

BALINER® 245 SB



Manual





AFP937



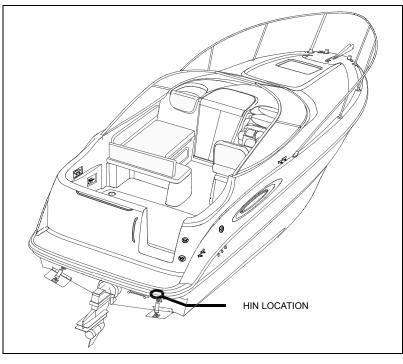
Engine: MerCruiser 5.7Litre V8 Sterndrive with dual counter rotating propellers

Hull Identification Number: US-USDB215KH405

Hull Identification Number

• The Hull Identification Number (HIN) is located on the starboard side of the transom.





When we came to Lake Macquarie, we were disappointed to find that the only way to independently explore the waterways was to hire "no boat license required" vessels.

We hope you like and appreciate what we are providing with this boat and that you will find a delight in traversing this wonderful area.

We have fitted out to suit our needs and tastes. We hope that they are to your liking.

Havarest was the name of the Ian's Grandparents weekender on the Woronora River (Sutherland Shire) and was enjoyed by the family from 1938 until assumed by the Crown as deemed too close for habitation to the Lucas Heights Nuclear Facility in about 1958.

Above the inside of the main door header was the sign

"ALL of OUR GUESTS BRING US HAPPINESS!

Some as they arrive, and some as they leave."

we have done this same signage on the cockpit side of the access door from the swim platform

we sincerely hope that you shall always be remembered as one of the former.

AFP937N HAVAREST

Registered Domain: www.LakeMacquarie.boats

Location Marmon Point Marina 1 Nanda St, Marmong Point NSW 2284 Dry Storage Bay 09

2005 Bayliner 245SB with a 5.7 litre 260HP Mercruiser Inboard Engine

Body: Express/Sports Cruiser. Colour: White/Blue

Hours Indicating: n/a Hull Type: Mono Hull Material: Fibreglass

Length 7.3m, Width 2.6m, Weight 2476kg (dry) Draft Up 0.43m Down 0.84m

Bridge clearance 3m

Best Cruising speed 42kph (23knots) at 3500RPM & 38Litre/hr

Top speed 61kph (33knots) at 4850RPM (but thirsty at about 60L/hr)

Capacity: 12 Persons but suggest 9 adult max.

Key # 44H - GPS/Chartplotter

Manuals are in the Document folder

Fuel capacity 242Litres (check c/L at the Marina Pump), Note refueling from drum or can is not appropriate.

Water tank 20Litre, Sewer Waste Holding tank 20Litre

Registration AFP937N expires 25/05/2023

Inclusions:

Fixed Bimini Cover with removable Clear side curtains,

Garmin GPS/Chartplotter/Depth Finder, VesselView Mobile

Uniden UM355 Marine Radio,

Fusion Bluetooth Stereo, Carpuride cellphone intregration Fishing Rod Holders at stern,

Toilet, Sink, Shower Gel, Shampoo & Conditioner dispenser, towels.

Origo 2500E Cooktop (elec/spirit), Microwave (flat plate),

Norcold Refrigerator (300W),

Hot and Cold Waterspout for Galley Sink, Cutting Board,

Hot Cold cockpit wash shower. (Note Hot may not be operative)

4x Mugs, 4x Plates, 4x Bowls, Cutlery.

Double berth & linen (2x pillows, sheets & duvet) + dinette converts to double with inserts & cushion pads stowed in berth area

Removable Dining Table and Cockpit Table, Marine Air Systems Air-Conditioning (not used),

Carbon-Monoxide Alarms, Fire Extinguishers, Engine bay auto EFE fireball suppression, Boat Fenders,

Docking lines, First Aid Kit (type F) Operating Manuals, Life Jackets (2 child, 1 Junior, 2 small, 1 medium, 1 large, 2 extra-large + cushion type)

Optional 1: Tow Toy (banana) and tow line, inflatable aqua pad 2.7m x 2.9m,

Fishing Rods, Lures & tackle, Boathook, Dock-hook, Umbrella, fenders & lines

12VDC & 240VAC and USB outlets & AUX Battery (12V 100AH LiPO4)

Solar Panels (1140W), Solar Charger Controller, 1500W (3000Wpeak) sinewave 240VAC inverter,

240VAC power selector Shore Power or Inverter and Power Distribution Switchboard

32" Flat Screen DTV with ChromeCast + TV Omni Antenna, Nintendo Switch + games

4G Wireless Broadband Hub (Havarest), Dyson battery vac.

Google Nest Alarm system, 240VAC Power monitor system.

Lightbar forward facing flood/spot light, swim platform worklight

Boatcover (used at dry storage bay)

Tender 2.5m Aquacraft with oars & MinnKota 42lb (0.75HP) outboard +

380W solar awning suncover & 12VDC Colman 44AH Battery

HIN: US-USDB21SKH405

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Hazard Boxes & Symbols

The hazard boxes and symbols shown below are used throughout this supplement to call attention to potentially dangerous situations which could lead to either personal injury or product damage. Read ALL warnings carefully and follow all safety instructions.

A DANGER!

This box alerts you to immediate hazards which WILL cause severe personal injury or death if the warning is ignored.

A WARNING!

This box alerts you to hazards or unsafe practices which *COULD* result in severe personal injury or death if the warning is ignored.

⚠ CAUTION

This box alerts you to hazards or unsafe practices which *COULD* result in minor personal injury or cause product or property damage if the warning is ignored.

NOTICE

This box calls attention to installation, operation or maintenance information, which is important to proper operation but is not hazard related.



















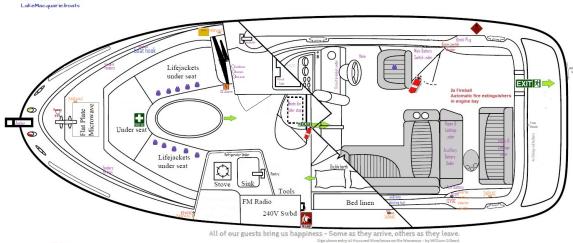


Chapter 1: Welcome Aboard!

This *Manual* provides specific information about the boat. Keep this *Manual* on the boat in a secure, yet readily available place.

Dimensions and Tank Capacities

Overall Length	Bridge Clearance	Beam	Draft (Drive Up)	Draft(Drive Down)	Fuel Capacity (Litres)	Freshwater Capacity (Litres.)	Waste Holding Tank Capacity (Litres.)
7.32m	1.83m	2.44m	0.304m	0.610m	245	75	75



Rules:

Havare/t

Read this notice and take notice of the location of equipment

Remember that there is no hot water.

The window from the cockpit to the fordeck must be shut when running above idle and fordeck is not to be occupied when underway.

No wet or damp items are to be stowed in the berth area.

Refrain from using the toilet except in an emergency, and if you do, you must tell the skipper who shall ensure pumpout and tank flushing.

Remember, this boat consumes 37(tr/hr at 20knot cruising speed and 60Utrs/hr plus when running at 35knots or towing tow toys or skiers

We also have the 3-person inflatable banana tow toy and the 2.5m inflatable tender with solar powered electric outboard, as well as the 2.9m x 2.26m inflatable floating pad.

The birmin of the boat has an ISOM Solar Array for feeding the ISOM 240VAC (Invertee as well as forward the birmin has IEO Bightar flood/spot, rear anchor light and swim platform worklights.

Heavy the feeding in the procedurable of the "Avert Heavy the bust by the latter page 1 feeding the 1.50m along the 10 feeding the 10

Details

- Ian is your key to advice about the boat.
- Ask Ian to explain *all* systems *before* taking setting out with this boat.
- You must hold a current Maritime Boat License and produce evidence of this prior to skippering.
- You shall either need to replenish any fuel used. The Fuel tank should be full at commencement of your taking of the vessel.
- You must not take the boat outside of the waterway known as Lake Macquarie NSW. You must have the windscreen "swing open panel" closed and secured when under-way at "planing speeds or above".

You must not allow anyone on the foredeck area whist under-way.

The boat is equipped with location tracking, which must not be interfered with or disabled and assistance is provided by calling Ian on 0414472042





Boating Experience

WARNING!

CONTROL HAZARD!

A qualified licensed operator must be in control of the boat at all times. DO NOT operate this boat while under the influence of alcohol or drugs.

If you are *not* familiar with this class of boat, for your own comfort and safety, obtain handling and operating experience before assuming command of the boat.

For issues associated with the operation of the boat, contact Ian on 0414-472-042

If things go really pear shaped, contact Marine Rescue Lake Macquarie (02)4971-3498

Engine & Accessories Guidelines

NOTICE

Engine & Accessories Literature

- The engine and accessories installed on the boat come with their own operation and maintenance manuals These are provided for information only - unless there is a catastrophic event, please refrain from applying any remedial or tuning of the plant or equipment.
- Mechanical equipment on this boat is serviced and maintained by Coastwide Marine's Bruce Theodore who can be contacted on 0427-725-186 please leave anything associated for him to address.





A DANGER!



FALLING and ROTATING PROPELLER HAZARD!

NEVER allow anyone to ride on parts of the boat *not* designed for such use.

• Sitting on seat backs, lounging on the forward deck, bow riding, gunwale riding or occupying the transom platform while underway is especially hazardous and *may well* cause personal injury or death. You the skipper are responsible for managing this!

A DANGER!



ROTATING PROPELLER and CARBON MONOXIDE POISONING HAZARD!

- NEVER allow anyone to occupy, or hang from, the back deck or swim platform while the engine(s) are running.
- Teak surfing, dragging, or water skiing within 6 metres of a moving watercraft can well be fatal.

A DANGER!

PERSONAL SAFETY HAZARD!

ALWAYS secure the anchor and other loose objects before getting underway. The anchor and other items that are not properly secured can come loose when the boat is moving and cause significant damage, personal injury or death.

- Your boat's mechanical and electrical systems were designed to meet safety standards in effect at the time it was built and have been updated to reflect all current marine survey requirements.
- Some of these standards were mandated by law, all of them were designed to insure your safety, and the safety of other people, vessels and property.

In addition to this *Manual*, please read *all* accessory instructions for important safety standards and hazard information.

Qualified Maintenance

A WARNING!

To maintain the integrity and safety of this boat, *only* qualified personnel are permitted to perform maintenance on, or in any way modify: The steering system, propulsion system, engine control system, fuel system, environmental control system, electrical system or navigational system.

- The owner is responsible to maintain the boat's systems (listed in the warning above) as designed and failure to do so could violate legigislated requirments and could expose guests, visitors, and/or support staff to the danger of bodily injury or accidental death.
- Follow the instructions provided in this *Manual*, as well as guidance from the engine owner's manual and *all* accessory instruction sheets and product manuals which are also available.
- Whist the owner is obligated to provide a safe vessel physically, the skipper is responsible for the safety and wellbeing of all those aboard or attached to their party or invited onto the boat.





Special Care For Moored Boats

NOTICE

- To help seal the hull bottom and reduce the possibility of gelcoat blistering on moored boats, an epoxy barrier coating has been applied and the barrier coating covered with several coats of anti-fouling paint.
- Chemical content of bottom paints meets the required strict environmental standards.
- When moored, the boat does collect some marine growth on its hull bottom and this may result in visible scale - rest assured that the boat is regularly cleaned, systems flushed and periodically waxed as well as placed into dry storage when not in the water.

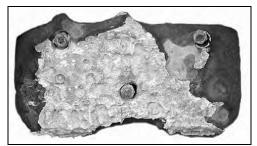
Sacrificial Anodes (Zincs)

NOTICE

Zinc anodes have no paint applied to the metal surface. This is intentional and visible corrosion is normal (including sacrificial anodes on the sterndrive leg rams)







DETERIORATED SACRIFICIAL ANODE

The boat is equipped with sacrificial anodes (zincs) to protect underwater metal parts from excessive deterioration. We check the zincs regularly and shall replace them if they have deteriorated more than 70%.

There are many factors that determine the rate at which zincs deteriorate, including:

- Water temperature
- Salinity
- Water pollution

Stray current from the boat or dock may cause complete deterioration in just a few weeks. If there is rapid zinc deterioration, we will measure the electrolytic corrosion around the docked boat with a Corrosion Test Meter. If the zincs are *not* bonded correctly, they *will not* provide protection and this is evident by there being no corrosion evidence on the anode.

We do have in spares, a replacement set of anodes.



Carbon Monoxide (CO)

A DANGER!



