

R-29

Sedan &
Command Bridge

Owner's Manual



Quality Craftsmanship Since 1958

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CONGRATULATIONS

The Ranger Tug 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 Ranger Tugs. 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.



WARNING

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 www.P65warnings.ca.gov/marine.

SYMBOL GLOSSARY



Attention! – Important Operating or Maintenance Instructions



Attention! – Electrical Shock Hazard



Fresh Water



Black Water



Fuel



Standard Equipment



Optional Equipment



Hints

SPECIFICATIONS



R-29 S

Length	28' 10"	8.79 m
Length Overall (w/swim step)	33' 4"	10.16 m
Beam	10' 0"	3.05 m
Draft	30"	.76 m
Weight, Dry	10,500 lbs	4,762 kg
Water Bridge Clearance (mast up)	13' 11"	4.24 m
Water Bridge Clearance (mast down)	9' 11"	3.02 m
Height on Trailer (mast down)	13' 3"	4.04 m
Fuel Capacity	145 gal	548.89 L
Water Capacity (fresh)	45 gal	170.34 L
Holding Tank Capacity	40 gal	151.42 L
Hot Water Tank Capacity	8 gal	30.28 L
Length Overall on Trailer with no dinghy (RIB)	39' 6"	12.04 L

R-29 CB

Length	28' 10"	8.79 m
Length Overall (w/swim step)	33' 4"	10.16 m
Beam	10' 0"	3.05 m
Draft	30"	.76 m
Weight, Dry	10,800 lbs	4,899 kg
Water Bridge Clearance (mast up)	13' 11"	4.24 m
Water Bridge Clearance (mast down)	9' 11"	3.02 m
Height on Trailer	13' 3"	4.04 m
Fuel Capacity	145 gal	548.89 L
Water Capacity (fresh)	45 gal	170.34 L
Holding Tank Capacity	40 gal	151.42 L
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Length Overall on Trailer with no dinghy (RIB)	39' 6"	12.04 L

(Subject to Change Without Notice)

EQUIPMENT LOCATION



STARBOARD FITTINGS

STE

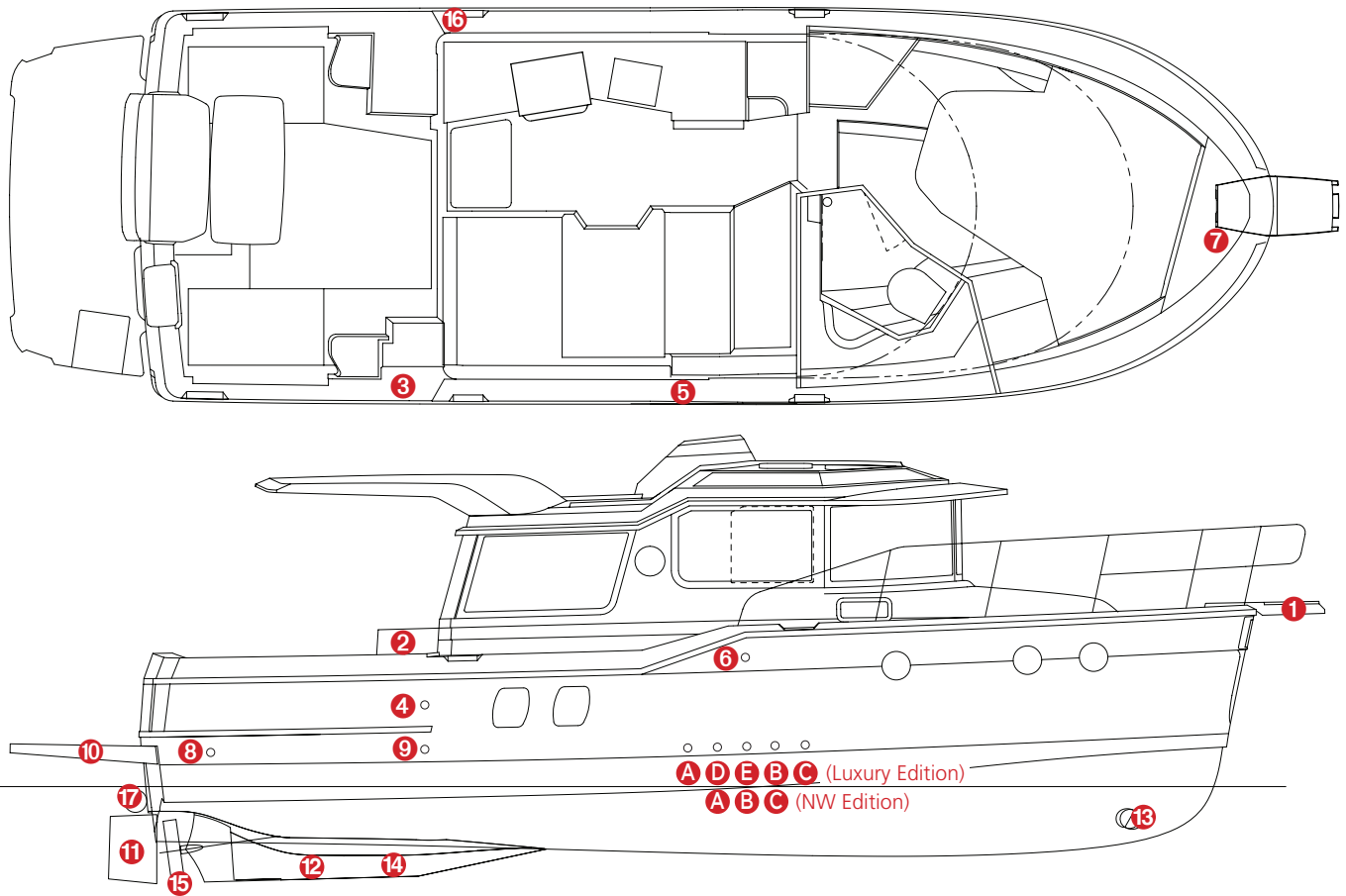
1 2 3 4 5 6 7 8 9 10 11 12 13

OPT

D E



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



- | | | |
|-------------------------------------|--------------------|-----------------------|
| 1 Bow Ladder | 8 Aft Bilge | 15 Prop |
| 2 Shore Power Inlet(s) | 9 Forward Bilge | 16 Water Fill On Deck |
| 3 Diesel Fill On Deck | 10 Boarding Ladder | 17 Stern Thruster |
| 4 Fuel Tank Vent | 11 Rudder | |
| 5 Waste Outlet On Deck | 12 Keel Drain Plug | A Macerator |
| 6 Holding Tank Vent | 13 Bow Thruster | B Shower Sump |
| 7 Foredeck Anchor Windlass Switches | 14 Keel | C Sink Drain |
| | | D AC Aft |
| | | E AC Forward |

PORT FITTINGS



STE

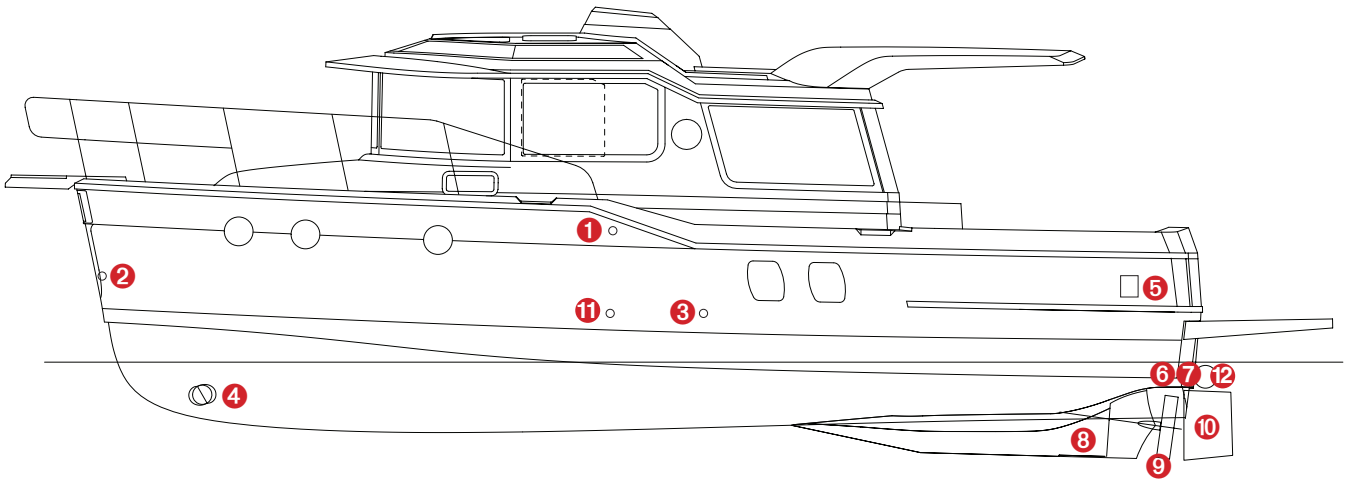
1 2

OPT

5 6



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



- | | |
|------------------------|---------------------------------|
| ① Water Tank Vent | ⑦ Engine Exhaust |
| ② Anchor Locker Drain | ⑧ Keel |
| ③ Galley Sink Drain | ⑨ Prop |
| ④ Bow Thruster | ⑩ Rudder |
| ⑤ Generator Vent Cover | ⑪ Webasto Diesel Heater Exhaust |
| ⑥ Generator Exhaust | ⑫ Stern Thruster |

MAIN CABIN TOP DECK COMPONENTS

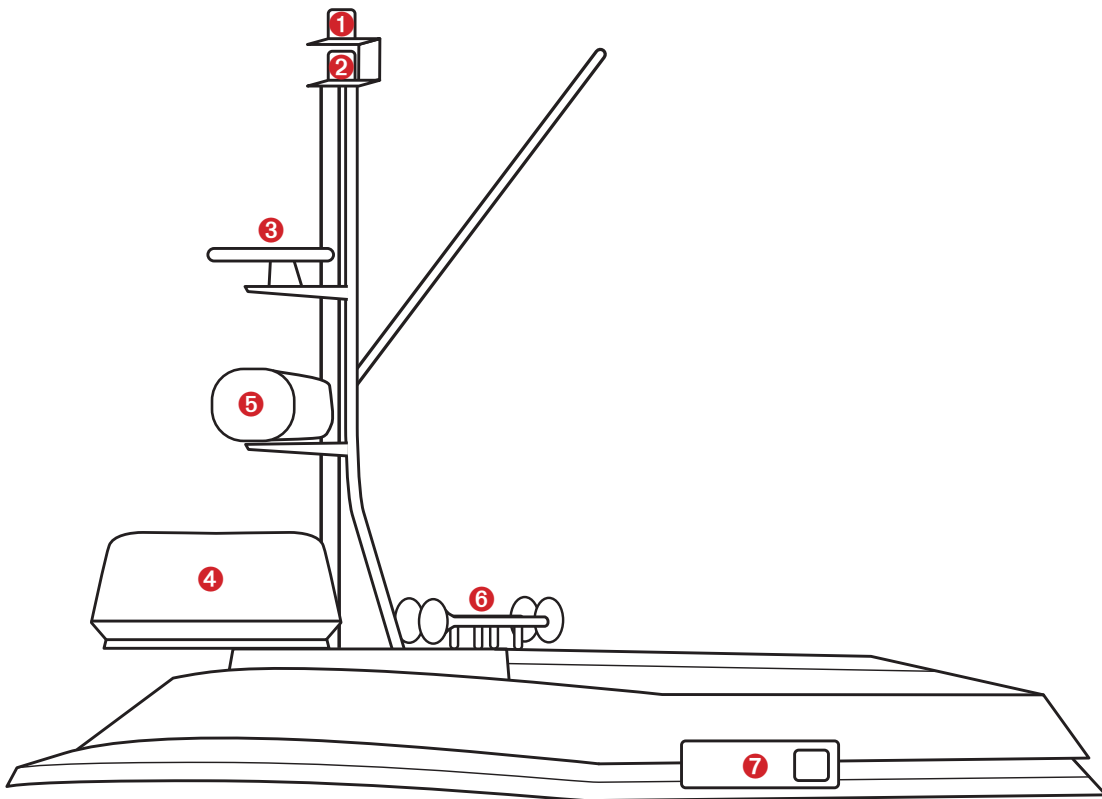


STE

1 3 5 6 7 8

OPT

2 4



- ① Anchor Light
- ② Running Light
- ③ TV Antenna
- ④ Radar

- ⑤ Searchlight
- ⑥ Horn
- ⑦ Navigation Light
(RED Port, GREEN Starboard)

