480 Sedan Bridge
Owner's Manual Supplement

This owner's manual supplement has been written to provide additional specific information about your boat and should be read carefully. Insert this supplement in your Sport Yacht Owner's Manual as *Section 12 – Supplement*.

The owner's manual packet has been compiled to help you operate your craft with safety and pleasure. It contains details of the craft, the equipment supplied or fitted, its systems and information on its operation and maintenance. Please read the information in it carefully and familiarize yourself with the craft before using it.

If this is your first craft, or you are changing to a type of craft you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before "assuming command" of the craft. Your dealer or yacht club will be pleased to advise you of local sea schools or competent instructors.

PLEASE KEEP THIS OWNER'S MANUAL PACKET IN A SECURE PLACE AND HAND IT OVER TO THE NEW OWNER WHEN YOU SELL THE CRAFT.

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(This book contains 98 pages.)

Warranty Information

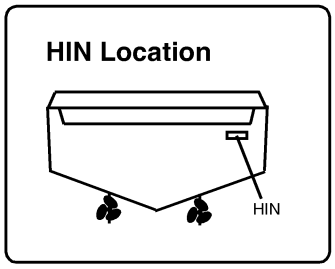
Sea Ray's® warranty is better than ever. Find the warranty information card in your owner's manual packet for complete details. If for some reason the card is missing, contact your Sea Ray® dealer for a new one.

Construction Standards

Sea Ray's® commitment - Excellence by Design - has enabled us to create a superior craft providing you with comfort, performance, safety and dependability. All our boats comply with the safety standards set by the United States Coast Guard and are designed, engineered and manufactured in accordance with applicable recommendations and guidelines of the American Boat and Yacht Council (ABYC) certified by the National Marine Manufacturers Association (NMMA).

Hull Identification Number (HIN)

The **"Hull Identification Number,"** located on the starboard side of the transom, is the most important identifying factor and must be included in all correspondence and orders. Failure to include it only creates delays. Also of vital importance are the engine serial numbers and part numbers when writing about or ordering parts for your engine. Refer to the engine owner's manual for locations.



Servicing Your Sea Ray®

When your boat needs service beyond regular maintenance it should be taken to an authorized Sea Ray® dealer.

To find a dealer in your area call:

1-800-SRBOATS.
Fax: 1-314-827-8488

If a problem is not handled to your satisfaction:

1. Discuss any warranty-related problems directly with the service manager of the dealership or your sales person. Give the dealer an opportunity to help the service department resolve the matter for you.

2. If a problem arises that has not been resolved to your satisfaction by your dealer, contact Sea Ray Boats at 1-800-SRBOATS and the appropriate customer service department information will be provided for you.

To find repair and parts facilities for equipment installed on your boat, refer to the original euipment manuals (OEMs) found in the owner's manual packet.

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Sea Ray Boats, Inc. 2600 Sea Ray Blvd., Knoxville, TN 37914.
For information call 1-800-SRBOATS, or fax 1-314-827-8488
Internet address: http://www.searay.com/boats
Note: Not all accessories shown in pictures or described herein are standard equipment or even available as options. Options and features are subject to change without notice.

Life Saving Equipment

(Personal Floation Device (PFD))

STORAGE: The 480 DB offers lifesaving equipment storage in the cockpit storage compartments.

OPERATION: Wear PFD according to manufacturer recommendations. See pamphlet *Federal Requirements And Safety Tips For Recreational Boats* in the owner's packet or get one from your dealer.

MAINTENANCE: Rinse with fresh water and let dry throughly. Do not store in a damp compartment. Avoid the possibilty of mildew.

Boat Storage

WET STORAGE PROCEDURES: Special care for boats that are moored: If permanently moored in salt water or fresh water, your boat will collect marine growth on its bottom. This will detract from the boat's beauty and greatly affect its performance. There are two methods of preventing this:

- Periodically haul the boat out of the water and scrub the bottom with a bristle brush and a solution of soap and water.
- Paint the hull below the waterline with a good grade of antifouling paint.

NOTE: There are EPA regulations regarding bottom paint application. Consult your marine paint dealer for proper application methods.

SECURITY CONSIDERATIONS: Be conscious of the security of your boat. Always remove the keys from the ignition, lock hatches, lock the cabin door. Remove and stow any removable electronic gear (fishfinders, LORAN, etc.) and personal gear (fishing poles, etc.) normally left aboard your boat.

Troubleshooting

List of Reference Manuals and Drawings

PERFORMANCE: Refer to the owner's manual.

ENGINE: Refer to the owner's manual and/or the engine manual.

ELECTRICAL: Refer to electrical section of the owner's manual and electrical schematics in this owner's manual supplement. Only a qualified marine electrical technician may service the boat's electrical system.

Repair and Parts Facilities

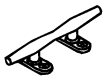
To find a Sea Ray® dealer in your area, call: Sea Ray® Customer Service: 1-800-SRBOATS
FAX: 1-314-827-8488

To find repair and parts facilities for equipment installed on your boat, refer to the original equipment manuals (OEMs) found in the owner's manual packet.

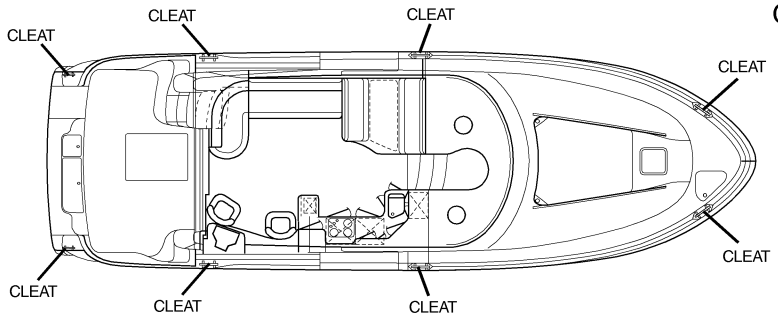
Cleats

Cleats are intended for mooring use only. Do not use cleats for towing or lifting the boat. Figure 12.3.1 illustrates the location of cleats on your boat.

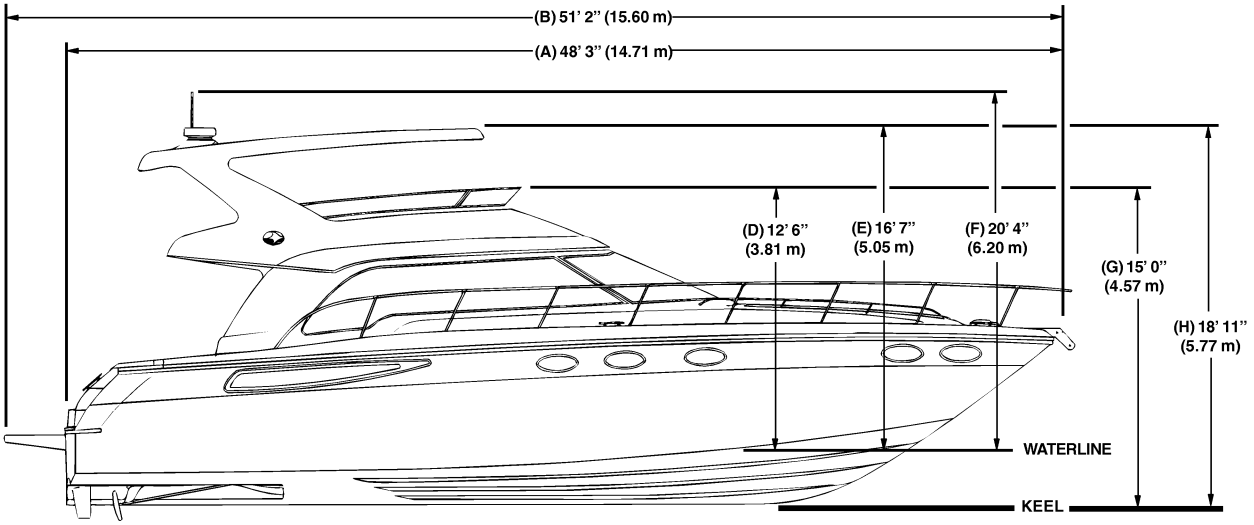
Cleat Locations (fig. 12.3.1)



CLEAT



Profile
(fig. 12.4.1)

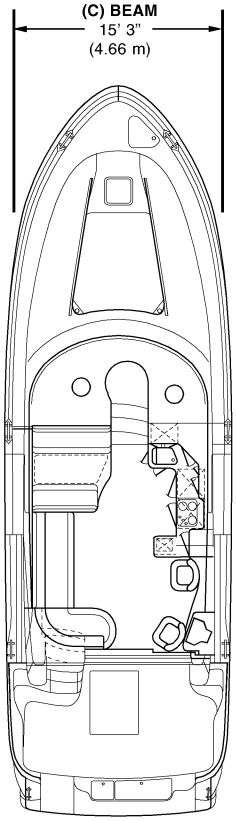


SPECIFICATIONS & HEIGHT DIMENSIONS

(A) Overall Length	48' 3" (14.71 m)
(B) w/Std. Platform	51'2" (15.60 m)
(C) Beam	15' 3" (4.66 m)
Draft	45"(114.3 cm)
Dry Weight – Standard Power	40,400 lbs. (18,325.31 kg)
Fuel Capacity	500 gal. (1,892.5 liters)
Usable Fuel	475 gal. (1,7978 liters)
Water Capacity	140 gal. (530 liters)
Holding Tank	68 gal. (257 liters)
Dead Rise	15°

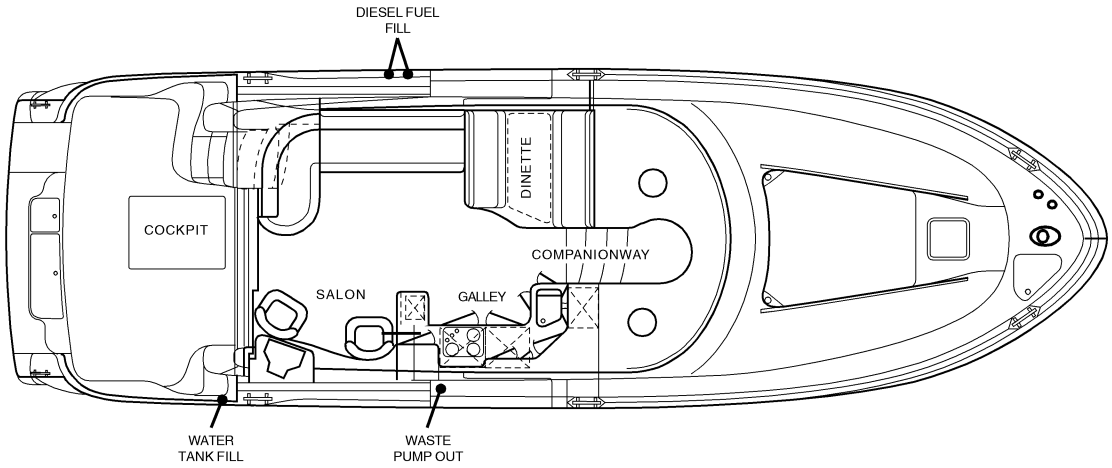
HEIGHT DIMENSIONS

(D) Wtrline To Top Of Brdg Area	12' 6" (3.81 m)
(E) Wtrline To Top Of Brdg Cover	16' 7" (5.05 m)
(F) Wtrline To Top Of Mastlight	20' 4" (6.20 m)
(G) Keel To Top Of Bridge Area	15' 0" (4.57 m)
(H) Keel To Top Of Bridge Cover	18' 11" (5.77 cm)

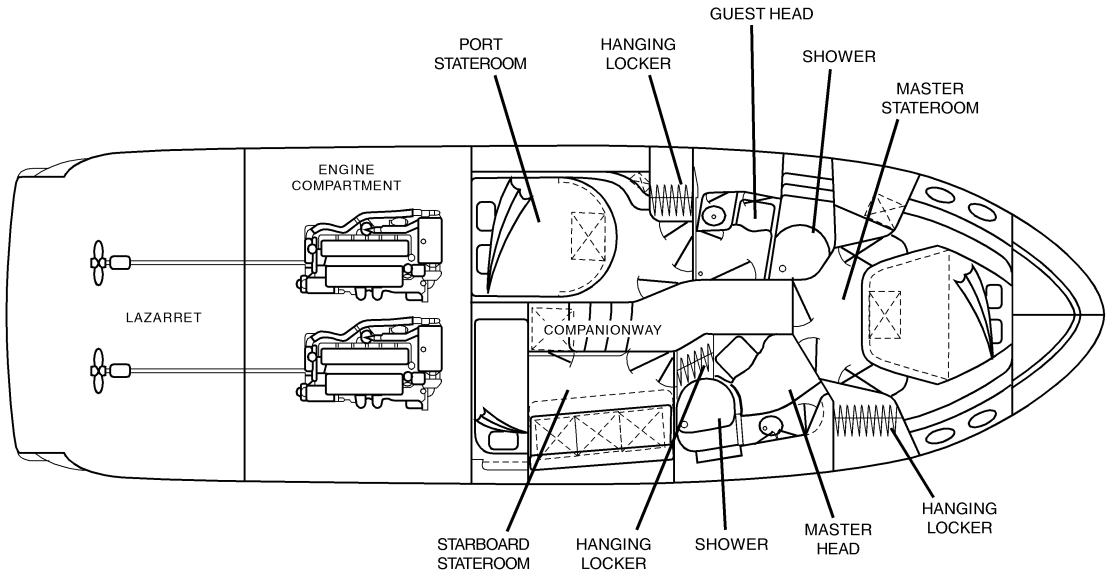


(fig. 12.4.2)

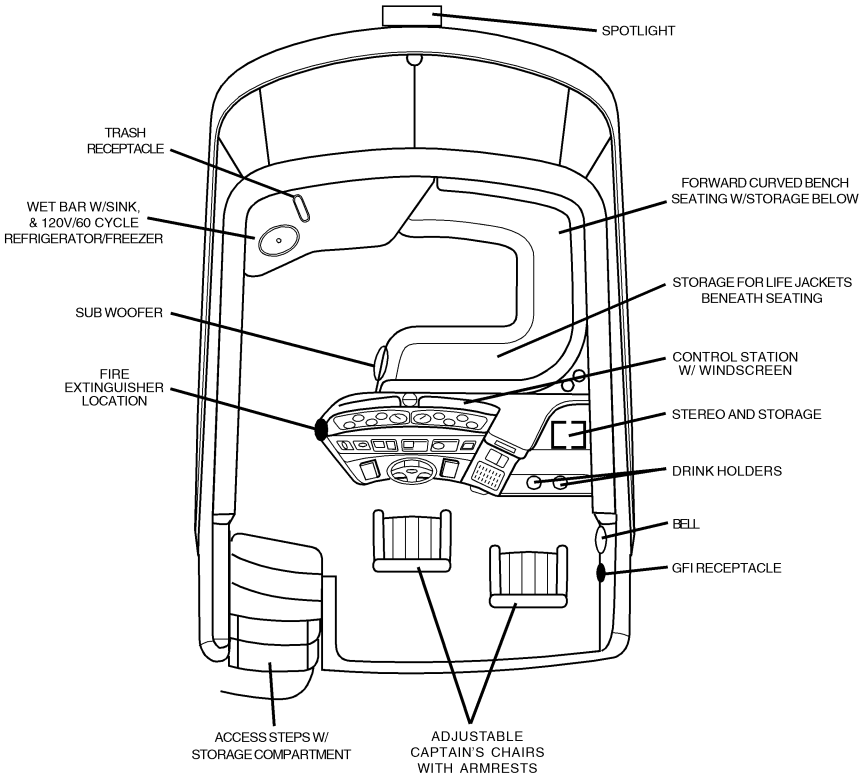
Main Deck
(fig.12.5.1)



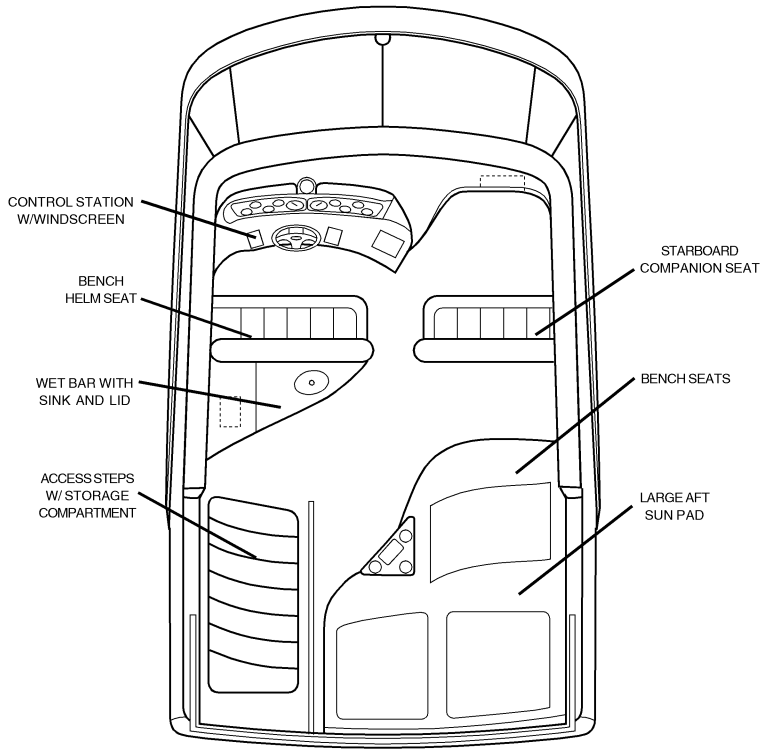
Lower Deck
(fig. 12.5.2)



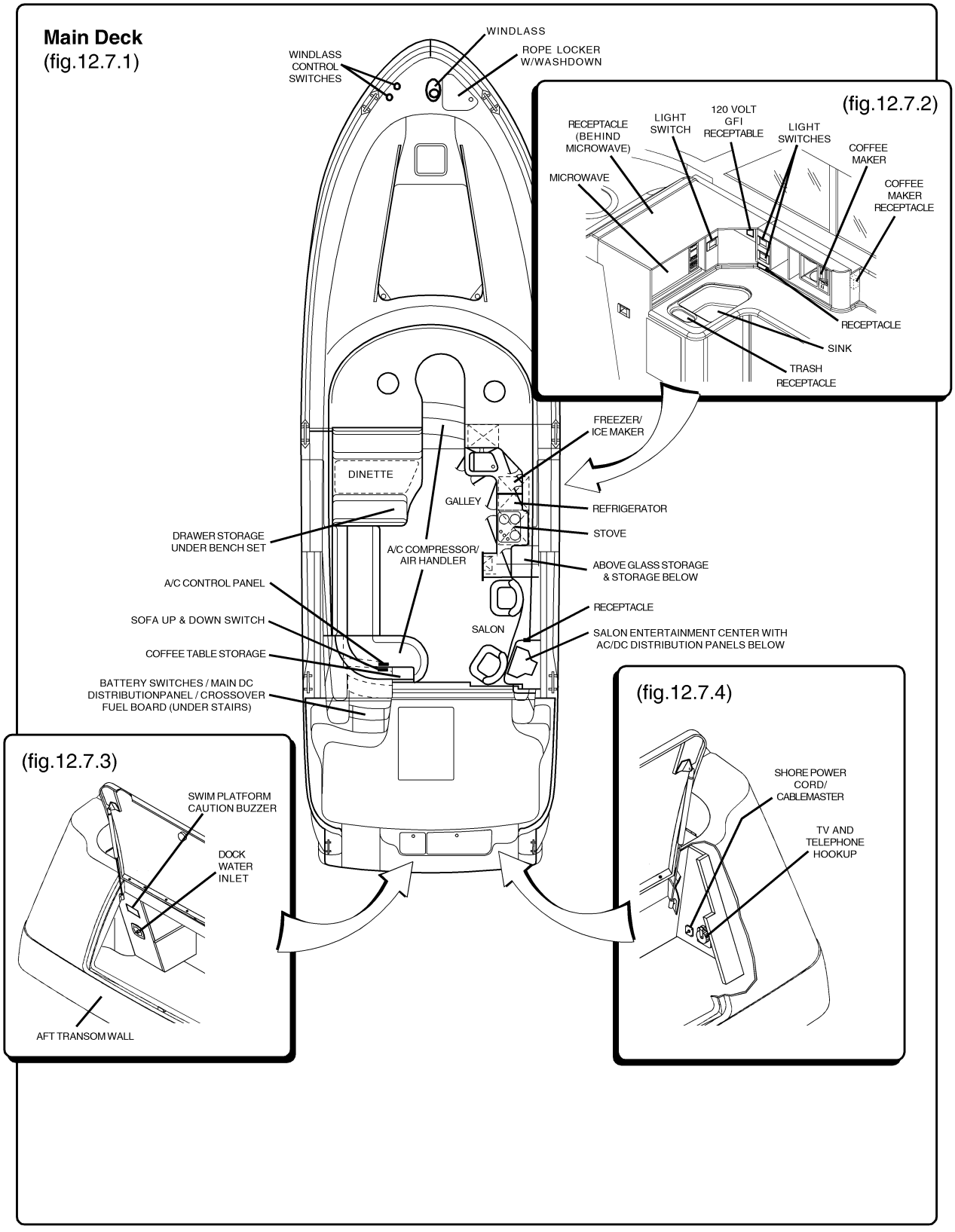
Bridge Plan A
(fig. 12.6.1)



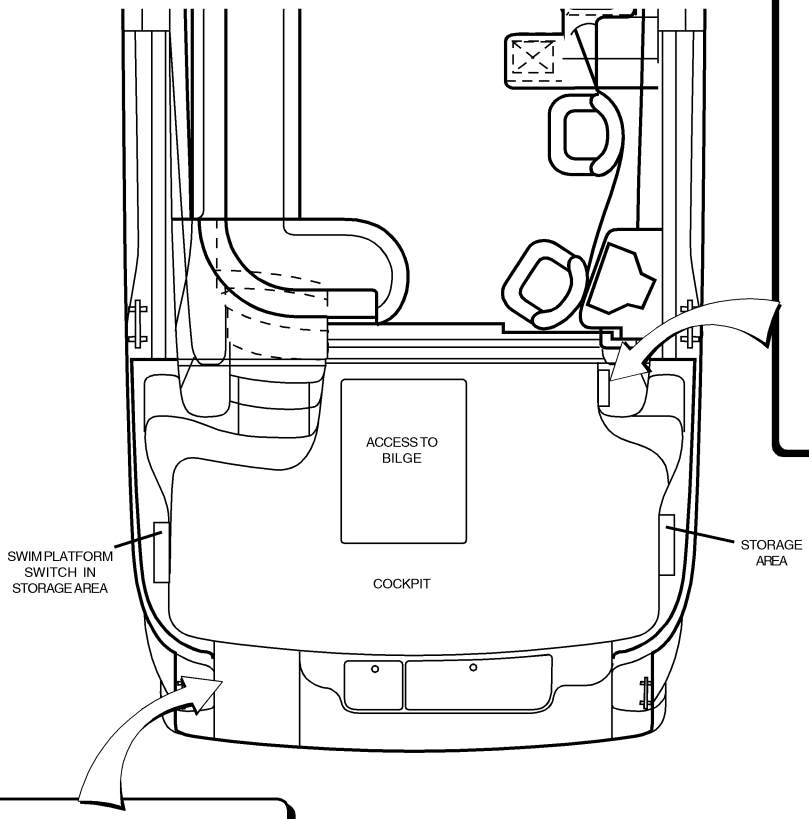
Bridge Plan B
(fig. 12.6.2)



