

# C-24

Center Walkaround

Owner's Manual



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## CONGRATULATIONS

The Cutwater family has a passion for boating. We are committed to continuous process improvement in all areas that affect our customer's satisfaction with our products and providing great customer service.

## SAFETY

Safety is always a concern at Cutwater. Please read all manuals to ensure that equipment is used in a safe manner. We highly recommend attendance in a Coast Guard approved boating safety course. Such courses are available from the Coast Guard directly or from boating organizations. Owners should have annual inspections to ensure that all safety equipment is current.

 <b>WARNING</b>
<p>Operating, servicing and maintaining a recreational marine vessel can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, service your vessel in a well-ventilated area and wear gloves or wash your hands frequently when servicing this vessel. For more information go to <a href="http://www.P65warnings.ca.gov/marine">www.P65warnings.ca.gov/marine</a>.</p>

<b>MAXIMUM CAPACITIES</b>
<b>10 PERSONS OR 1450 LBS.</b>
2350 LBS, PERSONS, MOTOR AND GEAR 300 HORSEPOWER MOTOR MAX
THIS BOAT COMPLIES WITH U.S. COAST GUARD SAFETY STANDARDS IN EFFECT ON THE DATE OF CERTIFICATION
MANUFACTURER: FLUID MOTION LLC
MODEL: CUTWATER 24CW <span style="float: right;">ARLINGTON, WA</span>

## GARBAGE DISPOSAL & OIL OVERBOARD PLACARDS



Required by the USCG in a language all passengers understand. These are installed at the factory. If damaged or missing after use they should be replaced. Text should cover approximately the following:

### GARBAGE DISPOSAL

**DISPOSAL OF ALL GARBAGE PROHIBITED EXCEPT OTHERWISE SPECIFIED**

THE ACT TO PREVENT POLLUTION FROM SHIPS (MARPOL ANNEX V) PLACES LIMITATIONS ON THE DISCHARGE OF GARBAGE FROM VESSELS. IT IS ILLEGAL TO DUMP PLASTIC TRASH ANYWHERE IN THE OCEAN OR NAVIGABLE WATERS OF THE UNITED STATES. IT IS ALSO ILLEGAL TO DISCHARGE GARBAGE IN THE NAVIGABLE WATERS OF THE UNITED STATES, INCLUDING THE GREAT LAKES. THE DISCHARGE OF OTHER TYPES OF GARBAGE IS PERMITTED OUTSIDE OF SPECIFIC DISTANCES OFFSHORE AS DETERMINED BY THE NATURE OF THAT GARBAGE.

<b>TYPE OF WASTE</b>	<b>DISCHARGE PERMITTED</b>
PLASTICS - INCLUDES SYNTHETIC ROPES, FISHING NETS, AND PLASTIC BAGS	PROHIBITED IN ALL AREAS
FLOATING DUNNAGE, LINING AND PACKING MATERIALS	PROHIBITED LESS THAN 25 MILES FROM NEAREST LAND
FOOD WASTE, PAPER, RAGS, GLASS, METAL, BOTTLES, CROCKERY, OR SIMILAR REFUSE	PROHIBITED LESS THAN 12 MILES FROM NEAREST LAND
COMMINUTED OR GROUND FOOD WASTE, PAPER, RAGS, GLASS, ETC.	PROHIBITED LESS THAN 3 MILES FROM NEAREST LAND

**VIOLATION MAY RESULT IN HEAVY PENALTIES**

### OIL OVERBOARD

**DISCHARGE OF OIL PROHIBITED**

THE FEDERAL WATER POLLUTION CONTROL ACT PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON THE NAVIGABLE WATERS OF THE UNITED STATES, OR THE WATERS OF THE CONTIGUOUS ZONE, OR WHICH MAY AFFECT NATURAL RESOURCES BELONGING TO, APPERTAINING TO, OR UNDER THE EXCLUSIVE MANAGEMENT AUTHORITY OF THE UNITED STATES. IF SUCH DISCHARGE CAUSES A FILM OR DISCOLORATION OF THE SURFACE OF THE WATER OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THE WATER, VIOLATORS ARE SUBJECT TO SUBSTANTIAL CIVIL PENALTIES AND/OR CRIMINAL SANCTIONS INCLUDING FINES AND IMPRISONMENT.

## SYMBOL GLOSSARY

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Attention! - Important Operating or Maintenance Instructions



Attention! - Electrical Shock Hazard



Fresh Water



Waste Tank



Fuel



Standard Equipment



Optional Equipment



Hints

## SPECIFICATIONS

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### C-24 Center Walkaround

Length rigged LOA (motor down) .....	29' 2"	8.9 m
Length rigged LOA (motor up) .....	31'	9.5 m
Beam .....	8' 6"	2.6 m
Draft (motor down) .....	32"	.8 m
Draft (motor up) .....	19"	.5 m
Weight, dry .....	6,300 lbs	2,858 kg
Bridge clearance (no top) .....	7' 1"	2.2 m
Bridge clearance (w/ ht/bimini) .....	8' 2"	2.5 m
Bridge clearance (w/ ht & radar) .....	9' 0"	2.7 m
Height on factory trailer (no top) .....	9' 4"	2.8 m
Height on factory trailer (w/ht/bimini) .....	11' 4"	3.5 m
Height on factory trailer (w/ht & radar) .....	12' 2"	3.7 m
Fuel capacity .....	116 U.S. Gal	439.1 L
Water capacity .....	26 U.S. Gal	98.4 L
Holding tank capacity .....	13 U.S. Gal	49.2 L

*(Subject to Change Without Notice)*

# EQUIPMENT LOCATION



## STARBOARD FITTINGS

**STE**

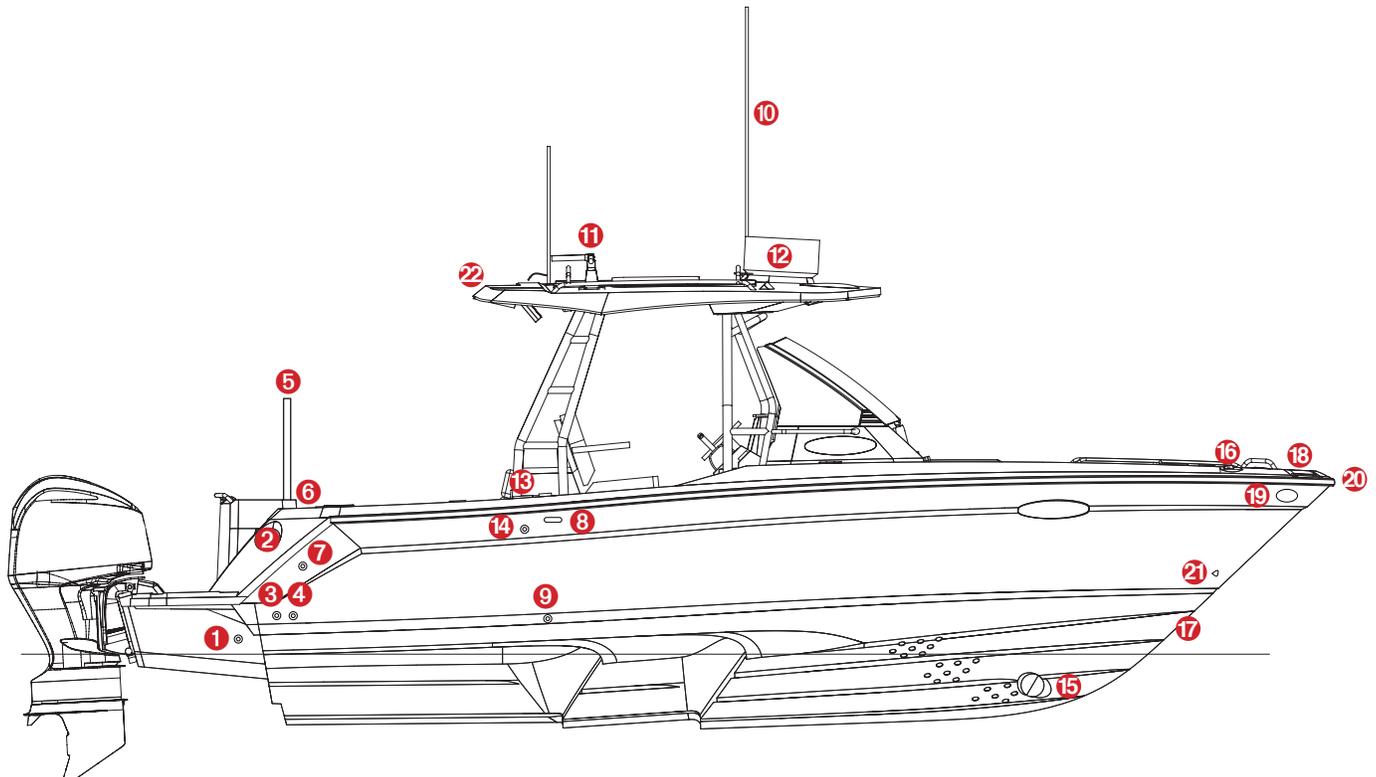
1 2 3 4 5 6 7 8 10 11 13 14 15 16 17 18 19 20 21 22

**OPT**

9 12



Keep all vents, drains and exhausts clear of any obstructions to ensure proper performance of each system.