- Carbon monoxide gas (CO) is colorless, odorless, tasteless, and extremely dangerous.
- All engines, generators, and fuel burning appliances produce CO as exhaust.
- Prolonged exposure to low concentrations or very quick exposure to high concentrations will cause BRAIN DAMAGE or DEATH.
- Teak surfing, dragging, or water skiing within 6 metres of a moving watercraft can be fatal as those towed are exposed to high concentrations of CO.

Facts about CO

- CO poisoning causes a significant number of boating deaths each year.
- Called the "silent killer", CO is an extremely toxic, colourless, odourless and tasteless gas.
- CO can harm or even kill you inside or outside the boat.
- CO can affect you whether you're underway, moored, or anchored.
- CO symptoms are similar to seasickness or alcohol intoxication.
- CO can make you sick in seconds. In high enough concentrations, even a few breaths can be fatal.
- Breathing CO blocks the ability of your blood to carry oxygen.
- The effects are cumulative, even low levels of exposure can result in injury or death.

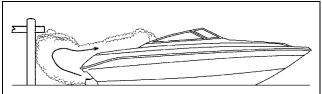
Factors That Increase the Effects of CO Poisoning

- Aged
- Smokers or people exposed to high concentrations of cigarette smoke
- Consumption of alcohol
- Lung disorders (including Asthma)
- · Heart problems
- Pregnancy

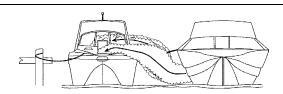


Where and How CO Can Accumulate

Stationary Conditions That Increase CO Accumulations Include:



A. Using engine, generator, or other fuel burning device when boat is moored in a confined space.



Mooring too close to another boat that is using its engine, generator, or other fuel burning device.

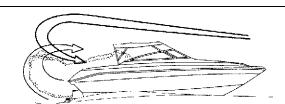
To correct stationary situations A and/or B:

- Close all windows, portlights and hatches.
- If possible, move your boat away from source of CO.

Running Conditions That Increase CO Accumulations Include:



C. Running boat with trim angle of bow too high.



D. Running boat without thorough ventilation (station wagon effect)

To correct running situations C and/or D:

- Trim the bow slightly down (don't over trim as this can lead to porpoising).
- *Open* windows, vents and clears on bimby.
- When possible, run boat so that prevailing winds help dissipate exhaust.

How to Protect Yourself and Others From CO

- Know where and how CO may accumulate in and around the boat (see above).
- Maintain fresh air circulation throughout the boat at *all* times.
- Know where the engine and bilge blower exhaust outlets are located and keep everyone away from these areas.
- **Never** sit on, or hang onto, the back deck or swim platform while the engine(s) are running.
- *Never* enter the areas under swim platforms where exhaust outlets are located.
- Although CO can be present without the smell of exhaust fumes, if exhaust fumes are detected on the boat, take *immediate* action to dissipate these fumes.
- Treat symptoms of seasickness as possible CO poisoning. Get the person into fresh air *immediately*. Seek medical attention.
- There is a CO alarm (12V powered) inside the boat cabin. *Do not* ignore any alarm.
- There is a CO alarm unit (battery) in the rear cockpit which also displays CO concentration.
- Follow the checklists provided on the next page.





Trip Checklist

- ☐ Make sure you know where the exhaust outlets are located on the boat.
- ☐ Educate *all* passengers about the symptoms of CO poisoning and where CO may accumulate.
- ☐ When docked, or rafted with another boat, be aware of exhaust emissions from the other boat.
- Confirm that water flows from the exhaust outlet when the engines are started.
- ☐ Listen for any change in exhaust sound, which could indicate any exhaust component failure.
- ☐ Test the operation of the CO alarms by pressing the test button.

The Owner's Monthly Checklist

- ☐ We make sure *all* exhaust clamps are in place and secure.
- ☐ We look for exhaust leaking from exhaust system components. Signs include rust and/or black streaking, water leaks, or corroded or cracked fittings.
- We inspect rubber exhaust hoses for burned, cracked, or deteriorated sections. *All* rubber hoses should be pliable and free of kinks.

Owner's Annual Checklist

We have a Qualified BIA Marine Technician who:

- Replaces exhaust hoses if cracking, charring, or deterioration has been found.
- ☐ We ensure that the engine is properly tuned, and well maintained.
- Each water pump impeller and the water pump housing is thoroughly inspected and replaced if worn. Making sure cooling systems are in working at capacity.
- ☐ All metallic exhaust components are inspected for cracking, rusting, leaking, or loosening. Making sure that all cylinder head gasket, exhaust manifold, water injection elbow, and the threaded adapter nipple between the manifold and the elbow are checked.
- ☐ The cooling water anti-siphon valve is checked for operation.

Carbon Monoxide Alarm System

A DANGER!

DANGER CARBON MONOXIDE

CARBON MONOXIDE POISONING HAZARD!

- The battery switch either Battery 1, Battery 2 or Both Batteries *must* be in the *On* position for the CO Monitor in the cabin to work.
- The CO Monitor in the rear cockpit is battery powered, so needs to be verified as operational.

NOTICE

The CO monitor places a small, but constant drain on the battery. If the boat will be unattended for an extended amount of time, it must be plugged into shore power with the battery charger turned On, or switch in the solar array to main battery.

- The boat features a carbon monoxide (CO) alarm system in the cabin
- **Do not** disconnect the alarm system or shut off both batteries for the duration of your occupancy of the cabin.
- Read and understand the manufacturer's instructions for the CO alarm system.



More Information

For more information about how you can prevent carbon monoxide poisoning on recreational boats and other ways to boat more safely, contact:

MARINE RESCUE LAKE MACQUARIE:

Radio Base (02) 4971-3498 In emergency - VHF Ch.16 (the boat callsign is "HAVAREST")

OWNER Ian Childs

Phone (02)9594-4477, (02)9570-3358, 0414-472-042 email: ian@childs.com.au

AMBULANCE, FIRE, POLICE:

Phone "000" and contact Marine Rescue VHF Ch.16



INTERNET:

The boat has limited Wireless Broadband using the 4G network. Contact the owner for guest access.



TV:

The boat has a 32" smart TV for FreeToAir as well as internet and videoconferencing. an MS-Display Adapter and Mirascreen Adapter is fitted for projecting from your laptop, phone, etc. There is also a Nintendo Switch Games console with some games for entertainment.

When not charging from the engine, the batteries are topped up by solar panels attached to the bimby. When not on shore power, 240VAC is provided through a 1500W Inverter. This can power the TV and accessories plus individually the stove cooktop, or the microwave, or the airconditioner (currently not operational), or the water heater (currently not operational) - [These are NOT AND's!!!] Unless you bring your own selfcontained battery hair drier, only towel and fresh-air hair drying is available.

No mains powered: hair-dryer, toaster, or coffee machines are permitted on the boat.

A 12V electric jug is provided for tea, coffee making, with tea bags and instant coffee. Linen and toiletry requirements are dependent on the number and age of occupants.

I love the descriptor of the power of the Lord God in Psalm 107:23~31 which reads:

"Those who go down to the sea in ships, Who do business on great waters;

They have seen the works of the LORD, and His wonders in the deep.

For He spoke and raised up a stormy wind, which lifted up the waves of the sea.

They went up toward the heavens [on the crest of the wave], they went down again to the depths [of the watery trough]; Men's courage melted away in their misery.

They staggered and trembled like a drunkard, and were at their wits' end.

Then they **cried out to the LORD** in their trouble, and He brought them **out of their distresses**. He **hushed the storm** to a gentle whisper, So that the waves of the sea were still. [Mt 8:26] Then they were glad because of the calm, and He guided them to their desired haven (harbour). Let them give thanks to the LORD for His lovingkindness, and for His wonderful acts to these!

So be sure to have a relationship with, and take the Lord with you, whenever you go on a boat...

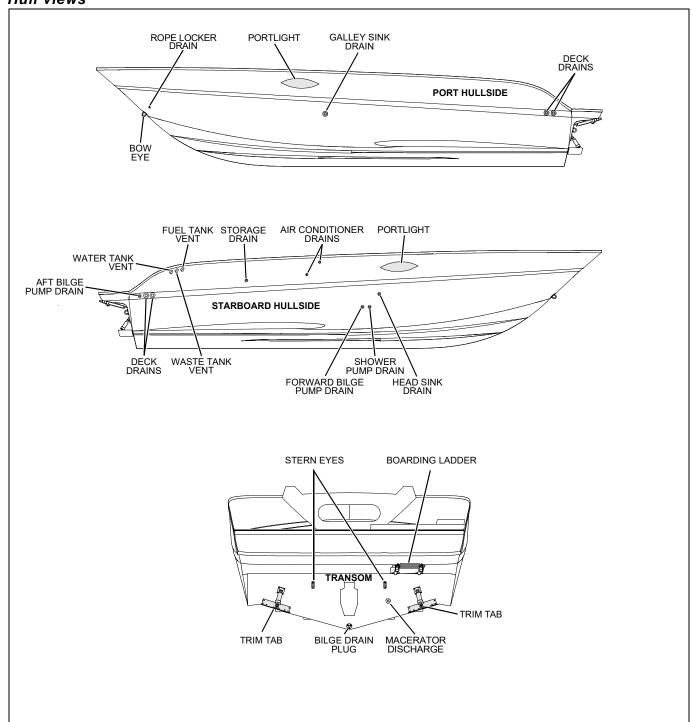




Chapter 2: Locations

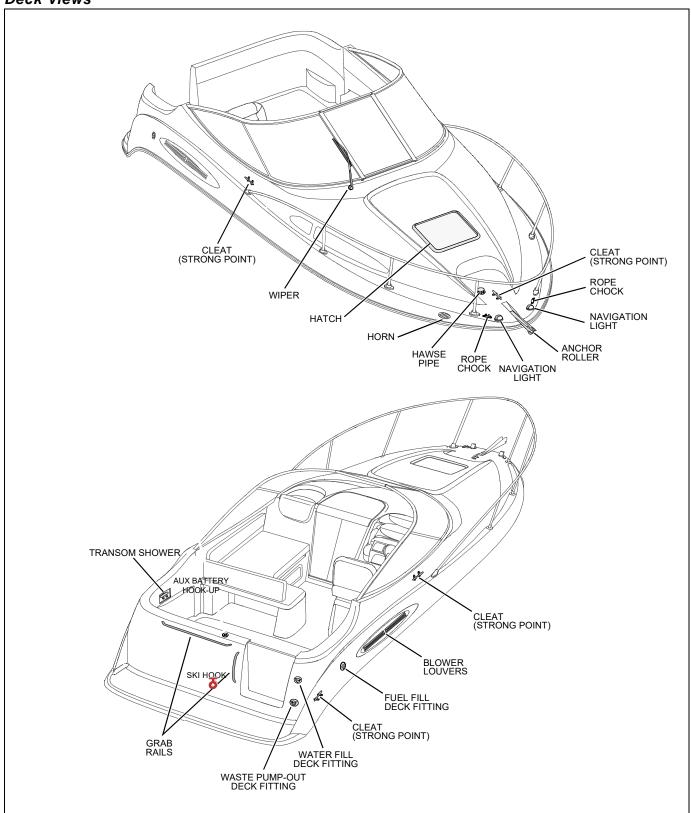
Exterior Views

Hull views



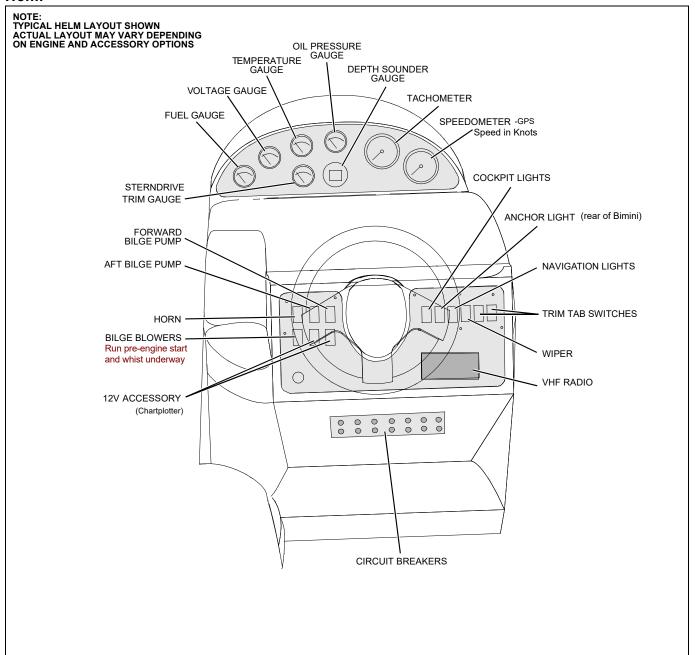


Deck Views





Helm





Bound

Component Locations

12 Volt Accessory Outlets: Three at the helm, one in the galley (with Digital Voltmeter), one beside the galley/lounge, one in the berth (with USB charge outlet) and one at the rear cockpit lounge.