STERN COMPONENTS

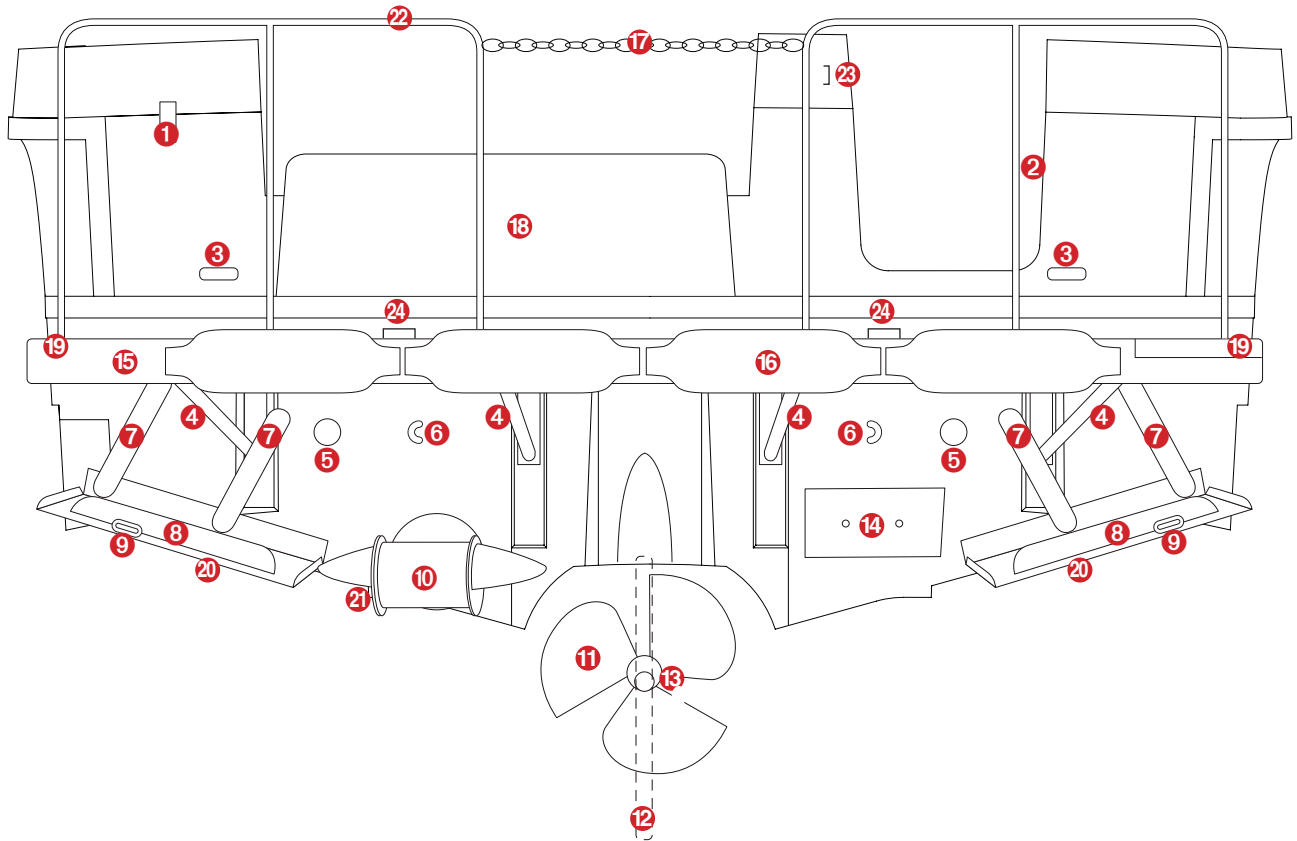


STE

1 2 3 4 5 6 7 8 10 11 12 13 14 15 16

OPT

9 18 19



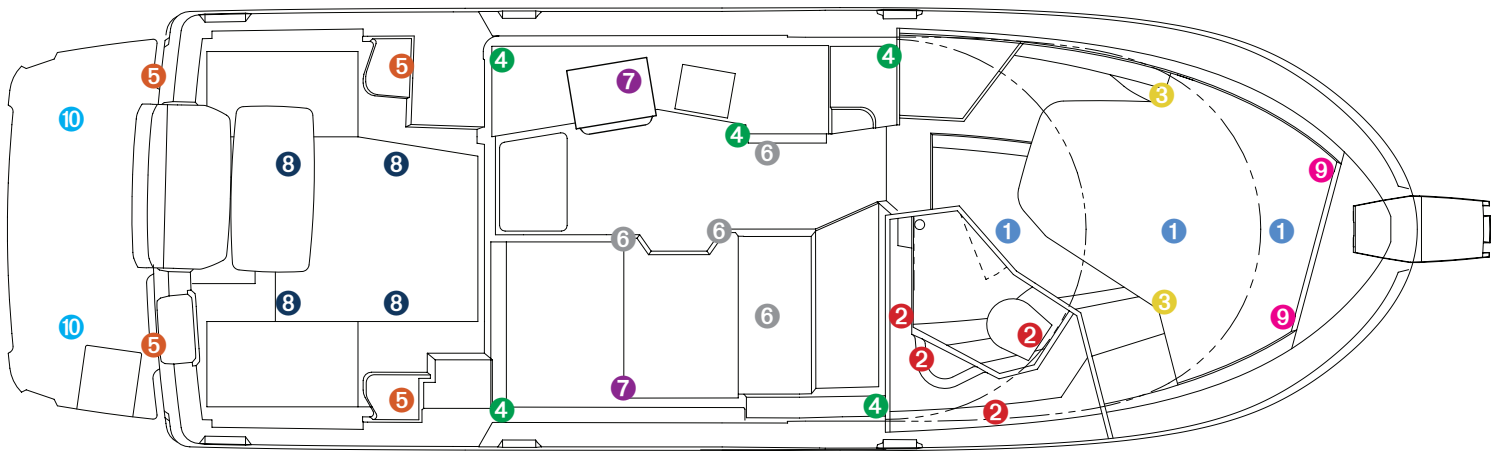
- | | | |
|---------------------------|--------------------------|-----------------------------|
| 1 Flagstaff Mount | 9 Under Water Lights | 17 Rail Chain or Chain Gate |
| 2 Deck Shower | 10 Stern Thruster | 18 Propane Locker |
| 3 Amber Courtesy Lights | 11 Prop | 19 Dinghy Cleats |
| 4 Swim Platform Struts | 12 Rudder | 20 Trim Tab Zincs |
| 5 Cockpit Drain with Flap | 13 Prop Zinc | 21 Thruster Zinc |
| 6 Towing Strapdown Eye | 14 Transom Zinc | 22 Patio Railing |
| 7 Trim Tab Ram | 15 Swim Platform | 23 Stand Off Mounts |
| 8 Trim Tab | 16 Swim Platform Fenders | 24 Dinghy Davit |

MAIN CABIN AND COCKPIT LIGHTS



STE

	Main Cabin Switch	Dash Switch	Forward Cabin Switch	Head Switch	Cockpit Switch Panel	Switch On Fixture
1 V-Berth Cabin Lights			✓			
2 Head Lights				✓		
3 Under Bed Lighting			✓			
4 Indirect Cabin Lights	✓					
5 Cockpit & Transom Lights					✓	
6 Red White Combo		✓				
7 Overhead White Lights	✓					
8 Exterior Red/White					✓	
9 Reading Lights						✓
10 Underwater Lights					✓	✓



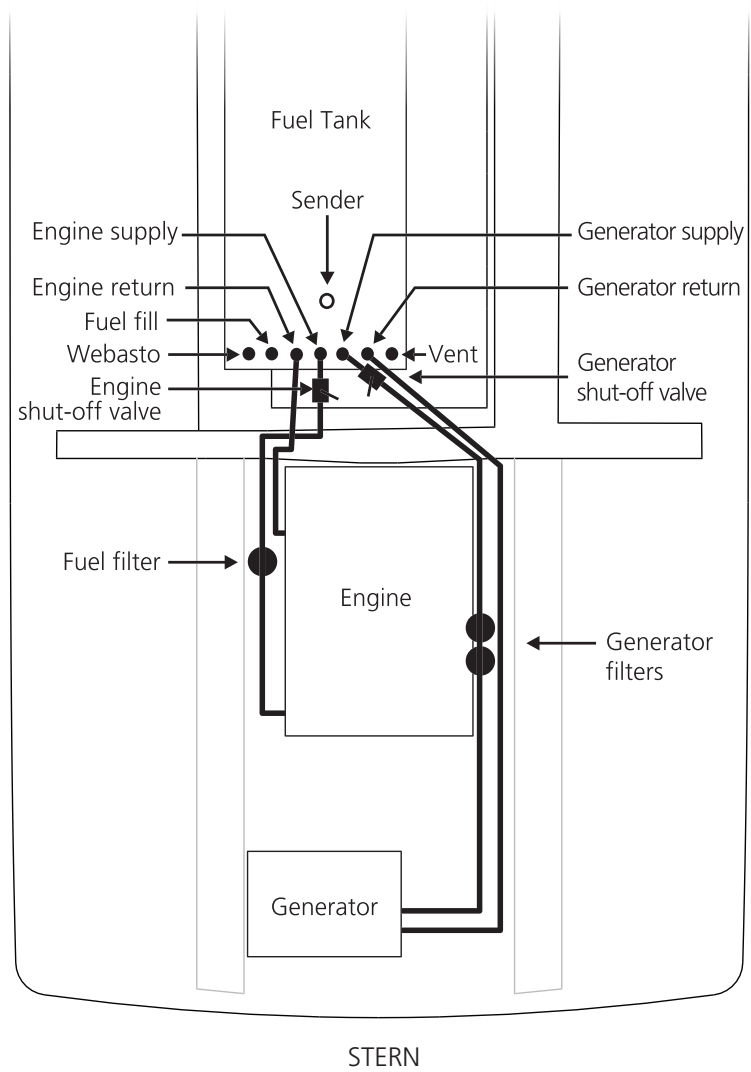
FUEL SYSTEM, ENGINE, GENERATOR & WEBASTO FURNACE



STE

Volvo D4 300hp

- There is a secondary on-engine fuel filter that is not shown on this drawing. You will be able to find information about this filter in the diesel engine manual supplied with your boat. The secondary filter is where the water-in-fuel sensor is located.
- Main engine fuel shutoff is located underneath the forward engine hatch as you enter the main cabin. The primary fuel filter is mounted on the bulkhead in the engine compartment. There is a drain in the bottom of this filter for draining water.



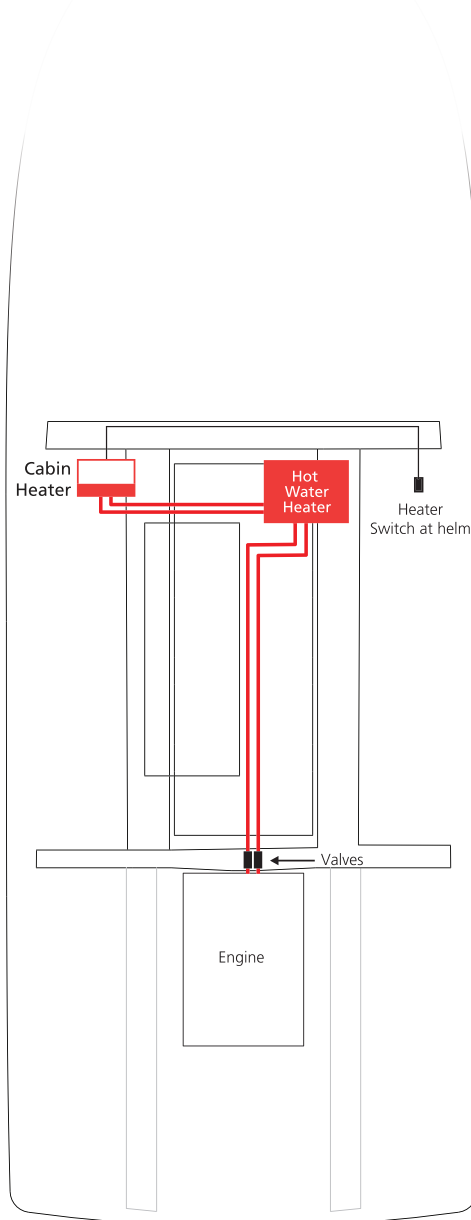
CLOSED ENGINE COOLING SYSTEM



STE

Provides an alternate heating system for the Fresh Water Heater and provides primary heating source for the Forced Air Cabin Heater. This system is also designed to provide cooling to the internal components of your engine. Please refer to your engine operations manual for more information.

