

2700 SE Sport Express Cruiser Owner's Manual Supplement

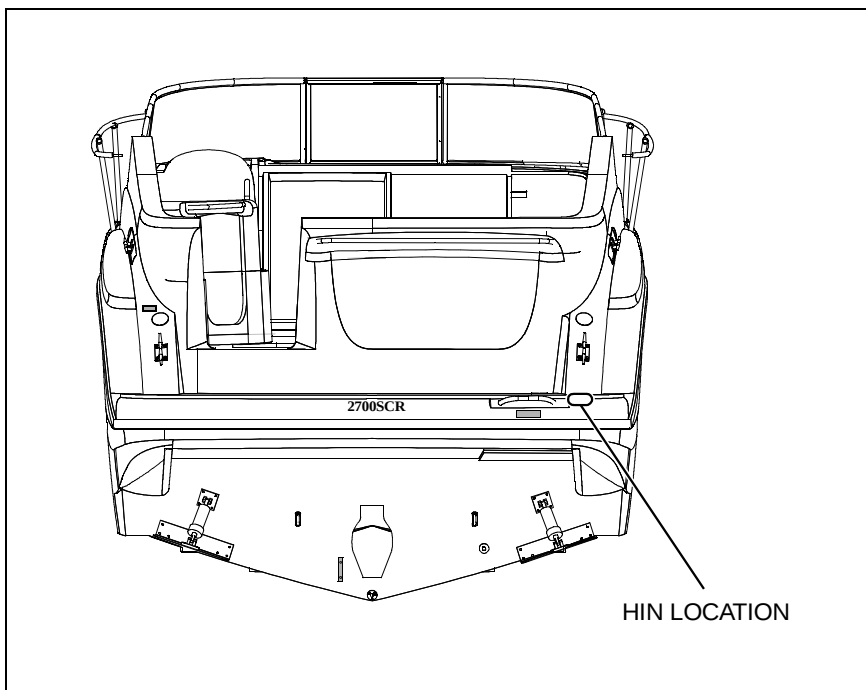
MAXUM®

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.



© 2004 Maxum Marine 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 U.S.A.

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

10 Chapter 2: Locations

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

15 Chapter 3: Propulsion & Related Systems

- 15 Engine
- 15 Engine Room Ventilation System
- 16 Fuel System
 - 16 *Diagrams*
 - 17 *Fuel Fill and Vent*
 - 17 *Fuel Filters*
 - 17 *Anti-siphon Valve*
- 18 Quick Oil Drain System

19 Chapter 4: Controls

- 19 Steering
- 19 Shift/Throttle
- 19 Power Trim and Tilt
- 20 Trim Tabs

21 Chapter 5: Navigation & Communications Equipment

- 21 VHF Radio (If Equipped)
- 21 Compass
- 21 Depth Finder (If Equipped)
- 21 Global Positioning System (GPS) (If Equipped)

22 Chapter 6: Plumbing

- 22 Bilge Pumps
 - 23 *Autofloat Switches*
- 24 Seawater Systems
 - 24 *Seacocks*
 - 24 *Seawater Strainers*
- 25 Freshwater System
 - 26 *Freshwater System Winterization*
 - 27 *Water Heater*
 - 27 *Winterizing the Water Heater*
 - 28 *City Water Inlet*
 - 28 *Transom Shower*
- 28 Drain Systems
 - 28 *Deck Drains*
 - 29 *Shower Drains*
 - 29 *Sump Box Cleaning*
 - 29 *Sump System Winterization*
- 30 Marine Head With Holding Tank
 - 30 *Electric Flush (If Equipped)*
 - 31 *VacuFlush (If Equipped)*
 - 32 *Macerator (If Equipped)*

33 Chapter 7: Deck Equipment

- 33 Canvas
- 34 Windlass (If Equipped)
- 34 Cleats and Tow Eyes

35 Chapter 8: Appliances & Entertainment Systems

- 35 Refrigerator
- 35 Electric Stove (If Equipped)
- 36 Alcohol/Electric Stove (If Equipped)
- 36 Audio & Visual Equipment
- 36 Dockside Cable TV (If Equipped)

37 Chapter 9: Convertible Seats, Beds, & Tables

- 37 Dinette/V-Berth
- 38 Cockpit
 - 38 *Companion Seat*
 - 38 *Aft Cockpit Table/Sunlounge*

39 Chapter 10: Lights

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

40 Chapter 11: Heating & Air Conditioning

- 40 Air Conditioning System (If Equipped)

41 Chapter 12: Electrical System

- 42 12 Volt DC System
 - 42 *Batteries*
 - 42 *Fuses and Circuit Breakers*
 - 42 *12 Volt Accessory Outlets*
 - 43 *Battery Switch*
 - 44 *Alternator*
 - 44 *Battery Charger*
- 45 120 Volt AC System
 - 46 *Shore Power*
 - 47 *Connecting To Shore Power*
 - 48 *Transfer Switch (If Equipped with Dual Shore Power)*
- 49 Generator (If Equipped)
 - 50 *Generator Use*
- 51 Electrical Routings
 - 51 *Forward Deck Electrical Harness*
 - 51 *Aft Deck Electrical Harness*
 - 52 *Hull Electrical Harness*
 - 52 *Hull Electrical Harness With Generator (If Equipped)*
 - 53 *Battery System*
 - 53 *120 Volt AC System*
 - 54 *Bonding Harness*
- 55 Wire Diagrams
 - 55 *AC Electrical System*
 - 56 *AC Electrical System With Generator (If Equipped)*
 - 57 *DC Electrical System*
 - 58 *Engine Electrical System*

59 Important Records

60 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.



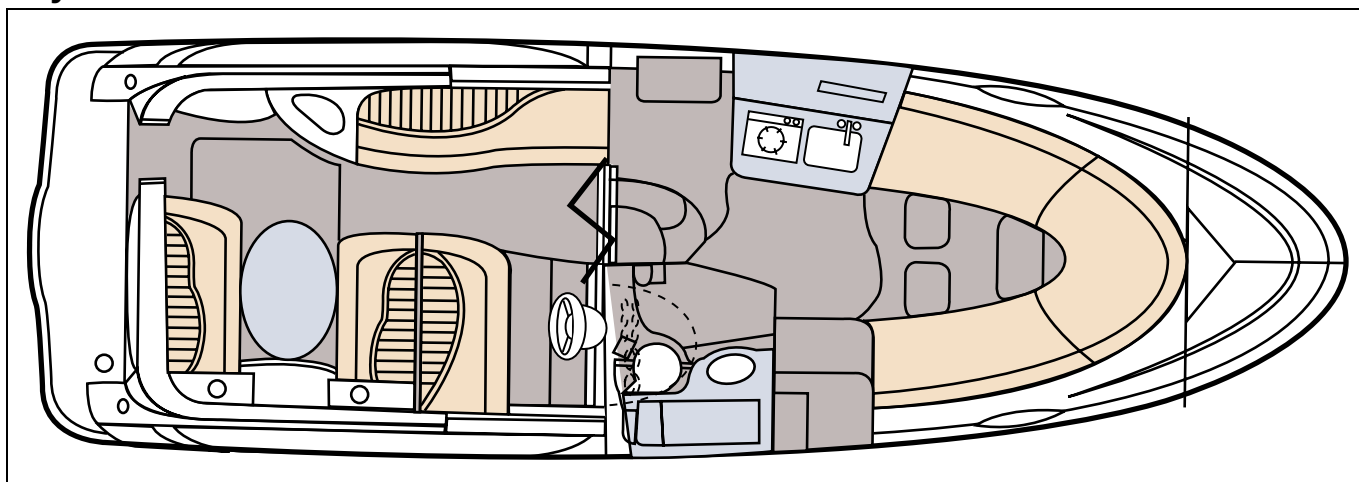
Chapter 1: Welcome Aboard!

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.)
28' 1"	7' 4"	9' 10"	1' 10"	3' 3"	87	30	20

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 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, 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>
- In Canada, for the CPS courses call 1-888-CPS-BOAT.
- 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 & Accessory 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 & Accessory Literature

- The engines and accessories installed on your boat come with their own operation and maintenance manuals.
- Read and understand these manuals ***before*** using the engines 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 *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 *will* cause personal injury or death.

 **DANGER!**



DANGER
CARBON MONOXIDE



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 *before* getting underway. The anchor and other items that are *not* 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 only 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.

Structural Limitations

The transom platform and bow platform are designed to be lightweight for proper boat balance. The load limit for these platforms is 30 pounds per square foot, evenly distributed.

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.

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 <i>will</i> 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.

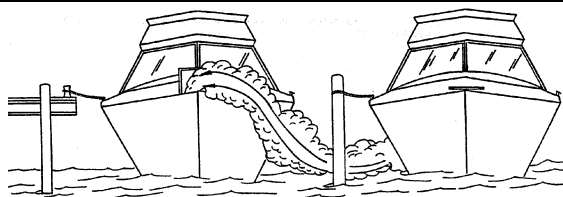
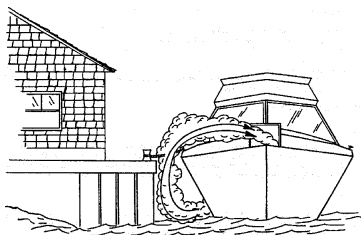
Factors That Increase the Effects of CO Poisoning

- 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.

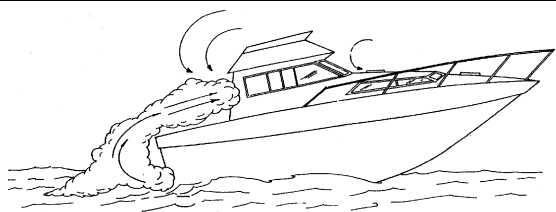


- B. Mooring too close to another boat that is using its engine, generator, or other fuel burning device.

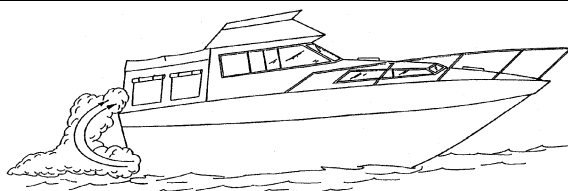
To correct stationary situations A and/or B:

- **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.

- 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>

Boat Lifting



WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

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



WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

- **NEVER** lift the boat using the bow and stern eyes.

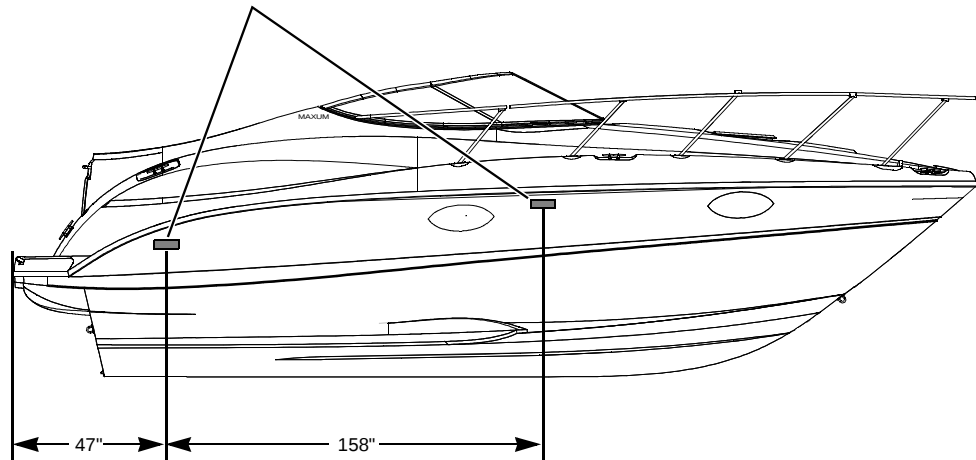


CAUTION!

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 the lifting point.

LIFTING SLING LABELS (TYPICAL PORT & STARBOARD)



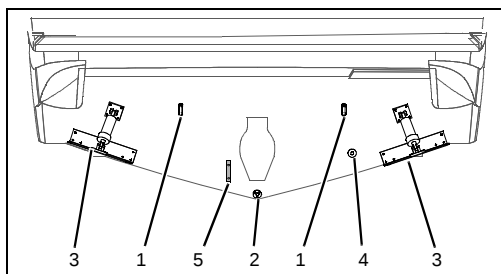
- **Always** follow the lift equipment's instructions and requirements.
- If water is present in the bilge, pump or drain the water out of the bilge areas **before** lifting your boat. Water in the bilge can shift and change the balance of the load.
- When lifting your boat, **always** position the lifting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

Chapter 2: Locations

Exterior Views

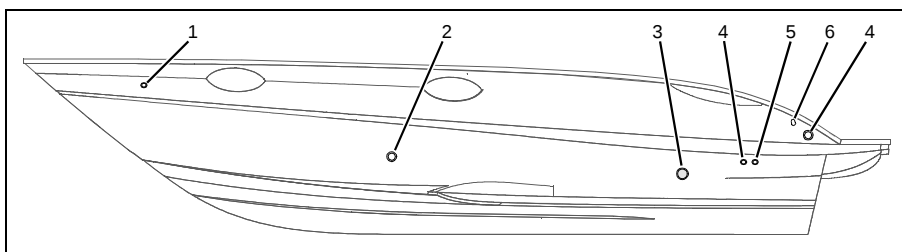
Hull views

TRANSOM



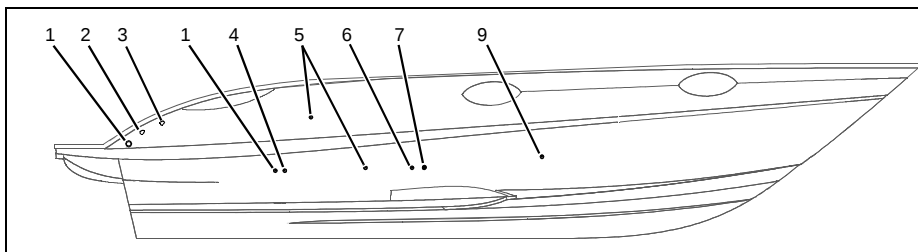
- | | |
|------------------------------|---|
| 1 STERN EYES (STRONG POINTS) | 4 MACERATOR OVERBOARD DRAIN (IF EQUIPPED) |
| 2 BILGE DRAIN PLUG | 5 ZINC PLATE |
| 3 TRIM TABS | |

PORT HULLSIDE

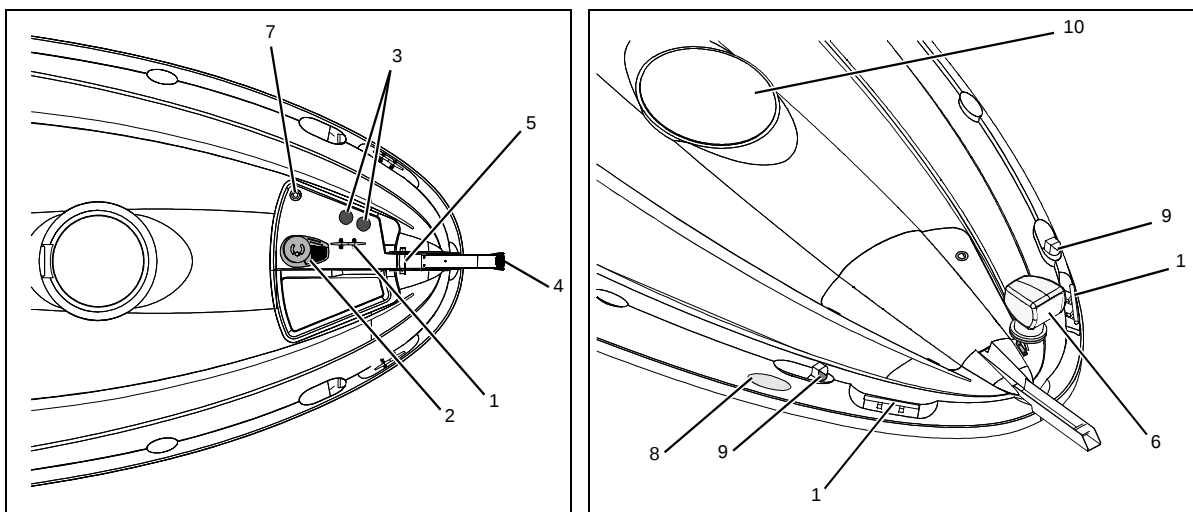


- | | |
|-----------------------------------|----------------------|
| 1 ANCHOR LOCKER DRAIN | 4 COCKPIT DRAINS |
| 2 GALLEY SINK DRAIN | 5 WATER HEATER DRAIN |
| 3 GENERATOR EXHAUST (IF EQUIPPED) | 6 WATER TANK VENT |