- |                              |                       |  |
|------------------------------|-----------------------|--|
| 1 Swim Step Drain            | 9 Macerator Thru-Hull | 17 Bow Eye   |
| 2 Fuel Fill                  | 10 VHF Antenna        | 18 Windlass  |
| 3 Aft Bilge                  | 11 Anchor Light       | 19 Horn  |
| 4 Forward Aft Bilge          | 12 Radar              | 20 Bow Pulpit with Beaching Ladder & Anchor Roller |
| 5 Ski Pole                   | 13 Water Fill         | 21 Anchor Locker Drain                             |
| 6 Waste Pumpout              | 14 Water Tank Vent    | 22 Rocket Launchers                                |
| 7 Waste Tank Vent            | 15 Bow Thruster       |  |
| 8 Trailing Side Marker Light | 16 Nav Light          |  |

## PORT FITTINGS



**STE**

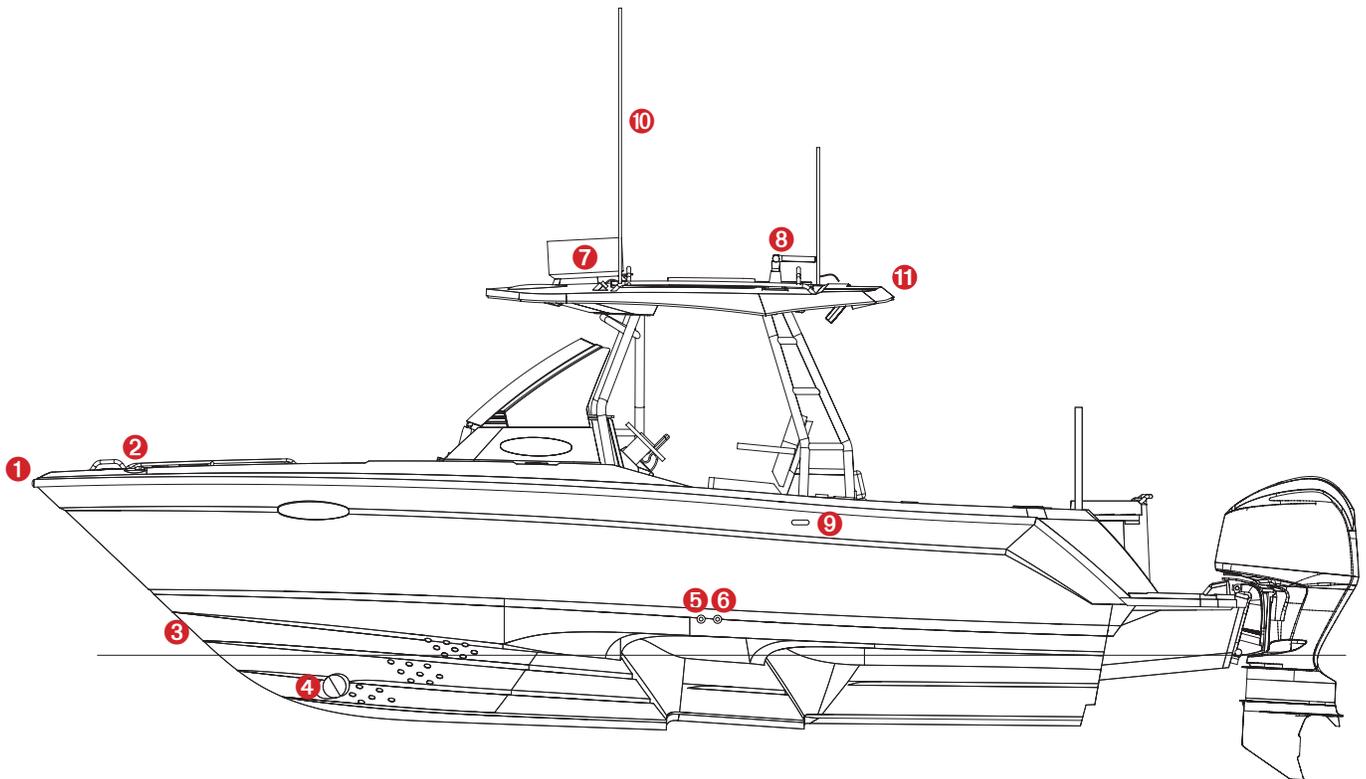
1 2 3 4 5 6 8 9 10 11

**OPT**

7



Keep all vents, drains and exhausts clear of any obstructions to ensure proper performance of each system.



- 1 Bow Pulpit with Beaching Ladder & Anchor Roller
- 2 Nav Light
- 3 Bow Eye
- 4 Bow Thruster
- 5 Head Sink Drain

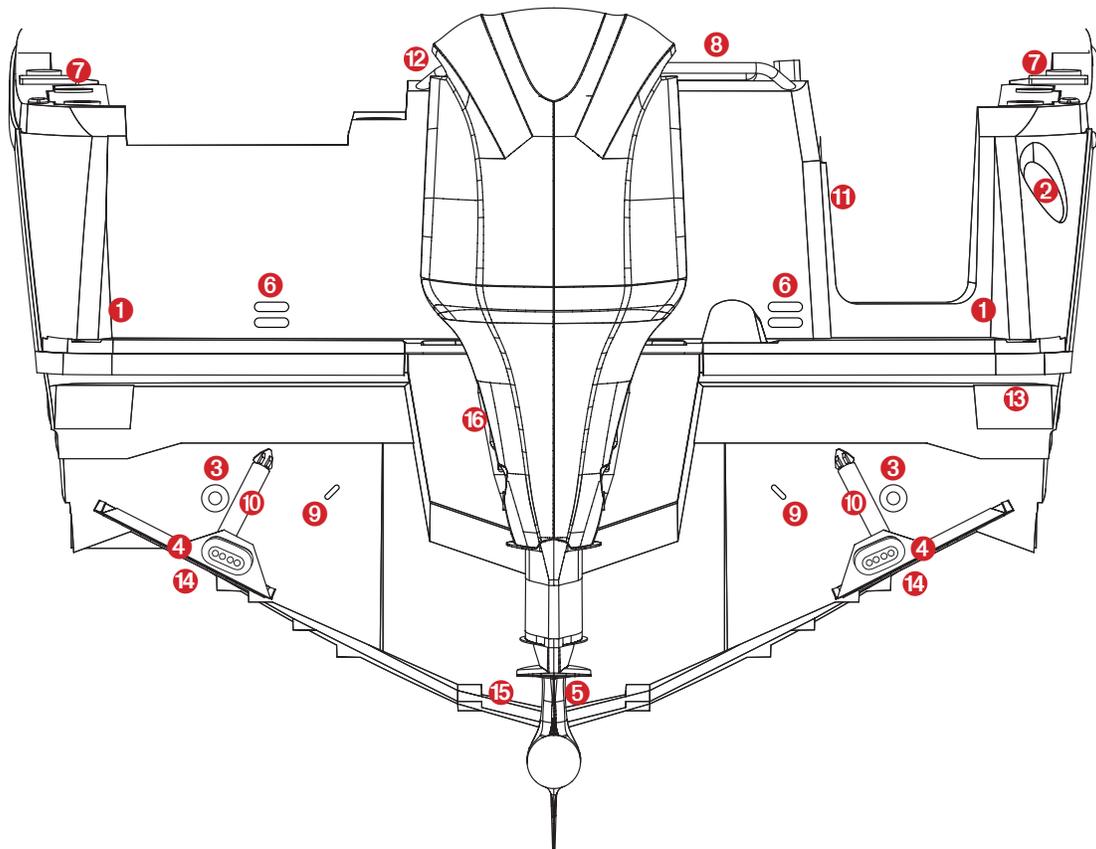
- 6 Forward Bilge Drain
- 7 Radar
- 8 Anchor Light
- 9 Trailing Side Marker Light
- 10 VHF Antenna
- 11 Rocket Launchers