- Use only Volvo VCS coolant in this system. Do not mix coolant types.
- Close black handled coolant valves on front of engine if a leak is suspected in either the fresh water heater or forced air cabin heater. This will keep coolant inside of the engine where it is needed most.



RAW WATER / SEA STRAINER SYSTEM

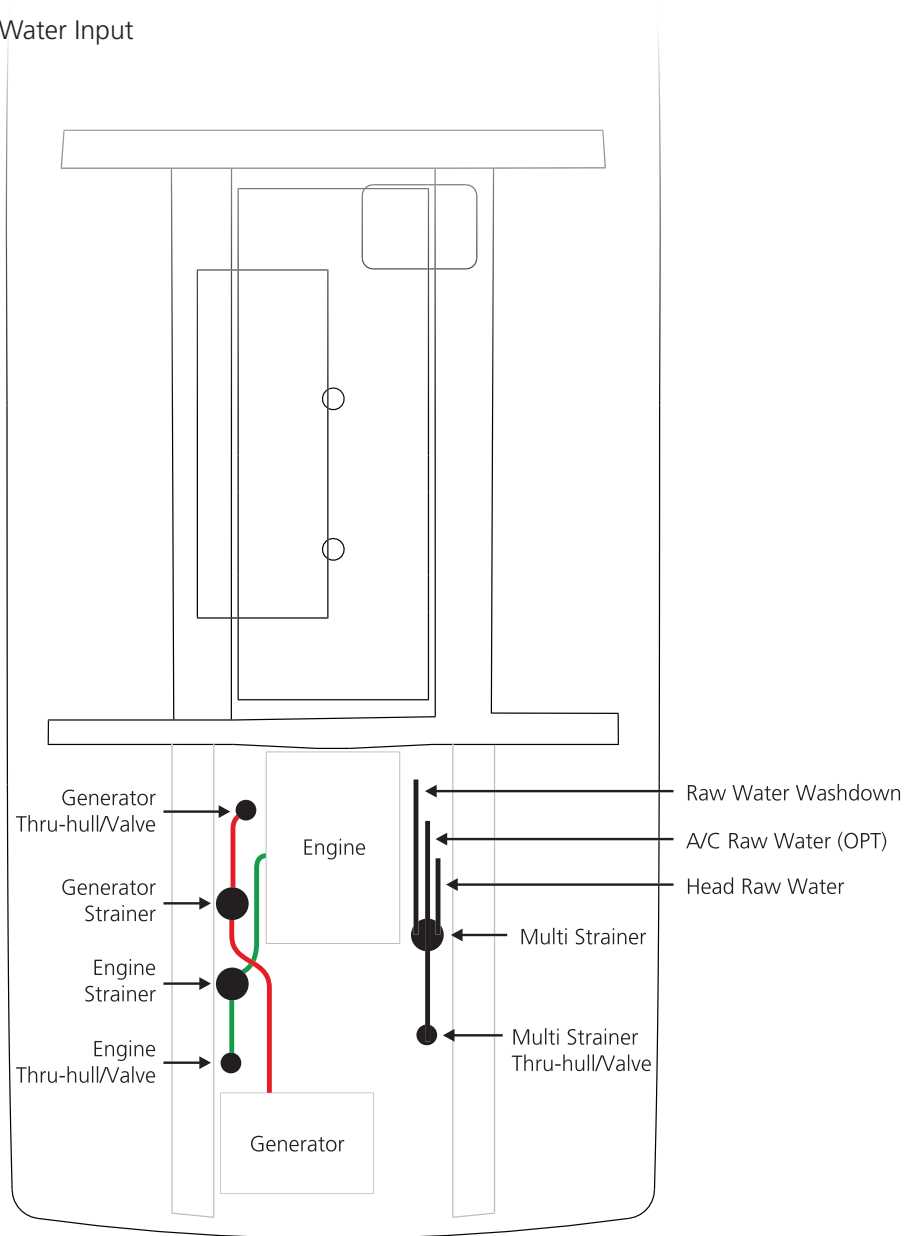


STE

- Engine raw water thru-hull and strainer
- Multi port sea strainer for head and raw water wash down pump.
- Generator raw water thru-hull strainer

OPT

- A/C Raw Water Input

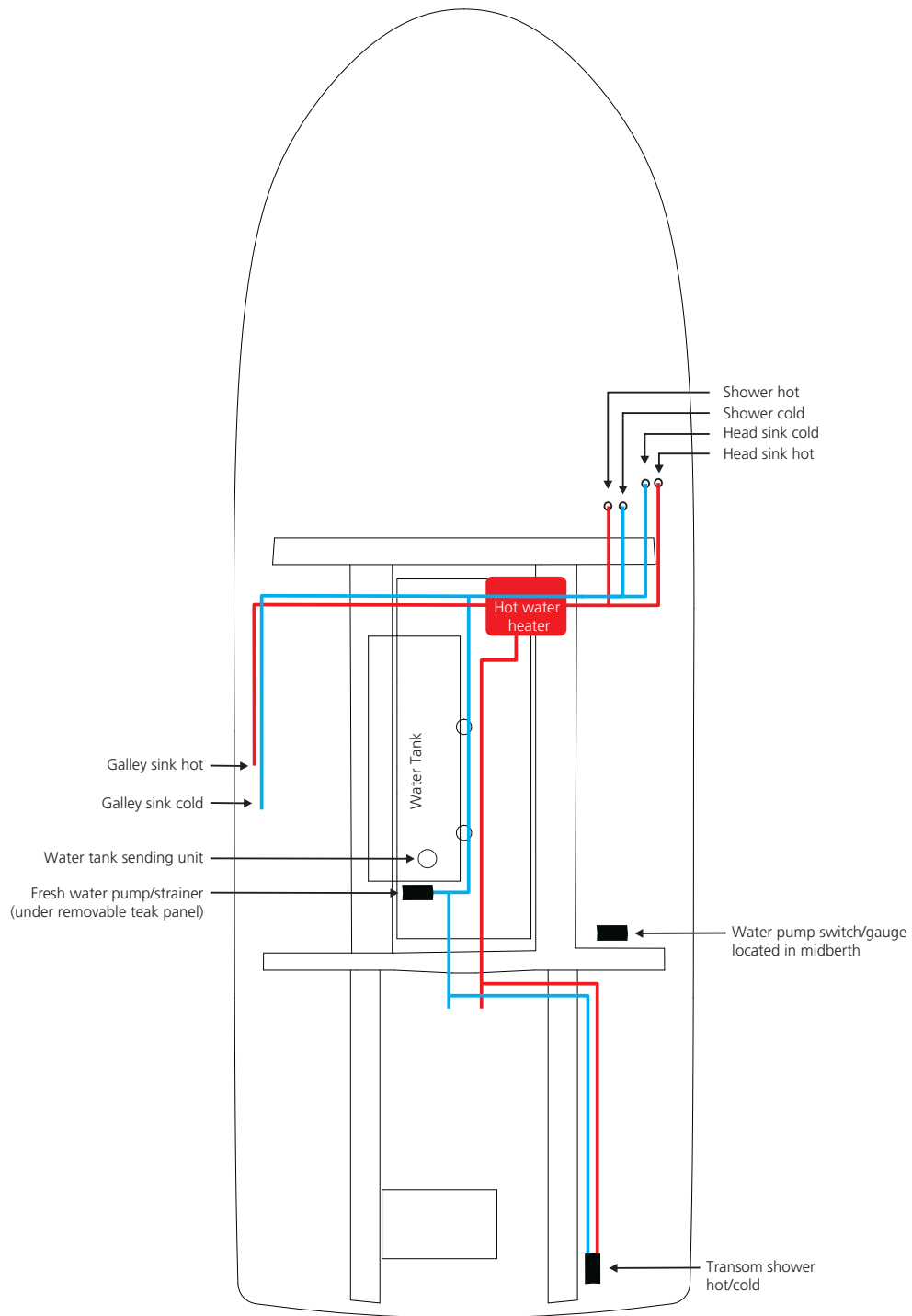


FRESH WATER PLUMBING SYSTEM



STE

45 Gallon Fresh Water Tank, 8 Gallon Hot Water Heater, 3.5 GPM Fresh Water Pump.



SHOWER SUMP

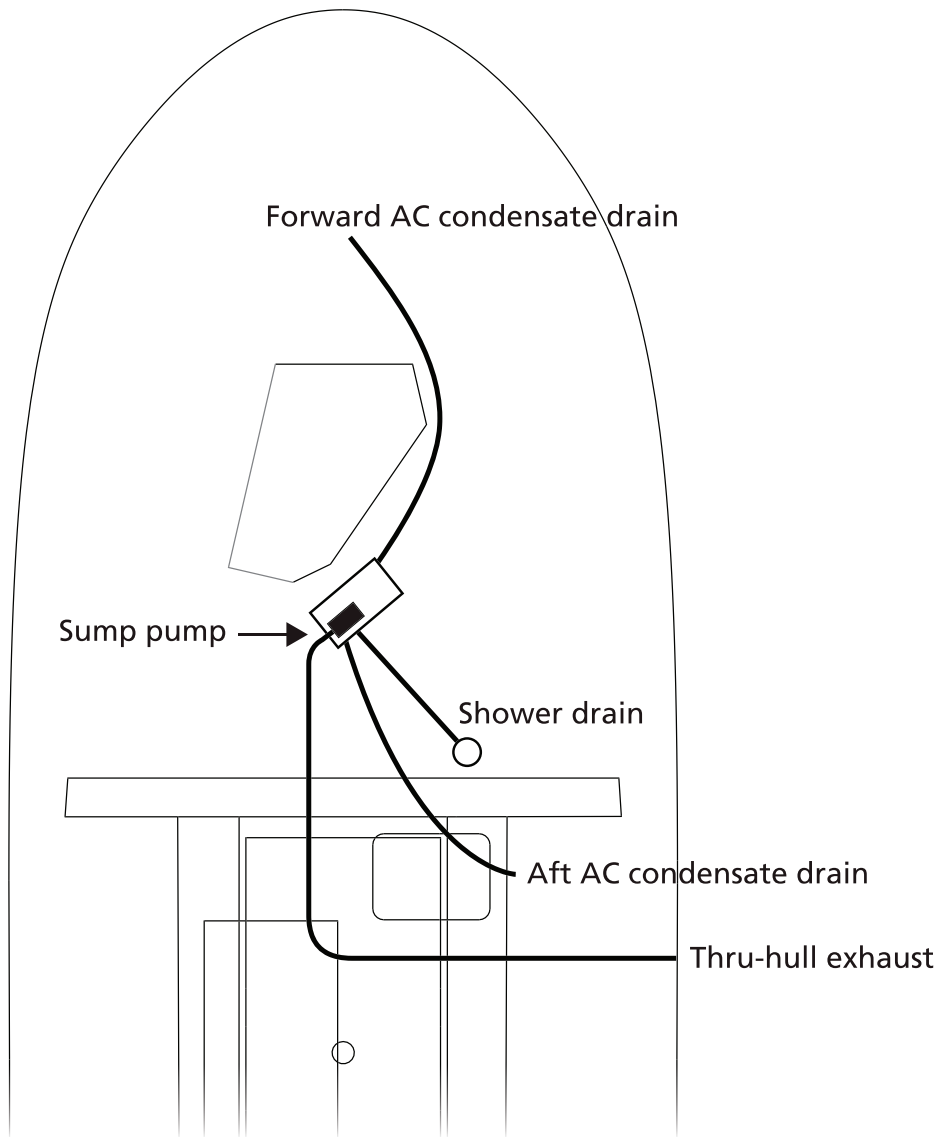


STE

12V, 800 GPH
(This should be inspected for debris on a regular basis if shower is used frequently.)



The shower sump box is located underneath a removable panel in the stateroom floor positioned just outside the head door.



