose Tails

BSP external thread to barbed hose connection - 90° bend. Made from polypropylene.

BLA Code	Thread BSP	Hose Size mm	Hose Size in
138364	½"	13	½
138365	¾"	19	¾
138366	1"	25	1
138367	1¼"	32	1¼
138368	1½"	38	1½
138369	2"	50	2

'T' Hose Joiners

Three way 'T' shaped hose connection, with barbed hose tails. Made from polypropylene.

BLA Code	Hose Size mm	Hose Size in
138404	13	½
138405	19	¾
138406	25	1
138407	32	1¼
138408	38	1½
138409	50	2

Reducing Hose Joiners

Straight hose joiner for in-line connection of dissimilar hose sizes. Different size barbed hose fittings at each end. Made from polypropylene.

138464

BLA Code	Hose Size mm	Hose Size in		Hose Size mm	Hose Size in
138464	13	½	to	19	¾
138465	13	½	to	25	1
138466	13	½	to	32	1¼
138467	13	½	to	38	1½
138468	19	¾	to	25	1
138469	19	¾	to	32	1¼
138470	19	¾	to	38	1½
138471	25	1	to	32	1¼
138472	25	1	to	38	1½
138473	32	1¼	to	38	1½
138474	38	1½	to	50	2

Reducer Hose Tails

BSP external thread to barbed hose tail. Different thread and hose sizes to adapt different diameter plumbing.

BLA Code	Thread BSP	Hose Size mm	Hose Size in
138332	¾"	13	½
138333	¾"	25	1
138336	1"	19	3/4
138337	1"	32	1¼
138339	1¼"	25	1
138341	1½"	25	1
138357	¾"	19	3/4

'T' Hose Tails

BSP external thread with barbed hose tails. Made from polypropylene.

BLA Code	Thread BSP	Hose Size mm	Hose Size in
138384	½"	13	½
138385	¾"	19	¾
138386	1"	25	1
138387	1¼"	32	1¼
138388	1½"	38	1½
138389	2"	50	2

Elbow Hose Joiners

90° elbow joiner with a barbed hose fitting at each end. Made from polypropylene.

BLA Code	Hose Size mm	Hose Size in
138424	13	½
138425	19	¾
138426	25	1
138427	32	1¼
138428	38	1½
138429	50	2

Hose Joiners

Straight hose joiner with a barbed hose fitting at each end. Made from polypropylene.

BLA Code	Hose Size mm	Hose Size in
138444	13	½
138445	19	¾
138446	25	1
138447	32	1¼
138448	38	1½
138449	50	2

Thru Deck Hose Fitting

Black polypropylene fitting designed for installation through deck or bulkhead. 19mm hose tail on inside of the flange fitting and a ¾" NPT U.S.A. external thread on the outside. External access adjustable flow valve and sealing cap.

BLA Code	Protrusion mm	Intrusion mm	Flange Dia. mm	Mount Holes mm
138800	64	36	68	4 c/s

Reducing Bushes

BSP thread internal and external. Made from polypropylene.

BLA Code	External Thread BSP	Internal Thread BSP
138480	3/4"	1/2"
138482	1"	3/4""
138484	1¼"	1"
138486	1½"	1¼"
138487	1½"	1"
138488	1½"	3/4"
138489	1½"	1/2"

Couplings

Internal BSP thread joiner. Made from polypropylene.

BLA Code	Thread BSP
138514	1/2"
138515	3/4"
138516	1"
138517	1¼"
138518	1½"

End Plugs

External BSP thread end plug. Made from polypropylene.

BLA Code	Thread BSP
138534	1/2"
138535	3/4"
138536	1"
138537	1¼"
138538	1½"

Heavy Duty Pipe Clips

For mounting PVC and semi-rigid plumbing. Made from polypropylene. Sizes marked on the clips correspond with the inside diameter of polypipe.

BLA Code	Pipe Size mm	Pipe Size in
138574	13	1/2
138575	19	3/4
138576	25	1
138577	32	1¼
138578	38	1½
138579	50	2

Tube Clips

For mounting flexible or rigid tube. After being fixed with screws (not included), the unique design enables these clips to accept a wide range of tube diameters. Made from nylon. Sold as a card of 12.

BLA Code	Pipe Size mm	Pipe Size in
193824	25-38	1-1½
193826	45-60	1¾-2¼

Hex Nipples

External BSP thread joiner. Made from polypropylene.

BLA Code	Thread BSP
138494	1/2"
138495	3/4"
138496	1"
138497	1¼"
138498	1½"
138501	1¾"

Elbow Coupling

BSP internal thread to BSP internal thread joiner. 90° bend. Made from polypropylene.

BLA Code	Thread BSP
138522	1/2"
138524	3/4"
138526	1"
138528	1¼"
138530	1½"

End Caps

Internal BSP thread end cap. Made from polypropylene.

BLA Code	Thread BSP
138554	1/2"
138555	3/4"
138556	1"
138557	1¼"
138558	1½"

Manifolds

Designed for installation in-line in 38mm (1½") flexible pipe, this fitting enables multiple drainage from up to three services to one through hull skin fitting, saving on installation costs and labour. Made from ST801.

BLA Code	Main Line mm	Main Line in	Take Offs mm	Take Offs in
138594	38	1½	19	3/4
138596	38	1½	25	1

Camlock Pump Out Adaptors

Screws into deck fillers to allow onshore pump out facilities to take suction on built in sullage tanks. The camlock fitting of the pump out station couples over this fitting. The camlock is referred to as Type 40.

BLA Code	Material	Suits Deck Filler	Thread BSP
139290	Poly	**192315**	1½"
139292	Bronze	**192315**	1½"
		192311 & **192335**	1¼"

SPX AquaT™ Marine Toilets

SPXFLOW
Johnson Pump

Available in a wide variety of versions the AquaT™ marine toilet has been designed to meet virtually every conceivable lavatory installation situation onboard. Priced competitively, the fine finish and well thought-through design of these toilets is remarkable. Made from white vitreous porcelain, and with corrosion resistant parts throughout, the AquaT™ marine toilet is quiet, robust and easy to clean.

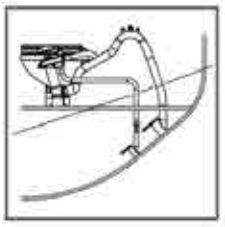
Most models can be ordered with standard, bevelled or low profiles in order to fit almost any hull and bulkhead configuration and all are available in either compact or comfort versions so you can outfit your marine lavatory with the perfect-sized toilet, no matter what the layout.

The standard electric model is equipped with a combined pump unit for disposal and flushing. It is easy to install and an economical choice of electrical toilet.

The silent and premium electric models are supplied with well-proven Aqua Jet diaphragm pumps in either 12V or 24V versions, and the manual version incorporates an ergonomically designed, hand-powered piston pump that can be mounted for either left-hand or right-hand use.

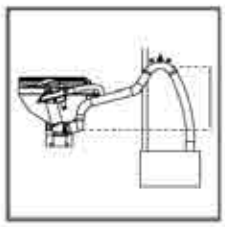
It is probably fair to think of most toilets as commonplace products, but look at the features and you are sure to see that the AquaT™ is far from ordinary. Quiet, hygienic and reliable, the AquaT™ marine toilet is perfect for almost any marine toilet room.

Toilet mounted below the waterline and discharging overbaord.



Toilet mounted above the waterline and discharging overboard.

Toilet waste discharging into holding tank, discharging elbow below top of the holding tank at any time.



Toilet waste discharging into holding tank, discharging elbow always above top of the holding tank.

N.B. If installing SPX electric toilets below or near water line fit vented loops to inlet and outlet plumbing, refer page 298.

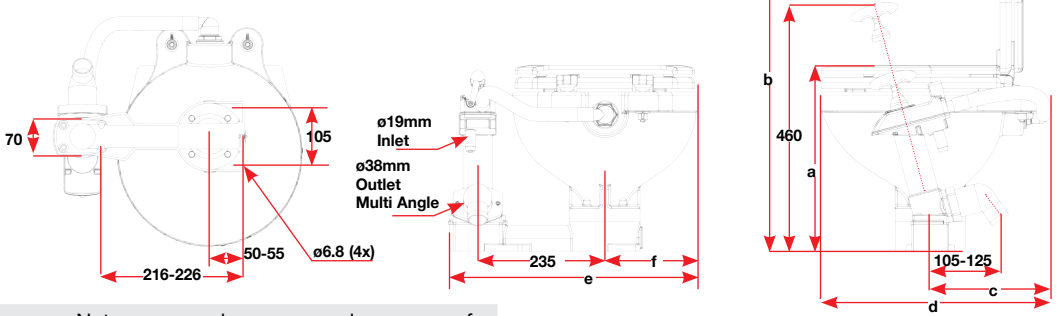
SPX AquaT™ Manual Toilets

SPXFLOW
Johnson Pump

SPX manual toilets are available in round or oval basin.

139140

139142

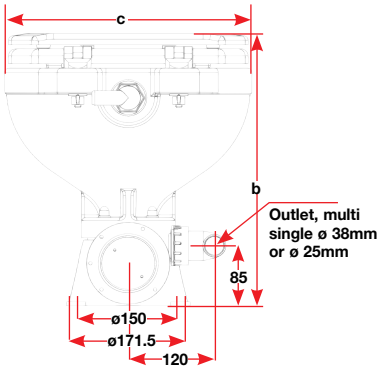


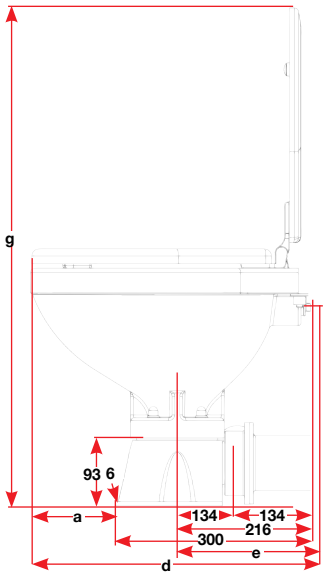
BLA Code	Description	Net Weight kg	a mm	b mm	c mm	d mm	e mm	f mm
139140	Compact Round	9.6	345	650	215	425	450	170
139142	Comfort Oval	11	340	705	275	490	470	296

SPXFLOW
Johnson Pump

SPX AquaT™ Silent Electric Toilets Kits

SPX electric toilets are available in round or oval basin, 12 volt or 24 volt. Kit includes toilet, pump and control panel.





Pump Included

Control Panel Included

BLA Code	Description	Volts	Net Weight kg	a mm	b mm	c mm	d mm	e mm	f mm	g mm
139144	Compact	12	9.6	110	395	335	435	215	290	705
139146	Compact	24	9.6	110	395	335	435	215	290	705
139148	Comfort	12	11	110	385	365	490	275	280	760
139150	Comfort	24	11	110	385	365	490	275	280	760

Spare Parts:

133306 Replacement pump 12V
133308 Replacement pump 24V
139064 Control Panel

Photo by Sam Frysteen

TMC Electric Marine Toilets

The TMC range of marine electric toilets offer a wide variety of styles and sizes to suit the requirement of virtually any boat.

Features:

- Top quality vitreous china bowl
- Self macerating combined, water in, waste out pump
- Convenient push button operation
- Supplied with switching
- Supplied with 25mm to 38mm outlet adaptor if retro-fitting in place of a manual toilet
- Suitable for installation with Autosan

TMC Luxury Electric Toilets

A contemporary styled large bowl toilet with fully enclosed motor and plumbing connections, for smart aesthetics and easy cleaning.

139098 / 100
Luxury Toilet

BLA Code	Power		Width	Height	Front to Back	Inlet	Outlet	Mount Holes
	v	Amp	mm	mm	mm	mm	mm	mm
139098	12	20	366	447	470	25	25	10 r/h
139100	24	10	366	447	470	25	25	10 r/h

TMC Deluxe Electric Toilets

This Euro styled toilet has large bowl sizing but in a lower profile (medium height). Fully enclosed motor and plumbing connections, protects motor and is easy to clean.

139118 & 20
Deluxe Toilet

BLA Code	Power		Width	Height	Front to Back	Inlet	Outlet	Mount Holes
	v	Amp	mm	mm	mm	mm	mm	mm
139118	12	20	366	388	490	25	25	10 r/h
139120	24	10	366	388	490	25	25	10 r/h

TMC Standard Electrical Toilets

Available in small and large bowl sizing with protective motor cover.

N.B. Discharge tail is elbow type

139102 / 04
Standard Toilet
Small Bowl

Included hardware

N.B. Discharge tail is elbow type

139106 / 08
Standard Toilet
Large Bowl

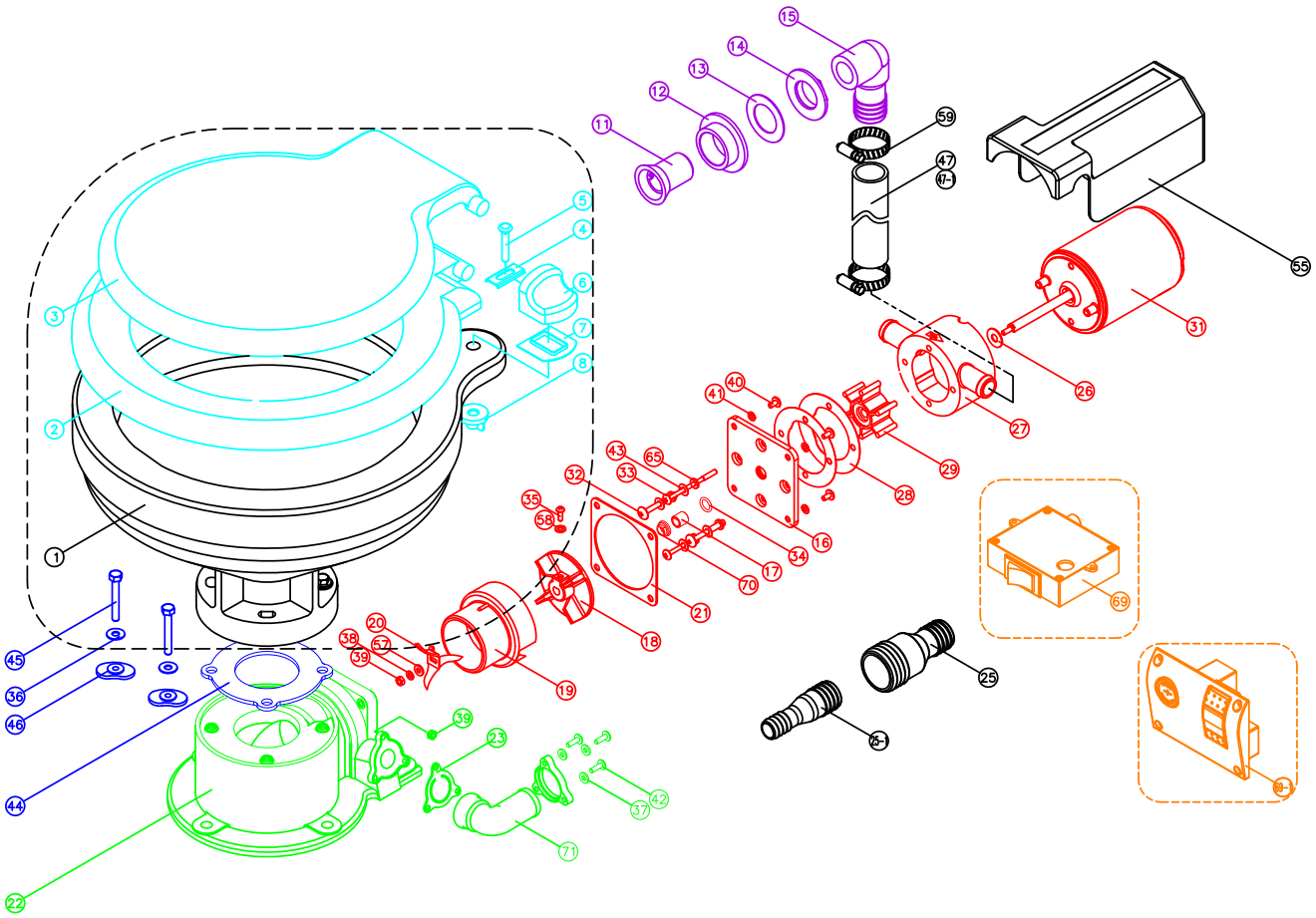
BLA Code	Bowl Size	Power		Width	Height	Front to Back	Inlet	Outlet	Mount Holes
		v	Amp	mm	mm	mm	mm	mm	mm
139102	Small	12	20	340	340	440	25	25	10 r/h
139104	Small	24	10	340	340	440	25	25	10 r/h
139106	Large	12	20	365	380	490	25	25	10 r/h
139108	Large	24	10	365	380	490	25	25	10 r/h

N.B. If installing TMC electric toilets below or near water line fit vented loops to inlet and outlet plumbing, refer page 298.

TMC Toilet Spare Parts

BLA Code	Description
139194	Service kit all models (21, 26, 27, 28, 29, & 30)
139202	Replacement 12 volt motor (31)
139204	Replacement 24 volt motor (31)
139205	Replacement 12 volt motor and macerator t/s deluxe **139098**, **139100**, **139118** and **139120**
139206	Base to suit standard toilet (22, 39, 23, 24, 37 & 42)
139207	Base to suit luxury & deluxe toilet (22)
139210	Pipe joint kit T/S standard electric toilet (11, 12, 13, 14)
139216	Motor cover (55)
139229	Discharge elbow/tail kit (39, 23, 24, 37, 41, 71)
139232	Sleeve (17)
139234	Waste water impeller (18)
139236	Macerator blade set (20, 20-1)
139238	Flapper valve (23)
139239	Macerator housing (19)
139240	Shaft 'O' ring (34)
139242	Clean water pump impeller (29)
139244	Discharge elbow, luxury and deluxe (64)
139256	Small china bowl (1)
139258	Small lid only (3)
139260	Large seat only (2-1) Note replaces (2)
139263	Large lid, seat and hinges T/S **139118**, **139120** (2, 3, 4, 5, 6, 7 & 8)
139264	Small lid, seat and hinges (2, 3, 4, 5, 6, 7 & 8)
139212	12V toilet conversion kit (converts manual TMC toilet into std electric toilet)
139214	24V toilet conversion kit (converts manual TMC toilet into std electric toilet)

N.B. 2001 and later toilets have 25mm (1") inlet, prior models have 20mm (¾") inlets.



TMC Manual Marine Toilets

The TMC manual marine toilet range offers a variety of sizes and styles, based on a time proven reliable design.

Features:

- Top quality vitreous china bowl
- Flush and dry bowl pump cycles to control bowl water level
- Discharge outlet swivels 360º to accommodate various discharge plumbing directions
- Pump and bowl can be reversed for left or right hand pumping as well as to suit installation requirements
- Stainless steel fastenings used throughout
- No power requirement, particularly important on cruising yachts where power consumption is critical

139110

TMC Vertical Manual Pump Toilets

- Available in small or large bowl
- Small bowl style with vertical pump fits in compact spaces such as under 'V' berths

139112

BLA Code	Bowl Size	Width mm	Height mm	Depth mm	Inlet mm	Outlet mm	Mount Holes mm
139110	Small	470	320	430	19	38	8 r/h
139112	Large	500	350	490	19	38	8 r/h

TMC Lever Manual Pump Toilet

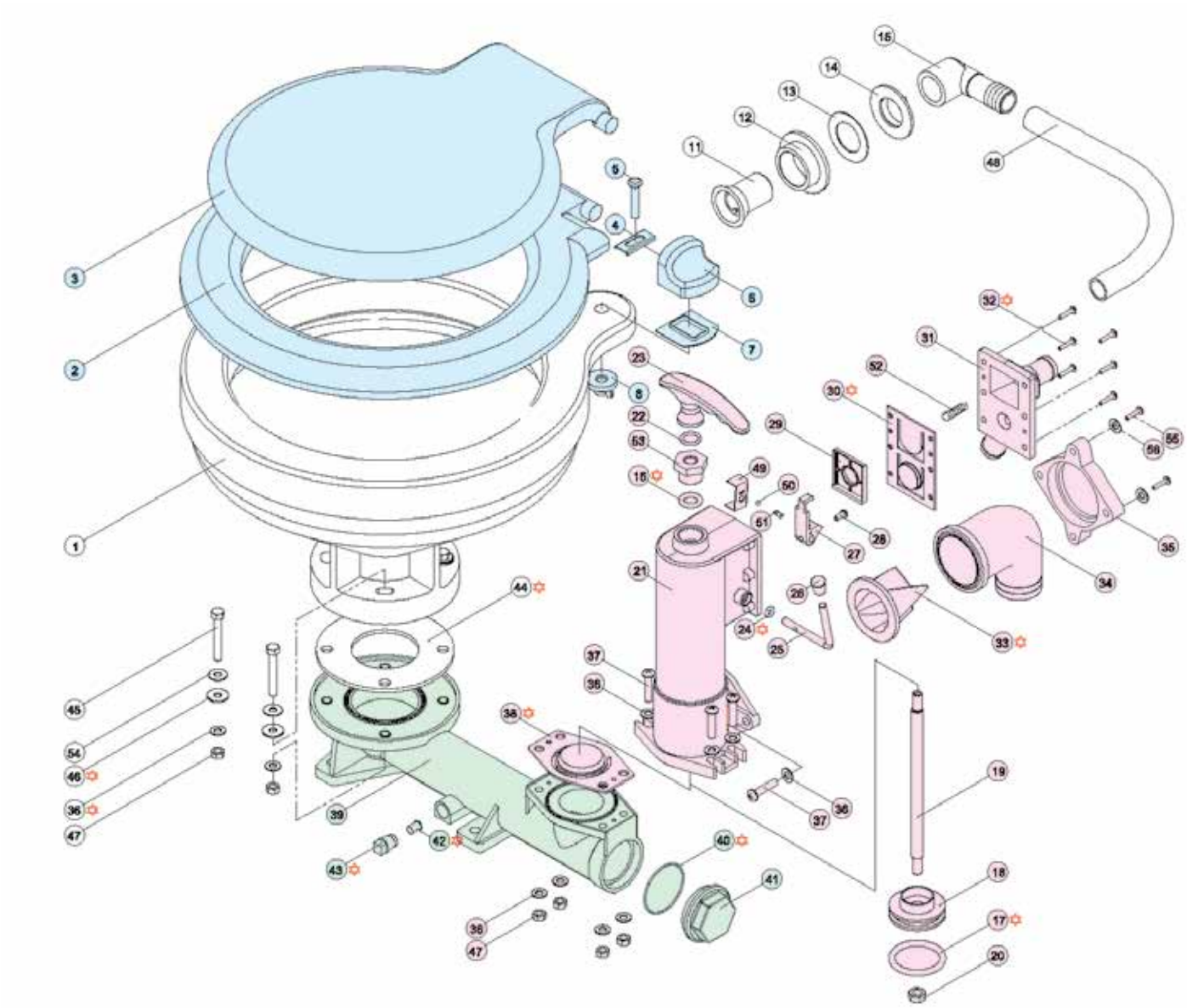
A small bowl configuration manual toilet with easy action lever operated pump.

BLA Code	Bowl Size	Width mm	Height mm	Depth mm	Inlet mm	Outlet mm	Mount Holes mm
139114	Small	470	340	430	19	38	8 r/h

N.B. If installing TMC manual toilets below or near waterline, fit vented loops to inlet and outlet plumbing, refer page 298.

TMC Toilet Spare Parts

BLA Code	Description
139250	Repair kit for TMC manual toilets (16, 17, 24, 30, 32, 33, 38, 40, 42, 43 & 44)
139252	Vertical action pump handle (23)
139254	Vertical action pump complete (16-49, 49-56)
139256	Small china bowl only (1)
139258	Small lid only (3)
139260	Small seat only (2)
139262	Plastic base (39)
139264	Small bowl toilet lid, seat and hinge set (2, 3, 4, 5, 6, 7 & 8)



Springfield Portable Chemical Toilet

Portable chemical toilets are a practical option, particularly for trailerable boats, in regions where sewage is not permitted to be discharged overboard. The toilets consist of an upper fresh water holding tank and a sealed lower waste tank locked with a positive catch. The Springfield toilet is manufactured of a light, durable moulded high density polyethylene which facilitates easy cleaning. The freshwater tank utilises a simple but reliable bellows flush pump. Waste tank separates from rest of toilet to allow emptying into a domestic toilet or sewage collection point.

BLA Code	Depth mm	Width mm	Height mm	Flush Tank Capacity	Hold Tank Capacity
139400	410	365	314	12L	11L

Tank Vent

A large capacity breather for water and waste tanks. Meets requirements of Australian Standards for venting black waste holding tanks. Installs through hull or deck, skin fitting style. Removable 90° tail accepts 38mm hose. Off white injection moulded plastic construction. Not suitable for use as a fuel breather.

BLA Code	Head L x W mm	Protrusion mm	Max. Deck Thickness mm
139080	76 x 67	30	30

SSI Covered Toilet Roll Holder - White

This toilet roll holder fully encases the paper roll ensuring the paper is kept dry. Mounts on any flat vertical surface concealed mount fastenings. Moulded in smooth white ABS plastic.

BLA Code	Width mm	Height mm	Depth mm
139002	142	147	135

SSI Recessed Toilet Paper Holder - White

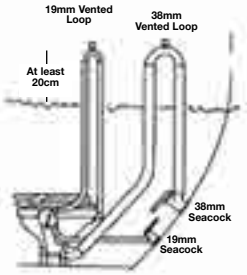
Flush appearance to match todays interiors. The design keeps paper dry and out of sight while still being conveniently at hand. Perfect for heads where space is limited. Moulded in smooth white ABS plastic.

BLA Code	Cut Out mm	Width mm	Height mm	Depth mm
139004	150 x 150	190	185	132

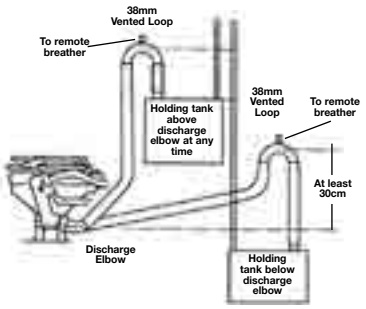
Vented Loops

Installed in toilet systems where the toilet or holding tank is below waterline or near waterline, to prevent sea water from siphoning through the toilet system, potentially swamping the vessel. Inlet and outlet plumbing is looped well above waterline and the vented loop is installed at the top of the loop, preventing siphoning. When installing ensure the vented loop will remain above water line when boat is fully loaded and / or heeled.

Toilet below the waterline



Toilet (above or below the waterline) discharging into holding tank.



BLA Code	Hose Size mm	Hose Size in	Height mm	Width mm	Depth mm	Mount Holes mm
139090	19	¾	75	96	25	6 r/h
139092	25	1½	100	150	43	6 r/h
139096	38	1½	130	200	55	6 r/h

TMC Electric Toilet Flush Control

A simple one touch contoured control panel featuring built in micro control system allowing two flush options for TMC 12 and 24 volt electric toilets.

Features:

- Half flush option provides a flush operating for five seconds with approximately two litre water delivery
- Full flush option provides a flush operating for ten seconds with approximately four litre water delivery
- Control panel is equipped with seals for splash proof protection
- For convenience a mountable spare fuse holder is provided with six spare fuses

For additional safety a maximum 40 amp built in relay circuit helps protect the electric toilet against high current surges caused by excessive impellor friction or sudden start up surge.

139062

BLA Code	Volt
139060	12
139062	24

SPX Solenoid

Electric valve to be used with centralised freshwater systems, designed to allow domestic fresh water pressure systems to flush the toilet and eliminate any seawater odours. 2.4 amps in 12 volts, 1.2 amps in 24 volt. Closed when non powered.

BLA Code	Volts	Thread BSP	Construction	Max. Tested Pressure	Length mm	Width mm	Height mm
139082	12	1/2"	Bronze w/ S/S components	100PSI	75	55	100
139084	24	1/2"	Bronze w/ S/S components	100PSI	75	55	100

SPX Macerator Pump

The TA3P10-19 macerator pump takes care of toilet waste. A rotary cutter shreds waste before it is pumped into or out from the holding tank. The pump should be connected as close as possible to the holding tank discharge outlet or the bowl discharge outlet.

N.B. Use unbleached lavatory paper only.

Specifications:

- Motor: 12/24V DC (with built-in thermal protection)
- Body: Phenol Plastic (PF)
- Impeller: Nitrile
- Housing: Thermoplastic Polyester (PET)
- Shaft: Stainless Steel
- Seal: Lip Seal

BLA Code	Volts	Capacity at 0.2 bar	Inlet Connection	Outlet Connection	Length mm	Width mm	Height mm	Weight kg
132214	12	37 L/min – 10 GPM	1½" (dia 38 mm) hose or 1½" BSP	1" (25.4 mm) hose	230	108	82	1.9
132216	24	37 L/min – 10 GPM	1½" (dia 38 mm) hose or 1½" BSP	1" (25.4 mm) hose	230	108	82	1.9

TMC Macerator Pumps

Self-priming toilet waste pump. Combines pre-macerator with impeller pump. Designed for in-line installation on holding tank pump out or to convert manual vacuum toilets to electric operation. Do not run dry.

Capacity:

- 50 L/m open flow
- Lift 1.5 metres
- Head 5 metres
- Inlet 38mm barbed and 1½" BSP
- Outlet 25mm barbed

BLA Code	Power Volts	Power Amp	Length mm	Width mm	Height mm	Mount Holes mm
132210	12	12	283	120	98	5 r/h
132212	24	6	283	120	98	5 r/h

Standard Inclusions:

139242 Replacement impeller **139236** Macerator blade set

Whale® Gulper Toilet Pumps

Large capacity heavy duty black waste pump. The large inlet/outlet and free flow valve design allows the pumping of un-macerated toilet waste. Tails suit 38mm hose.

Features:

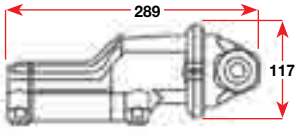
- Brass gear drive
- Quiet operation
- Can be run dry
- Large single diaphragm
- Pumps a mixture of air and water
- Self-priming to 3 metres
- Rotatable inlet/outlet to suit installation

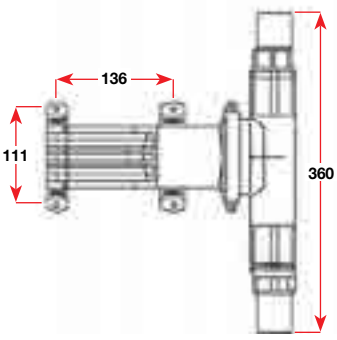
Capacity:

- 18 L/m at open flow
- Lift 3 metres
- Head 3 metres
- Lift and head combined 3 metres

Materials:

- Glass filled nylon, EPDM, nitrile rubber, hypalon, acetal, bronze, stainless steel, brass and aluminium





BLA Code	Power v	Power amp	Length mm	Width mm	Height mm
132010	12	5	287	360	117
132012	24	2.5	287	360	117

Accessories:

131332 Service Kit

Waste Holding Tanks

Roto-moulded in 5mm minimum thickness polypropylene, suitable for grey or black waste. Nine plumbing connection ports all 1½" BSP threaded. The **132210** and **132212** macerator toilet pump (refer page 299) can be directly threaded into any of these connection ports, without any plumbing required. Tanks are supplied with all ports blank except the top deck pump out port. Simply cut out any required port with a 40mm hole saw and screw in 1½" BSP fitting. A range of reducers are available to convert the 1½" BSP port to smaller BSP diameters.

BLA Code	Litres	Length mm	Width mm	Height mm
139338	60	400	400	400
139342	120	800	400	400

Accessories:

138486	1 ½" to 1¼" BSP reducer	**138488**	1 ½" to ¾" BSP reducer
138487	1 ½" to 1" BSP reducer	**138489**	1 ½" to ½" BSP reducer

TMC Bronze Impeller Pump

Durable bronze housed rubber impeller pump for general purpose saltwater and freshwater applications, but not drinking water. Flexible rubber mounts absorb running sound and reduce vibration transmission. Inlet and outlet ports are both threaded ½" BSP inside and ¾" BSP outside. Self-priming but do not run dry.

Specifications:

- 25 L/m open flow
- Lift 1.5 metres
- Head 4 metres

BLA Code	Power		Length	Width	Height	Mount Screws
	v	Amp	mm	mm	mm	mm
132196	12	8	170	130	98	5 r/h

Spare Parts:

139242 Replacement impeller

TMC Electric Impeller Pumps

Economical rubber impeller pump with plastic pump body for general purpose saltwater and freshwater applications, but not drinking water. Supplied with in-line fuse holder. Rubber grommets inserted in the mount holes for isolation of motor vibration. Self-priming but do not run dry.

Specifications:

- 25 L/m open flow
- Lift 1.5 metres
- Head 4 metres
- Inlet/outlet 25mm

BLA Code	Power		Length	Width	Height	Mount Screws
	v	Amp	mm	mm	mm	mm
132202	12	8	170	130	98	5 r/h
132204	24	4	170	130	98	5 r/h

SPX Impeller Pumps – 15 L/min 4GPM

15L/m capacity. Fully equipped, self-priming multi-purpose pump operating on a simple and uncomplicated principle. Ideal for pumping water, oils and chemicals.

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132160	F2910-19	12	PTMT	**132922**	Lip seal	1/2" BSP	172	117	78	1.6
132162	F2910-19	24	PTMT	**132922**	Lip seal	1/2" BSP	172	117	78	1.6

SPX Impeller Pumps – 21 L/min

21L/m capacity. Perfect for bilge pumping, deckwash, water circulation, oil and diesel refuelling at dockside service, and similar.

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132168	F3B-19	12	Bronze	**55-09-843S-9**	Lip seal	3/8" BSP	170	113	82	2
132170	F3B-19	24	Bronze	**55-09-843S-9**	Lip seal	3/8" BSP	170	113	82	2

SPX Oil Change Impeller Pumps – 21 L/min

SPXFLOW Johnson Pump

Reversible rubber impeller pump with integrated quick reversing switch. Designed to remove old oil from the engine/fill new oil back into the engine.

132182

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132182	F3B-19	12	Bronze	**55-09-843S-9**	Lip seal	3/8" BSP	170	113	115	2.1
132183	F3B-19	24	Bronze	**55-09-843S-9**	Lip seal	3/8" BSP	170	113	115	2.1

SPX Ultra Ballast Impeller Pumps – 52 L/min

SPXFLOW Johnson Pump

Designed to quickly fill or, when reversed, drain a ballast tank at a rate of more than 45 L/min (12 GPM). Capable of pumping fresh or seawater the pump's robust design can handle the rigors of continuous duty usage, is reversible and has a built-in thermal overload for added protection. Polarity reversing switch kit available as accessory. Care not to run dry for extended periods of time will increase the pump longevity and ensure reliable performance for many years.

132176

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132176	F4B-11	12	Bronze	**132986**	Lip seal	Hose 1" / ½" BSP	202	120	90	3
132178	F4B-11	24	Bronze	**132986**	Lip seal	Hose 1" / ½" BSP	202	120	90	3

Accessories:

132158 Polarity Reversing Switch Kit

N.B Only for water handling. No diesel.

SPX Polarity Reversing Switch Kit for Ultra Ballast Pump

SPXFLOW Johnson Pump

12-24V switch to suit **132176/8** Ultra Ballast pumps.

BLA Code	Volts
132158	12-24

SPX Impeller Pumps – 35 L/min

SPXFLOW Johnson Pump

Perfect for bilge pumping, deckwash, water circulation, oil and diesel refuelling at dockside service, and similar.

132180

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132180	F38B-19	12	Bronze	**132988**	Lip seal	Hose 1" / ½" BSP	180	120	90	3
132181	F38B-19	24	Bronze	**132988**	Lip seal	Hose 1" / ½" BSP	180	120	90	3

SPX Impeller Pumps – 48 L/min

SPXFLOW Johnson Pump

Perfect for bilge pumping, deckwash, water circulation, oil and diesel refuelling at dockside service, and similar.

132172

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132172	F4B-19	12	Bronze	**132988**	Lip seal	Hose 1" / ½" BSP	202	120	90	3
132174	F4B-19	24	Bronze	**132988**	Lip seal	Hose 1" / ½" BSP	202	120	90	3

SPX Impeller Pumps - 55 L/min

SPXFLOW Johnson Pump

For bilge pumping, deckwash, water circulation, oil and diesel refuelling at dockside service, and similar.

132164

BLA Code	Model	Volts	Body	Impeller	Seal	Connection	Length mm	Width mm	Height mm	Weight kg
132164	F5B-19	24	Bronze	**132906**	Mechanical	¾" NPT	258	131	120	8
132166	F5B-19	12	Bronze	**132906**	Mechanical	¾" NPT	258	131	120	8

SPX Heavy Duty Impeller Pumps

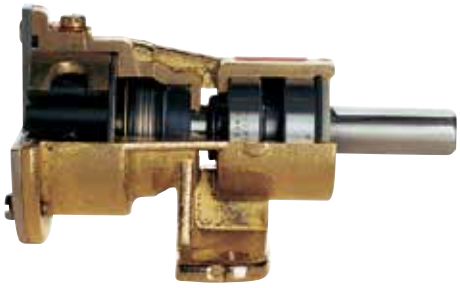
SPXFLOW Johnson Pump

A range of multi-purpose bronze pumps. Compact design, raw water resistant pumps at an attractive price – with the renowned SPX's Johnson Pump marine brand quality. These pumps are designed for a number of applications on board.

With excellent self-priming capability, these pumps are ideal as cooling water pumps for marine engines, bilge pumps, deckwash pumps, freshwater pumps, fuel transfer pumps and other applications. Also ideally suited on shore to empty septic tanks, to flush clean and to fill water tanks. Available in sizes from ⅜" to 1½" (4 L/min to 279 L/min).

Specifications:

- Pump body: Bronze
- Shaft: Stainless steel. The shaft is mounted with permanently lubricated double ball bearings
- Seal: Mechanical seal
- Cam: Full or reduced
- Connection: BSP or NPTF



132700

132704

BLA Code	Model	Impeller	Connection	Length mm	Width mm	Height mm	Weight kg	Drive Shaft ø
132700	F4B-8	**132964**	⅜" BSP	111	80	50	0.8	⅜"
132702	F5B-8	**55-09-1027B-1**	¾" BSP	151	106	50	1.6	⅝"
132704	F7B-8	**132912**	1" BSP	170	120	50	1.9	⅝"
132706	F6B-9	**132968**	¾" BSP	124	106	46	1.5	⅝"
132708	F8B-8	**132980**	1 ½" BSP	217	160	65	5.9	1"

SPX Heavy Duty Electro-Magnetic Clutch Pumps

SPXFLOW Johnson Pump

With an electro-magnetic clutch you will have pumping power whenever needed, at a push of a button, without being at the pump. Combined with a vacuum switch (recommended for bilge pump application), the clutch will automatically disengage whenever the pump starts priming air, there by preventing dry running and pump damage. Automatically controlled pumps are available in sizes from 1" to 2 ½" (20 L/min to 625 L/min), with clutches in 12 or 24 volts. Wearing parts are easily replaceable and service kits are available for all standard models. Vacuum Switch as extra accessory. Clutch to be ordered separately. Contact BLA Sales on **1300 252 725** for pumps up to 2½".

BLA Code	Description	Impeller	Connection	Length mm	Width mm	Height mm	Weight kg
132710	F7B-5001	**55-09-1028B**	1" BSP	156	120	93	5.8
132712	F8B-5001	**132980**	1" / ½" BSP	225	160	124	9.9

SPX Electro-Magnetic Clutch

SPXFLOW Johnson Pump

Available in single or twin configuration with A or B style pulley.

BLA Code	Description
132730	Electro-magnetic clutch, 12 V Twin x A pulley
132732	Electro-magnetic clutch, 24 V Twin x A pulley
132734	Electro-magnetic clutch, 12 V Single x B pulley
132736	Electro-magnetic clutch, 24 V Single x B pulley

Circulation Pumps

SPXFLOW Johnson Pump

SPX's CM-series are a line of compact magnetic driven centrifugal pumps which combine high flow rates with very low electric current consumption. Suitable for freshwater, ethylene glycol and saltwater circulation.

SPX Centrifugal Pumps

SPXFLOW Johnson Pump

Specifications:

- Pump body: PPA thermoplastic
- Impeller: PPS thermoplastic
- O-ring: EPDM
- Shaft: Stainless steel
- Magnet housing: PSU
- Motor: 12/24V DC enclosed (as per IP67) permanent magnet, ball bearing mounted motor, designed for continuous operation
- Dimensions: 177 mm (L) x 68 mm (W) x 85 mm (H)
- Weight: 0.6 kg
- Liquid: water/glycol mixture; max. 60% glycol, fresh and saltwater
- Liquid temp: Min -40°C Max +100°C Weight: 3.0 kg
- Hose connection: Ø 16 mm (⅝") or 20 mm (¾") hose.

N.B. CM30P7-1 with Ø 16 mm (⅝") available on request

BLA Code	Model	Volts	Size	Capacity
132760	CM30	12	ø 16mm (⅝")	20 L/min (5.2 GPM) at 0.1 bar
132762	CM30	24	ø 16mm (⅝")	26 L/min (6.9 GPM) at 0.25 bar

SPX Centrifugal Pumps

SPXFLOW Johnson Pump

Specifications:

- System pressure: -0.3 to +3.0 bar; stationary max. 4.0 bar
- Liquid: water/glycol mixture; max. 60% glycol, fresh and saltwater
- Motor service life: More than 5,000 hours at nominal voltage 10,000 start/stops. Interchangeable motor
- Motor voltage: Nominal 13.6V DC for use between 10-16V, Nominal 27.2V DC for use between 20-32V
- Input power: Max. 125W
- Dry running: 30 minutes
- Dimensions: 244 mm (L) x 120 mm (W) x 150 mm (H)
- Ports: Ø 20 mm (¾") & Ø 38 mm (1½")
- Weight: 3.0 kg
- Body: PPA, glass-fibre reinforced
- Mounting: Separate universal bracket for flat surfaces

BLA Code	Model	Volts	Size	Capacity
134764	CM90	24	ø 20mm (¾")	50 L/min (17.2 GPM) at 0.25 bar
136766	CM90	12	ø 38mm (¾")	90 L/min (23.7 GPM) at 0.25 bar
136768	CM90	24	ø 38mm (¾")	90 L/min (23.7 GPM) at 0.25 bar

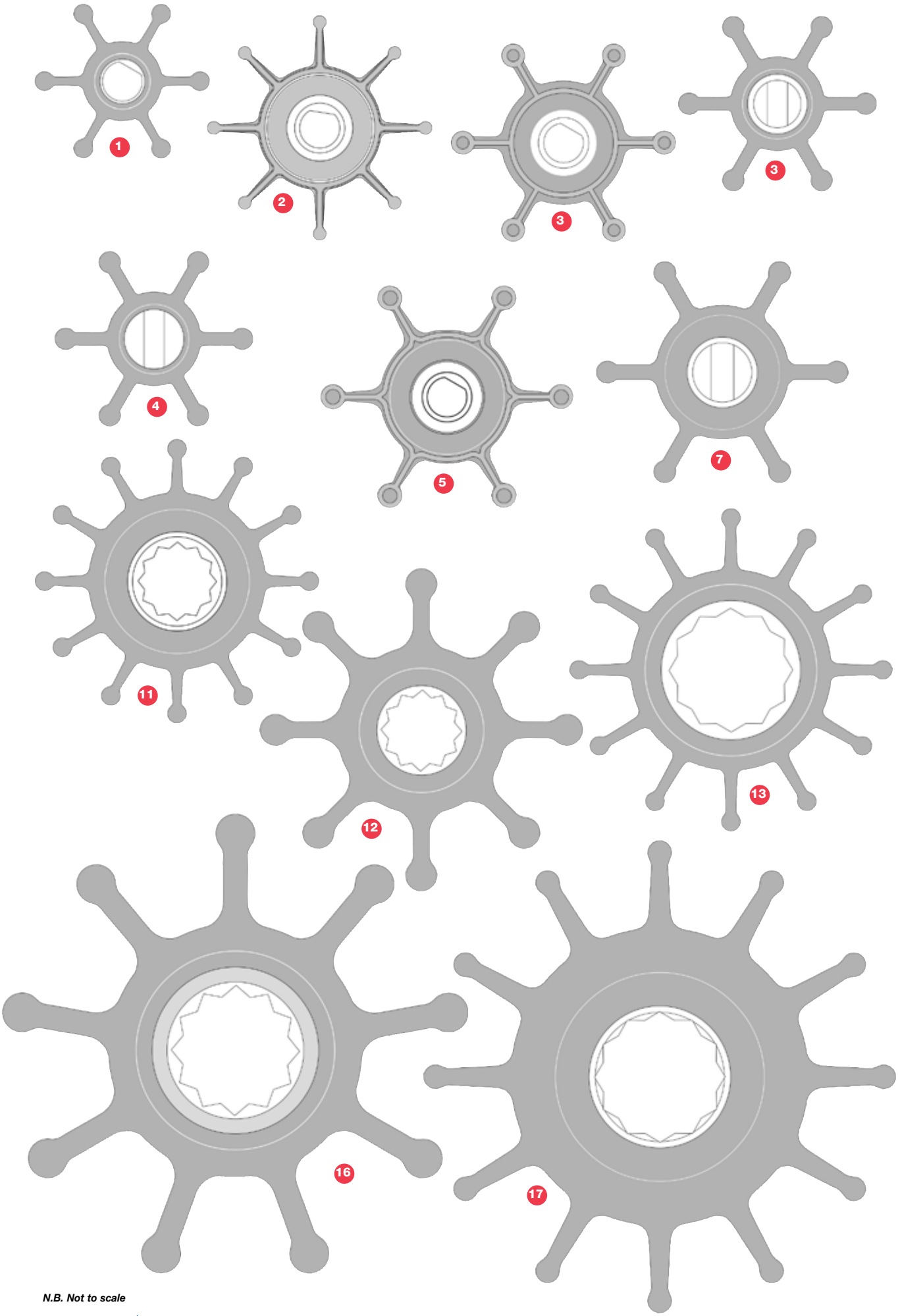
SPX Johnson Pump Impeller Kits

A worn or damaged impeller can cause system failure or engine breakdown. SPX's Johnson Pump brand impellers are developed and manufactured for maximum flow and long life. With a genuine spare impeller you can also be sure that you are getting the quality required by engine manufacturers and professionals.

BLA Code	Description	SPX Code	Material*	Outer dia mm	Outer dia inch	Inner dia mm	Inner dia inch	Width mm	Width inch	Replaces Jabsco No Europe	Replaces Jabsco No USA	Reference
132900	Impeller Johnson F4b Neo	09-1026B-1	MC97	50.8	2.00	12.7	0.50	22.0	0.87	673-0001		8
132902	Impeller Johnson F4b Nit	09-1026B-9	Nitrile	50.8	2.00	12.7	0.50	22.0	0.87	673-0003		8
132906	Impeller Johnson 09-1027B-9 Nit	09-1027B-9	Nitrile	57.1	2.25	Splines		31.5	1.24	1210-0003		10
132908	Impeller Johnson F5bt Neo	09-1027BT-1	MC97	57.1	2.25	Splines		31.5	1.24	1210-0001		Jabsco
132912	Impeller Johnson F7bt Neo	09-1028BT-1	MC97	65	2.56	Splines		50.2	1.98	17937-0001		12
132914	Impeller Johnson F70s Neo	09-1028S	Neoprene	65	2.56	Splines		50.2	1.98	17937-0001		Jabsco
132916	Impeller Johnson F8b Neo	09-1029B	Neoprene	95	3.74	Splines		63	2.48	836-0001	17935-0001	15
132918	Impeller Johnson F80s Neo	09-1029S	Neoprene	95	3.74	Splines		63	2.48	836-0001	17935-0001	Jabsco & Jabsco USA
132920	Impeller Johnson Macerator F3b/Ta3p10 Nit	09-1052S-9	Nitrile	45.2	1.78	8.0 / Flat	0.31 / Flat	12.8	0.50			3
132922	Impeller Johnson F2p10 Nnit	09-1077B-9	Nitrile	35.2	1.29	8.0 / Flat	0.31 / Flat	12.7	0.50			1
132954	Impeller Johnson 09-70B	09-70B	Neoprene	65	2.56	Splines		50.2	1.98	SP70	SPM70	Kashiama
132924	Impeller Johnson 200A	09-200A	Neoprene	93	3.66	Splines		63	2.48	SP200	KP200	Kashiama
132926	Impeller Johnson 220B	09-220B	Neoprene	94.5	3.72	Splines		63.4	2.50	SP210	KP220	Kashiama
132928	Impeller Johnson 300B	09-300B	Neoprene	93	3.66	Splines		95.5	3.76	SP300		Kashiama
132942	Impeller Johnson 500B	09-500B	Neoprene	127.78	5.03	Splines		101.64	4.00	SP500		Kashiama
132932	Impeller Johnson Kit 1027B Solas	09-46608	Neoprene	57.1	2.25	Splines		31.5	1.24	Unique		Dry run OK
132934	Impeller Johnson Kit 1028B Solas	09-46609	Neoprene	65	2.56	Splines		50.2	1.98	Unique		Dry run OK
132956	Impeller Johnson F5b	09-801B	Neoprene	57.1	2.25	15.9 Key	0.63 / Key	31.5	1.24	4568-0001		9
132958	Impeller Johnson F9b	09-802B	Neoprene	95	3.74	Splines		88.5	3.48	6760-0001		16
132690	Impeller Johnson 806B F35b 9.5Mm I.d Neo	09-806B-1	MC97	40.0	1.58	9.5	0.37	19.0	0.75	4528-0001		Jabsco
132962	Impeller Johnson 808B F35b 12.0Mm I.d Neo	09-808B-1	MC97	40.0	1.58	12.0	0.47	19.0	0.75	22405-0001		5
132964	Impeller Johnson 09-810B F4b 12.0Mm I.dneo	09-810B-1	MC97	50.8	2.00	12.0	0.47	22.0	0.87	18653-001		7
132966	Impeller F4b-8	09-810B-9	Nitrile	50.8	2.00	12.0	0.47	22.0	0.87			7
132968	Impeller Johnson 09-812B F6b-9 Neo	09-812B-1	MC97	57.1	2.25	Splines		48.2	1.90	13554-0001		11
132970	Impeller Johnson 09-814B F9b Neo	09-814B	Neoprene	95	3.74	Splines		88.5	3.48	21676-0001	17936-0001	17
132980	Impeller Johnson 09-819B F8b 11 Vane Neo	09-819B	Neoprene	95	3.74	Splines		63	2.48	836-0001	17935-0001	14
132982	Impeller Johnson 09-820B F95b Neo	09-820B	Neoprene	95	3.74	Splines		130	5.12			18
132984	Impeller Johnson 09-821Bt-1 Neo	09-821BT-1	MC97	65	2.56	Splines		80	3.15			13
132986	Impeller Johnson 09-824P-1 F4b-11 Neo	09-824P-1	Polyeurethane	50.8	2.00	8.0 / Flat	0.31 / Flat	22.0	0.87	6303-0007		6
132988	Impeller Johnson 09-824P F4b-19 Nit	09-824P-9	Nitrile	50.8	2.00	8.0 / Flat	0.31 / Flat	22.0	0.87	6303-0003		6
SPX Johnson Pump Impeller Replacement Kits												
132944	Impeller Johnson Mc97 Key Driven	09-701B-1	MC97	62.3	2.45			31.8	1.25	18838-0001		A
132946	Impeller Johnson Mc97 Key Driven	09-702B-1	MC97	65.4	2.57			41.4	1.63	18948-0001		B
132948	Impeller Johnson Mc97 Flat Drive	09-703P-1	MC97	66.7	2.63	Key driven		31.8	1.25	18838-0001		Jabsco
132950	Impeller Johnson Mc97 Key Driven	09-704BT-1	MC97	84.1	3.31			73.4	2.89	18958-0001		D

**** MC97 and Neoprene - for cooling, Nitrile - oil resistant***

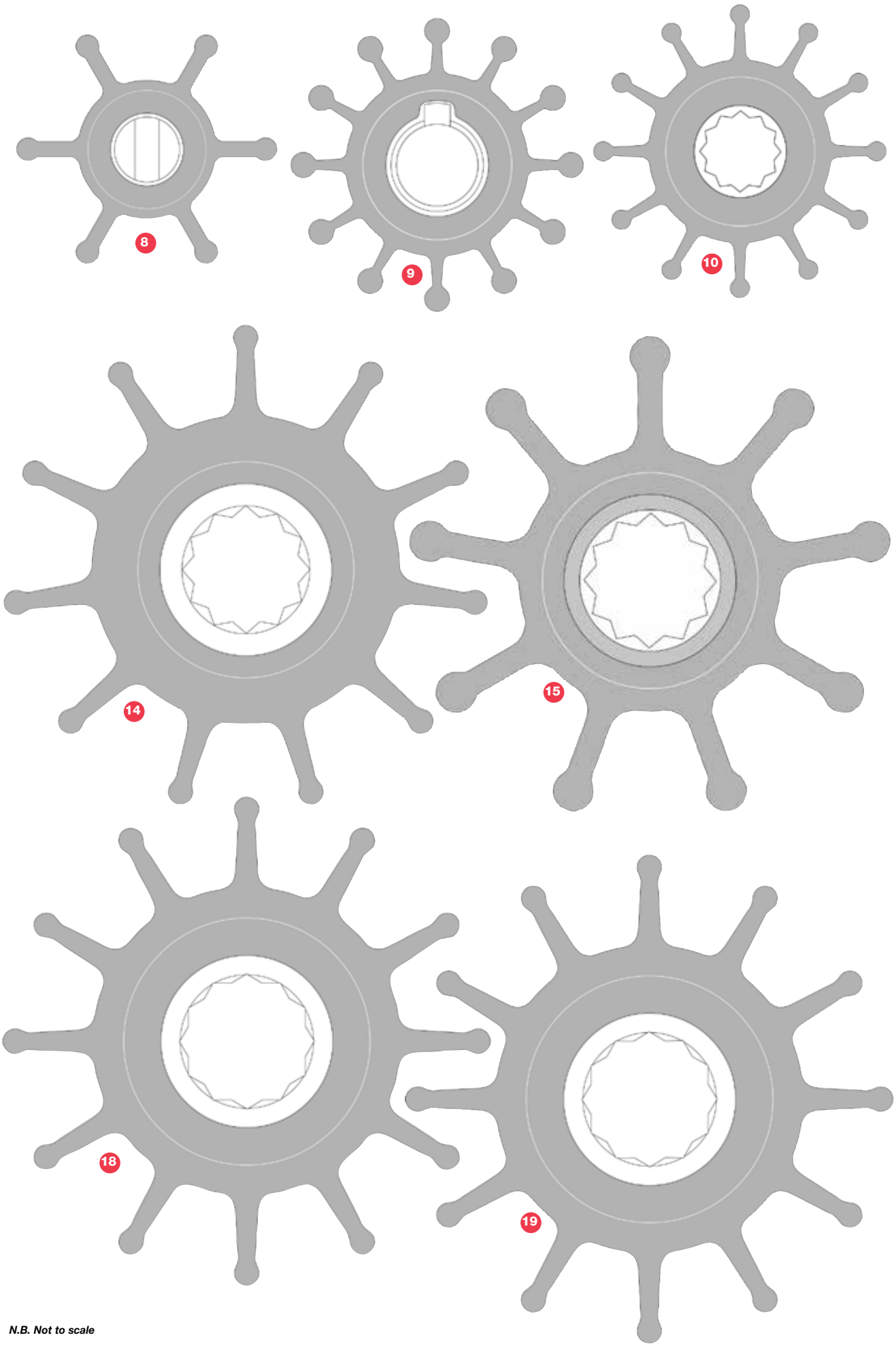
SPX Johnson Pump Marine Brand Original Impellers



N.B. Not to scale

SPX Johnson Pump Marine Brand Original Impellers

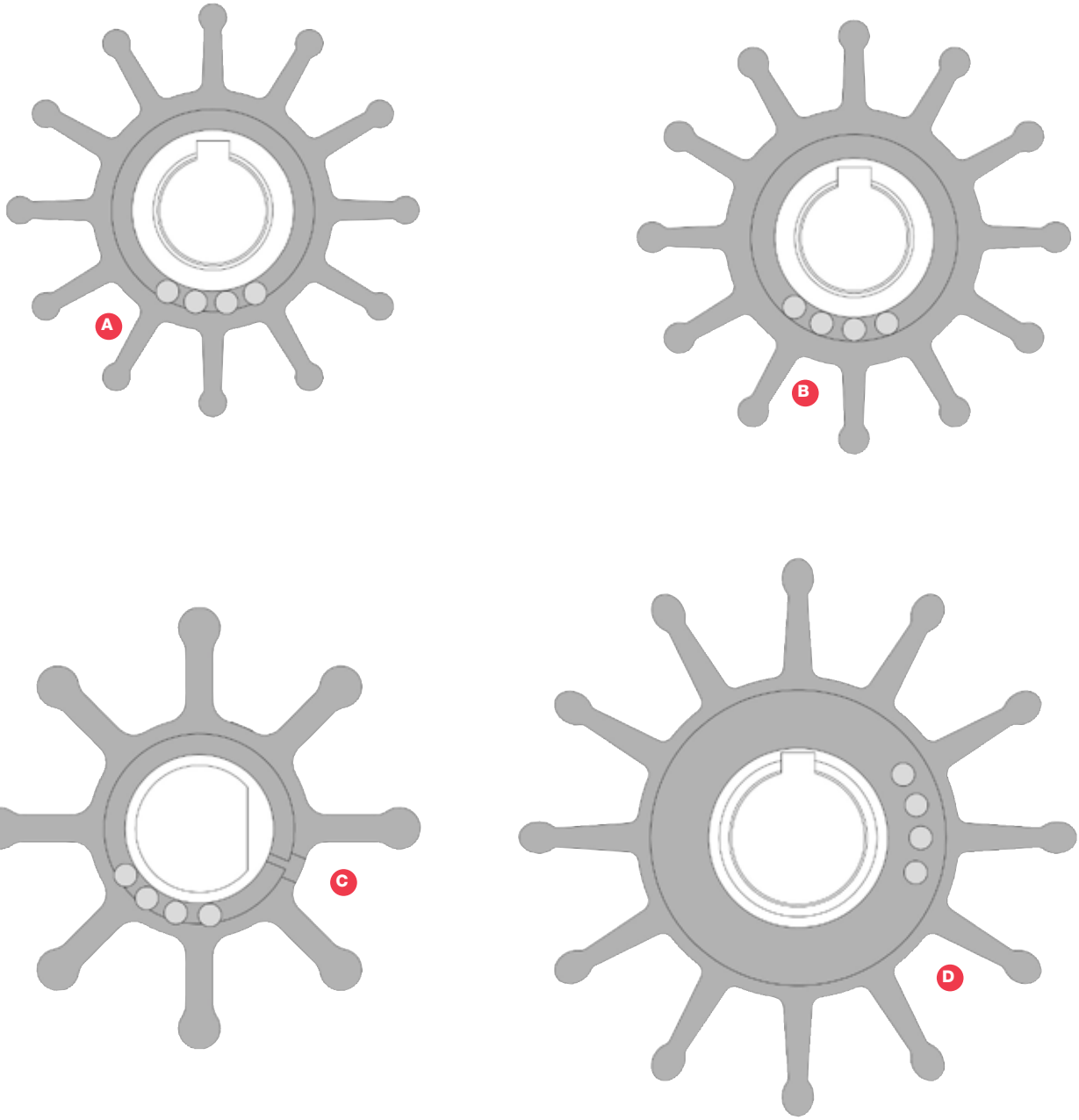
SPXFLOW
Johnson Pump



N.B. Not to scale

SPX Johnson Pump Impeller Replacement Kits

SPXFLOW
Johnson Pump



N.B. Not to scale

SPX Impeller Puller

SPXFLOW
Johnson Pump

The impeller is a very important security device. Its task is to pump the water through the cooling system of the engine. But remember that the impeller should be replaced every year. And always make sure you get a Johnson Pump Brand original impeller. Then you'll know that it matches your pump exactly. Remove the impeller with a slip joint plier or an Impuller.

132940

BLA Code	Description
132938	Puller for 09-1028BT
132936	Puller for 09-821BT
132930	Puller for 09-820B
132940	Puller Generic

DJ Pump Engine Cooling Pumps and Impellers

For over 30 years DJ Pump has been manufacturing and supplying the marine industry with quality marine pumps and accessories. Manufactured in their hi-tech Korean ISO certified facility to exacting standards ensuring consistent quality and reliability the range of DJ Pump impellers are subjected to quality testing to ensure reliability and continued performance.

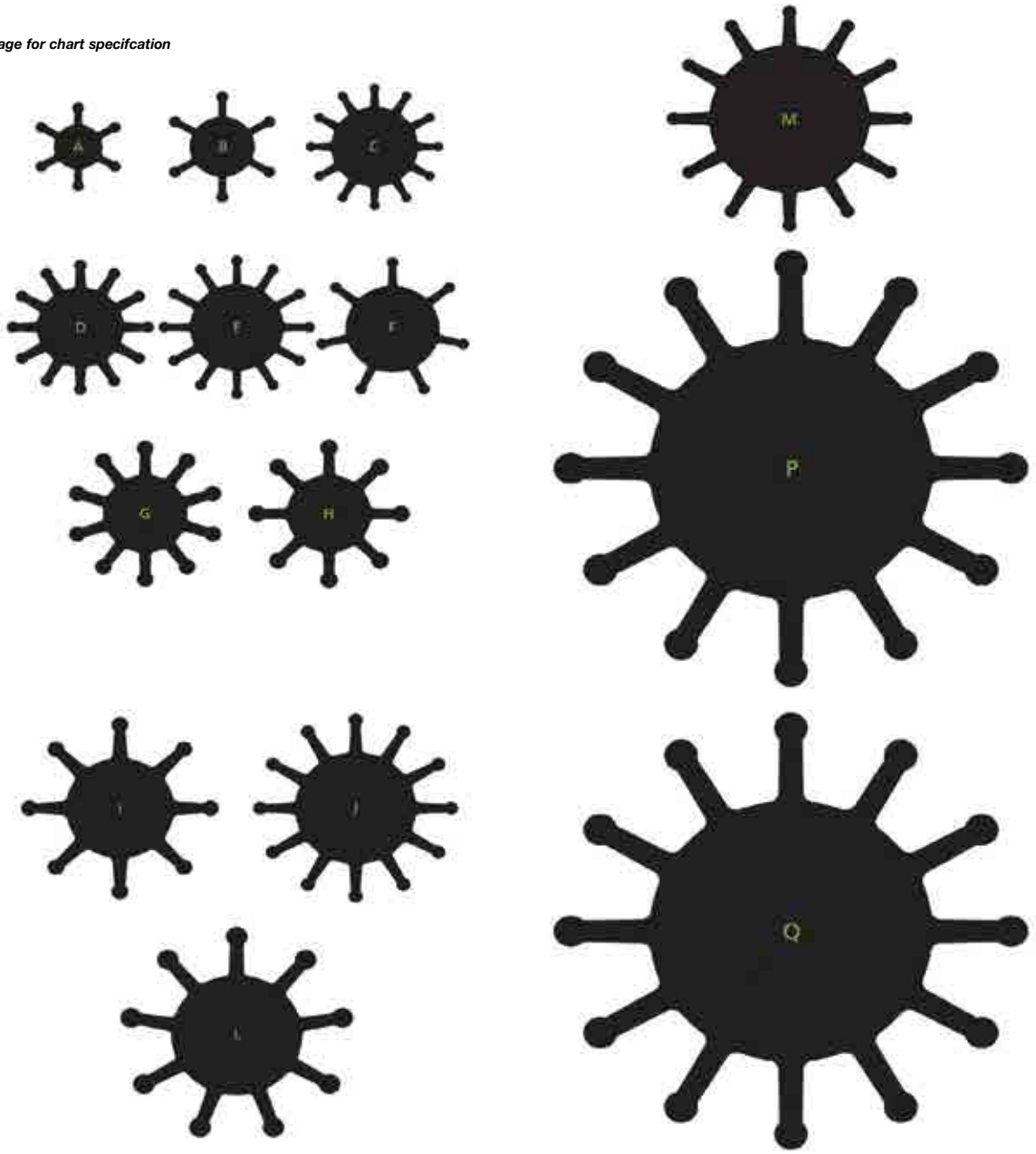
Flexible impeller pumps are used extensively in the marine industry and are designed to provide an efficient method of pumping raw water to a large number of applications where required. Often an integral part of the engines cooling system, these pumps operate using an internal impeller which is designed to circulate water continuously throughout the engine.

To satisfy the replacement market DJ Pump manufacturers a wide range of popular impeller vane and shaft configurations in Neoprene for general fresh and seawater applications and to a lesser extent in nitrile for oil and diesel applications.

DJ Pump impellers can be fitted to most makes and models of flexible impeller marine engine cooling, bilge, electronic clutch and multi-purpose pumps and are manufactured from quality materials to provide excellent longevity without sacrificing flow characteristics.

Available in a wide range of shaft, diameter and depth configurations each impeller is packed in an easy to identify box clearly showing shaft, material and brand replacement codes.

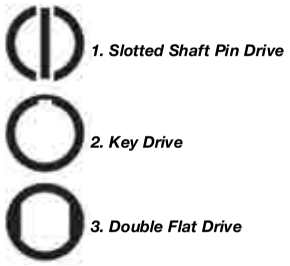
Refer next page for chart specifcation



*N.B. Indicative impeller type size comparisons and vane configurations. *Not to scale*

BLA Code	DJ Pump	Material	No. of Blades	Drive Type	Impeller Diameter	Impeller Depth	Shaft Diameter	ITT Jabsco	RWB ITT Code	Johnson	Sherwood	Volvo	CEF	Onan	Kashlyama	Type
132804	09-107-0601	Neoprene	6	6	40mm (1.57")	19mm (0.74")	12mm (0.47")				8000K					A
132800	08-31-0601	Neoprene	6	1	40mm (1.57")	19mm (0.74")	12mm (0.47")	22405-0001	J53-567	09-808B		875583-7				A
132800	08-31-0601	Neoprene	6	1	40mm (1.57")	19mm (0.74")	12mm (0.47")					833995				A
132800	08-31-0601	Neoprene	6	1	40mm (1.57")	19mm (0.74")	12mm (0.47")					3586496				A
132802	08-37-0601	Neoprene	6	2	51mm (2")	22mm (0.86")	12.7mm (0.5")	22799-0001	J53-530							B
132834	08-37-0601	Neoprene	6	1	51mm (2")	22mm (0.86")	12mm (0.47")	18653-0001	J53-568	09-810B						B
132832	09-108-0601	Neoprene	6	1	51mm (2")	22mm (0.86")	12.7mm (0.5")	18673-0001	J53-532	09-1026B		804696				B
132832	09-108-0601	Neoprene	6	1	51mm (2")	22mm (0.86")	12.7mm (0.5")					897055				B
132832	09-108-0601	Neoprene	6	1	51mm (2")	22mm (0.86")	12.7mm (0.5")					875808-8				B
132832	09-108-0601	Neoprene	6	1	51mm (2")	22mm (0.86")	12.7mm (0.5")					3586497				B
132832	09-108-0601	Neoprene	6	1	51mm (2")	22mm (0.86")	12.7mm (0.5")					3593659				B
132842	08-21-1201	Neoprene	12	5	57mm (2.24")	31.5mm (1.24")	16mm (0.62")	1210-0001	J53-525	09-1027B		860206	500107	132-0162	SP-30	C
132842	08-21-1201	Neoprene	12	5	57mm (2.24")	31.5mm (1.24")	16mm (0.62")					3856039-7				C
132842	08-21-1201	Neoprene	12	5	57mm (2.24")	31.5mm (1.24")	16mm (0.62")					875811-2				C
132870	08-32-1201	Neoprene	12	5	57mm (2.24")	20mm (0.78")	12.7mm (0.5")				10077K					C
132844	09-105-1201	Neoprene	12	5	57.1mm (2.24")	48.1mm (1.89")	16mm (0.62")	13554-0001	J53-555	09-812B						C
132878	08-38-1201	Neoprene	12	2	62mm (2.44")	32mm (1.25")	16mm (0.62")	18838-0001			09959K	835512-5	500103	132-0117		D
132878	08-38-1201	Neoprene	12	2	62mm (2.44")	32mm (1.25")	16mm (0.62")					3854286		2.5E+07		D
132882	09-106-1201	Neoprene	12	2	62mm (2.44")	22mm (0.86")	16mm (0.62")				9000K					D
132846	08-20-1201	Neoprene	12	2	65mm (2.55")	41mm (1.61")	16mm (0.62")	18948-0001	J53-538		10615K	835874-9	500120			E
132856	09-44-1201	Neoprene	12	5	65mm (2.55")	80mm (3.14")	25mm (0.98")			09-821B						E
132836	09-201-1001	Neoprene	10	6	65mm (2.55")	51mm (2")	19mm (0.74")	17954-0001	J53-559				500214			E
132818	08-40-0801	Neoprene	8	5	65.5mm (2.57)	37mm (1.45")	16mm (0.62")	11979-0001								F
132806	09-46-0801	Neoprene	8	2	65.5mm (2.57)	51mm (2")	16mm (0.62")	4598-0001				818680	500102			F
132820	09-47-0801	Neoprene	8	3	65.5mm (2.57)	51mm (2")	15mm (0.59")									F
132840	09-42-1001	Neoprene	10	5	66mm (2.59")	68mm (2.67")	16mm (0.62")								SP-130	G
132808	001-0801	Neoprene	8	5	67mm (2.63")	50mm (1.96")	16mm (0.62")	920-0001	J53-522	09-1028B		801277			SP-70	H
132808	001-0801	Neoprene	8	5	67mm (2.63")	50mm (1.96")	16mm (0.62")					825941				H
132808	001-0801	Neoprene	8	5	67mm (2.63")	50mm (1.96")	16mm (0.62")					877061-2				H
132808	001-0801	Neoprene	8	5	67mm (2.63")	50mm (1.96")	16mm (0.62")					875593				H
132808	001-0801	Neoprene	8	5	67mm (2.63")	50mm (1.96")	16mm (0.62")					3841697				H
132810	001-0801N	Nitrile	8	5	67mm (2.63")	50mm (1.96")	16mm (0.62")	920-0003	J53-523	09-1028B-9		877061-2	500206			H
132816	082-0801	Neoprene	8	3	80mm (3.14")	54mm (2.12")	19mm (0.74")									I
132848	08-19-1201	Neoprene	12	2	82mm (3.22)	73mm (2.87")	20mm (0.78")	18958-0001	J53-557		17000K					J
132876	08-35-1201	Neoprene	12	5	82mm (3.22)	73mm (2.87")	19,, (0.75")				27000K					J
132822	003-0901	Neoprene	9	5	95mm (3.74")	63mm (2.48")	25mm (0.98")	836-0001	J53-519	09-1029B		875736	500105		SP-200	L
132822	003-0901	Neoprene	9	5	95mm (3.74")	63mm (2.48")	25mm (0.98")					807904				L

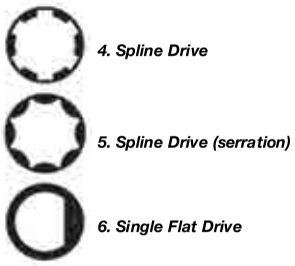
BLA Code	DJ Pump	Material	No. of Blades	Drive Type	Impeller Diameter	Impeller Depth	Shaft Diameter	ITT Jabsco	RWB ITT Code	Johnson	Sherwood	Volvo	CEF	Onan	Kashlyama	Type
132826	003-0901	Neoprene	9	3	95mm (3.74")	63mm (2.48")	25mm (0.98")									L
132824	003-0901	Neoprene	9	5	95mm (3.74")	88.5mm (3.48")	25mm (0.98")	8760-0001	J53-535	09-802B			500145		SP-280	L
132850	003-1201	Neoprene	12	5	95mm (3.74")	63mm (2.48")	25mm (0.98")	17935-0001	J53-513	09-819B		875660				M
132850	003-1201	Neoprene	12	6	95mm (3.74")	63mm (2.48")	25mm (0.98")					575736-1				M
132850	003-1201	Neoprene	12	7	95mm (3.74")	63mm (2.48")	25mm (0.98")					825942				M
132850	003-1201	Neoprene	12	8	95mm (3.74")	63mm (2.48")	25mm (0.98")					807904				M
132852	003-1201	Neoprene	12	5	95mm (3.74")	88.5mm (3.48")	25mm (0.98")	17936-0001	J53-517	09-814B		875814-6	500145			M
132852	003-1201	Neoprene	12	6	95mm (3.74")	88.5mm (3.48")	25mm (0.98")					875697				M
132852	003-1201	Neoprene	12	7	95mm (3.74")	88.5mm (3.48")	25mm (0.98")					545796				M
132852	003-1201	Neoprene	12	8	95mm (3.74")	88.5mm (3.48")	25mm (0.98")					844683				M
132852	003-1201	Neoprene	12	9	95mm (3.74")	88.5mm (3.48")	25mm (0.98")					842857				M
132868	08-30-1201	Neoprene	12	5	95mm (3.74")	130mm (5.11")	25mm (0.98")			09-820B						M
132872	08-33-1201	Neoprene	12	5	95mm (3.74")	102mm (4.01")	25mm (0.98")									M
132874	08-34-1201	Neoprene	12	5	95mm (3.74")	80mm (3.14")	25mm (0.98")									M
132864	08-17-1201	Neoprene	12	5	129mm (5.07")	101.5mm (3.99")	36mm (1.41")	31500-0001							SP-500	P
132866	08-17-1201N	Nitrile	12	6	129mm (5.07")	101.5mm (3.99")	36mm (1.41")									P
132880	09-43-1201	Neoprene	12	5	161mm (6.33")	120mm (4.72")	36mm (1.41")								SP-900	Q



1. Slotted Shaft Pin Drive

2. Key Drive

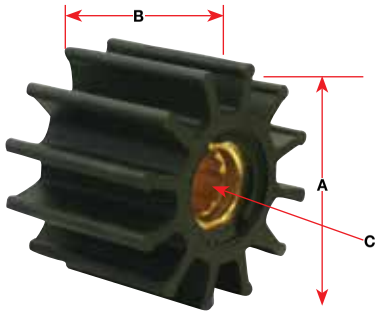
3. Double Flat Drive



4. Spline Drive

5. Spline Drive (serration)

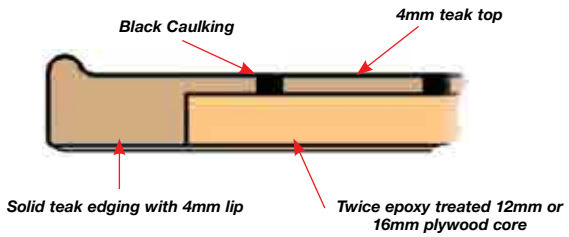
6. Single Flat Drive



A: Impeller Diameter
B: Impeller Depth
C: Shaft Diameter

Teak Table Tops

Beautifully crafted, classically designed, quality teak table tops in a large range of sizes and shapes with traditional pattern inlays. Each slat is individually selected when creating the table, ensuring that both the colour and the finished look maintain consistency. The table top is constructed around a twice epoxy treated 12 or 16mm thick plywood core with 4mm thick teak slats applied to the plywood surface. Quality black caulking compound are used between each slat, resulting in a total table top thickness of either 16 or 20mm, excluding raised edges. The table is left bare and can be used as is, oiled or varnished.



Nautic Star Square Teak Table Tops

– Rounded Corners

Rectangular with smooth rounded corners, traditional compass rose design embedded in the middle with a 4mm high edging extending all the way around the table.

BLA Code	Description	Width mm	Length mm	Thickness mm
139426	Soft Square	370	600	16
139427	Soft Square	510	750	16
139430	Soft Square	580	900	16

Nautic Star Teak Table Top – Eight Sided

Octagonal table with, traditional compass rose design embedded in the middle with a 4mm high edging extending all the way around. Ideal for use in smaller boats.

BLA Code	Description	Diameter mm	Thickness mm
139431	Octagonal	550	16

Nautic Star Teak Table Top - Ellipse

Oval shaped table with a traditional compass rose design embedded in the middle with 4mm high edging extending all the way around the table.

BLA Code	Description	Width mm	Length mm	Thickness mm
139436	Elliptical	440	580	16

Nautic Star Teak Table Tops - Half Ellipse

Combines ample area with curved lines. A traditional compass rose design embedded in the middle with a 4mm high edging extending all the way around the table. The total thickness of the table is 16mm, not including the raised edging. Available in two popular sizes.

BLA Code	Description	Width mm	Length mm	Thickness mm
139440	Half Ellipse	500	700	16
139442	Half Ellipse	610	940	16

Nautic Star Teak Table Top

– Folding Ellipse with Circle

Folding design with hidden stainless steel hinges engineered to provide a space saving alternative to a full size table. Excellent stability is maintained, even in the fully extended position, due to the face of narrow beading upon which the foldable top rests. A 25cm circle in the middle contains an embedded traditional compass rose.

BLA Code	Description	Width Folded mm	Width Extended mm	Length mm	Thickness mm
139446	Folding Ellipse	300	610	930	20

Nautic Star Teak Table Tops

– Folding Rectangular Wing

Double folding design with hidden stainless steel hinges engineered to provide a space saving alternative to a full size table. Features two hinged table leaves which double its size when fully extended to expose embedded traditional compass rose. Two extendible supports can be deployed after the table has been opened to provide extra stability.

BLA Code	Description	Width Folded mm	Width Extended mm	Length mm	Thickness mm
139448	Folding Rectangle	340	680	600	20
139450	Folding Rectangle	340	680	800	20

Nautic Star Teak Table Top - Folding Balcony

Folding table which can be raised from a vertical surface for use and held in place with a simple telescopic support capable of holding 60kg. Traditional compass rose design embedded in the middle with a 4mm high edging extending all the way around the table.

BLA Code	Description	Width mm	Length mm	Thickness mm
139462	Folding Wall	510	750	16

Teak Table Tops - Basic Rectangle

Plain, practical teak tables with squared corners and built upon a solid plywood core which is overlaid with 4mm teak slats then sanded to a smooth finish.

BLA Code	Description	Width mm	Length mm	Thickness mm
139464	Rectangle	420	620	16
139466	Rectangle	480	770	16
139468	Rectangle	610	900	16

Magma® Gourmet Series Gas Barbecues

The versatile gourmet series barbecues have set a new bench mark for onboard cooking. Beautifully finished and manufactured from 100% 18-9 stainless steel for ultimate hygiene and corrosion resistance. They grill quickly, evenly and disassemble easily for cleaning. A wide range of mount options are available to suit virtually any craft. Mount hardware purchased separately. Supplied with control valve for connection to regulated LPG.

Features:

- Dependable Piezo Crystal Ignition system
- Full size inner safety shell funnels grease into front access grease tray reducing flare-up and heat discolouration
- Convenient snap-out dual radiant plate for even heat distribution
- Closely spaced grill wires designed to grill anything from a T-bone to delicate fish and cut vegetables
- Oversized perfectly balanced lockable lid won't slam shut and secures all inner components while underway
- One year warranty

Catalina and Monterey Additional Features:

- Easy to read all stainless steel hermetically sealed thermometer with 750˚ safety glass
- Large upper grill for slow grilling or for warming food such as vegetables and bread

Pictured with Coleman® disposable gas cylinder (not included)

Catalina - Pictured with optional cutting board and dual rail mount.

139590

Fold up legs included on all gourmet BBQs

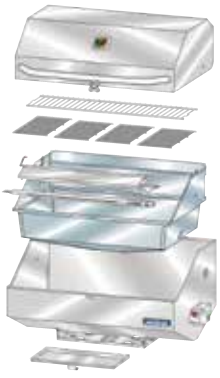
139586

Monterey - Pictured with optional cutting board and dual rail mounting kit.

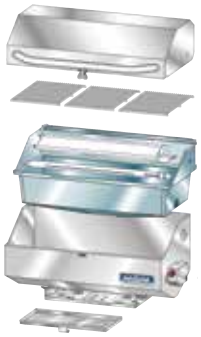
139594

Newport - Pictured with optional Coleman® disposable cylinder and Levelock rod holder mount.

139586



139594



BLA Code	Model	Control Valve To Suit	Primary Grill mm	Secondary Grill mm	Width Incl. Valve mm	Front to Back mm		Height (Legs Up) Closed mm	
139586	Monterey	LPG	300 x 610	140 x 610	730	395	375	480	345
139590	Catalina	LPG	300 x 460	140 x 460	580	395	375	480	345
139594	Newport	LPG	230 x 460	–	580	300	295	420	290

Standard Inclusions:

139726 Warming rack to suit Catalina

Magma® Levelock Rod Holder Mount

Made from a combination of stainless steel and anodised aluminium. The quick release, cam action design allows convenient all angle adjustment. The stainless steel tube fits most cross pin type rod holders in eight different rotational positions. Folds flat for compact storage.

BLA Code	Overall Length	Tube Length
139678	360	300

N.B. Recommended for use with the Newport Gourmet Series barbecue only.

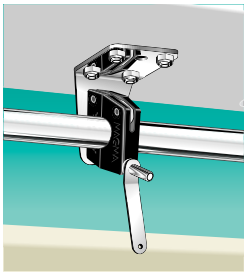
Magma® Locking Flush Socket Deck Mounts

Mirror polished 18-8 stainless steel construction. These flush socket sets feature a push button locking pin and include flange gasket with attached water seal plugs. Screws are included for attachment to table or Gourmet series barbecue.

BLA Code	Style	Suits Gourmet Barbecue	Deck Flange mm	Cut Out mm	Intrusion mm
139682	Dual	All models	60	25	45

Magma® Rail Mount Kits

Made of 18-8 stainless steel and 356 anodised aluminium, they easily detach without tools for compact storage. Single mounts attach to horizontal round rails and feature two way angle adjustment for perfect horizontal levelling. Dual rail mounts have a unique pivoting design which allows them to mount on a straight or curved rail or across the corner of a stern rail.



BLA Code	Style	Suits Gourmet Barbecue	Rail Diameter mm	Rail Diameter in
139684	Single	Newport only	25	1
139686	Single	Newport only	32	1¼
139688	Dual	All models	22-25	7/8-1

Spare Parts:

139778 Spare lever and washer

Magma® Square Rail/Side Mount

These all 18-8 stainless steel mounts attach to flat surface such as bulkheads, coamings, transoms or cabin sides. Also mounts to square and flat rails. Fits horizontal rails up to 57mm high by any depth or vertical rails up to 41mm wide by any depth.

BLA Code	Style	Suits Gourmet Barbecue	Mount Base mm	Overall Height mm
139696	Dual	All models	69 x 79	110

ANCHORING & MOORING

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Anchoring & Mooring

Anchoring, mooring, tying up, all require certain techniques and appropriate ground tackle to ensure safe and secure anchoring is achieved. Basic anchoring consists of common sense, determining the location, dropping the anchor, laying out the rope and chain, and assessing where the vessel ends up.

Every situation will be different but the basics remain the same; determine a suitable location, survey the surrounds (GPS, chart or sounder often confirm your visual view), be mindful of prevailing wind, tide and other vessels.

If the location is good, approach from the stronger down wind or down current and as you arrive at the desired location, the vessel should be stopped and the anchor quickly lowered, remaining under control, creating a relatively straight lie for the rope and/or chain.

When feeding out the rope or chain a general rule of thumb in generally smooth water is to let out a minimum of three times the depth of water to set the anchor and between five and seven times the depth if you are to stay at anchor and the surrounds permit. The vessel should then be gently put astern to help set the anchor and to provide indications of possible dragging. If the anchor continues to drag, or sets after having dragged too far, it should be retrieved and moved back to the desired position or another location chosen.

What constitutes the right anchor for the type of bottom and what's the best — rope or chain?

Sand Anchor

The most popular of all anchors. Suitable for use in mud or sand. Generally fitted with a retrieval eye for ease of removal if snagged. Stows flat and generally finished in hot dipped galvanising for longevity.

Reef Anchor

Suited to temporary reef anchoring. If snagged in reef conditions the prongs are designed to straighten with the retrieval load. Vessels anchored with reef anchors should not be left unattended. Finished in hot dipped galvanising.

Plough Anchor

Ideal for sand and mud bottoms. Provides safe and sure anchoring for heavier craft. Generally fitted with a retrieval eye for ease of removal if snagged. Lead filled tip aids in setting the anchor. Generally finished in hot dipped galvanising but also popular in 316 grade stainless steel.

Lewmar® Anchor

Lewmar brand anchors are world leaders in anchor technology. Models such as Delta® and CQR® are often recognised as benchmark designs and are highly regarded worldwide. Delta®, CQR® and DTX® anchors all have Lloyd's Type Approval which is a testament to the performance and durability of these products.

Self Aligning Anchor

Suited to sand and mud bottoms. Self align anchors roll upright, irrespective of initial drop altitude, within two shank lengths of engaging the seabed. High holding power is obtained by the highly efficient fluke and shank design. Low retrieval force results from the short, broad, single fluke. Retrieval force is generally 30% of the prior holding power. Generally finished in hot dipped galvanising but also popular in cast 316 grade stainless steel.

Rope

The primary advantages of rope is its inherent elasticity which creates a shock absorbing effect and its relative light weight. Common types include three strand 'silver' (polyethylene staple), three strand nylon (premium rope with excellent elasticity and recoil) and three strand polyester. With the introduction of large drum type rope spoolers an eight or sixteen plait rope is often employed for its non-kink characteristics.

Chain

The primary advantage of chain is its inherent weight and that it will not chafe over aggressive sea beds as will rope. The obvious disadvantage when primarily stored in an anchor locker in the bow is its weight. In light winds chain gives a perfect horizontal pull to the anchor and the best holding. In moderate wind, its weight provides for a perfect shock absorbing effect but in strong winds can become tight, increase the jarring effect and possibly dislodge the anchor.

Stainless steel chain is mainly used in situations where there is exposure to water / seawater such as boating and yachting. It has excellent corrosion resistance. Stainless steel chain is suitable for day anchoring but is not recommended for long term anchoring as it can work-harden the chain, making it susceptible to cracking.

Galvanised chain offers a high degree of weather and corrosion protection. It is recommended for industrial, commercial or any environment where the aesthetic appearance is of less importance than weather protection.

Anchor Selection Guide

BLA Plough Anchor

BLA Code	Anchor Weight kg	Anchor Weight lbs	m / ft	Boat Length Overall 4 / 13.1	5 / 16.4	6 / 19.7	7 / 22.9	8 / 26.2	9 / 29.5	10 / 32.8	11 / 36	12 / 39.4	13 / 42.7	14 / 45.9	15 / 49.2	16 / 52.5	17 / 55.8	18 / 59.1
146152	4.5	10																
146154	6.8	15																
146156	9	20																
146158	12.3	27																
146160	15.9	35																
146162	20.4	45																
146164	27.2	60																
146166	36.3	80																
146168	45.4	100																
Recommended nylon mm				8	8	10	10	12	12	16	16	16	20	20	20	22	24	24
Recommended chain size mm				6	6	8	8	8	10	10	10	10	13	13	13	13	13	13

N.B. The lighter shading represents the upper limit of the model. If in doubt, select the next model up.

BLA Sand Anchor

BLA Code	Anchor Weight kg	Anchor Weight lbs	m / ft	Boat Length Overall 3 / 9.8	4 / 13.1	5 / 16.4	6 / 19.7	7 / 22.9	8 / 26.2	9 / 29.5	10 / 32.8	11 / 36	12 / 39.4	13 / 42.7	14 / 45.9	15 / 49.2	16 / 52.5	17 / 55.8	18 / 59.1
146042	1.4	3																	
146044	1.8	4																	
146046	2.7	6																	
146048	3.6	8																	
146050	4.5	10																	
146052	5.9	13																	
146054	7.3	16																	
146060	10	22																	
146062	12.3	27																	
146064	15.9	35																	
146066	20.4	45																	
146070	27.2	60																	
146072	36.3	80																	
146074	45	100																	
Recommended nylon mm				6	6	8	8	10	12	12	16	16	16	20	20	22	22	22	22
Recomended chain size mm				6	6	8	8	8	8	10	10	10	10	13	13	13	13	13	13

N.B. The lighter shading represents the upper limit of the model. If in doubt, select the next model up.

Lewmar® C.Q.R.® Anchor

BLA Code	Anchor Weight kg	Anchor Weight lbs	m / ft	Boat Length Overall 6 / 20	9.2 / 30	12.2 / 40	15.2 / 50	18.3 / 60	21.3 / 70	24.4 / 80
146155	7	15								
146157	9	20								
146159	11	25								
146161	16	35								
146163	20	44								
146165	27	60								
146167	34	75								
146169	48	105								
Recommended nylon mm				8	12	16	20	22	24	24
Recomended chain size mm				6	8	8	8	10	10-13	13

N.B. The lighter shading represents the upper limit of the model. If in doubt, select the next model up.

Lewmar® Delta® Anchor

BLA Code Gal	BLA Code SS	Anchor Weight kg	Anchor Weight lbs	m / ft	Boat Length Overall 6 / 20	9.2 / 30	12.2 / 40	15.2 / 50	18.3 / 60	21.3 / 70
146220		4	9							
146222	**146240**	6	14							
146224	**146242**	10	22							
146226	**146244**	16	35							
146228	**146246**	20	44							
146230	**146248**	25	55							
146233	**146250**	32	70							
146234		40	88							
Recommended nylon mm					8	12	16	20	22	24
Recomended chain size mm					6-7	8	8	10	10	10

N.B. The lighter shading represents the upper limit of the model. If in doubt, select the next model up.

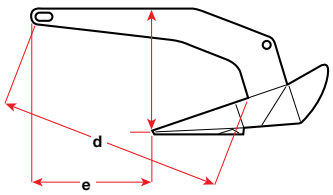
Lewmar® Anchor - Delta® Manganese Steel

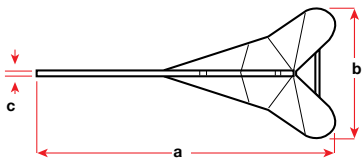
LEWMAR®

The original Delta® design from Lewmar® is recognised the world over as an outstanding anchor with exceptional holding power. Manufactured to exacting standards the Delta® is constructed from high grade manganese steel giving it maximum tensile strength. The unique shank profile and ballasted tip plus low centre of gravity and self-righting geometry ensure that the Delta anchor will set immediately. The design profile and ballasted tip also means that the anchor self launches with ease. The Delta's consistent and reliable performance is backed by a lifetime guarantee against breakage[1], has Lloyd's Approval[2] as a High Holding Power anchor and is specified as the primary anchor used by numerous national organisations worldwide. The Delta® anchor is also made available in premium grade Duplex/High Tensile stainless steel.

1 Damage by deformation or bending is not covered by this guarantee.
2 Lloyd's Test Certificate is available for individual anchors by arrangement.

LIFETIME WARRANTY 1





BLA Code Gal	BLA Code S/Steel	Weight kg	Weight lb	Suggested Chain Size	a mm	b mm	c mm	d mm	e mm
146220		4	9	6-7	514	228	8	387	210
146222	**146240**	6	14	6-7	595	263	10	450	241
146224	**146242**	10	22	8	695	308	12	526	283
146226	**146244**	16	35	8	812	360	12	614	334
146228	**146246**	20	44	10	877	389	16	663	361
146230	**146248**	25	55	10	945	417	16	713	384
146233	**146250**	32	70	10	1026	455	26	774	417
146234		40	88	10	1099	489	20	885	446

Lewmar® Anchor - DTX® Stainless Steel

LEWMAR®

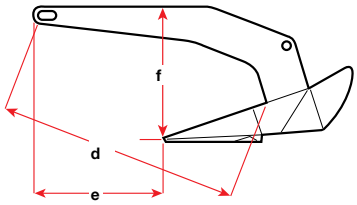
The DTX® anchor fills the gap between the existing galvanised and stainless steel Delta® anchors. Made from 316 grade stainless steel, The DTX® anchors feature exceptional anti-corrosion performance and the enhanced aesthetics that stainless anchors offer. Utilising lead ballast encapsulated within the tip of the anchor to achieve the perfect centre of gravity, the DTX® offers the initial bite and holding reliability that users of Delta® anchors have come to expect. Every DTX® anchor is certified to Lloyd's Ordinary Holding Power standard and is warranted for 3 years against breakage[1].

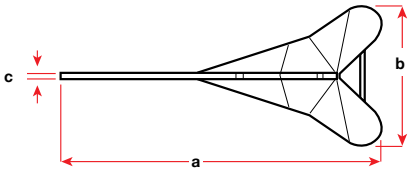
1 Damage by deformation or bending is not covered by this guarantee.

THREE YEAR WARRANTY 3

1

146374





BLA Code S/Steel	Weight kg	Weight lb	Suggested Chain Size	a mm	b mm	c mm	d mm	e mm	f mm
146370	6	14	6	593	265	10	450	243	254
146372	10	22	8	695	310	12	526	282	292
146374	16	35	8	812	362	12	614	328	339
146376	20	44	10	877	392	16	663	357	268
146378	25	55	10	945	415	16	713	387	298
146380	32	70	10	1023	453.5	20	775	425	432
146382	40	88	10	1103	489	20	883	437	461
146384	63	139	13	1270	567	25	963	508	537

Lewmar® Anchor - C.Q.R® Galvanised

LEWMAR®

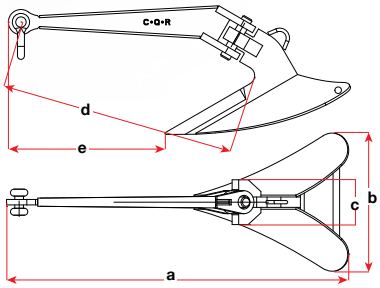
The fabricated C.Q.R.® anchor has gained international status for its superior performance and strength. The construction of the C.Q.R.® anchor increases its strength and reliability under load, a genuine C.Q.R.® anchor will not break. The anchor's flute design and hinged shank delivers consistent setting and holding even in the very worst conditions. The C.Q.R.® anchor is guaranteed for life against breakage[1] and has Lloyd's Approval[2] as a High Holding Power anchor.

1 Damage by deformation or bending is not covered by this guarantee.
2 Lloyd's Test Certificate is available for individual anchors by arrangement.

LIFETIME WARRANTY

1

146155



BLA Code	Weight kg	Weight lb	Suggested Chain Size	a mm	b mm	c mm	d mm	e mm
146155	7	15	6	626	253	82	439	287
146157	9	20	8	690	279	86	484	313
146159	11	25	8	740	299	90	522	336
146161	16	35	8	827	335	94	584	373
146163	20	45	10	901	366	100	635	405
146165	27	60	10	989	402	106	700	445
146167	34	75	10-13	1071	435	112	754	481

BLA Sand Anchoring Kit

- Galvanised

Complete anchoring kit comprising of a galvanised sand anchor, galvanised chain, two galvanised 'D' shackles and silver rope with a stainless steel thimble spliced in one end. Kit supplied in clear shrink wrapped plastic. Heavy duty hot dipped galvanised finish. Also available boxed (part numbers with 'B').

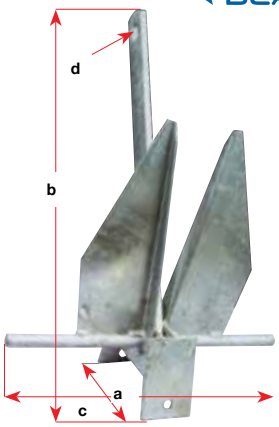
BLA Code	Anchor Size	Chain Dia. mm	Chain Length mm	Shackle mm	Rope Length m	Rope Dia. mm	Approx Boat Length m
146013	4S	6	2	6	30	6	3
146013B	4S	6	2	6	30	6	3
146014	4S	6	2	6	50	6	3
146014B	4S	6	2	6	50	6	3
146023	4S	6	4	6	50	6	4
146023B	4S	6	4	6	50	6	4
146015	6S	6	2	6	30	6	4
146015B	6S	6	2	6	30	6	4
146016	6S	6	2	6	50	6	4
146016B	6S	6	2	6	50	6	4
146024	6S	6	4	6	50	6	4
146024B	6S	6	4	6	50	6	4
146025	6S	6	2	6	30	8	4
146025B	6S	6	2	6	30	8	4
146026	6S	6	2	6	50	8	4
146026B	6S	6	2	6	50	8	4
146017	8S	8	2	8	30	8	4
146017B	8S	8	2	8	30	8	4
146018	8S	8	2	8	50	8	5
146018B	8S	8	2	8	50	8	5
146028	8S	8	4	8	50	8	5
146028B	8S	8	4	8	50	8	5
146029	8S	6	4	8	50	10	5
146029B	8S	6	4	8	50	10	5
146034	8S	8	2	8	110	8	5
146019	10S	8	2	8	30	10	5
146019B	10S	8	2	8	30	10	5
146020	10S	8	2	8	50	10	6
146020B	10S	8	2	8	50	10	6
146036	10S	8	2	8	110	10	6
146021	13S	8	2	8	30	10	6
146022	13S	8	2	8	50	10	7
146022B	13S	8	2	8	50	10	7
146032B	10S	8	4	8	50	10	6
146033	13S	8	4	8	50	10	6
146038	13S	8	2	8	110	10	7

'B' - Denotes boxed version
N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Sand Anchor

- Galvanised

The most popular of all anchors. Suitable for use in mud or sand. Fitted with retrieval eye for ease of removal if snagged. Stows flat. Heavy duty hot dipped galvanised finish. Anchor size refers to approximate weight in pounds.



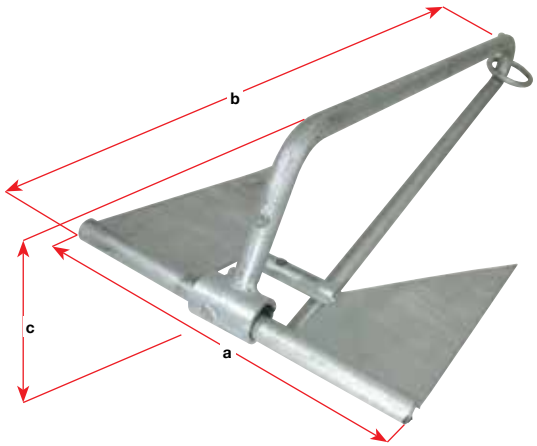
BLA Code	Size	Weight Approx. kg	Approx. Boat Length m	a mm	b mm	c mm	d mm
146042	3S	1.4	2	280	375	96	7
146044	4S	1.8	3	320	500	110	12
146046	6S	2.7	4	335	480	125	12
146048	8S	3.6	5	355	495	130	14
146050	10S	4.5	6	360	495	130	14
146052	13S	5.9	7	415	555	130	14
146054	16S	7.3	8	420	590	135	14
146060	22S	10	9	490	700	130	-
146062	27S	12.3	11	510	715	175	-
146064	35S	15.9	13	550	800	185	-
146066	45S	20.4	14	590	850	205	-
146070	60S	27.2	15	660	880	210	-
146072	80S	36.3	16	740	995	215	-
146074	100S	45	17	755	1010	250	-

N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Sand Anchor

- Slip Ring

A popular small boat anchor. Suitable for use in mud and sand. The slip attachment ring enables the anchor to be retrieved if snagged, by pulling in the opposite direction to set. Heavy hot dipped galvanised finish.

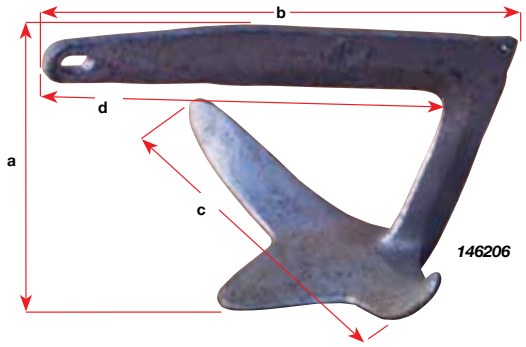


BLA Code	Size	Weight Approx. kg	Approx. Boat Length m	a mm	b mm	c mm
146102	4SR	1.8	3	200	430	125
146104	6SR	2.7	4	220	470	170
146106	8SR	3.6	5	240	470	170
146110	13SR	5.9	7	290	590	200

BLA Self Aligning Anchor

- 316 Grade Stainless Steel & Galvanised

Suited to sand and mud bottom. Heavy duty hot dipped galvanised finish, cast iron or cast 316 grade stainless steel construction. Self align anchors roll upright, irrespective of initial drop altitude. High holding power is obtained by the highly efficient fluke and shank design. Low retrieval force results from the short, broad, single fluke. Retrieval force is generally 30% of the prior holding power.



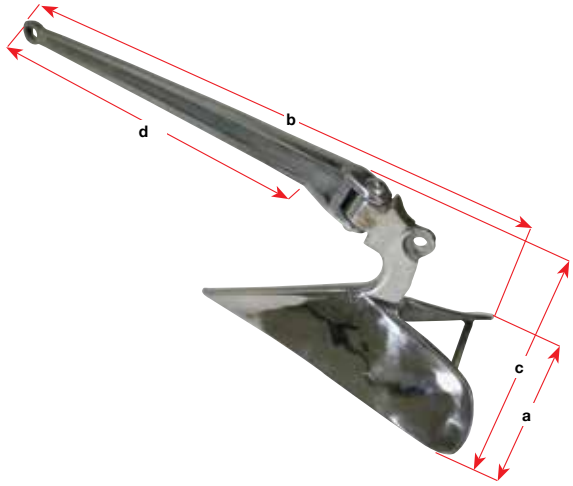
BLA Code	Material	Weight Approx. kg	Approx. Boat Length m	a mm	b mm	c mm	d mm
146202	Cast iron	5	7	230	470	305	415
146203	S/Steel	5	7	265	440	290	425
146204	Cast iron	7.5	8.5	270	535	355	470
146205	S/Steel	7.5	8.5	265	490	340	425
146206	Cast iron	10	10	300	585	385	525
146207	S/Steel	10	10	270	550	370	475
146208	Cast iron	15	12	330	625	420	550
146209	S/Steel	15	12	325	630	450	510
146210	Cast iron	20	14	365	670	480	600
146211	S/Steel	20	14	375	675	470	580

N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Plough Anchor

- 316 Grade Stainless Steel

Accentuate the bow on any boat with a polished cast 316 grade stainless steel anchor. Ideal for sand and mud, plough anchors are the anchor of choice for experienced boat owners around the world. Fitted with retrieval eye for ease of removal if snagged.



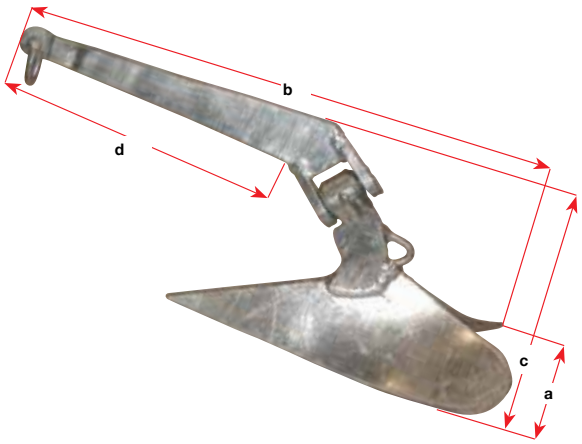
BLA Code	Weight Approx. kg	Weight Approx. lbs	Approx. Boat Length m	a mm	b mm	c mm	d mm
146182	5	10	5	250	630	250	360
146184	7	15	7	240	670	245	425
146186	9	20	8	285	790	290	560
146188	12	27	9	285	840	270	570
146190	15	33	11	295	925	275	570
146192	22	48	13	330	940	360	550
146194	27	60	15	340	940	360	550

N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Plough Anchor

- Galvanised

Ideal for sand and mud. Provides safe and sure anchoring for heavier craft. Fitted with retrieval eye for ease of removal if snagged. Heavy duty hot dipped galvanised finish with lead filled tip. Anchor size refers to approximate weight in pounds.



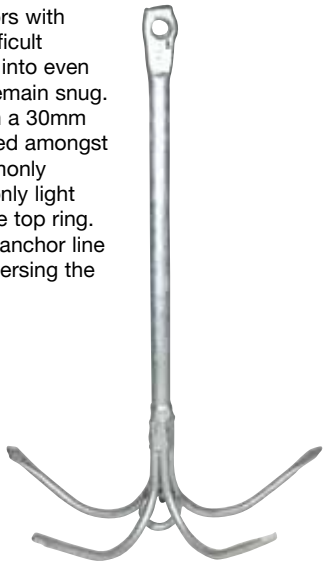
BLA Code	Size	Approx. Boat Length m	Weight Approx. kg	a mm	b mm	c mm	d mm
146152	10P	5	4.5	200	550	200	270
146154	15P	7	6.8	250	580	255	280
146156	20P	8	9	280	700	270	350
146158	27P	9	12.3	325	760	290	380
146160	35P	11	15.9	375	790	330	400
146162	45P	13	20.4	395	850	335	440
146164	60P	15	27.2	450	940	375	470
146166	80P	16	36.3	490	1060	400	520
146168	100P	17	45.4	490	1120	400	570

N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Grapnel Anchor

- Galvanised

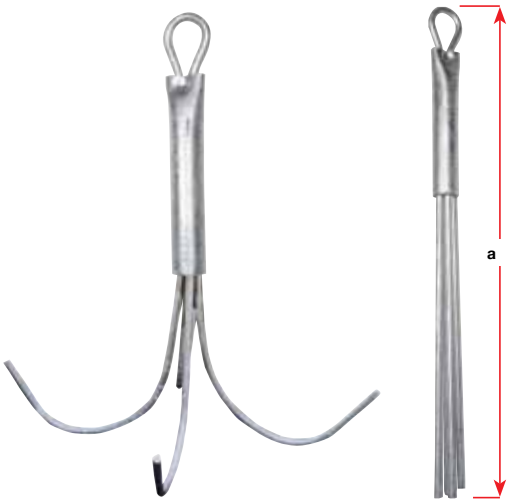
Traditional hard holding anchors with strong flukes for holding in difficult conditions. Flukes quickly dig into even hard bottom conditions and remain snug. Every anchor is equipped with a 30mm trip ring in the base. When used amongst rocks, the anchor line is commonly secured to the trip ring, with only light lashing around the line and the top ring. If snagged, a tight pull on the anchor line usually breaks the lashing, reversing the anchor to pull free.



BLA Code	Size kg	Shaft mm	Flukes mm	Eye mm	Width mm	Height mm
146352	2	19	10	15	330	540
146354	3	22	12	15	370	610
146356	4	24	14	15	450	660
146358	5	24	16	15	450	660
146360	6	27	16	15	480	710
146362	8	32	16	15	480	800

BLA Reef Anchor - Galvanised

Suited to temporary reef anchoring. Heavy duty hot dipped galvanised finish. If snagged in reef conditions the prongs will straighten with retrieval load. Vessels anchored with reef anchors should not be left unattended. Supplied with prongs straight for freighting purposes.

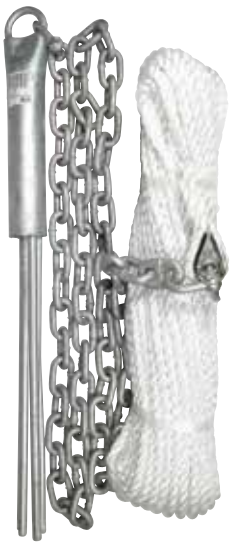


BLA Code	Prong Dia. mm	No. of Prongs	Approx. Boat Length m	a mm
146422	6	4	3	490
146424	8	4	4	620
146426	10	4	5	620
146428	10	5	6	620
146430	13	4	7	770
146432	13	5	8	770

N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Reef Anchoring Kit - Galvanised

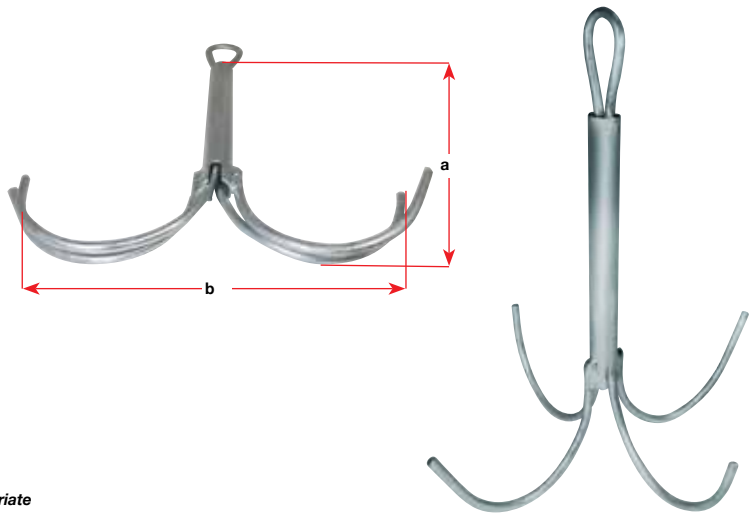
Complete anchoring kit comprising of a galvanised reef anchor, two metres of galvanised chain, two galvanised 'D' shackles and silver rope with a stainless steel thimble spliced in one end. Kit supplied in clear shrink wrapped plastic.



BLA Code	Prong Dia. mm	No. of Prongs	Chain Dia. m	Chain Length m	Shackle Size mm	Rope Length mm	Rope Dia. mm
146404	8	4	6	2	6	50	8
146406	8	4	6	4	6	50	8
146407	10	4	6	2	6	50	8
146409	10	4	6	4	6	50	8
146410	10	5	6	2	6	50	8
146412	10	5	6	4	6	50	8
146413	13	4	8	2	8	50	10
146415	13	4	8	4	8	50	10
146416	13	5	8	2	8	50	10
146418	13	5	8	4	8	50	10

BLA Folding Reef Anchor - Galvanised

Four prong reef anchor with 90˚ twist and lock feature that allows the anchor to be stowed flat. Intended for reef anchoring only, if snagged, prongs will straighten with retrieval load. Vessels anchored with reef anchors should not be left unattended. Heavy hot dipped galvanised finish.



BLA Code	Prong Dia. mm	Approx. Boat Length m	a mm	b mm
146442	8	4	460	400
146444	10	5	540	400

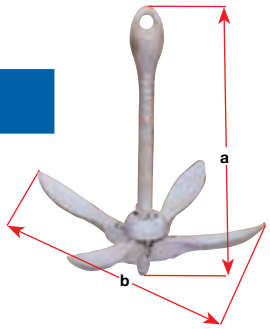
N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Folding Anchor

- Galvanised

Most suitable for use with inflatable boats, canoes, kayaks or small dinghies where space is at a premium. Assembled in seconds. Hot dipped galvanised cast iron construction.

For suitable watercraft
See Section 52



BLA Code	Weight kg	a mm	b mm
146470	0.7	185	165
146472	1.5	310	290
146474	2.5	360	320
146476	3.2	400	360
146478	4	450	410

BLA Folding Anchoring Kit - Galvanised

Complete anchoring kit comprising of a galvanised folding anchor, two metres of galvanised chain, two galvanised 'D' shackles and silver rope with a stainless steel thimble spliced in one end. Supplied in clear shrink wrapped plastic.

BLA Code	Anchor kg	Chain mm	Shackle mm	Rope Length m	Rope Size mm
146462	1.5	6	8	30	8
146464	2.5	6	8	30	8
146466	3.2	6	8	30	12

Airhead® PWC Sand Anchor & Buoy

A sand anchor is ideal for anchoring PWCs in shallow water to keep the impeller off the beach. Fill this super durable tri-laminate anchor bag with up to 15kg of rocks or sand. A buoy marks the anchor's location. Tie-ups are easy with the 1.8m long rope and the oversized finish-friendly acetyl snap hook.

BLA Code
146901

Minn Kota® Drift Sock

Optimise your lure presentation over holding fish with the addition of the Minn Kota drift sock. Harness with float available (**602908**) that allows sock to be quickly released to prevent tangles when fighting/ landing fish.

602906

602908

BLA Code	Length mm	Dia mm
602906	860	550

Accessories:

602908 Minn Kota Drift Sock Harness

BLA Sea Anchor - PVC

A range of compact collapsible open ended economy sea anchors or drogues, designed to complement any boat's safety equipment. Ideally suited to a wide range of applications and situations including slowing the vessel's speed in a following sea or strong winds, slowing the rate of swing at anchor, slowing and controlling the wind drift rate and keeping a vessel's direction true in tidal situations. They are not suitable for storm use. Manufactured from reinforced coated PVC with 25mm webbing reinforcements that run the length of the sea anchor for additional strength. The webbing continues at either end to create a long towing bridle and includes rope attachment loops at each end for ease of retrieval.

BLA Code	Description	Suggested Max. Boat Length m	Length mm	Dia. mm	Bridle Length mm
146918	Small	4.5	600	450	650
146920	Medium	6	750	600	900
146922	Large	7.5	1350	1000	1700

N.B. Boat size suggested is for average boat under average conditions and should be seen as a guide only.

BLA Nylon Anchor Rope & Chain - Galvanised

Conveniently made up nylon anchor rope, spliced to short link galvanised chain, with a shackle for the anchor. All chain lengths are 10 metres. Nylon rope is particularly suited as an anchor rope due to its combined properties of high strength, shock absorbing flex, soft grip and U.V. stability.

BLA Code	Rope Dia. mm	Rope Length m	Chain Size mm
145962	8	80	6
145966	8	80	6
145970	10	50	6
145974	10	100	6
145976	10	80	8
145978	12	50	6
145980	12	100	6
145982	12	50	8
145986	12	100	8
145987	14	50	8
145988	14	100	8
145990	14	125	10
145996	16	125	10

Titan Nylon Anchor Rope & Chain - Eight Plait & Galvanised

Conveniently made up eight plait nylon anchor rope, spliced to short link galvanised chain in varying sizes and lengths. All chain lengths are 10 metres. Nylon rope is particularly suited as an anchor rope due to its combined properties of high strength, shock absorbing flex, soft grip and U.V. stability. Supplied in compact cardboard box.

BLA Code	Rope Dia. mm	Rope Length m	Chain Size mm
145430	12	50	6
145432	12	100	6
145436	12	50	8
145438	12	100	8
145442	14	50	8
145444	14	100	8

N.B. Check your windlass manufacturer's gypsy specifications for the suitability of this anchor rope and chain. 145442 and 144444 are not to be used with Lewmar 8mm gypsy.

BLA Nylon Anchor Rope

High strength, non buoyant, and resistant to abrasion, coupled with shock absorbing flex and soft grip, has made nylon the premium choice of anchor rope. Stainless steel thimble pre-spliced at one end. U.V. stabilised to sustain constant sun exposure. Supplied in shrink wrapped coil.

144236

BLA Code	Rope Dia. mm	Rope Length m	Min. Break Load kg
144236	6	50	750
144238	8	50	1350
144240	10	50	2080
144242	12	50	3000

BLA Silver Anchor Rope Hanks & Coils

Convenient made up anchor ropes, in shrink-wrapped plastic. U.V. stabilised silver rope with stainless steel thimble spliced in one end and soft loop other end. Silver rope is a floating line.

Hank

Coil

BLA Code Hanks	Coils	Rope Dia. mm	Rope Length m	Min. Break Load kg
144182	**144160**	6	30	330
144184	**144162**	8	30	540
144186	**144164**	10	30	790
144188	**144166**	12	30	1090
144192		8	40	540
144194		10	40	790
144196		12	40	1090
144198	**144168**	6	50	330
144200	**144170**	8	50	540
144202	**144172**	10	50	790
144204	**144174**	12	50	1090
144206	**144176**	8	110	540
144208	**144178**	10	110	790
144210	**144180**	12	110	1090

BLA Stainless Steel Chain - General Link

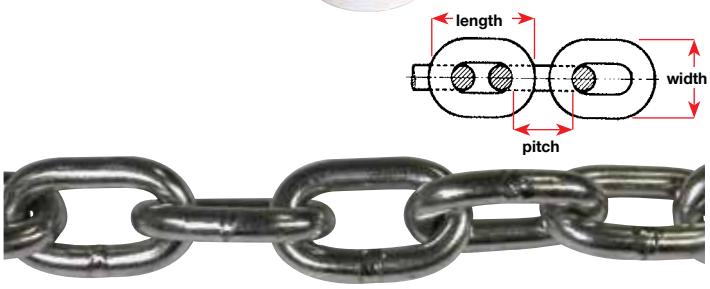
Australian Standard sized, 316 grade stainless steel, polished chain. Commonly used for net weights, duckboard restraints, rail entry or any other application that requires excellent quality and lasting finish. Sold per metre and by the drum (sold by weight, lengths are approximate). Stainless steel chain is suitable for day anchoring but is not recommended for long term anchoring as it can work-harden the chain, making it susceptible to cracking.

Per Metre

BLA Code	Diameter mm	Weight per m kg	Length mm	Width mm	Pitch mm
145092	4	0.32	27	16	19
145094	6	0.72	38	23	26
145096	8	1.28	48	29.5	32
145098	10	2.06	60	37	40

Full Drums

BLA Code	Qty Approx. kg	Qty Approx. m	Diameter mm	Length mm	Width mm	Pitch mm
145100	50	155	4	27	16	19
145106	50	63	6	39	23	27
145108	100	126	6	39	23	27
145114	100	78	8	48	29.5	32
145120	100	50	10	60	37	40



BLA Stainless Steel Chain - Short Link

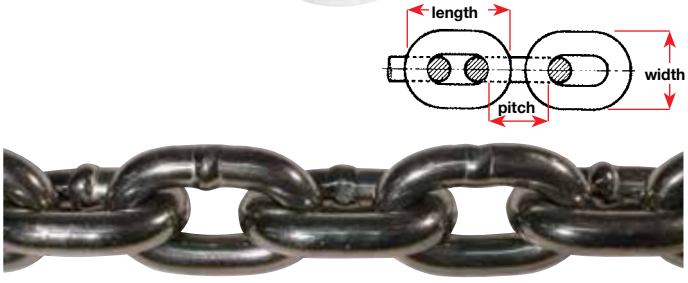
Australian Standard 2321 sized, 316 grade stainless steel, polished chain. Commonly used for net weights and anchor chain. Sold per metre and by the drum (sold by weight, lengths are approximate). Stainless steel chain is suitable for day anchoring but is not recommended for long term anchoring as it can work-harden the chain, making it susceptible to cracking.

Per Metre

BLA Code	Diameter mm	Weight per m kg	Length mm	Width mm	Pitch mm
145142	6	0.91	30.9	21.5	18.9
145150	8	1.42	10	27.5	24
145158	10	2.21	49.5	33.5	29.5
145166	13	3.73	65	42.3	39

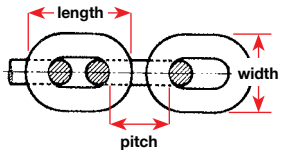
Full Drums

BLA Code	Qty Approx. kg	Qty Approx. m	Diameter mm	Length mm	Width mm	Pitch mm
145146	100	110	6	30.9	21.5	18.9
145156	500	352	8	40	27.5	24
145164	500	225	10	49.5	33.5	29.5
145172	500	134	13	65	42.3	39



BLA Galvanised Chain - General Link

Australian Standard sized, hot dipped galvanised, grade 30, general link proof coil chain.



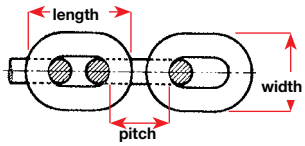
BLA Code	Qty Approx. kg	Qty Approx. m	Diameter mm	Length mm	Width mm	Pitch mm
145006	50	60	6	39	25	27
145009	500	600	6	39	25	27
145010	50	37	8	48	29.5	32
145013	500	370	8	48	29.5	32
145014	50	23.5	10	60	37	40
145017	500	235	10	60	37	40
145021	500	166.5	12	70	44	46
145024	500	101	16	91.6	56.5	59.6
145027	500	61.5	20	113.3	70	73.3

Per Metre

BLA Code	Diameter mm	Weight per m kg	Length mm	Width mm	Pitch mm
145004	6	0.83	39	25	27
145008	8	1.35	48	29.5	32
145018	10	2.13	60	37	40
145022	12	3	70	44	46

BLA Galvanised Chain - Grade 'L' Short Link

Australian Standard 2321 sized Grade 'L', hot dipped galvanised, short link chain. Suitable for use with most anchor winches and all chain anchor lines. Sold per metre and by the drum (sold by weight, lengths are approximate). Manufacturers grade 'L' certificate available upon request.



Full Drums

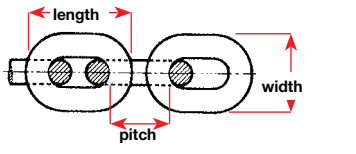
BLA Code	Qty Approx. kg	Qty Approx. m	Diameter mm	Length mm	Width mm	Pitch mm
145054	50	54	6	30.9	21.5	18.9
145056	500	540	6	30.9	21.5	18.9
145059	50	33.5	8	40	27.5	24
145064	500	335	8	40	27.5	24
145068	100	43	10	49.5	33.5	29.5
145072	500	214.5	10	49.5	33.5	29.5
145080	500	125	13	65	45.5	39
145084	500	84	16	80	54	48

Per Metre

BLA Code	Diameter mm	Weight per m kg	Length mm	Width mm	Pitch mm
145052	6	0.93	30.9	21.5	18.9
145058	8	1.49	40	27.5	24
145066	10	2.33	49.5	33.5	29.5
145074	13	4	65	45.5	39
145081	16	5.95	80	54	48

BLA Galvanised Chain - DIN766 Short Link

European Standard 13mm DIN766, hot dipped galvanised, short link chain. Recommended for use on a Lewmar 13mm gypsy. DIN 766 chain is the common chain standard for European made gypsies. Sold by the drum (sold by weight, lengths are approximate).



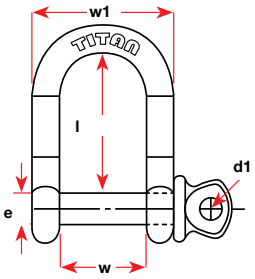
BLA Code	Qty Approx. kg	Qty Approx. m	Diameter mm	Length mm	Width mm	Pitch mm
145078	250	63	13	62	47	36
145079	500	125	13	62	47	36

Titan™ Tested 'D' Shackle - Galvanised

Quality heavy duty tested 'D' shackle. Suitable for a wide range of applications. Features hot dipped galvanising for the body and pin, creating superior corrosion resistance and longevity, plus large tie off hole for pin security making them ideal for use in harsh marine environments. Manufactured to meet or exceed current American standard RR-C-271 Type IV Grade A. These specifications ensure that each shackle performs to the load rated and proof tested weights as stated with a safety factor of 6 to 1. Conveniently stamped with working load limit and bail size.

143026

BLA Code	Bail Size mm	Pin Dia. mm	Working Load kg	Breaking Load kg	d1 mm	e Thread mm	w mm	w1 mm	l mm
143022	6	8	500	3000	4.8	5/16" - 18UNC	11.9	24.1	35.1
143024	8	10	750	4500	5.6	3/8" - 16UNC	13.5	29.5	42.2
143026	10	11	1000	6000	6.4	7/16" - 14UNC	16.8	35.8	51.6
143028	13	16	2000	12000	9.7	5/8" - 11UNC	20.6	46	68.3
143030	16	19	3250	19500	11.2	3/4" - 10UNC	26.9	58.7	84.8
143032	19	22	4750	28500	12.7	7/8" - 9UNC	31.8	69.9	100.8
143036	25	29	8500	51000	14.2	1 1/8" - 7UNC	42.9	93.7	128.8

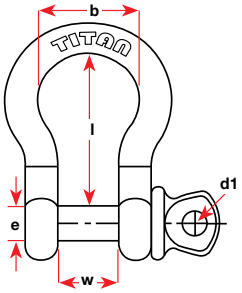


Titan™ Tested Bow Shackle - Galvanised

Quality heavy duty tested bow shackle. Suitable for a wide range of applications. Features hot dipped galvanising for the body and pin, creating superior corrosion resistance and longevity, plus large tie off hole for pin security making them ideal for use in harsh marine environments. Manufactured to meet or exceed current American standard RR-C-271 Type IV Grade A. These specifications ensure that each shackle performs to the load rated and proof tested weights as stated with a safety factor of 6 to 1. Conveniently stamped with working load limit and bail size.

143076

BLA Code	Bail Size mm	Pin Dia. mm	Working Load kg	Breaking Load kg	d1 mm	e Thread mm	w mm	b mm	l mm
143072	6	8	500	3000	4.8	5/16" - 18UNC	11.9	19.8	28.7
143074	8	10	750	4500	5.6	3/8" - 16UNC	13.5	21.3	31
143076	10	11	1000	6000	6.4	7/16" - 14UNC	16.8	26.2	36.3
143078	13	16	2000	12000	9.7	5/8" - 11UNC	20.6	33.3	47.8
143080	16	19	3250	19500	11.2	3/4" - 10UNC	26.9	42.9	60.5
143082	19	22	4750	28500	12.7	7/8" - 9UNC	31.8	50.8	71.4
143084	22	25	6500	39000	12.7	1" - 8UNC	36.6	57.9	84.1
143086	25	29	8500	51000	14.2	1 1/8" - 7UNC	42.9	68.3	95.3



BLA Bow Shackles

- Stainless Steel

316 grade stainless steel bow shackles. Screw in collared pin with hole for security tie wire. Not rated for lifting purposes.

161130B10

161130P

BLA Code	Qty	Pin Dia. mm	Pin Dia. in
161130	1	6	1/4
161130B10	10	6	1/4
161130P	1	6	1/4
161132	1	8	5/16
161132B10	10	8	5/16
161132P	1	8	5/16
161134	1	10	3/8
161136	1	12	1/2
161139	1	16	5/8

161130

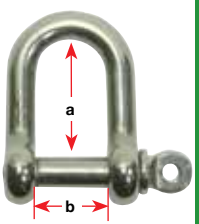
'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Standard 'D' Shackles -

Stainless Steel

316 grade stainless steel 'D' shackle. Screw in pin drilled for security tie wire.

BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161002	1	4	14	8	550
161002P2	2	4	14	8	550
161002B10	10	4	14	8	550
161004	1	5	17.5	10	1000
161004P	1	5	17.5	10	1000
161004B10	10	5	17.5	10	1000
161006	1	6	20	13	1700
161006P	1	6	20	13	1700
161006B10	10	6	20	13	1700
161008	1	8	27	16	2500
161008P	1	8	27	16	2500
161008B10	10	8	27	16	2500
161010	1	10	35	20	4100
161010P	1	10	35	20	4100
161010B10	10	10	35	20	4100
161012	1	12	40	25	5400
161012B5	5	12	40	25	5400
161014	1	16	49	28	8800
161016	1	19	64	35	10000



161006

161004P

161012B5

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Bow Shackle

- Galvanised

Galvanised for general applications. Screw collared pin with hole for security tie wire. Not rated for lifting purposes.

BLA Code	Qty	Pin Dia. mm	Pin Dia. in
143052B	200	5	3/16
143052B10	10	5	3/16
143052B50	50	5	3/16
143054	1	6	1/4
143054B	200	6	1/4
143054B10	10	6	1/4
143054B50	50	6	1/4
143054P2	2	6	1/4
143056	1	8	5/16
143056B	200	8	5/16
143056B10	10	8	5/16
143056B50	50	8	5/16
143056P2	2	8	5/16
143058	1	10	3/8
143058B	200	10	3/8
143058B10	10	10	3/8
143058B50	50	10	3/8
143058P	1	10	3/8
143060	1	13	1/2
143060B	100	13	1/2
143060B10	10	13	1/2
143060B50	50	13	1/2
143060P	1	13	1/2
143062	1	16	5/8
143062B	100	16	5/8
143064	1	19	3/4
143064B	100	19	3/4

143054P2

143052B10

143052

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA 'D' Shackle

- Galvanised

Galvanised for general applications. Screw collared pin with hole for security tie wire. Not rated for lifting purposes.

BLA Code	Qty	Pin Dia. mm	Pin Dia. in
143002	1	5	3/16
143002B	200	5	3/16
143002B10	10	5	3/16
143002B50	50	5	3/16
143004	1	6	1/4
143004B	200	6	1/4
143004B10	10	6	1/4
143004B50	50	6	1/4
143004P2	2	6	1/4
143006	1	8	5/16
143006B	200	8	5/16
143006B10	10	8	5/16
143006B50	50	8	5/16
143006P2	2	8	5/16
143008	1	10	3/8
143008B	200	10	3/8
143008B10	10	10	3/8
143008B50	50	10	3/8
143008P	1	10	3/8
143010	1	13	1/2
143010B	100	13	1/2
143010B10	10	13	1/2
143010B50	50	13	1/2
143010P	1	13	1/2
143012	1	16	5/8
143012B	100	16	5/8
143014	1	19	3/4
143014B	100	19	3/4
143016	1	22	7/8
143018	1	25	1

143010P

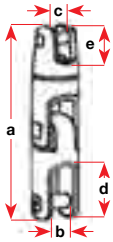
143004B50

143002

'B' - Denotes bulk packed item
'P' - Denotes packaged item

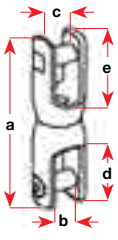
Marine Town® Anchor Connector Swivels - Stainless Steel

High quality cast and polished 316 grade stainless steel anchor connector swivels designed for use between anchor shaft and chain (**143132, 143134**) or rope (**143138**). When setting the anchor the swivel prevents the chain from becoming twisted allowing for easy deployment and retrieval. A smooth overall snag free finish helps the swivel slide freely over bow rollers and deck. The captured pin can be easily removed via an allen key (included) and ensures the fastening pin will not loosen when under load. Designed specially for use with rope, the **143138** incorporates wider, smooth rounded jaws to accommodate up to 12mm rope and 10mm thimbles.



143132
143134

143132



143138

143138

BLA Code	Application	a mm	b mm	c mm	d mm	e mm	S.W.L. kg
143132	Chain	134	15	9	40	25	850
143134	Chain	154	22	13	44	25	1350
143138	Rope	100	16	16	37	37	1300

BLA Chain Split Links

- Galvanised

Galvanised chain joiner. Not rated for lifting purposes. Not suitable for anchor winches.

BLA Code	Link Dia. mm	Link Dia. in	Internal Length mm
143206	6	1/4	32
143208	8	5/16	48
143210	10	3/8	43

BLA Anchor Chain with Shackles - Galvanised

Pre-cut lengths of general link galvanised chain supplied with two galvanised 'D' shackles.

BLA Code	Chain Dia. mm	Chain Length m	Shackle Dia. mm
144992	6	3	6
144993	8	3	8
144994	6	4	6
144995	8	4	8
144996	6	2	6
144997	6	5	6
144998	8	2	8
144999	8	5	8

BLA Thimbles - Galvanised

Galvanised for general applications.

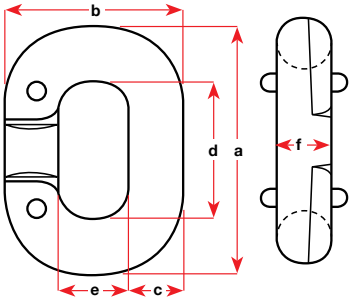
BLA Code	Qty	Wire/Rope Dia. mm	in
143154	1	6	1/4
143154B	200	6	1/4
143156	1	8	5/16
143156B	200	8	5/16
143158	1	10	3/8
143158B	200	10	3/8
143160	1	13	1/2
143160B	100	13	1/2
143164	1	16	5/8
143164B	100	16	5/8
143168	1	19	3/4
143168B	100	19	3/4
143170	1	22	7/8
143170B	50	22	7/8
143172	1	25	1
143172B	50	25	1

'B' - Denotes boxed version

BLA Chain Link Joiner

- Stainless Steel

Stainless steel two piece chain joining links to suit standard link chain type only. Easy to install by simply hammering over the four pins and finish by dollying over for a smooth solid join.
Available in two common sizes to suit 8mm and 10mm standard link chain.



BLA Code	Suit Chain Size mm	a mm	b mm	c mm	d mm	e mm	f mm
143332	8	39	27	7.4	24	13	6
143334	10	47	33	9.10	28	15	9

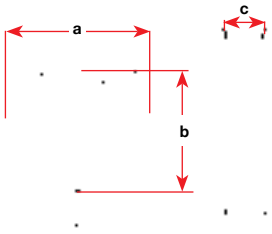
N.B. These links are not rated for lifting purposes nor designed to be used with short link chain used for anchor winches.

BLA Thimbles - Pressed

Stainless Steel

304 grade pressed stainless steel thimbles, suitable for rope or wire. Also available as heavy duty option with thicker wall to help prevent crushing and elongation.

162102



162102P4

162105B20

BLA Code	Qty	Rope/Wire Dia. mm	in	a mm	b mm	c mm
162102	1	2.5	3/32	8	16	3
162102P4	4	2.5	3/32	8	16	3
162102B20	20	2.5	3/32	8	16	3
162104	1	3	1/8	10	19	4
162104HD	1	3	1/8	10	19	4
162104P4	4	3	1/8	10	19	4
162104B20	20	3	1/8	10	19	4
162104B50	50	3	1/8	10	19	4
162105	1	4	5/32	12	22	5
162105HD	1	4	5/32	12	22	5
162105P2	2	4	5/32	12	22	5
162105B20	20	4	5/32	12	22	5
162106	1	5	3/16	13	22	6
162106HD	1	5	3/16	13	22	6
162106P2	2	5	3/16	13	22	6
162106B10	10	5	3/16	13	22	6
162108	1	6	1/4	15	26	8
162108HD	1	6	1/4	15	26	8
162108P	1	6	1/4	15	26	8
162110	1	8	5/16	20	37	10
162110HD	1	8	5/16	20	37	10
162110P	1	8	5/16	20	37	10
162112	1	10	3/8	26	45	12
162112P	1	10	3/8	26	45	12
162112B10	10	10	3/8	26	45	12
162114	1	12	1/2	30	48	14
162114HD	1	12	1/2	30	48	14
162116	1	14	9/16	34	56	16
162118	1	16	5/8	38	60	18
162118HD	1	16	5/8	38	60	18
162122	1	20	3/4	45	78	22

'HD' - Denotes heavy duty item
'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Chain Swivels - Galvanised

Prevents chains twisting on permanent moorings and other similar applications. Not rated for lifting purposes.

BLA Code	Qty	Nominal Size mm	in
143106	1	6	1/4
163106B	100	6	3/16
143108	1	8	5/16
163108B	100	8	1/4
143110	1	10	3/8
163110B	50	10	5/16
143113	1	13	1/2
163113B	50	13	1/2
143120	1	19	3/4
163120B	25	19	3/4

BLA Rope - Silver

Silver rope (polyethylene staple) is the most popular general purpose rope. 4mm to 12mm is soft medium lay for ease of splicing. 14mm and larger is a medium lay to suit anchor capstan winches while still being spliceable. Ends can be heat sealed to prevent unravelling, U.V. stabilised, resistant to grease and oil. High abrasion resistance, non-absorbent with good grip for handling. Silver rope is a floating line.

Flanged Reels

BLA Code	Rope Dia. mm	Length Dia. m	Min. Break Load kg
144002	4	500	180
144006	6	300	330
144010	8	200	540
144014	10	150	790
144018	12	100	1090

144002

Coils

BLA Code	Rope Dia. mm	Length m	Min. Break Load kg
144072	4	300	180
144076	6	330	330
144080	8	330	540
144084	10	250	790
144088	12	250	1090
144092	14	125	1350
144094	16	125	1850
144096	18	125	2150
144098	20	125	2700
144100	22	125	3200
144102	24	125	3700
144104	28	125	5100
144106	32	125	6700

144072

Lanyards - Silver Rope

Silver rope lanyards with a large soft loop spliced in one end. Suitable for mooring lines, fender lines and similar. Shares the same properties as silver rope as specified on this page.

BLA Code	Rope Dia. mm	Length m	Min. Break Load kg
144280	6	4	330
144282	6	8	330
144284	8	4	540
144286	8	8	540
144288	10	5	790
144290	10	10	790
144292	12	5	1090
144294	12	10	1090
144310	14	5	1350
144312	14	12	1350
144314	16	5	1850
144316	16	16	1850

BLA Shock Absorbing Mooring Line

- Double Braid Polyester

These premium mooring lines combine the appearance and high strength of double braid polyester with a unique and integral stretch, shock absorbing section. Virtually eliminates the sudden jolt when vessels swing to the end of mooring line reach. All black jacket, 300mm soft loop at one end.

Rubber cord shock absorbing section.

BLA Code	Rope Dia. mm	Length m	Min. Break Load kg
144254	12	5	2350
144256	12	8	2350
144257	15	12	3250
144258	15	8	3250
144259	15	16	3250
144260	18	8	4050
144261	18	18	4050
144262	26	10	6050
144263	26	20	6000

Multi-filament rubberised core

BLA Lanyards

- Braided Polyester

All black U.V. stabilised polyester braid, pre spliced with 300mm of soft loop at one end. High strength and smart aesthetics for the discerning boat owner. Uses include mooring lines, painter line and fender lanyards.

BLA Code	Rope Dia. mm	Length m	Min. Break Load kg
144264	8	2.5	1600
144266	10	3	1900
144268	12	5	2600
144270	12	10	2600

BLA Dockline Rope

- Double Braid Polyester

This black double braid rope is an excellent mooring line. Supplied in spool lengths for those needing to cut to size. It is manufactured from a 16 braid polyester cover over an 8 strand core, providing high strength and tenacity, with superior resistance to abrasion and having less than 0.5% water absorption characteristic. Its outstanding resistance to U.V. degradation and high load bearing properties make it most suitable for those requiring a neat appearance, and a spliceable and reliable mooring line.

BLA Code	Rope Dia. mm	Length m	Min. Break Load kg
352912	10	100	1900
352914	12	100	2600
352918	16	100	3500

N.B. Also available in a choice of pre-cut lengths and sizes with a soft eye spliced loop at one end ready for immediate use. Refer to page 940.

BLA Fender Line

- Double Braid Polyester

An attractive quality soft rope to attach and enhance fenders. Using the same double braid as our quality 16 plait polyester these fender lines provide a simple alternative to a permanent hand spliced silver rope. One end features a whipped ten centimetre loop which simply passes through the eye of the fender then back through itself for secure attachment. Supplied in black as a pair.

BLA Code	Rope Dia. mm	Length m
144340	6	1.5
144342	8	2

BLA Boat Hook Holder

Pressed stainless steel 'J' hooks for stowing boat hooks. Suits 25mm to 29mm diameter tube. Sold as a pair.

BLA Code	Legnth mm	Width mm	Mount Screws mm
141432	100	25	3 c/s

BLA Boat Hooks - Telescopic

Anodised aluminium shaft with nylon hook and locking nut. Grey PVC handgrip.

BLA Code	Length Retraced m	Length Extended m	Outer Tube Dia. mm
(A) **141402**	1.17	2.11	29

BLA Boat Hooks - Fixed

Anodised aluminium shaft, black nylon head, black PVC handgrip.

BLA Code	Length Retraced m	Tube Dia. mm
(B) **141406**	1.77	29

BLA Boat Hook Head

Black moulded nylon boat hook head that fits externally over 30mm tube or timber dowel.

141422

BLA Code	Length mm	Width mm	Outer Dia. mm
141422	219	80	35

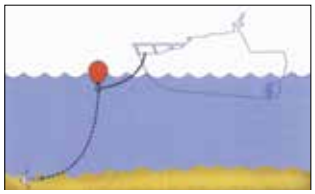
Dan-Fender® Buoy/Fender - Inflatable Heavy Duty

Pear shaped, injection moulded from tough flexible vinyl. Features heavy duty black solid injection moulded eye, high gloss body and metal inflation valve. Ideal for use as marker buoys, fenders, commercial use and in the aquaculture industry. Also available with stainless steel eye inserts and the option of closed-cell polyurethane foam filling to special order and subject to minimum order quantity.

141559

141554

Stainless steel insert collars are available for continuous heavy duty use. 141564 supplied with insert as standard.



When selecting a mooring buoy for your required application please apply the following recommendations: Dan-Fenders test mooring buoys to their maximum values. Buoys/fenders are completely submerged in freshwater when buoyancy tests are conducted. We therefore recommend 60% of the value stated as the units working capacity. All measurements and buoyancies are calculated with a pressure of 0.15 bar (2 psi) at approximately 20ºC (68ºF).

BLA Code	Diameter mm	Overall Length mm	Colour	Buoyancy kg	Eye Dia. mm	Model
141552	160	230	Orange	2	18	B20
141554	240	320	Orange	8	18	B30
141556	320	480	Orange	23	28	B40
141558	405	570	Orange	46	28	B50
141559	405	570	White	46	28	B50
141560	480	640	Orange	72	28	B60
141561	480	640	White	72	28	B60
141562	610	790	Orange	118	28	B75
141563	610	790	White	118	28	B75
141564	810	1040	Orange	280	32	B100
141566	965	1240	Orange	540	32	B120
141568	1100	1280	Orange	675	32	B135

Dan-Fender® Buoy - Mini

Blowmoulded from high quality soft PVC. Features metal inflation valve. Commonly used in marking small nets or for marking areas for water skiing, rowing, swimming and similar.

141646 141648 141650

BLA Code	Colour	Diameter mm	Overall Length mm	Buoyancy kg	Eye Dia. mm
141646	Red	160	200	2.1	11
141648	Yellow	160	200	2.1	11
141650	White	160	200	2.1	11

Dan-Fender® Buoy - Mooring

Injection moulded from tough flexible red vinyl. Features metal inflation valve, large pick-up handle and solid injection moulded eye attachment point.

BLA Code	Diameter mm	Overall Length mm	Buoyancy kg	Eye Dia. mm
141652	240	390	6	18

Dan-Fender® Inflation Adaptor Kit

The Dan-Fender® Inflation Adaptor Kit is a must for every fender stockist. The kit includes replacement valves and an adaptor which allows for a variety of pump types to be used to inflate Dan-Fender products. This kit allows for in-store replacement of Dan-Fender valves and can also be used to add value to your Dan-Fender customer purchases.

Kit includes:

- 10x new inflation adaptors
- 10x valves
- 5x plastic screws
- 3x 3mm screws to pull valves out

BLA Code
141600

Dan-Fender® Hand Pump

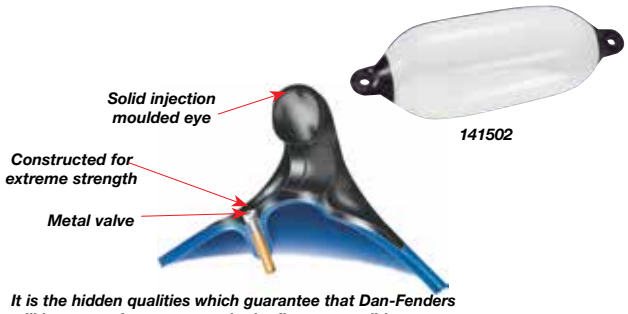
Due to most inflatable fenders having a form of internal valve the problem of controlled inflation arises. Some hand pumps not designed for this purpose can often cause damage by pushing the valve inside the fender or buoy. The Dan-Fender® hand pump is designed and manufactured to fit into the centre of the metal Dan-Fender® valve and most other common fenders for easy and gentle inflation. This hand pump is small and compact at only 200mm long and has an inflation action on both the in and out strokes.

BLA Code
141900

Dan-Fender® Fender

- Inflatable Heavy Duty

Injection moulded from tough, flexible white vinyl with heavy duty black solid injection moulded eyes, designed to give years of trouble free mooring. Features metal inflation valve and high gloss body. Recommended maximum inflation pressure is 0.15 bar at 20ºC. Pressure could be as low as 0.05 bar in hot tropical conditions. Do not over inflate.



It is the hidden qualities which guarantee that Dan-Fenders will last year after year, even in the fiercest conditions.

BLA Code	Dia. mm	Overall Length mm	Buoyancy kg	Eye Dia. mm	Model	Colour
141502	125	540	5	18	520	White
141503	125	540	5	18	520	Navy
141504	150	645	6.5	18	623	White
141505	150	645	6.5	18	623	Navy
141506	200	635	14	28	822	White
141507	200	635	23	28	822	Navy
141508	200	765	23	28	827	White
141509	200	765	23	28	827	Navy
141510	200	1055	34	28	839	White
141512	250	700	29	28	1025	White
141513	250	700	29	28	1025	Navy
141514	250	940	39	28	1035	White
141515	250	940	39	28	1035	Navy
141516	300	880	43	28	1232	White
141517	300	880	43	28	1232	Navy
141518	300	1130	55	28	1242	White
141519	300	1130	55	28	1242	Navy
141520	380	1370	116	32	1555	White
141522	550	1465	215	32	2255	White
141524	800	2050	720	32	3282	White

Dan-Fender® Fender

- Light Blow Moulded

The Light range is offered as an excellent quality product at a very competitive price. Blow moulded construction creates a traditional tough durable fender with large eyes for rope attachment. Available in a wide range of sizes and choice of solid colours in either navy blue or white. Available to suit boats ranging from 5m to 8m.

BLA Code	Dia. mm	Overall Length mm	Buoyancy kg	Eye Dia. mm	Model	Colour
141582	110	460	2.7	16	416L	White
141583	110	460	2.7	16	416L	Navy
141586	135	540	4.8	16	520L	White
141587	135	540	4.8	16	520L	Navy
141590	160	630	6.5	16	623L	White
141591	160	630	6.5	16	623L	Navy
141594	210	765	24	22	827L	White

Dan-Fender® Fender Cover

High quality polyester fender covers designed to protect your boat and fenders against wear and tear. Helps prevent annoying squeaking noises and hull rub marks. Available to suit a wide range of sizes, including balloon, and are fully machine washable at 40ºC.

BLA Code	Suits BLA Code	Suits Model	Colour
141802	**141502/3**	520	Black
141803	**141502/3**	520	Navy
141806	**141504/5**	623	Black
141807	**141504/5**	623	Navy
141810	**141506/7**	822	Black
141811	**141506/7**	822	Navy
141814	**141508/9**	827	Black
141815	**141508/9**	827	Navy
141818	**141512/3**	1025	Black
141819	**141512/3**	1025	Navy
141822	**141514/5**	1035	Black
141823	**141514/5**	1035	Navy
141826	**141516/7**	1232	Black
141827	**141516/7**	1232	Navy
141830	**141518/9**	1242	Black
141834	**141520**	1555	Black
141852	**141559**	B50	Black
141856	**141561**	B60	Black
141860	**141563**	B75	Black

141803

Fender Basket

A range of quality easy to fit stainless steel fender baskets available in three popular sizes. This modular system can be easily attached to existing 22mm to 40mm rails using the adjustable stainless steel and nylon rail mounting clamp (**141930**). For locking multiple basket installations together, use the stainless steel joining clamps (**141932**).

141910
Fender not included

141930

BLA Code	Size mm	Suits BLA Code
141910	195 x 433	**141504/05**
141912	215 x 433	**141506/07**
141916	250 x 560	**141508/09**

Accessories:

141930 Rail Mounting Clamp
141932 Joining Clamp

141932

BLA Fender - EVA Flat Foam

Made from EVA foam that won't absorb water. Rectangular shape for use as a conventional fender or screw mounting either singularly or in series on marinas and jetties. Doubles as a cockpit or dinghy seat cushion.

BLA Code	Length mm	Width mm	Thickness mm
142102	480	180	50
142104	650	300	50
142106	950	310	50

BLA Fender - Moulded Inflatable

Manufactured from a combination of TPR and EVA plastics these traditionally shaped fenders feature raised ribs to prevent rolling along hull. Rope attachment points at either end. Pneumatic energy absorbing construction. Economical protection for trailer boats.

BLA Code	Dia. mm	Length mm	Eye Dia. mm
141670	115	380	13
141674	145	510	17

BLA Fender - PVC Covered

Block style flexible foam fenders with durable PVC cover. Wide welded seams and reinforced eyelets for years of trouble free service. The **142122** features a 'contour' hinging design that adjusts the fender shape to the hulls profile.

142124

142122

BLA Code	Style	Length mm	Width mm	Thickness Dia. mm	Eye Dia. mm
142122	Contour	530	150	63	9
142124	Flat	580	150	63	9

Dan-Fender® Fender Step

Patented combination boarding step and fender. They are manufactured from the same injection moulded PVC construction as Dan-Fender® heavy duty inflatable fenders. The unique shape provides hull protection as well as a boarding step. The high topsides of many modern vessels make boarding difficult from either a marina finger or from small dinghies. The combined fender and step feature allow them to be rigged before entering a marina, allowing the crew to safely and easily step onto the pontoon without resorting to leaping. Available in 1 step or 2 step models.

141530

141532

BLA Code	Description	Height mm	Width mm	Depth mm	Eye Dia. mm
141530	1 step	400	400	205	18
141532	2 step	560	450	180	18

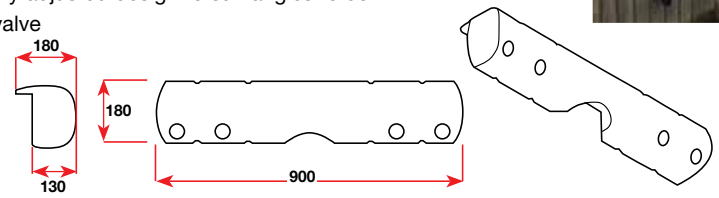
Dan-Fender® Multi-function Dock Fender System

One product, multiple use options! This innovative heavy duty Dock Fender system from Dan-Fender® provides a versatile and significantly enhanced level of topside protection for all boats when docking. The dock fender gives superior protection against damage when berthing by providing a true inflatable fender buffer action. The unique design allows the multifunction dock fender to be adapted to suit most marina, pontoon, dock or wharf applications. The one piece adjustable design allows for the user to easily shape the dock fender to any angle up to 90°. An additional feature is the incorporation of an integral fender hanging point. This allows the fixture of an optional **141502** fender to be easily added, providing additional protection. Four heavy duty top and integral side fixing points provide safe and secure attachment no matter what the application.

Features:

- Pre-inflated providing a low pressure fender for boat protection
- Suitable for marina, pontoon, dock or wharf applications
- Top and side bolt through points for secure fastening
- Extra deep design for additional boat protection
- Integrated central mounting point for optional **141502** Dan-Fender®
- Simple and easily adjusted design to suit angles to 90°
- Metal inflation valve

BLA Code
142280



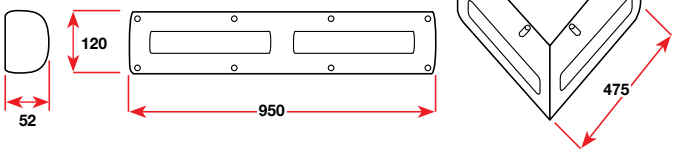
Dan-Fender® Multi-function Dock Fender System - Mini

The Mini Multi Dock Fender can be mounted almost everywhere on a quay, pontoon, pontoon fingers or pylons. The unique design allows for easy conversion from a standard, long sided fender, into a corner fender with up to 90° bend for both inside or outside corner protection. The Mini Multi Dock Fender is manufactured from the strongest and toughest soft PVC material and includes four heavy duty top and bottom integral fixing points providing safe and secure attachment no matter what the application.

Features:

- Pre-inflated providing a low pressure fender for boat protection
- Suitable for marina, pontoon, dock or wharf applications
- Top, bottom and side fixing points for secure fastening
- Simple and easily adjusted design to suit angles to 90°

BLA Code
142276



Dan-Fender® FenderFlex™

This multi-purpose fender will provide the best protection for bow, stern, dock and topside. It can also be fitted to pontoons of various sizes and shapes. The hinged FenderFlex™ is flexible and simple to handle, allowing for quick and easy mounting. It is perfect for use in canals, docks, locks and other similar situations. FenderFlex™ is extremely cost effective compared with repairing hull damage.

BLA Code	Length mm	Width mm	Weight kg
142284	720	320	6

N.B. Boat size suggested is for average variables and appropriate anchor rode. Final selection should be based on experience.

BLA Quick Lift Anchor Device

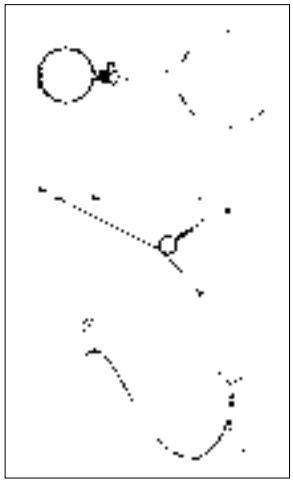
Retrieve your anchor using the power of the boat instead of the crew. Suits anchor ropes from 6mm to 12mm. All 316 grade stainless steel hardware for maintenance free long life and strength.

144307/8

144309

144306

144305



1. Attach to anchor line.
2. To retrieve simply drive boat forward at 5-6 knots maintaining anchor rope parallel to side of boat but clear of propeller.
3. Continue till anchor reaches buoy. Stop and retrieve rope and anchor hanging from 'Quick Lift' ring.

BLA Code	Description
144305	Anchor retrieval ring only
144306	Anchor device only
144307	Anchor device with 250mm ø styrene float
144308	Anchor device with 300mm ø styrene float
144309	Anchor device with 320mm ø inflatable float

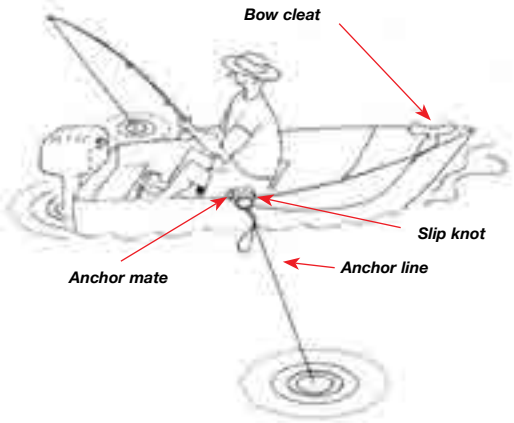
BLA Anchor Retriever

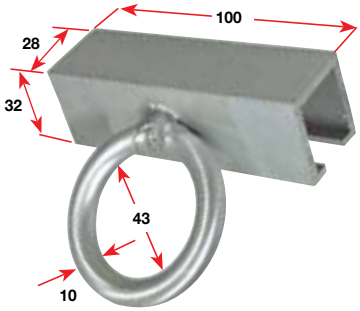
Used in conjunction with existing anchoring tackle, the stainless steel ring fits around the anchor rode for deep water anchoring. Motoring forward at 5 to 6 knots lifts the anchor to the float ring. When the anchor chain has fully passed through the ring the anchor is held at the surface. This allows easy retrieval of the anchor rode without the continuous weight of ground tackle.

BLA Code	Float Dia. mm	Ring Dia. mm
144301	250	125
144302	300	125

BLA Anchor Mate

Anchoring device made from extruded aluminium with welded ring. Designed for tinnies, it allows the anchor to be set beam-on to the boat. The aluminium channel simply hooks in at any position along a tinnie gunwale. Suited for fishing in protected waters only.





BLA Code
144295

BLA Styrene Floats

Moulded white styrene. Spherical shape with centre hole for rope. Economical float for moorings, marker buoys, nets and similar. **141026** and **141028** have a groove for wind on storage of line.

141010

141028

BLA Code	Float Dia. mm	Hole Size mm	Length mm
141002	100	13	95
141006	150	19	145
141010	200	28	195
141014	250	28	245
141018	300	28	295
141026	100	19	150
141028	150	25	200

ANCHOR WINCHES AND ACCESSORIES

Lewmar® Windlass Selection Guide & Anchoring Information	338-340
Lewmar® Horizontal Anchor Windlasses	341-343
Lewmar® Vertical Anchor Windlasses	344-351
Lewmar® Capstan	352
Lewmar® Gypsies	353
Lewmar® Switches	353-354
Lewmar® Remote Controls	354
Lewmar® Chain Counters	355-356

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

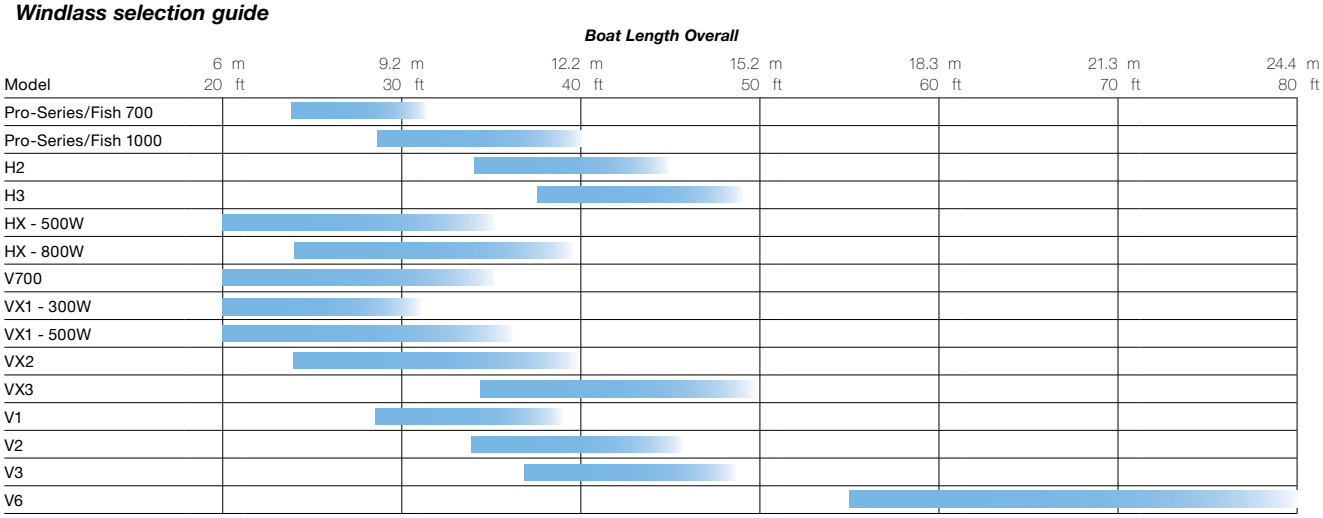
BLA boatinglifestyleadventure

Easy anchoring starts with a Lewmar® windlass

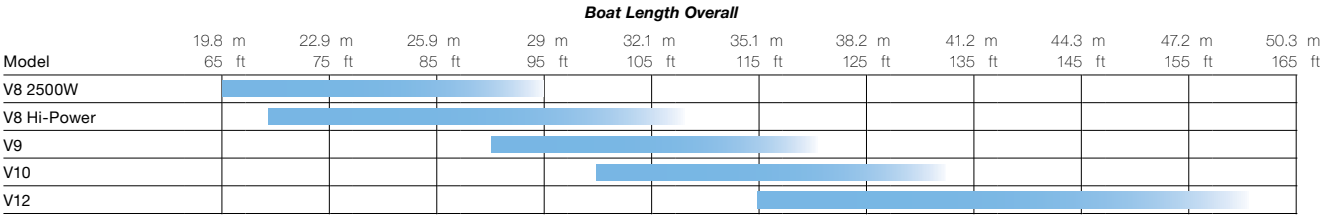
LEWMAR®

Whether you own a small fishing boat, a mid-size sailboat or a large motor cruiser, Lewmar® has a windlass designed to fit your exact needs. Each windlass is crafted with durability, convenience and affordability in mind. Both vertical and horizontal designs are sleek and attractive to complement your boat.

Windlass selection guide

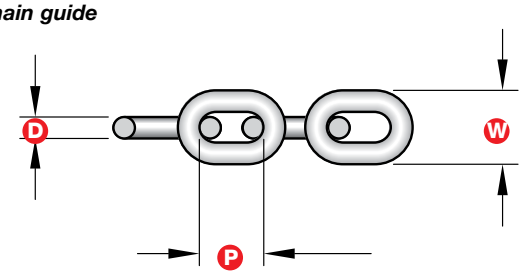


Windlass selection guide



Many parameters have to be taken into account when selecting a windlass, such as displacement, windage, anchor weight, etc, in the above chart, the boat length corresponds to a vessel with average displacement. If your vessel is of heavy displacement, please consider using a larger windlass model. Lighter shading represents the upper limit of the model. If in doubt, move up a model.

Chain guide



		6mm DIN 766*	6mm ISO 4565	1/4" ISO G4	7mm DIN 766	1/4" BBB	1/4" BBB	1/4" ACCO G43	1/4" ACCO G43	8mm DIN 766*	8mm ISO 4565	5/16" ISO G4	Lewmar® 9.5mm G40	3/8" Cambell S4	10mm ISO 4565	3/8" Campbell S3	10mm DIN 766*	3/8" ISO G4	11mm Short Link	7/16" ISO G4	Lewmar® 12mm G30/G40 12mm Short Link	13mm DIN 766	1/2" ISO G4	Lewmar® 14mm G30/G40 14mm Short Link	14mm DIN 766*	14mm Studlink	16mm Short Link	16mm DIN 766*
D	mm	6	6	7.0	7	7.1	7.1	7.3	7.3	8	8	8.4	9.5	10	10	10	10	10	11	11.8	12	13	13.2	14	14	14	16	16
	inch	0.236	0.236	0.276	0.276	0.28	0.28	0.287	0.287	0.315	0.315	0.329	0.374	0.394	0.394	0.394	0.394	0.394	0.433	0.465	0.472	0.512	0.520	0.551	0.551	0.551	0.630	0.630
P	mm	18.9	18	21.3	22	22.5	22.5	21.1	21.1	24	24	26.2	31.5	29	30	34.5	28	31	33	35.5	36	36	40.4	42	41	56	48	45
	inch	0.744	0.709	0.840	0.866	0.886	0.886	0.831	0.831	0.945	0.945	1.030	1.240	1.142	1.181	1.358	1.102	1.220	1.299	1.398	1.417	1.417	1.591	1.654	1.614	2.205	1.890	1.772
W	mm	21.5	21.6	24.4	23.3	25.2	25.2	24	24	27.2	28.8	29.7	31.6	35	36	34.5	36	35	39	40.1	40.5	47	45.7	49	50	50.4	56	58
	inch	0.844	0.85	0.962	0.917	0.992	0.992	0.945	0.945	1.07	1.134	1.168	1.244	1.378	1.417	1.358	1.417	1.378	1.535	1.579	1.594	1.850	1.799	1.929	1.969	1.984	2.205	2.283

N.B. Highlighted chain sizes are relevant to gypies supplied with windlasses showing in this catalogue
****Chain standard suits Australian Chain***
For the complete range of BLA chain sizes and lengths please see page 325 and 326.

How to choose the right windlass for your boat

LEWMAR®

In order to select the correct windlass for your boat, three questions should be answered:

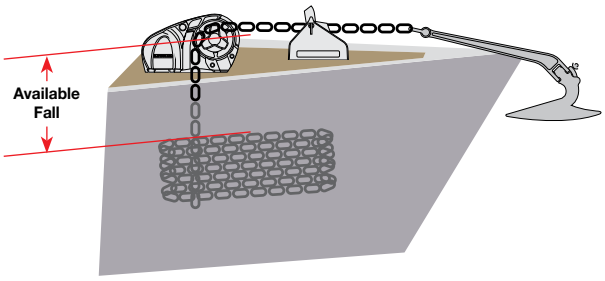
1. What size windlass would best suit my boat?

- Use our windlass selection chart found in the section to determine the general size of the windlass to be fitted to your boat by using length and displacement.

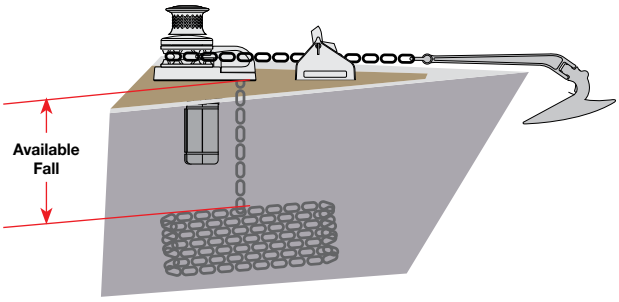
2. How long is the anchor rode I wish to use, and will the windlass put the entire rode into my locker?

- Examine the depth of the anchor locker to determine the fall that is available.
- The fall is the vertical distance between the top of the anchor locker and the top of the anchor rode when the entire rode is completely stored inside.
- The windlass is a retrieval device. The windlass retrieves the anchor and rode.
- The windlass does not stow the rode inside the anchor locker; gravity stows the rode.
- You must know how much rode will fit into your locker by gravity. There has to be a free and clear area under the hawse pipe for the incoming rode. Otherwise, you will have to comb the rode back, keeping a clear and free space under the hawse pipe while retrieving the anchor.
- A windlass is not a high-load bearing device. When at anchor your rode should be secured to a chain stopper, a cleat or other mooring point on the bow.

Horizontal Windlass



Vertical Windlass



Horizontal Windlass Key Features

- Most of the windlass unit is on the deck
- Easy installation
- Good for boats with small anchor lockers
- Anchor rode enters the gypsy, makes a 90° turn and feeds into the anchor locker
- Minimum fall of 304mm (12") is recommended in order to have enough gravity to pull the rode down into the locker

Vertical Windlass Key Features

- More of the unit is hidden below deck
- Suitable for large anchor lockers
- Anchor rode makes a 180° wrap around the gypsy providing more security
- Minimum fall of 406mm (18") is recommended in order to have enough gravity to pull the rode down into the locker
- Please note this is an indication only. If in doubt please contact your BLA Territory Manager on **1300 252 725**.

3. How much pulling power should my windlass have?

Having selected a vertical or horizontal windlass and determined the size required using the chart on page 338, you can cross-check by using the following formula:

Total weight of ground tackle (anchor and rode) x4[1] = Pulling power required by the windlass

- Working Load, designed to allow prolonged anchor laying and retrieving
- Please note this is an indication only. If in doubt please contact your BLA Territory Manager on **1300 252 725**.

[1]Use x4 for all horizontal windlass and vertical windlass up to V5

[1]Use x2 for V6 vertical windlass and above

Windlass and anchor operation basic safety

Always

- Always tie off anchor rode to a strong point while at anchor
- Always secure anchor rode/anchor when underway
- Always look before deploying your anchor
- Always motor up to anchor while retrieving
- Always shut off circuit breaker when working on windlass
- Always shut off circuit breaker when windlass is not in use
- Always read the manual and follow safety instructions and warnings

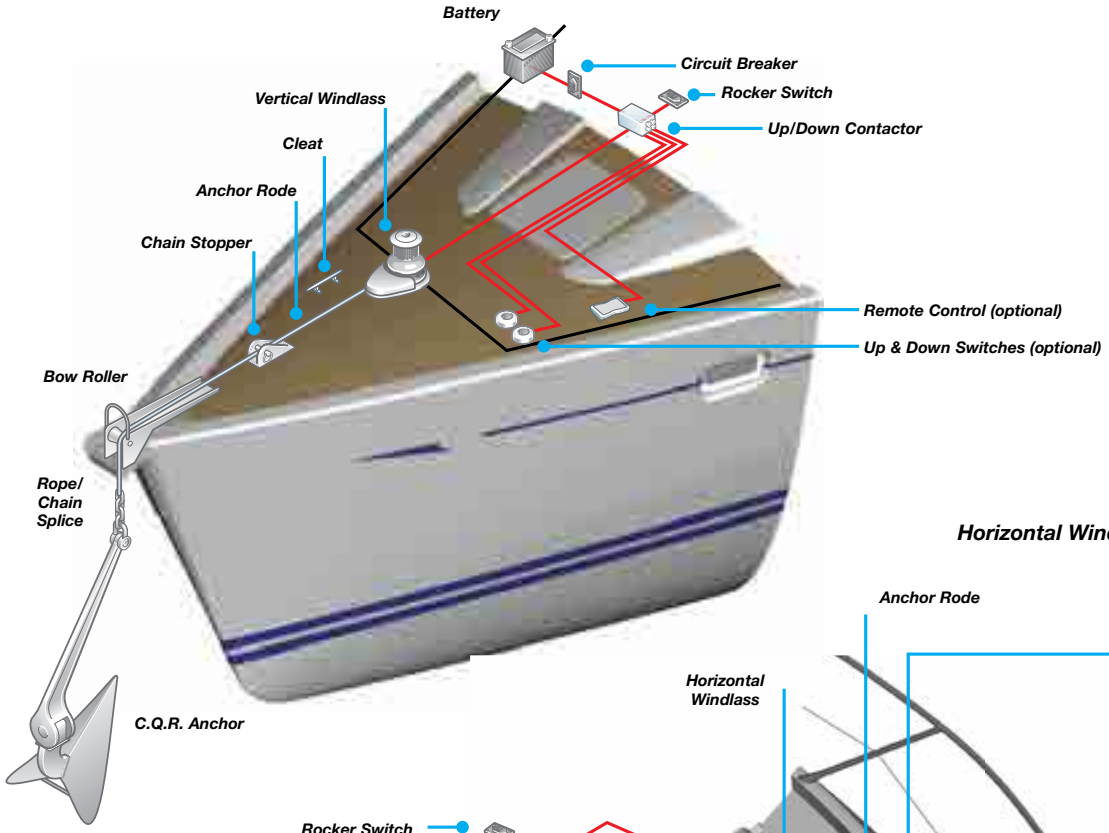
Never

- Never allow your windlass to hold the boat while at anchor
- Never use your windlass to pull or tow boat
- Never use your windlass to lift a person
- Never stick fingers in or around gypsy while operating
- Never allow loose clothing and hair to come close to windlass when operating

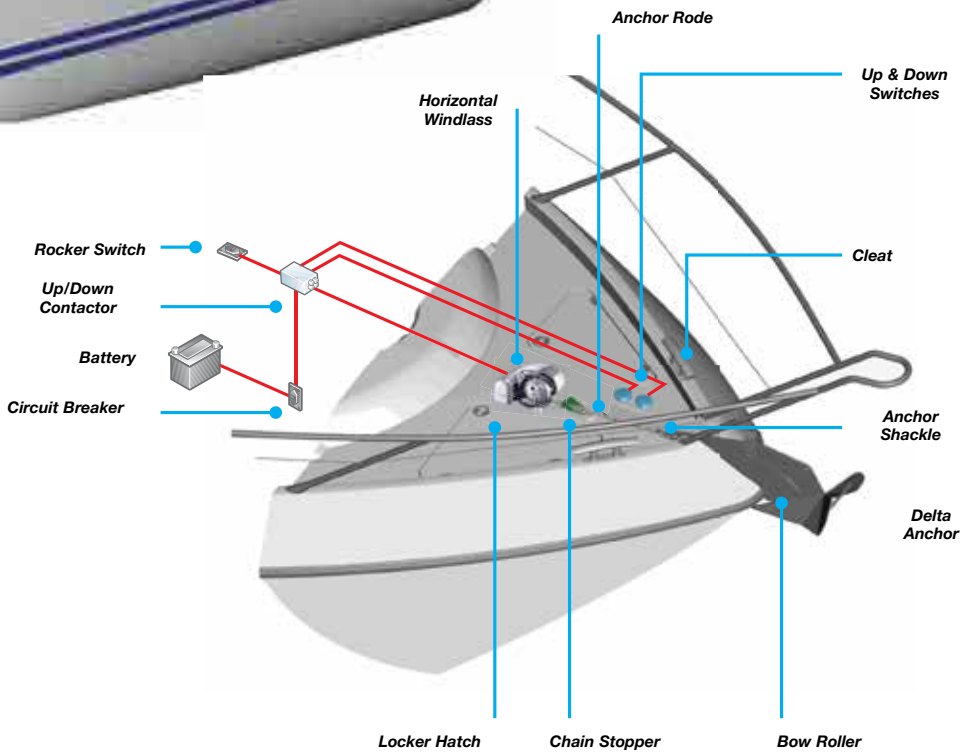
Windlass & Anchoring Know-How

Please see your owner's manual for complete installation diagrams.

Vertical Windlass

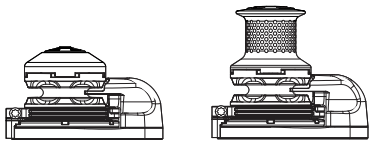


Horizontal Windlass



Specify your Windlass

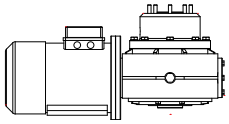
1 ***Deck Unit***



Gypsy only *Gypsy and Drum*

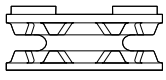
2 ***Motor Gearbox***

- Electric/hydraulic specification

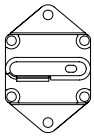


3 ***Gypsy***

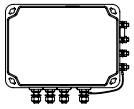
- Chain specification



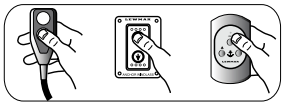
4 ***Circuit Breaker***



5 ***Contactor / Control Box***



6 ***Switch and Accessories***



7 ***Optional Accessories***

- A range of optional accessories are available for each model. Refer to the specific windlass model pages.

Lewmar® Horizontal Anchor Windlass - Pro-Series

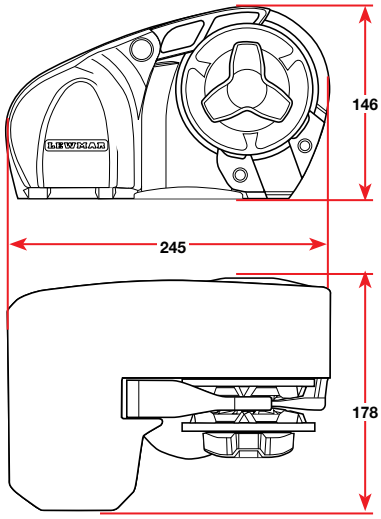
LEWMAR

Praised around the world by boaters and professionals alike, the horizontal Pro-Series 700 and 1000 windlasses are outstanding examples of Lewmar's commitment to providing quality products for boats ranging in length from 6m to 11.5m (20ft to 38ft). The range features an external housing manufactured from 100% 316 grade stainless steel creating an incredibly strong and durable anchoring system impervious to the elements. Each winch is supplied as a complete kit ready for installation and includes base gasket, fast mount studs, installation wrench, circuit breaker, dual direction solenoid and panel mount up/down rocker switch. Also included is a combination rope/chain gypsy with the ability to accept 6mm, 7mm (Pro-Series 700), and 8mm (Pro-Series 1000) short link chain together with 12mm (Pro-Series 700), and 14mm to 16mm (Pro-Series 1000) medium lay three strand or eight plait nylon rope (12mm and 16mm only). Operation is via a simple push button control and includes a built-in manual emergency recovery system using included handle/spanner or a 1/2" socket wrench (not included).

Features:

- Powerful motor for fast line retrieval
- Manual emergency recovery system (included)
- Durable 316 grade stainless steel construction
- Stainless steel control arm and stripper for strength
- Simple above deck installation
- For boats 6m to 11.5m
- Automatic freefall conversion kit available (**154398**)
- 5 year warranty

154380



154398

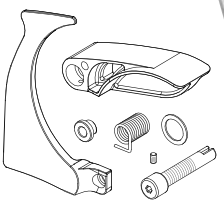
Freefall conversion kit

Standard Inclusions

154514

154504

154486



SP15156280

SP15156248

BLA Code	Model	Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154380	Pro-Series 700	500	12	6/7	12	320	79	32	8.5	6-8.5
154382	Pro-Series 1000	700	12	8	14-16	454	114	32	9.5	6-11.5

Standard Inclusions:

154486	Guarded remote up/down rocker switch
154504	Dual solenoid pack
154512	Circuit breaker panel mount 50A to suit **154380**
154514	Circuit breaker panel mount 70A to suit **154382**
SP15156248	Emergency recovery handle
SP15156280	Rope guard upgrade kit (included in 2013+ models)

Accessories:

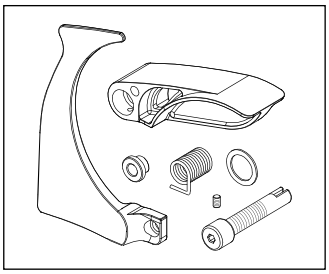
154398	Automatic freefall conversion kit
154466	Grey down foot switch with closed cover
154468	Grey up foot switch with closed cover
154470	Stainless steel down foot switch with closed cover
154472	Stainless steel up foot switch with closed cover
SP15156280	Rope guard upgrade kit (2007-2017 models)

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only.

Pro-Series - Rope Guard Upgrade Kit

2007-2017 Models

A complete rope guard and control arm upgrade kit designed to help prevent rope slippage and provide reduced rope jams under high speed free fall. Suitable for most older models sold between 2007 and 2017 that are not pre-installed with this kit.



SP15156280

Lewmar® Horizontal Anchor Windlass - Pro-Fish

LEWMAR

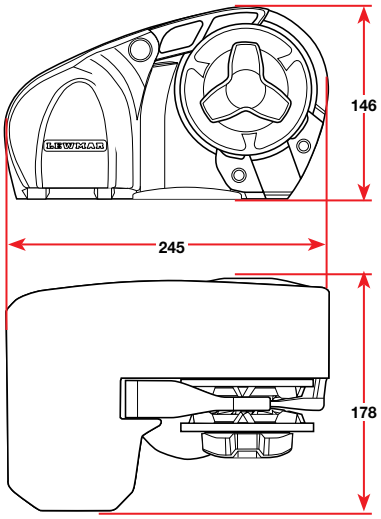
Praised around the world by boaters and professionals alike, the horizontal Pro-Fish 700 and 1000 windlasses are outstanding examples of Lewmar's commitment to providing quality products for boats ranging in length from 6m to 11.5m (20ft to 38ft). The range features an external housing manufactured from 100% 316 grade stainless steel creating an incredibly strong and durable anchoring system impervious to the elements. Each winch is supplied as a complete kit ready for installation and includes base gasket, fast mount studs, installation wrench, circuit breaker, dual direction solenoid and panel mount up/down rocker switch. Also included is a combination rope/chain gypsy with the ability to accept 6mm, 7mm (Pro-Fish 700), and 8mm (Pro-Fish 1000) short link chain together with 12mm (Pro-Fish 700), and 14mm to 16mm (Pro-Fish 1000) medium lay three strand or eight plait nylon rope (12mm and 16mm only). Operation is via a simple push button control and includes a built-in manual emergency recovery system using included handle/spanner or a 1/2" socket wrench (not included).

The Pro-Fish 700 and Pro-Fish 1000 range features an automatic freefall system that allows for instant, accurate deployment of tackle at the touch of a button from the safety of the helm position. When retrieval is necessary the system automatically re-engages.

Features:

- Automatic freefall
- Powerful motor for fast line retrieval
- Manual emergency recovery system (included)
- Durable 316 grade stainless steel construction
- Stainless steel control arm and stripper for strength
- Simple above deck installation
- For boats 6m to 11.5m
- 5 year warranty

154388

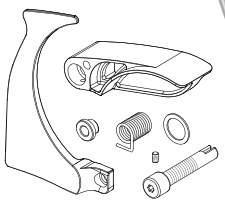


Standard Inclusions

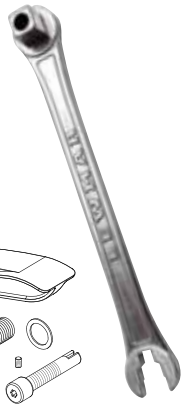
154514

154504

154486



SP15156280



SP15156248

BLA Code	Model	Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154388	Pro-Fish 700	500	12	6/7	12	320	79	32	8.5	6-8.5
154390	Pro-Fish 1000	700	12	8	14-16	454	114	32	9.5	6-11.5

Standard Inclusions:

154486	Guarded remote up/down rocker switch
154504	Dual solenoid pack
154512	Circuit breaker panel mount 50A to suit **154388**
154514	Circuit breaker panel mount 70A to suit **154390**
SP15156248	Emergency recovery handle
SP15156280	Rope guard upgrade kit (included in 2013+ models)

Accessories:

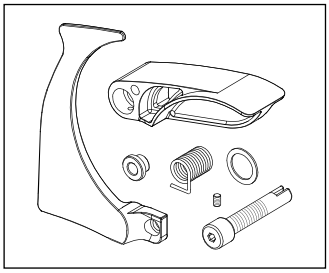
154466	Grey down foot switch with closed cover
154468	Grey up foot switch with closed cover
154470	Stainless steel down foot switch with closed cover
154472	Stainless steel up foot switch with closed cover
SP15156280	Rope guard upgrade kit (2007-2017 models)

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only.

Pro-Fish Series - Rope Guard Upgrade Kit

2007-2017 Models

A complete rope guard and control arm upgrade kit designed to help prevent rope slippage and provide reduced rope jams under high speed free fall. Suitable for most older models sold between 2007 and 2017 that are not pre-installed with this kit.



SP15156280

Lewmar® Horizontal Anchor Windlass - H2, H3 Series

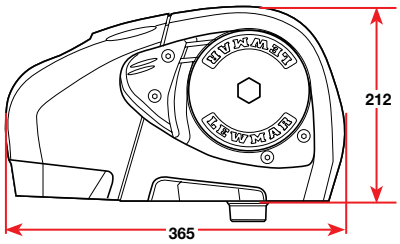
LEWMAR

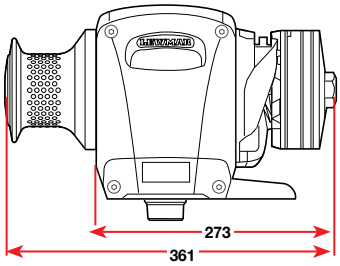
Designed for above deck installation, the H Series of windlasses are driven by a reliable worm drive gearbox providing outstanding power. Each H Series windlass features an integral dual direction solenoid to simplify wiring and is protected by a durable aluminium and composite main case.

Features:

- Easy one piece installation
- Horizontal worm drive motor-gearbox
- Integral solenoid protected by main case
- Aluminium and composite main case
- Unique capstan - W.A.R.P wear reduction pattern
- For boats 10m to 14m
- Available with Gypsy only or Gypsy Drum
- 3 year warranty

154416





Standard Inclusions

154518

154486

BLA Code	Model	Watts	Volts Std	Chain Std mm	Rope* mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154410	H2 Gypsy Only	700	12	8	14-16	650	163	21	21.5	10-13
154409	H2 Gypsy Only	700	12	10	14-16	650	163	21	21.5	10-13
154411	H2 Gypsy Only	900	24	8	14-16	760	163	21	21.5	10-13
154413	H2 Gypsy Only	900	24	10	14-16	760	163	21	21.5	10-13
154416	H2 Gypsy Drum	700	12	8	14-16	650	163	21	23.5	10-13
154418	H2 Gypsy Drum	700	12	10	14-16	650	163	21	23.5	10-13
154417	H2 Gypsy Drum	900	24	8	14-16	760	163	21	23.5	10-13
154422	H3 Gypsy Only	1000	12	8	14-16	890	163	28	23.5	11-14
154424	H3 Gypsy Only	1000	12	10	14-16	890	215	28	23.5	11-14
154423	H3 Gypsy Only	1000	24	8	14-16	1020	243	30	23.5	11-14
154425	H3 Gypsy Only	1000	24	10	14-16	1020	243	30	23.5	11-14
154412	H3 Gypsy Drum	1000	12	8	14-16	890	215	28	25.5	11-14
154427	H3 Gypsy Drum	1000	12	10	14-16	890	215	28	25.5	11-14
154429	H3 Gypsy Drum	1000	24	10	14-16	1020	243	30	25.5	11-14

Standard Inclusions:

154516 Circuit breaker panel mount 90A*
154518 Circuit breaker panel mount 110A*
*Model dependent
154486 Guarded remote up/down rocker switch

Accessories:

154466 Grey down foot switch with closed cover
154468 Grey up foot switch with closed cover
154470 Stainless steel down foot switch with closed cover
154472 Stainless steel up foot switch with closed cover
154614 Manual recovery kit

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only.
****14-16mm 3 strand or 16mm 8 plait only***

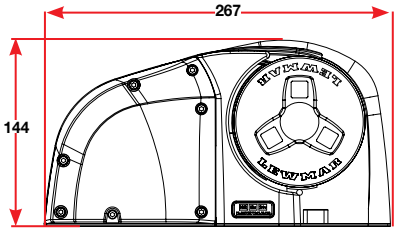
LEWMAR®

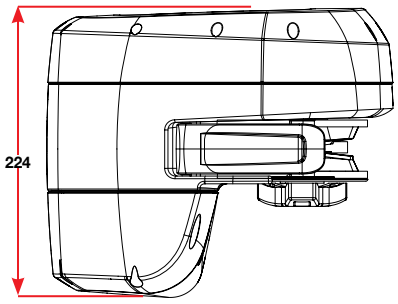
Lewmar® Horizontal Anchor Windlass – HX1

Lewmar is launching a new range of stylish, strong and reliable horizontal windlasses that utilise a superior in-line motor and epicyclical gearbox within a strong aluminium chassis. Designed to provide years of trouble free use, you have two gypsy options to choose from - one to suit 6mm, 7mm and ¼" chain; the other option to suit 8mm chain. The covers are available in a choice of materials - polymer or anodised aluminium. For more information on the HX range please contact BLA on **1300 252 725.**

Features:

- Motor range 800W in 12v
- High efficiency epicyclical gearbox
- Sealed waterproof unit requires minimum maintenance
- Anodised aluminium chassis with a choice of polymer or anodised aluminium covers
- IP67 rated as standard
- Quiet operation
- 3 year warranty





154398
Freefall conversion kit

Gypsy Model (Chain Size)	Rope to Suit
6mm, 7mm, 1/4"	12mm 3 strand or 8 Plait
8mm	14-16mm 3 strand or 16mm 8 Plait

Model	Cover Material	Watts	Volts Std	Max Pull kg	Work Load kg	Max Chain Speed m/min	Total Weight GO kg	Total Weight GD kg	Circuit Breaker amp	Boat Size m
HX1 500	Polymer	500	12	690	173	20	11	11.5	50	6-8.5
HX1 800	Polymer	800	12	900	225	21	11	11.5	70	6-11.5
HX1 AL 500	Anodised Alum.	500	12	690	173	20	11.5	12	50	6-8.5
HX1 AL 800	Anodised Alum.	800	12	900	225	21	11.5	12	70	6-11.5

Accessories:

154398 Automatic freefall conversion kit

N.B. Specifications current at time of publication. Please contact BLA to confirm before ordering. Boat size recommendation is for an average boat under average conditions and is a guide only.

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® Vertical Anchor Windlass - V700

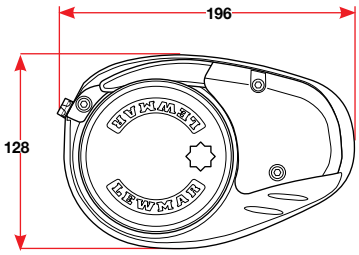
LEWMAR

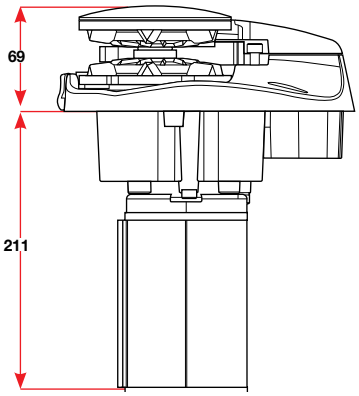
The V700 is one of the most attractive and durable windlasses available. The above deck housing features 100% 316 grade stainless steel construction to create an attractive sleek, low profile design.

The V700 is supplied with a combination rope/chain gypsy with the ability to accept 6mm, 7mm and ¼" short link chain together with 12mm medium lay three strand or eight plait nylon rope. Simple power up, power down push button operation and two unique built-in features (motor protection and anchor lock), make this an ideal all around winch.

Features:

- 100% 316 grade stainless steel deck unit
- Low profile design
- Dual direction motor
- Combination rope/chain gypsy
- IP67 rated motor casing
- Fall-safe anchor lock
- Fast line speed
- Impact-resistant motor cover
- For boats up to 10m
- 5 year warranty





Retail Display Packaging

Standard Inclusions

154510

154504

154486

SP15156248

BLA Code	Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Suits Deck mm	Weight kg	Boat Size m
154300	320	12	6/7	12	320	79	25	10-70	6.5	6-10

Standard Inclusions:

154486	Guarded remote up/down rocker switch
154504	Dual solenoid pack
154510	Circuit breaker panel mount 35A
SP15156248	Clutch release handle

Accessories:

154466	Grey down foot switch with closed cover
154468	Grey up foot switch with closed cover
154470	Stainless steel down foot switch with closed cover
154472	Stainless steel up foot switch with closed cover

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only.

Lewmar® Vertical Anchor Windlass – VX1, VX2, VX3

LEWMAR

The Lewmar VX windlass range offers a new windlass product, giving the end user a stylish yet functional product at a competitive price point. Traditional metal gypsies as fitted to windlasses are noisy in operation. Lewmar have developed a patent pending hybrid gypsy, which uses a metal anchor warp core together with a polymer chain wheel. This combination offers a lightweight and quieter solution that ensures a smooth deployment and retrieval of the anchor rode, while still offering the long-life durability of the traditional metal gypsy.

The polymer chain wheel allows the anchor rode chain to bed-in, creating a jump free quieter operation, while the metal anchor warp core grips the warping during deployment and retrieval of the anchor rode.

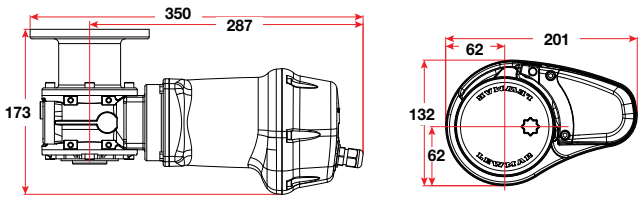
PRODUCT AVAILABLE JULY 2017

VX1

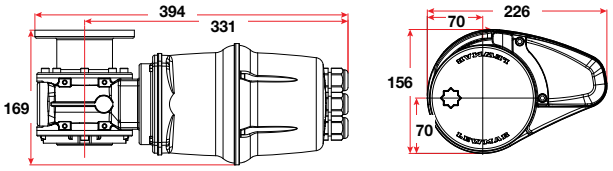
Features:

- IP67 cover - helps to reduce maintenance and provides corrosion protection
- Manual clutch release
- Stylish stainless steel and composite construction
- Proven polymer gypsy - quieter compared to metal gypsies
- Lightweight deck unit
- 3 year deck unit warranty
- 1 year motor gearbox warranty

VX1 Vertical Anchor Windlass



VX2/3 Vertical Anchor Windlass



VX2/3

BLA Code	Model	Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154220	Winch Anchor VX1 Go Kit 300W	300	12	6/7	12-16	400	100	25	12.5	6-9.5
154222	Winch Anchor VX1 Go Kit 6/7mm 500W	500	12	6/7	12-16	675	169	25	12.5	6-10.5
154224	Winch Anchor VX1 Go Kit 8mm 300W	300	12	8	12-16	410	100	25	12.5	6-9.5
154226	Winch Anchor VX1 Go Kit 8mm 500W	500	12	8	12-16	675	169	25	12.5	6-10.5
154244	Winch Anchor VX2 Go 8mm 12V Kit	700	12	8	12-16	850	213	29	13.9	8-12.2
154246	Winch Anchor VX2 Go 8mm 24V Kit	900	24	8	12-16	850	213	29	13.9	8-12.2
154248	Winch Anchor VX2 Go 10mm 12V Kit	700	12	10	12-16	850	213	29	13.9	8-12.2
154250	Winch Anchor VX2 Go 10mm 24V Kit	900	24	10	12-16	850	213	29	13.9	8-12.2
154252	Winch Anchor VX2 Gd 8mm 12V Kit	700	12	8	12-16	850	213	29	14.9	8-12.2
154254	Winch Anchor VX2 Gd 8mm 24V Kit	900	24	8	12-16	850	213	29	14.9	8-12.2
154256	Winch Anchor VX2 Gd 10mm 12V Kit	700	12	10	12-16	850	213	29	14.9	8-12.2
154258	Winch Anchor VX2 Gd 10mm 24V Kit	900	24	10	12-16	850	213	29	14.9	8-12.2
154268	Winch Anchor VX3 Go 8mm 12V Kit	1500	12	8	12-16	1175	294	40	16.1	10.5-15.2
154270	Winch Anchor VX3 Go 8mm 24V Kit	1500	24	8	12-16	1175	294	40	16.1	10.5-15.2
154272	Winch Anchor VX3 Go 10mm 12V Kit	1500	12	10	12-16	1175	294	40	16.1	10.5-15.2
154274	Winch Anchor VX3 Go 10mm 24V Kit	1500	24	10	12-16	1175	294	40	16.1	10.5-15.2
154276	Winch Anchor VX3 Gd 8mm 12V Kit	1500	12	8	12-16	1175	294	40	17.1	10.5-15.2
154278	Winch Anchor VX3 Gd 8mm 24V Kit	1500	24	8	12-16	1175	294	40	17.1	10.5-15.2
154280	Winch Anchor VX3 Gd 10mm 12V Kit	1500	12	10	12-16	1175	294	40	17.1	10.5-15.2
154282	Winch Anchor VX3 Gd 10mm 24V Kit	1500	24	10	12-16	1175	294	40	17.1	10.5-15.2

N.B. Kit includes gypsy, rocker switch, contactor and circuit breaker. for more information on VX standard inclusions and spare parts, contact BLA on 1300 252 725. Boat size recommendation is for an average boat under average conditions and is a guide only.

Lewmar® Vertical Anchor Windlass – V1, V2 & V3

LEWMAR

The V series of vertical windlasses features an industry leading external deck unit manufactured from precision cast 316 grade stainless steel.

The V1, V2 and V3 are supplied with a rope/chain gypsy accepting 8mm or 10mm short link chain (model dependent) and 12 to 16mm three strand or eight plait medium lay nylon rope (12mm and 16mm only). The V1, V2 and V3 are fitted as standard with the Fall Safe anchor lock system preventing accidental deployment of the anchor.
As an option the V1, V2 and V3 are available with a manual recovery winching system for use in the event of power loss (V1 including manual override - **154332**).

Features:

- Cast 316 grade stainless steel external unit
- Dual direction motor
- Combination rope/chain gypsy
- Heavy duty worm drive motor
- Cone clutch for easy release
- Chain counter ready
- For boats 7m to 14m
- 3 year warranty

154330

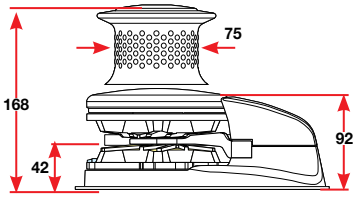
154342

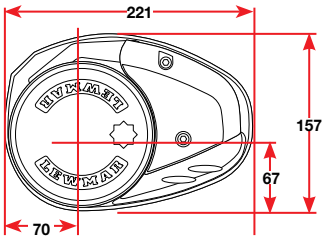
Standard Inclusions

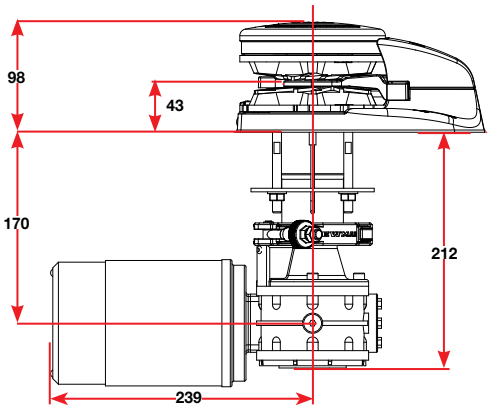
154516

154502

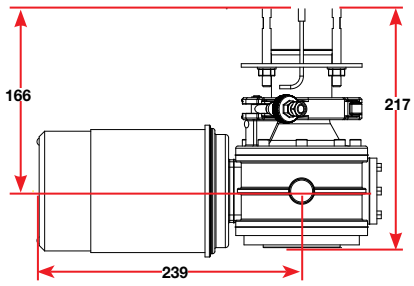
154486







V1 Motor Gearbox (Fast-fit option)



V2/V3 Motor Gearbox (Fast-fit option)

BLA Code	Model	Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154330	V1 Gypsy Only	700	12	8	12-16	454	113	19	19	9-12
154340	V2 Gypsy Only/FF	700	12	8	12-16	650	163	21	19	10-13
154338	V2 Gypsy Only/FF	700	12	10	12-16	650	163	21	19	10-13
154341	V2 Gypsy Only/FF	900	24	8	12-16	760	180	24	19	10-13
154339	V2 Gypsy Only/FF	900	24	10	12-16	760	180	24	19	10-13
154342	V2 Gypsy Drum/FF	700	12	8	12-16	650	163	21	22	10-13
154343	V2 Gypsy Drum	700	12	10	12-16	650	163	21	22	10-13
154344	V2 Gypsy Drum/FF	900	24	8	12-16	760	180	24	22	10-13
154346	V3 Gypsy Only	1000	12	10	12-16	890	215	28	21.5	11-14
154345	V2 Gypsy Drum	900	24	10	12-16	760	180	24	22	10-13
154348	V3 Gypsy Only	1000	12	8	12-16	890	215	28	21.5	11-14
154349	V3 Gypsy Only	1000	24	8	12-16	1020	243	30	21.5	11-14
154347	V3 Gypsy Only/FF	1000	24	10	12-16	1020	243	30	21.5	11-14
154356	V3 Gypsy Drum	1000	12	8	12-16	890	215	28	24.5	11-14
154357	V3 Gypsy Drum	1000	12	10	12-16	890	215	28	24.5	11-14

Standard Inclusions:

154486	Guarded remote up/down rocker switch
154502	Dual 12V solenoid to suit V1/2/3/5
154512	Circuit breaker panel mount 50A*
154516	Circuit breaker panel mount 90A*
154518	Circuit breaker panel mount 110A*

*Model dependent

Accessories:

154466	Grey down foot switch with closed cover
154468	Grey up foot switch with closed cover
154470	Stainless steel down foot switch with closed cover
154472	Stainless steel up foot switch with closed cover
154544	Digital chain counter - dash
154545	Digital wireless chain counter & winch control - dash
154546	Digital chain counter & winch control - dash
154548	Wireless chain counter & digital winch control - hand
154566	Gypsy Lewmar® V1/2/3 8mm
154570	Gypsy Lewmar® V1/2/3 10mm
154609	Manual recovery kit - gypsy only
154610	Manual recovery kit - gypsy drum

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only.

Lewmar® Vertical Anchor Windlass - V4

LEWMAR

The V4 vertical windlass features an industry leading external deck unit manufactured from precision cast 316 grade stainless steel with a robust drive train.

The V4 is available with 10mm or 13mm rope/chain gypsy which also suit either 16mm or 18mm to 21mm three strand or eight plait medium lay nylon rope.

Available as gypsy only or gypsy with capstan drum in either 12 volt or 24 volt models.

Features:

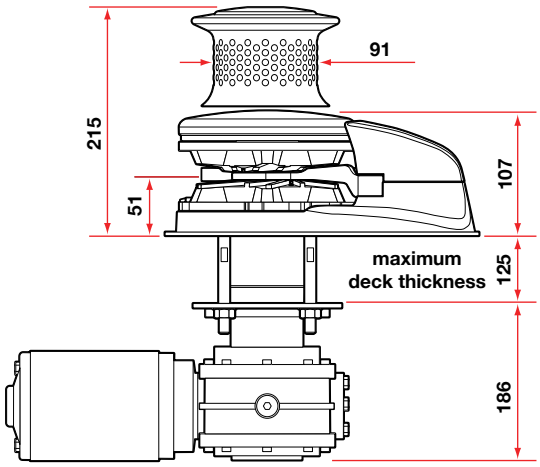
- Cast 316 grade stainless steel external unit
- Dual direction motor
- Combination rope/chain gypsy
- Cone clutch for easy release
- Digital chain counter ready
- For boats 13m to 18m

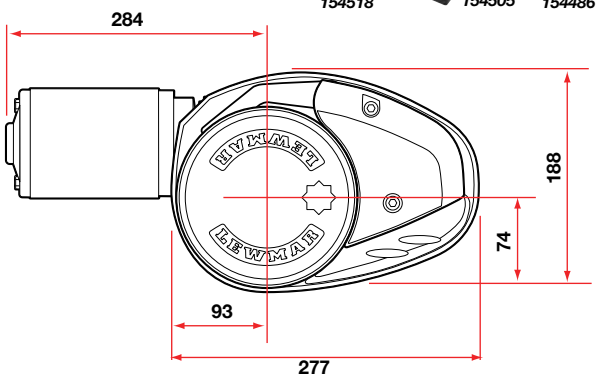
154368

154364

Standard Inclusions

154518 154505 154486





BLA Code	Model	Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154364	V4 Gypsy Only	1600	12	13	18-21	1250	313	25	29	14-18
154365	V4 Gypsy Only	2000	24	10	16	1500	375	27	29	14-18
154367	V4 Gypsy Only	2000	24	13	18-21	1500	375	27	29	14-18
154368	V4 Gypsy Drum	1600	12	10	16	1250	313	25	36	14-18
154370	V4 Gypsy Drum	1600	12	13	18-21	1250	313	25	36	14-18
154371	V4 Gypsy Drum	2000	24	10	16	1500	375	27	36	14-18
154373	V4 Gypsy Drum	2000	24	13	18-21	1500	375	27	36	14-18

Standard Inclusions:

154505	Solenoid dual suit V4 12V
154508	Solenoid dual suit V4 24V
154486	Guarded remote up/down rocker switch
154518	Circuit breaker panel mount 110A*
154522	Circuit breaker panel mount 150A*
	*Model dependent

Accessories:

154466	Grey down foot switch with closed cover
154468	Grey up foot switch with closed cover
154470	Stainless steel down foot switch with closed cover
154472	Stainless steel up foot switch with closed cover
154544	Digital chain counter - dash
154545	Digital wireless chain counter & winch control - dash
154546	Digital chain counter & winch control - dash
154548	Wireless chain counter & digital winch control - hand
154572	Gypsy V4/5 with 10mm
154574	Gypsy V4/5 13mm
154576	13mm Gypsy 204 with magnet
SP15156266	Manual recovery kit Gypsy Only
SP15156282	Manual recovery kit Gypsy Drum

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only. For information on V Series Windlasses to suit larger boats please contact BLA on 1300 252 725.

Lewmar® Vertical Anchor Windlass - V5

LEWMAR

The V5 vertical windlass features an industry leading external deck unit manufactured from precision cast 316 grade stainless steel with a robust drive train. The V5 is available in a large range of combinations including 12 volt, 24 volt and hydraulic, with each component purchased individually to suit the particular application. Refer to the options chart below to construct your custom windlass kit.

Simply choose the preferred:

- **A** gypsy only or gypsy and drum deck unit
- **B** motor/gearbox and voltage (which includes solenoid)
- **C** rope/chain gypsy
- **D** circuit breaker, and
- **E** switch options

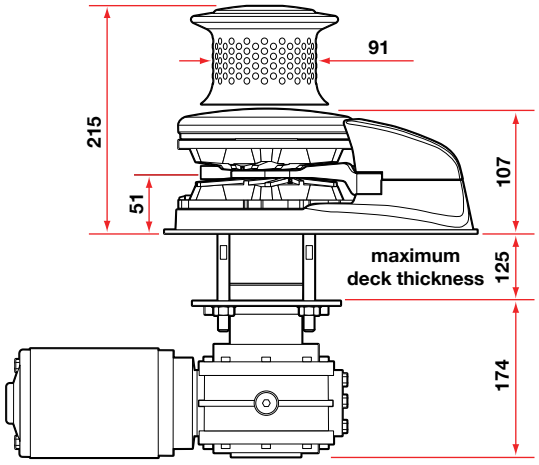
For hydraulic options, pricing and further information contact BLA on **1300 252 725.**

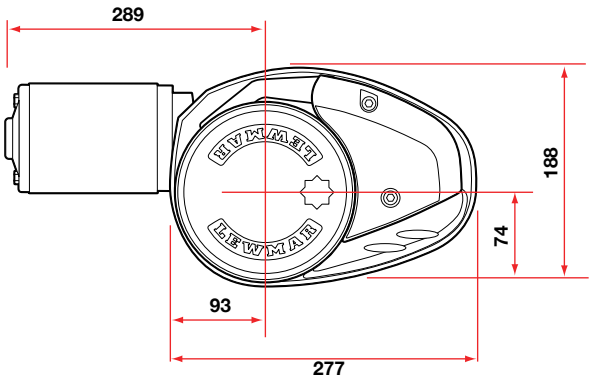
Features:

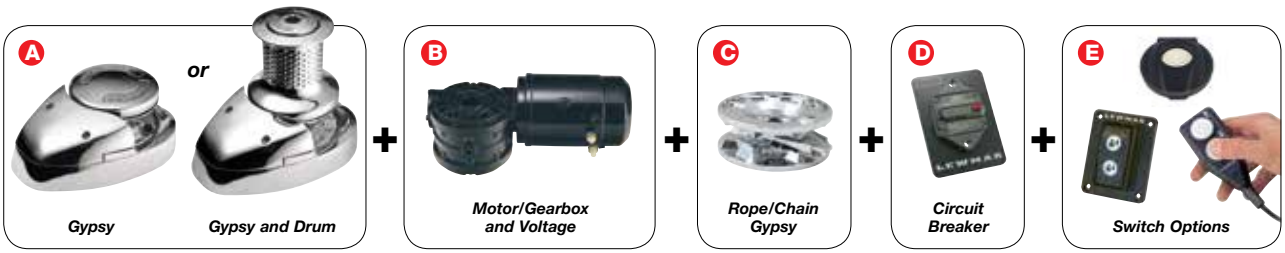
- Cast 316 grade stainless steel external unit
- Dual direction motor
- Combination rope/chain gypsy
- Cone clutch for easy release
- Pre-set for chain meter sensor
- For boats 13m to 22m

154354

55-66810025







Choose one each of the following to construct your custom windlass

A Deck Unit Code	Deck Unit Type	B Motor Gearbox Code	Volts	C Gypsy 10mm Chain 16mm Rope	Gypsy 13mm Chain 18-21mm Rope	D Dual Direction Contactor	E Switch Options
154354	Gypsy Only	**154589**	12	**154572**	**154574**	**154502** (12v)	Refer 353
154354	Gypsy Only	**154590**	24	**154572**	**154574**	**154503** (24v)	Refer 353
55-66810025	Gypsy/Drum	**154589**	12	**154572**	**154574**	**154502**	Refer 353
55-66810025	Gypsy/Drum	**154590**	24	**154572**	**154574**	**154503**	Refer 353

Watts	Volts Std	Chain Std mm	Rope mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Boat Size m
2000	12	10 or 13	16 or 18-20	1450	363	27	13-22
2000	24	10 or 13	16 or 18-20	1600	400	29	13-22

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® Vertical Anchor Windlass – V6

LEWMAR

The V6 vertical windlass features an external deck unit manufactured from precision cast 316 grade stainless steel with 24 volt or hydraulic drive train options. The V6 is available in a large range of combinations, including left or right orientation, with each component purchased individually to suit the particular application. Refer to the options chart below to construct your custom windlass kit.

Simply choose the preferred:

- **A** gypsy only or gypsy and drum deck unit
- **B** motor/gearbox in left or right orientation
- **C** chain gypsy
- **D** circuit breaker
- **E** contactor, and
- **F** switch options

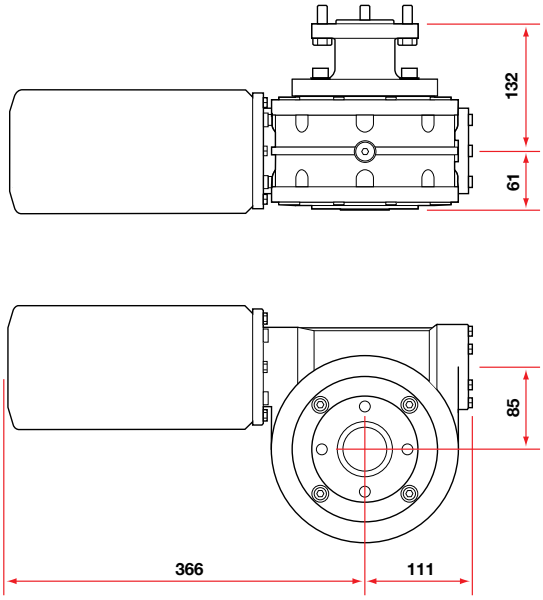
For hydraulic options, pricing and further information contact BLA on **1300 252 725**.

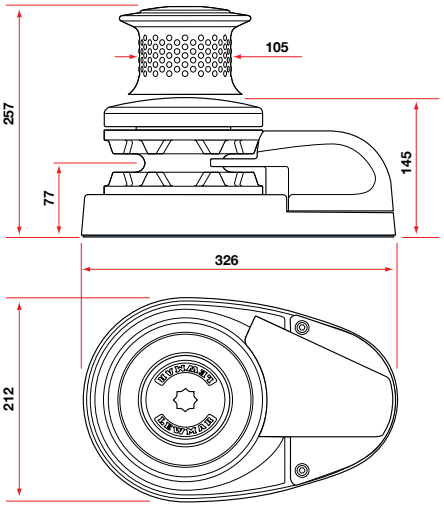
Features:

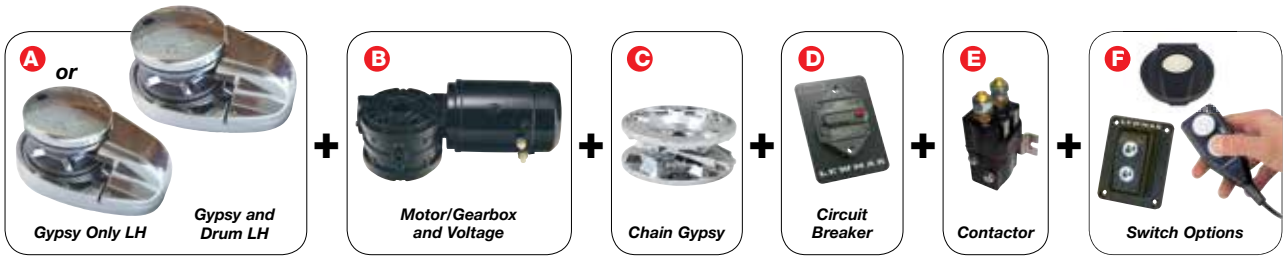
- Cast 316 grade stainless steel external unit
- Wear and abrasion resistant drum pattern
- Left or right hand orientation models
- Lloyds Type Approval
- For boats up to 24m

55-69000402

55-69000400







Choose one each of the following to construct your custom windlass

A Deck Unit Code	Deck Unit Type	B Motor Gearbox Code	Volts	C Gypsy 10mm Chain	Gypsy 13mm Chain	D Circuit Breaker	E Dual Direction Contactor	F Switch Options
55-69000402	Gypsy Only LH	55-69000407	24	55-68000903	55-68000904	154522	154508	Refer 353
55-69000403	Gypsy Only RH	55-69000407	24	55-68000903	55-68000904	154522	154508	Refer 353
55-69000400	Gypsy/Drum LH	55-69000407	24	55-68000903	55-68000904	154522	154508	Refer 353
55-69000401	Gypsy/Drum RH	55-69000407	24	55-68000903	55-68000904	154522	154508	Refer 353

Watts	Volts Std	Chain Std mm	Max Pull kg	Work Load kg	Max Chain Speed m/min	Boat Size m
2000	24	10 or 13	1818	606	18	to 24

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® Vertical Anchor Windlass – V8, V9, V10, V12

LEWMAR

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

The V8, V9, V10 and V12 range of vertical windlasses are designed to offer superior performance for larger vessels up to 50 metres in length. Featuring an external deck unit manufactured from precision cast 316 grade stainless steel with a range of drive train options including AC and hydraulic. The V8, V9, V10 and V12 windlasses are available in a large range of combinations, including left or right orientation and remote chain pipe configurations to suit the particular application.

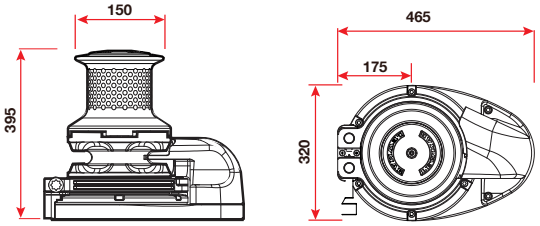
Other features include independent capstan operation and powered or manual chain release. Lewmar® also makes available a wide range of metric and imperial gypsies including short link and stud link to 22mm. To discuss specific applications, technical details and combinations of deck units, drive trains and full range of accessories
please contact BLA on **1300 252 725.**

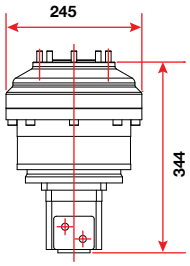
Features:

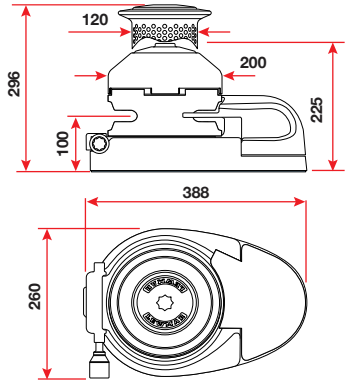
- Large range of gypsies including stud link
- Cast 316 grade stainless steel external unit
- Independent capstan operation
- Powered or manual chain release
- Left or right hand orientation models
- Full range of power options
- Lloyds Type Approval
- For boats up to 50m

V8 Gypsy and Drum LH with remote brake option

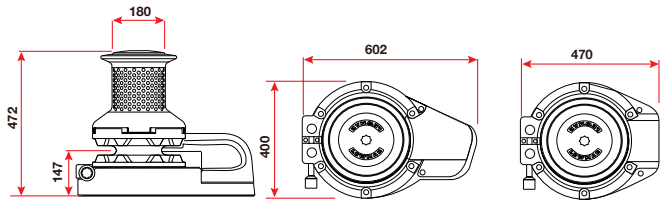
V9







V10 & V12



Model	Watts	Max Pull kg	Work Load kg	Max Chain Speed m/min	Boat Size m
V8	2500	2273	1137	24	to 33
V8	3500	2727	1364	23	to 33
V9	4000	3182	1591	18	25-35
V10	5500	4000	2000	18	30-40
V12	7500	5000	2500	20	40-50

Lewmar® Capstan Series - C3

The Lewmar® C Series capstans feature a drum that is finished in the unique W.A.R.P pattern (Wear and Abrasion Resistant Pattern) which optimises performance and reduces rope wear by as much as 30%. Each capstan features stainless steel components that provide strength, durability and longevity in an attractive finish.

The C3 capstan is designed to provide excellent rope control at the press of a button while being simple to install with an integrated deck and motor unit allowing all fasteners to be above deck.

Features:

- Quick and easy installation
- Unique capstan - W.A.R.P wear reduction pattern
- 316 grade stainless steel components above deck
- For boats 8m to 16m
- Integrated deck unit and motor gear box

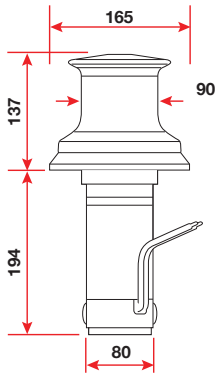
154514

154500

Accessories

154469

BLA Code	Watts	Volts Std (Opt)	Max Pull kg	Work Load kg	Max Chain Speed m/min	Weight kg	Boat Size m
154430	1000	12	750	188	12	12.0	8-16
55-6630332312	1000	24	850	213	12	12.0	8-16



Accessories:

154459	Switch Foot Closed White
154460	Switch Foot Closed Grey
154469	Switch Foot Closed White
154484	Switch Foot SX Closed Lid Black
154485	Switch Foot SX Closed Lid Stainless Steel
154500	Solenoid pack
154512	Circuit breaker panel mount 50A*
154514	Circuit breaker panel mount 70A*

*Model dependent

N.B. Boat size recommendation is for an average boat under average conditions and is a guide only.
Switch solenoid and circuit breaker not included.

Lewmar® Gypsy

LEWMAR

Replacement chromed brass and hybrid polymer gypsy to suit Lewmar® anchor winches and most types of chain up to 22mm stud link.

154560

BLA Code	Description	Chain Size mm	Windlass Model
154557	Gypsy V700 Rope/Chain	6	V700
154558	Gypsy Pro Series Rope/Chain	6/7	Pro Series/Fish
154560	Gypsy CPX	8	CPX0,1,2,3,4,5
154562	Gypsy CPX	10	CPX0,1,2,3,4,5
154566	Gypsy V1/V2/V3	8	V1/V2/V3
154570	Gypsy V1/V2/V3	10	V1/V2/V3
154572	V4/V5 Gypsy Assy 202	10	V4/V5
154574	V4/V5 Gypsy Assy 204	13	V4/V5
154578	Gypsy H2 H3 RC173	8	H2/H3
SP15156249	Gypsy Pro Series Gpsy RC	8	Pro Series/Fish
55-68100034	Gypsy VX1	6/7	VX1
55-68100033	Gypsy VX1	8	VX1
55-68120040	Gypsy VX2/3	6/7	VX2/3
55-68120041	Gypsy VX2/3	8	VX2/3
55-68120042	Gypsy VX2/3	10	VX2/3
55-68140009	Gypsy HX1	6/7	HX1
55-68140010	Gypsy HX1	8	HX1
55-66000006	Gypsy H2 H3 RC163	10	H2/H3
55-68000877	V8 Shortlink Gypsy Assy	13	V8
55-68000878	V8 Shortlink Gypsy Assy	14	V8
55-68000879	V8 Shortlink Gypsy Assy	16	V8
55-68000903	V6 Gypsy Assembly	10	V6
55-68000904	V6 Gypsy Assembly	13	V6

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® Foot Switches

LEWMAR

A range of foot switches providing direct control for all Lewmar® 12 or 24 volt DC electric windlasses. Each switch features a solid hinged cover for protection and to guard against accidental foot operation with optional centre hole open models which allow for finger operation when required. Suitable for 5A open contact 12 or 24 volt, must be used with solenoid or control box.

For additional protection consider the SX range. Rated to IP67/5 for water resistance and feature a twin sealed switch compartment and composite plastic body. Available with either a composite plastic or polished stainless steel hinged lid.

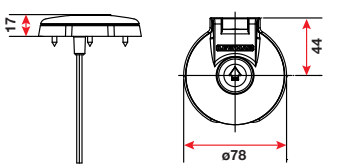
154467

154469

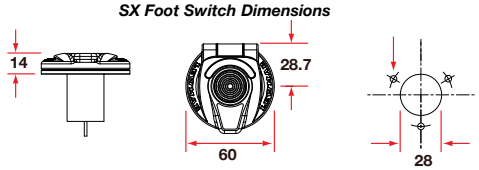
154479

BLA Code	Model	Colour	Direction	Lid Material	Centre Opening	Volts
154459	Std	White	-	Plastic	No	12/24
154460	Std	Grey	-	Plastic	No	12/24
154461	Std	White	-	Plastic	Yes	12/24
154462	Std	Grey	-	Plastic	Yes	12/24
154465	Std	White	Down	Plastic	No	12/24
154466	Std	Grey	Down	Plastic	No	12/24
154467	Std	White	Up	Plastic	No	12/24
154468	Std	Grey	Up	Plastic	No	12/24
154469	Std	S/S	-	S/S	No	12/24
154470	Std	S/S	Down	S/S	No	12/24
154472	Std	S/S	Up	S/S	No	12/24
154479	SX	Black	-	Plastic	Yes	12/24
154483	SX	S/S	-	S/S	Yes	12/24
154484	SX	Black	-	Plastic	No	12/24
154485	SX	S/S	-	S/S	No	12/24

Std Foot Switch Dimensions



SX Foot Switch Dimensions



Lewmar® Guarded Rocker Switch

LEWMAR®

Momentary, up-off-down panel mounted switch with black plastic backing plate, plastic rocker switch and raised guard surround to prevent accidental activation. Supplied as standard with Lewmar® anchor winches. Suitable for 12 or 24 volt use and multiple station installations.

BLA Code
154486

Lewmar® Corded Hand Held Remote Control

LEWMAR®

Hand held up/down remote control suitable for most solenoid activated switching including windlasses, small cranes, paserelles, thrusters and swimming platforms. Ergonomic hand control features one up button and one down button plus rubber over moulding for shock protection and grip.

The hand held remote connects to DC, AC and hydraulic systems and can be operated in parallel with other Lewmar® products such as toggle switches, foot switches or other controls.

Rated to IP67 and supplied complete with 4 metres of coiled cable with moulded plug and deck socket with gold plated contacts, stowage cradle and socket sealing cap. Suitable for 12 or 24 volt use, 5 amps draw.

BLA Code
154531

Lewmar® Wireless Remote Control

LEWMAR®

The wireless remote control allows up and down operation of any solenoid switched windlass. The five switch wireless remote combines windlass and thruster control, allowing port or starboard thrust operation and up or down operation of the windlass.

Each kit includes one, three or five button wireless fob and one receiver capable of receiving up to eight remote fobs. Each receiver has the ability to sequence over one billion individual codes which helps eliminate false triggering from interference. The floating fob is waterproof to IP67 with additional fobs available separately. May be retrofitted to existing installations.

Where signal range presents a problem, Lewmar® also offers a remote antenna kit **154540**, providing additional signal strength where reception is poor or distance is an issue to the windlass or thruster. Kit includes 10 metres of wiring, antenna and mounting bracket.

154537

Remote as supplied in 154538 5 Button kit

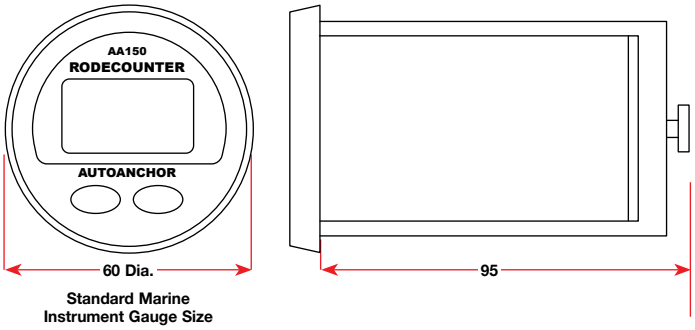
BLA Code	Description
154536	3 Button kit
154537	3 Button spare remote
154538	5 Button kit
154540	Remote antenna kit

Lewmar® Chain Counter - AA150

LEWMAR

The AA150 (AutoAnchor 150) is a dash mounted LED rode/chain counter to fit most windlasses.
Displays the length of rode that has passed through the windlass. This easily set up plug-and-play unit features an audible alarm when the anchor is close to docking, choice of feet or metres measurement and adjustable back lit display for clear night viewing.

Kit includes console display with sensor plug, two metre grey sensor cable and plug, magnet, motor load sensor terminators and fastening kit. Suitable for use with 12 or 24 volt DC, AC and hydraulic windlasses and may be used with a second unit or combined with other Lewmar® chain counters. Sensor cable extensions and associated accessories are sold separately.



Standard Marine
Instrument Gauge Size

BLA Code
154544

Lewmar® Chain Counter - AA560 / AA570

LEWMAR

The AA560 wired and AA570 wireless AutoAnchor are designed to completely control the windlass and to inform how much anchor rode is deployed from the helm station. The adjustable pre-set automatic one touch function deploys and retrieves the anchor rode at the push of a button making anchoring easier and safer.

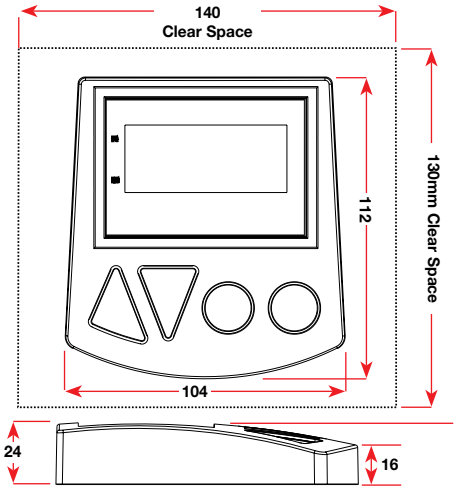
Panel mounted plug and play display with adjustable back lighting features docking alarm and pre-set stopping point to avoid unnecessary damage during retrieval plus safety lock to reduce accidental deployment. Both models include in-built diagnostics with windlass operating hours and a range of optional measurement settings including feet, metres and fathoms. Suitable for use with 12 or 24 volt DC, AC and hydraulic windlasses and may be used with a second unit or combined with other Lewmar® chain counters.

The wired **154546** AA560 kit includes console display with sensor plug, two metre grey sensor cable and plug, magnet, motor load sensor terminators and fastening kit. Sensor cable extensions and associated accessories are available separately.

The wireless **154545** AA570 offers instant connection to the base station (included) for complete wireless control of the windlass with no cables required. Seamless interface with single **154548** hand control unit (refer p. 356) and easy one off calibration for multiple station set-ups is achieved via the base station. Typical base station minimum range is 10 metres with increased range available via optional **154540** remote antenna.

154545

Base Station included with 154545



BLA Code	Description
154545	Wireless chain counter AA570
154546	Wired chain counter AA560

N.B. 154545 not suitable on steel or carbon-fibre boats.

Lewmar® Wireless Control and Chain Counter - AA710

LEWMAR

The AA710 (AutoAnchor 710) wireless windlass hand control and chain counter provides complete flexibility and control from the helm station or on deck. Clear LED display shows amount of anchor rode deployed while the intuitive buttons allow full windlass and bow thruster control either independently or together plus a built in safety lock prevents unwanted operation.

The plug and play ergonomic hand controller is supplied with console holder and protective cover and is shockproof, waterproof and floats. High level wireless transmission security includes unique ID registration for each unit.

Includes a programmable pre-set length deployment function and auto stop with docking alarm when the anchor is close to full retrieval. Includes log for windlass operating hours and a range of optional measurement settings including feet, metres and fathoms. Suitable for use with 12 or 24 volt DC, AC and hydraulic windlasses and operates in parallel with other control equipment such as panel and foot switches.

Kit includes hand held wireless remote control unit, base station with male sensor plug, grey sensor with two metre cable and plug, magnet and motor load sensor terminators.

BLA Code
154548

RIGGING & ARCHITECTURAL

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

BLA Stainless Steel Packaged Hardware

BLA offers a large range of popular stainless steel product packaged for the retail environment. Each item is skin packed and attractively displayed on a bright, heavy duty backing card with common hanger hole.

Important product details and information are clearly displayed on the back of each card. These feature BLA product code, product description, breaking load where applicable and barcode.

For ordering convenience BLA has also introduced a range of common stainless steel product in bulk bagged quantities. These include shackles, thimbles, wire rope grips and saddles. Additionally, the majority of this range has been individually slim line tagged with BLA code, product description, breaking loads and barcode.

Blister Carded Products - Product specific details on the back of every card

BLA Code
'P' denotes single packaged item

Detailed product description.
Includes Breaking Loads where applicable

Barcode included on every pack

BLA Code
'P4' denotes 4 x packaged items

Detailed product description including additional reference to pack quantity - PK4

Barcode included on every pack

Blister Bagged Products - Product specific details on outer bulk bag label

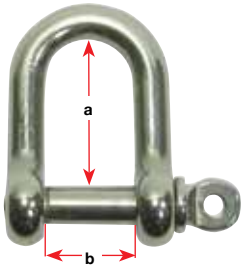
Outer bag label includes:
BLA Code
'B50' denotes a bagged quantity of 50

In most cases, each product contained within the pack is individually labelled with details including BLA code, product description and individual barcode.

BLA Standard 'D' Shackles - Stainless Steel

316 grade stainless steel 'D' shackle. Screw in pin drilled for security tie wire.

161004P



161006

161012B5

BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161002	1	4	14	8	550
161002P2	2	4	14	8	550
161002B10	10	4	14	8	550
161004	1	5	17.5	10	1000
161004P	1	5	17.5	10	1000
161004B10	10	5	17.5	10	1000
161006	1	6	20	13	1700
161006P	1	6	20	13	1700
161006B10	10	6	20	13	1700
161008	1	8	27	16	2500
161008P	1	8	27	16	2500
161008B10	10	8	27	16	2500
161010	1	10	35	20	4100
161010P	1	10	35	20	4100
161010B10	10	10	35	20	4100
161012	1	12	40	25	5400
161012B5	5	12	40	25	5400
161014	1	16	49	28	8800
161016	1	19	64	35	10000

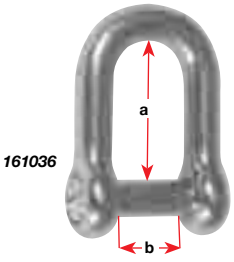
'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA 'D' Shackle

- Stainless Steel Countersunk Pin

316 grade stainless steel 'D' shackle. Screw in pin with countersunk slotted head.

161036P



161036

BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161032	1	4	14	8	550
161032P	1	4	14	8	550
161036	1	5	18	10	1000
161036P	1	5	18	10	1000
161038	1	6	21	12	1700
161038P	1	6	21	12	1700
161040	1	8	28	16	2000
161042	1	10	35	20	2500

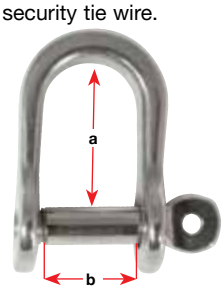
'P' - Denotes packaged item

BLA Standard 'D' Shackles

- Pressed Stainless Steel

316 grade pressed stainless steel construction. Screw in pin drilled for security tie wire.

161024P2



161024

BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161024	1	5	18	12	950
161024P2	2	5	18	12	950
161026	1	6	22	13	1500
161026P2	2	6	22	13	1500
161028	1	8	27	18	2600
161028P	2	8	27	18	2600

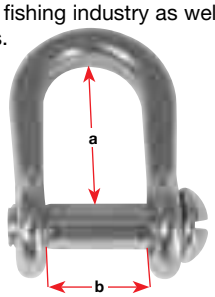
'P' - Denotes packaged item

BLA Standard 'D' Shackles

- Pressed Stainless Steel Slotted Pin

316 grade pressed stainless steel construction. Slotted head screw in pin. Snag free design is ideal for the commercial fishing industry as well as architectural applications.

161053P



161053

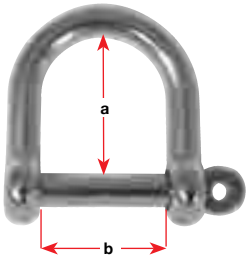
BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161052	1	5	19	12	950
161052P	1	5	19	12	950
161053	1	6	22	13	1500
161053P	1	6	22	13	1500
161053B10	10	6	22	13	1500
161055	1	8	28	19	2600
161055P	1	8	28	19	2600

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Wide 'D' Shackles

- Stainless Steel

316 grade stainless steel shackle with wide body. Screw in pin drilled for security tie wire.



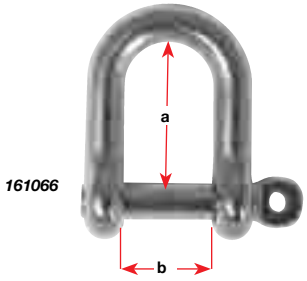
161046

BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161044	1	6	33	24	1350
161046	1	8	31	28	2500
161048	1	10	55	40	3350
161050	1	12	66	48	4000

BLA Standard 'D' Shackles

- Stainless Steel Captive Pin

316 grade stainless steel 'D' shackle with stepped, screw in captive pin that prevents loss. Pins are drilled for security tie wire. Pin diameter is slightly less than bale diameter.



161066

161066P

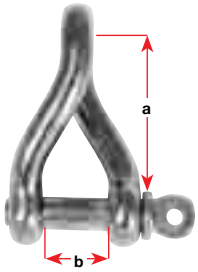
BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161062	1	5	18	10	1000
161062P	1	5	18	10	1000
161064	1	6	21	13	1400
161064P	1	6	21	13	1400
161066	1	8	27	18	2500
161066P	1	8	27	18	2500
161066B10	10	8	27	18	2500
161068	1	10	35	20	4000

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Twisted Shackles

- Stainless Steel

316 grade stainless steel long 'D' shackle with screw in pin at 90° to the bale. Pins are drilled for security tie wire.



161116

161116P

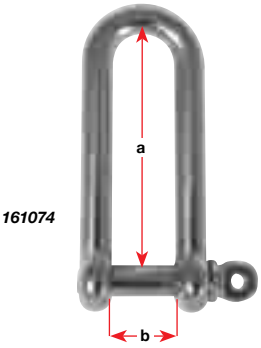
BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161112	1	5	24	11	1100
161112P	1	5	24	11	1100
161114	1	6	33	13	1600
161114P	1	6	33	13	1600
161116	1	8	40	17	2800
161116P	1	8	40	17	2800

'P' - Denotes packaged item

BLA Long 'D' Shackles

- Stainless Steel

316 grade stainless steel shackle with long body. Screw in pin drilled for security tie wire.



161074

161074P

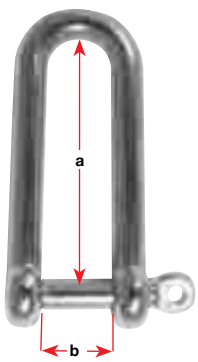
BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161070	1	5	38	10	1250
161070P	1	5	38	10	1250
161072	1	6	45	12	1800
161072P	1	6	45	12	1800
161074	1	8	60	16	2750
161074P	1	8	60	16	2750
161076	1	10	75	20	3250
161078	1	12	90	24	6400

'P' - Denotes packaged item

BLA Long 'D' Shackles

- Stainless Steel Captive Pin

316 grade stainless steel long 'D' shackle with stepped, screw in captive pin that prevents loss. Pins drilled for security tie wire. Pin diameter slightly less than bale diameter.



161086

161084P

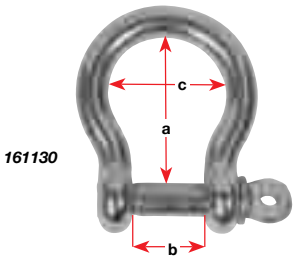
BLA Code	Qty	Pin. Dia mm	a mm	b mm	Breaking Load kg
161082	1	5	38	10	1250
161082P	1	5	38	10	1250
161084	1	6	45	12	1800
161084P	1	6	45	12	1800
161086	1	8	60	17	2750
161088	1	10	75	20	3250
161090	1	12	89	27	6400

'P' - Denotes packaged item

BLA Bow Shackles

- Stainless Steel

316 grade stainless steel bow shackles. Screw in pin drilled for security tie wire.



161130

161130P

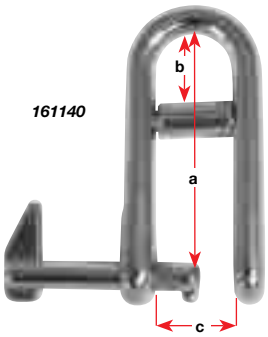
161130B10

BLA Code	Qty	Pin. Dia mm	a mm	b mm	c mm	Breaking Load kg
161130	1	6	27	12	21	1700
161130P	1	6	27	12	21	1700
161130B10	10	6	27	12	21	1700
161132	1	8	37	17	28	2500
161132P	1	8	37	17	28	2500
161132B10	10	8	37	17	28	2500
161134	1	10	45	21	34	4300
161136	1	12	53	26	40	6200
161139	1	16	73	32	54	7000

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Quick Release Halyard Shackles - Stainless Steel

316 grade stainless steel captive pin shackles with quick release locking mechanism. Security bar permanently secures shackle to halyard.

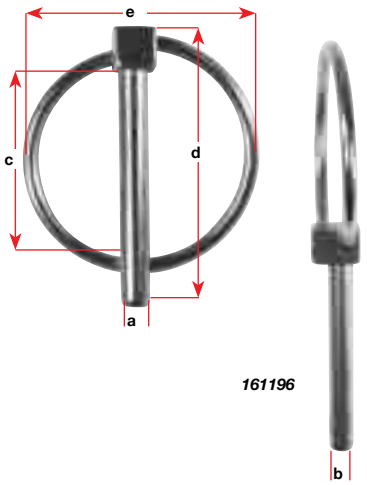


161140

BLA Code	Pin. Dia mm	a mm	b mm	c mm	Breaking Load kg
161140	5	38	12	13	1200
161142	6	43	15	15	1600
161144	8	60	21	20	2800

BLA Lynch Pins - Stainless Steel

316 grade stainless steel. Provides quick and secure fastening in larger diameter clevis pins and similar. One piece torsion spring, snap down lock ring. Commonly used on trailers and in industrial / commercial applications.



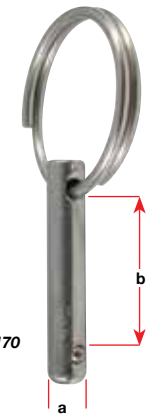
161196

BLA Code	Qty	a mm	b mm	c mm	d mm	e mm
161194	1	4.5	4.5	35	49	44
161194B10	10	4.5	4.5	35	49	44
161196	1	6	6	38	54	48
161198	1	7.5	6.3	38	54	45
161200	1	10.5	8	38	54	51

'B' - Denotes bulk packed item

Marine Town® Quick Release Pin - Stainless Steel

316 grade stainless steel. These quick release pins allow for easy removal and replacement where clevis or toggle pins would have been used. Spring loaded ball detents to allow quick removal and provide secure retention.



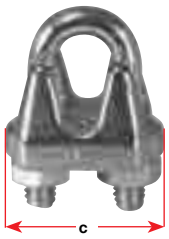
161170

BLA Code	a mm	b mm
161170	4.8	12.7
161178	6.4	22.2
161182	6.4	34
161186	6.4	57.6

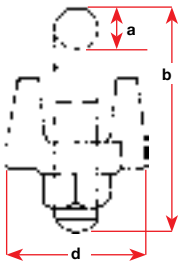
BLA Wire Rope Grips

- Stainless Steel

316 grade stainless steel, U' clamp type wire rope grips. Bases are stamped to show metric wire size.



162036



162036P

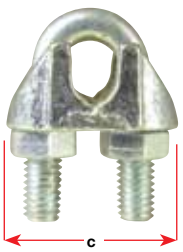
BLA Code	Qty	Wire Dia mm	a mm	b mm	c mm	d mm	Thread Size
162032	1	2	2.5	18	15	13	M3
162032P2	2	2	2.5	18	15	13	M3
162034	1	3	3	24	16	15	M4
162034P2	2	3	3	24	16	15	M4
162034B10	10	3	3	24	16	15	M4
162036	1	4	3	24	19	18	M4
162036P2	2	4	3	24	19	18	M4
162036B10	10	4	3	24	19	18	M4
162038	1	5	4	28	22	20	M5
162038P2	2	5	4	28	22	20	M5
162038B10	10	5	4	28	22	20	M5
162040	1	6	5	36	26	21	M6
162040P	1	6	5	36	26	21	M6
162042	1	8	7	41	34	28	M8
162044	1	10	9	56	45	35	M10

'B' - Denotes bulk packed item
'P' - Denotes packaged item

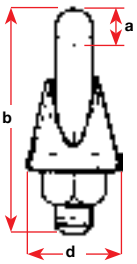
BLA Wire Rope Grips

- Galvanised

Economical hot dipped galvanised, 'U' clamp type wire rope grips. Bases are stamped to show imperial wire size.



162006



BLA Code	Qty	Wire Dia mm	Wire Dia in	a mm	b mm	c mm	d mm
162004	1	3	1/8	3	23	19	12
162004B10	10	3	1/8	3	23	19	12
162006	1	5	3/16	4	28	22	14
162006B10	10	5	3/16	4	28	22	14
162008	1	6	1/4	5	30	25	16
162008B10	10	6	1/4	5	30	25	16
162010	1	8	5/16	6	34	30	19
162012	1	10	3/8	8	43	40	22
162014	1	13	1/2	10	60	48	26

BLA Bolt Type Cable Clamp

- Brass

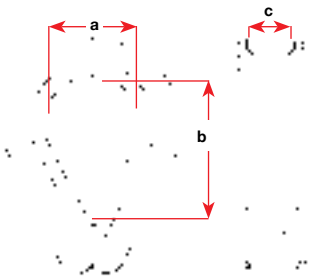
Plated brass, bolt type cable clamp.
Will accept up to 5mm wire.

BLA Code	Length mm	Bolt Dia. mm
162140	30	12

BLA Thimbles

- Pressed Stainless Steel

304 grade pressed stainless steel thimbles, suitable for rope or wire. Also available as heavy duty option with thicker wall to help prevent crushing and elongation.



BLA Code	Qty	Rope/Wire Dia. mm	Rope/Wire Dia. in	a mm	b mm	c mm
162102	1	2.5	3/32	8	16	3
162102P4	4	2.5	3/32	8	16	3
162102B20	20	2.5	3/32	8	16	3
162104	1	3	1/8	10	19	4
162104HD	1	3	1/8	10	19	4
162104P4	4	3	1/8	10	19	4
162104B20	20	3	1/8	10	19	4
162104B50	50	3	1/8	10	19	4
162105	1	4	5/32	12	22	5
162105HD	1	4	5/32	12	22	5
162105P2	2	4	5/32	12	22	5
162105B20	20	4	5/32	12	22	5
162106	1	5	3/16	13	22	6
162106HD	1	5	3/16	13	22	6
162106P2	2	5	3/16	13	22	6
162106B10	10	5	3/16	13	22	6
162108	1	6	1/4	15	26	8
162108HD	1	6	1/4	15	26	8
162108P	1	6	1/4	15	26	8
162110	1	8	5/16	20	37	10
162110HD	1	8	5/16	20	37	10
162110P	1	8	5/16	20	37	10
162112	1	10	3/8	26	45	12
162112P	1	10	3/8	26	45	12
162112B10	10	10	3/8	26	45	12
162114	1	12	1/2	30	48	14
162114HD	1	12	1/2	30	48	14
162116	1	14	9/16	34	56	16
162118	1	16	5/8	38	60	18
162118HD	1	16	5/8	38	60	18
162122	1	20	3/4	45	78	22

'HD' - Denotes heavy duty item
'B' - Denotes bulk packed item
'P' - Denotes packaged item

Stop Swage - Copper

Extruded copper swage with single hole, used to produce an end stop on stainless steel wire cables.

BLA Code	Rope/Wire Dia. mm	in
162145	3	1/8
162146	4	5/32

Clamp Swages

CLAMP

- Nickel Plated Copper

Suitable for hand or hydraulic swaging. Extruded copper for use with stainless steel wire. Nickel plated to aesthetically blend with stainless steel wire. Not suitable for galvanised wire. Suitable for use on metric and imperial wire.

BLA Code	Rope/Wire Dia. mm	in	Die Cavity mm
162148	1.5	1/16	4.9
162150	2	5/64	4.9
162152	2.5	3/32	6
162154	3	1/8	7.3
162156	4	5/32	9.1
162158	5	3/16	10.9
162160	6.4	1/4	12.7
162164	8	5/16	17

Clamp Swages - Alloy

CLAMP

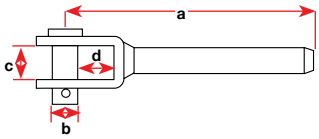
Suitable for hand or hydraulic swaging of galvanised wire. Not suitable for stainless steel wire. Suitable for use on metric and imperial wire.

BLA Code	Rope/Wire Dia. mm	in	Die Cavity mm
162183	1.5-2	1/16-5/64	4.9
162184	2.5	3/32	6
162185	3	1/8	7.3
162186	4	5/32	9.1
162187	5	3/16	10.9
162189	6.4	1/4	12.7

BLA Swage Fork Terminal

- Stainless Steel Mini

316 grade stainless steel swage forks in miniature size. Commonly used on internal balustrade applications.



BLA Code	Wire Dia. mm	in	a mm	b mm	c mm	d mm
162232	3	-	49	5	7	9
162234	-	1/8	49	5	7	9

BLA Button Head Socket Screws - Stainless Steel

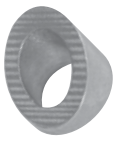
316 grade stainless steel, button head metal thread screws with hexagon socket. Commonly used with internal threaded swage terminals in balustrade applications.

BLA Code	Thread	Length mm
162332	M5	30

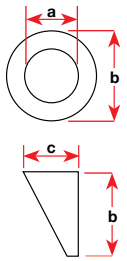
BLA Bevelled Washer

- Stainless Steel

Angled washers in stainless steel. Used on stairways when a terminal or tensioner is used through a post.



162336

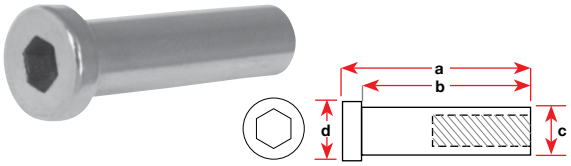


BLA Code	Angle deg	a mm	b mm	c mm
162336	35	5.3	13	11
162337	35	6.3	13	11

BLA Socket Head Tensioner

- Stainless Steel

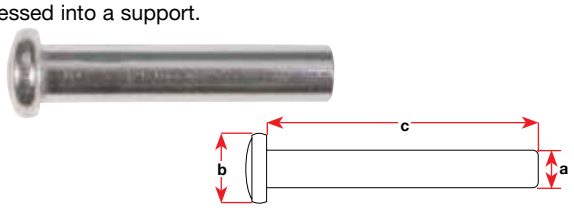
316 grade stainless steel, internal threaded tensioner commonly used in balustrading applications in conjunction with external threaded swage terminals.



BLA Code	Thread	a mm	b mm	c mm	d mm
162334	M5	33	30	8	12
162335	M6	40	35	8	12

BLA Button Head End Terminals - Stainless Steel

316 grade stainless steel button terminal specifically designed for industrial balustrade work in wire. Simple yet effective termination of one end of the wire that can be exposed or recessed into a support.

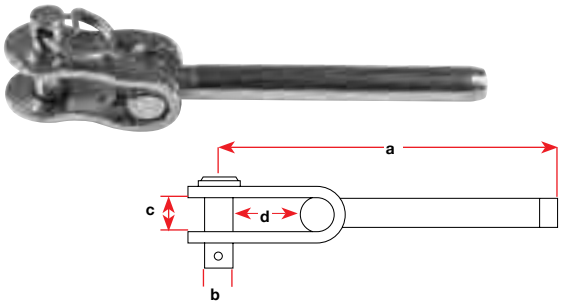


BLA Code	Wire Dia. mm	in	a mm	b mm	c mm
162358	3	–	5.5	8	32
162360	–	1/8	6.35	10	45

BLA Swage Toggle Terminals

- Stainless Steel

316 grade stainless steel swage toggles. Commonly used in industrial and balustrade applications.

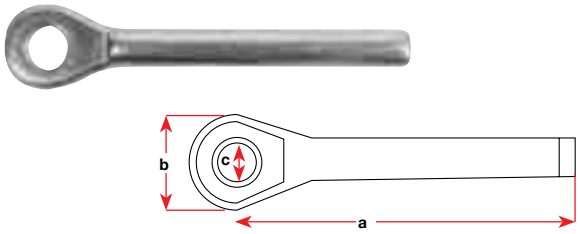


BLA Code	Wire Dia. mm	Wire Dia. in	a mm	b mm	c mm	d mm	Breaking Load kg
162197	–	1/8	70	6	8	12	670
162198	4	5/32	80	8	11	13	1400
162199	5	3/16	103	9	12	25	1700
162200	6	1/4	80	12	12	30	4000

BLA Swage Eye Terminals

- Stainless Steel

316 grade stainless steel swage eyes. Commonly used in industrial and balustrade applications.

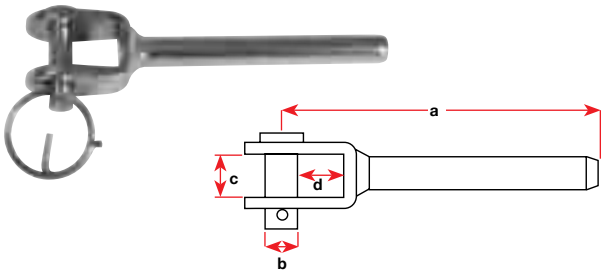


BLA Code	Wire Dia. mm	Wire Dia. in	a mm	b mm	c mm	Breaking Load kg
162190	2.5	3/32	56	13	6	850
162195	3	–	56	13	6	1000
162191	–	1/8	56	13	6.5	1000
162192	4	5/32	70	16.5	8.5	1350
162193	5	3/16	78	20.5	10.5	2500

BLA Swage Fork Terminals

- Stainless Steel

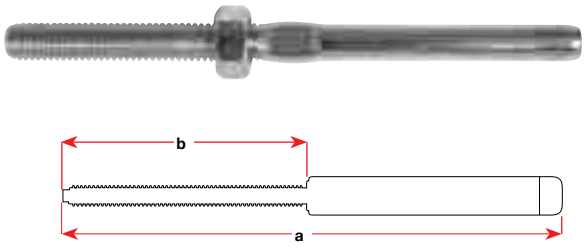
316 grade stainless steel swage forks.
Commonly used in industrial and balustrade applications.



BLA Code	Wire Dia. mm	Wire Dia. in	a mm	b mm	c mm	d mm	Breaking Load kg
162293	3	-	69	5	9	9.5	700
162294	3	-	69	6	9	9	1250
162274	-	1/8	69	5	9	9.5	700
162272	-	1/8	69	6	9	9	1250
162278	4	5/32	72	6	9	9.5	1250
162275	4	5/32	77	8	11	11	1800
162279	5	3/16	83	8	11	11	1800
162276	5	3/16	88	10	14	14	2650
162277	-	1/4	106	12	14	21	4000

BLA Swage Threaded Terminals - Stainless Steel

Swage threaded ends used extensively in balustrading, industrial applications and membrane structures. 316 grade stainless steel construction. Supplied with nut.

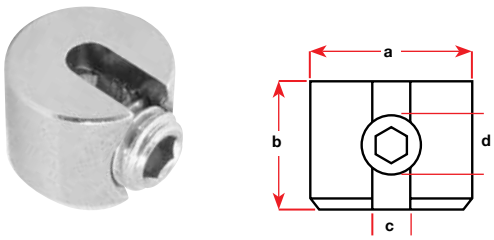


BLA Code	Wire Dia. mm	Wire Dia. in	Thread	a mm	b mm
162302	2.5	3/32	M5	87	40
162327	3	-	M5	90	40
162328	3	-	M6	98	48
162303	-	1/8	M5	90	40
162304	-	1/8	M6	98	48
162305	4	5/32	M6	121	56
162309	4	5/32	M8	116	54
162311	5	3/16	M8	127	57

BLA Adjustable Cable Stop

- Stainless Steel

316 grade solid stainless steel, slotted cylinder with M8 socket head grub screw to clamp the wire cable.
Commonly used to position wire suspended shelving.

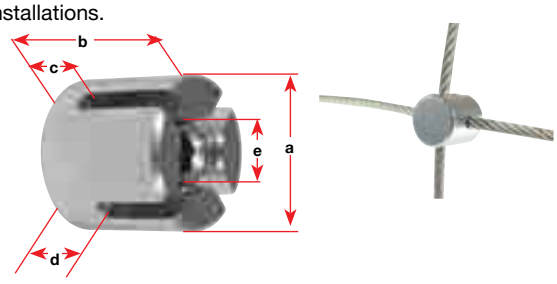


BLA Code	Wire Dia. mm	Wire Dia. in	a mm	b mm	c mm	d mm
162452	3-4	-	15	12	4.3	M8

BLA Adjustable Cable Cross

- Stainless Steel

316 grade solid stainless steel double slotted cylinder with socket head grub screw to clamp the wire cables in a cross configuration. Commonly used in balustrade applications that require transaxial bracing cables and in trellis installations.

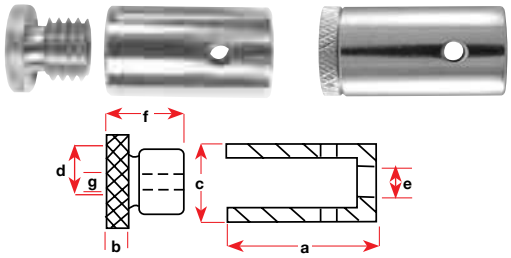


BLA Code	Wire Dia. mm	Wire Dia. in	a mm	b mm	c mm	d mm	e
162456	3-3.2	-	20	19	5	8	M10

BLA Cable End Mount

- Stainless Steel

316 grade stainless steel, two piece fitting designed to neatly terminate wire cables to a wall, post or ceiling. The internal threaded cylinder is fastened via the M6 thread to an anchor bolt or metal thread or via a single 8g screw into timber, metal or a wall plug. The wire cable is passed through the hole in the centre of the external threaded, knurled head part and a stop swage is fitted to the end of the cable. The two pieces are simply screwed together to produce a compact, secure termination.



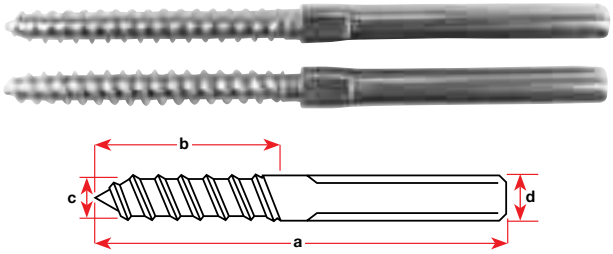
BLA Code	Wire Dia. mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm
162374	3-4	25	3	14	M10	M6	12	4.5

N.B: Wire cables terminated with a stop swage do not have the same strength as full length swage terminals.

BLA Swage Terminals

- Stainless Steel With Lag Screw

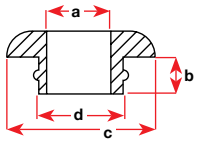
316 grade stainless steel swage terminal with course thread lag screw end. Commonly used with timber posts in balustrading applications. Available in right hand and left hand versions. Opposite handed terminals are fitted to each end of the wire to prevent twist during installation. Rotate both ends simultaneously when tensioning the wire.



BLA Code	Wire Dia. mm	Wire Dia. in	Hand	a mm	b mm	c mm	d mm
162376	3	-	Right	97	48	6	6.35
162377	3	-	Left	97	48	6	6.35
162378	-	1/8	Right	97	48	6	6.35
162379	-	1/8	Left	97	48	6	6.35

Nylon Bushes

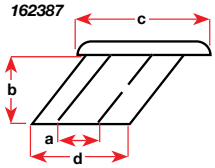
Moulded black nylon bushes used to provide chafe protection where wire is passed through steel, aluminium or timber posts. Suitable for use on curved or flat surfaces. Sold in packs of 20.



BLA Code	a mm	b mm	c mm	d mm
162382	4.5	6	12	8
162383	7.2	7.8	13.5	9

Nylon Bushes - Split

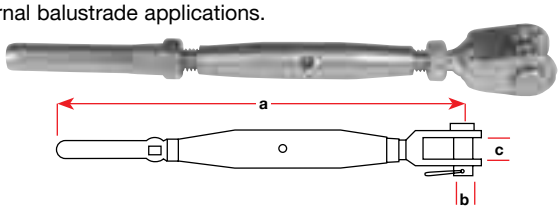
Moulded black nylon bushes used to provide chafe protection where wire is passed through steel, aluminium or timber posts. Split bushes can be installed or replaced without removing the wire from the hole. Suitable for use on flat surfaces only. Sold in packs of 20.



BLA Code	Type	a mm	b mm	c mm	d mm
162385	Flat	4.2	7.8	13	9
162386	Flat	6.2	9.8	12	9
162387	Angled	4.2	6.6	15	9

BLA Turnbuckle Swage and Fork - Stainless Steel Mini

316 grade stainless steel turnbuckle in miniature size with fork one end and swage terminal the other end. Commonly used on internal balustrade applications.

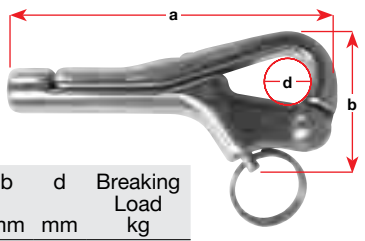


BLA Code	Wire Dia. mm	Wire Dia. in	Thread	a Closed mm	b mm	c mm	Adjust Range mm
162436	3	–	M5	103	5	7	35
162438	–	1/8	M5	103	5	7	35

BLA Pelican Hook Body

- Stainless Steel

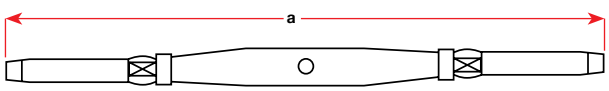
316 grade cast stainless steel pelican hook body with spring loaded quick release locking pin. Internally threaded to accept standard swage threads. Commonly used to produce gates in lifelines.



BLA Code	Thread	a mm	b mm	d mm	Breaking Load kg
163002	M6	73	29	11	1200
163005	M8	98	37	14	1500

BLA Closed Body Turnbuckle - Stainless Steel Swage and Swage

316 grade stainless steel turnbuckle commonly used in industrial and balustrade applications. Threaded swage terminal each end. Mounted in the centre of balustrade wires to adjust and tension.

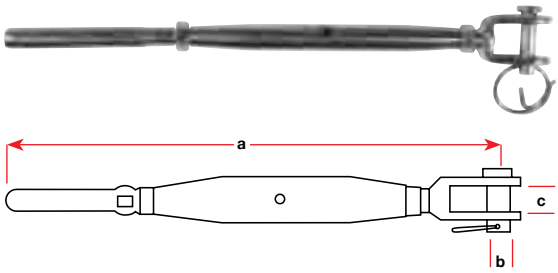


BLA Code	Wire Dia. mm	Wire Dia. in	Thread	a Closed mm	Adjust Range mm	Breaking Load kg
162432	–	1/8	M6	200	65	600

BLA Closed Body Turnbuckles - Stainless Steel Swage and Fork

316 grade stainless steel turnbuckles commonly used in industrial and balustrade applications. Pressed and welded fork one end, swage terminal the other end.

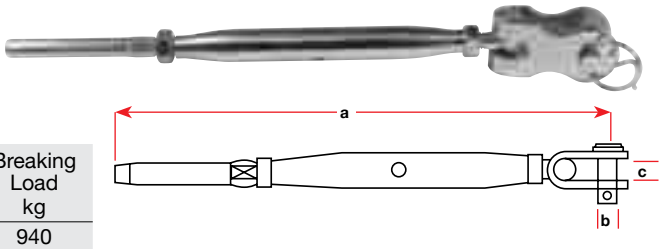
BLA Code	Wire Dia. mm	Wire Dia. in	Thread	a Closed mm	b mm	c mm	Adjust Range mm	Breaking Load kg
162402	2.5	3/32	M5	153	5	7	65	600
162392	3	–	M5	155	5	7	65	600
162393	3	–	M6	175	6	8	65	1000
162403	–	1/8	M5	155	5	7	65	600
162404	–	1/8	M6	175	6	8	65	1000
162407	4	5/32	M6	182	6	8	65	1000
162409	5	3/16	M8	213	8	11	80	1400
162406	5	3/16	M10	235	10	12	100	2200
162416	–	1/4	M10	235	10	14	100	2200



BLA Closed Body Turnbuckles - Stainless Steel Swage and Toggle

316 grade stainless steel swage and toggle turnbuckles.
Toggle allows twin axis articulation.

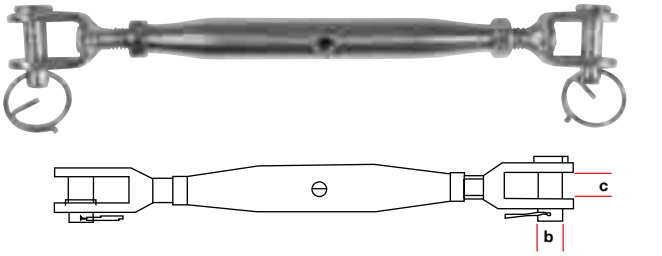
BLA Code	Wire Dia. mm	Wire Dia. in	Thread	a Closed mm	b mm	c mm	Adjust Range mm	Breaking Load kg
162411	–	1/8	M6	195	6	9	65	940
162412	4	5/32	M8	220	8	11	80	1800
162414	-	1/4	M12	310	12	15	110	3700



BLA Closed Body Turnbuckles - Stainless Steel Fork and Fork

316 grade stainless steel closed body.
Pressed and welded stainless steel fork ends.

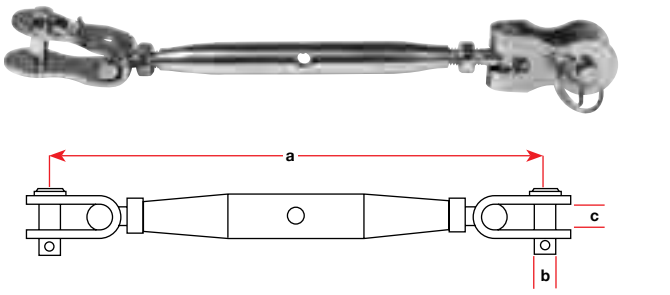
BLA Code	Thread	a Closed mm	b mm	c mm	Adjust Range mm	Breaking Load kg
163012	M5	125	5	10	65	750
163014	M6	135	6	9	65	1400
163016	M8	170	8	11	80	2200
163018	M10	190	10	12	100	3450
163020	M12	245	12	14	110	5000
163026	M16	320	16	22	160	8000



BLA Closed Body Turnbuckles - Stainless Steel Toggle and Toggle

316 grade stainless steel closed body.
Toggle ends for greater articulation.

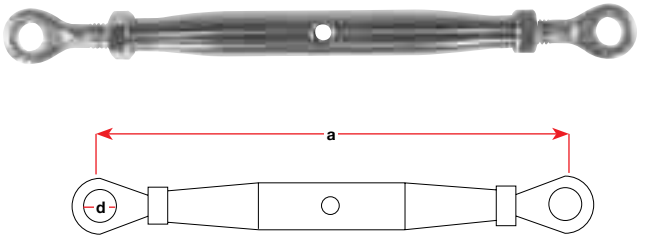
BLA Code	Thread	a Closed mm	b mm	c mm	Adjust Range mm	Breaking Load kg
163032	M5	135	5	7	65	700
163034	M6	170	6	9	65	1100
163036	M8	180	8	11	80	1800
163038	M10	228	10	15.5	90	3000



BLA Closed Body Turnbuckles - Stainless Steel Eye and Eye

316 grade stainless steel closed body. Fixed eye either end.

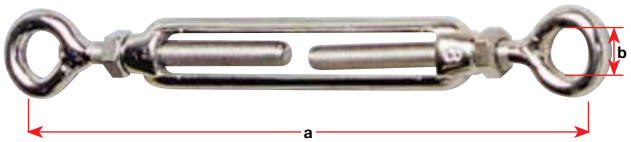
BLA Code	Thread	a Closed mm	d mm	Adjust Range mm	Breaking Load kg
163100	M5	135	5.5	65	750
163102	M6	135	6.5	65	1000
163104	M8	170	8.5	80	2200



BLA Open Body Turnbuckles

- Stainless Steel Eye and Eye

Eye and eye, 316 grade cast stainless steel open body. Rolled and welded stainless steel eyes.

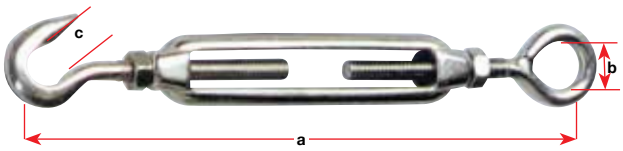


BLA Code	Thread	a mm	b mm	Breaking Load kg
163050	M4	100-145	8	475
163052	M5	120-170	10	680
163054	M6	150-220	12	1500
163056	M8	200-290	13	2300
163058	M10	240-360	16	3100
163060	M12	305-475	19	4400
163064	M16	370-570	22	8100

BLA Open Body Turnbuckles

- Stainless Steel Hook and Eye

Hook and eye, 316 grade cast stainless steel open body. Forged stainless steel hook one end, rolled and welded stainless steel eye the other end.

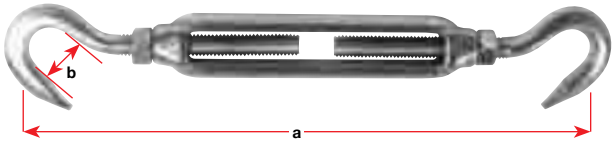


BLA Code	Thread	a mm	b mm	c mm	Breaking Load kg
163082	M4	100-145	8	8	100
163084	M5	120-170	10	9	130
163086	M6	150-220	12	10	350
163088	M8	200-290	13	10	650
163090	M10	240-360	16	12	800
163092	M12	305-475	19	16	1400

BLA Open Body Turnbuckles

- Stainless Steel Hook and Hook

Hook and hook, 316 grade cast stainless steel open body. Forged stainless steel hook ends.

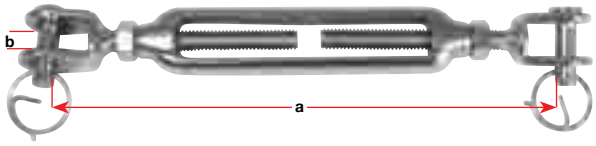


BLA Code	Thread	a mm	b mm	Breaking Load kg
163120	M4	100-145	8	100
163122	M5	120-170	9	130
163124	M6	150-220	10	350
163126	M8	200-290	10	650
163128	M10	240-360	12	800
163130	M12	305-475	16	1400

BLA Open Body Turnbuckles

- Stainless Steel Fork and Fork

Fork and fork, 316 grade cast stainless steel open body. Pressed and welded stainless steel fork ends.

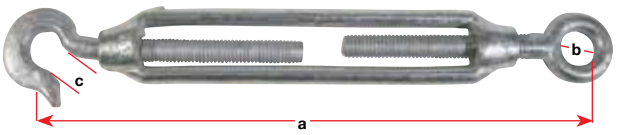


BLA Code	Thread	a mm	b mm	Pin Dia. mm	Breaking Load kg
163154	M5	110-165	10	5	750
163156	M6	130-200	9	6	1400
163158	M8	170-265	11	8	2200
163160	M10	210-330	12	10	3450
163162	M12	280-450	14	12	5000

BLA Open Body Turnbuckles

- Galvanised Hook and Eye

Hook and eye, die cast electro galvanised open body. Commercial grade. Suitable for light weight applications in tensioning systems.

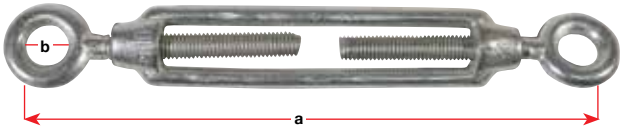


BLA Code	Thread	a mm	b mm	c mm
163202	M5	100-150	8	6
163204	M6	130-205	10	8
163206	M8	165-250	12	10
163208	M10	205-320	15	11
163240	M12	260-425	16	13

BLA Open Body Turnbuckles

- Galvanised Eye and Eye

Eye and eye, die cast electro galvanised open body. Commercial grade. Suitable for light weight applications in tensioning systems.



BLA Code	Thread	a mm	b mm
163222	M5	100-150	8
163224	M6	130-205	10
163226	M8	165-250	12
163228	M10	205-320	15
163250	M12	260-425	16

BLA Snap Hooks - Stainless Steel

316 grade stainless steel standard snap hooks. Inward opening.

163982

163982P

BLA Code	Qty	Length mm	Rod Dia. mm	Max. Opening mm	Deforms At kg
163982	1	50	5	7	220
163982P	1	50	5	7	220
163982B10	10	50	5	7	220
163984	1	60	6	8	270
163984P	1	60	6	8	270
163986	1	80	8	11	500
163986P	1	80	8	11	500
163988	1	100	10	13	720
163990	1	120	11	18	800

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Snap Hooks

- Stainless Steel Ferrule Eye

316 grade stainless steel standard snap hooks. Inward opening. Ferrule eye fitted.

164002

164002P

BLA Code	Qty	Length mm	Rod Dia. mm	Max. Opening mm	Deforms At kg
164002	1	50	5	7	220
164002P	1	50	5	7	220
164002B10	10	50	5	7	220
164004	1	60	6	8	270
164004P	1	60	6	8	270
164004B10	10	60	6	8	270
164005	1	70	7	9	360
164005P	1	70	7	9	360
164006	1	80	8	11	500
164006P	1	80	8	11	500
164006B5	5	80	8	11	500
164008	1	100	10	13	720
164009	1	120	11	18	800
164010	1	140	12	22	900

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Safety Snap Hooks

- Stainless Steel

316 grade stainless steel snap hook with spring loaded safety latch to prevent accidental opening. Inward opening.

164016

BLA Code	Length mm	Rod Dia. mm	Max. Opening mm	Deforms At kg
164016	80	8	10	500
164018	100	10	12	720

BLA Carbine Hooks

- Stainless Steel

316 grade stainless steel carbine hooks. Inward opening. Spring loaded opening gate. Threaded locking sleeve. Ferrule eye fitted.

164026

164024P

BLA Code	Qty	Length mm	Rod Dia. mm	Max. Opening mm	Deforms At kg
164024	1	60	6	8	450
164024P	1	60	6	8	450
164026	1	80	8	9	720
164026P	1	80	8	9	720
164028	1	100	10	12	1090
164032	1	140	12	18	1460

'P' - Denotes packaged item

BLA Asymmetric Snap Hooks

- Stainless Steel

316 grade stainless steel snap hooks that feature a torsion spring gate. Only one moving part. Inward opening.

164044

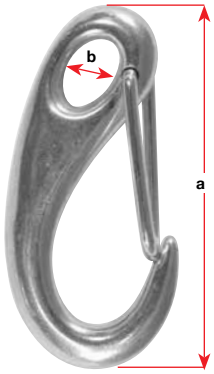
164044P

BLA Code	Qty	Length mm	Rod Dia. mm	Max. Opening mm	Deforms At kg
164044	1	60	6	12	750
164044P	1	60	6	12	750
164046	1	80	8	17	1750
164046P	1	80	8	17	1750
164046B5	5	80	8	17	1750
164048	1	100	10	22	2250
164050	1	120	12	28	3650

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Snap Hooks - Stainless Steel

Cast 316 grade stainless steel snap hook. Smooth, snag free design. Simple but positive torsion spring gate. Only one moving part. Inward opening.



164072

164044P

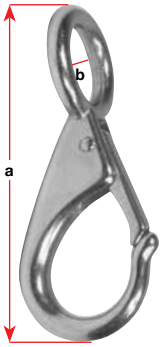
BLA Code	Qty	a mm	b mm	Max. Opening mm	Deforms At kg
164072	1	50	6	11	220
164072P	1	50	6	11	220
164072B5	5	50	6	11	220
164074	1	70	10	12	500
164074P	1	70	10	12	500
164074B5	5	70	10	12	500
164076	1	95	15	20	900

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Fixed Eye Snap Hooks

- Stainless Steel

Cast 316 grade stainless steel construction. Large fixed eye head. Coil spring loaded, inward opening gate.



164096

BLA Code	a mm	b mm	Max. Opening mm	Break Load kg
164092	55	11	9	160
164094	73	16	9	200
164096	88	19	13	300

BLA Swivel Eye Snap Hooks

- Stainless Steel

Cast 316 grade stainless steel construction. Large swivel bale head. Coil spring loaded, inward opening gate.

164108

164102P

BLA Code	Qty	a mm	b mm	Max. Opening mm	Break Load kg
164102	1	67	15	8	150
164102P	1	67	15	8	150
164104	1	85	21	10	170
164104P	1	85	21	10	170
164106	1	100	21	11	250
164108	1	118	22	13	340

'P' - Denotes packaged item

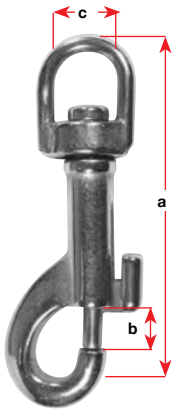
Swivel & Fixed Eye Snap Hooks - Brass

Cast brass snap hook. Large swivel or fixed bale head option available. Coil spring loaded, inward opening gate.

BLA Code	Type	a mm	b mm	Max. Opening mm
164204	Swivel	80	17	9
164214	Fixed	71	17	9

BLA Swivel Eye Bolt Snap - Stainless Steel

316 grade, cast stainless steel hook with swivel bale head and spring loaded trigger bolt action.



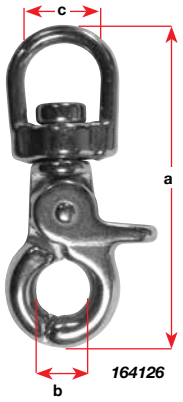
164390

BLA Code	Qty	a mm	b mm	c mm	Break Load kg
164390	1	64	7	10	180
164390P	1	64	7	10	180
164392	1	90	9	18	650

'P' - Denotes packaged item

BLA Swivel Eye Tiger Snap Hook - Stainless Steel

316 grade, cast stainless steel snap hook with swivel bale head. Features easy wide opening, single handed scissor action opening. Spring loaded.



164126

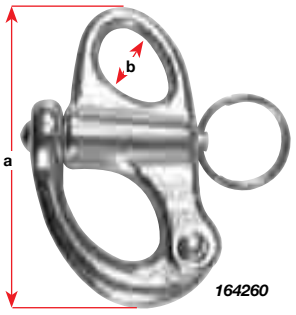
BLA Code	Qty	a mm	b mm	c mm	Break Load kg
164126	1	50	10.5	13	200
164126P	1	50	10.5	13	200

'P' - Denotes packaged item

BLA Fixed Snap Shackles

- Stainless Steel

Economical cast 316 grade stainless steel snap shackle with fixed eye. Features plunger action, quick release firing pin and an off centre hinge pin.



164260

BLA Code	Qty	a mm	b mm	Break Load kg
164260	1	32	6	400
164260P	1	32	6	400
164262	1	55	10	1100
164262P	1	55	10	1100
164264	1	71	15	2000
164266	1	100	17	3500

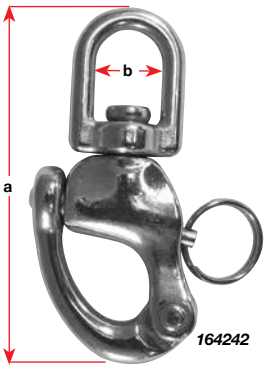
164260P

'P' - Denotes packaged item

BLA Swivel Snap Shackles

- Stainless Steel

Economical, cast 316 grade stainless steel snap shackle with small swivel bale head. Features plunger action, quick release firing pin and an off centre hinge pin.

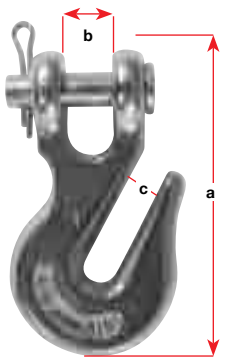


164242

BLA Code	a mm	b mm	Break Load kg
164242	70	13	1100
164244	86	14	2000
164246	125	20	3500

BLA Clevis Grab Hooks - Stainless Steel

Cast 316 grade stainless steel hook designed to engage chain links. Hooks stamped with imperial chain size. No SWL rating for lifting purposes. Commonly used on anchor snubbers.

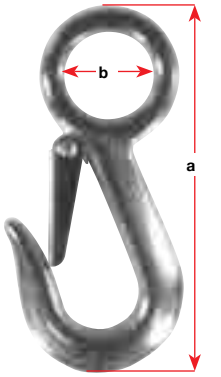


BLA Code	Chain mm	Chain in	a mm	b mm	c mm
164302	6	1/4	79	11	8
164304	8	5/16	95	12	10
164306	10	3/8	108	15	12
164308	13	1/2	143	19	15

BLA Eye Snap Hook

- Stainless Steel

Cast 316 grade stainless steel snap hook with large fixed eye and safety latch.

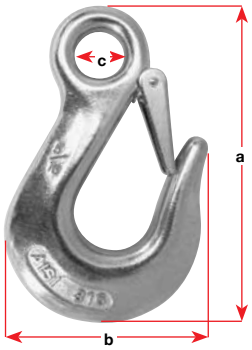


BLA Code	a mm	b mm	Max. Opening mm	Break Load kg
164098	115	28	23	1000

BLA Eye Snap Hooks

- Stainless Steel

Cast 316 grade stainless steel eye snap hook with safety latch. No SWL rating for lifting purposes.



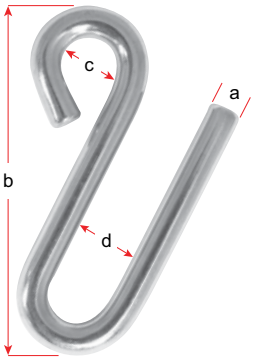
164344

BLA Code	a mm	b mm	c mm	Max. Opening mm
164342	90	60	13	15
164344	107	67	16	17
164346	123	80	18	15

BLA 'S' Hooks

- Stainless Steel

Polished 304 grade stainless steel 'S' hook.



164402

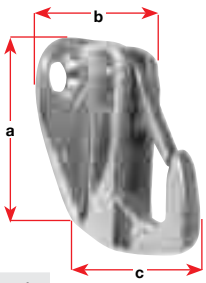
BLA Code	Qty	a mm	b mm	c mm	d mm
164402	1	6	63	10	11
164402P	1	6	63	10	11
164404	1	8	77	16	17
164404P	1	8	77	16	17
164406	1	9	85	18	20

'P' - Denotes packaged item

Marine Town® Bulkhead Mount Snap Hooks

- Stainless Steel

Cast 316 grade stainless steel bulkhead mount snap hook. Coil spring loaded gate.



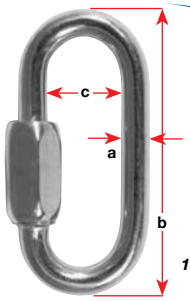
164430

BLA Code	a mm	b mm	c mm	Max. Opening mm	Mount Holes mm
164430	36	33	24	6	4 c/s
164432	42	29	32	12	4 c/s

BLA Quick Links

- Stainless Steel

316 grade stainless steel. Threaded hexagon locknut supports the link when closed, while providing quick opening and secure closure.



164506

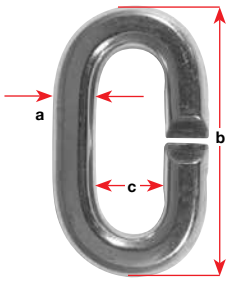
BLA Code	Qty	a mm	b mm	c mm	Max. Opening mm	Break Load kg
164504	1	4	40	11	5	1400
164504P	1	4	40	11	5	1400
164505	1	5	50	13	6	2250
164505P	1	5	50	13	6	2250
164506	1	6	58	15	8	3250
164506P	1	6	58	15	8	3250
164508	1	8	74	18	10	5500
164510	1	10	90	22	12	9000

'P' - Denotes packaged item

BLA 'C' Rings

- Stainless Steel

316 grade stainless steel.



164524

BLA Code	a mm	b mm	c mm
164524	9	54	14
164525	11	67	17
164526	13	77	20
164528	16	96	24

Sister Clip

- Stainless Steel

316 grade stainless steel sister clip with ferruled eye for rope. Suitable for water skiing, flag halyards and similar.

BLA Code	Length mm	Width mm	Eye Dia. mm	Thickness mm
164540	37	23	11	3

Sister Clip - Nylon

Injection moulded U.V. stabilised white nylon construction. Primarily used on flag halyards.

BLA Code	Qty	Length mm	Width mm	Eye Dia. mm	Thickness mm
164466	1	42	27	10	8
164466P	2	42	27	10	8

'P' - Denotes packaged item

Snap Hooks

- Nylon Shock Cord

Moulded black nylon hooks with quick fit locking collar mechanism for shock cord, to produce a neat and secure termination.

BLA Code	Cord Dia. mm	Length mm	Hook Opening mm
(A) **164446**	5-6	44	6
(B) **164448**	8	70	13

Snap Hook - Nylon

Injection moulded U.V. stabilised white nylon construction. Versatile design.

BLA Code	Length mm	Width mm	Thickness mm	Rope Dia. mm
164450	60	25	6	10

Marine Town® Snap Hooks

- Nylon

Injection moulded U.V. stabilised nylon construction. Shock cord or rope end knot fits neatly into base.

164452

BLA Code	Colour	Cord Dia. mm	Length mm	Hook Opening mm
164452	Black	4-5	43	6
164454	White	5-6	51	7
164455	Black	5-6	51	7
164456	White	8	58	7
164457	Black	8	58	7

Marine Town® Sail Tie Olive

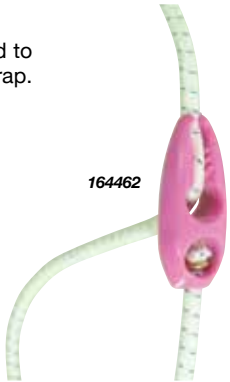
- Plastic

Injection moulded, black plastic. Designed to fasten up to 6mm shock cord in quick release integrated jaws, after forming loop to go around an anchoring point. Commonly used for sail ties, but has many other uses around the boat.

BLA Code
164460

Shock Cord Lashing Strap

Length of shock cord with olive clip fitted to produce loop type, adjustable lashing strap. Commonly used as sail ties.

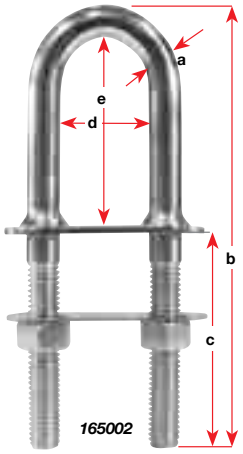

164462

BLA Code	Clip Colour	Cord Dia. mm	Length mm
164462	Pink	5	550
164464	Lilac	6	750

Marine Town® Deluxe Bow 'U' Bolts

- Stainless Steel

316 grade stainless steel 'U' bolts with welded face plate to provide superior sealing. Includes backing plate and nuts.

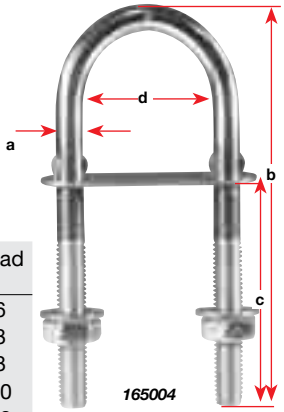


BLA Code	a mm	b mm	c mm	d mm	e mm	Thread
165000	9	115	76	26	27	3/8" UNC
165001	12.7	110	63	33	34	1/2" UNC
165002	12.7	166	80	33	70	1/2" UNC
165003	12.7	158	107	33	32	1/2" UNC

BLA 'U' Bolts

- Stainless Steel

304 grade stainless steel 'U' bolts. Crimped top plate stops. Supplied with top plate, washers and nuts.

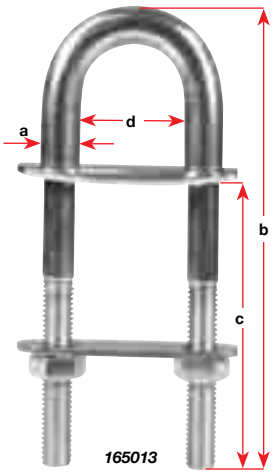


BLA Code	a mm	b mm	c mm	d mm	Thread
165004	5	90	54	30	M6
165006	7	80	47	27	M8
165008	7	100	60	28	M8
165010	9	130	74	42	M10
165011	9	130	85	41	M10
165012	11	152	80	50	M12

BLA 'U' Bolts

- Stainless Steel

316 grade stainless steel. Stepped shank provides bearing surface for the curved top plate. Backing plate and nuts included.

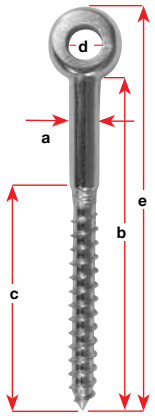


BLA Code	a mm	b mm	c mm	d mm	Thread
165013	10	76	35	25	M8
165014	10	90	50	25	M8
165016	10	115	75	25	M8
165017	10	140	100	25	M8

BLA Eye Head Lag Screws

- Stainless Steel

Forged 316 grade stainless steel eye head lag screw. Ideal for balustrade work on timber frame balconies, decks and similar.



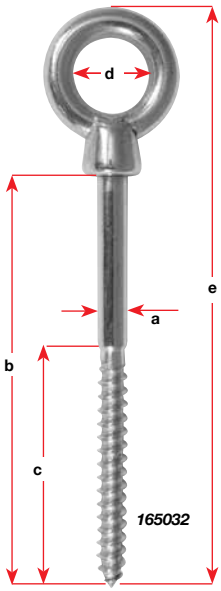
165020

BLA Code	a mm	b mm	c mm	d mm	e mm
165018	6	40	30	6.3	55
165020	6	60	40	6.3	75
165022	8	60	40	8.4	75
165024	10	80	55	10	100
165026	12	100	63	12	125

BLA Eye Head Lag Screws

- Stainless Steel Large

Forged 316 grade stainless steel large collared eye head lag screws. Ideal for attachment to timber where access prevents an eye bolt being used.



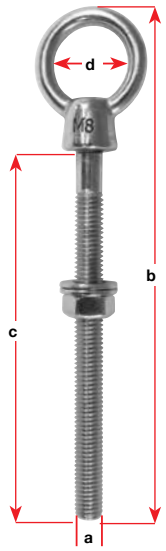
165032

BLA Code	a mm	b mm	c mm	d mm	e mm
165032	6	80	45	14	113
165034	8	80	45	18	120
165036	10	100	66	22	155
165038	12	120	72	27	185

BLA Eye Bolts

- Stainless Steel

316 grade stainless steel eye bolt with cast, collared head. Supplied with nut and washer.



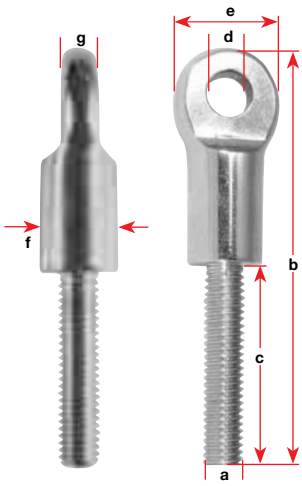
165046

BLA Code	a Thread	b mm	c mm	d mm	Break Load kg
165044	M6	110	80	16	1110
165046	M8	140	100	20	1300
165048	M10	170	120	25	2600
165050	M12	200	140	30	3400

BLA Anchor Bolts

- Stainless Steel

316 grade stainless steel anchor bolt. Compact design commonly used in balustrading applications.

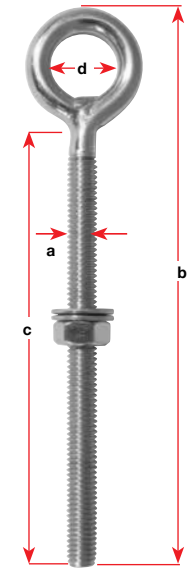


BLA Code	a Thread	b mm	c mm	d mm	e mm	f mm	g mm
165056	M6	58	27	6.5	14	11	5

BLA Eye Bolts

- Stainless Steel

304 grade stainless steel eye bolt with rolled, welded eye. One piece construction, supplied with nut and two washers.



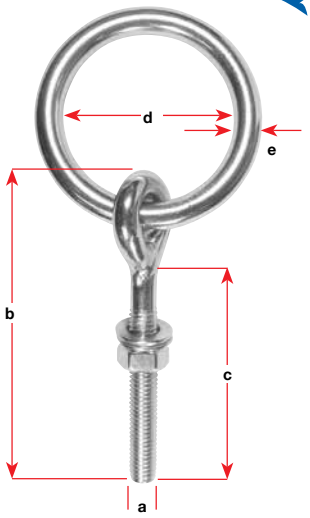
165066

BLA Code	a Thread	b mm	c mm	d mm	Break Load kg
165062	M6	70	45	13	1000
165064	M6	90	65	13	1000
165066	M6	110	85	13	1000
165068	M8	118	85	17	1800
165070	M8	137	105	17	1800
165071	M10	130	90	21	2400
165072	M10	150	110	21	2400
165074	M12	135	85	25	3500
165075	M12	175	125	25	3500

BLA Ring Bolts

- Stainless Steel

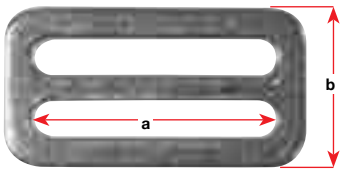
304 grade stainless steel eye bolt with rolled, welded eye and ring. Supplied with nut and two washers.



BLA Code	a Thread	b mm	c mm	d mm	e mm	Break Load kg
165082	M8	85	60	45	8	1800

BLA Buckles - Stainless Steel

Polished 316 grade stainless steel slotted buckles. Commonly used to adjust the length of webbing straps.

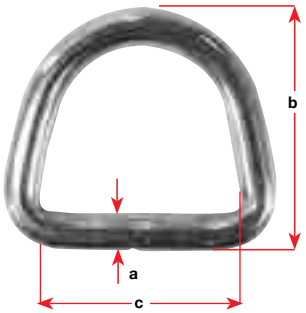


165202

BLA Code	a mm	b mm	Thickness mm
165202	25	17	2
165204	50	32	3

BLA 'D' Rings - Stainless Steel

Polished 304 grade stainless steel welded 'D' ring. Ideal for use with webbing.

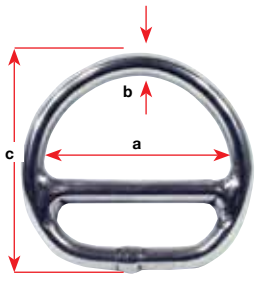


165224

BLA Code	a mm	b mm	c mm
165224	4	30	25
165225	5	31	25
165226	5	55	50
165228	6	47	40
165232	6	60	50
165240	8	60	50

BLA Clew Ring – Stainless Steel

Polished 304 grade stainless steel welded clew ring, primarily for use in sail making, sun shades and for general webbing use.

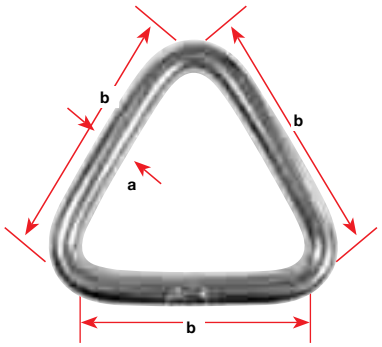


165248

BLA Code	a mm	b mm	c mm	Break Load kg
165248	45	6	52	1800
165250	45	8	58	2800
165251	50	8	62	2800

BLA Triangles - Stainless Steel

Polished 304 grade stainless steel, welded triangles. Ideal for use with webbing.

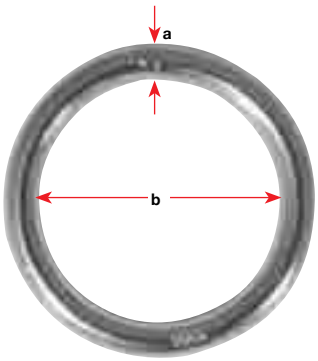


165260

BLA Code	a mm	b mm
165254	4	20
165258	5	45
165260	6	40

BLA Rings - Stainless Steel

Polished 304 grade stainless steel welded rings.



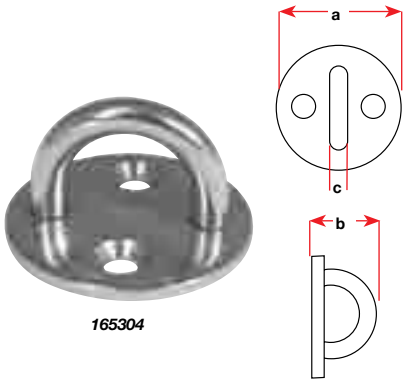
165124

BLA Code	Qty	a mm	b mm
165104	1	4	25
165104B10	10	4	25
165106	1	4	35
165108	1	5	25
165110	1	5	35
165114	1	6	25
165114B10	10	6	25
165116	1	6	40
165116B10	10	6	40
165118	1	6	50
165124	1	8	50
165128	1	8	75
165134	1	10	75
165136	1	10	100
165138	1	12	120

'B' - Denotes bulk packed item

BLA Pad Eyes - Stainless Steel

Polished 304 grade stainless steel pad eyes with round base. Pressed base plate, rolled and welded saddle.



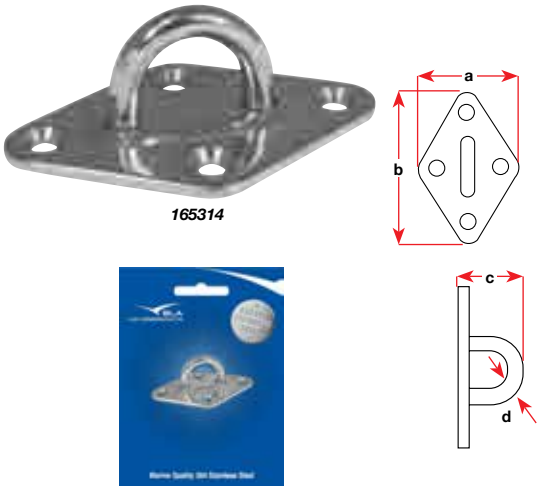
165304

BLA Code	Qty	a mm	b mm	c mm	Mount Screws mm	Break Load kg
165304	1	33	21	5	4 c/s	700
165304B10	10	33	21	5	4 c/s	700
165306	1	40	25	6	4 c/s	1000
165308	1	50	32	8	4 c/s	1600

'B' - Denotes bulk packed item

BLA Pad Eyes - Stainless Steel

Polished 304 grade stainless steel pad eyes with diamond base. Pressed base plate, rolled and welded saddle.



165314

165314P

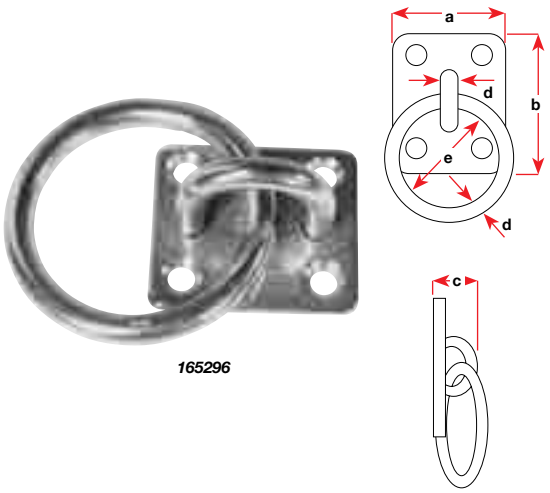
BLA Code	Qty	a mm	b mm	c mm	d mm	Mount Screws mm	Break Load kg
165314	1	37	59	21	5	4 c/s	700
165314P	1	37	59	21	5	4 c/s	700
165316	1	40	64	26	6	4 c/s	1000
165316P	1	40	64	26	6	4 c/s	1000
165318	1	50	80	33	8	5 c/s	1600

'P' - Denotes packaged item

BLA Pad Eye with Ring

- Stainless Steel

Polished 304 grade stainless steel pad eye with rectangular pressed plate, rolled and welded saddle and ring.



165296

BLA Code	a mm	b mm	c mm	d mm	e mm	Mount Screws mm	Break Load kg
165296	35	40	27	6	40	4 c/s	1000
165298	40	50	33	8	50	4 c/s	1600

BLA Pad Eyes - Stainless Steel

Polished 304 grade stainless steel pad eyes with rectangular base. Pressed base plate, rolled and welded saddle.

165324

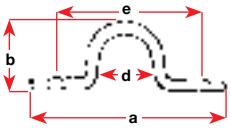
165324P

BLA Code	Qty	a mm	b mm	c mm	d mm	Mount Screws mm	Break Load kg
165324	1	35	40	27	6	4 c/s	1000
165324P	1	35	40	27	6	4 c/s	1000
165324B10	10	35	40	27	6	4 c/s	1000
165326	1	40	50	33	8	4 c/s	1600
165326P	1	40	50	33	8	4 c/s	1600

'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Saddles - Stainless Steel

316 grade pressed stainless steel construction.



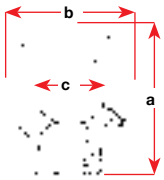
BLA Code	a mm	b mm	c mm	d mm	e mm	Mount Screws mm
165330	36	15	9	12	27	4 r/h
165332	48	18	11	15	37	5 r/h
165334	48	18	11	15	37	5 c/s

BLA Eye Nuts

- Stainless Steel

Cast 316 grade stainless steel eye nut (metric thread).

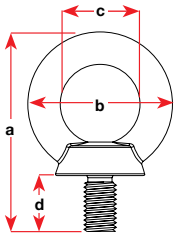
BLA Code	a mm	b mm	c mm	Thread	Break Load kg
165382	31	26	16	M6	1100
165384	39	31	20	M8	1300
165386	48	41	25	M10	2600
165388	60	50	30	M12	3400
165392	70	59	34	M16	8000



BLA Eye Bolts

- Stainless Steel

Cast 316 grade stainless steel, short eye bolt with collar (metric thread).

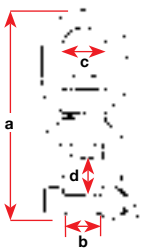


BLA Code	a mm	b mm	c mm	d mm	Thread mm	Break Load kg
165398	41	27	16	13	M6	1300
165400	50	35	20	13	M8	2000
165402	62	45	25	17	M10	2600

BLA Eye and Fork Swivels

- Stainless Steel

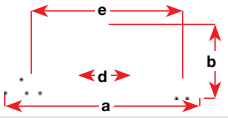
Cast 316 grade stainless steel eye and fork swivels. Welded nut pivot bolt. Drilled jaw pin for security tie wire. Not SWL rated for lifting purposes.

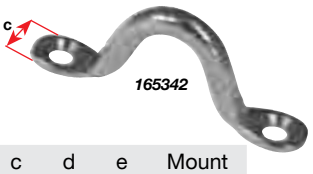


BLA Code	a mm	b mm	c mm	d mm	Pin Dia. mm	Break Load kg
165474	66	12	15	11	6	1200
165476	88	16	20	16	8	1900
165478	112	20	24	21	10	3500
165480	146	26	33	26	12	5000

BLA Saddles - Stainless Steel

Polished 304 grade stainless steel saddles. Pressed rod construction.





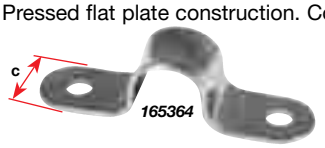
BLA Code	Qty	a mm	b mm	c mm	d mm	e mm	Mount Screws mm
165342	1	52	18	9	19	40	4 c/s
165342P2	2	52	18	9	19	40	4 c/s
165342P4	4	52	18	9	19	40	4 c/s
165342B10	10	52	18	9	19	40	4 c/s
165342B50	50	52	18	9	19	40	4 c/s
165344	1	61	22	11	21	43	5 c/s
165344P2	2	61	22	11	21	43	5 c/s
165344B10	10	61	22	11	21	43	5 c/s
165346	1	69	23	15	24	52	5 c/s
165346P2	2	69	23	15	24	52	5 c/s
165346B10	10	69	23	15	24	52	5 c/s

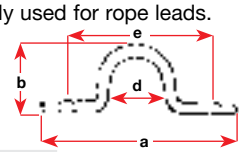
'B' - Denotes bulk packed item
'P' - Denotes packaged item

BLA Flared Saddles

- Stainless Steel

Polished 304 grade stainless steel flared top saddles. Pressed flat plate construction. Commonly used for rope leads.



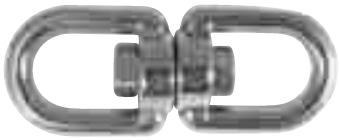


BLA Code	a mm	b mm	c mm	d mm	e mm	Mount Screws mm
165364	42	11	11	10	31	4 r/h

BLA Eye and Eye Swivels

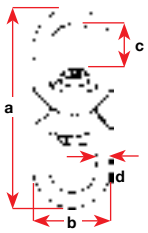
- Stainless Steel

Cast 316 grade stainless steel eye and eye swivels. Welded nut pivot bolt. Not SWL rated for lifting purposes.



BLA Code	Qty	a mm	b mm	c mm	d mm	Break Load kg
165452	1	65	26	15	6	1200
165452P	1	65	26	15	6	1200
165454	1	90	35	21	8	1900
165456	1	114	44	27	10	3500
165458	1	150	57	33	12	5000
165462	1	186	68	42.5	16	8500

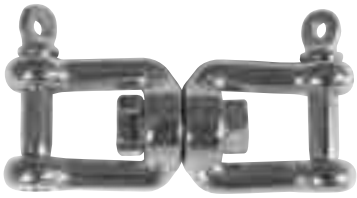
'P' - Denotes packaged item

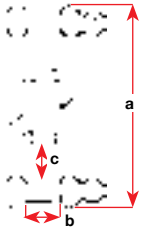


BLA Fork and Fork Swivels

- Stainless Steel

Cast 316 grade stainless steel fork and fork swivels. Welded nut pivot bolt. Drilled jaw pins for security tie wire. Not SWL rated for lifting purposes.

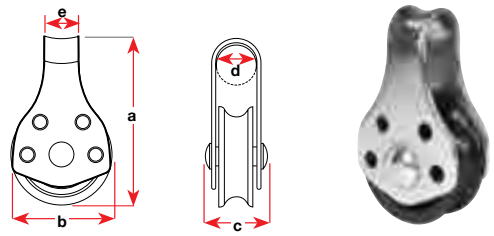




BLA Code	a mm	b mm	c mm	Pin Dia. mm	Break Load kg
165494	64	12	11	6	1200
165496	87	16	16	8	1900
165498	112	20	21	10	3500
165500	152	26	26	12	5000

Single Block - Stainless Steel

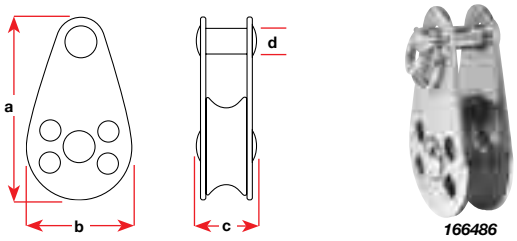
Stainless steel cheeks with single black nylon sheave.



BLA Code	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	e mm
166490	6	43	25	16	9.5	9

Single Blocks - Stainless Steel

Stainless steel cheeks with single black nylon sheave. Choice of rivet top or removable clevis pin.



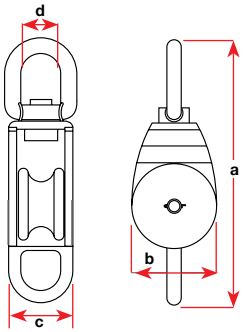
166486

BLA Code	Top Type	Max. Rope Dia. mm	a mm	b mm	c mm	d mm
166484	Rivet	6	45	25	16	6
166486	Pin	6	45	25	16	5

Single Block And Beckets

- Stainless Steel

Stainless steel cheeks with single, brass bushed nylon sheave. Swivelling bale head. Heavy duty construction for commercial applications.



166532

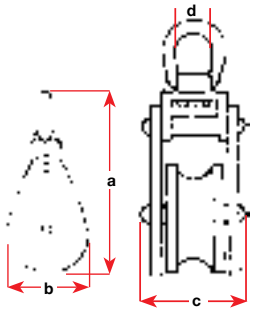
BLA Code	Sheave Dia. mm	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	MWL kg
166532	25	10	82	30	23	13	375
166534	32	12	114	36	27	14	425
166536	50	14	148	54	39	19	700

MWL – Maximum Working Load

Single Blocks

- Stainless Steel

Stainless steel cheek blocks with choice of single, brass bushed stainless steel or nylon sheave. Swivelling bale head. Heavy construction for commercial applications.



166504

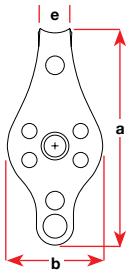
BLA Code	Sheave Dia. mm	Mat	Max. Rope. Dia mm	a mm	b mm	c mm	d mm	MWL kg
166501	25	Nylon	10	89	27	23	13	375
166504	32	S/steel	12	104	36	22	15	425
166506	32	Nylon	12	104	36	22	15	425
166512	50	S/steel	14	143	54	28	19	700
166514	50	Nylon	14	143	54	28	19	700

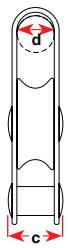
MWL – Maximum Working Load

Single Block and Becket

- Stainless Steel

Stainless steel cheeks, single black nylon sheave plus becket to start the rope in a 2:1 purchase system with the single block above.



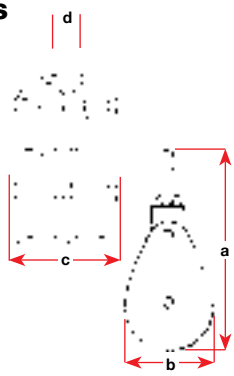


BLA Code	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	e mm
166494	6	59	25	16	9.5	9

Double Blocks

- Stainless Steel

Stainless steel cheek block with double, brass bushed nylon sheaves. Swivelling bale head. Heavy construction for commercial applications.



166544

BLA Code	Sheave Dia. mm	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	MWL kg
166540	25	10	89	27	40	13	375
166544	32	12	104	36	40	15	425
166546	50	14	143	54	51	19	700

MWL – Maximum Working Load

Cable Steering Pulley

- Stainless Steel

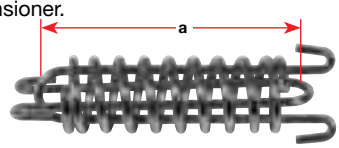
Stainless steel load straps and swivel ring head with white nylon, wire rope grooved sheave. Supplied complete with stainless steel mounting saddle. Commonly used with PVC coated steering cable.

BLA Code	Max. Wire Dia. mm	Sheave Dia. mm
166652	5	58

Marine Town® Cable Tensioner Spring - Stainless Steel

Marine Town

Stainless steel, tension spring commonly used in mechanical cable and pulley steering systems. Also used as a guy rope tensioner.



BLA Code	Wire Dia. mm	a mm
166662	3	110

Trawl Blocks

- Stainless Steel

Heavy duty, stainless steel trawl blocks with single, brass bushed stainless sheave and swivelling bale head. Pressed cheeks. Heavy duty cast straps. Through bolted construction allows the block to be dismantled for installation and servicing. Welded ring becket.

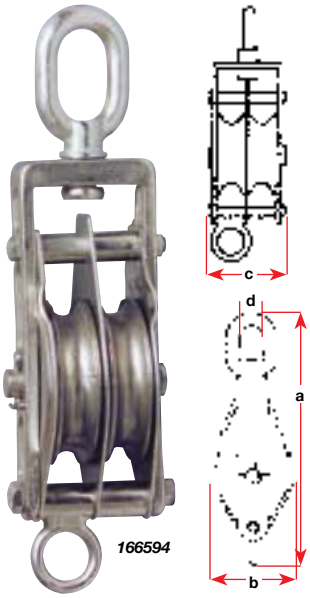
BLA Code	Sheave Dia. mm	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	MWL kg
166584	75	14	255	83	51	24	875
166586	100	16	320	112	60	24	1375

MWL – Maximum Working Load

Double Trawl Blocks

- Stainless Steel

Heavy duty, stainless steel trawl blocks with double, brass bushed stainless sheaves and swivelling bale head. Pressed cheeks. Heavy duty cast load straps. Through bolted construction allows the block to be dismantled for installation and servicing. Welded ring becket.



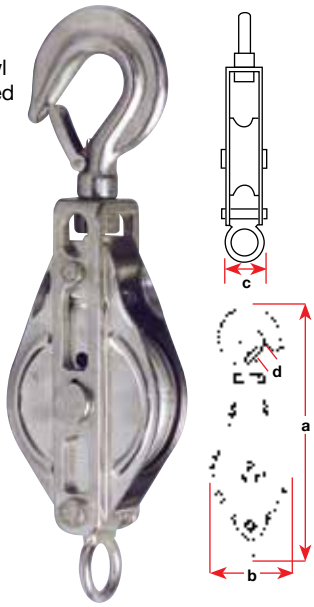
BLA Code	Sheave Dia. mm	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	MWL kg
166594	75	14	255	83	74	24	875
166596	100	16	320	112	86	24	1375

MWL – Maximum Working Load

Trawl Block

- Stainless Steel With Hook

Heavy duty, stainless steel trawl blocks with single, brass bushed stainless sheave and swivelling hook head. Cast hook is fitted with a spring loaded retainer gate. Removable sheave. Heavy duty, cast load straps.



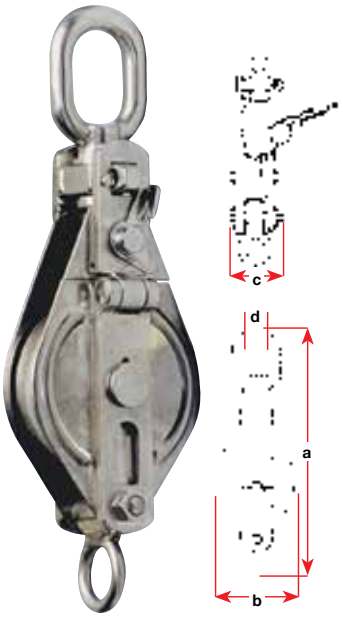
BLA Code	Sheave Dia. mm	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	MWL kg
166604	75	14	270	83	51	17	875

MWL – Maximum Working Load

Snatch Block

- Stainless Steel

Heavy duty stainless steel trawl snatch blocks with single, brass bushed stainless sheave and swivelling bale head. Hinged cheek to one side enables quick connection to lines. Pressed cheeks, heavy duty cast load straps. Removable sheave. Welded ring becket.



BLA Code	Sheave Dia. mm	Max. Rope Dia. mm	a mm	b mm	c mm	d mm	MWL kg
166616	100	16	320	112	60	24	1375

MWL – Maximum Working Load

Steering Cable - Galvanised PVC Covered

PVC covered, 6 x 7 galvanised wire rope. Suitable for steering cable or light industrial/architectural applications. Supplied on a flanged reel. 5mm diameter including PVC coating. 3mm wire diameter.

BLA Code	Roll Length
167010	150 metres

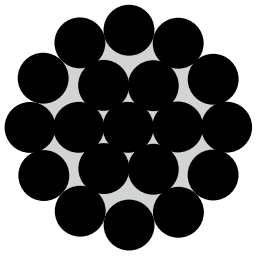
Stainless Steel Wire Rope - 316 Grade

Available in three different styles of construction - 1 x 19, 7 x 19 and 7 x 7. 316 grade stainless steel offers a higher level of corrosion resistance than 304 grade due to the higher content of nickel and the addition of molybdenum.

1 x 19 Rigging Wire - 316 grade

1 x 19 construction wire is formed from 19 strands of wire. Suited to standing rigging, static load bearing, architectural use and most non-flexible applications. It has high tensile strength, low stretch and low flexibility.

BLA Code	Diameter mm	Diameter in	Breaking Load kg	Grams per m	Roll Size m
167130	–	1/16	220	12.59	305
167133	–	3/32	485	29.73	305
167148	3	–	756	44.60	305
167134	–	1/8	870	52.07	305
167135	–	5/32	1340	81.97	305

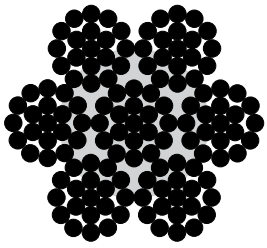


1 x 19 Rigging Wire

7 x 19 Rigging Wire - 316 grade

7 x 19 construction is formed from seven strands, 19 wires per strand. Suited to running rigging, control cables and most flexible applications. It has increased stretch and reduced tensile strength.

BLA Code	Diameter in	Breaking Load kg	Grams per m	Roll Size m
167231	1/16	190	11.15	305
167232	5/64	255	17.38	305
167233	3/32	370	24.98	305
167234	1/8	695	43.11	305
167250	1/8	695	43.11	1000
167235	5/32	960	66.89	305
167236	3/16	1450	96.72	305
167238	1/4	2540	163.61	305

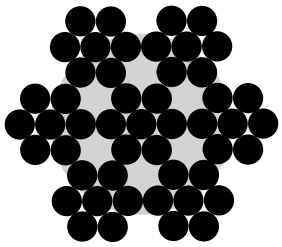


7 x 19 Rigging Wire

7 x 7 Rigging Wire - 316 grade

7 x 7 construction is formed from seven strands of seven wires. Suited to semi flexible applications such as balustrading, lifelines and irrigation applications.

BLA Code	Diameter mm	Diameter in	Breaking Load kg	Grams per m	Roll Size m
167288	–	1/16	190	11.15	305
167290	–	5/64	255	17.38	305
167292	–	3/32	370	24.98	305
167293	3	–	585	35.40	305
167294	–	1/8	695	43.41	305
167296	–	5/32	1030	67	305



7 x 7 Rigging Wire

Marine Town® Splicing Fids

- Stainless Steel

Made from stainless steel, with timber handle. Suitable for splicing three strand rope, wire rope and rope to wire.

167522

BLA Code	Length mm
167522	170
167524	280

Shackle Key - Stainless Steel

316 grade stainless steel, suitable for screw pin and slotted head shackles. Includes bottle opener, 8mm, 10mm and 13mm open end spanner. 32mm wide by 100mm long.

BLA Code
167536

Wire Cutter

Remarkably powerful for a hand tool. The blade design groups the wire strands together and cuts in one operation, providing a clean cut ready for swaging. Maximum wire size is 4mm.

BLA Code	Length mm
167620	200

Wire Cutter

Commercial quality wire cutters. Drop forged aluminium handles. The blade design gathers the wire for a clean cut. Tempered hardened alloy steel jaws.

BLA Code	Maximum Wire mm	Length mm
167622	6	340

Wire Cutter

Economical high leverage wire cutter. The blade design gathers the wire for a clean cut.