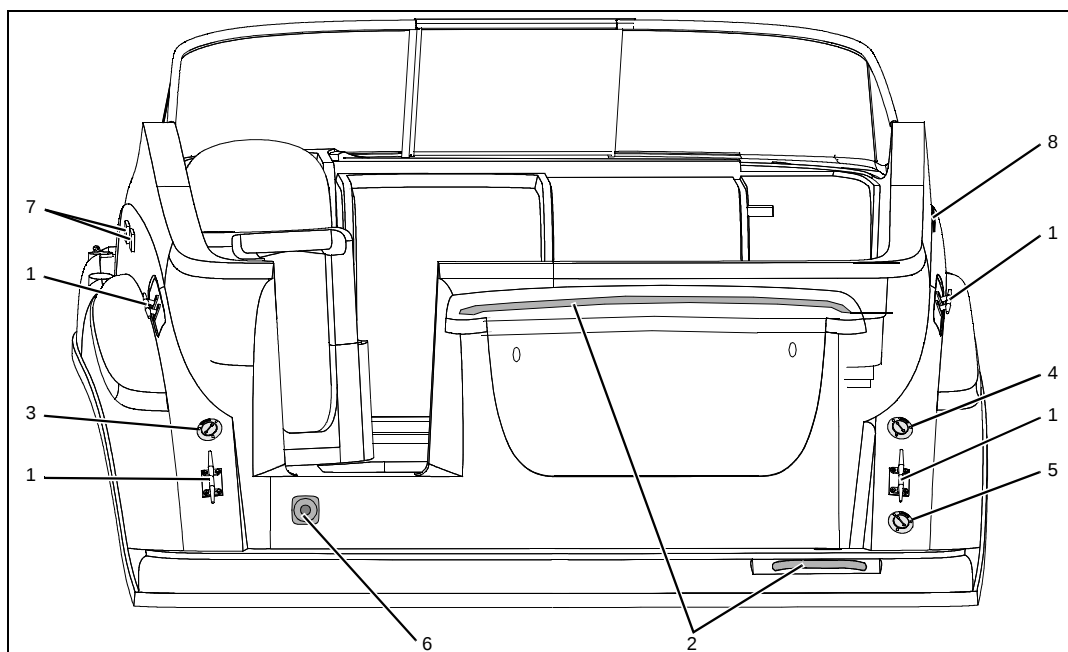
STARBOARD HULLSIDE



- | | |
|------------------------|--|
| 1 COCKPIT DRAINS | 5 AIR CONDITIONER DRAINS (IF EQUIPPED) |
| 2 FUEL TANK VENT | 6 SHOWER DRAIN |
| 3 HOLDING TANK VENT | 7 FORWARD BILGE PUMP DRAIN |
| 4 AFT BILGE PUMP DRAIN | 8 HEAD SINK DRAIN |

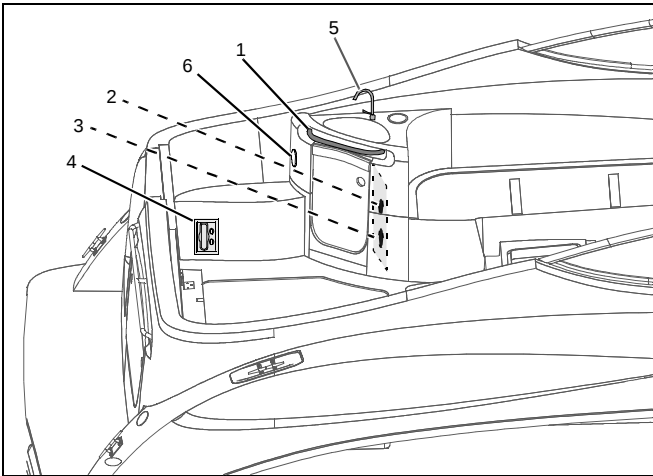
Deck Views**FOREDECK**

- | | | |
|--------------------------|-----------------------|---------------------|
| 1 CLEATS (STRONG POINTS) | 5 ANCHOR DEAD END | 9 NAVIGATION LIGHTS |
| 2 WINDLASS | 6 SPOTLIGHT | 10 HATCH |
| 3 WINDLASS CONTROLS | 7 ANCHOR LOCKER DRAIN | |
| 4 ANCHOR ROLLER | 8 HIDDEN HORN | |

AFT DECK

- | | |
|---------------------------|-------------------------------|
| 1 CLEATS (STRONG POINTS) | 5 WASTE PUMP-OUT DECK FITTING |
| 2 GRAB RAILS | 6 CITY WATER INLET |
| 3 WATER FILL DECK FITTING | 7 SHORE POWER INLETS |
| 4 FUEL FILL DECK FITTING | 8 ANTENNA BRACKET |

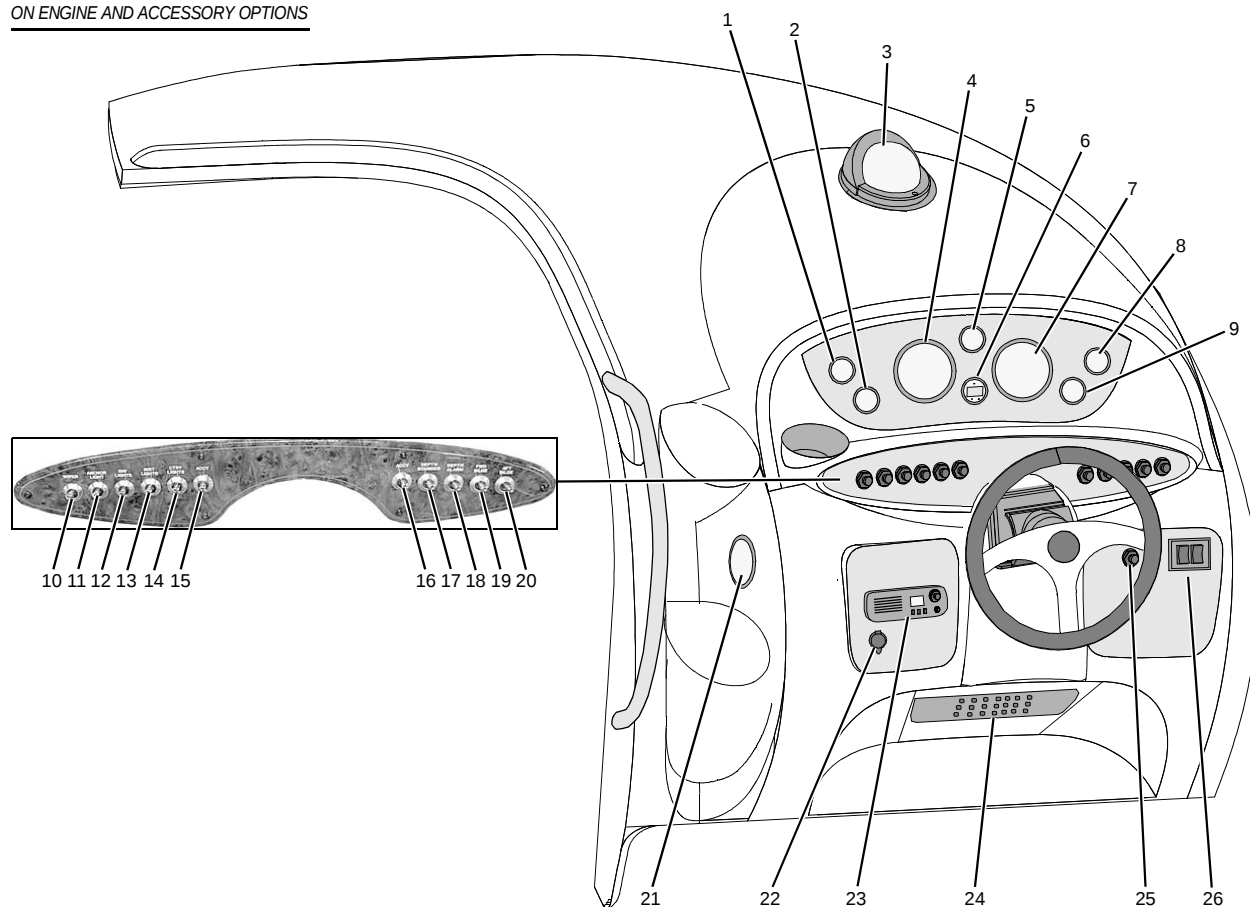
COCKPIT



- | | |
|--|------------------|
| 1 GRAB RAIL | 4 TRANSOM SHOWER |
| 2 WINDLASS CIRCUIT BREAKER (IF EQUIPPED) | 5 FAUCET |
| 3 BATTERY SWITCH | 6 COURTESY LIGHT |

Helm

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



- | | | |
|---------------------------|-----------------------|--------------------------|
| 1 TEMP GAUGE | 10 WIPER SWITCH | 19 FORWARD BILGE PUMP |
| 2 OIL GAUGE | 11 ANCHOR LIGHT | 20 AFT BILGE PUMP |
| 3 COMPASS | 12 NAVIGATION LIGHT | 21 COURTESY LIGHT |
| 4 SPEEDOMETER | 13 INSTRUMENT LIGHT | 22 12 VOLT ADAPTER |
| 5 POWER TRIM & TILT GAUGE | 14 COURTESY LIGHT | 23 VHF RADIO |
| 6 DEPTH SOUNDER | 15 ACCESSORIES SWITCH | 24 CIRCUIT BREAKER PANEL |
| 7 TACHOMETER | 16 ACCESSORIES SWITCH | 25 HORN |
| 8 VOLTMETER | 17 DEPTH SOUNDER | 26 TRIM TAB SWITCHES |
| 9 FUEL GAUGE | 18 DEPTH ALARM | |

Component Locations

12 Volt Accessory Outlets: (1) At the helm on the dash panel. (2) Above the refrigerator.

Air Conditioner Seawater Intake Seacock: In the engine compartment on the starboard side.

Air Conditioner Unit: On the starboard side. Access is through the wall cutouts in the mid-berth.

Batteries: On the port side of the engine compartment.

Battery Charger: In the engine compartment on the port side of the front wall.

Battery Switch: In the cabinet under the cockpit sink.

Bilge pump - Aft: In the engine compartment.

Bilge pump - Forward: Under the salon floor. Access is through the floor cutout under the entry steps.

Carbon Monoxide Detectors: (1) In the mid-berth by the window. (2) In the salon above the refrigerator.

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

Depth Sounder Transducer: In the engine compartment.

Engine Circuit Breakers: On the engine.

Fuel Fill: On the starboard side of the swim step.

Fuel Tank: In the engine compartment at the front.

Generator Control Panel: In the galley on the AC panel.

Generator Seawater Intake Seacock: In the engine compartment on the starboard side.

Generator Circuit Breaker: On the generator.

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

Marine Head (Electric) Seawater Intake Seacock: Under the salon floor. Access is through the floor cutout under the entry steps.

Navigation lights: Red and green lights at the bow. White all-around light at the stern or on the radar wing (if equipped).

Transom Shower: Inside the cockpit, on the aft port side.

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

Water Fill: On the starboard side of the swim step.

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 at the front edge of the sink.

Water Tank: In the engine compartment on the starboard side. Or on the port side (If equipped with a generator).

Windlass Circuit Breakers: In the cabinet under the cockpit sink.

Windlass Circuit Foot Controls: At the bow in the rope locker.

Chapter 3: Propulsion & Related Systems

Engine

Read and understand the engine operation and maintenance manuals **before** starting or doing any maintenance on the engine.

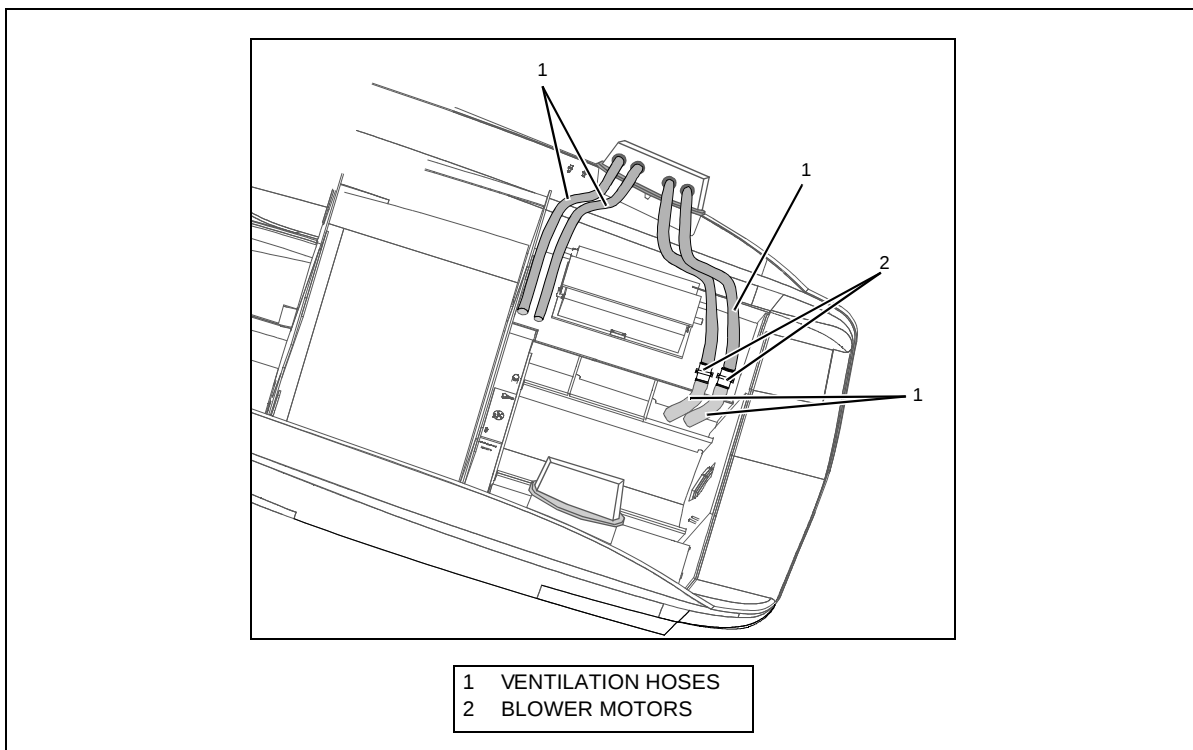
Engine Room Ventilation System

! 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 engine and/or generator is already running, **SHUT OFF** the engine 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 compartment. Fresh air is drawn into the compartment through the deck vents. The bilge blower switch is at the helm. If the 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 engine.
- During starting.
- Anytime your boat is running below cruising speed.

Fuel System



WARNING!



FIRE/EXPLOSION HAZARD!

- It is very important that the fuel system be inspected thoroughly the first time it is filled and at each subsequent filling.
- For your safety and the safety of your passengers, the fueling instructions in the *Cruiser & Yacht Owner's Manual* must be carefully followed.

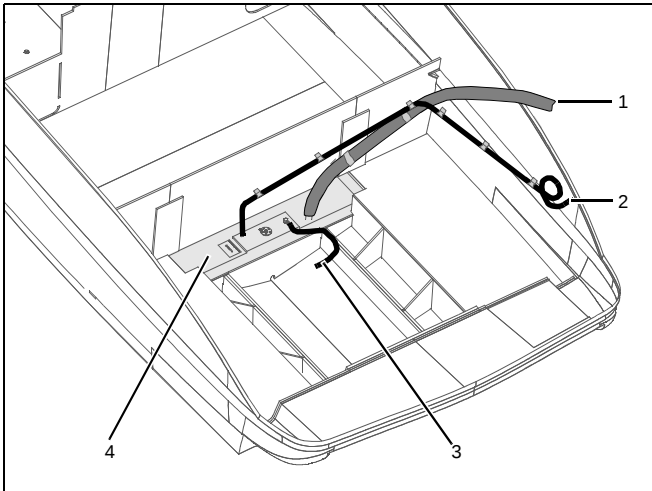


CAUTION

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

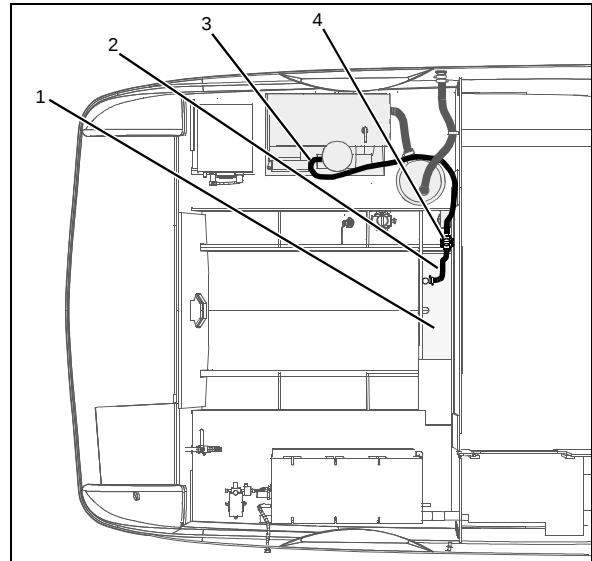
Diagrams

FUEL SYSTEM



- | | |
|-----------------------|-----------------------|
| 1 FUEL FILL HOSE | 3 FUEL LINE TO ENGINE |
| 2 FUEL TANK VENT HOSE | 4 FUEL TANK |

**GENERATOR FUEL SYSTEM
(IF EQUIPPED)**



- | | |
|------------------|---------------------|
| 1 FUEL TANK | 3 FUEL TO GENERATOR |
| 2 FUEL TO FILTER | 4 FUEL FILTER |

Fuel Fill and Vent

- The fuel fill fitting is marked “GAS” or “DIESEL”.
- The fuel tank vent is located below the fuel fill.
- 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.

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.
- 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.