BILGE PUMP SYSTEM



STE

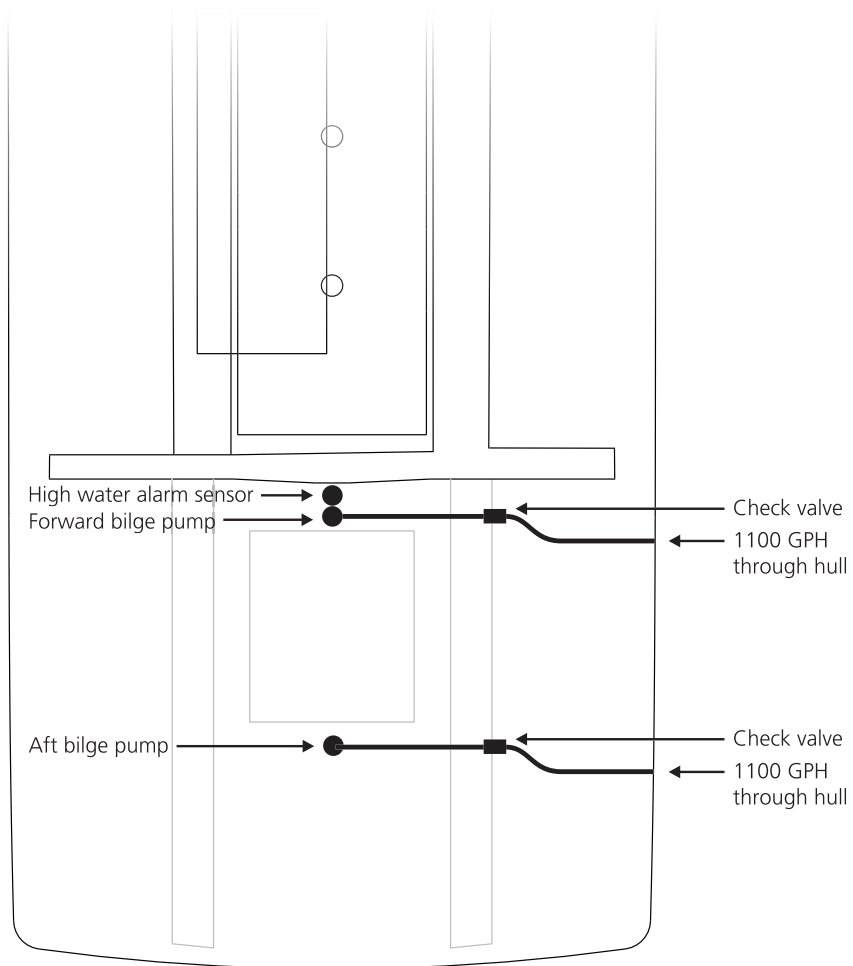
12V 1100GPH



The bilge pumps operate automatically with electronic float switches even with battery switches and breakers in the OFF position.

However, the BILGE PUMP and BILGE PUMP2 will run continuously once their switches are placed in the on position. Monitor the outflow accordingly. Do not run when dry.

- Manual switches/high water alarm switch are located at the helm.



WASTE SYSTEM WITH MACERATOR PUMP



STE



40 Gallon Tank with standard pump out, and vent

STE

Macerator pump out



Waste tank level can be checked by utilizing the head control panel. Please refer to your head operations manual.



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.

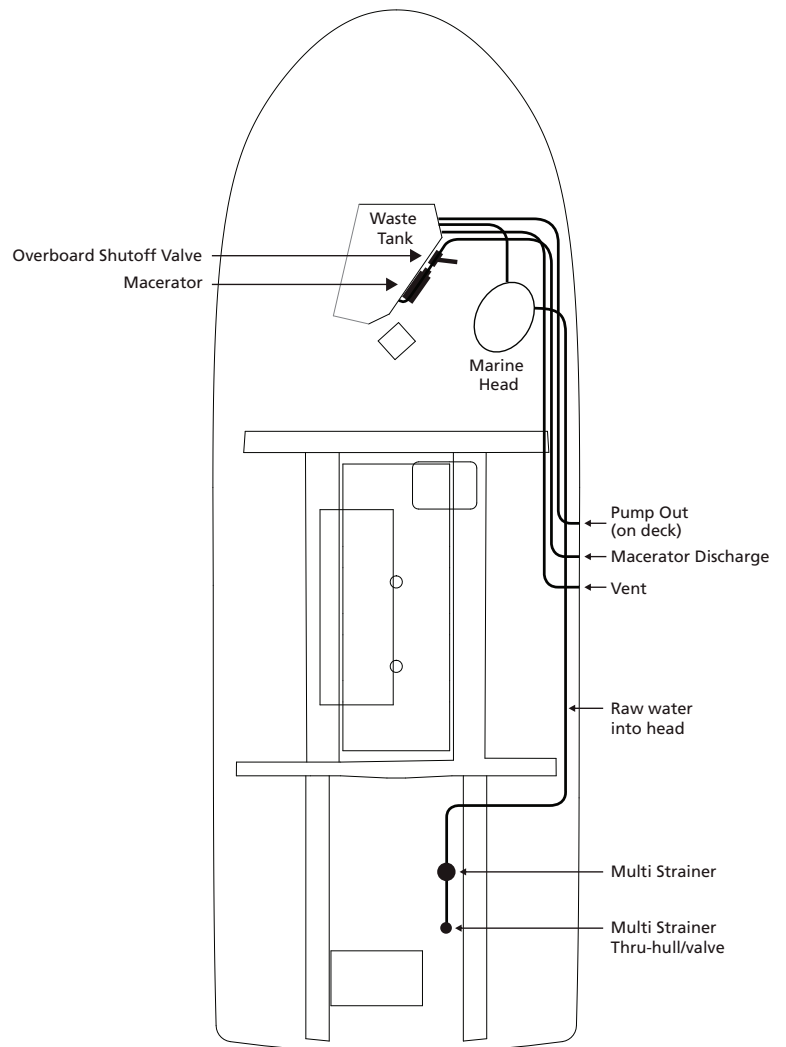


Boat owner is responsible for following all applicable laws when using the macerator system to pump out into the surrounding waters.



Overboard shutoff valve is accessed under berth inline with the macerator pump.

Valve must remain either locked, or only able to be opened by using a tool when not using macerator.
Example: zip tie