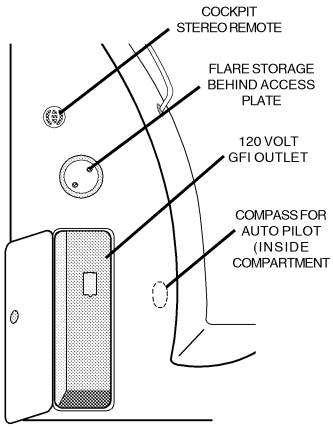
Main Deck
(fig.12.7.1)



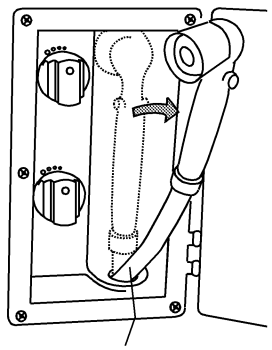
Main Deck
(fig. 12.8.1)



(FIG.12.8.2)

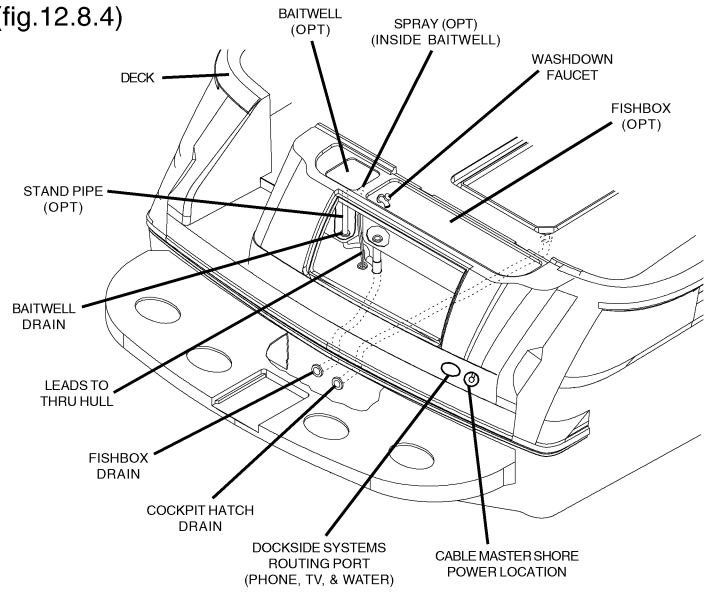


(FIG.12.8.3)

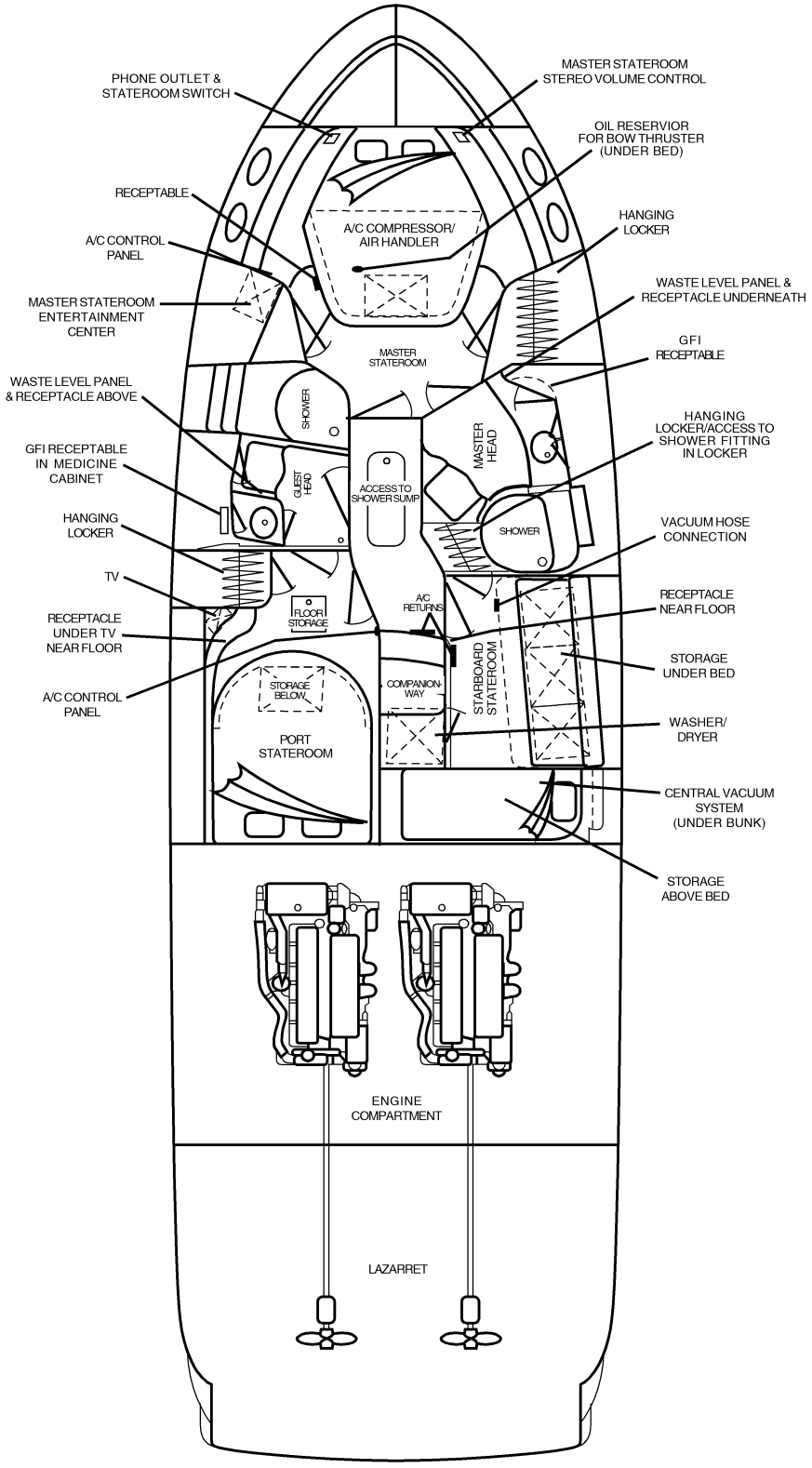


HOT & COLD TRANSOM SHOWER (OPT)

(fig.12.8.4)



Lower Deck
(fig. 12.9.1)



DECK OCCUPANCY PLAN

WORKING DECK
(DECK AREA INTENDED FOR OCCUPATION DURING ANCHORING, MOORING AND EMERGENCY OPERATION ONLY)

ACCOMODATION DECK
(DECK AREA INTENDED FOR OCCUPATION DURING NORMAL OPERATION)

DO NOT WALK ON THIS AREA

⚠ WARNING

Anchor should be independently secured to prevent accidental release.

ATTACH THE SAFETY LANYARD TO THE ANCHOR to insure that the anchor is held in place should the windlass fail. DO NOT use the safety lanyard to SUPPORT the anchor in a stored position.

⚠ DANGER

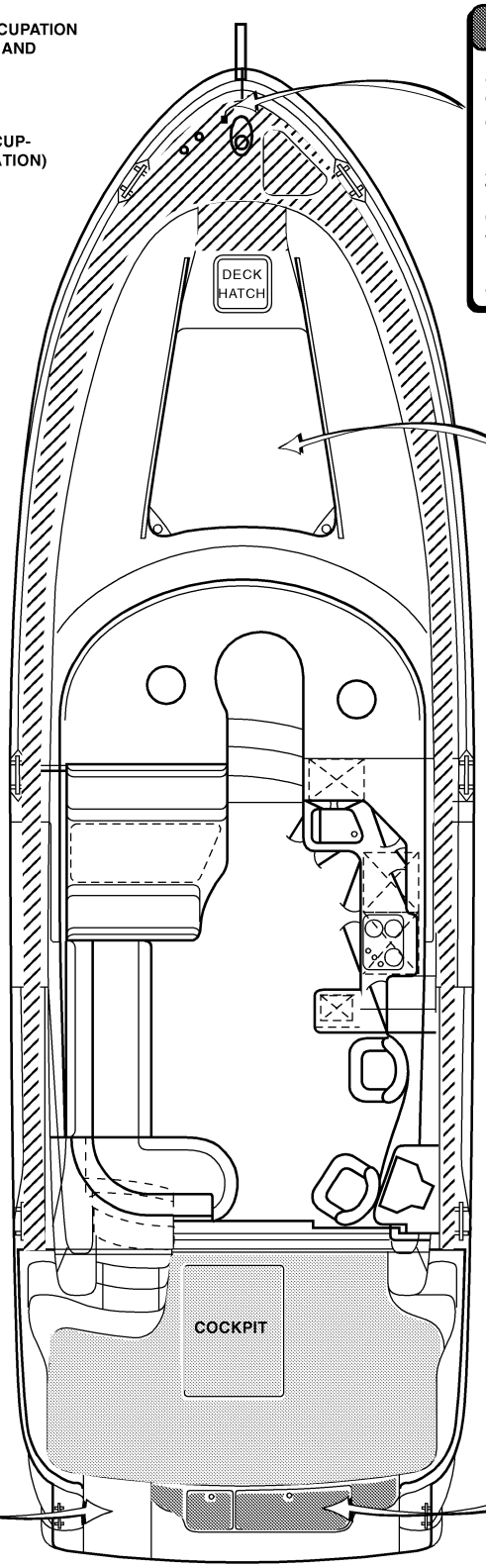
DO NOT USE SUN PAD WHEN BOAT IS UNDERWAY.

⚠ WARNING

PERSONAL INJURY HAZARD
When underway, keep passengers clear of areas not designed for riding. Especially hazardous areas include seat backs, bow, gunwale, transom platform and fore and aft decks.

⚠ WARNING

SLIPPING HAZARD - Wet decks are slippery. Wear proper footwear and use extreme caution on set surfaces.



(fig.12.10.1)

⚠ DANGER

TO AVOID RISK OF SERIOUS INJURY OR DEATH SHUT OFF ENGINE WHEN NEAR SWIMMERS OR PRIOR TO USING SWIM PLATFORM AND BOARDING LADDER.

⚠ WARNING

DO NOT STAND OR WALK ON AREAS SHOWN IN THE DARKEST SHADING. SERIOUS INJURY COULD RESULT.

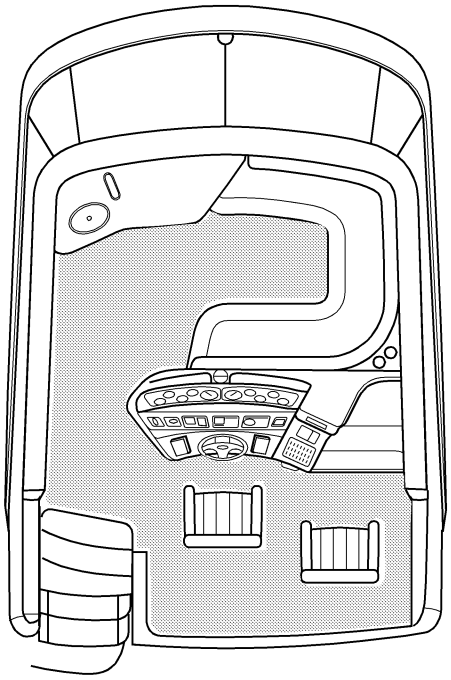
BRIDGE OCCUPANCY PLAN

WORKING DECK
(DECK AREA INTENDED FOR OCCUPATION DURING ANCHORING, MOORING AND EMERGENCY OPERATION ONLY)

ACCOMODATION DECK
(DECK AREA INTENDED FOR OCCUPATION DURING NORMAL OPERATION)

DO NOT WALK ON THIS AREA

Bridge Plan A
(fig. 12.11.1)



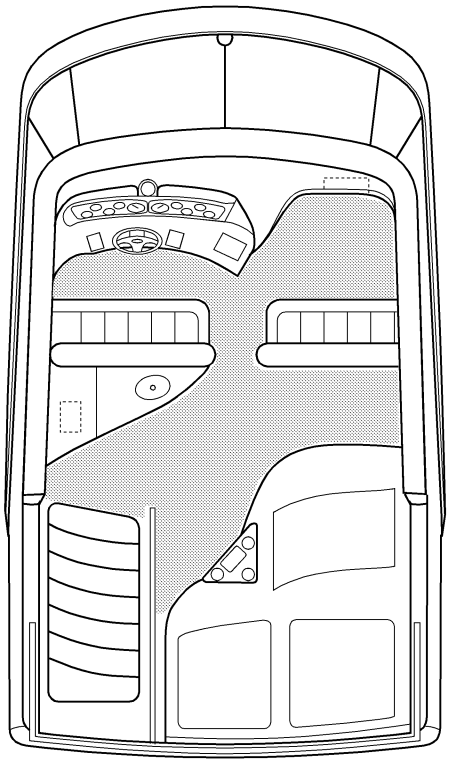
⚠ WARNING

PERSONAL INJURY HAZARD
When underway, keep passengers clear of areas not designed for riding. Especially hazardous areas include seat backs, bow, gunwale, transom platform and fore and aft decks.

⚠ WARNING

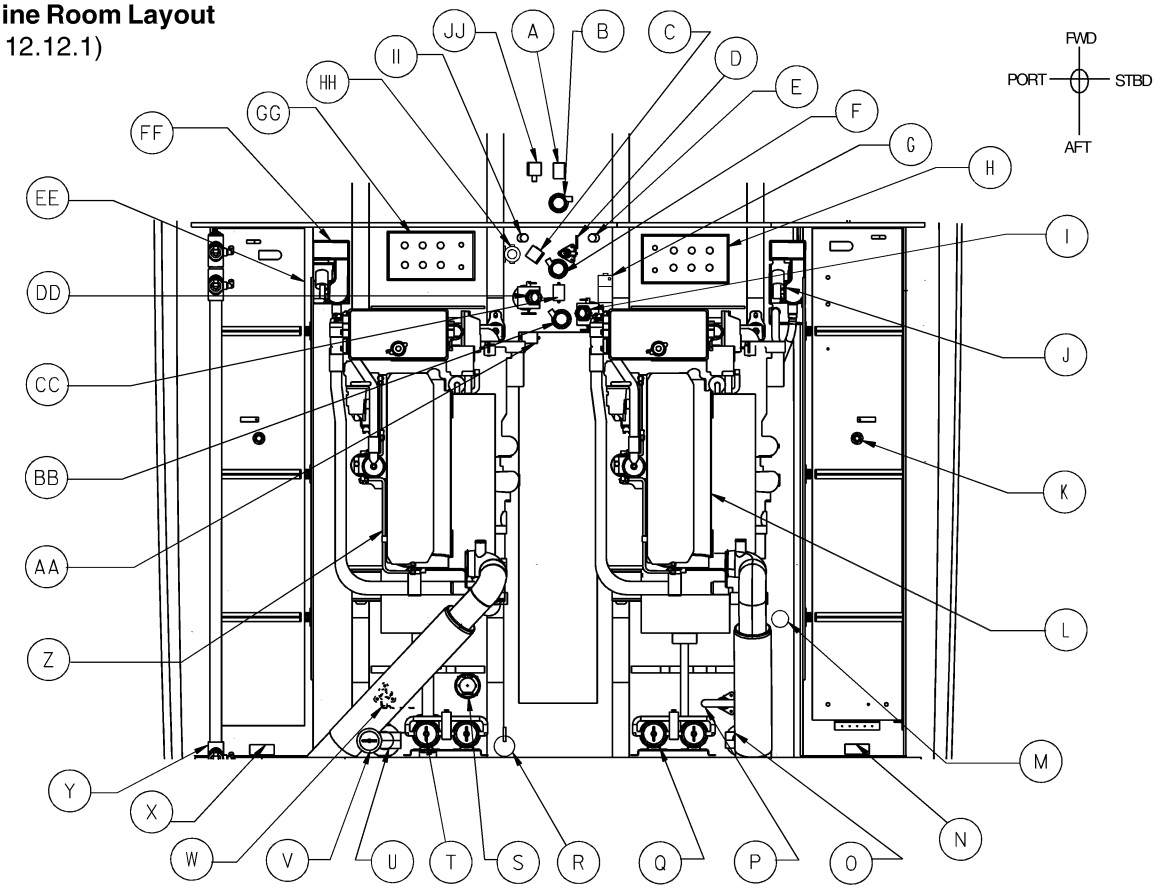
SLIPPING HAZARD - Wet decks are slippery. Wear proper footwear and use extreme caution on set surfaces.

Bridge Plan B
(fig. 12.11.2)



Below Deck Layout (Engine Room)

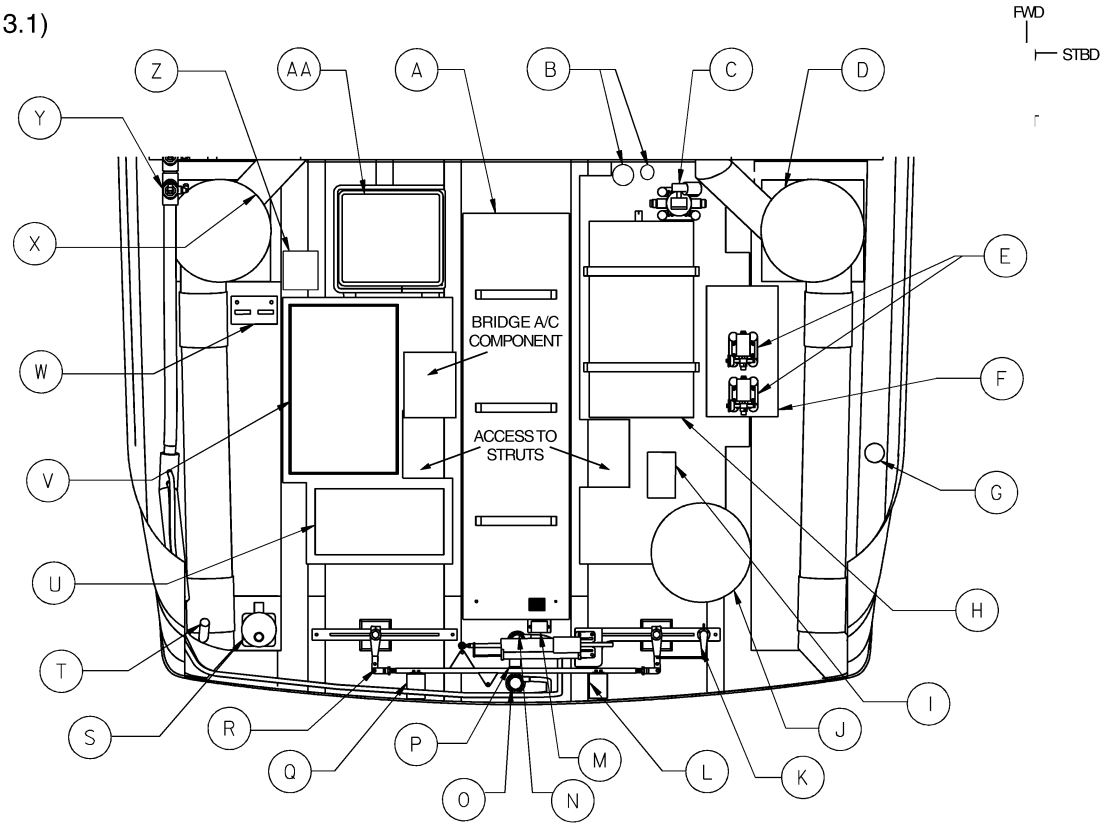
Engine Room Layout
(fig. 12.12.1)



A	Cabin Bilge Pump Float Switch	N	Bilge Blower	Z	Port Engine
B	Cabin Bilge Pump	O	STBD Engine Strainer	AA	FWD High Water Bilge Pump Float Switch
C	Bilge Manual Pump Pickup	P	Head Discharge Seacock	BB	FWD Bilge Pump
D	AC Seacock	Q	STBD Engine Fuel Filter	CC	FWD Bilge Pump Float Switch
E	Depth Transducer	R	Automatic Fire Extinguisher System	DD	STBD Engine Seacock
F	FWD High Water Bilge Pump	S	Generator Strainer	EE	Port Fuel Tank
G	AC Pump	T	Port Engine Fuel Filter	FF	Port Head Vacuum Generator
H	Bow Thruster Battery	U	Port Engine Strainer	GG	Bow Thruster Battery
I	Port Engine Seacock	V	Generator Fuel Filter	HH	AC Strainer
J	STBD Head Vacuum Generator	W	Generator Seacock (Under Exhaust Tube)	II	Speed Transducer
K	STBD Fuel Tank	X	Bilge Blower	JJ	Cabin Manual Pump Pickup
L	STBD Engine	Y	Common Drain		
M	Hydraulic Engine Control System Reservior				

Below Deck Layout (Lazaret)

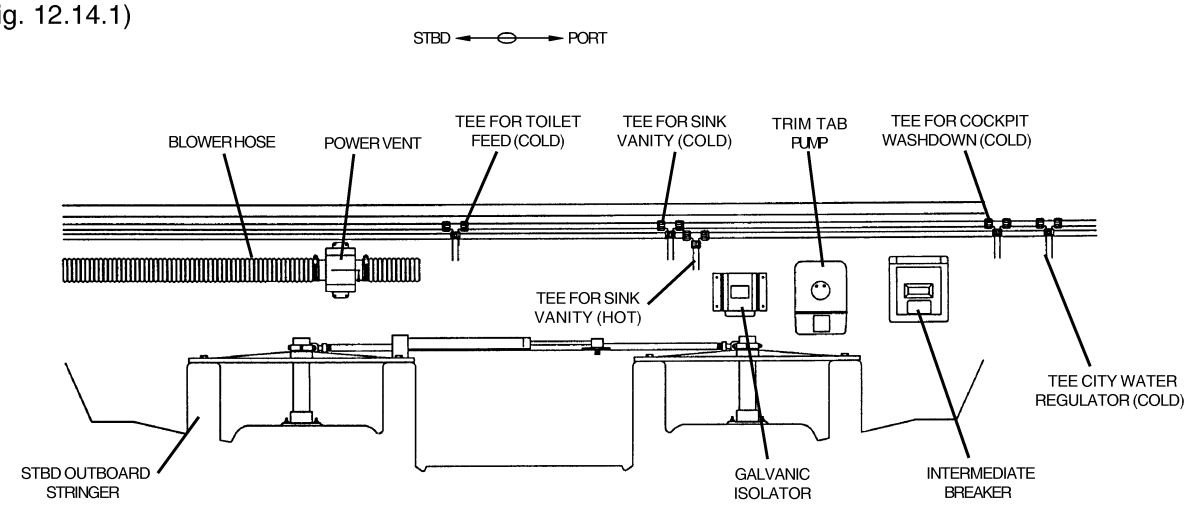
Lazaret
(fig. 12.13.1)



A	Water Tank	J	Glendening Cablemaster Tub	S	Generator Muffler
B	Power Steering Reservoir & Filter	K	Auto Pilot Rudder Feedback	T	Generator Exhaust Outlet
C	Mascerator Discharge Pump	L	Shore Power Main Breakers	U	Water Heater
D	STBD Engine Exhaust System	M	Aft High Water Bilge Pump Float Switch	V	Generator
E	Water Pumps	N	Aft High Water Bilge Pump	W	Generator Battery
F	Water Tank	O	Aft Bilge Pump	X	Port Engine Exhaust
G	Pneumatic Accumulator Tank	P	Aft Bilge Pump Float Switch	Y	Common Drain
H	Holding Tank	Q	Trim Tab Pump	Z	A/C Condensate Sump
I	Hydraulic Lift Platform Pump	R	Steering System	AA	Main Batteries

Crews Quarters Transom Lay-Out

(fig. 12.14.1)

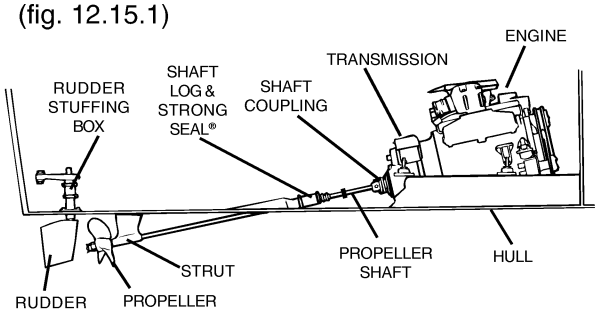


PROPULSION SYSTEM

The 480 DB is equipped with an inboard type propulsion system also known as inboard engines.