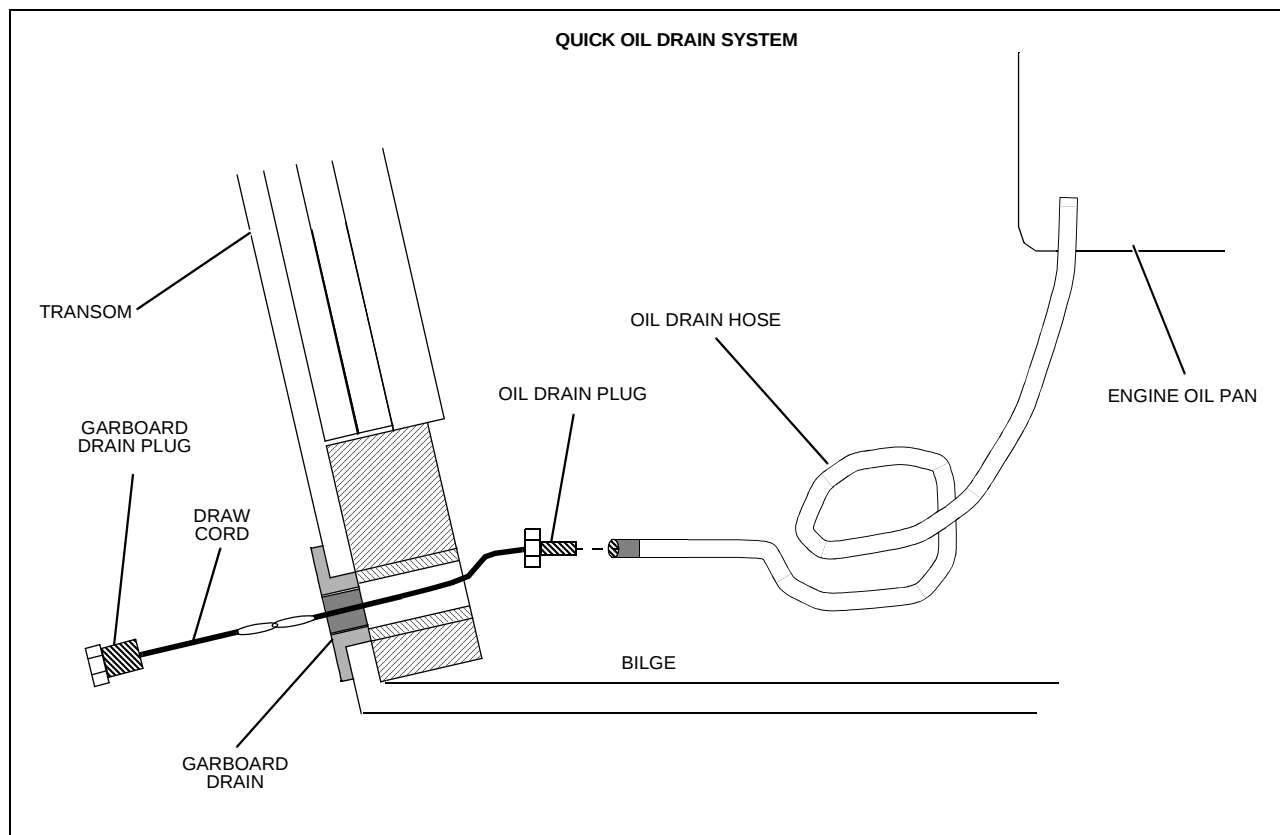
Anti-siphon Valve

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.**

- Your boat is equipped with an anti-siphon valve, which is an integral part of 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:

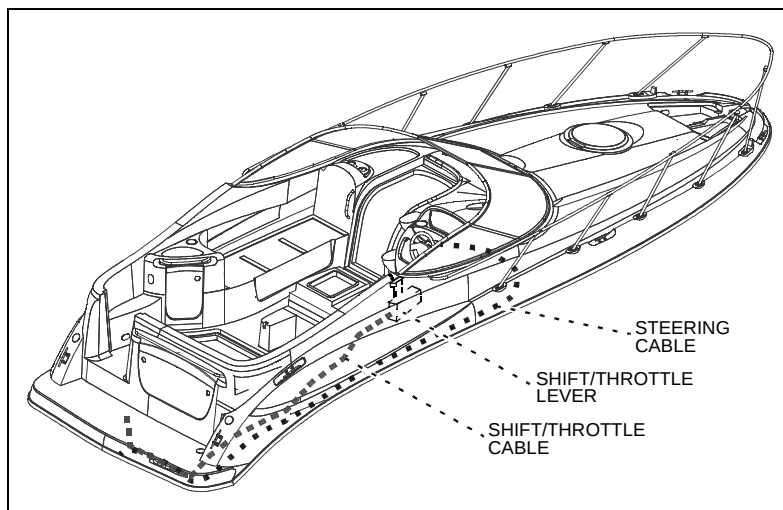
1. Remove the boat from the water.
2. Unscrew the garboard drain plug.
3. Pull the draw cord until the oil drain plug and the oil drain hose slide out of the garboard drain.
4. Place the end of the oil drain hose into a suitable container.
5. Unscrew the oil drain plug and drain the engine oil.
6. Replace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

Always dispose of waste oil in accordance with local regulations.

Chapter 4: Controls

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!

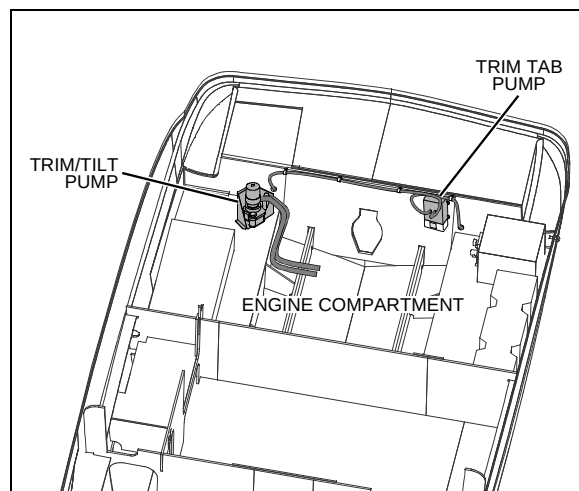
LOSS OF CONTROL HAZARD!

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

Carefully read and understand **all** of the information about the shift/throttle in the *Cruiser & Yacht Owner's Manual*. Also, read and understand the shifter/throttle and engine manuals.

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.



Trim Tabs

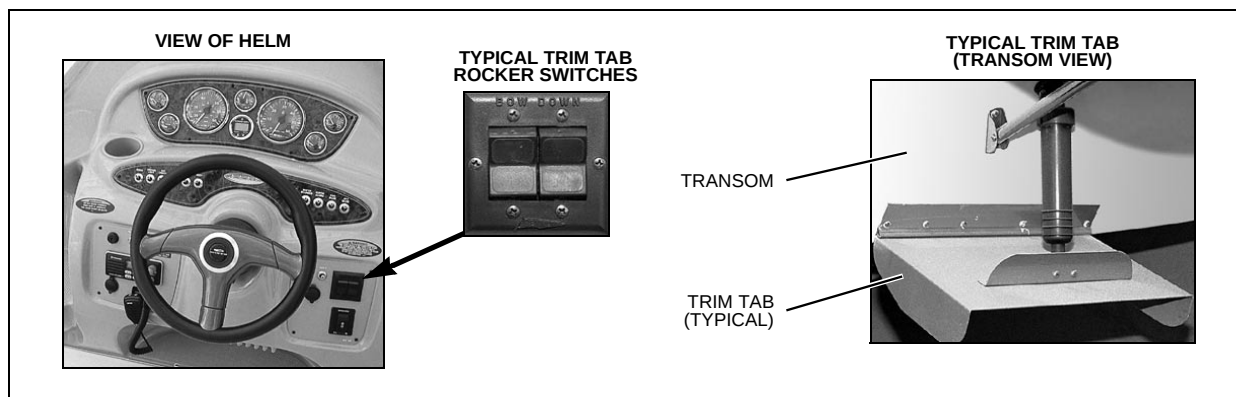


WARNING!

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 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.

Observe 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.

Chapter 5: Navigation & Communications Equipment

Before using these systems for the first time, read and understand the instruction manuals 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 (If Equipped)



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.

Global Positioning System (GPS) (If Equipped)



WARNING!

The *GPS* system should *not* be relied upon as the only aid to navigation. A qualified operator *must* monitor the *GPS* system at *all* times and keep look-out for other marine traffic and possible collision situations.

NOTICE

The *GPS* 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.

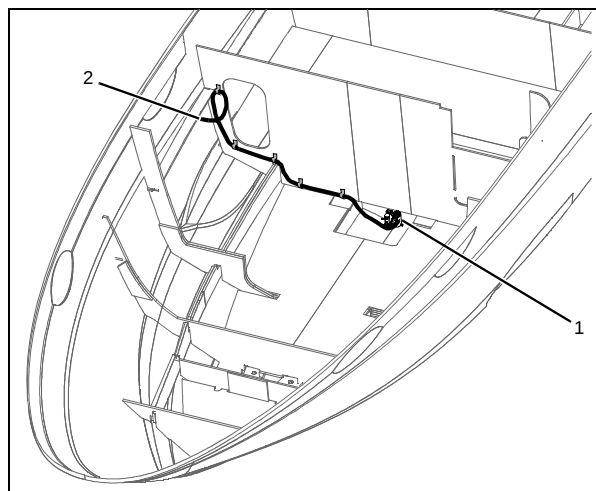
Chapter 6: Plumbing

Bilge Pumps

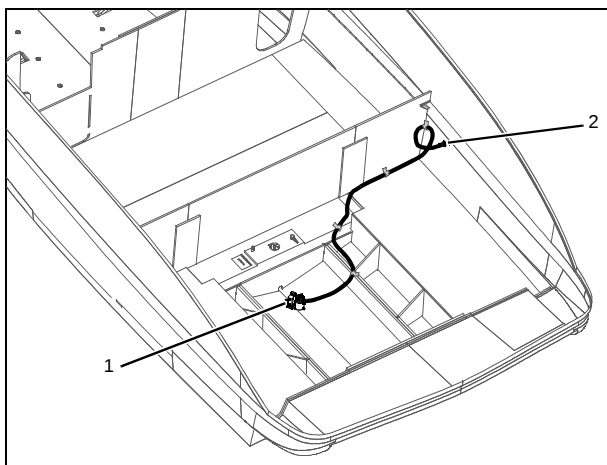
NOTICE

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

FORWARD BILGE PUMP IS
LOCATED UNDER THE ENTRY STEPS



AFT BILGE PUMP IS LOCATED
IN ENGINE COMPARTMENT



- 1 BILGE PUMPS & FLOAT SWITCHES
- 2 BILGE PUMP DRAIN

Your boat is equipped with two automatic impeller-type bilge pumps which are used to pump water out of the bilge. Bilge pumps are controlled by automatic bilge pump float switches (autofloat switches) and/or switches at the helm. Bilge pumps are wired directly to the battery so they will normally function even when the boat is completely 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 they are working.

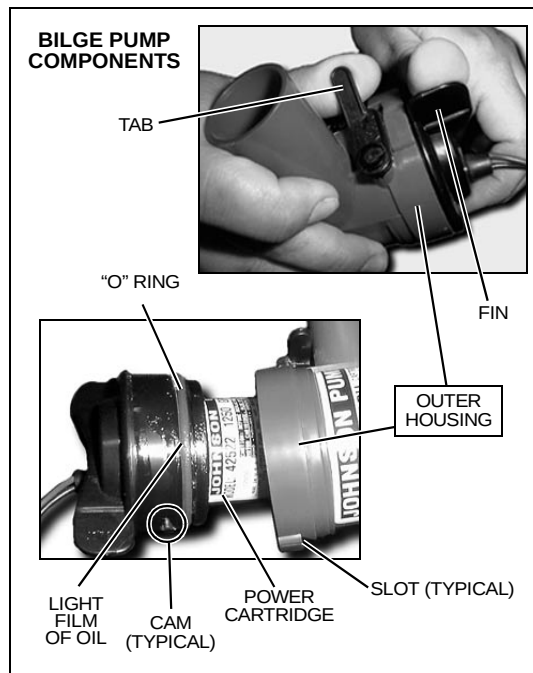
Individually test each pump as follows:

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

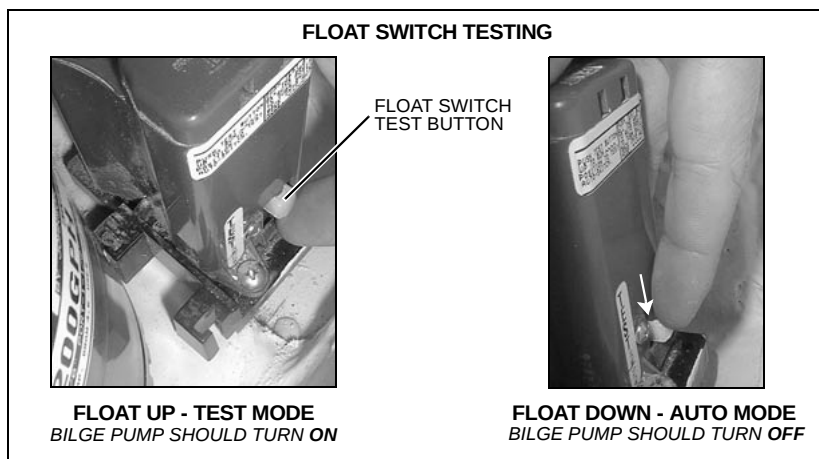
Automatic bilge pumps use electromagnetic float (autofloat) switches to turn **On** the pump whenever water rises above a preset level in the bilge. One autofloat switch is mounted next to each automatic bilge pump. Autofloat switches are wired directly to the battery and will normally function even 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 doesn't 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, you **MUST** push the test button **ALL THE WAY DOWN** to the auto position to return the switch to auto mode!

Seawater Systems

Seacocks



CAUTION!

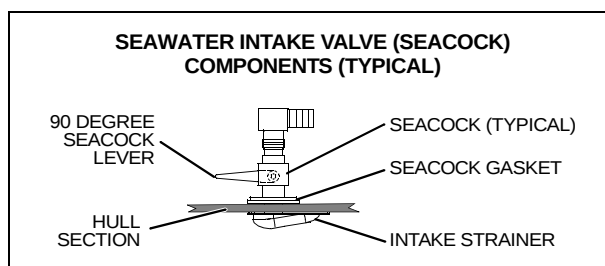
SYSTEM DAMAGE HAZARD!

- **Before** using a seawater intake 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 intake of seawater through the hull and below the water line. Seacocks are typically used on your boat in the following seawater intake 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 **must** be **CLOSED** **before** disassembling 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.