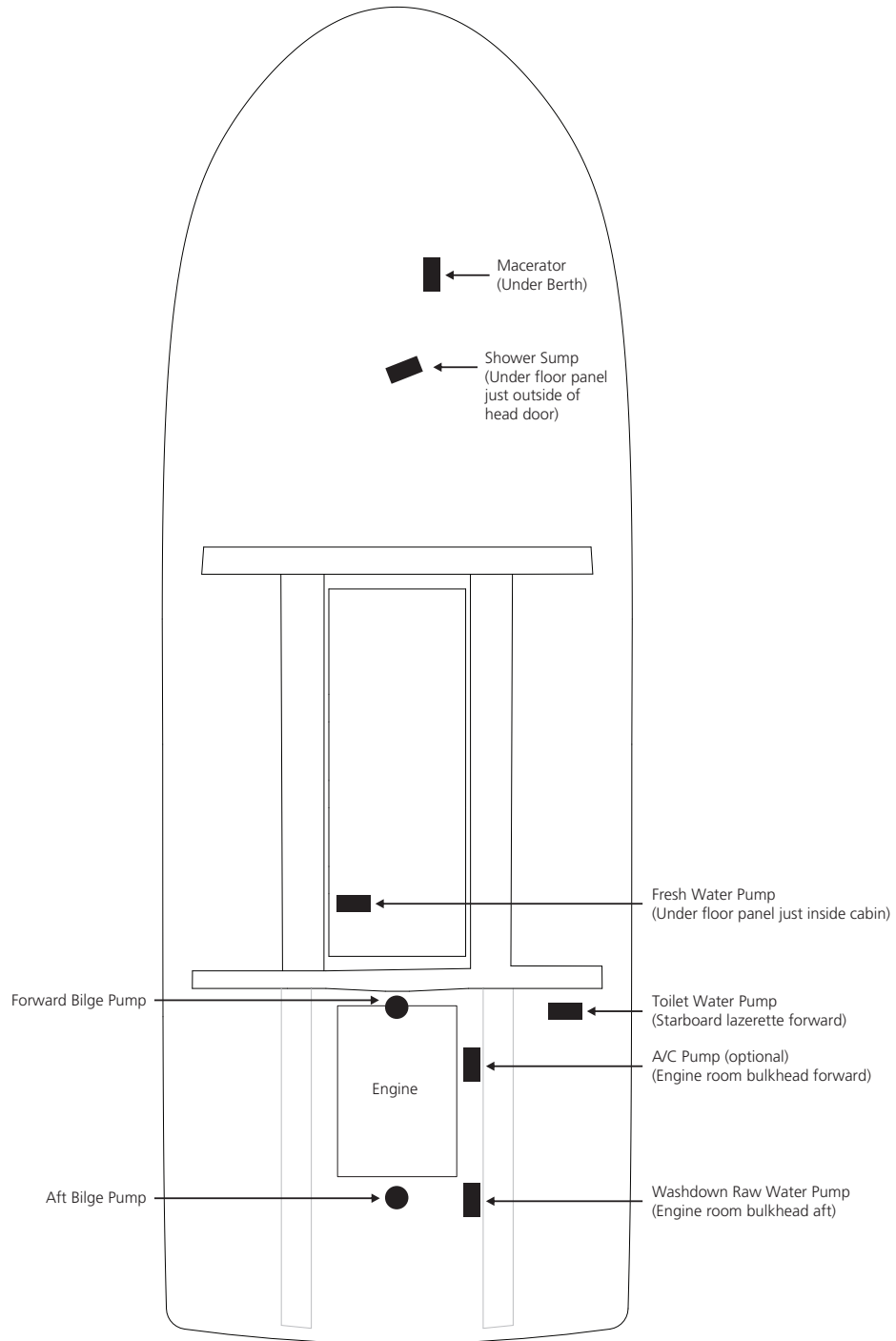


ELECTRIC PUMPS ONBOARD



STE

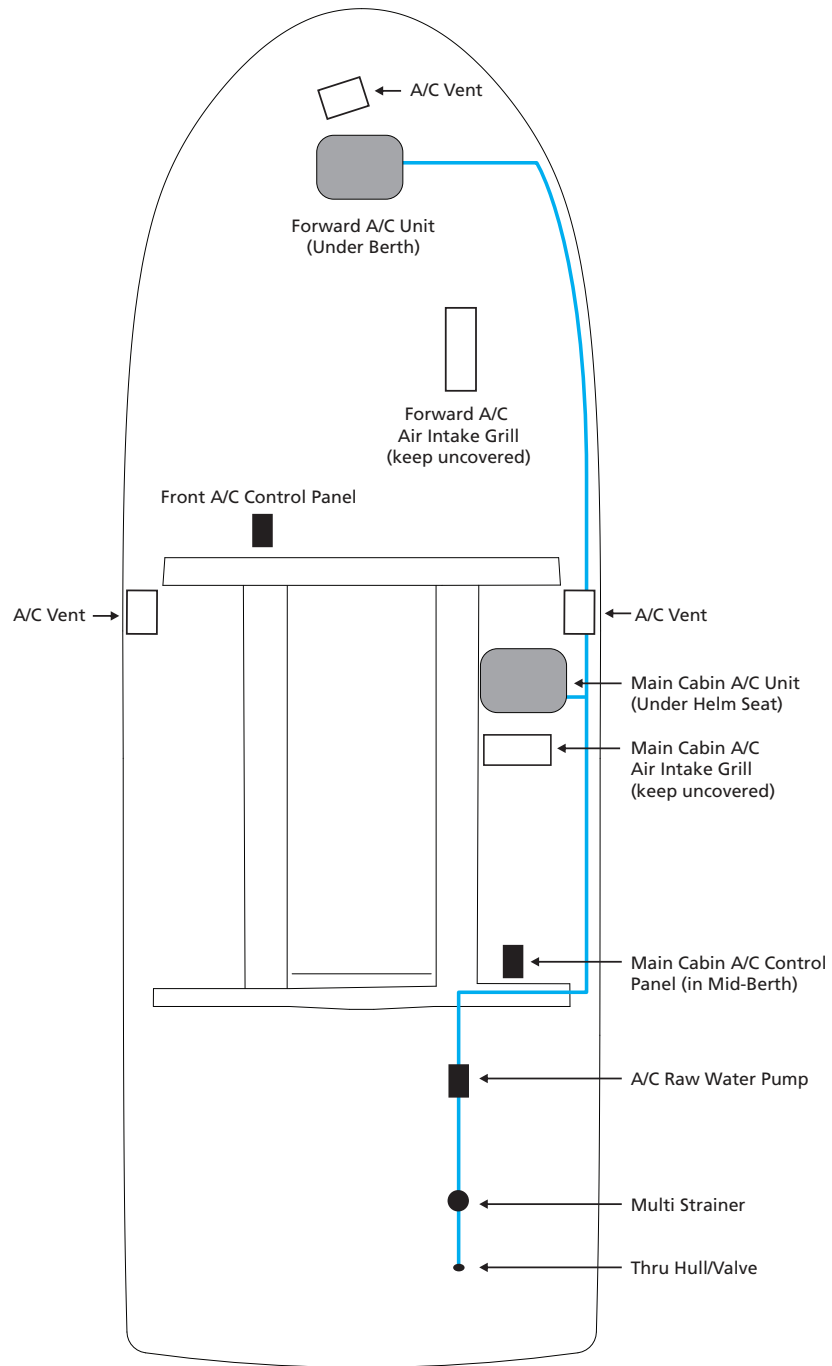
OPT



AIR CONDITIONING



OPT

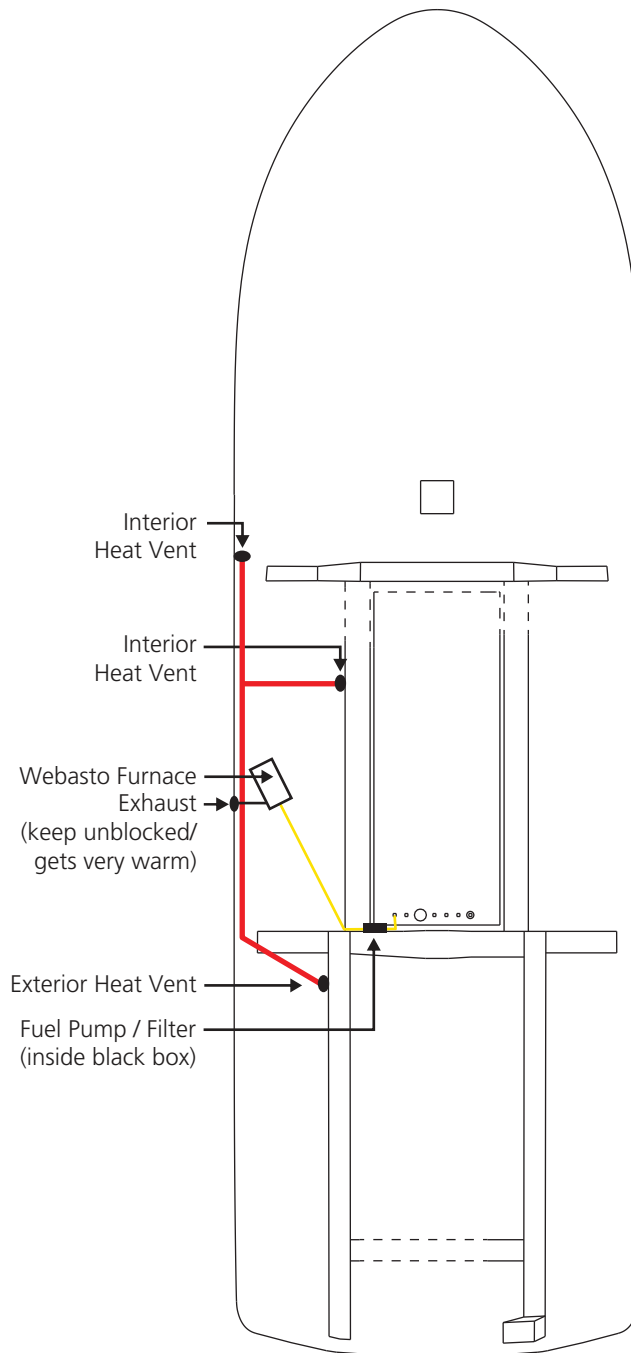


WEBASTO FURNACE



OPT

Webasto furnace is located under access panel below refrigerator.
The control panel is located at the quarter berth power management center.
The fuel pump is in the salon floor hatch compartment inside of the black box.



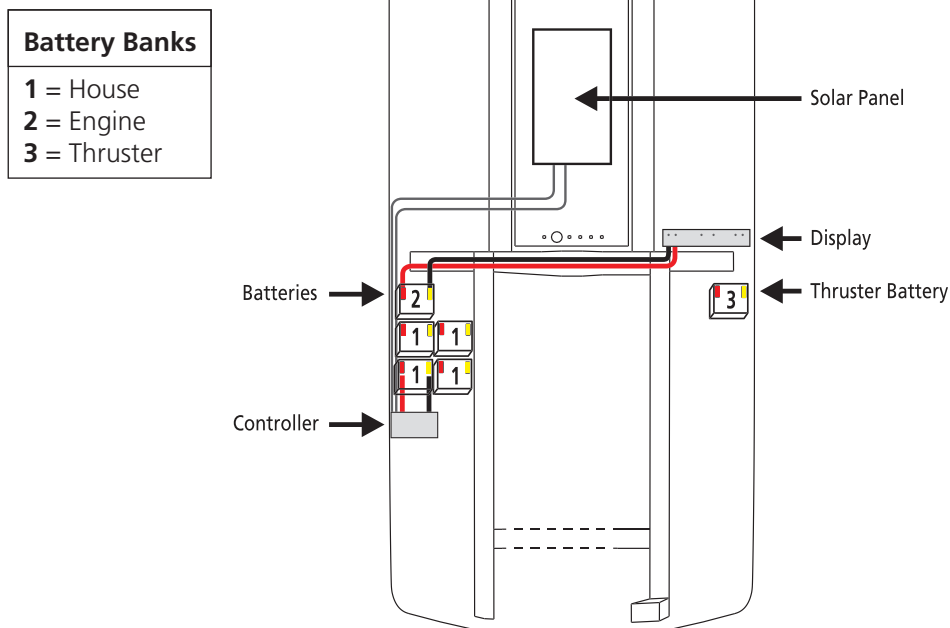
SOLAR PANEL



OPT

Solar panel 160 watt, with display panel

- The solar panel is designed to provide charging to the house & engine batteries. 90% of its charge is dedicated to the house battery and 10% is dedicated to the engine battery.
- The green light on the solar display indicates proper operation.
- The solar display is located in the mid-berth.
- The controller is located in the port lazarette
 - *Keep panel clean and completely uncovered for best results



BATTERY CONFIGURATION



STE

4 House Batteries, 1 Engine Battery, 1 Thruster Battery.

STE

House, engine, & battery parallel switches are located behind the port side circular access panel in the cockpit.

STE

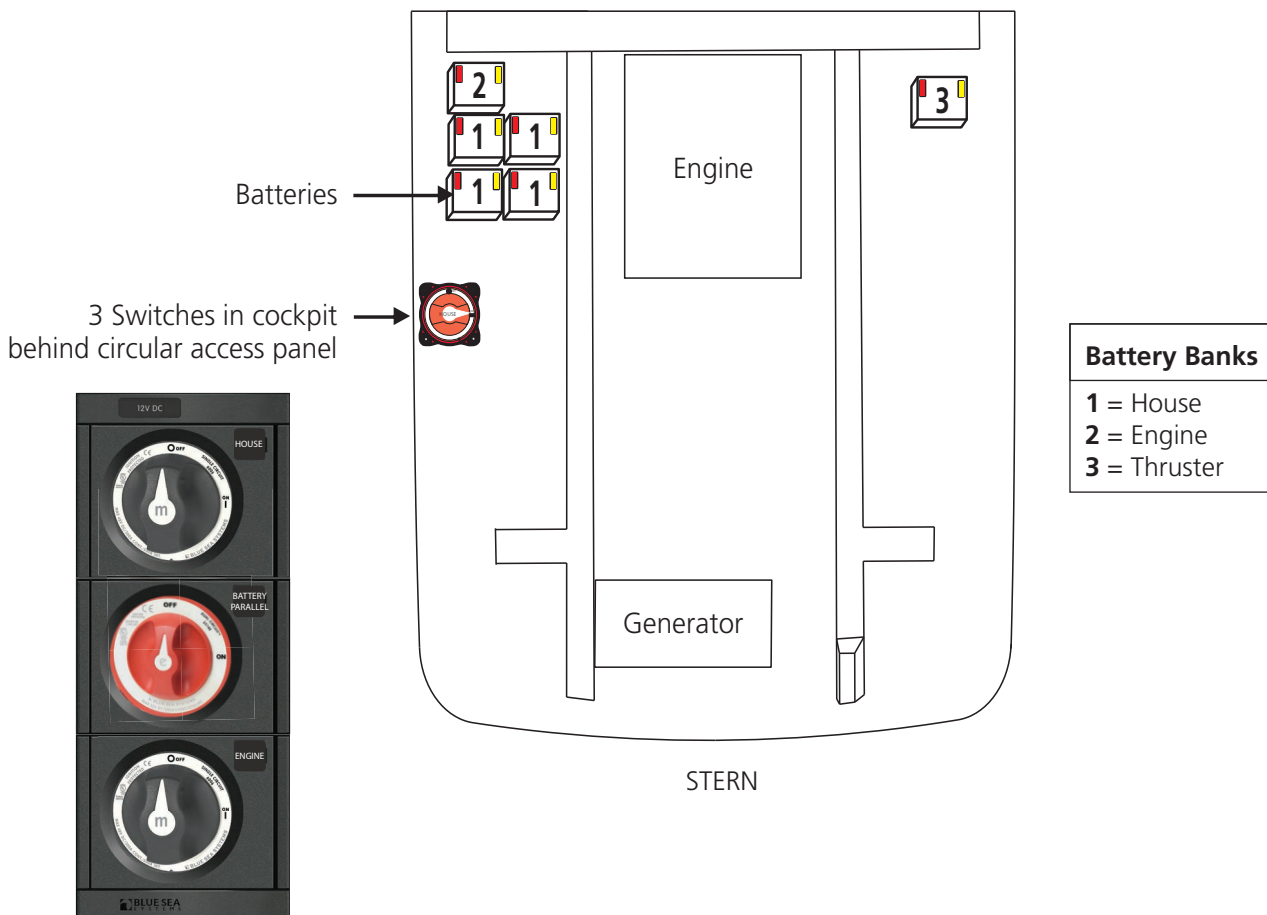
Thruster battery switches located in the midberth



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.

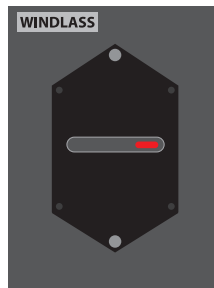
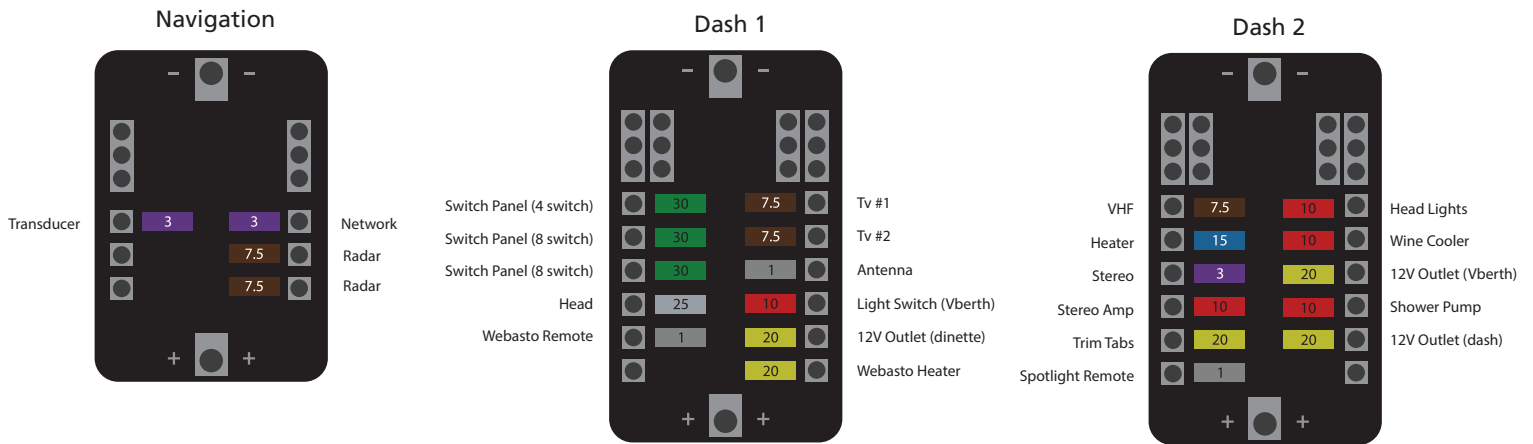


FUSE LOCATION & VALUES



STE

These DC fuse blocks and windlass breaker are located behind a hinged access panel on the starboard side in the head behind the mirror. Fuses are automotive blade type and all values shown below are in Amps.



* To reset, reinsert yellow arm "up" into the breaker.

