

3100 SE Sport Express Cruiser Owner's Manual Supplement

MAXUM®

Date of Purchase: _____

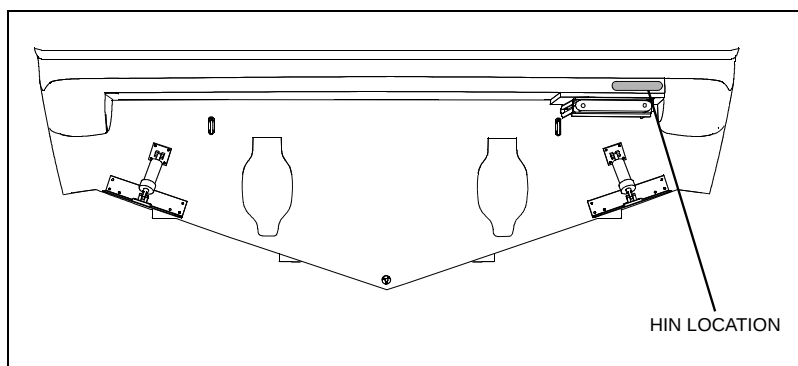
Port Engine Serial Number: _____

Starboard Engine Serial Number: _____

Hull Identification Number: _____

Hull Identification Number

- The Hull Identification Number (HIN) is located on the starboard side of the transom.
- Record the HIN (and the engine serial number) in the space provided above.
- Please refer to the HIN for any correspondence or orders.



© 2003 Maxum Technical Publications. All rights reserved.

No part of this publication may be reproduced, stored in any retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of Maxum.

Printed in the United States of America.

General Notes

The material in this document is for information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, Maxum assumes no liability resulting from errors or omissions in this document, or from the use of information contained herein. Due to our commitment to product improvement, Maxum reserves the right to make changes in the product design, specifications, and equipment at any time without notice or obligation. Illustrations and/or photos may show optional equipment.

All Maxum products meet or exceed USCG (United States Coast Guard) and/or NMMA (National Marine Manufacturer's Association) construction standards. Manufactured with 1,1,1 Trichloroethane, a substance which harms public health and environment during the manufacturing process by destroying ozone in the upper atmosphere.

Proprietary Rights

This document discloses subject matter in which Maxum has proprietary rights. The information and design disclosed herein were originated by and are the property of Maxum. Neither receipt nor possession thereof confers or transfers any right to reproduce, copy, alter or disclose the document or any part thereof, any information contained therein, or to construct boats or any item from it, except by written permission from or written agreement with Maxum. This document is to be returned upon request to Maxum.

CONTENTS

1 Chapter 1: Welcome Aboard!

- 1 Dimensions and Tank Capacities
- 1 Layout View
- 1 Dealer Service
- 2 Warranty Information
- 2 Boating Experience
- 2 Engine & Accessories Guidelines
- 2 Engine & Accessories Literature
- 3 Safety Standards
- 3 Qualified Maintenance
- 4 Special Care For Moored Boats
 - 4 *Sacrificial Anodes (Zincs)*
- 5 Boat Lifting
- 6 Carbon Monoxide (CO)
 - 6 *Facts about CO*
 - 7 *Where and How CO Can Accumulate*
 - 7 *How to Protect Yourself and Others From CO*
 - 8 *Trip Checklist*
 - 8 *Monthly Checklist*
 - 8 *Annual Checklist*
 - 9 *Carbon Monoxide Alarm System*
 - 9 *More Information*

10 Chapter 2: Locations

- 10 Exterior Views
 - 10 *Hull views*
- 11 Deck Views
 - 11 *Aft Deck*
 - 12 *Helm*
- 14 Component Locations

16 Chapter 3: Propulsion & Related Systems

- 16 Engines
- 16 Engine Room Ventilation System
- 17 Fire Suppression System (If Equipped)
- 18 Fuel System
 - 20 *Fuel Fill & Vent Fittings*
 - 20 *Anti-siphon Valves (Gas Engines Only)*
 - 20 *Fuel Filters*
 - 21 *Fuel/Water Separator Filters (Diesel Engines Only)*

22 Chapter 4: Controls & Gauges

- 22 Steering
- 22 Shift/Throttle
- 22 Power Trim and Tilt
- 23 Trim Tabs
- 24 Gauges
 - 24 *Cleaning Gauges*
 - 24 *Gauge Fogging*
 - 24 *Fuel Gauge*
 - 24 *Twin Engine Readings*
 - 24 *Radio Transmission Interference*

25 Chapter 5: Navigation & Communication Equipment

- 25 VHF Radio (If Equipped)
- 25 Compass
- 25 Depth Finder
- 25 Radar (If Equipped)

26 Chapter 6: Plumbing

- 26 Bilge Pumps
 - 28 *Autofloat Switches*
- 28 Seawater Systems
 - 28 *Seacocks*
 - 29 *Seawater Strainers*
- 30 Freshwater System
 - 32 *Freshwater System Winterization*
 - 33 *Water Heater*
 - 33 *Winterizing the Water Heater*
 - 34 *Transom Shower (If Equipped)*
 - 34 *City Water Inlet*
- 34 Drain Systems
 - 34 *Deck Drains*
 - 35 *Gray Water Drain System*
 - 35 *Sump Box Cleaning*
 - 35 *Sump System Winterization*
- 36 Marine Head With Holding Tank
 - 37 *VacuFlush (If Equipped)*
 - 38 *Macerator (If Equipped)*

39 Chapter 7: Deck Equipment

- 39 Windlass (If Equipped)
- 39 Cleats and Tow Eyes
- 40 Canvas

41 Chapter 8: Appliances & Entertainment Systems

- 41 Refrigerator
- 41 Electric Stove (If Equipped)
- 42 Alcohol/Electric Stove (If Equipped)
- 42 Audio & Visual Equipment
- 42 Dockside Television & Telephone Inlet

43 Chapter 9: Lights

- 43 Care and Maintenance
- 43 Navigation Lights
- 43 Interior & Exterior Lights
- 43 Spotlight (If Equipped)

44 Chapter 10: Convertible Seats, Beds, & Tables

- 44 Dinette/Berth
- 45 Aft Cockpit Table/Sunlounge

46 Chapter 11: Heating & Air Conditioning

- 46 Air Conditioning System (If Equipped)

48 Chapter 12: Electrical System

- 49 12 Volt Direct Current System
 - 49 Batteries
 - 49 Fuses and Circuit Breakers
 - 49 12 Volt Accessory Outlets
 - 49 Alternator
 - 50 Battery Charger
 - 51 Battery Switches
- 52 Alternating Current System
 - 53 Shore Power
 - 55 Parallel Switch (If Equipped with Dual Shore Power)
 - 56 Generator (If Equipped)
- 59 Electrical Routings
 - 59 Deck Electrical Harness
 - 60 Hull Electrical Harness
 - 61 Battery System
 - 62 Alternating Current System
 - 63 Bonding Harness
- 64 Wire Diagrams
 - 64 Engine Electrical System
 - 65 DC Electrical System
 - 66 AC Electrical System
 - 67 Connector List

68 Important Records

69 Float Plan

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.**

 **DANGER!**

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

 **WARNING!**

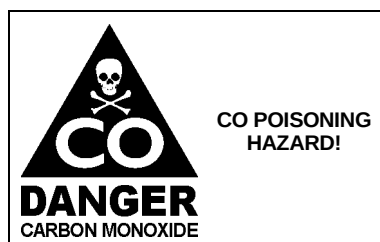
This box alerts you to hazards or unsafe practices which *COULD* result in severe personal injury or death if the warning is ignored.

 **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.



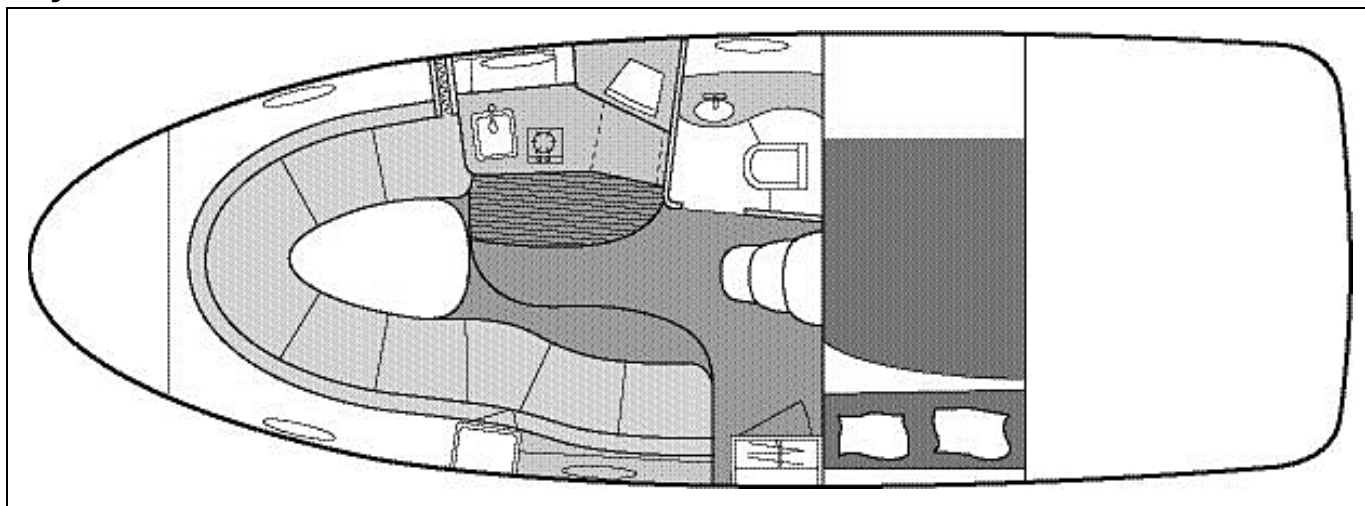
Chapter 1: Welcome Aboard!

This *Owner's Manual Supplement* provides specific information about your boat that is **not** covered in the *Cruiser & Yacht Owner's Manual*. Please study the *Cruiser & Yacht Owner's Manual* and this *Supplement* carefully. Keep the *Cruiser & Yacht Owner's Manual* and this *Supplement* on your 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 (gal.)	Freshwater Capacity (gal.)	Waste Holding Tank Capacity (gal.)
30' 9"	12' 9"	10' 6"	2' 1"	3' 5"	150	31	31

Layout View



Dealer Service

- Ask your dealer to explain **all** systems before taking delivery of your boat.
- Your dealer is your key to service.
- Contact your dealer if you have any questions or problems with your new boat.
- If your dealer cannot help, call our customer service hotline: 360-435-8957 or send us a FAX: 360-403-4235.
- Buy replacement parts from any authorized Maxum dealer.

Warranty Information

- Maxum offers an Express Limited Transferable Warranty on each new Maxum purchased through an authorized Maxum dealer.
- A copy of the Express Limited Transferable Warranty was included in your owner's packet.
- If you did not receive a copy of the Express Limited Transferable Warranty, please contact your dealer or call 360-435-8957 for a copy.

Boating Experience



WARNING!

CONTROL HAZARD!

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

If this is your first boat or if you are changing to a type of boat you are **not** familiar with, for your own comfort and safety, obtain handling and operating experience before assuming command of the boat.

Take one of the boating safety classes offered by the U.S. Power Squadrons or the U.S. Coast Guard Auxiliary. For more course information, including dates and locations of upcoming classes, contact the organizations directly:

- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: <http://www.usps.org>
- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: <http://www.cgaux.org>

Outside the United States, your selling dealer, national sailing federation or local boat club can advise you of local sea schools or competent instructors.

Engine & Accessories Guidelines

NOTICE

When storing your boat please refer to your engine's operation and maintenance manuals.

- Your boat's engines and accessories were selected to provide optimum performance and service.
- Installing different engines or other accessories may cause unwanted handling characteristics.
- Should you choose to install different engines or to add accessories that will affect the boat's running trim, have an experienced marine technician perform a safety inspection and handling test **before** operating your boat again.
- **Certain modifications to your boat will result in the cancellation of your warranty protection. Always** check with your dealer **before** making any modifications to your boat.

Engine & Accessories Literature

- The engine and accessories installed on your boat come with their own operation and maintenance manuals.
- Read and understand these manuals **before** using the engine and accessories.
- Unless noted otherwise, **all** engine and accessory literature referred to in this *Owner's Manual Supplement* is included in your owner's packet.

Safety Standards

! DANGER!	
	FALLING and ROTATING PROPELLER HAZARD! • NEVER allow anyone to ride on parts of the boat <i>not</i> designed for such use. • Sitting on seat backs, lounging on the forward deck, bow riding, gun-wale riding or occupying the transom platform while underway is especially hazardous and <i>will</i> cause personal injury or death.

! 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 20 feet of a moving watercraft can be fatal.

! DANGER!	
PERSONAL SAFETY HAZARD! • ALWAYS secure the anchor and other loose objects <i>before</i> getting underway. • The anchor and other items that are <i>not</i> properly secured can come loose when the boat is moving and cause 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. 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 *Owner's Manual Supplement*, please read the *Cruiser & Yacht Owner's Manual* and **all** accessory instructions for important safety standards and hazard information.

Qualified Maintenance

! WARNING!	
To maintain the integrity and safety of your boat, allow <i>only</i> qualified personnel 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.	

- Failure to maintain your boat's systems (listed in the warning above) as designed could violate the laws in your jurisdiction and could expose you and other people to the danger of bodily injury or accidental death.
- Follow the instructions provided in the *Cruiser & Yacht Owner's Manual*, this *Owner's Manual Supplement*, the engine owner's manual and **all** accessory literature.

Special Care For Moored Boats

NOTICE

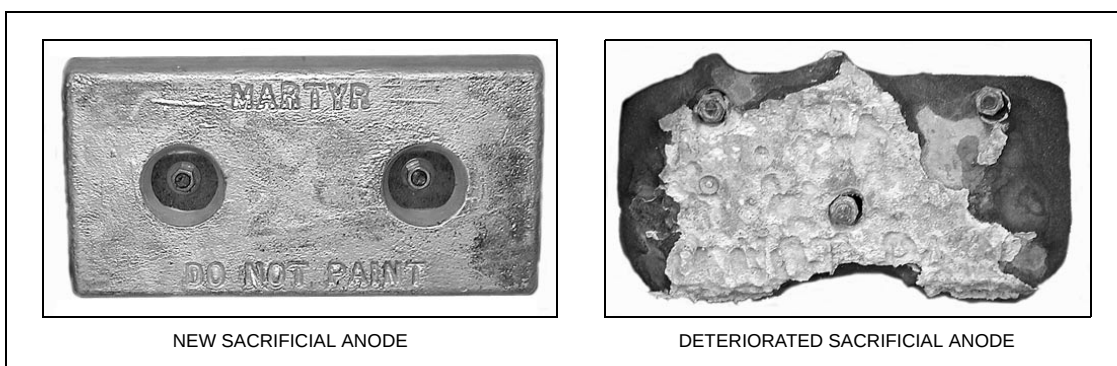
- To help seal the hull bottom and reduce the possibility of gelcoat blistering on moored boats, apply an epoxy barrier coating. The barrier coating should be covered with several coats of anti-fouling paint.
- Many states regulate the chemical content of bottom paints in order to meet environmental standards. Check with your local dealer about recommended bottom paints, and about the laws in effect in your area.

- Whether moored in saltwater or freshwater, your boat **will** collect marine growth on its hull bottom.
- This **will** detract from the boat's beauty, greatly affect its performance and may damage the gelcoat.
- There are two methods of slowing marine growth:
 1. Periodically haul the boat out of the water and scrub the hull bottom with a bristle brush and a solution of soap and water.
 2. Occasionally re-paint the hull below the waterline with a good grade of anti-fouling paint.

Sacrificial Anodes (Zincs)

NOTICE

Do not paint between the zinc and the metal surface it contacts and do not paint over the zincs.



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

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

- Water temperature
- Salinity
- Water pollution

Stray electrical current from the boat or dock may cause complete deterioration in just a few weeks. If there is rapid zinc deterioration, measure the electrolytic corrosion around your boat with a Corrosion Test Meter. If the zincs are **not** bonded correctly, they **will not** provide protection.

Boat Lifting



WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

- Lifting slings may slip on the hull.
- Avoid serious injury or death by securing the lifting slings together *before* lifting.



WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

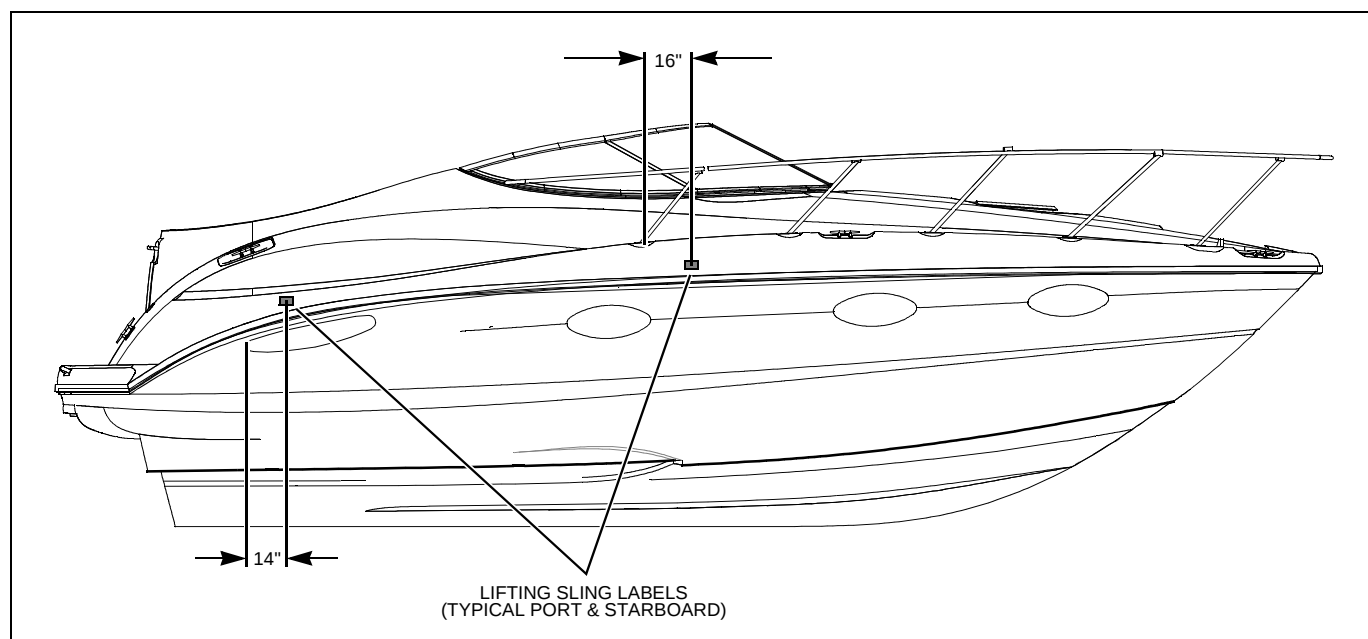
NEVER lift the boat using the bow and stern eyes.



CAUTION

PRODUCT or PROPERTY DAMAGE HAZARD!

- When lifting any boat, always use a spreader bar.
- The spreader bar *must* be equal to the width of the boat at each lifting point.



- **Always** follow the lift equipment's instructions and requirements.
- Water in the bilge can shift and change the balance of the load.
- If water is present in the bilge, pump or drain the water out of the bilge areas **before** lifting your boat.
- When lifting your boat, **always** position the lifting slings at the port and starboard sling label positions as shown in the illustration above.

Carbon Monoxide (CO)

**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 20 feet of a moving watercraft can be fatal.

Facts about CO

- CO poisoning causes a significant number of boating deaths each year.
- Called the "silent killer", CO is an extremely toxic, colorless, odorless and tasteless gas.
- CO can harm or even kill you inside or outside your 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.

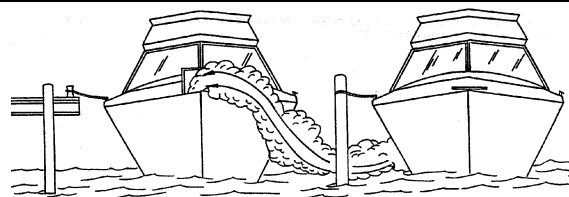
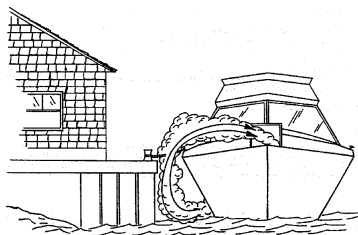
Factors That Increase the Effects of CO Poisoning

- Age
- Smokers or people exposed to high concentrations of cigarette smoke
- Consumption of alcohol
- Lung disorders
- 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.

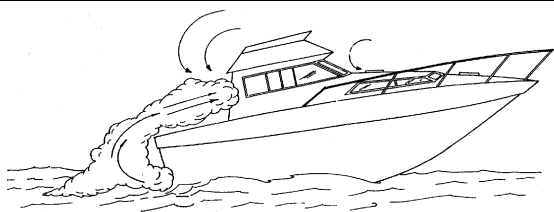


- B. Mooring too close to another boat that is using its engine, generator, or other fuel burning device.

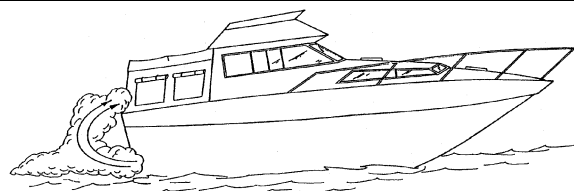
To correct stationary situations A and/or B:

- **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 through ventilation (station wagon effect).

To correct running situations C and/or D:

- Trim bow down.
- **Open** windows and canvas.
- 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 your boat (see above).
- Maintain fresh air circulation throughout the boat at **all** times.
- Know where your engine and generator 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—unless you're sure it's not CO.
- Install and maintain CO alarms inside your boat. **Do not** ignore any alarm. Replace alarms as recommended by the alarm manufacturer.
- Follow the checklists provided on the next page.
- Get a Vessel Safety Check.

For information on how to get a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.

- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: <http://www.cgaux.org>
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: <http://www.usps.org>

Trip Checklist

- ☐ Make sure you know where the exhaust outlets are located on your 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 and generator are started.
- ☐ Listen for any change in exhaust sound, which could indicate an exhaust component failure.
- ☐ Test the operation of each CO alarm by pressing the test button.

Monthly Checklist

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

Annual Checklist

Have a Qualified Marine Technician:

- ☐ Replace exhaust hoses if cracking, charring, or deterioration is found.
- ☐ Ensure that your engines and generators are properly tuned, and well maintained.
- ☐ Inspect each water pump impeller and the water pump housing. Replace if worn. Make sure cooling systems are in working condition.
- ☐ Inspect **all** metal exhaust parts for cracking, rusting, leaking, or loosening and check the cylinder head gasket, exhaust manifold, water injection elbow, and the threaded adapter nipple between the manifold and the elbow.
- ☐ Clean, inspect, and confirm proper operation of the generator cooling water anti-siphon valve (if equipped).

Carbon Monoxide Alarm System

 **DANGER!**



CARBON MONOXIDE POISONING HAZARD!

- The house battery switch *must* be in the *On* position for the CO Monitors to work.
- If your boat will be unattended for an extended period of time, turn *Off* the house battery or the CO Monitors *will* drain the house battery.

NOTICE

- The stereo memory and CO monitor(s) place a small, but constant drain on the battery.
- If your boat will be unattended for an extended amount of time, plug into shore power with the battery charger turned *On*, or disconnect the battery if shore power is not an option.

- Your boat features a carbon monoxide (CO) alarm system.
- **Do not** disconnect the alarm system.
- Read and understand the manufacturer's instructions for your CO alarm system. If you did not receive an instruction manual, call (800) 383-0269 and one will be mailed to you.

If your boat is **not** equipped with a carbon monoxide alarm, consider purchasing one from your dealer or marine supply store.