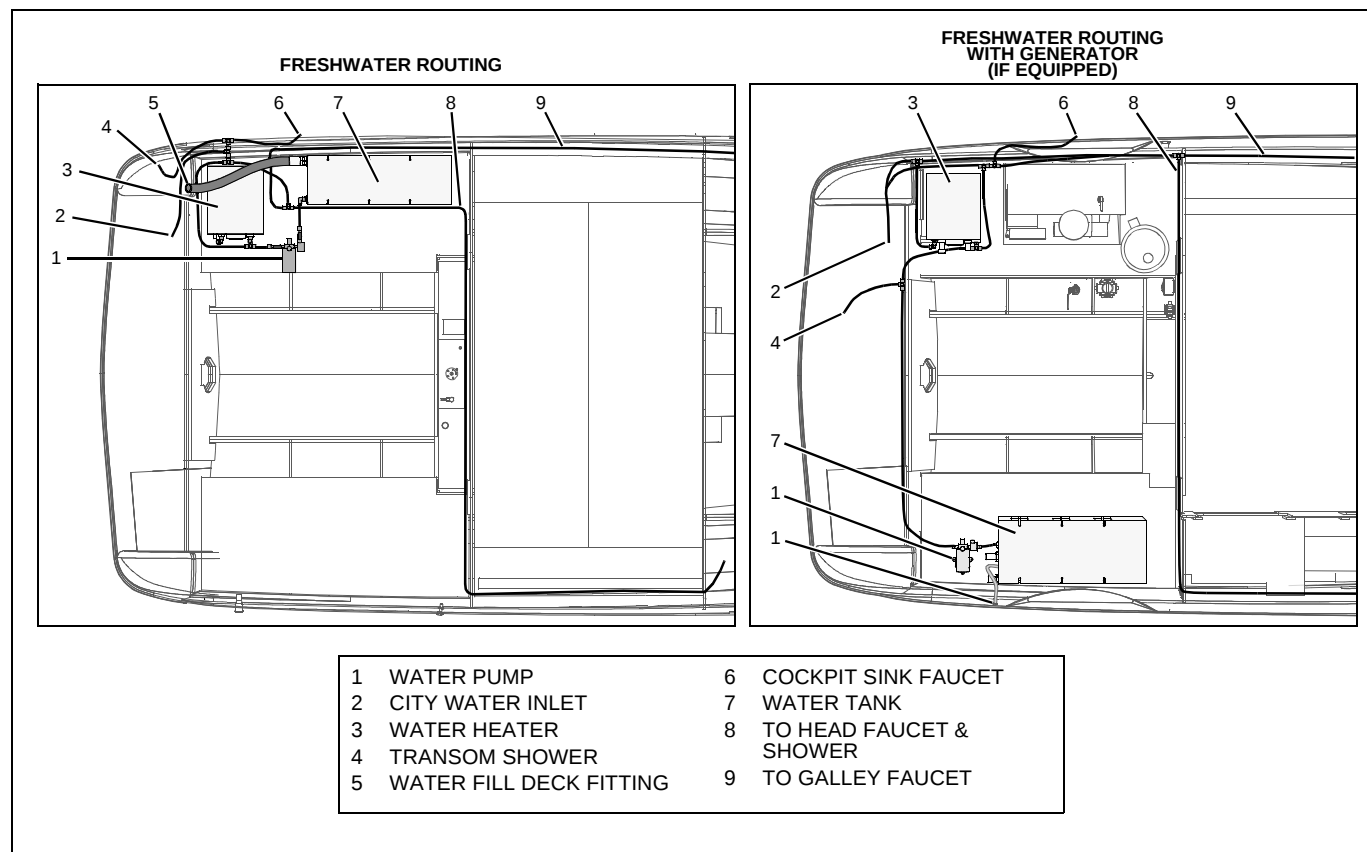
1. Make sure the component/system (generator, air conditioning system, etc.) that the strainer is connected to is turned **Off**.
2. **Close** the seacock that sends seawater to the strainer you are about to clean. The seacock must remain **Closed** until the strainer is completely reassembled.
3. Take 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 two different ways:

1. By connecting the city water inlet to an onshore water supply.
 2. 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

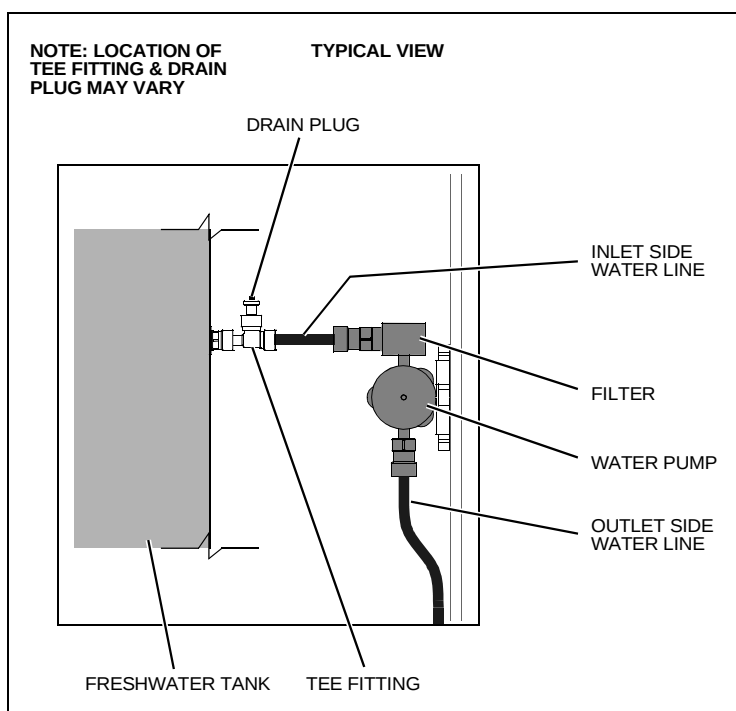
Compressed Air

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.

- 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 and observe the warnings above.

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.



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 engine 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.

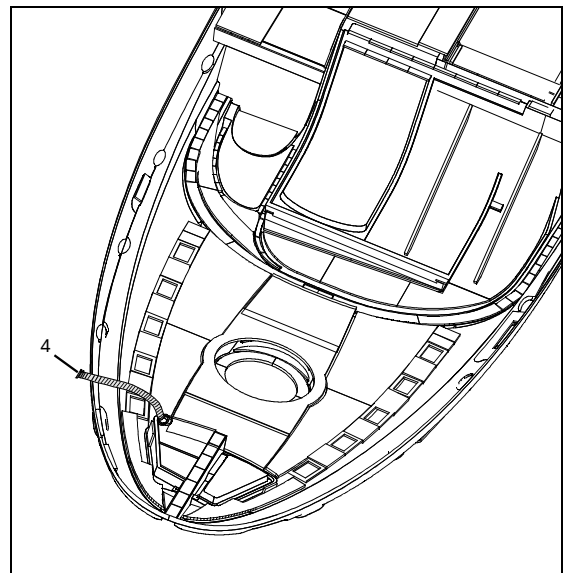
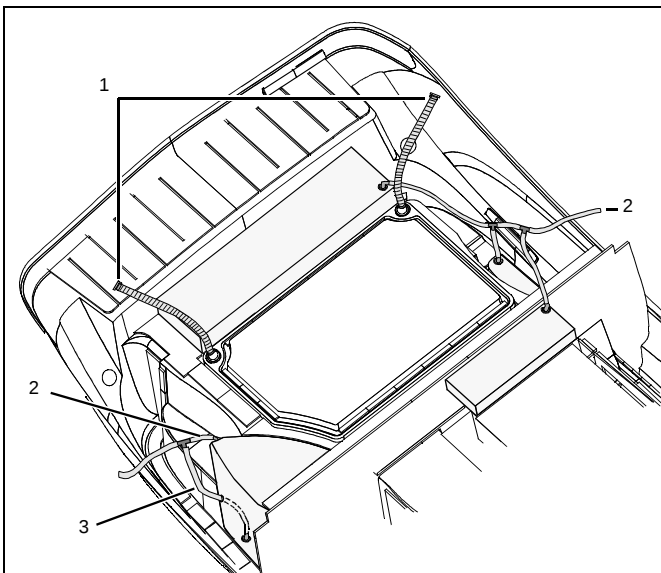
Transom Shower

Your boat is equipped with a freshwater transom shower. The water pump switch **must** be turned **On before** using the transom shower. Be sure to read the manufacturer's instructions.

Drain Systems

Deck Drains

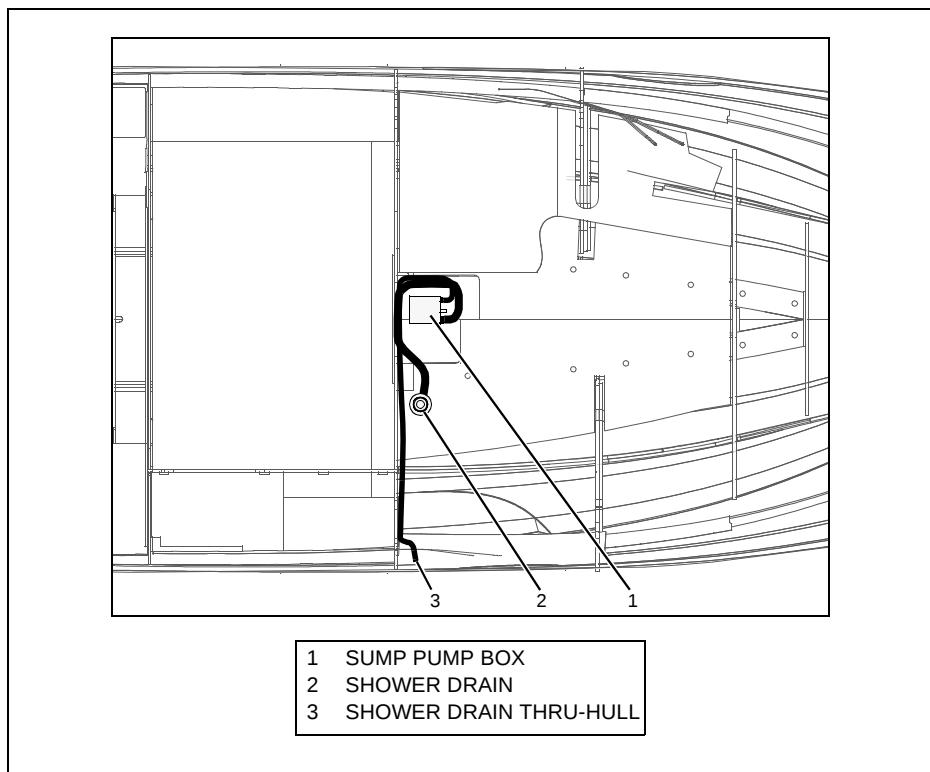
NOTE: VIEWS ARE UNDERSIDE OF DECK



- | | | | |
|---|--------------------|---|--------------------|
| 1 | COCKPIT DRAINS | 3 | COCKPIT SINK DRAIN |
| 2 | STORAGE TUB DRAINS | 4 | ROPE LOCKER DRAIN |

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

Shower Drains



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

Sump Box Cleaning

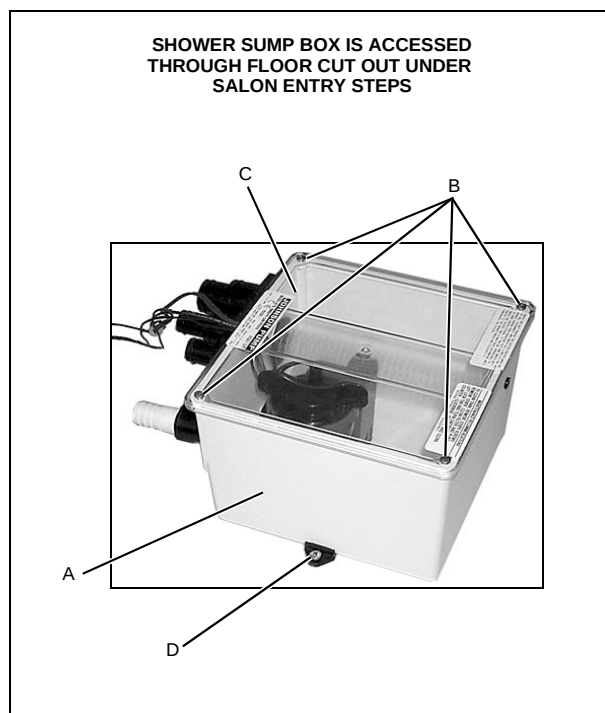
Periodically clean the sump box (A), filter, and pump as follows:

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 Winterization

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

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.

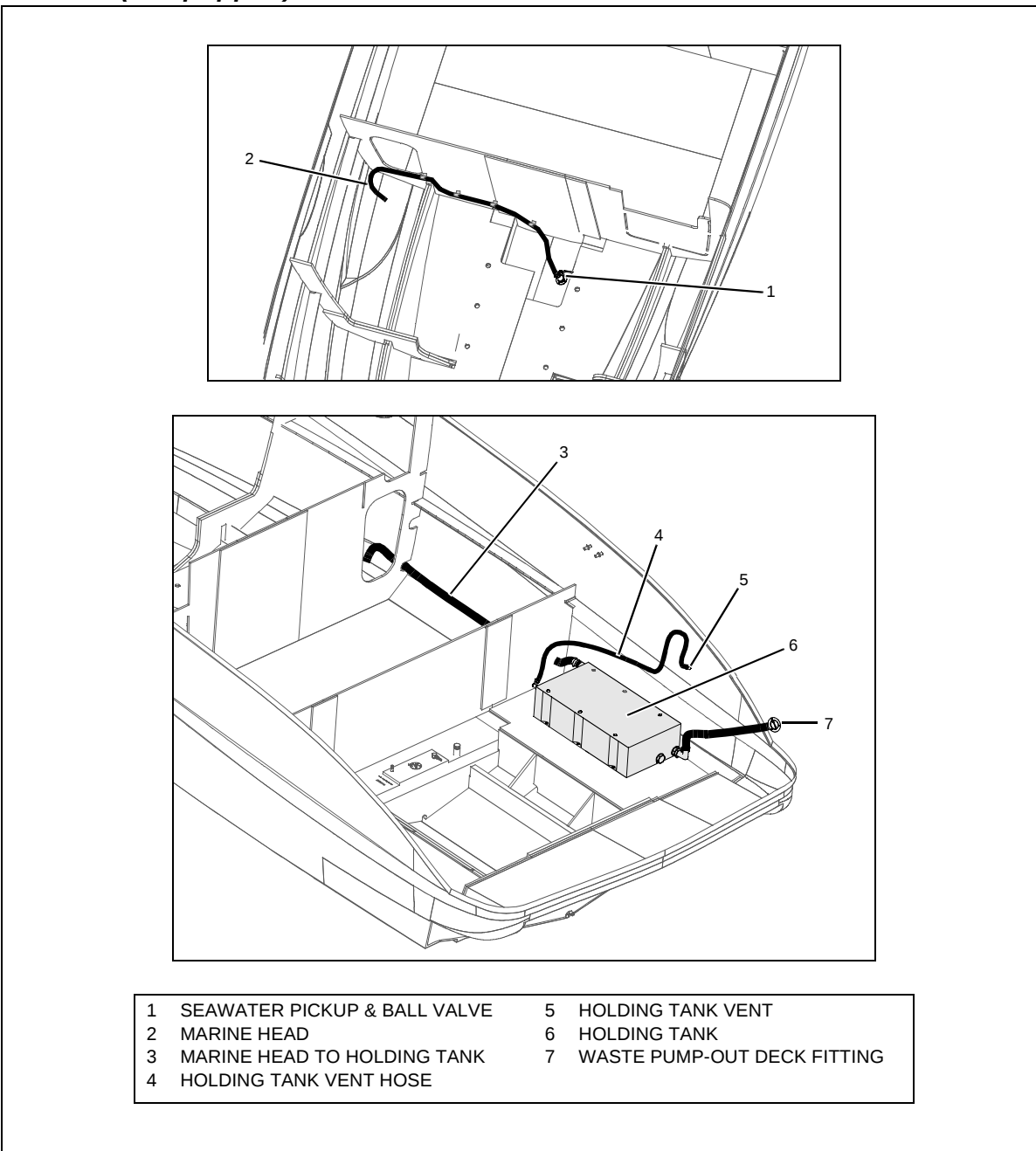


Marine Head With Holding Tank

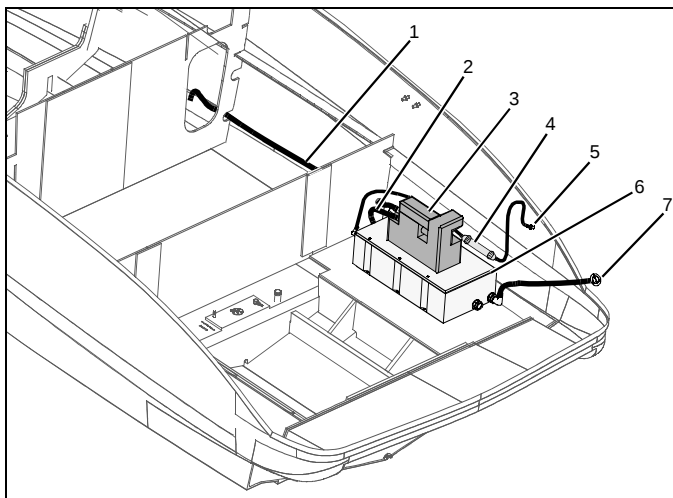
Your boat comes equipped with a marine head (toilet) and waste holding tank system. Read the manufacturer's operation and maintenance manual. The holding tank is plumbed to a waste fitting on the deck for dockside pump-out.

- You can determine the content level of the holding tank by looking at the side of the tank.
- Empty the holding tank at every opportunity.

Electric Flush (If Equipped)



The electric flush marine head (if equipped) installed on your boat uses seawater to flush waste from the toilet. The seawater intake valve (seacock) **must** be **Open** for the head to work.

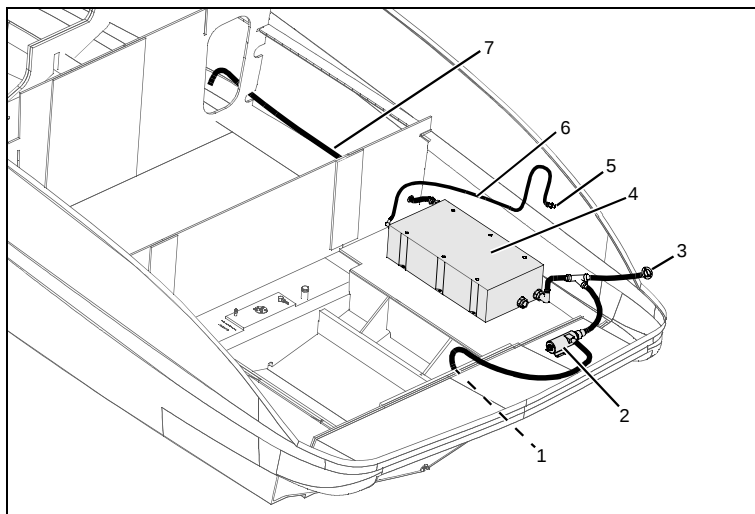
VacuFlush (If Equipped)

- | | | | |
|---|-----------------------------|---|-----------------------------|
| 1 | MARINE HEAD TO VACUUM PUMP | 5 | HOLDING TANK VENT |
| 2 | VACUUM PUMP TO HOLDING TANK | 6 | HOLDING TANK |
| 3 | VACUUM PUMP | 7 | WASTE PUMP-OUT DECK FITTING |
| 4 | FILTER | | |

The VacuFlush head system uses a vacuum generator 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.

