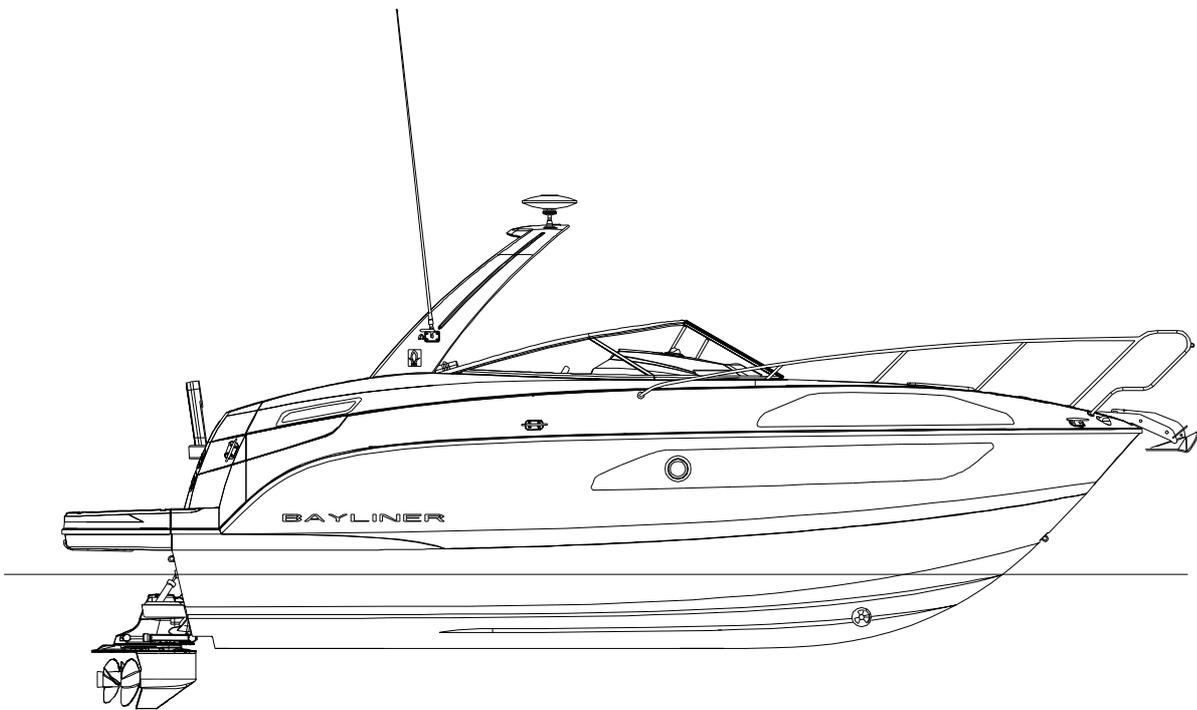


# BAYLINER®

## 855 Ciera 8



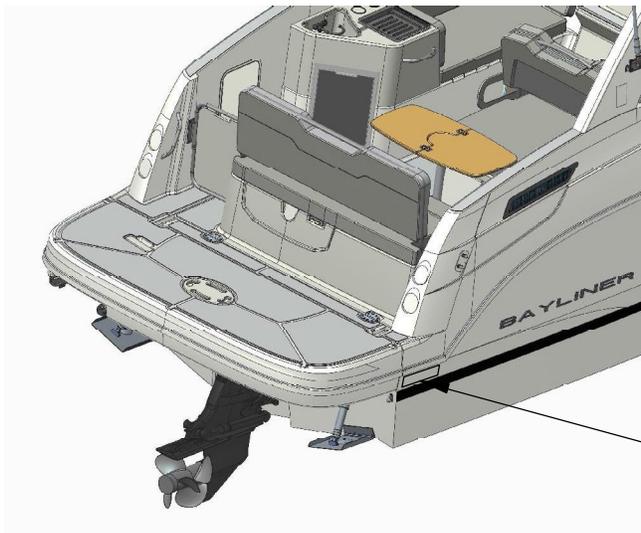
Owner's Manual Supplement

**Engine Serial Number:** \_\_\_\_\_

**Hull Identification Number:** \_\_\_\_\_

### Hull Identification Number

- The Hull Identification Number (HIN) is located just below the deck gunnel at the starboard aft corner of the boat.
- Record the HIN (and the engine serial number) in the space provided above.
- Include the HIN with any correspondence or orders.



**HIN LOCATION**

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All Bayliner 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.

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## Hazard Boxes & Symbols

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

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

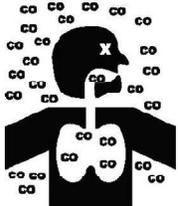
 **WARNING!**  
This box alerts you to hazards or unsafe practices which **COULD** result in severe personal injury or death if the warning is ignored.

 **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.

 <b>FIRE HAZARD!</b>	 <b>EXPLOSION HAZARD!</b>	 <b>NO OPEN FLAME!</b>	 <b>ELECTRICAL HAZARD!</b>	 <b>HOT HAZARD!</b>
--	---	--	---	---

 <b>FALLING HAZARD!</b>	 <b>ROTATING PROPELLER HAZARD!</b>	 <b>RUN BILGE BLOWERS FOR 4 MINUTES!</b>
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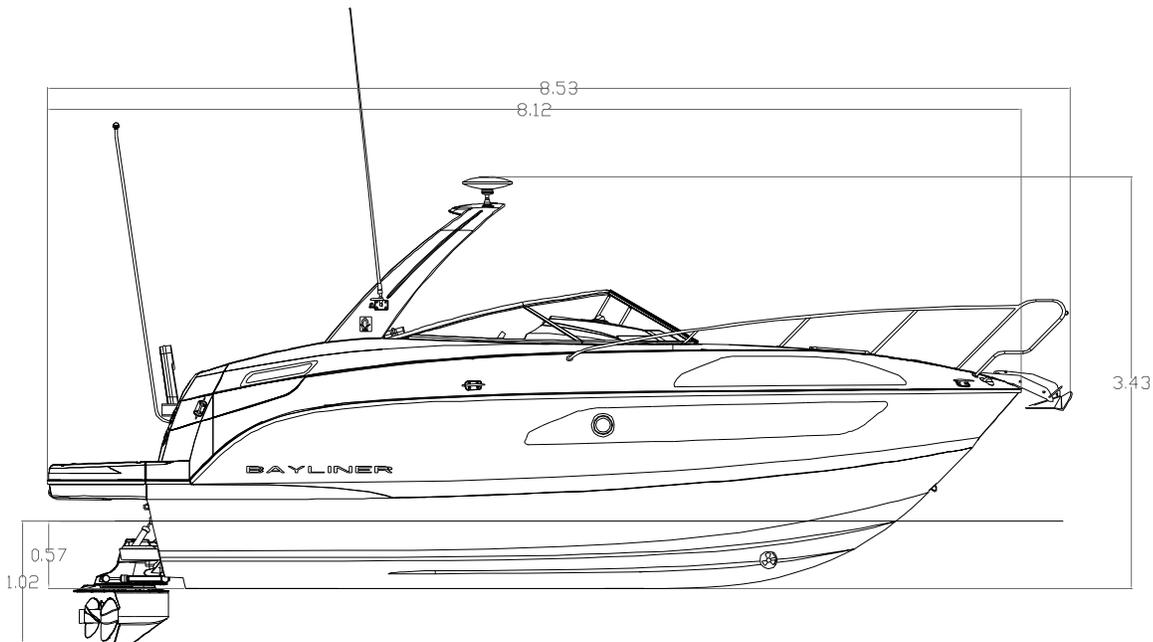
  
**CO POISONING HAZARD!**

# 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*.
- The *Cruiser & Yacht Owner's Manual* contains general information about safe operating practices, general boating regulations, and general maintenance techniques. Information that is more specific to your particular boat is found in this *Owner's Manual Supplement*.
- **Before** using your boat, study this *Owner's Manual Supplement*, the *Cruiser & Yacht Owner's Manual*, and all engine and accessory literature carefully. If similar instructions are found in more than one manual, always refer to the specific manufacturer's manual (such as the engine manual) for the most complete and accurate information.
- Keep this *Owner's Manual Supplement* and the *Cruiser & Yacht Owner's Manual* on your boat in a secure, yet readily available place.

## Dimensions & Tank Capacities

Overall Length	Length Rigged	Bridge Clearance	Beam	Draft (Hull)	Draft (Maximum)	Fuel Tank	Freshwater Tank	Gray Water Holding Tank
23' 95"	28' 02"	12' 98"	8' 37"	1' 84"	3' 46"	65 Gallon	20 Gallon	20 Gallon
7,30 m	8,54 m	3,43 m	2,55 m	0,56 m	1,02 m	246 Liter	76 Liter	76 Liter



### Dealer Service

- Your dealer is your key to service.
- Ask your dealer to explain **all** systems **before** taking delivery of your boat.
- 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 Bayliner dealer.
- You can access on-line parts catalogs, links to vendor websites, and other helpful features by logging on to <http://www.baylinercustomercare.com>.

## Warranty Information

- Bayliner offers a Limited Warranty on each new Bayliner purchased through an authorized Bayliner dealer.
- A copy of the Limited Warranty was included in your owner's packet.
- If you did not get a copy of the Limited Warranty, please contact your Bayliner dealer.

## Boating Experience

 **WARNING !**

***CONTROL HAZARD!***

An experienced operator *MUST* be in control of your 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, get handling and operating experience **before** assuming command of your 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 & Literature

### NOTICE

**BEFORE** starting or working on your engine(s), read the engine manual.

### NOTICE

**BEFORE** using the accessories on your boat, read the accessory manuals.

### NOTICE

**BEFORE** storing your boat, refer to your engine and accessory manuals for storage/winterization instructions.

### NOTICE

Certain modifications to your boat **WILL** result in cancellation of your warranty protection. **ALWAYS** check with your dealer **BEFORE** making any modifications to your boat.

- Your boat's engine and accessories were selected to provide optimum performance and service.
- Installing a different engine or adding accessories may affect your boat's running trim.
- If you choose to install a different engine or add accessories that may affect your boat's running trim, have a trained marine technician perform a safety inspection and handling test *before* using your boat again.
- The engine and accessories on your boat have their own manuals. Read these manuals *before* using the engine and accessories.

Unless noted otherwise, *all* engine and accessory literature referred to in this *supplement* is included in your owner's packet.

While the topics listed below may be included in this *supplement* and in the *Cruiser & Yacht Owner's Manual*, *always* refer to the engine manual first for specific information on these important subjects:

- Engine Break-in Procedure
- Engine Starting and Stopping
- Gear Shifting
- Fuel and Oil Recommendations
- Engine Maintenance
- Engine Storage/Winterization

## Propeller

### CAUTION !

#### **ENGINE DAMAGE HAZARD!**

The factory standard propeller may not be the best for your particular boat and load conditions. Refer to the engine manual for engine RPM ratings. The engine should reach, but not exceed its full rated RPM when full-throttle is applied.

Immediately contact your local Bayliner dealer if:

- The engine cannot reach its full rated RPM when full-throttle is applied, or;
- The engine exceeds its full rated RPM when full-throttle is applied.

- Keep the propeller in good repair and at the correct pitch for your particular situation.
- A slightly bent or nicked propeller will adversely affect the performance of your boat.

## Qualified Maintenance

 **WARNING !**

To maintain the safety of your boat, allow **ONLY** trained personnel to work on, or change, in any way, the:

- Steering system
- Propulsion system
- Engine control system
- Fuel system
- Environmental control system
- Electrical system
- Navigation 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 yourself and others to the danger of bodily injury or accidental death.

Follow the maintenance instructions in:

- this *Owner's Manual Supplement*
- the *Cruiser & Yacht Owner's Manual*
- the engine owner's manual, and;
- **all** accessory literature.

## Special Care for Moored Boats

**NOTICE**

- To help seal the hull bottom and reduce the chance of gel coat blistering while your boat is moored, 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 your boat's beauty, greatly affect its performance, and may damage the gel coat.
- Periodically haul your boat out of the water and scrub the hull bottom with a bristle brush and a solution of soap and water.

## Safety Standards

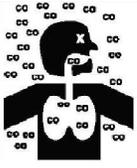
**! DANGER !**



**FALLING and ROTATING PROPELLER HAZARD!**

- NEVER allow anyone to ride on parts of your 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 !**




**FALLING, ROTATING PROPELLER and CARBON MONOXIDE POISONING HAZARD!**

- NEVER allow anyone to occupy, or hang from, the back deck or transom platform while the engine is 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 your boat is moving and cause personal injury or death.

**! WARNING !**

A wide variety of components used on this vessel contain or emit chemicals known to the State of California to cause cancer and birth defects and other reproductive harm.

Examples Include:

- Engine and generator exhaust
- Engine and generator fuel, and other liquids such as coolants and oil, especially used motor oil
- Cooking fuels
- Cleaners, paints, and substances used for vessel repair
- Waste materials that result from wear of vessel components
- Lead from battery terminals and from other sources such as ballast or fishing sinkers

To Avoid Harm:

- Keep away from engine, generator, and cooking fuel exhaust fumes.
- Wash exposed skin thoroughly with soap and water after handling the substances above.

- 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, and all of them were designed to insure your safety and the safety of other people, vessels and property.

Read this supplement, the *Cuddy Owner's Manual*, the engine owner's manual, and **all** accessory instructions for important safety standards and hazard information.

## Boat Lifting

### **! WARNING !**

**PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!**

- Lifting slings can slip on the hull, which could cause serious injury or death.
- **ALWAYS** secure the forward lifting sling to the aft lifting sling **BEFORE** lifting. This will reduce the risk of sling slippage.

### **! WARNING !**

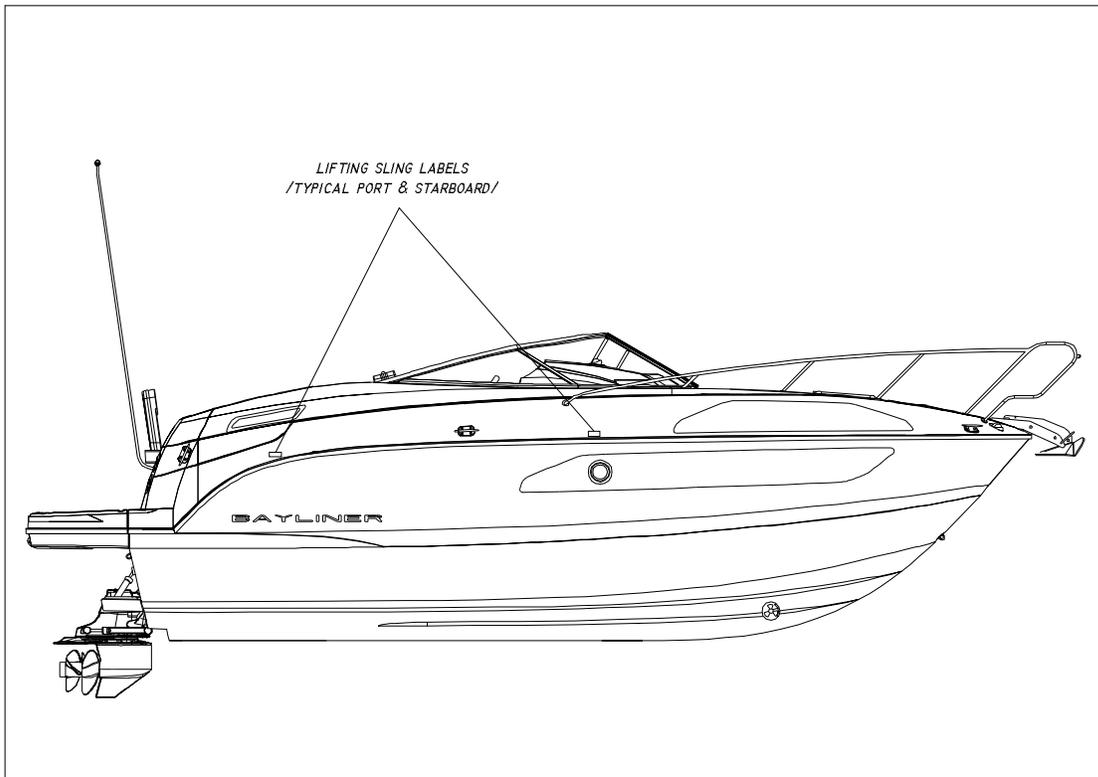
**PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!**

**NEVER** lift any boat using the cleats, or the bow/stern eyes.

### **! WARNING !**

**PRODUCT or PROPERTY DAMAGE HAZARD!**

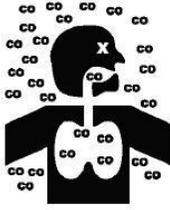
- When lifting any boat, **ALWAYS** use a spreader bar.
- The spreader bar **MUST** be equal to the width of the boat at each lifting point.
- Make sure your boat remains level during lifting. The engine can be damaged by water ingestion if the stern is lifted higher than the bow.



- **Always** follow the lift equipment's instructions and requirements.
- When lifting your boat, always position the lifting slings at the port and starboard lifting sling label positions as shown in the illustration.

## 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.

### **CO Facts**

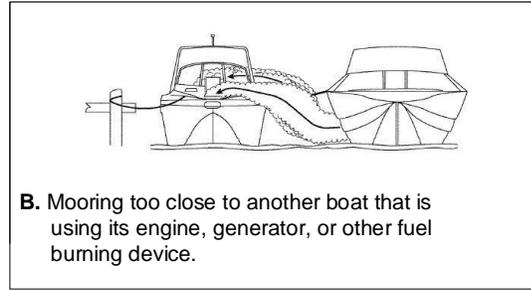
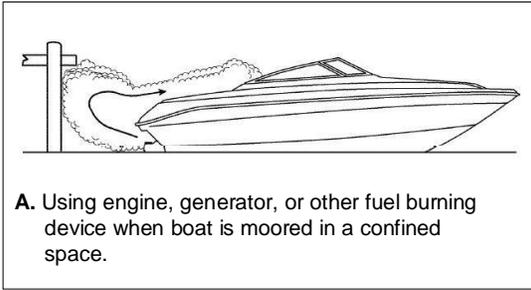
- CO poisoning causes a significant number of boating deaths each year.
- Called the "silent killer", CO is an extremely toxic, colorless, odorless and tasteless gas.
- CO can harm or even kill you inside or outside your boat.
- CO can affect you whether you're underway, moored, or anchored.
- CO symptoms 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 & How CO Can Accumulate

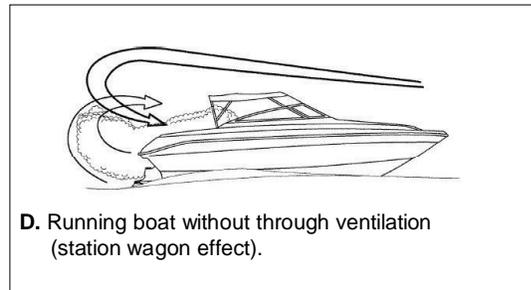
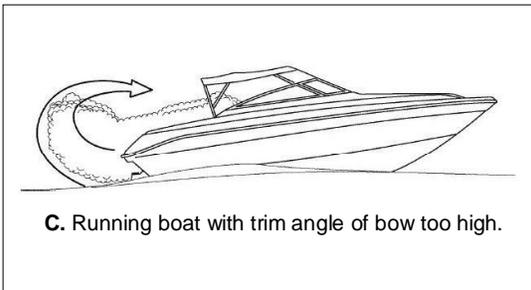
### Stationary conditions that increase CO accumulations include:



#### 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:



#### 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 & Others From CO

- Know where and how CO may accumulate in and around your boat (see above).
- **Always** maintain fresh air circulation throughout your boat.
- 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 transom platform while the engine is running.
- **Never** enter the areas under transom platforms where exhaust outlets are located.
- Although CO can be present without the smell of exhaust fumes, if exhaust fumes are detected on your 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.
- **Maintain the CO monitors that are installed inside your boat.** Never ignore any alarm. Replace monitors as recommended by the monitor 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](http://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>

## CO Checklists

### 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.
- Listen for any change in exhaust sound, which could mean an exhaust component failure.
- Test the operation of each CO monitor 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 Trained 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 metallic exhaust components for cracking, rusting, leaking, or loosening. Make sure they 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).

### CO Monitors

## NOTICE

- The stereo memory and CO monitors 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.

- Do *not* disconnect the CO monitors.
- Read the manufacturer's instructions for your CO monitors. **If you did not get the manufacturer's instructions, call (800) 383-0269 and they will be mailed to you.**

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

## More Information

For more information about preventing carbon monoxide poisoning on recreational boats and other boating safety tips, contact:

United States Coast Guard

Office of Boating Safety (G-OPB-3)

2100 Second Street SW

Washington, DC 20593

**[www.uscgboating.org](http://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](http://www.nmma.org)**

312-946-6200

American Boat & Yacht Council, Inc.

(ABYC)

613 Third Street

Suite 10

Annapolis, MD 21403

**[www.abycinc.org](http://www.abycinc.org)**

410-990-4460

For information about free VESSEL SAFETY CHECKS, visit **[www.vesselsafetycheck.org](http://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>**

**⚠ WARNING**

**A** Carbon monoxide (CO) can cause brain damage or death. Engine and generator exhaust contains odorless and colorless carbon monoxide gas. Signs of carbon monoxide poisoning include nausea, headache, dizziness, drowsiness, and lack of consciousness. Get fresh air if anyone shows signs of carbon monoxide poisoning. See Owner's Manual for information regarding carbon monoxide poisoning.

**⚠ WARNING**

**A** **4 MIN**  
BEFORE STARTING, OPERATE BLOWER FOR 4 MINUTES. CHECK ENGINE COMPARTMENT FOR FUEL VAPORS. RUN BLOWER BELOW CRUISING SPEED.  
MRP# 2016940

**⚠ WARNING**

**A** VISIBILITY FROM THE SEATED POSITION AT THIS HELM STATION IS LIMITED. AVOID SERIOUS INJURY OR DEATH FROM COLLISIONS. OPERATION FROM A STANDING POSITION MAY BE NECESSARY TO MAINTAIN LOOKOUT AS REQUIRED BY RULES OF THE ROAD. READ OWNER'S MANUAL.  
MRP #2029123

**⚠ WARNING**

**A** QUALIFIED OPERATOR TO BE IN CONTROL AT ALL TIMES. OPERATION BY AN UNQUALIFIED OPERATOR CAN CAUSE LOSS OF CONTROL. THIS MAY RESULT IN SEVERE INJURY, DEATH, OR PROPERTY DAMAGE. BOAT STABILITY AND HANDLING WILL CHANGE WITH WEIGHT DISTRIBUTION. READ OWNER'S MANUAL BEFORE USE.  
MRP #2082702

**⚠ WARNING**

**A** TRIM TABS SHOULD BE USED FOR PORT TO STARBOARD TRIM ADJUSTMENT. EXCESSIVE DOWN TAB MAY RESULT IN POOR HANDLING CHARACTERISTICS. DO NOT RUN TABS DOWN IN FOLLOWING SEA CONDITIONS.  
MRP # 2027533

**⚠ WARNING**

**A** ENGINE COMPARTMENT HAS FIXED FIRE EXTINGUISHING SYSTEM. BEFORE DISCHARGING FIRE EXTINGUISHER:  
1. SHUTDOWN ENGINES AND BLOWERS  
2. EVACUATE THE ENGINE COMPARTMENT TO AVOID ASPHYXIATION.  
AFTER DISCHARGE VENTILATE ENGINE COMPARTMENT BEFORE ENTERING.  
MRP# 2080986

**⚠ WARNING**

**B** RUNNING BOAT WITH DOOR OPEN COULD INDUCE EXHAUST FUMES INTO CABIN. SEE OWNER'S MANUAL FOR INSTRUCTIONS CONCERNING CARBON MONOXIDE.  
MRP #2028902

**⚠ DANGER**

**C** TRANSOM DOOR MUST BE CLOSED AND SECURE WHEN ENGINE IS RUNNING.  
MRP #1743571

**C** 12VDC- 15A MAX

**⚠ DANGER**

**C** UNPLUG SHORE POWER AND TURN OFF GENERATOR BEFORE REMOVING COVER  
MRP #2063343

**⚠ CAUTION**

**C** IF SWITCH IS TURNED OFF WHILE ENGINE IS RUNNING ALTERNATOR WILL BE DAMAGED.  
MRP #2063346

**WARNING**

**D** • IN CASE OF FIRE DO NOT OPEN ENGINE BOX OR COMPARTMENT.  
• SHUT DOWN ENGINES, GENERATOR AND BLOWERS.  
• CONTINUOUSLY DISCHARGE ENTIRE CONTENTS OF HALON OR CO<sub>2</sub> PORTABLE FIRE EXTINGUISHER THROUGH PORT IMMEDIATELY.

**⚠ WARNING**

**E** Gasoline vapors are explosive! Avoid serious injury or death from fire or explosion, resulting from leaking fuel. Inspect system for leaks at least once a year.

**E** **202558**  
WARNING ELECTRICAL SHOCK HAZARD FIRE HAZARD READ OWNER'S MANUAL

**E** The use of fuels containing ethanol higher than 10% (E-10) can damage your engine or fuel system and will void the warranty. Never use (E-85).  
Open flame appliances can ignite gasoline vapors causing death or injuries from the fire or explosion. Turn off all open flame appliances when refueling.  
MRP# 2040556

**⚠ WARNING**

**G** DO NOT STORE FUEL OR FLAMMABLE LIQUIDS HERE VENTILATION HAS NOT BEEN PROVIDED FOR EXPLOSIVE VAPORS  
MRP #2063250

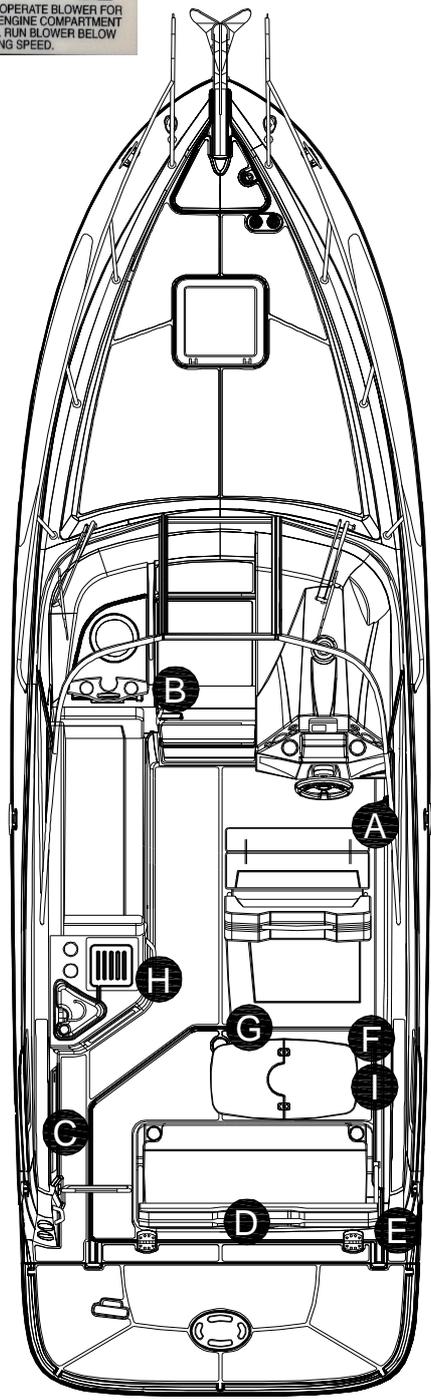
**F** PREVENT THE DISCHARGE OF POLLUTANTS DISCHARGE OF OIL OR OILY WASTE INTO NAVIGABLE WATERS IS PROHIBITED IF SUCH A DISCHARGE CAUSES A FILM, SHEEN OR A DISCOLORATION OF THE SURFACE, OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THE WATER. VIOLATORS ARE SUBJECT TO PENALTIES.  
MRP# 205413

**NOTICE**

**F** FIXED FIRE EXTINGUISHING SYSTEM MUST BE SUITABLE FOR GROSS COMPARTMENT VOLUME OF 250 cu ft.  
MRP #2022940

**WARNING VENTILATE!**

**H** Dealers are advised that ventilation must be provided after transportation. Sealed units exposed to sunlight can result in excessive internal temperatures and condensation.  
High temperatures could cause damage to boat interiors, accessories or trimming for which the manufacturer will not be responsible.  
MRP 2067970



**⚠ CAUTION**

**I** REMOVE COCKPIT TABLE BEFORE LIFTING ENGINE HATCH  
MRP #207902

**Save Our Seas**

It is illegal to dump plastic trash anywhere into the ocean or navigable waters of the United States. Violation of these requirements may result in civil penalty up to \$2,500, or fine of \$50,000 and imprisonment for up to five years. Regional, state and local restrictions on garbage discharge may also apply.

INSIDE 3 MILES	INSIDE 12 MILES	INSIDE 50 MILES
PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT ANY GARBAGE EXCEPT DISHWASHER OR WATER RESISTANT FISH PARTS	PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT LESS THAN ONE SQUARE METER	PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT LESS THAN ONE SQUARE METER
3 TO 12 MILES	12 TO 25 MILES	25 TO 50 MILES
PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT	PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT	PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT
50 TO 100 MILES	100 TO 200 MILES	200 TO 500 MILES
PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT	PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT	PLASTICS DUNNAGE, LINING AND PACKING MATERIALS THAT FLOAT

**DUNNAGE:** Material used to stack and brace cargo, and is considered a cargo associated waste.  
**DISHWASHER:** Means the liquid residue from the manual or automatic washing of dishes and cooking utensils which, have been (previously) particles adhering to them the need not be removed.  
**GRAYWATER:** Means drainage from a dishwasher, shower, washbasin, and does not include drainage from toilets, urinals, hoses, and cargo systems.