More Information

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

United States Coast Guard
Office of Boating Safety (G-OPB-3)
2100 Second Street SW
Washington, DC 20593
www.uscgboating.org
1-800-368-5647

National Marine Manufacturers Association (NMMA)
200 East Randolph Drive
Suite 5100
Chicago, IL 60601-9301
www.nmma.org
312-946-6200

American Boat & Yacht Council, Inc. (ABYC)
3069 Solomon's Island Road
Edgewater, MD 21037-1416
www.abycinc.org
410-956-1050

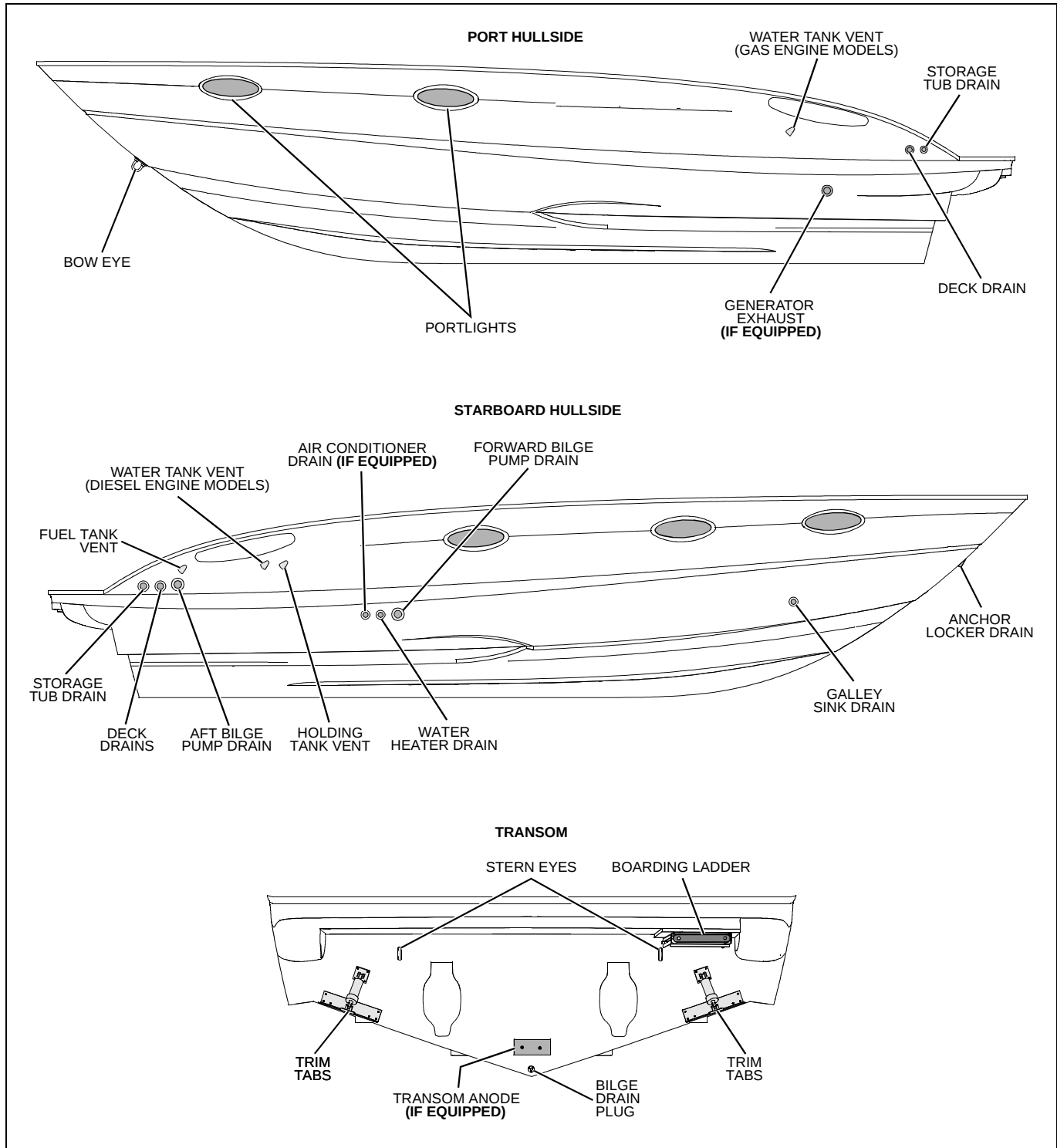
For information on how to get a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.

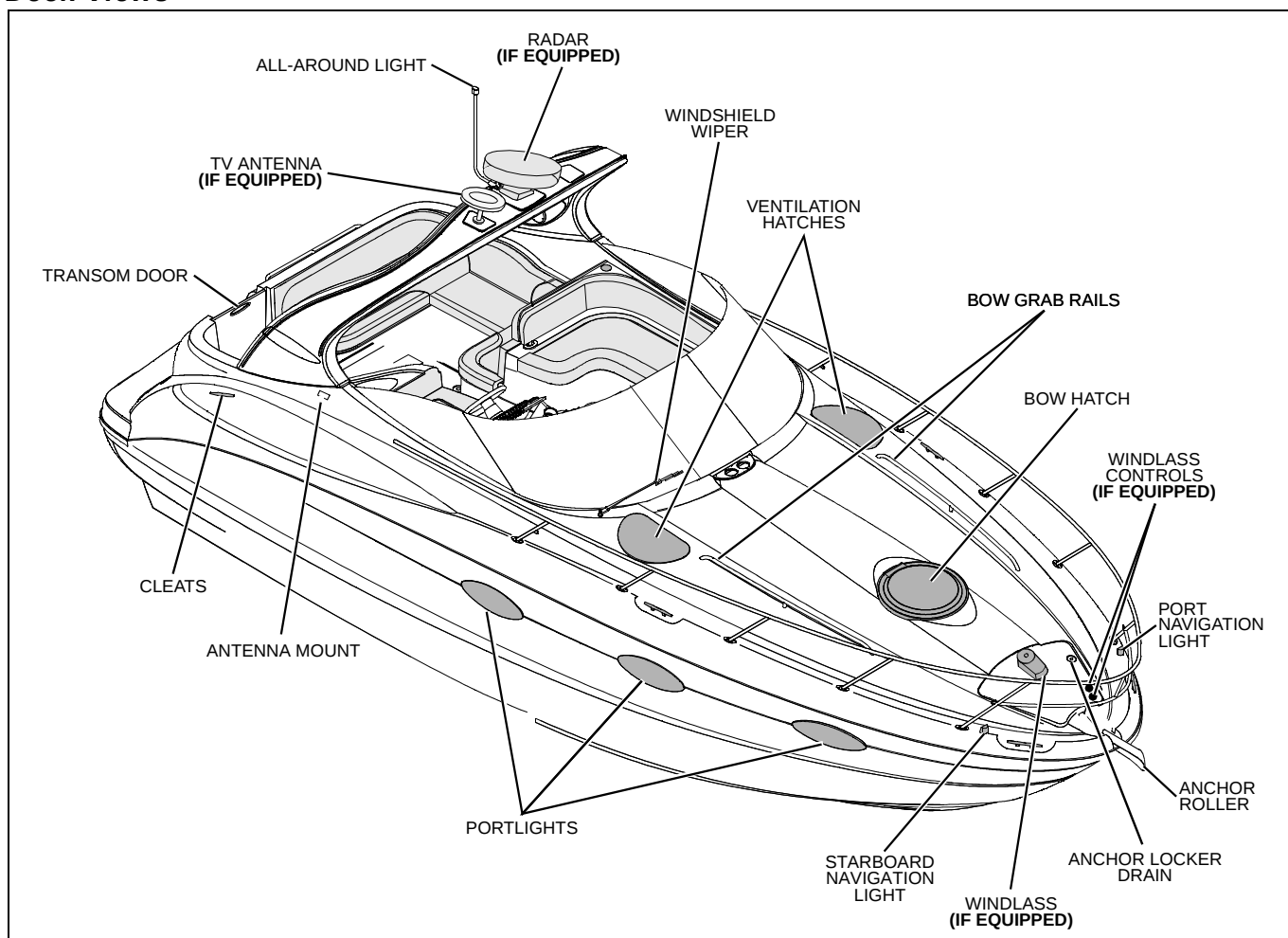
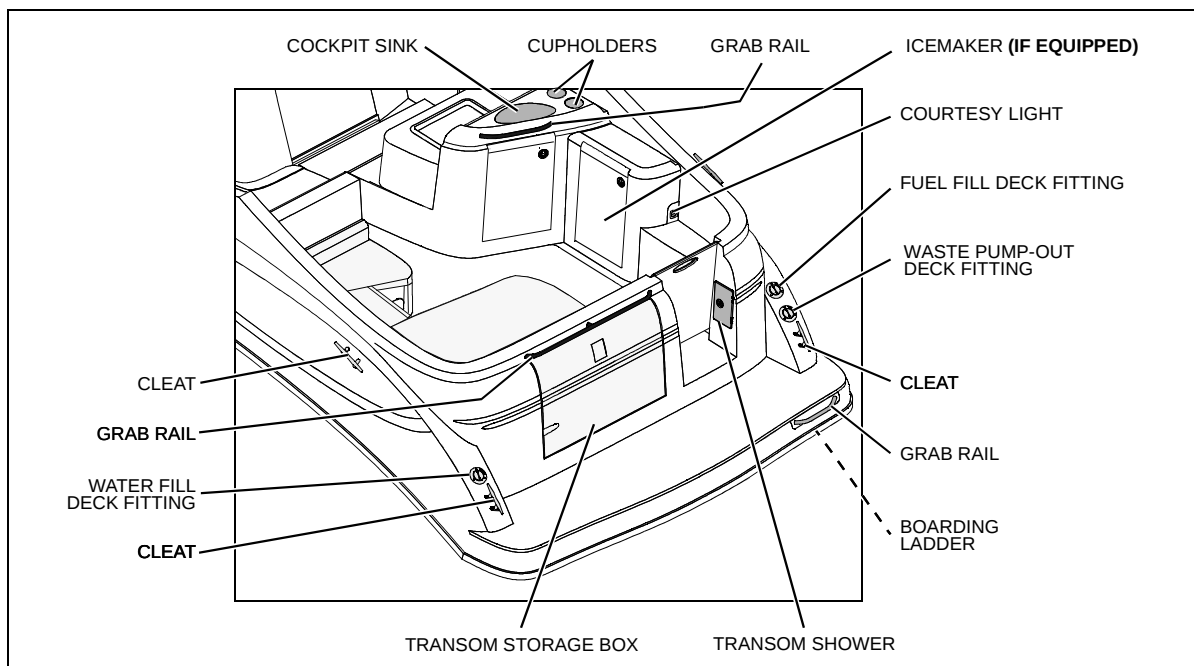
- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: <http://www.cgaux.org>
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: <http://www.usps.org>

Chapter 2: Locations

Exterior Views

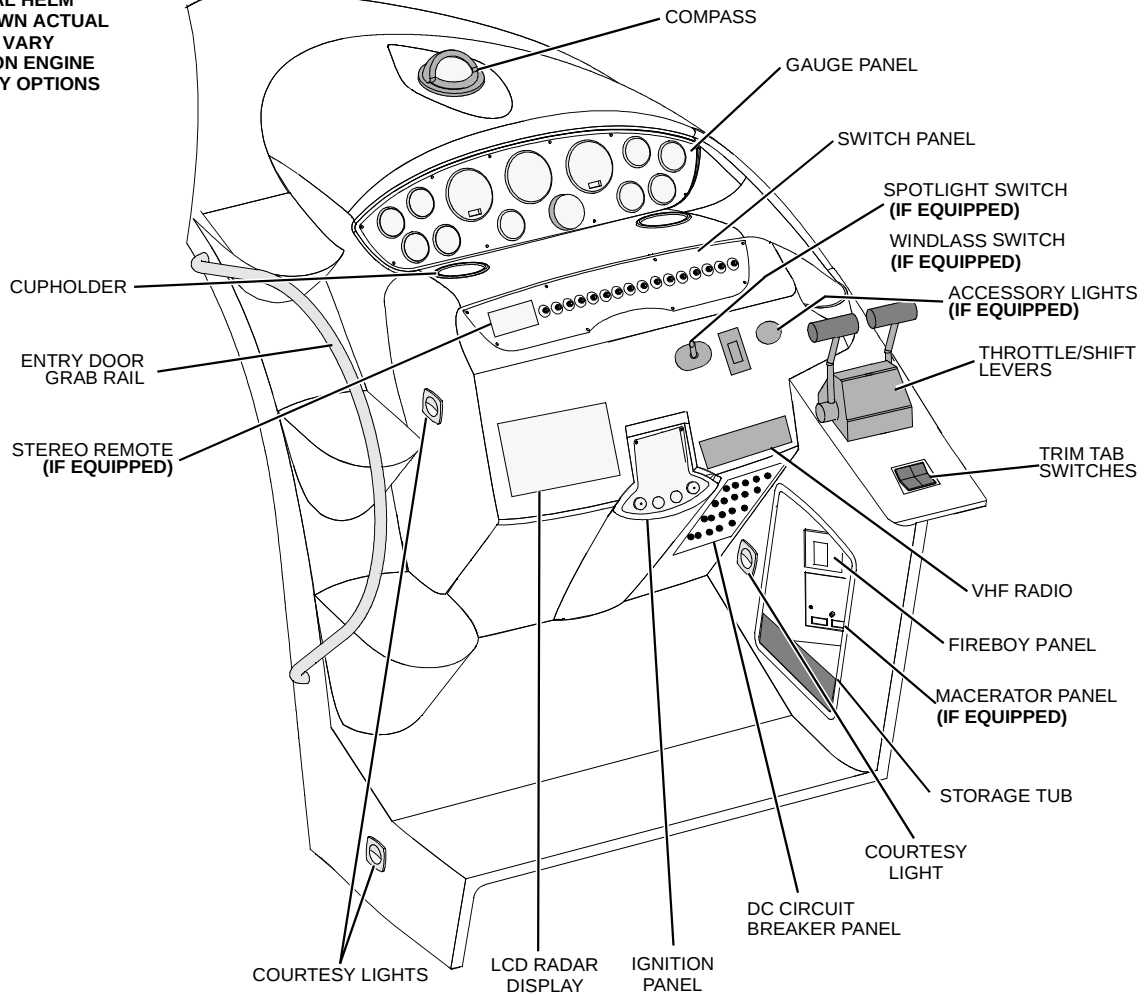
Hull views

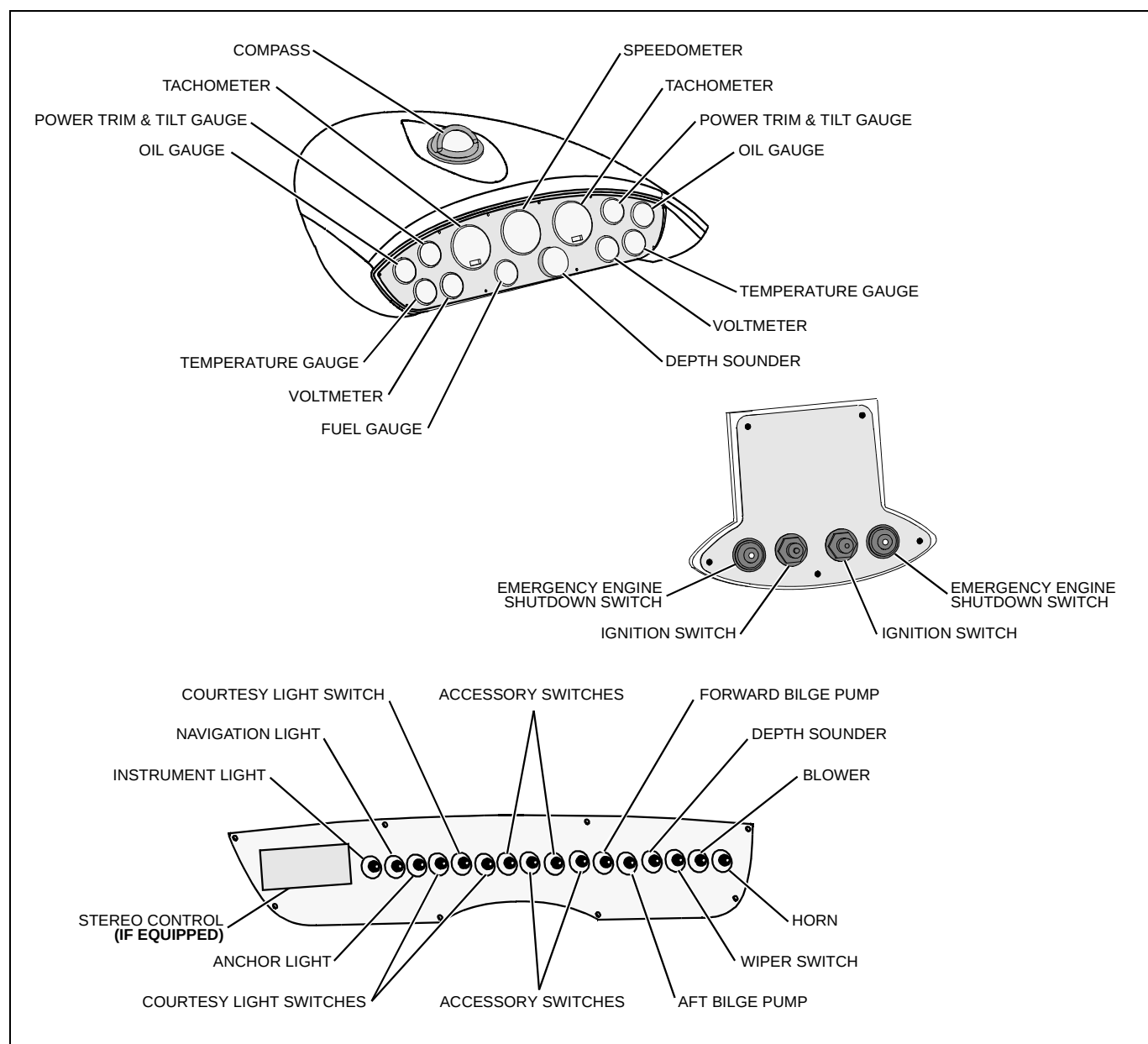


Deck Views**Aft Deck**

Helm

NOTE: TYPICAL HELM LAYOUT SHOWN. ACTUAL LAYOUT MAY VARY DEPENDING ON ENGINE & ACCESSORY OPTIONS





Component Locations

12 Volt Accessory Outlets: (1) At the helm on the dash panel. (2) in the TV cabinet.

Air Conditioner Seawater Pickup Seacock: Access is through the cutouts under the V-berth mattress.

Alternating Current Panel: In the cabinet above the aft hanging locker.

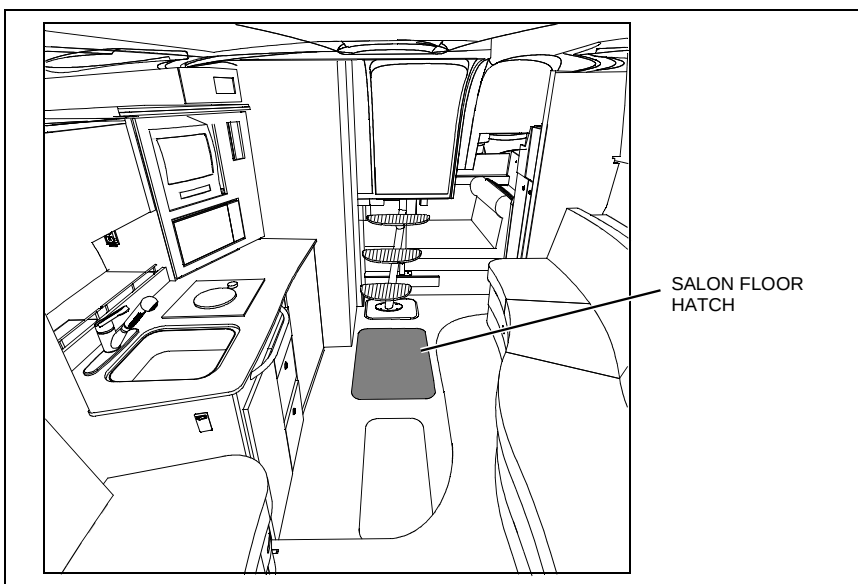
Batteries: In the port, forward corner of the engine room.

Battery Charger: On the port side of the engine room on the forward wall.

Battery Switches: On the starboard side of the transom storage box.

Bilge Pump - Aft: In the engine room bilge, near the transom.

Bilge Pump - Forward: Accessed through the salon floor hatch.

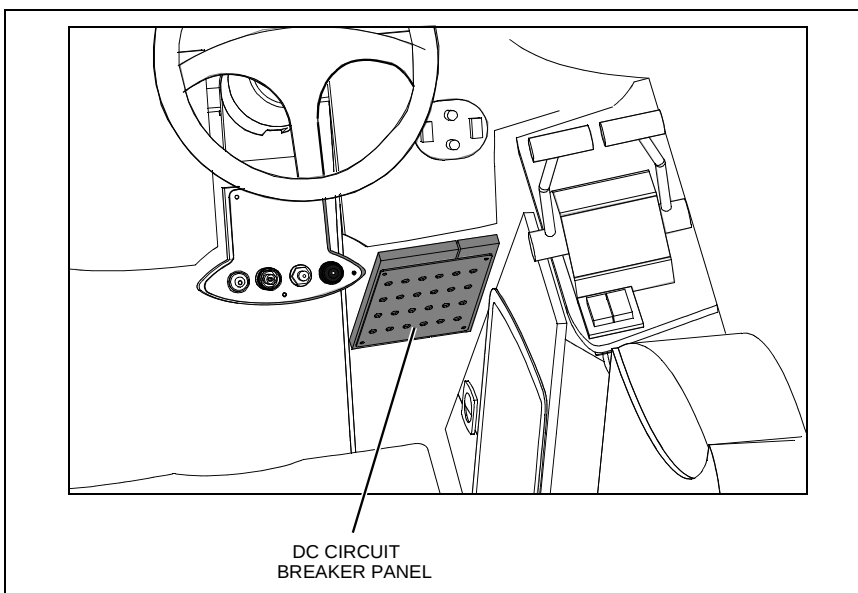


Blower Switch (2):

- One on the helm switch panel.
- One on the AC panel.

Carbon Monoxide Detector: In the salon above the dinette.

DC Circuit Breakers: At the helm under the dash panel on the right.



Depth Sounder Transducer: In the engine room, forward of the starboard engine.

Engine Circuit Breakers: On the engines.

Fuel Fill Deck Fitting: On the starboard aft corner of the deck.

Fuel Tank: Access to the tank fittings is in the forward area of the engine room.

Generator:

- **Gas:** In the engine room, aft of the fuel tank.
- **Diesel:** In the port aft corner of the engine room.

Generator Control Panel: In the cabinet above the aft hanging locker.

Generator Seawater Pickup Seacock: In the engine room bilge, between the engines.

Generator Circuit Breaker: On the generator.

Macerator Underwater Discharge Seacock: In the engine room, forward of the starboard engine.

Marine Head (Electric) Seawater Pickup Seacock: Accessed through the salon floor hatch.

Navigation Lights: Red and green lights at the bow. White all-around light on the radar wing.

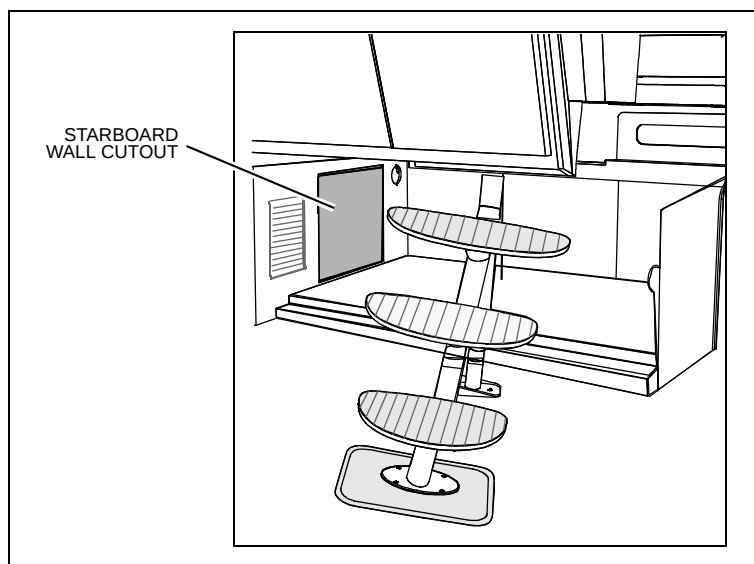
Transom Shower: Aft of the transom door.