240 VAC Power double outlet: One at the galley at the side of the lounge, one in the cabin next to the microwave, one in the cabin under the TV, One in the bed berth, one in the cockpit at the rear lounge.

240 VAC Changeover switch (shore power/inverter) at the entry to berth beside the power distribution switchboard **240 VAC Distribution Switchboard** at the galley

Air Conditioner Seawater Pickup Seacock: In the engine compartment.

Air Conditioner Unit: In the deck compartment under the helm seat.

Auxilliary Battery Jack: the "anderson plug" beside the cockpit lounge - can connect back to the solar charger and supply the inverter (which can also then keep the main batteries charged)

Batteries: On the port forward side of the engine compartment.

Battery Charger: In the engine compartment on the port forward wall.

Battery Switch 12VDC: In the deck compartment under the helm seat.

Note that it is a good idea when cruising and at anchor to use only one battery, thus if depleted - you can start using the other battery even when using the auxiliary battery for operation of the 240V Inverter.

Bilge pump - Aft: In the engine compartment. **Bilge pump - Forward:** Under the entry steps.

Carbon Monoxide Detector: In the salon on the aft starboard wall and in the rear cockpit.

Chartplotter / Depth Sounder / Fish finder: At the helm station dashboard.

DC Circuit Breakers: At the helm under the dash panel and some beside the battery switch.

Depth Sounder Transducer: on the transom at rear.

Engine Circuit Breakers: On the engine.

Fire Suppression: 2x automatic fireballs in engine bay, 2.5kg AB(E) behind helm, 1kg AB(E) in cabin.

First Aid Kit - full class F kit under the forward lounge seat in the cabin

Fuel Fill: On the starboard aft deck.

Fuel Tank: In the engine compartment forward of engine.

Inverter: 1500W full sine wave (3KW peak) in the engine compartment atop the water heater on the Port side.

Inverter ON remote switch in switch-cluster in cockpit Starboard side behind helm seat.

Inverter supply changeover: Main to Auxiliary battery feed - Port side cockpit lounge.

Macerator Underwater Discharge Seacock: In the engine compartment on the starboard side of the transom.

Marine Head Seawater Pickup Seacock: Under the cabin entry steps.

Navigation lights: Red and green lights at the bow. White all-around light at stern atop bimiby.

Smart TV (Samsung 32"): Cabin lounge.

Solar Charger: atop the inverter Port side in engine compartment.

Sound System (Fusion Stereo Radio): galley console.

Switch cluster for Flood lights and work lights + Cockpit ceiling and inverter on/off:

Transom Shower: On the port side of the cockpit.

Waste Holding Tank: In the engine compartment on the starboard side.

Water Fill: On the starboard aft corner of the deck.

Water Heater: In the engine compartment on the port side.

Water Pump: In the engine compartment on the port side.

Water Pump Switch: In the galley cabinet above the refrigerator.

Water Tank: In the engine compartment on the port side.





Chapter 3: Propulsion & Related Systems

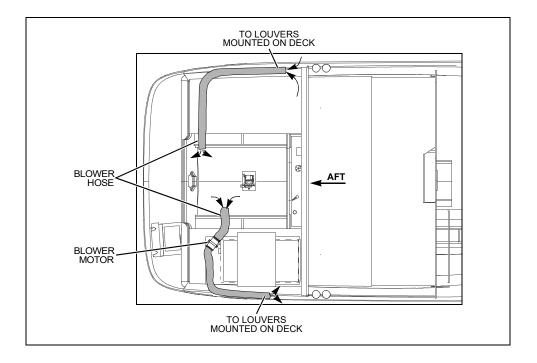
Engine

The service packet contains detailed engine operation and maintenance manuals. Be aware of these, but they are for the owner's reference who has read and understood these manuals *before* starting or doing any maintenance on the engine. This is not something that our guests are to get involved with.

Engine Room Ventilation System

WARNING!

- Use of the blower system is NOT A GUARANTEE that explosive fumes have been removed.
- If you smell fuel, DO NOT start the engine and DO NOT turn On any electrical devices.
- If you smell fuel and the engine is already running, shut Off the engine and turn Off all electrical devices. Investigate immediately.
- DO NOT obstruct or modify the ventilation system.



- The bilge blower removes explosive fuel fumes from the engine compartment.
- Fresh air is drawn into the compartment through the deck vents.
- The bilge blower switch is at the helm.

To make sure the engine compartment is ventilated with fresh air, run the bilge blower:

- For at least four minutes **before** starting the engine and an essential practice after refueling prior to starting
- During starting.
- Anytime the boat is running below cruising speed.





Fuel System

A WARNING!

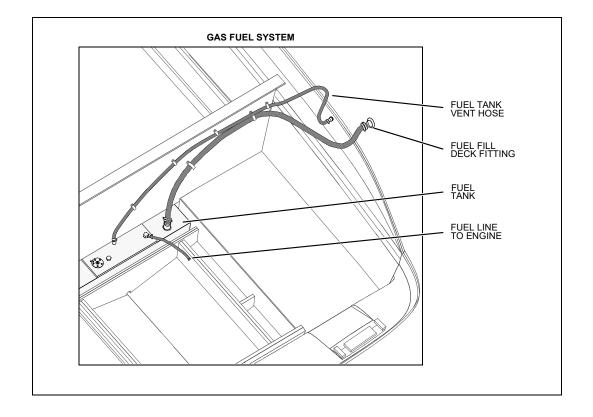


FIRE/EXPLOSION HAZARD!

- It is very important that the fuel system be inspected thoroughly at each filling.
- For your safety and the safety of your passengers, the fueling instructions must be carefully followed.

↑ CAUTION

Avoid the storage or handling of gear near the fuel lines, fittings and tank.







Fuel Fill and Vent

- The fuel fill fitting is marked "GAS" and on the starboard side at the stern.
- The boat fuel is only ULP 95 octane or higher.
- The fuel tank vent is located below the fuel fill.
- If you experience difficulty filling the fuel tank, check to see if the fuel fill hose or vent hose is kinked or collapsed.
- If there are no visible signs of a problem, contact Ian.

Fuel Filters

- The fuel pickup tube (located inside the fuel tank) is equipped with a fine mesh screen filter.
- In addition, when supplied by the engine manufacturer, a fuel filter is installed on the engine.
- The fuel filters are periodically replaced to make sure they remain clean and free of debris.

Anti-siphon Valve

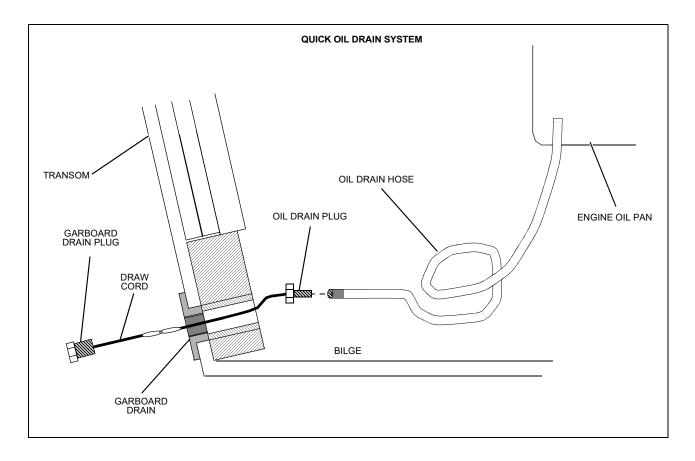
NOTICE

- If an engine running problem is diagnosed as fuel starvation, check the anti-siphon valve. If the valve is stuck or clogged, change or replace it while the engine is *shut down*.
- NEVER run the engine with the anti-siphon valve removed, except in an emergency.
- This boat is equipped with an anti-siphon valve, which is an integral part of the fuel system.
- The valve is located at the point where the fuel feed line attaches to the fuel tank.
- The valve is spring loaded and is opened by fuel pump vacuum.
- This valve *will* prevent fuel from siphoning from the tank in the event of a fuel line rupture.





Quick Oil Drain System



To drain the engine oil - This is informative and not something our guests will need to worry about:

- 1. Remove the boat from the water.
- 2. Unscrew the garboard drain plug.
- 3. Pull the draw cord until the oil drain plug and the oil drain hose slide out of the garboard drain.
- 4. Place the end of the oil drain hose into a suitable container.
- 5. Unscrew the oil drain plug and drain the engine oil.
- 6. Replace the oil drain plug.
- 7. Push the drain hose back into the bilge.
- 8. Replace the garboard drain plug.

We shall always dispose of all waste oil in accordance with the Environmental Protection Act & Regulations.



Chapter 4: Controls

Steering

- This boat features a power assisted rack-and-pinion steering system.
- The fluid level in the power steering reservoir is checked *every time* the boat is used.
- Boat steering is *not* self-centering. Remember the boat pivots at the bow and swings the stern (*opposite to a car*)
- The twin counter rotating propellers reduce wandering and leaning, however, at low speeds
 the boat will meander and require constant consistent correction, the smoother you do it the
 less yawing will occur.
- Use the fenders and the boat-hook when docking or in close quarters and the slower the better and learn how to dock using winds and tides to get a snug docking.

Shift/Throttle

A WARNING!

LOSS OF CONTROL HAZARD!

Improper maintenance of shift/throttle hardware may cause a sudden loss of control!

- Carefully read and understand *all* of the information about the shift/throttle
- Also, read and understand the shifter/throttle and engine manual.

Power Trim and Tilt

- The stern drive on your boat is equipped with power trim and tilt.
- Trim and tilt instructions are provided in the engine operation manual and the shifter/throttle manual, included in the service packet.
- The aim is to have the boat run flat and true.
 - Too much bow up will stop the boat getting onto the plane (cruising speed) and will generate toxic fumes at the rear of the boat as the engine labours as well as increased fuel consumption.
 - o Too much bow down and the boat will porpoise and become unstable.
 - o The boat has level sight-glasses at the helm to indicate trim and at planing speed, flat running is best.





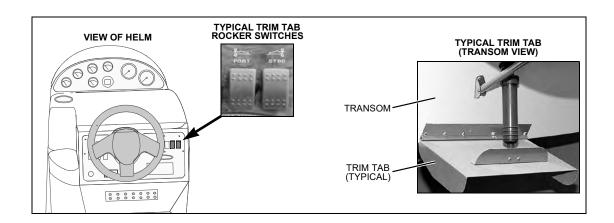
Trim Tabs

WARNING!

LOSS OF CONTROL HAZARD!

Improper use of trim tabs will cause loss of control!

- DO NOT allow anyone unfamiliar with trim tabs to use them.
- DO NOT use trim tabs in a following sea as they will cause broaching or other unsafe handling characteristics.
- DO NOT use trim tabs to compensate for excessive unequal weight distribution.



- The trim tabs may be used to *help* keep the boat level at cruising speeds.
- The trim tabs are controlled by two rocker switches at the helm.
- **Before** using the trim tabs read and understand the trim tab operation.

Observe the following:

- Once **cruising speed** is reached, **then and only then**, use the port or starboard trim tab switch (one at a time) to level the boat.
 - If you are not proficient with using trim tabs, please don't!
- Perform trim tab adjustment with several short touches to the switch rather than one long one.
- After each short touch allow several seconds for the hull to react.
- The trim tab hydraulic fluid reservoir is located in the engine compartment. The fluid level will be checked periodically (at least once a year) and is refilled as necessary.





Chapter 5: Navigation & Communication Equipment

The service packet contains manuals for *all* navigation & communication equipment installed on the boat. Please read and understand the content of these manuals *before* using these systems for the first time and observe the following:

Gauges

Cleaning Gauges

↑ CAUTION

PRODUCT or PROPERTY DAMAGE HAZARD!

- Use only mild soap and water to clean the gauge lenses and bezels.
- Use of other cleaners, including common window cleaning solutions, may cause the lenses to crack.

Gauge Fogging

- Moisture may occasionally find its way into the gauges causing lens fogging.
- Turning on the gauge lights will help dry the lenses.
- Fogging will not harm the gauges.