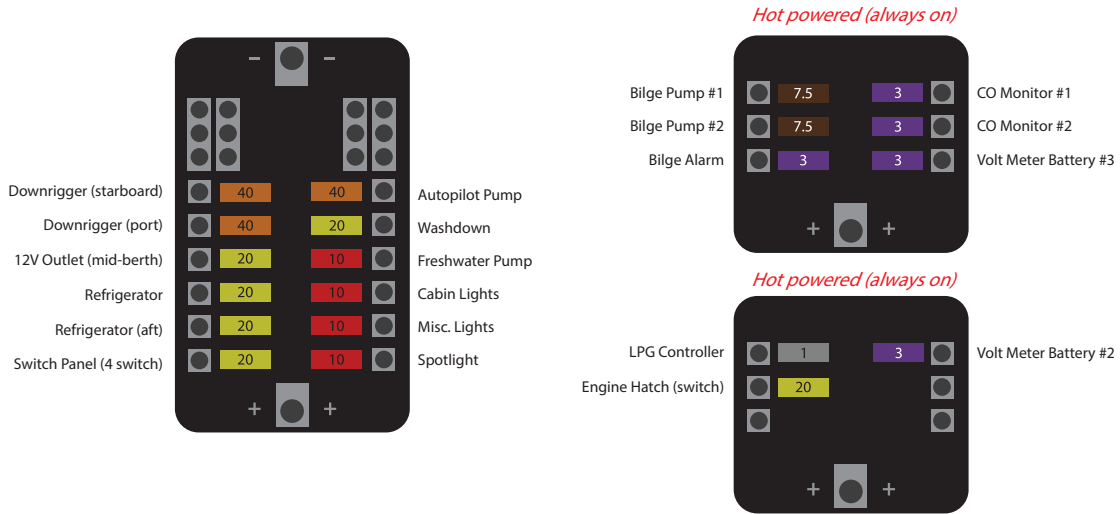
To test, press red button and the yellow arm should flip down.

FUSE LOCATION & VALUES



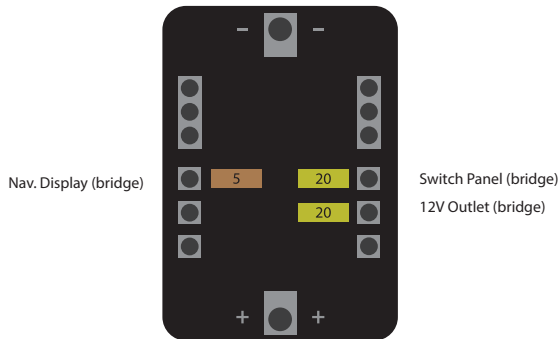
STE

These DC fuse blocks are located behind the wood hatch in the midberth. Fuses are automotive blade type and all values shown below are in Amps.



OPT

This DC fuse block is mounted under the bridge dash. Fuses are automotive blade type and all values shown below are in Amps.



POWER PANEL AND SOLAR PANEL CONTROLLER BOX



- Located in the port side cockpit lazarette
- Solar Panel Controller may be mounted forward of the power panel on boats with a generator

OPT

Command Bridge

50 Amp Breaker



STE

Sedan

50 Amp Breaker



150 Amp Breaker



Automatic Charging Relay (ACR)



Automatic Charging Relay (ACR)



300 Amp ANL Bus Fuse



Solar Panel Controller



- There are two more 250 amp ANL fuses for the Bow and Stern thruster located in the midship outboard of the thruster battery switches behind cabinet door.



300 Amp ANL Bus Fuse

AC DISTRIBUTION PANEL & ROTARY SWITCH



STE

AC Distribution Panel

OPT

AC Rotary Selector Switch (Available with Generator) AC Main Line 2 (with AC)



A/C Main 1 must on in order for batteries to charge.

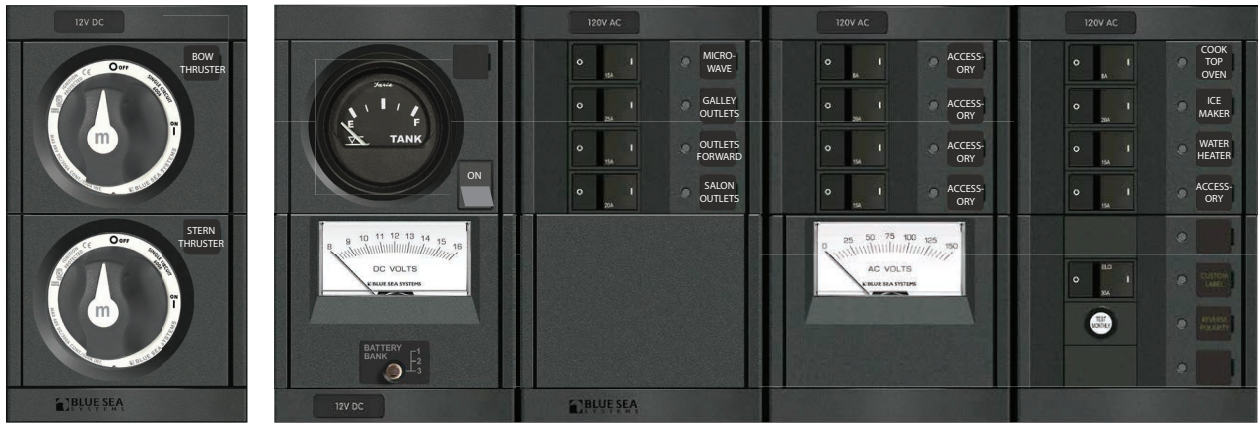


The AC Rotary Switch Selector Switch will determine which source of incoming 120 Volt power to use for your AC Distribution Panel.

STE

AC Distribution Panel

Water Pump gauge/switch



AC Main 1

OPT

AC Distribution Panel with Generator



AC Main 1

AC Main 2

AC Main 1

AC Main 1

AC Main 2

AC Main 2 used for only FWD/AFT air and aft relay breakers

Battery Banks

- 1 = House
- 2 = Engine
- 3 = Thruster



Water Pump gauge/switch

12V HELM CONTROL OPERATION



STE

Armed = Red light/audible alarm Off = Red light only.



The high bilge alarm should be set to the “armed” position for it to automatically operate. This is wired directly to the hot fuseblock. The high bilge alarm will still be active regardless of battery switch position.



The bilge pumps operate automatically with electronic float switches regardless of battery switch position.

However, the BILGE PUMP and BILGE PUMP2 will run continuously once their switches are placed in the on position. Monitor the outflow accordingly. Do not run when dry.



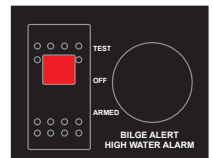
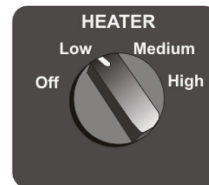
The Heater Control will operate the fan speed of the Heater Craft Heater. The Heater Craft Cabin Heater will only warm as the engine reaches normal operating temperature.

At Helm

Heater Control

High Water Alarm

Resettable switch
breakers



At Helm

In Cockpit

Resettable switch
breakers



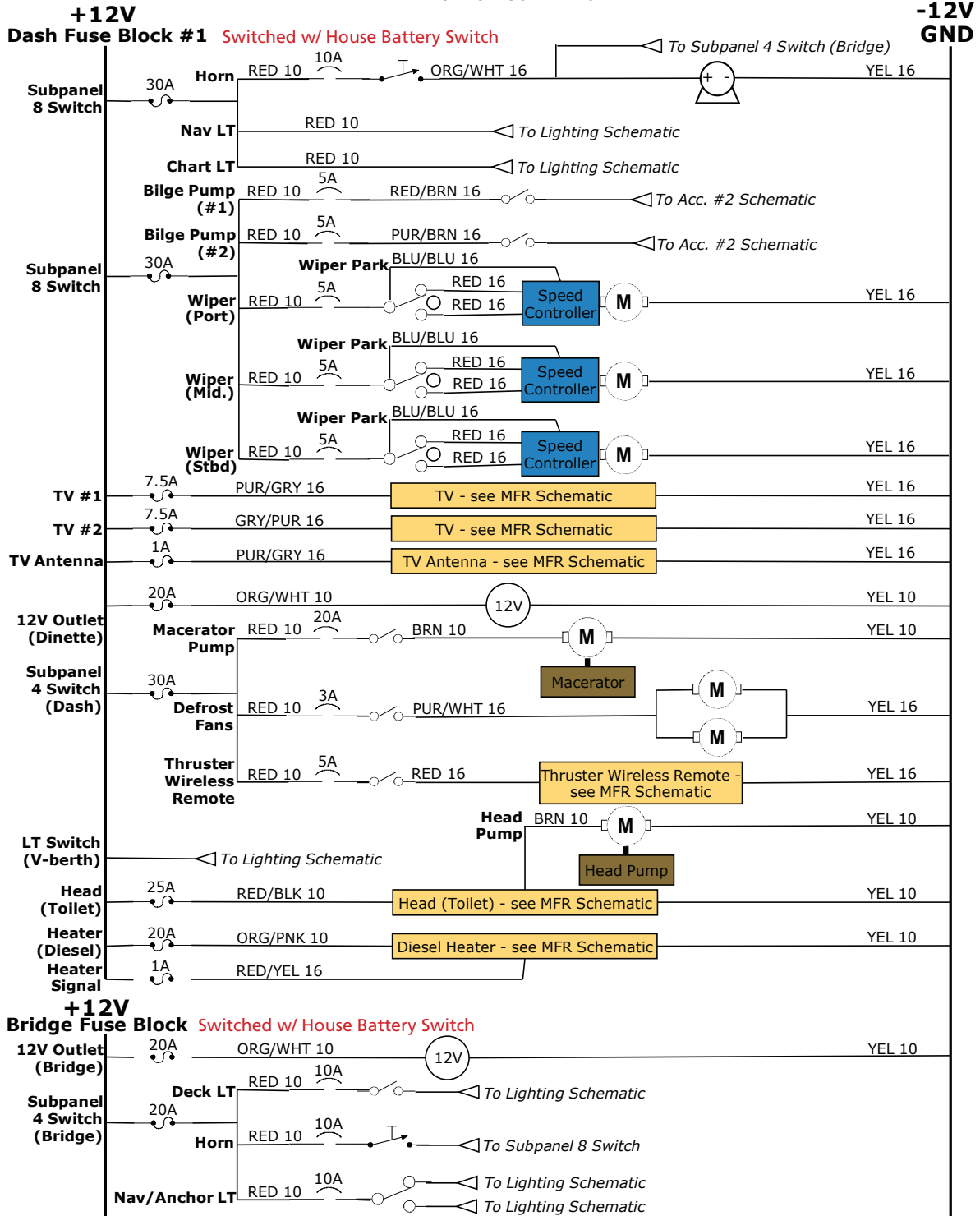
ACC is for overhead cockpit lights

RANGER TUG R-29 WIRING SCHEMATIC (ACC. 1)