Waste Holding Tank: In the forward starboard corner of the engine room.

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

Water Heater: In the utility room. Access is through the starboard wall cutout in the mid-berth.

Water Pump: In the utility room. Access is through the starboard wall cutout in the mid-berth.



Water Pump Switch: In the galley above the sink.

Water Tank:

- **Gas:** In the aft starboard corner of the engine room.
- **Diesel:** In the aft port corner of the engine room.

Windlass Circuit Breakers: On the port side of the transom storage box.

Windlass Foot Controls: In the rope locker on the forward deck.

Waste Pump-out Deck Fitting: On the starboard aft corner of the deck.

Chapter 3: Propulsion & Related Systems

Engines

Read and understand the engine operation and maintenance manuals **before** using or working on the engines.

Engine Room Ventilation System


WARNING!



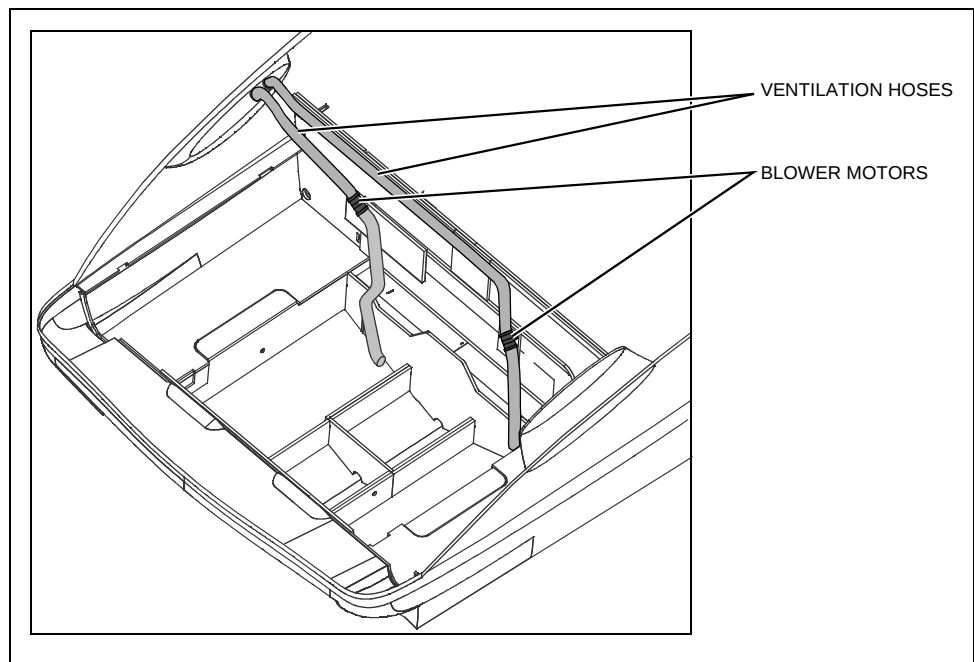
FIRE/EXPLOSION HAZARD

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

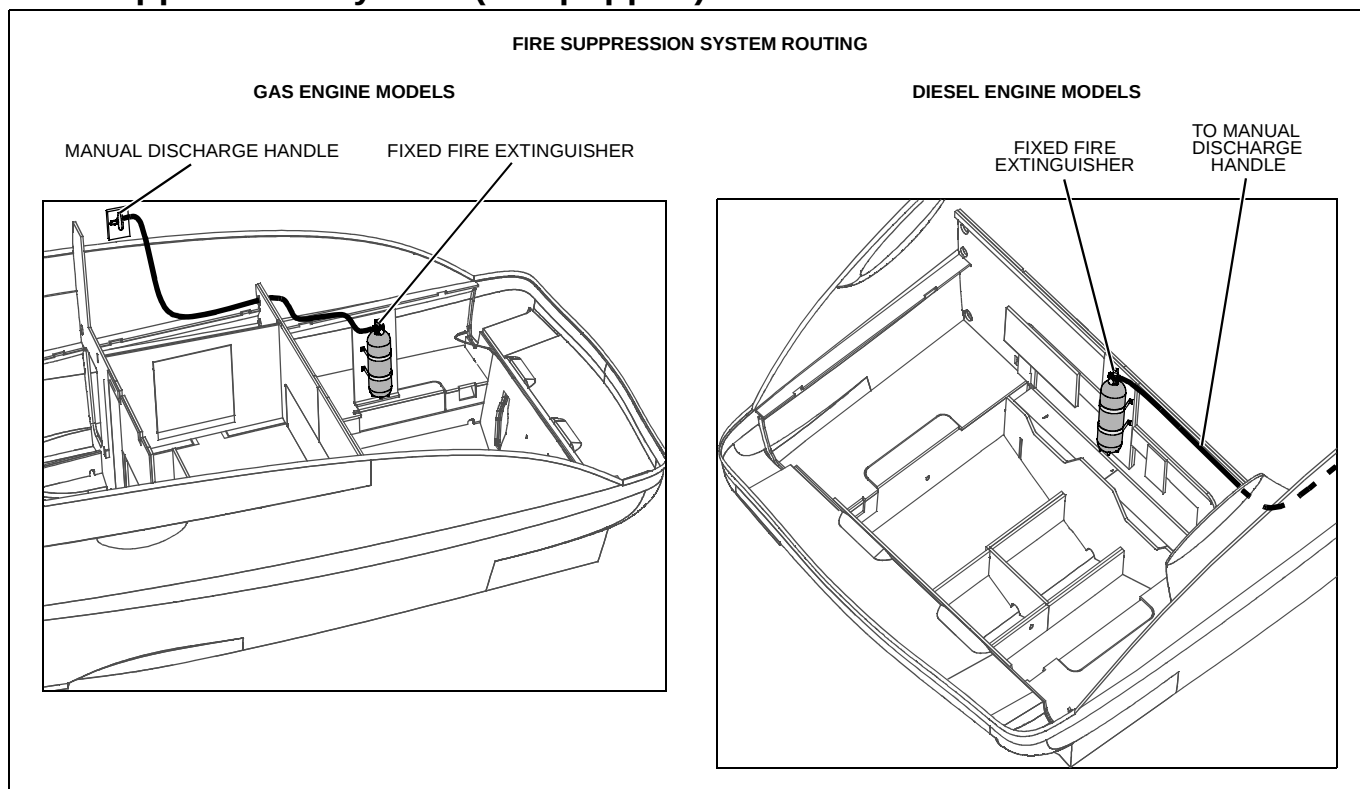
- The bilge blower removes explosive fuel fumes from the engine room.
- Fresh air is drawn into the compartment through the deck vents.
- The bilge blower switch is at the helm.
- If your boat is equipped with a generator, there is a second bilge blower switch **On** the main AC panel.

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

- For at least four minutes **before** starting the engines.
- During starting.
- Anytime your boat is running below cruising speed.



Fire Suppression System (If Equipped)



The fire suppression system is designed to extinguish a fire in the engine room.

Before using your boat for the first time, read and understand the fire suppression system's instruction and maintenance manual and follow **all** warnings.

Observe the following:

- The system **will** go off automatically whenever direct heat from a fire is detected in the engine compartment.
- The system can be set off manually by pulling the T-handle (labeled "FIRE") at the helm.
- The system can only be set off once during a fire. After the system is discharged it **must** be refilled and refurbished **before** it can be used again.

Fuel System



WARNING!



FIRE, EXPLOSION AND OPEN FLAME HAZARD!

- It is very important that the fuel system be inspected thoroughly the first time it is filled and at each subsequent filling.
- The fueling instructions in the *Cruiser & Yacht Owner's Manual* and the fuel recommendations in the engine operation manual *must* be followed.



CAUTION

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



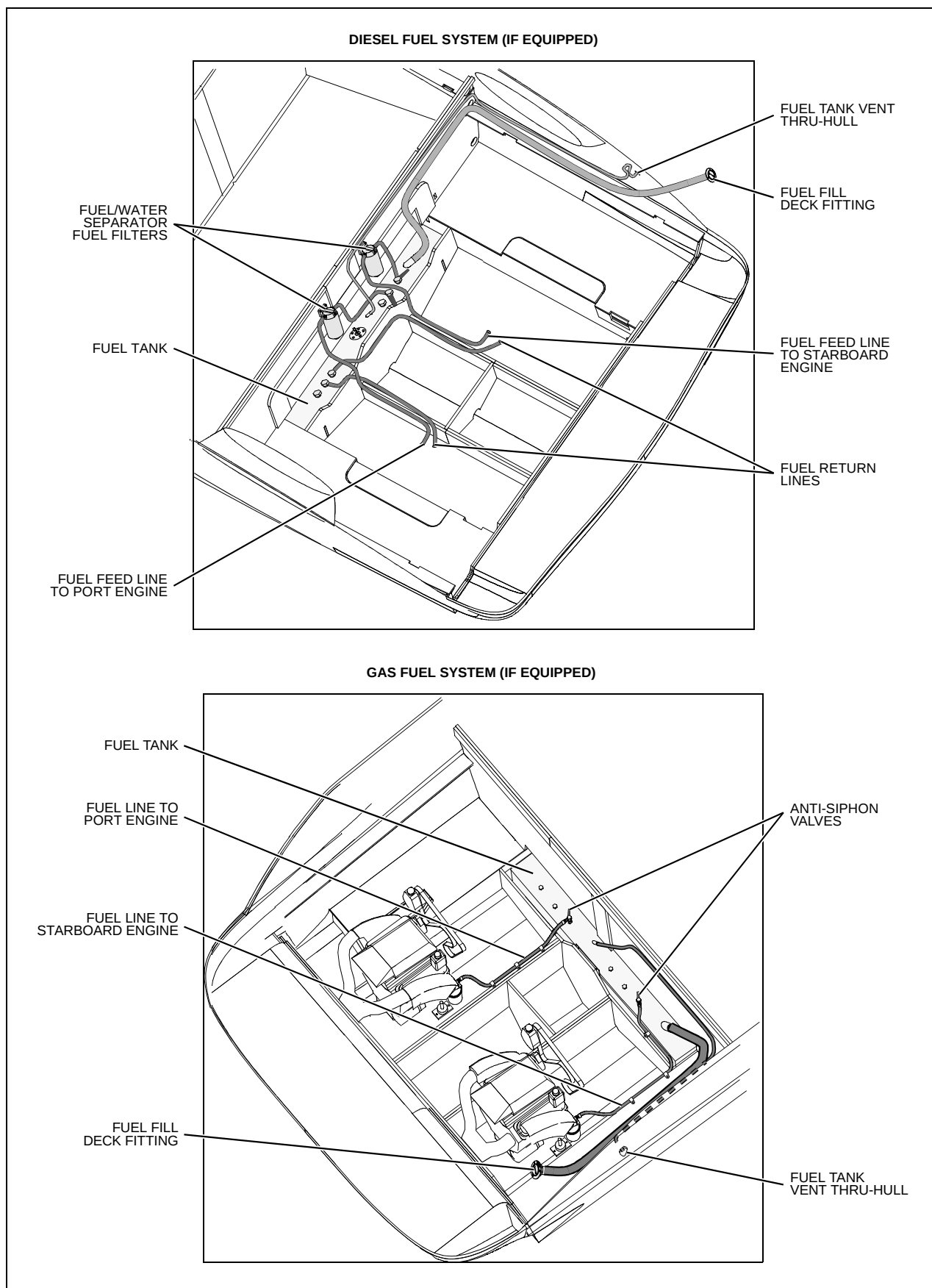
CAUTION

SYSTEM DAMAGE HAZARD!

Use of *any* methanol, gasohol, or alcohol based fuel additive *will* damage the fuel system.

NOTICE

- On diesel engine models, air in the diesel supply system can stop an engine or severely restrict performance.
- If you suspect air in the fuel lines, refer to your engine operation manual for detailed instructions on how to bleed the system.



Fuel Fill & Vent Fittings

- The fuel fill deck fittings are marked “GAS” or “DIESEL”.
- The fuel tank vent thru-hull fittings are normally located below the fuel fill deck fittings.
- If you experience difficulty filling either fuel tank, see if the fuel fill hose or fuel tank vent hose is kinked or collapsed.
- If there are no visible signs of a problem, contact your local dealer.

Anti-siphon Valves (Gas Engines Only)

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 engines are *shut down*.**
- ***NEVER* run either engines with its anti-siphon valve removed, except in an emergency.**

- Your boat may be equipped with anti-siphon valves, which are integral parts of the fuel system.
- Each valve is located at the point where the fuel feed lines attach to the fuel tank.
- The valves are spring loaded and are opened by fuel pump vacuum.
- These valves ***will*** prevent fuel from siphoning from the tank in the event of a fuel line rupture.

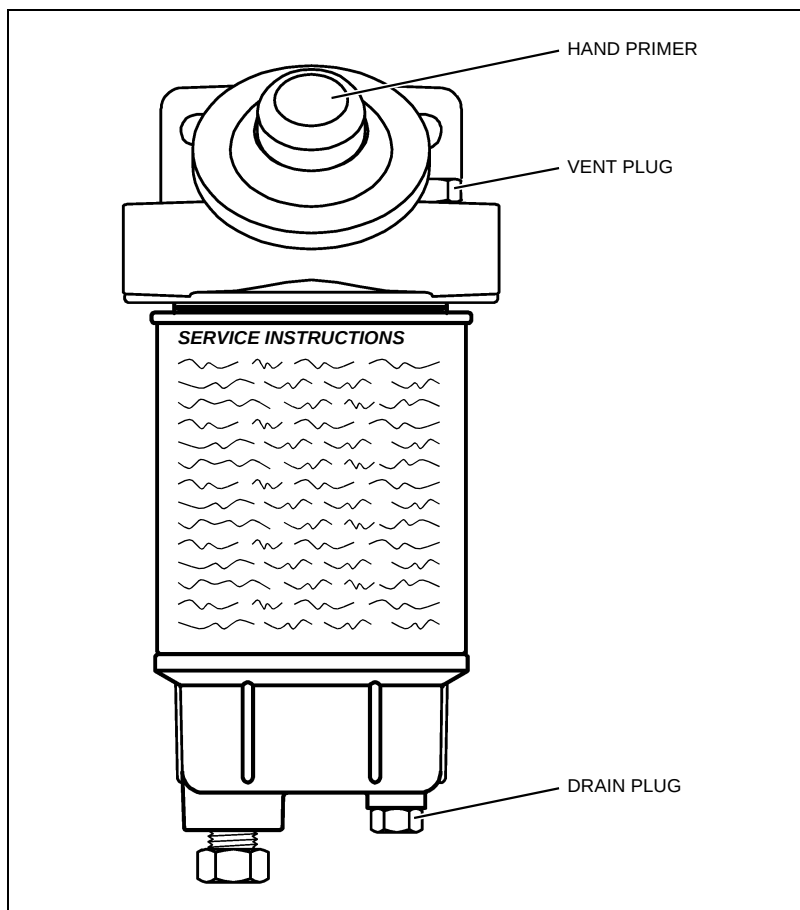
Fuel Filters

- The fuel pickup tubes (located inside the fuel tank) are equipped with fine mesh screen filters.
- Also, when supplied by the engine manufacturer, a fuel filter is installed on each engine.
- Periodically replace the fuel filters to make sure they remain clean and free of debris.
- Consult with your selling dealer or local marina concerning fuel additives that help to prevent fungus or other buildup in your fuel tank.

Fuel/Water Separator Filters (Diesel Engines Only)**NOTICE**

- The frequency of water draining or element replacement is determined by the contamination level in the fuel.
- Inspect the collection bowls for water daily.
- Replace the elements at least once a year, or when a loss of power is noticed, whichever comes first.

- Each fuel feed line features a fuel/water separator filter.
- The fuel/water separator filters are mounted on the forward wall in the engine room.
- Service instructions for the fuel/water separator filters are provided on the filters.



Chapter 4: Controls & Gauges

Steering

- This boat features a power assisted rack-and-pinion steering system.
- Check the fluid level in the power steering reservoir **every time** you use your boat.
- Boat steering is **not** self-centering.

Shift/Throttle


WARNING!

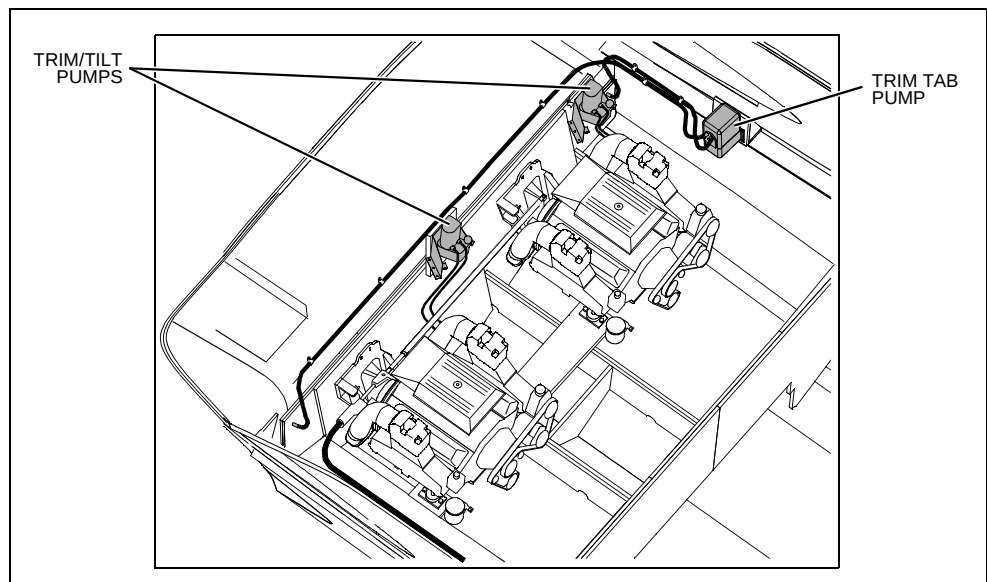
LOSS OF CONTROL HAZARD!

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

Read all of the information about the shift/throttle controls in the shift/throttle controls manual, the engine operation manual, and the *Cruiser & Yacht Owner's Manual*.

Power Trim and Tilt

- The stern drives on your boat are equipped with power trim and tilt.
- Trim and tilt instructions are provided in the engine operation manual and the shifter/throttle manual.



Trim Tabs



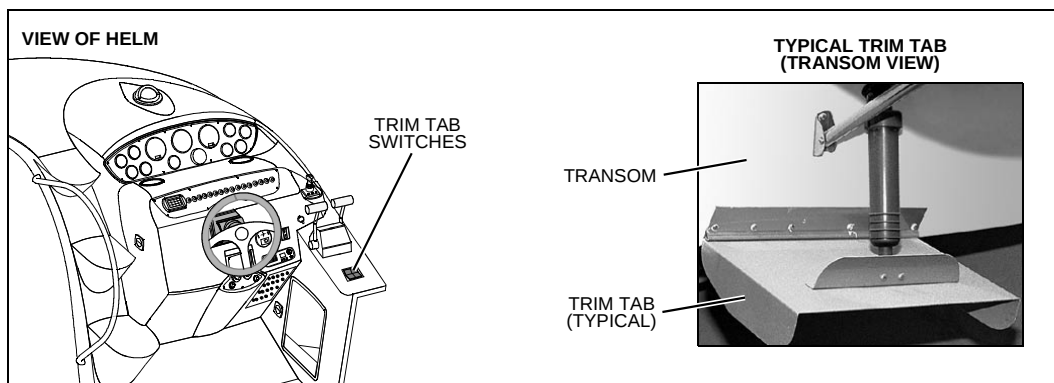
WARNING!

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 can be used to help keep your 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 manual.



Note the following:

- Once cruising speed is reached, the port or starboard trim switch may be used (one at a time) to level the boat.
- 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 **must** be checked periodically (at least once a year) and refilled as necessary.

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.
- Lenses cracked in this manner **will not** be covered by our warranty.

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 your fuel gauges to bounce as fuel sloshes back and forth in the fuel tanks.

Twin Engine Readings

It is normal for tachometers and other gauges to have slightly different readings between engines.

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.

Chapter 5: Navigation & Communication Equipment

The owner's packet contains manuals for **all** navigation & communication equipment installed on your boat. Thoroughly read and understand these manuals **before** using these systems for the first time and observe the following:

VHF Radio (If Equipped)

Your boat may include a VHF (Very High Frequency) radio. The VHF radio can be used to access weather reports, summon assistance or contact other vessels as permitted by the FCC (Federal Communications Commission). Contact the FCC for licensing, rules and regulations concerning VHF radio usage.

Compass

NOTICE

- Compass accuracy can be affected by many factors.
- Have a qualified technician calibrate your compass. Make sure the technician gives you a deviation card which shows the corrections to apply in navigational calculations.
- Keep a copy of the deviation card at each helm.

Depth Finder



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.

Radar (If Equipped)



WARNING!

Radar is meant to help the navigator, *not* replace him/her. The operator is responsible for keeping a visual look-out for possible collision situations. *No* single navigation aid (including this radar) should be relied upon as the only method for navigating your boat.

NOTICE

The radar system is *only* an aid to navigation. It's accuracy can be affected by many factors, including equipment failure or defects, environmental conditions & improper handling or use.

- The marine radar system gives you a complete and accurate 360° radar view of other vessels, buoys, and landfall surrounding your vessel.
- To turn this system **On**, the RADAR switch on the DC breaker panel **must** be switched **On**.

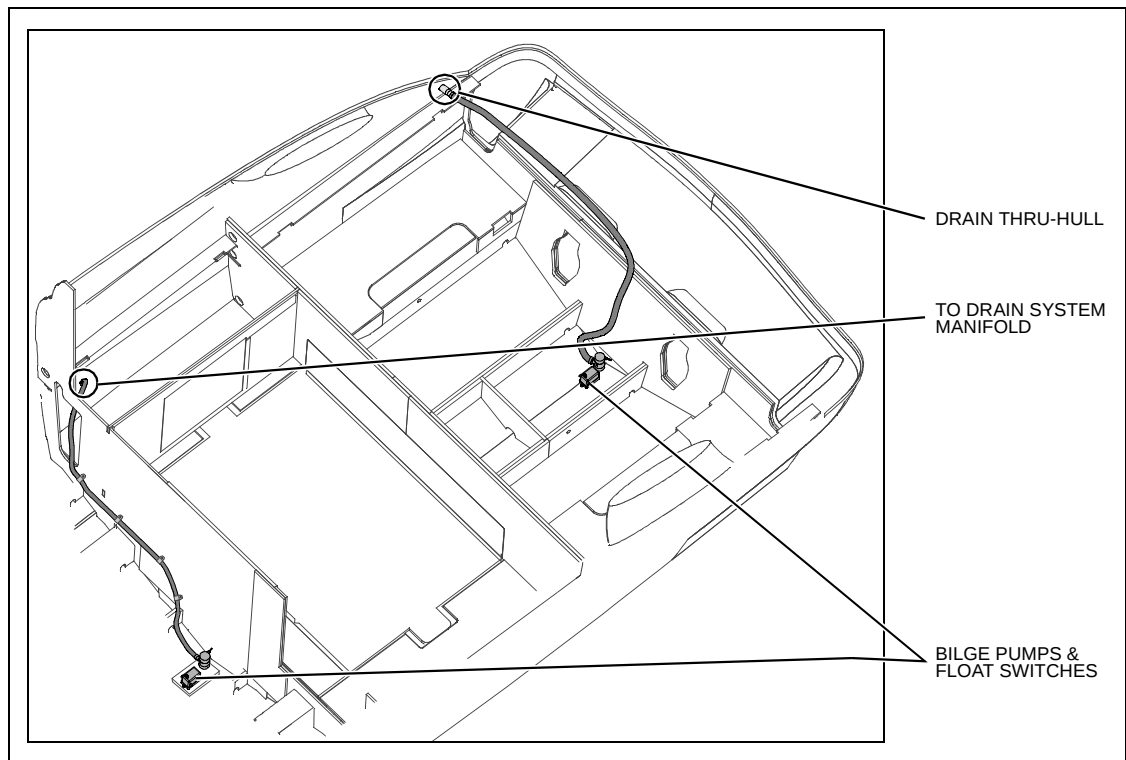
Chapter 6: Plumbing

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.

- Your boat is equipped with two bilge pumps which are used to pump water out of the bilge.
- The bilge pumps are controlled by automatic float switches (auto-float switches) and/or switches at the helm.
- Since the bilge pumps are wired directly to the battery, they should work even when the boat is shut down and left unattended.