Fuel Gauge

It is normal for the pointers on the fuel gauge to bounce as fuel sloshes back and forth in the fuel tank.

Cellular (mobile) phone

There are numerous cellphone towers around the Lake and you should have no difficulty using your mobile. We rely upon the cellular network for our wireless broadband hub.

VHF Radio

This boat includes a VHF (Very High Frequency) radio. The VHF radio can be used to access weather reports, summon assistance or contact other vessels as permitted

Radio Transmission Interference

VHF or other radio transmissions may cause brief erratic readings on tachometers. This *will not* damage these gauges or affect their accuracy when *not* transmitting.



Compass



NOTICE

There is a magnetic boat compass mounted at the helm as required by regulations, and we suggest also use the compass in the Garmin Chartplotter and charts to navigate on the lake.

Depth Finder

A WARNING!

- DO NOT use the depth finder as a navigational aid to prevent collision, grounding, boat damage or personal injury.
- When the boat is moving, submerged objects will not be seen until they are already under the boat.
- Bottom depths may change too quickly to allow time for the boat to react.
- If you suspect shallow water or submerged objects, run the boat at very slow speeds.
- Remember the leg down draft of the unloaded boat is 0.84m Suggest alert at any depth shallower than 1.5m!!

It is very necessary for the licensed boat driver to plan the journey and they are responsible for maintaining a lookout. Often there may be buoyant hazards on or just below the surface and it is up to the boat driver to avoid them.

This boat is quite fast and reasonably heavy. It has the potential to inflict considerable damage to any object with which it comes in contact as well as the damage to the boat itself and occupants.

So observe and avoid.

Some areas of the lake are relatively shallow and these are identified on the charts, (some shallows marked with yellow buoy) avoid these areas but always approach with extreme caution. Whist the Chart Plotter and depth sounder are helpful, remember it is reading from the stern and it is likely that a shoal can be overshot by the bow and not identified until you bottom.

If you wish to explore shallows, see the owner about including the inflatable tender.

Concessional buoys are marked on the chart and these allow casual and overnight mooring (24hr max). These are positioned in some ideal locations around the lake.

If already occupied, then you shall need to find another, or anchor up (and remember to run the anchor light all night and whist not required if on a designated mooring, still not a bad idea anyway).

Remember that the water tank is only 75L and the holding tank is only 75L. If you run out of fresh water, then if you use the water heater, it will blow the heater element (currently blown). The charts identify where you can refill the water-tank (you must use only our supplied food grade water fill hose), empty the sullage holding tank, and replenish the fuel (ULP95 or higher) at the end of any cruise.

Night time navigation requires that if you are moored other than at a registered mooring, then an anchor light must be on and visible 360deg between sundown and sunup.

If you are underway at night, you must have your navigation lights on and remember if you are traversing a registered swing mooring area, they are not required to display lights. So avoid where possible.

The boat does have a forward facing lightbar flood/spotlight to assist in close quarters or to avoid hazards. Suggest keep cockpit lights off when underway to ensure night vision of skipper.



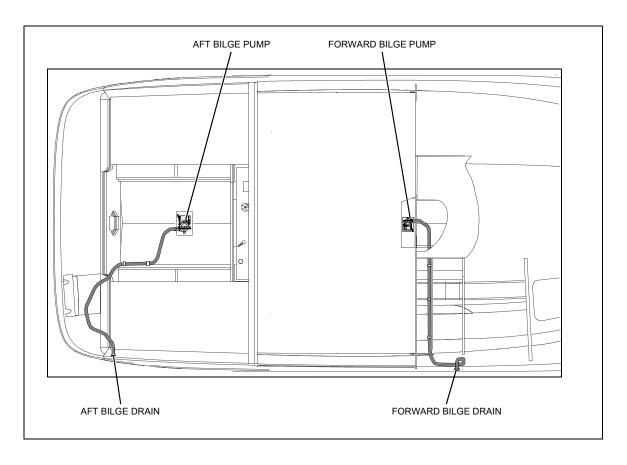


Chapter 6: Plumbing

Bilge Pumps

NOTICE

Discharge of oil, oil waste or fuel into navigable waters is prohibited by law. Violators are subject to legal action by the local authorities.

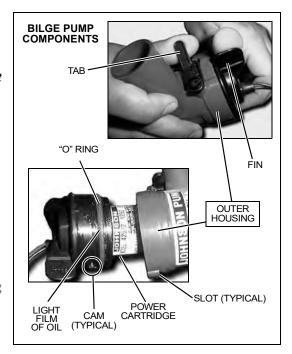


- This boat is equipped with two automatic impeller-type bilge pumps which are used to pump water out of the bilge.
- The bilge pumps are controlled by automatic bilge pump float switches (autofloat switches) and/or switches at the helm.
- The bilge pumps are wired directly to the battery so they will normally function even when the boat is completely shut down and left unattended.
- Still, some bilge water can accumulate and we always run any water out when we put the boat in the water (rain build-up)

Bilge Pump Testing - this is done by the BIA registered Marine Mechanic engaged by the owner.



- Bilge pumps are critical to the safety of the boat.
- Check the bilge pumps often to make sure they are working.
- Individually test each pump as follows:
 - 1. Turn *On* bilge pump switch at helm.
 - 2. Make sure water in bilge is pumped overboard.
- If there is water in the bilge and the pump motor is running but *not* pumping inspect the discharge hose for a kink or collapsed area.
- If *no* problems are found, check the bilge pump housing for clogging debris as follows:
- 1. Remove power cartridge:
 - a. Lift tab while rotating fins counter-clockwise.
 - b. Lift out power cartridge.
 - c. Clear outer housing of debris.
- 2. Reinstall power cartridge:
 - a. Make sure "O" ring is properly seated.
 - b. Coat "O" ring with a light film of vegetable or mineral oil.
 - c. Align two cams on either side of power cartridge with two slots on outer housing and press power cartridge into housing while twisting clockwise.
- 3. Check reinstallation by trying to twist fins counter-clockwise without lifting tab; cartridge should stay in place.



Autofloat Switches

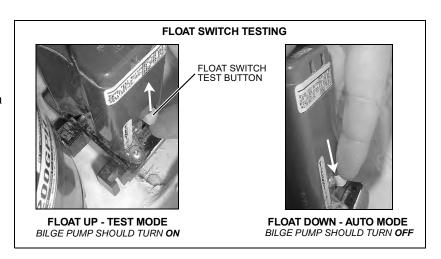
- Automatic bilge pumps use electromagnetic float (autofloat) switches to turn *On* the pump whenever water rises above a preset level in the bilge.
- One autofloat switch is mounted next to each automatic bilge pump.
- Autofloat switches are wired directly to the battery and *will* normally function even when the boat is completely shut down and left unattended.

Test the autofloat switches often as follows:

1. Push float switch test button up to turn *On* bilge pump.

If the pump does *not* turn *On*, check the inline fuse. If the fuse is good but the switch does not work, it may indicate a bad switch or possibly a low battery.

2. Push test button *all* the way down to return the float switch to auto mode.



↑ CAUTION!

When test is completed on each float switch, the test button MUST be pushed ALL the way DOWN to the auto position to return the switch to auto mode!





Seawater Systems

Seacocks

!\ CAUTION!

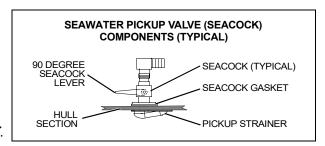
SYSTEM DAMAGE HAZARD!

- Before using a seawater pickup system, make sure that the system's seacock is in the Open position before the system is started and keep the seacock Open until the system is shut Off.
- Close the seacocks whenever the systems will not be used for long periods of time.

A seacock is a valve, controlled by a 90° lever, used to manage the pickup of seawater through the hull and below the water line. Seacocks are typically used on your boat in the following seawater pickup systems:

- Marine head (toilet)
- Air conditioning system (if equipped)

Before using any of these systems, make sure that the system's seacock is **Open** and remains **Open** until the system is shut **Off**.



Seawater Strainers

- Seawater strainers are used in water pickup systems to filter incoming seawater.
- A seawater strainer is located near each system's seacock.
- Check the strainers for leaks and/or debris every time you use your boat.
- If debris is found, clean the seawater strainer as follows:

CAUTION!

FLOODING HAZARD!

- The seacock that sends seawater to the strainer *must* be *Closed before d*isassembling the seawater strainer to prevent the boat from taking on water through the seawater strainer assembly.
- Keep the seacock *Closed* until the seawater strainer is completely reassembled.

SYSTEM DAMAGE HAZARD!

- After reassembling the seawater strainer, make sure that the seacock valve is *Open before* using the component/system.
- 1. Turn off the component or system (marine head, air conditioning system, etc.) that the strainer is connected to.
- 2. *Close* the seacock that sends seawater to the strainer you are about to clean. The seacock *must* remain *closed* until the strainer is completely reassembled.
- 3. Take apart the seawater strainer.
- 4. Remove the debris.
- 5. Flush the strainer with water.
- 6. Reassemble the seawater strainer.
- 7. *Open* the seacock and check for leaks around the strainer.
- 8. If no leaks are found, you may use the component or system.

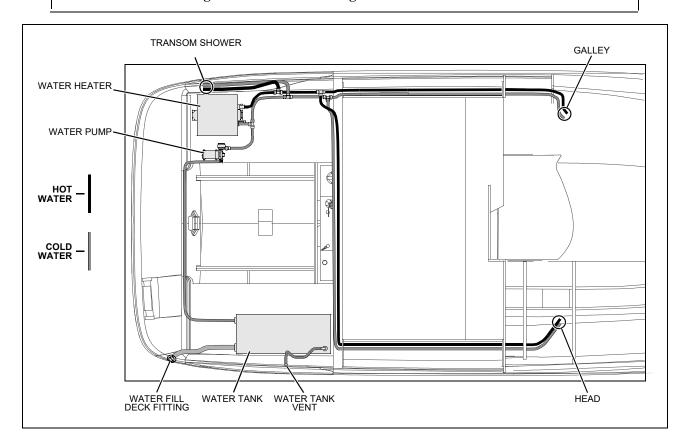




Freshwater System

WARNING!

- Only use safe drinking (potable) water in the boat's freshwater system.
- Only use a sanitary (food grade) drinking water hose to fill the water tank or connect to city water.
- Never use a common garden hose for drinking water.



- Read the information on the Freshwater System
- The boat is equipped with a pressure type (demand) freshwater (potable) system.
- This system can be pressurized by turning on the water pump.
- The water pump switch is located in the cabin on the side of the galley cabinet next to the lounge.
- Since the water pump requires DC power, the battery switch *must* be in the "1", "2" or "BOTH" position for the pump to work.
- Suggest pre-cruise flush with all outlets to remove air from pipes and any residual scale, etc.

Observe the following about the freshwater system:

- Turn *Off* the water pump to reduce water pressure and chance of leaks (when sleeping) when the boat is *not* in use or the water tank is empty.
- Inspect and clean the water filter often (located on the water pump).
- When the boat is to be left unattended for long periods of time, the water tank is pumped dry to prevent stored water from becoming stagnant and distasteful.





Freshwater System Winterisation - extended non-use

∴ CAUTION!

WATER SYSTEM DAMAGE HAZARD!

Never blow compressed air through the water system when all of the faucets are Closed.

- 1. Turn *On* the water system switch.
- 2. *Open all* of the faucets and showers and let the water system drain completely.
- 3. Turn *Off* the water system switch.

Any remaining water *must* be removed from the water lines. There are two ways to remove the remaining water from the lines:

- · Compressed Air
- Gravity Draining

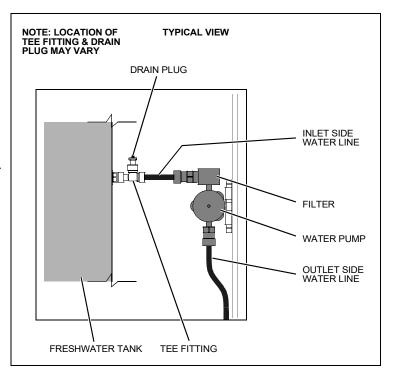
Compressed Air

You *must* have an air compressor with an air hose and an air nozzle.

- 1. Remove the water line from the outlet side of the water pump (opposite side from filter).
- 2. *Open* the faucet that is furthest away from the water pump.
- 3. Place the air nozzle against the end of the just removed water line and blow air through the system.
- 4. When water stops coming out of the *Open* faucet, stop the air and *Close* the faucet.
- 5. One at a time, repeat this process on *all* faucets and showers.