# STERN COMPONENTS



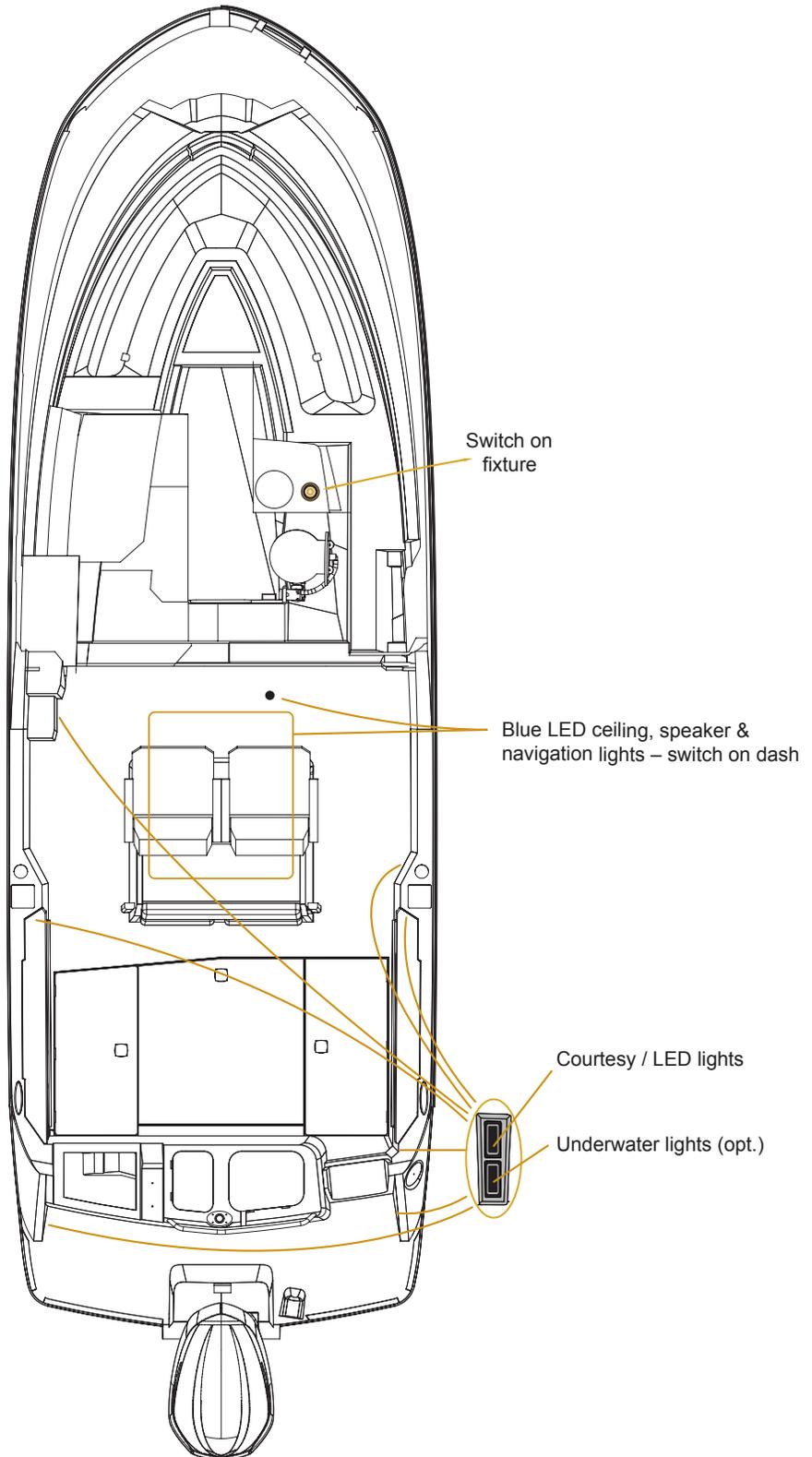
**STE** 1 2 3 4 5 6 7 8 9 10 11 12 13 15 16

**OPT** 14



- |                                 |                             |                     |
|---------------------------------|-----------------------------|---------------------|
| 1 Swim Platform Courtesy Lights | 6 Trailer Turn/Brake Lights | 11 Shower           |
| 2 Fuel Fill                     | 7 Rod Holders               | 12 Ski Pole         |
| 3 Cockpit Scupper Drains        | 8 Flagstaff Mount           | 13 Swim Ladder      |
| 4 Underwater Lights             | 9 Towing Strapdown          | 14 Zincs            |
| 5 Drain Plug                    | 10 Trim Tab Ram             | 15 Lower Unit Zinc  |
|                                 |                             | 16 Motor Mount Zinc |

# MAIN CABIN AND COCKPIT LIGHTS



# FUEL SYSTEM, ENGINE

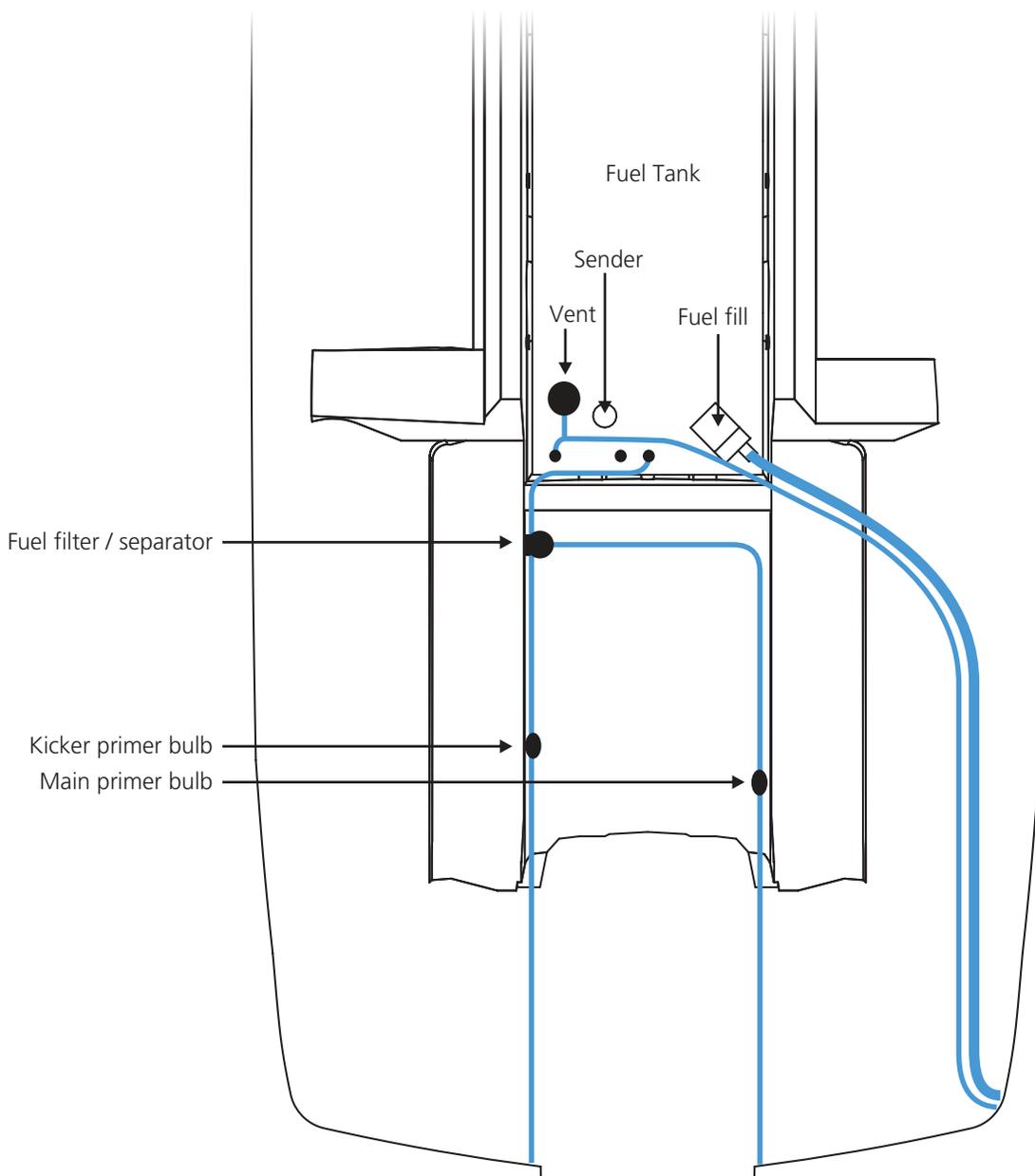


**STE**

Yamaha 250

**OPT**

Yamaha 300, Kicker (9.9 Yamaha)

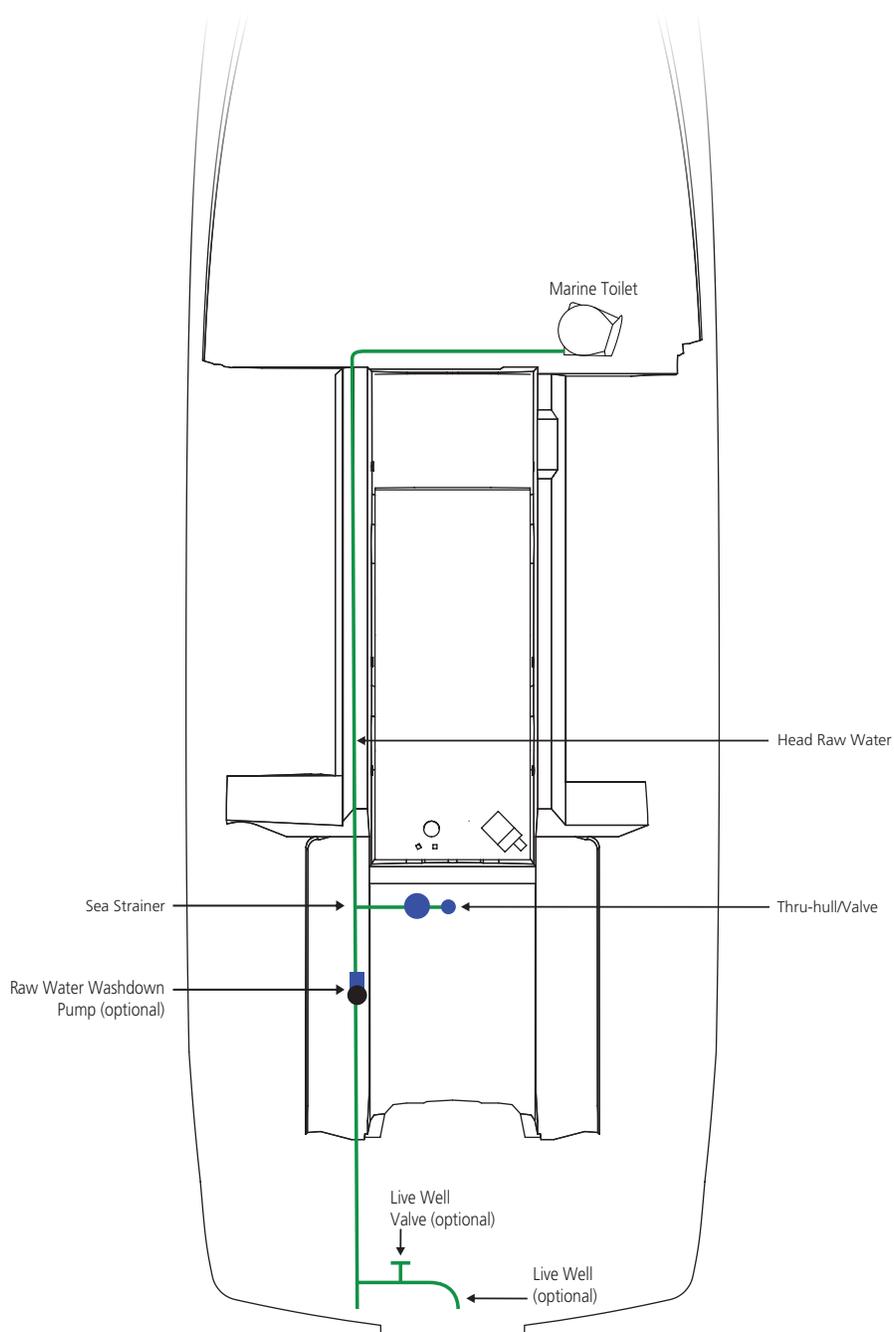


# RAW WATER / SEA STRAINER SYSTEM



**STE**

- Sea strainer for head and raw water wash down pump.