BLA Code	Maximum Wire mm	Length mm
167626	9	720

Clamp Hex Pliers - Bench Mount

CLAMP

Specifically designed for swaging stainless steel terminals, bench mounted with the curved handle design allowing for simple operation. Jaws are alloy tool steel, hardened and tempered and pre-adjusted ready for use. As with the models above, handles can be adjusted after long periods of use. Tested to hold breaking strain of wire when applied correctly.

BLA Code	Wire Size mm	Length mm	Mount Base mm	Mount Height mm
167590	2/2.5/3	1050	300 x 375	175

Clamp Swage Pliers

Hand tools used to apply copper and alloy swages to rigging wire. Jaws are made from alloy tool steel, hardened and tempered, pre-adjusted ready for use. After a period of time wear in the handles may occur. Adjustment for this wear can easily be made by turning the jaw bolt arrow inward one notch towards the centre of the jaw. For correct adjustment, check that the handles spring open after closing to leave a gap of approximately 7mm between the handle stops.

167570

167572

167574

167576

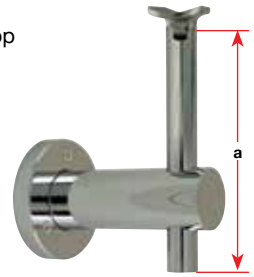
BLA Code	Length mm	Wire Size mm
167570	320	1.0/1.5/2.0/2.5
167572	635	1.5/2.0/2.5/3.0
167574	780	4.0/5
167576	780	6

Modular Architectural Railing System

- All components are polished 316 grade stainless steel
- Modular system, no webbing, easy installation
- Suits a wide range of applications with minimal components
- Commercial, residential or industrial
- Decking and balcony rails, balustrade rails, pool fencing, stairway hand rails, invalid rails and similar.
- Infills can be wire, glass or acrylic
- Options for stainless steel or timber, top and hand rails
- All tube fittings are sized to suit 2" 16 gauge imperial tube

Hand Rail Bracket - Angled

50mm diameter base with three hole fastening for secure wall attachment. Accepts 48mm to 2" diameter rail. Top rail mount pivots to accommodate slopping installations and stairways. Polished finish, 316 grade stainless steel construction.



BLA Code	Rail Mount Base mm	Protrusion mm	a Height mm	Wall Mount Holes mm	Rail Mount Holes mm
168210	80 x 28	94	84	5 c/s	5 r/h

Domed Cap - Cast Stainless Steel

Spherical end fits inside 2" tube. Commonly used as railing end cap. Same radius as tube makes these caps very safe with no hard corners to catch. Polished finish, cast 316 grade stainless steel construction.

BLA Code	Tube in	Tube gauge
168106	2	16

Internal Post Mount Flange

- Cast Stainless Steel

Fits internally into 2" tube. Provides secure mounting of posts for balustrading, pool fencing and similar. Can also be installed with **168115** cover to hide mount fastenings. Polished finished, cast 316 grade stainless steel construction.

BLA Code	Tube in	Tube gauge	Base Dia mm	Mount Holes mm
168114	2	16	104	8 c/s

Post Mount Cover

- Pressed Stainless Steel

Fits over 2" tube fitted to **168114** post mount flange, to hide mount fastenings. Polished finish pressed stainless steel construction.

BLA Code	Tube in	Tube gauge	OD Dia mm	Post Hole mm	Height mm
168115	2	16	106	51	30

Oblong Mount Flange

- Cast Stainless Steel

Fits externally around the end of 2" tube. Flat sides for close to edge installations. Uses include post bases and rail to wall connection. Polished finish cast 316 grade stainless steel construction.

BLA Code	Tube in	Tube gauge	Base mm	Height mm	Mount Holes mm
168118	2	16	70 x 105	30	8 c/s

Rail Wall Mount Bracket

- Cast Stainless Steel

Fits externally over the end of 2" tube. Provides 135° angled end connection of stairway rails to wall. Polished finished, cast 316 grade stainless steel construction.

BLA Code	Tube in	Tube gauge	Height mm	Width mm	Protrusion mm	Mount Holes mm
168120	2	16	130	70	55	6 c/s

Side Fit Joiner

One end fits inside 2" tube. The other is rivetted or screwed to the side of an adjacent 2" tube. Provides 90º connection while maintaining the uninterrupted aesthetics and rigidity of the adjacent tube.

BLA Code	in	Tube gauge	Rivet Holes mm	Screw Hole mm
168130	2	16	5	6

90º Corner Joiner - Cast Stainless Steel

Both ends insert in 2" tube. Provides 90º corner connection of rails or post to rail. Flush finish when installed. Polished finish, cast 316 grade stainless steel construction.

BLA Code	in	Tube gauge
168140	2	16

90º Long Radius Corner Joiner - Cast Stainless Steel

Both ends insert in 2" tube. Provides 90º corner connection. Long radius for smooth flowing lines. Polished finish, cast 316 grade stainless steel construction.

BLA Code	in	Tube gauge	Outside Bend Radius mm
168142	2	16	65

'T' Joiner - Cast Stainless Steel

All three ends fit internally in 2" tube. Commonly used to connect post to top rail. Flush appearance when installed. Polished finish, cast 316 grade stainless steel construction.

BLA Code	in	Tube gauge
168148	2	16

90º Three Way Joiner - Cast Stainless Steel

All three ends fit internally in 2" tube. Provides rail corner and post connection with one fitting. Flush appearance when installed. Polished finish, cast 316 grade stainless steel construction.

BLA Code	Tube in	Tube gauge
168150	2	16

Adjustable Corner Joiner - Stainless Steel

Both ends fit internally in 2" tube. Provides corner joining at any angle through 190º arc. Polished finish, 316 grade stainless steel castings and 316 grade stainless steel cap screw.

BLA Code	Tube in	Tube gauge
168156	2	16

Straight Joiner - Cast Stainless Steel

Used to butt join 2" straight tube. Flush appearance when installed. Cast 316 grade stainless steel construction.

BLA Code	Tube in	Tube gauge	Length mm
168158	2	16	63

Top Rail Support - Stainless Steel

Provides hand rail attachment to top of low walls on mezzanines and balconies. Accepts 48mm to 2" diameter rails. Polished finish, cast 316 grade stainless steel construction.

BLA Code	Base Dia. mm	Rail Mount mm	Height mm	Base Mount Holes mm	Rail Mount Holes mm
168220	60	80 x 28	60	5 c/s	5 r/h

HATCHES & VENTILATION

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Lewmar® Hatches and Portlights

LEWMAR

Manufactured in England, the quality range of Lewmar® hatches and portlights offer a huge variety of sizes and styles perfectly suited to both OEM users and the retail replacement market. The Lewmar® range features industry leading construction and are manufactured from silver anodised extruded aluminium fitted with quality acrylic lenses ranging in thickness from 8mm to 12mm.

Lewmar® Hatch - Low Profile

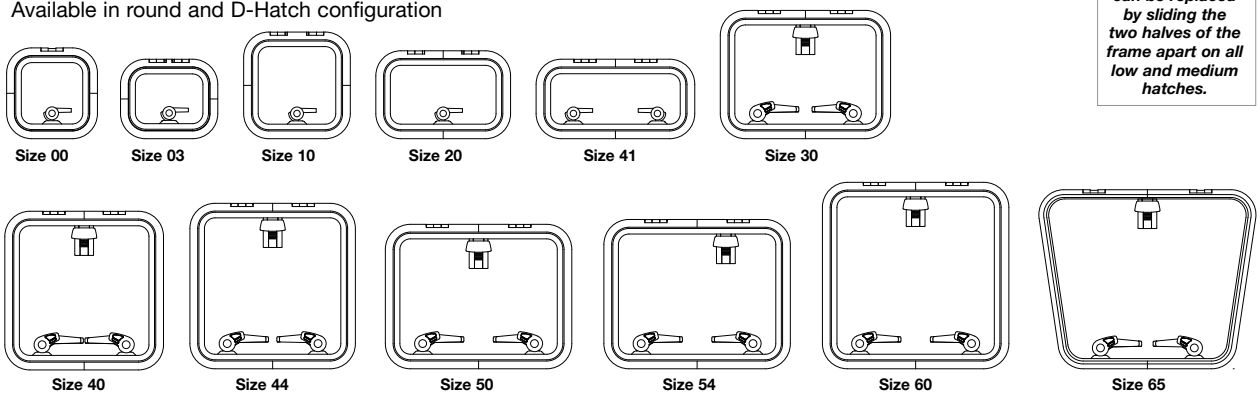
The Low Profile hatch range features a snag free soft styling which presents a sleek modern look. The range is ideal for use on a wide range of power craft and yachts. The smaller ventilation hatches are ideally suited to any deck location over toilets or galleys. The larger Low Profile hatch range can be used as a foredeck hatch on small to mid size power and sailboats. The hatch also features Lewmar's unique sealing system allowing easy acrylic replacement.

Features:

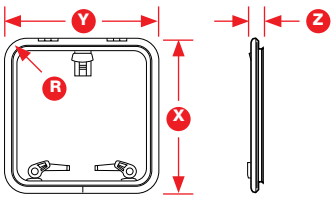
- Size 30 and above feature outside handles
- Ability to quickly and easily replace acrylic lenses
- Ability to lock the hatch fully closed or in the vented position
- Friction hinges hold the lid open in any position up to 95 degrees
- Anodised aluminium frame for corrosion resistance
- Curved upper frame for strength as well as modern styling
- CE Approved for Area 2A
- Available in round and D-Hatch configuration

Hatch Seal

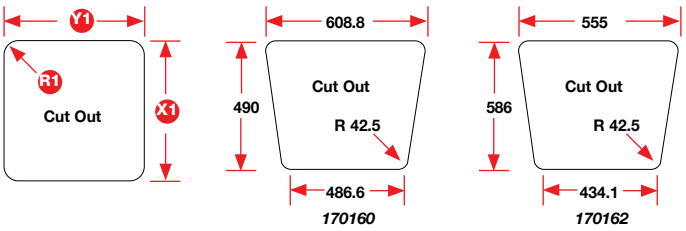
Acrylic or seal can be replaced by sliding the two halves of the frame apart on all low and medium hatches.



Low Profile Hatch Dimensions



Low Profile Hatch Cut Out s



BLA Code Friction Hinge	BLA Code with Stay	Size	Outside X x Y L x W mm	Cut Out X1 x Y1 L x W mm	Radii R mm	Radii R1 mm	Height Z mm	Acrylic mm	Internal Trim Kit & Insect Screen	Internal Trim Kit Colour	Insect Screen Only to Suit
170050	-	00	281 x 281	211 x 211	72.5	42.5	25	8	**170200**	White	**170240**
170052	-	03	246 x 301	176 x 231	72.5	42.5	25	8	**170202**	White	**170241**
170054	**170056**	10	330 x 330	260 x 260	72.5	42.5	25	8	**170204**	White	**170242**
170058	-	20	272 x 417	202 x 347	72.5	42.5	25	8	**170208**	White	**170246**
170060	**170062**	30	397 x 527	327 x 457	72.5	42.5	25	8	**170214**	White	**170250**
170064	**170066**	40	491 x 491	421 x 421	72.5	42.5	25	8	**170216**	White	**170252**
170068	-	41	246 x 491	176 x 421	72.5	42.5	25	8	**170218**	White	**170254**
170070	**170072**	44	512 x 512	442 x 442	72.5	42.5	25	8	**170220**	White	**170256**
170074	**170076**	50	447 x 577	377 x 507	72.5	42.5	25	8	**170222**	White	**170258**
170078	**170080**	54	462 x 577	392 x 507	72.5	42.5	25	8	**170226**	White	**170262**
170082	**170084**	60	577 x 577	507 x 507	72.5	42.5	25	10	**170228**	White	**170264**
170160	-	65	560 x 675 x 560	490 x 608.8 x 486.6	72.5	42.5	25	10	**170230**	White	**170266**
170162	-	65	658.3 x 629 x 504.5	586 x 555 x 434.1	72.5	42.5	25	10	-	-	-

N.B. Insect screens can only be used with trim kits. Trims also available in Ivory.

Accessories:

172180	Handle Kit Small - LH	**SP17170280**	Joining Insert
172181	Handle Kit Small - RH	**SP17170292**	Hinge Kit (Friction)
172196	Large Handle Kit Size 30+	**SP17170268**	Friction Lever
SP17170260	Catch Block	**SP17170296**	Hinge Caps x10
SP17170266	Large Gasket Friction Lever	**SP17170376**	Handle Hatch External LP MP (Pair)

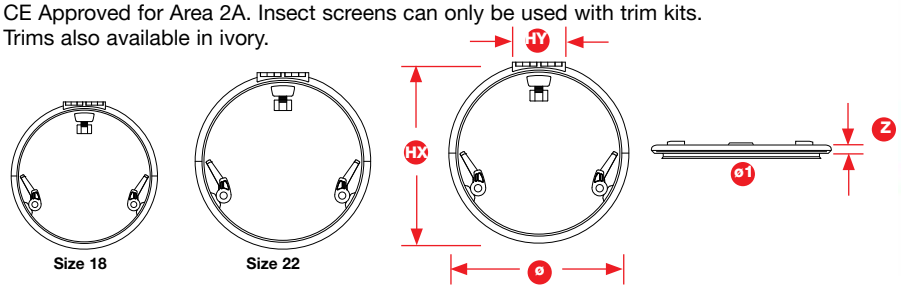
- To order replacement Acrylic with Seal, please contact BLA on **1300 252 725** with the following information:
  Hatch overall size W x L x H
  Serial Number embossed in the acrylic
  Friction Lever or Telescopic Stay type

Lewmar® Hatch - Round Low Profile

LEWMAR

Lewmar's Round Low Profile hatch range offers foredeck hatch solutions with no corners to catch sails as they are pulled in from below deck.

CE Approved for Area 2A. Insect screens can only be used with trim kits. Trims also available in ivory.



Low Profile Hatch Dimension and Cut Out

Acrylic or seal can be replaced by sliding the two halves of the frame apart on all low and medium hatches.

BLA Code	Size	Outside Ø Diameter mm	Cut Out Ø1 Diameter mm	Hinge Length HX mm	Hinge Width HY mm	Height Z mm	Acrylic mm	Internal Trim Kit & Insect Screen	Trim Colour	Insect Screen Only to Suit
170164	18	490	420	493	141	25	8	**170206**	White	**170244**
170166	22	588	518	591	173	25	10	**170212**	White	**170248**
								170213	Ivory	**170248**

Spare Parts:

SP17170288 Joining Insert t/s Round & D Low Profile

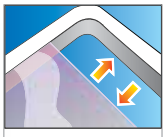
Lewmar® Hatch - Medium Profile

LEWMAR

Manufactured to exacting standards, the Lewmar® Medium Profile range provides a smooth profile with modern lines, similar to the Low Profile range. The hatch has been designed with deeper frame sections for greater strength and thicker acrylic for durability. The Medium Profile hatches include Lewmar's unique sealing system which allows for easy acrylic replacement if ever required. Ideal as a foredeck hatch on larger cruisers and offshore yachts.

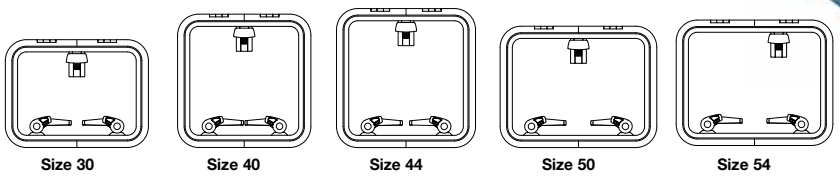
Features:

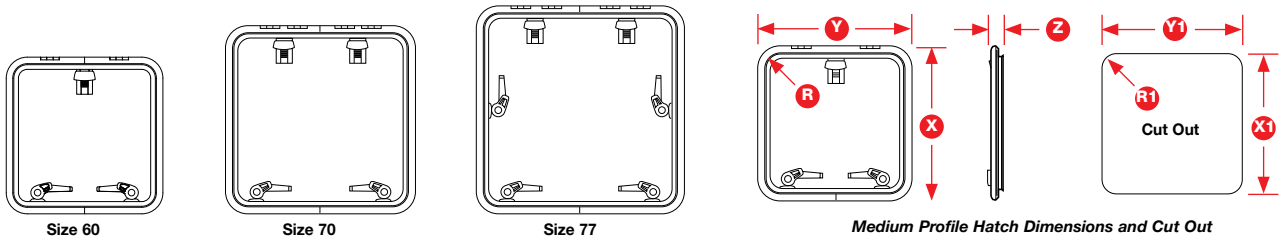
- Outside handles
- Ability to lock the hatch fully closed or in the vented position
- Ability to quickly and easily replace acrylic lens
- Friction levers hold the lid open in any position up to 95˚
- Anodised aluminium frame for corrosion resistance
- Curved upper frame for strength as well as modern styling
- CE approved to Area 2A



Acrylic or seal can be replaced by sliding the two halves of the frame apart on all low and medium hatches.

Hatch Seal





Medium Profile Hatch Dimensions and Cut Out

BLA Code Friction Hinge	BLA Code with Stay	Size	Outside X x Y L x W mm	Cut Out X1 x Y1 L x W mm	Radii R mm	Radii R1 mm	Height Z mm	Acrylic mm	Internal Trim Kit & Insect Screen	Internal Trim Kit Colour	Insect Screen Only to Suit
170094	-	30	398 x 528	327 x 457	78	42.5	32	12	**170214**	White	**170250**
170096	-	40	492 x 492	421 x 421	78	42.5	32	12	**170216**	White	**170252**
170098	-	44	513 x 513	442 x 442	78	42.5	32	12	**170220**	White	**170256**
170100	-	50	448 x 578	377 x 507	78	42.5	32	12	**170222**	White	**170258**
170102	-	54	463 x 578	392 x 507	78	42.5	32	12	**170226**	White	**170262**
170104	-	60	578 x 578	507 x 507	78	42.5	32	12	**170228**	White	**170264**
170106	**170108**	70	698 x 698	627 x 627	78	42.5	32	12	**170232**	White	**170268**
170110	-	77	770 x 770	699 x 699	78	42.5	32	12	-	-	-

N.B. Insect screens can only be used with trim kits. Trims also available in Ivory

Accessories:

172196	Large Handle Kit Size 30+	**SP17170292**	Hinge Kit (Friction)
SP17170260	Catch Block	**SP17170268**	Friction Lever
SP17170280	Joining Insert	**SP17170296**	Hinge Caps x10
SP17170266	Large Gasket Friction Lever	**SP17170376**	Handle Hatch External LP MP (Pair)

- To order replacement Acrylic with Seal, please contact BLA on **1300 252 725** with the following information:
  - Hatch overall size W x L x H
  - Serial Number embossed in the acrylic
  - Friction Lever or Telescopic Stay type

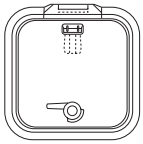
Lewmar® Hatch - Ocean

LEWMAR

The Ocean hatch range are a traditional styled deck hatch with a heavy duty aluminium frame; available with or without internal flange. Manufactured to exacting standards, the Ocean hatch range has been fitted to thousands of boats worldwide. Designed to provide offshore cruisers and yachts the ultimate in durability, strength, safety and protection. The Ocean hatch has been engineered with deeper frame sections for greater strength and utilises thick acrylic for durability.

Features:

- Outside handles
- Ability to lock the hatch fully closed or in the vented position
- Friction levers hold the lid open in any position up to 95˚
- Anodised aluminium frame for corrosion resistance
- Available with flat base or internal flange
- CE approved for Area 2A



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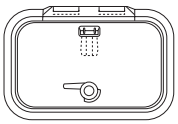

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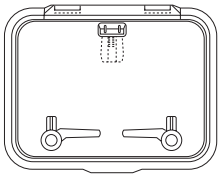

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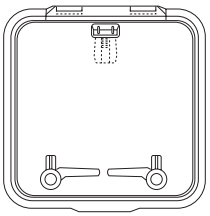

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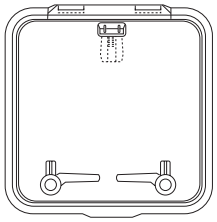
Flange Base

Flat Base



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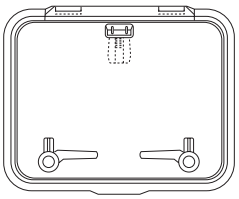

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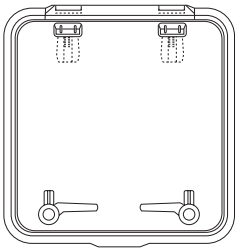

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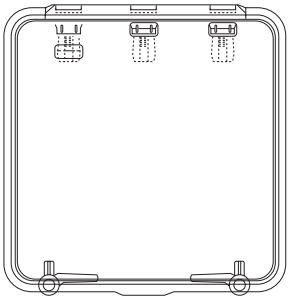

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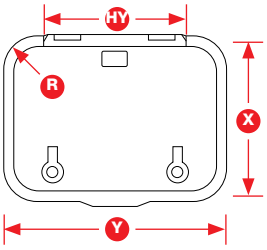
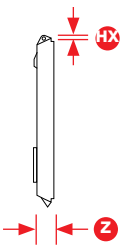
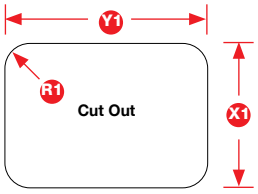
Ocean Hatch Dimensions





Ocean Hatch Cut Out



BLA Code	Base Type	Size	Outside X x Y L x W mm	Cut Out X1 x Y1 L x W mm	Radii R mm	Radii R1 mm	Height Z mm	Acrylic mm	Hinge Length HX mm	Hinge Length HY mm	Internal Trim Kit & Insect Screen	Trim Colour	Insect Screen Only to Suit
170114	Flat	10	324 x 324	255 x 255	75	40	39.5	10	5	138	-	-	-
170115	Flange	10	324 x 324	260 x 260	75	42.5	39.5	10	5	138	**170204**	White	**170242**
170116	Flat	20	266 x 411	197 x 342	69	34	39.5	10	5	225	-	-	-
170117	Flange	20	266 x 411	202 x 347	69	36.5	39.5	10	5	225	**170210**	White	**170246**
170118	Flat	30	391 x 521	322 x 452	75	40	39.5	10	5	335	-	-	-
170119	Flange	30	391 x 521	327 x 457	75	42.5	39.5	10	5	335	**170214**	White	**170250**
170120	Flat	40	485 x 485	416 x 416	75	40	39.5	10	5	299	-	-	-
170121	Flange	40	485 x 485	421 x 421	75	42.5	39.5	10	5	299	**170216**	White	**170252**
170122	Flat	44	509 x 509	437 x 437	76	40	43	12	4	302	-	-	-
170123	Flange	44	509 x 509	442 x 442	76	42.5	43	12	4	302	**170220**	White	**170256**
170132	Flat	50	444 x 574	372 x 502	76	40	43	12	4	367	-	-	-
170133	Flange	50	444 x 574	377 x 507	76	42.5	43	12	4	367	**170222**	White	**170258**
170134	Flat	60	574 x 574	502 x 502	76	40	43	12	4	367	-	-	-
170135	Flange	60	574 x 574	507 x 507	76	42.5	43	12	4	367	**170228**	White	**170264**
170136	Flat	70	694 x 694	622 x 622	76	40	43	12	4	487	-	-	-
170137	Flange	70	694 x 694	627 x 627	76	42.5	43	12	4	487	**170232**	White	**170268**

N.B. Trim kits can not be used with flat base hatch. Insect screen can only be used with trims. Trim kits also available in ivory.

Accessories:

172196	Large Handle Kit Size 30+	**SP17170302**	Friction Lever 30-40
172180	Small Handle Kit Size 10 and 20	**SP17170304**	Friction Lever 50-77
SP17170300	Friction Lever 00-20	**SP17170262**	Catch Block
		SP17170368	Outside Handle (Pair)

Lewmar® Hatch - Pilot

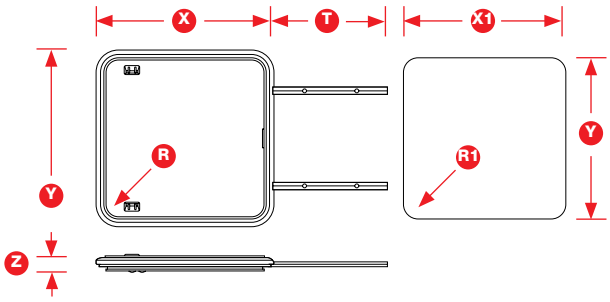
LEWMAR

Lewmar's Pilot hatch range has been designed for use in areas such as above helm positions, cockpit roofs or fly-bridge areas. Complementary styling cues have been taken from the Low and Medium Profile hatch range to create a harmonious look.

Features:

- Opens up and ventilates enclosed areas
- Conveniently placed opening handlebar mechanism which rotates to seal down the hatch
- Sliding technology from Lewmar's racing hardware track systems, ensuring minimum friction
- CE approved for Area 3

Pilot Hatch Dimensions and Cut Out



BLA Code	Size	Frame Colour	Lower Frame Flange	Outside X x Y L x W	Cut Out X1 x Y1 L x W	Radii R	Radii R1	Height Z	Acrylic Colour Tint	Acrylic	Track Length
			mm	mm	mm	mm	mm	mm		mm	mm
170170	40	Silver	15	465 x 491	421 x 421	72.5	42.5	29	Grey	10	284
170172	60	Silver	15	581 x 577	507 x 507	72.5	42.5	29	Grey	10	373
170173	70	Silver	15	701 x 697	625 x 625	72.5	42.5	29	Grey	10	485
170174	78	Silver	15	844 x 790	770 x 720	72.5	42.5	29	Grey	10	638
170175	78	White	15	844 x 790	770 x 720	72.5	42.5	29	Grey	10	638

Accessories:

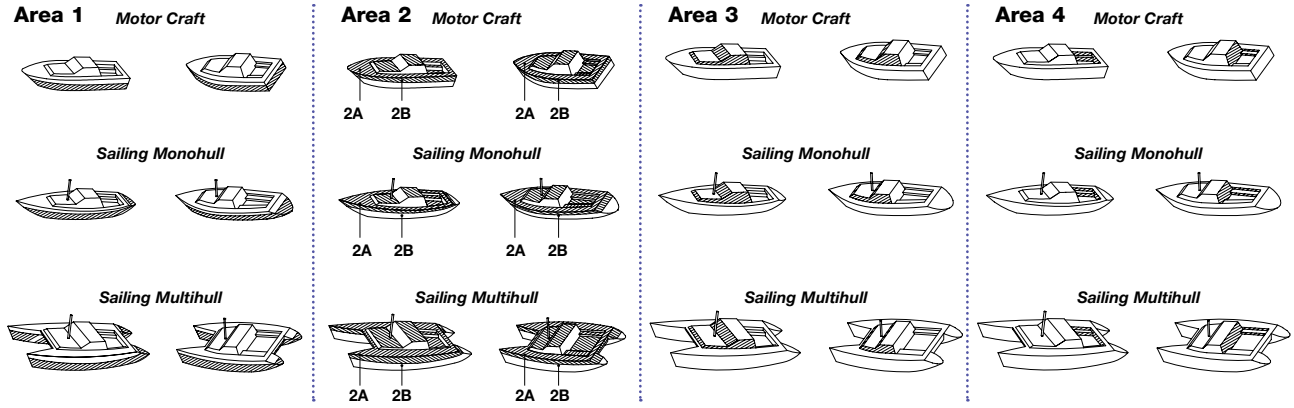
SP17170241 Track Cam Block & Track Follower

CE Regulations

The CE Regulations apply to craft up to 25m in length. Although the regulations may not apply to Australia, they are a useful guide for small craft. The regulations have design categories for boats based on their intended usage and propulsion (sail or power).

All Lewmar® hatches and portlights are for design category A (Ocean Sailing) or design category B (Offshore Sailing). The regulations divide up the hull and deck into four specific areas which are shown below.

For craft with a freeboard greater than $^{1}/_{12}$th of its overall length, the hull is split into Area 1 and Area 2B. A product that is suitable for fitting to an area for which it is approved is suitable for all the areas below its category.



Lewmar® Hatch Accessories

LEWMAR

BLA stocks a range of popular spare parts for replacement, including hatch seal kits, replacement acrylics, spare handles, hinge kits and friction levers. However, due to the vast variety within the Lewmar® range there will inevitably be spare parts that will need to be sourced from Lewmar®. Please contact BLA on **1300 252 725** or your Territory Manager directly if you cannot find the item you are looking for.

Lewmar® ABS Plastic Trim and Flyscreen

LEWMAR

- Easy and stylish way of finishing a hatch installation inside the cabin
- Trim kits come complete with an insect screen
- Can only be fitted to boats with a headliner
- Cannot be used on flat base Ocean hatches
- Makes it easier to access the handles when the insect screen is in place
- Only necessary to undo two tabs and the insect screen will hinge down—and not fall out
- Insect screen can be removed and stowed separately if required
- Hinges also available as retro fit items

Cut Out Dimensions and Deck Thickness Requirements

Cut Out Dimension Increase	Add 4mm to X1 & Y1 and 2mm to R1
Ocean	Min Hull Thickness = 25mm Max Hull Thickness = 72mm
Low and Medium Profile	Min Hull Thickness = 15mm Max Hull Thickness = 62mm

BLA Code	Colour
171120	White
SP17170226	Ivory

Spare Parts:

SP17170110 HA Wht Tabs & Screws (Bag of 8)

Lewmar® Retro-Fit Telescopic Hatch Stay

LEWMAR

Features excellent lid positioning and rigid control. The stay allows hatch opening up to 95˚. Fitting the stay requires drilling holes in the hatch lens. Full instructions and templates are provided.

BLA Code
172150

Lewmar® Retro-Fit Vent

LEWMAR

Manufactured from composite plastic for strength and durability, the Lewmar® air vent allows the exchange of stale cabin air while preventing water ingress. The vent can be fitted to any Lewmar® hatch or to a deck to a thickness of 100mm. Styled to match the Low and Medium profile hatches they include a captive bung to close the ventilator, which is leak tested. Simple installation with no sealant required.

BLA Code
172156
172157

Lewmar® Retro-Fit Lock and Key Kit

LEWMAR

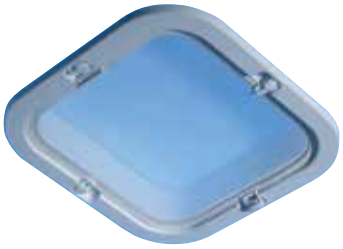
For security a simple lock and key set can be installed on any Lewmar® hatch by simply drilling through the acrylic and riveting a catch block to the lower hatch frame. All components are designed and manufactured for the harsh marine environment.

BLA Code
172160

Lewmar® Hatch Trim Kit with Insect Screen

LEWMAR

Size	Trim Colour White	Trim Colour Ivory
00	**170200**	**170201**
03	**170202**	**170203**
10	**170204**	**170205**
18 Round	**170206**	**170207**
20*	**170208**	**170209**
20 Ocean	**170210**	**170211**
22 Round	**170212**	**170213**
30	**170214**	**170215**
40	**170216**	**170217**
41	**170218**	**170219**
44	**170220**	**170221**
50	**170222**	**170223**
54	**170226**	**170225**
60	**170228**	**170229**
65	**170230**	**170227**
70	**170232**	**170231**



170200

**** Low and Medium Profile only***

Lewmar® Insect Screen Only to fit trim Kit

LEWMAR

Size	BLA Code
00	**170240**
03	**170241**
10	**170242**
18	**170244**
20	**170246**
22	**170248**
30	**170250**
40	**170252**
41	**170254**
44	**170256**
50	**170258**
54	**170262**
60	**170264**
65	**170266**
70	**170268**

170242

Lewmar® Portlights

LEWMAR®

Sold throughout the world, the Lewmar® range of opening and fixed portlights are ideal for anything from small powerboats to larger cruisers, trailer sailors to ocean going yachts. Lewmar® has designed and manufactured a range of portlights that are finished to the highest quality using anodised aluminium, stainless steel and acrylic. Features include opening portlights fitted with built in friction hinges and quick and secure locking handles. Simple ring type installation with threaded holes make mounting the portlight a simple one person operation.

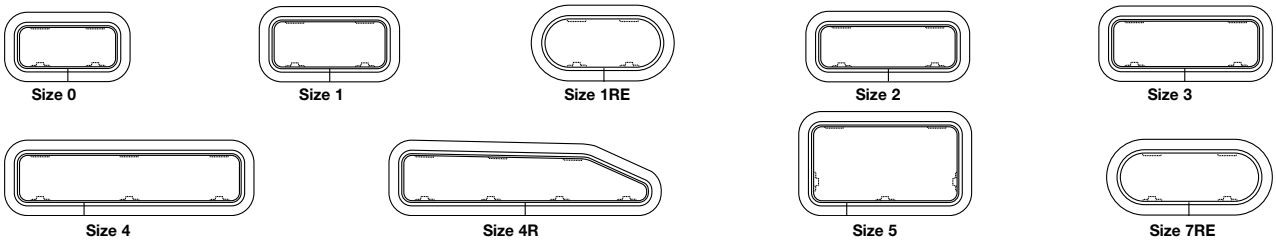
Lewmar® Portlight - Standard

The Standard Portlight sets the benchmark and is used in many of the world's production sail and power boats. The ease of installation and reliable finish make it popular for fitting into production boats, one off boat builds or as an addition or replacement in an existing boat.

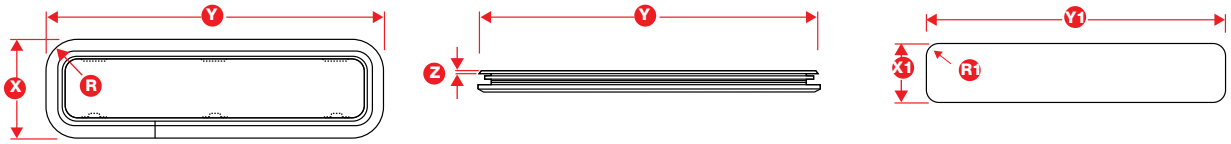
Features:

- Industry setting standard
- Aluminium outside frame, clean styling
- Handles and hinges are fitted to the edge of the lens to allow clear visibility
- Easily fitted by clamping cabin sides between inner and outer frame provided ABS plastic trim and insect screen available in white or ivory (no insect screen on 4R/4L)
- Friction hinges hold the window open
- CE Approved for Area 2A
- Also available in fixed version

Insect Screen



Standard Portlight Dimensions and Cut Out



BLA Code	Size	Version	Trim Colour	Acrylic Colour	Outside X x Y L x W mm	Cut Out X1 x Y1 L x W mm	Radii R mm	Radii R1 mm	Height Z mm	Acrylic mm
171020	0	Opening	White	Grey	176 x 323	156 x 303	62	52	4	6
171021	0	Opening	Ivory	Grey	176 x 323	156 x 303	62	52	4	6
171022	0	Opening	Ivory	Clear	176 x 323	156 x 303	62	52	4	6
171024	1	Opening	White	Grey	191 x 367	171 x 347	62	52	4	6
171026	1	Opening	Ivory	Grey	191 x 367	171 x 347	62	52	4	6
171032	1RE	Opening	Ivory	Grey	191 x 367	171 x 347	95.5	85.5	4	8
171034	2	Opening	White	Grey	176 x 425	156 x 405	62	52	4	8
171036	2	Opening	Ivory	Grey	176 x 425	156 x 405	62	52	4	8
171037	2	Opening	Ivory	Clear	176 x 425	156 x 405	62	52	4	8
171038	3	Opening	White	Grey	191 x 449	171 x 429	62	52	4	10
171039	3	Opening	Ivory	Grey	191 x 449	171 x 429	62	52	4	10
171040	4	Opening	White	Grey	191 x 646	171 x 626	62	52	4	8
171041	4	Opening	Ivory	Grey	191 x 646	171 x 626	62	52	4	8
171042	4R	Opening	White	Grey	195 x 708	175 x 688	62	52	4	8
171043	4R	Opening	Ivory	Grey	195 x 708	175 x 688	62	52	4	8
171044	4L	Opening	White	Grey	195 x 708	175 x 688	62	52	4	8
171048	5	Opening	White	Grey	264 x 449	244 x 429	62	52	4	10
171050	7RE	Opening	White	Grey	191 x 425	171 x 405	95.5	85.5	4	8

N.B. Standard portlights are also available in fixed versions.

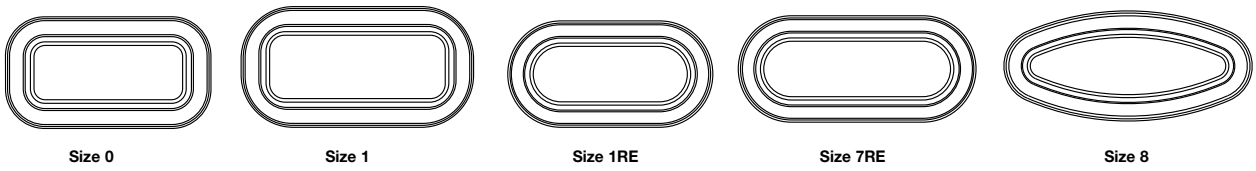
Lewmar® Portlight - Stainless Steel

LEWMAR

Manufactured from mirror polished stainless steel, these portlights are supplied fitted with friction hinges and low profile handles. The portlights present a modern clean look, thanks to the hinge positioning and integrated handles which allow a clear view. This range can be installed on 9mm to 30mm thick surfaces.

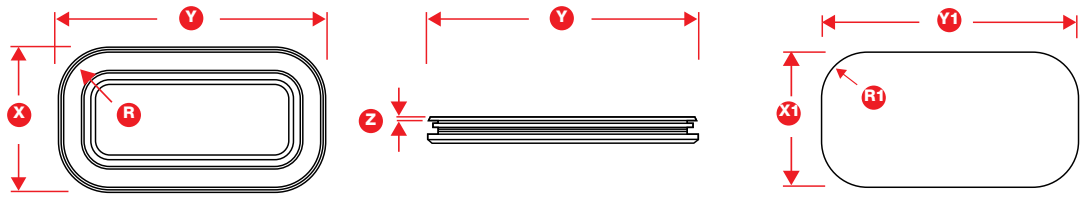
Features:

- Join-less polished stainless steel outer frame
- Handles and hinges are fitted to the outer edge of the lens for unobstructed visibility
- Quick action closing handles
- Friction hinges to hold the smoked acrylic window open
- White ABS trim (Chrome for size 8), including insect screen
- CE Approved for Area 2A



Size 0 | Size 1 | Size 1RE | Size 7RE | Size 8

Stainless Steel Portlight Dimensions and Cut Out



BLA Code	Size	Version	Trim Colour	Outside X x Y L x W mm	Cut Out X1 x Y1 L x W mm	Radii R mm	Radii R1 mm	Height Z mm	Acrylic mm
170980	0	Opening	White	176 x 323	156 x 303	62	52	4	8
170981	0	Fixed	White	176 x 323	156 x 303	62	52	4	10
170982	1	Opening	White	191 x 367	171 x 347	62	52	4	8
170983	1	Fixed	White	191 x 367	171 x 347	62	52	4	10
170984	1RE	Opening	White	191 x 367	171 x 347	95.5	85.5	4	10
170990	1RE	Fixed	White	191 x 367	171 x 347	95.5	85.5	4	10
170986	7RE	Opening	White	191 x 425	171 x 405	95.5	85.5	4	10
170987	7RE	Fixed	White	191 x 425	171 x 405	95.5	85.5	4	10
170988	8	Opening	Chrome	196 x 452	Refer Instructions	N/A	-	4	10
170989	8	Fixed	Chrome	196 x 452	Refer Instructions	N/A	-	4	10

Lewmar® Portlight - Round Stainless Steel

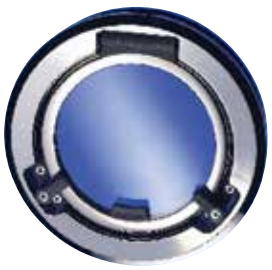
LEWMAR

Manufactured from mirror polished AISI 316 grade stainless steel, these portlights are supplied fitted with friction hinges and low profile handles. Internal trim is made of chrome ABS. Smoke grey acrylic window. Fits thicknesses from 8mm to 24mm and features a full 180˚ opening.

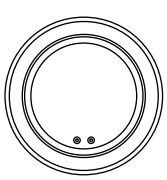
Features:

- Join-less polished stainless steel outer frame
- Handles and hinges are fitted to the outer edge of the lens for unobstructed visibility
- Quick action closing handles
- Friction hinges to hold the smoked acrylic window open
- Chrome ABS trim included
- CE Approved for Area 1B

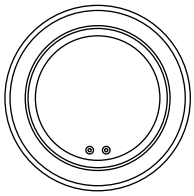
Outside



Inside



Round 250mm



Round 296mm

BLA Code	Version	Trim Colour	Overall Diameter mm	Acrylic mm
171006	Opening	Chrome	250	10
171008	Opening	Chrome	296	10

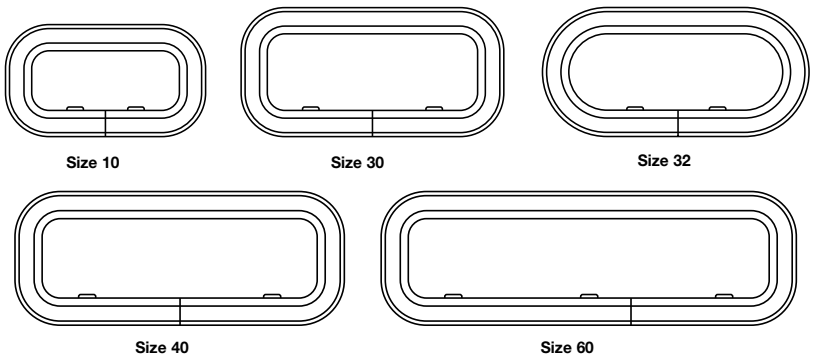
Lewmar® Portlight - Atlantic

LEWMAR

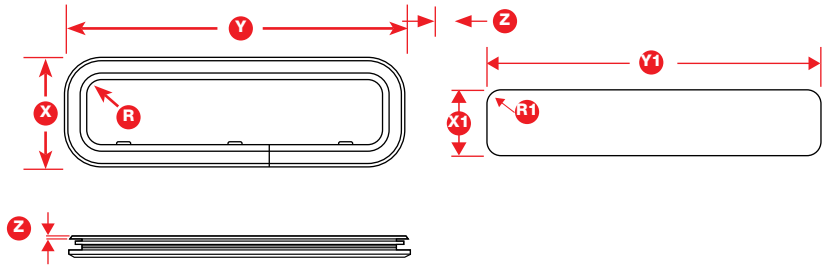
Designed with strength and functionality in mind, Lewmar's Atlantic range of portlights feature inner and outer extruded aluminium frames, which have been deep anodised for additional corrosion resistance. Other important design highlights include an exterior shape to allow water to drain away even when mounted on an angled coach roof, preventing water entering the cabin when opening the portlight. Opening and fixed versions are available as well as optional thick valance version. Supplied complete with insect screen.

Features:

- Strong aluminium outer frame with single welded join
- Lens bonded into alloy frame for additional stiffness
- Metal handles
- Anodised aluminium interior finish
- Friction hinges hold the window open
- CE Approved for Area 2A



Atlantic Portlight Dimensions and Cut Out



Hull Thickness mm	Valance Type
8–15	Thin Hull Valance
16–24	Thick Hull Valance

BLA Code	Size	Version	Hull Thickness mm	Acrylic Colour	Outside X x Y L x W mm	Cut Out X1 x Y1 L x W mm	Radii R mm	Radii R1 mm	Height Z mm	Acrylic mm
171053	10	Opening	16-24	Grey	174 x 304	154 x 284	71.0	61.0	6	8
171054	10	Opening	8-15	Grey	174 x 304	154 x 284	71.0	61.0	6	8
171055	30	Opening	16-24	Grey	200 x 400	180 x 380	71.0	61.0	6	8
171056	30	Opening	8-15	Grey	200 x 400	180 x 380	71.0	61.0	6	8
171058	32	Opening	8-15	Grey	198 x 401	178 x 381	99.0	89.0	6	8
171059	32	Opening	16-24	Grey	198 x 401	178 x 381	99.0	89.0	6	8
171060	40	Opening	16-24	Grey	200 x 480	180 x 460	71.0	61.0	6	8
171061	40	Opening	8-15	Grey	200 x 480	180 x 460	71.0	61.0	6	8
171062	60	Opening	16-24	Grey	200 x 600	180 x 580	71.0	61.0	6	8
171063	60	Opening	8-15	Grey	200 x 600	180 x 580	71.0	61.0	6	8

Lewmar® Flush and Custom Hatches and Portlights

LEWMAR®

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® create a broad range of hatch and portlight products to suit both do-it-yourself installation as well as for the world's production and custom boat building companies. Products such as the Flush hatch range can be supplied with different handle configuration and types, a number of acrylic and frame colour options as well as custom sizes (minimum order quantity may apply). Likewise, Lewmar® Flush Mitre Portlight can be made in a variety of sizes, acrylic and frame colour. New additions and future products include a Curved Foredeck Hatch and more. Flush products are fitted on most Beneteaus, Bavarias, Hanses and other European volume builders as standard. For more information on what Lewmar® can do in the way of custom hatch and portlight products, contact BLA on **1300 252 725**.

Lewmar® Extended Range

LEWMAR®

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® are constantly developing new products to complement their varied range of marine gear. Every sector of Lewmar's product range has seen new products added to it over the years and many new products are yet to come. Lewmar® produce a number of "high end" products for grand prix race boats, super yachts, both power and sail. Likewise, there are many spare parts and accessories available for current and older Lewmar® products. While it may not appear in the BLA catalogue, if there is a particular size or specification of a product which may be of interest to you, please feel free to contact BLA on **1300 252 725** for current availability. BLA are able to supply anything Lewmar® currently produce and can provide more information on any Lewmar® product which may not appear in the BLA catalogue.

Lewmar® Spare Parts - Hatch Seal Kits

LEWMAR

Low Profile Hatch

Hatch Size	BLA Code
00	**SP17170050**
03	**SP17170051**
10	**SP17170052**
18	**SP17170053**
20	**SP17170054**
22	**SP17170056**
30	**SP17170057**
40	**SP17170058**
41	**SP17170059**
44	**SP17170060**
50	**SP17170061**
54	**SP17170062**
60	**SP17170063**
65	**SP17170065**

Medium Profile Hatch

Hatch Size	BLA Code
30	**SP17170080**
40	**SP17170081**
44	**SP17170082**
50	**SP17170083**
54	**SP17170084**
60	**SP17170085**
70	**SP17170087**
77	**SP17170088**

Ocean Profile Hatch

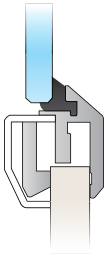
Flange *Flat*

Hatch Size	BLA Code
10	**SP17170095**
20	**SP17170096**
30	**SP17170097**
40	**SP17170098**
44	**SP17170099**
50	**SP17170100**
54	**SP17170101**
60	**SP17170102**
65	**SP17170104**
70	**SP17170106**

Lewmar® Spare Parts - Portlight Seal Kits

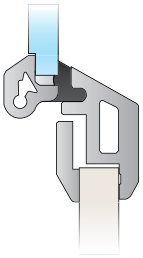
LEWMAR

New Standard



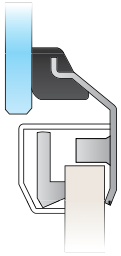
Standard Portlight Size	BLA Code
0	**SP171700354**
1	**SP171700355**
1RE	**SP17170136**
2	**SP171700356**
3	**SP171700357**
4	**SP171700358**
4L/4R	**SP171700359**
5	**SP171700360**
7RE	**SP17170377**

Atlantic



Atlantic Portlight Size	BLA Code
10	**SP17170150**
30	**SP17170152**
32	**SP17170154**
40	**SP17170155**
60	**SP17170375**

Stainless



Stainless Steel Size	BLA Code
0	**SP17170164**
1	**SP17170166**
1RE	**SP17170168**
7RE	**SP17170170**
8	**SP17170172**

Lewmar® Spare Parts - Insect Screens

LEWMAR

171100

171116

171111

To Suit Standard Portlight

Size	BLA Code
0	**171100**
1	**171102**
1RE	**171174**
2	**171104**
3	**171106**
4	**171108**
4L/4R	**171176**
5	**171182**
7RE	**171184**

To Suit Stainless Portlight

Size	BLA Code
0	**171210**
1	**171212**
1RE	**171214**
7RE	**171220**
8	**171116**

To Suit Atlantic Portlight

Size	BLA Code
10	**171190**
30	**171110**
32	**171111**
40	**171196**
60	**171198**

Jim Black® Hatches and Portlights

Jim Black® Ventilation Hatches

A range of low profile white ventilation hatches featuring high impact U.V. resistant Saralon resin moulded frames which resist warping and are impervious to harsh chemicals such as acetone. The 6mm light bronze finished tempered glass lens offers extreme strength and durability and is moulded into the frame to help protect against water intrusion and lens separation.

Ventilation hatches are fitted with an adjustable strut with a friction locking knob, allowing the hatch to be held at the desired angle plus internal closing handles for security. The heavy duty hinge system and strut design also allows the hatch to be opened 180° for a lay-flat effect. The deck frame features a hidden fastening design when closed and utilises stainless steel hardware where appropriate. All hatches have a 25mm internal flange and are supplied complete with matching trim ring with insect screens available separately.

170710

Features:

- U.V. stabilised Saralon resin moulded frames
- Chemical resistant
- 50mm hollow core seal
- 6mm tempered glass for strength and clarity
- Supplied with matching internal trim ring
- CE certified

170712

BLA Code	Outside mm	Inside mm	Cut Out mm	Opening Angle	Insect Screen to Suit
170710	299 x 299	232 x 232	258 x 258	180°	**170930**
170712	381 x 521	315 x 442	343 x 470	180°	**170932**

CE

Jim Black® Hatches

A range of low profile white escape hatches designed for the harsh marine environment featuring high impact U.V. resistant Saralon resin moulded frames which resist warping and are impervious to harsh chemicals. The light bronze finished 6mm tempered glass lens offers extreme strength and durability and is moulded into the frame to help protect against water intrusion and lens separation. Additionally, each hatch lid has a heavy duty hollow, wide, deep seal which provides excellent protection against water ingress.

All hatches are fitted with an adjustable strut with friction locking knob, allowing them to be held at the desired angle. The heavy duty hinge system and strut design also allows the hatches to be opened 180° for a lay-flat effect.

Each hatch has internal/external closing handles fitted as standard which include a simple integrated internal locking security system. The deck frame features a hidden fastening design when closed and utilises stainless steel hardware where appropriate. All hatches have a 25mm internal flange and are supplied complete with matching trim ring with an insect screen available to suit **170720** only.

170720

Feature:

- U.V. stabilised Saralon resin moulded frames
- Chemical resistant
- 50mm hollow core seal
- 6mm tempered glass for strength and clarity
- Matching trim ring
- CE certified
- Hatches include internal/external handles

170730

170722

BLA Code	Shape	Colour	Outside mm	Inside mm	Cut Out mm	Insect Screen to Suit
170720	Square	White	496 x 496	416 x 416	445 x 445	**170934**
170721	Square	Black	496 x 496	416 x 416	445 x 445	**170934**
170722	Square	White	575 x 575	489 x 489	521 x 521	N/A
170723	Square	Black	575 x 575	489 x 489	521 x 521	N/A
170730	Round	White	572	489	521	N/A

CE

Jim Black® Rectangular Opening Portlights

A range of white portlights featuring high impact U.V. resistant Saralon resin moulded frames which resist warping and are impervious to harsh chemicals. The light bronze finished 6mm tempered glass lens offers extreme strength and durability and is moulded into the frame to help protect against water intrusion and lens separation.

Each portlight features a strong friction hinge which holds the port window open at a chosen position. Robust quick action friction locking tabs secure the lens frame against the inset seal to prevent water ingress. Supplied complete with matching trim ring flange and insect screen.

Features:

- U.V. stabilised Saralon resin moulded frames
- Chemical resistant
- Custom seal prevents water ingress
- 6mm tempered glass for strength and clarity
- Supplied with matching internal trim ring
- CE certified
- Includes insect screen

171470

171474

BLA Code	Shape	Outside mm	Inside mm	Cut Out mm	Max. Hull Thickness mm
171470	Rectangular	146 x 318	67 x 241	88 x 254	25
171474	Rectangular	169 x 413	102 x 343	113 x 355	25

CE

Jim Black® Elliptical Opening Portlights - Stainless Steel Trim

A range of white portlights featuring high impact U.V. resistant Saralon resin moulded frames which resist warping and are impervious to harsh chemicals. The light bronze finished 6mm tempered glass lens offers extreme strength and durability and is moulded into the frame to help protect against water intrusion and lens separation.

Each portlight is supplied with an external stainless steel trim ring and features a strong friction hinge which holds the port window open at a chosen position. Robust quick action friction locking tabs secure the lens frame against the inset seal to prevent water ingress. Supplied complete with matching trim ring flange and insect screen.

Features:

- U.V. stabilised Saralon resin moulded frames
- Chemical resistant
- Custom seal prevents water ingress
- 6mm tempered glass for strength and clarity
- Attractive stainless steel external trim ring
- CE certified
- Includes insect screen

171506

171508

BLA Code	Shape	Outside mm	Inside mm	Cut Out mm	Max. Hull Thickness mm
171506	Elliptical	159 x 464	77 x 381	97 x 398	19
171508	Elliptical	201 x 470	127 x 413	153 x 443	35

CE

Jim Black® Insect Screens

Range of insect screens to suit popular Jim Black® vents and hatches. Fine mesh design protects against most insects while robust outer flange provides support. Simple locking tabs keep screens securely in place.

170930

BLA Code	Description
170930	Insect screen to suit 232 x 232 vent hatch **170710**
170932	Insect screen to suit 315 x 442 vent hatch **170712**
170934	Insect screen to suit 416 x 416 hatch **170720/721**

Jim Black® Replacement Handles

Replacement handles to suit Jim Black® escape hatches, manufactured from tough high impact, U.V. resistant Saralon. Sold each, left or right hand opening. Suits **170710**, **170712**.

170780

170781

BLA Code	Description
170780	Right hand internal handle to suit all vent hatches
170781	Left hand internal handle to suit all vent hatches

Jim Black® Replacement Locking Handles

Replacement internal/external locking handle kit to suit Jim Black® escape hatches. Kit includes one internal handle with locking mechanism, one external handle, fastener and seal. Sold individually. Suits **170720**, **170721, 170722**, **170723, 170730**.

BLA Code	Description
170784	Replacement external/internal locking handle kit

Hatch Seal

Black polyethylene foam tape with acrylic self adhesive backing. Sizes available to suit most hatch sealing applications. Density - 45kg/m^3.

BLA Code	Size	BLA Code	Size
172084	3mm x 12mm x 25m	**172102**	6mm x 24mm x 15m
172086	3mm x 15mm x 25m	**172104**	6mm x 36mm x 15m
172088	3mm x 18mm x 25m	**172106**	6mm x 48mm x 15m
172090	3mm x 24mm x 25m	**172108**	10mm x 12mm x 10m
172092	3mm x 36mm x 25m	**172110**	10mm x 15mm x 10m
172094	3mm x 48mm x 25m	**172112**	10mm x 18mm x 10m
172096	6mm x 12mm x 15m	**172114**	10mm x 24mm x 10m
172098	6mm x 15mm x 15m	**172116**	10mm x 36mm x 10m
172100	6mm x 18mm x 15m	**172118**	10mm x 48mm x 10m

Side Pocket - Open

Constructed from white ABS plastic. These open side pockets are designed to mount on flat vertical surfaces allowing quick access at all times. Handy storage with an original equipment appearance.

BLA Code	Outside mm	Cut Out mm	Intrusion mm
173214	546 x 249	495 x 200	115

Side Pockets - Covered

Moulded from white ABS plastic. Designed to be mounted on a vertical flat surface. Front opening door is mounted on stainless steel hinges with a simple friction closure.

173224

173222

BLA Code	Outside mm	Cut Out mm	Intrusion mm
173222	224 x 180	190 x 149	75
173224	546 x 249	495 x 200	115

Tackle Storage Boxes - Three Drawer

White three drawer tackle box. Lid and frame manufactured from white ABS plastic, body from polyethylene. Features large twist action fold out latch, rubber 'O' ring seal and plastic hinges. Drawers are segmented for storage of different size tackle. Available with a choice of lid which either fully covers or half covers the mounting flange of the storage box. For security, an optional key lock set is available.

Half covered lid

173250

173088

BLA Code	Lid Style	Outside mm	Cut Out mm	Intrusion mm	Mount Screws mm
173088	Half	382 x 285	310 x 210	190	6 c/s
173089	Full	386 x 286	310 x 210	190	6 c/s

Accessories:

173250 Optional lock set

Tackle Storage Box - Five Drawer

Five drawer, tackle box suited for mounting in confined areas. Body manufactured from white U.V. resistant polypropylene. Drawers have a clear acrylic hinged lid and are supplied with dividers enabling up to six separate spaces to be formed per drawer.

BLA Code	Outside mm	Cut Out mm	Intrusion mm	Mount Screws mm
173082	187 x 363	140 x 320	150	5 c/s

SSI Lockable Storage Cabinet

- Five Drawer

Recessed cabinet moulded in white, U.V. resistant ABS plastic. Features five large Plano® lidded tackle drawers, full length stainless steel piano hinge and lockable slam action door catch.

BLA Code	Outside mm	Cut Out mm	Intrusion mm	Mount Screws mm
173058	432 x 400	395 x 360	260	5 c/s

SSI Tackle and Storage Boxes

Recessed cabinets are moulded in white, U.V. resistant ABS plastic. Cabinet doors have a full length, stainless steel piano hinge with a simple but effective press closure. Cabinets house standard Plano® tackle drawers for storage of equipment.

173052

BLA Code	Drawers	Outside mm	Cut Out mm	Intrusion mm	Mount Screws mm
173052	2	345 x 192	302 x 150	205	5 c/s
173054	3	340 x 246	300 x 208	212	5 c/s

Storage Lockers - Luran®

Lid and frame moulded from white U.V. treated Luran® which will not yellow with prolonged exposure to U.V. rays. Storage compartment body moulded from polyethylene. Available with a choice of recessed lid which is flush with the storage box flange or a lid which half covers the flange, hiding the fastening holes. Weatherproof when mounted on flat, vertical surfaces. For security, an optional key lock set is available.

173246

173240

173250

BLA Code	Lid Style	Outside mm	Cut Out mm	Intrusion mm
173240	Recessed	380 x 280	310 x 210	209
173242	Recessed	596 x 348	525 x 275	280
173246	Half	382 x 285	315 x 215	190
173249	Full	608 x 354	530 x 280	300

Accessories:

173250 Optional lock set

Jim Black® Access Hatch - Removable Panel

A low profile white access panel designed for installation on any internal or external vertical or horizontal surface which may encounter foot traffic. Featuring high impact U.V. resistant Saralon resin, the heavily reinforced lid includes a non slip surface and is resistant and impervious to harsh chemicals. The lid is completely removable and covers the mounting flange, concealing the fastenings while helping to shed water. The in-laid gasket seal ensures excellent weather proofing while the Saralon resin handles provide a secure closure with a positive stop plus click home lock.

Features:

- Totally removable lid
- Hidden fasteners
- Larger inside dimensions
- In-laid gasket ensures an excellent seal
- U.V. resistant Saralon resin for durability
- Handles feature positive stop plus click home lock
- Design naturally sheds water

BLA Code	Outside mm	Inside mm	Cut Out mm
174260	312 x 407	242 x 343	267 x 362

Jim Black® Inspection Plates - Removable Panel

Low profile white inspection plates engineered for harsh environments and suitable for a wide range of vertical or horizontal applications which may encounter foot traffic. Featuring high impact U.V. and weather resistant Saralon resin, the lids include a non slip surface and are resistant and impervious to harsh chemicals. A specially designed crush seal provides excellent water resistance while the lids are easily removed without the use of tools and cover the mounting flange, concealing the fastenings.

Features:

- Design naturally sheds water
- Water resistant crush seal design
- Designed for vertical and horizontal applications
- Hidden fasteners
- U.V. resistant Saralon resin for exterior use
- Engineered for the toughest marine environment
- Easy access, requires no tools

174250

174254

174256

BLA Code	Shape	Outside mm	Inside mm	Cut Out mm
174250	Round	153	96	107
174252	Round	203	146	158
174254	Round	254	197	209
174256	Rectangular	229 x 356	172 x 295	183 x 310

Jim Black® Access Doors

A low profile range of white access doors designed for installation on internal or external vertical or horizontal surfaces. Featuring high impact U.V. resistant Saralon resin, the heavily reinforced lid includes a non slip surface and is resistant and impervious to harsh chemicals. The lid hinges through 180° and covers the mounting flange, concealing the fastenings while helping to shed water. Additionally, **173292** and **173294** have been specially designed and engineered to be used in-floor where foot traffic may be expected.

The in-laid gasket seal ensures excellent weather protection while the heavy duty 316 grade stainless steel hinge can be through bolted for added strength. For secure closure the Saralon resin handles feature a positive stop plus click home lock. Specially designed removable plastic storage tubs are available separately and are designed to fit the **173292** or **173294** when mounted horizontally.

Features:

- Hidden fasteners
- Door opens past 180°
- Larger inside dimensions
- 316 grade stainless steel hinge
- In-laid gasket ensures an excellent seal
- U.V. resistant Saralon resin for durability
- Handles feature positive stop plus click home lock
- Design naturally sheds water
- CE certified

173294

173292

BLA Code	Outside mm	Inside mm	Cut Out mm
173290	204 x 369	138 x 303	160 x 326
173292	280 x 381	216 x 318	235 x 337
173294	331 x 432	267 x 369	286 x 388

Accessories:

173300 Storage bin to suit **173292**
173302 Storage bin to suit **173294**

Jim Black® Storage Bins - To Suit Jim Black® Access Doors

Specially designed removable plastic storage tubs to fit **173292** or **173294** Jim Black Access Doors when mounted horizontally.

Features:

- Injection moulded and vacuum formed tubs for a lifetime of durability
- Provides a useful additional utility
- Cost effective way to line hatch cut outs
- Unique fastening system makes for an easy installation

173302

BLA Code	Storage Bin to Suit	Depth mm
173300	**173292**	229
173302	**173294**	280

Europa Access Hatches

Low profile, injection moulded U.V. stabilised plastic hatches designed for installation on any internal or external flat surface. Reinforced lid with non-skid surface. The lid hinges through 180° and completely covers the mounting flange, concealing the fastenings and deflecting water away from the hatch seal. The seal ensures weatherproofing when the hatch is mounted on vertical surfaces. Contoured handles provide a positive twist lock action and easy lift grip. Protrusion above deck is only 17mm. Intrusion 20mm. Screw holes are 5mm countersunk. Available in a choice of white, grey or black, with or without key security lock.

173322

173314

173326BLK

BLA Code	Colour	Key Lock	Outside mm	Inside mm	Cut Out mm
173312	White	No	283 x 375	192 x 294	200 x 302
173313	Grey	No	283 x 375	192 x 294	200 x 302
173314	White	Yes	283 x 375	192 x 294	200 x 302
173315	Grey	Yes	283 x 375	192 x 294	200 x 302
173316	White	No	375 x 383	294 x 294	302 x 302
173317	Grey	No	375 x 383	294 x 294	302 x 302
173318	White	Yes	375 x 383	294 x 294	302 x 302
173319	Grey	Yes	375 x 383	294 x 294	302 x 302
173320	White	No	470 x 515	378 x 435	386 x 443
173321	Grey	No	470 x 515	378 x 435	386 x 443
173322	White	Yes	470 x 515	378 x 435	386 x 443
173323	Grey	Yes	470 x 515	378 x 435	386 x 443
173324	White	No	363 x 600	272 x 518	280 x 526
173325	Grey	No	363 x 600	272 x 518	280 x 526
173326	White	Yes	363 x 600	272 x 518	280 x 526
173327	Grey	Yes	363 x 600	272 x 518	280 x 526
173326BLK	Black	Yes	363 x 600	272 x 518	280 x 526

Access Hatches - Luran® Recessed Lid

Injection moulded in Luran® plastic for optimum strength, U.V. and weather resistant properties. The lid features a non-skid surface and is recessed flush with the mounting flange, hinging through 100°. Available in a choice of white or grey. An optional key lock set is also available. Designed for mounting on any flat surface, but weatherproof only when mounted on vertical surfaces. Protrusion above deck 11mm. Screw holes 5mm countersunk.

173402

173250

173408

BLA Code	Colour	Outside mm	Inside mm	Cut Out mm	Intrusion mm
173402	White	280 x 380	180 x 280	210 x 310	21
173404	Grey	280 x 380	180 x 280	210 x 310	21
173406	White	348 x 596	244 x 494	275 x 525	25
173408	Grey	348 x 596	244 x 494	275 x 525	25

Accessories:

173250 Optional lock set

Access Hatches - Luran® Covered Lid

Inspection hatches moulded in white Luran® plastic with low profile lid which fully covers the mounting flange, concealing the fastenings and deflecting water away from the hatch seal. The full covered lid opens 180° to lay flat and features a non-skid surface to facilitate deck mounting. Suitable for mounting on any flat surface, weatherproof when mounted on vertical flat surfaces. Screw holes 5mm countersunk. Protrusion above deck 17mm. An optional key lock set is also available.

173250

173422

BLA Code	Outside mm	Inside mm	Cut Out mm	Intrusion mm
173422	286 x 386	196 x 296	210 x 310	31
173426	350 x 600	260 x 510	280 x 530	31
173430	375 x 375	285 x 285	300 x 300	31
173434	465 x 520	375 x 430	390 x 445	31

Accessories:

173250 Optional lock set

Hinged Access Hatches

Manufactured from durable white U.V. resistant ASA plastic and featuring a secure closing mechanism. Diamond pattern non-skid surface provides sure-footedness with under lid reinforcing designed to maximise strength and limit flexing. Can be mounted in either the vertical or horizontal plane, with a weather resistant gasket seal. Twin recessed hinges with heavy duty stainless steel pins open to 90°. Complete with Cut Out template and fastening plugs. Intrusion 19mm.

173282

173286

BLA Code	Outside mm	Inside mm	Cut Out mm
173282	381 x 280	264 x 164	300 x 200
173284	400 x 328	282 x 208	317 x 245
173286	595 x 350	480 x 234	517 x 269

Deck Plates - Stainless Steel

Heavy duty, cast 316 stainless steel deck plate with silicon rubber seal to ensure waterproofing. Supplied complete with stainless steel rod, opening key.

174302

BLA Code	Outside Dia. mm	Inside Dia. mm	Cut Out mm	Intrusion mm	Protrusion mm
174302	88	54	63	12	3
174310	145	105	115	12	4

Deck Plates - Bronze

Heavy duty cast construction. Complies with most Australian Survey Standards. Supplied complete with cast bronze opening key. Low profile 5mm protrusion.

BLA Code	Finish	Outside Dia. mm	Inside Dia. mm	Cut Out mm	Intrusion mm
174304	Bronze	140	95	108	17

Whale® Watertight Locker Doors - Polypropylene

Locker doors provide a reliable watertight seal. Raised screw down lid. Easy to open via the maximum diameter external grip. Moulded from black polypropylene with a choice of black or clear lid. Wide caulking flange enhances waterproofing.

174242

174240

BLA Code	Lid Colour	Outside Dia. mm	Inside Dia. mm	Mount Screws mm
174240	Black	235	180	5 r/h
174242	Clear	235	180	5 r/h

Deck Plates - Alloy

Heavy duty cast construction. Complies with most Australian Survey Standards. Supplied complete with cast alloy opening key.

174308

BLA Code	Outside Dia. mm	Inside Dia. mm	Cut Out mm	Intrusion mm	Protrusion mm
174308	140	95	108	17	5
174328	208	145	159	22	5

Inspection Ports - Full Cover

Flush style inspection port with full cover lid. The lid conceals the deck flange and fastenings as well as deflecting water away from the seal and screw holes, for improved weather resistance. Moulded from high density polymer with a textured finish.

174230

174234

BLA Code	Colour	Outside Dia. mm	Inside Dia. mm	Cut Out mm	Mount Screws mm
174230	Black	210	152	163	4 c/s
174234	White	210	152	163	4 c/s

Inspection Ports - ABS

Flush style, economical inspection ports moulded from U.V. stabilised high impact, chemical resistant, ABS (acrylonitrile/butadiene/styrene). Screw in centres with recessed finger grips. Integral 'O' ring seal for weatherproofing. Wide caulking flange.

174214

174216

BLA Code	Colour	Outside Dia. mm	Inside Dia. mm	Cut Out mm	Mount Screws mm
174204	White	145	102	112	4 c/s
174206	Black	145	102	112	4 c/s
174214	White	173	127	137	4 c/s
174216	Black	173	127	137	4 c/s
174224	White	207	152	164	4 c/s
174226	Black	207	152	164	4 c/s

Inspection Ports - Polypropylene ABS

Moulded nylon construction with screw in centres, weatherproofing 'O' ring seal and wide caulking flange. Available in three sizes with a choice of black or white with solid or clear centres. Some models are available complete with a storage bag ideal for wallets, keys and similar.

174014

174021

174026

174030

BLA Code	Colour	Centre Cover	Outside Dia. mm	Inside Dia. mm	Cut Out mm	Mount Screws mm
174004	White	White	145	102	112	5 c/s
174006	Black	Black	145	102	112	5 c/s
174008	White	Clear	145	102	112	5 c/s
174010	Black	Clear	145	102	112	5 c/s
174014	White	White	171	130	139	5 c/s
174016	Black	Black	171	130	139	5 c/s
174018	White	Clear	171	130	139	5 c/s
174020	Black	Clear	171	130	139	5 c/s
***174021**	White	White	171	130	139	5 c/s
***174022**	Black	Black	171	130	139	5 c/s
174024	White	White	196	152	164	5 c/s
174026	Black	Black	196	152	164	5 c/s
174028	White	Clear	196	152	164	5 c/s
174030	Black	Clear	196	152	164	5 c/s
***174032**	White	White	196	152	164	5 c/s
***174034**	Black	Black	196	152	164	5 c/s

Accessories:

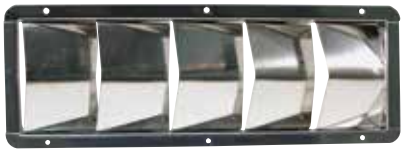
174070	'O' ring seal	102mm
174074	White lid only	102mm suit **174004**
174076	Black lid only	102mm suit **174006**
174078	Clear lid only	102mm suit **174008/10**
174080	'O' ring seal	130mm
174082	White lid only	130mm suit **174014/21**
174084	Black lid only	130mm suit **174016/22**
174090	'O' ring seal	152mm
174094	White lid only	152mm suit **174024/32**
174096	Black lid only	152mm suit **174026/34**

**** These models supplied with storage bag***

Louvre Vents - Stainless Steel 'V'

Ideal for engine compartments. Raised 'V' louvres. Available in three and five louvre configurations. Pressed stainless steel construction with mounting flange.

175003



175005

BLA Code	Louvres	Outside mm	Cut Out mm	Intrusion mm	Protrusion
175003	3	210 x 112	187 x 90	26	15
175005	5	325 x 112	303 x 90	26	15

Louvre Vents - Plastic

Clean contemporary style, moulded ASA plastic construction. Available in a choice of colour finish. Surface mount.

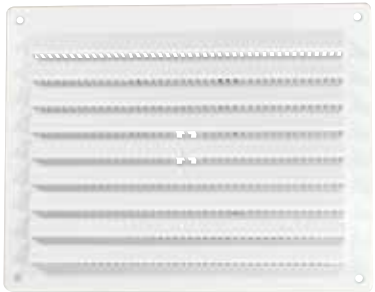
175122

175120

BLA Code	Colour	Length mm	Width mm	Intrusion mm	Protrusion mm
175120	Black	447	70	19	17
175122	White	447	70	19	17

Louvre Vent - Rectangular Plastic with Screen

Moulded, plastic vent with integral insect screen. Surface mount.

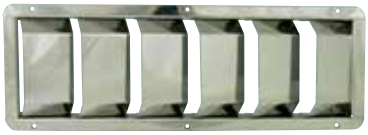


BLA Code	Width mm	Height mm	Protrusion mm	Mount Screws mm
175214	200	157	14	3 c/s

Louvre Vents - Stainless Steel Flat Top

Pressed stainless steel construction with mounting flange. Raised flat top louvres. Ideal for engine compartments. Available in four, six and ten louvre configurations.

175024



175026

175010

BLA Code	Louvres	Outside mm	Cut Out mm	Intrusion mm	Protrusion
175024	4	210 x 112	187 x 90	26	12
175026	6	325 x 112	303 x 90	26	12
175010	10	530 x 112	506 x 90	26	12

Louvre Vents - Plastic

Moulded in ABS plastic with raised louvres. Surface mount.

175216

176028

175220

BLA Code	Colour	Width mm	Height mm	Protrusion mm	Mount Screws mm
176028	White	86	86	16	4 c/s
176030	Black	86	86	16	4 c/s
175216	Black	200	100	9	4 c/s
175220	Black	258	125	16	5 c/s

Louvre Vent - Plastic Round with Screen

Moulded, plastic vent with integral insect screen. Recessed mounting with push to fit fixing.

BLA Code	Outside mm	Cut Out mm	Intrusion mm	Protrusion mm
175212	120	97	15	5

Louvre Vent - Stainless Steel Rolled Edge

Highly polished, pressed 316 grade stainless steel raised louvre vent with rolled edges for extra stiffening, no sharp corners and better appearance. Surface mount.

BLA Code	Height mm	Width mm	Protrusion mm	Mount Screws mm
175248	122	127	10	4 c/s

Louvre Vents - Stainless Steel Low Profile

Pressed, polished stainless steel, low profile raised louvres. Surface mount.

175242

175230

175234

175238

BLA Code	Louvres	Height mm	Width mm	Protrusion mm	Mount Screws mm
175230	3	65	127	3.5	3 c/s
175234	6	115	127	3.5	3 c/s
175238	2 x 6	115	232	3.5	3 c/s
175242	14	227	127	3.5	3 c/s

Louvre Vent - Stainless Steel Round

Pressed stainless steel round vent with raised louvres. Surface mount.

BLA Code	Diameter mm	Protrusion mm	Mount Screws mm
175204	102	3	3 r/h

Midget Clam Vents - Stainless Steel

Mini clam shell vent made from pressed stainless steel. Ideal for covering anchor well drains, through transom wiring, and similar applications.

175302

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
175302	40	45	11	3 r/h
175304	55	57	14	3 r/h

Compact Clam Vent - Stainless Steel

Square edged cover for air inlet or outlet. Polished, pressed stainless steel construction.

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
175310	145	114	50	3 c/s

Mushroom Vent - Plastic

White moulded plastic, screw action ventilator with brass spindle. Plastic insect screen incorporated in base.

BLA Code	Outside Dia. mm	Inside Dia. mm	Height Open mm	Height Closed mm	Mount Screws mm
175354	148	94	70	30	5 c/s

Clam Vents - Stainless Steel

Curved cover for air inlet or outlet. Polished, pressed stainless steel construction.

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
175320	172	146	57	3 r/h
175322	185	172	71	3 r/h

Marine Town® Dorade Dome Vent

Dome shaped, white moulded ABS plastic cover that will not snag ropes and crew. Internal clear mushroom vent controls air flow, acts as dorade to protect against water entry and allows light in. Supplied complete with 'O' ring deck seal and internal dress ring.

BLA Code	Overall Dia. mm	Height mm	Deck Cut Out mm	Mount Screws mm
175370	200	62	100	100

Marine Town® Cowl Vent - Stainless Steel

Injection moulded black plastic base with integral tail to suit 75mm ID flexible blower hose and a highly polished, pressed 316 grade stainless steel cowl. Cowl mouth has a rolled edge for safety and added stiffness.

BLA Code	Length mm	Width mm	Protrusion mm	Intrusion mm	Mount Screws mm
175328	130	148	52	50	3 r/h

Marine Town® Butterfly Vents - Stainless Steel

Highly polished pressed 304 grade stainless steel butterfly vents with chrome plated brass, side mounted knob which controls the rear overlapping plate to vary the ventilation gaps.

BLA Code	Overall Diameter mm	Protrusion mm	Mount Screws mm
175348	102	19	3 r/h
175350	127	19	3 r/h

Dorade Cowl Vent - Plastic

Moulded from white, U.V. stabilised, ABS plastic. Designed to be mounted horizontally, this combination cowl vent and dorade box directs air below, while the internal baffle design protects against water entry.

BLA Code	Length mm	Width mm	Height mm	Deck Cut Out mm	Mount Screws mm
175360	194	149	110	76	5 r/h

Nicro™ MiniVent 1000

Smallest and most economical solar vent in the Nicro™ range. Compact yet effective, the MiniVent is an exhaust vent only, but it will keep the boat cabin cool, even on the hottest days, with passive exhaust at night. Under solar power it will move over 19m³/hr. Built-in shut off damper prevents water intrusion in rough seas. Whisper quiet fan operation. No wiring or batteries required. Mounts directly onto deck. Available in white ABS plastic or with stainless steel cover.

BLA Code	Finish	Overall Dia. mm	Height mm	Vent ID mm
175390	White	175	41	78
175391	S/Steel	200	41	78

CE

Low Line Cowl Vents

Economical, moulded, white flexible PVC cowl with red interior. Features a 360° swivelling cowl that either snaps or screws on and off the deck plate. It can be removed and replaced with screw-in 'foul weather' cap (included).

175404

BLA Code	Cowl Type	Base Dia. mm	Inside Dia. mm	Height mm	Mount Screws mm
175404	Snap on	110	63	105	4 c/s
175406	Screw on	140	84	140	6 c/s

Nicro™ Deck Plate

Complete with snap-in watertight cover. Use with any Nicro™ snap-in system and Nicro™ solar vents.

BLA Code	Inside Dia. mm
175399	100

CE

Solar Exhaust Vents - Economy

Economical and effective solar exhaust vents which will extract up to 19m³/hr in bright sunlight. No wiring or batteries required. Mounts directly onto deck at almost any angle or surface. Available in white ABS plastic or with stainless steel cover. Supplied with mounting gasket, trim ring and fastenings.

175378

175376

BLA Code	Finish	O.D. mm	Height mm	Cut Out mm
175376	White	215	50	120
175378	S/Steel	215	33	120

Nicro™ Day/Night Plus Solar Vents - Stainless Steel

The Day/Night Plus is a 24 hour solar vent. This model combines a rechargeable battery with advanced solar cell technology to provide round-the-clock ventilation. Air movement for the Day/Night Plus is up to 28m³ (1,000 ft³) per hour for **175385** and 17m³ (600 ft³) for **175384**.

Features:

- 24 hour operation
- No wiring required; integral switch
- Full shut off from below prevents water intrusion
- Whisper quite fan operation
- Mounting hardware, interior trim and insect screen included

175384

BLA Code	Overall Dia. mm	Height mm	Vent ID mm
175384	230	50	76
175385	230	50	100

CE

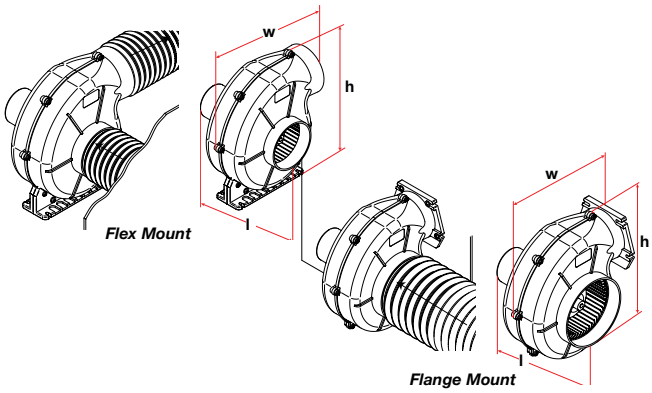
SPX Bilge Blowers - AirV Extra Heavy Duty

Marine radial blowers designed for engine compartment ventilation prior to start up. AirV heavy duty blowers are designed for air intake or extraction in bilges, galleys, accommodation and other compartments. Flange Mount and Flex Mount design with double ball bearing motor. High-impact anti-shock ABS body for AirV 3 and Nylon, glass-fibre reinforced body for AirV 4. Shaft and screws in stainless steel, consistently rated.

176060

176064

176074



BLA Code	Description	Power v	Power amp	Mount	Capacity m^3/h	Capacity cfm	Dimensions H x W x L mm	Port Connections Inlet mm	Port Connections Outlet mm
176060	AirV 3-280	12	3.9	Flange	280	163	198 x 171 x 195	Ø75	92 x 80
176062	AirV 3-280	24	2.5	Flange	280	163	197 x 173 x 195	Ø75	92 x 80
176064	AirV 4-550	12	12.5	Flange	550	324	277 x 259 x 160	Ø100	146 x 118
176066	AirV 4-550	24	7	Flange	550	324	277 x 259 x 160	Ø100	146 x 118
176068	AirV 4-750	12	14.5	Flange	750	441	277 x 257 x 181	Ø150	146 x 118
176070	AirV 4-750	24	8.5	Flange	750	441	277 x 257 x 181	Ø150	146 x 118
176072	AirV 4-1000	24	15.5	Flange	1000	589	278 x 258 x 203	Ø150	146 x 118
176074	AirV 4-550	12	12.5	Flex	550	324	296 x 257 x 161	Ø100	Ø110
176076	AirV 4-550	24	7	Flex	550	324	296 x 257 x 161	Ø100	Ø110
176078	AirV 4-750	12	14.5	Flex	750	441	297 x 257 x 182	Ø150	Ø110
176080	AirV 4-750	24	8.5	Flex	750	441	297 x 257 x 182	Ø150	Ø110
176082	AirV 4-1000	24	15.5	Flex	1000	589	296 x 257 x 201	Ø150	Ø110

Bilge Blowers

Flange mounted bilge blowers to suit 75mm ID ventilation hose. Produce air flow of 2800 litres per minute. Spark proof. Suitable for intermittent use only. A mounting flange is available to enable through bulkhead or deck mounting with a tail for the ducting hose.

BLA Code	Power v	Power amp	Width mm	Height mm	Depth mm	Mount Screws mm
(A) **176004**	12	3	182	160	142	5 r/h
(A) **176006**	24	1.5	182	160	142	5 r/h

Accessories:

(B) **176040** 75mm blower hose mount flange

TMC Bilge Blowers - In-line

High impact, white ABS plastic housing. In-line installation to suit 75mm (3") ducting hose. Produce air flow of 2800 litres per minute. For intermittent use only.

176014

BLA Code	Power v	Power amp	Overall Length mm	Width mm	Height mm	Mount Screws mm
176014	12	4.5	210	135	110	5 r/h
176016	24	2.5	210	135	110	5 r/h

Bilge Blowers - Turbo In-line

Up to 25% more efficient than conventional in-line blowers. Motor draws fewer amps, with less strain resulting in improved reliability. The worlds first water resistant blower design with durability proven in rigorous moisture tests. NMMA approved. White ABS plastic housing. Intermittent use only.

BLA Code	Power v	Power amp	Intake lpm	Intake mm	Length mm	Width mm	Height mm
176011	12	2.6	2830	75	126	126	92
176013	12	2.5	3540	100	126	151	115

Louvre Vents - Stainless Steel with Tail

Injection moulded black plastic base with highly polished, pressed 316 grade stainless steel louvred vent face plate. Base includes an integral tail to accept flexible blower hose.
The louvred face plate features rolled edges for extra stiffening, no sharp corners and is fastened to the plastic base using heavy duty adhesive tape for no visible fastening appearance.

176024

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
176024	75 & 100	122 x 127	10	120
176026	100	122 x 127	10	60

Shields Blower Hose - PVC

White, wire-reinforced spiral blower hose to suit 75mm (3") and 100mm (4") tails on blowers and vents. Supplied in a 15 metre length.

176038

BLA Code	Diameter mm	in
176038	75	3
176039	100	4

Louvre Vents - Plastic with Tail

Moulded ABS plastic louvre vent with hose tail to suit 75mm or 100mm ventilation hose. Available in black or white.

176032

176034

176035

BLA Code	Colour	Suits Hose mm	Vent Face mm	Protrusion mm	Intrusion mm
176032	White	75	86 x 86	16	61
176034	Black	75	86 x 86	16	61
176035	White	100	127 x 127	19	31

Fan - Oscillating

Multi-adjustable, white plastic base with integral toggle switch, white plastic motor housing, clear plastic three blade fan and chrome plated fan guard. 60° sweep angle, switchable on motor housing. Supplied with 2 metre lead fitted with cigarette lighter type plug.

BLA Code	Volts	Amps	Guard Dia. mm	Height mm	Depth mm
176104	12	1.2	180	240	160

Webasto Reverse Cycle Air Conditioning

Webasto
Feel the Drive

A range of whisper quiet reverse cycle cooling and heating AC air conditioning units by Webasto designed and manufactured for the harsh marine environment. Ranging from 5,000 to 24,000 BTU/h, each unit offers compact, highly efficient air conditioning for a wide range of vessel applications and sizes. Each balanced system features an ultra silent compressor that has been securely mounted onto a heavy duty stainless steel chassis for rigidity with extra deep condensation tray resulting in greatly reduced unwanted noise and vibration that can transfer into cabins. All critical components are finished in baked enamel for extended product life while the multi-port inlet evaporator has been anodised for superior corrosion protection. For effective vessel cooling or heating the high velocity 360° rotatable heavy duty blower is designed to feed air to multiple vents.

Each air conditioning unit is supplied complete with ducting collar, remotely mounted power control connection box, air filter, digital wall mount control and hand remote control. Available as unit only or complete kit, which includes applicable water pump and priming valve, through hull fitting and valve, supply and return air grilles, transfer box, hose ring and three metres of flexible air ducting.

For installation or re-fits a range of supply and return grilles, transition boxes and insulated ducting is available.

Features:

- Compact and designed exclusively for marine use
- Reverse cycle cooling and heating
- Ultra quiet compressors mounted to minimise vibration and noise
- Stainless steel chassis with deep condensation tray
- Critical components finished in baked enamel for extended life
- Multi-inlet port evaporators anodised for corrosion protection
- Uses environmentally friendly R-410A refrigerant
- Replaceable air filter
- High velocity three speed 360° rotatable blower
- Digital wall mount and hand remote control supplied as standard
- Range of accessories available including grilles and ducting, refer to page 413
- 12 months swap out warranty

Standard Inclusions

Complete kit units include applicable water pump and priming valve, through hull fitting and valve, supply and return grilles transfer box hose ring and flexible ducting

179558

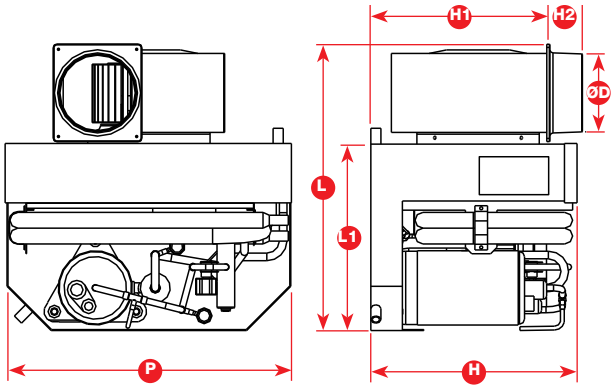
BLA Code Unit Only	BLA Code Complete Kit	Capacity BTU	Voltage	Frequency Hz	Average Load A	Suggested Air Supply cm^2	Suggested Air Return cm^2	Blower Output m^3/h	Ducting Collar Dia. mm	Condenser Connection Dia. mm
179550	**179570**	5000	230	50/60	2.2	103.2	316	479	102	16
179552	**179572**	9000	230	50/60	3.2	103.2	413	584	102	16
179554	**179574**	12000	230	50/60	4.5	129	645	696	127	16
179556	**179576**	16000	230	50/60	5.5	154.8	780.6	858	127	16
179558	**179578**	24000	230	50/60	12.3	2 x 323	1084	2 x 550	2 x 127	16

179550/70

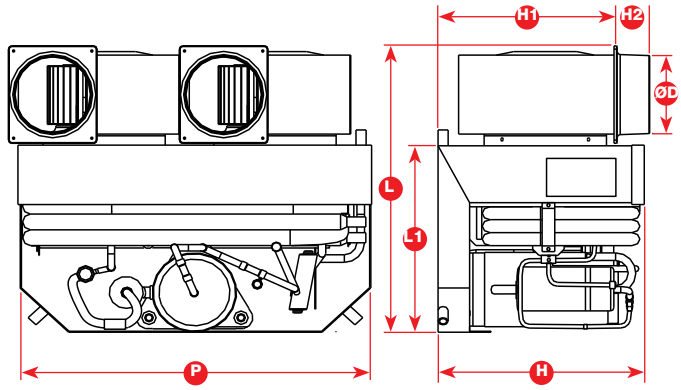
179552/72

179554/74

179556/76



5000, 9000, 12000 & 16000



24000

BLA Code	H mm	H1 mm	H2 mm	P mm	D mm	L mm	L1 mm	Weight kg
179550/70	295	260	54	285	102	408	280	23
179552/72	310	260	54	380	102	408	280	26
179554/74	330	290	54	380	127	438	280	31
179556/76	330	290	54	450	127	454	295	33
179558/78	386	326	56	595	127	529	387	60

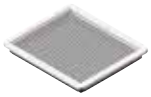
Webasto Air Conditioning Accessories

Webasto
Feel the Drive

For original installation or re-fits where outlets and intakes may need to be repositioned, a selection of accessories are available.

The range of supply and return grilles include plastic or teak in fixed, adjustable or four way. Transition boxes include back entry and no entry, while insulated ducting and attachment rings are available to complete the system.

BLA Code	Description	Material	Colour	Blade Type	Dimensions W x H mm
179600	Grille Supply	Plastic	White	Adjustable	254 x 102
179606	Grille Supply	Plastic	White	Fixed	254 x 127
179620	Grille Supply	Teak	-	4 Way	254 x 102
179626	Grille Supply	Teak	-	4 Way	254 x 127
179630	Grille Return	Plastic	White	Fixed	254 x 203
179636	Grille Return	Plastic	White	Fixed	305 x 305



Plastic Grille
Fixed or adjustable vents

Teak Grille
4 way adjustable vents

BLA Code	Description	Type	Connection	Dimensions W x H mm
179650	Transition box	Back entry	Round	254 x 102
179656	Transition box	No entry	Blank	254 x 127

Transition box
Back entry

Transition box
No entry

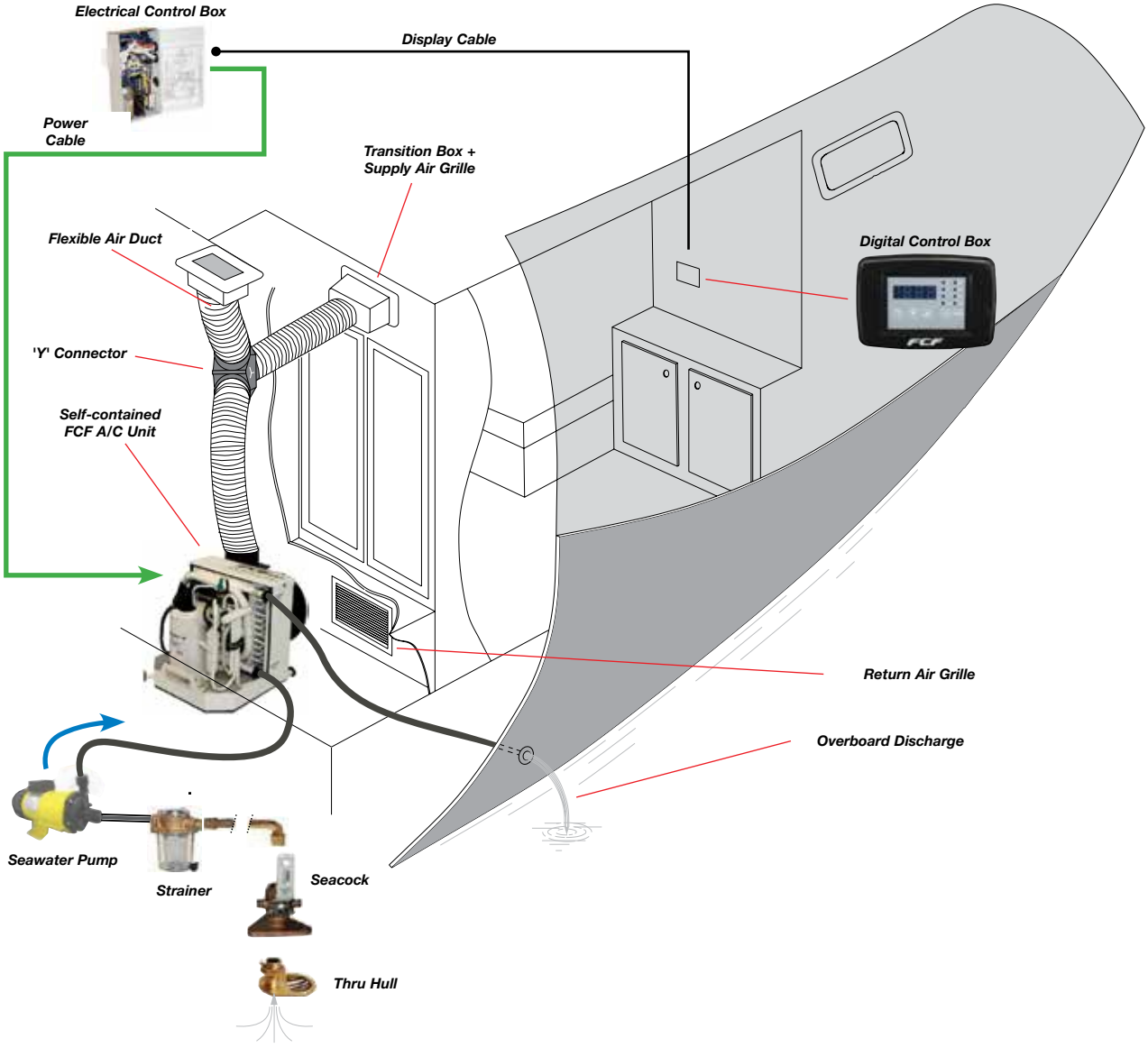
BLA Code	Description	Dia. mm	Length m
179660	Oval ring	100	-
179666	Oval ring	125	-
179682	Insulated ducting	127	3

Oval ring

Insulated ducting

Typical Installation

Webasto
Feel the Drive



SEATS & ACCESSORIES

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Seats & Accessories

Our boating chairs or seats are one of the most utilised parts of our boats, yet we quite often don't put much thought into which seat will best suit our needs.

Factors such as your budget, the boat size, whether the boat will be parked under cover or outside, how much use your boat gets and the interior or exterior positioning of the seat are just some of the factors that can enter into the equation when you are making your decision on what to choose. BLA offers the discerning boater a wide variety of options that cater for the majority of your boating needs.

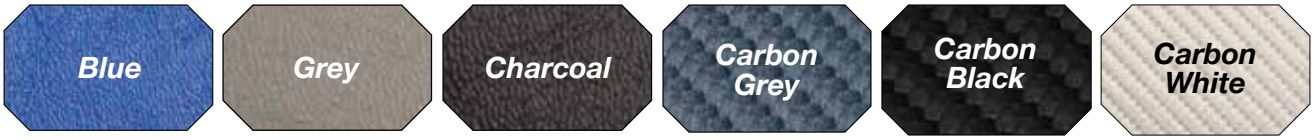
Many of these seating options include slight variations or options that have been added to traditional designs that can improve the quality or comfort of the seat significantly. For example the addition of an upholstered pillow to a standard plastic seat can add to the comfort, while fitting a sliding bracket base mount can alter the position of the seat providing an easier steering location.

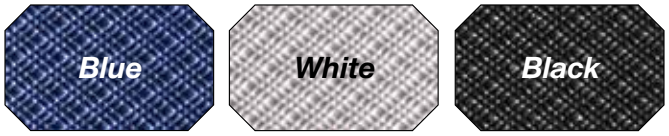
The material that a seat is made of will affect the life of the product; it therefore pays to choose a product that offers a type of U.V. stabilised material. A good example of this material would be the U.V. stabilised polypropylene that BLA uses in many of its chairs in conjunction with the marine grade vinyl. Both of these products will ensure that you will get the most out of your chair whether you intend using it in an indoors or outdoors environment.

If you intend purchasing a boat from a boat yard or even one that is being custom built for you. It can be a good idea to ask the question about your seating options as they will be able to install seats and positions that best suit your usage and requirements.

Vinyl Upgrade: BLA have upgraded many of the seats in the range with new marine vinyls and fabrics, designed especially for the marine and RV markets. The marine upholstery collection offers premium, top of the line weather-resistant marine-grade vinyl and fabrics.

Optimal U.V. and mildew protection helps extend the lifetime of the upholstery. BLA offers many styles, patterns, textures and designs. From comfort to performance, BLA has you're seating solutions covered.



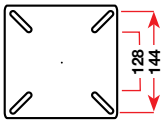


BLA can provide customised seating solutions (examples pictured) for your build or buying group requirements. Contact BLA on 1300 252 725 for more information.

Matching Seats, Pedestals, Slides and Swivels

The seating products detailed in this catalogue have a variety of mount hole patterns. Matching seats with pedestal slides and swivels is an important consideration for safe, easy to install seating. The seat to pedestal, slide or swivel mount hole pattern for the majority of seats, pedestal slides and swivels detailed in this catalogue fall into two basic patterns – 'standard mount hole pattern' and 'slide mount hole pattern'. To simplify product selection we show mount hole pattern icons on all products that have these hole patterns. Some seats, pedestals and slides incorporate both these hole patterns, so they can inter-fit with either hole pattern. These products are displayed with a combined icon – 'standard and slide mount hole pattern'.

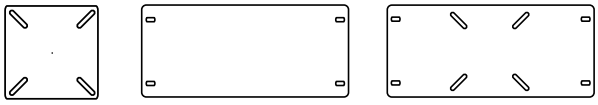
Standard mount hole pattern:



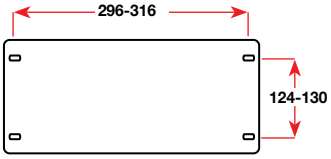
This is the most commonly used hole pattern for mounting marine seats. Pedestals, slides and swivels using this hole pattern have four slots in a cross pattern for screws up to 6mm (¼") with centres between 128mm and 144mm.

Slide mount hole pattern:

This hole pattern is generally used on larger seats and those designed to accept a seat slide, and is the hole pattern of all pedestal mount seat slides listed in this catalogue. The hole pattern accommodates screws up to 6mm (¼") with athwartship hole centres of 124mm to 130mm and fore and aft hole centres of 296mm to 316mm.



Standard mount hole pattern | *Slide mount hole pattern* | *Standard & slide mount hole pattern*



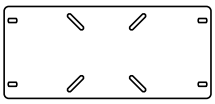
Helm Seat – Premium Offshore

The Offshore seat has been purposely designed with comfort and style to suit helm stations on today's modern boats. Features luxurious U.V. stabilised satin look marine grade material and a full aluminium frame with padded armrests to compliment the design.

181260

181262

BLA Code	Description	Height mm	Width mm	Depth mm
181260	Grey/charcoal	680	590	700
181262	White/black	680	590	700



Standard & slide mount hole pattern

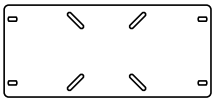
Helm Seat – Sportsman

The Sportsman helm seat with its deep bucket and stylish lines suits today's modern styled runabouts. Features luxurious U.V. stablised marine grade material and firm resiliant foam on a roto-moulded frame.

181270

181272

BLA Code	Description	Height mm	Width mm	Depth mm
181270	White/blue piping	475	520	550
181272	Grey/charcoal piping	475	520	550



Standard & slide mount hole pattern

Helm Seats - Jea High Backed

Quality high back chair finished in attractive two colour heavy duty U.V. stabilised marine grade vinyl. Deep foam padding wrapped around a heavy duty blow moulded shell provides excellent body support and comfort in all conditions. Large front bolster flips up via parallel hinges to create additional seating height or solid leaning support when standing to steer. Available in two upholstery options, pewter with dark silver trim and black with grey trim.

Features:

- Heavy duty marine grade vinyl over plush foam padding
- Bolster flips up for leaning position

181256

181258

BLA Code	Description	Height mm	Width mm	Depth mm
181256	Black seat with grey trim	670	580	700
181258	Pewter seat with dark silver trim	670	580	700

Slide mount hole pattern

Helm Seats - Ocean

Innovative fully upholstered seat, based on a rotationally moulded polyethylene shell, with marine grade heavy duty carbon look vinyl over plush foam padding. The front thigh support is hinged, allowing it to be flipped up, offering the helmsperson additional seating height or lean against standing support for greater visibility, comfort and safety. For additional storage a pouch with elasticised top is incorporated in the seat back. The shell and flip up mechanism may also be purchased separately (**181218**) for those wanting to custom upholster.

181218

Storage pouch

181211

181213

181215

Carbon Blue

Carbon Black

Carbon White

BLA Code	Description	Height mm	Width mm	Depth mm	Mount Screws Gauge
181211	Blue/white	570	520	530	14 r/h
181213	Grey/black	570	520	530	14 r/h
181215	Black/white	570	520	530	14 r/h
181218	Shell with flip up mechanism	560	510	520	14 r/h

UPGRADED VINYL

Slide mount hole pattern

Deluxe Sport Seats - Flip Up

Contoured bucket seat design providing excellent back and side body support for long periods at the helm. Plush foam padding covered U.V. stabilised marine grade carbon look material. Robust aluminium frame for longevity. The front thigh bolster incorporates heavy duty hinges, allowing it to be flipped up, providing the helmsperson additional seating height or solid leaning support when standing for greater visibility, comfort and safety.

Features:

- Deluxe sport flip up
- U.V. stabilised carbon look material
- Bolster flips up for leaning position
- Robust aluminimum frame

181247

181249

181251

Blue

Black

White

BLA Code	Description	Height mm	Width mm	Depth mm
181247	White/blue	580	510	410
181249	White/black	580	510	410
181251	Silver/grey	580	510	410

UPGRADED VINYL

Slide mount hole pattern

Pilot Chair - Royalita Deluxe

A high quality luxuriously upholstered premium chair finished in a breathable Markilux fabric with attractive and stylish stitching highlights. Uses a sturdy internal roto-moulded polyethylene shell for outstanding body support and comfort in all conditions. Features front flip up bolster for higher seating position and support while standing.

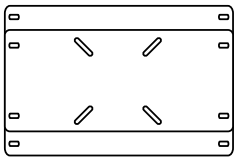
Finished in comfortable yet hard wearing marine Markilux fabric covering plush deep foam padding. Markilux provides a number of unique qualities over vinyl, including:

- Breathable so it feels more comfortable
- Dark colours do not burn on contact
- Does not become slippery with water or perspiration
- Ability to include intricate stitching highlights

BLA Code	Height mm	Width mm	Depth mm
181230	780	560	630

Pedestal Mount Chair Slide

Royalita pre-drilled pedestal mount with chair slide to suit 73mm O/D post. Powder coated cast alloy swivel pedestal top, extruded alloy slide track and front lever operated slide adjustment locking mechanism.



BLA Code	Height mm	Width mm	Depth mm	Mount Holes mm
183005	120	265	340	8 r/h

Pilot Seats

Luxuriously upholstered seats that provide optimum seating comfort. Front bolster flips up via parallel hinging for higher seating position, ideal when boat is climbing onto the plane, or for lean to support when it is necessary to stand and steer.

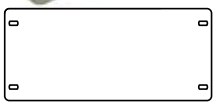
Manufactured with a sturdy roto-moulded polyethylene shell, alloy flip up mechanism and stainless steel fastenings for saltwater durability. The shell and flip up mechanism may also be purchased separately for those wanting to custom upholster.

Features:

- Canvas breathes so it feels more comfortable
- Dark canvas exposed to hot sun does not burn on contact like vinyl
- The Teflon coating repels water, dirt and oil
- Canvas does not become slippery with water or perspiration

181224

181228



Slide mount hole pattern

BLA Code	Description	Height mm	Width mm	Depth mm	Mount Screws Gauge
181224	White vinyl seat with navy trim	520	560	550	14 r/h
181228	Shell only with bolster	520	560	550	14 r/h

Upholstered Seats - Deluxe

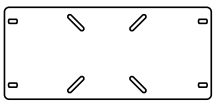
Generously sized, weather/mildew resistant and finely finished in heavy duty marine vinyl. The deluxe upholstered seats feature sewn and welded seams, firm high density foam and corrosion resistant powder coated aluminium back supports. Separately purchased arm rests are available in matching frame and vinyl colours. Rigid moulded plastic back and base chassis with moulded in well nuts for secure mounting.

181488

181494

181484

BLA Code	Vinyl Colour	Frame Colour	Height mm	Width No Arms mm	Width with Arms mm	Depth mm	Mount Screws UNC
181484	White	White	485	490	730	620	¼" r/h
181488	Blue	Grey	485	490	730	620	¼" r/h



Standard & slide mount hole pattern

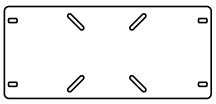
Accessories:

181494 Optional arm rests, white vinyl, white frame
181498 Optional arm rests, blue vinyl, grey frame

Helm Chairs - Deluxe

Solidly constructed helm seat with arm rests for inshore or offshore use when mounted to an appropriate base or pedestal. Generously proportioned and padded with 100mm thick high density seat padding for comfort over long distances and rough conditions. Polished aluminium back and arm rest supports. Reinforced rigid plastic moulded base with four well nuts for solid fastening in standard mount hole pattern. Also accepts slide hole pattern.

BLA Code	Height mm	Width mm	Depth mm	Mount Screws Gauge
181504	480	605	550	14



Standard & slide mount hole pattern

Pilot Seats - Deluxe Ladder Back

Well built ladder back design helm chair for piloting in comfort. The luxuriously padded seat and back cushions with the contoured polypropylene arm rests minimises fatigue during a hard day on the water. Manufactured of U.V. stabilised leather look material. Polypropylene and anodised aluminium with a conveniently located grab handle moulded to the back of the chair. The cushion is securely snapped to the base and can be easily removed for cleaning. Generous dimensions provide comfortable seating for all size skippers. White in colour. Use **183003** to mount seat to pedestals.

181922

BLA Code	Decription	Height mm	Width mm	Depth mm	Mount Screws Gauge
181922	White	540	560	710	14 r/h

183003

Slide mount hole pattern

Accessories:

183003 Mount adaptor plate - alloy

Deluxe Premier Fold Down Seats

The Deluxe Premier seat is installed by leading boat builders worldwide. It features detailed deluxe U.V. stabilised marine grade vinyl with thick plush moulded rebounding foam padding. The high back support adds extra comfort with the convenience of a mesh pocket. Supplied with non-corroding polypropylene base and pinchless hinge technology for added safety.

Storage pouch

181201

181203

181205

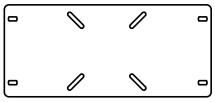
Blue

Grey

Carbon Black

BLA Code	Vinyl Colour	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws UNC
181201	Grey/grey	560	290	435	500	¼" r/h
181203	White/blue	560	290	435	500	¼" r/h
181205	Black/white	560	290	435	500	¼" r/h

UPGRADED VINYL



Standard & slide mount hole pattern

Flip Back Seat

A fully upholstered seat with flip back rest for facing forward or backward seating positions. Ideal for multi-purpose boats where forward travelling seating is required as well as back facing seating for observing lures, skiers and similar. The styling also allows side by side installation for twin or multiple bench style seating. Aluminium flip mechanism and U.V. stabilised marine grade white vinyl. The shell can be purchased separately (**181240**) for those wanting to custom upholster.

181236

181238

Carbon White

Carbon Black

181237

BLA Code	Description	Height mm	Width mm	Depth mm
181236	White	520	485	635
181237	Grey/charcoal	520	485	635
181238	White carbon/black carbon	520	485	635
181240	Shell only no upholsterry	520	485	635

UPGRADED VINYL

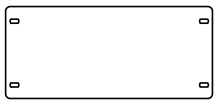
Slide mount hole pattern

Flip Up Seat

A truly versatile seat particularly suited to sports cruisers and sport fishing boats. Flip back rest for forward and backward facing seating positions. Flip up seat bolster for seated or supported standing positions. Supplied with luxurious U.V. stabilised marine grade satin look material over high density plush moulded foam.

BLA Code	Height mm	Width mm	Depth mm
181242	655	545	675

UPGRADED VINYL



Slide mount hole pattern

Fold Down Seat - High Back

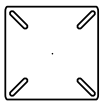
Thick polyurethane foam padded high back folding seat, ideal for runabouts and small fishing boats. The high back design provides extra support to make long days on the water more comfortable. To ensure longevity, internal frames are heavy walled high impact resistant plastic and the base has moulded in well nuts for fastening security. Finished in two tone grey and charcoal luxury U.V. stabilised marine grade vinyl.

Charcoal

Grey

BLA Code	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws UNC
181192	545	330	425	540	¼" r/h

UPGRADED VINYL

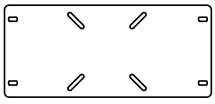


Standard mount hole pattern

Fold Down Seat - High Back with Arm Rests

A fully padded high back folding seat ideal for inshore or offshore use. The moulded seat back and base coupled with deep upholstery provide excellent body support and comfort over long distances and for all conditions. Removable arm rests provide additional comfort and stability when under way. Finished in attractive heavy duty marine grade white vinyl, featuring sewn and welded seams with attached back storage pocket. The heavy duty plastic base includes four well nuts in standard hole mount pattern for secure and solid fastening.

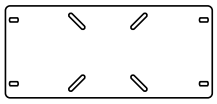
BLA Code	Height mm	Width mm	Depth mm
181914	690	550	580



Standard & slide mount hole pattern

Fold Down Seat - Medium Back

A fully padded folding seat ideal for inshore or offshore use. Deep shaped upholstery provides excellent body support and comfort in all conditions and over long distances. Finished in attractive heavy duty marine grade white and grey vinyl featuring sewn and welded seams with attached back storage pocket. The moulded seat back provides excellent support while the base includes four well nuts in standard hole mount pattern for secure and solid fastening.

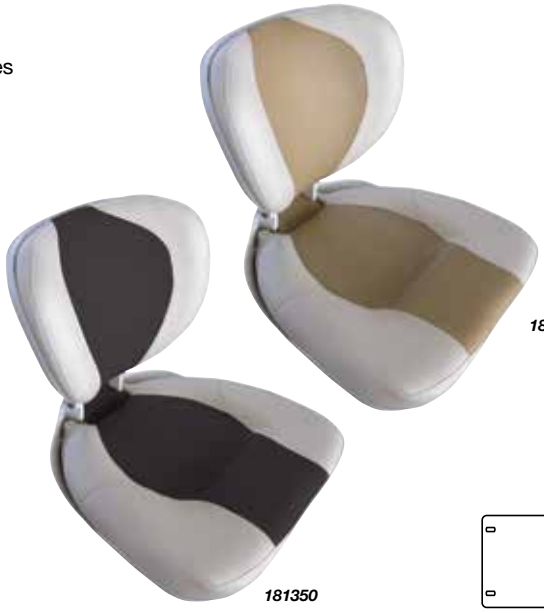


Standard & slide mount hole pattern

BLA Code	Vinyl Colour	Height mm	Width mm	Depth mm
181355	White/grey	590	500	500

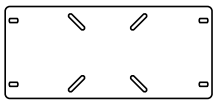
Fold Down Seats - Venus

Padded folding seat with great aesthetic appeal suitable for a wide range of boating applications. Shaped upholstery provides excellent body support and comfort in all conditions and over long distances. Finished in heavy duty marine grade vinyl and available in two attractive colour combinations featuring sewn seams to suit almost any boat interior. The moulded seat back provides excellent support while the base includes four well nuts in standard hole mount pattern for secure and solid fastening.



181348

181350

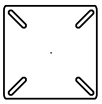


Standard & slide mount hole pattern

BLA Code	Vinyl Colour	Height mm	Width mm	Depth mm
181348	White/tan	500	490	380
181350	White/charcoal	500	490	380

Fold Down Seat - Economy

High impact resistant moulded plastic interior frame. U.V. stabilised marine grade light grey vinyl with feature seams, thick polyurethane foam padding, sturdy aluminium hinges, zinc plated staples and fastenings combined with compact classic styling, to deliver a smart appearance seat at an economical price. Moulded in well nuts in base ensure secure fastening. Mount screws included.



Standard mount hole pattern

BLA Code	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws UNC
181190	450	300	410	460	¼" r/h

First Mate Seats - Upholstered Pads

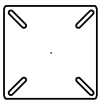
Compact padded seating. Single piece moulded polyshell in grey textured finish. Vinyl upholstered pad inserts for additional comfort. Also available without padding (**181334**).

181330

181328

181334

BLA Code	Padded	Vinyl Colour	Height mm	Width mm	Depth mm	Mount Screws Gauge
181328	Yes	Grey	375	435	490	8 r/h
181330	Yes	Blue	375	435	490	8 r/h
181334	No	N/A	375	435	490	8 r/h


Standard mount hole pattern

First Mate Seats - Fully Upholstered

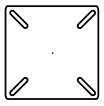
An economical fully upholstered seat. One piece moulded polyshell. Features U.V. stabilised marine grade vinyl and foam padding.

181320

181322

181325

BLA Code	Vinyl Colour	Height mm	Width mm	Depth mm	Mount Screws Gauge
181320	Grey/charcoal	400	465	490	8 r/h
181322	Blue/white	400	465	490	8 r/h
181325	Blue/grey	400	465	490	8 r/h


Standard mount hole pattern

Crew Fold Down Seats

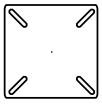
Fold down low rise back rest. Available as shell only or with upholstered inserts. Thermo plastic mouldings with non corrosive hinge and mount fastenings. Press stud securing strap to hold seat back in down position.

181402

181400

181390

BLA Code	Padded	Shell Colour	Vinyl Colour	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws Gauge
181390	No	Grey	n/a	395	270	530	500	8 r/h
181400	Yes	Grey	Grey	395	270	530	500	8 r/h
181402	Yes	Grey	Grey/charcoal	395	270	530	500	8 r/h


Standard mount hole pattern

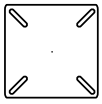
Navigator Fold Down Seats

Detailed upholstery and moulded foam padding, coupled with a deep contoured shell, have combined to produce a seat with a high level of comfort and aesthetic appeal, at a modest price. Tough injection moulded shell has an integral moulded pinch free hinge with self-locking mechanism to hold the fold down back rest in the upright position.

181340

181342

BLA Code	Colour	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws mm
181340	Black/grey	455	335	450	550	6 r/h
181342	Navy/off white	455	335	450	550	6 r/h


Standard mount hole pattern

Skipper Fold Down Seats - Upholstered Pads

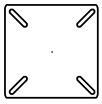
Fold down, grey U.V. stabilised, injection moulded seat with deep rolled front edge for comfortable support. Universal mounting pattern to suit most popular swivels and pedestals. Friction type lock down for seat back. Vinyl upholstered pad inserts on seat and back for added comfort. Welded feature upholstery seams.

181110

181112

181114

BLA Code	Vinyl Colour	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws Gauge
181110	Grey	450	200	500	480	8 r/h
181112	Blue	450	200	500	480	8 r/h
181114	Teal	450	200	500	480	8 r/h


Standard mount hole pattern

Swivel Fold Down Seats - Quick Disconnect

Australian made quick disconnect seat manufactured especially for the fisherman with car topper or tinnie, who wants big boat comfort with the convenience of a removable seat. The seat features a quick connect/ disconnect 360° swivel that requires no lubrication and will not rust. Removal or connection of the seat is simply push on, or push release and slide off. The seat's inherent flex properties absorb shock, reducing seating fatigue. It's weather resistant qualities assure long life in any marine environment. The fold down back allows this compact seat to store easily for transportation or when a boat cover is applied. Available as a shell only for super long durability, even in permanent exposure, or for those wanting added comfort, models with upholstered inserts pre-installed are available. Additional padded upholstery sets are also available, purchased separately. Seat is not intended for pedestal mounting.

181006

181016

181020

181022

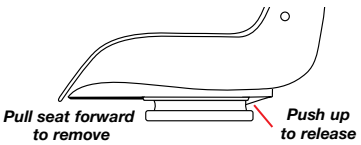
BLA Code	Padded	Vinyl Colour	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws Gauge
181006	No	n/a	455	220	465	470	6 r/h
181020	Yes	Grey	455	220	465	470	6 r/h
181022	Yes	Blue	455	220	465	470	6 r/h

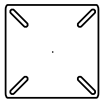
Standard Inclusions:

181016 Mount base

Accessories

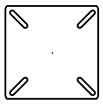
181074 Cushion set to suit **181006** - blue/light grey/white
181084 Cushion set to suit **181006** - blue/white
181086 Cushion set to suit **181006** - charcoal/grey


Pull seat forward to remove
Push up to release


Standard mount hole pattern

Skipper Fold Down Seat

Two piece U.V. stabilised injection moulded seat with fold down back. Heavy gauge wall thickness. Ample base reinforcement ribs and substantial screw attachments, coupled with a weather resistant material, have been combined to provide a tough seat that can handle permanent exposure in the marine environment. The deep rolled front edge and inherent flex properties reduce extended seating fatigue. Separately purchased padded upholstery sets are also available. Grey stipple finish.



Standard mount hole pattern

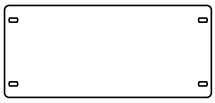
BLA Code	Height Up mm	Height Folded mm	Width mm	Depth mm	Mount Screws Gauge
181076	420	200	465	470	8-10

Accessories:

181074 Cushion set - blue/light grey/white
181084 Cushion set - blue/white
181086 Cushion set - charcoal/grey

Helm Seat - Commodore

Fully upholstered seat made from U.V. stablised Grandeur marine material, over a fully rotationally moulded base giving superior comfort.
Features built in arm rests and a mesh pocket.



Slide mount hole pattern

BLA Code	Description	Height mm	Width mm	Depth mm
181442	Grey/white	475	520	550

Upholstery Sets - Skipper & Quick Disconnect

Vinyl upholstery seat and back cushions to suit the skipper seat shell **181076** and quick disconnect swivel seat shell **181006**. No tools required for installation, simply press stud together.

181074 (Seat not included)

181084 (Seat not included)

181086 (Seat not included)

BLA Code	Upholstery Colour
181074	Blue, light grey & white
181084	Blue & white
181086	Charcoal & grey

Moulded Seat - Commodore

Rotationally moulded in U.V. stabilised white polyethylene. The one piece hollow centre, double skin construction provides rigidity, insulates and has no sharp edges. Cut away arm rests allow ample leg room even for large crew. Separately purchased marine grade vinyl upholstery sets are available in white or white/grey. This seat has a slide mount hole pattern. If fitting without a slide, alloy mounting plate **183003** is available to install the Commodore seat onto most pedestals.

181440

181479

BLA Code	Decription	Height mm	Width mm	Depth mm	Mount Screws Gauge
181479	White/grey	475	520	550	14 r/h

Accessories:

181440 Seat shell
181480 Cushion set - grey
183003 Mount adaptor plate - alloy

181480 Cushion only

183003

Slide mount hole pattern

Moulded Seat - Yachtsman

Specially designed for maximum seating area. Wide cupped seat with high arm rests, the Yachtsman allows complete freedom of movement no matter what your size. Cut-away sides provide ample leg movement. Durable rotationally moulded polyethylene shell supplied with fore/aft seat slide. Upholstery set, purchased separately, features marine grade vinyl, plush foam padding, heat seal channels and textilene mesh underliner to allow cushions to dry.

181436
(Seat slide included)

Seat Slide

181477

181476
Cushion only

BLA Code	Decription	Height mm	Width mm	Depth mm	Mount Screws Gauge
181477	Blue/white	440	540	510	6 r/h

Accessories:

183003 Mount adaptor plate - alloy
181436 Shell with slide
181476 Cushion set - white

Slide mount hole pattern

Moulded Seat - Admiral

Rotationally moulded in U.V. stable white polyethylene. The one piece hollow centre, double skin construction, provides rigidity, insulates and has no sharp edges. Moulded in arm rests helps keep crew in the seat in rough weather. Moulded grab handle in back rest. Separately purchased marine grade vinyl upholstery sets are available for that little additional comfort. This seat has a slide mount hole pattern. If fitting without a slide, alloy mounting plate **183003** is available to install the Admiral seat onto most pedestals.

181481
Cushion only

181444

BLA Code	Decription	Height mm	Width mm	Depth mm	Mount Screws Gauge
181444	Seat shell	430	480	500	14 r/h

Accessories:

181481 Cushion set - white & black
181483 Cushion set - grey
183003 Mount adaptor plate - alloy

183003

Slide mount hole pattern

Bay Seat - Pedestal

These upholstered helm seats are supplied ready to install into your favourite seating position. Package includes the Bay seat, upholstery set and Coastline adjustable height pedestal.

Features:

- Tough blow moulded all weather seat shell
- Marine grade upholstery
- Anodised aluminium adjustable height pedestal
- Lockable seat swivel
- Sturdy 225mm diameter six bolt floor mount

BLA Code	Seat Colour	Vinyl Colour	Overall Height mm	Sitting Height mm	Width mm	Depth mm	Mount Holes mm
181360	Grey	Off white/navy	810-990	400-580	460	550	6 c/s

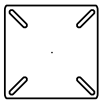
Bay Seats - Shell

The Bay seat range is based on a tough versatile blow moulded shell. A range of upholstery and mount options enables the Bay seat to accommodate numerous marine seating requirements from a basic tinnie bench seat mounted shell, to a fully upholstered pedestal mounted helm chair. Generous base area with moulded in leg contours and high back support provide all day on water comfort. Grab handles are incorporated in back rest. Eight zinc alloy well nuts moulded into base ensures reliable and secure mount fastening. Four stainless steel mount screws included.

For additional comfort and styling, the Bay seat can be upholstered with a cushion set. Manufactured from marine grade vinyl, high density foam, nickel plated brass press studs and stainless steel screws, to ensure longevity in saltwater environment. Easy fitting and press stud removal for cleaning.

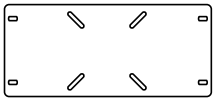
181370

181368



Standard mount hole pattern

181380
Cushion only



Standard & slide mount hole pattern

BLA Code	Decription	Colour	Height mm	Width mm	Depth mm	Mount Screws Gauge
181368	Shell only	Grey	480	460	550	6 r/h
181370	Shell only	Off white	480	460	550	6 r/h

Accessories:

181380 Cushion set - White & navy

Seat Cushions - Tinnie

Fully upholstered seat padding that press stud mounts onto tinnie bench seats. U.V. stabilised marine quality vinyl. High density foam padding. Includes studs and alloy pop rivets for mounting. Available in blue or grey.

181040

181040G

UPGRADED VINYL

BLA Code	Colour	Length mm	Width mm	Thickness mm
181040	Blue	600	300	50
181040G	Grey	600	300	50
181044	Blue	1200	300	50
181044G	Grey	1200	300	50
181046	Blue	1500	400	50
181046G	Grey	1500	300	50

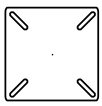
Seat Cushions

Ideal for cockpit and bench seats, these closed cell eva foam cushions turn any hard surface into comfortable seating. Easy to clean, will not absorb water. Textured finish.

BLA Code	Length mm	Width mm	Thickness mm
181028	990	330	20
181032	1300	330	20

Pro Seat - Stand Up

Designed for lure casting or fly fishing in protected waterways. Used in conjunction with Hi-Lo seating system (refer to page 433). Moulded poly base covered with thick foam padding and marine grade vinyl. ¼" (6.3mm) UNC threaded inserts in base.



Standard mount hole pattern

BLA Code	Colour	Height mm	Width mm	Depth mm	Mount Screws UNC
181047	Grey	140	390	290	¼"

Adjustable Seat Pedestals - Heavy Duty Gas

Gas operated adjustable height pedestals incorporating gas suspension ride. Heavy duty, anodised cast alloy base. Instantaneous gas locking height adjustment via a lift lever release and swivel chair slide. Suits most seat mount hole configurations. Outer post diameter 84mm, inner post 73mm.

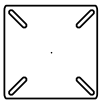
Standard & slide mount hole pattern

BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183038	380-508	228	8
183040	520-648	228	8

Adjustable Seat Pedestals - Gas

Gas operated adjustable height pedestals incorporating gas suspension ride. Heavy duty, anodised cast alloy base. Instantaneous gas locking height adjustment via a lift lever release. Supplied with either a swivel mount top or a swivel chair slide. Suits most seat mount hole configurations. Outer post diameter is 73mm, inner post is 60mm.

N.B. Gas Adjustable Pedestals only rated to 120kg person.



Standard mount hole pattern

Slide seat mount hole pattern

183006

183007

BLA Code	Pedestal Top	Height mm	Base Dia. mm	Base Mount Holes mm
183006	Swivel seat mount	370-505	228	8 c/s
183007	Swivel chair slide	383-517	228	8 c/s

Seat Pedestals - Universal

Positive locking swivel and seat slide, operated by one unique control unit, positioned front and centre of seat, allowing finger tip control. This pedestal can be mounted on the port or starboard side of boat, with unrestricted access to all adjustables. Featuring 150mm of fore/aft travel with 360° rotation swivel with automatic locking in forward position.

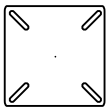
Materials: Natural, polished and hammer tone finished aluminium; stainless steel and plastics.

Slide mount hole pattern

BLA Code	Height mm	Base Dia. mm	Pedestal Dia. mm	Seat Mount mm	Base Mount Holes mm
183030	315	228	73	330 x 185	8 c/s
183032	470	228	73	330 x 185	8 c/s
183033	570	228	73	330 x 185	8 c/s
183034	650	228	73	330 x 185	8 c/s

Adjustable Seat Pedestal - Belle

Economical, adjustable height aluminium pedestal. Large diameter cast aluminium, grey hammer tone finish base with built-in trigger action height adjustment of 330mm to 440mm. 360° friction locking swivel head in hammer tone finish cast alloy.



Standard mount hole pattern

BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183014	330-440	254	6 c/s

Adjustable Seat Pedestal - Posi-Lock

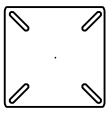
Adjustable height aluminium pedestal suited to a wide range of applications. Large 228mm diameter anodised cast aluminium base. 340mm to 415mm Posi-lock height adjustment in 25mm increments. 360° friction lock cast alloy swivel head in hammer tone finish.

BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183012	340-415	228	8

Adjustable Seat Pedestal - Columbia

Adjustable height pedestal. Heavy duty cast alloy base with six mounting holes for solid support on cockpit or cabin floor. Anodised alloy post and base for corrosion protection. Simple friction locking height adjustment handle. Friction locking powder coated alloy swivel head assembly. Sturdy 73mm x 4mm base pole and 60mm x 3mm top pole with sleeved to accept 73mm I.D. swivel base.

BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183010	370-580	228	8 c/s



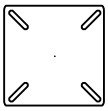
Standard mount hole pattern

Accessories:

183022 Swivel top only

Adjustable Seat Pedestals - Coastline

Built for the saltwater environment, anodised aluminium, glass filled nylon and stainless steel materials. Solid construction, 73mm x 3mm base tube, 66mm x 3mm top tube, both internally rib reinforced. Heavy duty die-cast alloy base and heavily reinforced glass nylon swivel head assembly. Mount base suits countersunk screws or hex head. Directly accepts **183080** seat slide.

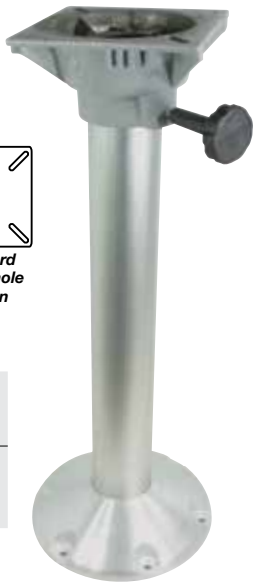


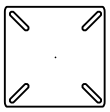
Standard mount hole pattern

BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183070	340-510	225	8 c/s
183072	500-720	225	8 c/s

Fixed Seat Pedestals - Columbia

These popular pedestals have a heavy duty cast-aluminium base, with six mounting holes for solid support on cockpit or cabin floor. The post is 73mm in diameter and is fitted with a friction locking swivel. Anodised aluminium finish base and pole, powder coated cast alloy head assembly. Three heights available but can be easily cut down if a lower seating height is required.





Standard mount hole pattern

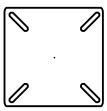
BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183024	455	228	8 c/s
183026	610	228	8 c/s
183028	760	228	8 c/s

Accessories:

183022 Swivel top only

Fixed Seat Pedestals - Coastline

Anodised aluminium base and pole with glass-reinforced nylon locking swivel top for saltwater application. Sturdy 73mm x 3mm internal rib reinforced post. The swivel top is heavily reinforced and being nylon offers silent swivelling. Mount base accepts countersunk screws or hex head. Directly accepts **183080** seat slide. Available in four heights but pedestals can be easily cut down if a lower seating height is required.



Standard mount hole pattern

BLA Code	Height mm	Base Dia. mm	Base Mount Holes mm
183060	300	225	8 c/s
183062	450	225	8 c/s
183064	600	225	8 c/s
183066	750	225	8 c/s

Adjustable Table Pedestal - Gas

Heavy duty gas operated adjustable height pedestal, with combination friction lock swivel mount top and lever operated slide providing 140mm of movement to convert dinettes into bunks. Instantaneous height adjustment via a simple friction lock handle. An excellent aid to raising and lowering heavier table tops. Telescopic centre tube requires 195mm clearance below floor. Outer post diameter is 86mm, inner post is 73mm. Heavy duty, 306mm diameter cast alloy anodised base.

N.B. Only rated to 120kg person.

BLA Code	Height mm	Base Dia. mm	Mount Holes mm
183412	356-675	306	8 c/s

Adjustable Table Pedestal - Coastline

Built for the saltwater environment with anodised aluminium, glass filled nylon and stainless steel materials. Solid construction, 73mm x 3mm base tube, 66mm x 3mm top tube, both internally rib reinforced, heavy duty die cast alloy base and heavily reinforced glass nylon swivel head assembly. Mount base suits countersunk screws or hex head. Used to convert dinettes into bunks. Height is adjustable via a simple friction locking handle. The telescopic centre tube retracts through the floor and requires 173mm clearance below the floor. Adjusts from 340mm to 680mm above floor.

BLA Code	Height mm
183420	340-680

Stowable Table Pedestal

Button lock top and bottom keeps pedestal securely fastened in all conditions, but still allows table to rotate. Simply push release and remove post for convenient storage. Anodised aluminium pole, head and mount base. 762mm high from boat deck to top of table mount. Additional mount bases available separately to allow the pedestal table to be used in multiple locations such as dinnette and cockpit.

BLA Code	Height mm	Base Dia. mm	Intrusion mm	Cut Out Dia. mm	Mount Holes mm
183200	762	178	45	80	6 c/s

Accessories:

183202 Additional mount base

Removable Table Pedestal

A simple, economical, stylish solution for free standing table installations.

Features:

- Sturdy 60mm anodised alloy tube
- Glass filled nylon base and table mount
- Recessed mount base
- Press release lock top and bottom to securely fasten in all conditions but still allow the table to rotate

BLA Code	Height mm	Mount Dia. mm	Base Intrusion mm	Base Protrusion mm	Mount Holes mm
183188	685	178	58	16	6 c/s

Fixed Table Pedestals - Thread-Lock

Wobble free low profile threaded twist lock deck socket. No need to cut hole in deck to accommodate pedestal post. Sturdy 60mm anodised aluminium pole. Glass filled nylon table mount and choice of glass finished nylon or anodised aluminium floor base.

183192 base

183190

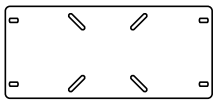
BLA Code	Base	Height mm	Mount Dia. mm	Base Height mm	Mount Holes mm
183190	Nylon	685	178	16	6 c/s
183192	Alloy	685	178	16	6 c/s

Accessories:

183196 Additional alloy mount base

Chair Slides - Pedestal Mount

Two sizes available to suit pedestal poles with an outside diameter of either 60mm or 73mm. Consists of a powder coated cast alloy swivel pedestal top with Delrin slides, extruded alloy slide track and front lever operated slide adjustment locking mechanism. Seat mount plate is pre-drilled to accept most popular seat mount hole patterns, but can also be drilled to suit non standard seat mount hole patterns.

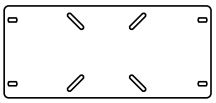


Standard & slide mount hole pattern

BLA Code	Post Dia. mm	Width mm	Depth mm	Height mm	Mount Holes mm
182104	60	192	340	95	8 r/h
182105	73	192	340	95	8 r/h

Seat Slide - Coastline

Fits directly to the Coastline fixed and Coastline adjustable pedestals (refer to page 430). Anodised aluminium and stainless steel materials to handle saltwater. Sturdy 4mm thick extruded chassis. Front operated slide release lever moves with seat so it is always within reach. 110mm of travel in 10mm increments. Pre-drilled to suit most popular seat mount hole patterns, but can also be drilled to suit non standard seat mount hole patterns.

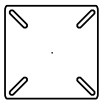


Standard & slide mount hole pattern

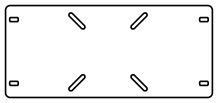
BLA Code	Width mm	Depth mm	Height mm	Mount Holes mm
183080	180	335	80	8 r/h

Chair Slide - Universal Trac-Lock 2

Mounts between seat and flat mount surface, or pedestal top, to provide front lever operated fore and aft sliding of seat. 110mm of movement in 10mm increments. Extruded aluminium top and base channels, Delrin slides and stainless steel lock hardware for corrosion free saltwater use.



Standard Pedestal mount hole pattern

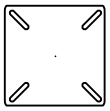


Standard & slide seat mount hole pattern

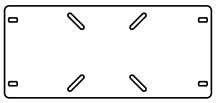
BLA Code	Width mm	Depth mm	Height mm	Mount Holes mm
182102	192	340	51	8r/h

Lockable Swivel & Seat Slide - Universal

Mounts between seat and flat mount surface with front lever slide control, as well as swivel capable with every ¼ turn lock facility. Slide has 160mm travel with lock capability every 10mm. Slide is manufactured in aluminium and swivel is powder coated aluminium.



Standard mount hole pattern



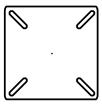
Standard & slide mount hole pattern

BLA Code	Width mm	Depth mm	Height mm	Mount Holes mm
182098	192	340	60	8 r/h

Pedestal Post Swivel Tops

Grey hammer tone finish, cast alloy, friction locking swivel pedestal tops to suit either 60mm or 73mm outside diameter tube. Moulded plastic cup insert between pedestal top and post for smooth swivel action. Screw adjustable friction control locks swivel at any position of rotation.

BLA Code	Post Dia. mm	Width mm	Depth mm	Height mm	Mount Holes mm
183179	60	170	170	85	8 r/h
183022	73	170	170	85	8 r/h

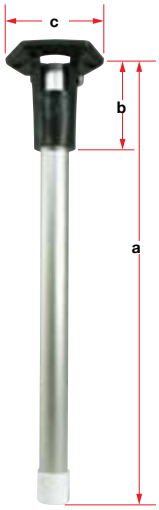


Standard mount hole pattern

Fold Down Seat Legs

These fold down seat legs have an anodised, 22mm alloy tube with a black, U.V. stabilised, plastic hexagonal mounting base. Simple yet effective fold down mechanism firmly locks the seat leg in the down position.

183348



183350

BLA Code	a mm	b mm	c mm	Mount Holes mm
183350	340	74	77	5 c/s
183352	670	74	77	5 c/s

Standard Inclusions:

183348 Base only

Hi-Lo Seating System

The Hi-Lo Seating System is a two position pedestal system that allows a boat seat to be used in a high position for fishing and a low position while the boat is underway. Simply remove the pedestal and place the seat mount directly into the base socket for low seating position, insert pedestal for high seating position.

The Hi-Lo System comprises of three pieces:

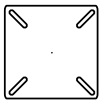
- Pedestal seat mount
- Pedestal post
- Pedestal deck base

183110

Pedestal Seat Mounts

- 360° rotation
- 3° reclined seating position
- Corrosion Resistant E-Cote plated
- Optional spring suspension ride

BLA Code	Spring	Pin Dia. mm
183108	No	19
183110	Yes	19



Standard seat mount hole pattern

Hi-Lo Pedestal Posts

Nylon top bush for smooth, silent, lube free swivel operation, anodised aluminium tube, stainless steel pin. Available in fixed height or adjustable height.

BLA Code	Height mm	Tube Dia. mm	Pin Dia. mm
183115	330	38	19
183117	380	38	19
183120	490-640	38	19

183115

183120

Hi-Lo Pedestal Deck Bases

- Stainless steel or anodised alloy construction
- Nylon bush for smooth, silent, lube free swivel operation

183123

BLA Code	Material	Size mm	Intrusion mm	Mount Screws mm
183123	Stainless steel	177x177	62	6 c/s
183130	Anodised alloy	177x177	62	6 c/s

Plug-in Pedestal Bases

Grey hammer tone finish, or anodised aluminium bases that suit the range of plug-in pedestals. Glass filled nylon insert provides a flush surface when pedestals are not installed. Available in round or 'D' configurations. Anodised finish is recommended for saltwater applications.

183180

183184

183183

BLA Code	Finish	Shape	Base Dimensions mm	Intrusion mm	Mount Holes mm
183180	Hammer tone	Round	228 Ø	61	8 c/s
183182	Hammer tone	'D'	228 x 179	61	8 c/s
183183	Anodised	Round	228 Ø	61	8 c/s
183184	Anodised	'D'	228 x 179	61	8 c/s

Plug-in Pedestals

The plug-in pedestal system offers the most flexible seating position options of all pedestals available from BLA. Any number of seating positions can be chosen by the simple addition of the base of your choice. By offering three styles of pedestals - fixed, manual adjustable or gas adjustable - plug-in caters for most individual requirements. Manufactured from a combination of aluminium, stainless steel and glass filled nylon. Plug-in ensures years of maintenance free performance.

Plug-in Fixed Height Pedestals:

To be used in conjunction with the plug-in pedestal bases listed below. Posts recess into base by 53mm.

Features:

- Separate bases provide multiple seating positions and allow simple removal of pedestal to maximise cockpit space
- 60mm diameter pedestal post
- Aluminium, stainless steel and plastic construction
- 360° lockable friction swivel

183152

Standard mount hole pattern

BLA Code	Description	Overall Height mm
183160	Swivel and post	438
183162	Swivel and post	516
183164	Swivel and post	668
183166	Swivel and post	819
183150	Post only	415
183152	Post only	493
183154	Post only	645
183156	Post only	796
183179	Swivel top only	–

N.B. Pedestal posts sold separately for use with 182104 seat slide on page 432.

Plug-in Power Rise Pedestal

System matched with plug-in bases, this pedestal features gas operated height adjustment and air-ride comfort.

Features:

- Instantaneous height adjustment
- Gas suspension ride
- 6° angled seat position
- 360° swivel

Dimensions:

- 60mm lower pedestal post
- Post recesses into base by 53mm

Standard mount hole pattern

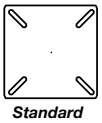
BLA Code	Overall Height mm
183170	420-580

Plug-in Adjustable Height Pedestal

To be used in conjunction with the plug-in pedestal bases. Post recesses into base by 53mm.

Features:

- Positive detent pin height adjustment
- Removable for multiple seating positions
- 60mm diameter pedestal post
- 360° lockable friction swivel
- Aluminium, stainless steel and plastic construction



Standard mount hole pattern

BLA Code	Overall Height mm
183172	370-560

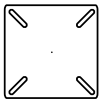
Seat Swivels

360º seat swivels available in stainless steel, PPG or corrosion resistant zinc coated steel. All swivels have nylon slide runners for silent smooth operation.

182054

182056

182058



Standard mount hole pattern

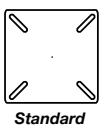
BLA Code	Material	Width mm	Depth mm	Height mm	Mount Holes mm
182054	Stainless steel	175	175	32	8 r/h
182056	Zinc coated	175	175	32	8 r/h
182058	PPG coated	176	176	22	8 r/h

Seat Swivels - Locking

360º seat swivels that can be locked at 30º intervals (12 positions). Corrosion resistant black PPG treated steel or stainless steel construction. Nylon slide runner for smooth silent operation. Release handle swivels with seat and extends 175mm from front of swivel for convenient under seat front operation. Swivel mechanism rated to 150kg total load capacity.

182060

182062

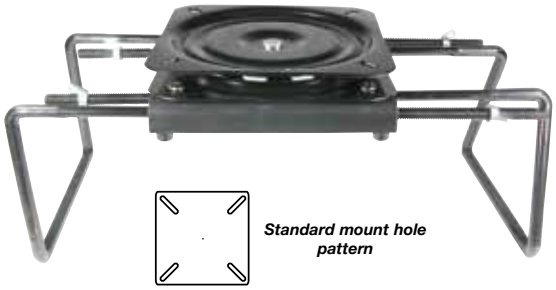


Standard mount hole pattern

BLA Code	Material	Width mm	Depth mm	Height mm	Mount Holes mm
182060	PPG coated	190	227	27	8 r/h
182062	Stainless steel	190	227	27	8 r/h

Boat Seat Swivel - Clamp on

Ideal for tinnies, this seat swivel clamps via threaded rod and wingnut adjustment on most tinnie bench seats, enabling quick and easy fitment and removal for storage. Moulded plastic base to minimise marking of unpainted alloy bench seat. Clamp rods are zinc plated, black powder coated and have plastic coated ends to prevent marking of alloy bench seat. Clamp range adjusts to accommodate bench seats from 240mm to 540mm in width.

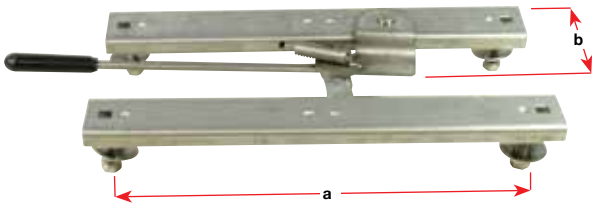


Standard mount hole pattern

BLA Code	Suits
182112	Standard seat mount hole pattern

Seat Slide - Low Profile

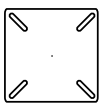
Ideal for ski boats and bass boats. Mounts directly to floor or seat box and to underside of seat. 160mm of roller bearing fore and aft travel with 9 self locking positions. 8mm x 28mm mount studs pressed into floor mount track. Stainless steel construction.



BLA Code	Track Length mm	a mm	b mm
182106	305	280	74

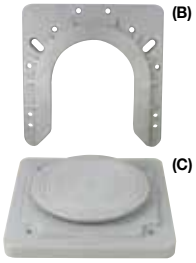
Universal Removable Seat Base

Converts boat seats with standard mount hole pattern to 360º swivel with quick disconnect. Corrosion proof construction of sturdy glass filled nylon. Additional mount bases are available so the same seat can be fitted at other locations on the boat. Ideal for car toppers by providing quick finger push removal of the seat. Not suited to pedestal mount.



Standard mount hole pattern

(A)



(B)

(C)

BLA Code	Base Includes	Width mm	Depth mm	Height mm	Mount Holes mm
182110	(A, B & C)	180	218	48	6 r/h

Accessories:

(A) **182111** Adaptor plate for universal quick disconnect
(B) **181000** U-shaped bracket to suit quick disconnect bracket
(C) **181016** Mount swivel to suit quick disconnect seat

HULL, DECK & CABIN HARDWARE

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Introduction to Aluminium Anodes

Sacrificial anodes are specifically designed to protect those metal parts submerged and exposed in water by sacrificing themselves by wasting away. BLA provides a wide range of quality Martyr anodes including round models to suit propeller shafts and rudders, block models for hull protection, complete kits for stern drives and outboards plus pencil models for diesel applications.

In recognition of our delicate marine environment BLA introduces a range of pressure die-cast Martyr aluminium (Mil A 24779 SH) anodes. Where traditional zinc anodes use small amounts of Cadmium in the manufacturing process, all Martyr aluminium anodes are completely Cadmium free, being predominantly made of non-toxic aluminium and Indium.

The Cadmium free anode offers many benefits and advantages over the traditional zinc type.

In addition to being more environmentally friendly, the aluminium anode is significantly lighter for the same given volume which can result in fuel savings where large zinc block anodes have previously been used.

Martyr aluminium anodes offer improved performance and efficiency due to its electrical capacity to become sacrificial, being almost twice that of zinc, weight for weight. This electrical advantage results in longer anode life of up to 50% over zinc whilst providing excellent corrosion protection and benefiting the user by extending time between anode replacement.

The following is a brief technical comparison between zinc and aluminium anodes. Look for the dedicated aluminium anode code listed within the tables if available.

- Zinc capacity of ampere hours per 453 grams is 355 hours while aluminium is 1225 hours
- Zinc anodes will give one amp for 355 hours for every 453 grams of zinc while aluminium will give one amp for 1225 hours per 453 grams of aluminium
- Typical 4.68kg zinc anode performing at 0.5 amp would be expected to provide 7312 hours (10 months) of protection
- Typical same sized 2.7kg aluminium anode performing at 0.5 amp would be expected to provide 12,250 hours (16 months) of protection

Aluminium features and benefits include:

- Environmentally friendly, Cadmium free
- Lighter weight for given volume than traditional zinc
- Improved efficiency resulting in longer service life
- Less weight for better fuel efficiency
- Wide range available including stern drive kits

Anode Selection Guide

	Selection				Sterndrive/ Outboard
Hull Material	Wood	Fibreglass	Alum	Steel	All
Freshwater (Pure)	Alum	Alum	Alum	Alum	Alum
Freshwater (Polluted)	Alum	Alum	Alum	Alum	Alum
Brackish	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum
Saltwater	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum

Anode Specifications

Without proper protection, your boat and motor can be ruined by galvanic corrosion, as a result of electrolysis.

A boat may have many metals electrically connected in a saltwater solution (the sea). When two dissimilar metals are electrically connected and submerged in an electrolyte (sea water) a natural chemical reaction takes place. This chemical reaction forms a circuit where the least noble metal - the anode - will begin to break down leaving the most noble metal - the cathode - (e.g. the motor leg) intact.

The lower leg of an outboard motor or sterndrive for example needs to be protected by anodes. The anode will be sacrificed leaving the lower leg protected.

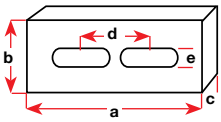
Anodes can also provide low cost cathodic protection on ocean going vessels, structures and equipment constructed of steel and other metals.

Anodes are manufactured from high grade zinc (99.995%) and are alloyed to conform to US mil spec MIL-A-18001K aluminium/zinc composition, (designation Z1) and subject to strict quality control.

Composition	MIL-A-18001K Alum/Zinc
Cadmium	0.025%-0.07%
Copper	0.005% max.
Iron	0.005% max.
Indium	–
Lead	0.006% max.
Mercury	–
Silicon	–
Nickel	–
Manganese	–
Magnesium	–
Aluminium	–
Zinc	Remainder

Diver and Mini Diver Anodes

Multi-fit, multi-position anode that is suited to underwater replacement in any water clarity condition. Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.



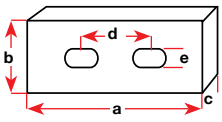
Zinc Code	Alloy Code	Description	a mm	b mm	c mm	d mm	e mm	Weight Zinc kg	Weight Alloy kg
190994	**190995**	Diver	305	150	13	38-242	11	3.6	1.47
190996	**190997**	Mini diver	150	100	13	22-104	11	1.04	0.39

Block Anodes

Galvanised steel insert for mounting (**190998-02**). Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.

(A)

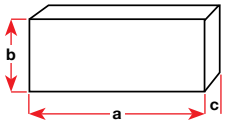
(B)



Zinc Code	Alloy Code	a mm	b mm	c mm	d mm	e mm	Weight Zinc kg	Weight Alloy kg
(A) **190998**		200	100	20	91-130	13	2.05	
(A) **191000**		155	70	20	37-93	13	0.8	
(A) **191002**	**191003**	145	68	18	51-90	15	1.0	0.36
(B) **191004**		150	70	25		21	2.0	
(B) **191006**		150	150	25		21	3.9	

Block Anodes - Plain

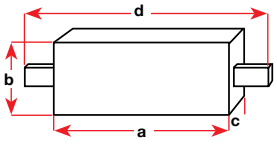
Manufactured to conform to US mil spec MIL-A-18001 K composition. Plain block anode that can be drilled or machined to suit application. Available in zinc.



Zinc Code	a mm	b mm	c mm	Weight Zinc kg
191014	100	75	25	1.5
191016	155	80	25	2.0
191018	150	100	20	2.2
191020	155	155	25	4.0

Block Anodes - With Strap

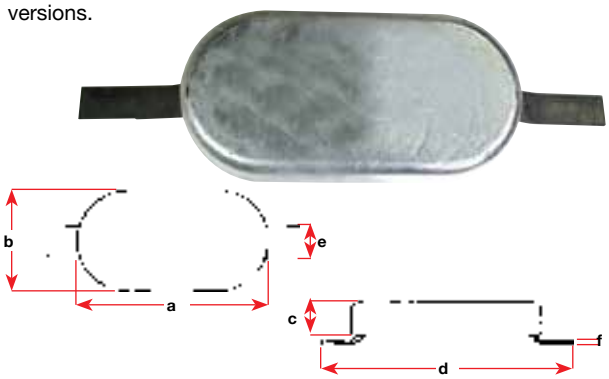
Manufactured to conform to US mil spec MIL-A-18001 K composition. Galvanised steel strap insert for mounting. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	a mm	b mm	c mm	d mm	Weight Zinc kg	Weight Alloy kg
191024		100	75	28	190	1.5	
191026	**191027**	155	75	28	300	2.2	0.9
191028	**191029**	155	155	28	300	4.3	0.9

Oval Anodes - With Strap

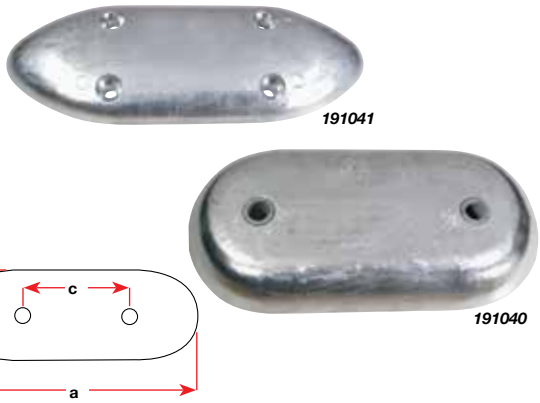
Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	a	b	c	d	e	f	Weight Zinc	Weight Alloy
		mm	mm	mm	mm	mm	mm	kg	kg
191032		150	75	35	300	25	3	3.1	
191034	**191035**	250	125	35	395	32	4	7.0	3.0
191036	**191037**	305	150	45	505	32	4	13.0	5.2
191038	**191039**	305	150	32	505	32	4	8.5	3.6

Oval Anodes - Plain

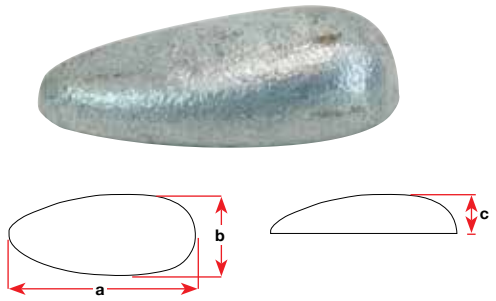
Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	a	b	c	Thickness	Mount Holes	Weight Zinc	Weight Alloy
		mm	mm	mm	mm	mm	kg	kg
191040	**191031**	219	108	127	25	6	3.1	1.19
191041		230	80	98	18	6	1.5	

Teardrop Anodes - Plain

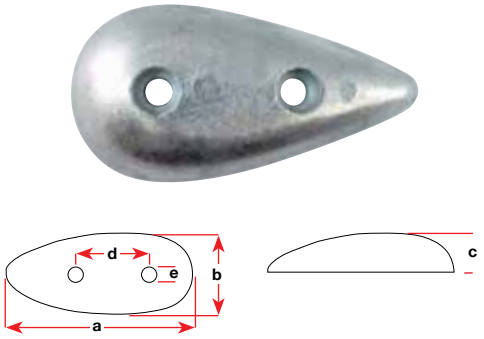
Manufactured to conform to US mil spec MIL-A-18001 K composition. Plain teardrop anode that can be drilled or machined to suit application. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	a	b	c	Weight Zinc	Weight Alloy
		mm	mm	mm	kg	kg
191042		83	37	25	0.3	
191044	**191045**	127	60	30	1.0	0.4
191046	**191047**	175	72	38	1.65	0.8

Teardrop Anodes - With Fixing Holes

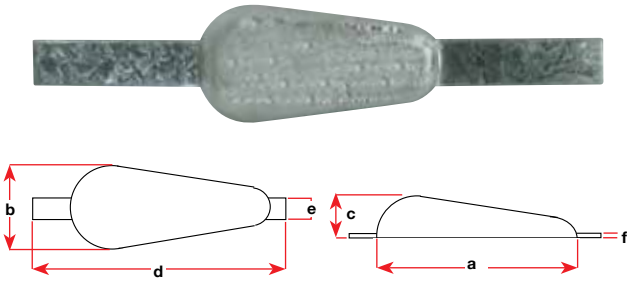
Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	a	b	c	d	e	Weight Zinc	Weight Alloy
		mm	mm	mm	mm	mm	kg	kg
191048	**191049**	90	45	14	32	6	0.18	0.07
191050	**191051**	132	52	25	42	8	0.48	0.18

Teardrop Anodes - With Strap

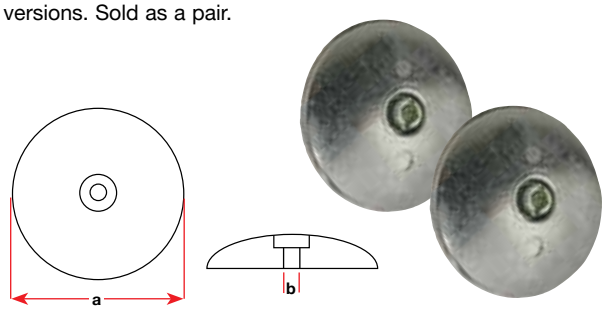
Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	a	b	c	d	e	f	Weight Zinc	Weight Alloy
		mm	mm	mm	mm	mm	mm	kg	kg
191060	**191061**	127	60	34	300	25	3	1.1	0.50
191062	**191063**	175	80	40	300	25	3	2.2	0.80
191064	**191065**	206	75	40	300	25	3	2.6	1.0

Rudder Anodes - With Fixing Hole

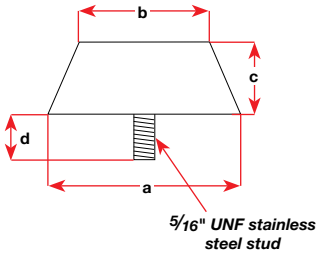
Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions. Sold as a pair.



Zinc Code	Alloy Code	a	b	Weight Zinc	Weight Alloy
		mm	mm	kg per pair	kg per pair
191070		46	5.0	0.09	
191072		71	6.5	0.6	
191074		94	8.4	1.0	
191076	**191077**	125	8.4	1.5	0.58

Condenser Anodes

Primarily designed for use on commercial fishing boat condensers but also suitable for use on hulls and rudders. Manufactured to conform to US mil spec MIL-A-18001 K composition.



BLA Code	a mm	b mm	c mm	d mm	Weight kg
191082	50	38	30	25	0.4
191084	75	63	30	25	0.85

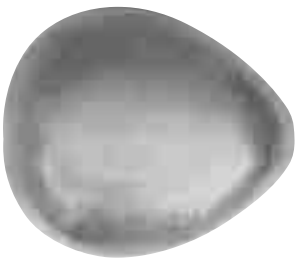
Grouper Anode

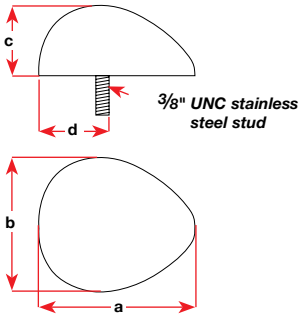
Ideal anode for electrolytic control over specific boat parts and conditions by attaching the alligator clips to the part requiring protection and placing the fish (anode) into the water. Do not connect anode to the battery's negative terminal, as this is not an earth terminal, it is a circuit terminal and the anode would be destroyed.

BLA Code	Anode Length mm	Cable Length mm	Weight kg
191096	205	4.5	2.7

Bertram® Type Hull Anode

Use as a drop in replacement for genuine Bertram® hull anode or as a stud mount, general application hull anode. 304 grade stainless steel stud and nyloc nut. Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.

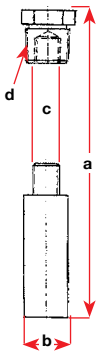




Zinc Code	a mm	b mm	c mm	d mm	Stud Length mm	Weight Zinc kg
191092	150	125	60	55	65	4

Engine Pencil Anodes - With Plug

Screw in anodes to suit popular diesel engines. Supplied with naval brass plug adaptor. Manufactured to conform to US mil spec MIL-A-18001 K composition.



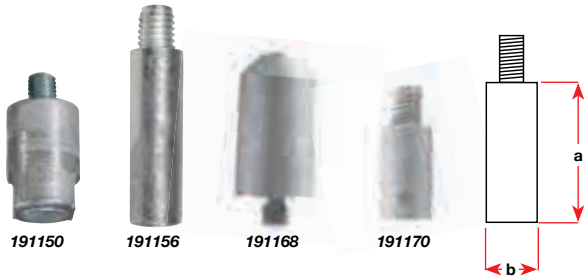
BLA Code	a mm	b Dia. mm	Weight kg	c UNC	d
191128	63	6.2	.02	1/4"	1/8" NPT
191130	44	9.5	.04	5/16"	1/4" NPT
191134	69	12	.08	3/8"	3/8" NPT
191138	51	15.8	.13	7/16"	1/2" bsp
191142	51	19	.20	1/2"	3/4" bsp

Spare Parts:

191129	Replacement anode for **191128**
191131	Replacement anode for **191130**
191135	Replacement anode for **191134**
191156	Replacement anode for **191138**
191143	Replacement anode for **191142**

Engine Pencil Anodes

Screw in anodes to suit popular diesel engines. Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or a cadmium free aluminium version.



BLA Code	a mm	b Dia. mm	Thread	Engine Make	Replaces OEM Part No.
191150	30	20.0	M8x1.25	Yanmar	27210-200300
191151	20	20.0	M8x1.25	Yanmar	27210-200200
191152	37	12.0	M5	Bukh	
191154	58	10.0	1/4" UNC	Cat	6L2283
191156	52	15.8	7/16" UNC	Cat	
191158	65	15.8	3/8" UNC	Cat	6L2288
191160	20	22.0	5/8" UNF	Cat	6L2016
191162	81	19.0	5/8" UNC	GM	
191164	54	19.0	5/8" UNC	GM	
191166	51	9.5	3/8" UNC	GM	
191168	44	25.0	3/8" UNC	Volvo	823661-4
191170	30	17.0	7/16" UNC	Volvo	838929-8
191171 (Alloy)	30	17.0	3/8" UNC	Volvo	838929-8

Propeller Shaft Anodes

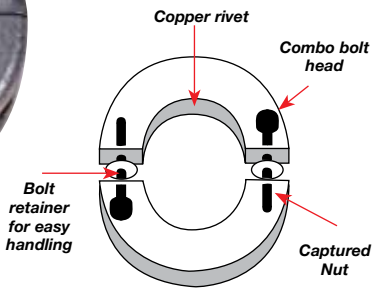
Cadmium free aluminium anodes manufactured to conform to US mil spec MIL-A-18001 K composition. Supplied with 304 grade stainless steel socket head cap screws and captured nuts. Sized to suit imperial prop shaft. Cast perfectly round to ensure tight fit with full contact.

191174

Zinc Code	Shaft Dia in	Shaft Dia mm	Outer Dia. mm	Overall Length mm	Weight Zinc kg	Mount Screws
191172	3/4	19	54	54	0.58	2
191174	7/8	22.2	54	54	0.50	2
191176	1	25.4	54	54	0.45	2
191178	1 1/8	28.5	54	59	0.48	2
191180	1 1/4	31.7	62	66	0.54	2
191181	1 3/8	34.9	64	66	0.68	2
191182	1 1/2	38.1	70	66	0.74	2
191184	1 3/4	44.4	83	69	1.06	2
191186	2	50.8	83	73	0.91	2
191188	2 1/4	57.1	108	96	2.74	4
191190	2 1/2	63.5	108	96	2.39	4
191192	2 3/4	69.8	121	92	3.42	4
191194	3	76.2	121	92	2.95	4

Propeller Shaft Anodes - Thin Series

Manufactured to conform to US mil spec MIL-A-18001 K composition. Extra narrow anodes to suit limited clearance situations such as between shaft skeg/bearing and propeller boss. Stainless steel socket head cap screws and captured nuts as well as copper rivet pin to ensure secure four point contact to greatly reduce the risk of falling off. Sized to suit imperial prop shaft. Available in zinc or cadmium free aluminium versions.



Zinc Code	Alloy Code	Shaft Dia in	Shaft Dia mm	Outer Dia. mm	Width mm	Weight Zinc kg	Weight Alloy kg
191195		3/4	19	54	25.4	0.30	
191196		1	25.4	64	32	0.55	
191197		1 1/8	28.5	64	32	0.50	
191198	**191203**	1 1/4	31.7	64	32	0.45	0.30
191199	**191207**	1 1/2	38.1	76	32	0.68	0.26
191200	**191208**	1 3/4	44.4	89	35	0.90	0.37
191201		2	50.8	89	35	0.91	

Propeller Nut Anodes Assemblies

Replace the standard prop nut with these specially made holder nut and anode assemblies, to control galvanic corrosion at the source. Replacement zinc anodes, held on with a socket head cap screw.

Holder nut

Replacement anode

BLA Code	Shaft Dia in	Shaft Dia mm	Thread UNC	Weight kg
191450	3/4	19.1	1/2"	.21
191452	7/8	22.23	5/8"	.34
191454	1	25.4	3/4"	.63
191458	1 1/4	31.7	7/8"	.96
191462	1 3/8	34.9	1"	1.14
191466	1 1/2	38.1	1 1/8"	1.36

Replacement anodes:

BLA Code	Shaft in	Dimensions mm
191478	3/4	19.1
191482	1	25.4
191484	1 1/4	31.7
191486	1 3/8	34.9
191488	1 1/2	38.1
191490	1 3/4	44.4
191492	2	50.8

Max Prop Nut Anode - Multi-Fit

Replacement anode to fit Max Prop feathering propellers.

BLA Code	Height mm	O/D mm	Fasteners mm	Weight kg
191512	45	67	5	0.52

Mercury®/Mercruiser® Skeg Anode

(A)

(C)

(B)

(D)

Zinc Code	Alloy Code	Replaces OEM Part No.
(A) **191212**	**191213**	31640
(B) **191214**		46399
(C) **191216**		98432-5
(D) **191217**		822157

Mercury®/Mercruiser® Type Anodes

Drop in replacements for OEM anodes. Manufactured to conform to US mil spec MIL-A-18001 K composition. Available in zinc or cadmium free aluminium versions.

Mercury®/Mercruiser® Type Anode - Kits

(A)

(B)

(C)

Alloy Code	Description
(A) **191233**	Alpha 1 Anode Kit
(B) **191236**	Bravo 1 Anode Kit
(C) **191237**	Bravo 2 & 3 Anode Kit 1989+
191229	Bravo 3 Anode Kit 2004+

Mercury®/Mercruiser® Type Anode - Nut

BLA Code	Replaces OEM Part No.
191222	55989

Mercury®/Mercruiser® Type Anode - Block

BLA Code	Replaces OEM Part No.
191225	43994A2 & 821631

Mercury®/Mercruiser® Type Anode - Plate

BLA Code	Replaces OEM Part No.
191224	34762A1

Mercury®/Mercruiser® Type Anodes

- Round Plate Type

BLA Code	Weight kg	Replaces OEM Part No.
191218 (Zinc)	0.34	76214-5
191219 (Alloy)	0.13	

Mercury®/Mercruiser® Type Anodes

- Lift Ram

(A)

(B)

Zinc Code	Alloy Code	Replaces OEM Part No.
(A) **191234**	**191251**	806189A1
(B) **191235**		806190

Mercury®/Mercruiser® Type Anode - Bar

Zinc Code	Replaces OEM Part No.
191228	818298

Mercury®/Mercruiser® Type Anode

- Wedge Block

Zinc Code	Alloy Code	Replaces OEM Part No.
191408	**191409**	826134

Mercury®/Mercruiser® Type Anodes

- Bearing Carrier

BLA Code	Replaces OEM Part No.
191230	806105A1

Mercury®/Mercruiser® Type Anodes - Plate

(A)

(B)

Zinc Code	Alloy Code	Replaces OEM Part No.
(A) **191238**	**191257**	821629A1
(B) **191239**		821630A1

Mercury®/Mercruiser® Type Anodes

- Verado Aluminium Kit

Complete Verado anode kit and replacement mount hardware to suit all 4 and 6 cylinder models. Suits brackish and saltwater environments.

BLA Code	Description
S18-6156A	4 Cylinder
S18-6157A	6 Cylinder

Evinrude®/Johnson® and Cobra® Type Anodes

Drop in replacements for OEM anodes. Manufactured to conform to US mil spec MIL-A-18001 K composition.

Evinrude®/Johnson® and Cobra® Type Anodes - Small Outboard

BLA Code	Hole mm	Weight kg	Replaces OEM Part No.
191241	5	0.08	327606
191242	10-24 UNC	0.08	123009

Evinrude®/Johnson® and Cobra® Type Anode - Block

BLA Code	Weight kg	Replaces OEM Part No.
191243	0.32	433458/398331

Evinrude®/Johnson® and Cobra® Type Anode - Outboard Cube

BLA Code	Weight kg	Replaces OEM Part No.
191244	0.20	393023/436745/983315

Evinrude®/Johnson® and Cobra® Type Anode - Bar

BLA Code	Weight kg	Replaces OEM Part No.
191247	0.77	433580

Evinrude®/Johnson® and Cobra® Type Anodes - Suzuki® Type

Drop in replacements for OEM anodes. Manufactured to conform to US mil spec MIL-A-18001 K composition.

BLA Code	Weight kg	Replaces OEM Part No.
191362	0.13	55125-96310

Evinrude®/Johnson® and Cobra® Type Anode - Type Block

BLA Code	Weight kg	Replaces OEM Part No.
191370	0.08	55320-95310

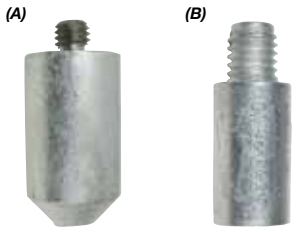
Evinrude®/Johnson® and Cobra® Type Anode - Type Waffle Bar

BLA Code	Weight kg	Replaces OEM Part No.
191378	0.51	55321-94900

Volvo® Type Anodes

Drop in replacements for OEM anodes. Manufactured to conform to US mil spec MIL-A-18001 K composition.
Available in zinc or cadmium free aluminium versions.

Volvo® Type Anodes - Pencil



BLA Code	Weight kg	Replaces OEM Part No.
(A) **191168**	0.14	823661-4
(B) **191170**	0.04	838929-8

Volvo® Type Anodes - Bar

Zinc Code	Drive Type	Weight Zinc kg	Replaces OEM Part No.
(A) **191272**	200-280	0.91	832598
(B) **191274**	290	0.79	852835

Volvo® Type Anodes - Drive Leg

Zinc Code	Alloy Code	Drive Type	Weight Zinc kg	Weight Alloy kg	Replaces OEM Part No.
(A) **191262**		270T-280	0.69		875815
(B) **191264**		120S & SB Prop	0.55		851983
(C) **191266**	**191265**	290	0.61	0.23	875821-1
(D) **191270**		Saildrive	0.92		875812
(E) **191271**		Saildrive	1.48		3888305

Volvo® Type Anode - Gimbal Plate

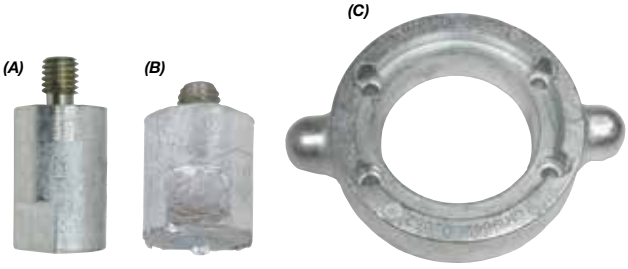
BLA Code	Weight kg	Replaces OEM Part No.
191280	1.05	3854130

Volvo® Type Anode - Transom Plate

Zinc Code	Weight Zinc kg	Replaces OEM Part No.
191284	1.02	3855411

Volvo® Type Anodes - Yanmar® Type

Manufactured to conform to US mil spec MIL-A-18001 K composition.

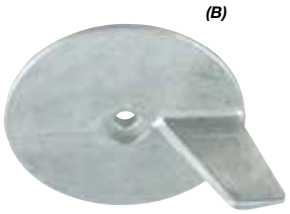


BLA Code	Type	Weight kg	Replaces OEM Part No.	Thread
(A) **191150**	Engine 30mm	0.07	27210-200300	M8
(B) **191151**	Engine 20mm	0.04	27210-200200	M8
(C) **191440**	Saildrive ring	0.52		

Honda® Type Anodes

Drop in replacements for OEM anodes. Manufactured to conform to US mil spec MIL-A-18001 K composition.
Available in zinc or cadmium free aluminium versions.

Honda® Type Anodes - Skeg



BLA Code	Weight kg	Replaces OEM Part No.
(A) **191212**	0.45	41107-ZW1-003ZA
(B) **191380**	0.27	41107-ZV5-000

Honda® Type Anode - Wedge

BLA Code	Weight kg	Replaces OEM Part No.
191408	0.25	41109-ZW1-003

Honda® Type Anodes - Waffle Bar

Zinc Code	Alloy Code	Weight Zinc kg	Weight Alloy kg	Replaces OEM Part No.
(A) **191400**	**191401**	0.36	0.14	06411-ZV5-000
(B) **191402**		0.83		06411-ZW1-003

Honda® Type Anode - Block

BLA Code	Weight kg	Replaces OEM Part No.
191346	0.10	41106-935-812

Yamaha® Type Anodes

Drop in replacements for OEM anodes. Manufactured to conform to US mil spec MIL-A-18001 K composition.

Yamaha® Type Anodes - Skeg

Zinc Code	Alloy Code	Weight Zinc kg	Weight Alloy kg	Replaces OEM Part No.
(A) **191302**	**191303**	0.48	0.19	688-45371-02-00
(B) **191304**		0.47		6E5-45371-01-00
(C) **191306**		0.42		6K1-45371-00-00
(D) **191308**	**191309**	0.50	0.20	6J9-45371-01-00
(E) **191310**		0.48		61A-45371-00
(F) **191380**		0.27		664-45371-01

Yamaha® Type Anode - Button

BLA Code	Weight kg	Replaces OEM Part No.
191350	0.03	688-45251-01-00

Yamaha® Type Anode - Cav Plate

BLA Code	Weight kg	Replaces OEM Part No.
191320	0.45	61N-45251-01

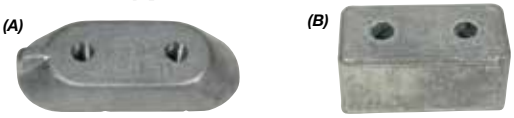
Yamaha® Type Anode - Handle Bar Anode

Zinc Code	Alloy Code	Weight Zinc kg	Weight Alloy kg	Replaces OEM Part No.
191338	**191339**	0.91	0.36	6G5-45251-01-00

Yamaha® Type Anode - Waffle Bar

BLA Code	Weight kg	Replaces OEM Part No.
191340	0.47	6H1-45251-02-00

Yamaha® Type Anodes - Block



Zinc Code	Alloy Code	Weight Zinc kg	Weight Alloy kg	Replaces OEM Part No.
(A) **191346**	**191347**	0.10	0.04	6E0-45251-11
(B) **191348**		0.14		6E5-45251-00

Johnson Cutless® Propeller Shaft Bearings

Johnson Cutless® brand propeller shaft bearings are the most recognised water lubricated marine bearing around the world. Designed and manufactured in America, the Johnson Cutless® propeller shaft bearing range meets all MIL-DTL-17901C Class II requirements, guaranteeing consistency of dimensions and materials.

Johnson Cutless® brand propeller shaft bearings are designed and engineered to provide superior performance in the most demanding environments. Every bearing is manufactured with a proprietary formulation of extremely tough chemical and oil resistant nitrile rubber polymer lining, moulded and firmly bonded into a naval brass or non-metallic shell. Full length integral grooves run along the rubber lining which provide maximum water flow for superior lubrication and dissipation of frictional heat.

The formulated rubber polymer possesses excellent characteristics which, with the proper loading, rotational speed and clearances, allows the creation of a micro hydrodynamic lubricating layer between shaft and bearing, even at very low speeds. This 'water wedge' principle completely separates the bearing surface from the propeller shaft, helping to minimise friction and component wear. In addition, the longitudinal grooves draw grit and foreign material away from the shaft which are then expelled in the water flow.

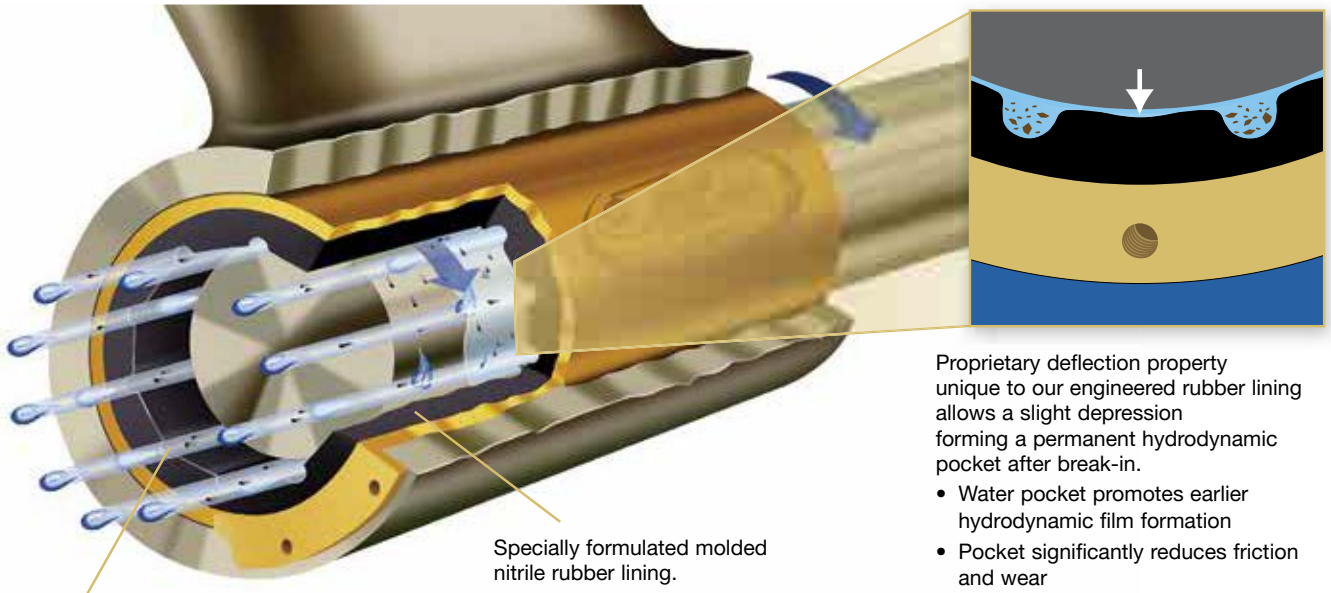
To ensure dimensional accuracy Johnson Cutless® brand propeller shaft bearings are manufactured by firstly machining the inside diameter. Each bearing is then inserted onto a mandrill to allow the outside to be turned to the exact specifications resulting in a straight and true correlation between the inside and outside diameters. On completion of the manufacturing process each bearing is tested using plug gauges for accuracy and visually inspected for flaws.

Johnson Cutless® brand propeller shaft bearings come in a wide range of imperial and metric sizes with either a naval brass outer sleeve or non-metallic outer sleeve. Centrifically cast naval brass flanged bearings are also available for strut or aft stern tube, forward stern tube and split type for forward stern tubes to suit shafts up to 15 inch diameter upon request. Johnson offers customising and a range of alternative configurations and outer sleeve materials.

Naval brass outer sleeve available in imperial and metric sizes

Non-metallic outer sleeve available in imperial and metric sizes

Flanged and split naval brass propeller shaft bearings available upon special request



Permanent Hydrodynamic Lubrication Pocket

Engineered geometry optimised for superior performance.

- Prevents shaft whip and absorbs vibration
- Assures maximum water lubrication
- Flushes abrasives away, preventing scoring of shaft

Specially formulated molded nitrile rubber lining.

- Permanently bonded to a precision-machined naval brass outer shell
- Resists oil, grease and chemicals

Proprietary deflection property unique to our engineered rubber lining allows a slight depression forming a permanent hydrodynamic pocket after break-in.

- Water pocket promotes earlier hydrodynamic film formation
- Pocket significantly reduces friction and wear
- The longer a Cutless® runs the better it gets

Non-Metallic Sleeve Johnson Cutless® Brand Propeller Shaft Bearing

Manufactured with a non-metallic outer sleeve designed for applications where corrosion or electrolysis may be of some concern. The bearing features a dense outer case structure of engineered reinforced thermo plastic for rigidity and fit.

The specially compounded nitrile rubber is securely bonded to the shell with all tolerances maintained to ensure proper lubrication integrity. Johnson employs the highest quality materials that are inherently resistant to all known chemicals, oil and grease to ensure a non-corrosive anti-electrolytic bearing.

Johnson non-metallic Cutless® brand propeller shaft bearings have full type approval from the American Bureau of Shipping and are available in imperial and metric sizes for shaft diameter from 3/4" to 6-1/2" (19.05mm to 165.10mm).

Non-metallic outer sleeve available in imperial and metric sizes

Non-Metallic Sleeve Cutless® Bearing - Imperial

Please refer to price and sizing sheet for stocked range.
Other sizes available upon request.

BLA Code	Description	Supplier Code	Shaft Diameter In	Outside Diameter In	Length In	Metal Thickness In	Weight kg
190204	Cutless Bearing Babe 1" x 1¼" x 4"	BABE	1	1 1/4	4	1/4	0.068
190218	Cutless Bearing Becky 1" x 1 3/8 x 4"	BECKY	1	1 3/8	6	3/64	0.09
190222	Cutless Bearing Betty 1" x 1½ x 4"	BETTY	1	1 1/2	4	1/8	0.09
190254	Cutless Bearing Candy Nm 1" x 1 5/8" x 4"	CANDY	1	1 5/8	4	1/8	0.114
190262	Cutless Bearng Ceil 1 1/8" x 1½" x 4½"	CEIL	1 1/8	1 1/2	4½	3/64	0.114
190286	Cutless Bearing Deena 1¼" x 1½" x 5	DEENA	1 1/4	1 1/2	5	3/64	0.136
190288	Cutless Bearing Della 1¼" x 1¾" x 5"	DELLA	1 1/4	1 3/4	5	1/8	0.159
190298	Cutless Bearing Doris 1¼" x 2" x 5"	DORIS	1 1/4	2	5	1/8	0.227
190302	Cutless Bearng Edna 1 3/8" x 1 7/8" x 5½"	EDNA	1 3/8	1 7/8	5 1/2	1/8	0.205
190304	Cutless Bearing Ellen 1 3/8" x 2" x 5½"	ELLEN	1 3/8	2	5 1/2	1/8	0.227
190306	Cutless Bearng Elsa 1 3/8" x 2 1/8" x 5½"	ELSA	1 3/8	2 1/8	5 1/2	1/8	0.295
190310	Cutless Bearing Eva 1½" x 2" x 6"	EVA	1 1/2	2	6	1/8	0.227
190314	Cutless Bearing Fanny 1½" x 2 3/8" x 6"	FANNY	1 1/2	2 3/8	6	1/8	0.4
190316	Cutless Bearing Glenda 1¾" x 2 3/8" x 7"	GLENDA	1 3/4	2 3/8	7	1/8	0.386
190318	Cutless Bearing Gloria 1¾" x 2 5/8" x 7"	GLORIA	1 3/4	2 5/8	7	1/8	0.455
190320	Cutless Bearng Gwen 17/8" x 2 5/8" x 7½"	GWEN	1 7/8	2 5/8	7 1/2	1/8	0.455
190322	Cutless Bearing Hazel 2" x 2 5/8" x 8"	HAZEL	2	2 5/8	8	1/8	0.455
190324	Cutless Bearing Helen 2" x 3" x 8"	HELEN	2	3	8	1/8	0.705
190326	Cutless Bearing Inez 2¼" x 2 15/16" x 9"	INEZ	2 1/4	3	9	1/8	0.636
190328	Cutless Bearing Ingrid 2¼" x 3 1/8 x 9"	INGRID	2 1/4	3 1/8	9	1/8	0.841
190330	Cutless Bearing Irene 2¼" x 3 3/8" x 9"	IRENE	2 1/4	3 3/8	9	1/8	1
190332	Cutless Bearing Iris 2¼" x 3" x 9"	IRIS	2 1/4	3	9	1/8	0.682
190334	Cutless Bearg Jenny 2 3/8" x 3 3/8" x 9½"	JENNY	2 3/8	3 3/8	9 1/2	1/8	0.977
190336	Cutless Bearing Joan 2½" x 3 1/8" x 10"	JOAN	2 1/2	3 1/8	10	1/8	0.659
190338	Cutless Bearing Josie 2½" x 3 3/8" x 10"	JOSIE	2 1/2	3 3/8	10	1/8	0.795
190340	Cutless Bearng Joyce 2 5/8" x 3 3/8" x 10½"	JOYCE	2 5/8	3 3/8	10 1/2	1/8	0.841
190342	Cutless Bearing June 2¾" x 3 3/8" x 11"	JUNE	2 3/4	3 3/8	11	1/8	0.795
190346	Cutless Bearing Kathy 2¾" x 3¾" x 11"	KATHY	2 3/4	3 3/4	11	1/8	1.205
190348	Cutless Bearing Kim 3" x 3¾" x 12"	KIM	3	3 3/4	12	1/8	1.09
190350	Cutless Bearing Laura 3" x 4" x 12"	LAURA	3	4	12	1/8	1.364
190352	Cutless Bearing Mandy 3½" x 4¼" x 14"	MANDY	3 1/2	4¼	14	1/8	1.77
190354	Cutless Bearing Marie 3½" x 4½" x 14"	MARIE	3 1/2	4½	14	1/8	1.82
190356	Cutless Bearing Nancy 3¾" x 5" x 15"	NANCY	3 3/4	5	15	3/16	2.66
190358	Cutless Bearing Neva 3¾" x 5¼" x 15"	NEVA	3 3/4	5 1/4	15	3/16	3.25
190360	Cutless Bearing Olga 4" x 5" x 16"	OLGA	4	5	16	3/16	2.16
190362	Cutless Bearing Olive 4" x 5¼" x 16"	OLIVE	4	5 1/4	16	3/16	2.91
190364	Cutless Bearing Zelda 6" x 7½" x 24"	ZELDA	6	7 1/2	24	1/4	7.27

Non-Metallic Sleeve Cutless® Bearing - Metric

BLA Code	Description	Supplier Code	Shaft Diameter mm	Outside Diameter mm	Length mm	Metal Thickness mm	Weight kg
190400	Cutless Bearing NM 870 25 x 40 x 100mm	870255700	25	40	100	2.54	0.1
190404	Cutless Bearing NM 870 30 x 45 x 120mm	870305700	30	45	120	3.07	0.2
190406	Cutless Bearing NM 870 32 x 45 x 128mm	870325700	32	45	128	3.07	0.2
190408	Cutless Bearing NM 870 35 x 50 x 140mm	870355700	35	50	140	3.07	0.2
190412	Cutless Bearing NM 870 40 x 55 x 160mm	870405700	40	55	160	3.07	0.3
190418	Cutless Bearing NM 870 50 x 70 x 200mm	870505700	50	70	200	3.25	0.5
190420	Cutless Bearing NM 870 75 x 95 x 300mm	870755700	75	95	300	3.05	1.1
190424	Cutless Bearing NM 870 90 x 110 x 360mm	870905700	90	110	360	4.76	1.5
190426	Cutless Bearing NM 871 100 x 125 x 400mm	871005700	100	125	400	3.76	2.1
190428	Cutless Bearing NM 871 105 x 130 x 420mm	871055700	105	130	420	4.51	2.4
190430	Cutless Bearing NM 871 120 x 155 x 480mm	871205700	120	155	480	6.06	3.9

Naval Brass Sleeve Johnson Cutless® Brand Propeller Shaft Bearing

Manufactured with a tough naval brass outer sleeve these bearings are designed for common use in strut and stern tube mounts and can be used effectively as rudder-stock and pintle bushings. The external brass shell is machined and polished to provide easy fitting while the bearing diameters are precision machined to the designated shaft size with the correct clearance for efficient water lubrication. The specially compounded nitrile rubber is securely bonded to the shell with all tolerances maintained to ensure proper lubrication integrity. Johnson employs the highest quality materials that are inherently resistant to all known chemicals, oil and grease to ensure a non-corrosive anti-electrolytic bearing. Sleeve bearings are usually installed by light press-fitting and locked in place with cone-pointed set screws.

The naval brass cutless bearing have full type approval from the American Bureau of Shipping and are available in either imperial or metric sizes with custom diameter available upon request. Designed for shaft sizes from 3/4" to 6-1/2" (19.05mm to 165.10mm).

Naval brass outer sleeve available in imperial and metric sizes

Naval Brass Sleeve Cutless® Bearing - Imperial

BLA Code	Description	Supplier Code	Shaft Diameter In	Outside Diameter In	Length In	Metal Thickness In	Weight kg
190200	Cutless Bearing Able 3/4" x 1 1/4" x 3" Bs	ABLE	3/4	1 1/4	3	1/8	0.23
190202	Cutless Barng Apex 7/8" x 1 3/8" x 3 1/2" Bs	APEX	7/8	1 3/8	3.5	1/8	0.34
190206	Cutless Bearing Back 1" x 1 1/4" x 4" Bs	BACK	1	1 1/4	4	3/64	0.23
190208	Cutless Bearing Bade 1" x 1 1/4" x 6" Bs	BADE	1	1 1/4	6	1/16	0.31
190210	Cutless Bearing Bait 1" x 1 3/8" x 4" Bs	BAIT	1	1 3/8	4	1/16	0.23
190212	Cutless Bearing Bale 1" x 1 1/2" x 4" Bs	BALE	1	1 1/2	4	1/8	0.34
190214	Cutless Bearing Band 1" x 1 5/8" x 4" Bs	BAND	1	1 5/8	4	1/8	0.45
190216	Cutless Bearing Base 1" x 2" x 4" Bs	BASE	1	2	4	1/8	0.57
190220	Cutless Brg Belt 1 1/8" x 1 5/8" x 4 1/2" Bs	BELT	1 1/8	1 5/8	4.5	1/8	0.45
190224	Cutless Bearing Bind 1 1/4" x 1 1/2" x 5" Bs	BIND	1 1/4	1 1/2	5	1/8	0.23
190226	Cutless Bearing Bird 1 1/4" x 1 3/4" x 5" Bs	BIRD	1 1/4	1 3/4	5	1/8	0.57
190228	Cutless Bearing Bite 1 1/4" x 2" x 5" Bs	BITE	1 1/4	2	5	1/8	0.68
190230	Cutless Bearing Blow 1 1/4" x 2 1/8" x 5" Bs	BLOW	1 1/4	2 1/8	5	1/8	0.79
190232	Cutless Brg Boat 1 3/8" x 1 7/8" x 5 1/2" Bs	BOAT	1 3/8	1 7/8	5.5	1/8	0.68
190234	Cutless Bearing Bold 1 3/8" x 2" x 5 1/2" Bs	BOLD	1 3/8	2	5.5	1/8	0.68
190236	Cutless Bearing Boss 1 1/2" x 2" x 6" Bs	BOSS	1 1/2	2	6	1/8	0.79
190238	Cutless Bearng Brad 1 1/2" x 2 3/8" x 6" Bs	BRAD	1 1/2	2 3/8	6	1/8	1.02
190240	Cutless Brg Brew 1 5/8" x 2 1/8" x 6 1/2" Bs	BREW	1 5/8	2 1/8	6.5	1/8	0.91
190242	Cutless Bearing Brow 1 3/4" x 2 3/8" x 7" Bs	BROW	1 3/4	2 3/8	7	1/8	1.14
190244	Cutless Bearing Buck 1 3/4" x 2 5/8" x 7" Bs	BUCK	1 3/4	2 5/8	7	1/8	1.25
190246	Cutless Bearing Call 2" x 2 5/8" x 8" Bs	CALL	2	2 5/8	8	1/8	1.36
190248	Cutless Bearing Calm 2" x 3" x 8" Bs	CALM	2	3	8	1/8	1.82
190250	Cutless Br Came 2 1/8" x 2 15/16" x 8 1/2" Bs	CAME	2 1/8	3	8.5	1/8	1.36
190252	Cutless Bearing Camp 2" x 2 3/4" x 8" Bs	CAMP	2	2 3/4	8	1/8	1.59
190256	Cutless Bearing Card 2 1/4" x 3" x 9" Bs	CARD	2 1/4	3	9	1/8	1.89
190258	Cutless Berng Care 2 1/4" x 2 15/16" x 9" Bs	CARE	2 1/4	3	9	1/8	1.48
190260	Cutless Bearing Cart 2 1/4" x 3 1/8" x 9" Bs	CART	2 1/4	3 1/8	9	1/8	1.93
190264	Cutless Bearng Cord 2 1/2" x 3 1/8" x 10" Bs	CORD	2 1/2	3 1/8	10	1/8	2.05
190266	Cutless Bearng Cork 2 1/2" x 3 1/4" x 10" Bs	CORK	2 1/2	3 1/4	10	1/16	1.4
190268	Cutless Bearng Corn 2 1/2" x 3 3/8" x 10" Bs	CORN	2 1/2	3 3/8	10	1/8	2.5
190270	Cutless Bearng Cove 2 1/2" x 3 1/2" x 10" Bs	COVE	2 1/2	3 1/2	10	5/32	0
190272	Cutless Bearng Crow 2 3/4" x 3 3/8" x 11" Bs	CROW	2 3/4	3 3/8	11	1/8	2.5
190274	Cutless Bearng Cube 2 3/4" x 3 1/2" x 11" Bs	CUBE	2 3/4	3 1/2	11	5/32	2.5
190276	Cutless Bearng Curd 2 3/4" x 3 3/4" x 11" Bs	CURD	2 3/4	3 3/4	11	1/8	3.07
190278	Cutless Brg Cure 2 7/8" x 3 3/4" x 11 1/2" Bs	CURE	2 7/8	3 3/4	11.5	1/8	3.3
190280	Cutless Bearing Dane 3" x 3 3/4" x 12" Bs	DANE	3	3 3/4	12	1/8	3.18
190282	Cutless Bearing Dare 3" x 4" x 12" Bs	DARE	3	4	12	1/8	3.64
190284	Cutless Bearing Darn 3 1/4" x 4" x 13" Bs	DARN	3 1/4	4	13	1/8	3.64
190290	Cutless Berng Dine 3 1/2" x 4 1/4" x 14" Bs	DINE	3 1/2	4 1/4	14	1/8	4.2
190292	Cutless Bearng Dock 3 1/2" x 4 1/2" x 14" Bs	DOCK	3 1/2	4 1/2	14	1/8	4.77
190294	Cutless Brg Dole 3 5/8" x 4 1/2" x 14 1/2" Bs	DOLE	3 5/8	4 1/2	14.5	1/8	4.66
190296	Cutless Berng Done 3 3/4" x 4 1/2" x 15" Bs	DONE	3 3/4	4 1/2	15	1/8	4.77
190300	Cutless Bearing Earn 4" x 5" x 16" Bs	EARN	4	5	16	3/16	7.95
190308	Cutless Berng Epic 4 1/2" x 5 1/2" x 18" Bs	EPIC	4 1/2	5 1/2	18	3/16	10.11
190309	Cutless Bearing Edge 4 1/2" x 5 3/4" x 18" Bs	EDGE	4 1/2	5 3/4	18	3/16	10.8
190312	Cutless Bearing Face 5" x 6 1/8" x 20" Bs	FACE	5	6 1/8	20	1/4	18.98

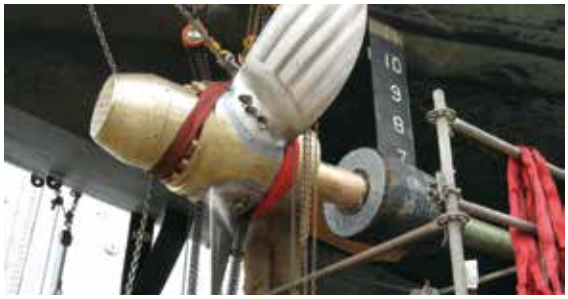
Naval Brass Sleeve Cutless® Bearing - Metric

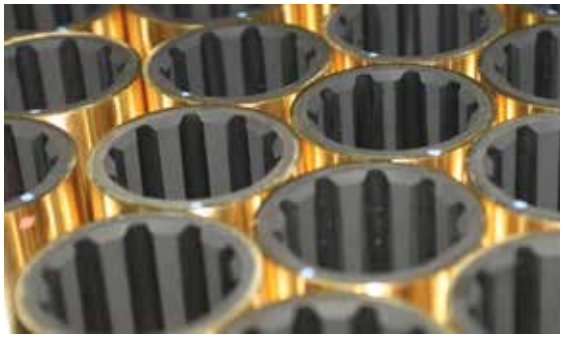
BLA Code	Description	Supplier Code	Shaft Diameter mm	Outside Diameter mm	Length mm	Metal Thickness mm	Weight kg
190402	Cutless Bearing Br 870 30 x 45 x 120mm Bs	870304100	30	45	120	3.07	0.5
190410	Cutless Bearing Br 870 40 x 55 x 160mm Bs	870404100	40	55	160	3.07	0.8
190414	Cutless Bearing Br 870 45 x 65 x 180mm Bs	870454100	45	65	180	3.3	1.3
190416	Cutless Bearing Br 870 50 x 70 x 200mm Bs	870504100	50	70	200	3.26	1.4
190422	Cutless Bearing Br 870 80 x 100 x 320mm Bs	870804100	80	100	320	3.17	3.5

Strut or Stern Tube Flanged Johnson Cutless® Brand Propeller Shaft Bearing

Centrifically cast from naval brass the heavy walled shells are designed to provide additional structural strength and can be step turned if required. Each bearing features an integral flange used for bolting into position on stern tubes and strut housings to retain the bearing in the correct position and prevent rotation in the housing. Available upon request in solid and split design for shaft sizes ranging from 50.80mm - 381.00mm (2" to 15").

In addition, Johnson also have available flanged bearings for solid bolting to forward stern tube stuffing boxes. Featuring the same heavy duty cast shell these bearings have a machined male pilot on the integral flange which mates with the female recess of the stuffing box. Available upon request in one piece or split design for shaft sizes ranging from 50.80mm - 381.00mm, (2" to 15").
Call BLA on **1300 252 725** for more information.





Flanged and split naval brass propeller shaft bearings available upon special request

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Bow Roller - Chrome Brass

Heavy duty cast brass construction. Triangular base with raised side plates for extra anchoring security in rough conditions. No retaining pin.

BLA Code	Overall Length mm	Width mm	Height mm	Roller Width mm	Mount Screws mm
192052	140	70	60	25	6 c/s

Bow Rollers With Pin - Chrome Brass

Heavy duty cast brass construction with marine grade chrome plating. Spring loaded quick release pin to retain anchor warp.

192060

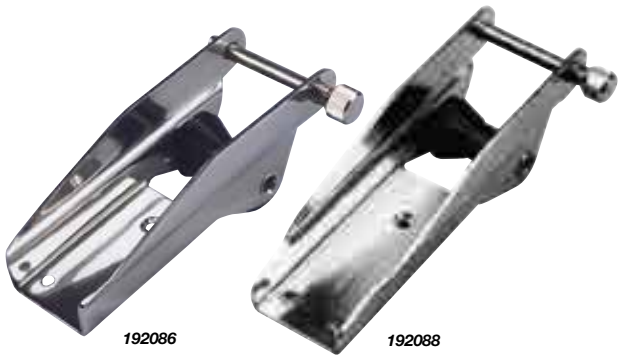
192064

BLA Code	Overall Length mm	Width mm	Height mm	Roller Width mm	Mount Screws mm
192060	135	70	60	25	6 c/s
192064	250	105	80	39	6 c/s

Marine Town® Bow Rollers

- Stainless Steel

One piece pressed, heavy gauge, 316 grade stainless steel housing. Black delrin roller. Spring loaded, quick release captive pin to retain anchor and warp.



192086 192088

BLA Code	Overall Length mm	Mount Base mm	Height mm	Roller Width mm	Mount Screws mm
192086	197	97 x 57	73	48	6 c/s
192088	225	125 x 57	73	48	6 c/s

Marine Town® Bow Roller

- Nautilus Manta Cast Stainless Steel

Heavy duty cast 316 grade stainless steel single piece bow roller with arched nose, two rollers, bail and tabs specifically designed to accept **146232** Nautilus Manta anchor. Also suits other anchors. Securely stores and automatically deploys the anchor. Spring loaded, quick release captive pin to retain anchor and warp.

BLA Code	Overall Length mm	Flat Mount Length	Width mm	Accepts	Mount Bolts mm
192110	449	260	55	**146232**	10 c/s

Marine Town® Captured Anchor Rollers - Stainless Steel

Heavy duty pressed 316 grade stainless steel construction, electro-polished finish.
Non-corrosive large diameter black delrin roller.
Saddle strap to retain anchor and warp.

192100

BLA Code	Overall Length mm	Width mm	Height mm	Roller Width mm	Mount Screws mm
192100	390	85	50	45	10 r/h
192102	458	130	80	77	10 r/h
192104	505	100	70	60	10 r/h
192106	589	135	50	86	10 r/h

Marine Town® Hinged Bow Rollers

- Stainless Steel

Formed from heavy gauge 316 grade stainless steel. Double roller and hinged nose section designed to securely store, as well as automatically deploy the anchor. Spring loaded, quick release captive pin to retain anchor and warp.

192096

192094

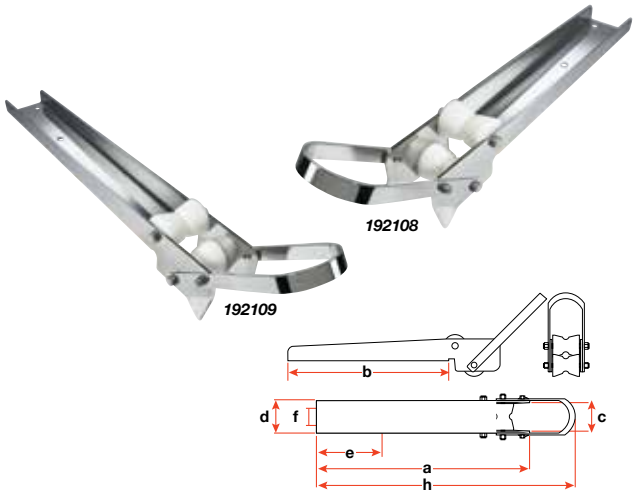
BLA Code	Overall Length mm	Mount Base mm	Height mm	Roller Width mm	Mount Screws mm
192094	327	96 x 57	110	48	6 c/s
192096	355	125 x 57	110	48	6 c/s

Lewmar® Bow Rollers

LEWMAR

- Stainless Steel

Provides a friction free surface that makes it easier to lower and raise anchor without damaging the deck or topsides. Also provides safe stowage for the anchor while under way and ready for deployment at short notice.



BLA Code	Weight Delta & DTX Anchor Type kg	kg	a mm	b mm	c mm	d mm	e mm	f mm	g mm
192108	3.6	7/10/16	495	376	67	80	153	38	602
192109	4.5	7/10/16	597	478	67	80	153	38	704

For suitable anchors, refer to section 14..

Lewmar® Chain Stoppers

LEWMAR

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel chain stopper designed to hold high loads while boat is at anchor. Simple lever swing arm operation for chain lock or free travel position.

BLA Code	Suit Chain mm	Overall Length mm	Width mm	Height mm	Mount Bolts mm
192152	8	110	65	79	10 c/s
192154	10	110	65	79	10 c/s

Marine Town® Split Bollards

Marine Town

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel construction. Passivated and highly polished. The slotted centre shaft simply and effectively secures the anchor chain. For additional security both sizes are available with a quick release pin. Suitable for regular or long link chain.

BLA Code	Chain Size mm	Captive Pin	Height mm	Base mm	Mount Screws mm
192114	8-10	no	84	62 x 62	6 c/s
192116	8-10	yes	84	62 x 62	6 c/s
192118	10-13	yes	116	86 x 86	6 c/s

Marine Town® Horn Bollard

Marine Town

- Cast Stainless Steel

Heavy duty mooring bollard with solid base. High polished 316 grade cast stainless steel construction.

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192146	300	73	81	6 c/s

Cross Bollards

- Cast Alloy

Inexpensive non polished die-cast alloy construction. Suitable as a weld on fitting for aluminium boat manufacturers.

BLA Code	Shaft mm	Height mm	Base Dia. mm
192142	20	83	55 x 58

Marine Town® Oval Hawse Hole

- Cast Stainless Steel

Highly polished investment cast 316 grade stainless steel. Internal mount studs for no visible fastenings. Presents a contemporary clean appearance. Solid construction to handle anchor well use, or through deck/bulwark installation to lead mooring lines.

192149

BLA Code	Outside mm	Throat Dia. mm	Intrusion mm	Protrusion mm	Mount Studs mm
192148	138 x 63	90 x 35	20	6	6
192149	145 x 97	100 x 50	25	7	6

Triangular Hawse Hole

- Cast Stainless Steel

Heavy walled investment cast 316 grade stainless steel. Designed for corner mounting rope lead application.

BLA Code	Length mm	Width mm	Intrusion mm	Flange mm	Mount Screws mm
192158	206	124	43	25	5 c/s

Marine Town® Oval Hawse Hole

- Stainless Steel

Stainless steel chain pipe with lid. Lid is permanently attached with security chain. Stainless steel hook in lid fits into the anchor chain to hold lid down.

CE

BLA Code	Length mm	Width mm	Height mm	Throat Dim. mm	Mount Screws mm
192160	160	115	34	105 x 52	6 c/s

Marine Town® Drop Down Cleats

- Cast Stainless Steel

Highly polished investment cast 316 grade stainless steel. Stows flat for flush styling and to prevent catching. Anti-rattle, holds firm in up or down position. Simple and fast two hole installation.

192169

BLA Code	LOA mm	Width mm	Intrusion mm	Protrusion Stowed mm	Mount Holes mm
192169	110	32	50	10	19
192172	152	39	65	12	22
192174	207	43	78	14	25

Attwood Flush Horn Cleats

- Cast Stainless Steel

Cast 316 grade stainless steel construction, flush mount, pull up - push down, horn cleats. Adjustable movement friction, ensures that cleats remain firmly in the up or down position. Supplied with mounting studs, nuts, washers and backing plate to suit 12mm to 50mm thick decks.

192192

BLA Code	LOA mm	Width mm	Intrusion mm	Protrusion mm	Studs mm
192192	135	52	70	30	6
192194	175	60	70	38	8

Marine Town® Foldaway Cleat

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel low profile fold away cleats. Designed to be folded when not in use to create an extremely smooth non-obstructing deck fitting with low profile appearance.

Features indented finger lift for easy retrieval, simply push to fold away. When the cast cleat profile is raised it creates a traditional strong mooring cleat.

192262 closed

192262 open

BLA Code	Length mm	Width mm	Height Closed mm	Height Open mm	Mount Holes
192260	155	54	13.5	47	8 c/s
192262	202	72	15	62	10 c/s

Marine Town® Foldaway Cleat

– Cast Stainless Steel

Heavy duty cast 316 grade stainless steel low profile fold away cleat. Features indented finger lift for easy retrieval, simply push to fold away. When raised it creates a traditional strong mooring cleat. Supplied with mount bolts.

closed

open

BLA Code	Length mm	Width mm	Height Closed mm	Height Open mm	Stud Size
192263	155	54	13.5	48	m8 x 50mm

Marine Town® X-Folding Cleats

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel low profile folding cleats. Designed to be folded when not in use to prevent accidental catching of lines. Simple lift action to raise to open to create a strong tie off point.

192266 closed

192266 opened

BLA Code	Length mm	Width mm	Height Closed mm	Height Open mm	Mount Studs mm
192266	153	54	22	40	50
192268	203	72	29	54	55

Arched Horn Cleat - Cast Stainless Steel

Minimalist sleek styling with concealed fastenings. Highly polished investment cast 316 grade stainless steel. Includes mounting plate and studs.

BLA Code	Length mm	Width mm	Height mm	Mount Studs
192200	150	21	28	M5

Slimline Horn Cleats - Cast Stainless Steel

Highly polished cast stainless steel. Open base. Smooth, slimline, rounded design.

192202

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192201	100	38	27	5 c/s
192203	120	40	24	5 c/s
192202	155	43	31	5 c/s
192204	200	52	39	6 c/s
192206	250	70	47	8 c/s
192208	300	70	56	8 c/s

Mooring Cleats - Cast Stainless Steel

Heavy duty cast 316 grade stainless steel construction. Large open base for ease of line handling.

192212

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192209	95	35	22	5 c/s
192211	120	45	27	5 c/s
192210	145	52	30	5 c/s
192212	190	60	38	8 c/s
192214	240	72	44	8 c/s

Horn Cleats - Cast Stainless Steel

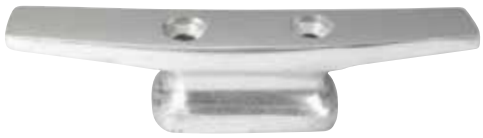
Heavy duty cast 316 grade stainless steel construction. Open base design. 3/8" UNC threaded mount studs supplied.

192218

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192218	240	30	45	70
192220	300	31	61	70

Horn Cleats - Cast Alloy

Hand polished cast alloy construction. Radiused corners to minimise chafing of mooring and anchor ropes. Solid base.



192223

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192223	150	28	35	6 c/s
192225	200	31	40	6 c/s

Horn Cleat - Cast Stainless Steel Open

Manufactured from cast stainless steel. Fitted with a black plastic base offering a professional look for all craft.

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192190	153	35	34	6 c/s

Horn Cleats - Cast Aluminium

Plain finish cast aluminium horn cleats. Through bolted.

192243

192244

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192242	150	23	35	6 c/s
192243	200	27	47	6 c/s
192244	245	29	56	8 c/s

Mooring Cleats - Cast Alloy

Hand polished cast alloy construction. Radiused corners to minimise chafing of mooring and anchor ropes. Open base.

192233

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192233	203	63	46	6 c/s
192235	250	70	53	6 c/s
192237	302	86	59	8 c/s
192239	350	102	77	10 c/s

Marine Town® Fairleads

- Cast Stainless Steel

Solid investment cast stainless steel fairleads, polished to a near chrome finish. Sold as a pair, one port and one starboard.

192257

BLA Code	Length mm	Width mm	Screw Size mm
192257	120	20	5 c/s
192258	155	25	5 c/s

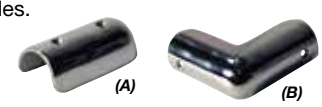
Horn Cleats - Nylon

192180

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192180	78	12	19	3 c/s
192182	100	15	21	4 c/s
192184	130	18	27	5 c/s
192186	167	21	32	5 c/s
192188	205	25	36	6 c/s

Gunwale Caps - Stainless Steel

Stainless steel gunwale caps to suit gunwale rubber. 4mm counter sunk mount holes.



(A) (B)

BLA Code	Length mm	Width External mm	Width Internal mm	Height mm
(A) **192283**	96	41	34	29
(A) **192285**	96	52	43	35
(B) **192289**	96 x 96	41	34	29
(B) **192291**	90 x 90	48	39	35

Bull Horn Cleats - Stainless Steel

316 grade stainless steel for durability. An economical basic cleat for tying off lanyards, flag halyards, and similar.

192250

BLA Code	Length mm	Width mm	Height mm	Mount Screws mm
192250	68	11	12	4 r/h
192251	114	14	21	5 r/h

Marine Town® Folding Pad Eyes - Cast Stainless Steel

Folding pad eyes with friction hinged, non-rattle, tie off eyes. Low profile, non obtrusive design with heavy duty cast stainless steel base.

192276

192278

BLA Code	Description	SWL kg	Length mm	Width mm	Height Closed mm	Height Open mm	Mount Holes
192276	Single eye	600	70	60	9	48	6 c/s
192278	Double eye	900	100	60	9	48	6 c/s

Deck Fillers - Nylon

Black nylon deck filler. Finger grip cap with 'O' ring creates an umbrella cover over base to prevent contaminant entering. Security chain to prevent cap falling overboard. Caps marked 'Fuel' or 'Water'.

192322

BLA Code	Cap ID	Hose Size mm	Hose Size in	Protrusion mm	Intrusion mm	Cap Dia. mm	Mount Screws mm
192322	Fuel	38	1½	18	67	90	5 c/s
192324	Water	38	1½	18	67	90	5 c/s
192326	Fuel	50	2	19	67	90	5 c/s
192328	Water	50	2	19	67	90	5 c/s

Perko® Deck Filler

Chrome plated zinc alloy base fitted with black plastic mount flange with raised lip and cap with securing strap. Cap flange has “gas” identification.

BLA Code	Hose Size mm	Protrusion mm	Intrusion mm	Mount Screws mm
192359	38	14	67	5 c/s

Marine Town® Pop Up Deck Fillers

- Cast Stainless Steel

Flush mount, 316 grade cast stainless steel deck fillers. Unique pop top cap. Depress and rotate inner cap to unlock the pop up knurled grip for opening. Also incorporates recess to accept deck filler key. Features coarse thread, 'O' ring seal, retaining wire (excluding **192311**, **192315**) as well as CE icon style identification. **192311** and **192315** waste fittings accept camlock pump out adaptors, refer page 291.

192318

192308

BLA Code	Type	Hose Size mm	Hose Size in	Angle	Flange mm	Protr. mm	Intr. mm	Mount Screws mm
192308	Diesel	38	1½	90°	75	6	75	5 c/s
192309	Water	38	1½	90°	75	6	75	5 c/s
192310	Fuel	38	1½	90°	75	6	75	5 c/s
192311	Waste	38	1½	90°	75	6	75	5 c/s
192312	Diesel	50	2	90°	84	7	75	5 c/s
192313	Water	50	2	90°	84	7	75	5 c/s
192314	Fuel	50	2	90°	84	7	75	5 c/s
192315	Waste	50	2	90°	84	7	75	5 c/s
192317	Water	38	1½	30°	75	6	90	5 c/s
192318	Fuel	38	1½	30°	75	6	90	5 c/s
192320	Diesel	50	2	30°	84	7	102	5 c/s
192321	Fuel	50	2	30°	84	7	125	5 c/s

Marine Town® Deck Fillers

- Cast Stainless Steel

Flush mounted, investment cast, 316 grade stainless steel deck fillers. Features coarse thread for less chance of cross threading, rubber 'O' ring seal, cap retaining wire (excluding **192335**) and finger key for ease of opening. Colour coded international symbol identification to meet CE requirements. **192335** waste fitting accepts Camlock pump out adaptor, refer page 291. 76mm diameter flange.

BLA Code	Type	Hose Size mm	Hose Size in	Protrusion mm	Intrusion mm	Mount Screws mm
192330	Diesel	38	1½	9	76	5 c/s
192332	Water	38	1½	9	76	5 c/s
192334	Fuel	38	1½	9	76	5 c/s
192335	Waste	38	1½	9	76	5 c/s
192336	Diesel	50	2	9	76	5 c/s
192338	Water	50	2	9	76	5 c/s
192340	Fuel	50	2	9	76	5 c/s

Marine Town® Vented Deck Filler - Stalon

Designed primarily for aluminium boats where the gunwale extrusion and cockpit extrusion protrude above the deck, creating a water drain path where fuel deck fillers are required to be installed. The raised neck sits 22mm above deck level, well above water run. Nylon body in contact with aluminium deck to prevent electrolysis, stainless steel cover cap for an all stainless steel appearance. Fuel and breather hose can be fitted prior to installation of filler to deck. Features include spring wire retainer to cap, breather connection and international symbol identification. Cap diameter 80mm.

BLA Code	Fuel Hose mm	Breather Hose mm	Protrusion mm	Intrusion mm	Mount Screws mm
192366	38	16	28	105	4 c/s

Deck Fillers - Stainless Steel

Flush mount, lost wax cast, 316 grade stainless steel deck fillers. Unique flip-up key ensures ease of removal at all times. Features coarse thread, 'O' ring seal, retaining chain and filler type identification moulded into the lid.

BLA Code	Type	Hose Size mm	Flange mm	Protrusion mm	Intrusion mm	Mount Screws mm
192350	Diesel	38	75	6	75	4 c/s
192351	Water	38	75	6	75	4 c/s
192352	Fuel	38	75	6	75	4 c/s
192353	Waste	38	75	6	75	4 c/s
192354	Diesel	50	81	4	95	4 c/s
192355	Water	50	81	4	95	4 c/s
192356	Fuel	50	81	4	95	4 c/s

Perko® Vented Deck Fillers - Plastic

Flip top cap that cannot be lost overboard. Integral tank vent with flame arrestor. U.V. stabilised injection moulded plastic with 'gas' identification. 110 x 73mm base.

401959

401958

BLA Code	Colour	Fuel Hose mm	Vent Hose mm	Protrusion mm	Intrusion mm	Mount Screws mm
401958	Black	38	16	20	65	4 c/s
401959	White	38	16	20	65	4 c/s

Perko® Vented Deck Fillers - Nylon

Nylon twist cap with black plastic body. Integral tank vent incorporates flame arrestor and anti-surge valve. Deck filler key included. Cap has moulded in 'gas' identification. Available in 90° or 35° fill neck configuration. 85mm diameter flange.

401960

401969

401968

BLA Code	Colour	Angle	Fuel Hose mm	Vent Hose mm	Protrusion mm	Intrusion mm
401960	Black	90°	38	16	13	76
401962	White	90°	38	16	13	76
192368	Chrome	90°	38	16	8	76
401966	Black	35°	38	16	11	85
401968	White	35°	38	16	11	85

Standard Inclusions:

401969 Black spacer to raise filler 10mm

Drain Plug - Light Duty

Light duty cast alloy construction. Three point thread. Supplied with 'O' ring seal. Thread requires lubrication after installation.

N.B. Not for use in commercial applications.

BLA Code	Base Dia. mm	Bung Dia. mm	Cut Out Dia. mm	Base Intrusion mm
192402	73	35	50	10

Spare Parts:

192404 Replacement bung & 'O' ring

Drain Plug - Heavy Duty

Heavy Duty marine grade hand cast AA 601 Aluminium construction. Suitable for welding and commercial applications available with Aluminium or acetal plug. Thread requires lubrication after installation.

192401

192403

BLA Code	Description	Base Dia. mm	Bung Dia. mm	Cut Out Dia. mm	Base Intrusion mm
192400	Alloy	73	38	51	11
192401	Black Acetal	73	38	51	11
192403	Alloy	93	58	75	11
192405	White Acetal	93	58	75	11

Spare Parts:

192407 Bung 'O' ring cast alloy t/s **192400**
192409 Bung 'O' ring acetal t/s **192401**
192410 Bung 'O' ring cast alloy t/s **192403**
192411 Bung 'O' ring acetal t/s **192405**

BLA Drain Plug - Plastic

Moulded black plastic base and bung. Coarse four point thread. Bung retainer to prevent loss.

192412

192413

BLA Code	Base Size mm	Bung Dia. mm	Cut Out Dia. mm	Base Intrusion mm	Mount Screws mm
192412	52 x 35	18	25	9	5 c/s

Spare Parts:

192414 Replacement bung and washer
192413 Replacement bungs only, box of 80

BLA Large Diameter Drain Plug - Chrome Brass

Chrome brass body with a black nylon bung featuring a retainer to prevent loss, rubber seal, large grip for ease of opening and coarse four point thread to cope with sand and sediments.

192440

192443

BLA Code	Base Size mm	Bung Dia. mm	Cut Out Dia. mm	Base Intrusion mm	Mount Screws mm
192440	68 x 49	31	38	9	4 c/s

Spare Parts:

192444 Replacement bung and washer
192443 Replacement bungs only, box of 25

Rubber Bungs

Tapered rubber bungs for use in dinghies. Sold in packs of 25.

192463

192470

BLA Code	Size No.	Small Dia. mm	Large Dia. mm	Length mm
192462	3	11	14.5	22
192463	4	13	15.6	24.1
192464	5	13.2	16.1	25
192466	6	15.3	18.2	25
192468	7	16	19.3	26
192470	8	17.5	21.6	32.5
192472	9	18.6	22.7	35.5

Drain Plug - Chrome Brass

Chrome plated brass base. Black nylon bung features a retainer to prevent accidental loss. Coarse four point thread to cope with sand and sediments.

BLA Code	Base Size mm	Bung Dia. mm	Cut Out Dia. mm	Base Intrusion mm	Mount Screws mm
192406	51 x 35	18	25	9	5 c/s

Spare Parts:

192408 Replacement bung & 'O' ring

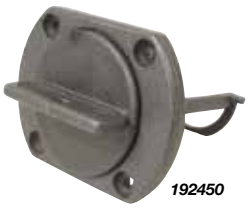
Fine Thread Bung - Plastic

Plastic bung and washer, replaces fine three point, 18mm threaded bungs.

BLA Code
192415

Large Diameter Drain Plugs - Plastic

Black, plastic drain plug. Flat flange base for mounting as low as possible on the hull. 'O' ring seal, course four point thread to cope with sand and sediments.



192450

192456

BLA Code	Base Size mm	Bung Dia. mm	Cut Out Dia. mm	Mount Screws mm
192450	65 x 50	30	40	4 r/h
192456	66 x 58	31	40	4 r/h

Spare Parts:

192454 Replacement bung for **192450**
192444 Replacement bung for **192456**

Large Diameter Drain Plugs - Plastic

Moulded plastic construction, designed for quick efficient drainage. 'O' ring seal. Coarse four point thread to cope with sand and sediment.

192422

192442

BLA Code	Colour	Base Size mm	Bung Dia. mm	Cut Out mm	Base Intrusion mm	Mount Screws mm
192422	White	69 x 49	31	38	9	4 r/h
192442	Black	69 x 49	31	38	9	4 r/h

Spare Parts:

192430 White replacement bung for **192422**
192444 Black replacement bung for **192442**

Marine Town® Scupper - Stalon

30% glass filled nylon 66 body with stamped 316 grade stainless steel face. Combines the look of stainless steel with the cost and weight saving of nylon. Ideal for alloy boats as there is no contact between the stainless steel face and alloy hull. One way check valve is manufactured from PVC for years of trouble free operation.

BLA Code	Hose Size mm	Max Hull Thickness mm	Overall Length mm	Face Dia. mm	Mount Hole mm
192476	38	44	133	82	56

N.B. Not intended for permanent immersion

Telescoping Scupper - ABS Plastic

Through transom mount scupper moulded in marine grade, high impact, U.V. screened ABS plastic. 5° angle for enhanced drainage. Tapered lip for efficient sealing. Adjustable for different transom thicknesses from 50-100mm. Large outlet for maximum flow.

BLA Code	Length mm	Height mm	Depth mm	Cut Out l x h mm	Mount Screws mm
192486	182	82	80	160 x 58	4 c/s

N.B. Not intended for permanent immersion

Scuppers - Cast Aluminium

Cast alloy, plain finish scuppers that allow high volume of water transfer for self draining decks, cockpits and similar. Surface mount. Screw on or weld onto alloy boats. Retrieval attachment point fitted. Stainless steel tension spring mechanism locks in open as well as closed position.

192490

BLA Code	Outer Dimensions mm	Inner Dimensions mm
192488	170 x 115	110 x 60
192490	235 x 145	175 x 86

N.B. Not intended for permanent immersion

Hinged Scupper - White Acetyl

Flush mount scupper manufactured from a combination of white acetyl and delrin for long life. Simply attach over existing hole or through hull fitting. Gravity closing hinged lid.

BLA Code	Outside Dia. mm	Inside Dia. mm	Depth mm	Mount Screws mm
192482	71	46	30	4 c/s

N.B. Not intended for permanent immersion

Thru Transom Scupper

Designed for installation with self-draining cockpits or for bilge pump out. The rubber flapper opens to dump water out and closes to prevent backwash. Tough acetyl construction. White in colour.

BLA Code	Hose Size mm	Max Hull Thickness mm	Overall Length mm	Flange Dia. mm	Mount Hole mm
138812	38	78	152	72	46

N.B. Not intended for permanent immersion

Scuppers - Thru-hull

Black or white plastic moulded through hull scuppers with hose attachment. Ideal for bilge pump out or cockpit drainage. Soft rubber flap valve to keep out seawater.

192481

BLA Code	Colour	Hose Size mm	Max Hull Thickness mm	Overall Length mm	Flange Dia. mm	Mount Hole mm
192480	Black	38	25	90	74	50
192481	White	38	25	90	74	50

N.B. Not intended for permanent immersion

Scupper Valve

One way water exit for boats with self draining cockpits. Scupper mounts over flush drains above the waterline. The rubber flapper opens to dump water out and closes with water pressure to prevent backwash. Durable acetal mount flange.

BLA Code	Diameter mm	Max Bore mm	Mount Hole mm
138814	70	38	3 c/s

N.B. Not intended for permanent immersion

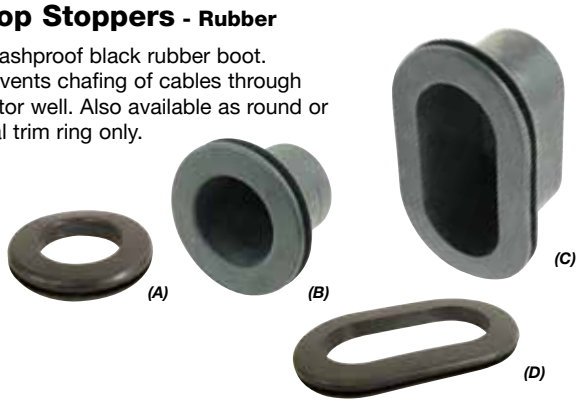
Sea Scupper

Manufactured from U.V. stabilised clear polycarbonate. Suitable for new or existing self draining cockpits/floors. Flexible mounting seal and solid sealing ball. Must be installed on a near vertical flat face.

BLA Code	Outside Dia. mm	Overall Length mm	Hole Cut Out mm	Mount Screws mm
192497	76	63	28	5 r/h

Slop Stoppers - Rubber

Splashproof black rubber boot. Prevents chafing of cables through motor well. Also available as round or oval trim ring only.



BLA Code	Outside Dia. mm	Cut Out mm	Intrusion mm	Max. Panel Thickness mm
(A) **192500**	88ø	63 dia.	n/a	6
(B) **192502**	88ø	63 dia.	46	6
(C) **192504**	135 x 83	115 x 60	46	5
(D) **192503**	135 x 80	115 x 60	n/a	5

Slop Stopper - PVC

Moulded from flexible black PVC. Provides a neat means of passing wires, cables and plumbing through bulkheads, splashwells, and similar.

BLA Code	Cut Out Dia. mm	Outside Dia. mm	Protrusion mm	Intrusion mm	Mount Screws
192506	68	89	4	4	3 r/h

Motor Well Boot - Rubber

Provides organised, covered pass through motor well for control cables, wires or fuel lines. Black PVC boot with black polypropylene mount flange.

BLA Code	Cut Out Dia. mm	Outside Dia. mm	Protrusion mm	Mount Screws mm
192508	65	105	60	3 c/s

Cable Boot - Vinyl

The cable boot provides a neat open area to pass wiring and cables through a motor well. When rigging is complete, simply pull the cable tie (supplied) snug around wires and cables to complete the installation. The cable boot is constructed of PVC that resists U.V. rays, petrol and oil. Black polypropylene mount flange.

BLA Code	Colour	Cut Out Dia. mm	Outside Dia. mm	Intrusion mm	Mount Screws mm
192510	Black	82	120	68	3 c/s

Rigging Flanges and Hose

All the components required to complete a professional rigging system. Protects outboard engine cables and wiring from dirt, abrasion, sun, salt and water.

The hose is durable, flexible and kink resistant. The mount flanges and split union are moulded from U.V. stabilised polypropylene. Two types of mount flange are available,

192516 and **192517** are internally threaded to retain the hose and make rigging adjustment simple. These can be surface or recess mounted. **192518** and **192519** has additional port to allow the fuel line to pass through so that the primer bulb can be accessed immediately adjacent to the outboard.

192521 is a split union that provides an entry point for the fuel line back into the rigging hose. **192520** is a moulded black vinyl cap to provide closure of the engine end of the rigging hose if required.

BLA Code	Description	Colour
(A) **192520**	Vinyl cap	Black
(B) **192524**	Rigging hose 50mm x 15m	Black
192525	Rigging hose 50mm x 15m	White
192526	Rigging hose 50mm x 7.5m	Black
(C) **192516**	Rigging mount flange	Black
192517	Rigging mount flange	White
(D) **192518**	Rigging mount flange with fuel port	Black
(E) **192521**	Rigging hose union	Black

Rigging Flange - Plastic

Manufactured from U.V. stabilised injection moulded plastic. 45° exit hole allows for smooth routing of electrical or steering cables from port or starboard side of transom.

BLA Code	Outside Dia. mm	Cut Out mm	Mount Screws mm
192530	160 x 125	122 x 83	5 r/h

Attwood Rod Holder - Pro Series

Designed for use with baitcaster and spinning reels. Large, easy-grip cam lock provides 160º vertical adjustment for a variety of rod tip height settings. Heavy duty, deep tooth gear lock securely holds rod holder in mounting bases. Locking collar secures rod during travel and use. Includes bi-axis mount that can be used as a side or pedestal mount, allowing 360˚ of horizontal adjustment.

BLA Code	Overall Length mm	Base Size mm	Hole Centres mm	Mount Screws mm
192550	215	98 x 49	78 x 32	6 r/h

Standard Inclusions:
192551 Includes bi-axis mount

Attwood® Rod Holder

- Bi-Axis Mount

The newly designed mount can be used as a side or pedestal mount, allowing 360º of horizontal adjustment. Compatible with all Attwood and other leading brand rod holder mounting patterns.

BLA Code
192551

Attwood® Rod Holder

- Rail Mount

Complete with all necessary hardware to mount all Attwood and other leading brand rod holder mounts to square or round rails between 22mm (7/8") and 32mm 1 1/4".

BLA Code
192552

BLA Baitcaster Rod Holder

- Black Nylon

This rod holder can easily adjust a rod from 5º to 95°. The base design has twelve variable positions to allow the rod to rotate through 360°. Thumb activated, slide locking ring retains the rod when trolling. Supplied with a side mount bracket with channel to allow mounting on rails up to 25mm diameter with optional rail mount adaptor. Various additional mounts can be ordered separately and are listed below. Rod holder and mount kits are all moulded in tough polyethylene.

BLA Code	Tube I.D. mm	Overall Length mm	Base Size mm	Hole Centres mm	Mount Screws mm
192555	32	270	82 x 56	62 x 40	6 r/h

Accessories:
192556 Mount Kit - Side Mount
192557 Mount Kit - Rail Mount Adaptor
192558 Mount Kit - Flush Deck Mount

BLA Baitcaster Rod Holder

- Side Mount Kit

Mounts on vertical surface. Moulded channel in base for mounting on tubular rails to 25mm diameter using rail mount adaptor below.

BLA Code	Base Size mm	Protrusion mm	Hole Centres mm	Mount Screws mm
192556	82 x 56	48	62 x 40	6 r/h

BLA Baitcaster Rod Holder

- Rail Mount Adaptor

Converts side mount to rail mount. Fastenings purchased separately.

BLA Code	Base Size mm	Hole Centres mm
192557	82 x 56	62 x 40

BLA Baitcaster Rod Holder

- Flush Deck Mount

Mounts on horizontal surface.

BLA Code	Base Size mm	Cut Out mm	Mount Screws mm
192558	82 x 56	40	6 r/h

Cannon® Adjustable Rod Holder

Fully adjustable 360° rod holder that can be top mounted or side mounted. The rod holder features a three-position configuration, and a spring loaded tension knob delivering fast baitcast or spinning rod pick up. **394480** supplied with four stainless steel metal threads.

BLA Code	Description
394481	Rod holder Cannon
394480	Rod holder and S/S screws

Accessories:

394472	Cannon flush mount adaptor
394478	Cannon top/side mount adaptor

Cannon® Adaptor

- Rail Mount

Turns Cannon® **394478** into rail mount.

BLA Code
394476

Cannon® Adaptor

- Flush Mount

Compatible with Cannon® products only.

BLA Code
394472

Cannon® Adaptor

- Top/Side Mount

Compatible with Cannon® products only.

BLA Code
394478

Cannon® Adaptor

- 152mm (6") Extension Post part

Suits Cannon® adaptors/mounts only.

BLA Code
394474

Rail Mount Rod Holders

- Stainless Steel

Solid 316 grade stainless steel construction available in mirror finish or gold titanium treated finish. Soft black PVC liner and neck flange to protect rods and reels. Multi-position articulation to set rods in desired fishing position. Also used in a multiple bank for rod storage. 5mm pin in base to align rods.

192604

192602

BLA Code	Finish	Length mm	Tube O.D. mm	Tube I.D. mm	Rail Size mm
192602	Mirror	250	52	41	19-25
192604	Gold	250	52	41	19-25

Rail Mount Rod Holders

- Slotted Stainless Steel

Solid 316 grade mirror polished stainless steel clamp and body with soft black PVC liner to protect rod and reel. The slotted barrel and multi-position articulation is designed for setting rods with overhead reels to the optimum fishing position. Also commonly used in multiples for rod storage racks for overhead and spinning reels.

BLA Code	Length mm	Tube O.D. mm	Tube I.D. mm	Slot mm	Rail Size mm
192600	245	50	46	13 x 80	19-25

Flush Mount Rod Holder

- Cast Stainless Steel With Cap

Flush, deck mounted, heavy duty cast stainless steel rod holder with a black PVC sealing cap and liner. Suitable for up to 80lb line class. 6mm diameter pin in base of tube for rod alignment. Rod holder angled at 30°.

BLA Code	Deck Plate mm	Intrusion mm	Cut Out mm	Mount Screws mm
192543	112 x 82	210	51	6 c/s

Flush Mount Rod Holder

- Stainless Steel With Cap

Stainless steel, flush deck mounting. PVC sealing cap, mount gasket and liner. Angled 30°. 6mm diameter pin in base of tube for rod alignment.

BLA Code	Deck Plate mm	Intrusion mm	Cut Out mm	Mount Screws mm
192542	116 x 87	205	51	6 c/s

Heavy Duty Flush Mount Rod Holder - Stainless Steel With Cap

Stainless steel flush deck mounting. Raised dome top. 6mm gimbal pin for rod alignment. White PVC sealing cap and insert. Black base mount gasket supplied. 30° angled through deck mount.

BLA Code	Deck Plate mm	Intrusion mm	Cut Out mm	Mount Screws mm
192545	106 x 85	215	51	6 c/s

Flush Mount Rod Holder

- Stainless Steel

Stainless steel fabricated construction with 30° angled deck mount. Protective white PVC liner. 5mm diameter pin in base of tube for rod alignment. Supplied with mount gasket.

BLA Code	Deck Plate mm	Intrusion mm	Cut Out mm	Mount Screws mm
192544	110 x 87	220	51	6 c/s

Medium Duty Flush Mount Rod Holder

- Cast Stainless Steel With Cap

Flush mounted, cast 316 grade stainless steel rod holder with black PVC liner and sealing cap. Supplied with ¾" female BSP thread in base to accept a hose tail for draining away excess water. 6mm diameter pin in base of tube for rod alignment. 30° angled through deck mount.

BLA Code	Deck Plate mm	Intrusion mm	Cut Out mm	Mount Screws mm
192549	112 x 88	210	53	6 c/s

Marine Town® Stalon Rod Holder

Tough injection moulded nylon body with stainless steel cover. Sleek look with no visible fasteners. PVC sealing cap and mount gasket. 30° angled through deck mount. 6mm cross bar in base to align rod.

BLA Code	Deck Plate mm	Intrusion mm	Cut Out mm	Mount Screws mm
192559	103 x 92	235	53	6 c/s

Flush Mount Rod Holders

Economical one piece moulded plastic construction. Textured finish deck plate. Angled 30°. 6mm cross bar in base to align rod.

192560

BLA Code	Colour	Deck Plate mm	Cut Out mm	Intrusion mm	Mount Screws mm
192560	White	108 x 88	54	210	6 c/s
192562	Black	108 x 88	54	210	6 c/s

BLA Flush Mount Rod Holders

Economical, one piece, moulded plastic construction with matte finished deck plate. Angled 30°. 6mm cross rib in tube base to align rod. Weatherproof caps available separately. Mount screws are 4mm countersunk.

192598

192588

BLA Code	Colour	Deck Plate mm	Tube O.D. mm	Intrusion mm
192588	White	105 x 85	49	195
192590	Black	105 x 85	49	195

Accessories:

192598 Black cap and base gasket
192599 White cap and base gasket

Oval Flush Mount Rod Holders

One piece moulded plastic construction with matte finished deck plate supplied with or without cover. 30° angled tube with 6mm gimbal moulding in base to keep rods aligned. 106mm x 83mm deck plate.

192566

BLA Code	Colour	Cover	Cut Out mm	Intrusion mm	Mount Screws mm
192566	White	No	50	210	6 c/s
192567	Black	No	50	210	6 c/s
192568	White	Yes	50	210	6 c/s
192569	Black	Yes	50	210	6 c/s

Slimline Flush Mount Rod Holders

Economical, one piece plastic construction. Straight or angled through deck mount. Available in black or white. Mounting base measures 87mm x 60mm. 4mm countersunk mounting holes.

192583

BLA Code	Colour	Type	Tube O.D. mm	Intrusion mm	Mount Screws mm
192583	White	Angled	49	210	4 c/s
192584	Black	Angled	49	210	4 c/s
192585	White	Straight	49	235	4 c/s
192586	Black	Straight	49	235	4 c/s

BLA Slimline Flush Mount Angled Rod Holders

Economical, one piece plastic construction. Angled through deck mount. Weatherproof caps available separately.

192597

192576

BLA Code	Colour	Deck Plate mm	Tube O.D. mm	Intrusion mm	Mount Screws mm
192576	White	89 x 60	49	220	5 c/s
192578	Black	89 x 60	49	220	5 c/s

Accessories:

192596 Black cap and base gasket
192597 White cap and base gasket

BLA Slimline Flush Mount Rod Holders

Economical, one piece plastic construction. Straight through deck mount. Weatherproof caps available separately.

192596

192582

BLA Code	Colour	Base mm	Tube O.D. mm	Intrusion mm	Mount Screws mm
192580	White	89 x 60	49	230	5 c/s
192582	Black	89 x 60	49	230	5 c/s

Accessories:

192596 Black cap and base gasket
192597 White cap and base gasket

Side Mount Rod Holders

Economical one piece plastic construciton with multiple fixing side section. Mounts on any flat, near vertical surface. Available in black or white. 6mm cross bar in the base to align rod.

192593

BLA Code	Colour	Width mm	Height mm	Depth mm	Mount Screws mm
192593	White	75	238	46	4 r/h
192595	Black	75	238	46	4 r/h

BLA Side Mount Rod Holders

Economical one piece plastic construction with multiple side fixing section. Mounts on any flat, near vertical surface. Fins in base to align rod.

192594

BLA Code	Colour	Width mm	Height mm	Depth mm	Mount Screws mm
192592	White	72	234	50	4 r/h
192594	Black	72	234	50	4 r/h

Side Mount Rod Holder

Brushed stainless steel tube with heavy duty, black plastic complete ring mounting saddles. Top opening fitted with black moulded plastic cushion ring to protect rod. 6mm diameter cross bolt in base allows for both standard or gimballed fishing rods.

BLA Code	Width mm	Height mm	Depth mm	Tube I.D. mm	Mount Screws mm
192620	84	263	59	41	4 r/h

Slimline Rod Holders

- Stainless Steel

Polished stainless steel fabricated construction. 6mm gimbal pin for rod alignment. Angled or straight through deck mount.

192534 192536

BLA Code	Mount	Deck Plate mm	Cut Out mm	Intrusion mm	Mount Screws mm
192534	Straight	80 x 59	44	197	4 c/s
192536	Angled	80 x 59	44	188	4 c/s

Side Mount Rod Holder

White plastic rod holder featuring flared top, slot to accept reels and open bottom for drainage. Stainless steel saddles as well as moulded in mount holes, offer a large variety of mounting options.

BLA Code	Length mm	Tube I.D. mm	Clamp Width mm	Mount Screws mm
192648	305	45	103	4 r/h

Rod Racks - Polymer

Horizontal, wall or overhead mounted, polymer rod racks. 50mm holes to accept rod butt and 19mm slots for rod tips. Supplied with variable position mount brackets and mount screws. Racks are handed and sold as a pair.

192646

BLA Code	Rods Stored	Length mm	Depth mm	Height mm	Mount Screws mm
192644	Four	385	81	65	3 c/s
192646	Six	555	81	65	3/c/s

BLA Rod Storage Holder

- Horizontal

Used for storing rods horizontally onboard or at home. Anodised aluminium side plates with closed cell foam inserts to hold up to three rods. Sold as a pair.

BLA Code	Length mm	Depth mm	Height mm	Mount Screws mm
192625	210	82	68	5 r/h

BLA Rod Storage Holders

- Horizontal

Used for storing rods horizontally onboard or at home. Constructed from black ABS plastic and supplied in either three or five rod combinations. Closed cell foam inserts ensure that rods are held in place.
Sold as a pair.

192628

BLA Code	Rods Stored	Length mm	Depth mm	Height mm	Mount Screws mm
192628	Three	195	73	62	4 c/s
192630	Five	290	62	52	4 c/s

Rod and Knife Holders

Vertically mounted, white plastic rod and fishing gear holders. Rod holders feature flared tops, slots to accept reels and open bottom for drainage. Slot and hole configuration in horizontal mounts holds knives, pliers and similar.

192634

BLA Code	Rods	Knife	Tool	Width mm	Height mm	Depth mm	Mount Screws mm
192634	2	1	1	275	305	63	5 r/h
192636	3	2	2	440	305	63	5 r/h
192638	4	6	3	605	305	63	5 r/h
192640	6	4	3	605	305	63	5 r/h

Bull Bar Rod Holder - Alloy

Stores up to four rods with simple 'U' bolt mounting onto bull bar. Sturdy, welded, all aluminium construction with Cadmium plated 'U' mount bolts. Maximum bull bar tube diameter is 52mm. Check with local transport regulations before installing this product.

BLA Code	Width mm	Tube I.D. mm	Tube Length mm
192624	427	45	150

BLA Rod Storage Holders

- Vertical or Horizontal

Used for storing rods in a vertical position onboard or at home. Base incorporates recesses for rod butt, while closed cell foam inserts in other mount support rod stems. Black U.V. stabilised plastic frame.
Sold as a pair.

192627

BLA Code	Description	Length mm	Depth mm	Height mm	Mount Screws mm
192627	Three rod	195	73	62	4 c/s
192633	Five rod	290	62	52	4 c/s

Marine Town® Stanchion

- Stainless Steel

Stainless steel tube with tapered upper section. Pressed fit stainless steel sleeve for mid height line. Enlarged top line head to protect crew and sails. Fits into **192672** and **192674** bases.

BLA Code	Length	Tube Dia. mm ø
192670	630	25

Marine Town® Stanchion Bases

- Stainless Steel

Accepts stanchion **192670**. Pressed stainless steel base plate. Reinforcement bar also allows attachment of blocks and similar.

192674

192670

BLA Code	Base Angle	Suits Tube mm	Base Size mm	Height mm	Mount Screws mm
192672	0°	25	76 x 88	50	6 c/s
192674	6°	25	76 x 88	50	6 c/s

Attwood® Ski Tow Ring

- Stainless Steel

Flush fitting, stream lined ski tow ring manufactured from 316 grade stainless steel. Suitable for through transom mounting with large bearing surface to ensure that the fitting does not pull through.

BLA Code	Outside Dia. mm	Cut Out mm ø	Hull Thickness mm
192654	65	52	4-43

Sliding Transducer Brackets

Fishfinder transducers on trailerable boats are susceptible to damage, particularly if launching off the beach. These adjustable transom mounted brackets enable the transducer to be retracted out of harms way until required. Transducer can be raised and lowered in seconds.

192656

192658

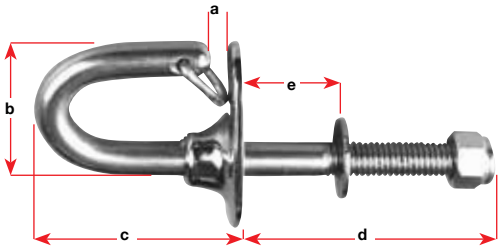
192665

192666

BLA Code	Material	Transducer Type	a mm	b mm	c mm	d mm
192656	S/Steel	Thru hull	225	88	114	80
192658	S/Steel	Transom mount	225	88		131
192665	Alloy	Transom mount	205	84		51
192666	Alloy	Transom mount	205	152		63

Ski Tow Hook - Stainless Steel

Transom mounted ski hook. Chrome cast bronze base. Stainless steel hook and mount bolt. Keeper retains ski rope when slack.



BLA Code	a mm	b mm	c mm	d mm	e mm	Mount Bolt mm
192650	8	40	55	70	15-55	9

Ski Tow Eyes - Stainless Steel

Transom mounted, water sports tow eyes. Protector ring prevents snagging of clothing, ski equipment, ropes and similar. Hex nuts and star washers included.

192652

BLA Code	Ring Dia. mm	Protrusion mm	Hull Thickness mm	Mount Bolt mm
192652	63	38	8-50	9

Marine Town® Marine Padlocks

- Brass

Brass body, stainless steel shackle. Supplied with two keys.

193004 193008

BLA Code	Width mm	Height mm	Thickness mm	Shackle Dia. mm	Throat mm
193002	30	50	13	5	18
193004	40	61	14	6	22
193006	50	77	16	8	29
193008	40	103	14	6	64

Double Hinged Cabin Hook - Chrome Brass

The double hinge design significantly reduces rattle over conventional cabin hooks.

BLA Code	Base Size mm	Length mm	Depth mm	Mount Screws mm
193020	42 x 26	100	20	4 c/s

Security Hasp and Staple

- Stainless Steel

Concealed fastenings. Accepts padlock with up to 8mm shackle. Pressed stainless steel construction.

BLA Code	Overall Length mm	Width mm	Height mm	Mount Screws mm
193044	70	28	20	4 c/s

Marine Town® Cabin Hooks

- Chrome Brass

Available in a range of sizes.

BLA Code	Length mm	Mount Screws mm
193024	65	4 c/s
193026	76	4 c/s
193028	100	4 c/s

Barrel Bolts - Chrome Brass

Traditional style.

193034

BLA Code	Barrel Length mm	Overall Length mm	Width mm	Depth mm	Mount Screws mm
193032	50	65	22	10	3 c/s
193034	75	90	22	10	3 c/s
193036	100	115	26	10	3 c/s

Marine Town® Heavy Duty Hasp and Staple

- Stainless Steel Twistlock

Cast stainless steel construction. Features twist lock closure, concealed fastenings and solid hinge pin. Accepts padlocks with up to 8mm shackle.

BLA Code	Length mm	Height mm	Height mm	Mount Screws mm
193040	90	26	29	4 c/s

Marine Town® Square Barrel Bolt

- Stainless Steel

Spring self-closing, square line barrel bolt. Mirror polished cast 316 grade stainless steel body with concealed mount fastenings. Nylon slide for smooth action and no rattle.

BLA Code	Length mm	Height mm	Depth mm	Mount Screws mm
193030	90	30	32	5 c/s

Perko® Barrel Bolts

- Chrome Plated Bronze

Chrome plated bronze construction. Includes friction pad to eliminate rattling and provide smooth operation.

401970

BLA Code	Length mm	Height mm	Depth mm	Mount Screws mm
401970	90	37	16	3 c/s
401972	138	37	18	3 c/s

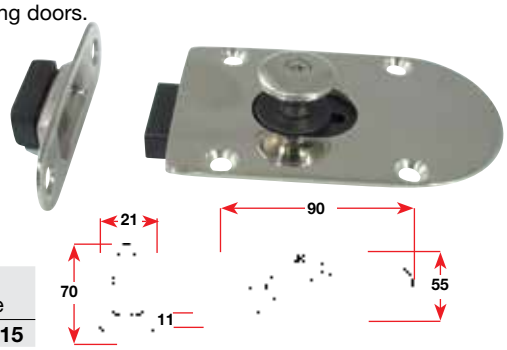
Barrel Bolt - Stainless Steel

Rounded non catch styling coupled with cast 316 grade stainless steel construction and a rattle eliminating friction pad, has combined the simple installation and reliability of a barrel bolt with contemporary form.

BLA Code	Length mm	Height mm	Depth mm	Mount Screws mm
193031	105	25	12	3 c/s

Marine Town® Magnetic Slide Catch - Stainless Steel

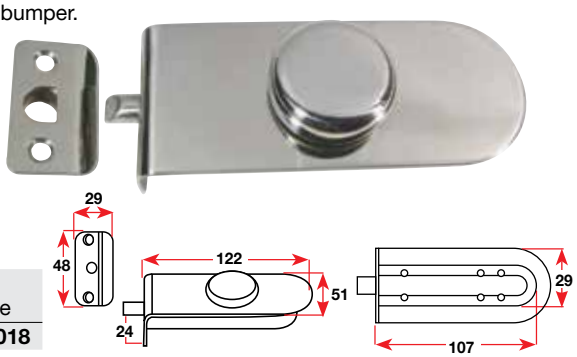
Solid cast 316 grade stainless steel housing with non rattle nylon slide. Gone is the shock loading of conventional slam action doors as the magnetic mechanism only actuates when the slide and strike are parallel, in the fully closed position. Slide protrusion when closed can also be adjusted from 6mm to 20mm. Suits left or right hand, in or out opening doors.



BLA Code
193015

Marine Town® Transom Door Catch - Stainless Steel

316 grade stainless steel face plates, bolts and knob with nylon back housing for smooth silent operation. This product features a spring loaded, adjustable stroke stainless steel bolt. The bolt is reversible for in or out opening. A versatile catch that satisfies many requirements for marine door installations. Modern attractive recessed design. Striker plate has rubber stop bumper.



BLA Code
193018

Marine Town® Magnetic Door Catch

Flush mounted magnetic door catch suitable for many applications. Powerful magnet holds approximately 2.5kg. White plastic housing with encapsulated magnet to protect against marine conditions.
Sold as a set of two.

BLA Code	Overall Length mm	Width mm	Intrusion mm	Protrusion mm	Cut Out mm	Mount Screws mm
193298	62	40	9	4	25	4 c/s

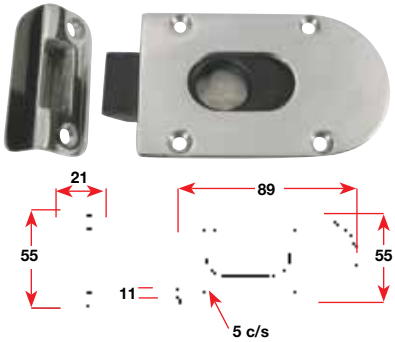
Marine Town® Barrel Bolts - Stainless Steel

Strong heavy gauge cast 316 grade stainless steel construction. Supplied with friction pad to eliminate rattle and to provide smooth operation.

BLA Code	Overall Length mm	Height mm	Depth mm	Mount Screws mm
193037	92	38	14	3 c/s
193039	110	38	16	3 c/s

Marine Town® Spring Slide Catch - Stainless Steel

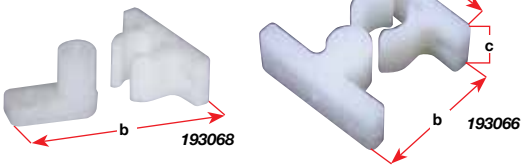
306 grade stainless steel housing with low friction nylon slide. Spring loaded flush latch will not catch clothing, ropes and similar. Catch bolt is reversible for left/right for in/out installation.



BLA Code
193016

Cupboard Catches - Nylon

Simple but secure white nylon catch.



BLA Code	Style	a mm	b closed mm	c mm	Mount Screws mm
193066	Straight	33	21	13	3 r/h & c/s
193068	Right angle	33	28	13	3 r/h & c/s

Perko® Cupboard Catch - PVC

Simple black plastic catch that secures cupboard doors closed. Sold as a pair.

BLA Code	Stud Dim. mm	Catch Dim. mm	Mount Screws mm
401998	28 x 11 x 17	35 x 12 x 11	2 r/h

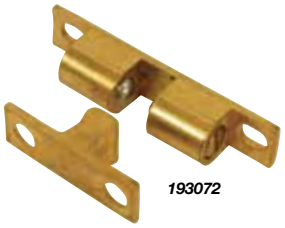
Cupboard Catch - Nylon

Snap catch with post mount, suitable for cupboards and small cabin doors.

BLA Code	Post Base Dia. mm	Post Length mm	Snap Base mm	Mount Screws mm
193069	23	22	42 x 12	5 c/s & 4 r/h

Ball Catches - Brass

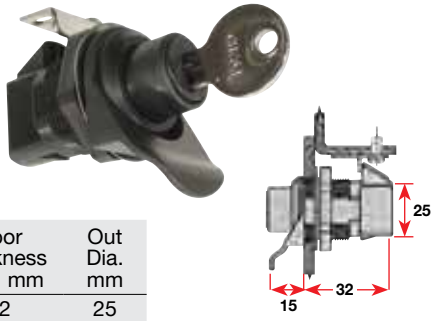
Brass body with twin spring loaded ball bearings. Screw adjustable catch tension. Cadmium plated spring and ball bearing.


193072

BLA Code	Overall Length mm	Width mm	Depth mm	Mount Screws mm
193072	43	8	11	3 r/h & c/s
193074	60	11	15	4 r/h & c/s

Push Lock

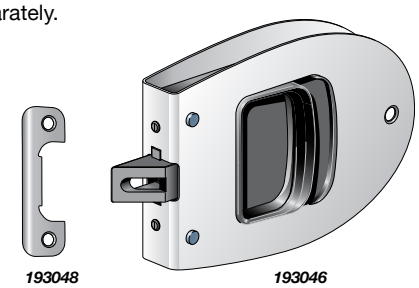
Push the door to latch. Thumb push to open. Supplied with pull-open finger tab and latch plate. Materials are nylon, glass reinforced acetal, stainless steel. Supplied with two keys.



BLA Code	Door Thickness Max. mm	Out Dia. mm
193112	12	25

Omni Spring Bolt Catches - Stainless Steel

A versatile latch, flush fitting on both sides. Corrosion free material for interior or exterior installations. Suits 12.7mm (½") thick doors. Non rattle design. Three year warranty. Striker sold separately.

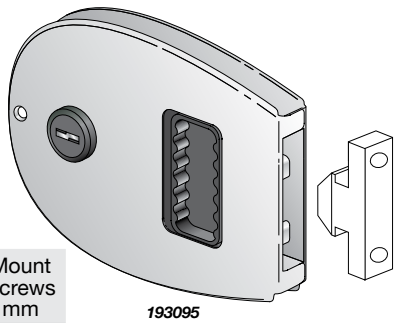

193048 193046

BLA Code	Description	Face mm	Mount Screws mm
193046	Catch	116 x 82	3 c/s
193048	Striker	68 x 24	5 c/s

Flush Sliding or Bi-fold Oval Lock

- Stainless Steel

Corrosion proof design finished in stainless steel for outdoor or indoor applications in standard sliding doors. Suitable for 12.7mm (½") thick doors. Supplied with striker and two keys. Safety door system allows door to be locked from outside, yet still open from the inside.

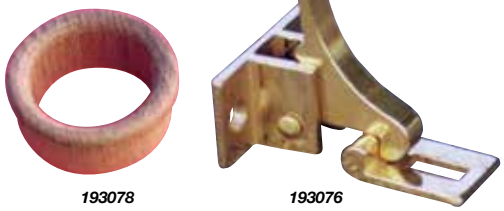

193095

BLA Code	Face mm	Mount Screws mm
193095	148 x 99	3 c/s

Accessories:
193099 Spare key

Finger Catches

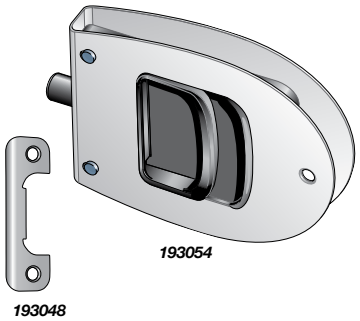
Spring loaded catches for cupboard doors and similar. Supplied with catch plate. **193078** is supplied with teak dress trim for a perfect finish and to allow cupboard ventilation. Teak trim requires a 38mm mount hole and has a 13mm intrusion.


193078 193076

BLA Code	Style	Base mm	Height mm	Mount Screws mm
193075	Black plastic catch only	30 x 18	30	3 c/s
193076	Brass catch only	28 x 16	28	3 c/s & r/h
193078	Brass catch c/w ring	28 x 16	28	3 c/s & r/h

Omni Dead Catches - Stainless Steel

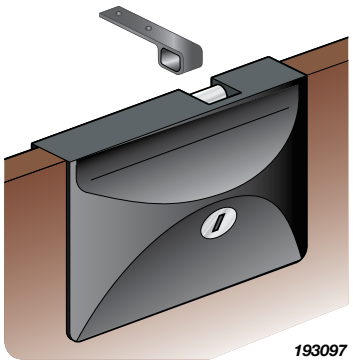
A premium quality contemporary style dead bolt, flush fitting on both sides. Corrosion free materials for interior or exterior installation. Two distinct dead bolt positions, open or closed, not self-closing. Suits 12.7mm (½") thick doors. Three year warranty. Striker sold separately.


193054
193048

BLA Code	Description	Face mm	Mount Screws mm
193054	Catch	116 x 82	3 c/s
193048	Striker	68 x 24	5 c/s

Sliding Door or Hatch Dead Locks

Marine grade construction - polymide, stainless steel, aluminium and brass throughout. Suits door thickness of 12.7mm (½"). Easy to install. Use on acrylic or timber doors, bi-fold doors, swinging doors, hatches and companionway storm boards. Key lock on exterior with sliding privacy lock on interior side of lock.

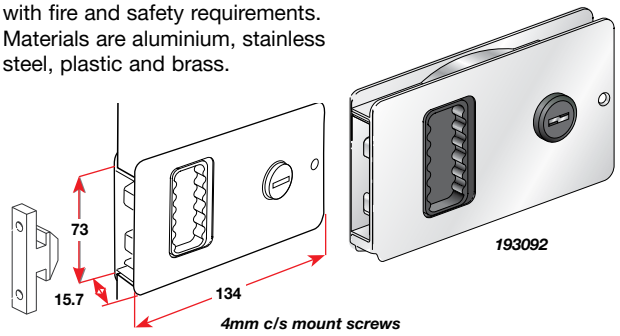

193097

BLA Code	Colour	Face mm	Mount Screws mm
193096	White	87 x 55	3 r/h
193097	Black	87 x 55	3 r/h

Accessories:
193099 Spare key

Mobella Flush Sliding or Bi-fold Door Locks

Suitable for sliding or bi-fold doors, of 12.7mm (½") thickness. Flush fitting on both sides of door. Key lock from the outside but with the ability to always be opened from the inside, to comply with fire and safety requirements. Materials are aluminium, stainless steel, plastic and brass.

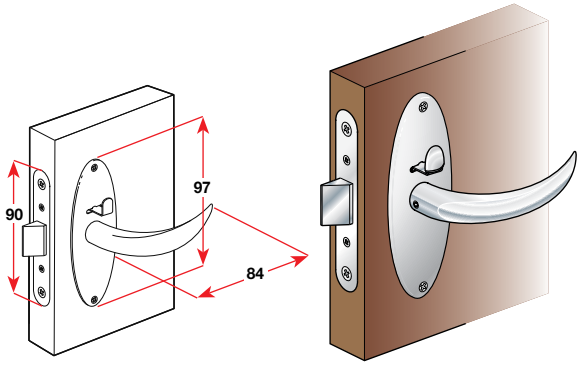


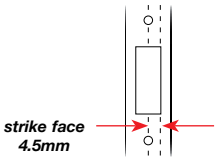
BLA Code	Finish
193092	Clear anodised aluminium
193093	White powder coated aluminium
193094	Stainless Steel

Accessories:
193101 Spare key

Mobella Compact Chrome Door Lock Sets

An attractive chromed brass door lock with privacy lock that can be mortise mounted to open inward or outward. All brass and stainless steel internal mechanism. Lock can be overridden for emergency entry. Striker sold separately.

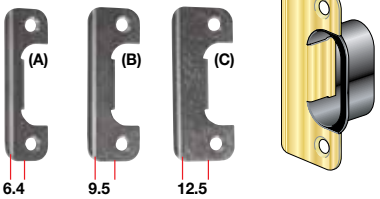




BLA Code	Door Thickness mm
193098	19-32

Mobella Striker Plates

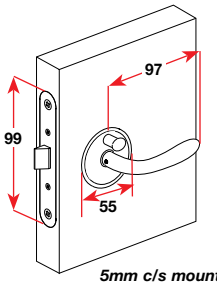
Three sizes available to suit McCoy, Compact, Offshore and Omni catches. The **193060** includes a trim box that neatly finishes woodwork or alloy cut outs.

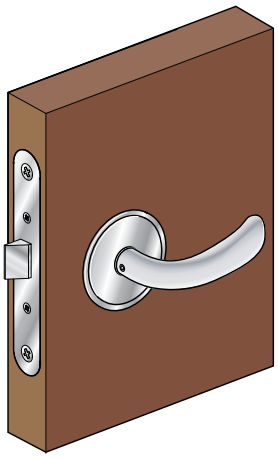


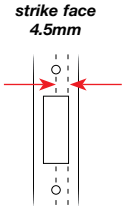
BLA Code	Description	Face mm	Mount Screws mm
(A) **193048**	Striker Plate 6.4mm	68 x 21	5 c/s
(B) **193052**	Striker Plate 9.5mm	68 x 24	5 c/s
(C) **193060**	Striker plate 12.5mm	68 x 28	5 c/s

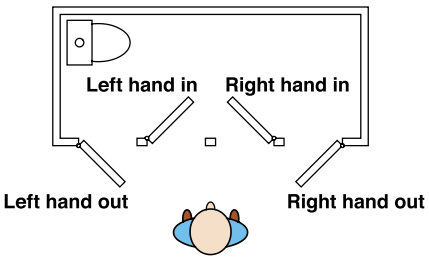
Mobella McCoy Chrome Door Lock Sets

Minimalist lock for cabin door applications. Chromed brass exterior finish offers complete protection against marine conditions. Brass interior mechanism. Mortise mount available to suit right or left hand opening doors. Available with or without locking privacy knob. Three year warranty. Striker sold separately.





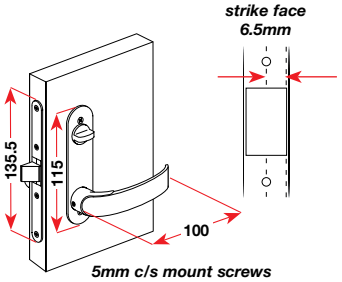




BLA Code	Privacy Lock	Door Opening	Door Thickness mm
193369	Yes	Right out	28-37
193372	Yes	Left out	28-37
193375	Yes	Left in	28-37

Mobella Offshore Mortise Door Lock Sets

Left hand open inward door action. White powder coated finish. Privacy knob fitted on inside with key lock on outer. Suits door thickness 22-27mm. Two keys supplied, three year warranty. Striker sold separately. Materials are cast zinc alloy, aluminium, plastic and brass.



BLA Code
193087

Accessories:
193099 Spare key

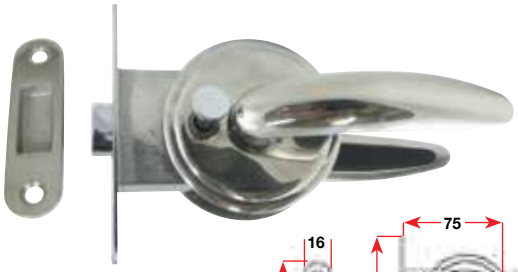
Marine Town® Magnetic Privacy Door Locks

Marine Town

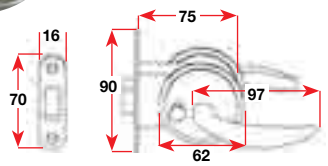
Smart design, smart looks and quality of manufacture have been combined in this new unique range of marine door locks. Latches operate by using two attracting magnets, one in the latch slide, and another in the strike plate. When door is closed both magnets align and latch actuates. These latches operate quieter than conventional spring latches, and as the latch is held closed by magnetic force, there is no vibration induced rattle.

Other unique features include a triangular lever shaft, whereby as door lever or knobs are tightened to the triangular shaft they are locked in place in three dimensions, so there is no possible slop or rattle, as is often associated with square shafts. Installation is easy as the design allows a wide tolerance range for the installer. The same latch can be used for left or right swing, open in or open out doors. Privacy latch on inside can be released in an emergency from outside, via a pin hole override.

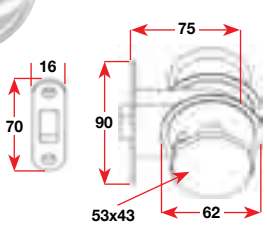
Available in mirror polished or brushed stainless finish with either lever or oval knob handles.



193381 Lever handle



193393 Oval handle



BLA Code	Handle	Finish	Door Size mm
193381	Lever	Mirror	19-25
193382	Lever	Mirror	28-35
193383	Lever	Brushed	19-25
193395	Oval	Brushed	19-25

Marine Town® Cabinet Knob

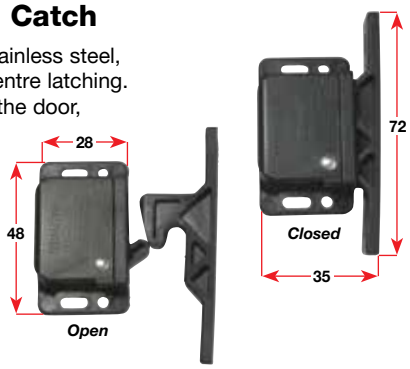
Marine Town

Round chrome plated brass knob with brush finished stainless steel centre disk.

BLA Code	Knob Dia. mm	Base Dia. mm	Protrusion mm	Thread UNC
193398	31	16	25	10-32

Push To Close Catch

Grabber catch with stainless steel, spring loaded, over centre latching. Side mounted to pull the door, drawer or hatch shut. Approximate pull force is 44N pull to open. Corrosion resistant materials.



BLA Code
193114

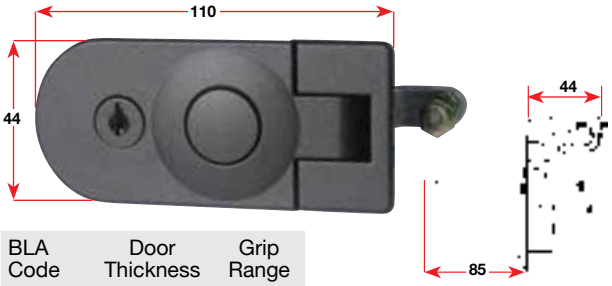
Push To Close Catches

This flush catch features a pop out knob which twists to open. Catches securely with knob in or out. Corrosion and U.V. resistant. Supplied with nylon or stainless steel keeper. Quick, round hole installation. Materials - PC/ABS blend (chrome finish), glass filled nylon and 304 grade stainless steel. Suits door thickness of 4mm to 21mm.

BLA Code	Face Dia. mm	a mm	Cut Out mm	Catch	Keeper	Keeper Screws mm
193126	37	47	31	Chrome	S/S	5 r/h
193127	37	47	31	Black Nylon	Nylon	4 r/h
193130	37	47	31	Chrome	Nylon	4 r/h

Lever Catch

Die cast zinc alloy lever catch. Large domed button for release, push catch handle to lever close. Key locking. Zinc plated mounting hardware.



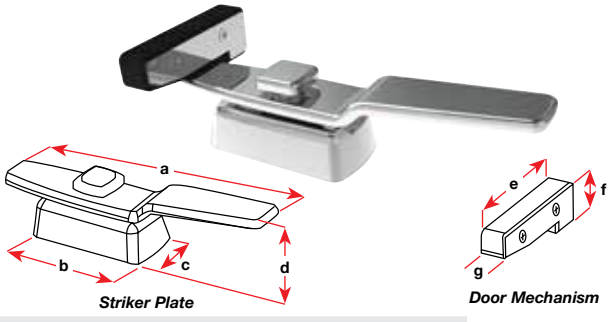
BLA Code	Door Thickness mm	Grip Range mm
193140	11-21	14-29

Marine Town® Transom Door Latch

Marine Town

- Stainless Steel

Heavy duty door latch designed to suit transom and large doors. Design incorporates spring loaded push button release action which allows for one handed operation. Can be rotated through 90 degrees and is locked in position upon release of the button. Supplied complete with striker plate and can be mounted for either left or right hand orientation.



BLA Code	a mm	b mm	c mm	d mm	e mm	f mm	g mm
193331	166	73	39	42	71	24	13.5
193332	213	82	47	50	71	24	13.5

Marine Town® Door Latch - Bi-Fold 316 Grade Stainless Steel

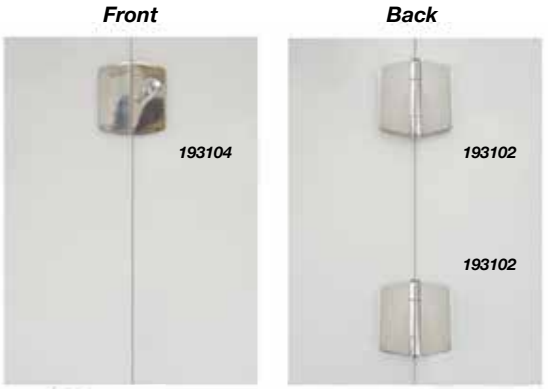
Features:

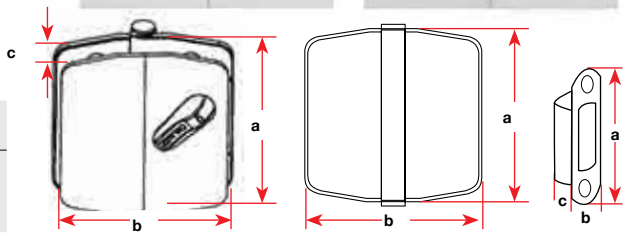
- Clean look and easy cut out
- Strong yet compact stainless steel construction
- Fit 12-51mm door thicknesses
- Matching hinge and hold open strike sold separately
- Screw size #10

193106

193102
Matching Hinge

193104
Hinge with Latch

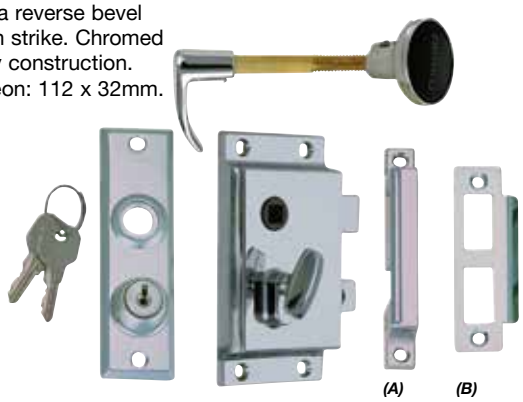




BLA Code	Description	a mm	b mm	c mm
193102	Hinge Butterfly suit Bi-Fold Latch	78	78	-
193104	Latch Bi-Fold Door S/S	78	78	12-51
193106	Striker Plate S/S Flat	62	19	13.5

Perko® Latch Sets - Non Mortise

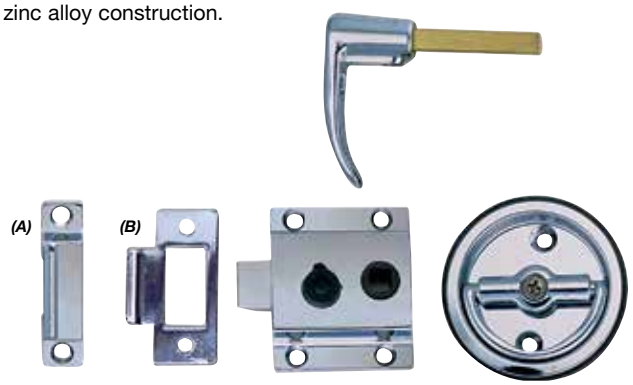
Locks by turn button from inside or a key from the outside. Interchangeable knob and lever handle. Supplied with a regular bevel and box strike or a reverse bevel with flush strike. Chromed zinc alloy construction. Escutcheon: 112 x 32mm.



BLA Code	Bevel	Strike	Door Case mm	Door Thickness mm	Mount Screws mm
(A) **402030**	Regular	Box	100 x 50	16-35	3 c/s
(B) **402032**	Reverse	Flush	100 x 50	16-35	3 c/s

Perko® Latch Sets - Flush

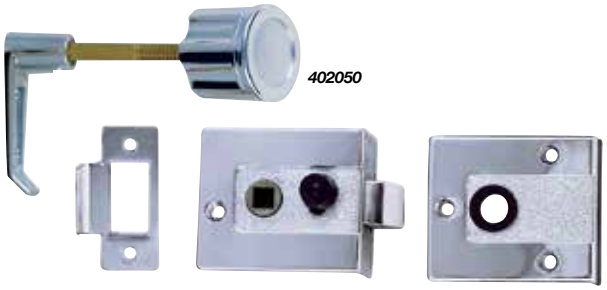
Flush cup rim with fold away 'D' handle one side, lever other side. Sliding lock button. Supplied with a regular bevel with box strike or a reverse bevel with flush strike. Chromed zinc alloy construction.



BLA Code	Bevel	Strike	Case Dim. mm	O.D. Cup mm	Door Thickness mm	Mount Screws mm
(A) **402022**	Regular	Box	45 x 55	58	20-30	3 c/s
(B) **402024**	Reverse	Flush	45 x 55	58	20-30	3 c/s

Perko® Latch Sets - Mortise

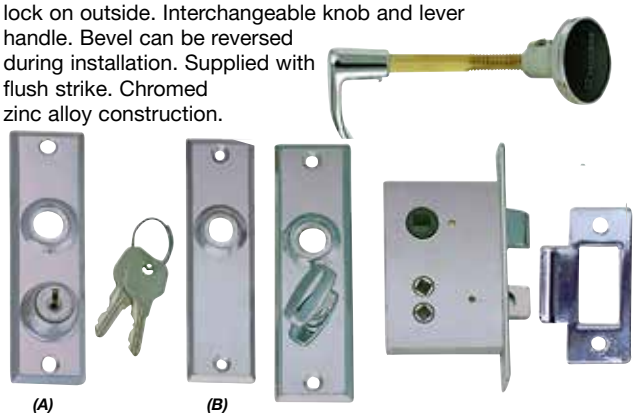
These latch sets have been designed for quick and easy mortised installation into plywood doors. Available in regular or reverse bevel with flush strike. Sliding lock button on inside only. Interchangeable knob and lever handle. Chromed zinc alloy construction.



BLA Code	Bevel	Strike	Case Dim. mm	Door Thickness mm	Mount Screws mm
402050	Regular	Flush	50 x 58	12-19	3 c/s
402051	Reverse	Flush	50 x 58	12-19	3 c/s

Perko® Latch Sets - Mortise

Locks by turn button on inside and optional key lock on outside. Interchangeable knob and lever handle. Bevel can be reversed during installation. Supplied with flush strike. Chromed zinc alloy construction.



BLA Code	Key Lock	Lock Assembly mm	Escutcheon mm	Door Thickness mm	Mount Screws mm
(A) **402040**	Yes	70 x 50	112 x 32	25-34	3 c/s
(B) **402046**	No	57 x 45	112 x 32	25-34	3 c/s

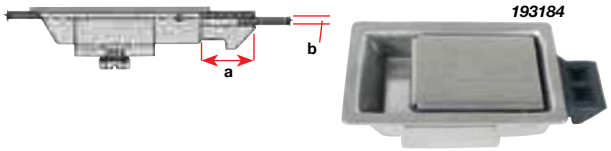
Perko® Flush Latch Sets

Flush appearance. Lift tab and rotate to open. Available with or without key lock. Easily installed in 42mm diameter hole. No visible fastenings. Chrome plated zinc alloy and moulded plastic construction.

BLA Code	Key Lock	Face mm	Door Thickness mm	Protrusion mm	Intrusion mm
402052	No	56 x 50	12-19	5	23
402054	Yes	56 x 50	12-19	5	23

Flush Paddle Catches - Stainless Steel

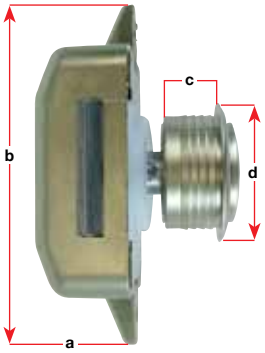
Attractive brushed stainless steel. Flush styling. Smooth push-to-close latching, pull paddle to open. Quick one screw mounting. Spring loaded paddle that won't rattle. Made from 304 grade stainless steel, aluminium and polyester thermoplastic.



BLA Code	Face Size mm	Cut Out mm	Intrusion mm	Panel Thickness Max. mm	a mm	b mm
193184	28 x 43	25 x 38	13	2	12.5	4
193186	68 x 84	54 x 70	36	6.4	15	7.5

Push Button Catch

Push button to unlock door, button extends to act as door knob. Push button to lock door, button remains in to leave flush surface. Matt nickel finish. Manufactured from plastic and zinc alloy. To suit door thickness of 16mm.



BLA Code	a mm	b mm	c mm	d mm
193150	20	77	12	32

Flush Pull Catch

Low profile attractively styled catch, ideal for lockers, galley doors and drawers. Self latching. Release catch with finger pull. Simple installation. Supplied with keeper. Made from white polycarbonate.

BLA Code	Door Thickness mm	Outside Dia. mm	Cut Out mm
193162	7-12	61	50

Simplicity Flush Catches

Economical and easy to install. Self catching. Release catch with finger pull. Supplied with keeper. Made from acetyl and stainless steel.

BLA Code	Door Thickness mm	Outside Dia. mm	Cut Out mm	Keeper Screws mm
193174	1-7	60	51	5 r/h
193178	13-19	60	51	5 r/h

Compression Catch

Large control knob utilises a quick action (75º) twist to lock/unlock. Die cast zinc alloy housing with black acetal knob and black nylon spacer to allow knob to stand off panel. Adjustable position grip depth (maximum 65mm). Zinc plated bolt and tongue.

BLA Code	Knob Dia. mm	Mount Hole mm	Door Thickness mm
193201	37	22	18

Door Catches - Novibra

As the name suggests, the 'Novibra' prevents vibration generated lock noise. Easy to fit and 100% corrosion resistance make this catch suitable for a wide variety of interior and exterior applications. Adjustable strike plate provides firm contact between latch and strike at all times. Three year warranty.

BLA Code	Turn Handle	Cup	Flange O.D. mm	Cut Out mm	Intrusion mm
193149	Satin	Satin	45	38	45
193151	Black	Chrome	45	38	45

Marine Town® Flush Pull Catches

Low profile styled catches, ideal for lockers, galley doors and drawers. Self latching. Release catch with finger pull. Simple installation. Supplied with keeper. Available in locking or non-locking. Made from polycarbonate and stainless steel.

193187

193189

BLA Code	Colour	Key Lock mm	Door Thickness mm	Outside Dia. mm	Cut Out mm	Keeper Base mm
193155	Black	No	0-18	61	51	32 x 15
193187	White	No	0-18	61	51	32 x 15
193189	Black	Yes	0-18	61	51	32 x 15
193191	White	Yes	0-18	61	51	32 x 15

Accessories:
193229 Spare key

Marine Town® Flush Catches – Stainless Steel

Low profile stainless steel flush pull catch, ideal for lockers, galley doors and drawers. Self latching with finger pull release. Simple installation. Supplied with keeper. Available in locking or non-locking.

193208

BLA Code	Lock	Door Thickness mm	Outside Dia. mm	Cut Out mm
193208	No	7.5-13.5	44	37
193209	Yes	7.5-13.5	44	37

Marine Town® Lift Ring Catches - Cast Stainless Steel

Precision cast 316 grade stainless steel lift ring catch with optional key lock mechanism. Simple single hole installation. Latch is operated by rotating lift ring 180°. Red dot on lift ring indicates the unlatched position for easy visual identification.

193061

BLA Code	Key Lock	Door Thickness mm	Outside Dia. mm	Cut Out mm	Lock Reach mm	Mount Screws mm
193061	No	0-18	64	51	18-68	5 c/s
193063	Yes	0-18	64	51	18-68	5 c/s

Accessories:
193229 Spare key

193229 Spare key

Marine Town® Waterproof Flush Catches - Stalon Cast Stainless Steel

Self closing flush top catch with only 3mm protrusion. Highly polished cast 316 grade stainless steel top housing. Nylon back housing for reduced weight. Operate by pushing down the finger tab to flip up the ring pull. Supplied with a variety of back spacer rings to accommodate varying material thickness.

193214

193215

BLA Code	Key Lock	Door/Floor Thickness mm	Outside Dia. mm	Cut Out mm	Keeper Base mm
193214	No	0-18	60	51	15 x 32
193215	Yes	0-18	60	51	15 x 32

Accessories:
193229 Spare key

193229 Spare key

Marine Town® Waterproof Flush Catches - Stainless Steel

Self closing flush top catch with only 3mm protrusion. The highly polished cast 316 grade stainless steel housing and waterproof non-rattle mechanism make this catch suitable for both interior and exterior installations. Operates by pushing down the finger tab to flip up the ring pull. Supplied with a variety of back spacer rings to accommodate varying material thickness.

193212

193213

BLA Code	Key Lock	Door/Floor Thickness mm	Outside Dia. mm	Cut Out mm	Keeper Base mm
193212	No	0-18	60	51	15 x 32
193213	Yes	0-18	60	51	15 x 32

Accessories:
193229 Spare key

193229 Spare key

Marine Town® Flush Catches - Cast Stainless Steel

Heavy duty 316 grade stainless steel flush catch assembly. Self latching. Release is via two finger lift tab. Available with or without integral lock assembly. **193122** also features stainless steel grab tab to facilitate internal closing.

193122

193182 193180

BLA Code	Lock	Catch Flange mm	Catch Cut Out mm	Catch Cut Out mm	Keeper Base mm
193180	No	60	51	0-18	32 x 15
193182	Yes	60	51	0-18	32 x 15
193122	Yes	60	51	0-18	32 x 15

Accessories:
193229 Spare key

193229 Spare key

Marine Town® Flush Catches

- Stainless Steel

Round low profile stainless steel flush pull catch, ideal for lockers, galley doors and drawers. Self latching with full handle finger pull release for ease of opening. Simple installation. Supplied with keeper. Available in locking or non-locking.

193200

193202

BLA Code	Lock	Door Thickness mm	Outside Dia. mm	Cut Out mm
193200	No	9-22	57	45
193202	Yes	9-22	57	45

Accessories:
193229 Spare key

193229 Spare key

Marine Town® Flush Catch

- Stainless Steel

Square low profile stainless steel flush pull catch, ideal for lockers, galley doors and drawers. Self latching with full handle finger pull release for ease of opening. Simple installation. Supplied with keeper.

BLA Code	Lock	Door Thickness mm	Outside Dia. mm	Cut Out mm
193210	No	9-22	54 x 54	45

Marine Town® Lift Ring Latches

- Stainless Steel

Round stainless steel lift ring latch with optional key lock mechanism. Simple single hole installation. Latch is operated by rotating full handle lift ring 180°. Watertight, anti-rattle design.

193216

193217

BLA Code	Key Lock	Door Thickness mm	Outside Dia. mm	Cut Out mm	Lock Reach mm
193216	No	1-20	65	51	25-76
193217	Yes	6-20	65	51	25-76

Accessories:
193229 Spare key

193229 Spare key

Marine Town® Lift Ring Latches

- Stainless Steel

Square stainless steel lift ring latch with optional key lock mechanism. Simple single hole installation. Latch is operated by rotating full handle lift ring 180°. Watertight, anti-rattle design.

193218

193219

BLA Code	Key Lock	Door Thickness mm	Outside Dia. mm	Cut Out mm	Lock Reach mm
193218	No	4-23	65	51	25-76
193219	Yes	6-23	65	51	25-76

Accessories:
193229 Spare key

193229 Spare key

Marine Town® 'T' Floor Hatch Catches - Cast Stainless Steel

Heavy duty cast 316 grade stainless steel flush floor hatch latch. Lift up 'T' handle twists to latch. Spring loaded handle with rubber tabs to prevent rattling. Reversible latch pawl to accommodate a wide clamping range.
Mount screws are concealed.
Available with key security lock. An optional insulator kit is available for installation in aluminium.

193220

BLA Code	Key Lock	Face mm	Deck Thickness mm	Lock Reach mm
193220	No	97 x 80	13-19	35-90
193234	Yes	97 x 80	13-19	35-90

Accessories:
193229 Spare key

193229 Spare key

Marine Town® 'T' Floor Hatch Catches - Cast Stainless Steel

Heavy duty cast 316 grade stainless steel flush floor hatch latch. Spring loaded handle to prevent rattling. Lift up 'T' handle twists to latch. Key locking option also available. Reversible latch pawl to accommodate a wide clamping range.

193228

BLA Code	Key Lock	Face mm	Lock Reach mm	Mount Screws mm
193226	No	97 x 75	35-90	4 c/s
193228	Yes	97 x 75	35-90	4 c/s

Accessories:
193229 Spare key

193229 Spare key

Marine Town® 'T' Floor Hatch Catches - Cast Stainless Steel

Heavy duty cast 316 grade stainless steel flush floor hatch latch. Lift up 'T' handle twists to latch. Spring loaded handle with rubber tabs to prevent rattling. Reversible latch pawl to accommodate a wide clamping range. Mount screws are concealed. Available with key security lock.

193232

BLA Code	Key Lock	Face Dia. mm	Deck Thickness mm	Lock Reach mm
193230	No	79	3-19	35-90
193232	Yes	79	3-19	35-90

Accessories:

193229 Spare key

193229 Spare key

Perko® Flush Hatch Catches

Black plastic face. Stainless steel 'D' ring handle, stem and lock nut. Two 'O' rings for increased water resistance. Indicator shows open or closed position. Flexible plastic strike plate prevents rattling while keeping latch closed. Key lock available for added security. Water resistant fibre reinforced plastic cover available separately.

402070

402066

402066 Flexible plastic strike plate

BLA Code	Key Lock	Face mm	Cut Out mm	Hatch Thickness mm	Lock Reach mm	Mount Screws mm
402066	No	63 x 63	51	10-75	14-75	4 c/s
402068	Yes	63 x 63	51	10-75	14-75	4 c/s

Accessories:

402070 Black hinged cover (68x82)

Perko® Flush Ring Catch - Chrome Plated

Rectangular shaped, combination single finger lifting ring and spring loaded catch. Ideal for anchor wells, lockers, floorboards, and similar. Supplied complete with strike plate. Manufactured in chromed zinc alloy with phosphor bronze spring.

BLA Code	Length mm	Width mm	Intrusion mm	Split mm	Mount Screws mm
402074	57	35	20	45/12	3 c/s

Nylon 'T' Handle Catches

Glass reinforced nylon base is durable and is suitable for installation in aluminium boats without requiring insulators. Available with cast stainless steel handle or glass reinforced nylon handle. Stainless steel mechanism.

193222

BLA Code	Colour	Handle	Outside Dia. mm	Cut Out mm	Lock Range mm	Mount Screws mm
193222	White	Nylon	63	51	32-45	5 c/s
193239	Black	S/Steel	63	51	32-45	5 c/s
193240	White	S/Steel	63	51	32-45	5 c/s

Perko®'T' Handle Flush Catches

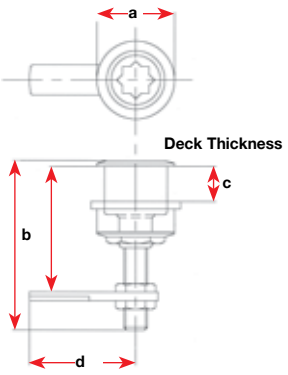
Round plastic flush catches with chrome plated zinc alloy 'T' handle available in locking or non-locking versions. Locking model features a rubber seal under the handle to resist water entry into the lock cylinder.

402064

BLA Code	Colour	Key Lock	Outside Dia. mm	Cut Out mm	Lock Reach mm
402064	Black	Yes	75	62	20-70
402065	White	Yes	75	62	20-70

Lewmar® Cockpit Locker Hatch - Cast Stainless Steel

High quality 316 investment cast catch designed for any boat. Easy operation via a sheet winch handle (refer page 1011). Features watertight 'O' ring seal and adjustable deck thickness.



BLA Code	a ø mm	b mm	c mm	d mm
287330	52	111	12-45	86

Vantage Down Under™ Catch

- Stainless Steel

Strong, compact, over centre catch. Totally covered mechanism when closed. Reach length can be adjusted. Complete stainless steel construction.

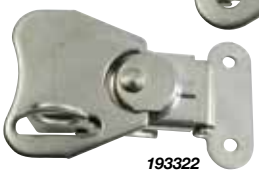
BLA Code	Length Closed mm	Width mm	Height Closed mm	Mount Screws mm
193250	70-78	29	23	4 r/h

Link Lock Rotary Action Catches

- Stainless Steel

Positive twist lock action catches. Twist handle folds flat when not in use. Supplied with keeper. Ideal for lockers, hatches and in-line covers. All stainless steel construction. **193328** incorporates a tension spring to maintain fastened pressure and/or allow for movement.

193320



193322

BLA Code	Style	Overall Length mm	Width mm	Height mm	Mount Screws mm
193320	Non-lockable	58	38	15	3 r/h
193322	Lockable	62	38	24	3 r/h
193324	Non-Lockable	50	38	15	3 r/h
193328	Spring Loaded	60	47	15	3 r/h

Marine Town® Slimline Hatch Fasteners

Over centre cam action catch available in chrome plated cast brass or cast 316 grade stainless steel construction. Complete with eye for up to 6mm padlock. Shackle available in flat or angled mount.

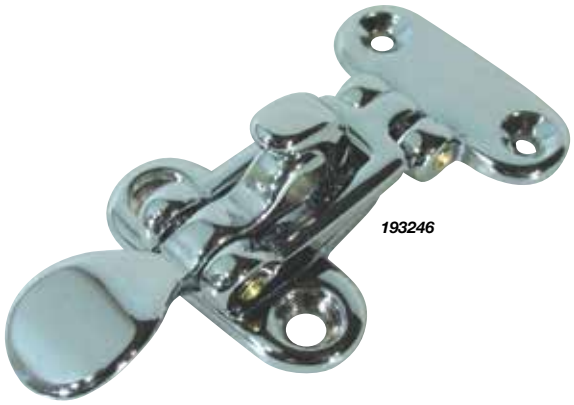
193243

193242

BLA Code	Material	Style	Length mm	Width mm	Height Closed mm	Mount Screws mm
193241	Stainless Steel	Flat	95	28	19	4 c/s
193242	Chrome Brass	Flat	95	32	18	4 c/s
193243	Stainless Steel	Angled	87	28	19	4 c/s
193244	Chrome Brass	Angled	87	32	18	4 c/s

Marine Town® Toggle Catches

Over centre cam action catch with provision for up to 6mm padlock shackle. Available in cast 316 grade stainless steel or chrome plated cast brass construction.



193246

BLA Code	Material	Length mm	Width mm	Height mm	Mount Screws mm
193246	Chrome Brass	97	46	25	4 c/s
193247	Stainless Steel	100	46	25	4 c/s

Marine Town® Cam Action Catch

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel spring loaded over centre cam action catch. Totally covered mechanism when closed presents smooth, anti-snag, modern profile. Available with optional key lock mechanism.

193256

193254

193229
Spare key

BLA Code	Key Lock	Overall Length mm	Width mm	Height mm	Mount Screws mm
193254	No	82	25	18	4 c/c
193256	Yes	82	25	18	4 c/s

Accessories:

193229 Spare key

Hatch Fasteners - Rubber

Moulded in black EPDM rubber with pressed stainless steel brackets. 'T' handle for ease of operation. Ideal for applications where there is constant vibration, movement or misalignment.

193350

BLA Code	Length mm	Width mm	Depth mm	Mount Screws mm
193350	75	48	20	3 r/h
193352	106	60	32	5 r/h
193354	150	79	32	5 r/h

Adjustable Cam-Action Fasteners - Stainless Steel

Pressed stainless steel construction. Over centre cam action. Length can be adjusted via threaded stem. Security eye for padlock incorporated in base.

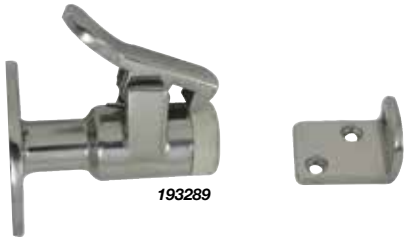
193272

BLA Code	Overall Closed mm	Width mm	Height Closed mm	Mount Screws mm	Padlock Shackle mm
193272	84-96	26	16	4 c/s	6
193274	147-159	40	23	4 c/s	9

Marine Town® Door Stop Catches

- Cast Stainless Steel

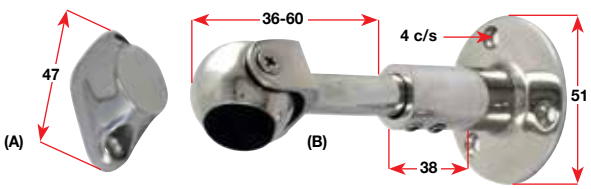
Self latching door catch to hold door in open position. Rubber bumper stop to protect door. Cast 316 grade stainless steel construction.


193289

BLA Code	Stand Off mm	Base Dia. mm	Tab Base mm	Tab Height mm	Mount Screws mm
193288	62	50	24x30	17	4 c/s
193289	87	50	24x30	17	4 c/s

Marine Town® Adjustable Door Catch - Cast Stainless Steel

Multi-position adjustable length with magnetic self aligning catch. Magnetic catch allows instant operation. Holding power is 3kg. Cast stainless steel housing with magnet encapsulated in epoxy to protect against marine conditions.



BLA Code	Description
193294	Adjustable door catch (A & B)

Accessories:

193295 Additional base only (A)

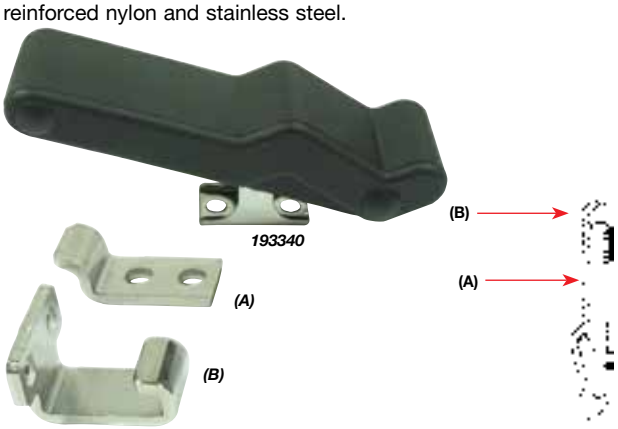
Screw Hatch Fastener - Chrome Brass

Solid chrome plated cast brass construction. Screw down tension adjustment via knurled nut.

BLA Code	Mount Base mm	Max Length mm	Stem Size mm	Adjustment mm	Mount Screws mm
193280	40 x 30	93	9	42	4 c/s

Cam Action Catches - Elastomer

Combination over centre tensioning action with elastomer stretch body. Made from black thermoplastic elastomer, glass reinforced nylon and stainless steel.



BLA Code	Keeper	Length Closed mm	Width mm	Height mm	Mount Screws mm
(A) **193340**	Concealed	98	32	20	4 r/h
(B) **193342**	Right Angled	112	32	20	4 r/h

Marine Town® Flexible Catch - Elastomer

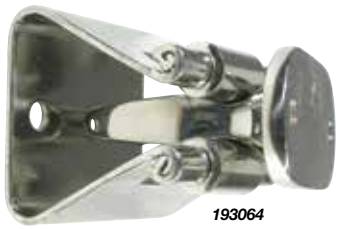
A constant pressure fastener that can be used in almost any application, even around corners. Radiused edges to prevent hang-up or injury. Self aligning. Made from black thermoplastic elastomer and glass reinforced nylon.

BLA Code	Length mm	Width mm	Depth mm	Mount Screws mm
193360	106	48	28	5 r/h

Marine Town® Door Catches

- Stainless Steel

Strong and secure, roller operation for ease of use. Doors are held firmly yet release with ease when required thanks to the roller action of the clamp.



193064

BLA Code	Clamp Base mm	Tongue Base mm	Depth Closed mm	Mount Screws mm
193064	34 x 20	31 x 18	29	4 r/h
193065	40 x 35	41 x 22	41	4 r/h

Perko® Door Stop - Chrome Plated

Chrome plated zinc alloy base with a rubber bumper to protect door.

BLA Code	O.D. mm	Depth mm	Mount Screws mm
401978	32	17	3 c/s

Perko® Door Stop and Catch

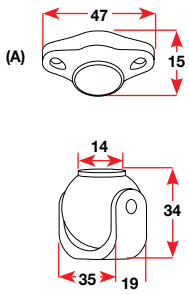
- Chrome Plated

Chrome plated bronze base, stem and hook. Rubber bumper protects door surface. Hook holds door in the open position.

BLA Code	Base Dia. mm	Stand Off mm	Saddle Base mm	Mount Screws mm
401984	45	53	31 x 17	4 c/s

Marine Town® Magnetic Door Catch - Cast Stainless Steel

Designed primarily as a door catch, but suitable for many other applications. Powerful magnet holds approximately 3kg. Cast 316 grade stainless steel housing with magnet capsulated in epoxy to protect against marine conditions. Pivoting magnetic spherical section self aligns.



BLA Code	Description
193293	Door catch complete

Accessories:

193295 Additional base only (A)

Door Catch - Stainless Steel

Premium quality, 7mm thick, highly polished cast stainless steel construction. Smooth action with positive detents in closed and open position. Mount screws are hidden when catch is in closed position. Friction pad on lock bar prevents free rotation and rattle.

BLA Code	O.D. mm	Depth mm	Mount Screws mm
193378	60	19	5 c/s

Anti-Rattle Lift Rings - Stainless Steel

Manufactured in polished, pressed stainless steel. Single finger lifting ring is spring loaded to prevent rattle.

193714

193716

193718

BLA Code	Face mm	Intrusion mm	Mount Screws mm
193714	76 x 57	11	4 c/s
193716	66 x 56	11	4 c/s
193718	44 x 38	10	4 c/s

Marine Town® Lift Ring

- Stainless Steel

Smooth, low profile lines, rounded edges and oversized spring loaded anti-rattle handle. Concealed fastening holes and mirror polished stainless steel construction combine to deliver a unique lift ring handle. Suitable for interior or exterior use on hatches, doors, lockers and similar.

193701

193702

BLA Code	Face mm	Intrusion mm	Protrusion mm	Mount Screws mm
193701	51	13	4.5	4 c/c
193702	51 x 51	13	4.5	4 c/s

Marine Town® Hatch Pull

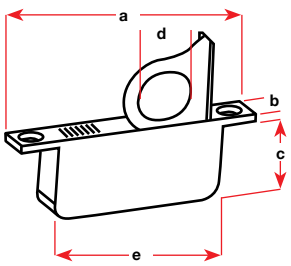
- Stainless Steel

A simple but neat drop down mushroom handle for lifting floor boards and similar. The top disk has a reversed bevelled edge to ensure easy initial grip at the fully down position. 1/4" installation hole.

BLA Code	Cap mm	Shaft mm
193728	32 x 3	6x51

Marine Town® Concealed Door Ring Pull - Cast Stainless Steel

Cast 316 grade stainless steel internal door pull. Compact, flush design, spring loaded release mechanism allows the large ring pull to be exposed when activated. Fully enclosed body protects mechanism and aids installation.



BLA Code	a mm	b mm	c mm	d mm	e mm	Mount Screws mm
193734	85	12	27.5	19	27	4 c/s

Floor Lifting Ring - Stainless Steel

Polished, pressed stainless steel base. Solid rod stainless steel two finger grip. For lifting larger size floorboards, hatches and similar.

BLA Code	Face mm	Intrusion mm	Mount Screws mm
193722	76 x 58	8	5 c/s

Marine Town® Rectangular Lift Rings - Chrome Brass

Single finger flush pull in chrome plated cast brass. For lifting smaller size floorboards, hatches and similar.

193708

BLA Code	Face mm	Intrusion mm	Mount Screws mm
193700	51 x 38	8	4 c/s
193708	62 x 47	9	4 c/s

Concealed Pull - Nylon

Unobtrusive, flush surface when not in use. Simply push to expose handle. Can be mounted on vertical and horizontal surfaces. Nylon handle and enclosed nylon housing. Ideal for cupboards, lockers, floorboards and similar. Mounting screws supplied.

BLA Code	Length mm	Width mm	Intrusion mm	Working Load kg
193730	81	21	29	70

Marine Town® Round Lift Ring

- Chrome Brass

Single finger flush ring pull in chrome plated cast brass. For lifting smaller size floorboards, hatches and similar.

BLA Code	O.D. mm	Intrusion mm	Mount Screws mm
193706	52	13	4 c/s

Marine Town® Rectangular Lift Ring - Chrome Brass

Two finger flush lift handle in chrome plated cast brass. For lifting larger size floorboards, hatches and similar.

BLA Code	Face mm	Intrusion mm	Mount Screws mm
193710	76 x 53	8	5 c/s

Rectangular Lift Ring - Stainless Steel

Single finger, cast stainless steel flush pull. Suitable for use on smaller floorboards, ice box lids, hatches and similar.

BLA Code	Face mm	Intrusion mm	Mount Screws mm
193720	48 x 38	12	4 c/s

Spring Release Hinges

Manufactured from U.V. stabilised moulded plastic with stainless steel fastener support plates. The spring loaded slide pin allows quick and easy removal of hatches, locker doors and similar. Suitable for use on both vertical and horizontal surfaces. Sold as a pair, one left and one right.

BLA Code	Colour	Length mm	Width mm	Depth mm	Mount Screws mm
193660	Black	73	50	13	5 r/h

Marine Town® Butt Hinges

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel construction. Mirror polished 4mm thick hinge plates. Radiused edges, no sharp corners. Close tolerance and invisible welded in pin, minimises vibration induced rattle. Sold as a pair.

193648

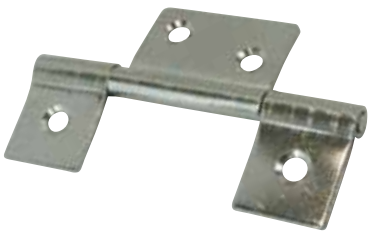
193470

BLA Code	Length mm	Width Flat mm	Depth mm	Mount Screws mm
193468	101	82	11	6 c/s
193470	150	98	13	6 c/s

Non Mortise Butt Hinge

- Stainless Steel

Does not require recessing into door frame. Pressed, polished stainless steel construction. Sold as a pair.

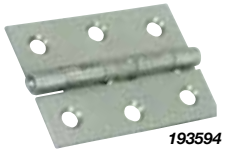


BLA Code	Length mm	Width Open mm	Depth mm	Mount Screws mm
193580	86	51	7	4 c/s

Butt Hinges - Stainless Steel

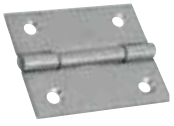
Medium duty pressed stainless steel butt hinges. Sold as a pair.

193596



193594

BLA Code	Length mm	Width Flat mm	Depth mm	Mount Screws mm
193592	50	40	6	3 c/s
193594	73	50	8	4 c/s
193596	88	60	9	5 c/s
193598	104	75	10	5 c/s
193622	75	40	6	5 c/s



193592

Butt Hinges - Brass

Extruded brass construction. Brass pin. Sold as a pair.

193402

193410

BLA Code	Length mm	Width Flat mm	Mount Screws mm
193402	38	22	3 c/s
193404	51	27	3 c/s
193406	63	35	4 c/s
193408	76	41	4 c/s
193410	101	60	5 c/s

Marine Town® Dual Pivot Hinge

- Cast Stainless Steel

Twin pivot pins with link plate. Totally flat for flush mounting but still providing 180° hinging. 316 grade cast stainless steel construction. 2mm thick hinge plates. Sold as a pair.

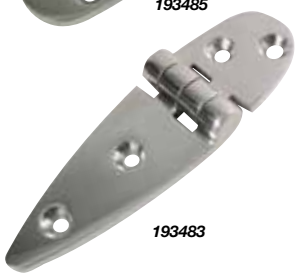
BLA Code	Length Flat mm	Width mm	Depth mm	Mount Screws mm
193448	71	41	7	4 c/s

Marine Town® Hinges

- Cast Stainless Steel

Heavy duty cast 316 grade stainless steel construction and mirror polished. Manufactured with 5mm thick plates and a 12mm diameter barrel. Close tolerance and invisible welded in pin minimises vibration induced rattle. Sold as a pair.

193485



193483

BLA Code	Length Flat mm	Width mm	Height mm	Split mm	Mount Screws mm
193483	120	35	13	77/43	5 c/s
193485	82	35	13	41/41	5 c/s

Marine Town® Hatch Hinge

- Cast Stainless Steel

Extra heavy duty cast stainless steel construction. Designed for heavy deck hatches, engine boxes, and similar. Removable pin. Sold as a pair.

BLA Code	Length Flat mm	Width mm	Height mm	Split mm	Mount Screws mm
193438	69	72	30	47/20	5 c/s

Strap Hinges - Cast Stainless Steel

Heavy duty cast 316 grade mirror polished stainless steel. 4mm thick hinge plates. Sold as a pair.

193482

193480

BLA Code	Length Flat mm	Width mm	Height mm	Mount Screws mm
193480	104	26	9	5 c/s
193482	155	26	9	5 c/s

Hinges - Stainless Steel

Light duty pressed stainless steel construction. Raised form complements the aesthetics and increases stiffness. Plate thickness is 2mm. The hinge barrel is rolled. Pressed end solid stainless steel pivot pin. Sold as a pair.

193524

193526

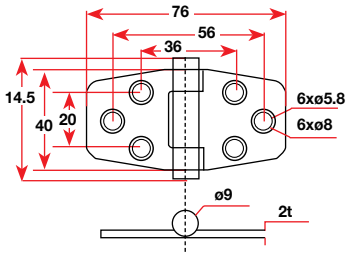
193528

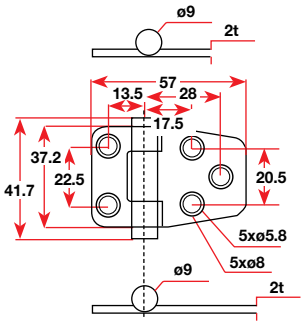
BLA Code	Length Flat mm	Width mm	Height mm	Split mm	Mount Screws mm
193524	105	31	7	53/53	4 c/s
193526	156	31	7	78/78	4 c/s
193528	131	31	7	78/53	4 c/s

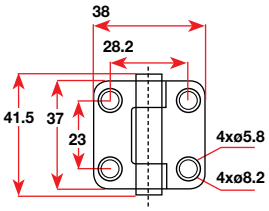
Marine Town® Friction Hinge - 316 Grade Stainless Steel

Features:

- Revolutionary technology designed into hinge barrel construction creates constant torque
- Design to hold door open without any torque adjustment
- Ideal for overhead door, baitwell lids, glove box, interior door, anchor locker, electronic panel and smaller
- No stays required
- Passed 10,000 cycle test within 10% decrease in torque; 20,000 cycle test within 20% decrease
- Passed 500 hour salt-spray test
- Bright polished finish
- Sold as a pair







BLA Code	Size mm	Screw Size
193550F	38 x 38	#8 or M4
193552F	38 x 57	#8 or M4
193556F	38 x 76	#8 or M4

193550F

193352F

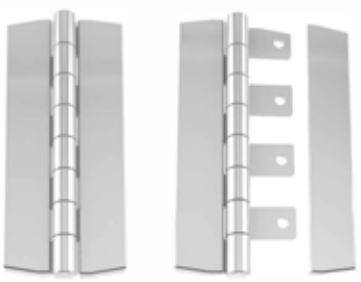
193356F

Hold door open at any angle

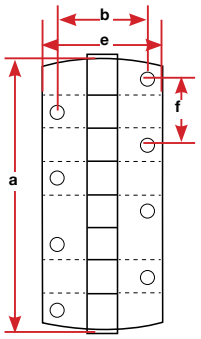
Marine Town® Seam Friction Hinge

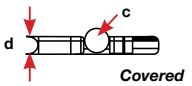
- Covered & Uncovered

- Revolutionary technology designed into hinge barrel construction creates constant torque
- Designed as a piano hinge with torque
- Designed to hold door open without any torque adjustment
- Ideal for different sizes of doors like overhead door, baitwell lids, glove boxes, access doors, interior doors, anchor lockers, electronics panels, hatches and similar
- Passed 10,000 times cycle test and lost less than 20% on torque, 20,000 times lost less than 25%
- Passed 500 hour salt-spray test
- #6 R/H fastener is required
- Patented
- Sold singularly

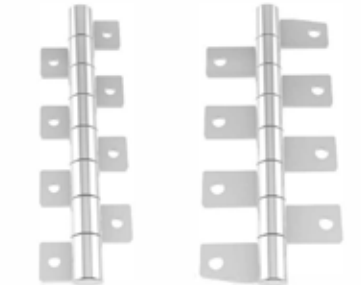


Covered

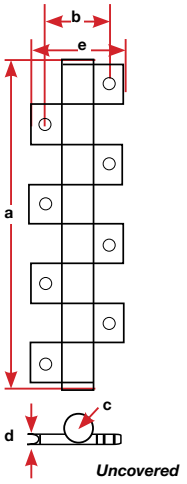




Covered



Short Leaf (S) *Uncovered* *Long Leaf (L)*



Uncovered

BLA Code	Description	Leaf	a mm	b mm	c mm	d mm	e mm	f mm
193420	Uncovered	S	51	28.2	9.5	1.9	19.2	24
193422	Uncovered	S	75	28.2	9.5	1.9	19.2	24
193424	Uncovered	S	99	28.2	9.5	1.9	19.2	24
193426	Uncovered	L	79.2	45	9.5	2	35	25.4
193428	Uncovered	L	104.6	45	9.5	2	35	25.4
193430	Uncovered	L	130	45	9.5	2	35	25.4
193432	Covered	-	79.2	46.8	9.5	6	35	25.4
193434	Covered	-	104.6	46.8	9.5	6	35	25.4

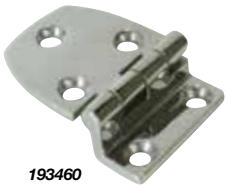
Marine Town® Hinges - Cast 316 Grade Stainless Steel

This range of hinges combine the durability of cast 316 grade stainless steel construction with low profile unobstructive design. The plates are only 3mm thick, yet have been tested to a break load of 1200kg. Hinge pins are not visible. They are welded at both ends and highly polished to blend with the hinge barrel. Because the pin is locked to one base plate and hinge barrel joint gap is kept to less than 0.2mm, there is minimal hinge play and rattle with engine vibration. Sold as a pair.

193452

193454

193456



193460

193462

193464

193466

193472

193473

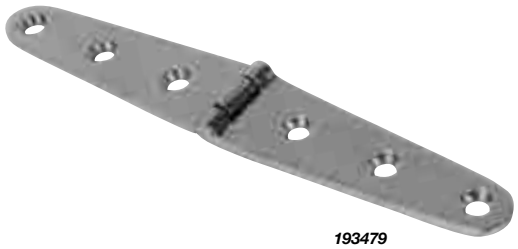
193474

193475

193476

193477

193478



193479

BLA Code	Length Flat mm	Width mm	Depth mm	Split mm	Mount Screws mm	Off Set mm
193452	76	38	7	38/38	4 c/s	–
193454	108	38	7	40/68	4 c/s	–
193456	144	38	7	72/72	4 c/s	–
193460	50	38	17	15/35	4 c/s	10
193462	50	38	7	25/25	4 c/s	–
193464	60	38	7	25/35	4 c/s	–
193466	70	38	7	35/35	4 c/s	–
193472	76	38	7	38/38	4 c/s	–
193473	106	38	7	53/53	4 c/s	–
193474	60	38	7	40/20	4 c/s	–
193475	74	38	7	54/20	4 c/s	–
193476	38	38	7	19/19	4 c/s	–
193477	52	50	7	26/26	4 c/s	–
193478	104	26	7	52/52	4 c/s	–
193479	154	26	7	77/77	4 c/s	–

Hinges - Stainless Steel

Medium duty pressed stainless steel hinges. Plate thickness is 2mm and the hinge barrel is rolled. Pressed end, solid stainless steel pivot pin. Sold as a pair.

193552

193550

193556

193536

193540

193542

193570

193554

193574

193572

BLA Code	Length Flat mm	Width mm	Depth mm	Split mm	Mount Screws mm	Off Set mm
193536	36	41	20	18/18	4 c/s	10
193540	66	41	20	18/48	4 c/s	10
193542	75	41	30	23/52	4 c/s	20
193550	40	41	10	20/20	4 c/s	–
193552	56	41	10	18/38	4 c/s	–
193554	86	41	10	38/48	4 c/s	–
193556	76	41	10	38/38	4 c/s	–
193570	78	41	10	39/39	4 c/s	–
193572	126	41	10	37/89	4 c/s	–
193574	178	41	10	89/89	4 c/s	–
193576	74	41	10	37/37	4 c/s	–
193578	107	38	7	41/66	4 c/s	–

193578

193576

Marine Town® Covered Hinges - Stainless Steel

All of the fast and easy installation advantages of a conventional pressed stainless steel hinge, but with the addition of a stainless steel cover plate to hide fastenings. An added advantage of the covers is that it assists in shedding water away from screw holes. Covers are held in place with permanent adhesive pressure sensitive tape. Covers can be removed without damage by using a heat gun to soften adhesive. Sold as a pair.

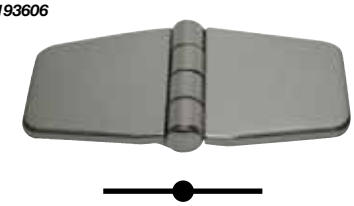
193600

193602

193614

193610

193606



193608

193612

BLA Code	Length Flat mm	Width mm	Depth mm	Split mm	Mount Screws mm
193600	36	40	9	18/18	4 c/s
193602	58	40	9	18/40	4 c/s
193606	80	40	9	40/40	4 c/s
193608	80	40	7	40/40	4 c/s
193610	74	80	9	37/37	4 c/s
193612	74	80	7	37/37	5 c/s
193614	66	66	9	33/33	6 c/s

193606

Piano Hinge - Brass

Handy, continuous hinge, designed to be cut to any length. 101 uses for lids, doors and similar. Pre-drilled fastening holes. Sold individually.

BLA Code	Length mm	Width Open mm	Depth Open mm	Mount Screws mm	Hole Centre mm
193414	2000	31	3	3 c/s	60

Piano Hinges - Stainless Steel

Handy, continuous polished stainless steel hinge. Designed to be cut to any length for all lids, doors and similar. Sold individually.

BLA Code	Length mm	Width Open mm	Depth Open mm	Mount Screws mm	Hole Centre mm
193588	2000	32	3	3 c/s	60

Separating Hinges - Cast Stainless Steel

Polished cast 316 grade stainless steel construction. Extra heavy duty low profile separating hinge to suit engine covers, ice boxes and similar. 8mm thick hinge plates. Sold individually.