Macerator (If Equipped)**NOTICE**

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



- | | |
|----------------------------------|-------------------------------|
| 1 OVERBOARD DISCHARGE BALL VALVE | 5 HOLDING TANK VENT |
| 2 MACERATOR (IF EQUIPPED) | 6 HOLDING TANK VENT HOSE |
| 3 WASTE PUMP-OUT DECK FITTING | 7 MARINE HEAD TO HOLDING TANK |
| 4 HOLDING TANK | |

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.

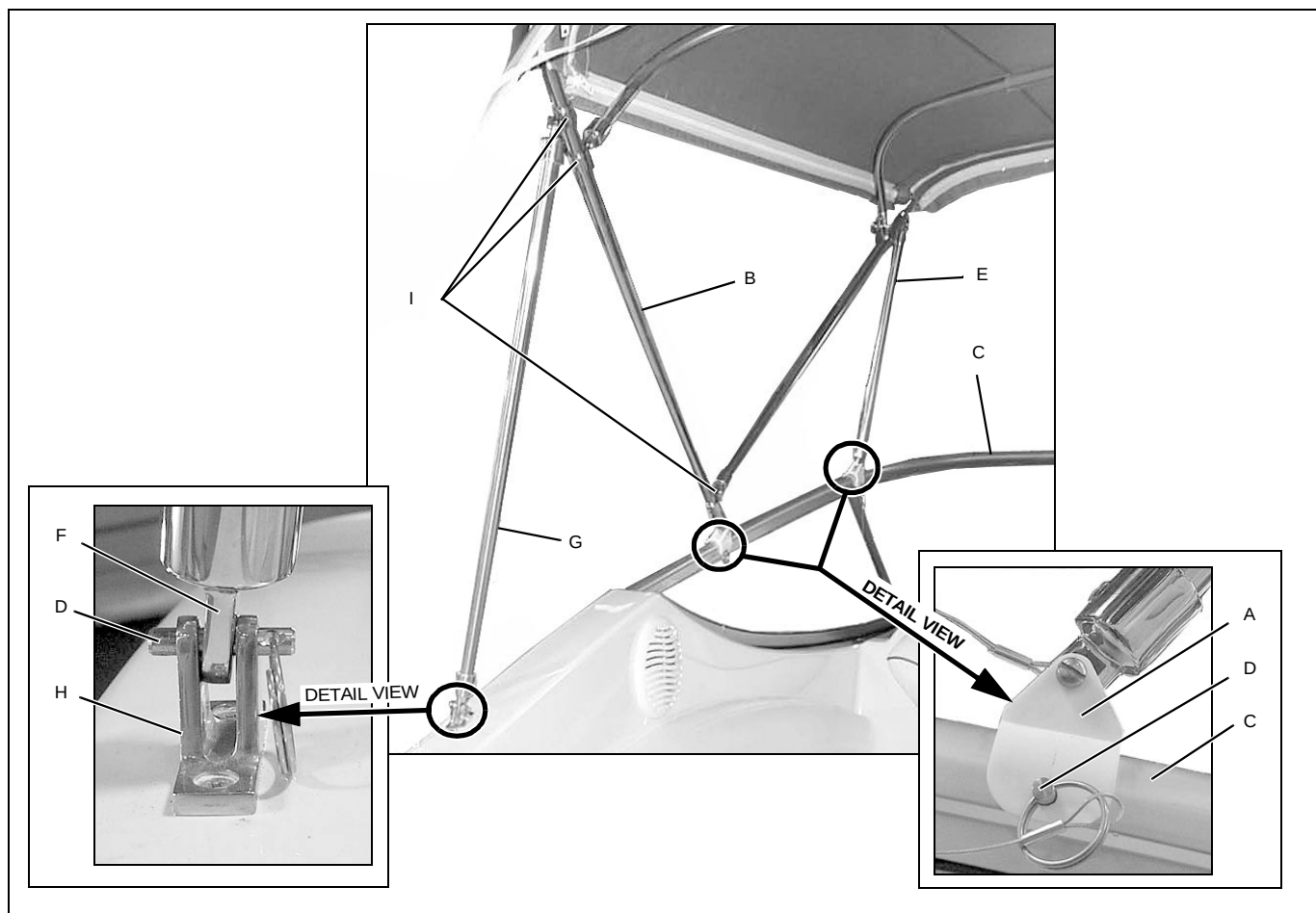
Chapter 7: Deck Equipment

Canvas



CAUTION!

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



Canvas top installation:

1. Slide the swivel ends (A) of the main bow (B) over the side windshield frames (C) and insert the pins (D).
2. Unfold the canvas top and slide the swivel ends of the forward legs (E) over the windshield frame and insert the pins.
3. Slide the eye ends (F) of the aft legs (G) into the deck hinges (H) and insert the pins.

No adjustments to the bow jaw slides (I) 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.

- When the boat is equipped with a radar wing, the deck hinges (H) are mounted half way up the wing and the aft legs (G) are correspondingly shorter.

Windlass (If Equipped)



CAUTION!

PRODUCT DAMAGE HAZARD!

- **DO NOT** pull the boat to the anchor using the windlass or continue to operate 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.
- Make sure that 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. Use the windlass to 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.

Chapter 8: Appliances & Entertainment Systems

NOTICE

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

All appliances 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.

- 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/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.

Alcohol/Electric Stove (If Equipped)

 DANGER!	
 DANGER CARBON MONOXIDE	CARBON MONOXIDE POISONING HAZARD! • The alcohol stove is a source of dangerous carbon monoxide gas (CO). • <i>BEFORE</i> 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 <i>before</i> using. • Always keep an approved ABC-type fire extinguisher in galley area. • <i>Do not</i> 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, <i>do not</i> 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, <i>NEVER</i> attempt to use both alcohol and electric burners simultaneously.

Audio & Visual Equipment

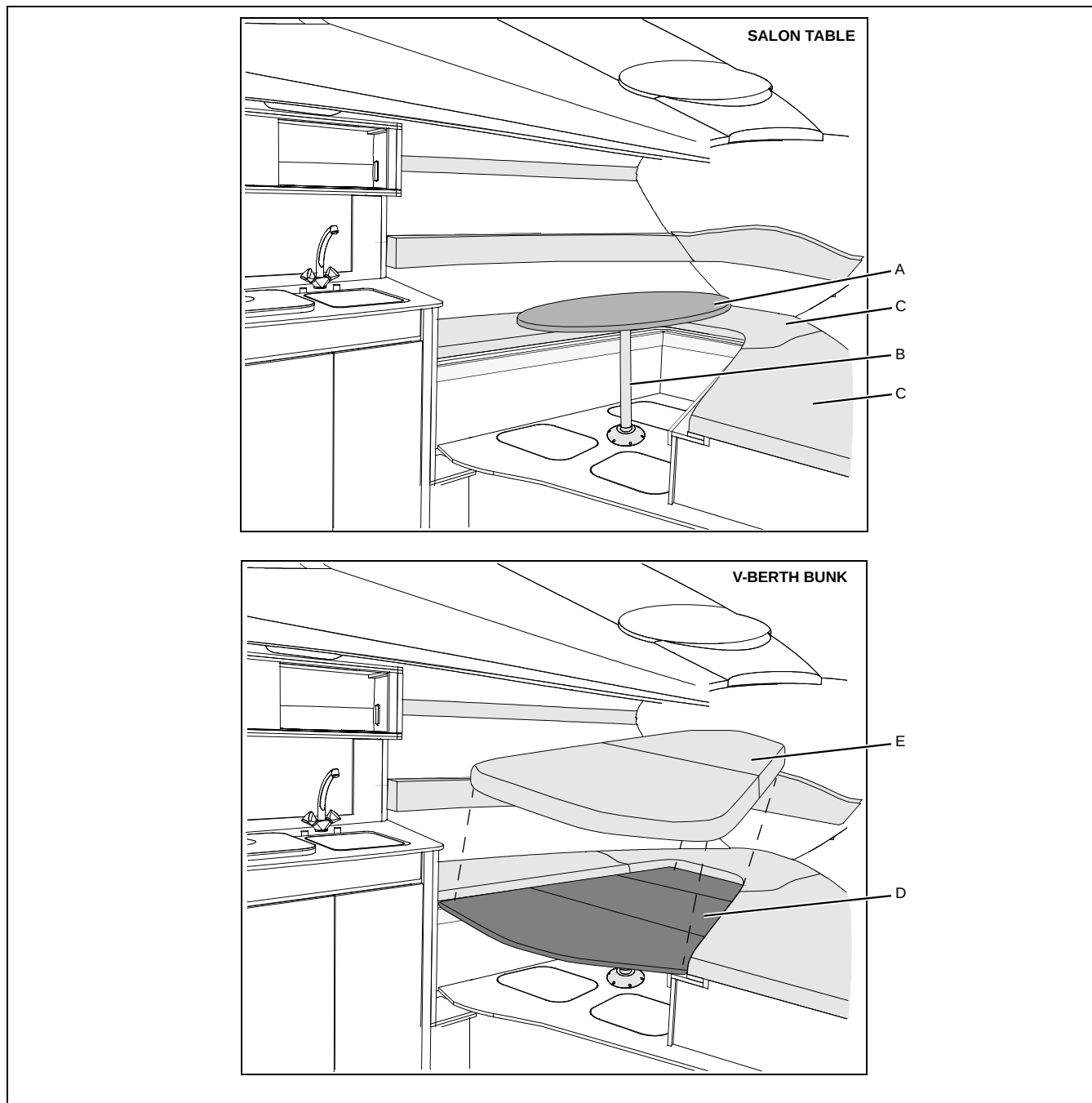
NOTICE
AM radio reception may be impaired anytime the engine or generator is running.

Dockside Cable TV (If Equipped)

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

Chapter 9: Convertible Seats, Beds, & Tables

Dinette/V-Berth



The dinette table can be removed and the dinette area can be converted into the V-Berth.

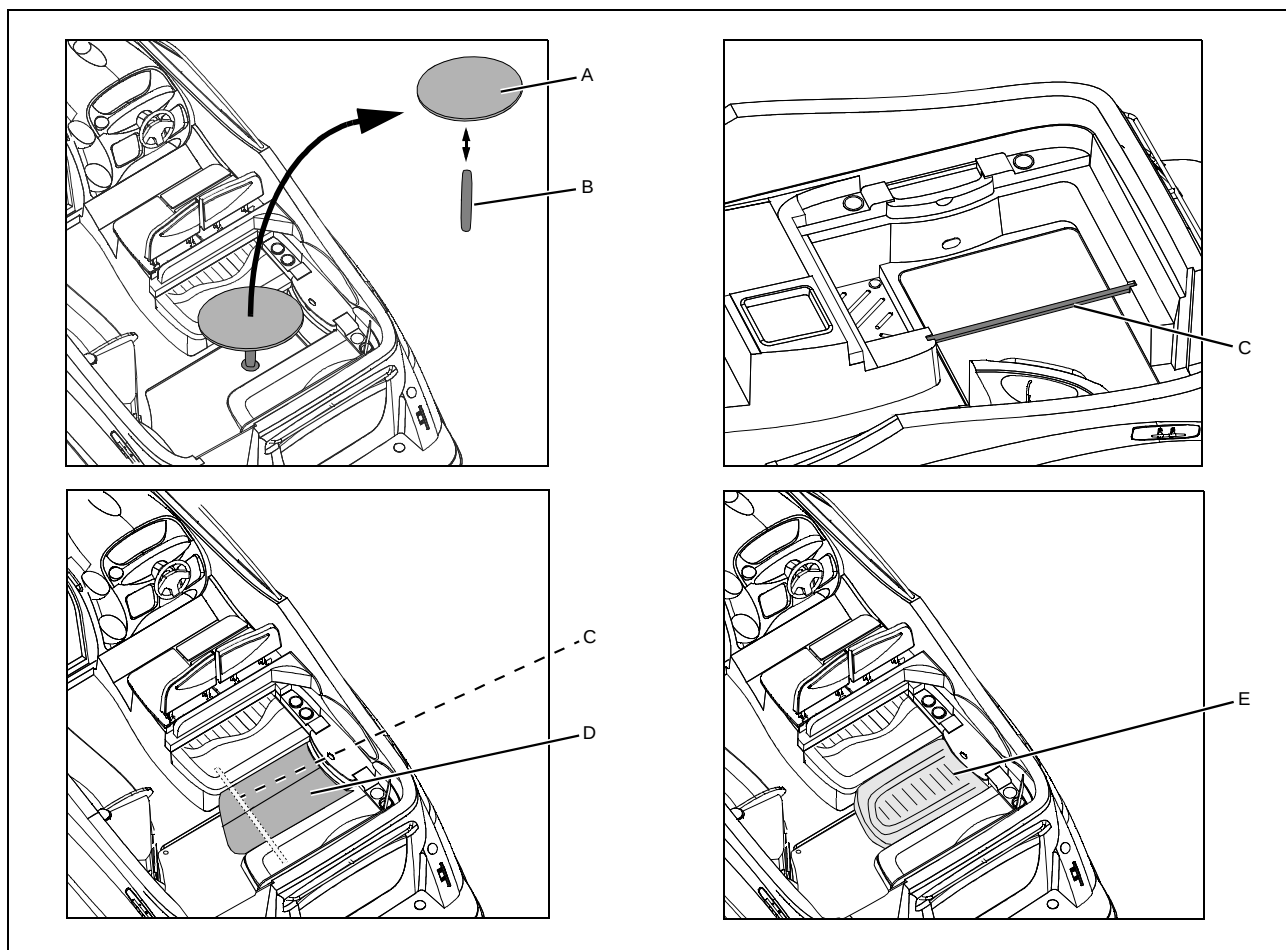
1. Remove the table (A) and the table leg (B).
2. Lift the dinette seat cushions (C).
3. Place the filler boards (D) so that they fit securely into the recessed edge at the front of the dinette seats.
4. Put the dinette seat cushions (C) back down.
5. Place the filler cushion (E) on top of the filler boards (D).

Cockpit

Companion Seat

The companion seat folds forward to reveal a storage compartment underneath the seat.

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 cross support (C) in place.
3. Place the filler board (D) on top of the support (C).
4. Place the filler cushion (E) on top of the filler board (D).
5. Make sure that **all** parts are secure **before** using the sunlounge.

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 - *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) will result in a drained battery.

- The lights are 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.

Spotlight (If Equipped)

Your boat may come equipped with a spotlight which can be controlled by a switch at the helm. Instructions can be found in the spotlight's operating manual.

Chapter 11: Heating & Air Conditioning

Air Conditioning System (If Equipped)

DANGER!

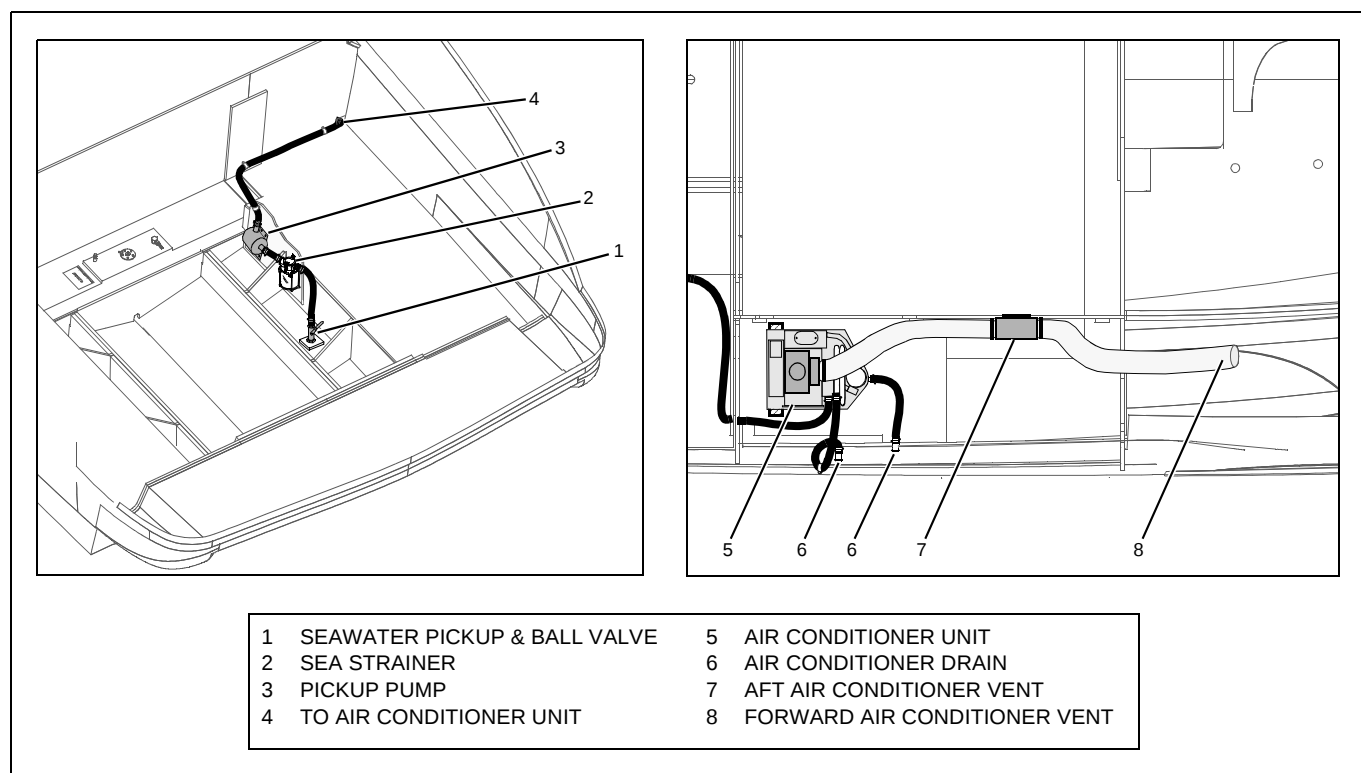
CARBON MONOXIDE POISONING HAZARD!