Gravity Draining

- 1. *Open all* faucets and showers.
- 2. Remove the drain plug from the tee fitting on the freshwater tank.
- 3. When the water has stopped draining from the freshwater tank, replace the drain plug.



Transom Shower

- The water pump switch *must* be turned *On before* using the transom shower (*switch in galley next to lounge*).
- Be sure to read the manufacturer's instructions.

Water Heater



WARNING!



HOT HAZARD!

Water heated by the water heater can reach temperatures hot enough to scald the skin.

⚠ CAUTION!

WATER HEATER DAMAGE HAZARD!

- DO NOT turn On the water heater electrical circuit on the AC panel until the water heater tank is COMPLETELY filled with water.
- Even momentary operation in a dry tank will damage the heating elements.
- Element damage may also disrupt the 240V supply and damage the inverter.
- The tank is full if water flows from the tap when the hot water is turned On in the galley.

NOTICE

If the boat is connected to shore power or generator power, but the water heater is *not* working:

• Make sure the water heater circuit breaker on the AC panel is switched *On*.

If the circuit breaker on the AC panel is On, but the water heater is still not working:

- Consult with Ian (note the water heater is currently inoperative-short circuit element and not to be used).
- The water heater is connected to the AC power system, therefore you *must* make sure that the water heater breaker on the AC panel is turned *On before* water *will* be heated.
- Read the manufacturer's instruction manual supplied in your owner's packet and observe the warnings above.

Winterising the Water Heater

- 1. Turn *Off* the water heater breaker.
- 2. Disconnect the hose (A) attached to the pressure relief valve (B).
- 3. If there is any water in this hose, drain it into the bilge or into a bucket.
- 4. *Open* the pressure relief valve (B).
- 5. *Open* the drain valve (C).
- Leave the pressure relief and drain valves *Open* until you fit out the boat after storage.



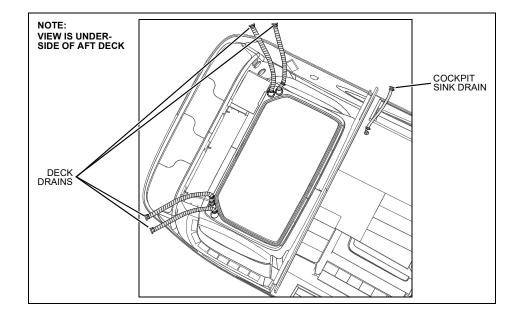




Drain Systems

Deck Drains

- Water on the deck is drained overboard through the deck drains.
- Keep the deck drains free of debris.



Sink Drains

The sinks are above the waterline and are gravity drained overboard.

Shower Drains

- The shower is drained into a sump box.
- A float switch automatically turns *On* the sump pump.
- The sump pumps the shower water overboard.

Sump Box Cleaning

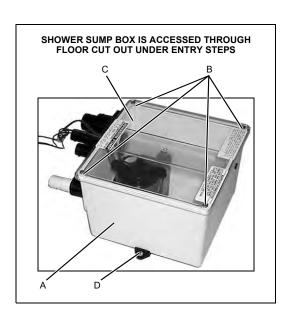
Periodically clean the sump box (A), filter, and pump as follows:

- 1. Remove the cover screws (B) and the cover (C).
- 2. Remove any debris from the box and the filter.
- 3. Clean the sump pump as outlined in the Bilge Pump section of this Supplement.

Sump System Winterisation

Drain the sump pump system in the winter months when *not* in use.

- 1. Disconnect and drain *all* lines to the unit.
- Remove the screws from the mounting feet (D) and drain the system.
- 3. Reinstall the screws in the mounting feet and reconnect the system.



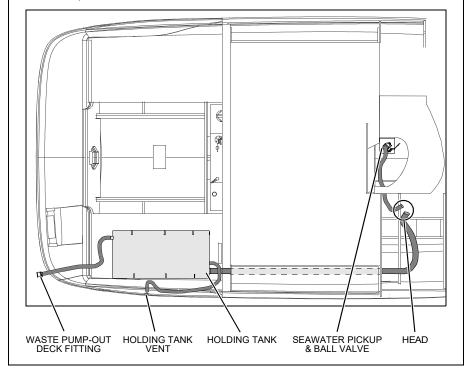
Marine Head With Holding Tank



- Read the marine head operation and maintenance manual (included in your service packet).
- You must never put anything but human waste and approved/supplied toilet paper into the system.
- The holding tank is plumbed to a waste fitting on the deck for dock-side pump-out.
- Look at the side of the holding tank to check the content level.
- Empty the holding tank at every opportunity.

If you have used the toilet, we need to flush and empty it on vessel return to us. So tell us!!!

If you don't desperately need to use the toilet, then don't



Using The Marine Head

- 1. *Open* the head's seawater pickup valve (seacock).
- 2. **Before** using the head read and understand the instruction pictograph on the pump, **pump enough water into the bowl** to wet the sides.
- 3. After use, pump until the bowl is thoroughly cleaned. Continue pumping a few more times to clean the lines.
- 4. If excess waste causes the water to rise in the bowl, stop pumping until the water recedes.
- 5. Only human waste and supplied toilet paper (from the cabinet under the sink) are to be flushed.
- 6. On return to the dock, if anyone has used the toilet notify Ian, who shall arrange pump-out.

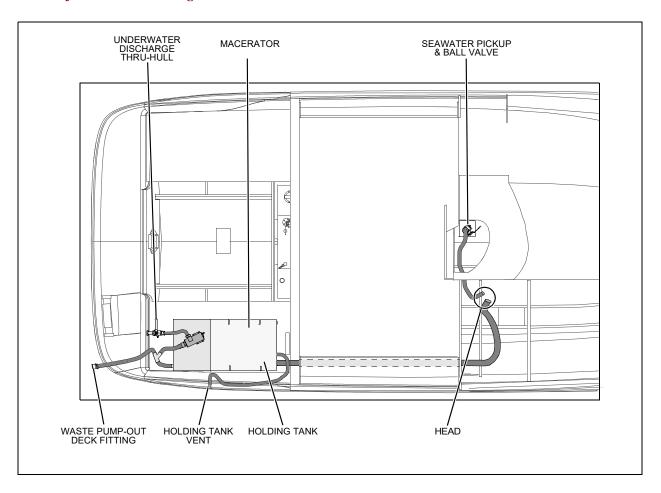




NOTICE

Check with local authorities for regulations regarding the legal use of marine head systems.

It is forbidden to discharge sewer waste into enclosed waters.



To use the macerator to pump waste directly into the water (where regulations permit):

Forbidden in enclosed waters such as Lake Macquarie

- 1. *Open* the underwater discharge seacock.
- 2. Press both macerator switches at the same time to run the pump. *Do not* continue running the macerator if the waste holding tank is empty.
- 3. *Close* the underwater discharge seacock when you are done pumping.





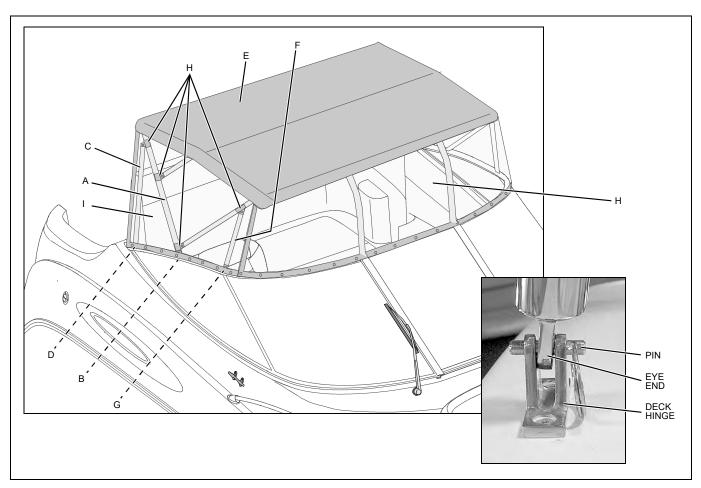


Canvas

♠ CAUTION!

The Bimini top is affixed and has the solar panel frame attached, so don't touch any of it - other than the vision panels (clear) Clear vision panels may be removed

Insulated panels can be provided for the cockpit and cabin windows to make a very snug boat.



- 1. Slide the eye ends of the main bow (A) into the middle hinges (B) on the windshield frame and insert the pins.
- 2. Slide the eye ends of the aft legs (C) into the aft deck hinges (D) and insert the pins.
- 3. Unfold the canvas top (E) and slide the eye ends of the forward legs (F) into the forward deck hinges (G) on the windshield frame and insert the pins.
- 4. Zip the front curtain (H) and the side curtains (I) to the top (E) first and then snap the curtains to the windshield frame.
- No adjustments to the bow jaw slides (H) should need to be made as they are preset during manufacturing.
- *Before* trying to adjust the jawslide positions, obtain the correct measurements.





♠ WARNING!

PERSONAL INJURY and /or PRODUCT or PROPERTY DAMAGE HAZARD!

• NEVER lift the boat using the bow and stern eyes or the cleats.

Carefully read the section on towing *before* towing anything behind the boat or having the boat towed by another vessel.





Chapter 8: Appliances & Entertainment Systems

NOTICE

An approved AB(E)-type fire extinguisher and fire blanket are in the galley area.

All appliances installed on this boat come with their own manuals. These manuals contain detailed instructions and important safeguards and these manuals may be referenced **before** using the boat's appliances.

• Make sure the AC breaker is turned *On* for the appliance you wish to use.

Refrigerator

Your boat features a dual voltage 240-volt AC/12-volt DC, refrigerator. The refrigerator runs on 12-volt DC power unless 240-volt AC power is being supplied by shore power or 240V Inverter *and* the refrigerator circuit breaker on the distribution switchboard is *On* (default is 12VDC)

Electric / Spirit Stove

▲ WARNING!



BURN/SCALDING and/or FIRE HAZARD!

- Read the stove's instruction manual before using.
- Always keep an approved AB(E)-type fire extinguisher in galley area.
- Do not use the stove while underway.
- Any non-cooking devices on or near your stove during use are potential fire hazards!
- DO NOT touch burners, grates or nearby surfaces as they may be hot even when they are dark in color. Areas near burners and grates may become hot enough to cause burns.
- During and after use, *do not* touch or let clothing or other flammable material come in contact with heated units or areas near the units (burner tops, main frame sides and back, sea rails and pot holders) until they have had sufficient time to cool.





A DANGER!



CARBON MONOXIDE POISONING HAZARD!

- The alcohol stove is a source of dangerous carbon monoxide gas (CO).
- BEFORE using the alcohol stove, Open doors and windows to make sure there is enough fresh air for ventilation.

WARNING!

- Open flame cooking appliances consume oxygen, this can cause asphyxiation or death.
- Maintain open ventilation.

🛕 WARNING!



BURN/SCALDING and/or FIRE HAZARD!

- Read the stove's instruction manual before using.
- Always check the AB(E)-type fire extinguisher in galley area.
- Do not use the stove while underway.
- Any non-cooking devices on or near your stove during use are potential fire hazards!
- DO NOT touch burners, grates or nearby surfaces as they may be hot even when they are dark in color. Areas near burners and grates may become hot enough to cause burns.
- During and after use, *do not* touch or let clothing or other flammable material come in contact with heated units or areas near the units (burner tops, main frame sides and back, sea rails and pot holders) until they have had sufficient time to cool.

↑ CAUTION!

PRODUCT DAMAGE HAZARD!

To prevent overheating which can destroy the electric burner elements, *NEVER* attempt to use both alcohol and electric burners simultaneously.

Audio & Visual Equipment

NOTICE

AM/FM radio and TV reception may be impaired anytime the engine is running.

There are also a Caride System which allows mobile phone integration (Android Auto)

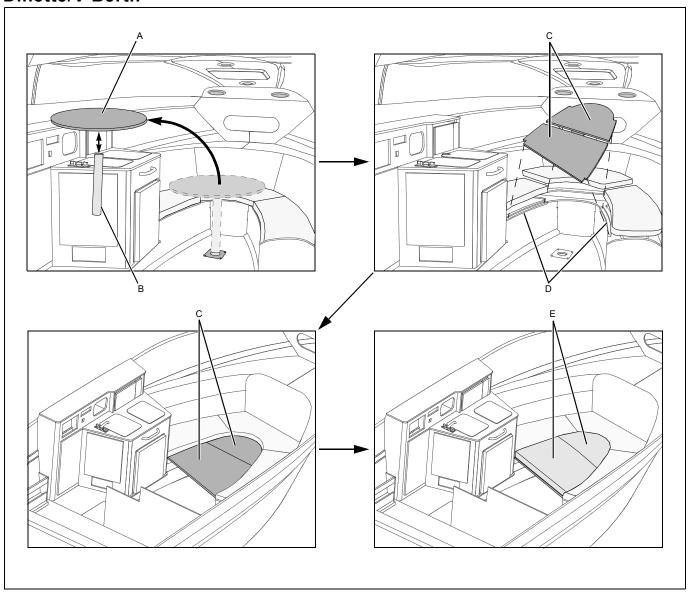
ask if you wish to use the Nintendo Switch Console.