REFER TO THE OWNER'S MANUAL AND ENGINE OWNER'S MANUAL FOR OPERATING INSTRUCTIONS AND WARRANTY INFORMATION.

Inboard Drive
(fig. 12.15.1)

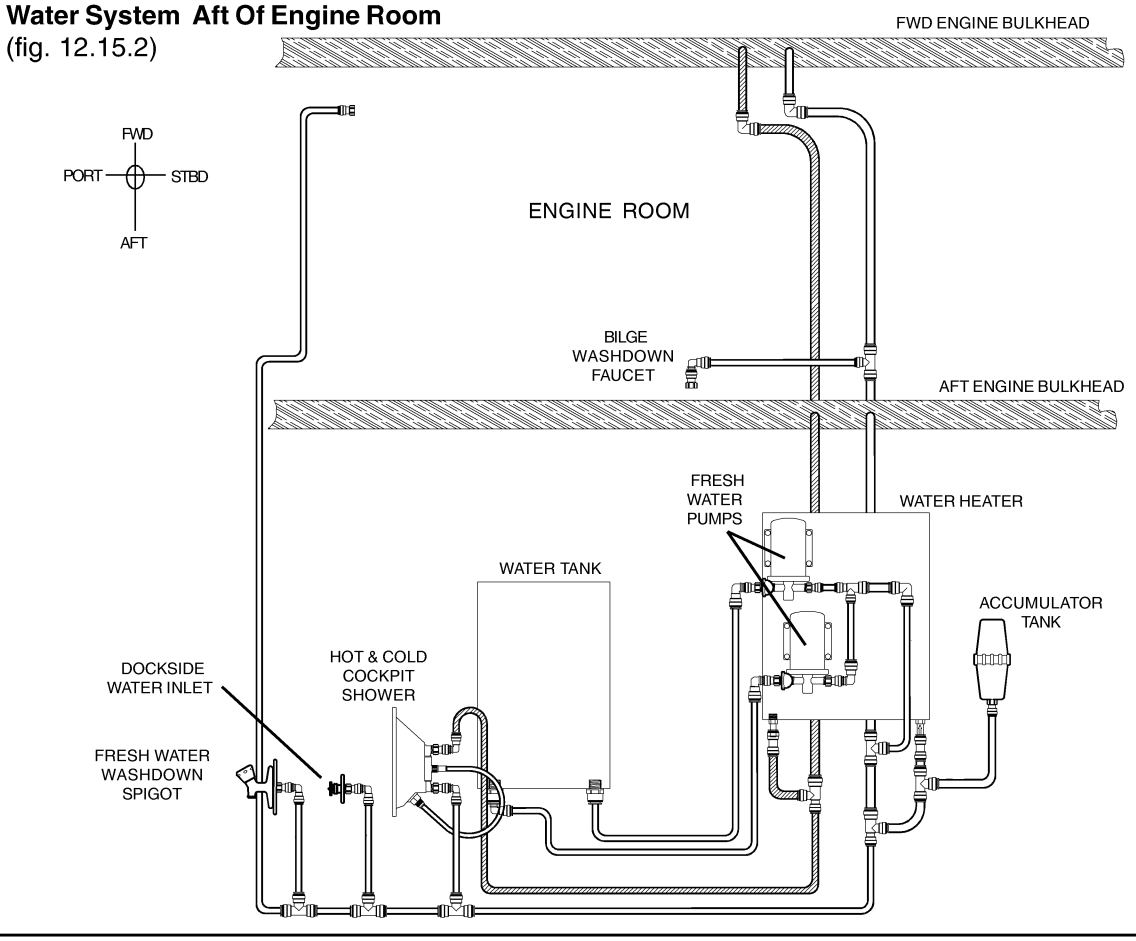


WATER SYSTEM

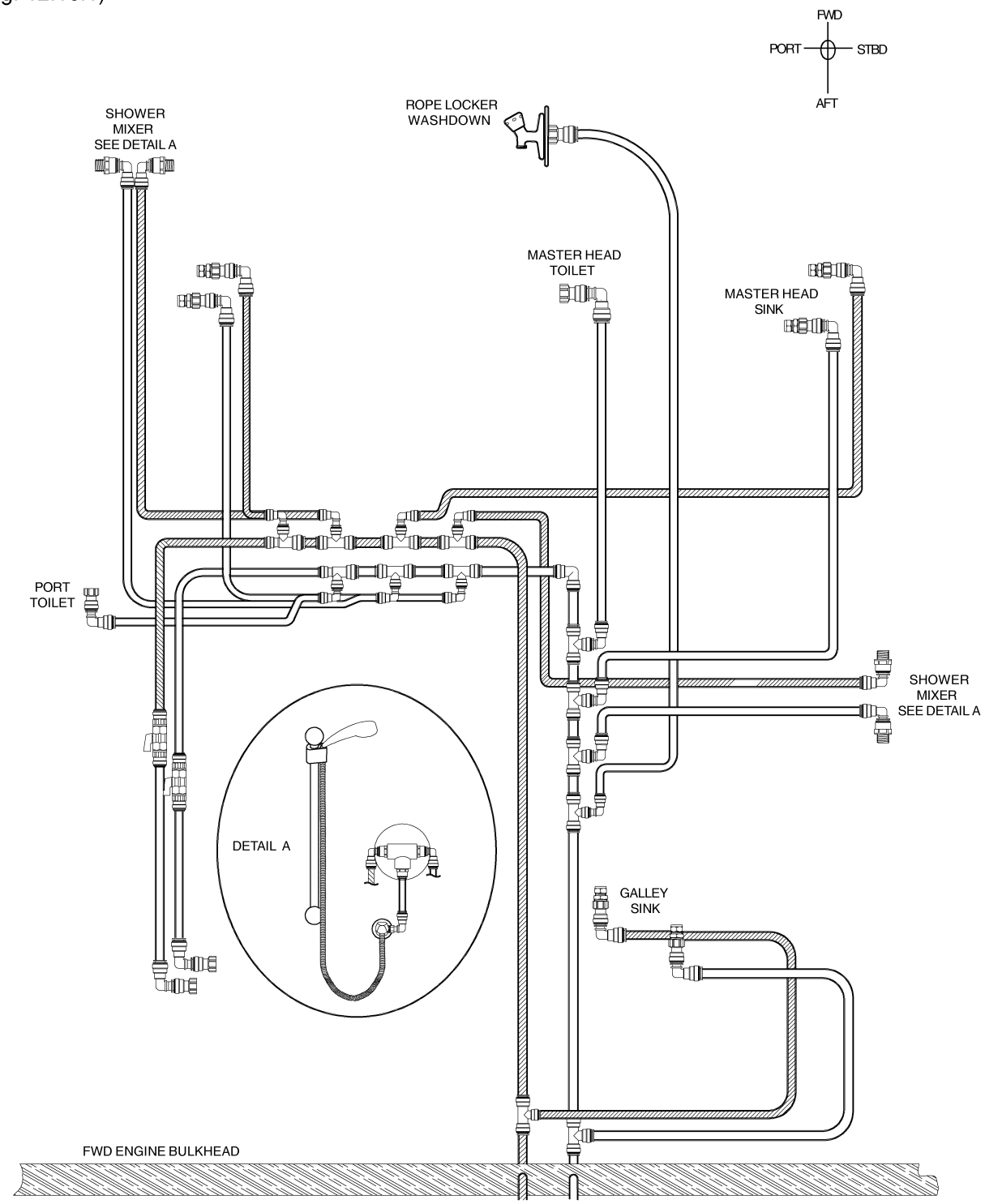
Water system information can be found in Section 5 • Water System of the owner's manual.

REFER TO THE OWNER'S MANUAL AND OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.

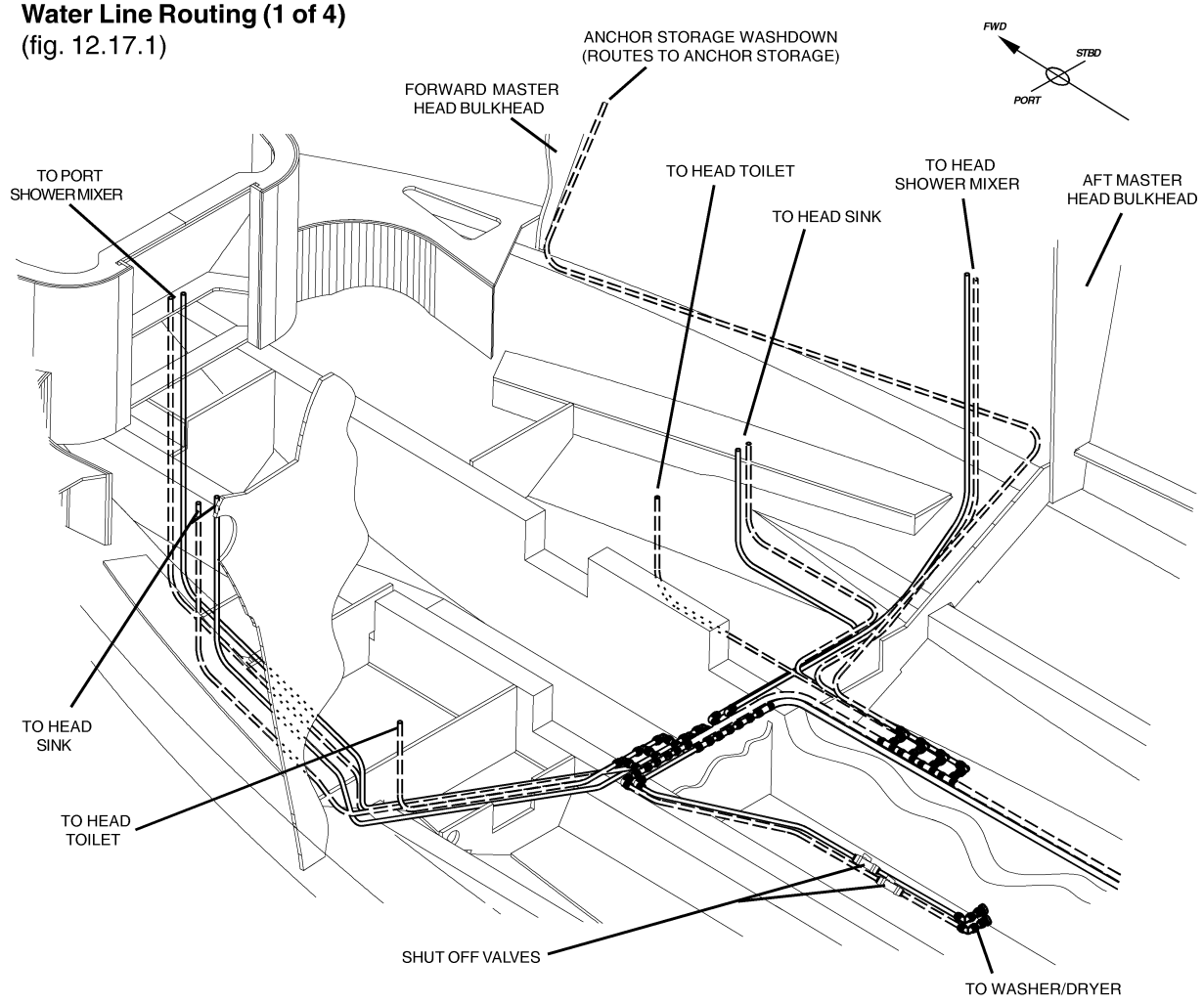
Water System Aft Of Engine Room
(fig. 12.15.2)



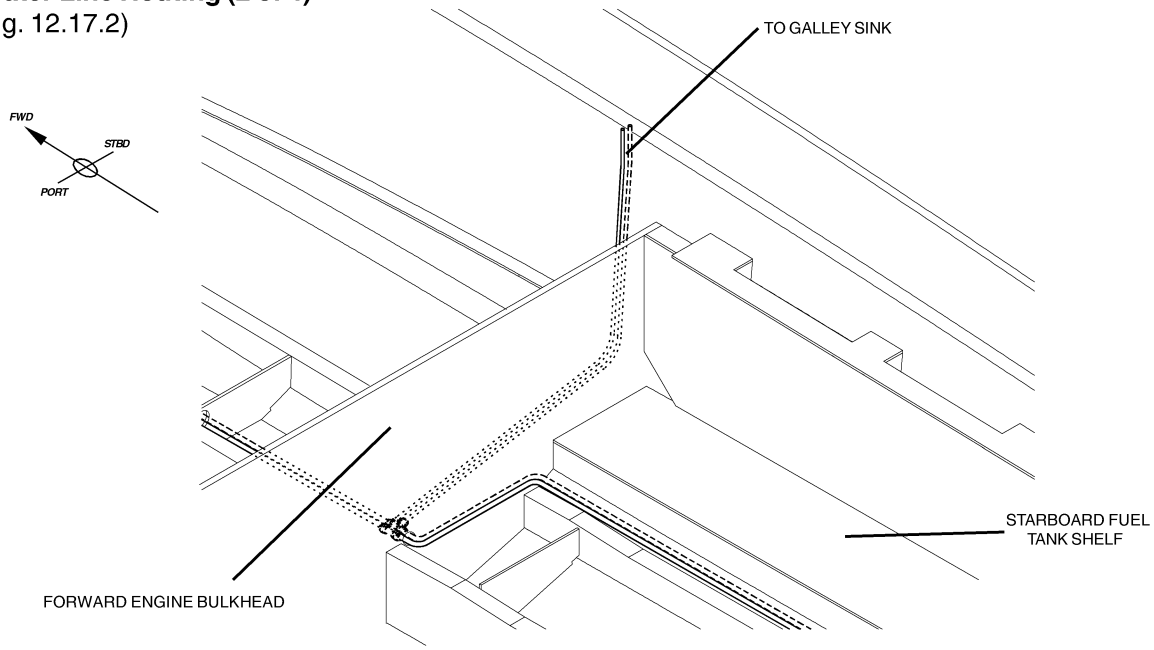
Water System Forward Of Engine Room
(fig. 12.16.1)



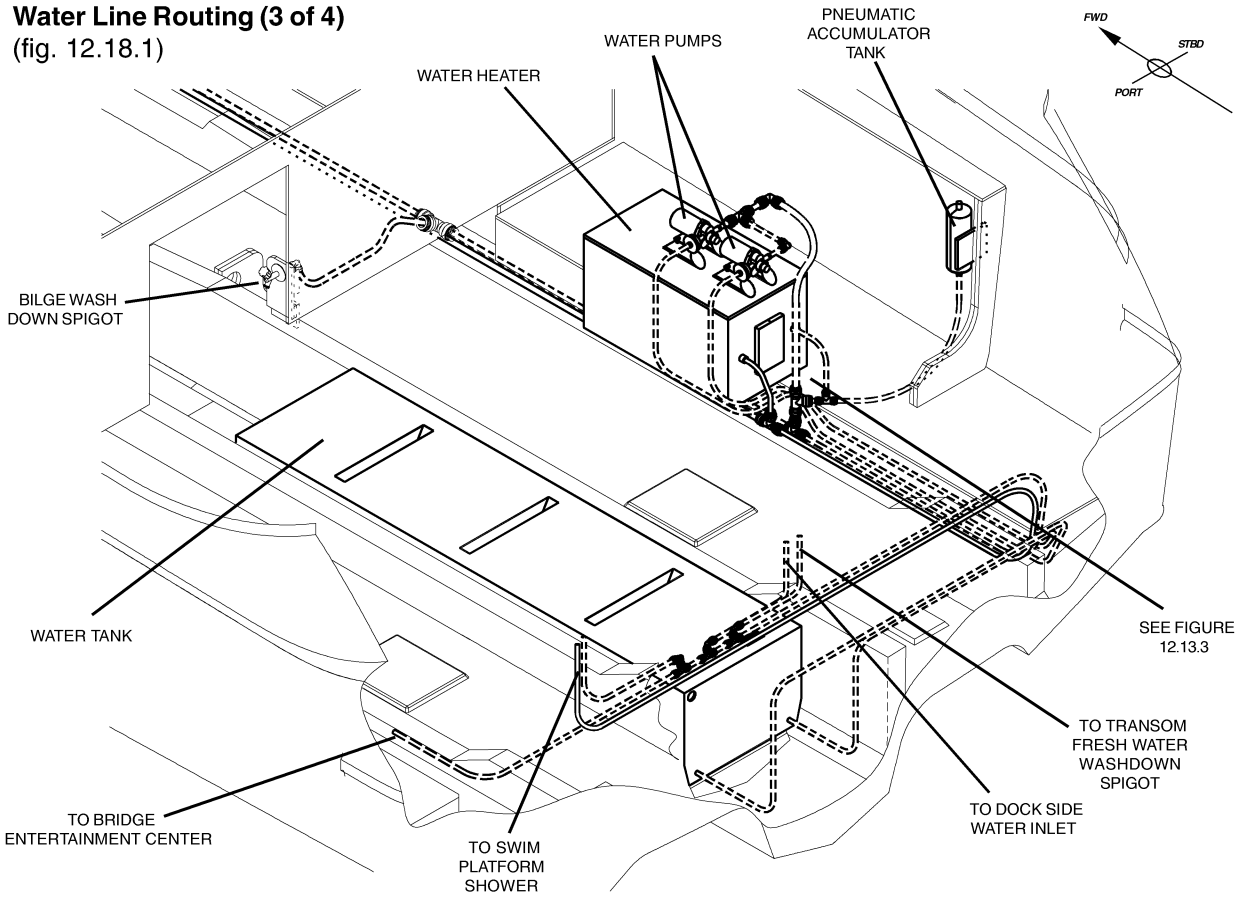
Water Line Routing (1 of 4)
(fig. 12.17.1)



Water Line Routing (2 of 4)
(fig. 12.17.2)

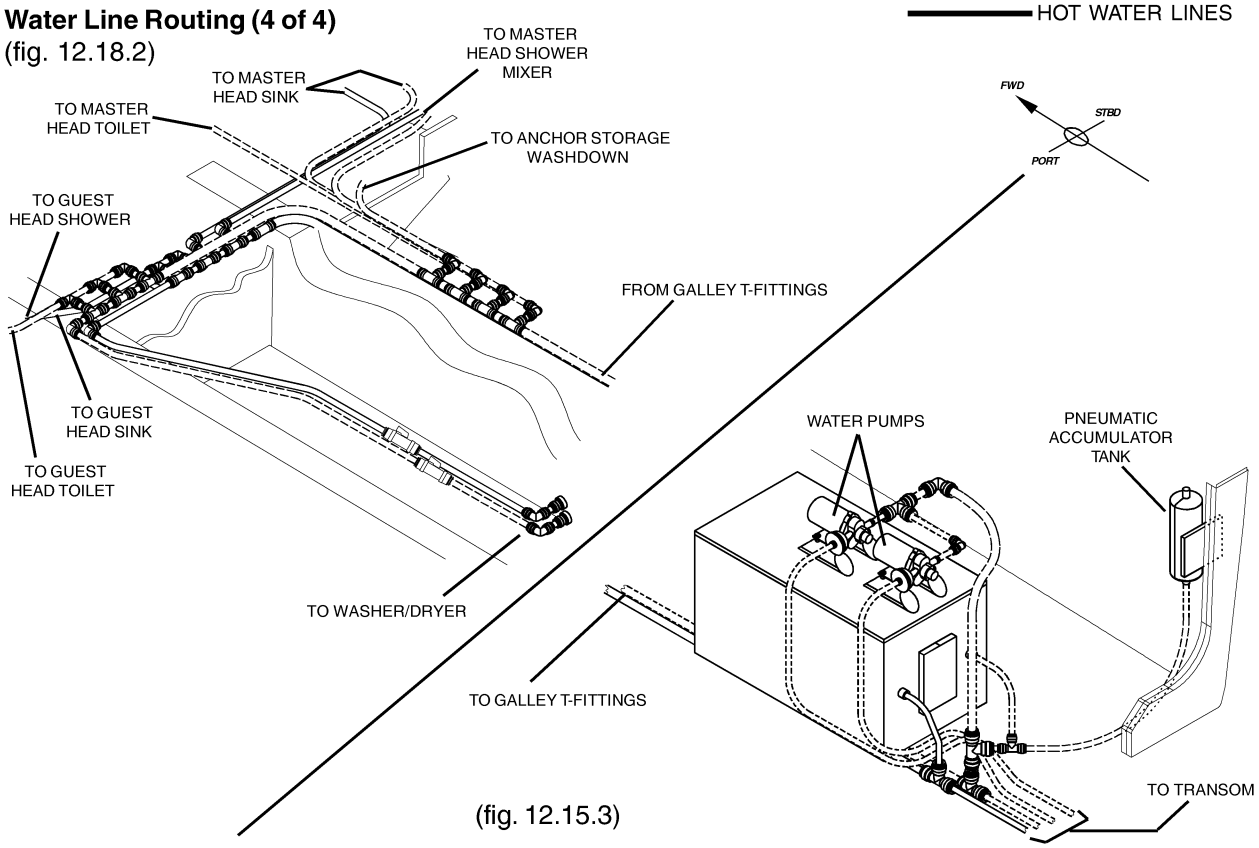


Water Line Routing (3 of 4)
(fig. 12.18.1)