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

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.



Your boat may be equipped with an air conditioning system. 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 *Supplement*.

Chapter 12: Electrical System

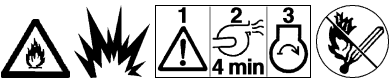
⚠ DANGER!



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 DC System

Batteries

The batteries supply electricity for lights, accessories, engine and generator (if equipped) 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 the engine 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 one 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 breaker panel.

Battery Switch



CAUTION!

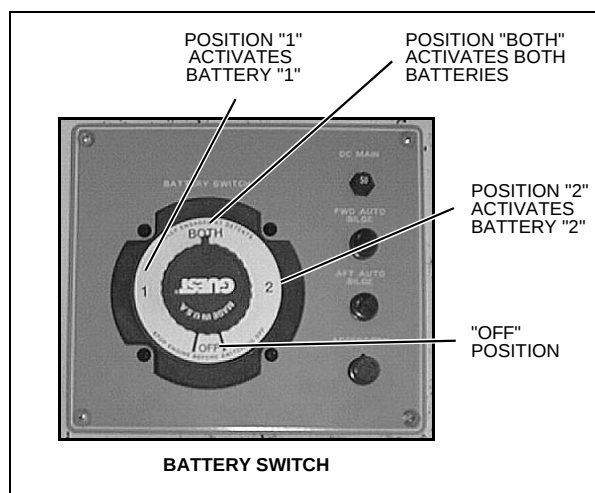
ENGINE & ELECTRICAL SYSTEM DAMAGE HAZARD!

NEVER change the battery switch position while the engine is running. It can cause damage to your boat's engine alternator.

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.

- The battery switch has four (4) positions (see photo on right and table below).
- Some "Standby Loads", such as the CO monitor, automatic bilge pumps and stereo memory are connected *directly to the battery*.
- The battery switch does **not** effect standby loads.



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 (not advised unless engine is running)	Charges <u>BOTH</u> Batteries
POSITION <u>OFF</u>	Prevents Start/Run	Batteries Provide Power for Standby Loads Only	Do Not Run Engine in this Position

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. <i>Before</i> installing gel-cell or other new technology batteries, consult with the battery manufacturer about charging system requirements.

Your boat is equipped with 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. For proper charging, the battery switch can be in any position.
- 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.

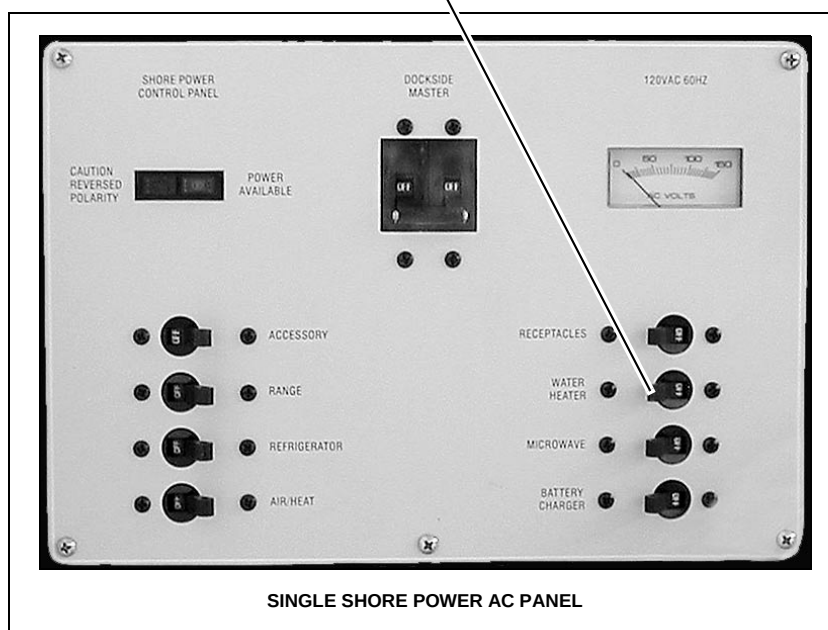
120 Volt AC System



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.
- 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 120V/60Hz 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** connecting or disconnecting 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** attach the shore power cord to the boat inlet first; then to the dockside connection. When disconnecting from shore power, disconnect the shore power cord from the dockside connection first.
- **NEVER** leave a shore power cord connected to the dockside connection 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.
- When connecting to shore power and you encounter a reversed polarity light (RED colored), **DO NOT** energize the main breaker switches. Instead, **IMMEDIATELY** disconnect the shore power cord (**ALWAYS** from the dockside receptacle first) and notify 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 accidentally becomes immersed in water, **THOROUGHLY** dry the blades and contact slots *before* reusing.

CAUTION!



ELECTRICAL SYSTEM DAMAGE HAZARD!

- **NEVER** connect dockside power to your boat outside North America unless you have purchased the international electrical conversion option.
- 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.
- Use double insulated or three-wire protected electrical appliances whenever possible.

NOTICE

Some dockside installations 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.

- 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 "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.

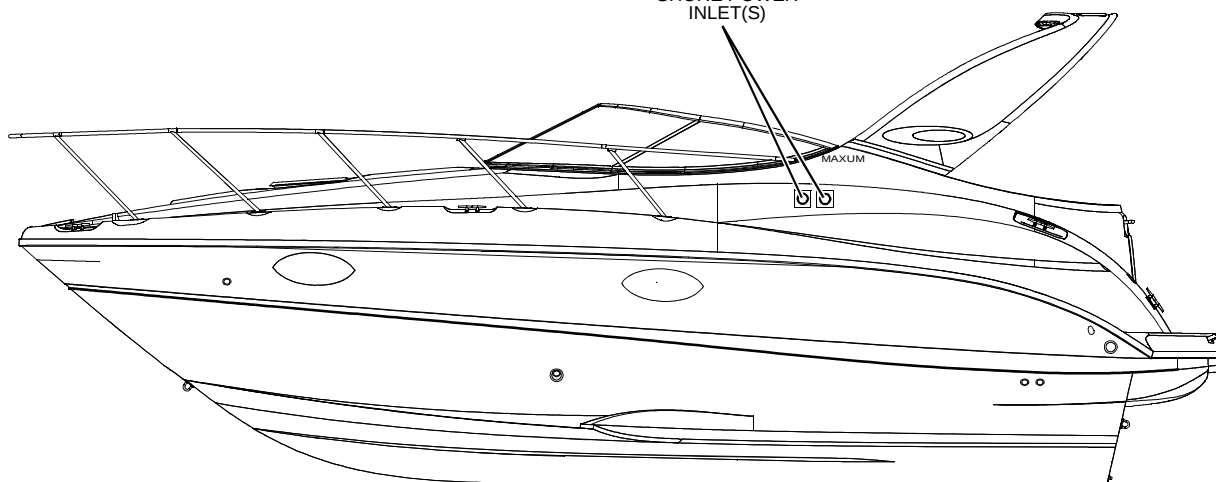
Connecting To Shore Power

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



TYPICAL SHORE
POWER INLET

SHORE POWER
INLET(S)



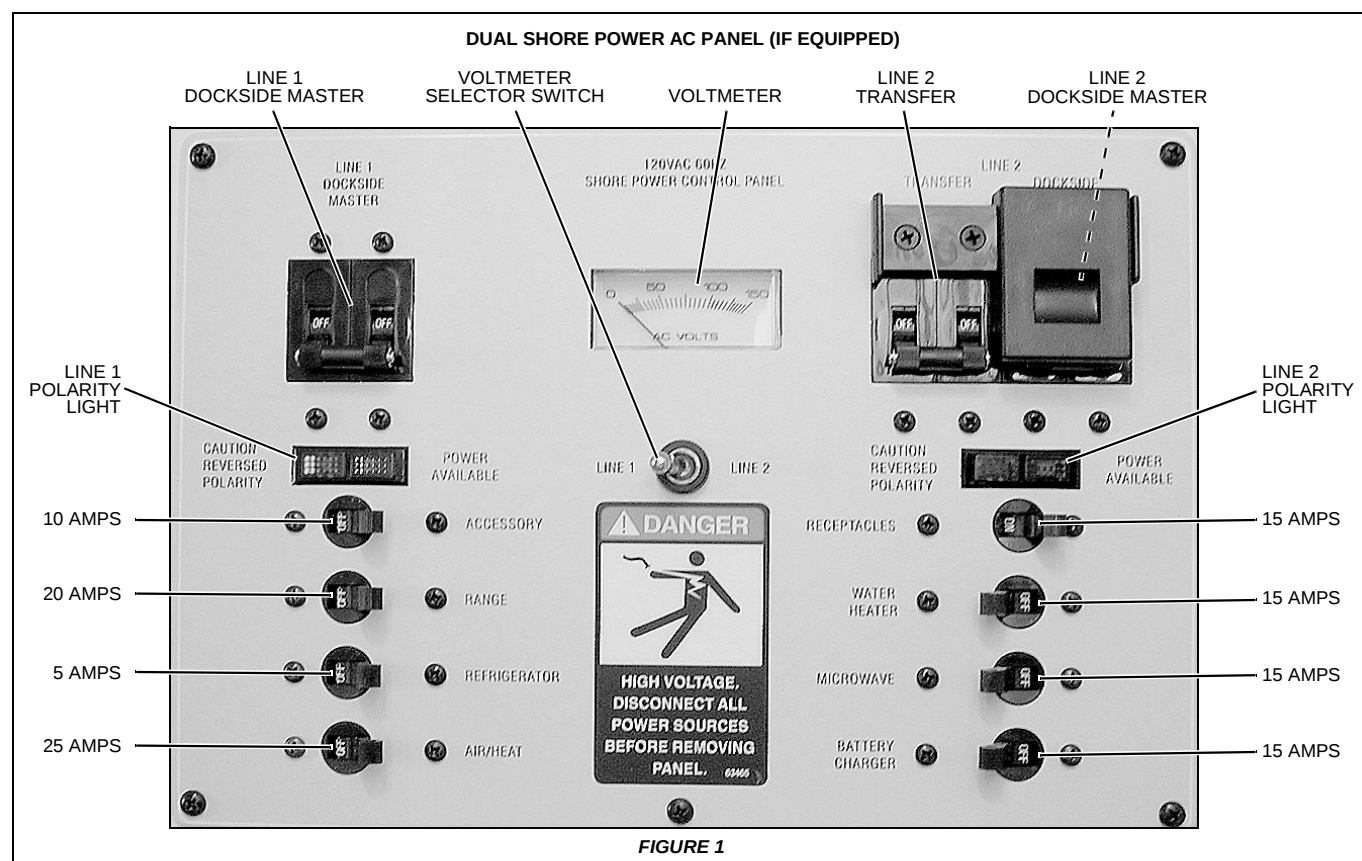


FIGURE 1

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. Monitor the AC panel's polarity indicator lights, located below the line master breaker(s), as follows:
 - A **green** 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 **red** light, however, indicates reversed polarity, which could cause electrical system damage and possibly electrical shock injuries. In this case, **do not** turn **On** the master breaker switch.
5. Switch the "LINE 1 DOCKSIDE MASTER" **On**.
6. If equipped with dual dockside, switch the "LINE 2 DOCKSIDE MASTER" **On**.
7. Turn **On** the individual component breakers as required.

Transfer Switch (If Equipped with Dual Shore Power)

NOTICE

- When using the "Transfer 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 setting the voltmeter selector switch.

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.
3. Turn on the individual component breakers as required.

Generator (If Equipped)

 **DANGER!**



CARBON MONOXIDE POISONING HAZARD!

- Generators are a source of dangerous carbon monoxide gas (CO). Check the generator exhaust system for leaks *before* each use.



DANGER
CARBON MONOXIDE

 **WARNING!**



FIRE/EXPLOSION HAZARD!

- Use the bilge blowers for a minimum of four minutes *before* 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 *Off* the generator and *all* electrical accessories and investigate.
- DO NOT** obstruct or modify the ventilation system.

 **CAUTION!**

SYSTEM DAMAGE HAZARD!

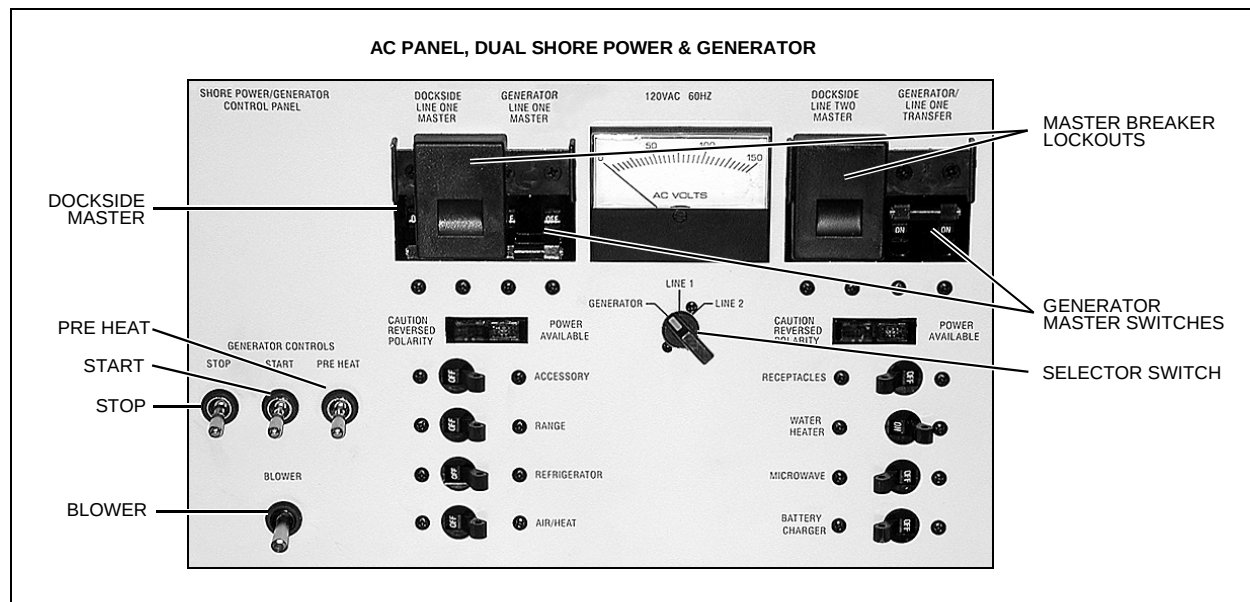
- Always* make sure the generator's seawater pickup seacock is *OPEN* *before* and during the running of the generator.
- NEVER** use the generator starter for more than 30 seconds.
- If the generator does *not* start, wait at least 30 seconds *before* another start attempt is made.
- After starting the generator, wait for the generator to stabilize *before* turning *On* component breakers on the AC panel.

The generator (if equipped) can supply 120V/60Hz power to the boat when it is **not** connected to shore power. Prior to running your generator for the first time, read the generator manual for detailed information on pre-start checks, break-in procedures and starting instructions.

Observe the following about your generator:

- Polarity has been established in the installation of the generator, therefore the polarity lights will **not** function while in this mode.
- The coolant mixture installed at the factory consists of equal parts of water and anti-freeze (Ethylene Glycol). Frequently check the generator's seawater strainer for leaks and/or debris as outlined in the seawater strainer section of this *Supplement*.
- This system is designed so that ship's generator and shore power sources **can not** supply power at the same time.
- To monitor the voltage generated by the generator, switch the voltage selector switch to the GENERATOR position.