193492

BLA Code	Hand	Length mm	Width Flat mm	Depth mm	Mount Screws mm
193491	Left	99	106	17	6 c/s
193492	Right	99	106	17	6 c/s

Hinge - Chrome Plated Seperating

Manufactured from polished chrome plated brass with stainless steel spring and pin. Suitable for vertical or horizontal mounting of hatches, locked doors, or any door or panel that needs to be hinged and removed. Supplied as a pair - one left, one right.

BLA Code	Length mm	Width Open mm	Depth mm	Mount Screws mm
193657	70	63	13	5 c/s

Separating Hinges - Cast Stainless Steel

Polished cast stainless steel. Extra heavy duty separating hinge to suit engine covers, ice boxes and similar. 5mm thick hinge plates. Sold individually.

193486

193487

193487

BLA Code	Hand	Length Flat mm	Width mm	Depth mm	Mount Screws mm
193486	Left	90	52	18	5 c/s
193487	Right	90	52	18	5 c/s

Hinges - Nylon

Solid construction for commercial or heavy duty applications. Strong U.V. stabilised black nylon with stainless steel pins. Contoured shape has no sharp edges. 8mm thick hinge plates. Sold as a pair.

193682

193686 *193684*

193690 *193692*

BLA Code	Length Flat mm	Width mm	Depth mm	Split mm	Mount Holes mm
193682	80	53	16	40/40	5 c/s
193684	80	79	16	40/40	5 c/s
193686	80	103	16	40/40	5 c/s
193690	100	53	16	40/60	5 c/s
193692	120	53	16	60/60	5 c/s

Separating Hinge - Nylon

Satin finished white U.V. stabilised all nylon construction commonly used on ice box lids. Hinge can be separated when in the fully open position, allowing total removal of the cover or lid. Pivots 80° forward and 80° backward of inline position. Sold as a pair.

BLA Code	Length Flat mm	Width mm	Depth mm	Split mm	Mount Screws mm
193644	78	77	20	28/50	5 r/h

Marine Town® Covered Hinge - Nylon

Strong U.V. stabilised black nylon hinge with snap on cover plate to hide fastenings. Stainless steel pins for strength and contoured shape has no sharp edges. Suitable for both internal and external use. An added advantage of the covers is that it assists in shedding water away from screw holes. Sold as a pair.

BLA Code	Length Flat mm	Width mm	Depth mm	Mount Screws mm
193668	82	41	11	4 c/s

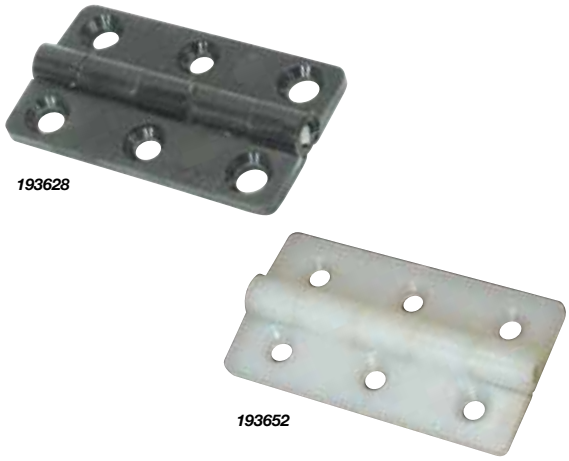
Hinges - Nylon

Manufactured in three styles in black or white. Frosted finish, U.V. stabilised glass filled nylon with stainless steel pins. Suitable for both internal and external use. Sold as a pair.

BLA Code	Colour	Length Flat mm	Width mm	Depth mm	Mount Screws mm
193670	White	40	37	10	4 c/s
193672	Black	40	37	10	4 c/s
193674	White	60	37	10	4 c/s
193676	Black	60	37	10	4 c/s
193678	White	80	37	10	4 c/s
193680	Black	80	37	10	4 c/s

Butt Hinges - Nylon

Moulded from tough nylon. Stainless steel pivot pin. Sold as a pair.



BLA Code Black	White	Length mm	Width Flat mm	Depth mm	Mount Screws mm
193628	**193650**	38	22	5.5	3 c/s
193630	**193652**	51	28	7	3 c/s
193632	**193653**	64	35	7	3 c/s
193634	**193654**	76	41	9.5	5 c/s
193636	**193655**	89	50	10	5 c/s
193638	**193656**	101	59	12.5	5 c/s

Door Hinge - Self Holding

Automatically holds doors open to 120°. Secure snap on covers hide fastenings for a very clean appearance. Stainless steel detent tube and black acetal construction. Sold as a pair.

BLA Code	Length Flat mm	Width mm	Depth mm	Mount Screws mm
193699	52	57	18	5 c/s

Hinged Handle - Nylon

Satin finished white U.V. stabilised all nylon construction. Commonly used as carry handle for ice box. Designed for installation on vertical surfaces, the handle hangs flat when not in use, in the carry position the handle locks at 45° above square, allowing the handle to be easily gripped, forehand or backhand. Contoured shape with no sharp edges.

BLA Code	Handle Height mm	Down Depth mm	Handle Up Height mm	Handle Up Depth mm	Width mm	Mount Screws mm
193640	112	19	84	55	129	5 r/h

Marine Town® Hand Rail

- Stainless Steel

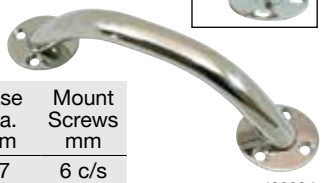
Versatile size and styling enable this handle to be used for doors, drawers, engine covers, hatches, or as a single hand grab rail. Manufactured from 304 grade stainless steel. 24mm x 18mm oval tube. Threaded inserts welded in base for concealed fastening from beneath.

BLA Code	Length mm	Height mm	Base mm	Thread
193978	162	45	24 x 21	¼" UNC

Marine Town® Hand Rails

- Stainless Steel

24mm x 18mm oval stainless steel tube. Mount disks can be removed allowing the handle to be mounted directly to the deck via bolting from under the deck into the threaded inserts welded in base handle.



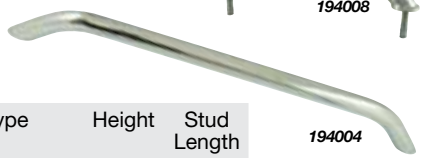
193994

BLA Code	Length mm	Height mm	Base Dia. mm	Mount Screws mm
193994	256	60	57	6 c/s
193996	333	60	57	6 c/s
193998	483	60	57	6 c/s

Hand Rails - Stainless Steel

Manufactured from 22mm highly polished stainless steel tube. Choice of 5/16" UNC recessed nuts, or studs welded into the 32mm round bases.

194008



194004

BLA Code	Length mm	Type	Height mm	Stud Length mm
194004	260	Threaded	60	35
194006	335	Threaded	60	35
194007	485	Threaded	60	35
194008	235	Stud	60	35
194010	310	Stud	60	35
194012	465	Stud	60	35

Hand Rails - Stainless Steel

25mm highly polished stainless steel tube with 4mm thick mount pads for through bolting.

194020

BLA Code	Length mm	Height mm	Base mm	Mount Screws mm
194020	302	70	54 x 32	6 c/s
194022	378	70	54 x 32	6 c/s
194024	530	70	54 x 32	6 c/s

Grab Handle - Chrome Plated Brass

Solid chrome plated cast brass handle.

BLA Code	Length mm	Height mm	Base mm	Mount Screws mm
194030	122	27	32 x 21	4 c/s

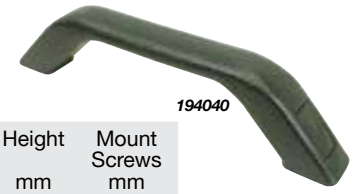
Grab Handle - Covered Screws

Streamlined, moulded handle with built in fastening covers. Soft textured finish cover over moulded plastic frame, modern contoured shape.

BLA Code	Colour	Length mm	Height mm	Base mm	Mount Screws mm
194034	Off white	235	60	46 x 30	6 r/h

Soft Grip Grab Handles - Plastic

This square line styled grab handle is moulded in high impact plastic with a soft leather grained vinyl, non-slip finish. Snap covers conceal bolt holes.

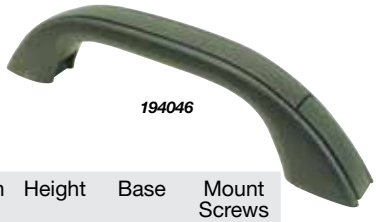


194040

BLA Code	Colour	Length mm	Height mm	Mount Screws mm
194040	Black	237	50	6 r/h
194044	White	237	50	6 r/h

Grab Handles - Snap Cover

OEM styled hard grip handle with integrated hinged caps, which snap over the mount holes so fasteners are not visible after mounting. No loose caps makes installation handling easier and eliminates cap loss. Textured to blend with most interior or exterior applications.



194046

BLA Code	Colour	Length mm	Height mm	Base mm	Mount Screws mm
194046	Black	225	57	40 x 29	6 r/h
194048	White	225	57	40 x 29	6 r/h

Grab Handles - Stud Mount

Contour styled grab handle, moulded from flexible polypropylene. Leather grain finish soft grip.

194060

BLA Code	Colour	Length mm	Width mm	Height mm	Mount Studs mm
194060	Black	235	35	58	¼" UNC
194062	White	235	35	58	¼" UNC

Adjuster Arm - Stainless Steel

Light duty pressed stainless steel support for hatches and windows. Black plastic locking knob. 35mm x 19mm mount one end, 48mm x 12mm mount the other.

BLA Code	Length mm	Mount Screws mm
193752	240-410	4 r/h

Telescopic Hatch Support - Chrome Brass

Suitable for medium duty applications. Large hex clamping nut locks support into position. One mount attachment swivels, the other pivots.

BLA Code	Length mm	Push Rod Dia. mm	Mount Bases mm	Mount Screws mm
193754	290-470	9	45 x 19	5 c/s

Spring Support Arm - Stainless Steel

Stainless steel spring style hatch and window support. When hatch or window is in an open position the spring coil becomes a rigid support. To close, apply side pressure to the middle of the spring coil and the support will collapse to a closed position.

BLA Code	Overall Length mm	Spring Dia. mm	Mount Bases mm	Mount Screws mm
193760	280	11	40 x 13	4 r/h

BLA Drink Holders - Adjustable

Coil spring loaded adjustable retainer arms, holds drinks from 70mm to 85mm diameter. Mounts on any flat vertical surface. Folds flat to protrude just 24mm. Moulded from U.V. stabilised plastic.

194114

BLA Code	Colour	Size Folded mm	Size Open mm	Mount Screws mm
194114	Black	93 x 98 x 24	93 x 98 x 98	5 c/s
194116	White	93 x 98 x 24	93 x 98 x 98	5 c/s

BLA Drink Holders - Plastic

Mounts onto any flat vertical surface. When not in use the unit folds down to protrude only 24mm. Fold out the retainers to hold glasses up to 75mm in diameter. Moulded in tough U.V. stabilised plastic.

194112

BLA Code	Colour	Size Folded mm	Size Open mm	Mount Screws mm
194110	Black	93 x 98 x 24	93 x 98 x 98	5 c/s
194111	Grey	93 x 98 x 24	93 x 98 x 98	5 c/s
194112	White	93 x 98 x 24	93 x 98 x 98	5 c/s

Marine Town® Drink Holders

- Stainless Steel

Attractive one and two drink holder designs manufactured from 316 grade stainless steel. Suitable for a wide range of craft including sports boats, cruisers and yachts. Fastening from below with ¼" bolts presents clean style and finish.

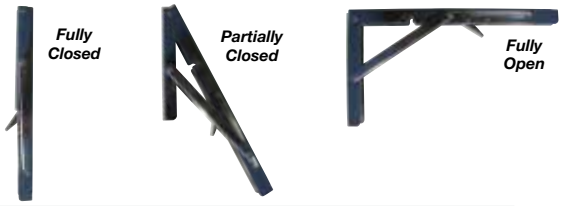
194130

194132

BLA Code	Holder Qty	Holder I.D. mm	Height mm	Mount Hole Centres mm	Mount Bolts
194130	1	90	72	103	2 x ¼"
194132	2	90	72	201	2 x ¼"

Marine Town® Folding Support Bracket - Stainless Steel

Pressed stainless steel folding bracket ideal for use as a seat or table support. The spring loaded mechanism locks and releases with a simple squeeze to be stored flush when not in use. Maximum weight carrying capacity of 150kg.



BLA Code	Arm Length mm	Attachment Length mm	Max Width mm	Max Capacity kg	Mount Screws mm
193012	300	160	35	150	4 r/h

Table Bracket Set - Stainless Steel

Used to mount a table on to bulkheads and be easily removed when not in use. Set comprises of four pieces, two wall and two table.

BLA Code	Wall Bracket mm	Table Bracket mm	Mount Screws mm
193010	84x53	73c44	5 c/s

Recessed Drink Holders

Manufactured from super tough poly material which resists sunlight and chemicals. This drink holder has a large diameter lip to provide a neat installation. A hose tail on the bottom accepts 10mm ID hose so any spills, spray or rainwater can be drained away. Holds drinks up to 90mm in diameter and accepts stubbies with coolers.

194103

BLA Code	Colour	Cut Out Dia. mm	Outside Dia. mm	Inside Dia. mm	Intrusion mm
194102	Black	95	110	90	88
194103	White	95	110	90	88

Recessed Drink Holders

- Stainless Steel

Manufactured from pressed stainless steel. Flush mounts into any horizontal surface. **194107** is fitted with a hose tail in the base that accepts 6mm ID hose so spills, spray or rain is drained away.

194107

194106

BLA Code	Cut Out Dia. mm	Outside Dia. mm	Inside Dia. mm	Intrusion mm
194106	70	88	67	43
194107	95	110	93	100

Recessed Deck Filler Panel - Plastic

Moulded recessed panel to adapt deck fillers to fit into vertical panels. Will accept deck fillers with a maximum base diameter of 70mm. White, U.V. resistant ABS plastic.

BLA Code	Height mm	Width mm	Intrusion mm	Mount Screws mm
192382	203	178	85	4 r/h

SSI Recessed Drink Holder - ABS Plastic

Moulded in U.V. stabilised, white ABS plastic. Recessed box with removable drink holders in base to prevent drinks from falling. Ideal for sailing boats. Holds drinks up to 90mm diameter.

BLA Code	Face Size mm	Cut Out mm	Intrusion mm
194100	310 x 230	278 x 195	135

Pocket Storage Box

Versatile white ABS moulded storage box for consoles and similar.

BLA Code	Face Size mm	Cut Out mm	Intrusion mm	Mount Screws mm
194068	240 x 140	207 x 107	100	5 c/s

Glove Box - Plastic

Box and door are constructed of durable, U.V. stable plastic. Door opens on a stainless steel hinge pin and has a key lockable press button, cast zinc alloy latch. Two keys included.

BLA Code	Door Colour	Door Size mm	Cut Out mm	Intrusion mm	Mount Screws mm
194070	Black	350 x 139	303 x 107	168	4 r/h

Accessories:

194073 Replacement lock and key

Glove Box with Drink Holders

Contoured shape moulded from U.V. stabilised plastic. Incorporated in the lid are two pop out drink holders. Stainless steel and cast zinc alloy, thumb press lock supplied with two keys. Holds drinks up to 90mm diameter.

BLA Code	Door Size mm	Cut Out mm	Intrusion mm	Mount Screws mm
194072	340 x 132	300 x 100	155	5 c/s

Accessories:

194073 Replacement lock and key

Glove Box

Moulded from U.V. stabilised black plastic. Rounded door for original equipment aesthetics with no sharp edges to catch clothing or crew. Key lockable door, supplied with two keys. Stainless steel lock shell, cast zinc alloy lock mechanism.

BLA Code	Door Size mm	Cut Out mm	Intrusion mm	Mount Screws mm
194077	340 x 132	300 x 100	155	5 c/s

Accessories:

194073 Replacement lock and key

Ski Mirror - Chrome Plated

Shatterproof chrome plated cast zinc alloy constructed convex lens, provides wide angled rear viewing. Mirror can be mounted to either the dash or to top of the windscreen. Allen key locking multi position adjustment - allen key included.

BLA Code	Width mm	Height mm	Mount Base mm	Mount Screws mm
194190	183	83	23 x 70	5 c/s

Ski Mirror

Large convex lens for maximum vision. U.V. stabilised plastic encased glass mirror. Chrome plated cast zinc alloy universal mount bracket suits dash, overhead and windscreen frame mounting.

BLA Code	Width mm	Height mm	Mount Base mm	Mount Screws mm
194192	303	103	23 x 70	6 c/s

Transom Step - Nylon

Black nylon transom step. Non-skid pattern on top and front face. May also be used as a hand grip.

BLA Code	Length mm	Depth mm	Height mm	Mount Holes mm
194196	165	62	43	6 r/h

Boarding Ladders

Portable boarding ladders which can be hooked over a rail, gunwale or transom. Adjustable stand-offs and white vinyl coated swivelling hooks protect the boat from damage. Will fit over gunwales up to 200mm wide. Aluminium and white moulded polypropylene construction. Available in three step or four step.

194200

BLA Code	Steps	Overall Height mm	Overall Width mm
194200	3	890	375
194202	4	1130	375

Perko® Step Tread

- Chrome Plated Brass

Combines attractive style with positive grip. Chrome plated brass frame with a soft black PVC tread insert. Sold as a pair.

BLA Code	Length mm	Width mm	Protrusion mm	Mount Screws mm
401904	185	38	9	4 c/s

Telescopic Boarding Ladders

- Stainless Steel

Two or three step, fold down telescopic boarding ladder designed for mounting on horizontal surfaces such as duckboards or pontoons. Highly polished fabricated stainless steel construction.

194218 Retracted

194218 Extended

BLA Code	Steps	Extended Length mm	Retracted Length mm	Width mm	Mount Screws mm
194218	2	590	340	290	5 c/s
194220	3	875	370	290	5 c/s

Marine Town® Telescopic Boarding Ladder

- Stainless Steel

Stainless steel boarding ladder designed to mount horizontally under a duck board or marlin board. Three grooved nylon step treads offer non slip traction when wet. Supplied with velcro belt to retain ladder while not in use.

Retracted

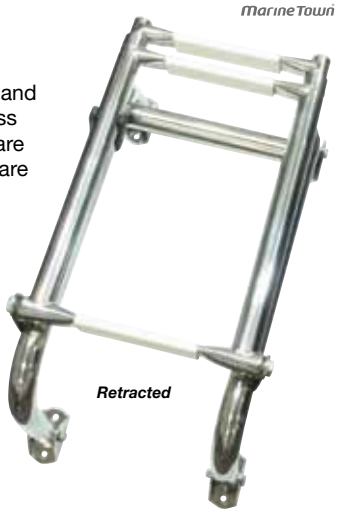
Extended

BLA Code	Steps	Extended Length mm	Retracted Length mm	Width mm	Mount Screws mm
194232	3	890	375	305	6 r/h

Marine Town® Folding Telescopic Ladder

- Stainless Steel

A three step ladder that folds and telescopes. 316 grade stainless steel throughout. Step rungs are pressed oval for comfort and are fitted with anti-slip. Pivoting mount brackets provide easy installation. 10° to transom.



Retracted

BLA Code	Steps	Extended Length mm	Retracted Length mm	Width mm	Protrusion mm	Mount Screws mm
194260	3	910	450	243	200	6 r/h

BLA Marine Biminis - Premium Quality

All that is necessary to determine which size top to order is choosing the length, height and width that best accommodates your boat and your requirements.

Using a tape measure, decide which length top covers the portion of the boat you want covered, i.e. 1650mm or 2400mm.

The pivotal mounting point will be approximately at the centre point of the top of each side of the boat. The deck mounts included with the top are designed to mount on a relatively flat horizontal surface. Side mounts are supplied with this product.

After determining where the pivotal mount location will be on each side of the boat, measure the distance between these mounting points to determine the width of top you need.

While standing inside the boat, measure from the pivotal mounting point straight up to determine desired height. Once you have all the measurements, simply go to the sizing chart on this box and select the one you need. All of the instructions are supplied in the box.

Features:

- Rated to 40 knots when fully open
- 100% polyester top
- Bimini sock and rear support arms are included

2 Bow Bimini Top

BLA Code	Colour	Width m	Height m	Cover m
194560	Grey	1.1-1.3	1.1	1.65
194562	Black	1.1-1.3	1.1	1.65
194564	Navy	1.1-1.3	1.1	1.65
194566	Grey	1.3-1.5	1.3	1.65
194568	Black	1.3-1.5	1.3	1.65
194570	Navy	1.3-1.5	1.3	1.65

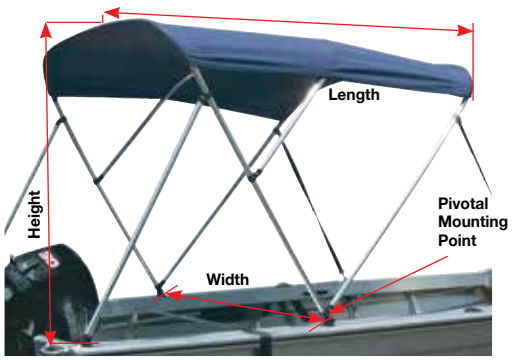
3 Bow Bimini Top

BLA Code	Colour	Width m	Height m	Cover m
194572	Grey	1.5-1.7	1.3	1.8
194574	Black	1.5-1.7	1.3	1.8
194576	Navy	1.5-1.7	1.3	1.8
194578	Grey	1.8-2.0	1.3	1.8
194580	Black	1.8-2.0	1.3	1.8
194582	Navy	1.8-2.0	1.3	1.8

4 Bow Bimini Top

BLA Code	Colour	Width m	Height m	Cover m
194584	Grey	1.5-1.7	1.3	2.4
194586	Black	1.5-1.7	1.3	2.4
194588	Navy	1.5-1.7	1.3	2.4
194590	Grey	1.8-2.0	1.3	2.4
194592	Black	1.8-2.0	1.3	2.4
194594	Navy	1.8-2.0	1.3	2.4

Bimini in Targa Position for Towing



Bimini Fully Open

Accessories:

194596 Bimini Clears to suit 1.5m - 1.7m includes zip
194598 Bimini Clears to suit 1.8m - 2.0m includes zip

BLA Rocket Launchers - Premium Quality

In order for a BLA Rocket Launcher to fit your bimini you will need to do the following:

- Ensure your bimini has rear support arms
- You will need to measure the width of your bimini
- As BLA Rocket Launchers come in 2 different widths, there will be one that suits your needs
- Once you know the width of your bimini, refer to the list below for the one that best suits your needs

All you need to put the Rocket Launcher on your bimini is a Phillips Head screwdriver. All BLA Rocket Launchers will fit all BLA Biminis.

Features:

- Rated to 40 knots
- Quality sturdy frame
- 2 different widths
- Easy to fit
- Australian owned and designed

394604

BLA Code	Width m	Rod Holders
394604	1.5-1.7	5
394606	1.8-2.0	6

BLA Towable Boat Covers - Heavy Duty

Features:

- New ripstop waterproof fabric
- U.V. & mildew resistant
- Wear patches sewn into nose and stern corners to reduce wear
- Support pole stud sewn into cover
- Ratchet for superior tightening
- Cover designed for towing (includes buckles and straps)
- Storage bag included
- Air vent
- Australian owned and designed

Ratchet for superior tightening

Bucklet and strap

Wear patches at nose and stern corners

Support pole stud sewn into cover

Air vent

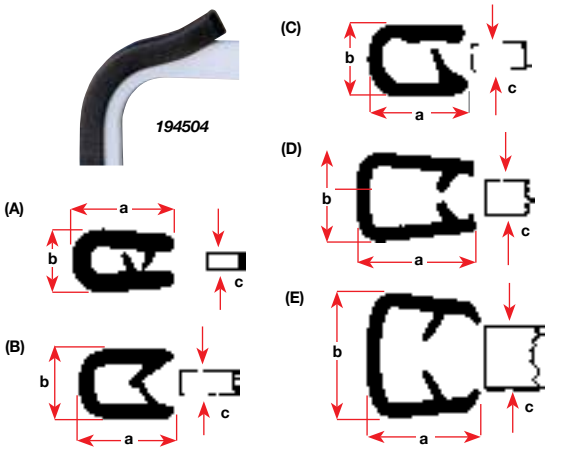
Nose tie-down

BLA Code	Size m
194600	3.2-3.7
194602	4.2-4.6
194604	4.7-5.1
194606	5.2-5.6
194608	5.5-6.0

Edge Trims - Aluminium Core

Edge trim comprises of a textured PVC vinyl extrusion cover and a segmented non-corrosive aluminium core. This enables the edge trim to be used on almost any radius. Edge trim can be cut with a sharp knife to the desired length and then simply pushed onto the edge that requires trimming. Available in black and white soft-tone finish.

194504



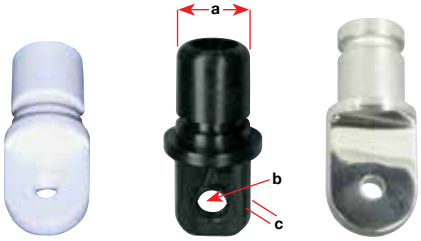
N.B. Not to scale

BLA Code per roll	per metre	Roll Length m	Colour	a mm	b mm	c mm
(A) **194500**	**194501**	152	Black	11.4	7.1	0.8
(B) **194504**	**194505**	122	Black	12.8	9.9	1.6
(C) **194508**	**194509**	122	Black	13.2	9.9	3.2
(C) **194510**	**194511**	122	White	13.2	9.9	3.2
(D) **194512**	**194513**	76	Black	16.8	12.8	6.4
(D) **194514**	**194515**	76	White	16.8	12.8	6.4
(E) **194516**	**194517**	46	Black	17	18.4	12.7

Canopy Bow Ends - Nylon & Stainless Steel

Designed to fit internally into most popular tube sizes. Available in black or white nylon and stainless steel.

BLA Code	Material	Tube O.D. mm	Tube O.D. in	Tube Wall Thickness mm	Tube Wall Thickness g	a mm	b mm	c mm
195002	Black Nylon	20		1.6		16.6	7	7
195003	White Nylon	20		1.6		16.6	7	7
195004	Black Nylon	25		1.6		21.8	6.5	7
195005	White Nylon	25		1.6		21.8	6.5	7
195006	Black Nylon	25		3.0		19	6.5	7
195014	Stainless Steel	25	7/8	3.0	*16*	18.6	6.5	7
195015	Stainless Steel	25	1	1.6	*16*	21.8	8	7
195016	Stainless Steel	32	1 1/4	1.6	*16*	28.4	8	7



195005 195002 195014

N.B. Italic indicates sizing to suit S/S imperial tube.

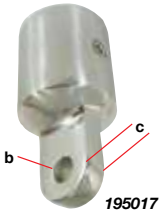
Adaptor Sleeve - Nylon

Moulded in black nylon, this sleeve enables a **195006** and **195014** bow end to fit 1" x 16g imperial stainless steel tube.

BLA Code	Inside Dia. mm	Outside Dia. mm	Length mm
195080	19	22.2	32

Canopy Bow Ends - Cast Stainless Steel External

Manufactured from stainless steel. Sized to fit externally onto popular canopy size tubing. Cast 316 grade stainless steel with highly polished finish.

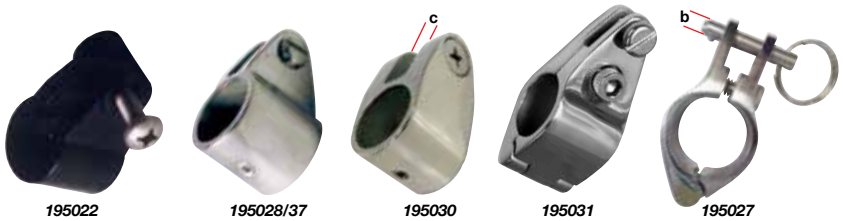


195017

BLA Code	Tube O.D. in	Tube O.D. mm	b mm	c mm
195017	7/8	22	7	7
195018	1	25	6	7
195019	1	25	8	7
195021	1 1/4	32	7	6.5

Canopy Bow Knuckles - Stainless & Nylon

Available in black or white nylon, or 316 grade stainless steel. Sized to fit all popular tubing.



195022 195028/37 195030 195031 195027

Nylon

BLA Code	Colour	Tube in	O.D. mm	Screw mmø	c mm
195022	Black	3/4	20	6	8
195023	White	3/4	20	6	8
195024	Black	7/8	22	6	8
195025	White	1	25	6	8
195026	Black	1	25	6	8

Stainless Steel

BLA Code	Tube in	O.D. mm	Screw mmø	c mm
195035	7/8	22	6	7.5
195028	1	25	6	8
195030	1	25	8	12
195037	1 1/4	32	8	8

Stainless Steel Split Open

Enables fitting to existing canopy tubes without dismantling or removal of end fittings.

BLA Code	Tube in	O.D. mm	QR	b mmø	c mm
195027	7/8	22	Yes	6	8
195029	1	25	Yes	6	8
195031	7/8	22	No	6	8
195033	1	25	No	6	8

Marine Town® Snap-In Plunger Catch

Ingenious design utilises flush female plunger cup receptor and customised male plunger. Attach the plunger to seat cushions, hatch covers, doors, panels or overhead ceiling panels. Plunger engages within the receptors flexible internal rubber lip for strong and secure holding power. Receptor accommodates a wide range of panel thicknesses. Manufactured from durable nylon and rubber and stainless steel. Mini kit includes one receptor plus three plungers of varying lengths, large kit includes one receptor and plunger each. Marking punch available to ensure correct alignment.

193364 Plunger

193364 Catch for Plunger

BLA Code	Kit Type	Marking Punch	Holding Power kg	Plunger Dia. mm	Plunger Length/s mm	Receptor Overall Dia. mm	Receptor Cut Out mm	Receptor Intrusion mm	Panel Thickness
193362	Mini	**193363**	8	12.5	11, 13.5, 16	39	32	46	1-14
193364	Large	**193365**	17	25.4	27	60	50	57	3-19

Accessories:

193363 Marking Punch t/s **193362**

193365 Marking Punch t/s **193364**

193365 Marking Punch

Canopy Deck Mounts

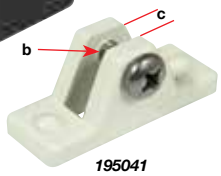
- Cast Stainless Steel and Nylon

Moulded in white and black nylon, or cast in 316 grade stainless steel. Available in fixed mount, pivot and quick release options.

Fixed – Nylon

195040 and **195041** mount canopies at 90° to deck, however the inherent flex properties of nylon compensates for installations of up to 10° off square. **195042** it incorporates a stainless steel nut insert for additional thread security.

195042

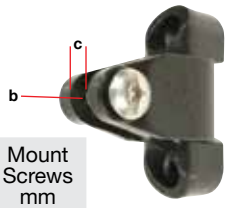


195041

BLA Code	Colour	Base Dim. mm	Height mm	b dia. mm	c mm	Mount Screws mm
195040	Black	55 x 20	20	5	7	4 c/s
195041	White	55 x 20	20	5	7	4 c/s
195042	Black	60 x 20	30	6	8	5 c/s

Pivot – Nylon

Connects canopy to any camber of deck, can even be side mounted.

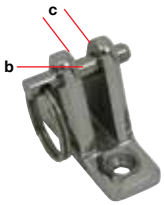


BLA Code	Base Dim. mm	Height mm	b dia. mm	c mm	Mount Screws mm
195048	63 x 20	52	6	8	6 c/s

Fixed

– Stainless Steel

Available to connect canopy at 90° to deck or at 10° off square to deck. Quick release option also available.



195053

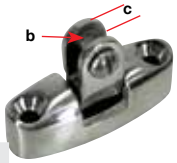
195054

195056

BLA Code	Mount	Quick Release	Base Dim. mm	Height mm	b dia. mm	c mm	Mount Screws mm
195051	90°	Yes	60 x 19	36	6	8	5 c/s
195053	10°	Yes	60 x 19	36	6	8	5 c/s
195054	90°	No	62 x 18	36	6	7	5 c/s
195056	10°	No	57 x 20	36	6	7	5 c/s
195055	10°	No	62 x 25	39	8	8	6 c/s

Pivot – Stainless Steel

Connects canopy to any camber of deck, can even be side mounted. Friction pad in base to prevent rattle.



BLA Code	Base Dim. mm	Height mm	b dia. mm	c mm	Mount Screws mm
195059	69 x 25	46	6	8	6 c/s

Canopy Side Mounts

- Cast Stainless Steel and Nylon

Fitted in conjunction with canopy bow ends for mounting of canopy to vertical and near vertical surfaces such as coaming sides. Moulded in black nylon or cast 316 grade stainless steel.

195060

195066

BLA Code	Material	Base Dim. mm	Protrusion mm	Pivot Bolt mm	Mount Screws mm
195060	Black Nylon	43	28	6	3 c/s
195066	Stainless Steel	51 x 23	31	6	5 c/s
195071	Stainless Steel	72 x 47	31	8	6 c/s

Marine Town® Tube Hinges

– Cast Stainless Steel

These tube hinges allow bimini tops and other sun shades to be easily and compactly folded. Cast from 316 grade stainless steel and mirror polished. Available in locking or non-locking versions. The locking version has a pull to release, push to lock detent pin. Commonly used in tensioning extension tubes on strapless canopies. Grub screws secure tube in socket.

195075 & 195077

195076

BLA Code	Tube Dia. in	Tube Dia. mm	Lock Pin mm	Length mm
195075	7/8	22	Yes	79
195076	1	25	No	75
195077	1	25	Yes	75

Canopy Bow Joiners

Available in aluminium.

195110

BLA Code	Material	Suits Tube mm O.D. wall	Length mm
195110	Alloy	20 x 1.6	106
195112	Alloy	22 x 1.6	114
		25 x 3.0	114
195114	Alloy	25 x 1.6	114

Canopy Strap Buckles - Nylon

Available as either a straight strap buckle or with a 'D' loop for a combination of strap attachment and adjustment. Moulded in black nylon.

195180

195182

BLA Code	Description	Strap mm	Length mm
195180	Strap Buckle	25	26
195182	'D' end Buckle	25	54

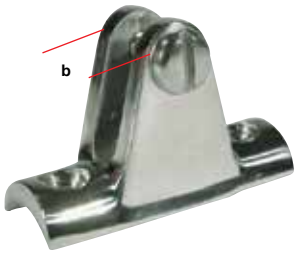
Canopy Tube End Clamp - Nylon

One end snaps around a tube and the other end inserts into a tube. Moulded in black nylon.

BLA Code	Tube Size mm O.D. wall
195130	20 x 1.6

Marine Town® Canopy Rail Mount - Stainless Steel

Used in conjunction with canopy bow ends.
Concave base for connection to 20-25mm tube.



BLA Code	Base Dim. mm	Height mm	b mm	Mount Screws mm
195057	57 x 20	32	6	5 c/s

Canopy Strap Buckle - Stainless Steel

Stainless steel canopy strap buckle to suit 25mm webbing.

BLA Code
195184

Canopy Thumb Screw - Nylon

Moulded black nylon thumb screw with stainless steel thread. Suits popular canopy fittings.

BLA Code
195122

Canopy Tube Ends 'T' - Nylon

Used to clamp tubes at right angles. One end fits to side of tube and is through bolted, while the other end fits internally in second tube. Internal hex socket accepts nut measuring 10-11mm across the flat. Moulded in black nylon.

BLA Code	Tube Size mm O.D. wall
195134	25 x 1.6
195136	25 x 3.0

Canopy Key Lock Strap Fittings Buckle
- Stainless Steel

This fitting combines a self locking cam buckle with a twist lock mount post and flush deck socket. To remove canopy strap, press the buckle cam lever to release strap tension, rotate the buckle 90° and lift buckle out from deck socket. When buckle is removed the deck fitting protrudes only 3mm. A key arrangement in the socket locks strap fittings in socket, unless they are turned side on to normal angle of pull. All 316 grade stainless steel construction.

BLA Code	Strap Max. mm
195187	25

Tube End - Nylon

Internally fitted tube end that facilitates the mounting of a length of tube to deck or coaming. Two required per tube. Moulded in black nylon.

BLA Code	Tube Size mm O.D. wall	Height mm	Mount Base mm	Mount Screws mm
195170	20 x 1.6	28	20 x 20	3 c/s

Socket - Stainless Steel

Flush fitting key lock socket as supplied with **195187** above and **195189** below. Available as a separate fitting for when multiple mount positions are required. All 316 grade stainless steel construction.

BLA Code	Face mm	Mount Hole mm	Intrusion mm	Mount Screws mm
195188	45 x 23	13	13	5 c/s

Lashing Hook - Nylon

Used to hook shock cord or canopy strap end buckle on to flat vertical surfaces. Moulded in black nylon. Accepts up to 8mm shock cord.

BLA Code	Width mm	Height mm	Depth mm	Mount Screws mm
195210	40	25	14	4 c/s

Key Lock Ring - Stainless Steel

Provides a removable attachment point for canopy straps. Includes keyed removable ring and flush deck socket. To remove, turn ring sideways to base plate and lift out, eye remains locked in at any other position. All 316 grade stainless steel construction.

BLA Code	Ring I.D. mm	Protrusion mm
195189	10	23

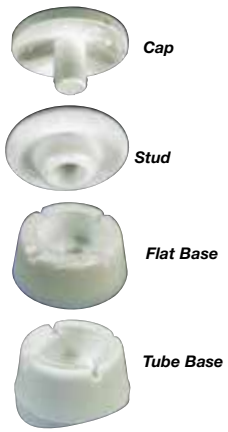
Mount Bracket - Nylon

Used to mount canopy tubes. Also commonly used in utilities and RVs for tonneau cover support rods. Moulded in black nylon.

BLA Code	Width mm	Height mm	Depth mm	Mount Screws mm
195160	45	23	19	5 r/h

Press Clips

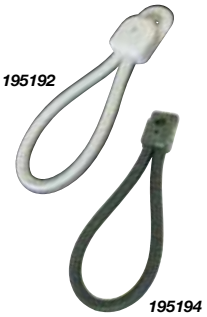
Comprising of a cap, stud and socket. This Stayput press clip is the corrosion free alternative to conventional metal press studs. Designed primarily for marine applications where fabric covers need to be attached to a solid surface. Manufactured from U.V. stable nylon/acetal. Fabric fittings simply press together. Bases are available to suit installation on a flat surface or a curved base is available for secure fixing to 25mm tube. Sold in packs of 25.



BLA Code	Description	Colour	Dia. mm	Height mm	Mount Screws mm
195320	Cap	White	18	4	5
195322	Cap	Black	18	4	5
195324	Stud	White	18	6	5
195326	Stud	Black	18	6	5
195328	Flat Base	White	16	7	3 c/s
195330	Flat Base	Black	16	7	3 c/s
195332	Tube Base	White	16	7	3 c/s
195334	Tube Base	Black	16	7	3 c/s

Utility Stretch Loops - Nylon

Moulded nylon head fitting with shock cord loop for tensioning canopies and covers as well as securing ice box lids and similar.



BLA Code	Colour	Overall Length mm	Cord Dia. mm	Mount Screws mm
195190	Black	90	5	4 r/h
195192	White	90	5	4 r/h
195194	Black	140	8	4 r/h

Canopy Strap Hook - Stainless Steel

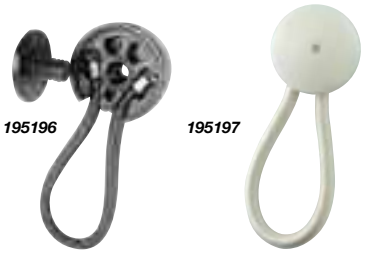
Stainless steel canopy hook, to suit 25mm webbing.

BLA Code	Length mm	Width mm	Strap Max mm
195186	32	36	25 x 5

Shock Cord Loops

Simple installation to varying thickness of fabric without the need for special tools. The unique Stayput design has several benefits;

- Greater contact area with the fabric reduces the risk of damage to the fabric and tear out
- Brass crimp on the shock cord resists corrosion
- Fitting can be removed and be re-fitted with new shock cord without damage to the fabric



BLA Code	Colour	Overall Length mm	Cord Dia. mm	Cap mm	Fabric Hole mm
195196	Black	90	5	30ø x 13	6.5
195197	White	90	5	30ø x 13	6.5

Shock Cord Buttons

Attachment buttons for use with canopy stretch loops. Moulded in U.V. stabilised nylon or 316 grade stainless steel.

BLA Code	Colour	Cord Dia. mm	Outside Dia. mm	Protrusion mm	Mount Screws mm
195200	Black Nylon	5	13	10	4 c/s
195201	White Nylon	5	13	10	4 c/s
195202	Black Nylon	8	18	15	4 c/s
195203	White Nylon	5	18	14	4 c/s
195204	White Nylon	5	18	15	4 c/s
195206	White Nylon	8	18	15	4 c/s
195209	Stainless Steel	8	19	13	4 c/s

Marine Town® Canopy Strap Snap Hook - Stainless Steel

Suits webbing up to 25mm. Solid 316 grade stainless steel construction.

BLA Code	Length mm	Width mm	Strap Max mm
195185	50	34	25 x 5

Tube Holders - White Nylon

Handy nylon clips to store oars, paddles, boat hooks and similar.

BLA Code	Tube Dia. mm	Tube Dia. in	Mount Base mm	Mount Screws mm
193806	19	3/4	21 x 27	3 r/h
193808	25	1	23 x 17	3 c/s
193812	32	1 1/4	29 x 18	3 c/s
193816	38	1 1/2	34 x 18	3 c/s
193818	45	1 3/4	39 x 23	4 c/s

Tube Holders

Versatile black nylon snap in holders. Secures oars, paddles, boat hooks, plumbing and similar. Large bearing surface reduces scuffing. Sold as a card of 12 pairs.

BLA Code	Tube Dia. mm
193824	25-35
193826	40-50

Stayput Fasteners

A time proven canopy fastening system, moulded from high quality U.V. stable nylon, producing corrosion free operation. No spring and no need for pressure for closure design. Sold in packs of 25.

Vertical

Horizontal

BLA Code	Mount	Eyelets	Colour	Base mm	Eyelet I.D. mm	Mount Hole mm
195302	Horizontal	Single	White	35 x 16	9	3 c/s
195303	Horizontal	Single	Black	35 x 16	9	3 c/s
195304	Horizontal	Double	White	35 x 16	9	3 c/s
195305	Horizontal	Double	Black	35 x 16	9	3 c/s
195306	Vertical	Single	White	35 x 16	9	3 c/s
195307	Vertical	Single	Black	35 x 16	9	3 c/s
195308	Vertical	Double	White	35 x 16	9	3 c/s
195309	Vertical	Double	White	35 x 16	9	3 c/s

Canvas to Canvas Stayput Fasteners

Same moulded nylon/acetal spring free, no pressure for closure design as regular Stayput fasteners, but configured to connect fabric to fabric, such as vinyl bimini to clears. Sold in packs of 25.

BLA Code	Colour	Eyelets	Mount O.D. mm	Eyelet I.D. mm
195312	White	Single	22	9
195313	Black	Single	22	9
195314	White	Double	22	9
195315	Black	Double	22	9

195314

Marine Town® Weld On Rail Bases - Stainless Steel

All bases are manufactured from 3mm thick, grade 316 grade stainless steel and are pre polished. A time and cost effective option for fabricating pushpits, pulpits, stanchions and hand rails.

Round Bases – Internal Bolt

Centre bolt to be welded in place before tube is welded. Provides neat concealed fastening installation.

BLA Code	Dia. mm	Bolt Hole mm
196104	38	8 r/h
196106	50	8 r/h

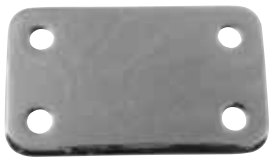
Round Bases – External Fastening

BLA Code	Dia. mm	Mount Screws mm
196108	60	6 r/h
196110	74	6 r/h

Oval Bases

BLA Code	Base. mm	Mount Screws mm
196114	76 x 31	6 r/h

Rectangular Bases



BLA Code	Base. mm	Mount Screws mm
196118	80 x 45	6 r/h

Round Bases with Socket

BLA Code	Tube Angle	Tube Size mm	Base. Dia. mm	Mount Screws mm
196154	90°	25	74	6 c/s

Lashing Eye/Hook - Nylon

Moulded in tough U.V. stabilised nylon.

195240

195230

BLA Code	Type	Colour	Base mm	Max Rope mm	Mount Screws mm
195230	Eye	White	34 x 22	10	3 c/s
195232	Eye	Black	34 x 22	10	3 c/s
195240	Hook	White	34 x 22	10	3 c/s

Lashing Eye/Hook - Cast Stainless Steel

Stainless steel construction for strength and durability.

195222

195224

BLA Code	Type	Base Size mm	Height mm	Max Rope mm	Mount Screws mm
195222	Hook	27 x 27	19	6	3 c/s
195224	Eye	33 x 27	21	8	3 c/s

BLA Boat Rego Letters & Numbers

Popular self-adhesive, square font, matte finish. Sold as pairs.

1960002P

1960201P

1960401P

196000BWP

196020AWP

196040AWP

1960301P

196030AP

Character	200mm		163mm		100mm		150mm*
	Black	White	Black	White	Black	White	Black on White
	Pair	Pair	Pair	Pair	Pair	Pair	Pair
1	**1960001P**	**1960001WP**	**1960201P**	**1960201WP**	**1960401P**	**1960401WP**	**1960301P**
2	**1960002P**	**1960002WP**	**1960202P**	**1960202WP**	**1960402P**	**1960402WP**	**1960302P**
3	**1960003P**	**1960003WP**	**1960203P**	**1960203WP**	**1960403P**	**1960403WP**	**1960303P**
4	**1960004P**	**1960004WP**	**1960204P**	**1960204WP**	**1960404P**	**1960404WP**	**1960304P**
5	**1960005P**	**1960005WP**	**1960205P**	**1960205WP**	**1960405P**	**1960405WP**	**1960305P**
6	**1960006P**	**1960006WP**	**1960206P**	**1960206WP**	**1960406P**	**1960406WP**	**1960306P**
7	**1960007P**	**1960007WP**	**1960207P**	**1960207WP**	**1960407P**	**1960407WP**	**1960307P**
8	**1960008P**	**1960008WP**	**1960208P**	**1960208WP**	**1960408P**	**1960408WP**	**1960308P**
A	**196000AP**	**196000AWP**	**196020AP**	**196020AWP**	**196040AP**	**196040AWP**	**196030AP**
B	**196000BP**	**196000BWP**	**196020BP**	**196020BWP**	**196040BP**	**196040BWP**	**196030BP**
C	**196000CP**	**196000CWP**	**196020CP**	**196020CWP**	**196040CP**	**196040CWP**	**196030CP**
D	**196000DP**	**196000DWP**	**196020DP**	**196020DWP**	**196040DP**	**196040DWP**	**196030DP**
E	**196000EP**	**196000EWP**	**196020EP**	**196020EWP**	**196040EP**	**196040EWP**	**196030EP**
F	**196000FP**	**196000FWP**	**196020FP**	**196020FWP**	**196040FP**	**196040FWP**	**196030FP**
G	**196000GP**	**196000GWP**	**196020GP**	**196020GWP**	**196040GP**	**196040GWP**	**196030GP**
H	**196000HP**	**196000HWP**	**196020HP**	**196020HWP**	**196040HP**	**196040HWP**	**196030HP**
I	**196000IP**	**196000IWP**	**196020IP**	**196020IWP**	**196040IP**	**196040IWP**	**196030IP**
J	**196000JP**	**196000JWP**	**196020JP**	**196020JWP**	**196040JP**	**196040JWP**	**196030JP**
K	**196000KP**	**196000KWP**	**196020KP**	**196020KWP**	**196040KP**	**196040KWP**	**196030KP**
L	**196000LP**	**196000LWP**	**196020LP**	**196020LWP**	**196040LP**	**196040LWP**	**196030LP**
M	**196000MP**	**196000MWP**	**196020MP**	**196020MWP**	**196040MP**	**196040MWP**	**196030MP**
N	**196000NP**	**196000NWP**	**196020NP**	**196020NWP**	**196040NP**	**196040NWP**	**196030NP**
O	**196000OP**	**196000OWP**	**196020OP**	**196020OWP**	**196040OP**	**196040OWP**	**196030OP**
P	**196000PP**	**196000PWP**	**196020PP**	**196020PWP**	**196040PP**	**196040PWP**	**196030PP**
Q	**196000QP**	**196000QWP**	**196020QP**	**196020QWP**	**196040QP**	**196040QWP**	**196030QP**
R	**196000RP**	**196000RWP**	**196020RP**	**196020RWP**	**196040RP**	**196040RWP**	**196030RP**
S	**196000SP**	**196000SWP**	**196020SP**	**196020SWP**	**196040SP**	**196040SWP**	**196030SP**
T	**196000TP**	**196000TWP**	**196020TP**	**196020TWP**	**196040TP**	**196040TWP**	**196030TP**
U	**196000UP**	**196000UWP**	**196020UP**	**196020UWP**	**196040UP**	**196040UWP**	**196030UP**
V	**196000VP**	**196000VWP**	**196020VP**	**196020VWP**	**196040VP**	**196040VWP**	**196030VP**
W	**196000WP**	**196000WWP**	**196020WP**	**196020WWP**	**196040WP**	**196040WWP**	**196030WP**
X	**196000XP**	**196000XWP**	**196020XP**	**196020XWP**	**196040XP**	**196040XWP**	**196030XP**
Y	**196000YP**	**196000YWP**	**196020YP**	**196020YWP**	**196040YP**	**196040YWP**	**196030YP**
Z	**196000ZP**	**196000ZWP**	**196020ZP**	**196020ZWP**	**196040ZP**	**196040ZWP**	**196030ZP**

'W' denotes white character

'P' denotes single pair only

**150mm black on white products are to suit WA regulations*

OUTBOARD, FUEL FITTING & PROPELLERS

Outboard & Diesel Fuel Tanks & Plastic Jerry Cans	500
Outboard Fuel Fittings & Primer Bulbs	501-502
Fuel Lines & Fuel Hose	502-503
Sierra® Outboard Fuel Fittings	504-507
Quicksilver® Outboard Fuel Fittings	508
Fuel Filters & Elements	510-519
Quicksilver® Fuel Filters	520
Sierra® Oil Filters & Wrenches	521-526
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Quicksilver® Water Impeller Repair Kits	550-559
Seloc® Engine Manuals	565
Sierra® STATS™ Engine Diagnostics	573
SeaStar® Jacking Plates	574-576
TH Marine Foot Throttles, Slide Mount, Transom Wedge & Torque Tab	577
Turning Point Propellers	578-606

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

BLA Fuel Tank - 11.3 Litres

Moulded in U.V. stabilised polyethylene, this 11.3 litre fuel tank meets ISO13591 standards. Supplied with vented filler cap and ¼" BSP internal threaded fuel tank pick-up.

Fuel tank adaptors are sold separately. Adaptors must be ordered separately to suit the outboard make and are listed on the following pages.

BLA Code	Height mm	Width mm	Length mm
200106	240	255	350

Warning
N.B. There is always an element of risk when carrying fuel. Caution should be exercised when using this equipment.

BLA Fuel Tank - 22.7 Litres

Moulded in U.V. stabilised polyethylene, this 22.7 litre fuel tank has a direct reading fuel gauge incorporated in the cap, with stainless steel wire and for easy carrying incorporates a handle at one end. Supplied complete with fuel tank pickup with ¼" BSP internal thread.

Fuel tank adaptors are sold separately. Adaptors must be ordered separately to suit the outboard make and are listed on the following pages.

BLA Code	Height mm	Width mm	Length mm
200110	235	290	590

Warning
N.B. There is always an element of risk when carrying fuel. Caution should be exercised when using this equipment.

Jerry Can

Australian made, moulded polyethylene fuel containers, compliant to AS/NZS 2906:2000. Rippled non-skid finish with moulded carry handle, bottom hand grip, flexible spout and screw on vent cap to provide ease of pouring. Versatile cap arrangement stores the spout inside the container when not in use.

200346 *200348*

BLA Code	Colour	Capacity L	Length mm	Width mm	Height mm
200346	Red	20	350	170	470
200348	Olive	20	350	170	470

Warning
N.B. There is always an element of risk when carrying fuel. Caution should be exercised when using this equipment.

Diesel Fuel Tanks - 60 & 120 Litres

Roto-moulded in polypropylene with a minimum wall thickness of 5mm, these tanks provide a multitude of inlet and outlet connection port directions. Each tank has nine, 1½" BSP (38mm) threaded inserts to allow quick and easy attachment of inlet/outlets and breathers to suit individual arrangements. Use reducing bushes for smaller thread sizes if required. Refer pages 94-95 for hose tail and bush options.

200124 *200126*

BLA Code	Capacity L	Capacity gal	Length mm	Width mm	Height mm
200124	60	13.1	400	400	400
200126	120	26.3	800	400	400

Warning
N.B. There is always an element of risk when carrying fuel. Caution should be exercised when using this equipment.

Fuel Tank Cap with Gauge

Replacement cap with gauge to suit **200110** deluxe fuel tank.

BLA Code	Outside Dia. mm	Length mm
200146	210	67

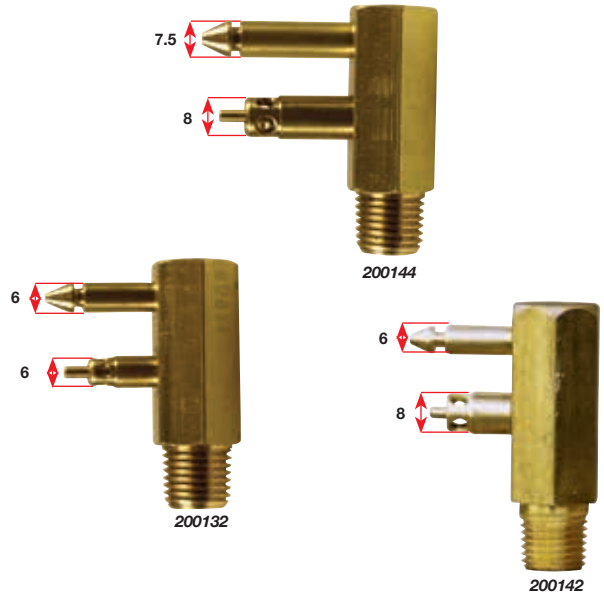
Fuel Pickup Tube

Replacement fuel pickup tube to suit **200106** and **200110** fuel tanks.

BLA Code	Length mm
200148	220

BLA Fuel Tank Adaptors

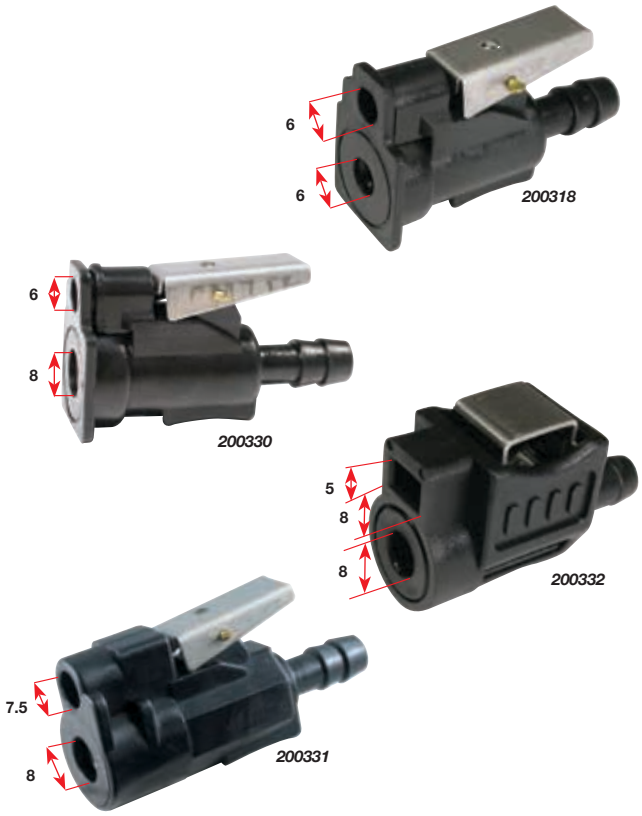
Two pin, brass tank adaptors. ¼" NPT thread.



BLA Code	Suits
200132	Evinrude®/Johnson®
200142	Yamaha®, Mercury® & Mariner® (88 - 98)
200144	Mercury® (99 on)

BLA Fuel Line Fittings

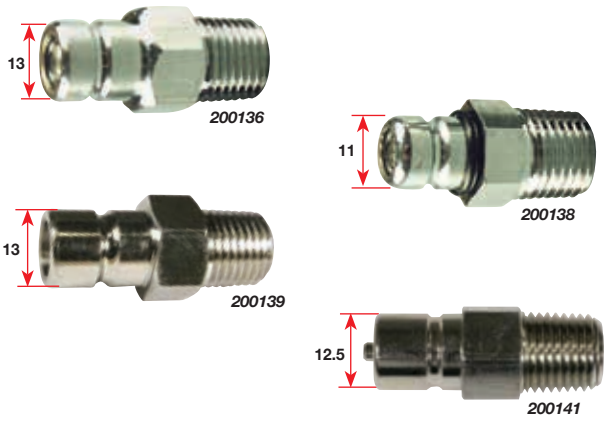
Two pin quick connect, black plastic fuel line fittings.



BLA Code	Suits	Hose Size mm
200318	Evinrude®/Johnson®	8
200330	Yamaha®/Mercury® & Mariner®, (88-98) tank end & all motor end	10
200331	Mercury® (99 on) tank end	10
200332	Honda to date, motor end	10

BLA Fuel Tank Adaptors

Chrome plated brass tank adaptors. ¼" NPT thread.



BLA Code	Suits
200136	Most Suzuki® (75HP & up)
200138	Chrysler®, pre-Force®, most Suzuki® (70HP down)
200139	Honda® (2001 to date)
200141	Tohatsu® & Mercury® International up to 40HP

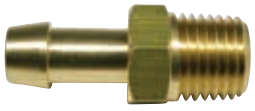
BLA Fuel Line Fittings

Quick connect, chrome plated brass fuel line fittings.

BLA Code	Suits	Hose Size mm
200322	Most Suzuki® (75HP & up)	8
200326	Chrysler®, Force®, most Suzuki® (70HP down)	8
200327	Honda® Tank End	8-10
200334	Tohatsu® & Mercury® International (up to 40HP)	8-10

Fuel Tank Adaptors

Brass tank adaptors used to directly clamp the fuel hose. ¼" NPT thread.



BLA Code	Hose Size mm	Hose Size in
138130	6	1/4
200140	8	5/16

BLA Fuel Line Fitting

Suits: Mercury®/Mariner®, bayonet style

Die-cast female bayonet motor end fitting to suit 8-10mm (5/16" - 3/8") ID hose.

BLA Code
200310

BLA Fuel Tank Adaptor

Suits: Mercury®/Mariner®, bayonet style.

Die-cast female bayonet tank adaptor. ¼" NPT thread.

BLA Code
200134

BLA Fuel Line Fitting

Suits: Mercury®/Mariner®, bayonet style

Die-cast, male bayonet tank end fitting to suit 8-10mm (5/16" - 3/8") ID hose.

BLA Code
200314

BLA Primer Bulbs

Black, U.V. stabilised fuel primer bulbs. Available in two sizes to fit most fuel lines.

200302

200304

BLA Code	Hose Size mm	Overall Length mm
200302	8	175
200304	10	195

Sierra® Primer Bulbs

Premium quality primer bulbs that offer superior resistance to U.V. degradation. Suitable for use with alcohol enhanced fuels. Internal check valves with stainless steel springs and chemically resistant DuPont Viton® plastic balls that resist sticking.

BLA Code	Hose ID mm
S18-8002S	6
S18-8004S	8
S18-8005S	10

Grey Fuel Hose - E10 Resistant

U.V. stabilised hose suitable for exposed use. Suitable for leaded, unleaded, 2 stroke, E10 and diesel fuels. Recommended for above floor outboard applications only. **Not recommended for use on underfloor tanks.** Sold in 33m rolls.

BLA Code	Inside Dia. mm
136308	8
136310	10

Grey Reinforced PVC Fuel Hose

Reinforced marine PVC fuel hose. Not to be used in under floor applications. Sold in 33m rolls.

BLA Code	Inside Dia. mm
136300	8
136302	10

Black Reinforced Fuel Hose - E10 Resistant

Premium reinforced fuel hose manufactured to SAE J1527 and USCG Type A1 standards. Flame retardant and suitable for fuel feed and vent under floor applications. Suitable for E10, unleaded, 2 stroke and diesel fuels. Sold in 30m rolls.

BLA Code	Inside Dia. mm
136320	8
136322	10
136324	12
136326	16

BLA Fuel Line

Suits: Mercury®, Mariner®, bayonet style

Grey fuel hose. U.V. stabilised primer bulb. Fitted with motor and tank end fittings. 2.1m in length x 8mm ID hose.

BLA Code
200222

BLA Fuel Line

Suits: Suzuki® (most 75HP and above)

Grey fuel hose. U.V. stabilised primer bulb. 2.1m in length x 8mm ID hose. Supplied with motor connection end only.

13mm fuel port

BLA Code
200226

BLA Fuel Line

Suits: Tohatsu® & 2001 to date Mercury® International

Grey fuel hose. U.V. stabilised primer bulb. 2.1m in length x 8mm ID hose. Supplied with motor connection end only.

12.5mm fuel port

BLA Code
200229

BLA Fuel Line

Suits: Yamaha®, Mercury® & Mariner® 88 - 98

Grey fuel hose. U.V. stabilised primer bulb. Fitted with motor and tank end fittings. 2.1m in length x 8mm ID hose.

8mm fuel port 6mm barb

BLA Code
200232

BLA Fuel Line

Suits: Evinrude®/Johnson®

Grey fuel hose. U.V. stabilised primer bulb. Fitted with motor and tank end fittings. 2.1m in length x 8mm ID hose.

6mm fuel port

BLA Code
200224

BLA Fuel Line

Suits: Chrysler®, Pre '99 Force®, Suzuki® (most 70HP and below)

Grey fuel hose. U.V. stabilised primer bulb. 2.1m in length x 8mm ID hose. Supplied with motor connection end only.

11mm fuel port

BLA Code
200228

BLA Fuel Line

Suits: Mercury® & Mariner® 99 to date

Grey fuel hose. U.V. stabilised primer bulb. Fitted with motor and tank end fittings. 2.1m in length x 8mm ID hose.

8mm fuel port 6mm barb

8mm fuel port / 7.5mm barb

BLA Code
200233

BLA Fuel Line

Universal - no fittings supplied

Grey fuel hose. U.V. stabilised primer bulb. 2.1m in length x 8mm ID hose.

BLA Code
200230

BLA Premium Reinforced Fuel Line

Black premium reinforced U.V. stabilised fuel hose with primer bulb fitted. 2.1m length, 8mm ID hose.

BLA Code	Size
200240	Evinrude®/Johnson®
200242	Universal (no fittings)
200244	Yamaha®/Mercury®
200246	Mercury®/Mariner® 99 to date

MERCURY®/MARINER®

Sierra® Fuel Connector

3/8"

Replaces: 30185A3, 30185Q3 (male).

BLA Code
S18-8084

Sierra® Fuel Connector

5/16"

Replaces: 22831Q3, 22831A3 (female).

BLA Code
S18-8069

Sierra® Tank Connector

5/16"

Replaces: 30185A3, 30185Q3 (male).

BLA Code
S18-8070

Sierra® Tank Connector

1/4"

Replaces: 22-1413M, 2214213Q. Mates with **S18-8077-1**.

BLA Code
S18-8075

Sierra® Fuel Connector

Replaces: 22-13563Q7, 22-13563T7 (tank end). Mates with **S18-80402**.

BLA Code
S18-8091

Sierra® Fuel Connector

5/16", mates with **S18-8077-1**.

BLA Code
S18-8085

Sierra® Tank Connector

1/4" NPT, mates with **S18-8091**.

BLA Code
S18-80402

Sierra® Fuel Connector

3/8"

Replaces: 22-13563A3, 22-13563Q3. Mates with **S18-8077-1**.

BLA Code
S18-8076

Sierra® Fuel Connector

5/16"

Replaces: 22-13563T3 (female)

Fits: 4/5 2 stroke (1999 & up) (motor end). Mates with **S18-80412**.

BLA Code
S18-80410

Sierra® Tank Connector

1/4" NPT. Mates with **S18-8075**, **S18-8076**, **S18-8085**.

BLA Code
S18-8077-1

Sierra® Fuel Connector

5/16"

Replaces: 22-816856T2 (male)
Fits: 100 4-cyl (1988-99), 115 4-cyl (1989 & up), 125 4-cyl (1994 & up), 65 Jet (1994 & up), 90 3-cyl (1987 & up). Mates with **S18-80410**.

BLA Code
S18-80412

Sierra® Tank Connector

1/4" NPT, Mercury® straight fitting (female).

BLA Code
S18-8082

Sierra® Tank Connector

1/4" NPT (female).

BLA Code
S18-8068

Sierra® Fuel Connector

3/8" (female).

BLA Code
S18-8083

TOHATSU®

Sierra® Tank Connector

¼" NPT .508 O.D. Nissan® tank large inlet.

Fits: All models (male). Mates with **S18-8079**.

BLA Code **S18-8078**

Sierra® Fuel Connector

Large inlet.

Replaces: 3B2-70281-0.

Fits: All models (female). Mates with **S18-8078**.

BLA Code **S18-8079**

Sierra® Fuel Connector

Engine end.

Replaces: 345-70250-0. ⅜" Hose.

Fits: 5-90HP 2 stroke and TLDI models. Mates with **S18-8089**.

BLA Code **S18-8088**

Sierra® Fuel Connector

Engine end.

Replaces: 3B2-70260-0 (metric threads) 5/16" hose.

Fits: 5-90HP 2 stroke and TLDI models. Mates with **S18-8088.**

BLA Code **S18-8089**

Sierra® Fuel Connector

5/16"

Replaces: 394-70250-0 (female).

Fits: 4-30HP 4 stroke. Mates with **S18-80417.**

BLA Code **S18-80410**

Sierra® Fuel Connector

Replaces: 394-70260-0.

Fits: 4-30HP 4 stroke. Mates with **S18-80410.**

BLA Code **S18-80417**

JOHNSON®/EVINRUDE®

Sierra® Fuel Connector

5/16"

Replaces: 174508, 775640.
Mates with **S18-8063**.

BLA Code **S18-8056**

Sierra® Tank Connector

¼" NPT

Replaces: 502867, 772681.
Mates with **S18-8092** & **S18-8056.**

BLA Code **S18-8063**

Sierra® Fuel Elbow

⅜" Barb w/ ⅜" NPT Thread.

Replaces: 174177 90˚.

BLA Code **S18-8072**

Sierra® Fuel Connector

⅜"

Replaces: 176445, 775641.
Mates with **S18-8063**.

BLA Code **S18-8092**

YAMAHA®

Sierra® Fuel Tank Elbow

Universal fitting with ¼" NPT threads.
Replaces: ABA-FBARB-90-DG (brass).

BLA Code **S18-8040**

Sierra® Tank Connector

¼" NPT.

Fits: F75-F250 115-300HP.
Mates with **S18-80413**, **S18-80414**, **S18-80415.**

BLA Code **S18-8077-1**

Sierra® Fuel Connector

⅜"

Replaces: 6Y2-24305-05, 6E5-24305-05.
Mates with **S18-8077-**1.

BLA Code **S18-80415**

Sierra® Fuel Connector

¼"

Replaces: 6Y1-24305-04.
Mates with **S18-8077-1**.

BLA Code **S18-80413**

YAMAHA® (cont.)

Sierra® Fuel Connector

5/16"

Replaces: 6G1-24305-04, 6G1-24305-05-00.

Fits: 6(1989, 1992-93), 8(1984-85, 1989-93, 2001-02), 9.9(1984-93, 2000-03), 15(1984-93, 2000-03), 25(1984-85, 1988-93, 2000-03), 50(1986-93, 2000-03), 60(2001-03), 70(1984-86, 1988-90, 1992-93, 2000-03), C25(1991,1993), C30(1991-93), C40(1991-93, C50(200-01), C55(1991-93, C60(2000-01), C70(2000-01), C85(1991-93), C90(2000-01), E48(2000), F60(2002-03), T8(2001-03), F9.9(1985-93, 2001-03), F15(1998-99, 2000-01), F25(1998-99, 2000-03), F30(2001-03), F40(1999, 2000-03), F50(1999, 2000-03), F60(2002 -03), T8(2001-03), T9.9(1991-93, 1999, 2001-03), T25(2001-03), T50(1999, 2000-03), T60(2003). Mates with **S18-8077-1**.

BLA Code
S18-80414

HONDA®

Sierra® Tank Connector

Replaces: 16977-ZV5-A00. Male tank outlet, new style, 1/4" NPT, nickel plated brass. Male connector, for fuel tank. Mates with **S18-80401**.

BLA Code
S18-80400

Sierra® Fuel Connector

Replaces: 17650-921-003ZB.

Fits: BF5/BF8A 2001 and earlier. Mates with 17710-881-00ZA.

BLA Code
S18-80420

Sierra® Fuel Connector

Replaces: 17660-ZV5-902

Fits: 3/8" hose barb. Mates with **S18-80406**

BLA Code
S18-38008

Sierra® Fuel Connector

Female 3/8" hose connector with rectangular locking post. Will not interchange with OE's 5/16" hose assemblies. For late model engine: For use with motor end. Mates with **S18-80407**.

BLA Code
S18-80403

Sierra® Fuel Connector

Female hose connector, new style, 3/8" hose. Will not interchange with OE's 5/16" hose assemblies. Mates with **S18-80400**, tank outlet.

BLA Code
S18-80401

Sierra® Fuel Connector

Replaces: 17650-ZW9-003. Female 5/16" connector with rectangular locking post.

Fits: late model engines. Mates with **S18-80407**.

BLA Code
S18-80408

Sierra® Fuel Connector

Replaces: 16977-ZV5-900. Male tank outlet, old style, 1/4" NPT.

BLA Code
S18-80406

Sierra® Fuel Connector

Replaces: 17710-ZW9-033 5/16" with interlocking post.

Fits: BF8-BF130 (2003). Mates with **S18-80403** & **S18-80408**.

BLA Code
S18-80407

SUZUKI®

Sierra® Tank Connector

¼" NPT .432 O.D. (male).

Replaces: 99105-00192.

Fits: DT4-DT65. Mates with **S18-8062**.

BLA Code
S18-8071

Sierra® Tank Connector

¼" NPT .508 O.D. (Male)

Replaces: 65740-9550, 99105-00193.

Fits: All models. Mates with **S18-8079** & **S18-80405** (male).

BLA Code
S18-8078

Sierra® Fuel Connector

Tank end.

Replaces: 65750-95510, 65750-95500.

Fits: All models. Mates with **S18-8078**.

BLA Code
S18-8079

Sierra® Tank Connector

Motor side. ⅜" barb.

Replaces: 65720-94411.

Fits: DT75-DT140. Mates with **S18-80418**.

BLA Code
S18-8087

Sierra® Fuel Connector

Motor side. ¼" barb.

Replaces: 65720-94401.

Fits: DT4-DT65. Mates with **S18-80418.**

BLA Code
S18-80409

Sierra® Fuel Connector

¼" barb.

Replaces: 65750-94404.

Fits: DT4-DT140.
Mates with **S18-8087**, **S18-80409**.

BLA Code
S18-80418

Sierra® Fuel Connector

Replaces: 65720-986BO.

Fits: DF25-DF140. Mates with **S18-80404**, **S18-80419**.

BLA Code
S18-80425

Sierra® Fuel Connector

⅜"

Fits: DF25-DF140HP.
Mates with **S18-80425**.

BLA Code
S18-80404

Sierra® Fuel Connector

Female to ⅜" hose barb. Mates with **S18-8078**.

BLA Code
S18-80405

Sierra® Fuel Connector

Replaces: 65750-98505.

Fits: DT4-DT65. Mates with **S18-8071**.

BLA Code
S18-8062

Sierra® Tank Connector

¼" NPT. Mates with **S18-80418**.

BLA Code
S18-8090

CHRYSLER®/FORCE®

Sierra® Fuel Connector

Replaces: 197787-3 (female). Mates with **S18-8071**.

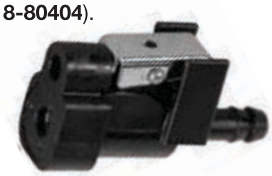
BLA Code
S18-8062

Sierra® Fuel Connector

Replaces: 65750-87J10, 6570-87J11.

Fits: DF25-DF140 (5⁄16" version of **S18-80404**).
Mates with **S18-80425**.

BLA Code
S18-80419



Sierra® Tank Connector

¼" NPT .432 O.D. (male). Mates with **S18-8062**.

BLA Code
S18-8071

Quicksilver® Threaded Hose Barb

For use with 5/16" (8 mm) I.D. hose and applications requiring a 1/4" NPT thread. Threads into our portable fuel tanks and will also work with our water separating filter bracket. A .250 inch ID brass fitting for use with gasoline fuel only. This material should not be used with diesel fuels. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q89771Q2

Quicksilver® Quick Disconnect - Engine End

For Mercury/Mariner utilising twist lock type connector (except Mercury 3.9 through 9.8HP, 1971 and older). Priced individually, sold in multiples of 3. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q22831Q3

Quicksilver® Quick Disconnect - Engine End

For Mercury/Mariner 3.9 through 9.8HP. Outboards (1971 and older) utilising twist lock type connector. Priced individually, sold in multiples of 3.Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q30635Q3

Quicksilver® Quick Disconnect - Engine End

Used with newer fuel line diameter. Fits Force 40HP and larger (1993 and Newer), Force 9.9/15/25HP. (1998) and all Mercury/Mariner outboards using clip on type disconnect at engine ends and 5/16" I.D (8 mm) fuel line. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q13563Q3

Quicksilver® Quick Disconnect - Engine End

Used with older 1/4" I.D. Hose. Fits Force 40HP and larger (1993 and newer), Force 9.9/15/25HP (1998) and all Mercury/Mariner outboards using clip on type disconnect at engine ends and 1/4" I.D. (black) fuel line. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q14213Q

Quicksilver® Quick Disconnect - Tank End

A double sealed clip-on type disconnect for the fuel tank end and fits a 5/16" (8mm) I.D. fuel line. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q13563Q7

Quicksilver® Quick Disconnect - Tank End

Bayonet style push and turn type quick disconnect for the older 6.6 gallon fuel tank. Priced individually, sold in multiples of 3. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q30185Q3

Quicksilver® Connector Kit

Contains both on-engine and mating fuel line connector. For use with 5/16" (8 mm) I.D. fuel line Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q804787Q

Quicksilver® Fuel Connector - On-Engine

For use with 5/16" (8 mm) I.D. fuel line. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q816856Q3

Quicksilver® Fuel Line Snapper Clamp

For use with our grey colour, 5/16". (8 mm) I.D. fuel line. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q41582Q7

Quicksilver® Quick Disconnect - Engine End

Engine end fits Force 5HP, and fits 9.9/15 (1997 and prior) and 25HP (3 cyl., 1997 and prior). Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
QF197787Q3

Quicksilver® Fuel Connector - Engine End

Small inlet used on older style Force and Chrysler outboards. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
QF213238Q2

Quicksilver® Fuel Line Coupler

Barbed ends. Provides for coupling Mercury .375 ID fuel line with Mercury .3125 ID fuel line. Priced individually, sold in multiples of 2.

BLA Code
Q8M0001721

Fuel Filters

Spin-on filter removes 98.8% of emulsified water and foreign particles as small as 20 microns. Filter media will not separate 2 stroke oil from fuel, making them suitable for pre-mixed fuels. Complete filter assembly includes filter head, disposable filter, two brass tails to suit 8mm hose and 2 x ⅜" NPT plugs. Brass tails to suit 10mm hose are available separately. Available in a choice of configurations to interchange with OEM components.

Features:

- Cast alloy head
- 145mm overall height
- 106mm overall width
- 106mm overall depth
- 8mm mount holes
- Two inlets ⅜" NPT
- Two outlets ⅜" NPT

BLA Code	Size	Element Included
200389	Complete filter assembly John/Evin	**200392**
200390	Complete filter assembly Merc	**200394**

Accessories:

200392	Filter only (replaces John/Evin OEM 502925)
200394	Filter only (replaces Merc 35-60494-1 & 35 807172)
138148	Brass tail to suit 10mm hose, ⅜" NPT

Delphi™ 'CAV' Diesel & Petrol Fuel Filter

An agglomerator filter which offers efficient fuel filtration via a paper filter element. Water is collected in a clear glass base and drained via a screw in plug, without having to dismantle the unit. Base and head are cast aluminium. Suitable for diesel fuel only with standard element. Use **200419** Ryco element for 2 & 4 stroke fuel.

Features:

- 10mm fastening holes
- 197mm overall height
- 107mm maximum width
- 45L/hr flow rate
- Inlet/outlet ½" x 20 UNF

HEAD CONFIGURATION
Two blanking plugs supplied.

200412

200416

BLA Code	Description
200402	Complete filter assembly

Accessories:

200412	Replacement glass bowl
200414	Replacement drain plug
200416	Replacement 'O' ring
200418	Replacement element diesel only
200419	Ryco element 2 & 4 stroke fuel

Delphi™ 'CAV' Hose Tails

Brass hose tails to suit inlet/outlet on CAV filters. ½" x 20 UNF thread. Seals on seat, not on threads.

BLA Code	Suits ID Hose mm	Suits ID Hose in
200420	6	1/4
200422	8	5/16
200424	10	3/8

Mercury® Fuel Filter - Stainless Steel Head

Spin-on filter removes 98.8% of emulsified water and foreign particles as small as 20 microns. Filter media will not separate 2 stroke oil from fuel, making them suitable for pre-mixed fuels. Brass tails to suit 8mm or 10mm fuel hose are available separately.

Features:

- Stainless steel head
- 145mm overall height
- 110mm overall width
- 106mm overall depth
- 8mm mount holes
- Two inlets ⅜" NPT
- Two outlets ⅜" NPT

BLA Code
200395

Accessories:

200394	Filter only (replaces Merc 35-60494-1 & 35 807172)
138148	Brass tail to suit 10mm hose, ⅜" NPT
S18-8109	Brass tail to suit 8mm hose, ⅜" NPT

Delphi™ 'CAV' Diesel & Petrol Sediment Filter

Watertrap or sedimenter which removes water and large particles from fuel. Glass bowl for quick visual inspection of fuel condition. Typically abrasive particles of 100 microns and water particles of up to 300 micron size can be filtered. Up to 150cc of water can be collected in the bowl and drained without dismantling. Base and head constructed of aluminium. This filter has no gauze or paper element and is suitable for petrol, including 2 stroke and diesel.

Features:

- 10mm fastening holes
- 172mm overall height
- 107mm maximum width
- 45L/hr flow rate
- Inlet/outlet ½" x 20 UNF

HEAD CONFIGURATION
Two blanking plugs supplied.

BLA Code	Description
200404	Complete filter assembly

Accessories:

200412	Replacement glass bowl
200414	Replacement drain plug
200416	Replacement 'O' ring

Ryco Petrol Filter

This Ryco petrol filter cartridge suits the CAV FAS type fuel filter **200402,** replacing the CAV 296 cartridge, converting it to suit petrol. This filter is suitable for straight petrol and pre-mixed 2 stroke fuels, where the oil is pre-mixed with the petrol.

BLA Code
200419

Fuel Filters - with Clear Bowl

Complete fuel filter and water separating assembly, includes a choice of cast alloy or cast stainless steel filter head, replaceable 10 micron filter element, clear bowl drained via a screw in plug, two brass tails to suit 8mm hose and two ⅜" NPT brass plugs. Head is configured to interchange with Mercury® OEM components. Filter element is configured to accept the **200482** clear bowl. Brass tails to suit 10mm hose are optional. Two each inlet and two outlet ports have ⅜" NPT internal threads. 230mm high x 106mm wide. 8mm mount holes.

200470

200474

BLA Code	Size	Head Type	Element Included
200470	Complete filter assembly	Alloy	**200478**
200474	Complete filter assembly	S/S	**200478**

Accessories:

200478	Filter only (short)
200482	Clear bowl only
200486	Cast alloy head only
200488	Cast stainless steel head only

Sediment Filter

Compact sediment filter with cast gunmetal top and easy to see glass bowl. Simple to drain. Suits petrol motors up to 70HP. Complete with stainless steel bulkhead mount bracket and 2 of ⅛" BSP x 8mm hose tails.

BLA Code	Hose Size mm	Height mm	Width mm	Mount Holes mm
200426	8	110	66	6 r/h

Accessories:

138132	Brass tail to suit 8mm hose, 1.8" BSP

BLA Fuel Filters - In-line Plastic

A clear vial displays any contaminants trapped in this in-line fuel filter allowing immediate inspection of fuel condition. Tapping the filter can dislodge any fine particles that may be embedded in the filter which otherwise may not be visible.

BLA Code	Hose Size mm
200434	6-8

N.B. Not for use on inboard engines.
Not for use with pre-mixed 2 stroke fuel.

Fuel Filters - Long with Clear Bowl

Complete fuel filter and water separating assembly with long filter producing a flow rate of 90 US GPH at 10 micron filtration, to meet the requirements of Yamaha® Motor Corporation for outboard engine applications. Assembly includes a choice of cast alloy or cast stainless steel filter head, replaceable long filter element, clear bowl drained via a screw in plug, two brass tails to suit 8mm hose and two ⅜" NPT brass plugs. Brass tails to suit 10mm hose are optional. Two each inlet and two outlet ports have ⅜" NPT internal threads. Head is configured to interchange with Yamaha® OEM components. Filter element is configured to accept the **200482** clear bowl. 275mm high x 106mm wide. 8mm mount holes.

200472

200476

BLA Code	Size	Head Type	Element Included
200472	Complete filter assembly	Alloy	**200480**
200476	Complete filter assembly	S/S	**200480**

Accessories:

200480	Filter only (long)
200482	Clear bowl only
200486	Cast alloy head only
200488	Cast stainless steel head only

BLA Outboard Fuel Filter

Compact, easy to install, in-line fuel filter for outboard engines. Chrome plated brass ends with a clear viewing barrel, for quick easy inspection of the element, which can be removed for cleaning. Supplied with hose tails suitable for use with 6mm (¼"), 8mm (5⁄16") or 10mm (⅜") fuel line.

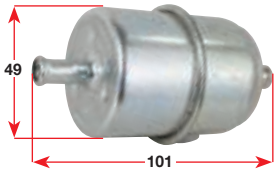
BLA Code
200430

Accessories:

200432	Refill pack of three filter elements

Sierra® Fuel Filters - In-line Metal

Disposable fuel filters with zinc plated steel casing. Supplied complete with hose clamps. Suitable as replacement units for OEM equipment.

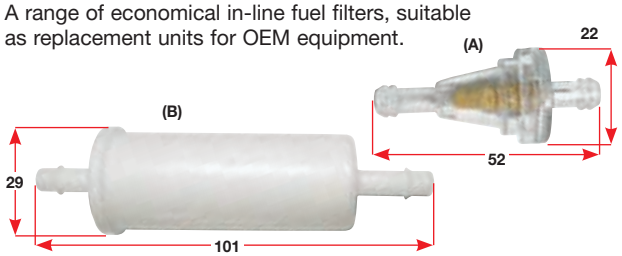


BLA Code	Hose mm	Hose in	Replaces OEM
S18-7856-1	8	5⁄16	A.C. Delco GF-61
S18-7857-1	10	⅜	A.C. Delco GF-61P

Sierra® Fuel Filters

- In-Line OEM Replacements

A range of economical in-line fuel filters, suitable as replacement units for OEM equipment.



BLA Code	Suits ID Hose mm	Suits ID Hose in	Replaces OEM
(A) **S18-7828-1**	6	1/4	General purpose (small capacity)
(B) **S18-7829**	6	1/4	Merc 35-16494, 35-816296T, 35-816296Q, 35-816296
(B) **S18-7830**	8	5/16	Merc 35-16494-1, 35-816296T1, 35-816296-1, 35-816296Q2, John/Evin 398327
(B) **S18-7831**	10	3/8	John/Evin 398319

Sierra® Fuel Filter

- In-line Plastic Suzuki®/OMC®

Replaces: OMC 5035974

Fits: 25HP (2006-07) / 90,115,140 4 stroke (2005-06)

Replaces: Suzuki 15410-87J30

Fits: DF25, DF70, DF90, DF115, DF140 (incl. 140T & 140Z) (2006 & newer)

BLA Code
S18-7953

Sierra® Universal Fuel Filter

- In-line Plastic

Suitable for inboards and outboards. Can be used with pre-mix fuels. **S18-7723** fits: ¼" and 5/16" hose. **S18-7724** fits: 3/8" and 7/16" hose.

BLA Code
S18-7723
S18-7724

Sierra® Fuel Filter

- In-line Plastic OMC®

Replaces: 433190

60° V4 and V6

BLA Code
S18-79781

Sierra® Fuel Filter

- In-line Plastic Mercury®/Mariner®/Yamaha®

Replaces: genuine Mercury® Mariner® 35-80365M Yamaha® 646-24251-02-00.

Suits: Mercury® Mariner® 9.9HP 4 stroke (1995-98), 15HP 4 stroke (1998 & up), Yamaha 6HP (1989, 1992-99), 8HP (1989-99, 2001-02), F4 (1999-02), F9.9HP (1989-95, 1997-99, 2001-02), FT 9.9HP (1988-90).

BLA Code
S18-7713

Sierra® Fuel Filter

- In-line Plastic Mercury®/Mariner®/Tohatsu®

Replaces: genuine Mercury® Mariner® 35-16248 and Tohatsu® 369022300M.

Suits: Mercury® 4/5HP 2cyl (1999 & up), 4/5/6HP 4 stroke (1999 & up), 8/9.9 4 stroke (2005 & up)

Tohatsu® 2 stroke, 5HP through 9.8HP and 4 stroke 4HP – 30HP.

BLA Code
S18-7712

Sierra® Fuel Filter

- In-line Plastic Suzuki®/Johnson®/ Evinrude®

Replaces: genuine Suzuki® 15410-87J10 and Johnson® Evinrude® 5032323.

Suits: Suzuki® DF25 through DF140, Johnson® 25HP 4 stroke (2004-05), 30HP 4 stroke (2004-07), 40/60/70 4 stroke (2002-06), 90/115/140HP 4 stroke (2003-04,2006), Evinrude® 25/30/40/50/70HP 4 stroke (2000-01).

BLA Code
S18-7716

Sierra® Fuel Filter

- In-line Plastic Mercury®/Mariner®

Replaces: genuine Mercury® Mariner® 35-877565T1

Suits: 25HP 4 stroke (1998 & up), 30HP 4 stroke (1999-01), 30HP 3 cyl 4 stroke (1999-01), 40HP 4 stroke (1998-01), 40HP 4 stroke 4 cyl (2001-02), 40HP Carb 3-cyl 4 stroke (2002 & up), 50HP stroke 4 cyl (2001-02), 60HP 4 stroke 4 cyl (2001-02), 75HP 4 stroke (2000 & up), 90HP 4 stroke (2000 & up).

BLA Code
S18-7714

Sierra® Fuel Filter

- In-line Plastic Suzuki®/Johnson®/Evinrude®

Replaces: genuine Suzuki® 15410-98500 & Johnson® Evinrude® 5032238.

Suits: Most small Suzuki® outboards, Johnson® 4/5HP (2003-07), 6HP 4 stroke (2005-07), 10/15HP 4 stroke (2002-07), 40/50/60/70HP 4 stroke (2002-06), Evinrude® 40/50HP 4 stroke (2000-01).

BLA Code
S18-7719

Sierra® Fuel Filter

- In-line 5/16" Plastic Mercury®

Replaces: genuine Mercury® 35-879885T.

Suits: 135/150/175HP 4 stroke Verado™ (S/N 1B227000 & up), 200/225 4 stroke Verado™ (S/N OT980000 & up), 250/275HP 4 stroke Verado™ (S/N OT801000 & up).

BLA Code
S18-7718

Sierra® Fuel Filter Element

- Mercury®

Replaces: 35-888289T2

Fits: 75 4 stroke (2000 & up), 90 4 stroke (2000 & up), 115 EFI 4 stroke (2001 & up)

BLA Code **S18-7936**

Sierra® Fuel Filter Element

- Suzuki®

Replaces: genuine Suzuki fuel filter assembly 15410-94400. Includes 15430-87D10 element.

Suits: Most 2 strokes.

BLA Code **S18-7735**

Sierra® Fuel Filter Element

- Mercury®

Replaces: 881540

Fits: 115 EFI (4 stroke), 75HP (4 stroke), 75HP (4 stroke) (Bodensee), 90HP (4 stroke)

BLA Code **S18-7979**

Sierra® Fuel Filter

- In-line Metal Honda®

Replaces: genuine Honda® 16900-SR3-004

Suits: BF115, BF130, AX, AY, A1: Series #14ZW50E1M.

BLA Code **S18-7720**

Sierra® Fuel Filter - Mercury®

Replaces: Mercury - 35-18458Q3

V6 EFI 1995-Earlier with sensor

BLA Code **S18-7967**

Sierra® Fuel Filter

- In-line Metal Honda®

Replaces: genuine Honda® 16010-ST5-993.

Suits: BF115, BF130, AX, AY, A1 Series #14ZW50E1M.

BLA Code **S18-7785**

Sierra® Fuel Filter - Mercury®

Replaces: Mercury - 35-18458Q4

V6 EFI 1996 & up with sensor

BLA Code **S18-7968**

Sierra® Fuel Filter

- In-line Metal Honda®

Replaces: genuine Honda® 16900-SA5-004.

Suits: BF35/45AM, BF 40/50A, AW, AX

Series #14ZV50M BF90, AT, AW, AX, AY, Series#14ZW00E1M.

BLA Code **S18-7786**

Sierra® Fuel Filter

- In-line Metal Mercruiser®

Replaces: genuine 35-864572.

Suits: All MPI & EFI engines W boost pump, 8.1L & 496cid, for ⅜" ID fuel lines.

BLA Code **S18-7721**

Sierra® Fuel Filter

- Mercury®/Yamaha®

Replaces: genuine Mercury® Marine 881540 & Yamaha® 68V-24563-00-00.

Suits: 115 EFI (4 stroke), 75HP (4 stroke), 75HP (4 stroke) (Bodensee), 90HP (4 stroke).

BLA Code **S18-7979**

Sierra® Fuel Filter

- In-line Plastic Johnson®/Evinrude®

Replaces: genuine Johnson/Evinrude 5005266.

⅜" barbs.

Suits: E-Tec™ 40HP, 50HP, 60HP, 75HP, 90HP, 115HP, 150HP, 175HP & 200DPL.

BLA Code **S18-7722**

Sierra® Fuel Filter - Yamaha®

Replaces: genuine Yamaha® 6D8-WS24A-00-00 F50-F115 after April 2006.

For: filter housing marked "6D8" only.

BLA Code **S18-79799**

Sierra® Fuel Filter - Yamaha®

Replaces: genuine Yamaha® 6P3-WS24A-00-00.

Suits: F150, F200, F225, F250, Z-VZ 150 to 300HP after April 2006.

For: filter housing marked “6P3” only.

BLA Code **S18-79809**

Sierra® Fuel Filter - Yamaha®

Replaces: 61N-24563-00-00

For: 9.9/90° SX

BLA Code **S18-7781**

Sierra® Fuel Filter - Mercury®

Replaces: genuine Mercury® Marine 35-884380T, 35-8M0020349.

Suits: All Verados, 90HP (DFI) (3 cyl), 115 DFI (3 cyl) / 200HP (DFI) / 225HP (DFI) (including 3.0L DFI).

BLA Code **S18-7981**

Sierra® Fuel Filter - Yamaha®

Replaces: 61A-24563-00-00

For: V6, 3.1L, D-T

BLA Code **S18-7782**

Sierra® Fuel Filter - Yamaha® In-Line

Replaces: 68T-24251-00-00

Fits: F6, F8 (2001 & up)

BLA Code **S18-7710**

Sierra® Fuel Filter Bowl Gasket - Yamaha®

Replaces: 6P3-24564-00-00

Fits: F/LF 150 - F300 (2006 - Current), VZ150 - VZ300 (2006 - Current), Z200 - Z300 (2006 - Current)

BLA Code **S18-7488**

Sierra® Fuel Filter- Yamaha® In-Line

Replaces: 646-24251-02-00

Fits: 6 (1989, 1992-99), 8 (1989-99, 2001-02), F4 (1999-02), F9.9 (1989-95, 1997-99, 2001-02), FT 9.9 (1988-90)

BLA Code **S18-7713**

Sierra® Fuel Filter - 10 Micron Yamaha®

Replaces: 69J-24501-10-00

Fits: F150 - F225 (2006 - current), F250 - (2005 - current)

BLA Code **S18-79905**

Sierra® Fuel Filter - Yamaha®

Replaces: 6F5-24563-00-00

For: 9.9 - 225NR

BLA Code **S18-7780**

Sierra® Fuel Filter Element - 10 Micron Yamaha

Replaces: 68F-24563-10-00

Fits: 150HP -300HP. (2004-2006) Models Z, VZ, LZ

BLA Code **S18-7955**

Sierra® VST Filter - Yamaha®

Replaces: 66K-13915-00-00

Fits: DX150 (1999-05), LX150 1999-01), PX150 (1999), SX150 (1999-04), VX150 (2000-04), LX200 (1999-01), SX200 (1999-05), V200 (1999), VX200 (2000-05), L225 (1999), LX225 (2000-03), S225 (1999), SX225 (2000-03), V225 (1999), VX225 (2000-04), L250 (1999), LX250 (2000-03), SX250 (2000-03), VX250 (2002-04)

BLA Code
S18-79900

Sierra® VST Filter - Yamaha®

Replaces: 68F-13915-00-00

Fits: HPDI 150(2000-05), V-Max HPDI 150(2000-09), V-Max HPDI 175(2001-09), HPDI 200(2000-09), HPDI 225(2003-09), HPDI 250(2003-09), HPDI 300(2004-09)

BLA Code
S18-79904

Sierra® VST Filter - Yamaha®

Replaces: 65L-13915-00-00

Fits: L225(1997-98), S225(1997-98), L250(1997-98), S250(1997-98), V200(1998), V225(1998)

BLA Code
S18-79901

Sierra® Fuel Filter

For: Racor style Mini-10 (10 microns)

BLA Code
S18-79906

Sierra® VST Filter - Yamaha®

Replaces: 63P-13915-00-00

Fits: F150 TXR(2004-09), F150 TLR(2004-09), F150 TJR(2009), LF150 TXR(2004-09), F250 TXR(2005-09), F250 TUR(2005-09), F300 TXR(2007-09), F300 TUR(2007-09), F350 TXR(2007-09), F350 TUR(2007-09)

BLA Code
S18-79902

Sierra® AquaVue™ Bowl - Clear

For: Racor style Mini-10

BLA Code
S18-7987

Sierra® VST Filter - Yamaha®

Replaces: 68V-13915-00-00

Fits: F115 (2000-09), F200 TXR(2002-09), LF200 TXR(2002-09), F225 TXR(2002-09), F225 TUR(2002-09)

BLA Code
S18-79903

Sierra® Collection Bowl - Metal

For: Racor style Mini-10

BLA Code
S18-7988

Quicksilver® Water Eliminator

Contains a drying agent commonly used to keep small, sealed containers dry. It absorbs water that has collected in the fuel tank.

How to use: Attach to the inside fuel cap with the lanyard (included). Adjust the lanyard so the Water Eliminator sits at the bottom of the fuel tank. Replace as needed.

For use in all octane grades of gasoline, including ethanol blended. Not recommended for diesel fuel. For use in all 2-cycle and 4-cycle gasoline outboard, sterndrive, inboard and jet drive marine engines. Priced individually, sold in multiples of 6. Quicksilver branded, point of sale packaged.

BLA Code
Q808887Q

Quicksilver® Fuel Filter - In-Line

In-line fuel filter used with 1/4" ID fuel line. Located under the cowling, on the outboard engine. Found in use with 1/4" hose. Mainly used with the 8/9.9/15HP 4 stroke outboard (323cc, USA-0T003862-1B727495). Priced individually, sold in multiples of 3. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q816296Q03

Quicksilver® Fuel Filter - In-Line

In-line fuel filter used with 5/16" ID fuel line. Priced individually, sold in multiples of 3. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q816296Q2

Quicksilver® Fuel Filter - In-Line

For 3/8" Fuel line.

BLA Code
Q802128A1

Quicksilver® Fuel Filter

Fits 9.9/15HP 4 stroke Outboards.

BLA Code
Q80365M

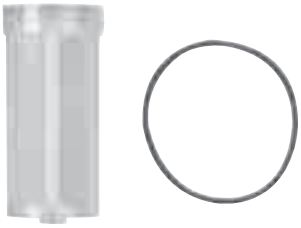
Quicksilver® Fuel Filter - In-Line

An in-line fuel filter located under cowl on outboard engines. Fits the 4/5HP 2-cycle (1999 & newer), the 4/5/6HP 4 stroke (1999 & newer), the 8/9.9HP 4 stroke (2005 & newer) and the 15/20HP 4 stroke (351cc, 2008 and newer).

BLA Code
Q16248

Quicksilver® Fuel Filter Kit

149 micron screen. Replacement fuel filter screen and viton seal for use with Mercury/Mariner outboard under-cowl fuel filter assemblies with screw-on bowl. This kit services the prior filter assembly that was all white in colour (both top and bowl). Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.



BLA Code
Q87946Q04

Quicksilver® Fuel Filter

Fits 25HP - 90HP 4 stroke carburetored outboards 1999 and newer.

BLA Code
Q877565T1

Quicksilver® Fuel Pump Filter

Used on all MerCruiser engines with Rochester 2 barrel carburetor and Carter fuel pump. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q49088Q2

Quicksilver® Fuel Filter

- In-Line

A cartridge type fuel filter located under the cowl on outboard engines.

BLA Code
Q879884T

Quicksilver® Fuel Filter

In-line, under cowl fuel filter. Used on the 30/40 EFI 4 stroke outboard, the 4 cylinder (996 cc) 40/50/60HP EFI 4 stroke outboards, the 75-115 4 stroke (1.7L, s/n 1B366823-2B094995), the 75-115 4 stroke (2.1L, s/n 2B094996 and above), the 150 EFI 4 stroke (1B905505 and above) and the 135 through 300HP Verado outboards. Quicksilver branded.

BLA Code
Q879885Q

Quicksilver® Fuel Pump Filter

Fits MCM 120/2.5L, 140/3.0L/LX, 3.7L, 3.8L & 4.3L engines. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q8M0046752

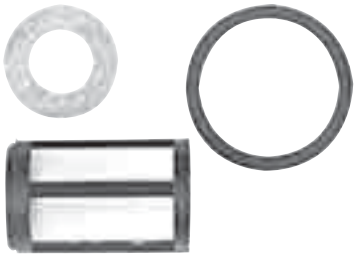
Quicksilver® Fuel Filter Element

Under cowl replacement cartridge where applicable. Fits the under cowl Verado outboard replaceable cartridge fuel filter and the newer. 1.5L & 3.0L DFI outboards that utilise a vapour separator with a top screw-in type filter. Also fits the MCM 4.5L engines.

BLA Code
Q8M0060041

Quicksilver® Carburetor Fuel Filter

For Rochester 2bbl. & 4bbl. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.



BLA Code
Q8767Q

Quicksilver® Carburetor Fuel Filter

For Rochester 2 & 4-barrel and MerCarb 2-barrel carburetors. Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q53336Q

Sierra® 10 Micron Fuel Filters - comes with Drain Bowls

Sierra® fuel water separators remove over 98.8% of emulsified water from your petrol. These 10 micron filters are over 90% efficient at removing particles as small as 10 micron. All filters are engineered to flow at 90 GPH for complete efficiency. Sierra's 10 micron filters are recommended to prevent damage to sensitive inboard, outboard fuel injection systems and 4 stroke outboard motors. All filters are supplied with Viton 'O' rings, powder coated externally and epoxy coated internally. All Sierra® fuel filters use German media filter paper.

Sierra® 10 Micron Replacement Filter Elements

BLA Code	Kit Includes
S18-7932	1 x **S18-7853-1** Aluminium Head 1 x **S18-7919** Filter 1 x **S18-7922** AquaVue™ Clear Bowl
S18-7951	1 x **S18-7853-1** Aluminium Head 1 x **S18-7919** Filter 1 x **S18-7924** Metal Collection Bowl
S18-7937	1 x **S18-7777** Stainless Steel Head 1 x **S18-7919** Filter 1 x **S18-7922** AquaVue™ Clear Bowl

S18-7951

S18-7932

Sierra® 10 Micron Replacement Filter Elements & Bowl Assemblies

BLA Code	Kit	Kit Includes
S18-7928	Spin-on replacement filter and AquaVue™ collection bowl Mercury®/Yamaha® style	1 x **S18-7922** AquaVue™ Clear Bowl 1 x **S18-7919** 10 Micron Filter Replaces Racor® B32013
S18-7929	Spin-on replacement filter and Metal collection bowl Mercury®/Yamaha® style	1 x **S18-7924** Metal Collection Bowl 1 x **S18-7919** 10 Micron Filter Replaces Racor® B32020MAM & Mercury® 35-809100
S18-7941	Spin-on replacement filter and AquaVue™ clear bowl OMC®/BRP® style	1 x **S18-7922** AquaVue™ Clear Bowl 1 x **S18-7920** 10 Micron Filter
S18-7943	Spin-on replacement filter and Metal collection bowl OMC®/BRP® style	1 x **S18-7924** Metal Collection Bowl 1 x **S18-7920** 10 Micron Filter
S18-7969	Spin-on replacement filter and metal collection bowls for Racor®/Honda® style	1 x **S18-7924** Metal Collection Bowl 1 x **S18-7948** 10 Micron Filter
S18-7994	Spin-on replacement filter and AquaVue™ clear bowl Racor®/Honda® style	1 x **S18-7922** AquaVue™ Clear Bowl 1 x **S18-7948** 10 Micron Filter

S18-7928

Sierra® Replacement Bowls

BLA Code	Description	Replaces
S18-7922	AquaVue™ Clear Bowl	Suzuki® 99105-20004-BWL
S18-7924	Metal Collection Bowl	Yamaha® MAR-10171-00-10
S18-0179	Bowl O'Ring	Racor RK 22244

S18-7922

S18-7924

S18-0179

Sierra® 10 Micron Replacement Filter Elements

BLA Code	Replaces
S18-7919	Racor® S3213 Mercury® 25-809097 Yamaha® MAR-24563-03-00
S18-7920	Racor® S3214 BRP® (OMC®) 771839
S18-7947	Racor® S3240 Suzuki® 99105-20006 Honda® 17670-ZW1-030GH
S18-7948	Racor® S3227 Honda® 17670-ZW1-0801AH
S18-7949	Racor® S3232

S18-7920

S18-7919

Sierra® 10 Micron Replacement Filters - t/s Non Drain Bowl Filters

BLA Code	Description	Replaces
S18-7944	Short Filter	Mercury® 35-807172 and 35-802893Q
S18-7945	Long Filter	Mercury® 35-802893Q, Yamaha® ABB-FUELF-1L-TR
S18-7945C	Long Filter Chrome	
S18-7946	Long Filter	BRP® (OMC®) 502905 BRP® (OMC®) thread
S18-79911	Long Filter 8.5"	Mercury® 35-8M0079962

S18-7945

S18-7946

S18-7945C

Sierra® 21 Micron Fuel Filters

Water separating fuel filters by Sierra® available in a choice of corrosion resistant cast alloy or cast stainless steel head with ¼" or ⅜" NPT inlet/outlets and short or long filter elements. Head assemblies are suitable for flow rates up to 500 LPH (125 US GPH) with ⅜" NPT ports and 420 LPH (105 US GPH) with ¼" NPT ports. Complete assembly includes filter cartridge, filter head and two brass plugs. Kits are also available on the two ¼" NPT alloy head models which includes a complete assembly and an additional replacement filter. Changeable inlet and outlet direction is accommodated by the multi port head. The head and elements are configured to interchange with Mercury® and Yamaha® OEM components. Filter elements are designed to meet OEM specifications. 21 micron filter element shaped with 70 pleats, provides high capacity 240 LPH (60 US GPH) fuel flow and fine filtration, will not separate oil from fuel and is therefore suitable for pre-mix 2 stroke fuel. Filters are not suitable for diesel fuel. The heavy wall filter canister with epoxy coating inside and powder coating outside offers superior protection against corrosion.

An extra long filter element **S18-7866** producing a flow rate of 360 LPH (90 US GPH), with 10 micron filtration is also available, to meet the requirements of Yamaha® Motor Corporation for H.P.D.I 2 stroke and 4 stroke outboard engine applications. It can be used with any of the head assemblies listed below.

A filter element designed to meet Johnson®/Evinrude® OEM specifications is also available. This filter element **S18-7846** does not fit the head brackets below and is suitable for use with Johnson®/Evinrude® OEM or equivalent heads only.

S18-7852-2

S18-7848-1

S18-7776-1

Underside of head assembly
S18-7853-1

S18-7844

S18-7846

10 Micron
S18-7866

10 Micron
S18-7965-1

BLA Code	Description	Head Type	Ports NPT	Filter No. x Type
S18-7848-1	Complete filter assembly	Alloy	¼"	1 x short
S18-7848-2	Complete filter kit	Alloy	¼"	2 x short
S18-7852-1	Complete filter assembly	Alloy	¼"	1 x long
S18-7852-2	Complete filter kit	Alloy	¼"	2 x long
S18-7965-1	Complete filter assembly (10 micron)	Alloy	¼"	1 x extra long
S18-7775-1	Complete filter assembly	Alloy	⅜"	1 x long
S18-7777-1	Complete filter assembly	S/S	¼"	1 x long
S18-7776-1	Complete filter assembly	S/S	⅜"	1 x long
S18-79912	Complete filter assembly long (10 micron)	Alloy	¼"	1 x long 8.5"

S18-8953

S18-8954

Accessories:

S18-7775	Cast alloy head only - ⅜" NPT ports
S18-7853-1	Cast alloy head only - ¼" NPT ports
S18-7776	Cast stainless steel head only ⅜" NPT ports
S18-7777	Cast Stainless steel head only ¼" NPT Ports
S18-7844	Filter only - short (replaces Mercury® 35-807172, 35-802893Q)
S18-7845	Filter only - long (replaces Mercury® 35-892893Q, 35-60494-1, 35-807172 & Yamaha® ABA FUELF-1L-TR)
S18-7846	Filter only - (replaces Johnson®/Evinrude® 502905)
S18-7865	Filter only - t/s **S18-7965-1** (10 micron)
S18-7866	Filter only - extra long (replaces Yamaha® MAR-FUELF-1L-TR) (10 micron)
S18-79911	Filter only - long 8.5" (replaces Mercury 38-8M0079962) (10 micron)
S18-4256	Brass plug ¼" NPT
S18-4264	Brass plug ⅜" NPT
S18-8055	Brass tail, ¼" NPT, 8mm hose
S18-8074	Brass tail, ¼" NPT, 10mm hose
S18-8108	Brass tail, ⅜" NPT, 10mm hose
S18-8109	Brass tail, ⅜" NPT, 8mm hose
S18-8953	Filter assembly cover, t/s Yamaha mini 10 size filter
S18-8954	Filter assembly cover, t/s Yamaha **S18-7866** size filter
S18-8955	Filter assembly cover, t/s **S18-7844, S18-7845, S18-7946, S18-7944, S187945, S18-7946** size filter
S18-9884	Bowl Wrench (Racor RK22628)

S18-9884

S18-8108

S18-8055

Quicksilver® Water Separating Fuel Filter Kit

For gasoline use only. Degree of filtration is 25 micron, minimum. Used in both outboard and MerCruiser applications (except 1992 MerCruiser 4.3 L Gen II engines equipped with an in-line fuel filter). Quicksilver branded, box point of sale packaged.

BLA Code
Q802893Q4

Quicksilver® Water Separating Fuel Filter

25 micron. Used in both outboard and MerCruiser applications (except 1992 MerCruiser 4.3 L Gen II engines equipped with an in-line fuel filter & 1.6L Vazer engines). Priced individually, sold in multiples of 6. Quicksilver branded, box point of sale packaged.

BLA Code
Q802893Q01

Quicksilver® Water Separating Fuel Filter

Water separating fuel filter with the black screw-in sensor. Located under the cowl on all Mercury/Mariner V-6 EFI outboard engines, 1995 and earlier. Quicksilver branded, box point of sale packaged.

BLA Code
Q18458Q3

Quicksilver® Water Separating Fuel Filter

Water separating fuel filter with the blue screw-in sensor. Located under the cowl on all Mercury/Mariner V-6 EFI/DFI outboard engines, 1996 and newer. Quicksilver branded, box point of sale packaged.

BLA Code
Q18458Q4

Sierra® Inboard Sterndrive Oil Filters

Mercruiser®

BLA Code	Model	Cy.	CID/Litre	Year	Replaces
S18-7824-1	Vazer	4	1.6L	2007 - 2010	35-866340K01
S18-7824-1	Vazer	4	1.6L	2011 - Current	35-866340K01
-----	60 (Renault)	4	68 / 1.1L	1965 - 1968	38463
-----	80 (Renault)	4	80 / 1.3L	1966 - 1969	-----
-----	90 (Renault)	4	96 / 1.6L	1970 - 1972	-----
S18-7824-1	110	4	153 / 2.5L	1963 - 1966	35-866340K01
S18-7824-1	120	4	153 / 2.5L	1964 - 1986	35-866340K01
S18-7824-1	140	4	181 / 3.0L	1968 - 1986	35-866340K01
S18-7824-1	165	4	224 / 3.7L	1987	35-866340K01
S18-7824-1	170	4	224 / 3.7L	1985 - 1986	35-866340K01
S18-7824-1	180	4	224 / 3.7L	1987	35-866340K01
S18-7824-1	190	4	224 / 3.7L	1985 - 1986	35-866340K01
S18-7824-1	2.5L	4	153 / 2.5L	1987 - 1989	35-866340K01
S18-7824-1	3.0L / LX	4	181 / 3.0L	1987 - 2010	35-866340K01
S18-7824-1	3.0L MPI EC (Catalysed)	4	182 / 3.0L	2011 - Current	35-866340K01
S18-7824-1	3.7L	4	224 / 3.7L	1988 - 1989	35-866340K01
S18-7824-1	3.7LX	4	224 / 3.7L	1983 - 1989	35-866340K01
S18-7824-1	470	4	224 / 3.7L	1976 - 1984	35-866340K01
S18-7824-1	485	4	224 / 3.7L	1980 - 1982	35-866340K01
S18-7824-1	488	4	224 / 3.7L	1983 - 1984	35-866340K01
S18-7876	140	6 IL	194 / 3.2L	1963	35-99894
S18-7876	150	6 IL	230 / 3.8L	1964 - 1966	35-99894
S18-7876	160	6 IL	250 / 4.1L	1967 - 1969	35-99894
S18-7876	165	6 IL	250 / 4.1L	1970 - 1981	35-99894
S18-7879-1*	175	V6	262 / 4.3L	1987	35-883702
S18-7879-1*	185	V6	262 / 4.3L	1985 - 1987	35-883702
S18-7876	200	6 IL	292 / 4.8L	1969	35-99894
S18-7879-1*	205	V6	262 / 4.3L	1985 - 1987	35-883702
S18-7879-1*	262 Mag EFI	V6	263 / 4.3L	1996 - 1997	35-883702
S18-7879-1*	4.3L / LX / LH / LXH	V6	264 / 4.3L	1988 - 2001	35-883702
S18-7879-1*	4.3L	V6	265 / 4.3L	2002 - 2010	35-883702
S18-7879-1*	4.3L EFI	V6	266 / 4.3L	1998 - 2001	35-883702
S18-7879-1*	4.3L MPI	V6	267 / 4.3L	2002 - 2010	35-883702
S18-7824-1	4.3L MPI (Catalysed)	V6	268 / 4.3L	2011 - Current	35-866340K01
***NOTE: V6 engines equipped with the oil filter relocation option will use filter S18-7824-1.**					
S18-7824-1	190	V8	283 / 4.6L	1963 - 1964	35-866340K01
S18-7876	198	V8	305 / 5.0L	1977 - 1988	35-99894
S18-7824-1	200	V8	305 / 5.0L	1985 - 1987	35-866340K01
S18-7875	215 (Ford)	V8	302 / 5.0L	1970 - 1972	35-802886
S18-7875	225 (Ford)	V8	302 / 5.0L	1973 - 1974	35-802886
S18-7824-1	225	V8	327 / 5.4L	1963 - 1966	35-866340K01
S18-7824-1	225	V8	327 / 5.4L	1967 - 1969	35-866340K01
S18-7824-1	228	V8	305 / 5.0L	1977 - 1978	35-866340K01
S18-7824-1	230	V8	305 / 5.0L	1985 - 1987	35-866340K01
S18-7875	233 (Ford)	V8	351 / 5.8L	1975 - 1977	35-802886
S18-7875	233 (Ford) Inboard	V8	351 / 5.8L	1973 - 1976	35-802886
S18-7876	250	V8	327 / 5.4L	1969	35-99894
S18-7876	250	V8	327 / 5.4L	1968	35-99894
S18-7876	250	V8	350 / 5.7L	1975 - 1977	35-99894
S18-7876	255	V8	350 / 5.7L	1975 - 1977	35-99894
S18-7875	255 (Ford)	V8	351 / 5.8L	1973 - 1974	35-802886
S18-7875	255 (Ford) Inboard	V8	351 / 5.8L	1973 - 1976	35-802886
S18-7824-1	260	V8	350 / 5.7L	1975 - 1987	35-866340K01
S18-7876	270	V8	350 / 5.7L	1969 - 1972	35-99894
S18-7876	280 TRS	V8	350 / 5.7L	1975 - 1976	35-99894
S18-7876	300 Tempest	V8	350 / 5.7L	1985 - 1986	35-99894
S18-7824-1	320 EFI	V8	350 / 5.7L	1987 - 1989	35-866340K01
S18-7876	325	V8	427 / 7.0L	1969 - 1972	35-99894
S18-7824-1	325 Inboard	V8	427 / 7.0L	1968 - 1974	35-866340K01
S18-7876	330	V8	454 / 7.4L	1977 - 1981	35-99894
S18-7824-1	330	V8	454 / 7.4L	1982 - 1987	35-866340K01
S18-7824-1	350 Mag.	V8	350 / 5.7L	1986 - 1997	35-866340K01
S18-7824-1	350 Mag. EFI	V8	350 / 5.7L	1996 - 1997	35-866340K01
S18-7824-1	350 Mag. MPI	V8	350 / 5.7L	1996 - 2001	35-866340K01
S18-7824-1	350 Mag. MPI	V8	350 / 5.7L	2002 - 2010	35-866340K01
S18-7824-1	350 Mag. MPI (Catalysed)	V8	350 / 5.7L	2011 - Current	35-866340K01
S18-7824-1	370 TRS	V8	454 / 7.4L	1978 -1987	35-866340K01
S18-7824-1	377 Scorpion	V8	377 / 6.2L	1997 - 2010	35-866340K01
S18-7876	390	V8	482 / 7.9L	1969 - 1970	35-99894
S18-7876	390 Inboard	V8	482 / 7.9L	1969 - 1970	35-99894
S18-7824-1	400 TRS	V8	454 / 7.4L	1978 - 1987	35-866340K01
S18-7824-1	420	V8	454 / 7.4L	1987 - 1989	35-866340K01
S18-7824-1	425	V8	454 / 7.4L	1990 - 1993	35-866340K01

S18-7824-1

S18-7875

S18-7876

All Sierra® oil filters have Anti-Drain-Back Valve. Valve eliminates dry starts, prevents oil from draining back into crankcase during engine shut down.

Sierra® Inboard Sterndrive Oil Filters

Mercruiser® continued

BLA Code	Model	Cy.	CID/Litre	Year	Replaces
S18-7876	440 TRS Cyclone	V8	454 / 7.4L	1983 - 1986	35-99894
S18-7876	450	V8	454 / 7.4L	1995 - 1996	35-99894
S18-7824-1	454 Mag. Alpha	V8	454 / 7.4L	1986 - 1988	35-866340K01
S18-7824-1	454 Mag.	V8	454 / 7.4L	1989 - 1991	35-866340K01
S18-7824-1	454 Mag.	V8	454 / 7.4L	1992 - 1997	35-866340K01
S18-7824-1	454 Mag. EFI	V8	454 / 7.4L	1994 - 1996	35-866340K01
S18-7824-1	454 Mag. MPI	V8	454 / 7.4L	1996 - 2001	35-866340K01
S18-7876	460 TRS	V8	482 / 7.9L	1983 - 1986	35-99894
S18-7824-1	465	V8	502 / 8.2L	1990 - 1994	35-866340K01
S18-7824-1	496 Mag.	V8	496 / 8.1L	2001 - 2010	35-866340K01
S18-7824-1	496 Mag. HO	V8	496 / 8.1L	2001 - 2010	35-866340K01
S18-7824-1	496 Mag. (Catalyzed)	V8	496 / 8.1L	2011 - Current	35-866340K01
S18-7824-1	496 Mag. HO (Catalyzed)	V8	496 / 8.1L	2011 - Current	35-866340K01
S18-7824-1	5.0L	V8	305 / 5.0L	1988 - 1995	35-866340K01
S18-7824-1	5.0L	V8	305 / 5.0L	1998 - 2002	35-866340K01
S18-7824-1	5.0L	V8	305 / 5.0L	2003 -2010	35-866340K01
S18-7824-1	5.0LX	V8	305 / 5.0L	1988 - 1995	35-866340K01
S18-7824-1	5.0 EFI	V8	305 / 5.0L	1998 - 2001	35-866340K01
S18-7824-1	5.0 MPI	V8	305 / 5.0L	2002 - 2010	35-866340K01
S18-7824-1	5.0 MPI (Catalyzed)	V8	305 / 5.0L	2011 - Current	35-866340K01
S18-7824-1	5.7L	V8	350 / 5.7L	1978 - 2002	35-866340K01
S18-7824-1	5.7L	V8	350 / 5.7L	2003 - 2010	35-866340K01
S18-7824-1	5.7LX	V8	350 / 5.7L	1996 - 1997	35-866340K01
S18-7824-1	5.7 EFI	V8	350 / 5.7L	1995 - 2001	35-866340K01
S18-7824-1	500	V8	502 / 8.2L	1994 - 1999	35-866340K01
S18-7824-1	500 EFI	V8	502 / 8.2L	1999 - 2005	35-866340K01
S18-7824-1	502 Mag.	V8	502 / 8.2L	1990 - 1993	35-866340K01
S18-7824-1	502 Mag. EFI	V8	502 / 8.2L	1993 - 1995	35-866340K01
S18-7824-1	502 Mag. MPI	V8	502 / 8.2L	1996 - 2001	35-866340K01
S18-7824-1	6.2 MPI (up to 0M299999)	V8	377 / 6.2L	2000 - 2002	35-866340K01
S18-7824-1	6.2MPI (0M300000 & up)	V8	377 / 6.2L	2002 - 2010	35-866340K01
S18-7824-1	6.2 Black Scorpion (0M391599 & up)	V8	377 / 6.2L	2001 - 2003	35-866340K01
S18-7824-1	6.2 Black Scorpion (0M391599 & up)	V8	377 / 6.2L	2003 - 2010	35-866340K01
S18-7824-1	7.4L	V8	454 / 7.4L	1988 - 1991	35-866340K01
S18-7824-1	7.4L with Borg Warner	V8	454 / 7.4L	1981 - 1992	35-866340K01
S18-7824-1	7.4L with Hurth	V8	454 / 7.4L	1988 - 1992	35-866340K01
S18-7824-1	7.4L	V8	454 / 7.4L	1992 - 1997	35-866340K01
S18-7824-1	7.4LX TBI	V8	454 / 7.4L	1996 - 1997	35-866340K01
S18-7824-1	7.4LX MPI	V8	454 / 7.4L	1996 - 1997	35-866340K01
S18-7824-1	8.1L	V8	496 / 8.1L	2001 - 2010	35-866340K01
S18-7824-1	8.1L (Catalyzed0	V8	496 / 8.1L	2011 - Current	35-866340K01
S18-7824-1	8.1L HO	V8	496 / 8.1L	2001 - 2010	35-866340K01
S18-7824-1	8.1L HO (Catalyzed)	V8	496 / 8.1L	2011 - Current	35-866340K01
S18-7824-1	8.2L	V8	502 / 8.2L	1992 - 1996	35-866340K01
S18-7824-1	8.2L MPI	V8	502 / 8.2L	1996 - 2001	35-866340K01
S18-7875	888 (Ford)	V8	302 / 5.0L	1971 - 1977	35-802886
S18-7876	898	V8	305 / 5.0L	1977 - 1984	35-99894

S18-7824C

S18-7871

All Sierra® oil filters have Anti-Drain-Back Valve. Valve eliminates dry starts, prevents oil from draining back into crankcase during engine shut down.

Sierra® Inboard Sterndrive Oil Filters

Volvo-Penta® (Gasoline)

BLA Code	Model	Cy.	Year	Replaces
S18-7878-1	230 A/B	4	1989 - 1993	3517857
S18-7878-1	250 A/B	4	1989 - 1993	3517857
S18-7878-1	251A	4	1989 - 1992	3517857
S18-7824	3.0L	4	1993 - Current	835440
S18-7878-1	AQ100	4	1961 - 1963	3517857
S18-7878-1	AQ110	4	1963 - 1966	3517857
S18-7878-1	AQ115 A/B	4	1969 - 1975	3517857
S18-7878-1	AQ120 A/B	4	1966 - 1980	3517857
S18-7878-1	AQ125 A/B	4	1981 - 1985	3517857
S18-7878-1	AQ130 A/B/C/D	4	1968 - 1977	3517857
S18-7878-1	AQ131 A/B/C/D	4	1985 - 1989	3517857
S18-7878-1	AQ140A	4	1975 - 1979	3517857
S18-7878-1	AQ145 A/B	4	1979 - 1985	3517857
S18-7878-1	AQ151 A/B/C	4	1985 - 1989	3517857
S18-7878-1	AQ170 A/B/C	4	1969 - 1980	3517857
S18-7878-1	AQ171 A/C	4	1986 - 1989	3517857
S18-7878-1	AQ60F	4	1962 - 1968	3517857
S18-7878-1	AQ90	4	1962 - 1964	3517857
S18-7878-1	AQ95 /A	4	1964 - 1966	3517857
S18-7878-1	BB100	4	1963 - 1969	3517857
S18-7878-1	BB115 A/B/C	4	1969 - 1977	3517857
S18-7878-1	BB140A	4	1975 - 1979	3517857
S18-7878-1	BB145A	4	1979 - 1985	3517857
S18-7878-1	BB165A	4	1965 - 1969	3517857
S18-7878-1	BB170 A/B/C	4	1969 - 1978	3517857
S18-7878-1	BB30	4	1963 - 1969	3517857
S18-7878-1	MB10A	4	1971 - 1977	3517857
S18-7878-1	MB20 A/B/C	4	1969 - 1980	3517857
S18-7879-1	4.3L	V6	1993 - 2006	841750
S18-8003	4.3L	V6	2007 - Current	8692305
S18-7879-1	430 A/B	V6	1990 - 1992	841750
S18-7879-1	431 A/B	V6	1989 - 1992	841750
S18-7879-1	432A/B	V6	1992 - 1998	841750
S18-7879-1	434A/B	V6	1992 - 1997	841750
S18-7879-1	AQ175A	V6	1981 - 1985	841750
S18-7879-1	AQ205A	V6	1988 - 1989	841750
S18-7875	5.0L (Ford)	V8	1993 - 1999	835779
S18-7824	5.0L (GM)	V8	1997 - 2006	835440
S18-8003	5.0L (GM)	V8	2007 - Current	8692305
S18-7824	5.7L	V8	1993 - 2006	835440
S18-8003	5.7L	V8	2007 - Current	8692305
S18-7875	5.8L	V8	1993 - 1996	835779
S18-7824	500 A/B	V8	1989 - 1993	835440
S18-7824	501 A/B	V8	1989 - 1993	835440
S18-7824	570 A/MS4A	V8	1989 - 1993	835440
S18-7824	571A	V8	1989 - 1992	835440
S18-7824	572A	V8	1991 - 1993	835440
S18-7876	7.4L	V8	1993 - 2000	3850559
S18-7876	740 A/B	V8	1992 - 1993	3850559
S18-7824	8.1L	V8	1999 - 2006	835440
S18-8003	8.1L	V8	2007 - Current	8692305
S18-7876	8.2L	V8	1993 - 2000	3850559
S18-7875	AQ190A	V8	1976 - 1977	835779
S18-7824	AQ211A	V8	1986 - 1989	835440
S18-7824	AQ225 B/C/D/E/F	V8	1973 - 1976	835440
S18-7824	AQ231A	V8	1986 - 1989	835440
S18-7824	AQ231B	V8	1987 - 1989	835440
S18-7875	AQ240A	V8	1976 - 1977	835779
S18-7824	AQ255 A/B	V8	1977 - 1978	835440
S18-7824	AQ260 A/B	V8	1979 - 1986	835440
S18-7824	AQ271 A/B/C/D	V8	1986 - 1989	835440
S18-7824	AQ280A	V8	1978 - 1979	835440
S18-7824	AQ290A	V8	1979 - 1985	835440
S18-7824	AQ311 A/B	V8	1986 - 1987	835440
S18-7824	BB225 A/B/C	V8	1973 - 1977	835440
S18-7824	BB231A	V8	1987	835440
S18-7824	BB260 A/B/C	V8	1978 - 1987	835440
S18-7824	BB261A	V8	1988 - 1989	835440

Sierra® Inboard Sterndrive Oil Filters

Indmar® (Gasoline)

BLA Code	Model	Year	Replaces
S18-7875	200, 225, 250, 275 (SP), 300 (SP) , 350-2, 350-4,	1993 & Older	
S18-7824-1 (Short) 18-7876 (Long)	350(SP), 454-2, 454-4, 400 (SP)		
S18-7824-1	454 Carb	2003 - 2006	501001
S18-7824-1	5.7 HO	2007 - 2009	501001
S18-7824-1	5.7 Vortec	2007 - 2012	501001
S18-7824-1	5.7L MPFI	2007 - 2012	501001
S18-7824-1	502 Carb	2003 - 2006	501001
S18-7824-1	6.0 PFI	2003 - 2006	501001
S18-7824-1	8.1L Vortec (Remote Oil Filter)	2007 - 2009	501001
S18-7824-1	Assault 310, 325, 340, 385	2003 - 2007	501001
S18-7824-1	Malibu 350 Vortec Carbureted	2003 - 2005	501001
S18-7824-1	Malibu Anniversary Edition LS6	2007	501001
S18-7824-1	Malibu Hammerhead	2003 - 2007	501001
S18-7824-1	Malibu LC2	2003 - 2006	501001
S18-7824-1	Malibu LS1	2003 - 2006	501001
S18-7824-1	Malibu Monsoon	2003 - 2007	501001
S18-7824-1	MasterCraft 5.7L LCR	2007 - 2009	501001
S18-7824-1	MasterCraft 6.0L (LY5, LY6)	2007 - 2009	501001
S18-7824-1	MasterCraft LQ9	2003 - 2006	501001
S18-7824-1	MasterCraft MCX	2003 - 2007	501001
S18-7824-1	MasterCraft RTP-1	2003 - 2007	501001

PCM Pleasurecraft

BLA Code	Model	Year	Replaces
S18-7875	200		R077001
S18-7875	220		R077001
S18-7875	8200		R077001
S18-7875	8240		R077001
S18-7824	230		R077002
S18-7824	280		R077002
S18-7824	300		R077002
S18-7824	350		R077002
S18-7875	5.0L MPI (Remote Oil Filter)	2007 & Older	R077001
S18-7875	5.7L MPI (Remote Oil Filter)	2007 & Older	R077001
S18-7875	6.0L MPI (Remote Oil Filter)	2007 & Older	R077001
S18-7875	5.0L MPI (Serial 473065 & UP) (Remote Oil Filter)	2007 - 2009	R077001
S18-7875	EX 343 (Serial 473065 & UP) (Remote Oil Filter)	2007 - 2012	R077001
S18-7875	ZR6 390 (Serial 470365 & UP) (Remote Oil Filter)	2007	R077001
S18-7875	5.0L Pro Sport Catanium™ CES (Remote Oil Filter)	2008 - 2010	R077001
S18-7875	5.7L EX343 Catanium™ CES (Remote Oil Filter)	2008 - 2012	R077001
S18-7875	6.0L ZR-409 Catanium™ CES (Remote Oil Filter)	2009 - 2012	R077001
S18-7875	6.0L MPI - ZR409 (Remote Oil Filter)	2009 - 2012	R077001
S18-7875	HO303 MPI	2011 - 2012	R077001
S18-7875	HO303 Catanium™ CES	2011 - 2012	R077001
S18-7875	ZR450 Catanium™ CES	2011 - 2012	R077001
S18-7875	ZR550 6.2L MPI	2011 - 2012	R077001

Sierra® Outboard Oil Filters

Yamaha®

BLA Code	Model	Year	Replaces
-----	F2.5	2003 - 2011	
-----	F4	1999 - 2011	
-----	F6, F/T8	2001 - 2011	
S18-7901	T9.9 (Model 6G8)	1991 - 04/2005	6G8-13440-00-00
S18-7901	F9.9 (Model 6G8)	1990 - 04/2005	6G8-13440-00-00
S18-7911-1	T9.9 (Model 66R)	2005 - 04/2006	5GH-13440-00-00
S18-7911-1	F9.9 (Model 66R)	2005 - 04/2006	5GH-13440-00-00
S18-7902	F15	1998 - 1999	3FV-13440-10-00
S18-7911-1	F15	2000 - 2006	5GH-13440-00-00
S18-8700	F15C	2007 - 2012	5GH-13440-20-00
S18-8700	F20	2007 - 2012	5GH-13440-20-00
S18-7902	F25	1998 - 1999	3FV-13440-10-00
S18-7911-1	F25 / T25	2000 - 04/2006	5GH-13440-00-00
S18-8700	F25	2009 - Current	5GH-13440-20-00
S18-7911-1	F30	2001 - 2006	5GH-13440-00-00
S18-7902	F40	1999 - 2000	3FV-13440-10-00
S18-7911-1	F40 / F40B (International)	2001 - 2008	5GH-13440-00-00
S18-8700	F40A	2001 - Current	5GH-13440-20-00
S18-7902	T50	1996 - 1999	3FV-13440-10-00
S18-7911-1	T50	2000 - 2004	5GH-13440-00-00
S18-8700	T50	2005 - Current	5GH-13440-20-00
S18-7902	F50	1995 - 1999	3FV-13440-10-00
S18-7911-1	F50	1999 - 2004	5GH-13440-00-00
S18-8700	F50	2005 - Current	5GH-13440-20-00
S18-7911-1	T60	1999 - 2004	5GH-13440-00-00
S18-8700	T60	2005 - Current	5GH-13440-20-00
S18-7911-1	F60	1999 - 2004	5GH-13440-00-00
S18-8700	F60	2005 - Current	5GH-13440-20-00
S18-8700	F70	All Years	5GH-13440-20-00
S18-7911-1	F75	All Years	5GH-13440-00-00
S18-7902	F80	1999	3FV-13440-10-00
S18-7911-1	F80	2000 - Current	5GH-13440-00-00
S18-7911-1	F90	All Years	5GH-13440-00-00
S18-7902	F100	1999	3FV-13440-10-00
S18-7911-1	F100	2000 - Current	5GH-13440-00-00
S18-7911-1	F115	All Years	5GH-13440-00-00
S18-7906-1	F150	2004 - Current	69J-13440-01-00
S18-7906-1	F200 (3.3L)	All Years	69J-13440-01-00
S18-7954	F200 (4.2L SHO)	2009 - Current	N26-13440-00-00
S18-7906-1	F225 (3.3L)	All Years	69J-13440-01-00
S18-7954	F225 (4.2L)	2009 - Current	N26-13440-00-00
S18-7906-1	F250 (3.3L)	All Years	69J-13440-01-00
S18-7954	F250 (4.2L)	2009 - Current	N26-13440-00-00
S18-7954	F300 (V8)	2007 - Current	N26-13440-00-00
S18-7954	F350 (V8)	2007 - Current	N26-13440-00-00

S18-7901

S18-7906-1

S18-7903

Evinrude® / Johnson® (Bombardier)

BLA Code	Model	Year	Replaces
S18-7916	9.9HP	1995 -2001	434839
S18-7903	9.9HP	2002-2007	5033102; 763364
S18-7916	15HP	1995-2001	434839
S18-7903	15HP	2002-2007	5033102; 763364
S18-7915-1	25HP	2000-2001	5031411; 778885
S18-7915-1	25HP	2004-2007	5031411; 778885
S18-7915-1	30HP	2000-2001	5031411; 778885
S18-7915-1	30HP	2004-2007	5031411; 778885
S18-7915-1	40HP	1999-2006	5031411; 778885
S18-7915-1	50HP	1999-2006	5031411; 778885
S18-7915-1	60HP	2002-2006	5031411; 778885
S18-7916	70HP	1998-2000	434839
S18-7915-1	70HP	2001-2006	5031411; 778885
S18-7896	90HP	2003-2006	5033539; 778886
S18-7896	115HP	2003-2006	5033539; 778886
S18-7897	140HP	2003-2006	5033919; 778887
S18-7895	200HP	2004-2006	5035703; 778888
S18-7895	225HP	2004-2006	5035703; 778888

Suzuki®

BLA Code	Model	Year	Replaces
S18-7903	DF9.9-DF15 (9.9HP serial 110001 and below)	1996 - 2010	16510-05240 16510-45H10
S18-7915-1	DF25	2000 - 2006	16510-87J00
S18-7915-1	DF25 V-Twin	2006 - 2010	16510-87J00
S18-7915-1	DF30	2000 - 2007	16510-87J00
S18-7915-1	DF40-DF50	1999 - 2010	16510-87J00
S18-7915-1	DF60-DF70	1998 - 2009	16510-87J00
S18-7915-1	DF60A	2010	16510-87J00
S18-7896	DF70A	2009 - 2010	16510-61A20-MHL
S18-7896	DF80A	2009 - 2010	16510-61A20-MHL
S18-7896	DF90A	2009 - 2010	16510-61A20-MHL
S18-7896	DF90	2001 - 2008	16510-61A20-MHL
S18-7896	DF115	2001 - 2010	16510-61A20-MHL
S18-7897	DF140	2002 - 2010	16510-82703
S18-7905	DF150-DF175	2006 - 2010	16510-96J00
S18-7905	DF200 / DF225 / DF250	2004 - 2010	16510-96J00
S18-7905	DF300	2007 - 2010	16510-96J00

Sierra® Outboard Oil Filters

Honda®

BLA Code	Model	Year	Replaces
-----	BF2A	All	-----
-----	BF2D	All	-----
-----	BF5	All	-----
-----	BF75 (7.5HP)	All	-----
S18-7913	BF8 / BFP8	2001 - Current	15400-PFB-014 15400-PFB-004
S18-7913	BF9.9 / BFP9.9	2001 - Current	15400-PFB-014 15400-PFB-004
-----	BF100 (10HP)		-----
S18-7913	BF15 / BFP15	2003 - Current	15400-PFB-014 15400-PFB-004
S18-7913	BF20	2003 - Current	15400-PFB-014 15400-PFB-004
S18-7913	BF25	1998 & Earlier	15400-PFB-014 15400-PFB-004 15400-PM3-004 15400-PJ7-015
S18-7911-1	BF25 (Up to serial number 1003206)	1999 - 2005	15400-PFB-007
S18-7913	BF25 (Starting serial number 1003207)	2005 - Current	15400-PFB-014
S18-7913	BF30	1998 & Earlier	15400-PFB-014 15400-PFB-004 15400-PM3-004 15400-PJ7-015
S18-7911-1	BF30 (Up to serial number 1005016)	1999 - 2005	15400-PFB-007
S18-7913	BF30 (Starting serial number 1005017)	2005 - Current	15400-PFB-014
S18-7913	BF35	1997	15400-PFB-014 15400-PFB-004 15400-PM3-004 15400-PJ7-015
S18-7913	BF40	1998 & Earlier	15400-PFB-014 15400-PFB-004
S18-7911-1	BF40 (Up to serial number 3007642)	1999 - 2005	15400-PFB-007
S18-7913	BF40 (Strarting serial number 3007643)	2005 - Current	15400-PFB-014
S18-7913	BF45	1997	15400-PFB-014 15400-PFB-004 15400-PM3-004 15400-PJ7-015
S18-7913	BF50	1998 & Earlier	15400-PFB-014 15400-PFB-004 15400-PM3-004 15400-PJ7-015
S18-7911-1	BF50 (Up to serial number 3014456)	1999 - 2005	15400-PFB-007
S18-7913	BF50 (Starting serial number 301457)	2005 - Current	15400-PFB-014
S18-7913	BF60 / BFP60	All	15400-PFB-014 15400-PFB-004
S18-7909	BF75	1997 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF90	1997 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF115	1999 - 2009	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF115	2010 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF130	1999 - 2004	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF135	2004 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF150	2004 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF200	2002 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004
S18-7909	BF225	2002 - Current	15400-PLM-A01PE 15400-P0H-305PE 15400-ZJ1-004

S18-7909

S18-7911-1

S18-7913

Sierra® Outboard Oil Filters

Mercury®

BLA Code	Model	Year	Replaces
-----	2.5HP / 3.5HP	2006 - 2011	
-----	4HP / 5HP / 6HP	1999 - 2011	
S18-7901	8HP (232cc)	1995-2000	825467T1, A1
S18-7913	8HP (323cc)	2001-2004	35-822626Q1, Q3, K03
-----	8HP (209cc)	2005-2011	35-895152, 35-895152002
S18-7901	9.9HP (232cc)	1995-1998	825467T1, A1
S18-7913	9.9HP (323cc)	1999-2004	35-822626Q1, Q3, K03
-----	9.9HP (209cc)	2005-2011	35-895152, 35-895152002
S18-7913	15HP (323cc)	1998-2008	35-822626Q1, Q3, K03
S18-7913	15HP (351cc)	2008-2011	35-822626Q1, Q3, K03
S18-7913	20HP (351cc)	2008-2011	35-822626Q1, Q3, K03
S18-7914	25HP (0T800999 and lower)	1998-2006	35-822626Q2, Q04, K04
S18-7913	25HP (0T801000 and up)	2006-2011	35-822626Q1, Q3, K03
S18-7914	30HP (0T800999 and lower)	1999-2006	35-822626Q2, Q04, K04
S18-7913	30HP (0T801000 and up)	2006-2011	35-822626Q1, Q3, K03
S18-7914	40HP (3 cyl)	1999-2011	35-822626Q2, Q04, K04
S18-7914	40HP (4 cyl)	2001-2011	35-822626Q2, Q04, K04
S18-7914	50HP (996cc)	2001-2011	35-822626Q2, Q04, K04
S18-7914	50HP (935cc)	1995-2000	35-822626Q2, Q04, K04
S18-7914	60HP	2001-2011	35-822626Q2, Q04, K04
S18-7914	75HP Carbureted	2000-2005	35-822626Q2, Q04, K04
S18-7914	75HP EFI (1B366822 & Below)	1999-2006	35-822626Q2, Q04, K04
S18-7758	75HP EFI (1B366822 & Above)	2006-2011	35-877761K01
S18-7914	80HP	2006-UP	35-822626Q2, Q04, K04
S18-7914	90HP Carbureted	2000-2005	35-822626Q2, Q04, K04
S18-7914	90HP EFI (1B366822 & Below)	1999-2006	35-822626Q2, Q04, K04
S18-7758	90HP EFI (1B366822 & Above)	2006-2011	35-877761K01
S18-7914	115HP EFI (1B366822 & Below)	2001-2006	35-822626Q2, Q04, K04
S18-7758	115HP EFI (1B366822 & Above)	2006-2011	35-877761K01
S18-7921	135 Verado L4	2006-2011	35-877767K01
S18-7921	150 Verado L4	2006-2011	35-877767K01
S18-7921	175 Verado L4	2006-2011	35-877767K01
S18-7921	200 Verado L4	2007-2011	35-877767K01
S18-7918	200 Verado L6	2005-2011	35-877769K01
S18-7906-1	225HP EFI	2003-2006	35-822626T7, Q15
S18-7918	225 Verado L6	2005-2011	35-877769K01
S18-7918	250 Verado L6	2005-2011	35-877769K01
S18-7918	275 Verado L6	2005-2011	35-877769K01
S18-7918	300 Verado L6	2007-2011	35-877769K01

Nissan® / Tohatsu®

BLA Code	Model	Year	Replaces
-----	F2	2006	-----
-----	F2.5	2006 - Current	-----
-----	F3.5	2006 - Current	-----
-----	F4	1999 - Current	3H6-07413-0
-----	F5	1998 - Current	3H6-07413-0
-----	F6	2002 - Current	3H6-07413-0
-----	F8	2003 - Current	3V1-07410-1
-----	F9.8	2003 - Current	3V1-07410-1
S18-7911-1	F9.9	2000 - 2008	3R007-6150M 3RO-07615-0
S18-7911-1	F15	2000 - Current	3R007-6150M 3RO-07615-0
S18-7911-1	F18	2001 - 2006	3R007-6150M 3RO-07615-0
S18-7911-1	F20	2008 - Current	3R007-6150M 3RO-07615-0
S18-7911-1	F25	2002 - Current	3R007-6150M 3RO-07615-0
S18-7911-1	F30	2002 - Current	3R007-6150M 3RO-07615-0

S18-7911-1

S18-7901

S18-7921

S18-7758

S18-7906-1

All Sierra® Outboard oil filters feature Anti-Drain-Back Valve. Valve eliminates dry starts, prevents oil from draining back into crankcase during engine shut down.

Sierra® Fuel Filter & Bowl Wrench Racor® Style RK22628

An essential tool for every workshop for removing filter cartridges and filter bowls.

BLA Code
S18-9884

Sierra® Oil Filter Wrenches

Heavy duty oil filter wrenches in three popular sizes.

BLA Code	Size
S18-9778	2 7/16"- 3"
S18-9789	2 9/10" - 3 1/4"
S18-9790	3 5/16" - 3 3/4"

Marine Town® Three Way Valves

Used to connect two permanent tanks to a single motor, providing fuel flow to the engine from one or the other tank. The valve can also be used to close the flow from both tanks. Rotate handle to select tank, the detent in the valve ensures alignment of the port opening. Forged brass construction. ¼" or ⅜" NPT internally threaded ports. Brass hose tails are available separately.

BLA Code	Ports NPT
200490	1/4"

Accessories:

138130	Brass hose tail ¼" NPT to suit 6mm ID hose
138148	Brass hose tail ⅜" NPT to suit 10mm ID hose
S18-8109	Brass hose tail ⅜" NPT to suit 8mm ID hose

'P' Trap Surge Protector

A multi-function product which helps avoid fuel spills, via the built-in surge protector, provides fuel tank venting and resists water intrusion into the fuel system. Meets ABYC standards. Constructed from glass filled polypropylene, suitable for aluminium boats.

BLA Code	Height mm	Width mm	Max. Hull Thickness mm	Intrusion mm	Hose mm	Mount Hole mm
200496	82	80	16	48	16	19

Fuel Tank Breathers - Polypropylene

Straight fuel tank breathers. Patented splash resistant design. Constructed from corrosion resistant polypropylene, ideal for aluminium boats. Suits hulls up to 16mm thick.

200506

BLA Code	Colour	Hose Size mm	Mount Hole mm	Intrusion mm	Protrusion mm
200506	Black	16	22	55	24
200508	White	16	22	55	24

Fuel Vent Line Surge Protector

Helps avoid fuel spills when refuelling by preventing fuel surging through the breather hose as the fuel tank fills. Glass-filled polypropylene construction with a surge ball design which closes the line under fuel surge pressure, but permits air flow under normal conditions. Installs in the fuel tank vent line, hose clamps required. Meets ABYC standard.

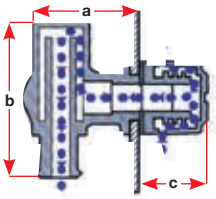
BLA Code	Hose mm	Length mm	Max. Dia mm
200494	16	119	40

Fuel Tank Breathers With Water Trap

These uniquely designed, 90° low profile fuel tank breathers help prevent water from entering the fuel tank via the breather. The innovative patented design features a series of baffles and traps that prevent water from splashing into the tank, yet allow air to vent freely. Constructed from corrosion proof polypropylene. Available in all black or black with white head.

200504

200502



BLA Code	Head Colour	Hose Size mm	Mount Hole mm	Max. Hull Thickness mm	a mm	b mm	c mm
200502	Black	16	19	16	50	81	23
200504	White	16	19	16	50	81	23

Fuel Tank Breather - Nylon

Manufactured in fuel resistant black nylon. Ideal for aluminium boats. Low profile fuel tank breather with monel gauze flame arrestor. Suits hulls up to 19mm thick.

BLA Code	Head Size mm	Hose Size mm	Mount Hole mm	Intrusion mm	Protrusion mm
200514	30 x 35	16	19	52	17

Fuel Tank Breather - Chrome

Round head, chrome-plated brass breather with monel gauze flame arrestor. Suits hulls up to 16mm thick.

BLA Code	Head Size mm	Hose Size mm	Mount Hole mm	Intrusion mm	Protrusion mm
200522	14	13	25	53	16

Fuel Tank Breather - Chrome

Low profile, chrome-plated zinc alloy breather with monel gauze flame arrestor. Suits hulls up to 20mm thick

BLA Code	Head Size mm	Hose Size mm	Mount Hole mm	Intrusion mm	Protrusion mm
200524	23 x 33	16	19	49	15

Fuel Tank Breathers - Chrome Angled

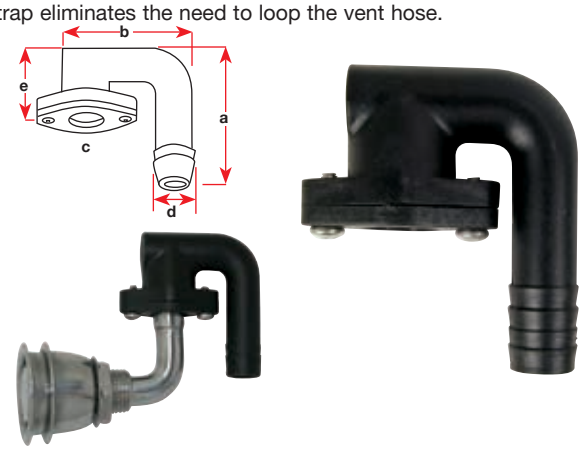
Round head, slimline chrome-plated brass breathers with stainless steel gauze flame arrestor. Internal intrusion is 68mm, protrudes 15mm from the hull. Suits hulls up to 10mm thick.

BLA Code	Angle	Hose Size mm	Mount Hole	Head Dia. mm
200526	90˚ bend down	13	19	25
200528	90˚ bend up	13	19	25

Marine Town® 'P' Trap Tank Vent Adaptor

- Nylon

The nylon 'P' trap is designed to be used with recessed fuel breathers **200535** & **200539** which suit 16mm ID hose. The 'P' trap eliminates the need to loop the vent hose.



Breather shown for illustration only

BLA Code	a mm	b mm	c mm	d mm	e mm
200534	69	53	16	16	36

Marine Town® Fuel Tank Breather - Stainless Steel

Round head, cast 316 grade stainless steel breather with monel gauze flame arrestor. Suits hulls up to 25mm thick.

BLA Code	Head Size mm	Hose Size mm	Mount Hole mm	Intrusion mm	Protrusion mm
200532	25	13	19	55	19

Marine Town® Fuel Breathers

- Recessed Stainless Steel

Cast 316 grade stainless steel, four vent hole, round head angled breather, available with a choice of recessed cup materials. Provides flush hull installation, suitable for all types of hull material. Breathers **200535**-**200537** are supplied with pressed stainless steel recessed cups and stainless steel nut. The **200539** stalon breather is supplied with both pressed stainless steel and polished aluminium outer recessed cup, nylon insulating washer, nylon inner cup and nut. A shallow pressed stainless steel inner cup washer is available as a separate part to increase the maximum hull thickness from 19mm to 32mm. Protrusion is only 4mm.

BLA Code	Material	Hose Size mm	Mount Hole mm	Head Dia. mm	Intrusion mm
200535	S/S	16	36	46	64
200536	S/S	19	36	46	64
200537	S/S	13	36	46	64
200539	Stalon	16	36	46	64

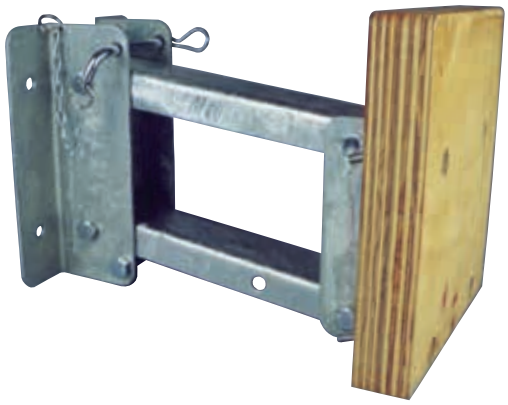
Adjustable Outboard Bracket - Galvanised

Economical, adjustable four position galvanised auxiliary motor bracket with lifting handle and timber motor support.

BLA Code	Max. HP	Mount Base mm	Travel mm	Mount Holes mm
200612	9	200 x 150	300	10 r/h

Adjustable Outboard Brackets - Galvanised

Economical two position (up or down) auxiliary motor brackets. Fully galvanised frame with timber motor support pad.



BLA Code	Max. HP	Mount Base mm	Travel mm	Mount Holes mm
200608	5	200 x 150	270	10 r/h
200610	9	200 x 160	310	10 r/h

Marine Town® Outboard Motor Bracket - Stainless Steel

Two position stainless steel frame with non-corrosive moulded plastic outboard plate. Spring-loaded mechanism power assists the lift of the outboard to the up position. Supplied complete with four 8mm x 75mm bolts, washers and nyloc nuts.

BLA Code	Max. HP	Mount Base mm	Travel mm	Mount Holes mm
200616	10	145 x 117	365	8

Marine Town® Outboard Motor Bracket - Anodised Alloy

Sturdy anodised alloy frame construction, with stainless steel fasteners. Moulded black plastic motor plate. Five position motor height adjustment.

BLA Code	Max. HP	Mount Base mm	Travel mm	Mount Holes mm
200618	10	230 x 132	345	8

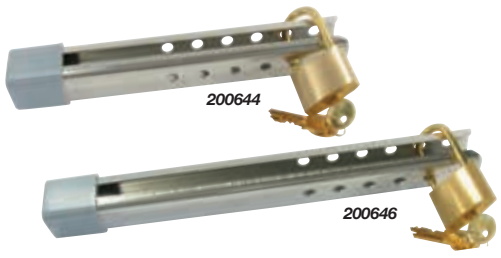
Outboard Bracket - Rail Mount

Made from U.V. stabilised reinforced polypropylene. Designed to store the outboard secure and upright, out of lockers where fumes may present a hazard, and spilled fuel could damage other stored goods. Mounts at 'T' joint of 25mm diameter rail.

BLA Code	Max. HP	Suits Rail Dia. mm	Height mm	Width mm	Depth mm
200620	8	25	180	170	40

Outboard Motor Locks

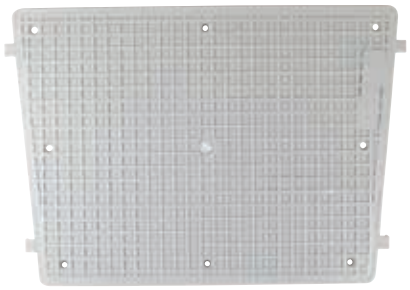
Anti-theft outboard motor locks manufactured from stainless steel with a plastic end cap and supplied complete with brass padlock. Slides over the motor clamp handles to prevent release. Also prevents the outboard motor from working loose while under way.



BLA Code	Overall Length mm	Max. Clamp Length mm	Slot Width mm
200644	240	180	13
200646	315	255	13

Outboard Motor Protection Plate

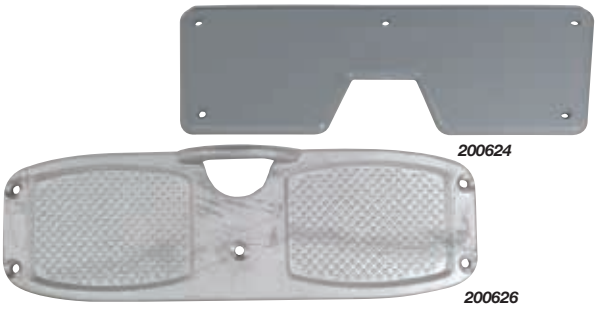
Grey plastic pad, designed to protect the exterior surface of the transom from being marked when the outboard is attached.



BLA Code	Top Width mm	Lower Width mm	Height mm	Thick mm
200622	300	275	210	8

Outboard Motor Protection Plate

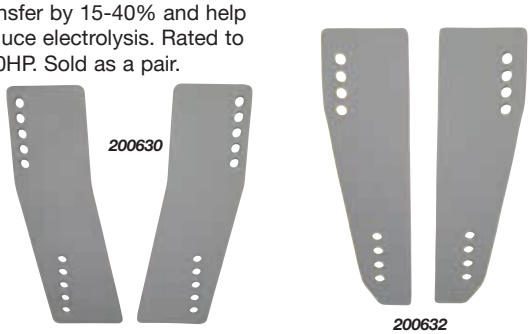
Choice of grey plastic or cast alloy pad, designed to protect the interior surface of the transom from being marked by the outboard motor clamps. The alloy version includes a lug to secure the outboard with a padlock.



BLA Code	Material	Width mm	Height mm	Depth mm
200624	Plastic	260	95	5
200626	Aluminium	315	100	8

Outboard Motor Backing Pads

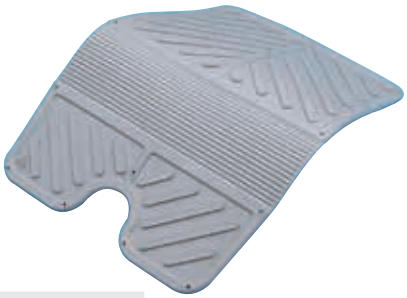
Made from EVA foam, pre-shaped and drilled to suit most Mercury®/Johnson®/Evinrude®/Honda®/Suzuki®/Tohatsu® and Yamaha® outboard bracket mounts. These pads reduce noise transfer by 15-40% and help reduce electrolysis. Rated to 250HP. Sold as a pair.



BLA Code	Suits	Width mm	Height mm	Depth mm
200630	Merc/John/Evin	95	320	10
200632	Yamaha®	95	325	10

Transom Outboard Protection Pad

Moulded from a strong, flexible plastic material which is designed to be wrapped over the top of the transom to protect both sides and top from abrasion by the outboard motor. Helps reduce electrolysis and vibration transmission.



BLA Code	Max. Width mm	Overall Length mm
200628	280	400

Dinghy Outboard Motor Pad

Self-adhesive pad made from EVA foam. Mounted to the external surface of the transom to reduce noise transfer by 15-40%. Also helps reduce electrolysis.

BLA Code	Top Width mm	Lower Width mm	Height mm	Thick mm
200634	390	310	305	6

Motor Trolleys

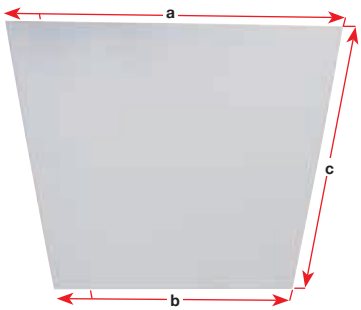
Sturdy, black EDC coated steel frames with timber motor support pad and heavy duty plastic wheels. Folds flat for storage.

BLA Code	Max. HP	Height mm	Width mm	Depth mm	Tube Dia. mm
200650	20	1010	475	680	22
200652	30	1030	780	810	25

King StarBoard® Outboard Motor Pad

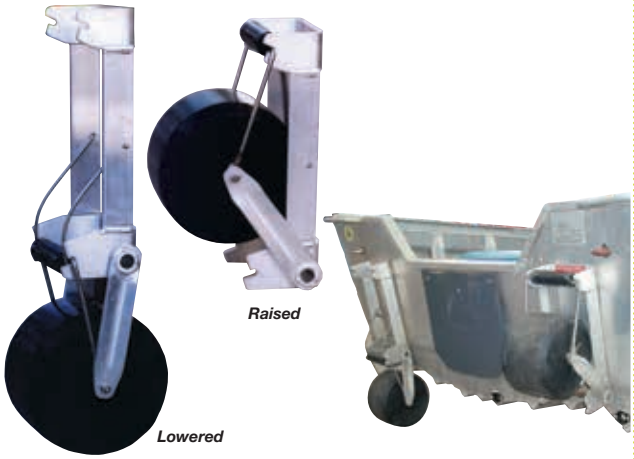
These popular outboard motor pads are manufactured from marine grade King StarBoard® polymer which is environmentally stabilised to withstand the harshest marine conditions.

BLA Code	a mm	b mm	c mm	Thickness mm
823520	415	270	380	6.0
200640	400	300	330	6.4
846100	355	210	355	9.5
846104	395	250	355	12.7



Dinghy Wheel Set

Provide single handed manoeuvrability, launching and retrieval of dinghies, including motor and gear, on a variety of surfaces such as packed sand or gravel, tidal areas, grass, concrete boat ramps and bitumen car parks. A unique twist grip positively, but quickly, locks the wheels in the down position for wheeling, and in the up position for when the boat is in the water. When in the retracted position there is no protrusion above or below a standard dinghy transom. Manufactured from marine grade aluminium, stainless steel and composite materials. These boat wheels have a generous wheel size of 130mm wide x 185mm in diameter. Maximum wheel loading is 125kgs per wheel (250kgs pair). Sold as a pair.



BLA Code	Length Extended mm	Length Retracted mm	Protrusion Raised mm	Width mm	Mount Holes mm
200666	500	285	215	170	8

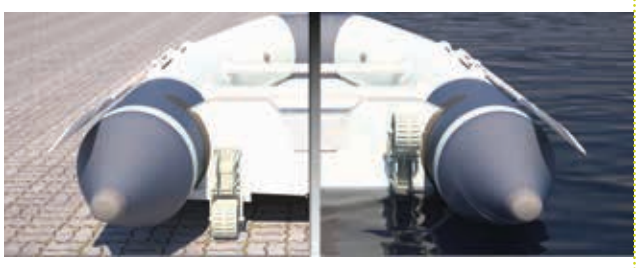
Transom Dinghy Wheels

Anodised, extruded aluminium box and channel construction with welded solid aluminium shaft, pneumatic tyre on plastic rim and stainless steel fastenings. Transom mounted using two 6mm (¼") countersunk metal threads per side. Wheels are simply reversed when the boat is in the water, stored attached, but upside down, ready to be used again at the ramp.

BLA Code	Overall Length mm	Transom Bracket mm	Tyre Size mm
200664	570	320 x 32	220 x 60

Transom Dinghy Wheel Set

Provides single handed manoeuvrability, launching and retrieval of small lightweight boats, inflatables, aluminium car toppers up to 100kg in total weight. Solid 85mm wide wheels move easily over a variety of surfaces such as packed sand or gravel, tidal areas, grass, concrete boat ramps and bitumen car parks. Simple spring action design allows the wheels to be easily flipped into the down position for boat movement. Simply flip up to store when boat is in the water. Sold as a pair.



BLA Code
200674

BLA Tinnie Mover

- Pneumatic Wheels

Tinnie mover that clamps around gunwale and chine on a tinnie. Clamp winds up or down to suit hull height, securely locking on when required. Two used, one on each side of the boat towards the rear so as to balance the load. Easy to install and takes seconds to remove. Sold as a pair. Galvanised steel frame with pneumatic tyre on plastic rim.

BLA Code	Hull Height mm	Tyre Size mm
200686	365-590	260 x 85

Accessories:

200680 Spare wheel and tyre

SE Sport High Performance Turbo Hydrofoils

The high performance SE Sport foils will provide more speed and precision control on most outboard and stern drive powered boats. Made of flexible, high strength co-polymer, the foils are rugged enough to stop porpoising and side-to-side movement. Specially engineered crescent shaped planing surface funnels water flow to add thrust, cut planing time and provides both quicker 'on plane' and higher 'top end' speeds. A special tracking feature, TURBO TRAC, locks in high speed turns without ventilation for precise control. SE 200 suits motors from 8HP up to 40HP, while the SE 300 suits motors from 40HP to 350HP and are supplied with 6mm x 32mm stainless steel mount bolts, lock nuts and insulators.

Features:

- Increased lift with crescent plane surface
- Small footprint 75-100mm narrower than most other foils
- TURBO TRAC enhances thrust and control
- Control tip cuts tight turns
- Sleek shape compliments modern boat designs
- One piece high strength engineering grade co-polymer
- Mounting holes suit other popular one piece foils

200808

200812

200814

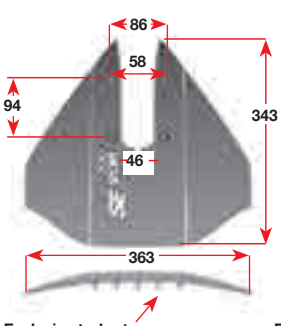
200816

200822

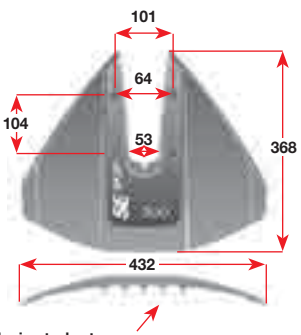
Turbo trac helps straight line stability and reduces side slip in turns.

The SE 400 has been designed to offer the option of drill (hardware included) or no-drill attachment without the need for the Sport Clip for a no-drill installation. Suits all outboards and sterndrives from 40HP to unlimited horsepower.

BLA Code	Model	Colour
200808	SE200	Black
200810	SE200	Grey
200812	SE300	Black
200814	SE300	Grey
200816	SE300	White
200820	SE400	Black
200822	SE400	Grey



Exclusive turbo trac
SE200 suits 8HP - 40HP



Exclusive turbo trac
SE300 suits 25 - 350HP

SE Sport Drill Free Sport Clip

The new Sport Clip offers a drill free solution for the installation of SE Sport foils to most outboards and sterndrives.

Four easy steps allows for fast, non-invasive mounting of the SE Sport foil.

Features:

- Innovative, fail safe mounting system
- No holes need be drilled through the cavitation plate
- Simple four step installation procedure
- All necessary hardware included in kit
- Will not wear or alter the cavitation plate
- Designed to suit SE Sport 200 and SE Sport 300

Fits: all outboards and sterndrives 8HP and larger EXCEPT the following:

- Volvo Penta® with through cavitation plate exhaust
- Mercury Bravo II®
- Mercury Bravo III® with 1 round anode (**does fit models with 2 round anodes on bottom plate**)
- Honda® 200HP and higher
- Yamaha® 350HP

BLA Code
200840

BLA High Performance Hydrofoils

The BLA high performance foils are designed to provide additional lift plus increased speed and control on most outboard powered boats.

These tough high strength foils provide both quicker on-plane and higher top end speeds while helping to prevent porpoising and sideways slip.

Features:

- Increased lift with improved take off and stability
- Helps eliminate cavitation and porpoising
- Forces stern up and bow down for smoother take offs
- Two piece design allows for easy installation
- Complete with stainless steel mounting hardware

200798

200800

BLA Code	Suits
200798	Motors up to 50HP
200800	Motors over 25HP

StingRay™ Hydrofoils

Originally developed in the late 1980's the StingRay™ foil was born based on the need to simply improve a boats performance and handling characteristics. The StingRay™ Classic hydrofoil stabiliser and subsequent models all provide the extra performance every boat needs due to their aerodynamic design created to produce higher water pressure on the underside of the hydrofoils surface, creating lift to bring the stern up and force the bow down.

While providing a superior hole shot, the StingRay™ range of hydrofoils lets the boat cruise at lower speeds, stops porpoising, eliminates chine-walking, stabilises handling, increases top end speed and improves economy. Available in four models and various sizes the StingRay™ foil range caters for motors from 8HP up to 300HP.

StingRay™ Hydrofoils - Classic

The StingRay™ Classic hydrofoil stabiliser produces higher water pressure on the underside of the hydrofoils surface, creating lift to bring the stern up and force the bow down. The Classic provides a superior hole shot and lower cruise speeds while preventing porpoising. Designed to eliminate chine-walking, stabilise handling, increase top end speed and improves economy. StingRay™ Classic Junior suits motors under 40HP and the Classic Senior for motors from 25HP to 300HP.

Features:

- Original design
- Improves hole shot
- Suits wide horsepower range
- Available in junior and senior size

BLA Code	Model	Colour
200860	Classic Senior	Black
200862	Classic Senior	White
200864	Classic Senior	Grey
200890	Classic Junior	Black
200892	Classic Junior	White
200894	Classic Junior	Grey

200860

StingRay™ Hydrofoils - XRIII

The revolutionary StingRay™ XRIII features a no-drill method of attachment eliminating cavitation plate holes and is designed to be easily installed on a wide range of motors and horsepower sizes. This enhanced design effectively captures and focuses the prop's thrust cone to create an incredibly fast hole shot while improving stability and fuel efficiency. The simple and quick no drill installation system combines the motors existing anode torque tab with pressure screws to securely attach the XRIII to the motors cavitation plate. The StingRay™ XRIII Junior suits motors 40HP to 75HP and the XRIII Senior for motors from 75HP to 300HP.

Features:

- No-drill attachment method
- Creates quick hole shot
- Improves stability
- Available in junior and senior size

BLA Code	Model	Colour
200872	XRIII Senior	Black
200874	XRIII Senior	White
200876	XRIII Senior	Grey
200896	XRIII Junior	Black

200872

StingRay™ Hydrofoils - Stealth 2

The StingRay™ Stealth 2 is the world's first and only dual angle of attack hydrofoil. This feature alone allows boaters to experience optimal performance at all throttle ranges. At lower speeds, the hydrofoil utilises its inner angle, while at higher throttle ranges the Stealth 2 uses its wing tips to maintain consistent, impressive performance improvement. The hidden, no-drill attachment results in no harm to the engine and a quicker installation process. Furthermore, an exclusively developed material known as Fast-Finish lowers hydrodynamic drag dramatically. The combination of the Stealth 2's unique design, no-drill attachment, and Fast-Finish material results in the best top-end speed and fuel efficiency in the industry! For boaters looking to get on the plane in half the time, reduce bow rise, eliminate chine-walking, stop porpoising and cavitation, while at the same time add true stabilisation and increase fuel efficiency, the StingRay™ Stealth 2 is the product of choice! Suitable for motors from 75HP to 300HP.

Features:

- Dual angle of attack wings
- Minimum drag, maximum lift
- Improves stability
- Provides optimal performance and handling

BLA Code	Model	Colour
200867	Stealth 2 Senior	Black
200869	Stealth 2 Senior	White
200871	Stealth 2 Senior	Grey

200867

StingRay™ Hydrofoils - StarFire

The StarFire combines a swept back delta wing profile with a unique, inverted trailing edge which is designed to relieve drag. The swept back extended wing tips act as excellent stabilisers once the boat is up on the plane while the inverted concave trailing edge minimises drag and increases fuel economy and top end speed. The quick fit no drill design installs in under 10 minutes with little effort and hugs the cavitation plate extremely closely, preventing excess drag. An additional design element is the optional drill attachment feature, highlighted in the yellow circles. The drill attachment option requires only two holes to pass through the cavitation plate for installation, which are used to bolt the StarFire securely in place. For outboard motors ranging from 40 to 300HP StarFire's incredibly sleek overall profile combines minimal drag with excellent lift characteristics while increasing stability. Available in black, white and grey and finished with an inlayed stainless steel graphic that won't scratch, tear, fade or peal.

Features:

- Fast fit No-Drill attachment or optional bolt through cavitation plate
- Swept back delta wing profile provides stability
- Unique inverted trailing edge and low profile design minimises drag
- Suitable for outboard motors from 40 to 300HP
- Available in black, white and grey

200880

Drill Option
Provides the ability to be bolted through cavitation plate utilising only two bolts

Swept back delta wing profile

Polished stainless steel hard wearing graphic

No Drill Option
Simple 10 minute installation utilising two set screws inserted from either side

BLA Code	Colour
200880	Black
200882	White
200884	Grey

BLA Motor Starter Cord

White polyester, plaited hard lay. Offers high strength and good abrasion resistance. Supplied in 100m flanged reels.

200792

BLA Code	Diameter mm
200792	3.5
200794	4.0
200796	5.0

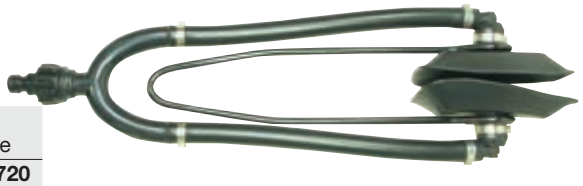
Outboard Motor Flushers

Custom flushers designed to specifically suit particular outboard models. Supplied with quick connect hose fittings.

BLA Code	Outboard Model
200706	Mercury® 4, 5, 6, 8, 9.9, 15HP Mariner® 6, 8, 9.9, 15HP Yamaha® 9.9, 2 stroke, 15HP Suzuki® 5, 6, 8, 9.9, 15HP

BLA Rectangular Outboard Flusher

Black rectangular rubber cups 80mm x 130mm approximately, with spring steel tensioner and dual flush to provide equal pressure to both pick ups. Sold complete with a quick connect style hose fitting. Suits most outboards and stern drives.



BLA Code
200720

BLA Outboard Motor Flushers

Black rubber cup style flushers. Spring steel for fast connection. Sold complete with a quick connect style hose fitting. Suits most outboards and stern drives.

BLA Code	Description
200722	Large rectangular flusher
200723	Medium oval flusher
200724	Small round flusher

Sierra Dual Water Pickup Flusher

Replaces: Mercury/Evinrude 881150K1

Fits: Mercury and E-Tec Engine with Nose Cone Dual Water Pickup.

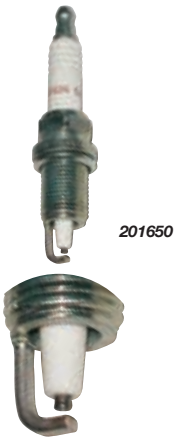
BLA Code
S18-9895

Champion Marine Spark Plugs

Champion spark plugs are renowned throughout the world as leaders in spark plug technology. With a history dating back to the early 1900s, Champion has the experience and expertise to rely on for your marine engine.

BLA Code	Type	Pack Qty
201500	J4C	4
201504	J6C	4
201550	L6VC	4
201554	L76V	4
201558	L77JC4	4
201562	L78C	4
201566	L78V	4
201568	L78YC	4
201569	L78YC6	4
201570	L82C	4
201574	L82YC	4
201578	L86C	4
201582	L87YC	4
201600	P10Y	4
201634	QC8WEP	4
201635	QC10WEP	1
201644	QC10PEPB	4
201645	QC12PEPB	1
201650	QC12PEP	6
201660	QL16V	4
201664	QL76V	4

BLA Code	Type	Pack Qty
201668	QL77CC	6
201672	QL77JC4	4
201676	QL78C	4
201680	QL78YC	4
201684	QL82C	4
201688	QL82YC	4
201692	QL86C	4
201696	QL87YC	4
201710	QN84	4
201720	RA8HC	4
201721	RC8YC	4
201722	RC9YC	4
201727	RN6YC	4
201730	RS9YC	6
201734	RS12YC	6
201740	RV8C	4
201744	RV9YC	4
201752	RV15YC4	4
201770	UL77V	4
201800	XC12PEPB	4
201810	7712	6



NGK Marine Spark Plugs

NGK have over 70 years of experience in spark plug manufacturing and are a world leader in spark plug technology. NGK have an extensive range of spark plugs, each with their own unique characteristics specifically engineered to its motor application and are designed to suit a broad range of applications in Australia. Each year NGK supply millions of spark plugs (and associated products) to satisfied OEM, genuine and aftermarket customers all over Australia. All NGK products sold in Australia are manufactured using state-of-the-art technology and stringent quality control systems which not only meet, but often exceed international standards. NGK has obtained certification to QS-9000/ISO9001 and has received numerous quality performance awards. NGK is also committed to on-going research and development striving for continuous improvement. With their dedication to quality, outstanding reliability and state of the art manufacturing techniques, you can rely on NGK Spark Plugs.

High ignitability is the core reason for using precious metals in premium quality spark plugs. High ignitability means that a spark plug can ignite very lean air/fuel mixtures and this in turn ensures the complete combustion cycle occurs. For more details on the NGK Spark Plug range refer to the NGK Product Catalogue (**992612**). Contact BLA on **1300 252 725** to order or view online in the Info Centre at bla.com.au.

Features:

- Optimum fuel economy = cost savings
- Increased power = superior performance
- Low emissions = reduced environmental impact

BLA Code	Supplier Code	Description	Pack Size
203300	R6918C-9	Spark Plug NGK R6918C-9	10
203301	BUZ8H	Spark Plug NGK BUZ8H	10
203302	BUZHW	Spark Plug NGK BUZHW	10
203303	BUZHW-2	Spark Plug NGK BUZHW-2	10
203304	PMR9B	Spark Plug NGK PMR9B	4
203305	BPZ8H-N-10	Spark Plug NGK BPZ8H-N-10	10
203306	BPZ8HS-10	Spark Plug NGK BPZ8HS-10	10
203307	BPZ8HS-15	Spark Plug NGK BPZ8HS-15	10
203308	ILFR6G-E	Spark Plug NGK ILFR6G-E	4
203309	ITR4A15	Spark Plug NGK ITR4A15	4
203310	IZFR5G	Spark Plug NGK IZFR5G	4
203311	IZFR5J	Spark Plug NGK IZFR5J	4
203312	IZFR6J	Spark Plug NGK IZFR6J	4
203313	IZFR6K11	Spark Plug NGK IZFR6K11	4
203314	IZFR6K-11E	Spark Plug NGK IZFR6K-11E	4
203315	BKR6EKU	Spark Plug NGK BKR6EKU	10
203316	BKR7EKU	Spark Plug NGK BKR7EKU	10
203317	BR8HCS-10	Spark Plug NGK BR8HCS-10	10
203318	LFR4A-E	Spark Plug NGK LFR4A-E	10
203319	LFR6A	Spark Plug NGK LFR6A	10
203320	LFR6A-11	Spark Plug NGK LFR6A-11	10
203321	LKR7E	Spark Plug NGK LKR7E	10
203322	LMAR6C-9	Spark Plug NGK LMAR6C-9	10
203323	PZFR6H	Spark Plug NGK PZFR6H	4
203324	PZFR7G-G	Spark Plug NGK PZFR7G-G	4
203325	LKR6E	Spark Plug NGK LKR6E	10
203326	BR6FVX	Spark Plug NGK BR6FVX	4
203327	TR5IX	Spark Plug NGK TR5IX	4
203328	BUHW	Spark Plug NGK BUHW	10

BLA Code	Supplier Code	Description	Pack Size
203329	BUHW-2	Spark Plug NGK BUHW-2	10
203330	CR9EK	Spark Plug NGK CR9EK	10
203331	LFR5A-11	Spark Plug NGK LFR5A-11	10
203332	PZTR5A-15	Spark Plug NGK PZTR5A-15	4
203333	ZFR4F-11	Spark Plug NGK ZFR4F-11	10
203334	ZFR5F	Spark Plug NGK ZFR5F	10
203335	ZFR6F-11	Spark Plug NGK ZFR6F-11	10
203336	ZFR6K-11	Spark Plug NGK ZFR6K-11	10
203337	ZFR6K-11E	Spark Plug NGK ZFR6K-11E	10
203338	ZFR7F	Spark Plug NGK ZFR7F	10
203339	ZFR7F-11	Spark Plug NGK ZFR7F-11	10
203340	BU8H	Spark Plug NGK BU8H	10
203341	AR6FS	Spark Plug NGK AR6FS	10
203342	BKR6E	Spark Plug NGK BKR6E	10
203343	BKR7E	Spark Plug NGK BKR7E	10
203344	BPR4FS	Spark Plug NGK BPR4FS	10
203345	BPR5ES	Spark Plug NGK BPR5ES	10
203346	BPR5HS	Spark Plug NGK BPR5HS	10
203347	BPR6EFS	Spark Plug NGK BPR6EFS	10
203348	BPR6ES	Spark Plug NGK BPR6ES	10
203349	BPR6FS	Spark Plug NGK BPR6FS	10
203350	BPR6HS	Spark Plug NGK BPR6HS	10
203351	BPR6HS-10	Spark Plug NGK BPR6HS-10	10
203352	BPR7ES	Spark Plug NGK BPR7ES	10
203353	BPR7HS	Spark Plug NGK BPR7HS	10
203354	BPR7HS-10	Spark Plug NGK BPR7HS-10	10
203355	BPR8ES	Spark Plug NGK BPR8ES	10
203356	BR4HS	Spark Plug NGK BR4HS	10
203357	BR5HS	Spark Plug NGK BR5HS	10

NGK Spark Plugs - continued

BLA Code	Supplier Code	Description	Pack Size
203358	BR6ES	Spark Plug NGK BR6ES	10
203359	BR6FS	Spark Plug NGK BR6FS	10
203360	BR6HS	Spark Plug NGK BR6HS	10
203361	BR6HS-10	Spark Plug NGK BR6HS-10	10
203362	BR7ES	Spark Plug NGK BR7ES	10
203363	BR7HS	Spark Plug NGK BR7HS	10
203364	BR8ES	Spark Plug NGK BR8ES	10
203365	BR8ES-11	Spark Plug NGK BR8ES-11	10
203366	BR8HS	Spark Plug NGK BR8HS	10
203367	BR8HS-10	Spark Plug NGK BR8HS-10	10
203368	BR9ES	Spark Plug NGK BR9ES	10
203369	BR9HS-10	Spark Plug NGK BR9HS-10	10
203370	CR4HSB	Spark Plug NGK CR4HSB	10
203371	CR5EH-9	Spark Plug NGK CR5EH-9	10
203372	CR5HSA	Spark Plug NGK CR5HSA	10
203373	CR6HSA	Spark Plug NGK CR6HSA	10
203374	CR8EB	Spark Plug NGK CR8EB	10
203375	CR9EB	Spark Plug NGK CR9EB	10
203376	DCPR6E	Spark Plug NGK DCPR6E	10
203377	DCPR7E	Spark Plug NGK DCPR7E	10
203378	DCPR8E	Spark Plug NGK DCPR8E	10
203379	DPR5EA-9	Spark Plug NGK DPR5EA-9	10
203380	DPR6EA-9	Spark Plug NGK DPR6EA-9	10
203381	DPR6EB-9	Spark Plug NGK DPR6EB-9	10
203382	DPR7EA-9	Spark Plug NGK DPR7EA-9	10
203383	DR5HS	Spark Plug NGK DR5HS	10
203384	DR6HS	Spark Plug NGK DR6HS	10
203385	DR7EA	Spark Plug NGK DR7EA	10
203386	DR7EB	Spark Plug NGK DR7EB	10
203387	R5673-8	Spark Plug NGK R5673-8	10
203388	CR6HSB	Spark Plug NGK CR6HSB	10
203389	B-4H	Spark Plug NGK B-4H	10
203390	B5HS	Spark Plug NGK B5HS	10
203391	B6HS	Spark Plug NGK B6HS	10
203392	B6HS-10	Spark Plug NGK B6HS-10	10
203393	B6S	Spark Plug NGK B6S	10
203394	B7ES	Spark Plug NGK B7ES	10
203395	B7HS	Spark Plug NGK B7HS	10
203396	B7HS-10	Spark Plug NGK B7HS-10	10
203397	B8HS	Spark Plug NGK B8HS	10
203398	B8HS-10	Spark Plug NGK B8HS-10	10
203399	B8S	Spark Plug NGK B8S	10
203400	B9HS	Spark Plug NGK B9HS	10
203401	B9HS-10	Spark Plug NGK B9HS-10	10
203402	BP6ES	Spark Plug NGK BP6ES	10
203403	BP6HS	Spark Plug NGK BP6HS	10
203404	BP6HS-10	Spark Plug NGK BP6HS-10	10
203405	BP6S	Spark Plug NGK BP6S	10
203406	BP7ES	Spark Plug NGK BP7ES	10
203407	BP7HS-10	Spark Plug NGK BP7HS-10	10
203408	BP8ES	Spark Plug NGK BP8ES	10
203409	BP8H-N-10	Spark Plug NGK BP8H-N-10	10
203410	BP8HS-15	Spark Plug NGK BP8HS-15	10
203411	AB-2	Spark Plug NGK AB-2	10
203412	AB-6	Spark Plug NGK AB-6	10
203413	BP7HS	Spark Plug NGK BP7HS	10
203414	TR4	Spark Plug NGK TR4	4
203415	BR7HS-10	Spark Plug NGK THS-10	10

B6S
203393

B7HS-10
203396

DCPR6E
203376

LFR6A-11
203320

BU8H
203340

100 Plug Dispenser

Sierra® Water Pump Impellers - Johnson®/Evinrude®

Replacement impellers manufactured to OEM specifications to suit various models.
Refer to detailed application guide on page 542-543.

S18-3001

S18-3002

S18-3003

S18-3006

S18-3015
with key

S18-3043

S18-3044

S18-3050

S18-3051

S18-3053-1
with wedge key

S18-3055

S18-3059
with wedge key

S18-3082

S18-3083

S18-3090

S18-3091

S18-3099

S18-3104-1

S18-3366

S18-3368

S18-45221

S18-45312

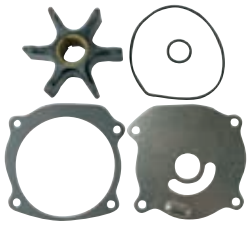
Sierra® Water Pump Repair Kits - Evinrude®/Johnson®

Replacement water pump kits manufactured to OEM specifications to suit various models.
Refer to detailed application guide on page 542-543.

S18-3201

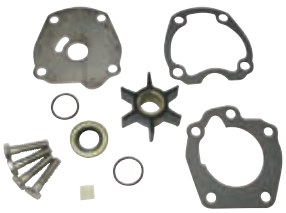
S18-3202

S18-3203



S18-3210

S18-3211



S18-3238

S18-3315-2

S18-3325

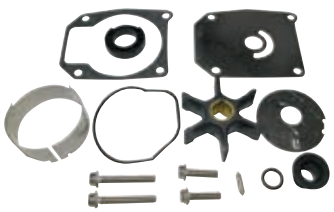
S18-3327

S18-3376

S18-3377

S18-3378

S18-3379



S18-3380

S18-3381

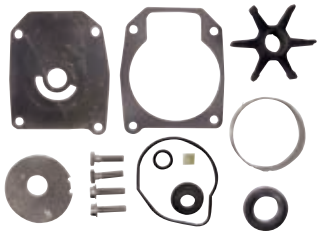
S18-3382

S18-3383

S18-3384

Sierra® Water Pump Repair Kits - Evinrude®/Johnson® (Continued)

Replacement water pump kits manufactured to OEM specifications to suit various models.
Refer to detailed application guide on page 542-543..



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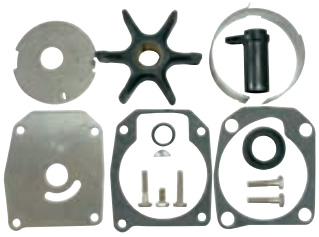

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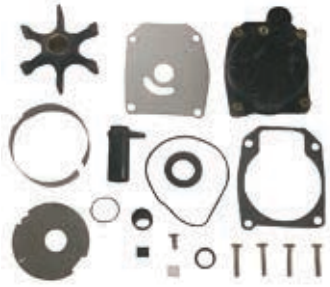
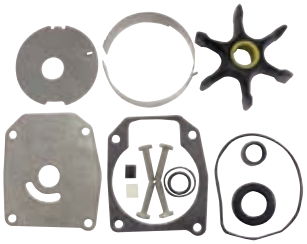


S18-3389

S18-3392

S18-3393

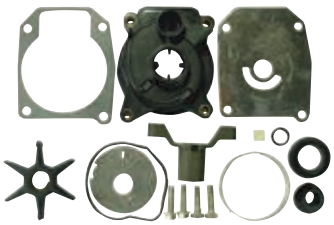
S18-3453



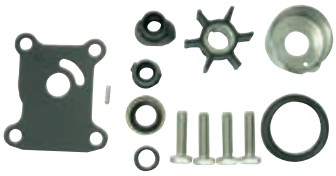
S18-3388

S18-3390

S18-3394

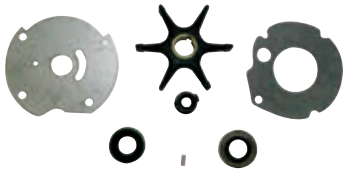


S18-3399



S18-3400

S18-3401



S18-3402

Evinrude®/Johnson® Application Guide

Engine Horsepower	Model Year	Sierra® Impeller BLA Code	Sierra® Repair Kit BLA Code	Sierra® Pump Kit without Hsg. BLA Code	Sierra® Pumo Kit with Hsg. BLA Code
1.5 / 2	1967-84	S18-45221	—	—	—
2 Jr, Colt	1985-90	S18-3090	—	—	—
2	1993-99	S18-45312	—	—	—
2.5	1987-06	S18-3015	—	—	—
3	1952-78	S18-3001	S18-3201	—	—
3	1991-99	S18-45312	—	—	—
3.5	1987-06	S18-3015	—	—	—
4	1969-72	S18-3001	S18-3201	—	—
4 (7)	1973-83	S18-3001	S18-3201	—	—
4 (8)	1976-80	S18-3090	—	—	—
4 Deluxe	1980-97	S18-3091	—	—	—
4 Ultra Excel	1987-06	S18-3015	—	—	—
4.5	1980-97	S18-3091	—	—	—
5	1965-68	S18-3001	—	—	—
5 (4 stroke)	1998 & up	S18-3091	—	—	—
5.5	1954-64	S18-3001	S18-3202	—	—
6	1952-78	S18-3001	S18-3202	—	—
6	1979	S18-3090	—	—	—
6	1984-97	S18-3091	—	—	—
6 (4 stroke)	1998 & up	S18-3091	—	—	—
7.5	1954-58	S18-3001	S18-3202	—	—
8 (2 stroke)	1986-97	S18-3091	—	—	—
9.5	1964-73	S18-3003	—	S18-3402	—
10	1958-63	S18-3003	—	S18-3402	—
10	1949-57	S18-3002	S18-3203	S18-3377	—
9.9/15	1974 & up	S18-3050	—	S18-3400	S18-3327
9.9/15 (4 stroke)	1995 & up	S18-3050	—	S18-3400	S18-3327
15,18	1953-65	S18-3002	S18-3203	S18-3377	—
20	1966-73	S18-3002	S18-3203	S18-3377	—
20	1982-84	S18-3051	—	S18-3401	S18-3383
20	1985 & up	S18-3051	—	S18-3381	S18-3382
25	1951-55	S18-3006	—	—	—
25	1969-78	S18-3002	S18-3203	S18-3377	—
25	1979-84	S18-3051	—	S18-3401	S18-3383
25	1985 & up	S18-3051	—	S18-3381	S18-3382
28	1962-64	S18-3006	—	—	—
28	1978 & up	S18-3051	—	S18-3401	S18-3383
55	1968-69	S18-3082	—	—	—
30	1951-57	S18-3006	—	—	—
30	1984 & up	S18-3051	—	S18-3381	S18-3382
33	1962-71	S18-3006	—	—	—
35	1951-57	S18-3006	—	—	—
35	1958-59	S18-3083	—	—	—
35	1976-77	S18-3006	—	—	—
35	1978-79	S18-3051	—	S18-3238	—
35	1980-82	S18-3051	—	—	S18-3382
35	1983 & up	S18-3051	—	—	—
35 Jet	1992-93	S18-3104-1	—	S18-3394	—
40	1960-70	S18-3083	—	—	—
40	1971-73	S18-3006	—	—	—
40 Comm.	1981-90	S18-3366	—	S18-3379	—
40	1984-85	S18-3055	—	S18-3385	S18-3399
40	1986-88	S18-3368	—	S18-3385	S18-3399
40	1989-98	S18-3104-1	—	S18-3394	—
40	1999 & up	S18-3053-1	—	S18-3394	—
45/55 Comm.	1985	S18-3055	—	S18-3380	—
45/55	1989	S18-3368	—	S18-3385	S18-3399
45/55 Comm.	1986-88	S18-3368	—	S18-3385	S18-3399
48	1987-88	S18-3368	—	S18-3385	S18-3399
48	1989-96	S18-3104-1	—	S18-3394	—
50	1971-78	S18-3083	—	S18-3376	—
50	1979-85	S18-3055	—	S18-3380	S18-3378
50	1986-88	S18-3368	—	S18-3385	S18-3399
50	1989-98	S18-3104-1	—	S18-3394	—
55	1968-69	S18-3082	—	—	—
55	1976-78	S18-3083	—	—	—
55	1979-85	S18-3055	—	S18-3380	S18-3378
60	1970-71	S18-3082	—	—	—
60	1980-85	S18-3055	—	S18-3380	S18-3378
60	1986-94	S18-3053-1	—	S18-3387	S18-3389
60	1995 & up	S18-3053-1	—	S18-3387	—
65	1972-73	S18-3082	—	—	—
65 Comm.	1984-94	S18-3053-1	—	S18-3387	S18-3389
65 Comm.	1995 & up	S18-3053-1	—	S18-3387	—
70	1974-78	S18-3082	—	S18-3388	—
70	1979-94	S18-3053-1	—	S18-3387	S18-3389
70	1995 & up	S18-3053-1	—	S18-3387	—
75	1974-78	S18-3082	—	S18-3388	—
75	1979-88	S18-3053-1	—	S18-3387	S18-3389
85	1969-72	S18-3044	—	—	—
85	1973-77	S18-3043	—	S18-3384	—
85	1978	S18-3043	—	—	S18-3393
85	1979-95	S18-3059	S18-3211	S18-3390	S18-3392
90	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392
90 SL,DI	1995 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
100	1969-72	S18-3044	—	—	—
100	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392
100 Comm. (1)	1984 & up	S18-3059	S18-3211	S18-3390	S18-3392

Evinrude®/Johnson® Application Guide

Engine Horsepower	Model Year	Sierra® Impeller BLA Code	Sierra® Repair Kit BLA Code	Sierra® Pump Kit without Hsg. BLA Code	Sierra® Pumo Kit with Hsg. BLA Code
105 Comm.	1998-01	S18-3059	S18-3211	S18-3390	S18-3315-2
115	1969-70	S18-3044	—	—	—
115	1973-76	S18-3043	—	S18-3384	—
115	1977-78	S18-3043	—	—	S18-3393
115	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392
115 SL,DL	1995 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
120 25”	1993-00	S18-3059	S18-3211	S18-3390	S18-3315-2
125	1971-72	S18-3044	—	—	—
125 ESX 25” (3)	1993-94	S18-3059	S18-3211	S18-3390	S18-3392
125 ESX 25”	1994-95	S18-3059	S18-3211	S18-3390	S18-3392
125 ESX 25” (4)	1993-94	S18-3059	S18-3211	S18-3390	—
130	1997 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
130 25”	1994-00	S18-3059	S18-3211	S18-3390	S18-3315-2
135	1973-75	S18-3043	S18-3210	S18-3384	—
135	1976	S18-3043	—	—	—
135 25”	2001	S18-3059	S18-3211	S18-3390	S18-3315-2
140	1977-78	S18-3043	—	—	S18-3393
140	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392
140 25” (4)	1993	S18-3059	S18-3211	S18-3390	S18-3315-2
140 25”	1994-00	S18-3059	S18-3211	S18-3390	S18-3315-2
150	1976-78	S18-3043	S18-3210	—	S18-3393
150	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392
150 20”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3392
150 SL 20”	1994-98	S18-3059	S18-3211	S18-3390	S18-3315-2
150 EL 20”	1996-98	S18-3059	S18-3211	S18-3390	S18-3315-2
150 25”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
150 DI	1997 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
150	2000 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
175	1976-78	S18-3043	S18-3210	—	S18-3393
175 SL 20”	1994-98	S18-3059	S18-3211	S18-3390	S18-3315-2
175 EL 20”	1996-98	S18-3059	S18-3211	S18-3390	S18-3315-2
175 25”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
175 DI	1997 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
175	2000 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
200	1976-78	S18-3043	—	—	S18-3393
200 Comm.	1990	S18-3059	S18-3211	S18-3390	S18-3392
200 25” & 30”	1993-97	S18-3059	S18-3211	S18-3390	S18-3315-2
225 20”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3392
225 25” & 30”	1993-97	S18-3059	S18-3211	S18-3390	S18-3315-2
235	1978	S18-3043	—	—	S18-3393
235	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392
V4 Cross 20” & 25”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3392
V4 Loop 20”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3392
V4,V6,V8	1982-94	S18-3059	S18-3211	S18-3390	S18-3392
V6,V8 20”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3392
V6 & V8 25” & 30”	1993 & up	S18-3059	S18-3211	S18-3390	S18-3315-2
Sea Drives	1979 & up	S18-3059	S18-3211	S18-3390	S18-3392

Notes

1. Except chrome pumps
2. Except SL models 1995 & Up/FFI models
3. 'S' Suffix
4. 'F' Suffix
5. Except 1993-94 25" & 30" V6 & V8
7. For water pumps using 1 water tube
8. 90° Gearcase

Sierra® Water Pump Impellers - Mercury®/Mariner®

Replacement impellers manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 546-549.

S18-3007

S18-3008

S18-3012

S18-3017

S18-3039

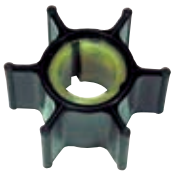
S18-3052

S18-3054

S18-3056

S18-3057

S18-3062


S18-3063

S18-3066

S18-3067

S18-3069

S18-3072

S18-3073

S18-3074

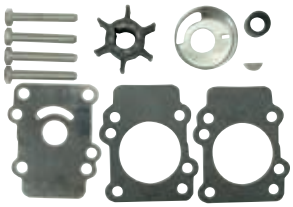
S18-8900

S18-3098

S18-45312

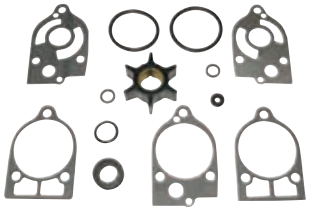
Sierra® Water Pump Repair Kits - Mercury®/Mariner®

Replacement water pump kits manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 546-549.



S18-3148

S18-3149-1



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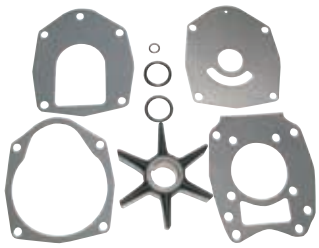
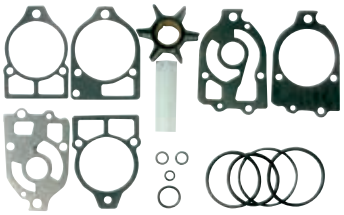


S18-3214

S18-3215

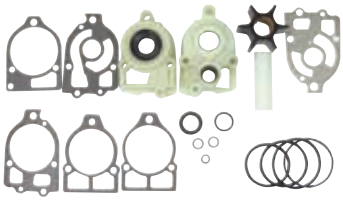


S18-3217

S18-3239

S18-3252

S18-3265



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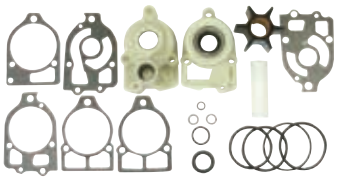
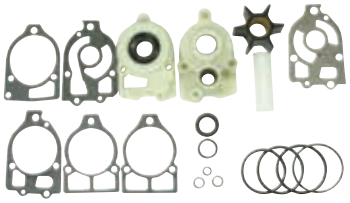


S18-3314



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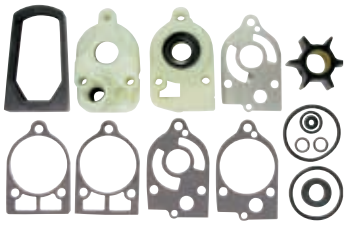
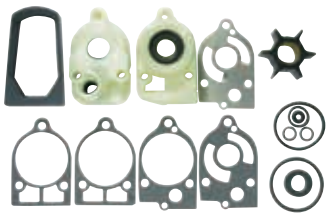
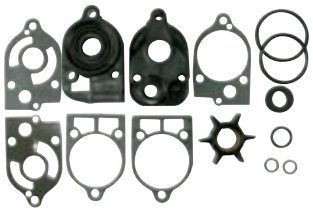


S18-3322



S18-3323



S18-3324

Sierra® Water Pump Repair Kits - Mercury®/Mariner®

Replacement water pump kits manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 546-549.

S18-3406

S18-3407

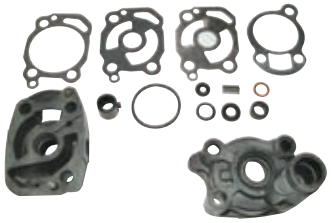
S18-3425

S18-3426

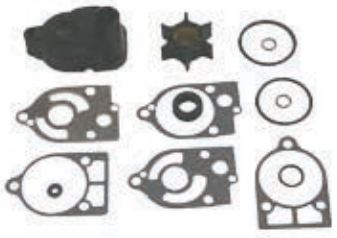
S18-3427

S18-3446

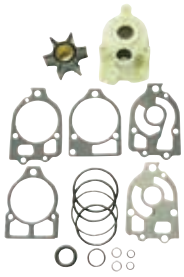
S18-3447



S18-3448



S18-3507



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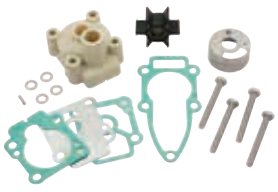


S18-48317

Mercury® Reference Guide

Horsepower	Beginning Serial #	Ending Serial #	Sierra® Impeller BLA Code	Sierra® Impeller Repair Kit BLA Code	Sierra® Upper Kit BLA Code	Sierra® Complete Kit BLA Code
2	T884302	& up	S18-45312			
2.5	A855097	& up	S18-45312			
3.3	G710613	& up	S18-45312			
3.3 (with shift)	D901217	& up	S18-3098			
3.5	358136	6202172	S18-3012			
3.5	6202173	& up	S18-3054			
3.6	5404657	& up	S18-3054			
3.9 (14)	1655013	2498135	S18-3012			
4 (1 cyl.)	2498136	4107219	S18-3039	S18-3239		
4 (2 cyl.)	5589202	& up	S18-3054			
4 (made in USA)	5595532	A809600	S18-3054			
4 (made in USA)	5595532	& up	S18-3039	S18-3239		S18-3446
4 (1 cyl.)	A809601	& up	S18-3098		—	
4.5	4107220	5595531	S18-3039	S18-3239		S18-3446
4.5	5595532	& up	S18-3054			
4.5	5595532	& up	S18-3039	S18-3239		S18-3446
5	574128	786612	S18-3012			
5 (1 cyl.)	A809601	& up	S18-3098			
5 4 stroke	R000001	& up	S18-3098			
6	888005	1916138	S18-3012			
6	1916139	2193817	S18-3039	S18-3239		
6	A197112	0T800749	S18-3062			
6	1582403	1916138	S18-3039			
6	1916139	2193817	S18-3039			
6	2193818	2529894	S18-3039			
6	2385673	2387383	S18-3039			
7.5	2529895	4131609	S18-3039			S18-3447
7.5	4131610	5226934	S18-3039	S18-3239		S18-3446
7.5	5206550	& up	S18-3054			
7.5	5206550	& up	S18-3039	S18-3239		S18-3446

Mercury® Reference Guide

Horsepower	Beginning Serial #	Ending Serial #	Sierra® Impeller BLA Code	Sierra® Impeller Repair Kit BLA Code	Sierra® Upper Kit BLA Code	Sierra® Complete Kit BLA Code
8	A197112	& up	S18-3062			
8 (4 stroke Bodensee)	G760300	& up	S18-3062			
8 (4 stroke 209CC)	R042475	& up	—			S18-48317
110 (9.8)	1865779	2196388	S18-3039			
110 (9.8)	2196389	3795657	S18-3039			
110 (9.8)	3795658	4126459	S18-3039			
110 (9.8) (3)	4126460	5206549	S18-3039	S18-3239		
110	5206550	& up	S18-3054			—
9.8	5206550	& up	S18-3039	S18-3239		S18-3446
9.9	A197112	& up	S18-3062			
9.9 (4 stroke) STANDARD CASE	G760300	T979999	S18-3062			
9.9 (4 stroke 209CC)	R042475	& up	—			S18-48317
XR10 SeaPro	D038000	& up	S18-3062			
10	500022	1057993	S18-3008			
15	B292414	& up	S18-3062			
15 SeaPro	G044365	& up	S18-3062			
16	700000	& up	S18-3008			
18	5837437	& up	S18-3057			
20	860970	1292909	S18-3008			
20	2827677	6443972	S18-3052	S18-3252		S18-3448
20	6443973	T800749	S18-3057	S18-3215		
22	1158546	1238089	S18-3008			
25,25XD,25 Sea Pro	5705532	& up	S18-3057	S18-3215		
25 (3 cyl.)	E268781	& up	S18-3057	S18-3215		
30	950250	1260724	S18-3008	—		
30	1271884	1448139	S18-3007	S18-3207	S18-3507	—
30 Jet	C159200	G589999	S18-3007	S18-3207	S18-3507	S18-3324
30 Jet	G590000	& up	S18-3057			
30 (2 cyl)	G053314	T598999	S18-3057			
35	1217222	1448139	S18-3007	—	—	—
35	1571114	1960826	S18-3007	S18-3207	S18-3507	—
35	1960827	2453068	S18-3007	S18-3207	S18-3507	—
35	6445653	& up	S18-3007	S18-3207	S18-3507	S18-3324
40	941751	1224480	S18-3008	—	—	—
40	1224481	1476509	S18-3007	—	—	—
40	2874704	4362214	S18-3007	S18-3207	S18-3507	S18-3322
40 (2 cyl) thru 1983	4860103	& up	S18-3057	S18-3207	S18-3507	S18-3324
40 (3 cyl)	G531301	& up	S18-3057			S18-3507
40 (4 cyl)	C159200	& up	S18-3007	S18-3207		
40 (4 stroke) 2:1 ratio	G760300	T408999	S18-3057			
40 (EFI 4 stroke) 1.83:1 ratio	T409000	& up	S18-8900			
40 (EFI 4 stroke) 2.31:1 ratio	T409000	B344398	S18-3056	S18-3214		
40 (4 stroke, 4 cyl.) 2.31:1 ratio	T228405	T598999	S18-3056	S18-3214		
40 (4 stroke,Std)	G231123	T178499	S18-3057			
40 (4 stroke, Carb, BIGFOOT)	C033811	& up	S18-3056			
40	1279685	1476509	S18-3007			S18-3507
45	5531630	& up	S18-3007	S18-3207		
45 Jet (3 cyl)	D000750	& up	S18-8900			
45 (4 stroke,std) Bodensee	G231123	& up	S18-3057			
45 (4 stroke, BIGFOOT) Bodensee	G231123	& up	S18-3056	S18-3214		
50	1421113	1460498	S18-3007			S18-3507
50	1477910	1521913	S18-3007			
50	1521914	2305100	S18-3007	S18-3207		S18-3507
50 aluminum w/p	2305101	2478119	S18-3007			
50 plastic w/p	2305101	2478119	S18-3007			
500	2514919	4357639	S18-3007	S18-3207		S18-3507
50 (4cyl)	4357640	5531629	S18-3007	S18-3207		S18-3507
50 (4cyl)	5531630	& up	S18-3007			
50 (4 cyl)	4962056	& up	S18-3007	S18-3207		S18-3507
50 (3 cyl)	6428681	D000749	S18-3007	S18-3207		
50 (3 cyl)	D000750	G589999	S18-8900			
50 (3 cyl)	G590000	& up	S18-3057			
50 (4 stroke,Std)	G231123	T178499	S18-3057			
50 (4 stroke, 4 cyl.) STANDARD	T178500	T598999	S18-8900			
50 (4 stroke, 4 cyl.) BIG FOOT	T178500	& up	S18-3056	S18-3214		
50 (EFI 4 stroke) STANDARD	T409000	B344398	S18-8900			
50 (EFI 4 stroke) BIG FOOT	T409000	B344398	S18-3056	S18-3214		
55 (3 cyl)	D000750	& up	S18-8900			
60	6428681	D000749	S18-3007	S18-3207		S18-3324
60 (3cyl) standard	D000750	& up	S18-3056	S18-3214		
60 Marathon	D000750	& up	S18-3056	S18-3214		
60 BIGFOOT	D000750	& up	S18-3056	S18-3214		
60 (3 cyl)	D000750	& up	S18-8900			
60 4 stroke STANDARD	OT178500	T598999	S18-8900	S18-3214		
60 4 stroke, BIGFOOT	OT178500	T598999	S18-3056	S18-3214		
60 4 stroke EFI BIGFOOT	T409000	B344398	S18-3056			
65(4 cyl) aluminum w/p	1542745	280351	S18-3017	S18-3217	S18-3517	S18-3507
65 (4cyl) plastic w/p	1542745	280351	S18-3017		S18-3517	
65 (4cyl)	2803562	2874263	S18-3017		S18-3517	
65 (4cyl)	2997439	3293183	S18-3017		S18-3517	
65(3 cyl)	3293184	4382056	S18-3007	S18-3207		S18-3507
65(3 cyl)	4382057	4571651	S18-3007	S18-3207		
65 Jet	0D283222	& up	S18-3056	S18-3214		
70	1413611	1436114	S18-3017	S18-3217		S18-3507
70 (6cyl)	1482212	1503458	S18-3017			
700 E-2 (6cyl)	1503459	1503958	S18-3017			
700 EL-2 (6cyl)	1503459	1566239	S18-3017			
700 E-2 (6cyl) (11)	1503959	1566239	S18-3017			
700 EL-2 (6cyl) (11)	1505111	1566239	S18-3017		S18-3517	
70 (3 cyl)	4571652	4977156	S18-3007	S18-3207		S18-3507
70	4977157	6428680	S18-3007	S18-3207		—
70	B110054	& up	S18-3056	S18-3214		S18-3517
70 (3cyl) (6)	A996142	C221999	S18-3056			
70 (3cyl) (5)	A996142	C221999	S18-3056			
75 (4 cyl)	6432901	& up	S18-3017	S18-3217	S18-3517	
75 (3 cyl)	A996142	C221999	S18-3056	S18-3214		
75 (3 cyl)	C222000	& up	S18-3056	S18-3214		
75 (3 cyl)	C222000	& up	S18-3056	S18-3214		
75 (3cyl) Optimax	T980000	& up	S18-3056			
75 4 stroke	G960500	B366822	S18-3056	S18-3214		
75 4 stroke	B366823	& up	S18-3056			
80	1355468	3493912	S18-3017	S18-3217		S18-3517
80 (6cyl)	1335465	1398629	S18-3017			
80 (4 cyl)	4831999	6432900	S18-3017	S18-3217	S18-3517	
80 (3 cyl) (6)	A996142	C221999	S18-3056	S18-3214		
80 (3 cyl) (5)	A996142	C221999	S18-3056			
80 Jet	D283222	& up	S18-3056	S18-3214		
850 E & EL (6cyl)	1460999	1567039	S18-3017	S18-3217		S18-3517
850 E-1, EL-1 (6cyl) (11)	1566240	1766823	S18-3017		S18-3517	
85 (4 cyl)	4590512	& up	S18-3017	S18-3217		
85 XS (4cyl)	3493913	4831998	S18-3017		S18-3517	
850 XS (4cyl)	3493913	4831998	S18-3017		S18-3517	
850, 850 XS (4cyl)	3493913	4590511	S18-3017		S18-3517	
900 (90HP) (6 cyl) (11)	1766824	1869775	S18-3017	S18-3217	S18-3517	S18-3517
90 (6 cyl)	4845301	& up	S18-3017	S18-3217	S18-3517	
90 (3 cyl)	B110054	C221999	S18-3056	S18-3214		
90 (3 cyl)	A996142	& up	S18-3056	S18-3214		
90 (3 cyl)	A996142	& up	S18-3056	S18-3214		
90 4 stroke	G960500	B366822	S18-3056	S18-3214		
90 4 stroke	B366823	& up	S18-3056	S18-3214		
95	1869776	2318585	S18-3017	S18-3217	S18-3517	
115 (3CYL) Optimax	T801000	& up	S18-3056			

Mercury® Reference Guide

Horsepower	Beginning Serial #	Ending Serial #	Sierra® Impeller BLA Code	Sierra® Impeller Repair Kit BLA Code	Sierra® Upper Kit BLA Code	Sierra® Complete Kit BLA Code
950 (95HP) (6 cyl) (11)	1869776	2318585	S18-3017		S18-3517	
1000(6 cyl)	1464949	1503331	S18-3017	S18-3217		
1000 (6cyl)	1503332	2318585	S18-3017		S18-3517	
100 (4 cyl)	B209468	& up	S18-3056	S18-3214		
100 (4 cyl)	B209468	& up	S18-3056	S18-3214		S18-3517
1000 SS (6cyl) (1)	2318586	2413843	S18-3017		S18-3517	
1000 SS (6cyl) (3)	2318586	2413843	S18-3017		S18-3517	
1000 SS E-1 (1)	2484633	2836018	S18-3017		S18-3517	
1000 SS E-1 (3)	2484633	2836018	S18-3017		S18-3517	
1000 BP (6cyl)	2399698	3253111	S18-3017			
105 Jet	0D182000	& up	S18-3017	S18-3217	S18-3517	
110 (1)	1870204	2314955	S18-3017	S18-3217	S18-3517	
110 (3)	1870204	2314955	S18-3017		S18-3517	
115 (6cyl)	2836019	4112634	S18-3017	S18-3217	S18-3517	S18-3517
115 (6cyl)	4112635	4394236	S18-3017		S18-3517	
115 (6 cyl)	4394237	& up	S18-3017	S18-3217	S18-3517	
115 (4 cyl) (6)	C100000	& up	S18-3056	S18-3214		
115 (4cyl) (5)	C100000	& up	S18-3056			
115 (4 cyl)	B209468	& up	S18-3056	S18-3214		
115 4 stroke	T178500	B366822	S18-3056	S18-3214		
115 4 stroke	B366823	& up	S18-3056			
115 (3cyl) Optimax	T801000	& up	S18-3056			
115 Pro XS	B751825	& up	S18-3056			
125 (6cyl) (2)	2314956	2839368	S18-3017	S18-3217	S18-3517	
125 (6cyl) (4)	2314956	2839368	S18-3017		S18-3517	
125 (4 cyl) (6)	D283222	& up	S18-3056			
125 (4cyl) (5)	D283222	& up	S18-3056			
125 (3cyl) Optimax	B736885	& up	S18-3056			
135	2839369	3293233	S18-3017	S18-3217	S18-3517	S18-3517
V 135	904646	& up	S18-3017	S18-3217		—
135 4 stroke VERADO	B227000	& up	S18-3056			S18-3407
140	3293234	3502805	S18-3017	S18-3217	S18-3517	S18-3517
140	4865678	& up	S18-3017	S18-3217	S18-3517	S18-3517
140 Jet	D082000	& up	S18-3017	S18-3217		—
150	3502806	4121434	S18-3017	S18-3217		S18-3517
150 (6cyl) (9)	4121435	4865677	S18-3017	S18-3217	S18-3517	S18-3517
150 (6cyl) (10)	4121435	4865677	S18-3017		S18-3517	
1500 XS (6cyl)	4868648	5327662	S18-3017		S18-3517	
V 150	A904646	& up	S18-3017	S18-3217	S18-3517	S18-3517
V 150	A904645	& BELOW	S18-3017	S18-3217		S18-3517
V-135 DFI	G590000	& up	S18-3017		S18-3517	
V-150 Carb (8)	4868998	A904645	S18-3017		S18-3517	
V-150 Carb (7)	4868998	A904645	S18-3017		S18-3517	
V-150 Carb, EFI, DFI	A904646	& up	S18-3017		S18-3517	
V-150XR2,4,6 - MAGNUM II, III (8)	4868998	& up	S18-3017		S18-3517	
V150XR2,4,6 - MAGNUM II, III (7)	4868998	& up	S18-3017		S18-3517	
150 4 stroke VERADO (4cyl)	B227000	& up	S18-3056		S18-3406	S18-3407
V 175	6618751	& up	S18-3017	S18-3217	S18-3517	S18-3517
V 175	4301235	6618750	S18-3017	S18-3217	S18-3517	S18-3517
V-175 Carb, EFI, DFI	6618751	& up	S18-3017		S18-3517	
175 4 stroke VERADO (4cyl)	B227000	& up	S18-3056		S18-3406	S18-3407
V 200	6625221	& up	S18-3017	S18-3217	S18-3517	S18-3517
V-200 (8)	4839034	6625220	S18-3017	S18-3217	S18-3517	—
V-200 (7)	4839034	6625220	S18-3017		S18-3517	
V-200 DFI (3.0L)	G386496	G589999	S18-3056	S18-3214		S18-3517
V-200 EFI (3.0L)	T750164	B504988	S18-3056			
V-200 Carb, & EFI (2.5L)	6625221	& up	S18-3017		S18-3517	
V-200 DFI (3.0L)	G590000	T598999	S18-3056			
V-200 DFI (3.0L)	T590000	B504988	S18-3056			
V-200 DFI (3.0L)	B504989	& up	S18-3056			S18-3407
200 4 stroke VERADO (4cyl)	B517159	& up	S18-3056		S18-3406	S18-3407
200 4 stroke 4.8 INCH TORPEDO	T980000	& up	S18-3056		S18-3406	S18-3407
V 220 LASER	B117316	& up	S18-3017	S18-3217		S18-3517
V-225 (2.4L) (8)	5628028	& up	S18-3017			
V-225 (2.4L) (7)	5628028	& up	S18-3017			
V-225 (3.0L) CARB & EFI	D280813	G760299	S18-3056			
V-225 (3.0L) CARB & EFI	G760300	T408999	S18-3056			
V-225 (3.0L) EFI	T409000	B504988	S18-3056			
V-225 DFI	G590000	T598999	S18-3056			
V-225 DFI	T599000	B504988	S18-3056			
V-225 DFI	B504989	& up	S18-3056			S18-3407
V-225 Pro XS	B104549	B752546	S18-3056			
V-225 Pro XS	B752547	& up	S18-3056			S18-3407
225 4 stroke VERADO 4.8 INCH TORPEDO	T980000	& up	S18-3056			S18-3407
V-250 (3.0L) EFI	G129222	T408999	S18-3056			
V-250 (3.0L) EFI	T409000	B504988	S18-3056			
V-250 DFI	B528615	& up	S18-3056			S18-3407
V-250 Pro XS	B426561	B752546	S18-3056			
V-250 Pro XS	B752547	& up	S18-3056			S18-3407
250 4 stroke VERADO 4.8 INCH TORPEDO	T980000	& up	S18-3056			S18-3407
275 4 stroke VERADO 4.8 INCH TORPEDO	T980000	& up	S18-3056			S18-3407
300 4 stroke VERADO 4.8 INCH TORPEDO	B517434	& up	S18-3056			S18-3407
MARK 5	574128	786612	S18-3012			
MARK 6, 6A	888005	& up	S18-3012			
MARK 50	ALL	& up	S18-3007			
MARK 55	831021	& up	S18-3007			
MARK 55A	1227131	& up	S18-3007			
MARK 58 E, MARK 58A (M&E)	1139538	& up	S18-3007			
9	0G129222	& up	S18-3056	S18-3214		S18-3517
XR4/Magnum II	ALL		S18-3017	S18-3217		

1. Models with aluminium upper pump housings
2. Models with aluminium water pumps
3. Models with plastic upper pump housings
4. Models with plastic water pumps
5. Pump screws without insulators
6. Pump screws with insulators
7. Models with driveshaft retaining nut
8. Models without driveshaft retaining nut
9. Models with flush hole
10. Models without flush hole
11. Models having plastic upper housing use #48752 inset cup
12. Units already having a complete pump replacement using 46-46893A 6 should use the 2193818-2529894 serial group for componets
13. Units already haiving a complete pump replacement using 46-46893A 6 should use USA 3795658-4126549 serial group for components
14. Units which have already had a complete pump replacment with the 46-46893A 6 pump should use the "Early Mariner Impellers" chart for components

Mariner® Reference Guide

Mariner Models	S/N Code	SN	Sierra® Impeller BLA Code	Sierra® Impeller Repar Kit BLA Code	Sierra® Complete Kit BLA Code
2A	646	All	S18-3072	—	—
2B	6A1	All	S18-3072	—	—
4A	6.00E+00	All	S18-3073	—	—
5C	6.00E+03	All	S18-3073	—	—
6C	6H8	All	S18-3066	—	—
6D	6H6	All	S18-3066	—	—
8A(M)	655	000000-000300	S18-3063	—	—
8A(ML)	655	000000-300101	S18-3063	—	—
8B(M)	677	000101 & up	S18-3063	—	—
8B(ML)	677	300101 & up	S18-3063	—	—
8C	6G1	All	S18-3066	—	—
9.9C	682	All	S18-3074	S18-3148	—
15A(M)	651	000285 & Below	S18-3063	—	—
15A(ML)	651	3000100 & Below	S18-3063	—	—
15C	684	All	S18-3074	S18-3148	—
20C(M)	6A9	000101-005810	S18-3067	S18-3426	—
20C(ML)	6A9	300101-306542	S18-3067	S18-3426	—
20C(E)	6A9	250101-250819	S18-3067	S18-3426	—
20C(EL)	6A9	550101-550693	S18-3067	S18-3426	—
20C(M)	6A9	010112 & up	S18-3067	—	S18-3427
20C(ML)	6A9	306543 & up	S18-3067	—	S18-3427
20C(E)	6A9	250820 & up	S18-3067	—	S18-3427
20C(EL)	6A9	550694 & up	S18-3067	—	S18-3427
25C(M)	695	000101-014870	S18-3067	—	S18-3426
25C(ML)	695	000000-312185	S18-3067	—	S18-3426
25C(E)	695	000000-252290	S18-3067	—	S18-3426
25C(EL)	695	000000-553575	S18-3067	—	S18-3426
25C(M)	695	014871 & up	S18-3067	—	S18-3427
25C(ML)	695	312186 & up	S18-3067	—	S18-3427
25C(E)	695	252291 & up	S18-3067	—	S18-3427
25C(EL)	695	553576 & up	S18-3067	—	S18-3427
28	664	All	S18-3067	—	—
30	689	All	S18-3067	—	—
30A(M)	689	000366-014805	S18-3067	—	S18-3426
30A(ML)	689	301911-315315	S18-3067	—	S18-3426
30A(E)	689	100251-103275	S18-3067	—	S18-3426
30A(EL)	689	401216-407815	S18-3067	—	S18-3426
30A(M)	689	022059 & up	S18-3067	—	S18-3427
30A(ML)	689	321377 & up	S18-3067	—	S18-3427
30A(E)	689	105325 & up	S18-3067	—	S18-3427
30A(EL)	689	411947 & up	S18-3067	—	S18-3427
48/48W	670	All	S18-3069	S18-3425	—
55/W55	663	All	S18-3069	S18-3425	—
60	675,6F0	All	S18-3069	S18-3425	—

Notes

Quicksilver® Water Impeller Repair Kit

Includes new impeller, face plate, drive key, plate gasket and water tube guide. Fits 6-15HP outboards. See chart for specific engine applications. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q42038Q3

Quicksilver® Water Impeller Repair Kit

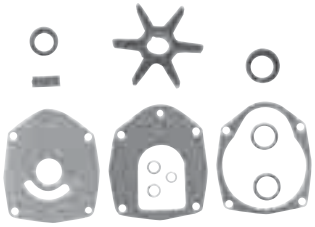
Includes new impeller, face plate, "O" rings, drive key, slinger and guide sleeve. Fits Mercury/Mariner 4HP (1 cylinder), Model 75 (7.5HP and Model 110/9.8HP when the water impeller ID measures .456 inches. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q89981Q1

Quicksilver® Water Impeller Repair Kit

Fits: 40/45/50/60 FourStroke Bigfoot, 60 (3 cyl.) BigFoot, 75-125 (all 3 & 4 cylinder models having pump cover screws without insulators, USA 0A996142 & above and BEL 9483121 & above), 75/90/115 (1.7L and prior) FourStroke, V-200/225/250 (3.0L), Verado 4.80 dia. torpedo gearcases and MerCruiser Alpha One Gen II drives.

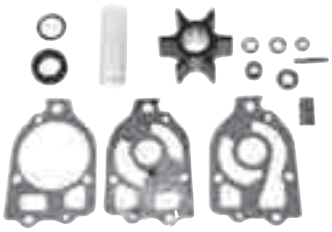
Quicksilver branded, clamshell package point of sale packaged.



BLA Code
Q8M0100526

Quicksilver® Water Impeller Repair Kit

Fits: Mercury/Mariner 65HP (4 cylinder) through V-6 outboards with short-vane impellers and fits MerCruiser I/R/MR/Alpha drives (s/n 2495186-0D469858). Quicksilver branded, clamshell package point of sale packaged.



BLA Code
Q89984Q5

Quicksilver® Water Impeller Repair Kit

Includes new impeller, drive key, face plate with gaskets, "O" rings and seat assemblies.

Fits: 30 JET (USA 0C159200-0G589999) 35HP 2-cycle (USA 6445653 & above, BEL 9384476 & above, CAN 7209608 & above) 40HP 2-cycle (all 2 cylinder through MY 1983) 40HP 2-cycle (4 cylinder) (USA 0C159200 & above, BEL 9570790 & above) 45HP 2-cycle (4 cylinder) 50HP 2-cycle (4 cylinder with plastic water pumps) 50/60HP 2-cycle (3 cylinder) (USA 6428681-0D000749, BEL 9385911-9683054, CAN 7208333 & above) 70HP 2-cycle (3 cylinder) (USA 4977157-6428680, AUS 8050200 & above, BEL 9196961-9385910, CAN 7110998-7208332). Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q89983Q1

Quicksilver® Water Impeller Repair Kit

Includes new impeller and face plate.

Fits: Mercury/Mariner 8/9.9HP FourStroke outboards (standard gearcase), beginning with Model Year 2005.

Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q803748Q01

Quicksilver® Water Impeller Repair Kit

Includes new impeller and face plate.

Fits: 9.9HP FourStroke (BigFoot gearcase), beginning with Model Year 2005.

Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q803748Q02

Quicksilver® Complete Water Pump

QUICKSILVER Marine Parts & Accessories

Fits: Mercury/Mariner 8/9.9HP FourStroke outboards (non-BigFoot), beginning with Model Year 2005.

BLA Code
Q803750A03

Quicksilver® Water Impeller Repair Kit

QUICKSILVER Marine Parts & Accessories

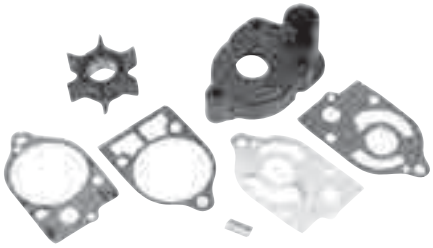
Includes impeller, key, insert, face plate, gaskets, "O" rings and bolts.

BLA Code
Q888687A1

Quicksilver® Water Pump Upper Repair Kit

QUICKSILVER Marine Parts & Accessories

Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged. See chart for specific engine applications.



BLA Code
Q60366Q1

Quicksilver® Water Pump Upper Repair Kit

QUICKSILVER Marine Parts & Accessories

Includes plastic pump housing assembly, impeller, face plate, gaskets, drive key or pin, water tube guide sleeve, "O" rings and gearlube fill and vent screw seals. (Base not included).

Fits: Mercury/Mariner 65HP (4 cylinder) through V-6 outboards with short-vane impellers and fits MerCruiser I/R/MR/Alpha drives (s/n 2495186-0D469858).

Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q96148A8

Quicksilver® Water Pump Upper Repair Kit

QUICKSILVER Marine Parts & Accessories

Includes upper housing, seals, gaskets, face plate, key and impeller. See chart for specific engine applications.

BLA Code
Q99157T2

Quicksilver® Water Pump Upper Repair Kit

QUICKSILVER Marine Parts & Accessories

Fits: Alpha One Gen II drives and Vazer.

Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q817275Q05

Quicksilver® Water Pump Upper Repair Kit

QUICKSILVER Marine Parts & Accessories

Includes impeller, key, face plate housing, gaskets and bolts. See chart for specific engine applications.

BLA Code
Q817275A08

Quicksilver® Water Impeller Repair Kit

Includes new impeller, face plate, drive key, plate gasket and water tube guide.

Fits: 6-15HP outboards. See chart for specific engine applications. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q161543

Quicksilver® Water Pump Impeller

See chart for specific engine applications.

BLA Code
Q19453T

Quicksilver® Water Pump Impeller

See chart for specific engine applications.

BLA Code
Q22748

Quicksilver® Water Pump Impeller

Fits: 6-15HP 2-cycle outboards with standard gearcases (USA 0A197112 & above, BEL 9461526 & above), fits 8/9.9HP FourStroke outboards (2004 and prior) with standard gearcases, and fits 15HP FourStroke outboards (323cc, MY2008 and prior) with standard gearcases.

Priced individually, sold in multiples of 2. Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q42038Q02

Quicksilver® Water Pump Impeller

Fits: 40/45/50/60 FourStroke Bigfoot, 60 (3 cyl.) BigFoot, 75-125 (all 3 & 4 cylinder models, USA A996142 & above and BEL 9483121 & above), 75/90/115 FourStroke, 150 EFI FourStroke, V-200 (3.0L) DFI, 135-300 Verado, V-225/250 (3.0L) and MerCruiser Alpha One Gen II drives.

Quicksilver branded, clamshell package point of sale packaged.

BLA Code
Q43026Q02

Quicksilver® Water Pump Impeller

Included in kit 47-85089T 7.

Fits: various 15 through 25HP outboards. See chart for specific engine applications.

BLA Code
Q8508910

Quicksilver® Water Pump Impeller

Included in kit 47-89980T 1.

Fits: various outboards 3.5-9.8(model 110). See chart for specific engine applications.

BLA Code
Q89980

Quicksilver® Water Pump Impeller

Included in kit 47-89981T 2.

Fits: various outboards 3.9-9.8(model 110). See chart for specific engine applications.

BLA Code
Q89981

Quicksilver® Water Pump Impeller

Included in kit 47-89983T 2

Fits: various 30-70HP outboards. See chart for specific engine applications.

BLA Code
Q89983T

Quicksilver® Water Pump Impeller

Fits: Mercury/Mariner 8/9.9HP FourStroke outboards (standard gearcase), beginning with Model Year 2005.

BLA Code
Q8037481

Quicksilver® Water Pump Impeller

Fits: MCM & Outboard applications. This impeller uses a brass insert. An alternate glass insert impeller 47-89984T3 is available for increased corrosion protection in salt water applications.

BLA Code
Q89984T4

Quicksilver® Water Pump Impeller

See chart for specific engine applications.

BLA Code
Q888689

Quicksilver® Water Pump Impeller

Replaces: 47-952892.

Fits: Mercury 2(T884302 & Up), 2.5(A855097 & Up), 3.3(G710613 & Up)

BLA Code
Q952892

Quicksilver® Water Pump Impeller

Fits: 9.9HP FourStroke (BigFoot gearcase), beginning with Model Year 2005.

BLA Code
Q803748

Quicksilver® Water Pump Repair Kit Charts - Four Stroke Water Pump Impellers

QUICKSILVER Marine Parts & Accessories

Model	Model Notes	Origin	Serial # Range	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
2.5 FourStroke		JPN	0R131842 and up	Q161543	-
3.5 FourStroke		JPN	0R131842 and up	Q161543	-
4 FourStroke		JPN BEL	0R000001 and up 0P073456 and up	Q161543	1Q6159A03
5 FourStroke		JPN BEL	0R000001 and up 0P073456 and up	Q161543	Q16159A03
6 FourStroke		JPN BEL	0R000001 and up 0P073456 and up	Q161543	Q16159A03
8 FourStroke	232cc 232cc	USA USA	0G760300-0G178499 0H017100-0H017349	Q42038Q02	Q42038Q3
8 FourStroke	323cc, Standard	BEL	0P075166-0P325499	Q42038Q02	Q42038Q3
8 FourStroke		USA BEL	0R042475 and up 0P325500 and up	Q8037481	Q803748Q01
9.9 FourStroke	232cc	USA	0H000058-0H016909	Q42038Q02	Q42038Q3
9.9 FourStroke	323cc, Standard 323cc, Standard	USA BEL	0G760300-0T979999 0P075166-0P325499	Q42038Q02	Q42038Q3
9.9 FourStroke	323cc, BigFoot 323cc, BigFoot	USA BEL	0G760300-0T979999 0P075166-0P325499	Q8508910	N/A
9.9 FourStroke	Standard gearcase	JPN BEL	0R042475 and up 0P325500 and up	Q8037481	Q803748Q01
9.9 FourStroke	BigFoot gearcase	JPN BEL	0R042475 and up 0P325500 and up	Q803748	Q803748Q02
15 FourStroke	323cc, Standard	USA BEL	0G590000-1B727495 9973100 and up	Q42038Q02	Q42038Q3
15 FourStroke	323cc, BigFoot	USA BEL	0G590000-1B727495 9973100 and up	Q8508910	N/A
15 FourStroke	351cc	JPN	0R235949 and up	Q803748	N/A
20 FourStroke	351cc	JPN	0R235168 and up	Q803748	N/A
25 FourStroke	Carb	USA BEL	0G590000-0T408999 9973100-0P153499	Q8508910	-
25 FourStroke	Carb	USA BEL	0T409000-1B344298 0P153500-0P388282	Q8508910	-
25 FourStroke	EFI	JPN	0R106999 and up	Q161541	-
30 FourStroke	Carb, Standard	USA BEL	0G760300-0T408999 0P153500-0P153499	Q8508910	-
30 FourStroke	Carb, Standard	USA BEL	0T409000 and up 0R106999-0P153499	Q8508910	-
30 FourStroke	EFI	USA	0T409000-1B226999	Q8508910	-
30 FourStroke	EFI	JPN	0R106999 and up	Q161541	
40 FourStroke	Carb, 3 cyl., standard	USA BEL	0G760300-0T408999 0P153500-0P153499	Q8508910	-
40 FourStroke	Carb, 3 cyl., standard	USA BEL	0T409000 and up 0P153500 and up	Q8508910	-
40 FourStroke	EFI, 3 cyl., Standard	USA	0T409000-1B226999	Q8508910	-
40 FourStroke	EFI, 3 cyl., Short Shaft	USA	1B227000-1B344398	Q8508910	-
40 FourStroke	EFI, 3 cyl., Short Shaft	CHN	1C000001-1C049738	Q8508910	-
40 FourStroke	EFI, 3 cyl., Long Shaft	CHN	1C000001-1C049738	Q19453T	N/A
40 FourStroke	EFI, 3 cyl.	CHN	1C049739 and up	Q19453T	N/A
40 FourStroke	Carb, 4 cylinder, BigFoot	USA BEL	0T228405-0T598999 0P094500 - 0P206999	Q43026Q02	Q8M0100526
40 FourStroke	EFI, 4 cylinder, BigFoot	USA BEL CHN	0T409000 - 1B344398 0P153500 - 0P400999 1C000001 - 1C033810	Q43026Q02	Q8M0100526
45 FourStroke	4 cylinder Bodensee, Standard	USA	0G231123 - 0T178499	Q8508910	-
45 FourStroke	4 cylinder, Bodensee, BigFoot	USA	0G231123 - 0T178499		-
50 FourStroke	Standard	USA	0G231123 - 0T178499	Q8508910	-
50 FourStroke	BigFoot	USA	0G231123 - 0T178499	Q43026Q02	-
50 FourStroke	Carb, Standard, 996cc	USA BEL	0T178500 - 0T598999 0P094500 - 0P206999	Q19453T	N/A
50 FourStroke	Carb, BigFoot, 996cc	USA BEL	0T178500 - 0T598999 0P094500 - 0P206999	Q43026Q02	Q8M0100526
50 FourStroke	EFI, Standard, 996cc	USA BEL CHN	0T409000 - 1B344398 0P153500 - 0P400999 1C000001 and up	Q19453T	N/A
50 FourStroke	EFI, BigFoot, 996cc	USA BEL CHN	0T409000 - 1B344398 0P153500 - 0P400999 1C000001 - 1C033810	Q43026Q02	Q8M0100526
60 FourStroke	Carb, Standard, 996cc	USA BEL	0T178500 - 0T598999 0P094500 - 0P20	Q19453T	N/A
60 FourStroke	Carb, BigFoot, 996cc	USA BEL	0T178500 - 0T598999 0P094500 - 0P206999	Q43026Q02	Q8M0100526
60 FourStroke	EFI, Standard, 996cc	USA BEL CHN	0T409000 - 1B344398 0P153500 and up 1C000001 and up	Q19453T	N/A
60 FourStroke	EFI, BigFoot, 996cc	USA BEL CHN	0T409000 - 1B344398 0P153500 - 0P400999 1C000001 - 1C033810	Q43026Q02	Q8M0100526
75 FourStroke	1596cc	USA	0G960500 - 1B366822	Q43026Q02	Q8M0100526
75 FourStroke	1731cc	USA BEL	1B366823 - 2B094995 0P459572 and up	Q43026Q02	Q8M0100526
75 FourStroke	2.1L	USA	2B094996 and up	Q43026Q02	
90 FourStroke	1596cc	USA	0G960500 - 1B366822	Q43026Q02	Q8M0100526
90 FourStroke	1731cc	USA BEL	1B366823 - 2B094995 0P459572 and up	Q43026Q02	Q8M0100526
90 FourStroke	2.1L	USA	2B094996 and up	Q43026Q02	-

Quicksilver® Water Pump Repair Kit Charts - Four Stroke Water Pump Impellers

Model	Model Notes	Origin	Serial # Range	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
115 FourStroke	1741cc	USA	0T178500 - 1B366822	Q43026Q02	Q8M0100526
115 FourStroke	1731cc	USA	1B366823 - 2B094995	Q43026Q02	Q8M0100526
115 FourStroke	2.1L	USA	2B094996 and up	Q43026Q02	-
135 FourStroke	4 cyl., Verado	USA	1B227000 and up	Q43026Q02	Q8M0100526
150 FourStroke	EFI	USA	1B905505 and up	Q43026Q02	-
150 FourStroke	4 cyl., Verado	USA	1B227000 and up	Q43026Q02	Q8M0100526
175 FourStroke	4 cyl., Verado	USA	1B227000 and up	Q43026Q02	Q8M0100526
200 FourStroke	4 cyl., Verado	USA	1B517159 and up	Q43026Q02	Q8M0100526
200 FourStroke	6 cyl., Verado, 4.80 Torpedo 6 cyl., Verado, 5.44 Torpedo	USA	0T980000 and up	Q43026Q02 Q43026Q02	Q8M0100526 -
225 FourStroke	EFI	USA	0T653945 and up	Q888689	Q888687A1
225 FourStroke	6 cyl., Verado, 4.80 Torpedo 6 cyl., Verado, 5.44 Torpedo	USA	0T980000 and up	Q43026Q02 Q43026Q02	Q8M0100526 -
250 FourStroke	6 cyl., Verado, 4.80 Torpedo 6 cyl., Verado, 5.44 Torpedo	USA	0T980000 and up	Q43026Q02 Q43026Q02	Q8M0100526 -
275 FourStroke	6 cyl., Verado, 4.80 Torpedo	USA	0T980000 and up	Q43026Q02	Q8M0100526
300 FourStroke	6 cyl., Verado, 5.44 Torpedo 6 cyl., Verado, 4.80 Torpedo 6 cyl., Verado, 5.44 Torpedo	USA	1B517434 and up	Q43026Q02 Q43026Q02 Q43026Q02	- Q8M0100526 -

Quicksilver® Water Pump Repair Kit Charts - 2-Cycle Water Pump Impellers

Model	Origin	Serial # Range	Quicksilver® Upper Kit BLA Code	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
2HP		0G413201 and up			
2.2M		8075603 and up		Q952892	
2.5/3HP		8075603 and up		Q952892	
3.3 w/shift		0D901217 and up		Q161543	8M0080264
3.3 non-shift		0D901217 and up		Q952892	
3.5		6202173 and up		Q89980	
3.6	USA BEL CAN	5404657 and up 9252831 and up 7145388 and up		Q89980	
3.9(14)		1655013 - 2200317 2200318 - 2498135	N/A	Q22748	N/A
4 (1 Cyl.) .438 inch Imp. I.D.	USA AUS BEL CAN	5595532 - 0A809600 8068065 and up 9258281 - 9477829 7143688 and up	N/A	Q89980	Q89980T1
4 (1 Cyl.) .456 inch Imp. I.D.	USA AUS BEL CAN	5595532 and up 8068065 and up 9258281 and up 7143688 and up	N/A	Q89981	Q89981Q1
4/5 (1 Cyl.)	USA BEL	0A809601 and up 9477830 and up	N/A	Q161543	N/A
40/4 (2 Cyl.), GNAT, .438 inch Imp. I.D.	BEL CAN	9075839 - 9256980 7085673 - 7146487	N/A	Q89980	N/A
40/4 (2 Cyl.), GNAT, .456 inch Imp. I.D.	BEL CAN	9075839 - 9256980 7085673 - 7146487	N/A	Q89981	N/A
40/4 (2 Cyl.)	USA AUS BEL CAN	5589202 and up 8065265 and up 9256981 and up 7146488 and up	N/A	Q89980	N/A
45/4.5 (1 Cyl)	USA AUS BEL CAN	4107220 - 5595531 8026540 - 8068064 9072179 - 9258280 7045758 - 7147237	N/A	Q89981	89981Q1
45/4.5 (1 Cyl), .438 inch Imp. I.D.	USA AUS BEL CAN	5595532 and up 8068065 and up 9258281 and up 7147238 and up	N/A	Q89980	Q89980T1
45/4.5 (1 Cyl), .456 inch Imp. I.D.	USA AUS BEL CAN	5595532 and up 8068065 and up 9258281 and up 7147238 and up	N/A	Q89981	Q89981Q1
60 (6HP)		1408611 - 1490054	N/A	Q22748	N/A
60 (6HP)		1490055 - 1582402	N/A	Q22748	N/A
60 (6HP)(12)		1582403 - 1916138	N/A	Q22748	N/A
60 (6HP)(12)		1916139 - 2193817	N/A	Q89981	N/A
60 (6HP)		2193818 - 2529894	N/A	Q89981	N/A
60J (6HP)		2385673 - 2387383		Q89981	
6	USA BEL	0A197112 - 0T800749 9461526 and up	N/A	Q4203802	Q4203803
75 (7.5HP)	USA AUS BEL CAN	2529895 - 4131609 8015315 - 8028839 9043194 - 9079488 7028598 - 7050207	N/A	Q89981	
75 (7.5HP)	USA AUS BEL CAN	4131610 - 5226934 8028840 - 8058019 9079489 - 9219255 7050206 - 7136037	N/A	Q89981	Q89981Q 1

Quicksilver® Water Pump Repair Kit Charts - 2-Cycle Water Pump Impellers

QUICKSILVER Marine Parts & Accessories

Model	Origin	Serial # Range	Quicksilver® Upper Kit BLA Code	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
7.5HP., .438 inch Imp. I.D.	USA AUS BEL CAN	5206550 and up 8057545 and up 9217756 and up 7125388 and up	N/A	Q89980	Q89980T1
7.5HP., .456 inch Imp. I.D.	USA AUS BEL CAN	5206550 and up 8057545 and up 9217756 and up 7125388 and up	N/A	Q89981	Q89981Q1
8	USA BEL	0A197112 and up 9461526 and up	N/A	Q42038Q02	Q42038Q3
110 (9.8HP)(13)		1865779 - 2196388	N/A	Q89981	N/A
110 (9.8HP)		2196389 - 3795657	N/A	Q89981	N/A
110 (9.8HP)	USA AUS BEL CAN	3795658 - 4126459 8015040 - 8028439 9041439 - 9078138 7027323 - 7049107	N/A	Q89981	N/A
110 (9.8HP)	USA AUS BEL CAN	4126460 - 5206549 8028440 - 8057554 9078139 - 9217755 7049108 - 7125387	N/A	Q89981	Q89981Q1
9.8HP., .438 inch Imp. I.D.	USA AUS BEL CAN	5206550 and up 8057545 and up 9217756 and up 7125388 and up	N/A	Q89980	Q89980T1
9.8HP., .456 inch Imp. I.D.	USA AUS BEL CAN	5206550 and up 8057545 and up 9217756 and up 7125388 and up	N/A	Q89981	Q89981Q1
9.9	USA BEL	0A197112 and up 9461526 and up	N/A	Q42038Q02	Q42038Q3
XR10/ Sea Pro, 10 Magnum & Marathon	USA BEL	0D038000 and up 9596000 and up	N/A	42038Q02	Q42038Q3
15	USA BEL	0B292414 and up 9542620 and up	N/A	Q42038Q02	Q42038Q3
15 Sea Pro & Marathon	USA BEL	0G044365 and up 9927000 and up	N/A	Q42038Q02	Q42038Q3
15XD/BigFoot	BEL	9927000 and up	Q99157T2	Q8508910	Q85089Q4
18/18XD	USA AUS BEL	5837437 and up 8071973 and up 9308306 and up	Q99157T2	Q8508910	Q85089Q4
200 (20HP.)		1558310 - 1866495	N/A	N.L.A.	N/A
200 (20HP.)		1866496 - 2296266	N/A	N.L.A.	N/A
200 (20HP.)(2)		2296267 - 2827676	N/A	N.L.A.	N/A
200 (20HP.)(4)		2296267 - 2827676	N/A	N.L.A.	N/A
200 (20HP.)	USA AUS BEL CAN	2827677 - 6443972 8006265 and up 9016254 - 9415100 7012358 - 7209532	N/A	Q89982	-
20/20XD	USA BEL CAN	6443973 - 0T800749 9415101 and up 7209533 and up	Q99157T2	Q8508910	Q85089Q4
25/25XD	USA BEL CAN	5705532 and up 8073158 and up 9315316 and up	Q99157T2	Q8508910	Q85089Q4
25 Sea Pro/Marathon & Super 15	USA BEL CAN	0B238464 and up 9507381 and up 0A730007 and up	Q99157T2	Q8508910	Q85089Q4
25 (3 Cyl.)	USA	0E268781 and up	Q99157T2	Q8508910	Q85089Q4
300 (30HP)		1271884 - 1448139	N/A	Q89983T	N/A
30 (2 Cyl.), 644cc	USA	0G053314 - 0T598999	N/A	Q8508910	-
30 (2 Cyl.), 430cc, Lightning	USA	0G575500 and up	N/A		-
30 Jet	USA	0C159200 - 0G589999	Q60366Q1	Q89983T	Q89983Q1
30 Jet	USA	0G590000 and up	N/A	Q8508910	
350 (35HP)		1571114 - 1960826	N/A	Q89983T	
350 (35HP)(2)		1960827 - 2453068	N/A	Q89983T	
350 (35HP)(4)		1960827 - 2453068	Q60366Q1	Q89983T	
35 (2 Cyl.)	USA BEL CAN	6445653 and up 9384476 and up 7209608 and up	Q60366Q1	Q89983T	Q89983Q1
400 (40HP)		1279685 - 1476509	N/A	Q89983T	N/A
400/402(40HP)	USA AUS BEL CAN	2874704 - 4362214 8002335 - 8036449 3339688 - 9108563 3340783 - 7070272	Q60366Q1	Q89983T	Q89983Q1
402 (40HP)	USA AUS BEL CAN	4362215 - 4860102 8036450 - 8052124 9108564 - 9184450 7070273 - 7112422	Q60366Q1	Q89983T	Q89983Q1
402/40(2 Cyl), Through 1983	USA AUS BEL CAN	4860103 and up 8052125 and up 9184451 and up 7112423 and up	Q60366Q1	Q89983T	Q89983Q1
40 (2 Cyl.), 1994 & Above, 644cc	USA	0G053314 and up	N/A	Q8508910	-
40 (3 Cyl.)	USA BEL	0G531301 and up 9973100 and up	N/A	Q8508910	-

Quicksilver® Water Pump Repair Kit Charts - 2-Cycle Water Pump Impellers

Model	Origin	Serial # Range	Quicksilver® Upper Kit BLA Code	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
40 (4 Cyl.)	USA BEL	0C159200 and up 9570790 and up	Q60366Q1	Q89983T	Q8998Q1
45 JET	USA	0D000750 and up	N/A	Q19453T	Q1945Q2
45 (4 Cyl.)	USA AUS BEL CAN	5531630 and up 8063985 and up 9248006 and up 7143688 and up	Q60366Q1	Q89983T	Q8998Q1
500 (50HP)		1421113 - 1460498	N/A	Q89983T	N/A
500 (50HP)		1477910 - 1521913	N/A	Q89983T	N/A
500 (50HP)	USA CAN	1521914 - 2305100 1755549 - 2305100	N/A	Q89983T	N/A
500 (50HP)(2)	USA	2305101 - 2478119	N/A	Q89983T	N/A
500 (50HP)(4)	USA	2305101 - 2478119	Q60366Q1	Q89983T	Q8998Q1
500 (50HP)(2)	CAN	2305101 - 2308830	N/A	Q89983T	N/A
500 (50HP)(4)	CAN	2305101 - 2308830	Q60366Q1	Q89983T	Q8998Q1
500 (50HP)	USA AUS BEL CAN	2514919 - 4357639 2863739 - 8030089 9001581 - 9107213 2519919 - 7068997	Q60366Q1	Q89983T	Q8998Q1
500/50HP. (4 Cyl.)	USA AUS BEL CAN	4357640 - 5531629 8030090 - 8063984 9107214 - 9248005 7068998 - 7143687	Q60366Q1	Q89983T	Q8998Q1
50HP. (4 Cyl)	USA AUS BEL CAN	5531630 and up 8063985 and up 9248006 and up 7143688 and up	Q60366Q1	Q89983T	Q8998Q1
50HP. (3 Cyl)	USA BEL CAN	6428681 - 0D000749 9385911 - 9683054 7208333 and up	Q60366Q1	Q89983T	Q8998Q1
50HP. (3 Cyl)	USA BEL	0D000750 - 0G589999 9683055 - 9973099	N/A	Q19453T	Q1945Q2
50HP. (3 Cyl)	USA BEL	0G590000 and up 9973100 and up	N/A	Q8508910	-
55HP. (3 Cyl)	USA BEL	0D000750 and up 9741042 and up	N/A	Q19453T	Q1945Q2
600 (60HP)(6 Cyl.)		1303411 - 1542744	N/A	N.L.A.	N/A
60HP. (3 Cyl)	USA BEL CAN	6428681 - 0D000749 9385911 - 9683054 7208333 and up	Q60366Q1	Q89983T	Q8998Q1
60HP. (3 Cyl), Standard	USA BEL	0D000750 and up 9683055 and up	N/A	Q19453T	Q1945Q2
60HP. (3 Cyl), BigFoot	USA BEL	0D000750 and up 9683055 and up	N/A	Q19453T	Q8M0100526
650 (65HP)(4 Cyl.)(2)		1542745 - 2803561	Q9614Q8	Q89984T4	Q8998Q5
650 (65HP)(4 Cyl.)(4)		1542745 - 2803561	Q9614Q8	Q89984T4	Q8998Q5
650 (65HP)(4 Cyl.)		2803562 - 2874263	Q9614Q8	Q89984T4	Q8998Q5
650 (65HP)(4 Cyl.)		2997439 - 3293183	Q9614Q8	Q89984T4	Q8998Q5
65HP (3 Cyl)	USA AUS BEL CAN	3293184 - 4382056 8006640 - 8042349 9020074 - 9112988 7013633 - 7073472	Q60366Q1	Q89983T	N/A
65HP (3 Cyl)	USA BEL CAN	4382057 - 4571651 9112989 - 9135824 7073473 - 7087822	Q60366Q1	Q89983T	N/A
65 JET	USA BEL	0D283222 and up 9793577 and up	N/A	Q43026T2	Q8M0100526
700 (70HP)(6 Cyl.)		1266411 - 1413610	N/A	N.L.A.	N/A
700 (70HP)(6 Cyl.)		1413611 - 1436114	N/A	Q89984T4	N/A
700 (70HP)(6 Cyl.)		1482212 - 1503458	N/A	Q89984T4	N/A
700 E-2 (70HP)(6 Cyl.)		1503459 - 1503958	N/A	Q89984T4	N/A
700 EL-2 (70HP)(6 Cyl.)		1503459 - 1505110	N/A	Q89984T4	N/A
700 E-2 (70HP)(6 Cyl.)(11)		1503959 - 1566239	Q9614Q8	Q89984T4	Q8998Q5
700 EL-2 (70HP)(6 Cyl.)(11)		1505111 - 1566239	Q9614Q8	Q89984T4	Q8998Q5
70HP (3 Cyl)	USA AUS BEL CAN	4571652 - 4977156 8042350 - 8050199 9135825 - 9196960 7087823 - 7110997	Q60366Q1	Q89983T	N/A
70HP (3 Cyl)	USA AUS BEL CAN	4977157 - 6428680 8050200 and up 9196961 - 9385910 7110998 - 7208332	Q60366Q1	Q89983T	Q8998Q1
70HP (3 Cyl)(6)	USA BEL	0A996142 - 0C221999 9483121 - 9589038	N/A	Q43026T2	Q8998Q1
70HP (3 Cyl)(5)	USA BEL	0A996142 - 0C221999 9483121 - 9589038	N/A	Q43026T2	N/A
75HP (4 Cyl)	USA BEL CAN	6432901 and up 9393856 and up 7208573 and up	N/A	Q89984T4	Q8M0100526
75HP (3 Cyl)(6)	USA BEL	0C222000 and up 9589039 and up	N/A	Q43026T2	Q8998Q5
75HP (3 Cyl)(5)	USA BEL	0C222000 and up 9589039 and up	N/A	Q43026T2	N/A
75 (3 Cyl) Optimax	USA	0T980000 and up	N/A	Q43026T2	Q8M0100526
800 (80HP)(6 Cyl.)		1335465 - 1398629	N/A	Q43026T2	N/A

Quicksilver® Water Pump Repair Kit Charts - 2-Cycle Water Pump Impellers

QUICKSILVER Marine Parts & Accessories

Model	Origin	Serial # Range	Quicksilver® Upper Kit BLA Code	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
800 (80HP)(6 Cyl.)		1398630 - 1566239	N/A	Q89984T4	N/A
800 (80HP)(4 Cyl.)		2559001 - 3144218	Q96148Q8	Q89984T4	Q8998Q5
800 (80HP)(4 Cyl.)		3144219 - 3493912	Q96148Q8	Q89984T4	Q8998Q5
80HP (4 Cyl)	USA AUS BEL CAN	4831999 - 6432900 8050200 and up 9177626 - 9393855 7110998 - 7208572	Q96148Q8	Q89984T4	Q8998Q5
80HP (3 Cyl)(6)	USA BEL	0A996142 - 0C221999 9483121 - 9589038	N/A	Q43026T2	N/A
80HP (3 Cyl)(5)	USA BEL	0A996142 - 0C221999 9483121 - 9589038	N/A	Q43026T2	Q8M0100526
80 JET	USA BEL	0D283222 and up 9793577 and up	N/A	Q43026T2	Q8M0100526
850 E, EL (85HP)(6 Cyl.)		1460999 - 1567039	N/A	Q89984T4	N/A
850 E-1, EL-1 (85HP)(6 Cyl.)(11)		1566240 - 1766823	Q96148Q8	Q89984T4	Q8998Q5
850, 850 XS (85HP)(4 Cyl.)	USA BEL CAN	3493913 - 4590511 9011604 - 9139349 7010108 - 7091097	Q96148Q8	Q89984T4	Q8998Q5
850 XS (85HP)(4 Cyl.)	USA AUS BEL CAN	3493913 - 4831998 8043775 - 8050199 9011604 - 9177625 7010108 - 7110997	Q96148Q8	Q89984T4	Q8998Q5
850 XS (85HP)(4 Cyl.)	USA AUS BEL CAN	3493913 - 4831998 8043775 - 8050199 9011604 - 9177625 7010108 - 7110997	Q96148Q8	Q89984T4	Q89984Q 5
900 (90HP)(6 Cyl.)(11)		1766824 - 1869775	Q96148Q8	Q89984T4	Q8998Q5
90HP (6 Cyl)	USA AUS CAN	4845301 and up 8060545 and up 7111698 and up	Q96148Q8	Q89984T4	Q8998Q5
90HP (3 Cyl)(6)	USA BEL	0A996142 and up 9483121 and up	N/A	Q43026T2	N/A
90HP (3 Cyl)(5)	USA BEL	0A996142 and up 9483121 and up	N/A	Q43026T2	Q8M0100526
115 (3 Cyl) Optimax	USA	0T801000 and up	N/A	Q43026T2	Q8M0100526
950 (95HP)(6 Cyl.)(11)		1869776 - 2318585	Q96148Q8	Q89984T4	Q8998Q5
1000 (100HP)(6 Cyl.)		1464949 - 1503331		Q89984T4	N/A
1000 (100HP)(6 Cyl.)(11)		1503332 - 2318585	Q96148Q8	Q89984T4	Q8998Q5
1000 SS (E)(100HP)(6 Cyl.)(1)	USA CAN	2318586 - 2413843 2320991 - 2321200	Q96148Q8	Q89984T4	Q8998Q5
1000 SS (E)(100HP)(6 Cyl.)(3)	USA CAN	2318586 - 2413843 2320991 - 2321200	Q96148Q8	Q89984T4	Q8998Q5
1000 SS (E-1)(100HP)(6 Cyl.)(1)	USA CAN	2484633 - 2836018 2487363 - 2836018	Q96148Q8	Q89984T4	Q8998Q5
1000 SS (E-1)(100HP)(6 Cyl.)(3)	USA CAN	2484633 - 2836018 2487363 - 2836018	Q96148Q8	Q89984T4	Q8998Q5
1000 BP (100HP)(6 Cyl.)		2399698 - 3253111	N/A	Q89984T4	N/A
100HP (4 Cyl)(6)	USA BEL	0B209468 and up 9523034 and up	N/A	Q43026T2	N/A
100HP (4 Cyl)(5)	USA BEL	0B209468 and up 9523034 and up	N/A	Q43026T2	Q8M0100526
105 JET	USA BEL	0D082000 and up 9682500 and up	Q96148Q8	Q89984T4	Q8998Q5
1100 (110HP)(6 Cyl.)(1)		1870204 - 2314955	Q96148Q8	Q89984T4	Q8998Q5
1100 (110HP)(6 Cyl.)(3)		1870204 - 2314955	Q96148Q8	Q89984T4	Q8998Q5
1150 (115HP)(6 Cyl.)	USA AUS CAN	2836019 - 4112634 8008665 - 8027114 7010763 - 7047257	Q96148Q8	Q89984T4	Q8998Q5
1150 (115HP)(6 Cyl.)	USA AUS CAN	4112635 - 4394236 8027115 - 8027439 7047258 - 7075522	Q96148Q8	Q89984T4	Q8998Q5
115HP (6 Cyl)	USA AUS CAN	4394237 and up 8027440 and up 7075523 and up	Q96148Q8	Q89984T4	Q8998Q5
115HP (4 Cyl)(6)	USA BEL	0C100000 and up 9559771 and up	N/A	Q43026T2	N/A
115HP (4 Cyl)(5)	USA BEL	0C100000 and up 9559771 and up	N/A	Q43026T2	Q8M0100526
115 (3 Cyl) Optimax	USA	0T801000 and up	N/A	Q43026T2	Q8M0100526
1250 (125HP)(6 Cyl.)(2)		2314956 - 2839368	Q96148Q8	Q89984T4	Q8998Q5
1250 (125HP)(6 Cyl.)(4)		2314956 - 2839368	Q96148Q	Q89984T4	Q8998Q5
1250 BP (125HP)(6 Cyl.)		2400058 - 3253111	N.L.A.	Q89984T4	N/A
125HP (4 Cyl)(6)	USA BEL	0D283222 and up 9793577 and up	N/A	Q43026T2	N/A
125HP (4 Cyl)(5)	USA BEL	0D283222 and up 9793577 and up	N/A	Q43026T2	Q8M0100526
1350(6 Cyl)	USA	2839369 - 3293233	Q96148Q8	Q89984T4	Q8998Q5
1400 (140HP) (6 Cyl.)		3293234 - 3502805	Q96148Q8	Q89984T4	Q8998Q5
1400 (140HP) (6 Cyl.)	USA AUS CAN	4865678 and up 8052650 and up 7112773 and up	Q96148Q8	Q89984T4	Q8998Q5
1500 (6 Cyl)	USA AUS CAN	3502806 - 4121434 8005615 - 8028039 7010533 - 7048782	Q96148Q8	Q89984T4	Q8998Q5

Quicksilver® Water Pump Repair Kit Charts - 2-Cycle Water Pump Impellers

QUICKSILVER Marine Parts & Accessories

Model	Origin	Serial # Range	Quicksilver® Upper Kit BLA Code	Quicksilver® Impeller BLA Code	Quicksilver® Impeller Repair Kit BLA Code
1500(6 Cyl)(9)	USA AUS CAN	4121435 - 4865677 8028040 - 8052649 7048783 - 7112772	Q9614BQ8	Q89984T4	Q8998405
1500(6 Cyl)(10)	USA AUS CAN	4121435 - 4865677 8028040 - 8052649 7048783 - 7112772	Q9614BQ8	Q89984T4	Q8998405
1500 XS (6 Cyl)	USA	4868648 - 5327662	Q9614BQ8	Q89984T4	Q8998405
V-135 Carb	USA	0A904646 and up	Q9614BQ8	Q89984T4	Q8998405
V-135 DFI	USA	0G590000 and up	Q9614BQ8	Q89984T4	Q8998405
140 JET	USA BEL	0D082000 and up 9682500 and up	Q9614BQ8	Q89984T4	Q8998405
V-150 Carb(8)	USA	4868998 - 0A904645	Q9614BQ8	Q89984T4	Q8998405
V-150 Carb(7)	USA	4868998 - 0A904645	Q9614BQ8	Q89984T4	Q8998405
V-150 Carb, EFI & DFI	USA	0A904646 and up	Q9614BQ8	Q89984T4	Q8998405
V-150XR2,4,6 - MAGNUM II,III(8)	USA	4868998 and up	Q9614BQ8	Q89984T4	Q8998405
V-150XR2,4,6 - MAGNUM II,III(7)	USA	4868998 and up	Q9614BQ8	Q89984T4	Q8998405
V-1750,V-175(8)	USA AUS	4301235 - 6618750 8064250 and up	Q9614BQ8	Q89984T4	Q8998405
V-1750,V-175(7)	USA AUS	4301235 - 6618750 8064250 and up	Q9614BQ8	Q89984T4	Q8998405
V-175 Carb, EFI & DFI	USA	6618751 and up	Q9614BQ8	Q89984T4	Q8998405
V-200(8)	USA AUS	4839034 - 6625220 8061595 - 8065672	Q9614BQ8	Q89984T4	Q8998405
V-200(7)	USA AUS	4839034 - 6625220 8061595 - 8065672	Q9614BQ8	Q89984T4	Q8998405
V-200 Carb & EFI (2.5L)	USA	6625221 and up	Q9614BQ8	Q89984T4	Q8998405
V-200 EFI (3.0L)	USA	0T750164 and up	N/A	Q43026T2	Q8M0100526
V-200 DFI (3.0L)	USA	0G386496 - 0G589999	N/A	Q43026T2	Q8M0100526
V-200 DFI (3.0L)	USA	0G590000 and up	N/A	Q43026T2	Q8M0100526
V-220 LASER	USA	0B117316 and up	Q9614BQ8	Q89984T4	Q8998405
V-225 (2.4L)(8)	USA	5628028 and up	Q9614BQ8	Q89984T4	Q8998405
V-225 (2.4L)(7)	USA	5628028 and up	Q9614BQ8	Q89984T4	Q8998405
V-225 (3.0L) Carb & EFI	USA	0D280813 and up	N/A	Q43026T2	Q8M0100526
V-225 DFI	USA	0G590000 and up	N/A	Q43026T2	Q8M0100526
V-250 (3.4L)	USA	0C101891 and up	N/A		N.L.A.
V-250 (3.0L) EFI	USA	0G129222 and up	N/A	Q43026T2	Q8M0100526
V-275 (3.4L)	USA	0C101891 and up	N/A		N.L.A.
3 00/3.4L	USA	5611648 and up	N/A		N.L.A.

Suzuki® Water Pump Impellers

Replacement impellers manufactured to OEM specifications to suit various models. Refer to detailed application guide on page 561.

S18-3000

S18-3023

S18-3049

S18-3092

S18-3094

S18-3095

S18-3096

S18-3097

S18-3099

S18-3035

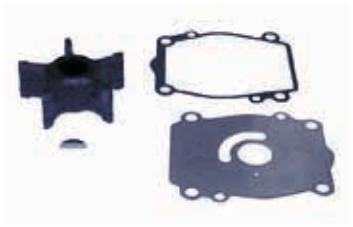
Sierra® Water Pump Repair Kits - Suzuki®

Replacement water pump kits manufactured to OEM specifications to suit various models.
Refer to detailed application guide on page 561.

S18-3242

S18-3243

S18-3244



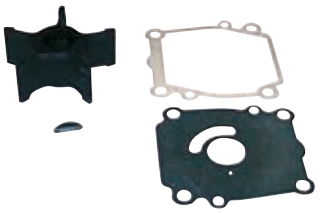
S18-3253

S18-3254

S18-3255

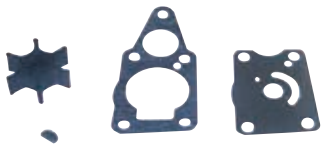
S18-3256

S18-3257



S18-3258

S18-3259



S18-3260

S18-3264

S18-3266

S18-3267

Suzuki® Reference Guide

HP/Model	Year	Sierra® Impeller BLA Code	Sierra® Water Pump Kit BLA Code
DT2/2.2	1983-97	S18-3097	—
DT3.5	1983-84	S18-3097	—
DT4	1984-98	S18-3097	S18-3260
DF4	2003-10	S18-3097	S18-3266
DT5	1977-83, 1999-02	S18-3097	S18-3260
DT6	1984-02	S18-3097	S18-3259
DF6	2003-10	S18-3097	S18-3266
DT8	1980-87	S18-3097	S18-3259
DT8	1988-97	S18-3000	S18-3255
DF8	2010	S18-3099	—
DT9.9	1977-82	S18-3092	—
DT9.9	1983-87	S18-3099	S18-3256
DT9.9	1988-97	S18-3000	S18-3255
DF9.9	1997-10	S18-3099	S18-3256
DT14	1977-80	S18-3092	
DT15	1983-97	S18-3099	S18-3256
DT15C	1989-97	S18-3099	
DF15	1997-10	S18-3099	S18-3256
DT16	1977-82	S18-3092	
DT20	1986-88	S18-3096	S18-3242
DT25	1980-82	S18-3092	
DT25	1983-88	S18-3096	S18-3242
DF25	2000-06	S18-3096	S18-3242
DF25 V-Twin	2006-10	S18-3096	
DT30	1983-87	S18-3096	S18-3242
DT30	1988-97	—	
DF30	2000-07	S18-3096	S18-3242
DT35	1980-82	S18-3094	
DT35	1987-89	S18-3096	S18-3242
DT40	1980-82	S18-3094	
DT40	1983	S18-3096	
DT40/DT40C	1984-98	S18-3096	S18-3242
DF40	1999-09	S18-3096	S18-3242
DF40	2010	S18-3096	
PU40 (jet)	1989-94	S18-3096	
DT50	1982-prior	S18-3094	
DT50	1983-84	S18-3094	S18-3243
DT50M	1980-84	S18-3094	S18-3243
DF50	1999-09	S18-3096	S18-3242
DF50	2010	S18-3096	
DT55	1985-97	S18-3094	S18-3243
PU55 (jet)	1989-94	S18-3094	
DT60	1983	S18-3094	S18-3243
DT60	1984	S18-3095	
DF60	1998-09	S18-3049	
DF60	2010	S18-3096	
DT65	1982-prior	S18-3094	
DT65	1985-97	S18-3094	S18-3243
DF70	1998-09	S18-3049	
DF70	2010	S18-3096	
DT75	1983-97	S18-3095	S18-3244
DF80	2009-10	S18-3049	
DT85	1983-00	S18-3095	S18-3244
PU85 (jet)	1989-97	S18-3095	
DT90	1989-97	S18-3049	S18-3254
DF90	2001-08	S18-3023	
DF90	2009-10	S18-3049	
DT100	1987-01	S18-3049	S18-3254
DF100	2009-10	S18-3023	
DT115	1986-01	S18-3023	S18-3257**
DF115	2001-10	S18-3023	S18-3258*
DT140	1986-01	S18-3023	S18-3257
DF140	2002-10	S18-3023	
DT150	1986-03	S18-3023	S18-3253
DF150	2006-10	S18-3023	
DT175	1987-92	S18-3023	S18-3253
DF175	2006-10	S18-3023	
DT200	1986-00	S18-3023	S18-3253
DF200	2004-10	S18-3035	S18-3264
DT225	1990-03	S18-3023	S18-3253
DF225	2004-10	S18-3035	S18-3264
DF250	2004-10	S18-3035	S18-3264
DF300	2007-10	S18-3035	S18-3267

DT - 2 stroke Motors
DF - 4 stroke Motors

* S/N 681517 & Earlier
** S/N 812175 & Later

Sierra® Water Pump Impellers - Chrysler®/Force®

Replacement water pump impellers manufactured to OEM specifications to suit various models. Refer to detailed application guide on page 563.

S18-3017

S18-3030

S18-3056

S18-3057

S18-3062

S18-3084

S18-3085

S18-8900

S18-8901

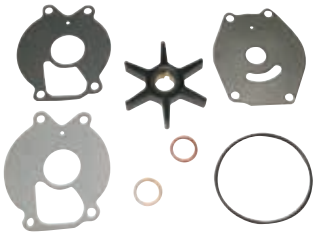
S18-8903

S18-45003

Sierra® Water Pump Repair Kits - Chrysler®/Force®

Replacement water pump repair kits manufactured to OEM specifications to suit various models. Refer to detailed application guide on page 563.

S18-3214



S18-3215

S18-3240

S18-3251

Chrysler® Reference Guide

Horsepower	Year	Serial No.	Sierra® Impeller BLA Code	Sierra® Impeller Kit BLA Code
9.9	1979-97	ALL	S18-8903	S18-3240
9.9/15 (3)	1998	E288600-E344999 (3)	S18-3062	—
10	1974-78	ALL	S18-8903	S18-3240
12	1979	ALL	S18-8903	S18-3240
15	1974-97	ALL	S18-8903	S18-3240
20	1973-78	ALL	S18-8903	S18-3240
20	1979-82	ALL	S18-8901	S18-3240
25	1973-78	ALL	S18-8903	S18-3240
25	1996-98	E127700-E344999	S18-3057	S18-3215
35	1974-80	All	S18-45003	—
30	1980-82	ALL	S18-8901	—
35	1976-78, 83-84 & 86-88	ALL	S18-8901	—
35	1979-82	ALL	S18-3084	
45	1974-80	ALL	S18-45003	—
40/50	1992-94	E065372-E093669	—	—
40/50	1995-99	E093700-E369299	S18-3057	—
50	1984-91,1992A	N/A	—	—
55	1974-80	ALL	S18-45003	—
70	1979-80	ALL	S18-3085	
70	1991-95	E138600-E345999	S18-8900	—
75	1979	ALL	S18-3085	
75	1980	ALL	S18-3030	
75	1996-98	E138600-E345999	S18-8900	—
75	1999	E345000 & up	S18-3057	—
85	1977-88	ALL	S18-3030	
85	1989	A,B	S18-3030	
85	1989	C,E	S18-3030	
85	1989	D, F, G, H	S18-3017	
85	L-Drives 1989	A,B,C	S18-3017	—
90	1991A,B,C,D-1992C	E000001-E039023	S18-3017	S18-3251
90	1992-94	E039024-E093699	S18-3017	S18-3251
90	1995-97	E093700 & up	S18-3056	S18-3214
90 L-Drive	1991	N/A	S18-3017	S18-3251
90 & L-Drive	1990	N/A	S18-3017	S18-3251
Sport Jet 90	1993-94	E023150-E066619	—	—
Sport Jet 90	1995-96	E138325-E138599	—	—
Sport Jet 95XR	1996-97	E141089 & up	—	—
100	1979-80	ALL	S18-3030	
105	1977-78	ALL	S18-3030	
115	1977-80	ALL	S18-3030	
120/135	1977	ALL	S18-3030	
120	1990A-91C	N/A	S18-3017	S18-3251
120	1991D-92C& 1993, 1994	E000001-E093699	S18-3017	S18-3251
120	1995-97	E093700 & up	S18-3056	S18-3214
120 L-Drive	1990-92	N/A	S18-3017	S18-3251
120 Sport Jet	1995-97	E095088-E138599	—	—
125	1981-89	ALL	S18-3030	—
125	1988	C	S18-3030	—
125 L-Drive	1989	N/A	S18-3017	S18-3251
140	1978-80	ALL	S18-3030	
150	1989-92	UP TO E065371	S18-3017	S18-3251
150	1993-UP	E000001-E093699	S18-3017	S18-3251

3. Mercury Lower Unit

Sierra® Water Pump Impellers - Honda®

Replacement water pump impellers manufactured to OEM specifications to suit various models.

S18-3031

S18-3056

S18-3100

S18-3245

S18-3246

S18-3247

S18-3248

S18-3249

S18-3250

S18-32455

BLA Code	Replaces OEM Part Number	Suits Motor Models
S18-3031	19210-ZY3-003	BF135-225
S18-3056	19210-ZW1-003	75-90HP (up to 1998 with Mercury gearcase)
S18-3100	19210-ZW9-003/013	BF8D/9.9D short & long shaft
S18-3245	19210-881-A01/A02	5, 7.5, 8 & 10HP
S18-32455	19210-ZW9-A32	8 & 9.9HP, 2001 & up, 15 & 20HP, 2003 & up
S18-3246	19210-ZV4-013	BF9.9, BF15, AH, AK, AM & AW Series #14ZV40M
S18-3247	19210-ZV4-651	8, 9.9, 15HP
S18-3248	19210-ZV5-003	35, 40, 45 & 50HP
S18-3249	19210-ZV7-003	20, 25, 30HP
S18-3250	19210-ZW1-B04	75, 90, 115 & 130HP (1999 up with Honda gearcase)

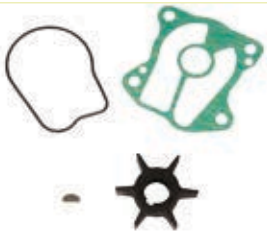
Sierra® Water Pump Repair Kits - Honda®

Replacement water pump repair kits manufactured to OEM specifications to suit various models.

S18-3278

S18-3279

S18-3280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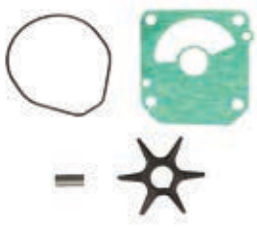
S18-3282

S18-3214


S18-3283

S18-3284

S18-3285

BLA Code	Replaces OEM Part Number	Suits Motor Models
S18-3278	06192-ZV1-C00	BF5
S18-3279	06192-881-C00	BF8A (USA)
S18-3280	06192-ZV4-000	BF9.9A/BF15A
S18-3281	06192-ZV7-000	BF25-30
S18-3282	06192-ZV5-003	BF35-45, BF40-50
S18-3214	19210-ZW1-003	BF70-90 1996-98 (with Mercury gearcase)
S18-3283	06192-ZW1-000	BF75/90, BF115/130 1999 on (with Honda gearcase)
S18-3284	06192-ZY6-000	BF135/BF150
S18-3285	06192-ZY3-000	BF200-225

SELOC® Engine Manuals

SELOC® Repair manuals for all types of motors. Recognised throughout the trade as being exceptionally well written. Features exploded pictures and drawings of mechanical and electrical parts as well as wiring diagrams for electrical trouble shooting. Step by step removal and replacement instructions and repair tips make these manuals essential references, for mechanics, home or professional.

BLA Code	Replaces OEM Part Number
S18-01000	Chrysler® Outboards, 3.5-150HP, 1-4 Cyl, 1962-84
S18-01100	Force® Outboards, 3.5-150HP, 1-5 Cyl, 1984-99
S18-01200	Honda® Outboards, 2-130HP, 1-4 Cyl, 1978-2001
S18-01202	Honda® Outboards, 2-225HP, 1-4 Cyl, 2002-2008
S18-01301	Johnson®/Evinrude® Outboards, 1.5-125HP 1958-72
S18-01302	Johnson®/Evinrude® Outboards, 1.5-60HP, 1 & 2 Cyl, 1971-89
S18-01308	Johnson®/Evinrude® Outboards, 60-235HP, 3 Cyl, V4 & V6, 1973-91
S18-01311	Johnson®/Evinrude® Outboards, 65-300HP, V4, V6 & V8, 1992-01
S18-01312	Johnson®/Evinrude® Outboards, 1.5-70HP, 2 & 4 stroke, 1990-01
S18-01313	Johnson®/Evinrude® Outboards, 40-250HP, all 2 stroke, 2002-06
S18-01314	Johnson®/Evinrude® Outboards, 2.5-250HP, 2 & 4 stroke, 2002-07
S18-01400	Mariner® Outboards, 2-60HP, 1977-89
S18-01402	Mariner® Outboards, 3, 4 inline 6 Cyl, V6 & EFI, 1977-89
S18-01404	Mercury® Outboards, 2-40HP, 1 & 2 Cyl, 1965-89
S18-01406	Mercury® Outboards, 40-115HP, 3 & 4 Cyl, 1965-89
S18-01408	Mercury® Outboards, 90-300HP, inline 6 Cyl, V6, EFI, 1965-89
S18-01416	Mercury®/Mariner® Outboards, 2.5-275HP, 1-4 Cyl & V6, 2 stroke, 1990-00
S18-01418	Mercury® Outboards, 2.5-250HP, 2001-05
S18-01422	Mercury®/Mariner® Outboards. all 4 stroke engines, 2.5-300HP, 2005-11
S18-01500	Tohatsu® Outboards, 2.5-140HP, 1992-09
S18-01600	Suzuki® Outboards, 2.5-225HP, 1-4 Cyl, V4 & V6, EFI, 1988-03
S18-01602	Suzuki® Outboards, all 4 stroke engines, 2.5-300HP, 1996-07
S18-01701	Yamaha® Outboards, 2-250HP, 1-4 Cyl, V4 & V6, 2 & 4 stroke, 1984-96
S18-01703	Yamaha® Outboards, 2-250HP, 1-4 Cyl, V4 & V6, 2 stroke, 1997-03
S18-01705	Yamaha®, Mercury®, Mariner® Outboards, 2.5-225HP, 4 stroke, 1995-04
S18-01707	Yamaha®, all 4 stroke models including jet drives, 2.5-300HP, 2005-10
S18-03200	Mercruiser® Stern Drive, All Engines, Drives & Transmissions, 1992-01 Ford/GM 4, 6 inline, V6 & V8, 1964-91
S18-03206	Mercruiser® Stern Drive, All Engines, Drives & Transmissions, 1992-01
S18-03208	Mercruiser® petrol engines including inboards, sterndrive and transmissions, 2001-13
S18-03400	OMC® Cobra Stern Drive, With Ford/GM 4 Cyl, Volvo 4 Cyl Motors, V6 & V8 Motors, 1964-86
S18-03404	OMC® Cobra / King Cobra Stern Drive units powered by Ford/GM, 4 Cyl, V6 & V8 Motors, 1986-98
S18-03600	Volvo® Penta Stern Drives, with Volvo 4 Cyl Motors, 1968-91
S18-03602	Volvo® Penta Stern Drives, With Volvo® 4 Cyl Petrol Motors, 1992-93
S18-03606	Volvo® Penta Stern Drives, All Petrol Engines, 1992-02
S18-03608	Volvo® Penta, all petrol engines and Stern Drive, 2003-13
S18-07400	Yanmar® Inboards, QM, GM Petrol, HM, JH & JH2 diesel models, 1975-98
S18-09000	Sea-Doo/Bombardier PWC, 1988-91
S18-09002	Sea-Doo/Bombardier PWC, 1992-97
S18-09006	Sea-Doo/Bombardier PWC, all 4 stroke Models, 2002-11
S18-09200	Kawasaki® PWC 300-650 Series, 1973-91
S18-09202	Kawasaki® 550-1100 Series1992-97
S18-09400	Polaris® PWC 650-1050 Series, 1992-97
S18-09600	Yamaha®, Jet-n-Cat & other Cuyuna powered PWC's, 1987-91
S18-09602	Yamaha® PWC 650-1200 Series 1992-97
S18-09606	Yamaha® PWC All 4 stroke models 2002-11

Sierra® Water Pump Impellers - Yamaha®

Replacement water pump impellers manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 570-571.

S18-3040

S18-3042

S18-3063

S18-3065

S18-3066

S18-3067

S18-3068

S18-3069

S18-3070

S18-3071

S18-3072

S18-3073

S18-3074

S18-3088

S18-8910

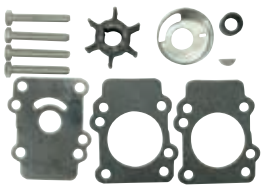
S18-8911

S18-8925

S18-45617

Sierra® Water Pump Repair Kits - Yamaha®

Replacement water pump repair kits manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 570-571. .



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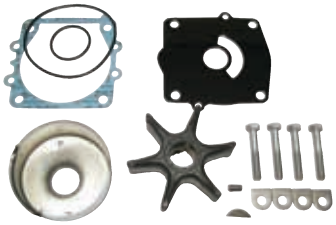

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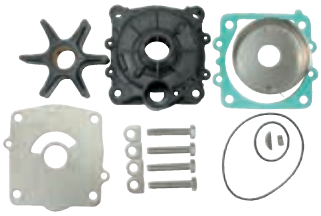

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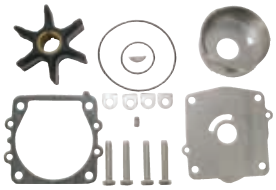

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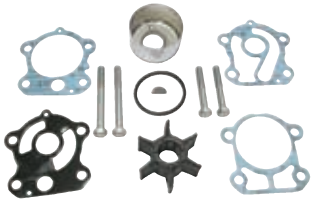
S18-3313-1



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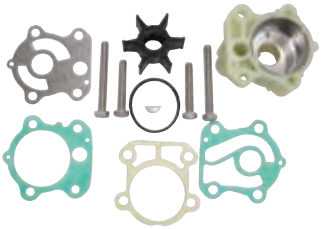

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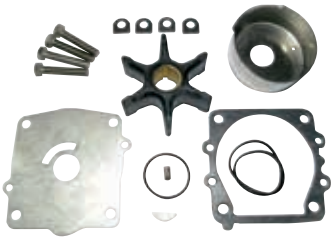

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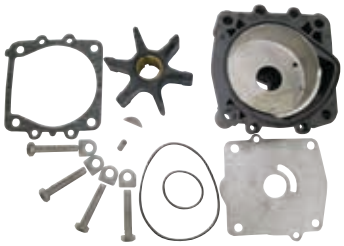

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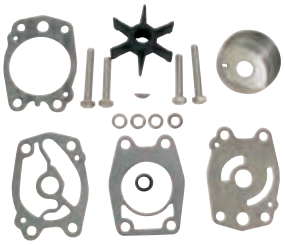

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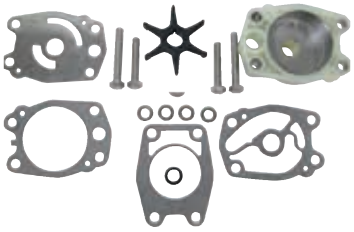

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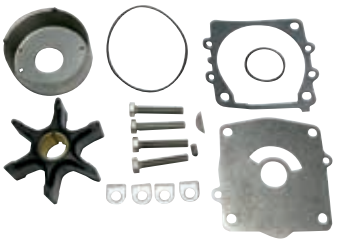

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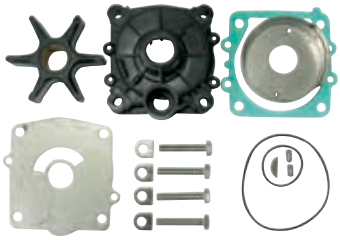
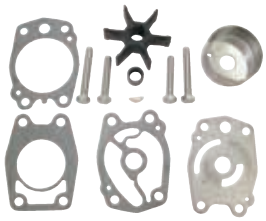


S18-3396

S18-48619

Sierra® Water Pump Repair Kits - Yamaha®

Replacement water pump repair kits manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 570-571.



S18-3397

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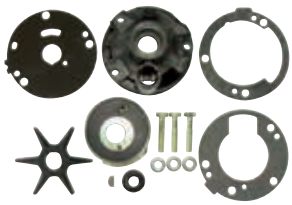

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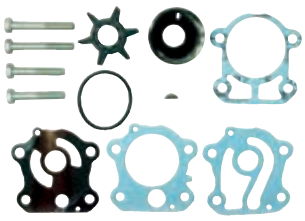
S18-3427



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S18-3431

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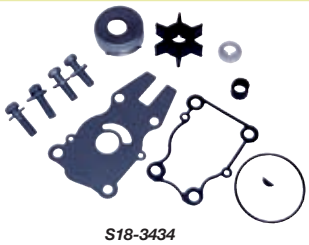

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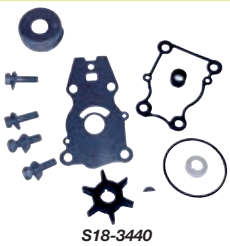


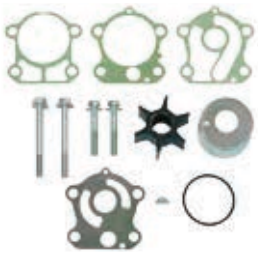
S18-3440

S18-3442

Sierra® Water Pump Repair Kits - Yamaha® (continued)

Replacement water pump repair kits manufactured to OEM specifications to suit various models.
Refer to detailed application guides on pages 570-571.

S18-3450



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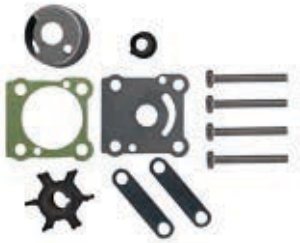

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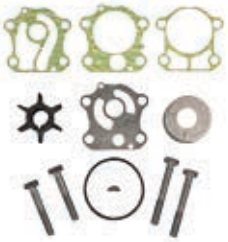
S18-3461

S18-3462

S18-3463



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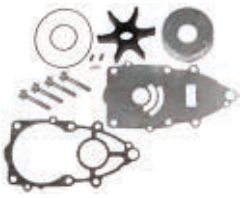
S18-3465

S18-3466



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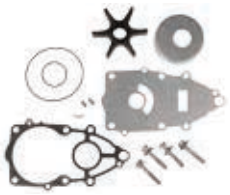


S18-3516

Yamaha® Reference Guide

HP\Model	Year	Sierra® Impeller BLA Code	Sierra® Kit with Housing BLA Code	Sierra® Kit without Housing BLA Code
4 STROKE MOTORS				
F2.5	2003-12	S18-8911		
F4	1999-01	S18-3073		
F4	2002-08		S18-48619	
F4	2002-11	S18-3073	—	—
F6	2001-08	S18-8910	S18-3410	S18-3450
F6	2009-11	S18-3073	—	—
F8	2001-11	S18-8910	S18-3410	S18-3450
T8	2001-10	S18-3040	—	—
F9.9	1985-04	S18-3074	S18-3411	S18-3148
F9.9	2005-06	S18-3040	S18-3412	S18-3433
F9.9	2007-11	S18-8910	S18-3410	S18-3450
FT9.9	1985-90	S18-3074	S18-3411	S18-3148
T9.9	1991-96	S18-3074	S18-3411	S18-3148
T9.9	2005-06	S18-3040	S18-3412	S18-3433
F15	1998-05	S18-3040	S18-3412	S18-3433
F15	2006-11	S18-3040	—	—
F25	1998-05, 2009-11	S18-3068	S18-3432	—
T25	2001-06, 2009	S18-3068	S18-3413	S18-3440
F30	2001-05	S18-3068	S18-3413	S18-3440
F40	1999	S18-3069	S18-3415	S18-3434
F40	2000-08	S18-3068	S18-3413	S18-3440
F40 2.6L	1999	S18-3069	—	S18-3434
F50	1995-09	S18-3069	S18-3415	S18-3434
T50	1996	S18-3069	S18-3461	S18-3428-1
T50	1997-11	S18-3069	S18-3466	S18-3465
F60	2002-09	S18-3069	S18-3415	S18-3434
T60	2003-11	S18-3069	S18-3466	S18-3465
F75	2003-11	S18-3042	S18-3409	S18-3451
F80	1999-03	S18-3042	S18-3409	S18-3451
F90	2003-11	S18-3042	S18-3409	S18-3451
F100	1999-03	S18-3042	S18-3409	S18-3451
F115/LF115	2000-11	S18-3071	—	S18-3442
F150 / LF150	2004-11	S18-3071	S18-3396	S18-3395
F200/LF200	2002-11	S18-3071	S18-3396	S18-3395
VF200	2009-11	S18-3071	—	—
F225/LF225	2002-10	S18-3071	S18-3396	S18-3395
F225/LF225*	2007-09	S18-3071	—	S18-3515
VF225	2009-11	S18-3071	—	—
F225 (dual pickup)	2006 & up	S18-45617	—	—
F250 / LF250**	2005	S18-3071	S18-3396	S18-3395
F250 / LF250**	2006-11	S18-3071	—	S18-3515
VF250	2009-10	S18-3071	—	S18-3515
F250 (dual pickup)	2006 & up	S18-45617	—	—
F300	2007-10	—	—	—
LF300	2007-10	—	—	—
Z300				S18-3515
F300 4.2L (dual pickup)	2006 & up	S18-45617		
F350	2006 & up	S18-8925		
F350	2007-10	—	—	—
LF350	2007-10	—	—	—

HP\Model	Year	Sierra® Impeller BLA Code	Sierra® Kit with Housing BLA Code	Sierra® Kit without Housing BLA Code
2 STROKE MOTORS				
2	1984-87	S18-3072	S18-3463	—
2	1988-02	S18-3072	S18-3462	—
3	1998-02	S18-8911	—	—
4	1984-99	S18-3073	—	—
5	1984-02	S18-3073	—	—
6	1986-00	S18-3066	—	S18-3460
8	1984-09	S18-3066	—	S18-3460
9.9	1984-95	S18-3074	S18-3411	S18-3148
9.9	1996-09	S18-3040	S18-3412	S18-3433
15	1984-95	S18-3074	S18-3411	S18-3148
15	1996-09	S18-3040	S18-3412	S18-3433
20	1996-97	S18-3065	—	S18-3431
25	1984-85	S18-3067	S18-3426	—
25	1986-87	S18-3067	S18-3427	—
25 (2 cyl)	1988-09	S18-3065	—	S18-3431
25 (3 cyl)	1996-02	S18-3068	—	—
C25	1990-97	S18-3067	S18-3427	—
CV25	1990	S18-3067	S18-3427	—
30	1984-85	S18-3067	S18-3426	—
30	1986	S18-3067	S18-3427	—
30	1987-01	S18-3068	—	S18-3430
C30	1990-92	S18-3067	S18-3427	—
C30	1993-97	S18-3068	S18-3432	—
40	1984-87	S18-3068	S18-3408	S18-3429
40	1988-94	S18-3068	—	S18-3429
40	1995-05	S18-3069	S18-3415	S18-3434
C40	1990-91	S18-3088	S18-3375	S18-3374
C40	1992-97	S18-3088	S18-3398	S18-3397
C40	1997-03	S18-3069	S18-3415	S18-3434
P40	1998	S18-3069	S18-3415	S18-3434
50	1984-87	S18-3068	S18-3408	S18-3429
50	1988-94	S18-3068	—	S18-3429
50	1995-09	S18-3069	S18-3415	S18-3434
C50	1998-01	S18-3069	S18-3415	S18-3434
PRO 50	1987	S18-3068	S18-3408	S18-3429
PRO 50	1988-90	S18-3068	—	S18-3429
P50	1991-93	S18-3068	—	S18-3429
P50	1995-96	S18-3069	—	S18-3434
50 Jet	1986-89	S18-3068	—	—
C55	1991-94	S18-3069	—	S18-3425
CV55	1989	S18-3069	—	S18-3425

■ 2.6L engine ■ 3.1L engine

* Models with 20" Shaft ** Excludes 4.2L

Yamaha® Reference Guide

HP\Model	Year	Sierra® Impeller BLA Code	Sierra® Kit with Housing BLA Code	Sierra® Kit without Housing BLA Code
60	2001-03	S18-3069	—	S18-3465
60	2004-05	S18-3070	S18-3371	S18-3370
C60	1996-01	S18-3069	S18-3466	S18-3465
E60	1995-96	S18-3069	S18-3466	S18-3465
E60	1997-00	S18-3069	—	—
P60	1991	S18-3069	S18-3461	S18-3428-1
P60	1992-99	S18-3069	S18-3466	S18-3465
70	1984-91	S18-3069	S18-3461	S18-3428-1
70	1992-03	S18-3069	S18-3466	S18-3465
70	2004-09	S18-3070	S18-3371	S18-3370
C70	2000-01	S18-3069	S18-3466	S18-3465
C75	1994-99	S18-3070	S18-3371	S18-3370
E75	1995-00	S18-3070	—	—
P75	1996-99	S18-3070	—	—
C80	1997	S18-3070	—	—
85	1985	S18-3070	—	—
C85	1989-97	S18-3070	S18-3371	S18-3370
CV85	1989-91	S18-3070	S18-3371	S18-3370
90	1984-09	S18-3070	S18-3371	S18-3370
90 Jet	1986-89	S18-3070	—	—
B90	1997-99	S18-3070	—	—
C90	1997-01	S18-3070	S18-3371	S18-3370
C115	1991-92	S18-3071	S18-3373	S18-3372
C115	1993-96	S18-3071	S18-3313-1	S18-3312
C115	1997-00	S18-3071		
P115 (62A)	1993-96	S18-3071	S18-3313-1	S18-3312
115 (6N6), (6E5)	1984-94	S18-3071	S18-3373	S18-3372
115 (6N6)	1994	S18-3071	S18-3313-1	S18-3312
130 (6L1), (6N7)	1988-92	S18-3071	S18-3373	S18-3372
130 (6N7)	1993-96	S18-3071	S18-3313-1	S18-3312
130	1997-01	S18-3071		
130	2002-04			
L130 (6L6), (6N4)	1989-92	S18-3071	S18-3373	S18-3372
L130 (6N4)	1993-96	S18-3071	S18-3313-1	S18-3312
L130	1997-01	S18-3071		
C150 (6E5)	1996-99	S18-3071	S18-3396	S18-3395
150 (6R2), (6G4)	1984-91	S18-3071	S18-3311	S18-3310
150 (6R2)	1992-09	S18-3071	S18-3396	S18-3395
L150 (6R0), (6K0)	1986-91	S18-3071	S18-3311	S18-3310
L150 (6R0)	1992-99	S18-3071	S18-3396	S18-3395
P150	1986-91	S18-3071	S18-3311	S18-3310
P150	1992-99	S18-3071	S18-3396	S18-3395
150/175/200ETLN	1984	S18-3071	S18-3311	S18-3310
PRO V150 (6J9)	1986-89	S18-3071	S18-3311	S18-3310
PRO V150D (6N9)	1990	S18-3071	S18-3311	S18-3310
PX150	1999	S18-3071	S18-3396	S18-3395
SX150	1999-04	S18-3071	S18-3396	S18-3395
V150	2000-08	S18-3071	S18-3396	S18-3395
VZ150	2001-09	S18-3071	S18-3396	S18-3395
Z150/LZ150	2001-05	S18-3071	S18-3396	S18-3395
175 (6G5)	1984-91	S18-3071	S18-3311	S18-3310
175 (6R3)	1992-00	S18-3071	S18-3396	S18-3395
P175 (62H)	1994-99	S18-3071	S18-3396	S18-3395
VZ175	2001-09	S18-3071	S18-3396	S18-3395
Z175	2001-05	S18-3071	S18-3396	S18-3395
200 (6G6), (6R4)	1984-91	S18-3071	S18-3311	S18-3310
200 (6R4)	1992-99	S18-3071	S18-3396	S18-3395
L200 (6K1), (6R1)	1986-91	S18-3071	S18-3311	S18-3310
L200	1992-99	S18-3071	S18-3396	S18-3395
LX200	1999-02	S18-3071	S18-3396	S18-3395
P200	1991-99	S18-3071	S18-3396	S18-3395
SX200	1999-05	S18-3071	S18-3396	S18-3395
V200	1998-99	S18-3071	S18-3396	S18-3395
VZ200	2001-04	S18-3071	S18-3396	S18-3395
VZ200	2005-09	S18-3071	—	S18-3516
Z200/LZ200	2000-10	S18-3071	S18-3396	S18-3395
V6 Special (6G7)	1984-86	S18-3071	S18-3311	S18-3310
V6 Excel (6K7)	1987-89	S18-3071	S18-3311	S18-3310
225 (6R5)	1990-91	S18-3071	S18-3311	S18-3310
225 ■	1992-97	S18-3071	S18-3396	S18-3395
225/L225/S225 ■	1994-99	S18-3071	S18-3396	S18-3395
LX225/SX225	2000-03	S18-3071	S18-3396	S18-3395
V225	1998-99	S18-3071	S18-3396	S18-3395
VX225	2000-04	S18-3071	S18-3396	S18-3395
VZ225	2003-09	S18-3071	—	S18-3516
250/L250	1990-96	S18-3071	S18-3396	S18-3395
L250/S250	1997-99	S18-3071	S18-3396	S18-3395
VX250	2002-04	S18-3071	S18-3396	S18-3395
VZ250	2003-09	S18-3071	—	S18-3516
Z300	2006	S18-3071	—	S18-3515
LZ300	2006	S18-3071	—	S18-3515
VZ300	2004-09	218-3071	—	S18-3516

■ 2.6L engine
■ 3.1L engine
* Models with 20" Shaft
** Excludes 4.2L

Water Pump Impellers - Tohatsu®

Replacement water pump impeller manufactured to OEM specifications, to suit the models listed in the table below.

S18-8920

S18-8921

S18-8922

S18-8923

S18-8924

S18-45404

BLA Code	Replaces OEM Part Number	Suits Motor Models
S18-8920	3B2-65021-1	8 (8B models), 9.8 (9.8B model), 8 4 stroke (All), 9.8 4 stroke (All)
S18-8921	334-65021-0	9.9 (All), 15 (All), 18 (All), 9.9 4 stroke (All B models), 15 4 stroke (All B models), 18 4 stroke (All)
S18-8922	3C8-65021-2	40 3-cyl (D modes), 40 TLDI 2 stroke (All) 50 3-cyl (D models), 50 TLDI
S18-8923	345-65021-0	25 (25C model), 25 4 stroke (All A&B models with white bushing), 30 (30A model), 30 4 stroke (All A&B models with white bushing) 40 2-cyl (40C model)
S18-8924	3C7-65021-1, -2	60 3-cyl (B&C models), 70 3-cyl (B&C models), MD 70, MD 90 TLDI, 115, 140, 90 2 stroke
S18-45404	353-65021-0M	NS50C, NS60A, NS70A2, 2002 & up

Engine Diagnostics

Sierra® Touch and Test System

STATS™ (Sierra® Touch And Test System) is an innovative new handheld engine diagnostic tool from Sierra®. Now a marine technician can plug into a marine engine's Electronic Control Module (ECM) and diagnose engine problems without needing a laptop or PC.

With the STATS™ engine diagnostic tool, you can now have access to this important service capability, creating opportunities to work on any of several popular engine brands.

Programmable and Versatile

Unlike those proprietary systems, the STATS™ console can be programmed to work with most major marine engines, outboard and PWC brands, including BRP®, Mercury/Mercruiser®, MEFI®, Suzuki® and Yamaha® as well as Kawasaki®, SeaDoo® and Yamaha® personal watercraft. When ordering the STATS™ console simply specify which engine software/cable module(s) are required (see kit details below). Additional software modules can be downloaded from Sierra® and installed at any time. Replacement cables are also available.

User Friendly

Thanks to its intuitive user interface, the STATS™ is quick and easy to use. The lightweight console can be comfortably held in either hand, while the clearly marked touch screen function keys are easy to use when navigating through the on screen display. Fault codes, live system tests and other service data is clearly readable on STATS' 6-inch monochrome screen, even in bright daylight. STATS™ can also clear codes once the problem has been remedied.

To purchase additional modules or to update existing software for free, simply plug the STATS™ console into their laptop using the included USB cable and follow installation instructions. The STATS™ tool is rugged, shock-resistant, and splash proof. It runs on 12V DC power (either from the engine power lead or using a power cable with battery clips) or 240V AC using the included universal AC adapter.
Contact BLA Customer Service on 1300 252 725 for more information.

BLA Code	Complete Kits
S18-SD102	Mercury®/Mercruiser®/MEFI® 1-4, BRP®, Yamaha®, Suzuki® Diagnostic System
S18-SD103	Mercury®/Mercruiser®/MEFI® 1-4, BRP®, Yamaha® Diagnostic System
S18-SD104	Mercury/Mercruiser®/MEFI® 1-4, BRP®, Suzuki® Diagnostic System
S18-SD105	Mercury/Mercruiser®/MEFI® 1-4, Yamaha® Diagnostic System
S18-SD106-1	Mercury/G3/Mercruiser®/MEFI® 1-4 Diagnostic System
S18-SD107	BRP® Diagnostic System
S18-SD108	Yamaha® Diagnostic System
S18-SD109	Suzuki® Diagnostic System
S18-SD110	SeaDoo®/Yamaha®/Kawasaki® Diagnostic System
S18-SD408	Honda® Diagnostic System

Accessories:
Contact BLA Customer Service on **1300 252 725** for more accessory information.

Jackplates

The SeaStar Jackplate is one of the sleekest and most durable engine Jackplates available. This essential performance accessory allows for higher speed, gains in fuel economy and the ability to run in shallow water. The all new SeaStar Jackplate features sleek, bold styling that is redefining the look for Jackplates.

SeaStar Solutions® SeaStar™ Jackplates - Hydraulic Heavy Duty

The SeaStar™ HD (Heavy Duty) Jackplates utilise high strength materials to be able to handle some of the strongest engines on the water. The heavy duty frames are capable of handling engines up to 350HP that weigh up to 356kg (785lb). Designed with speed and durability in mind the HD Jackplate can adjust the engine height in just 8.5 seconds, even while the boat is moving at full power.

Features:

- HD jackplate is using high strength materials and is easily capable of handling engines up to 350HP and that weigh up to 356kg (785lb)
- Rapid hydraulic response in 8.5 seconds with 5.8" of travel
- Complete rigid engine support at full thrust
- Easily moves engine at full thrust
- Comes in 4" (**201862**) and 6" (**201863**) setbacks
- Compatible with Power-Pole and Talon anchor systems. Easy mounting with SeaStar™ Accessory Adapter kit. Only available on 6" (**201863**)

BLA Code	Description	Weight kg
201862**	Hydraulic Jackplate 4" Setback Heavy Duty	28
201862SK**	Hydraulic Jackplate 4" Setback Heavy Duty	28
201863*	Hydraulic Jackplate 6" Setback Heavy Duty	28
201863SK*	Hydraulic Jackplate 6" Setback Heavy Duty	28

201863
6" Setback

** Accessory adapter kit (201902) is required for installation of Power Pole® or Talon® on 201863 & 201863SK.*
*** Cannot mount Power Pole® or Talon® anchoring systems.*
SK Part No. includes fitted Smart Stick, will require jackplate guage and harness kit 281881.

SeaStar Solutions® SeaStar™ Jackplates - Hydraulic

The SeaStar™ Jackplate is one of the sleekest and most durable engine Jackplates available. This essential performance accessory allows for higher speed, gains in fuel economy and the ability to run in shallow water. The all new SeaStar™ Jackplate features sleek, bold styling that is redefining the look for Jackplates. Available in 4, 6, 8, 10 and 12 inch setbacks, it also has a new, high-speed, hydraulic actuator that lifts engines in 8.5 seconds. The SeaStar™ Jackplate is rated for 300HP engines that weigh up to 283kg (625lb), and it is designed to maximise engine tilt when used with SeaStar™ steering cylinders.

Features:

- Sleek, bold styling – redefining the look for Jackplates
- Presenting a full range of plates in 4, 6, 8, 10 & 12 inch setbacks
- Aesthetically matched to SeaStar™ steering cylinders
- Rapid hydraulic response in 8.5 seconds with 5.8" of travel
- High output integrated actuator to lift and lower engines in all conditions
- Rated for 300HP engines up to 283kg (625lb) dry weight
- Environmentally sealed non-contact SmartStick position sensor kit available for precise height information
- Compatible with Power-Pole and Talon anchor systems. Easy mounting with SeaStar™ Accessory Adapter kit. Only available on 6" (**201857** & **201857SK**)
- Complete rigid engine support at full thrust
- Easily moves engine at full thrust
- Designed to maximise engine tilt with SeaStar™ steering cylinders
- High visibility lift scale for quick glance operation
- Integrated circuit breaker gives electrical protection right at the battery post

201859
10" Setback

201857
6" Setback

BLA Code	Description	Weight kg
201856**	Hydraulic Jackplate 4" Setback	28
201856SK**	Hydraulic Jackplate 4" Setback	28
201857*	Hydraulic Jackplate 6" Setback	28
201857SK*	Hydraulic Jackplate 6" Setback	28
201858**	Hydraulic Jackplate 8" Setback	28
201858SK**	Hydraulic Jackplate 8" Setback	28
201859**	Hydraulic Jackplate 10" Setback	37
201859SK**	Hydraulic Jackplate 10" Setback	37
201860**	Hydraulic Jackplate 12" Setback	37
201860SK**	Hydraulic Jackplate 12" Setback	37

** Accessory adapter kit (2019021) is required for installation of Power Pole® or Talon® on 201857 & 201857SK.*
*** Cannot mount Power Pole® or Talon® anchoring systems.*
SK Part No. includes fitted Smart Stick, will require jackplate guage and harness kit 201881.

SeaStar Solutions® SeaStar™ Jackplates - Manual

The manual series Jackplate comes in 4", 6", 8", and 10" setbacks to help you find the best match for your boat and optimise performance.

Features:

- The interlocking slide guides offer enhanced strength while providing smooth, bind-free travel
- The lead screw assembly sets the plate height with 5" of adjustment and the Side Locks are used to hold the position
- The stainless steel lead screw is resistant to corrosion and pre-greased for smooth operation
- The maximum supported engine weight of 265kg (585lb) is capable of handling the most demanding outboard engines including the latest generation of 4 strokes

201844
4" Setback

201846
8" Setback

BLA Code	Description	Model	Weight kg
201844	4" Setback with Side Locks	Manual Jackplate	15
201845	6" Setback with Side Locks	Manual Jackplate	17
201846	8" Setback with Side Locks	Manual Jackplate	18
201847	10" Setback with Side Locks	Manual Jackplate	19

SeaStar™ Jackplate Gauge & Harness Kit

Gauge and harness kit used with Jackplates with pre-fitted smart stick (SK part numbers).

BLA Code
201881

SeaStar™ Jackplate Smart Stick & Gauge Kit

Used with Jackplates which have no pre-fitted smart stick (non SK part numbers).

BLA Code
201801

SeaStar™ Pro-Trim

Pro-Trim is a "bolt-on" for most SeaStar™ Solutions steering systems and is attractively packaged, with everything you need.

313002

313004

BLA Code	Description
313002	Single Function
313004	Dual Function

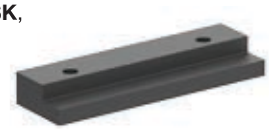
SeaStar™ Basic Rocker Switch

Standard equipment on all Hydraulic Jackplates.

BLA Code
201875

SeaStar™ Accessory Adaptor

Required for installation for Power Pole® or Talon® on **201857**, **201857SK**, **201863** & **201863SK**



BLA Code
201902

SeaStar™ Transom Plates

S18-79987

S18-79988

BLA Code	Description
S18-79987	Small 2" x 15"
S18-79988	Large 4" x 17"

SeaStar™ Jackplate Mount Kits

201882

201898

BLA Code	Description
201882	Locking nut x 1
201898	Oil Cap

201884

BLA Code	Description	Bolt Size mm
201884	Mount Kit	12 x 63
201886	Mount Kit	12 x 89
201890	Mount Kit	12 x 114
201892	Mount Kit	12 x 165

201890

Mounting kits for the SeaStar jacking plates to transoms are also available. Each kit consists of ½" stainless steel hex head bolts and washers plus brass nylock nuts.

SeaStar™ Hole Shot Plate Kits

SEASTAR

Hole shot plates that are fitted to Jackplates give a performance gain in a quicker hole shot.

201905

BLA Code	Size
201903	6"
201904	8"
201905	10"
201906	12"

SeaStar™ Jackplates Relay

SEASTAR

Standard equipment on all hydraulic Jackplates.

BLA Code
201907

SeaStar™ Jackplates Wire Harness

SEASTAR

Standard equipment on all hydraulic Jackplates.

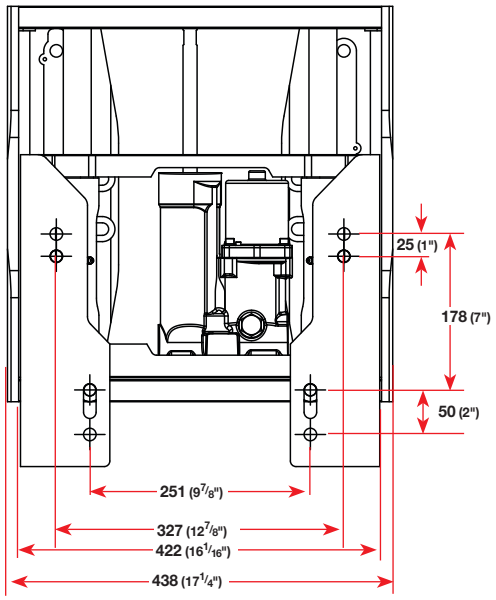
BLA Code
201908

SeaStar Solutions® SeaStar™ Jackplates - Specifications

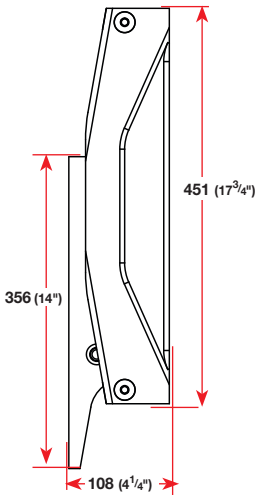
SEASTAR SOLUTIONS

SEASTAR

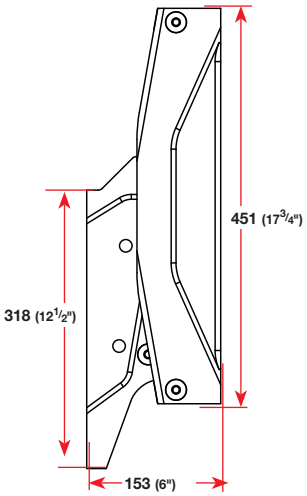
All Jack Plates



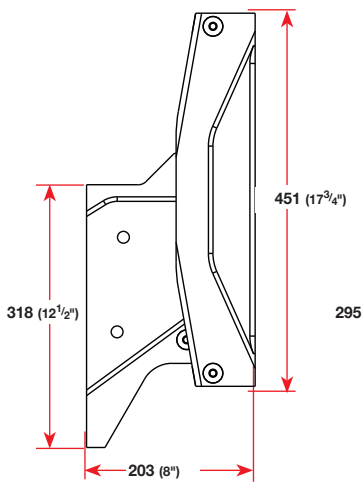
All 4" Jack Plates



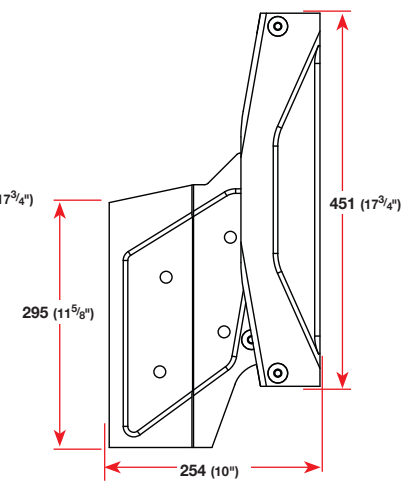
All 6" Jack Plates



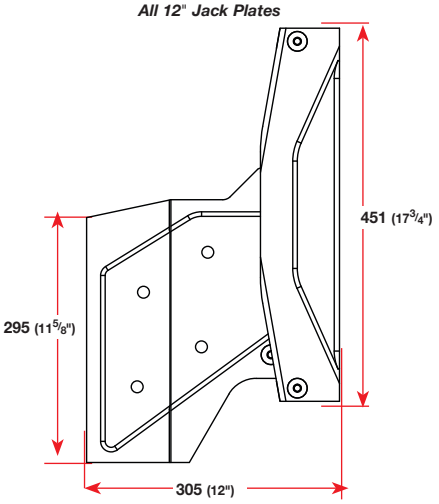
All 8" Jack Plates



All 10" Jack Plates



All 12" Jack Plates



TH Marine Hot Foot™ Pro Top Load Foot Throttle

- Improved safety & throttle control
- Attractive full colour pedal graphics
- Topside cable connections
- Patented idle stop for FICHT & Optimax
- Stainless steel hardware with teflon bushings
- Requires longer throttle cable (not included)

200659

BLA Code	Description
200659	Fits Johnson, Evinrude, Mercury & Mariner
200660	Fits Honda, Yamaha, Chrysler & Suzuki

TH Marine Hot Foot™ Foot Throttle

- Number one foot throttle on market for over 20 years
- Provides added safety & performance
- All cast aluminum – stainless steel hardware
- Nylon & teflon bushings on all critical pivot points
- Patented idle stop for FICHT & Optimax engines
- Requires longer throttle cable (not included)
- Universal fits all marine engines

BLA Code
200661

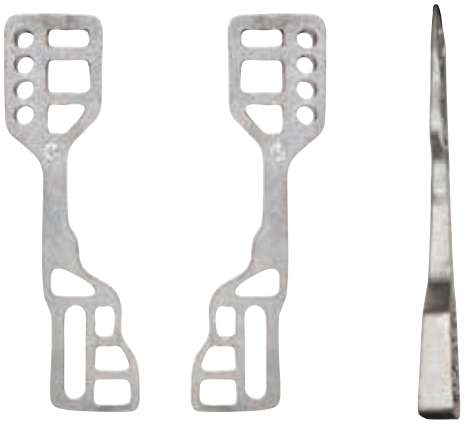
TH Marine Hot Foot™ Slide Mount

- Easy adjustment of Hot Foot™
- Stainless steel fasteners & release pin
- Allows 5" of slide adjustment

BLA Code
200662

TH Marine Transom Wedges

- Fits all standard 4-bolt patterns
- Full contact between engine & transom
- $2^{1}/_{4}$" W – $11^{1}/_{4}$" l – $1^{1}/_{16}$" to $^{3}/_{16}$" thickness


Profile

BLA Code
200642

TH Marine Torque Tab

- Counters torque pressure on wheel
- Inexpensive & easy to install
- Cast aluminum – stainless hardware

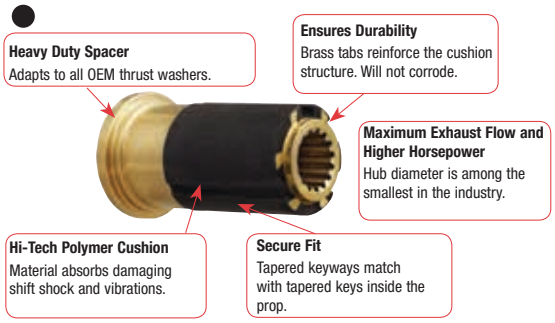
BLA Code
200663

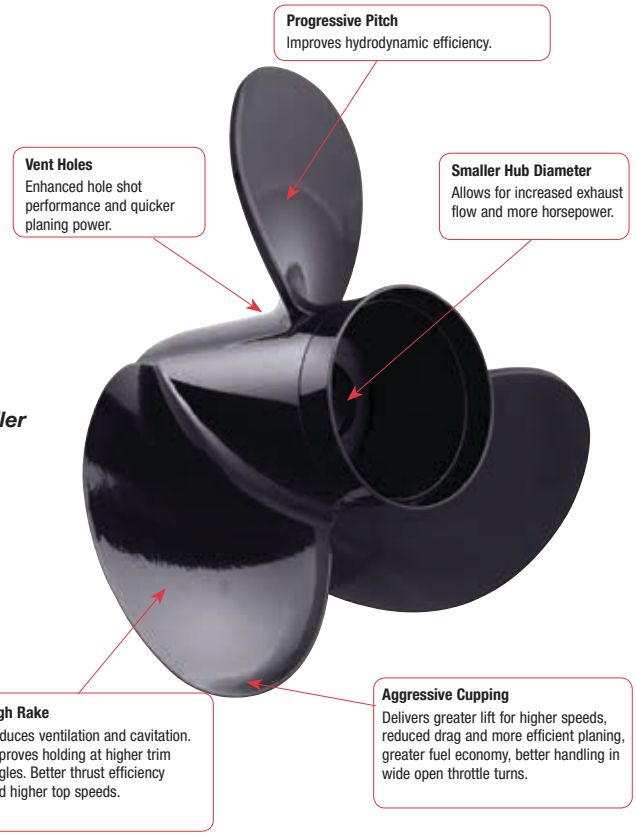
Turning Point Propellers

The propeller is ultimately the determining factor in achieving a boat and motor combination with optimum performance.