Chapter 9: Convertible Seats, Beds, & Tables

Dinette/V-Berth



The dinette table can be removed and the dinette area can be converted into a berth.

- 1. Remove the table (A) and the table leg (B).
- 2. Place the filler boards (C) so that they fit securely into the recessed edges (D) at the edge of the dinette seats.
- 3. Place the filler cushions (E) on top of the filler boards (C). Filler boards and filler cushions are usually stowed in the double berth compartment

Remember - nothing wet ever in the berth area, on the mattress, etc.





Chapter 10: Lights

Care and Maintenance

All of the lights installed on your boat are of top quality, but you should be aware that failure may periodically occur for a variety of reasons:

- 1. There may be a blown fuse or circuit breaker replace the fuse or reset the breaker.
- 2. The bulb may be burned out as these are L.E.D. we don't carry spares.
- 3. A wire may be damaged or may have come loose we shall repair as required.

Navigation Lights

∴ CAUTION!

Avoid the storage of gear where it would block navigation lights from view.

Interior & Exterior Lights

!\ CAUTION!

- Be conservative in the use of battery power.
- Prolonged use of cabin and cockpit interior lights (overnight) will result in a drained battery.
- The light systems are all powered by the boat's 12 volt DC system.
- The battery switch must be in the 1, 2 or BOTH position for the lights to work.
- There are *On/Off* light switches for different sets of lights on the cabin wall.
- Some individual lights also have a switch on the light.
- Suggest when moored only use one battery and keep the other in reserve (to start the engine, etc) unless using the auxiliary battery, which you can plug into the anderson plug and selecting the inverter selector switch to Auxilliary ONLY.

When using the inverter from the auxiliary battery, this will not drain the main batteries and the 240V to 12VDC Charger would also keep the Main Batteries topped up.

Whichever battery is feeding, the turned on Inverter can be fed from the solar array whistever ther is sunlight available to do so.

The bimini solar array mounting rack has a forward facing light bar flood light as well as 2x worklights above the stern swim platform and in the centre rear - the anchor light. These are switched from the switch cluster behind the helm seat

The ceiling cockpit lights have a series switch in the cluster giving the option to turn off these ceiling lights





Chapter 11: Heating & Air Conditioning

Air Conditioning System

A DANGER!

CARBON MONOXIDE POISONING HAZARD!



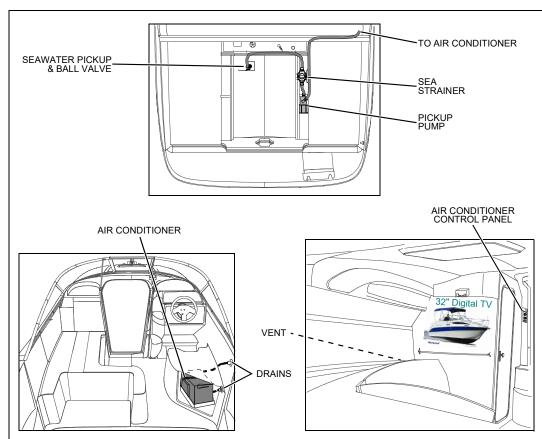
Dangerous carbon monoxide gas (CO) can be brought into the boat through the air conditioning system.

!\ CAUTION!

SYSTEM DAMAGE HAZARD!

The air conditioning system's seacock *must* be *Opened before* turning *On* the air conditioner and *must* remain *Open* during use.

- The boat is equipped with an air conditioning system.
- Read the air conditioner manual *before* using the air conditioner system.
- **Before** using the air conditioner system, make sure the breakers on the AC main distribution panel are turned **On** and make sure the system's seawater pickup seacock is **open**.
- The seacock must remain open anytime the air conditioner is in use.
- Check the seawater pickup strainer for debris according to the directions given in the *Seawater Strainer* section of this *Supplement*.



Currently the Airconditioner can only be used when connected to 2x15A shorepower. So suggest **don't try it.**





Chapter 12: Electrical System

DANGER!



EXTREME FIRE. SHOCK & EXPLOSION HAZARD!

- To minimize the risks of fire and explosion, NEVER install knife switches or other arcing devices in the fuel compartments.
- NEVER substitute automotive parts for marine parts. Electrical, ignition and fuel system parts were designed and manufactured to comply with rules and regulations that minimize risks of fire and explosion.
- DO NOT modify the electrical systems or relevant drawings.
- Have qualified personnel install batteries and/or perform electrical system maintenance.
- Make sure that all battery switches are turned Off before performing any work in the engine spaces.

WARNING!



- Fuel fumes are heavier than air and will collect in the bilge areas where they can be accidently ignited.
- Visually and by smell (sniff test), check the engine and fuel compartments for fumes or accumulation of fuel.
- ALWAYS run the bilge blowers for at least four minutes prior to engine and/or generator starting, electrical system maintenance or activation of electrical devices.
- Minimize the danger of fire and explosion by *not* exposing the batteries to open flame or sparks. NEVER smoke anywhere near the batteries. In fact do not smoke on this boat!

CAUTION!



SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

NEVER disconnect the battery cables while the engine is running since it can cause damage to your boat's electrical system components.

NOTICE

Electrical connections are prone to corrosion. To reduce corrosion caused electrical problems, keep all electrical connections clean and apply a spray-on protectant that is designed to protect connections from corrosion.





12-Volt DC System

Batteries

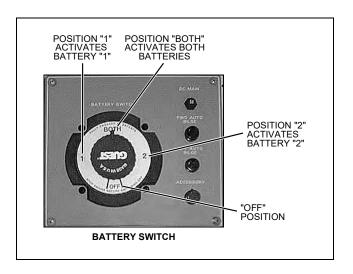
The batteries supply electricity for lights, accessories and engine starting.

Fuses and Circuit Breakers

- Fuses and circuit breakers for engines and main accessory power are on the DC main distribution panel and on the battery switch panel.
- Some equipment may have secondary fuse protection at the unit, behind the battery switch panel or at the batteries.
- Electronics power is provided at the helm station.

Battery Switch

- The battery switch has four (4) positions.
- Some "Standby Loads", such as the CO monitor, the automatic bilge pumps, and the stereo memory, are *not* affected by the battery switch since they are wired directly to the battery (see the *Wiring Diagrams* in this *Supplement* for more details).



Battery Switch Positions

NOTICE

Since the batteries on your boat were dealer-installed, the battery switch positions listed below may vary. Make sure you get a full explanation of battery switch use from your selling dealer.

Battery Switch Position	Engine Starting	Accessories and Lights	Engine Alternator	Battery Charger
POSITION <u>1</u>	Battery <u>1</u> Provides Starting Power	Battery <u>1</u> Provides Power for Accessories and Lights	Charges Battery <u>1</u>	Charges BOTH Batteries
POSITION <u>2</u>	Battery <u>2</u> Provides Starting Power	Battery <u>2</u> Provides Power for Accessories and Lights	Charges Battery <u>2</u>	Charges BOTH Batteries
POSITION <u>BOTH</u>	BOTH Batteries Provide Starting Power	BOTH Batteries Provide Power for Accessories and Lights (not advised unless engine is running)	Charges <u>BOTH</u> Batteries	Batteries will NOT Charge Properly So only switch to BOTH when underway.





The engine alternator will keep the batteries properly charged when running at cruising speeds and the charge is also supplemented with the solar charging system.

Battery Charger

CAUTION!

ENGINE & ELECTRICAL SYSTEM DAMAGE HAZARD!

NEVER run the boat's engine and the battery charger at the same time.

CAUTION!

The battery charging systems (alternator and battery charger) installed on the boat are designed to charge lead-acid batteries only.

Thoroughly read and understand the battery charger manual (provided in your owner's packet) before using the battery charger for the first time.

- The battery charger will charge the boat's batteries whenever the boat is plugged into 240V/50Hz shore power and the "BATTERY CHARGER" AC breaker is *On*.
- The battery switch can be in any position during charging.
- You may use DC powered electrical systems, such as the lights and stereo when the battery charger is *On*, but there will be a corresponding drop in charger performance.

IMPORTANT!

If you are not using an auxiliary battery to feed the inverter, but rather a main battery, you need to turn off the battery charger on the electrical 240VAC distribution switchboard as this battery will then be feeding itself and become depleted. It will still get charged from the solar. If the main battery is feeding the inverter, but the inverter will shut-off if the 240V battery charger circuit breaker is on.

12-Volt Accessory Outlets

CAUTION!

DO NOT use the 12-volt accessory outlet with a cigarette or cigar lighter. High temperatures may melt the outlet.

- The boat is equipped with a 12-volt accessory outlet at the helm in the galley beside the lounge, in the berth.
- There is a 12V digital voltmeter in the galley
- The outlets can be used with any 12-volt device which draws 15 amps or less.
- The 12-volt accessory outlets are protected by 15 amp circuit breakers on the main circuit breaker panel.
- Dedicated USB Chargers are located at the cockpit lounge and berth 12V outlet points

Note that the 2x USB charge points on the double 240V power outlet under the TV required 240V power to be on.



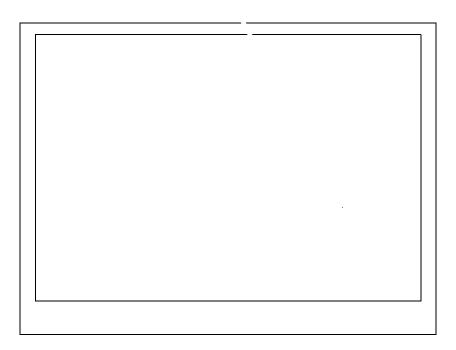


240-Volt AC System

⚠ CAUTION!

WATER HEATER DAMAGE HAZARD!

- DO NOT turn On the water heater AC panel electrical circuit until the water heater tank is COMPLETELY filled with water.
- The tank is full if water flows from the tap when the hot water is turned On in the galley.
- Even momentary operation in a dry tank will damage the heating elements.



NOTICE

When using shore power the simultaneous use of several AC components can result in an overloaded circuit. It may be necessary to turn *Off* one or more accessories in order to use another accessory.

- The 240V/50Hz AC system can be energized only when on dual 15A shore power.
- The master circuit breakers, located on the 240VAC Distribution Switchboard, provide power source selections to the AC powered accessories.
- Individual breakers *must* be turned *On* to supply power to the accessories you wish to use. We suggest if you aren't using it leave it off (Airconditioner, water heater, etc).
- A 240VAC Power Monitor Display is in the galley it shows voltage (Power1 or Power2 switch), current draw (Amps), kW, kWh, and Power Factor





DANGER!



FIRE, EXPLOSION & SHOCK HAZARD!

- DO NOT alter shore power connectors and use only compatible connectors.
- Before plugging in or unplugging the shore power cord to your boat, make sure all breakers and switches on the AC master panel are turned Off.
- To prevent shock or injury from an accidental dropping of the "hot" cord into the water, ALWAYS plug the shore power cord to the boat inlet first; then to the dockside outlet. When unplugging from shore power, unplug the shore power cord from the dockside outlet first.
- NEVER leave a shore power cord plugged in to the dockside outlet only.
- Only use shore power cords approved for marine use. NEVER use ordinary indoor or outdoor extension cords that are not rated for marine use.

WARNING!



SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

- Monitor the polarity indicator lights EVERY TIME you connect to shore power.
- If a reversed polarity light turns On when you are connecting to shore power, DO NOT turn on the main breaker switches.
- Instead, IMMEDIATELY unplug the shore power cord (ALWAYS from the dockside outlet first) and alert marina management.

WARNING!



SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

- Periodically check the shore power cord(s) for deterioration or damage.
- NEVER use damaged or faulty cords since the danger of fire and electrical shock exists.
- DO NOT pinch shore power cords in doors or hatches, or coil the shore power cord too tightly since these situations can generate enough heat to result in a fire.
- If a shore power cord accidently becomes immersed in water, THOROUGHLY dry the blades and contact slots before reusing.

We conduct portable appliance testing to AS/NZS 3760 for all 240VAC appliances and chords.