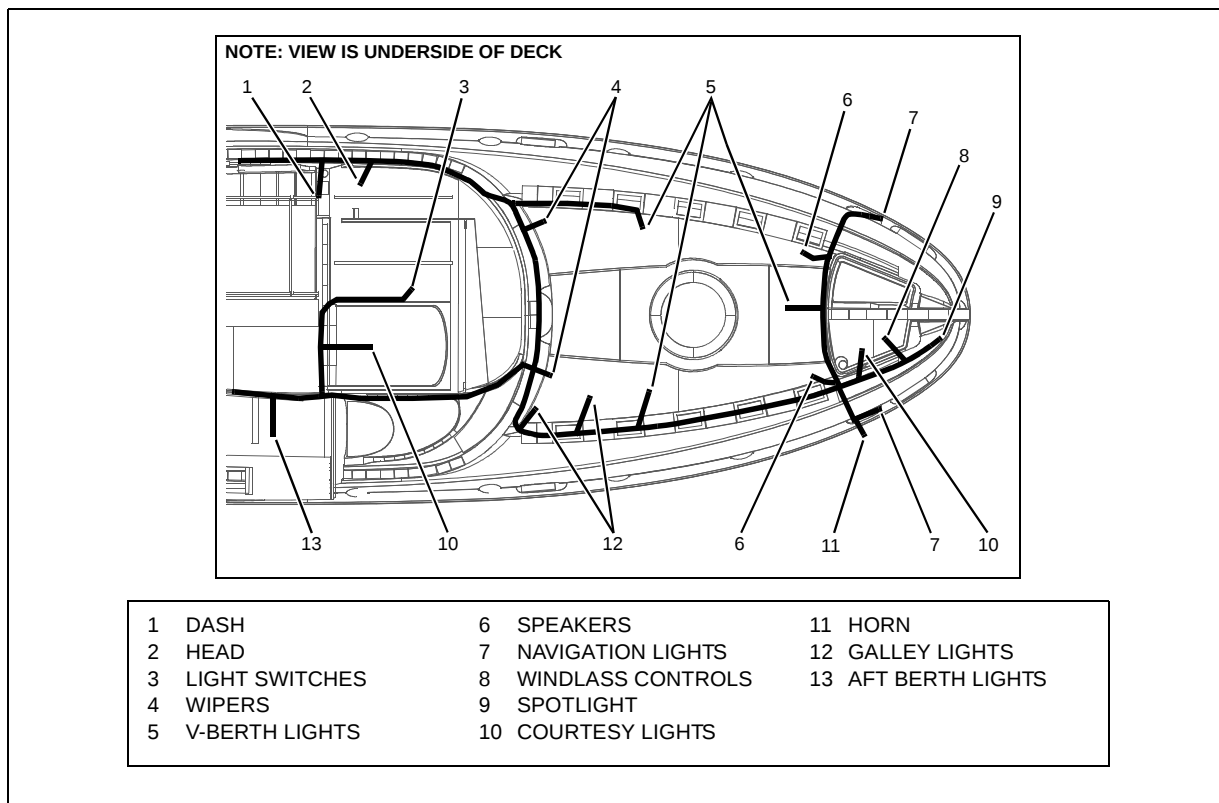
Generator Use



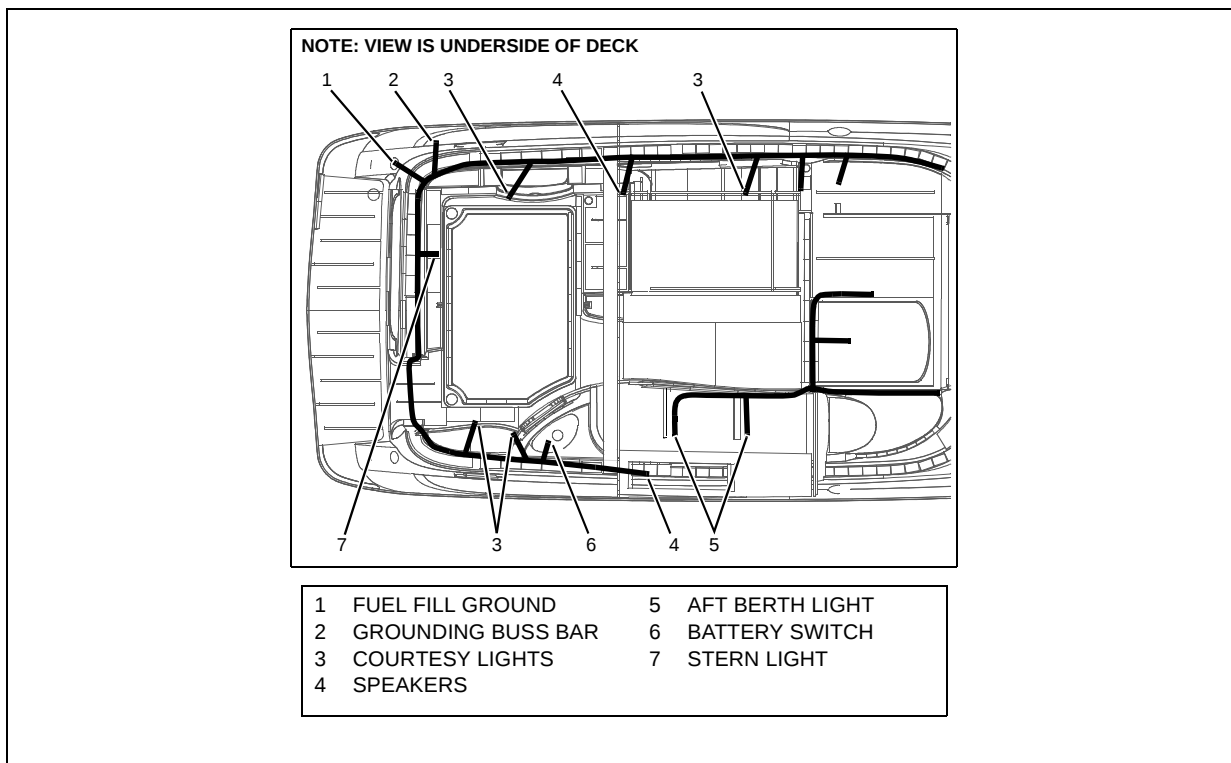
1. Run the bilge blowers for a minimum of four minutes **before** starting the generator.
 - The blower switch is located on the AC panel near the generator controls.
 - If your boat is running below cruising speed, leave the blowers **On** while the generator is running.
 2. Make sure the generator's seawater pickup seacock is **Open before** starting and during running of the generator.
 3. Make sure that the battery switch is turned to position "1" or "2".
 4. Slide the master breaker lockouts to cover the dockside master breakers and reveal the generator master breakers.
 5. Switch the "GENERATOR LINE ONE MASTER" and the "GENERATOR/LINE ONE TRANSFER" master breakers **On**.
 6. On the AC panel, press up and hold the oil pressure switch (labeled "PRE HEAT") and the "START" switch at the same time until the generator starts.
 7. Turn **On** each individual component breaker as required.
- To shut **Off** the generator, press up and hold the "STOP" switch until the generator completely shuts down.

Electrical Routings

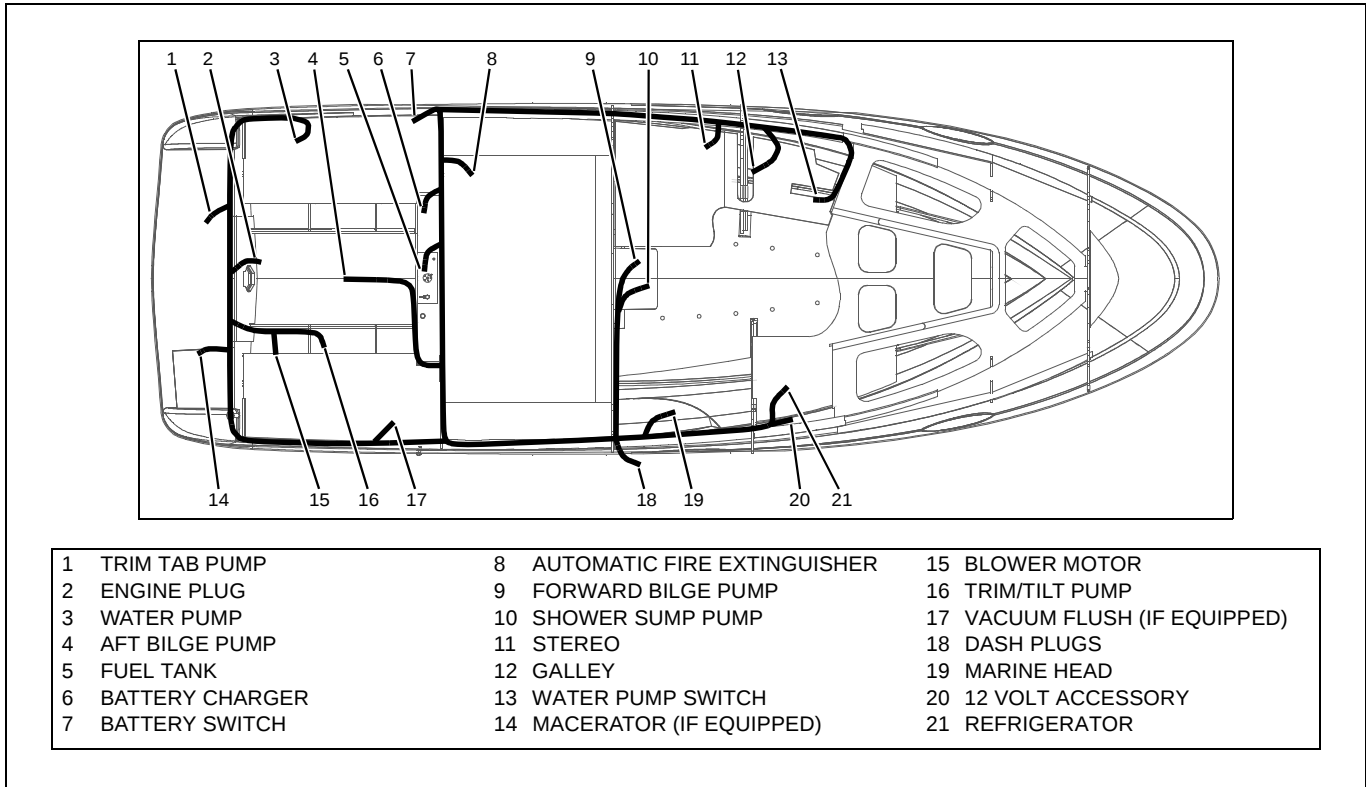
Forward Deck Electrical Harness



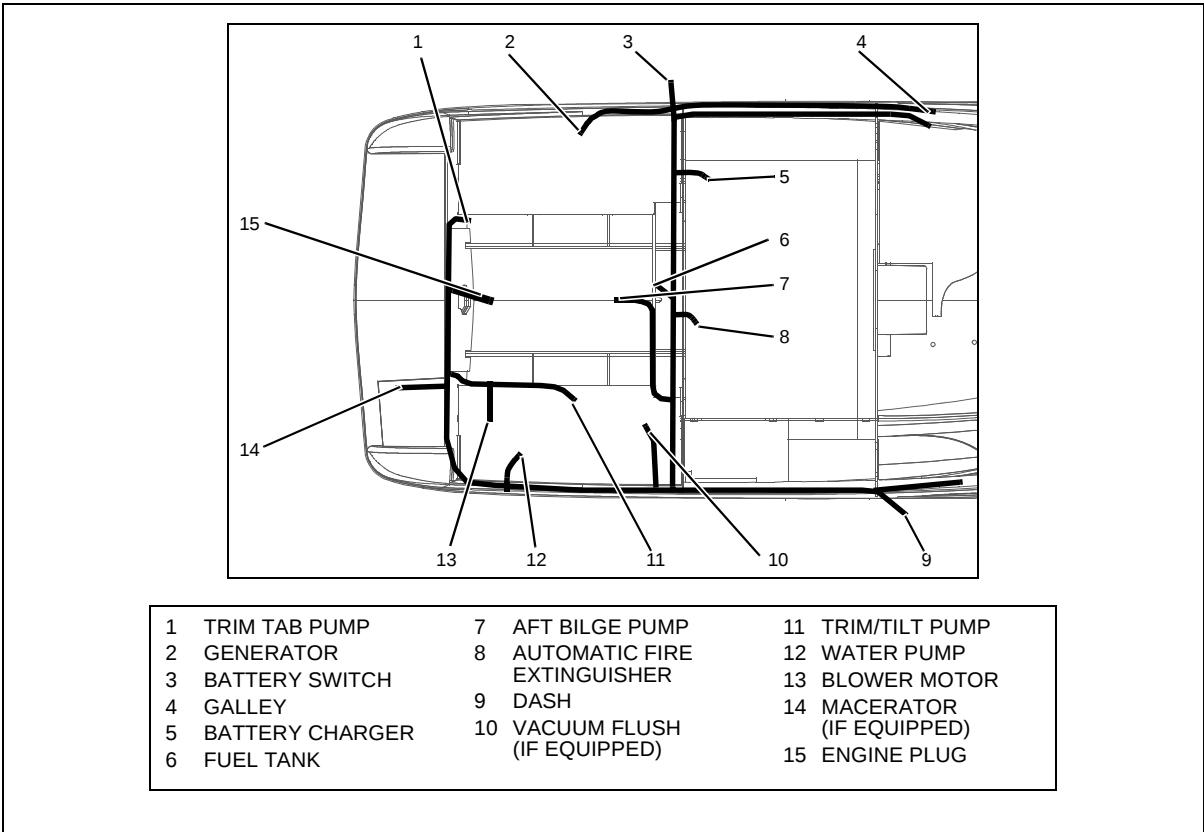
Aft Deck Electrical Harness



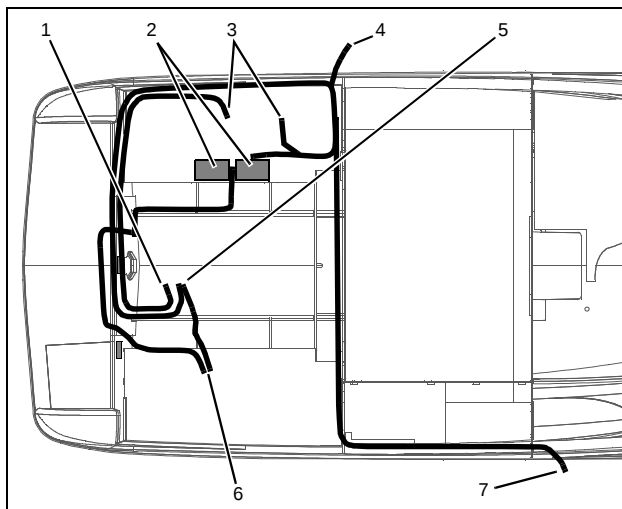
Hull Electrical Harness



Hull Electrical Harness With Generator (If Equipped)

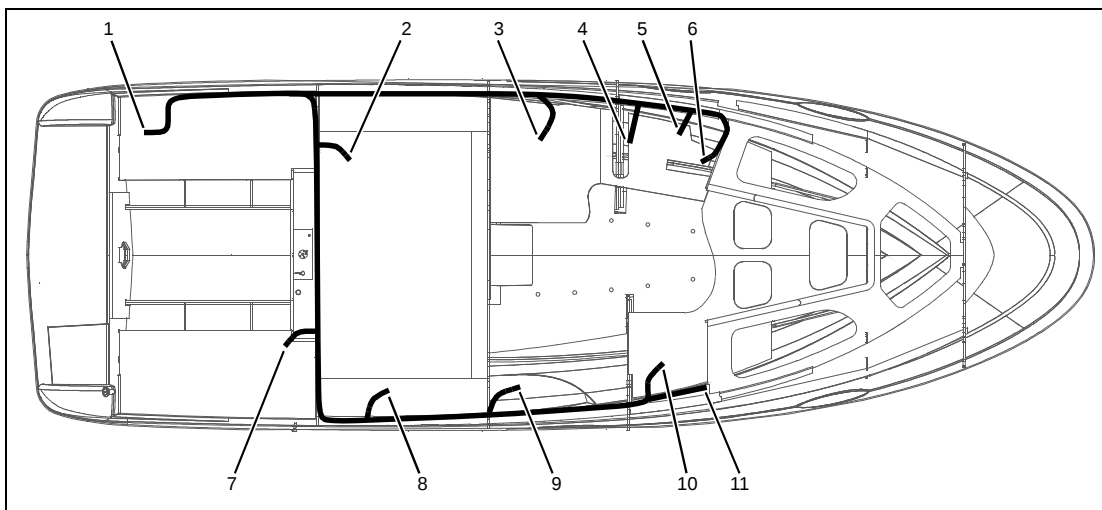


Battery System



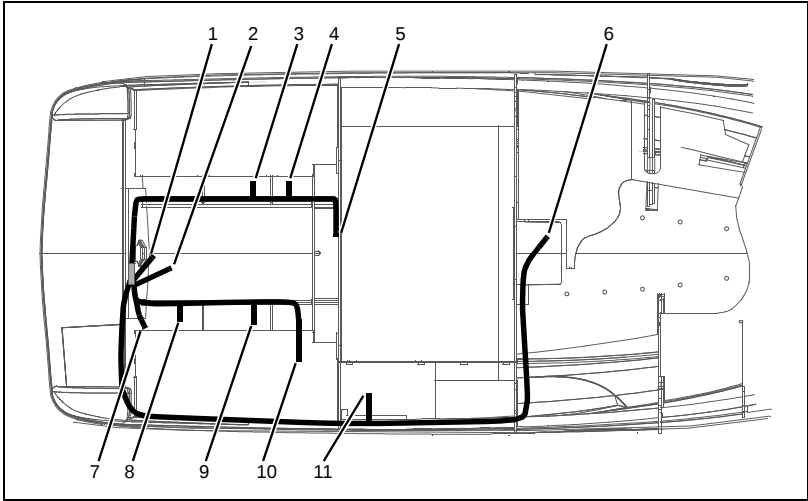
- | | | | |
|---|----------------|---|----------------|
| 1 | ENGINE GROUND | 5 | ENGINE |
| 2 | BATTERIES | 6 | TRIM/TILT PUMP |
| 3 | GENERATOR | 7 | DASH PLUGS |
| 4 | BATTERY SWITCH | | |