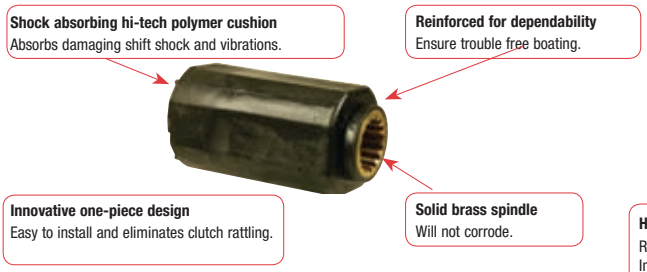
Turning Point Propellers offer a range of high performance aluminium and stainless steel propellers that produce increased performance for specific applications over the majority of mass produced factory propellers found standard on many boat and motor packages. Utilising Turning Point's exclusive, interchangeable MasterGuard® and MasterTorque™ Hub system, the end user is able to economically carry a spare or different diameter/pitch propeller to suit the days skiing, fishing or cruising activities. The MasterGuard® and MasterTorque™ Hub design utilises shock and vibration absorbing polymers for unmatched dependability.

The MasterGuard® Hub system adapts to Turning Point's Hustler®, and Express® for 2½", 3" and 3½" propeller lines.





The MasterTorque™ Hub system is a compatible upgrade to Mercury® Flo-Torq® and to other "square" hub systems. MasterTorque™ is offered in our Express® 4.25" & 4.75" propeller lines.



Selecting the correct propeller

Wide Open Throttle (WOT) RPM range:

1. Check the engine manual for the motor's WOT RPM range. Running at WOT the boat should ideally be running at the upper end of the rev. range for maximum performance. Water sports or additional people on board may require a drop in pitch to meet WOT requirements. For every 2" change in prop pitch the RPM will change approximately 400 RPM. Compare the RPM that the engine is currently running at WOT against the suggested WOT RPM range to determine if a pitch change is necessary (Wide Open Throttle R.P.M range chart on page 598-606).

Cross reference a Turning Point propeller:

2. To cross reference your current propeller by manufacturer's part number to a Turning Point propeller, refer to the cross reference charts on pages 593-598.

Find the correct propeller pitch:

3. Follow the instructions in step 1 and use the propeller selection charts detailed on pages 581-592.

A complete propeller consists of a choice of propeller housing and a hub-kit to suit the type and model of the motor. These two parts are purchased separately.

Turning Point Propeller Range

Turning Point produces four ranges of aluminium propellers to suit motors from 6HP-300HP and four ranges of stainless steel propellers to suit motors from 9.9HP-300HP, all designed to maximise performance – run faster, pull harder and handle better.

HUSTLER® ALUMINUM PROPELLERS

Gets the most power and performance from smaller engines!

Portable Series

Aluminium propellers for 6-35HP outboard motors with a 2.5" or 3" gearcase. The Hustler features increased blade surface area and fine tuned cupping with improved geometry to produce great top end speeds and enhanced water grip. Typical OEM and other aftermarket propellers in this size have blade designs that are swept back, limiting grip and creating excess ventilation. Turning Point Hustler series propellers have improved on these designs to provide class leading, all-round performing propellers for smaller horsepower motors.

HUSTLER® ALUMINUM PROPELLERS

A true high performance aluminium propeller!

Mid-Range Series

Aluminium propellers for 25–75HP outboard motors with 3.5" gearcase. Includes the design advantages of the Hustler series with greater blade area and fine tuned cupping to maximise speed, efficiency and overall performance. Ideal for lower horsepower pontoon, fishing and work boats.

Performance Series

Aluminium propellers for 40-300HP motors with 4.25" and 4.75" gearcases. High performance aluminium propellers based on Turning Points Express stainless steel propeller designs to produce high top end speeds, quick out of the hole, greater lift, and secure handling even in tight, wide open throttle turns.

High Performance Four Blade Series

Four blade design uniquely engineered for 40-300HP with 4.25" and 4.75" gearcases with two blade geometries: two blades utilise the Hustler design for incredible hole shot and cornering, and two blades utilise a 'cleaver' style shape for high speed and maximum stern lift. This combination results in producing a high performance aluminium propeller, unmatched in cornering, acceleration, boat handling, and top speed. This is the ultimate water sports propeller, but also offers any boater four blade performance with none of the usual top speed reductions normal to other designs.

EXPRESS® STAINLESS STEEL PROPELLERS

MACH3 EXPRESS® STAINLESS STEEL PROPELLERS

MACH4 EXPRESS® STAINLESS STEEL PROPELLERS

The best all-round stainless steel propeller in the business

Performance Series

Stainless steel propellers for 20-300HP stern drive and outboard motors with 3", 3.5", 4.25" and 4.75" gearcases. The Express range of propellers with high progression of pitch, high rake and aggressive cupping produce maximum speed and secure handling on tight turns at wide open throttle, providing excellent all round performance. They are suited to most applications including general water sports, cruising, inshore and offshore fishing.

Aluminium Design Features

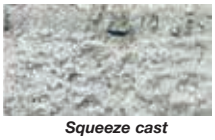
Improve handling and boat lift

Through advance pitch line and rake line cupping.

Squeeze cast for added strength

The process generates the highest mechanical properties attainable in a cast product, resulting in tighter grain structures.

Die cast



Squeeze cast

Tuned progressive pitch angles

Accelerating and channelling water to minimise slip increases performance and fuel economy.

High-flow-through barrel exhaust system

Maximising exhaust flow increases horsepower and top-end speed.

Performance tuned rake angles

Higher rake angles tighten the vortex produced by the prop, adding to boat lift and overall performance.

Long lasting finish – powder coated

The 5 step process creates a uniform, durable, high-quality and attractive finish, that protects the aluminium from corrosion.

Stainless performance in aluminium

Stainless steel blade geometry used in all aluminium patterns.

Tuned vents for fast hole shot

Stainless steel ventilation technology applied to aluminium Hustler line, on 4.25" & 4.75" gearcase propellers.

Stainless Steel Design Features

Improve handling and boat lift

Through advance pitch line and rake line cupping.

Tuned progressive pitch angles

Accelerating and channelling water to minimise slip, increases performance and fuel economy.

Tuned vents for fast hole-shot

Stainless steel ventilation technology applied to aluminium Hustler line, on 4.25" & 4.75" gearcase propellers.

Compatible with competitor's hub systems

Works with Mercury Flow-Torq and Michigan Wheel XHS hub kit systems (only with Turning Point's Express 4.25" & 4.75" gearcase propellers).

Evinrude®/Johnson® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
HUSTLER® Aluminium Propellers					
8HP-15HP 2 & 4 strokes with a 2½" gearcase					
202148	9 x 9	203202 ●	3	RH	13 spline shaft. 2 stroke: 9.9HP & 15HP (1974+) 4 stroke: 8HP (1996+), 9.9HP & 15HP (95-01)
202152	9 x 10				
202148	9 x 9	203206 ●	3	RH	10 spline shaft. 4 stroke: 9.9HP & 15HP (2002+)
202152	9 x 10				
20HP-35HP 2 & 4 strokes with a 3" gearcase					
202112	10½ x 11	203022 ●	3	RH	14 spline shaft E-Tec: 25, 30HP / 2 stroke: 20, 25 ('84+), 25 commercial ('93-'05), 30 ('84+), 35HP ('76-'05)
202116	10⅛ x 13				
202136	10½ x 11	203026 ●	3	RH	10 spline shaft 4 stroke: 25HP/30HP
202140	10⅛ x 13				
40HP-75HP 2 & 4 strokes with a 3½" gearcase					
202212	12½ x 8	203011 ●	3	RH	13 spline shaft. 4 stroke: 40HP, 50HP
202216	12 x 10½				
202220	10⅞ x 11				
202224	10¾ x 12				
202228	10½ x 13				
202232	10⅜ x 14				
202236	10⅛ x 15				
202252	12½ x 8	203012 ●	3	RH	13 spline shaft. 2 cyl.: 40, 48 / 50 ('75-'05) / 55 ('76-'79) / 60, 65 ('80-'85) 3 cyl. (small gearcase): 75 ('75-'85), Sprint, Formula E ('86-'92)
202256	12 x 10½				
202260	12½ x 13				
202264	12¼ x 15				
202268	11¾ x 17				
50HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202335	14 x 11	203506 ■	3	RH	13 spline shaft . 4 stroke: 60, 70HP
202337	14 x 13				
202321	13¾ x 15				
202322	13¼ x 17				
202329	13¼ x 19				
202333	13¼ x 21				
202335	14 x 11	203503 ■	3	RH	13 spline shaft. 2 cyl: 50HP ('71-'74) / 45 to 55HP commercial 3 cyl: 55, 60, 65, 70, 75 with large gearcase, 65 commercial 4 cyl: 75 to 115, 120 ('86-'94), 125, 135 ('73-'76), 140 ('77-'84, '86-'94) E-TEC: 40, 50, 60, 75HP / 20" shaft: 90, 115, 130HP ('09-'10)
202337	14 x 13				
202321	13¾ x 15				
202322	13¼ x 17				
202329	13¼ x 19				
202333	13¼ x 21				
202340	13 X 15	203503 ■	4	RH	
202342	13 x 17				
202344	13 x 19				
90HP-300HP V4, V6 & V8 with a 4¾" gearcase					
202413	15¼ x 15	203502 ■	3	RH	15 spline shaft. V4 with V6 large gearcase: 100 commercial, 120HP ('85), 130HP ('95-'96), 140HP ('85), Pleasure ('95+): 115, 130HP E-TEC: (25" shaft) 90, 115, 130 ('09-'10) / 135 to 300HP V6: 135HP to 250HP / V8: 250HP to 300HP
202417	14¼ x 17				
202421	14¼ x 19				
202425	14¼ x 21				
202429	141/4 x 23				
202426	15 x 15	203502 ■	4	RH	
202430	14½ x 17				
202432	14 x 19				
202434	14 x 21				
202427	15 x 15	203502 ■	4	LH	
202431	14½ x 17				
202433	14 x 19				
202435	14 x 21				
EXPRESS® Stainless Steel Propellers					
20HP-35HP 2 & 4 strokes with a 3" gearcase					
202440	10⅛ x 10	203022 ●	3	RH	14 spline shaft E-Tec: 25, 30HP / 2 stroke: 20, 25 ('84+), 25 commercial ('93-'05), 30 ('84+), 35HP ('76-'05)
202442	10⅛ x 11				
202444	10⅛ x 12				
202446	10⅛ x 13				
202448	10⅛ x 14				
202450	10⅛ x 15				
202480	10⅛ x 10	203026 ●	3	RH	10 spline shaft. 4 stroke: 25HP, 30HP
202482	10⅛ x 11				
202484	10⅛ x 12				
202486	10⅛ x 13				
202488	10⅛ x 14				
202490	10⅛ x 15				
40HP-75HP 2 & 4 strokes with a 3½" gearcase					
202508	12 x 9	203011 ●	3	RH	13 spline shaft. DF 4 Stroke: 40HP, 50HP
202510	12 x 11				
202512	12 x 13				
202502	10½ x 11				
202503	10½ x 12				
202504	10½ x 13				
202505	10½ x 14				
202506	10½ x 15				
202546	12 x 9	203012 ●	3	RH	13 spline shaft. 2 cyl.: 40, 48 / 50 ('75-'05) / 55 ('76-'79) / 60, 65 ('80-'85) 3 cyl. (small gearcase): 75 ('75-'85), Sprint, Formula E ('86-'92)
202548	12 x 11				
202550	12 x 13				
202540	11¾ x 13				
202542	11¾ x 15				
202544	11¾ x 17				

Evinrude®/Johnson® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
Stainless Steel Mach3 Propellers					
50HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202715	13¾ x 15	203503 ■	3	RH	13 spline shaft, 2 cyl: 50HP ('71-'74) / 45 to 55HP commercial, 3 cyl: 55, 60, 65, 70, 75 with large gearcase, 65 commercial, 4 cyl: 75 to 115, 120 ('86-'94), 125, 135 ('73-'76), 140 ('77-'84, '86-'94) E-TEC: 40, 50, 60, 75HP / 20" shaft: 90, 115, 130HP ('09-'10)
202717	13¼ x 17				
202719	13¼ x 19				
202721	13¼ x 21				
Stainless Steel Mach4 Propellers					
202766	13 x 15	203509 ■	4	RH	15 spline shaft, 4 stroke: ('09+) 70A, 80A, 90A, 70HP, 80HP / ('01+) 90HP, 100HP, 115HP
202768	13 x 17				
202770	13 x 19	203501 ■			15 spline shaft, 4 stroke: 140HP
202776	13 x 15	203509 ■	4	LH	15 spline shaft, 4 stroke: ('09+) 70A, 80A, 90A, 70HP, 80HP / ('01+) 90HP, 100HP, 115HP
202778	13 x 17				
202780	13 x 19	203501 ■			15 spline shaft, 4 stroke: 140HP
Stainless Steel Propellers					
90HP-300HP 2 strokes with a 4¾" gearcase					
202808	14¼ x 15	203502 ■	3	RH	15 spline shaft. 4 with V6 large gearcase: 100 commercial, 120HP ('85), 130HP ('95-'96), 140HP ('85), Pleasure ('95+): 115, 130HP E-TEC: (25" shaft) 90, 115, 130 ('09-'10) / 135 to 300HP V6: 135HP to 250HP / V8: 250HP to 300HP
202812	14¼ x 17				
202814	14¼ x 19				
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	203502 ■	3	LH	
202842	14¼ x 17				
202844	14¼ x 19				
202846	14¼ x 21				
202848	14¼ x 23				
202868	14 x 15	203502 ■	4	RH	
202872	14 x 17				
202874	14 x 19				
202876	14 x 21				
202878	14 x 23				
202912	15 x 15	203502 ■	3	RH	
202914	15 x 17				
202916	15 x 19				
202918	15 x 21				
202942	15 x 15	203502 ■	3	LH	
202944	15 x 17				
202946	15 x 19				
202948	15 x 21				
202972	14½ x 17	203502 ■	4	RH	
202974	14½ x 19				
202976	14½ x 21				
202978	14½ x 23				
202988	14½ x 17	203502 ■	4	LH	
202990	14½ x 19				
202992	14½ x 21				
202994	14½ x 23				
Stainless Steel Mach3 Propellers					
202813	14¼ x 17	203502 ■	3	RH	15 spline shaft. V4 with V6 large gearcase: 100 commercial, 120HP ('85), 130HP ('95-'96), 140HP ('85), Pleasure ('95+): 115, 130HP E-TEC: (25" shaft) 90, 115, 130 ('09-'10) / 135 to 300HP V6: 135HP to 250HP / V8: 250HP to 300HP
202815	14¼ x 19				
202817	14¼ x 21				
202843	14¼ x 17	203502 ■	3	LH	
202845	14¼ x 19				
202847	14¼ x 21				
Stainless Steel Mach4 Propellers					
202850	15 x 15	203502 ■	4	RH	15 spline shaft. V4 with V6 large gearcase: 100 commercial, 120HP ('85), 130HP ('95-'96), 140HP ('85), Pleasure ('95+): 115, 130HP E-TEC: (25" shaft) 90, 115, 130 ('09-'10) / 135 to 300HP V6: 135HP to 250HP / V8: 250HP to 300HP
202852	14½ x 17				
202854	14 x 19				
202856	14 x 21				
202860	15 x 15	203502 ■	4	LH	
202862	14½ x 17				
202864	14 x 19				
202866	14 x 21				

Accessories:

203599 Adaptor seal ring to suit 4.25" gearcase propellers

● MasterGuard® Hub System ■ MasterTorque® Hub System

RUN FASTER, PULL HARDER, HANDLE BETTER!

Mercury®/Mariner®/Mercruiser® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
HUSTLER Aluminium Propellers					
6HP-20HP 2 & 4 strokes with a 2½" gearcase					
202148	9 x 9	203201 ●	3	RH	8 spline shaft, lock nut. 2 stroke: 6, 8, 9.9, 15 / Sea Pro/Marathon 10, 15. 4 stroke: 8, 9.9 ('95-'04), 15 ('89-'06). **American model (gearshift in tiller arm + propeller lock nut)**
202152	9 x 10				
202148	9 x 9	203207 ●	3	RH	14 spline shaft by Tohatsu, cotter pin. 2 stroke: 15HP. 4 stroke: Bigfoot 8HP, 9.9HP (2005+) 4 stroke: 15HP, 20HP (2007+). **Japanese (Tohatsu) model: side gear shift lever & prop nut and split pin.**
202152	9 x 10				
18HP-30HP 2 & 4 strokes with a 3" gearcase					
202112	10½ x 11	203021 ●	3	RH	10 spline shaft. 2 stroke: 18 ('80-'85), 20 ('86+), 25HP ('85+) / 4 stroke Bigfoot: 9.9, 15HP. **American model (gearshift in tiller arm + propeller lock nut)**
202116	10⅛ x 13				
202124	10⅜ x 11	203028 ●	3	RH	10 spline shaft. 25-30HP (2006+) **Japanese (Tohatsu) model: side gear shift lever & prop nut and split pin.**
202128	10⅜ x 13				
25HP-70HP 2 & 4 strokes with a 3½" gearcase					
202212	12½ x 8	203011 ●	3	RH	13 spline shaft. 2 stroke: 30 ('94+) / 35, 45, 55 / 40, 50, 60 ('77+) / 70HP ('83-) / 4 stroke: 25 Bigfoot / 30 ('94-'05) / 40 to 60. **If propeller strikes trim tab, replace with Mercury part #822777A1 or 76214AS**
202216	12 x 10½				
202220	10⅞ x 11				
202224	10¾ x 12				
202228	10½ x 13				
202232	10⅜ x 14				
202236	10⅛ x 15				
40HP–150HP 2 & 4 strokes with a 4¼" gearcase					
202335	14 x 11	203501 ■	3	RH	15 spline shaft. 2 and 4 stroke) 40 to 60 Bigfoot / 70 ('87-'89) / 75, 80 ('78-'89), 90, 100, 115, 125, 140HP / 150 XR4/6 (thru 1993, includes equivalent Mariner Magnum I, II, III.) **Mercury/Mariner (1977 and older) not available from Turning point propellers Inc**
202337	14 x 13				
202321	13¾ x 15				
202322	13¼ x 17				
202329	13¼ x 19				
202333	13¼ x 21				
202340	13 X 15	203501 ■	4	RH	
202342	13 x 17				
202344	13 x 19				
135HP-300HP V6 & Stern Drives with 4¾" gearcase					
202413	15¼ x 15	203501 ■	3	RH	15 spline shaft. Does not fit Pro XS. V6 135 to 300HP / Verado 135 to 275HP. Mercruiser, Alpha One, Alpha Gen. II and Bravo One ('83+)). **If propeller strikes trim tab, replace with Mercury part #822777A1 or 76214AS**
202417	14¼ x 17				
202421	14¼ x 19				
202425	14¼ x 21				
202429	14¼ x 23				
202426	15 x 15	203501 ■	4	RH	
202430	14½ x 17				
202432	14 x 19				
202434	14 x 21				
202427	15 x 15	203501 ■	4	LH	
202431	14½ x 17				
202433	14 x 19				
202435	14 x 21				
EXPRESS Stainless Steel Propellers					
9.9HP-30HP 2 & 4 strokes with a 3" gearcase					
202440	10⅛ x 10	203021 ●	3	RH	10 spline shaft. 2 stroke: 18 ('80-'85), 20 ('86+), 25HP ('85+) / 4 stroke Bigfoot: 9.9, 15HP. **American model (gearshift in tiller arm + propeller lock nut)**
202442	10⅛ x 11				
202444	10⅛ x 12				
202446	10⅛ x 13				
202448	10⅛ x 14				
202450	10⅛ x 15				
202460	10⅛ x 10	203028 ●	3	RH	10 spline shaft. 25-30HP (2006+) **Japanese (Tohatsu) model: side gear shift lever & prop nut and split pin.**
202462	10⅛ x 11				
202464	10⅛ x 12				
202466	10⅛ x 13				
202468	10⅛ x 14				
202470	10⅛ x 15				
25HP - 70HP 2 & 4 stroke with a 3½" gearcase					
202508	12 x 9	203011 ●	3	RH	13 spline shaft. 2 stroke: 30 ('94+) / 35, 45, 55 / 40, 50, 60 ('77+) / 70HP ('83-) / 4 stroke: 25 Bigfoot / 30 ('94-'05) / 40 to 60. **If propeller strikes trim tab, replace with Mercury part #822777A1 or 76214AS**
202510	12 x 11				
202512	12 x 13				
202502	10½ x 11				
202503	10½ x 12				
202504	10½ x 13				
202505	10½ x 14				
202506	10½ x 15				

Accessories:

203590 Replacement trim tab anode for hub kit **203028**

203590

● MasterGuard® Hub System ■ MasterTorque® Hub System

Prop Spanner

BLA Code
S18-4459

Mercury®/Mariner®/Mercruiser® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
EXPRESS Stainless Steel Propellers					
40HP–150HP 2 & 4 strokes with a 4¼" gearcase					
202724	14 x 11	203501 ■	3	RH	15 spline shaft. 2 and 4 stroke) 40 to 60 Bigfoot / 70 ('87-'89) / 75, 80 ('78-'89), 90, 100, 115, 125, 140HP / 150 XR4/6 (thru 1993, includes equivalent Mariner Magnum I, II, III.) **Mercury/Mariner (1977 and older) not available from Turning point propellers Inc**
202726	14 x 13				
202714	13¼ x 15				
202716	13¼ x 17				
202718	13¼ x 19				
202720	13¼ x 21				
EXPRESS Mach3 Stainless Steel Mach3 Propellers					
50HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202715	13¾ x 15	203501 ■	3	RH	15 spline shaft. (2 and 4 stroke) 40 to 60 Bigfoot / 70 ('87-'89) / 75, 80 ('78-'89), 90, 100, 115, 125, 140HP / 150 XR4/6 (thru 1993, includes equivalent Mariner Magnum I, II, III.) **Mercury/Mariner (1977 and older) not available from Turning point propellers Inc**
202717	13¼ x 17				
202719	13¼ x 19				
202721	13¼ x 21				
EXPRESS Stainless Steel Propellers					
135HP-300HP V6 & Stern Drives with 4¾" gearcase					
202808	14¼ x 15	203501 ■	3	RH	15 spline shaft. Does not fit Pro XS. V6 135 to 300HP / Verado 135 to 275HP. Mercruiser, Alpha One, Alpha Gen. II and Bravo One ('83+). **If propeller strikes trim tab, replace with Mercury part #822777A1 or 76214AS**
202812	14¼ x 17				
202814	14¼ x 19				
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	203501 ■	3	LH	
202842	14¼ x 17				
202844	14¼ x 19				
202846	14¼ x 21				
202848	14¼ x 23				
EXPRESS Mach3 Stainless Steel Mach3 Propellers					
202813	14¼ x 17	203501 ■	3	RH	15 spline shaft. Does not fit Pro XS. V6 135 to 300HP / Verado 135 to 275HP. Mercruiser, Alpha One, Alpha Gen. II and Bravo One ('83+). **If propeller strikes trim tab, replace with Mercury part #822777A1 or 76214AS**
202815	14¼ x 19				
202817	14¼ x 21				
202843	14¼ x 17	203501 ■	3	LH	
202845	14¼ x 19				
202847	14¼ x 21				
EXPRESS Stainless Steel Propellers					
202868	14 x 15	203501 ■	4	RH	15 spline shaft. Does not fit Pro XS. V6 135 to 300HP / Verado 135 to 275HP. Mercruiser, Alpha One, Alpha Gen. II and Bravo One ('83+). **If propeller strikes trim tab, replace with Mercury part #822777A1 or 76214AS**
202872	14 x 17				
202874	14 x 19				
202876	14 x 21				
202878	14 x 23				
202912	15 x 15	203501 ■	3	RH	
202914	15 x 17				
202916	15 x 19				
202918	15 x 21				
202942	15 x 15	203501 ■	3	LH	
202944	15 x 17				
202946	15 x 19				
202948	15 x 21				
202972	14½ x 17	203501 ■	4	RH	
202974	14½ x 19				
202976	14½ x 21				
202978	14½ x 23				
202988	14½ x 17	203501 ■	4	LH	
202990	14½ x 19				
202992	14½ x 21				
202994	14½ x 23				
EXPRESS Mach4 Stainless Steel Mach4 Propellers					
202850	15 x 15	203501 ■	4	RH	15 spline shaft. V4 with V6 large gearcase: 100 commercial, 120HP ('85), 130HP ('95-'96), 140HP ('85), Pleasure ('95+): 115, 130HP E-TEC: (25" shaft) 90, 115, 130 ('09-'10) / 135 to 300HP V6: 135HP to 250HP / V8: 250HP to 300HP
202852	14½ x 17				
202854	14 x 19				
202856	14 x 21				
202860	15 x 15	203501 ■	4	LH	
202862	14½ x 17				
202864	14 x 19				
202866	14 x 21				

Accessories:

203599 Adaptor seal ring to suit 4.25" gearcase propellers

● MasterGuard® Hub System ■ MasterTorque® Hub System

Prop Spanner

BLA Code
S18-4459

RUN FASTER, PULL HARDER, HANDLE BETTER!

Honda®/Tohatsu® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
HUSTLER® Aluminium Propellers					
8HP-20HP 2 & 4 strokes with a 2½" gearcase					
202148	9 x 9	203205 ●	3	RH	8 spline shaft. Honda: (not for 8 classic pin drive) 8HP (2001+), 9.9HP, 15HP, 20HP
202152	9 x 10	203207 ●			14 Spline Shaft. Tohatsu: 2 stroke: 9.9 (1984-08), 12HP (1985-88), 15HP & 18HP (1985-05). 4 stroke: 9.9HP, 15HP, 18HP, 20HP
202160	9 x 9	203208 ●	3	RH	12 spline shaft. Tohatsu: 2 & 4 stroke, 8HP, 9.8HP
202164	9 x 10				
25HP-30HP 2 & 4 strokes with a 3" gearcase					
202124	10⅜ x 11	203028 ●	3	RH	10 spline shaft. Honda: BF25HP, BF30HP. Tohatsu: 25HP, 30HP (2 & 4 stroke)
202128	10⅜ x 13				
35HP-70HP 2 & 4 strokes with a 3½" gearcase					
202212	12½ x 8	203012 ●	3	RH	13 spline shaft. BF 4 stroke: 35, 40, 45, 50, 60, (small gearcase), (not BFP60) **BFP60 (large gearcase) see 40-150HP section**
202216	12 x 10½				
202220	10⅞ x 11				
202224	10¾ x 12				
202228	10½ x 13	203013 ●			13 spline shaft. Tohatsu: 40C, 40D, 50D, 50C, 60A, 60B, 70A2, 70B
202232	10⅜ x 14				
202236	10⅛ x 15				
60HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202335	14 x 11	203501 ■	3	RH	15 spline shaft. Honda: ('95-'98): 75, 90HP **(Mercury® & Mariner® gearcase)**
202337	14 x 13				
202321	13¾ x 15	203507 ■			15 spline shaft. Honda: BFP60 (2010 and newer) / 75, 90HP ('99+) / 115, 130HP (not BF115D) **(Honda® gearcase) BP115D (large gearcase) see 90-300HP section**
202322	13¼ x 17				
202329	13¼ x 19	203505 ■			15 spline shaft. Tohatsu: 60C, 70C / 90HP to 140HP
202333	13¼ x 21				
202340	13 x 15	203501 ■	4	RH	15 spline shaft, Honda: ('95-'98): 75, 90HP **(Mercury® & Mariner® gearcase)**
202342	13 x 17	203507 ■			15 spline shaft, Honda: BFP60 (2010 and newer) / 75, 90HP ('99+) / 115, 130HP (not BF115D) **(Honda® gearcase) BP115D (large gearcase) see 90-300HP section**
202344	13 x 19	203505 ■			15 spline shaft, Tohatsu: 60C, 70C / 90HP to 140HP,
115HP-225HP 4 stroke with a 4¾" gearcase					
202413	15¼ x 15	203507 ■	3	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202417	14¼ x 17				
202421	14¼ x 19				
202425	14¼ x 21				
202429	14¼ x 23				
202426	15 x 15	203507 ■	4	RH	
202430	14½ x 17				
202432	14 x 19				
202434	14 x 21				
202427	15 x 15	203507 ■	4	LH	
202431	14¼ x 17				
202433	14 x 19				
202435	14 x 21				
EXPRESS® Stainless Steel Propellers					
25HP-30HP 2 & 4 strokes with a 3" gearcase					
202460	10⅛ x 10	203028 ●	3	RH	10 spline shaft. Honda: BF25HP, BF30HP Tohatsu: 25HP, 30HP (2 & 4 stroke)
202462	10⅛ x 11				
202464	10⅛ x 12				
202466	10⅛ x 13				
202468	10⅛ x 14				
202470	10⅛ x 15				
35HP-70HP 2 & 4 strokes with a 3½" gearcase					
202508	12 x 9	203012 ●	3	RH	13 spline shaft. Honda: BF 4 stroke: 35, 40, 45, 50, 60, (small gearcase), (not BFP60) **BFP60 (large gearcase) see 40-150HP section**
202510	12 x 11				
202512	12 x 13				
202502	10½ x 11				
202503	10½ x 12	203013 ●			13 spline Shaft. Tohatsu: 40C, 40D, 50D, 50C, 60A, 60B, 70A2, 70B
202504	10½ x 13				
202505	10½ x 14				
202506	10½ x 15				

Accessories:

203590 Replacement trim tab anode for hub kit **203028**
203599 Adaptor seal ring to suit 4.25" gearcase propellers

● MasterGuard® Hub System ■ MasterTorque® Hub System

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Honda®/Tohatsu® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
Express® Stainless Steel Propellers					
60HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202724	14 x 11	203501 ■	3	RH	15 spline shaft, ('95-'98): 75, 90HP **Note: (Mercury® & Mariner® gearcase)**
202726	14 x 13				
202714	13¼ x 15	203507 ■			15 spline shaft, P60 / 75, 90 ('99+) / 115, 130HP. (not 115D) **Note: (Honda® gearcase). BF115D (larger gearcase) see 90-300HP section**
202716	13¼ x 17				
202718	13¼ x 19	203505 ■			15 spline shaft. Tohatsu: 60C, 70C, 90HP-140HP
202720	13¼ x 21				
Express® Stainless Steel Mach3 Propellers					
60HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202715	13¾ x 15	203501 ■	3	RH	15 spline shaft, ('95-'98): 75, 90HP **Note: (Mercury® & Mariner® gearcase)**
202717	13¼ x 17	203507 ■			15 spline shaft, P60 / 75, 90 ('99+) / 115, 130HP. (not 115D) **Note: (Honda® gearcase). BF115D (larger gearcase) see 90-300HP section**
202719	13¼ x 19	203505 ■			15 spline shaft. Tohatsu: 60C, 70C, 90HP-140HP
202721	13¼ x 21				
Express® Stainless Steel Propellers					
135HP-225HP 4 stroke with a 4¾" gearcase					
202808	14¼ x 15	203507 ■	3	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202812	14¼ x 17				
202814	14¼ x 19				
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	203507 ■	3	LH	
202842	14¼ x 17				
202844	14¼ x 19				
202846	14¼ x 21				
202848	14¼ x 23				
Express® Stainless Steel Mach3 Propellers					
202813	14¼ x 17	203507 ■	3	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202815	14¼ x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202817	14¼ x 21				
202843	14¼ x 17	203507 ■	3	LH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202845	14¼ x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202847	14¼ x 21				
Express® Stainless Steel Propellers					
202912	15 x 15	203507 ■	3	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202914	15 x 17				
202916	15 x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202918	15 x 21				
202942	15 x 15	203507 ■	3	LH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202944	15 x 17				
202946	15 x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202948	15 x 21				
202868	14 x 15	203507 ■	4	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202872	14 x 17				
202874	14 x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202876	14 x 21				
202878	14 x 23				
202972	14½ x 17	203507 ■	4	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202974	14½ x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202976	14½ x 21				
202978	14½ x 23				
202988	14½ x 17	203507 ■	4	LH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202990	14½ x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202992	14½ x 21				
202994	14½ x 23				
Express® Stainless Steel Mach4 Propellers					
202850	15 x 15	203507 ■	4	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202852	14½ x 17	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202854	14 x 19				
202856	14 x 21				
202860	15 x 15	203507 ■	4	LH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202862	14½ x 17	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202864	14 x 19				
202866	14 x 21				

Accessories:

203590 Replacement trim tab anode for hub kit **203028**

203599 Adaptor seal ring to suit 4.25" gearcase propellers

● MasterGuard® Hub System ■ MasterTorque® Hub System

Prop Spanner

BLA Code
S18-4459

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Suzuki® Selection Guide

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
HUSTLER® Aluminium Propellers					
9.9HP-15HP 2 & 4 strokes with a 2½" gearcase					
202148	9 x 9	203206 ●	3	RH	10 spline shaft (TYPE M) DT 2 stroke: 9.9 ('83-'87), 15HP, 15C DF 4 stroke: 9.9, 15HP. **[Not fit DT 8C & 9.9C ('88-'97)]**
202152	9 x 10				
20HP-30HP 2 & 4 strokes with a 3½" gearcase					
202136	10½ x 11	203026 ●	3	RH	10 spline shaft. DT 2 stroke: 20HP, 25HP, 25C, 30HP, 30C (1987+). DF 4 stroke: 25HP, 30HP
202140	10⅛ x 13				
35HP-65HP 2 & 4 strokes with a 3½" gearcase					
202212	12½ x 8	203011 ●	3	RH	13 spline shaft. T 2 stroke: 35C, 40HP, 50HP, 50M, 55HP, 60HP, 65HP (1989+). DF 4 stroke: 40HP, 50HP
202216	12 x 10½				
202220	10⅞ x 11				
200024	10¾ x 12				
202228	10½ x 13				
202232	10⅜ x 14				
202236	10⅛ x 15				
60HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202335	14 x 11	203506 ■	3	RH	13 spline shaft. DT 2 stroke: 75HP - 140HP (1989+) DF 4 stroke: 60HP, 70HP (1998-09) **Not available for 4 stroke 90HP-140HP outboards.** **Highly recommend using Express Mach4. 4 blade stainless steel propellers.**
202337	14 x 13				
202321	13¾ x 15				
202322	13¼ x 17				
202329	13¼ x 19				
202333	13¼ x 21				
202340	13 x 15	203506 ■	4	RH	
202342	13 x 17				
202344	13 x 19				
150HP-225HP 2 strokes with a 4¾" gearcase					
202413	15¼ x 15	203507 ■	3	RH	15 spline shaft. DT 2 stroke: 150HP - 225HP **Not available for 4 stroke outboards.** **Highly recommend using Express 15" or 16" dia. stainless steel propellers.**
202417	14¼ x 17				
202421	14¼ x 19				
202425	14¼ x 21				
202429	14¼ x 23				
202426	15 x 15	203507 ■	4	RH	
202430	14½ x 17				
202432	14 x 19				
202434	14 x 21				
202427	15 x 15	203507 ■	4	LH	
202431	14½ x 17				
202433	14 x 19				
202435	14 x 21				
EXPRESS® Stainless Steel Propellers					
20HP-30HP 2 & 4 strokes with a 3" gearcase					
202480	10⅛ x 10	203026 ●	3	RH	10 spline shaft. T 2 stroke: 20HP, 25HP, 25C, 30HP, 30C (1987+). DF 4 stroke: 25HP, 30HP
202482	10⅛ x 11				
202484	10⅛ x 12				
202486	10⅛ x 13				
202488	10⅛ x 14				
202490	10⅛ x 15				
35HP-65HP 2 & 4 strokes with a 3½" gearcase					
202508	12 x 9	203011 ●	3	RH	13 spline shaft. T 2 stroke: 35C, 40HP, 50HP, 50M, 55HP, 60HP, 65HP (1989+). DF 4 stroke: 40HP, 50HP
202510	12 x 11				
202512	12 x 13				
202502	10½ x 11				
202503	10½ x 12				
202504	10½ x 13				
202505	10½ x 14				
202506	10½ x 15				

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Suzuki® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
Stainless Steel Mach3 Propellers					
60HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202715	13¾ x 15	203506 ■	3	RH	13 spline shaft. DT 2 stroke: 75HP - 140HP (1989+) DF 4 stroke: 60HP, 70HP (1998-09)
202717	13¼ x 17				
202719	13¼ x 19				
202721	13¼ x 21				
Stainless Steel Mach4 Propellers					
70HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202766	13 x 15	203509 ■	4	RH	15 spline shaft. 4 stroke: ('09+) 70A, 80A, 90A, 70HP, 80HP / ('01+) 90HP, 100HP, 115HP
202768	13 x 17				
202770	13 x 19	203501 ■			15 spline shaft, 4 stroke: 140HP
202776	13 x 15	203509 ■	4	LH	15 spline shaft. 4 stroke: ('09+) 70A, 80A, 90A, 70HP, 80HP / ('01+) 90HP, 100HP, 115HP
202778	13 x 17				
202780	13 x 19	203501 ■			15 spline shaft, 4 stroke: 140HP
Stainless Steel Propellers					
150HP-225HP 2 stroke with a 4¾" gearcase					
202808	14¼ x 15	203507 ■	3	RH	15 spline shaft. T 2 stroke: 150HP-225HP **Note: Not available for 4 stroke outboards use Express 15" and 16" dia. propellers.**
202812	14¼ x 17				
202814	14¼ x 19				
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	203507 ■	3	LH	
202842	14¼ x 17				
202844	14¼ x 19				
202846	14¼ x 21				
202848	14¼ x 23				
Stainless Steel Mach3 Propellers					
202813	14¼ x 17	203507 ■	3	RH	15 spline shaft. T 2 stroke: 150HP-225HP **Note: Not available for 4 stroke outboards use Express 15" and 16" dia. propellers.**
202815	14¼ x 19				
202817	14¼ x 21				
202843	14¼ x 17	203507 ■	3	LH	
202845	14¼ x 19				
202847	14¼ x 21				
Stainless Steel Propellers					
150HP-225HP 2 stroke with a 4¾" gearcase					
202868	14 x 15	203507 ■	4	RH	15 spline shaft. DT 2 stroke: 150HP-225HP **Note: Not available for 4 stroke outboards use Express 15" and 16" dia. propellers.**
202872	14 x 17				
202874	14 x 19				
202876	14 x 21				
202878	14 x 23				
Stainless Steel Mach4 Propellers					
202850	15 x 15	203507 ■	4	RH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202852	14½ x 17				
202854	14 x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202856	14 x 21				
202860	15 x 15	203507 ■	4	LH	15 spline shaft. Honda: BF115D, BF135, BF150, BF200, BF225
202862	14½ x 17				
202864	14 x 19	203508 ■			15 spline shaft. Honda: BF200A, BF225A (2013 and newer), BF250A (2012 and newer)
202866	14 x 21				
Stainless Steel Propellers					
202912	15 x 15	203507 ■	3	RH	15 spline shaft. DF 4 stroke: 150 to 300HP
202914	15 x 17				
202916	15 x 19				
202918	15 x 21				
202942	15 x 15	203507 ■	3	LH	
202944	15 x 17				
202946	15 x 19				
202948	15 x 21				
202924	16 x 17	203507 ■	3	RH	
202926	16 x 19				
202928	16 x 21				
202930	16 x 23				
202954	16 x 17	203507 ■	3	LH	
202956	16 x 19				
202958	16 x 21				
202960	16 x 23				

Accessories:

203599 Adaptor seal ring to suit 4.25" gearcase propellers

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Yamaha® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
HUSTLER® Aluminium Propellers					
9.9HP-15HP 2 & 4 strokes with a 2½" gearcase					
202148	9 x 9	203205 ●	3	RH	8 spline shaft. 2 stroke: 9.9, 15 / 4 stroke: 9.9,15,15C, 20
202152	9 x 10				
20HP-30HP 2 & 4 strokes with a 3" gearcase					
202124	10⅜ x 11	203025 ●	3	RH	10 spline shaft. stroke: 20, 25, 30HP / 4 stroke: 25HP
202128	10⅜ x 13				
30HP-60HP 2 & 4 strokes with a 3½" gearcase					
202212	12½ x 8	203012 ■	3	RH	13 spline shaft. 2 stroke: 40 to 55 / 4 stroke: FT25HP High Thrust, 30 to 60
202216	12 x 10½				
202220	10⅞ x 11				
202224	10¾ x 12				
202228	10½ x 13				
202232	10⅜ x 14				
202236	10⅛ x 15				
50HP-130HP 2 & 4 strokes with a 4¼" gearcase					
202335	14 x 11	203500 ■	3	RH	15 spline shaft. High Thrust: T50, FT60 / 2 stroke: 60 to 100HP / 4stroke ('98-'09): 70 to 100HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202337	14 x 13				
202321	13¾ x 15				
202322	13¼ x 17	203505 ■			15 spline shaft. 2 stroke: 115HP to 130HP / 4 stroke: 115HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202329	13¼ x 19				
202333	13¼ x 21				
202340	13 x 15	203500 ■	4	RH	15 spline shaft. High Thrust: T50, FT60 / 2 stroke: 60 to 100HP / 4stroke ('98-'09): 70 to 100HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202342	13 x 17				
202344	13 x 19	203505 ■			15 spline shaft. 2 stroke: 115HP to 130HP / 4 stroke: 115HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
150HP-250HP 2 & 4 strokes with a 4¾" gearcase					
202413	15¼ x 15	203505 ■	3	RH	15 spline shaft. Yamaha: 2 and 4 stroke: 150 to 250HP/stern drives 3.0 to 7.4L
202417	14¼ x 17				
202421	14¼ x 19				
202425	14¼ x 21				
202429	14¼ x 23				
202426	15 x 15	203505 ■	4	RH	
202430	14½ x 17				
202432	14 x 19				
202434	14 x 21				
202427	15 x 15	203505 ■	4	LH	
202431	14½ x 17				
202433	14 x 19				
202435	14 x 21				
EXPRESS® Stainless Steel Propellers					
20HP-30HP 2 & 4 strokes with a 3" gearcase					
202460	10⅛ x 10	203025 ●	3	RH	10 spline shaft. 2 stroke: 20, 25, 30HP / 4 stroke: 25HP
202462	10⅛ x 11				
202464	10⅛ x 12				
202466	10⅛ x 13				
202468	10⅛ x 14				
202470	10⅛ x 15				
40HP-60HP 2 & 4 strokes with a 3½" gearcase					
202508	12 x 9	203012 ●	3	RH	13 spline shaft. 2 stroke: 40 to 55 / 4 stroke: FT25HP High Thrust, 30 to 60
202510	12 x 11				
202512	12 x 13				
202502	10½ x 11				
202503	10½ x 12				
202504	10½ x 13				
202505	10½ x 14				
202506	10½ x 15				

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TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
EXPRESS Stainless Steel Propellers					
50HP-130HP 2 & 4 strokes with a 4¼" gearcase					
202724	14 x 11	203500 ■	3	RH	15 spline shaft. High Thrust: T50, FT60 / 2 stroke: 60 to 100HP / 4stroke ('98-'09): 70 to 100HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202726	14 x 13				
202714	13¼ x 15				
202716	13¼ x 17	203505 ■			15 spline shaft. 2 stroke: 115HP to 130HP / 4stroke: 115HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202718	13¼ x 19				
202720	13¼ x 21				
EXPRESS Stainless Steel Mach3 Propellers					
60HP-140HP 2 & 4 strokes with a 4¼" gearcase					
202715	13¾ x 15	203500 ■	3	RH	15 spline shaft. High Thrust: T50, FT60 / 2 stroke: 60 to 100HP / 4stroke ('98-'09): 70 to 100HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202717	13¼ x 17				
202719	13¼ x 19	203505 ■			15 spline shaft. 2 stroke: 115HP to 130HP / 4stroke: 115HP **If propellers strikes trim tab, replace with Yamaha part #6E5-45371-10**
202721	13¼ x 21				
EXPRESS Stainless Steel Propellers					
150HP-250HP 2 & 4 strokes with a 4¾" gearcase					
202808	14¼ x 15	203505 ■	3	RH	15 spline shaft. 2 and 4 stroke: 150 to 250HP/stern drives 3.0 to 7.4L
202812	14¼ x 17				
202814	14¼ x 19				
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	203505 ■	3	LH	
202842	14¼ x 17				
202844	14¼ x 19				
202846	14¼ x 21				
202848	14¼ x 23				
EXPRESS Stainless Steel Mach3 Propellers					
202813	14¼ x 17	203505 ■	3	RH	15 spline shaft. 2 and 4 stroke: 150 to 250HP/stern drives 3.0 to 7.4L
202815	14¼ x 19				
202817	14¼ x 21				
202843	14¼ x 17	203505 ■	3	LH	
202845	14¼ x 19				
202847	14¼ x 21				
EXPRESS Stainless Steel Propellers					
202868	14 x 15	203505 ■	4	RH	15 spline shaft. 2 and 4 stroke: 150 to 250HP/stern drives 3.0 to 7.4L
202872	14 x 17				
202874	14 x 19				
202876	14 x 21				
202878	14 x 23				
202912	15 x 15	203505 ■	3	RH	
202914	15 x 17				
202916	15 x 19				
202918	15 x 21				
202942	15 x 15	203505 ■	3	LH	
202944	15 x 17				
202946	15 x 19				
202948	15 x 21				
202972	14½ x 17	203505 ■	4	RH	
202974	14½ x 19				
202976	14½ x 21				
202978	14½ x 23				
202988	14½ x 17	203505 ■	4	LH	
202990	14½ x 19				
202992	14½ x 21				
202994	14½ x 23				
EXPRESS Stainless Steel Mach4 Propellers					
202850	15 x 15	203505 ■	4	RH	15 spline shaft. 2 and 4 stroke: 150 to 250HP/stern drives 3.0 to 7.4L
202852	14½ x 17				
202854	14 x 19				
202856	14 x 21				
202860	15 x 15	203505 ■	4	LH	
202862	14½ x 17				
202864	14 x 19				
202866	14 x 21				

Accessories:

203599 Adaptor seal ring to suit 4.25" gearcase propellers

● MasterGuard® Hub System ■ MasterTorque® Hub System

RUN FASTER, PULL HARDER, HANDLE BETTER!

OMC®/ Cobra® Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
HUSTLER® Aluminium Propellers					
Cobra 400 Stern Drive & Sea Drive with a 4¼" gearcase					
202335	14 x 11	203503 ■	3	RH	13 spline shaft. OMC Cobra 400: 2.3 to 3.0L ('78-'89) / Sea Drive: 1.6 to 1.8L
202337	14 x 13				
202321	13¾ x 15				
202322	13¼ x 17				
202329	13¼ x 19				
202333	13¼ x 21				
202340	13 x 15	203503 ■	4	RH	
202342	13 x 17				
202344	13 x 19				
OMC SX Cobra 3.0L - 8.2L with a 4¾" gearcase					
202413	15¼ x 15	203502 ■	3	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202417	14¼ x 17				
202421	14¼ x 19				19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202425	14¼ x 21				
202429	14¼ x 23				
202426	15 x 15	203502 ■	4	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202430	14½ x 17				
202432	14 x 19				19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202434	14 x 21				
202427	15 x 15	203502 ■	4	LH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202431	14½ x 17				
202433	14 x 19				19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202435	14 x 21				
EXPRESS® Stainless Steel Mach3 Propellers					
202715	13¾ x 15	203503 ■	3	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202717	13¼ x 17				
202719	13¼ x 19				19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202721	13¼ x 21				
EXPRESS® Stainless Steel Propellers					
Cobra & King Cobra Stern Drive & Sea Drive 1.6L-1.8L with a 4¼" gearcase					
202808	14¼ x 15	203502 ■	3	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202812	14¼ x 17				
202814	14¼ x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	203502 ■	3	LH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202842	14¼ x 17				
202844	14¼ x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202846	14¼ x 21				
202848	14¼ x 23				
EXPRESS® Stainless Steel Mach3 Propellers					
202813	14¼ x 17	203502 ■	3	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502. Sea Drive: 2.0 to 4.0L
202815	14¼ x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202817	14¼ x 21				
202843	14¼ x 17	203502 ■	3	LH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502. Sea Drive: 2.0 to 4.0L
202845	14¼ x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202847	14¼ x 21				
EXPRESS® Stainless Steel Propellers					
202868	14 x 15	203502 ■	4	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202872	14 x 17				
202874	14 x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202876	14 x 21				
202878	14 x 23				
EXPRESS® Stainless Steel Mach4 Propellers					
202850	15 x 15	203502 ■	4	RH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202852	14½ x 17				
202854	14 x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202856	14 x 21				
202860	15 x 15	203502 ■	4	LH	19 spline shaft. OMC Cobra 800: 3.0 to 7.5L / King Cobra: 454, 502 Sea Drive: 2.0 to 4.0L
202862	14½ x 17				
202864	14 x 19	203504 ■			19 spline shaft. OMC SX Cobra: ('94+): 3.0 to 8.2L.
202866	14 x 21				

Accessories:

203599 Adaptor seal ring to suit 4.25" gearcase propellers

● MasterGuard® Hub System ■ MasterTorque® Hub System

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Volvo Penta® SX Selection Guide

TURNING POINT PROPELLERS

Propeller Housing BLA Code	Propeller Size Dia. x Pitch	Hub Kit BLA Code	Blades	Rotation	Suits Motor Models
Hustler® Aluminium Propellers					
4Cyl - V8 SX Stern Drive with a 4¾" gearcase					
202413	15¼ x 15	**203504 ■**	3	RH	19 spline shaft. Volvo Penta SX: ('94+): 3.0 to 8.2L. **(Not available for Volvo DuoProp or Aquamatic drives.)**
202417	14¼ x 17				
202421	14¼ x 19				
202425	14¼ x 21				
202429	14¼ x 23				
202426	15 x 15	**203504 ■**	4	RH	
202430	14½ x 17				
202432	14 x 19				
202434	14 x 21				
202427	15 x 15	**203504 ■**	4	LH	
202431	14½ x 17				
202433	14 x 19				
202435	14 x 21				
Express® Stainless Steel Propellers					
4Cyl - V8 SX Stern Drive with a 4¾" gearcase					
202808	14¼ x 15	**203504 ■**	3	RH	19 spline shaft. Volvo Penta SX: ('94+): 3.0 to 8.2L. **Not available for Volvo DuoProp or Aquamatic drives.**
202812	14¼ x 17				
202814	14¼ x 19				
202816	14¼ x 21				
202818	14¼ x 23				
202838	14¼ x 15	**203504 ■**	3	LH	
202842	14¼ x 17				
202844	14¼ x 19				
202846	14¼ x 21				
202848	14¼ x 23				
Express® Stainless Steel Mach3 Propellers					
202813	14¼ x 17	**203504 ■**	3	RH	19 spline shaft. Volvo Penta SX: ('94+): 3.0 to 8.2L. **Not available for Volvo DuoProp or Aquamatic drives.**
202815	14¼ x 19				
202817	14¼ x 21				
202843	14¼ x 17	**203504 ■**	3	LH	
202845	14¼ x 19				
202847	14¼ x 21				
Express® Stainless Steel Propellers					
202868	14 x 15	**203504 ■**	4	RH	19 spline shaft. Volvo Penta SX: ('94+): 3.0 to 8.2L. **Not available for Volvo DuoProp or Aquamatic drives.**
202872	14 x 17				
202874	14 x 19				
202876	14 x 21				
202878	14 x 23				
Express® Stainless Steel Mach4 Propellers					
202850	15 x 15	**203504 ■**	4	RH	19 spline shaft. Volvo Penta SX: ('94+): 3.0 to 8.2L. **Not available for Volvo DuoProp or Aquamatic drives.**
202852	14½ x 17				
202854	14 x 19				
202856	14 x 21				
202860	15 x 15	**203504 ■**	4	LH	
202862	14½ x 17				
202864	14 x 19				
202866	14 x 21				

● MasterGuard® Hub System ■ MasterTorque® Hub System

RUN FASTER, PULL HARDER, HANDLE BETTER!

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Evinrude®/Johnson® Aluminium		
175190	**203022**	**202112**
175191	**203022**	**202116**
176214	**203503**	**202322**
176215	**203503**	**202329**
176216	**203503**	**202333**
176421	**203012**	**202264**
176422	**203012**	**202268**
382761	**203503**	**202337**
386786	**203012**	**202264**
386841	**203012**	**202268**
386907	**203012**	**202256**
386909	**203012**	**202260**
389788	**203503**	**202333**
390896	**203503**	**202329**
391198	**203503**	**202321**
391199	**203503**	**202322**
391200	**203502**	**202417**
391201	**203502**	**202421**
391202	**203502**	**202425**
391203	**203502**	**202429**
391535	**203502**	**202413**
391668	**203503**	**202337**
177131	**203503**	**202322**
177133	**203502**	**202413**
177134	**203502**	**202417**
177135	**203502**	**202421**
177136	**203502**	**202425**
177137	**203502**	**202429**
177139	**203503**	**202329**
177140	**203503**	**202333**
177148	**203503**	**202335**
177149	**203503**	**202337**
177151	**203503**	**202321**
5031619	**203011**	**202228**
5031620	**203011**	**202232**
5031622	**203011**	**202216**
5031623	**203011**	**202220**
5031624	**203011**	**202224**
5031627	**203011**	**202236**
5033322	**203506**	**202321**
5033323	**203506**	**202322**
5033324	**203506**	**202329**
5033325	**203506**	**202333**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Evinrude®/Johnson® Stainless		
176609	**203502**	**202816**
176615	**203502**	**202812**
176617	**203502**	**202814**
176626	**203502**	**202812**
176627	**203502**	**202814**
176628	**203502**	**202816**
389019	**203502**	**202818**
389923	**203502**	**202816**
389924	**203502**	**202814**
391290	**203502**	**202812**
394752	**203502**	**202814**
394753	**203502**	**202816**
394754	**203502**	**202818**
Volvo® Aluminium		
3850299-3	**203504**	**202413**
3850300-9	**203504**	**202417**
3850301-7	**203504**	**202421**
3850302-5	**203504**	**202425**
3850303-3	**203504**	**202429**
Volvo® Stainless		
3850305-8	**203504**	**202808**
3850307-4	**203504**	**202812**
3850308-2	**203504**	**202814**
3850309-0	**203504**	**202816**
3850310-8	**203504**	**202818**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Black Max		
48-19638A40	**203021**	**202112**
48-19640A40	**203021**	**202116**
48-42738A10	**203011**	**202212**
48-42738A12	**203011**	**202212**
48-42740A10	**203011**	**202216**
48-73132A40	**203011**	**202216**
48-73134A40	**203011**	**202224**
48-73136A40	**203011**	**202228**
48-73138A40	**203011**	**202232**
48-73140A40	**203011**	**202236**
48-77338A40	**203501**	**202335**
48-77340A40	**203501**	**202337**
48-77342A40	**203501**	**202321**
48-77344A40	**203501**	**202322**
48-77346A40	**203501**	**202329**
48-77348A40	**203501**	**202333**
48-78116A40	**203501**	**202413**
48-78116A45	**203501**	**202413**
48-78118A40	**203501**	**202417**
48-78120A40	**203501**	**202421**
48-78122A40	**203501**	**202425**
48-78124A40	**203501**	**202429**
48-79572A4	**203501**	**202417**
48-79574A4	**203501**	**202421**
48-79576A4	**203501**	**202425**
48-79578A4	**203501**	**202429**
48-816702A40	**203011**	**202224**
48-816704A40	**203011**	**202228**
48-816706A40	**203011**	**202232**
48-827312A10	**203011**	**202217**
48-832828A45	**203501**	**202417**
48-832830A45	**203501**	**202421**
48-832832A45	**203501**	**202425**
48-832834A45	**203501**	**202429**
48-85632A40	**203011**	**202220**
48-9570A4	**203501**	**202413**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Quicksilver		
QA2070R	**203011**	**202220**
QA2070T	**203011**	**202220**
QA2226R	**203011**	**202220**
QA2226T	**203011**	**202220**
QA6070T	**203011**	**202220**
QA2070R	**203011**	**202224**
QA2072T	**203011**	**202224**
QA2072R	**203011**	**202224**
QA2074R	**203011**	**202224**
QA2074T	**203011**	**202224**
QA6072T	**203011**	**202224**
QA6074T	**203011**	**202228**
QA2076R	**203011**	**202228**
QA2076T	**203011**	**202228**
QA2078R	**203011**	**202228**
QA2078T	**203011**	**202228**
QA2230R	**203011**	**202228**
QA2230T	**203011**	**202228**
QA6076T	**203011**	**202228**
QA6078T	**203011**	**202228**
QA2080R	**203011**	**202232**
QA2080T	**203011**	**202232**
QA2082R	**203011**	**202232**
QA2082T	**203011**	**202232**
QA2232R	**203011**	**202232**
QA2232T	**203011**	**202232**
QA6080T	**203011**	**202232**
QA6082T	**203011**	**202232**
QA2084R	**203011**	**202236**
QA2084T	**203011**	**202236**
QA2234T	**203011**	**202236**
QA2234T	**203011**	**202236**
QA6084T	**203011**	**202236**
QA2060R	**203011**	**202212**
QA1050T	**203011**	**202212**
QA2064R	**203011**	**202212**
QA2064T	**203011**	**202212**
QA2066R	**203011**	**202216**
QA2066T	**203011**	**202216**
QA2068R	**203011**	**202216**
QA2068T	**203011**	**202216**
QA2070R	**203012**	**202220**
QA2070T	**203012**	**202220**
QA2072R	**203012**	**202224**
QA2072T	**203012**	**202224**
QA2074R	**203012**	**202224**
QA2704T	**203012**	**202224**
QA2076R	**203012**	**202228**
QA2076T	**203012**	**202228**
QA2078R	**203012**	**202228**
QA2078T	**203012**	**202228**
QA2080R	**203012**	**202228**
QA2080T	**203012**	**202232**
QA2082R	**203012**	**202232**
QA2082T	**203012**	**202232**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Quicksilver		
QA2084R	203012	202236
QA2084T	203012	202236
QA2060R	203012	202212
QA2060T	203012	202212
QA2064R	203012	202212
QA2064T	203012	202212
QA2066R	203012	202216
QA2066T	203012	202216
QA2068R	203012	202216
QA2068T	203012	202216
QA3088T	203012	202268
QA3080T	203012	202256
QA3082T	203012	202260
QA3084T	203012	202264
QA3080R	203013	202220
QA3082R	203013	202228
QA3084R	203013	202236
QA2128R	203201	202148
QA2130R	203201	202152
QA2158R	203208	202160
QA2160R	203208	202160
QA2102R	203021	202112
QA2102T	203021	202112
QA6102T	203021	202112
QA2106R	203021	202116
QA2106T	203021	202116
QA6106T	203021	202116
QA3114T	203022	202112
QA3118T	203022	202116
QA3102R	203022	202112
QA3102T	203022	202116
QA3810R	203025	202124
QA3814R	203025	202128
QA2248R	203026	202136
QA2254R	203026	202140
QA2034	203501	202321
QA2034X	203501	202321
QA6034	203501	202321
QA2036	203501	202322
QA2036X	203501	202322
QA6036	203501	202322
QA2038	203501	202329
QA2038X	203501	202329
QA6038	203501	202329
QA2040	203501	202333
QA2040X	203501	202333
QA6040	203501	202333
QA2030	203501	202335
QA2030X	203501	202335
QA6030	203501	202335
QA2032	203501	202337
QA2032X	203501	202337
QA6032	203501	202337
QA1912X	203501	202417
QA2012X	203501	202417

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Quicksilver		
QA6012	203501	202417
QA1916X	203501	202421
QA2016X	203501	202421
QA6016	203501	202421
QA1918X	203501	202425
QA2018X	203501	202425
QA6018	203501	202425
QA1920X	203501	202429
QA2008X	203501	202413
QA2012X	303502	202417
QA3012 H1	303502	202417
QA3012X	303502	202417
QA2016X	303502	202421
QA3016 H1	303502	202421
QA3016X	303502	202421
QA2018X	303502	202425
QA3018H1	303502	202425
QA3018X	303502	202425
QA3048R	303502	202425
QA3020 H1	303502	202429
QA3020X	303502	202429
QA2008X	303502	202413
QA3008 H1	303502	202413
QA3008X	303502	202429
QA3034R	303503	202321
QA3034R	303503	202322
QA3034T	303503	202322
QA3036R	303503	202322
QA3036T	303503	202322
QA3038R	303503	202322
QA3040R	303503	202329
QA3040T	303503	202329
QA3042R	303503	202329
QA3042R	303503	202329
QA3042T	303503	202329
QA3046R	303503	202333
QA3046T	303503	202333
QA3048R	303503	202333
QA3048T	203503	202333
QA3030R	203503	352035
QA3030T	203503	202335
QA3032R	203503	202337
QA3032T	203503	202337
QA2012X	203504	202417
QA3012X	203504	202417
QA2016X	203504	202421
QA3016X	203504	202421
QA2018X	203504	202425
QA3018X	203504	202425
QA3020X	203504	202429
QA2008X	203504	202413
QA3008X	203504	202413

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Quicksilver		
QA2012X	**203505**	**202417**
QA2016X	**203505**	**202421**
QA2018X	**203505**	**202425**
QA1920X	**203505**	**202429**
QA2008X	**203505**	**202413**
QA2208H	**203506**	**202321**
QA2206H	**203506**	**202322**
QA2204H	**203506**	**202329**
QA2202H	**203506**	**202333**
QA1912X	**203507**	**202417**
QA1916X	**203507**	**202421**
QA1918X	**203507**	**202425**
QA1920X	**203507**	**202429**
QA2008X	**203507**	**202413**
QS5116	**203507**	**202714**
QS5116X	**203507**	**202714**
QS5118	**203507**	**202716**
QS5118X	**203507**	**202716**
QS5120	**203507**	**202718**
QS5120X	**203507**	**202718**
QS5122	**203507**	**202720**
QS5122X	**203507**	**202720**
QS5050X	**203507**	**202808**
QS5052X	**203507**	**202812**
QS5054X	**203507**	**202814**
QS5070X	**203507**	**202814**
QS5056X	**203507**	**202816**
QS5072X	**203507**	**202816**
QS5058X	**203507**	**202812**
QS5074X	**203507**	**202812**
QS5050H1	**203502**	**202808**
QS5050X	**203502**	**202808**
QS5052 H1	**203502**	**202812**
QS5052X	**203502**	**202812**
QS5054 H1	**203502**	**202814**
QS5054X	**203502**	**202814**
QA3048T	**203503**	**202333**
QA3030R	**203503**	**202335**
QA3030T	**203503**	**202335**
QA3032R	**203503**	**202337**
QA3032T	**203503**	**202337**
QA2012X	**203504**	**202417**
QA3012X	**203504**	**202417**
QS5070 H1	**203502**	**202814**
QS5070X	**203502**	**202814**
QS5056 H1	**203502**	**202816**
QS5056X	**203502**	**202816**
QS5072 H1	**203502**	**202816**
QS5072X	**203502**	**202816**
QS5058 H1	**203502**	**202818**
QS5058X	**203502**	**202818**
QS5074 H1	**203502**	**202818**
QS5074X	**203502**	**202818**
QS5050X	**203504**	**202808**
QS5052X	**203504**	**202812**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Quicksilver		
QS5054X	**203504**	**202814**
QS5070X	**203504**	**202814**
QS5056X	**203504**	**202816**
QS5072X	**203504**	**202816**
QS5058X	**203504**	**202818**
QS5074X	**203504**	**202818**
QS5050X	**203505**	**202808**
QS5052X	**203505**	**202812**
QS5054X	**203505**	**202814**
QS5070X	**203505**	**202814**
QS5056X	**203505**	**202816**
QS5072X	**203505**	**202816**
QS5058X	**203505**	**202818**
QS5074X	**203505**	**202818**
QS5050X	**203507**	**202808**
QS5052X	**203507**	**202812**
QS5054X	**203507**	**202814**
QS5070X	**203507**	**202814**
QS5056X	**203507**	**202816**
QS5072X	**203507**	**202816**
QS5058X	**203507**	**202818**
QS5074X	**203507**	**202818**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Mercury® Vengence		
48-16312A4	**203501**	**202808**
48-16314A4	**203501**	**202812**
48-16316A4	**203501**	**202814**
48-16318A4	**203501**	**202816**
48-16320A4	**203501**	**202818**
48-16986A5	**203501**	**202714**
48-16988A5	**203501**	**202716**
48-16990A40	**203501**	**202718**
48-16992A40	**203501**	**202720**
Honda® Aluminium		
58130-ZV5-000ZA	**203012**	**202228**
58130-ZV5-850ZA	**203012**	**202224**
58130-ZV5-860ZA	**203012**	**202216**
58130-ZV5-870ZA	**203012**	**202236**
58130-ZV7-011AH	**203028**	**202124**
58130-ZV7-012AH	**203028**	**202128**
58130-ZW1-W01ZA	**203507**	**202335**
58130-ZW1-W11ZA	**203507**	**202337**
58130-ZW1-W21ZA	**203507**	**202321**
58130-ZW1-W21ZA	**203507**	**202322**
58130-ZW1-W41ZA	**203507**	**202333**
58130-ZW1-W61ZA	**203507**	**202329**
58130-ZY3-015A	**203507**	**202413**
58130-ZY3-017A	**203507**	**202417**
58130-ZY3-019A	**203507**	**202421**
58130-ZY3-021A	**203507**	**202425**
58130-ZY3-023A	**203507**	**202429**
Honda® Stainless		
58130-ZW1-V01	**203507**	**202716**
58130-ZW1-V11	**203507**	**202718**
58130-ZW1-V31	**203507**	**202720**
58130-ZW1-W91	**203507**	**202714**
58233-ZY3-A15H	**203507**	**202808**
58233-ZY3-A17H	**203507**	**202812**
58233-ZY3-A19H	**203507**	**202814**
58233-ZY3-A21H	**203507**	**202816**
58233-ZY3-A23H	**203507**	**202818**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Yamaha® Aluminium		
663-45947-02-EL	**203012**	**202220**
663-45956-01-EL	**203012**	**202212**
663-45958-01-EL	**203012**	**202232**
664-45947-01-EL	**203025**	**202124**
664-45949-02-EL	**203025**	**202128**
6E5-45941-00-EL	**203505**	**202329**
6E5-45943-00-EL	**203505**	**202333**
6E5-45945-01-EL	**203505**	**202322**
6E5-45947-00-EL	**203505**	**202321**
6E5-45949-00-EL	**203505**	**202337**
6E5-45954-00-EL	**203505**	**202335**
6G5-45941-00-98	**203505**	**202413**
6G5-45943-01-98	**203505**	**202425**
6G5-45945-01-98	**203505**	**202421**
6G5-45947-01-98	**203505**	**202417**
6G5-45949-01-98	**203505**	**202429**
6H5-45943-00-EL	**203012**	**202236**
6H5-45945-00-EL	**203012**	**202228**
6H5-45952-00-EL	**203012**	**202224**
6H5-45958-00-EL	**203012**	**202232**
Yamaha® Stainless		
688-45970-03-98	**203505**	**202718**
688-45972-02-98	**203505**	**202720**
688-45978-60-98	**203505**	**202714**
688-46930-02-98	**203505**	**202716**
6G5-45970-02-98	**203505**	**202808**
6G5-45972-02-98	**203505**	**202816**
6G5-45974-03-98	**203505**	**202814**
6G5-45976-01-98	**203505**	**202818**
6G5-45978-03-98	**203505**	**202812**

OEM to Turning Point Reference Guide

OEM Part Number	Hub Kit BLA Code	Propeller Housing BLA Code
Suzuki® Aluminium		
58100-94302-019	**203011**	**202212**
58100-94313-019	**203011**	**202228**
58100-94500-019	**203506**	**202321**
58100-94522-019	**203506**	**202329**
58100-95212-019	**203011**	**202216**
58100-95222-019	**203011**	**202220**
58100-95353-019	**203011**	**202232**
58100-95363-019	**203011**	**202236**
58100-95382-019	**203011**	**202228**
58100-95393-019	**203011**	**202224**
58100-95511-019	**203506**	**202322**
58100-95530-019	**203506**	**202333**
58100-96420-019	**203026**	**202136**
58100-96440-019	**203026**	**202140**
Suzuki® Stainless		
99105-00200-16P	**203507**	**202808**
99105-00200-18P	**203507**	**202812**
99105-00200-20P	**203507**	**202814**
99105-00200-22P	**203507**	**202816**
99105-00200-24P	**203507**	**202818**
Tohatsu® Aluminium		
346-64102-5	**203028**	**202124**
346-64104-5	**203028**	**202128**
34864-1020M	**203013**	**202228**
34864-1030M	**203013**	**202232**
34864-1070M	**203013**	**202212**
35364-1020M	**203013**	**202216**
35364-1030M	**203013**	**202220**
35364-1040M	**203013**	**202224**
35364-1050M	**203013**	**202228**
35364-1060M	**203013**	**202232**
35364-1070M	**203013**	**202236**
36164-1130M	**203013**	**202220**
36164-1140M	**203013**	**202224**
3B764-5320M	**203505**	**202321**
3B764-5410M	**203505**	**202322**
3B764-5450M	**203505**	**202329**
3E364-5260M	**203013**	**202224**
3E364-5280M	**203013**	**202228**
3E364-5310M	**203013**	**202232**

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Evinrude® Johnson®				
8HP	4 Stroke	1996 & newer	2.42	5000-6000
9.9HP	2 Stroke	1974 - 1984	2.41	4500-5000
9.9HP	Sail	1992 - 1999	2.41	5000-6000
9.9HP	High-Thrust	1995 - 2001	2.42	4000-5000
9.9HP	4 Stroke	1995 - 2001	2.42	5000-6000
9.9HP	YACHTWIN	1997	2.42	5000-6000
15HP	2 Stroke	1974 - 1980	2.41	4500-5000
15HP	4 Stroke	1995 - 2001	2.42	5000-6000
15HP	2 Stroke	1981 - 1993	2.42	5000-6000
8HP	4 Stroke	1996 - 1999	2.42	5000-6000
8HP	4 Stroke	2000	2.42	5000-6000
8HP	4 Stroke	2002	2.42	5000-6000
8HP	J8R4, J8RL4	2003	2.42	5000-6000
9.9HP	Sail	1991 - 2000	2.41	5000-6000
9.9HP	High&Newerst	1996 - 2000	2.42	4000-5000
9.9HP	4 Stroke	2006	2.42	4500-5500
9.9HP	2005&newer	2005 & newer	2.42	5000-6000
9.9HP	2 Stroke	all years	2.42	5000-6000
15HP	2 Stroke	all years	2.42	5000-6000
15HP	4 Stroke	2005 - 2006	2.42	5500-6500
15HP	4 Stroke	2006	2.42	5500-6500
15HP	15 H.O. E-TEC	2011 & newer	2.15	5000-6000
25HP	Commercial	1984 - 2005	1.75	5200-5800
25HP	2 Cyl.	1984 & newer	2.15	4500-5500
30HP	2 Stroke	1984 & newer	2.15	5200-5800
35HP	2 Stroke	1984 - 2005	2	5200-5800
20HP	2 Stroke	1995 - 2000	2.15	4500-5500
25HP	Commercial	1991 - 1994	1.75	4000-5000
25HP	3 Cyl.	2004	2.09	5200-5800
25HP	2 Cyl.	1991 - 2002	2.15	4500-5500
25HP	3 Cyl.	1996 - 2000	2.15	5200-5800
25HP	2 Cyl.	2004 & newer	2.23	4500-5500
25HP	2 Cyl.	2003	2.23	5200-5800
28HP	Special	1995 - 1996	1.75	4500-5500
30HP	2 Stroke	1991 - 2002	2.15	5200-5800
30HP	2 Stroke	2003 - 2005	2.23	4500-5500
35HP	2 Stroke	1996 - 2000	2.15	5200-5800
25HP	4 Stroke	2005 - 2006	2.15	4500-5500
30HP	4 Stroke	2004 & newer		
40HP	4 Stroke	all years	2.27	5200-5800
50HP	4 Stroke	all years	2.27	5900-6500
40HP	4 Stroke	2002 - 2005	2.27	5200-5800
50HP	4 Stroke	2002	2.27	5900-6500
50HP	J50PL4	2003 - 2004	2.27	5900-6500
50HP	4 Stroke	2005	2.27	5900-6500
40HP	2 Cyl.	1984 - 2000	2.42	4500-5500
48HP	Special	1991 - 1990	2.42	4500-5500
50HP	2 Cyl.	1975 - 2005	2.42	4500-5500
50HP	Special	1997 - 2000	2.42	4500-5500
55HP	2 Cyl.	1976 - 1979	2.42	5000-6000
60HP	2 Cyl.	1980 - 1985	2.42	5000-6000
65HP	2 Cyl.	1980 - 1985	2.42	5000-6000
40HP	2 Stroke	1991 - 2005	2.42	4500-5500
40HP	4 Stroke	2003 - 2004	2.42	5200-5800

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Evinrude® Johnson®				
48HP	2 Stroke	1995	2.42	4500-5500
48HP	Special	1996	2.42	4500-5500
50HP	2 Stroke	1991 - 2005	2.42	4500-5500
50HP	Special	1997 - 2000	2.42	4500-5500
50HP	J50PL	2003 - 2004	2.42	4500-5500
40HP	Commercial Gearcase	1985 - 1991	2.42	4500-5500
40HP	E-TEC	2004 & newer	2.67	5000-6000
45HP	Commercial	1986 & newer	2.67	4500-5000
50HP	E-TEC	2004 & newer	2.67	5500-6000
55HP	Commercial	1980 & newer	2.67	4500-5000
60HP	3 Cyl.	1986 - 1996	2.42	5000-6000
60HP	E-TEC	2004 & newer	2.67	5500-6000
65HP	Commercial Gearcase	1984 - 2001	2.42	4500-5500
70HP	3 Cyl.	1974 - 2001	2.42	4500-5500
70HP	4 Stroke	all years	2.42	5200-5800
70HP	Backtroller	1992 - 1995	2.42	5000-6000
75HP	Ficht-Ram	1999 - 2003	2	4750-5250
75HP	E-TEC	all years	2	4500-5500
75HP	3 Cyl.	1975 - 1984	2.42	4500-5500
85HP	Backtroller	1979 - 1994	2	4500-5500
85HP	2 Stroke	1969 - 1995	2.29	4500-5500
88HP	Special	1981 & newer	2	4500-5500
90HP	2 Stroke	1981 & newer	2	4500-5500
90HP	OceanPro	1997	2	4500-5500
90HP	Special	1997 - 1998	2	4500-5500
90HP	E-TEC	all years	2	4500-5500
90HP	Ficht-Ram	1999 - 2003	2	5250-5750
100HP	2 Stroke	1979 - 1980	2	4500-5500
100HP	GT100	1990 - 1994	2	4500-5500
100HP	Direct Injection	all years	2	5250-5750
110HP	2 Stroke	1986 - 1989	2	4500-5500
112HP	Special	1995	2	4500-5500
115HP	2 Stroke	1973 - 1998	2	4500-5500
115HP	Special	1997 - 1987	2	4500-5500
115HP	Ficht-Ram	1999 - 2003	2	5250-5750
115HP	Direct Injection	all years	2	5250-5750
115HP	Intruder	1997	2	5000-6000
115HP	E-TEC	all years	2	5500-6000
115HP	Direct Injection, 25in shaft	all years	2.25	5250-5750
120HP	2 Stroke	1986 - 1987	2	4500-5500
120HP	20in, Long Shaft	1988 - 1994	2	4500-5500
120HP	25in, X-Long Shaft	1988 - 1994	2.25	4500-5500
125HP	2 Stroke	1990	2	4500-5500
130HP	E-TEC	all years	2	5000-6000
135HP	4 Cyl.	1973 - 1976	2	4500-5500
140HP	with V-4 Gearcase	1977 - 1994	2	4500-5500
140HP	2 Stroke	1986 - 1994	2	4500-5500
140HP	2 Stroke	1997 - 1984	2	4500-5500
45HP	Commercial	1991 - 1994	2.67	4500-5000
50HP	2 Stroke	1995 - 2000	2.42	4500-5500

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Evinrude® Johnson®				
55HP	Commercial	all years	2.67	4500-5500
60HP	J60PL4	2003 - 2004	2.42	4700-5300
60HP	2 Stroke	2002	2.42	5200-5800
60HP	2 Stroke	2005	2.42	5200-5800
60HP	2 Stroke	1989 - 2003	2.42	5000-6000
65HP	Commercial	2000	2.42	5000-6000
70HP	2 Stroke	1991 - 2000	2.42	4500-5500
70HP	Backtroller	1991 - 1995	2.42	4500-5500
70HP	2 Stroke	2002	2.42	4500-5500
70HP	J70PL4	2003 - 2004	2.42	4500-5500
70HP	2 Stroke	2005	2.42	4500-5500
85HP	Backtroller	1991 - 1995	2	4500-5500
88HP	Special	1981 - 1990	2	4500-5500
88HP	Special	1995 - 1996	2	4500-5500
90HP	2 Stroke	1991 - 2006	2	4500-5500
90HP	Offshore and Oceanrunner	1997 - 2000	2	4500-5500
90HP	J90PL, J90GL	2003 - 2004	2	4500-5500
100HP	GT100	1991 - 1994	2	4500-5500
112HP	Special	1995 - 1996	2	4500-5500
115HP	2 Stroke	1991 - 2002	2	4500-5500
115HP	Special	1997 - 1999	2	4500-5500
115HP	Offshore and Oceanrunner	1998 - 2000	2	4500-5500
115HP	J115PL, J115GL, J115PX	2003 - 2004	2	4500-5500
115HP	2 Stroke	2005 - 2006	2	4500-5500
115HP	Faststrike	1996 - 2000	2	5000-6000
115HP	Intruder	1998 - 2000	2	5000-6000
120HP	20in Long Shaft	1992 - 1994	2	4500-5500
140HP	20in Long Shaft	1990 - 1994	2	4500-5500
140HP	with v4 Gearcase	1992 - 1994	2.25	4500-5500
90HP	4 Stroke	2002 - 2005	2.59	4500-5500
115HP	4 Stroke	2002 - 2005	2.59	5000-6000
140HP	4 Stroke	2002 - 2005	2.38	5600-6200
90HP	V4 with V6 Gearcase	1995 - 1996	2	4500-5500
90HP	E-TEC, 25in shaft	all years	2.25	4500-5500
100HP	Commercial	1984 - 1994	1.86	4500-5000
115HP	Ficht-Ram, 25in shaft	1999 - 2003	2.25	5250-5750
115HP	V4 with V6 Gearcase	1995 - 1997	2.25	5000-6000
115HP	E-TEC, 25in shaft	all years	2.25	5500-6000
120HP	V4 with V6 Gearcase	1985	2.25	4500-5500
125HP	V4 with V6 Gearcase	1990	2.25	4500-5500
130HP	2 Stroke	1995 - 1998	2.25	5500-6000
135HP	Ficht-Ram	1999 - 2003	1.85	4750-5250
135HP	Direct Injection, 25in shaft	all years	1.85	4750-5250
135HP	Direct Injection	all years	1.86	4750-5250
140HP	V4 with V6 Gearcase	1985	2.25	4500-5500
150HP	Direct Injection, 25in shaft	all years	1.85	4750-5250
150HP	Direct Injection	all years	1.86	4750-5250

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Evinrude® Johnson®				
150HP	2 Stroke	1978 & newer	1.86	4500-5500
150HP	Silverstar	1992 - 1994	1.86	4500-5500
150HP	Intruder	1995 - 1998	1.86	4500-5500
150HP	Intruder	1997	1.86	4500-5500
90HP	V4 with V6 Gearcase	1995	2.25	4500-5500
100HP	Commercial	1991 - 1994	1.86	4500-5000
100HP	Commercial	2000	2.25	4500-5500
115HP	V4 with V6 Gearcase	1995 - 1997	2.25	4500-5500
120HP	V4 with V6 Gearcase	1992 - 1994	2.25	4500-5500
130HP	V4 with V6 Gearcase	1995 - 2000	2.25	5000-6000
150HP	2 Stroke	1978 & newer	1.86	4500-5500
150HP	Faststrike	1991 - 2000	1.86	4500-5500
150HP	OceanPro	1998	1.86	4500-5500
150HP	Direct Injection H.O.	all years	1.86	5000-5500
150HP	GT150	all years	1.86	4500-5500
150HP	E-TEC	all years	1.86	4850-5850
155HP	Commercial	1978 & newer	1.86	4500-5500
175HP	Direct Injection, 25in shaft	all years	1.85	5250-5750
175HP	2 Stroke	1977 & newer	1.86	4500-5500
175HP	Ficht Oceanrunner	all years	1.86	4500-5500
175HP	Direct Injection	all years	1.86	5250-5750
175HP	GT175	all years	1.86	4750-5750
175HP	Ficht Intruder	all years	1.86	5300-5800
175HP	E-TEC	all years	1.86	4850-5850
185HP	2 Stroke	1984 - 1985	1.86	4500-5500
200HP	Direct Injection	all years	1.86	4500-5800
200HP	E-TEC Saltwater	all years	1.86	4850-5850
200HP	2 Stroke	1979 & newer	1.86	5000-6000
200HP	Direct Injection H.O.	all years	1.86	5500-6000
200HP	Ficht-Ram	all years	1.86	5000-6000
225HP	E-TEC	all years	1.85	4500-5800
225HP	Direct Injection	all years	1.85	5500-6000
225HP	E-TEC H.O.	all years	1.86	4500-5800
225HP	2 Stroke	1986 & newer	1.86	5000-6000
225HP	Direct Injection H.O.	all years	1.86	5500-6000
225HP	OceanPro	all years	1.86	5000-6000
235HP	2 Stroke	1978 - 1985	1.86	5000-6000
250HP	8 Cyl.	1991 & newer	1.76	4500-5000
250HP	Direct Injection	all years	1.85	5500-6000
300HP	2 Stroke	1988 - 1995	1.76	5000-6000
150HP	SILVERSTAR	1991 - 1994	1.86	4500-5500
150HP	Intruder	1996 - 1997	1.86	4500-5500
150HP	OceanPro	1997	1.86	4500-5500
150HP	Offshore, and Oceanrunner	1997 - 2000	1.86	4500-5500
150HP	J150PL, J150GL, J150CX, J150PX	2003 - 2004	1.86	4500-5500
150HP	GT150	all years	1.86	4500-5500
155HP	Commercial	1978 & newer	1.86	4500-5500
175HP	2 Stroke	1977 & newer	1.86	4500-5500
175HP	Faststrike	all years	1.86	4500-5500
175HP	GT175	all years	1.86	4750-5750

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Evinrude® Johnson®				
185HP	2 Stroke	1984 - 1985	1.86	4500-5500
200HP	2 Stroke	1979 & newer	1.86	5000-6000
200HP	GT200	all years	1.86	5000-6000
225HP	2 Stroke	1986 & newer	1.86	5000-6000
225HP	Oceanrunner	all years	1.86	5000-6000
235HP	2 Stroke	1978 - 1985	1.86	5000-6000
250HP	2 Stroke	1991 & newer	1.76	4500-5000
300HP	2 Stroke	1988 - 1995	1.76	5000-6000
Honda® Outboards				
8HP	BF8	2001 & newer	2.33	4500-5500
9.9HP	BF9.9	1987 - 2000	2.1	4500-5500
9.9HP	BF9.9	2001 & newer	2.33	5000-6000
15HP	BF15	2003 & newer	2.08	4500-5500
15HP	BF15	2001 - 2002	2.08	5000-6200
15HP	BF15	1987 - 2000	2.1	5000-6200
20HP	BF20	all years	2.08	5000-6000
25HP	BF25	all years	2.08	5000-6000
30HP	BF30	all years	2.08	5500-6000
35HP	BF35	all years	2	4600-5600
40HP	BF40	all years	2.08	5000-6000
45HP	BF45	all years	2.09	5000-6000
50HP	BF50	all years	2.08	5500-6000
60HP	BF60	2010 & Newer	2.07	5000-6000
60HP	BFP60	2010 & newer	2.33	5000-6000
75HP	BF75	1998 - older	2.3	5000-6000
75HP	BF75	1999 & newer	2.3	5000-6000
90HP	BF90	1998 - older	2.3	5000-6000
90HP	BF90	1999 & newer	2.33	5300-6300
115HP	BF115	all years	2	5000-6000
130HP	BF130	all years	2	5000-6000
135HP	BF135	all years	2.14	5000-6000
150HP	BF150	all years	2.14	5000-6000
200HP	BF200, BF200A	2002 & Newer	1.86	5000-6000
225HP	BF225, F225A	2002 & Newer	1.86	5000-6000
250HP	BF250A	2012 & Newer	1.86	5000-6000
Force® Outboards				
25HP	2 Stroke	1995 - 1999	2.25	4500-5500
40HP	2 Stroke	1995 - 1998	2	4500-5500
50HP	2 Stroke	1995 - 1999	2	5000-5500
70HP	2 Stroke	1991 - 1995	1.64	4500-5500
75HP	2 Stroke 13 splines shaft	1996 - 1998	1.64	4500-5500
90HP	2 Stroke	1995 - 1999	2.3	5000-5500
120HP	2 Stroke	1995 - 1999	2.07	5000-5500

Wide Open Throttle Chart Outboards & Sterndrives

Engine	Gear	WOT rpm
Mercruiser® Outboards		
3.0 L 135HP	2	4400-4800
4.3 L 190HP	1.81	4400-4800
4.3 LH 205HP	1.62	4400-4800
4.3 L EFI 210HP	1.62	4400-4800
4.3 L MPI 220HP	1.62	4400-4800
5.0 L 220HP	1.62	4400-4800
5.0 L 220HP	1.65	4400-4800
5.0 L EFI 240HP	1.47	4400-4800
5.0 L EFI 240HP	1.65	4400-4800
5.0 L MPI 260HP	1.62	4600-5000
5.0 L MPI 260HP	1.5	4600-5000
5.7 L 250HP	1.47	4400-4800
5.7 L 250HP	1.65	4400-4800
5.7 L EFI 260HP	1.47	4400-4800
5.7 L EFI 260HP	1.65	4400-4800
350 Mag MPI 300	1.47	4800-5200
350 Mag MPI 300	1.5	4800-5200
350 Map MPI Horizon 300HP	1.5	4800-5200
350 Horizon 300HP	1.47	4600-5000
350 Horizon 300HP	1.5	4600-5000
MX 6.2 L MPI 320HP	1.65	4800-5200
496 Mag 375HP	1.5	4400-4800
496 Mag H.O. 425HP	1.5	4600-5000

Horsepower	Model	Years	Gear	WOT rpm
Parsun® Outboards				
9.9HP	F9.9 4 Stroke	2012 & newer	2.08	4500-5500
15HP	F15 4 Stroke	2012 & newer	2.08	4500-5500
9.9HP	T9.9	2012 & newer	2.08	4500-5500
15HP	T15	2012 & newer	2.08	4500-5500
20HP	T20	2012 & newer	2.08	4500-5500
20HP	F20 4 Stroke	2012 & newer	2.08	5000-6000
25HP	T25	2012 & newer	2.08	4500-5500
25HP	F25 4 Stroke	2012 & newer	2.08	5000-6000
30HP	T30	2012 & newer	2.08	4500-5500
35HP	T35	2012 & newer	2	4500-5500
36HP	T36	2012 & newer	2	4500-5500
40HP	T40	2012 & newer	2	4500-5500
60HP	T60	2012 & newer	2	4500-5500
75HP	T75	2012 & newer	2	4500-5500
85HP	T85	2012 & newer	2	4500-5500
90HP	T90	2012 & newer	2	4500-5500

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Mercury®/Mariner® Outboards				
6HP	2 Stroke	1986 - 2002	2.08	4500-5500
8HP	2 Stroke	1995 & newer	2	4500-5500
8HP	2 Stroke	1990 - 1994	2.08	4500-5500
9.9HP	2 Stroke	1991 & newer	2	5000-6000
9.9HP	4 Stroke	1995 - 2004	2.08	5000-6000
9.9HP	4 Stroke Bigfoot	all years	2.42	5000-6000
10HP	International	2006	2	5000-6000
15HP	2 Stroke	1995 & newer	2	5000-6000
15HP	International	2006	2	5000-6000
15HP	2 Stroke	1991 - 1994	2.08	5000-6000
15HP	4 Stroke Bigfoot	all years	2.42	4500-5500
6HP	2 Stroke	all years	2	4000-5000
8HP	2 Stroke	1995 & newer	2	4500-5500
8HP	2 Stroke	1991 - 1994	2.08	4500-5500
9.9HP	2 Stroke	1991 & newer	2	5000-6000
9.9HP	4 Stroke	1995 - 2004	2.08	5000-6000
10HP	2 Stroke	2006	2	5000-6000
15HP	2 Stroke	1995 & newer	2	5000-6000
15HP	2 Stroke	1991 - 1994	2.08	5000-6000
15HP	4 Stroke Bigfoot	all years	2.42	4500-5500
8HP	4 Stroke, cotter pin shaft	all years	2.08	5000-6000
9.9HP	4 Stroke	2005 & newer	2.08	5000-6000
9.9HP	Bigfoot	2000 - 2005	2.42	4500-5500
9.9HP	Sailpower	2000 & newer	2.42	4500-5500
15HP	Bigfoot	all years	2.42	4500-5500
20HP	2 Stroke	1986 - pres	2.25	4500-5500
20HP	International	2006	2.25	5000-6000
25HP	SeaPro	2006	2.25	5000-6000
25HP	2 Stroke	all years	2.25	5000-6000
20HP	2 Stroke	all years	2.25	4500-5500
25HP	2 Stroke	1985 - 1990	2	5000-6000
25HP	2 Stroke	1991 & newer	2.25	5000-6000
25HP	Sea Pro / Marathon	2006	2.25	5000-6000
25HP	4 Stroke EFI, cotter pin shaft	all years	1.92	5000-6000
30HP	4 Stroke EFI, cotter pin shaft	all years	1.92	5250-6250
25HP	Sea Pro / Marathon	2006	2.25	5000-6000
25HP	2 Stroke Bigfoot	all years	2.4	5500-6000
30HP	International	2006	2	4500-5500
30HP	2 Stroke	all years	2	4500-5500
30HP	EFI	all years	2	5500-6000
40HP	2 Stroke	1990 & newer	1.83	5000-5500
40HP	International	2006	2	4500-5000
40HP	SeaPro	2006	2	5000-5500
40HP	4 Stroke EFI	all years	2	5500-6000
50HP	2 Stroke	1990 & newer	1.83	5000-5500
50HP	International	2006	1.83	5000-5500
50HP	4 Stroke EFI	all years	1.83	5500-6000
55HP	MERCURY 55 SeaPro	2006	1.64	5000-5500

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Mercury®/Mariner® Outboards				
60HP	2 Stroke	1990	1.64	5000-5500
60HP	International	2006	1.64	5000-5500
60HP	4 Stroke EFI	all years	1.83	5500-6000
60HP	SeaPro	2006	2.3	5000-5500
65HP	2 Stroke	1980	2.3	4800-5300
25HP	2 Stroke Bigfoot	all years	2.42	5500-6000
30HP	2 Stroke	all years	2	4500-5500
40HP	2 Stroke	1997 & newer	1.83	5000-5500
40HP	Magnum	1991 - 1996	2	5000-5500
40HP	Sea Pro / Marathon	2006	2	5000-5500
40HP	4 Stroke EFI	all years	2	5500-6000
50HP	2 Stroke	1991 & newer	1.83	5000-5500
50HP	4 Stroke EFI	all years	1.83	5500-6000
55HP	Sea Pro / Marathon	2006	1.64	5000-5500
60HP	2 Stroke	1991 & newer	1.64	5000-5500
60HP	4 Stroke EFI	2006	1.83	5500-6000
60HP	Sea Pro / Marathon	2006	2.3	5000-5500
40HP	EFI Bigfoot	all years	2.3	5500-6000
40HP	4 Stroke EFI Bigfoot	all years	2.33	5500-6000
50HP	EFI Bigfoot	all years	2.3	5500-6000
50HP	4 Stroke EFI Bigfoot	all years	2.33	5500-6000
60HP	EFI Bigfoot	2003 & newer	2.3	5500-6000
60HP	Bigfoot	1995	2.33	5000-5500
60HP	4 Stroke EFI Bigfoot	all years	2.33	5500-6000
75HP	SeaPro	2006	2.3	4750-5250
75HP	4 Stroke EFI	all years	2.33	4500-5000
75HP	2 Stroke	all years	2.33	4750-5250
75HP	Optimax	all years	2.33	5000-5750
90HP	Saltwater, 4 Cyl.	2003 - 2005	2.07	5000-6000
90HP	Saltwater, 3 Cyl.	2000 - 2005	2.3	5000-5500
90HP	2 Stroke	all years	2.33	5000-5500
90HP	Optimax	all years	2.33	5000-5750
90HP	4 Stroke EFI	all years	2.33	5500-6000
100HP	2 Stroke	1990 - 2000	2.07	4750-5250
115HP	Offshore	1996 - 2000	2.07	4750-5250
115HP	Saltwater	2004 - 2005	2.07	4750-5250
115HP	2 Stroke	all years	2.07	4750-5250
115HP	Optimax	all years	2.07	5000-5750
115HP	Saltwater and Non-Saltwater Models	2001	2.07	5000-6000
115HP	Saltwater EFI	2004 - 2005	2.07	5000-6000
115HP	4 Stroke EFI	all years	2.07	5500-6000
125HP	2 Stroke	1995	2.07	4750-5250
125HP	Offshore	all years	2.07	4750-5250
225HP	3.0L 2 Stroke EFI	all years	1.75	5000-5800
135HP	2.0L	1990 - 1997	2	5000-5600
135HP	2.0L Offshore	1996 - 1997	2	5000-5600
135HP	2 Stroke	all years	2	5000-5600
135HP	Verado	all years	2.08	5200-6400
140HP	International	2006	1.87	5000-5600

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Mercury®/Mariner® Outboards				
150HP	150 XR6 2 Stroke	all years	1.87	5000-5600
150HP	Optimax	all years	1.87	5250-5750
150HP	EFI	all years	1.87	5000-6000
150HP	2.0L	all years	2	5000-5600
150HP	Verado	all years	2.08	5800-6400
175HP	2.5L	all years	1.87	5000-5600
175HP	Optimax	all years	1.87	5250-5750
175HP	Verado	all years	2.08	5800-6400
200HP	SST 120 RACE	1995	1.07	7300-7700
200HP	3.0L 2 Stroke EFI	all years	1.75	4500-5500
200HP	DTS Optimax	all years	1.75	5000-5750
200HP	Verado	all years	1.85	5800-6400
200HP	2 Stroke	all years	1.87	5000-5600
200HP	2.5L 2 Stroke EFI	all years	1.87	5000-5800
200HP	XR2 SS RACE	1995	1.87	6800-7200
225HP	3.0L	1995 - 1997	1.64	5000-5500
225HP	3.0L XRi	1995	1.64	5000-5800
225HP	3.0L Offshore	1995 - 1997	1.75	5000-5500
225HP	DTS Optimax	2004	1.75	5000-5750
225HP	3.0L MERCURY SeaPro EFI	2006	1.75	5000-5750
225HP	Optimax	all years	1.75	5000-5750
225HP	Offshore EFI	1998 - 2000	1.75	5000-5800
225HP	XL EFI Saltwater	2005	1.75	5000-5800
225HP	Verado	all years	1.85	5800-6400
225HP	PROMAX	all years	1.87	6200-6500
225HP	4 Stroke EFI	all years	2	5000-6000
250HP	XL EFI Saltwater	2005	1.75	5000-5800
250HP	2 Stroke EFI Saltwater	all years	1.75	5000-5800
250HP	Verado	all years	1.85	5800-6400
265HP	2.5L Offshore	1995	1.87	7800-8200
275HP	2 Stroke	1990 - 1994	1.64	5000-5500
275HP	Verado	all years	1.85	5800-6400
300HP	Verado	all years	1.75	5800-6400
300HP	EFI, Optimax, and PROMAX 22	2003	1.75	6100-6800
350HP	Verado	all years	1.75	6200-6800
300HP	Verado	2008 & Newer	1.75	5800-6400

Wide Open Throttle Chart Outboards & Sterndrives

Engine	Years	Gear	WOT rpm
OMC® Stern Drives			
2.5L Model 400HP and Stringer 400HP	1978 - 1981	1.71	4200-4600
2.3L Model 400HP and Stringer 400HP	1978 - 1981	1.71	5200-5600
2.5L Cobra	1985 - 1987	1.71	5200-5600
2.3L Cobra	1988 - 1991	2	5200-5600
3.0L Cobra	1988 - 1989	1.86	4200-4600
3.0L Model 400HP and Stringer 400HP	1978 - 1981	1.71	4200-4600
3.0L Cobra	1985 - 1987	1.71	4200-4600
3.0L Cobra	1990 - 1992	1.86	4200-4600
3.0L Cobra	1990 - 1993	1.86	4200-4600
3.8L Model 800HP	1980 - 1984	1.77	4200-4600
3.8L Model 800HP	1980 - 1984	1.77	4200-4600
4.3L Cobra	1985 - 1993	1.68	4200-4600
4.3L Cobra	1985 - 1986	1.68	4200-4600
4.3L Cobra	1987 - 1993	1.68	4200-4600
5.0L Cobra	1989 - 1993	1.59	4000-4400
5.0L Model 800HP	1980 - 1984	1.5	4000-4400
5.0L Cobra	1988	1.5	4000-4400
5.0L H.O. Cobra	1989 - 1991	1.59	4000-4400
5.0L Cobra	1992 - 1993	1.59	4000-4400
5.0L Cobra	1992 - 1993	1.59	4000-4400
5.0L Model 800HP	1980 - 1984	1.5	4000-4400
5.0L Cobra	1985 - 1993	1.5	4000-4400
5.7L Model 800HP	1978 - 1984	1.41	4200-4600
5.8L Cobra	1992 - 1993	1.41	4000-4400
5.7L King Cobra	1988 - 1993	1.41	4400-4800
5.8L King Cobra	1992 - 1993	1.41	4000-4400
7.4L King Cobra	1992 - 1993	1.43	4400-4800
7.5L King Cobra	1987 - 1989	1.43	4400-4800
7.5L King Cobra	1987 - 1989	1.43	4400-4800
7.4L King Cobra	1990 - 1993	1.43	4400-4800
8.2L King Cobra	1992 - 1993	1.43	4400-4800

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Nissan®/Tohatsu® Outboards				
9.9HP	NS9.9	all years	1.85	4500-5300
9.9HP	NSF9.9	all years	2.08	4500-5500
15HP	NS15	all years	1.85	4750-5500
15HP	4 Stroke	all years	2.15	5000-6000
18HP	NS18	1985 - 1998	1.85	4750-5500
18HP	4 Stroke	all years	2.15	5000-6000
9.9HP	M9.9	all years	1.85	4500-5300
9.9HP	MFS9.9	all years	2.08	4500-5500
15HP	M15	1985 - 2000	1.85	4750-5500
15HP	4 Stroke	all years	2.15	5000-6000
18HP	M18	1985 - 1997	1.85	4750-5500
18HP	M18	1998 & newer	1.85	5200-5800
18HP	4 Stroke	all years	2.15	5000-6000
8HP	NS8B	1991 - 2003	2.08	4500-5500
8HP	4 Stroke	all years	2.08	5000-6000
9.8HP	NS9.8	all years	2.08	5000-5800
9.8HP	4 Stroke	all years	2.08	5000-6000
8HP	M8B	1991 - 2003	2.08	4500-5500
8HP	4 Stroke	all years	2.08	5000-6000
9.8HP	M9.8	all years	2.08	5000-5800
9.8HP	4 Stroke	all years	2.08	5000-6000
25HP	NS25	all years	1.92	4800-5500
25HP	NSF 25 EFI	2006	1.92	5000-6000
25HP	4 Stroke	all years	1.92	5000-6000
30HP	NS30	all years	1.92	4800-5500
30HP	4 Stroke	all years	1.92	5250-6250
25HP	M25	all years	1.92	4800-5500
25HP	4 Stroke	all years	1.92	5000-6000
30HP	M30	1985 - 2001	1.92	4800-5500
30HP	4 Stroke	all years	1.92	5250-6250
40HP	NS40D	1991 - 2004	1.85	4500-5500
40HP	NSD40A TLDI	all years	1.85	5150-5850
40HP	NS40C	1984 - 1998	1.92	5200-5800
50HP	NS50D	1991 - 2001	1.85	5000-5700
50HP	NSD50A TLDI	all years	1.85	5150-5850
50HP	NS50D	1987 - 1990	1.92	5000-6000
60HP	NS60B	1993 - 1997	1.92	4500-5500
60HP	NS60A	1986 - 1990	1.92	5000-6000
70HP	NS70A	1981 - 1991	1.92	5000-5500
70HP	NS70B	1991 - 1997	1.92	4900-5600
40HP	M40D	1991 - 2004	1.85	4500-5500
40HP	M40A TLDI	all years	1.85	5150-5850
40HP	M40C	1984 - 1998	1.92	5200-5800
50HP	M50D	1991 - 2001	1.85	5000-5700
50HP	M50A TLDI	all years	1.85	5150-5850
50HP	M50C	1987 - 1990	1.92	5000-6000
55HP	M55	1981 - 1988	2	5000-6000
60HP	M60B	1992 - 1997	1.92	4500-5500
60HP	M60A	1986 - 1990	1.92	5000-6000
70HP	M70A	1981 - 1991	1.92	5000-5500
70HP	M70B	1991 - 1997	1.92	4900-5600
60HP	NS60C	1998 - 1999	2.3	5150-5850

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Nissan®/Tohatsu® Outboards				
70HP	NS70C	1998 - 2001	2.3	5150-5850
70HP	NSD70 TLDI	all years	2.3	5150-5850
90HP	NSD90 TLDI	all years	2	5150-5850
90HP	NS90A	all years	2.3	5000-5500
115HP	NS115	all years	2	5200-5700
115HP	NSD115 TLDI	all years	2	5150-5850
120HP	NS120A	all years	2	5200-5700
140HP	NS140A	all years	2	5200-5700
60HP	M60C	1998 - 1999	2.3	5150-5850
70HP	M70C	1998 - 2001	2.3	5150-5850
70HP	M70 TLDI	all years	2.3	5150-5850
90HP	M90A	all years	2	5000-5500
90HP	M90 TLDI	all years	2	5150-5850
115HP	M115	all years	2	5200-5700
115HP	M115 TLDI	all years	2	5150-5850
120HP	M120A	all years	2	5200-5700
140HP	M140A	all years	2	5200-5700

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Suzuki® Outboards				
9.9HP	DF9.9	1997 - 2005	1.92	4500-5500
15HP	DT15	1983 - 1988	1.92	4700-5700
15HP	DT15C	1989 - 1997	1.92	4700-5700
15HP	DF15	1997 - 2005	1.92	5400-6000
25HP	DT20	1987 - 1988	2.09	4500-5500
25HP	DF25	2000 - 2005	2.27	4500-5500
30HP	DT30	1987 - 1988	2.09	5000-5600
30HP	DF30	2000 - 2005	2.27	5500-6100
40HP	DT40	1989 - 1998	2.09	5000-5600
40HP	DF40	1999 & newer	2.27	5200-5800
40HP	DF40A	2010 & newer	2.27	5000-6000
50HP	DF50A	2010 & newer	2.27	5300-6300
50HP	DF50	1999 & newer	2.27	5900-6500
55HP	DT55	1989 - 1997	1.92	5000-5600
60HP	DF60A	2010 & newer	2.27	5300-6300
65HP	DT65	1989 - 1997	1.92	5000-5600
60HP	DF60	1998 & newer	2.42	4700-5300
70HP	DF70	1998 & newer	2.42	5200-5800
75HP	DT75	1989 - 2001	2.07	5000-5600
85HP	DT85	1989 - 2001	2.07	5000-5600
90HP	DT90	1989 - 1997	1.86	5000-5600
100HP	DT100	1989 - 2000	2.08	5250-5750
115HP	DT115	1989 - 2001	2.08	5500-6000
140HP	DT140	1989 - 2001	2.08	5250-5750
70HP	DF70A	2009 & newer	2.59	5000-6000
80HP	DF80A	2009 & newer	2.59	5000-6000
90HP	DF90	2001 & newer	2.59	4500-5500
90HP	DF90A	2009 & newer	2.59	5300-6300
115HP	DF115	2001 & newer	2.59	5000-6000
140HP	DF140	2001 & newer	2.59	5600-6200
115HP	DT115	1989 - 2001	2.08	5500-6000
140HP	DT140	1989 - 2001	2.08	5250-5750
150HP	DT150	1986 2003	1.86	4500-5500
150HP	DT150 BASS	all years	2.08	5200-6000
175HP	DT175	1986 - 2003	1.86	5000-5600
200HP	DT200	1986 - 2003	1.86	5000-5600
225HP	DT225	1986 - 2003	1.86	5000-5600
150HP	DF150	all years	2.5	5000-6000
175HP	DF175	all years	2.5	5500-6100
200HP	DF200	all years	2.29	5000-6000
225HP	DF225	all years	2.29	5000-6000
250HP	DF250	all years	2.29	5500-6100
300HP	DF250	all years	2.29	5500-6100

Wide Open Throttle Chart Outboards & Sterndrives

Engine	Years	Gear	WOT rpm
Volve Penta SX® Stern Drives			
MD22P SX Drive	all years	2.18	3600-4000
TMD22P SX Drive	all years	2.18	4100-4500
TAMD22P SX Drive	all years	2.18	4100-4500
D3-130 SX Drive	all years	1.66	3800-4000
AD31L SX Drive	all years	2.3	3200-3800
D3-130A SX Drive	all years	1.66	3800-4000
AD31P SX Drive	all years	1.79	3800-3900
D3-160 SX Drive	all years	1.66	3800-4000
D3-160A SX Drive	all years	1.66	3800-4000
D3-190 SX Drive	all years	1.51	3800-4000
3.0L GL SX Drive	all years	1.97	4200-4600
4.3L GL SX Drive	all years	1.66	4200-4600
4.3L GS SX Drive	all years	1.66	4400-4800
4.3L GXi SX Drive	all years	1.66	4400-4800
5.0L FL SX Drive	all years	1.66	4200-4600
5.0L GL SX Drive	all years	1.51	4400-4800
5.0L Fi SX Drive	all years	1.6	4200-4600
5.8L FL SX Drive	all years	1.51	4000-4400
5.7L GS SX Drive	all years	1.43	4400-4800
5.0L Gi SX Drive	all years	1.51	4400-4800
5.8L Fi SX Drive	all years	1.51	4000-4400
5.7L GL SX Drive	all years	1.43	4400-4800
5.8L FSi SX Drive	all years	1.51	4200-4600
5.0L GXi SX Drive	all years	1.51	4600-5000
5.7L Gi SX Drive	all years	1.43	4600-5000
5.7L GXi SX Drive	all years	1.43	4600-5000
7.4L Gi SX Drive	all years	1.43	4200-4600
8.1L Gi SX Drive	all years	1.68	4200-4600
8.1L GXi SX Drive	all years	1.68	4600-5000

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Yamaha® Outboards				
9.9HP	F9.9	2001 & newer	2.08	4500-5500
9.9HP	F9.9	1990 - 2000	2.92	4500-5500
15HP	F15	1999	2.08	4500-5500
15HP	F15C	2006 & newer	2.08	5000-6000
20HP	F20	2006 & newer	2.08	5000-6000
25HP	CV25	1990	1.84	4500-5500
25HP	C25	1991 - 1997	1.84	4500-5500
25HP	F25	1998 & newer	2.08	5000-6000
25HP	F25	2010 & newer	2.08	5000-6000
30HP	C30	1990 - 1997	1.85	4500-5500
25HP	T25 High-Thrust	2001 & newer	2.42	5000-6000
30HP	F30	2001 & newer	2	5000-6000
40HP	C40	1991 - 2002	1.85	4500-5500
40HP	P40	1998	1.85	4500-5500
40HP	F40	2001 & newer	2	5000-6000
40HP	F40	1999 - 2000	2.08	5000-6000
48HP	E48	1997 - 2000	1.85	4500-5500
50HP	P50	1990 - 1996	1.84	4500-5500
50HP	F50	1995 - 2000	1.84	5000-6000
50HP	C50	1998 - 2001	1.85	4500-5500
50HP	F50	2001 & newer	1.85	5000-6000
55HP	C55	1991 - 1995	1.84	4500-5500
60HP	F60	2002 & newer	1.85	5000-6000
50HP	T50 High-Thrust	1996 & newer	2.33	5000-6000
60HP	P60	1991 - 2000	2.33	4500-5500
60HP	C60	1996 - 2001	2.33	4500-5500
60HP	E60	1996 - 2000	2.33	4500-5500
60HP	T60 High-Thrust	2003 & newer	2.33	5000-6000
70HP	C70	all years	2.33	4500-5500
70HP	F70	2010 & newer	2.33	5300-6300
75HP	C75	1994 - 2000	2	4500-5500
75HP	E75	1996 - 2000	2	4500-5500
75HP	F75	2003 & newer	2.31	5000-6000
80HP	F80	2002 & newer	2.31	5000-6000
85HP	C85	1990-1996	2	4500-5500
90HP	INSHORE	1997 - 2000	2	4500-5500
90HP	C90	1998 - 2001	2	4500-5500
90HP	F90	2003 & newer	2.31	5000-6000
100HP	F100	all years	2.31	5000-6000
115HP	P115	1993	2	4500-5500
115HP	PRO-V	1994 - 1996	2	4500-5500
115HP	Saltwater	1995 - 2000	2	4500-5500
115HP	INSHORE	1998 - 2000	2	4500-5500
115HP	C115	all years	2	4500-5500
115HP	F115	all years	2.15	5000-6000
130HP	Saltwater	1995 - 2000	2	5000-6000
150HP	Saltwater	1994 - 1999	1.86	4500-5500
150HP	C150	1996 - 2000	1.86	4500-5500
150HP	HPDI	2000 & newer	1.86	4500-5500
150HP	Saltwater EFI OX66	all years	1.86	4500-5500
150HP	PRO-V	1990 - 1998	2	4500-5500

Wide Open Throttle Chart Outboards & Sterndrives

Horsepower	Model	Years	Gear	WOT rpm
Yamaha® Outboards				
150HP	P150	1991 - 1993	2	4500-5500
150HP	V-Max	all years	2	4500-5500
150HP	F150	2004 & newer	2	5000-6000
175HP	PRO-V	1994 - 1998	1.86	4500-5500
175HP	HPDI	all years	1.86	4500-5500
200HP	VF200 V-Max SHO	2010 & newer	1.75	5000-6000
200HP	V-Max EFI OX66	all years	1.81	4500-5500
200HP	V-MaxHPDI 3.3L	all years	1.81	5000-6000
200HP	HPDI	all years	1.86	4500-5500
200HP	PRO-V	1991 - 1998	1.86	5000-6000
200HP	F200	2002 & newer	2	5000-6000
225HP	F225 Offshore	2010 & newer	1.75	5000-6000
225HP	3.3L V-MaxHPDI	all years	1.75	5000-6000
225HP	3.1L V-Max OX66	all years	1.81	4500-5500
250HP	3.1L V-Max EFI OX66	all years	1.75	4500-5500
250HP	F250 Offshore	2010 & newer	1.75	5000-6000
250HP	3.3L V-MaxHPDI	all years	1.75	5000-6000
250HP	250 Saltwater OX66	all years	1.81	4500-5500
250HP	F225	2002 & newer	2	5000-6000
250HP	F250	2005 & newer	2	5000-6000
300HP	3.3LHPDI	all years	1.75	4650-5650
300HP	3.3L V-MaxHPDI	all years	1.75	4500-6000

TRAILER ACCESSORIES

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A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Guide to Winching

Winches play an integral role in day-to-day outdoor activities, whether they are based around waterways, or in a motorised capacity on four wheel drive vehicles. They offer much needed assistance to move or retrieve the tools used to enjoy our outdoor lifestyles. Activities such as retrieving boats at the boat ramp are ultimately turned into simple tasks when making use of one of BLA's range of quality winching products.

Manual vs Electric

Put simply, manual winches multiply your strength, allowing you to retrieve your boat up onto the trailer over-coming gravity as well as the boats drag on the trailer itself. A manual winch allows a person to retrieve their boat by using a crank handle of approximately 30cm in length by making use of simple gearing. All good winches feature some form of a ratchet (non-return) system that stops your boat from sliding back into the water if you let go. Larger manual winches often feature even lower gear ratios, which significantly increase the winches ability to pull even greater loads through increasing the number of rotations of the crank handle rather than the operator using additional torque. Additionally, some winches offer two ratio options for the user to choose from, making it faster to wind up cable not under load before changing ratios when the weight of the boat is taken up.

Electric

Manual

Electric winches make use of strong DC motors powered by a 12 or 24 volt battery and electrical system. Many boat users have grown to love the convenience and ease of using an electric winch. Be sure to choose a winch of sufficient power to handle your boat when fully loaded with fuel and cargo and make sure it is constantly maintained. Without proper maintenance the owner risks finding themselves unable to load their boat when returning from a day on the water.

Size vs Power

You need to select a winch that fits the weight of your boat. Heavier and longer boats require winches with more power and longer cables. A good formula to use would be to choose a winch with a capacity rating of half the combined weight of your boat when fully loaded. A manual winch with a ratio of around 5:1 will suffice for smaller boats, but for heavier work an electric winch will be a much better option. The variable speeds and higher gear ratios on the electric winches give them the capacity to move much bigger boats.

Cable, Rope or Strap?

Galvanised wire cable has traditionally been used for manual and electric winches due to its overall performance and cost effectiveness. Cable offers good abrasion resistance, minimal stretch and great shock resistance. It does however need to be maintained by lubrication and cleaning to ensure a longer working life.

Rope or strapping does not bur like cable potentially can. They therefore make for more user-friendly options when manual winching, especially if the rope or strapping needs to be hand-guided onto the winch while cranking.

Cable

High tenacity, low stretch rope.

Strap

Winch Selection Guide

Electric Winch

BLA Code	*Suggested Winching Capacity (kg)* UP TO 2200	2800	3400	3900
211200	■			
211210	■			
211212		■		
211222			■	
211224				■

Manual Winch

BLA Code	*Suggested Winching Capacity (kg)* UP TO 270	300	350	450	500	550	650	700	727	750	900	1000	1150	1500
211602	■													
211900		■												
211902		■												
211904		■												
211882		■												
211944		■												
211946		■												
211606			■											
211610				■										
211614					■									
211906					■									
211908					■									
211909					■									
211910					■									
211912					■									
211914					■									
211915					■									
211916					■									
211948					■									
211950					■									
211656						■								
211888						■								
211618							■							
211670								■						
211918								■						
211920								■						
211921								■						
211922								■						
211634									■					
211960										■				
211638											■			
211644											■			
211924												■		
211926												■		
211927												■		
211928												■		
211648													■	
211930														■
211932														■
211933														■
211934														■
211962														■

BLA Electric Winch - 2000

Economical 12 volt general purpose winch with permanent magnet motor and 153:1 planetary gearing. Power-in/power-out operation is via a weather resistant, hard wired hand remote. Free-spooling clutch is operated by a pull and turn knob which disengages the gearbox allowing the cable to be pulled out manually. Galvanised steel cable with snap hook included.

Suitable for intermittent duty operation only (such as winching a boat on/off a trailer) and is not suitable for industrial or hoisting applications.

BLA Code	Model	Single Line Stall kg	Suggested Boat Length m	Suggested Boat Weight kg	Cable Size mm x m	Weight kg	Dim. L x W x H mm
211210	2000	907	5	2200	4 x 15	6.5	296 x 176 x 107

N.B. Suggested boat length and weight is as a guide only. Other factors including ramp incline and boat trailer friction need to be taken into consideration.

BLA Electric Winches - 2500, 3000, 3500

General purpose 12 volt winches with permanent magnet motor and planetary gearing. A spline joint clutch permits free-wheeling when powering out is not required. These electric winches are designed for intermittent duty operation only (such as winching a boat on/off a trailer) and are not suitable for industrial or hoisting applications.

Supplied with in-line circuit breaker, galvanised wire with snap hook, solenoid, roller wire guide, and two way hard wired switch.

Features:

- Power-in and power-out
- 153:1 gear ratio
- Free-spooling clutch

211222

BLA Code	Model	Single Line Stall kg	Suggested Boat Length m	Suggested Boat Weight kg	Cable Size mm x m	Max Current amps	Motor HP	Weight kg	Dim. L x W x H mm
211212	2500	1134	5.3	2800	4.5 x 15	140	0.9	6	296 x 183 x 107
211222	3000	1361	5.6	3400	5 x 15	168	1.1	8.5	310 x 188 x 125
211224	3500	1587	6	3900	5.5 x 15	230	1.3	10	321 x 199 x 120

N.B. Suggested boat length and weight is as a guide only. Other factors including ramp incline and boat trailer friction need to be taken into consideration.

BLA Electric Winch - Trailer 2000

An economical, portable 12 volt electric trailer winch that is ideal for the retrieval of small trailer boats. Supplied with a hand-held remote for power-in only operation, as well as a quick release bracket for easy attachment and removal to either the tow ball or winch post. Also features adjustable free-spooling clutch, galvanised cable and snap hook, emergency crank handle and thermal safety overload.

Suitable for intermittent use only i.e. the one to two minutes winching time normally taken to load a boat onto a trailer. Not suitable for industrial or hoisting applications.

BLA Code	Model	Single Line Stall kg	Suggested Boat Length m	Suggested Boat Weight kg	Cable Size mm x m	Weight kg	Dim. L x W x H mm
211200	2000	907	5	2200	5.5 x 9	11.3	242 x 245 x 200

N.B. Suggested boat length and weight is as a guide only. Other factors including ramp incline and boat trailer friction need to be taken into consideration.

Manual Trailer Winch - Single Pawl

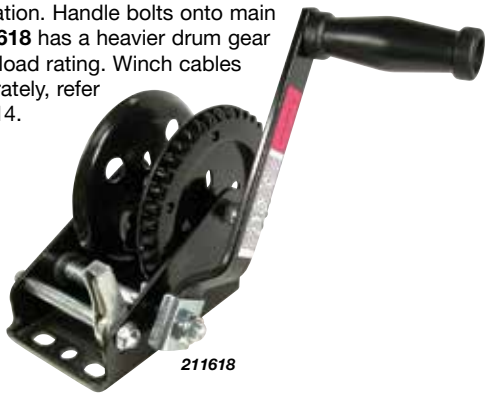
Manual trailer winch manufactured from steel with an E.D. coating. Steel bushes on the main drive shaft. Handle bolts onto main shaft. Winch cables sold separately, refer to page 614.

211602

BLA Code	Gear Ratio	Capacity kg	Base L x W mm	Height mm	Handle Length mm	Mount Holes mm
211602	3:1	270	123 x 89	120	180	10
211606	3:1	350	123 x 89	120	180	10
211610	4:1	450	140 x 89	141	220	10

Manual Trailer Winch - Triple Pawl

Manual trailer winch manufactured from steel with an E.D. coating. Steel bushes on the main drive shaft. Triple pawl enables forward, neutral and reverse gear operation. Handle bolts onto main shaft. **211618** has a heavier drum gear for higher load rating. Winch cables sold separately, refer to page 614.



211618

BLA Code	Gear Ratio	Capacity kg	Base L x W mm	Height mm	Handle Length mm	Mount Holes mm
211614	4:1	500	140 x 89	142	220	10
211618	4:1	650	140 x 89	142	220	10

Manual Trailer Winch - Dual Gear Drive

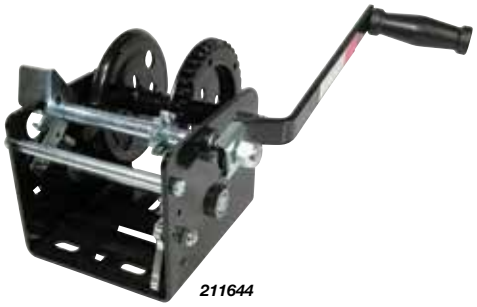
Manual trailer winches manufactured from steel with an E.D. coating. Steel bushes on the main drive shaft. Dual gear drive for greater lifting capacity. Handle bolts onto main shaft. Winch cables sold separately, refer to page 614.

211634

BLA Code	Gear Ratio	Capacity kg	Base L x W mm	Height mm	Handle Length mm	Mount Holes mm
211634	4:1/1:1	727	123 x 90	128	180	10
211638	4:1/1:1	900	138 x 90	152	285	10

Manual Trailer Winch - Two Speed

Two speed manual trailer winches manufactured from steel with an E.D. coating. Steel bushes on the main drive shafts. Features include the ability to change speeds without removing the handle and a triple position pawl for forward, neutral and reverse gear operation. The **211648** incorporates a hand operated friction system that allows you to control the speed of the drum when in neutral. Handle bolts onto main shaft. Winch cables sold separately, refer to page 614.



211644

BLA Code	Gear Ratio	Capacity kg	Base L x W mm	Height mm	Handle Length mm	Mount Holes mm
211644	9.8:1/4:1	900	165 x 146	161	285	10
211648	12:1/5:1	1150	179 x 146	183	285	10

Manual Trailer Winch - With Brake

Manual trailer brake winches manufactured from steel with an E.D. coating. Steel bushes on the main drive shaft. Brake function enables controlled retrieval and deployment of the vessel via the fixed handle. Winch cables sold separately, refer to page 614.

211656

BLA Code	Gear Ratio	Capacity kg	Base L x W mm	Height mm	Handle Length mm	Mount Holes mm
211656	4:1	550	132 x 90	157	225	10

Manual Trailer Winch - Worm Drive

Worm drive general purpose winch for boat trailers, canvas awnings, shop fittings, farm use, and similar applications. Loads are held stationary by the worm drive, providing precise control of loading and unloading. Black E.D. coated for long life. Winch cables sold separately, refer to page 614.

BLA Code	Gear Ratio	Capacity kg	Base L x W mm	Height mm	Handle Length mm	Mount Holes mm
211670	31:1	700	125 x 129	158	180	10

Atlantic Manual Trailer Winch - Compact 3:1

Compact 3:1 gear ratio marine winch with a 300kg pulling capacity. Ideal for applications such as light boats, jet skis and general winching. Fixed handle.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 3mm winch body
- 3:1 gear ratio with heat treated shaft, gears and bushes
- Plastic gear shroud
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA accredited laboratory

211902

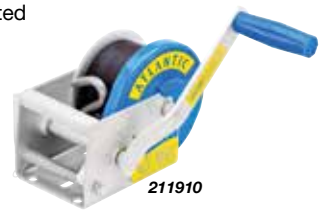
BLA Code	Description
211900	Winch – no cable
211902	Winch – 6m x 4mm galvanised cable & s/s 'S' hook
211904	Winch – 4.5m x 50mm webbing & s/s 'S' hook

Atlantic Manual Trailer Winch - 3:1

This 500kg capacity winch is ideal for applications such as light boats, jet skis and general winching. Fixed handle.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 4mm winch body
- 3:1 gear ratio with heat treated shaft, gears and bushes
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA accredited laboratory



211910

BLA Code	Description
211906	Winch – no cable
211908	Winch – 6m x 4mm galvanised cable & s/s 'S' hook
211909	Winch – 6m x 4mm low stretch rope & s/s 'S' hook
211910	Winch – 6m x 50mm webbing & s/s 'S' hook

Atlantic Manual Trailer Winch - 5:1

500kg capacity winch ideally suited to small to medium boats and general winching applications. Fixed handle.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 4mm winch body
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA accredited laboratory

211914

BLA Code	Description
211912	Winch – no cable
211914	Winch – 6m x 4mm galvanised cable & snap hook
211915	Winch – 6m x 5mm low stretch rope & snap hook
211916	Winch – 6m x 50mm webbing & snap hook

Atlantic Manual Trailer Winch

- Two Speed 5:1/1:1

700kg capacity two speed winch ideally suited to medium boats and general winching applications. Removable hex drive handle for quick 1:1 direct winching.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 4mm winch body
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA accredited laboratory

211920

BLA Code	Description
211918	Winch – no cable
211920	Winch – 7.5m x 5mm galvanised cable & snap hook
211921	Winch – 7.5m x 5mm low stretch rope & snap hook
211922	Winch – 7.5m x 50mm webbing & snap hook

Atlantic Manual Trailer Winch

- Three Speed 10:1/5:1/1:1

Heavy duty 1000kg capacity three speed winch ideally suited to large boats and general winching applications. Removable hex drive handle for quick ratio changes.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 4mm winch body
- Three speed 10:1/5:1/1:1 gear ratio with heat treated shaft, gears and bushes
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA accredited laboratory

211926

BLA Code	Description
211924	Winch – no cable
211926	Winch – 7.5m x 6mm galvanised cable & snap hook
211927	Winch – 7.5m x 6mm low stretch rope & snap hook
211928	Winch – 7.5m x 50mm webbing & snap hook

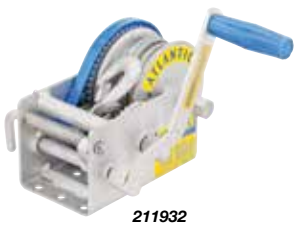
Atlantic Manual Trailer Winch

- Three Speed 15:1/5:1/1:1

Extra heavy duty 1500kg capacity three speed winch ideally suited to large boats and general winching applications. Removable hex drive handle for quick ratio changes.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 4.5mm winch body
- Three speed 15:1/5:1/1:1 gear ratio with heat treated shaft, gears and bushes
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA



211932

BLA Code	Description
211930	Winch – no cable
211932	Winch – 7.5m x 6mm galvanised cable & snap hook
211933	Winch – 7.5m x 7mm low stretch rope & snap hook
211934	Winch – 7.5m x 50mm webbing & snap hook

Atlantic Manual Trailer Winch - Cadet

The Atlantic range of Cadet winches are single speed manual webbing winches manufactured to Atlantic's renowned quality and durability. For resistance to corrosion each Cadet winch has been treated with a quality Dacromet® finish and the range tested by a NATA accredited laboratory. Available in two popular gear ratios of 3:1 and 4:1 with operating load capacities of 300kg and 550kg respectively. Each winch is supplied complete with 4.5 metres of quality webbing and a stainless steel 'S' hook plus removable bolt on handle while the base hole pattern has been designed to fit most common winch posts. Ideal for applications such as light boats, jet skis and general winching. Supplied complete in coloured retail box.

Features:

- Dacromet® coating for corrosion resistance
- Heavy duty 3mm winch body
- One piece heavy duty gears and replaceable traditional pawl
- Removable handle
- Mount pattern to suit most winch posts

BLA Code	Gear Ratio	Capacity kg
211882	3:1	300
211888	4:1	550

Atlantic Manual Trailer Winch - Self Actuating Brake

Brake winches in four different ratio sizes ranging from 5:1 to 15:1 with load lifting capacities up to 1500kg. The self-actuating automatic brake mechanism ensures safe suspension of large loads with jerk free load lowering movement. Superior carbon copper fibre brake pads ensuring the cargo is always secure when under load.

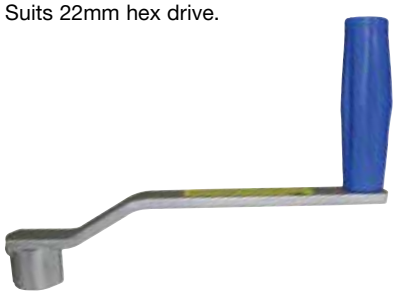
Features:

- Dacromet® coating for corrosion resistance
- Heat treated shaft, gears and bushes
- Carbon copper fibre brake pads
- Common mount hole configuration fits most popular posts
- Winch range tested by NATA accredited laboratory

BLA Code	Gear Ratio	Description	Capacity kg	Max Cable Length m x mm
211944	5:1	Brake winch – no cable	300	20 x 5
211946	5:1	Brake winch – 7.5m x 5mm galvanised cable & snap hook	300	20 x 5
211948	10:1	Brake winch – no cable	500	9.5 x 6
211950	10:1	Brake winch – 7.5m x 6mm galvanised cable & snap hook	500	9.5 x 6
211960	8:1	Brake winch – wide body	750	22 x 8
211962	15:1	Brake winch – wide body	1500	15 x 10

Atlantic Winch Handle

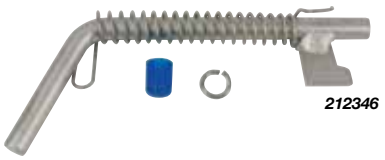
Spare removable hex drive handle to suit most popular winches. Suits 22mm hex drive.



BLA Code
212262

Atlantic Winch Pawl

Spare pawls to suit Atlantic winches.



BLA Code	Description	Suits
212346	32mm Pawl	10:1/5:1/1:1 and 3:1 (except Compact Series) ratio models
212348	36mm Pawl	5:1/1:1 and 5:1 ratio models

Winch Handle

Spare removable cast hex drive handle to suit most winches. Handle length 225mm. Suits 22mm hex drive.

BLA Code
212256

Winch Strap

Durable polyester webbing, heavy stitched to a zinc cobalt plated forged steel snap hook.

BLA Code	Length m	Width mm
212892	4.5	50
212894	6	50
212896	8	50

Atlantic Trailer Winch Rope - Low Stretch

Designed for the replacement of traditional galvanised trailer winch wires these winch ropes are manufactured from 12 plait low stretch, super strong rope blend that is U.V. resistant. The rope will not curl or kink and has less recoil than traditional galvanised wire or webbing in the event of breakage.

BLA Code	Rope Diameter mm	Length m	Hook Type	Breaking Strain kg	Suggested Boat Length m
212930	4	5	'S'	1200	4.5
212932	5	5	'S'	1700	5
212934	5	6	'S'	1700	5.5
212936	6	7	'S'	2300	6
212938	7	6	'S'	3200	6
212940	7	7	Snap	3200	6.5
212942	7	8	Snap	3200	7

Winch Cable

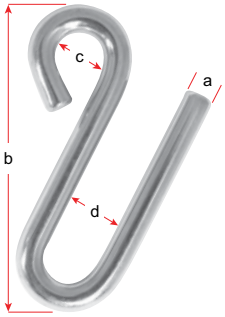
Galvanised wire, machine swaged with stainless steel 'S' hook or zinc plated snap hook.

BLA Code	Length m	Wire Dia. mm	Hook Type
212906	4.5	4	'S' hook
212908	6	4	'S' hook
212910	6	5	'S' hook
212912	8	5	'S' hook
212920	6.1	4.8	Snap hook
212922	7.6	4.8	Snap hook
212924	9.1	4.8	Snap hook

Snap Hook

'S' Hook - Stainless Steel

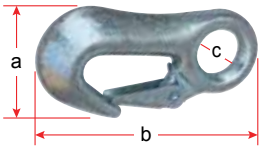
Polished 304 grade stainless steel 'S' hook.



BLA Code	a mm	b mm	c mm	d mm
164404	8	77	18	21
164406	9	85	18	21

Trailer Winch Hook

Forged, zinc plated trailer winch hook with eye and spring actuated safety latch.



BLA Code	a mm	b mm	c mm	Maximum Opening mm
212990	43	92	18	18
212992	50	108	20	22

Aerofast™ Customised Straps

Customise Your Own Straps

Choose from a wide range of webbing and text colours.

Available on most strap models. Minimum order quantities apply, for more information please contact BLA on **1300 252 725**.

CONTACT BLA SALES
SPECIAL ORDER
1300 252 725

Aerofast™ Tow Strap

The Aerofast™ tow strap is designed to be a simple, convenient high strength strap for general towing duties. Ideal for towing stricken vehicles plus launching and retrieving boat trailers at ramps and embankments.

This 4m x 50mm strap is made from heavy duty high tenacity polyester incorporating a forged steel hook and loop with a breaking strain of 4000kg.

BLA Code
215131

Aerofast™ Recovery Strap

A heavy duty strap designed to be used to help retrieve vehicles when they are bogged. Manufactured from high tenacity nylon webbing with an 8000kg braking strain this strap is designed to provide additional recovery power due to its 20% elongation capacity.

This 9m x 60mm recovery strap is manufactured with leather wear sleeves for durability and complies with Australian Standards.

BLA Code
215132

Aerofast™ Recovery Strap

- Tree Trunk Protector

The Aerofast™ tree trunk protector is designed to help prevent damage to trees when used in winching and recovery operations. The long 3m x 75mm polyester webbing strap is wide enough to help prevent ringbarking and damage to trees in most situations.

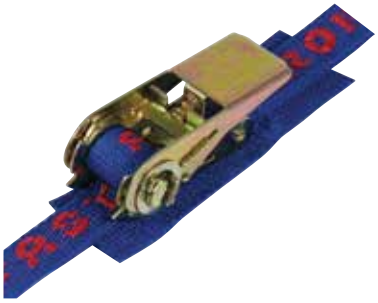
The tree trunk protector has an 8000kg breaking load and complies with Australian Standards.

BLA Code
215138

Aerofast™ Ratchet Tie Down

- Light Duty Over Boat 450kg

- A single 25mm x 4m webbing tie down with black plastic coated 'S' hook both ends
- Easy release ratchet with integrated protection pad
- Breaking strength 450kg, lashing capacity 225kg per tie down



BLA Code
215046

Aerofast™ Ratchet Tie Downs

- Heavy Duty Transom 800kg

- Pair of 25mm x 1.5m webbing tie downs with black plastic coated 'S' hook both ends
- Coated easy release ratchet handle with integrated protection pad
- Breaking strength 800kg, lashing capacity 400kg per tie down

BLA Code
215060

Aerofast™ Ratchet Tie Down

- Heavy Duty Over Boat 700kg

- A single 25mm x 4.5m webbing tie down with black plastic coated 'S' hook both ends
- Coated easy release ratchet handle with integrated protection pad
- Breaking strength 700kg, lashing capacity 350kg per tie down

BLA Code
215048

Aerofast™ Ratchet Tie Downs

- Heavy Duty Transom 500kg

- Pair of 25mm x 1m webbing tie downs with transom hook one end and black plastic coated 'S' hook the other end
- Coated easy release ratchet handle with integrated protection pad
- Breaking strength 500kg, lashing capacity 250kg per tie down

BLA Code
215062

Aerofast™ Ratchet Tie Down

- Heavy Duty Over Boat 1400kg

- A single 50mm x 5.5m webbing tie down with black plastic coated 'S' hook both ends
- Heavy duty easy release ratchet with large coated lever handle
- Breaking strength 1400kg, lashing capacity 700kg per tie down

BLA Code **215050**

Aerofast™ Ratchet Tie Down

- Stainless Steel Heavy Duty Over Boat 700kg

- A single 25mm x 4.5m webbing tie down with black plastic coated 'S' hook both ends
- Stainless steel easy release ratchet handle with integrated protection pad
- Breaking strength 700kg, lashing capacity 350kg per tie down

BLA Code **215064**

Aerofast™ Ratchet Tie Down

- Heavy Duty Over Boat with Swivel Hook 1400kg

- A single 50mm x 6m webbing tie down with swivel 'J' hook at ratchet end and black plastic coated 'S' hook on the other
- Heavy duty easy release ratchet with large lever handle
- Breaking strength 1400kg, lashing capacity 700kg per tie down

BLA Code **215052**

Aerofast™ Ratchet Tie Down

- Stainless Steel Heavy Duty Over Boat 1400kg

- A single 50mm x 1.5/4.5m webbing tie down with black plastic coated 'S' hook both ends
- Stainless steel easy release ratchet with large lever handle
- Breaking strength 1400kg, lashing capacity 700kg per tie down

BLA Code **215066**

Aerofast™ Ratchet Tie Downs

- Stainless Steel Heavy Duty Transom 800kg

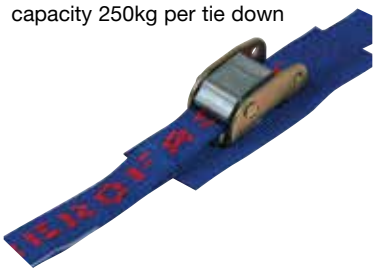
- Pair of 25mm x 1.5m webbing tie downs with black plastic coated 'S' hook both ends
- Stainless steel easy release ratchet handle with integrated protection pad
- Breaking strength 800kg, lashing capacity 400kg per tie down

BLA Code **215068**

Aerofast™ Cam Lock Tie Downs

- Heavy Duty Transom 500kg

- Pair of 25mm x 1.8m webbing tie downs with black plastic coated 'S' hook both ends
- Easy release press action with integrated protection pad
- Breaking strength 500kg, lashing capacity 250kg per tie down

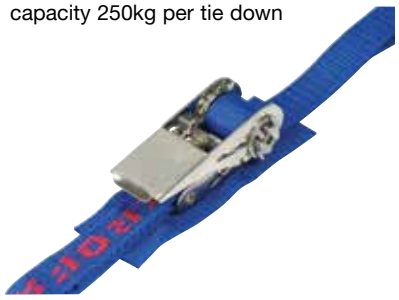


BLA Code **215112**

Aerofast™ Ratchet Tie Downs

- Stainless Steel Heavy Duty Transom 500kg

- Pair of 25mm x 1m webbing tie downs with transom hook one end and black plastic coated 'S' hook the other end
- Stainless steel easy release ratchet handle with integrated protection pad
- Breaking strength 500kg, lashing capacity 250kg per tie down



BLA Code
215070

Aerofast™ Buckle Tie Downs

- Light Duty Roof Rack 200kg

- Pair of 25mm x 2.5m webbing tie downs
- Easy release press action plastic buckles with integrated protection pads
- Breaking strength 200kg, lashing capacity 100kg per tie down

BLA Code
215114

Aerofast™ Lever Action Tie Down

- Light Duty Over Boat 500kg

- A single 50mm x 6m webbing tie down with black plastic coated 'S' hook both ends
- Easy release over centre lever action mechanism
- Breaking strength 500kg, lashing capacity 250kg per tie down

BLA Code
215080

Aerofast™ Heavy Duty Protection Pads

Heavy duty dual purpose padded protection pads for use with the Aerofast™ range of tie downs. Provide extra protection for your boat, kayak, canoe and other equipment. May also be used in conjunction with rope for mooring applications. Suitable for use in straps up to 70mm wide. Sold as a pair.

BLA Code	Colour	Size mm
215141	Red	300 x 100

Aerofast™ Lever Action Tie Down

- Stainless Steel Medium Duty Over Boat 1000kg

- A single 50mm x 5.5m webbing tie down with black plastic coated 'S' hook both ends
- Stainless steel easy release over centre action mechanism
- Breaking strength 1000kg, lashing capacity 500kg per tie down

BLA Code
215082

Aerofast™ Ratchet Tie Down

- Heavy Duty Transom Jet Ski 500kg

- A single 25mm x 2.5m webbing tie down with black plastic coated 'S' hook both ends plus a floating hook
- Coated easy release ratchet handle
- Breaking strength 500kg, lashing capacity 250kg per tie down

BLA Code
215118

Aerofast™ Cam Lock Tie Downs

- Light Duty Roof Rack 300kg

- Pair of 25mm x 3m or 25mm x 4m webbing tie downs
- Easy release press action with integrated protection pad
- Breaking strength 300kg, lashing capacity 150kg per tie down

BLA Code	Specification
215116	25mm x 3m
215117	25mm x 4m

Cam Lock Tie Downs

Sturdy, 25mm wide webbing with quick tension and release device. Gold passivated steel and die cast zinc alloy cam action self locking buckle. Transom hook is plastic coated and will fit transoms up to 40mm thick. 'S' hook is cadmium plated and plastic coated with a 26mm opening. Sold as a pair.

BLA Code	Colour	Web Width mm	Length m
215108	Blue	25	1.2

Tie Down Straps

General purpose webbing tie down with diecast cam action tension and release device. 1.7m x 25mm webbing. Sold as a pair.

BLA Code
215106

Marine Town® Ratchet Tie Down

High tenacity webbing strap including wind up ratchet tensioning device with easy release. Heavy duty plastic coated 'S' hooks both ends. Sold individually.

BLA Code	Web Width mm	Length m	Hook Opening mm
215074	25	4.5	25
215076	50	6.0	27

Supa Strap Multi Pack Octopus Straps

Multi pack containing a wide variety of quality octopus straps in five varying lengths. Fitted with extra large steel reinforced plastic hooks for great strength and load protection. Quality 8mm colour coded shock cord lengths for ease of recognition. Pack includes two each of 30cm, 50cm, 70cm, 90cm and 125cm straps, handy storage container plus two rings providing an attachment point when using multiple straps.

BLA Code
215000

Aerofast™ Flat Shockcord Straps

High quality, 18mm wide flat shockcord straps, fitted with large steel reinforced plastic hooks. Straps are up to three times stronger than traditional "octopus" style straps, with the added benefit of not digging into cargo. Colour coded lengths for ease of recognition.

BLA Code	Natural Length mm
215040	300
215042	600
215044	900

Octopus Straps

101 uses. High quality shock cord with stainless steel hooks. Sold individually.

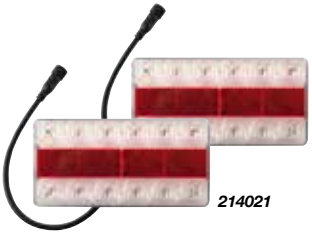
BLA Code	Natural Length mm
215022	300
215024	500
215026	800
215028	1000

Atlantic LED Trailer Lights - Submersible

Fully submersible 100% waterproof LED trailer lights. Designed and manufactured for the harsh marine environment with high impact resistant lenses. Light set sold as a pair and functions include: stop, tail, indicator, reflector and licence plate light (right hand only). Supplied with 30cm lead and connection plug.

Features:

- Reliable low heat generation LED lights
- ADR compliant
- Completely sealed 12 volt operation
- Common mount pattern
- Supplied with 30cm lead and connection plug



214021

BLA Code	Width mm	Height mm
214021	160	80

214025

214023

Accessories:

214022	5.5M wiring kit to suit **214021**
214023	8M wiring kit to suit **214021**
214025	Connector kit flat

Ark Slimline LED Trailer Light Set - Submersible

Fully submersible 100% waterproof LED trailer light set. Designed and manufactured for the harsh marine environment with high impact resistant polycarbonate lens. Light set sold as a pair and includes stop, tail, indicator, reflex reflector and licence plate light (right hand only). Lights are pre-wired with tinned copper wire and have 100,000 hours expected operation life. Supplied complete with stainless steel mounting bolts and easy mount clip on base system. Attractively packaged with easy to follow wiring information and are covered by a five year warranty.

Features:

- Reliable low heat generating SMD LED lights
- Pre-wired with tinned wire
- ADR compliant
- Completely sealed 12 volt unit
- Clip on mount design
- Common mount patternsuits most applications
- Five year warranty

BLA Code	Width mm	Height mm	Depth mm
214024	150	80	25

Ark Trailer Lamp - Submersible

Designed and manufactured for maximum durability with an impact resistant polycarbonate lens protector. 100% waterproof for underwater operation. Set includes two reflectors, two indicator lights, one stop/tail light and one stop/tail/number plate light.

Features:

- Bayonet bulbs for long life
- ADR approved
- Left or right hand number plate position
- Flexible number plate mount
- Depth tested to 15 metres
- Wiring seals

BLA Code	Width mm	Height m	Depth mm	Mount Screws mm
214030	213	100	75	6 r/h

Accessories:

214041	Replacement clear lens	**124099**	Replacement bulb for indicator
214043	Replacement combo lens	**124100**	Replacement bulb for stop/tail

Ark Trailer Light Board with Interchangeable Plug System

A range of innovative trailer light boards manufactured from white rigid PVC extrusion and fitted with ADR approved lights. Supplied pre-wired with two brake lights, two tail lights, indicators and left or right hand number plate lights. The board, available in either 1.5 metre or 1.85 metre lengths, include eight metres of electrical wire with an innovative moulded universal socket receptor designed to accept the three interchangeable plugs supplied. Simply choose the appropriate plug to suit the vehicle socket and click it onto the cable receptor. This innovative solution is designed to reduce stock holding and floor space required to display light boards. Each board features built-in light reflectors and bushed 12.5mm mount holes.

Features:

- New interchangeable plug design
- Each board supplied with all three typical styles of trailer plugs
- Includes eight metres of cable with moulded universal plug receptor
- Simple connection allows for the plug end to be easily changed

214055

BLA Code	Length m
214055	1.5
214056	1.85

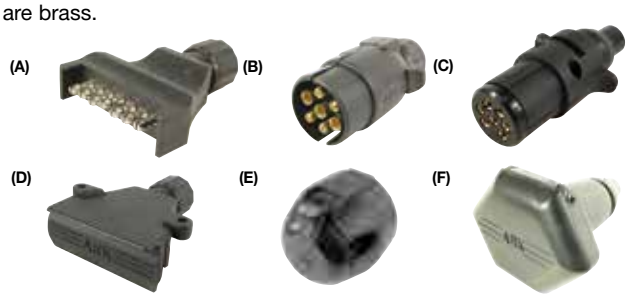
Trailer Electrical Cable

Black outer sleeve. Industry standard colour coded inner cables.

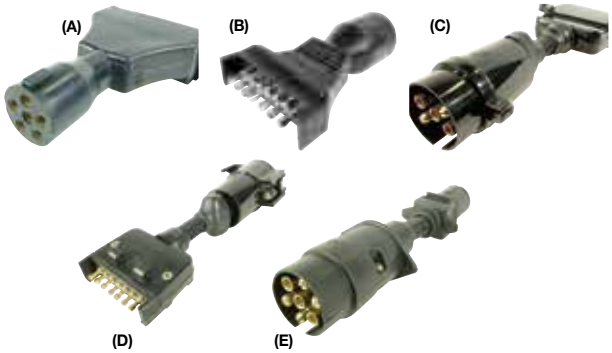
BLA Code	Wire Size mm	Length m	Number of Wires
214064	0.56^2	30	5
214065	0.56^2	100	5
214066	0.64^2	30	7
214067	0.64^2	100	7

Trailer/Vehicle Connections & Adaptors

Connectors and adaptors to suit most applications. Moulded from black, U.V. resistant thermoplastic. All pin connections are brass.



BLA Code	Type	Description
(A) **214080**	Plug	Seven pin flat
(B) **214082**	Plug	Large seven pin round
(C) **214084**	Plug	Small six pin round
(C) **214086**	Plug	Small seven pin round
(D) **214087**	Socket	Seven pin flat
(E) **214089**	Socket	Large seven pin round
(F) **214090**	Socket	Small seven pin round



BLA Code	Vehicle End	Trailer End
(A) **214098**	Small seven pin round	Seven pin flat
(B) **214100**	Seven pin flat	Small six pin round
(B) **214102**	Seven pin flat	Small seven pin round
(C) **214104**	Large five pin round	Seven pin flat
(C) **214106**	Large seven pin round	Seven pin flat
(D) **214108**	Seven pin flat	Large five pin round
(D) **214110**	Seven pin flat	Large seven pin round
(E) **214112**	Large seven pin round	Small seven pin round

PVC Skid Padding

Extruded ribbed section made from white PVC.
Used on trailer skids to protect hull. 45mm wide.

BLA Code	Description
213132	1m length
213136	50m roll

Trailer Rollers - Rubber

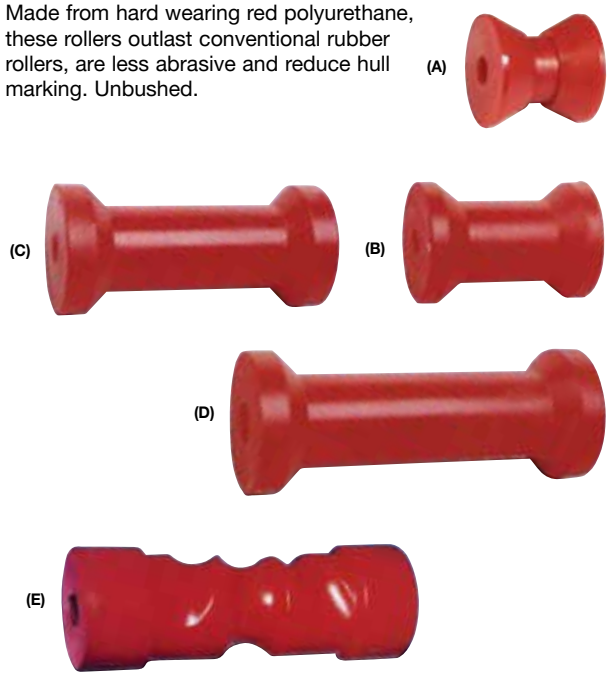
Solid, hard wearing, black rubber.

BLA Code	Type	Overall Length mm	Overall Length in	Max. O.D mm	Min. O.D mm	Bore mm
(A) **213004**	Bow	78	3 1/8	62	36	17
(B) **213008**	Std keel*	113	4 1/2	70	50	17
(C) **213012**	Bilge*	114	4 1/2	70	n/a	17
(D) **213020**	Std keel*	152	6	71	51	17
(E) **213028**	Std keel*	201	8	71	51	17
(F) **213032**	Dog bone	201	8	69	47	21
(G) **213050**	Wobble roller	87	3 1/2	107	n/a	25

N.B. (*) Supplied with bush

Rollers - Polyurethane

Made from hard wearing red polyurethane, these rollers outlast conventional rubber rollers, are less abrasive and reduce hull marking. Unbushed.



BLA Code	Type	Overall Length mm	Overall Length in	Max. O.D mm	Min. O.D mm	Bore mm
(A) **213058**	Bow	50	1.9	50	30	13
(B) **213064**	Std keel	110	4.3	75	50	17
(C) **213068**	Std keel	153	6	75	54	17
(D) **213072**	Std keel	200	7.8	75	54	17
(E) **213076**	Self centering	153	6	70	47	17
(E) **213080**	Self centering	200	7.8	70	47	17

Slime Tyre Inflation System - Heavy Duty

The Safety Spair is for standard tyres (non-4WD or light truck) and repairs a flat at the push of a button. Slime latex tyre sealant and air are sent into the flat tyre, repairing and reinflating the tyre in one simple step. The tyre can be reinflated regardless of the position of the tyre valve.

Tyre inflation time: 4 min

Total repair time: 7 min

Slime tyre sealant is for temporary repair only. After using Slime, have your tyre professionally repaired as soon as possible.

Features

- Convenient zippered case
- 16oz Slime latex tyre sealant (tyre pressure monitoring system safe sealant)
- Heavy-duty 12V tyre inflator with LED light
- Built-in pressure gauge
- Can be used to inflate tyres with the compressor only
- Refills available (**215163**)
- Repair lasts for up to 800 kilometres

Specifications

- Sealant seeks out and repairs punctures up to 6mm (1/4")
- Non-toxic and non-corrosive
- Safe for tyres and rims
- Environmentally friendly

215158

215163

BLA Code
215158

Accessories:

215163 Safety Spair Refill Cartridge

Slime Tyre Inflation System - Smart Spair

The Smart Spair is for standard tyres (non-4WD or light truck) and fits easily in a car boot. The Slime sealant seeks out and repairs tread area punctures up to 6mm (1/4") in diameter repeatedly for up to 2 years! It is recommended that the tyre is removed before repairing.

Tyre inflation time: 8 min

Total repair time: 15 min

Slime tyre sealant is for temporary repair only. After using Slime, have your tyre professionally repaired as soon as possible.

Features

- 16oz Slime tyre sealant (tyre pressure monitoring system safe sealant)
- Compact 12V tyre inflator
- Air adapters for inflatables
- Convenient zippered case

Specifications

- Removal of tyre recomended
- Sealant seeks out and repairs punctures up to 6mm (1/4")
- Non-toxic and non-corrosive
- Safe for tyres and rims
- Environmentally friendly

215156

215162

BLA Code
215156

Accessories:

215162 Smart Spair Refill Cartridge

Universal Spare Wheel Mount Brackets - Heavy-Duty

Bracket suits trailer side frame chassis 75mm – 127mm deep x 50mm wide.
Bolt size 90mm x 12mm. Dacromet coated for extended life in the marine environment.

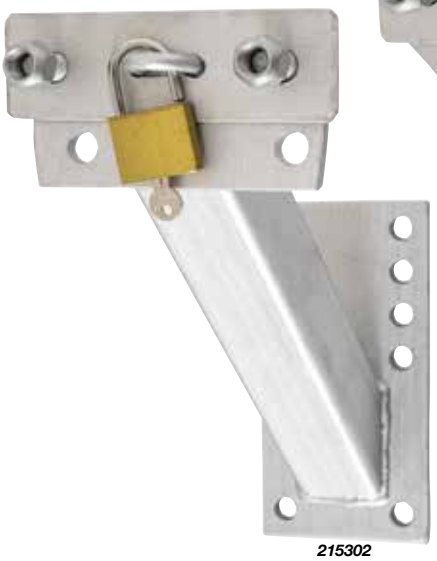
Spare Wheel Mount - Small

- Suits Holden and Ford stud patterns
- Dacromet coated
- Fully adjustable mounting
- Anti-theft locking bracket
- Lock and multiple keys included

Spare Wheel Mount - Large

- Suits Holden, Ford & Landcruiser stud patterns
- Dacromet coated
- Fully adjustable mounting
- Anti-theft locking bracket
- Lock and multiple keys included

215300



215302

215300 Installed (wheel not included)

BLA Code	Size
215300	Small
215302	Large

BLA Wheel Bearing Kit

Complete kit for one wheel includes inner and outer bearing, stainless steel housed grease seal, galvanised dust cap and split pin.

215152

215154

BLA Code	Hub	Inner Bearing	Outer Bearing
215152	Holden	LM67048/10	LM11949/10
215154	Ford	LM12749/10	L68149/10

Bearing Lubricators - Black Plastic

Economical set of black plastic, constant lubricating bearing covers. Spring loaded centre mechanism with grease nipple continually supplies grease to the inner hub and bearings. Sold as a pair.

BLA Code	Hub mm	Length mm
215166	45.2	62

BLA Bearing Lubricators - Chrome

Constant lubricating bearing caps with spring loaded centre mechanism that continually supplies grease to the inner hub and bearings. Includes black PVC dust cover. Sold as a pair.

BLA Code	Type	Hub mm	Length mm
215170	Chrome	45.2	53

Tow Ball - Chrome Plated

Heavy chrome plated 50mm forged tow ball. 7/8" mount bolt. Supplied with zinc plated nut and lock washer. 3500kg capacity. Tow ball cover sold separately.

215198

215192

BLA Code	Description
215192	50mm tow ball

Accessories:

215198 Chrome tow ball cover

Trailer Dolly

Manufactured from black painted tubular steel. Features a 'T' moulded grip handle, dual 160mm diameter wheels with plastic tyres and chrome plated tow ball. Suitable for moving trailerable craft in workshops, hardstand areas and boat yards.

BLA Code
215190

Registration Label Holder

Clear plastic case to hold registration labels. 8mm mount hole.

BLA Code	Width mm	Height mm
215150	120	106

Outboard Motor Support - Spring Loaded

Save wear and tear on the outboard pivot bracket and transom mounts with this trailer to outboard motor support. Soft poly 'V' holds motor leg and spring tube provides support, yet absorbs impact shocks. Metal yoke at base locks onto trailer rear beam, without requiring a special mount bracket. Support has an adjustable length of 520mm to 780mm. Supplied complete with 300mm rubber strap. Suits up to 150HP motors.

BLA Code
215218

Coupling Lock

Solid flat bar steel manufactured coupling locks supplied with electrochemical deposition coating (EDC) for greater corrosion resistance. The large model locks around the trailer coupling and towing vehicle tow ball, preventing disconnection but still allowing full trailer articulation, this is achieved with the clamp bar in the top position as pictured. The large clamp (with lock bar in lower position) and the small clamp, lock around the trailer coupling when trailer is not connected, preventing attachment to a vehicle. The padlocks on the relevant models are solid brass with 8mm stainless steel shank. Supplied with two keys.

215203

215206

BLA Code	Description	Material
215203	Small coupling clamp no padlock	EDC
215204	Small coupling clamp & padlock	EDC
215205	Large coupling clamp no padlock	EDC
215206	Large coupling clamp & padlock	EDC

Outboard Motor Support - Motor Stik

Ideal outboard motor support where a trailer to outboard motor support cannot be fitted. Strong aluminium tubing with moulded ends, fits over trim rams and supports the outboard motor while trailing. Takes the pressure off the hydraulic system and motor mounts, suits most outboards that have internal power trim and tilt. Universal fitment as one end suits Mercury outboards and the other end suits most other outboards.

BLA Code	Width mm	Height mm
215240	30	215

Outboard Motor Support - Telescopic

Telescopic bracket that mounts onto the rear of a boat trailer to provide the outboard leg with support during transport. Motor leg is secured in the rubber 'V' wedge. Trailer attachment fitting sold separately.

215224

215228

215220

BLA Code	Description
215220	Telescopic motor support
215221	Replacement protective sleeve
215224	Trailer fitting – bolt on
215226	Trailer fitting clamp on – 50 x 25mm
215228	Trailer fitting clamp on – 50 x 50mm
215232	Trailer fitting clamp on – 75 x 38mm
215234	Trailer fitting clamp on – 75 x 50mm

Jockey Wheel - Swing-Away 150mm Nylon Wheel

Economical anti-corrosive plated, adjustable height jockey wheel with a robust 150mm x 50mm nylon wheel. Supplied with a bolt on self locking swing-away mount bracket.

BLA Code	Overall Length Retracted mm	Overall Length Extended mm	Post Dia. mm	Mount Type
215181	610	870	48	Swivelling

Jockey Wheel - Swing-Away 150mm Rubber Wheel

Zinc plated, wind up, adjustable height spare jockey wheel. Solid 150mm x 50mm rubber tyre with nylon bush. Available with either a bolt on/weld on clamp or an adjustable self locking swing-away mount bracket.

BLA Code	Overall Length Retracted mm	Overall Length Extended mm	Post Dia. mm	Mount Type
215183	590	845	48	Swivelling

Accessories:

215174 Spare rubber wheel

Jockey Wheel

- Swing-Away 250mm Pneumatic Wheel

Zinc plated, wind up adjustable height jockey wheel. Available as an adjustable, self locking swing-away mount bracket. Pneumatic tyre is 250mm (10") in diameter with a standard car valve for inflation and is fitted to a two piece metal rim.

BLA Code	Overall Length Retracted mm	Overall Length Extended mm	Post Dia. mm	Mount Type
215187	700	950	48	Swivelling

Accessories:

215176 Spare wheel complete with tyre and tube

Jockey Wheel

- Swing-Away & Fixed 250mm Rubber Wheel

Zinc plated, wind up adjustable height, heavy duty jockey wheels. Available with either bolt/weld on clamp or a self locking swing-away mount bracket. Wheel has a zinc plated steel centre with a 250mm diameter, solid rubber tyre.

215189 *215191*

BLA Code	Overall Length Retracted mm	Overall Length Extended mm	Mount Type
215189	700	940	Fixed
215191	700	940	Swivelling

SAFETY EQUIPMENT

Life Cell	626-627
Flares, Flare Kits, Smoke Canister & Flare Container	628-629
Line Thrower	630
Safety Pack	630
EPIRB & PLB	631
Life Jacket Light, Lifebuoy Light & Life Raft Light	632
Lifebuoys, Rescue Sling & Lifebuoy Brackets	640
Fire Bucket, Recessed Storage Boxes & Reflective Tape	634
Fire Extinguisher Port	634
First Aid Kits, 'V' Sheet, Torch & Wooden Bungs	635
Floating Waterproof Torch & 77 Capacity Label	636
Navigation Shapes, Code Flags & Radar Reflectors	637
Safety Mirror, Gas Operated Horns & Whistle	637
Fire Extinguishers & Fire Blanket	640
Paddles & Oars	639-641
Rowlocks, Bailers & Oar Stops	642

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Life Cell

A device designed to reduce the amount of lives lost at sea, by ensuring all safety equipment is contained in one place when abandonment is the only option.

Life Cell is made from closed cell PU foam and constructed from U.V. resistant flame retardant polyethylene (PE). They are supplied with a PE mount bracket. The Life Cell is designed to automatically float from the bracket in the event of being submerged.

Unlike grab bags, Life Cells float acting as a secure hand-hold keeping all crew together and as stable platforms to assist in the deployment of flares and other safety equipment.

Life Cell is a floatation device that stores all your essential safety gear including;

- EPIRBs
- flares
- V sheets
- whistles
- horns
- torches

226462 Stainless steel bulkhead mount bracket. An optional extra, which can be screwed onto flat surfaces as an alternative to the standard black mounting bracket.

226464/66 Stainless steel rail mount bracket. For use on vertical or horizontal boat rails. Made from 316 grade stainless steel.

226450W

226452W

226454

Standard Inclusions

226460 Life Cell mount bracket

N.B. 226456 is supplied with 2 mounts

226456

**Accessories not included*

BLA Code	Description	No. of Persons	H x W x D mm	Colour
226450	Trailer Boat	Assists 2-4	400 x 420 x 170	Orange
226450W	Trailer Boat	Assists 2-4	400 x 420 x 170	White
226451	Trailer Boat (WA only)	Assists 2-4	400 x 420 x 170	Orange
226452	Yachtsman	Assists 4	590 x 420 x 170	Orange
226452W	Yachtsman	Assists 4	590 x 420 x 170	White
226454	Trawlerman	Assists 6	560 x 535 x 220	Orange
226454W	Trawlerman	Assists 6	560 x 535 x 220	White
226456	Crewman	Assists 8	700 x 580 x 200	Orange
226456W	Crewman	Assists 8	700 x 580 x 200	White

Accessories:

226460	Additional Standard Black Bracket
226462	Stainless Steel Bulkhead Bracket
226464	Stainless Steel Rail Bracket (19mm rails)
226466	Stainless Steel Rail Bracket (25-30mm rails)

Endorsed by:

LIFE SAVER RESCUE HELICOPTER

Life Cell - Commercial

The Australian Maritime Safety Authority (AMSA) have officially approved the 'Trawlerman' and 'Crewman' commercial models for use in the commercial sector. Following testing completed by VicLab on 23/06/2015 and subsequent discussion and analysis of the results, they have been shown to meet the requirements for use as a buoyant appliance in accordance with Clause 4.7 in Part C7A of the National Standard for Commercial Vessels (NSCV). Additionally, all of the devices are suited to be used as a container for emergency and safety equipment on commercial vessels.

LIFE CELL
MARINE SAFETY

Specifications:

- Trawlerman Commercial (**226455**) – Capacity to support two persons
- Crewman Commercial (**226457**) – Capacity to support two persons

226455

226457

Standard Inclusions

226460 Life Cell mount bracket

N.B. 226457 is supplied with 2 mounts

BLA Code	Description	No. of Persons	H x W x D mm
226453	Yachtsman Commercial	Supports 1	590 x 420 x 170
226455	Trawlerman Commercial	Supports 2	560 x 535 x 220
226457	Crewman Commercial	Supports 2	700 x 580 x 200

Accessories:

226460 Additional Standard Black Bracket
226462 Stainless Steel Bulkhead Bracket
226464 Stainless Steel Rail Bracket (19mm rails)
226466 Stainless Steel Rail Bracket (25-30mm rails)

Endorsed by:

LIFE SAVER RESCUE HELICOPTER

Ikaros Flares

Ikaros flares have been manufactured by Hansson PyroTech to the highest of safety standards since 1959 and meet all relevant approvals worldwide. The product range includes parachute flares, red hand flares, orange hand smoke flares and buoyant orange smoke canisters all suitable for recreational or commerical use.

IKAROS

222008

Handheld Rocket Flare

Application:

For long range distress signalling.
The best signal in offshore kits for pleasure craft.

Directions for use

Remove bottom lid | *Trigger falls down* | *Squeeze trigger against outer casing*

222002 222006

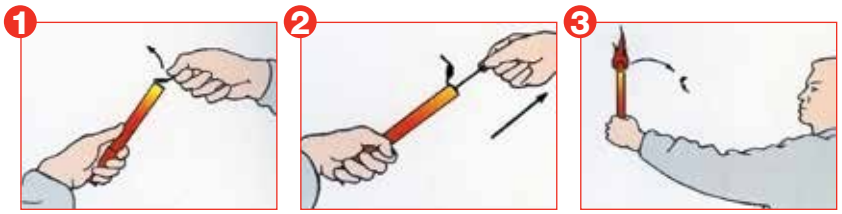
Handheld Red & Orange

Application:

Red: Used to pinpoint your position particularly at night.

Orange: Smoke flare primarily for day use.

Directions for use



Open the lid | *Pull the top. The flare ignites after 2 second delay* | *Hold the flare in your hand*

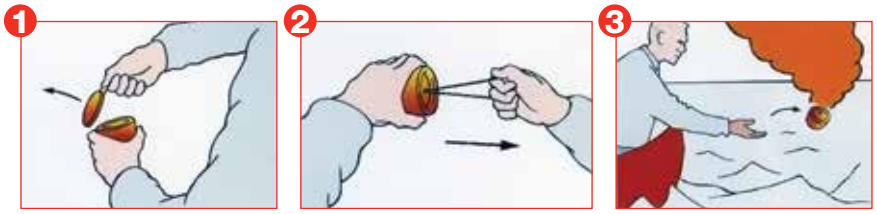
222014

Buoyant Smoke

Application:

Buoyant orange smoke signal designed for daylight use.

Directions for use



Remove the lid | *Pull the top* | *Throw the signal into the water*

Ikaros Hand Flare - Red

For night use in particular, however can be used in daylight to raise alarm and pinpoint your position. Use only when potential rescuers are in sight. Burn time 60 seconds plus, producing a light intensity of 15,000 candela. Visible for up to ten kilometres on a clear dark night (conditions dependant).

BLA Code	
222002	DANGEROUS GOODS

Ikaros Hand Smoke Flare - Orange

For day use only to raise alarm and pinpoint your position. Use only when potential rescuers are in sight. Burn time 60 seconds plus and visible for up to 4km (conditions dependant).

BLA Code	
222006	DANGEROUS GOODS

Ikaros Parachute Rocket Flare - Red

Easy to use, hand held, self contained rocket, ejecting a parachute suspended flare to 300m altitude. Visible range 15km or more by night. Red parachute flare is used for distress identification. Burn time 40 seconds plus, producing a light intensity of 30,000 candela.

BLA Code	
222008	DANGEROUS GOODS

Ikaros Flare Kit - Inshore

Inshore flare kit supplied sealed in a polyethylene bag. Inshore flare kit contains two red hand and two orange hand smoke flares.

BLA Code	
222004	DANGEROUS GOODS

N.B. Check local boating safety regulations

Ikaros Flare Kit - Offshore

Offshore flare kits contain two red parachute rockets and two orange hand smoke flares.

BLA Code	
222005	DANGEROUS GOODS

N.B. Check local boating safety regulations

Ikaros Flare Kit - Trawler

Contains two red hand flares, one orange hand smoke and three red parachute rocket flares.

BLA Code	
222022	DANGEROUS GOODS

Ikaros Buoyant Smoke Canister - Orange

A buoyant orange smoke signal designed for daylight use. Safe to operate on oil or petrol covered water. The simple pull cord ignition system releases a dense orange smoke for a minimum period of three minutes.

BLA Code	
222014	DANGEROUS GOODS

BLA Flare Container

A rigid poly container which is robust and suitable for storage of all flares and flare kits listed on previous page, and other emergency items.

BLA Code	Width mm	Height mm	Depth mm	Opening Dia. mm
222112	144	300	155	102

Ikaros Line Thrower

IKAROS

This product has been specifically designed for the use of casting a pilot line over long distances to enable cables and ropes to be accessed in rescue operations at sea. The line thrower can also be used for links between ships, from shore to ship or ship to shore. It consists of a robust waterproof plastic container with integral handle with integrated trigger mechanism designed to be simply and quickly deployed. A solid fuel rocket is used to propel the 4mm line which can be carried up to a distance of 300m in calm conditions. It is approved globally and meets the latest SOLAS 74/96 regulations.

Remove safety pin.

Keep arrows on the line thrower parallel to the deck/ground. Press the line thrower against your thigh.

Pull trigger.

BLA Code	
222040	DANGEROUS GOODS

Accessories:

222042 Flare container only
222044 Replacement rocket

SOLAS Approved

BLA Safety Packs

BLA

An unfortunate reality of boating is that safety equipment is all too often stowed out of sight and out of mind. These high visibility packs have all your essential safety equipment together in one 'quick to grab in an emergency' pack. The bags are manufactured from waterproof bright orange PVC with sealed seams. Because all your safety gear is in one neat weatherproof pack, it can be kept in view of crew for immediate access if required. An added bonus for trailerable boats stored in the open is that it is quick and easy to remove all your safety gear for storage in the house or garage. The table below details the contents of each pack.

226505

BLA Code	PFD Level 100	'V' Sheet	Waterproof Torch	Paddle	Signal Mirror	Bag Size mm
226505	2	1	1	2	1	400 x 400 x 700
226509	4	1	1	2	1	400 x 400 x 700
226529	6	1	1	2	1	500 x 500 x 700

Accessories:

226502 Bag only 400 x 400 x 700mm
226504 Bag only 500 x 500 x 700mm

Kannad Marine EPIRB - Sport and Sport+

kannad marine

The Sport and Sport+ Kannad EPIRBs (Emergency Position Indicating Radio Beacon) are quickly and simply activated by removing from the CarrySafe mounting bracket and breaking the anti-tamper tab to gain access to the manual activation slide switch. Specifically designed to float free and upright, the extended omni-directional blade type whip antenna provides maximum signal strength for a minimum transmitting period of 48 hours.

Features:

- 60 comprehensive diagnostic and self-tests performed during the battery life cycle
- Transmits on world-wide 406MHz and 121.5MHz frequency for directional accuracy
- Minimum transmission time of 48 hours once activated
- Intense LED flashing light to aid in location
- Sport+ (**222118**) has built in 50 channel GPS receiver
- Unique CarrySafe bracket provides secure storage against accidental activation
- Non hazardous battery for safe and easy transportation
- 7 year battery life (**222116**)
- 5 year battery life (**222118**)
- 5 year limited warranty

222116 ***222118***

BLA Code	Description	Activation Type	GPS Receiver
222116	Sport	Manual	No
222118	Sport+	Manual	Yes

CE

Kannad Marine PLB - SafeLink SOLO with Built-in GPS

kannad marine

Designed specifically for personal use, the manually operated Kannad SafeLink SOLO PLB (Personal Locator Beacon) will transmit for a minimum of 24 hours on the dedicated 406MHz distress frequency and 121.5MHz locating frequency. For additional safety and faster location acquisition, the SafeLink SOLO PLB incorporates a 50 channel GPS receiver which transmits updated co-ordinates every twenty minutes.

Features:

- Compact, lightweight, durable
- Simple three stage manual activation
- Ideal for high activity sports and outdoor activities
- Buoyant when used with flotation pouch, waterproof to 10 metres
- Global 406MHz frequency plus 121.5MHz homing signal
- 50 channel integral GPS
- Minimum 24 hours of continuous operation
- LED SOS flashing light
- Unit will self test up to 12 times per year
- 5 year replaceable battery life

Requires only three quick steps to activate the SafeLink SOLO PLB

1. ***Tear off red anti-tamper lid***

2. ***Unfurl flexible antenna***

3. ***Press ON button to activate***

BLA Code	Description	Activation Type	GPS Receiver
222124	SOLO PLB	Manual	Yes

CE

SOLAS PFD Water Activated Light

This compact SOLAS approved personal man overboard life jacket light is designed to fit most types of life jackets. Supplied with a strong fixing clip that accommodates webbing or can be fixed through the fabric near the shoulder to provide maximum visibility when the wearer is in the water.

The high output light is activated automatically when immersed in water and may be manually switched to the off position to conserve power.

Features:

- Automatic actuation when light is righted and sensor contacts freshwater or saltwater
- Bright flashing light of 2 candela intensity visible in all directions of the upper hemisphere
- Lithium 5 year expiry non replacement battery exceeding eight hour operation time
- Easy fit mount bracket
- Lifebuoy lanyard supplied
- IMO SOLAS standards certification

BLA Code	Overall Width mm	Overall Height mm	Overall Depth mm
226060	43	34	43

SOLAS Approved

SOLAS Man Overboard Lifebuoy Light

A rugged yet extremely compact SOLAS approved low profile man overboard lifebuoy light designed to automatically activate when deployed. The light is powered by a sealed CR123 lithium battery ensuring zero maintenance and long storage life over a wide range of weather conditions for five years.

The bright omni-directional high intensity 2 candela light is designed to self activate and operate for at least eight hours when righted and immersed in water. The light is supplied complete with a tough easy mount bracket and rope lanyard for easy lifebuoy attachment. The outer body and mounting clip are manufactured from U.V. resistant polycarbonate providing strength and a long product life.

Weighing only 180 grams this lifebuoy light is approved to SOLAS, MSC81.(70) and ISO24408:2005 regulations and manufactured to ISO standard.

Features:

- Automatic actuation when light is righted and sensor contacts freshwater or saltwater
- Bright flashing light of 2 candela intensity visible in all directions of the upper hemisphere
- Lithium 5 year expiry non replacement battery exceeding eight hour operation time
- Easy fit mount bracket
- Lifebuoy lanyard supplied
- IMO SOLAS standards certification

BLA Code	Diameter mm	Height mm	Weight g
226036	90	125	180

SOLAS Approved

SOLAS Life Raft Light

A compact and cost effective SOLAS approved life raft light, featuring a highly visible external flashing light as well as an internal illuminating light. The lighting system has been designed to be quickly and simply fixed through the life raft roof fabric with threaded locking rings for easy installation/use.

Both external and internal lights are interconnected to the battery body via individual power cables. When the life raft is inflated, both lights can be immediately deployed by pulling on the single point activation cord. An additional feature allows either of the lights to be turned on or off via individual power buttons mounted on the compact lithium battery pack.

The external fixture features three high intensity 4.3 candela flashing lights providing long and penetrating signalling in all directions for 12 hours. The continuous 0.5 candela internal light provides adequate light in all directions for reading and viewing inside a covered life raft. All light units, battery pack and switches are sealed and watertight.

Features:

- Manual operation of individual lights saves power
- Bright flashing external light of 4.3 candela intensity visible in all directions of the upper hemisphere
- Bright continuous light of 0.5 candela intensity provides internal illumination
- 5 year expiry on non replacement lithium battery exceeding 12 hours of operation time
- IMO SOLAS standards certification

BLA Code	Battery Pack W x H x D mm	External Light W x H x D mm	External Light Cable Length mm	Internal Light W x H x D mm	Internal Light Cable Length mm
226066	62 x 34 x 74	63 x 44 x 63	1320	63 x 44 x 63	740

SOLAS Approved

Rescue Sling

A simple but effective water retrieval device for vessel or water side facility. Consists of a flexible foam lifebelt with vinyl cover and 40 metres of 8mm recovery line, contained in a wall or rail mount PVC storage pouch. Quick reference instructions are clearly displayed on the pouch. Meets AYF requirements.

Dimensions are in the stowed position.

BLA Code	Height m	Width m	Thickness mm
226002	470	300	150

BLA Lifebuoy - Horseshoe

Flexible closed cell foam inner with a polyurethane zip removable cover. Features full circumference cord with quick release hooks, reflective tape patches and pockets for storage of drogue and danbuoy line. Complies with AYF requirements.

BLA Code	Height m	Width m	Thickness mm	Opening mm
226004	520	590	95	300

Accessories:

226012 Lifebuoy 'J' Holding Hooks
226010 Lifebuoy & Light Holder

Life Ring - Economy

650mm outside diameter, foam filled PVC life ring. Coloured bands provide traditional appearance. Ideal for pool, decorative purposes, or pleasure craft. Not approved for Survey vessels.

BLA Code
225994

Accessories:

226012 Lifebuoy 'J' Holding Hooks
226010 Lifebuoy & Light Holder

Lifebuoy - SOLAS Approved

SOLAS approved lifebuoy, seamless, rotational moulded polyethylene, closed cell foam filled. Supplied complete with rope grip and reflective tape. Listed on the NMSC Compliant Equipment Register. 720mm in diameter.

BLA Code
226000

Accessories:

226012 Lifebuoy 'J' Holding Hooks
226010 Lifebuoy & Light Holder

SOLAS Approved

Lifebuoy Light

SOLAS approved, buoyant orange lifebuoy light which activates automatically with a continuous beam when turned to an upright position. Runs off four 1.5 volt 'D' cell batteries (not included).

BLA Code	Height mm	Dia. mm
226030	355	112

Accessories:

124262 Replacement bulb – new style screw fit

SOLAS Approved

Lifebuoy Light Bracket

Stainless steel bracket with plastic tube clips. Supplied with rail mount adaptor to suit 22mm-25mm tube.

BLA Code
226031

Lifebuoy and Light Holder

Stores **225994**, **226000** and **226004** lifebuoys as well as **226030** lifebuoy light, ready for immediate deployment in an emergency situation. Can be bulkhead or wall mounted and is also supplied with a rail mount adaptor to suit 22mm-25mm tube. Manufactured from stainless steel and U.V. stabilised plastic.

BLA Code	Height m	Width m	Mount Screws mm
226010	300	140	5 r/h

Lifebuoy 'J' Hooks

Stainless steel 'J' hooks to suit most lifebuoys, including **225994, 226000** and **226004**. Sold as a pair.

BLA Code	Height m	Width m	Mount Screws mm
226012	185	125	6 c/s

BLA Fire Bucket

Heavy duty nine litre galvanised bucket. Red in colour with 'FIRE' painted in white. Complies with Survey vessel requirements.

BLA Code	Height mm	Top Dia. mm
227040	255	245

Moulded Recessed Boxes

Moulded from high quality, U.V. resistant, white ABS plastic with reinforced panel for either back or side mounting extinguisher, EPIRBs, and other items. These attractive recessed boxes allow storage of emergency equipment within easy reach, without intruding into the cabin or cockpit.

227032

BLA Code	Overall Width mm	Overall Height mm	Overall Depth mm
227030	175	470	92
227032	175	400	92

BLA Fire Extinguisher Port

Allows a standard fire extinguisher nozzle to be directed into an engine room, yet keeping the space confined under normal circumstances. Hole is sealed via a PVC diaphragm which you push in for use in emergency. Complies with EU guidelines (94/25 5.6.2) for recreational craft.

BLA Code	Outside Dia. mm	Inside Dia. mm	Depth mm
227026	69	45	10

Retro-Reflective Tape

3M brand, high intensity, silver retro-reflective tape which can be used for safety equipment. Self adhesive, 51mm wide. Survey approved.

BLA Code	Description
223602	Per metre
223604	50 metre roll

First Aid Kit - Dinghy

Supplied in Decor plastic container 205 (l) x 135 (w) x 50 (h) mm.

Contains: 1pr x disposable gloves, 1 x small scissors, 1 x 25mm conforming gauze bandage, 1 x small tweezers, 1 x 50mm conforming gauze bandage, 24 x Paracetamol, 1 x 25g antiseptic cream, 20 x plastic strips, 1 x 30ml antiseptic wash, 5 x alcohol swabs, 5 x disposable splinter probes, 5 x 15ml single use eyewash, 2 x gauze swabs, 1 x Handy Hints First Aid book, 12 x assorted safety pins, 1 x sterile finger dressing.

BLA Code
224002

First Aid Kit - Runabout

Supplied in rigid plastic container with lock lid, 210 (l) x 140 (w) x 105 (h) mm.

Contains: 1 x 50mm conforming gauze bandage, 2 x 25mm conforming gauze bandage, 1 x triangular bandage, 1 x Handy Hints First Aid book, 5 x alcohol swabs, 5 x disposable splinter probes, 1 x small scissors, 3 x small non-adherent dressings, 24 x Paracetamol, 12 x assorted safety pins, 5pr x disposable gloves, 3 x large non-adherent dressings, 1 x small tweezers, 1 x hypoallergenic tape 2.5cm x 9.1m, 20 x plastic strips, 1 x 30ml antiseptic wash, 2 x gauze swabs, 1 x 75mm crepe bandage, 1 x 25g antiseptic cream, 5 x 15ml single use eyewash, 1 x sterile finger dressing.

BLA Code
224004

First Aid Kit - Cruiser

Supplied in air tight container 275 (l) x 203 (w) x 104 (h) mm.

Contains: 2 x 25mm conforming gauze bandages, 20 x plastic strips, 3 x 50mm conforming gauze bandages, 24 x Paracetamol, 1 x 75mm hospital crepe bandage, 1 x 50g cotton wool, 1 x roll of 25mm zinc oxide plaster, 1 x 50g burn cream, 2 x 75mm square gauze swabs, 2 x rubber finger cots, 1 x 125mm stainless steel forceps, 12 x assorted safety pins, 10 x disposable splinter probes, 2 x calico triangular bandages, 1 x 125mm stainless steel scissors, 6 x small sterile non-adherent dressings, 1 x Handy Hints First Aid book, 1 x 30g Savlon antiseptic cream, 3 x large sterile non-adherent dressings, 1 x 250ml Calamine lotion, 5pr x disposable gloves, 1 x 250ml antiseptic liquid, 5 x 15ml single use eyewash, 10 x resealable plastic bags, 2 x 100mm x 100mm pressure pads, 1 x 100mm x 200mm pressure pads.

BLA Code
224006

Wooden Bungs

Set of ten soft wooden bungs (6mm-38mm) for emergency plugging of holes and through hull fittings.

BLA Code
223210

BLA 'V' Sheet

International distress sheet to suit safety requirements. Orange PVC construction with black 'V'. Supplied in vinyl bag.

BLA Code	Height m	Width m
222140	1.22	1.83

BLA Torch - Rubberised

Handle assists grip for cold, wet hands. Chrome plated internal electric connections help protect against corrosion. Easy to use large thumb control. 'On' and 'Off' operating switch. Complete with adjustable length wrist strap. Krypton bulb. Operates with 'D' size batteries (**not included**).

BLA Code	Batteries	Length m	Lens Dia. mm
223150	2	200	50

Floating Waterproof Torch - High Intensity LED

Introducing a powerful, compact and waterproof LED torch ideal for a multitude of safety, outdoor and general lighting applications. Light is supplied via a single high power LED to provide a super bright white light with an intensity greater than 150 candela (commonly 180 candela over five hours).

Manufactured to ISO18813-2006 standard this waterproof torch is powered by a single AA battery (included, plus spare) which provides a minimum constant operating time of seven hours. For additional safety a Morse code signal can be operated to flash a minimum of 180 times per minute by gently depressing the soft touch rubber on/off switch when the torch is on.

Lightweight and fully waterproof this torch floats lens up and high out of the water and includes a comfortable, generous wrist strap for added security. All items supplied including torch, spare AA battery and spare LED bulb are contained within a compact robust plastic storage case with hinged lid for convenience.

Manufactured to the highest standard these compact torches are extremely robust, fire and oil resistant, mould proof, corrosion proof and U.V. resistant.

Note that this torch replaces **223170** and will now be supplied as standard equipment in BLA safety packs **226505**, **226509** and **226529**.

Features:

- High intensity minimum 150 candela LED light
- Will operate continually for a minimum of 7 hours
- Waterproof, floats, compact design
- Morse code ability greater than 180 times per minute
- Manufactured to ISO Standard 18813-2006
- Includes case, spare battery and spare LED bulb

Kit includes robust case with hinged lid, LED torch with battery and generous wrist strap, spare AA battery and spare high intensity single LED bulb.

BLA Code	Battery	Bulb Type	Candela Min.	Operating Time Hrs.	Length mm	Dia. mm
223180	1 x AA (included + spare)	Single LED (+ spare)	⩾150	⩾7	105	42

77 Capacity Label of Registrable Recreational Ship – Queensland Only

Capacity and safety labels to be attached to recreational ships.

A person who is the owner or master of a registrable recreational ship must ensure that a capacity label is permanently attached to the ship in a place that—

(a) is adjacent to each steering position in the ship; and

(b) allows the capacity label to be seen clearly from the steering position.

A person must not remove, deface, obliterate or conceal a capacity label attached to a recreational ship.

A recreational ship does not include a recreational ship that is a sailing ship, whether or not the ship has an auxiliary means of mechanical propulsion.

N.B. The labels are only applicable for Queensland use.

226408

226404

226406

226400

226402

226410

BLA Code	Description
226400	Life Jacket Self Adhesive Sticker
226402	Life Jacket Screw On Vinyl Sign
226404	Under 6M Self Adhesive Capacity Sticker
226406	Over 6M Self Adhesive Capacity Sticker
226408	Flybridge Self Adhesive Capacity Sticker
226410	Ride Smart Self Adhesive Sticker

Signalling Mirror

Polished stainless steel mirror. Used to draw attention of potential rescuers for up to several kilometres.

BLA Code	Length mm	Width mm
229100	97	72

Pealess Whistle

Orange plastic pealess whistle, suitable for AYF and survey requirements.

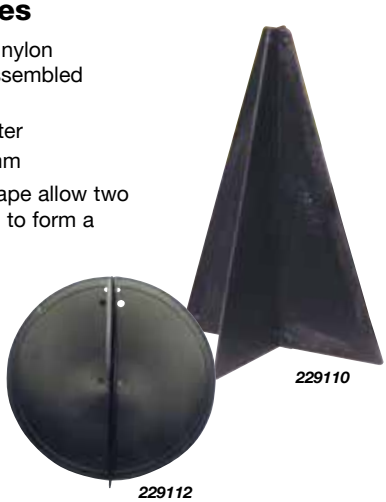
BLA Code
223200

Navigation Shapes

Made of two piece black nylon construction. Easily disassembled for flat storage.

- Ball - 300mm in diameter
- Cone - 460mm x 330mm

Holes in base of cone shape allow two cone shapes to be joined to form a diamond shape.



229110

229112

BLA Code	Shape
229110	Ball
229112	Cone

Code Flags

Yes and no answering pennants. Sold as set containing one 'N' and one 'C' flag.

BLA Code
229020

Gas Operated Horns

Plastic acoustic horns supplied complete with a metal gas propellant canister. Push button operation. Non CFC propellant. A separately purchased snap in wall mount bracket is available to suit the **225002** horn.

225008 *225002*

BLA Code	Overall Length mm	Overall Height mm
225002	205	219
225008	45	127

DANGEROUS GOODS

Accessories:

225004 Canister for **225002**

Radar Reflector - Cube

Square aluminium plates that lock together with plastic end joiners to form a cube, resulting in strong radar reflecting properties. Stows flat when not in use.

BLA Code
229156

Radar Reflector - Tube

Aluminium radar reflector encased in protective nylon tube. Supplied with pivotal triangular nylon base allowing reflector to be folded flat or removed when not in use. An essential piece of safety equipment for commercial or recreational vessels operating in any shipping lanes.

BLA Code	Length mm	Diameter mm	Base Mount mm
229150	575	55	98 x 75

BFI Fire Extinguisher

- 0.6kg dry powder extinguisher with 1A:5B:E fire test rating
- Head of fire extinguisher is manufactured from chromed brass, trigger from powder coated steel
- Red plastic snap out mount bracket supplied with self adhesive and screw type fastening
- Manufactured to AS1841:5

Suitable for:

- A class - Wood, paper, cloth
- B class - Liquids
- E class - Electrical

BLA Code	Height mm	Dia. mm	Mount Screws mm
226999	295	75	4 r/h

DANGEROUS GOODS

MegaFire Fire Extinguisher

- 1kg dry powder extinguisher with 1A:20B:E fire test rating
- Head of fire extinguisher is manufactured from chrome brass, trigger handle from powder coated steel, bracket is red powder coated steel
- Manufactured to AS1841:5

Suitable for:

- A class - Wood, paper, cloth
- B class - Liquids
- E class - Electrical

BLA Code	Height mm	Dia. mm	Mount Screws mm
227001	340	82	5 r/h

DANGEROUS GOODS

MegaFire Fire Extinguisher

- Highest rated extinguisher for size
- Dry powder
- 1.5kg fire test rating 2A:20B:E
- 2.5kg fire test rating 3A:40B:E
- Head of fire extinguisher is manufactured from chrome brass, trigger and handle are chrome plated steel
- Manufactured to AS1841:5

Suitable for:

- A class - Wood, paper, cloth
- B class - Liquids
- E class - Electrical

227006

BLA Code	Weight kg	Height mm	Dia. mm	Mount Screws mm
227003	1.5	355	90	5 r/h
227006	2.5	425	120	5 r/h

DANGEROUS GOODS

MegaFire Fire Extinguisher

- Highest rated extinguisher for size
- 4.5kg dry powder. Fire extinguisher with 3A:40B:E fire test rating
- Manufactured to AS1841:5
- Mines approval MDAFE2302
- SSL listed
- Galvanised steel mount bracket
- Head of fire extinguisher is manufactured from chrome brass, trigger and handle are chrome plated steel
- Plastic hose retainer
- Optional bracket is available as an extra

Suitable for:

- A class - Wood, paper, cloth
- B class - Liquids
- E class - Electrical

BLA Code	Height mm	Dia. mm	Mount Screws mm
227010	500	160	5 r/h

DANGEROUS GOODS

MegaFire Fire Blanket

Manufactured from 100% woven glass fibre. Measures 1m x 1m when unfolded. Supplied in vinyl pouch with eyelet for wall mounting, ready for emergency situations.

BLA Code
227012

BLA Oars

A combination of varnished wooden shaft, with turned 120mm x 34mm handgrip, coupled with a durable moulded polypropylene blade. The 170mm wide blade has a slightly concave face for improved rowing efficiency. The shafts are turned to 41mm diameter to suit **221070** oar stops, however due to timber's natural movement with moisture, this diameter can vary up to 1mm. Sold as a pair.

221003

BLA Code	Length m	Length ft
221001	1.68	5'6"
221002	1.83	6'
221003	1.98	6'6"
221004	2.13	7'
221005	2.28	7'6"
221006	2.44	8'

Accessories:

221070 BLA Rubber Oar Stops

BLA Paddle - Standard

Economical paddle with anodised aluminium shaft and a black nylon straight blade.

BLA Code	Length m	Length ft	Shaft Dia. mm	Blade Size mm
221060	1.22	4'	25	450 x 170

Paddle - Double Ended Two Piece

Double ended paddle with the choice of offset or straight blades at the push of a button. Black anodised aluminium shaft fitted with drip guards and hyperlon grips. Durable yellow moulded straight blades. Breaks down into two pieces for convenient storage.

BLA Code	Length m	Length ft	Shaft Dia. mm	Blade Size mm
221048	2.44	8	25	435 x 175

Paddle - 'T' Grip

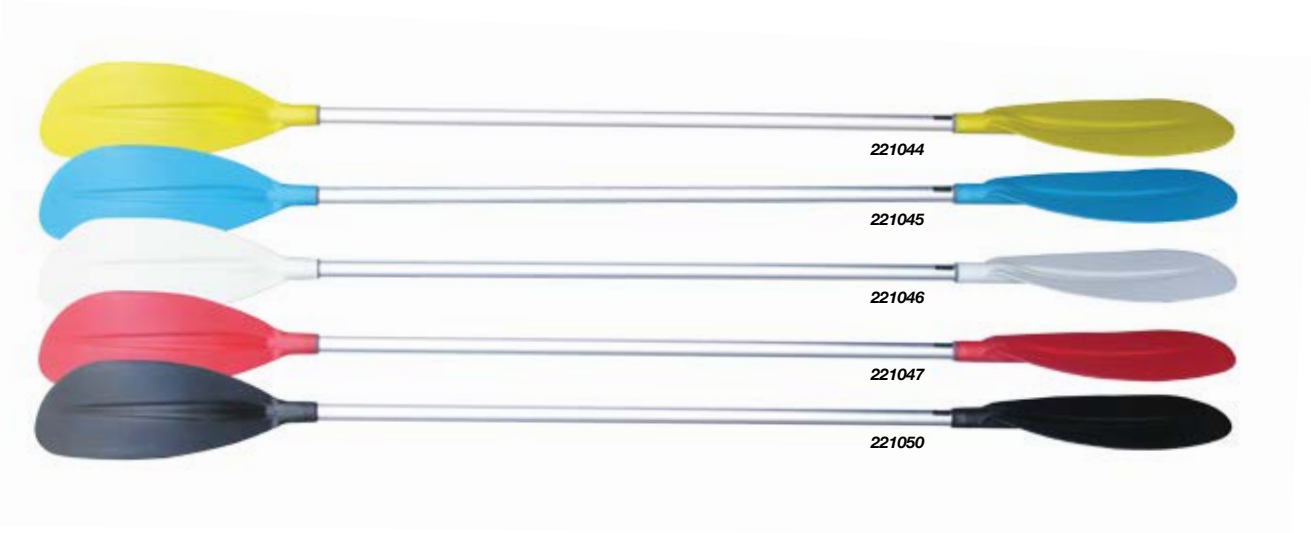
Anodised aluminium shaft fitted with moulded black nylon 'T' grip and blade. Suitable for canoes and similar watercraft.

221051

BLA Code	Length		Shaft Dia.	Blade Size	Handle Width
	m	ft	mm	mm	mm
221051	1.22	4'	32	500 x 200	104
221052	1.45	4'9"	32	500 x 200	104
221054	1.22	4'	25	450 x 170	104

Paddle - Double Ended One Piece

Australian made, heavy duty anodised aluminium shaft with offset tough nylon scull blades. Available in five blade colours.



BLA Code	Colour	Length		Shaft Dia.	Blade Length
		m	ft	mm	mm
221044	Yellow	2.18	7'1"	31.75	510
221045	Blue	2.18	7'1"	31.75	510
221046	White	2.18	7'1"	31.75	510
221047	Red	2.18	7'1"	31.75	510
221050	Black	2.18	7'1"	31.75	510

Paddle - Economy Double Ended

An ideal paddle for the family canoe or surf ski. Anodised aluminium shaft with yellow injection moulded plastic in-line scull blades.

BLA Code	Length		Shaft Dia.	Blade Size
	m	ft	mm	mm
221042	2.13	6'11"	35	470 x 170

BLA Paddle - Telescopic

Anodised aluminium shaft, polypropylene blade and comfort palm grip. Simple twist lock action extends or collapses the paddle in seconds. **221064** has a two stage telescopic action whilst the **221066** is three stage. Ideal for stowing in confined spaces and for use as an emergency paddle.

221064 *221066*

BLA Code	Colour	Length mm	Shaft Dia. mm	Blade Size mm	Handle Width mm
221064	Black	770-1070	22/25	375 x 170	50
221066	Orange	530-1070	22/25	300 x 160	100

Paddle - Two Piece Kayak

Made of heavy duty black EDC coated aluminium shaft with foam hand grips and PVC anti-drip rings these two piece kayak paddles have a simple spring action pin for quick and simple assembly as well as for three position 60° - 0 - 60° angle adjustments. Asymmetric nylon blades. Ideal for storage and compact transport.

BLA Code	Length m	Length ft	Shaft Dia. mm	Blade Size mm
221049	2.20	7'3"	25	175

Bailing Scoops

High flex plastic material to take years of punishment. Scoop shape to get the last of the water out.

223220

223222

BLA Code	Length mm	Width mm	Height mm	Capacity L
223220	178	128	99	1
223222	225	145	125	1.8

BLA Rubber Oar Stops

Three sizes of black rubber oar stops to suit most oars. **221070** suits BLA timber shaft oars. The oar stops are easily fitted by lubricating the oar shaft with detergent and sliding into place. Sold as a pair.

BLA Code	Inside Dia. mm	Inside Dia. in	Outside Dia. mm	Flange Dia. mm	Overall Length mm
221070	41	1 5/8	53	81	108
221072	44	1 3/4	54	81	111
221074	43	1 11/16	54	81	108

Rowlocks and Holders - Black Nylon

Economical alternative for lightweight dinghies. Proven strength (17mm shafts). Security tie holes in ends of the shafts and twist lock rowlock holder help to keep the rowlocks on board. Rowlock suits oars/stops to 55mm diameter. Sold as a pair.

221094

221090

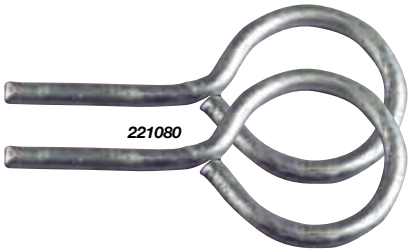
221092

BLA Code	Description
221090	Plastic rowlock only
221092	Top mount rowlock holders
221094	Side mount rowlock holders

BLA Rowlocks

Galvanised.
Sold as a pair.

221082


221080

BLA Code	Style	Stem Dia. m	Stem Dia. in	Stem Length mm	Ring/'U' Inside mm
221080	Ring	10	3/8	97	67
221081	Ring	12	1/2	97	67
221082	Open	10	3/8	99	56
221083	Open	12	1/2	99	56

NAVIGATION

Ritchie® Sport Compasses	645
Ritchie® Trek Compasses	645-646
Ritchie® Explorer Compasses	646-647
Ritchie® Kayaker Compass	647
Ritchie® Angler Compasses	647-648
Ritchie® Voyager Compasses	648
Ritchie® Helmsman Compasses	649
Ritchie® Navigator Compasses	650
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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

The World's Best Choice

RITCHIE® NAVIGATION

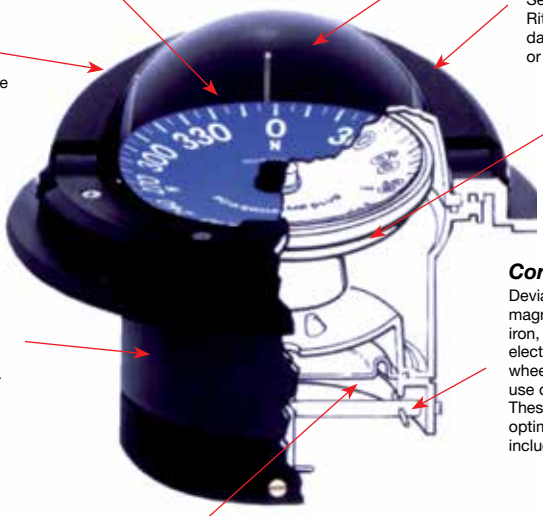
When properly sized, installed and compensated a marine compass is the most important instrument on any boat. It will provide accurate, trouble-free heading references under the most adverse conditions without relying on electricity, radio signals or satellite communications. The most important criteria when selecting a compass are dial size and mounting style. Quality components aid accuracy, smooth response, stability and simple operation.

NiteVu™ Night Lighting Systems

Most compass models are available with Ritchie's exclusive NiteVu™ night lighting. Each provides the optimum illumination of the dial and lubber lines without hindering important night vision. All NiteVu™ lighting systems come standard for 12 volt operation. Other voltages are available on special order.

Repairability & 5 Year Warranty

All Ritchie® compasses are backed by Ritchie's exclusive five year warranty.



Compass Dome

The compass dome allows the compass dial to rotate smoothly through heel, pitch and yaw motions. The dome also provides clear and accurate magnification of the dial. Domes are made exclusively for Ritchie® using a heavy-duty, optically clear polymer. It is formulated to prevent sun crazing and will stay stable throughout extreme temperature ranges.

Bezels & 'O' Rings

Sealing the entire compass assembly is critical to prevent fluid leakage. The Ritchie® 'O' Ring is a custom blend compound that is non-reactive with the dampening fluid. Bezels are formed from high strength plastics, aluminium or machined bronze.

Gimbal Systems

All Ritchie® compasses are engineered to operate normally within their environment without bottoming out due to the pitch and roll or heel of the boat.

Compass Bowls & Housings

Bowls and housings provide maximum protection and support for the internal compass components.

Corrector Magnets

Deviation occurs when something on board your boat draws the compass magnets away from their attraction to the earth's magnetic field; ie. masses of iron, engines, electric motors, electronics with speaker magnets, batteries, electronic instruments, tachometers with magnets, engine controls, steering wheels and electrical appliances. All Ritchie® compasses that are intended for use on boats that could have deviation problems have built-in compensators. These compensators are non-interactive magnets that are balanced with optimal spacing for accurate correction. Compensation instructions are included.

Fluid Baffle & Roller Diaphragm

The steady performance of the Ritchie® compass is enhanced by a baffle and roller diaphragm. Baffles reduce turbulence in the dampening fluid. Diaphragms allow the fluid to expand and contract with changes in temperature or pressure without forming bubbles.

Ritchie® Dials

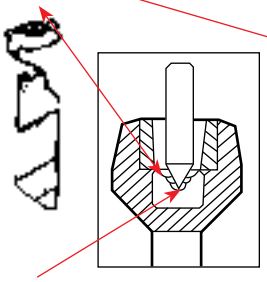
Dial measurements are given in the apparent visual size. Models are available in sizes from 50 to 125mm in diameter. In many models you can select either a traditional flat card or direct reading card. The Combidial, that is both flat card and direct reading dial in one, is also available in several Voyager, Helmsman and Navigator models.

Dial Readability

Ritchie® dials have been individually designed with extra large 30° numerals and easy to see 5° degree increments. Precision spacing of increments allows the helmsman to hold a steady course within one or two degrees of the intended heading.

PowerDamp Performance

Each dial is engineered to provide the ultimate in steady, smooth performance and easy readability. Traditional flat dials are equipped with Ritchie's race proven PowerDamp system, a lightweight baffle that eliminates spinning and dial jumping at high speeds and in rough conditions. Direct reading and Combidial dials are formed so that their shape also provides PowerDamp performance.



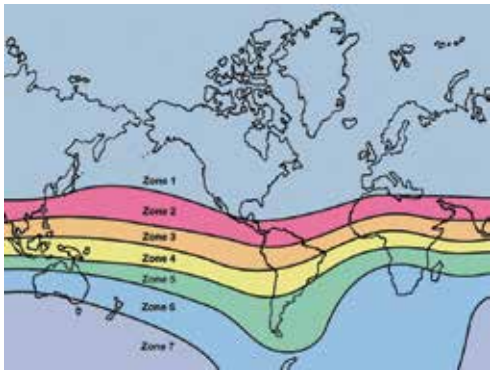
DirectiveForce Magnets

Ritchie® uses special high gauss magnets that are field balanced and matched to each compass model, dial style and size. They are attached to the underside of the dial in pairs matched to seek and lock-on to magnetic north. This provides superior accuracy and smooth, rapid response.

Pivot and Jewel Movement

All Ritchie® compasses use a hardened steel pivot and triple cup sapphire jewel movement. They are microscopically matched to provide smooth dial operation and fast lock-on under the most severe conditions.

There are no plastic pivots or jewels in Ritchie® compasses.



Cleaning

To keep your compass clean and looking like new simply remove salt spray deposits or dirt by rinsing with clean fresh water and wipe carefully with a clean damp cloth. NEVER use strong detergents, chemical or abrasive cleaners.

Retail Packaging

Ritchie compasses are supplied in attractive packaging and are retail-ready.

N.B. All compasses are supplied standard balanced for zone 6, unless otherwise indicated. Once balanced, compasses will maintain accuracy for one zone north or south.

Ritchie® Compass

- Sport Dash Mount

Small powerboat compasses.

Features:

- 50mm direct reading dial
- Sapphire jewel and hardened steel pivot movement
- Easily installed, fits standard 51mm instrument hole
- Suitable for up to 45° of dash angle
- Directive force magnets
- In-dash instrument style
- 12 volt green NiteVu™ lighting
- Five year warranty

232007

232005

BLA Code	Colour
232005	Black
232007	White

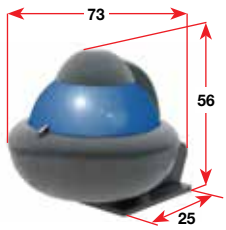
Ritchie® Compass

- Sport Bracket Mount

Small boat compass, also suitable for cars and 4WDs.

Features:

- 50mm direct read, high visibility blue dial
- Sapphire jewel and hardened steel pivot movement
- Low profile styling
- Double sided adhesive or screw mounting
- Grey finish
- Built-in adjustable compensators
- Reversible bracket mount adjusts 300°
- 12 volt green lighting
- Five year warranty



BLA Code
232014

Accessories:

232399 Replacement light

Ritchie® Compass

- SportAbout Hand Bearing

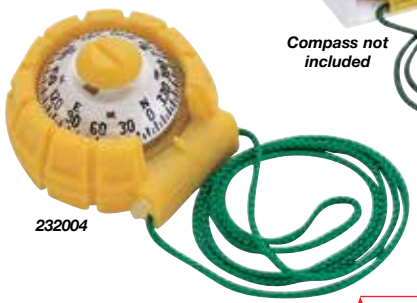
A hand bearing compass for boating and recreational activities.

Features:

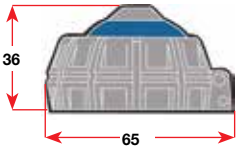
- 50mm direct reading dial
- Sapphire jewel and hardened steel pivot movement
- Quick sight 'V' notch for alignment of heading
- Compact size
- International safety yellow
- Chem-stick provides up to 18 hours lighting
- Silicon impact absorbing case with neck lanyard
- Built-in expansion chamber for extended temperature operating range
- Five year warranty

232002

Compass not included



232004



BLA Code
232004

Accessories:

232002 White compass holder

Ritchie® Compass

- Trek Bracket Mount

Easy fit multi-adjustable bracket mount.

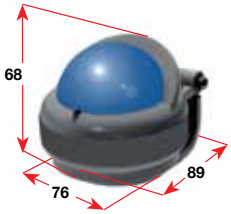
Features:

- 57mm direct read dial
- Extra large diaphragm and rugged design for high temperature operation
- Large numerals for easy reading
- 12 volt green NiteVu™ lighting
- Adjustable compensators
- 300° mounting range
- Five year warranty

232019

232020

232018



BLA Code	Body Colour	Dial Colour
232018	Black	Black
232019	White	White
232020	Grey	Blue

Accessories:

232404 Replacement light 2001-04 (black wire)

Ritchie® Compass

RITCHIE NAVIGATION

- Trek Surface Mount

Simple surface mount.

Features:

- 57mm direct read dial
- Extra large diaphragm and rugged design for high temperature operation
- Large numerals for easy reading
- 12 volt green NiteVu™ lighting
- Adjustable compensators
- Five year warranty

BLA Code	Body Colour	Dial Colour
232022	Black	Black
232023	White	White
232024	Grey	Blue

Accessories:

232404 Replacement light 2001-04 (black wire)

Ritchie® Compass

RITCHIE NAVIGATION

- Trek Flush Mount

Semi concealed flush mount.

Features:

- Extra large diaphragm and rugged design for high temperature operation
- 57mm direct read dial
- Large numerals for easy reading
- 12 volt green NiteVu™ lighting
- Adjustable correctors
- Five year warranty

BLA Code	Body Colour	Dial Colour
232026	Black	Black
232028	White	White
232030	Grey	Blue

Accessories:

232404 Replacement light 2001-04 (black wire)

Ritchie® Compass

RITCHIE NAVIGATION

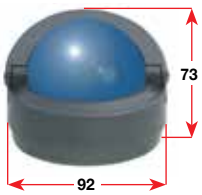
- Explorer Surface Mount

Small powerboat compasses.

Features:

- 70mm direct read dial
- Sapphire jewel and hardened steel pivot movement
- Surface mount with push button removal for quick storage and security
- Fluid expansion chamber for temperature fluctuations
- Movable sun shield
- Compact low profile design
- Adjustable compensators
- 12 volt green lighting
- Five year warranty

BLA Code	Colour
232052	Black
232053	White



Accessories:

232404 Replacement light

Ritchie® Compass

RITCHIE NAVIGATION

- Explorer Flush Mount

Ideal runabout compasses.

Features:

- 70mm direct read high visibility dial
- Movable sun shield
- 12 volt green lighting
- Fluid expansion chamber for temperature fluctuations
- Adjustable compensators
- Sapphire jewel and hardened steel pivot movement
- Five year warranty

BLA Code	Colour
232042	Black
232044	White

Accessories:

232404 Replacement light

Ritchie® Compass

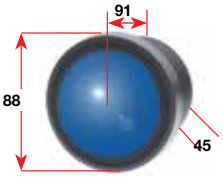
- Explorer Dash Mount

Small powerboat compasses.

Features:

- 70mm direct read dial
- Easily installed, fits 75mm instrument hole
- In-dash instrument style
- Suitable for up to 45° of dash angle
- 12 volt clear lighting
- Adjustable compensators
- Fluid expansion chamber for temperature fluctuations
- Sapphire jewel and hardened steel pivot movement
- Five year warranty

BLA Code	Colour
232046	Black
232047	White



Ritchie® Compass

- Explorer Bracket Mount

Small powerboat compasses.

Features:

- 70mm direct read dial
- Fluid expansion chamber for temperature fluctuations
- Adjustable compensators
- Sapphire jewel and hardened steel pivot movement
- Movable sun shield
- 12 volt green lighting
- Trunnion mount
- Five year warranty

BLA Code	Colour
232054	Black
232056	White

Accessories:

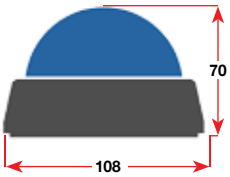
232404 Replacement light
232482 Replacement black bracket
232490 Pair of replacement thumb-screws

Ritchie® Compass

- Kayaker Surface Mount

Features:

- CourseMinder movable bezel with heading memory indicator that remembers the way so you don't have to
- 76mm direct read dial
- Low mounted height
- Surface mount
- Easily installed
- Extended temperature operating range with composite construction and diaphragm
- Exclusive directive force magnets
- Hardened steel pivot and sapphire jewel movement
- No wiring or power needed
- Removable bezel for security, transport and storage
- Five year warranty



BLA Code
232087

Ritchie® Compass

- Angler Surface Mount

Small powerboat compass.

Features:

- 70mm direct read high visibility blue dial
- Fluid expansion chamber for temperature fluctuations
- Surface mount with push button removal for quick storage and security
- Adjustable compensators
- Sapphire jewel and hardened steel pivot movement
- Movable sun shield
- Self adhesive mounting tabs
- Compact low profile design
- 12 volt green lighting
- Five year warranty

BLA Code
232072

Accessories:

232404 Replacement light

Ritchie® Compass

- Angler Bracket Mount

Small powerboat compass.

Features:

- 70mm direct read high visibility blue dial
- Movable sun shield
- Adjustable compensators
- 12 volt green lighting
- Thumb-screws for ease of adjustment and removal
- Fluid expansion chamber for temperature fluctuations
- Sapphire jewel and hardened steel pivot movement
- Five year warranty

BLA Code
232074

Accessories:

232404 Replacement light

Ritchie® Compass

- Voyager Flush Mount

Suitable for runabouts and small yachts.

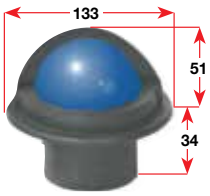
Features:

- 75mm CombiDamp (front and back read) dial
- Sapphire jewel and hardened steel pivot movement
- Adjustable compensators
- Movable sun shield
- Fluid expansion chamber for temperature fluctuations
- 12 volt green NiteVu™ lighting
- Internal gimbals allow 45° heel
- Five year warranty

232093

232092

BLA Code	Colour
232092	Black
232093	White



Accessories:

232406 Replacement light

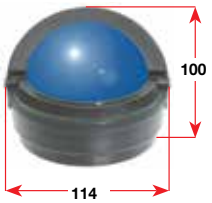
Ritchie® Compass

- Voyager Surface Mount

Suitable for runabouts and small yachts.

Features:

- 75mm CombiDamp (front and back read) dial
- Fluid expansion chamber for temperature fluctuations
- Surface mount with push button removal for quick storage and security
- Adjustable compensators
- Sapphire jewel and hardened steel pivot movement
- Compact low profile design
- 12 volt green lighting
- Movable sun shield
- Five year warranty



BLA Code
232090

Accessories:

232406 Replacement light

Ritchie® Compass

- Voyager Bracket Mount

Suitable for runabouts and small yachts.

Features:

- 75mm CombiDamp (front and back read) dial
- Movable sun shield
- Sapphire jewel and hardened steel pivot movement
- Fluid expansion chamber for temperature fluctuations
- Internal gimbals allow 45° heel
- 12 volt green NiteVu™ lighting
- Adjustable compensators
- Five year warranty

BLA Code
232094

Accessories:

232406 Replacement light
232484 Replacement bracket
232490 Pair of replacement thumb screws

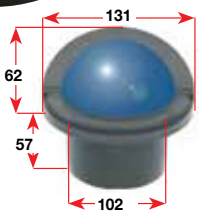
Ritchie® Compass - PowerDamp Helmsman Flush Mount

RITCHIE NAVIGATION

Suits sail and motor vessels.

Features:

- 95mm PowerDamp (back read) dial
- Fluid expansion chamber for temperature fluctuations
- Internal gimbals allow up to 45° fore and aft pivot and up to 90° heel
- Also available in zone 1 to suit North America, Europe and Asia
- Sapphire jewel and hardened steel pivot movement
- 12 volt green NiteVu™ lighting (**232118** is 24 volt)
- Movable sun shield
- Adjustable compensators
- Optional cover
- 45° lubber lines
- Five year warranty



BLA Code	Colour
232112	Black
232115	White
232118	Black (24V)

Accessories:

232406 Replacement light
232436 Compass cover - white

Ritchie® Compass - CombiDamp Helmsman Flush Mount

RITCHIE NAVIGATION

Suits sail and motor vessels.

Features:

- 95mm CombiDamp (front and back read) dial
- Sapphire jewel and hardened steel pivot movement
- Fluid expansion chamber for temperature fluctuations
- Internal gimbals allow up to 45° fore and aft pivot and up to 90° heel
- 12 volt green NiteVu™ lighting
- Movable sun shield
- Optional cover
- Adjustable compensators
- 45° lubber lines
- Five year warranty

BLA Code
232114

Accessories:

232406 Replacement light
232436 Compass cover - white

SOLAS Approved

Ritchie® Compass - Helmsman Bracket Mount

RITCHIE NAVIGATION

Suits sail and motor vessels.

Features:

- 95mm CombiDamp (front and back read) dial
- Internal gimbals allow up to 45° fore and aft pivot and up to 90° heel
- Sapphire jewel and hardened steel pivot movement
- Fluid expansion chamber for temperature fluctuations
- Movable sun shield
- 45° lubber lines
- 12 volt green NiteVu™ lighting
- Adjustable compensators
- Optional cover
- Five year warranty

BLA Code
232130

Accessories:

232406 Replacement light
232436 Compass cover - white

Ritchie® Compass - PowerDamp Navigator Flush Mount

RITCHIE NAVIGATION

Suits sail or motor vessels.

Features:

- 115mm PowerDamp (back read) dial
- Sapphire jewel and hardened steel pivot movement
- Internal gimbals allow unrestricted fore and aft pivot and up to 90° heel
- Adjustable compensators
- Movable sun shield
- 12 volt green NiteVu™ lighting
- 45° lubber lines
- Optional cover
- Five year warranty

BLA Code	Colour
232162	Black

Accessories:

232414 Replacement light
232456 Compass cover - white

Ritchie® Compass - CombiDamp Navigator Flush Mount

RITCHIE NAVIGATION

Suits sail or motor vessels.

Features:

- 115mm CombiDamp (front and back read) dial
- Sapphire jewel and hardened steel pivot movement
- Internal gimbals allow unrestricted fore and aft pivot and up to 90° heel
- 12 volt green NiteVu™ lighting
- Optional cover
- Adjustable compensators
- Movable sun shield
- 45° lubber lines
- Five year warranty

BLA Code	Colour
232170	Black

Accessories:

232414 Replacement light
232456 Compass cover - white

Ritchie® Compass Cover

RITCHIE NAVIGATION

Cover to suit Helmsman and Navigator Compasses.

232436

BLA Code	To Suit
232436	Helmsman
232456	Navigator

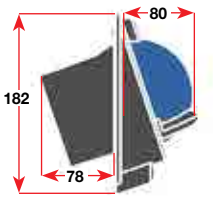
Ritchie® Compass - Navigator Bulkhead Mount

RITCHIE NAVIGATION

Ritchie's Bulkhead Mount compasses give you good visibility without tangling the lines; suits sail or motor vessels.

Features:

- 114mm Ritchie® CombiDial and built-in Clinometer
- Internal gimbal systems for maximum stability during adverse pitch and roll conditions
- Sapphire jewel and hardened steel pivot dial movement
- Built-in compensators to easily adjust for deviation
- 45° lubber lines
- Exclusive dual built-in 12 volt NiteVu™ lighting
- Fibreglass reinforced bowl
- Easily installed, fits 146mm mounting hole
- Five year warranty



BLA Code
232176

Accessories:

232414 Replacement light

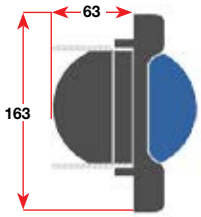
Ritchie® Compass - Venture Bulkhead Mount

RITCHIE NAVIGATION

The Venture Bulkhead Mount compass is designed primarily for sailboats 4.8m to 10.6m in length.

Features:

- 93mm CombiDial
- 12/24 volt blue LED night lighting
- 118mm to 122mm mounting hole
- Vertical mounting angle through 40°
- Clinometer (INC-45) included
- Steady quick lock-on performance
- Protective cover included
- SOLAS approved
- Five year warranty



BLA Code
232140

BLA Compass - 100 Series Bracket Mount

BLA

A sleek, low profile compass for the compact console. Very small base area for limited space applications. Dash or console mount options.

Features:

- 38mm apparent card
- Adjustable compensators
- Vibration dampened capsule
- Bracket or adhesive pad mounts
- Multi-adjustable base plate

Console Mount

Dash Mount

231502

231500

BLA Code	Colour	Height mm	Width mm	Depth mm
231500	Black	60	58	62
231502	White	60	58	62

BLA Compass

- 150 Series Bracket Mount

The ideal economical compass for runabouts, bass and bream boats, and all sports fishing boats.

Features:

- 50mm apparent card diameter
- Highly accurate, 5° graduation marks
- Vibration dampened
- Adjustable compensators

231516

231510

BLA Code	Colour	Height mm	Width mm	Depth mm
231510	Black	74	86	63
231516	White	74	86	63

BLA Compass

- 200 Series Bracket Mount

Easy to install, and suitable for most small craft for fresh or saltwater operation.

Features:

- 65mm apparent card diameter
- 2° accuracy, marked in 5° graduations
- Adjustable compensators
- Jewelled pivot movement assembly
- Individually balanced dials for precision
- 12 volt red illumination
- Adjustable sun visor

231530

231532

BLA Code	Colour	Height mm	Width mm	Depth mm
231530	Black	136	113	94
231532	White	136	113	94

Marine Town® Clocks and Barometers - Porthole

Traditional porthole style, polished, solid cast brass housing. Both clock and barometer feature bevelled glass and white face with black lettering, the clock being shown in 24 hour Arabic characters. Precision Japanese movement. The battery, time and barometric setting can all be changed without removing the instrument from the bulkhead or wall.

231011

231010

BLA Code	Description	Face Dia. mm	Base Dia. mm
231010	Clock	117	186
231011	Barometer	117	186
231014	Clock	147	220
231015	Barometer	147	220

Marine Town® Clocks and Barometers - Brass

Contemporary styled, polished, solid cast brass housing. Instrument face is white with black lettering, the clock being shown in 24 hour Arabic characters. Precision Japanese movement.

231025

231024

BLA Code	Description	Face Dia. mm	Base Dia. mm
231020	Clock	80	116
231021	Barometer	80	116
231024	Clock	134	185
231025	Barometer	134	185

Clocks, Tide Clocks and Barometers - Hinged

Quality range of clocks, barometers and tide clocks featuring hinged opening face with high quality, precision movements. All instruments feature beveled glass lens, clear contrasting lettering and easy adjustment. Advanced PVD surface treatment with Zirconium plating ensures maximum surface life and lustre. Supplied with mounting hardware and one AA battery for quartz clocks.

N.B. The tide clock is best suited to the east coast of mainland Australia, Tasmania and New Zealand. For all other areas the tide mechanism will require more regular calibration to maintain accuracy.

231032

231030

231034

BLA Code	Description	Face Dia. mm	Base Dia. mm
231030	Clock	105	150
231032	Tide clock	105	150
231034	Barometer	105	150

Clocks, Tide Clocks and Barometers - Enclosed

Quality range of clocks, barometers and tide clocks with enclosed face and high quality, precision movements. All instruments feature beveled glass lens, clear contrasting lettering and are easily removed from their mount for adjustment. Advanced PVD surface treatment with Zirconium plating ensures maximum surface life and lustre while the 'O' ring seal enables outdoor mounting. Supplied with mounting hardware and one AA battery for quartz clocks.

N.B. The tide clock is best suited to the east coast of mainland Australia, Tasmania and New Zealand. For all other areas the tide mechanism will require more regular calibration to maintain accuracy.

231042

231044

231040

231072

BLA Code	Description	Face Dia. mm	Base Dia. mm
231040	Clock	95	150
231042	Tide clock	95	150
231044	Barometer	95	150
231064	Clock	125	180
231072	Barometer and thermometer	125	180

Binoculars - 7 x 50

Quality, budget binoculars for marine and general use. Multi-coated optics for clear viewing over a wide range of light conditions. Centre focusing provides quick and easy use with dioptic setting for additional eye focus. Tough, black outer body with tactile grip and flexible eye pieces for comfortable operation. Includes carry case, strap and soft tactile lens covers.

Features:

- Lens magnification: x7
- Front lens diameter: 50mm
- Field angle: 7°
- Field of view: 123m at 1000m

BLA Code
235512

Waterproof Binoculars - 7 x 50

Quality waterproof, fog proof and nitrogen filled floating binoculars with internal range finder. High definition 'BAK4' multi-coated lenses for optimum performance over a wide range of light conditions, from high glare water shimmer to low light twilight conditions. Individual right and left dioptic adjustment for crisp, clear viewing. Tough black and yellow rubberised tactile outer body with soft flexible eye pieces for safety and comfort. Supplied with rugged carry case, floating neck strap, cleaning cloth and soft lens covers.

Features:

- Internal range finder
- Lens magnification: x7
- Front lens diameter: 50mm
- Field angle: 6.6°
- Field of view: 123m at 1000m

BLA Code
235516

Ships Bells

Beautifully crafted, solid cast bronze bells with heavy duty bronze fixing brackets and dome nut. The **231110** complies with Survey requirements with certification available on request.

231104

231108

BLA Code	Dia. mm	Height mm	Front to Back mm
231104	100	130	130
231108	150	160	178

Weather Station

Classic three in one weather station features a clock, barometer and thermometer with 62mm face diameters mounted on a polished timber board. The separate dials have easy to read black numbers and detail. 330mm long x 115mm wide.

BLA Code
231080

PFD'S, BAGS, BOOTS & SUNGLASSES

Inflatable PFD	657
SOLAS, Coastal & Standard PFD	659
Oceantot PFD	659
Oceanmate, Coastmate PFD	660
Wakemaster PFD	661
Coastracer PFD	663
Blademate, Blademaster & Bladepro PFD	663-664
Waterproof Bags	664
Wet Suit Boots & Sneakers	664
Barz Sunglasses & Accessories	665-668

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

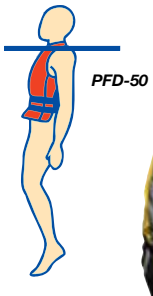
BLA boatinglifestyleadventure

PFDs Definition

PFD Level 150 and 100

PFD (Personal Flotation Device) Level 150, is one that complies with the requirements of the Australian Standards approval code 4758-150. To comply with these standards the garment must be suitable for use in offshore applications and provide a high level of buoyancy, maintaining the wearer in a safe floating position, i.e. with the body inclined backwards from the vertical with the nose and mouth clear of the water. Although similar in functionality the Level 100 PFD is generally recommended for use in pleasure boats which may occasionally venture beyond sheltered waters or where the wearer may be at risk of sustaining injuries which may impede the wearer's ability to swim. Some State Authorities require these jackets to be worn in certain situations or by determined age. Ensure to consult your State Authority for full details and requirements.

PFD Level 50



A PFD Level 50 garment is one that complies with the requirements of the Australian Standards approval code 4758-50. It is required to provide sufficient buoyancy to assist the wearer to maintain his or her head above water, but not as much as a PFD Level 100 or 150 lifejacket. It is less bulky than a PFD Level 100 or 150, making it more suitable for applications when the wearer needs to move around or swim. A PFD Level 50 is generally recommended for dinghy sailors, kayakers, and similar, who are required to wear a PFD for extended periods of time. Ensure to consult your State Authority for full details and requirements.

PFD Level 50S

A PFD Level 50S garment is one that complies with the requirements of the Australian Standards approval code 4758-50S. It provides a similar amount of buoyancy to that of a PFD Level 50, but is permitted to carry a wider range of style colours. PFD Level 50S are generally recommended for use by water skiers and jet skiers in sheltered waters where assistance is immediately at hand. Ensure to consult your State Authority for full details and requirements.

General Comments:

A Personal Flotation Device will help you float in the water, but it cannot guarantee safety or protection from drowning.

Special Protection for Children:

Pay special attention to children - It is difficult for a child to float in a face up position because of the distribution of body mass and because the child may tend to panic in an unfamiliar environment. However, a properly designed PFD of the correct size will keep a child's mouth and nose clear of the water. A child should be taught how to put on the PFD and be encouraged to become familiar with its feel in the water. It is important that the child is comfortable and understands what the PFD is for and how it works.

Manual and Automatic Inflatable PFDs

Fully approved to the new Australian Standard 4758-1 these slim, easy to wear 150N multi-fit jackets are suitable for a wide range of boating activities. The inflatable bladder features welded seams with a PVC heavy duty protective cover over the UML Pro Sensor CO^2 cylinder and firing mechanism. The annual service schedule remains unchanged with a recording chart conveniently printed on the inflation bladder.

For protection and easy display all inflatable jackets are supplied in a clear plastic fronted re-usable hang sell storage bag with mesh back and Velcro closure.

The UML Pro Sensor firing mechanism meets regulations by clearly showing whether the cylinder has been previously used. Previously used cylinders that have been screwed into the mechanism or fired cylinders will show red through the sight window, allowing for quick and easy identification.

UML Pro Sensor mechanism indicating the cylinder has not been used.

UML Pro Sensor mechanism indicating the cylinder has been previously used.

The UML Pro Sensor does not require firing identification clips which need to be replaced on older types after use.
Order re-arming kits **241068** for manual and **241069** for auto.

Re-arming Kit

Meshed Bag

Neoprene comfort collar

Zippered utility pocket

BLA PFD - Inflatable Auto Level 150

Inflatable PFD Level 150, automatically activated 150N inflatable bladder, approved to AS4758-150. Slim and designed for continuous wear, this PFD is ideal for all recreational boating. Inflatable body features 5mm radio frequency welded seams with a heavy duty PVC protective cover over the CO^2 cylinder and firing mechanism. The 38mm wide, webbing back strap includes a heavy duty adjustable side release buckle. An oral inflation tube, whistle and 25mm "D" ring lanyard attachment point are also included. This PFD will automatically inflate if the wearer enters the water. It can also be orally inflated by blowing into the oral inflation tube or manually inflated by pulling on the "rip cord". If inflated by any method other than the oral inflation tube, the jacket needs to be re-armed before it can be put back into service. An annual service record chart is printed on the inflation bladder. Inflatable youth to suit 25 to 50kg.

241062

241112

241052

DANGEROUS GOODS

BLA Code	Description	Colour
241052	Inflatable auto youth PFD Level 150	Navy
241062	Inflatable auto navy adult PFD Level 150	Navy
241112	Inflatable auto high viz adult PFD Level 150	High Viz

241069

Accessories:

241069 Rearming kit 150N auto

BLA PFD - Inflatable Manual Level 150

Inflatable PFD Level 150 manually activated 150N inflatable PFD, approved to AS4758-150. Slim, multi-fit design is suitable for continuous wear. Inflatable body features 5mm radio frequency welded seams with a heavy duty PVC protective cover over the CO^2 cylinder and firing mechanism. The outer 420 denier nylon cover is printed with clean care, donning and inflation instructions. The 38mm wide, webbing back strap includes a heavy duty adjustable side release buckle. An oral inflation tube, whistle and 25mm 'D' ring lanyard attachment point are also included. An annual service record chart is printed on the inflation bladder. Inflatable youth to suit 25 to 50kg.

241058

241060

241050

241061

241110

DANGEROUS GOODS

BLA Code	Description	Colour
241050	Inflatable manual youth PFD Level 150	Navy
241058	Inflatable manual camo adult PFD Level 150	Camoflouge
241060	Inflatable manual navy adult PFD Level 150	Navy
241061	Inflatable manual gunmetal adult PFD Level 150	Gunmetal
241110	Inflatable manual high viz adult PFD Level 150	High Viz

241068

Accessories:

241068 Rearming kit 150N manual

BLA PFD - SOLAS

An offshore SOLAS approved jacket conforming and constructed to International Shipping Laws and Australian Survey regulations SOLAS74/78 as amended, LSA Code as amended by MSC.207(81), MSC.81(70) as amended by MSC.200(80).

The jacket is constructed of soft closed cell foam enclosed in a hard wearing rescue orange outer material. This compact SOLAS jacket features an easy and quick front entry design and is equipped with two snap lock buckles for superior safety and comfort.

Other features and benefits include a soft foam collar for in water neck support, pealess whistle for attracting rescuers, reflective tape, light attachment point, hand leash and grab strap. Supplied in sealed plastic bag.

241005

241006

BLA Code	Size	Recommended Weight kg
241005	SOLAS Child	15-43
241006	SOLAS Adult	43 & over

SOLAS Approved

BLA PFD - Standard Level 100

Inexpensive and made of closed cell foam buoyancy encased in a nylon/polyester woven material. Jackets dry quickly due to the material's properties and are of a square design for compact storage. Supplied with a snap lock buckle for fast fit. Complies with AS4758-100.

241022

BLA Code	Size	Recommended Weight kg
241022	Adult large	40 & over
241024	Child junior	15-40

BLA PFD

- Coastal Jacket Level 150/100

Approved to EN396 for use in coastal waters on fare carrying vessels. Closed cell foam buoyancy encased in a tough nylon rescue orange material. USL (Uniform Shipping Law) compliant for use nationally. Supplied standard with pealess whistle, reflective tape, light attachment point and securing straps. Square design for compact storage. Suits person 40kg or more.

241008

241010

BLA Code	Size	Approved
241008	Adult (multi fit)	100N
241010	Adult (multi fit)	150N

N.B. *The 241008 is for replacement use only. For new survey build the 241010 is required. Ensure to consult your State Authority for full details and requirements.

BLA PFD - Oceantot Level 100

Specifically designed for infants and toddlers, this foam PFD Level 100 maximises the comfort and safety of small children. Quick release buckles at the shoulder enable the jacket to be fitted to the child with minimum discomfort. The large head supporting collar folds back to avoid restricting the child's movement. The large foam front panel is contoured to the child's body shape and is designed to maximise comfort when sitting. A wide V-shaped neoprene crotch strap and side release buckle ensures a secure fit. Neoprene side gussets with adjustable webbing strap provide flexibility as the child grows. Approved to AS4758-100.

241634

BLA Code	Size	Recommended Weight kg
241634	Infant XXS	10-15
241636	Infant XS	15-25

BLA PFD - Oceanmate Level 100 Australia Only

Traditional style foam PFD Level 100, approved to AS4758-100 and designed to be comfortably worn for general recreational boating applications in coastal and offshore waters. Features a lay back collar for head support, front zip closure with 25mm adjustable webbing strap and side release buckle, elasticised hem on all child sizes, layered foam and gusseted side panel. Child small sizes also include a neoprene padded adjustable webbing crotch strap with side release buckle for added security.

241514

BLA Code	Size	Recommended Weight kg
241504	Child XS	10-15
241506	Child small	15-25
241508	Child junior	25-40
241512	Adult small-med	40-60
241514	Adult large	60 & over
241516	Adult XL	60 & over
241518	Adult XXL	60 & over
241520	Adult XXXL	60 & over

BLA PFD - Coastmate Jacket Level 50

General purpose buoyancy vest, approved to AS4758-50. Suitable for all recreational water activities including sailing, canoeing, kayaking and use with towables. Features include layered foam, front zip closure, two 25mm wide webbing straps with adjustable side release buckles and gusseted side panels for a flexible and secure fit.

241554

BLA Code	Size	Recommended Weight kg
241546	Child small	15-25
241548	Child junior	25-40
241552	Adult small-med	40-60
241554	Adult large	60 & over
241556	Adult XL	60 & over
241558	Adult XXL	60 & over

BLA PFD - Wakemaster Neoprene Level 50S

Neoprene covered foam PFD Level 50S buoyancy vest approved to AS4758-50S. Designed specifically for active water sports such as skiing, knee boarding, wake boarding and use with towables. Features include soft flexible foam, two heavy duty webbing straps with adjustable side release buckles and gusseted side panels to produce a flexible and secure fit. A 25mm 'D' ring lanyard attachment point is also included on the adult sizes.

241774

BLA Code	Size	Recommended Weight kg	Colour
241768	Child junior	25-40	Blue/Black
241772	Adult sm-med	40-60	Blue/Black
241774	Adult large	60 & over	Blue/Black
241776	Adult XL	60 & over	Blue/Black
241778	Adult XXL	60 & over	Blue/Black
241780	Adult XXXL	60 & over	Blue/Black

BLA PFD - Wakemaster Neoprene Level 50

Neoprene covered foam PFD Level 50 buoyancy vest, approved to AS4758-50. Combination of soft neoprene cover and flexible foam produces a very comfortable vest suitable for all active water sports, including use on PWCs. Features include two heavy duty webbing straps with adjustable side release buckles and gusseted side panels to provide a flexible and secure fit. A 25mm 'D' ring lanyard attachment point is also included on the adult sizes.

241754

BLA Code	Size	Recommended Weight kg	Colour
241746	Child small	15-25	Red/Black
241748	Child junior	25-40	Red/Black
241752	Adult sm-med	40-60	Red/Black
241754	Adult large	60 & over	Red/Black
241756	Adult XL	60 & over	Red/Black
241758	Adult XXL	60 & over	Red/Black

BLA PFD

- Wakemaster Nylon Level 50S

Nylon covered foam PFD Level 50S buoyancy vest approved to AS4758-50S. Suitable for all water sport activities including skiing, knee boarding, wake boarding and use with towables. Features include soft flexible foam, three heavy duty webbing straps with adjustable side release buckles, gusseted side panels for a flexible and secure fit and a 25mm 'D' ring lanyard attachment point on the adult sizes.

241728

BLA Code	Size	Recommended Weight kg	Colour
241728	Child junior	25-40	Blue/Black
241732	Adult sm-med	40-60	Blue/Black
241734	Adult large	60 & over	Blue/Black
241736	Adult XL	60 & over	Blue/Black
241738	Adult XXL	60 & over	Blue/Black
241740	Adult XXXL	60 & over	Blue/Black

BLA PFD

- Wakemaster Nylon Level 50

Nylon covered foam PFD Level 50 buoyancy vest, approved to AS4758-50. Designed for all active water sports such as water skiing, knee boarding, wake boarding and use with towables. This jacket is also suitable for PWCs. Features include soft flexible foam, three heavy duty webbing straps with adjustable side release buckles, gusseted side panels for flexible and secure fit and a 25mm 'D' ring lanyard attachment point on the adult sizes.

241708

BLA Code	Size	Recommended Weight kg	Colour
241708	Child junior	25-40	Red/Black
241712	Adult sm-med	40-60	Red/Black
241714	Adult large	60 & over	Red/Black
241716	Adult XL	60 & over	Red/Black
241718	Adult XXL	60 & over	Red/Black

BLA PFD - Coastracer Level 50

The Coastracer sailing and general outdoor Level 50 vest approved to AS4785-50 provides outstanding comfort and wearability for a wide range of water activities. The high cut design with side entry zip combined with soft flexible foam ensures a body hugging fit for ultimate comfort. Features include adjustable side and waist webbing straps, elasticised expanding side gussets and shoulder straps, front meshed pocket for storage and bottom drainage.

241560

BLA Code	Size	Recommended Weight kg
241560	XS	25-40
241562	Small	40-60
241564	Medium	60 & over
241566	Large	60 & over
241568	XL	60 & over

BLA PFD - Blademate Level 50

Side closure PFD Level 50, primarily designed for canoe and kayak paddling but also popular with dinghy sailors. Features include webbing adjustable padded shoulder straps, internal webbing straps with side release buckles, mesh front pocket with hook and loop closure and layered foam to flex to the body shape. Compact design provides excellent freedom of arm and shoulder movement when seated. Approved to AS4758-50.

241682

BLA Code	Size	Recommended Weight kg
241678	Child junior	25-40
241680	Adult small-med	40-60
241682	Adult large	60 & over
241684	Adult XL	60 & over
241686	Adult XXL	60 & over

BLA PFD - Blademaster Level 50

Designed for canoeing, kayaking and water sports activities where manoeuvrability and comfort are essential. Features fully adjustable side closure and adjustable padded webbing shoulder straps plus retro tape for safety. Includes two front pockets, one mesh, the other zippered nylon, both with pocket inserts, two 'D' ring attachments plus back hydro pack pocket. Constructed from layered foam providing flexibility and body comfort. Compact design provides excellent freedom of arm and shoulder movement when seated. Approved to AS4758-50.

241720

241692

BLA Code	Size	Recommended Weight kg	Colour
241690	Adult small-med	40-60	Blue
241692	Adult large	60 & over	Blue
241694	Adult XL	60 & over	Blue
241696	Adult XXL	60 & over	Blue
241720	Female size 8	40-60	Fuschia
241722	Female size 10	60 & over	Fuschia
241724	Female size 12	60 & over	Fuschia
241726	Female size 14	60 & over	Fuschia
241727	Female size 16	60 & over	Fuschia

BLA PFD - Bladepro Kayak Level 50/50S

A specific canoeing and kayaking vest the Bladepro is ideally suited to sea kayaking and kayak fishing. Packed with features and designed with extreme comfort and functionality in mind. The vest utilises multiple side, front and shoulder adjusters for the ultimate fit and security while the front zip provides easy access. Features include deep zippered front pockets plus a multitude of departmentalised expanding cargo pockets with adjustable side release buckles for security. Lanyard attachment ring, integrated expanding back hydration and cargo pocket plus reflective tape and trims complete the jacket. Approved to AS4785-50 or camouflage approved to AS4785-50S.

241703

241700

BLA Code	Size	Colour	Recommended Weight kg
241698	Adult small-med	Yellow	40-60
241699	Adult medium	Yellow	60 & over
241700	Adult large	Yellow	60 & over
241701	Adult XL	Yellow	60 & over
241702	Adult XXL	Yellow	60 & over
241703	Adult small-med	Camouflage	40-60
241704	Adult medium	Camouflage	60 & over
241705	Adult large	Camouflage	60 & over
241706	Adult XL	Camouflage	60 & over
241707	Adult XXL	Camouflage	60 & over

BLA Wetsuit Boots

- Traditional

Traditional wetsuit boots ideal for a wide range of boating and general outdoor activities. Manufactured from 4.5mm neoprene with heavy duty YKK zipper for ease of putting on and taking off. Features durable moulded non-marking anti-skid sole with additional ankle support. Available in a range of sizes from XXS to XXXL.

247040

BLA Code	Size
247040	05 XXS
247042	06 XS
247044	07 S
247046	08 M
247048	09 L
247050	10 XL
247052	11 XXL
247054	12 XXXL

BLA Waterproof Bags

- Roll Top

Tough waterproof bags manufactured from reinforced PVC with welded seams. Large cylindrical opening with stiffening allows the top to be easily rolled creating a waterproof seal while the plastic clasp keeps the seal secure and provides a convenient lifting point. Available in a range of sizes.

244210

244214

BLA Code	Capacity L	Size mm
244210	12	500x200
244212	20	500x250
244214	40	730x280

Barz Polarised Lenses - Acetate

Barz Optics polarised acetate sunglasses are supplied standard with 1.1mm acetate polarised lenses which makes them 0.35mm thicker than the industry standard 0.75mm lens. The thicker 1.1mm lenses reduce distortion and increase impact resistance in the case of accidents.

Each model offers a uniquely styled frame and are available in polarised grey or amber tinted lenses for personal preference. All styles are supplied complete with a neoprene case and leash.

Barz Polarised Lenses - Polycarbonate

Barz Optics polycarbonate polarised lenses utilise an injection moulded multi-lamination manufacturing process (sandwich construction) which provides enhanced optical quality when compared to less expensive formed polycarbonate lenses.

Need a stand? Call BLA on **1300 252 725** for more information.

All sunglasses supplied with neoprene case and leash

Barz Polarised Sunglasses - Palmy Acetate

The Palmy features a metal frame with adjustable nose pads. Available in gunmetal grey frame fitted with grey 1.1mm acetate polarised lenses or bronze frame fitted with amber 1.1mm acetate polarised lenses. Supplied with a neoprene case and a leash.

246010

BLA Code	Frame Colour	Lens Colour
246010	Gunmetal	Grey
246014	Bronze	Amber

Barz Polarised Sunglasses - Nauru Acetate

One of the most popular Barz frames available in a variety of lens variations. The wrap style frame flows around the temples while following the contours of the head giving maximum protection. Available in matte black frame with either grey, amber or mirror blue 1.1mm acetate polarised lens. Supplied with a neoprene case and a leash.

246040

BLA Code	Frame Colour	Lens Colour
246036	Matte Black	Grey
246038	Matte Black	Amber
246040	Matte Black	Mirror Blue

Barz Polarised Sunglasses - Maui Acetate

The Maui is a sports styled half frame. TR90 hybrid matte black frame is available with grey or amber 1.1mm acetate polarised lenses. Supplied with a neoprene case and a leash.

246082

BLA Code	Frame Colour	Lens Colour
246080	Matte Black	Grey
246082	Matte Black	Amber

Barz Polarised Sunglasses - Fiji

The Fiji frame has dual moulded non slip temples and a great wrap fitted with 1.1mm acetate polarised lenses. It also has a non slip adjustable nose piece for optimum fit and comfort and is ideal to fit all face shapes. Supplied with a neoprene case and a leash.

246030

BLA Code	Frame Colour	Lens Colour
246028	Black	Amber
246030	Black	Grey
246032	Tortoise	Amber
246034	Tortoise	Grey

Barz Polarised Sunglasses

- The Floater

Barz Optics introduces the 'Floater' sunglasses actually float even in the most turbulent salt or fresh water. The Floater's quality moulded TR90 frames are available in two unique colours and feature grey polarised acetate lenses perfect for on-water wear.

The gloss carbon frame features highlighted grey temples and nose piece, while the matte grey frames feature apple green temples and nose piece. Supplied with a neoprene case and leash.

The gloss carbon frame features highlighted grey temples and nose piece, with moulded bi-focal reader sections at the base of the lens. Available in +1.50, +2.00 or +2.50 magnification. Supplied with a neoprene case and a leash.

246104

246242

246248

BLA Code	Description	Frame Colour	Lens Colour	Magnification +
246104	Standard	Carbon	Grey	
246108	Standard	Grey	Grey	
246107	Standard	Black	Grey	
246109	Standard	Black	Amber	
246146	Standard	Black	Blue Mirror	
246106	Standard	Tortoise	Grey	
246144	Standard	Tortoise	Amber	
246148	Standard	Tortoise	Brown Mirror	
246242	Readers	Carbon	Grey	1.5
246244	Readers	Carbon	Grey	2.0
246246	Readers	Carbon	Grey	2.5
246236	Readers	Tortoise	Amber	1.5
246238	Readers	Tortoise	Amber	2.0
246240	Readers	Tortoise	Amber	2.5
246248	Photocromic	Black	Grey	1.5
246250	Photocromic	Black	Grey	2.0
246252	Photocromic	Black	Grey	2.5

Barz Polarised Sunglasses

- Straddie Acetate Standard and with Readers

The Straddie is a larger style frame and features side windows for additional peripheral vision and eye protection. An additional advantage of the Straddie is the wider accommodating nose section.

The reader lenses on the respective models are not polarised making them ideal for viewing digital instrumentation such as GPS units, mobile phones, fishfinders, watches or just reading a map, menu or tying fishing tackle. Available in matte black frame with either grey or amber acetate 1.1mm polarised lenses for great protection. The Reader models have low sitting non-polarised reader inserts in magnifications of +1.50, +2.00 or +2.50. Supplied with a neoprene case and a leash.

246124

246026

BLA Code	Description	Frame Colour	Lens Colour	Magnification +
246024	Standard	Matte Black	Grey	
246026	Standard	Matte Black	Amber	
246124	Readers	Matte Black	Grey	1.5
246126	Readers	Matte Black	Grey	2.0
246128	Readers	Matte Black	Grey	2.5
246130	Readers	Matte Black	Amber	1.5
246132	Readers	Matte Black	Amber	2.0
246134	Readers	Matte Black	Amber	2.5

Barz Polarised Sunglasses

- Tofino

The Tofino is a wrap style with side windows. It suits medium size male or female face shapes. Lens options are polarised acetate or polarised acetate with non polarised readers in +1.50, +2.00 and + 2.50 making them ideal for reading digital screens, mobile phones, charts and similar. Supplied with a neoprene case and a fabric leash.

246400

246410

BLA Code	Description	Frame Colour	Lens Colour	Magnification +
246400	Standard	Black	Amber	
246402	Standard	Black	Grey	
246404	Standard	Tortoise	Amber	
246410	Readers	Tortoise	Amber	1.5
246412	Readers	Tortoise	Amber	2.0
246414	Readers	Tortoise	Amber	2.5

Barz Polarised Sunglasses

- Cabo

The winner of the Australian Marine Industry - Most Innovative Exported Product, the Cabo is a floating frame fitted with polycarbonate high impact polarised lenses. It's available in standard polycarbonate polarised, polycarbonate polarised with small bi-focals in the bottom centimetre of the lens or our "World First" Polarised Photochromic bi-focal (the lens lightens to Cat2 in low light or darkens to Cat3 in full sun), (reader options are +1.50, +2.00 and +2.50). Supplied with a neoprene case and a leash.

246350

246370

246380

BLA Code	Description	Frame Colour	Lens Colour	Magnification +
246350	Standard	Black	Grey	-
246352	Standard	Black	Amber	-
246354	Standard	Cabron	Grey	-
246356	Standard	Carbon	Amber	-
246360	Readers	Black	Grey	1.5
246362	Readers	Black	Grey	2.0
246364	Readers	Black	Grey	2.5
246370	Readers	Carbon	Amber	1.5
246372	Readers	Carbon	Amber	2.0
246374	Readers	Carbon	Amber	2.5
246380	Photocromic	Black	Grey	1.5
246382	Photocromic	Black	Grey	2.0
246384	Photocromic	Black	Grey	2.5

Barz Polarised Sunglasses

- NIAS

The NIAS - conservative adult full frame sunglass. Fits most face shapes and is available with 1.1mm acetate grey, amber or blue mirror polarised lenses.

This frame can also be fitted with prescription lenses. Supplied with a neoprene case and a leash.

246050

246052

BLA Code	Frame Colour	Lens Colour
246050	Black	Grey
246052	Black	Amber

Barz Polarised Sunglasses

- Tavarua

Floating styles to suit medium to larger male faces. Has a great protective wrap style and is fitted with 1.1mm acetate polarised lenses. Supplied with a neoprene case and a leash.

246420

246422

BLA Code	Frame Colour	Lens Colour
246420	Blue	Grey
246422	Grey	Grey

Barz Polarised Sunglasses
- Grom

Kids polarised floating model - ideal for 7 to 14y/o sailing or fishing. Supplied with a neoprene case and a leash.

246392

BLA Code	Frame Colour	Lens Colour
246390	White	Amber
246392	Carbon	Grey
246394	Carbon	Amber

Barz Polarised Sunglasses
- Nauru Junior

A scaled down copy of one of our best selling adult styles. The Nauru has a great protective wrap and the temples follow the shape of the wearer head so won't fall off. Supplied with a neoprene case and a leash.

246398

BLA Code	Frame Colour	Lens Colour
246396	Black	Grey
246398	Black	Amber

Barz Leash - Nylon & Fabric

Strong hard wearing braided nylon leash featuring flexible attachment loops and length adjustor. Available in black, blue and brown.

The fabric leash is extremely comfortable and easy-wearing, featuring push on attachment and length adjustor. Available in black, blue and red.

246310 246312 246314

246300 246302 246304

BLA Code	Leash Colour	Material
246300	Black	Nylon
246302	Blue	Nylon
246310	Black	Fabric
246312	Blue	Fabric
246314	Red	Fabric

Barz Leash - Cap/Hat Leash

Features two alligator clips joined by a short braided nylon leash. Simply clip one end to cap and other to shirt, jacket or buoyancy vest. Available in either white with black fleck or black with white fleck.

246322

BLA Code	Leash Colour
246320	White/Black
246322	Black/White

Barz Leash - Floating

Practical and functional, this leash features soft sliding foam floats integrated with a strong braided adjustable nylon neck rope. Provides floatation in the event of sunglasses or glasses being dropped into water. Extra long attachment tubes help secure glasses to leash. Black only.

BLA Code
246330

Barz Leash - Urethane

Urethane lightweight leash with rubberised tube ends designed to fit most glasses frames. The urethane is just over 2mm thick, and the total leash length is 570mm with no components to rust. Available in black, blue, red and yellow.

246332 246336 246338

BLA Code	Leash Colour
246332	Black
246336	Red
246338	Yellow

OILS, SEALANTS & MAINTENANCE

Sierra® Oils, Lubricants & Accessories	670-677
Sierra® E-Go! Fuel Maintenance	677-678
Quicksilver® Oils, Lubricants & Accessories	679-680
Castrol Oils & Grease	680
Shurhold® Brushes, Boat Hooks & Cleaning Products	681-685
Septone® Cleaners & Boating Products	686-691
JB Weld® Adhesives and Silicone	692-696
Fixtech™ Sealants, Adhesive and Accessories	697-699
Paint Brushes, Roller Kits, Covers & Frames	700
Star brite® Maintenance Products	701-724
Star brite® Fuel Additives	714-715

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Sierra® Marine Outboard 2-Stroke Engine Oil

- 'Blue' Premium TC-W3

A high performance lubricant that has been manufactured and designed to meet and exceed all engine manufacturer's warranty specifications. Exceeds JASO, ISO, API and NMMA requirements for advanced generation 2-stroke lubricants.

- Ideal for oil injection systems or pre-mixed applications
- Optimum burnability for smokeless combustion. Runs engines cleaner because it burns cleaner
- Significantly reduced aquatic toxicity to fish when compared to other standard outboard oils on the market
- Maximum lubrication and detergency, allows engine to run smoother and more efficiently
- Reduces ring sticking, deposit formation and exhaust port blockage
- Easier starting due to reduced friction
- Blue dye added for visual recognition

S18-9500-3

S18-9500-1

BLA Code	Size
S18-9500-1	473ml (1 pint)
S18-9500-2	946ml (1 quart)
S18-9500-3	3.78L (1 gallon)
S18-9500-4	9.46L (2.5 gallon)
S18-9500-6	60.5L (16 gallon)
S18-9500-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine 2-Stroke Direct Injection Engine Oil

- Synthetic Blend TC-W3

Sierra® TC-W3 direct injection engine oil is a semi-synthetic blend oil that will protect the engine in the most demanding condition. Specially designed to meet the needs of today's high-tech direct injected engines, including Mercury Optimax®, Yamaha HPDI® and BRP® Johnson/Evinrude Ficht®, DI & E-Tec® XD50.

- Orange/red dye for visual recognition

S18-9530-3

BLA Code	Size
S18-9530-3	3.78L (1 gallon)
S18-9530-4	9.46L (2.5 gallon)
S18-9530-6	60.5L (16 gallon)
S18-9530-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Direct Injection 2-Stroke Engine Oil

- Full Synthetic TC-W3

Sierra® TC-W3 direct injection engine oil is a fully synthetic oil that will protect the engine in the most demanding condition. Specially designed for use in all of today's 2-stroke outboard engines, including BRP® Johnson/Evinrude E-Tec® that have been programmed for XD100® oil.

- Red dye added for visual recognition

S18-9540-3

BLA Code	Size
S18-9540-2	946 ml (1 quart)
S18-9540-3	3.78L (1 gallon)
S18-9540-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Outboard 4-Stroke Engine Oil - 10W-30

A highly refined petroleum product formulated with premium base stock and highly refined additives. Specifically formulated to meet or exceed the tough requirements of the marine 4-stroke manufacturers, Mercury®, Yamaha®, Johnson®/ Evinrude® and Honda®.

- Formulated to provide maximum corrosion protection
- Reduces sludge and keeps engine cleaner for better efficiency
- Low temperature viscosity offers better engine starting in cold conditions
- Excellent anti-wear characteristics
- Reduces friction
- Meets or exceeds API SJ, CF-2 and CH-4 quality performance requirements
- NMMA FC-W® Certified

S18-9420-3

BLA Code	Size
S18-9420-2	946ml (1 quart)
S18-9420-3	3.78L (1 gallon)
S18-9420-7	208L (55 gallon

DANGEROUS GOODS

Sierra® Marine 4-Stroke Engine Oil - Synthetic 10W-30

High performance synthetic engine oil for use with 4-stroke outboards, inboards and stern drive applications. This specially formulated oil is engineered for superior engine lubrication and extended protection in the harsh marine environment.

- Exceeds API, SJ, CF-4 and CH-4 quality performance requirements

S18-9690-2

BLA Code	Size
S18-9690-2	946ml (1 quart)
S18-9690-3	3.78L (1 gallon)

DANGEROUS GOODS

Sierra® Marine Outboard 4-Stroke Engine Oil

- Semi-Synthetic 10W-40 FC-W

- Direct Suzuki® replacement oil
- Semi-synthetic formulation for superior protection under high loads and operating stress
- NMMA FC-W® Certified/API-SL

S18-9551-2

BLA Code	Size
S18-9551-2	946ml (1 quart)
S18-9551-3	3.78L (1 gallon)
S18-9551-6	60.5L (16 gallon)
S18-9551-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Outboard 4-Stroke Engine Oil

- Semi-Synthetic 25W-50 FC-W

- For use in supercharged Mercury® Verado®
- Offered in 1 litre, 4 litre and 16 gallon containers
- Semi-synthetic formulation for superior protection under high loads and operating stress
- NMMA FC-W® Certified/API-SL

S18-9552-8

BLA Code	Size
S18-9552-3	4L (4.2 quart)
S18-9552-8	1L (1.05 quart)
S18-9552-6	60.5L (16 gallon)

DANGEROUS GOODS

Sierra® Marine 4-Stroke Engine Oil - Synthetic Blend 25W-40 FC-W

This 4-cycle oil is blended with premium grade synthetic and mineral based stock combined with superior designed additives formulated for the stress endured by sterndrive and inboard engines.

- Superior corrosion protection
- Advanced lubrication for reduction of wear to internal engine components
- Outstanding friction reduction and wear protection
- Removes thermal breakdown under high RPMs, extreme temperatures and loads
- Extensively tested for outstanding performance
- NMMA FC-W® Certified/API-SL

S18-9440-2

BLA Code	Size
S18-9440-2	946ml (1 quart)
S18-9440-4	4.7L (5 quart)

DANGEROUS GOODS

Sierra® Marine Outboard 4-Stroke Engine Oil

- Synthetic Blend 25W-40

This Sierra 4-stroke synthetic blend 25W-40 outboard oil has been specially formulated to exceed the tough requirements of the marine 4-stroke outboard motor manufacturers. Its highly refined additive package and premium oil offers superior lubrication protection against wear, reduces friction and protects internal engine components against corrosion.

- NMMA FC-W® Certified

S18-9440-3

BLA Code	Size
S18-9440-3	4L (4.2 quart)
S18-9440-8	1L (1.05 quart)

DANGEROUS GOODS

Sierra® Marine 4-Stroke Engine Oil - Full Synthetic SAE 30

Sierra® SAE 30 full synthetic marine engine oil is a special blend of synthetic base oil and a balanced additive system that exceeds the FC-W requirements for marine engine oils. Recommended for petrol and diesel inboard and sterndrive engines. It provides superior engine protection during start up, operation and storage. It reduces friction and wear for extended engine life, offers longer lubrication effectiveness than mineral oils, reduces oil consumption and improves fuel economy.

- API-CF/SL

S18-9410-2

BLA Code	Size
S18-9410-2	946ml (1 quart)
S18-9410-4	4.7L (5 quart)

DANGEROUS GOODS

Sierra® Marine Stern Drive 4-Stroke Engine Oil - 25W-40

Formulated to provide excellent lubrication and corrosion protection. Stern drive and inboard engines operate under high load and running stresses. This product is developed for the marine environment and will out perform standard 4-stroke automotive lubricants. Offering excellent detergent properties, anti-oxidants, anti-wear and corrosion protection for reduced engine wear to the internal components. Excellent for low temperature conditions.

- Meets or exceeds API, SJ, CF-4 and CH-4 quality performance requirements
- NMMA FC-W® Certified

S18-9400-2

BLA Code	Size
S18-9400-2	946ml (1 quart)
S18-9400-4	4.7L (5 quart)
S18-9400-30	113.6L (30 gallon)
S18-9400-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Diesel Engine Oil - 15W-40

- Meets the following manufacturers specifications: Volvo® VDS-3; Cummins CES20078, CES20077, CES20076; Detroit Diesel DDC93D214; CAT ECF-2, ECF-1; Global DHD-1
- Increased detergency to fight soot and carbon deposits
- Certified to API CI-4+ Rating
- Meets the highest standards of diesel oil in the marine industry

S18-9553-3

BLA Code	Size
S18-9553-2	946ml (1 quart)
S18-9553-3	3.78L (1 gallon)
S18-9553-5	18.9L (5 gallon)
S18-9553-6	60.5L (16 gallon)
S18-9553-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine 4-Stroke Catalyst Engine Oil - 10W-30

Our NMMA FC-W Catalyst Compatible Engine Oils have been specifically designed to meet the unique requirements of modern 4-stroke recreational engines with or without emission catalyst systems.

- Approved for all 4-Stroke applications including Outboard, Sterndrive and Inboard and exceeds all 4-Stroke requirements including FC-W and FC-W Cat compatible.
- Provides superior corrosion protection under extreme conditions
- Industry leading wear protection and deposit control.
- Capitalising on “ZDDP” anti-wear additive technology to prevent phosphorus depletion and extend the emission catalyst life
- NMMA FC-W® Certified

S18-9420CAT-3

S18-9420CAT-2

DANGEROUS GOODS

BLA Code	Mercury No.	Description	Case Qty
S18-9420CAT-2	92-8M0078625	Quart (946ml)	12
S18-9420CAT-3	92-8M0078626	Gallon (3.78L)	6
S18-9420CAT-7	92-8M0078618	55 Gallon (208L)	

Sierra® Marine 4-Stroke Synthetic Catalyst Engine Oil- 25W-40

A special blend specifically designed to meet the unique requirements of modern 4-stroke recreational engines with or without emission catalyst systems.

- Minimises corrosion that is formed inside the engine.
- Displays enhanced detergent and dispersants properties to suspend and prevent engine sludge formation
- Industry leading wear protection and deposit control
- Prevents excessive thinning under extreme performance operations
- Capitalising on “ZDDP” anti-wear additive technology to prevent phosphorus depletion and extend the emission catalyst life
- NMMA FC-W® Certified/API-SL

S18-9440CAT-4

S18-9440CAT-2

DANGEROUS GOODS

BLA Code	Mercury No.	Description	Case Qty
S18-9440CAT-2	92-8M0078629	Quart (946ml)	12
S18-9440CAT-4	-	5 Quart (4.7 L)	4
S18-9440CAT-7	92-8M0078624	55 Gallon (208L)	

Sierra® Marine 4-Stroke Catalyst Engine Oil - 25W-40

These oils have been specifically designed to meet the unique requirements of modern 4-stroke recreational engines with or without emission catalyst systems.

- Approved for all 4-Stroke applications including Outboard, Sterndrive and Inboard. Exceeds all 4-Stroke requirements including FC-W and FC-W Cat compatible
- Formulated to offer maximum corrosion protection
- Advanced lubrication for extended engine life and wear protection
- Capitalising “ZDDP” anti-wear additive technology to prevent phosphorus depletion and extend the emission catalyst life
- NMMA FC-W® Certified

S18-9400CAT-4

S18-9400CAT-2

DANGEROUS GOODS

BLA Code	Mercury No.	Description	Case Qty
S18-9400CAT-2	92-8M0078627	1 Quart (946ml)	12
S18-9400CAT-4	-	5 Quart (4.7 L)	4
S18-9400CAT-7	92-8M0078621	55 Gallon (208L)	

Sierra® Extended Life Coolant / Anti-freeze

Our Premium Blend Extended Life formula provides year-round protection against freezing and boil-over in all water-cooled engines. Protects for 2,500 hours or 5 years. Hybrid, nitrated HOAT/NOAT formula with ethylene glycol base is compatible with all other coolants.

The 50/50 is pre-mixed with de-ionised water; not intended to be diluted. This formula provides excellent metal protection and cavitation protection capabilities.

S18-9320

BLA Code	Description
S18-9320	1 Gallon (3.78L), Full Strength
S18-9325	55 Gallon (208L), Full Strength

DANGEROUS GOODS

Sierra® Heavy Duty Extended Life Coolant / Anti-freeze

The Heavy Duty Extended Life formula provides year-round protection against freezing and boil-over in all diesel engines. Protects for 15,000 hours or 7 years. Poly organic POAT formula with ethylene glycol base is compatible with all other coolants.

The 50/50 is pre-mixed with de-ionized water; not intended to be diluted. Provides excellent metal protection and cavitation protection capabilities.

S18-9350

BLA Code	Description
S18-9350	1 Gallon (3.78L), Full Strength
S18-9355	55 Gallon (208L), Full Strength

Sierra® Synthetic Blend Coolant / Anti-freeze

This extended life formula utilises synthetic, propylene glycol for non-toxic protection against freezing and boil-over in all water-cooled engines. Protects gas engines for 4,000 hours or 2 years, diesel engines for 12,500 hours or 7 years. Compatible with all other coolants.

High-tech poly organic POAT formula combines with unique additive package to allow engines to maintain optimum engine operating temperature in order to produce full horsepower; seals pinhole leaks and fissures. Excellent metal protection and cavitation protection capabilities.

S18-9360

BLA Code	Description
S18-9360	1 Gallon (3.78L), 50/50 Pre-mixed
S18-9365	55 Gallon (208L), 50/50 Pre-mixed

Sierra® Marine Gear Lube

- Premium

Premium gearcase lube is recommended for all general marine applications requiring a GL-5 class lubricant. Replaces hypoid 90 applications. A blended formulation designed for marine use in gearcases to provide reduced operating friction, providing increased performance and protection of gears, bearings and other gearcase components.

- API GL-5
- Mineral base 80W-90

Replaces:

- Mercury® (Quicksilver) premium blend
- Evinrude®/Johnson® (system matched) Hi-Vis lubricant
- Yamaha® (Yamalube) LUB-GEAR-11-04

S18-9600-2 *S18-9600-5* *S18-9600-0*

BLA Code	Size
S18-9600-0	283.5g (10oz)
S18-9600-2	946ml (1 quart)
S18-9600-5	18.95L (5 gallon)
S18-9600-6	60.5L (16 gallon)
S18-9600-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Gear Lube

- Hi-Performance Synthetic Blend

A blended formulation designed for marine use in gearcases to gain reduced operating friction, providing increased performance and protection of gears, bearings and other gearcase components. Recommended especially for high performance and high load operations for both outboard and stern drive configurations. Designed to surpass the performance criteria of the OE hi-performance gear lubricants.

- API GL-5

Replaces:

- Mercury® (Quicksilver) Hi-performance blend
- Evinrude®/Johnson® (system matched) Ultra-HPF blend
- Yamaha® (Yamalube) UB-GEAR-11-00

S18-9650-0 *S18-9650-2*

BLA Code	Size
S18-9650-0	283.5g (10oz)
S18-9650-2	946ml (1 quart)
S18-9650-5	18.95L (5 gallon)
S18-9650-6	60.5L (16 gallon)
S18-9650-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Gear Lube

- Full Synthetic

Full Synthetic gear oil with a GL-5 rating for high performance outboard and stern drive applications. It is engineered to maintain its viscosity and protect critical drive gears for extended periods under the toughest conditions. **Not for use in Mercruiser Bravo drives.**

Replaces:

- Synthetic base 75W-90
- API GL-5/MIL-L-210E
- Volvo® synthetic gear lube

S18-9680-2

BLA Code	Size
S18-9680-2	946ml (1 quart)
S18-9680-5	18.95L (5 gallon)
S18-9680-7	208L (55 gallon)

DANGEROUS GOODS

Sierra® Marine Gear Lube

- Type 'C'

Type 'C' gearcase lube is recommended for older model outboards and inboard/outboards that are equipped with electric shift mechanisms. A blended formulation designed for marine use in gearcases to gain reduced operating friction, providing increased performance and protection of gears, bearings and other gearcase components.

Replaces:

- Evinrude®/Johnson® (system matched) premium blend

S18-9620-2 *S18-9620-0*

BLA Code	Size
S18-9620-0	283g (10oz)
S18-9620-2	946ml (1 quart)

DANGEROUS GOODS

Sierra® Marine Gear Lube Kit

- Premium

Contains two 10oz tubes of Sierra® Premium Lower Unit Gear Lube (**S18-9600-0**) as well as the easy to use lower leg fill tube kit (**S18-9786**) all packaged ready for use. An economical and practical package for all boat owners and tradesmen. Sierra® Premium gearcase lube is recommended for all general marine applications requiring a GL-5 class lubricant. Replaces hypoid 90 applications.

Replaces:

- Mercury® (Quicksilver) premium blend
- Evinrude®/Johnson® (System Matched) Hi-Vis lubricant
- Yamaha® (Yamalube) LUB-GEAR-11-04

BLA Code	
S18-9600-9	DANGEROUS GOODS

Sierra® Power Trim and Tilt Fluid

Formulated for high operating pressures with anti-foam additives to assure uniform flow with reduced air contamination in hydraulic systems. Provides proper lubrication and corrosion protection in marine applications.

BLA Code	Size	
S18-9750-0	283g (10oz)	
S18-9751-0	237ml (8oz)	
S18-9751-2	946ml (1 quart)	DANGEROUS GOODS

S18-9750-0

Sierra® Pro Performance Grease

- Specifically formulated for marine applications
- Premium lithium formulation for optimum corrosion protection in freshwater and saltwater applications
- Ideal for marine trailer wheel bearing, universal joints, and outdrive pivot joints
- Operating Temp: -40°F - 350°F

DANGEROUS GOODS

BLA Code	Description
S18-9200-0	8 Oz. Tube (226.8g) (12 per case)
S18-9200-1	15 Oz. Cartridge (425.2g) (10 per case)
S18-9200-2	3 Oz. (85.05g) Cartridge (Pkg. of 2)
S18-9200-4	3 Oz. (85.05g) Cartridge (Pkg. of 4)

S18-9200-1

Sierra® Hydro Defense Marine Grease

S18-9240-0 *Replaces:* Mercury 92-802859A1

S18-9240-1 *Replaces:* Mercury 92-802863A1

- Prohibits rust and corrosion
- Prevents wear against the most extreme friction in marine applications
- Will not break down in marine conditions
- Contains PTFE for minimum wear and added friction protection
- For use on prop shafts, throttle and shift cables and linkage, swivel pins and more!

BLA Code	Size oz.	
S18-9240-0	8	
S18-9240-1	14	DANGEROUS GOODS

S18-9240-1

Sierra® Marine Ethanol Treatment - eGuard

- Stabilises E10 gasoline for up to 12 months
- Prevents fuel system corrosion from water attracted by E10 fuels
- Cleans fuel system and improves performance
- Contains a non-alcohol water remover that helps to reduce the chance of phase separation
- Bottled in easy to use precision measuring package
- Safe for use in all gasoline powered engines including generators and outdoor power equipment
- Safe for use in both 2-cycle and 4-cycle engines
- Prevents gum and varnish formation for optimum performance and quick starts

S18-9777

BLA Code	Size	
S18-9775	237ml (8oz)	
S18-9776	946ml (1 quart)	
S18-9777	3.78L (1 gallon)	DANGEROUS GOODS

Sierra® eGuard Counter Display

- Double sided header provides specific information for “In-Season” and “Off-Season” use
- Compact, saves counter space
- Holds twelve 8oz. bottles

BLA Code	
S18-9493	DANGEROUS GOODS

Sierra® Fuel Tester

Replaces: Mercury 91-879172T28

Tests quality of fuel by measuring alcohol content.

BLA Code	Pack
S18-79816	1
S18-79816-24	24

S18-79816

S18-79816-24

Sierra® Marine Fuel Stabiliser

Performance additive and stabiliser for petrol driven vessels.

- Promotes quick starting
- Keeps carburettor and fuel system clean
- Reduces gum and varnish build up
- Improves engine performance
- Stabilises petrol for up to 2 years
- A 237ml bottle will treat 120 litres for every day use, or 60 litres for storage

Replaces:

- Mercury® 92-817529A12, 92-78383A12
- Evinrude®/Johnson® 174275, 175068, 775613

BLA Code	Size	
S18-9013	237ml (8oz)	
S18-9065	473ml (16oz)	
S18-9024	946ml (1 quart)	
S18-9080	3.78L (1 gallon)	DANGEROUS GOODS

S18-9065

Sierra® Combustion Cleaner

Formulated to improve engine performance and efficiency by adding to petrol supply. Will help dissolve gum and varnish build up from the fuel system, remove internal carbon deposits, free sticky rings, displace moisture and also stabilises petrol in tanks during storage.

BLA Code	Size
S18-9580-3	340g (12oz)

DANGEROUS GOODS

Sierra® Fogging Oil

The ideal way to protect and preserve expensive marine petrol engines during down time or winter weather. Specifically designed to be sprayed inside the engine to protect from rust and corrosion. Suitable for 2 and 4-stroke engines and stern drives. Fogging oil provides a protective chemical coating film without leaving a greasy residue or a smoky discharge upon restarting.

S18-9550-0

BLA Code	Size
S18-9550-0	340g (12oz)
S18-9550-3	3.78L (1 gallon)

DANGEROUS GOODS

Sierra® Carbon Free

Specially designed to improve performance in all petrol engines by thoroughly cleaning and removing gum, varnish and carbon deposits. Cleans intake ports, valves, pistons and combustion chambers. Frees sticky rings without removal. Designed for regular maintenance of both 2 and 4-stroke engines. Squirt entire contents of can into engine intake with engine running at 1000-1300rpm. Shut down engine and allow to stand as per instructions on can, then restart to clear out the build up. Engine will respond immediately to the improvement.

BLA Code	Size
S18-9570-0	340g (12oz)

DANGEROUS GOODS

Sierra® White Lithium Grease

Multi purpose, top quality white lithium grease in handy spray pack. Ideal for use to prevent corrosion on battery terminals, lubricate engine controls and all shift components, trim and tilt mechanisms and anywhere that normal black grease would be a nuisance. Water and heat resistant.

BLA Code	Size
S18-9730-1	340g (12oz)

DANGEROUS GOODS

Loctite® Gasket Sealant

Replaces: Mercury 92-802881A 1, 92-34227 1 (Perfect Seal) OMC 317201, 508235 (Gasket Sealing Compound)

A slow drying, non-hardening brush-top sealant. Gasoline, oil and grease resistant.

BLA Code	Size oz.
S1525607	16

Loctite® Anti-Seize™

Application: Use on mechanical joints and external moving parts such as starter bushings, prop shaft splines and battery terminals. Dresses exhaust gaskets. Coats and protects metal parts. Lubricates threads, gears, chains, cables, pulleys, rollers and pivots to temperatures up to 1600°F. (871°C) Heavy-duty, temperature resistant compound fortified with graphite and metallic flake. Will not evaporate or harden.

BLA Code	Size oz.
S37566	16

DANGEROUS GOODS

Sierra® Oil Absorbent Pads

Highly absorbent and disposable.

S18-81100

BLA Code	Pack
S18-81100	3
S18-81101	150

Sierra® Oil Absorbent Pads

Oil Zap II absorbent and disposable.

S18-81102

BLA Code	Pack
S18-81102	1
S18-81103	150

Sierra® Flexible Pouring Tube

Flexible pouring tube designed to fit 946ml (1 quart) bottles.

Bottle not included

BLA Code
S18-9780

Sierra® Oil Pump

Replace the lubricating oil in the gearcase or lower leg with this handy self priming pump. Attached to a 946ml oil bottle, the pump makes light work of refilling the gearcase. Attachment adaptor piece and hose included.

Bottle not included

BLA Code
S18-9781

Sierra® Lower Leg Fill Tube and Adaptors

Fill and flush the lower leg (gearcase) on outboards and stern drives using this simple tool. One end accepts 283g (10oz) gear lube tubes, the other end screws into lower leg fill port. Adaptors available to suit most motors. In-line valve to control flow and shut off. Ideal for the 'do it yourself' home mechanic as well as for the professional marine technician.

S18-9786

S18-81006

S18-9794 *S18-9795*

BLA Code	Motor Thread	Suits
S18-9786	⅜"	Mercury®, Mariner®, Johnson®, Evinrude®
S18-9787	8/6mm	Suzuki®/Yamaha®, Honda®, Tohatsu®

Accessories:

S18-9794	Adaptor - ⅜" to 6mm for Yamaha®, Honda®, Tohatsu®
S18-9795	Adaptor - ⅜" to 8mm for Suzuki®
S18-81006	Grease filler adapter

Sierra® Lube Pump

This lube pump is used for filling lower units on outboards and stern drives. Fits Sierra® gear lube 18.95L (5 gallon) drums **S18-9600-5**, **S18-9650-5** and **S18-9680-5.**

BLA Code
S18-9788

Sierra® Adjustable Barrel Pump

Adjustable manual barrel pump designed to extract oil from 60 litre to 208 litre drums.

BLA Code
S18-9784

Sierra® Easy Luber

Simply screw the Easy Luber onto a 226g screw cap squeeze tube **S18-9200-0** & **S18-9240-0** and you have a mobile lube station in your hand. One of the most versatile and frequently used pieces of equipment in any mechanics tool kit. No more contaminated grease cartridges or messy pots when you have an Easy Luber.

Tube not included

BLA Code
S18-9785

Sierra® Grease Gun - 14oz

Heavy duty all steel construction for reliability and a long service life. Accepts 397g (14oz) grease cartridge. Supplied standard with rigid outlet tube. A separately purchased flexible outlet tube (**S18-9804**) is also available to suit this grease gun.

S18-9804

S18-9782

BLA Code
S18-9782

Accessories:

S18-9804 300mm hose for grease gun

Sierra® Grease Gun - 3oz

Steel construction grease gun complete with an 85g (3oz) grease cartridge, rigid and flexible attachments.

BLA Code
S18-9783

Sierra® 2-Stroke Oil Mixing Bottle

Re-usable bottle for precise measuring of oil to fuel ratio for your engine.

BLA Code	Size
S18-9798	32 FL. Oz

Sierra® Pneumatic Oil Extractor

Designed for quick, easy and clean oil changes. This 8.8 litre (2.3 gallon) air operated extractor can be used to remove a wide range of fluids, such as engine oil, gearbox oil, coolant and more. Contains built-in shut off valve to prevent overfilling. This unit can be used away from the air source by closing off both shut-off valves to create a vacuum, enabling it to be taken to where it's needed. Comes complete with 1.5 metres of flexible hose, two rigid dipstick tubes, and a brake bleeding kit.

BLA Code
S18-52104

Sierra® Pneumatic Oil Extractor - Plus

Designed for quick, easy and clean oil changes. Large 8.8 litre (2.3 gallon) capacity not only can extract fluids, but is capable of dispensing as well. Simply move the bi-directional valve and this unit will create a vacuum or move the valve the other direction and it creates pressure to dispense the fluid. Built-in shut off valve is designed to prevent overfilling. Comes complete with 1.5 metres of flexible hose and two rigid dipstick tubes.

BLA Code
S18-52204

Sierra® E-Go! Fuel Injector Cleaning Kit

Fuel additives and gasoline alone cannot clean away layers of fuel deposits when the engine is running. The only proven method is by removing the "stale" fuel (the cause of the deposits) and using a fuel system cleaner periodically.

By using Sierra's Fuel Injection Cleaning System regularly, you will help maintain the fuel injection system's cleanliness and performance throughout the life of your engine. For best results, use E-Go! Blast Fuel Cleaner (**S18-8606**).

To also enhance the motors life and performance use Sierra's E-Go Boost (**S18-8607**), suitable for both petrol and diesel motors. Simply add to your boats fuel tank.

Kit Includes:

- Cleaning system container
- Hose
- Small fitting
- Large fitting
- Carry case

BLA Code
S18-8600

Accessories:

S18-8606 E-Go! Blast Fuel Injector Cleaner
S18-8607 E-Go! Boost Fuel System Booster

Sierra® E-Go! Blast Fuel Injector Cleaner

Use with S18-8600 Fuel Injector Cleaning Kit

Sierra E-Go! Blast restores lost power and performance by cleaning clogged fuel injectors. This product removes deposits that begin to form with every tank of gasoline. Save gas by keeping your fuel injectors clean.

Features:

- Immediate clean-up for all injection types (port or direct injection)
- Intake valve deposit clean-up
- Combustion chamber deposit clean-up
- Piston surface deposit clean-up
- Contains proprietary polyether amine (PEA) detergent technology
- Cleans better than traditional mineral-based or PIB (Polyisobutenamine) cleaners
- Increases power and performance
- Reduces emissions
- Improves fuel economy
- Saves money at the fuel pump
- Prevents rough idle, hesitation and stalling
- Helps with cold start-up problems
- Helps prevent premature spark plug fouling
- Reduces deposit-related engine knocking and pinging
- Helps prevents injector misfire codes

BLA Code
S18-8606

DANGEROUS GOODS

Sierra® E-Go! Boost Fuel System Booster

3 in 1 Cleaner, lubricator and fuel stabiliser for gasoline & diesel

Sierra E-Go! Boost is a new state-of-the-art fuel additive made with the highest quality premium PEA and FLA technologies. It is the first product of its kind able to specifically address and treat the newer direct injection fuel systems in addition to the traditional intake-port delivery systems of today. Sierra E-Go Boost is the first 3-in-I product that provides a total system clean-up and keep-clean, fuel lubricity additive, and fuel stabiliser.

Features:

- Can be used in any type of engine; gasoline or diesel
- Contains a unique, proprietary polyether amine (PEA) detergent technology, the most effective chemistry for total fuel system cleanup that outperforms competitors
- Proprietary fuel lubricity additive (FLA) provides lubrication of fuel pumps and injectors
- EPA and CARB compliant
- Ideal for all types of fuel systems
- Improves fuel economy and horsepower
- Stabilises fuel, especially during storage
- Cleans carburetor / fuel injectors in one tank
- Removes deposits from combustion chamber and intake valves
- One step process, just pour in the tank
- Prevents hesitation, rough idle, and stalling
- Allows less expensive, lower octane fuel to be used
- Reduces emissions
- Reduces the rate at which ethanol emulsifies and oxidises
- Inhibits corrosion that results from emulsified ethanol-containing fuel
- 1 Can (473ml) treats 60L

BLA Code
S18-8607

DANGEROUS GOODS

Quicksilver® 2-Stroke Oil

- Premium TCW3

Quicksilver's exclusive formulation provides superior protection to help extend the life of small horsepower, outboard engines. Continued use of Mercury® Premium 2-Cycle oil also helps:

- Prevent corrosion of internal components
- Maintain peak engine performance and reliability

This all weather formula provides protection in temperatures down to -25° C. Recommended for use in pre-mix applications for low-horsepower, carbureted engines such as outboards, personal watercraft, snowmobiles, motorcycles and chainsaws.

Meets all outboard and personal watercraft manufacturers' warranty requirements and recommendations for use of a TCW3® oil. Sold in pack quantities as per table below.

Q858023Q01

BLA Code	Size	Pack
Q858021Q01	946ml	6
Q858022Q01	3.78L	3
Q858023Q01	9.46L	2

Quicksilver® 2-Stroke Oil

- Premium Plus 2-Cycle TCW3

Quicksilver's exclusive formulation offers extreme protection for mid- to high-horsepower outboard engines. Continued use of this oil will:

- Provide outstanding wear and corrosion protection which help extend engine life
- Minimise performance-robbing carbon deposits
- Maintain peak engine performance and reliability

Recommended for use in oil-injected, carbureted or electronic fuel injected (EFI) mid- to high-horsepower engines such as Mercury®, Mariner® and Force® outboards, Mercury Jet Drives® and Mercury Sport Jet® engines.

Meets or exceeds all outboard and personal watercraft manufacturers' warranty requirements and recommendations for use of a TC-W3® oil. Sold in pack quantities as per table below.

Q858027Q01

BLA Code	Size	Pack
Q858026Q01	946ml	6
Q858027Q01	3.78L	3
Q858028Q01	9.46L	2

Quicksilver® 4-Stroke Marine Engine Oil - FCW 10W30

Outperforms automotive oils in marine applications because of its specialised additive package designed for marine engines. Continued use of this oil will:

- Provide outstanding wear and corrosion protection which help extend engine life
- Minimise performance-robbing carbon deposits
- Maintain peak engine performance and reliability
- Reduce oil consumption

Recommended for use in low horsepower four-stroke outboards. Exceeds manufacturers' warranty requirements and recommendations for use of an FCW® 10W30 oil. Sold in pack quantities as per table below.

Q8M0078616

Q8M0078617

BLA Code	Size	Pack
Q8M0078616	946ml	6
Q8M0078617	4L	3

Quicksilver® 4-Stroke Marine Engine Oil - FCW 25W40 Marine Oil

Outperforms automotive oils in marine applications because of its specialised additive package designed for marine engines. Continued use of this oil will:

- Provide outstanding wear and corrosion protection which help extend engine life
- Minimise performance-robbing carbon deposits
- Maintain peak engine performance and reliability
- Reduce oil consumption

Recommended for use in all four-stroke outboards. Exceeds manufacturers' warranty requirements and recommendations for use of an FCW® 25W40 oil. Sold in pack quantities as per table below.

Q8M0078619

BLA Code	Size	Pack
Q8M0078619	946ml	6
Q8M0078620	3.78L	3

Quicksilver® Gear Lubes

This gear lube features improved emulsifiers to help protect gears should water enter the gearhousing and tackifiers to improve oil film adhesion to gears and internal components. There are extra additives to protect gears from metal to metal contact and excessive wear. Sold in pack quantities as per table below.

Q858058Q01

Q858059Q01

BLA Code	Size	Pack
Q858058Q01	946ml	6
Q858059Q01	9.46L	2

Quicksilver® Measuring Cup - With Cap

Used to get the correct fuel oil ratio mixture for all pre-mix 2-stroke outboards, with metric and ratio measurements.

BLA Code
Q67886696

Quicksilver® Gear Lube Pump

For all 2-1/2 US gal (10 L) plastic oil bottles. May be used with any outboard which uses a 3/8"-16 drain/fill screw. Fits all MerCruiser sterndrives and Mercury/Mariner Outboards except those models of Japanese origin. Quicksilver branded, clamshell package point of sale packaged.

BLA Code	Suits
Q850730Q1	946ml bottles

Castrol® 2-Stroke Oil

- Super Outboard XP

A green coloured, 2 stroke outboard oil specially developed for use with unleaded petrol. When mixed at the recommended ratio, from 50:1 up to 100:1, it gives improved lubrication, reduces ring sticking, lowers piston deposits, minimises piston varnish and improves corrosion resistance. Exceeds NMMA TC-W3™ specification and satisfies warranty requirements of current and early model motors.

260020

260022

BLA Code	Size L
260020	1
260022	4

Castrol® Transmission fluid

- TQ DIII

An automatic transmission fluid formulated and approved to GM6297M specification. Provides enhanced friction durability, wear performance, oxidation resistance, cold temperature fluidity and foam suppression.

BLA Code	Size L
260058	1

Castrol® Boating Grease

Specially formulated, adhesive lithium complex based grease, suited to boating applications. Features excellent pressure and adhesion properties, high temperature stability, high water resistance and powerful corrosion inhibitors.

Recommended applications:

- Tilt tubes
- Outboard clamp bolts
- Propeller splines
- Wheel bearings
- Couplings and pulleys

BLA Code	Size g
260046	500

The Shurhold® System

The Shurhold®, "One Handle Does It All" system allows the operator to quickly and easily snap over 40 different accessories to the same handle, saving space, time and money. Shurhold® has been designing and manufacturing cleaning systems and products for over 30 years and is known the world over as a market leader.

The Shurhold® system features:

- Brushes to clean boats, cars, 4x4s and caravans
- A boat hook and dock line system to make mooring easier
- Squeegees for an extra dry clean or to reach hard to get to windows
- Scrubbing pads for that hard to clean deck or cockpit
- Detachable fishing accessories and much, much more

Shurhold® Curved Adaptor

Those hard to reach areas become easier to clean with the 250mm curved adapter. It adds 250mm and a 30˚ angle to any of the SHUR-LOK equipped accessories.The two holes at the end provide for 180˚ rotation.

BLA Code
265140

Shurhold® Fixed Handle

- Standard

Available as a 1000mm (40 inch) or 1520mm (60 inch) handle that is compatible with more than 40 attachments. Made of high strength, triple anodised heat treated aluminium. Featuring the SHUR-LOK quick release system which positively locks quickly and easily with a wide range of attachment heads. Yellow easy grip handle.

BLA Code	Size inch
265112	40
265124	60

Shurhold® Fixed Handle

- Finger Grip 760mm

This shorter 760mm (30 inch) version of the **265124** offers all the same benefits including an ergonomically designed handle featuring blue moulded finger grips.

BLA Code
265120

Shurhold® Threaded Adaptor

Threaded adaptor that is compatible with most internally threaded products such as paint rollers. Adaptor attachment simply snaps into any Shurhold® handle.

BLA Code
265142

Shurhold® Dock-A-Reni

Holds a dock line in a loop allowing the rope to be easily slipped over a pile mooring, log or cleat. The Dock-A-Reni is a dock line holding tool that attaches to any pole and allows the user to effectively and safely lasso stationary items with ease.

BLA Code
265244

Shurhold® Boat Hook

A multi-purpose three in one product consisting of a mooring or grab line carrying feature, central indented push-off section and basic boat hook that fits easily to any Shurhold® handle.

BLA Code
265240

Shurhold® Telescoping Handles

Made of high strength, triple anodised heat treated aluminium. The SHUR-LOK quick release system positively locks quickly and easily with a wide range of different attachment heads. The telescopic handles provide excellent versatility by positively locking at different lengths for various applications and cleaning heights. Available in two lengths.

265134

265130

BLA Code	Description
265130	1830mm (6 ft), which locks at four lengths between 1010mm and 1820mm (40 inches - 72 inches)
265134	2740mm (9 ft), which locks at five lengths between 1520mm and 2740mm (60 inches - 108 inches)

Handle close up

Shurhold® X-Soft Brush

- Blue Nylon Bristles

This 200mm extra soft brush is designed for working on vertical surfaces. This brush is safe to use on isinglass, plexiglas and any other delicate surface.

BLA Code
265152

Shurhold® Soft Brush

- Yellow Polystyrene Bristles

This 200mm soft brush is designed for working on vertical surfaces. The specially designed split end fibres hold more soap and water. This brush is safe on gelcoat, fibreglass and paint.

BLA Code
265165

Shurhold® Deck Mop

- Deluxe & Standard Synthetic Chamois Mop

Mops ideal for drying and preventing water spots in this hard-to-reach areas. The deluxe “Water Sprite” mop (**265192**) is the most absorbent mop available. It is designed with 35mm (13/8") wide synthetic strips that will never mold or mildew. The “Soft-N-Thirsty” mop (**265190**) is designed with 15mm (5/8") synthetic strips. Both maps are compatible with any Shurhold handle.

265190

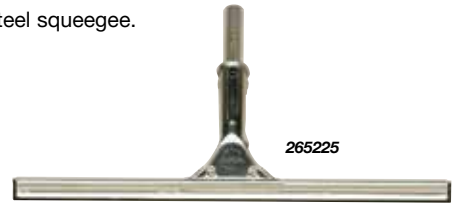
265192

BLA Code	Model
265190	Soft-N-Thirsty
265192	Water Sprite

Shurhold® Squeegee

- Stainless Steel

Stainless steel squeegee.



265225

BLA Code	Size cm
265224	30
265225	41

Shurhold® Swivel Pad Base

Swivel pad base used with scrubber pads (**265209**, **265210**) and lambs wool cover (**265220**).

BLA Code
265200

Shurhold® Synthetic Lambs Wool Cover

Synthetic lambs wool cover. Cover is easy to remove with a side opening flap. Used in conjunction with swivel pad base **265200**.

BLA Code
265220

Shurhold® Deck Brushes

- 150mm

Shurhold's series of 150mm deck brushes are easily and positively locked into any Shurhold® handle. Each brush is manufactured from a solid wood block and incorporates a rubber wrap around bumper to prevent marking and damage to surfaces. Available in four textures.

265150

265156

265164

265170

BLA Code	Description
265156	Extra Stiff 950 - white polypropylene bristles for teak, below the water line and other tough surfaces
265170	Medium 955 - yellow polystyrene bristles for textured and non-skid surfaces
265164	Soft 960 - yellow polystyrene bristles with split end fibres, safe on gelcoat, clear coat, fibreglass and paint
265150	Extra Soft 970 - blue nylon bristles ideal for delicate surfaces such as plexiglas

Shurhold® Deck Brushes

- 250mm

Shurhold's series of 250mm deck brushes are easily and positively locked into any Shurhold handle. Each brush is manufactured from a solid wood block and incorporates a rubber wrap around bumper to prevent marking and damage to surfaces. Available in two textures.

265166

BLA Code	Description
265160	Extra Stiff 990 - white polypropylene bristles for teak, below the water line and other tough surfaces
265166	Medium 980 - yellow polystyrene bristles for textured and non-skid surfaces

Shurhold® Hammerhead Brush

Split level brush for hulls and decks that fits on Shurhold® handles as well as comfortably to hand. Ergonomically shaped, the Hammerhead brush's soft, contoured body features a non-slip grip to stay in place during use.

For added leverage or cleaning hard to reach places, the Hammerhead fits all Shurhold® handles. Equipped with the SHUR-LOK II quick release system, the brush effortlessly locks into place with the push of a button, so it will not spin or pop off. It can be used on horizontal surfaces as a deck brush and will scrub vertical areas just as effectively.

The two way cleaning action is via special PVX fibres set at different angles in the brush head. With more than 300 soft tufts it easily removes grime and salt without damaging a boat's finish.

Top view *Side view*

BLA Code
265180

Shurhold® Sponge - Shur-Dry PVA

Absorbs more than any other sponge. PVA is a high tech synthetic material that is lint free and resists mould and mildew better than a regular sponge or towel.

BLA Code
265308

Shurhold® Utility Brush

The Utility Brush is shaped to fit comfortably to hand and is perfect for use on upholstery, floor mats, vinyl, canvas and more. It includes a unique spot scrubber on the handle for hard stains and grit.

BLA Code
265300

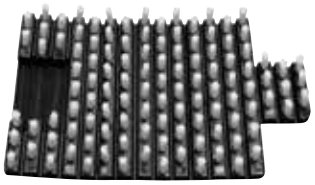
Shurhold® Scrub Brush

Ergonomic handled brush with safety bumper for protection against damage. The Scrub Brush has a soft, comfortable knuckle saving handle with finger grips and a safety bumper. Hard wearing stiff bristles helps you get the job done faster.

BLA Code
265304

Shurhold® Rope and Cord Brush

Floating flexible rope and cord brush is the perfect way to clean 12.7mm – 25.4mm (1/2" - 1") rope. Simple to use, easy to store, the flexible rope and cord brush is ideal for use on twisted and braided lines and rope and other tubular items. To use, wrap flexible rope and cord brush around rope with bristles facing the item. Hold firmly to get contact completely around the rope and brush along the length of the rope to remove debris. Hundreds of great uses including dock lines, rigging ropes, hoses, power cables and railings.



BLA Code
265306

Shurhold® Wash Mitt

Shaped thumb and elastic band for a comfortable fit. Made from soft, synthetic, absorbent fibres. Can be used wet or dry.

BLA Code
265320

Shurhold® Premium Buffing Pads

Premium buffing pads to suit a range of applications.

265446

265438/40/42

BLA Code	Description	Application	Material	Size mm
265438	Buff Magic pad	General purpose, light cutting	60% Acrylic, 40% Twisted Wool	190x40
265440	Zero Swirl pad	Least aggressive compounding	100% 60/40 Acrylic/Wool, Single Ply	190x40
265442	Super Cut pad	Aggressive compounding	100% 4 Ply Twisted Wool	190x25
265446	Pro Polish pad	Finessing	Black Foam	190

Shurhold® Fishing Gaff

Stainless steel 100mm (4 inch) gaff hook. Shurhold's stainless steel gaff hook is cast out of one piece stainless steel and includes a safety spring guard to cover the sharp point when not in use. Snaps into any handle.

BLA Code
265260

Shurhold® Landing Net

Traditional pear shape landing net with tangle resistant treated nylon netting. Fits into any SHUR-LOK handle and is ideal for restricted storage areas.

BLA Code	Description
265268	Small
265270	Large

Shurhold® PVA Towel

A PVA towel that will absorb 50% more liquid than a natural chamois making for faster and more effective drying. The towel prevents water spots on all surfaces and comes in an extra large 430mm x 690mm size.

BLA Code
265310

Shurhold® Microfibre Towels

- 3 Pack Variety

Consists of one towel to polish and shine, one to wash and clean, and one for mirrors and glass. The microfibre towels lift and trap dirt, moisture and grease; unlike regular cotton towels, which just push contaminants across the surface.These towels are extremely soft, gentle, and super absorbent so they won't scratch. Can be washed up to 500 times while still retaining their softness. Machine washable but fabric softeners will harm the fabrics.

BLA Code
265314

Shurhold® Hose Nozzle

Ergonomically shaped quality die-cast zinc hose nozzle and body has a soft, black vinyl grip for a comfortable hand hold. Includes hold-open clip with variable water flow adjustment and a stainless steel spring mechanism.

BLA Code
265420

Shurhold® Buff Magic

User friendly fibreglass re-conditioner, de-oxidiser and metal polish. Formulated with jeweller's rouge to be a metal polish as well as an efficient buffing and polishing cream. The unique formula changes as it is being used, with each polishing pass breaking down the abrasives into smaller and smaller pieces. This effectively creates a compound that can work a finish from very dull to ultra glossy with just one product. Buff magic removes oxidation, gelcoat staining, surface rust, tarnish and plexiglas scratches.

BLA Code	Size g
265390	624

Shurhold® Pro Polish® Wax

- 473ml

Fibreglass cleaner, sealant and polish with U.V. inhibitors for marine and auto applications. Protects from the harsh effects of the sun, saltwater and environmental fallout. Pro Polish® repels water and provides a deep high gloss shine. A polymer based formula with cosmetic grade ingredients containing no fillers or talc which goes on easily. Pro Polish® protects fibreglass, gelcoats, clear coats and aluminium.

BLA Code	Size ml
265400	473

Shurhold® Soap - Brite Wash

A multi-surface, environmentally safe soap that won't strip wax or polish. Formulated to clean fibreglass, clear coat, metal, rubber and painted surfaces without dulling the finish or stripping any wax or polish.

Features:

- Will not strip wax or polish
- Resists water spots
- Concentrated

265370

BLA Code	Size
265370	948ml

Shurhold® Serious Marine Cleaner - 948ml

All purpose cleaner safe to use on multiple surfaces and materials. Formulated as a safe multi-purpose, multi-surface cleaner eliminating the need to use numerous cleaners.

Applications:

- Fibreglass
- Vinyl
- Carpet
- Rubber
- Teak
- Acrylic
- Canvas

BLA Code	Size ml
265360	948

Shurhold® Serious Shine Aerosol - 396g

Cleans, polishes and protects almost any solid surface in one step without greasy, artificial residue. Also contains U.V. inhibitors and anti-static properties, further protecting all types of surfaces.

Applications:

- Hull
- Cockpit
- Cabin
- Vinyl coverings
- Fibreglass surfaces

BLA Code	Size g
265350	396

Shurhold® Snap-Stick - 13g

Ideal for treating sticking snaps and zippers on canopies, awnings and covers. Helps protect against the corrosive effect of saltwater, dirt and grime. Simple wipe on application.

BLA Code
265380

Shurhold® Pads for Swivel Base

Scrubber pads that are used in conjunction with the **265200** swivel pad base. The open weave construction simply locks into the base receptors. Can be reversed. Ideal for hard to clean finishes such as teak and anti-fouling. Pack of two.

265210

BLA Code	Description
265209	Medium
265210	Coarse

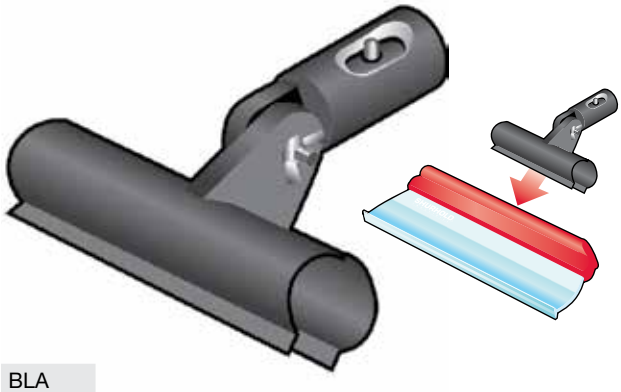
Shurhold® Flexible Water Blade

Fast and efficient, the 300mm Shur-Dry Flexible Water Blade moulds easily to curved surfaces, drastically cutting drying time and eliminating water spotting. Made of soft pliable non-damaging rubber so it's safe to use on almost any surface. It can be used by hand or inserted into the adapter for use with any Shurhold® handle. The **265230** adaptor is sold separately.

BLA Code
265234

Shurhold® Flexible Water Blade Adaptor

The adaptor firmly holds the Water Blade (**265234**) in place and adjusts through 180˚ to allow only the Water Blade to come in contact with the surface. Extend the reach of the Water Blade by using in conjunction with any Shurhold® pole.



BLA Code
265230

Septone® Fibreglass Polish

- Super Fine

This fibreglass polish is formulated for use on surfaces in new or fair condition. Produces a high lustre finish resistant to detergents. Suitable for hand and machine buffing. Cream in colour.

261184

261180

BLA Code	Size
261180	500g
261184	1.8kg

Septone® Fibreglass Polish

- Extra Cut

Formulated for weathered, dull and chalky surfaces. Effectively removes marks and oxidation. Suitable for hand and machine buffing. Cream in colour.

261194

261192

BLA Code	Size
261192	500g
261194	1.8kg

Septone® Cut-n-Polish

Quick cutting, non-clogging cutting compound. Produces less splatter when used with a machine buff. Suited to hand or machine application. Brown in colour.

261208

261206

BLA Code	Size
261206	500ml
261208	1L
261210	4L

Septone® Stainless Steel Polish

Suitable for a variety of metals, including Chrome, Stainless Steel, Nickel, Brass, Copper and Aluminium. It will clean, polish and help protect the metal surface from staining and oxidation.

BLA Code	Size g
261175	250

Septone® Fibreglass Liquid Polish - Restorer & Wax

Designed to polish all types of marine gelcoat and paintwork in new or reasonable condition, leaving a rich, deep, wet look gloss after application. Nourishes the surface with high quality carnauba wax and polymers, whilst the microfine abrasive effectively removes oxidation, fallout and minor imperfections without scratching the surface. Designed to provide outstanding protection from the elements for new and well kept boats, jet skis and the like.

261196

BLA Code	Size
261196	500ml
261198	1L

Septone® Fibreglass Buffing Compound

A premium quality liquid cutting compound for use on all types of marine gelcoats and paintwork which are in poor or oxidised condition and need revitalising. Fibreglass Buffing Compound uses a unique blend of amorphous silica abrasives which provide a quick initial cutting of the surface, and then breaks down into smaller particles to polish the surface. This results in quick removal of surface imperfections and removes any swirl marks created while cutting to produce a smooth surface ready for polishing to a high gloss final finish.

261202

BLA Code	Size
261202	500ml
261204	1L

Septone® Boat Wash & Wax

Removes heavy grime and industrial fallout whilst adding a protective wax coating in one operation. It contains a blend of powerful cleaning agents and wax that promotes water repellency and beading. Non-toxic, non-caustic, biodegradable, pH neutral and high foaming.

261009

BLA Code	Size L
261009	1
261010	5

Septone® Bleach Concentrate

Concentrated liquid bleach which cleans and sanitises. Approximately ten times stronger than most household bleaches. Contains a minimum of 100g/L of sodium hypochlorite.

BLA Code	Size L
261112	5

DANGEROUS GOODS

Septone® Truck Wash

Non-toxic, non-caustic biodegradable heavy duty detergent that is highly effective in removing dirt, mud, road grime, oil and exhaust soot. Safe to use on paint work, chrome, rubber, windscreens, fibreglass, aluminium, tarpaulins, vinyls and most washable surfaces.

261027

261026

BLA Code	Size L
261026	1
261027	5
261028	20

Septone® Hull Cleaner & Stain Remover

Cleans, revives and removes yellowing and rust stains from fibreglass, painted timber and steel surfaces. Contains 520g/L of phosphoric acid.

261004

261002

BLA Code	Size L
261002	1
261004	5
261006	20

DANGEROUS GOODS

Septone® Cleaner/Degreaser

- Superclene

Quick break, biodegradable multi-purpose cleaner/degreaser with citrus based solvent. Caustic and phosphate free. Penetrates and emulsifies grease, oil and dirt. Contains 60g/L of alkaline salts.

261017

261018

BLA Code	Size L
261017	5
261018	20

Septone® Boat Wash

Powerful, heavy duty liquid cleaner that efficiently cleans all washable surfaces of oil, grime, soot and industrial fallout. Safe for use on paint, steel, aluminium, glass, rubber, vinyl and canvas. Non-toxic and non-caustic.

261024

261020

BLA Code	Size L
261020	1
261022	5
261024	20

Septone® Timber Deck Cleaner & Rust Stain Remover

Industrial fallout remover. Cleans, revives and removes rust stains from fibreglass, painted timber, steel and beech/teak decking. Contains 90g/L of oxalic acid.

261012

BLA Code	Size L
261012	5
261014	20

Chemtech Bilge & Engine Cleaner

Chemtech CT14 is biodegradable, non-toxic, non-flammable, and will not promote rust. This concentrated degreaser converts oil and grease into water soluble products that do not contain the hydrocarbons associated with solvent degreasers.

Features:

- Can be used where solvent based degreaser has been banned by EPA, local Councils, and similar
- Safe for use on plastic, rubber, glass and most metals and alloys

BLA Code	Size L
261044	1
261045	5

DANGEROUS GOODS

261044

Septone® Inflatable Boat & Canopy Cleaner

SEPTONE

Concentrated liquid alkaline based cleaner formulated to clean inflatable boats, boat canopies, bimini covers and vinyl seats. Can also be used as an all purpose cleaner on gelcoat, 2-pack and enamel paint surfaces.

BLA Code	Size L
261015	1

Septone® Aluminium Cleaner

SEPTONE

Highly effective acid cleaner designed primarily for the cleaning of aluminium and stainless steel surfaces. It can also be used for etching aluminium prior to painting. It can be used on unpainted aluminium dinghies, bimini and canopy frames, aluminium/ stainless steel railings, water/fuel tanks. Contains 9.8g/L hydrofluoric acid and 47g/L sulphuric acid.

BLA Code	Size L
261056	1
261057	5
261058	20

DANGEROUS GOODS

261056

Septone® Rust Stain Remover

SEPTONE

An acid cleaner which cleans and removes rust stains from fibreglass, gelcoat, painted surfaces and from steelwork. Contains phosphoric acid 520g/L.

Features:

- Kills rust
- Removes rust stains
- Removes waterline hull stains
- Quick acting

BLA Code	Size ml
261066	750

DANGEROUS GOODS

Septone® Glass Clean

SEPTONE

- C-Thru

Biodegradable, fast working, non-streaking, removes smears, finger marks, smog, tar residues and other soils leaving a sparkling, streak free finish. May be safely used on glass windows, windscreens, mirrors, white goods, laminated surfaces, chrome and stainless steel surfaces. Will not damage paint work, upholstery or rubber.

BLA Code	Size ml
261214	750

Septone® Hand Cleaner

SEPTONE

- Paint Eliminator

Heavy duty hand cleaner designed specifically to remove 2-pack paints, anti-fouling, adhesives and other resin-based products which standard industrial strength cleaners are unable to remove.

BLA Code	Size
261170	500ml
261172	4L

261170 *261172*

Septone® Hand Cleaner

SEPTONE

- Protecta® Pink

Premium heavy duty hand cleaner which rapidly dissolves grease, oil and industrial soils. Contains lanolin to prevent dryness and cracking.

BLA Code	Size
261148	500g
261150	4kg
261152	20kg

261148

261150

Septone® Hand Cleaner

SEPTONE

- Orange Scrub

Biodegradable industrial strength hand cleaner containing high quality citrus oils and a fast working pumice abrasive. It has a pleasant orange fragrance, suitable for home and workshop use. Contains pumice, lanolin, aloe vera, jojoba oil and vitamin E.

BLA Code	Size
261154	500ml
261156	2.5L
261158	5L

261158

Septone® Hand Dispenser

Designed specifically to accept **261162** pod refills this dispenser features an easy view window showing pod liquid level. It is simple to operate, replace used pods and clean. Mounting is achieved via a large area of self adhesive tape or can be fastened directly using self tappers (not supplied). In addition a set of clear stick on labels is supplied for pod product identification.

BLA Code	Height mm	Width mm	Depth mm
261160	270	125	115

Septone® Liquid Pod Refill - Protecta® Wash

A 1L quality general use hand cleanser designed to remove remaining oily residues, most soils including dirt, mud, dust and kitchen grime after first using a heavy duty hand cleaner. The surfactants contained in Protecta Wash are highly biodegradable and the preservative used is of cosmetic grade quality selected for its exceptionally low skin irritancy. Pods require **261160** dispensers to operate.

BLA Code
261162

Septone® Spray Gun

Quality Italian made underbody spray gun. Simply screw spray head on to **261084** fish oil and connect to regulated compressed air line. Slide trigger controls volume of liquid applied. Kit includes spray gun, 2 x caps, 2 x pick up tubes.

Fish oil not included

BLA Code
261080

DANGEROUS GOODS

Septone® Waste Tank Additive – Portasol

Highly effective anti-bacterial sanitiser that neutralises and destroys offensive odours in portable toilets. It is perfect for marine, motor homes, caravans, buses, camping, building sites and outdoor venues. It leaves portable toilets hygienic with a pleasant fragrance. Waste can be disposed into sewerage or septic systems once broken down. It comes in a user friendly measure pack.

BLA Code
261033

Septone® Fish Oil

Deodorised rust inhibiting protective coating. Penetrates into parent metal. Never dries out. 1 litre tin connects to spray gun, **261080** for easy application. Contains 285ml/L of liquid hydrocarbons.

261082 *261086*

BLA Code	Size
261082	350g aerosol
261084	1L
261086	4L

DANGEROUS GOODS

Septone® Contact Adhesive

Designed for the permanent bonding of a variety of materials including upholstery, laminated plastics, weather strips, rubber, leather, canvas, PVC, glass, wood, cork, and ceramic. Hydrocarbon propellant.

BLA Code	Size
261094	350g aerosol

DANGEROUS GOODS

Septone® Cold-Gal - Metal Primer

Provides long lasting protection from rust and corrosion by replacing damaged galvanising with a zinc rich epoxy coating. Ideal for boat trailers, balustrades and for spot priming after welding.

BLA Code	Size
260457	400g aerosol

DANGEROUS GOODS

Septone® Armour Cologne

Protects, rejuvenates, beautifies and deodorises. Safe on leather, rubber, vinyl, acrylics, plastics and laminates. In a convenient pump pack.

BLA Code	Size ml
261212	300

Septone® Oilsolve Degreaser

High quality degreasing fluid which dissolves grease, oil and sludge. Fast working and safe on most surfaces. Contains 740g/L of hydrocarbon solvent.

BLA Code	Size L
261048	1
261050	4
261052	20

DANGEROUS GOODS

261048 *261050*

Septone® Paint Stripper

A phenolic based heavy duty paint remover suitable for removing most enamels, acrylics, 2 pack polyurethanes and varnishes from wood or metal. Not suitable for use on fibreglass gelcoats. Contains 100g/L of phenol, 50g/L of ammonia and 860g/L of dichloromethane.

BLA Code	Size
261120	500ml
261122	1L

DANGEROUS GOODS

261120 *261122*

Septone® Rust Prime

Converts rust to a non-reactive black compound while simultaneously sealing and priming the metal surface.

BLA Code	Size
261076	250ml
261077	500ml
261078	1L

261076 *261077*

Septone® Rust Converter/ Inhibitor

Dissolves surface rust and converts iron oxide into iron phosphate in preparation for future protective coatings. Contains 470g/L of phosphoric acid.

BLA Code	Size
261068	250ml
261070	500ml
261074	5L

DANGEROUS GOODS

261068

Septone® Rust Proof

Corrosion protection. A flexible wax type anti-corrosive coating suitable for long term protection of internal metal component parts.

BLA Code	Size g
261090	350 aerosol

DANGEROUS GOODS

Smart Aqua Epoxy Putty

A simple, quick and effective non-toxic underwater epoxy polymer putty repair system. Easy to use on thousands of applications, hardens in minutes and convenient to store. Can be applied to fibreglass, wood, metal and concrete in damp, wet or even underwater conditions. Once completely cured it can be sanded, filled, drilled, machined and painted. 114 grams. Sold as a carton of 12 only.

BLA Code
261256

Smart Steel Epoxy Putty

A simple, quick and effective no mess easy to use non-toxic instant repair system. Made from a steel reinforced polymer it provides industrial strength adhesion to a wide range of metal surfaces. It also provides good adhesion on other materials such as wood, stone, concrete and rigid plastics. Once completely cured it can be sanded, filled, drilled, machined and painted. 114 grams. Sold as a carton of 12 only.

BLA Code
261258

Smart Pipe Repair Wrap

An easy to use repair kit featuring a resin impregnated water activated fibreglass wrap. Simply remove the wrap from the sealed foil, immerse briefly in water and apply. Sets within two to three minutes and becomes rock hard in thirty. Can be used on any sort of pipe material including PVC, fibreglass, copper, galvanised and brass. Kit includes resin impregnated wrap, epoxy steel putty and gloves.

BLA Code	Width mm	Length m	Pipe Diameter mm
261320	51	1.2	15 to 25
261324	51	3.6	40 to 50

261320

Septone® Fibreglass Polyester Resin

The resin is used in conjunction with MEKP catalyst at a ratio approximately 1% – 2% catalyst to resin. Ratio will vary depending on ambient temperature, using the lesser ratio in warmer temperatures. Setting time is approximately 20 minutes depending on temperature and amount of catalyst used.

261308

BLA Code	Size ml
261306	250
261308	500

DANGEROUS GOODS

Septone® Fibreglass Chopped Strand Matting

Fibreglass chopped strand matting used in conjuction with polyester resin and MEKP catalyst can be used to repair cracks and holes in fibreglass, wood, steel, iron, masonry and other inflexible materials. Can be easily power sanded after curing and coated with flowcoat or paint.

BLA Code	Size
261302	1x.5

Septone® Fibreglass Repair Kit

A complete fibreglass repair kit for marine, home or automotive applications. Can be used to repair a diverse range of items including, holes in cars and caravans, metal roofs and drain pipes, water tanks, fibreglass and plywood boats, surf skis, surf craft and similiar.
Includes 0.2m² of chopped strand mat, 250ml polyester resin, catalyst, 25mm brush, mixers and measuring container.