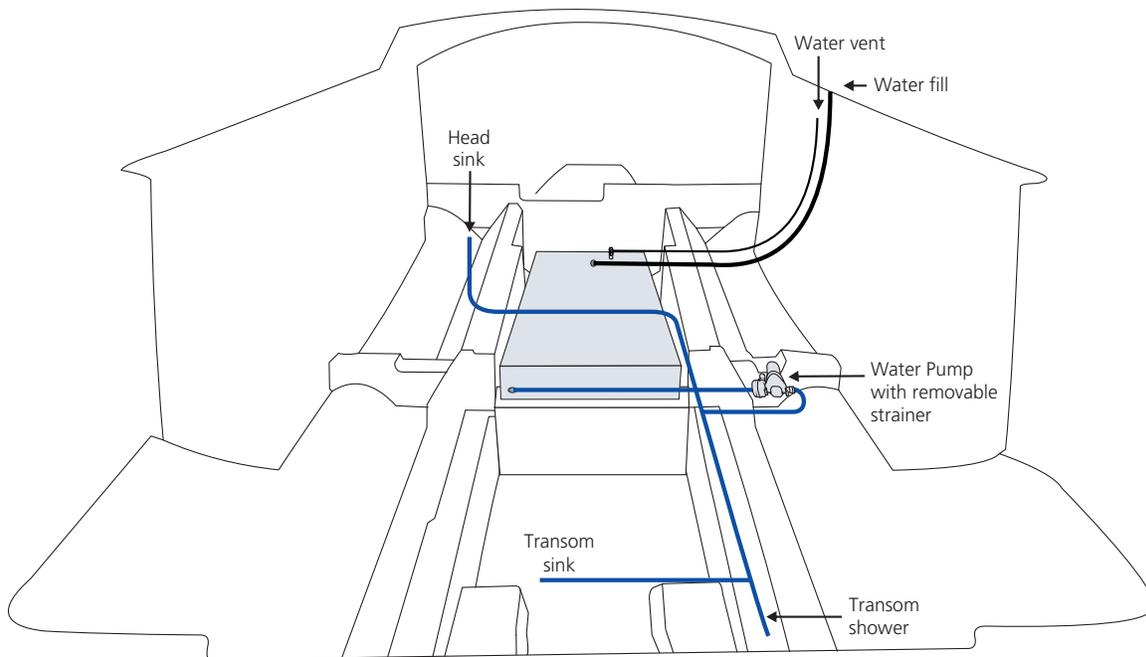


# FRESH WATER PLUMBING SYSTEM



**STE**

26 Gallon Fresh Water Tank, 3.5 GPM Fresh Water Pump.



## Disinfecting The Fresh Water System

The information contained in this appendix provides supplementary data about disinfecting a potable water system.

### A SUGGESTED METHOD OF DISINFECTION

Perform the following steps in the order indicated:

- a. Flush entire system thoroughly by allowing potable water to flow through it;
- b. Drain system completely;
- c. Fill entire system with a chlorine solution having a strength of at least 100 parts per million, and allow to stand for one (1) hour. Shorter periods will require greater concentrations of chlorine solution. [See Table I](#)
- d. Drain chlorine solution from entire system;
- e. Flush entire system thoroughly with potable water;
- f. Fill system with potable water.

Table I shows how much disinfecting agent is required to make up various quantities of 100 parts per million chlorine solution.

TABLE I – CHLORINE CONCENTRATIONS

Amount of chlorine compound required for 100 ppm solution

Solution (Gallons)	Chlorinated Lime 25% (ounces)	High Test Calcium Hypochlorite 70% (ounces)	Liquid Sodium Hypochlorite 1% (quarts)
5	0.3	0.1	0.2
10	0.6	0.2	0.4
15	0.9	0.3	0.6
20	1.2	0.4	0.8
30	1.8	0.6	1.2
50	3.0	1.0	2.0
100	6.0	2.0	4.0

NOTE: This table contains information taken from the Handbook on Sanitation of Vessel Water Points, Public Health Service Publication No. 274 - Reprinted June 1963.

# BILGE PUMP SYSTEM



**STE**

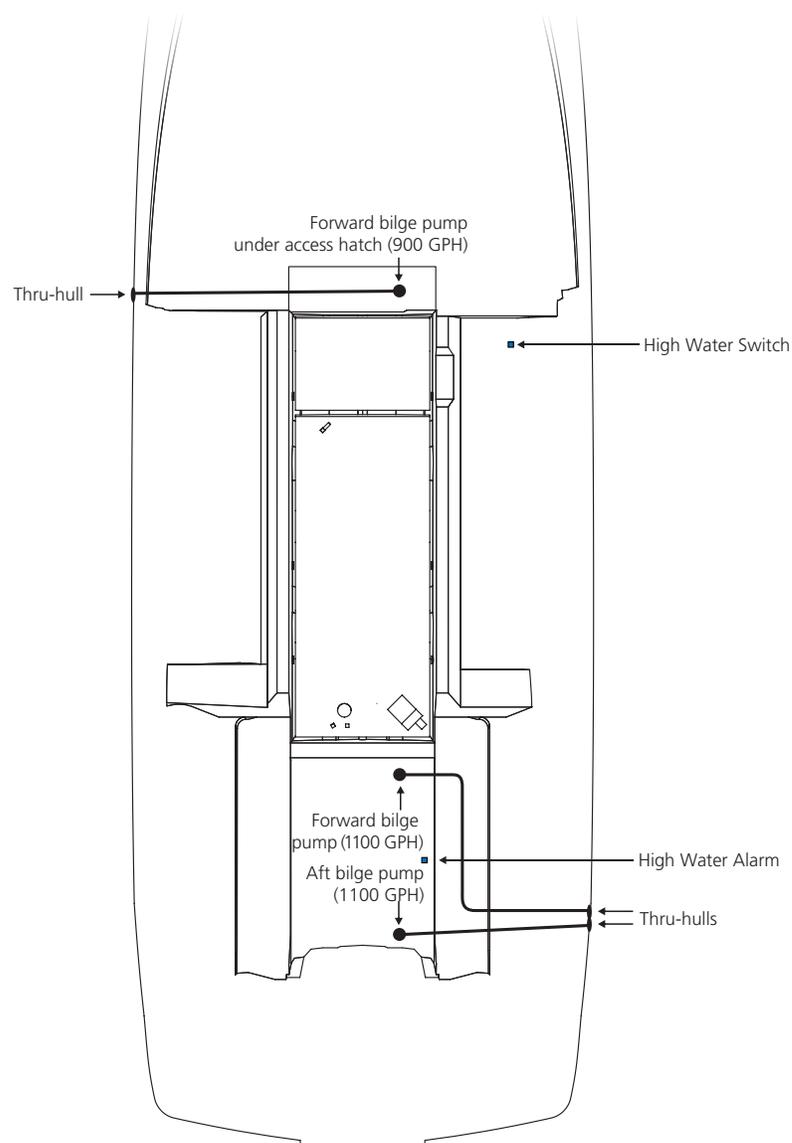
12V 1100 GPH  
12v 900 GPH



The bilge pumps operate automatically by checking for water every 2.5 minutes even with battery switches and breakers in the OFF position.

However, the bilge pumps will run continuously once their switches are placed in the on position. Monitor the outflow accordingly. Do not run when dry.

- All manual bidge pump switches are located at the helm.
- V-berth switch is labeled "ACCY".