ELECTRICAL SYSTEM DAMAGE HAZARD!

- Using several AC components at the same time can result in an overloaded circuit. You may have to turn Off one or more components in order to use another accessory.
- Use double insulated or three-wire protected electrical appliances whenever possible.

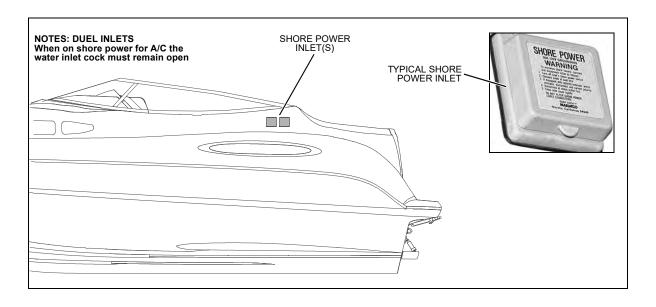
NOTICE

- Some dockside installations may be rated less than 15 amps, therefore, whenever a lower amp adapter is used, however, there *will* be a corresponding drop in supplied power from the dockside system.
- The single shore power 240V/50Hz, AC system features one, 240V/15 amp, shore power receptacle.
- As the boat is equipped with an air conditioning system, a second (dual) 15 amp inlet has been installed and where a second 15A supply is not provided, then the Airconditioning is not to be used.
- The dual shore power inlets are labeled "LINE 1" and "LINE 2", which corresponds to the "LINE 1" and "LINE 2" master breakers on the AC panel.
- The dual shore power system is designed so that each line is independent of the other except when the AC power transfer switch is used (on the power distribution panel in the galley) which is only to be used when supply is from a single 240VAC power source.
- When using Inverter power, make sure that you switch both the Line 1 and Line 2 input breakers to on (usually switched to parallel when on single feed shorepower at the marina dock or dry-berth) as the inverter uses dual feeds of 750W each with 1.5kW each initial peak (not enough to kick off airconditioner or water heater).





Connecting To Shore Power



Note: Inverter Supply Changeover switch must be changed to shorepower whenever supplied by shorepower supply and inverter turned off.





- 1. Review *all* hazard information at the beginning of this section, *Shore Power*.
- 2. Turn *off all* breakers and switches on the AC master panel.
- 3. Attach the shore power cord to the boat inlet first then to the dockside outlet.
- 4. Use the 240V changeover switch to change from Shore Power to Inverter Power (Centre is OFF)
- 5. If using Inverter Power switch on the inverter on the cluster switch in the cockpit and use the inverter battery source changeover next to the cockpit lounge to select Auxiliary or Main Battery feed.
- 6. Monitor the AC panel's polarity indicator lights, located below the line master breaker(s), as follows:
 - An indicator light illuminating after the power cord is plugged into the dockside outlet indicates acceptable electrical power. You may turn *On* the master breaker switch.
 - A light, indicating reversed polarity, needs to be checked as this could cause electrical system damage and possibly electrical shock injuries. In this case, *do not* turn *On* the master breaker switch.
- 7. Switch the "LINE 1 DOCKSIDE MASTER" *On*.
- 8. Where equipped with dual dockside, switch the "LINE 2 DOCKSIDE MASTER" On.
- 9. Turn *On* the individual component breakers as required (not water heater of airconditioner).
- 10. When using Inverter for 240VAC Switch both the LINE 1 and LINE 2 to On.

Transfer Switch

NOTICE

- When using the "Transfer Switch on the 240V switchboard "do not exceed 15 total amps" (check on power use analyser display).
- The amperage of each component breaker is shown in figure 1.

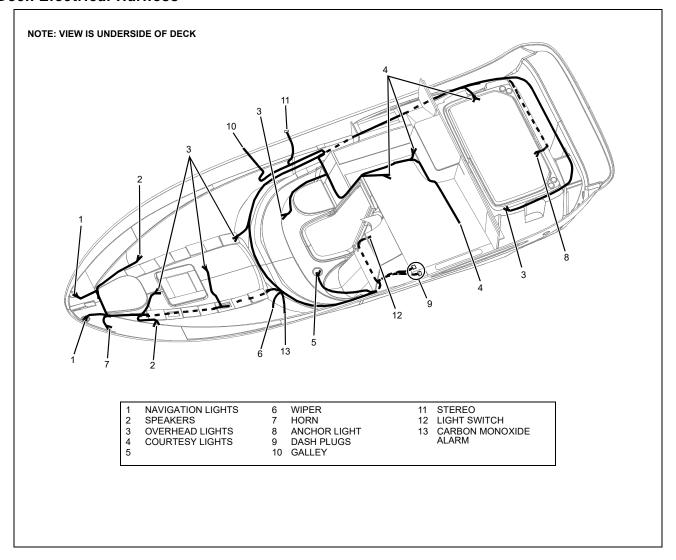
When only one dockside outlet is available, you can use the "Transfer Switch" to provide power to both lines.

- 1. Connect to shore power as described in steps 1 through 4 above.
- 2. Switch the "LINE 1 TRANSFER SWITCH" (transfers power from line 1 to line 2) *On* instead of the "LINE 2 DOCKSIDE MASTER. but change Line 1 Transfer Switch to *OFF* when on inverter.
- 3. Turn *On* the individual component breakers as required. If you don't use it leave it off (Air Conditioner, Water Heater, etc.)





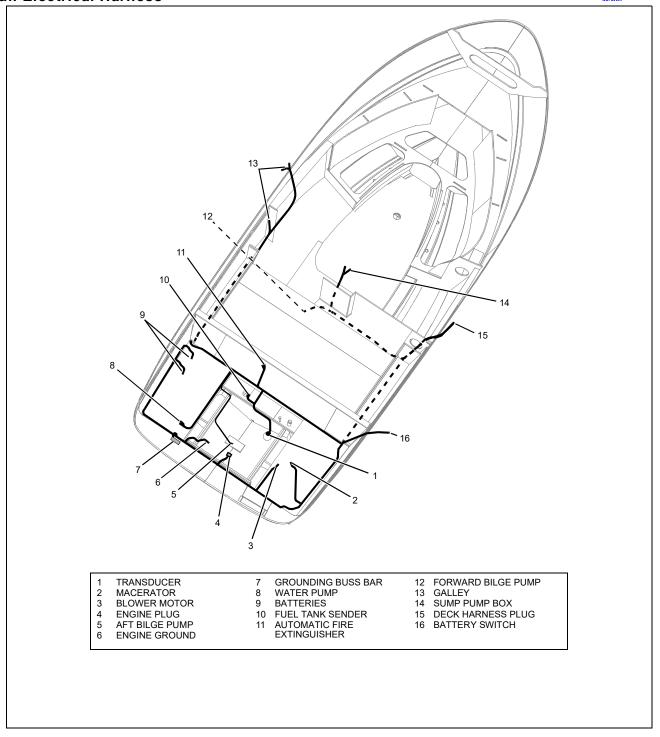
Deck Electrical Harness





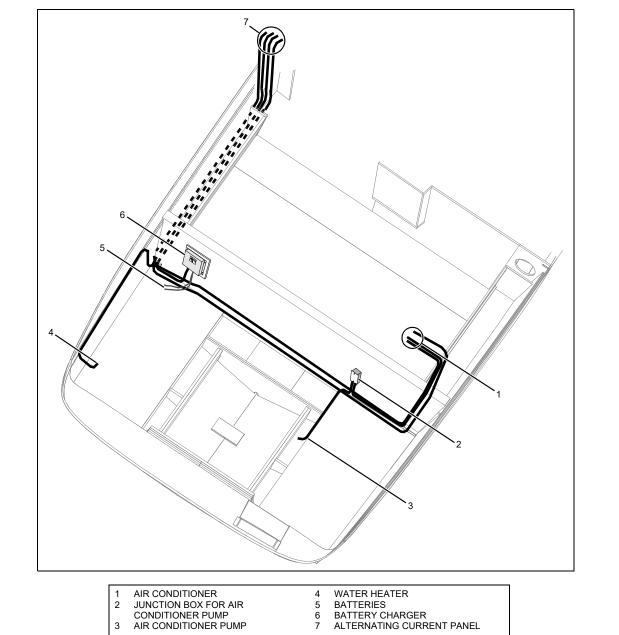
Name of the latest and the latest an

Hull Electrical Harness



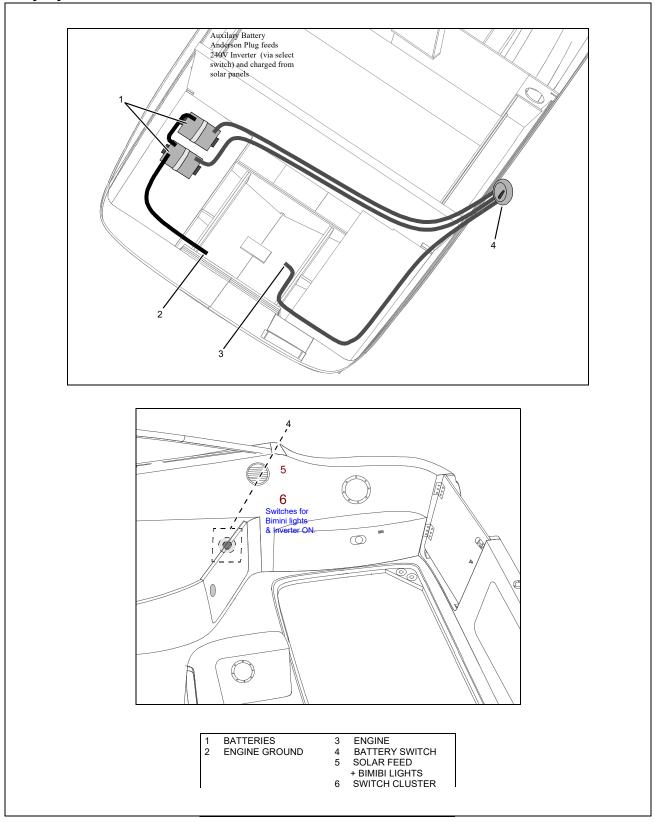


240 Volt AC System



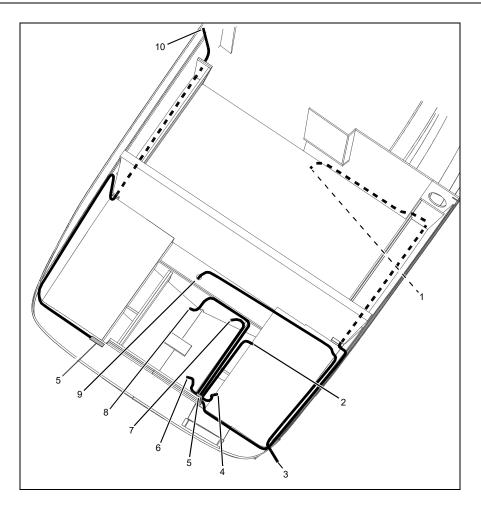


Battery System





Bonding Harness



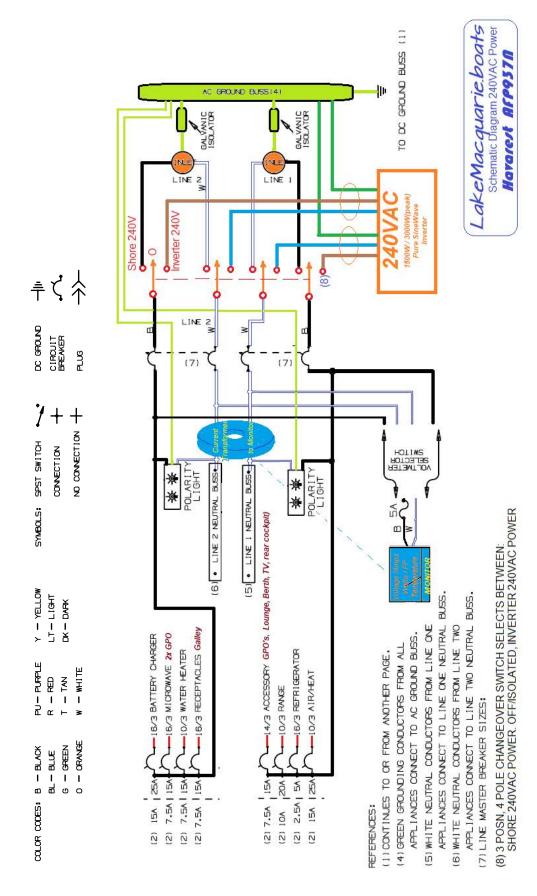
- HEAD PICKUP
- AIR CONDITIONER PUMP FUEL FILL DECK FITTING
- OVERBOARD DISCHARGE BALL VALVE
- GROUNDING BUSS BAR
- **ENGINE GROUND**
- AIR CONDITIONER STRAINER
- AIR CONDITIONER PICKUP FUEL TANK
- 10 GALLEY