261300

BLA Code	Description
261300	Fibreglass kit
261304	Catalyst 20ml

DANGEROUS GOODS

Septone® Hardener

Suits gelcoat repair filler, eazefill polyester putties and most polyester putties. Contains 500g/kg of benzoyl peroxide as active reagent.

261220

BLA Code	Size g
261220	10
261222	20

DANGEROUS GOODS

Septone® Fibre Tough Glass Fibre Filler

Fibreglass reinforced polyester putty. Ideal for filling or bridging holes, cracks and dents in fibreglass, timber, alloy and ferro cement. Waterproof and double the strength of conventional putties.

261236

261234

BLA Code	Size
261234	500g
261236	1kg

DANGEROUS GOODS

Septone® Eazefill Polyester Putty

Flexible, two part polyester putty which will adhere to steel, wood, fibreglass and aluminium. Eazefill has been manufactured using a high quality, flexible putty resin that is quick setting while ensuring excellent adhesion.

BLA Code	Size kg
261252	2.5

DANGEROUS GOODS

Septone® Gelcoat Repair Filler

Two part polyester putty used in the repair of chips, scratches and cracks on fibreglass hulls. Suitable for use on horizontal or vertical surfaces with no sag. Cures to a white finish.

BLA Code	Size g
261216	400

DANGEROUS GOODS

Septone® Acetone

Cleaning solvent. Excellent solvency power for resins, gums, fats, oils, waxes, rubber, nitrocellulose, plastics, adhesives and rubber cements.

261262

BLA Code	Size
261262	1L
261264	4L
261266	20L

DANGEROUS GOODS

Moeller Paints

Moeller Marine Products make a range of Zinc Phosphate and Sandable Primers, Engine Paints and Clear Coat Paint to suit most outboard, stern drive and inboard motors. These primers and paints are all made in the U. S. A under strict quality control, to ensure the best protection and appearance of your motor from the harsh marine environmental conditions. All primers and paints come in a 12oz (340 grams) aerosol can which features the new Big Button spray nozzle, which covers a larger area with an even consistent spray.

Zinc Primer

Zinc phosphate primer may be top coated with two coats or left as is. Ideal for aluminium surfaces above or below the water line. Excellent resistance to the marine environment. Outstanding durability and abrasion resistance.

Sandable Primer

For surfaces above the waterline, including bare metal, steel, iron, fibreglass and wood. Provides single coat hiding, super adhesion and quick drying formula. Improves bonding of colour coat. Ideal for small repairs.

Engine Paint

Acrylic lacquers formulated for extended life. For use on all outboard, stern drive, and inboard engines and lower units. Fast drying, superior durability, resistant to petrol, oil and heat.

Clear Coat

Formulated for the marine environment. Increases lustre and depth. Quick dry formula with enhanced U.V. protection.

The Big Button Spray Nozzle

Get a professional finish for all your paint projects. The Big Button features a fan spray so that you are able to coat a large area with several light coats to give a professional looking repair.

BLA Code	Description	Type
260100	Yamaha grey metallic	Engine Paint
260101	Yamaha blue grey	Engine Paint
260102	Yamaha metallic blue silver (1985-90)	Engine Paint
260103	Yamaha shiny black	Engine Paint
260104	Evinrude blue metallic	Engine Paint
260105	Honda oyster silver metallic	Engine Paint
260106	Evin/John light blue metallic (1978-87)	Engine Paint
260107	Evin/John white (1972-present)	Engine Paint
260108	Mercury phantom black	Engine Paint
260109	OMC charcoal (1986-present)	Engine Paint
260110	OMC cobra charcoal (1985-current)	Engine Paint
260111	OMC white (1977-80)	Engine Paint
260112	Suzuki shadow black	Engine Paint
260113	Suzuki charcoal metallic	Engine Paint
260114	Tohatsu black blue metallic	Engine Paint
260115	Volvo aquamat white (1972-current)	Engine Paint
260116	Volvo engine charcoal/grey	Engine Paint
260117	Volvo engine red	Engine Paint
260118	Volvo grey DPX & DPS drives	Engine Paint
260119	Volvo inboard / outboard grey (1989-current)	Engine Paint
260120	Volvo silver	Engine Paint
260121	Zinc phosphate yellow	Zinc Primer Paint
260122	Platinum grey	Sandable Primer Paint
260123	Clear coat	Clear Coat Paint

DANGEROUS GOODS

260100

260108

260121

J-B Weld® J-B Weld™ Original

The Original Cold Weld two-part epoxy system that provides strong, lasting repairs to metal and multiple surfaces. Mixed at a ratio of 1:1, it forms a permanent bond and can be shaped, tapped, filed, sanded and drilled after curing. At room temperature, J-B Weld™ sets in 20-25 minutes to a dark grey colour. A full cure is reached in 15-24 hours. J-B Weld™ has a tensile strength of 3960 psi and sets to a hard bond overnight. It can withstand temperatures up to 287˚C when fully cured.

261400

261414

BLA Code	Size
261400	56.8g
261414	25ml

DANGEROUS GOODS

J-B Weld® KwikWeld™

Fast setting version of The Original J-B Weld™ two-part epoxy cold weld system that provides strong, lasting repairs to metal and multiple other surface types. After mixing, it forms a permanent bond and can be shaped, tapped, filed, sanded and drilled after curing. J-B KwikWeld™ has a 1:1 mixing ratio, sets in 6 minutes and is fully cured in 4-6 hours. J-B KwikWeld™ cures to a dark grey colour, is rated at a tensile strength of 2424 psi and will withstand temperatures up to 148˚C.

261402

261417

BLA Code	Size
261402	56.8g
261417	25ml

J-B Weld® WoodWeld™

Fast setting two-part epoxy system formulated for wood bonding and repairs for indoor and outdoor wood furniture, doors, windows, trims/moulds and decks. When fully cured it can be shaped, tapped, filed, sanded and drilled. It provides a lasting permanent bond that is stronger than the wood! J-B WoodWeld™ has a 1:1 mixing ratio, sets in 6 minutes and cures in 1-3 hours. Rated at a tensile strength of 1800 psi, J-B WoodWeld™ cures to a light tan colour.

261404

261420

BLA Code	Size
261404	56.8g
261420	25ml

DANGEROUS GOODS

J-B Weld® MarineWeld™

Specially formulated two-part epoxy cold weld system that provides for strong, lasting repairs for bonding different or similar surfaces, such as aluminium, metal, composites, fibreglass and others. MarineWeld™ sets in 20-25 minutes at room temperature and is fully cured to a dark grey colour in 15-24 hours. Once cured, it can be shaped, tapped, filed, sanded and drilled and will retain its strength above or below the waters' surface. MarineWeld™ has a 1:1 mixing ratio and tensile strength of 3960 psi. Dries to a white colour.

261406

261416

BLA Code	Size
261406	56.8g
261416	25ml

DANGEROUS GOODS

J-B Weld® SuperWeld™

Specially formulated cyanoscrylate Super Glue that provides a strong, instant bond in just seconds. It works on multiple and hard to bond surfaces. The brush applicator allows even and pin point surface application. No drip, no mess.

BLA Code	Size g
261408	6

DANGEROUS GOODS

J-B Weld®ClearWeld™

Quick setting, multi-purpose two part epoxy that provides a strong and lasting bond on most surfaces including tile, most plastics, ceramic, glass, wood and metal. ClearWeld™ is designed to cure with a clear, transparent bond when used at thicknesses of less than 15mm. ClearWeld™ has a 1:1 mixing ratio, sets in 5 minutes and will fully cure overnight. With a tensile strength of 3200 psi, ClearWeld™ sets to a hard, permanent bond.

BLA Code	Size ml
261411	25

J-B Weld® MinuteWeld™

Multi-purpose two-part epoxy cold weld system that provides strong, lasting repairs to tiles, most plastics, ceramic, glass and more. J-B KwikWeld™ has a 1:1 mixing ratio, sets in 1 minute and cures in 1 hour. J-B KwikWeld™ dries clear and is rated at a tensile strength of 2850 psi.

BLA Code	Size ml
261418	25

J-B Weld® PlasticWeld™

Specially formulated two-part adhesive and epoxy filler system that provides for strong, lasting repairs. PlasticWeld™ will bond a variety of surfaces, such as metal, composites, fibreglass and others. PlasticWeld™ sets in 5 minutes at room temperature and is fully cured in 1 hour. Using a 1:1 mixing ratio, PlasticWeld™ combines to a tensile strength of 4400 psi and cures to an off-white colour.

BLA Code	Size ml
261413	25

J-B Weld® Plastic Bonder™

Quick-setting, two-part, urethane adhesive system that provides strong and lasting repairs and works on thermoset, carbon fibre composites, thermoplastics, coated metals, concrete and more. Plastic Bonder™ has a 1:1 mixing ratio, sets in 15 minutes and can be sanded after 30 minutes. With a tensile strength of 3770 psi, Plastic Bonder™ sets to a tan colour and cures to a hard, permanent bond.

BLA Code	Size ml
261415	25

J-B Weld® SteelStik™

Hand mixable, steel-reinforced, non-rusting epoxy putty that quickly repairs or rebuilds anything made of metal. After mixing, it forms an industrial-strength polymer compound that can be moulded into shapes or used to build up, patch and repair steel components. SteelStik™ sets in 3-5 minutes and after 60 minutes, can be drilled, tapped, machined, ground, filed and painted. SteelStik™ cures to a dark grey colour, is rated at a tensile strength of 900 psi and will withstand temperatures up to 148˚C.

BLA Code	Size g
261450	56.8

J-B Weld® WaterWeld™

Plug or seal leaks and patch holes and cracks in almost anything. Ideal for repairing plumbing, fuel tanks, tub and shower, drains, pool and spa, boats and potable water tanks; setup occurs even under water. After curing, it can be drilled, tapped, filed, sanded and painted. WaterWeld™ has a set time of 15-25 minutes and sets hard in one hour. WaterWeld™ cures to an off-white colour, is rated at a tensile strength of 900 psi and will withstand temperatures up to 148˚C.

BLA Code	Size g
261452	56.8

J-B Weld® PlasticWeld™

Hand mixable, fast-setting epoxy putty that forms a durable bond to most major plastic types. After mixing, it forms a polymer compound that can be moulded or used to build up and repair just about anything made from plastic. When cured, it can be sawed, drilled, carved, sanded and painted. PlasticWeld™ has a 20-25 minute work life; functional cure occurs in 2-3 hours. PlasticWeld™ cures to an off-white colour, is rated at a tensile strength of 350 psi. Does not adhere to polyethylene, polypropylene or some other plastics. Test for adhesion first.

BLA Code	Size g
261454	56.8

J-B Weld® KwikWood™

Hand mixable epoxy putty, formulated to repair and rebuild wood. After mixing, it cures to the same density as wood and becomes an integral part of the repair. For use on exterior or interior applications, it contains no solvents, will not rot, shrink, crack or pull away. KwikWood™ has a 15-25 minute work life. After 60 minutes, it can be machined, drilled, tapped, sanded, filed and painted. Stronger than wood, KwikWood™ dries to a light tan colour.

BLA Code	Size g
261456	56.8

J-B Weld® HighHeat™

Hand mixable epoxy putty stick specifically formulated to bond and repair materials that will be exposed to high temperatures in automotive and industrial maintenance applications. It cures to a tough, hard bond with little to no shrinkage. This industrial-strength product out-performs conventional epoxy putties at high temperatures and sets in 1 hour at room temperature. After 8 hours, it can be drilled, tapped, machined, ground, filed and painted. HighHeat™ is rated at a tensile strength of 800 psi and cures to a machine grey in colour. It is able to withstand continuous heat exposure of 204˚C and intermittent heat exposure to 287˚C.

BLA Code	Size g
261458	56.8

J-B Weld® Ultimate Grey Silicone

- Oxime RTV 100% silicone
- Gasket maker and sealant
- High torque load applications
- Import cars (Honda, Toyota, Nissan etc.)
- Maximum oil resistance
- Set time 1 hour
- Temperature resistant up to 260°C
- Intake manifolds
- Low odour, non corrosive and sensor safe
- Oil pans and timing gear covers
- Transmission pans and cam covers

BLA Code	Size
261487	85g
261493	280ml

261487

261493

J-B Weld® Ultimate Black Silicone

- Oxime RTV 100% silicone
- Maximum oil resistance
- Set time 1 hour
- Temperature resistant up to 260°C
- Low odour and sensor safe
- Oil pans and valve covers
- Transmission pans
- Timing gear covers

BLA Code	Size
261489	85g
261494	280ml

261489

261494

J-B Weld® Blue Silicone

- RTV all purpose technology
- Set time 1 hour
- Sensor safe
- Gasket maker and sealant
- Auto and household
- Timing gear covers
- Transmission and oil pans

BLA Code	Size
261488	85g
261495	280ml

261488

261495

J-B Weld® Ultimate Copper Silicone

Advanced high temperature RTV sealant adhesive. Designed for high operating temperatures. Three times more oil resistant.

BLA Code	Size
261481	85g
261492	280ml

261481

261492

J-B Weld® Hi Temp Red Silicone

- RTV all purpose technology
- Set time 1 hour
- Sensor safe
- Tempature resistant up to 343°C gasket maker and sealant
- Oil pans and valve covers exhaust manifolds and water pumps timing and differential covers

BLA Code	Size
261486	85g
261490	300ml

261486

261490

J-B Weld® Black Silicone

- RTV all purpose technology
- Set time 1 hour
- Fully cured 24 hours
- Mould and mildew resistant
- Auto and household
- Bonding and sealing
- Weather stripping, mouldings

BLA Code	Size
261482	85g
261497	300ml

261482

261497

J-B Weld® Clear Silicone

- Sealant & adhesive
- Room tempature vulcanised (RTV) all purpose technology
- Set time 1 hour
- Fully cured 24 hours
- Waterproof
- All purpose (auto, household)

261480

261496

BLA Code	Size
261480	85g
261496	300ml

J-B Weld® White Silicone

- RTV 100% silicone
- Waterproof sealant & adhesive
- Set time 1 hour
- Mould and mildew resistant
- Tub & shower
- Sinks & bathroom fixtures windows, interior trim, door frames mouldings and lens housing

261484

261498

BLA Code	Size
261484	85g
261498	300ml

J-B Weld® Perma-Lock™ Medium Strength Threadlocker

Ideal for fastener applications requiring easy disassembly with hand tools.

261440

261442

261443

BLA Code	Size ml
261440	6
261442	13
261443	36

J-B Weld® Perma-Lock™ High Strength Threadlocker

Ideal for heavy-duty applications requiring resistance to severe shock and vibrations. Heating and hand tools are required to separate parts.

261444

261446

261447

BLA Code	Size ml
261444	6
261446	13
261447	36

FixTech Sealant, Adhesive, Caulking Tool & Primer Epoxy Seal

FixTech Superior Bonding Solutions

Proven adhesive sealant solutions for the harsh marine environment

FixTech products are developed specifically for the marine industry and will lift your present expectation by offering:

- Products that are U.V. resistant and colour stabilised
- Complete range of MS Polymer adhesive sealants free from toxins, solvents, silicone and isocyanate
- 100% waterproof one part adhesives
- Products that are so smooth to work with, that you can feather edge for a great finish
- Reduce wastage
- The best quality range of marine adhesive sealants in terms of health and safety

FixTech is also setting new bench marks for user friendliness, strength, paintability and longevity.

Sealants

Adhesive

Caulking Tools

Primer Epoxy Seal

Product Properites	FixSeal Fix 15	FixSeal+ Fix 190	Deck Caulk Fix 1	DeckBond Fix 30	FixSil Fix 200	FixSeal MSP Clear	FixIt Mate Grip FMP100	FixIt Mate Glue FMP200
Hardness - Shore A	48	45±5	37	55±5	20±3	40	N/A	N/A
Operating Temp C°	-40 to +100	-40 to +90	-40 to +90	-40 to +90	-40 to +90	-40 to +90	-30 to +100	-30 to +100
Application Temp C°	5-35	5-35	5-35	5-35	5-35	5-35	5-35	5-35
Tensile, Strength N/mm	> 2.0	> 3.0	> 1.2	> 1.5	> 2.3	> 2.4	> 10.0	> 10.0
Shear, Strength N/mm	> 1.5	> 1.57	> 1.2	> 1.5	> 0.29	> 1.0	> 10.0	>10.0
Paintable*	Yes	Yes	No	No	No	Yes	Yes	Yes
Colours	Black/White	Black/White	Black	Light Brown	Black	100% Clear	Fawn/Clear	Honey
Elongation at Break %	> 300	230	> 300	> 300	-	330	-	-
Recommended Applications								
Above & Below Waterline	✓	✓				✓	✓	✓
Glazing Fixing & Finishing	✓	✓			✓	✓		
Structural Fixing & Finishing	✓	✓				✓	✓	✓
Non Yellowing Whites	✓	✓		✓				
Fibreglass	✓	✓	✓		✓	✓		
All Metals	✓	✓	✓		✓	✓		
Polymer Window					✓			
External Exposed Joints	✓	✓	✓		✓	✓		
All Timber Types	✓	✓	✓	✓		✓	✓	✓
Deck Gear & Fitting Seals	✓					✓		
Deck to Hull (cabin tops etc)		✓						
Teak Deck Caulking			✓					
Teak Deck Adhesion & Full Surface Bonding				✓			✓	✓

FixTech Muti-purpose Adhesive Sealant - Fix 15

A high quality single component flexible adhesive joint sealant, suitable for above and below waterline applications. Based on MS-Polymer®, it is chemically neutral and fully elastic. FixSeal Fix 15 is recommended for fixing and sealing portholes, hatches, deck gear and fittings and similar, both internally and externally. U.V. resistant and colour stabilised, meaning white stays white.

264180 will not stain porous substrates such as marble and granite. When fully cured the sealant turns 100% clear, allowing the substrate material to show through.

BLA Code	Colour	Size ml
264102	White	290
264104	Black	290
264106	White	600
264108	Black	600
264180	Clear	290

FixTech Structural Sealant - Fix 190

An ultimate high strength one component, U.V. resistant flexible adhesive sealant based on MS-Polymer®. Suitable for use above and below waterline applications, it has a high tensile and shear capacity, with the added feature of being structurally flexible. Fix 190 is ideally suited for all structural bonding, especially in areas subject to vibrations and extremes of expansion and contraction such as engine rooms, glazing, deck to hull bonding, and other structural component bonding on marine vessels.

DNU type approved cert. NO/K-2337 GL AS/NZS4020.

BLA Code	Colour	Size ml
264120	White	290
264122	Black	290
264126	White	600
264124	Black	600

FixTech Window Silicone Sealant - Fix 200

A special silicone designed for the adhesion and sealing of organic and inorganic windows and many other delicate surfaces, such as polycarbonate, acrylic, Perspex and most plastics. Fix 200 is colourfast, U.V. resistant and gives a longer working time allowing for longer runs and super finishes. Fix 200 may also be used to seal metal, coated surfaces, plastics and timber.

BLA Code	Colour	Size ml
264192	Black	310

FixTech Structural Sealant - Silicone Fix 8

Fix 8 is a high strength, high quality, architectural grade single component high modulus structural adhesive and finishing silicone sealant. Fix 8 with its neutral cure system exhibits excellent physical properties and primer-less bonding capability to many substrates.

Fix 8 is suitable for typical sealing and structural bonding to glass, metals including aluminium, Corian®, most plastics including PVC, foams, materials, wood including teak, fibreglass, epoxy coatings, gel coats, rubber, mirrors and similar.

Fix 8 displays excellent weatherability and U.V. resistance curing to a high performance flexible rubber sealant for weatherproofing and structural applications. Fix 8 is suitable for glass curtain wall construction.

BLA Code	Colour	Size ml
264159	Black	300
264160	Aluminium	300
264155	White	300
264157	Translucent	300

FixTech Deck Caulking Sealant - Fix 1

Fix 1 is a high quality single component adhesive sealant with a low viscosity, excellent adhesive properties designed for Teak and Synthetic Teak caulking. Fix 1 is not paintable, it withstands all climatic conditions and is suitable for use where pH neutral soap cleaning will occur.

BLA Code	Colour	Size ml
264136	Black	600

FixTech Bedding Adhesive Sealant - Fix 30

Fix 30 is a solvent and water free universal flexible adhesive. Suitable for bonding many types of timber, stone, marble, granite and other products onto a variety of substrates. It is ideal for exotic timbers and suitable for external and internal applications for marine, transport and construction industries. Fix 30 cures by means of a chemical reaction within the adhesive. Once cured (approx. 24hrs @ 21°C and 50% R.H) an elastic non-shrinkable adhesive layer is formed, which is resistant to heat and moisture.

BLA Code	Colour	Size ml
264143	White	600

FixTech Adhesive - Fix It Mate

High bond strength, 100% waterproof structural marine adhesives. Available in liquid form (Fix It Mate Glue) and paste form (Fix It Mate Grip).

Fix It Mate Grip FMP100: Solvent free, fast cure polyurethane paste in a cartridge. Paste enables application at virtually any angle, even overhead.

Fix It Mate Glue FMP200: Liquid polyurethane glue in a handy squeeze bottle.

Common specifications:

- Bonds, hardwood, softwood, even damp timber, plywood, cement, masonry, fabric and polystyrene.
- Open time – 30 min
- Break strength ->10n/mm2
- Temp resistance – -30° to +100° C
- Clamp time – 120 min
- Waterproof – 100% to D4 (DIN EN 204)

264260 *264250*

BLA Code	Description	Colour	Size
264250	Fix It Mate Grip	Fawn Clear	310ml
264260	Fix It Mate Glue	Honey	750gm

DANGEROUS GOODS

FixTech Primer Epoxy Sealer - FixSeal

FixSeal is a part A and part B penetrating epoxy resin solution used as a primer/sealer for porous substrates such as timber, stone, concrete and many other porous substrates. FixSeal is also used to seal timber/plywood/MDF to prevent and eliminate moisture uptake and ingress, reduce timber warping and prevent dry rot. Permanent lasting and suitable to paint over. Part A and part B sold separately.

264322

264320

BLA Code	Description	Size
264320	Primer Epoxy Seal 2 Pk AB	2 x 250ml
264322	Primer Epoxy Seal 2 Pk AB	2 x 1L

DANGEROUS GOODS

FixTech Caulking Tool - FG7

Manual heavy duty caulking tool for 600ml sausages.

BLA Code
264460

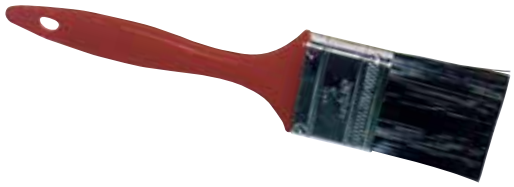
FixTech HD Caulking Tool - FG4

Polyurethane and heavy duty caulking tool for cartridges to 310ml.

BLA Code
264452

Marine Town® Economy Brushes

Plastic handle throw away brushes for applying fibreglass, resin, paint and varnish.



BLA Code	Size mm
262002	25
262004	38
262006	50
262008	64

Paint Brushes - Flo Master

Flo Master quality, 60% pig bristle 40% synthetic bristle suitable for all household paints. Black P.V.C handle and mid thickness set on the brushes for good paint quality retention.

BLA Code	Size mm
262082	25
262084	38
262086	50
262088	63
262090	75
262092	100

Paint Brushes - Unpainted

Economical throw away brush. Cheap enough for throw away use in production work with fibreglass and epoxy resins, anti-fouling etc. 100% white pig bristle in an unpainted frame with natural timber handle.

BLA Code	Size mm
262022	25
262024	38
262026	50
262028	63
262030	75
262032	100

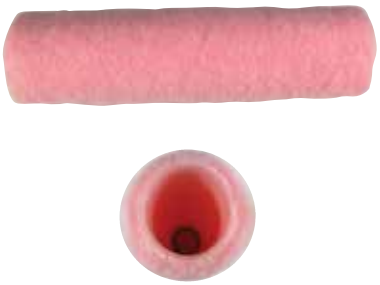
Paint Roller Kits

Paint roller kit using trade quality components. Light duty roller frame and roller tray. Trade roller cover included.

BLA Code
262620

Paint Roller Covers

Premium 230mm roller covers. The covers use thermobond technology to securely lock the pile to the core, eliminating the loose hair hassles often associated with roller covers.



BLA Code	NAP mm
262530	6
262532	10

Paint Roller Frame - Heavy Duty

An extra heavy duty 230mm professional quality roller frame. Manufactured using an 8mm chromed steel frame with a strong cover cage that will outlast dozens of covers. Secure fit for roller covers, and free rolling on plastic bushes. Moulded handle is designed for trade use, with finger indents, deep moulded tray restraints, plenty of length and provision for threaded extension handles, threaded and reinforced with a metal ring.

BLA Code
262550

Star brite®

Founded in 1973, Star brite® is a leading manufacturer of marine waxes, polishes, cleaners, teak finishes, motor oils, fuel additives and more. The company's state-of-the-art manufacturing and distribution facility supplies products to virtually every country on the globe. Every Star brite® product is formulated to deliver maximum performance and value. They are made using the finest ingredients and latest technology such as nano-polymers, special chelating agents and enzymes. Wherever possible, every product is formulated to have minimal environmental impact; many are biodegradable, containing highly-effective agents that won't harm our waterways.

Star brite® Aqua Water Tank Flush

Cleans and deodourises freshwater holding tanks and supply systems. 3.78L (1 gal.) treats 378L (100 gal.) of tank capacity.

BLA Code	Size L
265600	3.78

Star brite® RV Wash

Removes road film, dirt and grime. Biodegradable and safe for all motorhome finishes – use on fibreglass, metal, painted surfaces, plastic, rubber or glass.

BLA Code	Size ml
265601	473

Star brite® Aqua Water Conditioner

Prevents potable water from picking up smell or taste from water tank walls and pipes.

BLA Code	Size ml
265716	118

DANGEROUS GOODS

Star brite® RV Wash & Wax - Premium

Star brite® Premium RV Wash & Wax is specifically formulated to clean and shine in one step, saving time and money. It removes road grime, grease, bug deposits, dust and mud from all exterior areas of a motorhome while adding a deep shine. Contains U.V. inhibitors to help protect against fading.

265605

BLA Code	Size
265604	3.78L
265605	650ml

Star brite® Aqua Water Treatment and Freshener

Maintains perfect drinking water quality in boats and motorhomes. Prevents water from taking on chlorine, sulphur, plastic or metal odour or taste. 29.57ml (1 fl. Oz.) treats 75.7L (20 gal.) of water

265753

BLA Code	Size ml
265753	236
265754	473

DANGEROUS GOODS

Star brite® RV Awning Cleaner

Specifically formulated to loosen and remove tough stains and dirt from motorhome awnings and all motorhome fabrics.

BLA Code	Size ml
265603	946

Star brite® Aqua Water Shock

Instantly removes bad taste or smells from boat or motorhomes potable water. To maintain water quality year-round, use Star brite® Aqua Water Treatment & Freshener (**265753**, **265754**), 30ml treats 38L.

BLA Code	Size ml
265755	473

DANGEROUS GOODS

Star brite® RV Guard Protectant

This one product takes care of cleaning and protecting your motorhome fast and easy. U.V. inhibitors help prevent fading. Safe for all clear-coats, paints and wraps

BLA Code	Size ml
265602	946

Star brite® Premium RV Polish With PTEF

The ultimate in cleaning, shine and protection. Specially formulated for use on motor vehicle fibreglass, metal, plexiglass and painted surfaces.

BLA Code	Size ml
265617	946

Star Brite® Instant Black Streak Removers

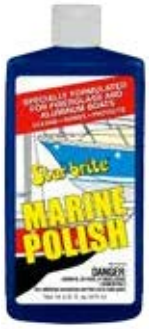
Black Streak Remover begins working on contact to eliminate black streaks under rubrails or anywhere else on a boat. In addition to being the best way to get rid of black streaks, this product is a great all-round cleaner for all marine surfaces and around the house. Ideal for use to remove black streaks or grime from fibreglass, metal, plastic, rubber, vinyl or painted surfaces.

265608

BLA Code	Size L
265606	3.78
265608	1.7

Star brite® Marine Polish

Marine Polish is the easy way to protect a new boat's good looks or get an older boat looking its best by quickly and easily removing light oxidation, scratches and swirl marks. This boat wax uses a durable formula that helps protect against fading caused by U.V. rays and lasts up to four times longer than other polishes or waxes. Easy apply by hand or with a buffer.



BLA Code	Size ml
265619	473

Star brite® Premium Marine Polish With PTEF®

- Premium

Premium Marine Polish with PTEF® is simply the best polish you can buy. The PTEF® polymers provide unmatched protection against U.V. rays, seal the surface to repel stains and deliver a deep, long-lasting gloss. Note: if surface is oxidised or hazy, use One Step Heavy Duty Cleaner Wax with PTEF® (**265701**, **265702**). Lasts up to 4 to 5 times longer than other marine waxes

265673

BLA Code	Size ml
265673	473
265674	946

Star Brite® Instant Fresh Toilet Treatment

Specifications:

- 29.6ml (1oz) treats 18.9L (5Gal)
- 473ml (16oz) treats up to 606L
- 946ml (32oz) treats up to 1211L
- 3.79L (1 Gal.) treats up to 4844L

265610 *265615*

265611

BLA Code	Size	Scent
265609	3.78L	Lemon Grove
265610	3.78L	Pine Forest
265611	473ml	Lemon Grove
265612	473ml	Pine Forest
265613	946ml	Lemon Grove
265614	946ml	Pine Forest
265615	6 Packs	Lemon Grove
265616	6 Packs	Pine Forest

DANGEROUS GOODS

Star brite® Vinyl Shampoo

Quickly removes dirt, stains and grease. Use on vinylised canvas, chairs, cushions and foul weather gear. Cleans all vinyl surfaces.

BLA Code	Size ml
265620	473

Star brite® Vinyl Brite Vinyl Protector

Vinyl Brite cleans and restores old vinyl to a like-new appearance while leaving a protective coating that helps prevent future weathering.

BLA Code	Size ml
265621	236

Star brite® Vinyl Polish and Restorer

Convenient one-step method for keeping both new and older vinyl looking its best. Simply wipe it on, allow it to dry and buff off to leave behind a high-quality waterproof protective coating that defends against harsh U.V. rays and helps keep the vinyl soft and supple, all with an attractive long-lasting shine.

BLA Code	Size ml
265713	473

Star brite® Power Pine Wash

Cleans fibreglass, painted surfaces, fish boxes, windows, canvas, rugs, brightwork and similar.

Specifications:

- Concentrated 946ml (32 fl. Oz.) formula makes 363.4L (96 gal.)
- Concentrated 3.78L (1 gal.) formula makes 1453.6L (384 gal.)

265733 *265732*

BLA Code	Size
265732	3.78L
265733	946ml

Star brite® Ultimate Vinyl Clean Spray

Formulated to remove tough stains, greasy smears and grime.

BLA Code	Size ml
265752	946

Star brite® Boat Wash

Biodegradable formula safely cleans dirt and grime off fibreglass, metal, plastics, vinyl and all painted surfaces. Powerful, 3 capfuls clean a 7m boat.

265622

265623

BLA Code	Size
265622	3.78L
265623	473ml

Star brite® Ultimate Vinyl Guard Spray

Enhances appearance and U.V. protection to all vinyl, rubber, plastic and leather surfaces.

BLA Code	Size ml
265749	946

Star brite® Sea Safe Boat Wash

Sea Safe Boat Wash is an environmentally-responsible boat cleaning product. The low-sudsing, biodegradable formula is concentrated for maximum cleaning power and maximum economy and cleans all marine surfaces. 3 capfuls cleans a 7 metre (21ft) boat.

BLA Code	Size ml
265704	946

Star brite® Power Pine Wash & Wax

Use to clean, shine and protect all fibreglass, painted surfaces, glass, plastic and metals.

Specifications:

- Concentrated 946ml (32 fl. Oz.) formula makes 363.4L (96 gal.)
- Concentrated 3.78L (1 gal.) formula makes 1453.6L (384 gal.)

265741

BLA Code	Size
265741	3.78L
265742	946ml

Star brite® Boat Wash & Wax

Cleans, shines and protects in one easy step.

BLA Code	Size ml
265705	473

Star brite® Bilge Cleaner

Disperses and loosens sludge and grime in the bilge so it can be pumped out. Leaves bilge clean and odour-free.

265625 265624

BLA Code	Size
265624	3.78L
265625	946ml

Star brite® Rubbing Compound - Liquid

Liquid formula rubbing compound designed for light to medium duty applications. Use Premium Marine Polish with PTEF (**265674**) as the perfect follow up to maintain the restored finish.

265630

265631

BLA Code	Description	Size ml
265630	For medium oxidation	473
265631	For heavy oxidation	473

Star brite® Power Pine Bilge Cleaner

Pine extract formula emulsifies oil, grease, fuel and transmission fluid.

Specifications:

- Concentrated 946ml (32 fl. Oz.) formula makes 363.4L (96 gal.)
- Concentrated 3.78L (1 gal.) formula makes 1453.6L (384 gal.)

265735 265734

BLA Code	Size
265734	3.78L
265735	946ml

Star brite® Rubbing Compound - Paste

Paste formula rubbing compound designed for light to medium duty applications. For fibreglass, metal and painted surfaces.

265647

BLA Code	Description	Size ml
265647	For medium oxidation	414
265648	For heavy oxidation	414

Star brite® Tower Guard Protector

Tower Guard instantly adds a shine to towers, outriggers and other hardware. The formula cleans and protects stainless steel, brass, aluminum, chrome, bronze, anodised and other metal surfaces.

BLA Code	Size ml
265626	650

Star brite® Boat Guard Detailer & Protectent

Boat Guard Speed Detailer & Protectant uses high-tech polymers that bond to fibreglass, polished metal, plastics, rubber and painted surfaces to add shine, enhance colour and provide a barrier to U.V. damage.

BLA Code	Size ml
265627	650

Star brite® Teak Care Kit

Premium Teak Care Kit contains all you need to refinish old teak or protect new wood. The Premium Teak Cleaner, Premium Teak Brightener, and Premium Golden Teak Oil are all formulated using the best, most high-tech ingredients available for long-lasting protection and beauty. This kit is ideal for use on all fine woods and wood furniture. The easy-to-follow three-step process produces professional-grade results even for first-time users. 473ml (16 fl. oz.) kit is ideal for use on smaller boats that have minimal teak trim. 946ml (32 fl. oz.) kit is perfect for the larger boat with extensive teak trim.

265629

265628

BLA Code	Size ml
265628	946
265629	473

DANGEROUS GOODS

Star brite® Teak Cleaner - Premium

Premium Teak Cleaner is the fastest, easiest way to clean teak and other fine woods to prepare them for oiling. It will safely remove old oils and stains without the need for sanding. Cleans without harsh acids or neutralisers.

BLA Code	Size
265632	3.78L
265633	473ml
265634	946ml

265634 265632

Star brite® Tropical Teak Oil/Sealer - Natural Light

This is a teak sealer that makes teak almost maintenance free. Only one coat required.

BLA Code	Size ml
265686	473
265687	946

DANGEROUS GOODS

265686

Star brite® Teak Brightener - Premium

Brightens teak and other fine woods. Highlights wood grain and enhances warm natural colour. Use as the second step in the restoration of grey weathered teak.

BLA Code	Size
265635	3.78L
265636	473ml
265637	946ml

DANGEROUS GOODS

265637 265635

Star brite® Tropical Teak Oil/Sealer - Classic Light

Unique Tropical Teak Oil formula makes teak maintenance free. The Classic Teak colour is the same warm golden finish as freshly oiled teak.

BLA Code	Size ml
265688	473
265689	946

DANGEROUS GOODS

265688

Star brite® Golden Teak Oil - Premium

Star brite® Premium Golden Teak Oil is the finest sealer/preserver/finish for marine teak and other fine woods. Star brite® uses premium natural oils that are ultra-refined and chemically modified to form high molecular weight polymers that withstand long-term exposure to salt water and harsh weather.

BLA Code	Size
265668	3.78L
265669	473ml
265670	946ml

265668

Star brite® Gel Teak Cleaner - Gel

Removes Tropical Teak Oil/Sealer quickly and easily. Gel formula clings to vertical surfaces. Does not raise wood grain.

BLA Code	Size ml
265700	946

Star brite® Teak Oil

Seals and protects all fine woods. Fast-drying, high quality ingredients bring out the natural wood grain and colour.

BLA Code	Size
265638	3.78L
265639	473ml
265640	946ml

DANGEROUS GOODS

265640 265638

Star brite® Hull Cleaner

Formulated to begin working on contact to remove unsightly waterline stains. It is also very effective at removing rust stains or leaf stains from fibreglass or painted surfaces. It will not harm the surface being cleaned and is an ideal preparation for polishing the hull.

BLA Code	Size
265641	3.78L
265642	946ml

265642 265641

Star brite® Hull Cleaner - Spray Gel

Gel formula "sticks" where applied for maximum cling time and cleaning power. Specifically formulated to remove the toughest stains, including rust, dried fish blood and leaf stains.

BLA Code	Size ml
265751	946

Star brite® Fabric Cleaner & Protectant Spray

Formulated to dissolve and remove grease, fish blood, food spills and more.

BLA Code	Size ml
265725	946

Star brite® Fibreglass Colour Restorer

Fibreglass Colour Restorer with PTEF is specifically formulated to remove oxidation and haze from coloured hulls, bringing back the original colour and shine. The PTEF polymers seal the restored finish to keep it looking its best, while providing unmatched protection against U.V. rays and a deep, long-lasting gloss.

BLA Code	Size ml
265643	473

Star brite® Chrome & Stainless Polish

Chrome & Stainless Polish helps keep both new and older boat metals looking their best by quickly and easily removing grit, grime and grease from metal surfaces. After a light buffing the formula leaves a protective barrier on metal surfaces to help prevent future pitting, salt deposits, and discolouration from rust and corrosion.

BLA Code	Size ml
265649	236

Star brite® Waterproofing

Star brite® Waterproofing with PTEF restores water repellency to virtually all marine fabrics from boat covers to bimini tops. It is also the easiest, most effective way to waterproof car covers, tents, tarps, foul weather gear, convertible tops and more.

Specifications:

- 3.78L – 43.2m² (465 square feet) of coverage*
- 650ml (22 oz) – 7.4m² (80 square feet) coverage*

**** Coverage may vary slightly depending upon amount of product applied per square metre***

265645

BLA Code	Size
265644	3.78L
265645	946ml

DANGEROUS GOODS

Star brite® Ultimate Xtreme Clean

Star brite®'s Ultimate Xtreme Clean is formulated with the latest technology ingredients to be the toughest crud-buster ever. The special chelating agents attack road grime, bug bits, bird deposits, greasy smears and more, breaking the bond that holds them to the surface so they can be wiped away without heavy scrubbing.

265651

BLA Code	Size
265650	3.78L
265651	650ml

Star brite® Sail & Canvas Cleaner

Biodegradable formula safely cleans and brightens all types of white and coloured sails/fabrics.

BLA Code	Size ml
265646	473

Star brite® Inflatable Boat Cleaner

Heavy duty formula removes dirt, grime, scuff marks and oxidation stains.

BLA Code	Size ml
265652	743

Star brite® Boat Care Bucket

Great starter kit for the new boater.

Inclusions:

- 1 x Reggae wash mitt
- 1 x Vinyl brite
- 1 x Boat wash in a bottle
- 1 x Premium marine polish
- 1 x Instant hull cleaner
- 1 x Non-skid deck cleaner

BLA Code
265660

Star brite® Boat Carpet Cleaner

Biodegradable concentrated formula foams out ground in dirt and stains from any type carpet.

BLA Code	Size ml
265671	473

DANGEROUS GOODS

Star brite® Polyether Boat Caulk White

Excellent for teak deck seams – unaffected by teak cleaners, brighteners and oils. Not recommended for use with ABS and Lexan™ plastics.

BLA Code	Size ml
265661	305

Star brite® Ultimate Carpet Clean With PTEF®

Dissolves oily stains, grease, fish blood and dirt. PTEF polymers bond to treated carpet to repel stains and damaging U.V. rays.

BLA Code	Size ml
265696	650

Star brite® Liquid Electrical Tape

Liquid Electrical Tape (LET) is easy to use, providing an airtight, waterproof, di-electric coating in minutes. The coating will last for the life of the application, yet it can be removed immediately as needed. One application will protect terminal connections or splices, as well as guard against vibrations that can loosen connections.

265662

BLA Code	Colour	Size ml
265662	Black	118
265663	Red	118
265664	Green	118
265665	White	118
265666	Clear	118

DANGEROUS GOODS

Star brite® White PTEF® Lubricant

The ultimate lubricant – exceeds performance of normal grease. Protects from -53.9°C to +343.3°C.

BLA Code	Size g
265672	113

Star brite® Dip-It Whip-It Liquid Rope Whipping Tape

Quick and easy way to finish rope ends. Forms a permanent, flexible coating.

BLA Code	Colour	Size ml
265667	White	118

DANGEROUS GOODS

Star brite® PTEF® Trailer Hitch Lubricant

The best protection for trailer hitches. Protects from -53.9°C to +343.3°C. Super adhesion, will not wash off or break down.

BLA Code	Size g
265675	113

Star brite® Snap & Zipper Lubricant

Keeps snaps and zippers working properly on boat enclosures, vinyl cushions, boat covers and more. Each application lubricates and protects these metal and plastic parts against corrosion, excessive wear and salt spray. Won't wash off.

BLA Code	Size ml
265694	51

Star brite® Mildew Stain Blocker

Nano-tech barrier prevents mould stains and mildew stains from forming.

BLA Code	Size ml
265678	650

Star brite® Non-Skid Deck Cleaner

The most effective and easiest way to clean textured fibreglass or painted decks. The special chelating agents loosen dirt and spills without the need for heavy scrubbing.

265677 *265676*

BLA Code	Size
265676	3.78L
265677	650ml

Star brite® Slime & Grime Stain Remover

Removes mould stains and mildew stains, rust, tarnish and other tough stains. Works on boat bottoms, shower stalls, floor tile, fibreglass, wood, aluminium, cement and non-skid decks.

BLA Code	Size ml
265743	473

Star brite® Mould & Mildew Stain Remover

Safe for all household surfaces. Ideal for use in area, such as RVs, boats, households; anywhere mould stains appear.

BLA Code	Size ml
265770	946

Star brite® NosGUARD SG Mildew Odour Control Bags

- Slow Release

The most effective way to eliminate and prevent mould and mildew odour and other foul smells from forming year round. The extended release system allows it to remain effective for up to 3 months, keeping enclosed areas odour-free, crisp and clean smelling. Each patented CLO2 generator pouch treats an area 28.3 cubic metres in size safely and effectively.

N.B. MDG is not to be used while people or pets are present. Air out the space after treatment.
Read all included instructions completely before use.

265709

265709

BLA Code	Size g	Pack QTY
265709	10	2
265706	10	100

DANGEROUS GOODS

Star brite® Mould & Mildew Stain Blocker

Provides an invisible barrier to unsightly mould and mildew stains. Shields and protects fibreglass, vinyl, plastic, rubber, painted surfaces, and most other surfaces.

BLA Code	Size ml
265771	946

Star brite® NosGUARD SG Mildew Odour Control Bags

- Fast Release

Fast Release Formula begins working immediately to eliminate foul odours caused by mould, mildew, pets, food, smoke and garbage. Each patented CLO2 Chlorine Dioxide generator pouch treats an area up to 28.3 cubic metres. It is the fastest and most effective solution for dealing with smoke or damp, musty odours. Ideal for cars, RVs, and boat cabins.

N.B. MDG is not to be used while people or pets are present.
Air out the area after treatment.
Read included directions completely before use.

BLA Code	
265710	DANGEROUS GOODS

Star brite® NosGUARD SG Mildew Odour Control Bags

- Display stand

Point of sale display stands for NosGUARD SG Mildew Odour Control Bags.

265707

BLA Code	Description
265707	32 x 10g Twin Pack
265708	16 x 10g Fast Release 24 x 10g Slow Release

Star brite® NosGUARD SG Mildew Odour Control Bags -

Boat-Bomb

Begins working immediately to eliminate foul odours caused by mould, mildew, pets, food, smoke and garbage. Each patented CLO2 Chlorine Dioxide generator pouch treats an area up to 28.3 cubic metres. Ideal for cars, RVs and boat cabins.

N.B. MDG is not to be used while people or pets are present. Air out the area after treatment.
Read included directions completely before use
.

BLA Code	
265711	DANGEROUS GOODS

Star brite® Oil Absorbent Maxi-boom

Absorbs oil, transmission fluid and fuel from engine pan so it can't get into the bilge. Absorbs 1892.7ml (2 quarts) of hydrocarbons.

BLA Code	Size mm
265680	125 x 457

Star brite® Rub Rail Restorer

Rejuvenates dull, weathered rub rails; covers up scuff marks. PTEF polymers bond to treated surface to help repel stains and damaging U.V. rays.

BLA Code	Size ml
265679	473

Star brite® Plastic Scratch Remover

The fast and easy way to restore the shine and lustre to plastic on the boat, the car and around the home. Removes scratches from eisenglass enclosures, plexiglass windscreens, lexan surfaces, spotlight lenses, navigation lights on the boat, as well as acrylic, polycarbonate and most other plastic surfaces. Follow up with an application of Clear Plastic Polish (**265682**) to seal and protect the newly-restored finish.

BLA Code	Size ml
265681	236

Star brite® Plastic Polish Restorer

The best way to produce a brilliant, protective shine and clarity to acrylic, polycarbonate and most other types of plastic surfaces. Ideal for protecting and preserving eisenglass enclosures on boats, as well as plexiglass or lexan windscreens, windows, tables and counter-tops. Use with Star brite® Plastic Scratch Remover (**265681**) as the two-step process to restore, new-looking plastic.

BLA Code	Size ml
265682	236

Star brite® Easy Scrub

Cleans ground-in dirt and stains from fibreglass, metal, plastic, mica, tile and painted surfaces. Combines superfine abrasives and chelating agents to lift and remove stains, grime and oxidation without scratching.

BLA Code	Size ml
265683	473

Star brite® Screen Cleaner & Protector

Formulated for use on all marine electronics and all plastics. PTEF® polymers help protect against U.V. damage.

BLA Code	Size ml
265690	236

Star brite® Rain View

Improves wet weather visibility through windshield and windows. Use on glass and plastic. Heavy rain and wet weather can result in limited visibility through windshields and windows. Makes surface so slick that rain and wet weather deposits literally slide off.

BLA Code	
265695	DANGEROUS GOODS

Star brite® Ultimate Aluminium Cleaner & Restorer - Sprayer

Engineered to bring back unpainted aluminium surfaces that have become dull or stained. Unlike other "all surface" cleaners, this product is formulated specifically for use on aluminum and strips away grime, stains and oxidation without harming the metal. Use Ultimate Aluminium Polish (**265684**) as step 2 when removing stains and restoring older boats. Convenient 1.89L (64 fl. oz.) size with sprayer for easy application.

N.B. Do not use products containing hydrofluoric or other dangerous acids! No aluminium is worth losing your skin or eyesight!

BLA Code	Size L	
265685	1.9	DANGEROUS GOODS

Star brite® Ultimate Aluminium Polish With PTEF®

Star brite® Ultimate Aluminium Polish maintains the beauty of new and restored aluminium and is ideal for all unpainted aluminium surfaces. PTEF® polymers provide U.V. protection and help repel dirt and stains.

BLA Code	Size ml
265684	473

Star brite® Ultimate Metal Flake Polish With PTEF®

Specially formulated for all metal flake and bass boat hull finishes. PTEF® polymers reduce drag on bass boat bottoms to maximise top end speed.

BLA Code	Size ml
265714	473

Star brite® Odour Guard Surface Cleaner / Deodorant / Freshwater

Great alternative to sprays that only mask odour. It uses cutting-edge ingredients that actually capture foul odours to eliminate them on contact. It can be used on fabrics or carpeting to remove odour, on hard surfaces as a cleaner, or used as an air freshener.

BLA Code	Size ml
265748	650

Star brite® Rust Stain Remover

Rust Stain Remover is the best way to eliminate unsightly rust stains from boats, motorhomes, exterior walls of homes or wherever else they may form. The formula begins working on contact, dissolving the oxidation that causes these stains. New 3.7L (1 gallon) size for easy refill of 650ml (22 fl. oz.) spray container.

265698

BLA Code	Size
265698	3.78L
265699	650ml

Star brite® Power Cable Cleaner

Whisks away dirt, oil, grease, grime from all types of power cables.

BLA Code	Size ml
265712	236

Star brite® Rust Eater & Converter

Chemically designed to remove rust and oxidation without harming the original metal. Special buffering process makes this acid product safe to use.

BLA Code	Size ml
265728	650

DANGEROUS GOODS

Star brite® Premium Cleaner/Wax

Formulated specifically to remove oxidation and hazing from fibreglass or painted surfaces. The PTEF polymers seal the restored finish to keep it looking its best, while providing unmatched protection against U.V. rays and a deep, long-lasting gloss. For best results, protect the restored finish with a coat of Premium Marine Polish with PTEF (**265673**).

265701

BLA Code	Size ml
265701	473
265702	946

Star brite® Corrosion Buster Pen

The amazing spot cleaning brush tip quickly scrubs away rust and corrosion without solvents or harsh chemicals. Over 20,000 cleaning glass fibres in a pen point.

BLA Code
265715

Star brite® Sea-Safe Cleaner & Degreaser

Uses the power of natural citrus extracts to quickly remove dirt, black streaks, grease, grime, fish blood, smudges and other stains from fibreglass, vinyl and painted surfaces. Environmentally friendly, biodegradable formula.

BLA Code	Size ml
265703	650

Star brite® Super Green Cleaner

Biodegradable, general purpose cleaner with many uses on metal, fibreglass, painted surfaces, mica or finished wood.

BLA Code	Size ml
265717	650

Star brite® Bottom Cleaner / Barnacle remover

Removes deposits on boat bottoms, scum line and rust stains quickly and easily. Safe for use on fibreglass, metal, wood and stainless steel surfaces.

BLA Code	Size
265726	3.78L
265727	946ml

DANGEROUS GOODS

265727 265726

Star brite® Spider & Bird Stain Remover

Non-abrasive, non-toxic formula won't harm fibreglass or painted surfaces and won't remove waxes or polish. Droppings dissolve without hard scrubbing.

BLA Code	Size ml
265746	650

Star brite® Hull & Bottom Cleaner - EZ-On EZ-Off

Loosens tough marine deposits, removes stubborn stains quickly and without hard scrubbing. Formulated with a special buffered acid that is safer to use than the harsh acids found in traditional bottom cleaners.

BLA Code	Size
265730	3.78L
265731	946ml
265762	20L

DANGEROUS GOODS

265731 265730

Star brite® View Guard Clear Plastic Treatment

A wet weather visibility enhancer specifically formulated for use on clear plastic enclosures such as Strataglass, EZ2CY and Eisinglass. Specially designed surfactants safely remove dirt and grit while advanced polymers repel rain, spray and salt to provide maximum visibility, even in heavy weather conditions.

BLA Code	Size ml
265747	650

Star brite® Ultimate Water Spot Remover

Easy and effective way to remove water spots. The special PTEF® polymers provide a barrier to future deposits and also add a deep shine to treated surfaces.

BLA Code	Size ml
265724	650

Star brite® Ultimate Paddle Sports Cleaner & Protectant With PTEF®

Spray on, wipe off to remove grime, dirt, salt deposits and more. Formulated for use on fibreglass, Kevlar® and plastic. Roto-moulded kayaks, paddleboards and canoes.

BLA Code	Size ml
265750	650

Star brite® Spider Away

Non-toxic, highly-effective way to make spiders leave an area. Not a poison, it is safe for use around people and pets. Safe for use on fibreglass, vinyl, plastic, painted surfaces, metal, wood or glass.

BLA Code	Size
265744	3.78L
265745	650ml

265745 265744

Star brite® Inflatable Boat Cleaner Spray

Specifically formulated for use on Hypalon, PVC and all other inflatable boat fabrics, plus fibreglass, rubber and plastic.

BLA Code	Size ml
265756	946

Star brite® Ultimate Bike Guard

Lets you detail and shine the bike in minutes whilst also adding a protective PTEF® polymer barrier against damaging U.V. rays and grime to keep it looking good. For tough stains and road grime, use Ultimate Xtreme Clean Cleaner & Degreaser as Step 1 in detailing the bike (**265650**, **265651**).

BLA Code	Size ml
265757	650

Star brite® Ultimate Matte Finish

Formulated specifically to clean and protect all matte, denim, satin, flat and other non-shiny surfaces. It also adds a protective, non-glossy PTEF® polymer barrier to help repel grime, greasy smears and U.V. rays that can cause the finish to become dull and faded.

BLA Code	Size ml
265758	650

Star brite® Ultimate Lubricating Fluid with Cerflon®

Combines CERFLON® for unsurpassed lubrication properties and Lanolin to coat surfaces in order to repel dirt and moisture. CERFLON® nano-particles bond to treated surfaces for long-lasting lubricity of all metal moving parts. Trigger spray version (**265760**) is solvent-free.

265759

265760

BLA Code	Size ml
265759	347
265760	650

DANGEROUS GOODS

Star brite® Fibreglass Stain Remover Spray Gel

Specifically formulated to remove the toughest stains, including rust, dried fish blood and leaf stains. Gel formula "sticks" where applied for maximum cling time and cleaning power.

BLA Code	Size ml
265761	946

Star brite® Salt Off Protector With PTEF®

Quickly and effectively remove salt deposits from metal, fibreglass, plastic or painted surfaces. When used with the Salt Off Applicator, it will flush deposits from the engine's cooling system to help insure maximum performance and service life.

265737

BLA Code	Description	Size
265736	With PTEF	3.78L
265737	With PTEF	650ml
265738	With PTEF Conc	946ml
265739	Kit With PTEF Conc with applicator	946ml

Star brite® Salt Off Applicator

Use as a motor flush in I/O and outboard engines. Allows easy application of Salt Off to all metal surfaces or to flush an engine.

BLA Code
265740

Star brite® Descaling Motor Flush

Designed to safely and quickly remove scale, calcium deposits, corrosion, salt and carbon build-up in your engine's cooling and wet exhaust systems. Will not damage seals, gaskets or rubber impellers.

BLA Code	Size L
265729	3.78

DANGEROUS GOODS

Star brite® Star Tron Carbon Eliminator +

Formulated with the latest technology deposit control compounds, plus a proprietary enzyme package specifically developed to remove even the toughest deposits. For use in all gasoline and diesel engines.

BLA Code	Size L
265813	355

DANGEROUS GOODS

Star brite® Star Tron Enzyme Fuel Treatment - Classic Gas Formula

Star Tron Enzyme Fuel Treatment is a multi-functional fuel additive which uses a unique enzyme technology that allows all engines to start easily and run smoothly, even when using ethanol-blended fuel or after sitting idle for months. Star Tron allows fuel to burn more completely, which results in maximum performance, fuel efficiency and reliable operation. Star Tron will stabilise fuel for up to two years, preventing the formation of gums and other solids that clog carburetors and fuel injectors. Helps prevent phase separation by dispersing water throughout fuel as submicron-sized droplets that can be safely eliminated while the engine operates. Ideal for use in all gas engines including; boats, cars, trucks, motorcycles, small equipment as well as engines that use pre-mix fuel. 29.6ml (1ft. ox.) treats 60.6L (16 gallons) of fuel.

BLA Code	Size ml
265800	236

DANGEROUS GOODS

Star brite® Star Tron Enzyme Fuel Treatment - Super Concentrated Diesel Formula

Star Tron Enzyme Fuel Treatment is a multi-functional fuel additive which uses a unique enzyme technology that allows all engines to start easily and run smoothly, even after sitting idle for months. Star Tron® eliminates and prevents fuel problems. Star Tron breaks down excess water and sludge to sub-micron size, allowing it to be safely burned away during normal engine operation. Star Tron also helps control biological growth without the use of poisons/biocides. Star Tron® increases fuel economy by cleaning the entire fuel delivery system, removing performance robbing gum and varnish deposits while modifying how fuel burns. This results in more complete and uniform combustion, maximum performance, increased fuel efficiency, reduced emissions and reliable operation. Star Tron eliminates carbon build-up from burners, injectors and exhaust components. Star Tron will stabilise fuel for up to two years, preventing the formation of gums and other solids that clog fuel injectors. Star Tron can help rejuvenate old and sub-spec fuel. Star Tron is safe for all engines and overdosing is not harmful. 29.6ml (1ft. ox.) treats 60.6L (16 gallons) of diesel fuel.

265808

BLA Code	Size ml
265808	236
265809	473
265810	946

Star brite® Star Tron Enzyme Fuel Treatment - Concentrated Gas Formula

Star Tron Enzyme Fuel Treatment is a multi-functional fuel additive which uses a unique enzyme technology that allows all engines to start easily and run smoothly, even when using ethanol-blended fuel or after sitting idle for months. Star Tron® eliminates and prevents ethanol fuel problems. Star Tron® increases fuel economy by cleaning the entire fuel delivery system, removing performance robbing gum and varnish deposits while modifying how fuel burns. This results in more complete and uniform combustion, maximum performance, increased fuel efficiency, reduced emissions and reliable operation. Star Tron will stabilise fuel for up to two years, preventing the formation of gums and other solids that clog carburetors and fuel injectors. Star Tron can help rejuvenate old and sub-spec fuel. Star Tron can be used in all gas outboards, inboards, cars, trucks, motorcycles, ATVs, small engines, outdoor power equipment including pre-mix fuel engines. Star Tron is safe for all engines and overdosing is not harmful. 29.6ml (1ft. ox.) treats 60.6L (16 gallons) of fuel.

265805

BLA Code	Size
265804	3.78L
265805	236ml
265806	473ml
265807	946ml

Star brite® Star Tron SEF Counter Top Display

Attractive Star Tron display for counter tops.

BLA Code
265814

Star brite® Star Tron Countertop Display - Gas Only

Solve gas, diesel or both gas and diesel fuel related problems with one display. Great for both gas and diesel customers. Ideal for shelf display or next to a register. Compact display requires just 6 of counter space. 24 Star Tron Gas Additive (**265805**), 236.58ml (8 fl. oz.).

BLA Code
265815

Star brite® Star Tron Shooter

Helps prevent phase separation, cures and prevents ethanol fuel problems. Suits all petrol powered equipment.

BLA Code	Size ml
265801	295

DANGEROUS GOODS

Star brite® EZ Store EZ Start Gas Storage Additive

Protects gas and engine components during storage. 29.57ml (1 fl. oz.) treats 18.92L (5 gallons).

265802

BLA Code	Size ml
265802	236
265803	473

DANGEROUS GOODS

Star brite® Ultimate Corrosion Blocker

Created to deliver the most effective protection for all metal surfaces. Unlike aerosol protectants that are either runny or create a gooey, sticky mess, Corrosion Blocker quickly cures to form an invisible, tack-free and durable finish. The formula will not harm wiring, paint or wrapped surfaces.

BLA Code	Size ml
265811	650

Star brite® Star Tron Ring Clean+

Formulated with the latest technology for deposit control, plus a proprietary enzyme package designed to remove the toughest deposits while helping to prevent the formation of new deposits. Ring Clean+® removes deposits from fuel injectors, carburetors, intake valves, intake ports, and combustion chambers that can lead to engine knock, stuck piston rings, dirty spark plugs, lost power, decreased performance and reduced fuel efficiency. Treats up to 600 litres (160 gallons) of gasoline.

BLA Code	Size ml
265812	473

Star brite® Standard Handle

- Extending 914mm - 1.52m

High quality marine grade handle constructed of aircraft grade, triple anodised aluminium to provide years of maintenance free use. Steel push button quick connect disconnect allows for instant attachment of all Extend-A-Brush accessories.

BLA Code
265900

Star brite® Standard Handle - 1.52m

High quality marine grade handle constructed of aircraft grade, triple anodised aluminium to provide years of maintenance free use. Stainless steel push button quick connect/disconnect allows for instant attachment of all Extend-A-Brush accessories.

BLA Code
265901

Star brite® Signature Series Standard Handle

- Black 1.52m

Signature Series is for discriminating yachtsmen; features air chambers so it will float if dropped overboard. Stainless steel push button quick connect/ disconnect allows fast attachment of all Extend-A-Brush accessories.

BLA Code
265902

Star brite® Big Boat Handle

- Extending 1.52m - 3.05m

Lightweight, yet incredibly strong handle. Contains special air chambers so it will float if dropped overboard. Constructed of aircraft grade, triple anodised aluminium to provide years of maintenance-free use. Stainless steel push button quick connect/disconnect allows for instant attachment of all Extend-A-Brush accessories.

BLA Code
265903

Star brite® Signature Series Handle

- Black Extending 1.52m - 3.05m

Big Boat Signature Series is for discriminating yachtsmen. Black anodised finish and constructed of super strong aircraft-grade, triple anodised aluminium for maximum durability; will float if dropped overboard. Stainless steel push button quick connect/disconnect allows for instant attachment of all Extend-A-Brush accessories.

BLA Code
265904

Star brite® Medium Wash Brush

Medium duty high density Star prene fibres for all around cleaning of soiled and stained surfaces.

BLA Code	Colour
265908	Blue

Star brite® Economy Handle

- 1.2m

A durable, very attractive one-piece handle that accepts screw-on accessories. Outlasts traditional wooden economy brushes.

BLA Code
265905

Star brite® Soft Wash Brush

Soft bristles will not scratch plastic windows. Star prene fibres with flagged ends to hold water and cleaning solutions for easier washing.

BLA Code	Colour
265909	Yellow

Star brite® Screw Thread End Handle - Extending 1.2m

Extending handle with screw thread end; telescopes from 5cm - 10cm. Use with Star brite standard or deluxe brushes.

BLA Code
265906

Star brite® Big Boat Soft Brush - Bi-Level

Fine Star prene fibres with flagged ends to hold water and cleaning solutions for easier washing.

BLA Code	Colour
265910	Yellow

Star brite® Extend-A-Brush

- Scrub

Star brite® Extend-A-Brush heads are made with Star prene, a lightweight polymer fibre that does not stain, discolour or become brittle. It resists most cleaning chemicals and withstands heat up to 33°C. This space-age material will not rot, mildew or absorb odours.

BLA Code	Colour
265907	White

Star brite® Big Boat Medium Brush - 10" Bi-Level

Medium duty Bi-Level 10" head for all around cleaning of soiled and stained surfaces. It resists most cleaning chemicals and withstands heat up to 33°C. This space-age material will not rot, mildew or absorb odours. 10" head covers a lot of area for fast cleaning.

BLA Code	Colour
265911	Blue

Star brite® Big Boat Coarse Brush - Bi-Level Scrubber

Coarse bristles head for tough cleaning. This space-age material will not rot, mildew or absorb odours. Great for non-skid and textured surfaces.

BLA Code	Colour
265912	White

Star brite® Scrub Kit Handle - 3 Pads

Scrub Pad Kit contains 1 Handle, 1 Fine Scrub Pad, 1 Medium Scrub Pad and 1 Coarse Scrub Pad. Pads are interchangeable.

BLA Code
265916

Star brite® Scrubber - Coarse

For heavy duty cleaning Ideal for cleaning boat hulls. Can be use as a hand scrubber or attached to any handle using the Knuckle Attachment (**265921**).

BLA Code	Colour
265913	Black

Star brite® Utility Brushes

These brushes feature Star prene fibres with flagged ends to hold water and cleaning solutions for easier washing. Utility brush is designed for hard work. Ideal for scrubbing hard to reach areas, waterlines, baitwells. The Long Handle brush has 50mm bristle trim and is 50cm long.

BLA Code	Description
265917	Utility Brush
265918	Utility Brush Long Handle

Star brite® Scrubber - Medium

Medium Scrub Pad for all-purpose scrubbing excellent for cleaning teak. Attaches to Premium Handles with the use of Star brite's Adjustable Knuckle (**265921**).

BLA Code	Colour
265914	Red

Star brite® Scrub Brush

Scrub Brush with medium bristles are great for general cleaning Ideal for cleaning all surfaces including vinyl. Moulded plastic block with comfortable finger indents on the handle.

BLA Code
265919

Star brite® Super Scrubber - Fine

Fine Scrub Pad for all-purpose scrubbing for heavy duty cleaning. Ideal for cleaning boat hulls. Attaches to Premium Handles with the use of Star brite's Adjustable Knuckle (**265921**).

BLA Code	Colour
265915	White

Star brite® Cone Tire Rim Cleaning Brush

Specially designed for cleaning trailer wheel rims. 9 x 3 diameter tapers to 1 1/4 diameter. 228mm long x 76mm tapers to 31mm diameter.

BLA Code
265920

Star brite® Adjustable knuckle

For use with all Extend-A-Brush Premium Handles to obtain an offset adjustment of scrubber pads.

BLA Code
265921

Star brite® Support Pole Tip

Attaches to all Extend-A-Brush Premium Handles to make an adjustable support for boat covers. Constructed of nylon for years of maintenance free services.

BLA Code
265926

Star brite® Boat Hook

Fits all Extend-A-Brush Premium Handles.

BLA Code
265924

Star brite® Wool Wash Mitt

Synthetic wool side holds a large amount of washing solution. It is soft enough to prevent scratching, yet durable for years of maintenance free use. Glove-style mitt is great for washing large areas in minimal time.

BLA Code
265927

Star brite® Screw Thread Adaptor

Allows use of screw thread accessories with Extend-A-Brush Premium Handles. Constructed of unbreakable glass reinforced nylon for years of trouble free use.

BLA Code
265925

Star brite® Bulk Bilge Pads

- 100 Bail

The most effective way to clean up or avoid an oil or fuel spill. 43cm x 48cm heavy weight.

BLA Code
265720

Star brite® Mops

The pure cotton rope type mop removes dirt and grime from most every type of surface. The super absorbent synthetic chamois makes cleaning decks and floors easy. Mops will only fit quick-connect handles.

265922

265923

BLA Code	Description
265922	Cotton Mop
265923	Chamois Mop

Star brite® Cotton Diaper Polishing Cloths

- 3 Pack

Super absorbent, 100% pure cotton diapers, the best cloth for polishing.

BLA Code
265928

Star Brite Squeegee - Water

Surgical-grade silicone T-shaped blade is the most efficient way to whisk water from all marine surfaces. Edge flexes to follow shape and contour of surface being dried.

BLA Code
265930

Star brite® Supersorb Smooth Synthetic PVA Wipes

Excels at all drying tasks - absorbs up to 50% more than a natural chamois. Giant 68cm x 43xcm size.

BLA Code
265933

Star Brite Squeegee
- Super Metal

304mm in length. Durable metal construction, large squeegee blade is great for larger windows. For hand use only, will not attach to handles and extension handles.

BLA Code
265931

Star brite® Supersorb Synthetic PVA Block

Synthetic PVA material is super absorbent and outlasts and out absorbs all conventional cellulose sponges.

BLA Code
265934

Star Brite Squeegee
- Ergonomic

Ergonomic design is extremely comfortable. The squeegee blade is moulded to a durable curved handle. Won't scratch fibreglass, painted surfaces, glass, plastic or metal surgaces.

BLA Code
265932

Star brite® 2-in-1 Cellulose Scrubber & Sponge

Heavy duty scrubber pad bonded to a super absorbent sponge, great for removing heavy grime, dirt and stains.

BLA Code
265935

Star brite® Big Boat Bucket
- 18.9L

Heavy duty polyethylene construction makes it almost indestructible. Use for cleaning, holding bait and supplies. Made in USA.

BLA Code
265929

Star brite® All Purpose Boat Bucket - 13L

Heavy duty polyethylene construction makes it almost indestructible. Use for cleaning, holding bait and supplies. Made in USA.

BLA Code
265936

Star brite® Boat Hook & Extending Handle

The handle is super strong yet lightweight, constructed of aircraft grade, triple anodised aluminium. The boat hook is made of unbreakable glass-reinforced nylon. quick connect/disconnect allows use of all Extend-A-Brush accessories. The special yoke design allows for easy line handling and pick-ups.

BLA Code	Description
265937	Boot Hook & Extending Handle
265938	Big Boat Hook & Extending 3m Handle

Star brite® Cellulose Sponge

- Big Boat

Huge bail sponges; great for soaking up any liquid. Absorbs more than 946ml (1 qt.) of liquid. Half moon design makes it easy to grip for quick clean-up (**265947**).

BLA Code	Description	Length mm	Width mm
265945	Cellulose Big Boat Sponge	177	75
265946	Cellulose Big Boat Sponge	228	100
265947	Cellulose Hand Grip Sponge	197	89

Star brite® Detail Brush

Plastic handle is moulded with comfortable finger grips 1.3cm bristle trim Block size is 193mm x 11mm. Available in Nylon, Brass and Stainless bristles.

BLA Code	Material
265939	Nylon Bristles
265940	Brass Bristles
265941	S/SBristles

Star brite® Reggae Microfibre Sponge

Microfibre material is highly absorbent yet super soft, so it will not scratch gelcoat or painted surfaces.

BLA Code
265948

Star brite® Utility Brush

Small plastic utility brush with 5/8 inch bristle trim. Block size is 184mm x 38mm. Available in brass or nylon bristles.

BLA Code	Material
265942	Brass Bristles
265943	Nylon Bristles

Star brite® Combo Economy Handle & Economy Brush

This handle is low on price, but big on performance, with a strong inner core construction with durable plastic coating for corrosion resistance. Comes with nylon screw thread end; polypropylene brush head is impervious to sun, salt and chemicals and won't split or warp like wood brush heads. Star prene fibres provide durability and performance for all-around cleaning.

BLA Code	Description
265949	Medium
265950	Coarse
265951	Soft

Star brite® Bone Shaped Sponge

Easy grip dog-bone shape 228mm x 126mm x 82mm. Excellent for all washing tasks.

BLA Code
265944

Star brite® Deck Brush Kit - Economy Telescopic

62mm x 122mm telescoping aluminum handle. 203mm standard deck brush with medium duty Star prene bristles.

BLA Code
265953

Star brite® Deck Brush Kit - Deluxe Telescoping

Medium duty 20cm deluxe deck brush with bumper and high density Star prene fibres for all-purpose deck cleaning. Pole extends from 91cm to 182cm. Features two non-slip hand grips and positive twist lock.

BLA Code	Colour
265982	Yellow

Star brite® Deluxe Utility Brush - Handle & Hand

Ergonomic handle for comfortable use. Durable bristles sweep out dirt and grime.

265958

265957

BLA Code	Description
265957	Long Handle
265958	Hand Brush

Star brite® Chamois Mop - Premium

Super absorbent synthetic chamois makes cleaning decks and floors easy. Ultra-wide synthetic chamois strips provide maximum speed-drying performance.

BLA Code
265955

Star brite® Reggae Microfibre Wash Mitt

Microfibre material is highly absorbent yet super soft, so it will not scratch gel-coat or painted surfaces.

BLA Code
265956

Star brite® Mop

The wide microfibre strips are made of the same super-absorbent material as the Reggae Mitt, Reggae Pad and Reggae Sponge so it absorbs water without scratching fibreglass or polished metal surfaces. Attaches to Star brite® extending handle; mop head can be easily removed to be wrung out.

BLA Code
265954

Star brite® Flexible Head Scrubber

Large pad area makes cleaning easy and quick. Interchangeable pads for fine, medium and heavy duty cleaning and scrubbing. Dual articulating connector allows pad to stay in contact with varying angled surfaces.

BLA Code
265959

Accessories:

265960	Flexible head scrubber replacement fine white
265961	Flexible head scrubber replacement medium red
265962	Flexible head scrubber replacement coarse black

Star brite® Flexible Head Scrubber Replacements

Flexible head scrubber replacements to suit flexible Head Scrubber (**265959**). Interchangeable pads for fine, medium and heavy duty cleaning and scrubbing.

265960

265962

BLA Code	Description	Colour
265960	Fine	White
265961	Medium	Red
265962	Coarse	Black

Star brite® Reggae Wet & Dry Pad

This innovative new tool is made from the same thick absorbent microfibre material as the Reggae Mitt, Reggae Mop and Reggae Sponge so it absorbs water without scratching glass, fibreglass, polished metal surfaces or even delicate clear plastic enclosures. When the reggae pad becomes saturated, simply loosen the drawstring to remove the pad from the triangular plastic base so you can then easily wring it out and remove the water.

BLA Code
265963

Star brite® Scrub Pad With Handle

Durable, comfortable handle makes cleaning simple and easy. Pads are interchangeable.

265964

BLA Code	Description	Colour
265964	Fine	White
265965	Medium	Red
265966	Coarse	Black

Star brite® EZ Hooker Boat Hook

Makes attaching a winch strap to a bow loop easy – eliminates need to get into water.

BLA Code
265967

Star brite® Shurhold Brush Head Adapter - Star brite® Handle

Made from triple anodised aluminum. Makes connection between any Shurhold brush to any Premium Star brite® Extend-A-Brush handle.

BLA Code
265968

Star brite® Brush Head Adapter To - Shurhold Handle

Made from triple anodised aluminum. Makes connections between any Premium Star brite® Extend-A-Brush brush to a Shurhold handle.

BLA Code
265969

Star brite® Premium Handle - Heavy Duty Extending 914mm - 1.83m

Lightweight and incredibly strong. Constructed of heavy-duty aircraft grade, triple anodised aluminum to provide years of maintenance free use. Medium duty Star prene fibres for all-around cleaning of soiled and stained surfaces (**265974**). Extends from 94cm (3ft.) to 183cm (6 ft.).

265973

BLA Code	Model
265973	94cm - 1.83m
265974	94cm - 1.83m w/Brush

Star brite® Deluxe Brush

This is a soft fibre head that will outlast all other brush heads. There is no finer brush on the market. These premium brush heads are also available in coarse (white) and medium (blue) for all your washing needs.

265975

BLA Code	Description	Colour
265975	Fine	Yellow
265976	Medium	Blue
265977	Coarse	White

Star brite® Boat Scuff Eraser

The fastest way to remove stains, scuffs and streaks from fibreglass and vinyl surfaces. Each package contains 2 Boat Scuff Erasers.

BLA Code
265992

Star brite® Synthetic Wood Block Brush - Bumper Edge

Lightweight synthetic block combines the beauty of wood with extreme durability. Bumper edges help prevent scuff marks. Fits all Extend-A-Brush handles. Soft fibres with flagged ends are ideal for cleaning fibreglass, metal and most painted surfaces (**265978** only). Medium fibres with flagged ends are ideal for cleaning soiled and stained surfaces (**265979**). Stiff fibres with flagged ends are ideal for tough cleaning tasks (**265980**).

265978

265979

265980

BLA Code	Description	Colour
265978	Soft	Yellow
265979	Medium	Blue
265980	Stiff	White

Star brite® Teak Scrub

Excellent for cleaning dirt and stains from teak. Use instead of bronze wool in all heavy cleaning applications. Made of marine grade stainless steel.

BLA Code
265691

Star brite® Clear Plastic Window Savers

Prevents clear acrylic windows from scratching and burning from sun heated rails.

265692

BLA Code	Size mm
265692	25
265693	22

Star brite® Premium Handle & Block

- Heavy Duty Extending 914m - 1.83m

Lightweight synthetic block combines beauty of wood with extreme durability. Impervious to exposure of U.V. rays, cleaning agents and weather. Bumper edges help prevent scuff marks.

BLA Code
265981

Star brite® Boat Hook

- 1.2m - 2.4m

Telescoping pole extends from 124 cm (4 ft.) to 243 cm (8 ft.) with a special fast locking cam action. Floats and is made of unbreakable, glass reinforced nylon. Also available in a dsplay box of 24.

BLA Code	QTY
265984	1
265985	24

Star brite® Brush Merchandising Display

An extensive range of brushes, scrubbers, sponges, wash mitts, mops, handles and attachments. Display module included.

BLA Code	Description
265986	With Rack

Star brite® Extend-a-brush Mini Tower Display

Offer your customers an excellent choice of select Extend-A-Brush poles, brushes and accessories. A bright chrome finish and lockable caster wheels for easy movement. Display module included.

BLA Code
265988

Star brite® Extend-a-Brush 12 Piece Brush Display

Attractive cardboard display holds 12 brush combos utilising only a few square feet of space. Display can be customised with your choice of handle and brush combos. Floatable handles. Display module included.

265989

BLA Code	Colour
265989	Yellow
265990	Yellow/blue

Star brite® Extend-a-Brush 18 Piece Brush Display

Attractive cardboard display holds 3 x standard extending handle with soft deluxe brush yellow, 3 x standard extending handle with medium deluxe brush blue and 12 x exconomy boat hook. Display module included.

BLA Code
265991

STEERING WHEELS

PVC Steering Wheels	726-727
Aluminium Steering Wheels	727-729
Mahogany Steering Wheel	729
Stainless Steel Steering Wheels	729-730
Timber Steering Wheel	730
Sierra® Pro Trim Control	730
Lewmar® & Other Sailing Steering Wheels	731-732

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

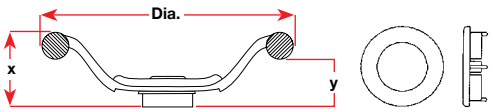
A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Luisi Steering Wheel

- Laguna Four Spoke PVC

Black four spoke wheel manufactured from U.V. stabilised thermo plastic with cast alloy hub centre. Supplied complete with plastic centre cap and medallion. Suits standard ¾" tapered shaft.



Plastic centre cap

BLA Code	Dia. mm	Dia. in	x mm	y mm
271026	335	13.2	106	80

Accessories:

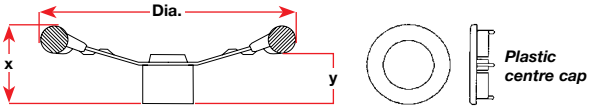
271002 Replacement medallion

CE

Luisi Steering Wheel

- Champion Three Spoke PVC

Black three spoke wheel manufactured from U.V. stabilised thermo plastic. Italian styled weather resistant black grip. Cast alloy hub suits standard ¾" tapered shaft. Supplied complete with plastic centre cap and medallion.



Plastic centre cap

BLA Code	Dia. mm	Dia. in	x mm	y mm
271030	340	13.4	83	58

Accessories:

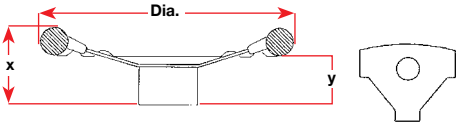
271002 Replacement medallion

CE

Luisi Steering Wheel

- Champion Deluxe Three Spoke PVC

Black three spoke wheel manufactured from U.V. stabilised thermo plastic. Italian styled weather resistant black grip. Cast alloy hub centre to suit a standard ¾" tapered shaft. Supplied complete with plastic centre cover and medallion.



Plastic centre cover

BLA Code	Dia. mm	Dia. in	x mm	y mm
271040	340	13.4	83	58

Accessories:

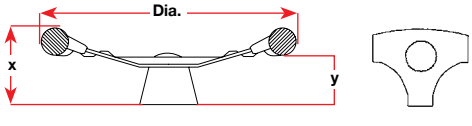
271002 Replacement medallion

CE

Luisi Steering Wheel

- Stealth Three Spoke PVC

Black three spoke wheel manufactured from U.V. stabilised thermo plastic. Italian styled weather resistant black grip. Cast alloy hub centre to suit a standard ¾" tapered shaft. Supplied complete with plastic centre cover and medallion.



Plastic centre cover

BLA Code	Dia. mm	Dia. in	x mm	y mm
271050	350	13.8	97	69

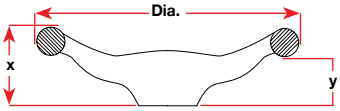
Accessories:

271002 Replacement medallion

CE

Steering Wheel - Legend Four Spoke PVC

Four spoke wheel manufactured from U.V. resistant PVC and thermo plastic. Features hand stitched leather look grip. Cast alloy hub centre suits a standard ¾" tapered shaft.



BLA Code	Rim Colour	Dia. mm	Dia. in	x mm	y mm
271060	Black	340	13.4	98	64

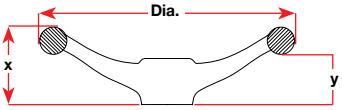
Accessories:

271002 Replacement medallion

Luisi Steering Wheel

- Ace Three Spoke PVC

Three spoke wheel manufactured from U.V. resistant PVC. Features two toned leather look with cast ¾" alloy hub.



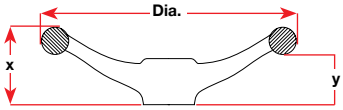
BLA Code	Rim Colour	Dia. mm	Dia. in	x mm	y mm
271024	Black	340	13.4	86	64

Accessories:

271002 Replacement medallion

Steering Wheel - Viper Three Spoke PVC

Three spoke wheel manufactured from U.V. resistant PVC and thermo plastic. Features hand stitched leather look grip. Cast alloy hub centre suits a standard ¾" tapered shaft. Supplied complete with centre cap and medallion.



Plastic centre cap

BLA Code	Rim Colour	Dia. mm	Dia. in	x mm	y mm
271086	Black	340	13.4	102	72

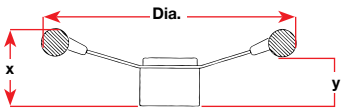
Accessories:

271003 Replacement medallion

Luisi Steering Wheel

- Manta Three Spoke Aluminium

Italian manufactured three spoke aluminium steering wheel. Features hand stitched black leather look polyurethane grip, brushed black anodised spokes and cast alloy hub to suit a standard ¾" tapered shaft. Supplied with plastic centre cap and medallion.



Plastic centre cap

BLA Code	Dia. mm	Dia. in	x mm	y mm
271090	357	14	101	70

Accessories:

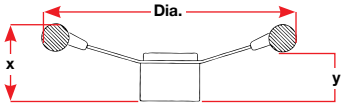
271002 Replacement medallion

CE

Luisi Steering Wheel

- Sport Three Spoke Aluminium

Sports style aluminium three spoke black anodised wheel. Ergonomic soft urethane black grip. Cast alloy hub, to suit a standard ¾" tapered shaft. Supplied complete with plastic centre cap and medallion.



Plastic centre cap

BLA Code	Dia. mm	Dia. in	x mm	y mm
271110	310	12.2	97	68

Accessories:

271002 Replacement medallion

CE

Luisi Steering Wheel

- Orion Three Spoke Aluminium

Italian manufactured three spoke anodised wheel. Polyurethane textured hand holds. Cast alloy hub accepts standard ¾" tapered shaft. Plastic centre cap with medallion included.

271170

271172

Plastic centre cap

BLA Code	Rim Colour	Dia. mm	Dia. in
271170	Silver/black/silver	355	14
271172	Black/silver	355	14

Accessories:

271002 Replacement medallion

CE

Luisi Steering Wheel

- Orion Three Spoke Aluminium

Stylish Italian made 3 spoke U.V. resistant polyurethane steering wheels avialable in two toned black/black and black silver comes with ¾" cast alloy hub. Plastic centre cap with medallion included.

Plastic centre cap

BLA Code	Rim Colour	Dia. mm	Dia. in
271174	Black/black	355	14

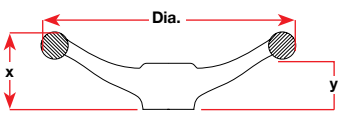
CE

Luisi Steering Wheel

- Elba Three Spoke Aluminium

Italian styled three spoke, brushed aluminium sports wheel. Features flat top for easy instrument viewing and black polyurethane textured rim with moulded hand grip positions. Cast alloy hub to suit a standard ¾" tapered shaft. Plastic centre cap and medallion included.

271116



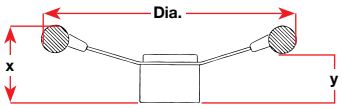
BLA Code	Dia. mm	Dia. in	x mm	y mm
271114	280	11	83	52
271116	320	12.6	86	52

CE

Luisi Steering Wheel

- Portofino Three Spoke Aluminium

Combines Italian design, styling and functionality. Three spoke, black anodised aluminium sports wheel. Features flat bottom to provide additional leg room and black polyurethane textured rim with moulded hand grip positions. Cast alloy hub to suit a standard ¾" tapered shaft. Plastic centre cap and medallion included.

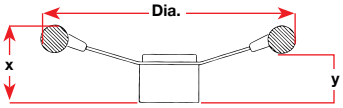


BLA Code	Dia. mm	Dia. in	x mm	y mm
271186	355	14	94	63

CE

Steering Wheel - Portocino Three Spoke Mahogany

Three spoke, sports timber wheel. Features high gloss varnished mahogany rim with matte black finished steel spokes. Cast alloy hub suits a standard ¾" tapered shaft. Supplied with plastic centre cap and medallion.



Plastic centre cap

BLA Code	Dia. mm	Dia. in	x mm	y mm
271204	350	13.8	80	48

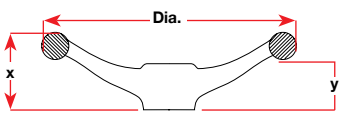
Accessories:

271208 Replacement hub
271002 Replacement medallion

Luisi Steering Wheel

- Falcon Three Spoke Aluminium

Featuring tanegum ergonomic soft black grip. Cast alloy hub, to suit a standard ¾" tapered shaft. Supplied complete with plastic centre cap and medallion.



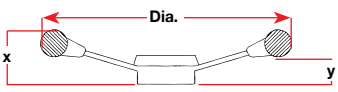
BLA Code	Dia. mm	Dia. in	x mm	y mm
271108	310	12.2	100	72

CE

Luisi Steering Wheel

- Leader Six Spoke Stainless Steel

Combines both sports and traditional styling. Features six tubular stainless steel spokes and a solid simulated black or grey leather grip. Cast alloy hub accepts a standard ¾" tapered shaft. Supplied complete with polyurethane centre cover incorporating compass logo.



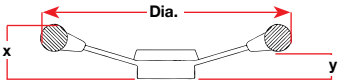
Polyurethane centre cover incorporating compass logo.

BLA Code	Colour	Dia. mm	Dia. in	x mm	y mm
271212	Black	367	14.5	97	69
271214	Grey	367	14.5	97	69

CE

Steering Wheel - Bosun Five Spoke Stainless Steel

Compact five spoke wheel combining both sports and traditional styling. Featuring stainless steel spokes with solid simulated black leather grip. Cast alloy hub suits a standard ¾" tapered shaft. Supplied complete with stainless steel centre cover and medallion.



BLA Code	Dia. mm	x mm	y mm
271210	320	74	46

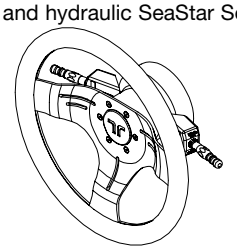
Accessories:

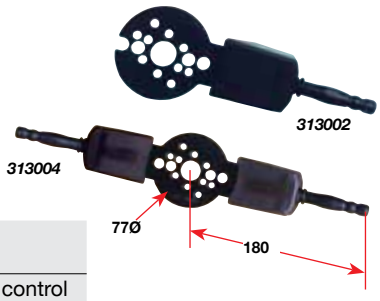
271003 Replacement medallion

CE

Sierra® Pro Trim Control

These column mounted switches offer trim or jackplate control without the need to remove your hands from the steering wheel. The U.V. stabilised, ABS switch cover blends with any dash and the strong fusion-coated bracket fits most popular steering bezels and can be adjusted for either regular or deep dish steering wheels. Available in single lever, twin function or twin lever, quad function. These kits are supplied complete with switch assembly, function decals, wiring, mounting hardware and instructions. Fits all mechanical and hydraulic SeaStar Solutions® helms.

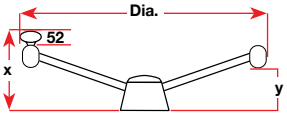




BLA Code	Description
313002	Single switch control
313004	Dual switch control

Steering Wheel - Three Spoke Stainless Steel

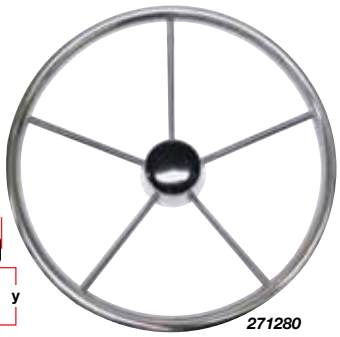
Featuring solid all stainless steel construction and finger grip detents. Fitted standard with a swivel knob for easy, fast wheel turning. Ideal in docking and low speed close quarter manoeuvring. Hub suits a standard ¾" tapered shaft. 22° dish.

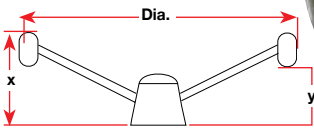


BLA Code	Dia. mm	Dia. in	x mm	y mm
271266	340	13.4	90	60
271268	393	15.5	96	69

Steering Wheel - Five Spoke Stainless Steel

Top quality dished stainless steel wheel. Screwed and welded hub. Elliptical outer ring for comfortable grip. The stainless steel hub accepts a standard ¾" tapered shaft. Supplied complete with black plastic centre cap.





BLA Code	Dia. mm	Dia. in	x mm	y mm
271280	387	15.2	104	77
271282	457	18	68	42
271285	510	20	68	45
271286	557	22	137	112

Plastic centre cap

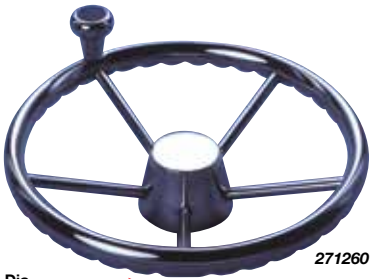
Steering Wheel - Six Spoke Timber

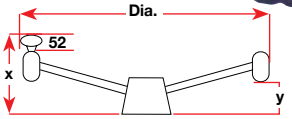
Traditionally styled in varnished acacia timber with six turned spokes. Solid brass hub accepts a standard ¾" tapered shaft. Supplied with a stainless steel centre cover.

BLA Code	Rim Overall Dia. mm	Dia. mm	Dia. in	Thickness mm
271302	298	460	18	47
271306	405	615	24	54

Steering Wheel - Five Spoke Stainless Steel

Featuring solid all stainless steel construction and finger grip detents. Fitted standard with a swivel knob for fast response wheel turning. Ideal for docking and low speed close quarter manoeuvring. Hub suits a standard ¾" tapered shaft.





BLA Code	Dia. mm	Dia. in	x mm	y mm
271260	340	13.4	90	60
271262	393	15.5	96	69

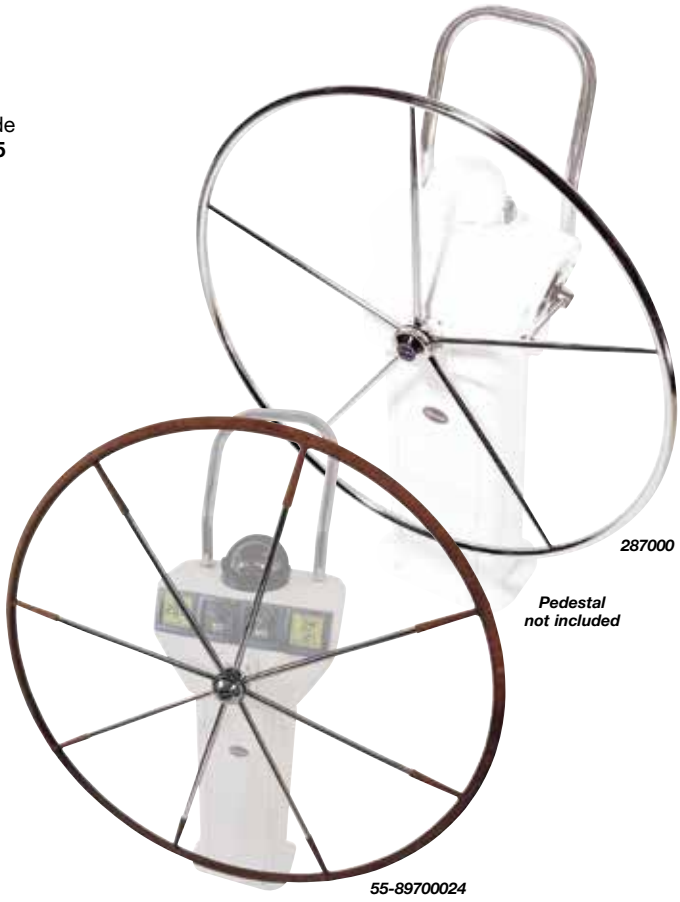
Lewmar® Steering Wheel - Commodore

LEWMAR®

Lewmar's Steering Division have been world leaders in providing sail boat steering systems for over 50 years. All wheels are CE tested and certified to meet the demands of ocean and coastal voyaging. Durable and elegantly styled, the Commodore Wheel comes in a variety of sizes and styles. Flat wheels are the standard style but dished wheels, as well as hide cover options are also available. Contact BLA on **1300 252 725** for further information.

Features:

- 25mm/1" tapered keyed shaft ensures positive fit
- Compatible with all Lewmar® steering systems



287000

Pedestal not included

55-89700024

CE

BLA Code	Description	Dia. mm	Dia. in
287000	5 Spoke Flat	760	30
287002	5 Spoke Flat	810	32
287004	5 Spoke Flat	910	36
55-89700258	5 Spoke Flat	1020	40
55-89700011	8 Spoke Flat	1070	42
55-89700012	8 Spoke Flat	1220	48
55-89700266	5 Spoke Flat Hide Covered Rim	760	30
55-89700267	5 Spoke Flat Hide Covered Rim	810	32
55-89700268	5 Spoke Flat Hide Covered Rim	910	36
55-89700269	5 Spoke Flat Hide Covered Rim	1020	40
55-89700024	8 Spoke Flat Hide Covered Rim	1070	42
55-89700025	8 Spoke Flat Hide Covered Rim	1220	48

Lewmar® Steering Wheel - Folding

LEWMAR®

Lewmar's innovative and patented Folding Wheel solves the problem of a restricted cockpit space when moored, at anchor or at the marina. It's unique, fast action folding system utilises a two turn, buttress threaded, split spoke design and a unique hinging system which allows you to easily fold and unfold the wheel using a simple twist of the composite hand grip. Available to suit Lewmar® tapered shaft as well as a dual hub version to fit tapered or 25mm/1" parallel shaft. All Folding Wheel models come complete with hide covered rim and use a standard Commodore brake spinner when fitted.

287015
Pedestal not included

BLA Code	Description	Dia. mm	Dia. in
287010	6 Spoke Hide Cover	810	32
55-89700376	6 Spoke Hide Cover	910	36
287014	6 Spoke Hide Cover	1020	40
287015	6 Spoke Hide Cover	1070	42

BLA Code	Description	Dia. mm	Dia. in
55-89700406	Dual Hub 6 Spoke Hide Cover	810	32
287019	Dual Hub 6 Spoke Hide Cover	910	36
287020	Dual Hub 6 Spoke Hide Cover	1020	40
55-89700521	Dual Hub 6 Spoke Hide Cover	1070	42

Lewmar® Steering Wheels

LEWMAR

More wheel styles are available from Lewmar®. Carbon Fibre, Mini Maxi™ (twin spoke) or the lightweight aluminium Fastnet wheels in sizes up to 1750mm/69" diameter are included in the Lewmar® range. For more information on these wheels please contact BLA on **1300 252 725**.

Mini Maxi™ Wheel

Fastnet Wheel

Carbon Wheel

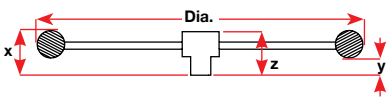
N.B. Pedestals not included

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Steering Wheel - Six Spoke Stainless Steel

Top quality flat six spoke stainless steel wheels. Spokes are welded to the stainless steel hub which is 60mm long and accepts a standard 1" straight shaft. A brass 1" to ¾" tapered bush (**294100**) can be purchased separately to suit the ¾" tapered steering shafts, on Capilano helms.

271294



294100

BLA Code	Dia. mm	Dia. in	x mm	y mm	z mm
271294	762	30	43	18	60
271296	914	36	43	18	60

Accessories:

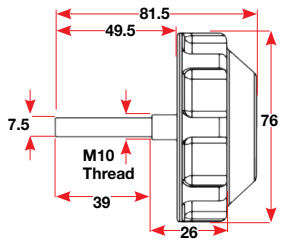
294100 Wheel bush

Lewmar® Brake Spinner

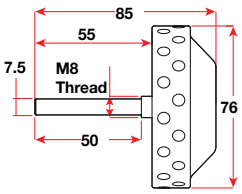
LEWMAR

The Brake Spinner is used in conjunction with the Lewmar® steering lock system to lock the wheel and rudder when on the marina, moored or anchored. Available to suit Commodore, Folding and Mini Maxi™ wheels.

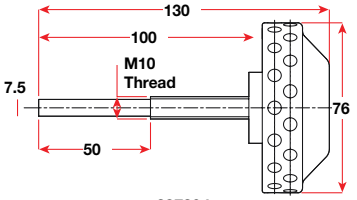
287200



SP28287018



287200 & SP28287020



287204

BLA Code	Decription	To Suit
287200	Stainless Steel	Folding & Commodore
SP28287020	White Composite (Bavaria)	Folding & Commodore
287204	Stainless Steel	Mini Maxi™
SP28287018	White Plastic	Folding & Commodore

Lewmar® DIY Hide Cover Kits

LEWMAR

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Hide covers add a touch of luxury and comfort to a stainless steel wheel. These do-it-yourself kits are ready to apply to Lewmar® Commodore wheels.

55-89700345

BLA Code	Description	Dia. mm	Dia. in
55-89700345	DIY Hide Kit 5 Spoke Brown	810	30
55-89700346	DIY Hide Kit 5 Spoke Brown	910	32
55-89700347	DIY Hide Kit 5 Spoke Brown	1020	36
55-89700348	DIY Hide Kit 5 Spoke Brown	1010	40
55-89700125	DIY Hide Kit 8 Spoke Brown	1060	42
55-89700126	DIY Hide Kit 8 Spoke Brown	1220	48

Lewmar® Quick Release Wheel Nut

LEWMAR

The Quick Release Wheel Nut allows for quick removal of the wheel from the pedestal using a standard winch handle. Made from 316 grade stainless steel.

287210

55-89700162

BLA Code	Decription	To Suit
287210	Quick Release Wheel Nut	Commodore
55-89700162	Quick Release Wheel Nut	Mini Maxi™

MECHANICAL STEERING - POWER & SAIL

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

STEERING SYSTEM KITS

Popular mechanical steering systems as a packaged kit. Includes helm, bezel and cable to length.

SEASTAR SOLUTIONS

SeaStar Solutions®

Dedicated To Command And Control

SeaStar Solutions have put boaters in command and control of their vessels for over 60 years. From throttle and shift control cables to your boat's steering, to instrumentation and repair parts for your engine and drive, SeaStar Solutions® continues to lead the recreational marine industry with innovation, quality and a commitment to supplying boat builders, dealers and boaters with the parts they need, when they need them.

It's this dedication that has kept SeaStar Solutions® at the forefront of the industry – and that continues to play an important role as we grow in the 21st century.

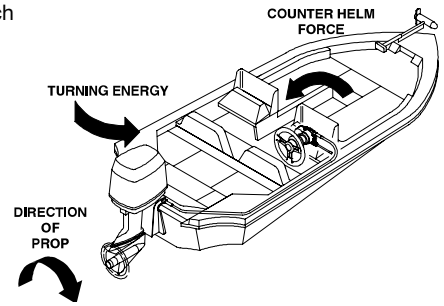
Steering System Selection Guide

	OUTBOARD										40 KNOTS +	STERN DRIVE		DISPLACEMENT			INBOARD		
	HP										or motor flutter	Non Power	Power	Inboard			to 40 knots		
SYSTEM	25	50	75	100	125	150	175	200	225	250	present	Steered	Steered	5m	7.5m	10m	5m	7.5m	10m
XTREME™ Mechanical																			
NFB Safe-T® II																			
Quick Connect 3 Turn Single Cable																			
Quick Connect 3 Turn Twin Cable																			
Command 290 Rotary																			
Quick Connect 4 Turn																			
NFB 4.2 Single Cable																			
NFB Twin Cable																			
Rack																			
NFB Rack																			
HPS																			
Hydraulic																			

No FeedBack Steering for Outboards

nfb

Steering loads exist in all outboard powered boats. These steering loads are actually turning energy from your engine's propeller. **NFB** steering locks out the prop feedback load which causes hard to handle steering. With **NFB** the wheel doesn't turn until you turn it.



SeaStar Solutions® Steering System Kit - Quick Connect 3.0 Turn

The most popular boat steering system ever made. Quick response 3.0 turn system rated for all outboards and stern drives to V6. Boats travelling over 40 knots, or when engine flutter is apparent, should use twin cables. Simple and reliable quick-fit connection at the helm makes installation a snap. See page 738 for full details. Steering wheels ordered separately, refer pages 726-732.

Features:

- Quick-response of 3 turns lock-to-lock
- Kits include: cable, helm, 90° bezel and hardware
- Standard 3/4" round tapered steering shaft
- Stainless steel cable output ends
- Fast, easy installation: uses simple snap-in cable connection, SeaStar Solutions Quick Connect (QC) cable, and industry-standard Safe-T mounting hardware
- Meets A.B.Y.C. standards
- Meets N.M.M.A. certification requirements
- Made, designed and assembled in the USA

BLA Code	Description
2801XX	Complete Quick Connect kit

Kit Includes:

280132 Single cable helm
280154 90° bezel
2811XX Cable

N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System Kit - nfb (No FeedBack) Safe-T® II

Latest generation No FeedBack technology. This smooth 3.0 turn system is suitable for all single station boats with single non-power assisted outboard engines up to V4. Boats travelling over 40 knots, or when engine flutter is apparent, should use NFB 4.2 twin cable, see page 741 for details. Steering wheels ordered separately, refer pages 726-732.

Features:

- Patented No FeedBack™ Steering mechanism
- Quick response of 3 turns lock-to-lock
- Minimal clutch free play
- Standard 3/4" round tapered steering shaft
- Stainless steel cable output ends
- Fast, easy installation
- Quick Connect (QC) cable
- Kits include: cable, helm, 90° bezel and hardware
- Meets A.B.Y.C. standards
- Meets N.M.M.A. certification requirements
- Made, designed and assembled in the USA

BLA Code	Description
2800XX	Complete NFB II kit

Kit Includes:

280250 Helm
280150 90° bezel
2811XX Cable

N.B. Last two digits denote cable length in feet

SUPER SMOOTH PLANETARY GEARING

SeaStar Solutions® Steering System Kit - nfb (No FeedBack) 4.2 Rotary

Built with an emphasis on safety and durability. The 4.2 turn No FeedBack mechanism eliminates engine torque feedback at the wheel, for the safest mechanical steering on the market. Suited for most single station boats with single non-power assisted outboard engines up to V6. Boats travelling over 40 knots, or when engine flutter is apparent, should use twin cables, see page 742 for details. Steering wheels ordered separately, refer pages 726-732.

Features:

- Patented No FeedBack™ Steering mechanism
- Comfortable 4.2 turns from lock-to-lock
- Minimal clutch free play
- Standard 3/4" round tapered steering shaft
- Stainless steel cable output ends
- Fast, easy installation: uses SeaStar Solutions Quick Connect (QC) steering cable
- Kits include: cable, helm, 90° bezel and hardware
- Meets A.B.Y.C. standards
- Meets N.M.M.A. certification requirements
- Made, designed and assembled in the USA

BLA Code	Description
2802XX	Complete NFB 4.2 Rotary kit

Kit Includes:

280232	Single cable helm
280150	90° bezel
2811XX	Cable

N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System Kit - HPS 3.0 Turn Planetary Gearing

A super smooth planetary drive steering system designed particularly to suit stern drives with power steering. High Performance Steering (HPS) reduces backlash associated with power steered boats by up to 50%. All the components required to create a basic HPS steering system are included. Cable lengths range from 6 feet to 40 feet, see page 740 for details. Steering wheels ordered separately, refer pages 726-732.

Features:

- Designed exclusively for boats with power-assisted steering
- Unique 3-turn helm with planetary gears and coated helical steering cable combine to deliver a compact helm with incredible response and minimal lost motion
- HPS Rotary helms fit industry-standard
- SeaStar Solutions dash cutouts: either Safe-T/Rotary NFB™ or Tilt
- Compact helm takes up little room behind the dash
- Designed to handle normal steering loads
- Standard 3/4" round tapered steering shaft
- Stainless steel cable output ends
- Fast, easy installation: uses SeaStar Solutions Quick Connect™ (QC) cable & standard Safe-T mounting hardware
- Meets A.B.Y.C. standards
- Meets N.M.M.A. certification requirements
- Made, designed and assembled in the USA

BLA Code	Description
2806XX	Complete HPS steering kit

Kit Includes:

280646	Helm
280154	90° bezel
2816XX	Cable

N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System Kit - The Rack

Rack and pinion mechanism for improved efficiency and precision. Easy feel 4 turn system rated for all outboards and stern drives to V6. Boats travelling over 40 knots, or when engine flutter is apparent, should use twin cables. Back mount design allows fast installation of the cable and helm as a unit from behind the dash, see page 746 for details. Steering wheels ordered separately, refer pages 726-732.

Features:

- Precise, easy 4 turns lock-to-lock
- Kits include: cable, helm, 90° bezel and hardware
- Standard 3/4" round tapered steering shaft
- Stainless steel cable output ends
- Fast, easy installation: back mount design allows quick placement in dash plus mounting hardware fits industry-standard SeaStar Solutions rack holes
- Meets A.B.Y.C. standards
- Meets N.M.M.A. certification requirements
- Made, designed and assembled in the USA

BLA Code	Description
2803XX	Complete Rack steering kit

Kit Includes:

280346 Helm
280350 90° bezel
2813XX Cable

N.B. Last two digits denote cable length in feet

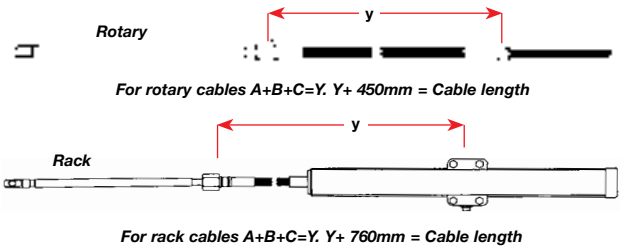
How to measure steering cables

Measure cable routing path from wheel centre line to engine connection as follows:

- **A** - Centre line of wheel to gunwale (or deck, if routed downward)
- **B** - Dash to transom
- **C** - Gunwale to centre line of cable connection at centred tiller

For cable installations through the engine tilt tube - Add A, B and C, then add 150mm, then round up to the next size. Order that length cable.

For cable mounted to transom, splashwell or stringer - Add A, B and C, then subtract 150mm and round up to the next size. Order that length cable.



For rotary cables A+B+C=Y. Y+ 450mm = Cable length

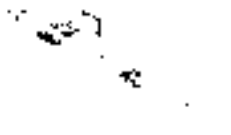
For rack cables A+B+C=Y. Y+ 760mm = Cable length

Replacement of existing cable:

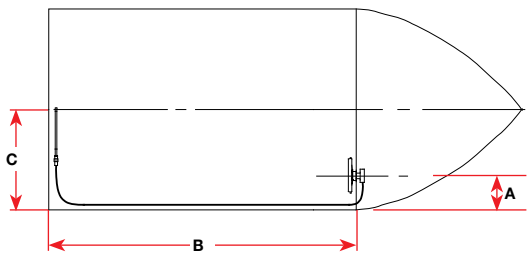
If possible, find the part number stamped on the plastic jacket of the old cable. If you removed the old cable, measure the replacement cable as per the diagrams on the right.

Cable Through Engine Tilt Tube

Splashwell Cable Mount



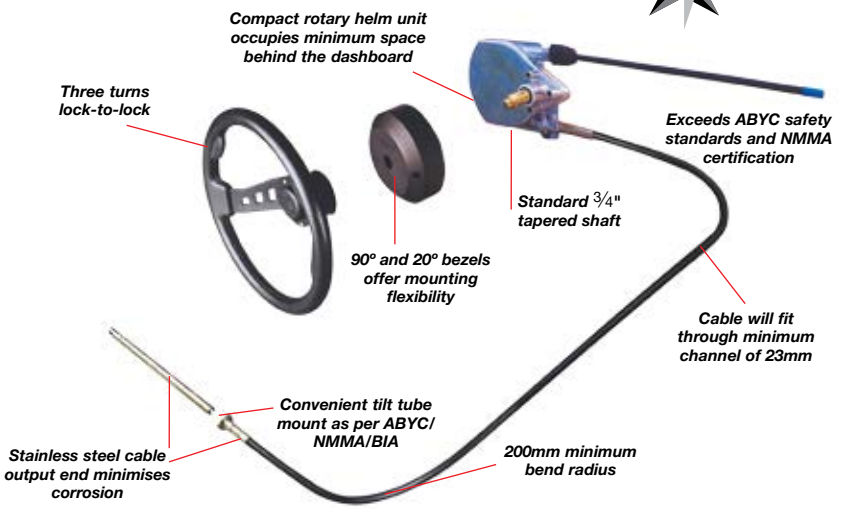
Transom Cable Mount Similar to Stringer Type



VISIT BLA INFO CENTRE AT BLA.COM.AU TO DOWNLOAD RELEVANT TEMPLATES.

SeaStar Solutions® Steering System - Quick Connect 3.0 Turn

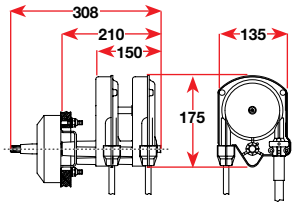
The Quick Connect steering system is the OEM's choice for simple, safe, reliable, easy to install steering for boats up to 7.5m and all outboards to V6. Boats travelling over 40 knots, or when engine flutter is apparent, should use twin cables. This system does not require tools to connect the cable to the helm reducing installation time by up to 50%. The nut on the engine end is trapped in place which saves time chasing coupler nuts during installation. Suitable for steering wheels up to 400mm. Twin cable systems, for a single engine, require the purchase of an additional genuine outboard twin tube mount kit.

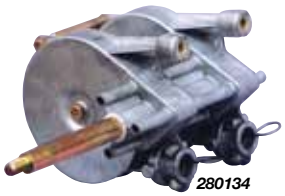


SeaStar Solutions® Helms

- Quick Connect 3.0 Turn

Durable die cast alloy housings with rotary mechanism. The **280134** dual cable helm is recommended for high load applications. Accepts SSC62 cables.



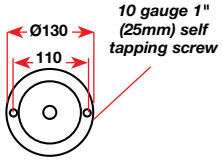


BLA Code	Description
280132	Single cable QC helm
280134	Dual cable QC helm

SeaStar Solutions® Bezel Kits

- Quick Connect

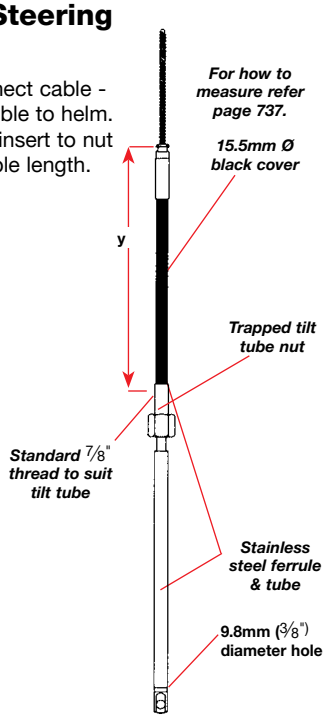
Bezel kits include mount brackets and fastenings for **280132** and **280134** helms.



BLA Code	Degree	Bezel Colour
280152	20°	Black
280154	90°	Black

SeaStar Solutions® Steering Cables - Quick Connect

SSC62 type push in quick connect cable - no tools required to connect cable to helm. Length is measured from helm insert to nut plus 450mm. Y + 450mm = cable length.

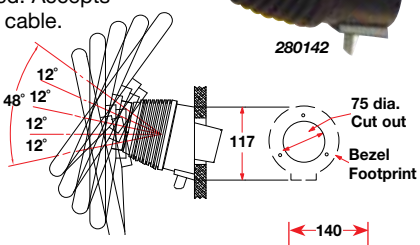


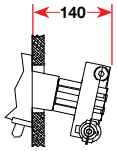
BLA Code	Cable Length ft	m
281109	9	2.74
281110	10	3.05
281111	11	3.35
281112	12	3.66
281113	13	3.96
281114	14	4.27
281115	15	4.57
281116	16	4.88
281117	17	5.18
281118	18	5.49
281119	19	5.79
281120	20	6.10
281121	21	6.40
281122	22	6.71
281123	23	7.01
281124	24	7.32
281125	25	7.62

SeaStar Solutions® Tilt Sport Steering

- Quick Connect 3.0 Turn

Tilt steering is an option that allows the wheel to be pivoted through a 48° arc in 5 increments (42° up 6° down). Tilt helms have modified shafts and are for use with tilt mechanisms only. Helm and mechanism required. Accepts SSC62 Quick Connect cable.





BLA Code	Description
280142	Performance tilt mechanism
280144	Tilt helm QC single

SeaStar Solutions® Steering System Kit

– Quick Connect 3.0 Turn

BLA Code	Description
2801XX	Includes helm, bezel and cable

N.B. Last two digits denote cable length in feet

How to Order

To order a complete set of Quick Connect 3.0 Turn steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit or tilt mechanism, 1 x cable and 1 x connection kit if required. Alternatively BLA offer a pre-packaged basic system that includes a **280132** helm, **280154** bezel and **2811XX** cable.

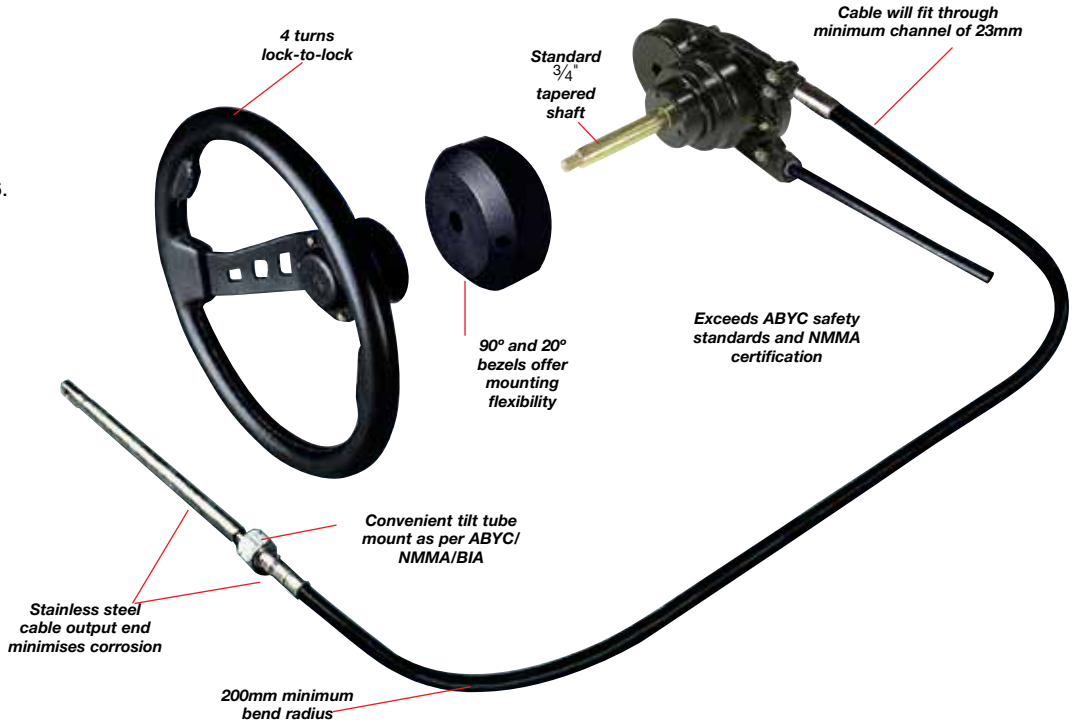
N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System - Quick Connect 4.0 Turn

The 4.0 turn gearing provides surprisingly light turning with engine feel. The precision die-cast alloy helm unit incorporates the Quick Connect helical cable system for fast, easy installation.

Applications:

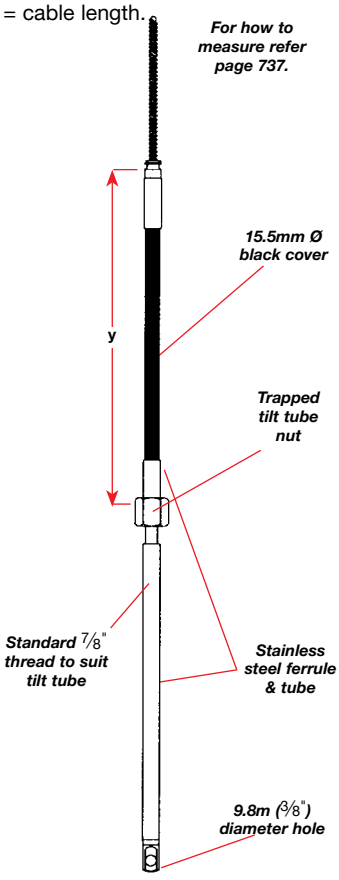
- Wheels up to 400mm
- Sportboats
- Pontoon boats
- Runabouts
- Centre consoles
- All outboards to V6. Not recommended for boats travelling over 40 knots, or when engine flutter is apparent



SeaStar Solutions® Steering Cables

– Quick Connect

SSC62 type push in quick connect cable - no tools required to connect cable to helm. Length is measured from helm insert to nut plus 450mm. Y + 450mm = cable length.

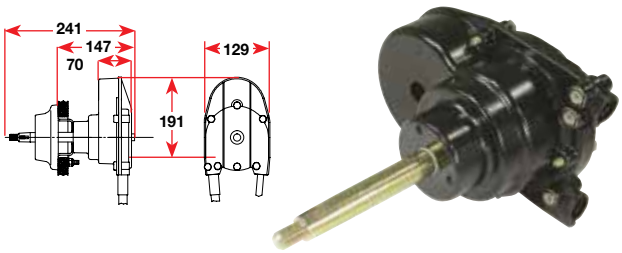


BLA Code	Cable Length ft	m
281109	9	2.74
281110	10	3.05
281111	11	3.35
281112	12	3.66
281113	13	3.96
281114	14	4.27
281115	15	4.57
281116	16	4.88
281117	17	5.18
281118	18	5.49
281119	19	5.79
281120	20	6.10
281121	21	6.40
281122	22	6.71
281123	23	7.01
281124	24	7.32
281125	25	7.62

SeaStar Solutions® Helm

– Quick Connect 4.0 Turn

Durable die cast black alloy housing with rotary mechanism. Accepts SSC62 Quick Connect cables.

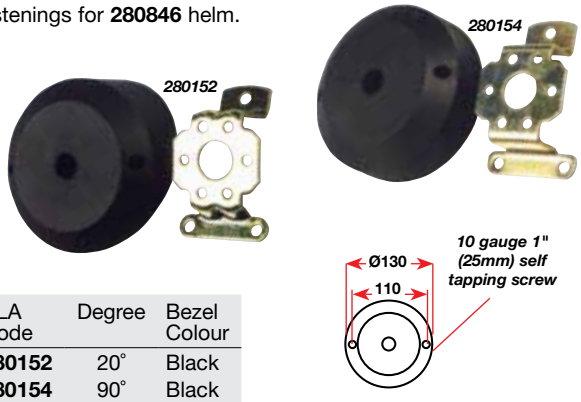


BLA Code	Description
280846	Single cable 4.0 turn rotary helm

SeaStar Solutions® Bezel Kits

– Quick Connect

Bezel kits include mount brackets and fastenings for **280846** helm.



BLA Code	Degree	Bezel Colour
280152	20°	Black
280154	90°	Black

How to Order

To order a complete set of Quick Connect 4.0 Turn steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit, 1 x cable and 1 x connection kit if required.

SeaStar Solutions® Steering System

- HPS 3.0 Turn Planetary Gearing

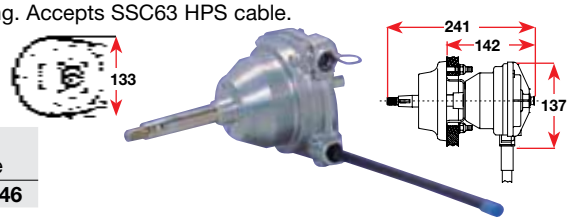
High Performance Steering (HPS) designed specifically for stern drives with power steering. With only three turns lock to lock it is a very direct steering system that provides the ultimate in response with minimal backlash often associated with power steered boats. Can reduce backlash by up to 50%. Planetary drive gearing and coated helical inner SSC63 steering cable combine to deliver incredibly smooth steering with minimal lost motion.

SUPER SMOOTH PLANETARY GEARING

SeaStar Solutions® Helm

– HPS 3.0 Turn Planetary Gearing

Durable die cast alloy housing with low friction, planetary gearing. Accepts SSC63 HPS cable.



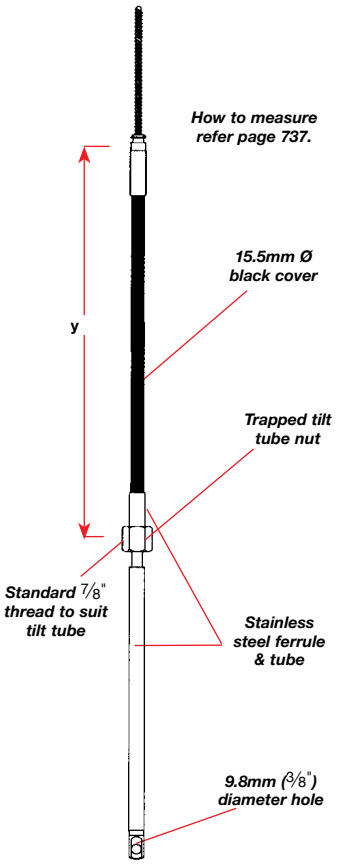
BLA Code
280646

SeaStar Solutions® Steering Cables

- HPS 3.0 Turn Planetary Gearing

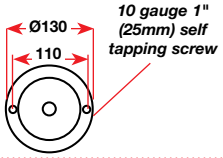
SSC63 quick connect cable with coated helical inner core for ultimate smoothness. Length is measured from helm insert to nut, plus 450mm. Y + 450mm = cable length.

BLA Code	Cable Length ft	m
281606	6	1.83
281607	7	2.13
281608	8	2.44
281609	9	2.74
281610	10	3.05
281611	11	3.35
281612	12	3.66
281613	13	3.96
281614	14	4.27
281615	15	4.57
281616	16	4.88
281617	17	5.18
281618	18	5.49
281619	19	5.79
281620	20	6.10
281621	21	6.40
281622	22	6.70
281623	23	7.01
281624	24	7.32
281625	25	7.62
281626	26	7.93
281627	27	8.23
281628	28	8.53
281629	29	8.84
281630	30	9.14
281632	32	9.75
281634	34	10.36
281636	36	10.97
281638	38	11.58
281640	40	12.19



SeaStar Solutions® Bezel Kits

Bezel mount kits include all brackets and fastenings to suit **280646** helm.

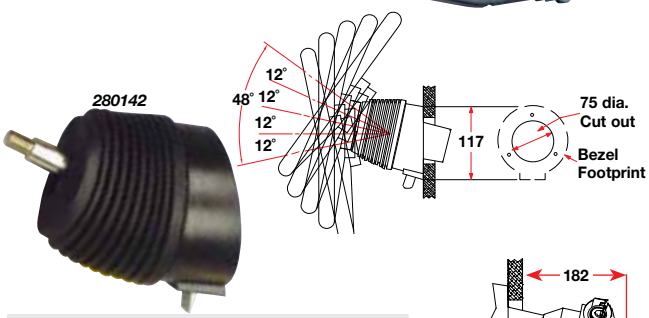


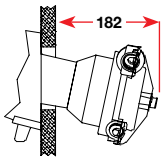
BLA Code	Degree	Bezel Colour
280152	20°	Black
280154	90°	Black

SeaStar Solutions® Tilt Sport Steering

– HPS 3.0 Turn Planetary Gearing

Tilt steering is an option that allows the wheel to be pivoted through a 48° arc in 5 increments. Tilt helms have modified shafts and are for use with tilt mechanisms only. Helm and mechanism required. Accepts SSC63 HPS cable.





BLA Code	Description
280142	Performance tilt mechanism
280648	HPS tilt steering helm

How to Order

To order a complete set of HPS steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit or tilt mechanism, 1 x cable and 1 x connection kit if required. Alternatively we offer a pre-packaged basic system **2806XX**, that includes a **280646** helm, **280154** bezel and **2816XX** cable.

N.B. Last two digits denote cable length in feet

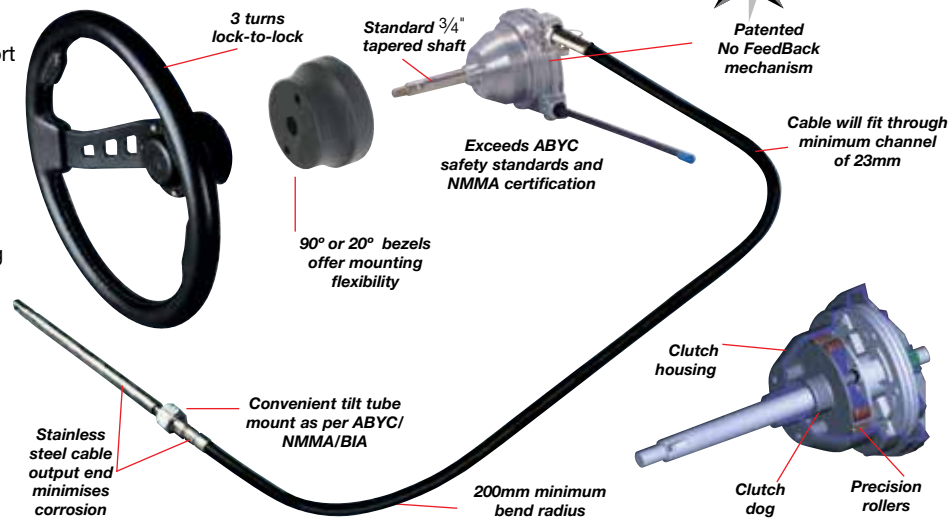
SeaStar Solutions® Steering System - nfb Safe-T® II

It's the next generation of the world's number one rotary steering system; rugged, compact, lightweight and with the latest No FeedBack technology. There simply isn't an easier way to upgrade to the comfort and control of No FeedBack steering. The Safe-T® II helm fits directly into existing SeaStar Solutions® rotary dash cut outs.

Applications:

All outboards to V4. Boats travelling over 40 knots, or when engine flutter is apparent, should use NFB 4.2 twin cable, see page 742.

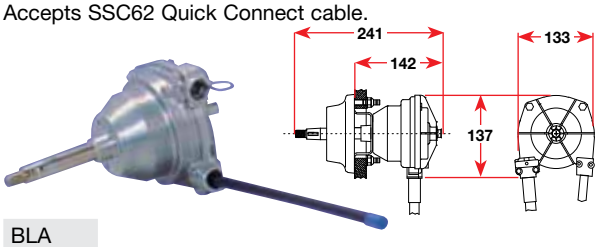
SUPER SMOOTH PLANETARY GEARING



SeaStar Solutions® Helm

- nfb Safe-T® II

Durable die cast housing, with planetary gearing. Accepts SSC62 Quick Connect cable.



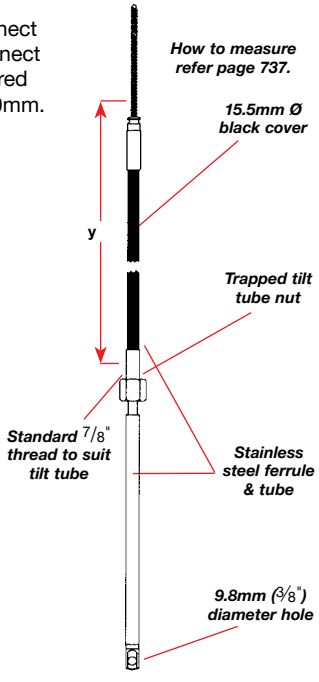
BLA Code
280250

nfb SeaStar Solutions® Steering Cables

- nfb Safe-T® II

SSC62 type push in Quick Connect cable - no tools required to connect cable to helm. Length is measured from helm insert to nut plus 450mm. Y + 450mm = cable length.

BLA Code	Cable Length ft	m
281109	9	2.74
281110	10	3.05
281111	11	3.35
281112	12	3.66
281113	13	3.96
281114	14	4.27
281115	15	4.57
281116	16	4.88
281117	17	5.18
281118	18	5.49
281119	19	5.79
281120	20	6.10
281121	21	6.40
281122	22	6.71
281123	23	7.01
281124	24	7.32
281125	25	7.62



How to Order

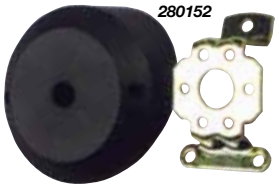
To order a complete set of NFB Safe-T® II steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit or tilt mechanism, 1 x cable and 1 x connection kit if required. Alternatively we offer a pre-packaged basic system that includes a **280250** helm, **280150** bezel and **2811XX** cable.

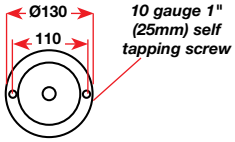
N.B. Last two digits denote cable length in feet

SeaStar Solutions® Bezel Kits

- nfb Safe-T® II

Bezel kits include mount brackets and fastenings for **280250** helm.



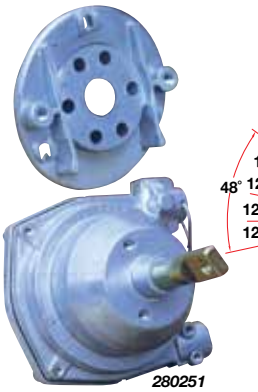


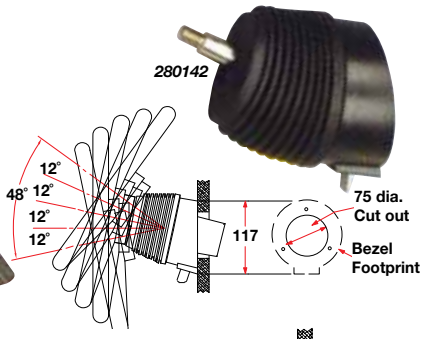
BLA Code	Degree	Bezel Colour
280150	90°	Black
280152	20°	Black

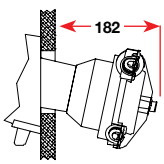
SeaStar Solutions® Tilt Sport Steering

- nfb Safe-T® II

Tilt steering is an option that allows the wheel to be moved through a 48° arc in 5 increments. Tilt helms have specially modified shafts and are for use with tilt mechanisms only. Helm and mechanism required. Accepts SSC62 Quick Connect cable.







BLA Code	Description
280142	Performance tilt mechanism
280251	nfb Safe-T® II tilt helm

SeaStar Solutions® Steering System Kit

- nfb Safe-T® II

BLA Code	Description
2800XX	Includes helm, bezel and cable

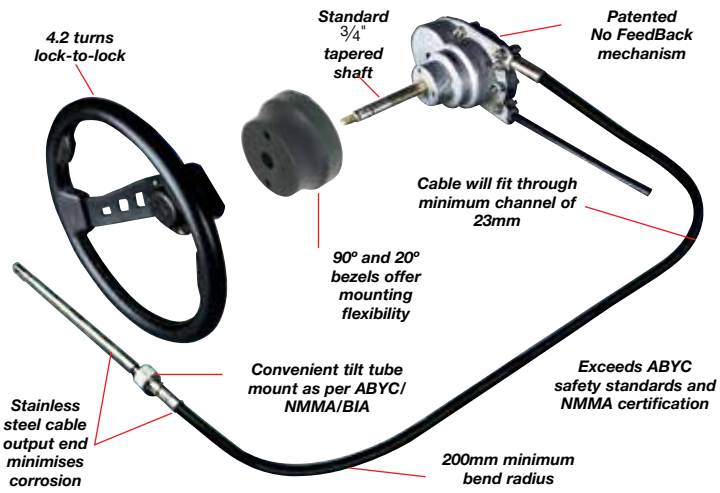
N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System - nfb 4.2 Rotary

Built with an emphasis on safety, durability and performance, the No FeedBack 4.2 helm unit effectively eliminates torque feedback at the helm making for the safest mechanical steering on the market today. The precision die-cast zinc helm unit incorporates the Quick Connect helical cable assembly for quick and easy installation. Twin cable systems, for a single engine, require the purchase of an additional genuine outboard twin tube mount kit.

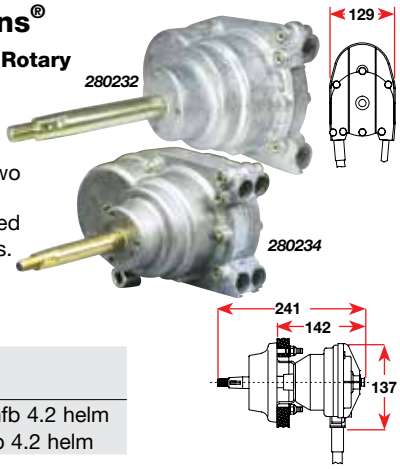
Applications:

- Wheels up to 400mm
- Runabouts
- Sportboats
- Centre consoles
- Pontoon boats
- All outboards to V6. Boats travelling over 40 knots, or when engine flutter is apparent, should use twin cables with **280234** helm



SeaStar Solutions® Helms - nfb 4.2 Rotary

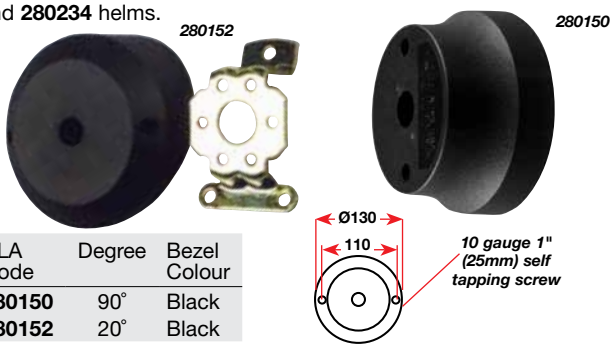
Durable die cast alloy housing with rotary non feedback mechanism. The **280234** helm with two cable connection to outboard is recommended for high load installations. Accepts **SSC62** Quick Connect cables.



BLA Code	Description
280232	Single cable nfb 4.2 helm
280234	Dual cable nfb 4.2 helm

SeaStar Solutions® Bezel Kits - nfb

Bezel kits include mount brackets and fastenings for **280232** and **280234** helms.

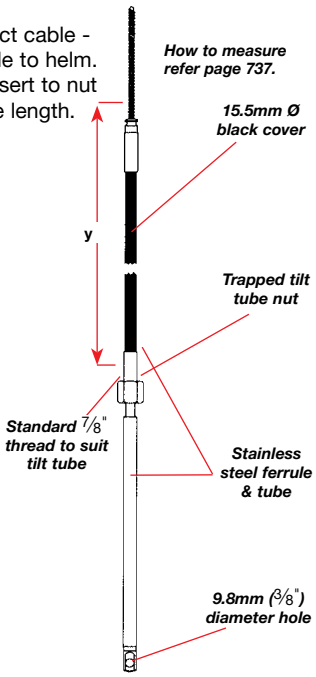


BLA Code	Degree	Bezel Colour
280150	90°	Black
280152	20°	Black

SeaStar Solutions® Steering Cables - nfb

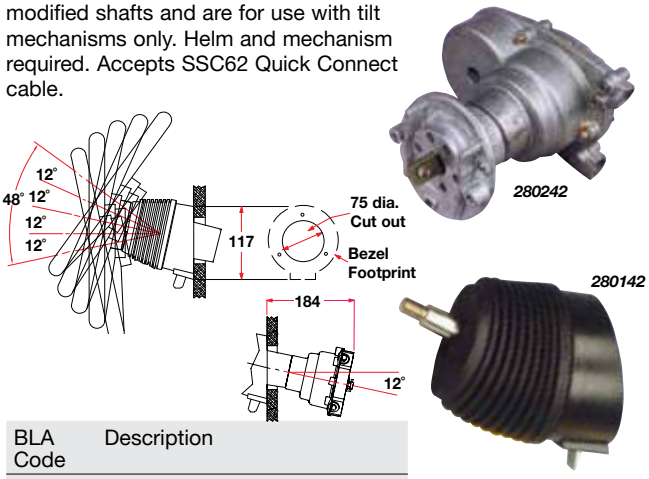
SSC62 type push in quick connect cable - no tools required to connect cable to helm. Length is measured from helm insert to nut plus 450mm. Y + 450mm = cable length.

BLA Code	Cable Length ft	m
281109	9	2.74
281110	10	3.05
281111	11	3.35
281112	12	3.66
281113	13	3.96
281114	14	4.27
281115	15	4.57
281116	16	4.88
281117	17	5.18
281118	18	5.49
281119	19	5.79
281120	20	6.10
281121	21	6.40
281122	22	6.71
281123	23	7.01
281124	24	7.32
281125	25	7.62



SeaStar Solutions® Tilt Sport Steering - nfb 4.2 Rotary

Tilt steering is an option that allows the wheel to be pivoted through a 48° arc in 5 increments. Tilt helms have specially modified shafts and are for use with tilt mechanisms only. Helm and mechanism required. Accepts SSC62 Quick Connect cable.



BLA Code	Description
280142	Performance tilt mechanism
280242	Tilt helm nfb 4.2 single

SeaStar Solutions® Steering System Kit - nfb 4.2 Rotary

BLA Code	Description
2802XX	Includes helm, bezel and cable

N.B. Last two digits denote cable length in feet

How to Order

To order a complete set of NFB 4.2 Rotary steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit or tilt mechanism, 1 x cable and 1 x connection kit if required. Alternatively we offer a pre-packaged basic system that includes a **280232** helm, **280150** bezel and **2811XX** cable.

N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System - JBS Jet Boat

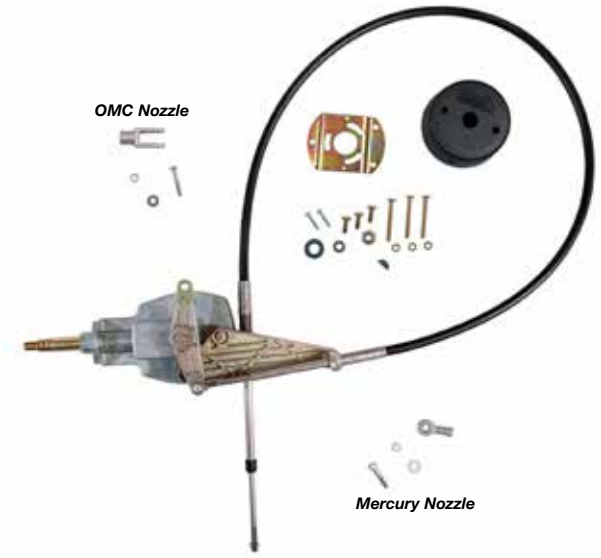
Just for Jets! JBS™ by SeaStar Solutions means Jet Boat Steering! Designed exclusively for jet boats, JBS features a choice of two steering arcs, a special steering cable (not a control cable) plus an assortment of mounting options for virtually any boat!

Applications:

SeaStar Solutions JBS is recommended for use in all jet boat applications powered by Mercury® Sport Jet or OMC® Turbo Jet.

Features:

- Ultra-compact helm with stylish 4.4" bezel is easy to install and very rugged
- 135° or 270° turning arc lock-to-lock
- Uses a special steering cable
- 90° dash mount
- 90° or 180° cable entry into helm allows alternate cable routing (Looking at dash, options are 9:00, 12:00 or 3:00 routing positions)
- Built-in steering stops prevent additional cable stress in hard over positions
- Standard 3/4" round tapered steering shaft, 3.5" total allowable cable travel
- Mercury® & OMC® nozzle/gate connection kits
- Stainless steel cable output ends
- Meets A.B.Y.C./N.M.M.A. requirements
- Made, designed and assembled in the USA



SeaStar Solutions® Helms - JBS

Designed exclusively for jet boats, JBS features a choice of two steering arcs - 135° or 270°.

BLA Code	Description
280402	Helm jet boat 135°
280404	Helm jet boat 270°

SeaStar Solutions® Bezel Kits - JBS

Bezel kits include mount brackets and fastenings for **280402** and **280404** helms.

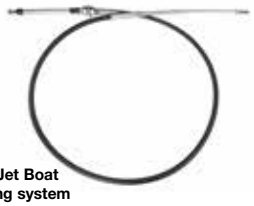
BLA Code	Description
280406	Bezel kit jet boat

SeaStar Solutions® Steering Cables

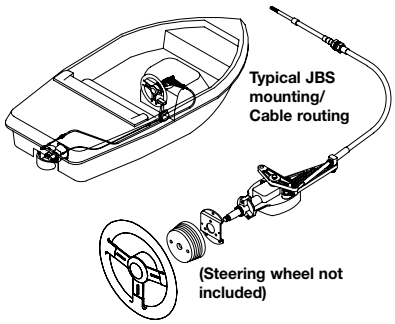
JBS steering cable for the SeaStar Solutions Jet boat steering helms; SH5087P, SH5088P.

*Note: Direct Replacement for SSC229XX

BLA Code	Cable Length ft	Cable Length m
281906	6	1.83
281907	7	2.13
281908	8	2.44
281909	9	2.74
281910	10	3.05
281911	11	3.35
281912	12	3.66
281913	13	3.96
281914	14	4.27
281915	15	4.57
281916	16	4.88
281917	17	5.18
281918	18	5.49
281919	19	5.79



JBS - Jet Boat Steering system



How to Order

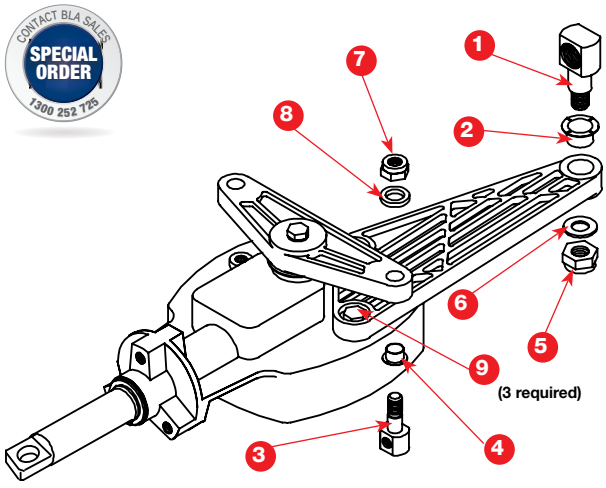
If you are replacing a jet boat steering cable, you must determine the part number of the existing steering cable. SSC219 cables are ONLY for JBS systems shown on this page.

*Note: SSC219XX replaces SSC229XX cables.

N.B. Last two digits denote cable length in feet

SeaStar Solutions® JBS Service Items

Helm Parts (see diagram below)	
1. Pivot – cable conduit fitting	**55-3941615**
2. Bushing for cable cond. ftg. pivot	**55-3604811**
3. Pivot – cable terminal end	**55-3941117**
4. Bushing for cable term. end pivot	
Helm Cable Bracket Hardware Kit Contents	**55-3962715**
5. Locknut (3/8-24) – conduit fitting pivot	
6. Lock Washer for 3/8-24 Locknut	
7. Locknut (1/4-20) – cable terminal end pivot	
8. Lock Washer for 1/4-20 Locknut	
9. 3 Hex Bolts (anti-vibratory patch) – bracket	



xtreme Mechanical Steering

SeaStar Solutions® has developed a new Xtreme™ steering system based on their current industry leading Xtreme™ technology to deliver the most efficient mechanical steering possible.

Designed to provide new levels of smooth, effortless handling and precision control this advanced mechanical steering system is ideal for a wide range of outboard powered boats and hulls with large surface areas.

Features:

- Smoothest and lowest steering effort mechanical helm offered in the market place
- Only five turns lock to lock
- Complete steering system including new helm, high efficiency Xtreme™ steering cable design and new style bezel
- Quick connect feature on both steering cable and spent travel tube for easy quick installation
- Installs in same mounting pattern and bracket location as current SeaStar Solutions® steering systems
- Smallest footprint possible to accommodate small/tight dash helm stations

SeaStar Solutions® Steering Helm - xtreme

Designed in conjunction with the Xtreme™ steering cable, the new Xtreme™ steering helm features a highly efficient custom gear train with an improved No FeedBack (NFB) clutch function that minimises the affects of engine torque. Requiring only five turns lock to lock, the new NFB clutch design allows for smoother clutch release which results in seamless steering in both directions at all engine speeds. Using the same mounting pattern and bracket location as current SeaStar Solutions® steering systems, the Xtreme™ helm has been designed with the smallest available footprint making it ideal for tight helm stations such as centre consoles. Where required, the SeaStar Solutions® Sport and Sport Plus tilt mechanisms can be utilised with the Xtreme™ tilt helm. Utilising the innovative dual Quick Connect feature makes attaching the steering cable and spent travel tube to the back of the helm a fast and simple operation.

Features:

- Designed to deliver the most efficient mechanical steering possible
- Least effort, least lost motion, smooth release of NFB clutch with the best holding power
- Only five turns lock to lock
- Quick Connect feature on both cable and spent travel tube side
- No tools required to snap steering cable or spent travel tube in place
- Easy system installation, single steering cable to route with standard 200mm bend radius for the cable
- No bleeding of hydraulic system or electrical wiring required
- Fits standard SeaStar Solutions® dash cut out with standard Safe-T® and 4.2 bracket
- Helm is available to suit SH91800/SH91900 tilt mechanism
- Gear train allows smallest foot print with the lowest effort available in a mechanical helm
- **280940** NFB helm supplied complete with **280948** black bezel

280940

280944

280940

280948

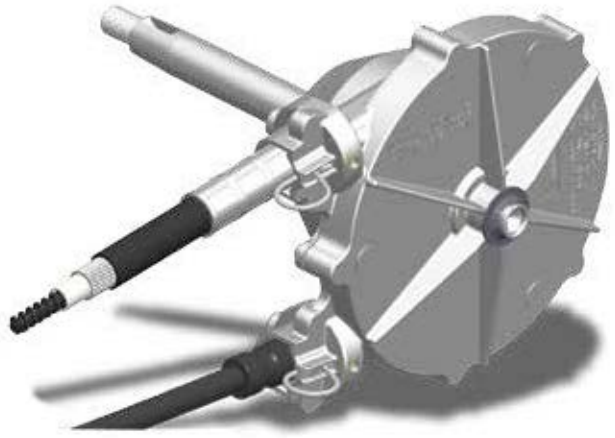
BLA Code	Description
280940	Helm XTREME™ NFB – Includes **290948** Bezel
280944	Helm XTREME™ NFB Tilt
280948	Bezel Kit XTREME™ 90˚ NFB Black

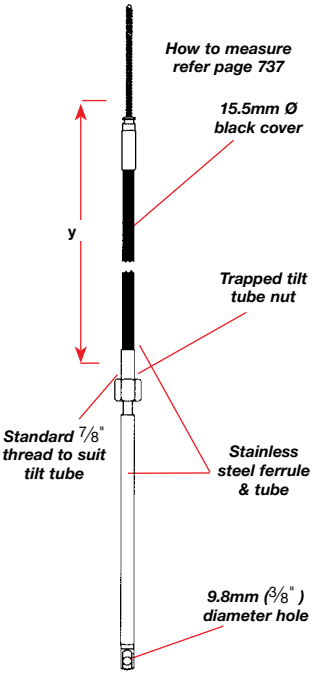
SeaStar Solutions® Steering Cables - xtreme

The new high performance Xtreme™ steering cable features splined ridges on the inner liner for minimal contact between the liner and core, allowing the core to glide easily and freely, offering minimal lost motion and smoother, easier steering. The resulting reduction in cable friction improves performance, allows the entire steering system to run smoother for longer and provides precision control.

Features:

- Steering cable based on industry leading Xtreme™ technology
- Splined ridges on the inner liner allows close contact with core
- Minimum contact means the core glides freely
- Tight fit for minimal lost motion
- Reduced friction for extended cycle life
- Robust construction supports the highest steering loads in the mechanical range





SSCX64
Cable Only

BLA Code	Cable Length ft	m
281710	10	3.05
281711	11	3.35
281712	12	3.66
281713	13	3.96
281714	14	4.27
281715	15	4.57
281716	16	4.88
281717	17	5.18
281718	18	5.49
281719	19	5.79
281720	20	6.10
281721	21	6.40
281722	22	6.71
281723	23	7.01
281724	24	7.32
281725	25	7.62
281726	26	7.93
281727	27	8.23
281728	28	8.53
281729	29	8.84
281730	30	9.14

SSX176
Complete Kit
Cable, Helm & Bezel

BLA Code	Cable Length ft	m
281810	10	3.05
281811	11	3.35
281812	12	3.66
281813	13	3.96
281814	14	4.27
281815	15	4.57
281816	16	4.88
281817	17	5.18
281818	18	5.49
281819	19	5.79
281820	20	6.10
281821	21	6.40
281822	22	6.71
281823	23	7.01
281824	24	7.32

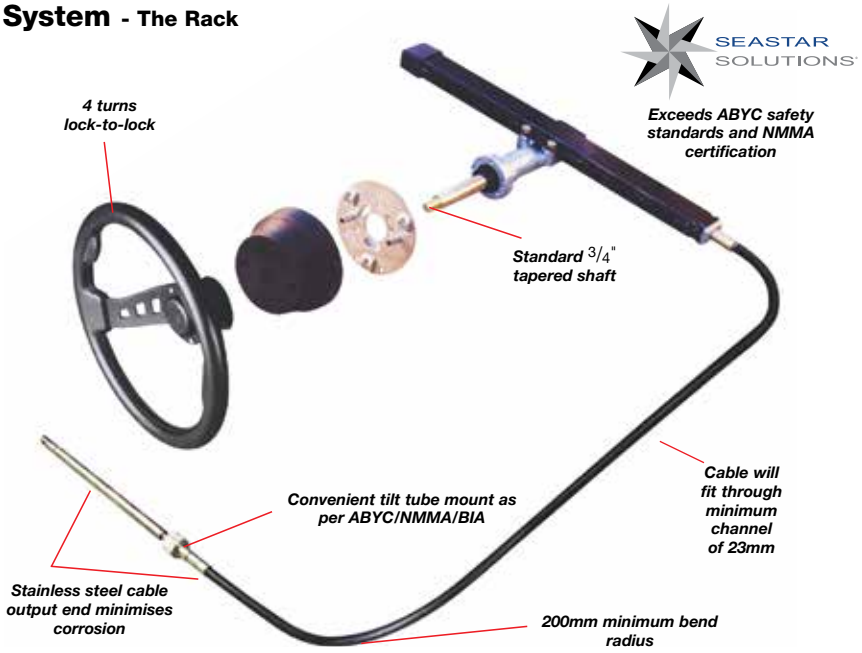
SSX176

SeaStar Solutions® Steering System - The Rack

The Rack Steering features the precision and easy feel of four turns lock to lock and a back mount design that allows connection of the cable to the helm prior to installation of the helm to the dash. Best of all, it's a drop in replacement for 1985 - 1996 'The Rack' system and also 'Command 200'. The helm unit incorporates a machine cut pinion gear that engages a rack and cable assembly, which drives an armour standard core to minimise steering effort.

Applications:

- Ski boats
- Runabouts
- Small cruisers
- House boats
- Steering wheels up to 400mm
- All outboards to V6



SeaStar Solutions® Helm - The Rack

Featuring a back mount for easy installation. Die cast zinc alloy housing. This helm accepts SSC134 rack cables.

BLA Code
280346

SeaStar Solutions® Bezel Kit - The Rack

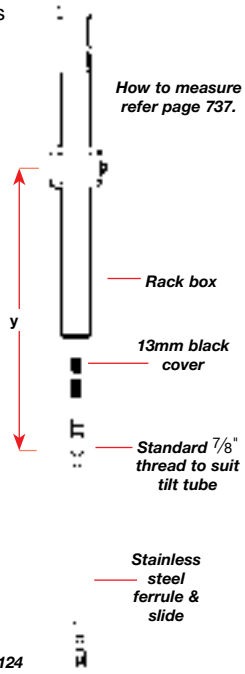
Plastic 90º bezel with cast zinc alloy back mount bracket. Mount fastenings included. For installation with **280346** helm.

BLA Code	Bezel Colour
280350	Black

SeaStar Solutions® Steering Cable

- The Rack

SSC134 type steering cables. Cable length is measured from centre of rack to nut, plus 760mm. Y + 760mm = cable length.



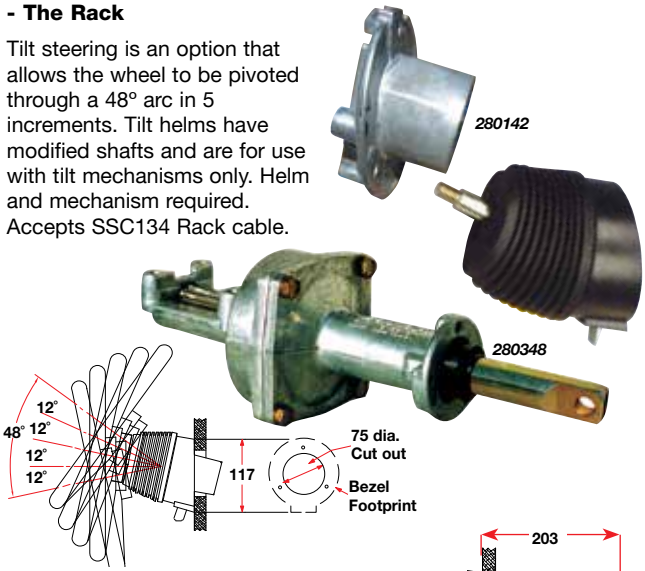
BLA Code	Cable Length ft	Cable Length m
281312	12	3.66
281313	13	3.96
281314	14	4.27
281315	15	4.57
281316	16	4.88
281317	17	5.18
281318	18	5.49
281319	19	5.79
281320	20	6.10

N.B. Not compatible as a replacement cable for SSC124

SeaStar Solutions® Tilt Sport Steering

- The Rack

Tilt steering is an option that allows the wheel to be pivoted through a 48º arc in 5 increments. Tilt helms have modified shafts and are for use with tilt mechanisms only. Helm and mechanism required. Accepts SSC134 Rack cable.



BLA Code	Description
280142	Performance tilt mechanism
280348	Rack tilt helm

How to Order

To order a complete set of Rack steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit or tilt mechanism, 1 x cable and 1 x connection kit if required. Alternatively we offer a pre-packaged basic system that includes a **280346** helm, **280350** bezel and **2813XX** cable.

N.B. Last two digits denote cable length in feet

SeaStar Solutions® Steering System Kit

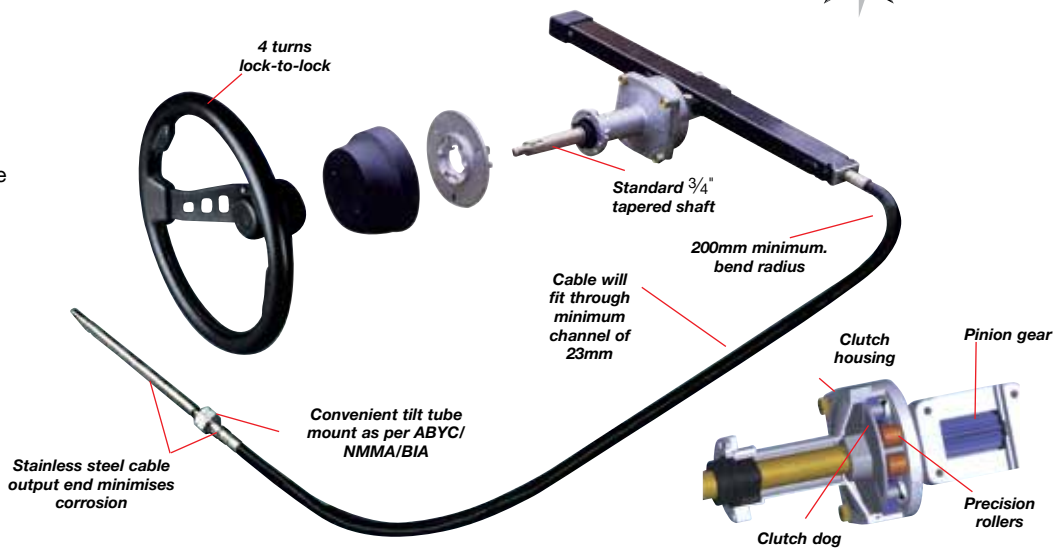
- The Rack

BLA Code	Description
2803XX	Includes helm, bezel and cable

N.B. Last two digits denote cable length in feet

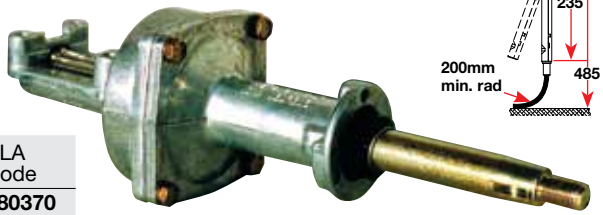
SeaStar Solutions® Steering System - nfb The Rack

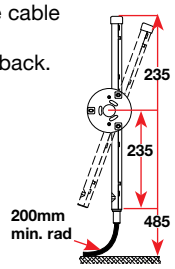
SeaStar Solutions® has combined its patented No FeedBack technology with the precision of a rack and pinion system to engineer serious advances in steering comfort and control. The Rack provides precise four turn lock to lock steering while the nfb mechanism isolates the driver from the considerable prop torque that today's high horsepower outboards deliver. The nfb Rack suits all outboards to V6. Suits steering wheels up to 400mm.



SeaStar Solutions® Helm - nfb The Rack

Easy installation, back mount design allows the cable to be connected to the helm before installation. Planetary nfb mechanism to lock out prop feedback. Accepts SSC134 Rack cable.



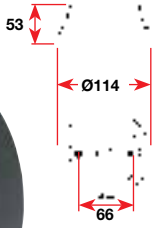


BLA Code
280370

SeaStar Solutions® Bezel Kit

- nfb The Rack

Plastic 90° bezel, includes cast zinc back mount bracket and mount fastenings for **280370** helm.

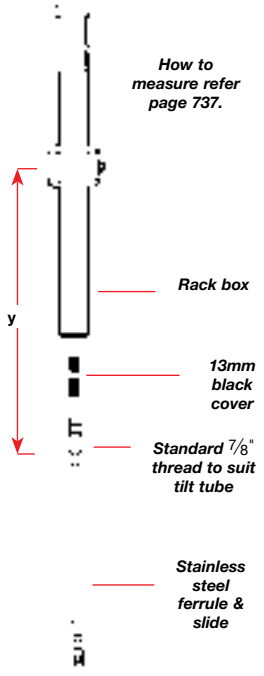


BLA Code	Bezel Colour
280350	Black

SeaStar Solutions® Steering Cables

- nfb The Rack

SSC134 type steering cables. Cable length is measured from centre of rack to nut, plus 760mm. Y + 760mm = cable length.



BLA Code	Cable Length ft	m
281312	12	3.66
281313	13	3.96
281314	14	4.27
281315	15	4.57
281316	16	4.88
281317	17	5.18
281318	18	5.49
281319	19	5.79
281320	20	6.10

N.B. Not compatible as a replacement cable for SSC124

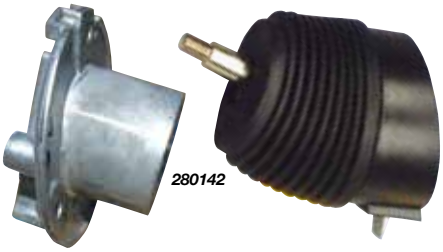
How to Order

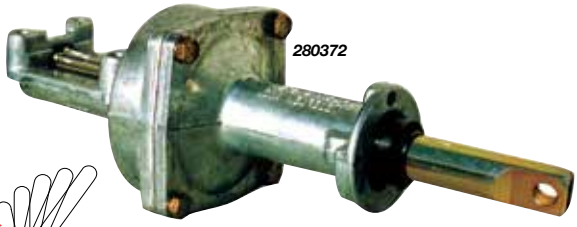
To order a complete set of NFB Rack steering you will require 1 x steering wheel, 1 x helm, 1 x bezel kit or tilt mechanism,1 x cable and 1 x connection kit if required.

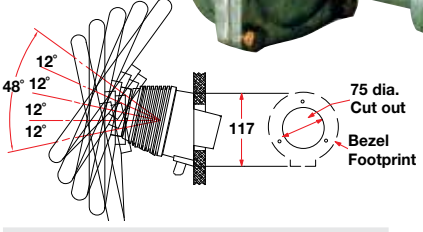
SeaStar Solutions® Sport Tilt Steering

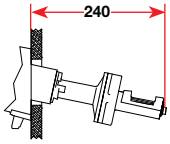
- nfb The Rack

Tilt steering is an option that allows the wheel to be pivoted through a 48° arc in 5 increments. Tilt helms have modified shafts and are for use with tilt mechanisms only. Helm and mechanism required. Accepts SSC134 Rack cable.





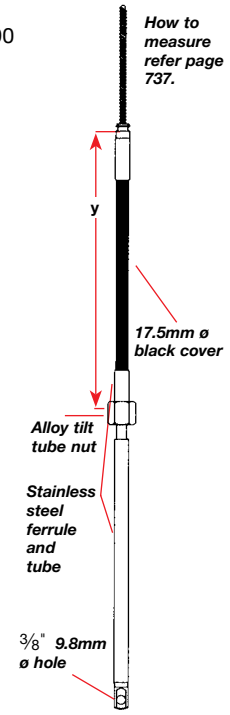




BLA Code	Description
280142	Performance tilt mechanism
280372	Rack tilt helm NFB

SeaStar Solutions® Steering Cables Only - SSC290

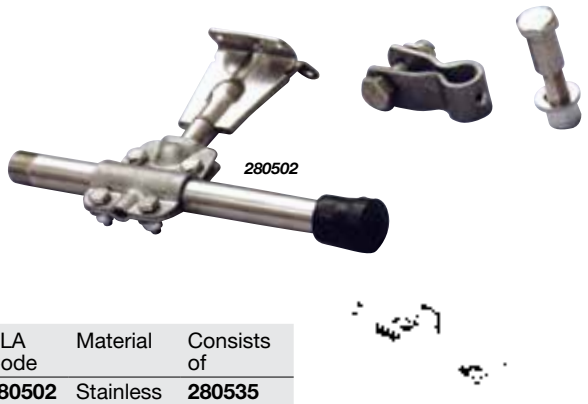
SSC290 steering cable. Used by boat manufacturers worldwide. Connects D290 helm directly to all outboard manufacturers' tilt tube. Length is measured from helm insert to nut, plus 450mm. Y + 450mm = cable length.



BLA Code	Cable Length ft	m
283710	10	3.05
283711	11	3.35
283712	12	3.66
283713	13	3.96
283714	14	4.27
283715	15	4.57
283716	16	4.88
283717	17	5.18
283718	18	5.49
283719	19	5.79
283720	20	6.10
283721	21	6.40
283723	23	7.01

SeaStar Solutions® Mounting Kit - Transom Support

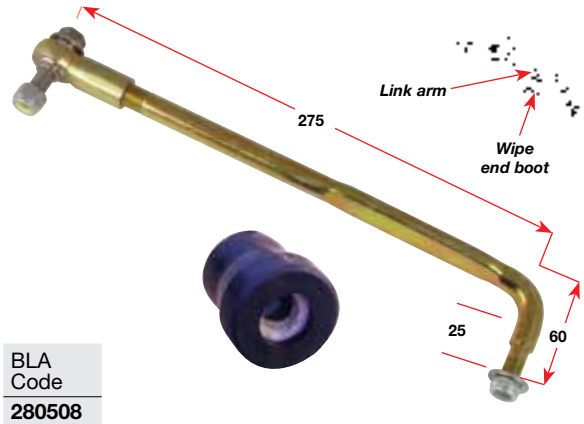
These cable connections are used for older model outboards without tilt tubes, low HP outboards or installations where transom design interferes with standard tilt tube mounting. Supplied with grease wipe end boot. Available in stainless steel or corrosion resistant construction.



BLA Code	Material	Consists of
280502	Stainless Steel	**280535** **280532** **280552**
280504	Corrosion resistant	**280534** **280530** **280552**

SeaStar Solutions® Link Arm Kit - Outboard

Connection for outboards with standard tilt tube. Supplied with grease wipe end boot. Suits most popular brand outboards. Supplied with 3/8" x 1½" (9.8mm x 38mm) tiller mount bolt.



BLA Code
280508

SeaStar Solutions® Mounting Kit - Splashwell 15°

White powder coated pressed metal plates. 146mm outside diameter mount plate. 7/8" (23mm) x 268mm threaded alloy tube; one end accepts steering cable mount nut. Supplied with six 38mm x 6mm mount fastenings and grease wipe end boot.

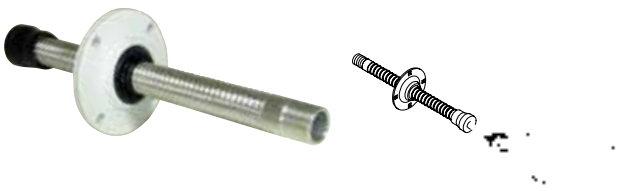
BLA Code	Description
280516	Splashwell Mount Kit 15°

Accessories:

280517	Replacement large plate
280523	Replacement small plate

SeaStar Solutions® Mounting Kit - Splashwell 90°

White powder coated pressed metal plates. 89mm outside diameter mount plate. 7/8" (23mm) x 268mm threaded alloy tube; one end accepts steering cable mount nut. Supplied with four 38mm x 6mm mount fastenings and grease wipe end boot.



BLA Code	Description
280522	Splashwell Mount Kit 90°

Accessories:

280523	Replacement small plate

SeaStar Solutions® Clamp Blocks - Outboard

Stands off transom 125mm. Pressed metal clamp plates. Supplied with 6mm x 63mm mount bolts. Available in stainless steel or white powder coat finish steel.

BLA Code	Material
280534	White power coat steel
280535	Stainless steel

SeaStar Solutions® Support Tubes

7/8" (23mm) x 268mm tube to be used in conjunction with clamp blocks. One end is threaded to accept steering cable mount nut. Supplied with grease wipe end boot.

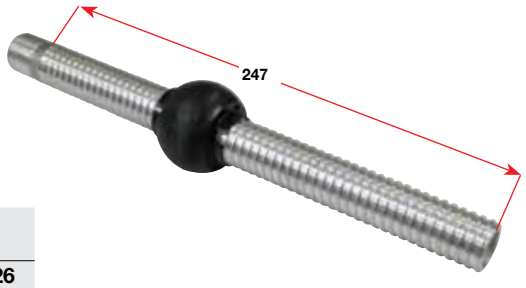
280530

280576

BLA Code	Material
280530	Aluminium
280532	Stainless steel

SeaStar Solutions® Splashwell Threaded Tube

7/8" (23mm) x 268mm threaded alloy tube; one end accepts steering cable mount nut. PVC universal ball.



BLA Code
280526

SeaStar Solutions® Mount Ball

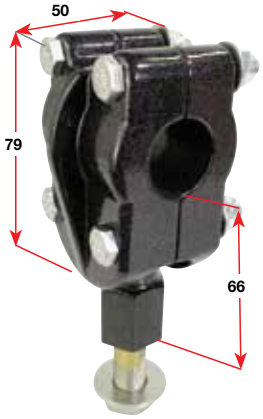
Nylon half ball, designed to hold grooved tube in transom bracket or splashwell mount. Sold per half.

BLA Code
282520

SeaStar Solutions® Clamp Block - Inboard Heavy Duty Short Post

Heavy duty cast zinc alloy clamp. Black metal flake finish. Stands off 66mm. Supplied with 1/2" (12.5mm) x 1 1/4" (32mm) mount bolt.

Clamps around **280530** and **280532** support tubes.



BLA Code
280538

SeaStar Solutions® Grooved Tube

Alloy tube used for securing steering cable when the engine does not have a tilt tube. Threaded at one end to accept cable. Grease wipe end boot at other end.

BLA Code
282530

SeaStar Solutions® Pillars

Manufactured from stainless or passivated steel. These pillars bolt to a solid surface via the internally threaded base. Provides a secure mount for metal or nylon clamps.

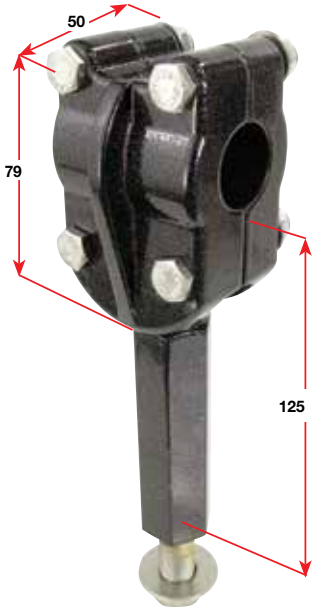
282535

BLA Code	Material	Length mm
282535	Steel	70
282536	Steel	110

SeaStar Solutions® Clamp Block - Inboard Heavy Duty Long Post

Heavy duty cast zinc alloy clamp. Black metal flake finish. Stands off 125mm. Supplied with 1/2" (12.5mm) x 1 1/4" (32mm) mount bolt.

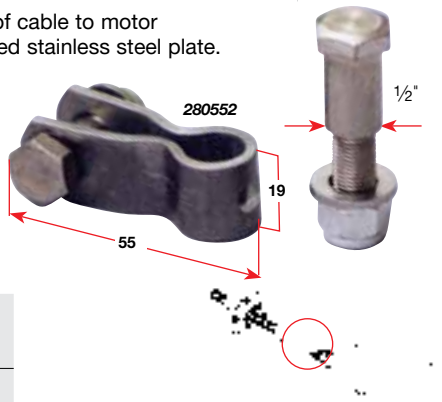
Clamps around **280530** and **280532** support tubes.



BLA Code
280539

SeaStar Solutions® Clevis Kits - Standard

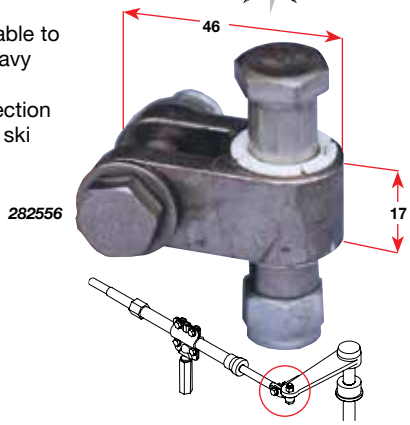
Required for end of cable to motor connection. Pressed stainless steel plate. Suits most applications. Supplied with either 45mm or 55mm stainless steel long bolt.



BLA Code	Bolt Length mm
280552	45
280553	55

SeaStar Solutions® Clevis Kits - Heavy Duty

Required for end of cable to motor connection. Heavy duty cast stainless to reduce steering connection play. Ideal for inboard ski boats.



BLA Code	Bolt Length mm
280556	46
280557	60

SeaStar Solutions® Replacement Bearing Flange

Flange used as an internal liner in stainless steel support tube to prevent abrasion with cable push rod.

BLA Code	Height mm	OD mm	ID mm
280566	29	16.5	15.5

SeaStar Solutions® Grease Wipe End Boot

Replacement grease wipe end boot to suit ⅞" tilt tubes.

BLA Code
280576

SeaStar Solutions® Key and Nut

Used to locate steering wheels on all SeaStar Solutions® mechanical helm shafts. ⅝" UNF thread, 3⁄16" key.

BLA Code
280578

SeaStar Solutions® Adaptor Nut - D290 Helm

Marine grade anodised alloy construction. Enables an SSC62 or SSC92 Quick Connect type cable to fit a D290 helm.

BLA Code
280546

SeaStar Solutions® Adaptor Nut

Marine grade anodised alloy construction. One end has a ⅞" thread to suit Safe-T® and Quick Connect threaded ports. The other end accepts Quick Connect SSC62 or SSC92 type cables. This adaptor can be used to connect an SSC62 or SSC92 cable to the threaded port of a Quick Connect helm should it be a requirement to route the steering cable down the port side of the vessel. Can also be used in conjunction with a Quick Connect SSC62 or SSC92 type cable as a replacement for Safe-T® SSC72 type cables.

BLA Code
280550

SeaStar Solutions® Adaptor Nut - SSC72 to Morse 290

Adapts Morse Command 290 single-cable helms for use with SSC61 (QC II) steering cables.

BLA Code
280547

SeaStar Solutions® Quick Connect Hitch Pin

Replacement pin for helms used in conjunction with Quick Connect cable. Supplied with installation and removal tag.

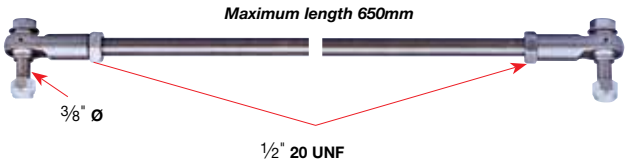
BLA Code
280580

SeaStar Solutions® Universal Tie Bar Kit

For twin engine installations. Threaded rod can be cut to size with final engine alignment via thread adjustment.

Contains:

- 2 x stainless steel ball joints
- 1 x stainless steel threaded tie bar
- 2 x stainless steel locking nuts
- 2 x stainless steel connection bolts



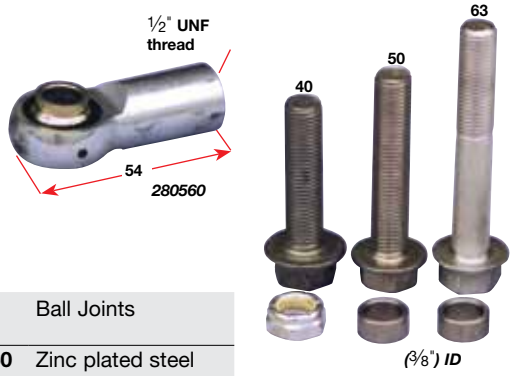
BLA Code
280558

SeaStar Solutions® Spent Travel Tubes

BLA Code	Description
280568	Suits nfb Safe-T® II, nfb 4.2, HPS and Quick Connect 4 turn helm
280570	Suits Quick Connect helm (starboard cable installation only)

SeaStar Solutions® Rod End Kit

Available in a choice of stainless steel or zinc plated ball joints, both with stainless steel fastenings.



BLA Code	Ball Joints
280560	Zinc plated steel
280561	Stainless steel

SeaStar Solutions® Clevis Pin

Gold passivated cast steel construction. Used to connect threaded end steering cables to steering tiller arm.

BLA Code	Internal Thread	Clevis Pin
282552	⅜" UNF	⅜"

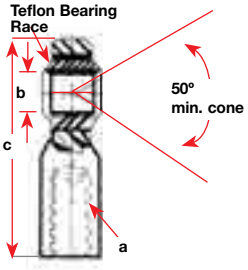
SeaStar Solutions® Ball Joints

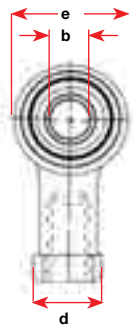
Available in stainless steel or gold passivated steel. Used to connect threaded end steering cables to tiller rudder arm.

BLA Code	Material	Internal Thread
282559	Steel	⅜" UNF
282561	Stainless steel	⅜" UNF
282562	Stainless steel	½" UNF

Stainless Steel Spherical Rod Ends

Stainless steel construction with Teflon bearing for optimum smooth operation, even under severe marine conditions. Surface hardened stainless steel ball for high wear resistance. Applications include universal control cable connection, linkage rods and tie rods.



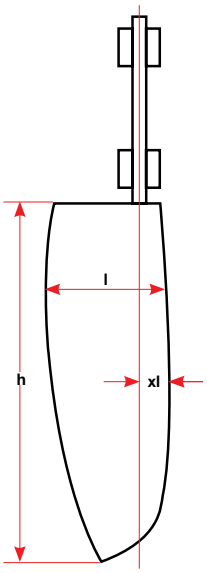


BLA Code	a UNF	b mm	c mm	d mm	e mm
309736	10-32	3/16"	35	10	16
309738	¼"	¼"	43	12	19
309740	5/16"	5/16"	46	13	22
309742	⅜"	⅜"	54	17	28
309744	½"	½"	71	22	33
309746	⅝"	⅝"	83	25	38
309748	¾"	¾"	95	29	45

Lewmar® Steering

Lewmar's® sail boat steering systems have been world leaders for over 50 years and constantly evolving to meet the performance and aesthetic needs of both cruisers and elite racers. Each product is CE certified and proven to be able to handle the most adverse conditions.

Lewmar® steering systems come in three types. **Constellation™** is the well proven cable and chain system which can be tailored to suit most vessels. **Cobra™** utilising a rack and pinion head driving through a draglink and lever, this system is highly regarded for it's powerful mechanical advantage and it's sensitive feel on the wheel. **Mamba™** Steering is the ultimate system providing both feedback and strength through it's bevel heads, rotating tubes, and gearbox components all of which is specified then custom designed to suit a diverse range of sailing craft.



Steering System Specifications

Efficient and enjoyable sailing is about the trim of the sails and feel on the helm. If the feel on the helm is too light it is difficult to know if your sails are trimmed correctly, too heavy and speed is either lost or fatigue will make steering difficult or impossible to do for long periods of time.

Selection of your steering system and components starts with selecting your desired helm location with attention to the location of the rudder stock.

Once this is confirmed, submit the following measurements so BLA can work out the products which will deliver the correct mechanical advantage required for efficient course keeping for cruising or racing sail craft.

Description	Dimension
Average Rudder Height (h)	mm
Average Rudder Cord (l)	mm
Balance (xl)	mm
Vessel Overall Length (LOA)	M
Vessel Waterline Length (LWL)	M
Vessel Displacement (displ)	Kg
Hull Speed	Knts

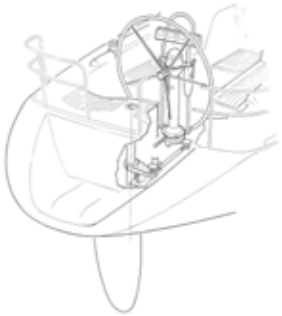
Lewmar Constellation™ Steering System

– Wire Steering

Wire steering systems are suitable for yachts from 7m/25' to Maxis. This diversity has enabled Lewmar to develop the Constellation system with feedback from various types of boat builders. Wire systems are ideal for aft cockpit installations, either single or tandem. Wire-in conduit systems are also available for centre cockpit installations. The conduit system overcomes the difficulties that are experienced when using open wire in centre cockpit installations.

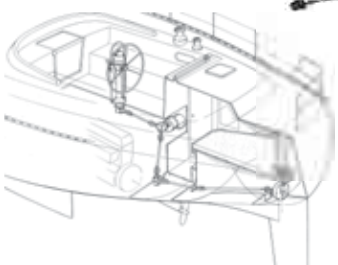
Lewmar Cobra™ Steering System – Rack & Pinion

Cobra uses rack and pinion in the head of the pedestal to provide the necessary mechanical advantage required for sensitive steering. Cobra has been designed for use in aft cockpit sailboats and is a world leader in its field. Lewmar also offers customised Cobra systems for use in non-aft cockpit applications.



Lewmar Mamba™ Steering System – Rotating Torque Tube & Bevelhead

The ultimate steering system providing feedback and strength; both benefits are inherent to gearbox and bevelhead steering systems. Mamba is a suitable steering system for a diverse range of sailboats from blue water cruisers to America's Cup contenders. It offers unique features such as variable mechanical advantage steering whilst retaining versatility in the type of installation it can be used in i.e. Tandem systems.



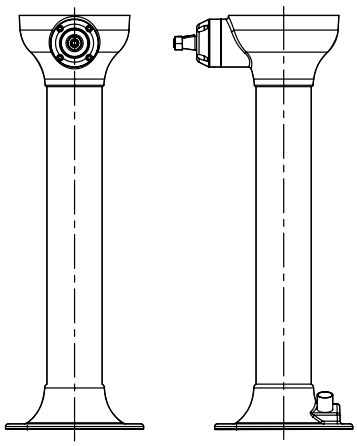
Lewmar Enguard Steering Pedestal

LEWMAR

Lewmar's® traditionally styled Enguard Pedestal is available in Constellation™, Cobra™ or Mamba™ configuration. The Enguard pedestal incorporates an integral guardrail base which minimises the footprint area the pedestal takes up on the cockpit floor.

Features

- Integrated guardrail base providing compact and rapid guardrail installation
- Wide range of accessories available
- Custom heights available
- Includes steering brake (Brake Spinner required, see page 732)



BLA Code	Description
287100	Enguard Constellation™ Pedestal 11T to suit 5/8 chain
287110	Cobra Cruising Enguard Pedestal
55-89900046	Mamba Enguard BH10 with Brake

**** Pedestal does not include wheel or optional extras as shown in photo***

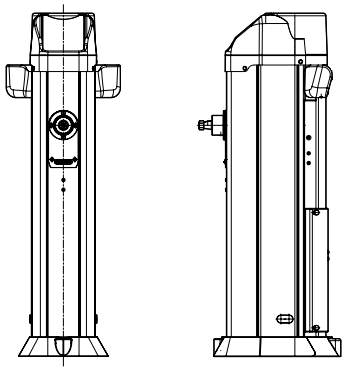
Lewmar Integra Steering Pedestal

LEWMAR

The Integra Pedestal can also be ordered to suit all three of the Lewmar® steering systems.

Features

- Compass mounting platform and integrated housing
- Ability to mount 1 single instrument in the top moulding
- Pre-installed single lever engine control
- Cobra™ style includes the provision to install integrated autopilot drive
- Includes steering brake (Brake Spinner required, see page 732)



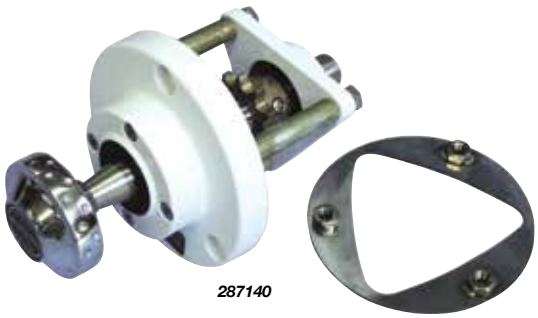
BLA Code	Description
287120	Integra Constellation™ Pedestal 11T to suit 5/8 chain

**** Pedestal does not include wheel or optional extras as shown in photo***

Lewmar Constellation™ Bulkhead Steerers

LEWMAR

The Quick Mount Bulkhead Steerers offer a cable and chain steering solution for catamarans and where the boat builder plans to make their own pedestal or steering housing. Available with or without brake mechanism and a choice of 11 tooth through to 15 tooth sprockets, as well as provision for an autopilot drive sprocket to be added. The Quick Mount Bulkhead Steerer is easy to install.



287140

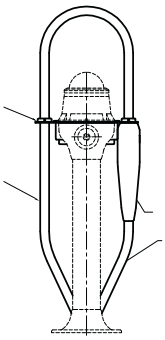
BLA Code	Description
55-89100004	Quick Mount Bulkhead Steerer 11 Teeth No Brake
55-89100006	Quick Mount Bulkhead Steerer 13 Teeth No Brake
287140	Quick Mount Bulkhead Steerer 15 Teeth No Brake
SP28287116	Quick Mount Bulkhead Steerer No Sprocket No Brake
SP28287112	11 Tooth Sprocket with Keyway and Screw
55-89100718	13 Tooth Sprocket with Keyway and Screw
SP28287114	15 Tooth Sprocket with Keyway and Screw

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar Steering Pedestal Accessories

LEWMAR

A range of accessories are available to compliment Lewmar® pedestals to aid in controlling the boat and enjoying the cockpit area while anchored, moored or at the marina. A variety of guardrails can be used as a secure hand hold while underway and a range of kickback guardrails allow instrument pods to be attached. Having an engine control mechanism positioned on the guardrail and a binnacle and compass to suit the pedestal goes further to control the boat from the steering position. Cockpit tables are available to attach to the pedestal system in unvarnished teak. For more information about what guardrail or table option will suit your pedestal contact BLA on **1300 252 725**.



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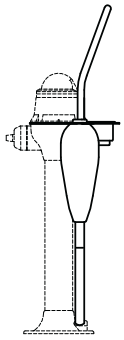
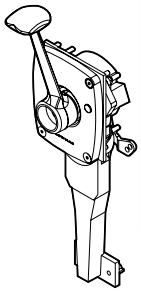




287302

287303

SP28287031

BLA Code	Description
287070	Guardrail Kit with Top Plate and Cup Holder
287076	Guardrail Kit Top Plate, Cup Holder, Engine Control on Starboard Side
287060	Guardrail Kick Back Rail Only
287072	Guardrail Kit Kick Back, Top Plate and Cup Holder
287074	Guardrail Kit Kick Back, Top Plate, Cup Holder, Housing to suit Engine Control
287126	Compass Binnacle to Suit Enguard Pedestals
287306	Engine Control, Cranked Handle and Housing
287300	Engine Control Mechanism, Handle and Facia Plate (For cockpit seat or vertical surface mounting)
287302	Morse SL3 Control Mechanism and Handle Only
287303	Cranked Handle Only
287304	Morse SL3 Control Mechanism Only
287310	Lewmar Control Mechanism Fitting Kit
SP28287032	Engine Control Housing Only
SP28287031	Control Handle Replacement Button & Plunger
SP28287118	Pedestal Bolts 12mm x 70mm
SP28287120	Pedestal Bolts 12mm x 80mm
SP28287122	Pedestal Bolts 12mm x 90mm
55-89400284	Teak Table Unvarnished for Enguard Pedestal

Lewmar Constellation™ Wire in Conduit System

LEWMAR

The wire in conduit system is used where a straight run to the quadrant is not possible. The use of the Conduit Sheave adapter provides 90° change of wire direction capability. In line greasers provide a handy way to keep the system lubricated.

BLA Code	Description
287180	Chain Kit 5/8" to suit Quadrant < 305mm
287182	Chain Kit 5/8" to suit Quadrant < 457mm
SP28287009	Conduit Blue per Metre
SP28287010	Conduit End
SP28287106	Conduit In Line Greaser (Pair)
SP28287100	Conduit Sheave Adapter Single 152mm Sheave
SP28287102	Conduit Sheave Adapter Double 152mm Sheave
SP28287107	Conduit Grease 400ml Cartridge

SP28287009

SP28287102

Lewmar Sheave Assemblies

LEWMAR

The Cross Wire Idler is essential to use with pedestal steering where the pedestal is forward of the rudder post. Other idlers are also available. For use with Quick Mount Bulkhead and other steerers, a range of separate sheave assemblies in Articulated, Upright, Flat, Double and Single are also available.

SP28287092

SP28287094

BLA Code	Description
SP28287092	Cross Wire Idler 152mm Sheave
SP28287094	Sheave Assembly 152mm Articulated Single
55-89100026	Sheave Assembly 152mm Upright Single
55-89100027	Sheave Assembly 152mm Flat Single

Lewmar Autopilot Drive Units

LEWMAR®

Lewmar® offer an Autopilot Drive Unit provision for all of their steering systems as well as for retro-fitting to any boat. Models for Constellation™, Cobra™ and Mamba™ steering systems come in 12v or 24v models and are all compatible with the major brands of autopilot electronics on the market. Many production boat builders install Lewmar® steering system with the provision to add a drive unit to their boats with minimal installation issues compared with buying a competitors system off the shelf. For more information regarding a Lewmar® drive unit installation on your boat contact BLA on **1300 252 725**.

287240

287280

287250

BLA Code	Description
287240	Mamba Drive Unit 1/4 HP 12 volt
287248	Integra Mamba Drive Unit 12 volt
287250	Integra Base Drive 12 volt Bavaria
55-8930039	Direct Drive Unit 166mm OL with Draglink
287280	Multi Position Direct Drive Tiller Lever

Lewmar Cobra™ Steering Components

LEWMAR®

The Cobra™ steering system is made up of the steering pedestal, draglink and tiller lever. A Stop Ring is available to act as an impact protection system which will prevent damage to the pedestal in the case of grounding or other rudder impact. In all cases a separate rudder stop system should be used as well. The tiller lever is pilot bored to enable the user to machine the lever to suit their needs. Likewise the draglink comes with one end loose to enable cutting and welding to suit the particular installation. For more information in regards to Cobra™ steering, contact BLA on **1300 252 725**.

SP28287090

SP28287014

SP28287084

287260

BLA Code	Description
287260	Tiller Lever Pilot Bored 203mm Centres 80mm Max Diameter (pin not included)
SP28287060	AHFT10 Pin Set
SP28287014	Draglink 1000mm AHFT10 Loose One End
SP28287090	Cobra Stop Ring
SP28287084	AHFT10 Rod End Spare

Lewmar Quadrants

LEWMAR®

A range of sizes in both 260° as well as 80° quadrants is available to suit boats up to approximately 80 feet. Fabricated in 6082 aluminium alloy, they are pilot bored so machining of the bore can be done to match the rudder shaft by the installer. In all cases a rudder limit stop needs to be installed. The design of both type of quadrants provides a solution to installing a rudder stop. Eye bolt/cable tensioners are not supplied with quadrants and must be ordered separately.

287354

287360

BLA Code	Description	Maximum Bore Dia. mm	Typical Boat Size Metre
55-89100049	260° Quadrant 152mm Radius	80	10
287350	260° Quadrant 203mm Radius	80	9-11.5
287354	260° Quadrant 254mm Radius	80	10-13
55-89100052	260° Quadrant 254mm Radius	100	10-13
55-89100053	260° Quadrant 305mm Radius	100	12-15
287360	80° Quadrant 305mm Radius	80	10-13
55-89100061	80° Quadrant 305mm Radius	100	10-13
55-89100062	80° Quadrant 381mm Radius	80	12-15
55-89100063	80° Quadrant 381mm Radius	100	12-15
287368	80° Quadrant 457mm Radius	100	14-16
SP28287096	Eye Bolt/Tensioner 10mm	-	-

Lewmar Steering Wheels

LEWMAR

Lewmar's® range of steering wheels and accessories can be seen in section 27.

Lewmar® Folding Steering Wheel

For full range of Steering Wheels
See Section 27

Lewmar® Brake Spinner

Lewmar Custom Steering

LEWMAR

With Lewmar's® acquisition of Whitlock Steering over a decade ago, comes a long history of providing steering solutions for a variety of sail boats from Historic J Boats to cruising and racing boats of all sizes and more. Custom steering products are available and may be what you need for your steering system. Lewmar's® Mamba™ steering system, for example is responsible for providing a solution to some of the most challenging steering issues brought about during refits of some of the world's most iconic classic yachts. For more information on how Lewmar® can provide a steering solution for your boat please contact BLA on **1300 252 725**.

Scanstrut Helm Pod

SCANSTRUT

With great new design features, the Scanstrut Helm Pod is a perfect choice for all cockpit configurations. With options to fit radar displays, chartplotters and standard navigation instruments, the choice is yours!

Features:

- Universal helm fixing (all pods come with detailed templates and spacers to suit a range of rail diameters and centres)
- Secure & watertight install
- No drill fixing kit
- Hassle free install & service
- Increased protection
- Supplied uncut

287504

BLA Code	Description	Size mm	Overall Dimensions Pod W x H x D mm
287504	Compact	228	325 x 225 x 190
287506	Compact	305	390 x 280 x 195
287502	Deep	Up to 228	320 x 220 x 190
287508	Deep	Up to 305	420 x 230 x 205

Scanstrut Helm Pod

SCANSTRUT

- 3 x Standard Instruments

With great new design features, the Scanstrut Helm Pod is a perfect choice for all cockpit configurations. With options to fit radar displays, chartplotters and standard navigation instruments, the choice is yours!

Features:

- Can accommodate 3 standard instruments
- Universal helm fixing (all pods come with detailed templates and spacers to suit a range of rail diameters and centres)
- Secure & watertight install
- No drill fixing kit
- Hassle free install & service
- Increased protection
- Supplied uncut

BLA Code	Range Fits mm	Overall Dimensions Pod W x H x D mm
287516	203-381	425 x 175 x 120

Scanstrut Pod - Rail Mounted

SCANSTRUT

Designed with the latest generation screens in mind, the ultra compact 7" Scanpod Range is as low profile as it can get. Rail mounted pod for 7" displays or standard instruments (ultra compact, slim back). Achieve a neat and streamlined look overall, perfect for installations where there is limited space available.

287518

287522

BLA Code	Description	Size mm	Overall Dimensions Pod W x H x D mm
287518	Deep	Suits 1 x standard instrument	123 x 135 x 95
287520	Deep	Up to 178	275 x 200 x 190
287522	Ultra Compact	Up to 178	275 x 195 x 135

Scanstrut Pod - Arm Mounted

SCANSTRUT

Designed with the latest generation screens in mind, the ultra compact 7" Scanpod Range is as low profile as it can get. White, arm mounted Pod for 7" displays or standard instruments (ultra compact, slim back). Achieve a neat and streamlined look overall, perfect for installations where there is limited space available.

287524

287528

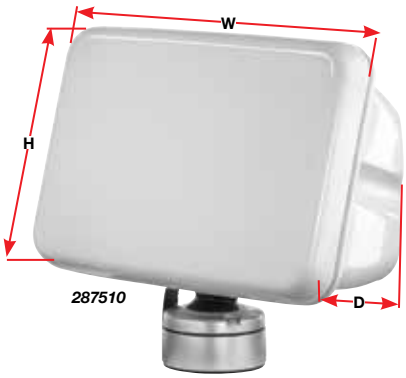
BLA Code	Description	Size mm	Overall Dimensions Pod W x H x D mm	Dimensions Arm Overall mm	Dimensions Arm To centre thread mm
287524	Deep	Suits 1 x standard instrument	123 x 135 x 95	185	155
287526	Deep	Up to 178	275 x 195 x 185	185	155
287528	Ultra Compact	Up to 178	275 x 200 x 140	185	155

Scanstrut Deck Pod

SCANSTRUT

Designed with the latest generation screens in mind, the ultra compact 7" Scanpod Range is as low profile as it can get. White deck pod for displays up to 7" displays (ultra compact, slim back). Achieve a neat and streamlined look overall, perfect for installations where there is limited space available. Heavy duty polished alloy ball joint mount allows a range of movement and viewing angles.

287511



287510

BLA Code	Description	Size mm	Overall Dimensions Pod W x H x D mm	Dimensions Ball Joint Height mm	Dimensions Ball Joint Dia. mm
287510	Deep	Up to 178	275 x 195 x 185	95	100
287512	Deep	Up to 228	320 x 220 x 190	95	100
287511	Ultra Compact	Up to 178	275 x 200 x 140	95	100

Image courtesy of LeisureCat

HYDRAULIC STEERING

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Introduction to Hydraulic Steering

SEASTAR SOLUTIONS

What is hydraulic steering and how does it work?

Hydraulic steering is a method of steering that uses oil to transmit force from the steering wheel to the outboard motor or rudder via flexible hoses. Hydraulic steering systems are relatively exempt of frictional loads from engine torque and similar. as most of the moving parts are running on ball bearings and in oil. This makes them more efficient, reliable and they require less maintenance than mechanical cable type steering.

Turning the wheel pumps fluid from the helm through the hoses and into the cylinder, moving the cylinder ram which in turn moves the engine through its steering arc.

At the heart of all SeaStar Solutions® hydraulic steering systems lies the helm pump. SeaStar Solutions® helm pumps are axial piston pumps specifically designed for manual hydraulic steering and all models feature an integral lock valve which prevents the steering load from feeding back to the wheel. The lock valve will not allow the rudder or drive unit to move until you open it by moving the steering wheel. It also incorporates a relief valve that provides over-pressure protection for the system components.

SeaStar Solutions® has a hydraulic cylinder to suit most steering applications with all cylinders being supplied with dual end seals, anodised aluminium or brass barrels and chrome plated or polished stainless steel shafts for minimal friction and maximum seal life.

Key Hydraulic Steering Systems

BAYSTAR™ | SEASTAR™

CAPILANO™ | SEASTAR PRO™

SEASTAR PA™ | SEASTAR DC POWER STEERING™

What is Optimus Electronic Power Steering (EPS)?

Optimus EPS truly raises the bar when it comes to comfort, control and manoeuvrability, especially for the new breed of high performance powerboats, saltwater fishing vessels, catamarans, RIBS and high end pontoon boats. It's unlike anything you've ever experienced when it comes to steering. We know you will be impressed. See page 794 for more product information.

Advantages:

- No oil at helm
- Boat that steers like a sports car
- Plug and play autopilot compatibility
- No autopilot pump or rudder feedback unit
- Adjustable speed sensitive turns lock-to-lock
- Adjustable speed sensitive wheel effort
- Can be retro-fitted to existing mechanical and electronic controlled engines. You do not have to buy new engines
- No tie bars (twin configuration)
- No liquid tie bar (CAT)
- On demand pumps which extend battery life
- Components based on existing SeaStar reliability and quality
- NMEA 2000 Certified

Key Electronic Power Steering Systems

OPTIMUS EPS BY SEASTAR | OPTIMUS 360 BY SEASTAR

Outboard Hydraulic Steering Selection Guide

		HP						
SYSTEM		75	115	150	200	250	300	300+
BayStar	Optimum							
	***Maximum							
SeaStar	Optimum							
	Maximum							
SeaStar Pro**	Optimum							
	Maximum							
SeaStar Power Assist	Optimum							
	Maximum							
SeaStar Power Assist Pro**	Optimum							
	Maximum							

N.B: Chart based on "optimum comfort".
***** Ideal for bass boats that exceed 60mph.***
****** High performance engines should use SeaStar Steering***

BAYSTAR™

BAYSTAR Outboard Hydraulic Steering

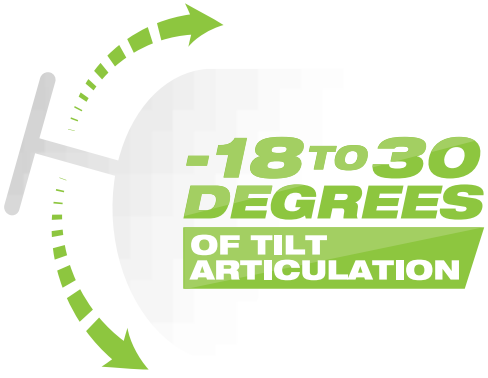
Available in front mount to suit most single outboard driven vessels up to 150HP. All models mount via the engine tilt tube and are supplied in kit form with all the necessary components to complete the installation. There are four models of front mount cylinders ensuring a perfect fit to most motors. Refer page 764 for specific details.

BAYSTAR Side Mount

This cylinder is suitable for installation in shallow splashwells and use on engines rated to 150HP. Refer to page 766 for specific details.

BAYSTAR Inboard Hydraulic Steering

Trunnion mounted inboard cylinder designed for use in relatively low torque applications - typically low speed displacement vessels. Supplied in kit form with all the necessary components to complete the installation. Refer page 767 for specific details.



SEASTAR™

SeaStar Range

SEASTAR SOLUTIONS

SEASTAR Outboard Hydraulic Steering

Available in front mount, side mount, centre mount and splashwell mount configurations to suit most single and twin outboard driven vessels up to 600HP. Mounting is via the engine tilt tube (bracket mount on splashwell and centre mount) and all models are supplied in kit form with all the necessary components to complete the installation. There are four models of front mount cylinders, ensuring a perfect fit to most outboards. Refer from page 770 for specific details.

291003

SEASTAR Outboard Pro Hydraulic Steering

Available in front mount configuration only to suit most single outboard driven vessels up to 300HP*. Specifically designed for high speed, top-end performance vessels. Mounting is via the engine tilt tube and there is a choice of standard or PRO cylinders. Refer page 776 for specific details.

Four stroke engines that have a larger percentage of the motor overhanging the steering arm and spin larger diameter props may be heavier to steer.

291018/20

SEASTAR Outboard Tournament Hydraulic Steering

The Tournament tiebar series cylinders are recommended for serious offshore use and suited to high horsepower, multi-engine applications. Designed for extreme conditions with a massive one inch stainless steel integral tie bar and heavy duty pivot plate. Available in port, starboard or centre configuration to suit most dual and triple applications. Refer page 778 for specific details.

***Picture of 291050 consists of 291222 Hardware Kit.**

291050

291210

SEASTAR Inboard Hydraulic Steering

Large range of trunnion mounted inboard cylinders suitable for use in applications as varied as jet driven vessels to 15 metre twin engine planning vessels. Most cylinders are supplied in kit form, but as with all SeaStar Solutions steering, the components are available separately. Refer page 786 for specific details.

291060/62/64/66/68

SEASTAR Stern Drive Hydraulic Steering

A range of cylinders is available, specifically designed to suit the engine manufacturer's steering mounts on most models of stern drives. Supplied in kit form with all the necessary components to complete the installation. Refer page 784 for specific details.

CAPILANO Inboard Hydraulic Steering

Trunnion mounted inboard cylinders suitable for use on vessels up to 18 metres. Supplied in kit form with all the necessary components to complete the installation except for the copper tubing. Refer to page 788 for specific details.

294032/38

SEASTAR Power Steering

Suitable for use on vessels up to 30 metres, the SeaStar® hydraulic power steering systems use the vessels engine to provide the power for the steering system via a motor driven hydraulic pump. Manual hydraulic steering is also incorporated into the system to provide steering when engines are not running. SeaStar® power steering is not supplied in kit form as most vessels have different requirements. Refer to page 793 for specific details.

295002

SEASTAR Hydraulic DC Power Steering System

Developed for use in today's large, high powered luxury vessels and commercial craft where ease of operation and reliability are paramount. SeaStar® Power Steering Systems provide the ultimate in simplicity, safety, reliability and performance. Refer to page 791 for specific details.

295102

Optimus EPS & 360 Selection Guide

SEASTAR SOLUTIONS

OPTIMUS EPS SYSTEM			
	Boat Size ft		
	40	70	70+
Outboard Hydraulic Steering			
Inboard & Sterndrive Hydraulic Steering			
Inboard Hydraulic Steering			

OPTIMUS 360 SYSTEM			
	Engine Applications		
	Twin	Triple	Quad
Hydraulic Steering			

OPTIMUS EPS BY SEASTAR

ELECTRONIC POWER YOU CAN FEEL

OPTIMUS EPS WHEEL TURNS FULLY PROGRAMMABLE 3.5 8.5

OPTIMUS EPS Outboard Electronic Steering

Steering (EPS) for single, twin, triple and quad outboard engine boats, and also single and dual helm station boats. Optimus EPS truly raises the bar when it comes to comfort, control and maneuverability, especially for the new breed of high performance powerboats, saltwater fishing vessels, catamarans. The electronics provide the very best in performance with car-like feel for effortless and comfortable control steering at speed or under extreme conditions while lightening the steering load during low speed manoeuvres.

292160

OPTIMUS EPS Inboard & Sterndrive Electronic Steering - Applications Under 40ft

Available for both retro-fit and new engine installations. Suits most single and twin inboard and sterndrive engine boats, both electronic and mechanical controlled up to 40ft. Also suits single and twin helm station vessels. Lock-to-lock turns and wheel effort are programmed to change with engine RPM. At slow speeds, Optimus EPS can be set to reduce the number of turns lock-to-lock, for example 4 and make it easier to steer. When you're negotiating through traffic or in a tight spot, those smaller moves of the wheel give you precise control. When you're running at speed in open water, Optimus EPS can be set to increase lock-to-lock turns, and increase steering effort giving the driver more stability to comfortably keep on course.

292180
Inboard

292182
Sterndrive

OPTIMUS EPS Inboard Electronic Steering

- Applications 40-70ft

Available for both retro-fit and new engine installations. Suits most single and twin inboard engine boats, both electronic and mechanical controlled up from 40ft-70ft. Also suits single, twin and triple helm station yachts. Lock-to-lock turns and wheel effort are programmed to change with engine RPM. At slow speeds, Optimus EPS can be set to reduce the number of turns lock-to-lock, for example 4 and make it easier to steer. When you're negotiating through traffic or in a tight spot, those smaller moves of the wheel give you precise control. When you're running at speed in open water, Optimus EPS can be set to increase lock-to-lock turns, for example, and increase steering effort giving the driver more stability to comfortably keep on course. And through it all, Optimus EPS does the work, so you can relax and take it easy.

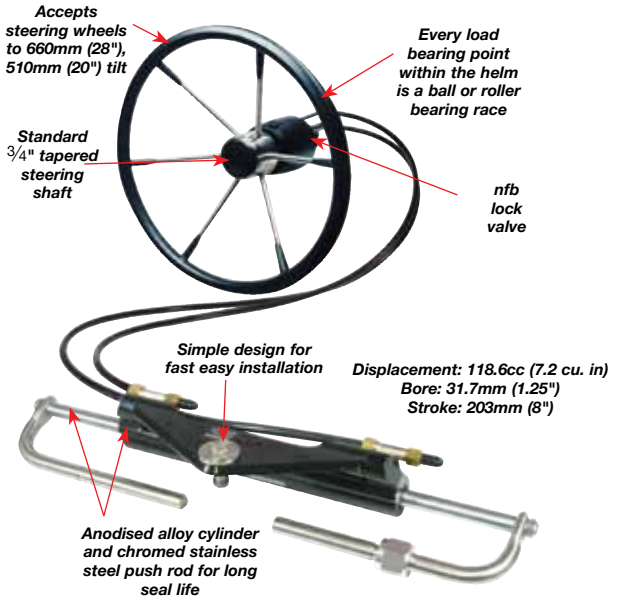
292176
Inboard

OPTIMUS 360 Electronic Steering

A revolutionary joystick steering/shift/throttle control system engineered for powerboats with mechanically-controlled twin outboards and select electronic controlled twin, triple and quad outboard engines. Optimus 360 uses state-of-the-art electronics to provide easy 360 degree manoeuvring capabilities when docking, negotiating crowded areas or by loading a vessel onto a trailer. Refer to page 802 for specific details.

BayStar Compact Outboard Steering

BayStar™ Plus outboard hydraulic steering has been developed by SeaStar Solutions® to suit most single outboard driven vessels up to 150HP*. For applications that exceed BayStar's HP rating please purchase one of our SeaStar® products.



Features:

- Patented No FeedBack™ steering lock valves
- Super low friction helm for smooth comfortable steering
- 5.2 turns lock to lock
- Balanced design that fits most splashwells provides full engine movement
- Cylinders to suit most outboards

** Not recommended for Mercury 150HP Optimax DFI*

Three easy steps to order your BayStar™ Steering kit:

1. Check helm dimensions: Front Mount Hydraulic Helm

- Used with both front and side mount cylinders
- Easily installed to your existing console to create a professional finish
- Easy front of console filling point for hydraulic oil
- Simple purging process

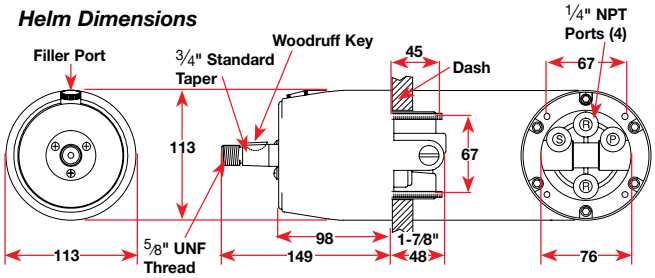
2. Check cylinder dimensions: Front Mount Cylinder

- This compact unit fits narrow splashwells with only 534mm width required
- The steering cylinder is protected in the splashwell
- One common cylinder fits most outboards to 150HP
- Fits to outboard tilt tube

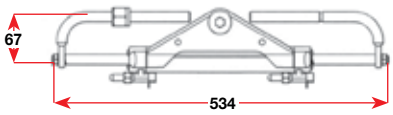
3. Splashwell:

Is there enough room in the splashwell for full engine tilt? Check your dimensions (A, B & C) and ensure that they are the same or more than what is listed.

Helm Dimensions

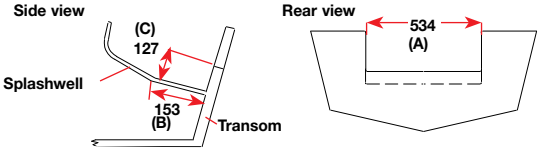


Cylinder Dimensions



Displacement: 118.2cc (7.7 cu. in)

Single engine splashwell minimum dimensions



Maximum transom thickness 76mm

Engine Application Guide

Cylinder BLA Code	Make	Year	Capacity	Notes
291071	Force	1985 to date	90–150HP	
291071	Honda	1992 to date	30–90HP	
291073		1998 – 2010	115–130HP	
291071		2001 to date	150HP	
291071		2003 to date	BF135HP	
291071		2010 to date	115–150HP	
291074	Johnson / Evinrude	1977 – 1990	65–150HP	
291071		1991 to date	40–150HP	
291074		1997 to date	115HP Ficht	4, 5
291071		1997 to date	75–150HP Ficht	
291074		1998 to date	40–140HP 4-Stroke	1, 4
291071	Mercury/ Mariner	1984 to date	75–150HP	
291071	Nissan	1990 to date	120–140HP	
291071	Suzuki	1986 to date	150HP	
		1996 only	115–140HP	
291071		1987 – 2002*	115–140HP	1
291071		1990 – 2000	90–100HP	
291071		1998 to date	40–70 4-Stroke	1
291075		2001 to date	115–140HP 4-Stroke	1, 4
291071	Tohatsu	1990 to date	40–140HP	
291071	Yamaha	1998 to date	40–50HP	2
291071		1998 to date	60HP	3
291071		1986 to date	70–90HP	1
291071		1997 to date	80–150HP 4-Stroke	
291074		2000 to date	25–60HP 4-Stroke	1
291074		2010 to date	70HP 4-Stroke	
291075		1997 – 2013	115A 4-Stroke	
291071		2014 to date	115B 4-Stroke	
291071	Yanmar	1990 to date	27–36HP	

Notes

1. Requires spacer kit 293690 (HO5090).
2. Engine clamp brackets must be cut or ground, and the engine through bolted onto the transom, or interference will occur, restricting engine trim and tilt.
3. Steering hook Yamaha Part #63D-48511-00-4D required.
4. Cylinder 291071 may be used in these applications. The pivot plate will need to be flipped before installation.
5. Johnson 115HP 2-stroke engines require the pivot plate to be flipped. See Note 4.

** Not suitable for 115-140HP. Suzuki motors manufactured in 1996 only*
N.B. BayStar™ Plus is not recommended for Mercury 150HP Optimax DFI

CE

BayStar Steering Kit - Semi Rigid Nylon Hose

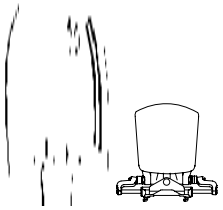
BAYSTAR™

Supplied in kit form with all the components required to complete your installation.

Kits Includes:

- BayStar™ helm pump standard **291490** or tilt helm **291492**
- BayStar™ front mount cylinder to suit engine – refer below
- 15m **292997** semi-rigid nylon hose kit
- 4 x **293610** nut and olive kit
- 1 x **291898** filler kit
- 2 x **291902** 1 litre SeaStar Solutions® oil

BLA Code	Description	Helm Type	Helm	Cylinder Part No.	SeaStar Solutions® Cylinder Code
291560	BayStar™	Std	**291490**	**291071**	HC4645H
291574	BayStar™	Tilt	**291492**	**291071**	HC4645H
291562	BayStar™	Std	**291490**	**291073**	HC4647H
291564	BayStar™	Std	**291490**	**291074**	HC4648H
291566	BayStar™	Std	**291490**	**291075**	HC4658H



Single Engine
(Single cylinder)
Applications up to 150HP maximum
Number of turns - 5.5 Balanced

Refer to the engine application guide for the correct engine cylinder model on page 764.

BayStar Steering Kit - Front Mount Standard Outboard Hose

BAYSTAR™

Kits comprise of 1 x **291490** helm, 1 x **29107X** cylinder, 2 x **291902** hydraulic oil and 2 x **2930XX** outboard hoses.

291490

291071

291902

2930XX

BLA Code	Cylinder Part No.	Hose Length ft
290010	**291071**	10
290011	**291071**	11
290012	**291071**	12
290013	**291071**	13
290014	**291071**	14
290015	**291071**	15
290016	**291071**	16
290017	**291071**	17
290018	**291071**	18
290019	**291071**	19
290020	**291071**	20

BLA Code	Cylinder Part No.	Hose Length ft
290110	**291073**	10
290111	**291073**	11
290112	**291073**	12
290113	**291073**	13
290114	**291073**	14
290115	**291073**	15
290116	**291073**	16
290117	**291073**	17
290118	**291073**	18
290119	**291073**	19
290120	**291073**	20

BLA Code	Cylinder Part No.	Hose Length ft
290210	**291074**	10
290211	**291074**	11
290212	**291074**	12
290213	**291074**	13
290214	**291074**	14
290215	**291074**	15
290216	**291074**	16
290217	**291074**	17
290218	**291074**	18
290219	**291074**	19
290220	**291074**	20

BLA Code	Cylinder Part No.	Hose Length ft
290310	**291075**	10
290311	**291075**	11
290312	**291075**	12
290313	**291075**	13
290314	**291075**	14
290315	**291075**	15
290316	**291075**	16
290317	**291075**	17
290318	**291075**	18
290319	**291075**	19
290320	**291075**	20

BayStar Steering Kit - Front Mount Bulkhead Hose

BAYSTAR™

Kits comprise of 1 x **291490** helm, 1 x **29107X** cylinder, 2 x **291902** hydraulic oil and 2 x **2933XX** bulkhead hoses.

BLA Code	Cylinder Part No.	Hose Length ft
290060	**291071**	10
290061	**291071**	11
290062	**291071**	12
290063	**291071**	13
290064	**291071**	14
290065	**291071**	15
290066	**291071**	16
290067	**291071**	17
290068	**291071**	18
290069	**291071**	19
290070	**291071**	20

BLA Code	Cylinder Part No.	Hose Length ft
290160	**291073**	10
290161	**291073**	11
290162	**291073**	12
290163	**291073**	13
290164	**291073**	14
290165	**291073**	15
290166	**291073**	16
290167	**291073**	17
290168	**291073**	18
290169	**291073**	19
290170	**291073**	20

BLA Code	Cylinder Part No.	Hose Length ft
290260	**291074**	10
290261	**291074**	11
290262	**291074**	12
290263	**291074**	13
290264	**291074**	14
290265	**291074**	15
290266	**291074**	16
290267	**291074**	17
290268	**291074**	18
290269	**291074**	19
290270	**291074**	20

BLA Code	Cylinder Part No.	Hose Length ft
290360	**291075**	10
290361	**291075**	11
290362	**291075**	12
290363	**291075**	13
290364	**291075**	14
290365	**291075**	15
290366	**291075**	16
290367	**291075**	17
290368	**291075**	18
290369	**291075**	19
290370	**291075**	20

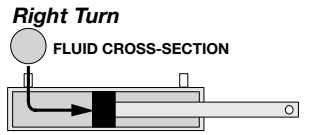
BayStar Steering Kit - Adjustable Outboard Hose

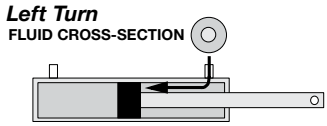
Complete BayStar™ steering kit (**291561**) providing the flexibility to enable the installer the ability to make whatever hydraulic hose length required, without the need for specialist swaged fittings. The two unique re-usable brass end fittings allow the installer to simply cut the hose to length and insert the brass connectors. Complete kit includes 50 foot length of outboard hose, BayStar™ helm, BayStar™ front mount cylinder, hydraulic oil, rubber boot and two re-usable hose fittings. Please refer to page 764 for cylinder application guide.

BLA Code	Kit Inclusions	Cat Ref. Page
291561	1 x **291071** Cylinder front mount	764
	1 x **291490** Helm - BayStar™ 1.4	812
	2 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **293050** 50 foot outboard hose	819
	2 x **297332** Re-usable hose fitting	820
	1 x **293001** Rubber boot	N/A

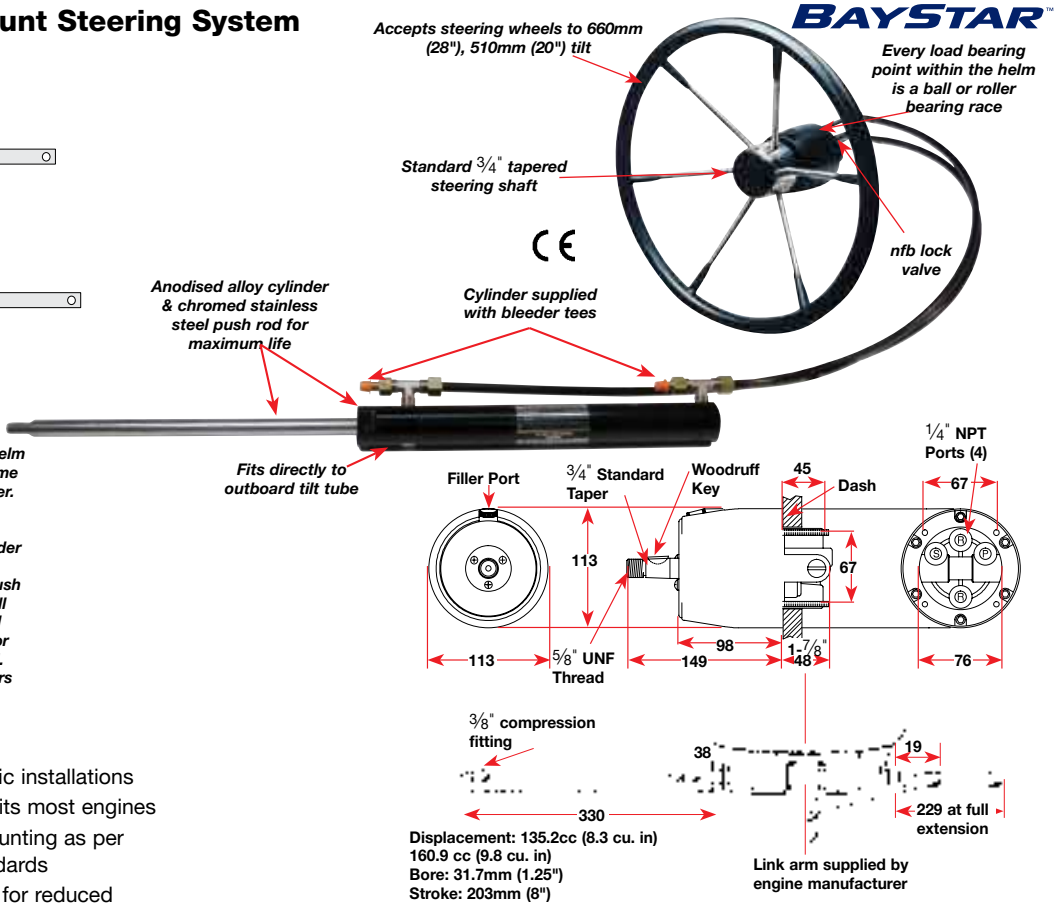
Side Mount Outboard Steering

BayStar Side Mount Steering System





Unbalanced Cylinder - Side View



N.B. Unbalanced cylinders have unequal wheel turns. When the helm is turned one turn, a certain volume of fluid is pumped into the cylinder. On one side of an unbalanced cylinder piston is the push rod, which reduces the effective cylinder volume. The cylinder area on the other side of the piston has no push rod. The rod side of the piston will move faster per turn of the wheel because less space is available for fluid than on the side with no rod. Always bleed unbalanced cylinders fully retracted.

Features:

- The simplest of hydraulic installations
- One common cylinder fits most engines
- Convenient tilt tube mounting as per ABYC/NMMA/BIA standards
- Anodised alloy cylinder for reduced friction and longer seal life
- Chromed stainless steel push rod for extended seal life
- Patented No Feedback™ steering lock valves
- 5.9 turns lock to lock

Kits Include:

- BayStar™ helm pump standard **291490** or tilt helm **291492**
- BayStar™ side mount cylinder **291072**
- 15m **292997** semi rigid nylon hose kit
- 4 x **293610** nut and olive kit
- 2 x **291902** 1 litre SeaStar Solutions® oil

BLA Code	Description
291570	BayStar™ side mount steering system - standard helm
291578	BayStar™ side mount steering system - tilt helm

BayStar Steering Kit - Side Mount Outboard Hose

Kits comprise of 1 x **291490** helm, 1 x **291072** cylinder, 2 x **291902** hydraulic oil and a choice of either 2 x standard outboard hoses, **2930XX** or 2 x thru bulkhead outboard hoses, **2933XX**.

BLA Code	Hose Type	Hose Length ft
290410	Std	10
290411	Std	11
290412	Std	12
290413	Std	13
290414	Std	14
290415	Std	15
290416	Std	16
290417	Std	17
290418	Std	18
290419	Std	19
290420	Std	20

BLA Code	Hose Type	Hose Length ft
290460	Bulkhead	10
290461	Bulkhead	11
290462	Bulkhead	12
290463	Bulkhead	13
290464	Bulkhead	14
290465	Bulkhead	15
290466	Bulkhead	16
290467	Bulkhead	17
290468	Bulkhead	18
290469	Bulkhead	19
290470	Bulkhead	20

Inboard Hydraulic Steering

BayStar Inboard Hydraulic Steering System

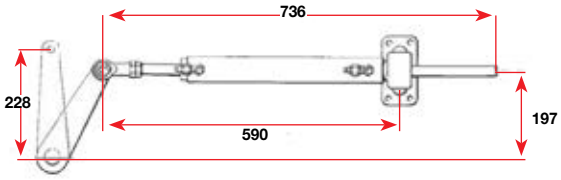
BayStar™ inboard hydraulic steering has been developed by SeaStar Solutions® for use in relatively **low torque applications - typically low speed** displacement vessels. For applications that exceed BayStar's torque rating please purchase one of our SeaStar® products.

Features:

- Anodised alloy cylinder and mount
- Compact helm
- 4.6 turns lock to lock
- Cylinder torque 52kg/m (4514in/lb)
- 15.9cm (6.25") stroke
- Balanced cylinder
- Adjustable O-ring sealed ports

Kits Include:

- 1 x BayStar™ helm pump standard **291490** or tilt helm **291492**
- 1 x BayStar™ inboard cylinder **291077**
- 15m **292997** semi rigid nylon hose kit
- 4 x **293610** nut and olive kit
- 1 x **291898** filler kit
- 2 x **291902** 1 litre SeaStar Solutions® oil

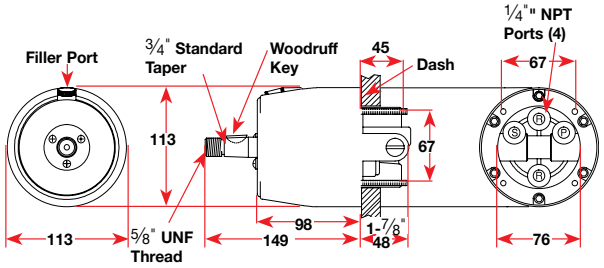


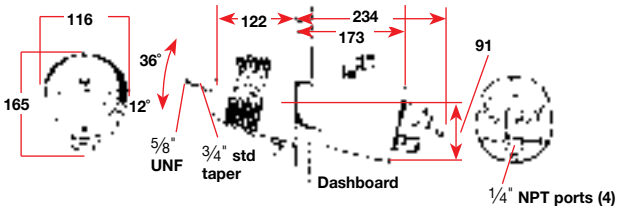
BLA Code	Description
291572	BayStar™ inboard steering system - standard helm
291579	BayStar™ inboard steering system - tilt helm

BayStar Front Helm Pumps

Features:

- Satin black baked enamel finish over anodising
- Maximum steering wheel diameter is 660mm
- Small 76mm hole cut out in dash
- Available in two capacities
- Tilt helm option
- Convenient front of dash fill
- Complete with 2 elbow fittings, 2 nuts and olives





BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291490	1.4 - front mount	22.9	1.4	70	1000
291492	1.4 - tilt	22.9	1.4	70	1000

BayStar Hydraulic Service Kits

BLA Code	SeaStar Solutions® Part No.	Description
293738	HS5147	Seal kit to suit HH4016 (**291500**) and HH14015 (**291501**) helms
293742	HS5176	Seal kit to suit HH4314 (**291490**) and HH4315 (**291492**) helms
293745	HS5161	Seal kit to suit HH5217 (**291503**) helm
293716	HS5153	Seal kit to suit HC4670H (**291072**) cylinder
293713	HP4600	Seal kit to suit HC4645H (**291071**), HC4647H (**291073**), HC4648H (**291074**) & HC4658H (**291075**) cylinders
293720	HS5154	Seal kit to suit HC4460H (**291077**) cylinder
293718	HP5607	Port side seal kit to suit HC4600H (**291070**) obsolete cylinder
293719	HP5608	Starboard seal kit to suit HC4600H (**291070**) obsolete cylinder
293631	HF4202	Bleed 'T' for BayStar™ cylinder (pk 2)

SeaStar® Hydraulic Steering

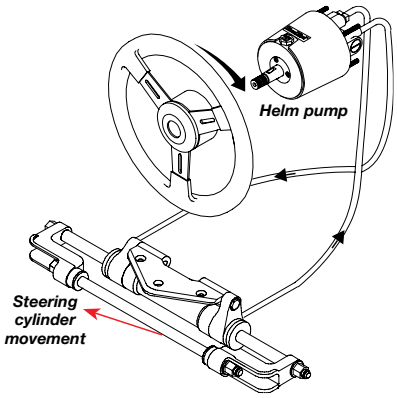
SeaStar® Steering Systems are totally self-contained, non power-assisted units that make steering a boat a truly enjoyable experience. Their super-efficient hydraulic operation produces an effect most people equate with "power steering". With a compact helm, two hoses and a cylinder, a SeaStar® system fits easily into the same space as a mechanical system.

The SeaStar® Hydraulic System

Easy to install (only three components):

- Helm
- Cylinder
- Tube or hose

Compact and attractive helm design. Variety of helm mounting configurations. Simple tube/hose fitting connections. Clear, concise installation instructions.



Easy to fill and purge:

- Engineered bleed fittings on the cylinders
- A helm and lock valve design that enhances air removal
- A no mess filler device
- Filling and purging time of normally less than 30 minutes

Features:

- Heavy duty bearings instead of bushings
- All metal construction. All exposed components are either stainless steel, marine grade anodised aluminium or brass
- Field replaceable helm and cylinder shaft seals
- Anti-friction piston points
- A no hassle warranty - two years for recreational use - one year for commercial use

Selecting the System

The objective is to match the steering cylinder to the requirements of the vessel. This depends on four factors:

1. Type of vessel - sail or powerboat, planing or displacement
2. Type of propulsion system of the vessel (i.e. inboard, outboard, stern drive, etc.)
3. The number of engines or rudders
4. The total power of the engine(s)

Once the cylinder has been selected, the helm pump(s) can be determined.

Helm selection depends on three factors:

1. Number of turns required
2. The number of steering stations
3. Helm configuration (i.e. standard, back mount or tilt helm)

No other manual hydraulic steering system gets you closer to power steering than SeaStar®

The Helm Pump

The SeaStar® helm is an axial piston pump specifically designed for manual hydraulic steering. Every load bearing point within the helm pump runs on either a roller or ball bearing race for super low friction and smooth positive steering. It has a built in lock valve to prevent the steering load from feeding back to the driver. The lock valve will not allow the rudder or drive unit to move until you open it by moving the steering wheel. The lock valve section of the helm also includes a relief valve. This relief valve provides over-pressure protection for mechanical components, hydraulic hoses and fittings.

For enhanced driver visibility and comfort both standing and seated, SeaStar® offer the five position, height adjustable tilt helm. Tilt helms are available for all outboard, stern drive and inboard SeaStar® systems.

The Cylinder

The SeaStar® system has a cylinder for most steering applications. With reliability being paramount in SeaStar's design concept, all steering cylinders feature dual end seals, anodised aluminium or brass barrels and chrome plated stainless steel shafts for minimal friction and maximum seal life

Hose & Connections

Required to provide a path for the fluid to flow under pressure from the helm pump to the cylinder. It is recommended to only use hydraulic oil supplied specifically for SeaStar®.
Refer page 814.

Outboard Hose

Semi Rigid Tube

EASY TO INSTALL
ONLY THREE COMPONENTS HELM, CYLINDER, TUBE OR HOSE

Outboard Steering Kits

SeaStar Standard Steering System Kits

- Front Mount

Single Outboard - 4.9 Turns

BLA Code	Inclusions
291600	1 x **291003** Front mount cylinder 1 x **291502** 1.7 front mount helm 1 x **292997** 15m nylon semi rigid tube 4 x **293610** Nut & olive kit 3 x **291902** 1 litre SeaStar Solutions® oil

Twin Outboard, Twin Cylinder - 4.9 Turns

BLA Code	Inclusions
291602	2 x **291003** Front mount cylinder 1 x **291502** 1.7 front mount helm 1 x **292997** 15m nylon semi rigid tube 4 x **293002** 600mm outboard hoses 4 x **291902** 1 litre SeaStar Solutions® oil 2 x **293632** Synchronisation valves 2 x **293610** Nut and olive kit

Refer page 771 for details

SeaStar Steering System Kits

- Front Mount, Thru Bulkhead

Single Outboard - 4.9 Turns

Inclusions:

1 x **291003** Front mount cylinder
1 x **291502** 1.7 front mount helm
1 x **292997** 15m nylon semi rigid tube
2 x **2930XX** Outboard hoses
1 x **293630** Bulkhead fitting kit
4 x **293610** Nut & olive kit
3 x **291902** 1 litre SeaStar® oil

BLA Code	Outboard Hose Length mm	ft
291592	610	2
291593	915	3
291594	1220	4

Refer page 770 for details

SeaStar Pro Steering System Kits

- Front Mount

Single Outboard - 4.9 Turns

Inclusions:

1 x **291003** Front mount cylinder
1 x **291540** 2.0 front mount Pro helm
2 x **2931XX** Pro hoses
3 x **291902** 1 litre SeaStar® oil

BLA Code	Description
291814	Pro front mount steering kit 14ft hoses
291816	Pro front mount steering kit 16ft hoses
291818	Pro front mount steering kit 18ft hoses
291820	Pro front mount steering kit 20ft hoses
291824	Pro front mount steering kit 24ft hoses

Refer page 770 for details

SeaStar Adjustable Outboard Hose Kits

Not sure of the hose length required to install your hydraulics into your vessel? BLA has made available the most popular kit to now include a 50 foot length of hose and 2 x re-usable fittings. Simply cut the hose to length and apply fittings.

BLA Code	Description
291601	1 x **291003** Cylinder front mount 1 x **291502** Helm - SeaStar 1.7 3 x **291902** 1 litre SeaStar Solutions Oil 1 x **293050** 50 foot outboard hose 2 x **297332** Reusable hose fitting 1 x **293001** Rubber boot

BLA Code	Description
291604	1 x **291016** Cylinder front mount 1 x **291502** Helm - SeaStar 1.7 3 x **291902** 1 litre SeaStar Solutions Oil 1 x **293050** 50 foot outboard hose 2 x **297332** Reusable hose fitting 1 x **293001** Rubber boot

BLA Code	Description
291640	1 x **291012** Cylinder front mount 1 x **291502** Helm - SeaStar 1.7 3 x **291902** 1 litre SeaStar Solutions Oil 1 x **293050** 50 foot outboard hose 2 x **297332** Reusable hose fitting 1 x **293001** Rubber boot

SeaStar Steering System Kits

- Side Mount

Single Outboard - 4.9 Turns

BLA Code	Inclusions
291610	1 x **291010** Side mount cylinder 1 x **291502** 1.7 front mount helm 1 x **292997** 15m nylon semi rigid tube 4 x **293610** Nut & olive kit 3 x **291902** 1 litre SeaStar Solutions® oil

SeaStar Steering System Kits - Catamaran

Single Outboard - 5.5/6.5 Turns

BLA Code	Inclusions
291608	1 x **291006** Tandem mount cylinder 1 x **291502** 1.7 front mount helm 1 x **292997** 15m nylon semi rigid tube 4 x **293610** Nut & olive kit 3 x **291902** 1 litre SeaStar Solutions® oil

Refer page 782 for details.
N.B. This system is recommended for OEM installation only.

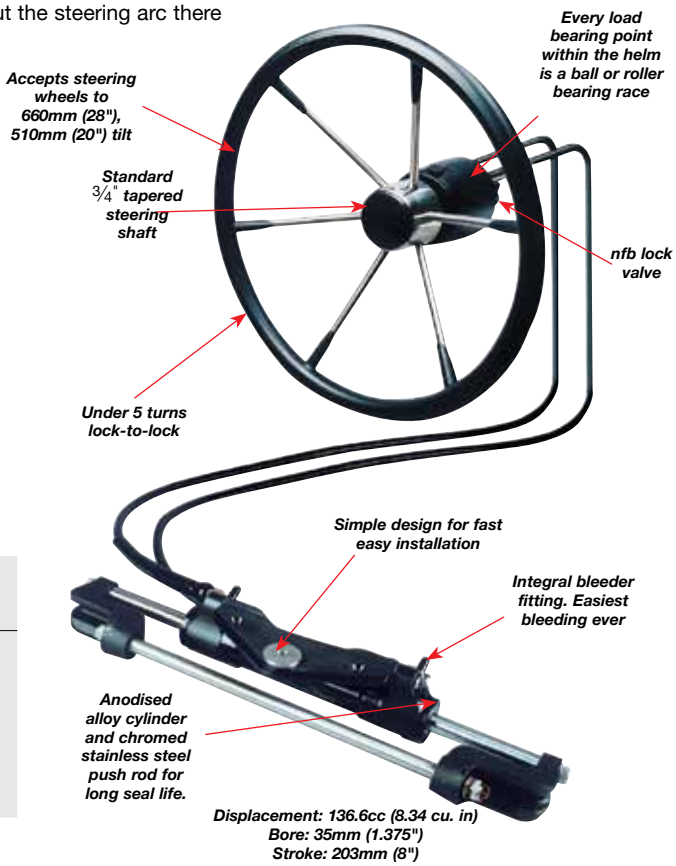
Front Mount Outboard Steering

SeaStar Outboard Steering System - Front Mount

Performance: This pivoting cylinder from SeaStar® offers the incredible steering ease and reliability that puts SeaStar® cylinders way ahead of the competition. Throughout the steering arc there simply isn't anything that feels better to drive!

Simplicity: Integral bleeders and few components make installation a snap. Less moving parts and improved seals boost durability and reduce maintenance.

Reliability: SeaStar® took it's previous cylinder's outstanding design to the next level, improving seals, bearings, fittings and corrosion protection.



Features:

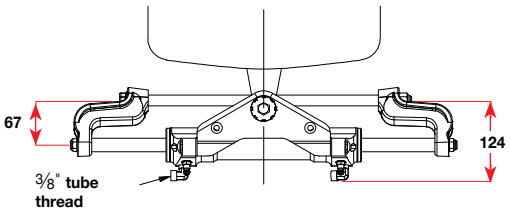
- 20% less effort at hard-over than competitive systems
- Rigid tilt tube mount for no-compromise performance
- Unique pivoting tiller connection allows full engine articulation with independent tilt and trim on twin engines
- Ultra corrosion resistant construction. Painted components are anodised before coating for extra protection
- Small footprint fits virtually all splashwells
- Meets ABYC standards/NMMA requirements

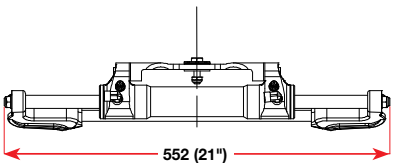
BLA Code	Description	SeaStar Solutions® Code
291003	Front mount cylinder - standard	HC5345-3
291004	Front mount cylinder - short stroke	HC5445-3
291012	Front mount cylinder - 1977-90 OMC	HC5348-3
291014	Front mount cylinder - 115-130HP Honda	HC5347-3
291016	Front mount cylinder - Yamaha	HC5358-3
291017	Front mount cylinder - Yamaha HD (suits Catamaran fluid link apps.)	HC5375-3

Engine Application Guide

Cylinder BLA Code	Make	Year	Capacity	Notes
291003	Force	1985 to date	90-150HP	
291003	Honda	1996 to date	75-90HP	
291014		1998 - 2009	115-130HP	
291003		1998 to date	30-50HP	1
291004		2001 to date	BF200-250	
291003		2003 to date	BF135HP	
291003		2010 to date	115HP	
291012	Johnson / Evinrude	1977 - 1990	65-300HP	
291003		1991 to date	40-300HP	Inc. ETech
291003		1996 to date	75-250HP Ficht	
291016		1998 to date	40-140HP 4-Stroke	1
291016		2000 to date	115HP Ficht	1
291003		2002 to date	200-225HP 4-Stroke	
291003		2007 to date	3.3L/3.4L 200-250HP	Inc. H.O. Models
291003	Mercury	1984 - 1994	2.4/2.5HP EFI	2
291003		1989 to date	75-300HP	
291003		1998 to date	30-60HP	1
291003		2003 to date	115-300HP XS	3
291003		2004 to date	150-200HP Verado	4, 5
291003	Nissan	1990 to date	90-140HP	
291003	Suzuki	1986 to date	100HP	
291003		1986 - 2002	115-140HP	Not 1996
291003		1986 to date	150-300HP 2 & 4 Stroke	
291012		1996 only	115-140HP	
291016		1998 to date	40-140HP 4-Stroke	1
291003	Yamaha	1990 - 2003	40-90 HP 2-Stroke	1
291003		1986 to do	100-300 HP 2-Stroke	
291003		1997 to date	80-250 HP 4-Stroke	
291003		2000 to date	150-300 HPDI	
291012		2003 to date	25-70 HP 4-Stroke	1
291003		2007 to date	200-300 HP 4.2L V6 4-Stroke	
291003		2007 to date	F300-F350 HP 5.3V8	4
291016		2011 - 2013	F115A	
291003		2014 to date	F115B	

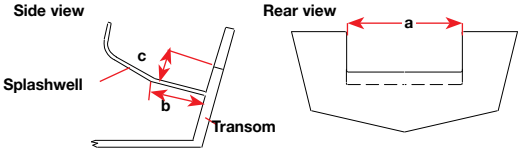
Cylinder dimensions (top view)





Cylinder dimensions (front view)

Minimum dimensions required			
No. of engines	a	b	c
One	559mm	152mm	127mm
Two	1244mm	152mm	127mm
Minimum engine centre distance for twin engines 660mm			



Notes

1. *Requires Space Kit #293690*
2. *May Require Extensive Cowling Modifications*
3. *MUST use High Strength Tiller bolt, Part #293692*
4. *Optional cylinder part #291016. Slight interference may occur when using the 291016, with the engine in the full tilt position*

Selecting Front Mount Outboard Hydraulic Steering

1. Select the system configuration based on number of engines and total engine power.
2. From the application guide on the previous page, confirm that the cylinder will fit your specific make and model of engine(s).
3. For twin engine, single cylinder applications, select the appropriate tie bar. Refer page 777.
4. Select the appropriate helm, accessories and plumbing.
5. Ensure there is sufficient space available in the splashwell and dash area.

Single Engine

BLA Code	Description	Qty Req.	Cat. Ref. Page	**291600** Kit Inclusions	**291603** Kit Inclusions	**291605** Kit Inclusions	**291607** Kit Inclusions
2910XX*	Cylinder - front mount	1	770	1 x **291003**	1 x **291014**	1 x **291016**	1 x **291012**
293690	Spacer kit (some models only)	1	820				
291502	Helm - SeaStar® 1.7 - front mount	1	812	1 x **291502**	1 x **291502**	1 x **291502**	1 x **291502**
292997	Hose kit - nylon semi rigid 15m	1	819	1 x **292997**	1 x **292997**	1 x **292997**	1 x **292997**
293610	Nut and olive kit	4	817	4 x **293610**	4 x **293610**	4 x **293610**	4 x **293610**
291902	1 litre SeaStar Solutions® oil	3	814	3 x **291902**	3 x **291902**	3 x **291902**	3 x **291902**
	For extra steering station add:						
291502	Helm - SeaStar® 1.7 - front mount	1	812				
293604	Add a station/pilot fitting kit	1	816				
291902	1 litre SeaStar Solutions® oil	1	814				
293610	Nut and olive kit	2	817				

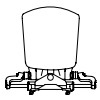
**** Refer page 770 for cylinder selection.***

Single Engine

(Single cylinder)

Applications up to 300HP maximum.

Number of turns - 4.9 Balanced



Dual Engines Fluid Link

BLA Code	Description	Qty Req.	Cat. Ref. Page	**291602** Kit Inclusions
291003*	Cylinder - front mount	2	770	2 x **291003**
293690	Spacer kit (some models only)	2	820	
291502	Helm - SeaStar® 1.7 - front mount	1	812	1 x **291502**
293002	Hose - outboard 600mm	4	819	4 x **293002**
292997	Hose kit - nylon semi rigid 15m	1	819	1 x **292997**
291902	1 litre SeaStar Solutions® oil	4	814	4 x **291902**
293632	Synchronisation valve	2	818	2 x **293632**
293610	Nut and olive kit	2	817	2 x **293610**
	For extra steering station add:			
291502	Helm - SeaStar® 1.7 - front mount	1	812	
293604	Add a station/pilot fitting kit	1	816	
291902	1 litre SeaStar Solutions® oil	1	814	
293610	Nut and olive kit	2	817	

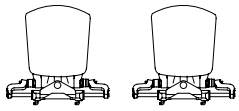
**** Refer page 770 for cylinder selection.***

Dual Engines Fluid Link

(Dual cylinders)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications to 600HP maximum.

Number of turns - 4.9 Balanced



Dual Engines Tie Bar

BLA Code	Description	Qty Req.	Cat. Ref. Page
291003*	Cylinder - front mount	1	770
293690	Spacer kit (some models only)	1	820
29119X	Tie bar	1	777
291502	Helm - SeaStar® 1.7 - front mount	1	812
292997	Hose kit - nylon semi rigid 15m	1	819
293610	Nut and olive kit	4	817
291902	1 litre SeaStar Solutions® oil	3	814
	For extra steering station add:		
291502	Helm - SeaStar® 1.7 - front mount	1	812
293604	Add a station/pilot fitting kit	1	816
291902	1 litre SeaStar Solutions® oil	1	814
293610	Nut and olive kit	2	817

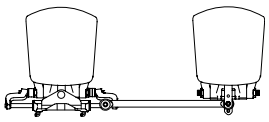
**** Refer page 770 for cylinder selection.***

Dual Engines Tie Bar

(Single Cylinder)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications up to 600HP.

Number of turns - 4.9 Balanced



Optional Equipment

BLA Code	Description	Cat. Ref. Page
291908	Back plate for front mount helms	813
291906	20° wedge for front mount helms	814
291913	Round bezel kit	813
291504	Helm - SeaStar® 2.0 - front mount	812
291506	Helm - SeaStar® 2.4 - front mount	812
291508	Helm - SeaStar® 3.0 - front mount	812
291512	Helm - SeaStar® 1.7 - tilt	813
291515	Helm - SeaStar® 1.7 - Sport tilt	813
291516	Helm - SeaStar® 2.4 - tilt	813
291522	Helm - SeaStar® 1.7 - rear mount	813
291526	Helm - SeaStar® 2.4 - rear mount	813
291528	Helm - SeaStar® 3.0 - rear mount	813
291540	Helm - SeaStar® 2.0 Pro front mount	812
291542	Helm - SeaStar® 2.0 Pro tilt	813
2930XX	Hose - Outboard	819
2931XX	Hose - SeaStar® Pro	819
2933XX	Hose - Outboard thru bulkhead	819
2934XX	Hose - Pro thru bulkhead	819

Notes:

Four stroke engines that have a larger percentage of the motor overhanging the steering pivot and spin larger diameter props may be heavier to steer. SeaStar® Power Assist (refer page 810) recommended for heavier steering load applications.
Not recommended for use with installations in which:

a. Chopper, cleaver or surface-piercing propellers are used
b. The engine is highly elevated on the transom
c. Engine trim tabs have been removed
d. The boat speed exceeds 50 knots
e. The power exceeds maximum recommendations for the boat

N.B. Other influences in the boat type, hull shape, weight, height of motor, type of propellers, engine and hull geometry have effects on the handling of the vessel. Guides within this section are typical set ups. For fitting to unusual or special combinations, please contact BLA on 1300 252 725.

Steering systems installed using a Pro Helm will require Pro hoses.
Steering systems installed using outboard or Pro hose require 293602 when adding a second station/pilot.

N.B. SeaStar® recommend outboard hoses on all front mount cylinder installation.

SeaStar Adjustable Outboard Hose Kits

SEASTAR™

Not sure of the hose length required to install your hydraulics into your vessel? BLA has made available the most popular kit to now include a 50 foot length of hose and 2 x re-usable fittings. Simply cut the hose to length and apply fittings.

291601

BLA Code	Description	Qty Req.	Cat. Ref. Page	**291601** Kit Inclusions	**291604** Kit Inclusions	**291640** Kit Inclusions
291003	Cylinder front mount	1	815	1 x **291003**	1 x **291016**	1 x **291012**
291502	Helm - SeaStar® 1.7	1	812	1 x **291502**	1 x **291502**	1 x **291502**
291902	1 litre SeaStar Solutions® oil	3	814	3 x **291902**	3 x **291902**	3 x **291902**
293050	50 foot outboard hose	1	819	1 x **293050**	1 x **293050**	1 x **293050**
297332	Re-usable hose fitting	2	820	2 x **297332**	2 x **297332**	2 x **297332**
293001	Rubber boot	1	N/A	1 x **293001**	1 x **293001**	1 x **293001**

SeaStar Standard Outboard Hose Kits - Front Mount

SEASTAR™

Kits comprise of 1 x **291502** helm, 1 x **2910XX** cylinder, 3 x **291902** hydraulic oil and 2 x **2930XX** outboard hose. Refer to engine application guide on page 770 for cylinder/motor details.

BLA Code	Cylinder Type	Hose Length ft
290510	**291003**	10
290511	**291003**	11
290512	**291003**	12
290513	**291003**	13
290514	**291003**	14
290515	**291003**	15
290516	**291003**	16
290517	**291003**	17
290518	**291003**	18
290519	**291003**	19
290520	**291003**	20
290522	**291003**	22
290526	**291003**	26

BLA Code	Cylinder Type	Hose Length ft
290610	**291014**	10
290611	**291014**	11
290612	**291014**	12
290613	**291014**	13
290614	**291014**	14
290615	**291014**	15
290616	**291014**	16
290617	**291014**	17
290618	**291014**	18
290619	**291014**	19
290620	**291014**	20

BLA Code	Cylinder Type	Hose Length ft
290710	**291016**	10
290711	**291016**	11
290712	**291016**	12
290713	**291016**	13
290714	**291016**	14
290715	**291016**	15
290716	**291016**	16
290717	**291016**	17
290718	**291016**	18
290719	**291016**	19
290720	**291016**	20

BLA Code	Cylinder Type	Hose Length ft
290810	**291012**	10
290811	**291012**	11
290812	**291012**	12
290813	**291012**	13
290814	**291012**	14
290815	**291012**	15
290816	**291012**	16
290817	**291012**	17
290818	**291012**	18
290819	**291012**	19
290820	**291012**	20

N.B. These kits also contain 293690 adaptor.

SeaStar Hose Kits

SEASTAR™

- Front Mount Bulkhead

Kits comprise of 1 x **291502** helm, 1 x **2910XX** cylinder, 3 x **291902** hydraulic oil and 2 x **2933XX** bulkhead hoses.

BLA Code	Cylinder Type	Hose Length ft
290560	**291003**	10
290561	**291003**	11
290562	**291003**	12
290563	**291003**	13
290564	**291003**	14
290565	**291003**	15
290566	**291003**	16
290567	**291003**	17
290568	**291003**	18
290569	**291003**	19
290570	**291003**	20
290572	**291003**	22
290576	**291003**	26

BLA Code	Cylinder Type	Hose Length ft
290660	**291014**	10
290661	**291014**	11
290662	**291014**	12
290663	**291014**	13
290664	**291014**	14
290665	**291014**	15
290666	**291014**	16
290667	**291014**	17
290668	**291014**	18
290669	**291014**	19
290670	**291014**	20

BLA Code	Cylinder Type	Hose Length ft
290760	**291016**	10
290761	**291016**	11
290762	**291016**	12
290763	**291016**	13
290764	**291016**	14
290765	**291016**	15
290766	**291016**	16
290767	**291016**	17
290768	**291016**	18
290769	**291016**	19
290770	**291016**	20

BLA Code	Cylinder Type	Hose Length ft
290860	**291012**	10
290861	**291012**	11
290862	**291012**	12
290863	**291012**	13
290864	**291012**	14
290865	**291012**	15
290866	**291012**	16
290867	**291012**	17
290868	**291012**	18
290869	**291012**	19
290870	**291012**	20

Side Mount Outboard Hydraulic Steering System

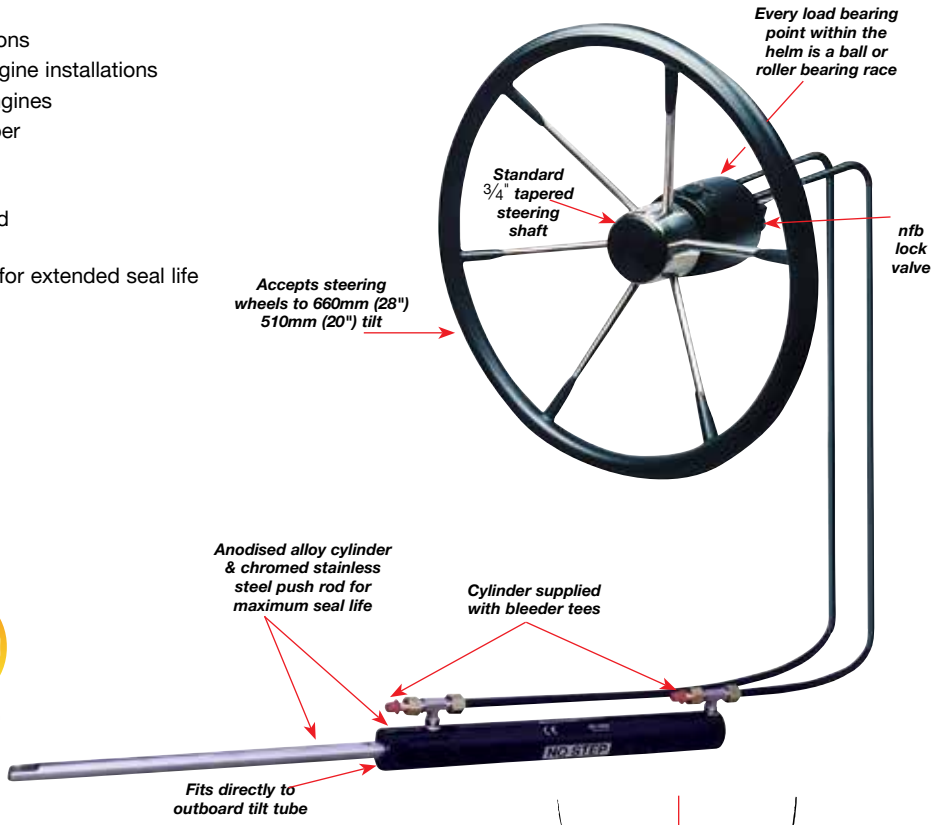
SEASTAR SOLUTIONS®

SEASTAR™

SeaStar Outboard Hydraulic Steering System - Side Mount

Features:

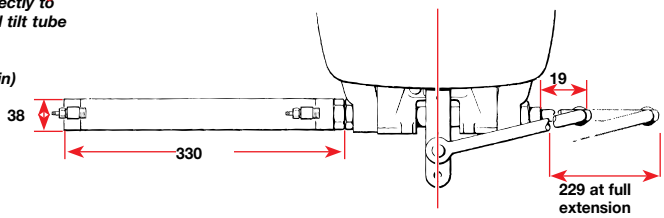
- The simplest of hydraulic installations
- Independent engine tilt for twin engine installations
- One common cylinder fits most engines
- Convenient tilt tube mounting as per ABYC/NMMA/BIA standards
- Ideal for shallow splashwells
- Anodised alloy cylinder for reduced friction and longer seal life
- Chromed stainless steel push rod for extended seal life



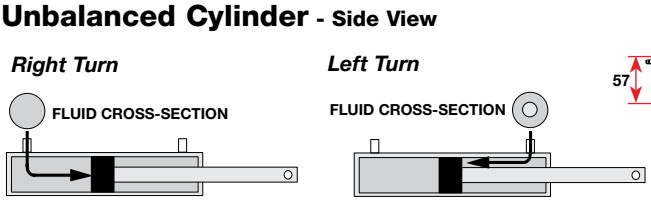
EASY TO INSTALL
ONLY THREE COMPONENTS HELM, CYLINDER, TUBE OR HOSE

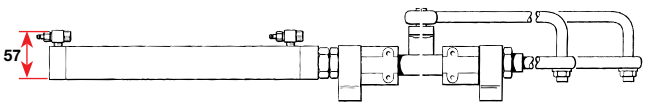
BLA Code	Description
291010	Side mount cylinder

Displacement: 135.2cc (8.3 cu. in)
Bore: 31.7mm (1.25")
Stroke: 203mm (8")



Unbalanced Cylinder - Side View





N.B. Unbalanced cylinders have unequal wheel turns. When the helm is turned one turn, a certain volume of fluid is pumped into the cylinder. On one side of an unbalanced cylinder piston is the push rod, which reduces the effective cylinder volume. The cylinder area on the other side of the piston has no push rod. The rod side of the piston will move faster per turn of the wheel because less space is available for fluid than on the side with no rod.

UNBALANCED SINGLE CYLINDER SYSTEMS CANNOT BE USED IN CONJUNCTION WITH SEASTAR® PRO HELM.

Selecting a Side Mount Outboard Steering System

From the selection guide (next page) select the system configuration based on:

1. The number of engines and total engine power
2. Select the **291198** tie bar if a dual engine, single cylinder installation is required
3. Select the appropriate helm and accessory hardware for each steering station
4. Select the fitting and hose kits required for the installation
5. Confirm there is sufficient space available in the splashwell and dash areas for the steering components.

CE

Selecting Side Mount Outboard Hydraulic Steering

SEASTAR

Single Engine

BLA Code	Kit Inclusions	Cat. Ref. Page
291610	1 x **291010** Cylinder - side mount	815
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **292997** Hose kit - nylon semi rigid 15m	819
	4 x **293610** Nut and olive kit	817
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

Single Engine

(Single cylinder)

Applications up to 300HP maximum.

Number of turns - 4.9

Not compatible with Pro helm

Dual Engines Fluid Link

BLA Code	Kit Inclusions	Cat. Ref. Page
291612	1 x **291010** Cylinder - side mount	815
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **292997** Hose kit - nylon semi rigid 15m	819
	6 x **293610** Nut and olive kit	817
	4 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293632** Synchronisation valve	818
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

Dual Engines Fluid Link

(Dual cylinders)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications to 600HP maximum.

Number of turns - 4.9

Compatible with Pro helm

Dual Engines Tie Rod

BLA Code	Kit Inclusions	Cat. Ref. Page
291614	2 x **291010** Cylinder - side mount	815
	1 x **291198** Tie bar	777
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **292997** Hose kit - nylon semi rigid 15m	819
	4 x **293610** Nut and olive kit	817
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

Dual Engines

(Single Cylinder)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications up to 600HP maximum.

Number of turns - 4.9

Not compatible with Pro helm

SeaStar Outboard Hose Kits - Side Mount

SEASTAR

Kits comprise of 1 x **291502** helm, 1 x **291010** cylinder, 3 x **291902** hydraulic oil and a choice of either 2 x standard outboard hoses, **2930XX** or 2 x thru bulkhead outboard hoses.

BLA Code	Cylinder Type	Hose Length ft
290910	Standard	10
290911	Standard	11
290912	Standard	12
290913	Standard	13
290914	Standard	14
290915	Standard	15
290916	Standard	16
290917	Standard	17
290918	Standard	18
290919	Standard	19
290920	Standard	20

BLA Code	Cylinder Type	Hose Length ft
290960	Bulkhead	10
290961	Bulkhead	11
290962	Bulkhead	12
290963	Bulkhead	13
290964	Bulkhead	14
290965	Bulkhead	15
290966	Bulkhead	16
290967	Bulkhead	17
290968	Bulkhead	18
290969	Bulkhead	19
290970	Bulkhead	20

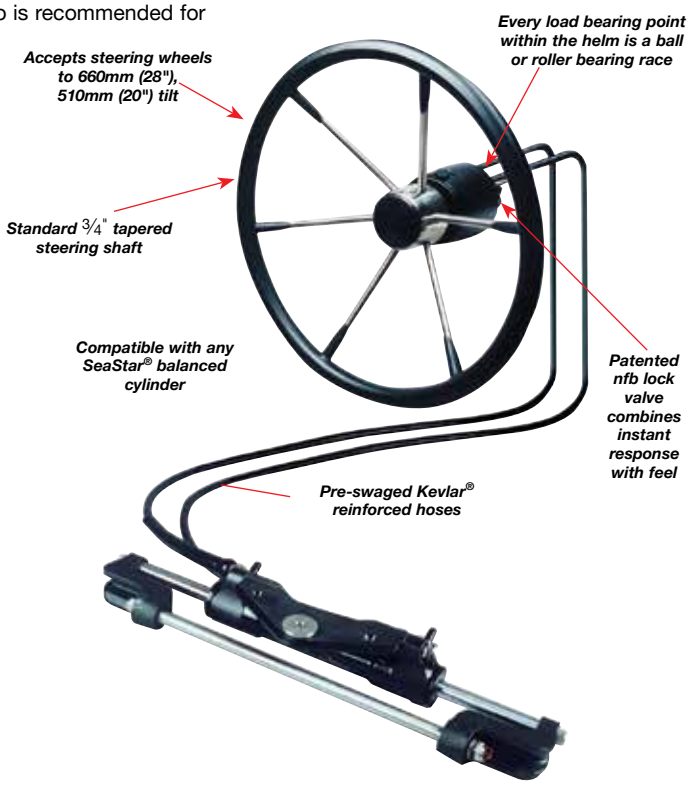
Pro Hydraulic Steering

SeaStar Pro Hydraulic Steering System

SeaStar's premier No FeedBack™ System, designed to be the best steering system available for the performance boating enthusiast. SeaStar® Pro is recommended for single outboards up to 300HP, even with jackplates and performance props.

Features:

- A lock valve unique to SeaStar® Pro, provides instant steering response without loss of engine feel or comfort
- High speed course running with unrivalled response
- Effortless No FeedBack™ steering
- Safer trim adjustment for added performance
- Superior boat control
- Meets ABYC/NMMA/BIA standards



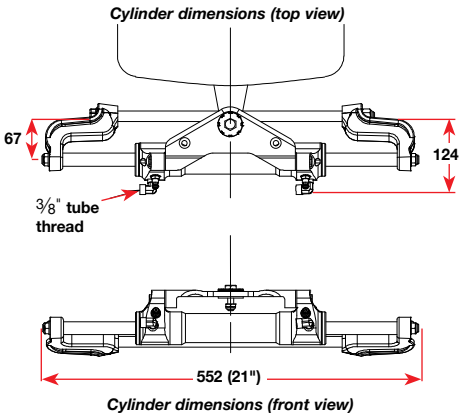
SeaStar Pro Hydraulic Cylinder

The front mount Pro Hydraulic Cylinder by SeaStar® has been specifically designed and manufactured to increase feel and control of high performance outboard powered vessels that have a high level of wear and tear and are used frequently.

Key features of the Pro Cylinder include, heavier duty pivot plate bushes that reduce wear in harsh conditions and longer cylinder rod bushes which create a better seal on the end gland. The cylinder is more rigid due to the addition of the key ways on the support rod and support brackets. The patented 'pivot' mount design, utilised on the Pro Cylinder, guarantees continuous smooth, comfortable steering, and maximum efficiency even at the 'hard-over' positions.

BLA Code	Description
291018	SeaStar® Pro cylinder - HC6345
291020	SeaStar® Pro cylinder - HC6358

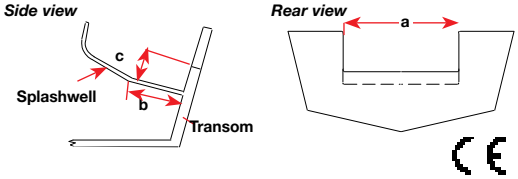
N.B. Please refer to the engine application guide below for the correct engine/ cylinder match



Engine Application Guide - Pro and Standard Front Mount

BLA Code	Make	Year	Capacity	Notes
291018	Honda	1996 to date	150-300HP	Not available for BF series engines
291018	Honda	2001 to date	BF200-BF250	Requires Optional cylinder **291004**
291018	Honda	2003 to date	BF150	Requires Optional cylinder **291004**
N/A	Johnson / Evinrude	1977 - 1990	150-300HP	
291018	Johnson / Evinrude	2002 to date	150-250HP 4-Stroke	Optional Cylinder **291003**
291018	Johnson / Evinrude	2003 to date	150-300HP Etech	Optional Cylinder **291003**
N/A	Johnson / Evinrude	2005 to date	E250HP Vindicator	
291018	Mercury	1989 to date	150-300 XS Engines	
291018	Mercury	1989 to date	150-300HP 2-Stroke & 4-Stroke	Optional Cylinder **291003**
291018	Suzuki	1986 to date	150-300HP 2 and 4-Stroke	Optional Cylinder **291003**
291018	Yamaha	1986 to date	150-350HP 2 and 4-Stroke	Optional Cylinder **291003**

Minimum dimensions required			
No. of engines	a	b	c
One	559mm	152mm	127mm
Two	1244mm	152mm	127mm
Minimum engine centre distance for twin engines 660mm			



Selecting SeaStar® Pro Hydraulic Steering

1. Choose either the front mount pro helm or tilt pro helm and confirm that there is sufficient space in the dash area for the steering components.
2. Select any balanced outboard or trunnion mounted cylinder.
3. For front mount cylinders, refer pages 770 & 775, confirm that the cylinder selected will fit your specific make, model and year of motor.
4. Side mount cylinders may only be used in a twin engine, twin cylinder, fluid linked balanced system.
5. Select the fittings and hose kits required for the installation.

For front mount single engine steering you can order one of our complete steering systems as detailed below.

N.B. Complete front mount steering systems may require an alternative adaptor kit depending on the motor to which the steering is to be fitted. Refer pages 770.

Steering In A Box

Retail packaged SeaStar® Pro hydraulic steering system for single outboard boats.

Contains:

- **2918XX** system (last two digits denote hose length in feet)
- Bleeder kit
- Detailed instructions

Single Engine, Front mount pivot cylinder

BLA Code	Kit Inclusions	Cat. Ref. Page
2918XX	1 x **291540** Helm SeaStar® - 2.0 Pro - front mount	812
	1 x **291003** Cylinder - front mount pivot	770
	1 x **2910XX*** Cylinder - Pro front mount	775
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **2931XX** Hose - SeaStar® Pro	819

Last two digits of kit denotes length of hose in feet

BLA Code	Description
291814	Pro steering kit with 4.27m (14') hoses
291816	Pro steering kit with 4.87m (16') hoses
291818	Pro steering kit with 5.49m (18') hoses
291824	Pro steering kit with 7.32m (24') hoses

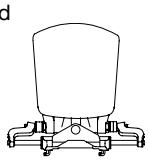
Single Engine

(Single front mount pivot cylinder)

Applications up to 300HP maximum. Especially those capable of speeds over 110kph/60kts.

Number of turns - 4.2

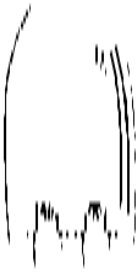
Balanced



Dual Engines, Fluid Link, Twin Front Mount Pivot Cylinders

BLA Code	Description	Qty Req.	Cat. Ref. Page
291540	Helm SeaStar® - 2.0 Pro - front mount	1	812
2910XX*	Cylinder - front mount pivot	2	770
2910XX*	Cylinder - Pro front mount	1	775
291902	1 litre SeaStar Solutions® oil	4	814
2931XX	Pro hose - helm to syncro valve	1	819
2931XX	Pro hose - helm to cylinder	1	819
2931XX	Pro hose - cylinder to syncro valve	2	819
2931XX	Pro hose - cylinder to syncro valve	1	819
293632	Hydraulic synchro valve	1	818

Last two digits of pro hose denotes length of hose in feet



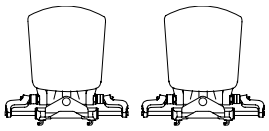
Dual Engines Fluid Link

(Dual cylinders)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications to 600HP maximum.

Number of turns - 4.2

Balanced



Dual Engines, Fluid Link, Twin Side Mount Cylinders

BLA Code	Description	Qty Req.	Cat. Ref. Page
291540	Helm SeaStar® - 2.0 Pro - front mount	1	812
291010	Cylinder - side mount	2	815
291902	1 litre SeaStar Solutions® oil	3	814
2931XX	Pro hose - helm to syncro valve	1	819
2931XX	Pro hose - helm to cylinder	1	819
2931XX	Pro hose - cylinder to syncro valve	2	819
2931XX	Pro hose - cylinder to syncro valve	1	819
293632	Hydraulic synchro valve	1	818
	For extra steering station add:		
291540	Helm SeaStar® - 2.0 Pro - front mount	1	812
293602	Add a station fitting kit	1	816
291902	1 litre SeaStar Solutions® oil	1	814

Last two digits of pro hose denotes length of hose in feet

Dual Engines Fluid Link

(Dual cylinders)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications to 600HP maximum.

Number of turns - 4.9

Balanced

Optional Equipment

BLA Code	Description	Cat. Ref. Page
291542	Pro helm 2.0 tilt	813
291908	Back plate kit for front mount helms	813
291906	20° wedge for front mount helms	814

**** Some motors may require a different cylinder, refer to pages 770 & 775 for details.***

N.B. Four stroke engines that have a larger percentage of the motor overhanging the steering pivot and spin larger diameter props may be heavier to steer. SeaStar® Power Assist (refer page 810) recommended for heavier steering load applications. Other influences in the boat's type, hull shape, weight, height of motor, type of propellers, engine and hull geometry have effects on the handling of the boat. Guides within this section are typical normal set ups. For fitting to special or unusual combinations, please contact BLA on 1300 252 725.

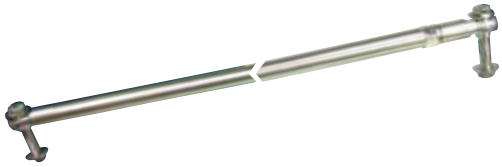
Front Mount Cylinder Tie Bars

Designed specifically for installation with the SeaStar® front mount pivot cylinders. The unique design provides mounting flexibility and independent engine tilt with fast easy installation to the majority of outboard makes and models. Materials: stainless steel and powder coated anodised aluminium.

Universal Tie Bar Kits

Stainless steel ball joint and threaded rod. Stainless outer sleeve. Provides motor alignment and adjustment.

BLA Code	Engine Centre Distance		Cylinder Suited
	min. mm	max.mm	
291198	660	914	Side mount, inboard, stern drive
291199	600	914	Splashwell mount



Front Mount Twin Outboard Steering System

Engine Application Guide

Cylinder BLA Code	Make	Year	Capacity	Number	Tie Bar Kits for Twin Engine using Single Cyl	Dual Cyl	Notes
291003	Force	1985 to date	90-150HP	HC5345-3			
291003	Honda	1996 to date	75-90HP	HC5345-3	**291190**	**291192**	3
		1998 - 2009	115-130HP	HC5347-3			5
291003		1998 to date	30-50HP	HC5345-3	**291190**	**291192**	2
291003		2001 to date	150HP 4-Stroke	HC5345-3	**N/A**	**291192**	7
291004		2001 to date	225-250HP 4-Stroke	HC5445-3	**291190**	**291192**	
291003		2003 to date	BF135HP	HC5345-3	**291194**	**291192**	
291003		2010 to date	115HP	HC5345-3	**291194**	**291192**	7
291012	Johnson / Evinrude	1977 - 1990	65-300HP	HC5348-3	**291194**	**291192**	
		1988 - 1997	250-300HP V8	HC5342-3			5
291003		1991 to date	40-300HP	HC5345-3	**291194**	**291192**	Inc. ETech Engines
291003		1996 to date	75-250HP Ficht	HC5345-3	**291194**	**291192**	
291016		1998 to date	40-140HP 4-Stroke	HC5358-3	**291194**	**291192**	2
291016		2000 to date	115HP Ficht	HC5358-3	**291194**	**291192**	2
291003		2002 to date	200-225HP 4-Stroke	HC5345-3	**291194**	**291192**	
291012		2005 to date	E250 DPX Vindicator	HC5348-3	**291194**	**291192**	
291003		2007 to date	3.3L/3.4L 200-250HP	HC5345-3	**291194**	**291192**	Inc. H.O. Models.
291003	Mercury	1984 - 1994	2.4/2.5HP EFI	HC5345-3	**291190**	**291192**	4
291003		1989 to date	75-300HP	HC5345-3	**291190**	**291192**	3
291003		1996 to date	75-200HP 2 & 4-Stroke	HC5345-3	**291190**	**291192**	
291003		1998 to date	30-60HP	HC5345-3	**291190**	**291192**	2
291016		2002 - 2003	225HP 4-Stroke	HC5358-3	**291190**	**291192**	1
		2003 to date	150-200XS	MUST Use Tournament Cylinders			
		2003 to date	250-300 HP XS	MUST Use Tournament Cylinders			
291003		2004 to date	150-200HP Verado	HC5345-3	**291190**	**291192**	
291003	Nissan	1990 to date	90-140HP	HC5345-3	**291190**	**291192**	
291003	Suzuki	1986 to date	100HP	HC5345-3	**291194**	**291192**	
291003		1986 - 2002	115-140HP	HC5345-3	**291190**	**291192**	Not 1996
291003		1986 to date	150-300HP 2 & 4 Stroke	HC5345-3	**291194**	**291192**	
291012		1996 only	115-140HP	HC5348-3	**291190**	**291192**	
291016		1998 to date	40-140HP 4-Stroke	HC5358-3	**291194**	**291192**	2
291016		2003 to date	90HP 4-Stroke	HC5358-3	**291194**	**291192**	2
291003		2013 to date	DF150 – DF175 HP	HC5345-3	**291190**	**291192**	
291003	Yamaha	1986 to date	100-250HP 2-Stroke	HC5345-3	**291190**	**291192**	
291003		1986 to date	40-90HP	HC5345-3	**291194**	**291192**	
291003		2000 to date	150-300 HPDI	HC5345-3	**291190**	**291192**	
291016		2001 - 2003	80-250HP 4-Stroke	HC5358-3	**291190**	**291192**	1
291016		2003 to date	F200-F250 3.3L	HC5358-3	**291190**	**291192**	
291012		2003 to date	25-70HP 4-Stroke	HC5348-3	**291194**	**291192**	
291003		2007 to date	200-300HP 4.2L V6 4-Stroke	HC5345-3	**291190**	**291192**	2
		2007 to date	F300-F350 HP 5.3V8	MUST use Tournament Cylinders			
291016		2011 - 2013	115A	HC5358-3	**291194**	**291192**	
291003		2014 to date	115B	HC5345-3	**291194**	**291192**	

**On twin installations a fluid link is recommended for 115-130HP Honda motors*

NOTICE:
HO6001, HO6002 and HO6003 are for engine centres up to 36".
For wider engine centres please contact BLA on 1300 252 725.

Notes

1. *HC5345 is optional for single engine only applications. DO NOT use 291003 (HC5345) for Twin engine applications as operational interference may occur.*
2. *Requires kit 293690 (HO5090).*
3. *Minimum engine centre = 27.*
4. *May require extensive cowling modifications.*
5. *HO5030 and HO5064 comes without tie bar.*
6. *One cylinder per engine. Must use Mercury supplied tiller bolt for installation.*
7. *Interference will occur when using a single 291003 (HC5345) cylinder and 291194 (HO6003) tie bar when installed in the aft hole on the steering arm.*

Options include:

a) install tie bar into most forward hole (this will limit steering articulation),
b) purchase K-6 Cylinder, and tiebar kit part 291198 (HO5009). There will be no interference when using twin 291003 (HC5345) cylinders.

Tournament Series Cylinder and Adjustable Tie Bar

SEASTAR SOLUTIONS®

SEASTAR™

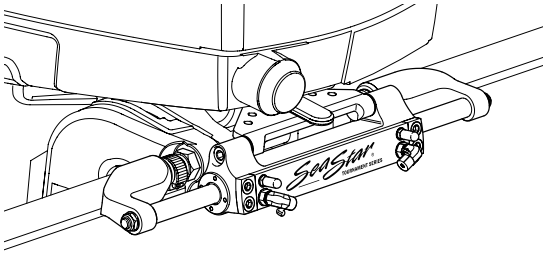
Designed for extreme conditions and applications where performance and reliability are paramount. The new heavy duty Tournament series cylinder and adjustable tie bar are suitable for makes of outboards of 200HP or more as single engine installations and ideally suited for all high performance multiple engine applications of two engines or more.

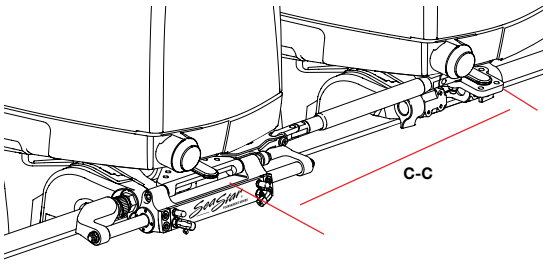
The Tournament cylinder is suitable for use with all SeaStar® helms and SeaStar® power assist units which provide outstanding performance and reliability. Featuring a completely new heavy duty universal cylinder design with reversible integrated bolt on stainless steel tie bar plates.

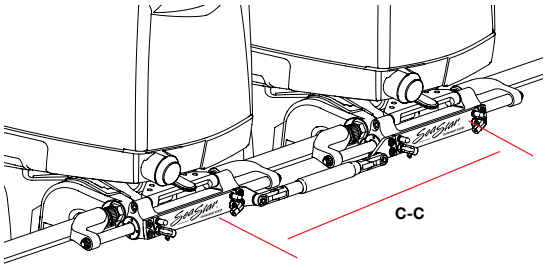
The extreme heavy duty cylinder has been manufactured to include over engineered support brackets, barrel, shaft and seals to provide years of trouble free performance. The new pivot plate design provides incredibly smooth articulation and includes a sealed joint for superior reliability.

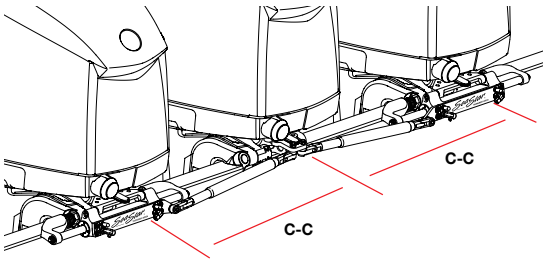
The newly designed heavy duty adjustable tie bars are available in four lengths providing the perfect fit for twin, triple or quad installations. Each tie bar is equipped with stainless steel adjustable O-ring sealed elbow fittings which can be easily orientated in any direction.

To ensure the very best performance, cylinders must be plumbed in parallel and can not be series connected. The only exception is if the cylinder installation is utilising a liquid tie bar. Cylinders and the appropriate tie bars are sold individually and require the appropriate tie bar and cylinder hardware fitting kit, with the exception of a complete single engine, single cylinder installation.









Features:

- Robust appearance
- Universal cylinder (i.e. no individual port/ starboard/centre configurations)
- Bolt-on stainless steel tie bar plates
  - Reversible from left to right, providing high or low tie bar connections
  - Easily adaptable to future engine offerings
- Robust design
  - Heavy duty support brackets, barrel, shaft, pivot plate and seals
- Adjustable O-ring fittings (no need to remove for adjustment)
- Improved accessibility to bleeders
- Incorporates proven design features from Pro cylinders (keyed support bracket, stainless steel wear washer)

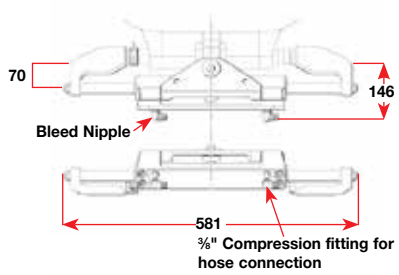
Important: To ensure the very best performance, cylinders must be plumbed in parallel and cannot be series connected. The only exception is if the cylinder installation is utilising a liquid tie bar.

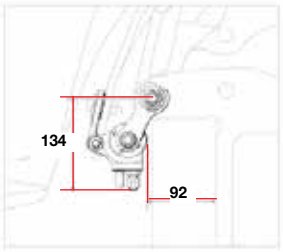
SeaStar Tournament Series Cylinder

SEASTAR

- Maximum tilt angle shown - 67°
- Typical transom thickness shown, but will vary

BLA Code	Description
291050	Cylinder Tournament 2 o/b front mount
291052	Cylinder Tournament 2 front mount c/w single engine hardware kit
291054	Tournament short stroke cylinder hc6850
291210	Tie bar adjustable t/s tournament 2 cyl small
291212	Tie bar adjustable t/s tournament 2 cyl med
291214	Tie bar adjustable t/s tournament 2 cyl lge
291216	Tie bar adjustable t/s tournament 2 cyl xlge
291218	Tie bar adjustable t/s tournament 2 cyl xxlge (new)
291220	Hardware kit t/s tournament 2 1 engne 1 cyl
291222	Hardware kit t/s tournament 2 2 engne 1 cyl
291224	Hardware kit t/s tournament 2 2 engne 2 cyl
291226	Hardware kit t/s tournament 2 3 engne 2 cyl
291228	Hardware kit t/s tournament 2 4 engne 2 cyl
293608	ORB tee fitting kit t/s tournament 2 cyl





SeaStar Tournament Series Cylinder and Tie Bar - Application Guide

SEASTAR

	Cylinder			Hardware Kit			Tie Bar			Centre to Centre	
Configuration	BLA Code	SeaStar Code	Qty	BLA Code	SeaStar Code	Qty	BLA Code	SeaStar Code	Qty	mm	Notes
Single Engine	**291052**	HC6845S	1	Included	Included				N/A	N/A	1
Twin Engine – Single Cylinder (STBD)	**291050**	HC6845	1	**291222**	HA6802	1	**291212**	HO6821	1	635 – 650	1,3,4,5 HA6802 Drive Bracket Availability – TBD
							291214	HO6822		653 – 777	
							291216	HO6823		780 – 991	
Twin Engine – Dual Cylinder	**291050**	HC6845	2	**291224**	HA6804	1	**291210**	HO6820	1	635 – 673	1,3,4,5
							291212	HO6821		676 – 744	
							291214	HO6822		747 – 869	
							291216	HO6823		871 – 1092	
Triple Engine – Dual Cylinder	**291050**	HC6845	2	**291226**	HA6806	1	**291214**	HO6822	2	635 – 709	Maximum drop: ≤ 76mm 1 - 5
							291216	HO6823		711 – 914	
Quad Engine – Dual Cylinder	**291050**	HC6845	2	**291228**	HA6811	1	**Contact BLA 1300 252 725**				1,3,4,5
Quintuplet Engine (Plus)				**Contact BLA 1300 252 725**							1,3,4,5

Important: Each engine configuration requires a hardware kit and tie bar kit(s), with the exception of the single engine configuration

NOTES

1) Installation may vary according to the following factors: engine mounting height, transom thickness, use of transom savers, tiller bolt hole location, engine tilt range, and engine size.
2) For centre engine drops greater than 3 inches (76mm), please consult BLA on 1300 252 725.
3) Tie bar length may vary depending on toe in/toe out setup. To allow for toe, add or subtract from your nominal engine centre to centre distance.
4) Based on recommended engine manufacturer minimum centre to centre distances. Deviating from these recommendations may require stroke limiting cylinders and/or engine tilt limiting, please consult BLA on 1300 252 725.
5) Cylinders must be plumbed in parallel only, no series connections. Only exception is if cylinders are utilising a liquid tie bar.

SeaStar Tournament Steering System Kit

- Front Mount

SEASTAR

BLA Code	Inclusions	Cat. Ref. Page
291830	1 x **291052** Cylinder front mount	778
	1 x **291502** Helm - SeaStar® 1.7	812
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **293050** 50 foot outboard hose	819
	2 x **297332** Re-usable hose fitting	820
	1 x **293001** Rubber boot	N/A

nfb

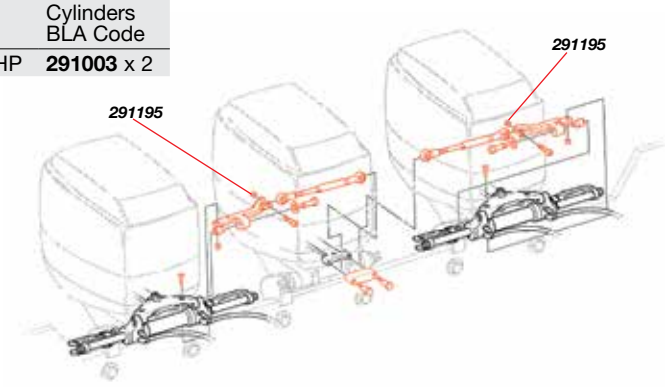
Front Mount Triple Outboard Steering System

SEASTAR SOLUTIONS®

SEASTAR™

Tie Bar Application Guide - 291195

BLA Code	Engine Manufacturer	Year	Model	Cylinders BLA Code
291195 x 1	Mercury/Mariner	1989 to date	75-275HP	**291003** x 2



Tie Bar Application Guide - 291196

BLA Code	Engine Manufacturer	Year	Model	Cylinders BLA Code
291196 x 1	OMC	1991 to date	90-175HP	**291003** x 2
291196 x 1	OMC	1996 to date	90-225HP FICHT	**291003** x 2
291196 x 1	Yamaha	1990 to date	225-250HP 4 stroke	**291003** x 2

N.B. Minimum engine centres 610mm
Maximum engine centres 900mm

Ordering Guide - Triple Engine, Dual Cylinder, Tie Bar

BLA Code	Description	Qty Req.	Cat. Ref. Page
2910XX	Cylinder - front mount	2	770
293690	Spacer kit (some models only)	2	820
29119X	Tie rod kits	2	777
291506	Helm - SeaStar® 2.4	1	812
2931XX	Pro Hose - helm to cylinder one	2	819
2931XX	Pro Hose - cylinder one to cylinder two	2	819
293618	Tee - replaces elbow in cylinder one	2	817
291902	1 litre SeaStar Solutions® oil	4	814

N.B. Last two digits of Pro Hoses denotes length of hose in feet

SeaStar Hydraulic Service Kits & Parts

SEASTAR™

BLA Code	SeaStar Solutions® Part No.	
293740	HS5151	Seal kit to suit all SeaStar® 1.7 and 2.4 helm pumps manufactured from 1984 through to 1989
293741	HP6032	Seal kit containing quad seal, keyway, helm nut and mount nuts for current BayStar™ and SeaStar® helms, including: **291490**, **291492**, **291502**, **291504**, **291506**, **291512**, **291515**, **291516**, **291522**, **291526**, **291540** and **291542**.
293742	HS5176	Seal kit to suit HH5271 (**291502**), HH5273 (**291504**), HH5272 (**291506**), HH5741 (**291512**), HH5291 (**291515**), HH5742 (**291516**), HH5261 (**291522**), HH5262 (**291526**), HH5770 (**291540**) and HH5774 (**291542**) helms
293712	HS5152	Seal kit to suit HC5340 obsolete cylinder with snap-in end fittings
293714	HS5157	Seal kit to suit HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**) and HC5358 (**291016**). It is also the replacement seal kit for HC5342 and HC5365 obsolete cylinders with screw in fittings. Includes tools.
293715	HS5167	Seal kit to suit HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**) and HC5358 (**291016**). It is also the replacement seal kit for HC5342 and HC5365 obsolete cylinders with screw in fittings. Excludes tools.
293716	HS5153	Seal kit to suit HC5370 (**291010**) cylinder
293720	HS5154	Seal kit to suit HC5380 (**291008**), HC5303 (**291076**), HC5312 (**291060**), HC5328 (**291026**), HC5329 (**291022**), HC5330 (**291024**) and HC5331 (**291028**) cylinders
293722	HS5155	Seal kit to suit HC5313 (**291062**) and HC5332 (291029) cylinders
293724	HS5156	Seal kit to suit HC5314 (**291064**) and HC5326 (291030) cylinders
293726	HS5182	Seal kit to suit HC5318 (**291066**) cylinder
293728	HS5183	Seal kit to suit HC5319 (**291068**) cylinder
293766	HP6018	Replacement "Bull horn" support brackets (pk 2) to suit HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**) and HC5358 (**291016**)
293770	HP6016	Replacement support rod to suit HC5340, HC5342, HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**), HC5358 (**291016**), HC6345 (**291018**) and HC6358 (**291020**)

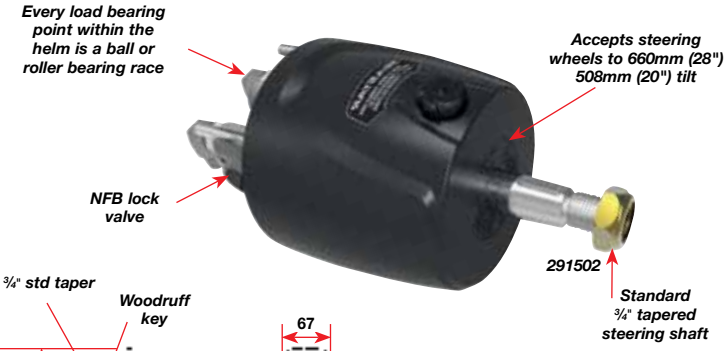
N.B. Other influences in the boat's type, hull shape, weight, height of motor, type of propellers, engine and hull geometry have effects on the handling of the boat. We strongly recommend specification of triple engine systems only in conjunction with our sales department.

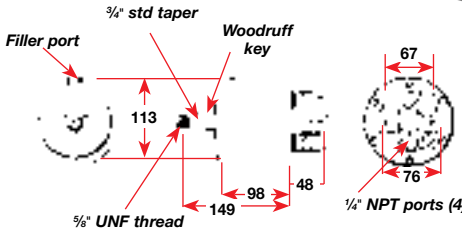
Compact Universal Base-Mount Outboard Hydraulic Steering

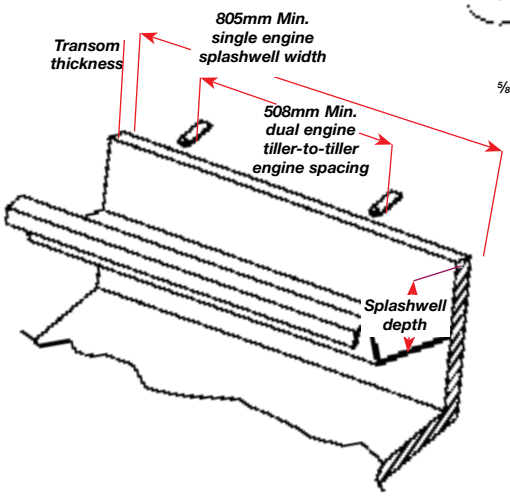
Ultra sleek cylinder design requires less space around the engine and improves the appearance of your boat. Cylinder remains stationary, eliminating the chafing and wear of hoses associated with other systems. Accepts port or starboard hose connections. Entire system is designed for fast and easy installation.

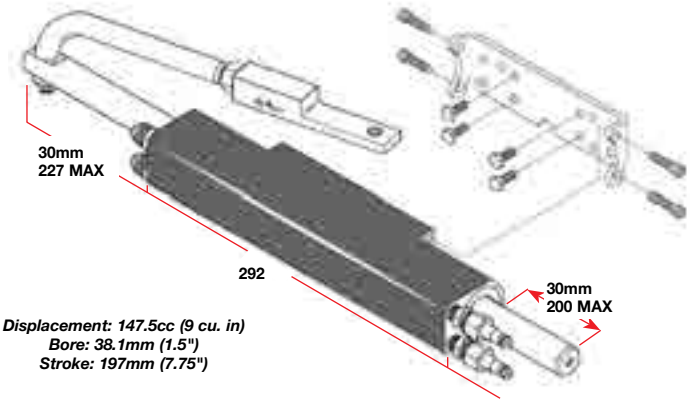
Neatly mounts to all V4 and V6 Engines without using the Tilt Tube.

Easily installs on motors 75HP and up. Mercury/Mariner, Evinrude & Johnson, Suzuki, Yamaha and Honda-Force.









Selecting Compact Universal Base Mount Outboard Hydraulic Steering

1. Select the system configuration based on number of engines and total engine power.
2. Select the appropriate helm, accessories and plumbing.
3. Ensure there is sufficient space available in the splashwell and dash area.

Single Engines

BLA Code	Description	Qty Req.	Cat. Ref. Page	**296004** Kit Inclusions
296106	Cylinder - universal base mount	1	781	1 x **296106**
291502	Helm - Seastar® 1.7 front mount	1	812	1 x **291502**
293614	Connector fitting ⅜" tube - ¼" NPT	2	817	2 x **293614**
292997	Hose - nylon semi rigid ⅜" - 15m	1	819	1 x **292997**
291902	1 litre SeaStar Solutions® oil	3	814	3 x **291902**
293610	Nut and olive kit	2	817	
	For extra steering station add:			
293610	Nut and olive kit	4	817	2 x **293610**
291502	Helm - Seastar® 1.7 front mount	1	812	
293604	Add a station/pilot fitting kit	1	816	
291902	1 litre SeaStar Solutions® oil	1	814	

N.B. Not suitable for Honda® engines

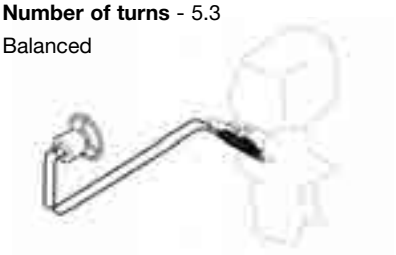
Single Engine - Semi-rigid hose

(Single cylinder)

Applications up to 300HP maximum.

Number of turns - 5.3

Balanced

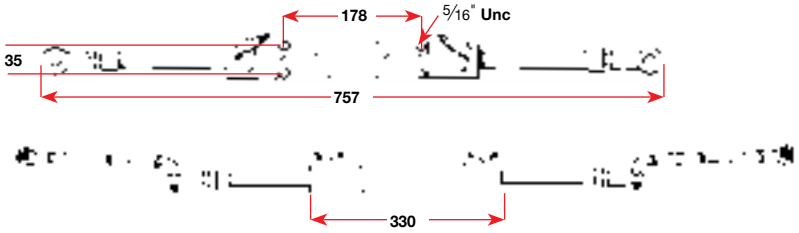


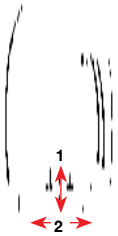
Tandem Catamaran Outboard Steering System

This balanced cylinder from SeaStar® has been specifically developed to simply and economically link twin engine installations with one common cylinder. The cylinder is ideally suited to catamarans and pod type installations.

SeaStar® have taken a standard front mount cylinder and changed the mounting configuration so that the cylinder remains stationary while the push rod actuates motor direction. The cylinder is designed to be mounted between the two engines with custom link arms connecting each rod end to the tiller arms of each engine. A ball joint fitted at either end of the push rod provides individual flexibility for the motors. The cylinder is mounted via four 5⁄16" UNC bolts directly to the transom or pod of the vessel.

As with all SeaStar® cylinders the bleed nipple points must be at the highest point of cylinder installation. The cylinder features an anodised alloy barrel and chromed stainless steel shaft for extended seal life.

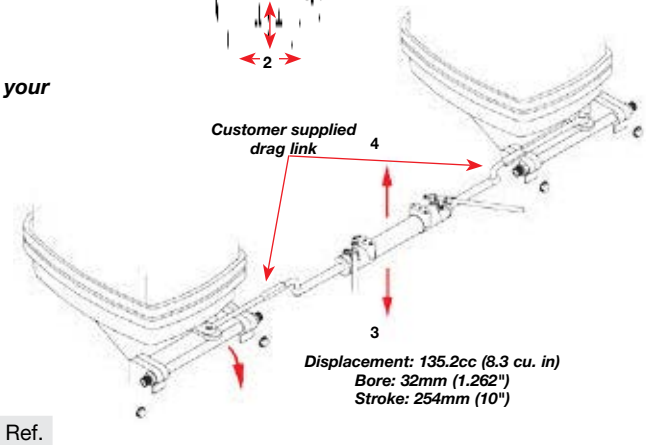




Recommended for OEM installation only

To establish whether or not this cylinder would be suitable for your application the following points should be considered:

- Fore and aft alignment of cylinder. If not mounted in-line, motors will have different turning radius
- Distance between motors
- Distance of travel in tilt arc
- Horizontal alignment of cylinder



Displacement: 135.2cc (8.3 cu. in)
Bore: 32mm (1.262")
Stroke: 254mm (10")

Selecting a Tandem Catamaran Outboard Steering System

BLA Code	Kit Inclusions	Cat. Ref. Page
291608	1 x **291006** Cylinder tandem catamaran mount	815
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **292997** Hose kit - nylon semi rigid 15m	819
	4 x **293610** Nut and olive kit	817
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x Custom link arms	
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

Dual Engines

(Single Cylinder)

Non-counter rotating applications up to 450HP maximum. Counter rotating engine applications up to 600HP maximum.

Number of turns - 4.9 Balanced

Optional Equipment

BLA Code	Description	Cat. Ref. Page
291908	Back plate kit for front mount helms	813
291906	20˚ wedge for front mount helms	814
291913	Round bezel kit	813
291504	Helm - SeaStar® 2.0 - front mount	812
291506	Helm - SeaStar® 2.4 - front mount	812
291508	Helm - SeaStar® 3.0 - front mount	812
291512	Helm - SeaStar® 1.7 - tilt	813
291515	Helm - SeaStar® 1.7 - sport tilt	813
291516	Helm - SeaStar® 2.4 - tilt	813
291522	Helm - SeaStar® 1.7 - rear mount	813
291526	Helm - SeaStar® 2.4 - rear mount	813
291528	Helm - SeaStar® 3.0 - rear mount	813
291540	Helm - SeaStar® 2.0 - Pro front mount	812
291542	Helm - SeaStar® 2.0 - Pro tilt	813
2930XX	Hose - Outboard	819
2931XX	Hose - SeaStar® Pro	819

N.B. Last two digits of hose number denotes length of hose in feet

Notes:
Four stroke engines that have a larger percentage of the motor overhanging the steering pivot and spin larger diameter props may be heavier to steer. SeaStar® Power Assist recommended for heavier steering load applications. Not recommended for use with installations in which:

a. Chopper, cleaver or surface-piercing propellers are used
b. The engine is highly elevated on the transom
c. Engine trim tabs have been removed
d. The boat speed exceeds 50 knots
e. The power exceeds maximum recommendations for the boat

N.B. Other influences in the boat's type, hull shape, weight, height of motor, type of propellers, engine and hull geometry have effects on the handling of the vessel. Guides within this section are typical set ups. For fitting to unusual or special combinations, please contact BLA on 1300 252 725.

Steering systems installed using a Pro Helm will require Pro hoses. Steering systems installed using outboard or Pro hose require 293602 when adding a second station/pilot.

Splashwell Mount Outboard Hydraulic Steering System

SEASTAR SOLUTIONS®

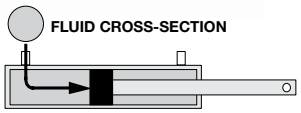
SEASTAR™

Designed to fit almost any outboard

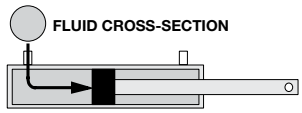
Features:

- Fits engines with or without tilt tube as per ABYC/ NMMA/BIA standard, provided they have a ⅜" 24 UNF thread in the steering arm
- Twin axis, swivelling mount end enables cylinder to be located in most splashwells
- Anodised alloy cylinder body for reduced friction and extended seal life
- Chromed stainless steel push rod for longer seal life

Right Turn



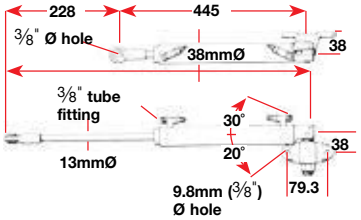
Left Turn



Selecting a Splashwell Mount Outboard Steering System

1. Select a compatible system configuration based on the number of engines and total engine power
2. Select the **291199** tie bar for dual engine installation
3. Select the appropriate helm and accessory hardware for each steering station
4. Select the fitting and hose kits required for the installation
5. Confirm that there is sufficient space available in the splashwell and dash areas for the steering components

N.B. Unbalanced cylinders have unequal wheel turns. When the helm is turned one turn, a certain volume of fluid is pumped into the cylinder. On one side of an unbalanced cylinder piston is the push rod, which reduces the effective cylinder volume. The cylinder area on the other side of the piston has no push rod. The rod side of the piston will move faster per turn of the wheel because less space is available for fluid than on the side with no rod. single unbalanced cylinders cannot be used in conjunction with SeaStar® Pro helm.



Displacement: 180.9cc (11 cu. in)
Bore: 31.7mm (1.25")
Stroke: 228mm (9")

Single Engine

BLA Code	Kit Inclusions	Cat. Ref. Page
291609	1 x **291008** Cylinder - splashwell	815
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **292997** Hose kit - nylon semi rigid 15m	819
	4 x **293610** Nut and olive kit	817
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

Dual Engines

BLA Code	Description	Qty Req.	Cat. Ref. Page
291008	Cylinder - splashwell	1	815
291199	Tie bar	1	777
291502	Helm - SeaStar® 1.7 - front mount	1	812
292997	Hose kit - nylon semi rigid 15m	1	819
293610	Nut and olive kit	4	817
291902	1 litre SeaStar Solutions® oil	3	814
	For extra steering station add:		
291502	Helm - SeaStar® 1.7 - front mount	1	812
293604	Add a station/pilot fitting kit	1	816
291902	1 litre SeaStar Solutions® oil	1	814

Optional Equipment

BLA Code	Description	Cat. Ref. Page
291908	Back plate kit for front mount helms	813
291906	20° wedge for front mount helms	814
291913	Round bezel kit	813
291504	Helm - SeaStar® 2.0 - front mount	812
291506	Helm - SeaStar® 2.4 - front mount	812
291508	Helm - SeaStar® 3.0 - front mount	812
291512	Helm - SeaStar® 1.7 - tilt	813
291515	Helm - SeaStar® 1.7 - sport tilt	813
291516	Helm - SeaStar® 2.4 - tilt	813
291522	Helm - SeaStar® 1.7 - rear mount	813
291526	Helm - SeaStar® 2.4 - rear mount	813
291528	Helm - SeaStar® 3.0 - rear mount	813
2930XX	Hose - Outboard	819

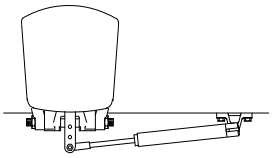
N.B. Last two digits of hose number denotes length of hose in feet

Single Engine

(Single Cylinder)

Applications up to 300HP maximum.

Number of turns - 6.5
Maximum speed - 50kts

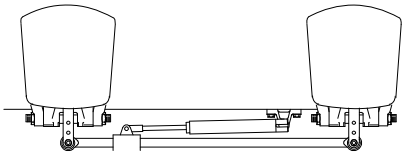


Dual Engines

(Single Cylinder)

Non-counter rotating applications up to 300HP maximum. Counter rotating engine applications up to 600HP maximum.

Number of turns - 6.5
Maximum speed - 50kts



Notes:
Not recommended for use with installations in which:
a. Chopper, cleaver or surface-piercing propellers are used
b. The engine is highly elevated on the transom
c. Engine trim tabs have been removed
d. The boat speed exceeds 50 knots
e. The power exceeds maximum recommendations for the boat

N.B. Other influences in the boats type, hull shape, weight, height of motor, type of propellers, engine and hull geometry have effects on the handling of the vessel. Guides within this section are typical set ups. For fitting to unusual or special combinations, please contact BLA on 1300 252 725.

Steering systems installed using outboard hose require 293602 when adding a second station/pilot.

Stern Drive Hydraulic Steering System

SEASTAR SOLUTIONS®

SEASTAR™

It's the best choice for stern drives

SeaStar® hydraulic steering is ideally suited to most stern drives, particularly non-power assisted models. It is suited to single and multiple drives, single and multiple helms and autopilot.

Features:

- Best and most economical autopilot interface for stern drives
- Simple multiple steering station connection
- Fast easy installation
- Standard ¾" tapered steering shaft
- Optional helm displacement for quicker steering response
- Fits most power and non power assist stern drives

SeaStar® Sterndrive Cylinders

- This cylinder fits most power and non-power assist sterndrives. It can be used on single and mulitple drives with mulitple steering station connections. This cylinder features simple auto pilot interface.

Hydraulic Steering Application Guide For Stern Drives

BLA Code	Make	Steering Configuration	Engine/Drive Description	Year	Cylinder Description	Number Turns Lock to Lock		Notes
						SeaStar® I Helm	SeaStar® II Helm	
291024	BMW	Non Power Assist	All	To Date	BA135-8EMV	4.9	N/A	1
291026	BMW	Power Assist	All	To Date	125-8EM	4.9/5.8	3.4/4.1	2
291024	Mercruiser	Non Power Assist	Mercruiser 1	1983 & Prior	BA135-8EMV	4.9	3.5	1,7
291029	Mercruiser	Non Power Assist	Alpha I	1984 To Date	BA135-7EM	5	3.5	1,5,6,7
291029	Mercruiser	Non Power Assist	Bravo I	1985 To Date	BA135-7EM	5	3.5	1,5,6,7
291029	Mercruiser	Non Power Assist	Bravo II	1986 To Date	BA135-7EM	5	3.5	1,5,6,7
291029	Mercruiser	Non Power Assist	Bravo III	1987 To Date	BA135-7EM	5	3.5	1,5,6,7
291026	Mercruiser	Power Assist	Mercruiser 1	1983 & Prior	125-8EM	4.9/5.8	3.4/4.1	2
291026	Mercruiser	Power Assist	Alpha I	1984 To Date	125-8EM	4.9/5.8	3.4/4.1	2
291026	Mercruiser	Power Assist	Bravo I	1985 To Date	125-8EM	4.9/5.8	3.4/4.1	2
291026	Mercruiser	Power Assist	Bravo II	1986 To Date	125-8EM	4.9/5.8	3.4/4.1	2
291026	Mercruiser	Power Assist	Bravo III	1987 To Date	125-8EM	4.9/5.8	3.4/4.1	2,8
N/A	OMC	Non Power Assist	400/800 Series	1985 & Prior	N/A	N/A	N/A	
291030	OMC	Non Power Assist	Cobra	1986 To Date	BA150-7EM	6	N/A	1,4
291030	OMC	Non Power Assist	King Cobra	1986 To Date	BA150-7EM	6	N/A	1,4
N/A	OMC	Power Assist	400/800 Series	1986 & Prior	N/A	N/A	N/A	
291026	OMC	Power Assist	Cobra	1986 To Date	125-8EM	4.9/5.8	3.4/4.1	2
291026	OMC	Power Assist	King Cobra	1986 To Date	125-8EM	4.9/5.8	3.4/4.1	2
291029	Volvo	Non Power Assist	275	To Date	BA135-7ATM	6	N/A	1,7
291029	Volvo	Non Power Assist	280	To Date	BA135-7EM	5	3.5	1,5,6,7
291029	Volvo	Non Power Assist	290	To Date	BA135-7EM	5	3.5	1,5,6,7
291029	Volvo	Non Power Assist	Diesel	To Date	BA135-7EM	5	3.5	1,5,6,7
N/A	Volvo	Power Assist	D275	To Date	N/A	N/A	N/A	
291026	Volvo	Power Assist	280	To Date	125-8EM	4.9/5.8	3.4/4.1	2
291026	Volvo	Power Assist	290	To Date	125-8EM	4.9/5.8	3.4/4.1	2
291022	Volvo	Power Assist	Diesel	To Date	125-8VEM	4.9/5.8	3.4/4.1	2
291026	Volvo	Power Assist	"32, Diesel"	1997 To Date	92-VPS	4.9/5.5	3.4/4.1	2
291026	Volvo	Power Assist	"41-42, Diesel"	1998 To Date	92-VPS	4.9/5.8	3.4/4.1	2
N/A	Yanmar	Non Power Assist	All	1989 To Date	N/A	N/A	N/A	
291026	Yanmar	Power Assist	All	1989 To Date	125-8EM	4.9/5.8	3.4/4.1	2

Notes

1. Balanced system- number of turns lock-to-lock is equal port to starboard or vice versa
2. Unbalanced system - number of turns lock-to-lock is unequal port to starboard or vice versa
3. Requires additional clevis supplied by engine manufacturer. Reference Quicksilver part No. B98735A1
4. Requires cylinder rod end adapter HA5424 supplied by SeaStar Solutions®
5. 291029 replaces cyclinder 291030 as from January 2000. If installing 291030 additional clevis supplied by engine manufacturer required (part number B98735A1)
6. The installation of the 291029 sterndrive cylinder requires the use of SeaStar® Outboard hose only. DO NOT use 3/8" copper or nylon tube.
7. If engine outdrive is NOT equipped with a torque tab on the underside of the lower leg one must be installed to reduce prop torque.
8. Yanmar Engines using the Bravo III drives require the use of cylinder 291030.

Selecting SeaStar® Stern Drive Hydraulic Steering

SEASTAR™

From the application guide on the previous page, confirm that a cylinder is available for your specific make, model and year of drive unit. Select the cylinder that is appropriate for the drive.

Select the appropriate helm and accessory hardware. Note that one size displacement helm pump is available for non-power steered stern drives and two sizes for power steered stern drives. The displacement of the helm affects the number of turns lock-to-lock. Select the helm size on the basis of the desired steering response. Lower helm displacement = more turns, less effort/slower response.

Select the appropriate tube/hose and fitting kits.

Confirm that there is sufficient space available in the dash and engine compartments for the steering components.

Single Engine

BLA Code	Description	Qty Req.	Cat. Ref. Page
2910XX	Cylinder - stern drive	1	784
291502	Helm - SeaStar® 1.7 (see note 1)	1	812
291506	Helm - SeaStar® 2.4 (see note 2)		812
292997	Hose kit - nylon semi rigid 15m (see note 3)	1	819
291902	1 litre SeaStar Solutions® oil	3	814
293610	Nut and olive kit	4	817
	For extra steering station add:		
291502	Helm - SeaStar® 1.7 (see note 1)	1	812
291506	Helm - SeaStar® 2.4 (see note 2)		812
293604	Add a station/pilot fitting kit (see note 4)	1	816
291902	1 litre SeaStar Solutions® oil	1	814
293610	Nut and olive kit	2	817

Dual Engines

BLA Code	Description	Qty Req.	Cat. Ref. Page
2910XX	Cylinder - stern drive	1	784
291198	Tie bar (motor manufacturers tie bar may be substituted)	1	777
291502	Helm - SeaStar® 1.7 (see note 1)	1	812
291506	Helm - SeaStar® 2.4 (see note 2)		812
292997	Hose kit - nylon semi rigid 15m (see note 3)	1	819
291902	1 litre SeaStar Solutions® oil	4	814
293610	Nut and olive kit	2	817
	For extra steering station add:		
291502	Helm - SeaStar® 1.7 - front mount	1	812
291506	Helm - SeaStar® 2.4 (see note 2)		812
293604	Add a station/pilot fitting kit (see note 4)	1	816
291902	1 litre SeaStar Solutions® oil	1	814
293610	Nut and olive kit	4	817

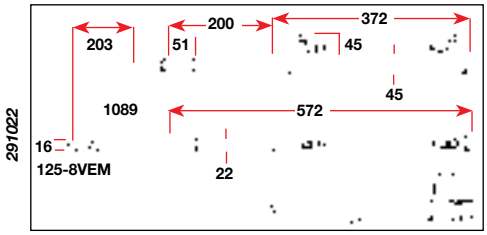
Optional Equipment

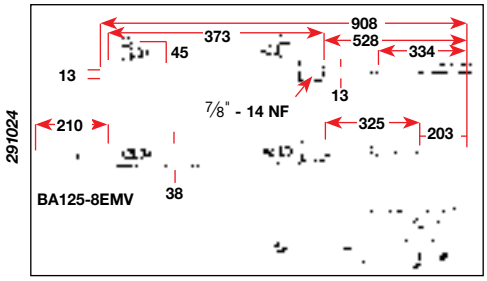
BLA Code	Description	Cat. Ref. Page
291908	Back plate kit for front mount helms	813
291906	20° wedge for front mount helms	814
291913	Round bezel kit	813
291504	Helm - SeaStar® 2.0 - front mount	812
291508	Helm - SeaStar® 3.0 - front mount	812
291512	Helm - SeaStar® 1.7 - tilt	813
291515	Helm - SeaStar® 1.7 - sport tilt	813
291516	Helm - SeaStar® 2.4 - tilt	813
291522	Helm - SeaStar® 1.7 - rear mount	813
291526	Helm - SeaStar® 2.4 - rear mount	813
291528	Helm - SeaStar® 3.0 - rear mount	813
2930XX	Hose - Outboard	819
2931XX	Hose - Pro	819

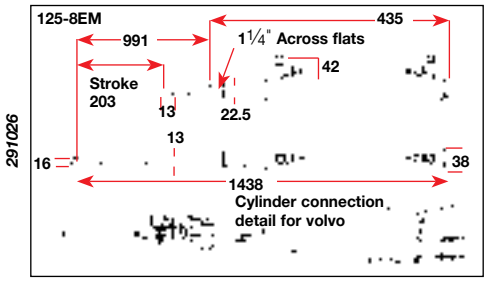
N.B. These recommendations apply to factory stock stern drives only. Modified installations may require a higher capacity steering system. Other influences in the boat's type, hull shape, weight, height of motor, type of propellers, engine and hull geometry have effects on the handling of the vessel. Guides within this section are typical set ups. For fitting to unusual or special combinations, please contact BLA on 1300 252 725.