Bilge Pump Testing

- Bilge pumps are critical to the safety of your boat.
- Check the bilge pumps often to make sure that they are working properly. Test each pump individually.

To test each bilge pump:

1. Turn **On** the manual switches at the helm.
2. Make sure that water in the bilge is pumped overboard.

If there is water in the bilge and the pump motor is running but not pumping:

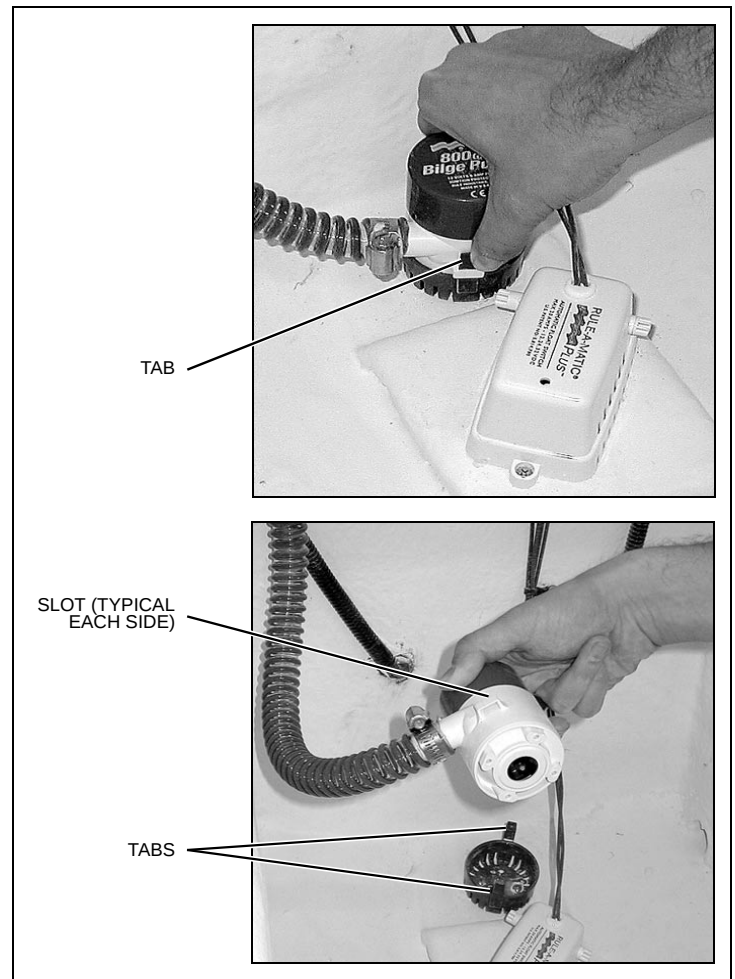
1. Inspect the discharge hose for a kink or collapsed area.
2. Check the bilge pump housing for clogging debris as follows:

To check for clogging debris in pumps:

1. With your thumb and forefinger squeeze the holding tabs on each side of the power cartridge.
2. Lift out the power cartridge.
3. Check the pump and the housing and clear any debris.

Reinstall the power cartridge:

1. Align the tabs and slots and press firmly until the tabs click into place.
2. Make sure that the power cartridge is locked into place.

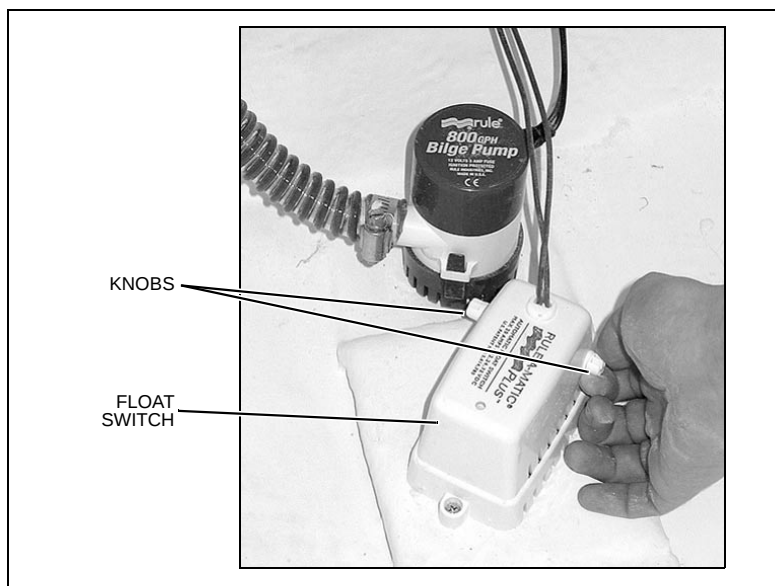


Autofloat Switches

- 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** function even when the boat is completely shut down and left unattended.

To test a float switch:

1. Twist either of the white plastic knobs one quarter turn to lift the float and turn **On** the bilge pump.
2. If the pump **does not** turn **On**, check the inline fuse.
3. If the fuse is good but the switch doesn't work, it may indicate a bad switch or possibly a low battery.
4. Release the knob to lower the float and return the float switch to auto mode.



Seawater Systems

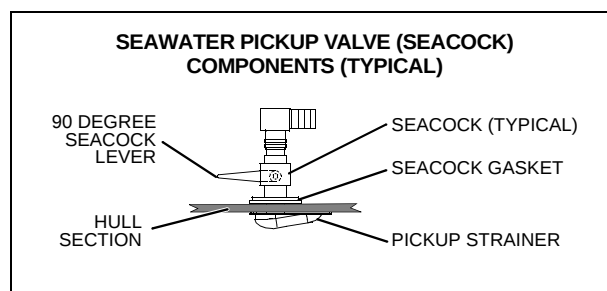
Seacocks

 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:

- Generator (if equipped)
- 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 <i>must</i> be <i>Closed before</i> disassembling the seawater strainer to prevent the boat from taking on water through the seawater strainer assembly. • Keep the seacock <i>Closed</i> until the seawater strainer is completely reassembled.
SYSTEM DAMAGE HAZARD! After reassembling the seawater strainer, make sure that the seacock valve is <i>Open before</i> using the component/system.

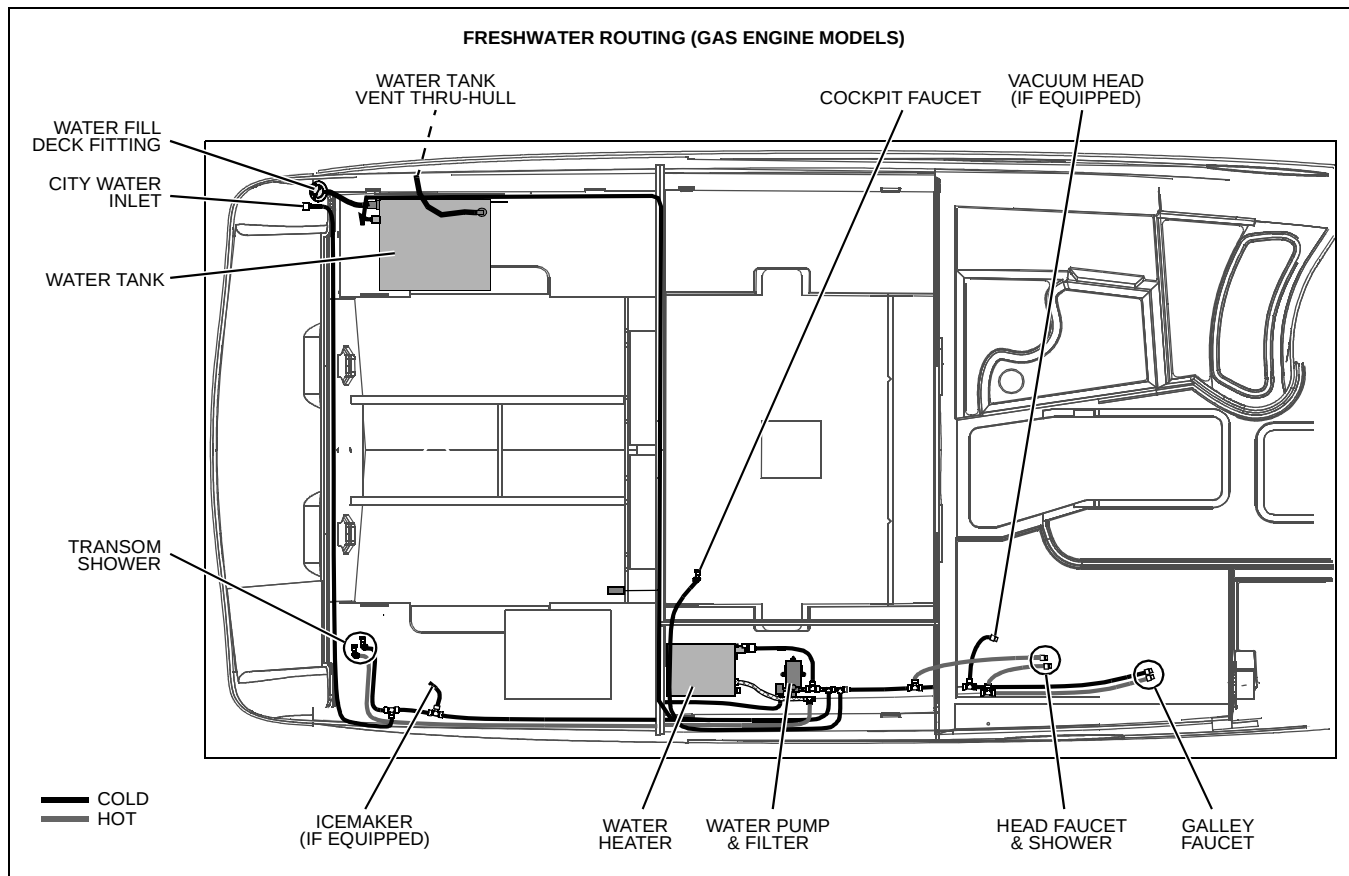
1. Make sure the component/system (generator, air conditioning system, etc.) that the strainer is connected to is turned **Off**.
2. **Close** the seacock that sends seawater to the strainer you are about to clean. The seacock **must** remain **Closed** until the strainer is completely reassembled.
3. 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. If no leaks are found, you may use the component or system.

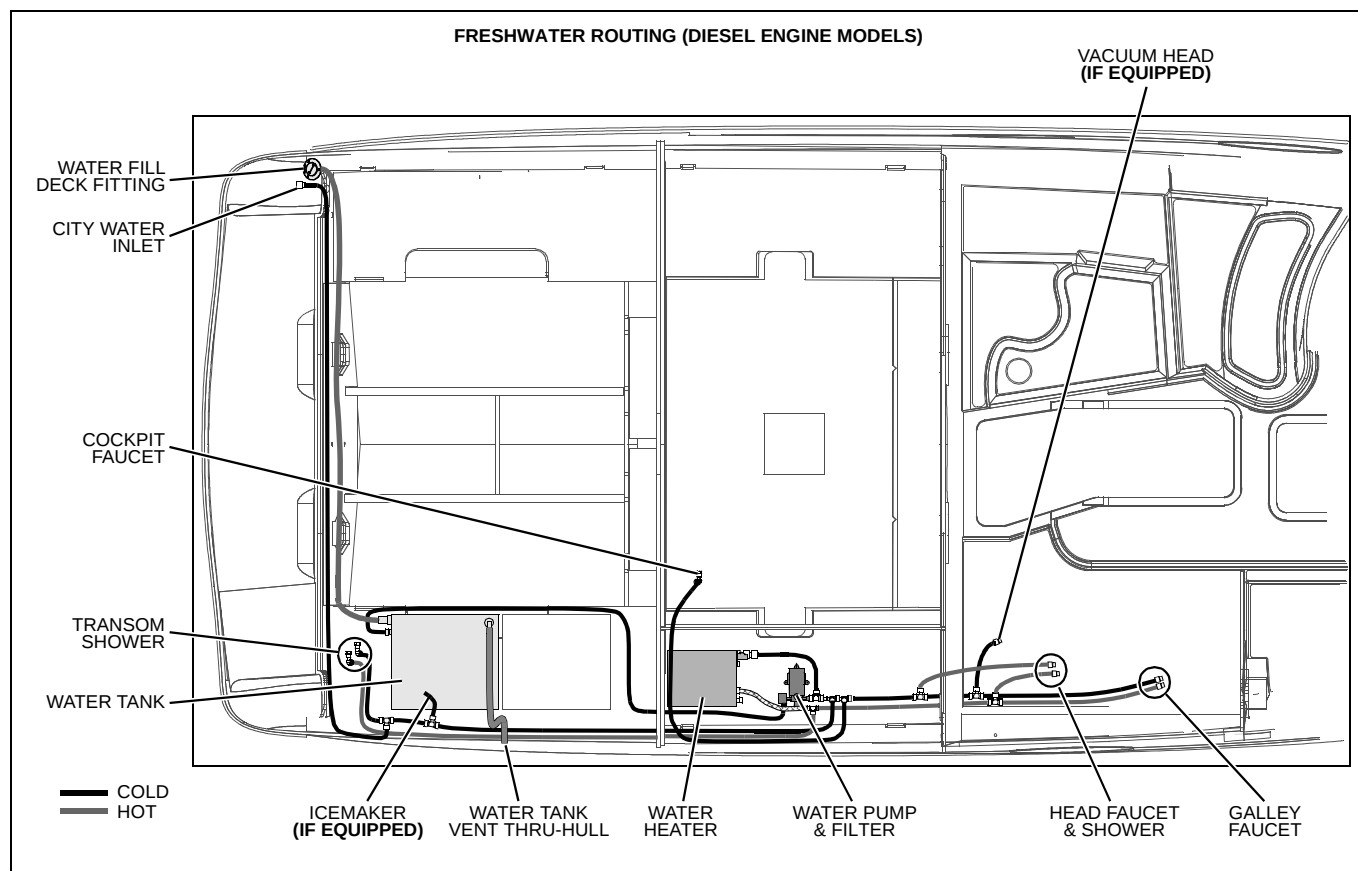
Freshwater System



WARNING!

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





- Read the *Freshwater System* section in the *Cruiser & Yacht Owner's Manual*.
- Your boat is equipped with a pressure type (demand) freshwater (potable) system.
- This system can be pressurized by turning **On** the water pump.
- See the *Component Location* section of this *Supplement* for the location of the water pump switch.
- Since the water pump requires DC power, the battery switch **must** be in the "1", "2" or "BOTH" position for the pump to work.

Observe the following about the freshwater system:

- Turn **Off** the water pump 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 your boat is to be left unattended for long periods of time, pump the water tank dry to prevent stored water from becoming stagnant and distasteful.
- If the freshwater system needs to be disinfected, ask your dealer about treatments available for your boat's system.

Freshwater System Winterization



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

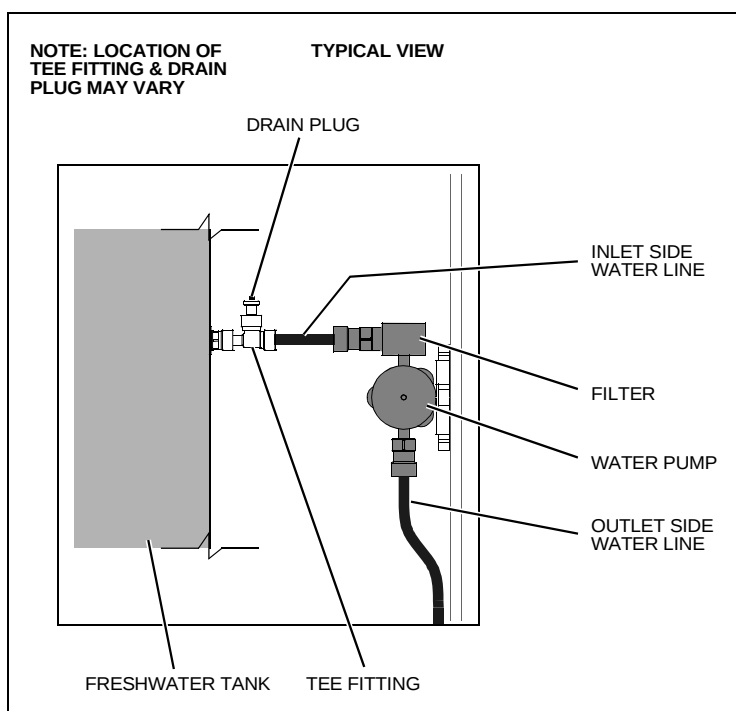
Compressed Air

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.



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.
- Warranty replacements **WILL NOT** be made on elements damaged in this manner.
- The tank is full if water flows from the tap when the hot water is turned *On* in the galley.
- The water heater should be drained and the power turned *Off* when the possibility of freezing exists.

NOTICE

If your 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 your dealer about checking the "push to reset" circuit breaker located on the water heater.

- Read the water heater instruction manual and heed the warnings above.
- The water heater is connected to the 120-volt, AC power system.
- Turn *On* the water heater breaker on the AC panel to heat the water.

Winterizing 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.



Transom Shower (If Equipped)

- Your boat may feature a freshwater transom shower.
- Read the manufacturer's instructions **before** using the transom shower for the first time.
- The water pump switch **must** be turned **On before** using the transom shower.

City Water Inlet



CAUTION

FLOODING & SWAMPING HAZARD!

- **NEVER** leave the boat unattended while using the "city water" feature.
- Any leak or break in the system may allow large amounts of water to accumulate in the bilge that could cause swamping of the batteries and engines or sinking of the boat.

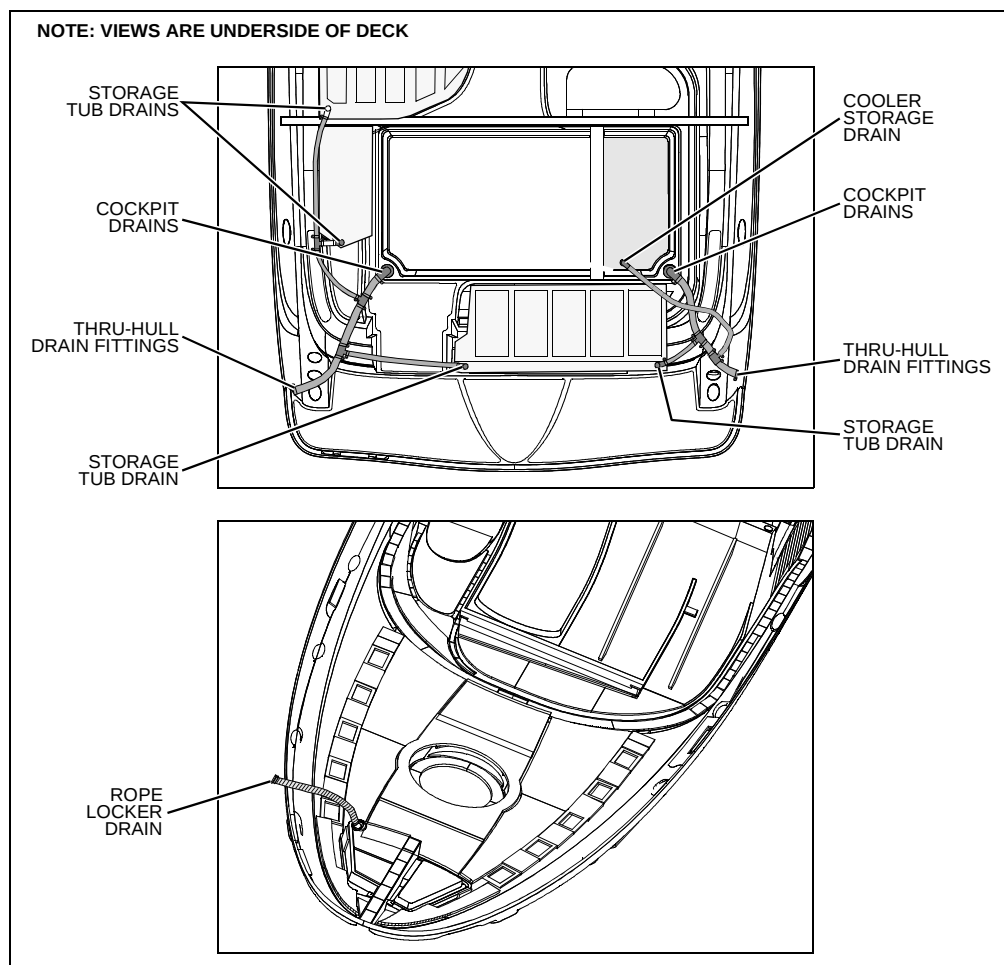
- Read the "City Water Hookup" portion of the *Freshwater System* section in the *Cruiser & Yacht Owner's Manual*.
- When the boat is connected to a dockside water supply, the freshwater system is pressurized. You **do not** need to turn **On** the water pump's DC breaker, located on the DC panel.

Drain Systems

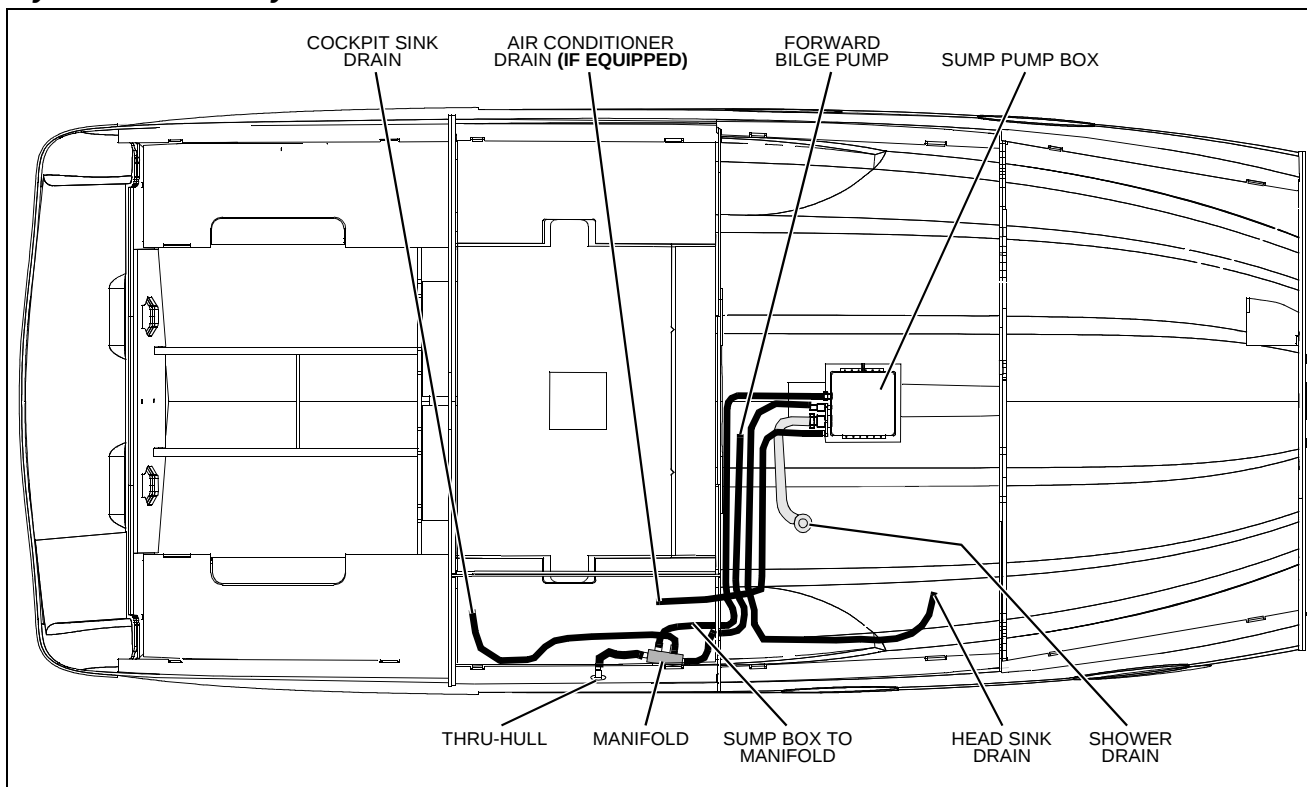
Deck Drains

Water on the deck is drained overboard through the deck drains.

- Keep the deck drains free of debris.