# WASTE SYSTEM WITH MACERATOR PUMP



**STE**

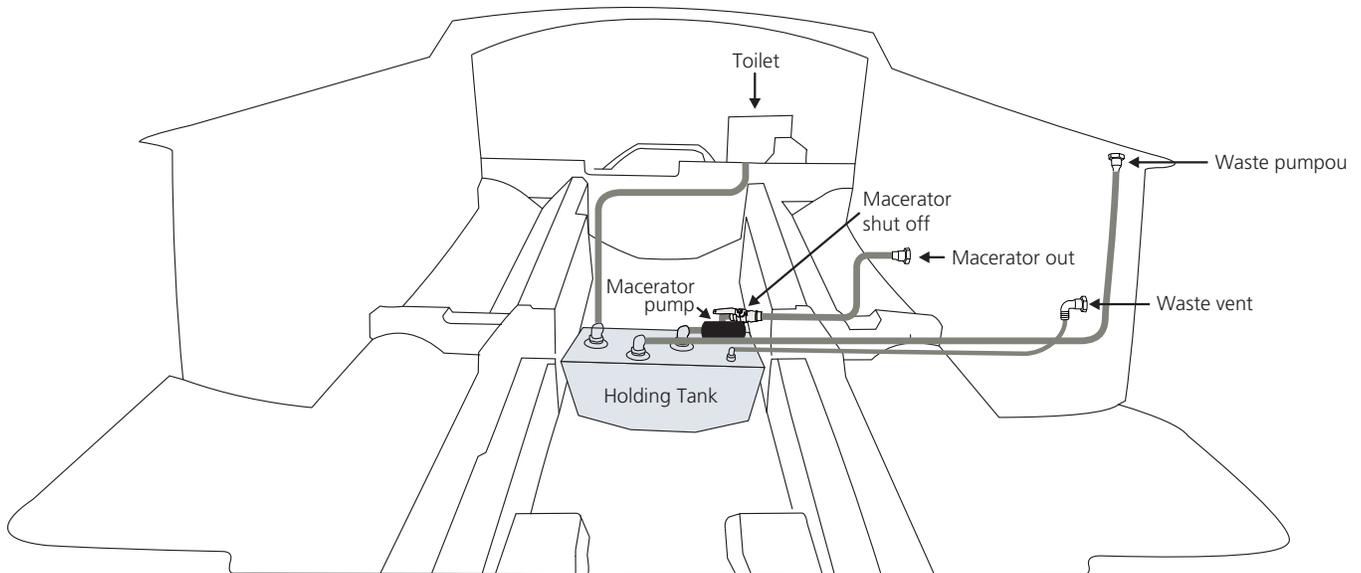


13 Gallon Tank with standard pump out, and vent

**OPT**

Macerator pump out

- Waste tank pump out stations are widely available. Please follow the directions carefully for the pump out equipment you are using to avoid damage to the waste system.
- Boat owner is responsible for following all applicable laws when using the macerator system to pump out into the surrounding waters.
- Overboard shutoff valve is accessed under the galley sink above the pump area.



# BATTERY CONFIGURATION



**STE**

2 House Batteries, 1 Engine Battery

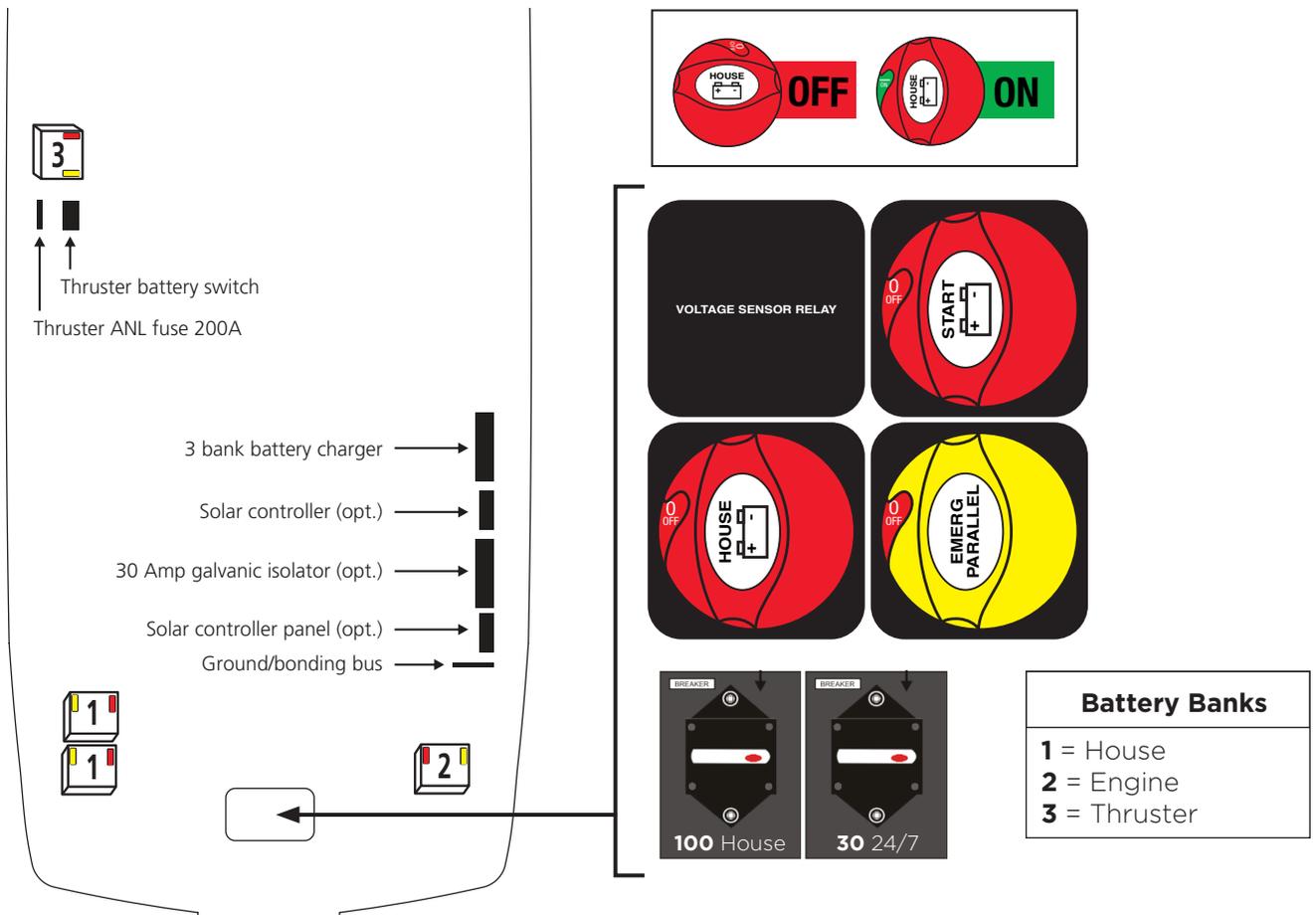
**STE**

House, start, & battery parallel switches and breakers are located in the access hatch beneath the stern sink.

**STE**

1 Thruster Battery. Thruster battery, switch and ANL fuse are located in the forward sink cabinet.

- Once the EMERGENCY PARALLEL switch is placed in the on position the power from the HOUSE batteries will be transferred to the ENGINE battery. Use only for EMERGENCY starting of the engine.
- If the house bank drops below 10.8v you must reset the charging relay by switching on the parallel while the engine is running or while plugged into shore power.



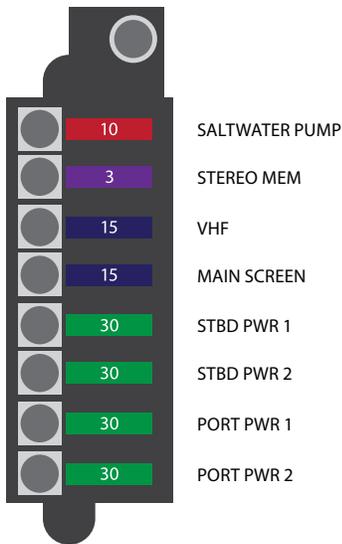
# FUSE LOCATION & VALUES



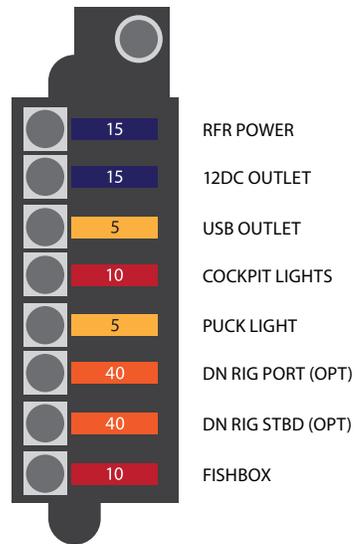
**STE**

Dash fuse blocks are located behind a hinged access panel in the head. Fuses are automotive blade type and all values shown below are in Amps.