**⚠ DANGER**

**HIGH VOLTAGE**  
 AVOID SERIOUS INJURY OR DEATH FROM ELECTRICAL SHOCK. DISCONNECT ALL POWER SOURCES BEFORE REMOVING PANEL.

MRP# 2088151

A

**IMPORTANT**

Do not energize the electrical circuit to this water heater until the heater 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 or tank damaged in this manner.

2067974

A

2029598

⚠ WARNING ⚡ ELECTRICAL SHOCK HAZARD 🔥 FIRE HAZARD 📖 READ OWNER'S MANUAL

A

**⚠ WARNING**

**Carbon monoxide (CO)** can cause brain damage or death. Carbon monoxide can be present in the cabin. Signs of carbon monoxide poisoning include nausea, headache, dizziness, drowsiness, and lack of consciousness. Get fresh air if anyone shows signs of carbon monoxide poisoning. Get fresh air if carbon monoxide detector alarm sounds. Carbon monoxide detector must be functioning at all times.

B

**⚠ CAUTION**

**DISINFECT AND FLUSH POTABLE WATER SYSTEM BEFORE USING. FAILURE CAN CAUSE ILLNESS.**

MRP #2064167

C

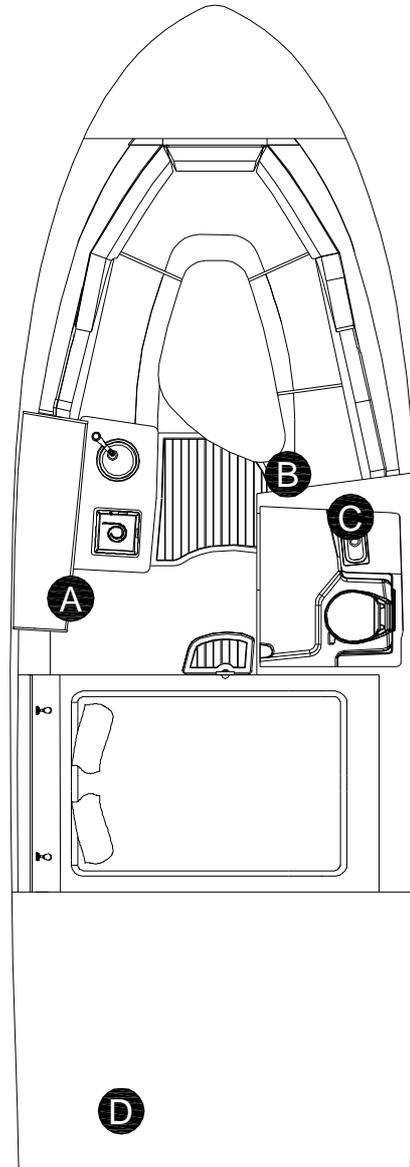
**DESIGN BATTERY LOCATION BATTERY INSTALLATION REQUIREMENTS**

REF: TITLE 33 CODE OF FEDERAL REGULATIONS PART 183

1. BATTERY MUST BE SECURED IN A MANNER THAT WILL ENABLE IT TO WITHSTAND A 90-POUND FORCE APPLIED FROM ANY DIRECTION FOR ONE MINUTE WITHOUT MOVEMENT OF MORE THAN ONE INCH.
2. THE BATTERY POSITIVE TERMINAL MUST BE PROTECTED FROM SHORTING WITH A NON-CONDUCTIVE BOOT OR BY PLACING THE BATTERY IN A NON-CONDUCTIVE COVERED BOX.
3. METALLIC FUEL LINES AND FUEL SYSTEM COMPONENTS MUST BE A MINIMUM OF 12 INCHES FROM BATTERY.
4. BATTERY MUST NOT BE DIRECTLY ABOVE OR BELOW A FUEL TANK, FUEL FILTER, OR FITTING IN A FUEL LINE.

MRP2030311

D



## Chapter 2: Locations

### Passenger Locations

**! WARNING !**

Wet decks are slippery.  
 You can be seriously injured if you slip and fall.  
 Wear slip resistant footwear secured to your feet and hold on to rails or boat structure.

**! WARNING !**

Boat motion can be erratic.  
 You can fall overboard or be injured by hitting something in or on the boat.  
 All persons must be in cockpit area or cabin and be prepared for sudden boat movement.  
 Use front or bow deck area only during anchoring, mooring or emergencies.

When persons are on the working deck area, for anchoring, mooring, or in emergencies, they must be holding on and be positioned so as to prevent falling. In bad weather and/or rough water, if it is essential to be on deck, persons should be closely tied to cleats, railing stanchions or other securely fastened boat hardware.

Your boat was manufactured to specific stability and flotation standards for the capacity shown on the certification plate. Any increase from the recommended load capacities will put your boat in jeopardy of capsizing, swamping and/or sinking.

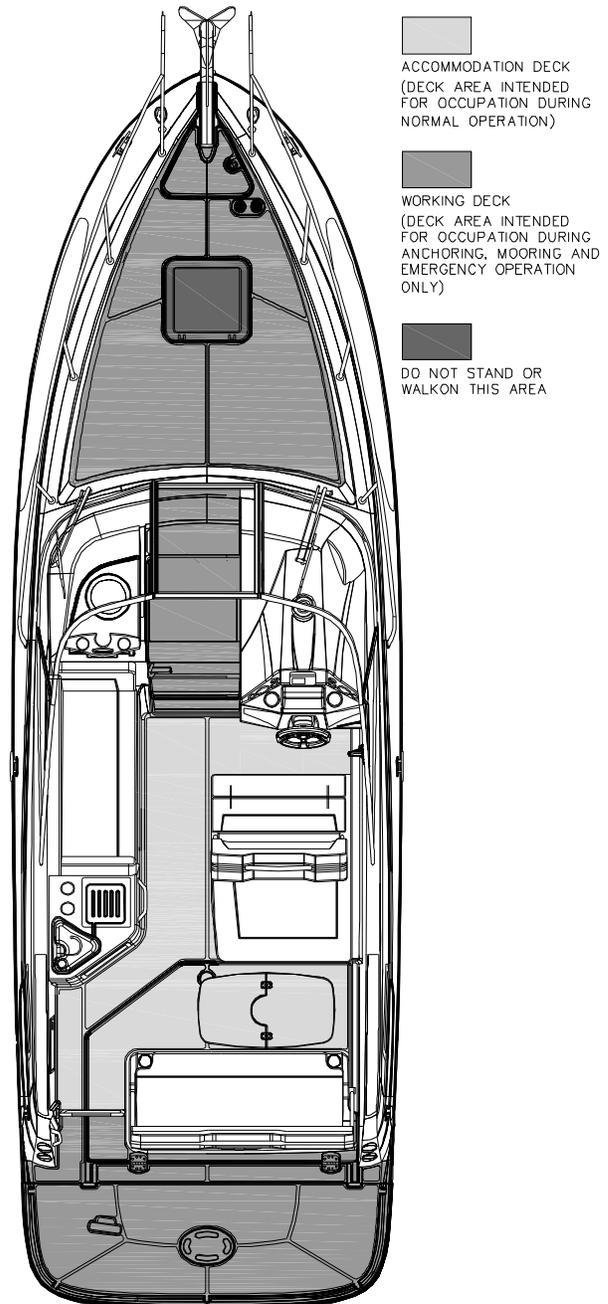
In Addition:

- Stability may be substantially reduced if equipment is added above the deck.
- Stability is substantially reduced by loose fluids or weight within the hull. Keep bilge area as dry as possible, and close all openings, hatches and windows in rough weather.

Distribute passengers and gear as uniformly as possible from front to rear and left to right.

The manufacturer's load rating is the maximum allowed under calm conditions.

Reduce boat loading if weather, water or other conditions are adverse.



**! DANGER !**

Rotating propellers can injure or kill you.  
 Shut off engine when persons are in water near boat, or on swim platform or ladder.

**! WARNING !**

Rear facing transom seats **MUST NOT** be used while engine is running or boat is moving.

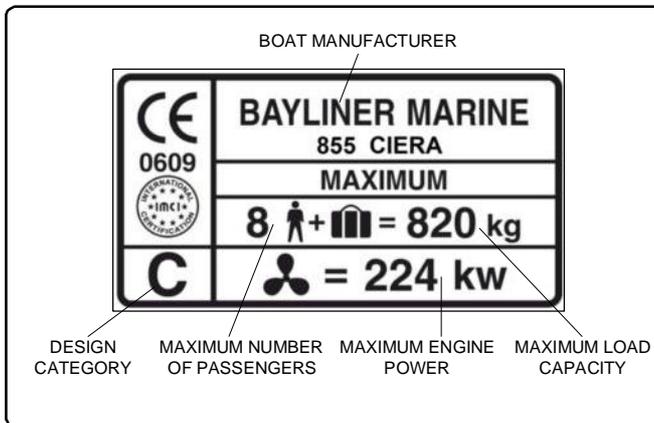
## LOAD CAPACITY

### DANGER !

Never carry more weight or passengers than indicated on the certification plate, regardless of weather or water conditions.

The boat can capsize, swamp or sink.

If present the capacity information plate, located near the helm indicates maximum weight and number of persons your boat can handle under calm sea conditions. Do not exceed the load capacities stated. The number of people on board must be reduced if you go out in poor weather and rough water.



The type of capacity plate will vary dependant upon the local governing authority.

- A. United States** - The United States Coast Guard only provides specific numbers for passenger capacity or cargo weight for recreational vessels up to 20' (6.1 meters). NMMA provides capacity for boats under 26' (7.9 meters).
- B. Canada** - Transport Canada only provides specific numbers for passenger capacity or cargo weight for recreational vessels up to 6 meters (19.7').
- C. Australia** - The Australian Transport Council provides specific numbers for passenger capacity and cargo weight for all recreational vessels.
- D. European Union** - CE regulations provide specific information for passenger capacity and cargo weight for all recreational vessels.

## DESIGN CATEGORY

There are four design categories of boats based upon their ability to withstand wind and sea or water conditions:

### A. Ocean

Wind speed: above 40 knots (46 mph)

Wave height: above 4 meters (13 feet)

Boat may be used for extended ocean voyages.

### B. Offshore

Maximum wind speed: 40 knots (46 mph)

Maximum wave height: 4 meters (13 feet)

Boat can be used offshore, but not for extended ocean voyages.

### C. Inshore

Maximum wind speed: 27 knots (31 mph)

Maximum wave height: 2 meters (6.5 feet)

Boat use is limited to coastal waters, large bays, estuaries, lakes and rivers.

### D. Sheltered waters

Maximum wind speed: 15 knots (18 mph)

Maximum wave height: 0.5 meters (1.5 feet)

Boat use is limited to small lakes, rivers and canals.

### DANGER !

DO NOT ATTEMPT TO BOAT IN SEVERE WEATHER CONDITIONS

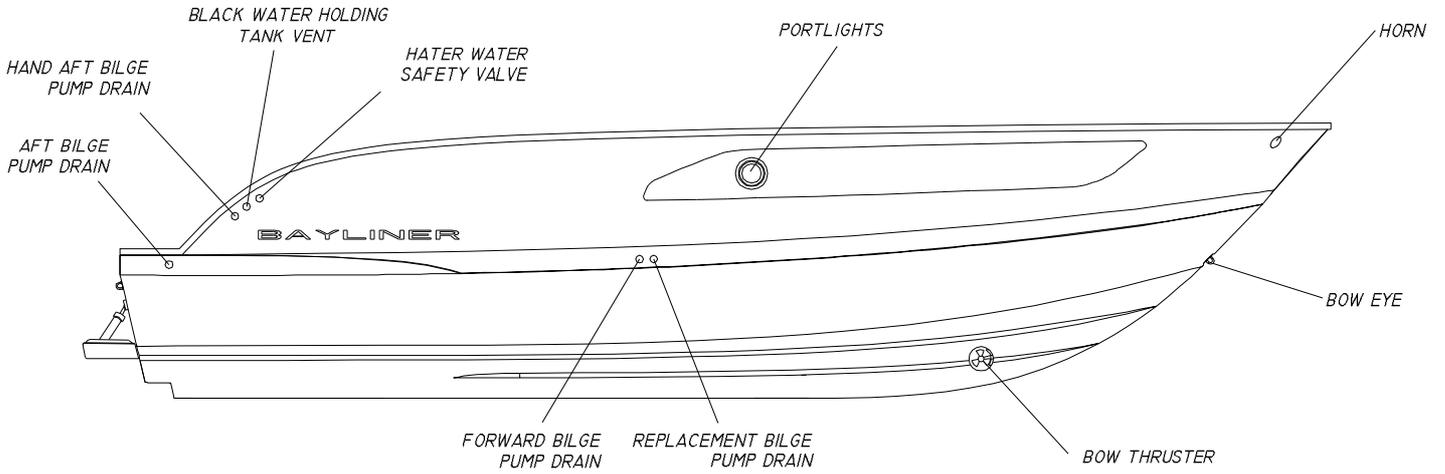
DEATH OR SERIOUS INJURY CAN OCCUR

GET TO SHORE BEFORE THE WEATHER TURNS BAD

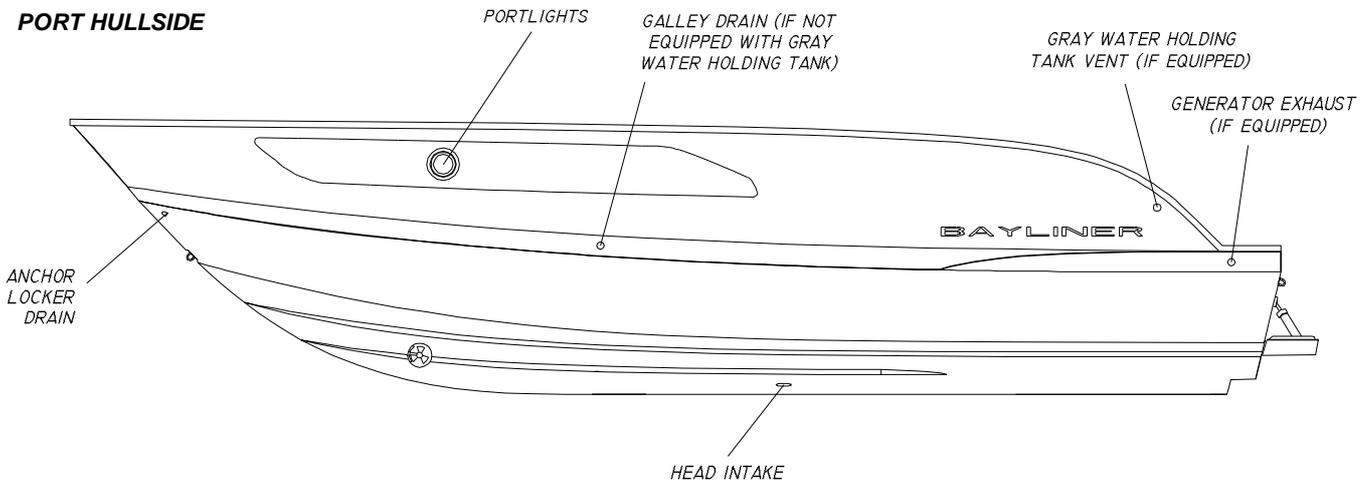
The wind speed and wave height specified as the upper limit for your category of boat does not mean that you or your passengers can survive if your boat is exposed to these conditions. It is only the most experienced operators and crew that may be able to operate a boat safely under these conditions. You must always be aware of weather conditions and head for port or protected waters in sufficient time to avoid being caught in high winds and rough water. Do not take chances!

## Exterior Views

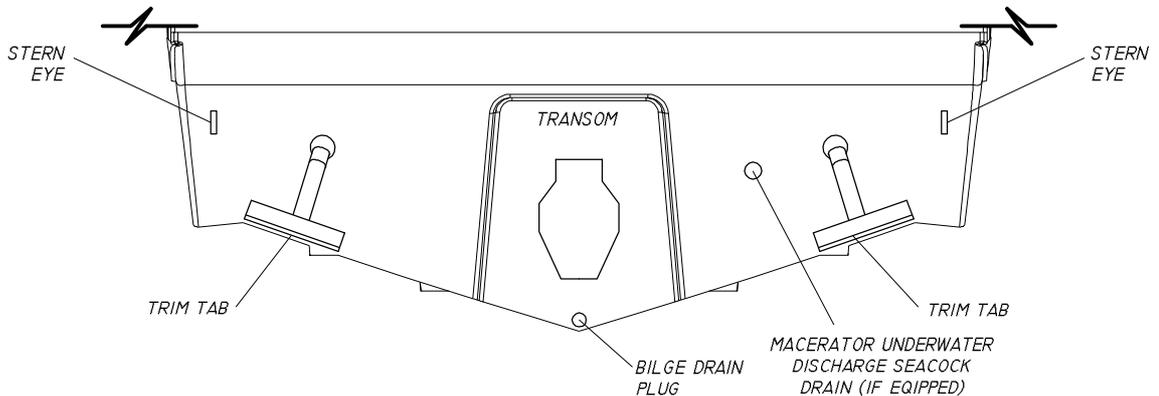
### STARBOARD HULLSIDE



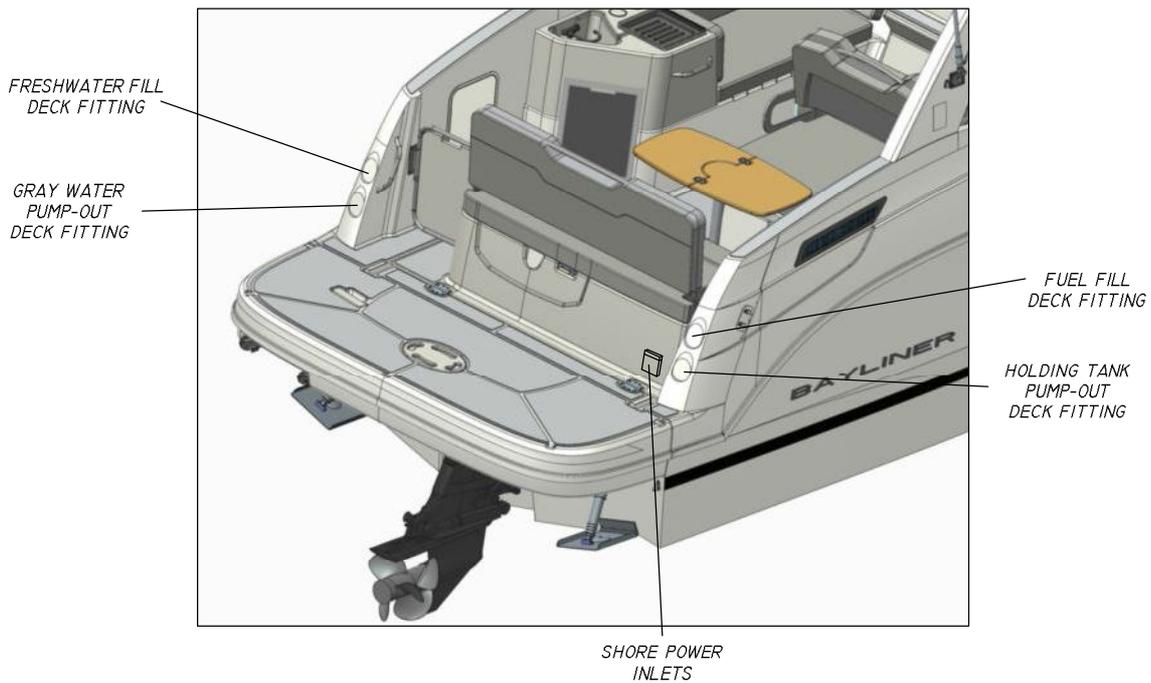
### PORT HULLSIDE



### TRANSOM

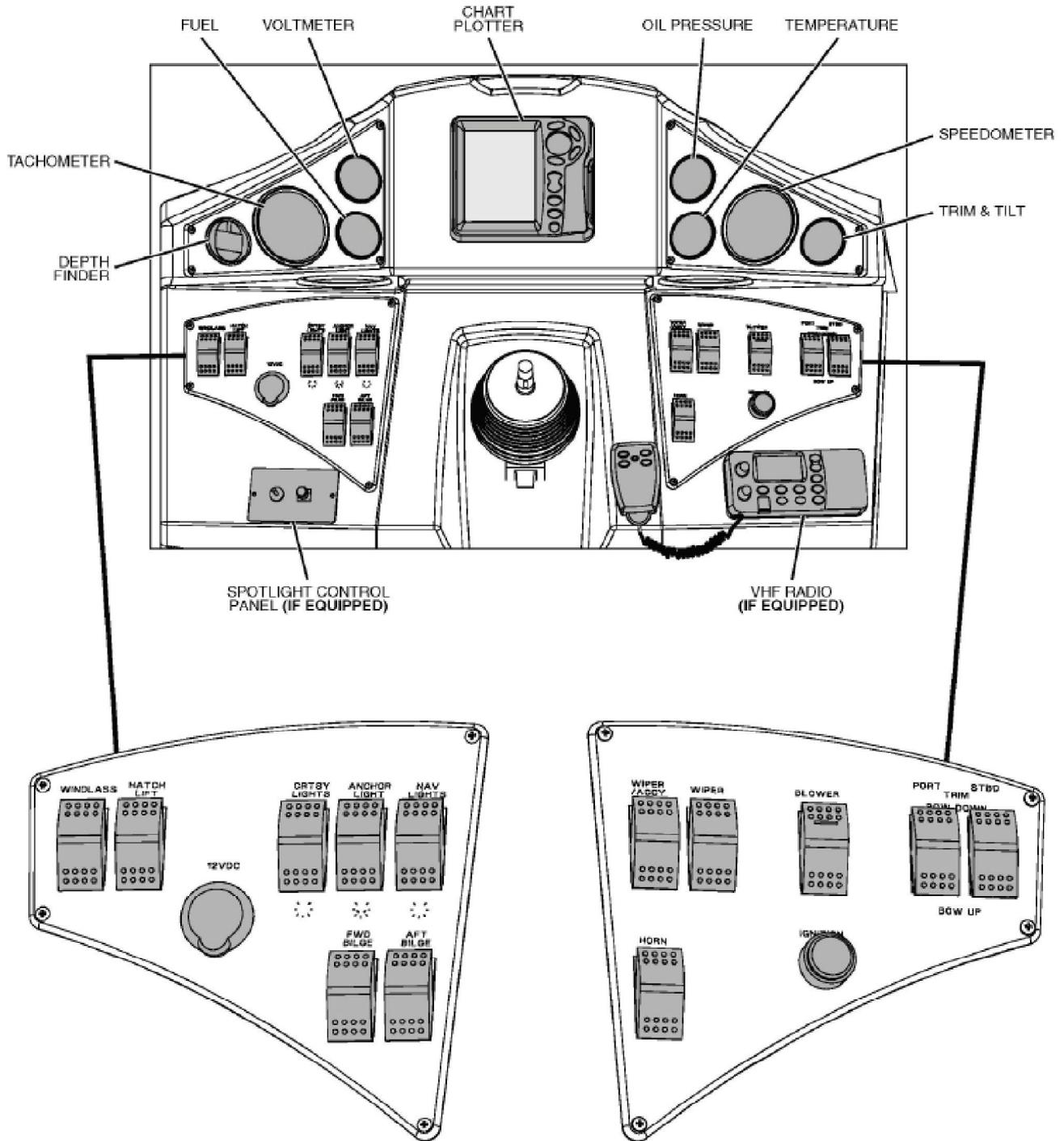


### Deck Views



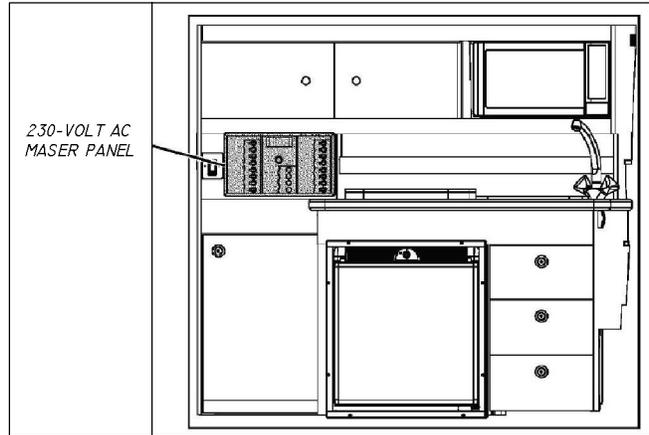
**Helm**

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



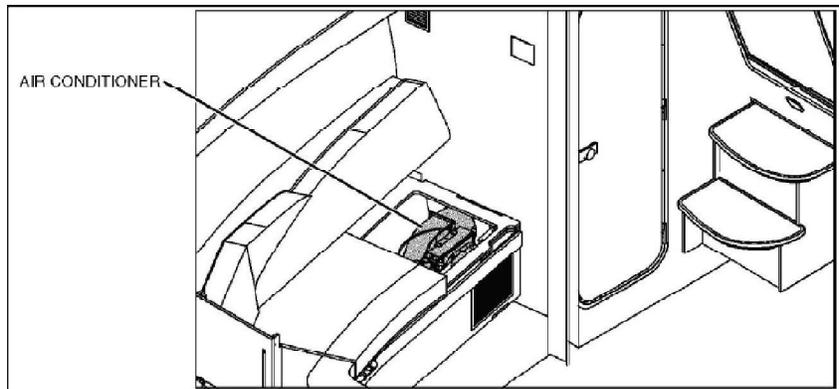
**230-Volt AC Master Panel:**

Located in the galley.



**Air Conditioner (If Equipped):**

Located under the aft dinette seat cushion.

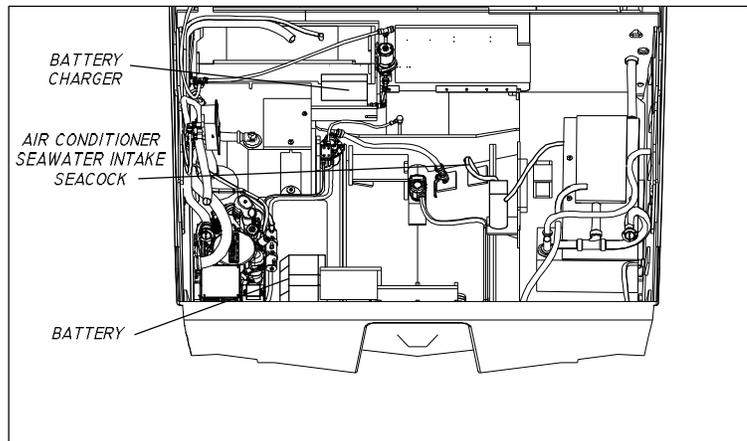


**Air Conditioner Seawater Intake Seacock (If Equipped):**

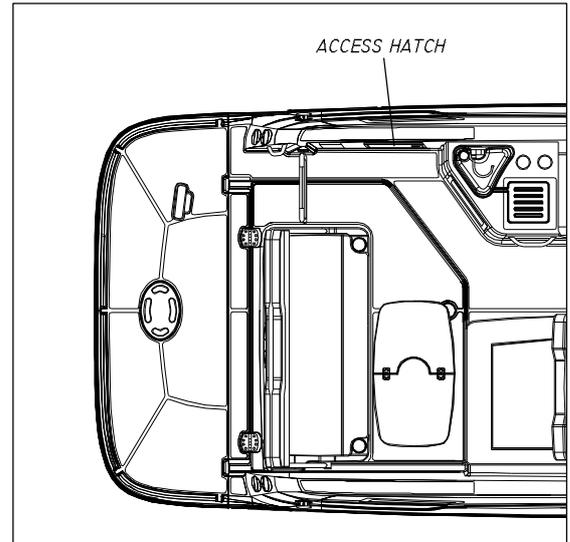
Located in the engine room bilge.