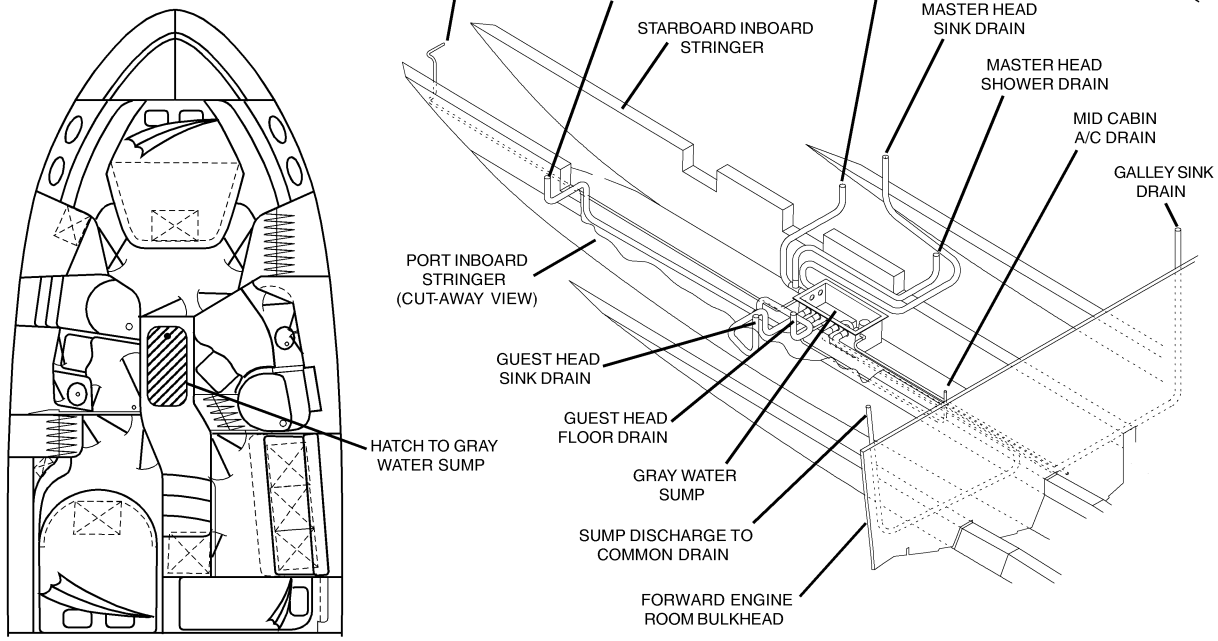
COLD WATER LINES
HOT WATER LINES

Water Line Routing (4 of 4)
(fig. 12.18.2)

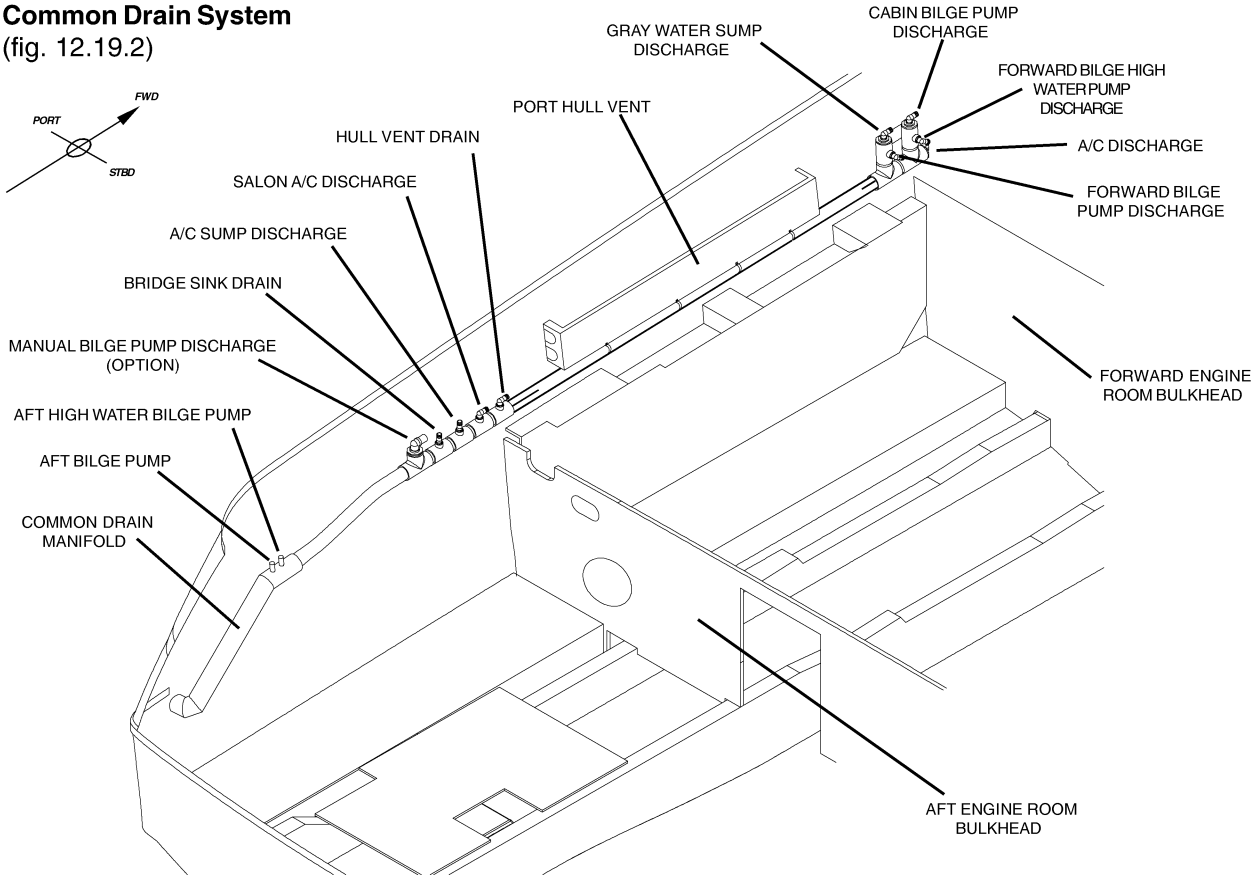


(fig. 12.15.3)

Gray Water System Sump
(fig. 12.19.1)



Common Drain System
(fig. 12.19.2)



HEAD SYSTEMS

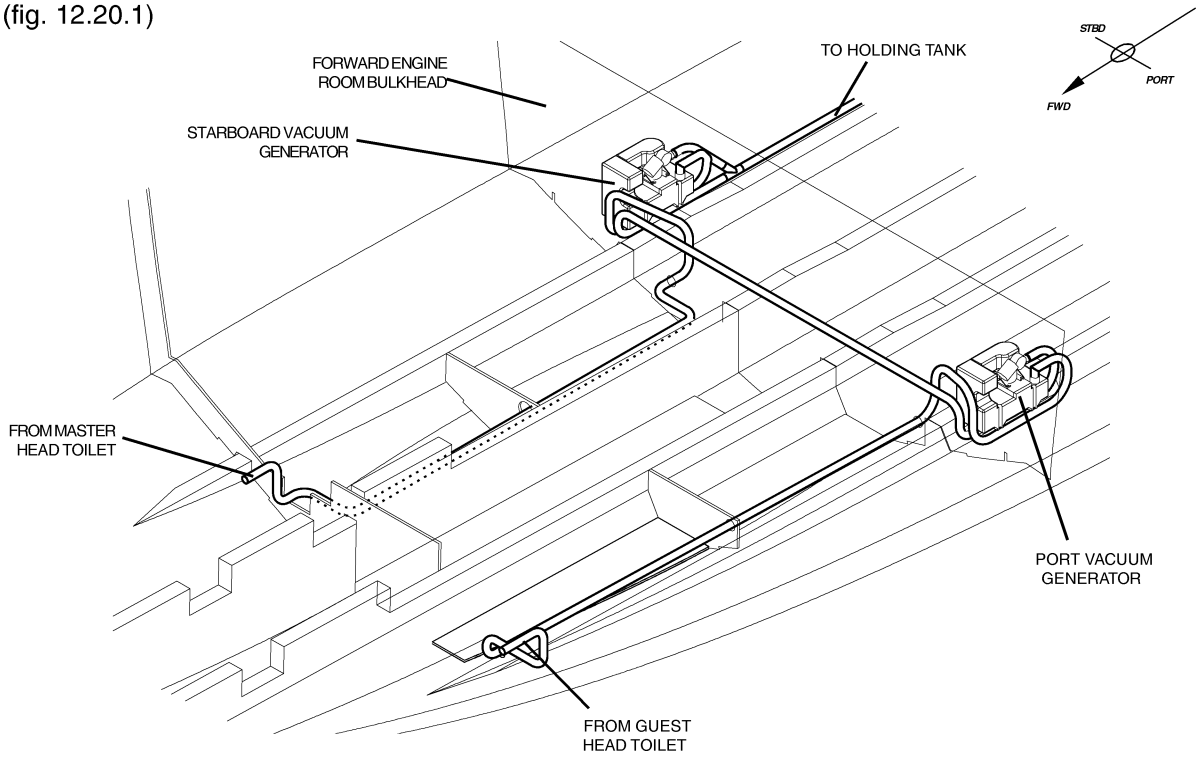
Head System information can be found in *Section 6 • Head System* of the owner's manual. The Owner's Manual Packet in your boat contains information pertaining to your head system that should be carefully read.

REFER TO THE OWNER'S MANUAL AND OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.

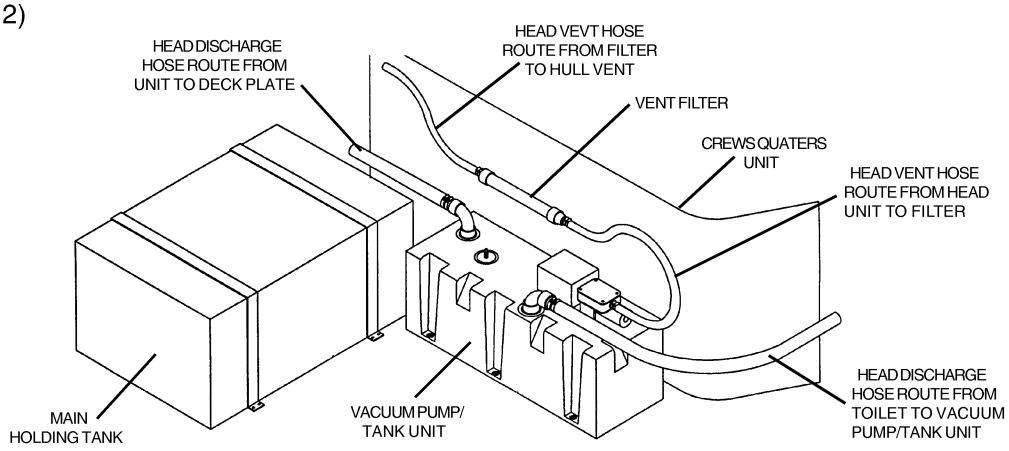
⚠ CAUTION

Do not place facial tissue, paper towels or sanitary napkins in head.

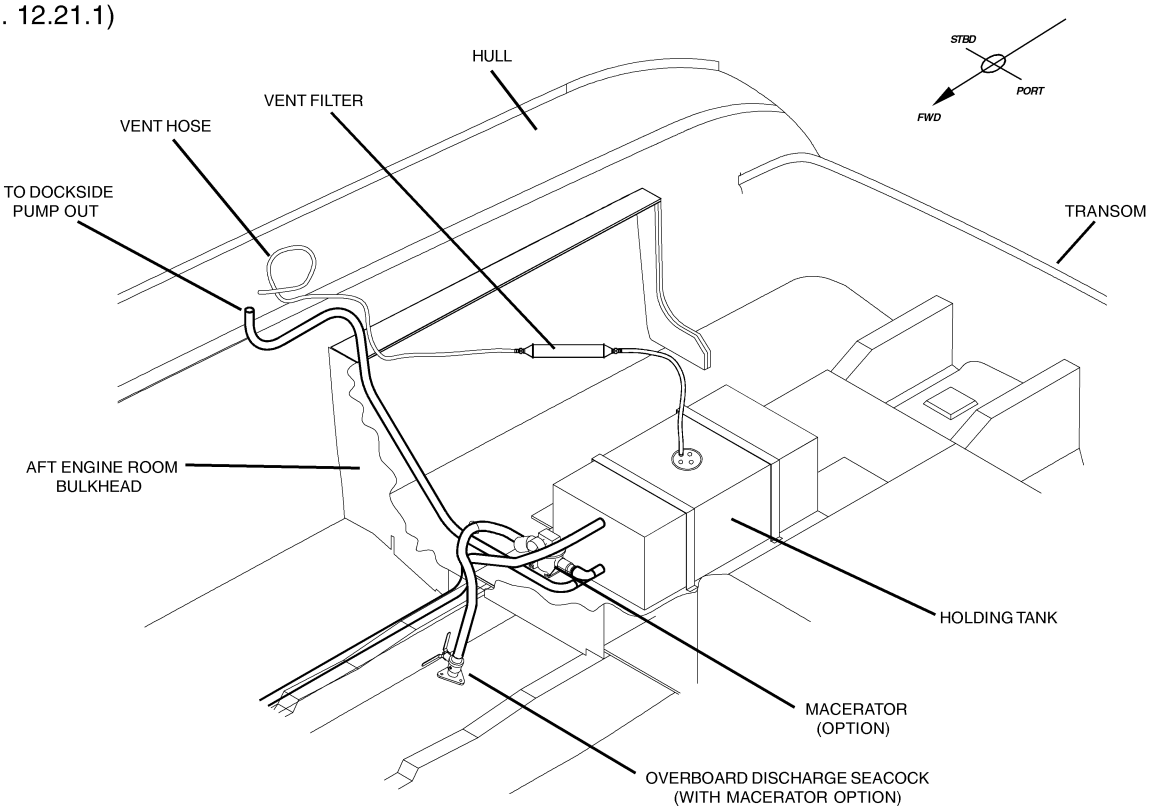
Vacu-Flush Head System (Forward) (1 of 2)
(fig. 12.20.1)



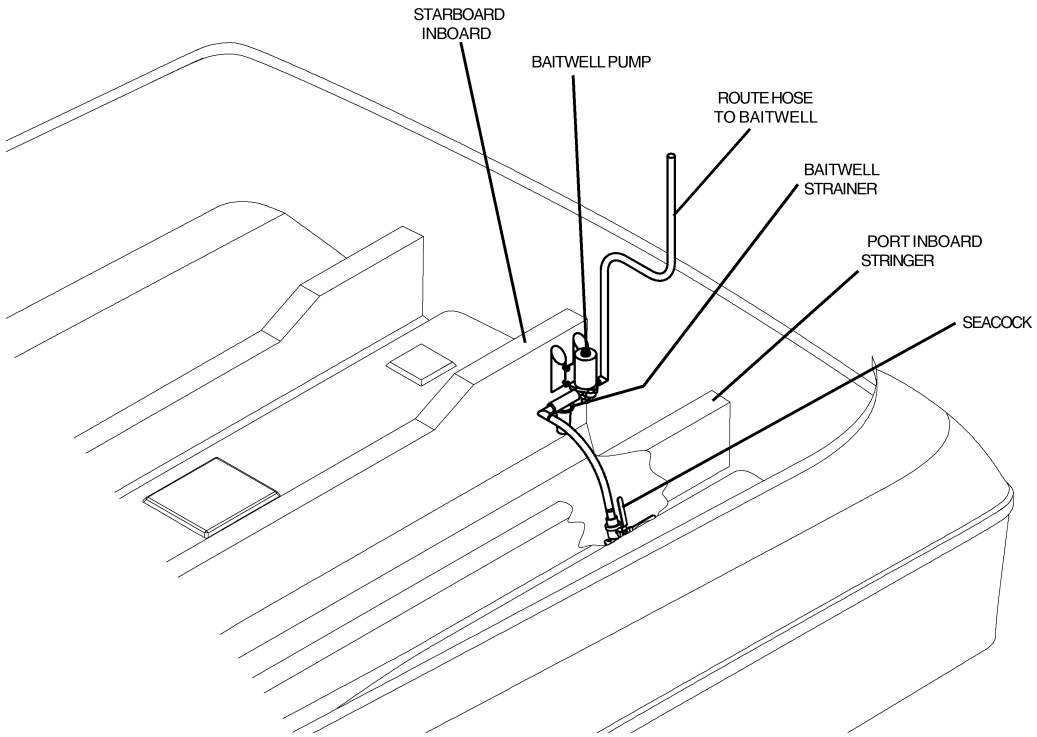
Crews Quarters Head System Installation
(fig. 12.20.2)



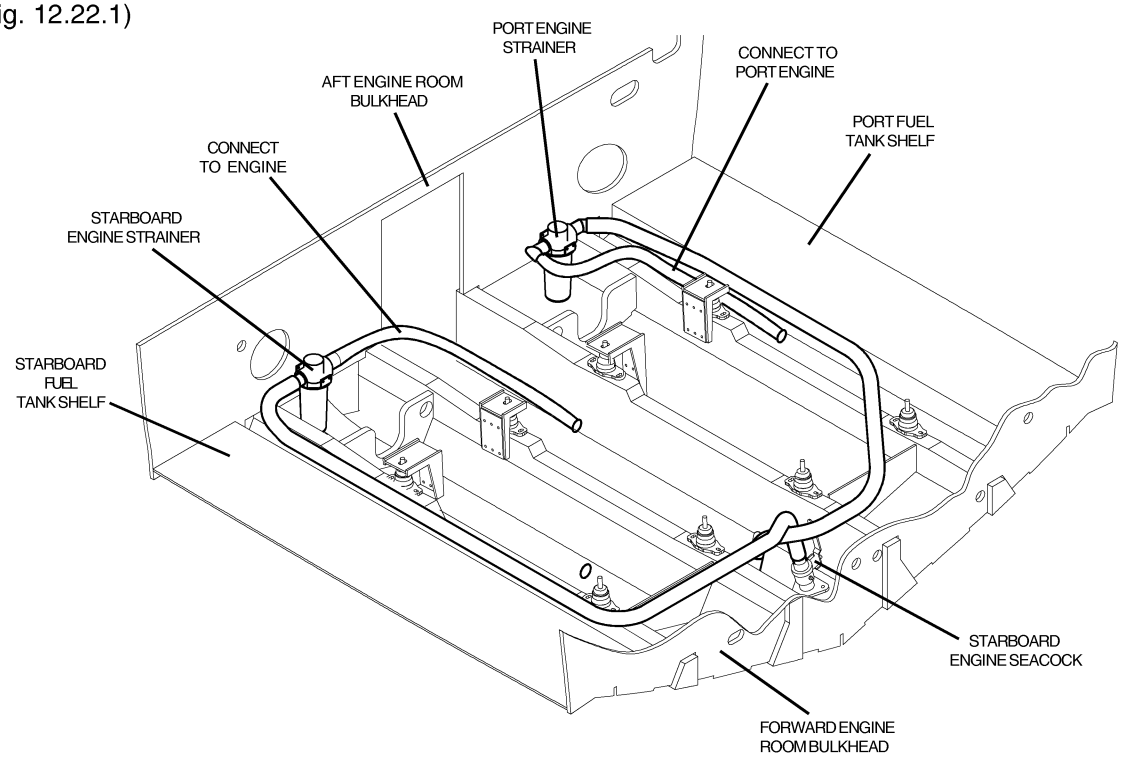
Vacu-Flush Head System (Aft) (2 of 2)
(fig. 12.21.1)



Baitwell Pump Installation (Opt)
(fig. 12.21.2)



Engine Water Hose Routing (CAT 3196)
(fig. 12.22.1)



Fuel System

The 480 DB is equipped with a diesel fuel system. A detailed drawing of the fuel system can be found in the *Parts Manual*. Fueling instructions and precautions can be found in the *Owner's Manual*.

Crossover Fuel System

The crossover fuel system allows the engines to draw fuel from either tank. This allows switching to an alternate tank in case of fuel contamination or for even fuel weight distribution. Each engine and the generator are equipped with valves on the crossover fuel board. The generator draws fuel from the port fuel tank only, utilizing valves offering OFF and ON positions.

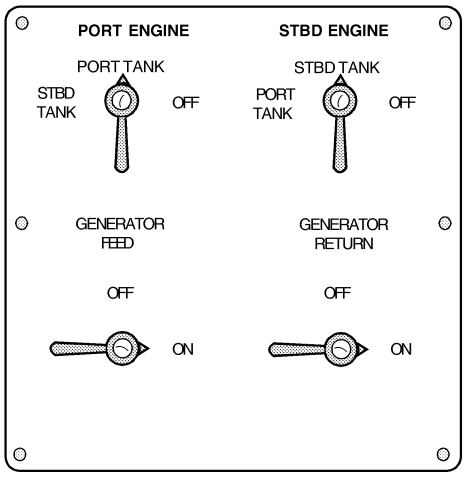
Note: When operating the generator the FEED and RETURN valves must be in the ON position. (See Figure 12.22.2.)

The crossover fuel board is located under bridge steps.

Fuel Recommendations

The quality of the fuel is very important for satisfactory engine performance and long engine life. Fuel should be clean and free of contamination. Your fuel tanks should be kept full of fuel whenever possible. This will reduce the amount of water condensation and reduce the possibility of contamination.
Recommended Fuel: **#2 Diesel fuel**

Crossover Fuel Board (fig. 12.22 .2)



Fuel Filters: (Diesel)

Primary and secondary fuel filters are installed on your Sea Ray® to keep the fuel as clean as possible. Primary fuel filters are the Racor® water separating fuel filters installed on the port and starboard sides of the engine room. The secondary fuel filters are located on the engines and should be replaced in accordance with the Engine Owner's Manual.

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

Primary Fuel Filter Selection Valve:

Arrow Up: ALL OFF

Arrow Right: RIGHT ON

Arrow Down: ALL ON

Arrow Left: LEFT ON

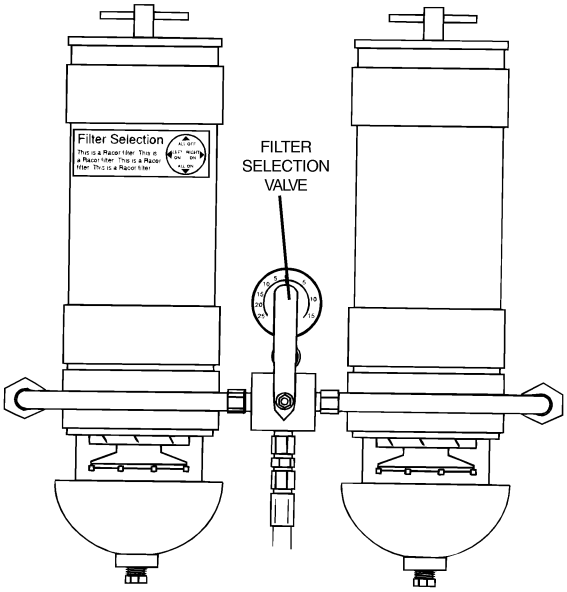
Maximum efficiency can be accomplished by the on-line selection of the left or right fuel filter individually. This will give you a clean, efficient filter on-line while allowing maintenance on the off-line filter.