R-29 Accessories #1

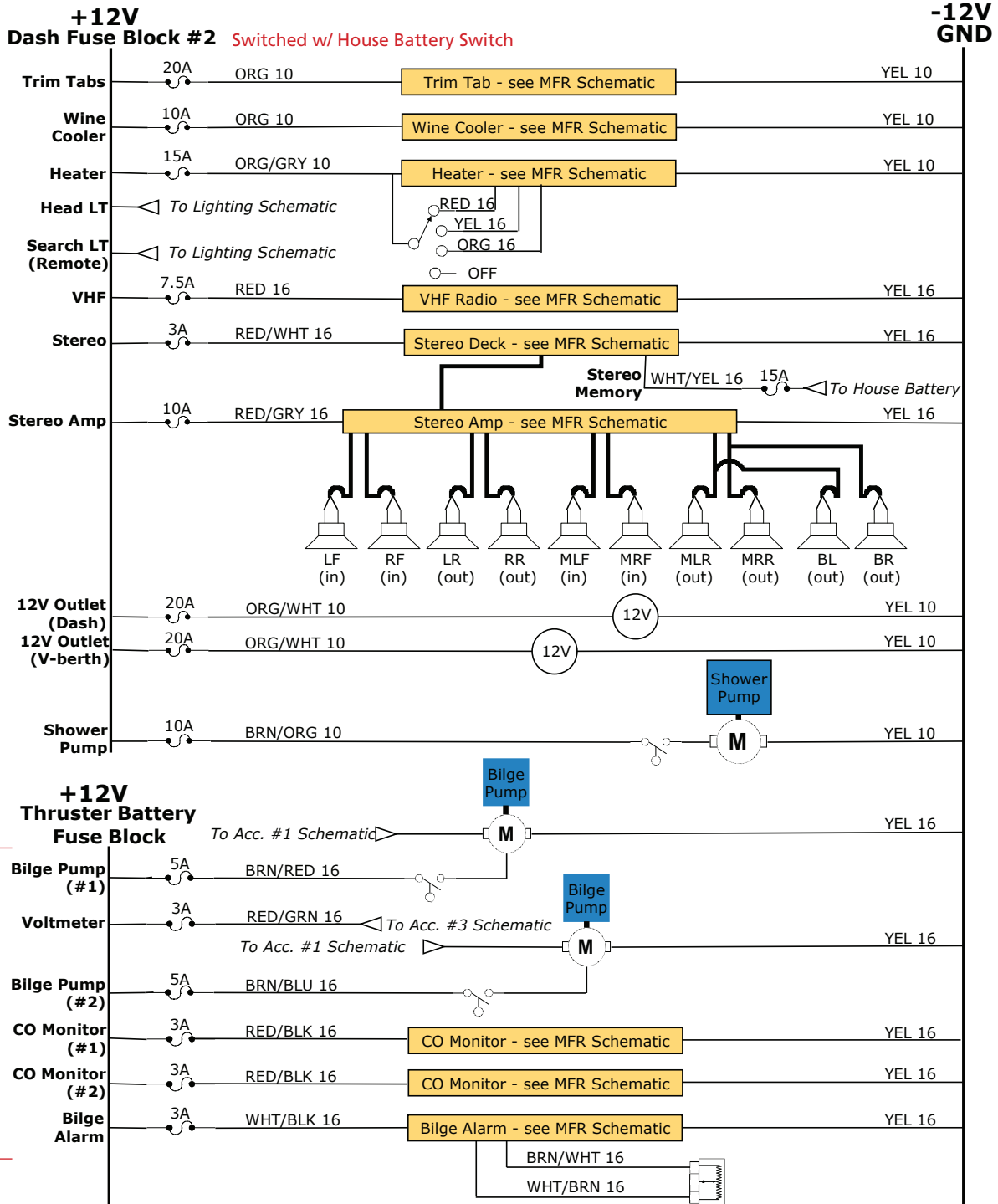
ELECTRICAL SCHEMATIC



RANGER TUG R-29 WIRING SCHEMATIC (ACC. 2)



R-29 Accessories #2 ELECTRICAL SCHEMATIC

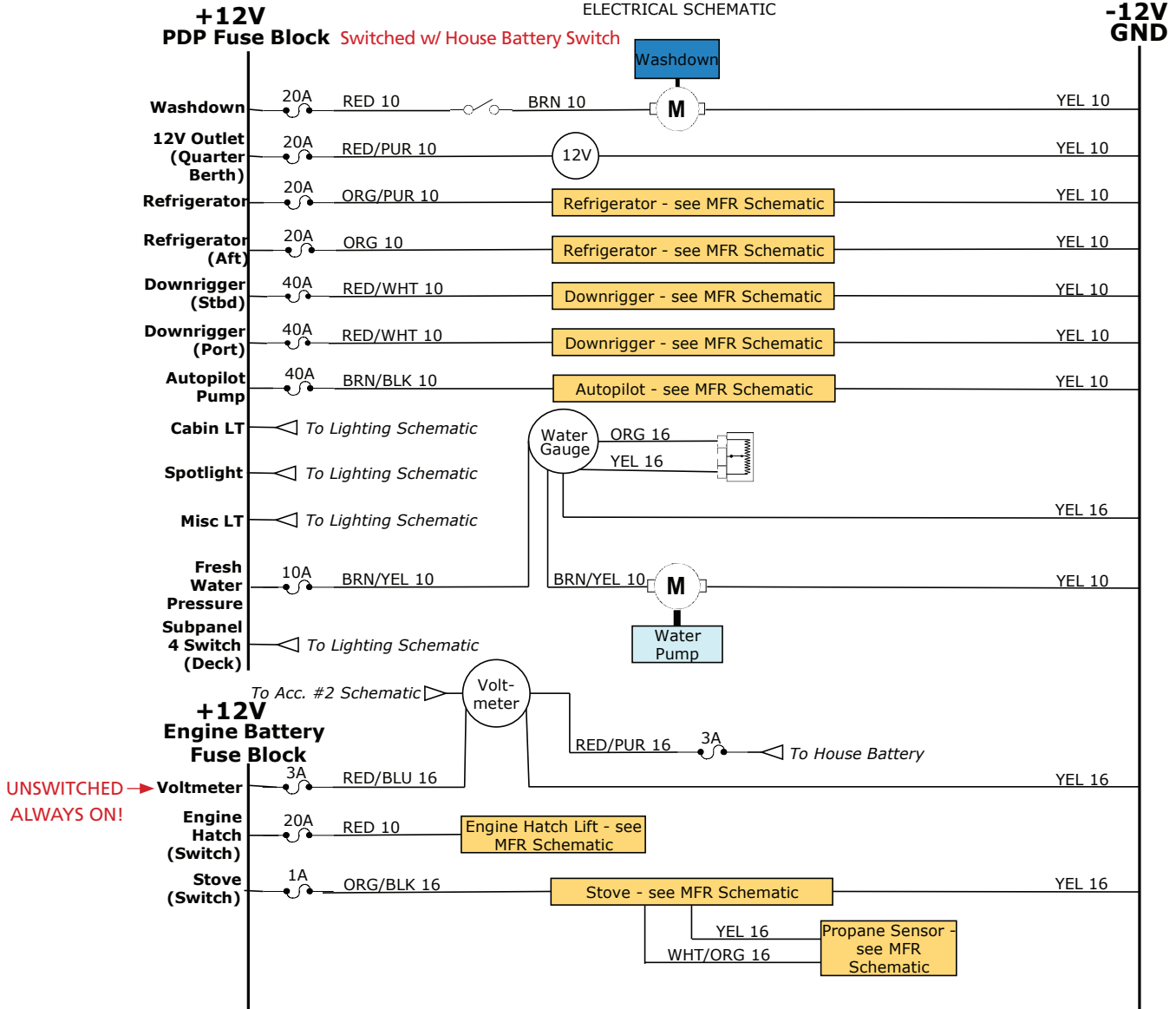


RANGER TUG R-29 WIRING SCHEMATIC (ACC. 3)

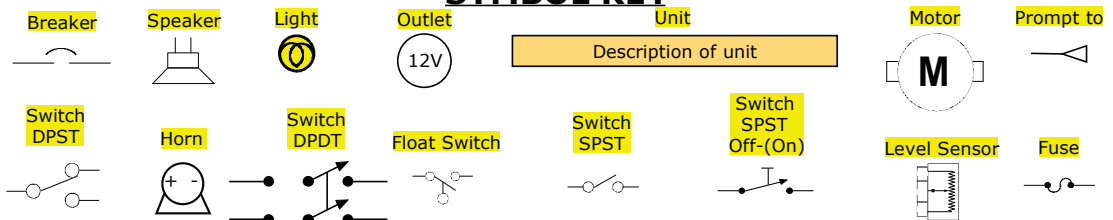


R-29 Accessories #3

ELECTRICAL SCHEMATIC



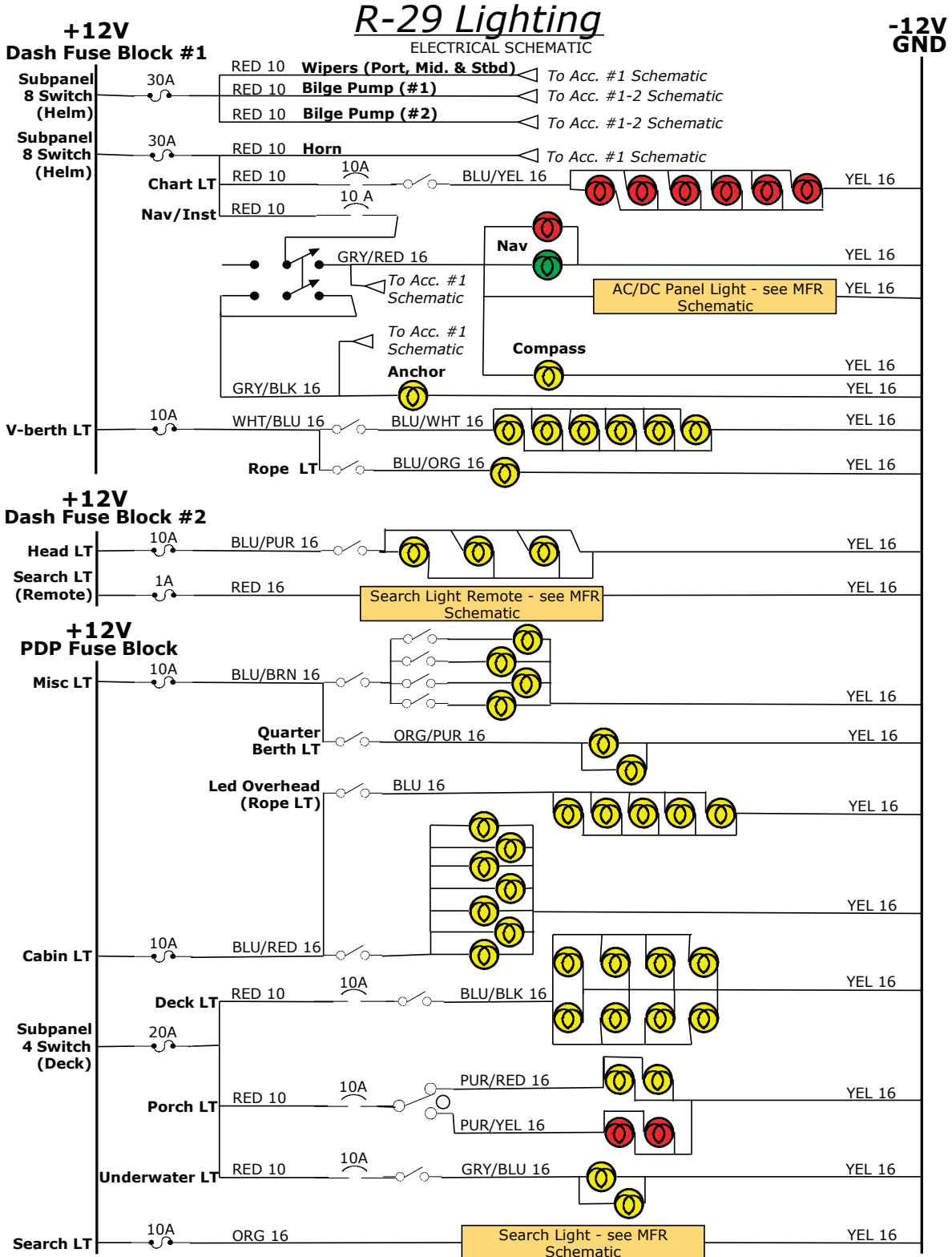
SYMBOL KEY



RANGER TUG R-29 WIRING SCHEMATIC (LIGHTING)