**Battery:** Located in the engine room.

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



**Battery Switch:** Located inside the storage hatch below the entertainment faucet.

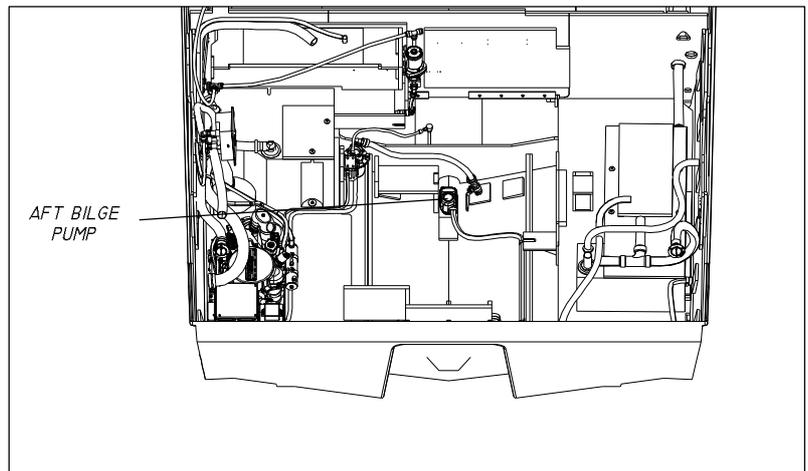


**Bilge Pumps (2 Total):**

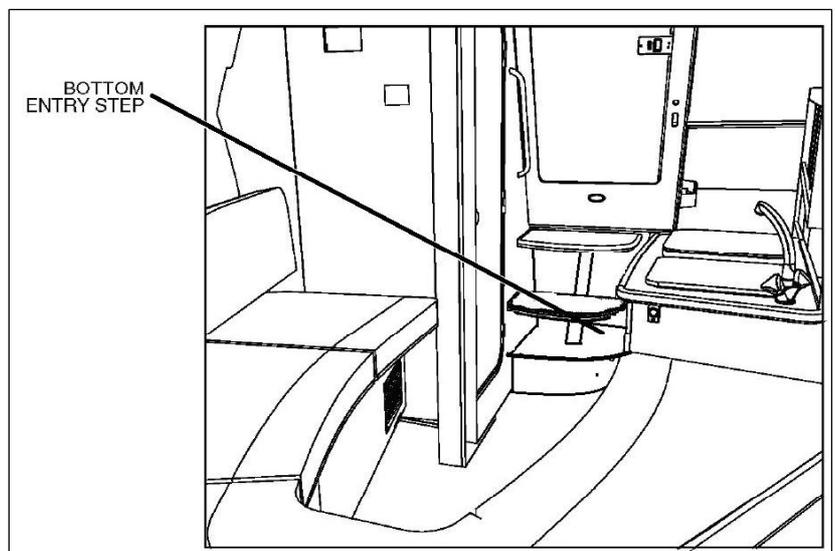
- The aft bilge pump is located in the engine room bilge.

**Warning!**

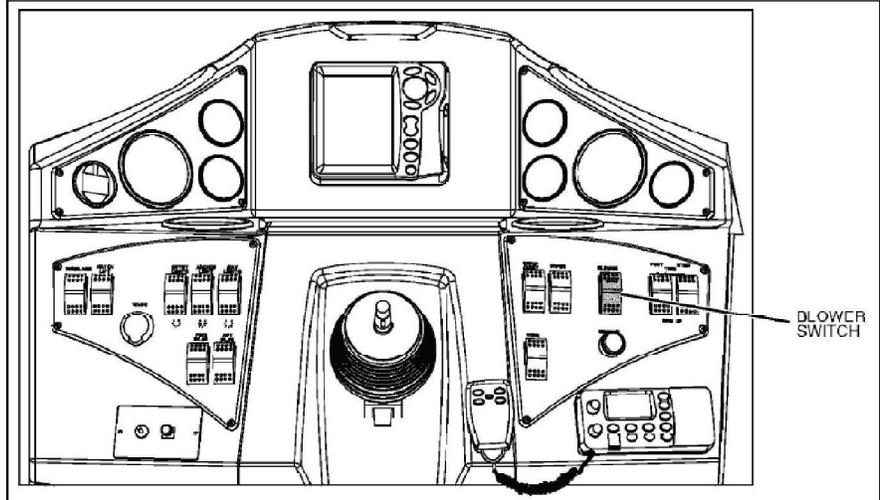
Bilge pumps are designed to displace standing water only. They are not intended to prevent rapid accumulation of on-board water due to rough weather, hull damage, and/or other unsafe navigational conditions.



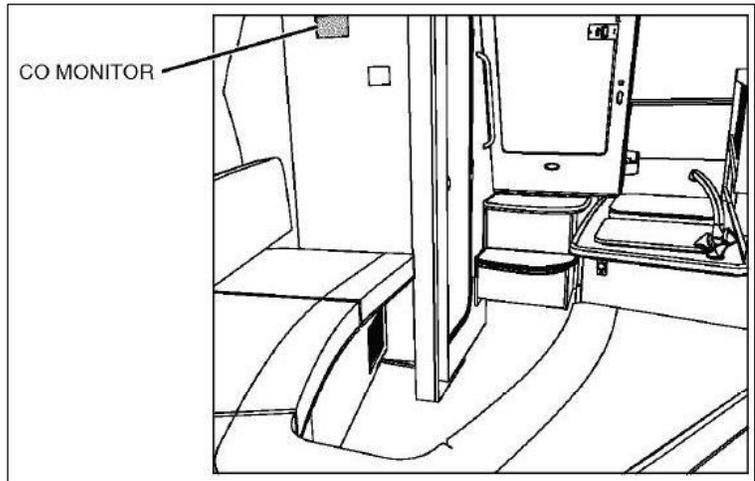
- The forward bilge pump is accessed through the bottom cabin entry step.



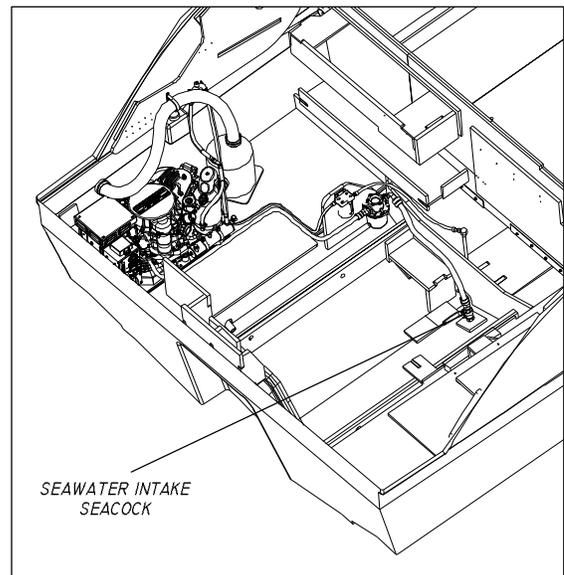
**Blower Switch:** Located on the starboard switch panel at the helm.



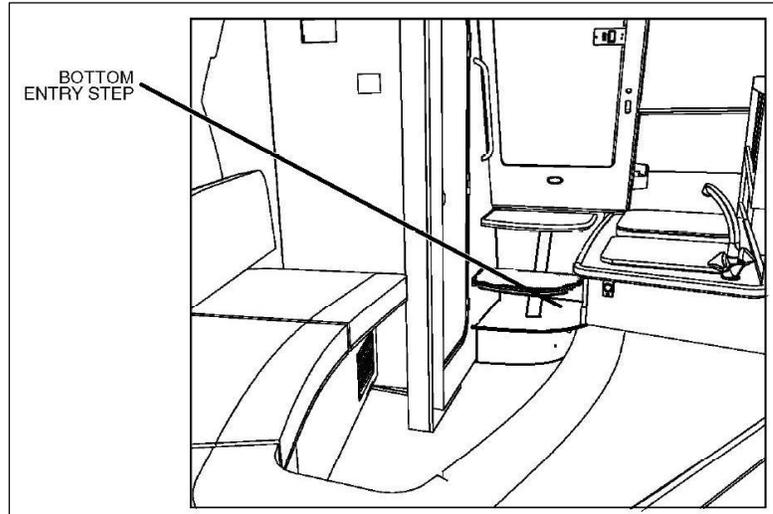
**CO Monitors:** Located in the dinette area, on the forward wall of the head.



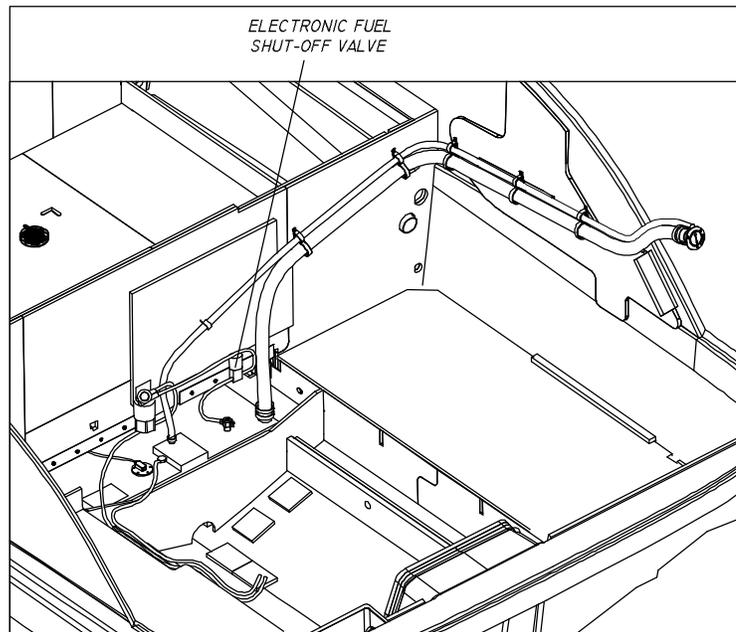
**Generator Seawater Intake Seacock (If Equipped):** Located in the engine room bilge.



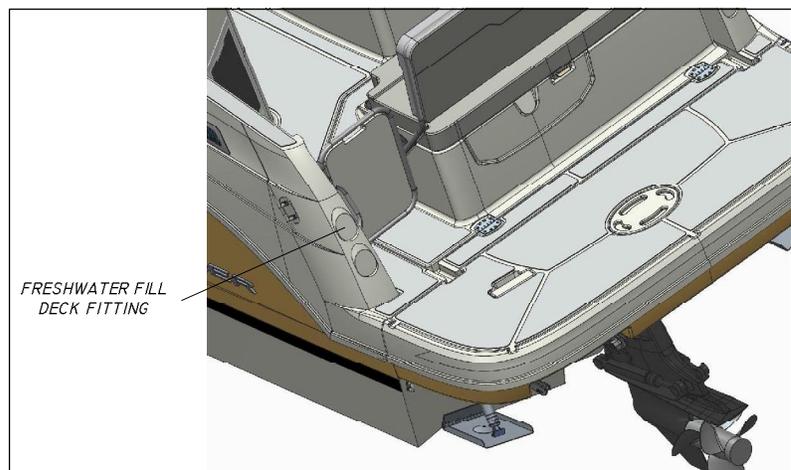
**Depth Finder Transducer:** Access through the bottom cabin entry step.



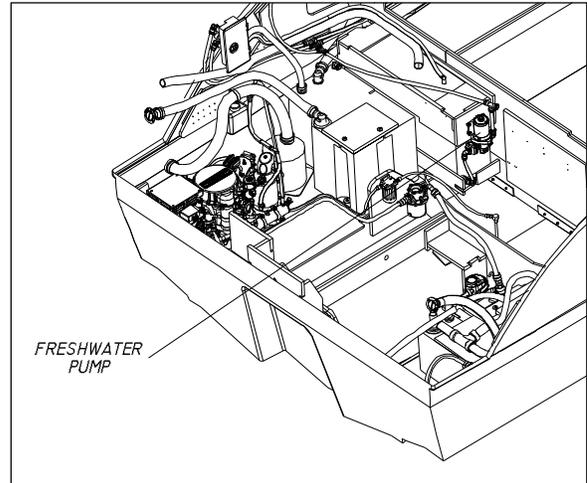
**Electronic Fuel Shut-off Valve (Diesel Engine Only):** Located in the forward area of the engine room.



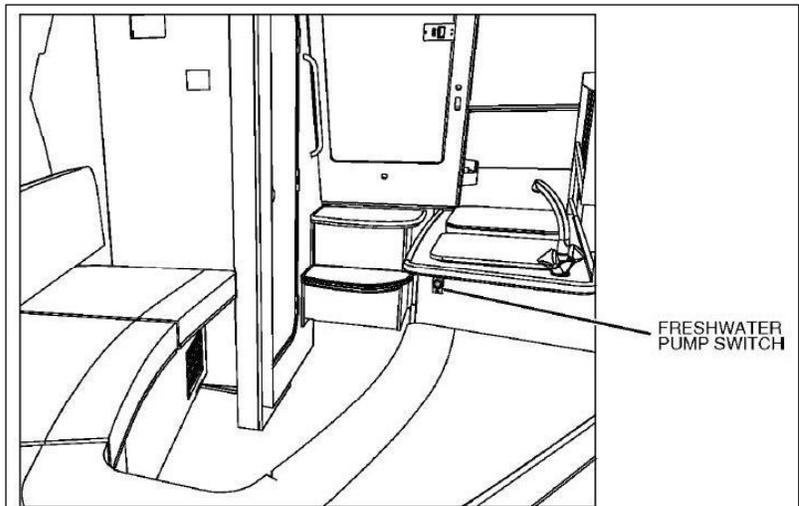
**Freshwater Fill Deck Fitting (marked WATER):** Located on the port aft corner of the deck.



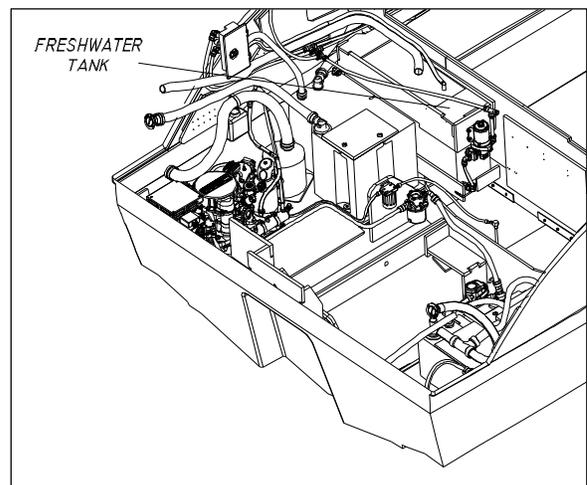
**Freshwater Pump:** Located in the engine room.



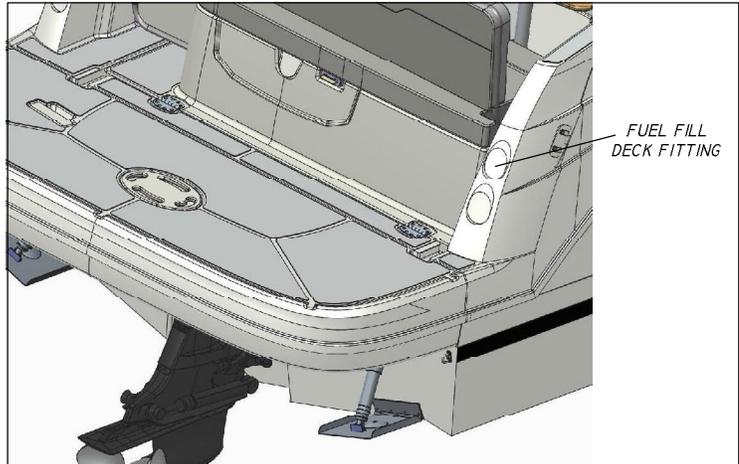
**Freshwater Pump Switch:** Located just forward of the galley sink.



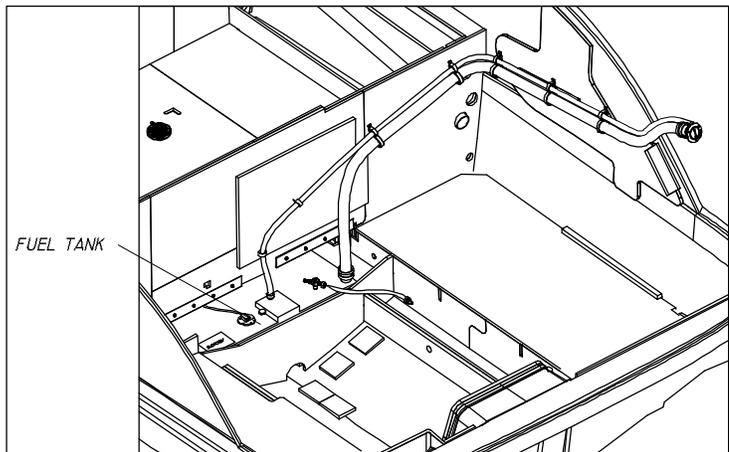
**Freshwater Tank:** Located on the port side of the engine room.



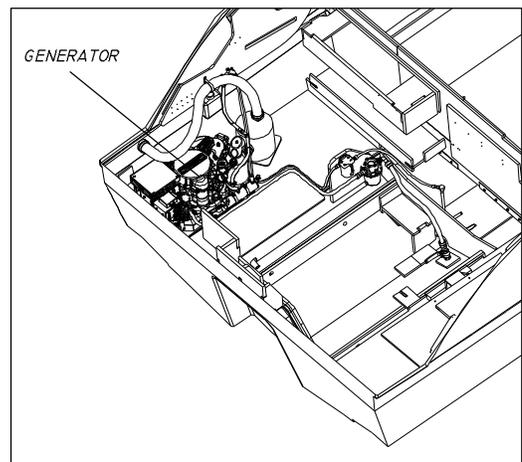
**Fuel Fill Deck Fitting (marked GAS or DIESEL):** Located on the starboard aft corner of the deck.



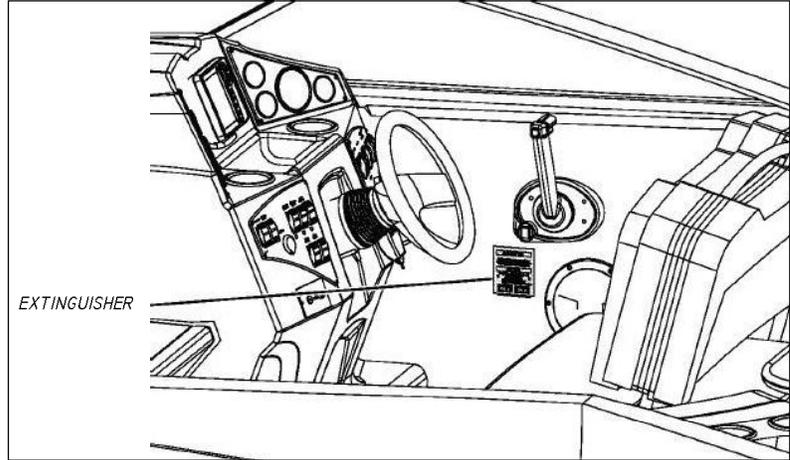
**Fuel Tank:** Located in the engine room bilge area.



**Generator (If Equipped):** Located on the port side of the engine room.

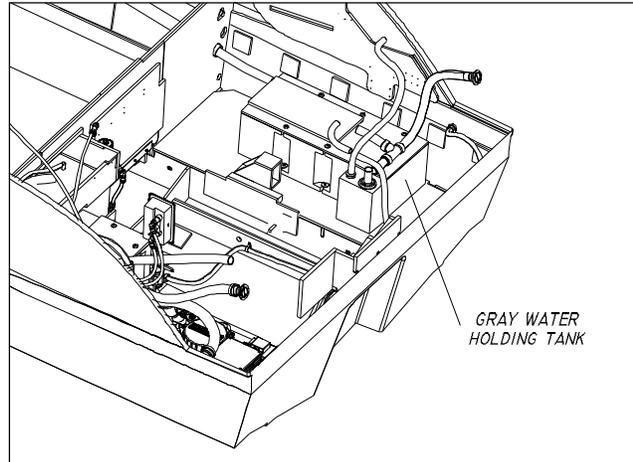


**EXTINGUISHER:** Located just below the shift/throttle lever.

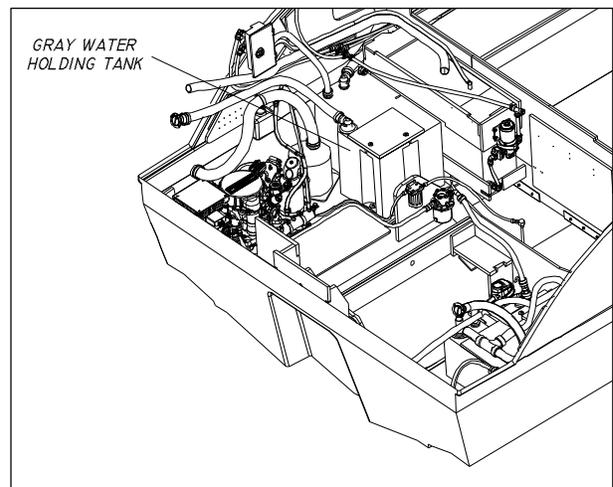


**Holding Tanks:**

- The black water holding tank is located on the starboard side of the engine room.

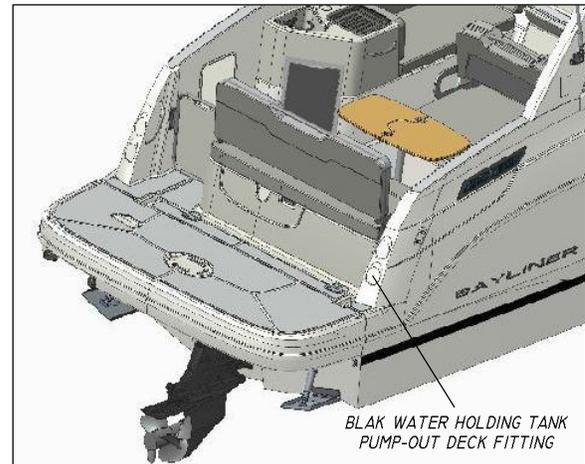


- The gray water holding tank, if equipped, is located on the port side of the engine room.

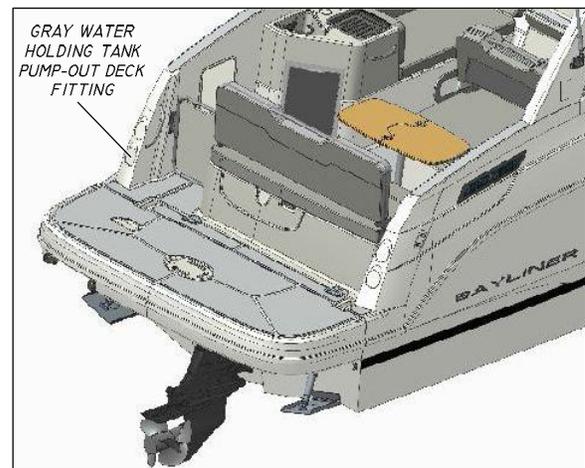


### Holding Tank Pump-out Deck Fittings:

- The black water holding tank pump-out deck fitting is located on the starboard aft corner of the deck.

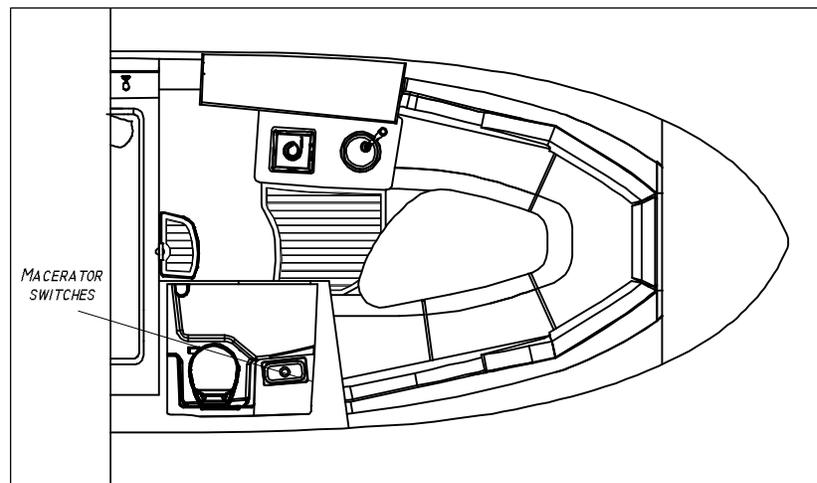


- The gray water holding tank pump-out deck fitting, if equipped, is located on the port aft corner of the deck.



### Macerator Switches (If Equipped):

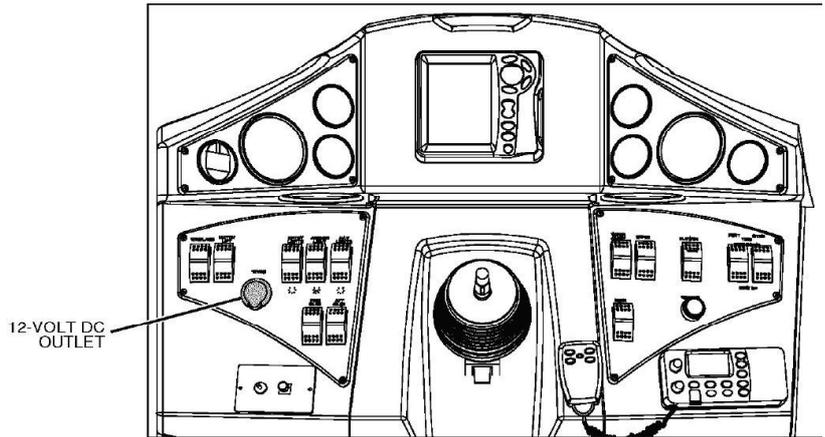
Located in head



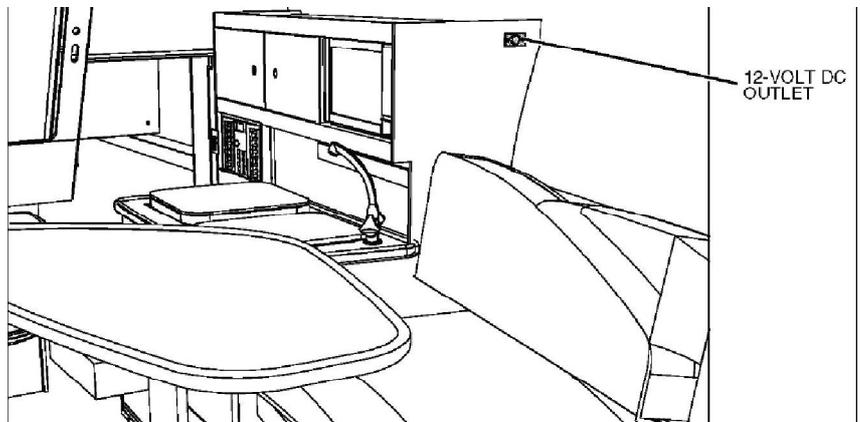
### Component Locations

#### 12-Volt DC Accessory Outlets (2 Total):

- One is located on the port switch panel at the helm.

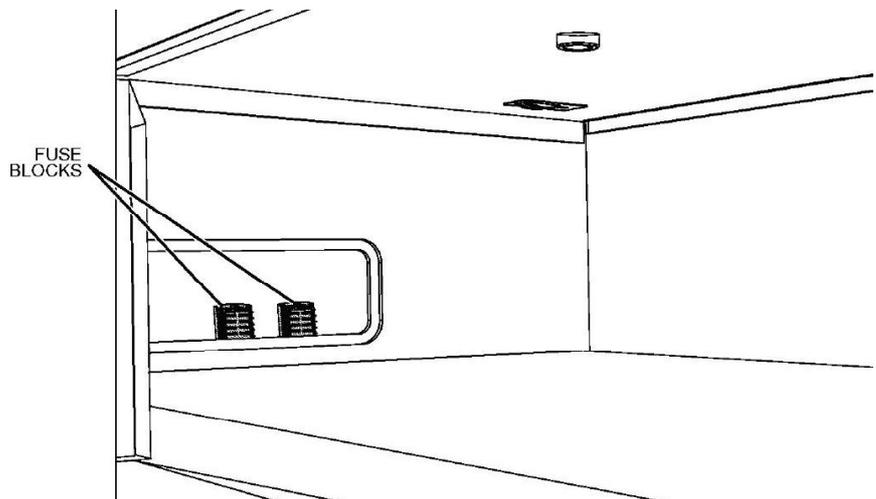


- One is located on the forward end of the galley.

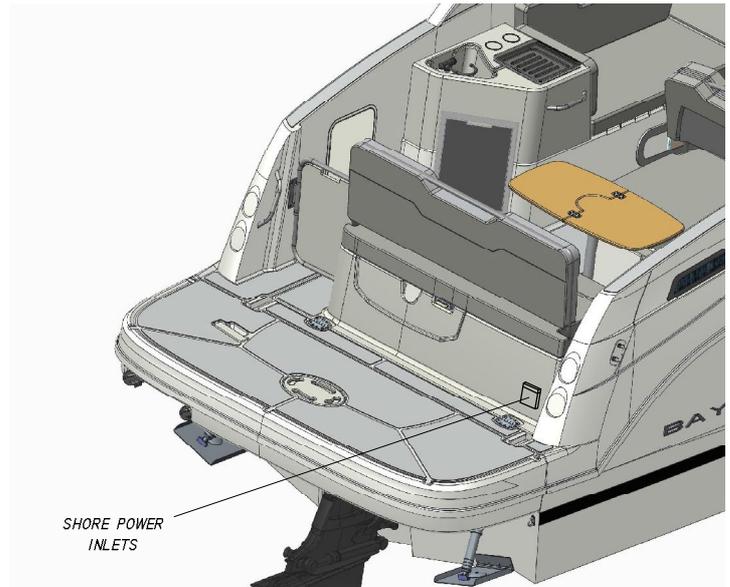


#### 12-Volt DC Fuse Blocks:

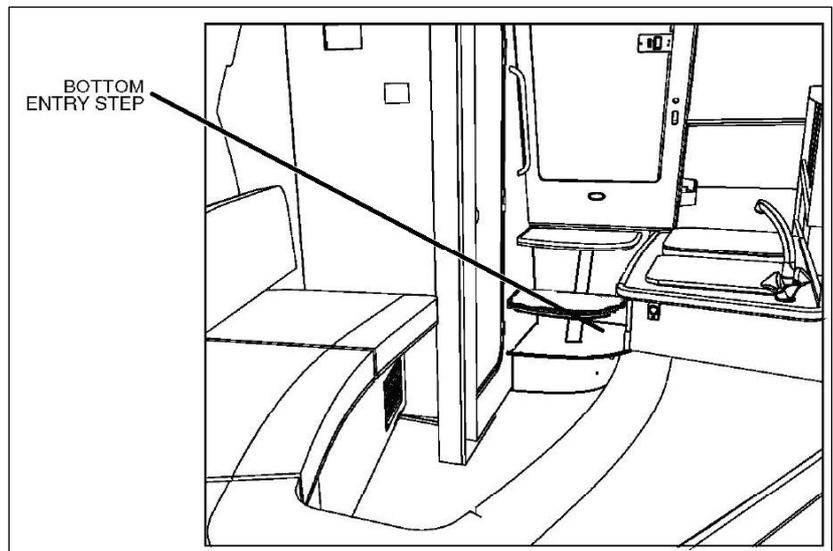
Located in the starboard wall hatch in the aft berth.