Gray Water Drain System



- Gray water above the water line is gravity drained overboard through the manifold.
- Gray water below the water line drains into a sump pump box.
- A float switch, inside the sump box, automatically turns **On** the sump pump.
- The sump pump pumps the gray water overboard through the manifold.

Sump Box Cleaning

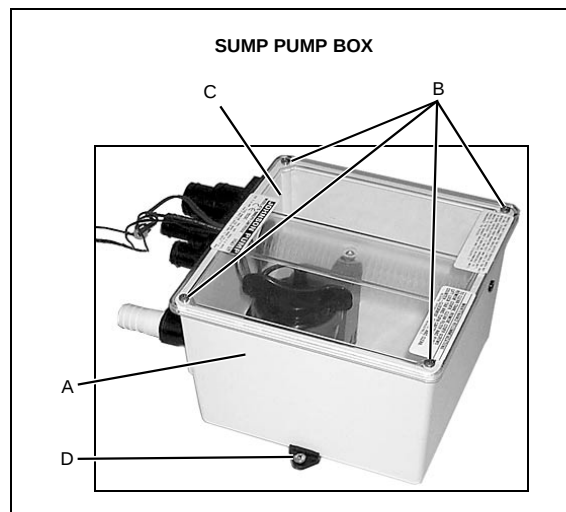
Periodically clean the sump box (A), filter, and pump as follows:

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 manual.

Sump System Winterization

Perform the following steps to winterize the sump pump system:

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

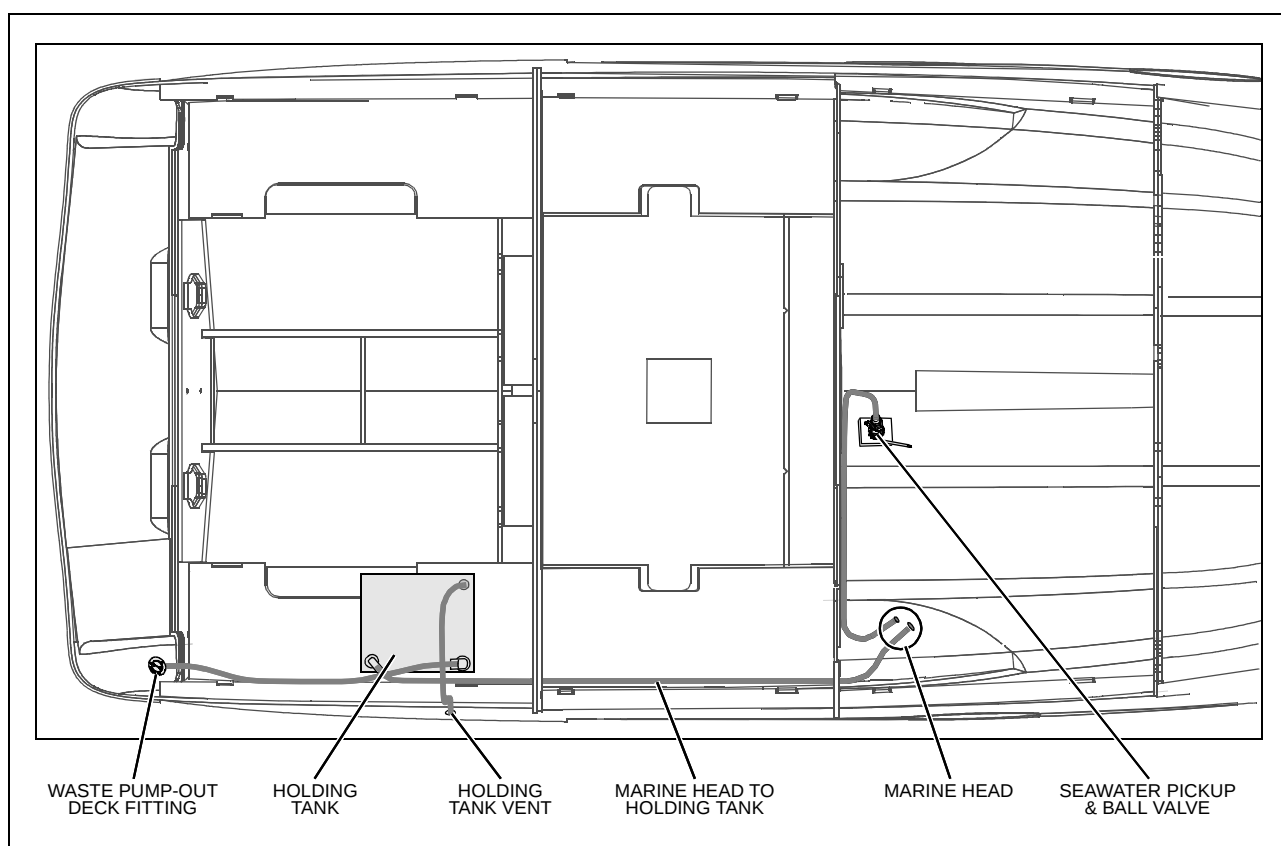


Marine Head With Holding Tank

NOTICE

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

- Read the marine head operation and maintenance manual **before** using the marine head for the first time.
- The electric flush marine head uses seawater to flush waste from the toilet into the holding tank.
- The seawater pickup valve (seacock) **must** be **Open** for the head to work.
- The holding tank is plumbed to a waste fitting on the deck for dockside pump-out.
- Check the content level of the holding tank by looking at the side of the tank.
- Empty the holding tank at every opportunity.



Winterizing The Marine Head

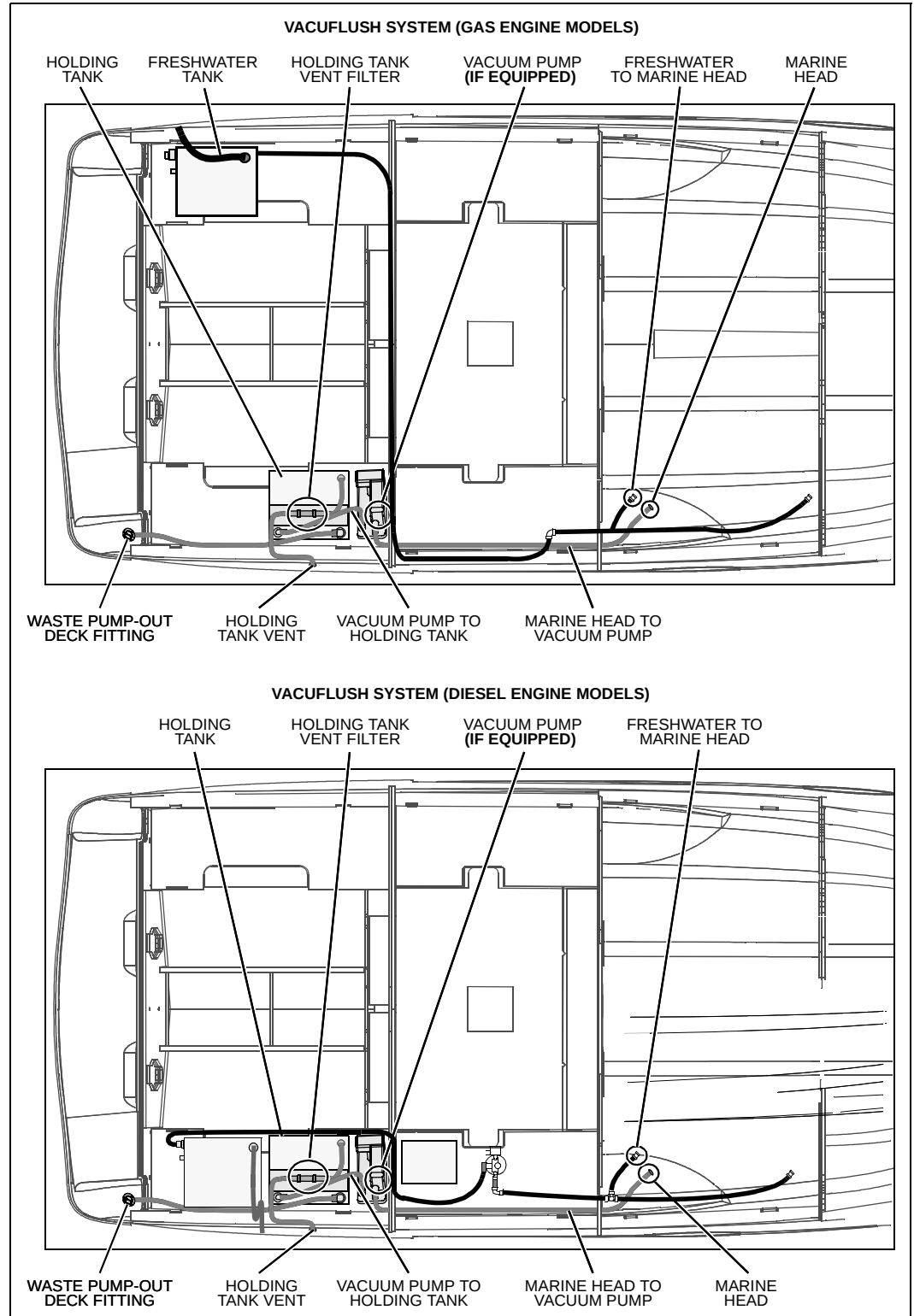
1. Shut **Off** the pickup seacock, and pump the head until the bowl is dry.
 2. Remove the drain plug in the base and pump again to remove **all** of the water.
- **Do not** fill the bowl with anti-freeze.
 - **Close** the pickup seacock while the boat is underway or whenever the boat is left moored in the water.

VacuFlush (If Equipped)

NOTICE

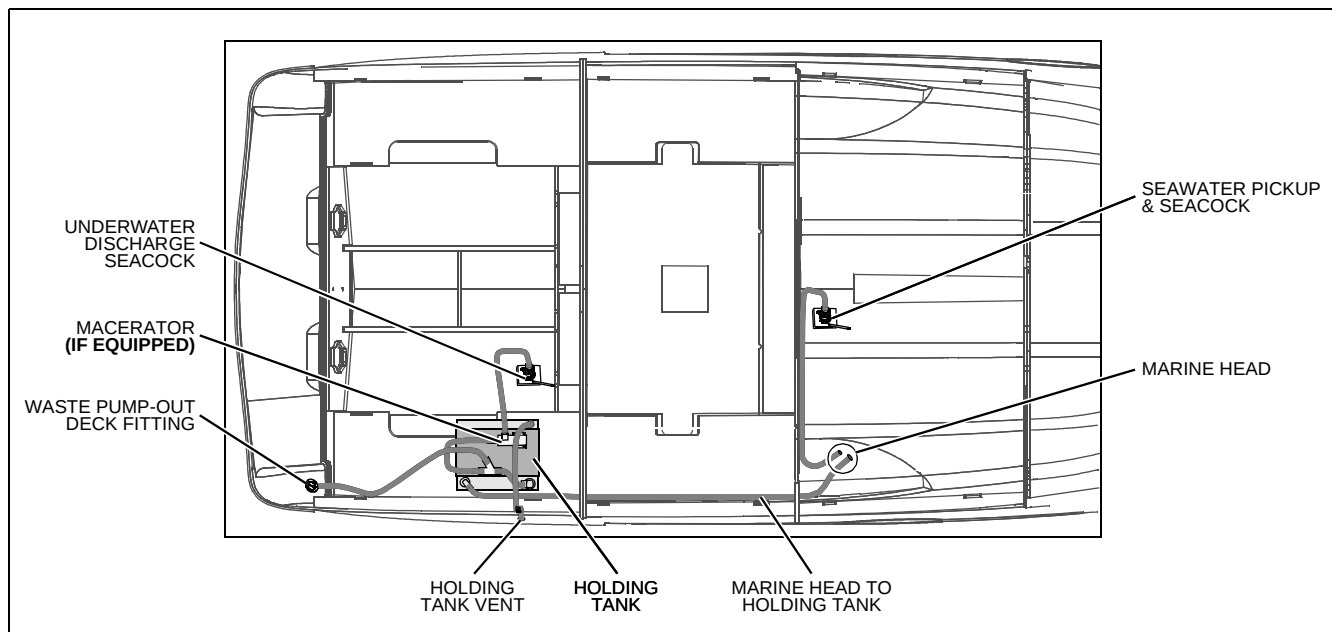
Check with local authorities for regulations regarding the legal use of marine head systems.

- The VacuFlush head system uses a vacuum pump and freshwater from the water tank to flush waste from the toilet into the holding tank.
- The holding tank is plumbed to a waste fitting on the deck for dockside pump-out.
- For winterizing instructions, refer to the VacuFlush head, operation and maintenance manual.



Macerator (If Equipped)**NOTICE**

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



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

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.

Chapter 7: Deck Equipment

Windlass (If Equipped)

 CAUTION
PRODUCT DAMAGE HAZARD!
DO NOT pull the boat to the anchor using the windlass or continue to run the windlass if it has stalled or is overloaded.

- Your boat may feature an anchor windlass.
- Read and follow the manufacturer's instruction manual **before** using the anchor windlass for the first time.
- The windlass can be controlled from a switch at the helm or from the deck foot switches at the bow.
- Make sure the windlass breaker is turned **On before** using the anchor windlass.
- To haul the anchor, use engine power (**not** the windlass) to move the boat to, and directly above, the anchor.
- Using the windlass, dislodge the anchor from the bottom by pulling it straight up.

Cleats and Tow Eyes

 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 in the *Cruiser & Yacht Owner's Manual* **before** towing anything behind the boat or having the boat towed by another vessel.

Canvas



CAUTION

PRODUCT DAMAGE HAZARD!

Take down and securely stow the canvas top, side curtains and back cover *before* transporting your boat by road.

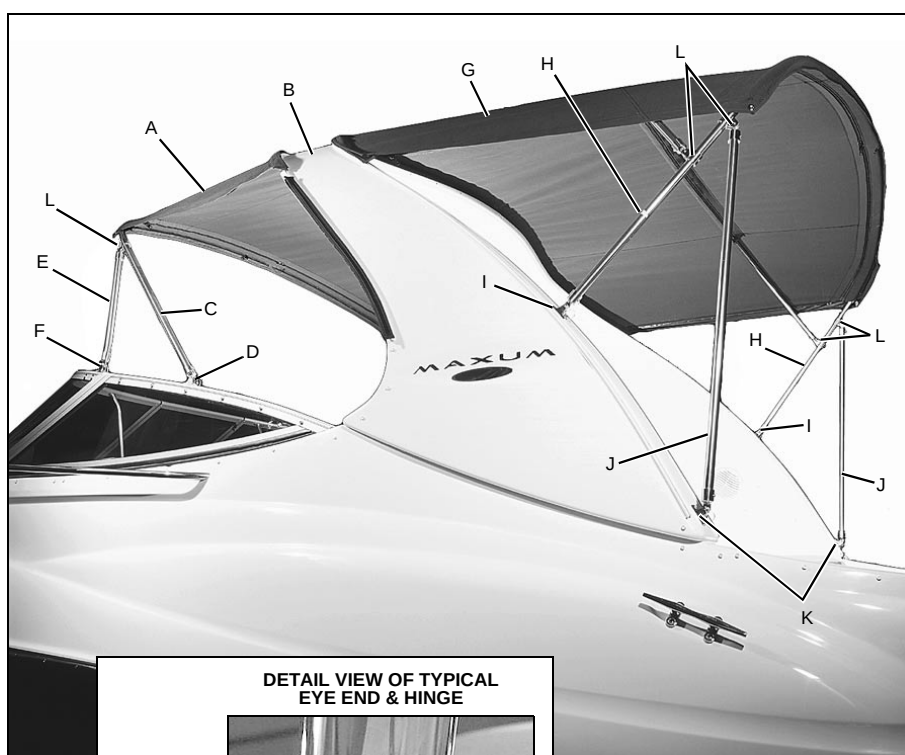
Forward canvas:

1. Zip the forward canvas (A) to the radar wing (B).
2. Slide the eye ends of the forward main bow (C) into the hinges on the windshield frame (D) and insert the pins.
3. Unfold the forward canvas and slide the eye ends of the forward support legs (E) into the hinges on the windshield frame (F) and insert the pins.

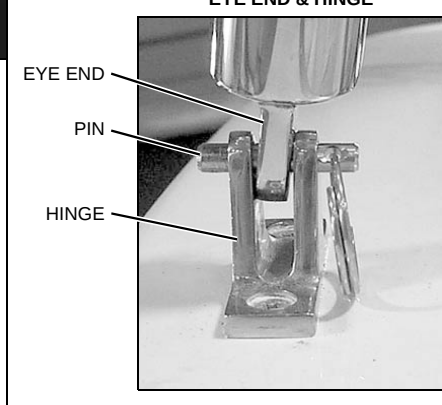
Aft canvas:

1. Zip the aft canvas (G) to the radar wing (B).
2. Slide the eye ends of the aft main bow (H) into the upper deck hinges on the radar wing (I) and insert the pins.
3. Unfold the aft canvas and slide the eye ends of the aft support legs (J) into the lower hinges on the radar wing (K) and insert the pins.

- No adjustments to the bow jaw slides (L) should need to be made as they are preset during manufacturing.
- **Before** attempting to adjust the jawslide positions, obtain the correct measurements from your selling dealer.



DETAIL VIEW OF TYPICAL
EYE END & HINGE



Chapter 8: Appliances & Entertainment Systems

NOTICE

Always keep an approved ABC-type fire extinguisher in galley area.

All appliances and entertainment systems installed on your boat come with their own manuals. These manuals contain detailed instructions and important safeguards. Thoroughly read and understand these manuals **before** using your boat's appliances and entertainment systems.

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

Refrigerator

Your boat features a 120-volt AC/12-volt DC refrigerator. The refrigerator runs on 12-volt DC power unless 120-volt AC power is being supplied by the generator (if equipped) or shore power *and* the AC refrigerator breaker is **On**.

Electric Stove (If Equipped)



WARNING!



BURN HAZARD!

- **Do not touch stove burners, grates or areas near the stove units 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.**

Alcohol/Electric Stove (If Equipped)

 **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.

 **DANGER**
CARBON MONOXIDE

 **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 keep an approved ABC-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 radio reception may be impaired anytime the engine is running.

Dockside Television & Telephone Inlet

Plug a dockside source into the TV/telephone inlet if you want to watch cable TV or use a telephone.

Chapter 9: 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 - *replace the fuse*.
2. The bulb may be burned out - *carry spare bulbs for replacement*.
3. A wire may be damaged or may have come loose - *repair as required*.
4. The bulb base may be corroded - *clean the base and coat it with non-conductive electrical lubricant*.

Navigation Lights

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

Read and understand the navigation light section of *Cruiser & Yacht Owner's Manual*.

Interior & Exterior Lights

 CAUTION
• Be conservative in the use of battery power. • Prolonged use of cabin interior lights (overnight) <i>will</i> result in a drained battery.

- The lights are powered by the boat's 12 volt DC system.
- The House Battery Switch **must** be turned **On** for the lights to work (See Battery Switches in Electrical Systems for more details).
- There are **On/Off** light switches for different sets of lights on the cabin wall.
- Some individual light fixtures have a **On/Off** switch on them.

Spotlight (If Equipped)

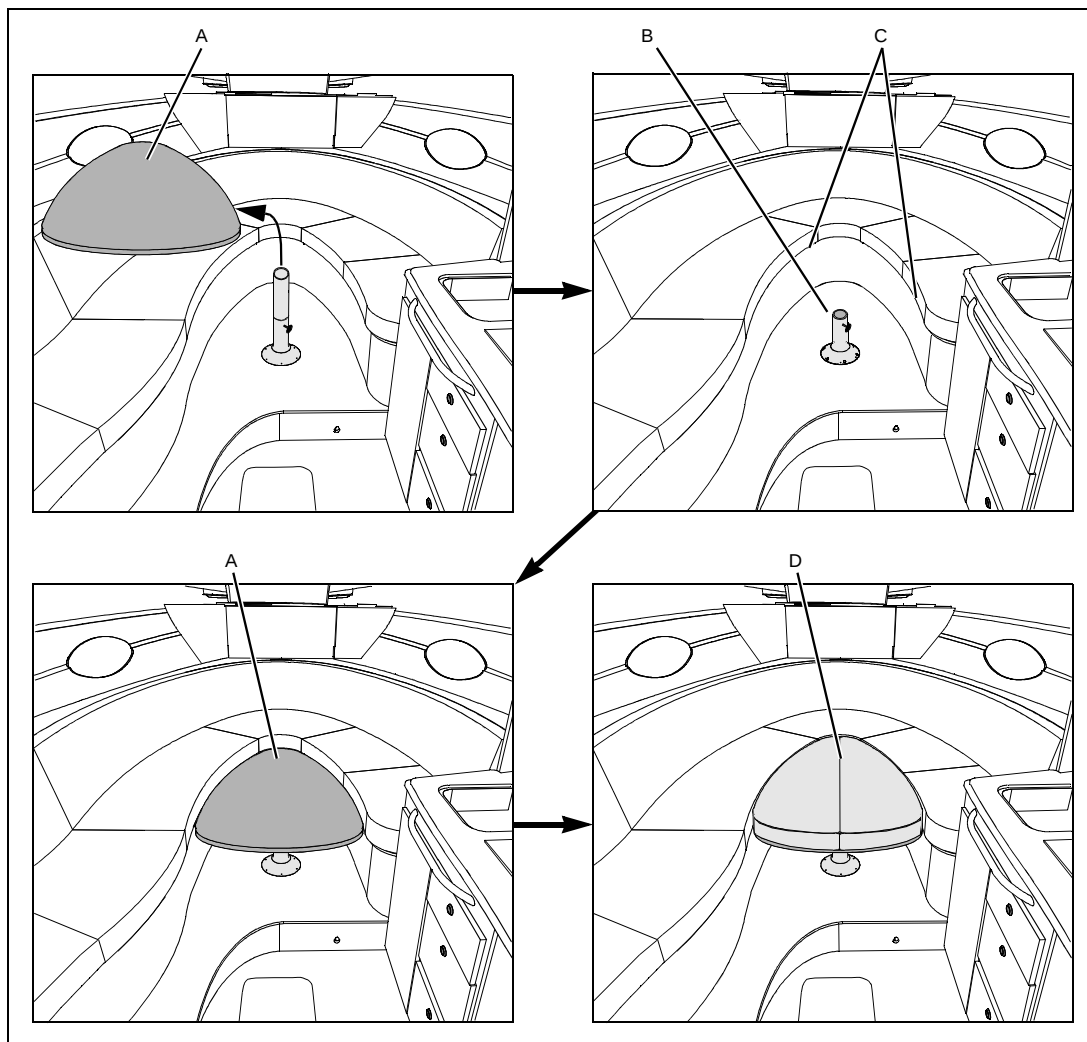
- Your boat may feature a spotlight on the bow of the boat.
- The spotlight controls are located at the helm.
- Read the spot light operating instructions **before** using the spotlight.

Chapter 10: Convertible Seats, Beds, & Tables

Dinette/Berth

The dinette table can be used to convert the dinette area into a berth.

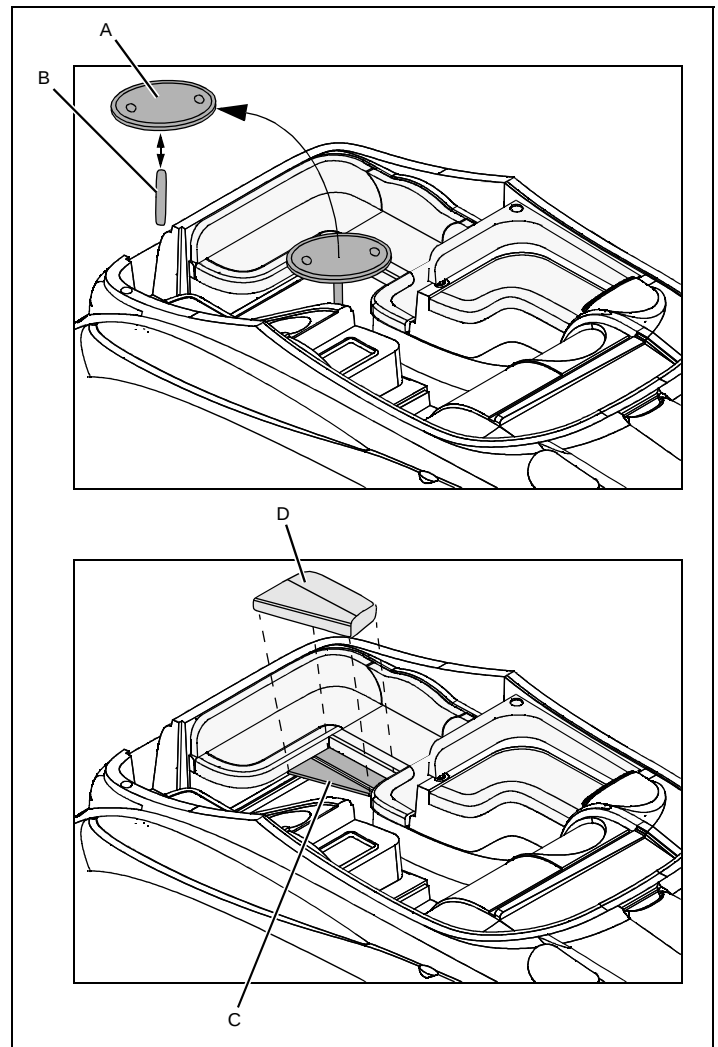
1. Remove the table (A).
2. Lower the table leg (B)
3. Place the table so it fits securely on the edge lips (C) and table leg.
4. Place the filler cushion (D) onto the table top.