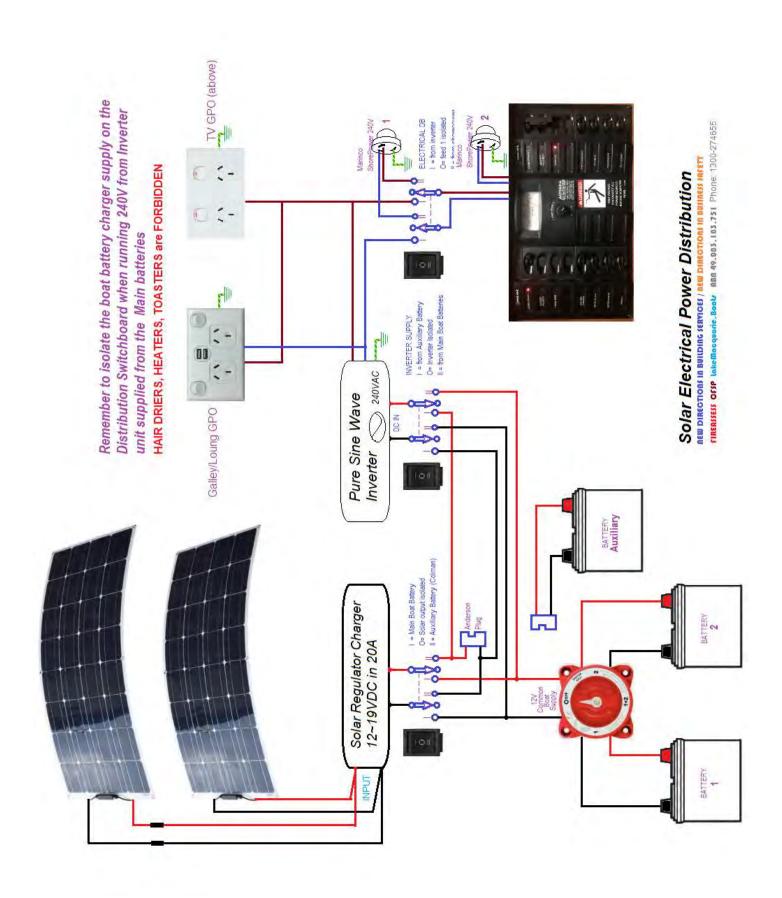
Wire Diagrams

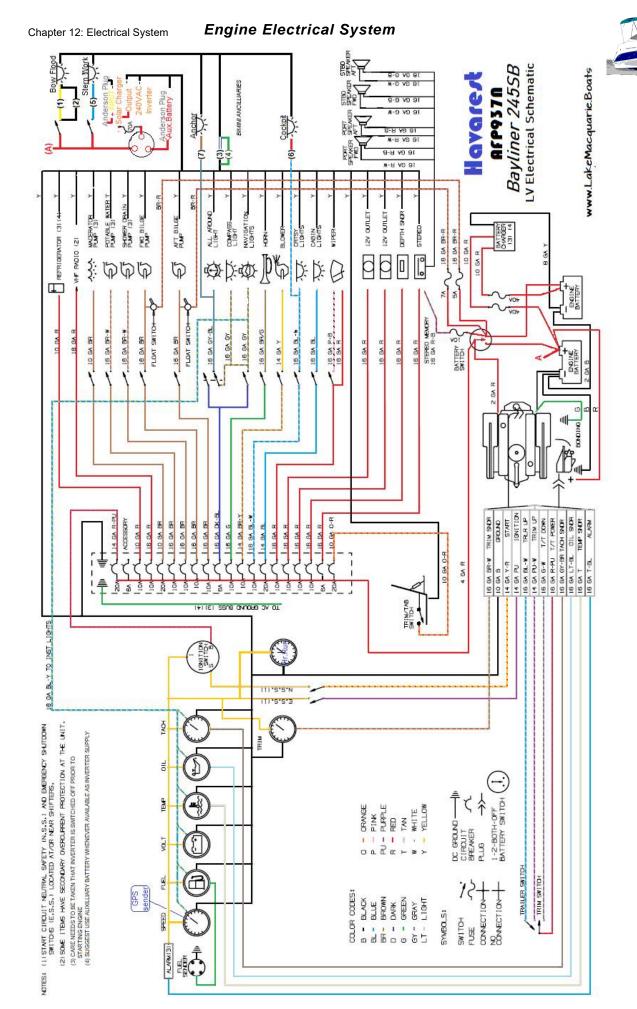
Dual Dockside













lan Childs		ph. (02)9594-4477	mob. 0414-472-042
Nar	ne Of Owner		
PO Box 115 Boo	olaroo NSW 2284		
	Address	-	
ian@childs.com	ı.au	Chartplotter	
E-	mail	-	
		Garmin	
	413-416-811 Alternate Manager / mobile phone	_ Manufacturer	Model Name/Number
Paul Childs / 0	490-505-573	Ser	ial Number
Al	ternate Manager / mobile phone		iai ramboi
Engine			
Mercury Marine	MCM 5.7 LITRE	Fuel Cruising Sn	200d 20knoto = 271 /hr
Manufacturer	Model Name/Number		peed 20knots = 37L/hr about 35knots = 60L/hr
			na at 15knots = 60L/hr
Engi	ne Serial Number	- ,	
25W-40 Marine	5.5L		
	litres Filter Type	=	

Propeller

Manufacturer	Pitch
Mode	el Number

Ancilliaries

Aqua Craft 2.5m inflatable tender with paddles (MinnKota 42lb thrust electric outboard optional)

3-person tow banana boat ride-on (with tow rope)

or if you want exercise and are a competent rower, there is the single scull (by appointment).







Breed

Float Plan

Before going boating, fill out a copy of this float plan (or similar) and leave it with a *reliable* person whom you can depend on to contact the Marine Rescue or other the authorities, if you do not return as scheduled.

Description of Boat		Persons on Board		
AFP937	N Havare <i>r</i> t			
R	egistration/Documentation Number		Full Name	
7.3m	Bayliner 245SB Express Cruiser Make Type	Age	 Health	Phone Number
ŭ		Age	Пеаш	Fliotie Number
White Hull Color	<u>Dark Blue</u> Trim Color			
242 Litres Fuel Capacity	Petrol One Engine Type Number of Engines		Full Name	
, ,	nels on blue bimby top over cockpit Distinguishing Features	Age	Health	Phone Number
	Distinguishing Features		Full Name	
		Age	Health	Phone Number
Operator o	f Boat			
			Full Name	
	Full Name	Age	Health	Phone Number
Male or Female	Age Health			
			Full Name	
	Address			
		Age	Health	Phone Number
	Address			
	Phone/ E-mail		Full Name	
	Operator's Boat License Number	Age	Health	Phone Number
	de and have a current NSW Boat License and ersons must man the helm of this vessel.			

NO BOAT LICENSE = NO KEY!

or

We need to supply a skipper





Survival Equipment

Survival Eq	uipment		Trip Expectations	
Yes	Uniden UM355	VHF	Booragal (Awaba House Jetty)	
arine Radio (Yes/No)	Туре	Frequencies	Departi	ng From
ooked adult persons				
Number of PFDs	Flares (Yes/No)	Mirror (yes or no)	Departure Date	Departure Time
	Yes			
noke Signals (Yes/No)	Flashlight (Yes/No)	Food (Yes/No)	Stopo	over 1
Yes	<u>Yes</u>	(optional) Raft/Dinghy (Yes/No)	·	
Water (Yes/No)	Anchor (Yes/No)	Raft/Dinghy (Yes/No)	Arrive No Later Than: Date	Arrive No Later Than: Time
ptional (with dingy)				
Paddles (Yes/No)	EPIRB (Yes/No)	Other		
			Stope	over 2
Other	Other	Other		
			Arrive No Later Than: Date	Arrive No Later Than: Time
'ehicle Des	cription (guest ca	ar)		
			Stope	over 3
Make		Model		
			Arrive No Later Than: Date	Arrive No Later Than: Time
Colour	Re	gistration Number		
			Stope	over 4
Whe	ere is the Vehicle Parked on de	eparture?	·	
			Arrive No Later Than: Date	Arrive No Later Than: Time
			Stope	over 5
			Arrive No Later Than: Date	Arrive No Later Than: Time
			Stopo	over 6
			Arrive No Later Than: Date	Arrive No Later Than: Time
			Final Destination Port (If I	Different Than Home Port)
			Arrive No Later Than: Date	Arrive No Later Than: Time
			If not returned by the date call the Marine Rescue.	
			02 497 I-	3498
			Phone Number	
			16	88

VHF Channel



27MHz Channel



Lake Macquarie is twice as large as Sydney Harbour and one of the largest salt water lagoons in the Southern Hemisphere. It has inflows primarily from Cockle Creek and Dora Creek with a catchment area of 604.4km² At the Northern End of the Lake we have Speers Point Park (one of the best recreational parks for children around), Warners Bay shops and eateries across the way. We have Awaba House Park and our home base at Marmong Point, Then head South around Bolton Point and you'll come to Toronto (the Royal Motor Yatch Club is there). Then head down and around Coal Point to the Rathmines Catalina Park (historic flying boat base), then on to Wangi-Wangi which is East of the Swansea channel entry (we don't recommend getting in too close to Belmont South due to the shallows there, but Marks Point Marina can supply fuel (Premium Unleaded only) if a top-up is needed. Pulbah Island sits South of Wangi-Wangi and Swansea and is a National Park, Bushwalking and picnicing is permitted however camping on the island is not. There are a couple of 24hr courtesy moorings if you wish to hook up and spend the night. South of Pulba we have the communities of Cams Wharf and opposite Gwandolan (the bowling Club is good for meals) back North and around Point Wolstoncroft (State Recreational area and camp) and back South to Summerland Point, Mannering Park, Wyee Point and Morriset, then round to Bonnells Bay. You may wish to Navigate up Dora Creek to Wangi Road, then come back out and head back around Wangi Wangi for the journey back to Marmong Point. Fishing in the Lake abounds with mulloway, bream, dusky flathead, tailor, squid, luderick, sand whiting, yellowtail, kingfish and Australian salmon (see Service NSW if you don't have a Fishing License as one is required). We can make available our 3-person recreational tow banana boat (max tow speed 15knots) - It's a load of fun but remember an observer over the age of 16 is required to monitor and notify the skipper. also remember that towing it shall use-up significant fuel compared to the unencumbered cruising 37L/hr (expect upward of 60L/hr) For those who wish to explore, (anchor or hook-up to a courtesy mooring) we can make available the 2.5m inflatable dingy and paddle/oars with optional MinnKota 42lb thrust electric outboard with 44AH battery. There is also a 380W solar array which is more than able to keep the battery replenished in sunlight We will supply a quantity of adult Large & Medium size PFD's - Childrens PFD's will need to be provided by yourself NOTE: No wet/damp articles on the sleeping berth (only dry)!



We can supply liquid soap, shampoo, conditioner, but not face washers, towels.

Linen can be available for the double berth only. Should additional be required, bring sleeping bags, pillows, etc.

There is no coffee machine, hair drier or toaster and don't bother bringing these as they are forbidden.

In lieu of a hair drier, we can provide a microfibre towel

There is an electric jug (12V) with instant coffee, tea bags sweetener/sugar plus long life milk.

LIFE JACKETS ON BOARD

	Brand	Size	Kg Range	Other
1	Menace	Child	10~25kg	85 chest
2	Menace	Child	10~25kg	85 chest
3	Marlin Dominator	Junior	33~40kg	
4	Savage Fluid	S	40~60kg	
5	Savage Fluid	S	40~60kg	
6	Marlin Medalist	M	60~70kg	
7	Ultra Kayak	L	60+kg	
8	Ultra Kayak	XL	60+kg	
9	Ultra Kayak	XL	60+kg	







Havarest

Mooring Buoy colours:

Private Mooring	Yellow
Commercial Mooring	Orange
Club Mooring	Red
Emergency Police, etc.	Blue
Public Courtesy Moorings max 24hr	Pink

Check the waterways local charts for mooring locations

LakeMacquarie.boats		

HoraceA	Notes





The darker the blue, the less likely to get stuck in the gew!