**Shore Power Inlet(s):**  
 Located on the aft deck.



**Shower Drain Sump Box:**  
 Access through  
 the bottom cabin entry step.



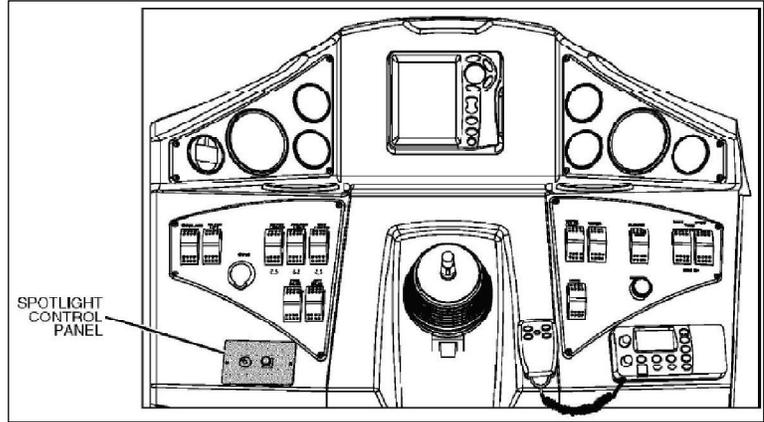
**Navigation Lights:**

- Red and green lights on the forward deck.
- White all-round light on the aft deck.

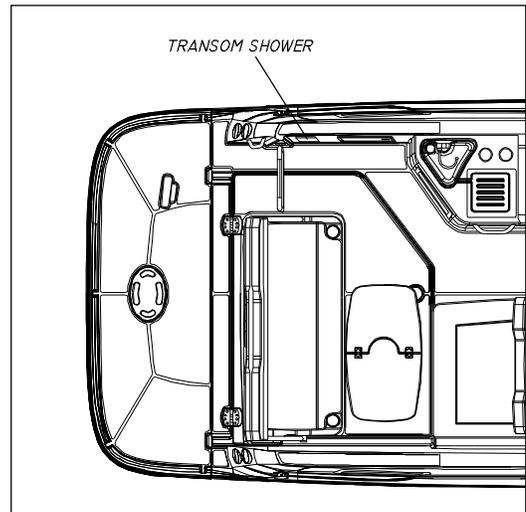


**Spotlight Control Panel:**

Located at the helm.

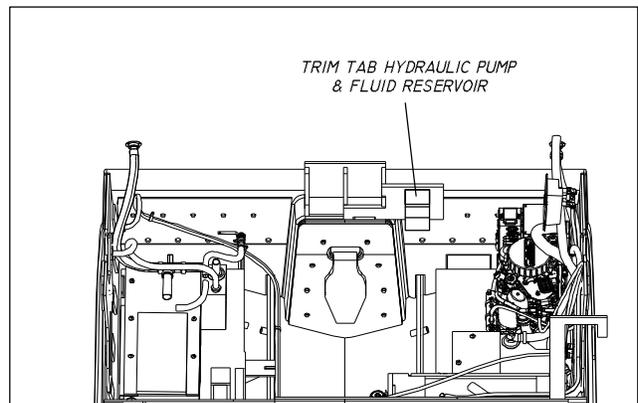


**Transom Shower:** Located on the port side of the cockpit, just forward of the transom entry door.



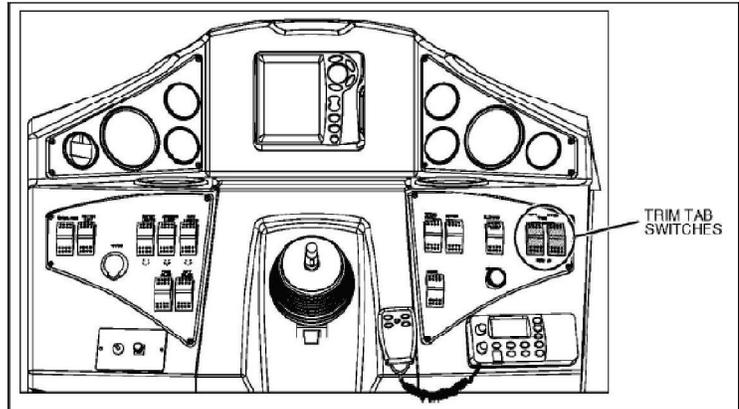
**Trim Tab Hydraulic Fluid Reservoir:**

Located in the engine room, on the aft wall.



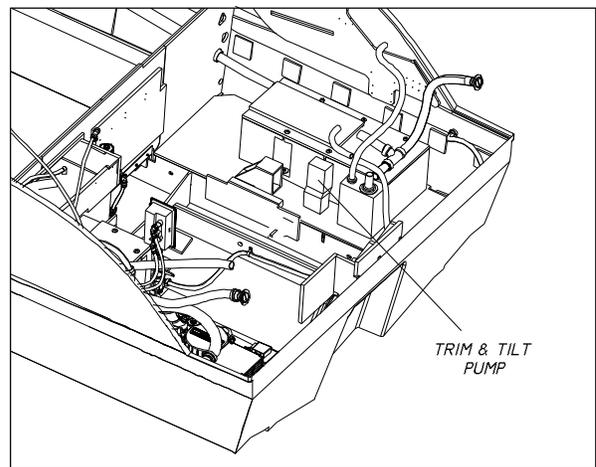
**Trim Tab Switches:**

Located on the starboard switch panel at the helm.



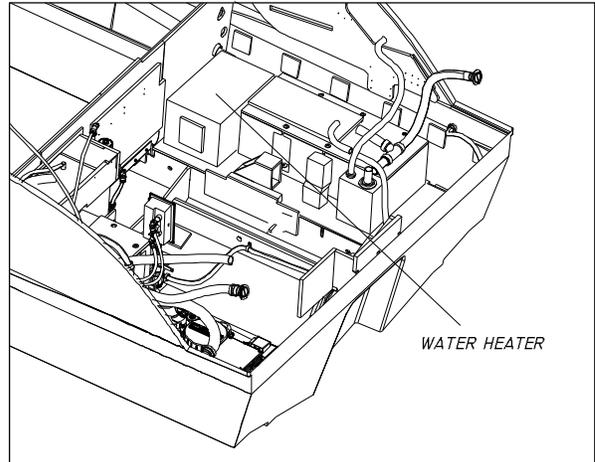
**Windlass Circuit Breakers  
(If Equipped):**

Located inside the storage hatch below the entertainment faucet.



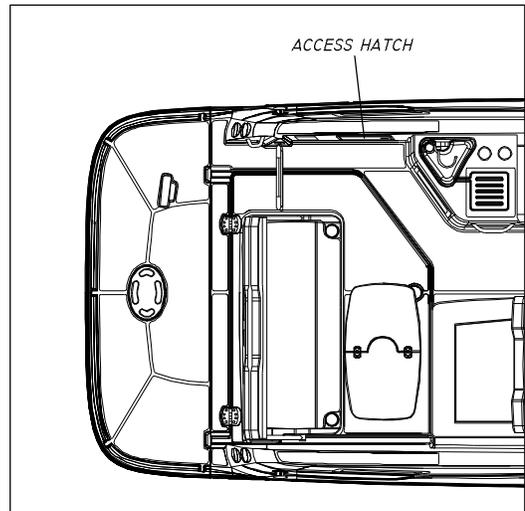
**Water Heater:**

Located in the starboard forward corner of the engine room.



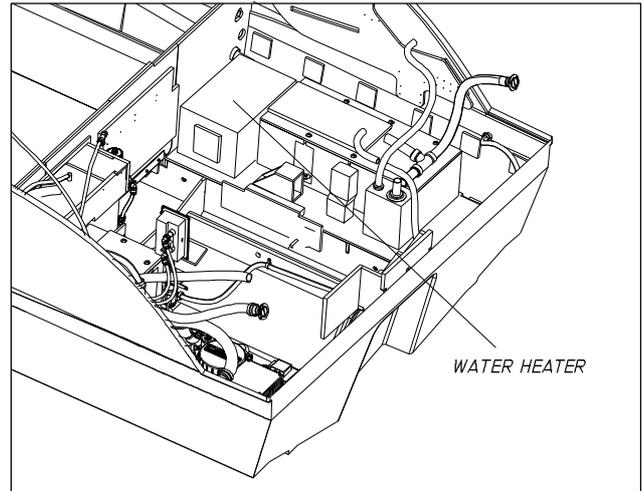
**Windlass Circuit Breakers  
(If Equipped):**

Located inside the storage hatch below the entertainment faucet.



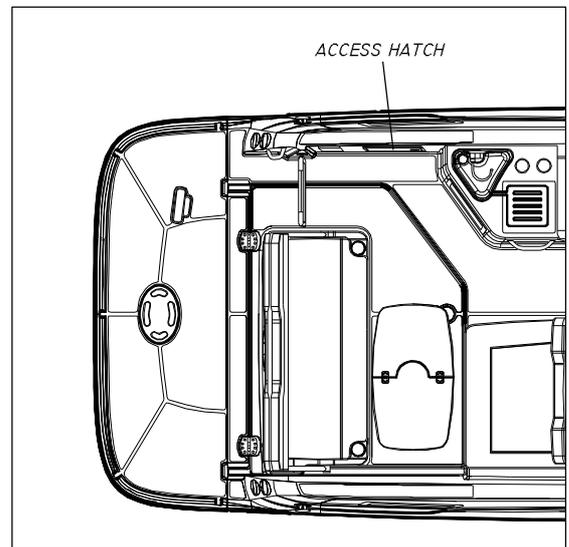
**Water Heater:**

Located in the starboard forward corner of the engine room.



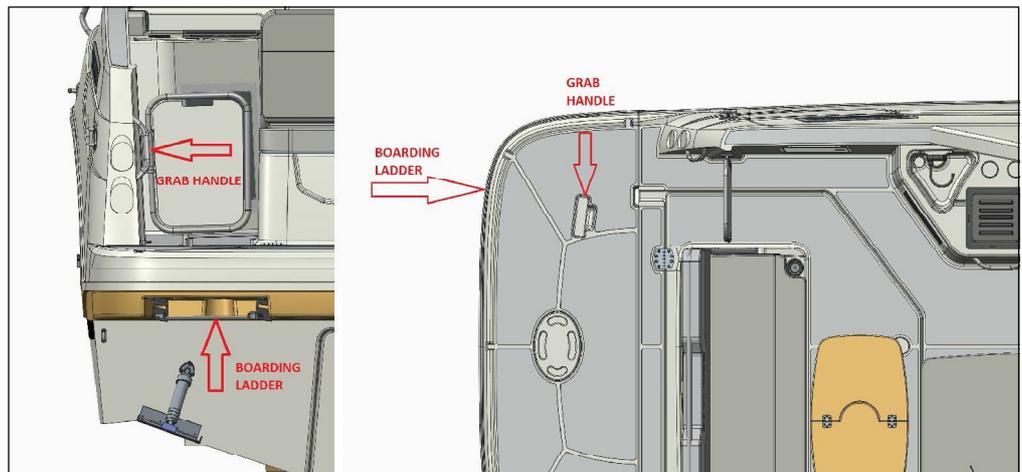
**Windlass Circuit Breakers  
(If Equipped):**

Located inside the storage hatch below the entertainment faucet.



**Boarding Ladder:**

Located aft port corner, under swimplatform.



**Windlass Foot Controls (If Equipped):**  
Located on the forward deck.

WINDLASS FOOT  
CONTROLS



## Chapter 3: Propulsion & Related Systems

### Engine

**⚠ CAUTION**

**TRANSOM ENTRY DOOR DAMAGE HAZARD!**

Always Open the transom entry door before opening the engine hatch.

**NOTICE**

Read the engine manual **BEFORE** starting or working on your engine.

While the topics listed below may be included in this *supplement* and in the *Cruiser & Yacht Owner's Manual*, always refer to the engine manual first for specific information on these important subjects:

- Engine Break-in Procedure
- Engine Starting and Stopping
- Gear Shifting
- Fuel and Oil Recommendations
- Engine Maintenance
- Engine Storage/Winterization

### Freshwater Cooling (If Equipped)

**⚠ WARNING !**

**FLOODING and SWAMPING HAZARD!**

- Close the seawater intake seacock when leaving your boat unattended for any length of time.
- If the seacock is left open, a hose failure could flood the bilge, swamp the battery(s) and the engine, and even sink your boat.

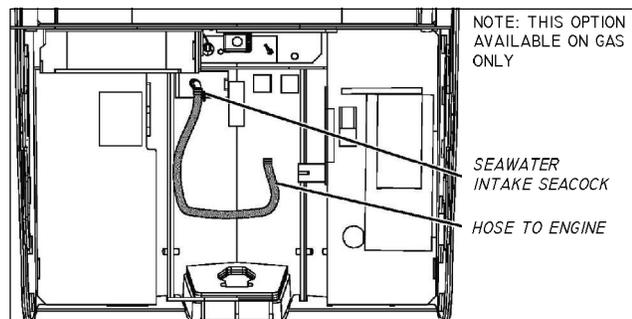
**⚠ CAUTION**

**SYSTEM DAMAGE HAZARD!**

- Open the engine cooling system's seacock or ball valve **BEFORE** starting the engine.
- Keep the engine cooling system's seacock or ball valve **Open** while the engine is running.

The freshwater cooling system circulates seawater through the heat exchanger to reduce engine temperatures.

- *Open* the seawater intake seacock starting the engine.
- Keep the seacock *Open* while the engine is running.



## Bilge Blower System

! **WARNING !**



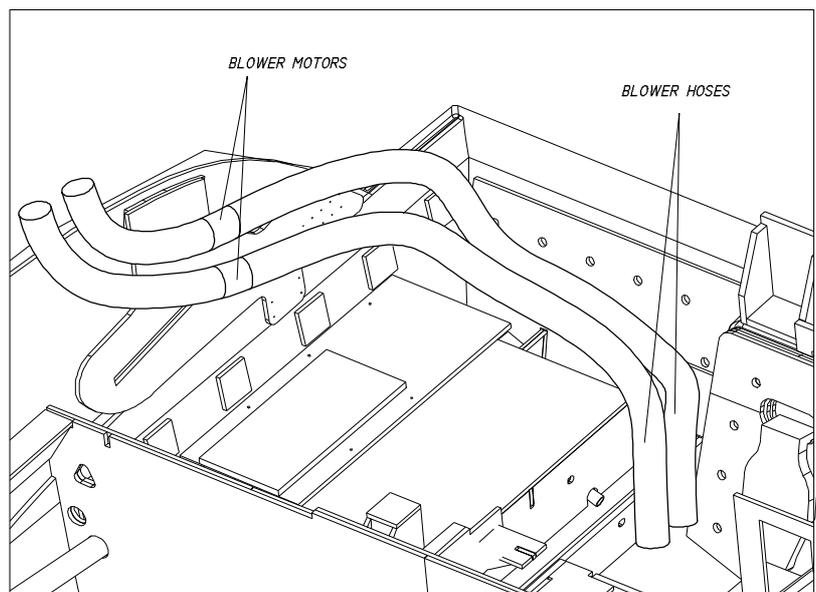
**FIRE and EXPLOSION HAZARD!**  
Fuel vapors can explode! **BEFORE** starting the engine:

1. Check the bilge areas for fuel vapors or leaking fuel. If you see leaking fuel or smell fuel vapors:
  - a. Do **NOT** start the engine, do **NOT** turn On any electrical devices, put out **ALL** cigarettes, cigars, and other sources of flame or ignition.
  - b. Get everyone off your boat.
  - c. Get trained help to find and fix the problem.
2. Run the bilge blowers for at least four minutes **BEFORE** engine starting, electrical system work, or turning on electrical devices.
  - If you smell fuel vapors and the engine is already running;
    - a. Shut **Off** the engine and turn **Off ALL** electrical devices.
    - b. Put out **ALL** cigarettes, cigars, and other sources of flame or ignition.
    - c. Get trained help to find and fix the problem.
  - **NEVER** obstruct or change the bilge blower system.

- The bilge blower system removes explosive fumes from the engine and bilge areas.
- Fresh air is drawn into the engine and bilge areas through the vents.

### To make sure the engine and bilge areas are properly ventilated:

- Use the "sniff test" to check the engine and bilge areas for fuel vapors before starting the engine.
- Always run the bilge blowers for at least four minutes before starting the engine.
- Continue to run the blowers until your boat has reached cruising speed.
- Always run the blowers when running your boat below cruising speed.



## Fuel System

### ! WARNING !



**FIRE, EXPLOSION, and OPEN FLAME HAZARD!**

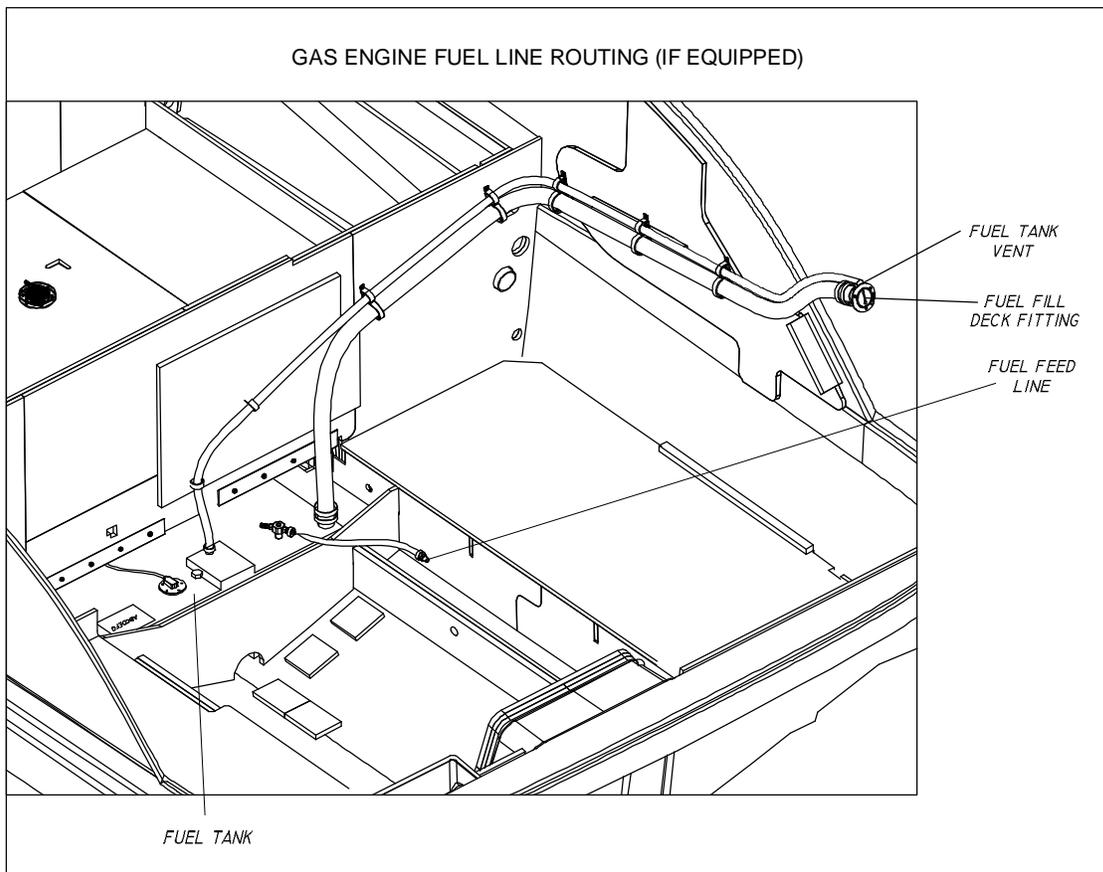
- Thoroughly inspect the fuel system for leaks every time you take on fuel.
- Fueling instructions are provided in the Cruiser & Yacht Owner's Manual, and fuel recommendations are provided in the engine operation manual. Carefully read this information.

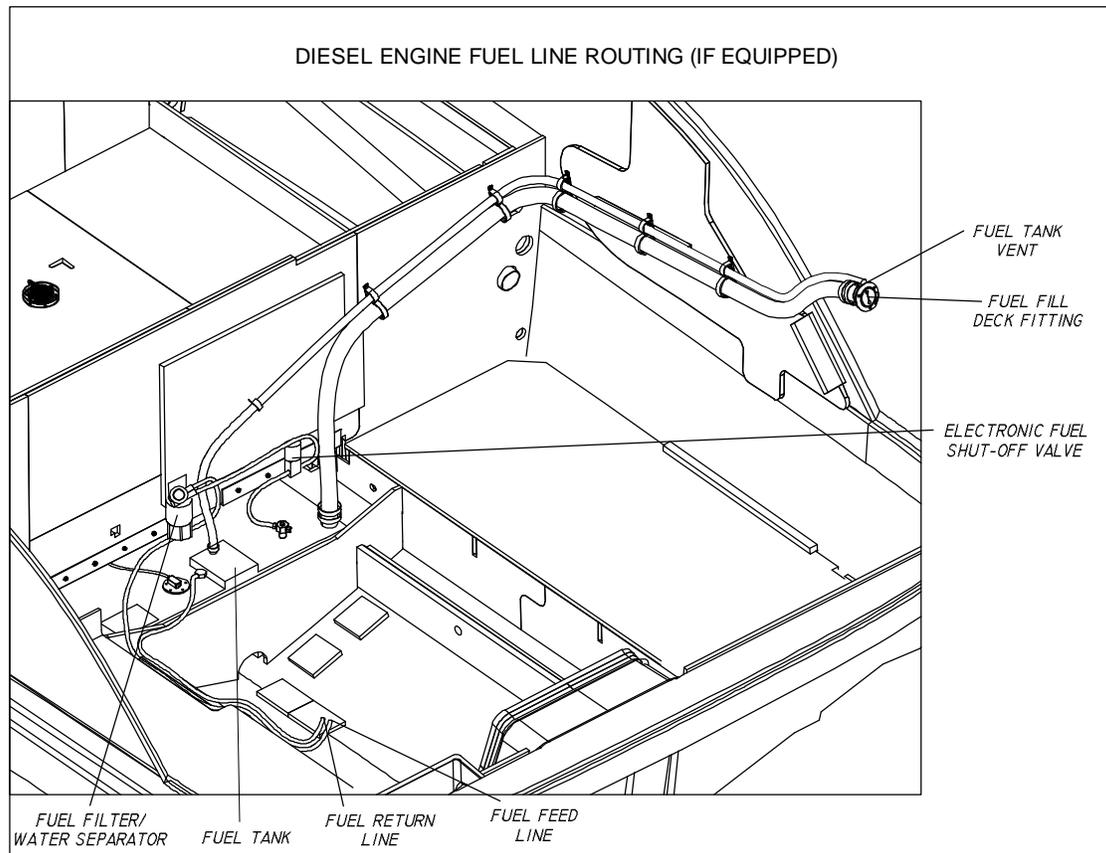
### ! CAUTION

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

### 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**

- Depending on engine type, the fuel fill deck fitting is marked either GAS or DIESEL.
- If you have problems filling the 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 Valve (Gas Engine Only)**

## **NOTICE**

- If an engine running problem is diagnosed as fuel starvation, check the anti-siphon valve.
- If the valve is stuck or clogged, **ONLY** change or replace it while the engine is Off.
- **NEVER** run the engine with the anti-siphon valve removed, except in an emergency.

- The anti-siphon valve is a vital fuel system part.
- If the fuel line ruptures, this valve prevents the siphoning of fuel from the tank.
- The valve is located on the fuel tank, where the fuel feed line attaches to the tank.
- The valve is spring loaded and is opened by fuel pump vacuum.

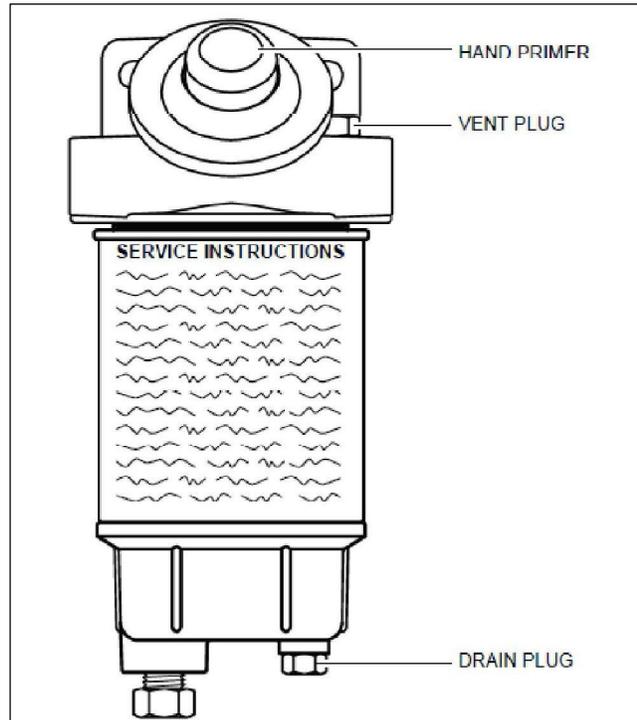
### **Gas Engine Fuel Filters**

- The fuel pickup tube, located inside the fuel tank, is equipped with a fine mesh screen filter.
- Also, when supplied by the engine manufacturer, a fuel filter is installed on the engine.
- Periodically replace the fuel filter to make sure it remains clean and free of debris.
- Talk to your selling dealer or local marina about fuel additives that help prevent fungus or other buildup in your fuel tank.

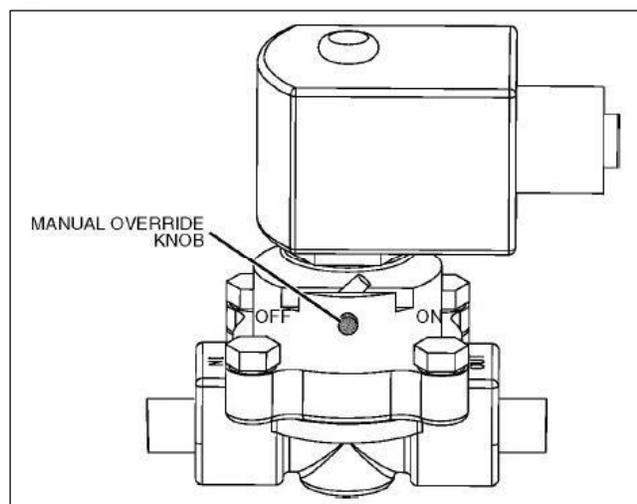
**Fuel Filter/Water Separator (Diesel Engine Only)****NOTICE**

- The frequency of water draining or element replacement is controlled 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.

- The fuel feed line features a fuel filter/water separator.
- Service instructions for the fuel filter/water separator are provided on the filter.

**Electronic Fuel Shut-off Valve (Diesel Engine Only)**

- Your diesel engine is equipped with an electronic fuel shut-off valve.
- When you start your engine, the electronic fuel shutoff valve opens to allow fuel to the engine.
- When you turn off the engine, the electronic fuel shutoff valve closes, stopping the fuel flow to the engine.
- If the electronic fuel shut-off valve malfunctions, it has a manual override.
- Turn the manual override clockwise to open the electronic fuel shut-off valve.