Aft Cockpit Table/Sunlounge

The aft cockpit table and table leg can be removed and the seating can be converted into a flat sunlounge.

1. Remove the table (A) and table leg (B).
2. Put the filler board (C) in place so that it fits securely into the recessed edge at the front of the aft cockpit seats.
3. Place the filler cushion (D) on top of the filler board (C).
4. Make sure that all parts are secure before using the sunlounge.



Chapter 11: Heating & Air Conditioning

Air Conditioning System (If Equipped)

 **DANGER!**



CARBON MONOXIDE POISONING HAZARD!

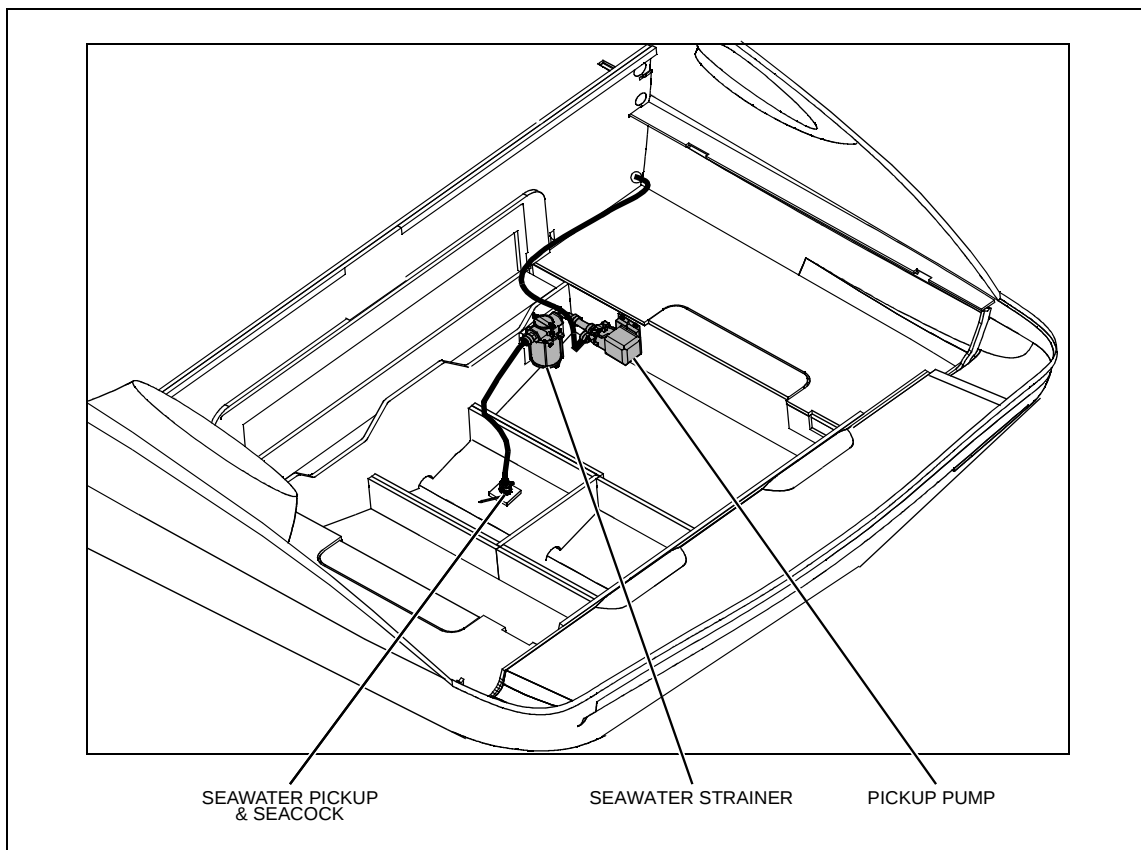
Dangerous carbon monoxide gas (CO) can be brought into the boat through the air conditioning system.

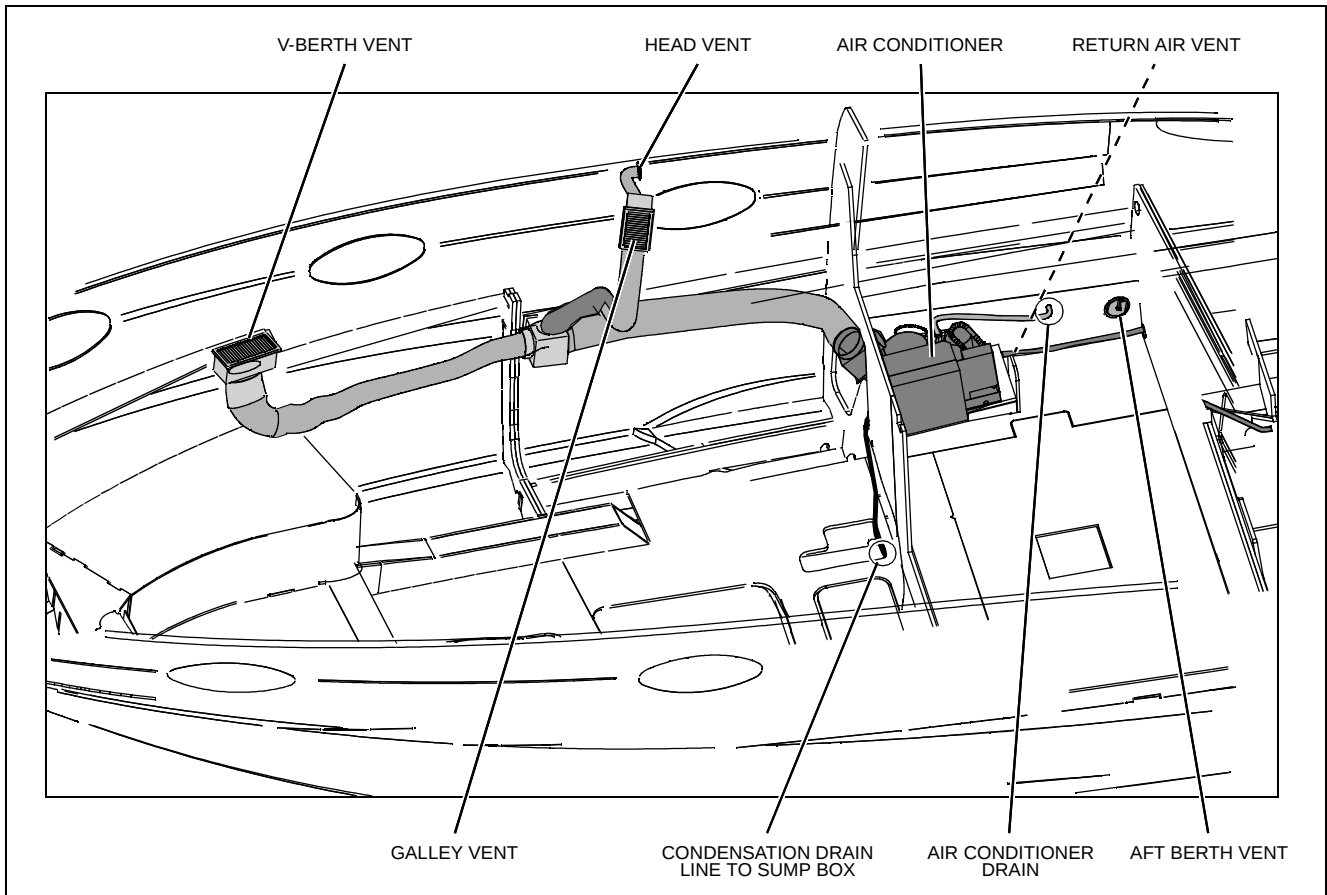
DANGER
CARBON MONOXIDE

 **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.





Read the air conditioner manual **before** using the air conditioning system.

- **Before** using the air conditioning 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.
- The seawater pickup strainer should be checked for debris according to the directions given in the *Seawater Strainer* section of this manual.

Chapter 12: Electrical System

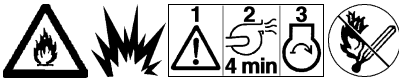
DANGER!



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!



FIRE & EXPLOSION HAZARD!

- Fuel fumes are heavier than air and *will* collect in the bilge areas where they can be accidentally 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.

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 Direct Current System

Batteries

- The batteries supply electricity for lights, 12-Volt accessories, and engine and generator starting.
- The Electrical section of Chapter 8, in the *Cruiser & Yacht Owner's Manual*, provides battery care and maintenance instructions.

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.

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.

- Your boat is equipped with two 12 volt accessory outlets, one at the helm and two on the TV cabinet.
- These 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 DC breaker panel.

Alternator

The engine alternator **will** keep the batteries properly charged when running at cruising speeds.

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 your boat are designed to charge conventional lead-acid batteries. Before installing gel-cell or other new technology batteries, consult with the battery manufacturer about charging system requirements.

Your boat features a battery charger. Thoroughly read and understand the battery charger manual **before** using the battery charger for the first time.

- The battery charger **will** charge the boat's batteries whenever the boat is plugged into 120V/60Hz shore power and the "BATTERY CHARGER" AC breaker is **On**.
- The battery charger is independent of the battery switch. The battery switches **do not** need to be **On** for proper 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.

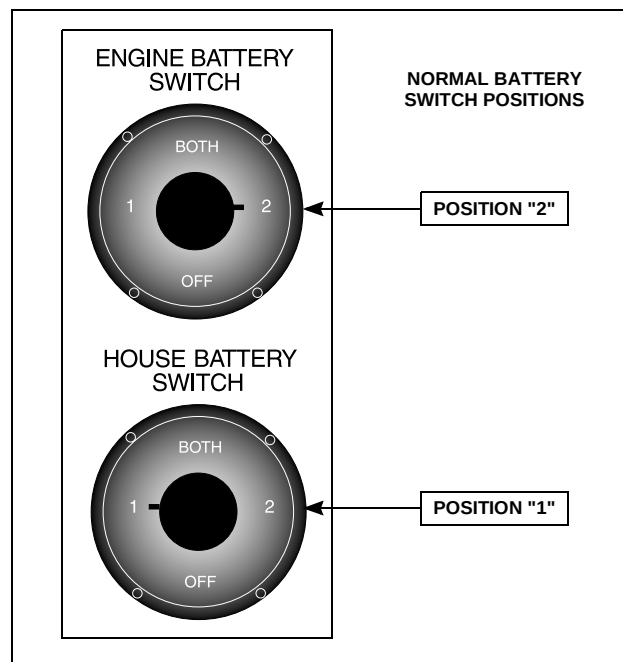
Battery Switches



CAUTION

- The parallel switch should be turned *On only* in emergencies.
- *Never* disconnect the battery cables or turn *Off* the main battery switches while engines are running as this can cause damage to your boat's electrical components

- A separate rotary battery switch is provided for each battery.
- The batteries supply electricity for lights, 12-Volt accessories, and engine and generator starting.
- 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 Position	Engine Starting	Accessories and Lights	Engine Alternator
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>
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>
POSITION <u>BOTH</u>	<u>BOTH</u> Batteries Provide Starting Power	<u>BOTH</u> Batteries Provide Power for Accessories and Lights (<i>not</i> advised unless engine is running)	Charges <u>BOTH</u> Batteries
POSITION <u>OFF</u>	Prevents Start/Run	Batteries Provide Power for Standby Loads Only	<i>Do Not</i> Run Engine in this Position

Alternating Current System



CAUTION

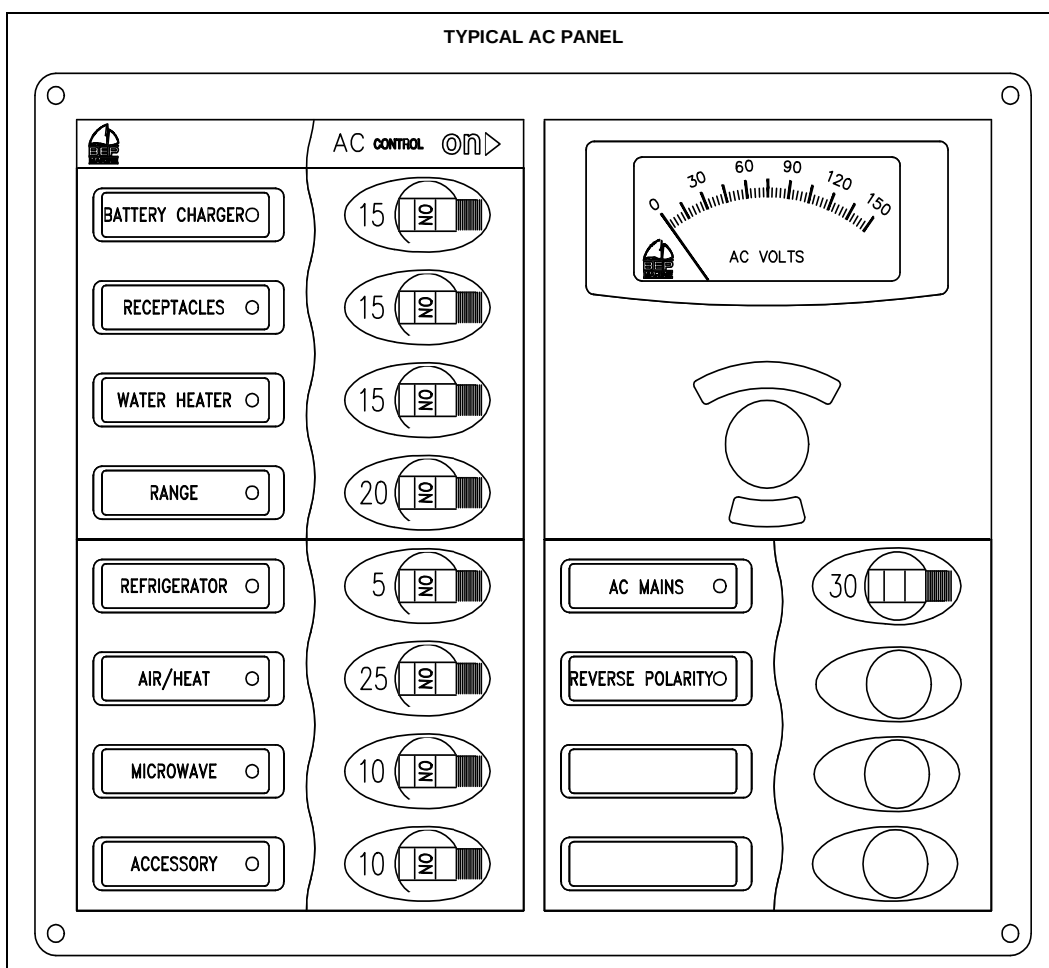
WATER HEATER DAMAGE HAZARD!

- **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.
- Warranty replacements **WILL NOT** be made on elements damaged in this manner.

NOTICE

Whether using shore power or generator 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 AC system can be energized by shore power or generator power (if equipped).
- The master circuit breakers, located on the AC panel, provide power source selections to AC powered accessories.
- Individual breakers **must** be turned *On* to supply power to the accessories you wish to use.
- The AC panel may contain inactive circuit breakers for accessories that are **not** available for this model boat.



Shore Power

 **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!

- **Before** each use, check the shore power cord(s) for defects 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 is dropped into the water, **THOROUGHLY** dry the blades and contact slots *before* using.

 **CAUTION**


ELECTRICAL SYSTEM DAMAGE HAZARD!

- **NEVER** connect to dockside power outside of North America unless you have purchased an international electrical conversion adaptor.
- Using several AC components at the same time can result in an overloaded circuit. You may have to turn **Off** one or more appliances in order to use another appliance.
- Use double insulated or three-wire protected electrical appliances whenever possible.

NOTICE

- **Some dockside outlets may be rated less than 30 amps, therefore, you may need to purchase lower amp adapters.**
- **Whenever a lower amp adapter is used, however, there *will* be a corresponding drop in supplied power from the dockside system.**

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.**

- The single shore power 120V/60Hz, AC system (if equipped) features one, 120V/30 amp, shore power receptacle.

- If your boat is equipped with an air conditioning system, a second (dual) 30 amp inlet has been installed.

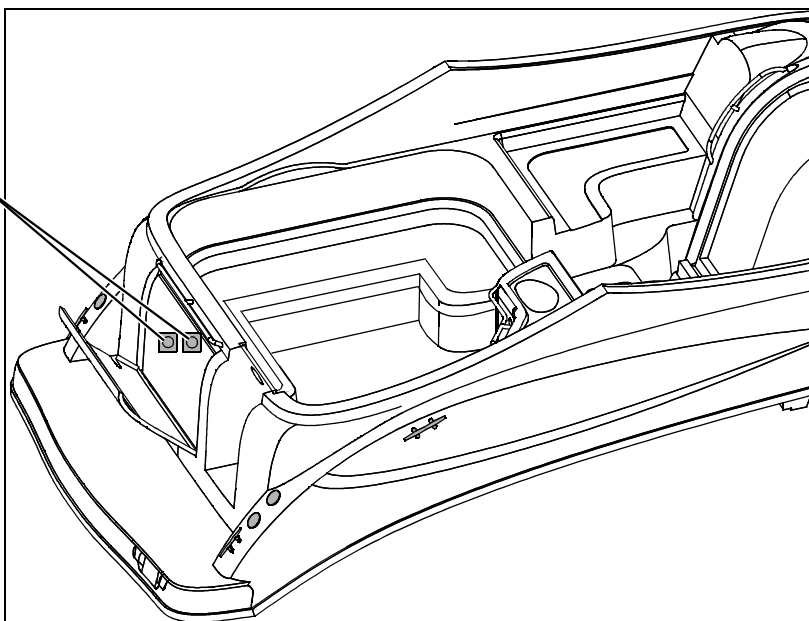
- The dual shore power inlets are labeled "LINE 1" and "LINE 2", which corresponds to the AC panel.

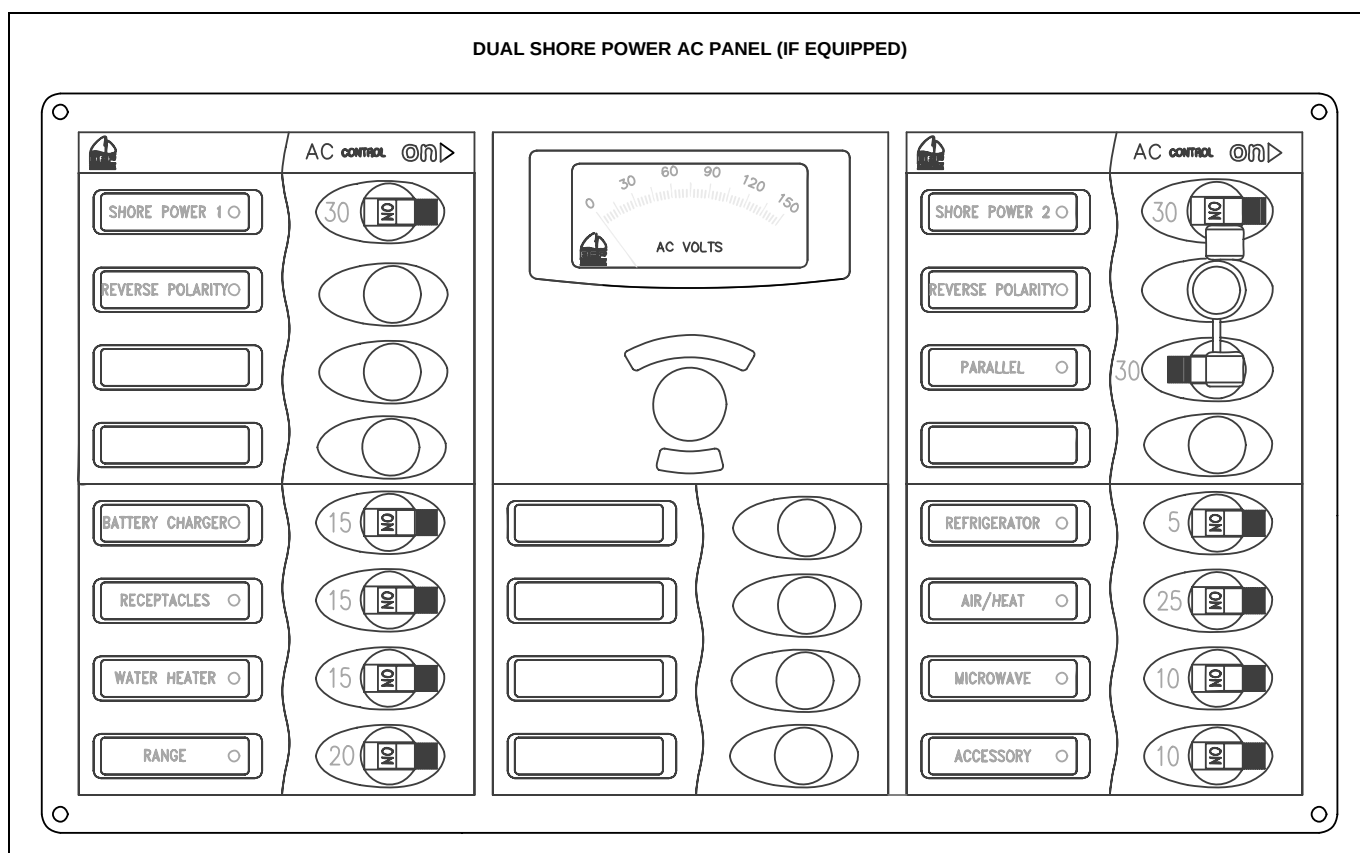
- The dual shore power system is designed so that each line is independent of the other except when the parallel switch is used.

NOTE:
SINGLE INLET STANDARD
DUAL INLETS WITH AIR
CONDITIONER (IF EQUIPPED)

SHORE POWER
INLET(S)

TYPICAL SHORE
POWER INLET





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(s) to the boat inlet(s) first, then to the dockside outlet(s).
4. Switch the "SHORE POWER 1" master breaker **On**.
5. If equipped with dual dockside, switch the "SHORE POWER 2" **On**.
6. Turn **On** the individual component breakers as required.

Parallel Switch (If Equipped with Dual Shore Power)

NOTICE

- When using the Parallel Switch **do not** exceed 30 total amps.
- The amperage of each component breaker is shown in figure 1.
- The voltage on each line can be read by viewing the voltmeter on the Shorepower AC panel.