NOTE: In rough seas, allow approximately 15% reserve when planning fuel consumption.

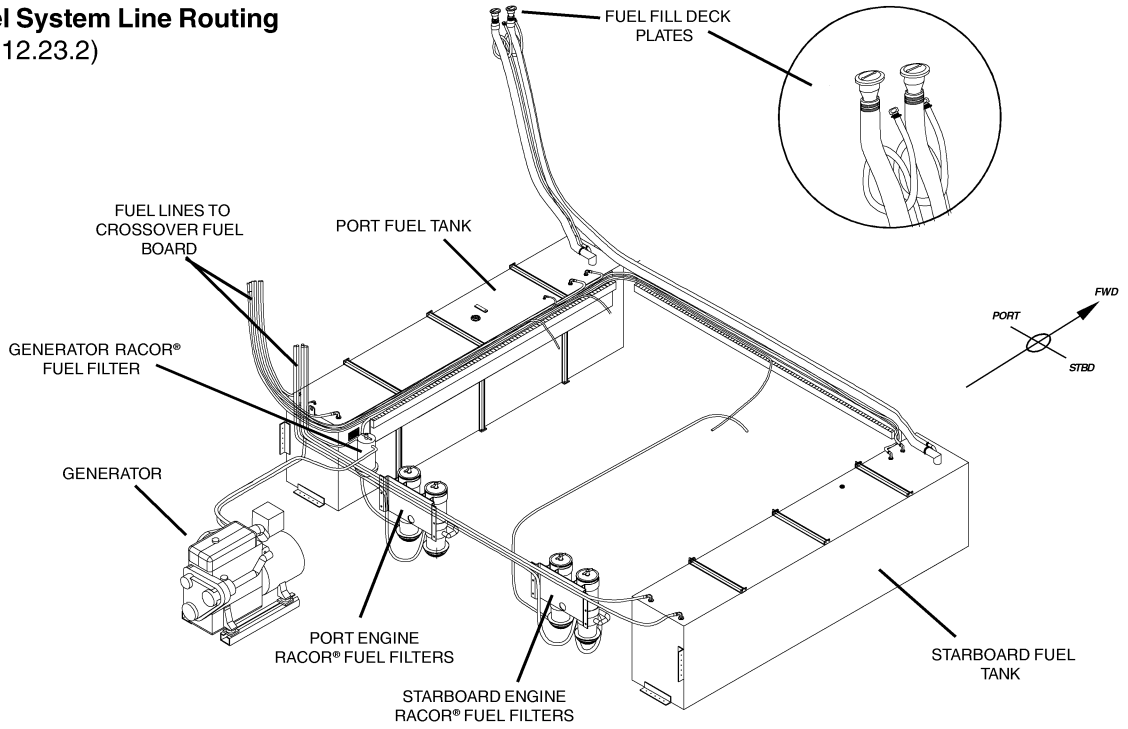
REFER TO THE ENGINE OPERATOR'S MANUAL FOR MORE DETAILED INFORMATION.

Fuel Filters
(fig. 12.23.1)

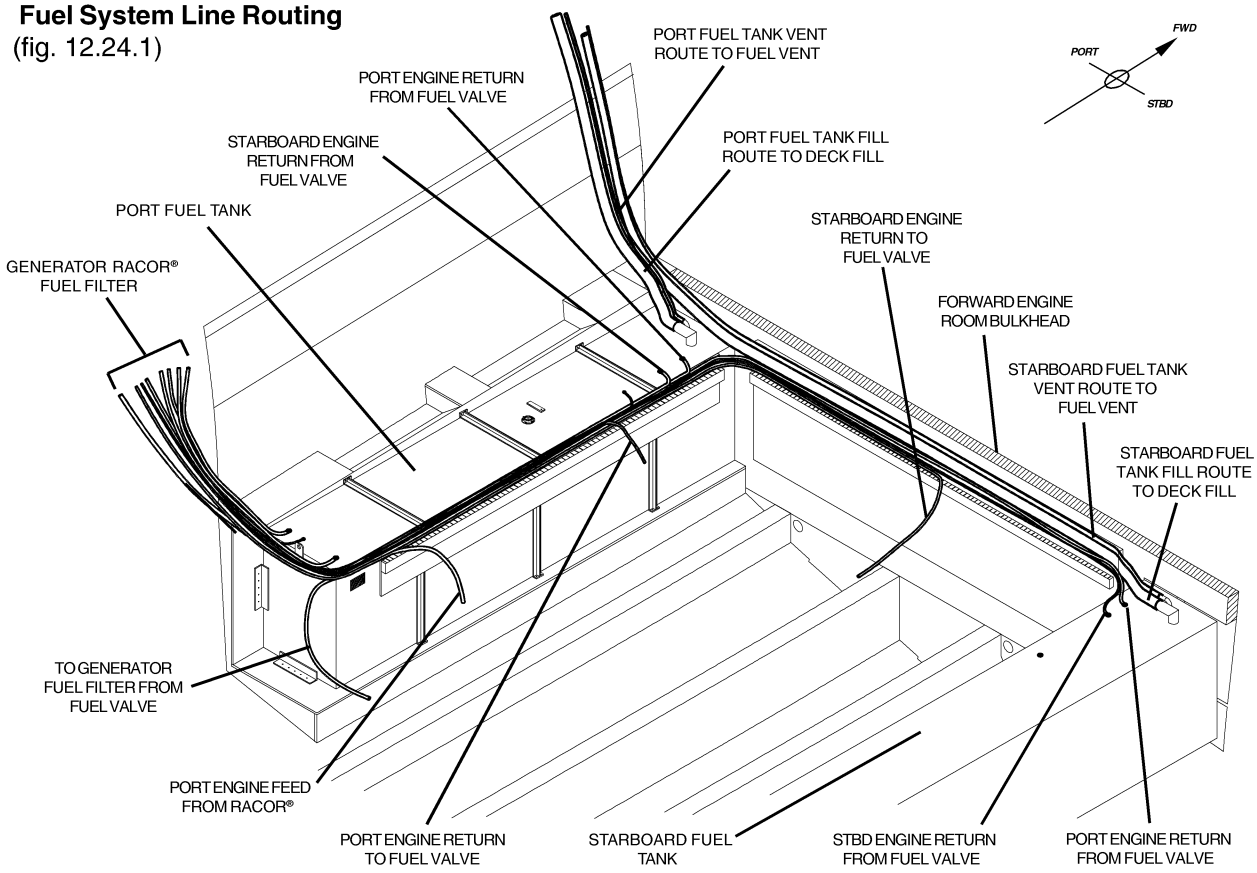
Primary Fuel Filter (Diesel Racor)
With Filter Selection Valve .



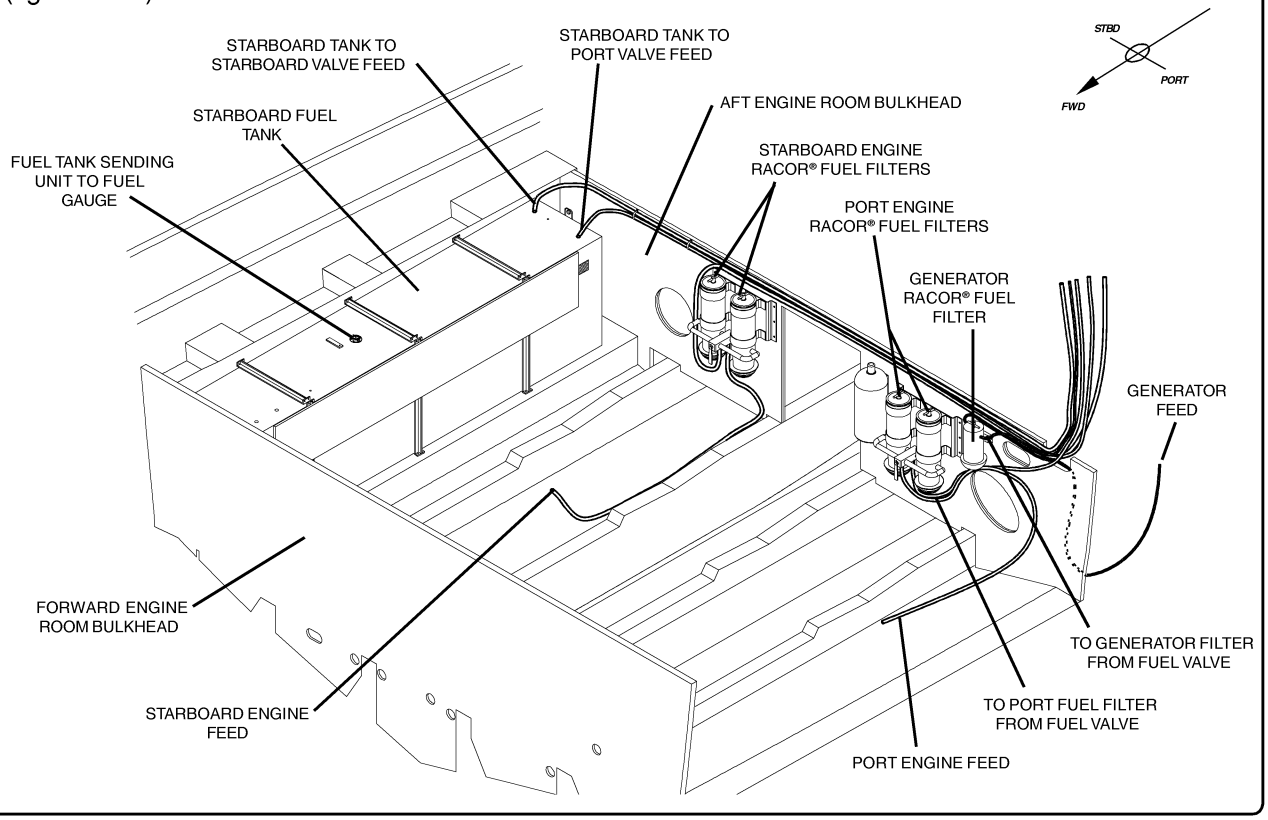
Fuel System Line Routing
(fig. 12.23.2)



Fuel System Line Routing
(fig. 12.24.1)



Fuel Line Routing
(fig. 12.24.2)

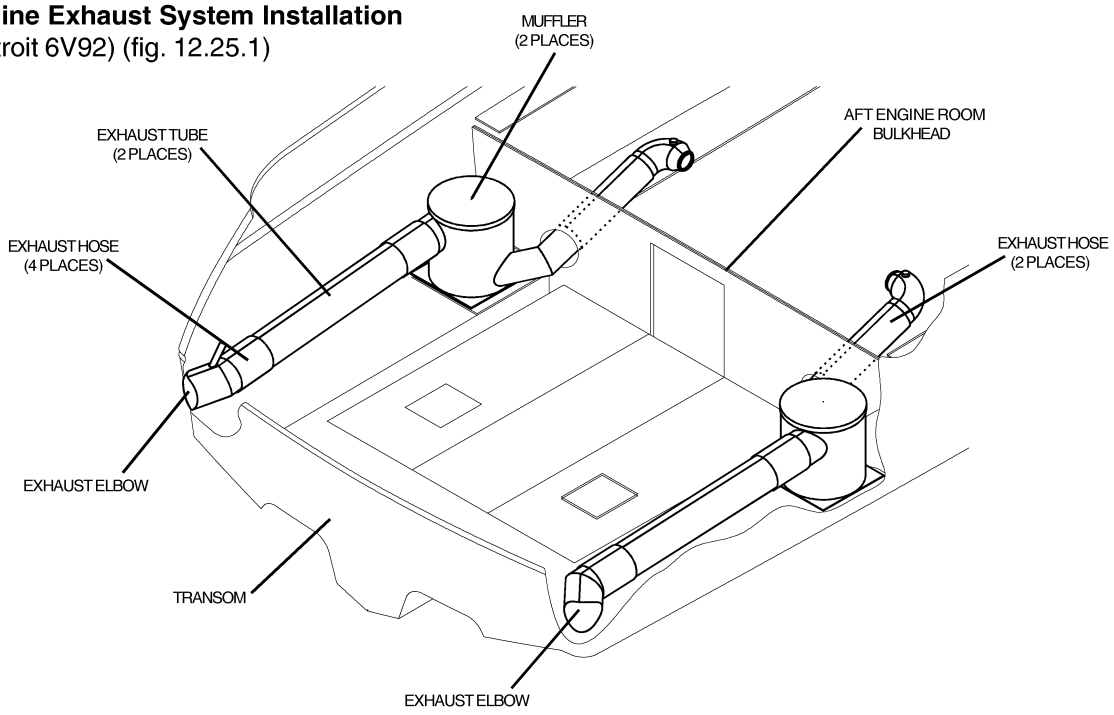


EXHAUST SYSTEM

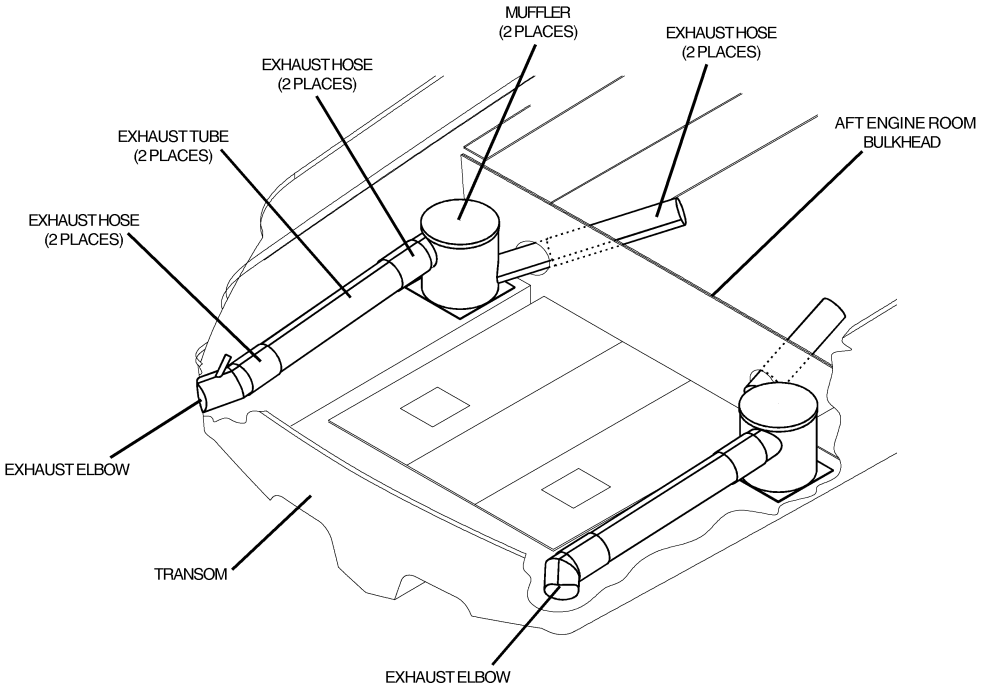
General exhaust system information can be found in Section 2 • Bilge & Underwater Gear of the owner's manual. Below are illustrations of the exhaust systems with different engine options.

REFER TO THE ENGINE OWNER'S MANUAL AND ENGINE OWNER'S MANUAL FOR INSTRUCTIONS AND WARRANTY INFORMATION.

Engine Exhaust System Installation
(Detroit 6V92) (fig. 12.25.1)



Engine Exhaust System Installation
(Caterpillar 3196) (fig. 12.25.2)



Ventilation System / Bilge Blower

Sea Ray® Sport Yachts are equipped with electric bilge blowers to remove fumes from the engine compartment and provide ventilation through the deck vents before starting the engine and when operating below cruising speeds. The bilge blowers are located inside the port and starboard sides of the engine room.

Bilge blower switches are located on the dash switch panel and the DC distribution panel.

The blower switches have a two way switching capability. The blower module allows the blowers to be turned ON and OFF at either the control station or the main distribution panel. Also, they can be turned ON at one station and turned OFF at the other.

Blower Switch Lights:

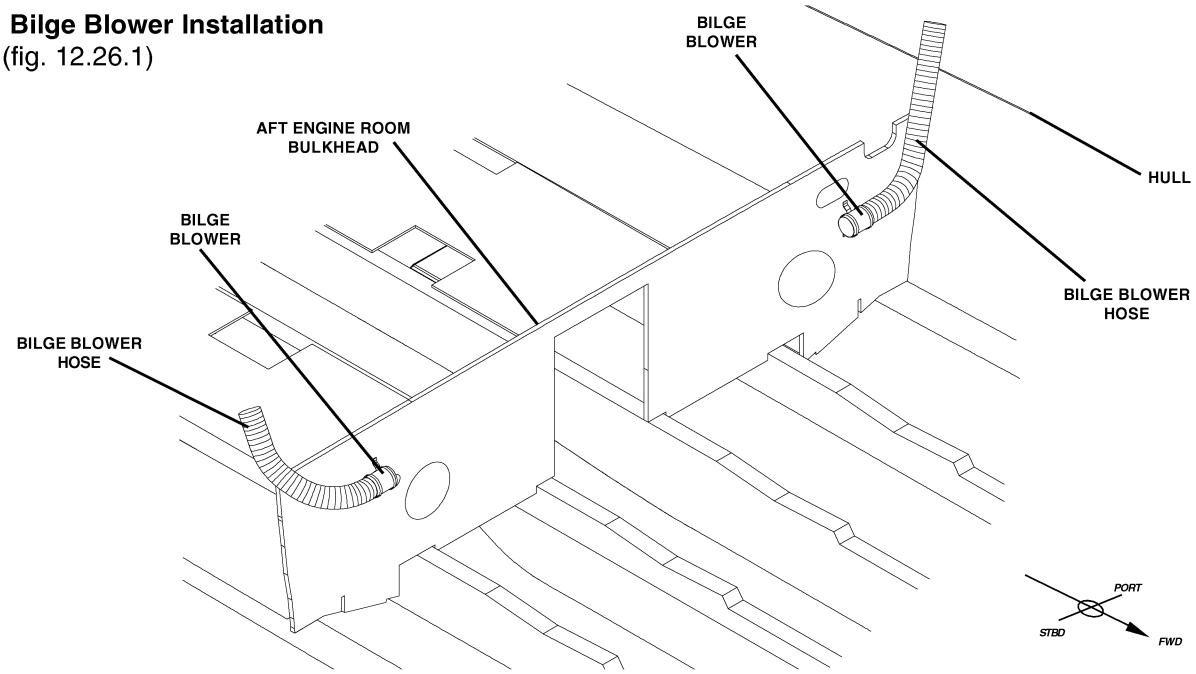
Lights On: When the blowers are turned ON, the lights in the switches will come on and stay on, indicating that the blowers are functioning correctly.

Lights Blinking: If the lights are blinking, it is an indication that one of the blower breakers has tripped. Reset the tripped breaker.

Lights Not On or Blinking: If you try to turn ON the blowers and no lights come on then both breakers are tripped and the switch is not receiving power. Reset the tripped breakers.

REFER TO "SECTION 2, BILGE & UNDERWATER GEAR" AND OWNER'S PACKET FOR OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS.

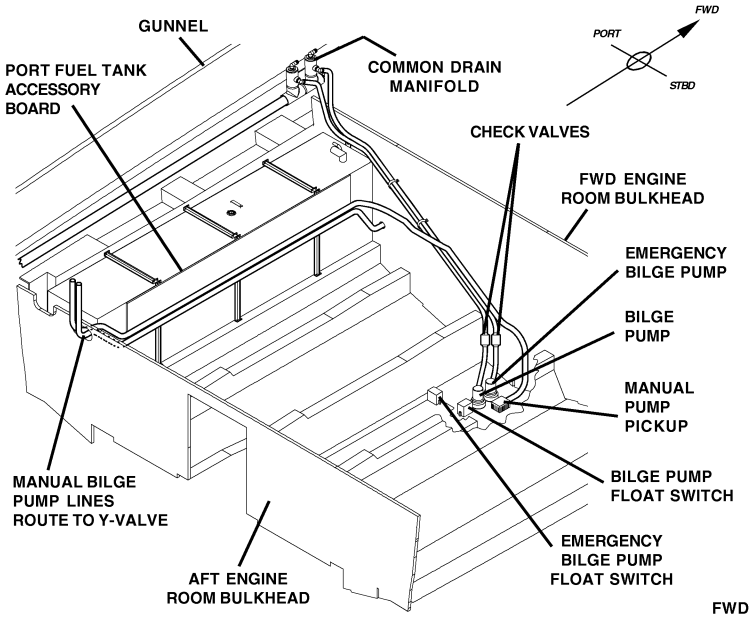
Bilge Blower Installation
(fig. 12.26.1)



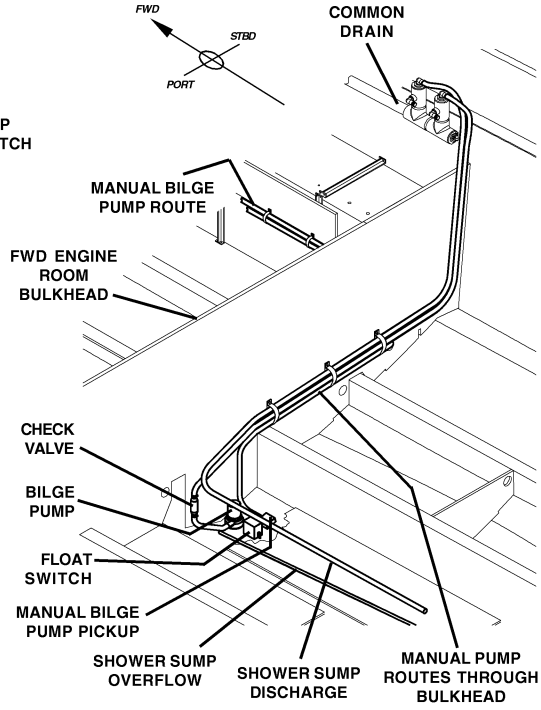
BILGE PUMPING SYSTEM

The 480 DB is equipped with an automatic bilge pump system.