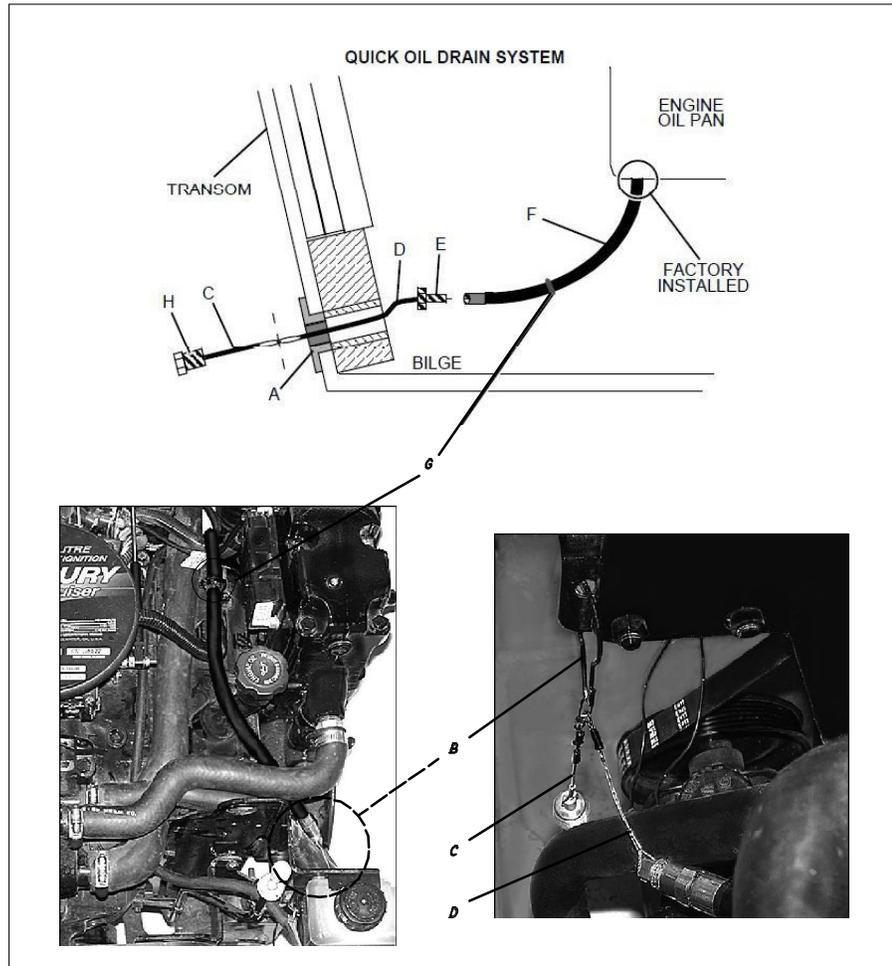
## Quick Oil Drain System

The quick oil drain hose assembly was attached to the engine oil pan at the factory. However, some minor assembly is still needed *before* you can use this system.

NOTE: This is not the only method for changing your oil. Your selling dealer can recommend other methods.

### How to install the quick oil drain system:

1. Unscrew the factory installed bilge plug from the bilge drain (A). NOTE: Keep the original factory bilge plug on your boat as a spare.
2. Unclip the quick oil drain assembly from the wire loop (B) on the engine.
3. Unclip the bilge plug's draw cord (C) from the oil drain plug's draw cord (D).
4. Thread the oil drain plug's draw cord (D) through the bilge drain (A).
5. Pull the oil drain plug (E), and the oil drain hose (F) through the bilge drain.
6. Adjust the hose stop clamp (G) so that no more than 12 inches of hose, including the oil drain plug, can extend out of the bilge drain (A).
7. Clip the bilge plug's draw cord (C) back to the oil drain plug's draw cord (D).
8. Push the oil drain hose, oil drain plug, and both draw cords through the bilge drain and into the bilge area.
9. Screw the bilge plug (H) into the bilge drain (A) and tighten firmly.



### To drain the engine oil:

1. Remove your boat from the water.
2. Unscrew the bilge plug.
3. Pull the draw cord until the oil drain plug and the oil drain hose slide out of the bilge 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 bilge plug and tighten firmly.

**Always dispose of waste oil in accordance with local laws.**

## Chapter 4: Controls & Gauges

### Steering

- Your boat features a power-assisted rack-and-pinion steering system.
- For information about the power-assist fluid reservoir, refer to the engine operation and maintenance manual.
- Boat steering is **not** self-centering.
- Refer to the engine manual for more steering system details.

### Shift/Throttle Controls

**! WARNING !**

**LOSS OF CONTROL HAZARD!**

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

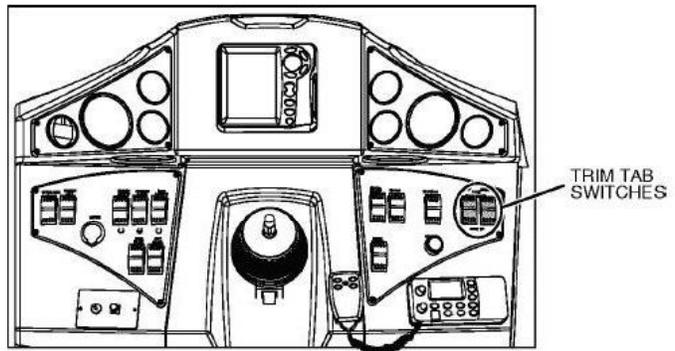
Read *all* of the information about the shift/throttle controls in the shift/throttle manual, the engine operation manual, and the *Cruiser & Yacht Owner's Manual*.

### Power Trim & Tilt

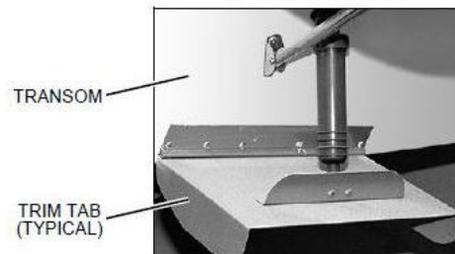
- The stern drive on your boat is equipped with power trim and tilt.
- Trim and tilt instructions are provided in the engine operation manual and the shift/throttle manual.

### Trim Tabs

- **Before** using the trim tabs, read the trim tabs' owner's manual.
- The trim tabs are controlled by two rocker switches at the helm.
- Check and refill the trim tab hydraulic fluid reservoir as directed in the trim tabs' owner's manual.
- For the location of the fluid reservoir, see the *Component Locations* section in *Chapter 2* of this supplement.



TYPICAL TRIM TAB



## Gauges

### *Cleaning the Gauges*



***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.

### ***Radio Transmission Interference***

VHF or other radio transmissions may cause brief erratic readings on the tachometer. This will not damage the tachometer gauge or affect its accuracy when not transmitting.

### ***Fuel Gauge***

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

## Chapter 5: Navigation & Communication Equipment

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Read the manuals for *all* navigation & communication equipment *before* using these systems.

### Depth Finder

#### **WARNING !**

- Do NOT use the depth finder as a navigational aid to prevent collision, grounding, boat damage or personal injury.
- When your boat is moving, submerged objects will NOT be seen until they are already under your boat.
- Bottom depths may change too quickly to allow time for your boat to react.
- If you suspect shallow water or submerged objects, run your boat at very slow speeds.

### VHF Radio (If Equipped)

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

### Global Positioning System (GPS) (If Equipped)

#### **WARNING !**

- The GPS system should NOT be relied upon as the ONLY aid to navigation.
- An experienced operator MUST monitor the GPS system at ALL times and keep a 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:

- Equipment failure or defects
- Environmental conditions
- Improper handling or use

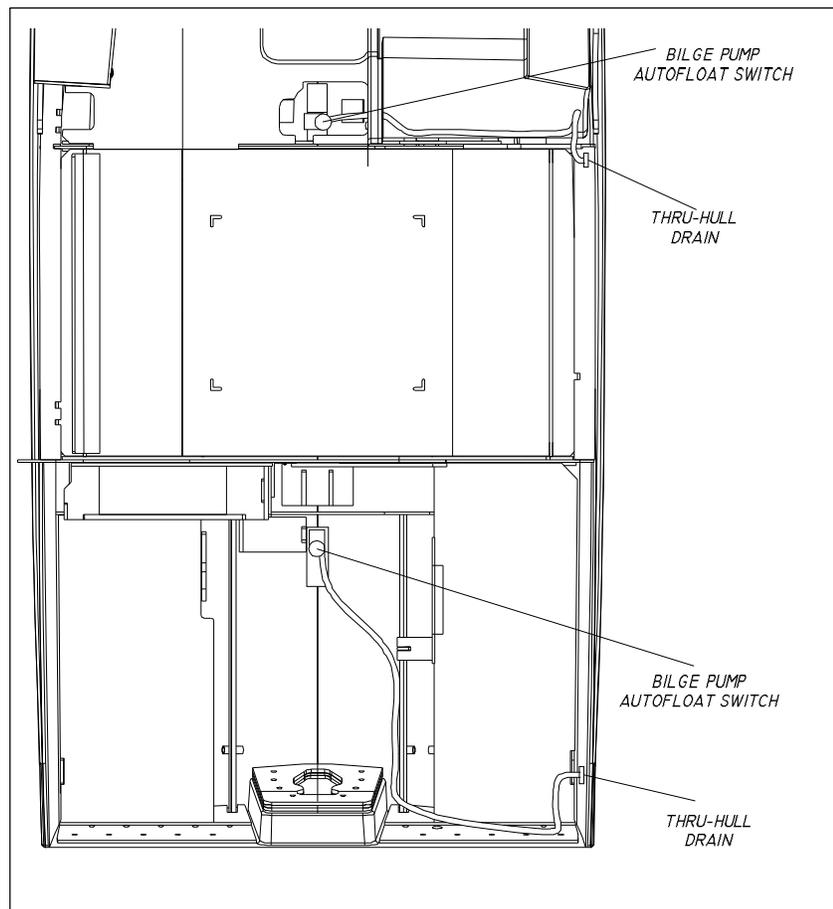
## Chapter 6: Plumbing

### 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.

- Your boat has two bilge pumps for pumping water out of the bilge.
- Built-in autofloat switches turn On the bilge pumps if bilge water rises above a preset level.
- You can also turn On the bilge pumps using the switches at the helm.
- The bilge pumps are wired directly to the batteries. Unless the batteries are dead, the bilge pump system should keep working even when your boat is unattended.



### ***Bilge Pump Testing***

- The bilge pump is vital to the safety of your boat.
- Test the bilge pump often.

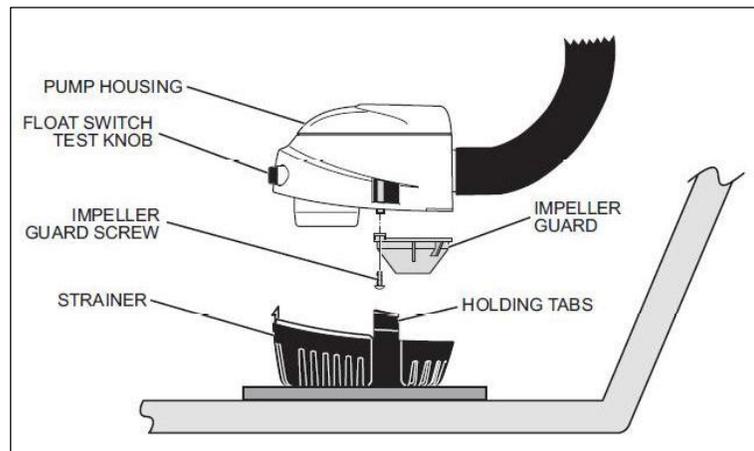
1. Turn On the bilge pump switch at the helm.
2. Make sure that water in the bilge is pumped overboard.

- If there is water in the bilge and the pump motor is running but not pumping, inspect the discharge hose for a kink or collapsed area.

If the discharge hose looks okay, check the bilge pump and strainer for clogging debris.

### **Inspecting and clearing debris from the bilge pump:**

1. Squeeze the holding tabs on each side of the strainer and pull the pump housing out of the strainer.
2. Remove debris from the strainer and the bottom of the pump housing.
3. Remove the impeller guard screw and the impeller guard.
4. Remove all debris from the pump chamber, from around the impeller, and from the tab slots on the sides.
5. Make sure the impeller is firmly attached to the shaft and is not cracked or broken.
6. Reinstall the impeller guard and screw, and the pump housing on the strainer. Make sure both tabs lock into the slots.



### ***Built-in Autofloat Switch Testing***

- The autofloat switch turns the bilge pump On when water rises above a preset level.
- Test the autofloat switch often as follows:

#### **Autofloat switch testing:**

Twist the float switch test button to turn On the bilge pump.

- If the pump does not turn On, check the fuse on the fuse block.
- If the fuse is good, but the switch still does not work, it may mean the switch is bad, or the battery is dead.

## Seawater Systems

### Seacocks

**! WARNING !**

**FLOODING and SWAMPING HAZARD!**

- Close the seacock(s) when leaving your boat unattended for any length of time.
- If a seacock is left open, a hose failure could flood the bilge, swamp the batteries and the engine, and even sink your boat.

**! SYSTEM DAMAGE HAZARD!**

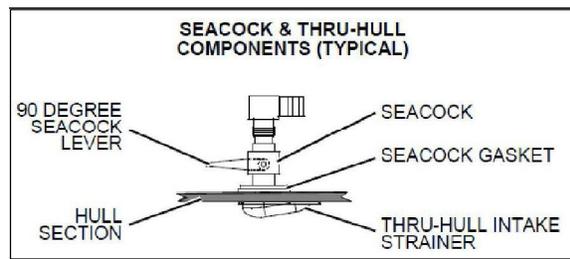
- **BEFORE** using any system that has a seacock, make sure that the system's seacock is **Open**.
- Inspect and lubricate all seacocks annually.

Thru-hull inlet or outlet fittings near or below the waterline feature seacock valves. You can close a seacock to stop water entry:

- If the hose connected to the seacock fails, or;
- To work on equipment served by the seacock.

Seacocks are used on your boat in seawater intake or liquid-discharge systems including, but not limited to:

- Air conditioner (if equipped)
- Marine head (toilet)



**Before** using any system with a seacock, make sure the seacock is **Open** and stays **Open** until the system is shut **Off**.

### Seawater Strainers

**! FLOODING HAZARD!**

- **BEFORE** taking apart a seawater strainer for cleaning or other work, Close the seacock that sends seawater to that strainer.
- Failure to close the seacock before taking apart the seawater strainer may allow large amounts of water to flood the bilge, which could swamp the batteries and the engine, and even sink your boat.
- Keep the seacock Closed until the seawater strainer is completely reassembled.

**SYSTEM DAMAGE HAZARD!**

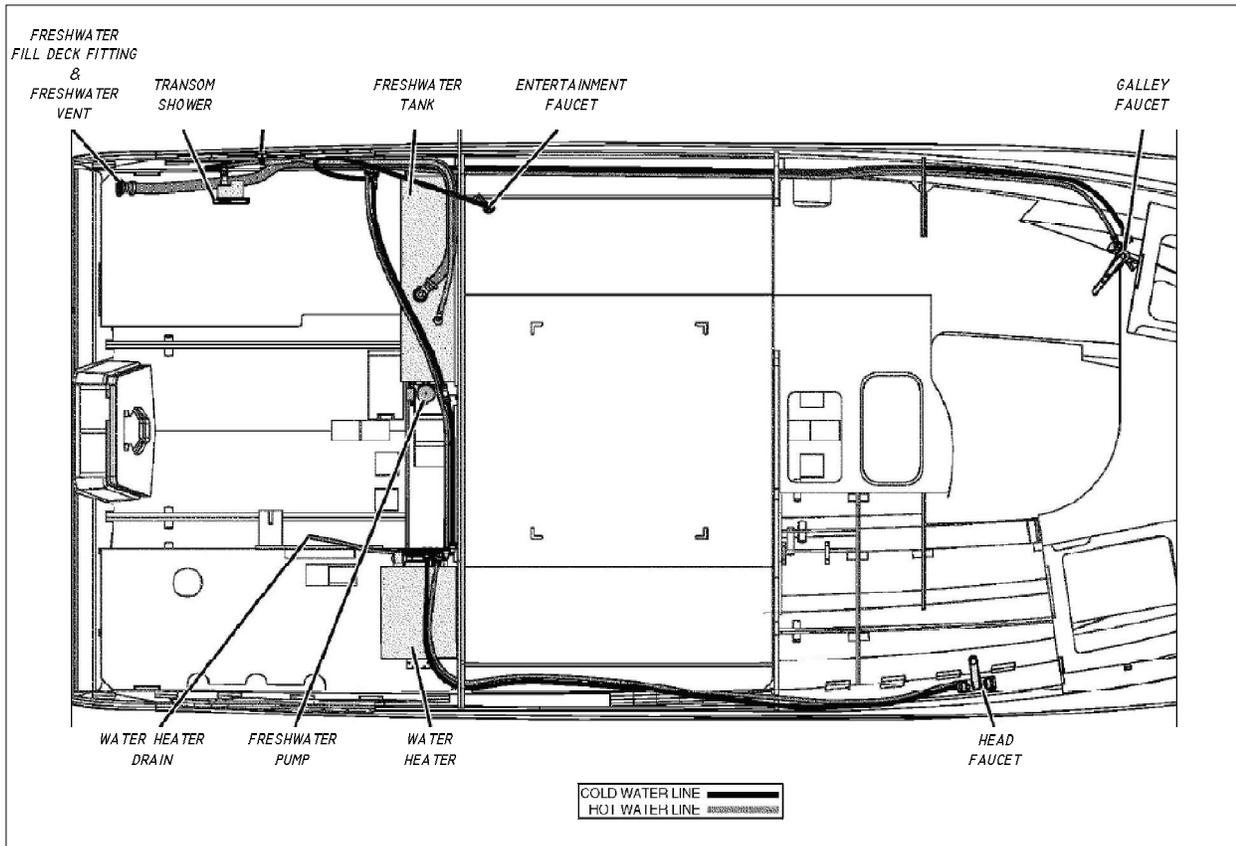
- After putting the seawater strainer back together, make sure that the seacock valve is **Open** **BEFORE** using the component/system.

- Seawater strainers are used to filter incoming seawater in some seawater intake systems. NOTE: Not all seawater intake systems have seawater strainers.
- If equipped, the seawater strainer is located near the seawater intake system's seacock.
- Check the strainers for leaks and/or debris every time you use your boat.
- Refer to the seawater strainer instruction sheet for cleaning and maintenance information.

## Freshwater System

**⚠ WARNING !**

- **ONLY** use safe drinking (potable) water in your boat's freshwater system.
- **ONLY** use FDA approved "drinking water safe" hoses when filling the freshwater tank.
- **NEVER** use common garden hoses for drinking water.



- Read the *Freshwater System* section in the *Cruiser & Yacht Owner's Manual*.
- The freshwater fill deck fitting is marked **WATER**.
- Pressurize the freshwater system by either turning **On** the freshwater pump switch (the battery switch must also be **On**).
- For the location of the freshwater pump switch, see the *Component Locations* section in **Chapter 2** of this **supplement**.
- Turn **Off** the freshwater pump switch when your boat is not in use or when the freshwater tank is empty.
- Inspect and clean the freshwater filter often (the filter is located on the freshwater pump).
- If your boat is to be left unattended for a long period of time, pump the freshwater 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.

### Transom Shower

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

## Freshwater System Winterization

1. Turn **Off** the water heater breaker switch.

NOTE: **Tag or Mark** the water heater breaker switch to prevent it from being turned **On** while the water heater tank is empty.

2. Turn **On** the freshwater pump switch.
3. **Open all** of the faucets and showers and let the freshwater system drain completely.
4. Turn **Off** the freshwater pump switch.

All of the 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

 **CAUTION**

**FRESHWATER SYSTEM DAMAGE HAZARD!**

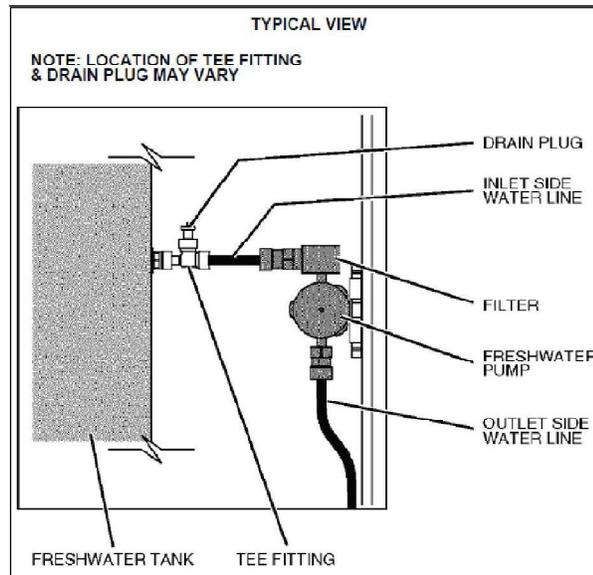
- A faucet **MUST** be **Open** when compressed air is blown through the freshwater system.
- **NEVER** blow compressed air through the water system when **ALL** of the faucets are **Closed**.

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 freshwater pump (opposite side from filter).
2. Open the faucet that is furthest away from the freshwater 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 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 and the water lines, replace the drain plug.



## Water Heater

 <b>WARNING !</b>	
	<p><b>SCALDING HAZARD!</b></p> <p>Water heated by the water heater can be hot enough to scald the skin.</p>

 <b>CAUTION</b>	
<b>WATER HEATER DAMAGE HAZARD!</b>	
<ul style="list-style-type: none"> <li>• Do NOT turn On the water heater circuit breaker on the 220-volt AC master panel until the water heater tank is COMPLETELY filled with water.</li> <li>• The tank is full if water flows from the tap when the hot water is turned <i>On</i> in the galley.</li> <li>• Even brief water heater operation with a dry tank <i>WILL</i> damage the heating elements.</li> <li>• Warranty replacements will <i>NOT</i> be made on elements damaged in this manner.</li> <li>• Turn the power <i>Off</i> and drain the water heater when the chance of freezing exists (see the winterizing instructions below).</li> </ul>	

<b>NOTICE</b>	
<p>If 110-volt AC power is being provided by shore power or generator power, but the water heater is not working:</p> <ul style="list-style-type: none"> <li>• Make sure the water heater circuit breaker on the 220-volt AC master panel is switched <input type="checkbox"/> <i>On</i>.</li> <li>• If the circuit breaker is <i>On</i>, but the water heater is still not working, ask your dealer how to check the push-to-reset circuit breaker located on the water heater.</li> </ul>	

- Read the water heater instruction manual and heed the warnings above.
- The water heater is connected to the 220-volt AC power system.
- To heat the water, turn **On** the water heater circuit breaker on the 220-volt AC master panel.

### Winterizing the Water Heater

⚠ CAUTION

**WATER HEATER DAMAGE HAZARD!**

- NEVER turn On the water heater breaker on the 220 - volt AC master panel while the water heater tank is empty.
- Even brief water heater operation with a dry tank *WILL* damage the heating elements.
- Warranty replacements will *NOT* be made on elements damaged in this manner.
- To prevent damage to the water heater after winterizing, always label the breaker switch on the 220volt AC master panel as 'winterized'.

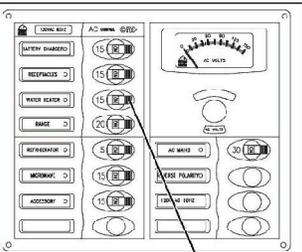
## NOTICE

The freshwater system **MUST** be drained **BEFORE** winterizing the water heater (see the *Freshwater System Winterization Instructions* on the previous page).

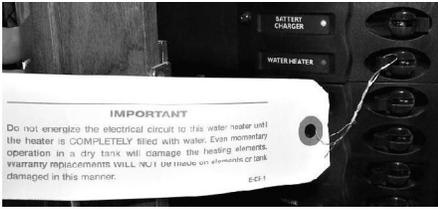
1. Turn **Off** the water heater breaker.
  2. Disconnect the hose (A) attached to the pressure relief valve (B).
  3. If there is any water in this hose, drain it into the bilge or into a bucket.
  4. Open the pressure relief valve (B).
  5. Open the drain valve (C).
  6. Attach a tag to the water heater breaker to indicate that the tank is empty.
- NOTE: Your boat came with a tag attached to the water heater breaker. It is suggested that you keep this tag and re-use it when winterizing.
  - Leave the pressure relief and drain valves Open until you fit out your boat after storage.



220 - VOLT AC MASTER PANEL



WATER HEATER BREAKER TAG



### Winterizing the Water Heater for Use After Boat Storage

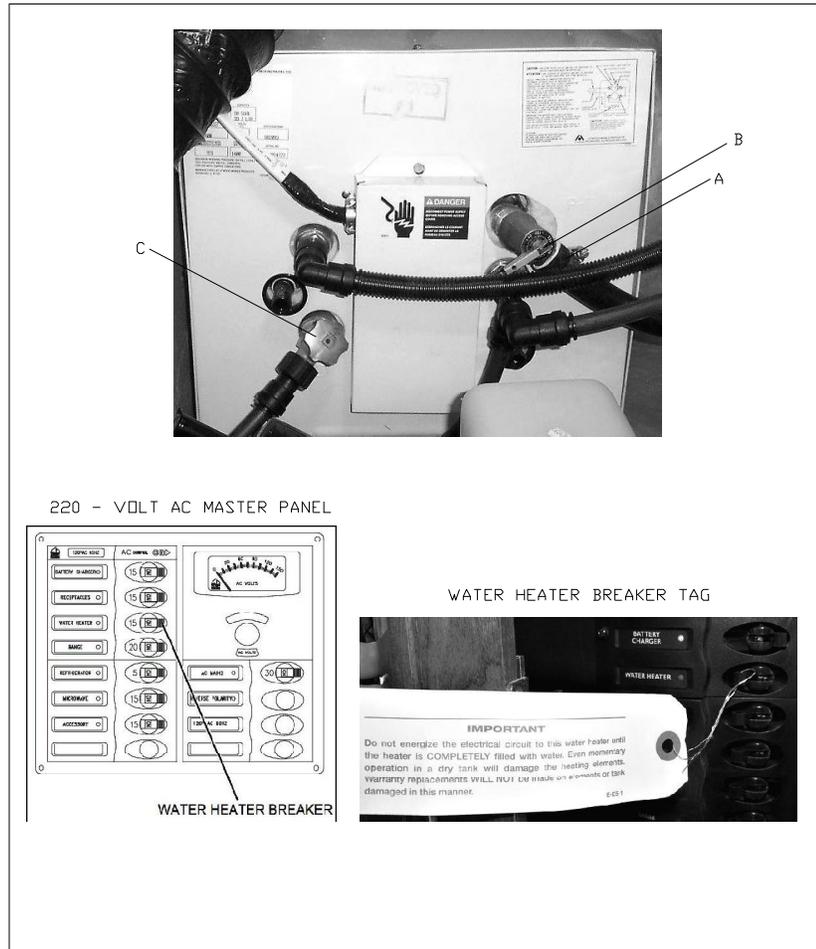
⚠ **CAUTION**

**WATER HEATER DAMAGE HAZARD!**

- Fill the water heater tank **BEFORE** turning On the water heater breaker on the 220-volt AC master panel.
- **NEVER** turn On the water heater breaker on the 220-volt AC master panel while the water heater tank is empty.
- To test if the tank is full, turn On a hot water faucet. If water flows from the tap, the water heater tank is full.
- Even brief water heater operation with a dry tank **WILL** damage the heating elements.
- Warranty replacements will **NOT** be made on elements damaged in this manner.

When you are ready to resume use of your boat after it has been in storage, prepare the water heater for use as follows:

1. *Close* the drain valve (C).
2. *Close* the pressure relief valve (B).
3. Connect the hose (A) to the pressure relief valve (B).
4. Fill the water heater tank with freshwater.
5. Remove the 'winterized' tag on the water heater breaker on the 220-volt AC master panel *after* the water heater tank is *completely* filled with freshwater.
6. Turn *On* the water heater breaker.

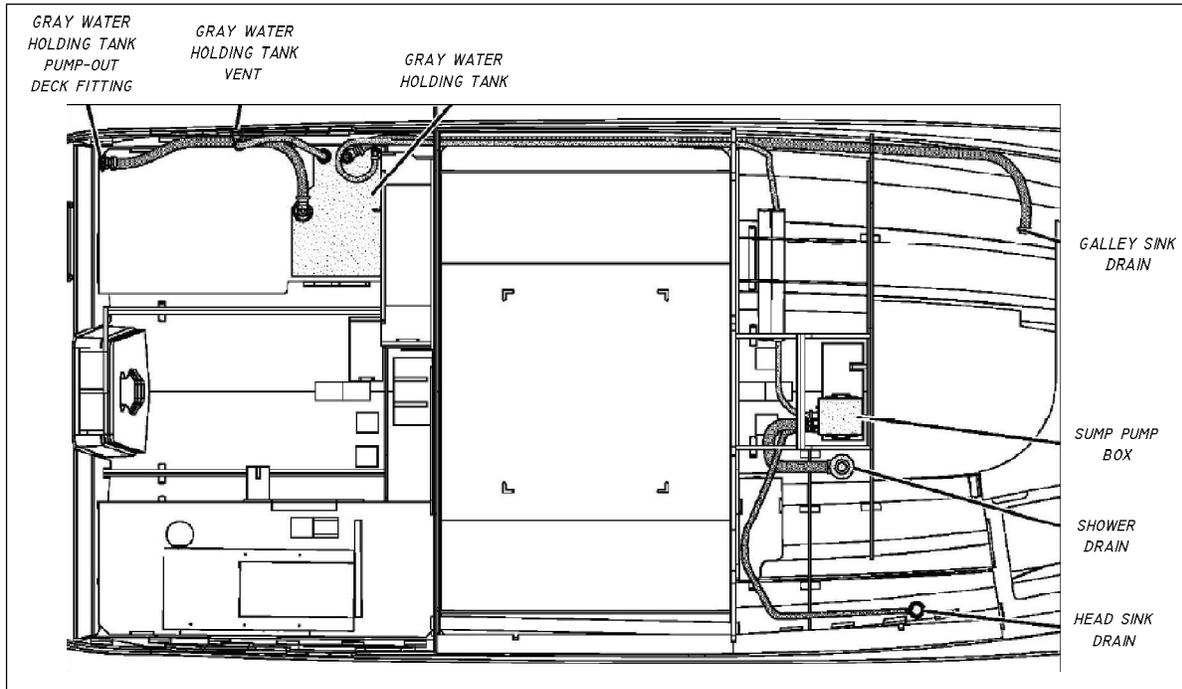


## Drain Systems

### Deck Drains

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

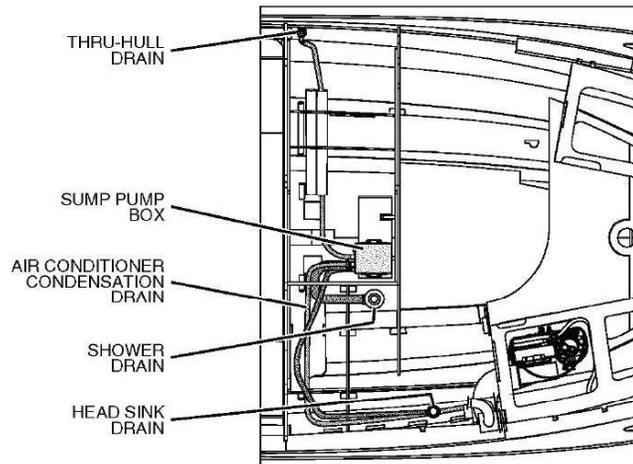
### Gray Water Drain System (With Holding Tank)



- Gray water above the waterline is gravity drained into the gray water holding tank.
- Gray water from the shower is below the waterline and drains into a sump pump box. When the drain water in the sump box rises to a preset level, an autofloat switch turns on the sump pump and pumps the drain water into the gray water holding tank (see sump box cleaning and winterization on the next page).