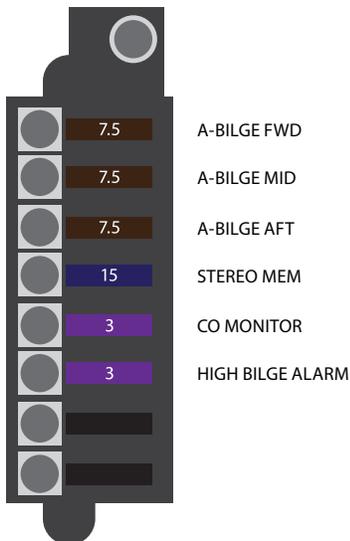
## FUSE BLOCK #1



## FUSE BLOCK #2



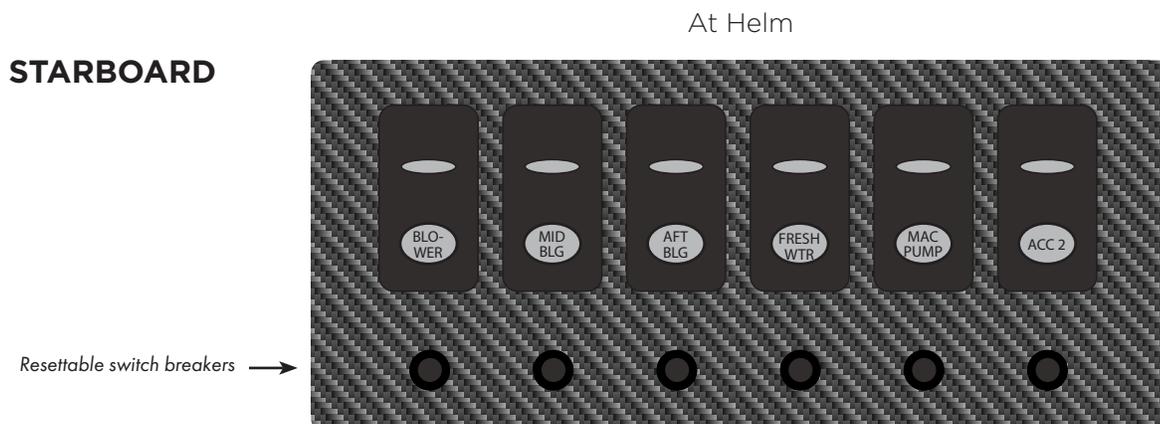
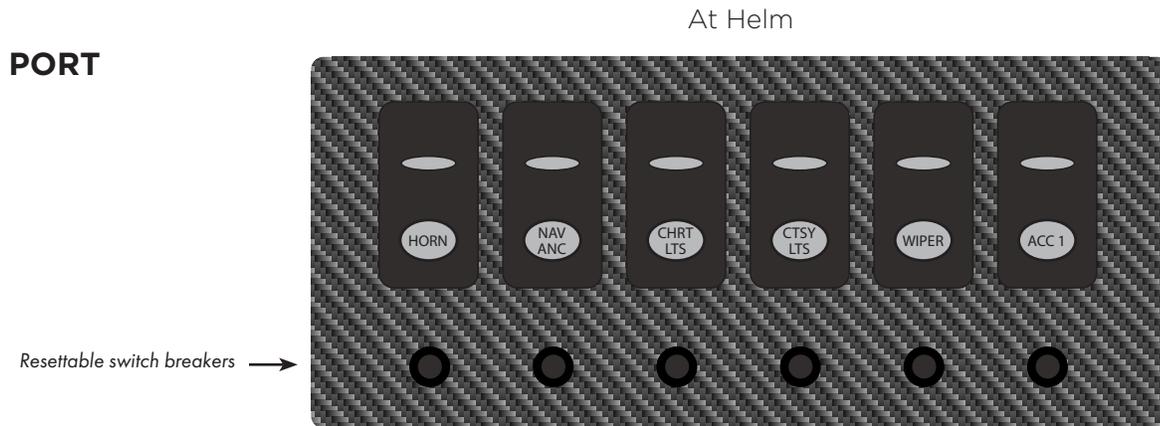
## FUSE BLOCK #3 - 24/7



## 12V HELM CONTROL OPERATION



- The bilge pumps operate automatically with electronic float switches regardless of battery switch position. This should be tested weekly. However, the aft, mid and forward pumps will run continuously once their switches are placed in the on position. Monitor the outflow accordingly. Do not run when dry.