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

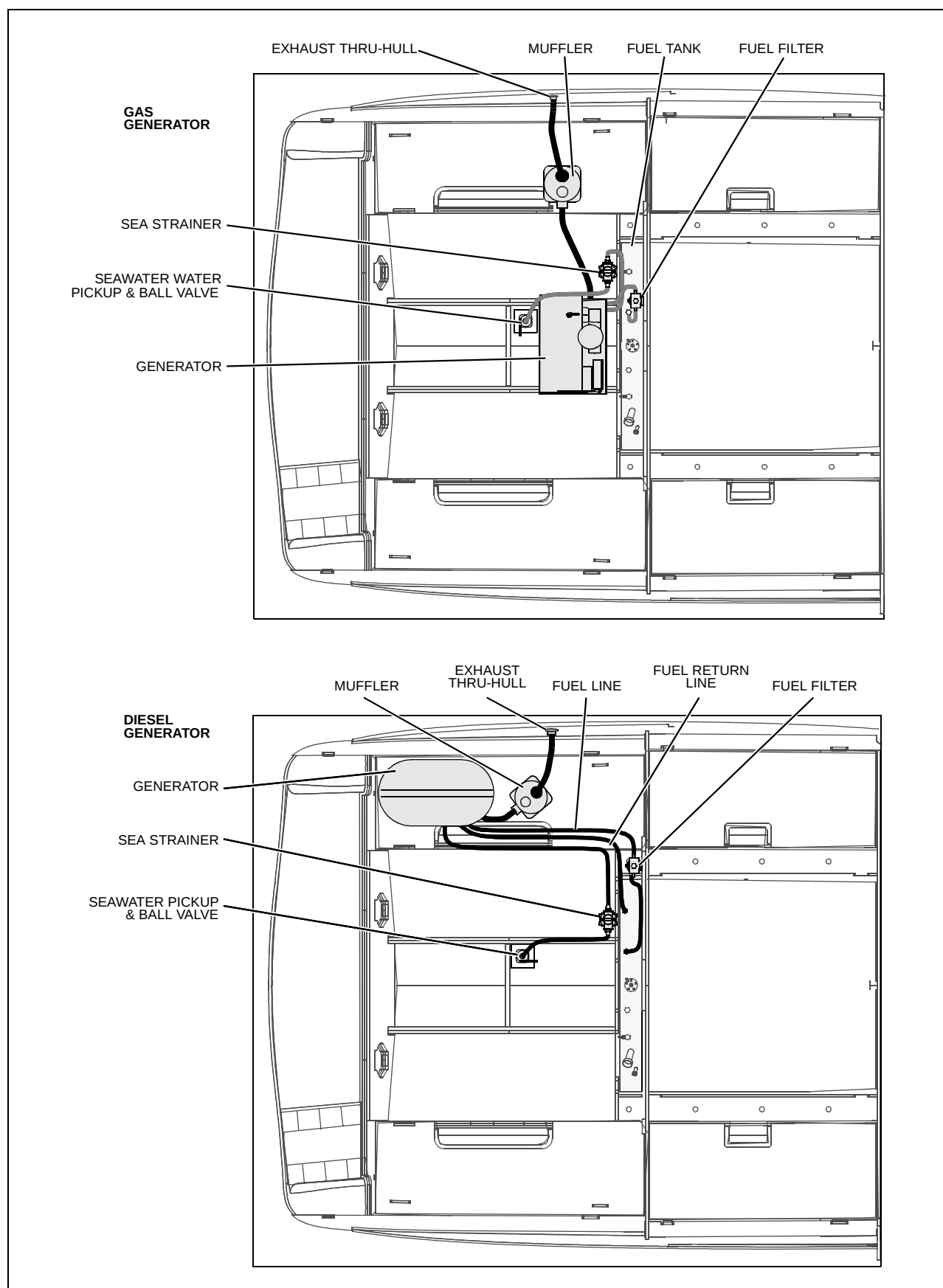
1. Connect to shore power as described in steps 1 through 4 on previous page.
2. Switch the Parallel Switch (transfers power from line 1 to line 2) **On** instead of the SHORE POWER 2 master breaker.
3. Turn **On** the individual component breakers as required.

Generator (If Equipped)

 DANGER!	
	<i>CARBON MONOXIDE POISONING HAZARD!</i>
	Generators are a source of dangerous carbon monoxide gas (CO). Check the generator exhaust system for leaks <i>before</i> each use.

 WARNING!	
	<i>FIRE/EXPLOSION HAZARD!</i>
	• Use the bilge blowers for a minimum of four minutes <i>before</i> starting the generator. • Leave the blowers on while the generator is running unless the boat is running at cruising speed. • Use of the blower system is NOT A GUARANTEE that explosive fumes have been removed. • If you smell any fuel, DO NOT start the generator. • If the generator is already running, IMMEDIATELY shut <i>Off</i> the generator and <i>all</i> electrical accessories and investigate. • DO NOT obstruct or modify the ventilation system.

 CAUTION	
<i>SYSTEM DAMAGE HAZARD!</i>	
• <i>Always</i> make sure the generator's seawater pickup seacock is <i>Open before</i> and during the running of the generator. • NEVER use the generator starter for more than 30 seconds. • If the generator does <i>not</i> start, wait at least 30 seconds <i>before</i> another start attempt is made. • After starting the generator, wait for the generator to stabilize <i>before</i> turning <i>On</i> component breakers on the AC panel.	



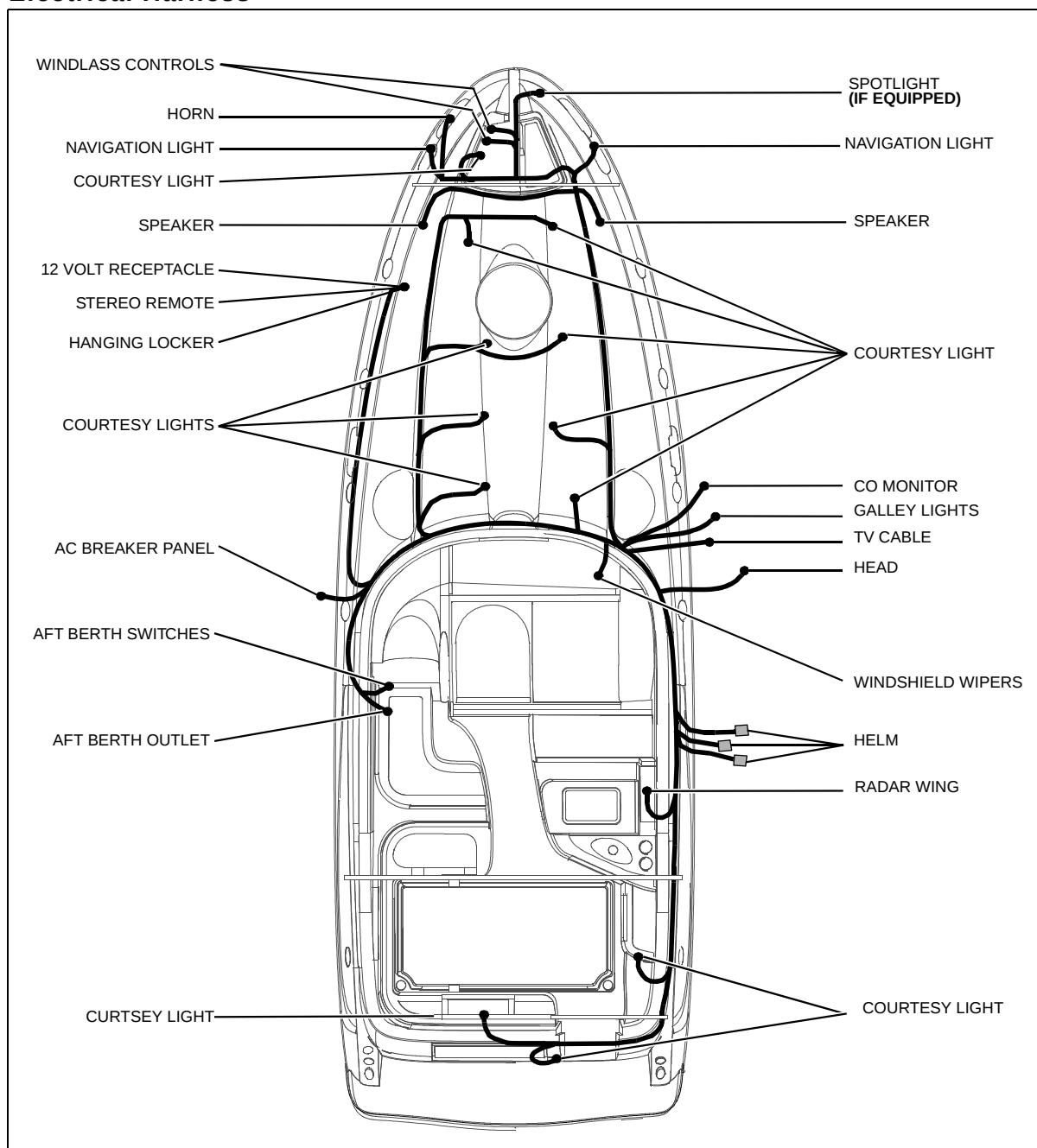
- The generator can supply 120V/60Hz power to the boat when it is **not** connected to shore power.
- Polarity has been established in the installation of the generator, therefore the polarity lights **will not** function in this mode.
- **Before** using the generator, read the generator operation manual for pre-start checks and break-in procedures.

For generator starting/running/stopping instructions, refer to the generator owner's manual. Also, note the following:

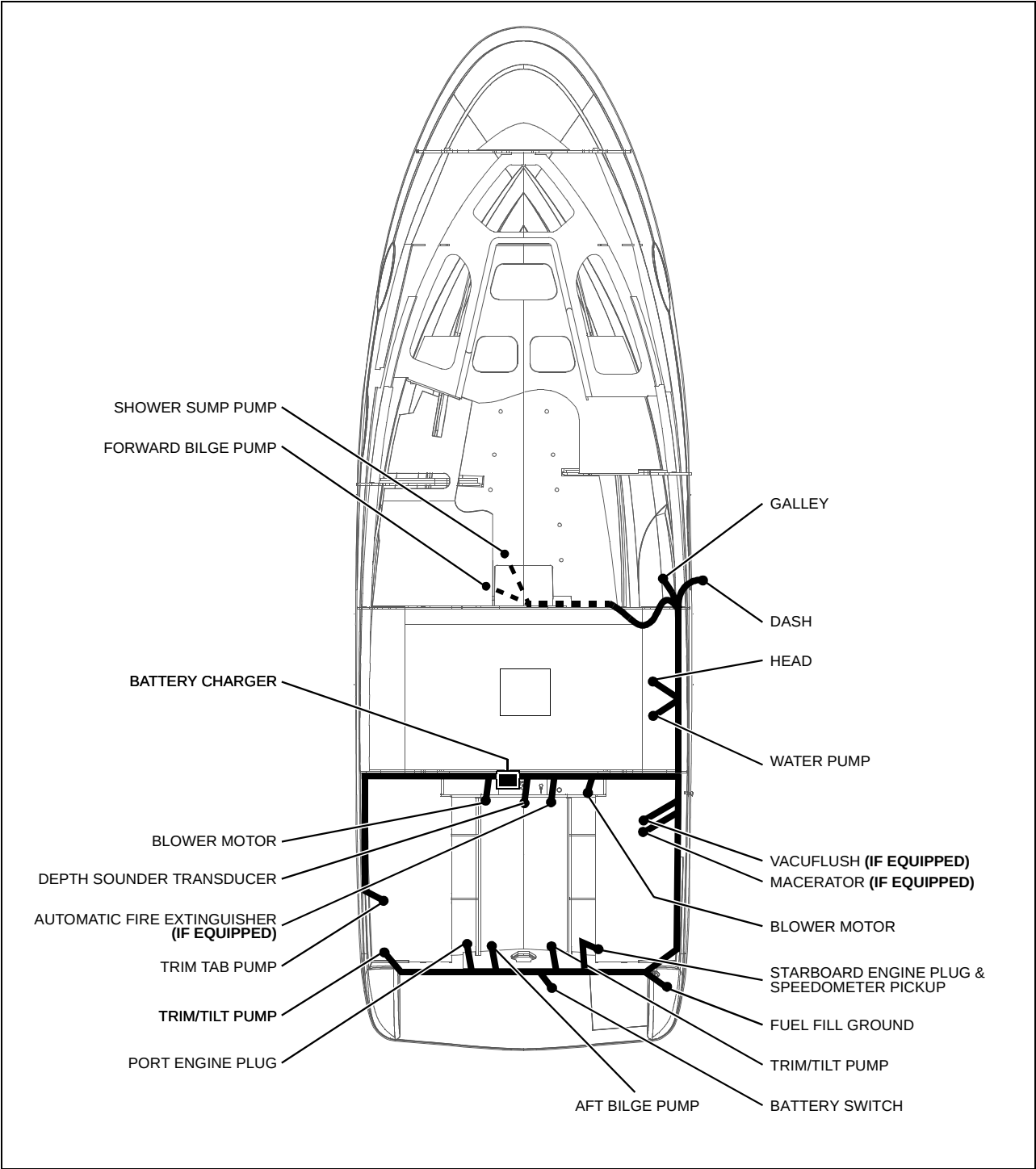
1. **Run the bilge blowers for a minimum of four minutes *before* starting the generator.**
- **If your boat is running below cruising speed, leave the blowers on while the generator is running.**
2. Make sure the generator's seawater pickup seacock is ***Open before*** starting and during running of the generator.
3. Make sure that the engine battery switch is turned to the "1", "2" or, "Both" position.
4. Turn **On** each individual component breaker as required.
5. Refer to the generator manual for starting and stopping instructions.