### Gray Water Drain System (Without Holding Tank)

- The shower drains into the sump pump box.
- The sump pump box has an autofloat switch.
- When the drain water rises to a preset level, the autofloat switch turns On the sump pump, and the drain water is pumped overboard.



## Sump Box Cleaning

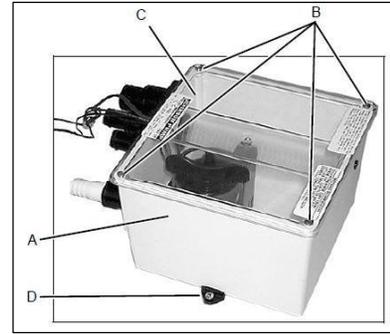
Periodically clean the sump box (A), filter, and pump as follows:

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 chapter.

## Sump System Winterization

Drain the sump pump system in the 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 & Black Water Holding Tank

### NOTICE

Check with local authorities about the legal use of marine head systems.

### Manual Flush Head (If Equipped)

### WARNING !

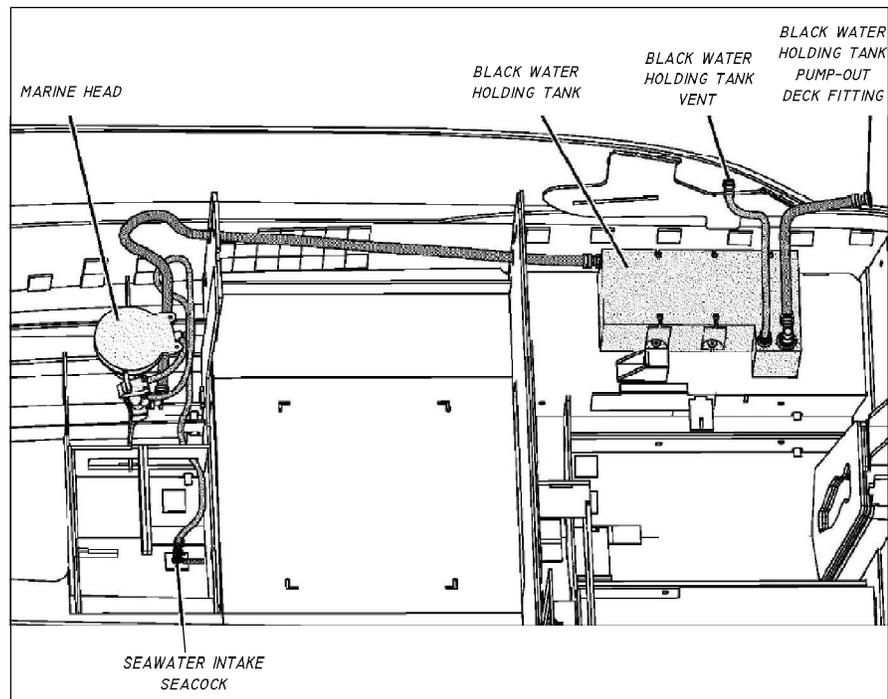
#### **FLOODING and SWAMPING HAZARD!**

- Close the seawater intake seacock when leaving your boat unattended for any length of time.
- If the seacock is left open, a hose failure could flood the bilge, swamp the batteries and the engine, and even sink your boat.

- *Before* using this system, read the marine head's operation and maintenance manual.
- Look at the side of the black water holding tank to check the content level.
- The dockside pump-out deck fitting is marked **WASTE**.
- Empty the black water holding tank at every opportunity.

#### Using the Marine Head

1. *Open* the head's seawater intake seacock (the location of this seacock is described in the *Component Locations* section of Chapter 2).
2. *Before* using the head, pump water into the bowl to wet the sides.
3. After use, pump until the bowl is clean.
4. Pump a few more times to clean the lines.
5. If *excess* waste causes the water to rise in the bowl, stop pumping until the water recedes.
  - *Close* the intake seacock when the system will not be used for long periods of time.



#### Winterizing the System

Read the marine head's operation and maintenance manual for winterizing instructions.

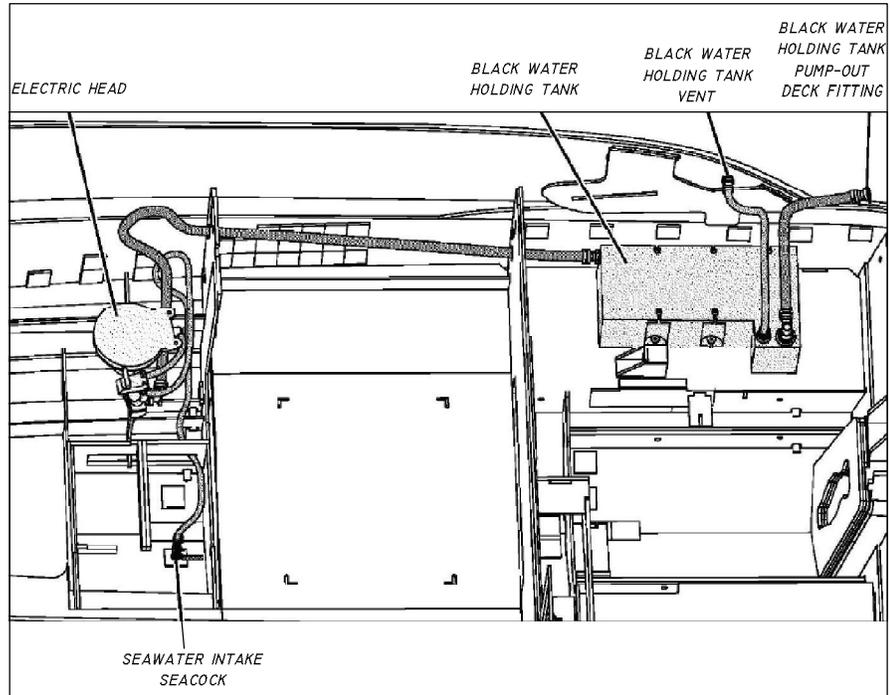
### Electric Flush Head (If Equipped)

## WARNING !

### **FLOODING and SWAMPING HAZARD!**

- Close the seawater intake seacock when leaving your boat unattended for any length of time.
- If the seacock is left open, a hose failure could flood the bilge, swamp the batteries and the engine, and even sink your boat.

- 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 black water holding tank.
- The seawater intake valve (seacock) **must** be **Open** for the head to work.
- Check the content level of the black water holding tank often by looking at the side of tank.
- Empty the black water holding tank at every opportunity.
- The black water holding tank is plumbed to a fitting on the deck for dockside pump-out.
- Keep the intake seacock **Closed** while your boat is underway or when the system will not be used for long periods of time.



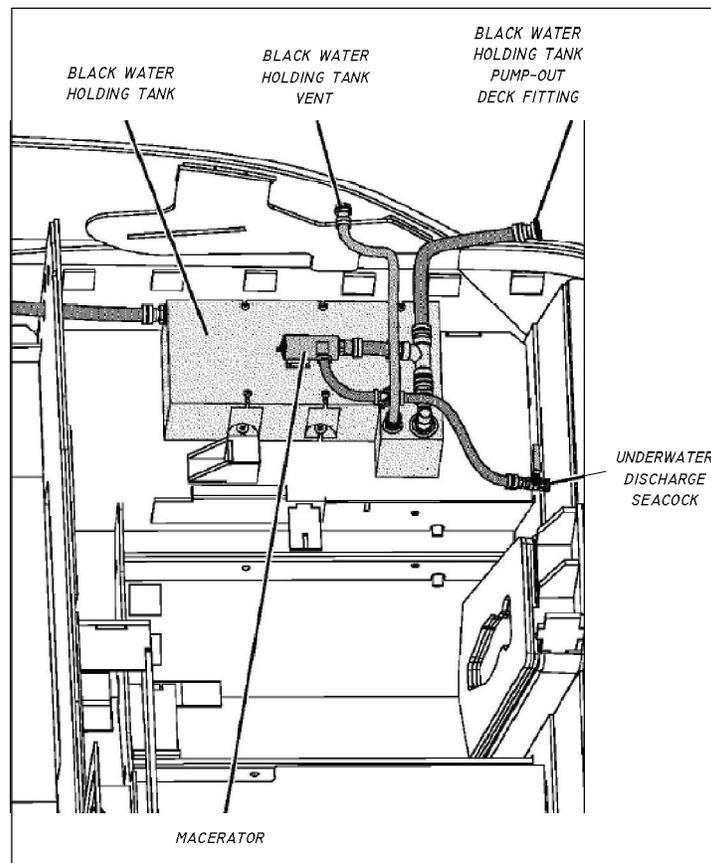
### Winterizing the System

Read the marine head's operation and maintenance manual for winterizing instructions.

**Macerator (If Equipped)**

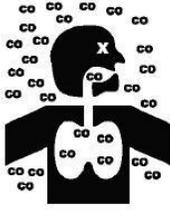
To use the macerator to pump waste directly underwater (where laws permit):

1. **Open** the underwater discharge seacock.
2. Press both macerator switches at the same time to run the pump.
3. Stop running the macerator as soon as the black water holding tank is empty.
4. **Close** the underwater discharge seacock when you are done pumping.



## Air Conditioner (If Equipped)

**! DANGER !**



**CARBON MONOXIDE POISONING HAZARD!**

- Dangerous carbon monoxide gas (CO) can be brought into your boat through the air conditioning system.
- Read the Carbon Monoxide (CO) section in Chapter 1 of this supplement.

**! WARNING !**

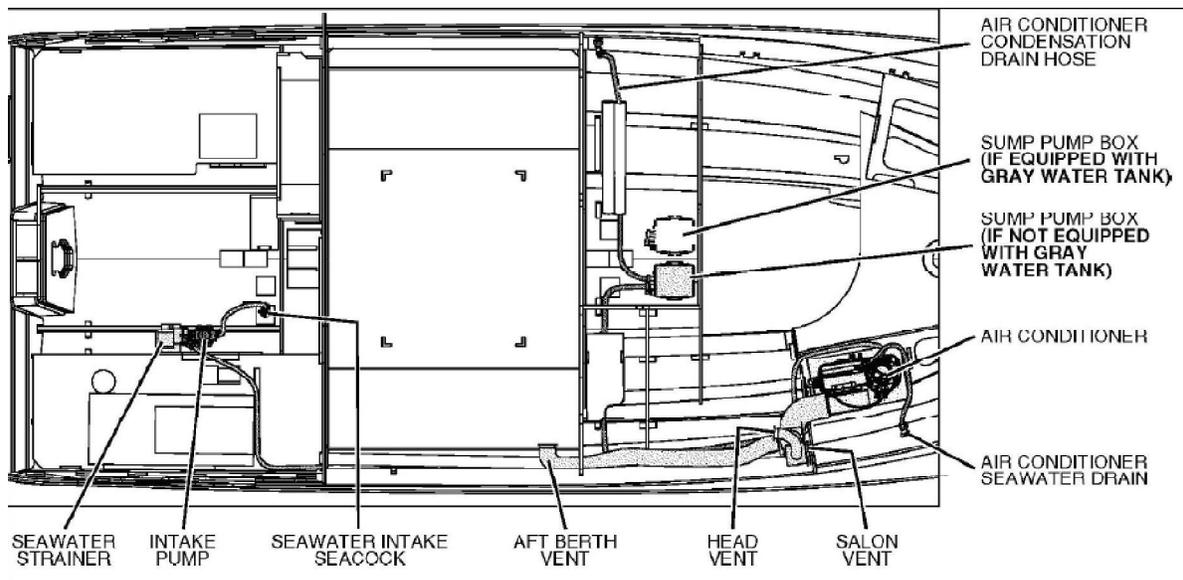
**FLOODING and SWAMPING HAZARD!**

- Close the seawater intake seacock when leaving your boat unattended for any length of time.
- If the seacock is left open, a hose failure could flood the bilge, swamp the batteries and the engine, and even sink your boat.

**CAUTION**

**SYSTEM DAMAGE HAZARD!**

- Open the system's seawater intake seacock **BEFORE** turning On the air conditioner.
- This seacock **MUST** stay Open until the air conditioner is turned off.



- Read the air conditioner manual **before** using the air conditioner system.
- Turn **On** the air conditioner breaker on the 220-volt AC master panel.
- **Open** the seawater intake seacock before using the air conditioner. The seacock **must** remain **Open** while you're running the air conditioner.
- Check the seawater strainer for debris **before** each use of the air conditioning system. Clean the strainer, when needed, as described in the *Seawater Systems* section of *Chapter 6*.
- Condensation water collects in the air conditioner pan and then drains into a sump pump box (see the *Sump Box Cleaning* and *Sump System Winterization* sections earlier in this chapter).

## Chapter 7: Deck Equipment

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### Cleats & Bow/Stern Eyes

 **WARNING !**

**PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!**  
**NEVER** lift your boat using the bow/stern eyes or the cleats.

Read the section on towing in the *Cruiser & Yacht Owner's Manual* **before**:

- Towing anything behind your boat.
- Being towed by another vessel.

### Windlass (If Equipped)

 **DANGER !**

**PERSONAL SAFETY & PRODUCT DAMAGE HAZARD!**  
An unsecured anchor could accidentally release while your boat is moving, damaging your boat and causing serious injury or death.  
After retrieving the anchor:

- Secure the anchor with an anchor safety strap, or a chain stopper.
- Switch **OFF** the windlass circuit breaker to prevent accidental operation.

 **CAUTION**

**PRODUCT DAMAGE HAZARD!**

Do **NOT** rely on the windlass alone to hold your boat at anchor. After setting the anchor, tie the rode off to a cleat or equivalent strong point.

Do **NOT** pull your boat to the anchor using the windlass, or continue running the windlass if it has stalled or is overloaded.

- 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 circuit breaker is turned **On** before using the anchor windlass.
- To raise the anchor, use engine power (**not** the windlass) to move your boat to, and directly above, the anchor.
- Dislodge the anchor from the bottom by pulling it straight up with the windlass.
- **Before** getting underway, make sure the anchor is secured and the windlass circuit breaker is turned **Off**.

## Canvas & Vinyl Tops & Enclosures



### CAUTION

**PRODUCT or PROPERTY DAMAGE HAZARD!**

Take down and securely stow **ALL** canvas & vinyl **BEFORE** your boat is transported by road.

### NOTICE

**BEFORE** cleaning and/or stowing your canvas or vinyl, read the sections later in this chapter, **Canvas Care** and **Clear Vinyl Care**.

### NOTICE

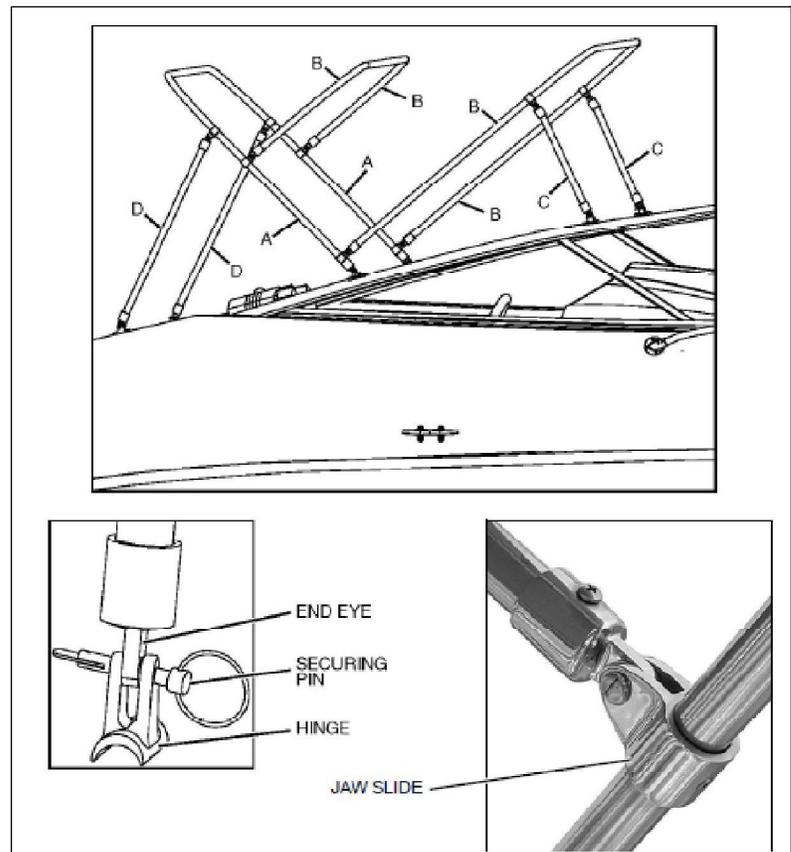
Two people are needed for most of the tasks listed in this section.

### NOTICE

Some canvas and vinyl options may not be described. Make sure your dealer explains how to install all canvas and vinyl.

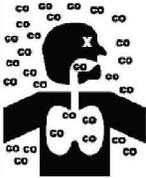
### *Bimini Top (If Equipped)*

1. Insert the end eyes of the main bow (A) into the aft hinges on the windshield and secure them with the pins.
  2. Pull the secondary bows (B) forward and insert the end eyes of the forward braces (C) into the forward hinges on the windshield.
  3. Insert the end eyes of the aft braces (D) into the deck hinges and secure them with the pins.
- The jaw slides should not need to be adjusted.
  - If you decide to adjust the jaw slide positions, get the correct measurements from your selling dealer.



**Camper Top (If Equipped)**

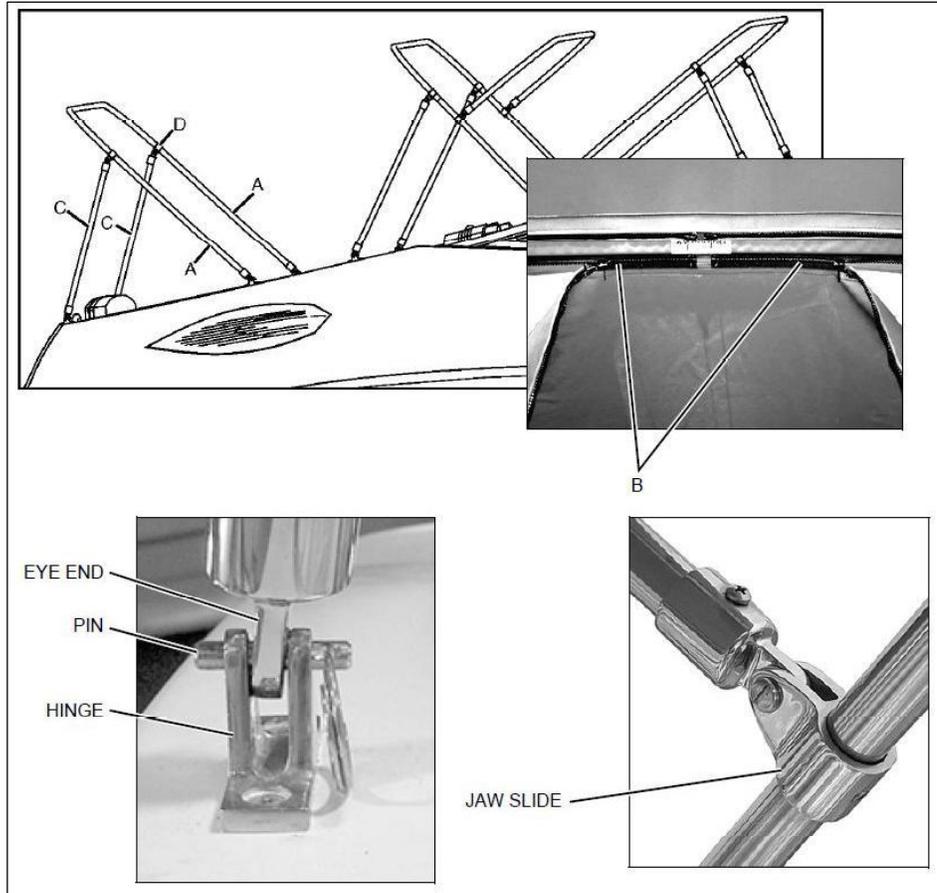
! **DANGER !**



**CARBON MONOXIDE POISONING HAZARD!**

- NEVER use full canvas and vinyl enclosures when the engine or generator is running.
- For proper fresh air circulation, remove forward, aft, and both side enclosure curtains **BEFORE** starting the engine or generator.
- Read the *Carbon Monoxide (CO)* section in *Chapter 1* of this supplement.

1. Insert the end eyes of the main bow (A) into the forward deck hinges and secure them with the pins.
2. Zip four to six inches of the camper top's zippers (B) to the bimini top.
3. Insert the end eyes of the aft braces (C) into the aft deck hinges and secure them with the pins.
4. Finish zipping both zippers
  - The jaw slides (D) should not need to be adjusted.
  - If you decide to adjust the jaw slide positions, get the correct measurements from your selling dealer.



**Vinyl Curtains (If Equipped)**

Make sure your dealer explains how to install your vinyl curtains.

### **Canvas Care (see also 'Clear Vinyl Care' on next page)**

- After each use, especially in saltwater, rinse the canvas with cold freshwater.
- Before stowing, let the canvas air-dry completely.
- The canvas can be rolled or folded for stowage.

#### **Cleaning the Canvas**

 **CAUTION**

**NEVER use detergents when washing the canvas. Detergents can destroy the water repellency, and mildew/UV resistant finish of your canvas.**

Regularly clean the canvas to prevent dirt, pollen, and etc. from embedding in the fabric. Generally, it is easiest to wash the canvas while it is installed on your boat.

- Use a soft-bristled brush to remove all dust and loose dirt.
  1. Hose down the canvas with freshwater.
  2. Gently wash the canvas with a solution of lukewarm water (no more than 100° F) and non-detergent mild soap, such as Ivory Snow®, Dreft®, or Woolite®.
  3. Rinse thoroughly to remove the soap.
  4. *Before stowing*, let the canvas dry completely.

#### **Stubborn Stains**

 **CAUTION**

- **Soaking in bleach solutions may remove the waterproof finish of the fabric and may also decrease the life of the polyester thread used in the canvas.**
- **If needed, a water repellent treatment should be reapplied to your canvas. Ask your dealer about the treatments available for your boat's canvas.**

Some stubborn stains may resist normal washing and you can try the methods below. However, these methods may remove the waterproof finish of the fabric and may also decrease the life of the polyester thread used in the canvas. Reapply a water repellent treatment as needed.

##### **Method 1**

1. Add 1/8 cup (1 oz.) of non-chlorine bleach to one gallon of water and mix thoroughly.
2. Thoroughly wet the canvas and then gently scrub the stained area with the weak bleach solution.
3. Rinse with cold water to remove all of the solution.

##### **Method 2**

1. Add 1/2 cup (4 oz.) of non-chlorine bleach and 1/2 cup (4 oz.) Ivory Snow®, Dreft®, or Woolite® to one gallon of water and mix thoroughly.
2. Soak the canvas in this solution for about 20 minutes.
3. Rinse with cold water to remove all of the solution.

## Clear Vinyl Care

### CAUTION

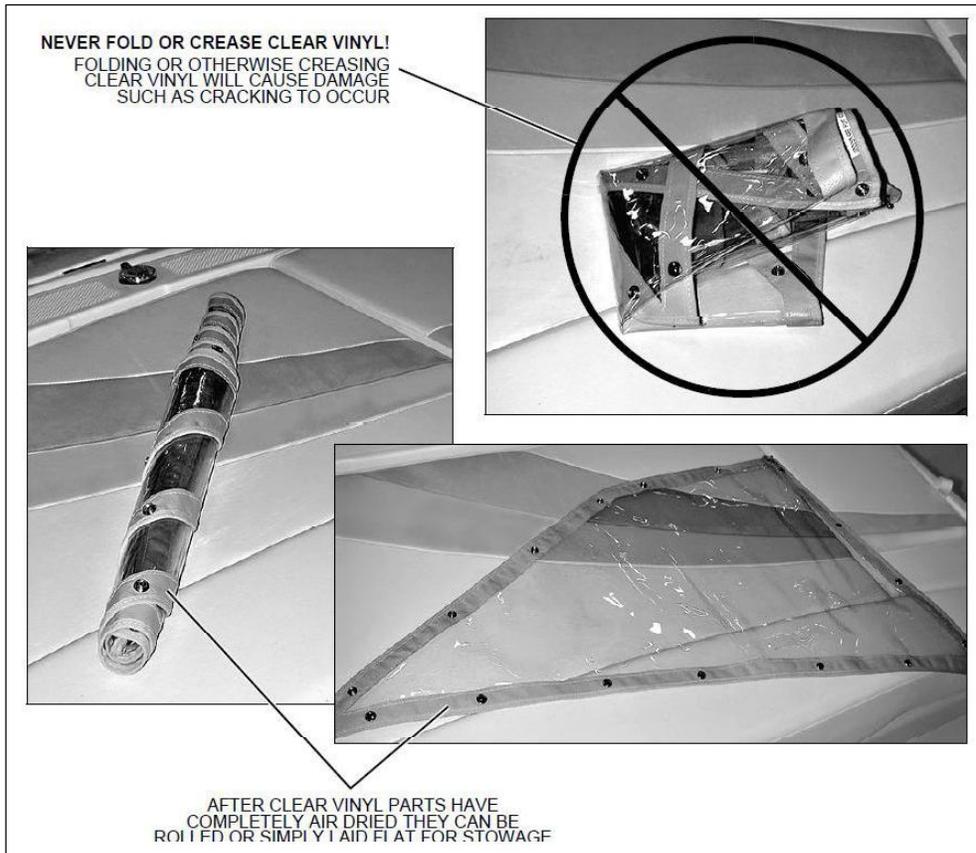
- NEVER store the clear vinyl pieces wet, as this will cause a milky film to develop.
- NEVER fold or crease the clear vinyl pieces as cracking will occur.
- Clear vinyl is NOT intended for use when your boat is in storage or being moored.
- Clear vinyl does NOT hold up well against ultraviolet rays.
- Under direct sunlight conditions, do NOT let the clear vinyl touch the framework. The framework radiates heat and can burn the clear vinyl.

- After each use, especially in saltwater, rinse the clear vinyl with cold freshwater.
- Before stowing, the clear vinyl must be completely dry. Air-drying is best, but you can also carefully dry the vinyl with a chamois or soft cotton cloth.
- The clear vinyl can be rolled or laid out flat for storage.
- Never fold or crease the clear vinyl parts as cracking will occur.

### Cleaning Clear Vinyl

Regularly clean the clear vinyl to prevent dirt, pollen, and etc. from marring the surface. Generally, it is easiest to clean the clear vinyl while it is installed on your boat.

1. Hose down the clear vinyl with freshwater.
  2. Using a soft cotton cloth (paper towels are abrasive and should never be used on clear vinyl), gently wash the clear vinyl with soap and water.
  3. Rinse thoroughly to remove the soap.
  4. Before stowing, the clear vinyl must be completely dry. Air-drying is best, but you can also carefully dry the vinyl with a chamois or soft cotton cloth.
- Ask your dealer about products available to keep the clear vinyl polished and looking new.



## Chapter 8: Appliances & Enter

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### NOTICE

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

- The separate instruction sheets or manuals for all appliances and entertainment systems contain detailed information and important safeguards.
- Read these instruction sheets and manuals before using your boat's appliances and entertainment systems.
- If applicable, make sure the 220-volt AC breaker is turned On for the appliance or entertainment system you wish to use.

### Refrigerator

The refrigerator runs on 12-volt DC power *unless* 110-volt AC power is being supplied by shore power or generator power (if equipped) *and* the refrigerator's circuit breaker on the 110-volt AC master panel is *On*.

### Audio Wquipment

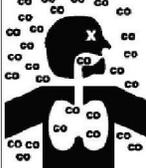
### NOTICE

**AM** radio reception may be impaired anytime the engine is running.

**Alcohol/100 - Volt Electric Stove**

**! DANGER !**

**CARBON MONOXIDE POISONING HAZARD!**



- NEVER use full canvas and vinyl enclosures when the engine or generator is running.
- For proper fresh air circulation, remove forward, aft, and both side enclosure curtains **BEFORE** starting the engine or generator.
- Read the *Carbon Monoxide (CO)* section in *Chapter 1* of this *supplement*.