Notes:

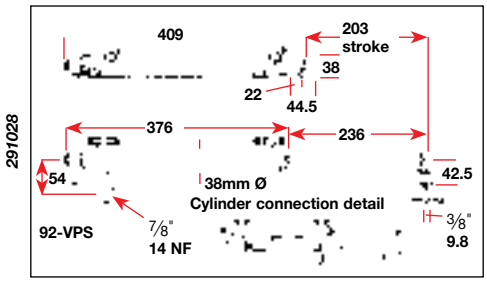
1. *SeaStar® 1.7 helms are the standard recommended helm for both non-power and power steered applications.*
2. *SeaStar® 2.4 helms can be specified for power steered applications in which faster steering response is desired. Contact our sales department for recommendations.*
3. *For SeaStar® 1.7 systems use 3/8" diameter nylon tubing part number 292997 plus two 293610 nut and olive kits. For SeaStar® 2.4 systems use the following options:*
   a. Outboard hose 2930xx available in 305mm (1ft) increments from 600mm (2ft) to 12m (40ft), last two digits denote hose length in feet.
   b. SeaStar® Pro hose 2931xx available in 305mm (1ft) increments from 600mm (2ft) to 12m (40ft), last two digits denote hose length in feet.
   c. Copper tube: 3/8" diameter copper tube and hose kit part number 293202.
4. *Steering systems installed using outboard or Pro hose require kit 293602 when adding second station/pilot.*

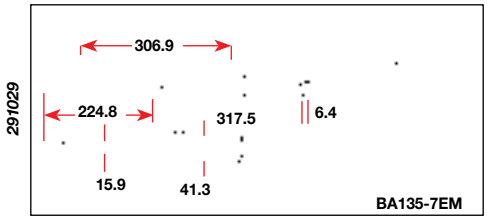


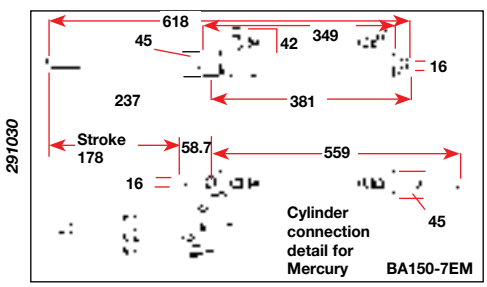


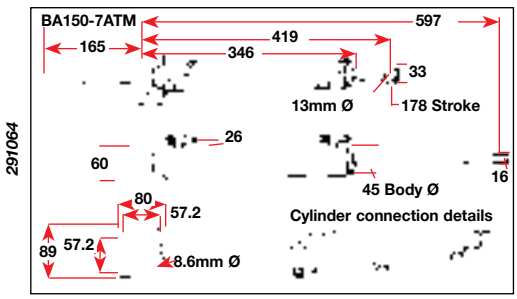


Cylinder connection detail for OMC & Mercruiser









Inboard Hydraulic Steering

No other manual hydraulic steering system gets you closer to power steering than SeaStar®

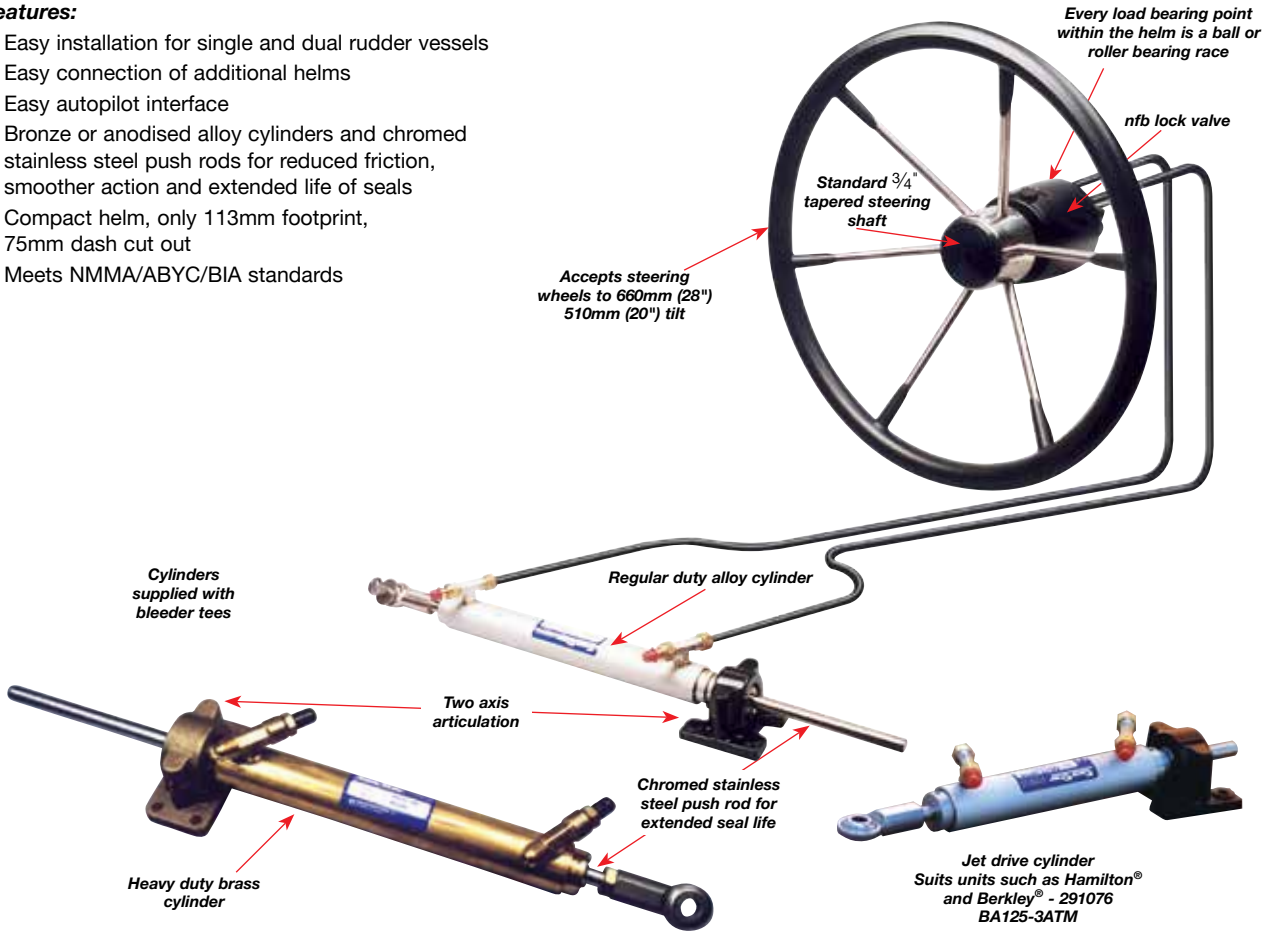
SEASTAR SOLUTIONS

SEASTAR™

Unmatched comfort and control. Only with SeaStar® steering. The most popular inboard hydraulic steering system offers smooth, super efficient steering designed for today's inboard powered vessels to 15 metres. It's the first choice of leading OEMs, with a wide range of helm and cylinder displacements to cover most applications.

Features:

- Easy installation for single and dual rudder vessels
- Easy connection of additional helms
- Easy autopilot interface
- Bronze or anodised alloy cylinders and chromed stainless steel push rods for reduced friction, smoother action and extended life of seals
- Compact helm, only 113mm footprint, 75mm dash cut out
- Meets NMMA/ABYC/BIA standards



Selecting an Inboard Hydraulic Steering System

From the order guide (opposite page) select the system number appropriate for the vessel based on:

a. Hull type - displacement or planing
b. Length of vessel
c. Number of engines/rudders
d. Usage of vessel

Select the optional helms and accessory hardware for each steering station.

From the order guide (opposite page) select the fitting and hose kits required for the installation.

Confirm that you have sufficient space available in the dash and engine compartments for the steering components.

Alternatively, you can order one of our complete steering systems. These systems contain a helm, cylinder, hose or tubing and oil. (As detailed in the right hand column of the order guide).

Inboard Steering Application Guide

Boat Length Up To		Planing Hull				Displacement Hull				Sail	
		Single Engine		Twin Engine		Single Engine		Twin Engine		Single Engine	
M	Ft	Pleasure	Work	Pleasure	Work	Pleasure	Work	Pleasure	Work	Pleasure	Work
8	26	1	4	1	4	2	4	2	4	4	4
10	32	2	4	1	4	3	4	3	4	4	4
11.5	38	3	5	2	5	5	5	3	5	4	5
13.5	44	5	-	3	5	-	-	5	-	5	-
15	50	-	-	5	-	-	-	-	-	-	-

Please contact BLA sales on 1300 252 725 for further specifications. N.B. If your requirements fall outside these parameters please refer pages 791-793.

Inboard Hydraulic Steering Order Guide

SEASTAR™

1 ***4 turns lock-to-lock - Torque 57.9 kg-m (5025 in-lb)***

BLA Code	Kit Inclusions	Cat. Ref. Page
291620	1 x **291060** Cylinder - BA125-7ATM - alloy	815
	1 x **291502** Helm - *SeaStar® 1.7 - front mount	812
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **292997** Tube - ⅜" dia nylon (see note 1 & 3)	819
	4 x **293610** Nut & olive kit	817
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

2 ***5 turns lock-to-lock - Torque 66.1 kg-m (5741 in-lb)***

BLA Code	Kit Inclusions	Cat. Ref. Page
291622	1 x **291062** Cylinder - BA135-7ATM - alloy	815
	1 x **291502** Helm - *SeaStar® 1.7 - front mount	812
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **292997** Tube - ⅜" dia nylon (see note 1 & 3)	819
	4 x **293610** Nut & olive kit	817
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

3 ***6 turns lock-to-lock - Torque 82.0 kg-m (7117 in-lb)***

BLA Code	Kit Inclusions	Cat. Ref. Page
291624	1 x **291064** Cylinder - BA150-7ATM - alloy	815
	1 x **291502** Helm - *SeaStar® 1.7 - front mount	812
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **292997** Tube - ⅜" dia nylon (see note 1 & 3)	819
	4 x **293610** Nut & olive kit	817
	For extra steering station add:	
	1 x **291502** Helm - SeaStar® 1.7 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	2 x **293610** Nut and olive kit	817

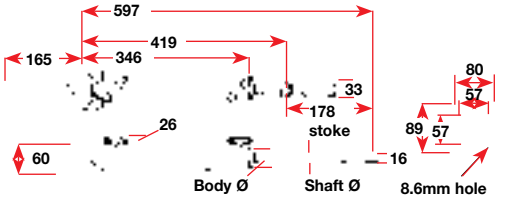
4 ***4¼ turns lock-to-lock - Torque 82.0 kg-m (7117 in-lb)***

BLA Code	Kit Inclusions	Cat. Ref. Page
291626	1 x **291066** Cylinder - BA150-7ATM - brass	815
	1 x **291506** Helm - **SeaStar® 2.4 - front mount	812
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **293202** Hose kit	816
	Copper tube - ⅜" dia (see note 2 & 3)	
	For extra steering station add:	
	1 x **291506** Helm - SeaStar Solutions® 2.4 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	Extra tube as above (see note 1 & 3)	

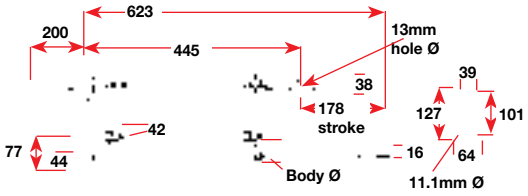
5 ***5½ turns lock-to-lock - Torque 110.2 kg-m (9569 in-lb)***

BLA Code	Kit Inclusions	Cat. Ref. Page
291628	1 x **291068** Cylinder - BA175-7TM - brass	815
	1 x **291506** Helm - **SeaStar® 2.4 - front mount	812
	3 x **291902** 1 litre SeaStar Solutions® oil	814
	1 x **293202** Hose kit	816
	Copper tube - ⅜" dia (see note 2 & 3)	
	For extra steering station add:	
	1 x **291506** Helm - SeaStar Solutions® 2.4 - front mount	812
	1 x **293604** Add a station/pilot fitting kit	816
	1 x **291902** 1 litre SeaStar Solutions® oil	814
	Extra tube as above (see note 1 & 3)	

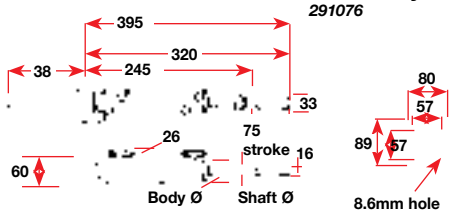
Aluminium Cylinders



Brass Cylinders



Aluminium Jet Drive Cylinder
291076



Cylinder Dimensions Specific To Model

Cylinder Body	Body Dia.	Shaft Dia.
291060	35mm 1.38'	12.7mm
291062	38mm 1.5'	15.9mm
291064	38mm 1.5'	15.9mm
291066	38mm 1.5'	15.9mm
291068	45mm 1.75'	19.1mm
291076	38mm 1.5'	15.9mm

BLA Code	Optional Equipment
291908	Back plate kit for front mount helms
291906	20° wedge kit for front mount helms
293604	Autopilot fitting kit for all helms
291508	Helm - SeaStar® 3.0 - front mount
291512	Helm - SeaStar® 1.7 - tilt
291515	Helm - Seastar® 1.7 - sport tilt
291516	Helm - SeaStar® 2.4 - tilt
291522	Helm - SeaStar® 1.7 - rear mount
291526	Helm - SeaStar® 2.4 - rear mount
291528	Helm - SeaStar® 3.0 - rear mount
291540	Helm - SeaStar® 2.0 - Pro front mount
291542	Helm - SeaStar® 2.0 - Pro tilt
2930XX	Hose - Outboard (see note 3)
2931XX	Hose - SeaStar® pro (see note 3

Notes:

1. *For systems 1, 2 & 3 nylon semi-rigid tubing (⅜" diameter) is the standard requirement for plumbing the system. Copper tubing (⅜" diameter) can be substituted, but fitting kit 293202 is required.*

2. *For systems 4 & 5 copper tubing (⅜" diameter) is the standard requirement for plumbing the system. Fitting kit 293202 is required.*

3. *For systems 1, 2, 3, 4 & 5 SeaStar® outboard or Pro hose can be substituted for nylon or copper tubing. These hoses are available in 305mm (1ft) increments from 600mm (2ft) to 12m (40ft). Refer to page 819.*

4. *Steering systems installed using outboard or Pro hose require kit 293602 when adding a second station.*

N.B. Other influences in the boat's type, hull shape, weight, type of propellers, engine and hull geometry have effects on the handling of the vessel. Guides within this section are typical set ups. For fitting to unusual or special combinations, please contact BLA on 1300 252 725.

Capilano Hydraulic Steering Systems

SEASTAR SOLUTIONS

CAPILANO™

The uncompromising SeaStar® design philosophy is reflected in the Capilano™ 1250V and 1275V steering systems, known worldwide for their ruggedness and reliability.

Helm pumps feature variable displacement which enables the helmsman to adjust the steering wheel turns to suit various manoeuvring and weather conditions. The pumps have internal lock valves to prevent rudder feedback.

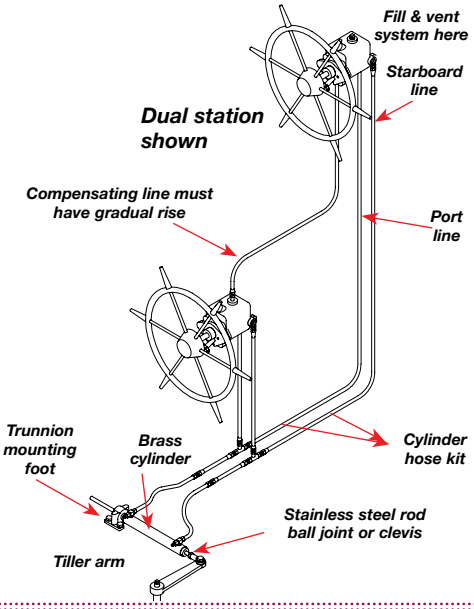
Features:

- Variable displacement helms - adjustable steering wheel turns
- Heavy duty brass cylinders
- Easy installation for single and dual rudder vessels
- Cylinders supplied with bleeder fittings
- Systems are not air pressurised: no air leaks or pressure drops
- Each helm is its own reservoir: separate reservoir not required
- Built in pressure relief valve in helm protects system from the effects of thermal expansion
- Meets ABS, Lloyds and Det Norske Veritas specifications
- Standard ¾" taperd steering shaft

Applications:

- Most inboard powered boats with single or twin engines and sail boats
- Vessels from 9m (30ft) to 17m (55ft)

N.B. Capilano™ systems use ATF type A or Dexron IIi. Power steering available ref pages 791-793..



Selecting a Capilano™ Steering System

From the selection guide, select the system number appropriate for the vessel based on:
a. hull type - displacement or planing
b. length of vessel
c. number of engines/rudders
d. usage of vessel

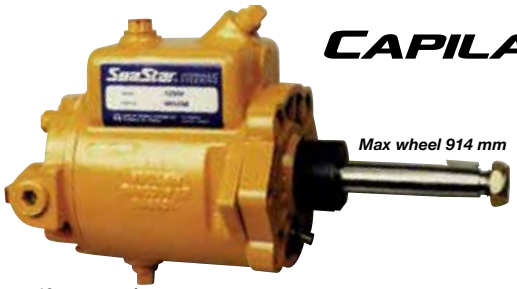
From the selection guide, select the fittings and hose kits required for the installation

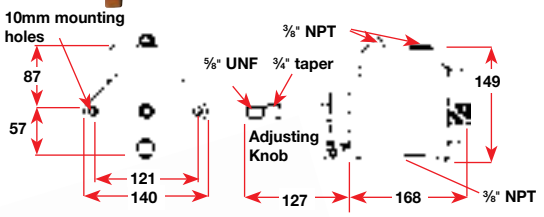
Confirm that you have sufficient space available in the:
a. area the cylinder is to be mounted
b. dash area for the helm components

Capilano™ Helm Pumps

CAPILANO™

The Capilano™ helm pump is a heavy duty axial piston pump specifically designed for manual steering. Every load bearing point within the helm pump runs on either a roller or ball bearing race for super low friction and smooth, positive steering. It has a built-in lock valve to prevent the steering load from feeding back to the helm. The lock valve will not allow the rudder or drive unit to move until you move the steering wheel. The valve section of the helm also includes a relief valve. This relief valve provides over-pressure protection for mechanical components and hydraulic lines. Industrial yellow baked enamel, cast alloy housing.



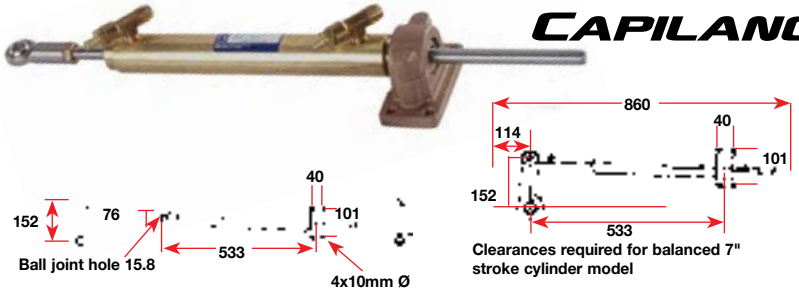


BLA Code	Model	Displacement cc	Displacement cu in	Relief Valve bar	Relief Valve psi
294002	1250V	27.8-55.7	1.7-3.4	70	1000
294004	1275V	44.2-88.4	2.7-5.4	70	1000

Capilano™ Cylinders

CAPILANO™

Capilano™ cylinders feature brass barrels for reduced friction and longer seal life than stainless steel barrels. Heavy duty cast bronze trunnion mount. Chrome plated stainless steel push rod for extended seal life. Available with stainless steel rod end ball joints (TMB models) or clevis (TMC model). Cylinders with ball joints have two axis articulation. We recommend use of copper tubing for optimum performance.



BLA Code	Cylinder Model	Rod End	Bore Dia. mm	Bore Dia. in	Shaft Dia. mm	Shaft Dia. in	Stroke mm	Stroke in	Area cm^2	Area in^2	Volume cc	Volume in^3	Torque kg-m	Torque in-lb
294032	BA150-7TMB	Ball joint	38.1	1.50	15.9	.625	178	7	9.4	1.46	167.5	10.2	82.07	7117
294034	BA175-7TMB	Ball joint	44.4	1.75	19	.75	178	7	12.7	1.96	225.4	13.7	110.2	9569
294036	BA200-7TMB	Ball joint	50.8	2.00	19	.75	178	7	20.2	3.14	310.0	18.9	151.0	13200
294038	BA200-7TMC	Clevis	50.8	2.00	19	.75	178	7	20.2	3.14	310.0	18.9	151.0	13200

N.B. Theoretical torque about pivot point at 35° articulation with 70 bar (1000 psi) system pressure and a 153mm centre to centre tiller arm length cylinder volume divided by helm displacement = number of turns lock-to-lock

Capilano™ Inboard Steering Selection Guide

CAPILANO™

The table below is a guide to selecting a steering system. A steering system manufacturer cannot anticipate all the variables in boat and rudder design that affect steering loads. It is the final responsibility of the boat designer / builder to specify maximum expected steering loads.

If expected steering load information is not available, contact our sales department with rudder dimensions, vessel size and anticipated maximum vessel speed.

Boat Length Up To M	Boat Length Up To Ft	Planing Hull	Displacement Hull	Sailboat
9	30	1	1	1
11	35	1	2	2
11.5	38	2	2	2
12	40	2	3	3
14	45	3	3 or 4 or 5	3 or 4 or 5
15	50	3 or 4 or 5	6	6
17	55	6	7	7
18	60	7		

Displacement hull - maximum hull speed does not normally exceed 18 knots
Planing hull - maximum hull speed normally exceeds 18 knots

1 3-6 turns lock to lock adjustable - torque 75 kg-m (6548 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294002	Helm - 1250V	1	788
294032	Cylinder - BA150-7TMB	1	788
293096	Hose kit	1	790
294102	Fitting kit	1	790
	For extra steering station add:		
294002	Helm - 1250V	1	788
294104	Fitting kit	1	790

2 4-8 turns lock to lock adjustable - torque 100 kg-m (8795 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294002	Helm - 1250V	1	788
294034	Cylinder - BA200-7TMB	1	815
293096	Hose kit	1	790
294102	Fitting kit	1	790
	For extra steering station add:		
294002	Helm - 1250V	1	788
294104	Fitting kit	1	790

3 5.5-11 turns lock to lock adjustable - torque 140 kg-m (12,134 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294002	Helm - 1250V	1	788
294034	Cylinder - BA200-7TMB	1	815
293096	Hose kit	1	790
294102	Fitting kit	1	790
	For extra steering station add:		
294002	Helm - 1250V	1	788
294104	Fitting kit	1	790

4 3.5-7 turns lock to lock adjustable - torque 140 kg-m (12,134 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294002	Helm - 1250V	1	788
294036	Cylinder - BA200-7TMB	1	788
293096	Hose kit	1	790
294106	Fitting kit	1	790
	For extra steering station add:		
294002	Helm - 1250V	1	788
294108	Fitting kit	1	790

5 4-8 turns lock to lock adjustable - torque 170 kg-m (14,766 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294004	Helm - 1275V	1	788
294032	Cylinder - BA150-7TMB	1	788
293096	Hose kit	1	790
294106	Fitting kit	1	790
	For extra steering station add:		
294004	Helm - 1275V	1	788
294108	Fitting kit	1	790

6 5.5-11 turns lock to lock adjustable - torque 230 kg-m (19,902 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294004	Helm - 1275V	1	788
294034	Cylinder - BA175-7TMB	2	815
293096	Hose kit	2	790
294106	Fitting kit	1	790
	For extra steering station add:		
294004	Helm - 1275V	1	788
294108	Fitting kit	1	790

7 7.5-15 turns lock to lock adjustable - torque 300 kg-m (26,322 in-lb)

BLA Code	Description	Qty Req.	Cat. Ref. Page
294004	Helm - 1275V	1	788
294036	Cylinder - BA200-7TMB	2	788
293096	Hose kit	2	790
294106	Fitting kit	1	790
	For extra steering station add:		
294004	Helm - 1275V	1	788
294108	Fitting kit	1	790

N.B. Torque figures are theoretical about pivot point at 35° articulation with 75 bar (1000 psi) system pressure and 153mm centre to centre tiller arm length

Capilano™ Seal Kits

CAPILANO™

BLA Code	Description
293745	1250V & 1275V helms
293726	BA150-7TMB, BA150-7TMC cylinders
293728	BA175-7TMB, BA175-7TMC cylinders
293730	BA200-7TMB, BA200-7TMC to 200- 7TMB cylinders
293732	200-11TMC, BA200-11TMC cylinders

Refer page 788 for further details.

Capilano™ Steering - Recommended Tubing/Hoses

CAPILANO™

We recommend the use of soft refrigeration type copper tubing for optimum performance. If hose must be used, select a hydraulic hose rated for 70 bar (1000 psi) working pressure and with a very low volumetric expansion rating. Hydraulic hose that expands too much will make the steering spongy. Steering systems installed with copper tubing require short lengths of flexible hose to accommodate cylinder movement. Hoses are supplied with ½" SAE flare nuts on each end. Hoses are sold as pairs for single cylinder applications.

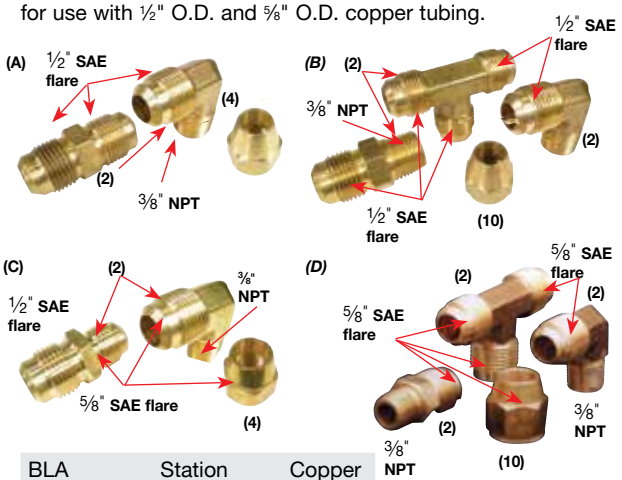
BLA Code	Length mm
293096	450

Recommended Copper Tube Size for Capilano

Helm Model	Distance from cylinder to furthest helm 12.2m (40ft) or less	More than 12.2m (40ft)
1250V	½" OD copper tubing ½" ID hydraulic hose	⅝" OD copper tubing ⅝" ID hydraulic hose
1275V	⅝" OD copper tubing ⅝" ID hydraulic hose	⅝" OD copper tubing ⅝" ID hydraulic hose

Capilano™ Fitting Kits

Single and additional steering station. SAE flare tube fitting kits for use with ½" O.D. and ⅝" O.D. copper tubing.



BLA Code	Station	Copper Tubing
(A) **294102**	Single	½"
(B) **294104**	Additional	½"
(C) **294106**	Single	⅝"
(D) **294108**	Additional	⅝"

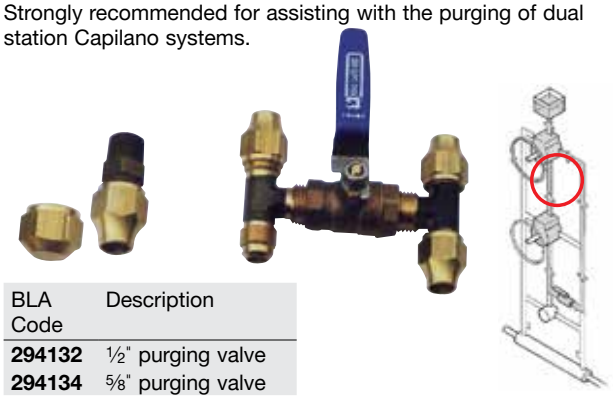
Synchronisation Valves

Used to align fluid linked twin cylinders. Brass ball valve. Supplied with brass tees and flare nuts.

BLA Code	Description
294128	½" synchronisation valve

Purging Valves

Strongly recommended for assisting with the purging of dual station Capilano systems.



BLA Code	Description
294132	½" purging valve
294134	⅝" purging valve

Flare Nuts

Brass. SAE thread. Sold individually.

BLA Code	Description
294110	½" Flare nut
294112	⅝" Flare nut

Capilano™ Cylinder Bleed 'T'

Brass. Two per kit.

BLA Code	Description
294122	⅜" NPT ½" SAE flare
294123	⅜" NPT ½" tube

Capilano™ 'T' - Brass

Three per kit. ½" SAE flare.

BLA Code
294124

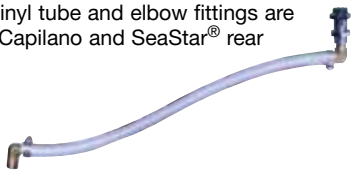
Capilano™ 'T' Two Way Flare - Brass

Tee Two way flare ½" BSP Male.

BLA Code
294126

Fill & Vent Plug Kit

This kit facilitates filling and purging of the steering system at a more convenient, accessible area than at the helm pump. A through-dash fitting complete with a waterproof vent plug, 450mm (18") of vinyl tube and elbow fittings are supplied with this kit. Suits Capilano and SeaStar® rear mount or sport tilt helm.



BLA Code
294130

Adaptor Bush

Adapts Capilano™ helm shafts from ¾" taper to 1" straight. Machined brass.

BLA Code
294100

SeaStar® Hydraulic DC Power Steering System

Developed for use in today's large, high powered luxury vessels and commercial craft where ease of operation and reliability are paramount. SeaStar® Power Steering Systems provide the ultimate in simplicity, safety, reliability and performance.

The DC Power Steering unit provides super responsive automotive style steering performance in larger style vessels. The DC Power Steering unit is the heart of the system providing reliable and economical hydraulic flow to the steering cylinders whenever the wheel is turned. Whether at slow docking speeds or on the plane, the system will deliver 100% power regardless of engine speed.

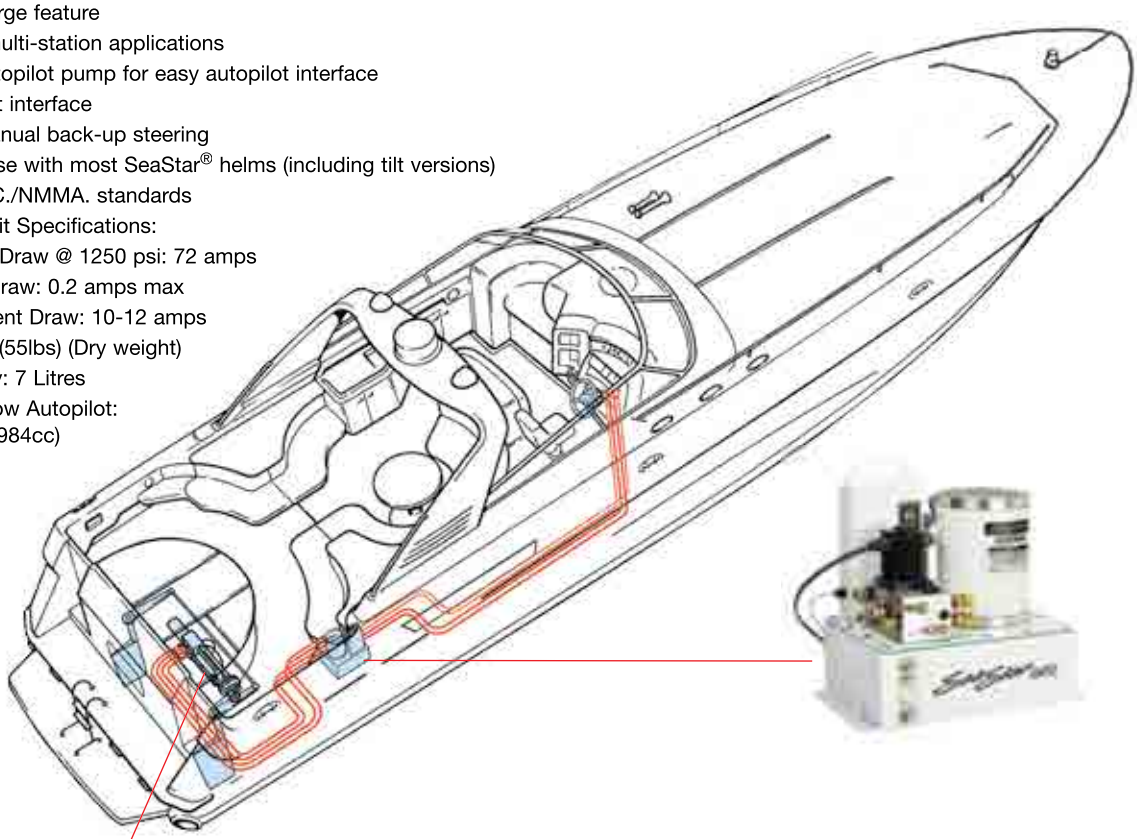
The SeaStar® Power Steering Cylinder delivers precise rudder control in all conditions using the vessels power supply via an electrically operated motor driven hydraulic pump, in the SeaStar® Power Steering unit. Refer to page 793 for details of the cylinder.

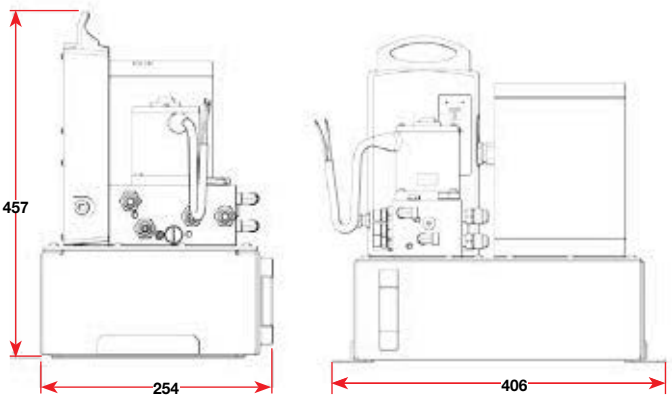
A SeaStar® 1.7 helm is recommended, resulting in a system with 3.5 wheel turns lock to lock when installed in conjunction with the 295112 cylinder.

A **295090** in-line oil filter is recommended to help protect the steering system components against contaminants, refer to page 811 for details.

Features:

- Highly responsive, effortless steering performance at all speeds
- Low number of turns lock to lock (based on helm selection)
- Few components to spec and install
- Multiple steering stations can be installed
- Semi-auto purge feature
- Suitable for multi-station applications
- Integrated autopilot pump for easy autopilot interface
- Easy autopilot interface
- Automatic manual back-up steering
- Suitable for use with most SeaStar® helms (including tilt versions)
- Meets A.B.Y.C./NMMA. standards
- DC Power Unit Specifications:
- Peak Current Draw @ 1250 psi: 72 amps
- Idle Current Draw: 0.2 amps max
- Average Current Draw: 10-12 amps
- Weight: 25kg (55lbs) (Dry weight)
- Tank Capacity: 7 Litres
- Adjustable Flow Autopilot: 0-60 in³/min (984cc)





BLA Code	Description
295102	24 vdc main motor / 12 vdc autopilot motor
295104	24 vdc main motor / 24 vdc autopilot motor

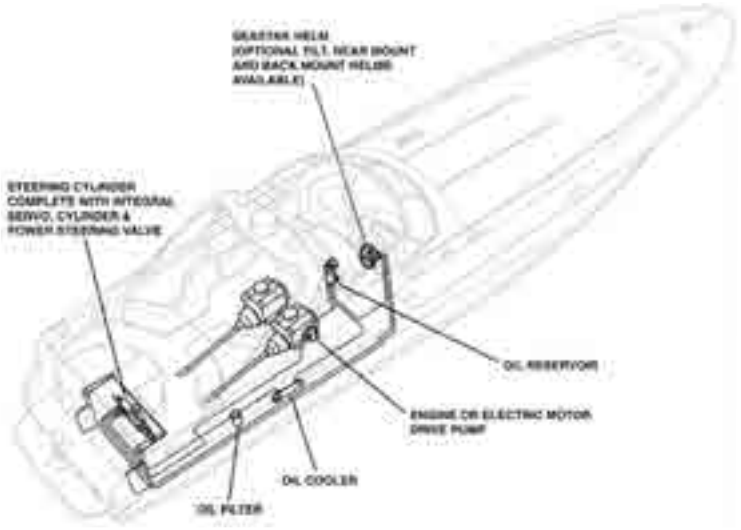
SeaStar Power Steering For boats up to 30m

SeaStar® hydraulic power steering uses the ship's engine(s) to provide the 'power' for the steering system, via an engine or gear box driven hydraulic pump.

A manual hydraulic steering system, comprising of a standard SeaStar® helm and a hydraulic steering cylinder (fitted with an integral servo cylinder and power steering valve), supplies the 'control' portion of the steering system. Under normal conditions, with engines running, a hydraulic oil supply is in stand-by mode, ready to be directed to the steering cylinder as dictated by the steering wheel, servo cylinder and power steering valve. Turning the steering wheel port or starboard makes the system go from standby into operating mode and move the steering cylinder accordingly. In the event of a power source failure, hydraulic oil from the steering helm is automatically diverted directly into the servo and steering cylinder, providing the helmsman with manual hydraulic back-up steering. An engine room mounted oil reservoir allows easy system fill and assists the in-line oil cooler in cooling the hydraulic oil. An in-line oil filter helps to protect the steering system components against contaminants.

Features:

- Effortless steering from docking to top speed
- Responsive steering - 3.5 turns lock-to-lock 1.7 helm
- Automatic manual hydraulic back up steering
- Simplified installation
- Multiple steering stations options
- Easy autopilot interface
- Rubber boot on cylinders to protect seals



Selecting a Power Steering System For Inboard Powered Boats

A SeaStar® power steering system comprises of seven component types.

From the cylinder selection guide select the cylinder appropriate for the vessel based on:

a. hull type - displacement or planing

b. weight of vessel

c. length of vessel

Select a power steering pump based on type of power take off and direction of rotation.

Select a steering helm based on:

a. number of turns required lock-to-lock

b. type of helm configuration/mount and accessory hardware for each steering station

Select the appropriate oil cooler based on engines cooling system capacity.

Select the fittings and hose kits required for the application.

To complete the SeaStar® power steering system you will also require an oil reservoir (**295070**) and oil filter (**295090**).

Standard Power Steering System Selection Information

BLA Code	Description
Power Steering Cylinder	
295002	228mm (9") stroke
295004	279mm (11") stroke
295006	228mm (9") stroke, additional cylinder option
295008	279mm (11") stroke, additional cylinder option
Steering Helm	
291502	Helm, 1.7 front mount
291512	Helm, 1.7 tilt mount
291515	Helm, 1.7 sport tilt mount
291522	Helm, 1.7 rear mount
Oil Reservoir, cooler, and filter	
295070	Oil reservoir
295090	Oil filter
295082	Oil cooler

SeaStar Power Steering - Cylinder Selection Guide

BLA Code	Description	Displacement Hulls (Standard)	Displacement Hulls (Heavy Duty)	Planing Hulls
295002	Single cylinder	up to 15m (50')	up to 12m (40')	up to 20m (65')
295004	Single cylinder	up to 18m (60')	up to 15m (50')	up to 23m (75')
295112	Single cylinder	up to 26m (85')	up to 18m (60')	up to 31m (100')
***295006**	Secondary cylinder without servo	up to 23m (75')	up to 17m (55')	up to 26m (85')
****295008**	Secondary cylinder without servo	up to 31m (100')	up to 22m (70')	up to 34m (110')

** 295006 secondary cylinder is installed with 295002 primary cylinder*
*** 295008 secondary cylinder is installed with 295004 primary cylinder*

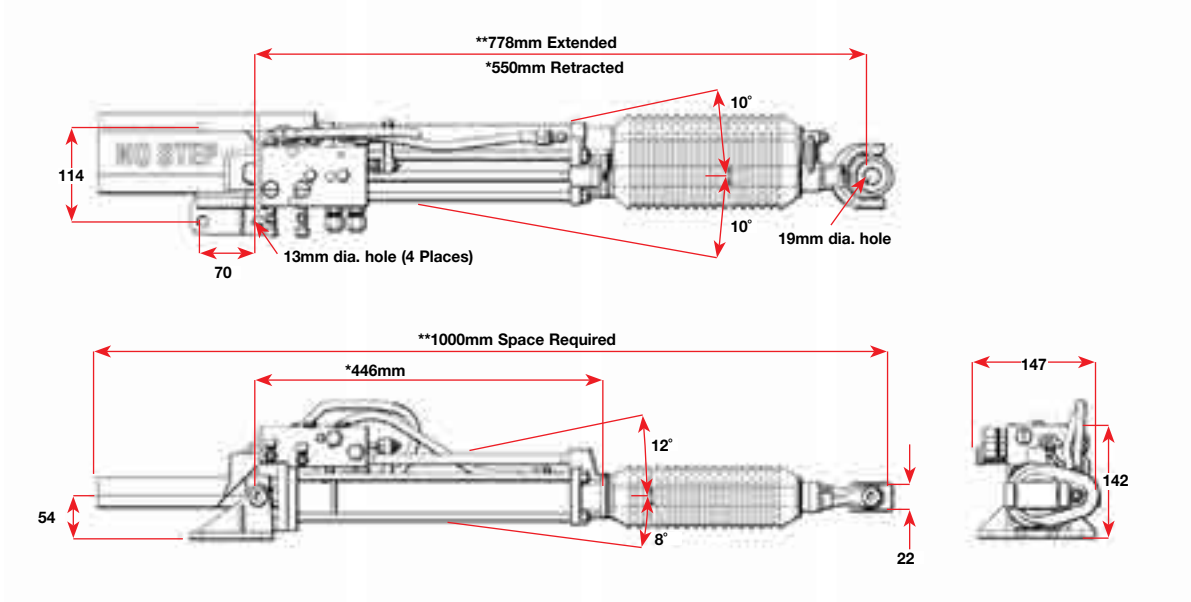
SeaStar Power Steering - Technical Data

BLA Code	Description	Displacement	Bore	Stroke	Output Force	Max torque (35° from centre)
295002	Single cylinder	348cc (21.25 in³)	51mm (2")	229mm (9")	13 090 N 2946 lbsf	2130 Nm (18 900 in lbs)
295004	Single cylinder	426cc (26.00 in³)	51mm (2")	280mm (11")	13 090 N 2946 lbsf	2610 Nm (23 140 in lbs)
295112	Single cylinder	608cc (37.11 in³)	64mm (2.5")	229mm (9")	22 926 N 5154 lbsf	3735 Nm (33 065 in lbs)
295006	Secondary cylinder without servo	697cc (42.50 in³)	51mm (2")	229mm (9")	26 190 N 5892 lbsf	4260 Nm (37 800 in lbs)
295008	Secondary cylinder without servo	853cc (952.00in³)	51mm (2")	280mm (11")	26 190 N 5892 lbsf	5220 Nm (46 280 in lbs)

Secondary cylinder displacement, output force and maximum torque specifications include primary cylinder in calculations

SeaStar Power Steering - Dimensional Data

229mm stroke and 280mm stroke cylinders.



** Add 50mm to this dimension for 295004* *** Add 101mm to this dimension for 295004*

SeaStar Power Pump Selection Guide

When selecting a SeaStar® power pump, always ensure the pump has the required rotation for the engine. These pumps develop the specified rated flow at 1200 RPM, the excess flow at higher RPM is circulated back to the tank via the integral flow control valve. Pressure relief is preset and integral. If using two pumps, outlet check valves are required on each pump. Crossover relief is suggested for twin cylinder applications. Power steering pump specifications - 15 L/min flow control, 1250 psi relief.

Seastar Solutions® Optimus EPS

From the masters in electronic power steering

Optimus Electronic Power Stering (EPS) by SeaStar Solutions represents the next generation in steering, designed to replace traditional hydraulic systems for single, twin, triple and quad outboard configurations as well as now being available for Inboard and Sterndrive applications.

As the captain of your vessel you know how important it is to have command of your boat, Optimus EPS gives you the steering control, performance and comfort you expect without having to arm-wrestle for control.

The optimus electronics provide the very best in performance with car like feel for effortless and comfortable control when steering at speed or under extreme conditions while lightening the steering load with the capability to adjust lock to lock turns with engine RPM. This makes low speed manoeuvering through those tight spots and heavy traffic more precise.

The electronic Optimus helm connects to the Pump Control Module (PCM) via a fault tolerant CANbus. In turn, the PCM commands the individual hydraulic pumps installed below deck which operate the specially engineered electro-hydraulic smart cylinders that control individual movement of the engines.

Additionally, the electronic power steering system is designed to interface easily with Optimus certified third party autopilot systems, eliminating the need for a second pump and lengthy installation procedures. The Optimus system also exceeds the North American ABYC and European ISO standards, recognised symbols of quality assurance.

Advantages of Optimus Electronic Power Steering (EPS)

- No oil at the helm
- Boat that steers like a sports car
- Plug and play autopilot compatibility
- No auto pilot pump or rudder feedback unit
- Adjustable speed sensitive wheel effort
- Adjustable speed sensitive turns lock to lock
- Can be retrofitted to existing mechanical and electronic controlled engines. You do not have to buy new engines
- No tie-bars (twin configuration)
- No liquid tie-bar (CAT)
- On demand pumps which extend battery life
- Components based on existing SeaStar reliability and quality
- NMEA 2000 Certified
- Meets or exceeds NMMA, ABYC, CE, ISO and SAE

Optimus and Optimus 360 Outboard Model Compatibility Guide

Make	Model	Optimus Compatibility	Optimus 360 Compatibility
Mercury			
	Verado	Yes	No
	OptiMax: 1.5L 75-125 HP, 2.5L 135-150 HP, 3.0L 200-250	Yes	Yes
	Pro XS: 112-250 HP	Yes	Yes
	Four Stroke: 3.0L 150 HP	Yes	Yes
Yamaha			
	V4: 150 HP, 175 HP	Yes	Yes
	V6: 3.3L 200 HP, 3.3L 225 HP, 3.3L 250 HP, 4.2L 200 HP	Yes	Yes
	V6: 4.2L 225 HP, 4.2L 250 HP, 4.2L 300 HP, 5.3L 350 HP	Yes	No
Suzuki			
	V4: 140HP, 150 HP, 175 HP	Yes	Yes
	V6 - Yes to the following models: 200 HP, 225 HP, 250 HP, 250SS (250 HP)	Yes	Yes
	V6: 300 HP	Yes	No
Evinrude			
	V6 H.O. (High Output): 150 HP, 200 HP, 225 HP, 250 HP	Yes	Yes
	V6 E -TEC: 150 HP, 200 HP, 225 HP, 250 HP, 300 HP	Yes	Yes
Honda			
	V4: 115 HP, 135 HP. V6: 150 HP, 200 HP, 225 HP, 250 HP	Yes	Yes

N.B. This compatibility guide is for current production engines sold after May 21st 2012. It is important to remember that this chart will continue to change with additions to model ranges. Please consult BLA for detailed engine compatibility, specific notes and options. It is important to note that the Optimus and Optimus 360 steering system is only available through appointed agents and must be installed by an accredited Optimus 360 installer. For further information and complete system requirements please contact BLA on 1300 252 725.

Electronic Power Steering System Applications

Electronic Power Steering for Outboard Applications

While cable steering, and more recently hydraulics, have made steering easier, the prime mover is still the arms and hands of the captain at the wheel. But all of that has changed. SeaStar Solutions is proud to announce a historic change in boat handling, with its revolutionary Optimus Electronic Power Steering (EPS) for single, twin, triple and quad outboard engine boats. With Optimus EPS, you can take command of your boat without having to arm-wrestle for control.

Applications:

- All single, twin, triple and quad outboard engine boats, electronic and mechanical controlled
- Single and dual helm station boats
- Performance powerboats, bay boats, centre console, saltwater fishing vessels, RIBS, catamarans, houseboats and pontoon boats

Electronic Power Steering for Single Outboard Engine Applications

Available for both retro-fit and new engine installations. As the captain of your vessel you know how important it is to have command of your boat. Optimus EPS gives you the steering control, performance and comfort you expect. With Optimus EPS, you can take command of your boat without having to arm-wrestle for control. Refer to page 798 for more details.

Applications:

- Most single outboard engine boats - electronic and mechanical controlled
- Single and dual helm station boats
- Performance powerboats, bay boats, centre console, saltwater fishing vessels, RIBS, houseboats and pontoon boats

Electronic Power Steering for Inboard and Sterndrive Applications Under 40'

Available for both retro-fit and new engine installations. As the captain of your vessel you know how important it is to have command of your boat. Optimus EPS gives you the steering control, performance and comfort you expect. With Optimus EPS, you can take command of your boat without having to arm-wrestle for control. Refer to page 805 for more details.

Applications:

- Most single and twin inboard & sterndrive engine boats - electronic and mechanical controlled
- Single and twin helm station boats
- Competition ski boats, cruisers, sport fishing yachts

Electronic Power Steering for Inboard Engine Applications 40' to 70'

Builds upon the proven Optimus core technology and components, with a new hydraulic power unit and new inboard smart cylinder. Refer to page 806 for more details.

Applications:

- Most single and twin inboard engine boats - electronic and mechanical controlled
- Single, twin and triple helm station yachts
- Performance motor yachts, express convertibles, and sport yachts

Optimus 360 Electronic Steering

A revolutionary joystick steering/shift/throttle control system engineered for powerboats with mechanically-controlled twin outboards and select electronic controlled engines. Optimus 360 uses state-of-the-art electronics to provide easy 360 degree manoeuvring capabilities when docking, negotiating crowded areas or by loading a vessel onto a trailer. Refer to page 802 for more details.

Applications:

- Mechanically controlled twin outboards
- Select electronic controlled twin, triple and quad outboard engines

Key Components of Seastar Solutions® Optimus EPS and Optimus 360

Optimus Electronic Helm

Features:

- **Adjustable helm turns and steering wheel effort** - Adjustable steering sensitivity and resistance for maximum comfort
- **Speed sensitive helm turns, effort and steering response** - Driver comfort, control and performance as speed varies
- **Dual independent sensors and circuits** - Provides redundancy for reliable operation
- **Electronic helm** - No hydraulic oil at helm
- **Optional tilt helms available** - Adjustable position of steering wheel for personal comfort
- **Optional 2nd helm** - Easy installation, requires only a harness connection

292190

Optimus SmartCylinders - Outboard

Features:

- **Dual independent non-contact sensors and proven** - System reliability and operation SeaStar cylinder design
- **Integrated rudder feedback unit (RFU)** - No additional RFU required for autopilot system
- **Adjustable stainless steel ORB fittings** - Simplifies the installation and allows for easy orientation in any direction

292160

Optimus Hydraulic Steering Pump

Features:

- **On demand hydraulic steering pump** - Significantly reduces overall power consumption and no oil cooler required for hydraulic fluid
- **Simplified semi auto-purge mode** - Allows user to purge system with existing components
- **Designed using SAE J-1171 rated motor** - Meets Coast Guard requirement for ignition protection
- **Third party auto-pilot certified** - A separate auto-pilot pump is not required
- **Integrated service/bypass valve** - Limp home mode on remaining functional engine(s)

Optimus CANtrak Display

Features:

- **CANtrak digital display for messaging and user interface** - Provides interface for adjusting helm turns and steering effort. Dealer adjustable toe in/out and engine turning ratio
- **Displays visual information on system status** - Real-time system status rudder direction and RPM
- **The interface to setup/configure and purge the Optimus EPS System** - No additional device or computer required to get the system functional

Optimus Pump Control Module

Features:

- **Fault tolerant CANbus network**: Ensures system reliability and operation
- **Sealed locking harness connections**: Ensures reliable harness connection protection from vibration
- **Accommodates certified third party autopilot systems**: No additional autopilot pump and RFU
- **Automatic battery selector**: Ensures system operates at peak performance

Optimus 360 Joystick

Features:

- **3 axis joystick with guided feel**: Provides intuitive joystick docking
- **Enables user to confidently control the boat**: Fore/aft, sideways, diagonal and rotational movements
- **Boost mode**: Provides increased docking power to overcome winds/currents
- **Take Command Mode**: Single touch button activation transfers control to the joystick

Optimus i6800 Control Actuator

Features:

- **Independent shift and throttle actuators:** Provides mounting location flexibility
- **Start-In-Gear protection**: Reduces risk of engine damage

Optimus i6800 Control Head

Features:

- **Full Engine Synchronisation**: Allows the user to operate with one hand control
- **Independent adjustable lever resistance/detent:** Customisable by user
- **Integrated trim control**: Ergonomically located on the control handle

Seastar Solutions® Optimus Smart Cylinder - Sterndrive

Features:

- Systems reliability and operation
- No additional RFU required for autopilot system
- Unbalanced cylinder simplifies the installation and allows for easy orientation in any direction

292180

Seastar Solutions® Optimus Smart Cylinder - Inboard

Features:

- Systems reliability and operation
- No additional RFU required for autopilot system
- Unbalanced cylinder simplifies the installation and allows for easy orientation in any direction

292176

Seastar Solutions® Optimus Smart Cylinder - Big Boat

Features:

- 2-1/8" bore diameter / 1" rod / 9-1/2" stroke
- Maximum steering torque: 37,443in-lb
- Maximum actuator force: 5520 lbs
- Uses existing, proven, power steering cylinder mounting foot and rod end
- Non-contact RFU with redundant sensing circuitry
- Adjustable stainless steel ORB hose fittings (SeaStar hose) with bleed fittings
- Durability: meets or exceeds requirements in ABYC P27
- Meets or exceeds NMMA, ABYC, CE, ISO and SAE electrical and environmental requirements
- Anodised aluminum cylinder for maximum corrosion protection, no brass exposed
- Includes boot and cover for shaft protection

292182

Seastar Solutions® Optimus EPS - Single Engine

Seastar now brings you EPS for single engine applications

Optimus EPS truly raises the bar when it comes to comfort, control and manoeuvrability, especially for the new breed of high performance powerboats, saltwater fishing vessels, catamarans, RIBS and it's unlike anything you've ever experienced when it comes to steering.

Available for both retrofit and new engine installations

As a captain of your vessel you know how important it is to have command of your boat, Optimus EPS gives you the steering control, performance and comfort you expect. With Optimus EPS, you can take command of your boat without having to arm-wrestle for control.

Active sensitivity

Lock-to-lock turns and wheel effort are programmed to change with engine RPM. At slow speeds, Optimus EPS can be set to reduce the number of turns lock-to-lock, for example 4 and make it easier to steer. When you're negotiating through traffic or in a tight spot, those smaller moves of the wheel give you precise control. When you're running at speed in open water, Optimus EPS can be set to increase lock-to-lock turns, for example, 6 or 7 and increase steering effort giving the driver more stability to comfortably keep on course. And through it all, Optimus EPS does the work, so you can relax and take it easy.

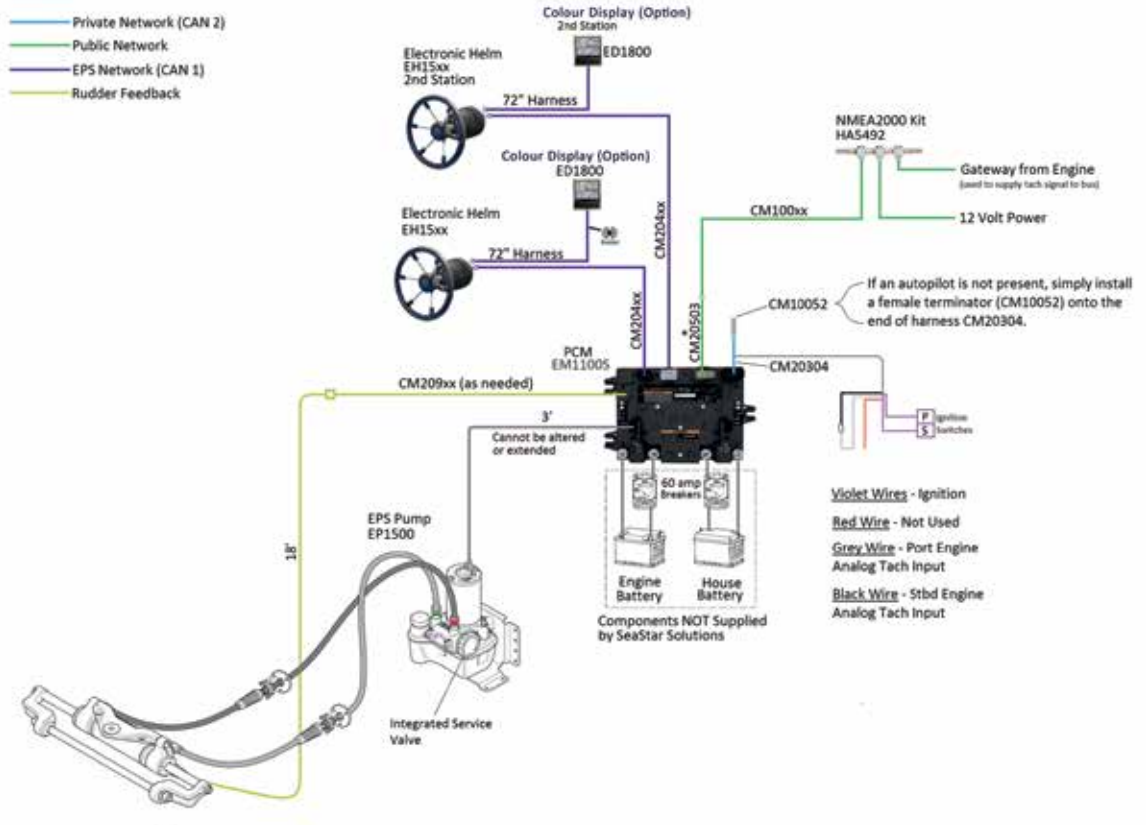
Advantages of Optimus Electronic Power Steering

- No oil at helm
- Boat that steers like a sports car
- Plug and play autopilot compatibility
- No auto pilot pump or rudder feedback unit
- Auto-adjustable speed sensitive wheel effort
- Auto-adjustable speed sensitive turns lock to lock
- Can be retrofitted to existing mechanical and electronic controlled engines
- On demand pumps which extend battery life
- 2nd station is easy – no additional hose runs
- Components based on existing SeaStar reliability and quality
- NMEA 2000 Certified

Applications for Optimus EPS

- Most single outboard engine boats - electronic and mechanical controlled
- Single and dual helm station boats
- Performance powerboats, bay boats, center console, saltwater fishing vessels, RIBS, catamarans, houseboats and pontoon boats

Optimus EPS Installation



System Components Required For Optimus EPS System

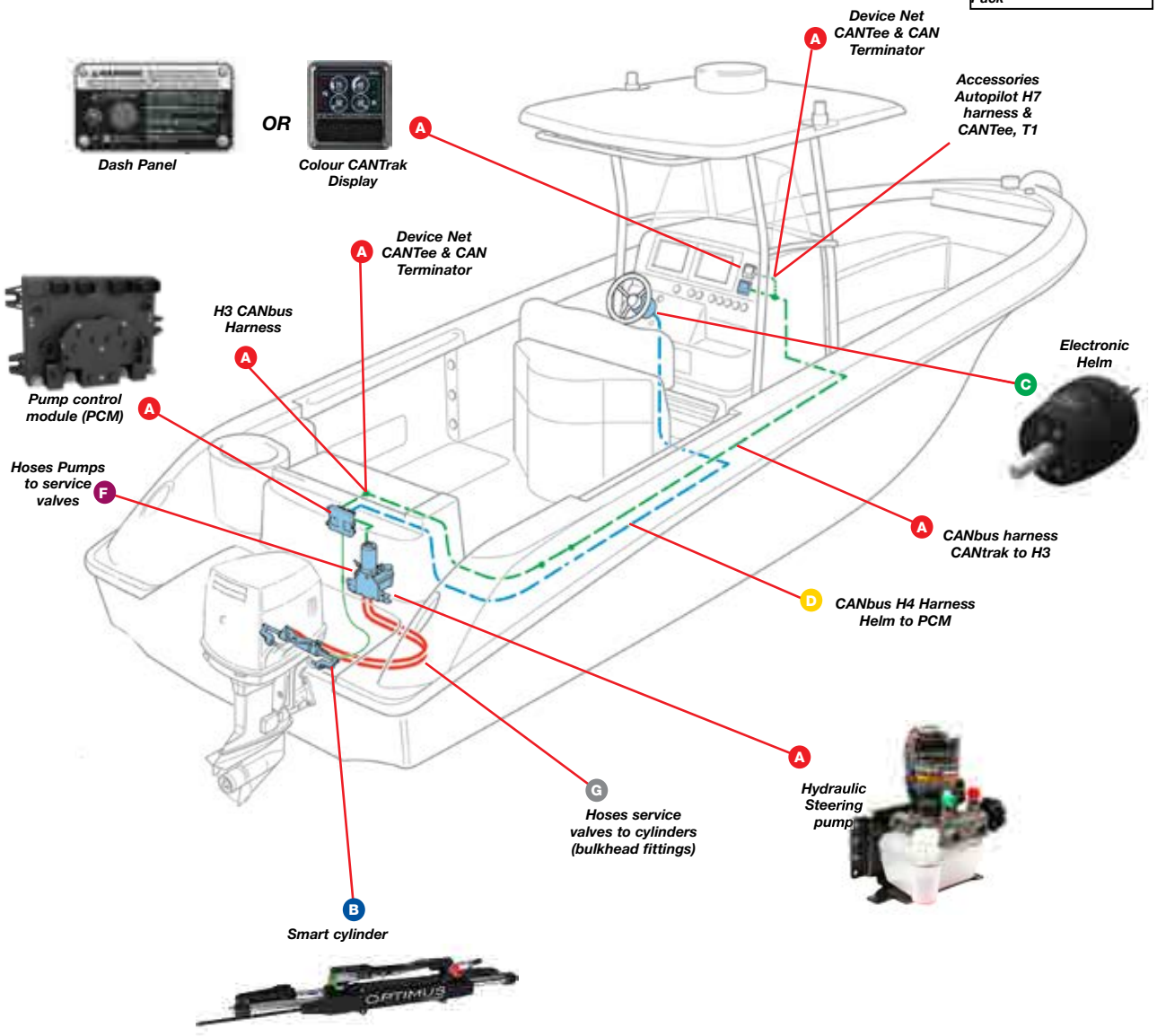
- Single Engine

The following is required (refer system schematic);

- 1 x **292104** Core Pack or 1 x **292101** Core Pack containing a CANtrak Display or Dash Panel, pump control module, steering pump, service valve and the accessories listed below
- CAN terminators and tees **(A)**
- 1 x Smart cylinders **(B)**
- 1 x Electronic helm – 292190 Front mount, **292194** Tilt Sport Plus,
- **292198** Tilt Classic or **292202** Rear mount **(C)**
- 1 x CANbus 1 harness – Helm to PCM **(D)**
- 1 x CANbus 2 harness – CANtrak to PCM **(E)**
- 2 x SeaStar® Bulkhead Pro Hose kits – Steering Pump to Cylinders **(G)**
- Accessory items as needed including harness extensions, EPS fluid etc.

System Schematic

Note:
All items labelled (A) are included in the Twin Core Pack



2nd Station Installation

For second station installations additional helm, device Net, CAN 1 harnessess (lengths as required) and CANtrak (optional) are required. Choosing the system components is simple and installation easy when compared to a traditional all hydraulic twin engine installation requiring a tie bar. Suitable for 12 volt systems only. For further Optimus system information and full product listing please refer to page 808-809.

It is important to note that the Optimus steering system must be programmed by an accredited Optimus agent. For further information, complete system requirements and engine compatibilitys please contact BLA on 1300 252 725.

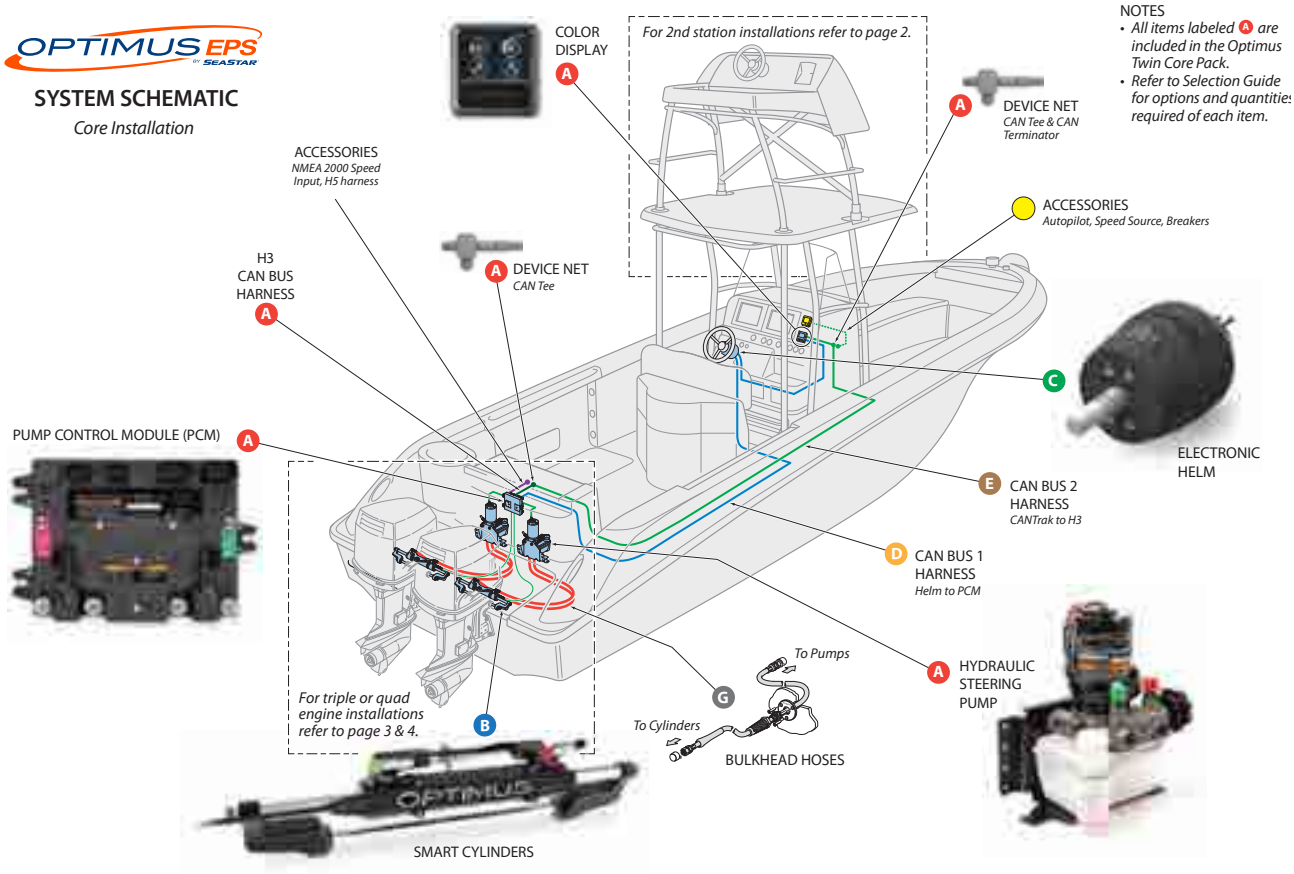
System Components Required For Optimus EPS System

- Twin Engine

The following is required (refer system schematic);

- 1 x **292102** Core Pack containing a CANtrak display, pump control module, steering pump, service valve and the accessories listed below
- CAN terminators and tees **(A)**
- 2 x Smart cylinders sold as a matching pair **(B)**
- 1 x Electronic helm – **292190** Front mount, **292194** Tilt Sport Plus,
- **292198** Tilt Classic or **292202** Rear mount **(C)**
- 1 x CANbus 1 harness – Helm to PCM **(D)**
- 1 x CANbus 2 harness – CANtrak to PCM **(E)**
- 2 x SeaStar® Bulkhead Pro Hose kits – Steering Pump to Cylinders **(G)**
- Accessory items as needed including harness extensions, EPS fluid etc.

System Schematic



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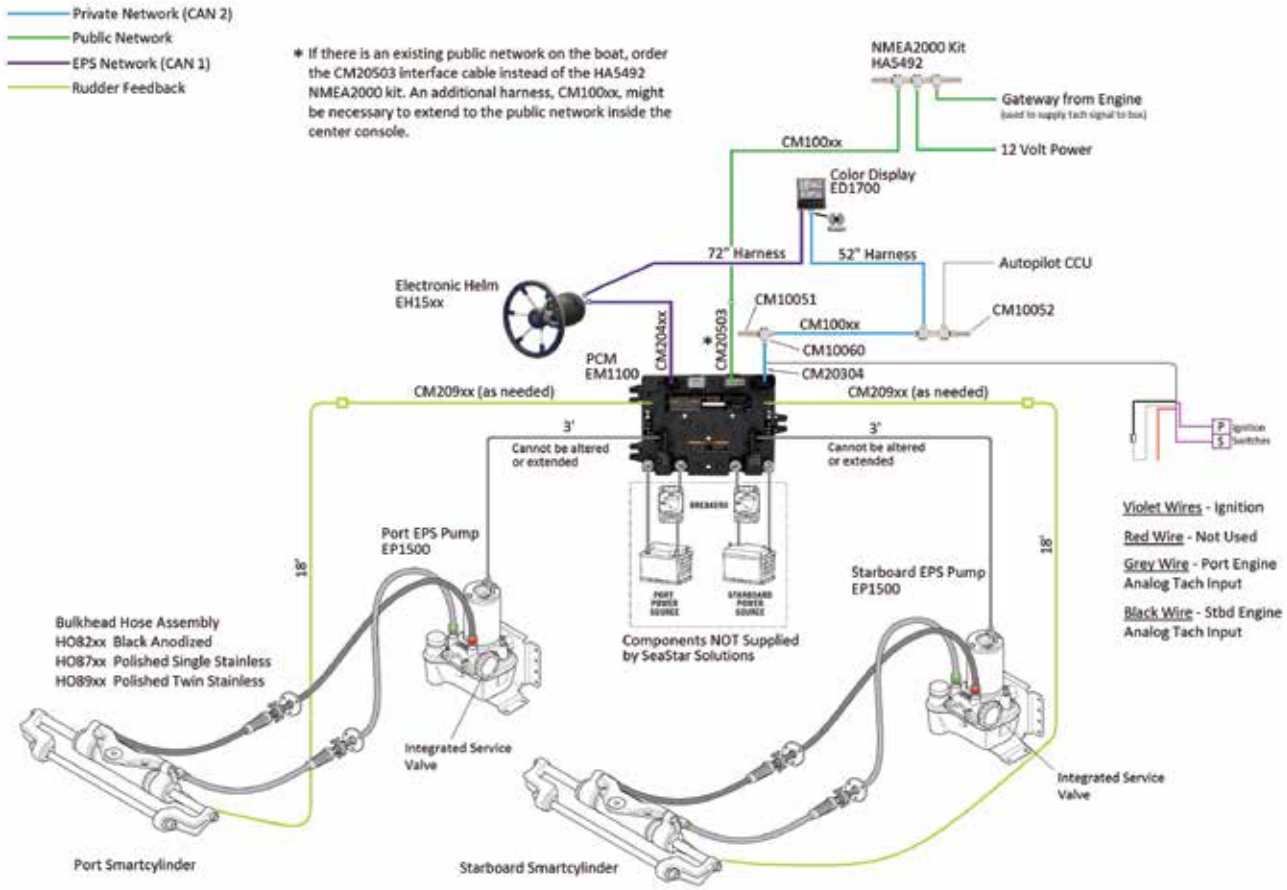
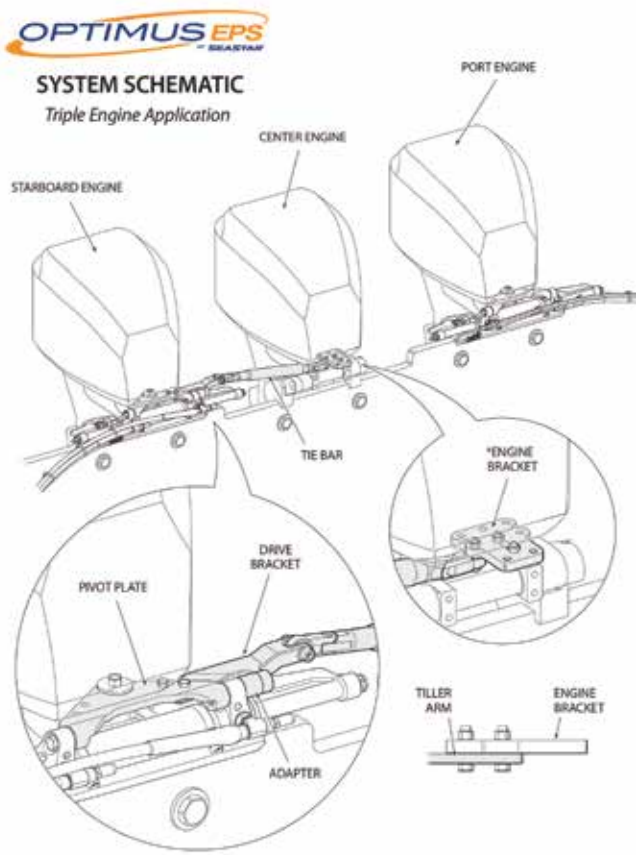
Choosing the system components is simple and installation easy when compared to a traditional all hydraulic twin engine installation requiring a tie bar. Suitable for 12 volt systems only. For further Optimus system information and full product listing please refer to page 808-809.

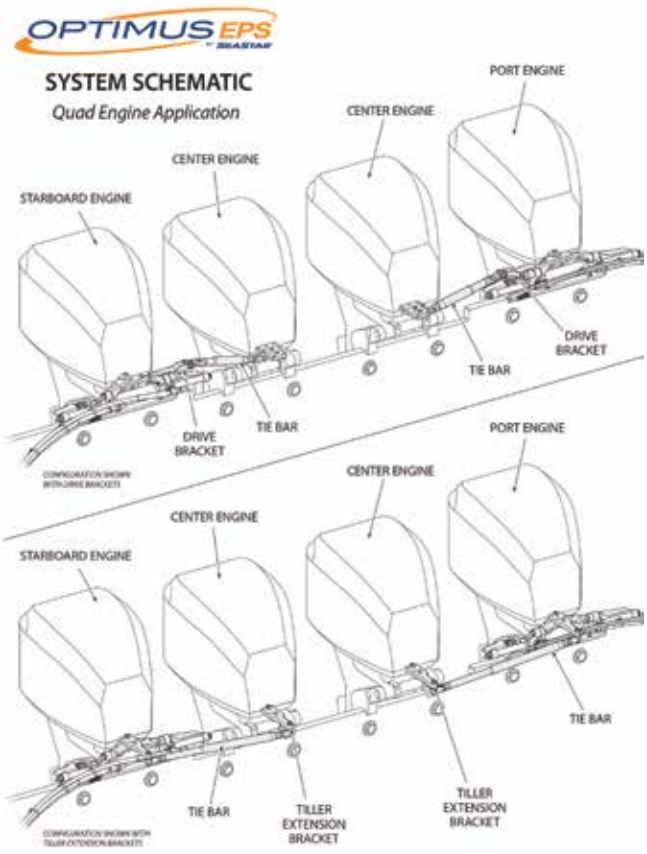
It is important to note that the Optimus steering system must be programmed by an accredited Optimus agent. For further information, complete system requirements and engine compatible please contact BLA

System Schematic for Twin Engine Application



System Schematics for Triple and Quad Engine Twin Cylinder Applications





Optimus 360 Joystick Control System

Ultimate Intelligence

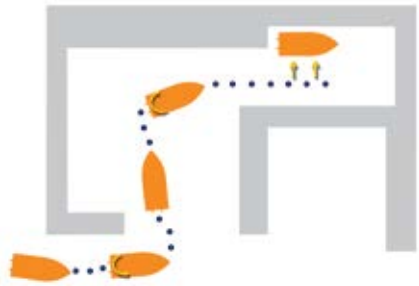
The Optimus 360 builds on the Optimus EPS and EST systems to offer a revolutionary command structure engineered for powerboats with mechanically controlled twin outboards to provide complete harmonised control of steering, shift and throttle via an intuitive electronic joystick. As the name suggests, Optimus 360 utilises state of the art electronics to provide 360 degree manoeuvring capabilities which greatly assist in docking, negotiating tight areas such as marinas and for launching and retrieving.

The intuitive hand controlled joystick electronically commands the smart cylinders, actuators, gear shifts and throttles to independently control each engine to send the boat forward, backwards, diagonally, rotate on its own axis or to move sideways. By combining all of these forces independently or in unison the boat is moved in any desired direction to exactly where the operator wants to go.

The Optimus 360 utilises the advanced Optimus Electronic Power Steering system (EPS) which connects via a fault tolerant CANbus to a Pump Control Module (PCM). The PCM operates individual hydraulic pumps that control the electro hydraulic smart cylinders to provide independent movement of each outboard engine.

Optimus 360, for twin, triple and quad engine applications

Optimus 360 gives your boat a whole new dimension of control. By developing the joystick function to be intuitive, Optimus 360 allows you to move your boat not only forward and back, but also sideways, by pushing the joystick to the left, or to the right, and even, rotate on a dime, all with a simple twist of the joystick.



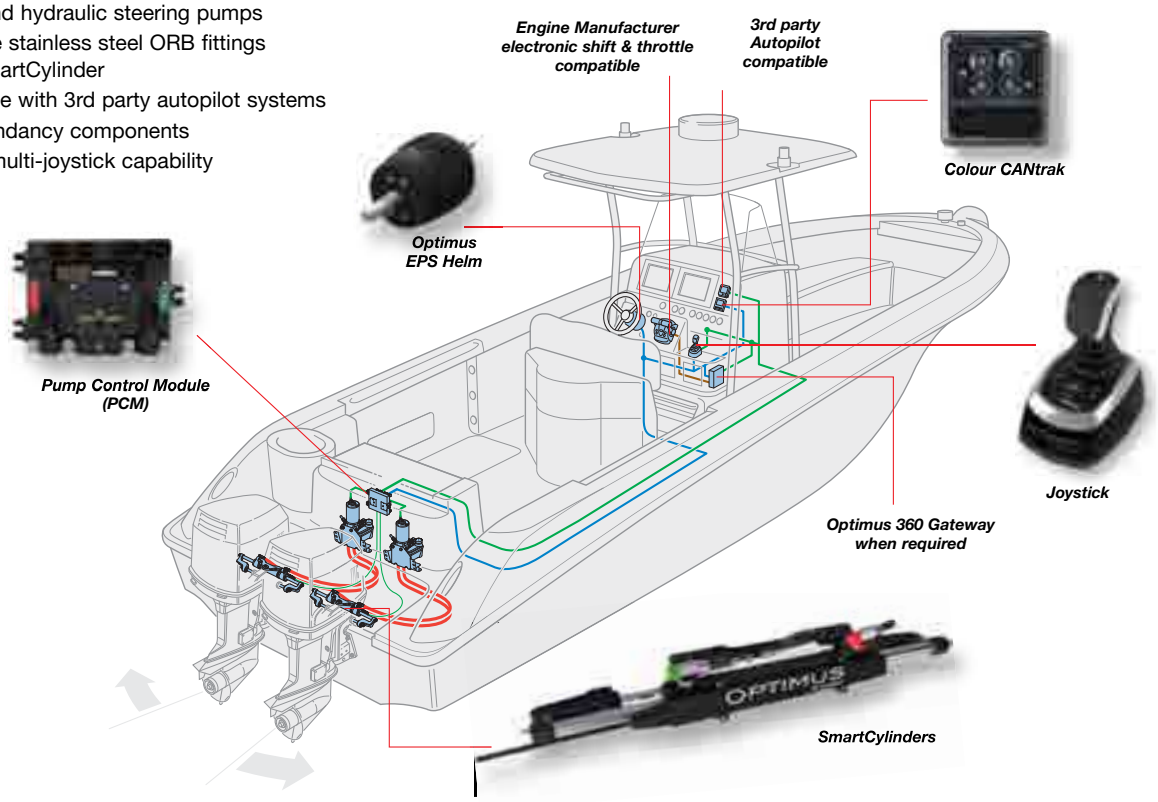
Optimus 360 is designed for low speed maneuvering, and really excels in the marina, when pulling in and out of your slip, or docking. Optimus 360 uses intelligent programming to minimise the amount of shifting required to complete a manoeuvre.

With progressive throttling, the joystick becomes a natural extension of your hand. A light push on the joystick provides minimal thrust while more thrust can be applied by pushing harder on the joystick. The boost mode increases the RPM to give you more thrust when needed.

Each component has been designed to complement the other, resulting in a seamless experience of steering control in virtually every situation on the water. The high level of engineering also extends to the reliability of the system, with quality materials, careful manufacturing and redundant systems, all to stand up to the rigors of life on the water.

Features:

- Three axis joystick with guided feel and boost mode
- Unique joystick design with a focus on user ergonomics and harsh marine environments
- User adjustable speed sensitive helm turns, wheel effort and steering response
- Fault tolerant CAN Bus network
- Sealed, locking cable connections
- On demand hydraulic steering pumps
- Adjustable stainless steel ORB fittings on the SmartCylinder
- Compatible with 3rd party autopilot systems
- Dual redundancy components
- Optional multi-joystick capability



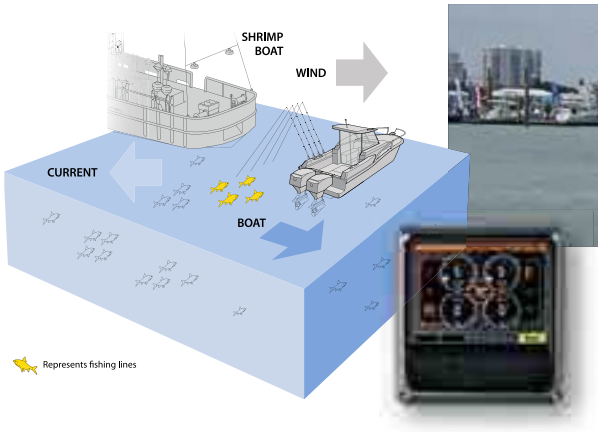
SeaStation GPS

Easy ADD-ON to your Optimus 360 boat

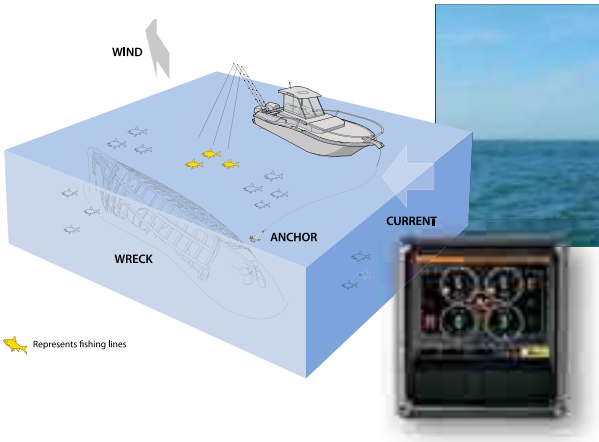
Add new functionality to your Optimus 360 equipped twin, triple or quad engine vessel with the SeaStation. When you are trying to locate that ideal spot over a reef or a wreck, SeaStation is ideal. Just hold your position and heading, drop your lines and see if you have success, if not, simply move to another location and engage SeaStation. No physical anchor required. SeaStar Solutions has applied the same smart algorithms to SeaStation as you have experienced with Optimus 360 joystick control to reduce unnecessary shifting and jocking of the engines while providing superior position and heading functions for a large selection of engine platforms.

Captains have told us that we can't have the jarring from the engines shifting and unnecessary movement as it does not sound good and also could impact the fishing outcome. We took this input seriously and we are confident SeaStation will be a fishing enabler. Another common use for SeaStation will be when you are waiting for a spot to open at the dock or waiting for a bridge to lift. Simply push the A button or A&C buttons on the joystick, acknowledge via the Color CANtrak display and the boat will hold its position. When ready to take command, simply toggle the A and/or C button off for control with the joystick. As SeaStar adds more functions and features to SeaStation they will be available with s/w updates.

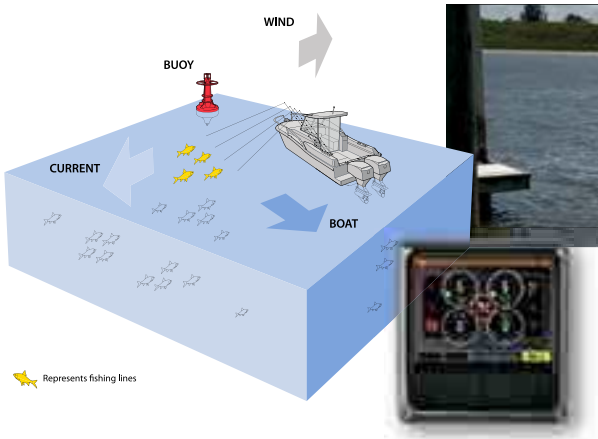
WARNING: This is not to be used for any kind of swimming and diving.



Mode 1: Heading Hold
Hold heading regardless of position. Applications include Kite fishing/Drift fishing. Easier setup - Maximize fishing time.



Mode 2: Position Hold
Hold position regardless of heading. Applications include bait fishing and wreck/ reef fishing. Finding the natural heading when in position hold could be the best option.



Mode 3: Heading and Position Hold
Stay in position and hold heading. Applications include waiting for a bridge to open, a spot at the dock to become available and bait fishing near a structure.

SEASTATION BY SEASTAR

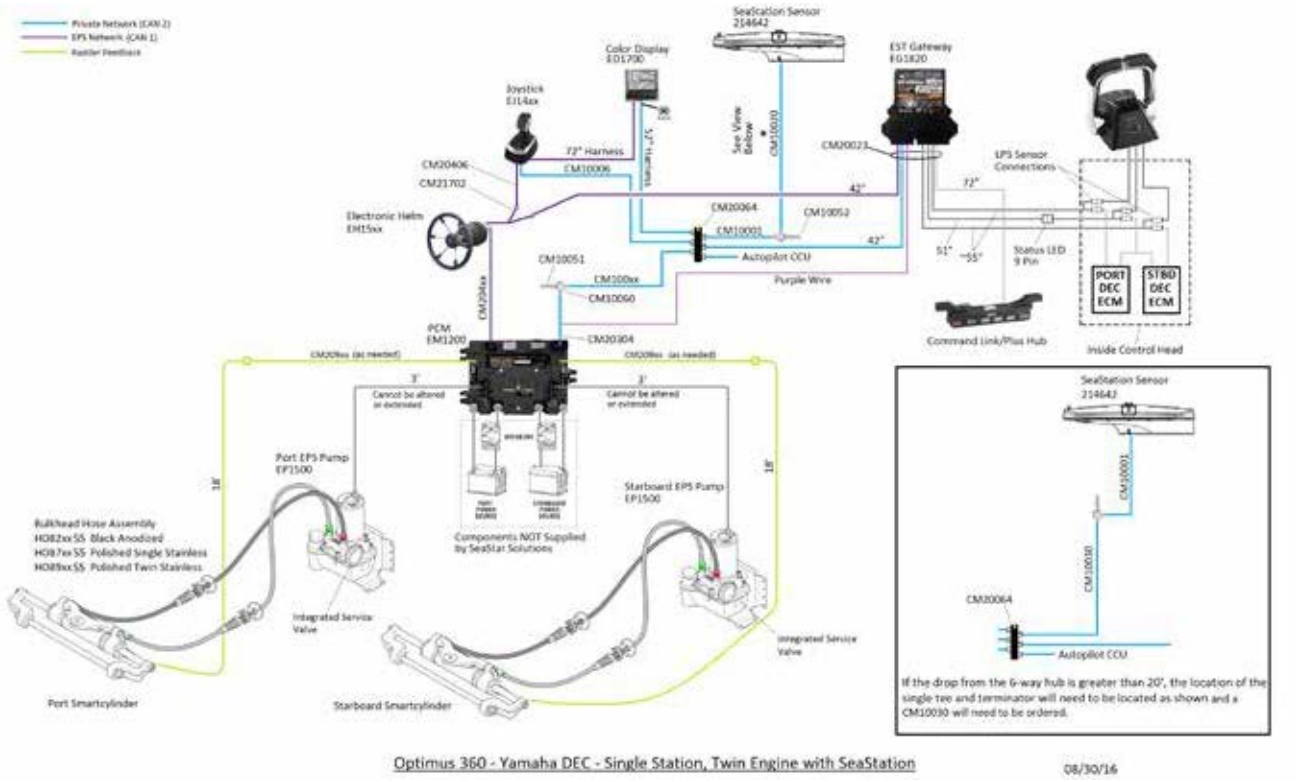
SeaStation Modes

A - Position
C - Heading

This is a safety step to make sure that all precautions have been taken to make sure there is nothing in the water when SeaStation is engaged. After pressing the A and C buttons on the joystick, the captain will be prompted to engage SeaStation by pushing the button on the CANtrak display.

Heading Adjustment

Jog buttons have been created to adjust heading in five degree increments. This feature allows heading adjustment without disengaging SeaStation to align the vessel stern to wind and current to reduce engine activity.



System Requirements

BLA Code	292108
Description	Optimus 360 Joystick Control System SeaStation Kit EPSK1600
General Specifications	
Inclusions	Dual antenna GPS sensor DeviceNet CAN2 harness and T-connector Software and sensor license activation code Warning decals are provided to be placed near all boarding access points
Accuracy (target)	± 3 Meters Position hold ± 10° Heading hold
Techincal Specifications	
Sensor and Mounting Information	
Dimensions	Not including mount: 25.9 L x 12.9 W x 4.5 H (cm) 10.2 L x 5.1 W x 1.8 H (in) Including mount: 25.9 L x 12.9 W x 12.8 H (cm) 10.2 L x 5.1 W x 5.0 H (in)
Weight	Not including mount: 0.42 kg (0.9 lb) Including mount: 0.51 kg (1.1 lb)

System Components Required For Optimus EPS System - Sterndrive/Inboard

The following is required (refer system schematic);

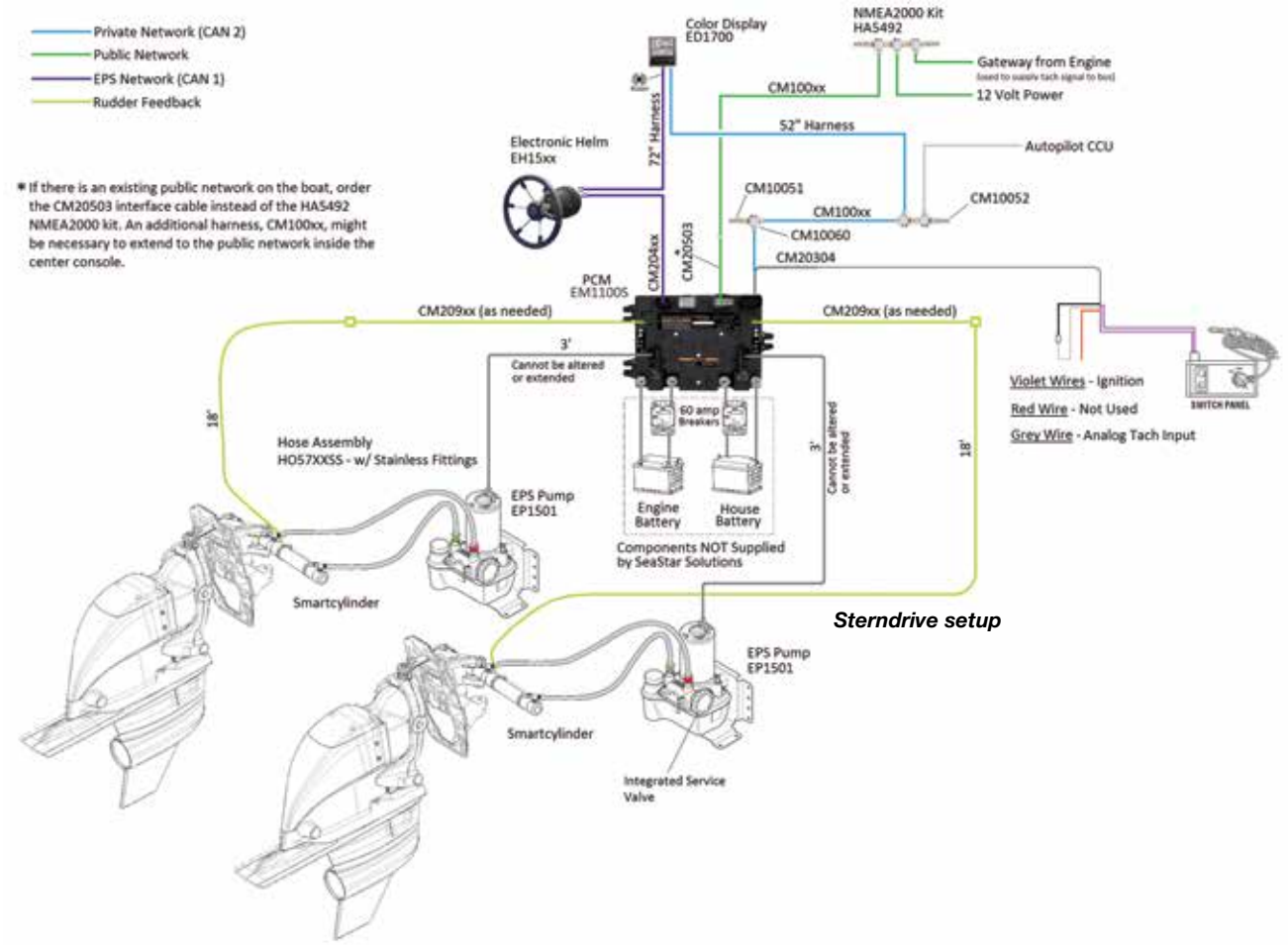
- 1 x **2921XX** Core Pack containing a CANtrak display, pump control module, steering pump, service valve and the accessories listed below
- CAN terminators and tees **(A)**
- 1 x Smart cylinders (as displayed below) **(B)**
- 1 x Electronic helm – **292190** Front mount, **292194** Tilt Sport Plus,
- **292198** Tilt Classic or **292202** Rear mount **(C)**
- 1 x CANbus 1 harness – Helm to PCM **(D)**
- 1 x CANbus 2 harness – CANtrak to PCM **(E)**
- 2 x SeaStar® Pro Hose kits – Steering Pump to Cylinders **(G)**
- Accessory items as needed including harness extensions, EPS fluid etc.

292182

Core packs to suit the above

BLA Code	Description	Part Number
292144	Optimus EPS Single Core PK Unbalanced	EPSK1120
292146	Optimus EPS Twin Core PK Unbalanced	EPSK1280
292148	Optimus EPS Inboard Large Core PK	EPSK1300

292180



Sterndrive setup

System Components Required For Optimus EPS System

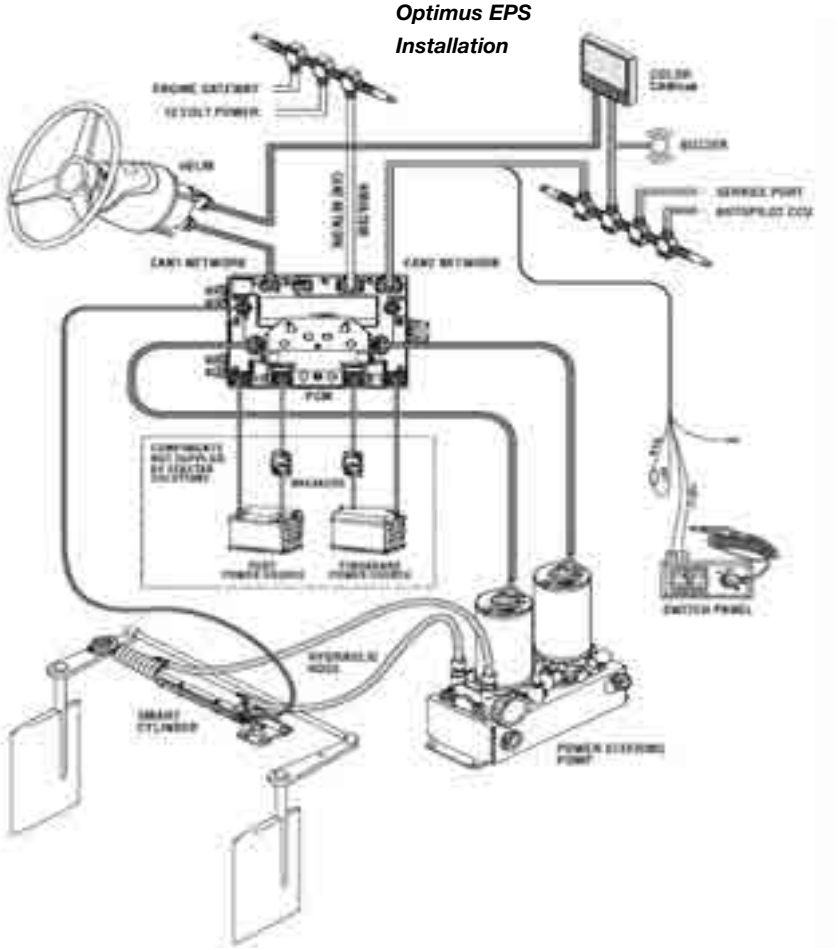
- Big Boats 40'-70'

The following is required (refer system schematic);

- 1 x **292150** Core Pack containing a CANtrak display, pump control module, steering pump, service valve and the accessories listed below
- CAN terminators and tees **(A)**
- 1 x Smart cylinders **292182** or 2 if dual system **(B)**
- 1 x Electronic helm – **292190** Front mount, **292194** Tilt Sport Plus,
- **292198** Tilt Classic or **292202** Rear mount **(C)**
- 1 x CANbus 1 harness – Helm to PCM **(D)**
- 1 x CANbus 2 harness – CANtrak to PCM **(E)**
- 2 x SeaStar® Pro Hose kits – Steering Pump to Cylinders **(G)**
- Accessory items as needed including harness extensions, EPS fluid etc.

292176

Optimus EPS Installation



Optimus EPS Pump Features:

- Uses existing Optimus EPS pumps, running in parallel for increased flow
- Similar dual pump configuration as Optimus EPS (outboards) provides redundancy in the event of pump failure
- ~2 GPM output at no load
- 2000 PSI pressure relief
- Integrated service valve to allow manual repositioning of rudder if necessary
- Powder coated aluminum reservoir
- Sight glass for easy fluid level check
- Durability: meets or exceeds requirements in ABYC P27
- Water ingress protection: IPX7
- Meets or exceeds NMMA, ABYC, CE, ISO and SAE electrical and environmental requirements
- Pumps are on demand to minimise power consumption

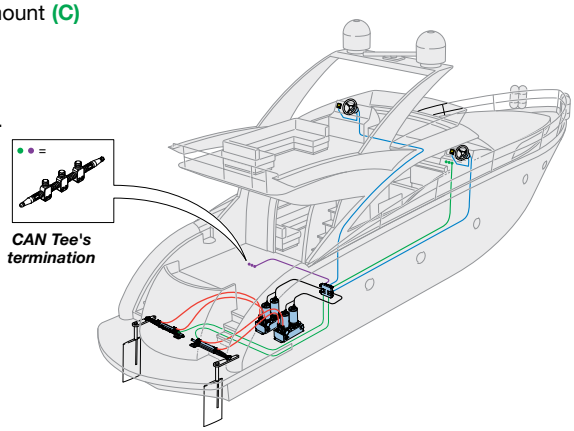
System Components Required For Optimus EPS System

- Big Boats 60'-100'

The following is required (refer system schematic);

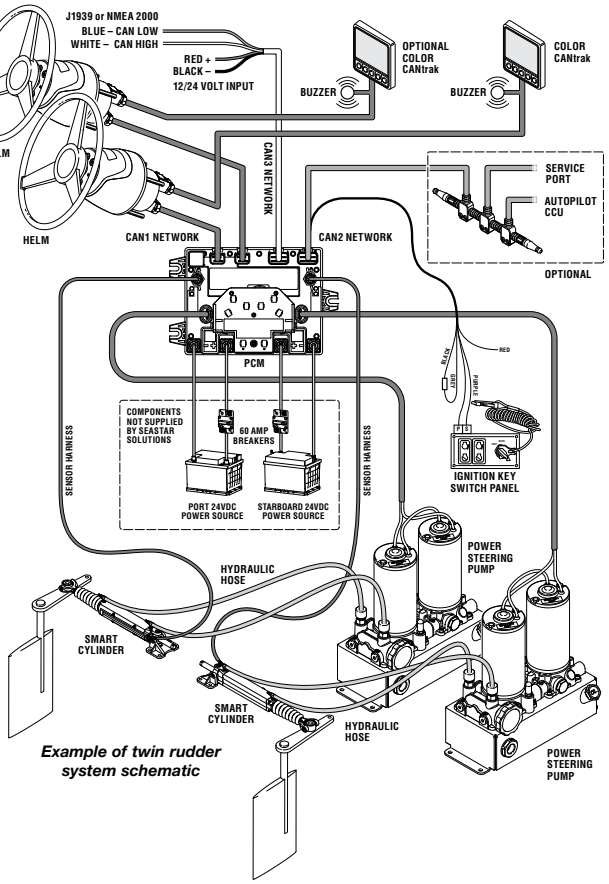
- 1 x **292150** Core Pack containing a CANtrak display, pump control module, steering pump, service valve and the accessories listed below
- 2 x Smart cylinders **292176** **(B)**
- 1 x Electronic helm – Front mount, Tilt Sport Plus, Tilt Classic or Rear mount **(C)**
- 1 x CANbus 1 harness – Helm to PCM **(D)**
- 1 x CANbus 2 harness – CANtrak to PCM **(E)**
- 2 x SeaStar® Pro Hose kits – Steering Pump to to Cylinders **(G)**
- Accessory items as needed including harness extensions, EPS fluid etc.

For 2nd and 3rd station installations, contact BLA on **1300 252 725** for details. Survey forms are required for B.O.M, contact BLA for details.



Features:

- Up to three helms stations
- Automatic battery management with sensing, warnings & best battery selection
- On demand hydraulic steering pump minimising power consumption
- No oil at the helm
- Rugged electronics for 24 VDC applications
- Colour dash display showing rudder command and rudder position graphic
- Displays system health
- Display provides system setup interface
- Communicates faults and any special handling instructions to the operator
- No requirement for tie-bars depending on rudder loads
- Simple software updating via USB port
- Programmable number of turns lock to lock with speed
- Auto-adjusting steering end stops and resistance with speed
- Dual redundant position sensing on all moving components
- Helm offers both 3/4" taper or 1" straight shaft options
- Utilises fault tolerant CAN network
- Full autopilot CANbus connectivity and integration. No additional pumps or sensors required
- Adjustable max rudder hard over angle with speed range 25° to 40° Centre to hard over
- Rudder toe in or out up to 5° with speed
- Position proportional rudder gain for faster steering response near neutral rudder position
- RPM input: NMEA 2000, J1939 or analog pulse compatible
- Pump features an integrated service/bypass valve allows a limp home mode
- Meets or exceeds ABYC, ISO and SAE electrical and environmental requirements

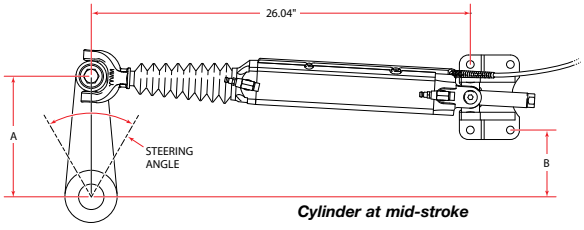


Example of twin rudder system schematic

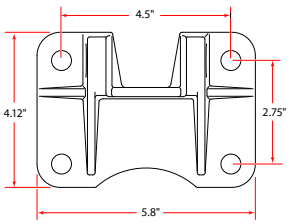
Mounting Configurations & System Schematic

While using the table below be sure that your steering cylinder is at mid-stroke as shown in the figure to ensure the cylinder operates correctly.

Description	**292176**		
Steering Angles			
50°		60°	
A	B	A	B
11.27"	7.96"	9.50"	5.98"
56,300 in-lbs*		45,400 in-lbs*	
Steering Angles			
70°		80°	
A	B	A	B
8.25"	4.50"	7.40"	3.41"
37,400 in-lbs*		31,200 in-lbs*	



Cylinder at mid-stroke



Mounting foot

**** Torque shown is per cylinder***
Example: two cylinders at 60° steering angle will give a combined total of 90,000 in-lbs* of torque.

Optimus EPS and 360 Selection Guide Chart

A	Choose corepack that suits the engine application
B	Select cylinders and tiebars to suit application
C	Select helm
D	Select h4 harness to suit length required
E	Select h7 harness to suit length required
F	Select 4 control cables when fitting mst optimus 360 system
G	Select 4 x bulkhead pro hoses to suit application
I	Select optional componenets as required
NOTES	All EPS system need engine gateway for tach signal using **292410** NMEA 2000 source

A	BLA Code	Core Packs Available	Part #	Qty	EPS Only All Engines	Optimus 360 Est Upgrade From EPS	Optimus 360 Outboard Select Engine Type & Qty's	EPS Stern Drive	EPS Inboard
		EPS Only							
	292101	Optimus EPS Single Core Pack (Dash Panel)	EPSK1100P	1	X				
	292102	Optimus EPS Twin Core Pack	EPSK1200C	1	X				
	292104	Optimus EPS Single (Cantrak Display)	EPSK1100C	1	X				
		Engine gateway required as per fitting instructions			X			X	X
		Joystick Upgrade Kits							
	292110	Optimus 360 Joystick Upgrade Twin	EPSK1435	1		X			
	292112	Optimus 360 Joystick Yamaha Triple,Est Upgrade Kit	EPSK1455	1		X			
	292114	Optimus 360 Joystick Yamaha Quad,Est Upgrade Kit	EPSK1460	1		X			
	292142	Optimus 360 Joystick Suzuki Twin,Est Upgrade Kit	EPSK1420	1		X			
		Mechanical Core Pack							
DIFFERENT CORE PACKS AVAILABLE	**292120**	Optimus 360 Joystick Twin Corepack (Mechanical Shift)	EPSK1210	1					
		Yamaha		1					
	292126	Optimus 360 Joystick Yamaha Twin Est	EPSK1235	1			X		
	292130	Optimus 360 Joystick Yamaha Triple Est	EPSK1255	1			X		
	292134	Optimus 360 Joystick Yamaha, Quad, Est	EPSK1260	1			X		
	292132	Optimus 360 Joystick Twin Brp Est Est	EPSK1225	1			X		
		Suzuki							
	292138	Optimus 360 Joystick Suzuki Twin,Est	EPSK1220	1			X		
	292140	Optimus 360 Joystick Suzuki Triple,Est	EPSK1222	1			X		
		Stern Drive / Inboard							
	292144	Optimus EPS Single Core Pk Unbalanced	EPSK1120	1				X	
	292146	Optimus EPS Twin Core Pk Unbalanced	EPSK1280	1				X	
	292148	Optimus EPS Inboard Large Core Pk	EPSK1300	1					X
		Big Boat EPS							
	292150	Optimus Big Boat EPS Large Inboard Dual Cylinder	EPSK1500	1					

B	BLA Code	Description	Part #	Qty	2 Required
	292160	Fm, C/W Stbd Cable Exit	EC5310	1	
	292162	Fm, STBD Engine With Port Side Brkt To Connect Tiebar	EC5315	1	
	292164	Fm, Port Side Engine With Starboard Side Brkt To Connect Tiebar	EC5317	1	
	292168	Fm, C/W Stbd Cable Exit,Inverted Plate	EC5340	1	
	292170	Tournament, C/W Stbd Cable Exit	EC6810	1	
SMART CYLINDER CHOOSE TWO CYLINDERS	**292172**	Tournament, STBD Engine With Port Side Brkt To Connect Tiebar	EC6815	1	
	292174	Tournament, Port Side Engine With STBD Side Brkt To Connect Tiebar	EC6817	1	
	292176	Inboard	EC5810	1	
	292180	EPS,Unbalanced	EC5360		
	292182	Inboard	EC5380		
	292184	Kit, Tiller Extension, EPS (Includes 2)	HA6850	1	
	292186	Hardware Kit,Tiebar, EPS, Triple/Quad Eng Bracket	HA6815	1	
	291214	Tiebar, Tournament, Adj, Large	HO6822	1	
	291216	Tiebar, Tournament, Adj, Extra Large	HO6823	1	
		Please note: cylinders must be ordered to fit application. Smartcyinder comes with 18ft harness			

C	BLA Code	Description	Part #	Qty	1 Required
SMART CYLINDER CHOOSE TWO CYLINDER	**292190**	Electronic Helm, Front Mount	EH1510	1	
	292194	Electronic Tilt Helm, Sport Plus	EH1530	1	
	292198	Electronic Tilt Helm, Classic	EH1550	1	
	292202	Electronic Helm, Rear Mount	EH1570	1	
	292204	Electronic Helm, Classic	EH1552	1	

D	BLA Code	Description Length	Part #	Qty	1 Required
CANBUS 1 HARNESS HELM TO PCM CHOOSE ONE	**55-CM20403**	Harness, EPS, H4, 3 Ft, 6 Pin Fci	CM20403	1	
	292260	Harness, EPS, H4, 6 Ft, 6 Pin Fci	CM20406	1	
	292262	Harness, EPS, H4, 12 Ft, 6 Pin Fci	CM20412	1	
	292264	Harness, EPS, H4, 18 Ft, 6 Pin Fci	CM20418	1	
	292266	Harness, EPS, H4, 24 Ft, 6 Pin Fci	CM20424	1	
	292268	Harness, EPS, H4, 30 Ft, 6 Pin Fci	CM20430	1	
	292270	Harness, EPS, H4, 36 Ft, 6 Pin Fci	CM20436	1	

SEASTAR SOLUTIONS

OPTIMUS EPS BY SEASTAR

OPTIMUS 360 BY SEASTAR

E	BLA Code	Description Length	Part #	Qty	1 Required
CANBUS 2 HARNESS CANTRAK TO H3 OPTIONAL	55-CM10003	Harness, EPS, H7, 3 Ft, Micro-C Ext.	CM10003	1	
	292280	Harness, EPS, H7, 6 Ft, Micro-C Ext.	CM10006	1	
	292282	Harness, EPS, H7, 9 Ft, Micro-C Ext.	CM10009	1	
	292284	Harness, EPS, H7, 12 Ft, Micro-C Ext.	CM10012	1	
	292286	Harness, EPS, H7, 16 Ft, Micro-C Ext.	CM10016	1	
	292288	Harness, EPS, H7, 20 Ft, Micro-C Ext.	CM10020	1	
	292290	Harness, EPS, H7, 30 Ft, Micro-C Ext.	CM10030	1	

F	BLA Code	Description	Part #	Qty
CONTROL CABLES	3033XX	Mechanical shift system 292120 need to choose 4 x CCX633 extreme control cables	CCX633XX	4

G	BLA Code	Description	Part #	Qty
HOSES PUMPS TO CYLINDERS CHOOSE FOUR HOSES	293408	Seastar pro bulkhead hose kit, 8ft	293408	1
	293412	Seastar pro bulkhead hose kit, 12ft	293412	1
	293414	Seastar pro bulkhead hose kit, 14ft	293414	1
	293416	Seastar pro bulkhead hose kit, 16ft	293416	1
	293418	Seastar pro bulkhead hose kit, 18ft	293418	1
	293420	Seastar pro bulkhead hose kit, 20ft	293420	1
	293422	Seastar pro bulkhead hose kit, 22ft	293422	1
	293424	Seastar pro bulkhead hose kit, 24ft	293424	1
	293426	Seastar pro bulkhead hose kit, 26ft	293426	1
	293428	Seastar pro bulkhead hose kit, 28ft	293428	1
	293430	Seastar pro bulkhead hose kit, 30ft	293430	1

I	BLA Code	Description	Part #	Qty	Required			
ACCESSORY ITEMS AS NEEDED	292300	Smartcylinder Harness Ext. EPS, H9, 6Ft	CM20906	1				
	292302	Smartcylinder Harness Ext. EPS, H9, 12Ft	CM20912	1				
	292304	Smartcylinder Harness Ext. EPS, H9, 18Ft	CM20918	1				
	292212	Harness, H24, Ftcan Union, M-M, 10"	CM22401	1				
	292210	Harness, EPS, H5, 10 Pin Fci To Devicenet	CM20503	1				
	292228	Harness t/s Raymarine	CM21206	1				
	292336	Harness, EPS, H18, Ftcan EX M-F, 36FT	CM22036	1				
	292390	Seastar EPS Fluid ,1 Us Quart	HA5482	1				
	292400	Kit,Tilt/Trim Switch, EPS	HA5491	1				
	292410	Kit Nmea 2000 Network	HA5492	1	X		X	X
	298467	Fitting, 90 Degree, 2 In A Bag	HF6004	1				
	292230	Wedge Kit, Pump	HA5485	1				
	885010	Purge Hose Kit, EPS, 15Ft	HA5486	1	Hoses needed to purge new system			
	885012	Purge Hose Kit, EPS, 30Ft	HA5487	1	Hoses needed to purge new system			
	55-HA5501	Kit, Smartstick, Replacement EPS	HA5501	1				
	55-EPSK1206	Kit, Dealer System Setup Tool	EPSK1206	1				
	55-CM21702	Harness EPS H17 Ftcan Wye	CM21702	1				
	305492	Device Net Can Tee, T1						

	BLA Code	Description	Part #	Qty	Required
2ND HELM ONLY		**Buzzer Option:**			
	55-EH15XX	Select Helm From Section C	EH15XX	1	
	292412	Buzzer Kit	HA5493	1	
	55-CM204XX	Select H4 Harness From Section D	CM204XX	1	
		Cantrak Option:			
	55-ED1700	Cantrak Display	ED1700	1	
	55-CM100XX	Select H7 Harness From Section E	CM100XX		
	305492	Device Net Can Tee, T1	CM10060	2	
	55-EH15XX	Select Helm From Section C	EH15XX	1	
	55-CM204XX	Select H4 Harness From Section D	CM204XX	1	

	BLA Code	Description	Part #	Qty	Required
2ND STATION (JOYSTICK)		**Buzzer Option:**			
	55-EJ1401	Joystick	EJ1401	1	
	55-EG1820	Gateway, Est, Yamaha	EG1820	1	
	55-CM20025	Harness, Gateway, Est, Yamaha	CM20025	1	
	292260	Harness, EPS, H4, 6 Ft, 6 Pin Fci	CM20406	1	
	55-CM100XX	Select Harness, EPS, H7, Xx Ft, Micro-C Ext.	CM100XX	1	
	292412	Buzzer Kit	HA5493	1	
	305490	Micro-C Ext, M/F 03' (Needed To Go From The Js To The Can 2 Hub)	CM10003	1	
	305492	Device Net Can Tee, T1	CM10060	3	
		Cantrak Option:			
	292214	Cantrak	ED1700	1	
	55-EJ1401	Joystick	EJ1401	1	
	55-EG1820	Gateway, Est, Yamaha	EG1820	1	
	55-CM20025	Harness, Gateway, Est, Yamaha	CM20025	1	
	55-CM20406	Harness, EPS, H4, 6 Ft, 6 Pin Fci	CM20406	1	
	55-CM100XX	Select Harness, EPS, H7, Xx Ft, Micro-C Ext.	CM100XX	1	
	55-CM10003	Micro-C Ext, M/F 03' (Needed To Go From The Js To The Can 2 Hub)	CM10003	1	
	305492	Device Net Can Tee, T1	CM10060	1	
	55-CM21702	Harness EPS H17 Ftcan Wye	CM21702	1	

SeaStar® Power Assist

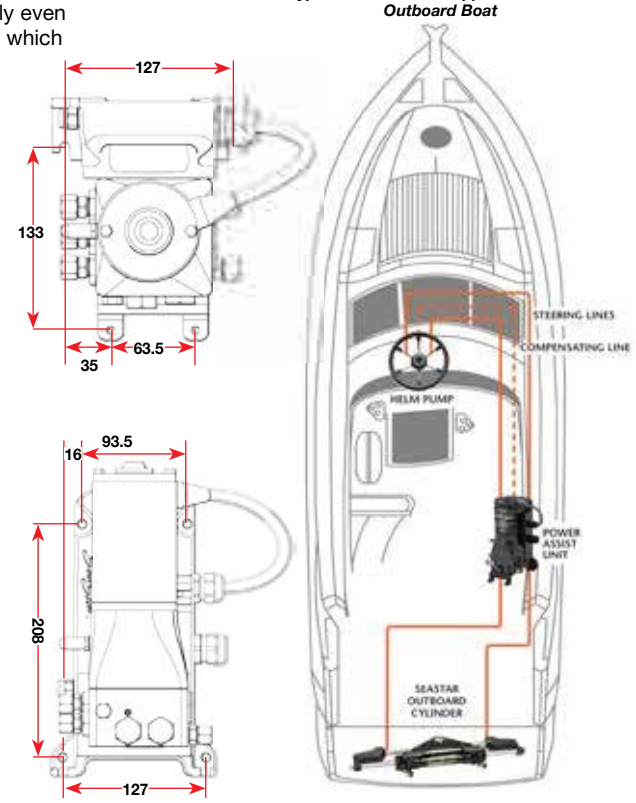
The SeaStar® Power Assist unit can be installed on new SeaStar® steering installations or as an easy retro-fit to existing systems. Suitable for most boat types, the SeaStar® Power Assist uses an electronically controlled hydraulic pump to provide on-demand power steering. Designed to be easily installed into the hydraulic steering circuit between the helm and steering cylinder.

An additional feature allows the Power Assist to adjust automatically to the input voltage from the boats batteries to either 12V or 24V.

The SeaStar® Power Assist can be used on boats with multiple engines and rudders, multiple steering stations and autopilots. As a built in safety feature the steering system will automatically return to manual operation without any change to the number of lock-to-lock turns if power to the unit is interrupted for any reason.

The SeaStar® Power Assist helps eliminate steering loads and provides high levels of comfort and control making boating more pleasurable. The SeaStar® Power Assist allows the boat to be driven safely and easily even in the most extreme conditions. Also consider the Power assist Pro which delivers up to 1500 psi to suit SeaStar® Pro helms.

Typical Power Assist Application In and Outboard Boat



Features:

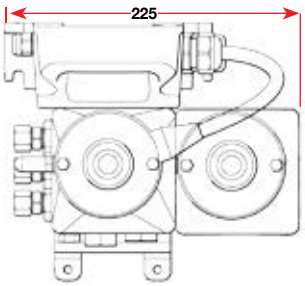
- Dramatically reduces steering effort
- Easy to install with universal mount to suit either vertical or horizontal fixing
- Simple addition to an existing SeaStar® steering system (from 1.4 to 2.4 SeaStar® standard and tilt helms)
- For SeaStar® Pro Helms refer to **295067**
- OEM or retro-fit
- Returns to manual operation in the event of power failure
- Suitable for use with autopilots and multiple station installations
- 12V or 24V operation with 4.5m wiring harness included
- Ignition protected (SAE J-1171)
- For use only with SeaStar® or SeaStar® Pro hose
- ABYC, CE, NMMA, ISO 10592 approved
- Compatible with power purge systems

BLA Code	Description
295067	Power Assist Pro System
295068	Power Assist System (24V Only)
295069	Power Assist System

SeaStar® Power Assist Autopilot

The SeaStar® Power Assist is also available with the addition of an integral pilot pump for autopilot use. The new Power Assist with autopilot provides is a fixed flow reversible pump, with low or no vibration and low power consumption.

Suitable for most boat types and a wide variety of installation applications the compact unit can be installed on new SeaStar® installations or as an easy retro-fit.



Features:

- Autopilot pump combined with SeaStar® power assist
- Simple add on to existing SeaStar® manual systems
- Little or no vibration or noise
- Dramatic reduction in steering wheel torque
- Suitable for 1.4-2.4 SeaStar® helm pumps
- Low power consumption
- CE approved, Ignition protected compliant (SAE J-1171)
- ABYC, CE, NMMA, ISO 10592 Approved

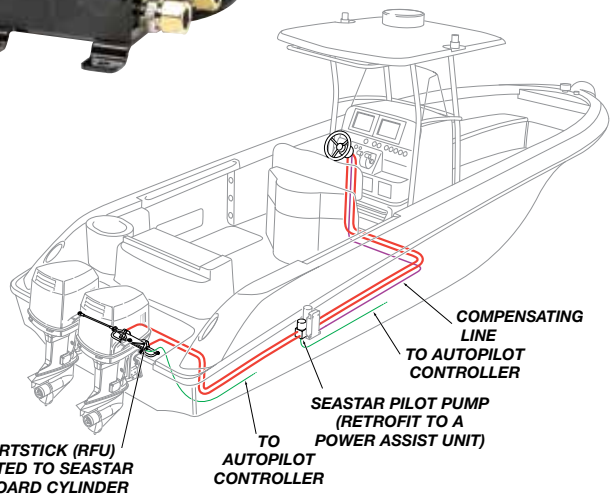
BLA Code	Flow Rate Per Minute		Cylinder Capacity		Voltage
	in	cc	in	cc	
295072	60	983	4.9-14	80.41-237	12
295076	100	1638	14-21	237-354	12
295078	100	1638	14-21	237-354	24

SeaStar® Autopilot Pump

The SeaStar Autopilot pump is a high efficiency, fixed flow, reversible type pump set producing very little vibration or noise. It is offered in 12 and 24 volt configurations, as well as two different pump sizes (type 1 & type 2). It can be used as a stand alone pilot pump or can be mounted to a previously installed SeaStar Power Assist unit and can prevent the need to break into the hydraulic lines.

Features:

- Long life DC Motor (i.e. long life brushes)
- Compact design
- Simplified installation
- Low power consumption
- ABYC, CE and J1171 compliant
- Superior corrosion resistance
- Quiet operation
- Mounting bracket included
- Stand alone or mounts to SeaStar Power Assist unit
- Replaces other 12 & 24 volt pumps



BLA Code	Description	Volts	Oil Compatibility	Weight kg	Weight lbs	Autopilot Pump Size (no-load)	Maximum Pressure psi	Cylinder Capacity
295040	Type 1 / AP1219	12	SeaStar Steering Fluid	2.2	4.9	60 in³/min	1000	4.9 in³ - 12.5 in³
295042	Type 2 / AP1233	12	SeaStar Steering Fluid	2.2	4.9	100 in³/min	1000	12.5 in³ - 21 in³
295044	Type 1 / AP2419	24	SeaStar Steering Fluid	2.2	4.9	60 in³/min	1000	4.9 in³ - 12.5 in³
295046	Type 2 / AP2433	24	SeaStar Steering Fluid	2.2	4.9	100 in³/min	1000	12.5 in³ - 21 in³

SeaStar® SmartStick

SmartStick is a non-contact autopilot position sensor that mounts to SeaStar Solutions® outboard front mount cylinders (**291003** and **291016***). The new SmartStick models replace the previous generation AR4102 and AR4202 models.

Features:

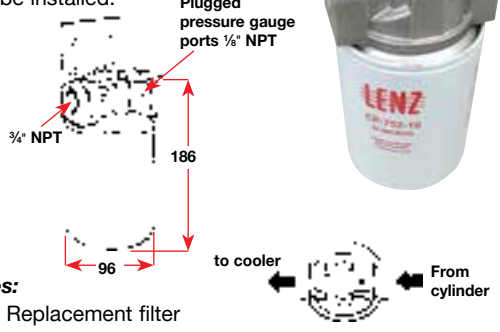
- Non-contact sensing – no moving parts to wear
- Convenient installation – no linkages or external parts to mount
- Electrical components sealed in potting – corrosion resistant

BLA Code	Description	Output
295035	Ray Marine Installations Only	2.2V - 2.8V
295034	Generic	0.5V - 4.5V

N.B. Will not suit Tournament cylinders

SeaStar® Filter Assembly

Suspended mount. 10 micron rating. 22.5L/min maximum capacity. Replace disposable cartridge every 250 hours. Plugged ⅛" NPT ports provided if pressure gauge is to be installed.



BLA Code
295090

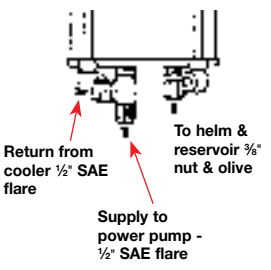
Accessories:

295094 Replacement filter

N.B. Bracket not included

SeaStar® Reservoir

Bulkhead mounted, the oil reservoir allows easy system fill and assists with oil cooling. Features a system pressure gauge.



BLA Code	Volume L	Operating Pressure kpa
295070	4	200

SeaStar Solutions Helms

Nothing gets you closer to power steering!

The SeaStar® Helm Pump is an axial piston pump specifically designed for manual steering. Every load bearing point within the helm pump runs on either a roller or ball bearing race for super low friction, smooth, positive steering. It has a built-in lock valve to prevent the steering load from feeding back to the driver. The lock valve will not allow the rudder or drive unit to move until you apply load by turning the steering wheel. The lock valve section of the helm also includes a relief valve. This relief valve provides over pressure protection for mechanical components, hydraulic hoses and fittings.

1. *Helm rotor supported by three roller bearings*
2. *Ball bearing piston race*
3. *Field replacement shaft seal*
4. *¼" NPT ports*
5. *Built-in lock valve for positive rudder lock*
6. *Patented bleed tubes*
7. *Internal air pocket eliminates oil expansion overflow*
8. *Integral relief valve*

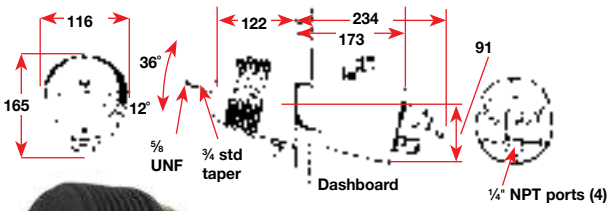
BayStar™ Helm - Front Mount

- Satin black baked enamel finish over anodising
- Maximum steering wheel diameter is 660mm
- Small 76mm hole cut out in dash
- Available in two capacities
- Tilt helm option
- Convenient front of dash fill
- Complete with 2 elbow fittings, 2 nuts and olives

BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291490	1.4 - front mount	22.9	1.4	70	1000

BayStar™ Helm - Tilt Mount

- Satin black baked enamel finish over anodising
- Maximum steering wheel diameter is 508mm
- 48˚ tilt range (12˚-36˚)
- Remote fill point included
- Complete with 2 elbow fittings, 2 nuts and olives



BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291492	1.4 - tilt	22.9	1.4	70	1000

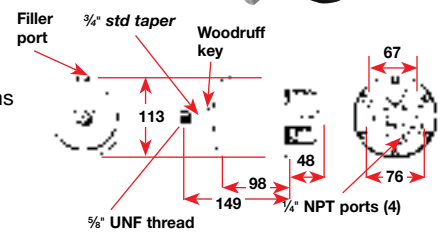
SeaStar® Helms - Front Mount

- Satin black baked enamel finish over anodising
- Maximum steering wheel diameter is 660mm
- Can be retro-fitted into old SeaStar® 115mm hole cut out (use **291908** mounting kit)
- Small 76mm hole cut out in dash
- Available in five capacities
- **291503** Commercial helm pump designed with heavy duty shaft seal and wiper
- Convenient front of dash fill
- Complete with 2 elbow fittings, 2 nuts and olives

BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291498	1.4 - front mount	22.9	1.4	70	1000
291502	1.7 - front mount	27.8	1.7	70	1000
291503	1.7 - front mount h/d	27.8	1.7	70	1000
291504	2.0 - front mount	32.8	2.0	70	1000
291506	2.4 - front mount	39.3	2.4	70	1000
291508	3.0 - front mount	49.2	3.0	70	1000

SeaStar® Pro Helm - Front Mount

- Unique lock valve provides instant steering response without loss of engine feel and comfort
- Small 76mm hole cut out in dash
- Can be retro-fitted into old SeaStar® 115mm hole cut out (use **291908** mounting kit)
- 33cc (2.0 cu/in) displacement
- Maximum steering wheel diameter is 660mm
- 103 bar (1500 psi) relief valve setting
- Convenient front of dash filling point
- Complete with elbow fittings
- Balanced hydraulic systems only



BLA Code	Description
291540	Pro helm 2.0 - front mount

Accessories:

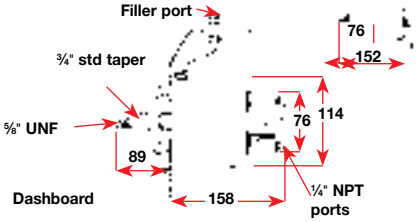
291908	Back plate kit
291906	20° wedge

CE

Helm - Rear Mount

SEASTAR SOLUTIONS

- Behind dash mounting configuration
- Available in three capacities
- Maximum steering wheel diameter is 660mm
- Remote fill point included
- Complete with 2 elbow fittings, 2 nuts and olives

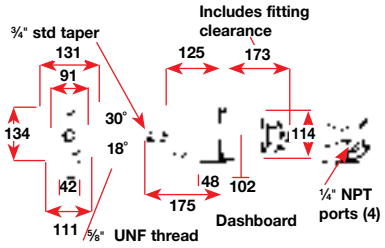


BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291520	1.4 - rear mount	22.9	1.4	70	1000
291522	1.7 - rear mount	27.8	1.7	70	1000
291526	2.4 - rear mount	39.3	2.4	70	1000
291528	3.0 - rear mount	49.2	3.0	70	1000

SeaStar® Helms - Tilt

SEASTAR

- Five wheel positions allow adjustment for most comfortable steering position
- Maximum steering wheel diameter is 508mm
- 48˚ tilt range (18˚ down - 30˚ up)
- Available in two capacities
- Convenient front of dash fill
- Complete with 2 elbow fittings, 2 nuts and olives

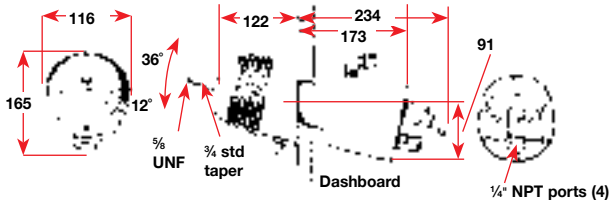


BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291512	1.7 - tilt	27.8	1.7	70	1000
291516	2.4 - tilt	39.3	2.4	70	1000

SeaStar® Helm - Sport Tilt

SEASTAR

- Five wheel positions allow adjustment for most comfortable steering position
- Maximum steering wheel diameter is 508mm
- 48˚ tilt range (12˚ - 36˚)
- Remote fill point included
- Complete with 2 elbow fittings, 2 nuts and olives

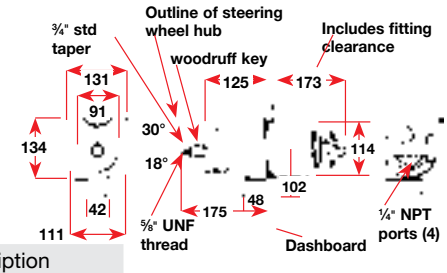


BLA Code	Description	Displacement		Relief Valve Setting	
		cc	cu in	bar	psi
291515	1.7 - sports tilt	27.8	1.7	70	1000

SeaStar® Helm - Pro Tilt

SEASTAR

- Five wheel positions allow adjustment for most comfortable steering position
- 48° tilt range (18˚ down - 30˚ up)
- 103 bar (1500 psi) relief valve setting
- 33cc (2.0 cu/in) displacement
- Convenient front of dash filling point
- Complete with elbow fittings
- Maximum steering wheel diameter is 510mm
- Balanced hydraulic systems only



BLA Code	Description
291542	Pro helm 2.0 - tilt

CE

SeaStar Back Plate Kit

SEASTAR

Square bezel to suit SeaStar® or SeaStar® Pro front mount helms. Reduces the distance the helm protrudes by thickness of dash. Also used to retro-fit new helms into old style 115mm hole cut outs or into mechanical cut outs. See table below.

Helm Model Type	System	Back Plate Kit Required
Safe-T	Mechanical	Yes
Big-T	Mechanical	Yes
SeaStar Solutions® Rotary	Mechanical	No
SeaStar Solutions® Rack & Pinion	Mechanical	No
Syten	Hydraulic	Yes
Morse Rotary	Mechanical	No
Morse Rack & Pinion	Mechanical	No

BLA Code
291908

SeaStar Recessed Mount Kits

SEASTAR

Round recessed mounting kits to suit either the BayStar™ or SeaStar® front mount helms. Designed to reduce the distance that the helm protrudes from the dash. Supplied with mount hardware.

BLA Code	Suits
291912	BayStar™
291913	SeaStar®

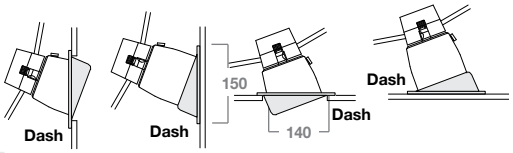
SeaStar 20º Wedge Mount Kit

SEASTAR

This kit is designed to install SeaStar® and SeaStar® Pro front mount helms at a 20º angle to the mounting surface. Four possible mounting configurations are available.

Features:

- Cast alloy construction
- Black powder coated
- 8mm (5/16") mount holes
- Supplied with corrosion resistant mount fastenings

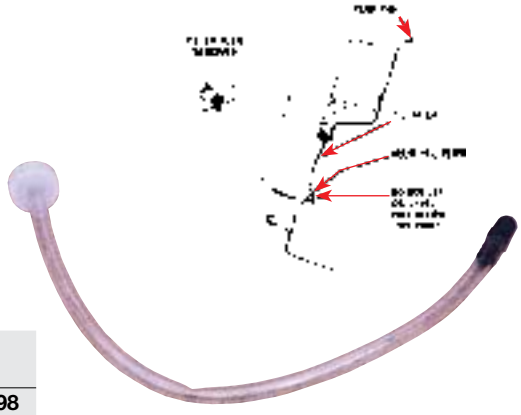


BLA Code
291906

SeaStar Filler Kit

SEASTAR

Provides simple no-spill visible filling and purging of SeaStar® helms. Contains a clear piece of hose fitted with a cap one end to screw directly on to a one litre oil container, a ⅜" NPT hose tail to screw into the helm and a push pin to start oil flow. Just attach, invert oil bottle and pierce base of oil container to start the flow.



BLA Code
291898

SeaStar Filler Plugs

SEASTAR

Vented filler plugs are supplied as standard with all SeaStar® helms (not capilano). They suit single station installations and the top station in twin station installations. Non-vented filler plugs are required for the lower station of twin station installations.

291916

291914

BLA Code	Description
291914	Non-vented filler plug
291916	Vented filler plug

SeaStar Hydraulic Oil

SEASTAR SOLUTIONS

SeaStar Solutions® hydraulic steering systems require the use of ten grade aviation quality hydraulic fluid. This fluid is available in one litre bottles or 20 litre drums.

291904 ***291902***

BLA Code	Size Litre
291902	1
291904	20

DANGEROUS GOODS

Caution:
Substitution of other than SeaStar Solutions® hydraulic oil may result in heavier steering and/or irreparable damage to your steering system.

SeaStar® Power Purge Jr

SEASTAR

The Sea Star Power Purge Jr is a portable 12vdc automatic purging system for BayStar, Hydraulic and SeaStar hydraulic steering systems. The Power Purge Jr reduces the bleeding process to approximately 10 minutes. Supplied with quick connect fittings and hoses to suit a single cylinder installation with the option of purchasing a kit to suit twin cylinder installations.

An integral screen filter helps erase oil contamination out of the system.

291899

291900

BLA Code	Description
291900	Power Purge Jr
291897	Power Purge helm end fitting
291899	Twin Cylinder Kit

BayStar™ Cylinder Capacities

291071

291072

BLA	SeaStar Solutions®	Cylinder	Bore		Shaft Dia.		Stroke		Volume		Torque	
Code	Part No	Model	in	mm	in	mm	in	mm	in	mm	in-lb	kg-mm
291071	HC4645H	Front Mount	1.25	31.7	.625	15.9	8	203	118.6	7.2	N/A	N/A
291072	HC4670H	Side Mount R/S Side Mount P/S	1.25	31.7	.50	12.7	8	203	135.2 160.8	8.3 9.8	N/A	N/A
291073	HC4647H	Front Mount	1.25	31.7	.625	15.9	8	203	118.6	7.2	N/A	N/A
291074	HC4648H	Front Mount	1.25	31.7	.625	15.9	8	203	118.6	7.2	N/A	N/A
291075	HC4658H	Front Mount	1.25	31.7	.625	15.9	8	203	118.6	7.2	N/A	N/A
291077	HC4460H	Inboard ATM	1.25	31.7	.50	12.7	6.25	159	105	6.4	4513	52

SeaStar® Cylinder Capacities

291003

291060

BLA	SeaStar Solutions®	Cylinder	Bore		Shaft Dia.		Stroke		Volume		Torque	
Code	Part No	Model	in	mm	in	mm	in	mm	cc	in3	in-lb	kg-mm
291003	HC5345	Front Mount	1.375	34.9	.75	19.0	8	203	135.5	8.2	N/A	N/A
291006	HC5343	Catamaran	1.283	32.6	.75	19.0	10	254	128.0	7.8	N/A	N/A
291008	HC5380	Splashwell R/S Splashwell P/S	1.25	31.7	.50	12.7	9	228	152.1 180.9	9.3 11.0	N/A N/A	N/A N/A
291010	HC5370	Side Mount R/S Side Mount P/S	1.25	31.7	.50	12.7	8	203	135.2 160.8	8.3 9.8	N/A N/A	N/A N/A
291012	HC5348	Front Mount	1.375	34.9	.75	19.0	8	203	134.5	8.2	N/A	N/A
291014	HC5347	Front Mount	1.375	34.9	.75	19.0	8	203	134.5	8.2	N/A	N/A
291016	HC5358	Front Mount	1.375	34.9	.75	19.0	8	203	134.5	8.2	N/A	N/A
291017	HC6345	Front Mount	1.375	34.9	.75	19.0	8	203	134.5	8.2	N/A	N/A
291018	HC6345	Front Mount Pro	1.375	34.9	.75	19.0	8	203	134.5	8.2	N/A	N/A
291020	HC6358	Front Mount Pro	1.375	34.9	.75	19.0	8	203	134.5	8.2	N/A	N/A
291022	HC5329	125-8VEM R/S 125-8VEM P/S	1.25	31.7	.50	12.7	8	203	135.2 160.9	8.3 9.8	7142 8505	82.3 98.0
291024	HC5330	BA125-EMV	1.25	31.7	.50	12.7	8	203	135.2	8.3	7142	82.3
291026	HC5328	125-8EM R/S 125-8EM P/S	1.25	31.7	.50	12.7	8	203	135.2 160.9	8.3 9.8	7142 8505	82.3 98.0
291028	HC5331	92VPS R/S 125-8EM P/S	1.25	31.7	.50	12.7	8	203	135.2 160.9	8.3 9.8	7142 8505	82.3 98.0
291029	HC5332	BA135-7EM	1.375	34.9	.625	15.9	7	178	135.2	8.3	5741	66.1
291030	HC5326	BA150-7Em	1.50	38.1	.625	15.9	7	178	167.5	10.2	8853	102.0
291060	HC5312	BA125-7ATM	1.25	31.7	.50	12.7	7	178	118.2	7.2	5025	57.9
291062	HC5313	BA135-7ATM	1.375	34.9	.625	15.9	7	178	135.2	8.3	5741	66.1
291064	HC5314	BA150-7ATM	1.50	38.1	.625	15.9	7	178	167.5	10.2	7117	82.0
291066	HC5318	BA150-7TM	1.50	38.1	6.25	15.9	7	178	167.5	10.2	7117	82.0
291068	HC5319	BA175-7TM	1.75	44.4	.75	19.0	7	178	225.4	13.7	9569	110.2
291076	HC5303	BA125-3ATM	1.25	31.7	.50	12.7	3	76	51.0	3.1	2688	30.9

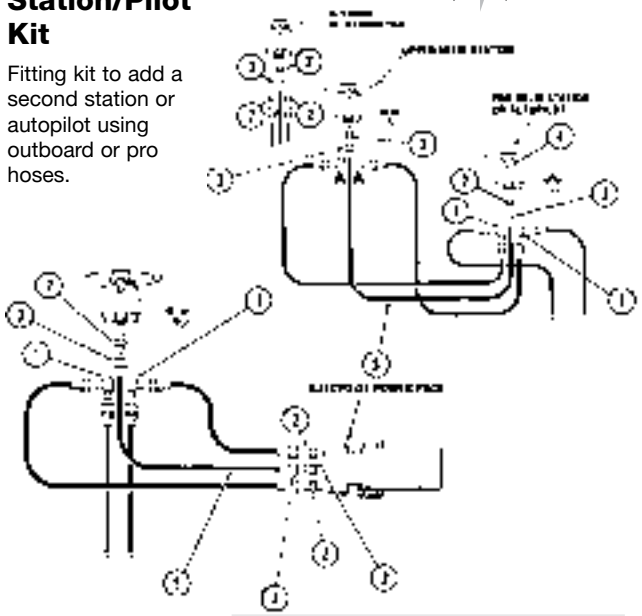
Capilano Cylinder Capacities

294032

BLA	SeaStar Solutions®	Cylinder	Bore		Shaft Dia.		Stroke		Volume		Torque	
Code	Part No	Model	in	mm	in	mm	in	mm	cc	in3	in-lb	kg-mm
294032	HC5349	BA150-7TMB	1.5	36.1	.625	15.9	7	178	167.5	10.2	7117	82.07
294034	HC5350	BA175-7TMB	1.75	44.4	.75	19	7	178	225.4	13.7	9589	110.2
294036	HC5351	BA2000-7TMB	2.00	50.8	.75	19	7	178	310.0	16.9	13200	151.0
294038	HC5357	BA200-7TMC	2.00	50.8	.75	19	7	178	310.0	16.9	13200	151.0

Add a Station/Pilot Kit

Fitting kit to add a second station or autopilot using outboard or pro hoses.



Item No.	Description	Qty Per Kit
1	Tee fitting 2 ends - ⅜" tube (external) 1 end - ¼" NPT (external)	2
2	Connector fitting ⅜" tube (external) ¼" NPT (external)	4
3	Tube nut & olive - ⅜" Ø	4
4	Non-vented filler plug	1
5	Nylon semi rigid tube - ⅜" OD	7.5m
A*	Elbow ⅜" tube (ext.), ¼" NPT (ext.)	2

** Supplied with helm*

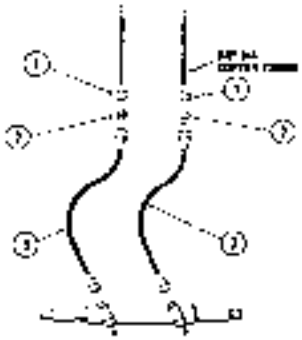
BLA Code **293602**

Hose Kit For SeaStar® Cylinders - ⅜"

Fitting kit to connect ⅜" diameter copper tubing to SeaStar® cylinders.

Item No.	Description	Qty Per Kit
1	Tube nut ⅜" Ø	2
2	Connector ⅜" tube (ext.)	2
3	450mm hoses with fittings	2

BLA Code **293202**

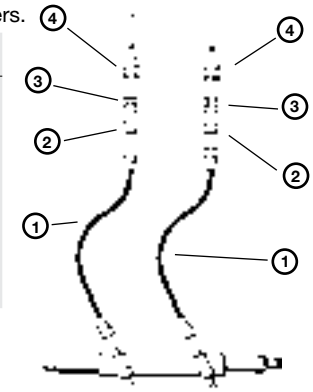


Hose Kit For SeaStar® Cylinders - ½"

Fitting kit to connect ½" diameter copper tubing to SeaStar® cylinders.

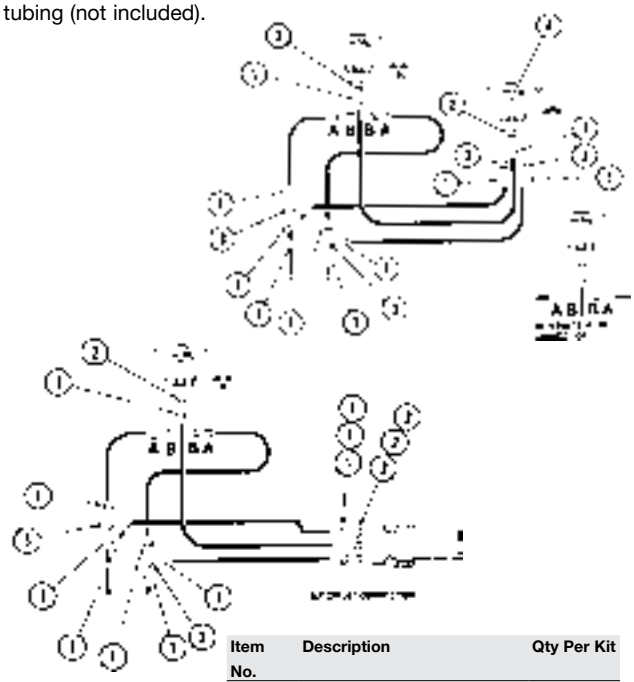
Item No.	Description	Qty Per Kit
1	450mm hoses with fittings	2
2	Connector ⅜" NPT (int.) ⅜" tube (ext.)	2
3	Connector ⅜" NPT (ext.) ½" SAE flare	2
4	Tube nut ½"" SAE flare	2

BLA Code **293204**



Add a Station/Pilot Kit

Fitting kit to add a second station or autopilot using ⅜" copper or nylon semi rigid tubing (not included).



Item No.	Description	Qty Per Kit
1	Tube nut & olive - ⅜" Ø	10
2	Connector fitting ⅜" tube (external) ¼" NPT (external)	4
3	Tee fitting 3 ends - ⅜" tube	2
4	Non-vented filler plug	1
A*	Tube nut & olive - ⅜" Ø	2
B*	Elbow ⅜" tube (ext.), ¼" NPT (ext.)	2

** Supplied with helm*

BLA Code **293604**

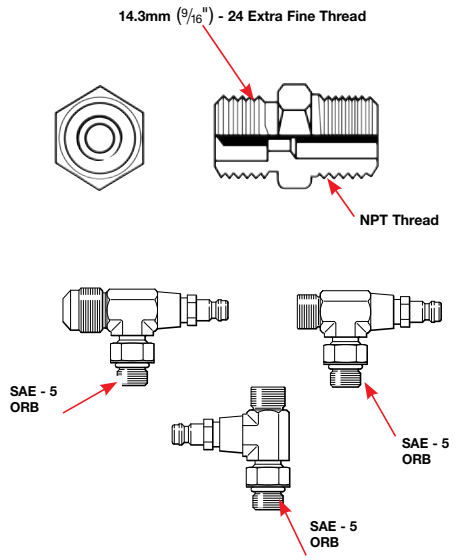
SeaStar Solutions Fittings and Kits

Fittings

All SeaStar Manual Hydraulic steering systems utilise the same style of fittings for all applications. These are 9.5mm (⅜") compression fittings which utilise a 14.3mm (9/16") - 24 extra fine thread.

ORB Fittings

These fittings are made of corrosion resistant stainless steel and now thread into the cylinders/helms via Positionable O-ring hose ports. Fittings can be easily orientated in any direction to accommodate tube routing.



Tube Nut & Olive - Brass

Contains one nut and one olive.

BLA Code	Tube Thread	Tube Size
293609	3/8"	3/8"
293610	3/8"	3/8"
293611	1/2"	1/2"

Union Coupling Fittings - Brass

Contains 2 nuts, 2 olives and 1 union.

BLA Code	Description
293612	3/8" tube to 3/8" tube
293613	3/8" tube to 1/2" tube

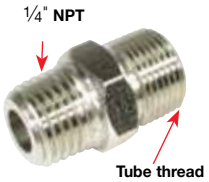
Elbow Fittings - Brass

Sold individually complete with nut and olive.

BLA Code	Description
293615	1/4" NPT to 3/8" tube thread
293617	1/4" NPT to 1/2" tube thread

Connector Fittings - Brass

Brass. Sold individually complete with tube nut and olive.



BLA Code	Description
293614	1/4" NPT to 3/8" tube thread
293625	1/4" NPT to 1/2" tube thread

Elbow Fittings - Chromed Brass

90° chromed brass elbow fittings. Sold individually.

BLA Code	Description
293616	1/4" NPT female - 3/8" tube
298466	1/4" NPT male - 3/8" tube

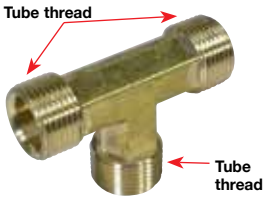
Elbow Fittings - Chromed Brass

45° chromed brass elbow fittings. Sold as a pair.

BLA Code
293607

Tee Fittings - Brass

Sold individually complete with tube nuts and olives.



BLA Code	Description
298566	3/8" tube thread
293623	1/2" tube thread

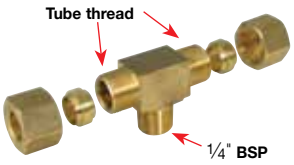
Tee Fittings - Brass

Sold individually complete with tube nuts and olives.

BLA Code	Description
293618	1/4" NPT to 3/8" tube
293619	1/4" NPT to 1/2" tube

Tee Fittings - Brass

Sold individually complete with tube nuts and olives.



BLA Code	Description
293621	1/4" BSP to 3/8" tube
293629	1/4" BSP to 1/2" tube

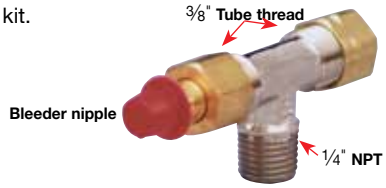
Bleeder Nipple

Suits **291003** front mount pivot cylinder. Two per kit.

BLA Code
293624

Horizontal Bleeder Tee - Brass

Two per kit.

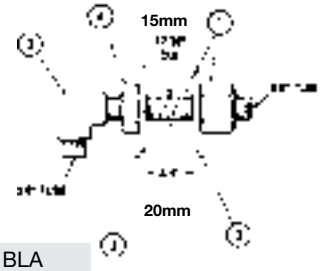


BLA Code	Description
293622	1/4" NPT to 3/8" tube
293636	1/4" NPT to 1/2" tube
293638	Vertical Bleeder 1/4" NPT to 3/8" tube

Bulkhead Fitting Kit

Used to connect hydraulic lines and hoses through a bulkhead or splashwell up to 20mm thick. Two per kit. Brass construction.

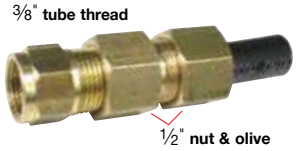
Item No.	Description	Qty Per Kit
1	Bulkhead fitting - short 3/8" tube (ext.)	4
2	Elbow 3/8" tube (ext.) 1/4" NPT (int.)	2
3	Washer	4
4	Nut	2



BLA Code
293630

Connector Fitting

Adaptor for connection of ½" copper or nylon semi rigid tubing to seastar cylinder ⅜" tube thread. Brass.
Sold individually.

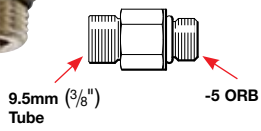


BLA Code	Description
292993	Female connector 1½" tube to ⅜" BSP
292994	Male connector ⅜" tube to ⅜" BSP
293626	Complete connector fitting ⅜" tube to ½" tube

ORB Straight Fittings - HF6609

- 2 per kit

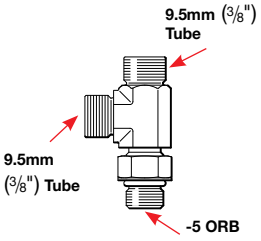
BLA Code **293644**



ORB Tee Fittings - HF6006

- 2 per kit

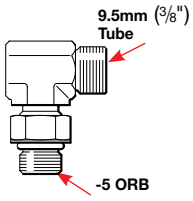
BLA Code **293642**



ORB Elbow Fittings - HF6004

- 2 per kit

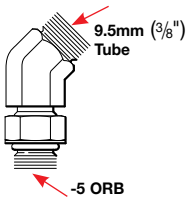
BLA Code **298467**



ORB 45" Fittings - HF6011

- 2 per kit

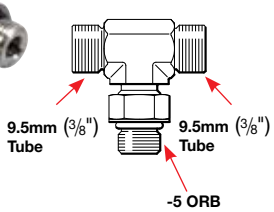
BLA Code **293606**



ORB Tee Fittings - HF6605

- 2 per kit

BLA Code **293608**



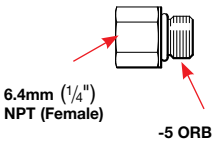
Synchronisation Valve

Used to align fluid linked twin cylinders and aid bleeding. **293632** and **293635** are supplied with four nuts and olives.

BLA Code	Description
293632	Suits ⅜" tubing, outboard & pro hose
293633	Suits ⅜" SAE flare fittings
293634	Valve alignment ⅜" tubing HA5471-2
293635	Suits ½" tubing, outboard & pro hose
293621	Tee fitting suit **293632** - ⅜" tube to ¼" BSP
293629	Tee fitting suit **293635** - ½" tube to ¼" BSP
294127	Brass tee ⅜" SAE

5 ORB - HF6012 (M) 1/4NPT (F)

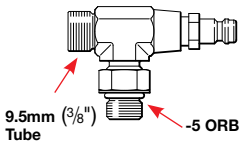
BLA Code **293601**



ORB Horizontal Bleeder Tee - HF6002

- 2 per kit

BLA Code **293646**



ORB KIT Twin Station Nylon Hose - HF6010

BLA Code **293605**

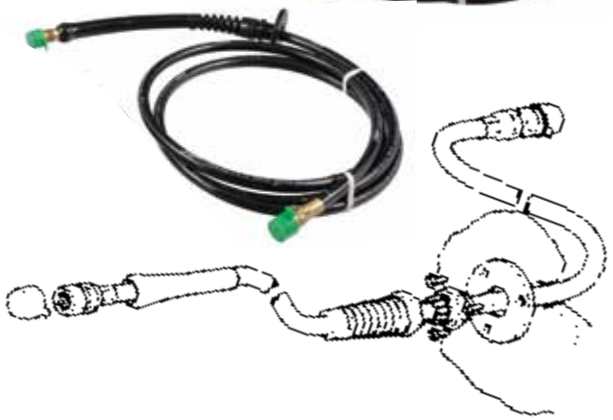
ORB Fitting Kit and AutoPilot - HF6007

BLA Code **293603**

SeaStar Thru Bulkhead Hose - Outboard or Pro

SEASTAR

Ready made quick fit hydraulic hoses with thru bulkhead fittings installed. Suits SeaStar® outboard, sterndrive and inboard applications. Provides professional finish to hydraulic installations, as well as providing kink and abrasion protection to the hose where it passes through the splashwell (or bulkhead) on the boat. Supplied complete with two brass swaged fittings (⅜" tube thread), thru bulkhead fitting as well as rubber boots to prevent hose kinking at the cylinder end. Available in Outboard Hose (with a 70 bar (1000 psi) working pressure rating), or Kevlar® reinforced Pro Hose with a 103 bar (1500 psi) working pressure rating. Pro Helm installations require Pro Hoses. Sold individually.



Outboard thru bulkhead hoses

BLA Code	Size Length ft	BLA Code	Size Length ft
293303	3	**293317**	17
293305	5	**293318**	18
293306	6	**293319**	19
293307	7	**293320**	20
293310	10	**293321**	21
293311	11	**293322**	22
293312	12	**293323**	23
293313	13	**293324**	24
293314	14	**293326**	26
293315	15	**293328**	28
293316	16	**293335**	35

Pro thru bulkhead hoses

BLA Code	Size Length ft
293410	10
293411	11
293412	12
293413	13
293414	14
293415	15
293416	16
293417	17
293418	18
293419	19
293420	20
293424	24

SeaStar Nylon Semi Rigid Tube

SEASTAR

⅜" outside diameter nylon semi rigid tubing is available for use with inboard, stern drive and outboard installations when used in conjunction with SeaStar® 1.7 and Morse H52 helms. ½" outside diameter nylon semi rigid tubing is available for plumbing runs in excess of 30 metres on inboard and stern drive installations. ½" tubing is suitable for use with SeaStar® 1.7, 2.0 and 2.4 helms as well as Morse 50 series helms. Both ⅜" and ½" tubing have a working pressure rating of 70 bar (1000 psi). ⅜" tubing requires a **293610** nut and olive kit to connect tubing to each port of the cylinder. ½" tubing requires a **293626** connector fitting for connection to each port of the cylinder, helm or autopilot.

BLA Code	Length m	Length ft	Diameter in
292990	15	50	1/2
292992	30	100	1/2
292997	15	50	3/8
292998	30	100	3/8

N.B. Use of semi rigid tubing in exposed outboard applications voids manufacturers warranty

SeaStar Copper Tubing

SEASTAR

Copper tubing is recommended for inboard installations in conjunction with SeaStar® 2.4, 1.7 and 2.0 helms when the tubing run exceeds 30 metres. SeaStar® steering systems installed with copper tubing require short lengths of flexible hose to accommodate slight cylinder movement. Hoses to suit ⅜" copper pipe are supplied in kit form (**293204**), containing one pair of outboard hoses 450mm long with ⅜" diameter tube fittings on both ends and come complete with two ⅜" diameter tube nuts and connector fittings. ⅜" copper tubing should be obtained through a local vendor based on the following tubing specifications.

Specifications for copper tubing:

Annealed copper refrigeration tubing 0.032" wall thickness, ⅜" outside diameter.

SeaStar Standard Outboard Hose

SEASTAR

For use in conjunction with outboards, stern drives and inboards with 1.7, 2.0 and 2.4 helms. 70 bar (1000 psi) maximum working pressure. High abrasion resistance with unbelievable flexibility and strength. Reinforced PVC construction. Large internal diameter makes the steering lighter and more responsive. The ⅜" tube thread swage fittings on each end eliminate the chance of connector failure. The cylinder end swage fittings have rubber boots fitted to prevent kinking and protect the connectors from the environment. Available from 600mm (2ft) to 12m (40ft) in 305mm (1ft) increments. Sold individually.

BLA Code
2930XX

N.B. The last two digits being length in feet. i.e. 293120 = 20 feet long

SeaStar Pro Hose

SEASTAR

A premium grade hose recommended for use with SeaStar® Pro helms but can be used in other installations, particularly when larger volume pumps are being used. Pro hose has a 103 bar (1500 psi) maximum working pressure with Kevlar® reinforcement that reduces volumetric expansion to less than half that of regular hoses. This achieves improved response and reduces engine flutter on high speed applications of 60 knots plus. Reduces prevailing supercharging pressure in SeaStar® Pro systems. Fitted with ⅜" tube thread swage fittings on both ends. The swage fittings have rubber boots fitted at cylinder end to prevent kinking and protect the connectors from the environment. Available from 600mm (2ft) to 12m (40ft) in 305mm (1ft) increments. Sold individually.

BLA Code
2931XX

N.B. The last two digits being length in feet. i.e. 293120 = 20 feet long

SeaStar Re-usable Hose Fitting

Brass hose fitting, suitable for use with outboard or Pro SeaStar® branded hose. Sold individually.

BLA Code
297332

SeaStar Spacer Kit

Includes a selection of spacers, washer and bolt to enable the **291003** front mount pivot cylinder to fit different outboard brands and models.

BLA Code
293690

SeaStar Alloy Trunnion Mount

Suits **291060**, **291062** and **291064** cylinders.

BLA Code
293650

SeaStar Bolt Replacement - HA5822

High tensile stainless steel ⅜" NF nylock nut and ⅜" x 1-¼" hex head bolt to suit Yamaha® 350.

BLA Code
293692

SeaStar Slide Kit

Slide kit to suit **291002** old front mount cylinder.

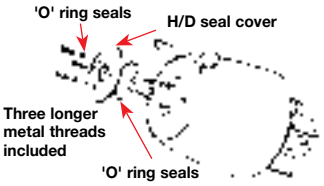
293700 INCLUSIONS		
Item No.	**Description**	**Qty Per Kit**
3	Nut ⅜" NF nyloc	1
4	Notched washer	1
5	Slide washer	2
6	Slide follower	1
7	Follower bush	1
8	Bottom washer (3 hole)	1
9	Countersunk washer	1
10	Screw ⅜"x 15⁄8" C/S head	1

BLA Code	Description
293700	Complete kit

SeaStar Shaft Seal Cover

- Heavy Duty

Designed with commercial operators in mind. The anodised alloy cover provides physical protection to the main shaft seal. The incorporated preliminary shaft seal and 'O' ring seal prevents harsh contaminants from attacking the main shaft seal. Suits all SeaStar® front mount hydraulic helms.



BLA Code	Description
293743	Helm Shaft Seal Cover HA5446
293755	Seal Gland to suit SeaStar cylinders
293757	Seal Gland to suit Tournament II cylinder

SeaStar Hydraulic Steering Lock

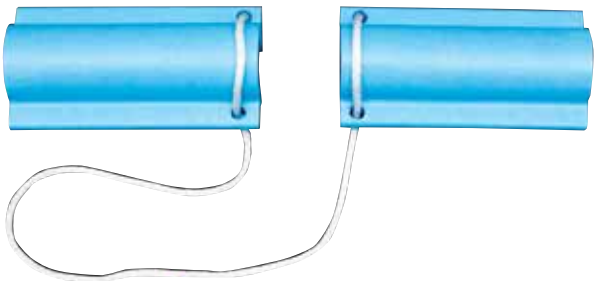
Steer Stop™ is a simple yet effective method of preventing damage to engine hydraulic steering systems while being trailed. By not allowing the ram to move when the boat is being transported the Steer Stop™ prevents the engine from wind veining and wandering while keeping the engine locked in the forward facing position, helping reduce damage to motor supports and steering systems.

Manufactured from tough PVC and designed to be simply clipped over each side of the hydraulic steering rams, these heavy duty stops are held in place by the virtue of their strong gripping power. Each pair is connected by cord which helps removal and keeps them together when stored.

Ideally suited for use with cylinders using a ram of 19mm diameter or more, such as the SeaStar® front mount range of rams. Sold as a pair in clear bright hang sell packaging.

Features:

- Locks hydraulic steering system when trailing
- Prevents damage to steering system and supports
- Keeps engine locked in straight forward position
- Heavy duty construction



293780 Installed

BLA Code	Length mm	Width mm	Minimum Ram Dia. mm
293780	102	55	19

BayStar™ Hydraulic Service Kits

BAYSTAR™

BLA Code	SeaStar Solutions® Part No.	Description
293738	HS5147	Seal kit to suit HH4016 (**291500**) and HH4015 (**291501**) helms
293742	HS5176	Seal kit to suit HH4514 (**291490**) and HH4513 (**291492**) helms
293745	HS5161	Seal kit to suit HH5217 (**291503**) helm
293716	HS5153	Seal kit to suit HC4670H (**291072**) cylinder
293713	HP4600	Seal kit to suit HC4645H (**291071**), HC4647H (**291073**), HC4648H (**291074**) & HC4658H (**291075**) cylinders
293720	HS5154	Seal kit to suit HC4460H (**291077**) cylinder
293718	HP5607	Port side seal kit to suit HC4600H (**291070**) obsolete cylinder
293719	HP5608	Starboard seal kit to suit HC4600H (**291070**) obsolete cylinder
293631	HF4202	Bleed 'T' for BayStar™ cylinder (pk 2)

SeaStar® Hydraulic Service Kits & Parts

SEASTAR™

BLA Code	SeaStar Solutions® Part No.	Description
293740	HS5151	Seal kit to suit all SeaStar 1.7 and 2.4 helm pumps manufactured from 1984 thru to 1989 Seal kit containing quad seal, keyway, helm nut and mount nuts for current BayStar™ and SeaStar® helms, including: **291490, 291492, 291502, 291504, 291506, 291512, 291515, 291516, 291522, 291526, 291540** and **291542**.
293741	HP6032	Helm seal front mount service kit for use all Baystar & Seastar helms except HH4016 (**291500**), HH4015 (**291501**), HH5217-3 (**291503**)
293742	HS5176	Seal kit to suit HH5271 (**291502**), HH5273 (**291504**), HH5272 (**291506**), HH5741 (**291512**), HH5291 (**291515**), HH5742 (**291516**), HH5261 (**291522**), HH5262 (**291526**), HH5770 (**291540**) and HH5774 (**291542**) helms
293712	HS5152	Seal kit to suit HC5340 obsolete cylinder with snap-in end fittings
293714	HS5157	Seal kit to suit HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**) and HC5358 (**291016**). It is also the replacement seal kit for HC5342 and HC5365 obsolete cylinders with screw in fittings. Includes tools.
293715	HS5167	Seal kit to suit HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**) and HC5358 (**291016**). It is also the replacement seal kit for HC5342 and HC5365 obsolete cylinders with screw in fittings. Excludes tools.
293716	HS5153	Seal kit to suit HC5370 (**291010**) cylinder
293720	HS5154 HC5329	Seal kit to suit HC5380 (**291008**), HC5303 (**291076**), HC5312 (**291060**), HC5328 (**291026**), (**291022**), HC5330 (**291024**) and HC5331 (**291028**) cylinders
293722	HS5155	Seal kit to suit HC5313 (**291062**) and HC5332 (**291029**) cylinders
293724	HS5156	Seal kit to suit HC5314 (**291064**) and HC5326 (**291030**) cylinders
293726	HS5182	Seal kit to suit HC5318 (**291066**) cylinder
293728	HS5183	Seal kit to suit HC5319 (**291068**) cylinder
293766	HP6018	Replacement "Bull horn" support brackets (pk 2) to suit HC5345 (**291003**), HC5347 (**291014**), HC5348 (**291012**) and HC5358 (**291016**)
293770	HP6016	Replacement support rod to suit HC5340, HC5342, HC5345 (**291003**), HC5347 (**291014**), HC5348 **291012**), HC5358 (**291016**), HC6345 (**291018**) and HC6358 (**291020**)

Capilano Hydraulic Service Kits

CAPILANO™

BLA Code	SeaStar Solutions® Part No.	Description
293726	HS5182	Seal kit to suit HC5349 (**294032**) cylinder
293728	HS5183	Seal kit to suit HC5350 (**294034**) cylinder
293730	HS5184	Seal kit to suit HC5351 (**294036**) and HC5357 (**294038**) cylinders
293732	HS5185	Seal kit to suit HC5375, HC5379
297100	KS-19	Seal kit to suit K-6 Cylinders
298382	KS-02	Seal kit to suit K-18, K-19, K-20 Cylinders
298386	KS-14	Seal kit to suit K-51 Cylinder
298520	HS-05	Seal kit 50 Series Helm
298522	HS-02	Seal kit to suit H-20 and H-30 Helm (79 to date)

Power Steering Hydraulics Service Kits

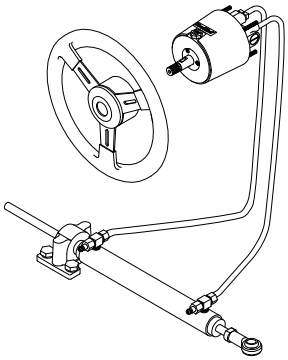
BLA Code	SeaStar Solutions® Part No.	Description
293751	HS5197	Seal kit to suit HC5801 and HC5803 servo cylinders. This is the small servo cylinder mounted on the side of the HC5801 (**295002**) and HC5803 (**295004**) cylinders
293752	HS5198	Seal kit to suit HC5801 (**295002**), HC5803 (**295004**), HC5802 (**295006**) and HC5804 (**295008**) large primary cylinders
293753	HS5196	Seal kit to suit servo valve block located on HC5801 (**295002**) and HC5803 (**295004**) cylinders

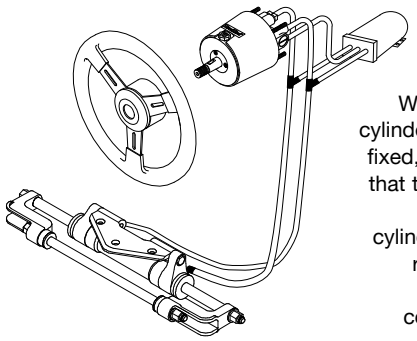
Hydraulic Plumbing Diagrams

SEASTAR SOLUTIONS
SEASTAR™

Single Helm, Single Cylinder

This plumbing configuration is suitable for side mount, splashwell, tandem catamaran, stern drive and inboard installation.

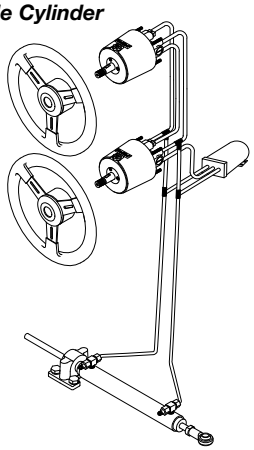




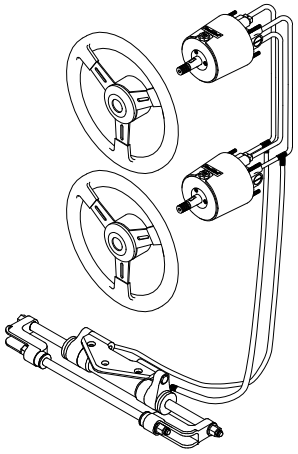
With a front mount cylinder the pushrod is fixed, it is the cylinder that travels. Plumbing of front mount cylinders requires the reverse plumbing connection to conventional fixed cylinder mount.

Dual Station, Single Cylinder

Typical for side mount, splashwell mount, tandem catamaran, stern drive and inboard installations.

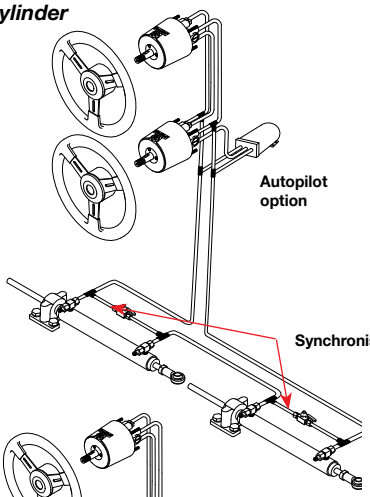


Front mount installations only

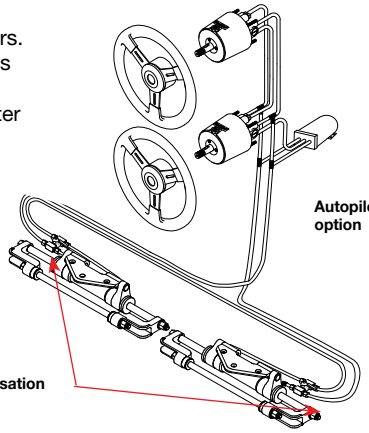


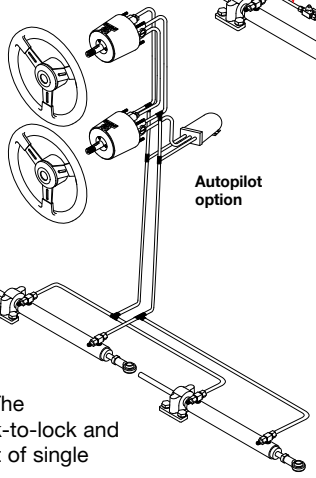
Dual Station, Dual Cylinder

This plumbing configuration fluid links the cylinders. Opening of ball valve enables engine alignment. Systems can be plumbed with one ball valve but purging of cylinder connecting line can be difficult. Twin cylinder fluid linked systems have the same number of wheel turns and torque as single cylinder systems.



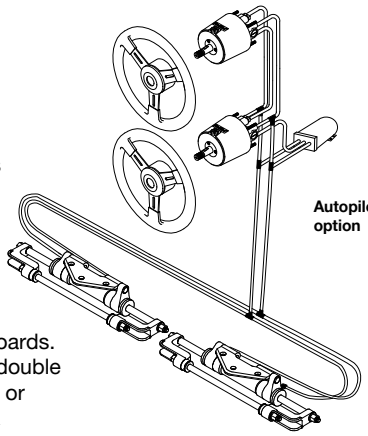
Fluid link front mount cylinders. This plumbing configuration is rated to 450HP non-counter rotating and 600HP for counter rotating outboards. Twin ball valves are recommended for ease of bleeding. SeaStar's syncro valve **293632** (one only), refer page 818 for details.





This plumbing configuration requires the installation of a mechanical tie bar. The number of turns lock-to-lock and torque is double that of single cylinder installations.

This plumbing configuration requires the installation of a mechanical tie bar. Rated to 450HP for non-counter rotating outboards and 600HP for counter rotating outboards. Turns lock-to-lock is double that of single cylinder or twin cylinder fluid link systems.



ENGINE CONTROLS

Mechanical Engine Controls at a Glance	824-825
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A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Mechanical Engine Controls at a Glance

Controls	B700	700SD	B700SM	B700SS	CH2800 CH2850	CH7500	CH1700	SL-3 TOP MNT
Function: D (dual) S (single)	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**
Boat Type								
Outboard & Sterndrive Single Station	Y+	Y+	Y+	Y	Y	Y+	Y+	Y+
Outboard & Sterndrive Dual Station	Y	Y	Y	Y	Y	Y	Y	Y
Inboard Single Station	Y	Y	Y+	Y	Y	Y	Y	Y
Inboard Dual Station	Y	Y	Y	Y	Y	Y	Y	Y
Jet Boat	N	N	N	N	N	N	N	N
Sail Boat	Y	Y	Y	Y+	Y+	Y	Y	Y
Commercial	Y	N	Y	Y	Y	Y	Y	Y
Control Features								
Neutral Safety Switch	O	O	O	O	N	Y	Y	Y
Neutral Interlock	N	N	N	N	N	N	N	Y
Engine Warm-Up Provision	Y	Y	Y	Y	Y	Y	Y	Y
Adjustable Throttle Brake	Y	Y	Y	Y	Y	Y	Y	Y
Trim & Tilt Switch	O	O	N	N	N	O	O	O
Detents	Y	Y	Y	Y	Y	Y	Y	Y
Thruster/Windlass Control	N	N	N	N	O	N	N	N
Max Number of Engines	2	1	1	1	1	1	1	2
Cables								
30 Series	Y	Y	Y	Y	Y	Y	Y	Y
Merc/Marine® 600A & 630 Type	N	N	N	N	N	Y	Y	Y
Evinrude®/Johnson® 479 Type	N	N	N	N	N	Y	Y	Y
40 Series	N	N	N	N	N	N	N	N
Merc Gen II	N	N	N	N	N	Y	Y	Y

** Single Engine only + Most popular application D0499: D series control uses D0499 cables only N: N/A Y: Yes O: Optional*

What to consider when selecting controls

Dual Function Controls:

Dual function controls operate both gear shift and throttle
with a single lever. The control mechanism still uses two cables (one for gear and one for throttle), but movement of both cables and control of gear and throttle is achieved through just one lever.

Dual function controls are also available for twin engine applications. Although there are two levers on the control, there is still only one lever controlling both shift and throttle for each individual engine.

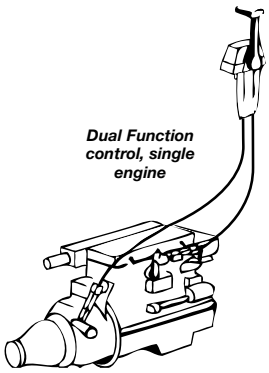
Dual function controls helped make boats so much easier to handle that it has become the most popular control used today. Not only do dual function controls have a very natural distinctive action, but shifting is very quick and they can only be shifted at low RPM which protects the engine's shift mechanism.

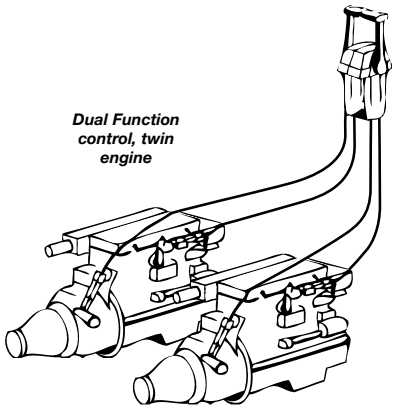
Single Function Controls:

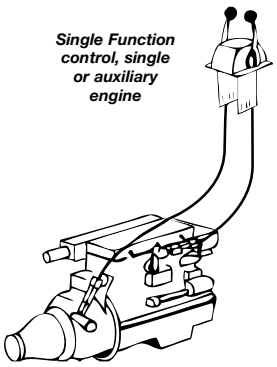
On single function controls, one lever operates only the gear shift mechanism or only the throttle. The controls themselves may have one lever (which would control the shift or the throttle) or two levers (one for gear and one for throttle).

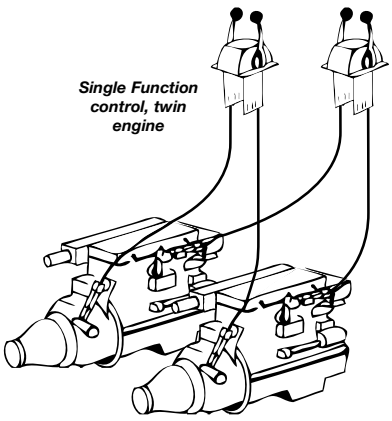
Twin engine applications will utilise two, twin lever single function controls. Commonly both levers of one control will operate the throttles, while the levers of the second control will operate gear shift.

SEASTAR SOLUTIONS


Dual Function control, single engine


Dual Function control, twin engine


Single Function control, single or auxiliary engine


Single Function control, twin engine

SL-3 SIDE MNT	MV-3	KB	SLT	MT-3	S	SR	NB	ST	CH4400	D
D	D	S	S	D	S	S	S	S	S	S
Y+	Y	Y	Y	Y	Y	Y	Y	N	Y	N
Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N
Y	Y	Y	Y	Y+	Y	Y	Y	Y	Y	Y
Y	Y	Y+	Y+	Y+	Y	Y+	Y	N	Y+	Y
N	Y+	N	N	N	N	N	N	N	N	Y+
Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Y	Y	Y	Y	Y+	Y+	Y	Y+	Y+	Y	Y+
Y	O	N	O	O	O	O	N	N	O	N
Y	Y	N	N	N	N	N	N	N	N	N
Y	Y	N	N	Y	N	N	N	N	N	N
Y	N	Y	N	N	Y	Y	Y	N	Y	N
O	N	N	N	N	N	N	N	N	N	N
Y	Y	Y	Y	Y	O	O	Y	N	O	N
N	N	N	N	N	N	N	N	N	N	N
1	1	1	1	2	1	1	1	1	1	1
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	D0499
Y	N	N	N	N	N	N	N	N	N	N
Y	N	N	N	N	N	N	N	N	N	N
N	N	N	N	N	O*	O	O	Y	O	N
Y	N	N	N	N	N	N	N	N	N	N

Multiple Station Installations

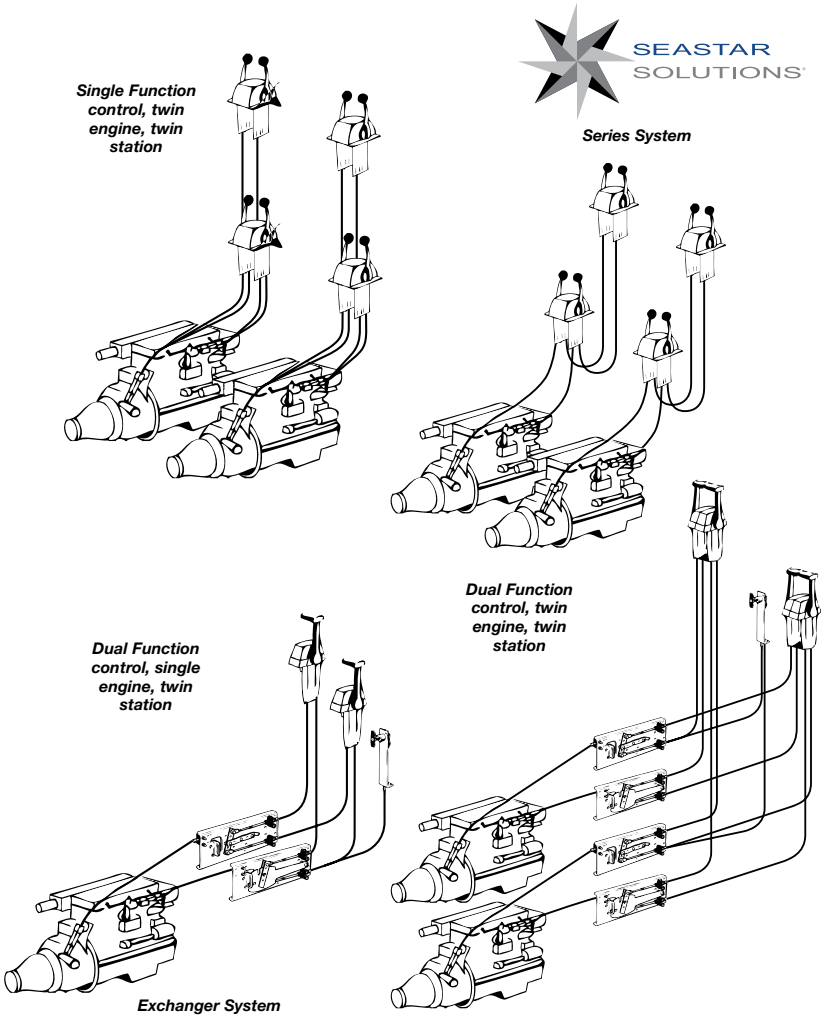
Single Function Parallel Control System
Cables from each control station run all the way to the gear and throttle at the engine. This configuration is sometimes used when cable runs are relatively short and direct.

Single Function Series Control System
Cables run from controls at the upper station to the lower station controls. A second set of control cables runs from the lower station to the engine. This method is generally used for longer or more difficult cable runs.

The choice to utilise a parallel or series system is dictated by the total degrees of bend in the cables as measured by the sum of the degrees of all bend radii. This directly affects the efficiency of cable action. The configuration that gives the control system the fewest degrees of bend is the one that should be employed.

Dual Function

When using dual function controls in dual station applications, it is necessary to isolate the two systems by the use of dual station exchangers, as it is not possible to back drive dual function controls. The system utilises a dual station unit for each engine function eg. throttle and gear shift. The gear control's dual station exchanger has a simple latching mechanism, controlled by a selector at the main station, which isolates the station not in use and prevents inadvertent operation.



Top Mount Controls - B700

Dual Function Controls:

Available in single or dual lever, suitable for use with inboards with hydraulic gear boxes, outboards and stern drives.

Features:

- Each lever operates both shift and throttle (two levers for two engines)
- Easy distinctive action with positive detent for shifts
- Adjustable throttle friction
- Push button disengagement of shift for neutral throttle warm up
- Can only shift at low RPM thereby protecting gearbox
- Optional trim/tilt control
- Dual station capability (requires exchangers - refer page 837)
- Optional neutral safety switch to ensure engine start can only occur when in neutral

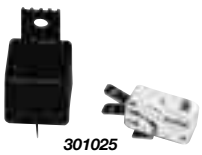
Cables:

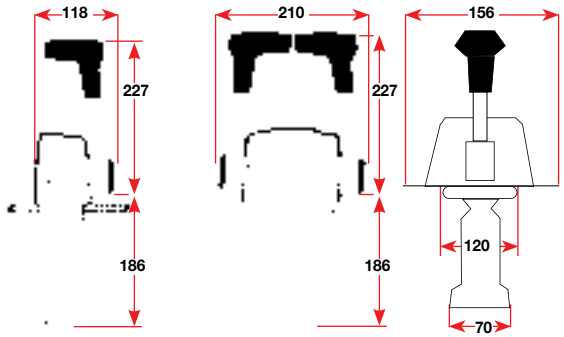
Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Materials:

- Die-cast zinc alloy frame
- Gold passivated steel link plates
- High impact ABS dress covers

BLA Code	Description
301002	Dual lever standard control
301003	Dual lever control with trim and tilt
301006	Single lever standard control
301007	Single lever control with trim and tilt





Accessories:

301025 Optional neutral safety switch

Side Mount Control - 700SD

Dual Function Control:

Side mount outboard style single lever control, suitable for use with outboards and stern drives, but can be used with inboards with hydraulic gearboxes.

Features:

- Lever operates both shift and throttle
- Surface mounts horizontally or vertically on port or starboard
- Easy distinctive action with positive detent for shifts
- Adjustable throttle friction
- Push button disengagement of shift for neutral throttle warm up
- Can only shift at low RPM thereby protecting gearbox
- Dual station capability (requires exchangers - refer page 837)
- Optional neutral safety switch to ensure engine start can only occur when in neutral

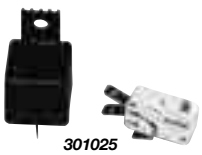
Cables:

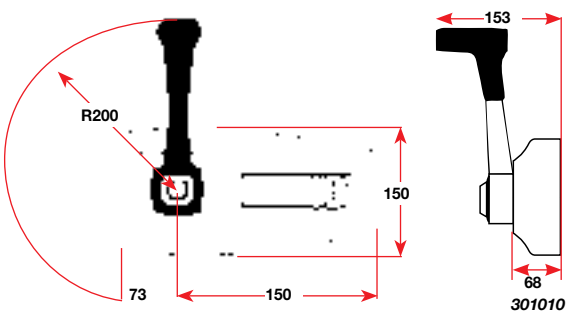
Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Materials:

- Die-cast zinc alloy frame
- Gold passivated steel link plates
- High impact ABS dress covers

BLA Code	Description
301010	Standard control lev O/B
301011	Control lev tilt





Accessories:

301025 Optional neutral safety switch

Top Mount Control - SLT

Single Function Control:

There's nothing else like it. Patented self locking throttle technology makes SLT (Self Locking Throttle) the only control that stops throttle creep in single and multi stations without making the control stiff like traditional friction based throttle solutions.

Suitable for inboards with hydraulic gearboxes, stern drives and outboards.

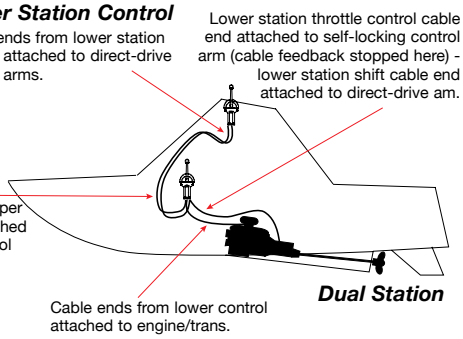
How it Works:

- Each lever has both direct-drive and self-locking cable connection arms
- Use self-locking arm for master station-to-engine throttle cables; direct-drive arm for shift and station-to-station cables
- Better than traditional friction-based solutions, the SLT doesn't rely on tightening the control lever or restricting cable movement to stop creep
- Using a patented SLT clutch, the control maintains throttle lever position, even in vibration-prone environments and it's easy to move the lever when you're ready
- With the SLT, you can take full advantage of premium, high-efficiency cables for smooth lever operation, because cable movement is unrestricted. Yet, the SLT clutch will not allow vibration and cable feedback to move the lever
- Other controls allow the use of premium cables, but the extra advantage of a high performance cable is negated when a 'cable brake' is used to limit throttle creep. There is no 'positive stop' with a cable brake. You tighten it to achieve a trade-off between lever slippage and ease of movement. If it's too tight, the cable is hard to move. If it's too loose, the cable may feel fine but the throttle lever may creep
- Each SLT can be configured for Throttle and Shift, Twin Throttle or Twin Shift, simply by screwing in the appropriate throttle stops, detents and knobs that come with the control

301210

Features:

- Patented SLT technology prevents throttle creep without creating friction, lever stays where you leave it
- Superior twin station performance, both stations operate simultaneously
- Polished stainless steel levers and domed housing
- Independent shift and throttle action, one lever for shift, one lever for throttle
- Can be user configured as either push or pull to operate throttle and/or shift
- Adjustable/removable shift detents and throttle stops
- Optional neutral safety switch



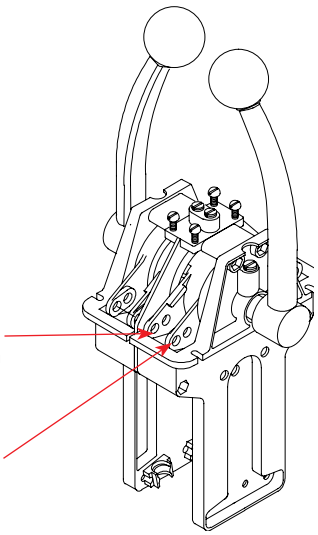
Cables:

Particularly suited to high efficiency cables such as CCX633 XTREME™

Also accepts universal 30/33 series cables, CC230, CC330, CC332 or CCX632.

Materials:

- Stainless steel visible above console
- Heavy duty die-cast zinc alloy mechanism
- Each control lever has both a self-locking and direct drive lever arm
- The cable from the engine throttle directly to the control is connected to the control's self-locking lever arm. The cable from the transmission is connected to the control's direct-drive lever arm. Cables between stations are only connected to the direct drive lever arms of those controls.



Direct Drive Lever Arm:

When a cable from the transmission or a "slave station" is connected to the direct-drive arm, it will allow the control lever to be moved from another station. Cables from the main station to any additional stations must be attached to direct drive arms on those stations.

Self-Locking Lever Arm:

When a cable from the throttle is connected to the self-locking arm it will only move if the lever is moved; engine vibration and return spring feedback will not move the control lever. Only throttle cables routed directly from the engine to the control should be connected to self-locking lever arms.

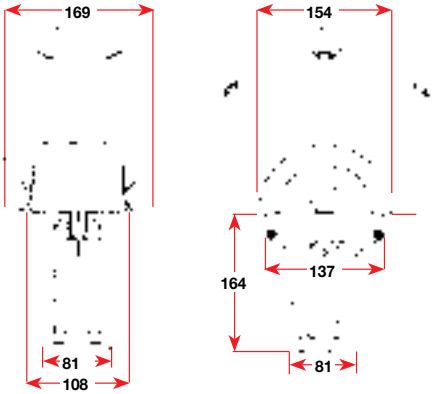
BLA Code	Description
301210	SLT control

Accessories:

301226	Optional neutral safety switch
301222	Optional dual station kit
301232	Replacement knob red
301234	Replacement knob black

301222

301226



N.B. For extra steering station add an additional control 301210 for each engine and one dual station kit 301222 for each control

Side Mount Control - B700SM

Dual Function Control:

Side mount, single lever, compact control, suitable for use with outboards, stern drives and inboards with hydraulic gear boxes.

Features:

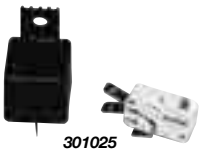
- Lever operates both shift and throttle
- Mounts horizontally or vertically on port or starboard
- Easy distinctive action with positive detent for shifts
- Adjustable throttle friction
- Push button disengagement of shift for neutral throttle warm up
- Can only shift at low RPM thereby protecting gearbox
- Dual station capability (requires exchangers - refer page 837)
- Optional neutral safety switch to ensure engine start can only occur when in neutral

Cables:

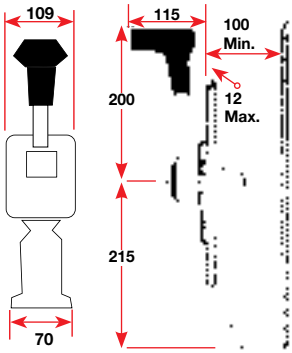
Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Materials:

- Die-cast zinc alloy frame
- Gold passivated steel link plates
- High impact ABS dress covers



301025



BLA Code	Description
301014	Standard control

Accessories:

301025 Optional neutral safety switch

Side Mount Control - B700SS

Dual Function Control:

Side mount single lever control, particularly suited to sail boats. Suitable for use with outboards, sail drives, small inboards with mechanical shift and larger inboards with hydraulic gearboxes.

Features:

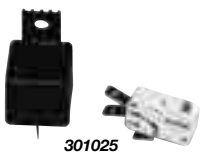
- Flush cockpit side mounting for sail boats
- Smooth control lever reduces the chance of sheets, halyards and clothing catching
- Lever operates both shift and throttle
- Mounts horizontally or vertically on port or starboard
- Easy distinctive action with positive detent for shifts
- Adjustable throttle friction
- Push button disengagement of shift for neutral throttle warm up
- Can only shift at low RPM thereby protecting gearbox
- Dual station capability (requires exchangers - refer page 837)

Cables:

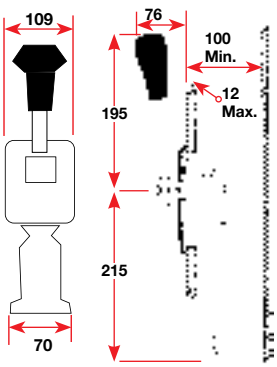
Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Materials:

- Die-cast zinc alloy frame
- Gold passivated steel link plates
- High impact ABS dress cover



301025



BLA Code	Description
301018	B700SS side mount control

Accessories:

301025 Optional neutral safety switch

Side Mount Controls - CH2800 & 2850

Dual Function Controls:

A unique control offering optional three position twist switch for control of bow thruster or anchor winch. Can be mounted with or without cover plate. Suitable for inboards with hydraulic gearboxes, sail drives, stern drives and outboards.

Features:

- Operates both shift and throttle with one handle
- Positive detents in forward/neutral/reverse
- Push button disengagement for neutral warm up
- Can be left or right hand mounted
- Can only shift at low RPM thereby protecting gearbox
- Dual station capability (requires exchangers - refer page 837)
- Adjustable throttle friction

Cables:

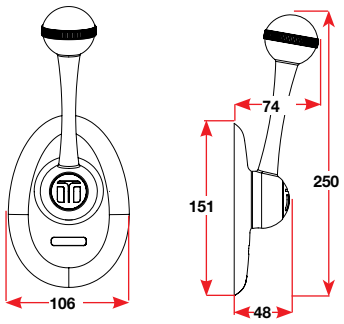
Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Materials:

- Stainless steel lever arm, composite knob, die-cast zinc alloy mechanism
- Gold passivated steel linkages

306782

306784
Shown without cover plate



BLA Code	Description
306782	CH2800 side mount control with knob switch
306784	CH2850 side mount control without knob switch

Top Mount Controls - CH7500

Dual Function Controls:

Single lever, right hand control designed with a focus on ergonomics. The result is a control that is robust yet feels natural in every function. Suitable for inboards with hydraulic gearbox, stern drives and outboards.

Features:

- Ergonomic designed handle
- Soft touch grip
- Precise, smooth, distinctive action with positive detents for shift
- Lever operates both shift and throttle
- Adjustable throttle friction
- Push button disengagement of shift for neutral throttle warm up
- Neutral safety switch to ensure engine start can only occur when in neutral
- Dual station capability (requires exchangers - refer page 837)
- **301029** includes trim control in handle

Cables:

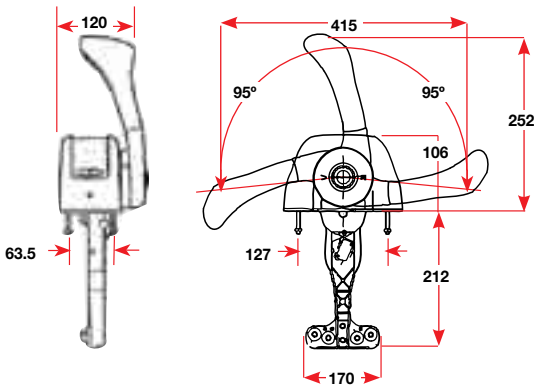
CCX633 XTREME™ recommended.
Also accepts universal 30/33 series cables, CC230, CC330, CC332 and CCX632, 479 type Evinrude®/Johnson® 600A type Mercury®/Mariner® 630 type Mariner® or CC189 Mercury®/Mercruiser® Gen II.

Materials:

- Powder-coated die-cast zinc alloy handle with tactile rubber grip
- ABS plastic and copolymer cover
- Die-cast zinc alloy mechanism with gold passivated steel linkage plates

BLA Code	Description
301028	CH7500 standard control
301029	CH7500 control with trim

301028



Side Mount Controls - CH1700

Dual Function Controls:

Single lever, right hand control designed with a focus on ergonomics. The result is a control that is robust yet feels natural in every function. Suitable for inboards with hydraulic gearbox, stern drives and outboards.

Features:

- Ergonomic designed handle
- Soft touch grip
- Precise, smooth, distinctive action with positive detents for shift
- Lever operates both shift and throttle
- Adjustable throttle friction
- Mechanism can be rotated relative to handle and cover plate to allow different cable entry angle
- Push button disengagement of shift for neutral throttle warm up
- Neutral interlock with thumb release button
- Neutral safety switch to ensure engine start can only occur when in neutral
- Dual station capability (requires exchangers - refer page 837)
- **301039** includes trim control in handle

Cables:

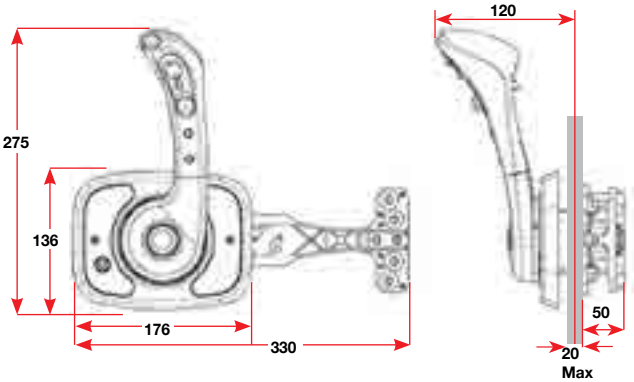
CCX633 XTREME™ recommended.
Also accepts universal 30/33 series cables, CC230, CC330, CC332 and CCX632, 479 type Evinrude®/Johnson®, 600A type Mercury®/Mariner®, 630 type Mariner® or CC189 Mercury®/Mercruiser® Gen II.

Materials:

- Powder-coated die-cast zinc alloy handle with tactile rubber grip
- ABS plastic and copolymer cover
- Die-cast zinc alloy mechanism with gold passivated steel linkage plates

BLA Code	Description
301038	CH1700 standard control
301039	CH1700 control with trim

301039



Side & Top Mount Controls - SL-3

SEASTAR SOLUTIONS

Dual Function Controls:

Attractive and extremely simple in design, the SL-3 is specifically engineered for installation without tedious cable adjustments. The controls are made to a modular design and are available in side mount or top mount versions, with or without engine trim and tilt switch. Suitable for inboards with hydraulic gearboxes, outboards and stern drives.

'Easy-On' Cable Design Means:

No shift or throttle adjustments.

Features:

- Operates both shift and throttle with one handle (two levers for two engines)
- Power trim and tilt switch located in handle grip (optional)
- Easy distinctive action with crisp detents in forward/neutral/reverse
- Neutral interlock trigger in handle, to prevent handle engaging gears accidentally
- Entire gear mechanism is enclosed and permanently lubricated for smooth long-lasting operation
- Push-in button for neutral throttle warm up
- Can only shift at low RPM thereby protecting gearbox
- Neutral safety switch incorporated as standard
- Dual station capability (requires exchangers - refer page 837)
- Suitable for exterior mounting

Side Mount Version Features:

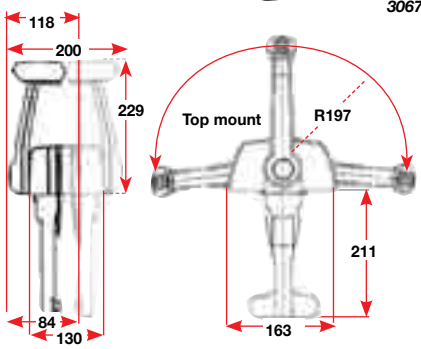
- Choice of cable entry through 360°
- Can be mounted left or right hand

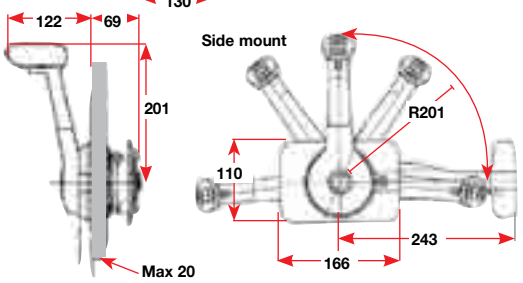
Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633, 479 type Evinrude®/Johnson®, 600A type Mercury®/Mariner®, 630 type Mariner® or CC189 Mercury®/Mercruiser® Gen II.

Materials:

- Die-cast zinc alloy mechanism and handles
- Gold passivated link plates
- U.V. stable plastic dress cover





BLA Code	Description
306720	Top mount single
306722	Top mount single with trim & tilt switch
306724	Top mount twin
306726	Top mount twin with trim & tilt switch
306728	Side mount single
306730	Side mount single with trim & tilt switch

Accessories:

309896 Optional neutral safety switch
309922 Replacement handle for **306720** & **306724**

Top Mount Controls - KB Series

SEASTAR SOLUTIONS

Single Function Control:

A compact and durable top mount control with modern design and functional characteristics. Suitable for inboards with hydraulic gearboxes, outboards and stern drives.

Features:

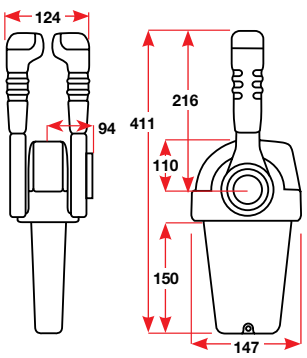
- Single function, single or twin levers
- One handle for gear, one handle for throttle
- Available as throttle only, or as gear and throttle
- The throttle brake, incorporated as standard, is simply applied by turning the knob at the base of the handle to the desired setting
- Can be used for dual station installations. Both stations move together, although care must be taken to avoid operating one station if the other is firmly dampened down. Extra fittings required for dual stations are listed below
- Detents for forward/neutral/reverse incorporated in control
- Plastic body and hanger plate with metal moving parts. Especially suitable for engines with heavy governor load (i.e. Gardner diesel)

Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633. Fittings for these cables supplied with control. KB controls will not accept 40/43 series cables.

Materials:

- Plastic body and hanger with enclosed die-cast zinc alloy and zinc plated metal mechanism
- Suitable for exposed installation



BLA Code	Description
306894	Single lever throttle control
306895	Twin lever throttle & gear control

Accessories:

306896 Dual station kit (per lever)

Side Mount Controls - MV-3

Dual Function Controls:

The MV-3 control is specifically designed to meet the requirements of ski boat enthusiasts. The neutral locking hand lever can only be disengaged from neutral by raising the lifter under the ball knob. When the neutral lock is disengaged the action from forward through to reverse is very smooth, a reason this control is also commonly used with sport jets. Suitable for use with inboards with hydraulic shift, outboards and sport jets.

Features:

- Operates both shift and throttle with one handle
- Concealed side mounting
- Pull out gear disengagement for neutral warm up with automatic re-engagement
- Can be left or right hand mounted
- Optional neutral safety switch to ensure engine start can only occur when in neutral.

Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Materials:

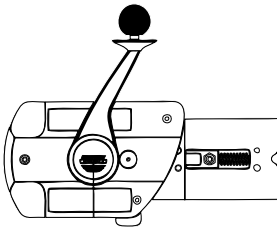
- Non-corrosive rigid polymer exposed housing with die-cast zinc alloy handle
- Gold passivated steel concealed back plate and linkages

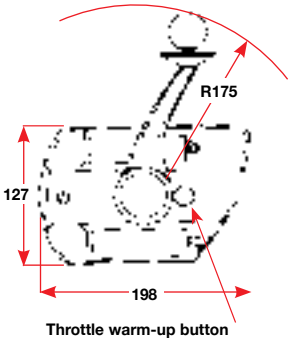
306778

BLA Code	Description
306774	MV-3 standard control
306776	MV-3 control with safety switch

Accessories:

306778 Optional neutral safety switch


Horizontal cable entry only



Throttle warm-up button

Side Mount Control - ST

Single Function Control:

Simple single lever, single function chrome finish control, commonly used on throttle.

Features:

- Simple installation
- Simple reliable operation
- Controlled lever friction

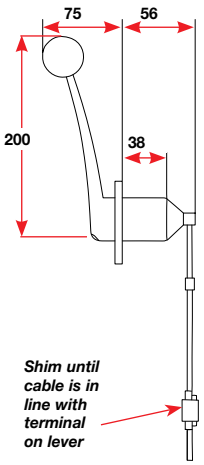
Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Also accepts 40/43 series cables with purchase of **309816** and **309846**.

Materials:

- Marine quality chrome over die-cast zinc alloy handle and flange
- Anodised alloy shaft
- Gold passivated steel link arm



Shim until cable is in line with terminal on lever

BLA Code	Description
306937	ST control

Accessories:

309816 40/43 series clamp and shim assembly
309846 40/43 series pivot

309846

309816

N.B. This control does not have detent positioning

Top Mount Controls - MT-3

Dual Function Controls:

The MT-3 control has become the industry standard incorporating classic binnacle styling with dual function levers and a high quality of finish. Suitable for inboards with hydraulic gearboxes, outboards and stern drives. Not suitable for engines with heavy governor loads (i.e. Gardner diesel).

Features:

- Each lever operates both shift and throttle (two levers for two engines)
- Easy distinctive action with positive detents in forward/neutral/reverse
- Handle pulls out to operate neutral throttle warm up
- Can be mounted left or right hand
- Can only shift at low RPM thereby protecting gearbox
- Optional neutral safety switch to ensure engine only starts when in neutral
- Dual station capability (requires exchangers - refer page 837)
- Chrome housing gives quality look to your saloon, cabin or flybridge
- Three shift stroke adjustment positions
- Built-in friction drag helps prevent slippage and throttle creep while underway

Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633.

Single engine controls can be installed with 40/43 series cables for heavy duty applications; fittings for these cables to be ordered separately. Twin engine control cannot use 40/43 series cables because of internal space limitations.

Materials:

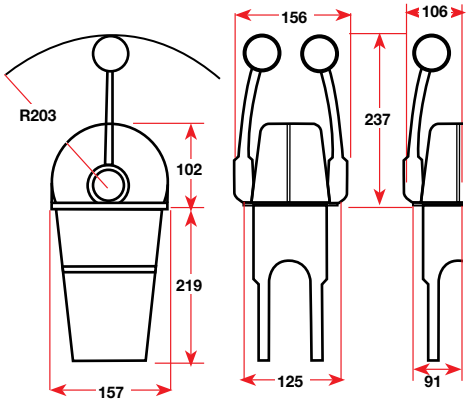
- Marine quality chrome plated die-cast zinc alloy housing
- Zinc alloy mechanism
- Stainless steel link plates

306700

306704

306706

306708

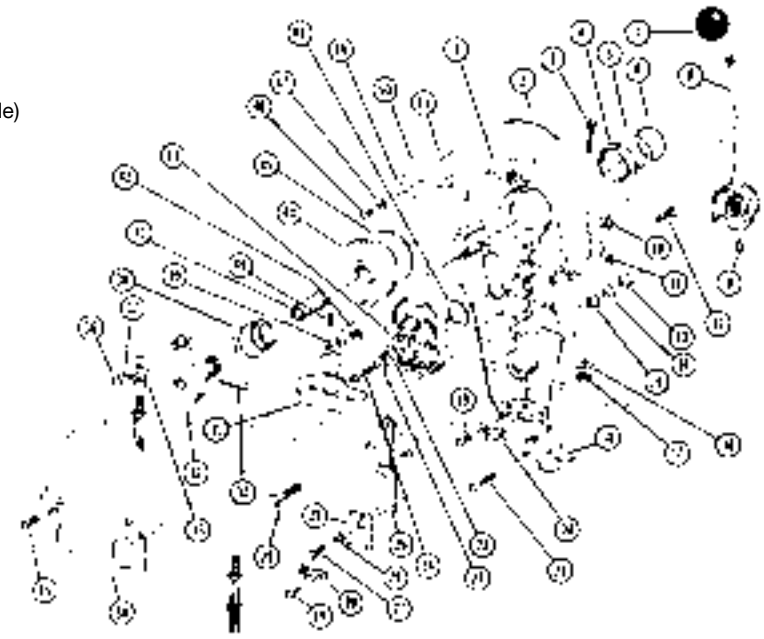


BLA Code	Description
306700	MT-3 single engine control
306704	MT-3 twin engine control

Accessories & Parts:

306706	Conversion kit suit 40/43 series cable (single)
306708	Optional neutral safety switch
309924	Dual station kit t/s 30/33 series

Service Parts:		***Item No.***
309985	Decal “FWD-REV”	2
309927	Drive gear bearing	4
309989	Knob red	7
309987	Knob black	
309931	Handle	8
309984	Collar	15
309782	Cable clamp	20
309926	Shift bearing	22
309983	Shoulder bush	26
309991	Grooved pin	30
309925	Throttle arm	32
309860	Cable terminal	33
309935	Side plate	34
309930	E-ring	36
309933	Cable end pivot	39
309928	Bearing	41
309936	Spacer washer	48
309990	Flat spring MT-3	50
309992	Hardware bag single	2, 3, 16, 17, 19
309993	Hardware bag twin	20, 33, 36, 37, 39, 40, 42



Top Mount Controls - 'S' Series

Single Function Controls:

Top quality controls with chrome finish above dash, stainless steel hanger plates and classic styling, combined to produce controls suited to both exterior and interior installations. Suits inboards with hydraulic gearbox, stern drives and outboards.

Features:

- One handle for gear, one handle for throttle
- Available in single lever or twin lever versions
- Each lever suitable for throttle or gear, with optional detents for forward/neutral/reverse and throttle
- Incorporates brake to prevent throttle creep
- Ideal for dual station installations, both controls move in unison
- Optional neutral safety switch for start in gear protection

Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633. Fittings for these cables supplied with control.

Materials:

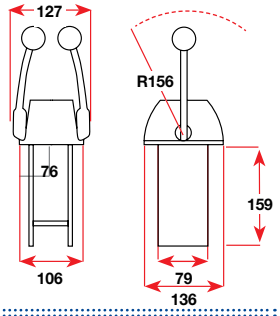
- Marine quality chromed heavy duty zinc alloy housing
- Stainless steel hanger plates
- Zinc alloy internal rocker arm

BLA Code	Description
306857	Single 'S' control (single lever)
306858	Twin 'S' control (twin lever)

Accessories:

306859	Optional gear detent kit (1 per engine)
306860	Optional throttle detent kit (1 per engine)
306862	Optional neutral safety switch (1 per engine)
306863	Hardware bag, per lever (included with control)
306864	30/33 series dual station kit (1 per engine)

N.B. Clutch and throttle detents are not included with controls



Top Mount Control - Twin SR

Single Function Control:

Solid all metal construction with stainless steel cover plate, marine standard chromed levers, and the ability to configure either lever for throttle or gear, make the SR a very versatile option for commercial and recreational craft applications. Suits inboards with hydraulic gearbox, stern drives and outboards.

Features:

- One handle for gear, one handle for throttle
- Each lever suitable for throttle or clutch
- Detents for forward/neutral/reverse available separately to suit installation requirement
- Incorporates adjustable brake for throttle creep
- Ideal for dual station installations, both controls move in unison
- Optional neutral safety switch for start in gear protection

Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633. Fittings for these cables supplied with control.

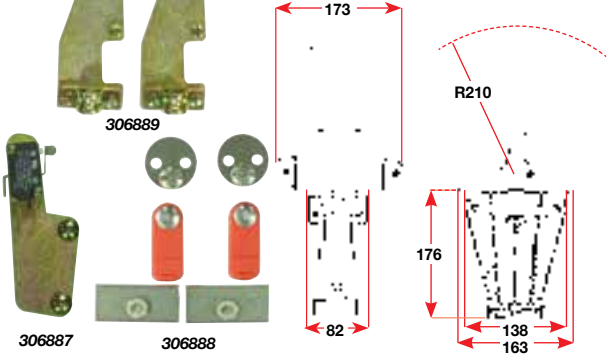
Materials:

- Stainless steel cover plate, chromed cast zinc alloy handles
- Gold passivated die-cast mechanism, stainless steel
- Plastic and brass cable connection
- Hardware adaptors are gold passivated steel

BLA Code	Description
306884	Twin SR control

Accessories:

306885	Optional gear detent kit (1 per engine)
306887	Optional neutral safety switch (1 per engine)
306888	30/33 series dual station kit (1 per engine)
306889	40/43 series dual station (1 per engine)
298540	Replacement handle for control
298546	30/33 series cable termination eye
298538	Main housing bearing



Flush Top Mount Controls - CH4400

Single Function Controls:

Stylish twin lever, flush top mount controls suitable for inboards with hydraulic gearboxes, stern drives and outboards.

Features:

- Stylish look with either straight or raked handles
- Independent shift and throttle actuation, one lever shift, the other throttle
- Dual station capability. Both stations operate simultaneously
- Removable knobs allow for recessed mounting
- Push or pull cable actuation of shift and throttle
- Adjustable ratchet feel for precise throttle
- Optional neutral safety switch
- Optional handle stop kit

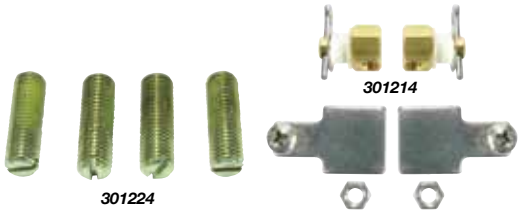
Cables:

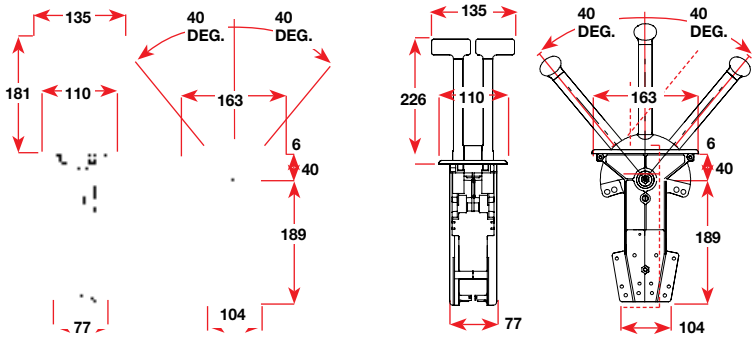
Accepts universal 30/33 series cables,

CC230, CC330, CC332, CX632 and CCX633.

Materials:

- Die-cast zinc alloy with marine grade chrome finish





BLA Code	Description
301202	Straight handle control
301206	Raked handle control

Accessories:

301214	Dual station kit (1 per engine)
301224	Optional handle stop kit

Top Mount Controls - NB Series

Single Function Control:

A durable chrome finish control with stainless steel lever arms, suitable for exposed installations. Controls with throttle lever have a twist grip throttle brake to handle larger diesel mechanism throttle/governor loads. Suits inboards with hydraulic gearbox, stern drives and outboards.

Features:

- One function, one or two levers
- One handle for gear, one handle for throttle
- Available as throttle only, or gear and throttle, or twin throttle
- The throttle brake is simply applied by twisting the lever once the desired setting has been established
- Detents for forward/neutral/reverse incorporated in gear controls
- Can be used for dual station installations, where both stations move together, although care must be taken to avoid operating one station if the other throttle is firmly dampened down
- Especially suitable for engines with heavy governor load (i.e. Gardner diesel)

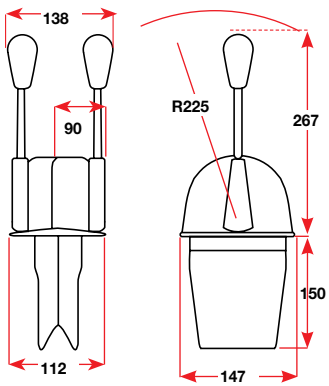
Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633. Fittings for these cables are supplied with control.

Also accepts 40/43 series cables. Fittings for these cables are also supplied with control.

Materials:

- Marine quality chrome plated
- Die-cast zinc alloy housing
- Stainless steel lever arms
- Die-cast zinc alloy internal rocker arm



BLA Code	Description
306875	Single lever throttle control
306876	Twin lever throttle & gear control
306877	Twin lever throttle only control

Accessories:

306878	30/33 series dual station kit (1 per pair of levers)

Side Mount Control - Economy

Single Function Control:

Simple surface mount control that will accept a wide variety of cables for outboard applications.

Features:

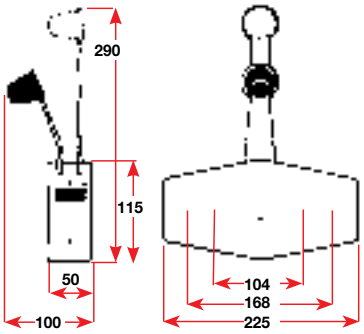
- One lever for gear, one lever for throttle
- Basic mechanism for easy installation
- Can be mounted left or right hand

Cables:

Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633. Fittings also included to accept Evinrude®/Johnson® 479 type cables, Mercury®/Mariner® 600A cables and Mariner® 630 type cables.

Materials:

- U.V. stabilised ABS plastic housing
- Aluminium levers
- Stainless steel fastenings
- Polyamid nylon and zinc plated steel concealed cable mount hardware



BLA Code	Description
306924	Economy side mount control

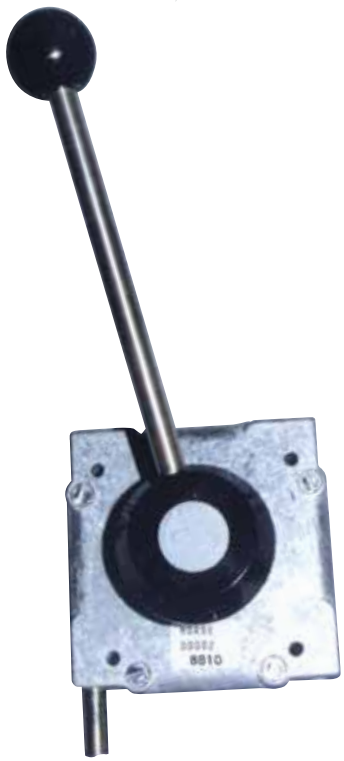
Side Mount Control - 'D' Series

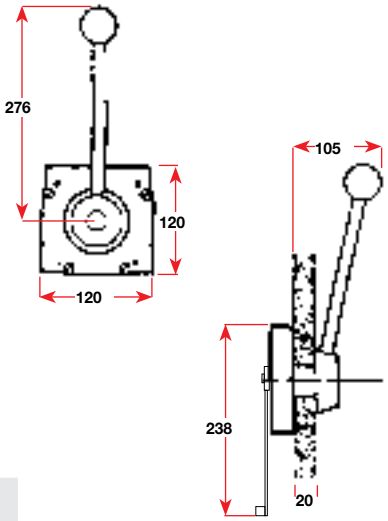
Single Function Control:

These controls are used in heavy duty applications with a maximum load of up to 50kg force. They are also useful where long travel is required, e.g. marine jet bucket control.

Features:

- Can be mounted left-hand or right-hand
- Rotary drive mechanism gives 225mm (9") travel over 230˚ handle movement
- Suits mechanical marine gearboxes
- Suits most marine jet units, e.g. Hamilton reverse bucket





BLA Code	Description
306943	Single lever gear only control

Accessories:

282535 Pillar steel, 60mm refer page 749
282536 Pillar steel, 110mm refer page 749
282552 Clevis end, ⅜" pin refer page 751
282559 Ball joint, ⅜" UNF refer page 751
282561 Ball joint, stainless steel ⅜" UNF refer page 751

Dual Station Exchangers

When using dual function controls in dual station applications, it is necessary to isolate the two systems by the use of dual station exchangers, as it is not possible to back drive dual function controls. The system utilises a dual station unit for each engine function e.g. throttle and gear shift. The gear control's dual station exchanger has a simple latching mechanism, controlled by a selector at the main station, this isolates the station not in use and prevents inadvertent operation. Suitable for inboards with hydraulic gearboxes, inboards with light duty mechanical gearboxes, stern drives and outboards.

Function:

- To be used with dual function, single lever controls to allow operation of both gear and throttle from two separate locations
- Throttle and gear exchangers are mounted close to engines
- Station selector is mounted close to main station

Features:

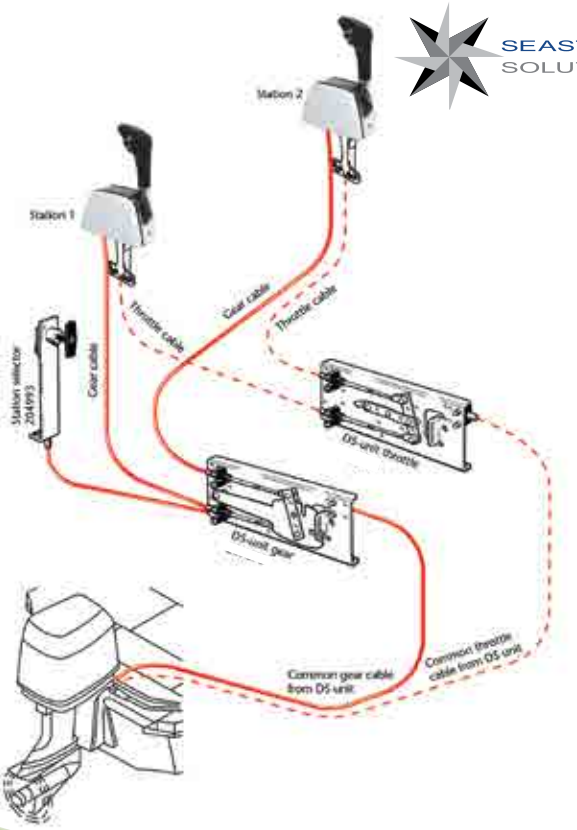
- Unique lock out mechanism allows the skipper to isolate the unattended control

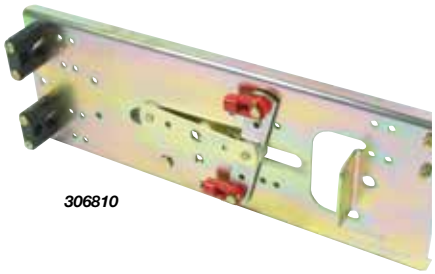
Cables:

CCX632 and CCX633 cables recommended. Also accepts universal 30/33 series cables, CC230, CC330 and CC332.

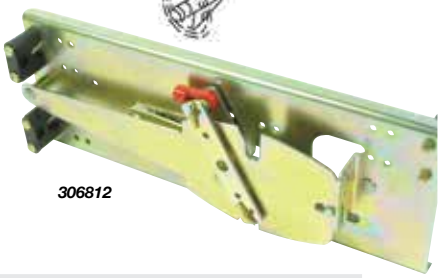
Materials:

Throttle and gear exchangers are manufactured from gold passivated steel.





306810



306812

306818

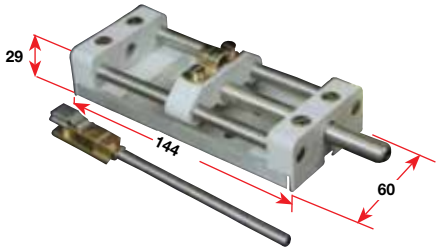
BLA Code	Description	Number of Units Single Engine Installation	Required for Twin Engine Installation
306810	Dual station exchanger throttle unit	1	2
306812	Dual station exchanger gearbox unit	1	2
306818	Station selector unit (passivated steel)	1	1
	Single lever controls	2	4
	Twin lever controls	N/A	2
Cable Application Chart			
Control head to dual station exchanger		4	8
Dual station unit to throttle & gearbox		2	4
Station selector to dual station unit		1	2

Dual Station Selection Kit

Fitted in dual station installations with dual function controls. This unit enables independent gear or throttle shift control from either station. Single engine installations will require two units. Twin engine installations will require four units. Supplied with clevis and cable extensions.

Materials:

- Extruded aluminium
- Stainless steel, brass, nylon and gold passivated steel



BLA Code
301102

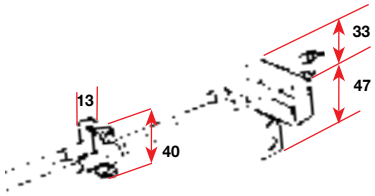
N.B. Station in operation must be returned to neutral position before operating other station.

Dual Station Throttle Selection Kit

This adaptor provides connection of two throttle cables to one engine connection with independent operation - for dual station applications with dual function controls only. Throttle return is via engines return spring or external spring if required. Used in conjunction with **301102** dual station gear units.

Materials:

- Brass, stainless steel and passivated steel



BLA Code
301110

Control Cables

What to consider when selecting cables

SeaStar Solutions® makes engine control cables for a wide variety of applications. They recommend their use with SeaStar Solutions® controls as well as in engine manufacturers' control systems.

Cables are available in three grades

Standard cables are suitable for most applications with short, simple cable routings. Mid-range cables are recommended for somewhat longer cable routings and heavier use than their standard counterparts. For difficult cable routings or anywhere uncompromising performance is needed, use Premium (XTREME™) control cables.

OEM Replacement Type

These throttle/shift control cables are direct replacements for applications using engine makers' controls with proprietary cable interfaces, such as: Evinrude®, Johnson®, Mariner®, MerCruiser®, Mercury®, Force® and some Volvo® engines. Most other engine makers use universal type cables (10-32 UNF threaded ends) and connection kits.

Universal 30/33 Series

Universal 30/33 series throttle/shift control cables are direct replacements for many boats using aftermarket controls or the following engine makers controls: Yamaha®, Honda®, Suzuki®, Tohatsu®, Volvo®, BMW®, Chrysler® and others. These are offered in five versions: one standard, three midrange and one premium (XTREME™).

Universal 40/43 Series

Heavy duty universal type control cables are available in mid-range and XTREME™ versions only.

How to Measure Control Cable Length

For initial installations, measure the distances A and B along an unobstructed path to the throttle and/or gear connection. Add A and B together then round up to the next cable length. That is the recommended length. Cable bends for most cables should not be less than 150mm radius. Cable bends using Premium Cables can be as low as 100mm radius but it should be noted that tight radii increase friction. Care should be taken to avoid unnecessary cable bends because each bend adds to a cable's friction and lost motion.

For outboard applications it is necessary to add an additional 600mm loop at the front of the engine to allow unrestricted steering movement.

For replacement cable installations simply remove the cable from the boat and measure the cable as indicated to the right.

SEASTAR SOLUTIONS

CC189 Mercury Gen II type

CC179 Mercury/Mariner® XTREME™ 600A type

CC205 Johnson® Evinrude® XTREME™ 479 type

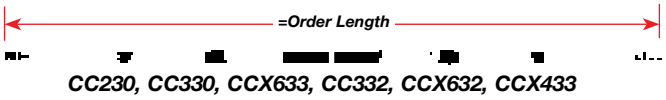
CC210 Mariner® 630 type

CC170 Johnson® Evinrude® 400 type

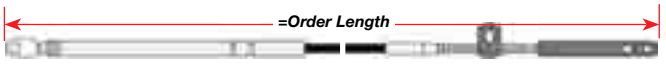
CC332, CCX632, CC172, CC330, CCX633 universal 30/33 series (10-32 UNF threaded ends)

CCX433 (¼" UNF threaded ends)

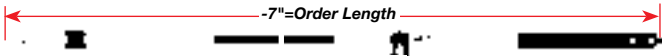
SeaStar Solutions® control cables meet or exceed industry standards/certification requirements and OEM specifications



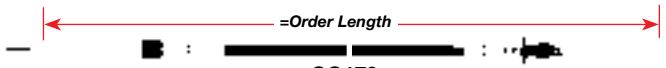
CC230, CC330, CCX633, CC332, CCX632, CCX433



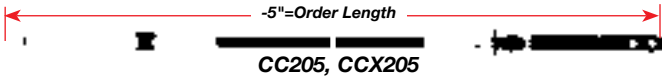
CC189



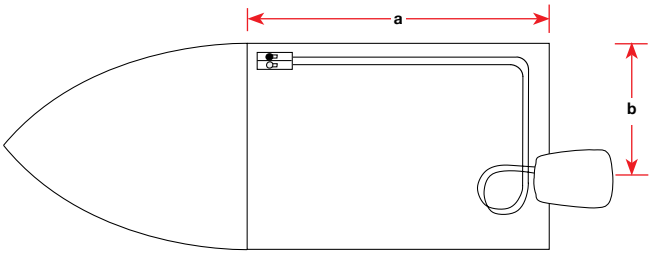
CC179, CCX179



CC170

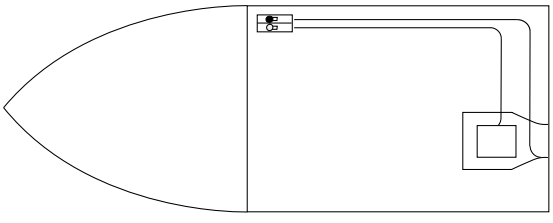


CC205, CCX205



Outboard

Measure cable path, add 600mm for loop & round up to the next cable length (1 foot increments),



Inboard and Sterndrive

Measure cable path and round up to the next cable length (1 foot increments).

CC230 Standard Control Cables - Black

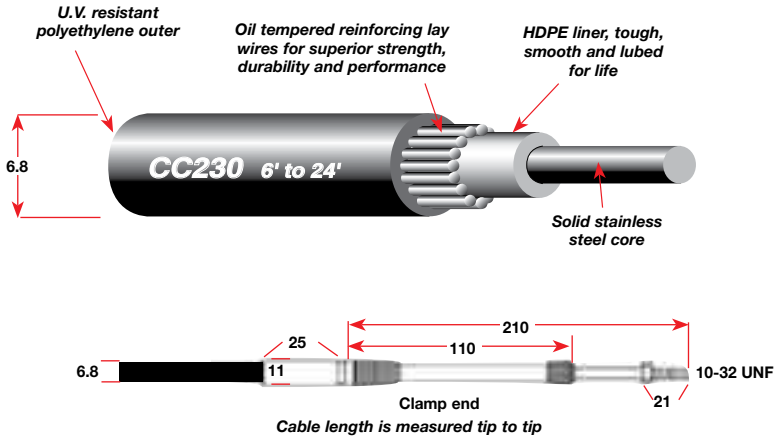
Replaces CC172 Control Cables

Standard duty cables with stainless steel Lubri-core™ wire for smooth operation.

Specifications:

- Fits directly into SeaStar Solutions® controls and all controls that accept universal type cables
- Stainless steel end fittings, 10-32 UNF threads
- Nominal 75mm travel
- Stainless steel Lubri-core™ solid core wire
- 16 lay wire reinforced outer jacket, 6.8mm outside diameter
- 150mm minimum bend radius
- Suits stern drives, inboards and outboards

BLA Code	Cable m	Length ft
303006	1.83	6
303007	2.13	7
303008	2.44	8
303009	2.74	9
303010	3.05	10
303011	3.35	11
303012	3.66	12
303013	3.96	13
303014	4.27	14
303015	4.57	15
303016	4.88	16
303017	5.18	17
303018	5.49	18
303019	5.76	19
303020	6.10	20
303021	6.40	21
303022	6.71	22
303023	7.01	23
303024	7.32	24



New Cable Construction

New Construction CC230XX

- 16 Lay wires
- Stainless Steel conduit fittings

Old Construction CC172XX

- 6 Lay wires
- Brass conduit fittings

CC330 Mid Range Control Cables - Black

Replaces CC330 Miracable Control Cables

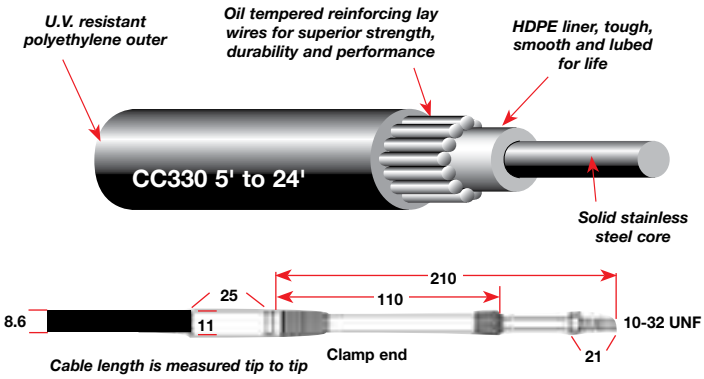
Mid range cables with heavier jacket and stainless steel Lubri-core™.

Specifications:

- Fits directly into SeaStar Solutions® controls and all controls that accept universal type cables
- Stainless steel end fittings, 10-32 UNF threads
- Nominal 75mm travel
- Stainless steel Lubri-core™ solid core wire
- 150mm minimum bend radius
- 20 lay wire strand reinforced outer jacket. 8.6mm outside diameter
- Suits stern drives, inboards and outboards

BLA Code	Cable m	Length ft
303105	1.52	5
303106	1.83	6
303107	2.13	7
303108	2.44	8
303109	2.74	9
303110	3.05	10
303111	3.35	11
303112	3.66	12
303113	3.96	13
303114	4.27	14

BLA Code	Cable m	Length ft
303115	4.57	15
303116	4.88	16
303117	5.18	17
303118	5.49	18
303119	5.79	19
303120	6.10	20
303121	6.40	21
303122	6.71	22
303123	7.01	23
303124	7.32	24

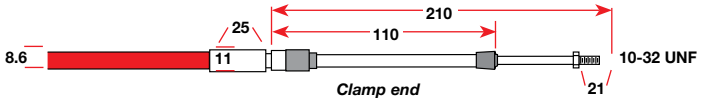


CCX632 XTREME™ Premium Control Cables - Red

Replaces 33C Supreme Control Cables

Specifications:

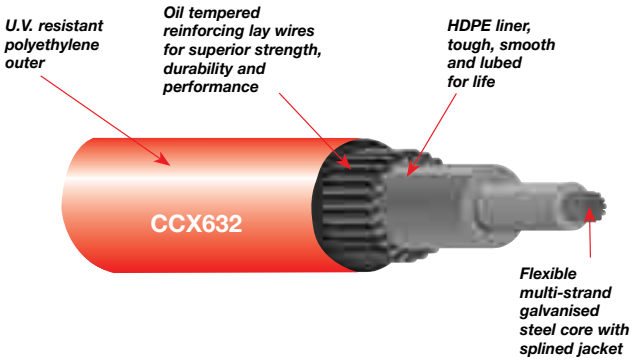
- Fits directly into SeaStar Solutions® controls and all controls that accept universal type cables
- Stainless steel rod end and hub, anti-corrosive end sleeve
- Nominal 75mm travel
- Suits stern drives, inboards and outboards
- Ideal for multi-station and longer run installations
- Flexible multi-strand galvanised steel core with splined jacket
- 100mm minimum bend radius
- Wire strand reinforced outer jacket, 8.6mm outside diameter



Cable length is measured tip to tip

BLA Code	Cable m	Length ft
303205	1.52	5
303206	1.82	6
303207	2.13	7
303208	2.44	8
303209	2.74	9
303210	3.05	10
303211	3.35	11
303212	3.66	12
303213	3.96	13
303214	4.27	14
303215	4.57	15
303216	4.88	16
303217	5.18	17
303218	5.49	18
303219	5.79	19
303220	6.10	20
303221	6.40	21
303222	6.71	22
303223	7.01	23
303224	7.32	24
303225	7.62	25
303226	7.92	26
303227	8.23	27
303228	8.53	28
303229	8.84	29
303230	9.14	30

BLA Code	Cable m	Length ft
303232	9.75	32
303234	10.36	34
303236	10.97	36
303238	11.58	38
303240	12.19	40
303242	12.80	42
303244	13.41	44
303246	14.02	46
303248	14.63	48
303250	15.24	50
303252	15.85	52
303254	16.46	54
303256	17.07	56
303258	17.68	58
303260	18.29	60
303262	18.91	62
303264	19.51	64
303266	20.12	66
303268	20.72	68
303270	21.34	70
303272	21.95	72



N.B. Longer lengths available on request

How to Choose the Right 33 Series Cable

SeaStar Solutions® offers five models of universal 33 series type cables, each suited to certain operating conditions and installation parameters. Below are key variables that affect how cables perform:

Backlash: the lost motion between the amount of movement put in (input end of the cable) and the amount of movement which occurs at the output end of the cable. Some motion is generally lost in 'take up' between the inner wire (core) of the cable and the outer casing (conduit). Backlash manifests itself as free play (slop) felt at the control handle.

Efficiency: the percentage of input force that is transmitted through the cable as output force. For example, if a 10-pound force was exerted on the cable at its input end and resulted in the cable exerting an 8-pound output force, the cable would be 80% efficient.

Breakaway: the 'feel' of the cable when put into motion; the breakaway threshold is the force that must be applied to the cables input end before something happens at the output end. An example of excessive breakaway; a control that would have to be moved to half-throttle before the engine responded.

Cable Routing: the shorter and straighter the cable routing, the better the cable will perform. With increased length and bends, cable efficiency is reduced, while breakaway and backlash rise.

Environment: generally, the more rugged the cable construction, the longer the cable will last. In harsh environments such as heavy salt and U.V. exposure, control cables with thicker conduits and stainless steel fittings will generally outlast those with thinner conduits and brass or steel fittings.

Cable design, manufacturing tolerances, length and installation care are additional factors to consider.

33 Series Cable Type	Backlash	Break Away/Efficiency	Long/Complex Routings	Harsh Environment
CC230	Good	Good	Good	Good
CC330	Better	Better	Better	Superior
CC332	Better	Better	Better	Superior
CCX633/632	Superior	Superior	Superior	Superior

CCX633 XTREME™ Premium Control Cables - Black

Traditional cables vary by the stiffness of the core wire and how tightly it fits in the casing. Thus the classic trade-offs that have existed in control cable design are:

- **Stiffer core/tighter fit** — offers less lost motion, but is harder to move. With longer and more complex runs, cable movement becomes progressively more difficult.
- **More flexible core/looser fit** — has an easier feel, but has more lost motion. This approach leads to an overall sloppy feel, RPM variation or difficult gear engagement.

These trade-offs aren't an issue with XTREME™ cables because they are different - really different

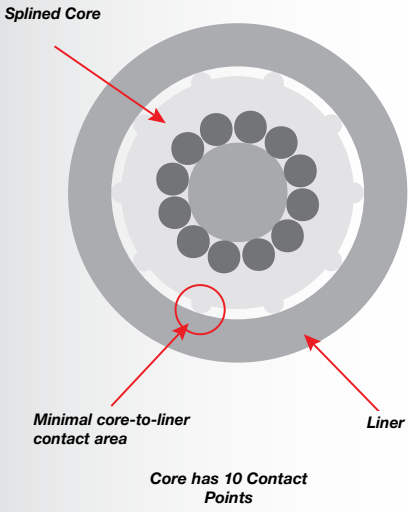
XTREME's unique design incorporates a patent-pending splined core. Ridges on the core allow a close fit with the cable's inner liner, but with minimum contact, so the core glides back and forth smoothly like a skater on ice.

RESULT: a control cable with easy movement AND minimum lost motion.

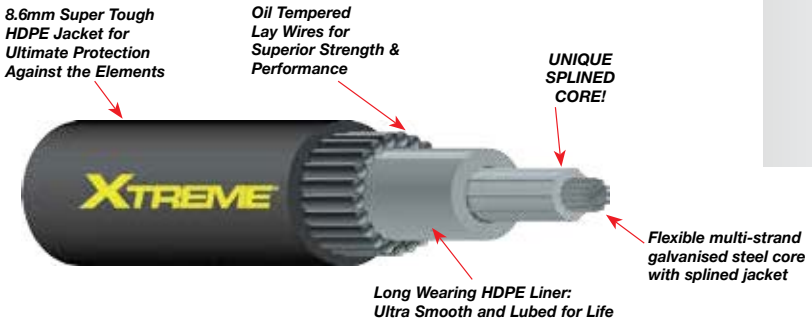
Specification:

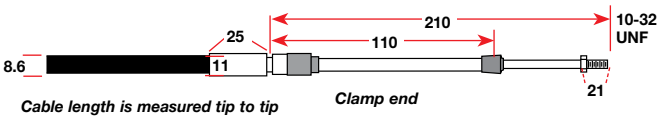
- Particularly suited to complex routing and longer runs
- Fits directly into SeaStar Solutions® controls and all controls that accept universal type cables
- Stainless steel and chrome brass end fittings. 10-32 UNF threads
- Nominal 75mm travel
- Flexible multi-strand galvanised steel core with splined jacket
- 100mm minimum bend radius
- Parallel lay wire strand reinforced outer jacket for superior strength and flexibility
- Suits stern drives, inboards and outboards

Premium Control Cables Cross Section of Core and Liner:



The Core Difference:





Cable length is measured tip to tip

BLA Code	Cable m	Length ft	BLA Code	Cable m	Length ft
303310	3.05	10	**303332**	9.75	32
303311	3.35	11	**303334**	10.36	34
303312	3.66	12	**303336**	10.97	36
303313	3.96	13	**303338**	11.58	38
303314	4.27	14	**303340**	12.19	40
303315	4.57	15	**303342**	12.80	42
303316	4.88	16	**303344**	13.41	44
303317	5.18	17	**303346**	14.02	46
303318	5.49	18	**303348**	14.63	48
303319	5.79	19	**303350**	15.24	50
303320	6.10	20	**303352**	15.85	52
303321	6.40	21	**303354**	16.46	54
303322	6.71	22	**303356**	17.07	56
303323	7.01	23	**303358**	17.68	58
303324	7.32	24	**303360**	18.29	60
303325	7.62	25	**303362**	18.91	62
303326	7.92	26	**303364**	19.51	64
303327	8.23	27	**303366**	20.12	66
303328	8.53	28	**303368**	20.72	68
303329	8.84	29	**303370**	21.34	70
303330	9.14	30	**303372**	21.95	72

CCX433 XTREME™ Premium Heavy Duty Control Cables - Black

Traditional cables vary by the stiffness of the core wire and how tightly it fits in the casing. Thus the classic trade-offs that have existed in control cable design are:

- **Stiffer core/tighter fit** — offers less lost motion, but is harder to move. With longer and more complex runs, cable movement becomes progressively more difficult.
- **More flexible core/looser fit** — has an easier feel, but allows more lost motion. This approach leads to an overall sloppy feel, RPM variation or difficult gear engagement.

These trade-offs aren't an issue with XTREME™ cables because they are different - really different

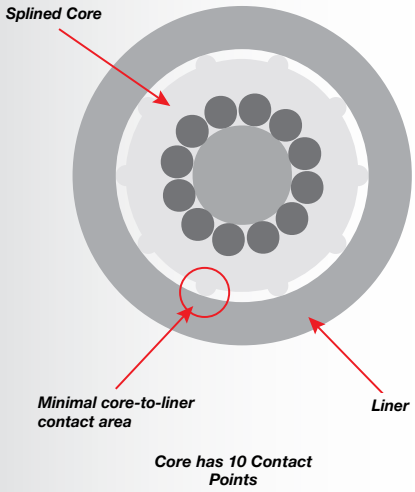
XTREME's unique design incorporates a patent-pending splined core. Ridges on the core allow a close fit with the cable's inner liner, but with minimum contact, so the core glides back and forth smoothly like a skater on ice.

RESULT: a control cable with easy movement AND minimum lost motion.

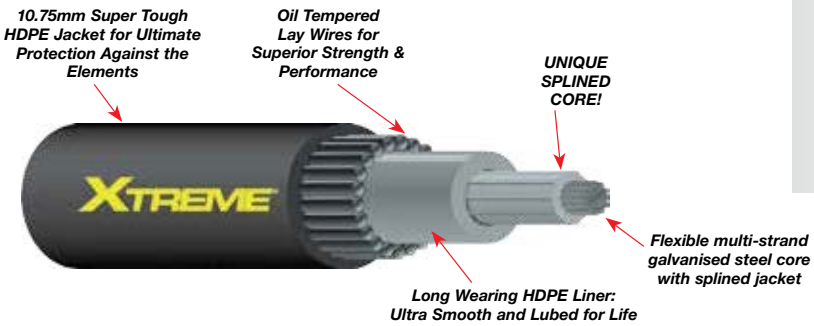
Specifications:

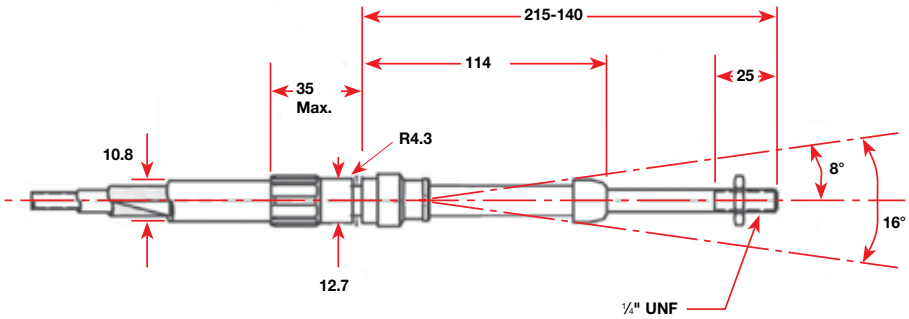
- Particularly suited to heavy use, higher loads, complex routing and longer runs
- Stainless steel rod ends and hub
- 75mm nominal travel
- Flexible multi-strand galvanised steel core with splined jacket
- 200mm minimum bend radius
- 28 lay wire strand reinforced outer jacket for superior strength and flexibility, 10.75mm outside diameter.

Premium Control Cables Cross Section of Core and Liner:



The Core Difference:





BLA Code	Cable m	Length ft
308710	3.04	10
308711	3.35	11
308712	3.65	12
308713	3.96	13
308714	4.26	14
308715	4.57	15
308716	4.87	16
308717	5.18	17
308718	5.48	18
308719	5.79	19
308720	6.09	20
308721	6.40	21
308722	6.70	22
308723	7.01	23
308724	7.31	24
308725	7.62	25
308726	7.92	26
308727	8.22	27
308728	8.53	28
308729	8.83	29
308730	9.14	30

N.B. Longer lengths available on request

Clamp end

CC170 Evinrude®/Johnson® 400 Type Control Cables - Pre 1979

BLA Code	Cable m	Length ft
303508	2.44	8
303509	2.74	9
303510	3.05	10
303511	3.35	11
303512	3.66	12
303513	3.96	13
303514	4.27	14
303515	4.57	15

Specifications:

- Stainless steel core wire with Lubri-core™
- 150mm minimum bend radius
- Outside diameter of cable is 6.8mm
- Brass and moulded plastic end fittings
- Exceeds engine manufacturers specifications
- Black U.V. resistant polyethylene outer
- Drop in replacement cable utilising existing connection components

CC205 Evinrude®/Johnson® 479 Type Control Cables - 1979 and later

BLA Code	Cable m	Length ft
303606	1.83	6
303607	2.13	7
303608	2.44	8
303609	2.74	9
303610	3.05	10
303611	3.35	11
303612	3.66	12

BLA Code	Cable m	Length ft
303613	3.96	13
303614	4.27	14
303615	4.57	15
303616	4.88	16
303617	5.18	17
303618	5.49	18
303620	6.10	20
303621	6.40	21
303622	6.70	22

Specifications:

- Complete drop-in replacement cable for Evinrude®/Johnson® outboards and inboards (1979 - to date) with Evinrude®/Johnson® control
- Stainless steel core wire with Lubri-core™
- Outside diameter of cable is 6.8mm
- Stainless steel, brass and moulded plastic fittings
- 150mm minimum bend radius
- Exceeds engine manufacturers specifications
- Black U.V. resistant polyethylene outer

CCX205 Evinrude®/Johnson® 479 Type XTREME™ Control Cables - 1979 and later

BLA Code	Cable m	Length ft
304009	2.74	09
304010	3.05	10
304011	3.35	11
304012	3.66	12
304013	3.96	13
304014	4.27	14
304015	4.57	15
304016	4.88	16
304017	5.18	17
304018	5.49	18

BLA Code	Cable m	Length ft
304019	5.79	19
304020	6.10	20
304022	6.40	22
304024	7.32	24
304026	7.92	26
304028	8.53	28
304030	9.14	30
304032	9.75	32
304034	10.36	34
304036	10.97	36

BLA Code	Cable m	Length ft
304038	11.58	38
304040	12.19	40
304042	12.80	42
304044	13.41	44
304046	14.02	46
304048	14.63	48
304050	15.24	50

Specifications:

- Complete drop-in replacement cable for BRP®/Evinrude®/Johnson® outboards and inboards (1979 - date) with BRP®/Evinrude®/Johnson® control
- Heavy duty 8.6mm outside outer case
- Stainless steel, brass and moulded plastic fittings
- Exceeds engine manufacturers specifications
- Black U.V. resistant polyethylene outer

CC210 Mariner® 630 Type Control Cables 1992 and earlier Mariner® 40HP and below

BLA Code	Cable m	Length ft
303907	2.13	7
303908	2.44	8
303909	2.74	9
303910	3.05	10
303911	3.35	11
303912	3.66	12

BLA Code	Cable m	Length ft
303913	3.96	13
303914	4.27	14
303915	4.57	15
303916	4.88	16
303917	5.18	17
303918	5.49	18

Specifications:

- Replacement cable for Mariner® low horsepower engines (pre 1993) when used with Mercury® controls
- Stainless steel, brass and moulded plastic fittings
- 150mm minimum bend radius
- Stainless steel core wire with Lubri-core™
- Black U.V. resistant polyethylene outer
- Exceeds engine manufacturers specifications
- Outside diameter of cable is 6.8mm

CC179 Mercury®/Mariner® 600A Type Control Cables

BLA Code	Cable m	Length ft
303806	1.83	6
303807	2.13	7
303808	2.44	8
303809	2.74	9
303810	3.05	10
303811	3.35	11
303812	3.66	12

BLA Code	Cable m	Length ft
303813	3.96	13
303814	4.27	14
303815	4.57	15
303816	4.88	16
303817	5.18	17
303818	5.49	18
303820	6.10	20

Specifications:

- Fits directly to Mercury®/Mercruiser® motors 1965 to date and Force® motors 1993 to date, fitted with Mercury® controls
- Stainless steel, brass and moulded plastic fittings
- Stainless steel wire core with Lubri-core™
- 150mm minimum bend radius
- Black U.V. resistant polyethylene outer
- Exceeds engine manufacturers specifications
- Outside diameter of cable is 6.8mm
- Use CCX179 for cables over 20 feet

CCX179 Mercury®/Mariner® 600A Type XTREME™ Control Cables

BLA Code	Cable m	Length ft
304110	3.04	10
304111	3.35	11
304112	3.65	12
304113	3.96	13
304114	4.26	14
304115	4.57	15
304116	4.87	16
304117	5.18	17

BLA Code	Cable m	Length ft
304118	5.48	18
304119	5.79	19
304120	6.09	20
304122	6.70	22
304124	7.31	24
304126	7.92	26
304128	8.53	28
304130	9.14	30

BLA Code	Cable m	Length ft
304132	9.75	32
304134	10.36	34
304136	10.97	36
304138	11.58	38
304140	12.19	40
304142	12.80	42
304144	13.41	44
304146	14.02	46

Specifications:

- Fits directly to Mercury®/Mercruiser® motors 1965 to date and Force® motors 1993 to date, fitted with Mercury® controls
- Stainless steel, brass and moulded plastic fittings
- Heavy duty 8.6mm outside outer case
- Exceeds engine manufacturers specifications
- Black U.V. resistant polyethylene outer

BLA Code	Cable m	Length ft
304148	14.63	48
304150	15.24	50

A Complete Family Of Cables:

xtreme technology cables are the ONLY high performance cable family with a FULL RANGE of universal cables and ALL popular direct replacement OEM type cables.

CC189 Mercury®/Mercruiser® Gen II Cables

SEASTAR SOLUTIONS

Mariner®/Mercury®/Mercruiser® 2003 to date 4000 Series single lever controls

BLA Code	Cable m	Length ft
303706	1.83	6
303707	2.13	7
303708	2.44	8
303709	2.74	9
303710	3.05	10
303711	3.35	11
303712	3.66	12
303713	3.96	13

BLA Code	Cable m	Length ft
303714	4.27	14
303715	4.57	15
303716	4.88	16
303717	5.18	17
303718	5.49	18
303719	5.79	19
303720	6.10	20

Specifications:

- Fits directly to Mariner®/Mercury®/Mercruiser®/Force® engines fitted with 2003 to date Mercury® 4000 series controls
- Stainless steel, brass and moulded plastic end fittings
- Stainless steel Lubri-core™ solid wire core
- 80mm travel
- 150mm minimum bend radius
- Black U.V. resistant polyethylene outer
- Exceeds engine manufacturers specifications
- Outside diameter of cable is 6.8mm

Maintenance

SeaStar Solutions® suggest the following periodic maintenance is performed at least twice a season:

- Check overall operation for proper gear engagement, full and idle throttle and overall feel
- Visually inspect control head, cable as well as engine and transmission cable attachment points for proper tightness of fasteners, correct operation of all moving parts, worn or broken items, cable chafing or misalignment, and similar
- Do not lubricate core wire (moving wire inside the casing); if the cable operates stiffly, replace it
- Keep cable ends dirt and corrosion free
- Lubricate pivot points and sliding parts of the cable with a good quality water resistant grease

When to replace a cable or connection hardware:

- When excessive free play is felt at the control, even after all cable connections have been verified as in good working order
- When visual inspection shows chafing, breakage or bent, loose or worn parts

Never attempt to repair a cable. Always replace a malfunctioning cable. A cable cannot be properly repaired in the field and must always be replaced as an assembly. Attempting to repair a cable could result in control system failure, leading to personal injury and/or property damage

DC Controls

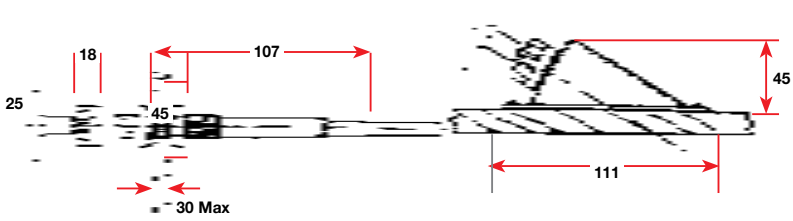
SEASTAR SOLUTIONS

Features:

- One function, “T” handle operation
- Mounts on dashboard or side of wheel box
- Optional angled bracket available
- Turns 30/33 series cables into multi-purpose utility cable
- Ideal for choke, air or fuel shut down

Cable:

- Accepts universal 30/33 series cables, CC230, CC330, CC332, CX632 and CCX633



BLA Code	Reference No.	Description
306990	301916	DC control
306992	048210	Angled bracket

Connection Kit - Mercruiser®

Connects CC230, CC330, CC332, CX632 and CCX633 throttle and shift cables to Mercruiser® stern drives. Injection moulded black nylon with non corrosive retainers.

BLA Code
305018

Connection Kit - Mercury®

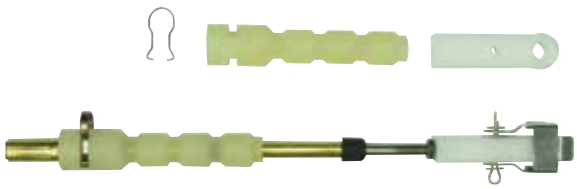
Connects CC230, CC330, CC332, CX632 and CCX633 throttle and shift cables to Mercury® outboards. Injection moulded black nylon with non corrosive retainers.

BLA Code
305022

Connection Kit

- Evinrude®/Johnson®

Connects CC230, CC330, CC332, CX632 and CCX633 throttle and shift cables to pre 1979 Evinrude®/Johnson® outboards. White injection moulded nylon with non corrosive retainers.

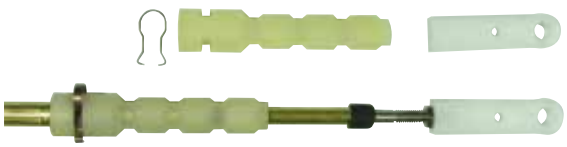


BLA Code
305026

Connection Kit

- Evinrude®/Johnson®

Connects CC230, CC330, CC332, CX632 and CCX633 cables to Evinrude®/Johnson® outboards, 1979 and later. White injection moulded nylon with non corrosive retainers.



BLA Code
305030

Control Adaptor Kit - Mariner®

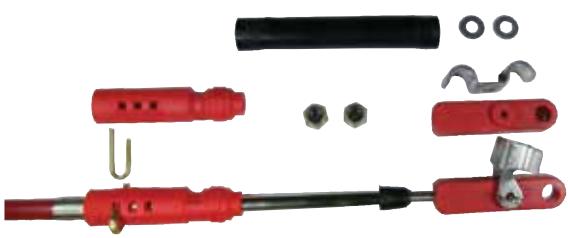
Adapts CC230, CC330, CC332, CX632 and CCX633 throttle and shift cables to suit Mercury®/Mariner® control box used with Mariner® 1992 and earlier, 40HP and below, outboards. Two brass sleeves and 2 eye ends per kit.

BLA Code
284572

Engine Connection Kit

- Evinrude®/Johnson®

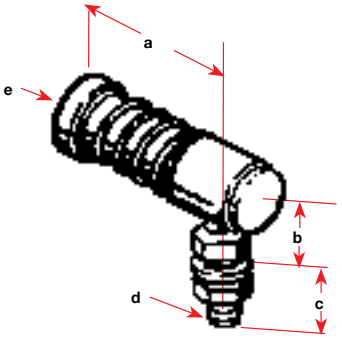
Connects CC230, CC330, CC332, CX632 and CCX633 throttle and shift cables to Johnson® and Evinrude® outboards, 55HP to 235HP, 1973 to date. Two plastic sleeves and two plastic end fittings per kit. Black plastic sleeve also included for gear shift on 1978 & 79, 85 to140HP models.



BLA Code
284580

Ball Joints

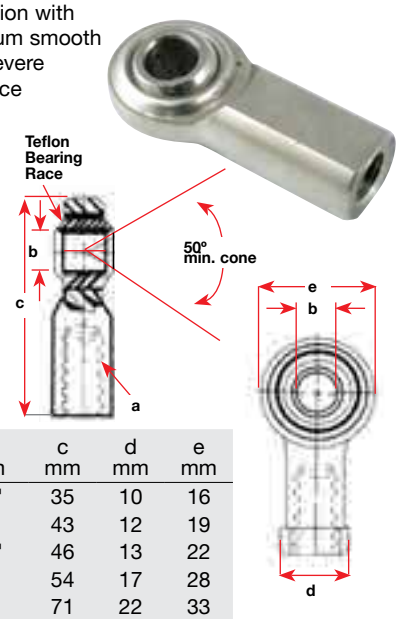
Connect 33, 43 and 63 series control cables to throttle, gear or actuator linkage. Available in stainless steel or gold passivated steel. A spring loaded ball receptor provides quick release.



BLA Code	Material	Cable Series	a mm	b mm	c mm	d Thread	e UNF
305006	Steel	30	23	12	14	¼" UNF	10-32
309702	Steel	30	23	12	11	10-32 UNF	10-32
309706	S/S	30	32	12	14	M6	10-32
309714	Steel	30	32	15	22	5/16" UNF	10-32
309718	Steel	40	25	12	14	¼" UNF	¼"
309720	S/S	40	25	12	16	M6	¼"
309724	Steel	40	25	12	14	5/16" UNF	¼"
309728	Steel	60	32	15	22	5/16" UNF	5/16"
309730	S/S	60	25	13	22	M8	5/16"

Stainless Steel Spherical Rod Ends

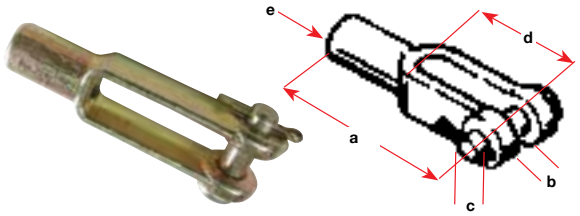
Stainless steel construction with Teflon bearing for optimum smooth operation, even under severe marine conditions. Surface hardened stainless steel ball for high wear resistance. Applications include universal control cable connection, linkage rods and tie rods.



BLA Code	a UNF	b mm	c mm	d mm	e mm
309736	10-32	3/16"	35	10	16
309738	¼"	¼"	43	12	19
309740	5/16"	5/16"	46	13	22
309742	3/8"	3/8"	54	17	28
309744	½"	½"	71	22	33
309746	5/8"	5/8"	83	25	38
309748	¾"	¾"	95	29	45

Clevis Ends

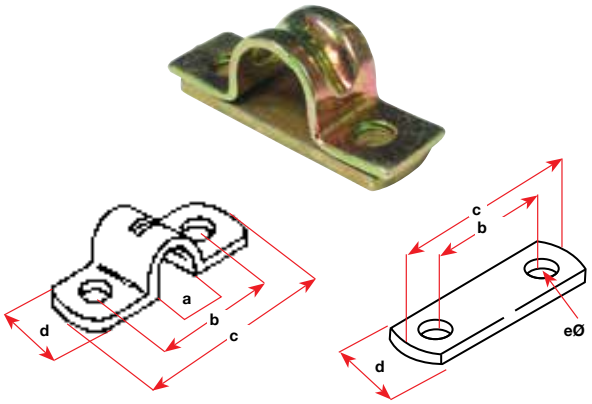
Connect 33, 43 and 63 series control cables to throttle, gear or actuator linkage. Gold passivated steel construction.



BLA Code	Cable Series	a mm	b mm	c mm	d mm	e mm
305002	33	51	7.1	¼"	32	10-32
309752	33	40	4.8	3/16"	25	10-32
309754	33	57	8.7	5/16"	37	10-32
309756	43	51	7.1	¼"	32	¼"
309758	43	57	8.7	5/16"	37	¼"
309760	43	64	11.1	3/8"	41	¼"
309762	63	57	8.7	3/8"	37	5/16"

Cable Clamps and Shims

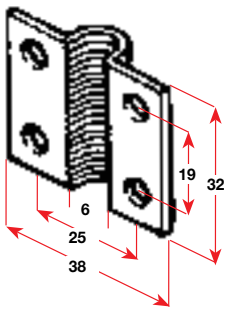
Used to fasten the outer casing of 33, 43 and 63 series control cables with clamp type hubs. Available as separate components or as clamp and shim assemblies. Passivated steel construction, **309782** only is manufactured of stainless steel.



BLA Code	Material	Cable Series	a mm	b mm	c mm	d mm	e mm
Clamps:							
309780	Steel	33	9.5	25	38	13	5
309782	S/S	33	9.5	22	33	13	5
309784	Steel	43	12.7	25	38	13	5
309786	Steel	63	14.3	32	45	19	7
Shims:							
309800	Steel	33 & 43		25	38	13	5
309804	Steel	63		32	45	19	7
Clamps & Shims							
309814	Steel	33	9.5	25	35	13	5
309816	Steel	43	12.7	25	35	13	5
309818	Steel	63	14.3	32	45	19	7

Conduit Clamps

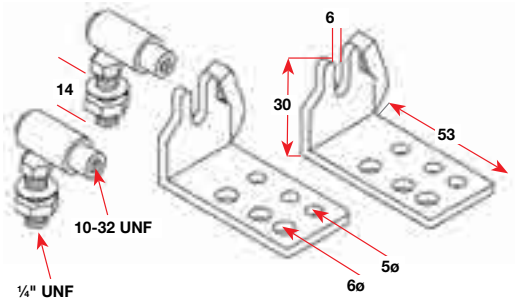
Conduit clamp for actuation end of 33LU utility cables, **307101-37.** Gold passivated steel construction.



BLA Code
309820

Universal Connection Kit

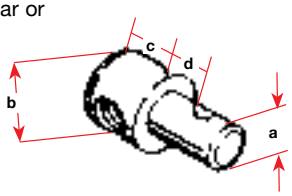
Universal inboard connection kit, contains two **305006** ball joints and two outer cable mount plates. Suits all 30/33 series clamp hub cables.



BLA Code
305014

Pivots

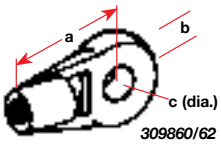
Connects the threaded rod end of 30/33 or 40/43 series cables to throttle, gear or actuator linkage. Machined brass construction.

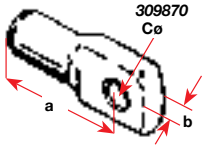


BLA Code	Cable Series	Thread UNF	a in	b mm	c mm	d mm
309840	33	10-32	¼"	11	8	3
309842	33	10-32	¼"	11	10	5
309844	33	10-32	¼"	11	8	8
309846	43	¼"	¼"	11	13	5
309850	43	¼"	5⁄16"	13	14	3

Terminal Eyes

Connects the threaded rod ends of 30/33 or 40/43 series cables to throttle, gear or actuator linkage. Available in moulded nylon, alloy or HRS construction.





BLA Code	Material	Cable Series	Thread UNF	a mm	b mm	c mm
309860	Nylon	30/33	10-32	25	6	5⁄16"
309862	Alloy	30/33	10-32	25	6	5⁄16"
309870	HRS	40/43	10-32	35	8	5⁄16"

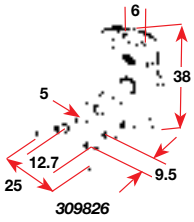
T-Handle

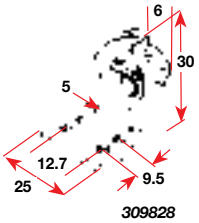
Replacement "T" handle to suit 33 series utility and positive lock cables models.

BLA Code	Description
309952	T-Handle - 33 series utility

Cable Hook Clips - 30/33 Series

Single or twin hook clips offer a secure attachment point for all 30/33 series clamp hub cables. Manufactured from stainless steel.

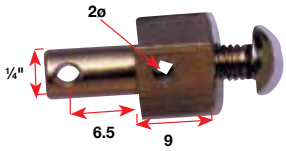




BLA Code	Cables
309826	Single
309828	Double

Pivot

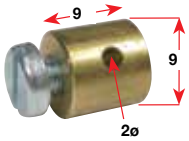
Connects the bare core wire of 33L series utility cables to pull only linkage, such as throttle or engine stop. Brass construction.



BLA Code
309916

Stop Collar

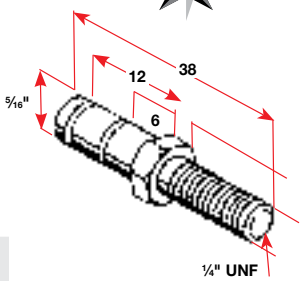
Suits 33L series utility cables where a bare inner cable exists at one end. Simply slide the centre cable through the pre-drilled hole and tighten the screw at the required position. Brass construction.



BLA Code
309908

Stop Collar

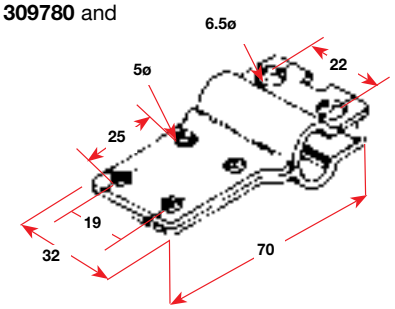
Suits 33L series utility cables where a bare inner cable exists at one end. Simply slide the centre cable through the pre-drilled hole and tighten the screw at the required position. Brass construction.



BLA Code	Cables
309882	Terminal eye pin kit

Clamp Bracket

Two half plates clamp around an existing ½" (12.7mm) diameter rod and provide a mount base to accept **309820**, **309780** and **309784** clamps.



BLA Code
309904

Hydraulic Engine Controls

Hynautic engine control systems set the industry standard for hydraulic engine controls with systems available to suit single engine - single station, all the way through to twin engine triple stations. Machined alloy controls, optioned with ball or 'T' handles offer traditional marine styling with proven reliability. Suited to the recreational cruiser or the full time charter operator.

How The System Works

Hynautic hydraulic engine controls offer the boat owner a very positive, synchronised method of relaying remote commands from multiple stations to the engine's throttle and transmission linkages.

Engine controls have been packaged into systems for complete and simple installation. Systems have been designed for up to three stations, using either nylon tubing or copper tubing. A fourth station is possible, depending upon the length of the tubing run. Nylon tubing is preferred because of ease of installation and the material's expansion characteristics.

The slave unit is designed to deliver up to 139 kgf cm (120 lbf in) of torque through 80 degrees of travel. Therefore a system will accommodate marine engines and hydraulic transmissions used on boats to approx. 30 metres.

When the control handle of the sending unit is moved, mechanical energy is transformed into fluid energy by means of a rack and pinion attached to an internal piston. This piston expels fluid from the sending unit into all other control heads and the slave unit. The pistons in each of these units are thus moved an equal distance, causing a corresponding movement in the lever arm of each. Controls can be synchronised simply by moving the lever arm of any control head from stop to stop.

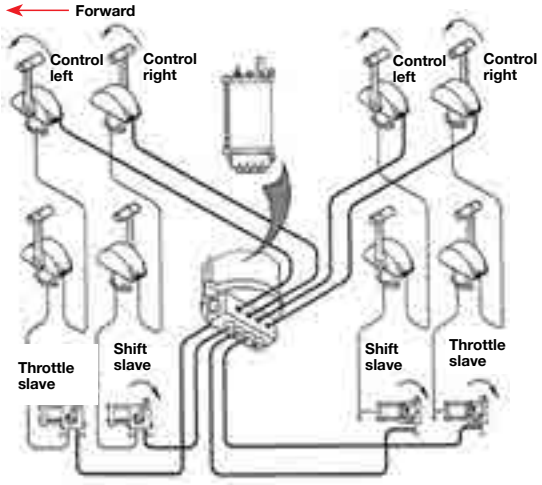
The reservalve maintains the extra fluid and a constant pressure head of 5.5 bar for the system. The flow of fluid within the reservalve is regulated in the charging valve at the base of the reservalve. As fluid expands due to engine temperatures, the excess liquid is expelled into the reservoir at a controlled rate. Likewise, fluid is returned to the system as temperatures drop.

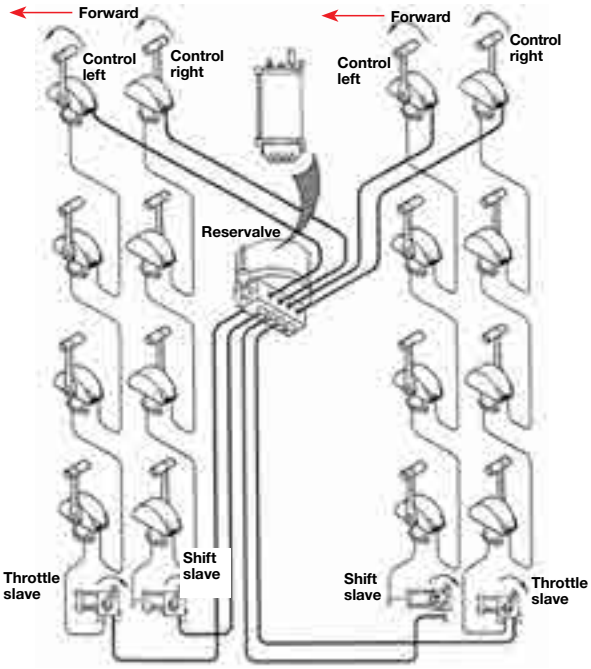
Each throttle slave unit contains an over-travel bungee in its linkage to the engine. This device assures that the slave piston will reach end stroke in each direction to maintain the balance between senders and slave.

The transmission slave unit has a mechanical detent to indicate a neutral position. Each throttle slave is equipped with an internal pilot check valve which prevents control arms from drifting back to an idle position.

System Plumbing

Hynautic engine control systems are easily plumbed utilising 5/16" unplasticised nylon tubing. This tubing expands at a similar rate to the fluid, thus compensating for inevitable fluid expansion and contraction. The tubing is easy to install and special O-ring fittings are supplied with each system. Bleeding the system of air is accomplished via patented bleeder fittings. Systems for copper tubing are also available.





Hydraulic Engine Controls

Single function operation with no compromise on durability and quality. These controls are machined from solid 6000 series aluminium, anodised for corrosion protection. Stainless steel shafts, fastenings and cylinder base are combined with hydraulic actuation, to provide true commercial reliability. Available in left and right hand configurations with choice of ball or T hand grip. Left and right lever units can be side by side mounted for twin engine installations. Suitable for connection to gear or throttle slave. Fully serviceable for extended operation life.

BLA Code	Hand	Lever	Mount mm	Height Base Console mm	Overall Above mm	Intrusion Width mm	Ports NPT
306610	Left	Ball	150 x 57	240	76	87	¼"
306612	Right	Ball	150 x 57	240	76	87	¼"
306614	Left	Black 'T'	150 x 57	208	100	87	¼"
306616	Right	Red 'T'	150 x 57	208	100	87	¼"

Refer next page for spare parts

Shift Slave

Machined from solid 6000 series aluminium, stainless steel and bronze for durability and reliability. Solid bronze internal gear mechanism, fully serviceable for extended life. This unit transfers the hydraulic force, created at the control, to rotary actuation at the gearbox via mechanical linkage. The slave is installed on the gearbox in close proximity to the gear linkage. The actuation arm can be rotated to any position relative to the shift. A roller positive detent mechanism provides solid feel and lock of gear in neutral position. Detent can also be rotated to any position relative to the shaft. Multiple mount holes on actuation lever provides for varying gear strokes.

BLA Code	Max Stroke mm	Slave Dim. mm	Torque kg cm	Mount Thread UNC	Ports NPT
306626	85	152 x 76 x 81	140	⅜"	¼"

Refer next page for spare parts

Throttle Slave

Machined from solid 6000 series aluminium, stainless steel and bronze for durability and reliability. Solid bronze internal gear mechanism, fully serviceable for long life. This unit transfers the hydraulic force, created at the control, to rotary actuation at the throttle linkage, via the rod connection. The slave is installed on the engine in close proximity to the throttle linkage. The actuating arm can be rotated to any position relative to the shaft. Multi tie rod mount holes on the actuation arm provide for varying throttle strokes.

N.B. The throttle slave must not be mounted to surfaces exceeding 100°c. If this is unavoidable the slave must be insulated from the heat.

BLA Code	Max Stroke mm	Slave Dim. mm	Torque kg cm	Mount Thread UNC	Ports NPT
306630	85	152 x 76 x 81	140	⅜"	¼"

Refer next page for spare parts

Reservalve

The Reservalve is generally installed in the boat's engine room in a vertical position with access for filling and inspection of system pressure and fluid level. The Reservalve acts as a fluid reservoir and pressure tank for the system. It incorporates a fluid level sight tube, pressure gauge, air pressurisation valve, over pressure relief valve, filter and charging valves. The pressure reservoir and charging valves maintain fluid to the back side of pistons. Fluid to and from the reservoir is regulated by the charging valve block on the bottom of the reservoir. The charging valve block is necessary to keep the system under pressure, and to prevent excessive pressures caused by the expansion of fluid with heat. A single Reservalve is used for both single and twin engine installations. All alloy pressure tank with stainless steel through bolt and valves. Charging valve assembly at base is machined from solid 6000 series aluminium.

BLA Code	Working Pressure bar	Capacity Litres	Height Holes mm	Width mm	Depth mm	Ports NPT	Mount mm
306634	5.5-5.75	4.2	435	160	185	¼"	7

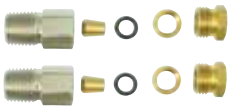
Accessories:

298412 Replacement filter element

Refer next page for spare parts

Engine Control Fitting Kit

All the components required to connect 5/16" O.D. nylon semi rigid tubing to the hydraulic engine controls. Kit connects two lines. All brass hardware.



BLA Code
306654

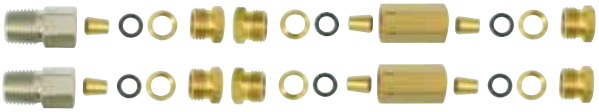
Reservalve Single Engine Fitting Kit

Includes all the plumbing components required to connect the R-13 Reservalve to 5/16" nylon semi rigid tubing in a single engine installation. Four black plugs are included to stop the ports normally used in twin engine applications. All brass hardware.

BLA Code
306640

Extra Fittings Kit

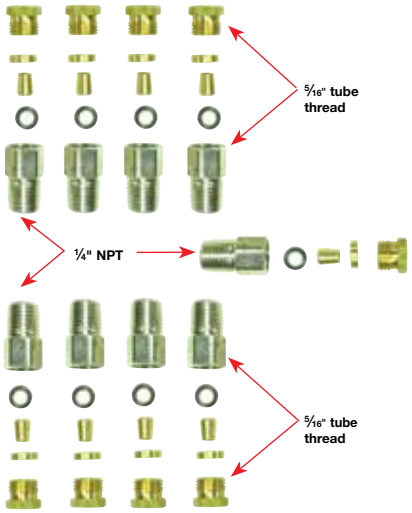
All the components required to connect 5/16" nylon semi rigid tubing in line, as well as connect to the 1/4" NPT ports used in SeaStar Solutions® hydraulic engine controls. Kit connects two lines. All brass hardware.



BLA Code
306666

Reservalve Twin Engine Fitting Kit

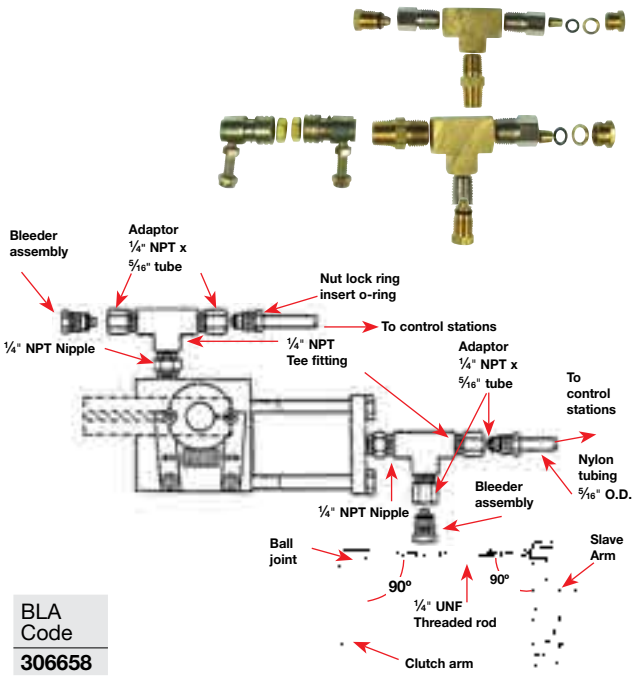
Includes all the plumbing components required to connect the R-13 Reservalve to 5/16" nylon semi rigid tubing in a twin engine installation. All brass hardware.



BLA Code
306642

Shift Slave Fitting Kit

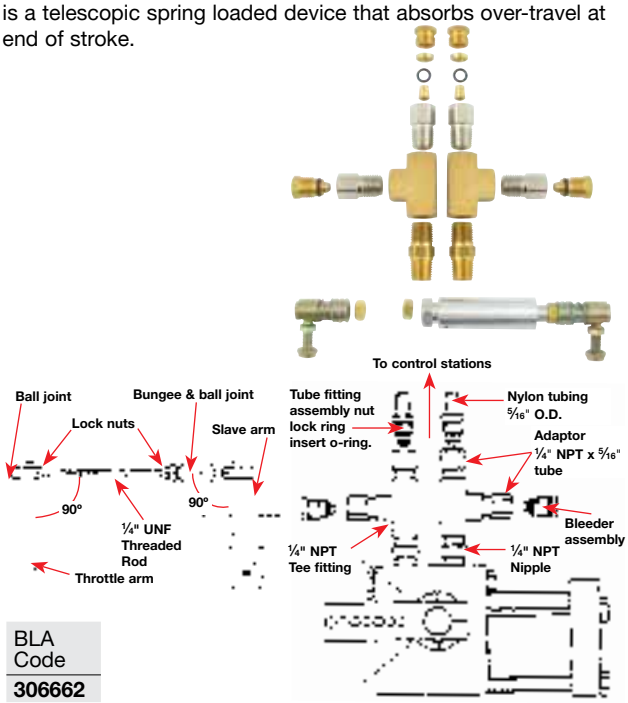
Kit includes all the plumbing connections and bleeders required to connect 5/16" O.D. nylon semi rigid tubing to shift slave **306626**. Also includes two ball joints for mechanical gear linkage.



BLA Code
306658

Throttle Slave Fitting Kit

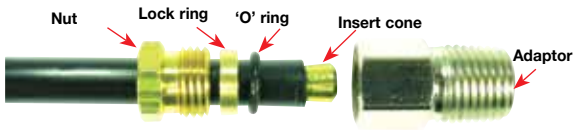
Kit includes all the plumbing connections and bleeders to connect 5/16" O.D. nylon semi rigid tubing to throttle slave **306630**. Also included is the two ball joints and bungee required for the throttle linkage. The bungee is a telescopic spring loaded device that absorbs over-travel at end of stroke.



BLA Code
306662

5/16" OD Nylon Tube Fittings

SeaStar Solutions® hydraulic engine control components have ¼" NPT ports for connection of 5/16" O.D. nylon semi rigid tubing. No special tools required. All components except the 'o' ring are brass. Use loctite hydraulic sealant on all NPT fittings, do not use Teflon tape or pipe rope.



BLA Code	Description
298454	Insert cone
298480	Nut
298489	Adaptor ¼" NPT to 5/16" tube

In Line Connection Kit

Includes the components required for in line connection of 5/16" nylon semi rigid tubing. Brass hardware.

BLA Code
298314

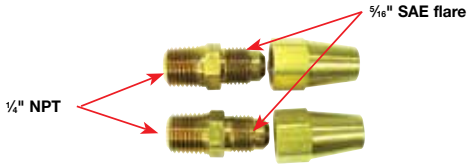
Nylon Semi Rigid Tube

Nylon semi rigid tubing is used to pipe the system for two reasons, ease of installation, and the fact that nylon tubing expands and contracts in very much the same manner as the hydraulic fluid (a most important factor). The expansion and contraction of the tubing reduces drift of the controls as temperature changes, thereby helping to keep all the components of the system synchronised. The tubing is virgin nylon, which has been heat and light stabilised and contains no plasticisers. The burst pressure of the tubing is in excess of 1200psi.

BLA Code	O.D. inch	Length m
306644	5/16"	30
306648	5/16"	150

5/16" Copper Flare Connectors

Kit comprises 2 x brass adaptors and 2 x brass tube nuts to connect 5/16" copper tubing to the ¼" NPT ports of SeaStar Solutions® hydraulic engine controls.



BLA Code
298422

Filter & Fitting Kit

Kit includes filter and housing to suit R-13 Reservalve. Also included are fittings for connection to 5/16" nylon semi rigid tubing.

BLA Code
298428

Glycol Fluid

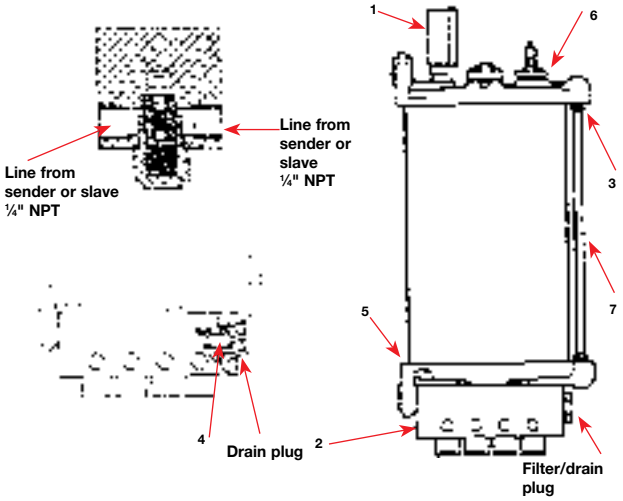
A 50/50 mixture by volume of distilled water and ethylene glycol, pre-filtered by a 10 micron filter. During filling of the system or servicing, it is essential that no contaminants enter the system. For this reason filtering of the fluid as it is poured into the system is recommended. This can be achieved by using filter paper in a funnel. If filter paper is not available, coffee filters are an alternative but first test their stability with the glycol solution. Not all ethylene glycol solutions are the same, some additives, especially silicone additives, are thicker in consistency and will clog the critical components in the system.

DANGEROUS GOODS

BLA Code	Capacity L
306676	4

R-13 Reservalve Parts

Spare parts to suit the R-13 Reservalve. For the hydraulic control parts, refer to page 850.



BLA Code	Item	Description	Qty No.
298412	4	Replacement filter element	1
298440	5	Quad ring seal 150mm dia	1
298504	6	Fill plug with air valve	1
298534	7	Fluid level sight tube	1

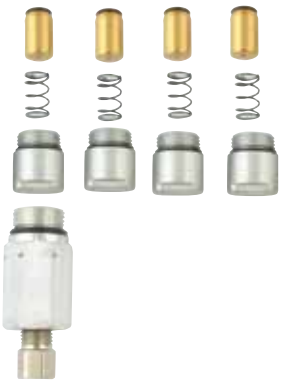
Bleeding Nipple

Brass nipple used in SeaStar Solutions® hydraulic engine control systems to bleed air during system purging. 5/16" tube thread with taper seat.

BLA Code
298514

Charging Valve Update Kit

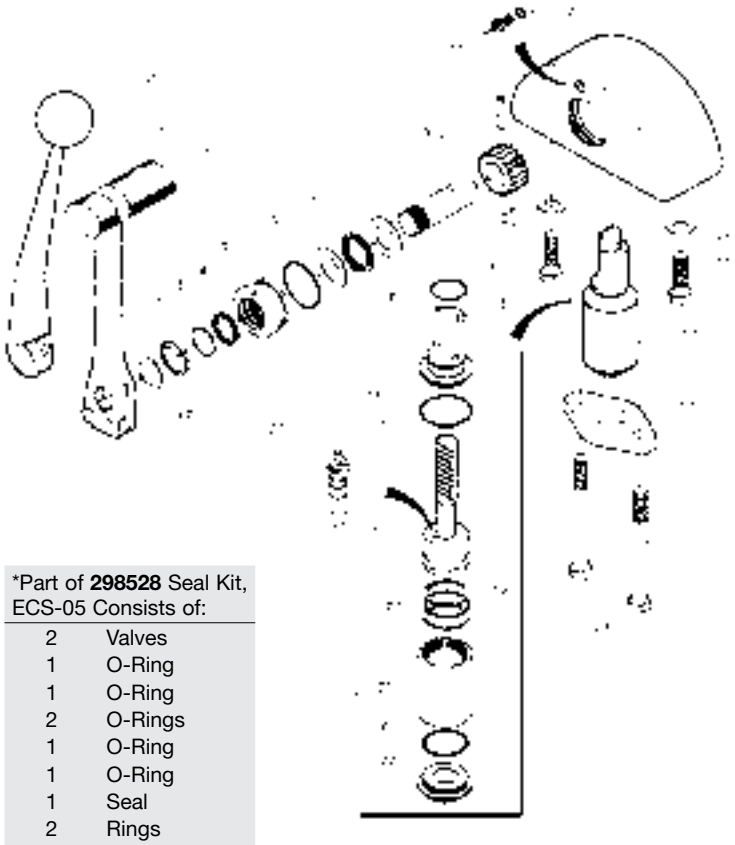
Due to problems resulting from contaminants entering early model Hydraulic Steering Systems, SeaStar Solutions® have developed this update kit consisting of four assemblies and reservoir filter/plug. The upgrade overcomes the issues of spongy feel and frequent purging requirements sometimes found in early hynautic hydraulic control systems. Suits pre 1990 MCV-04 charging valves.



BLA Code
298420

Hydraulic Control Parts

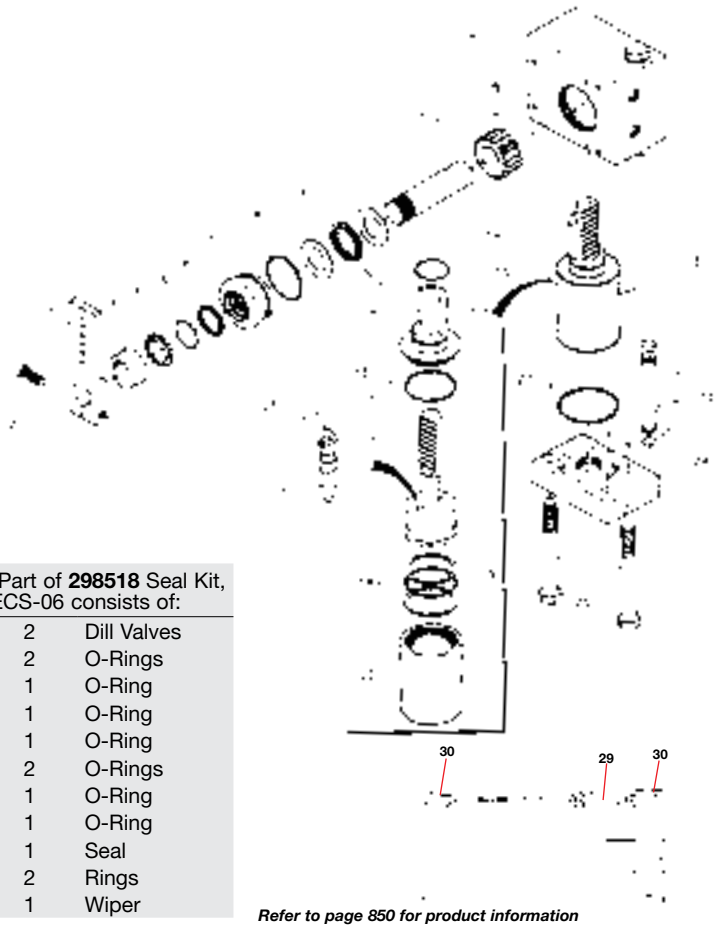
BLA Code	Item	Description	Qty No.
298444	1	'T' Handle (red)	1
298442	1	'T' Handle (black)	1
	2	Wiper*	1
	3	O-Ring*	1
	4	Quad seal*	1
298510	5	Bushing	1
	6	O-Ring*	1
298324	7	Bearing race	2
298328	8	Bearing	1
298492	9	Pinion assembly	1
	10	Body (CL-04)	1
		Body (CR-04)	1
	11	Screw	1
298332	12	Gasket*	1
	13	Cylinder assembly (CL-04)	1
		Cylinder assembly (CR-04)	1
	14	O-Ring*	1
	15	Cylinder end (CR-04)	1
		Cylinder end (CL-04)	1
	16	O-Ring*	1
	17	Piston assembly	2
	18	Teflon back-up ring*	1
	19	O-Ring*	1
298586	20	Cylinder tube	1
	21	O-Ring*	1
298398	27	Dill valve*	2
	28	Washer	1
298330	29	Ball black	1
298498	29	Ball red	1
298447	30	Lever with red ball	1
298448	30	Lever with black ball	1
298528	*	Seal kit	1



*Part of **298528** Seal Kit, ECS-05 Consists of:	
2	Valves
1	O-Ring
1	O-Ring
2	O-Rings
1	O-Ring
1	O-Ring
1	Seal
2	Rings
1	Gasket
1	Wiper

Throttle Slave Parts

BLA Code	Item	Description	Qty No.
	1	Lever Arm	1
	2	Screw	1
	3	Spacer	1
	4	Wiper*	1
	5	O-Ring*	1
	6	Quad Seal*	1
298510	7	Bushing	1
	8	O-Ring*	1
298324	9	Bearing Race	2
298328	10	Bearing	1
298490	11	Pinion Assembly	1
	12	Body	1
	13	Cylinder Assembly	1
	14	O-Ring*	1
	15	Cylinder End [Eccentric]	1
	16	O-Ring*	1
298494	17	Piston Assembly	1
	18	Teflon Back-Up Ring*	2
	19	O-Ring*	1
	20	Cylinder Tube	1
	21	Tube	1
298488	22	O-Ring*	2
	23	O-Ring*	1
	24	Plate	1
	25	Bolt	2
298400	26	Dill Valve (red)*	2
298334	29	Bungee	1
298320	30	Ball Joint	1
298518	*	Seal Kit	1



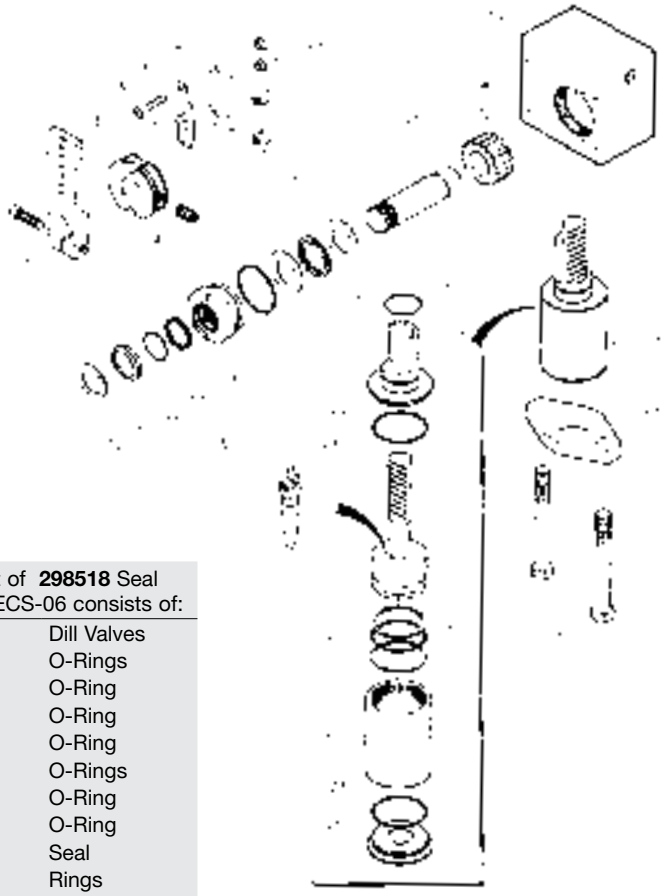
*Part of **298518** Seal Kit, ECS-06 consists of:

2	Dill Valves
2	O-Rings
1	O-Ring
1	O-Ring
1	O-Ring
2	O-Rings
1	O-Ring
1	O-Ring
1	Seal
2	Rings
1	Wiper

Refer to page 850 for product information

Shift Slave Parts

BLA Code	Item	Description	Qty No.
	1	Lever Arm	1
	2	Screw	1
298587	3	Cam	1
	4	Setscrew	1
298396	5	Spring	1
	6	Screw	2
	7	Washer	2
298394	8	Detent Assembly	2
298326	9	Bushing	2
	10	Washer	1
	11	Wiper*	1
	12	O-Ring*	1
	13	Quad Seal*	1
298510	14	Bushing	1
	15	O-Ring*	1
298324	16	Bearing Race	2
298328	17	Bearing	1
	19	Body	1
	20	Cylinder Assembly	1
	21	O-Ring*	2
	22	Cylinder End [Eccentric]	1
	23	O-Ring*	2
298494	24	Piston Assembly	1
	25	Teflon Back-up Ring*	2
	26	Cylinder Tube	1
	27	Cylinder End	1
	28	Plate	1
	29	Bolt	2
298400	30	Dill Valve (red)*	2
298518	*	Seal Kit	1



*Part of **298518** Seal Kit, ECS-06 consists of:

2	Dill Valves
2	O-Rings
1	O-Ring
1	O-Ring
1	O-Ring
2	O-Rings
1	O-Ring
1	O-Ring
1	Seal
2	Rings
1	Wiper

Refer to page 850 for product information

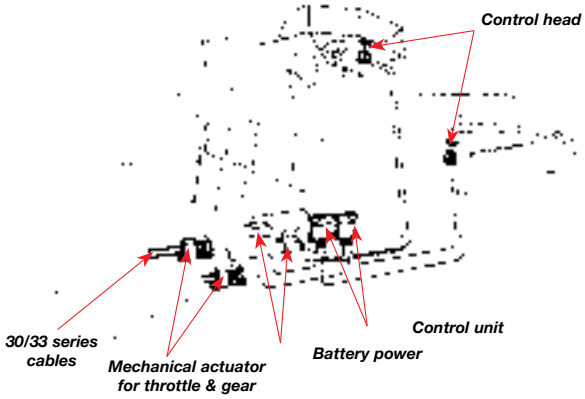
KE Electronic Engine Control Systems by NHK

NHK MEC

Electronic controls are designed for smooth, efficient and functional gear and throttle operation in new or retro-fit installations. They are suitable for use on most single or twin engine outboard, inboard or stern drive powered boats. KE electronic engine controls are available in 3 different configurations:

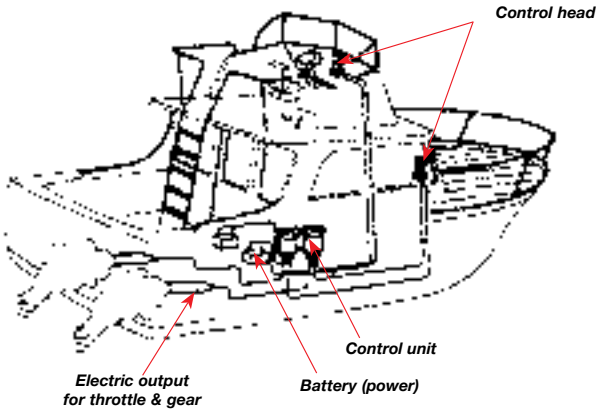
KE-4+:

Electronic engine control system to suit mechanically activated throttle and gear. Up to four station capability.



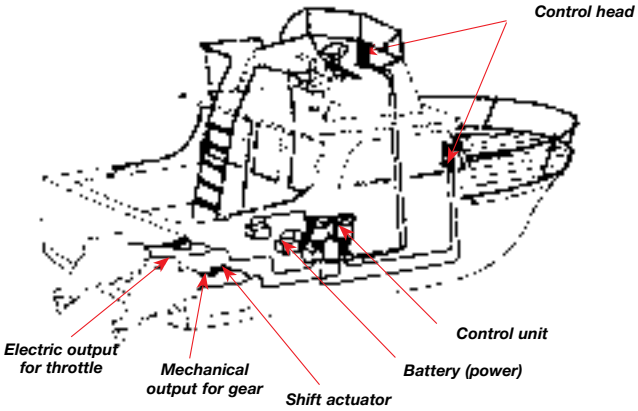
KE-5+:

Electronic engine control system to suit electronically actuated throttle and gear. Up to four station capability.



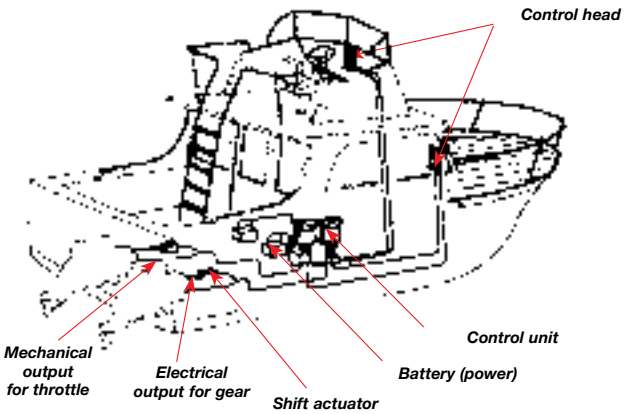
KE-6a:

Electronic engine control system to suit electronically actuated throttle and mechanically actuated gear. Up to four station capability.



KE-7:

Mechanical actuated throttle and electronically actuated gear (opposite of KE-6a) up to four stations capability



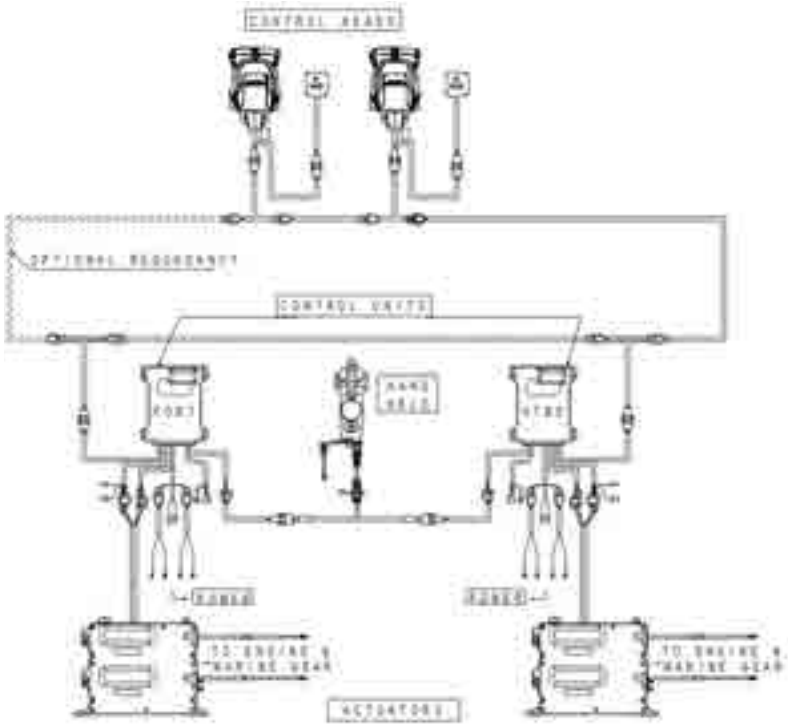
KE-4+ Electronic Control System For Boats with Mechanical Throttle and Mechanical Shift

NHK MEC

Designed for smooth, efficient and functional gear and throttle operation on boats with mechanical throttle and mechanical shift, the KE-4+ is the perfect answer for most control applications. The KE-4+ control system is ideally suited to a range of engine installations from single to quad with the additional capability of being able to be installed in up to four station applications. Designed specifically to meet the performance, reliability, endurance and aesthetic requirements of today's modern craft.

Main Features include;

- Neutral throttle provides throttle only operation to warm engines
- Control station select allows transfer from one control station to another by simply pressing the SEL button on any one of up to four control heads
- SYNC button allows multi engine speed synchronisation from any control head
- Safety SIGP feature allows engines only to be started in the neutral position
- Adjustable actuator settings provides easy travel matching for engine and gearbox combinations
- Designed for new installation or retrofit
- A new level of control performance for inboard, outboard or stern-drive engines in petrol or diesel
- Common 12/24 voltage in one unit
- Up to 4 stations
- For use from single to quad applications
- Synchronisation standard, 1 lever or 2 lever selection
- Complete self-diagnostic system
- Optional mechanical backup
- Adjustable shift pause and throttle delay
- Optional trolling system
- Optional remote hand held control. A great docking accessory
- Idle control option



Control Head

NHK MEC

Choose between traditional stainless steel single or dual lever operation or the new outboard styled levers with optional integrated power trim and tilt. All controls now include engine synchronisation and 12/24 volt adaptability as standard functions.

Standard controls available with or without power trim and tilt

Simple single push button Auto-Sync fucntion

305712

Optional stainless steel controls

305701

BLA Code	Control Type	Power Trim & Tilt
305700	Single Standard	No
305701	Single Stainless Steel	No
305702	Single Standard	Yes
305710	Twin Standard	No
305711	Twin Stainless Steel	No
305712	Twin Standard	Yes

Control Unit

NHK MEC

The electronic KE-4+ engine controls seamlessly combine with the dual voltage electronic control unit and actuator to provide smooth, efficient and functional gear and throttle operation in new or retro-fit installations. The electronic control unit features quick and easy interconnect CANbus connections reducing wiring and installation times. A built-in diagnostics window located above the DIP switch settings box provides a visual LED code which references the applicable problem.

BLA Code	Description
305720	Control Unit

Actuator

NHK MEC

The throttle/shift actuator utilises cables such as the CCX633, CCX632, CC330 or CC230 to connect the actuator to the engine(s) throttle and gear linkages. Short length cables are recommended as the Actuator should be installed as close as possible to the engines. One throttle and one shift cable is required per engine. An optional mechanical backup system incorporated into the actuator provides a 'get home' function.

BLA Code	Description
305726	Actuator

Actuator assembly includes both throttle and shift actuators

Bus Harness

NHK MEC

NHK has simplified fit-up and reduced wiring weights by utilising CANbus harness technology throughout the KE-4+ system. A comprehensive instruction manual clearly outlines all interconnecting plug and play harnesses making installations easier and simpler.

BLA Code	Bus Harness Length m
306307	6
306309	8
306311	10
306313	12
306315	14
306317	16

BLA Code	Bus Harness Length m
306319	18
306321	20
306325	24
306333	40
306335	50

306307 Bus Harness

Power Supply Harness

NHK MEC

Connects the control unit to the batteries.
Harness available in two lengths.

BLA Code	Power Harness Length m
309955	5
309956	10

309955 Power Supply Harness

T-Harnesses

NHK MEC

A wide range of varying types and lengths to suit almost any engine and station combination are available including control harnesses, T-harnesses, harness extensions and trim circuit harnesses.

BLA Code	Description
305730	T-Harness R/C-1
305732	T-Harness R/C
305734	T-Harness Single
305736	T-Harness Port
305738	T-Harness Starboard

305732 T-Harness

Cable Control Type

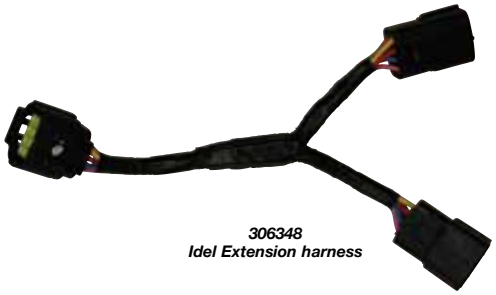
NHK MEC

Cables such as CCX633, CCX632, CC330 or CC230 connect the actuator to the engine(s) throttle and gear linkages. Short length cables are recommended as the Actuator should be installed as close as is possible to the engines. One throttle and one shift cable are required per engine. See page 841 for details.

Idle Extension Harness

NHK MEC

A wide range of varying types and lengths to suit almost any engine and station combination are available including control harnesses, T-harnesses, harness extensions and trim circuit harnesses. Additional options include circuit breakers and warning buzzers. Whether you are fitting a single installation/single control or quad installation/quad control contact your Territory Manager for a complete overview and required components.



306348
Idel Extension harness

BLA Code	Description
306294	Idle Switch
306348	Idle Extension Harness
306350	Trim Circuit Harness
306361	Circuit Breaker 20A
306357	Buzzer 12V

Switches - Idle & Selector

For triple or quad installations the appropriate selector is required to allow full throttle and gear integration for all motors through the twin lever controls. The idle control switch is an optional extra which allows manual adjustment of the idle speed to be increased gradually to a maximum of 20% of full throttle.

BLA Code	Switch to suit
306290	Triple engine
306292	Quad engine
306294	Idle

Hand Held Remote To Suit KE-4+

An optional addition to the KE-4+ system, these remote controls allow the skipper to carry shift and throttle control about the boat when docking or manoeuvring in tight quarters. The hand held control features an ergonomic design with all the functionality of the fixed KE control head. Incorporates engine stop switch with lanyard and indicator light with warning functions. Single or twin engine controls are available. They have 8 metres of detachable cord (unless remote control harness is added to allow greater movement on board) and are supplied with a rubber mount bracket and one bulkhead connector, **306299**.

306299
Remote connector

BLA Code	Switch to suit
306298	Dual control
306299	Connector

306298
Optional dual remote control

Remote Hand Control Harness m	Control Head to Hand Remote Control Unit	Single Engine	Dual Hand
4	**306304**	1	2
6	**306306**	1	2
8	**306308**	1	2
10	**306310**	1	2
12	**306312**	1	2
14	**306314**	1	2
16	**306316**	1	2
18	**306318**	1	2
20	**306320**	1	2

KE-4+ Engine/Station Combination Requirements

NHK MEC

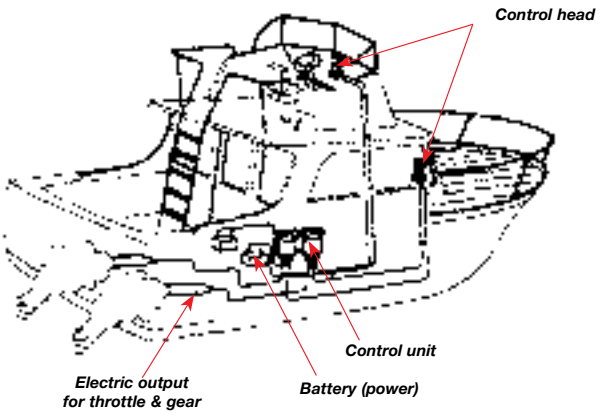
Description	BLA Code	Description	Required Items Single Engine No. of Stations 1st	2nd	3rd	4th	Required Items Dual Engine No. of Stations 1st	2nd	3rd	4th
Choose the Control Head	**305700**	Single Without PTT	1	2	3	4	-			
	305701	Single Without PTT S/S	1	2	3	4				
	305702	Single With PTT	1	2	3	4				
Choose the Control Head	**305710**	Dual Without PTT	-				1	2	3	4
	305711	Dual WIthout PTT S/S					1	2	3	4
	305712	Dual With PTT					1	2	3	4
Control Unit 12/24 VDC	**305720**		1				2			
Actuator	**305726**		1				2			
Bus Harness	**Control Head to Control Unit**		1	2	3	4	2	3	4	5
6m	**306307**									
8m	**306309**									
10m	**306311**									
12m	**306313**									
14m	**306315**									
16m	**306317**									
18m	**306319**									
20m	**306321**									
24m	**306325**									
30m	**306321**									
40m	**306333**									
50m	**306335**									
Power Supply 5m	**309955**		2				4			
Harness 10m	**309956**									
T-Harness R/C-1	**305730**		1				1			
T-Harness R/C	**305732**		-	1	2	3	-	1	2	3
T-Harness Single	**305734**		1				-			
T-Harness Port	**305736**		-				1			
T-Harness Starboard	**305738**		-				1			
Options										
Circuit Breaker 20A	**306361**	Optional	2				4			
Buzzer 12V	**306357**	Optional	1	2	3	4	1	2	3	4
Idle Switch	**306294**	Optional	1	2	3	4	1	2	3	4
Idle Extension harness	**306348**	Optional	1	2	3	4	1	2	3	4
Trim Cuircuit Harness	**306350**	Optional	-				1	2	3	4
Cable Control Type	33C- Length to be specified CCX633XX (XTREME™)		2				4			
Hand Held Remote	**306298**	Optional	Refer to page 868 for more information							

Note: For a complete system you must select 1 of each BLA Code in bold print

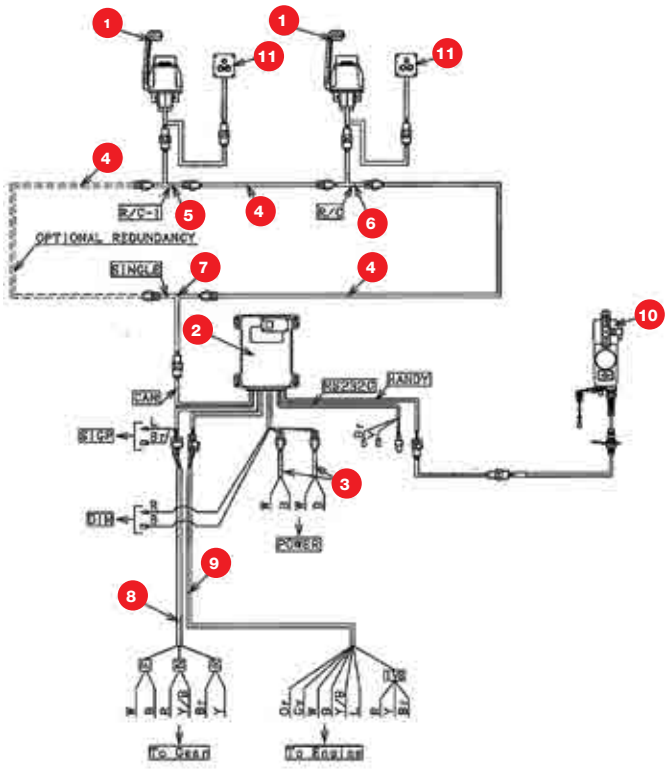
How to order the KE-5+ Electronic Engine Control System

NHK MEC

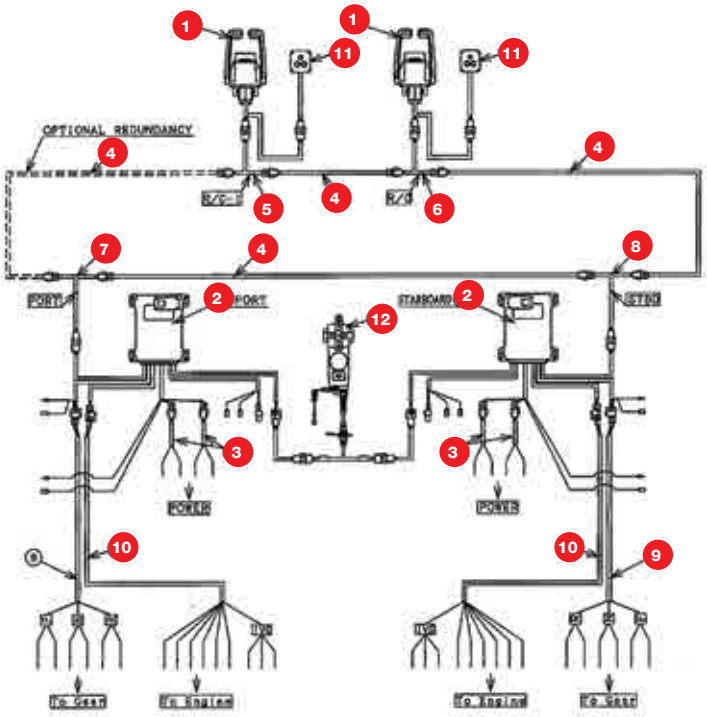
Electronic engine control system to suit electronically actuated throttle and gear. Up to four station capability, the KE-5+ Electronic Engine Control System is ordered in 12 different parts. To correctly specify a system from the guides below, you will need to know, the number of engines, number of stations and engine model information.



Single Engine Configuration



Dual Engine Configuration



N.B. For Triple and Quad applications contact BLA Sales on 1300 252 752.

NHK MEC Control Head

NHK MEC

The dual function, hand lever control unit that activates the operation of both gear and throttle functions. Supplied standard with a gold cover trim.

305701

BLA Code	Description	Component	Number
305700	Single Standard	Single Station	1
305701	Single Stainless Steel		
305710	Twin Standard	Dual Station	1
305711	Twin Stainless Steel		

NHK MEC Control Unit

NHK MEC

Electronic processor box with plug-in connectors for electric cables to connect control head(s), power supply and shift/ throttle harness.

BLA Code	Component Number	
	Single Station	Dual Station
306266	2	2

NHK MEC Power Supply Harness

NHK MEC

Connects the control unit to the batteries. Harness length available in 2 sizes.

309955

BLA Code	Harness Length	Component Number	
	m	Single Station	Dual Station
309955	5	3	3
309956	10		

Bus Harness

NHK MEC

NHK has simplified fit-up and reduced wiring weights by utilising CANbus harness technology throughout the KE-4+ system. A comprehensive instruction manual clearly outlines all interconnecting plug and play harnesses making installations easier and simpler.

306307 Bus Harness

BLA Code	Harness Length	Component Number	
	m	Single Station	Dual Station
306307	6		
306309	8		
306311	10		
306313	12		
306315	14		
306317	16	4	4
306319	18		
306321	20		
306325	24		
306333	40		
306335	50		

T-Harnesses

NHK MEC

A wide range of varying types and lengths to suit almost any engine and station combination are available including control harnesses, T-harnesses, harness extensions and trim circuit harnesses.