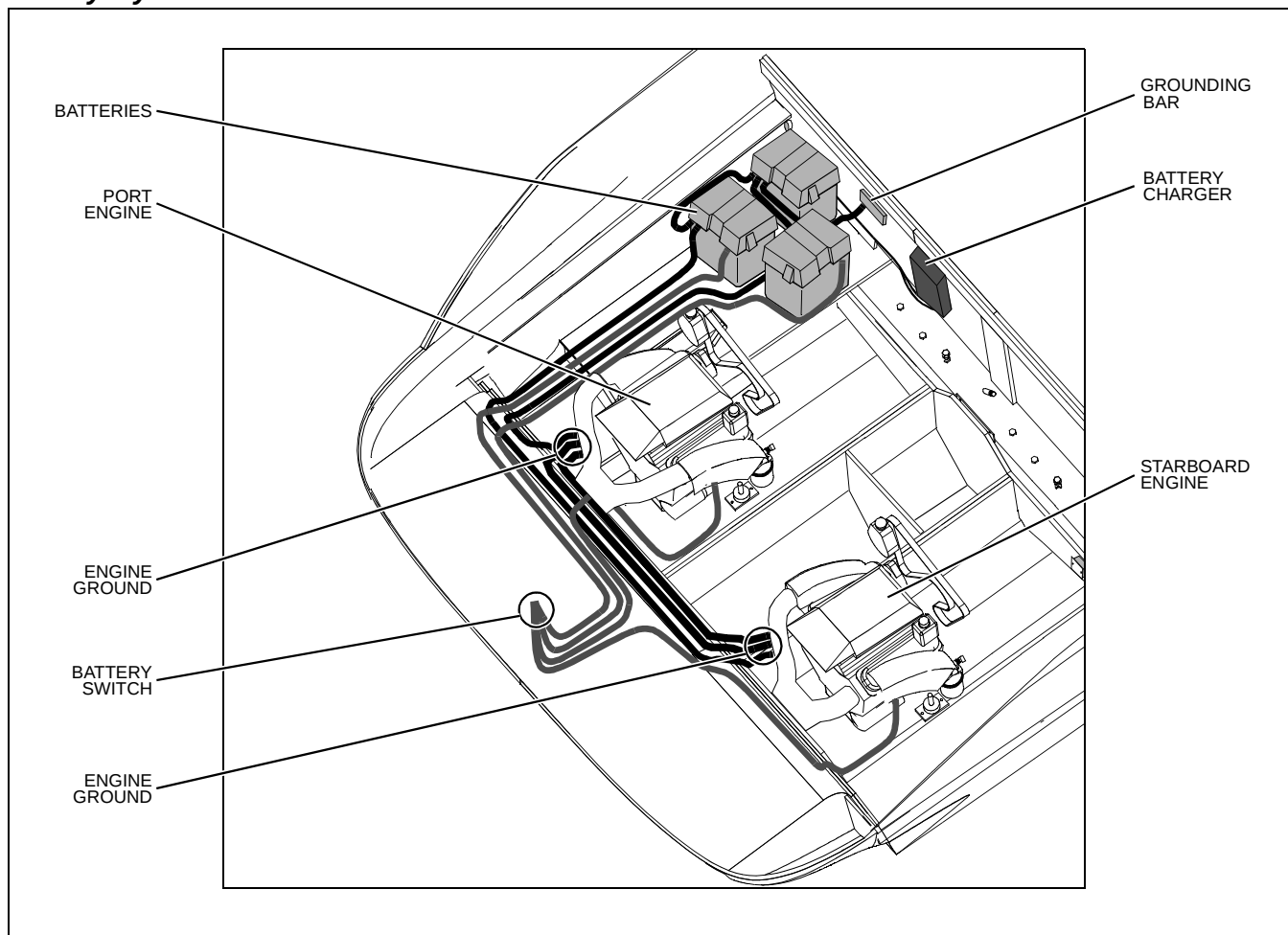
Electrical Routings

Deck Electrical Harness

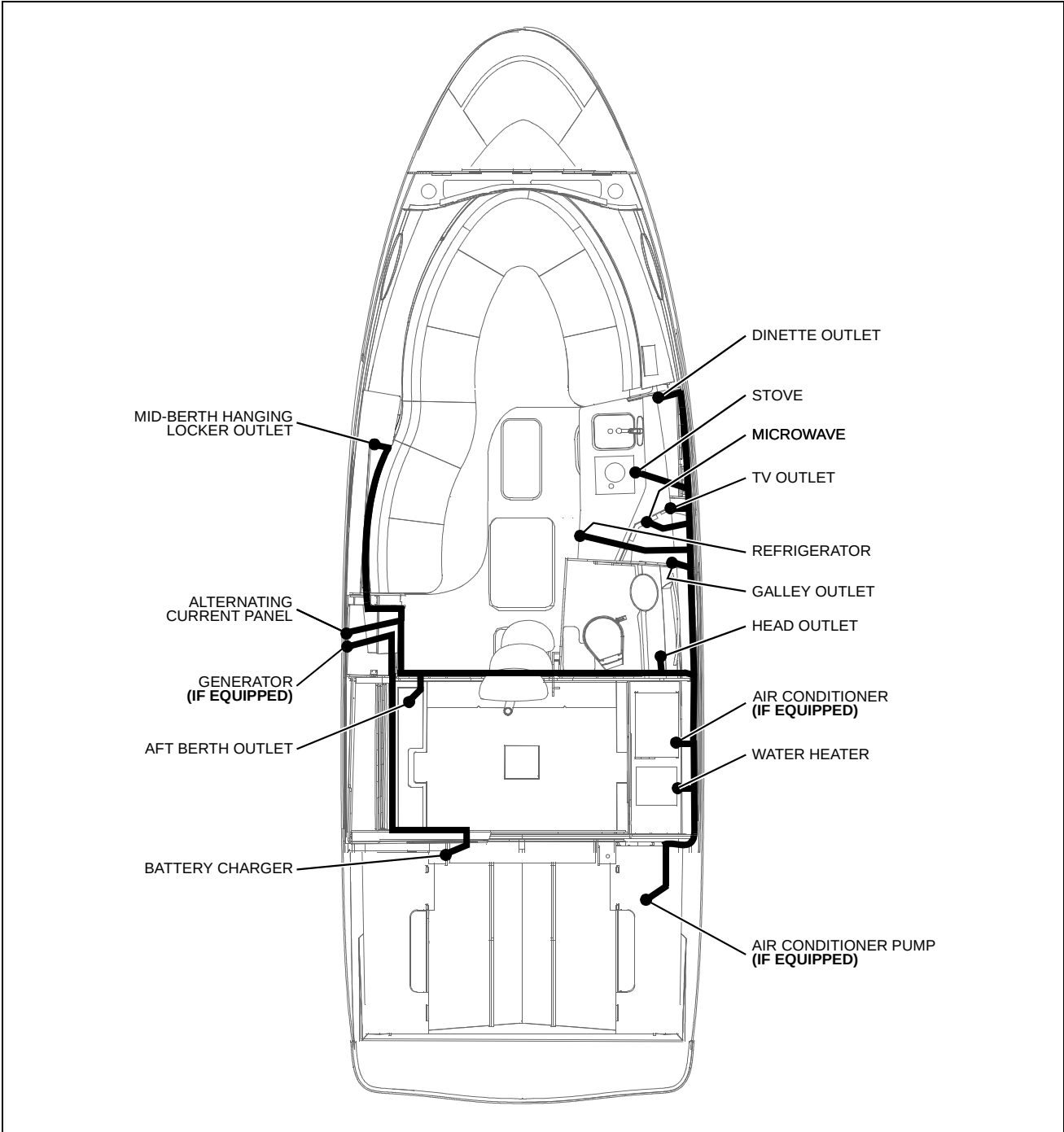


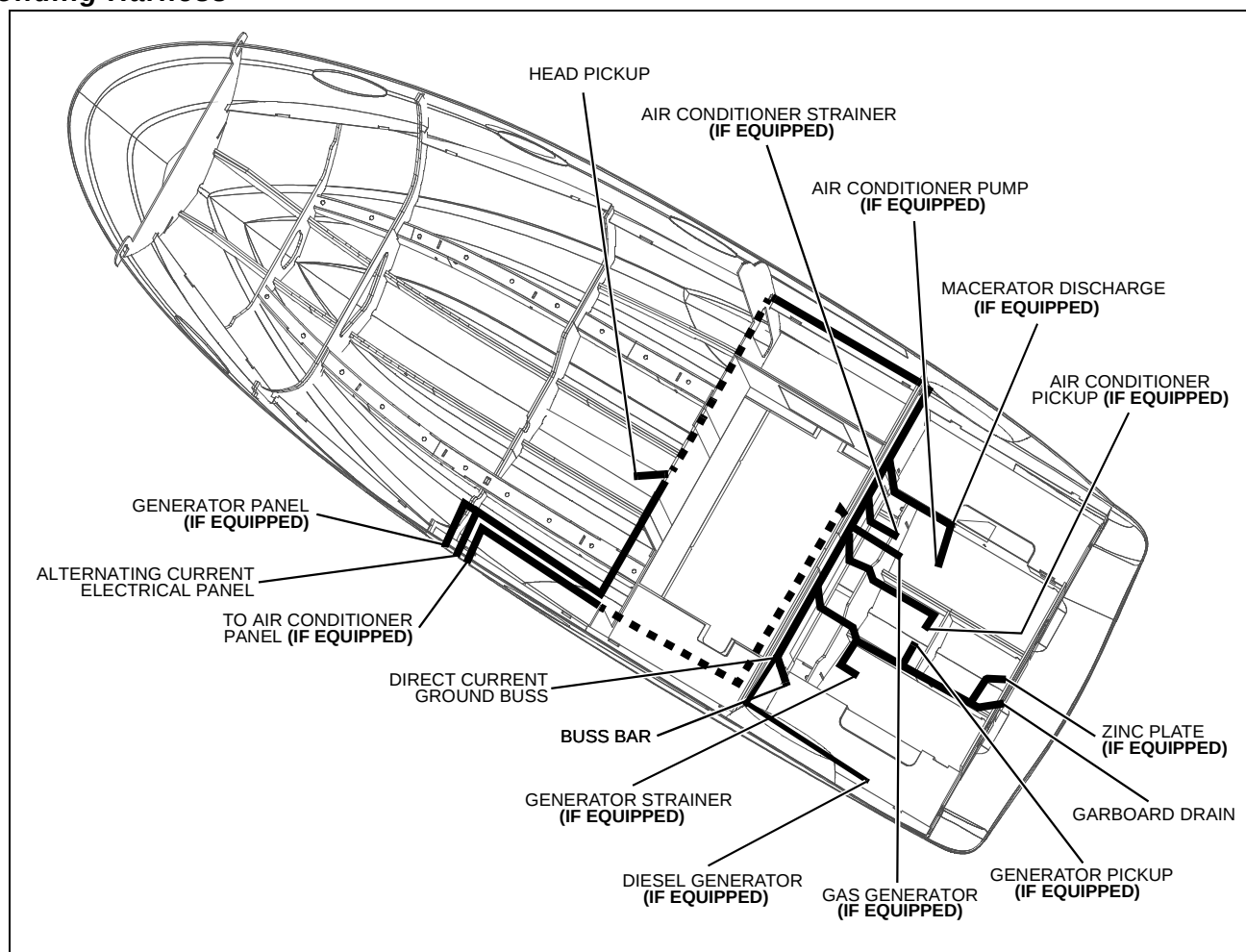
Hull Electrical Harness



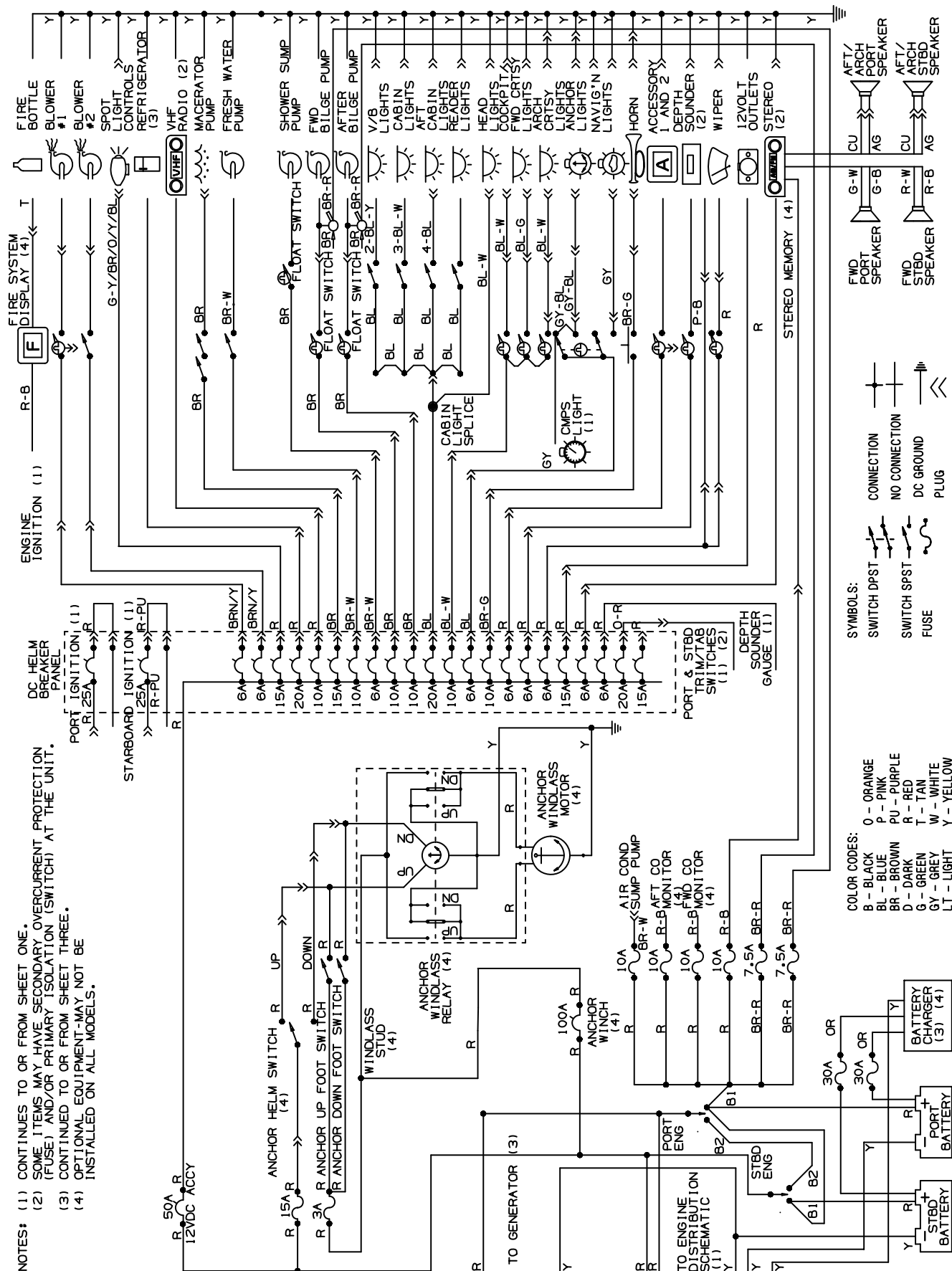
Battery System

Alternating Current System

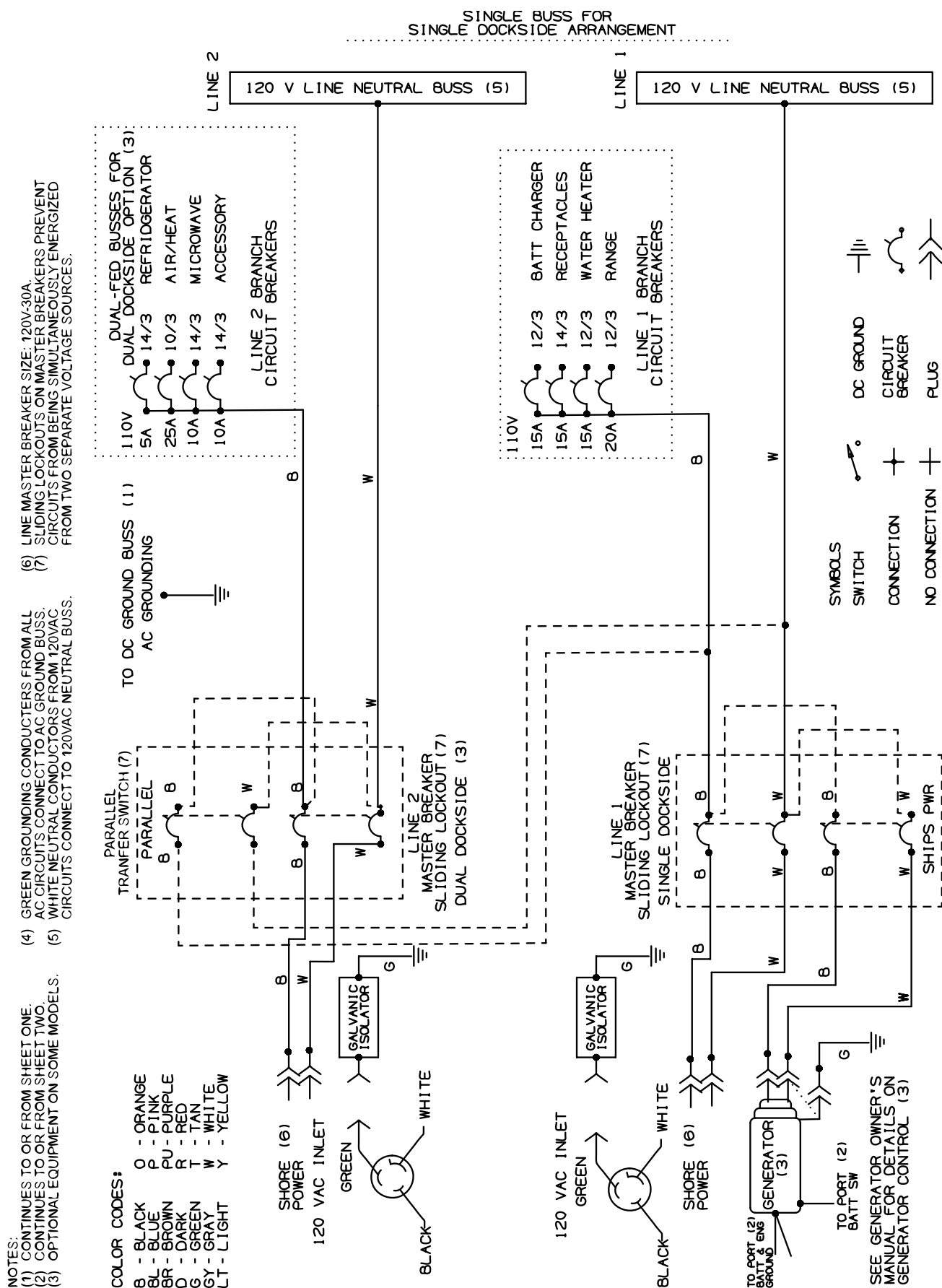


Bonding Harness

DC Electrical System



AC Electrical System



Connector List

STBD GAUGE PLUG XX-2 1692416	STBD GAUGE PLUG XX-2 1692416
1- 14 PUR/WHIT (STBD GAUGE GROUND)	1- 14 PUR/WHIT (STBD GAUGE GROUND)
2- 16 YEL (STBD GAUGE GROUND)	2- 16 YEL (STBD GAUGE GROUND)
3- 16 LT BLU (STBD OIL)	3- 16 LT BLU (STBD OIL)
4- 16 BLK (STBD TEMP)	4- 16 BLK (STBD TEMP)
5- 16 TAN (STBD TACH)	5- 16 TAN (STBD TACH)
6- 16 GRY/BLK (STBD TACH) SOCKET HOUSING	6- 16 GRY/BLK (STBD TACH) SOCKET HOUSING
7- 16 GRY (COMPASS FUNCTION)	7- 16 GRY (COMPASS FUNCTION)
8- 16 BRN/WHIT (TRIM IND)	8- 16 BRN/WHIT (TRIM IND)
9- 16 YEL (DEPTH GND)	9- 16 YEL (DEPTH GND)

321
654
987

123
456
789

VOLVO (OPTIONAL) WIRE ENTRY VIEW	VOLVO (OPTIONAL) WIRE ENTRY VIEW
STBD IGNITION PLUG L 102308	STBD IGNITION PLUG L 102308
1- 16 BLU/RED (SWITCHED 8+) DBL	1- 16 BLU/RED (SWITCHED 8+) DBL
2- BLANK	2- BLANK
3- 14 YEL/RED (START)	3- 14 YEL/RED (START)
4- 16 TAN/BLU (ALARM)	4- 16 TAN/BLU (ALARM)
5- 16 ORG (GLOWPLUGS)	5- 16 ORG (GLOWPLUGS)
6- BLANK	6- BLANK
7- 14 PUR/WHIT (IGN S/D) DBL	7- 14 PUR/WHIT (IGN S/D) DBL
8- 16 RED (8+) DBL	8- 16 RED (8+) DBL
9- BLANK	9- BLANK

VOLVO P/S ENGINE PLUG 1 1692416	VOLVO P/S ENGINE PLUG 1 1692416
1- 14 YEL (GRND)	1- 14 YEL (GRND)
2- 16 GRY/BLACK (TACH)	2- 16 GRY/BLACK (TACH)
3- 14 YELLOW/RED (START)	3- 14 YELLOW/RED (START)
4- 16 TAN (TEMP)	4- 16 TAN (TEMP)
5- 16 LIGHT BLUE (OIL)	5- 16 LIGHT BLUE (OIL)
6- 14 BLUE/RED (KEY POWER)	6- 14 BLUE/RED (KEY POWER)
7- 14 RED (8+)	7- 14 RED (8+)
8- 14 PUR/PUR/WHIT (SHUTDOWN)	8- 14 PUR/PUR/WHIT (SHUTDOWN)
9- 16 BROWN (ALT IND)	9- 16 BROWN (ALT IND)

P/S VOLVO ENGINE PLUG 2 1692415	P/S VOLVO ENGINE PLUG 2 1692415
1- 16 GA BLUE/WHITE (ALARM OIL) PORT	1- 16 GA BLUE/WHITE (ALARM OIL) PORT
2- 16 GA BROWN/WHITE (ALARM TEMP) PORT	2- 16 GA BROWN/WHITE (ALARM TEMP) PORT
3- 16 WHITE (GEN SHUTDOWN - PORT ONLY)	3- 16 WHITE (GEN SHUTDOWN - PORT ONLY)
4- 16 GA ORG (GLOW) PORT	4- 16 GA ORG (GLOW) PORT
5- 16 GA GREEN/WHITE (GLOW IND) PORT	5- 16 GA GREEN/WHITE (GLOW IND) PORT
6- BLANK	6- BLANK
7- BLANK	7- BLANK
8- BLANK	8- BLANK
9- BLANK	9- BLANK

12
63
54

12
34
56
78
910
11121314
1516

VOLVO TRIM PLUG	VOLVO TRIM PLUG
1- BLUE/RED	1- BLUE/RED
2- GREEN	2- GREEN
3- BLUE	3- BLUE
4- WHITE	4- WHITE
5- BLACK	5- BLACK
6- BLANK	6- BLANK

TRIM PLUG 1692415	TRIM PLUG 1692415
1- GREEN	1- GREEN
2- BLUE	2- BLUE
3- BLANK	3- BLANK
4- BLANK	4- BLANK
5- BLANK	5- BLANK
6- BLANK	6- BLANK

PORT/STBD ALARM PLUGS 1696798	PORT/STBD ALARM PLUGS 1696798
1- 16 BRN	1- 16 BRN
2- 16 GRN/WHIT (GLOW PLUG IND)	2- 16 GRN/WHIT (GLOW PLUG IND)
3- 16 BRN/WHIT	3- 16 BRN/WHIT
4- 16 BLU/WHIT	4- 16 BLU/WHIT
5- BLANK	5- BLANK
6- 16 TAN/BLU (ALARM BUZZER)	6- 16 TAN/BLU (ALARM BUZZER)
7- BLANK	7- BLANK
8- BLANK	8- BLANK
9- BLANK	9- BLANK

PORT GAUGE PLUG YY-2 1692415	PORT GAUGE PLUG YY-2 1692415
1- 14 PUR/BLU/RED (PORT GAUGE POWER)	1- 14 PUR/BLU/RED (PORT GAUGE POWER)
2- 16 YEL (PORT GAUGE GROUND)	2- 16 YEL (PORT GAUGE GROUND)
3- 16 LT BLU (PORT OIL)	3- 16 LT BLU (PORT OIL)
4- 16 BLK (PORT TEMP)	4- 16 BLK (PORT TEMP)
5- 16 TAN (PORT FUEL)	5- 16 TAN (PORT FUEL)
6- 16 PNK (PORT TEMP)	6- 16 PNK (PORT TEMP)
7- 16 GRY (PORT TACH)	7- 16 GRY (PORT TACH)
8- 16 BRN/WHIT (INST LIGHTS)	8- 16 BRN/WHIT (INST LIGHTS)
9- 16 RED (DEPTH PWR)	9- 16 RED (DEPTH PWR)

IGNITION PLUG M-1 1692415	IGNITION PLUG M-1 1692415
1- 14 PURPLE/WHITE - STBD IGN IN	1- 14 PURPLE/WHITE - STBD IGN IN
2- 10 PURPLE/WHITE - STBD IGN OUT	2- 10 PURPLE/WHITE - STBD IGN OUT
3- 10 RED/PURPLE - STBD 8+	3- 10 RED/PURPLE - STBD 8+
4- 14 YELLOW/RED - STBD NSS	4- 14 YELLOW/RED - STBD NSS
5- 14 PURPLE - PORT IGN IN	5- 14 PURPLE - PORT IGN IN
6- 14 PURPLE - PORT IGN OUT	6- 14 PURPLE - PORT IGN OUT
7- 10 RED/PURPLE - PORT 8+	7- 10 RED/PURPLE - PORT 8+
8- 14 YELLOW/RED - PORT NSS	8- 14 YELLOW/RED - PORT NSS
9- BLANK	9- BLANK

VOLVO (OPTIONAL) PORT IGNITION PLUG M 102309	VOLVO (OPTIONAL) PORT IGNITION PLUG M 102309
1- 14 PURPLE/WHITE - STBD IGN IN	1- 14 PURPLE/WHITE - STBD IGN IN
2- 10 PURPLE/WHITE - STBD IGN OUT	2- 10 PURPLE/WHITE - STBD IGN OUT
3- 10 RED/PURPLE - STBD 8+	3- 10 RED/PURPLE - STBD 8+
4- 14 YELLOW/RED - STBD NSS	4- 14 YELLOW/RED - STBD NSS
5- 14 PURPLE - PORT IGN IN	5- 14 PURPLE - PORT IGN IN
6- 14 PURPLE - PORT IGN OUT	6- 14 PURPLE - PORT IGN OUT
7- 10 RED/PURPLE - PORT 8+	7- 10 RED/PURPLE - PORT 8+
8- 14 YELLOW/RED - PORT NSS	8- 14 YELLOW/RED - PORT NSS
9- BLANK	9- BLANK

STARBORD EXCEPT COLOR	STARBORD EXCEPT COLOR
1- 14 PUR (IGN S/D) DBL	1- 14 PUR (IGN S/D) DBL
2- 16 GRN/WHIT (TRIM IND)	2- 16 GRN/WHIT (TRIM IND)
3- 14 GA RED/PUR (KEY POWER)	3- 14 GA RED/PUR (KEY POWER)
4- 14 GA TAN/BLU (START SOL.)	4- 14 GA TAN/BLU (START SOL.)
5- 14 GA YEL (GROUND)	5- 14 GA YEL (GROUND)
6- 16 GRN/WHIT (TRIM IND)	6- 16 GRN/WHIT (TRIM IND)
7- 16 GA RED/PUR (TRIM O/R 8+)	7- 16 GA RED/PUR (TRIM O/R 8+)
8- 16 GA BLU/WHIT (TRAILER)	8- 16 GA BLU/WHIT (TRAILER)
9- 16 GA PUR/WHIT (IGNITION) DBL	9- 16 GA PUR/WHIT (IGNITION) DBL

P/S ENGINE PLUG 2 1692415	P/S ENGINE PLUG 2 1692415
1- 14 GA PUR/PUR/WHIT (IGNITION) DBL	1- 14 GA PUR/PUR/WHIT (IGNITION) DBL
2- 16 GA TAN (TEMP)	2- 16 GA TAN (TEMP)
3- BLANK	3- BLANK
4- 16 LT BLU (OIL)	4- 16 LT BLU (OIL)
5- 16 GRY (TACH)	5- 16 GRY (TACH)
6- 16 GA BLU/WHIT (TRIM UP)	6- 16 GA BLU/WHIT (TRIM UP)
7- 16 GA GRN/WHIT (TRIM DOWN)	7- 16 GA GRN/WHIT (TRIM DOWN)
8- BLANK	8- BLANK
9- BLANK	9- BLANK

PORT/STBD ALARM PLUGS 1696798	PORT/STBD ALARM PLUGS 1696798
1- 16 BRN	1- 16 BRN
2- 16 GRN/WHIT (GLOW PLUG IND)	2- 16 GRN/WHIT (GLOW PLUG IND)
3- 16 BRN/WHIT	3- 16 BRN/WHIT
4- 16 BLU/WHIT	4- 16 BLU/WHIT
5- BLANK	5- BLANK
6- 16 TAN/BLU (ALARM BUZZER)	6- 16 TAN/BLU (ALARM BUZZER)
7- BLANK	7- BLANK
8- BLANK	8- BLANK
9- BLANK	9- BLANK

PORT VOLVO ENGINE PLUG 1710801 (OPTIONAL)	PORT VOLVO ENGINE PLUG 1710801 (OPTIONAL)
1- 14 GA RED (battery)	1- 14 GA RED (battery)
2- 14 GA PUR/WHIT (shut down)	2- 14 GA PUR/WHIT (shut down)
3- 14 GA BLUE/RED (keyed power)	3- 14 GA BLUE/RED (keyed power)
4- 14 GA YELLOW/RED (start)	4- 14 GA YELLOW/RED (start)
5- 16 GA BROWN (alt ind.)	5- 16 GA BROWN (alt ind.)
6- 16 GA ORANGE (glow plug relay)	6- 16 GA ORANGE (glow plug relay)
7- 16 GA GRN/WHIT (glow plug ind)	7- 16 GA GRN/WHIT (glow plug ind)
8- BLANK	8- BLANK
9- BLANK	9- BLANK
10- 16 GA LT BLUE (oil)	10- 16 GA LT BLUE (oil)
11- 16 GA TAN (temp)	11- 16 GA TAN (temp)
12- BLANK	12- BLANK
13- 16 GA GREY/BLACK (tach)	13- 16 GA GREY/BLACK (tach)
14- 16 GA BLUE/WHITE (alarm oil)	14- 16 GA BLUE/WHITE (alarm oil)
15- 16 GA BROWN/WHITE (alarm temp)	15- 16 GA BROWN/WHITE (alarm temp)
16- 14 GA YEL (grnd)	16- 14 GA YEL (grnd)

PORT VOLVO ENGINE PLUG 1710801 (OPTIONAL)	PORT VOLVO ENGINE PLUG 1710801 (OPTIONAL)
1- 14 GA RED (battery)	1- 14 GA RED (battery)
2- 14 GA PUR/WHIT (shut down)	2- 14 GA PUR/WHIT (shut down)
3- 14 GA BLUE/RED (keyed power)	3- 14 GA BLUE/RED (keyed power)
4- 14 GA YELLOW/RED (start)	4- 14 GA YELLOW/RED (start)
5- 16 GA BROWN (alt ind.)	5- 16 GA BROWN (alt ind.)
6- 16 GA ORANGE (glow plug relay)	6- 16 GA ORANGE (glow plug relay)
7- 16 GA GRN/WHIT (glow plug ind)	7- 16 GA GRN/WHIT (glow plug ind)
8- BLANK	8- BLANK
9- BLANK	9- BLANK
10- 16 GA LT BLUE (oil)	10- 16 GA LT BLUE (oil)
11- 16 GA TAN (temp)	11- 16 GA TAN (temp)
12- BLANK	12- BLANK
13- 16 GA GREY/BLACK (tach)	13- 16 GA GREY/BLACK (tach)
14- 16 GA BLUE/WHITE (alarm oil)	14- 16 GA BLUE/WHITE (alarm oil)
15- 16 GA BROWN/WHITE (alarm temp)	15- 16 GA BROWN/WHITE (alarm temp)
16- 14 GA YEL (grnd)	16- 14 GA YEL (grnd)

Important Records

Selling Dealer

Name Of Dealership

Address

Phone/FAX/E-mail

Sales Manager

Service Manager

Plumbing

Fresh Water Tank Capacity

Waste Holding Tank Capacity

Key Numbers

Cabin

Ignition

Other

Other

Engines

Manufacturer

Model Name/Number

Port Engine Serial Number

Starboard Engine Serial Number

Oil Type/SAE

Quarts per Engine

Filter Type

Electronics

Manufacturer

Model Name/Number

Serial Number

Manufacturer

Model Name/Number

Serial Number

Manufacturer

Model Name/Number

Serial Number

Manufacturer

Model Name/Number

Serial Number

Manufacturer

Model Name/Number

Serial Number

Manufacturer

Model Name/Number

Serial Number

Propeller

Manufacturer

Pitch

Model Number

Generator

Manufacturer

Model Name/Number

Serial Number

Oil Type/SAE

Quarts

Filter Type

Fuel System

Fuel Capacity

Filter Type

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 Coast Guard or other rescue organization, if you do not return as scheduled.

Description of Boat

_____ Registration/Documentation Number		
_____ Length	_____ Make	_____ Type
_____ Hull Color		_____ Trim Color
_____ Fuel Capacity	_____ Engine Type	_____ Number of Engines
_____ Distinguishing Features		
_____ Distinguishing Features		

Operator of Boat

_____ Full Name		
_____ Male or Female	_____ Age	_____ Health
_____ Address		
_____ Address		
_____ Phone/FAX/E-mail		
_____ Operator's Experience		

Persons Onboard

_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number
_____ Full Name		
_____ Age	_____ Health	_____ Phone Number

Survival Equipment

Number of PFDs	Flares (Yes/No)	Mirror (yes or no)
Smoke Signals (Yes/No)	Flashlight (Yes/No)	Food (Yes/No)
Water (Yes/No)	Anchor (Yes/No)	Raft/Dinghy (Yes/No)
Paddles (Yes/No)	EPIRB (Yes/No)	Other
Other	Other	Other
Marine Radio (Yes/No)	Type	Frequencies

Vehicle Description

Make	Model
Color	License Number
Where is the Vehicle Parked?	

Trip Expectations

Departing From	
Departure Date	Departure Time
Stopover 1	
Arrive No Later Than: Date	Arrive No Later Than: Time
Stopover 2	
Arrive No Later Than: Date	Arrive No Later Than: Time
Stopover 3	
Arrive No Later Than: Date	Arrive No Later Than: Time
Stopover 4	
Arrive No Later Than: Date	Arrive No Later Than: Time
Stopover 5	
Arrive No Later Than: Date	Arrive No Later Than: Time
Stopover 6	
Arrive No Later Than: Date	Arrive No Later Than: Time
Final Destination Port (If Different Than Home Port)	
Arrive No Later Than: Date	Arrive No Later Than: Time

If not returned by the date and time listed above, call the Coast Guard or other local authority.

Coast Guard Phone Number
Local Authority Phone Number

[illegible]

[illegible]

Part Number 1759994

Maxum Marine • P.O. Box 9029 • Everett, WA 98206 • 360-435-5571