**! 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 the 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 the burners, grates or nearby surfaces as they may be hot even when they are dark in color.
- Areas near the 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 the heated units or the areas near the units (burner tops, main frame sides and back, sea rails and pot holders) until they have had sufficient time to cool.

**! WARNING !**

**PRODUCT DAMAGE HAZARD!**

To prevent overheating which can destroy the electric burner elements, NEVER try to use both alcohol and electric burners at the same time.

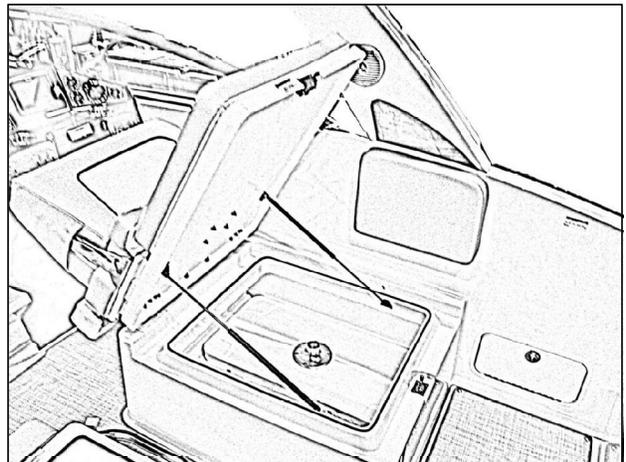
## Chapter 9: Convertible Seats, Beds, & Tables

### Converting Cockpit Dinette to Sunlounge (If Equipped)

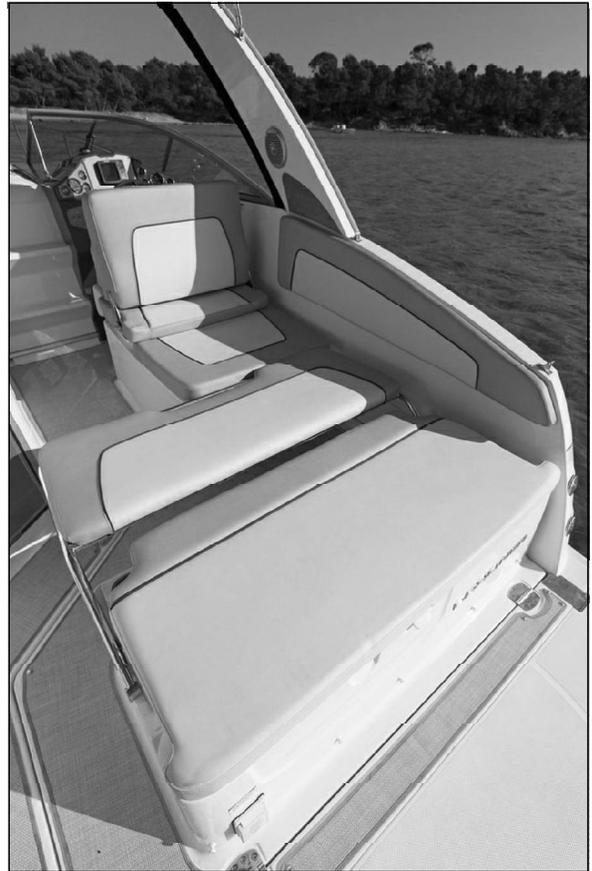
1. Remove the table and the table leg.



2. When not in use, store the table and table leg under the aft seat cushion. Secure the table in place with the provided cord.

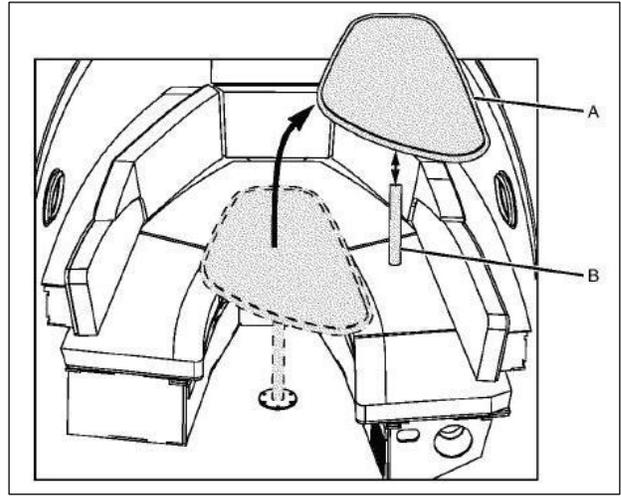


3. Sunpad surface.

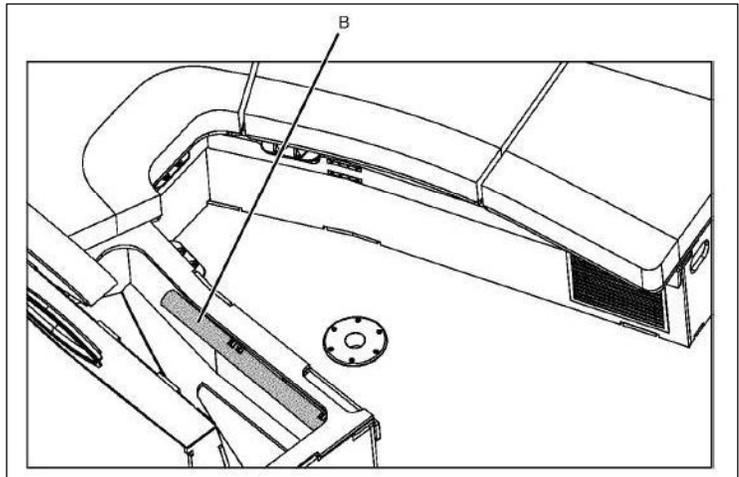


## Converting V-berth Dinette to Sleeping Berth

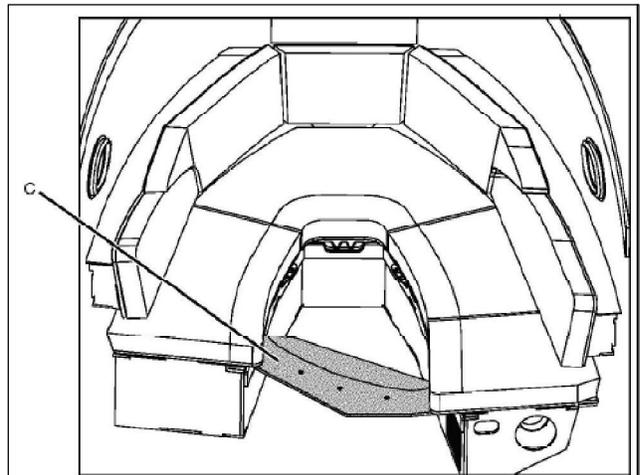
1. Remove the table (A) and the table leg (B).



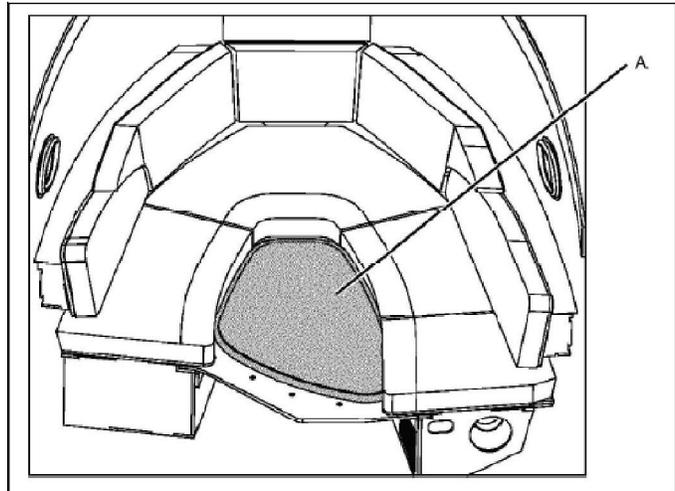
2. Securely store the table leg (B) in the clips provided under the port side seat cushion.



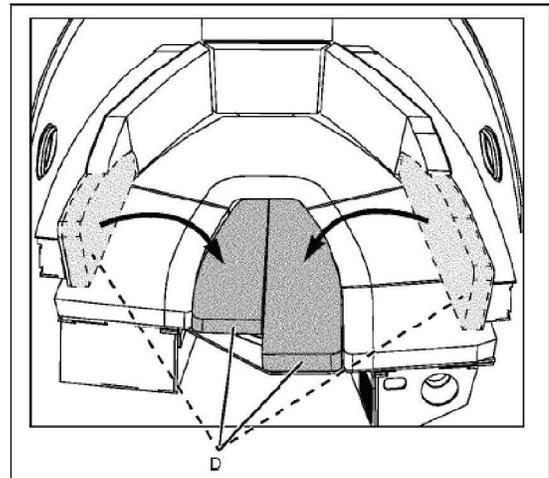
3. Place the filler board (C) so that it fits securely on the edge lips at the front of the dinette seats.



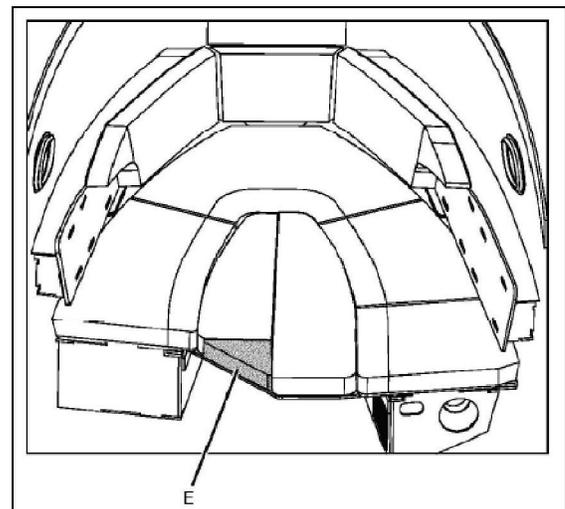
4. Place the table (A) so that it fits securely on the filler board and the edge lips at the front of the dinette seats.



5. Place the port and starboard aft seat backs (D) on top of the table.



6. Place the filler wedge (E) on top of the filler board.



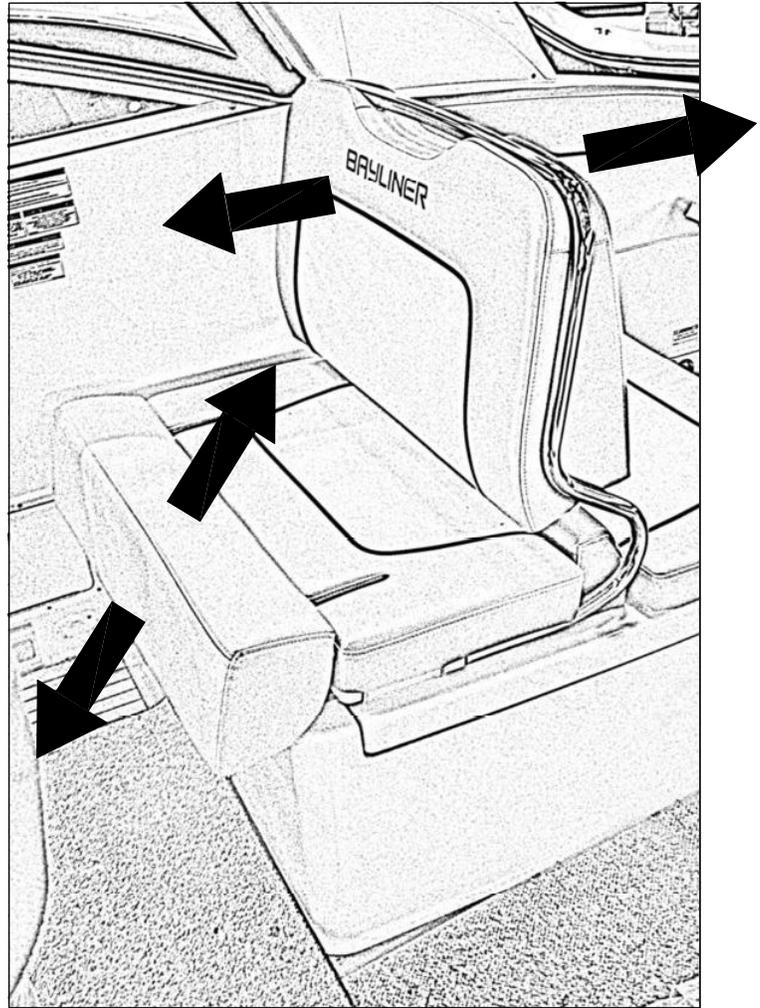
## Helm Seat Adjustments

### *To Slide the Helm Seat Forward or Aft:*

1. While seated, reach under the helm seat and pull up on the lever.
2. Slide the helm seat forward or aft.
3. The helm seat will lock in place automatically.

### *To Adjust the Helm Seat Back:*

- Lift up on the seat back handle to move it forward or aft.



## Chapter 10: Lights

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### Care & 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 replacement bulbs, making sure the wattage is correct.*
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.*

### Care & Maintenance

 <b>CAUTION</b>
<ul style="list-style-type: none"><li>• Be conservative in the use of battery power.</li><li>• Prolonged use of cabin interior lights (overnight) <i>WILL</i> result in a drained battery.</li></ul>

- The lights are powered by your boat's 12-volt DC system.
- The battery switch must be turned On for the lights to work.

### Navigation Lights

 <b>CAUTION</b>
Avoid the storage of gear where it would block navigation lights from view.

<b>NOTICE</b>
Running lights are legally required to show boat direction and right-of-way at night.

### Spotlight (If Equipped)

Read the spotlight operating instructions *before* using the spotlight.

## Chapter 11: Electrical System

**! DANGER !**



**EXTREME FIRE, SHOCK and EXPLOSION HAZARD!**

- **NEVER** install non-ignition protected switches or other arcing devices in the fuel compartment.
- **NEVER** substitute automotive parts for marine parts. Marine electrical, ignition, and fuel system parts were designed and manufactured to comply with rules and laws that minimize the risks of fire and explosion.
- **NEVER** change the electrical systems or relevant drawings.
- Allow **ONLY** trained personnel to install batteries and/or do electrical system work.
- Make sure that **ALL** battery switches are turned Off **BEFORE** working in the engine spaces.

**! WARNING !**



**FIRE and EXPLOSION HAZARD!**

Fuel vapors can explode! **BEFORE** turning on electrical devices or working on the electrical system:

1. Check the bilge areas for fuel vapors or leaking fuel. If you see leaking fuel or smell fuel vapors:
  - a. Do **NOT** start the engine or generator (if equipped), do **NOT** turn *On* any electrical devices, put out **ALL** cigarettes, cigars, and other sources of flame or ignition.
  - b. Get everyone off your boat.
  - c. Get trained help to find and fix the problem.
2. Run the bilge blower(s) for at least four minutes **BEFORE** engine starting, electrical system work, or turning on electrical devices.

**! CAUTION**



**SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!**

When the engine is running, **NEVER** turn Off the battery switch or disconnect the battery cables. Doing either could cause damage to your boat's engine and/or electrical system.

**NOTICE**

Electrical connections are prone to corrosion. To reduce corrosion-caused electrical problems:

- Keep **ALL** electrical connections clean.
- Apply a spray-on protectant that is designed to protect connections from corrosion.

## 12 - Volt DC System

### Batteries

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

### Battery Switch

**⚠ CAUTION**



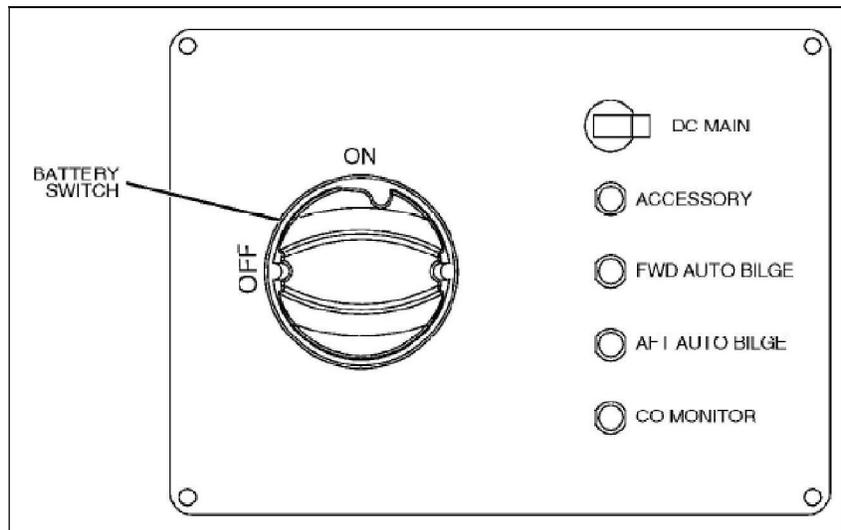
**SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!**

When the engine is running, NEVER turn Off the battery switch or disconnect the battery cables. Doing either could cause damage to your boat's engine and/or electrical system.

## NOTICE

Make sure your selling dealer fully explains how to use the battery switch.

- Standby-loads, such as the automatic bilge pumps and the stereo memory, are not affected by the battery switch since they are wired directly to the battery.
- Turn the battery switch to the **Off** position whenever your boat will be unoccupied for long periods of time.



**Battery Switch (If Equipped with Two Batteries)**

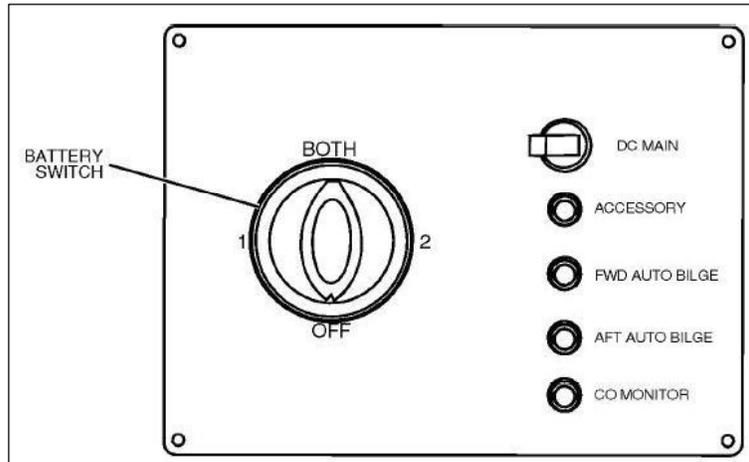
! **CAUTION**



**SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!**

When the engine is running, NEVER turn Off the battery switch or disconnect the battery cables. Doing either could cause damage to your boat's engine and/or electrical system.

- Standby-loads, such as the automatic bilge pumps and the stereo memory, are not affected by the battery switch since they are wired directly to the battery.
- Turn the battery switch to the **Off** position whenever your boat will be unoccupied for long periods of time.



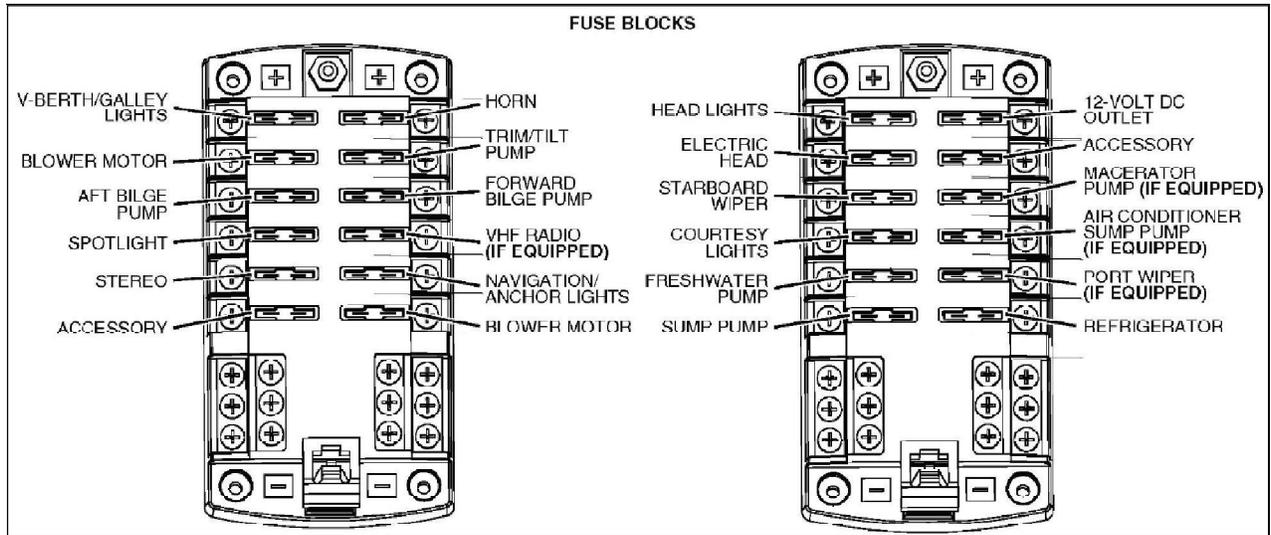
**Battery Switch Positions**

## NOTICE

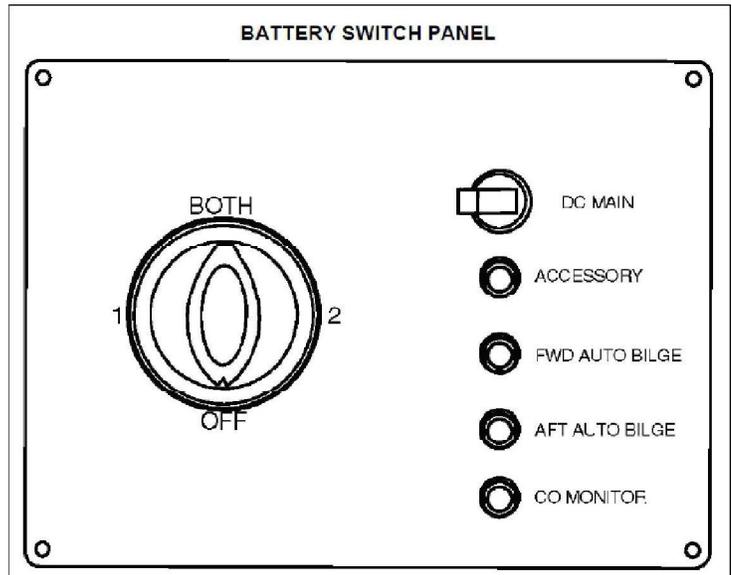
Since your boat's batteries were installed by your dealer, the battery switch positions listed below may vary. Make sure your selling dealer fully explains how to use the battery switches.

BATTERY SWITCH POSITIONS	ENGINE STARTING	ACCESSORIES & LIGHTS	ENGINE ALTERNATOR	BATTERY CHARGER
POSITION 1	Battery <u>1</u> provides starting power	Battery <u>1</u> provides power for accessories and lights	Charges battery <u>1</u>	Charges <b>BOTH</b> batteries
POSITION 2	Battery <u>2</u> provides starting power	Battery <u>2</u> provides power for accessories and lights	Charges battery <u>2</u>	Charges <b>BOTH</b> batteries
POSITION BOTH	<b>BOTH</b> batteries Provide starting power	<b>BOTH</b> batteries provide power for accessories and lights (not advised unless engine is running)	Charges <b>BOTH</b> batteries	Charges <b>BOTH</b> batteries

**Fuses & Circuit Breakers**



- As shown above, individual accessory fuses are on the fuse blocks. See the Component Locations section in Chapter 2 for the location of the fuse blocks.
- Fuses for engine controls and gauges are on the engine. See the engine operation manual.
- The DC main circuit breaker, and the push-to-reset circuit breakers for the bilge pumps and co monitor are located on the battery switch panel.
- Some equipment may have secondary fuse protection at the unit, behind the battery switch panel, or at the batteries.



**Fuses & Circuit Breakers**

**CAUTION**

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

- The outlets can be used with any 12-volt device that draws 15-amps or less.
- Each 12-volt DC accessory outlet is protected by a 15-amp fuse on the fuse block.
- For the locations of the 12-volt DC accessory outlets, see the Component Locations section in Chapter 2 of this supplement.

**Alternator**

The alternator charges the battery when the engine is running at, or above, cruising speeds.

**Battery Charger**

<p style="text-align: center;"> <b>CAUTION</b></p> <p><b>ENGINE and ELECTRICAL SYSTEM DAMAGE HAZARD!</b></p> <p>NEVER run your boat's engine and the battery charger at the same time.</p>
---

<p style="text-align: center;"> <b>CAUTION</b></p> <ul style="list-style-type: none"><li>• The battery charging systems (alternator and battery charger) installed on your boat are designed to charge conventional lead-acid batteries.</li><li>• <b>BEFORE</b> installing gel-cell or other new technology batteries, consult with the battery manufacturer about charging system requirements.</li></ul>
--

- **Before** using the battery charger, read all instructions and warnings: (1) on the battery charger, (2) on the batteries, and (3) in the battery charger manual.
- The battery charger will automatically charge your boat's batteries when 220-volt AC power is being provided by shore power or generator power (if equipped), **and** the battery charger circuit breaker on the 220-volt AC master panel is **On**.
- The battery switch(s) can be in any position during charging.
- During battery charging you may use 12-volt accessories, such as the lights and stereo, but battery charging will take longer.

## 220 - Volt AC System

! **WARNING !**

**FIRE and ELECTRICAL SYSTEM DAMAGE HAZARD!**

If equipped with a generator, NEVER bypass the power source lockouts. Using both shore power and generator power at the same time WILL cause major electrical system damage and could start a fire!

- The power source lockouts on the 2 30-volt AC master panel prevent the use of shore power and generator power at the same time.

! **CAUTION**

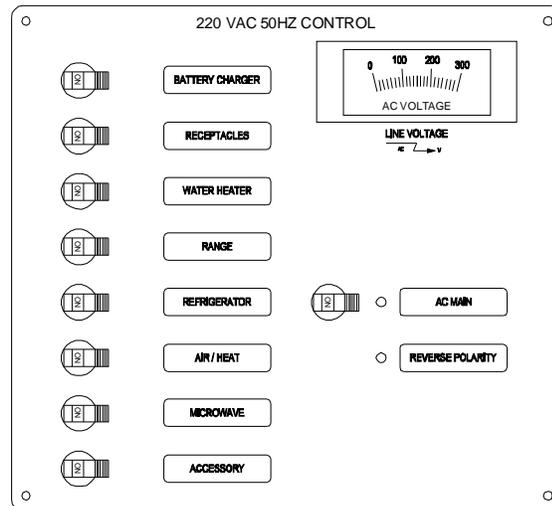
**WATER HEATER DAMAGE HAZARD!**

- Do NOT turn On the water heater circuit breaker on the 220-volt AC master panel 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 brief water heater operation with 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 (if equipped), the use of several 2 30-volt AC accessories at the same time can result in an overloaded circuit.
- You may have to turn Off one or more accessories to use another accessory.

- To gain a basic understanding of your boat's 230-volt AC system, read the handbook, A Boater's Guide To AC Electrical Systems. If this handbook is not in your owner's packet, call 360-435-8957 and the handbook will be mailed to you.
- The 230-volt AC system can be energized by shore power, or generator power (if equipped).
- Individual breakers on the 230-volt AC master panel must be turned On to supply power to the accessories you wish to use.
- The 230-volt AC master panel may contain circuit breakers for accessories that are not available for your boat.



**Shore Power**

**⚠ DANGER !**



***FIRE, EXPLOSION and SHOCK HAZARD!***

- Use **ONLY** compatible shore power connectors and **NEVER** alter the connectors.
- Turn Off **ALL** breakers and switches on the 220-volt AC master panel **BEFORE** plugging in or unplugging the shore power cord.
- To prevent shock or injury from dropping a "hot" cord into the water:
  - a. **ALWAYS** plug the shore power cord into the boat inlet first, and then into the dockside outlet.
  - b. When unplugging from shore power, **ALWAYS** unplug the shore power cord from the dockside outlet first.
- **NEVER** leave the shore power cord plugged into the dockside outlet **ONLY**.
- **ONLY** use shore power cords approved for marine use. **NEVER** use ordinary indoor or outdoor extension cords.

**WARNING !**



***SHOCK and 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 and ELECTRICAL SYSTEM DAMAGE HAZARD!***

- **BEFORE** each use, check the shore power cord for defects or damage.
- **NEVER** use a damaged or faulty cord since the danger of fire and electrical shock exists.
- Do **NOT** pinch the shore power cord 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, **COMPLETELY** 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 the international electrical conversion option.
- Using several 220-volt AC accessories at the same time can result in an overloaded circuit. You may have to turn Off one or more accessories to use another accessory.
- Use double insulated or three-wire protected electrical appliances whenever possible.