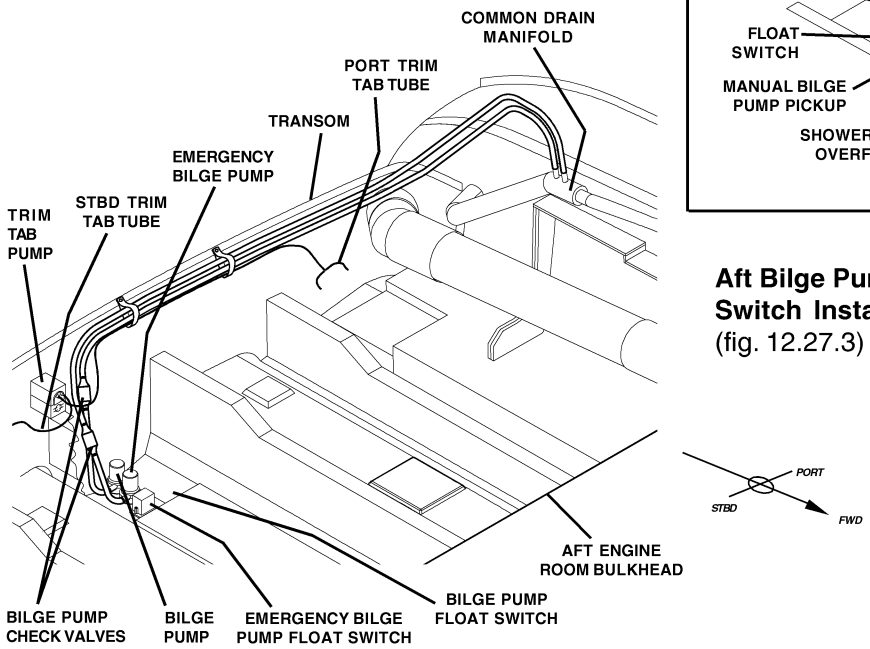
REFER TO THE OWNER'S MANUAL AND OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.



Forward Bilge Pump Installation
(fig. 12.27.1)



Forward Cabin Bilge Pump, Float Switch & Manual Pump Pickup (Opt) Installation
(fig. 12.27.2)



Aft Bilge Pump & Float Switch Installation
(fig. 12.27.3)

Manual Bilge Pump

(With International CE Option)

The manual bilge pump system is located under the cockpit steps.

To Operate:

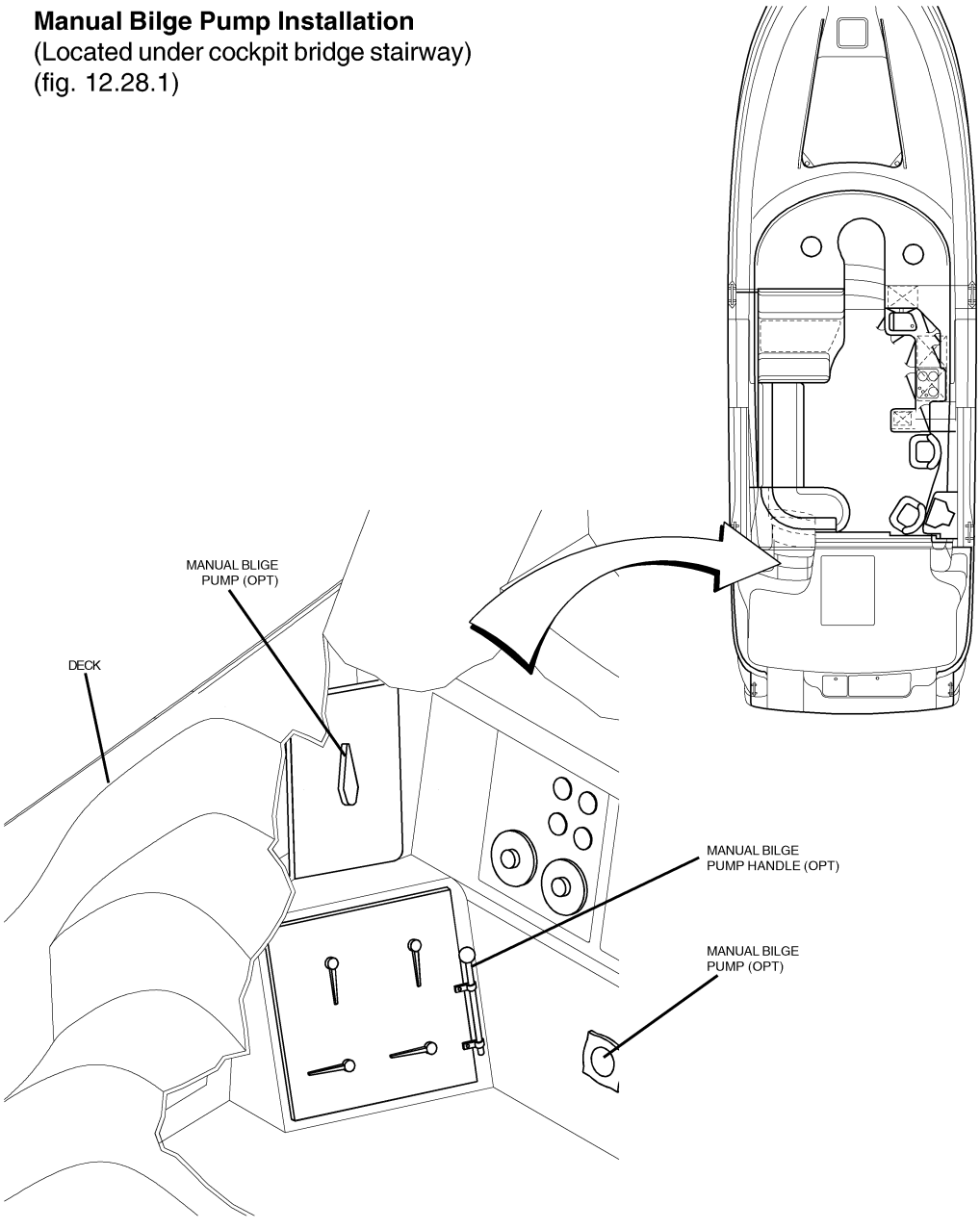
1. Rotate valve to select forward or aft pump.

2. Place handle into pump.

3. Move handle up and down to actuate pump.

REFER TO THE OWNER'S MANUAL, SECTION 2, FOR INSTRUCTIONS AND WARRANTY INFORMATION.

Manual Bilge Pump Installation
(Located under cockpit bridge stairway)
(fig. 12.28.1)

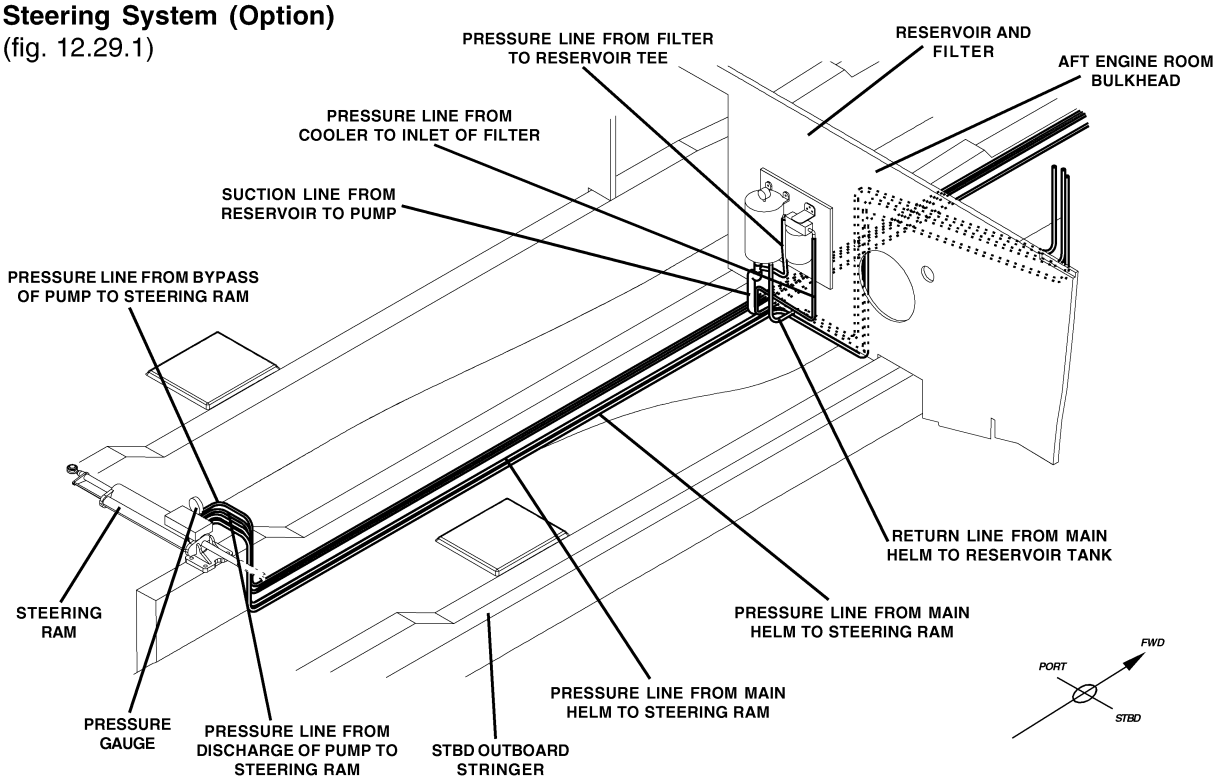


STEERING SYSTEM

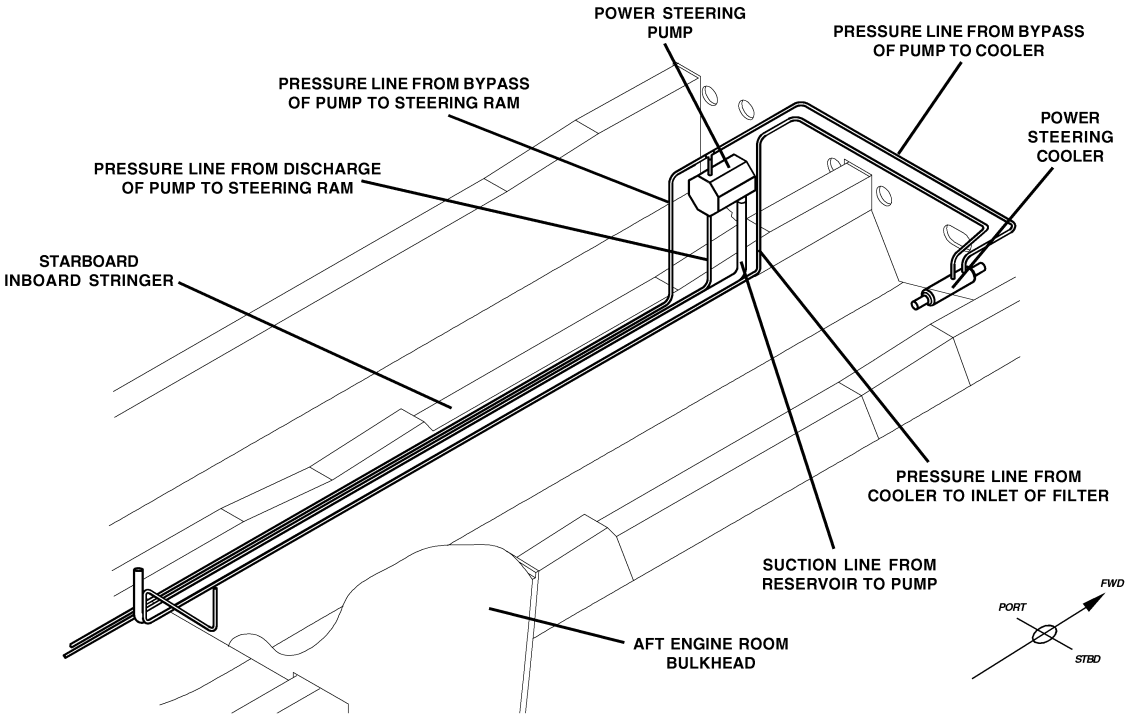
Your sport yacht maybe equipped with a hydraulic power steering system option with a tilt steering wheel. For information on the standard hydraulic steering system refer to *Section 3, Instruments and Controls.*

REFER TO THE ORIGINAL EQUIPMENT MANUAL IN THE OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.

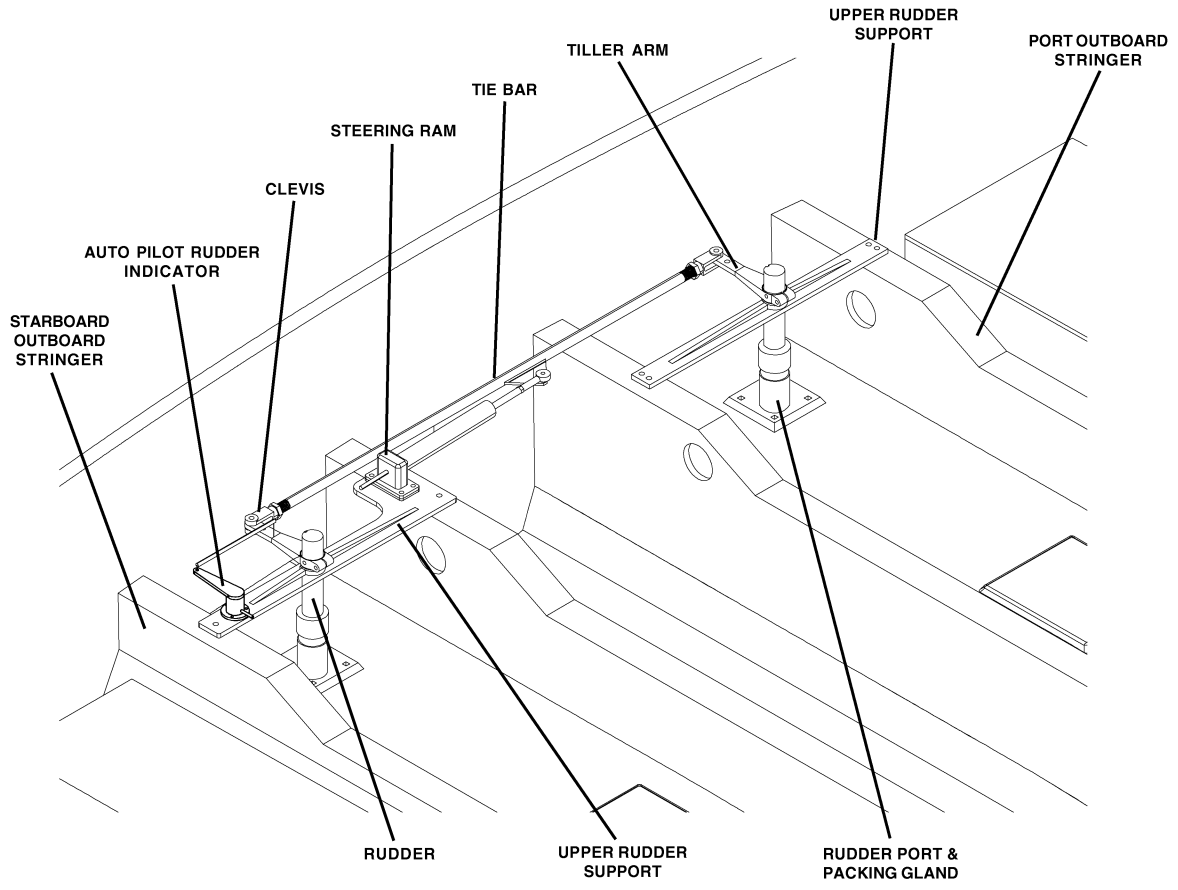
Steering System (Option)
(fig. 12.29.1)



(fig. 12.29.2)

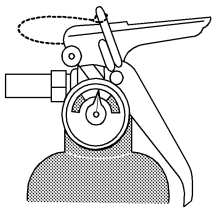


Rudder Arm, Tie Arm & Steering Ram Installation
(fig. 12.30.1)



Fire Extinguishing System

(FIG.12.31.1)



The 480 DB is offered with the standard automatic fire extinguishing system. Your boat also needs to be equipped with approved portable fire extinguishers. It is your responsibility to equip and maintain fire extinguishers.

Following are United Sates Coast Guard (USCG) requirements and American Boat & Yacht Council (ABYC) recommendations for boats not equipped with the automatic fire extinguishing system option for boats over 40 feet (12.2 meters) but less than 65 feet (19.8 meters).

⚠ WARNING

- **In case of fire DO NOT open engine compartment.**
- **Shut down engines, generator and blowers.**

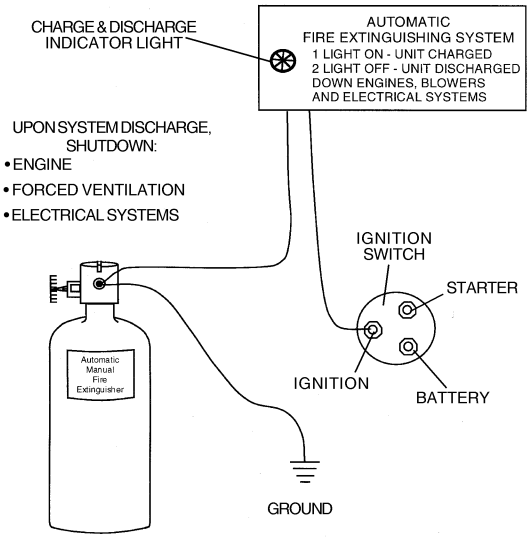
Standard	Boat	No Fixed System Qty.	W/Approved Fixed System Qty.	Type
USCG	480 DB	3	2	B1
ABYC	480 DB	4	3	B1

Location: Outside engine compartment, steering postion,crews quarters and galley, or passenger cockpit.

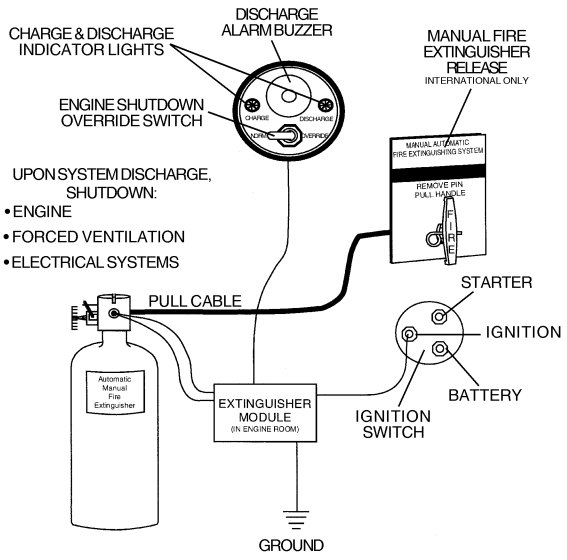
Note: To be ABYC compliant Sea Ray Boats, Inc. follows ABYC construction standards and recommendations.

REFER TO OWNER'S MANUAL AND OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.

Automatic Fire Extinguisher System (Gas System) (FIG. 12.31.2)



Automatic Fire Extinguisher System (Diesel System) (FIG. 12.31.3)



AUTOMATIC FIRE EXTINGUISHER SYSTEM

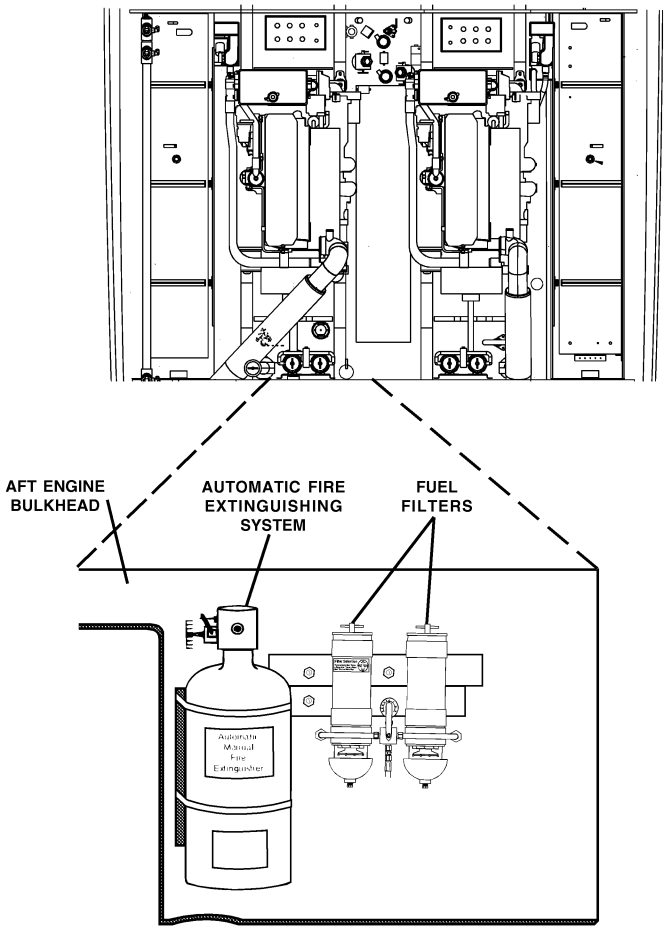
The system is installed forward of the engines on the bulkhead. In the event of a fire, the heat sensitive automatic head will release the extinguishant as a vapor, totally flooding the area in fire-killing concentrations. The system indicator light is wired to the ignition and is turned ON when the ignition is turned ON.

The system incorporates an engine shutdown switch with override system.

The indicator light, located on the control station instrument panel, indicates to the helmsman when the unit has discharged. Under normal circumstances, when the engines are operating, the indicator light is lit. If the unit discharges, the light will go out.

WHEN ACTUATION OCCURS, IMMEDIATELY SHUT DOWN ALL ENGINES, POWERED VENTILATION, ELECTRICAL SYSTEMS AND EXTINGUISH ALL SMOKING MATERIALS. DO NOT OPEN THE ENGINE COMPARTMENT IMMEDIATELY!! THIS FEEDS OXYGEN TO THE FIRE AND FLASHBACK COULD OCCUR.