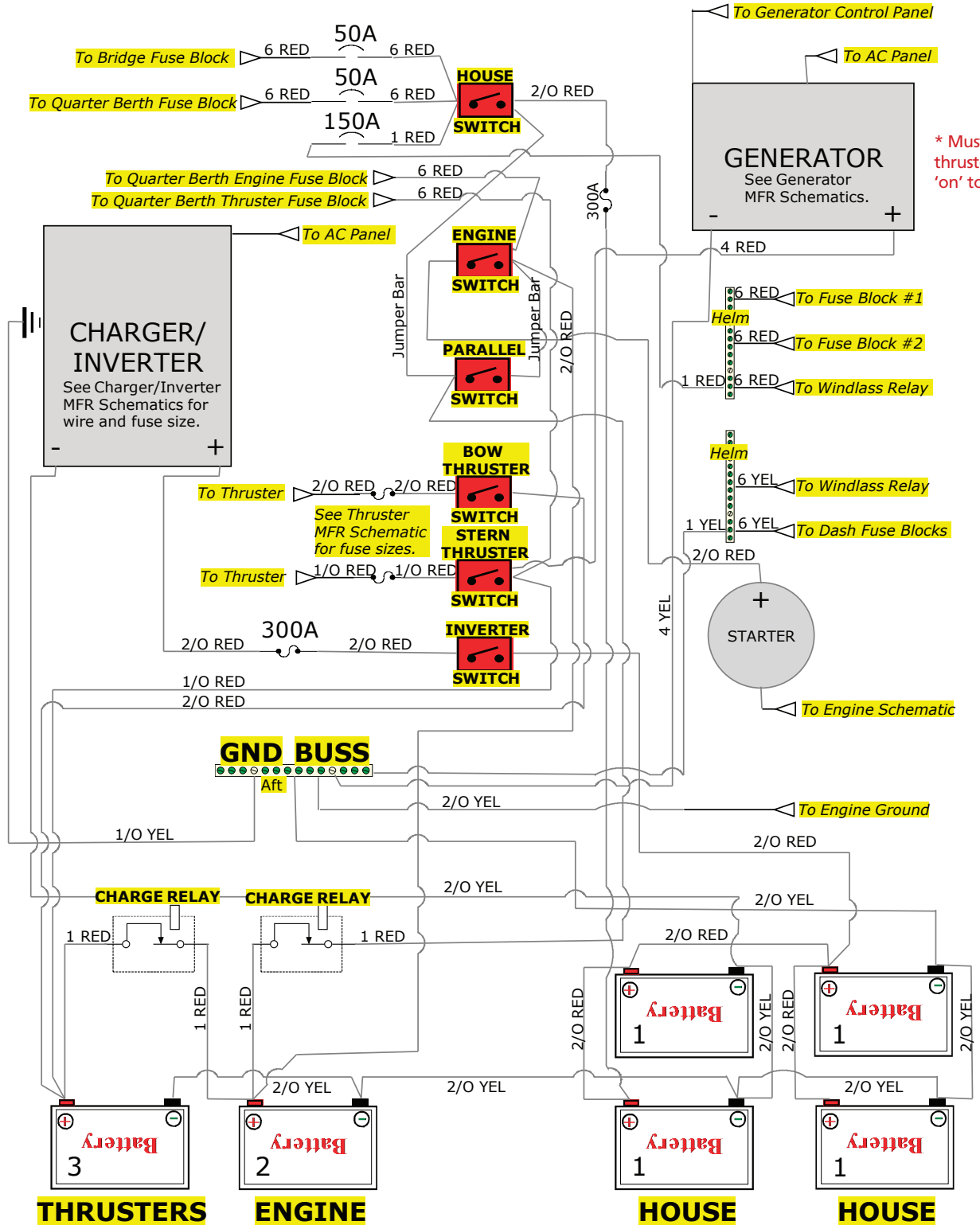
All Switched w/ House Battery Switch



RANGER TUG R-29 WIRING SCHEMATIC (P.D.P.)



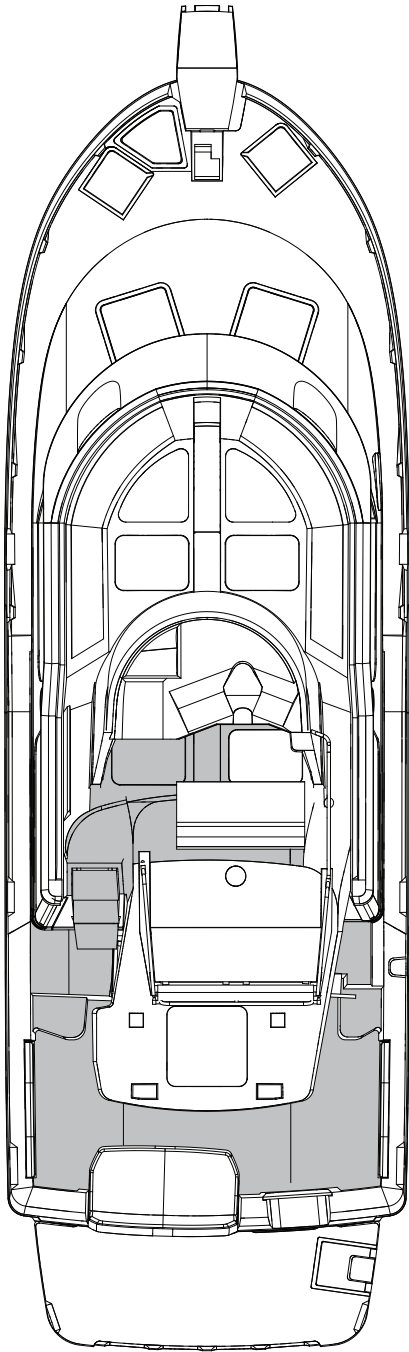
R-29 Power Distribution ELECTRICAL SCHEMATIC



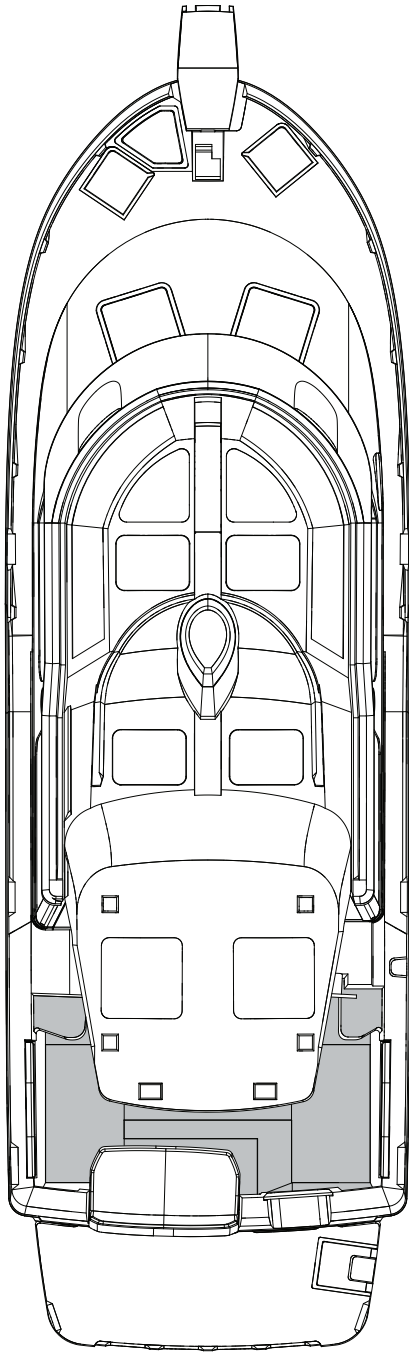
RANGER TUG R-29 WORKING DECK



STE



R-29 CB



R-29 S

MAST SET UP AND TAKEDOWN



MAST SET UP PROCEDURE

1. Remove the three black plastic wing nuts from the mast base.
2. Remove the two mast tie down cables from their storage positions in the roof clips.
3. With the mast tie down cables still loose, remove pin, raise the mast off of the stainless steel support bar.
4. Secure the stainless steel retaining bar in the appropriate clip attached, reinsert pin into mast fitting.
5. Raise the mast to its full extension and ensure that it fits correctly over the mounting studs on the roof mounting plate.
6. Attach the three black plastic wing nuts to the mounting studs and hand tighten securely.
7. Attach the two mast tie down cables to their appropriate clips on the port and starboard side of the roof.
8. Make sure the mast tie down cables are adjusted properly.

MAST TAKE DOWN PROCEDURE

1. Remove the mast tie down cables from their clips on the port and starboard side of the roof.
2. Remove the three black plastic wing nuts from the mast base mounting studs.
3. Carefully lower the mast onto the stainless steel support bar and insert pin.
4. Attach the black plastic wing nuts back onto the screws on the mast mounting plate and secure them for storage by hand tightening.
5. Attach the two mast tie down cables to their storage positions in the roof clips.
6. Secure the mast with a tie down.

CARE AND MAINTENANCE



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.

TRAILER – PRIOR TO USE

- Check registration
- Check rollers and bed rails.
- Check wheel bearings and lubricate as required.
- Check winch.
- Test electrical connection and lights.
- Check tire pressure and condition.
- Check safety chains.
- Check boat straps.
- Check braking system.
- Check hitch for proper connection and lock down.
- Install safety chains (cross under hitch).
- Remove tire blocks.

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.
- Lock cabin.
- Center rudder.
- Remove Drain Plug.
- Install windshield canvas to protect from rocks while traveling.

EXAMPLE OF A SPRING PRE-LAUNCH CHECKLIST



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 Y-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.
- Inspect batteries / water level in batteries (if applicable).
- Check bilge pump operation / clean float switches.

SAFETY EQUIPMENT

- Sound signaling device.
- Check flares and their expiration dates.
- Check personal flotation devices.
- Check fire extinguishers and their fill dates.
- 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



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.
- Winterize black and fresh water tanks as necessary based on weather.
- Check bilge area for oil and for proper operation / Check bilge pump operation / clean float switches.
- Check zincs and replace as necessary.
- Check impeller.
- Check and clean water strainer.
- Clear barnacles and debris from hull fittings.
- Trickle charge batteries every 30-60 days.
- Vent boat to prevent mildew.
- Check trailer tire pressure and condition.
- Check trailer braking system.
- Check trailer bearings.
- Remove Drain Plug.
- Turn off all battery cutoff switches.

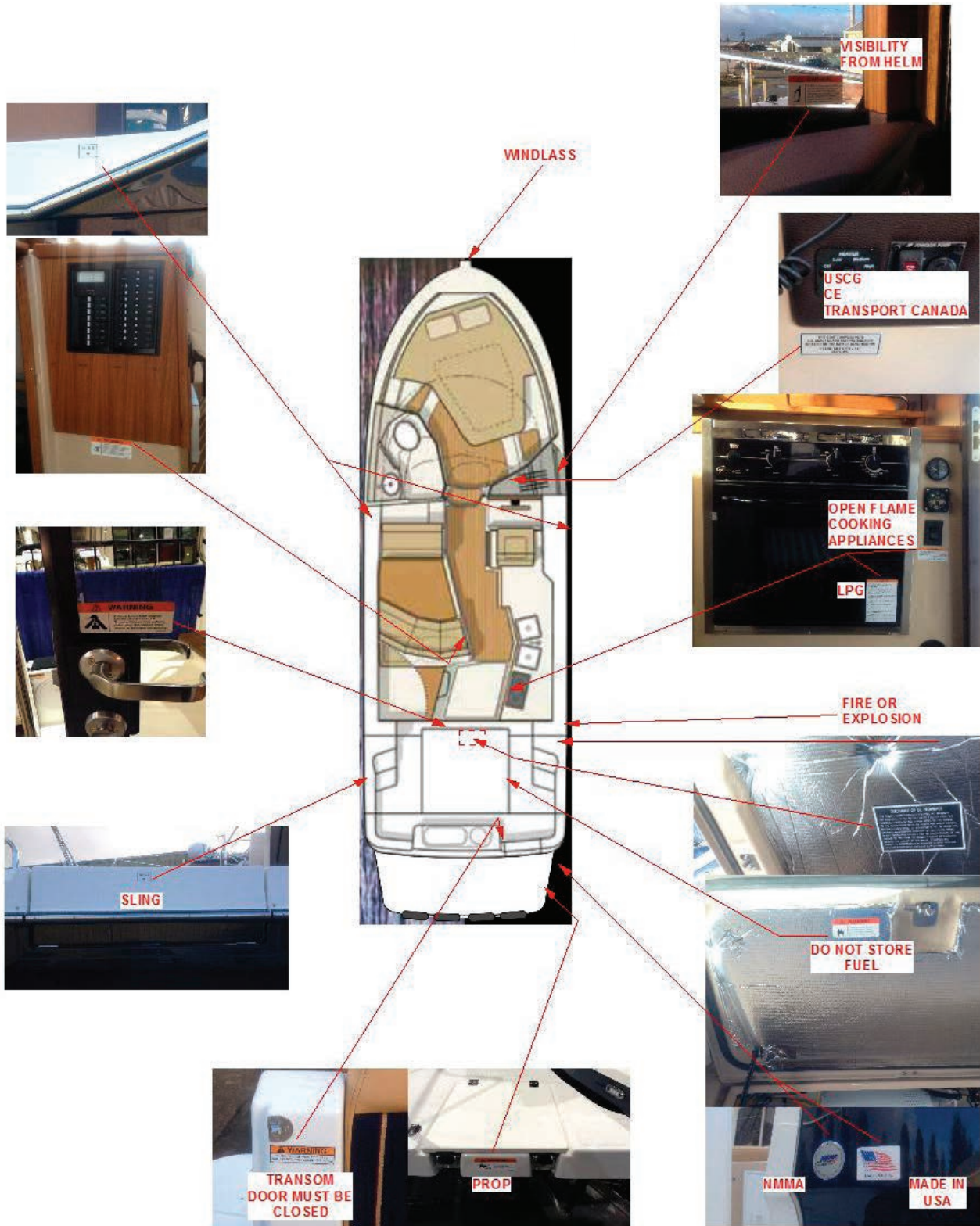
ENGINE

- Flush sea strainer system with fresh water.
- Check all fluid levels.
- Check all hose fittings.
- Check engine maintenance requirements.
- Inspect and verify position of all sea cocks and shut off valves.

GALLEY

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

WARNING LABEL LOCATIONS



NOTES



A series of horizontal blue lines providing a space for taking notes.



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