305702 T-Harness

BLA Code	Description	Component Number	
		Single Station	Dual Station
305730	T-Harness R/C-1	5	5
305732	T-Harness R/C	6	6
305734	T-Harness Single	7	
305736	T-Harness Port		7
305738	T-Harness Starboard		8

NHK MEC Harness KE-5A Shift

NHK MEC

306337

BLA Code	Harness Length	Component Number	
	m	Single Station	Dual Station
306337	5	8	9
306367	10		

NHK MEC Harness KE-5A Throttle

NHK MEC

306365

BLA Code	Harness Length	Component Number	
	m	Single Station	Dual Station
306365	5	9	10
306366	10		

Idle Extension Harness

NHK MEC

A wide range of varying types and lengths to suit almost any engine and station combination are available including control harnesses, T-harnesses, harness extensions and trim circuit harnesses. Additional options include circuit breakers and warning buzzers. Whether you are fitting a single installation/single control or quad installation/quad control contact your Territory Manager for a complete overview and required components.

306348
Idle Extension harness

BLA Code	Description	Component Number	
		Single Station	Dual Station
306294	Idle Switch	11	11
306348	Idle Extension Harness		
306350	Trim Circuit Harness		
306361	Circuit Breaker 20A		
306357	Buzzer 12v		
306359	Buzzer 24v		

Switches - Idle & Selector

NHK MEC

For triple or quad installations the appropriate selector is required to allow full throttle and gear integration for all motors through the twin lever controls. The idle control switch is an optional extra which allows manual adjustment of the idle speed to be increased gradually to a maximum of 20% of full throttle.

BLA Code	Description	Component Number	
		Single Station	Dual Station
306290	Triple Engine		
306292	Quad Engine		
306294	Idle	11	11

Hand Held Remote To Suit KE-4+

NHK MEC

An optional addition to the KE-4+ system, these remote controls allow the skipper to carry shift and throttle control about the boat when docking or manoeuvring in tight quarters. The hand held control features an ergonomic design with all the functionality of the fixed KE control head. Incorporates engine stop switch with lanyard and indicator light with warning functions. Single or twin engine controls are available. They have 8 metres of detachable cord (unless remote control harness is added to allow greater movement on board) and are supplied with a rubber mount bracket and one bulkhead connector, **306299**.

306299
Remote connector

306298
Optional dual remote control

BLA Code	Description	Component Number	
		Single Station	Dual Station
306298	Dual Control	10	12
306299	Connector		

Remote Hand Control Harness m	Control Head to Hand Remote Control Unit	Single Engine	Dual Hand
4	**306304**	1	2
6	**306306**	1	2
8	**306308**	1	2
10	**306310**	1	2
12	**306312**	1	2
14	**306314**	1	2
16	**306316**	1	2
18	**306318**	1	2
20	**306320**	1	2

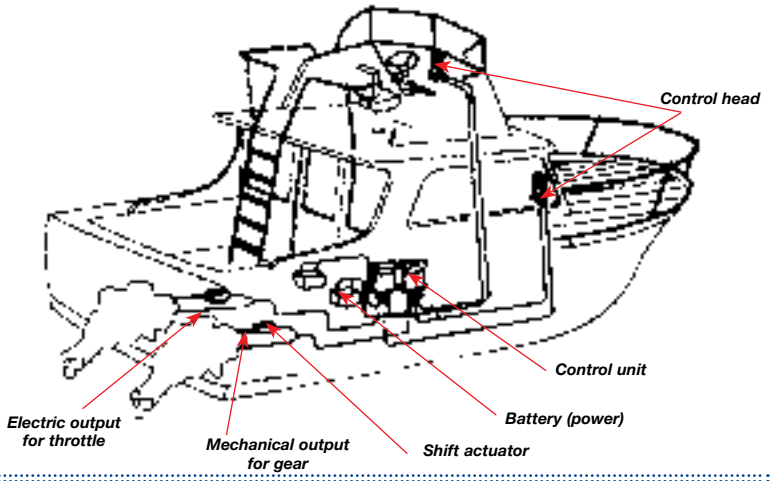
KE-5+ Engine/Station Combination Requirements

NHK MEC

Description		BLA Code	Description	Required Items Single Engine No. of Stations 1st	2nd	3rd	4th	Required Items Dual Engine No. of Stations 1st	2nd	3rd	4th
Choose the Control Head		305700	Single Without PTT	1	2	3	4	-			
		305701	Single Without PTT S/S	1	2	3	4				
Choose the Control Head		305710	Dual Without PTT	-				1	2	3	4
		305711	Dual WIthout PTT S/S					1	2	3	4
Control Unit 12/24 VDC		306370		1				2			
Bus Harness		Control Head to Control Unit		1	2	3	4	2	3	4	5
	2m	306303									
	4m	306305									
	6m	306307									
	8m	306309									
	10m	306311									
	12m	306313									
	14m	306315									
	16m	306317									
	18m	306319									
	20m	306321									
	24m	306325									
	30m	306321									
	40m	306333									
	50m	306335									
Power Supply	5m	309955		2				4			
Harness	10m	309956									
T-Harness R/C-1		305730		1				1			
T-Harness R/C		305732		-	1	2	3	-	1	2	3
T-Harness Single		305734		1				-			
T-Harness Port		305736		-				1			
T-Harness Starboard		305738		-				1			
Options											
Circuit Breaker 10A		306294	Optional	2				4			
Buzzer 12V		306357	Optional	1	2	3	4	1	2	3	4
Buzzer 24V		306359	Optional								
Idle Switch		306294	Optional	1	2	3	4	1	2	3	4
Harness Shift	5m	306337		1				2			
Harness Shift	10m	306367		1				2			
Harness Throttle	5m	306365		1				2			
Harness Throttle	10m	306366		1				2			
Hand Held Remote		306298	Optional								

How to order the KE-6a Electronic Engine Control System

Electronic engine control system to suit electronically actuated throttle and mechanical actuated gear. Up to four station capability. The KE-6a Electronic Engine Control System is ordered in 9 different parts. To correctly specify a system from the guides below, you will need to know, the number of engines, number of stations and engine model information.



Component 1: Choose Control Head

NHK MEC

NHK MEC Control Head

The dual function, hand lever control unit that activates the operation of both gear and throttle functions. Supplied standard with a gold cover trim.

BLA Code	Description
306252	Control head left hand
306254	Control head right hand
306256	Control head twin lever

306252

Component 2: Choose Control Unit

NHK MEC

NHK MEC Control Unit

Electronic processor box with plug-in connectors for control head(s), power supply and actuator(s).

BLA Code	Description
306271	Control unit KE-6A 12V
306275	Control unit KE-6A 24V

Component 3: Choose Actuator

NHK MEC

NHK MEC Actuator

The electrical/mechanical change over box. Supplied with a 350mm wiring harness that connects the actuator to the shift/throttle harness. Mechanical cables (purchased separately) are required to connect the actuator to the gear linkages.

BLA Code	Description
306259	Actuator Shift KE-6A

Component 4: Choose Communication Harness

NHK MEC

NHK MEC Communication Harness

Connects the 2 control units via the communication harness, which has a 10 pole coupler at each end for a dual engine system.

BLA Code	Harness Length m
306278	5

Component 5: Remote Control Harness

NHK MEC

NHK MEC Remote Control Harness

Connects the control head to the control unit. Available in lengths from 4 to 30 metres. Each lever on the control head requires a remote control harness, e.g a single lever control head requires one remote control harness, a twin lever control head requires two remote control harnesses. Select the lengths required from the table below.

BLA Code	Harness Length m
306304	4
306306	6
306308	8
306310	10
306312	12
306314	14

BLA Code	Harness Length m
306316	16
306318	18
306320	20
306324	24

306304-30

Component 6: Choose Harness Shift

NHK MEC

NHK MEC Harness KE-6A Shift

BLA Code	Harness Length m
306347	2

Component 7: Choose Throttle Harness

NHK MEC

NHK MEC Throttle Harness

Connects the control unit to the engine and transmission input/output.
Select the appropriate cable from the table below. Cable length is 5 metres.

BLA Code	Suits Engine	Output Type
306338	MAN, MTU	Current
306339	Cummins, Detroit, Scania, Iveco	Voltage
306340	Caterpillar	PWM

306338

N.B. In dual engine installations, the use of 306278/79/80 communications harness is recommended. Refer page 864

Component 8: Choose Power Supply Harness

NHK MEC

NHK MEC Power Supply Harness

Connects the control unit to the batteries. Harness length is 5 metres.

BLA Code	Harness Length m
309955	5

Component 9: Choose Additional Options

Options

Available options (detailed on pages 858)

Include:

- Buzzer
- Hand held remote control units
- Circuit breaker

Component 10: Choose Mechanical Control Cables

NHK MEC

NHK MEC Mechanical Control Cables

Cables such as CCX633, CCX632, CC330 or CC230 connect the actuator to the engine(s) throttle and gear linkages. Short length cables are recommended as the Actuator should be installed as close as is possible to the engines. One throttle and one shift cable are required per engine. See pages 841 for details.

For a complete KE-6a system you must select components from 1-8+ 11

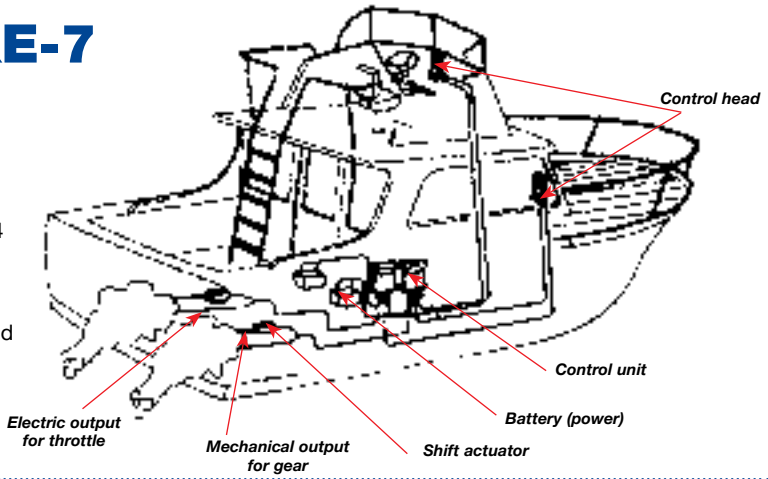
NHK MEC

No	Name		BLA Code	Required								Notes
				Single Engine				Two Engine				
				1st	2nd	3rd	4th	1st	2nd	3rd	4th	
1	Control Head		**306252**	1	2	3	4	-	-	-	-	
			306256					1	2	3	4	
2	Control Unit											
	24V model		**306275**	1	1	1	1	2	2	2	2	
	12V model		**306271**									
3	Shift Actuator		**306259**	1	1	1	1	2	2	2	2	
4	Communication Harness	5m	**306278**	-	-	-	-	1	1	1	1	
5	Harness,	4m	**306304**	1	2	3	4	2	4	6	8	For length other than those listed, consult BLA
	Remote	6m	**306306**									
	Control	8m	**306308**									
		10m	**306310**									
		12m	**306312**									
		14m	**306314**									
		16m	**306316**									
		18m	**306318**									
		20m	**306320**									
		24m	**306324**									
6	Harness Shift Act	2m	**306347**	1	1	1	1	2	2	2	2	
7	Harness, Throttle	Type 1 5m	**306338**	1	1	1	1	2	2	2	2	For current ouput
		Type 2 5m	**306339**									For voltage output
		Type 3 5m	**306340**									For PWM output
8	Power Supply	5m	**309955**	3	3	3	3	6	6	6	6	
	Harness	10m	**309956**									
9	Circuit Breaker	20A	**306361**	3	3	3	3	6	6	6	6	Option
10	Buzzer	12v Model	**306357**	1	2	3	4	2	4	6	8	Option
11	Push-pull mechanical cable			1	1	1	1	2	2	2	2	

Note: Refer to the previous page for componenet identification. Throttle harness based on the type of throttle output referring to the table above.

How to order the KE-7 Electronic Engine Control System

Electronic engine control system to suit mechanical actuated throttle and electrically actuated gear. Up to 4 station capability. The KE-7 Electronic Engine Control System is ordered in 9 different parts. To correctly specify a system from the guides below, you will need to know, the number of engines, number of stations and engine model information.



Component 1: Choose Control Head

NHK MEC

NHK MEC Control Head

The dual function, hand lever control unit that activates the operation of both gear and throttle functions. Supplied standard with a gold cover trim.

BLA Code	Description
306252	Control head left hand
306254	Control head right hand
306256	Control head twin lever

306252

Component 2: Choose Control Unit

NHK MEC

NHK MEC Control Unit

Electronic processor box with plug-in connectors for control head(s), power supply and actuator(s).

BLA Code	Description
306264	Control unit KE-7 12V
306267	Control unit KE-7 24V

Component 3: Choose Throttle Actuator

NHK MEC

NHK MEC Throttle Actuator

The electrical/mechanical change over box. Supplied with a 350mm wiring harness that connects the actuator to the throttle harness. Mechanical cables (purchased separately) are required to connect the actuator to the throttle linkages.

BLA Code	Description
306262	Actuator Shift KE7

Component 4: Choose Communication Harness

NHK MEC

NHK MEC Communication Harness

Connects the 2 control units via the communication harness, which has a 10 pole coupler at each end for a dual engine system.

BLA Code	Harness Length m
306278	5

Component 5: Choose Remote Control Harness

NHK MEC

NHK MEC Remote Control Harness

Connects the control head to the control unit. Available in lengths from 4 to 30 metres. Each lever on the control head requires a remote control harness, e.g a single lever control head requires one remote control harness, a twin lever control head requires two remote control harnesses. Select the lengths required from the table below.

BLA Code	Harness Length m
306304	4
306306	6
306308	8
306310	10
306312	12
306314	14

BLA Code	Harness Length m
306316	16
306318	18
306320	20
306324	24

306304-30

Component 6: Choose Power Supply Harness

NHK MEC

NHK MEC Power Supply Harness

Connects the control unit to the batteries. Harness length available in 2 sizes.

BLA Code	Harness Length m
309955	5
309956	10

309955

Component 7: Choose Actuator Harness

NHK MEC

NHK MEC Actuator Harness

The actuator harness is 2 metres in length and connects to the control unit.

BLA Code	Harness Length m
306349	2

Component 8: Choose Harness Shift

NHK MEC

NHK MEC Harness KE-7 Shift

Connects power to the marine gear solenoid.

BLA Code	Harness Length m
306351	5

Component 9 - 10: Choose Additional Options

Options

Available options (detailed on pages 858)

Includes:

- Buzzer
- Hand held remote control units
- Circuit breaker

Component 11: Choose Mechanical Control Cables

NHK MEC

NHK MEC Mechanical Control Cables

Cables such as CCX633, CCX632, CC330 or CC230 connect the actuator to the engine(s) throttle and gear linkages. Short length cables are recommended as the Actuator should be installed as close as is possible to the engines. One throttle and one shift cable are required per engine. See page 841 for details.

For a complete KE-7 system you must select components from 1-8 + 11 NHK MEC

No	Name	BLA Code	Required								Notes
			Single Engine				Two Engine				
			1st	2nd	3rd	4th	1st	2nd	3rd	4th	
1	Control Head	**306252**	1	2	3	4	-	-	-	-	
		306256					1	2	3	4	
2	Control Unit										
	24V Model	**306267**	1	1	1	1	2	2	2	2	
	12V Model	**306264**									
3	Throttle Actuator	**306262**	1	1	1	1	2	2	2	2	
4	Communication Harness 5m	**306278**	-	-	-	-	1	1	1	1	
5	Harness, 4m	**306304**	1	2	3	4	2	4	6	8	For length other than those listed, consult BLA
	Remote 6m	**306306**									
	Control 8m	**306308**									
	10m	**306310**									
	12m	**306312**									
	14m	**306314**									
	16m	**306316**									
	18m	**306318**									
	20m	**306320**									
	24m	**306324**									
6	Power Supply Harness 5m	**306347**	2	2	2	2	4	4	4	4	
7	Actuator Harness 2m	**306349**	1	1	1	1	2	2	2	2	For current ouput
8	Shift Harness, 5m	**306351**	1	1	1	1	2	2	2	2	
9	Circuit Breaker 20A	**306361**	2	2	2	2	4	4	4	4	Option
10	Buzzer 12v Model	**306357**	1	2	3	4	2	4	6	8	Option
11	Push-pull mechanical cable		1	1	1	1	1	2	2	2	

Note: Refer to the previous page for balloon references

NHK MEC KE Handheld Remote Control

NHK MEC

An optional addition to the KE system, these remote controls allow the skipper to carry shift and throttle control about the boat when docking or manoeuvring in tight quarters. The hand held control features an ergonomic design with all the functionality of the fixed KE control head. Incorporates engine stop switch with lanyard and indicator light with warning functions. Single or twin engine controls are available. They have 8 metres of detachable cord (unless remote control harness is added to allow greater movement on board) and are supplied with a rubber mount bracket, and one bulkhead connector, **306299**.

On single engine remotes, one remote control harness **306304-30** (listed below), is required to connect the bulkhead connector **306299**, to the control unit. On twin engine remotes, two remote control harnesses **306304-30**, are required to connect the bulkhead connector **306299**, to the control units.

306299

306304-30

306298

BLA Code	Description	Length m
306298	Remote control dual engine	10
306299	Additional bulkhead connector	15

NHK MEC KE Components / Accessories & spare parts

NHK MEC

306252

306256

306259

306260

306268

306274 306276

306278

306288

306304-30

306342

306354

306374

306378

306384-87

309955

BLA Code	Description	KE-4	KE-5	KE-6
306252	L/H, single lever control (gold)	✓	✓	✓
306254	R/H, single lever control (gold)	✓	✓	✓
306256	Twin lever control (gold)	✓	✓	✓
306259	Shift actuator	✗	✗	✓
306260	Throttle/shift actuator	✓	✗	✗
306268	Control unit KE-4 12v	✓	✗	✗
306273	Control unit KE-6 24v	✗	✗	✓
306274	Synchronisation slave harness	✓	✓	✓
306276	Synchronisation master harness	✓	✓	✓
306278	Communication harness 5m	✓	✓	✓
306279	Communication harness 10m	✓	✓	✓
306280	Communication harness 15m	✓	✓	✓
306282	Synchronisation switch harness 5m	✓	✓	✓
306284	Synchronisation switch harness 10m	✓	✓	✓
306286	Synchronisation switch harness 15m	✓	✓	✓
306288	Synchronisation switch	✓	✓	✓
306298	Remote control dual	✓	✓	✓
306299	Bulkhead connector	✓	✓	✓
306304	Remote control harness 4	✓	✓	✓
306306	Remote control harness 6	✓	✓	✓
306308	Remote control harness 8	✓	✓	✓
306310	Remote control harness 10	✓	✓	✓
306312	Remote control harness 12	✓	✓	✓
306314	Remote control harness 14	✓	✓	✓
306316	Remote control harness 16	✓	✓	✓
306318	Remote control harness 18	✓	✓	✓
306320	Remote control harness 20	✓	✓	✓
306324	Remote control harness 24	✓	✓	✓

BLA Code	Description	KE-4	KE-5	KE-6
306334	Shift/throttle harness (Cummins, Detroit, Scania, Iveco)	✗	✓	✗
306360	10A circuit breaker	✗	✓	✗
309923	Actuator terminal	✓	✓	✓
309955	Power harness 5m	✓	✓	✓

i6800 Electronic Control System

The i6800 system delivers precise control of a boat's shift and throttle functions. The actuators link to the control head through a single CANbus harness - for easy routing and fast installation. Adding multiple control stations is easy by adding a single harness.

All i6800 system kits come with all components needed for an installation, including power harness, and 30 feet of network harness. The i6800 electronic control system delivers an improved level of throttle control that makes it easier to handle your boat.

NOTE: Control cables ordered separately.

Applications:

- Suitable for all engines with mechanical shift and mechanical throttle
- Single or twin engine applications
- Inboards, IO's and Outboards
- Supports up to three stations

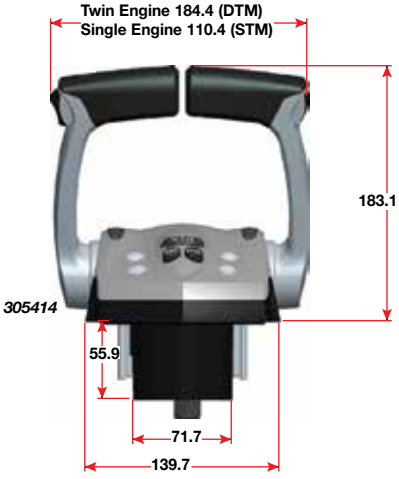
Features:

- Optional independent trim switches (**292400**)
- Adjustable control lever drag and detent settings
- Works on 12v systems
- Trolling mode
- Utilises standard 33c type control cables – XTREME type recommended
- Dual engine RPM synchronisation for single handle operation
- Incorporates neutral start protection
- Neutral warm-up
- Mechanical override "get home" feature
- Programmable shift delay
- Meets: ABYC P-24 CE EN 60945

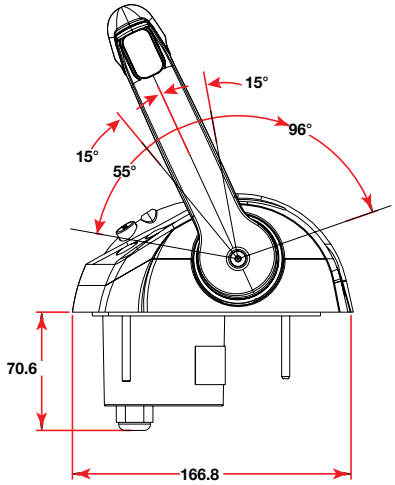
Information Required to Specify a System

- Number of Engines (1 or 2)
- Number of Stations
- Independent trim switch required (yes or no)
- Length of Control Cables

305406



305414



292400
Trim Switch

305455
Shift and Throttle Acuator

Order Information

BLA Code	Complete Systems	Additional Stations
305540	Single Engine	**305550**
305542	Single Engine with Trim	**305552**
305544	Dual Engine	**305554**
305546	Dual Engine with Trim	**305556**
292400	Tilt/Trim Switch (Independent)	-

SeaStar Solutions® i6800 Systems Matrix

Base Systems - Single Station Kits	BLA Code	305540 Single Engine	305542 Single Eng. W/Trim	305544 Dual Eng.	305546 Dual Eng. W/Trim
Actuators					
Actuator, i6800 universal	**305455**	2	2	4	4
Control Head Kits					
Single Top Mount, Control Head kit	**305404**	1	-	-	-
Single Top Mount, Control Head kit with Trim	**305406**	-	1	-	-
Dual Top Mount, Control Head kit	**305408**	-	-	1	-
Dual Top Mount, Control Head kit with Trim	**305414**	-	-	-	1
Optional Accessories					
Dual trim switch panel for independent operation	**292400**	-	-	-	-
Harnesses/Tees					
Power Harness (25ft)	**305480**	1	1	2	2
NMEA Comm kit (2tees, 1 male and 1 female terminator)	**305494**	1	1	1	1
Single CANbus Tee	**305492**	1	1	3	3
Choose CANbus Size Based on Application					
Micro C Ext, M-F (6ft CANbus harness)	**292280**	1	1	1	1
Micro C Ext, M-F (12ft CANbus harness)	**292284**	1	1	1	1
Micro C Ext, M-F (20ft CANbus harness)	**292288**	1	1	1	1

SeaStar Solutions® Additional Stations Systems Matrix

Additional Stations	BLA Code	305550 Single Engine	305552 Single Eng. W/Trim	305554 Dual Eng.	305556 Dual Eng. W/Trim
Control Head Kits					
Single Top Mount, Control Head kit	**305404**	1	-	-	-
Single Top Mount, Control Head kit with Trim	**305406**	-	1	-	-
Dual Top Mount, Control Head kit	**305408**	-	-	1	-
Dual Top Mount, Control Head kit with Trim	**305414**	-	-	-	1
Harnesses/Tees					
Single Tee	**305492**	1	1	1	1
Micro C Ext, M-F (30ft CANbus harness)	**292290**	1	1	1	1

N.B. Control cables ordered separately requires EST display setup tool for configuration 305482.

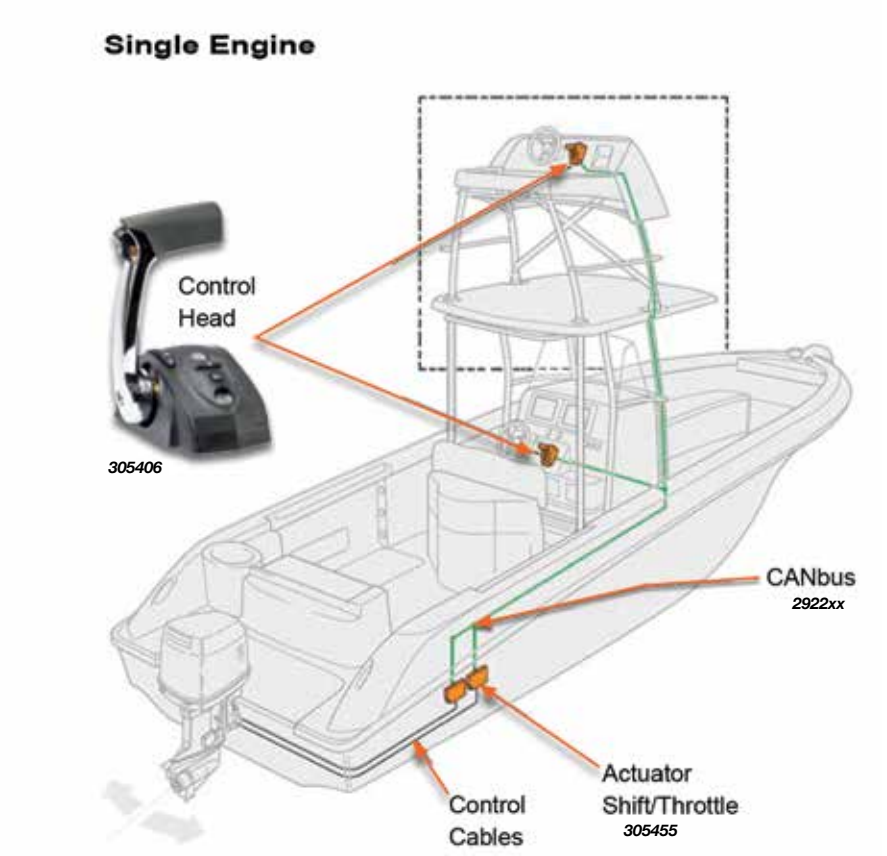


Image courtesy of Anchorage Houseboats

THRUSTERS - TUNNEL & RETRACTABLE

Introduction to Lewmar® Bow Thrusters 872
Lewmar® Bow Thrusters - TT Electric 873
Lewmar® Bow Thrusters - Ignition Protected TT Electric 874
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Lewmar® Bow and Stern Tunnels 875
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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Lewmar® Bow Thrusters

LEWMAR®

The Lewmar® range of electric and hydraulic bow thrusters have been developed to provide optimum control and performance when manoeuvring in difficult and restricted situations. The revolutionary TT propeller design supplies perfectly even thrust in both directions which effortlessly provides maximum manoeuvrability and control.

Compact design allows ease of installation for boat builders while providing boat owners with years of maintenance free operation. A wide range of power outputs are available from 37Kgf (2kW) to 250Kgf (10.8kW) in 12 to 48 volt models to suit boats to 21 metres (Kgf = kilograms of force). Lewmar also has available, hydraulic options for larger vessels, 20 metres and above, with maximum power output to 22.5kW.

Also available are ignition protected thrusters, ideal for boats where the unit may be exposed to fuel vapour or wet stern installations. In addition, the Lewmar® custom thruster range provides solutions for additional control over a wide range of power or sailing vessels up to 45.7m. Besides fixed bow and stern thrusters, Lewmar offer a range of retractable thrusters, and a range of accessories. These include thruster tunnels, stern tunnels, control panels, wiring harnesses, switch boxes and automatic battery switches.

Gearbox

- Specially designed gearbox provides efficient operation with minimal interference in either propulsion direction
- No reservoir to install, no leaks and no maintenance
- High integrity seal
- Spine driven propeller, no drive pin to shaft
- Hardened and ground spiral bevel gears for maximum efficiency and quiet power transmission
- Easily replaced zinc anode provides additional protection
- Hydrodynamic narrow profile gear leg minimises turbulence

Propellers

- Efficient TT five blade propeller design guarantees maximum thrust and performance
- Constructed from highly resilient composite materials for durability

Motors

- Motors are manufactured and tested to provide constant output and maximum performance for all applications and conditions
- Black box electronics helps prevent misuse and protects motor
- Self-resetting thermal protection on all motors

Controls

- Wide range of control panels including joystick and touch pad
- Easy installation
- Joystick control auto shut off (**316400** excluded)
- Timed automatic cut off
- Directional delay prevents damage to motor (**316400** excluded)

How to choose the right thruster for your boat

The boat's wind area (lateral wind draft area) and the hull position of the thuster will determine the thruster's performance. From this it is possible to calculate the wind pressure and it's centre which will determine what thrust is needed to counter the wind pressure in relation to the thruster position. For total control, install both a bow and stern thruster.

To select the right Lewmar thruster:

- Calculate the wind pressure on the boat using the Force Factor Guide
- Locate the vessels length and force factor on the Thruster Selection Guide
- Identify the correct thruster model

Force Factor Guide

WIND EFFECTS (CONDITIONS)		A LIGHT DISPLACEMENT/ LOW WINDAGE	B MEDIUM DISPLACEMENT/ MEDIUM WINDAGE	C HEAVY DISPLACEMENT/ HIGH WINDAGE
Slight	5-8 m/s, 11–16 Knots, Beaufort F4, 12–18mph	1	2	3
Moderate	8-11 m/s, 17–21 Knots, Beaufort F5, 19–24mph	4	5	6
Rough	11-14 m/s, 21–26 Knots, Beaufort F6, 25–30mph	7	8	9

Thruster Selection Guide

		BOAT LENGTH OVERALL													
FORCE FACTOR	LOA FT 26 LOA M 8	30 9	35 11	40 12	45 14	50 15	55 17	60 18	65 20	70 21	75 23	80 24	85 26	90 27
1	110TT	140TT 2.0	140TT 2.0	140TT 2.2	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT 15.0
2	110TT	140TT 2.0	140TT 2.0	140TT 2.2	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT 15.0
3	110TT	140TT 2.0	140TT 2.2	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT 15.0	300TT Hyd
4	110TT	140TT 2.0	140TT 2.2	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT Hyd	300TT Hyd
5	110TT	140TT 2.2	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT 15.0	300TT Hyd	300TT Hyd
6	110TT	140TT 2.2	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT Hyd	300TT Hyd	300TT Hyd
7	140TT 2.0	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 10.8	300TT 15.0	300TT Hyd	300TT Hyd	300TT Hyd	300TT Hyd
8	140TT 2.0	185TT 3.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 15.0	300TT Hyd	300TT Hyd	300TT Hyd	300TT Hyd	300TT Hyd
9	140TT 2.0	185TT 4.0	185TT 5.0	185TT 6.0	250TT 8.0	250TT 9.6	300TT 10.8	300TT 15.0	300TT Hyd	300TT Hyd	300TT Hyd	300TT Hyd	300TT Hyd	300TT Hyd

N.B. Model 250TT hydraulic can be used in all areas that the 300TT 10.8 appears.

Lewmar® Bow Thrusters - TT Electric

LEWMAR®

The Lewmar® electric range of thrusters are available in a wide range of power outputs ranging from 28kg (1.5kW) to 250Kgf (10.8kW) in both 12 and 24 volt models with tunnel sizes ranging from 110mm to 300mm to suit boats to 21 metres.

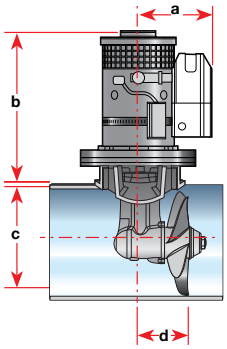
The bow thruster should be mounted as far forward as is practically possible and to avoid cavitation, the tunnel should be installed as low as possible with a minimum distance of at least 0.75 times the tunnel diameter from the waterline to the top of the tunnel. To limit losing thrust, the optimal tunnel length is around 3 to 4 times the diameter of the tunnel but up to 6 times can be tolerated.

Compact design allows ease of installation for boat builders while the revolutionary TT propeller design supplies perfectly even thrust in both directions which effortlessly provides maximum manoeuvrability and control. To establish the correct size, refer to the force factor and selection guides on page 872. Installation by qualified technician only. Contact BLA on **1300 252 725** for more information.

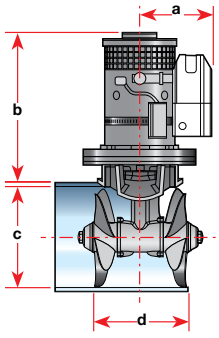
Features:

- No reservoir to install, no leaks and no maintenance
- High performance 5 blade propellers give equal thrust in both directions
- High integrity seal
- Spline driven propeller, no drive pin required
- Black box electronics prevents misuse and protects motor
- Hardened and ground spiral bevel gear for maximum efficiency and quiet power transmission
- Self resetting thermal protection on all motors
- Choice of joystick or touch panel controls
- Easy plug together switch connections
- Minimum silhouette hub for smooth water flow
- 3 year thruster warranty
- 1 year motor and electrical components warranty

110TT, 140TT & 185TT



250TT & 300TT



BLA Code	Model	Volts	Power kW	Power HP	Thrust Kgf	Gearbox Material	Tunnel mm	Prop Blades	Weight kg	a mm	b mm	c mm	d mm
316298	110TT	12	1.5	2	28	Composite	110	1 x 5	8	123	208	110	64
316300	140TT2.0	12	2	2.7	37	Composite	140	1 x 5	13	123	213	140	71
316302	140TT2.2	12	2.2	3	42	Composite	140	1 x 5	13	123	235	140	71
316304	185TT3.0	12	3	4	58	Bronze*	185	1 x 5	20	148	293	185	83
316305	185TT3.0	24	3	4	58	Bronze*	185	1 x 5	20	148	293	185	83
316306	185TT4.0	12	4	5.4	65	Bronze*	185	1 x 5	20	148	293	185	83
316307	185TT4.0	24	4	5.4	65	Bronze*	185	1 x 5	20	148	293	185	83
316308	185TT5.0	12	5	6.7	82	Bronze*	185	1 x 5	27	162	315	185	83
316310	185TT5.0	24	5	6.7	82	Bronze*	185	1 x 5	27	162	315	185	83
316312	185TT6.0	12	6	8	97	Bronze*	185	1 x 5	27	161	343	185	83
316314	185TT6.0	24	6	8	97	Bronze*	185	1 x 5	27	161	343	185	83
316318	250TT8.0	24	8	10.8	160	Bronze	250	Twin CR	46	165	422	250	256
316322	300TT10.8	24	10.8	14.5	250	Bronze	300	Twin CR	65	203	450	300	320

N.B. ***Installation by qualified technician only***
For accessories, refer pages 877-878
****Transition to stainless steel from January 2017***

Lewmar® Bow Thrusters - Ignition Protected TT Electric

LEWMAR®

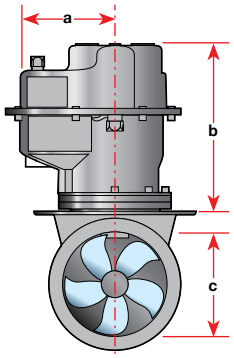
These thrusters are designed and tested to meet ISO8846, creating a reliable and safe thruster when used in boats where the unit may be exposed to an explosive atmosphere. Ideal for stern or wet locations due to the design and construction of the ignition protected thruster motor housing and wiring.

Available in a wide range of power outputs ranging from 42Kgf (2.2kW) to 97Kgf (6kW) in both 12 and 24 volt models with tunnel sizes ranging from 140mm to 185mm to suit boats to 18 metres. Installation by qualified technician only. Please contact BLA on **1300 252 725** for more information on the complete range of Ignition Protected Thrusters.

Features:

- Water resistant (not recommended to be used when submerged for long periods of time)
- Tough and durable composite housing
- Pre-installed 10m of control cable for connection outside of the restricted area
- Pre-installed 3m of power cables and supplied terminals for safe power supply connection
- Externally mounted fuse for easy maintenance
- Electric motor incorporates an auto shut off thermal sensor
- Control system shuts down after 3 minutes of continual use
- High quality solenoids to prevent possible contact welding
- Electronic delay between thrust directions to prevent damage to motor
- Externally mounted in-line fuse fitted to protect cable
- IP kits can also be retro-fitted to thrusters
- 3 year thruster warranty
- 1 year motor and electrical components warranty

316311



BLA Code	Model	Volts	Power kW	Power HP	Thrust Kgf	Gearbox Material	Tunnel mm	Prop Blades	Weight kg	a mm	b mm	c mm
316309	185TTIP	12	4	5.4	65	Bronze*	185	1 x 5	20	179	310	185
316311	185TTIP	24	5	6.7	82	Bronze*	185	1 x 5	27	193	332	185

N.B. Installation by qualified technician only.
****Transition to stainless steel from January 2017***

Image courtesy of Anchorage Houseboats

Lewmar® Bow Thrusters - Hydraulic

LEWMAR®

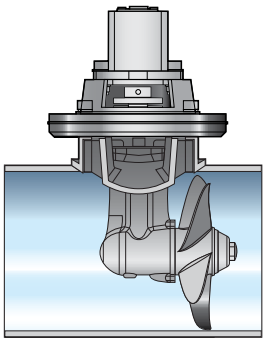
Hydraulic thrusters provide increased thrust over similar electric versions and are an ideal option where weight is a consideration and space is at a premium. Designed to provide continual thrust, the TT hydraulic thruster range enables significant flexible manoeuvrability over a far longer duration of repetitive use. Available in a range of power outputs to a maximum of 22.5kW suitable for vessels to 27 metres.

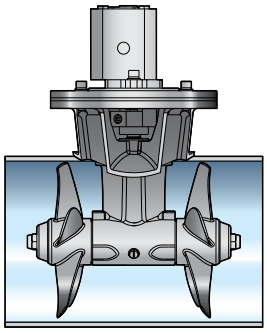
Lewmar® offers a range of hydraulic solutions for almost any type of vessel, however, it is important to note that the thrusters power and performance is directly dependant upon the associated hydraulic system. Installation by qualified technician only. For technical specifications and to discuss specific requirements please contact BLA on **1300 252 725**.

Features:

- Hydraulic solutions for almost any vessel
- Enables significant flexibility of vessel movement over greater lengths of time
- Increases the thrust over appropriate DC electric version
- 250 and 300 tunnel models available with bronze or aluminium hub
- 3 year thruster warranty
- 1 year motor and electrical components warranty

185TT Series Hydraulic thruster





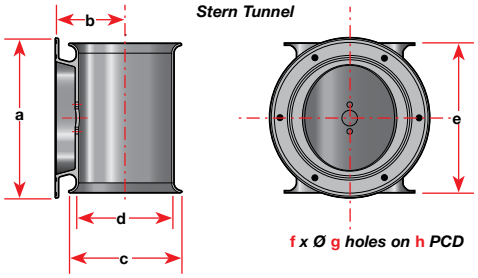
N.B. Installation by qualified technician only.

Lewmar® Bow and Stern Tunnels

LEWMAR®

Solid fibreglass bow tunnels are available in a variety of diameters and lengths to suit most common applications. A special "T" shaped tunnel has been specifically designed for Lewmar® stern thruster applications.

Stern Tunnel



f x Ø g holes on h PCD

Thruster Tunnel

Stern Tunnel fitted to Thruster

BLA Code	Description	Length mm	Diameter mm	To suit BLA Code
316350	Bow Tunnel	750	110	**316298**
316360	Bow Tunnel	750	140	**316300, 316302**
316362	Bow Tunnel	1000	140	**316300, 316302**
316363	Bow Tunnel	1500	140	**316300, 316302**
316364	Bow Tunnel	1000	185	**316304, 316305, 316307, 316308, 316309, 316310, 316311, 316314**
316366	Bow Tunnel	1500	185	**316304, 316305, 316307, 316308, 316309, 316310, 316311, 316314**
316367	Bow Tunnel	2000	185	**316304, 316305, 316307, 316308, 316309, 316310, 316311, 316314**
316370	Bow Tunnel	1500	250	**316318**
316374	Bow Tunnel	1000	300	**316322**
316376	Stern Tunnel	225	140	**316300, 316302**
316378	Stern Tunnel	320	185	**316304, 316305, 316307, 316308, 316309, 316310, 316311, 316314**
316380	Stern Tunnel	380	250	**316318**

Stern Thruster Tunnel Dimensions:

BLA Code	To suit Series	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm
316376	140TT	240	105	170	140	225	6	8.5	206
316378	185TT	290	130	235	185	320	6	10.5	251
316380	250TT	350	175	310	250	380	6	10.5	312

Lewmar Bow Thrusters – Retractable

LEWMAR®

Suitable for boats from 9 to 20 metres, Lewmar's new Retractable Thruster range provides a fair hull/keel line with minimal drag when raised, offering an advantage for higher performance sailing yachts and fast planning or semi-displacement hulls. Installation by qualified technician only. For more information on this thruster range contact BLA on **1300 252 725**.

Features:

- Unique low pivot mechanism for maximum deployment depth
- 2 part flange mount for OEM installation
- Robust GRP housing
- 140mm, 185mm + 250mm tunnel sizes
- Auto retract after 5 minutes
- Deployment time only 5-6 seconds
- IP69k Actuator Arms
- Stationary motor assembly
- 3 year thruster warranty
- 1 year motor and electrical components warranty

Retracted

Extended

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

N.B. Installation by qualified technician only.

Lewmar® Bow Thrusters - Custom Vertical Retracting

LEWMAR®

The VRTT range has continued development since 1983 and employs advances seen in the successful TT range to offer ultimate control in the most powerful range of retracting thrusters on the market. Providing large amounts of thrust for vessels from 13 to 50 metres, the VRTT is designed to fully retract into the hull when not in use, leaving a clean line with minimal drag that does not compromise hull performance.

With the advantage of better emersion and the ability to mount the unit further forward, the VRTT provides better performance per kilowatt thrust than a standard tunnel thruster. All the vertical retractors have a manual raise and lower mechanism for use in the event of a power failure or for cleaning and anti-fouling. For technical specifications and to discuss specific requirements please contact BLA on **1300 252 725**.

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® Thruster Controls

Lewmar® offers a range of attractive and fully functional remote control joysticks and touch pad panels allowing a full range of functions to be controlled from the one point. All panels are easy to install with simple plug and play connection system.

N.B.These panels are not suitable for use with the Custom Swing Retracting Thrusters.

Lewmar® Thruster Control Panel - Joystick

- Suitable for **316300**, 140TT 2.0kW only
- Features on/off illumination
- Easy installer connection

BLA Code
316400

Lewmar® Thruster Control Panel - Touch

- Incorporates safety lock
- Features a one second press and hold safety ON device
- Auto shut-off after three minutes of continuous use
- Auto shut-off after fifteen minutes of continuous activity
- One second delay on directional change to protect motor
- Easy installer connection
- Suits all models except 140 and 110

BLA Code
316402

Lewmar® Thruster Control Panel - Dual Joystick

- Easy operation for bow and stern thrusters
- Features a one second press and hold safety ON device
- Incorporates safety lock
- Auto shut-off after three minutes of continuous use
- Auto shut-off after fifteen minutes of continuous activity
- One second delay on directional change to protect motor
- Easy installer connection
- Suits all models except 140 and 110

BLA Code
316406

Lewmar® Thruster Control Panel - Joystick Pro

- Features a one second press and hold safety ON device
- Auto shut-off after three minutes of continuous use
- Auto shut-off after fifteen minutes of continuous activity
- One second delay on directional change to protect motor
- Easy installer connection
- Suits all models except 140 and 110

BLA Code
316404

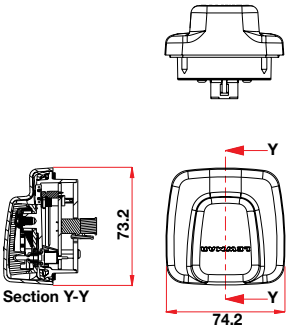
Lewmar® Thruster Controls

Lewmar's new range of thruster controls provides superior control of single or dual thruster installations.

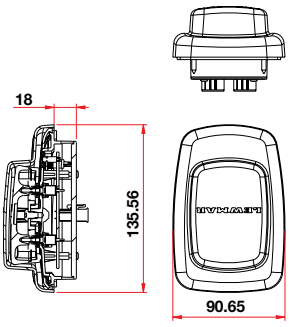
Features:

- Ergonomic control "pad" gives tactile feedback
- Membrane switch panel sealed from dust and moisture ingress
- Safety ON feature stops inadvertent use
- Time-out facility
- LED light shows power on
- Dual controller gives total sideways control via multi-axis function pad
- Upgrade kit allows installation where previous generation switches are in the existing installation
- Requires 12/24 volt supply
- Suits all models except 140 and 110

316392



316394



BLA Code	Description
316392	Control Panel New Single t/s Thruster
316394	Control Panel New Dual t/s Thruster
316396	Control Thruster Upgrade Kit

Lewmar® Thruster Accessories - Connection Leads and Y Connectors

LEWMAR

- Easy push on plug and play fittings
- Cable lengths from 7 to 22 metres
- Dual station splitting cable allows connection to second controller

316410

316422

BLA Code	Description	Length m
316408	Extension Cable	2
316410	Extension Cable	7
316412	Extension Cable	10
316414	Extension Cable	14
316416	Extension Cable	18
316418	Extension Cable	22
316422	Y Connector	-

Lewmar® Thruster - Fuse Holders

LEWMAR

- **316428** fuse holder designed for ANL fuses
- Complete with clear safety cover
- **316430** fuse holder for higher specification fuses
- Easy replacement of fuse
- Independently clamped cable
- Complete with clear safety cover

316428

316430

316426

BLA Code	ANL Fuse Amperage	To Suit BLA Code
316433	130	**316305**
316434	250	**316304, 316307, 316310, 316311**
316435	325	**316314**
316438	200	**316300, 316302, 316298**
316442	400	**316309, 316308, 316318**
316443	500	**316322**

BLA Code	Description
316428	T1 Fuse holder
316430	T2 Fuse holder
316426	Auto battery switch

Lewmar® Thruster Spare Parts - Common

LEWMAR

A range of spare parts to suit most thrusters are available, including propellers, anodes, battery switches, fuse holders and fuses.

316450

BLA Code	Description	To Suit Thruster Series
316450	Anode kit	140TT
316452	Anode kit	185TT
316454	Anode kit	250/300TT
316460	Propeller	140TT
316462	Propeller	185TT
316464	Propeller R/H	250TT
316466	Propeller L/H	250TT
316468	Propeller R/H	300TT
316470	Propeller L/H	300TT
SP31316300	Shear pin	140TT
SP31316301	Shear pin	185TT
SP31316308	Shear pin (x2)	185TT

POWER GENERATION & ENGINE ROOM

Wind Generators	880-881
Marine Generators	916-891
Vehicle Generators	892-895
Vehicle Generator Radiators	896
Military Generators	897
Parallel Generators	897
Generator Accessories	898-901
Sierra® Fuel Filters, Carbie Kits & Temperature Senders	902-904
Sierra® Impellers & Kits	904-906
Sierra® Thermostats & Gaskets	906-911
Sierra® Oil Filters	911-912
Sierra® Anodes, Solenoids, Starters & Alternators	913
Sierra® Generator Parts Application Guide	914-924
Exhaust Components	926
Marine Town® Exhaust Outlets	926
Waterlocks & Goosenecks	927
Sound Insulation	928

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Wind Generators

Wind generators or combined wind/water generators can contribute significant renewable energy to a yacht's DC power requirements when sailing and at anchor. It is possible to greatly reduce or even completely eliminate engine running for charging purposes in a yacht to achieve reduced engine hours and save valuable fuel when on a long voyage. Many sailors have been able to produce all their DC energy from wind generators when on coastal and ocean passages. Wind generators also have land based applications.

Silentwind Wind Generator - 400+ Turbine Series

A new generation of wind turbine with silent power blades.

The Silentwind 400+ is the result of Silentwind's continuous improvement process. This generator has higher efficiency due to it's earlier charging start-up. It also features faster wind tracking and stable operating performance due to an enlarged wind-deflector. The Silentwind 400+ has an additional body bearing for a more precise guidance of the wind generator and smoother operating. The new generator has reinforced mast support for higher safety reserves under strong winds.

Features:

- 3-phase brushless AC-generator with permanent magnets
- Available in 12V / 24V or 48V
- Weighs only 6.8kg
- Low noise emission
- With hand laminated, UV-resistant carbon fibre (CFRP) - rotor blades; successfully tested in the wind tunnel at hurricane wind-speeds of 122 km/h, creating 5480 rpm with sonic velocity at the blade-tips
- Very good start-up performance due to a low cogging torque at 2.2m/s wind speed
- Fast charging start-up
- Universal application at low, middle and high wind speeds
- For marine and land-use and professional applications
- Durable and low maintenance
- Includes an external Hybrid-Charge Controller with LCD Display for all relevant operational data as W, A, V, Ah, kWh and with the option to connect up to 400Wp solar panels

Applications:

Silentwind can be used in many applications like:

- Sailing boats
- Off-grid application
- Net-Grid connection (48V)
- Charging stations
- Holiday homes
- Wireless LAN - Access - Points
- Research and monitoring units
- Projects in developing countries
- Traffic management systems
- Emergency systems
- Street lamps

Hybrid Charge Controller

A special feature of this charge controller is that you can very easily programme everything through your Smartphone or Tablet. Download the App for your operating system (Android or iOS). When the batteries are fully charged (they reach the 'Over voltage' set for the type of battery using the App) the charge controller will switch off the Silentwind generator. The maximum charging current for your battery type can also be adjusted. You programme the maximum charging current using the 'Brake Current' in the App.

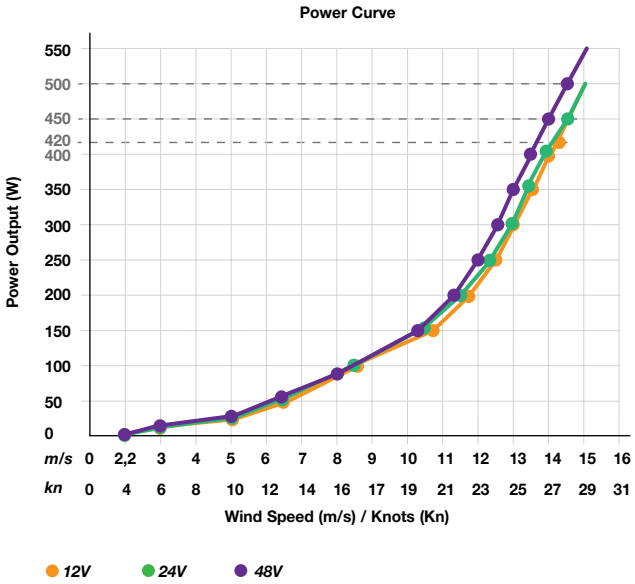
BLA Code	Description
337700	Wind Generator Silentwind 400 12V
337702	Wind Generator Silentwind 400 24V
337704	Wind Generator Silentwind 400 48V

Accessories:

337705	Segment Mast
337706	Mast Mounting Kit
337707	Silent Power Blades
337708	Rotorblade hub grey w/ screw kit M6
337709	Nose Cone

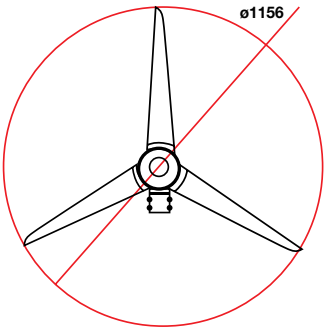
TECHNICAL SPECIFICATIONS	
Description	Silentwind 400+ Turbine
Generator Type	Permanent magnet, 3-phase AC
Rated Voltage	12 / 24 / 48 VDC
Rated Power Output	420W / 450W / 500W
Rated Wind Speed	14.5 m/s (28.2 knots)
Start-up Wind Speed	2.2 m/s (4.3 knots)
Start-up Charging	~2.8 m/s (5.4 knots)
Security Check in the Wind Tunnel	122 km/h (without any objections)
Rotor Diameter	1.15m
Quantity of Blades	3
Rotor Blade Material	±150g / blade
Rotation Speed of Range of Loading	CFRP-hand laminated
Weight of Generator	550 - 1700 rpm
Packing Dimensions	6.8kg
Packing Weight	780x400x210mm
Packing Weight	10kg
Braking Process	Electronic / manual stop-switch
HYBRID CHARGE CONTROLLER WITH MULTI-FUNCTION DISPLAY	
System Voltage	12 / 24 / 48 VDC
Max. Power input wind generator	450W / 40A
Max. Power input solar panel	400Wp / 40A
Display Information	V, A, W, Ah, kWh

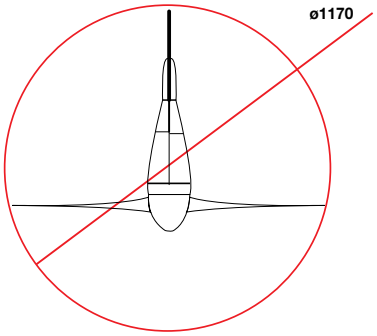
Performance

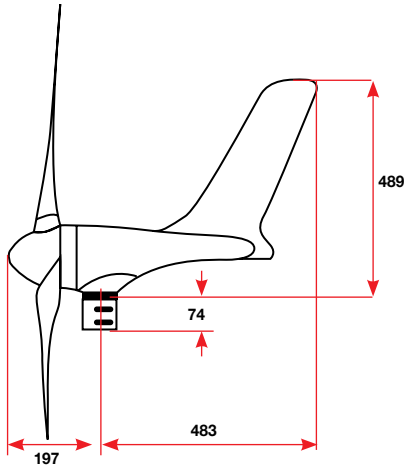


N.B. Measured in a wind tunnel with laminar wind.

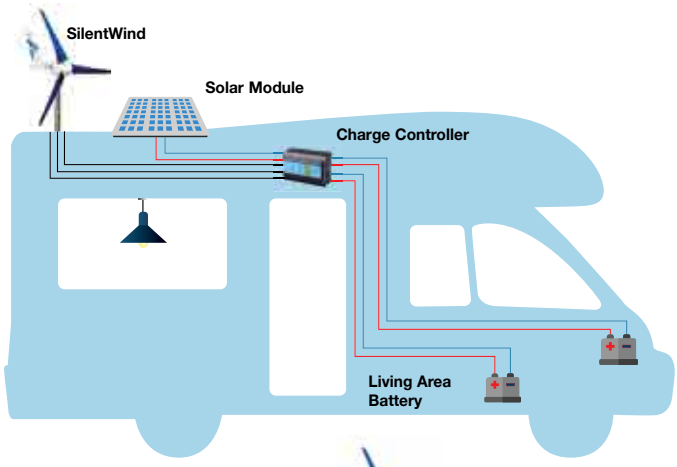
Dimensions

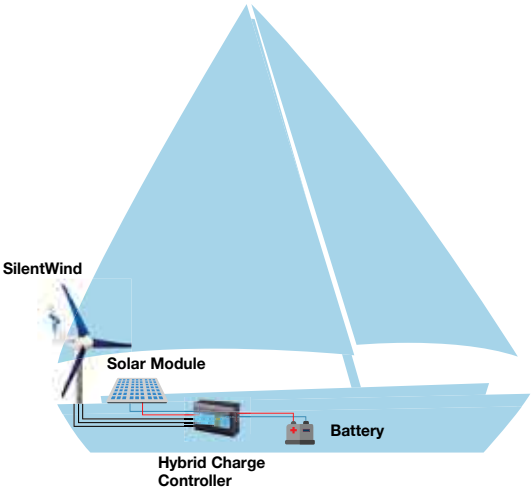


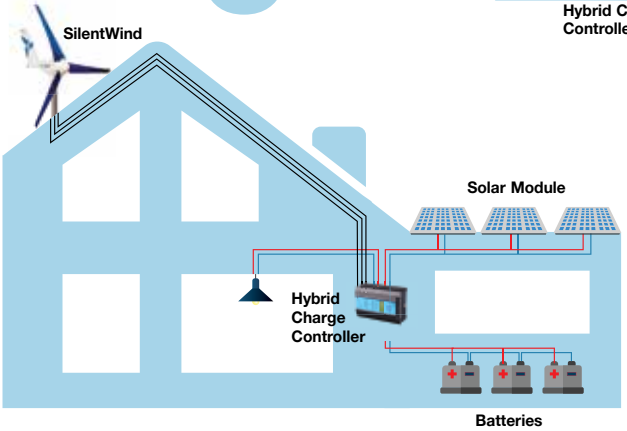




Typical Installations







Eclectic Energy® Wind Generator - DuoGen

The DuoGen is a combined wind and water generator with an integral tower and brackets. This allows it to be mounted on most yachts without the need to manufacture any additional hardware. During sailing, energy production is greater in water mode whilst the wind mode is effective when at anchor. At just over 6 knots of constant boat speed, the DuoGen operating in water mode will produce 200 amp-hours in a 12 volt system per day. This power will be almost double for an increase of 2 knots in boat speed.

Features:

- Combined wind and water generator
- Low carbon cruising with DuoGen
- Powerful water generation on passage
- Quiet, smooth wind power at anchor
- System weight at deck level
- Changes from wind mode to water mode in seconds without the need for tools
- Easily installed with mount hardware supplied
- Elegant design
- Tough construction with corrosion resistant materials throughout
- Stainless steel mounting brackets
- Available in 12V and 24V models
- Self-furling protection in high winds
- Air rotor dismantles for easy stowage
- Rated output in water mode: 100W at 6kts; 150W at 7kts; 200W at 8kts
- Minimal drag in water mode, typical boat-speed loss is less than 0.15kts
- Rated output in wind mode: 40W at 10kts; 90W at 15kts; 150W at 20kts
- Two year warranty

337730

Wind Mode

BLA Code	Description	Overall Height mm	Output Watts
337730	DuoGen Short Tower 1.3m 12V	3570	500
337732	DuoGen Long Tower 1.6m 12V	4070	500
337734	DuoGen V. Long Tower 1.85m 12V	4520	500
337740	DuoGen Short Tower 1.3m 24V	3570	500
337742	DuoGen Long Tower 1.6m 24V	4070	500
337744	DuoGen V. Long Tower 1.85m 24V	4520	500

Accessories:

337720	TB12V Regulator 12V incl. load resistors
337722	TB24V Regulator 24V incl. load resistors

Water Mode

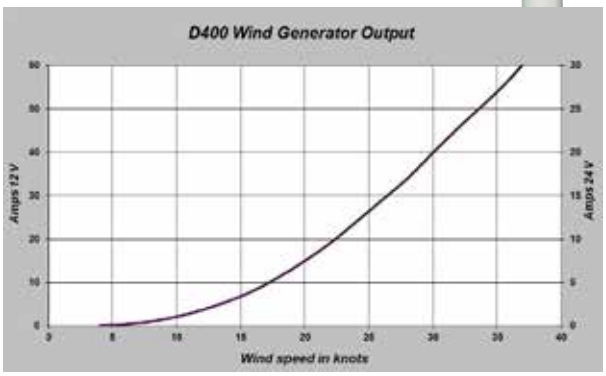
Eclectic Energy® Wind Generator - D400

The D400 wind generator is designed for battery charging in marine and terrestrial applications. It is exceptionally quiet and vibration free in operation. This innovative machine is extremely efficient in low wind speeds, yet is capable of sustained power outputs of up to 600 watts in higher winds. Distinctive in design, the D400 is superbly engineered for long, trouble free operation.

Features:

- Highly efficient and productive at all wind speeds
- Virtually silent and vibration free in operation
- Robustly constructed for a long service life
- Corrosion resistant materials used throughout
- Available in 12V and 24V models
- Rated output 235W at 22kts; 420W at 28kts
- Optional external regulator produces maximum charge to the batteries
- Rotor 1.1m diameter
- Turning circle 700mm
- Two year warranty

337710



N.B. All performance figures are indicative. Actual outputs may vary.

BLA Code	Description	Blade Diameter mm	Turning Circle mm	Weight kg	Max. Output Watts
337710	D400 Wind Generator 12V	1100	700	17	600
337712	D400 Wind Generator 24V	1100	700	17	600

Accessories:

337720 TB12V Regulator 12V incl. load resistors
337722 TB24V Regulator 24V incl. load resistors

Fischer Panda® Generators

Compact, Lightweight and Quiet

Fischer Panda® are known around the world for class-leading compact marine and vehicle diesel generators. Featuring a highly efficient water cooling system Fischer Panda® generators are renowned for being lightweight, reliable and extremely quiet.

A diverse range of performance generators ranging in output from 3.8kW to 170kW are available in configurations to suit any application.

For efficient running, Fischer Panda® utilise a highly effective cooling system to ensure temperatures within the sound capsule remain within an acceptable range even in tropical conditions. Eliminating the requirement for free flowing cooling air improves sound insulation and greatly reduces engine noise. All Fischer Panda® marine generators employ a freshwater dual circuit cooling system to cool the diesel motor and the generator. A traditional seawater heat exchanger, manufactured from high quality alloy, cools the recirculating fresh water coolant to maintain constant temperature and optimise performance. Fischer Panda® vehicle generators use an external radiator which circulates normal engine coolant.

iSeries

Super Silent Sound Insulation

Fischer Panda® marine generators up to 25kVA are supplied with a GRP (Glass-Reinforced Plastic) sound insulation capsule lined with 3D sound absorbing material. This provides a sound level that is one of the lowest decibel outputs achievable for diesel generators. Optional 4D sound insulation material is available if even lower noise level is required.

Marine generators above 25kVA are supplied with a stainless steel MPL (Metal Professional Line) sound capsule. The MPL casing consists of flat panels which are easy to dismantle and remove so that all parts of the generator can be accessed. Generators from 6.8kW can be supplied with the MPL capsule at an additional cost.

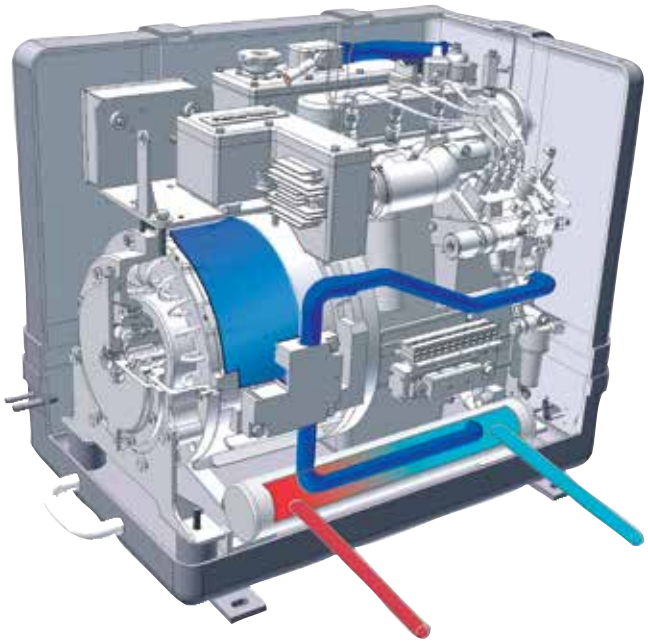
MPL stainless steel sound insulation capsule is standard for generators from 25kW

GRP sound insulation capsule is standard for generators up to 25kW

Water Cooled Engine and Alternator

One of the reasons for the superior efficiency of Fischer Panda® is the very effective cooling system. It ensures that temperatures inside the sound capsule remain in an acceptable range in all conditions. At the same time, it achieves the best possible sound insulation as external cooling air flow is not required.

To prevent galvanic corrosion, Fischer Panda® use a dual circuit cooling system for generator and engine. The engine and generator are cooled by engine coolant. Seawater only comes into contact with the heat exchanger which is made from corrosion resistant cupronickel alloy.

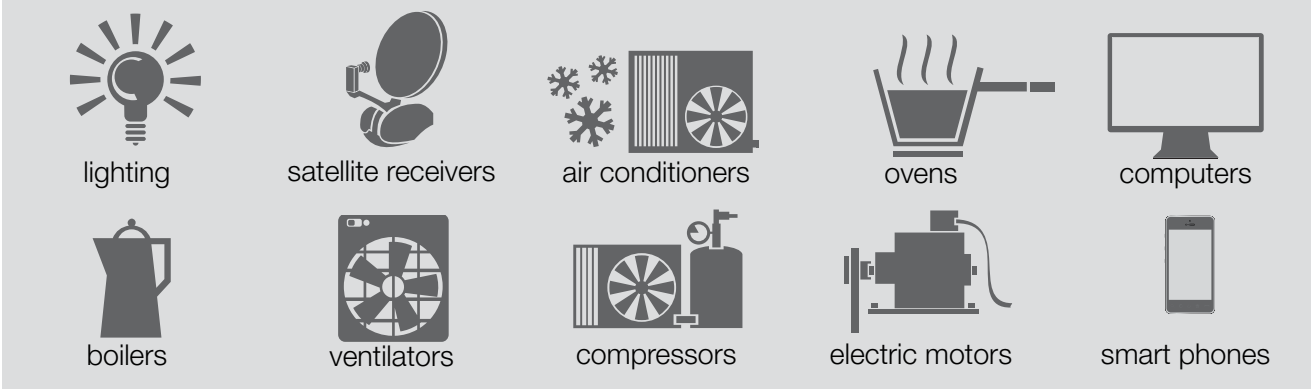


Reliable Asynchronous Generators

For generators above 6.5kW, Fischer Panda® utilise asynchronous alternators combined with a patented VCS (Voltage Control System) to achieve voltage precision that cannot be matched by conventional generators. The excellent performance of the Fischer Panda® asynchronous generators set a high standard and has been proven in many applications over many years.

Fischer Panda® asynchronous generators have no rotating coils, no diodes, produce no electrical noise and provide the highest operating protection for professional applications. This enables a lifetime warranty to be provided for the rotor which is often the most vulnerable part of other generators.

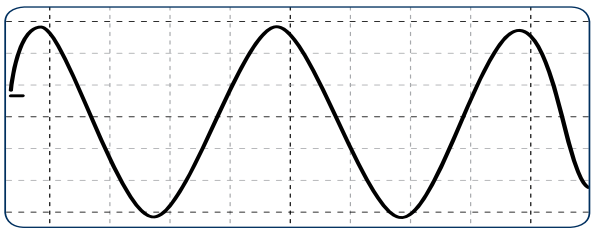
Suitable for many applications



Perfect Sine Wave

Fischer Panda® asynchronous generators supply a particularly clean sine wave and have achieved the best results during numerous tests in this category. This is essential for supplying power to sensitive electronic equipment, charging equipment and computers.

AC 50Hz outputs of single phase 230V or three phase 400V, and 60Hz outputs of single phase 120/240V or three phase 208V are available.



The outstanding sine wave of the Fischer Panda® generator

Fischer Panda xControl

Innovative, flexible and reliable – these are the attributes of the "xControl" generator control from Fischer Panda.

This digital control replaces the current VCS control and the P6+ panel on Fischer Panda asynchronous generators (refer to table below for specific models). These generators are renowned worldwide and have been in use for operation for 25 years.

In the age of modern data communications and energy systems, it is more and more important that the generator is able to integrate with an existing control and regulation systems. With the "xControl", Fischer Panda offers an extremely powerful and user-friendly generator control system:

This digital control replaces the current VCS control and the P6+ panel in use on Fischer Panda asynchronous generators

Features:

- "Plug & Play" - reduced installation effort
- Modular system - easy to expand
- Logging and display of operational data - complete control at all times
- Comprehensive event logging - long term service
- Digital Panel - easy to use and multi-lingual
- Communications interface - integration in other control systems
- Self-test of all functions - safe and reliable system
- Automatic start - remote control of generator
- Fast control - stable energy supply

The "xControl" comprises of three main components which are connected together using quick-connection plugs. These are the digital panel, a connection box on the generator and the actual control unit. Through intelligent communication of these three system components, a reliable operation of the generator is ensured.

The "xControl" management system offers a easy to operate system, a modern and simple system architecture and a modern communication interface.

Fischer Panda® xControl Generator Control - Servo (GC-S)

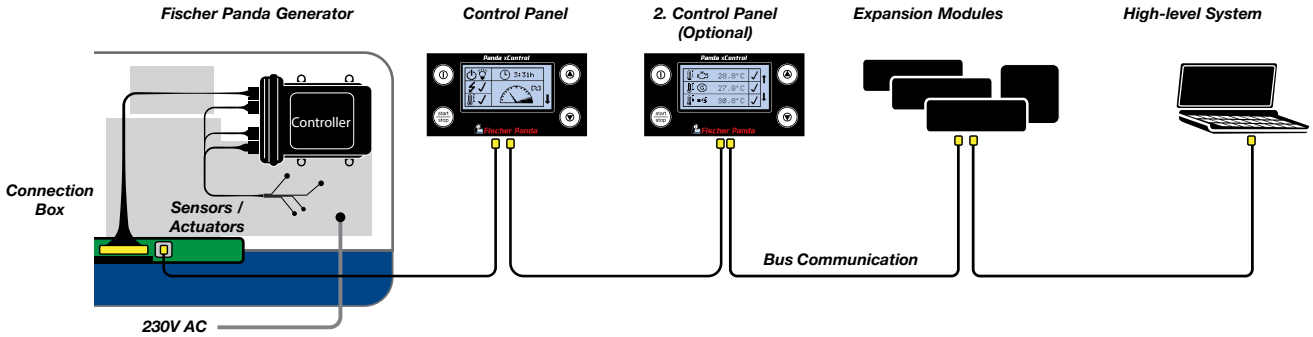
- Powerful, centralised generator control unit
- Easy to install and IP67 housing
- Automatic integration with connection box and panel
- One control for both 12V and 24V start systems
- Connects to other external communication systems via expansion modules
- 100% temperature control

Fischer Panda® xControl Connection Box - Generator (CB-G)

- Easy "Plug & Play" installation with panel and control unit
- Connections for external components
- Splash protection for connections

Fischer Panda® Control Panel - Generator (CP-G)

- Digital display
- Easy to operate menu structure
- Displays current, voltage, frequency and other performance data
- Multi-lingual
- Diagnostic and service modes
- Multi-panel applications possible



xControl System	Marine Generator - Premium Series	Vehicle Generator - PVMV-N Series
Models	● **337025, 337027, 337029, 337048** (Refer page 890)	● **337225, 337227, 337229, 337231** (Refer page 893)

● *Included*

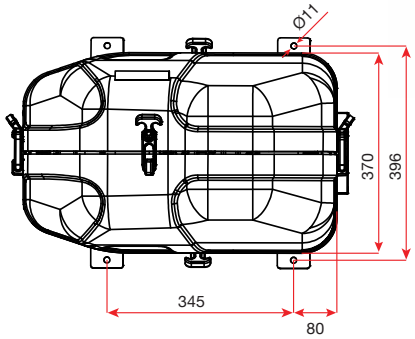
Fischer Panda® Marine Generator - 4000s

The Panda 4000s is the ideal entry level generator for vessels with small electrical requirements and limited space. The Panda 4000s sound capsule is made up of a base and two enclosed sides, all connections are pre-fitted to the base which makes the 4000s easy to install.

Unlike other generator sets, the 4000s engine and windings are freshwater cooled and require no forced air inside the sound capsule making it super quiet and ideal for live-aboard vessels and running air conditioners at night.

Features:

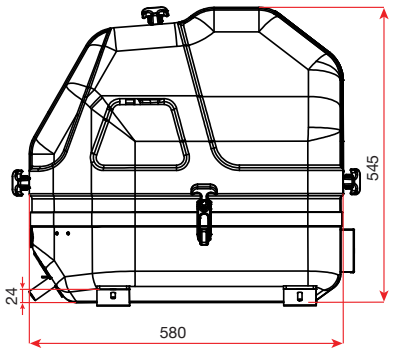
- High starting capacity, perfect for running dive compressors and air conditioning units
- Extremely compact and lightweight
- Super silent sound insulation capsule
- Highly effective dual circuit cooling via a cupronickel heat exchanger
- Pure sine wave is ideal for sensitive electronics
- Voltage stability 230Vac ± 5%
- Frequency stability 50Hz ± 2Hz
- Innovative design
- Easy to install and maintain with all servicing and connections on one side
- Electric starting
- Automatically turns off under alarm states
- Remote control and alarm monitoring via the included remote panel
- Integrated fuel pump

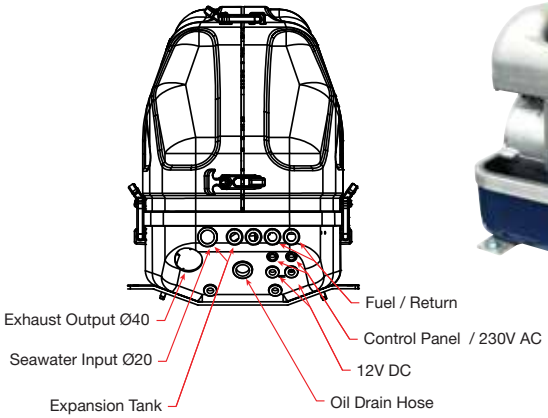


Standard Inclusions

SP33337638

SP33337030





BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW	Nominal Output kVA	Continuous Output kW	Engine Manufacturer	Engine Type	Engine Displacement cc	Engine Speed RPM
337018	Panda 4000s FC PMS 230V 50Hz 4kVa	580x370x545	97	54/64/68	3.8	4	3.5	Farymann	18W430	298	3000

Standard Inclusions:

SP33337030 Cooling water expansion bottle
SP33337638 Remote control and monitoring panel

Accessories:

337464	Standard service kit 11	**55-21.03.10.046P**	Service kit plus 20
SP33337436	Engine mount	**55-21.03.04.080S**	Basic installation kit
SP33336980	Diesel fuel filter 5 micron	**55-21.03.04.057S**	Premium installation kit
SP33336984	Marine grade diesel fuel filter 5 micron		

Fischer Panda® Marine Generator - Panda 5000i.Neo

The new 5000i.Neo iSeries generator features the Fischer Panda water-cooled FPE320 single cylinder engine. Panda iSeries generators are the first of the next generation of compact, super silent and powerful generators.

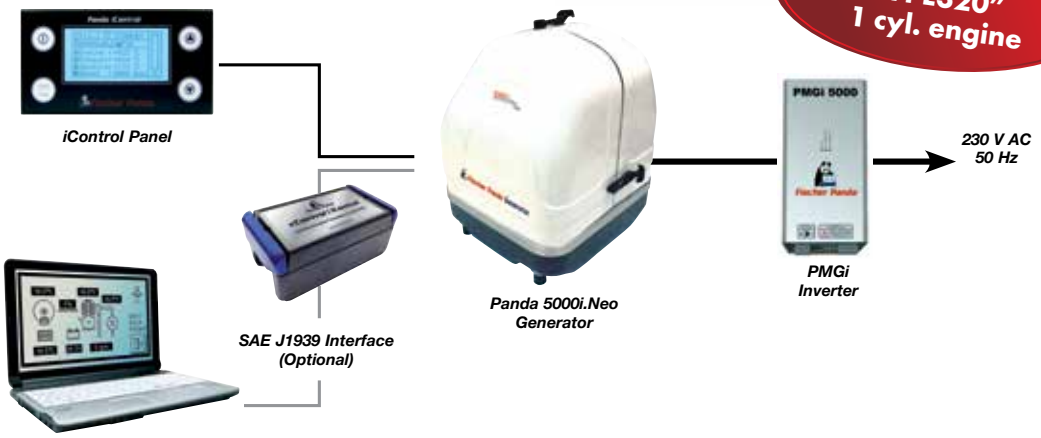
Using modern diesel engines which meet the latest emission standards and variable speed technology, the operating speed can be adjusted to match the load to ensure an efficiency while supplying extremely stable voltage and frequency.

Fischer Panda iSeries generators are fitted with the highly regarded sound insulation and water-cooling. The Panda iSeries generators have been especially designed to be light and compact - up to 30% weight and space savings!

Features:

- Variable speed - load-dependent
- Small size and low weight - compact installation
- Highly efficient - maximum energy
- 230V AC output - reliable power supply
- Pure sine wave is ideal for sensitive electronics
- High starting capacity for most air conditioners / diving compressors
- Easy to install - reduces costs
- Environmentally friendly - low fuel consumption
- Optional SAE J1939 interface
- 2 year warranty, 1 year commercial warranty

Water-cooled "FPE320" 1 cyl. engine



Standard Inclusions

SP33337608 *Inverter* *SP33337030* *SP33337324*

BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW	kVA	Continuous Output kW	Engine Manufacturer	Engine Type	Engine Displacement cc	Engine Speed RPM
337022	Panda 5000i. Neo PMS	422x450x508	75	54/64/68	0-4,0	5	0-3,6	Fischer Panda	FPE320	309	2200-3000

Standard Inclusions:

SP33337030 Cooling water expansion bottle
SP33337638 Remote control and monitoring panel

Accessories:

337451 Service Kit 5000i.Neo PMS
SP33336980 Diesel fuel filter 5 micron
SP33336984 Marine grade diesel fuel filter 5 micron
SP33337440 Single shock-mount
55-21.03.04.057S Premium installation kit
55-SAE J1939 SAE J1939 Interface

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Marine Generator - iSeries

The iSeries generators are the first of the next generation of compact, super silent and powerful generators from Fischer Panda®. Using modern diesel engines which meet the latest emission standards and variable speed technology, the operating speed is adjusted to match the load to ensure efficiency while supplying extremely stable voltage and frequency. Fischer Panda® iSeries generators are fitted with highly regarded sound insulation and water cooling. They have been especially designed to be lightweight and compact giving you up to 30% savings in weight and space.

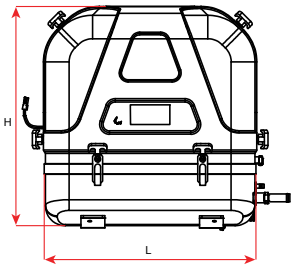
Features:

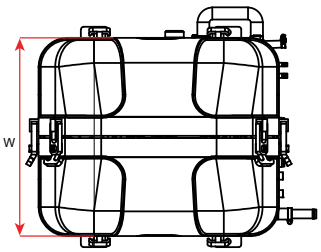
- Parallel connection of two iSeries generators of the same model; refer to page 897.
- Load dependent variable speed technology: 2200-2800RPM (1500-2700RPM for the 45i)
- Compact installation due to small size and low weight
- Highly efficient, maximum energy
- Environmentally friendly with low fuel consumption
- Easy installation reduces costs, all connectors pre-fitted to base
- Dual circuit freshwater cooling via heat exchanger
- Pure sine wave is ideal for sensitive electronics
- Electronic controlled voltage and frequency regulation
- Voltage stability 230Vac ± 3% (400Vac ± 3% for the 45i)
- Frequency stability 50Hz ± 2%
- High starting capacity for air conditioners / diving compressors
- Panda iControl LCD display; dual remote panel options available
- Electric starting, auto starting capable
- Automatically stops under alarm state
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts

337056

337042

337022





Standard Inclusions

SP33337608

Inverter

SP33337030

SP33337324

BLA Code	Description	Dimensions L x W x H	Total Weight Generator + Inverter kg		Sound Level 7m/3m/1m dB	Nominal Output kW	kVA	Continuous Output kW
337019	Panda 4800i PMS 230V 50Hz 4.8kVA	580 x 370 x 545	80	7.9	54/64/68	3.8	4.8	3.3
337022	Panda 5000i.Neo PMS	422 x 450 x 508	75	7.9	54/64/68	0-4,0	5	0-3,6
337042	Panda 8000i PMS 230V 50Hz 8kVA	520 x 445 x 545	110	12.3	52/62/67	6.4	8	5.5
337044	Panda 10000i PMS 230V 50Hz 10kVA	536 x 445 x 555	120	12.3	54/64/68	8	10	7
337056	Panda 15000i PMS 230V 50Hz 15kVA	650 x 465 x 589	162	17.4	54/64/68	12	15	10.8
337082	Panda 25i PMS 230V 50Hz 25kVA	840 x 520 x 664	263	25	55/60/70	20	25	18
55-03.05.01.002P	Panda 45i PMS 230V 50Hz 45kVA	1130 x 660 x 810	495		55/60/70	36	45	33

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337030	Cooling water expansion bottle
SP33337324	Pierburg 12V remotely mounted fuel lift pump
SP33337608	Remote iControl and monitoring panel
55-21.07.03.043P	PMGi 4800 Inverter
55-21.07.03.042P	PMGi 8000 Inverter
55-21.07.03.041P	PMGi 10000 Inverter
55-21.07.03.017P	PMGi 15000 Inverter
55-21.07.03.046P	PMGi 25 Inverter

Accessories:

337468	Standard service kit 18 to suit 4800i
337450	Standard service kit 1 to suit 5000i
337452	Standard service kit 3 to suit 8000i
337466	Standard service kit 14 to suit 10000i
337470	Standard service kit 19 to suit 15000i
337456	Standard service kit 5 to suit 25i
SP33337322	Engine mount to suit 15000i
SP33336980	Diesel fuel filter 5 micron
SP33336984	Marine grade diesel fuel filter 5 micron
55-21.03.10.045P	Service kit plus to suit 4800i
55-21.03.10.011P	Service kit plus 1 to suit 5000i
55-21.03.10.015P	Service kit plus 5 to suit 8000i
55-21.03.10.057P	Service kit plus 25 to suit 10000i
55-21.03.10.042P	Service kit plus to suit 15000i
55-21.03.10.029P	Service kit plus 19 to suit 25i
55-21.03.04.080S	Basic installation kit to suit 4800i - 15000i
55-21.03.04.055S	Basic installation kit to suit 25i
55-21.03.04.057S	Premium installation kit to suit 4800i - 15000i
55-21.03.04.067S	Premium installation kit to suit 25i
55-32.30.01.009H	Engine mount to suit 25i
55-21.02.02.132P	iControl 2 slave panel

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Marine Generator - Premium Series

Fischer Panda's range of voltage regulated asynchronous generators are designed to provide an extremely stable voltage supply. They are ideally suited for appliances and accessories demanding continuous power and high starting requirements such as air-conditioning units and compressors. Furthermore, the xControl models (**337025**, **337027**, **337029** and **337048**) offer an extremely powerful and user-friendly generator control system, refer page 886 for more information.

Fischer Panda® Premium Series generators are supplied with 3D sound insulation in a heavy duty GRP three piece capsule, all mechanical and electrical connections are fitted to the sound capsule base for ease of installation. When peace and quiet is your main focus, Fischer Panda® have a range of higher specification sound insulation options to suit your needs.

Fischer Panda® also offer generators with dual voltage (230V/400V) dual windings outputs, 24V DC starting and control, automatic starting and insulated from ground (above earth) units. 65kVA, 85kVA and 100kVA generators enclosed in a stainless steel MPL 4DS sound capsule are available. Please contact BLA on **1300 252 725** for more information.

55-01.03.01.007P

337027

Features:

- Small size and lightweight, easy to install
- Dual circuit freshwater cooling via heat exchanger
- Electronic controlled voltage regulation for perfect sine wave control
- Voltage tolerance with VCS (up to 80% performance) ± 3V
- Power rating factor cosPhi 0.85
- High starting capacity for air conditioners, diving compressors
- Short circuit stability with overload protection
- Electric starting, auto starting capable
- 12V/10A alternator for charging the starter battery
- Panda P6 Plus display; dual remote panel options available
- Brushless, no rotating coils or diodes
- No signal noise
- External 12V fuel pump
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts

Standard Inclusions - xControl Models

Generator Control

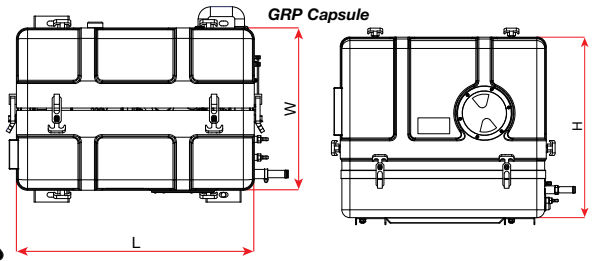
Connection Box

Control Panel

SP33337324

SP33337030

GRP Capsule



Standard Inclusions - Other Models

SP33337662

SP33337030

SP33337324

BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW	Nominal Output kVA	Continuous Output kW	Continuous Output kVA
337025	Panda 8000x PMS 230V 50Hz	595 x 440 x 590	164	52/62/67	6.8	8	6.1	7.2
337027	Panda 10000x PMS 230V 50Hz	660 x 515 x 490	180	52/62/67	8	9.4	7.2	8.5
337029	Panda 12000x PMS 230V 50Hz	705 x 445 x 590	195	53/63/67	10.2	12	9.1	10.8
337048	Panda 15000x PMS 230V 50Hz	740 x 480 x 600	249	54/64/68	12.9	15.2	11.6	13.7
337050	Panda 18 PMS 230V 50Hz 18kVA	832 x 515 x 660	297	55/65/69	15.3	18	13.7	16.2
337070	Panda 24 PMS 230V 50Hz 24kVA	1010 x 515 x 675	355	55/65/69	20.4	24	18.3	21.6
337072	Panda 30 PMS 230V 50Hz 30kVA	1010 x 515 x 675	403	55/65/69	25.5	30	22.9	27
55-01.01.01.011P	Panda 30IC PMS 230V 50Hz 31.7kVA	1010 x 515 x 675	403	55/65/69	27	31.9	24.3	28.6
55-01.03.01.007P	Panda 45 PMS 400V 50Hz 45kVA	1290 x 650 x 770	767	custom	38	45	35.1	40.5

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337662	Remote control and monitoring panel P6-Plus
SP33337030	Cooling water expansion bottle
SP33337324	Pierburg 12V remotely mounted fuel lift pump

Accessories:

337452	Standard service kit 3 to suit 8000 PMS
337466	Standard service kit 14 to suit 10000 PMS
337454	Standard service kit 4 to suit 12000 PMS
337470	Standard service kit 19 to suit 15000 PMS
337456	Standard service kit 5 to suit 18 - 30IC PMS
SP33337322	Engine mount to suit 15000 PMS
SP33336980	Diesel fuel filter 5 micron
SP33336984	Marine grade diesel fuel filter 5 micron
55-21.03.10.015P	Service kit plus 5 to suit 8000 PMS
55-21.03.10.056P	Service kit plus 24 to suit 10000 PMS
55-21.03.10.017P	Service kit plus 7 to suit 12000 PMS
55-21.03.10.042P	Service kit plus to suit 15000 PMS
55-21.03.10.018P	Service kit plus 8 to suit 18 PMS
55-21.03.10.029P	Service kit plus 19 to suit 24 - 30IC PMS
55-21.03.04.080S	Basic installation kit 2 to suit 8000 - 15000 PMS
55-21.03.04.055S	Basic installation kit 3 to suit 18 & 24 PMS
55-21.03.04.057S	Premium installation kit 2 to suit 8000 - 15000 PMS
55-32.30.01.009H	Engine mount to suit 18 - 30IC PMS
55-21.02.02.120P	Automatic start-up kit to suit 8000 - 12000 PMS
55-21.02.02.121P	Automatic start-up kit to suit 15000 - 30IC PMS

Fischer Panda® Marine Generator

- Heavy Duty Series 1500RPM

The 1500RPM Fischer Panda® range has been designed and manufactured specifically to suit heavy duty and commercial applications where a longer service life is required. The range features voltage regulated asynchronous generators which are designed to provide an extremely stable voltage supply.

The 1500RPM series generators are supplied with 3D sound insulation in a heavy duty GRP three piece capsule for units up to the 12-4 PMS. They are supplied in a stainless steel MPL 4DS sound capsule for units up to 200-4 PMS. When peace and quiet is your main focus, Fischer Panda® have a range of higher specification sound insulation options to suit those needs.

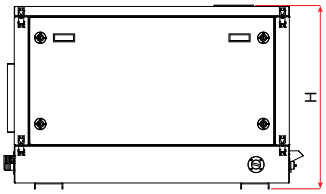
Fischer Panda® also offer generators with dual voltage (230V/400V) dual windings outputs, 24V DC starting and control, automatic starting, insulated from ground (above earth) units. 40kVA to 200kVA generators enclosed in a stainless steel MPL 4DS sound capsule are also available. Please contact BLA on **1300 252 725** for more information.

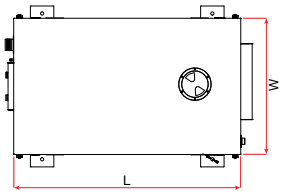
337076

Features:

- Easy to install
- Suitable for internal installation
- Low heat generation
- External control panel with cable
- Includes seawater impeller pump
- Includes freshwater (coolant) pump
- External 12V fuel lift pump
- Heat exchanger for engine and winding (dual circuit cooling)
- Voltage tolerance with VCS (up to 80% performance) ± 3V
- Power rating factor cosPhi 0.85
- 12V/10A alternator for charging the starter battery
- Starter system 12V (24V optional)
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts

337036





MPL Capsule

Standard Inclusions

SP33337662

SP33337030

SP33337324

BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW	Nominal Output kVA	Continuous Output kW	Continuous Output kVA
337032	Panda 7.5-4 PMS 230V 50Hz 7.6kVA	830 x 515 x 660	278	52/62/66	6.5	7.6	5.8	6.8
337034	Panda 9-4 PMS 230V 50Hz 9.4kVA	830 x 515 x 665	289	52/62/66	8	9.4	7.2	8.5
337036	Panda 12-4 PMS 230V 50Hz 12.3kVA	950 x 515 x 665	315	52/62/66	10.5	12.4	9.4	11.2
337052	Panda 17-4 PMS 230V 50Hz 17.5kVA	1150 x 660 x 760	553	53/63/67	14.7	17.3	13.2	15.6
337076	Panda 22-4 PMS 230V 50Hz 21kVA	1200 x 620 x 770	631	53/63/67	18.6	21.9	16.7	19.7
337078	Panda 30-4 PMS 230V 50Hz 30kVA		on request		25	29.4	22.5	26.5

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337662	Remote control and monitoring panel P6-Plus
SP33337030	Cooling water expansion bottle
SP33337324	Pierburg 12V remotely mounted fuel lift pump

Accessories:

337456	Standard service kit 5 to suit 7.5-4 PMS - 12-4 PMS
SP33336980	Diesel fuel filter 5 micron
SP33336984	Marine grade diesel fuel filter 5 micron
55-21.03.10.018P	Service kit plus 8 to suit 7.5-4 PMS & 9-4 PMS
55-21.03.10.029P	Service kit plus 19 to suit 12-4 PMS
55-21.03.04.055S	Basic installation kit 3 to suit 7.5-4 PMS - 12-4 PMS
55-21.03.04.057S	Premium installation kit 2 to suit 7.5-4 PMS - 12-4 PMS
55-32.30.01.009H	Engine mount to suit 7.5-4 PMS - 12-4 PMS
55-21.02.02.121P	Automatic start-up kit

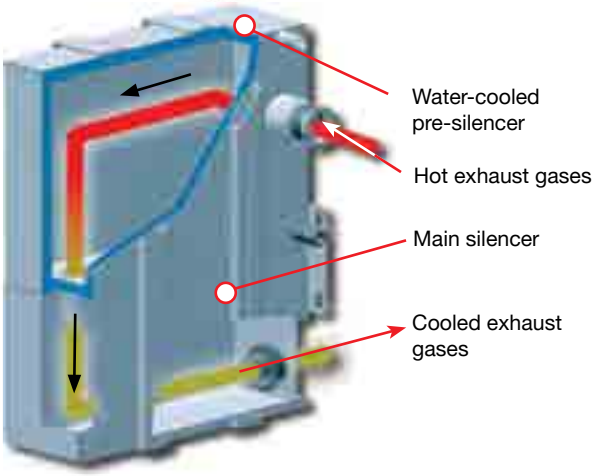
CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Vehicle Generator

The water-cooled diesel generators from Fischer Panda® are renowned worldwide for being innovative, reliable and extremely quiet. Fischer Panda® vehicle generators feature an effective water-cooling system and lightweight compact construction. This has made Fischer Panda® a leader for professional applications in mobile broadcasting, emergency services, command centres, expedition vehicles, promotion vehicles and luxury RVs. Many design elements are required to work together to achieve the low sound level of Fischer Panda® generators. An efficient water-cooling system requires that the radiator is installed separate from the generator. A flow of cooling air is no longer required inside the capsule which helps maintain constant temperature. Most models up to 25kW are fitted with an internal water-cooled exhaust silencer resulting in cooler exhaust gases, less noise and simpler exhaust installation. PVMV-N, PVK-U and PVK-UK generators (up to 25kW) are fitted with an internal water-cooled exhaust silencer.

Features:

- Quiet operation for noise sensitive applications like TV news gathering
- Compact design enables installation in smaller spaces
- Lighter weight allows use of smaller vehicles and keeps total weight lower
- Clean sine wave power for reliable operation of critical equipment
- Roof mount radiator, side mount radiator or integrated radiator versions
- Less space required for installation
- Water-cooled AC winding
- Can be installed in tight spaces
- Hermetically sealed capsule
- All connections pre-fitted on capsule
- Modular design ensures installation flexibility
- No appreciable warming of the installation area
- Super silent sound insulation system
- Water-cooled silencer (up to 25kW)
- No cooling air circulating within capsule
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts



Water-cooled muffler

Fischer Panda® Vehicle Generator - PVMV-N Series

Vehicle generator with sound insulation capsule, integrated water-cooled vertically mounted pre-silencer and main silencer. The xControl models (**337225**, **337227**, **337229** and **337331**) offer an extremely powerful and user-friendly generator control system, refer page 886 for more information.

Features:

- Parallel connection of two iSeries generators of the same type; refer to page 897
- Easy to install
- Requires external radiator, refer to page 896
- Suitable for keel cooling in ships
- Suitable for internal installation
- Best choice, when space and length available
- Complete water-cooled silencer inside capsule
- GRP capsule is standard for models up to 12kW
- Stainless steel capsule (MPL) is standard for models 15kW and above
- Inverter generators and asynchronous models available
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts

337231

337218

Standard Inclusions - xControl Models

Generator Control

Connection Box

Control Panel

SP33337324

Standard Inclusions - Other Models

SP33337662

SP33337608

SP33337324

BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW	Continuous Output kW
337212	Panda 5000i PVMV-N 5kVA	770 x 430 x 450	133	54/64/68	4	3.5
337214	Panda 8000i PVMV-N 8kVA	760 x 515 x 610	190	52/62/67	6	5.5
337216	Panda 10000i PVMV-N 10kVA	790 x 510 x 610	200	52/62/67	8	7.2
337218	Panda 15000i PVMV-N 15kVA	870 x 520 x 515	210	54/64/68	12	10.8
337225	Panda 8000x PVMV-N 230V 50Hz	865 x 515 x 635	230	52/62/67	6.8	6.1
337227	Panda 10000x PVMV-N 230V 50Hz	910 x 515 x 625	243	52/62/67	8	7.3
337229	Panda 12000x PVMV-N 230V 50Hz	950 x 515 x 625	253	53/63/67	10.2	9.1
337231	Panda 15000x PVMV-N 230V 50Hz	950 x 515 x 625	298	54/64/68	12.7	11.6
337233	Panda 18 PVMV-N 18kVA	1100 x 540 x 680	415	55/65/69	15.3	13.7
337235	Panda 24 PVMV-N 24kVA	1220 x 540 x 680	465	55/65/69	20.4	18.3
337237	Panda 30 PVMV-N 30kVA	1270 x 570 x 700	512	55/65/69	25.5	22.9

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337662	Remote control and monitoring panel P6-Plus for asynchronous models
SP33337608	Remote iControl and monitoring panel for inverter generators
SP33337324	Pierburg 12V remotely mounted fuel lift pump

Accessories:

337460	Standard service kit 8 to suit 8000i, 15000i, 8000, 12000 & 15000
337462	Standard service kit 9 to suit 18 & 24
SP33337595	Engine mount to suit 8000i, 8000 & 12000
SP33337322	Engine mount to suit 15000i & 15000
55-21.03.10.059P	Standard service kit to suit 10000i
55-21.03.10.058P	Standard service kit to suit 10000
55-21.03.10.010P	Standard service kit to suit 30
55-32.30.01.009H	Engine mount to suit 18, 24 & 30

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Vehicle Generator

- PVMV-N Series Heavy Duty 1500RPM

Vehicle generator with sound insulation capsule, integrated water-cooled vertically mounted pre-silencer and main silencer.

Features:

- Easy to install
- Requires external radiator, refer to page 896
- Suitable for keel cooling in ships
- Suitable for internal installation
- Best choice when space and length available
- Complete water-cooled silencer inside capsule
- GRP capsule is standard for models up to 12kW
- Stainless steel capsule (MPL) is standard for models 15kW and above
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts

Standard Inclusions

SP33337662

SP33337324

337303

BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW
337303	Panda 7.5-4 PVMV-N 7.6kVA	1055 x 515 x 665	338	52/62/66	6.5
337305	Panda 9-4 PVMV-N 9.4kVA	1055 x 515 x 670	389	52/62/66	8
337307	Panda 12-4 PVMV-N 12.3kVA	on request		52/62/66	10.5
337309	Panda 17-4 PVMV-N 17.5kVA	1300 x 620 x 800	581	53/63/67	14.7
337311	Panda 22-4 PVMV-N 21.9kVA	1390 x 610 x 770	643	53/63/67	18.6
337313	Panda 30-4 PVMV-N 29.4kVA	on request			25

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337662	Remote control and monitoring panel P6-Plus
SP33337324	Pierburg 12V remotely mounted fuel lift pump

Accessories:

337462	Standard service kit 9 to suit 7.5-4 & 9-4
55-21.03.10.010P	Standard service kit to suit 12-4
55-32.30.01.009H	Engine mount to suit 7.5-4, 9-4, 12-4

Fischer Panda® Vehicle Generator

- PVM-NE Series Heavy Duty 1500RPM

The PVM-NE is the standard version for generators above 30kW. The PVM-NE is similar to the PVMV-N with the exception that the silencer is not water-cooled and is externally mounted on the capsule.

The generator must be installed in a well-ventilated area because heat is absorbed by the silencer. An additional silencer is not necessary. The generator is housed within a sound insulation capsule.

Features:

- Suitable for internal installation
- Requires external radiator, refer to page 896
- Easy to install
- 2 year warranty, 1 year commercial warranty
- Contact BLA for more information on spare parts

Standard Inclusions

SP33337662

SP33337324

55-30-4-NE

BLA Code	Description	Dimensions L x W x H	Weight kg	Nominal Output kW	Continuous Output kW
55-30-4-NE	Panda 30-4 PVM-NE 29.4kVA	1473 x 690 x 890	770	25	22
55-40-4-NE	Panda 40-4 PVM-NE 41.1kVA	1560 x 710 x 950	867	35	31
55-50-4-NE	Panda 50-4 PVM-NE 47kVA	1560 x 710 x 950	891	40	36
55-60-4-NE	Panda 60-4 PVM-NE 59kVA	1825 x 790 x 1000	1298	50	45

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337662	Remote control and monitoring panel P6-Plus
SP33337324	Pierburg 12V remotely mounted fuel lift pump

Accessories:

55-32.30.01.010H	Engine mount to suit 30-4 & 40-4

Fischer Panda® Vehicle Generator - PVK-U Series

Vehicle generator with internal water-cooled silencer for mounting externally on the vehicle chassis. This generator type is ideal for installing on trucks with limited space between axles. The heavy-duty housing is also suitable for expedition vehicles.

Features:

- Designed for external mounting
- Assembly bolts pre-fitted to housing
- Metal capsule with a heavy-duty cover
- Wide access hatch for easier access
- Water-cooled exhaust silencer inside capsule
- No additional exhaust silencer required
- Requires external radiator

Standard Inclusions

SP33337662

SP33337324

337251

BLA Code	Description	Dimensions L x W x H	Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW	Continuous Output kW
337251	Panda 8000 PVK-U 8kVA	870 x 523 x 580	279	52/62/67	6.8	6.1
337253	Panda 10000 PVK-U 9kVA	on request		52/62/67	8	7.2
337255	Panda 12000 PVK-U 12kVA	960 x 530 x 625	317	53/63/67	10.2	9.1
337257	Panda 15000 PVK-U 15kVA	1000 x 530 x 630	377	54/64/68	12.7	11.6
337259	Panda 18 PVK-U 18kVA	1100 x 560 x 680	440	55/65/69	15.3	13.7
337261	Panda 24 PVK-U 24kVA	1225 x 542 x 684	492	55/65/69	20.4	18.3
337263	Panda 30 PVK-U 30kVA	1270 x 570 x 690	530	55/65/69	25.5	22.9

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

SP33337662 Remote control and monitoring panel P6-Plus
SP33337324 Pierburg 12V remotely mounted fuel lift pump

Accessories:

337460 Standard service kit 8 to suit 8000, 12000 & 15000
337462 Standard service kit 9 to suit 18 & 24
SP33337595 Engine mount to suit 8000 & 12000
55-32.30.01.009H Engine mount to suit 18, 24 & 30
SP33337322 Engine mount to suit 15000
55-21.03.10.058P Standard service kit to suit 10000
55-21.03.10.010P Standard service kit to suit 30

Fischer Panda® Vehicle Generator - PVK-UK Series

Vehicle generator featuring compact construction with integrated cooling system for mounting externally on the vehicle chassis.

Features:

- Designed for external mounting
- Assembly bolts pre-fitted to housing
- Metal capsule with a heavy-duty cover
- Wide access hatch for easier access
- Sound insulation capsule
- Water-cooled exhaust silencer inside capsule
- No additional exhaust silencer required
- Integrated radiator and cooling system

Standard Inclusions

SP33337662

SP33337324

337287

BLA Code	Description	Dimensions L x W x H	Total Weight kg	Sound Level 7m/3m/1m dB	Nominal Output kW
337277	Panda 8000 PVK-UK 8kVA	1330 x 522 x 620	352	52/62/67	6.8
337279	Panda 10000 PVK-UK 9kVA	1516 x 522 x 620	375	52/62/67	8
337281	Panda 12000 PVK-UK 12kVA	1566 x 530 x 625	411	53/63/67	10.2
337283	Panda 15000 PVK-UK 15kVA	1606 x 522 x 630	436	54/64/68	12.7
337285	Panda 18 PVK-UK 18kVA	1736 x 560 x 680	544	55/65/69	15.3
337287	Panda 24 PVK-UK 24kVA	1854 x 542 x 684	492	55/65/69	20.4
337289	Panda 30 PVK-UK 30kVA	1970 x 564 x 640	687	55/65/69	25.5

N.B. Dimensions and weights are approximate values only. Please confirm current dimensions and weights when ordering.

Standard Inclusions:

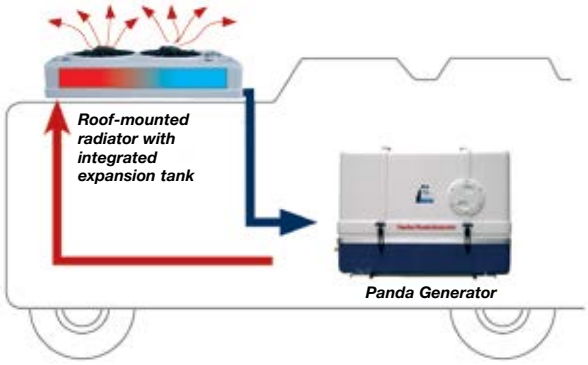
SP33337662 Remote control and monitoring panel P6-Plus
SP33337324 Pierburg 12V remotely mounted fuel lift pump

Accessories:

337460 Standard service kit 8 to suit 8000, 12000 & 15000
337462 Standard service kit 9 to suit 18000 & 24000
SP33337595 Engine mount to suit 8000 & 12000
SP33337322 Engine mount to suit 15000
55-21.03.10.058P Standard service kit to suit 10000
55-21.03.10.010P Standard service kit to suit 30
55-32.30.01.009H Engine mount to suit 18, 24 & 30

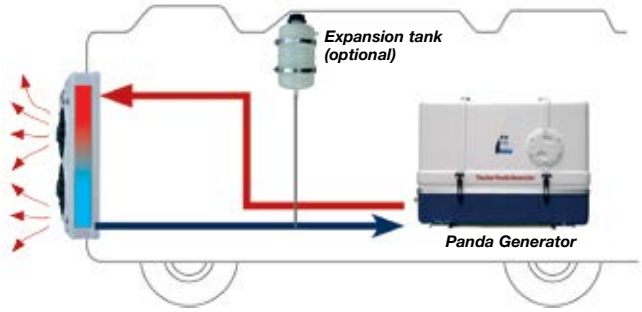
Fischer Panda® Vehicle Generator Radiators

Vehicle Installation: Roof-mounted radiator
The radiator must be installed where good access to fresh air circulation is guaranteed. The best location is horizontally on the roof of the vehicle. The radiator has an integrated expansion tank.



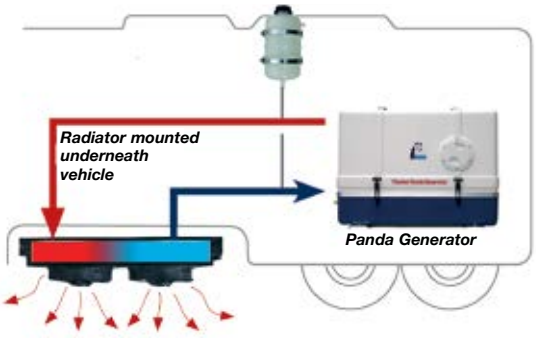
337338

Vehicle Installation: Side-mounted radiator
A radiator can be fitted to the vehicle's side when there is no space on the roof.



337352

Vehicle Installation: Chassis-mounted
When sufficient clearance is available, the radiator may be mounted under the chassis. The air must be able to circulate correctly so warm air does not flow back over the radiator.



337350

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

BLA Code	Description	Dimensions L x W x H	Weight kg	Compatible Generators
337338	Radiator RD1.2 DC Roof mount	705 x 390 x 308	18	5000i, 8000i
337340	Radiator RV2.2 DC Side mount	760 x 450 x 224	21	8000i, 8000, 10000
337341	Radiator RD3.3 Trop-S350 Roof mount	1055 x 515 x 393	42	8000i, 10000i, 15000i, 8000, 10000, 12000, 15000, 7.5-4, 9-4, 12-4
337343	Radiator RD4.2-FE040 Roof mount	659 x 610 x 370	32	8000i, 10000i, 15000i, 8000, 10000, 12000, 15000, 7.5-4, 9-4, 12-4
337345	Radiator RD16.2-2xFE040 Roof mount	1000 x 600 x 335	56	18, 24, 17-4, 22-4
337347	Radiator RD6/2.2-2xFE045 Roof mount	1500 x 600 x 380	67	30, 30-4, 40-4
337350	Radiator RV3.3 Trop-S350 Side mount	900 x 450 x 294	33	10000i, 15000i, 8000, 10000, 12000, 15000, 7.5-4, 9-4, 12-4
337352	Radiator RV13.160-FE050 Side mount	600 x 719 x 436	52	18, 24, 17-4, 22-4
337354	Radiator RV6/2.2-2xFE045 Side mount	1200 x 550 x 285	67	30
337356	Radiator RV14.120-FE056 Side mount	780 x 690 x 420	48	30, 40, 30-4, 40-4
55-20.02.01.003P	Radiator RV7.2-FE071 Side mount	1000 x 800 x 420	63	60, 50-4
55-20.02.01.038P	Radiator RV5.2-FE040 Side mount	610 x 580 x 358	32	10000i, 15000i, 8000, 10000, 12000, 15000, 7.5-4, 9-4, 12-4
55-20.02.01.052P	Radiator RV8.2-FE063 Side mount	1100 x 1000 x 420	78	60, 60-4

Fischer Panda® Military Generators

Military generators must be capable of running 24 hours a day, 7 days a week and be totally reliable. Generators must start at below minus 45 degrees Celsius, and work reliably and with high efficiency up to at least 55 degrees Celsius at 3,000 metres above sea level. Sandstorms, rain or snow should not have any adverse effect on generators, while acoustic, electronic and thermal signatures must all be low. Easy access for maintenance is vital and a long operational life is demanded with comprehensive first rate support.

Wheeled and tracked vehicles have become the chosen platform of today's modern armed forces for deploying powerful electronic systems. Used by NATO, Fischer Panda® generators are designed and built specifically for mobile units requiring an efficient and robust power supply while operating independently for long periods. The aim is to provide efficient and reliable power under harsh and extreme conditions. The modular nature of the generators means they can be built as fully self-contained units in a number of configurations, or installed around the vehicle depending on the space available and the role required.

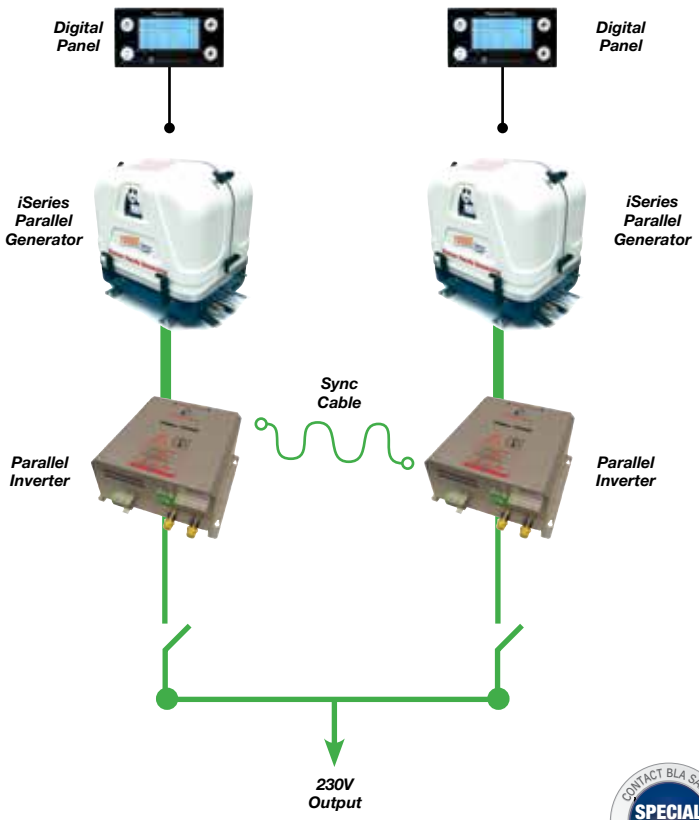
The Fischer Panda® AC alternators supply electricity with a very clean sine wave suitable for sensitive electrical equipment. They are also capable of providing sufficient power for starting heavier equipment such as environmental control units (ECUs). Fischer Panda® DC generators enhance lighter vehicle systems with powerful charging capabilities enabling indefinite silent running. Using water-cooling and operating within a sound-insulated housing all generators are very quiet, are almost vibration free and have minimal thermal signatures which makes them ideal for front line operations.

BLA can supply any custom size for any application. For more information contact BLA on **1300 252 725.**

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Parallel iSeries Generators

The Fischer Panda® parallel iSeries generators are the next generation of compact, super silent and powerful generators for marine and vehicle applications. When weight distribution plays a critical role, two smaller iSeries parallel generators can be installed onboard. Their power can be combined to provide the same performance which would only be available using a single large generator. Simple parallel connection of two outputs means there is no need for a paralleling cabinet. Both generators are fully independent from each other. They have their own controller, inverter and remote panel to enable individual operation. The special inverter design allows parallel operation by synchronising both inverters with a single cable. When operating in parallel the load is shared equally by both generators. The iSeries generators are light and compact, offering up to 30% weight and space saving. Distributing the weight and space required can be a major advantage in some applications. For further information contact BLA on **1300 252 725.**



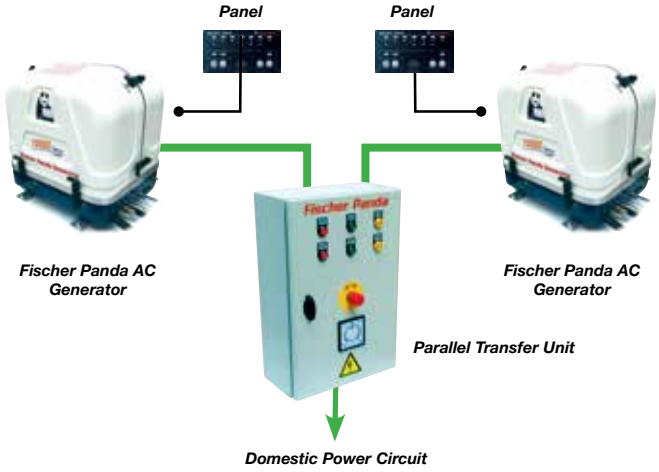
Example system setup with 2x parallel iSeries marine generators

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Description
Parallel system sync cable

Fischer Panda® Seamless Parallel Transfer Unit

The Fischer Panda® unit is designed for connecting two Fischer Panda® asynchronous AC Generators in parallel. The unit can be used to synchronise both generators, to switch the load from one generator to another or operate both generators in parallel during peak load periods. A range of units are available to suit varying generator types and power requirements up to 100kW per generator. The parallel power units can be combined with the automatic AC transfer unit into a single housing on request. The parallel transfer unit does not feature load-sharing capabilities for safety reasons. Both generators are coupled and operate together as one unit. To increase operational safety, both generators are shutdown if a system failure occurs. For further information contact BLA on **1300 252 725.**



CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Description
Parallel switching box for 2 Panda PMS 4500 FCB
Parallel cabinet 3.8kW - 15.3kW 1ph generators
Parallel cabinet 6.5kW - 20.4kW 3ph generators
Parallel cabinet 25kW - 40kW 3ph generators
Parallel cabinet for 42.5kW - 55.2kW 3ph generators

Fischer Panda® Installation Kits - Basic

Contains the items required to install your new Fischer Panda® generator quickly and simply using quality products recommended by Fischer Panda®.

Cooling water installation
- Through-hull with filter
- Seacock
- Hose connection
- Sea water filter
- Hose clamps
- Coolant hose (4m)
- Ventilation valve

Exhaust installation
- Water collector
- Hull outlet
- Hose connection
- Hose bush
- Hose clamps
- Exhaust hose (5m)
- Silencer

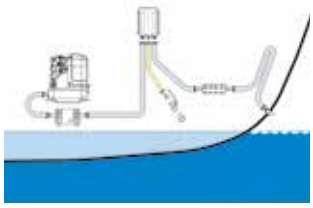
Fuel installation
- Fuel hose
- Hose clamps
- Non-return valve

55-21.03.04.080S

BLA Code	Description
337001	Kit 2 to suit 4000s, 4800i to 15000i & 8000PMS to 15000PMS
55-21.03.04.055S	Kit 3 to suit 25000i, 18 PMS, 24 PMS, 7.5-4 PMS to 12-4 PMS)

Fischer Panda® Installation Kits - Premium

The Premium kit contains the components of the basic installation kit plus an exhaust gas/water separator unit which achieves further noise reduction. The exhaust gas/water separator unit strongly reduces the exhaust noise; the "water splash" in particular is totally eliminated. Additionally, the exhaust gas/water separator unit functions as an exhaust gas goose neck, which prevents the water from flowing back into the generator.



Exhaust water separator

BLA Code	Description
337003	Kit 2 to suit 4000s, 4800i to 15000i & 8000PMS to 15000PMS
55-21.03.04.067S	Kit 3 to suit 25000i, 18 PMS, 24PMS, 7.5-4 PMS to 12-4PMS

Fuel Filter with Water Separator

It is important to fit a good quality fuel filter in diesel engines and generator installations as water in diesel fuel is a major cause of expensive damage to diesel engines. Fuel filters with water separators are designed to provide protection to the diesel fuel system. Both filters have four ports, requiring 2x Plugs (2x **SP33336988**) and 2x Hose Tails (2x **SP33336990** or 2x **SP33336992**). An optional electric sensor that detects water in the fuel can be added.

BLA Code	Description
SP33336980	Diesel fuel filter with 5 micron element
SP33336984	Marine grade diesel fuel filter with 5 micron element

Accessories:

SP33336982	Replacement 5 micron element
SP33336986	Replacement marine grade 5 micron element
SP33336988	Single Plug 1/4-18 NPT
SP33336990	Single Hose Tail 5/16 x 1/4-18 NPT
SP33336992	Single Hose Tail 3/8 x 1/4-18 NPT
55-42821	Electric water in fuel sensor kit 12V
55-29578	Hand primer pump kit
55-29899	Water collection bowl

SP33336984

SP33336980

55-29578

55-42821

SP33336988

SP33336990

SP33336992

55-29899

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Service Kits - Standard

Fischer Panda Power wherever you are

The Fischer Panda® service kits are designed for the routine service tasks which can be performed by the operator unless highlighted differently in the manual. These service kits contain original Genset spare parts.

Kit Includes:

- 1 x oil filter
- 1 x fuel filter
- 1 x filter element for air filter
- 1 x toothed belt (heat-proof)
- 1 x impeller kit (with gasket)

BLA Code	Description
337450	Kit 1 to suit 5000i & AGT 4000 PMS
337451	Kit 5000i.Neo PMS
337452	Kit 3 to suit 8000, 8000i, AGT 5000 & AGT 6000 PMS
337454	Kit 4 to suit 12000 & AGT 8000 PMS
337456	Kit 5 to suit 18, 24, 30, 7.5-4, 9-4, 12-4 & 25i PMS
337458	Kit 6 to suit AGT DC series
337460	Kit 8 to suit 8000,12000, 15000, 8000i & 15000i PVM & PVK
337462	Kit 9 to suit 18, 24, 7.5-4, 9-4 PVM & PVK
337464	Kit 11 to suit 4000s PMS
337466	Kit 14 to suit 10000 & 10000i PMS
337468	Kit 18 to suit 4800i PMS
337470	Kit 19 to suit 15000 & 15000i PMS
SP33337690	Kit 2 to suit PMS 4500
55-21.03.10.010P	Kit 10 to suit 30 & 12-4 PVM & PVK
55-21.03.10.058P	Kit 15 to suit 10000 PVM & PVK
55-21.03.10.059P	Kit 16 to suit 10000i PVM & PVK

337452

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Service Kits Plus

Fischer Panda Power wherever you are

These Fischer Panda® service kits contain original Genset spare parts for routine service tasks and all parts for the initial 600hr service intervals. These service kits are supplied in a convenient water-proof plastic box.

Kit Includes:

- 4 x fuel filter (5 x model dependent)
- 4 x filter element for air filter
- 4 x toothed belt (heat-proof)
- 2 x impeller kit (with gasket)
- 1 x service kit
- 2 x valve cover gasket
- 3 x fuse straps
- 1 x fuel pre-filter element

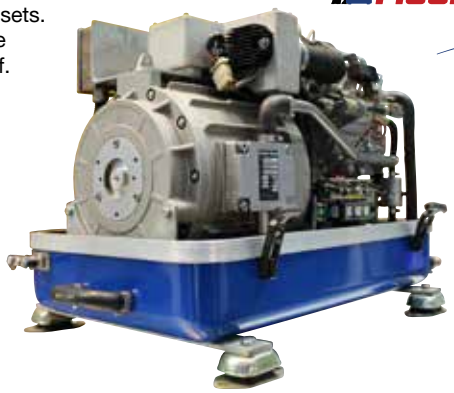
BLA Code	Description
55-21.03.10.045P	Kit plus to suit 4800i PMS
55-21.03.10.011P	Kit plus 1 to suit 5000i PMS
55-21.03.10.015P	Kit plus 5 to suit 8000, 8000i, AGT 5000, AGT 6000 PMS
55-21.03.10.057P	Kit plus 25 to suit 10000i PMS
55-21.03.10.056P	Kit plus 24 to suit 10000 PMS
55-21.03.10.017P	Kit plus 7 to suit 12000, AGT 8000 PMS
55-21.03.10.042P	Kit plus to suit 15000i PMS
55-21.03.10.018P	Kit plus 8 to suit 18, 7.5-4, 9-4 PMS
55-21.03.10.029P	Kit plus 19 to suit 24, 30, 12-4 PMS
55-21.03.10.046P	Kit plus 20 to suit 4000s PMS

55-21.03.10.017P

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Fischer Panda® Engine Mounts - Captive

The captive shock-mounts are suitable for marine and vehicle Gensets. They absorb the vibrations of the generator, thereby minimising the noise, and the generator is secured against slipping or breaking off.



BLA Code	Description
SP33337322	Engine mount BRB 80 B50 M10 SH50 to suit 15000 PMS
SP33337595	Engine mount BRB 80 A40 M10 SH40 to suit 8000i, 8000 & 12000 PVM & PVK
55-32.30.01.009H	Engine mount BRB 80 B60 M10 SH60 to suit 8, 24 & 30 PVM & PVK
55-32.30.01.010H	Engine mount to suit 30-4 & 40-4 PVM & PVK

Fischer Panda® Control Panel - Master/Slave Adapter P6 Plus

A master/slave combination makes it possible to operate the Genset with two remote control panels. For example, the Genset can be started up with one remote control panel and stopped with the other. Connecting a second remote control panel affords better control options, which will increase safety. The main panel acts as the "master panel" to which the Genset is connected. The second remote control panel – the "slave panel" which works in parallel with the main (master) panel, i.e. the Genset can be operated with either the main panel or the slave panel.

A Panel P6 Plus - P6 Plus panel configuration (master/slave combination) consists of:

- 2 x Panda P6 Plus remote control panels
- 2 x slave panel adaptors

Items required for a master/slave combination:

- 1 x Panda P6 Plus remote control panel
- 2 x slave panel adapters (1 x for existing panel + 1 x for additional panel)
- 12-core cable for connecting the two panels

BLA Code	Description
55-21.02.02.015H	Master/slave adaptor for connection between slave panel and the Panda P6 Plus panel

N.B. One remote control panel is already included in the Genset scope of delivery.

Fischer Panda® Control Panel - iControl 2 Slave Panel

With the automatic start-up function, the generator can be started with an external signal. The automatic starting procedure consists of pre-heating and operating the electric starter motor. The automatic start-up consists of an automatic module on the remote control panel, a re-start protection, and a speed sensor. It is possible to refit an existing remote control panel with an automatic module.

With iControl 2 - iControl 2 panel configuration, up to three slave panels can be operated together with one iControl master panel.

An iControl master/slave combination consists of:

- 1 x Panda iControl remote control panel
- 1 - 3 Panda iControl slave panels

BLA Code	Description
55-21.02.02.132P	iControl 2 slave panel

N.B. One remote control panel is already included in the Genset scope of delivery. You merely have to order the desired quantity of slave panels.

Fischer Panda® Lead-Through Fitting

Used to make a clean and robust seal for the cooling water and exhaust hoses in roof mounted and side mounted vehicle radiator installations.

Features:

- 316 grade polished stainless steel
- 40mm with 90° elbow

BLA Code	Description
55-31.20.04.053H	Lead-through fitting 40mm ID with 90° elbow

Fischer Panda® Lead-Through Fitting - Dual

Used to make a clean and robust seal for the cooling water in roof mounted and side mounted vehicle radiator installations.

Features:

- 316 grade polished stainless steel
- 20mm or 25mm with 90° elbow
- Two ducts for feed and return line

BLA Code	Description
55-31.20.04.050H	Lead-through dual fitting 20mm ID with 90° elbow
55-31.20.04.051H	Lead-through dual fitting 25mm ID with 90° elbow

Fischer Panda® Automatic Start-Up

With the automatic start-up function, the generator can be started with an external signal. The automatic starting procedure consists of pre-heating and operating the electric starter motor. The automatic start-up consists of an automatic module on the remote control panel, a re-start protection, and a speed sensor. It is possible to refit an existing remote control panel with an automatic module.

BLA Code	Description
55-21.02.02.120P	Automatic start-up kit to suit 8kVA - 12kVA generators
55-21.02.02.121P	Automatic start-up kit to suit 15kVA - 75kVA generators

Fischer Panda® Generator Signal Interface

This control module enables the Fischer Panda® generator to be connected into a power management and control network. Other devices such as programmable logic controllers (PLCs) can then be used to control and monitor the generator remotely. The potential-free contacts enable external applications to access the status signals from the generator. External applications can also start and stop the generator.

BLA Code	Description
337102	Generator signal interface

Sierra® makes available a wide range of spare parts focused entirely on servicing the marine generator market. Primary makes include Kohler®, Onan® and Westerbeke® generator sets and includes spare parts covering electrical, fuel, cooling, internal engine, gaskets and corrosion protection.

Sierra® Air Filter

Replaces: Kohler 267709

Fits: 3.5 CFZ, 4 CZ, 5 CFZ, 6.5 CZ

BLA Code
S23-1100

Sierra® Air Filter

Replaces: Westerbeke 39705

Fits: 8.0 BTDA(60Hz) / 6.0 BTDA(50Hz), 10.0 BTDA(60Hz) / 7.5 BTDA(50Hz), 12.5 BTDB(60Hz) / 9.4 BTDB(50Hz), 15.0 BTDC(60Hz) / 12.0 BTDC(50Hz)

BLA Code
S23-1101

Sierra® Air Filter

Replaces: Kohler 278857

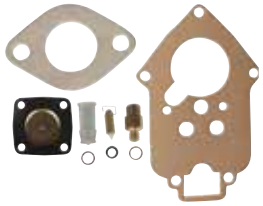
Fits: 4 CCFOZ(variation 4),4EFOZ(variation 4), 5 CCOZ(variation 4), 5EOZ(variation 4), 6.5 EFOZ(variation 4), 8EOZ(variation 4), 8EFOZ, 9 CCOZ, 9EOZ, 9EFOZ, 10EOZ, 6.5EFOZD, 7 EFOZD, 8EOZD, 8.5 EFOZD, 9 EOZD, 9EFOZD, 10EOZD

BLA Code
S23-1130

Sierra® Carb Kit

Replaces: Westerbeke 36450

Fits: 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BTG/A(60Hz)/12.0 BTG/A(50Hz), 20.0 BEG(60Hz)/16.0 BEG(50Hz), 25.0 BEG(60Hz)/20.0 BEG(50Hz)

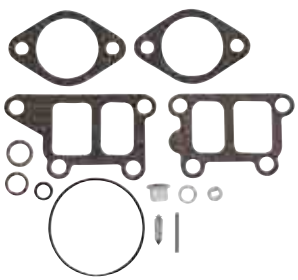


BLA Code
S23-7200

Sierra® Carb Kit

Replaces: Kohler GM24510

Fits: 4EF, 5E, 6EF, 7.3E

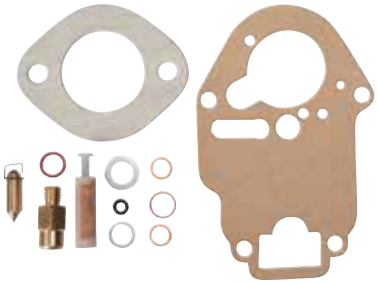


BLA Code
S23-7202

Sierra® Carb Kit

Replaces: Westerbeke 38100

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 4.5 BCG(60Hz)/3.75 BCG(50Hz), 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/3.75 BCGTC(50Hz), 5.0 BCG(60Hz)/4.2 BCG(50HZ), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 7.0 BCG(60Hz)/5.0 BCG(50Hz),7.0 BCGA(60Hz)/5.0 BCGA(50Hz), 7.0 BCGB(60Hz)/6.0 BCGB(50Hz), 7.2 BCGTC(60Hz)/6.0 BCGTC(50Hz),8.0 BEG(60Hz)/6.4 BEG(50Hz), 9.6 BCGTC(60Hz)/8.0 BCGTC(50Hz), 10.0 BEG(60Hz)/8.0 BEG(50Hz), 12.5 BEG(60Hz)/10.0 BEG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz)



BLA Code
S23-7201

Sierra® Fuel Filter

Replaces: Kohler 252898

Fits: 11 CCFOZ (variation 2), 11.5 CCFOZ (variation 2), 11EFOZ (variation 2), 11.5EFOZ (variation 2), 3EOZ (variation 2), 13EFOZ (variation 2), 13.5 CCOZ (variation 2), 14 CCOZ (variation 2), 14EOZ (variation 2), 15 CCFOZ (variation 3), 15.5EOZ (variation 2), 16EFOZ (variation 3), 17.5EFOZ (variation 3), 18.5 CCOZ (variation 3), 19EFOZ (variation 3), 20 CCFOZ (variation 3), 20EOZ (variation 3), 20EFOZ (variation 3), 23EOZ (variation 3), 24 CCOZ (variation 3), 24EOZ (variation 3), 17EFOZD (variation 3), 17.5EFOZD (variation 3), 19EFOZD (variation 3), 20EOZD (variation 3), 20EFOZD (variation 3), 23EOZD (variation 3), 24EOZD (variation 3)

BLA Code
S23-7740

Sierra® Fuel Filter

Replaces: Kohler 229715

Fits: 4 CCFOZ, 4EFOZ, 5 CCOZ, 5EOZ, 6.5 EFOZ, 8EOZ, 6.5EFOZD, 8EOZD

BLA Code
S23-7751

Sierra® Fuel Filter

Replaces: Onan A026K278, 149-2106

Fits: MDKAU, MDKAV, MDKBG, MDKAW (Spacesaver), MDKAZ, MDKBD, MDKBE, MDKBF, MDKBD (w/ Isolated Ground), MDKBE (w/ Isolated Ground), MDKBF (w/ Isolated Ground), MDKAD/E/F

BLA Code
S23-7760

Sierra® Fuel Filter

Replaces: Kohler GM32359

Fits: 7 EFOZD(variation 1), 8.5 EFOZD(variation 1),9 EOZD(variation 1),9EFOZD(variation 1),10EOZD(variation 1), 11EFOZD(variation 3), 11.5EFOZD(variation 3),13EOZD(variation 3),13EFOZD(variation 3),14 EOZD(variation 3),15.5 EOZD(variation 3),17 EFOZD(variation 1),17.5EFOZD(variation 1), 19EFOZD(variation 1), 20EOZD(variation 1), 20EFOZD(variation 1),23EOZD(variation 1),24EOZD(variation 1),23EFOZD, 27EFOZD, 28EOZD, 32EOZD

BLA Code
S23-7761

Sierra® Fuel Filter

Replaces: Westerbeke 24363

Fits: 15.0 BTD(60Hz) / 12.0 BTD(50Hz), 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz), 15.0 WTA(60Hz) / 12.0 WTA(50Hz), 20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 20.0 WTA(60Hz) / 16.0 WTA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz), 25.0 WTA(60Hz) / 20.0 WTA(50Hz), 32.0 BED(60Hz) / 25.0 BED(50Hz), 32.0 BEDB(60Hz) / 25.0 BEDB(50Hz), 32.0 WTF(60Hz) / 25.0 WTF(50Hz)

BLA Code
S23-7764

Sierra® GlowPlug (12 Volt)

Replaces: Westerbeke 24353

Fits: 4.4 BCD(60Hz), 4.4 WMD(60Hz) / 3.3 WMD(50Hz), 6.0 BCD(60Hz) / 4.5 BCD(50Hz), 7.7 WMD(60Hz) / 5.8 WMD(50Hz), 8.0 BTD(60Hz) / 6.0 BTD(50Hz), 8.0 BTDA(60Hz) / 6.0 BTDA(50Hz), 8.0 WMD(60Hz) / 6.0 WMD(50Hz), 10.0 BTD(60Hz) / 7.5 BTD(50Hz), 10.0 BTDA(60Hz) / 7.5 BTDA(50Hz), 11.0 BTD(60Hz) / 8.3 BTD(50Hz), 11.0 WMD(60Hz) / 8.3 WMD(50Hz), 12.5 BTD(60Hz) / 9.4 BTD(50Hz), 12.5 BTDA(60Hz) / 9.4 BTDA(50Hz), 12.5 BTDB(60Hz) / 9.4 BTDB(50Hz), 12.5 WMD(60Hz) / 9.4 WMD(50Hz), 15.0 BTD(60Hz) / 12.0 BTD(50Hz), 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz), 15.0 BTDC(60Hz) / 12.0 BTDC(50Hz), 15.0 WTA(60Hz) / 12.0 WTA(50Hz), 20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 20.0 WTA(60Hz) / 16.0 WTA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz), 25.0 WTA(60Hz) / 20.0 WTA(50Hz), 32.0 BED(60Hz) / 25.0 BED(50Hz), 32.0 BEDB(60Hz) / 25.0 BEDB(50Hz), 32.0 WTF(60Hz) / 25.0 WTF(50Hz)

BLA Code
S23-1000

Sierra® Fuel Filter

Replaces: Kohler 267987

Fits: 4EF, 5E, 6EF, 7.3E, 8E (GR4 Version), 10E (GR4 Version), 12.5E (GR4 Version)

BLA Code
S23-7762

Sierra® Fuel Filter

Replaces: Kohler GM34570

Fits: 9 EFGD, 10 EG, 10 EGD, 13 EG, 13 EGD, 13 EGZ, 15 EG, 15 EGD, 15 EGZ

BLA Code
S23-7780

Sierra® Fuel Filter Element

Replaces: Onan 149-0428

Fits: MDJA (Spec A-R), MDJB (Spec A-R), MDJC (Spec A-R), MDJE (Spec A), MDJF (Spec A)

BLA Code
S23-7750

Sierra® Fuel Filter Kit

Replaces: Westerbeke 35920, Onan 149-1445

Fits: Westerbeke: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz),9.0 BTG(60Hz)/7.0 BTG(50Hz), 11.0 TWG(60Hz)/8.5 TWG(50Hz)

BLA Code
S23-7720

Sierra® Fuel Filter Kit

Replaces: Westerbeke 47006, 30200

Fits: several models. See application chart on page 914 & 916.

BLA Code
S23-7770

Sierra® Fuel Filter Kit

Replaces: Kohler 249433

Fits: 3.5 CFZ(Variation 2), 4 CZ(Variation 2), 5 CFZ(Variation 2), 6.5 CZ(Variation 2), 8E(Variation 2), 10E(Variation 2), 12.5E(Variation 2)

BLA Code
S23-7771

Sierra® Temperature Sender

Replaces: Westerbeke 35109

Fits: several models. See application chart on page 915 & 917.

BLA Code
S23-5840

Sierra® Oil Pressure Sender

Replaces: Westerbeke 24132

Fits: several models. See application chart on page 915 & 917..

BLA Code
S23-5880

Sierra® Impeller

Replaces: Sherwood 10077K

Fits: 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 11.0 TWG(60Hz)/8.5 TWG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BTG(60Hz)/12.0 BTG(50Hz), 15.0 BTGA(60Hz)/12.0 BTGA(50Hz), 20.0 WTA(60Hz)/16.0 WTA(50Hz)

BLA Code
S23-2000

Sierra® Impeller

Replaces: Sherwood 09000K, Kohler 229826

Fits: 8E (SN 296899 & up), 10E (SN 296899 & up), 12.5E (SN 296899 & up), 12.5CF (SN 296899 & up), 15C, 16CF, 20C

BLA Code
S23-2002

Sierra® Impeller Kit

Replaces: Onan 132-0349

Fits: MDKAV, MDKBG, MDKAW (Spacesaver), MDKAZ, MDKBD, MDKBE, MDKBF, MDKBD (w/ Isolated Ground), MDKBE (w/ Isolated Ground), MDKBF (w/ Isolated Ground)

BLA Code
S23-3300

Sierra® Impeller Kit

Replaces: Westerbeke 33112

Fits: 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 11.0 TWG(60Hz)/8.5 TWG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BTG(60Hz)/12.0 BTG(50Hz), 15.0 BTGA(60Hz)/12.0 BTGA(50Hz), 20.0 WTA(60Hz)/16.0 WTA(50Hz)

BLA Code
S23-3302

Sierra® Impeller

Replaces: Johnson Pump 09-808B-1

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 4.5 BCG(60Hz)/ 3.75 BCG(50Hz), 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/3.75 BCGTC(50Hz), 6.5 BCG(60Hz)/ 4.8 BCG(50Hz), 7.0 BCG(60Hz)/5.0 BCG(50Hz), 7.0 BCGA(60Hz)/5.0 BCGA(50Hz), 7.0 BCGB(60Hz)/ 6.0 BCGB(50Hz), 7.2 BCGTC(60Hz)/6.0 BCGTC(50Hz), 9.0 BTG(60Hz)/ 7.0 BTG(50Hz), 9.6 BCGTC(60Hz)/8.0 BCGTC(50Hz), 3.0 WMD(60Hz)/ 2.4 WMD(50Hz), 3.8/4.2 BCDT(60Hz) / 3.5 BCDT(50Hz), 5.0 BCG(60Hz)/ 4.2 BCG(50HZ), 5.0 BCGA(60Hz)/5.2 BCGA(50Hz), 7.0 BCGC(60Hz)/5.9 BCGC(50Hz), 8.0 BEG(60Hz)/6.4 BEG(50Hz), 10.0 BEG(60Hz)/8.0 BEG(50Hz), 12.5 BEG(60Hz)/10.0 BEG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz)

BLA Code
S23-2001

Sierra® Impeller

Replaces: Kohler 250872, Jabsco 22799-0001

Fits: 8E (SN 296898 and Below), 10E (SN 296898 and Below), 12.5E (SN 296898 and Below), 12.5CF (SN 296898 and Below)

BLA Code
S23-2003

Sierra® Impeller Kit

Replaces: Kohler 359978 (Impeller only)

Fits: Kohler Pump GM28487; Fits Models 4EF, 5E, 6EF, 7.3E, 4 EFCD, 5 ECD, 6 EFCD, 7.3 ECD,

BLA Code
S23-2004

Sierra® Impeller Kit

Replaces: Northern Lights 25-12009 (Impeller only)

BLA Code
S23-2005

Sierra® Impeller Kit

Replaces: Westerbeke 11907

Fits: 20.0 BEG(60Hz)/16.0 BEG(50Hz), 25.0 BEG(60Hz)/ 20.0 BEG(50Hz), 20.0 SBEG(60Hz)/16.0 SBEG(50Hz), 20.0 SBEGA(60Hz)/16.0 SBEGA(50Hz), 22.5 SBEG(60Hz)/18.7 SBEG(50Hz), 22.5 SBEGA(60Hz)/18.7 SBEGA(50Hz), 20.0 BED(60Hz)/16.0 BED(50Hz), 20.0 BEDA(60Hz)/16.0 BEDA(50Hz), 25.0 BED(60Hz)/20.0 BED(50Hz), 25.0 WTA(60Hz)/20.0 WTA(50Hz), 32.0 BED(60Hz)/25.0 BED(50Hz), 32.0 BEDA(60Hz)/25.0 BEDA(50Hz), 32.0 BEDB(60Hz)/25.0 BEDB(50Hz), 32.0 WTF(60Hz)/25.0 WTF(50Hz)

BLA Code
S23-3301

Sierra® Impeller Kit

Replaces: Kohler 229826

Fits: Kohler Pump GM46962; Fits: Models 8E (SN 296899 & up), 10E (SN 296899 & up), 12.5E (SN 296899 & up), 12.5CF (SN 296899 & up), 15C, 16CF, 20C

BLA Code
S23-3303

Sierra® Impeller Kit

Replaces: Kohler 229955

Fits: 8E (SN 296898 and Below), 10E (SN 296898 and Below), 12.5E (SN 296898 and Below), 12.5CF (SN 296898 and Below)

BLA Code
S23-3304

Sierra® Impeller Kit

Replaces: Westerbeke 32620

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 4.5 CG(60Hz)/3.75 BCG(50Hz), 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/3.75 BCGTC(50Hz), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 7.0 BCG(60Hz)/5.0 BCG(50Hz), 7.0 BCGA(60Hz)/5.0 BCGA(50Hz), 7.0 BCGB(60Hz)/6.0 BCGB(50Hz), 7.2 BCGTC(60Hz)/6.0 BCGTC(50Hz), 9.0 BTG(60Hz)/ 7.0 BTG(50Hz), 9.6 BCGTC(60Hz)/8.0 BCGTC(50Hz), 3.0 WMD(60Hz)/ 2.4 WMD(50Hz), 3.8/4.2 BCDT(60Hz) / 3.5 BCDT(50Hz)

BLA Code
S23-3305

Sierra® Impeller Kit

Replaces: Westerbeke 46622

Fits: 5.0 BCG(60Hz)/4.2 BCG(50HZ), 5.0 BCGA(60Hz)/5.2 BCGA(50Hz), 7.0 BCGC(60Hz)/5.9 BCGC(50Hz), 8.0 BEG(60Hz)/6.4 BEG(50Hz), 10.0 BEG(60Hz)/8.0 BEG(50Hz), 12.5 BEG(60Hz)/10.0 BEG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz)

BLA Code
S23-3306

Sierra® Impeller Kit

Replaces: Westerbeke 34440

Fits: 4.0 BCD(60Hz), 4.4 BCD(60Hz), 4.4 WMD(60Hz)/3.3 WMD(50Hz), 5.0 BCD(60Hz)/4.0 BCD(50Hz), 5.0 BCDA(60Hz)/4.0 BCDA(50Hz), 5.0 BCDB(60Hz)/4.0 BCDB(50Hz), 6.0 BCD(60Hz)/4.5 BCD(50Hz), 7.6 BTD(60Hz)/5.7 BTD(50Hz), 7.7 WMD(60Hz)/5.8 WMD(50Hz), 8.0 BTD(60Hz)/6.0 BTD(50Hz), 8.0 BTDA(60Hz)/6.0 BTDA(50Hz), 8.0 WMD(60Hz)/6.0 WMD(50Hz), 10.0 BTD(60Hz)/7.5 BTD(50Hz), 10.0 BTDA(60Hz)/7.5 BTDA(50Hz), 11.0 BTD(60Hz)/8.3 BTD(50Hz), 11.0 WMD(60Hz)/8.3 WMD(50Hz), 12.5 BTD(60Hz)/9.4 BTD(50Hz), 12.5 BTDA(60Hz)/9.4 BTDA(50Hz), 12.5 BTDB(60Hz)/9.4 BTDB(50Hz), 12.5 WMD(60Hz)/9.4 WMD(50Hz), 15.0 BTDC(60Hz)/12.0 BTDC(50Hz)

BLA Code
S23-3307

Sierra® Impeller Kit

Replaces: Kohler 352122

Fits: 33EFOZ, 33 CFOZ, 40 CFOZ, 40EOZ, 40EFOZ, 50 COZ, 50 CFOZ, 50EOZ, 55EFOZ, 65 COZ, 65EOZ, 70EFOZ, 80EOZ, 80EFOZ, 99EOZ

BLA Code
S23-3308

Sierra® Impeller Kit

Replaces: Onan 132-0436

Fits: MDDCA, MDDCB, MDDCC, MDDCF, MDDCG, MDDCD, MDDCE, MDDCH, MDDCJ

BLA Code
S23-3309

Sierra® Impeller Kit

Replaces: Onan 541-1519

Fits: MDKBK, MDKBL, MDKBM, MDKBN, MDKAL/A/B

BLA Code
S23-3310

Sierra® Impeller Kit

Replaces: Fischer Panda J009-46840

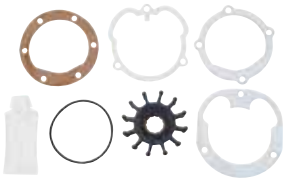
Fits: AGTPM 4, PMS 4

BLA Code
S23-3311

Sierra® Impeller Kit

Replaces: Fischer Panda J009-1027B-1

Fits: PMS 15, PMS 16 DP, PMS 20, PMS 22, PMS 25, PMS 30, PMS 40, PMS 50



BLA Code
S23-3312

Sierra® Impeller Kit

Replaces: Westerbeke 33104

Fits: 15.0 BTD(60Hz) / 12.0 BTD(50Hz), 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz), 15.0 WTA(60Hz) / 12.0 WTA(50Hz)

BLA Code
S23-3313

Sierra® Impeller Kit

Replaces: Kohler 359978

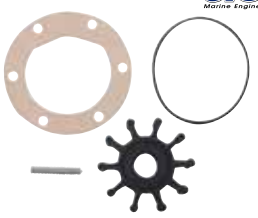
Fits: Kohler Pump GM28487; Fits Models 4EF, 5E, 6EF, 7.3E, 4 EFCD, 5 ECD, 6 EFCD, 7.3 ECD

BLA Code
S23-3314

Sierra® Impeller Kit

Replaces: Northern Lights 25-12009

Fits: M673LD3, M673L3, M673LD2, M673L2



BLA Code
S23-3315

Sierra® Thermostat

Replaces: Westerbeke 24688

Temperature Rating: 180°

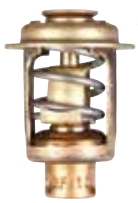
Fits: 3.0 WMD(60Hz)/2.4 WMD(50Hz), 4.4 BCD(60Hz),4.4 WMD(60Hz) / 3.3 WMD(50Hz), 7.7 WMD(60Hz) /5.8 WMD(50Hz), 8.0 BTD(60Hz) / 6.0 BTD(50Hz), 8.0 BTDA(60Hz) / 6.0 BTDA(50Hz), 8.0 WMD(60Hz) / 6.0 WMD(50Hz), 10.0 BTD(60Hz) / 7.5 BTD(50Hz), 10.0 BTDA(60Hz) / 7.5 BTDA(50Hz), 11.0 BTD(60Hz) / 8.3 BTD(50Hz), 11.0 WMD(60Hz) / 8.3 WMD(50Hz), 12.5 BTD(60Hz) / 9.4 BTD(50Hz), 12.5 BTDA(60Hz) / 9.4 BTDA(50Hz), 12.5 BTDB(60Hz) / 9.4 BTDB(50Hz), 12.5 WMD(60Hz) / 9.4 WMD(50Hz), 12.6 BTD(60Hz) / 10.4 BTD(50Hz), 15.0 BTD(60Hz) / 12.0 BTD(50Hz), 15.0 BTDC(60Hz) / 12.0 BTDC(50Hz), 20.0 SBEG(60Hz) / 16.0 SBEG(50Hz), 20.0 SBEGA(60Hz) / 16.0 SBEG(50Hz), 22.5 SBEG(60Hz) / 18.7 SBEG(50Hz), 22.5 SBEGA(60Hz) / 18.7 SBEGA(50Hz)

BLA Code
S23-3600

Sierra® Thermostat

Replaces: Onan 309-0130

Fits: MDJA, MDJB, MDJC, MDJE, MDJF, MJA, MJB, MJC



BLA Code
S23-3606

Sierra® Thermostat

Replaces: Westerbeke 35736

Temperature Rating: 140°

Fits: 6.5 BCG(60Hz)/4.8 BCG(50Hz), 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 9.0 BTG(60Hz)/7.0 BTG(50Hz), 11.0 TWG(60Hz)/8.5 TWG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BTG/A(60Hz)/12.0 BTG/A(50Hz), 20.0 BEG(60Hz)/16.0 BEG(50Hz), 25.0 BEG(60Hz)/20.0 BEG(50Hz)

BLA Code
S23-3601

Sierra® Thermostat

Replaces: Westerbeke 37387

Temperature Rating: 140°

Fits: 4.5 BCG(60Hz)/3.75 BCG(50Hz), 7.0 BCG(60Hz)/ 5.0 BCG(50Hz), 7.0 BCGA(60Hz)/5.0 BCGA(50Hz)

BLA Code
S23-3602

Sierra® Thermostat

Replaces: Westerbeke 39378

Temperature Rating: 160°

Fits: 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/3.75 BCGTC(50Hz), 5.0 BCG(60Hz)/4.2 BCG(50HZ), 5.0 BCGA(60Hz)/ 5.2 BCGA(50Hz), 7.0 BCGB(60Hz)/6.0 BCGB(50Hz), 7.0 BCGC(60Hz)/ 5.9 BCGC(50Hz), 7.2 BCGTC(60Hz)/6.0 BCGTC(50Hz), 5.0 SBCG(60Hz)/ 4.0 SBEG(50Hz), 6.5 SBCG(60Hz) / 5.4 SBCG(50Hz)

BLA Code
S23-3603

Sierra® Thermostat

Replaces: Westerbeke 46097

Temperature Rating: 140°

Fits: 8.0 BEG(60Hz)/6.4 BEG(50Hz), 10.0 BEG(60Hz)/8.0 BEG(50Hz), 12.5 BEG(60Hz)/10.0 BEG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz)

BLA Code
S23-3604

Sierra® Thermostat

Replaces: Westerbeke 24690

Temperature Rating: 180°

Fits: 8.0 SBEG(60Hz) / 6.4 SBEG(50Hz), 10.0 SBEG(60Hz) / 8.0 SBEG(50Hz), 12.5 SBEG(60Hz) / 10.0 SBEG(50Hz), 14.0 SBEG(60Hz) /11.6 SBEG(50Hz), 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz),20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 20.0 WTA(60Hz) / 16.0 WTA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz)

BLA Code
S23-3605

Sierra® Thermostat

Replaces: Kohler 352018

Fits: 33EFOZ(Variation 1), 33 CFOZ(Variation 1), 40 CFOZ(Variation 1), 40EOZ(Variation 1), 40EFOZ(Variation 1), 50 COZ(Variation 1), 50 CFOZ(Variation 1), 50EOZ(Variation 1), 55EFOZ(Variation 1), 65 COZ(Variation 1), 65EOZ(Variation 1), 70EFOZ(Variation 1), 80EOZ(Variation 1), 80EFOZ(Variation 1), 99EOZ(Variation 1), 100EFOZ(Variation 1),125EOZ(Variation 1), 125EFOZ(Variation 1), 150EOZ(Variation 1)

BLA Code
S23-3607

Sierra® Thermostat

Replaces: Kohler 267717

Fits: 3.5 CFZ, 3.5 EFZ, 4 CZ, 4 ESZ, 5 CFZ, 5 EFZ, 6.5 CZ, 6.5 ESZ

BLA Code
S23-3610

Sierra® Thermostat Gasket

Replaces: Westerbeke 46124

Fits: 5.0 BCG(60Hz)/4.2 BCG(50HZ), 5.0 BCGA(60Hz)/5.2 BCGA(50Hz), 7.0 BCGC(60Hz)/5.9 BCGC(50Hz), 5.0 SBCG(60Hz) / 4.0 SBEG(50Hz), 6.5 SBCG(60Hz) / 5.4 SBCG(50Hz)

BLA Code
S23-0801

Sierra® Thermostat Gasket

Replaces: Westerbeke 34196

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz), 9.0 BTG(60Hz)/7.0 BTG(50Hz), 11.0 TWG(60Hz)/8.5 TWG(50Hz), 6.0 BCD(60Hz) / 4.5 BCD(50Hz), 8.0 BTD(60Hz) / 6.0 BTD(50Hz), 10.0 BTD(60Hz) / 7.5 BTD(50Hz), 11.0 BTD(60Hz) / 8.3 BTD(50Hz), 12.5 BTD(60Hz) / 9.4 BTD(50Hz), 12.5 BTDA(60Hz) / 9.4 BTDA(50Hz), 12.6 BTD(60Hz) / 10.4 BTD(50Hz)

BLA Code
S23-0802

Sierra® Thermostat

Replaces: Kohler 249930

Fits: 4EF, 5E, 6EF, 7.3E, 8E, 10E, 12.5E, 12.5CF, 15C, 16CF, 20C

BLA Code
S23-3608

Sierra® Thermostat

Replaces: Kohler 252896

Fits: 11 CCFOZ, 11.5 CCFOZ, 11EFOZ, 11.5EFOZ, 13EOZ, 13EFOZ, 13.5 CCOZ, 14 CCOZ, 14 EOZ, 15.5EOZ, 16EFOZ, 17.5EFOZ, 18.5 CCOZ, 19EFOZ, 20 CCFOZ, 20EOZ, 20EFOZ, 23EOZ, 24 CCOZ, 24EOZ

BLA Code
S23-3609

Sierra® Thermostat Gasket

Replaces: Westerbeke 42260

Fits: 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/3.75 BCGTC(50Hz), 7.0 BCGB(60Hz)/6.0 BCGB(50Hz), 7.2 BCGTC(60Hz)/ 6.0 BCGTC(50Hz), 9.6 BCGTC(60Hz)/8.0 BCGTC(50Hz)

BLA Code
S23-0800

Sierra® Thermostat Gasket

Replaces: Westerbeke 33417

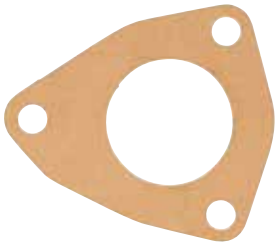
Fits: 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.0 BEG(60Hz)/6.4 BEG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 10.0 BEG(60Hz)/8.0 BEG(50Hz),12.5 BEG(60Hz)/10.0 BEG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz), 15.0 BTG/A(60Hz)/ 12.0 BTG/A(50Hz), 8.0 SBEG(60Hz) / 6.4 SBEG(50Hz), 10.0 SBEG(60Hz) / 8.0 SBEG(50Hz), 12.5 SBEG(60Hz) / 10.0 SBEG(50Hz), 14.0 SBEG(60Hz) / 11.6 SBEG(50Hz)

BLA Code
S23-0803

Sierra® Thermostat Gasket

Replaces: Westerbeke 33373

Fits: 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz), 15.0 WTA(60Hz) / 12.0 WTA(50Hz), 20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 20.0 WTA(60Hz) / 16.0 WTA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz), 25.0 WTA(60Hz) / 20.0 WTA(50Hz)

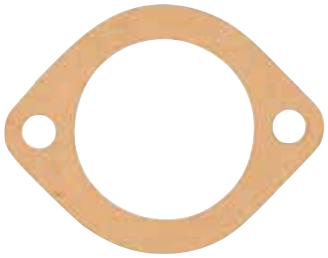


BLA Code
S23-0804

Sierra® Thermostat Gasket

Replaces: Westerbeke 40434

Fits: 20.0 BEG(60Hz)/16.0 BEG(50Hz), 25.0 BEG(60Hz)/20.0 BEG(50Hz), 20.0 SBEG(60Hz) / 16.0 SBEG(50Hz), 20.0 SBEGA(60Hz) / 16.0 SBEG(50Hz), 22.5 SBEG(60Hz) / 18.7 SBEG(50Hz), 22.5 SBEGA(60Hz) / 18.7 SBEGA(50Hz)



BLA Code
S23-0805

Sierra® Thermostat Gasket

Replaces: Westerbeke 24323

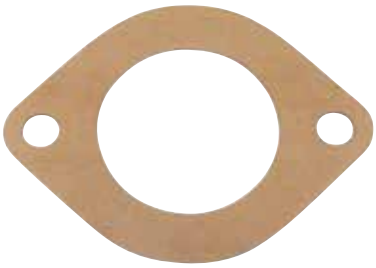
Fits: 4.4 BCD(60Hz), 4.4 WMD(60Hz) / 3.3 WMD(50Hz), 7.7 WMD(60Hz) / 5.8 WMD(50Hz), 8.0 WMD(60Hz) / 6.0 WMD(50Hz), 11.0 WMD(60Hz) / 8.3 WMD(50Hz), 12.5 WMD(60Hz) / 9.4 WMD(50Hz)

BLA Code
S23-0806

Sierra® Thermostat Gasket

Replaces: Westerbeke 33966

Fits: 15.0 BTD(60Hz) / 12.0 BTD(50Hz)



BLA Code
S23-0807

Sierra® Thermostat Gasket

Replaces: Westerbeke 37922

Fits: 4.5 BCG(60Hz)/3.75 BCG(50Hz), 7.0 BCG(60Hz)/ 5.0 BCG(50Hz), 7.0 BCGA(60Hz)/5.0 BCGA(50Hz

BLA Code
S23-0808

Sierra® Thermostat Gasket

Replaces: Kohler 267718

Fits: 3.5CFZ, 4CZ, 5CFZ, 6.5CZ

BLA Code
S23-0809

Sierra® Thermostat Gasket

Replaces: Kohler 229432

Fits: 11CCFOZ(variation 1,6), 11.5CCFOZ(variation 1,6), 11EFOZ(variation 1,6), 11.5EFOZ(variation 1,6), 13EOZ(variation 1,6), 13EFOZ(variation 1,6), 13.5CCOZ(variation 1,6), 14CCOZ(variation 1,6), 14EOZ(variation 1,6), 15CCFOZ, 15.5 EOZ(variation 1,6), 16EFOZ, 17.5EFOZ, 18.5CCOZ, 19EFOZ, 20CCFOZ, 20EOZ,
20EFOZ, 23EOZ, 24CCOZ,
24EOZ

BLA Code
S23-0810

Sierra® Thermostat Gasket

Replaces: Kohler 249865

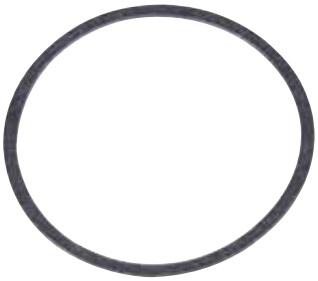
Fits: 11CCFOZ(variation 2,3,4,5), 11.5CCFOZ(variation 2,3,4,5), 11EFOZ(variation 2,3,4,5), 11.5EFOZ(variation 2,3,4,5), 13EOZ(variation 2,3,4,5), 13EFOZ(variation 2,3,4,5), 13.5CCOZ(variation 2,3,4,5), 14CCOZ(variation 2,3,4,5), 14EOZ(variation 2,3,4,5), 15.5 EOZ(variation 2,3,4,5), 11EFOZD, 11.5EFOZD, 13EOZD,
13EFOZD, 14EOZD,
15.5EOZD, 17EFOZD,
17.5EFOZD, 19EFOZD,
20EOZD, 20EFOZD,
23EOZD, 24EOZD

BLA Code
S23-0811

Sierra® Thermostat Gasket

Replaces: Kohler 229433

Fits: 11 CCFOZ, 11.5 CCFOZ, 11EFOZ, 11.5EFOZ, 13EOZ, 13EFOZ, 13.5 CCOZ, 14 CCOZ, 14 EOZ, 15 CCFOZ, 15.5EOZ, 16EFOZ, 17.5EFOZ, 18.5 CCOZ, 19EFOZ, 20 CCFOZ, 20EOZ, 20EFOZ, 23EOZ, 24 CCOZ, 24EOZ, 11EFOZD, 11.5EFOZD, 11.5EFOZD, 13EFOZD, 14 EOZD, 15.5 EOZD, 17 EFOZD, 17.5EFOZD, 19EFOZD, 20EOZD, 20EFOZD, 23EOZD, 24EOZD



BLA Code
S23-0812

Sierra® Thermostat Gasket

Replaces: Kohler 229963

Fits: 8E, 10E, 12.5E, 12.5CF, 15C, 16CF, 20C, 10EG, 13EG, 13EGZ, 15EG, 15EGZ, 4CCFOZ, 4EFOZ, 5CCOZ, 5EOZ, 6.5EFOZ, 8CCFOZ, 8EOZ, 8EFOZ, 9CCOZ, 9EOZ, 9EFOZ, 10EOZ, 23EFOZ, 27EFOZ, 28EOZ, 32EOZ, 6.5EFOZD, 7EFOZD, 8EOZD, 8.5EFOZD, 9EOZD, 9EFOZD, 10EOZD

BLA Code
S23-0813

Sierra® Thermostat Gasket

Replaces: Kohler 352031

Fits: 33EFOZ(variation 1,2,3), 33CFOZ(variation 1,2,3), 40CFOZ(variation 1,2,3), 40EOZ(variation 1,2,3), 40EFOZ(variation 1,2,3), 50COZ(variatin 1,2,3), 50CFOZ(variation 1,2,3), 50EOZ(variation 1,2,3), 55EFOZ(variation 1,2,3), 65COZ(variation 1,2,3), 65EOZ(variation 1,2,3), 70EFOZ(variation 1,2,3), 80EOZ(variation 1,2,3), 80EFOZ(variation 1,2,3), 99EOZ(variation 1,2,3), 100EFOZ(variation 1,2,3), 125EOZ(variation 1,2,3), 125EFOZ(variation 1,2,3), 150EOZ(variation 1,2,3)

BLA Code
S23-0814

Sierra® Thermostat Kit

Replaces: Westerbeke 24688 & 24323

Fits: 4.4 BCD(60Hz), 4.4 WMD(60Hz) / 3.3 WMD(50Hz), 7.7 WMD(60Hz) / 5.8 WMD(50Hz), 8.0 WMD(60Hz) / 6.0 WMD(50Hz), 11.0 WMD(60Hz) / 8.3 WMD(50Hz), 12.5 WMD(60Hz) / 9.4 WMD(50Hz)

BLA Code
S23-3650

Sierra® Thermostat Kit

Replaces: Westerbeke 35736 & 34196

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 8.0 TWG(60Hz)/6.4 TWG(50Hz), 9.0 BTG(60Hz)/7.0 BTG(50Hz), 11.0 TWG(60Hz)/8.5 TWG(50Hz)

BLA Code
S23-3651

Sierra® Thermostat Kit

Replaces: Westerbeke 35736 & 33417

Fits: 6.5 TWG(60Hz)/4.9 TWG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BTG/A(60Hz)/12.0 BTG/A(50Hz)

BLA Code
S23-3652

Sierra® Thermostat Kit

Replaces: Westerbeke 24688 & 34196

Fits: 8.0 BTD(60Hz) / 6.0 BTD(50Hz), 10.0 BTD(60Hz) / 7.5 BTD(50Hz), 11.0 BTD(60Hz) / 8.3 BTD(50Hz), 12.5 BTD(60Hz) / 9.4 BTD(50Hz), 12.5 BTDA(60Hz) / 9.4 BTDA(50Hz), 12.6 BTD(60Hz) / 10.4 BTD(50Hz)

BLA Code
S23-3653

Sierra® Thermostat Kit

Replaces: Westerbeke 39378 & 42260

Fits: 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/3.75 BCGTC(50Hz), 7.0 BCGB(60Hz)/6.0 BCGB(50Hz), 7.2 BCGTC(60Hz)/ 6.0 BCGTC(50Hz), 9.6 BCGTC(60Hz)/8.0 BCGTC(50Hz)

BLA Code
S23-3654

Sierra® Thermostat Kit

Replaces: Westerbeke 39378 & 46124

Fits: 5.0 BCG(60Hz)/4.2 BCG(50HZ), 5.0 BCGA(60Hz)/ 5.2 BCGA(50Hz), 7.0 BCGC(60Hz)/5.9 BCGC(50Hz), 5.0 SBCG(60Hz) / 4.0 SBEG(50Hz), 6.5 SBCG(60Hz) / 5.4 SBCG(50Hz)

BLA Code
S23-3655

Sierra® Thermostat Kit

Replaces: Westerbeke 46097 & 33417

Fits: 8.0 BEG(60Hz)/6.4 BEG(50Hz), 10.0 BEG(60Hz)/8.0 BEG(50Hz), 12.5 BEG(60Hz)/10.0 BEG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz)

BLA Code
S23-3656

Sierra® Thermostat Kit

Replaces: Westerbeke 24690 & 33417

Fits: 8.0 SBEG(60Hz) / 6.4 SBEG(50Hz), 10.0 SBEG(60Hz) / 8.0 SBEG(50Hz), 12.5 SBEG(60Hz) / 10.0 SBEG(50Hz), 14.0 SBEG(60Hz) /
11.6 SBEG(50Hz)

BLA Code
S23-3657

Sierra® Thermostat Kit

Replaces: Westerbeke 24688 & 33966

Fits: 15.0 BTD(60Hz) / 12.0 BTD(50Hz)

BLA Code
S23-3658

Sierra® Thermostat Kit

Replaces: Westerbeke 37387 & 37922

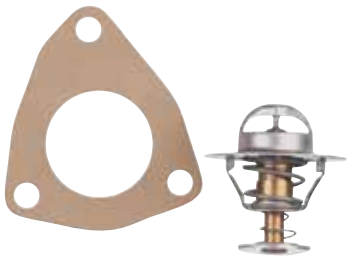
Fits: 4.5 BCG(60Hz)/3.75 BCG(50Hz), 7.0 BCG(60Hz)/5.0 BCG(50Hz), 7.0 BCGA(60Hz)/5.0 BCGA(50Hz)

BLA Code
S23-3659

Sierra® Thermostat Kit

Replaces: Westerbeke

Fits: 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz), 15.0 WTA(60Hz) / 12.0 WTA(50Hz), 20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 20.0 WTA(60Hz) / 16.0 WTA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz), 25.0 WTA(60Hz) / 20.0 WTA(50Hz)

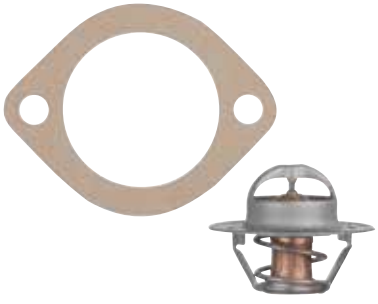


BLA Code
S23-3660

Sierra® Thermostat Kit

Replaces: Westerbeke

Fits: 20.0 BEG(60Hz)/16.0 BEG(50Hz), 25.0 BEG(60Hz)/20.0 BEG(50Hz),



BLA Code
S23-3661

Sierra® Thermostat Kit

Replaces: Westerbeke

Fits: 20.0 SBEG(60Hz) / 16.0 SBEG(50Hz), 20.0 SBEGA(60Hz) / 16.0 SBEG(50Hz), 22.5 SBEG(60Hz) / 18.7 SBEG(50Hz), 22.5 SBEGA(60Hz) / 18.7 SBEGA(50Hz)

BLA Code
S23-3662

Sierra® Thermostat Kit

Replaces: Kohler

Fits: 3.5 CFZ, 4 CZ, 5 CFZ, 6.5 CZ

BLA Code
S23-3663

Sierra® Thermostat Kit

Replaces: Kohler

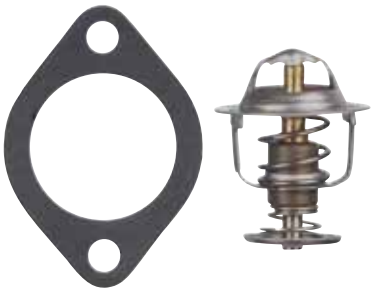
Fits: 8E, 10E, 12.5E, 12.5CF, 15C, 16CF, 20C, 10 EG, 13 EG, 13 EGZ, 15 EG, 15 EGZ

BLA Code
S23-3664

Sierra® Thermostat Kit

Replaces: Kohler

Fits: 11 CCFOZ(Version 1,6), 11.5 CCFOZ(Version 1, 6), 11EFOZ(Version 1, 6), 11.5EFOZ(Version 1, 6), 13EOZ(Version 1, 6), 13EFOZ(Version 1, 6), 13.5 CCOZ(Version 1, 6), 14 CCOZ(Version 1, 6), 14 EOZ(Version 1, 6), 15.5EOZ(Version 1, 6), 16EFOZ, 17.5EFOZ, 18.5 CCOZ, 19EFOZ, 20 CCFOZ, 20EOZ, 20EFOZ, 23EOZ, 24 CCOZ, 24EOZ

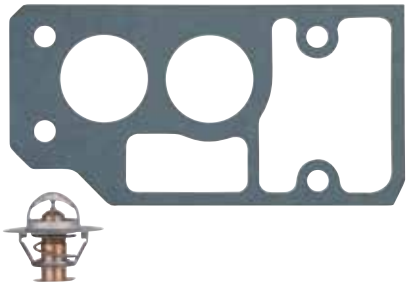


BLA Code
S23-3665

Sierra® Thermostat Kit

Replaces: Kohler

Fits: 33EFOZ(Variation 1), 33 CFOZ(Variation 1), 40 CFOZ(Variation 1), 40EOZ(Variation 1), 40EFOZ(Variation 1), 50 COZ(Variation 1), 50 CFOZ(Variation 1), 50EOZ(Variation 1), 55EFOZ(Variation 1), 65 COZ(Variation 1), 65EOZ(Variation 1), 70EFOZ(Variation 1), 80EOZ(Variation 1),80EFOZ(Variation 1), 99EOZ(Variation 1), 100EFOZ(Variation 1), 125EOZ(Variation 1), 125EFOZ(Variation 1), 150EOZ(Variation 1)



BLA Code
S23-3666

Sierra® Oil Filter

Replaces: Westerbeke 36918

Fits: several models. See application chart on page 915 & 917.

BLA Code
S23-7800

Sierra® Oil Filter

Replaces: Westerbeke 35595

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 9.0 BTG(60Hz)/7.0 BTG(50Hz)

BLA Code
S23-7801

Sierra® Oil Filter

Replaces: Westerbeke 48078

Fits: 3.0 BPMG (60Hz)

BLA Code
S23-7802

Sierra® Oil Filter

Replaces: Kohle 326817

Fits: 8E, 10E, 12.5E

BLA Code
S23-7803

Sierra® Oil Filter

Replaces: Onan 185-7444

Fits: MDKAU, MDKBH

BLA Code
S23-7804

Sierra® Oil Filter

Replaces: Kohler 279449

Fits: 12.5CF, 15C, 16CF, 20C

BLA Code
S23-7820

Sierra® Oil Filter

Replaces: Kohler 359771

Fits: 4EF, 5E, 6EF, 7.3E

BLA Code
S23-7821

Sierra® Oil Filter

Replaces: Kohler 229678

Fits: 4 CCFOZ, 4 EFOZ, 5 CCOZ, 5 EOZ, 6.5 EFOZ, 8 EOZ

BLA Code
S23-7822

Sierra® Oil Filter

Replaces: Kohler 267714

Fits: 3.5 CFZ, 3.5 EFZ, 4 CZ, 4 ESZ, 5 CFZ, 5 EFZ, 6.5 CZ, 6.5 ESZ

BLA Code
S23-7823

Sierra® Oil Filter

Replaces: Kohler GM47465

Fits: 7 EFOZD(Var 1), 8.5 EFOZD(Var 1), 9 EOZD(Var 1), 9 EFOZD (Var 1), 10 EOZD(Var 1), 11 EFOZD, 11.5 EFOZD, 13 EOZD, 13 EFOZD, 14 EOZD, 15.5 EOZD, 17 EFOZD, 17.5 EFOZD, 19 EFOZD, 20 EOZD, 20 EFOZD, 23 EOZD, 24 EOZD

BLA Code
S23-7824

Sierra® Oil Filter

Replaces: Westerbeke 35828

Fits: 11.0 BTD(60Hz) / 8.3 BTD(50Hz), 12.5 BTD(60Hz) / 9.4 BTD(50Hz), 12.5 BTDA(60Hz) / 9.4 BTDA(50Hz), 12.5 WMD(60Hz) / 9.4 WMD(50Hz), 15.0 BTD(60Hz) / 12.0 BTD(50Hz), 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz)

BLA Code
S23-7825

Sierra® Oil Filter

Replaces: Westerbeke 40154

Fits: 20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz), 25.0 WTA(60Hz) / 20.0 WTA(50Hz), 32.0 BED(60Hz) / 25.0 BED(50Hz), 32.0 BEDA(60Hz) / 25.0 BEDA(50Hz)

BLA Code
S23-7826

Sierra® Oil Filter

Replaces: Onan 122-0810

Fits: MDKBD, MDKBE, MDKBF, MDKBD (w/ Isolated Ground), MDKBE (w/ Isolated Ground), MDKBF (w/ Isolated Ground), MDKAD/E/F

BLA Code
S23-7840

Sierra® Oil Filter

Replaces: Onan 122-0185

Fits: MDJB, MDJC, MDJE, MDJF, MJA, MJB, MJC

BLA Code
S23-7841

Sierra® Oil Filter

Replaces: Onan 185-5835

Fits: MDKAV, MDKBG, MDKAW (Spacesaver), MDKAZ, MDKAL/A/B

BLA Code
S23-7842

Sierra® Anode

Replaces: Westerbeke 11885, Kohler 260085

Fits: several models. See application chart on page 915 & 917.

BLA Code
S23-6400

Sierra® Anode

Replaces: Onan 130-6228

Fits: MDDCA, MDDCB, MDDCC, MDDCF, MDDCG, MDDCD, MDDCE, MDDCH, MDDCJ

BLA Code
S23-6402

Sierra® Anode

Replaces: Onan 130-4434

Fits: MDKAV, MDKBG, MDKAW (Spacesaver), MDKAZ, MDKBD, MDKBE, MDKBF, MDKBD (w/ Isolated Ground), MDKBE (w/ Isolated Ground), MDKBF (w/ Isolated Ground), MDKBH, MDKBK, MDKBL, MDKBM, MDKBN, MDKBP, MDKBR, MDKBS, MDKBV, MDKBT, MDKBU

BLA Code
S23-6401

Sierra® Solenoid

Replaces: Westerbeke 24639

Fits: 3.0 WMD(60Hz)/2.4 WMD(50Hz), 4.0 BCD(60Hz), 4.4 BCD(60Hz), 4.4 WMD(60Hz) / 3.3 WMD(50Hz), 5.0 BCD/BCDA/BCDB(60Hz) / 4.0 BCD/BCDA/BCDB(50hz), 6.0 BCD(60Hz) / 4.5 BCD(50Hz), 7.6 BTD(60Hz) / 5.7 BTD(50Hz), 7.7 WMD(60Hz) / 5.8 WMD(50Hz), 8.0 BTD(60Hz) / 6.0 BTD(50Hz), 8.0 BTDA(60Hz) / 6.0 BTDA(50Hz), 8.0 WMD(60Hz) / 6.0 WMD(50Hz), 10.0 BTD(60Hz) / 7.5 BTD(50Hz), 10.0 BTDA(60Hz) / 7.5 BTDA(50Hz), 11.0 BTD(60Hz) / 8.3 BTD(50Hz), 11.0 WMD(60Hz) / 8.3 WMD(50Hz), 12.5 BTD(60Hz) / 9.4 BTD(50Hz), 12.5 BTDA(60Hz) / 9.4 BTDA(50Hz), 12.5 BTDB(60Hz) / 9.4 BTDB(50Hz), 12.5 WMD(60Hz) / 9.4 WMD(50Hz), 15.0 BTD(60Hz) / 12.0 BTD(50Hz), 15.0 BTDA(60Hz) / 12.0 BTDA(50Hz), 15.0 BTDB(60Hz) / 12.0 BTDB(50Hz), 15.0 BTDC(60Hz) / 12.0 BTDC(50Hz), 15.0 WTA(60Hz) / 12.0 WTA(50Hz), 20.0 BED(60Hz) / 16.0 BED(50Hz), 20.0 BEDA(60Hz) / 16.0 BEDA(50Hz), 20.0 WTA(60Hz) / 16.0 WTA(50Hz), 25.0 BED(60Hz) / 20.0 BED(50Hz), 25.0 WTA(60Hz) / 20.0 WTA(50Hz), 32.0 BED(60Hz) / 25.0 BED(50Hz), 32.0 BEDA(60Hz) / 25.0 BEDA(50Hz), 32.0 BEDB(60Hz) / 25.0 BEDB(50Hz), 32.0 WTF(60Hz) / 25.0 WTF(50Hz)

BLA Code
S23-5800

Sierra® Starter

Replaces: Westerbeke 30593

Fits: 4.4 WMD(60Hz)/3.3 WMD(50Hz), 7.7 WMD(60Hz)/5.8 WMD(50Hz), 8.0 BTDA(60Hz)/6.0 BTDA(50Hz), 8.0 WMD(60Hz)/6.0 WMD(50Hz), 10.0 BTDA(60Hz)/7.5 BTDA(50Hz), 11.0 BTD(60Hz)/8.3 BTD(50Hz), 11.0 WMD(60Hz)/8.3 WMD(50Hz), 12.5 BTD(60Hz)/9.4 BTD(50Hz), 12.5 BTDA(60Hz)/9.4 BTDA(50Hz), 12.5 BTDB(60Hz)/9.4 BTDB(50Hz), 12.5 WMD(60Hz)/9.4 WMD(50Hz), 12.6 BTD(60Hz)/10.4 BTD(50Hz), 15.0 BTD(60Hz)/12.0 BTD(50Hz), 15.0 BTDA(60Hz)/12.0 BTDA(50Hz), 15.0 BTDB(60Hz)/ 12.0 BTDB(50Hz), 15.0 BTDC(60Hz)/12.0 BTDC(50Hz)

BLA Code
S23-5600

Sierra® Starter

Replaces: Westerbeke 34552

SAE J1171 Certified

Fits: 4.0 BCG(60Hz)/3.0 BCG(50Hz), 4.4 BCD(60Hz), 4.5 BCG(60Hz)/3.75 BCG(50Hz), 4.5 BCGB(60Hz)/3.75 BCGB(50Hz), 4.5 BCGTC(60Hz)/ 3.75 BCGTC(50Hz), 5.0 BCD/BCDA/BCDB(60Hz)/4.0 BCD/BCDA/BCDB(50hz), 6.5 BCG(60Hz)/4.8 BCG(50Hz), 7.0 BCG(60Hz)/5.0 BCG(50Hz), 7.0 BCGA(60Hz)/5.0 BCGA(50Hz), 7.0 BCGB(60Hz)/6.0 BCGB(50Hz), 7.2 BCGTC(60Hz)/6.0 BCGTC(50Hz), 7.6 BTD(60Hz)/5.7 BTD(50Hz), 8.0 BTD(60Hz)/6.0 BTD(50Hz), 8.0 BEG(60Hz)/6.4 BEG(50Hz), 8.5 BTG(60Hz)/6.5 BTG(50Hz), 9.0 BTG(60Hz)/7.0 BTG(50Hz), 9.6 BCGTC(60Hz)/8.0 BCGTC(50Hz),10.0 BTD(60Hz)/7.5 BTD(50Hz) 10.0 BEG(60Hz)/8.0 BEG(50Hz), 12.5 BEG(60Hz)/10.0 BEG(50Hz), 12.5 BTG(60Hz)/10.0 BTG(50Hz), 15.0 BEG(60Hz)/12.0 BEG(50Hz), 15.0 BTG/A(60Hz)/12.0 BTG/A(50Hz), 8.0 SBEG(60Hz) / 6.4 SBEG(50Hz), 10.0 SBEG(60Hz) / 8.0 SBEG(50Hz), 12.5 SBEG(60Hz) / 10.0 SBEG(50Hz), 14.0 SBEG(60Hz) / 11.6 SBEG(50Hz)

BLA Code
S23-5601

Sierra® Alternator

Replaces: Westerbeke 30594

Fits: 4.4 BCD(60Hz), 4.4 WMD(60Hz)/3.3 WMD(50Hz), 6.0 BCD(60Hz)/ 4.5 BCD(50Hz), 7.7 WMD(60Hz)/5.8 WMD(50Hz), 8.0 BTD(60Hz)/ 6.0 BTD(50Hz), 8.0 WMD(60Hz)/6.0 WMD(50Hz), 10 BTD(60Hz)/ 7.5 BTD(50Hz), 11.0 BTD(60Hz)/8.3 BTD(50Hz), 12.5 BTD(60Hz)/9.4 BTD(50Hz), 12.5 BTDA(60Hz)/9.4 BTDA(50Hz), 12.5 WMD(60Hz)/ 9.4 WMD(50Hz), 15.0 BTD(60Hz)/12.0 BTD(50Hz)

BLA Code
S23-5900

Sierra® Generator Parts - Application Guide

Model	OEM	Starter	Alternator	Fuel Filter	Impeller	Impeller Kit	Thermostat
3.0 WMD(60Hz)/ 2.4 WMD(50Hz)"	Westerbeke	—	—	S23-7770	S23-2001	S23-3305	S23-3600
3.8/4.2 BCDT(60Hz)/ 3.5 BCDT(50Hz)"	Westerbeke	—	—	—	S23-2001	S23-3305	—
4.0 BCD(60Hz)	Westerbeke	—	—	S23-7770	S23-2003	S23-3304	—
4.4 BCD(60Hz)	Westerbeke	S23-5601	S23-5900	—	—	—	S23-3600
4.4 WMD(60Hz)/ 3.3 WMD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
5.0 BCD/BCDA/ BCDB(60Hz)/ 4.0 BCD/BCDA/ BCDB(50hz)"	Westerbeke	S23-5601	—	S23-7770	S23-2003	S23-3304	—
6.0 BCD(60Hz)/ 4.5 BCD(50Hz)"	Westerbeke	—	S23-5900	S23-7770	S23-2003	S23-3304	—
7.6 BTD(60Hz)/ 5.7 BTD(50Hz)"	Westerbeke	S23-5601	—	S23-7770	S23-2003	S23-3304	—
7.7 WMD(60Hz)/ 5.8 WMD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
8.0 BTD(60Hz)/ 6.0 BTD(50Hz)"	Westerbeke	S23-5601	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
8.0 BTDA(60Hz)/ 6.0 BTDA(50Hz)"	Westerbeke	S23-5600	—	S23-7770	S23-2003	S23-3304	S23-3600
8.0 WMD(60Hz)/ 6.0 WMD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
10.0 BTD(60Hz)/ 7.5 BTD(50Hz)"	Westerbeke	S23-5601	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
10.0 BTDA(60Hz)/ 7.5 BTDA(50Hz)"	Westerbeke	S23-5600	—	S23-7770	S23-2003	S23-3304	S23-3600
11.0 BTD(60Hz)/ 8.3 BTD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
11.0 WMD(60Hz)/ 8.3 WMD(50Hz)"	Westerbeke	S23-5600	—	S23-7770	S23-2003	S23-3304	S23-3600
12.5 BTD(60Hz)/ 9.4 BTD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
12.5 BTDA(60Hz)/ 9.4 BTDA(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
12.5 BTDB(60Hz)/ 9.4 BTDB(50Hz)"	Westerbeke	S23-5600	—	S23-7770	S23-2003	S23-3304	S23-3600
12.5 WMD(60Hz)/ 9.4 WMD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7770	S23-2003	S23-3304	S23-3600
12.6 BTD(60Hz)/ 10.4 BTD(50Hz)"	Westerbeke	S23-5600	—	—	—	—	S23-3600
15.0 BTD(60Hz)/ 12.0 BTD(50Hz)"	Westerbeke	S23-5600	S23-5900	S23-7764	—	S23-3313	S23-3600
15.0 BTDA(60Hz)/ 12.0 BTDA(50Hz)"	Westerbeke	S23-5600	—	S23-7764	—	S23-3313	S23-3605
15.0 BTDB(60Hz)/ 12.0 BTDB(50Hz)"	Westerbeke	S23-5600	—	S23-7764	—	S23-3313	S23-3605
15.0 BTDC(60Hz)/ 12.0 BTDC(50Hz)"	Westerbeke	S23-5600	—	S23-7770	S23-2003	S23-3304	S23-3600
15.0 WTA(60Hz)/ 12.0 WTA (50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3313	—
20.0 BED(60Hz)/ 16.0 BED(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	S23-3605
20.0 BEDA(60Hz)/ 16.0 BEDA(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	S23-3605
20.0 WTA(60Hz)/ 16.0 WTA(50Hz)"	Westerbeke	—	—	S23-7764	23-2000	—	S23-3605
25.0 BED(60Hz)/ 20.0 BED(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	S23-3605
25.0 WTA(60Hz)/ 20.0 WTA(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	—
32.0 BED(60Hz)/ 25.0 BED(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	—
32.0 BEDA(60Hz)/ 25.0 BEDA(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	—
32.0 BEDB(60Hz)/ 25.0 BEDB(50Hz)"	Westerbeke	—	—	—	—	S23-3301	—
32.0 WTF(60Hz)/ 25.0 WTF(50Hz)"	Westerbeke	—	—	S23-7764	—	S23-3301	—
3.0 BPMG (60Hz)	Westerbeke	—	—	S23-7770	—	—	—
4.0 BCG(60Hz)/ 3.0 BCG(50Hz)"	Westerbeke	S23-5601	—	S23-7720	S23-2001	S23-3305	—
4.5 BCG(60Hz)/ 3.75 BCG(50Hz)"	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	S23-3602
4.5 BCGB(60Hz)/ 3.75 BCGB(50Hz)	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	S23-3603
4.5 BCGTC(60Hz)/ 3.75 BCGTC(50Hz)	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	S23-3603
5.0 BCG(60Hz)/ 4.2 BCG(50HZ)	Westerbeke	—	—	S23-7770	S23-2001	S23-3306	S23-3603
5.0 BCGA(60Hz)/ 5.2 BCGA(50Hz)	Westerbeke	—	—	S23-7770	S23-2001	S23-3306	S23-3603
6.5 BCG(60Hz)/ 4.8 BCG(50Hz)	Westerbeke	S23-5601	—	S23-7720	S23-2001	S23-3305	S23-3601
6.5 TWG(60Hz)/ 4.9 TWG(50Hz)	Westerbeke	—	—	S23-7720	S23-2000	S23-3302	S23-3601
7.0 BCG(60Hz)/ 5.0 BCG(50Hz)	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	S23-3602
7.0 BCGA(60Hz)/ 5.0 BCGA(50Hz)	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	S23-3602
7.0 BCGB(60Hz)/ 6.0 BCGB(50Hz)	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	S23-3603
7.0 BCGC(60Hz)/ 5.9 BCGC(50Hz)	Westerbeke	—	—	S23-7770	S23-2001	S23-3306	S23-3603
7.2 BCGTC(60Hz)/ 6.0 BCGTC(50Hz)	Westerbeke	S23-5601	—	S23-7770	S23-2001	S23-3305	S23-3603
8.0 BEG(60Hz)/ 6.4 BEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	S23-2001	S23-3306	S23-3605

Thermostat Kit	Oil Filter	Air Filter	Thermostat Gasket	Anode	Carb Kit	Glow Plug	Temp Sender	Oil pressure Sender	Solenoid
—	—	—	—	—	—	—	S23-5840	S23-5880	S23-5800
—	—	—	—	—	—	—	—	—	—
—	—	—	S23-0806	—	—	—	S23-5840	S23-5880	S23-5800
S23-3650	—	—	—	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3650	—	—	S23-0806	—	—	S23-1000	—	S23-5880	S23-5800
—	—	—	—	—	—	—	S23-5840	S23-5880	S23-5800
—	—	—	S23-0802	—	—	S23-1000	S23-5840	S23-5880	S23-5800
—	—	—	—	—	—	—	—	S23-5880	S23-5800
S23-3650	—	—	S23-0806	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3653	—	—	S23-0802	—	—	S23-1000	S23-5840	S23-5880	S23-5800
—	—	S23-1101	—	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3650	—	—	S23-0806	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3653	—	—	S23-0802	—	—	S23-1000	S23-5840	S23-5880	S23-5800
—	—	S23-1101	—	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3653	S23-7825	—	S23-0802	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3650	—	—	S23-0806	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3653	S23-7825	—	S23-0802	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3653	S23-7825	—	S23-0802	—	—	S23-1000	S23-5840	S23-5880	S23-5800
—	—	S23-1101	—	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3650	S23-7825	—	S23-0806	—	—	S23-1000	S23-5840	S23-5880	S23-5800
S23-3653	—	—	S23-0802	—	—	—	—	—	—
S23-3658	S23-7825	—	S23-0807	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	S23-7825	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	S23-7825	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
—	—	S23-1101	—	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	—		S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	S23-7826	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	S23-7826	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	—	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	S23-7826	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
S23-3660	S23-7826	—	S23-0804	—	—	S23-1000	S23-5840	—	S23-5800
—	S23-7826	—	—	—	—	S23-1000	S23-5840	—	S23-5800
—	S23-7826	—	—	—	—	—	S23-5840	—	S23-5800
—	—	—	—	—	—	S23-1000	S23-5840	—	S23-5800
—	—	—	—	—	—	S23-1000	S23-5840	—	S23-5800
—	S23-7802	—	—	—	—	—	—	—	—
S23-3651	S23-7801	—	S23-0802	S23-6400	S23-7201	—	S23-5840	—	—
S23-3659	S23-7800	—	S23-0808	S23-6400	S23-7201	—	S23-5840	—	—
S23-3654	S23-7800	—	S23-0800	S23-6400	S23-7201	—	—	—	—
S23-3654	S23-7800	—	S23-0800	S23-6400	S23-7201	—	—	—	—
S23-3655	S23-7800	—	S23-0801	S23-6400	S23-7201	—	—	—	—
S23-3655	S23-7800	—	S23-0801	S23-6400	—	—	—	—	—
S23-3651	S23-7801	—	S23-0802	S23-6400	S23-7201	—	S23-5840	—	—
S23-3652	S23-7800	—	S23-0803	S23-6400	S23-7200	—	S23-5840	—	—
S23-3659	S23-7800	—	S23-0808	S23-6400	S23-7201	—	S23-5840	—	—
S23-3659	S23-7800	—	S23-0808	S23-6400	S23-7201	—	S23-5840	—	—
S23-3654	S23-7800	—	S23-0800	S23-6400	S23-7201	—	—	—	—
S23-3655	S23-7800	—	S23-0801	S23-6400	—	—	—	—	—
S23-3654	S23-7800	—	S23-0800	S23-6400	S23-7201	—	—	—	—
S23-3656	S23-7800	—	S23-0803	S23-6400	S23-7201	—	S23-5840	S23-5880	—

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Model	OEM	Starter	Alternator	Fuel Filter	Impeller	Impeller Kit	Thermostat
8.0 TWG(60Hz)/ 6.4 TWG(50Hz)	Westerbeke	—	—	S23-7720	S23-2000	S23-3302	S23-3601
8.5 BTG(60Hz)/ 6.5 BTG(50Hz)	Westerbeke	S23-5601	—	—	S23-2000	S23-3302	S23-3601
9.0 BTG(60Hz)/ 7.0 BTG(50Hz)	Westerbeke	S23-5601	—	S23-7720	S23-2001	S23-3305	S23-3601
9.6 BCGTC(60Hz)/ 8.0 BCGTC(50Hz)	Westerbeke	S23-5601	—	—	S23-2001	S23-3305	—
10.0 BEG(60Hz)/ 8.0 BEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	S23-2001	S23-3306	S23-3605
11.0 TWG(60Hz)/ 8.5 TWG(50Hz)	Westerbeke	—	—	S23-7720	S23-2000	S23-3302	S23-3601
12.5 BEG(60Hz)/ 10.0 BEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	S23-2001	S23-3306	S23-3605
12.5 BTG(60Hz)/ 10.0 BTG(50Hz)	Westerbeke	S23-5601	—	—	S23-2000	S23-3302	S23-3601
15.0 BEG(60Hz)/ 12.0 BEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	S23-2001	S23-3306	S23-3605
15.0 BTG/A(60Hz)/ 12.0 BTG/A(50Hz)	Westerbeke	S23-5601	—	—	S23-2000	S23-3302	S23-3601
20.0 BEG(60Hz)/ 16.0 BEG(50Hz)	Westerbeke	—	—	—	—	S23-3301	S23-3601
25.0 BEG(60Hz)/ 20.0 BEG(50Hz)	Westerbeke	—	—	—	—	S23-3301	S23-3601
5.0 SBCG(60Hz)/ 4.0 SBEG(50Hz)	Westerbeke	—	—	S23-7770	—	—	S23-3603
6.5 SBCG(60Hz)/ 5.4 SBCG(50Hz)	Westerbeke	—	—	S23-7770	—	—	S23-3603
8.0 SBEG(60Hz)/ 6.4 SBEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	—	—	S23-3605
10.0 SBEG(60Hz)/ 8.0 SBEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	—	—	S23-3605
12.5 SBEG(60Hz)/ 10.0 SBEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	—	—	S23-3605
14.0 SBEG(60Hz)/ 11.6 SBEG(50Hz)	Westerbeke	S23-5601	—	S23-7770	—	—	S23-3605
20.0 SBEG(60Hz)/ 16.0 SBEG(50Hz)	Westerbeke	—	—	S23-7770	—	S23-3301	S23-3600
20.0 SBEGA(60Hz)/ 16.0 SBEG(50Hz)	Westerbeke	—	—	S23-7770	—	S23-3301	S23-3600
22.5 SBEG(60Hz)/ 18.7 SBEG(50Hz)	Westerbeke	—	—	S23-7770	—	S23-3301	S23-3600
22.5 SBEGA(60Hz)/ 18.7 SBEGA(50Hz)	Westerbeke	—	—	S23-7770	—	S23-3301	S23-3600
4 CCFOZ	Kohler	—	—	S23-7751	—	—	—
4EFOZ	Kohler	—	—	S23-7751	—	—	—
5 CCOZ	Kohler	—	—	S23-7751	—	—	—
5EOZ	Kohler	—	—	S23-7751	—	—	—
6.5 EFOZ	Kohler	—	—	S23-7751	—	—	—
8EOZ	Kohler	—	—	S23-7751	—	—	—
8EFOZ	Kohler						
8CCFOZ	Kohler						
9CCOZ	Kohler	—	—	—	—	—	—
9EOZ	Kohler	—	—	—	—	—	—
9EFOZ	Kohler	—	—	—	—	—	—
10EOZ	Kohler	—	—	—	—	—	—
11 CCFOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
11.5 CCFOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
11EFOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
11.5EFOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
13EOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
13EFOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
13.5 CCOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
14 CCOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
14 EOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
15 CCFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	—
15.5EOZ	Kohler	—	—	S23-7740 (Variation 2)	—	—	S23-3609
16EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609

Thermostat Kit	Oil Filter	Air Filter	Thermostat Gasket	Anode	Carb Kit	Glow Plug	Temp Sender	Oil pressure Sender	Solenoid
S23-3651	S23-7800	—	S23-0802	S23-6400	S23-7200	—	S23-5840	—	—
S23-3652	S23-7800	—	S23-0803	S23-6400	S23-7200	—	S23-5840	S23-5880	—
S23-3651	S23-7801	—	S23-0802	S23-6400	—	—	S23-5840	—	—
S23-3654	S23-7800	—	S23-0800	S23-6400	S23-7201	—	—	—	—
S23-3656	S23-7800	—	S23-0803	S23-6400	S23-7201	—	S23-5840	S23-5880	—
S23-3651	S23-7800	—	S23-0802	S23-6400	—	—	S23-5840	—	—
S23-3656	S23-7800	—	S23-0803	S23-6400	S23-7201	—	S23-5840	S23-5880	—
S23-3652	S23-7800	—	S23-0803	S23-6400	S23-7200	—	S23-5840	S23-5880	—
S23-3656	S23-7800	—	S23-0803	S23-6400	S23-7201	—	S23-5840	S23-5880	—
S23-3652	S23-7800	—	S23-0803	S23-6400	S23-7200	—	S23-5840	S23-5880	—
S23-3661	S23-7800	—	S23-0805	S23-6400	S23-7200	—	S23-5840	S23-5880	—
S23-3661	S23-7800	—	S23-0805	S23-6400	S23-7200	—	S23-5840	S23-5880	—
S23-3655	—	—	S23-0801	S23-6400	—	—	—	—	—
S23-3655	—	—	S23-0801	S23-6400	—	—	—	—	—
S23-3657	S23-7800	—	S23-0803	S23-6400	—	—	—	—	—
S23-3657	S23-7800	—	S23-0803	S23-6400	—	—	—	—	—
S23-3657	S23-7800	—	S23-0803	S23-6400	—	—	—	—	—
S23-3657	S23-7800	—	S23-0803	S23-6400	—	—	—	—	—
S23-3662	S23-7800	—	S23-0805	S23-6400	—	—	—	—	—
S23-3662	S23-7800	—	S23-0805	S23-6400	—	—	—	—	—
S23-3662	S23-7800	—	S23-0805	S23-6400	—	—	—	—	—
S23-3662	S23-7800	—	S23-0805	S23-6400	—	—	—	—	—
—	S23-7822	S23-1130 (Variation 4)	S23-0813	—	—	—	—	—	—
—	S23-7822	S23-1130 (Variation 4)	S23-0813	—	—	—	—	—	—
—	S23-7822	S23-1130 (Variation 4)	S23-0813	—	—	—	—	—	—
—	S23-7822	S23-1130 (Variation 4)	S23-0813	—	—	—	—	—	—
—	S23-7822	S23-1130 (Variation 4)	S23-0813	—	—	—	—	—	—
—	S23-7822	S23-1130	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
—	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3, 4, 5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665 (Variation 1,6)	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—

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Model	OEM	Starter	Alternator	Fuel Filter	Impeller	Impeller Kit	Thermostat
17.5EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
18.5 CCOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
19EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
20 CCFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
20EOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
20EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
23EOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
24 CCOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
24EOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
6.5EFOZD	Kohler			S23-7751			
7 EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
8EOZD	Kohler	—	—	S23-7751			
8.5 EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
9 EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
9EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
10EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
11EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
11.5EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
13EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
13EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
14 EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
15.5 EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
17 EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
17.5EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
19EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
20EOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
20EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
23EFOZ							
23EOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
23EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
24EOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
27EFOZ	—	—	—	—	—	—	—
27EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
28EOZ	—	—	—	—	—	—	—
28EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
32EOZ	—	—	—	—	—	—	—
32EOZD	Kohler		—	S23-7761 (Variation 1)	—	—	—
33EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
33 CFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
40 CFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
40EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
40EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
50 COZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
50 CFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
50EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
55EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
65 COZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)

Thermostat Kit	Oil Filter	Air Filter	Thermostat Gasket	Anode	Carb Kit	Glow Plug	Temp Sender	Oil pressure Sender	Solenoid
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
		S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—

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Model	OEM	Starter	Alternator	Fuel Filter	Impeller	Impeller Kit	Thermostat
17.5EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
18.5 CCOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
19EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
20 CCFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
20EOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
20EFOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
23EOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
24 CCOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
24EOZ	Kohler	—	—	S23-7740 (Variation 3)	—	—	S23-3609
6.5EFOZD	Kohler			S23-7751			
7 EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
8EOZD	Kohler	—	—	S23-7751			
8.5 EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
9 EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
9EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
10EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
11EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
11.5EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
13EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
13EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
14 EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
15.5 EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
17 EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
17.5EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
19EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
20EOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
20EFOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
23EFOZ							
23EOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
23EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
24EOZD	Kohler	—	—	S23-7740 (Variation 3), S23-7761 (Variation 1)	—	—	—
27EFOZ	—	—	—	—	—	—	—
27EFOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
28EOZ	—	—	—	—	—	—	—
28EOZD	Kohler	—	—	S23-7761 (Variation 1)	—	—	—
32EOZ	—	—	—	—	—	—	—
32EOZD	Kohler		—	S23-7761 (Variation 1)	—	—	—
33EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
33 CFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
40 CFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
40EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
40EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
50 COZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
50 CFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
50EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
55EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
65 COZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)

Thermostat Kit	Oil Filter	Air Filter	Thermostat Gasket	Anode	Carb Kit	Glow Plug	Temp Sender	Oil pressure Sender	Solenoid
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
S23-3665	—	—	S23-0810 (Variation 1,6), S23-0811 (Variation 2,3,4,5), S23-0812 (All Variations)	—	—	—	—	—	—
		S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	—	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824 (Variation 1)	S23-1130	S23-0813	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	23-7824	—	23-0811(All Versions), 23-0812 (All Versions)	—	—	—	—	—	—
—	23-7824	—	23-0811(All Versions), 23-0812 (All Versions)	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	S23-7824	—	S23-0811(All Versions), S23-0812 (All Versions)	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	S23-0813	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—

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Model	OEM	Starter	Alternator	Fuel Filter	Impeller	Impeller Kit	Thermostat
65EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
70EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
80EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
80EFOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
99EOZ	Kohler	—	—	—	—	S23-3308	S23-3607 (Variation 1)
100EFOZ	Kohler	—	—	—	—	—	S23-3607 (Variation 1)
125EOZ	Kohler	—	—	—	—	—	S23-3607 (Variation 1)
125EFOZ	Kohler	—	—	—	—	—	S23-3607 (Variation 1)
150EOZ	Kohler	—	—	—	—	—	S23-3607 (Variation 1)
3.5 CFZ	Kohler	—	—	S23-7771(Variation 2)	—	—	S23-3610
3.5 EFZ	Kohler	—	—	—	—	—	S23-3610
4 CZ	Kohler	—	—	S23-7771(Variation 2)	—	—	S23-3610
4EF	Kohler	—	—	S23-7762	—	—	S23-3608
4EFCD	Kohler	—	—	—	—	—	—
4EFKD	Kohler	—	—	—	—	—	—
4 ESZ	Kohler	—	—	—	—	—	S23-3610
5 CFZ	Kohler	—	—	S23-7771(Variation 2)	—	—	S23-3610
5ECD	Kohler	—	—	—	—	—	—
5 EFZ	Kohler	—	—	—	—	—	S23-3610
5EKD	Kohler	—	—	—	—	—	—
5E	Kohler	—	—	S23-7762	—	—	S23-3608
6EF	Kohler	—	—	S23-7762	—	—	S23-3608
6EFCD	Kohler	—	—	—	—	—	—
6EFKD	Kohler	—	—	—	—	—	—
6.5 CZ	Kohler	—	—	S23-7771(Variation 2)	—	—	S23-3610
6.5 ESZ	Kohler	—	—	—	—	—	S23-3610
7.3E	Kohler	—	—	S23-7762	—	—	S23-3608
7.3ECD	Kohler	—	—	—	—	—	—
7.3EKD	Kohler	—	—	—	—	—	—
8E	Kohler	—	—	S23-7762 (GR4 Version), S23-7771 (Variation 2) Inline	S23-2002 (296899 & up), S23-2003 (296898 & below)	S23-3303 (SN 296899 & up), S23-3304 (SN 296898 & below)	S23-3608
8EFKD	Kohler	—	—	—	—	—	—
9EFGD	Kohler	—	—	S23-7780	—	—	—
10E	Kohler	—	—	S23-7762 (GR4 Version), S23-7771 (Variation 2) Inline	S23-2002 (296899 & up), S23-2003 (296898 & below)	S23-3303 (SN 296899 & up), S23-3304 (SN 296898 & below)	S23-3608
10EG	Kohler	—	—	S23-7780	—	—	—
10EGD	Kohler	—	—	S23-7780	—	—	—
10EKD	Kohler	—	—	—	—	—	—
11EFGD	Kohler	—	—	—	—	—	—
12.5E	Kohler	—	—	S23-7762 (GR4 Version), S23-7771 (Variation 2) Inline	S23-2002 (296899 & up), S23-2003 (296898 & below)	S23-3303 (SN 296899 & up), S23-3304 (SN 296898 & below)	S23-3608
12.5CF	Kohler	—	—	—	S23-2002 (296899 & up), S23-2003 (296898 & below)	S23-3303 (SN 296899 & up), S23-3304 (SN 296898 & below)	S23-3608
13EG	Kohler	—	—	S23-7780	—	—	—
13EGZ	Kohler	—	—	23-7780	—	—	—
13EGD	Kohler	—	—	—	—	—	—
15C	Kohler	—	—	—	S23-2002	S23-3303	S23-3608
15EG	Kohler	—	—	23-7780	—	—	—
15EGD	Kohler	—	—	23-7780	—	—	—
15EGZ	Kohler	—	—	23-7780	—	—	—
16CF	Kohler	—	—	—	S23-2002	S23-3303	S23-3608
17.5CF	Kohler	—	—	—	—	—	—
20C	Kohler	—	—	—	S23-2002	S23-3303	S23-3608
MDKAU	Onan	—	—	S23-7760	—	—	—
MDKAV	Onan	—	—	S23-7760	—	S23-3300	—
MDKBG	Onan	—	—	S23-7760	—	S23-3300	—
MDKAW (Spacesaver)	Onan	—	—	S23-7760	—	S23-3300	—
MDKAZ	Onan	—	—	S23-7760	—	S23-3300	—
MDKBD	Onan	—	—	S23-7760	—	S23-3300	—
MDKBE	Onan	—	—	S23-7760	—	S23-3300	—
MDKBF	Onan	—	—	S23-7760	—	S23-3300	—

Thermostat Kit	Oil Filter	Air Filter	Thermostat Gasket	Anode	Carb Kit	Glow Plug	Temp Sender	Oil pressure Sender	Solenoid
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3666 (Variation 1)	—	—	S23-0814 (Variation 1, 2, 3)	—	—	—	—	—	—
S23-3663	S23-7823	—	S23-0809	—	—	—	—	—	—
—	S23-7823	—	—	—	—	—	—	—	—
S23-3663	S23-7823	—	S23-0809	—	—	—	—	—	—
—	S23-7821	—	—	S23-6400	S23-7202	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	S23-7823	—	—	—	—	—	—	—	—
S23-3663	S23-7823	—	S23-0809	—	—	—	—	—	—
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—	S23-7823	—	—	—	—	—	—	—	—
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—	S23-7821	—	—	S23-6400	S23-7202	—	—	—	—
—	S23-7821	—	—	S23-6400	S23-7202	—	—	—	—
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S23-3663	S23-7823	—	S23-0809	—	—	—	—	—	—
—	S23-7823	—	—	—	—	—	—	—	—
—	S23-7821	—	—	S23-6400	S23-7202	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
S23-3664	S23-7803	—	S23-0813	—	—	—	—	—	—
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—	—	—	—	—	—	—	—	—	—
S23-3664	S23-7803	—	S23-0813	—	—	—	—	—	—
S23-3664	—	—	S23-0813	—	—	—	—	—	—
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S23-3664	S23-7803	—	S23-0813	—	—	—	—	—	—
S23-3664	S23-7820	—	S23-0813	—	—	—	—	—	—
S23-3664	—	—	S23-0813	—	—	—	—	—	—
S23-3664	—	—	S23-0813	—	—	—	—	—	—
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S23-3664	S23-7820	—	S23-0813	—	—	—	—	—	—
S23-3664	—	—	S23-0813	—	—	—	—	—	—
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S23-3664	—	—	S23-0813	—	—	—	—	—	—
S23-3664	S23-7820	—	S23-0813	—	—	—	—	—	—
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S23-3664	S23-7820	—	S23-0813	—	—	—	—	—	—
—	S23-7804	—	—	—	—	—	—	—	—
—	S23-7842	—	—	S23-6401	—	—	—	—	—
—	S23-7842	—	—	S23-6401	—	—	—	—	—
—	S23-7842	—	—	S23-6401	—	—	—	—	—
—	S23-7842	—	—	S23-6401	—	—	—	—	—
—	S23-7840	—	—	S23-6401	—	—	—	—	—
—	S23-7840	—	—	S23-6401	—	—	—	—	—
—	S23-7840	—	—	S23-6401	—	—	—	—	—

Sierra® Generator Parts - Application Guide

Model	OEM	Starter	Alternator	Fuel Filter	Impeller	Impeller Kit	Thermostat
MDKBD (w/ Isolated Ground)	Onan	—	—	S23-7760	—	S23-3300	—
MDKBE (w/ Isolated Ground)	Onan	—	—	S23-7760	—	S23-3300	—
MDKBF w/ Isolated Ground)	Onan	—	—	S23-7760	—	S23-3300	—
MDKBH	Onan	—	—	—	—	—	—
MDKBK	Onan	—	—	—	—	S23-3310	—
MDKBL	Onan	—	—	—	—	S23-3310	—
MDKBM	Onan	—	—	—	—	S23-3310	—
MDKBN	Onan	—	—	—	—	S23-3310	—
MDKBP	Onan	—	—	—	—	—	—
MDKBR	Onan	—	—	—	—	—	—
MDKBS	Onan	—	—	—	—	—	—
MDKBV	Onan	—	—	—	—	—	—
MDKBT	Onan	—	—	—	—	—	—
MDKBU	Onan	—	—	—	—	—	—
MDDCA	Onan	—	—	—	—	S23-3309	—
MDDCB	Onan	—	—	—	—	S23-3309	—
MDDCC	Onan	—	—	—	—	S23-3309	—
MDDCF	Onan	—	—	—	—	S23-3309	—
MDDCG	Onan	—	—	—	—	S23-3309	—
MDDCD	Onan	—	—	—	—	S23-3309	—
MDDCE	Onan	—	—	—	—	S23-3309	—
MDDCH	Onan	—	—	—	—	S23-3309	—
MDDCJ	Onan	—	—	—	—	S23-3309	—
MDJA	Onan	—	—	S23-7750 (Spec A-R)	—	—	S23-3606
MDJB	Onan	—	—	S23-7750 (Spec A-R)	—	—	S23-3606
MDJC	Onan	—	—	S23-7750 (Spec A-R)	—	—	S23-3606
MDJE	Onan	—	—	S23-7750 (Spec A)	—	—	S23-3606
MDJF	Onan	—	—	S23-7750 (Spec A)	—	—	S23-3606
MJA	Onan	—	—	—	—	—	S23-3606
MJB	Onan	—	—	—	—	—	S23-3606
MJC	Onan	—	—	—	—	—	S23-3606
MDKAD/E/F	Onan	—	—	S23-7760	—	—	—
MDKAL/A/B	Onan	—	—	—	—	S23-3310	—
AGTPM 4	Fischer Panda	—	—	—	—	S23-3311	—
PMS 4	Fischer Panda	—	—	—	—	S23-3311	—
PMS 8 Mini	Fischer Panda	—	—	—	—	S23-3305	—
PMS 8 DP	Fischer Panda	—	—	—	—	S23-3305	—
PMS 4200	Fischer Panda	—	—	—	—	S23-3305	—
PMS 6500	Fischer Panda	—	—	—	—	S23-3305	—
PMS 12 DP	Fischer Panda	—	—	—	—	S23-3305	—
PMS 12 Mini	Fischer Panda	—	—	—	—	S23-3305	—
PMS 15	Fischer Panda	—	—	—	—	S23-3312	—
PMS 16 DP	Fischer Panda	—	—	—	—	S23-3312	—
PMS 20	Fischer Panda	—	—	—	—	S23-3312	—
PMS 22	Fischer Panda	—	—	—	—	S23-3312	—
PMS 25	Fischer Panda	—	—	—	—	S23-3312	—
PMS 30	Fischer Panda	—	—	—	—	S23-3312	—
PMS 40	Fischer Panda	—	—	—	—	S23-3312	—
PMS 50	Fischer Panda	—	—	—	—	S23-3312	—

Thermostat Kit	Oil Filter	Air Filter	Thermostat Gasket	Anode	Carb Kit	Glow Plug	Temp Sender	Oil pressure Sender	Solenoid
—	S23-7840	—	—	S23-6401	—	—	—	—	—
—	S23-7840	—	—	S23-6401	—	—	—	—	—
—	S23-7840	—	—	S23-6401	—	—	—	—	—
—	S23-7804	—	—	S23-6401	—	—	—	—	—
—	—	—	—	S23-6401	—	—	—	—	—
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—	—	—	—	S23-6401	—	—	—	—	—
—	—	—	—	S23-6402	—	—	—	—	—
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—	S23-7841	—	—	—	—	—	—	—	—
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—	S23-7841	—	—	—	—	—	—	—	—
—	S23-7840	—	—	—	—	—	—	—	—
—	S23-7842	—	—	—	—	—	—	—	—
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—	S23-7804	—	—	—	—	—	—	—	—
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Shields Silicone Exhaust Coupler

These blue silicone exhaust couplers provide simple manifold to solid exhaust pipe connection with angular and longitudinal misalignment compensation in wet exhaust systems. They also provide essential vibration absorption. The silicone couplers are stable at elevated temperatures, resistant to exhaust gas, antifreeze and salt water. Temperature range: -28C° to +175°C.

BLA Code	Inside Dia. mm	Length mm
S16-272-4000	100	150
S16-272-5000	125	150
S16-272-6000	150	200

Sierra Transom Exhaust Flapper Valves

Specially compounded weather and U.V. resistant EPDM rubber flapper valve designed to help prevent water from entering the exhaust system in following seas or when going astern. Secured using 316 grade stainless steel quick fit hose clamp (supplied).

BLA Code	Suits Exhaust Flange OD mm
S18-4456	75
S18-4457	100
S18-4458	125-150

Exhaust Hose

The inner tube of this hose is constructed of nitrile black rubber that is exhaust gas, fuel and fire resistant, whilst the outer cover is manufactured from an NBR/CR blend which provides good resistance to abrasion, hydrocarbons and fire. It is strengthened by high tensile cords with embedded steel helix wires to avoid kinking on bends or collapsing. This hose is suitable for wet marine exhausts, fuel delivery and hydraulic suction. Its temperature tolerance is -25ºC to +110°C. For sizes up to 50mm ID. SAE J1527/A, ISO 7840 A1 CE.

BLA Code	Internal Dia. mm	Length m	Minimum Bend Radius mm
136060	38	15	125
333330	38	per metre	125
136062	50	15	170
333334	50	per metre	170

Marine Town® Exhaust Outlet

- Mega Flow

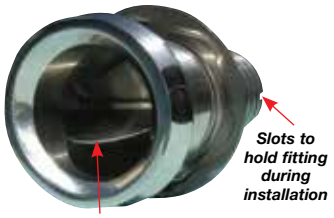
These highly polished, 316 marine grade stainless steel exhaust outlets provide excellent protection against water intrusion. Each outlet incorporates an integral, pivoting 316 grade stainless steel flapper valve which is specially designed to inhibit water intrusion back into the exhaust system.

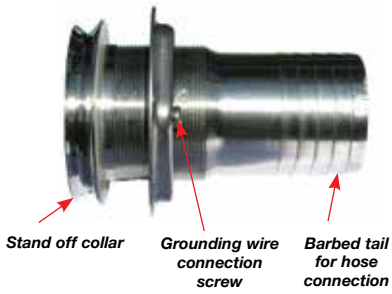
To ensure engine exhaust water has minimal contact with the hull an ingenious stand off collar has been incorporated. This collar has been designed to keep residual drips, which have a tendency to streak and stain, away from the hull.

For additional corrosion protection an earth/anode grounding wire connection screw has been incorporated into the retaining nut while a silicon hull gasket helps to provide a watertight seal.

Features:

- 316 marine grade stainless steel body
- Ingenious stand off collar prevents residual drips which stain, away from hull
- 316 marine grade stainless steel pivoting flapper valve prevents water intrusion
- Includes grounding wire connection and hull gasket
- Holding slots to help with installation
- Barbed tail for secure hose attachment
- Outside flange diameter 77mm
- Cut out diameter 57mm
- Protrusion 12.5mm

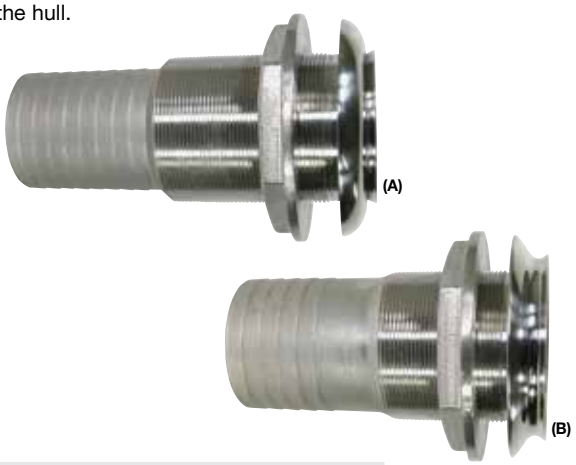




BLA Code	Hose Size mm	Overall Length mm	Max. Hull Thickness mm	Min. Hull Thickness mm
333295	38	136	63	32
333299	50	106	32	5

Marine Town® Exhaust Outlet

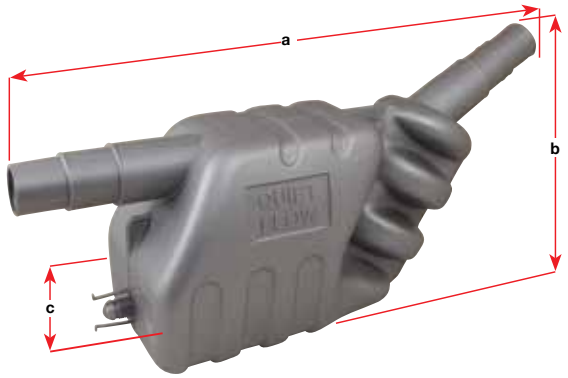
These highly polished, cast 316 grade stainless steel exhaust outlets include an integral, matte black powder coated stainless steel flapper valve to inhibit water intrusion back into the exhaust system. They also have an ingenious, yet simple collar to keep annoying residual drips away from the hull, thus preventing staining of the hull.



BLA Code	Hose Dia. mm	Overall Length mm	Max. Hull Thickness mm
(A) **333297**	45	138	53
(B) **333300**	63	145	35
(B) **333301**	76	145	35

Waterlock/Silencer - 40/45/50mm

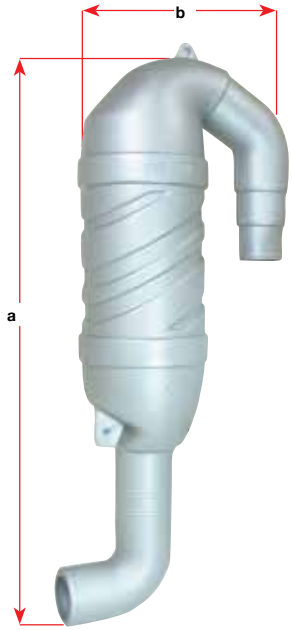
Combination waterlock and muffler manufactured from high density polyethylene to suit engines up to 50HP. These waterlocks are suitable for wet exhaust systems with hose diameters of 40mm, 45mm or 50mm. Simply trim off the stepped tails to the required size and connect the hose with double exhaust clamps as is normal recommended practice of installation for small craft. Depending on the relative height of the waterline, care must be taken to prevent water back-siphoning into the engine by installing a gooseneck and syphon break.



BLA Code	Hose Dia. mm	a mm	b mm	c mm	Capacity L	HP Max.
333249	40/45/50	542	270	155	6	50

Gooseneck

A transom fitted gooseneck provides added engine protection from following seas or when going astern by forcing the water to lift up the gooseneck before being able to enter the engine via the exhaust system. This gooseneck is manufactured from high density polyethylene and suits 40mm, 45mm or 50mm exhaust hose diameters with a 50mm outlet. Simply trim the stepped tail to the required size to suit the hose diameter of your choice.



BLA Code	Hose Dia. mm	a mm	b mm
333247	40/45/50	480	110

Waterlock/Silencer - 55-90mm

These European made waterlocks are manufactured from high density polyethylene to a high standard and are suitable for wet exhaust systems having hose diameters ranging from 55mm to 90mm. Simply trim off the stepped tails to the required size to suit the hose diameter of your choice. These waterlocks provide adequate noise suppression for most small to medium propulsion engines and generators. Depending on the relative height of the waterline, care must be taken to prevent water back-siphoning into the engine by installing a gooseneck and syphon break.

BLA Code	Hose Dia. mm	a mm	b mm	c mm	Capacity L	HP Max.
333241	55/60/65	660	320	220	20	115
333243	75/90	775	410	290	33	150

Exhaust Waterlock

Suitable for wet exhausts only. Installed in the exhaust line to prevent water from entering the engine. These waterlocks are made in New Zealand and constructed from durable polyethylene. Inlet side has the option for either top or side entry. Hose tails are stepped to suit multiple diameters.

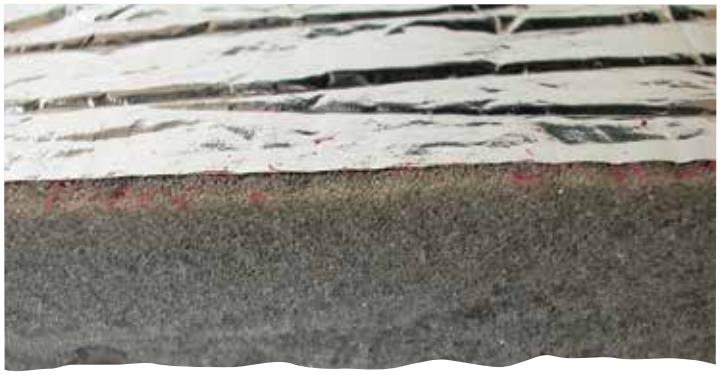
BLA Code	Hose Dia. mm	Overall Length mm	Overall Height mm	Width mm
333290	40/45/50	480	305	120

Foam Sound Insulation - Sorberfoam

25mm thick sound insulation that contains a tough impervious facing of reinforced aluminium, which provides high sound absorption and guards against dirt, grease, oil and fluids. Ideal for engine rooms or anywhere that requires noise control. Supplied in 30m rolls only.

Features:

- Fire retardant to AS1530.3
- Durable tear resistant facing
- Impervious to dust, oils, solvents and fluids
- Insulates against heat
- Heat and light reflective
- Self extinguishing
- Optional pressure sensitive adhesive backing
- Hydrolysis resistant - foam will not rot
- Easy to handle and install
- Ignition retardant
- Excellent mid-frequency absorption
- Low installation cost
- Long service life



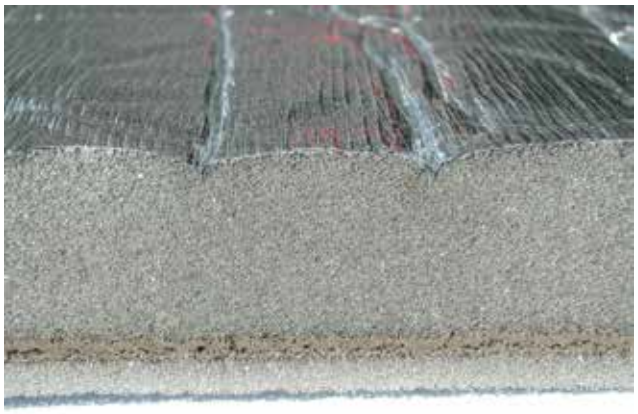
BLA Code	Type	Thickness mm	Width mm	Roll m
335010	Non adhesive	25	1400	30
335020	Self adhesive	25	1400	30

Foam Sound Insulation - Sorberbarrier

Sorberbarrier is a composite sandwich material comprising of a flexible high mass noise barrier laminated between two layers of flexible acoustic foam. It increases sound transmission loss and provides sound absorption. Ideal for engine rooms or anywhere that requires noise control. The outer layer of flexi foam comprises foam sound insulation detailed with **335010** above. The base layer comprises of 6mm foam and acts as a decoupling layer which separates the noise barrier and spaces it from the structure. The middle layer is the decoupled noise barrier that adds significantly to the sound transmission loss of the system. The resultant performance exceeds the mass law. Commonly bonded to the structure with spray adhesives.

Features:

- Fire retardant to AS1530.3
- Excellent mid to high frequency performance
- Resists hydrolysis - foam will not rot
- Ignition retardant
- Flexible for ease of installation
- Reflects heat and light
- Resists contamination from dust and liquids
- Heat formable
- Durable tear resistant facing
- Self extinguishing



BLA Code	Thickness mm	Sheet Size mm
335030	32	1300 x 2200

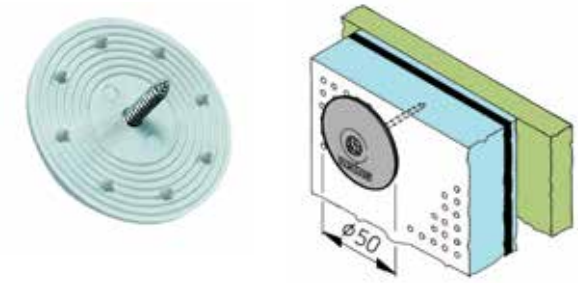
Metalised Tape - AGC

Self-adhesive, reinforced aluminium tape to cover butt joints in the range of sound insulation above. High temperature resistance.

BLA Code	Width mm	Roll Length m
335052	50	45

Insulation Fixing Buttons

Polypropylene discs with domed head and spiked undersurface, used to mechanically fasten the insulation foam sheets above to bulkhead or ceiling. Spikes grip the foam to prevent slippage without damage. Sold individually.



BLA Code	Dia. mm	Mount Hole mm
335060	50	3r/h

BOAT BUILDING MATERIALS

King StarBoard® Original Marine Construction Board	931
King StarBoard® XL Marine Construction Board	932
King StarLite® XL Marine Construction Board	932
King StarBoard® Anti-Skid Marine Construction Board	933
King StarBoard® Outboard Motor Pad	934
EVA Self Adhesive Non-Skid Trailer Patches	934
EVA Self Adhesive Non-Skid Decking Sheets	934

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A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

King StarBoard®

Marine Building Material

King StarBoard® is the world's first marine grade polymer building material and still the industry standard. Nothing on the water retains its original colour and structural integrity longer. Virtually anything you can build from wood or ordinary plastic can be built better with King StarBoard®.

It simply cannot rot, swell, splinter or delaminate and it is virtually maintenance free. King StarBoard's unique polymer formulas are environmentally stabilised to withstand the harshest marine conditions, delivering a previously unattainable level of resistance to the elements.

Every sheet is a superior homogeneous material manufactured to the industry's highest standard, using a proprietary process called K-Stran™, the most advanced continuous sheet manufacturing process available for producing extremely flat and long sheets with no grain. Edges finish cleanly and smoothly and it forms easily for smooth curves.

Users appreciate King StarBoard's low maintenance finish. Repair and refinishing due to weathering and decay are eliminated and cleaning is easy. Every sheet has a handsome matte finish on both sides to hide scuffs and scratches that would show on glossy textured sheets or acrylics.

In addition, nothing is easier to work with. King StarBoard® cuts and machines with standard wood working tools.

Imagine the possibilities . . . here are just a few

Exterior Deck: Step boxes, berley boards, rod holders, consoles, tray tables, anchor chocks, bow pulpits, decking, fender mounts, deck boxes, antenna holders, storage hatch, step treads (ladders), step boards (gunwales), chairs and upholstery backs, swim platforms.

Interior Decks: Electronics mountings, sofas, sink covers, glassware racks, cabinets, shower grates, bunks, shampoo racks, stairs, hatches, doors, cabin moulding, fire extinguisher boxes, upholstery backing.

Engine Room: Grates, hatches, equipment decks, mounting platforms, mounting blocks/surfaces, centre bilge grate, walk on surfaces, signage.

Cleaning and Maintenance

King StarBoard® sheets are made to maintain their colour and finish for the lifetime of the boat. Only routine cleaning or pressure washing with common detergents is required.

Nylon scrub pads and brushes should be used with care because excessive force will mark the finish. For resistant stains, apply bleach and allow it to soak in. Use citrus cleaner, alcohol or mineral spirits to remove grease or oil stains. Automotive silicone spray products or household furniture polish can help to hide scratches in the surface. To prevent slipping, do not use these products on walking surfaces.

Finishing

No surface finishing is required – each side has a textured matte finish. Edges may be finished with a router. Sanding may be used but a very fine sandpaper is required to avoid creating small, hard to clean scratches. Because King StarBoard® sheet products are designed to resist water and grime, they cannot be painted and the use of adhesives is not advised.

Fabrication

Use standard woodworking tools: table saw, table routers, drills, blades and bits. Carbide router bits with two to four flutes are recommended. With a 12.7mm diameter router bit, feed rates of 3.7-4.9m per minute are normal. Rates must be slower for material that is 12.7mm thick or thicker. Larger bits have a higher top speed and rpm adjustments may be necessary.

Cut with a circular saw at 1275rpm using 50-70 tooth carbide blade. Expect a feed rate of 3.7-4.9m per minute. Mild heat applied with a heat gun will help to mould sheets for curved installations. Sharper corners must be notched and then heat-shaped. Hide fasteners with plugs made from King StarBoard® using a standard wood-plug cutter. Make the plug slightly larger than the hole for a press fit.

Care and Storage

Store sheets flat on a level surface as the polymer can cold flow. Keep away from teak oil and other products that can stain the finish. Use china markers or water-based markers to draw patterns.

Do not use pencil, as it will permanently mark the material. Pen marks can usually be removed with household cleaners.

Before

After

Engine Room

Care and Storage

Finishing

King StarBoard® Original Marine Construction Board

King StarBoard® is the original marine grade polymer and still the industry standard. Environmentally stabilised to withstand the harshest marine conditions, it will not rot, corrode, discolour or delaminate. Finished with a matte surface both sides to hide scuffs and scratches, and make fabrication easier. Using standard wood-working machinery and tools, every conceivable product can be easily manufactured. Suited to hatches, grab rails, handles, steps, dock boxes, rod holders, mug holders, furniture, frames and trims. Sheets are available mostly in white as well as sanshade (**343174**).

Storage lockers are made in minutes to add extra room to confined or unused areas. Sheets are simply cut similar to plywood on standard fine tooth tungsten carbide saws. Universal carbide tipped router bits add the professional touch and smooth edges.

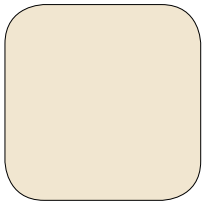
Swim boards or Marlin boards are easily made using King StarBoard®. Transom curve contours are replicated from patterns and cut to fit exactly. Water drain slots are simply routed out from a template pattern. No further finishing is required.

Custom craftwork on deck fittings and anchor retrieval systems are quickly constructed, look great and need no finishing to remain well presented for years. Protect expensive deck work and surrounding areas with easy to make, custom deck fittings that will please all skippers and owners.

BLA Code	Colour	Thickness mm	Sheet Size mm
341002	White	6.4	2438 x 1372
341004	White	9.5	2438 x 1372
341006	White	12.7	2438 x 1372
341008	White	19.0	2438 x 1372
341010	White	25.4	2438 x 1372
343174	Sanshade	12.7	2438 x 1372

Cross-Section

White



Sanshade

King StarBoard® XL Marine Construction Board

A lighter, more economical board, of cellular construction (up to 33% lighter than original King StarBoard®) with excellent surface finish for use where end finish is not paramount in high visibility applications. Finished with a matte surface both sides to hide scuffs and scratches, and making fabrication easier. Worked the same way as standard StarBoard®, using workshop wood-working equipment. Suitable for use in the making of hatches, steps, dock boxes, furniture, frames and trims. Sheets are white in colour.

Cross-Section

White

BLA Code	Colour	Thickness mm	Sheet Size mm
341102	White	6.4	2438 x 1524
341104	White	9.5	2438 x 1524
341106	White	12.7	2438 x 1524
341108	White	19.0	2438 x 1524

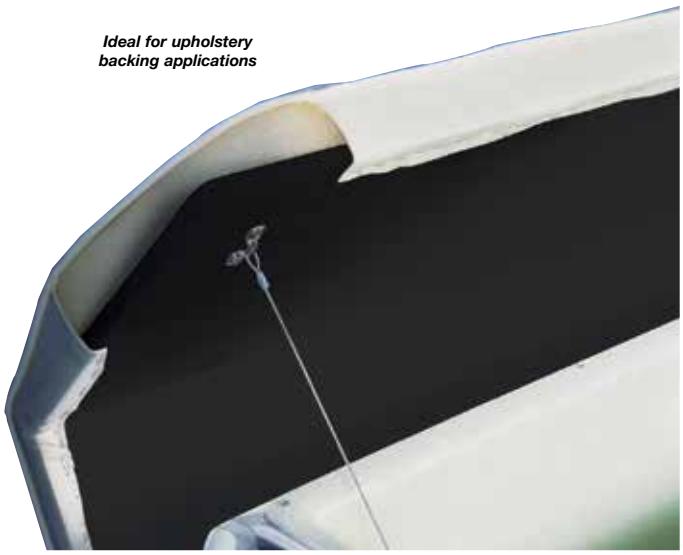
King StarLite® XL Marine Construction Board

An economical cellular marine grade polymer utility sheet made from select high grade King StarBoard® recycled polymer material. This lightweight, black sheet is ideal for fabricating upholstery components. It will not rot, swell or delaminate when exposed to humidity or moisture, resists odour even in wet environments, easily forms for smooth bends and securely holds staples and screws. King StarLite® XL is the perfect replacement for plywood or MDF, flexing without breaking. It is easy to fabricate using standard wood-working tools, easy to clean and never needs maintenance.

Cross-Section

Black

Ideal for upholstery backing applications

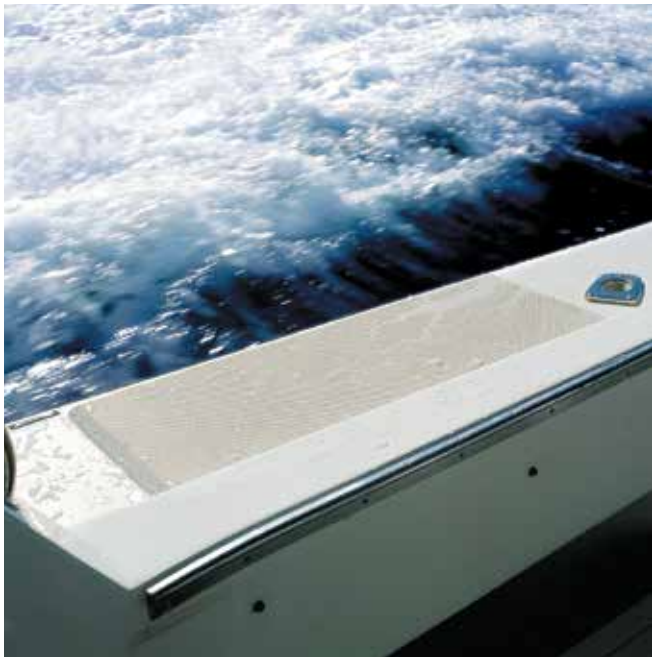


BLA Code	Colour	Thickness inch	Sheet Size mm
341202	Black	6.4	2438 x 1524
341206	Black	12.7	2438 x 1524

King StarBoard® Anti Skid (AS) Marine Construction Board

Based on the original King StarBoard® construction board, but finished with a diamond pattern, anti skid textured surface to allow the board to be used with confidence in wet areas or decking. The anti skid, raised diamond pattern, sure grip textured surface has a high friction surface polymer, ensuring anti skid properties are dominant and water is displaced rapidly. It is designed for high traffic areas and never needs maintenance other than easy surface cleaning. Sheet size is 1372mm x 2438mm. Finished one side (AS), reverse side standard King StarBoard® matte. Recommended for decking areas, swim platforms, hatches, ladder treads, pulpit platforms, shower and engine room grates and any other area requiring a quality, anti-slip surface.

No more slippery companionway steps or scrubbing down of oily teak when King StarBoard® is used for step plates. Cut out on the bench saw and finished on the spindle moulder or hand router, steps take only minutes to construct and finish maintenance chores forever. Fastenings remain secure and through-bolts can be plugged using standard wood-working techniques.

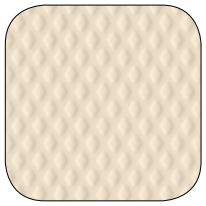


Marine Building Sheet

Cross-Section

White

Cross-Section

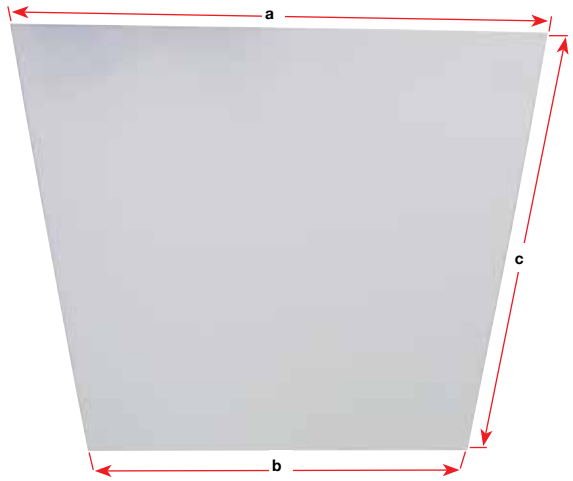


Sanshade

BLA Code	Colour	Thickness mm	Sheet Size mm
341306	White	12.7	2438 x 1372
341308	White	19.0	2438 x 1372
341310	White	25.4	2438 x 1372
343172	Sanshade	19.0	2438 x 1372

King StarBoard® Outboard Motor Pad

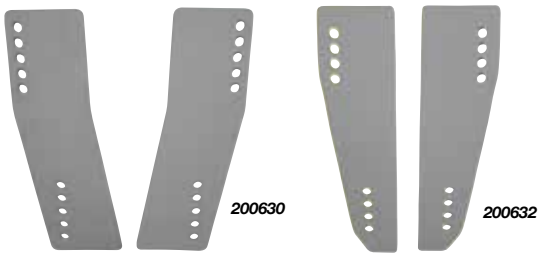
These popular outboard motor pads are manufactured from marine grade King StarBoard® polymer which is environmentally stabilised to withstand the harshest marine conditions.



BLA Code	a mm	b mm	c mm	Thickness mm
823520	415	270	380	6.0
200640	400	300	330	6.4
846100	355	210	355	9.5
846104	395	250	355	6.0

Outboard Motor Backing Pads

Made from EVA foam, preshaped and drilled to suit most Mercury®/Johnson®/Evinrude® and Yamaha® outboard bracket mounts. These pads reduce noise transfer by 15-40% and help reduce electrolysis. Rated to 250HP. Sold as a pair.



BLA Code	Suits	Width mm	Height mm	Depth mm
200630	Merc/John/Evin	95	320	10
200632	Yamaha®	95	325	10

Dinghy Outboard Motor Pad

Self adhesive pad made from EVA foam. Mounted to the external surface of the transom to reduce noise transfer by 15-40%. Also helps reduce electrolysis.

BLA Code	Top Width mm	Lower Width mm	Height mm	Thick mm
200634	390	310	305	6

EVA Non-Skid Trailer Patches - Grey

Self Adhesive

Specifically sized for trailer mudguards. No more sore shins from slipping off whilst launching or retrieving the boat. Uses the same easy fit material as the bulk sheeting **345020** and **345024** on this page, pre-formed to convenient sizes for instant application. Ideal for use also on alloy dinghy seats, companion way stairs, landing boards, gangways and similar. Self adhesive backing. Sold as a pair.

BLA Code	Thickness mm	Size mm
345002	6	310 x 160
345004	6	900 x 160

EVA Non-Skid Decking Sheets - Self Adhesive

Soft textured self-adhesive non-skid protective decking sheets. The sheets are sound absorbing, reduce harmonic vibration and have a self adhesive backing for ease of application. Ideal for deck tread on slippery hatch lids, around anchor wells, bow rollers, engine room floors and similar. Obtain a perfect fit by using a simple paper cut out pattern as a template. 240kg/m^3 density.

Grey

White

BLA Code	Colour	Thickness mm	Size mm
345020	Grey	3 - 3.3	850 x 850
345024	White	3 - 3.3	850 x 850

ROPE

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Silver, Three Strand & Aquadan	937
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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

An Introduction to Rope

Rope is available in a variety of materials and variations. The make-up or construction of the rope will determine its strength, abrasion resistance, ease of use, and ultimately its price. BLA stock a range of high quality rope to suit almost any scenario. The key is to choose the right one for the right job; the following guide will help you make the correct choice.

Rope Material

Nylon: The strongest, most accessible rope material, it excels in absorbing energy. Even though it is quite strong it loses about 15% of its strength when wet. This should be factored into the selection decision for applications where the rope will be exposed to water. Nylon rope is very dense and sinks in water. It is the pick of the rope for a host of applications because it has high U.V., heat and abrasion resistance which increases the ropes life.

Polypropylene: A synthetic rope that is strong for its weight. It has reduced U.V. and abrasion resistance qualities and thus also has a reduced life span. It is however, generally one of the most popular choices simply due to its price point. Its best feature is its ability to float. This rope is a good choice for short term or indoor applications.

Polyester: Almost as strong as nylon, but does not lose strength when wet. Polyester has a high resistance to abrasion, U.V. and heat. The main difference between nylon and polyester is the elasticity; nylon stretches significantly more than polyester. Nylon is more appropriate for applications where slight stretch is desirable, such as docking lines. Similarly, polyester line is more appropriate for applications where stretch is not desired, such as sheets and halyards on sail boats.

Polyethylene: Polyethylene rope, commonly known as silver rope, has positive buoyancy (floats) and its tensile strength remains the same dry or wet. It is slightly heavier than polypropylene rope and it has lower breaking strength compared to a high tenacity polyethylene rope. It generally has superior abrasion resistance compared to polypropylene rope and is commonly used in commercial fishing, general marine and industrial applications.

Rope Construction

Twisted rope: Twisted rope is formed by coiling three strands together in the same direction. The fibres within each of the three strands must twist in the opposite direction to the corresponding strands. This ultimately results in producing a balanced rope, which means it hangs straight and resists kinking. Twisted rope must be fused and taped on each end to prevent unravelling. The direction of twist is called the lay of the rope. Three strand twisted line can be 'laid' right or left, and should always be coiled with the lay of the line.

Twisted rope is more stiff but less flexible than braided rope. It is fairly easy to splice and generally less expensive. It has more stretch and thus when used as an anchor line it tends to absorb a portion of the load placed on it from wind and wave action. This allows the anchor to remain set rather than pulling free.

Twisted rope

Braided rope

Braided rope: Braid is constructed in various ways, but generally by weaving ends of yarn over and under. Most braided ropes are constructed around a braided core and are commonly known as double braid. If a core does not exist, the rope is called 'hollow braid'. The leading feature of hollow braided rope is its ability to splice easily.

Solid braid is tightly woven which produces a firm and rounded construction. The unique lock-stitch construction prevents unravelling when damaged. Solid braided rope is especially useful when abrasion is a factor, for instance when working with pulleys. Solid braid due to its construction, cannot be spliced.

Braided rope does not stretch to the degree that twisted rope does, it is less stiff and more flexible. It goes through a pulley or block very well because of its rounded shape, and is generally stronger than its equivalent-sized twisted line. Braided line also tends to snag when used as docking line if the pilings are rough. It does have an aesthetic appearance and if you are using it frequently, will find it easier on the hands. Braided rope is often more expensive than twisted rope.

BLA Rope - Silver

Manufactured from a polyethylene staple extrusion process, silver rope has a distinctive white 'hairy' appearance. It does not absorb water and floats. It's high abrasion resistance and U.V. tolerance ensures longevity in the harsh marine environment. The resilient and economical nature of this rope makes it a favourite for anchoring, mooring, lashing, commercial fishing, tent rope, tie down and as a general purpose line. Ends can be heat welded. 4mm to 12mm is soft to medium lay for easy splicing whilst 14mm and larger is medium lay.

144018

144080

Coils

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
144072	4	300	180
144076	6	330	330
144080	8	330	540
144084	10	250	790
144088	12	250	1090
144092	14	125	1350
144094	16	125	1850
144096	18	125	2150
144098	20	125	2700
144100	22	125	3200
144102	24	125	3700
144104	28	125	5100
144106	32	125	6700

Flanged Reels

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
144002	4	500	180
144006	6	300	330
144010	8	200	540
144014	10	150	790
144018	12	100	1090

N.B. Stated breaking loads are nominal only, actual loads can vary from coil to coil. Refer to section 14 for anchor hanks.

BLA Rope - Nylon Three Strand

Polyamide fibres are used to manufacture this three strand rope which provides its exceptional strength, extension and recovery. Having easily two to three times the strength of silver rope and the ability to repeatedly elongate safely by approximately 20% to 30%, makes this a most suitable rope for anchoring, mooring or towing. Non floating, U.V. stabilised, resistant to grease and oil, soft grip and good knot holding are just some of nylon's advantages. Ends can be heat welded to prevent unravelling.

354510

354524

Flanged Reels

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
354506	6	250	750
354508	8	125	1350
354510	10	125	2080
354512	12	125	3000
354514	14	50	4100
354515	14	100	4100
354516	16	50	5300
354517	16	100	5300
354518	18	100	6700
354519	20	100	8300
354521	24	100	12000

Coils

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
354524	8	250	1350
354528	10	250	2080
354532	12	250	3000
354536	14	250	4100
354540	16	250	5300
354544	18	250	6700
354548	20	250	8300

BLA Rope - Aquadan

An economical polypropylene three strand rope that floats, does not absorb water, and does not shrink when wet. It is inherently at least twice as strong as comparable silver rope, resistant to rot, mildew and marine growth, making it a very popular commercial fishing, industrial and general purpose rope. Ends can be heat welded.

354960

354932

Coils

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
354918	4	220	235
354920	6	220	660
354922	8	220	1120
354924	10	220	1650
354926	12	220	2350
354928	14	220	3200
354930	16	125	3900
354932	18	125	5020
354934	20	125	6060
354936	22	125	8100
354938	24	125	8400
354942	28	125	11100

Flanged Reels

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
354960	4	500	235
354962	5	500	350
354964	6	500	660
354966	7	500	750

BLA Matrix Double Braid Performance Rope - Pursuit

Pursuit rope is a premium performance low stretch double braid polyester rope with 32 braid outer cover and 8 braid core. Made of continuous high tenacity multi-filament yarns, colour spun-dyed and factory pre-stretched. The 32 braid cover gives strong resistance to wear in yacht jammers, self-tailing winch jaws and winch drums. Ideally suited for running rigging applications for both cruising and racing yachts as a strong and durable line with low stretch and easy handling characteristics. Pursuit rope provides high tensile strength with minimal stretch with excellent abrasion resistance for a long service life. The rope is U.V. stabilised for extended life, spliceable and kink-free. Available in a range of fleck and outer case colours.

White body with blue & black fleck

White body with red & black fleck

Black body with red, blue and yellow fleck

Blue body with red, black and yellow fleck

BLA Code	Colour	Diameter mm	Length m	Break Load approx. kg
351550	White Blue/Black	6	100	800
351560	White Red/Black	6	100	800
351570	White Blue/Black	8	100	1500
351580	White Red/Black	8	100	1500
351590	White Blue/Black	10	100	2100
351610	White Blue/Black	12	100	2800
351620	White Red/Black	12	100	2800
351650	Black Red/Blue/Yellow	6	100	800
351660	Black Red/Blue/Yellow	8	100	1500
351670	Black Red/Blue/Yellow	10	100	2100
351680	Black Red/Blue/Yellow	12	100	2800
351700	Blue Red/Black/Yellow	6	100	800
351720	Blue Red/Black/Yellow	10	100	2100
351730	Blue Red/Black/Yellow	12	100	2800

N.B. Stated breaking loads are nominal only, actual breaking loads can vary from spool to spool.

BLA Matrix Double Braid Rope - Admiral

The most popular and versatile of all polyester yachting braids. A 16 plait jacket over an 8 plait core provides high strength with excellent resistance to abrasion. The outer sheath has a sheen finish which runs smoothly through blocks and sheaves whilst retaining grip on winches, cleats and jammers. It is manufactured in natural white, three solid colours, as well as natural with coloured traces for identification. High resistance to U.V., minimal stretch properties and good load carrying characteristics make this an ideal rope for sheets, halyards, lazy jacks and reefing/furling systems. Also commonly used as premium quality general purpose tie down rope. Ends can be heat welded.

BLA Code Natural White	Blue Fleck	Gold Fleck	Green Fleck	Red Fleck	Black Fleck	Solid Blue	Solid Green	Solid Red	Diameter mm	Length m	Break Load approx. kg
351202	**351206**	**351208**	**351210**	**351212**		**351216**	**351218**	**351220**	6	100	1000
351203	**351207**	**351209**		**351213**					6	200	1000
	351205								6	500	1000
351242	**351246**	**351248**	**351250**	**351252**		**351256**	**351258**	**351260**	8	100	1600
	351247	**351249**		**351253**					8	200	1600
	351244								8	500	1600
351282	**351286**	**351288**	**351290**	**351292**	**351284**	**351296**	**351298**	**351300**	10	100	1900
	351287		**351291**		**351285**				10	200	1900
351402	**351406**	**351408**	**351410**	**351412**		**351416**	**351418**	**351420**	12	100	2600
351442	**351446**		**351450**	**351452**					14	100	3000
351482	**351486**		**351490**	**351492**					16	100	3500

N.B. Stated breaking loads are nominal only, actual breaking loads can vary from spool to spool.

BLA Rope - Mini Rope Spools

A range of convenient mini spools ideal for a wide variety of applications. Each plastic spool features 20 metres of quality 3mm 16 plait polyester rope. The spools are sold in multiples of 12, complete with point of sale display and contains an assortment of four colours.

BLA Code
353160P

BLA Rope Lanyard - Silver

Silver rope lanyards with a soft loop spliced in one end. Suitable for mooring lines or similar. Shares the same properties as silver rope detailed earlier in the section.

BLA Code	Rope Size. mm x m	Break Load approx. kg
144280	6 x 4	330
144282	6 x 8	330
144284	8 x 4	540
144286	8 x 8	540
144288	10 x 5	790
144290	10 x 10	790

BLA Code	Rope Size. mm x m	Break Load approx. kg
144292	12 x 5	1090
144294	12 x 10	1090
144310	14 x 5	1350
144312	14 x 12	1350
144314	16 x 5	1850
144316	16 x 16	1850

BLA Rope Lanyard - Braided

All black U.V. stabilised polyester braid, pre-spliced with a 300mm soft loop at one end. High strength and smart aesthetics for the discerning boat owner. Uses include mooring lines, painter line and fender lanyards.

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
144264	8	2.5	1600
144266	10	3	1900
144268	12	5	2600
144270	12	10	2600

BLA Shock-Absorbing Mooring Line

These premium mooring lines combine the smart aesthetics and high strength of double braid polyester with a unique and integral stretch, shock-absorbing section. Virtually eliminates the sudden jolt when vessels swing to the end of mooring line reach. All black jacket, 300mm soft loop at one end.

BLA Code	Rope Dia. mm	Length m	Break Load approx. kg
144254	12	5	2350
144256	12	8	2350
144257	15	12	3250
144258	15	8	3250
144259	15	16	3250
144260	18	8	4050
144261	18	18	4050
144262	26	10	6050

BLA Rope - Dockline

This black double braid rope is an excellent mooring line, supplied in spool length for those needing to cut to size. It is manufactured from a 16 plait braided polyester cover over an 8 strand core, which gives its high strength and tenacity, with superior resistance to abrasion and having less than 0.5% water absorption characteristic. Its outstanding resistance to U.V. degradation and good load bearing properties makes it the most suitable for those requiring a neat-looking, spliceable and reliable mooring line.

BLA Code	Diameter mm	Length m	Break Load approx. kg
352912	10	100	1900
352914	12	100	2600
352918	16	100	3500

N.B. Also available in a choice of pre-cut lengths and sizes with a soft eye spliced loop at one end, ready for immediate use. Refer to page 940.

BLA Cord - Plaited Polyester Venetian Blind

Venetian blind cord is a versatile, 12 plait polyester rope that is commonly used for lacing, light halyards on outriggers, sailing dinghies and flag poles. U.V. stabilised for extended life in exposed applications. Ends can be heat welded.

BLA Code White	Black	Diameter mm	Length m	Break Load approx. kg
353104	**353109**	2	100	100
353106	**353110**	2	500	100
353124	**353129**	2.5	100	125
353126	**353130**	2.5	500	125
353144	**353149**	3	100	200
353146	**353150**	3	500	200

BLA Rope - Plaited Polyester

An economical 8 plait jacket strand rope with twisted core and outer jacket of four right hand and four left hand braided strands, which produces a torque balanced cord that minimises twists and kinks. This rope is manufactured from polyester which produces a rope that is relatively strong and retains its strength wet or dry. Used for general purpose lashing and control lines on sailing dinghies. Ends can be heat welded.

BLA Code Natural	Blue	Diameter mm	Length m	Break Load approx. kg
353204	**353216**	4	500	265
353206	**353218**	5	500	420
353208	**353220**	6	250	600

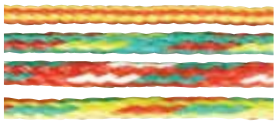
BLA Cord - Motor Starter

A white hard lay plaited polyester cord designed specifically for recoil motor starter use. Its characters are minimal stretch, high strength and extreme resistance to abrasion. The extra hard lay gives the cord a stiff set to lay flat in starter recoil mechanism. Ends can be heat welded.

BLA Code White	Diameter mm	Length m
200792	3.5	100
200794	4	100
200796	5	100

Trem Rope - Ski

This polyethylene hollow braid rope floats, is highly visible and has low stretch properties, making it suitable for water-skiing, knee-boarding and towable inflatables. Available in a choice of various colour combinations of red, yellow, green and white. Ends can be heat welded and easily spliced.



BLA Code	Colour	Diameter mm	Length m	Break Load approx. kg
353713	Red/Yellow	6	200	180
353714	Green/Red/Yellow	7.5	200	275
353715	Red/Green/White	7.5	200	275
353716	Yellow/Red/Green	7.5	200	275

BLA Cord - Shock

This shock cord consists of multi-strand rubber filament core enveloped in a protective 16 braid polyester sheath, resulting in an elastic cord with consistent stretch, strength and recovery which can be repeatedly stretched to double its retracted length. This durable bungee cord is available in white with blue fleck or black. Frequently used as sail ties, return lines, in trapeze systems and for tonneau covers.

353526

353524

BLA Code Black	Blue Fleck	Diameter mm	Length m
353524	**353526**	3	100
353544	**353546**	4	100
353564	**353566**	5	100
353584	**353586**	6	100
353604		7	100
353624	**353626**	8	100

Lifeline Netting

Diamond pattern, polyester fibre netting commonly used to secure the void between the lifelines and deck. The bottom of the netting is attached to the toe-rail, a lifeline at deck level or deck mounted eyelets. The net length is based on a height of 200mm being used, however, the net height can be extended up to a maximum of 600mm but with a resultant reduction in length. Available in 30 metre rolls.

BLA Code	Length m
359020	30

Polyester Webbing

Designed for strength and long term durability.
Available in black or white in a choice of 25mm or 50mm width.

Application:

- Harnesses
- Sail-making
- Boat tie downs
- Canopy straps

359052

BLA Code	Colour	Width mm	Length m
359050	Black	25	100
359052	White	25	100
359060	Black	50	100
359062	White	50	100

Net Lockers

Woven polyester netting is available in two sizes and is perfect for providing additional on-board ventilated storage areas. Commonly used under decks, coamings, tables and similar applications. Elastic shock cord fitted to the perimeter of the netting allows the flexibility required to accommodate a variety of shapes and retracts the net when not being used. Supplied complete with nylon securing hooks built into each corner.

BLA Code	Dimensions mm
359028	2000 x 600
359030	400 x 200

Rope Measurer

Accurately and quickly measures rope length in metric units to 10cm increments. Can be reset to zero at the completion of each task. Suits ropes 4mm to 14mm in diameter.

BLA Code
359520

Rope Cutter and Sealer

Hand held 240 volt rope cutter and sealer combines to produce a professional finish to the ends of synthetic ropes. Replacement blades available.

N.B. Indicative picture only, colour and style may change

BLA Code	Description
359530	Hot knife including blade

Accessories:

359532 Replacement Blade

REFRIGERATION

Isotherm® Cruise Classic & Inox Marine Refrigerators	944-947
Isotherm® Cruise Classic Marine Freezers	948
Isotherm® Cruise Drawer Refrigerators & Freezers	949-950
Isotherm® Cooling Boxes	951-952
Isotherm® Icemaker	953
Isotherm® ASU Refrigeration	954
Isotherm® Self Pumping ASU Refrigeration	955
Isotherm® Accessories & Spare Parts	956-958
Isotherm® Electrical Cooling Compressors	958

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

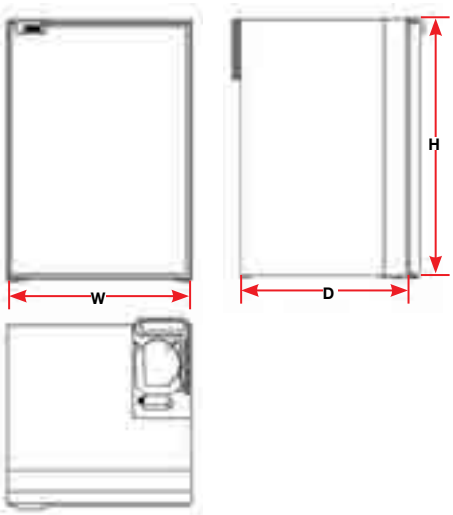
Isotherm® Cruise Classic & Inox Marine Refrigerators

Isotherm Cruise Refrigerators combine technological innovation with sophisticated, yet practical design. The Cruise Classic refrigerators are available from 36 litres up to 219 litres.

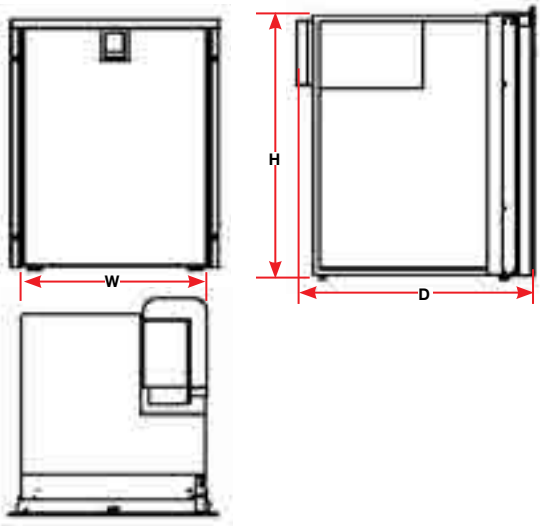
Features:

- Freezer compartment (except **381710**, **381711**)
- Equipped with interior light (except **381640**, **381767**) and installation frame
- Very low power consumption
- 12 / 24 V Danfoss / Secop compressor
- Door with a safety lock and magnetic rubber seal
- Fan-cooled 12 / 24 V Danfoss / Secop compressor
- One piece inner lining of food-quality, high density plastic with rounded corners for easy cleaning
- Constructed of corrosion resistant materials

Cruise Marine Refrigerators Classic



Cruise Marine Refrigerators Inox



Isotherm Cruise Marine Refrigerators Selection Guide

BLA Code	Type	Volume L	Dimensions H x W x D mm	Available with ASU	Available with SEC	Weight kg	Power Consumption (W/24 hours)	Danfoss / Secop compressor type	Freezer Volume L	Freezer Temperature °C	Cut-Out H x W mm	Flange Size Left:Right:Top:Bottom mm
381640	CR 36	36	250 x 440 x 715[1]			15	300	BD35F	–	-	252 x 442	/:/:/:/
381632	CR 36 INOX	36	255 x 453 x 715			16	300	BD35F	–	-	260 x 458	30:30:30:30
381700	CR 49 INOX	49	520 x 400 x 510	✓	✓	18	280	BD35F	4	-6	525 x 405	20:20:20:/
381704	CR 65 INOX	65	527 x 470 x 545	✓	✓	19	290	BD35F	4	-6	532 x 475	20:20:20:/
381708	CR 85 INOX	85	620 x 495 x 555	✓	✓	24	380	BD35F	6	-6	625 x 500	20:20:20:/
381678 **381680**	CR 100	100	746 x 487 x 455[2]	✓	✓	26	400	BD35F	5	-6	748 x 491	/:/:/:/
381752	CR 130 DRINK	130	746 x 527 x 520[2]			27	400	BD35F	–	–	751 x 531	/:/:10:/
381713	CR 130 INOX	130	743 x 545 x 545	✓	✓	28	440	BD35F	6	-6	748 x 550	20:20:20:/
381710 **381711**	CR 130 DRINK INOX	130	743 x 545 x 560			28	440	BD35F	–	–	748 x 550	20:20:20:/
381716 **381717**	CR 195 INOX	130 / 65	1345 x 545 x 580			63	840	2 x BD35F	65	-18	1350 x 550	20:20:20:/
381718	CR 200 INOX	150 / 50	868 x 730 x 620			53	800	BD50F	50	-12	873 x 735	20:20:20:/
381690	CR 219	178 / 41	1406 x 550 x 530[3]			47	650	BD50F	41	-18	-	

Notes

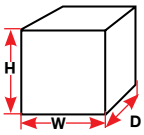
1. *[1] Door thickness (to be added): 35 mm*
2. *[2] Door thickness (to be added): 40 mm*
3. *[3] Door's depth + gasket thickness from cabinet (to be added): 68 mm*
4. *Power consumption W / 24 h in operation on 12 Volt with +5 °C in the refrigeration space, ambient temperature +25 °C according to the Standards ISO 15502:2005 and EN 153:2006*
5. *Refrigerators manufacturing tolerances -2 / +4 mm*
6. *Dimensions include refrigerator's feet*
7. *With AC / DC optional kit, depth may increase*
8. *According to EN 603335 - 1 regulation, the inside walls of the furniture housing the refrigerator must be distant from the fridge by 20 mm per side and 50 mm from the top*
9. *Please refer to the installation manual for further technical / installation details*
10. *Most Isotherm fridges can also benefit from a retro-fitted Isotherm Smart Energy Control kit. On some models it reduces battery consumption by up to 50%*
11. *Specification changes may be made without prior notice*

Isotherm® Refrigerator

- Cruise 36

The CR 36 is a built-in drawer fridge with unique design. Due to its compact dimensions, the CR 36 can be installed where no other fridge might fit. The compressor can be removed up to 1.2 metres away, always keeping it in horizontal position. It comes with a white door and mounting frame as standard.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381640	36	250 x 440 x 715

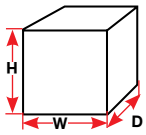


Isotherm® Refrigerator

- Cruise 100

The CR 100 differentiates itself with air ducts and a fan ventilated compressor which permits circulation even in tight installations. Additional mounting frames are available as an option. Available with ASU.

BLA Code	Volume L	Overall Dimensions H x W x D mm	ASU
381678	100	746 x 487 x 455	No
381680	100	746 x 487 x 455	Yes

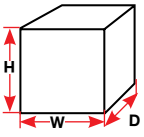


Isotherm® Refrigerator

- Cruise 130 Drink

The CR 130 D provides an extra space for drinks instead of the standard freezer compartment. It is equipped with an interior light and a fan for cool air distribution inside the fridge. Wine bottle racks (pictured), are available as an option.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381752	130	746 x 527 x 520

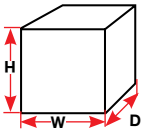


Isotherm® Refrigerator

- Cruise 219

The CR 219 is a two door fridge-freezer solution. The refrigerator provides a volume of 178 litres and the freezer a volume of 41 litres. The refrigerator is equipped with interior light, four shelves and two vegetable bins at the bottom.

BLA Code	Volume Fridge L	Volume Freezer L	Overall Dimensions H x W x D mm
381690	178	41	1406 x 550 x 530

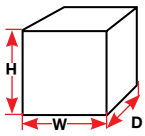


Isotherm® Refrigerator

- Cruise 36 Inox

The CR 36 Inox is a built-in drawer fridge with a unique design. Due to its compact dimensions, the CR 36 Inox can be installed where no other fridge might fit. It is the stainless steel version of CR 36. The compressor can be removed up to 1.2 metres away, always keeping it in horizontal position. The Inox model comes with a four side flush mounting frame.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381632	36	255 x 453 x 715

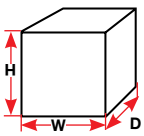


Isotherm® Refrigerator

- Cruise 49 Inox

The CR 49 Inox is the stainless steel design version of the CR 49. The Inox version also provides the built-in compressor giving better inside dimensions for standing and lying PET bottles. As standard, it is equipped with an installation frame and interior light. Available with ASU.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381700	49	520 x 400 x 510

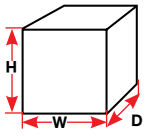


Isotherm® Refrigerator

- Cruise 65 Inox

The CR 65 Inox is the stainless steel design version of the CR 65. It features a separated freezer compartment and a built-in compressor unit. It is equipped with an installation frame and interior light as standard. Available with ASU.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381704	65	527 x 470 x 545

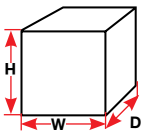


Isotherm® Refrigerator

- Cruise 85 Inox

The CR 85 Inox is the stainless steel design version of the CR 85. It provides a freezer compartment, two adjustable shelves and a corner-mounted compressor. Interior light as standard. Installation flush mounting frames supplied as standard (valid for all Inox models). Available with ASU.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381708	85	620 x 495 x 555

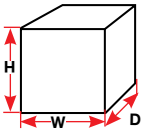


Isotherm® Refrigerator

- Cruise 130 Drink Inox

The CR 130 D Inox is the stainless steel design version of the CR 130 D providing an extra space for drinks instead of the freezer compartment. It is equipped with interior light and a fan for cool air distribution inside the fridge.

381711



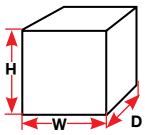
BLA Code	Description	Volume L	Overall Dimensions H x W x D mm
381711	Right Hinge	130	743 x 545 x 560
381710	Left Hinge	130	743 x 545 x 560

Isotherm® Refrigerator

- Cruise 130 Inox

The CR 130 Inox is a stainless steel design version. It provides a freezer compartment, three shelves, a vegetable bin and a door divided into three sections. It is equipped with interior light and a fan cooled compressor as standard.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381713	130	743 x 545 x 545

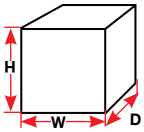


Isotherm® Refrigerator

- Cruise 195 Inox

The CR 195 Inox is a two door fridge-freezer solution combining a CR 130 refrigerator and a 65L freezer. The refrigerator comes with interior light and a vegetable bin. The CR 195 Inox is equipped with two fan-cooled compressors, separate thermostats for the fridge and freezer sections and is supplied with a flush mounting frame.

381717



BLA Code	Description	Volume Fridge L	Volume Freezer L	Overall Dimensions H x W x D mm
381717	Right Hinge	130	65	1345 x 545 x 580
381716	Left Hinge	130	65	1345 x 545 x 580

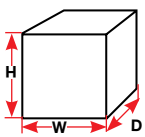
N.B. Available also with classic doors

Isotherm® Refrigerator

- Cruise 200 Inox

The CR 200 Inox is a stylish fridge-freezer in stainless steel design that has been developed to offer spacious on board storage for fresh and frozen foods. It is designed for easy installation under the work surface. The CR 200 Inox is divided into a 150L volume fridge section and a 50L volume freezer section.

BLA Code	Volume Fridge L	Volume Freezer L	Overall Dimensions H x W x D mm
381718	150	50	898 x 730 x 620



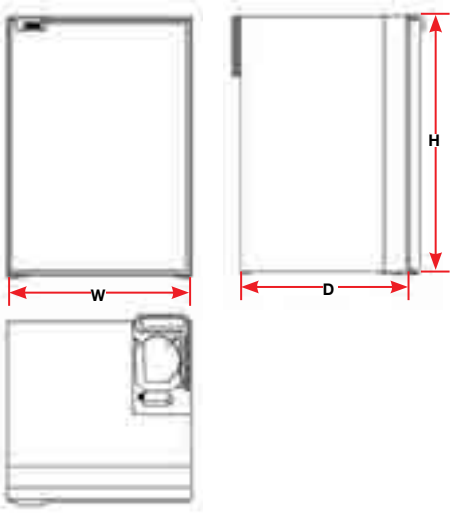
Isotherm® Cruise Classic Marine Freezers

The Isotherm Cruise freezer units are the perfect complement to Cruise refrigerators. The high quality freezers ensure the perfect and constant temperature to keep frozen food on board.

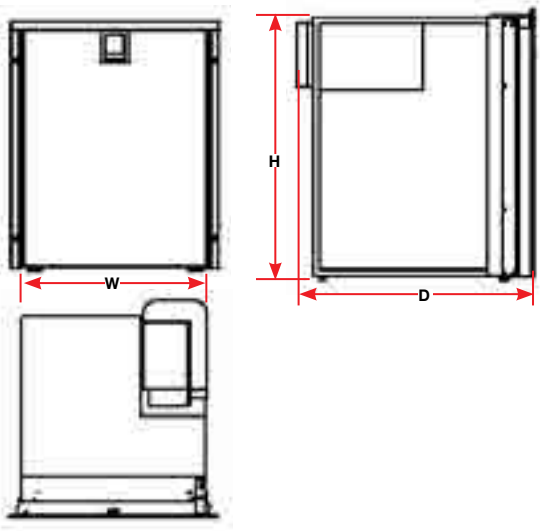
Features:

- Extra thick insulation, for excellent cooling performance and low power consumption
- 12 / 24 V Danfoss / Secop compressor (AC / DC power kit optional)
- Door with safety lock and magnetic rubber seal
- Excellent solution for a side by side fridge-freezer application

Cruise Marine Freezer Classic



Cruise Marine Freezer Inox



Isotherm Cruise Marine Freezers Selection Guide

BLA Code	Type	Volume L	Dimensions H x W x D mm	Weight kg	Power Consumption (W/24 hours)	Danfoss / Secop compressor type	Freezer Volume L	Freezer Temperature °C	Cut-Out H x W mm	Flange Size Left:Right:Top:Bottom mm
381754	CR 90 F	90	746 x 527 x 520*	28	550	BD35F	90	-18	751 x 531	/:/:10:/
381714	CR 90 F Inox	90	743 x 545 x 555	29	550	BD35F	90	-18	748 x 550	20:20:20:/

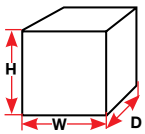
Notes

1. **** Door thickness (to be added): +40 mm***
2. ***Power consumption W / 24 h in operation on 12 Volt with -18 °C in the freezer space, ambient temperature +25 °C according to the Standards ISO 15502:2005 and EN 153:2006***
3. ***Refrigerators manufacturing tolerances -2 / +4 mm***
4. ***Dimensions include refrigerator's feet***
5. ***With AC / DC optional kit, depth may increase***
6. ***According to EN 603335 - 1 regulation, the inside walls of the furniture housing the refrigerator must distance from the fridge by 20 mm per side and 50 mm from the top***
7. ***Please refer to the installation manual for further technical / installation details***
8. ***Specification changes may be made without prior notice***

Isotherm® Freezer - Cruise 90 F

The CR 90 Freezer has the same outside dimensions as the CR130 fridge. Therefore these units can be perfectly mounted side by side. The CR 90 F is equipped with three shelves and four separate lids. It is supplied with a fan-cooled compressor.

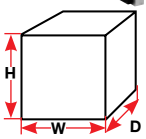
BLA Code	Volume L	Overall Dimensions H x W x D mm
381754	90	746 x 527 x 520



Isotherm® Freezer - Cruise 90 F Inox

The CR 90 Freezer Inox in stainless steel design has the same outside dimensions as the CR 130 fridge Inox. Therefore these units can be perfectly mounted side by side. The CR 90 F Inox is equipped with three shelves and four separate lids. It is supplied with a fan-cooled compressor.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381714	90	743 x 545 x 555

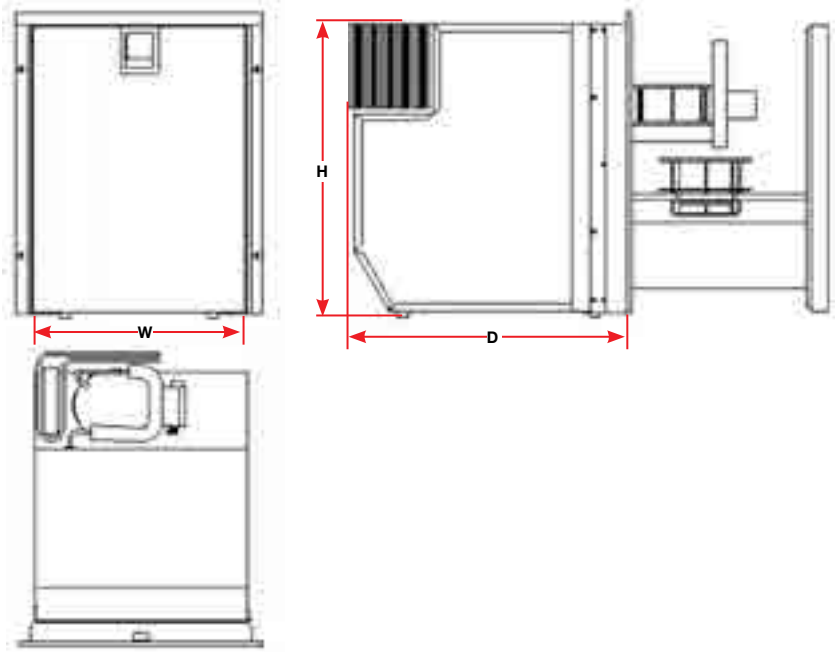


Isotherm® Drawer Refrigeration & Freezers

Isotherm drawer fridges and freezers stand for great design and user-friendliness. High-quality material and robust construction ensure a long life time.

Features:

- High-tech design
- Easy access, comfortable to use
- Freezer compartment (-6°C)
- Robust drawer mechanism
- Removable drawers for easy cleaning
- Offshore lock, for perfect closure at any time
- Unique frost-free feature on some models
- Different cooling systems: ventilated as standard, water-cooled with a self pumping kit (patented) and water-cooled through a seawater pump for tropical conditions



Isotherm Drawer Refrigerators and Freezers Selection Guide

BLA Code	Type	Volume L	Dimensions H x W x D mm	Weight kg	Power Consumption (W/24 hours)	Danfoss / Secop compressor type	Cut-Out H x W mm	Flange Size Left:Right:Top:Bottom mm
381636	DR 55 Frost-Free Freezer Inox	55	526 x 470 x 560	26	740	BD35F	531 x 475	20:20:20:/
381638	DR 65 Inox	65	526 x 470 x 545	28	470	BD35F	531 x 475	20:20:20:/
381642	DR 105 Inox	105	515 x 515 x 770[1]	33	480	BD35F	517 x 519	10:10:10:12
381644	DR 190 Inox	190	800 x 900 x 545	44	700	BD50F	805 x 905	20:20:20:/

Notes

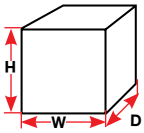
1. **** Power consumption W / 24 h in operation at 12 V with + 5 °C in the refrigeration space, ambient temperature + 25 °C according to the Standards ISO 15502:2005 and EN 153:2006***
2. ***[1]D = 600 without compressor***

Isotherm® Drawer Freezer

- 55 Frost-Free

The DR 55 freezer is a 55L capacity stainless steel front opened drawer freezer. This model combines innovative stainless steel design with the most modern technology such as automatic defrost which allows having home comfort on board. The DR 55 F is equipped with an internal fan for temperature constant control and a sequence of 5 LED lights for blue internal light.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381636	55	526 x 470 x 560

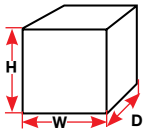


Isotherm® Drawer Freezer

- 65 Inox

The DR 65 Inox is a space-saving, front-opened drawer. Its new design is based on the standard 65L refrigerator but with a pull-out drawer featuring an innovative interior concept with bins, bottle racks and a freezer compartment (-6°C). A sequence of 5 LED lights provides blue internal light.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381638	65	526 x 470 x 545

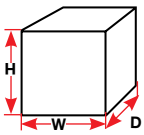


Isotherm® Drawer Freezer

- 105 Inox

The DR 105 Inox drawer fridge gives opportunities for installations where a normal refrigerator would not fit. It can be installed as the main galley fridge, as a cockpit bar or even on the fly-bridge. The front panel is available in stainless steel or as a raw foamed drawer front, providing the possibility of mounting individual wooden front panels to fit the boat's interior.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381642	105	515 x 515 x 770

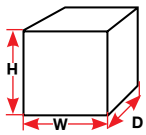


Isotherm® Drawer Freezer

- 190 Inox

The DR 190 Inox is a drawer refrigerator in stainless steel design with two separate drawers providing practical adjustable interior equipment. It is equipped with a fan-cooled compressor mounted on the rear side and supplied with a three side mounting frame for flush mounting.

BLA Code	Volume L	Overall Dimensions H x W x D mm
381644	190	800 x 900 x 545

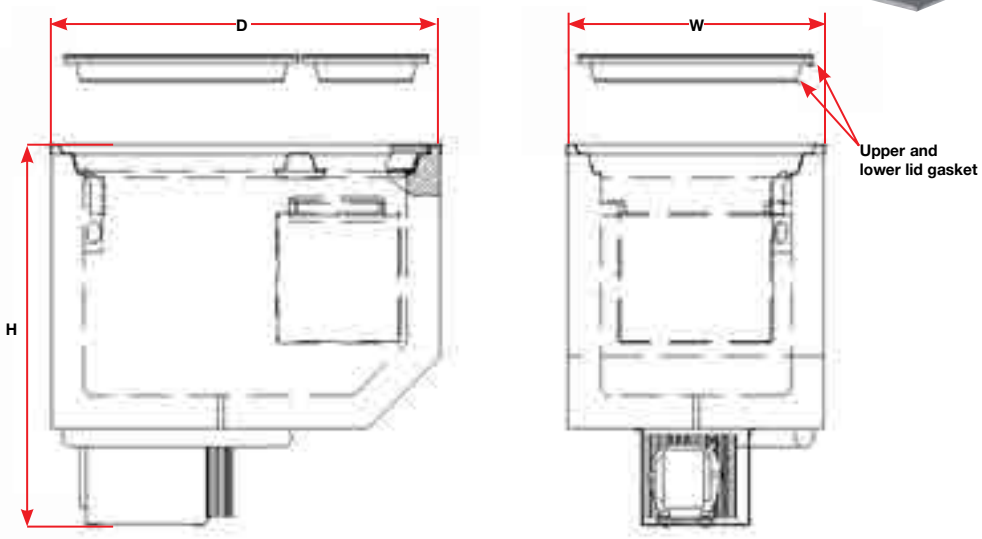


Isotherm® Cooling Boxes

Built-in cooling boxes allow an optimised use of space on board thanks to the top-loading access to the interior. They are extremely flexible in size and design.

Features:

- 12 / 24 V Danfoss / Secop compressor
- Plastic or stainless steel inside lining to avoid any damage even after contact with saltwater
- Evaporator integrated in the foam allows easy cleaning
- Easy access to food and drinks from the top
- Better installation options
- Extremely space saving



Built-In Cooling Box Selection Guide

BLA Code	Type	Volume L	Dimensions H x W x D mm	Available with ASU	Available with SEC	Weight kg	Power Consumption (W/24 hours)	Danfoss / Secop compressor type	Cut-Out H x W mm
381606	BI41***	41	450 + 165 x 496 x 340		✓	19	270	BD35F	500 x 344
381608	BI 53 F**	53	465 + 165 x 645 x 425		✓	26	260	BD50F	649 x 429
381612	BI 75**	75	465 + 165 x 645 x 425		✓	26	340	BD35F	649 x 429

Notes

**** Power consumption in operation on 12 Volt with +5 °C in the refrigeration space, ambient temperature +25 °C according to the Standards ISO 15502:2005 and EN 153:2006***

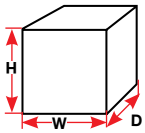
***** External flange in stainless steel optional available***

****** The built-in box operates as a fridge or freezer***

Specification changes may be made without prior notice.

Isotherm® Refrigerator - Top Load BI 41

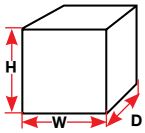
The BI 41 is a refrigerator or freezer box with stainless steel inner lining, plastic bottom section and a wire basket. It offers a range of +10 °C to -10 °C. The fan-cooled compressor is mounted on the bottom, or easily repositioned up to 1.5 metres away.



BLA Code	Volume L	Overall Dimensions H x W x D mm
381606	41	450 + 165 x 496 x 340

Isotherm® Freezer - Top Load BI 53 F

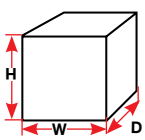
The BI 53 F is a built-in freezer box with stainless steel inner lining, plastic bottom section and a wire basket. It offers a range of 0 °C to -20 °C and is equipped with interior light. Its fan-cooled compressor unit is mounted below but easily repositioned up to 1.5 metres away. Other compressor options as SP or Magnum are also available.



BLA Code	Volume L	Overall Dimensions H x W x D mm
381608	53	485 + 165 x 645 x 425

Isotherm® Refrigerator - Top Load BI 75

The BI 75 is a built-in fridge box with stainless steel inner lining, plastic bottom section and two wire baskets. It is equipped with interior light. Its fan-cooled compressor unit is mounted below but easily repositioned up to 1.5 metres away.



BLA Code	Volume L	Overall Dimensions H x W x D mm
381612	75	465 + 165 x 645 x 425

Isotherm® Icemakers

Fully automatic, 3 litre storage capacity icemaker which connects directly to a pressurised fresh water system. Available in both 240V and 115V hermetic compressor ideal for onboard entertaining.

Features:

- Easily cleaned interior
- All stainless steel case
- Produces clear ice (not white ice)
- Return hose to water tank eliminates the requirement to clean when turned off
- 0.75kg/hr ice production

BLA Code	Volts	Volume L	Overall Dimensions H x W x D mm	Weight kg
381726	115	23	585 x 355 x 405	28
381720	240	23	585 x 355 x 405	28

Isotherm® ASU Systems - Air Cooled

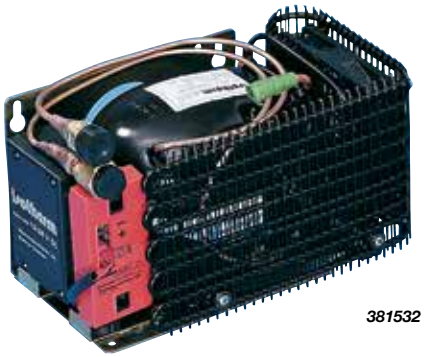
12-24 volt power sensing refrigeration unit, suitable for mounting in new or existing cool boxes where battery power is at a premium. The ASU (Automatic Start Up) system senses when surplus power is available, during engine, alternative power or genset operation etc, and speeds up the fan cooled compressor to rapidly freeze the eutectic type holding plate. As available power decreases, the ASU reduces power consumption accordingly. Low voltage cut-off and radio interference suppression are fitted as standard. Compressor unit comes complete with a fast fit mounting bracket for either vertical or horizontal mounting and three metres of pre-gassed tinned copper piping, incorporating re-openable quick-fit connectors. The stainless steel holding plate, with an average holding temperature of minus 9°C, can be mounted at any angle high up in the cool box. Utilises R134A ozone friendly refrigeration gas.

Isotherm® ASU has the Advantage Over Traditional Refrigeration Units

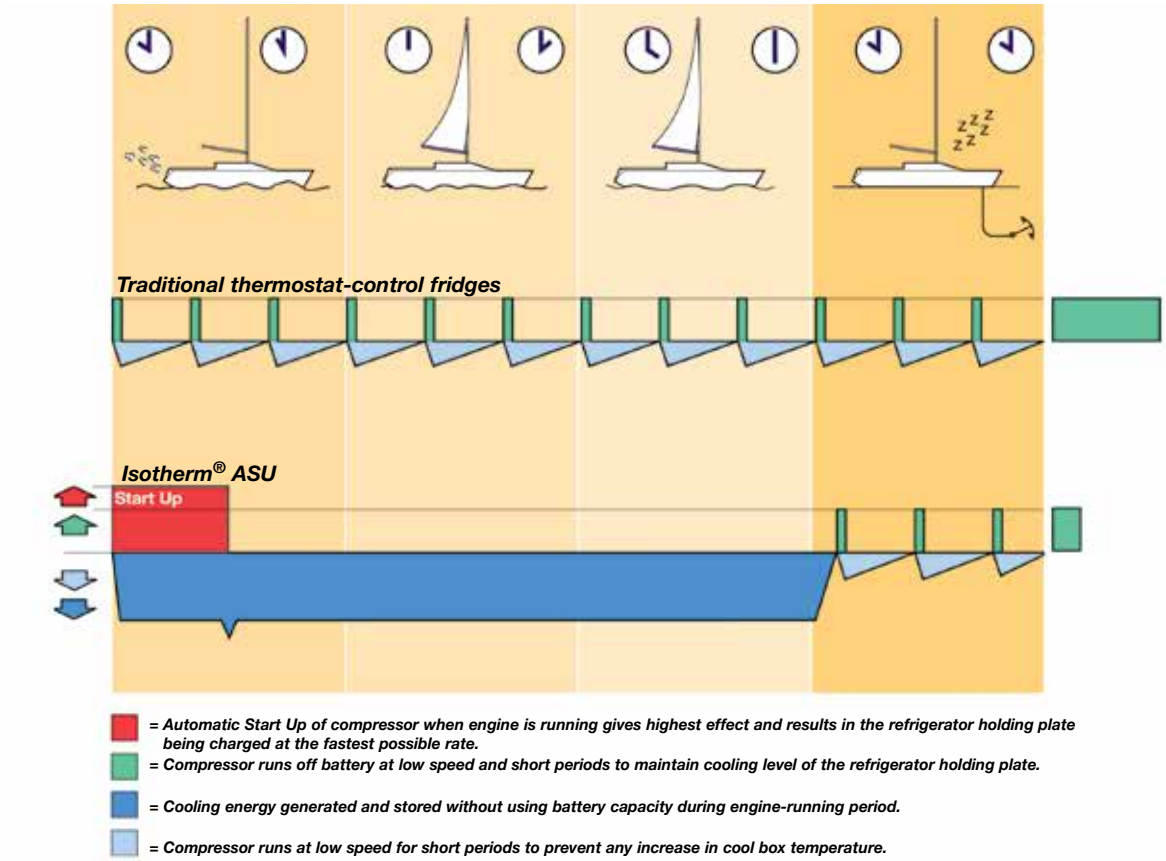
When the engine is started, the compressor always operates in it's high speed mode, thereby producing maximum refrigeration effect.

When sailing or with the engine stopped, the deeply frozen holding plate in the cool box supplies refrigeration. During this phase, the compressor is at a standstill and no battery power is consumed.

Only when the holding plate's supply of refrigeration has been consumed to a pre-set level does the compressor start at low speed and for short periods only to maintain this level.



381532



= *Automatic Start Up of compressor when engine is running gives highest effect and results in the refrigerator holding plate being charged at the fastest possible rate.*

= *Compressor runs off battery at low speed and short periods to maintain cooling level of the refrigerator holding plate.*

= *Cooling energy generated and stored without using battery capacity during engine-running period.*

= *Compressor runs at low speed for short periods to prevent any increase in cool box temperature.*

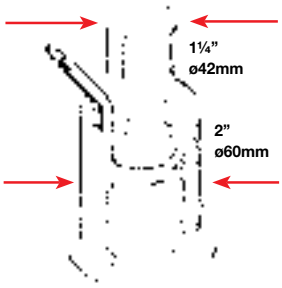
ASU Automatic Start Up

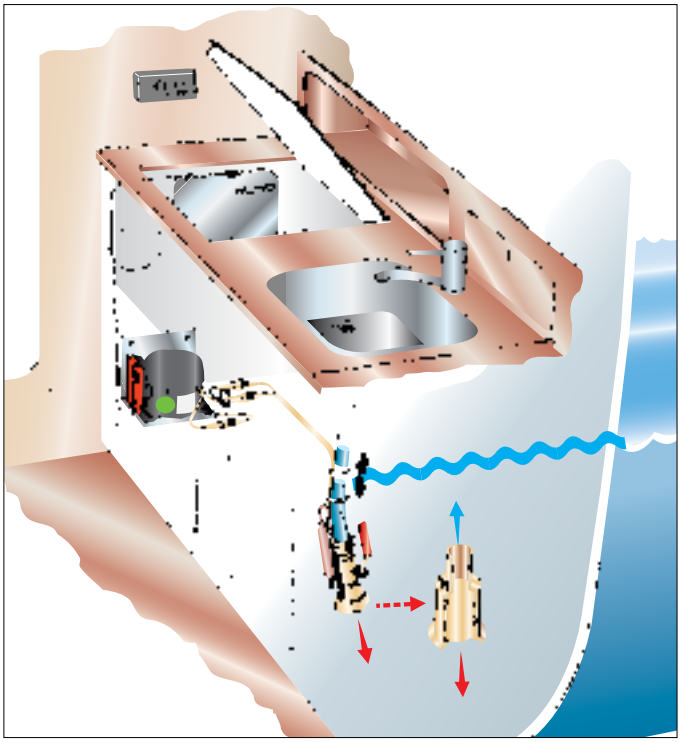
BLA Code	Max. Box Volume Fridge L	Max. Box Volume Freezer L	Compressor Type	Av. Power Consumption A/hr@12V	Max. Power with Engine On amps@12V	Compressor Unit Dim. H x W x L mm	Holding Plate Dim. H x W x D mm	Weight kg
381532	125	40	BD35F	0.40	5.0	155 x 160 x 270	210 x 300 x 60	14
381536	200	65	BD50F	0.65	6.0	155 x 160 x 315	280 x 355 x 60	16

N.B. Running engine for ½ to 1½ hours daily reduces current consumption by 50-90%. Reduce recommended box volume by 10-20% for tropical conditions.

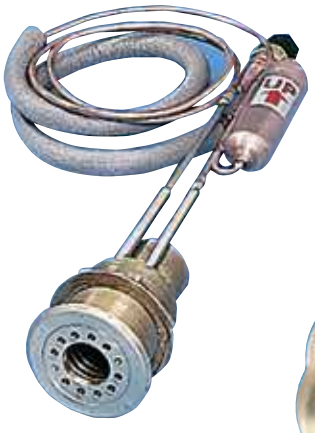
Isotherm® ASU/SP Systems - Water-Cooled

12-24 volt Self Pumping (SP), seawater cooled refrigeration units suitable for mounting in new or existing cool boxes. Recommended for tropical conditions or installations where conventional air cooling of the compressor unit is not practical. These units have the power saving advantages of the ASU units, teamed with the even greater efficiency of self pumping, seawater cooling. The compressor is cooled by a uniquely designed heat exchanger incorporated into the dual purpose through hull fitting which is most commonly used as the galley sink outlet. High efficiency and quiet operation is achieved through the full flow heat exchange that eliminates the requirement for compressor cooling fans or water pumps, both of which can contribute to substantial power drain. The through hull fitting is manufactured from saltwater resistant brass with the internal heat exchanger being constructed from copper nickel alloy. There is a one metre, pre-gassed line from the through hull fitting to the compressor and a three metre line from the compressor to the eutectic type holding plate, both featuring re-openable quick-fit connectors for ease of installation. The stainless steel holding plate, with an average holding temperature of minus 9°C, can be mounted at any angle high up in the cool box. Low voltage cut off and radio interference suppression are fitted as standard. Utilises R134A ozone friendly refrigeration gas. All other features are the same as the units on the previous page.





Heat Dissipation



SP Condenser skin fitting

ASU Automatic Start Up

BLA Code	Max. Box Volume Fridge L	Max. Box Volume Freezer L	Compressor Type	Av. Power* Consumption A/hr@12V	Max. Power with Engine On amps@12V	Compressor Unit Dim. H x W x L mm	Holding Plate Dim. H x W x D mm	Weight kg
381562	125	40	BD35F	0.35	5.0	155 x 135 x 210	210 x 300 x 60	15

Spare Parts:

381584 Replacement zinc anode for skin fitting

N.B. *Average power consumption at +6°C in the refrigeration space with water temperature of +22°C and an average standard of cooler box insulation. Reduce recommended box volume by 10 - 20% for tropical conditions.

Webasto Classic Compact Systems - Air Cooled

Webasto
Feel the Drive

12-24 volt fan cooled refrigeration units suitable for mounting in new or existing ice boxes. The fan cooled compressor can be mounted up to two metres away from the evaporator box or plate. Box type 'O' evaporators provide an internal freezer compartment as well as cooling the entire refrigeration compartment. Units are supplied pre-gassed with re-openable quick-fit connectors for ease of installation. A choice of 'O', 'L' and flat evaporators are available. Flat evaporators can be carefully formed to suit box size. Low voltage cut off and radio interference suppression are fitted as standard. Temperature is adjusted by a rotary thermostat incorporating an on/off switch. Connection of the evaporator plate to the compressor requires only a 30mm hole to be drilled in the ice box compartment wall. Utilises R134A ozone friendly refrigeration gas.

381502

BLA Code	Volume* Fridge/Freezer L	Evaporator Type	Compressor Type	Av. Power** Consumption A/hr@12V	Max. Power Consumption amps@12V	Compressor Dimensions H x W x L mm	Evaporator Dimensions H x W x L mm	Weight kg
381502	125/40	'O'	BD35F	0.6	2.5	155 x 160 x 270	95 x 240 x 210	9
381504	150/50	'O'	BD35F	0.7	3.5	155 x 160 x 270	100 x 320 x 230	9
381506	200/65	'O'	BD50F	0.9	3.5	155 x 160 x 315	140 x 380 x 270	9
381507	125/40	'L'	BD35F	0.7	3.5	155 x 160 x 270	210 x 170 x 400	9
381508	60/20	Flat	BD35F	0.6	2.5	155 x 160 x 270	130 x 350	9
381510	170/55	Flat	BD50F	0.9	4.5	155 x 160 x 315	210 x 815	11
381512	200/65	Flat	BD50F	1.0	6	155 x 160 x 315	190 x 1200	12
381514	260/85	Flat	BD50F	1.1	6	155 x 160 x 315	270 x 1000	12
381516	400/140	Flat	BD50F	1.2	6	155 x 160 x 315	300 x 1370	12

Accessories:

381524 Quick release mount bracket
381590 Large 'O' evaporator door
381650 Optional fridge/freezer twin thermostat
381648 Optional freezer thermostat

** Freezer volume is calculated at approximately one third of the refrigerator volume capability. Freezer thermostat required if used as freezer.*
*** Indicates average power consumption at +6ºC in refrigeration space using a typical cooler box with standard insulation at an ambient temperature of +22ºC.*

Isotherm® Evaporator Plates

isotherm

Isotherm® evaporator plates, complete with 2 metres of pipe and re-openable quick-fit connectors are supplied as replacement parts. Although they are factory pre-gassed, the complete system must be evacuated and recharged with ozone friendly R134A refrigerant upon replacement to ensure correct operation. The evaporators are made of malleable aluminium, enabling them to be carefully shaped to suit virtually any cooler box configuration.

BLA Code	Description	Size mm
381866	Flat	815 x 210
381870	Flat	1000 x 270
381874	Flat	1200 x 190
381878	Flat	1370 x 300
381890	'O' small	210 x 240 x 95
381894	'O' large	270 x 380 x 140

381890

381874

Isotherm® Freezer Compartment Doors

isotherm

ABS white plastic, hinged freezer doors to suit the 'O' style evaporator plates.

Evaporator not included

BLA Code	Suits Plate
381590	**381894**

Isotherm® Smart Energy Control Kit

With Isotherm Smart Energy Control, Indel Webasto Marine offers the very unique opportunity to dramatically reduce on-board power consumption for refrigeration appliances.

Isotherm Smart Energy Control is a simple kit

This kit can be easily retro-fitted to upgrade the energy saving capabilities of most Isotherm refrigeration products.

How does it work?

The sophisticated, processor-based Isotherm Smart Energy Control technology achieves significant power consumption savings by continuously scanning a set of key environmental factors to determine, through advanced proprietary algorithms, what is the most relevant compressor speed to maximise the performance/ battery drain ratio (COP).

A dedicated air sensor which can continuously measure the cabinet air temperature.

Potentiometer to activate the Isotherm Smart Energy Control mode.

Processor-based module to be connected to the Danfoss / Secop compressor.

BLA Code
381844

Isotherm® Thermostats

Replacement thermostats to suit a range of Isotherm® evaporator plate type units and fridges. **381650** contains two thermostats and can be used as either a fridge or freezer thermostat.

BLA Code	Description
381646	Fridge thermostat
381648	Freezer thermostat
381650	Fridge/freezer twin thermostat
381660	Thermostat kit t/s 49L, 65L, 85L, 130L fridges
381662	Thermostat kit t/s 130L drink cooler
381664	Thermostat kit t/s basic slimline

381646

Isotherm® Pre-gassed Extension Pipes

3 metre pre-gassed copper refrigeration tubing with handed re-openable fittings. Suitable for use with all systems requiring remote compressor location. Supplied as a pair.

BLA Code
381900

Isotherm® Internal Light Kit

ABS plastic light designed to be mounted inside the icebox. Contains micro switch for operation. Simply open the lid and the light will turn on. Supplied with both 12 and 24 volt bulbs.

BLA Code	Length mm	Width mm	Height mm
381908	100	50	13

Isotherm® Electronic Control Unit

12-24 volt Electronic module for all Danfoss BD35 and BD50 compressors, used on Isotherm® refrigeration since 1998.

BLA Code
381840

Isotherm® ASU Control Unit

Replacement Isotherm® ASU controller red box connects directly to Isotherm® electronic unit **381840** for use with air cooled and SP systems.

BLA Code
381842

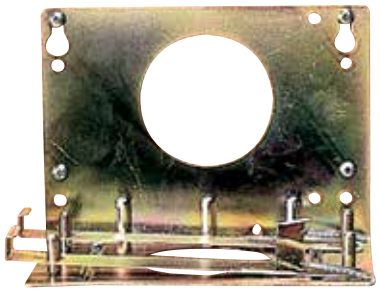
Isotherm® 'Spill Over' Control Valve

This damper control valve is thermostatically controlled to open on demand and allow cool air from the freezer compartment to 'spill over' into the refrigerator section. No other parts or wiring are required as the control is actuated by the integral temperature probe. Allows the adjacent refrigeration section to the freezer to be fed cold air without the need for an extra evaporator plate.

BLA Code
381920

Isotherm® Quick Release Compressor Mount Bracket

Fast fit mounting bracket for vertical or horizontal installations. Manufactured from gold passivated steel. Allows quick and easy attachment of the compressor unit, supported vertically or horizontally, to the vessel.



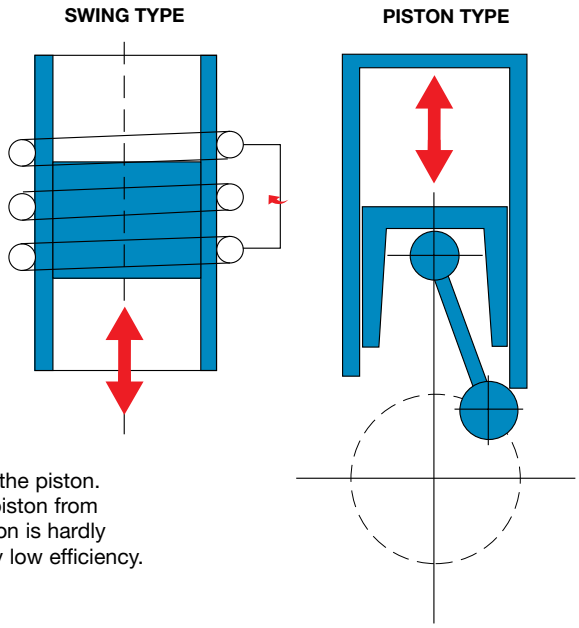
BLA Code
381524

Electrical Cooling Compressors Explained

There are two main types of DC cooling compressors:

(1) Piston Compressor

The piston compressor, as used by Isotherm® refrigeration units, is more efficient than the swing compressor option. The electrical piston compressor utilises a crank-shaft, connecting rod and piston configuration, driven by a highly efficient brushless, three-phase, electric motor. The three-phase current is created in a small microprocessor, achieving power savings of between 20 - 50% compared to swing compressors operating from a regular 12 volt power supply. On hot days when refrigeration is needed most, the pressure on top of the piston increases. The mechanical nature of the piston compressor ensures displacement of the same volume of gas on every stroke of the piston, guaranteeing high efficiency and excellent cooling, even in high temperatures.



(2) Swing Compressor

The swing compressor consists of an electric solenoid with a compressor piston attached to the end. Alternating the current in the coil causes the piston to move up and down, thereby compressing the gas. As the temperature increases, so does the pressure on top of the piston. In a swing compressor, this increased pressure prevents the solenoid piston from travelling it's full stroke. Eventually the pressure increases until the piston is hardly moving at all while still consuming maximum power. This results in very low efficiency.

Isotherm® Compressors

Danfoss compressor complete with condenser, tubing and quick connect couplings supplied as a replacement part for Isotherm® refrigeration units. The **381834** compressor includes a fan. Although they are factory pre-gassed, the complete system must be evacuated and re-charged with ozone friendly R134A refrigerant upon replacement.

381830

381834

BLA Code	Compressor Model
381830	BD35F
381834	BD50F

FISHING ACCESSORIES

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A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Cannon® Downriggers

FASTER, TOUGHER, SMARTER.

The Fastest Retrieval Speed In The Industry

Retrieve your Cannon® ball weight at a staggering 76.2m per minute – because when the fish hit, you can't be caught waiting.

Redesigned To Take Anything You Can Dish Out

A one piece solid composite frame, reinforced and fully enclosed circuit boards, brass drive gears that prevent overrun, and watertight construction deliver every ounce of power and reassurance you need.

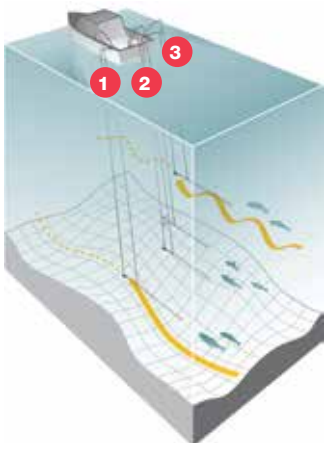
Intuitive Design Works With You, Not Against You

We've ergonomically designed our Downriggers to help you catch more fish. With easy spool access for quick line changes, dual axis adjustable rod holders, intuitive keypad controls*, a new 180° boom end, and easy access to switches, plugs and mounting nuts, you can spend more time fishing and less time rigging.

Available on Digi-Troll™ models.

Cannon® Versatility

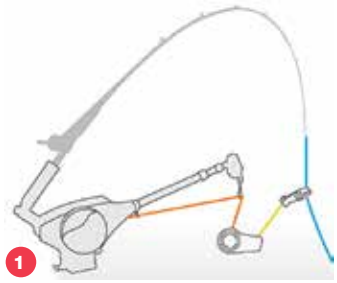
Whether your're trolling open water for Mackerel or pulling Snapper off structure, a Cannon® Downrigger instantly gives you controlled depth and more accurately positioned bait presentation. No matter what species you're after, fish have nowhere to hide.



1. ***"Run Deep" with the bottom tracking abilities of Cannon® to stay a consistent distance from the bottom, even when depth changes*.***
2. ***For total coverage of the water below, use a Uni-Stacker to fish at multiple depths off of a single weight.***
3. ***Get the edge you need with our unique fish enticing features, like cycling your Downriggers up and down to raise and lower bait.***
   Available on Digi-Troll™ models.

Using a Cannon® Downrigger

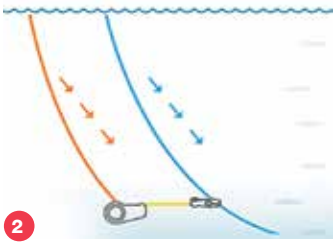
Controlled depth fishing lets you get your lure where the fish are, and keep it there. Cannon® Downriggers are designed to make the whole process as effortless as possible, so you can spend more time fishing. Here's how they work.



1

Attach And Lower

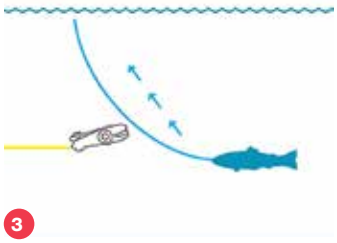
To rig, attach the weight (or Cannon® ball) to the cable, and use a "line release" to attach the weight to the line. Place the rod in the rod holder and lower the weight to your desired depth.



2

Down With The Weight

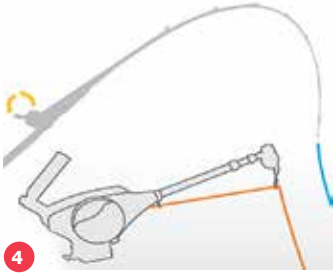
While trolling, the weight of the Cannon® ball keeps your lure at your desired depth and allows it to "swim" more naturally behind the weight. On some Cannon® Downriggers, you can cycle the weight up or down, or keep it a set distance from the bottom.



3

Line Release

Once a fish takes the lure, the line release lets go of the line and the fish is on.



4

Remove And Reel

After you see that the fish is on, remove the rod from the rod holder and reel in your catch.

Cannon® Technologies

CANNON RUN DEEP

Cannon Technology Runs Deep

Passion. It puts the fisherman on the water from dawn until nightfall. And it pushes us to design features and technologies that set cannon® apart from the rest of the pack. We're driven by the same passion that inspires fishermen. And, it runs deep.

Integrated Control Screen

Backlit LCD screen displays depth, deploy/retrieve speed, and key settings such as Positive Ion Control, line on reel and coated versus non-coated cable.

Revolutionary Control Features

Gives you the most comprehensive control on the water. Cycle the weight up and down at preset intervals and depths, or use Bottom Track to automatically keep your bait at a preset distance from the bottom. You can even store up to five different preset depths for easy reference.

Cannon Edge

Built tougher and smarter to make you a better angler. Cannon Edge Design features fewer moving parts, one-piece composite construction, a redesigned boom end and protected electronics. The removable side plate gives you easy access to the spool, while easy-toreach switches, plugs and mounting nuts allow for quick adjustments.

Positive Ion Control

Magnum's Positive Ion Control emits positive ions from the cable to combat the negative ions from your boat, creating a fish-attracting field of energy.

Adjustable Positive Ion Control

Adjust the amount of voltage emitted with the Positive Ion Control feature, which emits positive ions from the cable to create a fish-attracting field of energy.

Fast Retrieval Rate

Retrieves the weight at an ultra-fast 76 metres per minute, so you can get your lines out quicker and concentrate on fishing.

Full Keypad Control

From an integrated LCD screen, you can lower and raise the weight, control the depth, and program the amount of line you're using at the push of a button.

Controlled Weight Descent

Get controlled, accurate bait positioning thanks to the One-Hand Clutch Deploy on all Cannon manual downriggers. It's designed to gradually, precisely lower your weight and position your lure in the strike zone.

Auto-Up

Automatically retrieves the weight at the push of a button, so you can get right back to fishing without worrying about boat damage from swinging weights.

N.B. Cannon Technologies are only available on models where the icons appear in the model information page.

Cannon® Downriggers Selection Guide

	ELECTRIC DOWNRIGGERS				
	DIGI-TROLL 10 TS	DIGI-TROLL 5 TS	DIGI-TROLL 5	MAG 10 STX-TS	MAG 10 STX
BLA Code	**394221**	**394223**	**394225**	**394231**	**394233**
Depth Cycle	Yes	–	–	–	–
Preset Depth Storage	Yes	–	–	–	–
Bottom Tracking	Yes	–	–	–	–
Adjustable Speeds	Yes	–	–	–	–
Waterline Zero	Yes	Yes	Yes	–	–
Line on Reel	Yes	Yes	Yes	–	–
Soft Stop	Yes	Yes	Yes	–	–
Positive Ion Control	Yes	Yes	Yes	Yes	Yes
Auto Up	Yes	Yes	Yes	Yes	Yes
Removable Side Plate	Yes	Yes	Yes	Yes	Yes
Retrieval Speed	76m Per Minute	76m Per Minute	76m Per Minute	76m Per Minute	76m Per Minute
Rod Holders	Dual Axis Adjustable (1)	Dual Axis Adjustable (1)	Dual Axis Adjustable (2)	Dual Axis Adjustable (1)	Dual Axis Adjustable (1)
Mounting Base	Easy-Access Universal Base	Easy-Access Universal Base	Easy-Access Universal Base	Easy-Access Universal Base	Easy Access Universal Base
Spool	Stainless Steel	Stainless Steel	Plastic	Stainless Steel	Plastic
Boom	Stainless Steel Heavy-Duty Telescopic	Stainless Steel Heavy-Duty Telescopic	Stainless Steel Heavy-Duty Telescopic	Stainless Steel Heavy-Duty Telescopic	Stainless Steel Heavy-Duty Telescopic
Depth Counter	Digital	Digital	Digital	Three-Digit	Three-Digit
Weight Capacity	9.1kg (20lb)	9.1kg (20lb)	9.1kg (20lb)	9.1kg (20lb)	9.1kg (20lb)
Limited Lifetime Warranty	Yes	Yes	Yes	Yes	Yes
Includes Line Release	Yes	Yes	Yes	Yes	Yes
Integrated Ball Storage Hook	Yes	Yes	Yes	Yes	Yes
One-Hand Clutch Deploy	n/a	n/a	n/a	n/a	n/a
Ergonomic Crank Handle	n/a	n/a	n/a	n/a	n/a
Enclosed Boom End	n/a	n/a	n/a	n/a	n/a

	MANUAL DOWNRIGGERS				
MAG 5 ST	**UNI-TROLL 10 STX-TS**	**UNI-TROLL 10 STX**	**UNI-TROLL 5 ST**	**EASI-TROLL ST**	**LAKE-TROLL**
394235	**394237**	**394239**	**394243**	**394247**	**394250**
–	n/a	n/a	n/a	n/a	n/a
–	n/a	n/a	n/a	n/a	n/a
–	n/a	n/a	n/a	n/a	n/a
–	n/a	n/a	n/a	n/a	n/a
–	n/a	n/a	n/a	n/a	n/a
–	n/a	n/a	n/a	n/a	n/a
–	n/a	n/a	n/a	n/a	n/a
Yes	n/a	n/a	n/a	n/a	n/a
Yes	n/a	n/a	n/a	n/a	n/a
Yes	n/a	n/a	n/a	n/a	n/a
76m Per Minute	2:1	2:1	2:1	1.5:1	1:1
Dual Axis Adjustable (1)	Dual Axis Adjustable (1)	Dual Axis Adjustable (1)	Dual Axis Adjustable (1)	Single Axis Adjustable (1)	Tube-Style (1)
Easy Access Universal Base	Easy-Access Universal Base	Easy-Access Universal Base	Easy-Access Universal Base	Easy-Access Universal Base	Quick Mount Tab-Lock
Plastic	Stainless Steel	Plastic	Plastic	Plastic	Plastic
Stainless Steel Heavy-Duty	Stainless Steel Heavy-Duty Telescopic	Stainless Steel Heavy-Duty Telescopic	Stainless Steel 61cm Heavy-Duty	61cm Stainless Steel	61cm Copolymer
Three-Digit	Three-Digit	Three-Digit	Three-Digit	Three-Digit	Swivel-Head
9.1kg (20lb)	9.1kg (20lb)	9.1kg (20lb)	9.1kg (20lb)	5.4kg (12lb)	4.6kg (8lb)
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	–	–
n/a	Yes	Yes	Yes	Yes	Yes
n/a	Yes	Yes	Yes	Yes	–
n/a	Yes	Yes	Yes	Yes	–

Cannon® Electric Downriggers

Cannon® Electric Downrigger - Digi-Troll 10 TS

The Digi-Troll 10-TS is the flagship downrigger in the Cannon range. Cycle your bomb up and down at preset intervals and depths. Your bomb can follow the bottom with the addition of the Cannon transducer.

Features:

- Ultra-fast retrieval rate of 76m per minute
- Easy-to-use illuminated keypad controls with large backlit LCD screen
- Auto-Up feature automatically retrieves the weight at the push of a button
- Waterline Zero lets you keep your weight at a set depth below the surface
- Five adjustable retrieve and deploy speeds
- Removable side plate for easy spool access
- Digital depth counter
- Heavy-duty telescopic boom extends from 61cm to 135cm
- IP68 waterproof power cord
- 20lb weight capacity
- Dual axis adjustable rod holder(s)
- Integrated ball storage hook
- Includes mounting base and low-profile swivel base
- Includes 2 line releases and 122m of 68kg test stainless steel cable
- Corrosion-resistant construction
- Limited lifetime warranty

Retrieval Rate
Keypad Control
Auto-Up
Control Screen
Revolutionary Control
Cannon Edge
Adjustable Positive Ion Control

BLA Code
394221

Cannon® Electric Downrigger - Digi-Troll 5 TS & Digi Troll 5

The Digi-Troll 5 downriggers share the same features except that the TS has a stainless steel spool, and single rod holder. Use the key pad and LCD screen to raise and lower your bomb and control your depths with ease.

Features:

- Auto-Up feature retrieves the weight at the push of a button
- Waterline Zero lets you keep your weight at a set depth below the surface
- Heavy-duty, stainless-steel telescopic boom extends from 61cm to 135cm
- Removable side plate for easy spool access
- Digital depth counter
- Includes mounting base and low-profile swivel base
- Includes line release and 122m of 68kg test stainless steel cable
- Dual axis adjustable rod holder(s)
- IP68 waterproof power cord
- Integrated ball storage hook
- 20lb ball weight capacity
- Corrosion-resistant construction
- Limited lifetime warranty

394223

394225

Retrieval Rate
Keypad Control
Auto-Up
Control Screen
Cannon Edge
Adjustable Positive Ion Control

BLA Code	Description
394223	Digi-Troll 5 TS
394225	Digi-Troll 5

Cannon® Electric Downrigger

- Magnum 10 STX-TS & Magnum 10 STX

These are our simple to use electric work horses featuring extendable booms and swivel bases. They are perfectly suited to all the saltwater species you can target – from tuna to mackerel to kingies – you will get to the fish.

The Magnum 10 STX downriggers share the same features except that the TS **394231** has a stainless steel spool.

Features:

- Auto-Up feature retrieves the weight at the push of a button
- Dual axis adjustable rod holder
- IP68 waterproof power cord
- Removable side plate for easy spool access
- Includes mounting base and low-profile swivel base
- Three-digit depth counter
- Integrated ball storage hook
- 20lb ball weight weight capacity
- Includes line release and 76m of 68kg test stainless steel cable
- Corrosion-resistant construction
- Limited lifetime warranty

394231

394233

Retrieval Rate
Weight Descent
Auto-Up
Control Screen
Cannon Edge

BLA Code	Description
394231	Magnum 10 STX-TS
394233	Magnum 10 STX

Cannon® Electric Downrigger - Magnum 5 ST

The Mag 5 opens the door to our Electric Downrigger family. If you are fishing alone there is no bigger advantage to an electric retrieval of your bomb when you hook a fish. Just flick the switch and it will bring your bomb up so you can get back to fishing. The Mag 5 has a fixed spool length and does not include the swivel base of the Magnum 10 STX models.