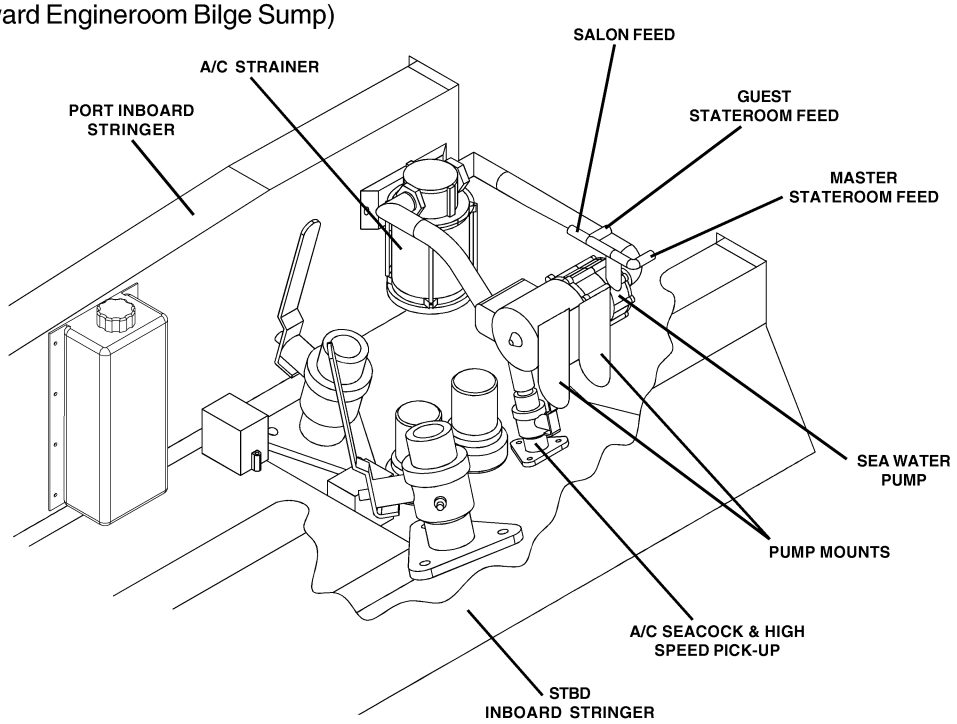
Automatic Fire Extinguisher Installation
(View Looking Aft) (fig. 12.32.1)



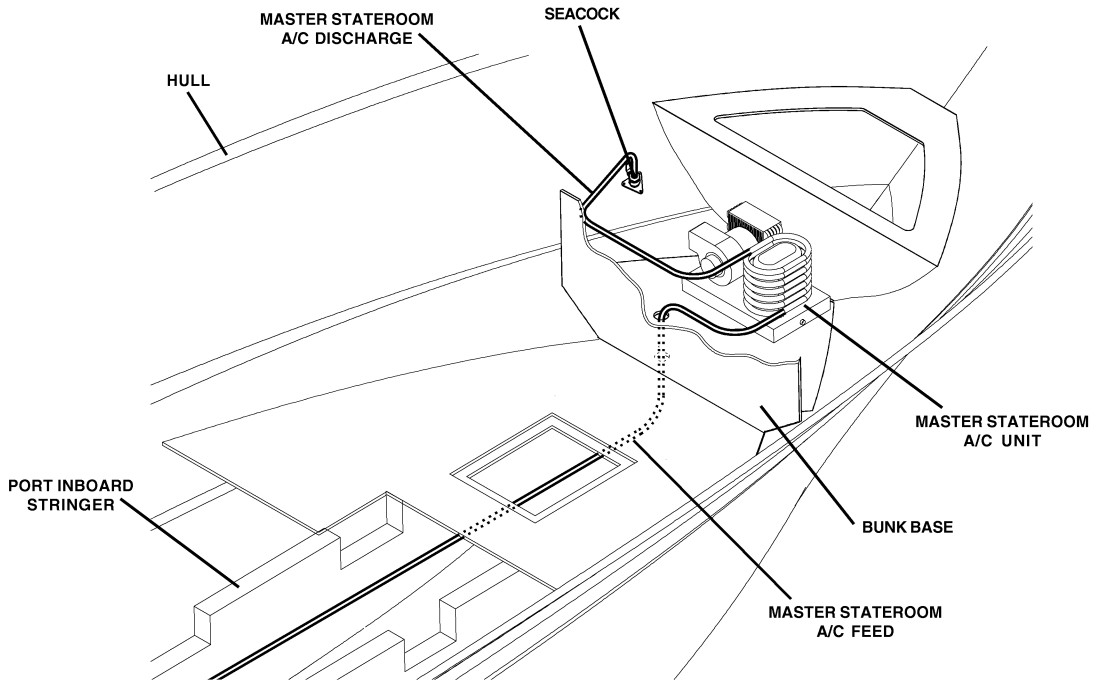
Air Conditioning and Heating System information can be found in Section 8 • *Accessories* of the owner's manual.

REFER TO THE OWNER'S MANUAL AND OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.

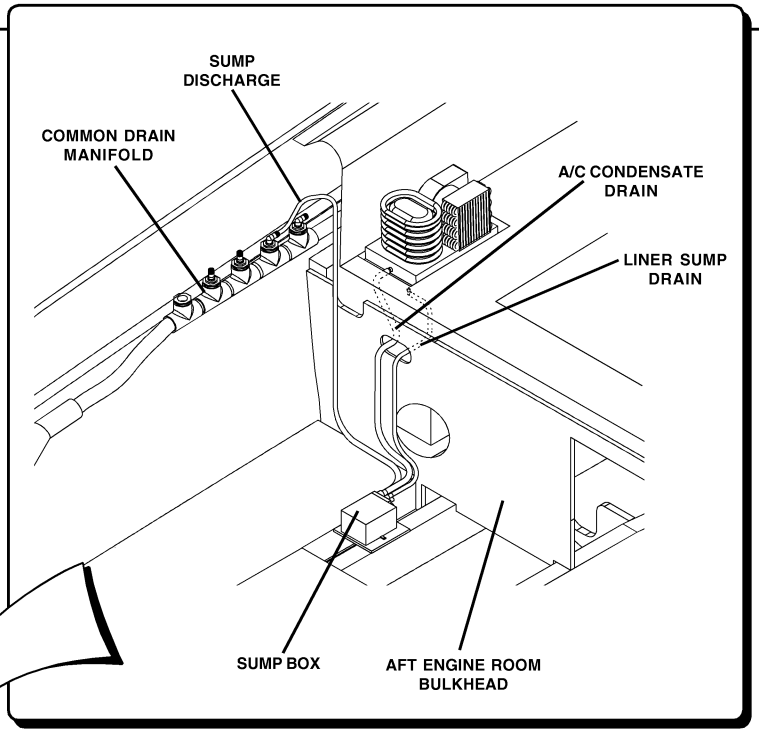
Air Conditioning Water Cooling Pump Strainer & Seacock
(Located In Forward Engineroom Bilge Sump)
(fig. 12.33.1)

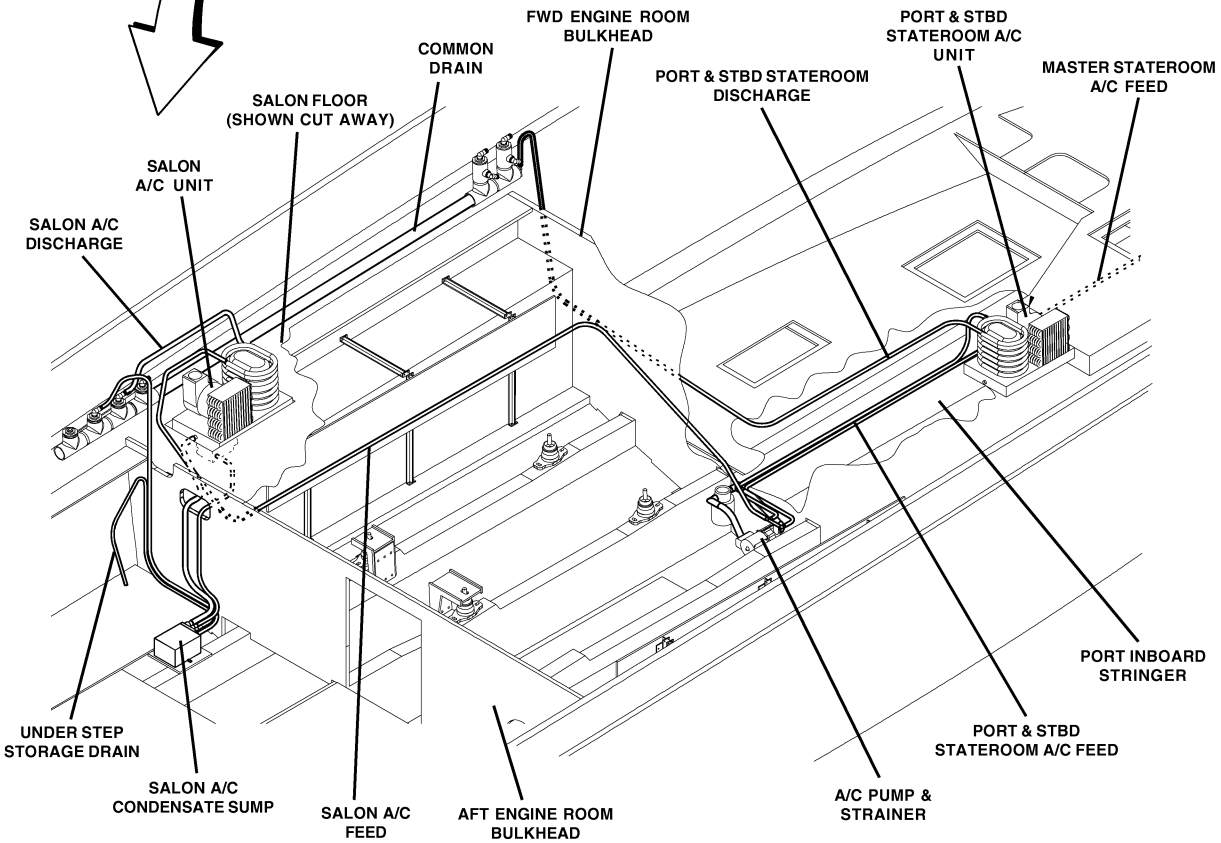


Air Conditioning Hose Routing
(fig. 12.33.2)

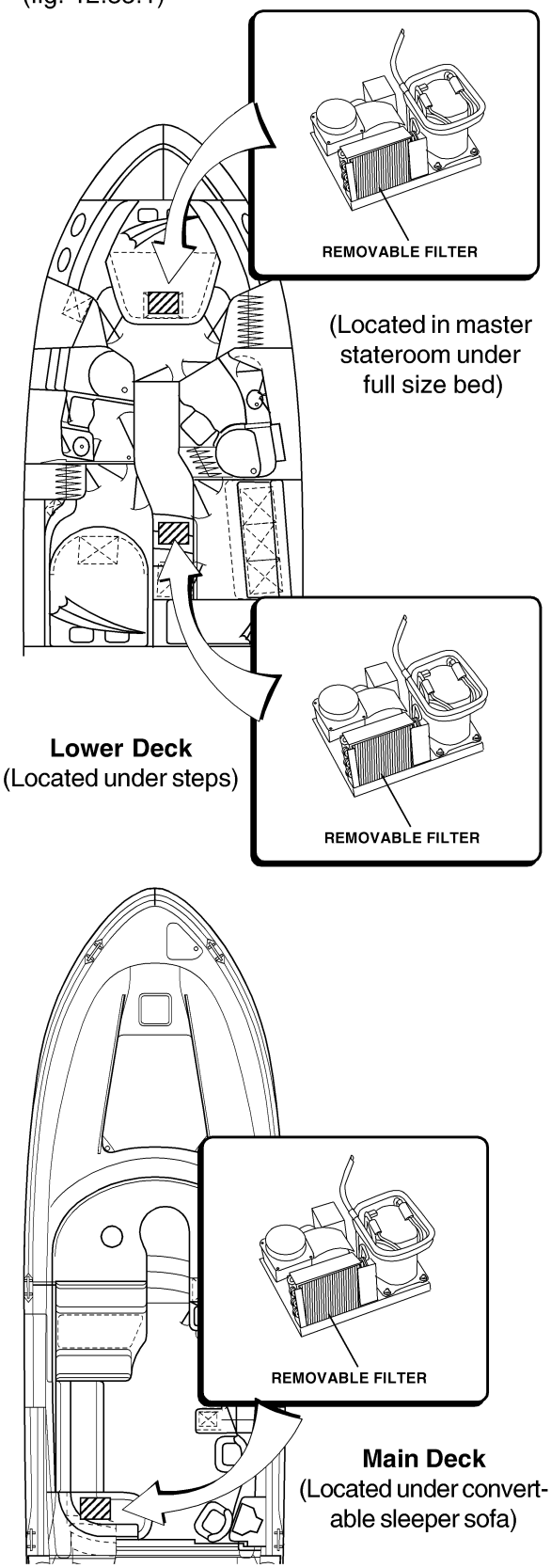


Air Conditioning Hose Routing
(fig. 12.34.1)





Air Conditioning Hose Routing
(fig. 12.35.1)



Engine Cooling System

The engine cooling system is an integral part of the propulsion system. The cooling system utilizes a seacock and strainer to provide seawater to each engine.

REFER TO THE ENGINE OWNER'S MANUAL, OWNER'S MANUAL SECTION 2 AND THE BILGE LAYOUT IN THIS SUPPLEMENT FOR LOCATIONS, INSTRUCTIONS AND WARRANTY INFORMATION.

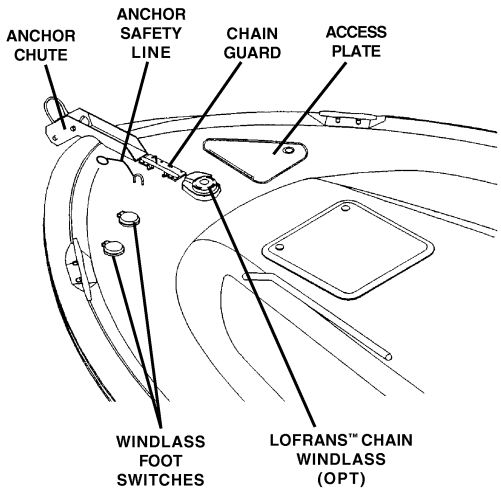
Anchoring

To anchor, bring the bow into the wind or current and put the engine in neutral. When the vessel comes to a stop, lower, do not throw, the anchor over the bow. The anchor line should be 5 to 7 times the depth of water.

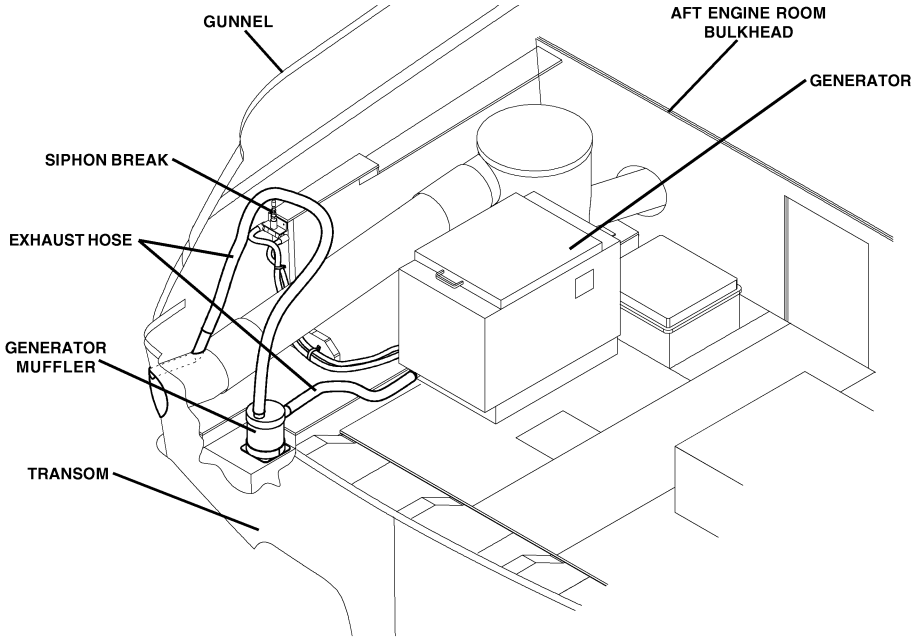
Anchoring Arrangement

The 480 DB is equipped with a windlass and an anchor chute. Stow the anchor in the chute when not in use. Note: Before using the anchor, be sure the anchor safety line is removed from the anchor and the anchor is secured to the windlass chain.

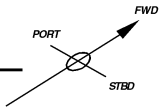
Lofrans™ Windlass (Opt)
(fig. 12.35.2)

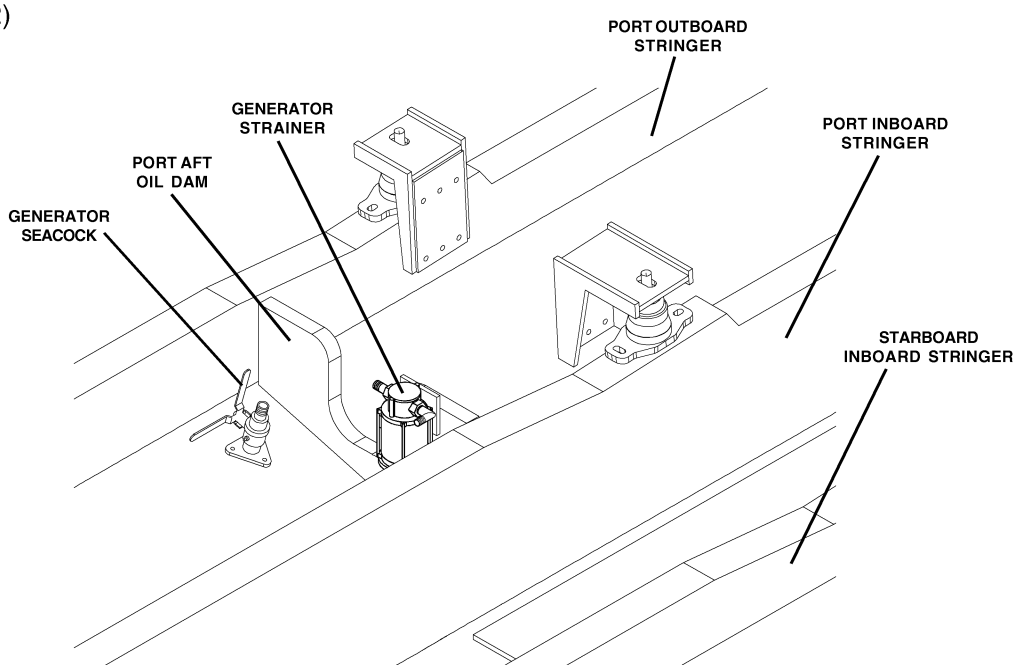


Generator Installation
(fig. 12.36.1)



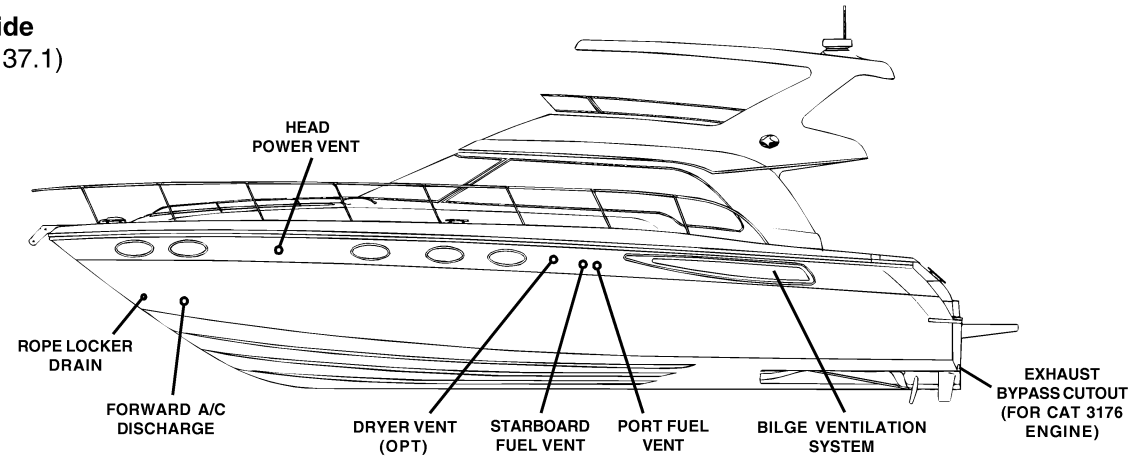
Generator Seacock & Strainer Installation
(fig. 12.36.2)



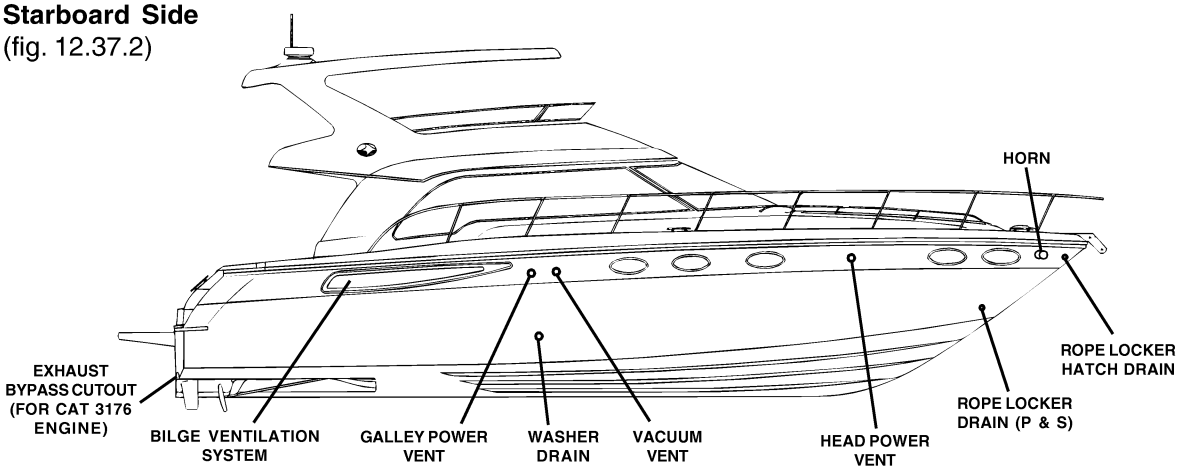


Location of Through-Hull Fittings

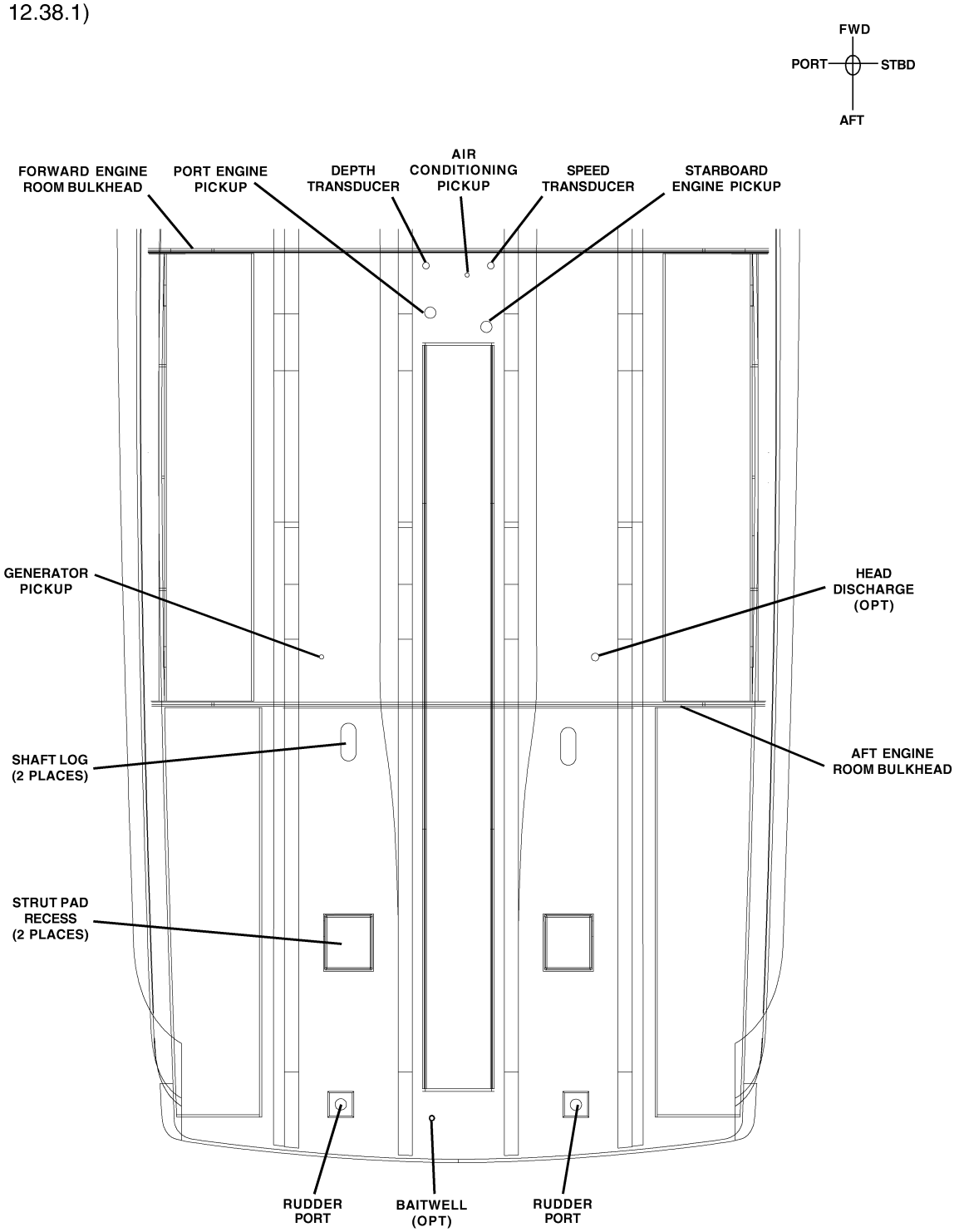
Port Side
(fig. 12.37.1)