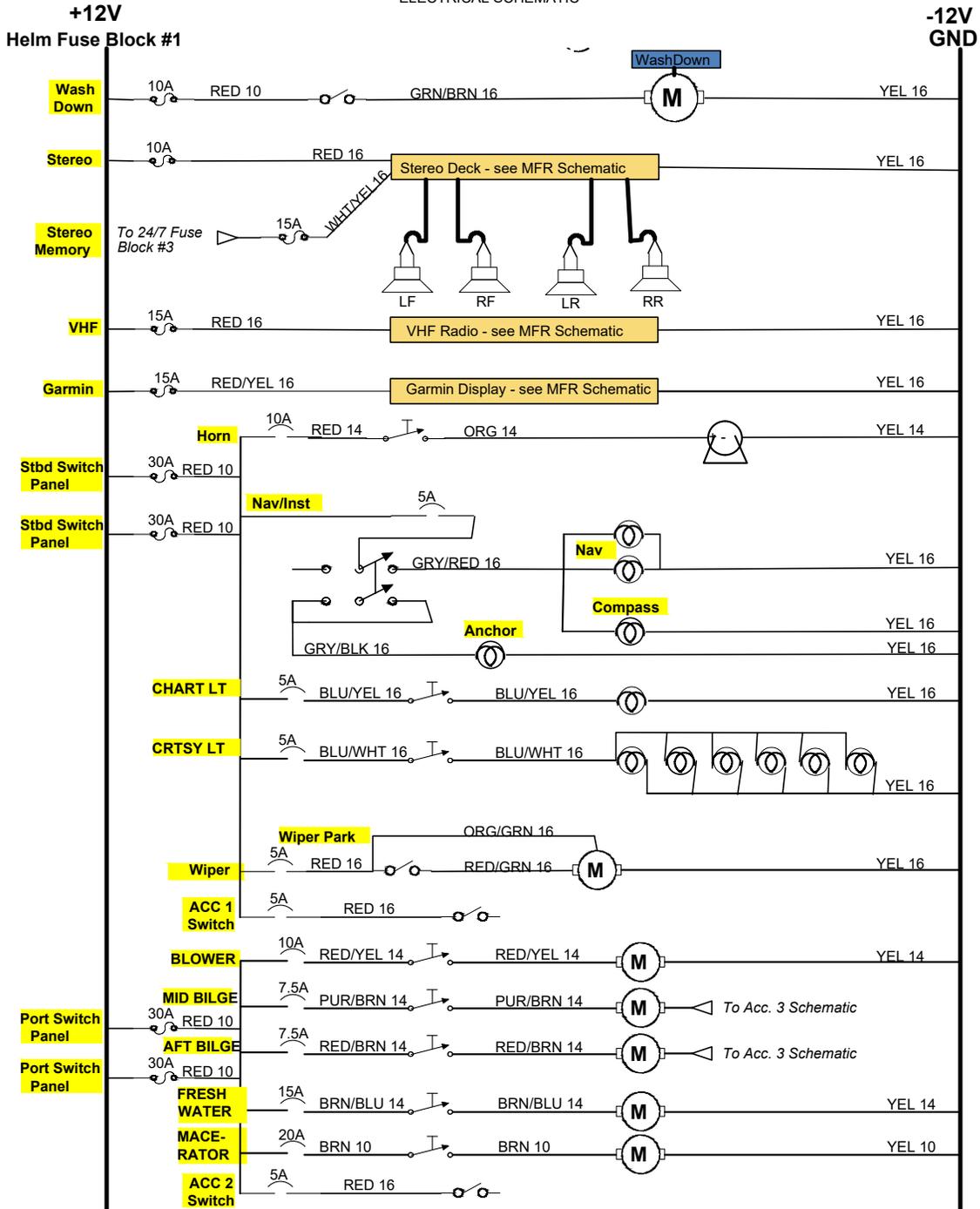


# C-24 CW WIRING SCHEMATIC (ACC. 1)



## C-24-CW/DC Accessories 1

ELECTRICAL SCHEMATIC

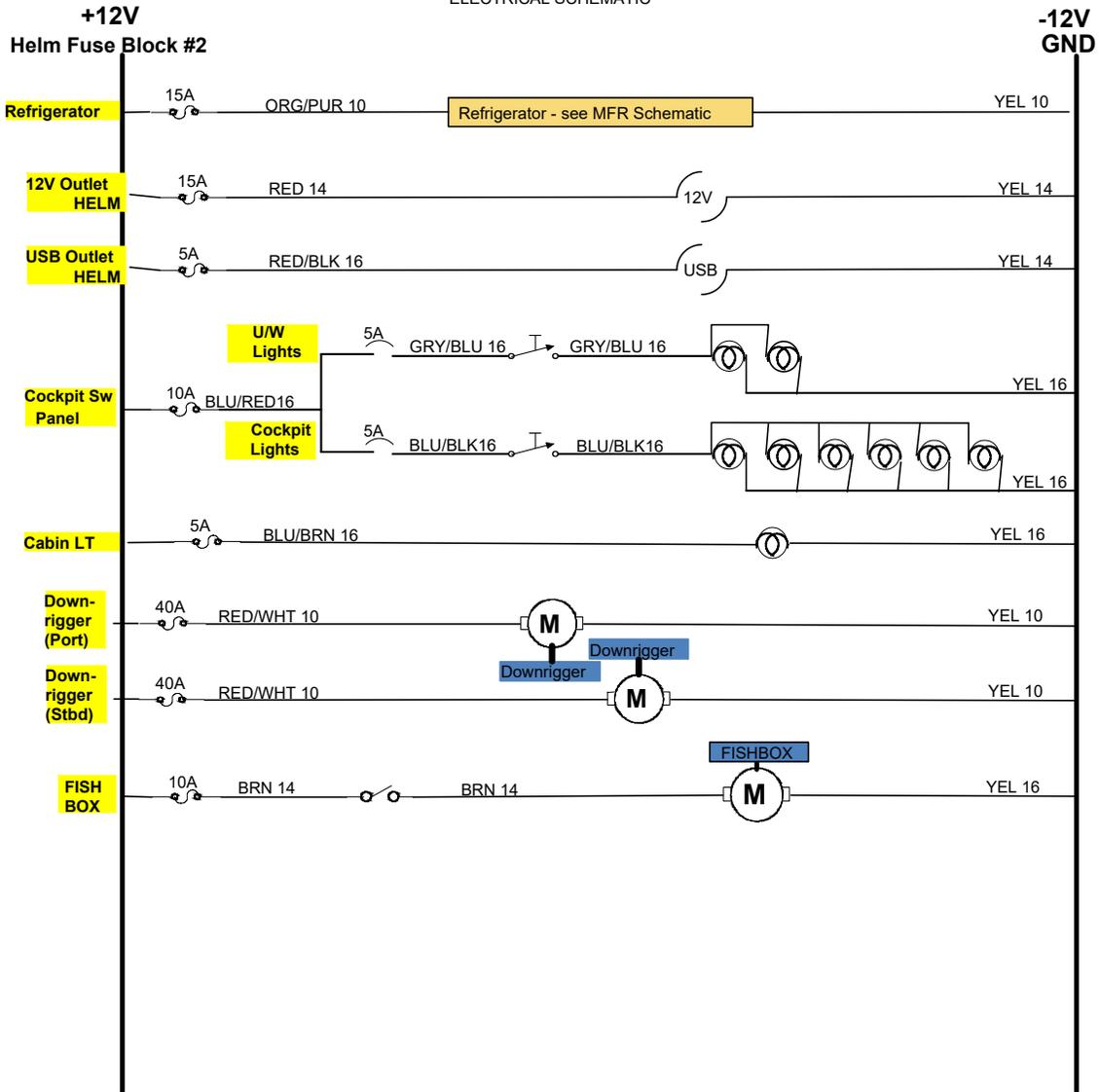


# C-24 CW WIRING SCHEMATIC (ACC. 2)

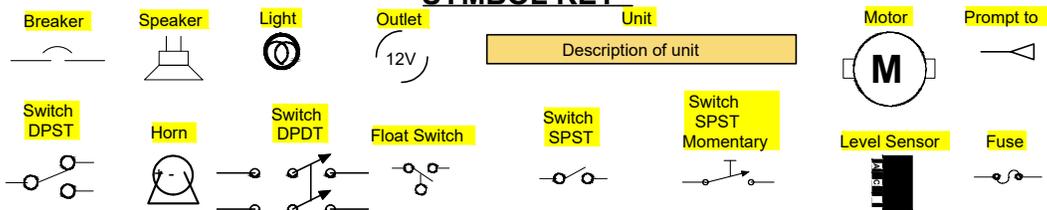


## C-24-CW/DC Accessories 2

ELECTRICAL SCHEMATIC



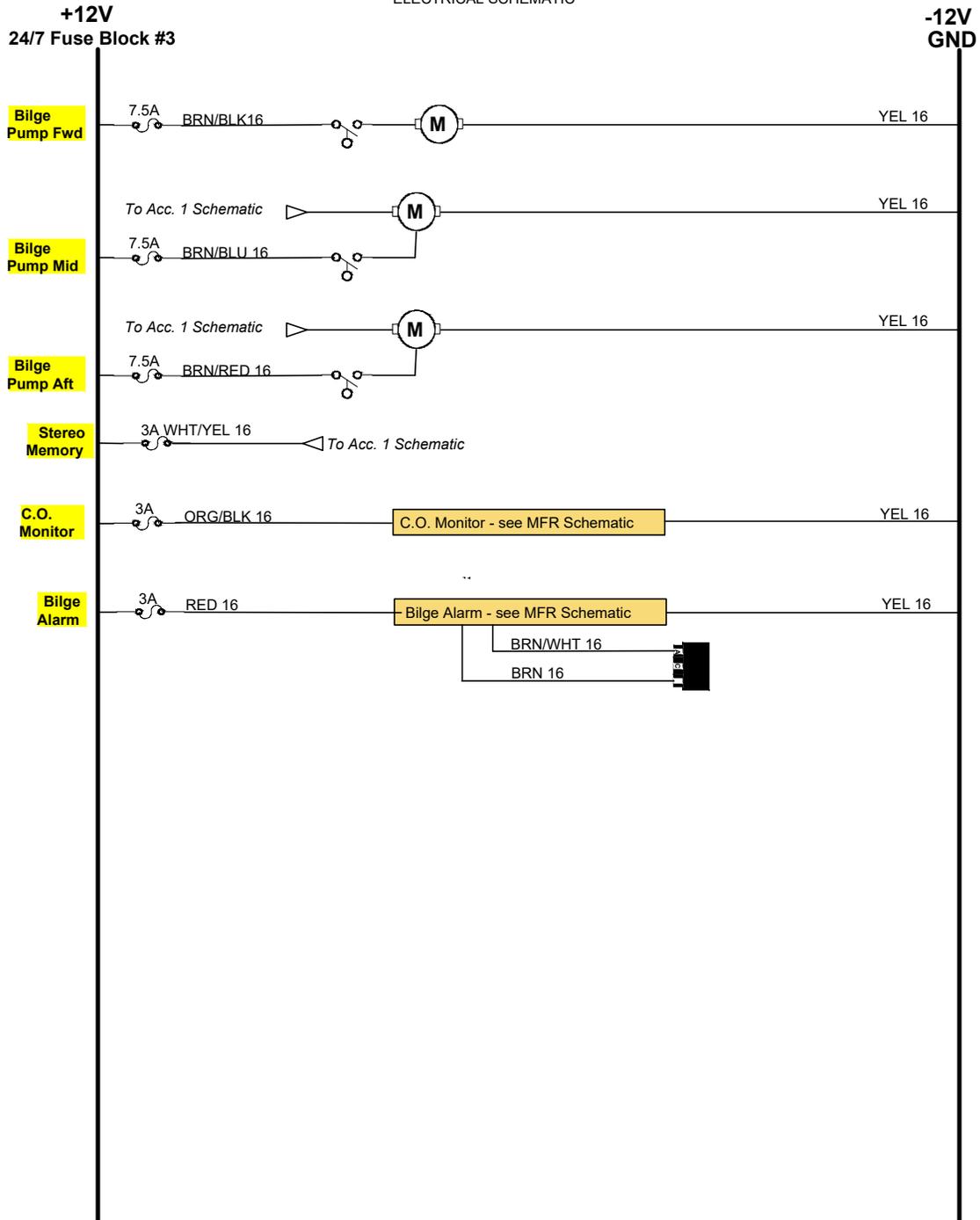
### SYMBOL KEY



# C-24 CW WIRING SCHEMATIC (ACC. 3)



## C-24-CW/DC Accessories 3 ELECTRICAL SCHEMATIC

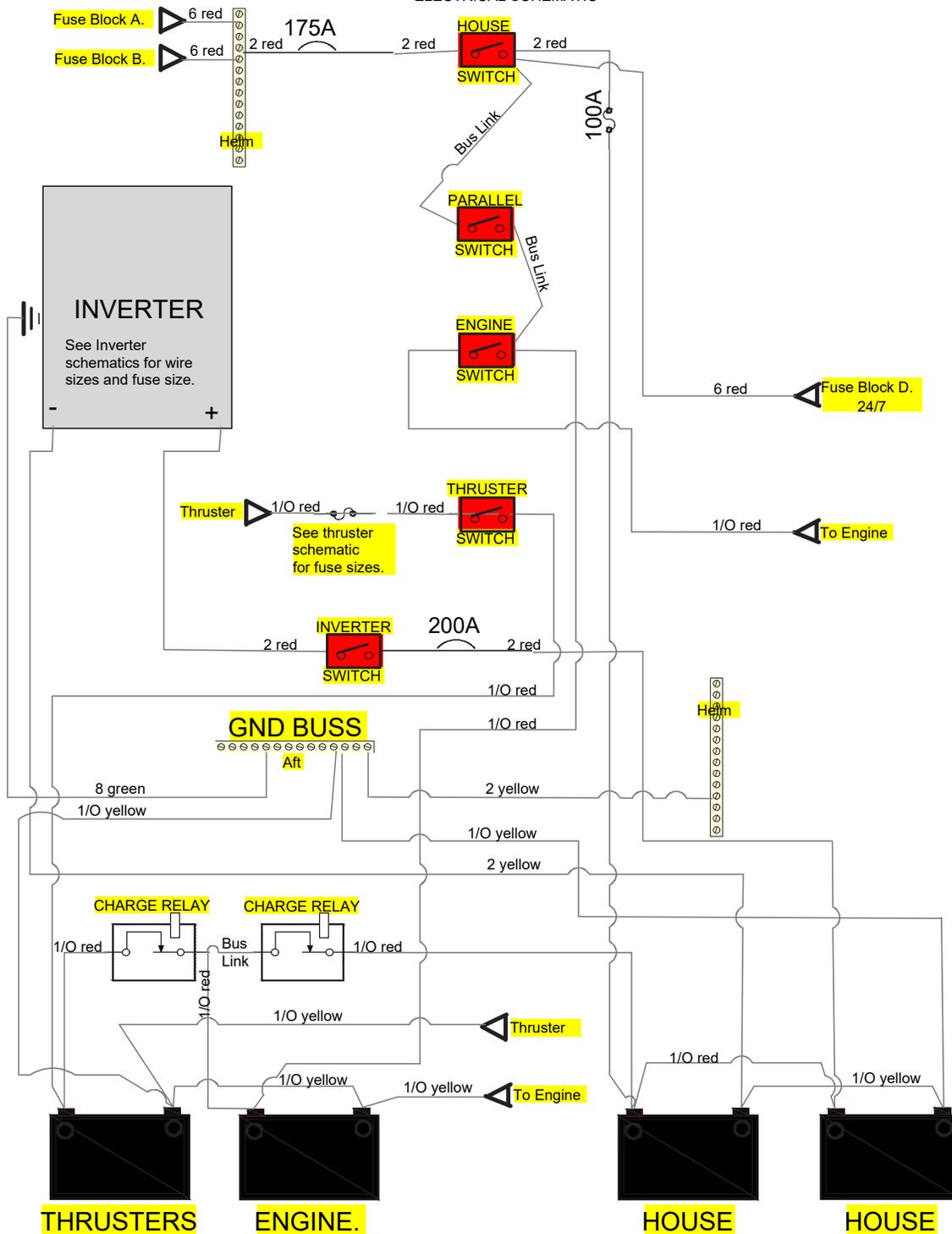


# C-24 CW WIRING SCHEMATIC (P.D.P.)



## C-24-CW/DC Power Distribution

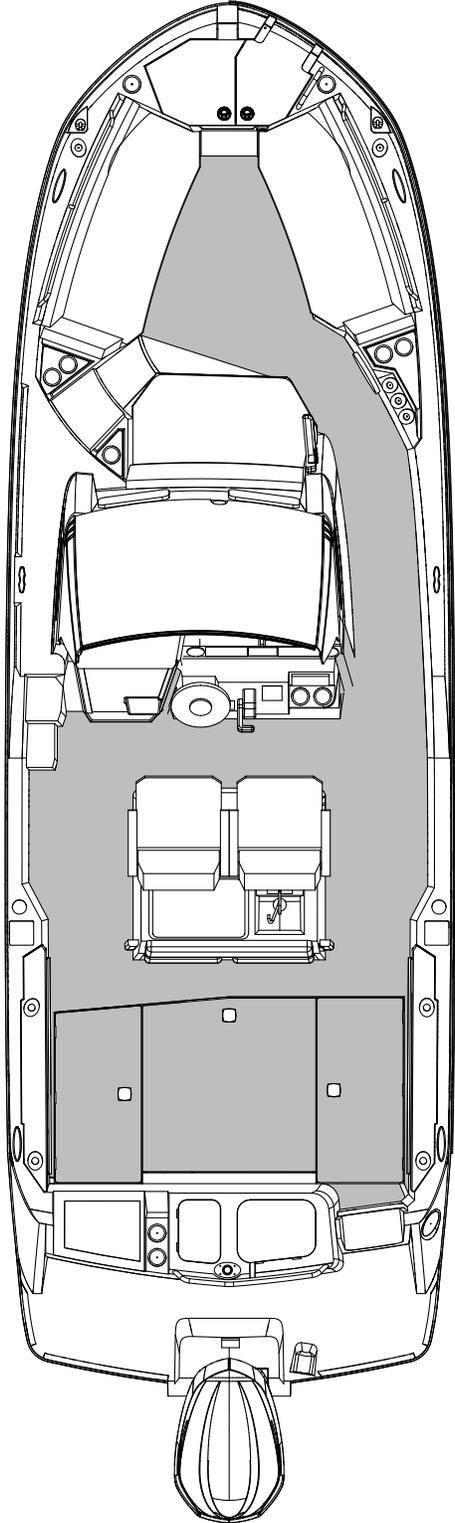
ELECTRICAL SCHEMATIC



# C-24 CW WORKING DECK



STE



## CARE AND MAINTENANCE

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- The following checklists are examples and are not all inclusive and are provided only as a guide. Please customize to your personal needs. Consult your engine and trailer user manuals for additional information.

### EXAMPLE OF A PREPARATION FOR THE ROAD CHECKLIST

#### **TOW VEHICLE - PRIOR TO USE**

- Test Lights.
- Check brakes.
- Check tire pressure and condition.
- Check hitch related electrical connections.

#### **BOAT - PRIOR TO USE WITH TRAILER**

- Lower mast.
- Lower VHF antenna.
- Secure the Bimini awning frame.
- Raise and secure swim platform ladder.
- Set all switches and breakers to the OFF position, including Thruster/Windlass cutoff switch.
- Close and secure all windows, ports and vents.
- Clear countertops.
- Lock fridge latch.
- Check engine is up!
- Lock cabin.
- Remove Drain Plug.

## EXAMPLE OF A SPRING PRE-LAUNCH CHECKLIST

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### CLEANING

- Remove debris from scuppers and scupper drains.
- Clean hull using a mild biodegradable detergent and then wax.
- Clean topsides and decks using a mild biodegradable detergent and then wax.
- Clean and polish all bright work.
- Clean and oil teak.
- Clean windows, ports, and hatches.
- Clean bimini cover.
- Check and clean anchor, rode, and anchor storage compartment.

### INSPECTION

- Check Drain Plug
- Check spare parts and tools and replace as necessary.
- Check wiper blades.
- Check swim platform.