Features:

- Auto-Up feature retrieves the weight at the push of a button
- Dual axis adjustable rod holder
- IP68 waterproof power cord
- Removable side plate for easy spool access
- Three-digit depth counter
- Includes mounting base
- Integrated ball storage hook
- 20lb ball weight capacity
- Includes line release and 76m of 68kg test stainless steel cable
- Corrosion-resistant construction
- Limited lifetime warranty

394235

Retrieval Rate
Auto-Up
Positive Ion Control
Cannon Edge

BLA Code
394235

Cannon® Manual Downriggers

Cannon® Manual Downrigger - Uni-Troll 10 STX-TS & Uni-Troll 10 STX

The Uni-Troll 10 range are suited to all the salt and freshwater fishing you can throw at them from mackerel to kingies and all the barra and cod you can get a lure to. The Uni-Troll 10 downriggers share the same features except the TS has a stainless steel spool.

Features:

- 2:1 retrieval speed
- One-hand clutch deploy for simple, precise bait positioning
- Enclosed boom end pulley prevents line jumping
- Easy-Access Universal Mounting Base – same as our electric models
- Dual axis rod holder – fully adjustable, both front to back and side to side
- Stainless steel, heavy-duty telescopic boom extends from 61cm to 135cm
- Includes mounting base and low-profile swivel base
- 20lb ball weight capacity
- Ergonomic crank handle
- Integrated ball storage hook
- Three-digit depth counter
- Pre-spooled with 61m of 68kg test stainless steel cable and includes a line release
- Limited lifetime warranty

394237

394239

BLA Code	Description
394237	Uni-Troll 10 STX-TS
394239	Uni-Troll 10 STX

Retrieval Rate

Weight Descent

Cannon® Manual Downrigger - Uni-Troll 5 ST

The Uni-Troll 5 shares the same features as the Uni-Troll 10 STX except that it has a fixed heavy duty boom and does not include a swivel base as standard.

Features:

- 2:1 retrieval speed
- One-hand clutch deploy for simple, precise bait positioning
- Enclosed boom end pulley prevents line jumping
- Easy-access universal mounting base – same as our electric models
- Dual axis rod holder – fully adjustable, both front to back and side to side
- Heavy duty stainless steel 61cm boom
- Includes mounting base
- 20lb ball weight capacity
- Ergonomic crank handle
- Integrated ball storage hook
- Three-digit depth counter
- Pre-spooled with 61m of 68kg test stainless steel cable and includes a line release
- Limited lifetime warranty

BLA Code
394243

Retrieval Rate

Weight Descent

Cannon® Manual Downrigger - Easi-Troll ST

The Easi-Troll is one of our most popular downriggers suited to smaller saltwater applications and most Australian and New Zealand freshwater fishing. It is the first in the line to feature the new axis rod holder and universal mounting base that all the larger models use.

Features:

- 1.5:1 retrieval speed
- One-hand clutch deploy for simple, precise bait positioning
- Easy-access universal mounting base – same as our electric models
- Single axis rod holder – fully adjustable front to back
- 61cm stainless steel boom
- Includes line release
- 12lb ball weight capacity
- Enclosed boom end pulley prevents line jumping
- Ergonomic crank handle
- Three-digit depth counter
- Pre-spooled with 46m of 68kg test stainless steel cable
- Limited lifetime warranty

Retrieval Rate

Weight Descent

BLA Code
394247

Cannon® Manual Downrigger - Lake-Troll

The Lake-Troll is suited to small boat applications and would suit small boat lake fishing.

Features:

- 1:1 retrieval speed
- One-hand clutch deploy for simple, precise bait positioning
- Includes line release and tube-style rod holder
- 46cm copolymer boom
- 8lb ball weight capacity
- Quick mount tab-lock base
- Swivel-head depth counter
- Pre-spooled with 30m of 61kg test stainless steel cable
- Limited lifetime warranty

BLA Code
394250

Cannon® Manual Downrigger - Mini-Troll

The Mini-Troll is a great entry model to get into small boat downrigging. It is suited to small dinghys due to the clamp style mount. Line release clip and ball not included.

Features:

- Horizontal reel/brake
- 30cm composite boom
- 4lb ball weight capacity
- Swivel-head depth counter
- Pre-spooled with 30m of 61kg test stainless steel cable
- Limited lifetime warranty

BLA Code
394252

Accessories:

394470 Accessory kit t/s mini trll Cannon

Cannon® Release Clips

Universal

Two adjustment points enable the universal release clip to be precisely adjusted to release at 0.9kg (2lb) and 9.97kg (22lb), making this a versatile clip, whether you are trolling deep diving hard bodies or live baiting.

394404

Pinch-R-Release Clip

Spring action clip available in a single format. Opens easily with finger pressure with an operating release range of between 0.9kg (2lb) and 5.4kg (12lb). The deeper the line is set back in the pads the greater the pressure.

394412

BLA Code	Description
394404	Universal line release Cannon
394412	Pinch-R-Release Cannon

Cannon® Line Release

Offshore Saltwater

Corrosion resistant, high-tension spring is designed for heavier saltwater lines. Troll at high speeds in deep water with its heavy duty release. Anti-fouling pins prevent line from snagging behind the gripper pads.

394402

Offshore Stacker Clip

Adds the ability to fish at multiple depths off a single weight with the popular offshore line release.

394400

BLA Code	Description
394400	Offshore stacker release Cannon
394402	Offshore release Cannon

Cannon® Quick Release Clip

Available in single or twin stacker format, these clips are easily tensioned by rotating the small knurled knob on the side.

394428

394424

BLA Code	Release
394424	Single
394428	Stacker

Cannon® Downrigger Wire

Replacement stainless steel wire to suit Cannon® Downriggers.

394440

BLA Code	Length m	Break Load kg
394440	45	68
394442	60	68
394444	120	68

Cannon® Low Profile Swivel Base

Heavy duty Lexan and stainless steel swivel base. Six point locking, including two 45º positions. Suits all Downriggers except Lake Troll™ and Mini Troll™. Stainless steel mount fastenings included to connect to up to 6mm thick deck.

BLA Code	Length mm	Width mm	Height mm	Mount Holes mm
394358	189	146	29	6r/h

Cannon® Base Mount Tab Lock

Replacement or additional base mount for Lake Troll™, legacy Cannon® Sport-Troll™ or Pre 2013 Easi Troll™. Manufactured from durable, maintenance free, U.V. stable Lexan.

BLA Code	Length mm	Width mm	Height mm	Mount Holes mm
394350	145	130	35	6r/h

Cannon® Base

Now standard across electric & manual Downriggers. Except Lake Troll™ and Mini Troll™. This base is available for a second mount or replacement.

BLA Code
394364

Cannon® Mini-Troll™ Accessory Kit

Kit includes a rod holder, 1.8kg weight and Uni-Line Release for the Mini-Troll™ downrigger.

BLA Code
394470

Cannon® Rail/Side Mount

Built to secure Downrigger to the "T" joints on rails of boats with narrow gunwales. Built with machined aluminium and powder coated to resist corrosion.

BLA Code	Length mm	Width mm	Height mm
394374	128	128	105

Cannon® Clamp Mount

Secures Downrigger to the gunwale or transom. Works with Lake-Troll™, pre 2013 Sport and Easi-Troll™ downriggers. Powder coated aluminium to resist corrosion. Maximum clamp opening 50.8mm.

BLA Code	Length mm	Width mm	Height mm
394378	115	102	90

Cannon® Downrigger Gimbal Mount

Black powder coated aluminium bracket that will mount any of the Cannon® downrigger range, except Mini-Troll™, into an existing rod holder. Pre-drilled to accept all bases. Solid 13mm thick top mount pad. Extra heavy duty 6mm wall thickness support tube. Stainless steel mount fastening included.

394366

BLA Code	Height mm	Mount Pad mm	Tube Dia mm
394366	225	127 x 127	38
394370	305	127 x 127	38

Cannon® Termination Kit

Suits all Cannon® Downriggers. Includes six crimpless snap-on terminators, six snap-on swivels and six cushion tops. Also available as terminator only.

394462

394460

BLA Code	Description
394460	Termination kit
394462	Termination only

Cannon® Downrigger Cover

Soft, non-abrasive backing and Velcro® enclosure allows for secure, protective fit on all larger-bodied downriggers above Lake Troll.

BLA Code
394340

Cannon® Downrigger Weights

Cast lead downrigger weights brass attachment points. Designed for use on all downriggers.

394432

BLA Code	Weight lb
394430	4
394432	6
394434	8
394436	10
394438	12

Cannon® Digi-Troll™ Transducer

When connected to the Digi-Troll™ 10-TS this transducer enables the Digi-Troll™ to operate bottom tracking, a feature that allows the weight to maintain a precise distance from the seabed, to increments of 300mm. Includes mounting bracket.

BLA Code	Frequency kHz	Beam Angle	Cable Length m
394320	200	18°	6

Cannon® Relay Interphase Cable

When one Digi-Troll™ unit is connected to a Digi-Troll™ transducer, other units can be interphased with the master unit using this relay interphase cable. This allows all Digi-Troll™ units connected to the master unit to independently operate the bottom tracking feature, while only using one transducer.

BLA Code	Length m
394326	6

Taco™ Striker Outrigger Bases

The Taco Striker flush through deck mounts feature solid cast all 316 stainless steel construction and incorporate a multi position, six point internal locking system. They are sized to accept Taco 28mm or 38mm outriggers. Sold as a pair.

Features:

- Ambidextrous arms will fit both port and starboard bases
- 12 locking positions including stand up and lay down
- Highly polished finish 316 grade stainless steel

BLA Code	Outrigger Base ø mm	Mount Plate mm
394550	28	130 x 66
394552	38	150 x 100

Taco™ Telescopic Outriggers

Top quality poles for the serious offshore angler. Sold as a pair.

Features:

- Simple push button extension or retraction for convenient storage when towing or dry storing
- Premium quality craftsmanship
- Poles are anodised drawn aluminium
- CNC precision machined gold anodised aluminium rings and tips
- Stainless steel line guides
- Internal delrin bushing for easy sliding without scratching
- Delrin sleeve to base to prevent electrolysis
- Made in USA
- Available in 28mm or 38mm base diameter
- 12 month warranty

Black anodised with gold rIngs and tips

Stainless steel detent button for simple and secure locking

394518

BLA Code	Length Extended m	Length Retracted m	Base Dia. mm	Sections	Colour
394518	4.6	1.7	28	4	Black
394524	4.6	1.7	38	4	Black
394530	5.6	1.8	38	5	Black

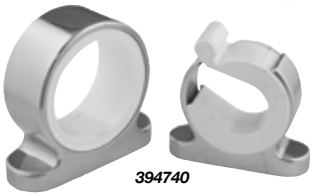
Taco™ Rod Hangers

Designed to organise rod and reel combinations with spring snap lock holder to securely lock rod tips in position. Single set features all 316 stainless steel construction with pre-drilled mounting holes and bevelled edges for a smooth clean look. The four rod holder set feature 316 stainless steel construction and are pre-mounted on U.V. stabilised polyethylene base with pre-drilled recessed mounting holes. Can be vertically or horizontally mounted and are ideal for overhead saloon or bridge mounting, under gunnels or in rod lockers. Accepts rod butts up to 38mm in diameter.

Features:

- Marine Grade 316 polished stainless steel
- Rod tip holder with spring lock design locks rods in position
- Rod hangers feature concealed fasteners
- Durable, U.V.-stabilised white poly racks
- Revolving rod tip holder secures rods
- Weather-resistant, flush mount racks install easily
- Mount vertically, horizontally and overhead

394744



394740

BLA Code	Description	Max Rod But mm	Base Length mm
394740	One rod	38	50
394744	Four rod	38	457

Taco™ Rod and Reel Hanger Set

Designed to organise rod and reel combinations. Utilises rod hanger to lock rod tips in position plus adjustable 316 stainless steel spring pin reel hanger which securely locks reel in position. Reel hanger is easily adjusted to suit a wide range of trolling reels and provides a base which ensures rods do not dislodge in rough conditions. Hidden installation screws and rounded edges present a clean smooth look. Can be vertically or horizontally mounted and are ideal for overhead saloon or bridge mounting, under gunnels or in rod lockers.

Features:

- 316 polished stainless steel
- Reel is locked into position via spring loaded pins
- Adjustable to accommodate a wide range of reel widths
- Rod tip holder with secure spring lock design
- Soft insert protects rod tip
- Concealed fasteners and rounded edges
- Horizontal or vertical mount

394746

BLA Code	Adjustment Width mm
394746	47 to 98

Taco™ Aluminium Rod Racks

Quality brushed anodised aluminium three and four rod holder racks ideal for storing light tackle spinning rod and reel combos. Features bottomless tubes for long rods, inserts to protect rod and reel, hidden fasteners and slots designed to lock reel in position.

Features:

- Brushed anodised aluminium finish
- Slotted to lock in rod and reel
- Hidden fasteners

394726

BLA Code	Description	Width mm	Height mm	Internal Dia. mm
394726	Three rod	286	216	38
394728	Four rod	406	216	38

Taco™ Premium Rigging Kit

Single line rigging kit to suit one pair of outriggers to 6.5 metres.

Inclusions:

- 2 x Trip-ese releases
- 2 x Shock cords with stainless steel snap hooks and pulleys
- 2 x Barrel swivels
- 4 x Snap swivels
- 2 x Crimps
- 2 x Stainless steel deck saddles and screws
- 2 x Balsa floats
- 30m x U.V. protected dacron line
- All packed in mesh bag with clear front

BLA Code
394574

Taco™ Standard Rigging Kit

Single line rigging kit to suit one pair of outriggers to 6.5 metres.

Inclusions:

- 2 x 'Blacks' releases
- 4 x Shock cords with chromed snaps and clear rings
- 2 x Barrel swivels
- 4 x Snap swivels
- 2 x Crimps
- 2 x Stainless steel deck saddles and screws
- 30m x U.V. protected dacron line
- All packaged in a mesh bag

BLA Code
394578

Taco™ Premium Double Rigging Kit

Designed to provide all the necessary items to rig a pair of outriggers up to 6.5 metres.

Inclusions:

- 4 x Quality Trip-ese release clips
- 2 x Shock cord with stainless steel snaps and double pulley
- 4 x Barrel swivels
- 8 x Snap swivels
- 4 x Crimps
- 2 x Stainless steel deck
- Saddles and screws
- 4 x Balsa wood floats and 60 metres of U.V. protected dacron line
- Supplied complete with durable mesh bag

BLA Code
394576

Taco™ Rigging Accessories

394588

394590

394594

BLA Code	Description
394588	Tri eze release premium blk pr
394590	Zip clip for rigging kit blk pr
394594	Shockcord c/w snap hook block pr

Outrigger Trolling Clip

Trolling peg for use with outrigger poles. High impact black plastic with stainless steel eyes and spring. Jaws release line under strike load.

BLA Code	Length mm	Width mm
403434	70	35

Sant Marine Supreme Cutting/Bait Boards

- Rod Holder Mount

All-in-one complete angler's centre with easy installation and removal into two existing fixed rod holders. New quick release anodised aluminium rod holders that enable tension to be maintained on the line while removing the rod. Pivoting universal enables the cutting/bait board to set at a convenient working angle. Manufactured from super tough U.V. stabilised rotomoulded polyethylene, aluminium, black HDPE and glass filled nylon so they can be simply hosed off to clean at the end of the days fishing. Cutting surface resists cuts and abrasions whilst retaining knife edge. All models include a recessed tray for storage of knives, tackle or offal run off, with the medium and large models featuring two recessed drink holders and storage trays. Includes alloy legs.

394834

394832

394854

BLA Code	Size	Rod Holders	Width mm	Depth mm	Above Deck mm	Intrusion mm
394832	Medium	2	770	430	330	200
394834	Medium	4	1050	430	330	200
394854	Large	4	1320	500	330	200

Sant Marine Deluxe Cutting/Bait Boards

Convenient drop in/lift out mount into two existing fixed mount rod holders. Manufactured from super tough moulded U.V. stable, rotomoulded polyethylene, glass filled nylon and aluminium. Cutting surface resists cuts and abrasions whilst retaining knife edge. Features include fan pattern integral moulded rod holder slots, two drink holders and multiple storage recesses. **394860** includes a large storage compartment underneath the cutting surface of the board. Includes alloy legs.

394836

394856

394860

BLA Code	Size	Rod Holders	Width mm	Depth mm	Above Deck mm	Intrusion mm
394836	Medium	2	820	425	300	200
394856	Large	4	1170	425	280	200
394860	Large	4	1170	425	425	200

Sant Marine Standard Cutting/Bait Boards

- Rod Holder Mount

These versatile cutting boards simply drop into existing fixed mount rod holders. Manufactured from super tough moulded U.V. stabilised polyethylene and aluminium. Resists cuts and abrasions whilst retaining knife edge. Features a moulded in, recessed tray for storage of knives, tackle or offal run off. Medium and large models include two recessed drink holders and recessed storage trays. The medium size also has 2 rod holders incorporated. A twist lock pivot provides quick adjustment of cutting surface to horizontal and also allows compact storage. Includes alloy legs as per table.

394850

394802

BLA Code	Size	Width mm	Depth mm	Above Deck mm	Intrusion mm	Mount Legs
394802	Small	525	355	245	200	1
394822	Medium	715	420	290	200	2
394842	Large	910	495	290	200	2
394850	Large	1130	425	375	200	2

Sant Marine Rail Mount Cutting/Bait Boards

Manufactured from super tough moulded U.V. stabilised polyethylene, aluminium and 50% glass filled nylon. Resists cuts and abrasions whilst retaining knife edge. Features a catch measuring integral ruler, recessed tray for storage of knives, tackle or offal run off. Medium and large models also include two recessed drink holders and recessed storage trays. Mount brackets clamp onto 25mm diameter tube. Adaptor sleeves are also available for attachment to 22mm and 19mm OD tube.

394826

394806

394958

BLA Code	Size	Width mm	Depth mm	Above Rail mm
394806	Small	460	375	180
394826	Medium	720	425	220
394846	Large	950	430	220

Accessories:

394958 Adapter sleeve 22mm

Marine Town® Bait Board Post and Holder - Stainless Steel

Quality mounting post and holder designed for use with bait tables or boards allowing for their removal or repositioning. Constructed from 35mm diameter heavy duty stainless steel each post has a flat pre-drilled top for the direct mounting of the bait board and keyed base to prevent rotation when inserted into the post holder.

The stainless steel post holder features a plastic insert designed to ensure the post is held snugly in position plus 6mm diameter gimbal pin for tube alignment. A single heavy duty post and post holder set is ideal for mounting a smaller bait board while larger boards will require two sets. Each set includes one post and one holder, available in either an angled 30° or straight through deck mount. To enable the board to be moved to another position additional holders are available separately.

394970

394976

BLA Code	Type	Mount	Deck Plate mm	Cut Out mm	Above Deck mm	Intrusion mm
394970	Post & Holder	Straight	80 x 59	45	255	195
394974	Post & Holder	Angled	80 x 59	45	250	180
394972	Holder	Straight	80 x 59	45	-	195
394976	Holder	Angled	80 x 59	45	-	180

Fish-n-Board Cutting Board

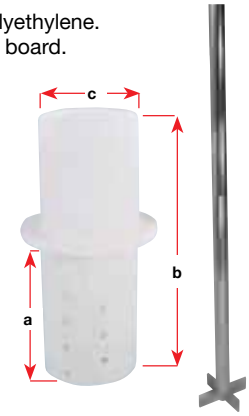
Injection moulded from U.V. stabilised high density polyethylene. Ideal for cutting up bait or scaling and filleting your catch. Features integral knife holder, 40cm ruler, moulded drains for ease of cleaning (which can also be used for berleying) and full stainless steel mount hardware to suit rail or gunwale mount.

BLA Code	Depth mm	Width mm	Height mm
394800	359	430	28

Sant Marine Berley Buckets

- Marlin Board Mount

Moulded in one piece high impact polyethylene. Mounts through marlin board or duck board. Supplied with heavy duty aluminium berley 'muncher'. Available in three models for differing transom heights.



BLA Code	Model	a mm	b mm	c mm
395050	Small	195	400	125
395052	Short	195	450	170
395054	Long	255	450	170

Accessories:

395090 Spare berley muncher

Sant Marine Berley Bucket

- Transom Mount

Economy 'D' shaped transom mount berley bucket moulded from one piece high impact polyethylene. Permanently through bolt mounts. Aluminium 'muncher' included.

BLA Code	Height mm	Width mm	Depth mm
395060	435	195	190

Accessories:

395090 Spare berley muncher

Sant Marine Berley Buckets

- Removable

Moulded in one piece high impact, U.V. stable, rotomoulded polyethylene. An alloy mounting bracket with twist lock stainless steel pin provides ease of removal for cleaning, storage or for when the vessel is not being used for fishing. Designed for raked transoms of 20°. Supplied with berley 'muncher'.

BLA Code	Height mm	Dia. mm	Mount Base mm
395070	360	165	195 x 105
395072	450	175	150 x 105

Accessories:

395090 Spare berley muncher

Sant Marine Cutting Board to suit 20L Bucket

This versatile white cutting board is truly a fisherman's pal. The two grooves underneath the board allows the board to sit on a 20L bucket so it can be used not only as a bait/fillet board but a seat as well.

BLA Code
394880

Sant Marine Live Bait Tank

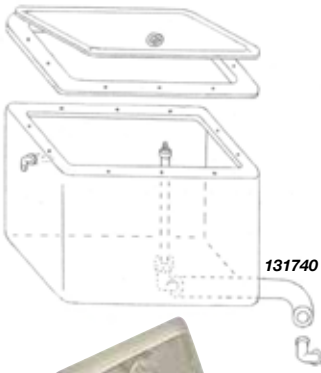
Ready to install, moulded polyethylene live bait tank. Supplied complete with transom mount water pick-up and 12 volt submersible pump. Incorporates storage recess hinged lid. 20mm overflow outlet with filter and 20mm inlet that connects via hose (not included) to the pump.

BLA Code	Length mm	Width mm	Height mm
395202	585	340	335

N.B. Pump is not self priming, requiring gravity feed.

SPX Johnson Pump Live Bait Tank

Johnson offers a complete "packaged" live bait tank kit with hatch, spray bar, overflow plumbing, hose and skin fittings or choose the components separately. The pump design varies from through transom, skin fitting or submersible and the flow rate varies from 450 gph to a market leading 4,000 gph.



BLA Code	Size L
131740	30

Standard Inclusions:

131744 Live bait overflow plumbing kit
131741 Live bait tank hatch
131742 Live bait tank

Accessories:

131724 Live well aerator timer

Sant Marine Tinnie Storage Bins

The small storage bin and large tinnie storage bin provide smart storage for odds and ends, fishing gear and bait. Moulded from tough polyethylene, the curved bracket fits securely over the gunwale of most tinnies. They incorporate a recessed storage area, drink holder and knife slots.

BLA Code	Size	Width mm	Height mm	Depth mm
395002	Small	380	200	205
395006	Large	360	290	240

Sant Marine Tinnie Storage Bin Long

Manufactured from tough polyethylene, these storage bins are large, durable and easy to clean. They provide smart storage for fishing gear, baits or general storage. **395014** includes a side pocket and drink holders.

BLA Code	Size	Width mm	Height mm	Depth mm
395010	Standard long	900	260	160
395014	Deluxe long	900	260	200

Sant Marine Fish/Bait Boxes

Manufactured from white polyethylene with white cutting board lid. Ideal for use as a bait box, fish box, live-well tank or simply for storage.

BLA Code	Length mm	Width mm	Height mm	Cut Out mm
395222	300	200	190	270 x 170
395224	300	200	215	270 x 170
395228	300	200	295	270 x 170
395232	395	280	180	355 x 250
395236	400	280	325	360 x 245

Sant Marine Tinnie Storage Tube

This waterproof storage bin with a screw in top is ideal for storing mobile phones, watches, flares, etc. It can be flush fitted either horizontally or vertically into any surface behind which is a suitable cavity.

BLA Code	Height mm	Dia. mm
395020	250	170

Collapsible Storage Box

Convenient folding storage box, folds to only 65mm high! Four folded boxes use less space than one rigid box, so they will stow away easily, yet are readily available. Very solid construction and design with a weight of only 2 kgs.

BLA Code	Length mm	Width mm	Height mm
394990	600	400	315

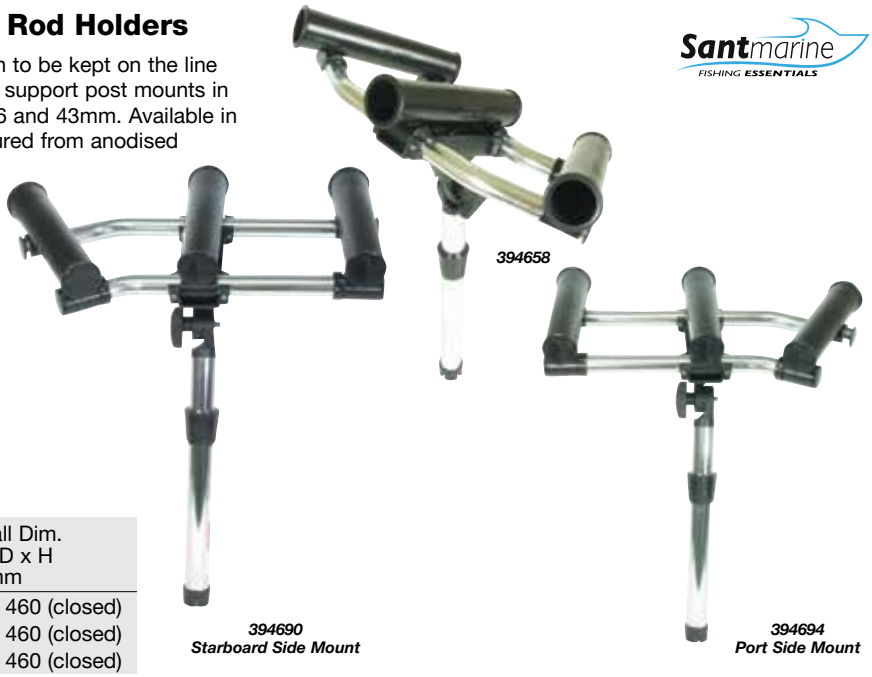
Plastic Storage Bins

One hundred and one onboard uses including catch bucket, bait bucket, anchor tackle storage, tools or general storage. Ideal for portable live-well bait tank setup. Tough yet light weight thermo moulded plastic. Available with or without lid.

BLA Code	Description	Length mm	Width mm	Height mm
394998	Lidded	660	425	275
394999	Non lidded	790	500	310

Sant Marine Quick Release Rod Holders

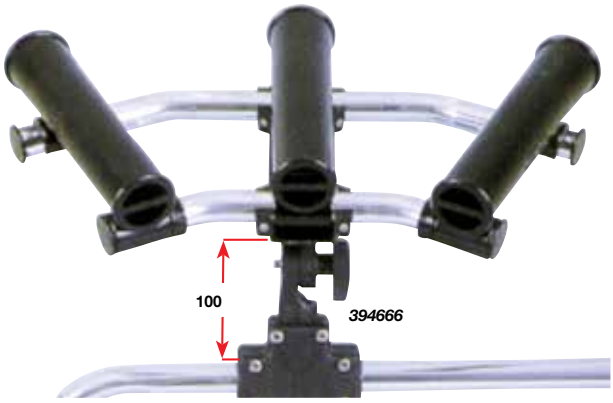
Quick Release Rod Holders enable tension to be kept on the line while removing the rod after hook-up. The support post mounts in existing rod holder with an I.D. between 36 and 43mm. Available in single and triple configurations, manufactured from anodised aluminium and U.V. stabilised polyethylene.



BLA Code	Description	Overall Dim. W x D x H mm
394658	Triple centre	465 x 285 x 460 (closed)
394690	Triple starboard	465 x 270 x 460 (closed)
394694	Triple port	465 x 270 x 460 (closed)

Sant Marine 3-in-1 Rod Holders

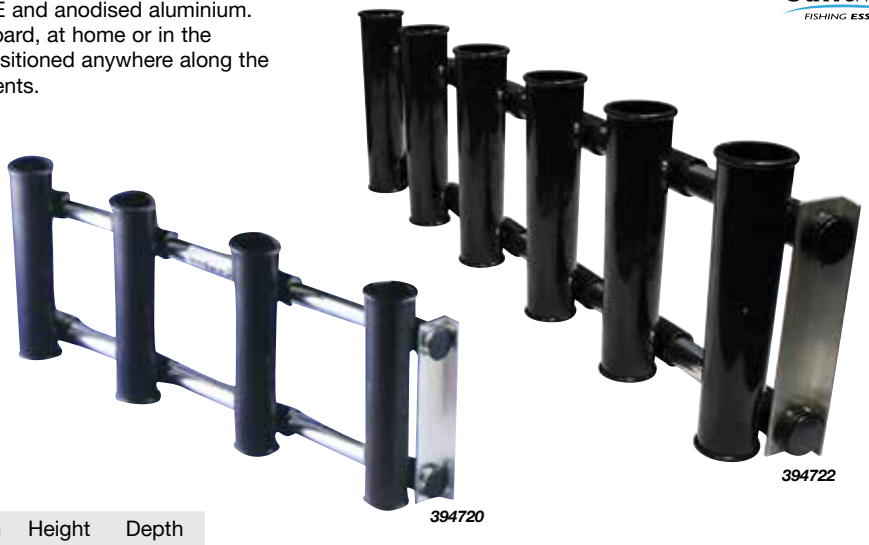
Three rod holders in one, with rail mount configuration. Quick release model enables tension to be kept on the line while removing the rod. Manufactured from black HDPE plastic, 50% glass filled nylon and anodised aluminium.



BLA Code	Mount	Release	Overall Dim. W x D mm
394666	Rail	Quick	510 x 265

Sant Marine Coaming Rack Holders

Manufactured from black HDPE and anodised aluminium. Enables neat rod storage on board, at home or in the garage. Rod holders can be positioned anywhere along the rails to suit individual requirements.



BLA Code	Capacity	Length mm	Height mm	Depth mm
394720	Four rod	585	225	78
394722	Six rod	775	225	78

Saddles T/S Cutting Board Mounts

Black plastic saddles for use with cutting board mount.

BLA Code
394930

Post Assembly

Post Assembly to suit cutting board – Rod holder mount. Attaches on the cutting board swivel and fits into a standard rod holder.

Contains:

- 300mm, 32 x 1.6mm anodised tube
- Bottom cross **394944**
- Taper spacer **394942**
- Swivel set **394946**
- Stainless steel nut and tri-wheel **394947**

BLA Code
394940

Tapered Spacer

Used on post assembly to ensure that the posts fit securely into the boats rod holders. Designed to fit on 32mm tube.

BLA Code
394942

Bottom Cross

Bottom cross attaches to the post assembly and locks into the bottom of the boat's standard rod holders. Designed to fit into tube with an inside diameter of approx. 29mm.

BLA Code
394944

Swivels

Used to adjust bait boards and accessories to the required angle. Male ends of the swivel set are designed to fit into 32 x 1.6mm tube (i.e. approx. 29mm inside diameter). Sold as a pair.

BLA Code
394946

Tri Wheel & Nut

Used to adjust the swivel to level bait boards and accessories depending on the angle of the boat's rod holders.

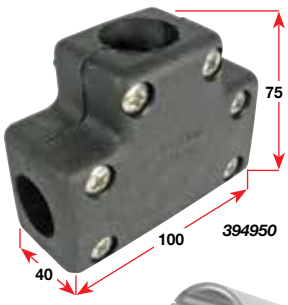
394947

394948

BLA Code	Description
394947	Tri wheel & nut
394948	Wheel spring

Sant Marine Rail Mount

Supplied with rail clamp to suit 25mm tube. Manufactured from 50% glass filled nylon. Utilises six stainless steel metal threads and nuts for attachment. Suits products with a 28mm post.



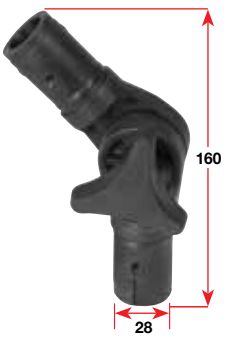
394950

394958

BLA Code	Mount
394950	Rail mount
394958	Sleeve to fit 22mm rails

Sant Marine Pivot Joint Kit

Used in conjunction with the rail mount. Converts fixed mount products with a tube I.D. of 28.5mm to swivelling. Manufactured from 50% glass filled nylon and stainless steel.



BLA Code
394954

Cannon® Adjustable Rod Holder

Fully adjustable 360° rod holder that can be top mounted or side mounted. The rod holder features a three-position configuration, and a spring loaded tension knob delivering fast baitcast or spinning rod pick up. **394480** supplied with four stainless steel metal threads.

BLA Code	Description
394481	Rod holder Cannon
394480	Rod holder and S/S screws

Accessories:

394472 Cannon flush mount adaptor
394478 Cannon top/side mount adaptor

Cannon® Adaptor

- Flush Mount

Compatible with Cannon® products only.

BLA Code
394472

Cannon® Adaptor

- 152mm (6") Extension Post part

Suits Cannon® adaptors/mounts only.

BLA Code
394474

Cannon® Adaptor

- Top/Side Mount

Compatible with Cannon® products only.

BLA Code
394478

Cannon® Adaptor

- Rail Mount

Turns Cannon® **394478** into rail mount.

BLA Code
394476

Attwood Rod Holder - Pro Series

Designed for use with baitcaster and spinning reels. Large, easy-grip cam lock provides 160° vertical adjustment for a variety of rod tip height settings.

Heavy duty, deep tooth gear lock securely holds rod holder in mounting bases. Locking collar secures rod during travel and use.

Includes bi-axis mount that can be used as a side or pedestal mount, allowing 360° of horizontal adjustment.

192550

192551

BLA Code	Overall Length mm	Base Size mm	Hole Centres mm	Mount Screws mm
192550	215	98 x 49	78 x 32	6 r/h

Accessories:
192551 Attwood bi-axis mount
192552 Attwood rail mount

Attwood Bi-Axis Mount

The newly designed mount can be used as a side or pedestal mount, allowing 360° of horizontal adjustment. Compatible with all Attwood and other leading brand rod holder mounting patterns, except Cannon® branded products.

BLA Code
192551

Attwood Rail Mount

Complete with all necessary hardware to mount Attwood **192551** and other leading brand rod holder mounts to square or round rails between 22mm and 32mm.

BLA Code
192552

Sant Marine Rod Holders

This single unit comprises of a rod holder manufactured from black HDPE.

394700

BLA Code	Description
394700	Rod holder single (holder only) t/s Sant Marine
394704	Rod holder single QR (holder only)

BLA Baitcaster Rod Holder

- Black Nylon

This rod holder can easily adjust a rod from 5° to 95°. The base design has twelve variable positions to allow the rod to rotate through 360°. Thumb activated, slide locking ring retains the rod when trolling.

Supplied with a side mount bracket with channel to allow mounting on rails up to 25mm diameter with optional rail mount adaptor. Various additional mounts can be ordered separately and are listed below.

Rod holder and mount kits are all moulded in tough polyethylene.

BLA Code	Tube I.D. mm	Overall Length mm	Base Size mm	Hole Centres mm	Mount Screws mm
192555	32	270	82 x 56	62 x 40	6 r/h

Accessories:
192556 Mount Kit - Side Mount
192557 Mount Kit - Rail Mount Adaptor
192558 Mount Kit - Flush Deck Mount

BLA Mount Kit

- Black Polyethylene Side Mount

Mounts on vertical surface. Channel in base for mounting on tubular rails to 25mm diameter using rail mount adaptor **192557**.

BLA Code	Base Size mm	Protrusion mm	Hole Centres mm	Mount Screws mm
192556	82 x 56	48	62 x 40	6 r/h

BLA Rail Mount Adaptor

Converts side mount to rail mount. Fastenings purchased separately.

BLA Code	Base Size mm	Hole Centres mm
192557	82 x 56	62 x 40

BLA Flush Deck Mount

Mounts on horizontal surface. Does not suit Cannon® products.

BLA Code	Base Size mm	Cut Out mm	Mount Screws mm
192558	82 x 56	40	6 r/h

Filleting Knife - Floating

Floating fish filleting knife with fluorescent orange handle top. The flexible stainless steel blade is 136mm long. Overall length of knife is 265mm. Supplied with a plastic scabbard which has a stainless steel belt holder.

BLA Code
394792

BLA Knife Pliers and Lure Holder

The BLA knife, pliers and tackle holder is a convenient and safe fishing tackle station designed to store and protect two knives, a pair of pliers plus an assortment of hooks, lures and rigs in 15 pre-drilled holes.

Manufactured from moulded white U.V. stabilised corrosion proof material providing impact resistance and protection for knives and pliers. Supplied with stainless steel mount screws and is complete with retail hang sell sleeve.

BLA Code	Overall Height mm	Depth mm	Width mm
394796	225	100	55

N.B. Knives, pliers and lures not included.

Fishing Knife Set - 9 Piece

Complete fishing knife and accessories set for everyday use. This set includes one each of the following items:

- Filleting knife with flexible 145mm stainless steel blade
- Carving knife with strong 145mm stainless steel blade
- Divers knife with 110mm stainless steel blade, scaler and bottle opener
- Large hand sheers stainless steel blades and cracker
- Holding fork
- Scales with retractable tape measure and compass
- Convenient, easy to use knife sharpener
- Non-slip gloves
- Large 280 x 190mm plastic cutting board
- Convenient plastic carry case

BLA Code
394786

Sant Marine Knife Holder

Handy knife holder keeps the knives secure and safe when not in use.

BLA Code
394794

Sant Marine Fish Scaler - Plastic

A tough, non corrosive plastic economical fish scaler that is designed for the most demanding use.

BLA Code
394798

Sant Marine Centre Console

Sant Marine console kits converts vessel from tiller control to centre console quickly and easily. Ample room available for steering wheel and engine control, sounder/GPS, instruments and electrical requirements. Constructed of U.V. stable rotomoulded polyethylene and provided with two drink holders.

Console completed, gauges and steering not included.

BLA Code	Description
395310	Console centre mount
395314	Grab rail t/s centre console
395318	Windscreen t/s centre console

Sant Marine Side Console

Converts vessel from tiller control to side console quickly and easily. Features hinged storage lid, two drink holders, sounder/GPS mounting area and ample room for steering, gauges and electrical requirements. Supplied complete with anodised aluminium support legs and mounting fittings. High impact, durable U.V. stable rotomoulded polyethylene top.

Console incomplete

Console completed

BLA Code	Height mm	Width mm	Depth mm
395300	360	600	360

Sant Marine Anchor Wells

Moulded white polyethylene anchor well. Simply cut required hole in foredeck and rivet or screw into place. Fitted with 20mm diameter take-off for drain.

395350

BLA Code	Model	Rear mm	Side mm	Front mm	Depth mm
395350	Small	540	360	340	200
395352	Large	730	460	450	250

Bathyscope - LED

A simple but effective device that eliminates water surface reflection, to allow under water viewing as far as water clarity and light permits. Works in two ways, firstly the clear acrylic lens breaks through the water surface reflection, secondly the light blocking cone, with soft rubber face piece, eliminates reflection on the tempered glass lens, to provide clear viewing. Breaks down into four inter-stacking pieces for compact storage. Ideal for reef viewing, checking pots/traps and moorings. The addition of **395652** LED spot lights allows night viewing.

Bathyscope Disassembled

395652

395648

BLA Code	Version	Height mm	Lens mm
395648	Day	510	335

Accessories:
395652 LED spot lights

SAILBOAT DECK HARDWARE

Lewmar® Blocks – Control, Synchro, HTX, Racing, Tweaker & Ocean	985
Lewmar® Footblocks – Control, Synchro, HTX & Racing	990
Lewmar® Stand Up Blocks – HTX	991
Lewmar® Block Upstands	991
Lewmar® Pad Eyes	992
Lewmar® Traveller System Components – Size 0	992
Lewmar® Ocean Track – Size 0	992
Lewmar® Cars & Traveller Components – Size 1 & 2	993
Lewmar® Mainsheet Cars – Size 1 & 2	993
Lewmar® Genoa Cars – Size 1 & 2	994
Lewmar® Car Accessories & Spares	994
Lewmar® Track, End Stops & Accessories – Size 1 & 2	995
Lewmar® Mainsheet & Genoa Cars – Size 3	996
Lewmar® Track, End Stops & Accessories – Size 3	997
Lewmar® T-Track Genoa Cars, Track & Ends	998
Lewmar® Cleats & Accessories	999
Lewmar® Organisers	1000
Lewmar® Rope Clutches – D1 & D2	1001

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

An Introduction to Sailboat Deck Hardware

Lewmar offers an extensive range of yachting hardware designed through years of research and development and sailing experience. The result is a range of products that provide outstanding sail control for dinghy, day sailor, coastal cruiser to superyachts and maxi boats the world over.

Every product in the Lewmar® range is designed to perform under maximum load while still providing efficient, smooth and precise rope and system control.

Throughout the manufacturing process, only the very best materials are chosen, including LFT (Long Fibre Technology), Delrin®, Torlon, aluminium and stainless steel to provide years of trouble free performance combined with long service life.

Choosing the right purchase system

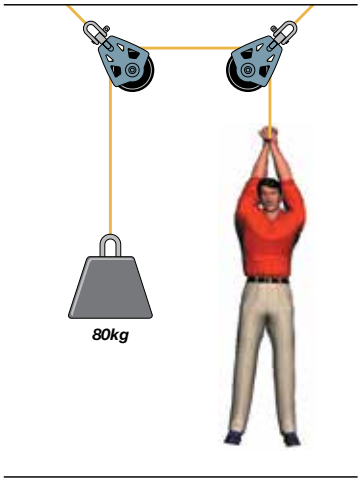
Lewmar® manufactures a diverse range of blocks to suit all marine applications. This guide aims to help you to choose the best purchase system and the appropriate Lewmar® products to suit your application.

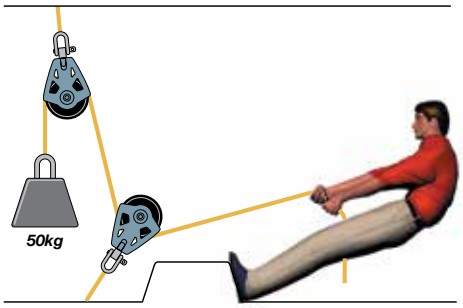
Why do we need purchase systems?

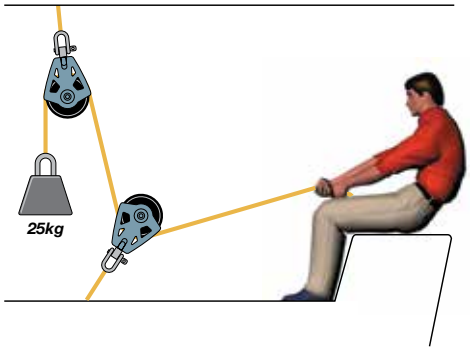
As a guide, the average person can:

- Pull vertically down a force equivalent to their body weight (for a short period)
- When fully braced, pull intermittently sideways with one hand to 25kg and with two hands to 50kg
- Adjust control lines frequently loaded to 25kg
- Exert 15kg single-handed and 25kg doublehanded on a winch handle

Human force can be multiplied through a purchase system made up of block systems and/or winches, enabling comfortable operation of high-loaded sailboat controls.







Lewmar® Blocks - Control

LEWMAR

Designed and manufactured to provide extremely lightweight, high load bearing blocks ideal for use with hand held loads on dinghys, sports and keel boats. Lewmar® Control Blocks feature stainless steel central race and balls while long fibre technology provides exceptional strength and durability. Open design provides for easy flushing of sand and salt, helping to keep maintenance to a minimum and performance to a maximum.

Features

- Manufactured to provide high strength with light weight
- Impact resistant body
- Optimised for high load hand applications
- Open design for easy flushing of salt and sand

Applications

- Ideal for control lines, mainsheets, jib and spinnaker sheets
- Control lines
- Dinghy/keelboat mainsail sheets
- Spinnaker/Genoa/barber hauler sheets

Single

Double

Triple

Single + Becket

Double + Becket

Triple + Becket

Single Stand Up

Single + Becket + Cam

Triple + Becket + Cam

Single Vertical Lead

Single Cheek

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg	Shackle Pin Dia. mm
420530	Single	30	8	200	400	4
420532	Double	30	8	300	600	4
420534	Triple	30	8	500	1000	5
420536	Single + Becket	30	8	200	400	4
420538	Double + Becket	30	8	300	600	4
420540	Triple + Becket	30	8	500	1000	5
420542	Single Stand Up	30	8	200	400	-
420544	Single Vertical Lead	30	8	200	400	-
420546	Single Cheek	30	8	200	400	-
420550	Single	40	10	240	800	4
420552	Double	40	10	480	1200	4
420554	Triple	40	10	720	1800	6
420556	Single + Becket	40	10	240	800	4
420558	Double + Becket	40	10	480	1200	4
420560	Triple + Becket	40	10	720	1800	6
420562	Single Stand Up	40	10	240	800	-
420564	Single + Becket + Cam	40	10	240	800	4
420566	Triple + Becket + Cam	40	10	720	1800	6
420568	Single Vertical Lead	40	10	240	900	-
420570	Single Cheek	40	10	240	900	-
420574	Single Ratchet	60	10	400	800	5

Lewmar® Blocks - Synchro

LEWMAR

Designed and engineered for speed, efficiency and superior handling, the Synchro range of blocks combine a free spin bearing with a self-aligning head to reduce friction and increase efficiency. Each component is designed to perfectly synchronise with the movement of the rope to provide smooth and efficient transfer of power with reduced rope wear.

A lockable head allows for in-line or 90° positioning while the integrated 30° floating movement provides improved alignment. Additionally, the head may be left to freely rotate when in the unlocked position.

Applications include:

- Halyard turning
- Mainsheet systems
- Mast foot blocks
- Mast head blocks
- Boom vang
- General sheet blocks

Features:

- Range includes single, double, triple and fiddle blocks
- 50, 60, 72 and 90mm sheave diameters
- Stainless steel straps and glass fibre reinforced cheeks
- High density free spin plain bearing
- Tool free swivel lock self aligning head
- Optimised sheave to rope ratio

Single

Double

Triple

Single + Becket

Double + Becket

Single + Becket + Cam

Triple + Becket + Cam

Single + Fiddle

Single + Fiddle + Cam

Single + Fiddle + Becket

Single + Fiddle + Becket + Cam

Single Halyard Mast

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg	Shackle Pin Dia. mm
420300	Single	50	10	450	900	4
420302	Double	50	10	450	900	4
420304	Triple	50	10	450	900	4
420306	Single + Becket	50	10	450	900	4
420308	Double + Becket	50	10	450	900	4
420310	Single + Becket + Cam	50	10	450	900	4
420312	Triple + Becket + Cam	50	10	450	900	4
420314	Single + Fiddle	50	10	450	900	4
420316	Single + Fiddle + Becket	50	10	450	900	4
420318	Single + Fiddle + Cam	50	10	450	900	4
420320	Single + Fiddle + Becket + Cam	50	10	450	900	4
420324	Single Halyard Mast	50	10	450	900	4
420330	Single	60	10	800	1600	5
420332	Double	60	10	800	1600	5
420334	Triple	60	10	800	1600	5
420336	Single + Becket	60	10	800	1600	5
420338	Double + Becket	60	10	800	1600	5
420342	Triple + Becket + Cam	60	10	800	1600	5
420344	Single + Fiddle	60	10	800	1600	5
420346	Single + Fiddle + Becket	60	10	800	1600	5
420348	Single + Fiddle + Cam	60	10	800	1600	5
420350	Single + Fiddle + Becket + Cam	60	10	800	1600	5
420354	Single Halyard Mast	60	10	800	1600	5
420360	Single	72	12	1100	2200	6
420362	Double	72	12	1100	2200	6
420364	Triple	72	12	1100	2200	6
420366	Single + Becket	72	12	1100	2200	6
420368	Double + Becket	72	12	1100	2200	6
420370	Triple + Becket + Cam	72	12	1100	2200	6
420372	Single + Fiddle	72	12	1100	2200	6
420374	Single + Fiddle + Becket	72	12	1100	2200	6
420376	Single + Fiddle + Cam	72	12	1100	2200	6
420378	Single + Fiddle + Becket + Cam	72	12	1100	2200	6
420384	Single Halyard Mast	72	12	1100	2200	6
420390	Single	90	14	2000	4000	9.8
420392	Double	90	14	2000	4000	9.8
420394	Triple	90	14	2000	4000	9.8
420396	Single + Becket	90	14	2000	4000	9.8
420402	Single + Fiddle	90	14	2000	4000	9.8
420404	Single + Fiddle + Becket	90	14	2000	4000	9.8
420408	Single + Fiddle + Becket + Cam	90	14	2000	4000	9.8
420410	Single Halyard Mast	90	14	2000	4000	9.8
420412	Block Syncro Single	105	16	3500	7000	10
420414	Block Syncro Single Stand Up	105	16	3500	7000	10

Lewmar® Blocks - HTX

LEWMAR

Suitable for cruising through to performance yachts, the HTX range has been designed and manufactured to use a minimal number of alloy, stainless steel and plastic reinforced parts to provide enhanced reliability, durability, efficiency and strength.

The anodised marine grade alloy cheeks capture the side thrust ball bearings which provide high sail handling efficiency and speed. The design incorporates high load capacity performance while maintaining minimal weight for large line sizes. For additional functionality the head design features a swivel head which incorporates a locking grub screw mechanism to allow the block to be set in correct alignment.

Available in a wide range of configurations and styles including stand-up and foot blocks to suit almost any application for vessels up to 18 metres. Attachments include traditional shackle, webbing/lashing and toggle head.

Features:

- Alloy cheeks, side thrust Delrin ball bearings
- Efficient high load plain central bearing
- High performance swivel head design
- High load capacity, low friction
- 50, 60, 72 and 90mm sheave diameters

Single

Single - Webbing

Double

Triple

Single + Becket

Double + Becket

Single + Becket + Cam

Triple + Becket + Cam

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg	Shackle Pin Dia. mm
420440	Single	50	10	800	1600	5
420441	Single - Webbing	50	10	800	1600	5
420442	Double	50	10	800	1600	5
420444	Triple	50	10	800	1600	5
420446	Single + Becket	50	10	800	1600	5
420448	Double + Becket	50	10	800	1600	5
420450	Single + Becket + Cam	50	10	800	1600	5
420452	Triple + Becket + Cam	50	10	800	1600	5
420454	Single Toghead	50	10	800	1600	5
420456	Single + Fiddle	50	10	800	1600	5
420458	Single + Fiddle + Becket	50	10	800	1600	5
420460	Single + Fiddle + Cam	50	10	800	1600	5
420462	Single + Fiddle + Becket + Cam	50	10	800	1600	5
420470	Single	60	12	1100	2200	6
420471	Single - Webbing	60	12	1100	2200	6
420472	Double	60	12	1100	2200	6
420474	Triple	60	12	1100	2200	6
420476	Single + Becket	60	12	1100	2200	6
420478	Double + Becket	60	12	1100	2200	6
420480	Single + Becket + Cam	60	12	1100	2200	6
420482	Triple + Becket + Cam	60	12	1100	2200	6
420484	Single Toghead	60	12	1100	2200	6
420486	Single + Fiddle	60	10	1100	2200	6
420488	Single + Fiddle + Becket	60	10	1100	2200	6
420492	Single + Fiddle + Becket + Cam	60	10	1100	2200	6
420500	Single	72	14	2000	4000	9.8
420501	Single - Webbing	72	14	2000	4000	9.8
420502	Double	72	14	2000	4000	9.8
420504	Single + Becket	72	14	2000	4000	9.8
420506	Single Toghead	72	14	2000	4000	9.8
420508	Single + Fiddle	72	14	2000	4000	9.8
420510	Single + Fiddle + Becket	72	14	2000	4000	9.8
420512	Single + Fiddle + Cam	72	14	2000	4000	9.8
420514	Single + Fiddle + Becket + Cam	72	14	2000	4000	9.8
420517	Single	90	16	3500	7000	10
420519	Single + Becket	90	16	3500	7000	10

Single + Fiddle

Single Toghead

Single + Fiddle + Becket

Single + Fiddle + Becket + Cam

Lewmar® Blocks - Racing

LEWMAR®

Designed and manufactured utilising monocoque construction techniques to produce a quality block range with a high strength to low weight ratio, in sizes ranging from 60mm to 155mm.

Radiused alloy cheeks with flush fixings provide extreme durability, while the composite sheaves feature Delrin side thrust balls to reduce friction under load. For high load blocks of 80mm and above Torlon rollers are employed to further reduce rolling friction. For additional strength and wear resistance ratchet blocks feature alloy ratchet sheaves and recessed ratchet levers on both sides.

The three position shackle post provides a range of fixing options, while a web attachment model offers extremely high strength to weight ratio, ideal for runner, halyard or mainsheet applications. The Racing range also includes stand-up and foot blocks to suit most vessel applications.

Features:

- Monocoque construction provides high strength and low weight
- Radiused snag free edges reduce friction
- Delrin side thrust balls plus Torlon rollers (80mm high load and above)
- Minimum weight and high performance
- Wide range of sheave sizes and combinations
- 60, 80, 105, 130 and 155mm sheave diameters

Single High Load

Single High Load - Webbing

Double

High Load Single + Becket

Single Stand Up

Double

Triple

Triple + Becket + Ratchet + Cam

Low Load Single + Becket

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg	Shackle Pin Dia. mm
420580	Single High Load	60	12	1200	2400	6
420581	Single High Load - Webbing	60	12	1400	2800	-
420582	Double	60	12	1440	2880	8
420584	Single + Becket	60	12	800	1600	6
420586	Single Stand Up	60	12	800	1600	-
420589	Single - Webbing	80	12	1000	2000	6
420590	Single High Load	80	14	2400	4800	8
420592	Double	80	12	1800	3600	8
420593	Double High Load	80	14	3400	6800	10
420594	Triple	80	12	2200	4400	8
420595	Triple + Becket + Ratchet + Cam	80	12	2200	4400	8
420596	Single + Becket	80	12	1000	2000	6
420598	Single Stand Up High Load	80	14	2400	4800	-
420610	Single High Load	105	14	3750	7500	10
420612	Single High Load + Becket	105	14	3750	7500	10
420614	Single High Load Stand Up	105	14	3750	7500	-
420620	Single High Load	130	16	5000	10000	12
420622	Single High Load Stand Up	130	18	7500	15000	-
420626	Single High Load	155	18	7500	15000	14
420628	Single High Load + Becket	155	18	7500	15000	14
420630	Single High Load Stand Up	155	18	7500	15000	-

Lewmar® Blocks - Tweaker and Ocean Snatch

LEWMAR

For general Tweaker downhaul and spinnaker use. Tweaker blocks feature lightweight construction with hinged cheek for easy line insertion and removal. Control line may be attached to cheek pivot pin.

Ocean Snatch Blocks feature soft synthetic rubber cheeks to prevent damage and tough Delrin sheaves for longevity. Size 3 snatch block (**420708**), includes needle rollers and aluminium sheave. Easy open mechanism allows sheets to be quickly inserted or removed while the integral snap shackle allows for quick block placement.

420700

420706

420704

420708

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg
420700	Tweaker	27	8	120	240
420702	Tweaker	40	10	140	475
420704	Snatch Block Size 1	66	14	1135	2500
420706	Snatch Block Size 2	80	16	1135	2500
420708	Snatch Block Size 3	80	16	2155	4310

Lewmar® Footblocks - Control & Synchro

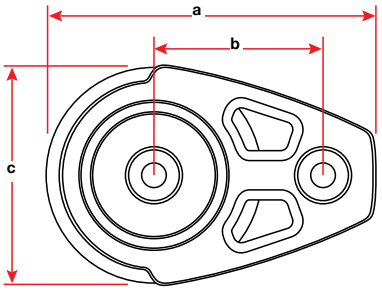
LEWMAR

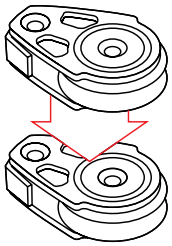
Designed and engineered for efficiency, superior handling and strength, each Footblock features alloy cheeks, fixing isolators and moulded base plate to prevent sealant ingress into the sheave. Each component is designed to perfectly synchronise with the movement of the rope to provide smooth and efficient transfer of power with reduced rope wear and minimal friction.

For temporary load holding or tidying of sheets, use jamming footblocks.

Features:

- Twin fixing point with inserts
- 40, 60, 72 and 90mm sheave diameters
- Moulded base plate helps capture sealant to reduce water ingress
- Standard and jammer options can be double stacked





Standard & jammer options can be double stacked

Double Footblock

Single Footblock

Single Footblock + Jammer

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg	a Block Length mm	b Mount Holes mm	c Block Width mm
420572	Single Footblock	40	10	750	1500	63.2	34.5	40
420551	Double Footblock	40	10	750	1500	63.2	34.5	40
420420	Single Footblock	60	10	800	1600	98	51	59
420422	Single Footblock + Jammer	60	10	800	1600	98	51	59
420424	Single Footblock	72	12	1100	2200	110.6	58	71
420426	Single Footblock + Jammer	72	12	1100	2200	110.6	58	71
420428	Single Footblock	90	14	2000	4000	134	69	89
420430	Single Footblock + Jammer	90	14	2000	4000	134	69	89

Lewmar® Footblocks - HTX

LEWMAR

Designed and engineered for efficiency, superior handling and strength, the HTX Footblock range features alloy cheeks and fixing isolators to prevent sealant ingress into the sheave.

Features:

- Three fixing points with inserts
- Alloy cheeks, side thrust Delrin ball bearings
- High load capacity, low friction
- Standard and jammer options can be double stacked
- Can be stacked to make double foot block

Single Footblock

Single Footblock + Jammer

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg
420463	Single Footblock	50	10	800	1600
420479	Single Footblock + Jammer	50	10	800	1600
420494	Single Footblock	60	12	1100	2200
420499	Single Footblock + Jammer	60	12	1100	2200
420515	Single Footblock + Jammer	72	14	2000	4000
420516	Single Footblock	72	14	2000	4000
420523	Single Footblock	90	16	3500	7000

Lewmar® Footblocks - Racing

LEWMAR

Designed and manufactured for racing, offering high strength to low weight ratio. The Racing Footblock range features alloy cheeks and composite sheave with Delrin side thrust balls.

Features:

- Three fixing points
- Alloy cheeks, side thrust Delrin ball bearings
- High load capacity, low friction
- Light weight, high strength

Single Footblock

Single Footblock High Load

Single Footblock + Jammer - LH

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg
420636	Single Footblock	60	12	400	800
420640	Single Footblock High Load	60	12	1400	2800
420642	Single Footblock High Load	80	14	2000	4000
420644	Single Footblock High Load	105	16	3750	7500
420646	Single Footblock High Load	130	16	5500	11000
420638	Single Footblock + Jammer - LH	60	12	400	800

Lewmar® Stand-up Blocks - HTX

LEWMAR

Designed and engineered for efficiency, superior handling and strength the HTX stand-up range features alloy cheeks, high load capacity and Delrin side thrust ball bearings. Supplied complete with heavy duty stainless steel pad eye, stand-up spring and protective boot.

420734

BLA Code	Description	Sheave Dia. mm	Max Rope Size mm	Working Load Limit kg	Breaking Load kg
420730	Single Stand Up	50	10	800	1600
420734	Single Stand Up	60	12	1100	2200
420738	Single Stand Up	72	14	2000	4000
420742	Single Stand Up	90	16	3500	7000

Lewmar® Spring Block Upstands

LEWMAR

Designed for use in a range of applications where a block is required to be held in a vertical position to aid and control rope alignment. Load direction should be as close as perpendicular with the base and parallel with the bail as possible to maximise the working load of the pad eye.

SP42420574

420723

420721

BLA Code	Description	Suits Sheave Size and Range mm	Base Dia. mm	Safe Working Load kg
420723	Upstand	30, 40 Control	30	200
SP42420574	Upstand Size 1	60 Control/Synchro 50 HTX	69	800
420720	Upstand Size 2	72 Synchro 60/80LL Race	69	1100
420721	Upstand Size 3	90 Synchro 72 HTX	66	2000
420722	Upstand Size 3	90 Synchro 72 HTX	90	2000

Lewmar® Pad Eyes

LEWMAR

Manufactured from cast stainless steel, pad eyes are fixed to the deck in the desired position for block or similar equipment attachment. Load direction should be as close as perpendicular with the base and parallel with the bail as possible to maximise the working load of the pad eye. It must be noted that performance of any pad eye is dependant upon fitness for the specific application.

423524

423520

423522

BLA Code	Description	Base Size mm	Safe Working Load kg
423520	Pad Eye Diamond	60 x 38	567
423522	Pad Eye Square	70 x 70	1590
423524	Pad Eye Round	Ø 98	2500

Lewmar® Traveller System Components - Size 0

LEWMAR

Lewmar® offers a wide range of mainsheet traveller system components and Genoa cars designed to provide fast and functional sheet and system control for club, racing or cruising vessels ranging in length from 6 to 30 metres.

Features:

- Range of re-circulating ball bearing and slide rod car options
- Ball bearing cars ideal for low friction movement and high loads
- Wide range of car sizes and options
- Numerous control line options on size 1, 2 and 3
- Modular system allows creation of multiple options

Size 0 Cars and Traveller Systems

Features:

- Ideal for yachts up to 8.5m
- Slide rods or low friction Delrin balls
- Suitable for 6mm control lines

Car Short + Shackle

Mainsheet Car + Internal Sheaves + Shackle

Mainsheet Car + Shackle + Plunger

Genoa Car + Plunger

Control Line End Stop + Sheave

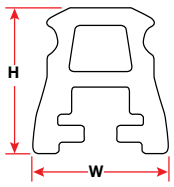
Rubber Track End

BLA Code	Description	Size	Bearing Type	Working Load Limit kg	Length mm	Width mm
SP42420603	Car Short + Shackle	0	Ball	200	71	51
55-29030100BK	Mainsheet Car + Shackle + Sheaves	0	Ball	450	123	51
55-29030600BK	Mainsheet Car + Shackle + Plunger	0	Rod	450	123	51
421200	Genoa Car + Plunger	0	Rod	600	123	51
55-29170030BK	Control Line End Stop + Sheave	0	-	200	58	51
SP42420558	Rubber Track End	0	-	-	-	-

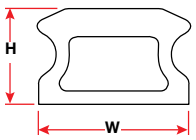
Lewmar® Ocean Track - Size 0

LEWMAR

Available in low profile, suited to general applications, or beam track, designed to be used when spanning cockpits and across companion ways.



Ocean Beam Track profile



Plunger Track profile

BLA Code	Description	Size	Length m	Height mm	Width mm	Max Span or Hole Centres mm	Fixings Required mm
55-29160315BK	Beam Track	0	1.5	24.7	24	400	Hex M6
420785	Plunger Track Drilled	0	1.466	11	19	80	Csk M5
420786	Plunger Track Drilled	0	2.026	11	19	80	Csk M5

Lewmar® Car Spare Parts - Size 0

LEWMAR

BLA Code	Description	Size
SP42420520	Delrin Balls Pack of 100	0

Lewmar® Cars and Traveller Components - Size 1 & 2

LEWMAR

A wide range of cars, traveller cars and corresponding tracks suitable for cruising and racing yachts.

Size 1 suitable for yachts up to 11 metres and control lines to 8mm while Size 2 suits yachts to 15 metres and lines to 10mm.

Features:

- Reliable choice for club, racing and cruising yachts
- Re-circulating Torlon ball bearings for strength
- Compatible with Ocean track size 1 and 2 accordingly
- Modular design suits wide range of configurations
- Size 1 upstands suit 60mm Synchro, 50mm HTX blocks
- Size 2 upstands suit 72mm Synchro, 60mm HTX blocks
- Size 3 upstands suit 90mm Synchro and 72mm HTX blocks
- Size 1 & 2 Mainsheet Cars

Car Short + Upstand

Car + Shackle

Car + Shackle + 4 x Control Line Sheaves + Becket

Car + Shackle + 4 x Ball Bearing Control Line Sheaves

Car + Shackle + 4 x Control Line Sheaves + Becket + Cams

Lewmar® Mainsheet Cars - Size 1 & 2

BLA Code	Description	Size	Bearing Type	Working Load Limit kg	Length mm	Width mm
421040	Car Short + Shackle	1	Ball	600	107	71
421041	Car Short + Upstand	1	Ball	600	107	71
421042	Car + Shackle	1	Ball	900	162	71
421050	Car + Shackle + 2 x Control Line Sheaves	1	Ball	900	162	71
421051	Car + Shackle + 4 x Control Line Sheaves	1	Ball	900	162	71
421043	Car + Shackle + Becket + 2 x Control Line Sheaves	1	Ball	900	162	71
421044	Car + Shackle + Becket + 4 x Control Line Sheaves	1	Ball	900	162	71
421045	Car + Upstand	1	Ball	900	162	71
421046	Car + Upstand + 2 x Control Line Sheaves	1	Ball	900	162	71
421052	Car + Upstand + 4 x Control Line Sheaves	1	Ball	900	162	71
421054	Car + Upstand + 2 x Control Line Sheaves + Becket	1	Ball	900	162	71
421055	Car + Upstand + 4 x Control Line Sheaves + Becket	1	Ball	900	162	71
421053	Car + Size 2 Upstand + 4 x Control Line Sheaves	1	Ball	900	162	71
421060	Car + Upstand + 4 x Control Line Sheaves + Cams	1	Ball	900	162	71
421059	Car + Shackle + 4 x Control Line Sheaves + Cams	1	Ball	900	162	71
421061	Car + Shackle + 4 x Control Line Sheaves + Becket + Cams	1	Ball	900	162	71
421056	Car + Shackle + Plunger	1	Ball	900	162	71
421070	Car Short + Shackle	2	Ball	1100	140	92
421067	Car Short + Upstand	2	Ball	1100	140	92
421071	Car Short + Size 3 Upstand	2	Ball	1500	210	92
421068	Car + Shackle	2	Ball	1500	210	92
421069	Car + Shackle + 2 x Control Line Sheaves	2	Ball	1500	210	92
421074	Car + Shackle + 4 x Control Line Sheaves	2	Ball	1500	210	92
421082	Car + Shackle + 2 x Control Line Sheaves + Becket	2	Ball	1500	210	92
421083	Car + Shackle + 4 x Control Line Sheaves + Becket	2	Ball	1500	210	92
421084	Car + Shackle + 4 x Ball Bearing Control Line Sheaves	2	Ball	1500	210	92
421072	Car Short + Upstand	2	Ball	1500	210	92
421085	Car + Upstand + 2 x Control Line Sheaves	2	Ball	1500	210	92
421075	Car + Upstand + 4 x Control Line Sheaves	2	Ball	1500	210	92
421086	Car + Upstand + 2 x Control Line Sheaves + Becket	2	Ball	1500	210	92
421076	Car + Upstand + 4 x Control Line Sheaves + Becket	2	Ball	1500	210	92
421073	Car + Size 3 Upstand	2	Ball	2000	210	92
421077	Car + Size 3 Upstand + 2 x Control Line Sheaves + Becket	2	Ball	2000	210	92
421078	Car + Size 3 Upstand + 4 x Control Line Sheaves	2	Ball	2000	210	92
421087	Car + Upstand + 4 x Control Line Sheaves + Cams	2	Ball	1500	210	120
421080	Car + Upstand + 4 x Control Line Sheaves + Becket + Cams	2	Ball	1500	210	120
421081	Car + Shackle + 4 x Control Line Sheaves + Becket + Cams	2	Ball	1500	210	120
421088	Car + Size 3 Upstand + 4 x Control Line Sheaves + Becket + Cams	2	Ball	3500	307	120

Lewmar® Genoa Cars - Size 1 & 2

LEWMAR

Car + Stirrup + Becket

Car + Stirrup + 1 x Control Line Sheave

Car + Stirrup + 2 x Control Line Sheaves

Car + Stirrup + 1 x Control Line Sheave + Becket

Car + Stirrup + Plunger

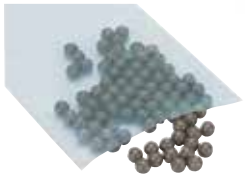
Car + Shackle + Plunger

BLA Code	Description	Size	Bearing Type	Working Load Limit kg	Length mm	Width mm
421210	Port Car + Stirrup + 1 x Control Line Sheave	1	Ball	900	162	71
421211	Starboard Car + Stirrup + 1 x Control Line Sheave	1	Ball	900	162	71
421212	Car + Stirrup	1	Slide	1000	162	50
421214	Car + Stirrup + Plunger	1	Slide	1000	162	50
421215	Port Car + Stirrup + Plunger	1	Slide	1000	162	50
421216	Starboard Car + Stirrup + Plunger	1	Slide	1000	162	50
55-29442301	Car + Stirrup + Becket	2	Ball	1800	210	120
55-29442311	Car + Stirrup + 1 x Control Line Sheave	2	Ball	1800	210	120
55-29442312	Car + Stirrup + 2 x Control Line Sheaves	2	Ball	1800	210	120
421225	Port Car + Stirrup + 1 x Control Line Sheave	2	Ball	1800	210	120
421224	Port Car + Stirrup + 2 x Control Line Sheaves	2	Ball	1800	210	120
421226	Starboard Car + Stirrup + 1 x Control Line Sheave	2	Ball	1800	210	120
55-29442332	Starboard Car + Stirrup + 2 x Control Line Sheaves	2	Ball	1800	210	120
55-29442345	Car + Stirrup + 1 x Control Line Sheave + Becket	2	Ball	1800	210	120
421227	Car + Stirrup	2	Slide	1800	194	65
421220	Car + Stirrup + Plunger	2	Slide	1800	194	65
421204	Port Car + Stirrup + Plunger	2	Slide	1800	194	65
55-29442723	Car + Shackle + Plunger	2	Slide	1800	210	65
421206	Starboard Car + Stirrup + Plunger	2	Slide	1800	194	65

Lewmar® Car Accessories and Spares

BLA Code	Description	Size
SP42420608	Genoa Stirrup Assembly Plain Bearing	1
SP42420690	Upstand Conversion Assembly	1
SP42420521	Torlon Balls Size 1 Pack of 100	1
SP42420576	Car Shackle 6mm	1
SP42420691	Upstand Spring Size 1	1
SP42420692	Upstand Cup Size 1	1
SP42420700	Lewmar® Ball Loader Suit Size 1	1
SP42420601	Genoa Stirrup Assembly Plain Bearing	2
SP42420680	Composite Sheaves – Ball Bearing x 4	2
55-29472062	Car Link Incl. Size 3 Upstand	2
55-29472063	Car Link Short Incl. Shackle	2
55-29472064	Car Link Dog Bone	2
SP42420523	Torlon Balls Size 2 Pack of 100	2
SP42420579	Car Shackle 8mm	2
SP42420581	Upstand Spring Size 2	2
SP42420693	Upstand Cup Size 2	2
SP42420701	Lewmar® Ball Loader Suit Size 2	2

SP42420608



SP42420521

Lewmar® Track - Size 1 & 2

LEWMAR

Available in three designs to accommodate most requirements.

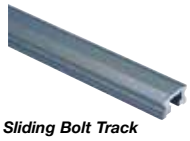
1. Low profile drilled plunger track is designed to suit a wide range of plunger operated cars and stops.

2. Beam track is desgined to be used when spanning cockpits and across companion ways.

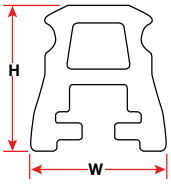
3. Sliding bolt track presents a smooth profile with no visible fixings. Designed to allow slight variances in fixing locations where bulkheads or other structures obstruct attachment below deck.

Beam Track

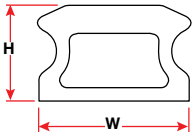
Plunger Track



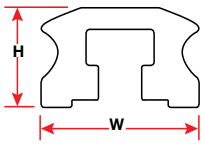
Sliding Bolt Track



Beam Track profile



Plunger Track profile



Sliding Bolt Track profile

BLA Code	Description	Size	Length m	Height mm	Width mm	Max Span/ Hole Centre mm	Fixings Required mm
55-29161320	Beam Track	1	2	30	30	700	Hex M8
420789	Plunger Track Drilled	1	1.026	13	23	100	Csk M6
420790	Plunger Track Drilled	1	1.526	13	23	100	Csk M6
420791	Plunger Track Drilled	1	1.826	13	23	100	Csk M6
420792	Plunger Track Drilled	1	2.026	13	23	100	Csk M6
55-29161430	Plunger Track Drilled	1	3.026	13	23	100	Csk M6
420795	Sliding Bolt Track	2	1.5	18	30	100	Hex M8
420796	Sliding Bolt Track	2	2	18	30	100	Hex M8
55-29162130	Sliding Bolt Track	2	3	18	30	100	Hex M8
420798	Sliding Bolt Track	2	3.5	18	30	100	Hex M8
55-29162320	Beam Track	2	2	35	35	800	Hex M10
420800	Plunger Track Drilled	2	1.532	15	30	100	Csk M8
420801	Plunger Track Drilled	2	2.032	15	30	100	Csk M8
420802	Plunger Track Drilled	2	2.332	15	30	100	Csk M8
420804	Plunger Track Drilled	2	3.032	15	30	100	Csk M8
420803	Plunger Track Drilled	2	3.832	15	30	100	Csk M8
420805	Beam Track Heavy Duty	2	2	51	51	900	Hex M12

Lewmar® Track End Stops & Accessories - Size 1 & 2

LEWMAR

SP42420560

421254

421263

421264

421265

421267

421268

BLA Code	Description	Size	Working Load Limit kg	Length mm	Width mm
SP42420560	Rubber Track End	1	–	–	–
421250	End Stop Bare Base	1	585	47	29
421249	End Stop + 1 x Control Line Sheave	1	585	75	50
421253	End Stop + 2 x Control Line Sheave	1	585	75	50
421254	End Stop + 1 x Control Line Sheave + Becket	1	585	47	29
421258	End Stop + 2 x Control Line Sheave + Becket	1	585	47	29
SP42420573	End Stop Impact Type	1	500	40	46
SP42420562	Rubber Track End	2	–	–	–
421263	End Stop Bare Base	2	750	105	65
421265	End Stop + 1 x Control Line Sheave	2	750	105	65
421266	End Stop + 2 x Control Line Sheave	2	750	105	65
421264	End Stop + 1 x Control Line Sheave + Becket	2	750	105	65
421267	End Stop + 2 x Control Line Sheave + Becket	2	750	105	65
55-29472616	End Stop + 2 x Control Line H/D Sheave + Becket	2	750	105	65
421268	End Stop + 2 x Control Line Sheave + Becket + Cam - PAIR	2	750	105	112
SP42420575	End Stop Impact Type	2	1250	114	–

Lewmar® Track Accessories and Spares - Size 1 & 2

LEWMAR

SP42420646

SP42420647

SP42420648

BLA Code	Description	Size
421251	Plunger Stop Size 1	1
SP42420649	Beam Track End Covers – Pair	1
55-29471042	Heavy Duty Beam Track End Covers – Pair	1
SP42420640	Becket Assembly Kit Size 1 – Pair	1
SP42420645	Single Control Line End Stops Sheave Kit – Pair	1
SP42420646	Double Control Line End Stops Sheave Kit – Pair	1
SP42420647	Cleat Assembly For End Stops – Pair	1
SP42420648	Double Control Line & Cleat Assembly For Cars - Pair	1
421260	Traveller Friction Stop - Manual	2
421261	Plunger Stop Size 2	2
SP42420641	Becket Assembly Kit Size 2 – Pair	2
SP42420643	Single Control Line End Stops Sheave Kit – Pair	2
SP42420668	Double Control Line End Stops Sheave Kit – Pair	2
SP42420711	Single Control Line Car Sheave Kit – Pair	2
SP42420712	Double Control Line Car Sheave Kit – Pair	2
SP42420713	Cleat Assembly For End Stops – Pair	2
SP42420664	Double Control Line & Cleat Assembly For Cars - Pair	2
55-29472041	Beam Track End Covers Size 2 – Pair	2
SP42420670	Heavy Duty Beam Track End Covers Size 2 – Pair	2

421260

421261

Lewmar® Mainsheet and Genoa Cars - Size 3

LEWMAR

A wide range of Genoa and Traveller cars compatible with size 3 track and uses control lines to 10mm. Ideal for cruising and racing yachts up to 22 metres.

Features:

- Reliable choice for cruising and racing yachts
- Mainsheet cars working load limit to 2.5T
- Re-circulating Torlon ball bearings for strength
- Upstands suit 90mm Synchro or 72mm HTX blocks

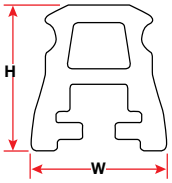
421223

BLA Code	Description	Size	Bearing Type	Working Load Limit kg	Length mm	Width mm
55-29423301	Car Short + Shackle	3	Ball	2000	150	88
55-29423400	Car Short + Upstand	3	Ball	2000	150	88
55-29433300	Car + Shackle	3	Ball	2500	215	88
55-29433314	Car + Shackle + Becket + 4 x Control Line Sheaves	3	Ball	2500	215	88
55-29433400	Car + Upstand	3	Ball	2000	150	88
55-29433416	Car + Upstand + 4 x Control Line Sheaves + Becket	3	Ball	2500	215	88
55-29443311	Genoa Car + 1 x Control Line Sheave	3	Ball	3500	215	88
55-29443611	Genoa Car + 1 x Control Line Sheave – 5T	3	Ball	5000	320	88
55-29443700	Genoa Car + 12mm Plunger – T/S NTR Track	3	Slide	3500	180	70
55-29443700C	Genoa Car + 9mm Plunger – T/S Ocean Track	3	Slide	3500	180	70
421223	Genoa Car + Composite Sheave	3	Slide	2250	180	70

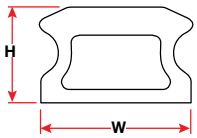
Lewmar® Track - Size 3

LEWMAR

55-29163315



Beam Track profile



Plunger Track profile

BLA Code	Description	Size	Length m	Height mm	Width mm	Max Span/ Hole Centre mm	Fixings Required mm
55-29163315	Beam Track	3	1.5	55	50	900	Hex M12
55-29163320	Beam Track	3	2	55	50	900	Hex M12
55-29163330	Beam Track	3	3	55	50	900	Hex M12
420806	Plunger Track Drilled	3	1.048	21	35	100	Csk M10
426807	Plunger Track Drilled	3	1.548	21	35	100	Csk M10
420808	Plunger Track Drilled	3	2.048	21	35	100	Csk M10
426811	Plunger Track Drilled	3	2.548	21	35	100	Csk M10
420809	Plunger Track Drilled	3	3.048	21	35	100	Csk M10

Lewmar® Track End Stops - Size 3

LEWMAR

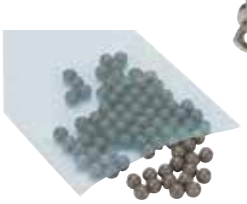
421280

BLA Code	Description	Size	Working Load Limit kg	Length mm	Width mm
SP42420563	Rubber Track End	3	-	-	-
421280	End Stop Impact Type	3	2200	93	70
421286	End Stop + 2 x Control Line Sheave	3	800	93	70
421283	End Stop + 1 x Control Line Sheave + Becket	3	800	93	70
421287	End Stop + 2 x Control Line Sheave + Becket	3	800	93	70
55-29473135	End Stop + 1 x Control Line Sheave + Becket – High Load	3	3000	140	70
55-29473037	End Stop Plunger Type	3	2000	80	70

Lewmar® Track Accessories and Spares - Size 3

LEWMAR

55-29473063



SP42420524

BLA Code	Description	Size
55-29473041	Beam Track End Cover	3
55-29473063	Car Link Short	3
55-29473024	Upstand Assembly	3
SP42420524	Torlon Balls Size 3 Pack of 100	3
SP42420694	Upstand Cup Size 3	3

Lewmar® TotalCote Protectant

LEWMAR

Maintenance plays an important part over the life of any Lewmar® product. TotalCote protectant is used to prolong the life and efficacy of all deck hardware.

430642

BLA Code	Description	Size ml
430642	Lubricant TotalCote Can	400

DANGEROUS GOODS

For more information on winch spare parts, service manuals and tips on how to best service winch products, contact BLA on 1300 252 725.

Lewmar® T-Track Genoa Cars

LEWMAR

Robust Genoa Cars designed to suit industry standard 32mm T-Track. Ideally suited for club and cruising yachts where minimal sheet positional changes are required. Genoa Plunger Cars are available in three load levels while three styles of car are also available. Designed to suit 9 to 15 metre yachts.

Features:

- Quality materials for long service life
- Simple and easy to fit
- Three car styles available
- Three plunger car load levels available

421233

BLA Code	Description	Size	Working Load Limit kg	Length mm	Width mm
SP42420604	Genoa Car + Plunger	1	900	111	56
421233	Genoa Car + Plunger	2	1500	120	56
55-29043702	Genoa Car + Plunger	3	2350	170	56
55-29042704	Genoa Car +Plunger + 1 x Control Line Sheave	2	1500	128	56
421240	Genoa Car Tri-roller	2	1500	147	64
55-29172117	T-track Slider + Plunger + Shackle	2	1500	120	56

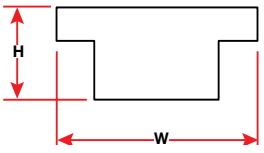
Lewmar® T-Track and Ends

LEWMAR

SP42420565

420830

BLA Code	Description	Length m	Height mm	Width mm	Hole Centres mm	Fixings Required mm
420830	T-Track Drilled	1.5	15	32	100	Csk M8
420831	T-Track Drilled	2.5	15	32	100	Csk M8
420832	T-Track Drilled	3	15	32	100	Csk M8
SP42420565	Track End Stop - Each	-	-	-	-	-



T-Track profile

Lewmar® Cleats and Accessories

LEWMAR

High holding power composite cleats designed to perform to a wide range of applications. Manufactured from refined advanced materials chosen to provide outstanding durability, strength and lubrication qualities. A range of fairleads and eye straps available to suit cleats plus rope guides and swivel cams.

Features:

- High holding load
- Easy low-line entry load
- Constant tension springs
- Wash-out bearing slots
- Split base fairlead for continuous line applications
- Includes angled wedge

420960

BLA Code	Description	Line Size mm	Working Load Limit kg	Hole Centres mm	Mount Screws mm
420959	Alloy Small - Inc. Wedge	2-8	120	27	M4
420960	Black Small - Inc. Wedge	2-8	120	27	M4
420962	Black Medium - Inc. Wedge	4-12	180	38	M5
420964	Alloy Medium	4-12	180	38	M5

Accessories:

420958 Stainless steel eye strap
420971 Medium cam fairlead
420973 Stainless steel feeder loop

Lewmar® Eye Strap

- Stainless Steel

Sold as a pair.

420958

BLA Code	To Suit Cleat	Line Size mm	Hole Centres mm	Mount Screws mm
420958	**420960**	2-8	27	M4
55-29104113	**420962**	4-12	38	M5

Lewmar® Cleat Fairlead - Composite

420970

BLA Code	To Suit Cleat	Line Size mm
420970	**420960**	2-8
420972	**420962**	4-12

Lewmar® Cleat Feeder Loop

- Stainless Steel

55-29104115

BLA Code	To Suit Cleat	Line Size mm
55-29104115	**420960**	2-8
420973	**420962**	4-12

Lewmar® Rope Guide Bull's Eye

– Plastic / Stainless Steel

Medium sold as a pair.
Large sold as a single item.

420976

BLA Code	Size	Max Line Size mm	Hole Centres mm	Mount Screws mm
420976	Medium (Pr)	12	25	M4
420978	Large	18	32	M5

Lewmar® Swivel Cam with Bull's Eye

- Plastic / Stainless Steel

BLA Code	Size	Line Size mm	Working Load Limit kg	Hole Centres mm	Mount Screws mm
421382	Medium	4-10	200	3 x 27	M5

Lewmar® Snap Shackles

Stainless steel snap shackles specifically designed to replace the D shackle on Synchro and HTX range of blocks.

420994

BLA Code	Fits Block Range	Working Load Limit kg	Breaking Load kg	Pin Dia. mm
420990	50 Synchro	450	900	4
420992	60 Synchro / 50 HTX	800	1600	5
420994	72 Synchro / 60 HTX	1100	2200	6
420998	90 Synchro / 72 HTX	2000	4000	9.5

Lewmar® Organisers

LEWMAR

A range of rope organisers designed to lead lines and halyards back from the mast or act as a rope guide for clutches and winches. Tough interchangeable bushed sheaves provide free and easy running and reduced friction while the stackable design allows for customisation. Available in two sheave diameters, 40mm alloy and 60mm acetel.

421160

420940

BLA Code	Sheave Dia. mm	No. of Sheaves	Working Load Limit kg	Max. Working Load of Sheaves kg	Max. Line Size mm	Length mm	Mount Screws mm
421160	40	2	1005	750	10	142	M8
421161	40	3	1507	750	10	189	M8
421162	40	4	2010	750	10	236	M8
421163	40	5	2512	750	10	283	M8
421164	40	6	3015	750	10	330	M8
420940	40	2	1005	610	16	123	M8
420942	40	3	1507	610	16	170	M8
421143	40	4	2010	610	16	217	M8
55-29139105	40	5	2512	610	16	264	M8
421145	40	6	3015	610	16	311	M8
55-29139112	60	2	2400	1200	14	231	M10
421147	60	3	3000	1200	14	303	M10
55-29139114	60	4	3600	1200	14	375	M10
55-29139115	60	5	4200	1200	14	447	M10
421149	60	6	4800	1200	14	519	M10

Accessories:

SP43430346 Derlin Organiser Sheave Gy 40mm suit **420940** through **421145**

Lewmar® Organisers – Synchro

LEWMAR

High load double stacked or single row organisers with wide rope entry between 60mm sheaves to run two lines. Bushed sheaves with side thrust ball bearings reduce friction under load.

421170

BLA Code	Sheave Dia. mm	No. of Sheaves	Working Load Limit kg	Max. WL of Sheaves kg	Max. Line Size mm	Length mm	Mount Screws mm
421170	60	6	3700	1100	12	256	M10
55-29916060	60	3	2550	1100	12	256	M10

Lewmar® Rope Clutch - D1 & D2

LEWMAR

Lewmar® rope clutches have been designed and engineered to provide superior high performance rope holding and release characteristics. With minimal moving parts the variable geometry handle delivers simple, quick and effortless operation while the unique pattern of dominos provides outstanding holding power and clutching whilst remaining gentle on ropes to prevent fray. The Lewmar® clutch is an excellent choice for high load applications such as Genoa, spinnaker and asymmetric halyards (refer to selection guide) while also ideal for low load applications such as reefing points, topping lifts and outhaul lines on larger vessels.

Features:

- Domino cluster mechanism remains easy on ropes
- Single, double or triple banks
- High holding power
- Easily controlled pull back handle clutch and release
- Simple installation and maintenance
- Industry standard fixing positions
- Supplied with naming decals
- Capable of holding lines from 6mm to 14mm (model dependant)

Other clutches jam the rope

Lewmar's Domino mechanism flexes the rope for better grip and less rope wear. Dominos also allow multiple holding points.

a Domino Cluster with longer holding pattern holds line under load without fraying the rope

b Controlled Release – Pull back handle combined with patented clutch and release mechanism provides controlled release even at full holding load

c Handle has a solid link to the domino cluster

d Line Size – Clutches capable of holding lines from 6mm (1⁄4") to 14mm (9⁄16")

Clutch Selection Guide

Application		Boat Length Overall										
	m	7.6	8.8	10.1	10.7	11.3	11.9	12.5	14.6	16.8	18.9	21.5
	ft	25	29	33	35	37	39	41	48	55	62	70
Halyards	Main											
	Genoa											
	Spinnaker											
Gooseneck	Reef Lines											
	Outhaul											
	Flattener											
Pole/Boom Lift	Spin Pole Uphaul											
	Spin Pole Down Haul											
	Heel Lift											
	Main Boom Topping Lift											
Furling lines	Genoa											
	Main											
Sheets	Mainsheet 4:1 Purchase											
Control lines	Mainsheet Car (2:1 Purchase)											
	Genoa Car (2:1 Purchase)											
	Pole Outhaul											
	Kicking Strap/Vang											

D1 Rope Clutch ***D2 Rope Clutch***

Lewmar® Rope Clutch - D1 & D2

LEWMAR

Lewmar® rope clutches have been designed and engineered to provide superior high performance rope holding and release characteristics. With minimal moving parts the variable geometry handle delivers simple, quick and effortless operation while the unique pattern of dominos provides outstanding holding power and clutching whilst remaining gentle on ropes to prevent fray. The Lewmar® clutch is an excellent choice for high load applications such as Genoa, spinnaker and asymmetric halyards (refer to the selection guide on page 1001) while also ideal for low load applications such as reefing points, topping lifts and outhaul lines on larger vessels.

D1 Features:

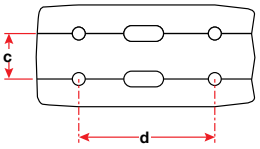
- High load applications on boats to 9.7m
- Low load applications on larger boats
- 6mm to 12mm line size
- Up to 500kg working load

420900

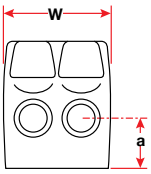
420902

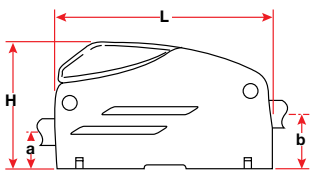
420904

BLA Code	Description	Line Size mm	Holding Load kg
420900	D1 Single	6-8	300
420902	D1 Double	6-8	300
420904	D1 Triple	6-8	300
420906	D1 Single	8-10	400
420908	D1 Double	8-10	400
420910	D1 Triple	8-10	400
420912	D1 Single	10-12	500
420914	D1 Double	10-12	500
420916	D1 Triple	10-12	500



BLA Code	Size	Length mm	Width mm	Height mm	a Line Entry mm	b Line Exit mm	c mm	d mm
420900	D1 Single	126	32	72	27	29	–	79
420902	D1 Double	126	57.85	72	27	29	26	79
420904	D1 Triple	126	83.7	72	27	29	26	79





Accessories:

SP42420610	D1 Clutch Handle Kit
420899	Clutch Label Function Set

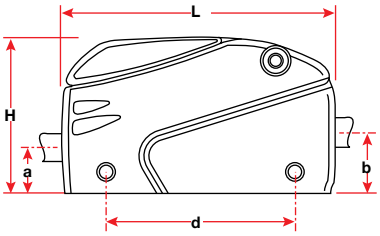
D2 Features:

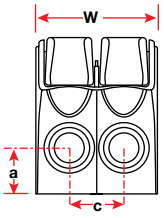
- High load applications on boats to 12.5m
- Low load applications on larger boats
- 8mm to 14mm line size
- Up to 1200kg working load limit

420920

420922

BLA Code	Description	Line Size mm	Holding Load kg
420920	D2 Single	8-10	500
420922	D2 Double	8-10	500
420924	D2 Triple	8-10	500
420926	D2 Single	10-12	700
420928	D2 Double	10-12	700
420930	D2 Triple	10-12	700
420932	D2 Single	12-14	1000
420934	D2 Double	12-14	1000
420936	D2 Triple	12-14	1000





BLA Code	Size	Length mm	Width mm	Height mm	a Line Entry mm	b Line Exit mm	c mm	d mm
420920	D2 Single	156	38.0	88	26	32	–	107
420922	D2 Double	156	68.5	88	26	32	30.5	107
420924	D2 Triple	156	99	88	26	32	30.5	107

Accessories:

SP42420612	D2 Clutch Handle Kit
420899	Clutch Label Function Set

SHEET WINCHES & ACCESSORIES

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Introduction to Winches

Lewmar® is a world leader in the design and manufacture of yachting winches and the choice of cruising, club and racing sailors the world over. Every winch combines the finest quality materials available with precision CNC machining to create maximum efficiency, durability and strength while minimising weight. Manufactured in a wide range of materials and available in a variety of finishes and configurations including bronze, aluminium and carbon fibre, in standard, self-tailing, electric and hydraulic models.

Each winch range and size is designed to be easily installed and simply serviced. With no specialist tools required, the top cap is simply removed to provide easy access to deck fitting holes, pawls, springs, bearings and gears. A full range of spare parts, oils and grease is available to help ensure each winch provides years of reliable service.

To select the correct winch for the application, please refer to the quick reference chart to help match application and yacht size to winch size and type. Remember that selection also depends on purchase systems fitted and expected loads. Multi-hulls generally have a higher righting moment resulting in higher dynamic loading that must be considered. The charts are to be viewed as a guide only as individual applications and expected loads are impacted by boat type, design and weight. If unsure consult a yacht rigger or contact BLA directly for further advice on **1300 252 725.**

EVO® Winch Range
- Wide range of sheet winches in standard and self-tailing format
- Available in a range of finishes from size 6 to size 80
- Quick, easy, simple servicing

Electric Winch Range
- Simple push button control
- Ideal for club sailing to world cruising
- Available as a complete kit or can be retro fitted to existing winches
- Size 40 and above
- Range of motors and control units available

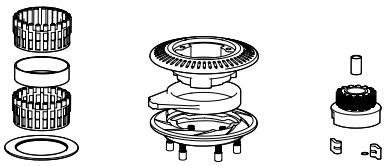
Racing Winch Range
- Developed for performance and racing
- Weight saving manufacturing techniques and materials
- Superior strength
- Simple serviceability
- Leading edge technology
- Extensive range available

Hydraulic Winch Range
- Suited to larger yachts 15 metres and above
- Quiet operation
- Can run off vessel's existing hydraulic system
- Compact and light weight

Line Management Systems
- Safe, remote controlled line handling
- For yachts to 91 metres
- Compact size, increased line holding capacity

Winch Handles
- Wide range of handles available
- Light weight forged construction
- OneTouch offers easy single handed operation
- PowerGrip for increased cranking power
- Titan floating winch handle

Winch Spares and Maintenance
- Full range of winch spares, including pawls and springs
- Service with Lewmar® gear grease and TotalCote protector
- Winch spares and service manuals available at bla.com.au



Winch Selection Guide

To select the correct winch for the application refer to the quick reference chart below to help match application and yacht size to winch size and type.

Cross reference the yacht size or sail area with the specific application to ascertain the correct winch size.

Remember that selection also depends on purchase systems fitted and expected loads while multi-hulls generally have a higher righting moment resulting in higher dynamic loading that must be considered. The charts are to be viewed as a guide only as individual applications and expected loads are impacted by boat type, design and weight. If unsure consult a yacht rigger or contact BLA directly for further advice on **1300 252 725.**

Sail Area

Application	***Boat Length Overall***																					
	m	6.1–7.6		7.6–8.8		8.8–10.1		10.1–10.7		10.7–11.3		11.3–11.9		11.9–12.5		12.8–14.6		14.6–16.8		16.8–18.9		18.9–21.6	
	ft	20–25		25–29		29–33		33–35		35–37		37–39		39–41		42–48		48–55		55–62		62–71	
Genoa (ft^2/m^2)		200	19	300	28	350	33	470	44	550	51	600	56	750	70	900	84	1500	139	1900	177	2300	214
Spinnaker (ft^2/m^2)		300	28	400	37	600	56	800	74	1000	93	1200	111	1400	130	1600	149	3000	279	3800	353	4600	427
Main (ft^2/m^2)		120	11	150	14	180	17	210	20	230	21	260	24	300	28	350	33	750	70	875	81	1000	93

Winch Selection Guide

Application	Size	***Boat Length Overall*** m	6.1	7.6	8.8	10.1	10.7	11.3	11.9	12.5	14.6	16.8	18.9	21.6	24.4	25+
		ft	20	25	29	33	35	37	39	41	48	55	62	71	80	80+
Genoa Sheet	7															
	16															
	30															
	40															
	45															
	50															
	55															
	65															
	70															
Spinnaker Sheet	6															
	7															
	8															
	16															
	30															
	40															
	45															
	50															
	55															
	65															
	70															
Main Sheet	6															
	7															
	16															
	30															
	40															
	45															
	50															
	55															
	65															
	70															
Genoa Halyard	6															
	7															
	16															
	30															
	40															
	45															
	50															
	55															
	65															
	70															
Spinnaker Halyard	6															
	7															
	8															
	16															
	30															
	40															
	45															
	50															
	55															
	65															
	70															
Main Halyard	6															
	7															
	8															
	16															
	30															
	40															
	45															
	50															
	55															
	65															
	70															
Runners	45															
	50															
	55															
	65															
	70															

N.B. Lighter shading represents the upper limit of the model. If in doubt, move up a model.

Servicing your Winch

The Lewmar® Winch is the easiest winch to service in the world!

Frequency of servicing

Lewmar® winches must be serviced regularly. Winches are required to carry deceptively high loads. Regular servicing, with attention to correct assembly and condition of parts, is vital to the safety and performance of your boat.

When?

1. Two or three times during active sailing season winches should be stripped, cleaned and re-lubricated.

2. At the end of each sailing season and before starting the new sailing season all Lewmar® winches should be completely stripped, cleaned, thoroughly checked for damage and lubricated (refer to the Lewmar Winch Service Manual available at bla.com.au).

External cleaning of the drum

Chromed winches – wash drum regularly with fresh water and dry with a cloth. Non-abrasive liquid chrome cleaner can be used occasionally to remove dirt spots.

Alloy winches – wash drum regularly with fresh water and dry with a cloth. DO NOT use polishes or abrasives.

Stainless Steel Winches – wash drum regularly with fresh water and dry with a cloth. Non-abrasive liquid chrome cleaner can be used occasionally to remove dirt spots.

Servicing Winches

All components should be removed and cleaned in a kerosene bath (or other distillate) during the course of servicing. If you do not have access to a kerosene bath, use half of an old plastic container with an old toothbrush. Even a cotton cloth soaked in kerosene or other distillate will suffice.

Caution

Some Lewmar® winches contain plastic components which may be damaged by inappropriate cleaning agents. Always check the manufacturers directions before using any cleaning agents.

Greasing

Never use grease to lubricate your pawls, as this can lead to pawls sticking in their pockets and disabling the winch. Instead, lubricate with Lewmar® Winch Oil (**430640**) or machinery oil.

Use only a light smear of winch grease when lubricating ratchet tracks, gear teeth and bearings. Otherwise excess grease will be forced out and collect in potentially dangerous areas, such as pawl pockets.

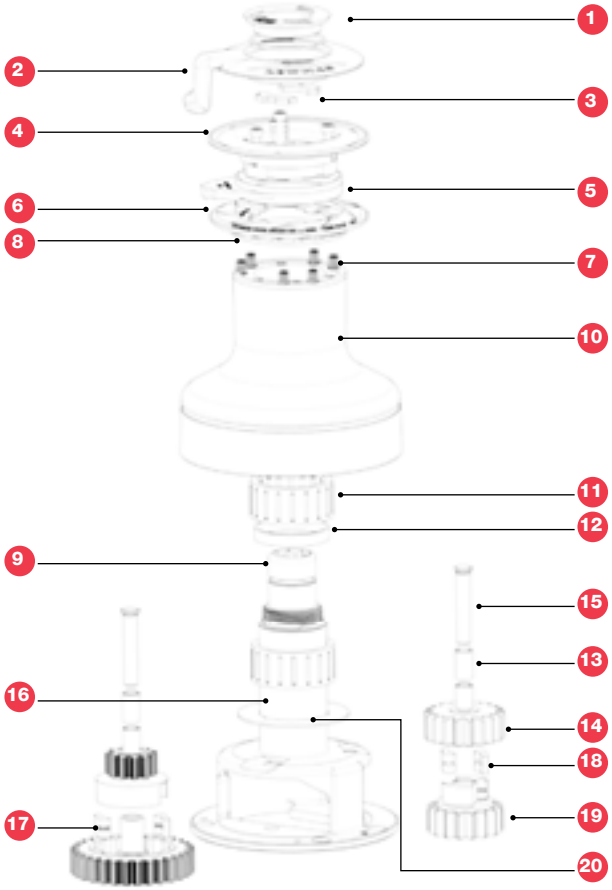
Assembly

Winches must be re-assembled in the reverse sequence to the order of dismantling. After re-assembly, immediately check the winch functions correctly.

Mounting

Winches must be fitted in the manner laid out in the Installation Manual (supplied with every winch and also available at bla.com.au). Winches are self-draining and care should be taken to ensure the drain holes are not obstructed.

Know your Winch



Exploded diagram of Lewmar® self-tailing winch

1. Top cap
2. Feeder arm
3. Collet
4. Upper crown
5. Stripper ring
6. Lower crown
7. Spring
8. Spring cup
9. Main spindle
10. Drum
11. Roller bearing assembly
12. Spacer
13. Gear spindle sleeve
14. Pawl gear
15. Gear spindle
16. Centre stem
17. Pawl spring
18. Pawl
19. Ratchet gear
20. Drum washer

Ratchet Gears – Pawl Engagement

When assembling ratchet gears, check pawl engagement as shown below. Incorrect assembly will lead to back winding of the winch. This is very dangerous, so extreme care should be taken.

✓ *Correct* × *Wrong*

For more information on servicing your winch, visit the BLA YouTube channel, or contact BLA on 1300 252 725.

Lewmar® EVO® Winch Range

LEWMAR®

A range of winches designed and manufactured to highest quality using state of the art materials and technology to produce the EVO®, Lewmar's most advanced range of standard and self-tailing winches. Development of the EVO® range has evolved from the renowned Ocean winch, the most popular winch ever made, culminating with further improvements in design and material applications.

The EVO® range has the ability to be serviced easily and quickly with no need for tools. The top cap is simply unscrewed with fingers to remove the drum which provides access to pawls, springs, bearing and geared drive trains.

A wide range of EVO® winch sizes, finishes, materials and types are available, including black alloy, chrome bronze and grey alloy. Manual winches feature single or two speed gearing with size 40 and above also being available as electrically operated models. Size 40 and above standard manual winches may also be converted to full electric operation with the addition of a conversion kit, motor and gearbox and operating switch.

7 YEAR WARRANTY

Features:

- Easy tool free servicing
- Ability to convert a standard size 30 and 40 into an EVO® self-tailing winches retrospectively
- Choice of finishes: black or grey alloy plus chrome bronze
- Size 40 and above can be converted to electric operation
- 7 year worldwide warranty

EVO® Sport Winches

Size 16 Black Alloy | *Size 40 Black Alloy* | *Size 40 Chrome Bronze*

EVO® Self-Tailing Winches

Size 30 Black Alloy | *Size 45 Chrome Bronze* | *Size 65 Grey Alloy*

Lewmar® EVO® Sport Winches

LEWMAR®

The EVO® Sport range is a general winch suited to a wide range of sailing vessels from club racers to sports boats. Designed to perform under constant trimming and provide years of trouble-free use. Traditional chrome bronze drums are featured across the range while aluminium drum models are available where weight consideration is a premium. One or two-speed gearing and a size range from 6 to 40 are available in black alloy or chrome bronze.

All winches are supported by a comprehensive range of winch spares and suitable for mast mount applications.

Features:

- Ability to convert a standard size 30 and 40 into an EVO® self-tailing winches retrospectively
- Available in size 6 to size 40
- Tool free servicing
- Size 40 can be converted to electric operation
- Choice of finishes: black alloy or chrome bronze
- 7 year worldwide warranty

EVO Sport Winch Black Alloy 430312 | *EVO Sport Winch Black Alloy 430316* | *EVO Sport Winch Chrome Bronze 430322*

Model	Black Alloy Code	Weight kg	Chrome Bronze Code	Weight kg	Gear Ratio 1st	Gear Ratio 2nd	Power Ratio 1st	Power Ratio 2nd	Drum Dia. mm	Base Dia. mm	Height mm	Mounting Type	Mounting PCD mm
6	**430300**	0.5	**430302**	1.1	1:1	–	6.8:1	–	59	94	83	4 x M6	66
7	**430304**	0.8	**430306**	1.7	1:1	–	7.9:1	–	65	108	102	4 x M6	80
8	**430308**	1.4	**430310**	2.3	1:1	–	7.9:1	–	65	108	103	5 x M6	80
16	**430312**	1.4	**430314**	2.3	1:1	2:1	7.9:1	16:1	67	120	112	5 x M6	94
30	**430316**	3.9	**430318**	5.8	2:1	4.2:1	13.8:1	29.2:1	145.85	138	145.85	5 x M6	113
40	**430320**	5.5	**430322**	7	1.9:1	5.8:1	13.2:1	40.2:1	158.5	148	158.50	5 x M6	121

7 YEAR WARRANTY

Lewmar® EVO® Self-Tailing Winches

LEWMAR®

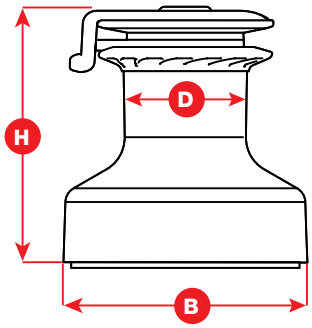
The EVO® self-tailing range of winches are ideally suited to a wide range of sailing vessels from club racers to world cruisers. An evolution of the renowned tried and tested Lewmar® Ocean winch, which today still remains available on request, the EVO® self-tailing range is designed for use where durability and ease of maintenance are a priority.

One or two-speed gearing and a size range from 15 to 80 are available in traditional chrome bronze or aluminium drum models where weight consideration is a premium, plus all are suitable for mast mount applications.

The integrated investment cast stainless steel feeder arm completely covers the winch top to help eliminate the potential for rope entrapment above the Wave Spring rope jaws. To aid efficient sail handling simple and easy positional adjustment of the feeder arm ensures a smooth exit angle from jaw to cockpit.

Features:

- Available from size 15 to size 80
- Tool free servicing
- Rope directional arrows
- Sizes 40 and above convertible to full electric operation
- Choice of three finishes : black or grey alloy plus chrome bronze
- 7 year worldwide warranty

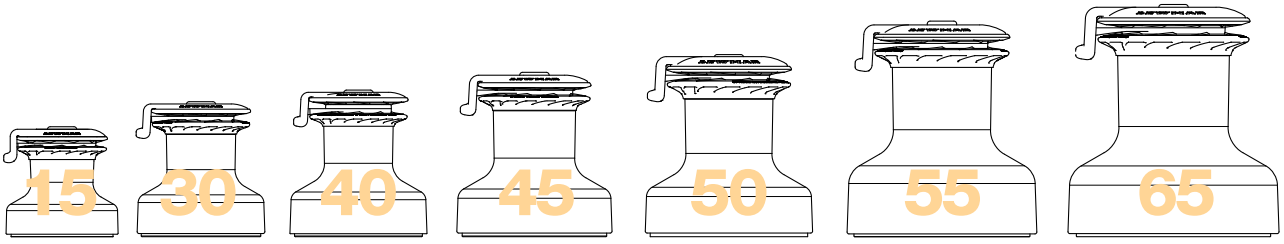


EVO® Self Tailing WaveSpring jaw & feeder arm

EVO® Self-Tailing Winch Black Alloy 430344

EVO® Self-Tailing Winch Chrome Bronze 430354

EVO® Self-Tailing Winch Grey Alloy 430353



Model	Black Alloy Code	Grey Alloy Code	Weight kg	Chrome Bronze Code	Weight kg	Gear Ratio 1st	Gear Ratio 2nd	Power Ratio 1st	Power Ratio 2nd	D Drum Dia. mm	B Base Dia. mm	H Height mm	Line Size mm	Mounting Type	Mounting PCD mm
15ST	**430340**	**–**	2.6	**430342**	3.9	2:01	–	15.8:1	–	66.8	121	119	8-12	5 x M6	94
30ST	**430344**	**430345**	4	**430346**	5.4	2:1	4.2:1	13.8:1	29.1:1	74	138	146	8-12	5 x M6	113
40ST	**430348**	**430349**	4.9	**430350**	6.5	1.9:1	5.8:1	13.2:1	40.2:1	74	148	159	8-12	5 x M6	121
45ST	**430352**	**430353**	7.1	**430354**	9.7	2.4:1	7.6:1	13.9:1	44.8:1	87	168	178	8-14	5 x M8	136
50ST	**430356**	**430357**	9	**430358**	12.3	2.6:1	9:1	13.9:1	48.6:1	93	181	197	8-14	5 x M8	150
55ST	**430360**	**430362**	12.2	**430361**	18	2.8:1	11.2:1	13.8:1	54:1	105	205	233	8-16	6 x M8	165
65ST	**430364**	**430366**	16.6	**430365**	23.8	3.1:1	14.8:1	13.4:1	64:1	118	228	251	8-18	5 x M10	184

Spare Parts:

SP43430593	30/40 EVO Jaw Kit	**SP43430622**	40 EVO Top Cap & O Ring Kit
SP43430595	45 EVO Jaw Kit	**SP43430624**	45 EVO Top Cap & O Ring Kit
SP43430597	50 EVO Jaw Kit	**SP43430626**	50 EVO Top Cap & O Ring Kit
SP43430620	30 EVO Top Cap & O Ring Kit	**SP43430628**	55 EVO Top Cap & O Ring Kit

Lewmar® Electric Winch Conversion Kits

LEWMAR®

With a retro upgrade kit you can convert your Lewmar® EVO or OCEAN sheet winch into an electric winch to enable complete hands free operation with a simple push of a button, allowing for easy and relaxed trimming when day sailing, cruising or short handed long distance sailing.

The Lewmar® range of electric winches are designed to recover slack sheets with low loads quickly then slow down for accurate trimming as sail loads increase. For back up, manual hand winching remains a standard function of all winches.

The EVO® self tailing winch range is available as a complete package or as an upgrade retro fit in a number of finishes in sizes 40 and above.

For additional Lewmar® winch sizes and models suitable for electric conversion please contact your nearest yacht rigger, boating store or BLA Territory Manager. Winches listed below are for 12 volt systems only, however 24 volt kits are available upon request.

Kits Include:

Power Drive Conversion Kit

12V Motor Gearbox

Contactor

Circuit Breaker

Deck Switch

EVO Winch

Ocean Winch

12 Volt Conversion Kits - Evo

BLA Code	Description
430427	Lewmar 48540300 40EVO Conv Kit 12V
430429	Lewmar 48545300 45EVO Conv Kit 12V
430431	Lewmar 48550300 50EVO Conv Kit 12V

Accessories:

SP43430440 Lewmar 40 to 50EVO 12V M GBox Assy

12 Volt Conversion Kits - Ocean

BLA Code	Description
430433	Lewmar 48040300 40St Ocean Conv Kit 12V
430435	Lewmar 48044300 44St Ocean Conv Kit 12V
430437	Lewmar 48046300 46St Ocean Conv Kit 12V
430439	Lewmar 48048300 48St Ocean Conv Kit 12V

Accessories:

SP43430440 Lewmar 40 to 50Evo 12V M GBox Assy

Lewmar® EVO Electric Winches - Chrome and Alloy

LEWMAR®

A Self-Tailing EVO® Winch that works at the push of a button. BLA provides complete electric EVO winches including either a chrome bronze or black alloy drum. Models 40-50 are supplied with the contactor pre-mounted to the motor gearbox, removing the need for any complicated wiring. Winch only requires connecting to the battery and supplied switch.

Features

- Push button power, quiet operation
- Manual override
- All the benefits of the EVO® range
- Easy to install
- Feature powerful series wound motors

Switch

Circuit Breaker

BLA Code	Description	Type
430417	Sheet Winch 40Est Evo S/Tail 12V	Chrome Bronze
430419	Sheet Winch 45Est Evo S/Tail 12V	Chrome Bronze
430420	Sheet Winch 50Est Evo S/Tail 12V	Chrome Bronze
430416	Sheet Winch 40Est Evo S/Tail 12V	Alloy
430418	Sheet Winch 45Est Evo S/Tail 12V	Alloy
430421	Sheet Winch 50Est Evo S/Tail 12V	Alloy

Contactor

Deck unit & motor gearbox

Lewmar® Race and Race Plus Winches

LEWMAR

Lewmar® racing winches have continued to evolve over the past 60 years through racing experience, improved production methods, materials and cutting edge design leading to the new Race and Race Plus ranges utilising proven and trusted EVO® architecture and design.

Race winches feature a new lightweight aluminium feeder arm with carbon fibre inlay resulting in a 4% weight saving over equivalent EVO® winch models. Features the same no tool easy servicing as the EVO® range, stainless steel bearings for longevity, complete aluminium drum and no plastic skirt for durability. Easily upgraded to electric powered model.

Race Plus winches are based on the successful ASTOR architecture which feature a machined aluminium centre stem and base in place of bronze. Lewmar® has also incorporated a new lightened main spindle and lightweight feeder arm with carbon fibre overlay to help deliver a weight saving over EVO® equivalent winches. For more information contact BLA on **1300 252 725.**

Features:

- Utilises proven EVO® and ASTOR architecture
- New lightweight aluminium feeder arm
- Weight saving over standard EVO® range through design and materials
- Easy no tool servicing
- Complete aluminium drum, no plastic skirt

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Race Winches

Race Plus Winches

Lewmar® Additional Racing Winch Ranges

LEWMAR

Combined advanced materials such as carbon fibre, torlon polymer bearings and optional titanium gears are the result of continual consultation and working partnerships with teams participating in the worlds biggest yachting events. Lewmar® racing winches remain the first choice for lightweight performance boats that demand winches they can rely on, whether around the buoys or around the world racing.

Ranges such as the Grand Prix series feature carbon fibre components, precision CNC machining for minimal weight, self-tailing or optional cleat top plus two, three or four speed gearing. The EVO® Speed Ring offer all the features of the EVO® range but with the additional benefit of two drum diameters, the larger for actions requiring fast trim and the smaller for fine tuning.

In addition to winches, Lewmar® has continued to produce pedestal systems for nearly 40 years, offering a wide range of component parts in alloy or carbon fibre including, drive shafts, clutches, bevel boxes, universal joints, CV joints and pedestals. For more information contact BLA on **1300 252 725.**

Features:

- Many custom options available, including ceramic drum coatings, custom top cleats, and free-spinning or ratcheting sheave base additions.
- Weight saving materials and design
- Wavespring self-tailing design available
- Easy to service

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Grand Prix Racing Winches

EVO® Speed Ring Winches

Pedestal Systems

Lewmar® Hydraulic Winches

LEWMAR

Suitable for yachts over 15 metres, Lewmar's hydraulic Commander Pack powers the winches to combine the benefits of electric winches with the ability to be integrated within the vessels hydraulic system.

Advantages include all the benefits of the EVO® range but with push button control, quiet operation, manual override, low system weight and minimal internal space intrusion due to the compactness of the hydraulic motor. For more information contact BLA on **1300 252 725.**

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

Lewmar® Captive Winch Line System

LEWMAR

Lewmar's captive winch line management system provides safe remote controlled line handling and storage for yachts ranging from 24 to 91 metres in length. The compact size, increased line holding capacity combined speed and power make this system ideal where clean decks are essential. For more information contact BLA on **1300 252 725.**

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Captive winch line management system

Titan™ Winch Handles

Titan™ range features a composite plastic construction which provides its floating ability. Titan™ winch handles have been carefully designed for the day sailor with simple but effective features to keep costs down.

Manufactured from high grade injection molded glass nylon. The handle is made in two sections then ultrasonically welded creating a box section designed for strength and stiffness.

430700

BLA Code	Model	Type	Length mm
430700	Titan Floating	Locking	200
430702	Titan Floating	Locking	250

Lewmar® Handle Pocket

For storage of any winch handle, a tough flexible winch handle pocket is available that suits Titan and Lewmar® winch handles of varying lengths.

The PVC material mounts anywhere in a verticle position & weighs just 290 grams.

Features:

- Weighs just 290 grams
- PVC flexible material
- Easy to install
- Fits all Titan™/Lewmar® winch handles

BLA Code	Model
430740	Handle Pocket

Lewmar® Winch Handles - OneTouch

The Lewmar® OneTouch winch handle range utilises a mechanism that allows the user to simply squeeze the release lever that runs the entire length of the handle to unlock in one easy motion when either releasing from or placing in a winch.

Constructed from lightweight forged alloy for longevity the range of OneTouch winch handles are available in either a traditional single grip or power grip, the latter allowing the operator to use both hands for extra power. Offered in both 200mm and 250mm versions to suit almost any requirement.

Features:

- 200mm or 250mm lightweight alloy handle
- Full length release lever for one handed operation
- Simple squeeze mechanism for easy one handed removal
- Light weight, strong, forged construction
- Available in Standard Grip and Power Grip

430706

430708

430716

BLA Code	Handle Type	Length mm
430706	OneTouch Single	200
430708	OneTouch Power	200
430710	OneTouch Single	250
430712	OneTouch Power	250
430716	OneTouch Double D-Grip Alloy	250

Lewmar® Winch Handles - Standard & Lock-in

Lewmar® offers an extensive range of winch handles that utilise ball bearings for maximum efficiency and ease of cranking. The lightweight Lewmar® alloy range is available in varying lengths and configurations.

For maximum efficiency all Lewmar® winch handles have ball bearings.The 200mm handle is neat and compact for lower loads or very rapid action. The 250mm handle is for heavier loads and produces the maximum power ratio for the winch.

Features:

- 200mm or 250mm lightweight alloy handle
- Utilises ball bearings for maximum efficiency
- Lightweight and varying lengths
- 200mm for rapid action
- 250mm for heavy loads/maximum power

430690

430695

BLA Code	Handle Type	Type	Length mm
430694	Alloy Single	Plain	250
430690	Alloy Single	Lock-in	200
430695	Alloy Single	Lock-in	250

Lewmar® Winch Spares and Maintenance Kits

LEWMAR®

Two or three times during active sailing season winches should be stripped, cleaned and re-lubricated.

Maintenance plays an important part over the life of any winch so Lewmar® has available a full range of winch spares, including pawls and springs, circlips, Lewmar® gear grease and TotalCote protectant.

A list of all current Lewmar® winch spare parts plus an archive of past models and service manuals are available on the BLA website (bla.com.au). Included are exploded diagrams to aid identification along with handy tips on how to best disassemble and service each winch and its parts. For more information contact BLA on **1300 252 725.**

430640

430636

430637

430642

BLA Code	Description
430600	Standard Pawl Small
430620	Standard Pawl Spring Small
430626	Standard Spring & Pawl Kit 6-48
430628	Standard Spring & Pawl Kit 50-65
430636	Winch Grease Tube 100g
430637	Winch Grease Tub 300g
430640	Winch Oil Bottle 55ml
430642	Lubricant TotalCote Can 400ml

DANGEROUS GOODS

Image Courtesy of Camero

WATERSPORTS & INFLATABLE CRAFT

Airhead® & Sportsstuff® Inflatable Tubes & Towables	1014
Sportsstuff® Inflatable Lounges	1032
Airhead® Inflatable Stand Up Paddle Boards	1034
Airhead® Stand Up Paddle Board Accessories	1036
Airhead® Skis & Kneeboard	1037
Airhead® Wakeboards & Wake Surfboard	1039
Airhead® Wakeboard, Ski & Wakesurf Rope & Handles	1040
Airhead® & Sportsstuff Wakeboard, Ski & Tow Ropes	1041
Airhead® Tow Accessories	1042
Trem Ski Rope	1042
Airhead® Valves, Inflator & Vinyl Repair Kit	1043
Aqua Zooka™ Soakers	1044

CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Airhead® and Sportstuff® Watersports

Located minutes from the Rocky Mountains in Denver Colorado, Kwik Tek has manufactured fine watersports products and accessories for over 20 years. This proven history of building quality products that last has strengthened the brands' reputation and grown Kwik Tek to be the leading manufacturer of inflatable tow tubes, floats, and tubing accessories.

Airhead and Sportsstuff inflatables and accessories are made of the highest quality materials in the industry. Kwik Tek prides themselves on building products with 840 denier nylon outers and 30 gauge PVC bladders, a standard few others can stand behind. If there's a water toy that boating enthusiasts are craving, look no further than KwikTek. All Airhead and Sportsstuff inflatables and accessories feature a 12 month warranty for recreational usage.

Airhead® Tube - Blast®

The 4 neoprene knuckle guards and deluxe nylon covered handles provide a sure and comfortable grip. The heavy-duty virgin PVC bladder has electronically welded seams and a Boston valve for quick inflating and deflating. Blast has a double stitched nylon cover, reinforced internal tow harness and a self-draining floor vent. You'll love the eye-catching graphics on this 1-rider 137cm (deflated) round towable!

BLA Code	Persons	Dia. (Deflated) cm
502440	1	137

Sportsstuff® Tube - Zip Ski™

This popular MY-T tube has a fast and easy aluminum Quick Connect tow system and Speed Safety Valve so you can inflate and deflate in a hurry and concentrate on having fun. The Zip Ski is fully loaded featuring double webbing foam handles with EVA foam knuckle guards so you can hold on tight. This classic is easy to control in the prone and seated position.

BLA Code	Persons	Dia. (Deflated) cm
502400	1	137

Airhead® Tube - Slide®

Enjoy a secure and comfortable grip with the Slide, Airhead's 1-rider triangular tube. It features 4 deluxe nylon-wrapped handles and neoprene knuckle guards. The heavy-duty virgin vinyl inner tube is electronically welded and equipped with a Boston valve for quick inflating and deflating. The double-stitched nylon cover has a heavy-duty internal tow harness and self-draining vent.

BLA Code	Persons	Dim. (Deflated) L x W cm
502454	1	142 x 142

Airhead® Tube - Hot Shot™

Hot Shot, Airhead's 144cm (deflated) round deck tube is one hot ride, built to last and great value. The rugged PVC bladder is completely covered with a double-stitched nylon cover. The thin profile makes it easy to climb onto from the water. Hot Shot has 4 deluxe handles with neoprene knuckle guards and is equipped with a Speed Safety Valve for quick inflating and deflating. Designed for 1 adult or 2 small children.

BLA Code	Persons	Dia. (Deflated) cm
502450	1 Adult or 2 Small Children	144

Sportsstuff® Tube - Frequent Flyer

The classic Flyer Decktube comes equipped with two large EVA Foam body pads to protect your knees and elbows. Multiple double webbing foam handles with knuckle guards enable various riding positions. Patented aluminum Quick Connect tow points come standard so attaching and detaching your tow rope is fast and easy to maximise your time on the water. Featuring a simple one chamber design with Speed Safety Valve, you'll have your tube inflated in no time. The self-bailing drain vents will keep you sailing with unbelievable speed and grace!

BLA Code	Persons	Dia. (Deflated) cm
502404	1-3	203

Airhead® Tube- Outrigger™

The concave bottom on Outrigger makes for one wild ride! The tube of choice for choppy water because it rides on its rails. Two oversized topside neoprene panels protect elbows and knees. The 2 inflated fins on the perimeter really help riders stay on top. The Outrigger also rocks backwards for easy reboarding from the water. Six deluxe handles with neoprene knuckle guards provide a great grip for 1, 2 or 3 riders. The heavy duty Kwik-Connect and Boston valve provide quick and easy rope hook-ups, inflating and deflating.

BLA Code	Persons	Dim. (Deflated) L x W cm
502458	1-3	227 x 193

Sportsstuff® Tube - Big Bertha™

Big Bertha is a giant classic towable for 1-4 riders, featuring an air cushioned floor, non-slip foam handles with padded knuckle guards and a patented Quick Connect tow system. It's fast and easy to use, simply slip your tow rope over the patented aluminum Quick Connect and you're off and tubing. This popular towable comes fully loaded and built extra tough, with a double-stitched partial nylon cover and a heavy-duty K80 PVC bladder.

BLA Code	Persons	Dia. (Deflated) cm
502402	1-4	187

Airhead® Tube - Mega-Slice™

Mega-Slice Is the colossal 2.5m diameter (deflated size) member of the Airhead Slice-series, the industry standard in deck tubes. The exclusive tapered profile, thick at the front and thin at the back, enhances your tubing experience. The thicker front allows a more natural and comfortable rider position and prevents submarining. It's super easy to climb onto Mega-Slice from the water because it's thin at the back and has 5 boarding straps to grab onto. The 8 deluxe handles with neoprene knuckle guards provide a great grip for 1, 2, 3 or 4 riders. An Indy Cap covers the Boston valve. Connect Mega-Slice to an Airhead Tube Anchor and you have an instant swim platform!

BLA Code	Persons	Dia. (Deflated) cm
502466	1-4	254

Airhead® Tube - Transformer 4

Airhead Transformer 4 is 4 tubes in 1, providing fun to 2, 3, 4, 5 or 6 riders at once! It's a comfortable 4 rider round "sit in" towable, a 2 rider deck style towable, a 3 rider deck style towable and a great "over the transom" lounge! The humongous "sit in" towable is 223cm diameter, an inflatable seat for 4, 8 heavy duty tubular webbing handles with knuckle guards, and a Kwik-Connect tow attachment. The deck tube is 147cm in diameter and equipped with the 4 deluxe nylon-wrapped handles with neoprene knuckle guards provide a sure and comfortable grip. Both towables are equipped with a Speed Safety Valve that provides the ultimate in inflating and deflating convenience. 223cm Large Deck.

BLA Code	Persons	Large Deck Dia. (Deflated) cm	Small Deck Dia. (Deflated) cm
502472	2-6	223	147

Sportsstuff® Tube - Half Pipe Frantic™

Enjoy the amazing Half Pipe sitting, kneeling, lying down, or even sideways! The high angled sides give this tube sensational action while maintaining a great deal of stability. Featuring a heavy-duty full nylon cover, and EVA foam body pads for each rider. There are multiple flat foam boarding handles for each rider as well as double webbing foam handles with knuckle guards. A simple single chamber design with Speed Safety Valve makes inflation and deflation fast and easy. Includes reinforced tow system and self-bailing drain vents.

BLA Code	Persons	Dim. (Deflated) L x W cm
502416	1-3	203 x 284

Airhead® Tube - G-Force® 2, G-Force® 3

Defy centrifugal force with G-Force's topside stabiliser fins. The deluxe nylon-wrapped handles with neoprene knuckle guards provide a sure and comfortable grip. G-Force has a tough heavy gauge virgin PVC bladder, fully covered with a durable double-stitched nylon cover. G-Force is equipped with a heavy-duty Kwik-Connect for easy and secure hook-ups. A Speed Safety Valve provides the ultimate in inflation and deflation convenience.

502446

502446

502448

502448

BLA Code	Persons	Handles	Dim. (Deflated) L x W cm
502446	1-2	4	162 x 152
502448	1-3	6	198 x 190

Airhead® Tube - Super Slice™

Super Slice, Airhead's high performance 3-rider low profile deck tube features an oversized topside neoprene body panel and 6 deluxe handles with neoprene knuckle guards, an Airhead exclusive. The 30-gauge virgin PVC bladder is fully encased by a rugged double-stitched nylon cover. Super Slice is equipped with a heavy duty Kwik-Connect and Boston valve for the ultimate in convenience. It's tapered in back to only 15cm, for easy boarding from the water.

BLA Code	Persons	Dia. (Deflated) cm
502464	3	177

Airhead® Tube - Big Shot®

This stunning 4-rider towable glides across wakes with the greatest of ease, despite its humongous 193cm (deflated) size! Big Shot Has 8 deluxe handles with neoprene knuckle guards. A heavy-duty Kwik-Connect makes rope connections a breeze. The rugged 30-gauge virgin PVC bladder and double-stitched nylon cover with a self draining floor vent to ensure years of enjoyment. Features the Airhead Multi-Valve for the ultimate in inflating and deflating convenience.

BLA Code	Persons	Dia. (Deflated) cm
502618	4	193

Airhead® Tube - Turbo Blast

The 228cm x 142cm (deflated) double open top tube has a rugged double stitched 840-denier nylon cover with 2 self-draining floor vents. The 30-gauge virgin PVC bladder is equipped with a Boston valve, the ultimate in inflating and deflating convenience. Four deluxe handles with neoprene knuckle guards ensure a comfortable grip. You'll really appreciate the heavy-duty Kwik-Connect every time you hook-up your tow rope.

BLA Code	Persons	Dim. (Deflated) L x W cm
502469	2	228 x 142

Sportsstuff® Tube - High Roller 2

The unique multi sphere design barely touches the water while towing. The strategically placed air chamber on the back top edge supports knees and feet for comfortable positioning through whips and turns. Large EVA foam body pads protect riders' knees and legs. A multitude of foam filled handles with EVA knuckle pads provide lots of options for comfortable gripping. Equipped with a Kwik Connect for quick and easy rope hook-ups and a patented Speed Safety Valve for fast and convenient inflatating and deflating.

BLA Code	Persons	Dim. (Deflated) L x W cm
502432	2	205 x 177

Airhead® Tube - Matrix™ V-2 & V-3

These U-shaped winged towables roll way up on edge when riders shift their weight. The wings also make them a joy to tow, they slide effortlessly across wakes. No expense was spared in Matrix's state-of-the-art construction. They're thicker at the front to prevent submarining and thin at the back to make it easier to climb on from the water. The deluxe handles have neoprene knuckle guards. Two oversized neoprene pads are strategically located to protect knees and elbows. The durable 30 gauge RF welded PVC bladder is completely wrapped in double-stitched 840-denier nylon. A heavy-duty Kwik-Connect provides easy hook-ups and the Boston valve makes it easy and fast to deflate and inflate.

502455

502455

502456

502456

BLA Code	Persons	Dim. (Deflated) L x W cm
502455	2	187 x 162
502456	3	220 x 172

Airhead® Tube - Transformer™

Airhead Transformer is 2 tubes in one. It transforms from a deck tube to a cockpit tube in seconds! Young children will especially enjoy it in cockpit mode. The inflated floors and deluxe handles with neoprene knuckle guards will help them feel safe and secure. Teens and adults normally prefer a wilder deck tube ride. To transform this 2 rider towable from mild to wild, simply insert the 2 inflatable bladders to fill the cockpit and roll the neoprene pads into place. If you have 1 small child and a teen or adult, you can mix it up and ride one side cockpit, the other deck! Transformer is built to last from rugged 840 denier nylon and 30 gauge vinyl. The heavy duty Kwik-Connect and Boston valve provide quick and easy rope hook-ups, inflating and deflating.

BLA Code	Persons	Dim. (Deflated) L x W cm
502470	2	177 x 190

Airhead® Tube - Storm II™

Storm's wide wingspan and thick front profile allow it to glide effortlessly across big wakes. A neoprene seat pad is provided for each rider. Nylon wrapped handles with neoprene knuckle guards ensure a great grip. The durable RF welded 30 gauge PVC bladder is fully covered by rugged double-stitched 840 denier nylon. When it's time to relax, Storm II doubles as the world's most comfortable floating lake couch!

BLA Code	Persons	Dim. (Deflated) L x W cm
502468	2	218 x 190

Sportsstuff® Tube - Sumo with Splash Guard

SPORTSSTUFF

The Sumo Tube is the world's only freestyle towable that you wear! This single chamber tube is made of 100% heavy-duty K80 PVC and is put over the rider like a shirt, instead of being directly attached to the boat. Take it to the beach for the ultimate body surfing experience, or grab two Sumos and have a Sumo wrestling match with a friend! The Sumo Splash Guard (included) is an inflatable armrest/handle with a sleek splash-deflecting design that will keep the spray out of your face. Featuring 6 double webbing foam handles and EVA foam knuckle guards on a heavy-duty full nylon cover. Simply connect a standard tow rope to the Sumo Splash Guard and you can steer the Sumo Tube back and forth, jump the wake, and roll 360s! They both come equipped with the Speed Safety Valve for fast inflation to get you on the water in a hurry.

BLA Code	Persons	Sumo Dim. (Deflated) L x W cm	Splash Guard Dim. (Deflated) L x W cm
502410	1	96 x 81	88x 55

Sportsstuff® Tube - Gyro™

SPORTSSTUFF

The unique bullet-shaped Gyro will be sent into a spin with a simple turn of the boat. The stainless steel swivel tow system allows the Gyro to roll over and over again with the rider inside while they watch all the action through the port hole at the front of the tube. The Gyro is constructed of heavy-duty K80 PVC featuring the patented Speed Safety Valve so you can inflate and deflate this state-of-the-art towable in no time at all. Riders simply hold on to the molded PVC handle system located in the front of the tube and enjoy the ride.

BLA Code	Persons	Dia. (Deflated) L x W cm
502412	1	142 x 93

Airhead® Tube - Big Ez Ski

AIRHEAD

EZ Ski is a revolutionary inflatable water ski hybrid with integrated wooden water ski trainers and ski bindings. EZ Ski is engineered for stability while towing (16km maximum), so your child will feel very secure. EZ Ski is the ultimate confidence builder, taking the tears, fear and frustration out of teaching new young skiers and replacing it with safety and fun! Your child will enjoy immediate success on the EZ Ski. Children board the EZ Ski right from the swim step or stern of your boat, no swimming required. Children sit comfortably on the inflated seat for start-ups until they're ready to stand up and ski at their own pace. This awesome trainer teaches basic skiing fundamentals including proper stance, handle position, balance and weight transfer for turning.

BLA Code	Persons	Dim. (Deflated) L x W x H cm
502442	1	137 x 86 x 33

Airhead® Tube - EZ Wake Trainer

AIRHEAD

EZ Wake Trainer is engineered for stability while towing (16km maximum), so your child will feel very secure. EZ Wake Trainer is the ultimate confidence builder, taking the tears, fear and frustration out of teaching new young boarders and replacing it with safety and fun! Your child will enjoy immediate success on EZ Wake Trainer. Children board the stable EZ Wake Trainer right from the swim step or stern of your boat, no swimming required. While your children have the time of their lives on EZ Wake Trainer, they'll actually be learning to be comfortable with the speed and sensation of watersports. This trainer teaches basic wakeboarding, kneeboarding, wakesurfing and wakeskating fundamentals including proper stance, handle position, balance and weight transfer for turning. The EZ Wake Trainer body board is easily removable for more advanced body boarding behind the boat, or take it to the beach and ride the waves! Patents pending.

BLA Code	Persons	Dim. (Deflated) L x W x H cm
502444	1	116 x 78 x 33

Airhead® Tube - Viper™ 1 & 2

Airhead's Viper-series is a collection of the finest cockpit-style towables in the industry. The bottoms are shaped like boat hulls which is the key to the unparalleled lively and stable ride. Vipers are especially popular with young children, as they feel very safe sitting on the comfortable inflated floors inside the cockpits. Kids and adults will enjoy the stunning racecar-inspired graphics. The durable 30 gauge bladders are completely encased in durable double-stitched nylon, there is no exposed PVC. The striped nylon wrap handles have neoprene knuckle guards for comfort. An EVA "Indy Cap" covers the Boston valve.

502476

502478

BLA Code	Description	Persons	Dim. (Deflated) L x W cm
502476	Viper 1	1	187 x 149
502478	Viper 2	2	187 x 185

Airhead® Tube - Hexsanity

Airhead Hexsanity's hexagon shape provides a wild ride, yet it's very stable and comfortable. With Hexsanity's Dual Tow Points, attach your tow rope to the front Kwik-Connect with 1 or 2 riders sitting down, enjoying unparalleled support from the wrap-around backrests. Hook the tow rope to the rear Kwik-Connect to ride in a sportier kneeling position. When the tubing action is over and it's time to chill, lounge comfortably on Hexsanity, it's as comfortable as your living room couch. Hexsanity has 2 moulded drink holders in the centre. Four foam filled tubular nylon handles with neoprene knuckle guards provide firm and comfortable hand holds. Two patented Speed Safety Valves provide the ultimate in inflation and deflation convenience. Hexsanity has a tough 30-gauge PVC bladder, fully covered with an 840-denier double-stitched nylon cover. It is equipped with two heavy-duty Kwik-Connect for easy and secure hook-ups.

BLA Code	Persons	Dim. (Deflated) L x W cm
502452	1-2	215 x 220

Airhead® Tube - Rock Star™

This 3-rider U-shaped towable will glide effortlessly across the wake. With a slight turn of the boat, the inside wing teeters towards the wake as the outside wing rises high above the water! It also doubles as a super fun rocking swim platform. The durable double-stitched 840 denier nylon cover and rugged 30 gauge PVC inner bladder ensure long service. The heavy duty Kwik-Connect and Boston valve provide quick and easy rope hook-ups, inflating and deflating.

BLA Code	Persons	Dim. (Deflated) L x W cm
502460	3	205 x 198

Airhead® Tube - Tremor

Airhead Tremor features multi-level circular riding for 1, 2, 3 or 4 children or adults. Kneel on the soft knee pads and ride looking out or sit on top looking in. It makes a great floating conversation pit too! Put a cooler in the centre and have a party! Tremor has a tough 30-gauge PVC bladder, fully covered with an 840-denier double-stitched nylon cover. Equipped with a heavy-duty Kwik-Connect for easy and secure hook-ups. Eight foam filled tubular nylon handles with neoprene knuckle guards are strategically positioned for peak performance. Two patented Speed Safety Valves provide the ultimate in inflation and deflation convenience.

BLA Code	Persons	Dim. (Deflated) cm
502474	1-4	226

Sportsstuff® Tube - Big Mable™, Great Big Mable™, Super Mable™

SPORTSSTUFF

The new and improved classic Mable towables will continue to impress with a variety of different riding options. Featuring dual tow points, you can go for a wild ride utilising the comfy backrest or tow them the opposite direction for a chariot style blast you'll never forget. All three sizes come equipped with comfy EVA foam seating pads. A multitude of double webbing foam handles with knuckle guards enable lots of different riding positions. The addition of air-cushioned side walls will keep you on board while the redesigned backrest and new custom graphics make this uniquely shaped towable dressed to impress. The patented Speed Safety Valve and aluminum Quick Connect tow point will save you time. The Mables feature a heavy-duty K80 PVC bladder and double stitched full nylon cover with self bailing drain vents. They also make the perfect deluxe lounge at any pool, beach, lake, or river.

502418

502420

502422

BLA Code	Description	Persons	Dim. (Deflated) L x W cm
502418	Big Mable	1-2	175 x 167
502420	Great Big Mable	1-4	236 x 215
502422	Super Mable	1-3	200 x 198

Sportsstuff® Tube - Big Betty, Super Betty, Great Big Betty

The new Big Betty series of towables is an off shoot from the popular Mable series with the added feature of dividers between riders. It will continue to impress you with a variety of different riding options. Featuring dual tow points, you can go for a fun filled ride without the threat of banging into each other, utilising the comfy backrest and the easy grips mounted on the dividers. Or tow them the opposite direction for a chariot style blast you'll never forget! All three sizes come equipped with comfy EVA foam seating pads. A multitude of foam filled webbing handles with knuckle guards enable lots of different riding positions. Air cushioned sidewalls help keep you on board. The patented Speed Safety Valve and Quick Connect will save you time. The Bettys feature a heavy-duty K80 PVC bladder and double stitched full nylon cover with self bailing drain vents. They also make the perfect deluxe lounge at any pool, beach, lake, or river.

502424

502426

502430

BLA Code	Description	Persons	Dim. (Deflated) L x W cm
502424	Big Betty	1-2	175 x 167
502426	Super Betty	1-3	200 x 198
502430	Great Big Betty	1-4	236 x 215

Sportsstuff® Tube - Poparazzi, Poparazzi 2

The Poparazzi has a unique, high winged shape with rocker bottom that allows you to carve into the wake and glide across the water's surface with minimal drag. With a turn of the boat, inside riders will teeter deep into the wake while the other riders will rise high above it! Multiple EVA foam body pads allow riders to comfortably perform every riding position imaginable. The unique High Rise Tower equipped with multiple double webbing foam handles with knuckle guards allow standing or kneeling on the back deck. The convenient Quick Connect tow point will get you started in a flash and Speed Safety Valves allow the quickest inflation and deflation possible. Stand, sit, kneel, steer, lay, balance and freestyle on this amazing ride! High Rise Tower on Rear Deck

502408

BLA Code	Description	Persons	Dim. (Deflated) L x W cm
502406	Poparazzi	1-3	190 x 165
502408	Poparazzi 2	1-2	182 x 172

Airhead® Tube - Mega Rock Star

The U-shape allows it to effortlessly cross wakes. The rocking motion adds a lot of excitement! The sides comfortably accommodate 2 riders lying down or 4 riders kneeling. Add 2 more riders on the centre "hump" and you've got a super fun 6 rider towable! Oversized neoprene pads are strategically placed to protect knees and elbows. Fourteen nylon handles with neoprene knuckle guards ensure a great grip for all riders. Durable double-stitched 840 denier nylon cover and rugged 30 gauge K80 PVC inner bladder. The Boston valve makes easy inflating and deflating.

BLA Code	Persons	Dim. (Deflated) cm
502462	1-6	208

BLA Tube - Round Lift 56" Deluxe

Largest of our open round towable tubes with heavy duty nylon outer and tough PVC inner tube. Features reinforced tow point, heavy duty quick connect and four webbing handles with neoprene knuckle guards. Includes Boston valve for fast inflation/deflation.

BLA Code	Persons	Dia. (Inflated) cm
501064	2	142

Accessories:

505500 Replacement Boston valve

N.B. Measurements and colours may vary and are subject to change without notice.

BLA Tube - Flat Round Claw 66"

Extra large diameter, deluxe fully covered low profile flat round tube suitable for one or two persons. Heavy duty nylon cover featuring neoprene knee and toe pad, four padded webbing handles with neoprene knuckle guards and reinforced tow point. Includes heavy duty quick connect and Boston valve.

BLA Code	Persons	Dia. (Inflated) cm
501070	2	167

Accessories:

505500 Replacement Boston valve

N.B. Measurements and colours may vary and are subject to change without notice.

BLA Tube - Eagle Double

Extra large two person triangular shaped towable suitable for both children and adults. Heavy duty nylon outer with tough PVC inner tube and Boston valve. Includes reinforced tow point, heavy duty quick connect and four foam padded webbing handles with neoprene knuckle guards.

BLA Code	Persons
501074	2

Accessories:

505500 Replacement Boston valve

N.B. Measurements and colours may vary and are subject to change without notice.

Airhead® Tube Keeper™

Tube Keeper saves essential passenger space and prevents serious injuries by securing towables to your boat's stern. Simply attach the straps around the tube's handles. Then attach with either the giant suction cups or loop the stretch cords around a cleat or rail. The 5cm wide adjustable straps are easy to tighten for a secure hold.

BLA Code
502490

Airhead® Float - Pongo Bongo

Beverage pong is a very popular game these days. There's no better place to play on a hot day than in the water! Pongo Bongo is a floating inflatable game table equipped with 12 cup holders on each side. Kids love carnival games and will play Pongo Bongo for hours. Durable heavy gauge vinyl construction. Hang it from a ceiling in your game room or tether it to a moored boat or dock with the 4 moulded rope holders welded to the sides. When you're done playing, turn it over and use it as a pool float or air mattress. Ping pong balls included.

BLA Code	Dim. (Deflated) L x W cm
502620	223 x 101

Sportsstuff® Lounge - Noodler™ 2

Relax with the Noodler Lounges, available in 1 and 2 person sizes. Cool off, kick back and enjoy the comfortable mesh seating. Slip your favourite cool beverage into the built in drink holder. Flip the Noodlers over and have a custom belly board to splash up some fun with! Heavy-duty K80 PVC construction with patented Speed Safety Valve allows you to inflate or deflate them quickly and easily.

BLA Code	Persons
502802	1-2

Sportsstuff® Lounge - Siesta

SPORTSSTUFF

Features a high back air cushioned headrest and comfortable mesh seating you won't believe. Hang your feet in the water to cool off, or put them up on the fold out footrest for complete relaxation! Includes moulded cup holders for two of your favourite beverages, and two convenient zippered storage pockets with plenty of room for your necessities. The Siesta has a full nylon cover, heavy-duty K80 PVC bladders, and a patented Speed Safety Valve for fast and easy inflation so you can chill out.

BLA Code	Persons	Dim. (Deflated) L x W cm
502800	1	170 x 101

Sportsstuff® Lounge - Cabana Islander™ With 16 Quart Floating Cooler

SPORTSSTUFF

Relax on the Cabana Islander, a one-of-a-kind island for up to 6 people to enjoy. Constructed of heavy-duty K80 PVC with a detachable wind-resistant nylon cabana top to keep you in the shade. Speed Safety Valves deliver the fastest inflation and deflation possible and the anchor system will keep you from floating away. Also includes a centre swim porthole, boarding platform for easy access, and a floating 16 Quart Cooler that can be tethered to the island. 16 Quart Cooler includes zippered lid, cup holders, rope grommet, and moulded handle.

BLA Code	Persons	Dim. (Deflated) L x W cm
502804	1-6	274 x 208

Sportsstuff® Inflatable Stand Up Paddle Board - Ocho Rios 1030

Ocho Rios is a high pressure inflatable paddleboard that's lightweight and fast. It feels very similar to a hard board (can be inflated to 15 psi) and supports paddlers up to 99kg. Large EVA traction pad. Stainless tow ring and leash ring. 1 detachable tracking fin. High grade materials and workmanship for years of enjoyment. Includes adjustable aluminium paddle with fibgreglass reinforced blade, mesh carry bag, stainless steel tow ring, high pressure hand pump, pressure gauge, valve wrench, board strap and repair kit.

BLA Code
504460

Airhead® Inflatable Stand Up Paddle Board - Bliss 930

Comfortable full deck EVA pads and extra D-rings for adding SUP resistance training bands make these boards' versatile platforms for fitness and yoga. They're also great all-around paddleboards.

Features:

- Board size: 274cm x 76cm x 10cm
- Board weight: 9.1kg
- Paddler weight: 36kg – 82kg
- One 22cm classic removable fin
- Extra thick (4mm) EVA traction pad
- 9 Stainless steel D-rings, stretch tie down
- EZ Push high pressure valve
- Includes mesh backpack, stainless steel tow ring, high pressure hand pump, pressure gauge, valve wrench, board strap & repair kit

BLA Code
504456

Airhead® Inflatable Stand Up Paddle Board - Fit 1032

Comfortable full deck EVA pads and extra D-rings for adding SUP resistance training bands make these boards versatile platforms for fitness and yoga. They're also great all-around paddleboards.

Features:

- Board size: 320cm x 81cm x 15cm
- Board weight: 12.3kg
- Paddler weight: 54kg – 136kg
- Includes mesh backpack, stainless steel tow ring, high pressure hand pump, pressure gauge, valve wrench, board strap & repair kit

BLA Code
504458

Airhead® Inflatable Stand Up Paddle Board - SS

SS stands for "Super Stable" and that's what these paddleboards are! They have integrated sponsons nearly the full length of the board that function like outriggers. Beginners, larger paddlers and fishermen love SS's unparalleled dry ride and stability.

Features:

- Board size: 325cm x 96cm x 10cm (deck) / (15cm sponson)
- Board weight: 15.5kg
- Paddler weight: 54kg – 136kg
- 3 Fins (2 x 10cm fixed, 1 x 22cm removable)
- 5 Stainless steel D-rings, stretch tie down
- Thick EVA traction pad
- High pressure valve
- Includes mesh backpack, stainless steel tow ring, high pressure hand pump, pressure gauge, valve wrench, board strap & repair kit

BLA Code
504454

Airhead® Inflatable Stand Up Paddle Board - Na Pali

Airhead's inflatable SUP measures 3.15m and is the best quality your money can buy. The extra rugged drop stitch construction allows a much higher air pressure than other inflatable technologies. Thousands of tiny threads connect the top and bottom layers. Consequently, it can hold 6.3kg of air pressure, more than double the working pressure of other technologies. When you're out on the water, Na Pali is rigid and will perform like a Fibreglass board. A large anti-skid EVA pad provides secure footing. Strap your gear to the 4 D-rings up front. Three removable fins ensure straight tracking and precise manoeuvring. Feel like sitting down? Install the seat in seconds and paddle kayak style. For convenience and portability, a backpack with mesh panels is included for stowing and carrying the SUP and all accessories. Accessories included: backpack with mesh panels, adjustable seat, high pressure hand pump, anemometer, valve wrench. Airhead Adjustable SUP Paddle sold separately. Board and fins total weight is 11.4kg.

BLA Code
504452

Airhead® Stand Up Paddle Board Stabiliser Set

- Convert any SUP to a stable platform for fishing or yoga
- Great for beginners, rough water & plus size paddlers
- Rugged nylon covers protect the PVC bladders inside
- Inflate/deflate in seconds with patented Speed Safety Valves

BLA Code
504480

Airhead® Stand Up Paddle Board Leash & Tow Strap

- Lightweight accordion style webbing
- 2 inline swivels keep the leash from tangling
- Comfortable neoprene lined ankle cuff
- Stretches to 3.3m

BLA Code
504490

Airhead® Stand Up Paddle Board Carrier

- Convenient, comfortable & easy to use
- Integrated water bottle holder
- Integrated mesh back with D-rings to stow & attach to your board
- Great for surfboards & kayaks too!

BLA Code
504496

Airhead® Skis

- Monsta Splash Widebody Trainers

These 119cm wood trainers make learning to ski fun for beginners under 45kg. The double handle rope assembly, removable crossbar and ties at the tail make it easy to start and control. The adjustable bindings fit child size 12 to adult size 5. Fibreglass reinforced nylon rudders increase stability and tracking.

BLA Code
501022

Airhead® Skis - Combo Water

Perfect for skiers who need a stable ride and want to advance their skills, Airhead's combo water skis are a great value for the recreational water skiing family. These 170cm rim moulded combo water skis are designed to accommodate many different skill levels. Wide tails and tunnel shaped bottoms provide the ultimate balance of performance, control, stability and smooth tracking turns. The composite construction and fibreglass reinforced nylon fins ensure years of service. Dual density slide-type adjustable bindings fit US sizes 5 to 12.

BLA Code
501010

Airhead® Skis

- Combo Widebody Water

You will love the stability and support of these 166cm long wide-body skis. The extra wide tip displaces more water for easy start-ups and provides superior stability on top of the water. The hourglass shape provides quick low effort turning initiation even at slower boat speeds. More advanced skiers will enjoy the wide tips for jumping wakes. Fibreglass reinforced fins for precise tracking. Dual density slide-type adjustable bindings fit US sizes 5-12.

BLA Code
501012

Airhead® Kneeboard

- Wake Shaker™

Wake Shaker's newly designed channeled bottom makes kneeboarding easier and more fun to ride! You'll love the easy rail to rail transitions, consistent arc through turns and effortless spins! Wake Shaker is great for all riding levels and has massive rocker and beveled edges for sharp turns without getting hung up during surface tricks. The deep knee wells provide ultimate comfort and control. The unique bottom features reduce water tension for a light, responsive feel. Airhead's integrated EZ UP hook provides effortless starts every time and easy access to the rope handle.

BLA Code	Persons
501030	1

Airhead® Wakeboard with Bindings - Shred Time Venom

Shred Time is a lightweight twin tip free-ride wakeboard designed to help youth riders of all levels excel at the sport. The continuous rocker is fast and forgiving with smooth pop. It's 124cm long, perfect for youth riders up to 58kg. Two removable Fibreglass reinforced nylon fins provide excellent tracking and carving. Supplied with venom bindings.

BLA Code	Length cm	Binding Size
501033	124	4-8

Airhead® Wakeboard with Bindings - Fluid Venom

Fluid is designed for intermediate to expert riders weighing 40 - 77kg. The 6 fin dual thruster setup provides the ultimate in hold and tracking. Stay on edge, get more speed into the wake and stomp landings without slipping out. The removable centre fins provide tracking. The side fins are curved and angle outwards at 11 degrees to provide extra edge hold and a loose feel in neutral. The continuous rocker is fast and forgiving with smooth pop. Supplied with venom bindings.

BLA Code	Length cm	Binding Size
501035	134	9-12

Airhead® Wakeboard with Bindings

- Ripslash Venom

Designed for intermediate to expert riders weighing 68kg. and up. The 141cm 6 fin dual thruster setup provides ultimate hold and tracking. Riders stay on edge, get more speed into the wake and stomp landings without slipping out. The removable centre fins provide tracking. The side fins are curved and angle outwards at 11 degrees to provide extra edge hold and a loose feel in neutral. The continuous rocker is fast and forgiving with smooth pop. Supplied with venom bindings.

BLA Code	Length cm	Binding Size
501037	141	9-12

Airhead® Wakesurf Board

- Banzai

Banzai's classic shape is easy to get up on and forgiving, perfect for beginners, intermediates, smaller wakes and bigger people. This compression moulded Fibreglass board with dual hook grooves grab the wake. The EVA pad with molded kicktail provides plenty of grip, control and balance. Three profiled fins are mounted to recessed fin boxes. The pin shaped 6.35cm rocker makes the board fast.

BLA Code	Length cm	Centre Width cm
501026	160	52

Airhead® Wakesurf Rope and Handle

This 4.8m PolyE wakesurf rope has a 3 section mainline, a 30cm grasp knot and a extra large spiral rope braid. It features a 544kg break strength. You'll have an easy time finding the sweet spot of the boat's wake with this rope design. Blue/Black to match Airhead Banzai Wakesurfer (**501026**).

BLA Code
501051

Airhead® Ski Rope and Handle - Promotional

This 1 section ski rope has an aluminum floating handle and molded end caps for safety and comfort. The 16-strand 22m long rope is U.V.-treated and pre-stretched. A Rope Keeper is included.

BLA Code
501041

Airhead® Ski Rope and Handle - 4 Section Performance

This 22m long rope has 4 sections (12m, 3m, 3m, 4.5m) to meet the needs of skiers and riders of all skill levels. The 30cm aluminum core handle has a performance "Tractor" grip and full-length molded finger protectors. You'll love the candy stripe colour scheme of the U.V.-treated 16-strand 72.5kg tensile strength rope. A Rope Keeper is included for tangle-free storage.

BLA Code
501053

Airhead® Wakeboard Rope and Handle - Phat Grip™

This low stretch rope provides professional wakeboard rope quality at half the price. The 38.1cm double-density EVA Phat Grip handle is machined to provide a superior grip for optimum performance. It has a high strength aluminum core, 10cm finger protectors and foam floats. The 15cm TPR covered aluminum handle provides extra leverage and pull for spins and inverted tricks. The bridle is fully encased in flexible vinyl for protection against abrasion and wear. The low stretch 16-strand 30-filament rope floats and has a 1.5m handle bridle and three 3m take-offs for all riding styles. A Rope Keeper is included for tangle-free storage.

BLA Code
501047

Airhead® Wakeboard Rope and Handle - Bling Spectra

This wakeboard rope will sparkle in the sun and glow in twilight! The extravagant look compliments the luxury of high end boats, adds a little class to lesser boats and makes you look like a watersports pro! Bling series ropes are one of a kind. Shiny and reflective material is braided together with top quality Poly E over a Spectra core. These 22m wakeboard ropes have 4 take-off sections, 1.5m, 1.5m, 3m and 3m, resulting in rope lengths of 22m, 21m, 19.8m, 16m and 13m. The spectra core gives this tiny rope a phenomenal 907kg break strength and no stretch. The handle has an aluminum core, a 38.1cm EVA grip and full finger protectors.

BLA Code
501049

Airhead® Wakeboard Rope and Handle

This wakeboard rope has a head turning 38cm. Squid patterned EVA-wrapped grip with a floating aluminum core. The 0.79cm, 16 strand, U.V. treated low stretch buoyant rope has 3 sections for wakeboarding at 13m, 16m or 19m (45, 10, 10). Full length finger guards help create a comfortable split finger grip. A Rope Keeper is included for tangle free storage.

BLA Code
501045

Airhead® Wakeboard Rope and Handle - Dyna-Core

An Airhead exclusive, this wakeboard rope has the small diameter look of Spectra or Dyneema, the ultra low stretch too, but at half the price! Only a professional can notice the difference. The 21m wakeboard rope has 3 take-offs in the mainline and a 1.5m handle bridle (5, 50, 5, 5, 5). The 15 inch wide EVA grip is eye catching, provides a great grip. A Rope Keeper is included for tangle-free storage.

BLA Code
501043

Airhead® Tow Harness

- Heavy Duty

This heavy duty tow harness is perfect for pulling skiers, wake boarders and up to 4 rider towables. Simply clip it onto your boat with the 2267kg tensile strength hooks, and attach your ski or tube rope to the heavy duty Kwik-Connect. A 15cm float keeps the Kwik-Connect floating on top, away from your propeller. 3.6m long to fit larger boats and pontoons. The hooks are rust resistant zinc galvanised carbon structural steel. Hook opening width 1.27cm. Yellow / Red.

BLA Code
501056

Airhead® Tow Harness

- Self-Centreing

This 1360kg tensile strength tow harness is perfect for pulling skiers, wake boarders and up to 2 rider towables. A stainless steel pulley glides along the length of the rope to provide the optimum pull at all times. Simply clip it onto your boat with the 2267kg tensile strength hooks provided, and attach your ski or tube rope to the heavy duty Kwik-Connect. The 15cm float ensures that the Kwik-Connect floats, away from your propeller. It's 3.6m long to fit pontoon and larger boats. The hooks are rust resistant zinc galvanised carbon structural steel. Hook opening width 1.2cm. Yellow / Black.

BLA Code
501058

Airhead® Tow Rope

- 1 Rider Tube

This tube tow rope has a 680kg tensile strength, meeting WSIA recommendations for 1-rider towables. It's 15m long with a 15cm loop at each end. A Rope Keeper is included. Colour: Yellow. A good quality and affordable tube rope.

BLA Code
501061

Airhead® Tow Rope

- 2 Rider Tube

This 0.95cm 16-strand braided tow rope is rated at 1077kg tensile strength. There's a 15cm loop spliced at each end. A Rope Keeper is included for tangle-free storage. Designed for 1 and 2 rider tubes.

BLA Code
501059

Airhead® Tow Rope

- Deluxe 1882kg

This heavy-duty 16 strand 1.4cm x 18.2m tube tow rope is rated at 1882kg tensile strength! Engineered to pull the big 3 and 4 rider tubes, this rope will stand the test of time. It has a unique Rasta colour scheme with a 15cm loop spliced at each end. A Rope Keeper is included for tangle-free storage.

BLA Code
501060

Airhead® Tow Rope

- Super Strength 2721kg

This super strength 16 strand, 2.2cm x 18.2m tube tow rope is rated at 2721kg tensile strength! It's the strongest tube rope your money can buy, and is engineered to pull 6 riders. The "killer bee" colour scheme is easy to spot in any water conditions. A Rope Keeper is included for tangle-free storage. Great for towing boats too!

BLA Code
501065

Sportsstuff® Custom Tow Rope - Booster Ball™

The Booster Ball is a custom tow rope with inflatable buoy in the middle that will boost your towable's performance in many ways. It keeps the tow rope out of the water while towing. This enhances the overall performance of most towables and all the action tubes. Reduces drag, rope spray, submarining, lowers stress on the tube and cover and prevents rope spray. For use with 1-4 rider towables.

BLA Code
502414

Airhead® Tube Connector

- Kwik-Connect(TM)

Conveniently attach and detach tube tow ropes to towables with AIRHEAD's Kwik-Connect. There's no need to thread 18m of rope through the tow strap each time you connect or disconnect a tow rope. The high impact Kwik-Connect has a 2.5cm diameter hole to accept up to 2721kg break strength tube ropes. Recommended for 1 to 4 rider towables that are not equipped with Kwik-Connects.

BLA Code
501054

Airhead® Tow Harness

If your boat isn't equipped with a pylon or ski eye and you enjoy watersports activities, you need a tow harness. It creates a tow attachment point at the centre of your boat, behind your outboard or stern drive. This tow harness is perfect for pulling a skier, wakeboarder, knee boarder or 1 rider tubes. Simply clip it onto your boat with the hooks provided, and attach your ski or tube rope. A 15cm float keeps the attachment loop floating on top, away from your propeller. 3.6m long to fit larger boats and pontoons. Snap hook opening width 1.1cm. Yellow / Red.

BLA Code
501055

Airhead® Tow Rope

- Bungee Extension

Attach Airhead's Bungee Tube Rope Extension between your boat's tow point and the tube tow rope. You'll enjoy brief surges of speed as the bungee stretches and contracts. It reduces wear and tear on tubes and riders too, by absorbing sudden jerks from slack in the line. This 16 strand, 1.4cm x 0.9m polypropylene rope stretches to 1.5m. The 1882kg tensile strength is perfect for up to 4 rider tubes. Red & Yellow.

BLA Code
501063

Towing Bridles

Plaited polyethylene rope bridle with eyes spliced in each end for attachment to the ski tow hooks on the boat and a free running block, float and spliced eye or quick release for the ski, wakeboard or towable rope.

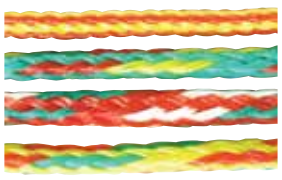
501538

501536

BLA Code	Description	Rope Dia mm	Rope Length m
501536	Plastic float	7.5	2.5
501538	Quick release	8	3.0

Trem Rope - Ski

This polyethylene hollow braid rope floats, is highly visible and has low stretch properties, making it suitable for water skiing, knee boarding and towable inflatables. Available in a choice of various colour combinations of red, yellow, green and white. Ends can be heat welded and easily spliced.



BLA Code	Colour	Dia mm	Length m	Break Load approx. kg
353713	Red/Yellow	6	200	180
353714	Green/Red/Yellow	7.5	200	275
353715	Red/Green/White	7.5	200	275
353716	Yellow/Red/Green	7.5	200	275

Airhead® Line Winder

No more tangled lines with this classic styled, red floating line winder! It's easy to wind and neatly stow away anchor lines, mooring lines, ski ropes and tube ropes. Get a few for the garage too. Organise your extension cords, wires, clothes lines and Christmas lights once and for all. It's constructed of high impact polypropylene for extra long service. Holds up to 45m of 0.95cm diameter rope. Rope not included.

BLA Code
501057

High Capacity Hand Pump

Heavy duty double action hand pump. Ideal for use on a wide range of inflatable products, including tubes and larger inflatable boats. Easy push on hose for inflation or deflation with continuous pumping on both strokes. Complete with hose and five interchangeable connectors.

BLA Code
505140

Airhead® Tube Multi-Valve

Airhead Multi-Valve consists of 2 Boston valves with different thread patterns on the bottom and a Shrader valve with cap. One of the Boston valves is sure to fit the thread pattern of your inflatable, no matter what brand. The Boston Valves have a square base, which is much easier to turn than a round base, especially with wet hands. Use the Shrader valve to inflate your inflatables at a gas station or with an air compressor. Alternatively, screw off the Shrader valve and inflate the Boston valve with an Airhead air pump. All components are bright red and green, so they're easy to find. Sold as a pair.

BLA Code
505501

Airhead® High Pressure Hand Pump

- High pressure, up to 15 psi
- Inflates inflatable SUPs to optimal pressure
- Air pressure gauge included
- Locking 1.2m hose, with H-Valve and Boston Valve adapter

BLA Code
505142

Airhead® Boston Valve

The 2 Boston valves have different thread patterns. One is sure to fit the thread pattern of your inflatable, no matter what brand. They have square bases, which are much easier to turn than round, especially with wet hands. Bright red, so they're easy to find. Sold as a pair.

BLA Code
505500

Airhead® Vinyl Repair Kit

This kit includes a 29ml tube of the best commercial grade vinyl cement available and 4mm - 50mm round vinyl patches. Blister packed.

BLA Code
505502

Aqua Zooka™ - Display

Easy to refill display with four replaceable bins holding a total of 48cm x 45cm water guns. Sets up in under 5 minutes.

BLA Code	Dimensions H x W x D cm
502600	152 x 34 x 48

Aqua Zooka™ - 12 & 18

This easy to operate, quick filling water bazooka is constructed of high-impact thermoplastics, and will last for seasons of fun. Simply dip Aqua Zooka into the water and pull back on the handle to siphon water up into the barrel. You're ready to fire, with a range of up to 18.2m! Aqua Zookas are equipped with comfortable EVA handles so that you won't lose your grip, even with wet hands in the heat of battle! The EVA handles also ensure that Aqua Zooka will float on top of the water. Doubles as a bilge pump or household siphon!

502602

502604

BLA Code	Length cm
502602	30
502604	45

Aqua Zooka™ - 24 & 32

This easy to operate, quick filling water bazooka is constructed of high-impact thermoplastics, and will last for seasons of fun. Simply dip Aqua Zooka into the water and pull back on the handle to siphon water up into the barrel. You're ready to fire, with a range of up to 18.2m! Aqua Zookas are equipped with comfortable EVA handles so that you won't lose your grip, even with wet hands in the heat of battle! The EVA handles also ensure that Aqua Zooka will float on top of the water. Doubles as a bilge pump or household siphon!

502608

502610

BLA Code	Length cm
502608	60
502610	81

Aqua Zooka™ - Big Shot™

Aqua Zooka Big Shot's oversized barrels deliver the friend drenching spray you're after! Designed for extreme water battles, just dip the tip in the water and pull back on the ergonomic pistol grip to fill. Now you're ready to fire! The new patent pending "HexDraw" system speeds up reloading and increases efficiency so you're sucking up water, not air. Shoots up to 18.2m! Durable high impact plastic construction.

502612

502614

BLA Code	Length cm
502612	45
502614	60

Aqua Zooka™ - Double Big Shot™

Ready, Aim, Fire! Aqua Zooka Double Big Shot's tandem oversized barrels deliver double the friend drenching power! Designed for the most extreme water battles, just dip the tip in the water and pull back on the ergonomic pistol grip to fill. Now you're ready to fire! The new patent pending "HexDraw" system speeds up reloading and increases efficiency so you're sucking up water, not air. Shoots up to 18.2m! Durable high impact plastic construction.

BLA Code	Length cm
502616	60

Aqua Zooka™ - Double Shot™

This easy to operate, over/under double barrel quick-filling water bazooka is constructed of high-impact thermoplastics to take a lot of punishment. Simply dip it into the water and pull back on the handle to siphon water up into both barrels. You're ready to fire; the double stream has a range of up to 18.2m! Equipped with comfortable EVA handle so that you won't lose your grip, even with wet hands in the heat of battle! The EVA handle also ensure that Aqua Zooka will float.

BLA Code	Length cm
502606	45

Photo courtesy of Trent Short

CANOES & KAYAKS

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Kayak & Canoe Types

Sit-on-Top Kayak

Sit-on-Top kayak paddlers with large body types, long legs, or limited flexibility may feel less confined paddling a Sit-on-Top, than a sit-in kayak. Sit-on-Top kayaks are designed for fishing, surfing, touring, scuba diving and more. With easy entry and exit, a Sit-on-Top is ideal for warm water climates and ease of use.

Sit-in Kayak

These are ideal kayaks in calm conditions, tight water ways, rivers and colder climates. They also offer superior wind protection over a Sit-on-Top.

Canoe

Very versatile boat with easy portability and large weight carrying capacity. Most models can be used with electric motors for ease of use. Perfect for the family or adventurer.

The Ocean Kayak® Difference

Innovation & Sit-on-Top Design

As the worlds largest manufacturer of Sit-on-Top kayaks, the unique Ocean Kayak® open cockpit allows the paddler to enter and exit the kayak easily from the shore, dock, or water, and paddle without feeling confined. Innovation is one of our primary missions when we design our kayaks. Ocean Kayak® continue to be the leader in kayak design and innovation; now for over 40 years.

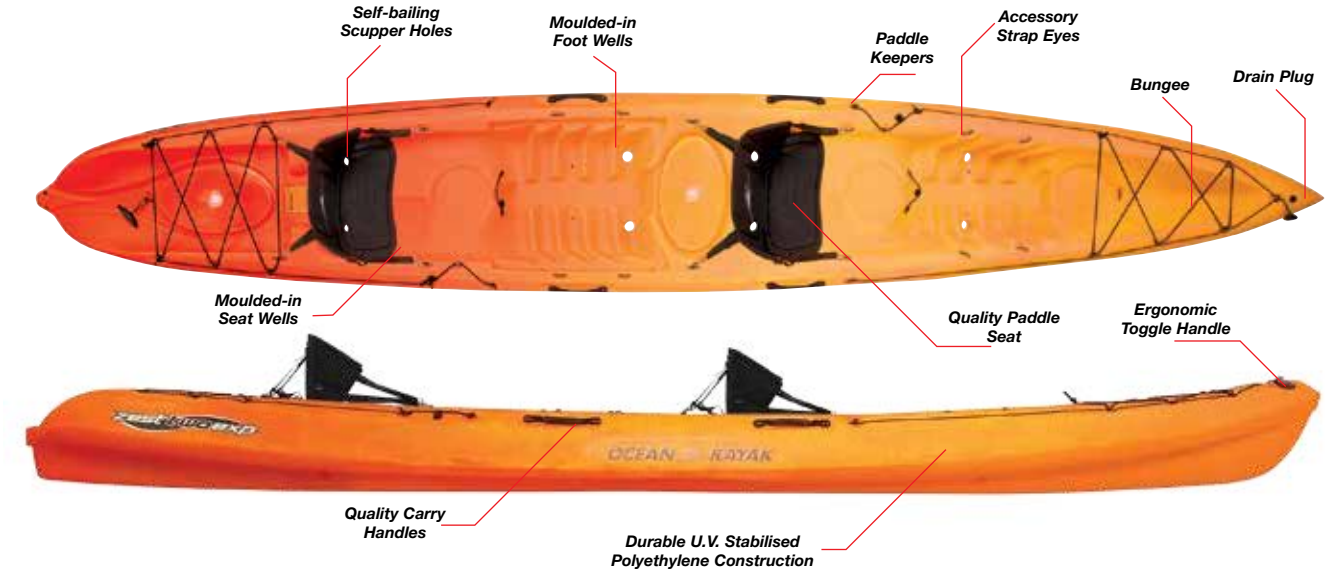
Quality

Our manufacturing process in U.S.A has a series of checklists that ensure our kayaks meet high quality standards. We water test every kayak before it is wrapped up and shipped out. This process allows us to double check the kayak for any manufacturing inconsistencies. Our materials have ultra-violet inhibitors blended in which help prevent the plastic from breaking down in the sun.

Hull Design

What sets Ocean Kayak® Sit-on-Top kayaks apart is our performance hulls. Many of our hulls were designed by a former Olympic coach who is highly regarded in the paddling community.

It is this hull design approach that differentiates Ocean Kayak® from competitors. Although it's obvious that some competitors have copied our successful designs, they are not equal. Most kayaks perform fine on flat, protected water, and ours are no exception. Don't be fooled by the name "Ocean" Kayak. Our hulls are designed for the changing waters of the ocean but they glide smoothly, track superbly, and turn with ease on flat and calmer waters.



Ocean Kayak® Sit-on-Top Kayak - Malibu Two XL

The Malibu Two XL is a popular choice for hire and tour operators; it delivers excellent stability, tracking and manoeuvrability. It is an ideal family kayak with three seating positions allowing single paddling or tandem with enough room for two small kids as well.

Features:

- 2 x comfort seats
- Carry handles
- 2 x bucket hatches
- Moulded handles
- Front and rear bungee
- Water bottle holders

521708

521704 521708

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg	Rudder
521704	Oceans	4.1	0.86	30	225	Fitted
521708	Flame	4.1	0.86	30	225	Fitted

Accessories:

526422 Kayak trolley

PADDLE MATCH
SIMPLY MAGIC PADDLES
ECONOMY PADDLES

Ocean Kayak® Sit-on-Top Kayak - Zest Two Exp

Rated one of the fastest sit-on-top tandems on the market, it's perfect for a day trek or weekend adventure. Load it up! The Zest has tons of storage! This kayak replaces the Cabo.

Features:

- Seats two adults
- Two Comfort Plus seat backs
- Two moulded-in seat wells
- Oversized tank well with bungee
- Paddle keepers
- Moulded-in cup holders
- Deck bungee
- Side mounted carrying handles
- Skid plate

BLA Code	Colour	Length m	Width cm	Weight kg	Bow Seat Width cm	Stern Seat Width cm	Bow Leg Length cm	Stern Leg Length cm	Centre Seat Width cm	Capacity kg
521730	Sunrise	5	77.5	34	48.2	45.7	119.4	124.5	39	272.2

Accessories:

526422 Kayak trolley
526135 2.2m² Sail Red/Yellow/Blue

PADDLE MATCH
SIMPLY MAGIC PADDLES

Old Town® Canoes & Kayaks

Heritage since 1898

Old Town®, Maine, USA is nestled on the edge of the Great North Woods amid the rapids, waterfalls and unforgiving boulders of the Penobscot River. Here, over 100 years ago, the Old Town® Canoe Company was born. Our first wood and canvas canoe was built by A.E. Wickett in 1898. After a strong run as the largest canoe manufacturer in the world, Old Town® made its first kayak in 1940. By 1970, Old Town® had won awards for material innovation with its boats. Since then, Old Town® has helped reshape the canoe and kayak industry. Today, Old Town® continues to advance the canoe and kayak tradition through design and material innovation.

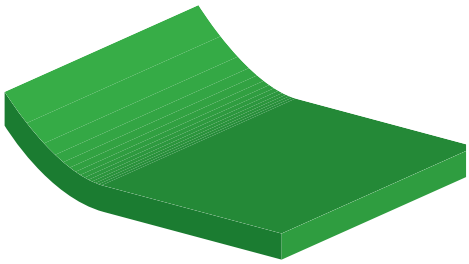
Old Town® Kayak Materials

Single Layer Linear Polyethylene

Single layer is just that, one layer of plastic that doesn't sacrifice durability for weight. This material and process is used on the Predator Series and Vapor model.

Key benefits of single layer polyethylene:

- Excellent durability
- Excellent finish allows colours to really shine
- High impact resistance
- High abrasion resistance
- Low cost



Single layer polyethylene

Old Town® Canoe Materials

Thermoformed Polyethylene

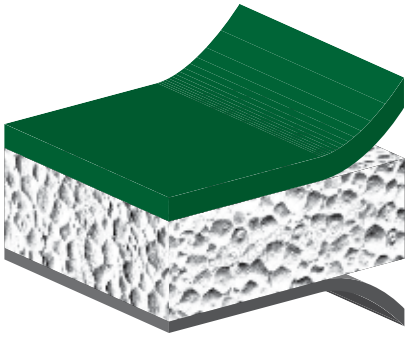
The Saranac Series and the Rogue River 154 SS are both manufactured using the thermoforming process. The thermoformed plastic material is durable and provides better abrasion and impact resistance than more expensive fibreglass hulls. Compared to aluminum the plastic hull is less prone to denting and quieter during on water activity.

Three Layer Polyethylene

The three layer polyethylene has been used to successfully manufacture several canoe models for decades. This material is used to produce canoes using a rotational moulding process. This scientifically-designed structural sandwich includes a layer of closed cell foam surrounded by layers of high-density linear polyethylene.

Features:

- Superior strength and durability
- Excellent finish allows colours to really shine
- Lighter, stiffer and stronger than single-layer
- Foam core provides built-in floatation, and insulation against cold and noise



Old Town® Sit-on-Top/Stand-Up Kayak - Predator XL

The Old Town® Angler Series is completely engineered, below and above the waterline, to deliver the perfect platform for fishing.

Old Town® took inspiration from our nationwide team of pro staff members, focused on innovative features, and spent years on in-depth research and development. Our team examined seating, rod placement, paddle holders and total “fish-ability” and incorporated it all into this revolutionary fishing series.

Like it’s siblings the Predator 13 and MX, the XL incorporates all the innovative features of the Predator that anglers are raving about, like the Exo-Ridge deck, Element Seat System, high-strength mounting plates and Tri-Hull design.

You asked for a high-capacity version of the Predator, here it is. Available in urban camo, the largest in the Predator fleet, the XL truly lives up to its name at 6.35cm wider, featuring more storage options, virtually infinite configurations for mounting sonar and electronics, and an unprecedented 272kg capacity.

What really separates the XL from the rest of the pack is something truly inspired. Old Town’s engineers have designed an optional revolutionary modular console system in tandem with our newest Predator. The Predator XL incorporates an innovative system that allows you to customise your Predator XL with electronics or recreational paddling in a matter of mere seconds.

PREDATOR XL CONSOLE SYSTEM

Features:

- Element Seating System
- Performance crafted tri-hull
- Slip Resistant Exo-Ridge Deck
- Scupper holes
- 6 Removable mounting plates
- Rod tip holders & rod retainer bungees
- Exo-Ridge tank well
- Side-mount paddle storage
- Moulded paddle rest
- Large bow hatch with click seal cover
- Dual tackle holders
- Stand-up assist strap
- Rudder

523900

POWERED BY

PADDLE MATCH
SIMPLY MAGIC PADDLES

BLA Code	Description	Colour	Length	Width	Weight	Seat Width W/Out Console	Seat Height	Leg Length	Bow Hatch	Capacity
			m	m	kg	m	m	m	m	kg
523900	Predator XL with Minn Kota Console	Urban Camo	3.96	0.91	41	0.53	0.38	1.22	0.42 x 0.27	272
523902	Predator XL with Utility Console	Urban Camo	3.96	0.91	41	0.53	0.38	1.22	0.42 x 0.27	272
523904	Predator XL with Paddle Console	Urban Camo	3.96	0.91	41	0.53	0.38	1.22	0.42 x 0.27	272

Accessories:

523910 Minn Kota® Console
523911 Utility Console
523912 Paddle Console

Old Town® Predator XL Modular Console System

– Minn Kota, Utility & Paddle

Old Town's design team never stops thinking up new ideas, the innovation of the XL console system means that the Predator is not just a premier fishing kayak, it's an ever-adaptable platform ready for you to customise to your exact needs. Quickly change functionality with the 3 different consoles, and adapt in a snap.

The Minn Kota Console provides complete hands-free navigation and trolling with 45lbs of variable thrust. With steerable forward and reverse, Predator's saltwater grade console delivers and keeps you on the fish all day. Features Minn Kota's Digital Maximizer for a full day motoring. Includes LED charge indicator, and USB charge ports.

The Utility Console has been engineered as a complete and quickly removable SONAR electronics management system. It features a SONAR-ready mounting plate, and battery and cable storage compartments.

The flush-mount Paddle Console has a paddle deck wide-open for big game fishing. With a 272kg capacity, any size is welcome aboard. Features Exo-Ridge design for confident standing casts.

523910

523911

523912

BLA Code	Description	Suits	Length cm	Width cm	Height cm	Weight kg
523910	Minn Kota® Console	Predator XL	74	31	64	11.56
523911	Utility Console	Predator XL	74	31	38	3.63
523912	Paddle Console	Predator XL	74	31	21	2.72

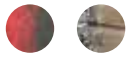
Old Town® Sit-on-Top/Stand-Up Kayak - Predator MX

The Predator MX, or Mixed Water, features a slightly more rounded hull, designed for moving water conditions without sacrificing the Predator's class leading stability and performance.

The Predator MX also features a spacious Exo-Ridge deck providing the perfect standing platform, room for extra gear or a furry companion. It is the most compact model in the series, with a 3.65m length, and weighing in at only 37kg.

Features:

- Element Seating System
- Performance crafted tri-hull
- Slip Resistant Exo-Ridge Deck
- Scupper holes
- 6 Removable mounting plates
- Rod tip holders & rod retainer bungees
- Exo-Ridge tank well
- Side-mount paddle storage
- Moulded paddle rest
- Large bow hatch with click seal cover
- Dual tackle holders
- Stand-up assist strap



523895 523896

523895

BLA Code	Colour	Length m	Width m	Weight kg	Seat Width m	Seat Height m	Leg Length m	Bow Hatch m	Capacity kg
523895	Black/Cherry	3.65	0.86	37.2	0.53	0.38	1.21	0.35 x 0.19	170-181
523896	Urban Camo	3.65	0.86	37.2	0.53	0.38	1.21	0.35 x 0.19	170-181

PADDLE MATCH
SIMPLY MAGIC PADDLES

Old Town® Sit-on-Top/Stand-Up Kayak - Predator 13

Prepare yourself for a totally new fishing experience. The Predator will bring you closer to the water and the action with highly customised features that are engineered to meet the needs of avid anglers and weekend warriors, alike.

Features:

- Element Seating System
- Performance crafted tri-hull
- Slip resistant Exo-Ridge deck
- Scupper holes
- 6 x Removable mounting plates
- Rod tip holders and rod retainer bungies.
- Exo-Ridge tank well
- Side mounted padddle storage
- Multi-fit transducer and scupper
- Moulded paddle rest
- Click seal front hatch
- Mod Pod II centre hatch
- Dual tackle holders
- Stand up assist strap

526772
Mount bracket (526772) installed N.B. Motor not included

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
523892	Tactical Camo	4	0.85	32.7	190

Accessories:
526772 Motor bracket

For compatible motors
See Section 60

PADDLE MATCH
SIMPLY MAGIC PADDLES

Old Town® Sit-in Kayak - Vapor 10

This sporty kayak offers a stable, efficient and comfortable ride. It is lightweight and manoeuvrable yet still tracks well when needed. It is designed to help you access the hard to get to places, and is ideal for rivers, estuaries, dams and lakes.

Features:

- Adjustable comfort flex seat
- Moulded-in cockpit tray with cup holder
- Thigh pads
- Stern day well
- Adjustable foot pedals
- Moulded-in paddle rest
- Built-in carry handles
- Drain plug

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg	Cockpit m
523862	Cloud	3	0.72	20	135	1.22 x 0.49

Accessories:

526422 Kayak trolley

PADDLE MATCH
SIMPLY MAGIC PADDLES
ECONOMY PADDLES

Old Town® Canoe - Discovery 15

With a square stern, the Discovery 15 can be paddled traditionally or motored with up to a 5 HP motor or Minn Kota® electric motor. Extremely versatile, the Discovery 15 is great for any outdoor enthusiast. Designed with full-length stabilising chines and a generous beam, the Discovery 15 provides a dry and confident ride. Whether rowed, paddled or motored, you'll enjoy the Discovery 15.

Features:

- 3 x nylon web seats
- Vinyl gunwales
- Comfortable carrying handles
- Extremely durable three layer polyethylene
- Oar socket and lock kit included (not installed)
- Square stern accommodates up to 5 HP motor

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
524274	Camo	4.6	1.02	51.3	760

Accessories:

526422 Kayak trolley
526770 Motor mount

For compatible motors
See Section 60

PADDLE MATCH
'T' GRIP CANOE PADDLES

Old Town® Canoe - Rogue River 154SS

The Rogue River 154 Square Back is ideal for day trips, fishing expeditions or family fun camping weekends. It is suitable for use with up to a 3 HP motor or a 45lb Minn Kota® electric motor.

Features:

- 3 x Contoured seats
- Dry hatch
- Water bottle holders
- Insulated cooler/dry well
- Integrated motor bracket
- Carry handles

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
524190	Green	4.7	1.12	53.5	386

Accessories:

526422 Kayak trolley
526304 Paddle/rod leash

For compatible motors
See Section 60

PADDLE MATCH
'T' GRIP CANOE PADDLES

Old Town® Canoe - Saranac 146

The Saranac 146 is ideal for day trips, fishing expeditions or fun family camping weekends away. It has added comfort features, is easy to paddle and has excellent stability and a fast hull speed.

Features:

- 2 x Contoured seats
- Seat pads and seat backs
- Day hatch
- Centre bench seat - hatch
- Paddle rests
- Storage trays
- Cup holders
- Carry handles
- Rod holder

524198

524194 *524198*

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
524194	Green	4.4	0.91	35.8	330
524198	Red	4.4	0.91	35.8	330

Accessories:

526422 Kayak trolley
526770 Motor mount

For compatible motors
See Section 60

PADDLE MATCH
'T' GRIP CANOE PADDLES

Old Town® Canoe - Discovery 119

Compact and fun to paddle, the Discovery 119 has been a long time favourite. Like the others in the series, this solo canoe is agile, stable and easy to handle. It's even well-suited for a double-bladed paddle. And thanks to our construction process, it's tough without being too heavy. Let the Discovery 119 help you explore new territory.

Features:

- Comfortable contoured seat with adjustable backrest
- Designed for solo paddling and well-suited for a double-bladed paddle
- Durable, yet lightweight
- Vinyl gunwales
- Ash thwarts
- Comfortable carrying handles
- Extremely durable three layer polyethylene

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
524154	Camo	3.6	0.83	19.5	215

Accessories:

526422 Kayak trolley
526770 Motor mount

For compatible motors
See Section 60

PADDLE MATCH
'T' GRIP CANOE PADDLES

Old Town® Canoe - NEXT

From the company with a rich 100-year history in paddlesports, comes a product that represents the future. The NEXT is a totally fresh and uniquely fun solo experience that brings a century of expertise into one truly amazing personal watercraft unlike any other. Built for one, but designed for all, the NEXT represents a new generation of boating for today's generation of paddle, outdoors and fitness enthusiasts.

Features:

- Design incorporates both canoe and kayak characteristics for fun, remarkably easy and natural paddling experience
- Pronounced tumblehome and lower profile for easier paddling
- Ideal for both double-bladed and single-bladed paddles
- 3-layer hull features subtle rocker for straight, smooth tracking
- Element™ seating system offers enhanced comfort and performance

524280 *524282*

BLA Code	Colour	Material	Length m	Width m	Seat Width m	Weight kg	Capacity kg
524280	Lemongrass	3-Layer Poly	3.96	0.74	0.53	24.04	204.1
524282	Purple	3-Layer Poly	3.96	0.74	0.53	24.04	204.1

Accessories:

527270 Lemongrass NEXT Paddle 220cm
527272 Purple NEXT Paddle 220cm

PADDLE MATCH
OLD TOWN RECREATIONAL

Photo courtesy of Trent Short

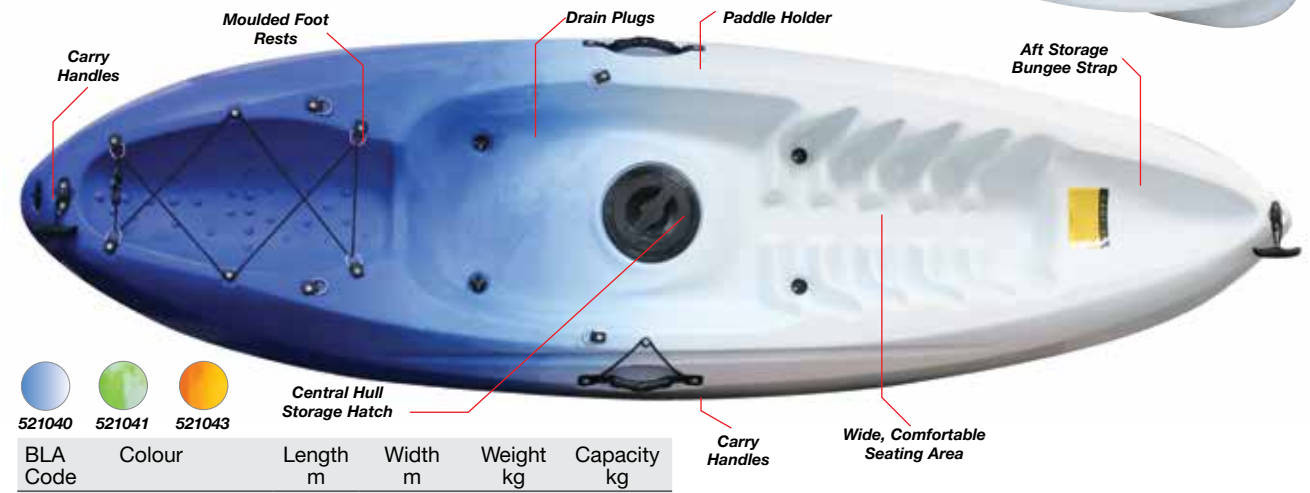
Kruze Kayaks Sit-on-Top Kayak - Bondi Single Person

A high capacity, lightweight, rotationally moulded single seat kayak designed as a general purpose family Sit-on-Top. Compact, manoeuvrable hull design is easy to paddle while maintaining excellent stability and directional control.

Major features include central hull storage hatch, aft bungee storage strap plus forward, aft and side carry handles.

Features:

- Wide, comfortable moulded seating area
- Optional comfort seat attachment points
- Side carry handles, single paddle holder
- Scupper plugs and drain bung
- Extremely stable and efficient
- Accepts wide weight range and skill level



521040 521041 521043

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
521040	Blue/White	2700	800	19	130
521041	Green/White	2700	800	19	130
521043	Orange/Yellow	2700	800	19	130

Accessories:

526422 Kayak trolley
526425 Deluxe seat
221042 Double ended economy paddle

PADDLE MATCH
SIMPLY MAGIC PADDLES
ECONOMY PADDLES

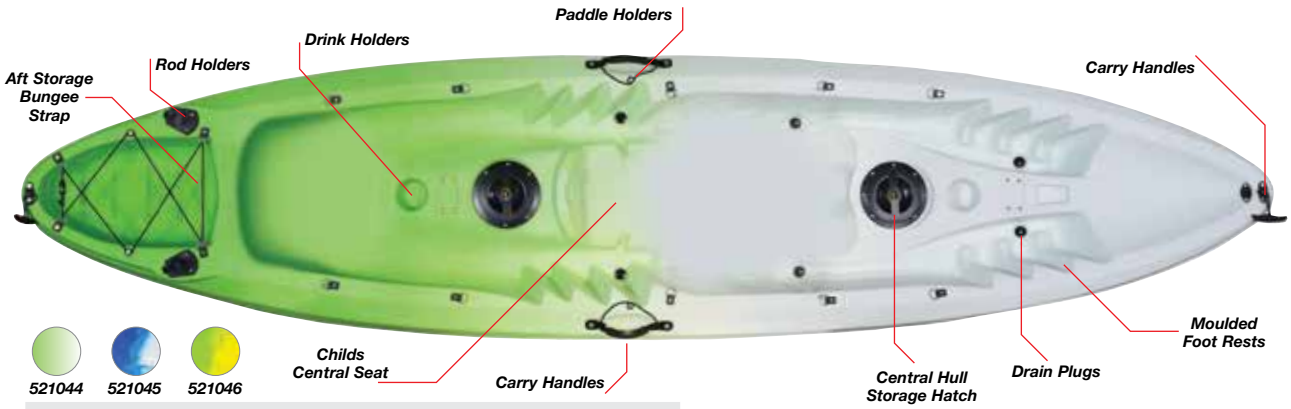
Kruze Kayaks Sit-on-Top Kayak - Bells Two Person

A high capacity, lightweight, rotationally moulded kayak featuring three moulded seats designed as a general purpose family Sit-on-Top. The central seat allows children to be easily and safely accommodated. Manoeuvrable hull design is easy to paddle while maintaining excellent stability and directional control.

Major features include two central hull storage hatches, two sealed rod holders with covers, two moulded drink holders, aft bungee storage strap plus forward, aft and side carry handles.

Features:

- Wide, comfortable moulded seating area
- Optional comfort seat attachment points
- Two sealed rod holders
- Two storage hatches
- Two drink holders
- Side carry handles with paddle holders
- Scupper plugs and drain bung
- Extremely stable and efficient
- Accepts wide weight range and skill level



521044 521045 521046

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
521044	Green/White	3700	860	32	230
521045	Blue/White	3700	860	32	230
521046	Yellow/Green	3700	860	32	230

Accessories:

526422 Kayak trolley
526425 Deluxe seat
221042 Double ended economy paddle

PADDLE MATCH
SIMPLY MAGIC PADDLES
ECONOMY PADDLES

Kruze Kayaks Sit-on-Top Kayak - Murray Single Person

A high capacity, lightweight, rotationally moulded single seat fishing kayak. Compact, manoeuvrable hull design is easy to paddle while maintaining excellent stability and directional control.

Features:

- Wide, comfortable moulded seating area
- Optional deluxe seat attachment points
- Side carry handles, one paddle holder
- 2 x 6" hatches with bag inserts
- Front & rear carry handles
- 4 x Flush mount rod holder

BLA Code	Colour	Length m	Width m	Weight kg	Capacity kg
521050	Green Camo	2950	780	22	180

PADDLE MATCH
SIMPLY MAGIC PADDLES
ECONOMY PADDLES

Minn Kota® Electric Propulsion For Your Canoe

ANYWHERE. ANYTIME.

601144

601110

601136

For compatible motors
See Section 60

Pacific Action™ Kayak Sail System

Sail Rigs for Sea Kayaks

Pacific Action™ sail systems were developed by kayak enthusiasts to enhance the paddling experience. They have established a formidable reputation as being stable and reliable with both beginners and seasoned professionals alike and are simplistic in both design and operation. Designed to be used in conjunction with a paddle, the Pacific Action™ sails can be used in trans-ocean crossings as well as leisurely afternoons on the bay. Simply unwrap the sail from the twin masts and release. The integrated shockcord pulls the sail up and the mast-step cam system maintains the optimum shape. Adjustment to the sail shape/angle is simply made by the aft led trimming line.

Rigging Packs

Complete rigging packs containing running rigging, deck fittings and mast step anchor points for mounting your kayak sail onto an additional kayak. Particularly useful if you own a sit-in and a Sit-on-Top and only one kayak sail.

Rigging Pack

1m² Kayak Sail System

Recommended for use with small to medium (3m to 4.1m) sit-on-tops or sit-in kayaks. Sail is manufactured from durable Ripstop® 210 polyester and is supplied as standard with a clear vinyl window in the bottom panel. The masts are spun fibreglass and the mast base is glass reinforced nylon. Supplied complete with all components required for installation along with comprehensive installation, sailing instructions and sail bag.

Height: 1.5m
Maximum width: 1.3m
Weight: 1.5kg

1.5m² Kayak Sail System

Recommended for use with medium to large (3.6m to 5.5m) sit-on-tops or sit-in kayaks. May also be used on small canoes. Sail is manufactured from durable Ripstop® 210 polyester and is supplied as standard with a clear vinyl window in the bottom panel. The masts are spun fibreglass and the mast base is glass reinforced nylon. Supplied complete with all components required for installation along with comprehensive installation, sailing instructions and sail bag.

Height: 1.8m
Maximum width: 1.5m
Weight: 1.9kg

2.2m² Kayak Sail System

Recommended for use with double sit-on-tops, sit-in kayaks and larger canoes. Sail is manufactured from durable Ripstop® 210 polyester and is supplied as standard with a clear vinyl window in the bottom panel. The masts are spun fibreglass and the mast base is glass reinforced nylon. Supplied complete with all components required for installation along with comprehensive installation, sailing instructions and sail bag.

Height: 2.2m
Maximum width: 1.8m
Weight: 2kg

BLA Code	Size	Sail Colours	Suits
526099	1.0m² Sail	Blue/Yellow	Sit-in & Sit-on Kayaks
526101	1.0m² Sail	Red/Yellow	Sit-in & Sit-on Kayaks
526108	1.0m² Sail	Red/Clear	Sit-in & Sit-on Kayaks
526119	1.5m² Sail	Blue/Yellow	Sit-in & Sit-on Kayaks
526121	1.5m² Sail	Red/Yellow	Sit-in & Sit-on Kayaks
526123	1.5m² Sail	Red/White/Blue	Sit-in & Sit-on Kayaks
526125	1.5m² Sail	Blue/Clear	Sit-in & Sit-on Kayaks
526135	2.2m² Sail	Red/Yellow/Blue	Sit-in & Sit-on Kayaks
526137	2.2m² Sail	White/Clear	Sit-in & Sit-on Kayaks
526169	All	-	Rigging Pack
526190	All	-	Cleat Set T/S Sail Control Lines
529639	All	-	Webbing Mounts (Pair)

Old Town® Recreational Paddles - NEXT

Fibreglass reinforced polypropylene blades colour matched to canoe are lightweight and durable. The asymmetrical, slightly curved blade shape combined with a lightweight, flexible fibreglass shaft produces smooth yet powerful strokes.

527270

527272

BLA Code	Colour	Blade Material	Shaft Material	Length cm	Weight kg
527270	Lemongrass	Reinforced Polypropylene	Wrapped Fibreglass	220	1.1
527272	Purple	Reinforced Polypropylene	Wrapped Fibreglass	220	1.1

Carlisle® Recreational Paddles - Simply Magic

Designed for recreational use with Sit-on-Top and sit-in kayaks. An extremely durable general purpose paddle designed for the beginner to intermediate paddler. Shafts are 29mm in diameter and are available in single piece aluminium, single piece fibreglass and two piece fibreglass. Blades are manufactured from glass fibre reinforced injection moulded polypropylene, 60° offset asymmetric cut, cupped shape for power paddling and are 180mm wide. Supplied as standard with grip indicators, sealed blades, sealed shafts and drip rings.

527320

527262

527324

527384

527380

Flame Oceans

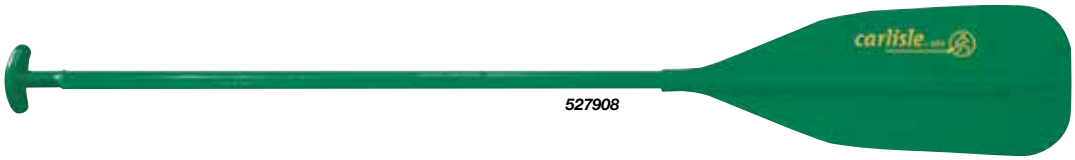
Colours and patterns may vary

BLA Code	Length m	Blade Width mm	Shaft Material	Type	Colour
527262	2.2	180	Alloy	1 Piece	Flame
527320	2.2	180	Fibreglass	1 Piece	Flame
527324	2.2	180	Fibreglass	1 Piece	Oceans
527380	2.2	180	Fibreglass	2 Piece	Flame
527384	2.2	180	Fibreglass	2 Piece	Oceans

2 Piece Pin

Carlisle® Recreational Paddles - T-Grip Standard/Canoe

Lightweight and durable, this is the perfect all-purpose paddle. An 8" x 20" blade adds power to your stroke.



BLA Code	Length m	Blade Width mm	Shaft Alloy	Colour	Material
527908	1.37	200	1 Piece	Green	Aluminium
527914	1.45	200	1 Piece	Green	Aluminium
221052	1.45	200	1 Piece	Alloy	Aluminium

Recreational Paddles - Economy

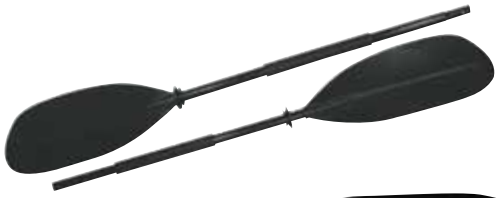
Single piece paddles with 60º offset asymmetrical injection moulded polypropylene blades and anodised aluminium 29mm diameter shaft. Overall length of 2.16m with a 180mm wide paddle blade. Available in five blade colours.

BLA Code	Length m	Blade Width mm	Shaft Alloy	Colour
221044	2.16	180	1 Piece	Yellow
221045	2.16	180	1 Piece	Blue
221046	2.16	180	1 Piece	White
221047	2.16	180	1 Piece	Red
221050	2.16	180	1 Piece	Black

N.B. Replacement blades available.

Paddle - Two Piece Kayak

Made of heavy duty black EDC coated aluminium shaft with foam hand grips and PVC anti-drip rings these two piece kayak paddles have a simple spring action pin for quick and simple assembly as well as for three position 60º - 0 - 60º angle adjustments. Asymmetric nylon blades. Ideal for storage and compact transport.



BLA Code	Length m	Length ft	Shaft Dia. mm	Blade Size mm
221049	2.20	7'3"	25	175

Rack-It-Up™ Storage System

The Rack-It-Up™ system offers a unique low cost, versatile and space saving solution for the safe storage of a wide range of water toys and accessories. The range features product specific moulded arms to suit kayaks and paddles, wakeboards, paddle boards, surf boards and fishing rods as well as offering a host of other general storage solutions around the home or business.

Manufactured from super tough and strong glass reinforced nylon, the Rack-It-Up™ system is designed to handle weights ranging from 18kg to 80kg depending on the model. Easy to install with most models featuring an interchangeable sleeve design that allows the removal of the support arms when not required.

Each set includes a pair of sturdy wall brackets and product specific support arms. With the ability to be tiled the Rack-It-Up™ system offers the potential to store as many items as required. Sold in colourful hang sell packs featuring product descriptions, suggested uses and other range models.

Rack-It-Up™ Kayak and Two Paddle Racks

Perfect for storing a wide range of kayaks, surf skis and sit-on-tops. The racks also incorporate two moulded hooks, perfect for storing paddles or hanging accessories. Supplied with two modular sections they can accommodate any kayak length, while their construction allows for outdoor mounting in direct sunlight or where they are exposed to water.

Features:

- Manufactured from reinforced glass filled nylon resin
- Rack capacity = one vessel, plus two paddles or accessories
- Holds up to 80kg
- Adjustable padded cradles
- Mount at any distance to accommodate differing lengths
- Rack protrudes 510mm from wall
- Set includes pair of product specific support arms and brackets

In-situ Kayak and Two Paddle Racks

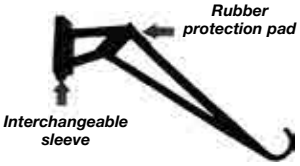
BLA Code
529234

Rack-It-Up™ Wakeboard and Kiteboard Rack

Sold as a set to store one board but can be easily tiled up a wall to store numerous boards of differing lengths and styles.

Features:

- Manufactured from reinforced glass filled nylon resin
- Rack capacity = one wakeboard or kite board
- Holds up to 18kg
- Rubber impact pads for protection
- Mount at any distance to accommodate differing lengths
- Rack protrudes 406mm from wall
- Set includes pair of product specific support arms and brackets



In-situ Wakeboard & Kiteboard Rack

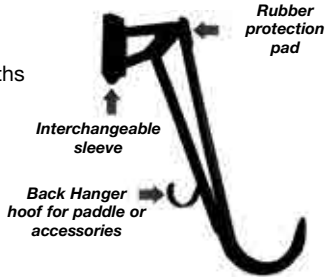
BLA Code
529216

Rack-It-Up™ Stand Up Paddle Board Rack

Sold as a set to store one board but can be easily tiled up a wall to store numerous boards of differing lengths and shapes. In addition, a convenient built-in paddle storage hook on the back side of the rack is also incorporated into the design.

Features:

- Manufactured from reinforced glass filled nylon resin
- Rack capacity = one stand up paddle board, plus one paddle or accessory
- Holds up to 20kg
- Rubber impact pads for protection
- Mount at any distance to accommodate differing lengths
- Rack protrudes 350mm from wall
- Set includes pair of product specific support arms and brackets



In-situ Paddle Board Rack

BLA Code
529228

Rack-It-Up™ Paddle Storage Rack

Sold as a set and can be easily tiled up a wall to store numerous sets of paddles of differing lengths and shapes including kayak, stand up and canoe paddles.

Features:

- Manufactured from reinforced glass filled nylon resin
- Rack capacity = three paddles
- Holds up to 18kg
- Mount at any distance to accommodate differing lengths
- Rack protrudes 230mm from wall
- Set includes pair of product specific support arms and brackets

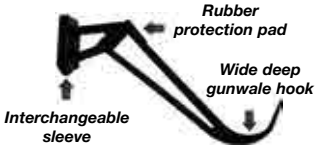
BLA Code
529260

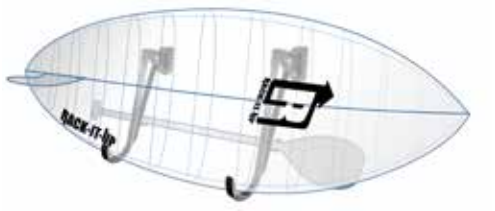
Rack-It-Up™ Nipper, Malibu or Paddle Board Rack

Sold as a set to store one board but can be easily tiled up a wall to store numerous boards of differing lengths and shapes.

Features:

- Manufactured from reinforced glass filled nylon resin
- Rack capacity = one nipper, plus Malibu type or paddle board
- Holds up to 18kg
- Rubber impact pads for protection
- Mount at any distance to accommodate differing lengths
- Rack protrudes 432mm from wall
- Set includes pair of product specific support arms and brackets





In-situ Nipper, Malibu or Paddle Board Rack

BLA Code
529222

Rack-It-Up™ Surfboard Rack

Sold as a set to store one board but can be easily tiled up a wall to store numerous boards of differing lengths and styles.

Features:

- Mount at any distance to accommodate differing lengths
- Manufactured from reinforced glass filled nylon resin
- Rack capacity = one surfboard
- Holds up to 18kg
- Rubber impact pads for protection
- Rack protrudes 432mm from wall
- Holds surfboards with rails up to 75mm
- Set includes pair of product specific support arms and brackets

In-situ Surfboard Rack

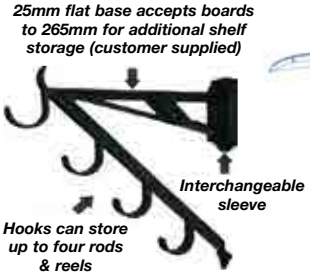
BLA Code
529200

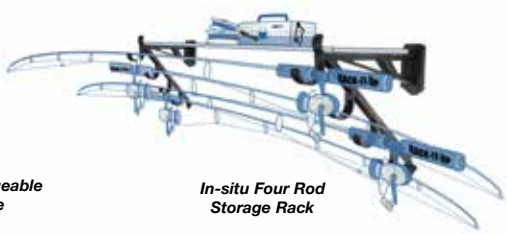
Rack-It-Up™ Four Rod Storage Rack

Designed so the reel can be left on and is ideally suited to a wide range of rod and reel types. Sold as a set and can be easily tiled up a wall to store numerous combinations. Moulded into the top of the rack is a 25mm flat base which allows a board up to 265mm in width to be added to create a shelf, ideal for storing tackle boxes and accessories.

Features:

- Manufactured from reinforced glass filled nylon resin
- Rack capacity = four individual rod combinations
- Holds up to 20kg
- Mount at any distance to accommodate differing rod lengths
- Rack protrudes 330mm from wall
- Set includes pair of product specific support arms and brackets





In-situ Four Rod Storage Rack

BLA Code
529270

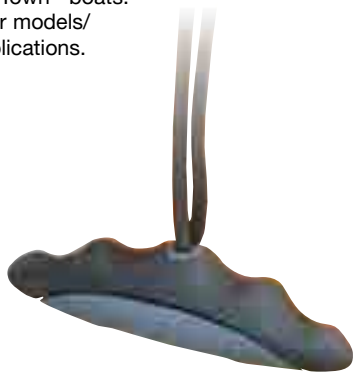
Knee Straps

Supplied with brass clips for ease of installation/removal, the knee straps are designed for use on boats being used in the surf. They allow the user to lean into the wave further by offering support to the knee/thigh area. Sold as a pair.

BLA Code
526424

Lifting Handle

Replacement 'T' type lifting handle for Ocean Kayak® and Old Town® boats. Suitable for use on other models/ designs or for other applications.



BLA Code
526634

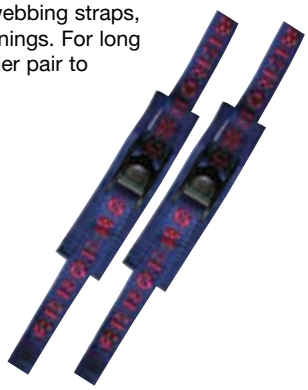
Folding Anchor

0.7kg hot dipped galvanised anchor that can be assembled in seconds.

BLA Code	Size kg
146470	0.7

Aerofast® Roof Rack Tie Downs

Tie your kayak or canoe down quickly and securely with the 2 x 25mm webbing straps, complete with cam lock fastenings. For long kayaks and canoes use another pair to secure the bow and stern.
Sold as a pair.



BLA Code	Length m
215116	3
215117	4

Motor Mount

Fully adjustable motor mount that will suit most canoes with a gunwale of more than 25mm. Cast aluminium and timber construction. Accepts up to a 4 HP two stroke motor or 55lb thrust Minn Kota® electric motor.

Old Town Predator 13 motor mount **526772** is also available.

BLA Code	Type
526770	Most canoes
526772	Predator 13

Carry Handle

Side carry handle with padded grip that suits most Ocean Kayak® and Old Town® boats. Suitable for use on other model/ designs or other lifting applications.

BLA Code
526638

Kayak Trolley

Economical lightweight folding kayak trolley, pneumatic tyres, alloy frame and adjustable supports. Folding arm to allow kayak placement and fastening with webbing strap.

BLA Code
526422

Cannon Adjustable Rod Holder

Fully adjustable 360º rod holder that can be mounted vertically or horizontally. This rod holder features a spring loaded tension knob and is suitable for use with both spinning and baitcast type rods. **394480** is supplied with four stainless steel metal threads.

BLA Code	With Stainless Steel Threads
394480	Yes
394481	No

Scupper Stoppers

Scupper plugs are designed for insertion into the scupper holes on Ocean Kayak sit-on-tops to help keep your bottom dry whilst paddling. Refer below for quantity and size required. Sold as a set of 2.

BLA Code	Description
526470	Extra Small (XS)
526472	Small (S)
526474	Medium (M)
526476	Large (L)
526480	Venturi Style Medium (M)

Old Town® Hatch Kit

Hinged rear well cover kit, to suit the Vapor 10 kayak.

BLA Code
529555

Threaded Drain Plug

Threaded drain plug suits all style Ocean Kayaks.

BLA Code
526642

Easterner Rod Holder Kits

- No Drain

Flush 220mm deep angled plastic rod holder kit without fastenings or gasket.

BLA Code
526542

Live Bait Tank

Moulded polyethylene tank, fits inside Prowler tank wells and includes 12 volt pump, hose and fittings. 585mm long x 340mm high x 340mm wide.

BLA Code
395202

Spare Parts:

193666 Replacement hinges

N.B. Pump is not self priming, requiring gravity feed.

Ocean Kayak® Comfort Seat

This is the standard seat to suit most Ocean Kayak® models. Supplied with brass clips for ease of installation/removal. Designed to enhance comfort, support and offer warmth whilst paddling.

BLA Code
526428

Ocean Kayak® Comfort Zone Seat

The Comfort Zone Seat is taller for additional support, with extra padding for a more comfortable and softer ride.

BLA Code
526427

Old Town® Sitbacker Canoe Chair

Padded, portable folding chair suitable for use with most timber and plastic canoe seats. The continuous strap support system controls the angle of the seat with one adjustment and can also double as a carrying strap. Nylon webbing straps with buckle hold the chair firmly in place.

BLA Code
526436

Kruze Kayaks Deluxe Back Seat

Comfortable thermo-moulded neoprene base and backing provides extra support for upper and lower back. Multi-adjustable front and rear straps feature marine grade brass snap hooks that solidly lock you into place and provides easy fitting to all kayak models.

BLA Code
526425

Old Town® Saranac Seat Back Kit

Seat pad and back rest to suit Saranac 146 base model. Requires two per canoe. Comes complete with fitting instructions.

Installed

BLA Code
526435

Image Courtesy of Hook Line & Sinker

ELECTRIC MOTORS

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CONTACT BLA SALES SPECIAL ORDER 1300 252 725

A blue product code or the appearance of this logo indicates the product requires special ordering. Please contact BLA on **1300 252 725** for information on these products.

BLA boatinglifestyleadventure

Advantage Minn Kota®

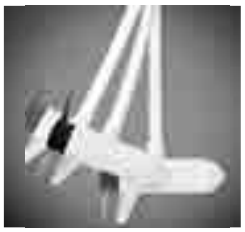
You don't think too much about advanced digital microprocessing. Ultra-high-yield composite materials probably don't dominate your dinner conversation, but these are just some of the things that work together to make our motors outperform and outlast any other trolling motor on the water. They're the result of countless hours of research and testing, and they're the advantages that allow a Minn Kota® to truly take you "Anywhere. Anytime."

MINN KOTA®

ANYWHERE. ANYTIME.

The Minn Kota Core

Your Minn Kota comes ready to dominate, on day one. The indestructible composite shaft is guaranteed for life. The lower unit runs cool to extend battery life, and stays quiet to cut fish-spooking noise. The Weedless Wedge 2 prop's swept-back, flared blades power through anything without battery-draining chopping and hacking.



Indestructible Composite Shaft

Cool, Quiet Power

Weedless Wedge™ 2

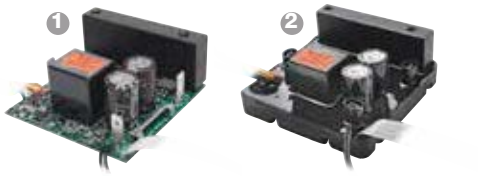
Advanced Corrosion Protection

Riptide's premium-grade alloys are fortified by a multi-step cleaning process, tough-as-nails armour plating and a durable, saltwater-resistant powder coat paint. With this many layers of protection, the elements would have a better chance breaking into Fort Knox.

- 5-mil polyester paint
- Zinc powder primer
- Anodised or dichromate armour plating
- Premium marine alloy cleaned with 7-step process

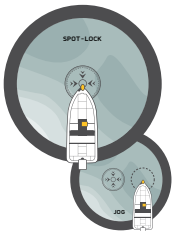
Fully Encapsulated Electronics

Marine-grade urethane fully encapsulates ❶ Riptide® control boards to protect the ❷ electronic circuitry. Also, all electrical connections are sealed with liquid-tight heat shrink tubing to form an impregnable barrier against saltwater.



Spot-Lock

Introducing the most accurate GPS anchor ever. We just took our most trusted GPS feature to the next level. Spot-Lock uses GPS to lock you onto a fishing spot, and now we've re-engineered it to work smarter and hold you stronger and more accurately than ever. Plus, the new Jog feature lets you move your Spot-Lock in any direction. Let's lock and load.



AutoPilot™: Stay the Course

Point the motor head where you want to go, then activate AutoPilot. It'll deliver you on your heading automatically, while correcting for wind, waves and current. On motors with i-Pilot or i-Pilot Link, you get Advanced AutoPilot, which is GPS-powered for even better accuracy.

AutoPilot™

Digital Maximizer™: Up to five times longer run time on a single charge

Motors with Digital Maximizer™ draw only as much power as you need, so they don't waste any energy. These motors are variable speed, so dial in your speed and let Digital Maximizer deliver the right amount of power, while conserving your battery.

digital MAXIMIZER™

New Wireless GPS Trolling System

i-Pilot™

Less navigating means more fishing. That's what the fishing world learned when we introduced i-Pilot – and it hasn't been the same since. i-Pilot uses GPS to lock onto fishing spots, record and retrace paths, command speed and steering, and more – all from a compact, Bluetooth enable remote with a large LCD screen. i-Pilot takes you anywhere you want to go, automatically.

Over 80 Years

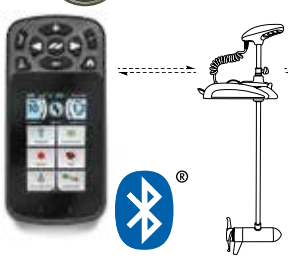
80 OVER YEARS OF MINN KOTA

The Minn Kota electric trolling motor began its life in 1934 in Fargo, North Dakota. Because of its proximity to the MINNesota – North DaKOTA border, the inventor, Mr. Schmidt named the business The Minn Kota Manufacturing Company. Since its founding, Minn Kota has led the way in product innovation and cutting-edge technology. The Minn Kota list of "firsts" supports this commitment to trolling motor development and the fishing community.

The Link to Better Fishing

i-Pilot LINK

i-Pilot Link lets your Humminbird and trolling motor communicate with each via Bluetooth which means you can use your Humminbird or the Link remote to control your motor. Link also boasts an enormous arsenal of features and functions – there's no limit to where fully integrated, GPS precision can take you.



Minn Kota® i-Pilot® Link™

Redesigned with new features, a new remote, and Bluetooth connectivity, the new i-Pilot Link system communicates better than ever before to give you even more control of your trolling motor from your Humminbird or i-Pilot Link remote.

EXCLUSIVE TO:

Redesigned Remote

A more compact remote with a bigger, full-colour touchscreen featuring a fully-customisable menu. A keypad with commonly used navigation functions gives you the best of both worlds.

Bluetooth Communication

The new i-Pilot system connects via Bluetooth, allowing for easy software updates to add new features to your system via your smartphone.

i-Pilot Link Phone App

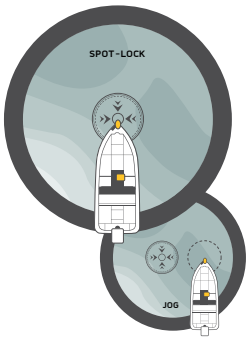
Bluetooth communication allows new i-Pilot to pair with your smartphone, allowing for easy software updates and quick command of speed, steering, Spot-Lock, high speed bypass, and Advanced AutoPilot.

Heading Sensor

A new Heading Sensor recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot Link system to minimise boat swing.

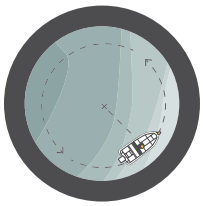
Reinvented Spot-Lock

Enhanced with new hardware and software algorithms, Spot-Lock works holds you tighter to your fishing spot than ever before, making it the most accurate electronic GPS anchor ever.



Spot-Lock Jog

Move your Spot-Lock five feet forward, backward, left or right - just by pushing a button. Feature available with Heading Sensor fitted.



Circle Mode

Cast to a spot while orbiting in a circle around it with Circle Mode. Just choose the spot and how far from it you want to be, and your boat will circle the spot while you drop the hammer.

Humminbird Virtual Remote

Control speed, steering, Spot-Lock, and Advanced AutoPilot, directly from a new virtual remote on the Humminbird screen.

Additional Features

- *Follow the Contour*
- *Contour Offset*
- *GoTo*
- *iTrack Record/Playback*
- *BackTrack*
- *Advanced AutoPilot*
- *Cruise Control*
- *CoPilot*

Compatibility

i-Pilot Link is available pre-installed on:

- Ulterra™ / Riptide® Ulterra™
- Terrova® / Riptide® Terrova®

Minn Kota® Saltwater Bow Mount Electric Motor

- Riptide Ulterra i-Pilot Link

The motor Australia and New Zealand has been waiting for.

With Auto Stow/Deploy and Power Trim, we can understand the excitement. The Saltwater Ulterra i-Pilot Link is available in 112lb with shaft lengths from 60" to a massive 72" to cater for the off-shore angler who wants to hold on those off-shore marks.

The optional foot pedal features a spot-lock button, power trim and stow/deploy all from the pedal. The motor comes standard with a remote control providing full operation including trim and stow and deploy.

Features:

- i-Pilot® Link - connect and control with any ethernet compatible Humminbird Sounder
- Auto Stow/Deploy
- Power Trim
- Foot Pedal and Remote Buttons
- 112lb Thrust
- Indestructible Composite Shaft
- Weedless Wedge 2 Prop
- Battery Indicator
- Digital Maximizer
- Limited lifetime warranty on shaft
- 2 year warranty

EXCLUSIVE TO:

Take Control with i-Pilot Link

Link lets you control Riptide Ulterra from your Humminbird or its new touch-screen remote. It includes our new, most accurate Spot-Lock ever, every i-Pilot feature, and the ability to follow depth contours, save and retrace your Humminbird Current Track, and return to productive waypoints. Link on Riptide Ulterra also gives you control of Auto Stow/Deploy and Power Trim.

Link Remote *Phone App*

Heading Sensor

Ulterra i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

Humminbird Virtual Remote

Control speed, steering, Spot-Lock, and Advanced AutoPilot, directly from a new virtual remote on the Humminbird screen.

Massive 72" Shaft

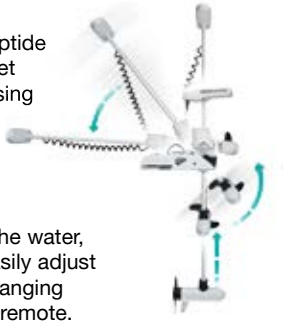
The Ulterra is available in a massive 72" shaft. For offshore anglers in the larger boats, the 72" model (**601630**) is the ultimate motor to hold you on your marks, even in rough conditions.

112LB of Grunt

Stronger than ever, only a Minn Kota is available with 112 pounds of thrust (**601628**, **601630**). Take to the water with improved control on the most powerful trolling motor so you can tackle heavy chop, wind, waves and more without so much as flinching.

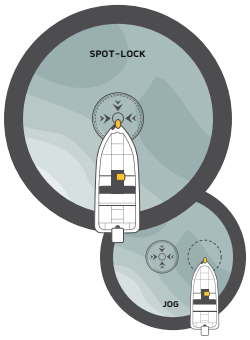
Auto Stow/Deploy

Nothing makes fisihng easier than Riptide Ulterra. Auto Stow/Deploy lets you get your motor in and out of the water using the included i-Pilot Remote.



Power Trim

Once your motor's in the water, Power Trim lets you easily adjust the motor depth for changing conditions, using your remote.

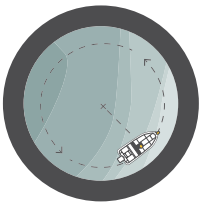


Reinvented Spot-Lock

Enhanced with new hardware and software algorithms, Spot-Lock works holds you tighter to your fishing spot than ever before, making it the most accurate electronic GPS anchor ever.

Spot-Lock Jog

Move your Spot-Lock five feet forward, backward, left or right - just by pushing a button. Feature available with Heading Sensor fitted.



Circle Mode

Cast to a spot while orbiting in a circle around it with Circle Mode. Just choose the spot and how far from it you want to be, and your boat will circle the spot while you drop the hammer.

New Foot Pedal and Remote Buttons

The optional new foot pedal is redesigned to enable Auto Stow/Deploy and Power Trim. Control those features with the new "mode" button on the Ulterra foot pedal, or with i-Pilot remote. We've also added Spot-Lock to the pedal, making it even easier to stand your ground.

602952 Optional

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Foot Pedal	Lift Assist	i-Pilot	Blue Tooth	Jog Mode	Universal Sonar	Max Boat Length m
601628	RT Ulterra 112 i-Pilot Link	112	36	60"	Optional	Auto	Heading Sensor	Yes	Yes	No	7.6
601630	RT Ulterra 112 i-Pilot Link	112	36	72"	Optional	Auto	Heading Sensor	Yes	Yes	No	7.6

Accessories:

602806 i-Pilot Link Remote to suit 2017 Blue Tooth motors (will not suit previous motors)
602810 i-Pilot Link Remote post 2017 cradle to suit **602806**
603009 Quick Release Bracket to suit 60" shaft model only

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

digital MAXIMIZER

Minn Kota® Freshwater Bow Mount Electric Motor

- Ulterra i-Pilot Link

ANYWHERE. ANYTIME.

ULTERRA

The bar has been set to a new height with the Ulterra freshwater motor. With Auto Stow/Deploy and Power Trim, we can understand the excitement. The Ulterra comes with i-Pilot Link, and a standard redesigned foot pedal with Spot Lock button, Power Trim and Stow/Deploy all from the pedal or remote control. The Ulterra also comes standard with Universal Sonar 2 transducer built into the lower unit that will suit Humminbird sounders as well as other electronics with the correct adaptor cable listed below.

Features:

- i-Pilot Link - connect and control with any ethernet compatible Humminbird Sounder
- Universal Sonar
- Auto Stow/Deploy
- Power Trim
- Foot Pedal and Remote Buttons
- Battery Indicator on remote
- Indestructable composite shaft
- 2 year warranty

EXCLUSIVE TO:

HUMMINBIRD PRO STORE | MINN KOTA PRO STORE | i-Pilot LINK

Auto Stow/Deploy

Nothing makes fishing easier than Ulterra. Auto Stow/Deploy lets you get your motor in and out of the water using the included i-Pilot or i-Pilot Link remote.

Power Trim

Once your motor's in the water, Power Trim lets you easily adjust the motor depth for changing conditions, using your remote. Ulterra handles the busy work, so you can focus on fishing.

Ergonomically Designed Foot Pedal

Ulterra's foot pedal lets you stow, deploy, trim up/down, and activate a Spot-Lock in addition to speed and steering controls. Includes 18' cord.

602952 Included

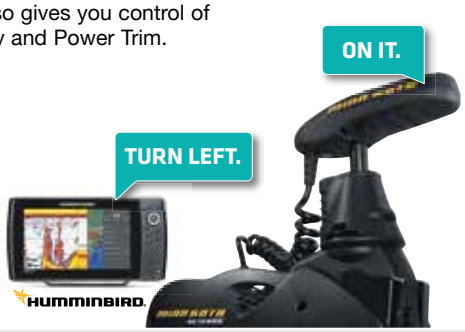
Heading Sensor

Ulterra i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

Take Control with i-Pilot Link

Link lets you control Riptide Ulterra from your Humminbird or its new touch-screen remote. It includes our new, most accurate Spot-Lock ever, every i-Pilot feature, and the ability to follow depth contours, save and retrace your Humminbird Current Track, and return to productive waypoints. Link on Riptide Ulterra also gives you control of Auto Stow/Deploy and Power Trim.

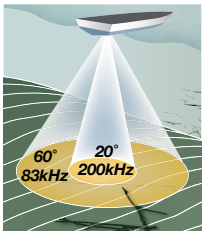
Link Remote ***Phone App***



Universal Sonar 2

Built-in Protection for Interference-Free Sonar Performance. Keep your transducer and wiring completely concealed and protected with the streamlined design of Universal Sonar 2. It runs all components through the motor's shaft, with shielded connectors that virtually eliminate interference. So you get crystal-clear sonar performance with no rigging and no messy, exposed wires. Suits all Humminbird units with single and dual beam capabilites.

Dual Beam Technology



**** Available on Humminbird® DualBeam Plus™***

Shielded for Added Peace of Mind.

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Shaft Length mm	Foot Pedal	Lift Assist	i-Pilot	Blue Tooth	Jog Mode	Universal Sonar	Max Boat Length m
601640	Ulterra 80 i-Pilot Link Freshwater	80	24	60	1524	Yes	Auto	Heading Sensor	Yes	Yes	Yes	7.6

Accessories:

603010	Black Quick Release Poly Bracket to suit all Electric Steer MKR-21	**602965**	Garmin Echo US2 Adaptor MKR-US2-12
602957	Adapter Cable Humminbird Onix MKR-US2-13	**602966**	Garmin US2 Adapt 8 Pin MKR-US2-14
602959	Humminbird US2 Adaptor MKR-US2-8	**602971**	US2 Extention Cable MKR-US2-11
602961	Garmin US2 Adaptor MKR-US2-1		
602962	Lowrance US2 Adapt 6 Pin MKR-US2-9		
602963	Lowrance US2 Adapt Blue Plug MKR-US2-10		

N.B. Only available through approved Stockists

Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Saltwater Bow Mount Electric Motor

– i-Pilot® Link™ Riptide® ST Saltwater Terrova

ANYWHERE. ANYTIME.

Power? Try up to 112 pounds of thrust. Control? You can equip it with wireless GPS remotes, and stow it effortlessly with the new Lift-Assist mechanism. And stealth? It's a Riptide - enough said. The most talked-about motor in saltwater just got better. Any more questions?

Features:

- i-Pilot Link - connect and control with any ethernet compatible Humminbird Sounder
- Autopilot
- Digital Maximizer
- Fully Encapsulated Electronics
- Indestructible Composite Shaft
- Weedless Wedge 2
- Sacrificial Anode
- Push-to-test Battery Meter
- Lift Assist
- 2 year warranty

EXCLUSIVE TO:

HUMMINBIRD PRO STORE | MINN KOTA PRO STORE | i-Pilot LINK

Lift-Assist

A new Lift-Assist mechanism on the redesigned Riptide Terrova carries the weight of the motor for you to make stowing easier - so you can save your strength to reel in the big ones.

Redesigned Foot Pedal with new Spot-Lock button

Low-profile and loaded with control features, including a new Spot-Lock button for fast, hands-free access to hold on a spot. Includes 18' cord.

602802 Optional

Redesigned Stow/Deploy Lever

Riptide Terrova's Stow/Deploy lever has been redesigned to allow for one-step stow or deploy - making it even easier to use. Just push down with your hand or foot when you're ready to move.

Heading Sensor

ST i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

Quieter steering motor

New Riptide Terrova has a completely new motor design - engineered to run quieter than ever before. So fish won't be spooked, but you might be.

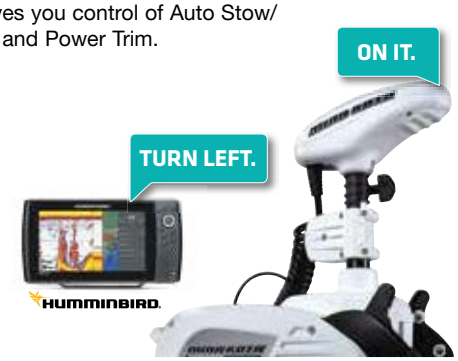
Humminbird Virtual Remote

Control speed, steering, Spot-Lock, and Advanced AutoPilot, directly from a new virtual remote on the Humminbird screen.

Take Control with i-Pilot Link

Link lets you control Riptide Ulterra from your Humminbird or its new touch-screen remote. It includes our new, most accurate Spot-Lock ever, every i-Pilot feature, and the ability to follow depth contours, save and retrace your Humminbird Current Track, and return to productive waypoints. Link on Riptide Ulterra also gives you control of Auto Stow/ Deploy and Power Trim.

Link Remote *Phone App*



BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Foot Pedal	Lift Assist	i-Pilot	Blue Tooth	Jog Mode	Universal Sonar	Max Boat Length m
601612	RT55ST i-Pilot Link	55	12	54	Optional	Yes	Heading Sensor	Yes	Yes	No	5.0
601616	RT80ST i-Pilot Link	80	24	60	Optional	Yes	Heading Sensor	Yes	Yes	No	7.0

Accessories

602806	Remote i-Pilot Link BT Post 2017 (will not suit previous motors)
602810	i-Pilot Link Remote Cradle Post 2017, to suit **602806**
603009	Quick Release Bracket

AutoPilot™

digital MAXIMIZER™

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

i-Pilot™

MINN KOTA®

ANYWHERE. ANYTIME.

Minn Kota® i-Pilot®

The same i-Pilot that lets you lock onto a fishing spot, record and retrace paths, and command speed and steering just got better. Redesigned with a larger LCD screen, more options, and better controls, we've dialed in the technology that lets you dial in your boat position.

Redesigned Remote

We gave it a 33% larger LCD screen that's fully viewable in sunlight, expanded menu navigation, and more intuitive controls - making the new i-Pilot remote better than ever.

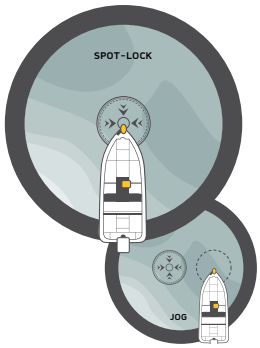
Heading Sensor

Select i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

Bluetooth Communication

The new i-Pilot system connects via Bluetooth, allowing for easy software updates to add new features to your system via your smartphone.

Reinvented Spot-Lock



Enhanced with new hardware and software algorithms, Spot-Lock works holds you tighter to your fishing spot than ever before, making it the most accurate electronic GPS anchor ever.

Spot-Lock Jog

Move your Spot-Lock five feet forward, backward, left or right - just by pushing a button. Feature available with Heading Sensor fitted.

i-Pilot Phone App

Bluetooth communication allows new i-Pilot to pair with your smartphone, allowing for easy software updates and quick command of speed, steering, Spot-Lock, high speed bypass, and Advanced AutoPilot.

Additional Features

- *iTrack Record/Playback - Store and retrace up to six 2-mile trolling paths to return to later*
- *Advanced AutoPilot - Stay on a heading automatically*
- *Cruise Control - Precisely dial in and adjust speed in 0.1 mile-per-hour increments*
- *CoPilot - Control and monitor speed, steering, prop on/off and high speed bypass*

Compatibility

i-Pilot Link is available pre-installed on:

- Ulterra™ / Riptide® Ulterra™
- Terrova® / Riptide® Terrova®
- PowerDrive™ / Riptide® PowerDrive™

Minn Kota® Saltwater Bow Mount Electric Motor

- Riptide Ulterra i-Pilot

Featuring Auto Stow/Deploy and Power Trim, we can understand the excitement around this motor. The Saltwater Ulterra i-Pilot is available in 80lb and 112lb with shaft lengths from 60" to a massive 72" to cater for the off-shore angler who wants to hold on those off-shore marks. The optional foot pedal features a spot-lock button, power trim and stow/deploy all from the pedal. The motor comes standard with a remote control providing full operation including trim and stow and deploy.

Features:

- i-Pilot®
- Auto Stow/Deploy
- Power Trim
- Foot Pedal and Remote Buttons
- 80lb - 112lb Thrust
- Indestructible Composite Shaft
- Weedless Wedge 2 Prop
- Battery Indicator
- Digital Maximizer
- Limited lifetime warranty on shaft
- 2 year warranty

EXCLUSIVE TO:

MINN KOTA PRO STORE

Take Control

Riptide Ulterra comes with i-Pilot. The remote gives you control of Auto Stow/Deploy and Power Trim.

i-Pilot

Riptide Ulterra comes standard with a special i-Pilot system that controls Auto Stow/Deploy and Power Trim. It's also got your favourite i-Pilot functions:
the advanced wireless remote uses GPS to remember fishing spots and paths, and can control speed, steering, cruise control and Advanced AutoPilot.

Included

Auto Stow/ Deploy *Power Trim*

112LB of Grunt

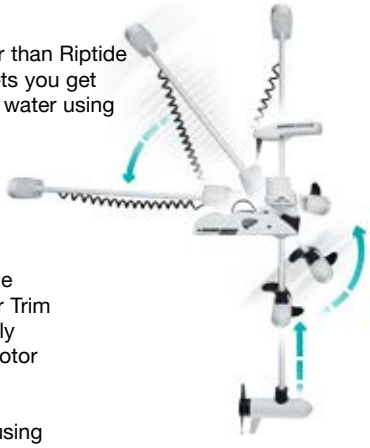
Stronger than ever, only a Minn Kota is available with 112 pounds of thrust (**601622**, **601624**). Take to the water with improved control on the most powerful trolling motor so you can tackle heavy chop, wind, waves and more without so much as flinching.

Massive 72" Shaft

The Ulterra is available in a massive 72" shaft. For offshore anglers in the larger boats, the 72" model (**601624**) is the ultimate motor to hold you on your marks, even in rough conditions.

Auto Stow/Deploy

Nothing makes fisihng easier than Riptide Ulterra. Auto Stow/Deploy lets you get your motor in and out of the water using the included i-Pilot Remote.



Power Trim

Once your motor's in the water, Power Trim lets you easily adjust the motor depth for changing conditions, using your remote.

Reinvented Spot-Lock

Enhanced with new hardware and software algorithms, Spot-Lock works holds you tighter to your fishing spot than ever before, making it the most accurate electronic GPS anchor ever.

SPOT-LOCK

Heading Sensor

Ulterra i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

New Foot Pedal and Remote Buttons

The optional new foot pedal is redesigned to enable Auto Stow/Deploy and Power Trim. Control those features with the new "mode" button on the Ulterra foot pedal, or with i-Pilot remote. We've also added Spot-Lock to the pedal, making it even easier to stand your ground.

602952 Optional

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Foot Pedal	Lift Assist	i-Pilot	BlueTooth	Jog Mode	Universal Sonar	Max Boat Length m
601620	RT Ulterra 80 i-Pilot	80	24	60	Optional	Auto	Heading Sensor	Yes	Yes	No	7.0
601621	RT Ulterra 80 i-Pilot	80	24	72	Optional	Auto	Heading Sensor	Yes	Yes	No	7.0
601622	RT Ulterra 112 i-Pilot	112	36	60	Optional	Auto	Heading Sensor	Yes	Yes	No	7.6
601624	RT Ulterra 112 i-Pilot	112	36	72	Optional	Auto	Heading Sensor	Yes	Yes	No	7.6

Accessories:

602952 Foot Pedal to suit Ulterra
602804 i-Pilot Remote to suit 2017 Blue Tooth motors only (will not suit previous motors)
602808 Micro Remote to suit Blue Tooth motors 2017 onwards
603009 Quick Release Bracket to suit 60" shaft model only

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Freshwater Bow Mount Electric Motor

- Ulterra i-Pilot

ANYWHERE. ANYTIME.

ULTERRA

The bar has been set to a new height with the Ulterra freshwater motor. With Auto Stow/Deploy and Power Trim, we can understand the excitement. The Ulterra comes with i-Pilot, and a standard redesigned foot pedal with Spot Lock button, Power Trim and Stow/Deploy all from the pedal or remote control. The Ulterra also comes standard with Universal Sonar 2 transducer built into the lower unit that will suit Humminbird sounders as well as other electronics with the correct adaptor cable listed below.

Features:

- i-Pilot®
- Universal Sonar
- Auto Stow/Deploy
- Power Trim
- Foot Pedal and Remote Buttons
- Battery Indicator on remote
- Indestructable composite shaft
- 2 year warranty

EXCLUSIVE TO:

Auto Stow/Deploy

Nothing makes fishing easier than Ulterra. Auto Stow/ Deploy lets you get your motor in and out of the water using the included i-Pilot or i-Pilot Link remote.

Power Trim

Once your motor's in the water, Power Trim lets you easily adjust the motor depth for changing conditions, using your remote. Ulterra handles the busy work, so you can focus on fishing.

Ergonomically Designed Foot Pedal

Ulterra's foot pedal lets you stow, deploy, trim up/down, and activate a Spot-Lock in addition to speed and steering controls. Includes 18' cord.

602952 Included

Heading Sensor

Ulterra i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

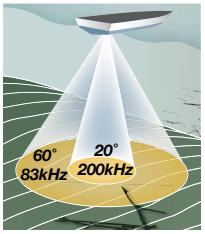
UNIVERSAL SONAR 2

Built-in Protection for Interference-Free Sonar Performance.

The Total Package

Keep your transducer and wiring completely concealed and protected with the streamlined design of Universal Sonar 2. It runs all components through the motor's shaft, with shielded connectors that virtually eliminate interference. So you get crystal-clear sonar performance with no rigging and no messy, exposed wires. Suits all Humminbird units with single and dual beam capabilites.

Dual Beam Technology



** Available on Humminbird® DualBeam Plus™*

Shielded for Added Peace of Mind.

Take Control

Riptide Ulterra comes with i-Pilot. The remote gives you control of Auto Stow/Deploy and Power Trim.

i-Pilot

Riptide Ulterra comes standard with a special i-Pilot system that controls Auto Stow/Deploy and Power Trim. It's also got your favourite i-Pilot functions:
the advanced wireless remote uses GPS to remember fishing spots and paths, and can control speed, steering, cruise control and Advanced AutoPilot.

Included *Auto Stow/ Deploy* *Power Trim*

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Shaft Length mm	Max Boat Length m
601638	Ulterra 80 i-Pilot Freshwater	80	24	60	1524	7.0

Accessories:

603010	Black Quick Release Poly Bracket to suit all Electric Steer MKR-21		
602957	Adapter Cable Humminbird Onix MKR-US2-13	**602963**	Lowrance US2 Adapt Blue Plug MKR-US2-10
602959	Humminbird US2 Adaptor MKR-US2-8	**602965**	Garmin Echo US2 Adaptor MKR-US2-12
602961	Garmin US2 Adaptor MKR-US2-1	**602966**	Garmin US2 Adapt 8 Pin MKR-US2-14
602962	Lowrance US2 Adapt 6 Pin MKR-US2-9	**602971**	US2 Extention Cable MKR-US2-11

N.B. Only available through approved Stockists

Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Freshwater Bow Mount Electric Motor

- Terrova i-Pilot

ANYWHERE. ANYTIME.

The all new Terrova includes the all new category leading i-Pilot with Heading Sensor antenna, Bluetooth communication with a new larger screen remote, lift assist as well as a new look design. These motors come standard with the new foot pedal also has a spot lock button and Universal Sonar Transducer.

Australia's favourite Bow Mount motor just got even better!

Features

- i-Pilot®
- Digital Maximizer™
- AutoPilot
- Push to test battery meter
- Indestructible Composite Shaft
- Weedless Wedge 2
- Terrova Foot Pedal
- Universal Sonar Transducer
- Lift Assist
- 2 year warranty

EXCLUSIVE TO:

Lift-Assist

A new Lift-Assist mechanism on the redesigned Terrova carries the weight of the motor for you to make stowing easier - so you can save your strength to reel in the big ones.

Redesigned Terrova® Foot Pedal

Low-profile and loaded with control features, including a new Spot-Lock button for fast, hands-free access to hold on a spot. Includes 18' cord.

602802 Included

Redesigned Stow/Deploy Lever

Terrova's Stow/Deploy lever has been redesigned to allow for one-step stow or deploy - making it even easier to use. Just push down with your hand or foot when you're ready to move.

New i-Pilot with New Phone App*

Boat positioning becomes automatic with the redesigned, GPS-powered i-Pilot system. i-Pilot lets you set Spot-Locks, record paths, control speed and steering, and more. i-Pilot systems feature reinvented Spot-Lock - the most accurate electronic GPS anchor ever - and have redesigned remotes with larger screens, more options, and Bluetooth technology, so you can connect to your smartphone for quick control of basic functions and easy software updates.

**available on i-Pilot and i-Pilot Link models only*

Bluetooth®

i-Pilot Remote

Phone App

Digital Maximizer

Stay on the water up to five times longer on a single charge. Digital Maximizer controls the draw of power at variable speeds to keep you fishing longer.

UP TO 5X longer run time

Universal Sonar 2

Motors with Universal Sonar 2 keep your transducer and wiring completely concealed and protected, running everything through the motor's shaft, with shielded connectors that virtually eliminate interference.

US|2

Heading Sensor

Terrova i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

Quieter Steering Motor

New Terrova has a completely new motor design - engineered to run quieter than ever before. So fish won't be spooked, but you might be.

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Foot Pedal	Lift Assist	i-Pilot	BlueTooth	Jog Mode	Universal Sonar	Max Boat Length m
601634	Terrova 55 i-Pilot US2	55	12	54	Yes	Yes	Heading Sensor	Yes	Yes	Yes	5.0
601636	Terrova 80 i-Pilot US2	80	24	60	Yes	Yes	Heading Sensor	Yes	Yes	Yes	7.0

Accessories

602806 Remote i-Pilot Link BT Post 2017 (will not suit previous motors)
602810 i-Pilot Link Remote Cradle Post 2017, to suit **602806**
603010 Black Quick Release Poly Bracket to suit all Electric Steer MKR-21

N.B. Only available through approved Stockists

Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

digital MAXIMIZER

i-Pilot 2

Minn Kota® Saltwater Bow Mount Electric Motor

– Terrova i-Pilot

The all new Saltwater Terrova includes the all new category leading i-Pilot with Heading Sensor antenna, Bluetooth communication with a new larger screen remote, lift assist as well as a new look design. The new foot pedal with spot lock button is optional with this motor. Australia's favourite Bow Mount motor just got even better!

Features:

- i-Pilot
- Autopilot
- Digital Maximizer
- Fully Encapsulated Electronics
- Indestructible Composite Shaft
- Weedless Wedge 2
- Sacrificial Anode
- Lift Assist
- 2 year warranty

EXCLUSIVE TO:

minn kota PRO STORE

NEW i-Pilot with new phone app*

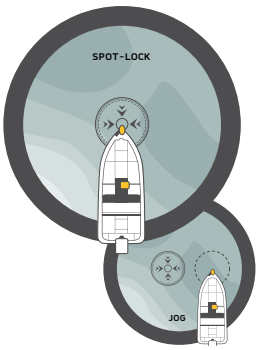
Boat positioning becomes automatic with the redesigned, GPS-powered i-Pilot system. i-Pilot lets you set Spot-Locks, record paths, control speed and steering, and more. i-Pilot features reinvented Spot-Lock - the most accurate electronic GPS anchor ever - and have redesigned the remote with a larger screens, more options, and Bluetooth technology, so you can connect to your smartphone for quick control of basic functions and easy software updates.

Bluetooth

i-Pilot Remote *Phone App*

i-Pilot Micro Remote (optional)

i-Pilot gives you full command of your motor. But when you want simplified, compact control, grab the waterproof Micro Remote accessory for quick command of Spot-Lock, speed, steering and Advanced AutoPilot. i-Pilot can learn multiple remotes so you can use your original remote and Micro Remote together.



Reinvented Spot-Lock

Enhanced with new hardware and software algorithms, Spot-Lock works holds you tighter to your fishing spot than ever before, making it the most accurate electronic GPS anchor ever.

Spot-Lock Jog

Move your Spot-Lock five feet forward, backward, left or right - just by pushing a button. Feature available with Heading Sensor fitted.

Heading Sensor

ST i-Pilot systems feature a new Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold.

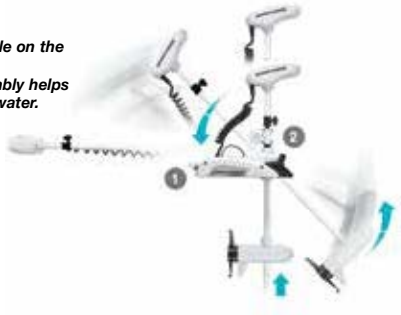
Lift-Assist

A new Lift-Assist mechanism on the redesigned Riptide Terrova carries the weight of the motor for you to make stowing easier - so you can save your strength to reel in the big ones.

Lift-Assist Design

Raise Riptide Terrova by barely lifting a finger. Its new Lift-Assist Design takes the work out of stowing, making it effortless every single time.

1. ***Simply depress the handle on the mount.***
2. ***The spring-loaded assembly helps pull the motor from the water.***



Digital Maximizer

Stay on the water up to five times longer on a single charge. Digital Maximizer controls the draw of power at variable speeds to keep you fishing longer.

Redesigned Foot Pedal with new Spot-Lock button

Low-profile and loaded with control features, including a new Spot-Lock button for fast, hands-free access to hold on a spot. Includes 18' cord.

602802 Optional

Quieter steering motor

New Riptide Terrova has a completely new motor design - engineered to run quieter than ever before.

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length mm	Foot Pedal	Lift Assist	i-Pilot	BlueTooth	Jog Mode	Universal Sonar	Max Boat Length m
601604	RT55ST i-Pilot	55	12	54	Optional	Yes	Heading Sensor	Yes	Yes	No	5.0
601606	RT 80ST i-Pilot	80	24	54	Optional	Yes	Heading Sensor	Yes	Yes	No	7.0
601608	RT 80ST i-Pilot	80	24	60	Optional	Yes	Heading Sensor	Yes	Yes	No	7.0
601609	RT 80ST i-Pilot	80	24	72	Optional	Yes	Heading Sensor	Yes	Yes	No	7.0
601610	RT 112ST i-Pilot	112	36	60	Optional	Yes	Heading Sensor	Yes	Yes	No	7.6

Accessories

602802	Foot Pedal BT to suit Terrova & ST 2017 only (will not suit previous motors)
602804	Remote i-Pilot BT 2017 onwards (will not suit previous motors)
602808	Micro Remote BT to suit 2017 onwards
603009	Quick Release Bracket

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

AutoPilot™ i-Pilot™ digital MAXIMIZER™

Minn Kota® Saltwater Bow Mount Electric Motor

- i-Pilot Riptide Saltwater PowerDrive

Riptide PowerDrive has been counted on for years by saltwater anglers who want reliable performance with smart boat control features. So naturally, we just made it better. A tougher, sleeker new mount houses an arsenal of innovative options. Nobody outworks a Riptide.

ANYWHERE. ANYTIME.

Features:

- i-Pilot
- Digital Maximizer™
- AutoPilot (select models)
- Push-to-Test Battery Meter
- Indestructible Composite Shaft
- Cool, Quiet Power
- Sacrificial Anode
- Weedless Wedge 2 Prop
- 2-Year Warranty

EXCLUSIVE TO:

Redesigned mount & Aesthetics

Riptide PowerDrive has been redesigned with new technology, and remodeled to handle the workload that goes along with it - giving you a stronger mount and bigger brains in a sleeker package.

Optional Heading Sensor

Upgrade your SP i-Pilot motor with the Heading Sensor, which recognises changes in the boat's heading due to wind and current, and communicates with the i-Pilot system to minimise boat swing for a more accurate, stronger hold. The optional heading sensor will also allow the jog mode on your SP motor.

*NEW i-Pilot**

Boat positioning becomes automatic with the revolutionary, GPS-powered i-Pilot. Set Spot-Locks, record paths, control speed and steering, and more, all on a redesigned remote that has a 33% larger screen, and the ability to communicate via Bluetooth. New i-Pilot puts more options and easier operation at your fingertips, including reinvented Spot-Lock - the most accurate electronic GPS anchor ever.

***Available on i-Pilot models only**
***N.B. Will only suit Bluetooth® motors from 2017 onwards.**

Digital Maximizer

Stay on the water up to five times longer on a single charge. Digital Maximizer controls the draw of power at variable speeds to keep you fishing longer.

*i-Pilot Phone App**

Bluetooth communication allows new i-Pilot to pair with your smartphone, allowing for easy software updates and quick command of speed, steering, Spot-Lock, high speed bypass, and Advanced AutoPilot.

***Available on i-Pilot models only**
***N.B. Will only suit Bluetooth® motors from 2017 onwards.**

Push-to-test Battery Metre

Get an instant "state of charge" reading at the push of a button.

Deploy-assist Lever

Riptide PowerDrive's Deploy-Assist lever lets you get in and out of the water without breaking a sweat. Depress the lever to deploy. And when it's time to move, it stows easily and securely.

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Foot Pedal	Lift Assist	i-Pilot	BlueTooth	Jog Mode	Universal Sonar	Max Amp	Max Boat Length m
601602	RT55SP i-Pilot No Pedal	55	12	48	N/A	No	Standard	Yes	Optional w/ Heading Sensor Fitted	No	50	5

Accessories

602804 Remote i-Pilot BT Post 2017
602808 Micro Remote BT to suit Post 2017
603009 Quick Release Bracket
602812 Heading Sensor to suit 2017 i-Pilot Motors

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Saltwater Bow Mount Electric Motor

- Riptide Saltwater PowerDrive

ANYWHERE. ANYTIME.

Riptide PowerDrive has been counted on for years by saltwater anglers who want reliable performance with smart boat control features. So naturally, we just made it better. A tougher, sleeker new mount houses an arsenal of innovative options. Nobody outworks a Riptide.

Features:

- Digital Maximizer™
- Push-to-Test Battery Meter
- Indestructible Composite Shaft
- Cool, Quiet Power
- Sacrificial Anode
- Weedless Wedge 2 Prop
- 2-Year Warranty

Redesigned mount & Aesthetics

Riptide PowerDrive has been redesigned with new technology, and remodeled to handle the workload that goes along with it - giving you a stronger mount and bigger brains in a sleeker package.

Redesigned Foot Pedal

Control speed, steering, and momentary and constant on/off with the newly redesigned, robust foot pedal. Includes 18' cord. Standard on the **601600**.

N.B. This foot pedal also suits PD & SP from 2007 onwards. It will suit all small round plug PD & SP motors.

Digital Maximizer

Stay on the water up to five times longer on a single charge. Digital Maximizer controls the draw of power at variable speeds to keep you fishing longer.

Deploy-assist Lever

Riptide PowerDrive's Deploy-Assist lever lets you get in and out of the water without breaking a sweat. Depress the lever to deploy. And when it's time to move, it stows easily and securely.

Push-to-test Battery Metre

Get an instant "state of charge" reading at the push of a button.

BLA Code	Model	Maximum Thrust lb	Volts	Shaft Length in	Foot Pedal	Lift Assist	i-Pilot	Jog Mode	Universal Sonar	Max Amp	Max Boat Length m
601600	RT55SP/FP incl Foot Pedal	55	12	54	Yes	No	No	No	No	50	5

Accessories

602800 Foot Pedal to suit **601600** and SP/PD motors 2007 onwards inc. BT
603009 Quick Release Bracket

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Freshwater Bow Mount Electric Motor

– Fortrex™

ANYWHERE. ANYTIME.

The Fortrex™ bow mount motor is the toughest yet quietest motor we have released. It's tighter tolerances and fewer moving parts make it the beefiest and meanest motor yet.

Features:

- The Fortrex™ "Mono-Arm"
- US2 on all Fortrex™ Motors
- The patented "Lift-Assist"
- 2 year warranty
- Indestructible Composite Shaft
- Weedless Wedge™ 2
- Digital Maximizer™

EXCLUSIVE TO: PRO STORE

The Fortrex™ "Mono-Arm"

Features an extruded, anodised aluminium beam that operates with no metal to metal contact, and incorporates a "Counter-Tension Stabilizer" spring that applies force to deployed or stowed positions, meaning reduced steering torque.

The patented "Lift-Assist"

Design allows easy stow and deploy, cutting the weight of the unit by half. By removing just a single cap screw, the "Removable Bowguard" makes lifting the motor of its mount even easier.

US2 on all Fortrex™ Motors

Incorporates a Humminbird® transducer which, when coupled with any Humminbird® DualBeam PLUS™ unit, gives an expanded view of the bottom. Using a combination of 20˚ and 60˚ beam widths this combination gives a whole new outlook to what is happening below the water. All the wiring is completely sealed inside the underwater unit to avoid any exposed connections. **602959** required for this operation.

Digital Maximizer™

Up to five times longer run time on a single charge.

UP TO 5X longer run time

US2

digital MAXIMIZER

BLA Code	Model	Maximum Thrust lb	Maximum Amp Draw	Volts	Shaft Length in	Shaft Length mm	Max Boat Length m
601316	Fortrex™ 80	80	56	24	45	1143	7.6
601318	Fortrex™ 80	80	56	24	52	1321	7.6

Accessories:

603042	Propeller Weedless Wedge™ 2 MKP-33 t/s Fortrex™ 80/101	**608201**	Sheer pin S/S t/s Maxxum™ 80/101
603062	Propeller nut kit E 3⁄8" MKP-34 t/s Fortrex™ 80/101	**602959**	US2 connector t/s Humminbird® 7 pin transducer
603006	Quick Release Bracket t/s Maxxum 42" MK-42	**603007**	Mount Bracket MKA-47
603008	Quick Release Bracket t/s Maxxum 52 62" MK-52	**607030**	Anode t/s Fortrex™ 80/101
603015	Quick Release Bracket t/s Maxxum	**602959**	Humminbird US2 Adaptor MKR-US2-8
602957	Adapter Cable Humminbird ONIX MKR-US2-13	**602962**	Lowrance US2 Adapt 6 Pin MKR-US2-9
602961	Garmin US2 Adaptor MKR-US2-1	**602965**	Garmin Echo US2 Adaptor MKR-US22-12
602963	Lowrance US2 Adapt Blue Plug MKR-US2-10	**602971**	US2 Extention Cable MKR-US2-11
602966	Garmin US2 Adapt 8 Pin MKR-US2-14		

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Saltwater Engine Mount Electric Motor

– Riptide® EM

ANYWHERE. ANYTIME.

Cavitation plate mounted electric trolling motors suitable for saltwater applications where an electric trolling motor is required but there is no room for conventionally mounted electric motors. Controlled by a hand held/dash mounted corded remote with variable speed control ahead or astern and a central off position. As the motor is bolted to the cavitation plate, the direction of the vessel is controlled by the vessels steering. Once the vessel is on the plane, the trolling unit rides completely out of the water eliminating any chance of damage to the unit from underwater obstructions. Will not interfere with normal performance of your outboard or sterndrive motor.

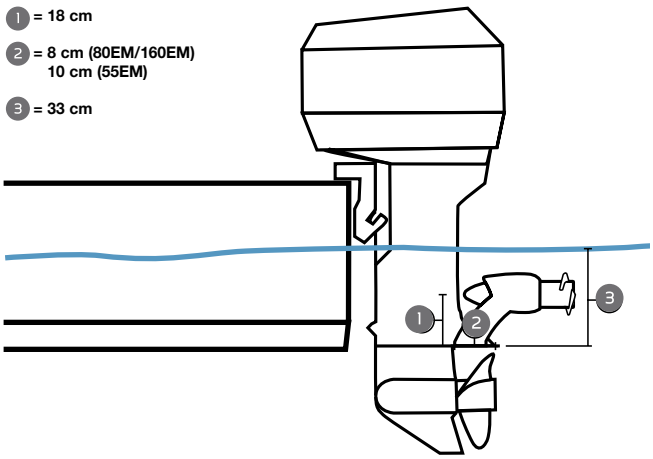
EXCLUSIVE TO:

Features:

- Cavitation Plate Mount
- Console or Hand Held Control
- Digital Maximizer™
- 2 year warranty
- Weedless Wedge™ 2
- Fully Encapsulated Electronics
- Stainless Steel Hardware

Discrete Mount For Easy Clearance

Don't let anything get in your way. Engine Mount lets you troll without taking up valuable deck space or requiring you to stow and deploy. It mounts discretely on the cavitation plate of your outboard or I/O lower unit, without getting in its way. And once you're on plane, it rides completely out of the water.



Saltwater Engine Mount

These models give you the corrosion-resistant power of Riptide without cluttering your deck. Engine mount motors have no effect on your outboard performance.

Engine Mount Selection Chart

BOAT LENGTH	4 metres	5 metres	6 metres	7 metres
MOTOR SELECTION	55EM - 12V			
		80EM - 24V*		
			160EM - 24V*	

**80EM and 160EM are saltwater motors.*

Sealed and Protected Electronics

A fully waterproof control module mounted below the deck houses all the EM electronics, which are sealed in corrosion-proof, marine-grade polyurethane. The extruded aluminum housing features specially designed fins that dissipate heat to keep things cool under high rpm use.

Digital Maximizer

Stay on the water up to five times longer on a single charge. Digital Maximizer controls the draw of power at variable speeds to keep you fishing longer.

UP TO 5X longer run time

Remote Speed Control

Engine Mount is easy to control with this 5 metre corded remote, which can be mounted or handheld. Go from a neutral (off) detent position to infinitely variable speed control in forward and reverse. To steer, use the boat's steering wheel or outboard tiller.

BLA Code	Model	Maximum Thrust lb	Maximum Amp Draw	Volts	Max Boat Length m
602320	RT55EM	55	50	12	5
602322	RT80EM	80	58	24	6
602326	RT160EM	160	116	24	7.3

Accessories:

603041 Weedless Wedge™ 2 t/s RT55EM
603042 Weedless Wedge™ 2 t/s RT80EM & RT160EM
607031 Anode t/s RT55EM
607030 Anode t/s RT80EM & RT160EM

digital MAXIMIZER

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

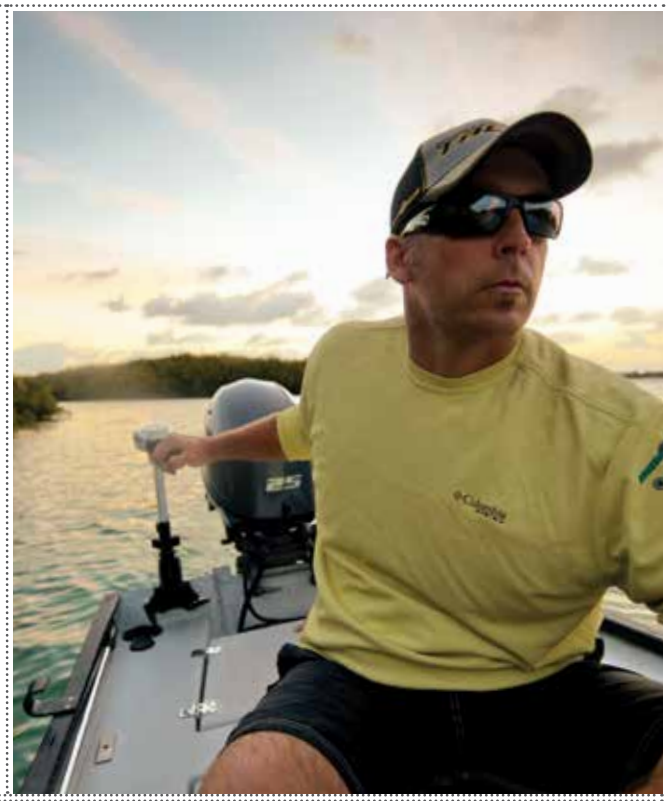
digital MAXIMIZER™

MINN KOTA ANYWHERE. ANYTIME.

Minn Kota® Digital Maximizer

Motors with Digital Maximizer provide up to five times longer run time on a single charge by drawing only as much power as you need, so they don't waste any energy. These motors are variable speed, so dial in your precise speed and let Digital Maximizer deliver the right amount of power, while conserving your battery - extending your time on the water.

UP TO 5X longer run time



Minn Kota® Electric Outboard Motor - EO

MINN KOTA ANYWHERE. ANYTIME.

The Minn Kota EO provides up to 9 hours of primary propulsion for smaller boats, meaning you've got more than enough power for a full day of catching your limit. It's backed up with a rock-solid bracket, battery-boosting Digital Maximizer, and the strength and reliability of the Minn Kota name.

Features:

- Digital Maximizer
- Lever-Lock Bracket
- Push-to-test battery meter
- High-efficiency prop

Digital Maximizer

Stay on the water up to five times longer on a single charge.

UP TO 5X longer run time

Lever Lock Bracket

This solid 10-position bracket features a quick-release lever lock and reinforced composite material that resists flexing, warping and U.V. damage.

Push-To-Test Battery Meter

Endura keeps you on the water longer. And if you want to know exactly how much longer you've got, use this convenient battery gauge.

High-efficiency prop

EO's high-efficiency prop features a unique, patented design with swept-back, flared blades for unrelenting, reliable performance.

BLA Code	Model	HP	Shaft Length in	Shaft Length mm	Weight kg	Volts	Max Boat Length m
601447	EO 1/2 HP	0.50	36	910	13.80	12v	6.5
601448	EO 1 HP	1	36	910	17	24v	7.6

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Saltwater Transom Mount Electric Motor

– Riptide® RT Maximizer

ANYWHERE. ANYTIME.

Rebuilt with an intuitive, easy to use design, the Riptide® Transom mount motors deliver up to 55lb of power and precision manoeuvrability. With a push to test battery meter, the battery-extending power of Digital Maximizer and unmatched corrosion protection, Riptide® Transom means fish are out of places to hide.

Features:

- "Twist On Hand Control"
- Cool, Quiet Power
- Indestructible Composite Shaft
- Sacrificial Anode and Stainless Steel Hardware
- 2 year warranty

Lever-Lock Bracket

For simple tilt position adjustment.

Push to test Battery Meter

Get an instant "state of charge" reading at the push of a button.

Digital Maximizer

Stay on the water up to five times longer on a single charge.

Advanced Corrosion Protection

Every Riptide motor features a sacrificial anode, corrosion-fighting metals and an innovative, protective powder coat paint.

BLA Code	Model	Maximum Thrust lb	Maximum Amp Draw	Volts	Shaft Length in	Shaft Length mm	Digital Maximizer	Max Boat Length m
601442	RT45/V/T	45	42	12	36	915	Yes	4.5
601444	RT55/V/T	55	50	12	36	915	Yes	5
601446	RT55/V/T	55	50	12	42	1067	Yes	5

Accessories:

603028 Propeller Power MKP-2 t/s all 2014 RT Transom motors
607031 Anode t/s all RT transom
607392 Sheer pin t/s all RT transom

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Freshwater Transom Mount Electric Motor

– Endura Max™

ANYWHERE. ANYTIME.

With the Endura Max™, the day isn't over until you say it's over. The power of Digital Maximizer™ keeps you out on the water up to five times longer on a single charge.

601136

Features:

- Digital Maximizer™
- Indestructible Composite Shaft
- Weedless Wedge™ 2
- Power Prop
- Telescoping Twist Tiller Control Handle
- Lever Lock Bracket
- Push to test battery meter
- 2 year warranty

Variable Speed Control

Instead of five preset speeds, Endura Max enables you to precisely dial in your speed for better boat control.

Digital Maximizer

Stay on the water up to five times longer on a single charge.

Lever Lock Bracket

For simple tilt position adjustment

Telescoping Twist Tiller Control

Tiller telescopes out up to 150mm with infinite variable speed.

BLA Code	Model	Maximum Thrust lb	Maximum Amp Draw	Volts	Shaft Length in	Shaft Length mm	Max Boat Length m
601136	Endura Max™ 40	40	42	12	36	915	4
601138	Endura Max™ 55	55	50	12	42	1067	5

Accessories:

603028 Power prop t/s Endura Max™ 40
603041 Weedless Wedge™ propeller t/s Endura Max™ 55
603052 Propeller nut kit ⅜" MKP9 t/s all Endura Max™ motors
607392 Sheer pin t/s all Endura Max™ motors
607031 Anode t/s all Endura Max™ motors

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Saltwater Transom Mount Electric Motor – Riptide® RT

ANYWHERE. ANYTIME.

Rebuilt with an intuitive, easy to use design, this Riptide® Transom mount motor delivers 40lb of power and precision manoeuvrability. With a push to test battery meter, and unmatched corrosion protection, Riptide® Transom means fish are out of places to hide.

Features:

- "Twist On Hand Control"
- Cool, Quiet Power
- Indestructible Composite Shaft
- Sacrificial Anode and Stainless Steel Hardware
- 2 year warranty

Lever-Lock Bracket

For simple tilt position adjustment.

Push to test Battery Meter

Get an instant "state of charge" reading at the push of a button.

Advanced Corrosion Protection

Every Riptide motor features a sacrificial anode, corrosion-fighting metals and an innovative, protective powder coat paint.

Innovative Tillers

Provides tiller extension by an additional 150mm and is able to be tilted up to 45°.

Telescoping Handle

BLA Code	Model	Maximum Thrust lb	Maximum Amp Draw	Volts	Shaft Length in	Shaft Length mm	Digital Maximizer	Max Boat Length m
601440	RT40/SC/T	40	42	12	30	760	No	4

Accessories:

603028 Propeller Power MKP-2 t/s all 2014 RT Transom motors
607031 Anode t/s all RT transom
607392 Sheer pin t/s all RT transom

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

5 speed

2 CE

Minn Kota® Freshwater Transom Mount Electric Motor – Endura™

ANYWHERE. ANYTIME.

With a name like Endura™ you can be sure there's no quit in these workhorses. Durable, reliable and more power for your money. Put one to the test and see why Endura™ is the best value in its class.

601110

Features:

- Indestructible Composite Shaft
- Weedless Wedge™ 2
- Power Prop
- Telescoping Twist Tiller Control Handle
- Transom Bracket
- Lever Lock
- Push to test battery meter
- 2 year warranty

Lever Lock Bracket

For simple tilt position adjustment.

Telescoping Twist Tiller Control

Tiller telescopes out up to 150mm with infinite variable speed.

Push-To-Test Battery Meter

Endura keeps you on the water longer. And if you want to know exactly how much longer you've got, use this convenient battery gauge.

BLA Code	Model	Maximum Thrust lb	Maximum Amp Draw	Volts	Shaft Length in	Shaft Length mm	Max Boat Length m
601110	Endura™ 30 C2	30	30	12	30	760	3.7
601120	Endura™ 40 C2	40	42	12	36	915	4
601130	Endura™ 55 C2	55	50	12	42	1067	5

2 CE

Accessories:

603028 Power prop t/s Endura™ 30 & Endura™ Endura™ 40
603041 Propeller Weedless Wedge™ MKP32 t/s Endura™ 55
603052 Propeller nut kit ⅜" MKP9 t/s all Endura™ motors
607031 Anode t/s all Endura™ transom motors
607392 Sheer pin t/s all Endura™ transom motors

N.B. Boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.

Minn Kota® Electric Anchor Spike - Talon

ANYWHERE. ANYTIME.

Minn Kota® Talon is a shallow water anchor system designed to quickly and quietly stop and position your boat in depths down to 12ft - whether you're fishing saltwater or freshwater, the Talon is the ultimate holding device for stealth fishing. Operating from the boat's existing battery setup, the Talon vertically deploys its 3 stage telescopic spike with the wireless remote and without the fish-spooking noise of a traditional anchor. When not in use, the lightweight Talon can be taken off the boat thanks to its standard release bracket or folded away for garaging with the optional tilt bracket. It's electro-mechanical, cable-driven design, is easy to install with minimal wiring & rigging.

Made of marine-grade extruded anodised aluminium, the Talon can withstand a harsh corrosive saltwater environment, and the indestructible spike, made with fibreglass reinforced composite material, is guaranteed for life.

Talon is the future of shallow water fishing.

An auto up/down feature means just a quick press of a button is all you need for fully automatic deployment and retraction, and each unit comes standard with a wireless foot pedal for added convenience.

The 12ft Talon deploys in 3 stages giving ultimate anchoring depth whilst keeping the overall height of the Talon to 145cm on the transom.

Features

- Anchoring Modes
- Auto Drive Mode
- Soft Bottom Mode
- Rough Water Mode
- Built in Wave Absorption
- 5 year warranty

EXCLUSIVE TO:

Auto Up/Down

Hit the button, then get back to fishing. Talon has Auto Up/Down, which makes lowering and raising the anchor as easy as using a car's automatic windows. Utilising patented bottom-sensing technology, Talon automatically knows when it has anchored, so you don't have to hold down the button and wait.

Rugged Anchoring Spike

Our composite spike can withstand years of abuse with unmatched reliability. Guaranteed for life!

Wireless Foot Switch

Wireless foot switch standard with Talon Electric Anchor Spikes.

This simple wireless switch allows you to raise and lower the spike. Control up to 2 Talons with the 1 waterproof switch.

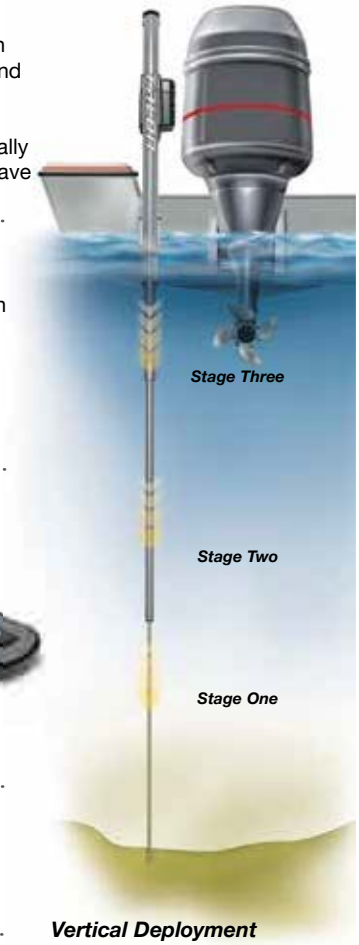
2X Anchoring Force

Talon is built with double the force of the competition to lock you into your spot with unparalleled strength and security.

Triple Debris Shields

Three custom-fit shields on the bottom and inside of Talon prevent mud or anything else from being pulled back into the unit. The indestructible spike goes out, and nothing comes back in.

BLA Code	Colour	Depth ft	Depth m
606101	Blue Black	12	3.65
606103	Black Black	12	3.65



Vertical Deployment

Talon deploys vertically in three stages. While the competitor's extended "crab leg" ties up your lines and costs you fish, Talon's sequential, vertical deployment is quicker, quieter and stays out of your way.

*User-Selectable Anchoring Modes**

Anchoring in hard bottom isn't the same as anchoring into mud. With Talon, you can choose between multiple modes to ensure the right hold and fast, easy anchor retraction.

- **Auto-Drive Mode*:** Powers the spike into the bottom with three increasingly aggressive hits.
- **Soft Bottom Mode*:** For less aggressive anchoring – and easier anchor retraction – in water with a muddy or silted bottom.
- **Rough Water Mode*:** For heavy wind and chop, this mode performs 3 consecutive Auto-Drive sequences at 10-second intervals for a triple-strength hold.

Deployment Notification Alarm

This audible alert tells you if you start the engine while the anchor is down.

LED Depth Indicator

Track anchor depth at a glance. The LED lights on Talon show you how far down you're deployed, with each light indication 0.6 metres of depth.

*Built-In Wave Absorption**

Talon allows your boat to move up or down without affecting the anchor. Its exclusive built-in floating suspension keeps you locked to the bottom, even in rough water.

Five Year Warranty

Talon carries a five year limited warranty – plus a lifetime warranty on the spike and a five year warranty on all brackets.

Minn Kota® Quick Connect Power Plug

Heavy duty 10 gauge connector. For wiring trolling motors where a plug and socket can't be used. Connects motor to circuit breaker or fuse.

BLA Code
115626

Minn Kota® Talon Quick Release Disconnect Plug

This heavy-duty waterproof power connector features a screw lock design that can accommodate 14 to 20 gauge wire.

BLA Code
606134

Minn Kota® Talon Cover

While trailering, protect your Talon with this durable, U.V. resistant black vinyl cover. Features an all weather, corrosion resistant zipper and a Velcro® strap for full adjustability.

BLA Code
606180

Minn Kota® Talon Tilt Bracket

This marine grade, anodised aluminum tilt bracket accommodates for low clearance areas and boat storage. Features adjustable deck support for added stability while tilting.

BLA Code
606162

Minn Kota® Talon Foot Switch

Supplied standard with Talon Anchor Spikes, this simple wireless switch lets you easily raise and lower the spike. Control up to two Talons – independently or simultaneously – from the waterproof switch, which uses an LED display and features an easy-access battery compartment.

BLA Code
606132

Minn Kota® Universal Modular Adapter Brackets

BLA Code	Description	Setback	Port/ Starboard
606140	Talon/Humminbird® 360 Side-Mounted Jack Plate	Variable	Both
606142	Talon/Humminbird® 360° Sandwich-Style	Variable	Port
606144	Talon/Humminbird® 360° Sandwich-Style	Variable	Starboard

Minn Kota® Talon Mounting Accessories

BLA Code	Description	Setback mm	Setback in	Port/ Starboard
606146	Talon and Humminbird 360 Imaging Dual Mount Extension Plate	N/A		Both
606160	Setback Bracket — for direct mount installations only	150	6"	Both
606164	Talon Spacer Block Kit t/s TH Marine 4 & 6" & Atlas Jack Plates	N/A		Both
606166	Talon BMS Spacer Block Kit – for sandwich mounting between outboard and Jack Plate	N/A		Both
606168	Talon BMS Side Shim Kit – fills recess gap on side of BMS Jack Plate; for Jack Plate mounting	N/A		Both

Minn Kota® Upgrade Kits
- i-Pilot® Link™

Upgrade your pre 2017 Riptide ST or SP to i-Pilot Link and network to your ethernet equipt Humminbird.

The i-Pilot® Link™ remote is powered by a rechargeable battery, that you plug in and charge just like a cell phone.

602944
Included

BLA Code	Model
602924	i-Pilot® Link™ kit to suit Riptide® ST Pre 2017
602944	i-Pilot® Link™ system replacement remote Pre 2017
602948	i-Pilot® Link™ system replacement charging cable Pre 2017
602947	i-Pilot® Link™ system remote optional cradle/belt clip Pre 2017

Minn Kota® Upgrade Kits
– i-Pilot®

Upgrade your pre 2017 Riptide ST or SP to i-Pilot

602940
Included

BLA Code	Description
602910	i-Pilot® kit to suit PowerDrive™ V2 Pre 2017
602920	i-Pilot® kit to suit Riptide® ST Pre 2017
602930	i-Pilot® kit to suit Riptide® SPV2 Pre 2017

Accessories:

602940 i-Pilot® replacement transmitter

N.B. Foot Pedal cannot be used in conjunction with i-Pilot® on Riptide® SP and PowerDrive™ V2 motors.

Minn Kota® i-Pilot Link Replacement Remote
- Post 2017

The i-Pilot Link system (see pages 1069-1073) can learn multiple remotes for added flexibility. The remote's customiseable, touchscreen display shows your current function, user menus, GPS signal strength, prop status and battery state. Powered by a rechargeable battery, the remote is waterproof and it floats. i-Pilot Link charging cable not included (sold separately).

Compatible only with Bluetooth-enabled motors.

Bluetooth®

BLA Code
602806

Minn Kota® i-Pilot Link Holding Cradle
- Post 2017 Only

Secure i-Pilot Link to your belt or console with this versatile cradle. Use the belt clip for constant easy access, or remove the belt clip and mount i-Pilot Link to your dash for simple, straightforward operation.

602810
Remote not included

BLA Code
602810

Minn Kota® i-Pilot Link Charging Cable

i-Pilot Link's wireless remote charges like a cell phone. This spare or replacement five-foot charging cable features a USB terminal that lets you choose between AC and DC power (AC and DC adapters not included)

BLA Code
602948

Minn Kota® i-Pilot Replacement Remote
- Post 2017

The i-Pilot system (see pages 1074-1080) can learn multiple remotes for increased flexibility. Compact and waterproof, this new remote can float and features a 33% larger LCD screen, ergonomic buttons and an easy-access battery compartment. Provides instant feedback on active functions, speed, prop on/off status, battery power and GPS signal strength. The Ulterra version also controls Auto Stow/Deploy and Power Trim. Compatible only with Bluetooth-enabled motors.

Bluetooth®

BLA Code
602804

Minn Kota® Micro Remote

- For i-Pilot and i-Pilot Link Post 2017

i-Pilot and i-Pilot Link give you full command of your motor. But when you want simplified, compact control, grab the new waterproof Bluetooth Micro Remote accessory for quick command of Spot-Lock, speed, steering and Advanced AutoPilot. i-Pilot and i-Pilot Link can learn multiple remotes.

Bluetooth® i-Pilot® i-Pilot® Link

BLA Code
602808

Minn Kota® Micro Remote

- i-Pilot / i-Pilot Link Pre 2017

i-Pilot and i-Pilot Link give you full command of your motor. But when you want simplified, compact control, grab the waterproof Micro Remote accessory for quick command of Spot-Lock, speed, steering and Advanced AutoPilot. i-Pilot and Link can learn multiple remotes so you can use your original remote and Micro Remote together.

i-Pilot® i-Pilot® Link

BLA Code
602942

Minn Kota® Corded Foot Pedal

To suit all PowerDrive™ and Riptide® AutoPilot™ motors 12V and 24V, post 1990 and pre June 2007. This is a service part, not retail-packaged.

BLA Code
602950

Minn Kota® Corded Foot Pedal

- For PowerDrive/Riptide PowerDrive 2007 to Date

With an 18' cable and waterproof connector plug, this pedal delivers side-to-side steering control, and includes a momentary/constant on switch and a speed control knob for precise adjustments. Plug-n-play with PowerDrive, PowerDrive V2, Riptide PowerDrive, Riptide PowerDrive V2 motors, and compatible with CoPilot.

BLA Code
602800

Minn Kota® Heading Sensor

- Post 2017

This Bluetooth-enabled sensor optimises Spot-Lock on i-Pilot or i-Pilot Link by enabling the Jog feature, which lets you move your Spot-Lock five feet in any direction at the push of a button. It also minimises boat swing for a better hold. Available as an add-on for i-Pilot and i-Pilot Link systems on PowerDrive and Riptide PowerDrive, and comes standard on all other models.

Bluetooth®

BLA Code
602812

Minn Kota® Wireless Remote Steering - CoPilot™

Add CoPilot™ to an existing Riptide® or PowerDrive™ with AutoPilot™. Simply attach the CoPilot™ receiver to the right side plate (2 screws) and plug it into the foot pedal plug at the back of the motor. Optional plug on the receiver allows you to switch back and forth between CoPilot™ and foot pedal controls.

BLA Code	Description
602973	PowerDrive™ V2 – post 07 motors

Accessories:

602977 Replacement transmitter t/s SP & PD/V2
602979 Replacement transmitter t/s Saltwater Terrova

Minn Kota® Corded Foot Pedal - Terrova Pre 2017

Optional foot pedal for use with Riptide® ST and Riptide® ST i-Pilot® bow mount trolling motors. Low profile design offers two speed steering options, heel/toe pedal or left/right steering buttons. Includes rotary speed control dial, momentary/constant on toggle, AutoPilot™ on/off toggle and 5.5m cable with IP68 rated waterproof connecting plug. Works in conjunction with the standard CoPilot™ or i-Pilot® controls.

BLA Code
602964

Minn Kota® Corded Foot Pedal

- For Terrova/Riptide Terrova Post 2017

Low-profile design offers two steering options: heel/toe pedal or left/right steering buttons. Includes Spot-Lock activation, rotary speed control dial, momentary/constant on toggle, AutoPilot on/off toggle and 18' cable with waterproof connector plug. Plug-n-play with Terrova or Riptide Terrova motors, and works in conjunction with CoPilot, i-Pilot and i-Pilot Link.

BLA Code
602802

Minn Kota® Drift Sock

Optimise your lure presentation over holding fish with the addition of the Minn Kota drift sock.

BLA Code	Length mm	Dia mm
602906	860	550

Minn Kota® Stabiliser Kit - Fortrex

Reduces bounce on Fortrex® bowguard mount motors when not in use or being transported. Rubber bumper protects boat and motor.

BLA Code
603003

Minn Kota® Drift Sock Harness - MKA-28

2.1m length, 30cm sewn loop attaches to any cleat. Quick connect clip. Float allows sock to be quickly released to prevent tangles when fighting/landing fish.

BLA Code
602908

Minn Kota® Power Plug & Socket

Universal design for two or three wire configuration, 12V to 36V system. Watertight sealing cap, corrosion resistant plated brass electrical components. Standard 28mm diameter mounting hole. Locks into receptacle to provide a watertight seal. Contoured grip.

BLA Code
114276

Anderson Plug

Heavy duty, DC rated two circuit connectors. Feature a self cleaning contact design that resists arcing. Grey plastic housing with silver plated solid copper contacts, spring loaded to resist vibration arcing. Ideal for high load applications such as trailer winches, trolling motors and battery connections. Sold individually. Two required to make a connection.

BLA Code
115612

Minn Kota® Transducer Mount Kit - MKR-15

The transducer mount kit allows the transducer of choice to be mounted to either bow or stern operated motors and fits most common brands of transducers.

BLA Code
603020

Universal Sonar 2 Adapters

Universal Sonar 2 delivers streamlined, interference-free sonar performance and DualBeam PLUS™ technology for the best view of the waters below. These adapters connect your motor to your favourite brand of sonar or fishfinder with waterproof connectors.

602957

602959

602961

602962

602963

602965

602966

602971

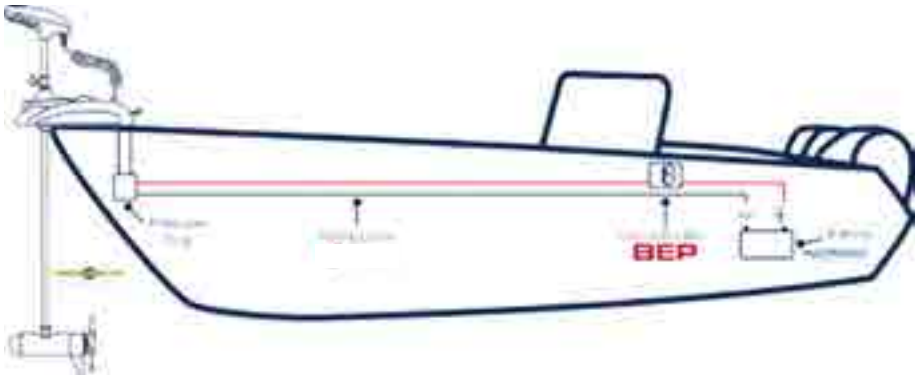
i-Pilot™ i-Pilot LINK™

BLA Code	Model
602957	Adapter Cable Humminbird ONIX MKR-US2-13
602959	Humminbird US2 Adaptor MKR-US2-8
602961	Garmin US2 Adaptor MKR-US2-1
602962	Lowrance US2 Adapt 6 Pin MKR-US2-9
602963	Lowrance US2 Adapt Blue Plug MKR-US2-10
602965	Garmin Echo US2 Adaptor MKR-US22-12
602966	Garmin US2 Adapt 8 Pin MKR-US2-14
602971	US2 Extention Cable MKR-US2-11

Wiring Loom - Suits Minn Kota®

Wiring loom is available in a 3m length and is made with 10mm quality marine grade tinned copper wire, a 50 amp circuit breaker, an Anderson plug kit and all terminals attached. The wiring is protected in a loom tube for neat installation.

For 24V motors the purchase of **113676** 300mm terminal link is required. This is to be attached from the Positive on one battery to the Negative on the other. See instructions for installation. 36V motors will require the purchase of 2 x **113676** terminal links.



602996

BLA Code	Model
602996	Wiring Loom 3m
113676	Terminal Link for 24V motors

For suitable batteries
See Section 11

Minn Kota® Quick Release Bracket

- Terrova, PowerDrive™ V2 and PowerDrive™ Bow Mount

Designed for fast removal of any Terrova, PowerDrive™ V2 or PowerDrive™ bow mount trolling motor. New cam-lock design features ultra tight tolerances that eliminate bracket movement and noise. Locking lever includes pin and lanyard. Upper and lower plates include slot for securing with padlock (not included). Includes composite cover that attaches to lower half of bracket when motor is removed, keeping the deck profile clean. Two images shown, one with cover the other with bracket.

BLA Code
603017

Minn Kota® Quick Release Bracket Mount - Riptide® Bow Mount

Allows for easy removal of any Riptide® PowerDrive™, Terrova and Ulterra bow mount motors. The low profile puck design leaves the deck clear when the motor is removed. Includes stainless steel hardware and locking pin. Locking handle can be secured with padlock (not included).

603009

BLA Code	Description
603009	White bracket t/s Riptide motors
603010	Black bracket t/s PowerDrive, Terrova and Ulterra motors

Genuine Minn Kota Bracket

Minn Kota® Quick Release Bracket Mount

- PowerDrive™ and AutoPilot™

Enables quick removal of any PowerDrive™ and AutoPilot™ trolling motors. Features Locking Quick Release design for smooth and easy disconnect.

BLA Code
603004

Minn Kota® Quick Release Bracket

- Maxxum™ and Fortrex™ Bow Mount

Allows for easy removal of any Maxxum™ and Fortrex™ bow mount. The low profile puck design leaves the deck clear when the motor is removed. Includes stainless steel hardware and locking pin. Locking handle can be secured with padlock (not included).

BLA Code
603015

Minn Kota® Universal Mounting Bracket and Top Plate

Universally designed bracket and top plate (additional top plates sold separately) allow you to easily switch between cable and electric steer motors, slide the motor inboard (up to 6"), or easily remove it for storage and security. Features corrosion-resistant anodized aluminium construction with stainless steel hardware. Compatible with Ultrex, Fortrex, Maxxum, Edge, Terrova, PowerDrive, PowerDrive V2, Riptide Fortrex, Riptide Maxxum, Riptide Edge, Riptide Terrova, Riptide PowerDrive and Riptide PowerDrive V2 bow-mount trolling motors.

603007

BLA Code	Description
603007	MKA-47
603011	MKA-48

Minn Kota® Propellers and Prop Nut Kits

Replacement props and nut kits to suit current and some superseded Minn Kota® motors.
Contact our service department on **1300 252 725** for parts information on models not listed.

ANYWHERE. ANYTIME.

	BLA Code	**603041**
	Weedless Wedge 2 Props	**Applicable Motor Models**
The next generation of the industry's only 100% fully weedless prop. Swept-back, flared blades "wedge" weeds away, allowing you to pass through heavy vegetation at any speed, without draining valuable battery power.	MKP-32	**Motor Models With Serial Number Prefix "Ww" Or "J" Through "R"** All Terrain 46, 47, 50, 55, 65, 70; Camo 55; Edge 45, 50, 55, 70; Endura 46, 50, 55; Endura C2 50, 55; Endura Max 50, 55; Engine Mount 55; Maxxum 55, 65, 70; Maxxum Transom 40, 50, 55, 70; Pontoon Hand Control 55, 70; Pontoon Powerdrive V2 54, 68; Powerdrive 50, 55, 65, 70; Powerdrive V2 55, 65, 70; Riptide 50, 55, 65, 70; Riptide Powerdrive V2 55, 70; Riptide Terrova 55; Terrova 55; Traxxis 46, 50, 55, 70; Vector 46, 55, 70; Vector 3X 46, 55, 70
	PROP NO.: #2091160	
	MOTOR DIA.: 3-5/8"	
	PROP NUT KIT: "A" (MKP-9)	
	BLA Code **603042**	
	Weedless Wedge 2 Props	**Applicable Motor Models**
	MKP-33	**Motor Models With Serial Number Prefix "Ww" Or "J" Through "R"** Engine Mount 80, 101, 160, 202; Fortrex 80, 101; Maxxum 80, 101; Maxxum Transom 80, 101; Powerdrive V2 80; Riptide 80, 101; Riptide Pro 80, 101; Riptide Fortrex 80, 101; Riptide Maxxum 80, 101; Riptide Terrova 80, 101; Riptide Ulterra 80; Terrova 80, 101; Traxxis 80, 101; Ulterra 80; Ultrex 80; Vantage 80, 101; Vector 3X 80, 101
	PROP NO.: #2331160	
	MOTOR DIA.: 4"	
	PROP NUT KIT: "E" (MKP-34)	
	BLA Code **603050**	
	Weedless Wedge 2 Props	**Applicable Motor Models**
	MKP-38	**Motor Models With Serial Number Prefix "O" Through "R"** Fortrex 112; Terrova 112; Riptide Terrova 112; Riptide Fortrex 112; Riptide Transom 112; Riptide Ulterra 112; Ulterra 112; Ultrex 112
	PROP NO.: #2341160	
	MOTOR DIA.: 4-1/2"	
	PROP NUT KIT: "E" (MKP-34)	
	BLA Code **603032**	
	Weedless Wedge Props	**Applicable Motor Models**
The patented Weedless Wedge is the only 100% weedless prop in the history of fishing. The leading edge on each propeller blade is shaped with a swept-back edge that always meets at an angle of less than 45°. "Wedges" weeds away from the hub - even at slow fishing speeds.	MKP-6	**Motor Models With Serial Number Prefix "Mkj", "Mka" Or "J" Through "R"** All Terrain 30, 33, 36, 42, 44; Camo 55; Edge 40, 45; Endura 46, 50, 55; Endura C2 50, 55; Endura Max 40, 45; Endura Pro 32, 38; Maxxum Transom 33, 40; Powerdrive 36, 40; Powerdrive V2 40, 42, 45; Traxxis 40, 45
	PROP NO.: #2061125	
	MOTOR DIA.: 3-1/4"	
	PROP NUT KIT: "A" (MKP-9)	
	BLA Code **603036**	
	Weedless Wedge Props	**Applicable Motor Models**
	MKP-7	**Motor Models With Serial Number Prefix "Mkj", "Mka" Or "J" Through "R"** All Terrain 46, 47, 50, 55, 65, 70; Camo 55; Edge 45, 50, 55, 70; Endura 46, 50, 55; Endura Pro 46; Maxxum 55, 65, 70; Maxxum Transom 46, 50, 55, 70; Pontoon 54, 64; Powerdrive 50, 55, 65, 70; Powerdrive V2 55, 65, 70; Riptide 50, 55; Terrova 55; Traxxis 46, 50, 55, 70; Vector 46, 55; Vector 3X 45, 55, 70
	PROP NO.: #2091150	
	MOTOR DIA.: 3-5/8"	
	PROP NUT KIT: "A" (MKP-9)	
	BLA Code **604028**	
	Power Props	**Applicable Motor Models**
	MKP-2	**Motor Models With Serial Number Prefix "Mkj", "Mka", Or "J" Through "R"** All Terrain 30, 33, 36, 42; Camo 44, 45; Classic 28; Edge 40, 45; Endura 30, 34, 38, 40, 45; Endura C2 30, 34, 38, 40, 45; Endura Max 40, 45; Endura Pro 32, 38; Maxxum Transom 33, 40; Powerdrive 40, 45; Powerdrive V2 40, 42, 45; Riptide 40, 45; Traxxis 33, 40, 45
	PROP NO.: #2061121	
	MOTOR DIA.: 3-1/4"	
	PROP NUT KIT: "A" (MKP-9)	

N.B. ****Minn Kota® motors with the initials MK preceding the serial number refer to pre 2005 table for prop selection***
*****Minn Kota® motors with the initials WW preceding the serial number refer to 2005 onwards table for prop selection***

Minn Kota® Replacement Propellers

ANYWHERE. ANYTIME.

Replacement props to suit current and some superseded Minn Kota® motors. Contact our service department on **1300 252 725** for parts information on models not listed.

603028
Power Prop

603032
Weedless Wedge™

603042
Weedless Wedge™ 2

BLA Code	Description
603050	MKP-38
603028	Power MKP-2
603032	Weedless Wedge™ MKP-6
603036	Weedless Wedge™ MKP-7
603041	Weedless Wedge™ 2 MKP-32
603042	Weedless Wedge™ 2 MKP-33

Minn Kota® Nut Kits

ANYWHERE. ANYTIME.

To suit current and some superseded Minn Kota® motors. Contact our service department on 1**300 252 725** for parts information on models not listed.

603052
Nut Kit A MKP-9

BLA Code	Description
603052	Nut Kit A MKP-9
603056	Nut Kit B MKP-10
603060	Nut Kit D MKP-23
603062	Nut Kit E MKP-34
607392	Sheer pin to suit motors to 80lb
608201	Sheer pin to suit 80lb motors up

Extension Handles

ANYWHERE. ANYTIME.

Steering and speed control for Minn Kota® hand control transom motors and small outboards.

603022

603024

603026

BLA Code	Description	Length mm
603022	Fixed	460
603024	Fixed	760
603026	Telescopic	620-1010

Minn Kota® Sacrificial Anode Replacement

ANYWHERE. ANYTIME.

Balanced design anode attaches quickly and easily to the prop hub. Eliminates corrosion of other metallic components on Riptide® trolling motors. 607031 fits 80mm and 90mm lower units; **607030** fits 100mm (4") and E-Drive® lower units.

607031

BLA Code	Description
607030	t/s 100mm motor
607031	t/s 80mm, 40mm motors

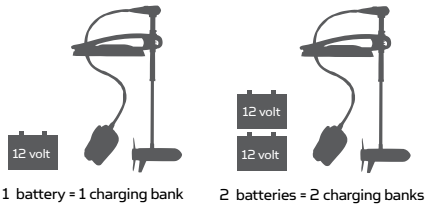
How to pick the right charger

Step 1: Determine how many charging banks your trolling system requires. You need one charging bank for each battery (include your starting battery, if appropriate).

Step 2: Determine the speed of recovery/recharging time you require:

- 4 - 6 hours recovery time = 10 Amps per bank
- 10 - 12 hours recovery time = 5 or 6 Amps per bank

Step 3: Select the Minn Kota charger that best meets your needs from the below.



1 battery = 1 charging bank 2 batteries = 2 charging banks

On-board marine battery charger product specifications

BLA Code	Description	Length mm	Width mm	Height mm	Weight kg	Battery Banks	Output per bank amps	Total output amps
114584	MK 210A On-Board Charger	292	190	102	4.9	2	5	10
114586	MK 220A On-Board Charger	343	190	102	6.8	2	10	20

Portable charger product specifications

BLA Code	Description	Length mm	Width mm	Height mm	Weight kg	Output amps	Input volts
114580	Mk 110PA Portable Charger	178	229	197	2.9	10	230/240

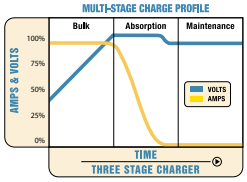
Minn Kota® Battery Charger - On-Board

ANYWHERE. ANYTIME.

Suitable for permanent on-board mounting. Available in two models to suit single or dual battery bank installations. Provides fully automatic, multi-stage charging to maintain the batteries.
By controlling the current and voltage during the charging cycle, Minn Kota® chargers recharge faster than conventional automotive battery chargers while preventing over charging which can damage and shorten battery life. They include an automatic temperature compensation feature that adjusts the output voltage to assure the battery reaches its gassing threshold and achieves a full charge. The temperature compensation feature also protects the batteries from 'boiling'.

114584

- **Fully Automatic 3-Stage Charging –** bulk, absorption and maintenance cycles
- **Automatic Temperature Compensation –** Delivers fast charging recovery, even in extreme temperatures, while protecting batteries from overcharging
- **LED Display –** Indicates power on, charging, full charge and faulty connection
- **Waterproof, Shock and Vibration Resistant –** Heavy duty construction, waterproof to IPX7
- **Short Circuit, Reverse Polarity & Ignition Protected –** A safety feature which prevents the charger from operating if incorrectly connected to the battery
- **Saltwater Tested**
- **For use with 12V/6 cell batteries –** Suitable for 50 to 130 amp hour rated, flooded wet cell, maintenance free or starved electrolyte (AGM) batteries only



BLA Code	Model	Battery Banks	Output Per Bank amp	Total Output amps	Input Volts	Length mm	Width mm	Height mm	Weight kg
114584	MK210A	2	5	10	230/240	292	190	102	4.9
114586	MK220A	2	10	20	230/240	343	190	102	6.8

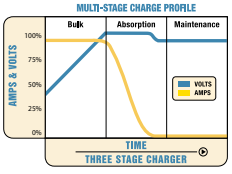
N.B. The two outputs of the 114584 & 114586 can be connected to a single battery providing 10 or 20 amps respectively charging power to a single battery.

Minn Kota® Battery Charger - Portable

ANYWHERE. ANYTIME.

Portable marine battery charger that is designed to deliver a precise charge to marine batteries without over or under charging as can happen with standard automotive battery chargers. It utilises a multi-stage charging system to charge up to 50% faster than a single stage (bulk) 10 amp portable charger, while properly protecting the batteries. Over charging can damage the useful life of the battery. Likewise, under charging over time will reduce the discharge time and shorten the battery life by as much as 20%.

- **Fully Automatic 3-Stage Charging –** bulk, absorption and maintenance cycles
- **10 Amps total output –** on MK110PA
- **LED Display –** Indicates power on, charging, full charge and faulty connection
- **Short Circuit and Reverse Polarity Protection –** A safety feature which prevents the charger from operating if improperly connected to the battery
- **For use with 12V/6 cell batteries –** Suitable for 50 to 130 amp hour rated, flooded wet cell, maintenance free or starved electrolyte (AGM) batteries only



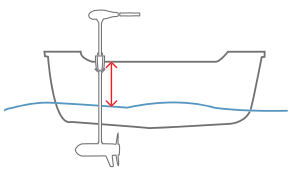
BLA Code	Model	Output Amps	Input Volts	Length mm	Width mm	Height mm	Weight kg
114580	MK110PA	10	230/240	178	229	197	2.9

Shaft Length Selection Guide

ANYWHERE. ANYTIME.

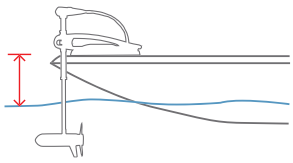
Measure down from the mounting surface of the transom or bow to the water level.

Transom Mount Guide*



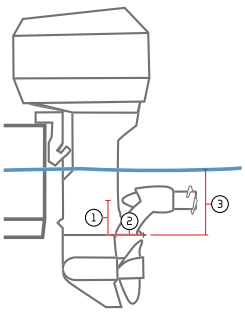
Transom to Waterline mm	Recommended Shaft Length
0 to 250	30" (760mm)
250 to 400	36" (915mm)
400 to 560	42" (1070mm)
Over 560	Contact BLA

Bow Mount Guide*



Bow to Waterline mm	Recommended Shaft Length
0 to 400	36" (915mm)
400 to 560	42" (1070mm)
560 to 710	48-52" (1220-1320mm)
710 to 865	Contact BLA

Engine Mounted Guide*



- Minimum clearance required from spine of outboard to end of cavitation plate (see diagram)
- Cavitation plate to waterline 330mm (minimum)
- The cavitation plate must be at least 4.5" long and 6" wide in order to accommodate an Engine Mount motor
- **1.** 7-1/4"
  2. 3" (80EM /101EM/ 160EM)
  3-3/4" (55EM)
  3. 13"

**** Add 125mm to waterline measurement for fishing in rough water.***

Motor Selection Guide

Model Description	BLA Code	Mount	Control	Max Thrust lb	Volts	Speeds (Fwd/Rev)	Digital Maximizer	Shaft Length in	Prop	Universal Sonar 2	i-Pilot Link	i-Pilot	Autopilot	Battery Metre	Max Amp Draw	Max Boat Length m
Riptide Ulterra i-Pilot Link																
Riptide Ulterra 112/IP Link/BT - Saltwater	**601628**	AutoStow/Deploy	i-Pilot Link Remote	112	36	Variable	Yes	60	Weedless Wedge 2	—	Yes	—	Yes*	Yes	52	7.6
Riptide Ulterra 112/IP Link/BT - Saltwater	**601630**	AutoStow/Deploy	i-Pilot Link Remote	112	36	Variable	Yes	72	Weedless Wedge 2	—	Yes	—	Yes*	Yes	52	7.6
Ulterra 80/IP Link/US2/BT - Freshwater	**601640**	AutoStow/Deploy	i-Pilot Link Remote and Ulterra Foot Pedal	80	24	Variable	Yes	60	Weedless Wedge 2	Yes	Yes	—	Yes*	Yes	56	7.6
Riptide Terrova i-Pilot Link																
Riptide Terrova 80/IP Link/BT - Saltwater	**601616**	Terrova	i-Pilot Link Remote	80	24	Variable	Yes	60	Weedless Wedge 2	—	Yes	—	Yes*	Yes	56	7.0
Riptide Terrova 55/IP Link/BT - Saltwater	**601612**	Terrova	i-Pilot Link Remote	55	12	Variable	Yes	54	Weedless Wedge 2	—	Yes	—	Yes*	Yes	50	5.0
Riptide Ulterra with i-Pilot																
Riptide Ulterra 112/IP/BT - Saltwater	**601622**	AutoStow/Deploy	i-Pilot Remote	112	36	Variable	Yes	60	Weedless Wedge 2	—	—	Yes	Yes*	Yes	52	7.6
Riptide Ulterra 112/IP/BT - Saltwater	**601624**	AutoStow/Deploy	i-Pilot Remote	112	36	Variable	Yes	72	Weedless Wedge 2	—	—	Yes	Yes*	Yes	52	7.6
Riptide Ulterra 80/IP/BT - Saltwater	**601620**	AutoStow/Deploy	i-Pilot Remote	80	24	Variable	Yes	60	Weedless Wedge 2	—	—	Yes	Yes*	Yes	56	7.0
Ulterra 80/IP/US2/BT - Freshwater	**601638**	AutoStow/Deploy	i-Pilot Remote and Ulterra Foot Pedal	80	24	Variable	Yes	60	Weedless Wedge 2	Yes	—	Yes	Yes*	Yes	56	7.0
Riptide Terrova with i-Pilot																
Riptide Terrova 112/IP/BT - Saltwater	**601610**	Terrova	i-Pilot Remote	112	36	Variable	Yes	60	Weedless Wedge 2	—	—	Yes	Yes*	Yes	52	7.6
Riptide Terrova 80/IP/BT - Saltwater	**601606**	Terrova	i-Pilot Remote	80	24	Variable	Yes	54	Weedless Wedge 2	—	—	Yes	Yes*	Yes	56	7.0
Riptide Terrova 80/IP/BT - Saltwater	**601608**	Terrova	i-Pilot Remote	80	24	Variable	Yes	60	Weedless Wedge 2	—	—	Yes	Yes*	Yes	56	7.0
Riptide Terrova 55/IP/BT - Saltwater	**601604**	Terrova	i-Pilot Remote	55	12	Variable	Yes	60	Weedless Wedge 2	—	—	Yes	Yes*	Yes	50	5.0
Terrova 80/IP/US2/BT - Freshwater	**601636**	Terrova	i-Pilot Remote and Terrova Foot Pedal	80	24	Variable	Yes	60	Weedless Wedge 2	Yes	—	Yes	Yes*	Yes	56	7.0
Terrova 55/IP/US2/BT - Freshwater	**601634**	Terrova	i-Pilot Remote and Terrova Foot Pedal	55	12	Variable	Yes	54	Weedless Wedge 2	Yes	—	Yes	Yes*	Yes	50	5.0
Riptide PowerDrive																
Riptide PowerDrive 55/IP/BT - Saltwater	**601602**	PowerDrive	i-Pilot Remote	55	12	Variable	Yes	48	Weedless Wedge 2	—	—	Yes	Yes*	Yes	50	5.0
Riptide PowerDrive 55/FP/BT - Saltwater	**601600**	PowerDrive	Foot Control	55	12	Variable	Yes	54	Weedless Wedge 2	—	—	—	—	Yes	50	5.0
Fortrex																
Fortrex 80/US2 - Freshwater	**601316**	Lift-Assist/Bowguard 360°	Fortrex Foot Pedal	80	24	Variable	Yes	45	Weedless Wedge 2	Yes	—	—	—	—	56	7.0
Fortrex 80/US2 - Freshwater	**601318**	Lift-Assist/Bowguard 360°	Fortrex Foot Pedal	80	24	Variable	Yes	52	Weedless Wedge 2	Yes	—	—	—	—	56	7.0
EO																
EO 1 HP - Freshwater	**601448**	9-Position Trim Bracket	Tilt/Extend Tiller	1 HP	24	Variable	Yes	36	Weedless Wedge 2	—	—	—	—	Yes	45	7.6
EO 1/2 HP - Freshwater	**601447**	9-Position Trim Bracket	Tilt/Extend Tiller	1/2 HP	12	Variable	Yes	36	Weedless Wedge 2	—	—	—	—	Yes	52	6.5
Endura Max																
Endura Max 55 - Freshwater	**601138**	Lever Lock Bracket	Telescoping Handle	55	12	Variable	Yes	42	Power Prop	—	—	—	—	Yes	50	5.0
Endura Max 40 - Freshwater	**601136**	Lever Lock Bracket	Telescoping Handle	40	12	Variable	Yes	36	Power Prop	—	—	—	—	Yes	42	4.0
Riptide Transom Maximizer																
Riptide Transom 55 - Saltwater	**601444**	Lever Lock Bracket	Telescoping Handle	55	12	Variable	Yes	36	Power Prop	—	—	—	—	Yes	50	5.0
Riptide Transom 55 - Saltwater	**601446**	Lever Lock Bracket	Telescoping Handle	55	12	Variable	Yes	42	Power Prop	—	—	—	—	Yes	50	5.0
Riptide Transom 45 - Saltwater	**601442**	Lever Lock Bracket	Telescoping Handle	45	12	Variable	Yes	36	Power Prop	—	—	—	—	Yes	42	4.5
Riptide Transom																
Riptide Transom 45/SC - Saltwater	**601440**	Lever Lock Bracket	Telescoping Handle	45	12	5 FWD/3 REV	—	36	Power Prop	—	—	—	—	Yes	42	4.5
Endura																
Endura C2 55 - Freshwater	**601130**	Lever Lock Bracket	Telescoping Handle	55	12	5 FWD/3 REV	—	42	Power Prop	—	—	—	—	—	50	5.0
Endura C2 40 - Freshwater	**601120**	Lever Lock Bracket	Telescoping Handle	40	12	6 FWD/3 REV	—	42	Power Prop	—	—	—	—	—	42	4.0
Endura C2 30 - Freshwater	**601110**	Lever Lock Bracket	Telescoping Handle	30	12	7 FWD/3 REV	—	42	Power Prop	—	—	—	—	—	30	3.5

N.B. Recommended boat lengths are based on BLA's recommendations considering the boat's average weight, height, passengers etc. Recommendations can vary when considering these factors.
Included on i-Pilot and i-Pilot Link.

MINN KOTA®

ANYWHERE. ANYTIME.

FISHING OFFSHORE HAS NEVER BEEN EASIER

BARCRUSHER 730
HARDTOP OFFSHORE

RIPTIDE® ULTERRA

SALTWATER BOW-MOUNT

Featuring up to 112lbs of grunt, and up to a 72" shaft, the Saltwater Ulterra will change your offshore game like never before. The GPS i-Pilot will allow you to electronically anchor and fish in any depth you desire. And when you find that spot – stow, deploy, trim and operate your motor from anywhere on the boat. It's not magic, but it's close.

i-Pilot® LINK

112 POUNDS

72" SHAFT

Bluetooth®

AUTO STOW AND DEPLOY

ELECTRIC POWER TRIM

DEALER SUPPORT

BOATING ESSENTIALS

Boating Essentials is **small in size, yet powerful in presentation.** Boating Essentials delivers the retailer **a core selection of fast moving products**.

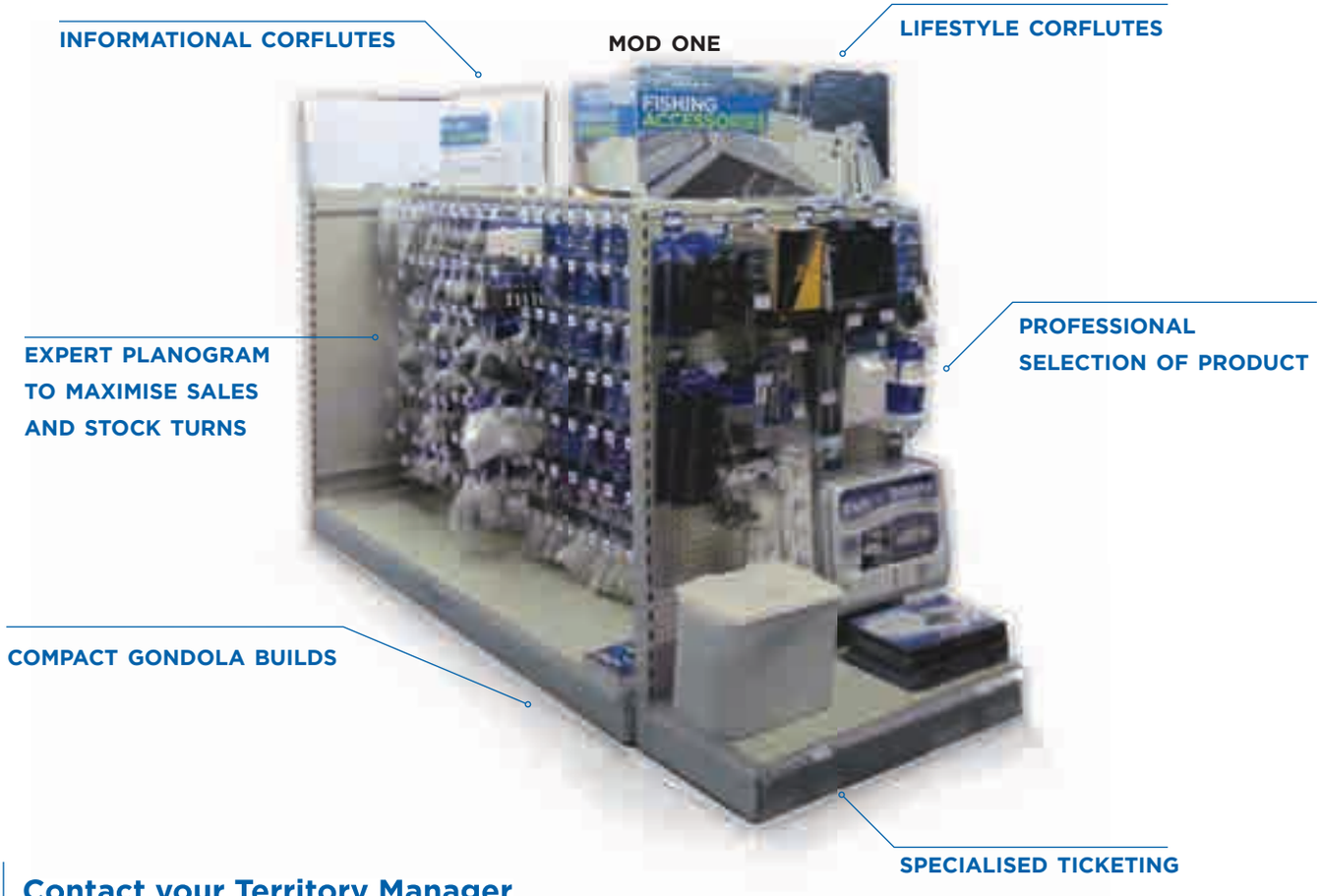
BOATING CATEGORIES

Pick and choose from the 21 different categories to target specific areas of your business or build towards becoming a Boating Hub store. Boating Categories incorporates the product and planogramming from Boating Hub with its own distinctive visual support.

RETAIL SOLUTIONS

BLA BOATINGHUB

Boating Hub incorporates 21 different categories to provide customers with a one stop solution for all their boating needs. Each category has been planogramed to deliver optimum sales for your business. Visual display merchandising and marketing support assist and guide customers whilst also providing staff with a useful tool to drive sales.



Contact your Territory Manager

For information on BLA's retail support solutions:

- Boating Hub
- Boating Categories
- Boating Essentials

- Electronics & Accessories
- Electrical
- Lighting
- Pumps, Plumbing & Galley
- Anchoring & Mooring
- Anchor Winches & Accessories
- Rigging & Architectural
- Hatches & Ventilation
- Seats & Accessories
- Hull, Deck & Cabin Hardware
- Outboard, Fuel Fittings & Propellers
- Trailer Accessories
- Safety Equipment
- Navigation
- PFDs, Bags, Boots & Sunglasses
- Oils, Sealants & Maintenance
- Steering Wheels
- Mechanical Steering - Power & Sail
- Hydraulic Steering
- Engine Controls
- Thrusters - Tunnel & Retractable
- Power Generation & Engine Room
- Boat Building Materials
- Rope
- Refrigeration
- Fishing Accessories
- Sailboat Deck Hardware
- Sheet Winches & Accessories
- Watersports & Inflatable Craft
- Canoes & Kayaks
- Electric Motors

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