120 Volt AC System



- | | | | |
|---|------------------------------|----|---------------------------------------|
| 1 | WATER HEATER | 7 | AIR CONDITIONER PUMP
(IF EQUIPPED) |
| 2 | BATTERY CHARGER | 8 | AIR CONDITIONER
(IF EQUIPPED) |
| 3 | AIR CONDITIONER SWITCH PANEL | 9 | HEAD OUTLET |
| 4 | STOVE | 10 | REFRIGERATOR |
| 5 | MICROWAVE | 11 | 12 VOLT ACCESSORY |
| 6 | GALLEY OUTLET | | |

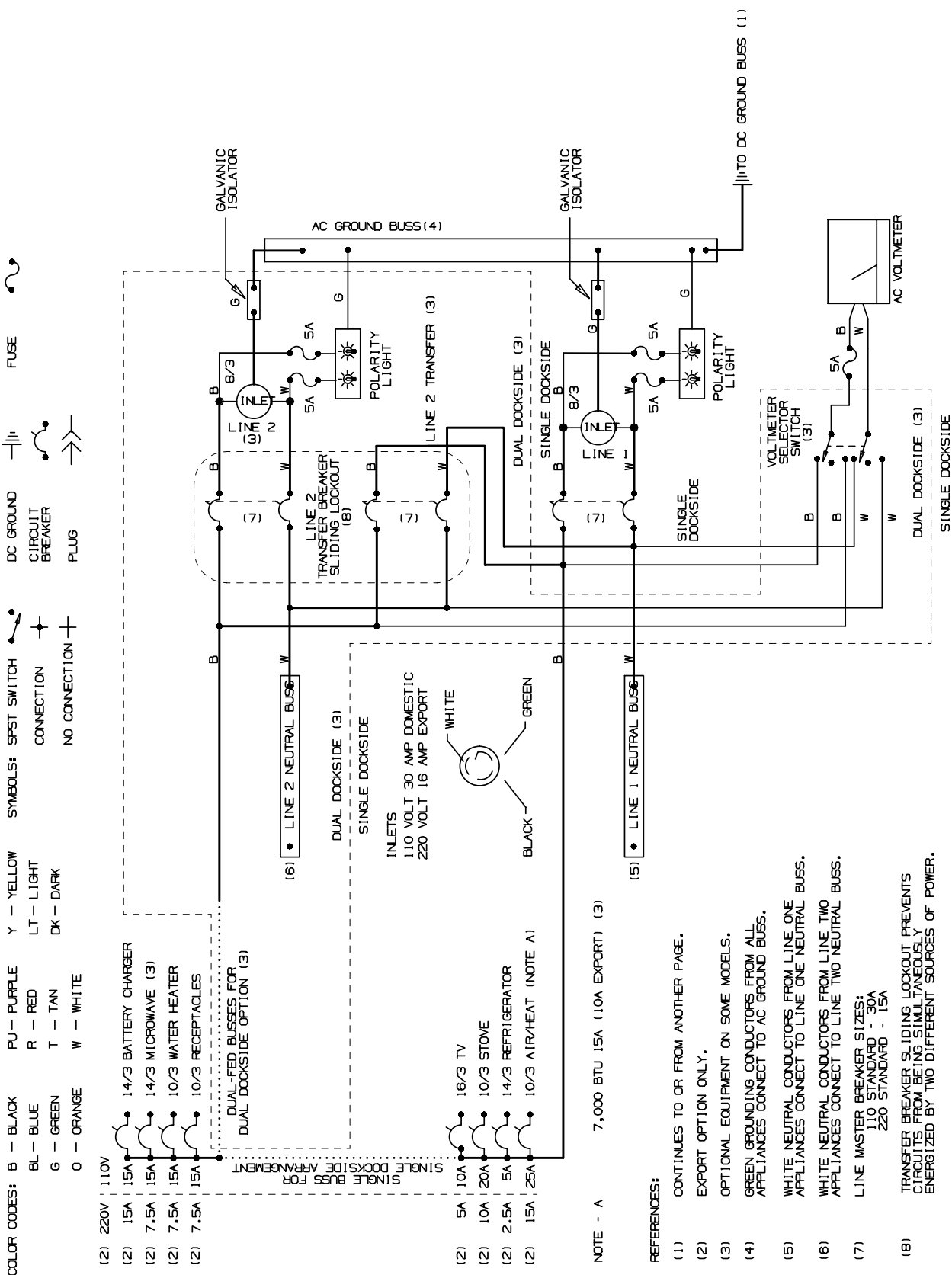
Bonding Harness



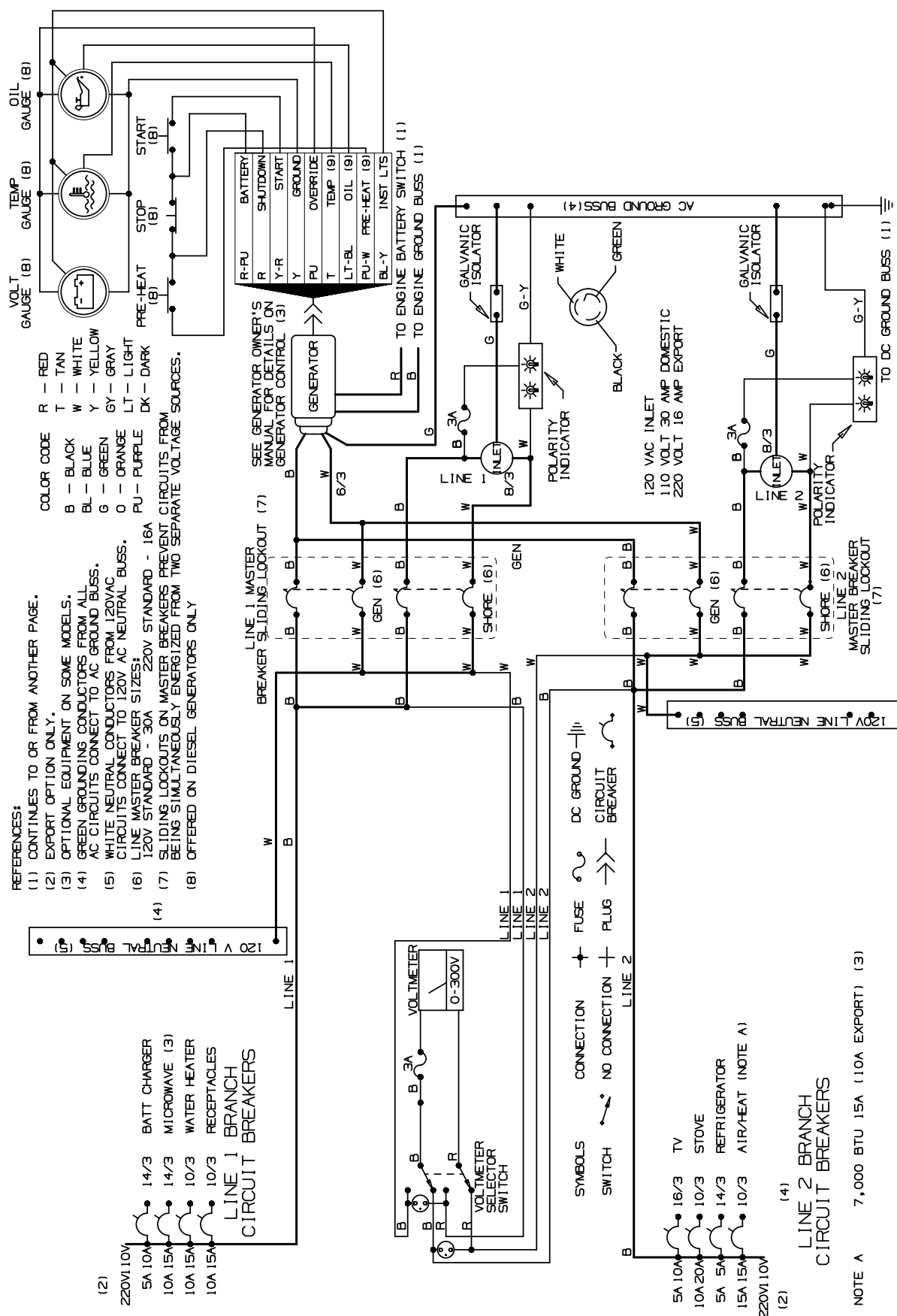
- | | | | |
|---|--------------------|----|----------------------------|
| 1 | ZINC PLATE | 7 | MACERATOR
(IF EQUIPPED) |
| 2 | BILGE DRAIN PLUG | 8 | AIR CONDITIONER PICKUP |
| 3 | GENERATOR PICKUP | 9 | AIR CONDITIONER STRAINER |
| 4 | GENERATOR STRAINER | 10 | AIR CONDITIONER PUMP |
| 5 | FUEL FILTER | 11 | AIR CONDITIONER UNIT |
| 6 | HEAD PICKUP | | |

Wire Diagrams

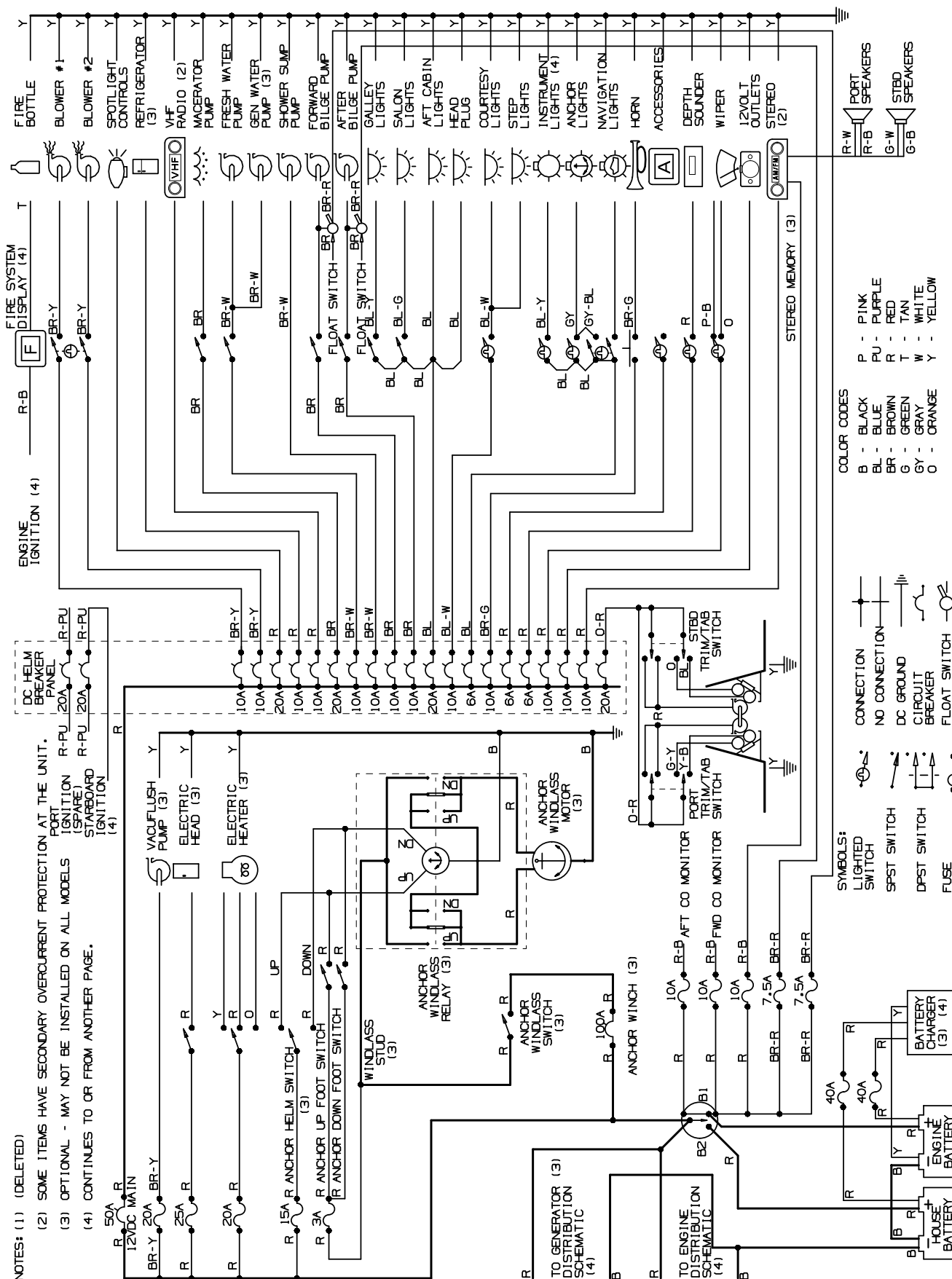
AC Electrical System



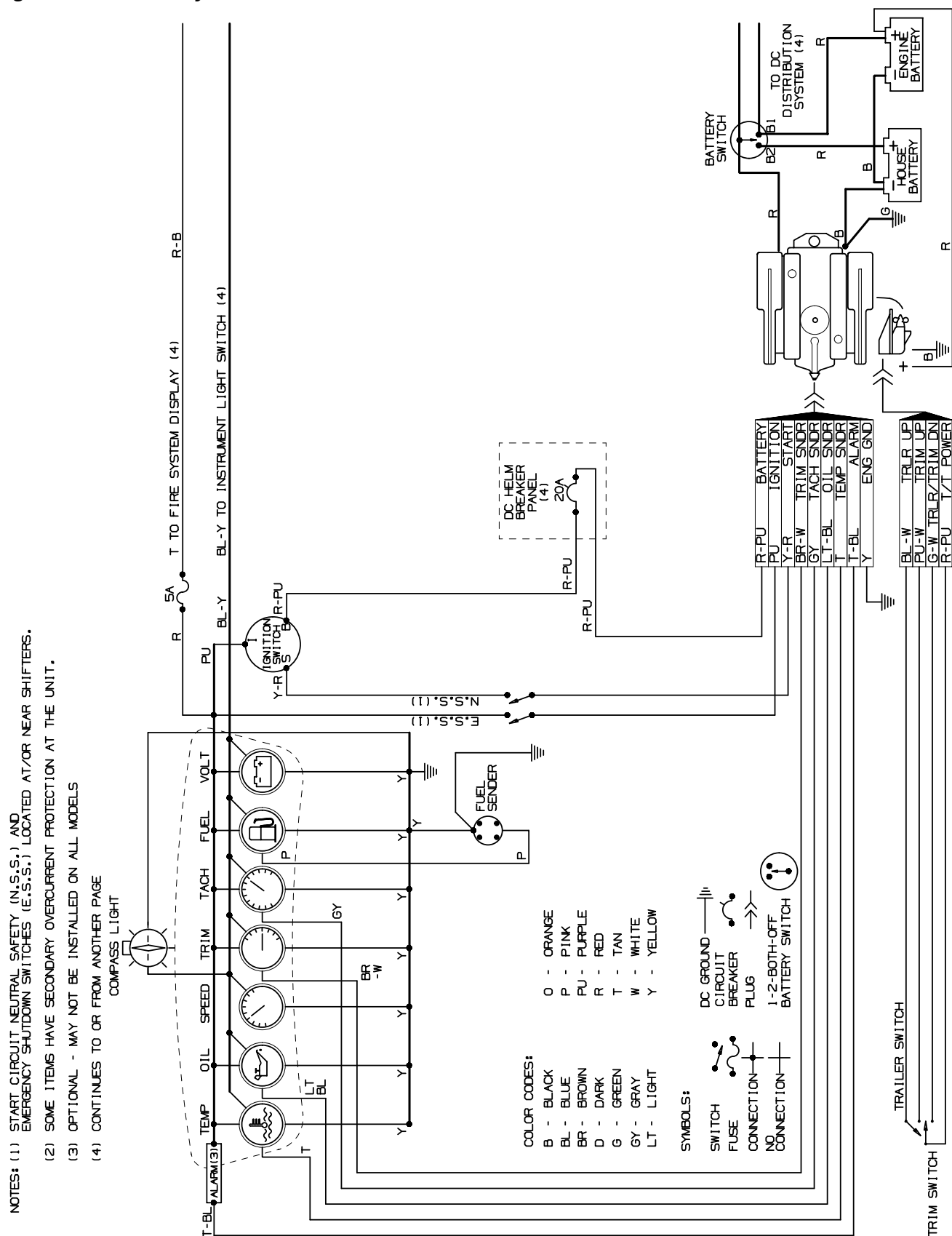
AC Electrical System With Generator (If Equipped)



DC Electrical System



Engine Electrical System



Important Records

Selling Dealer

_____	Name Of Dealership
_____	Address
_____	Phone/FAX/E-mail
_____	Sales Manager
_____	Service Manager

Engine

_____	Manufacturer	_____	Model Name/Number

Engine Serial Number			
_____	Oil Type/SAE	_____	Quarts per Engine
		_____	Filter Type

Propeller

_____	Manufacturer	_____	Pitch

Model Number			

Key Numbers

_____	Ignition	_____	Other
-------	----------	-------	-------

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			

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 on Board

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
Coast Guard Phone Number	
Local Authority Phone Number	

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

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, typical of notebook or legal stationery. There are no margins, text, or other markings present.

[illegible]

[illegible]

Part Number 1700774