## Connecting to Shore Power

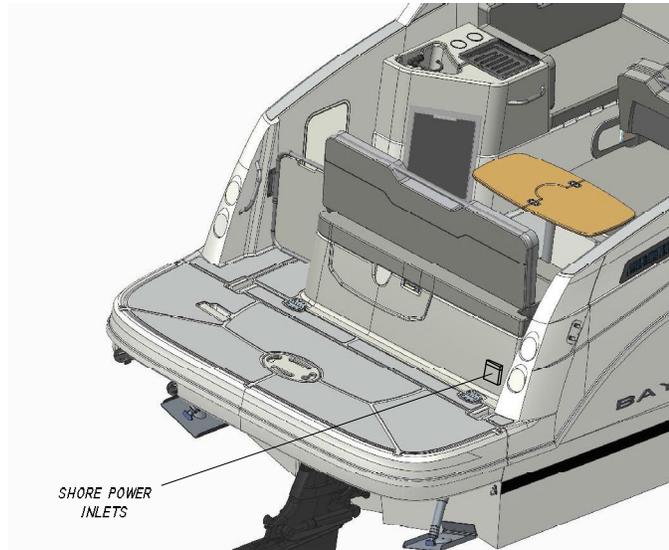
### ⚠ WARNING !



#### SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!

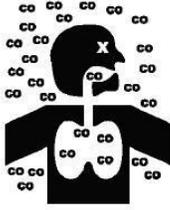
- Monitor the polarity indicator lights EVERY TIME you connect to shore power.
- If a reversed polarity light turns On when you are connecting to shore power, do NOT turn On the main breaker switches.
- Instead, IMMEDIATELY unplug the shore power cord (ALWAYS from the dockside outlet first) and alert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

1. Review all hazard information at the beginning of this section, Shore Power.
2. Turn Off the shore power master circuit breaker(s) and all switches and breakers on the 230-volt AC master panel.
3. Attach the shore power cord(s) to the boat inlet(s) first, then to the dockside outlet(s).
4. Turn On the SHORE POWER master breaker(s) on the 230-volt AC master panel.
5. As needed, turn On the individual component breakers on the 230-volt AC master panel.



## Generator

**! 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.
- Read the Carbon Monoxide (CO) section in Chapter 1 of this supplement.

**! WARNING !**



***FIRE and EXPLOSION HAZARD!***

1. Check the bilge areas for fuel vapors or leaking fuel. If you see leaking fuel or smell fuel vapors:
  - a. Do **NOT** start the generator or the engine, do **NOT** turn On any electrical devices, and put out **ALL** cigarettes, cigars, and other sources of flame or ignition.
  - b. Get everyone off your boat.
  - c. Get trained help to find and fix the problem.
2. Run the bilge blower(s) for at least four minutes **BEFORE** generator or engine starting, electrical system work, or turning on electrical devices.
  - If you smell fuel vapors and the generator is already running:
    - a. Shut Off the generator and turn Off **ALL** electrical devices.
    - b. Put out **ALL** cigarettes, cigars, and other sources of flame or ignition.
    - c. Get trained help to find and fix the problem.

**! CAUTION**

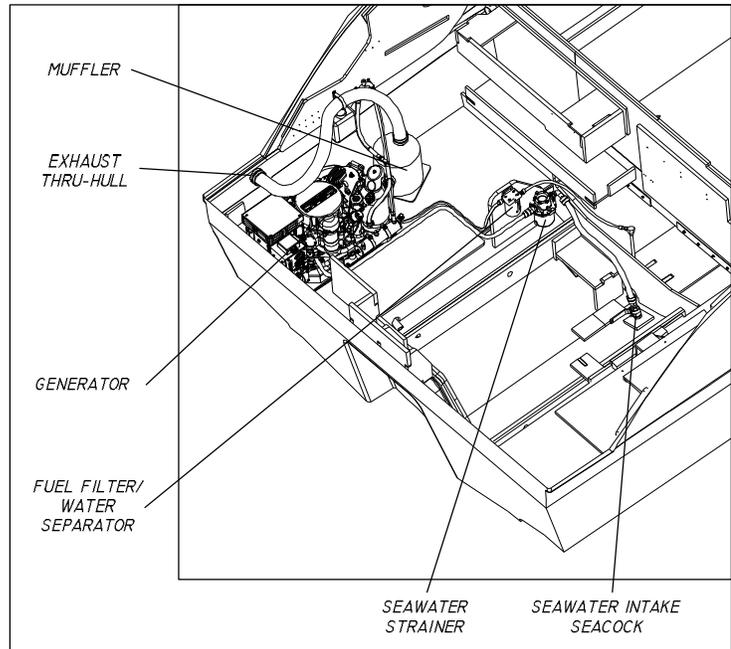
**SYSTEM DAMAGE HAZARD!**

- **ALWAYS** make sure the generator's seawater intake seacock is Open **BEFORE** starting, and during running of the generator.
- **NEVER** run the generator starter for more than 30 seconds. If the generator does not start, wait at least 30 seconds **BEFORE** trying again.
- After the generator starts, let the generator stabilize **BEFORE** turning On the component breakers on the 230-volt AC master panel.

**NOTICE**

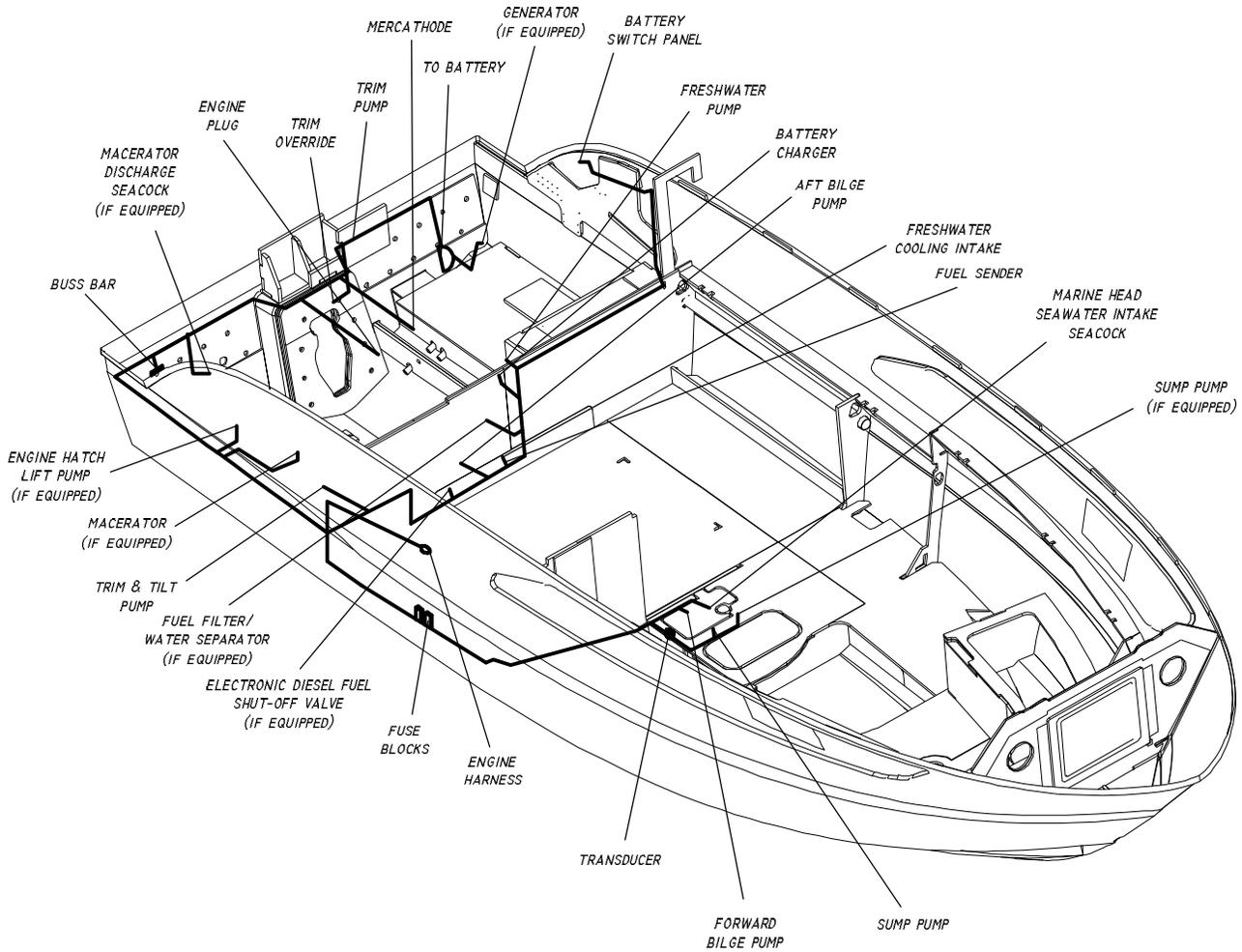
Follow the starting and stopping instructions in the generator's operation manual.

- When your boat is not connected to shore power, the generator can supply 230-volt/ 50-hertz power.
- Before using the generator, read the generator operation manual for pre-start checks and break-in procedures.
- Refer to the generator manual for starting/ stopping instructions. Important generator notes:
- Polarity has been established in the installation of the generator. Therefore the polarity lights will not function in this mode.
- Fuel to run the generator is supplied from the fuel tank.
- Periodically replace the fuel filter on the generator to make sure it remains clean and free of debris.
- Diesel generators also have a fuel filter/water separator. Service instructions are provided on the fuel filter/water separator.
- The coolant mixture installed at the factory consists of equal parts of water and antifreeze (Ethylene Glycol).
- Check the generator's seawater strainer for leaks and/or debris before each use.

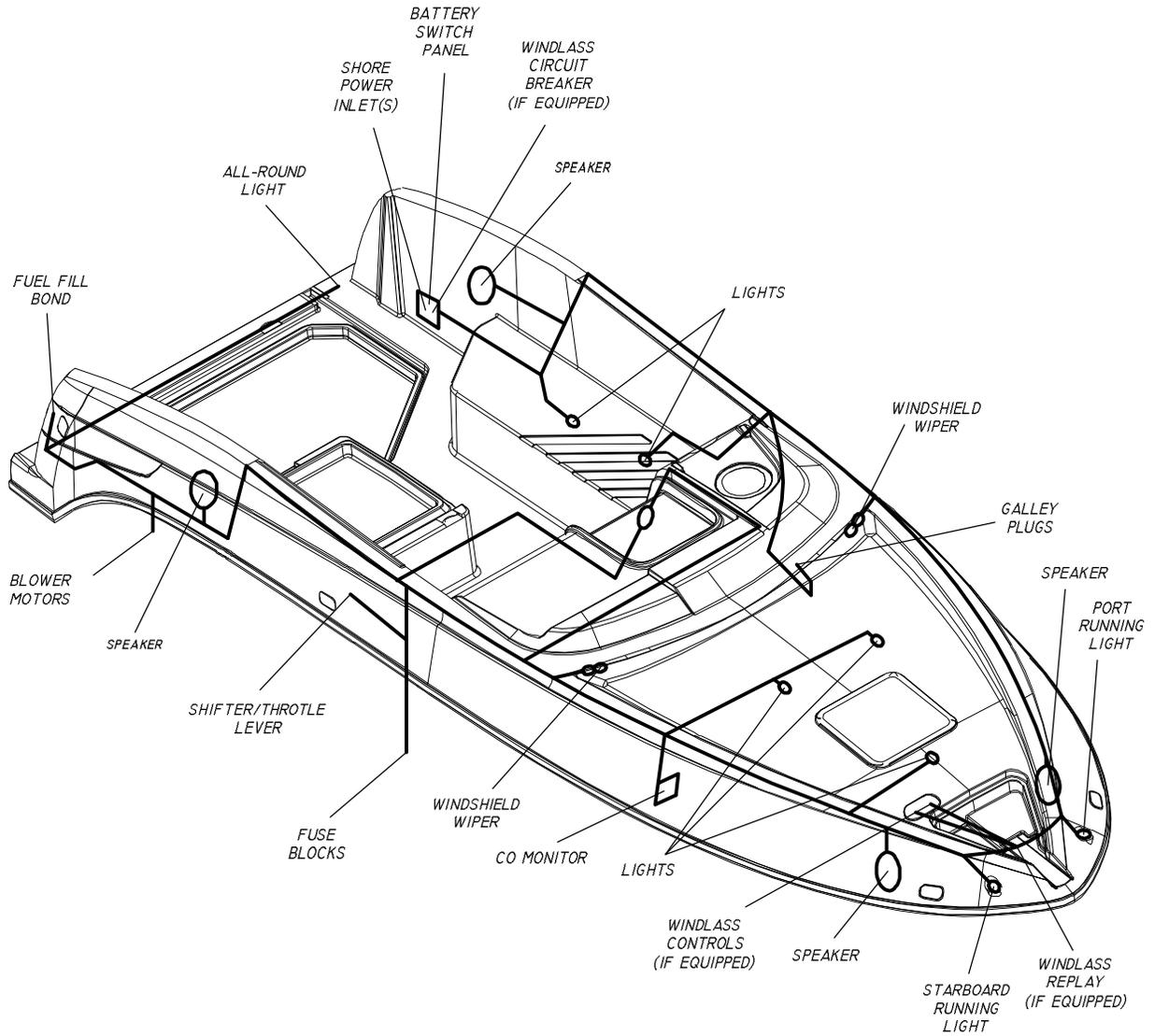


## Electrical Routings

### 12-Volt DC Hull Harnesses

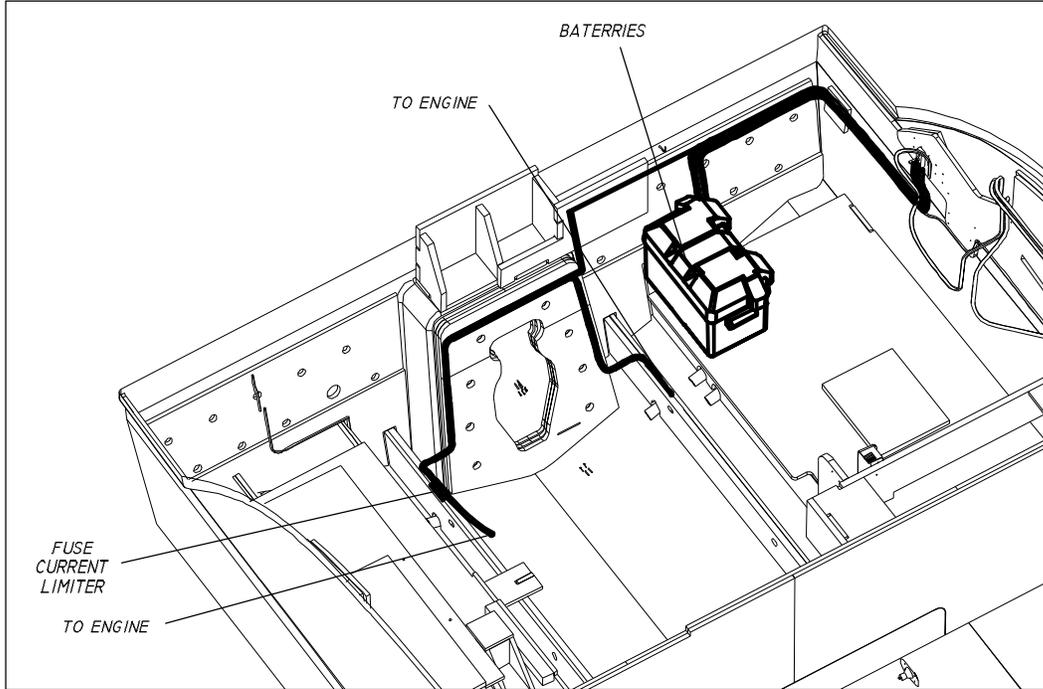


### 12-Volt DC Deck Harnesses

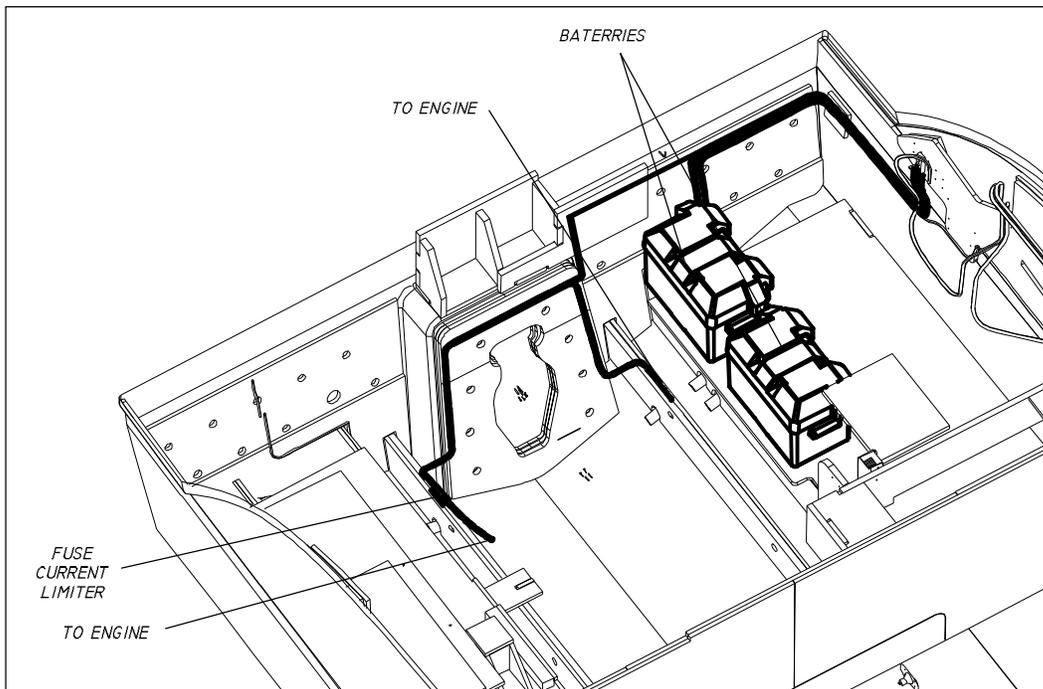


### Battery Cable Routings

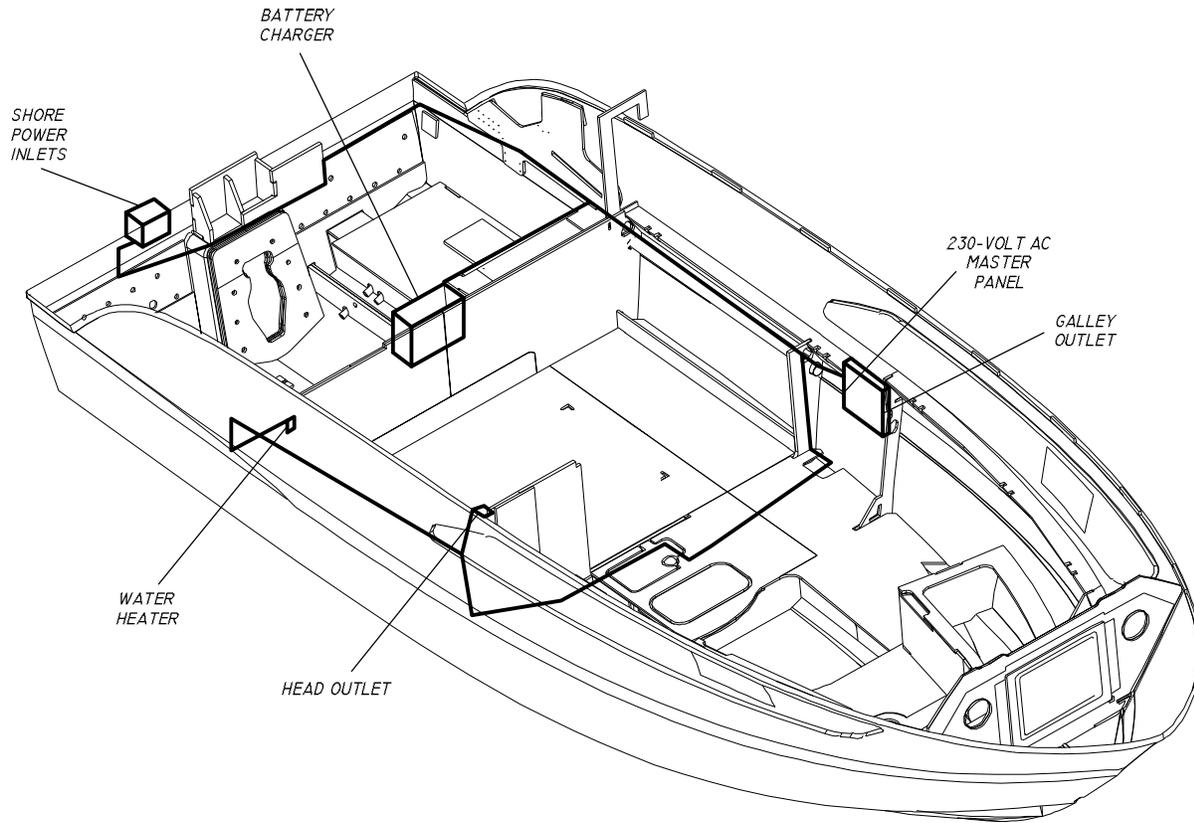
BATTERY CABLE ROUTINGS (IF EQUIPPED WITH SINGLE BATTERY)



BATTERY CABLE ROUTINGS (IF EQUIPPED WITH DUAL BATTERY)

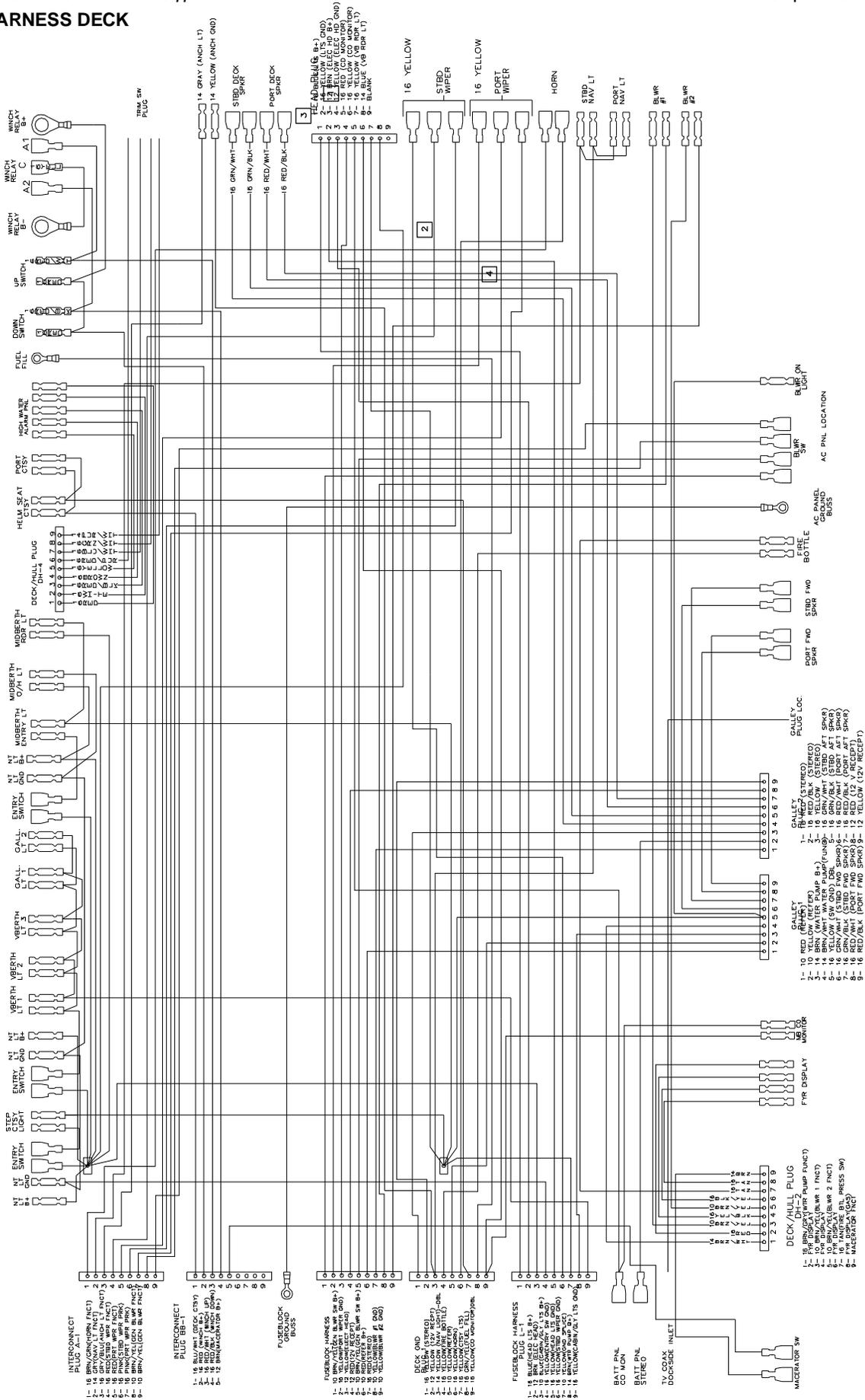


### 230-Volt AC Hull Harnesses

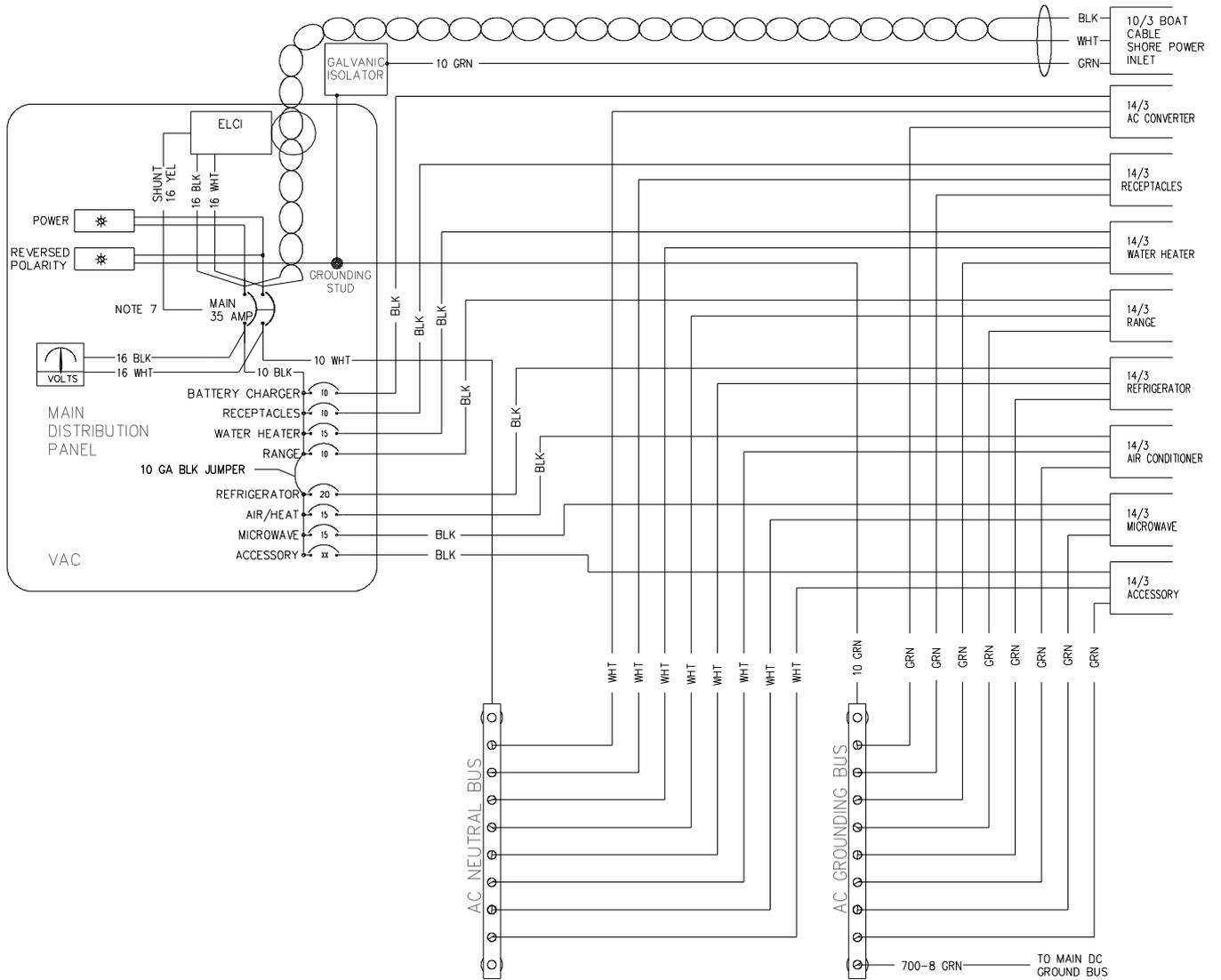




**HARNES DECK**



AC wire diagram



# Important Records

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## 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	
_____ 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		

Full Name		
Male or Female	Age	Health
Full Name		
Male or Female	Age	Health
Full Name		
Male or Female	Age	Health

## Operator of Boat

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

Full Name		
Male or Female	Age	Health
Full Name		
Male or Female	Age	Health
Full Name		
Male or Female	Age	Health

## Persons Onboard

Full Name		
Male or Female	Age	Health
Full Name		
Male or Female	Age	Health

Full Name		
Male or Female	Age	Health
Full Name		
Male or Female	Age	Health

### Survival Equipment

Marine Radio (Yes/No)	Type	Frequencies
Number of PFDs	Flares (Yes/No)	Mirror (Yes/No)
Smoke Signal (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

### Vehicle Description

Make	Model
Color	License Number
Where is the Vehicle Parked?	

### Trip Expectations

Departing From	
Departing Date	Departing 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