- Inspect and test trim tabs.
- Check condition of bottom paint.
- Check windlass.
- Verify electronics for correct operation.
- Check all inside and outside lights.
- Macerator Valve in proper position and secured.
- Inspect and verify position of all sea cocks and shut off valves.
- Check alarms for proper operation.
- Check fluid levels.

### SAFETY EQUIPMENT

- Sound signaling device.
- Check flares and their expiration dates.
- Check personal flotation devices/throw cushions.
- Check fire extinguishers and their fill dates.
- Boat hook.
- Lines/fenders.
- First aid kits.

### GALLEY

- Check stove for proper operation.
- Check everyday utensil stock.

### DOCUMENTS

- Registration sticker.
- Insurance papers and Passports.
- Boat Inspection sticker.
- Charts and float plan forms.

## EXAMPLE OF WINTER STORAGE CHECKLIST

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### GENERAL MAINTENANCE

- Fill Fuel Tank and add a fuel stabilizer.
- Empty and clean black water tank.
- Empty fresh water tank use a non-toxic antifreeze per manufacturer's directions, or remove all water from the system.
- Winterize black and fresh water tanks as necessary based on weather.
- Check bilge area for oil and for proper operation
- Check zincs and replace as necessary.
- Check and clean water strainer.
- Clear barnacles and debris from hull fittings.
- Trickle charge batteries every 30-60 days.
- Vent boat to prevent mildew.
- Remove Drain Plug.
- Turn off all battery cutoff switches.

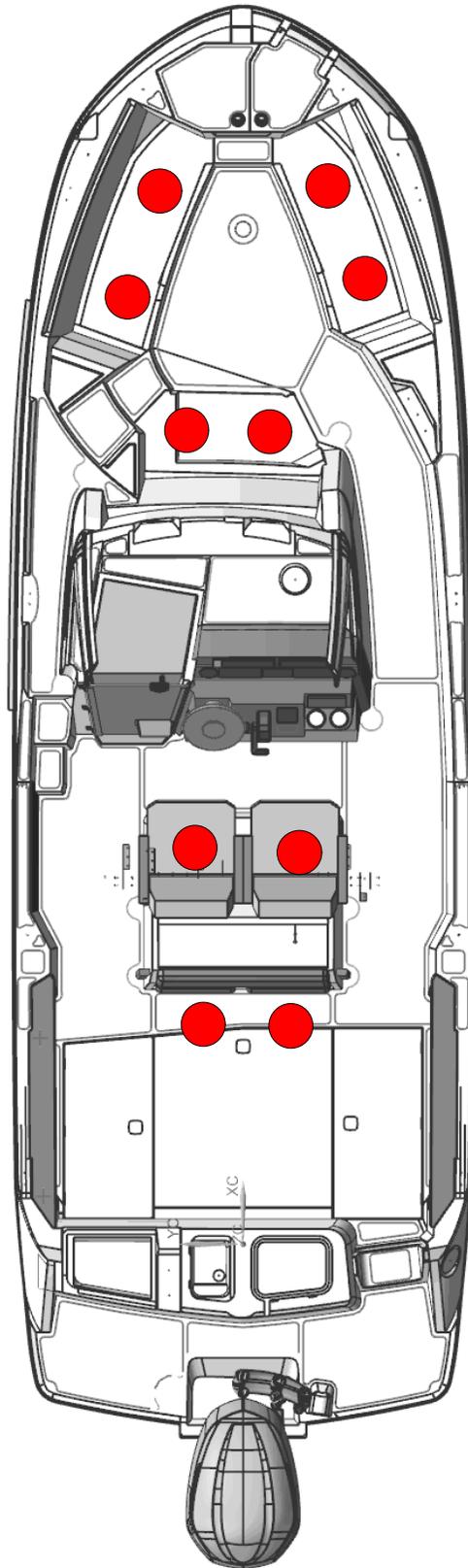
### ENGINE

- Flush engine(s) with fresh water.
- Check all fluid levels.
- Check all hose fittings.
- Check impeller.
- Check engine maintenance requirements.

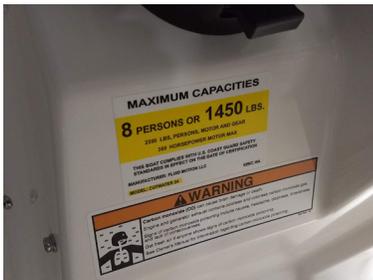
### GALLEY

- Empty, clean and freshen refrigerator.
- Remove all dry food from storage.

# DESIGNATED OCCUPANT POSITIONS



# WARNING LABEL LOCATIONS



## CONTACTS

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### **Customer Service**

Kenny Marrs, Customer Service Manager

Phone: 253-839-5213

kennymarrs@rangertugs.com

### **Web Site**

[www.CutwaterBoats.com](http://www.CutwaterBoats.com)



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