Starboard Side
(fig. 12.37.2)

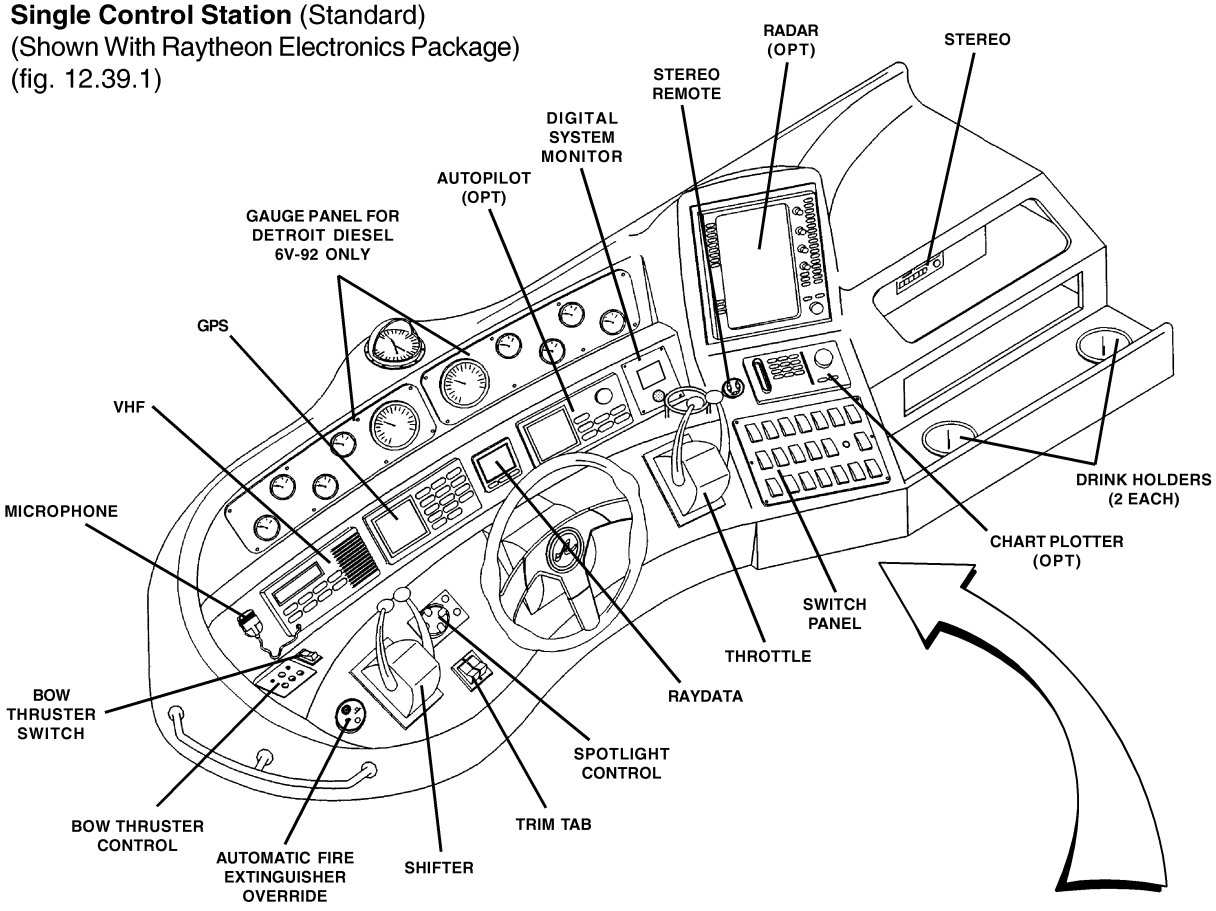


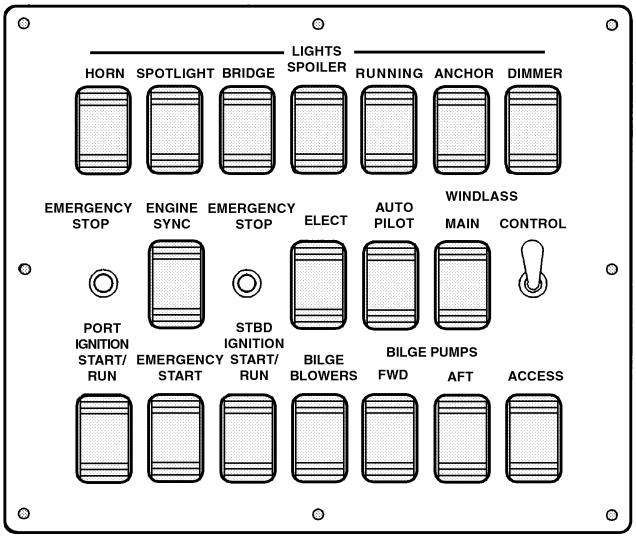
Bilge Hull Cutouts
(fig. 12.38.1)



Control Station Layout

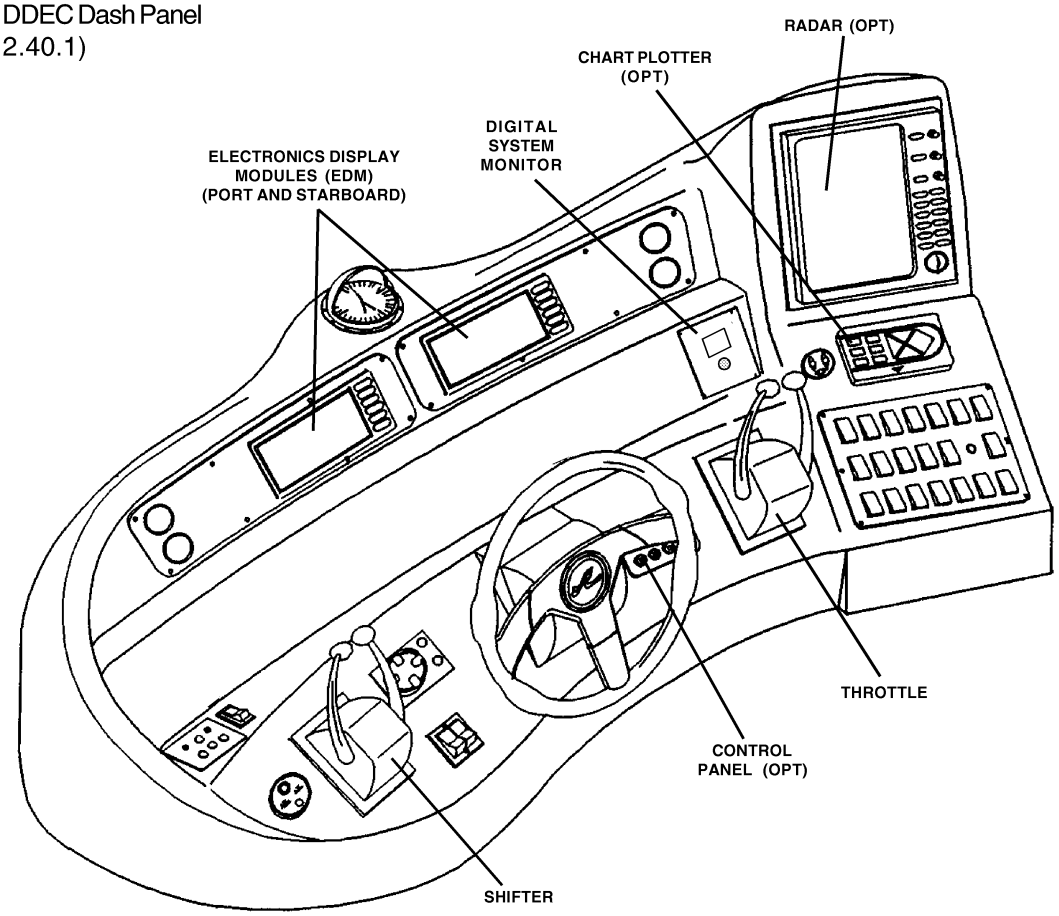
Single Control Station (Standard)
(Shown With Raytheon Electronics Package)
(fig. 12.39.1)





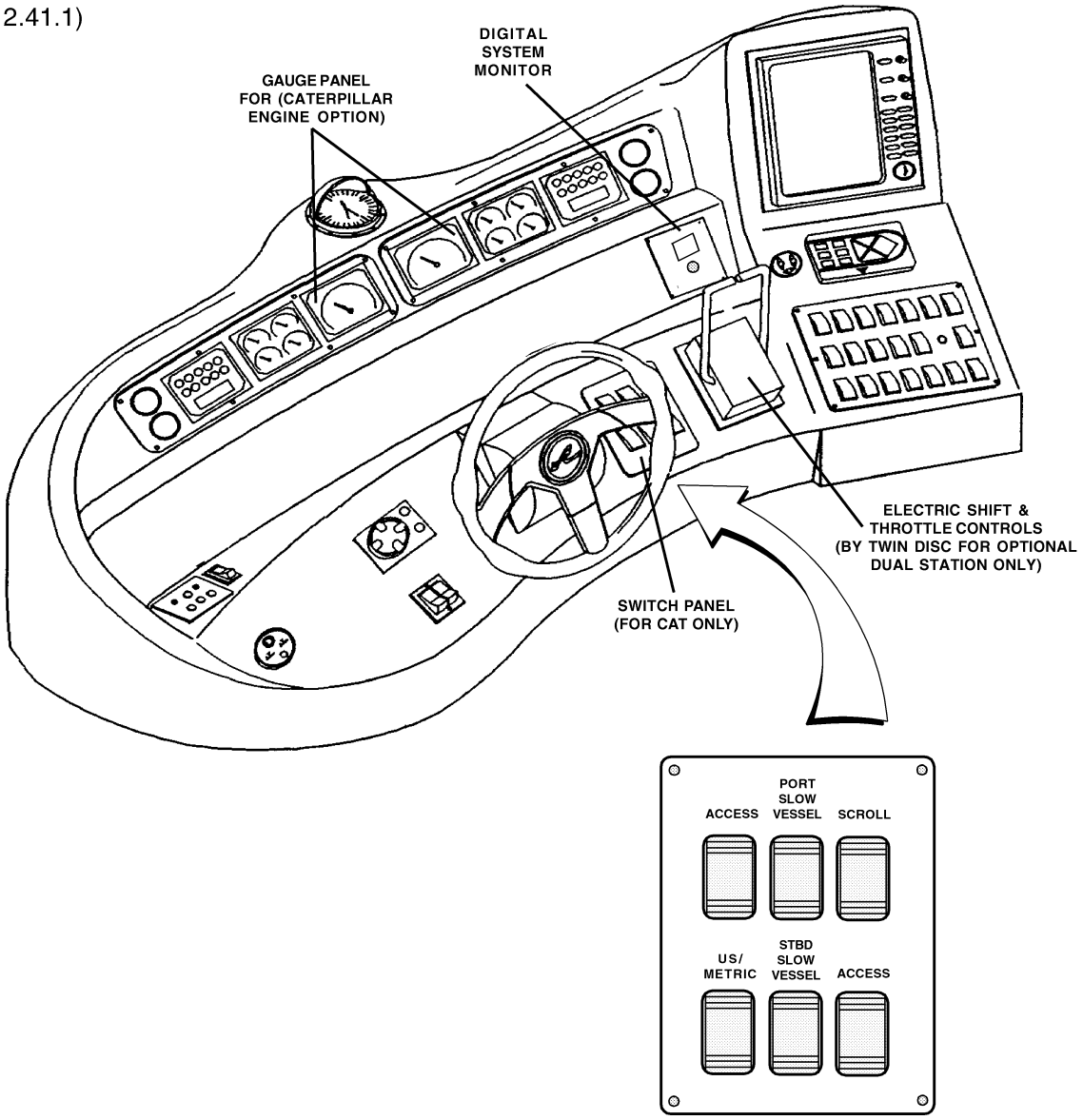
Control Station Layout

(Optional) Detroit Electronic Display Module (EDM) DDEC Dash Panel
(fig. 12.40.1)

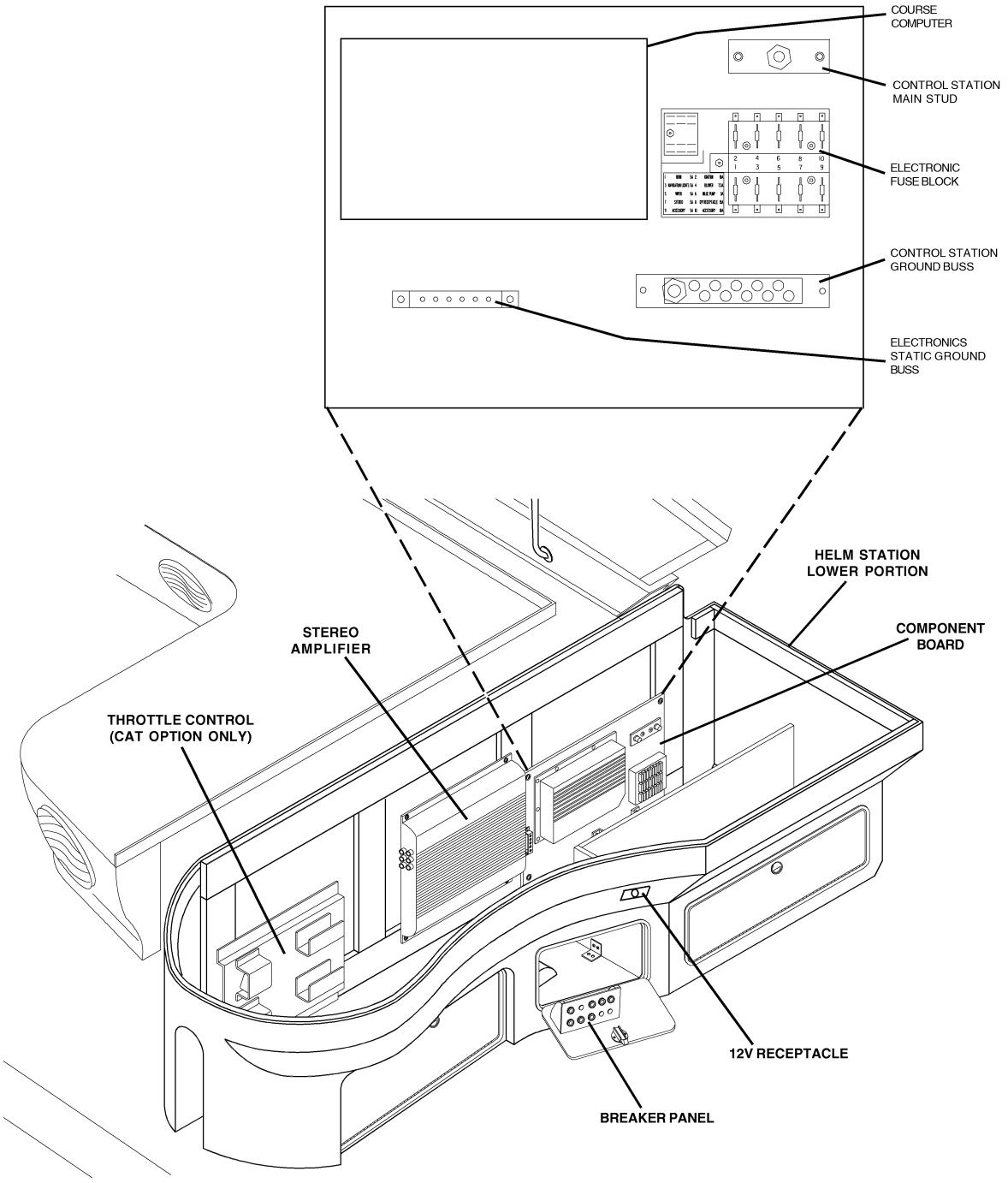


Control Station Layout

(Optional) Control Station Caterpillar®
EMS Dash Panel
(fig. 12.41.1)

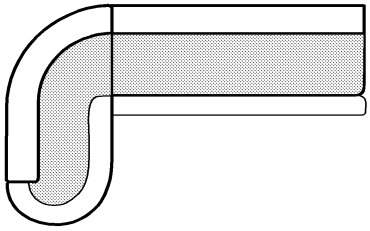


Control Station Accessory Locations
(Inside Control Station Base)
(fig. 12.42.1)

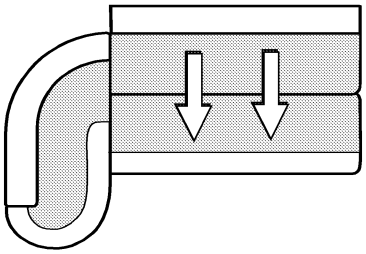


To convert the salon sofa to sleeping position:

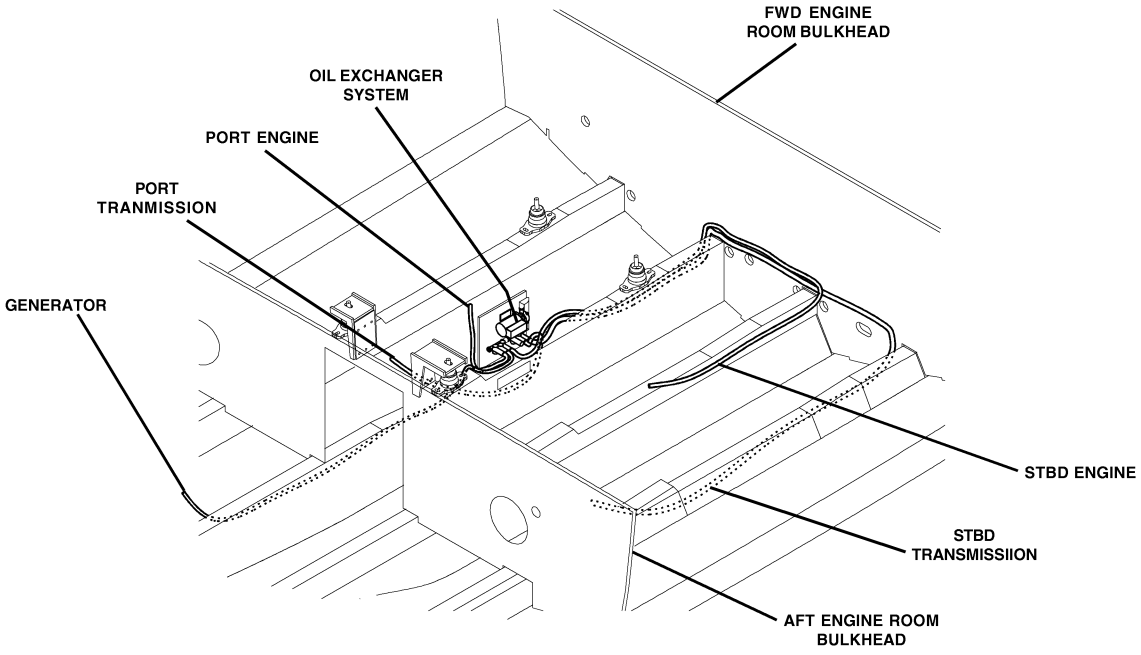
1. Salon sofa in normal position with sleeper in stowed position. (figure 12.43.1)



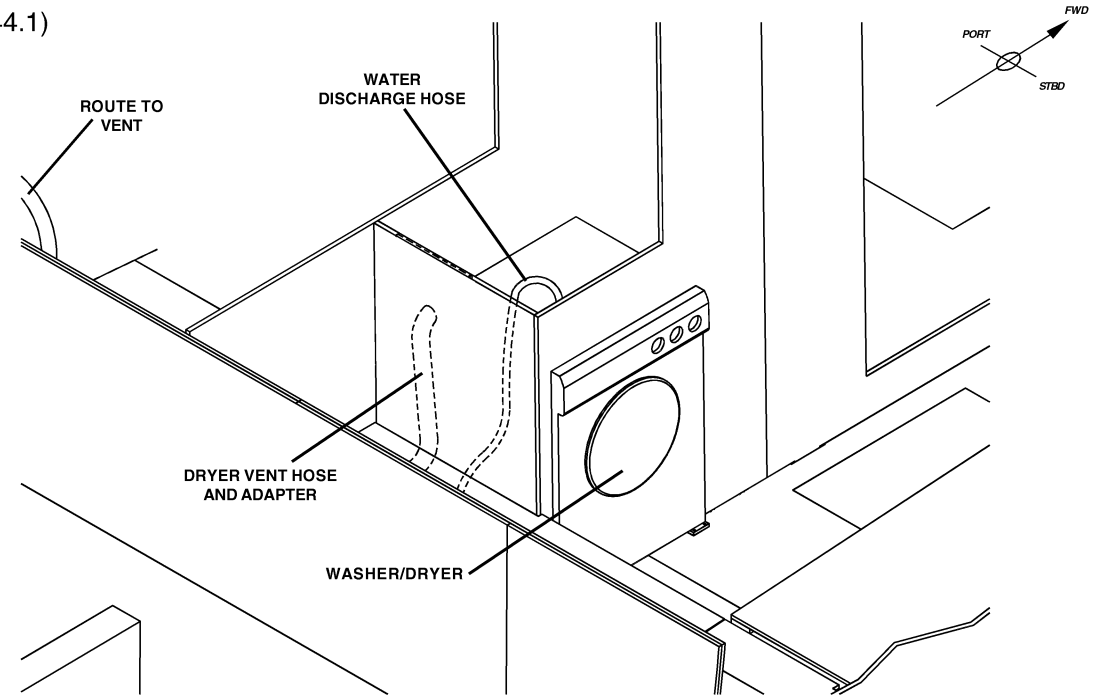
2. Salon sofa in sleeping position. (The switch to convert sofa is port of entrance.) (figure 12.43.2)



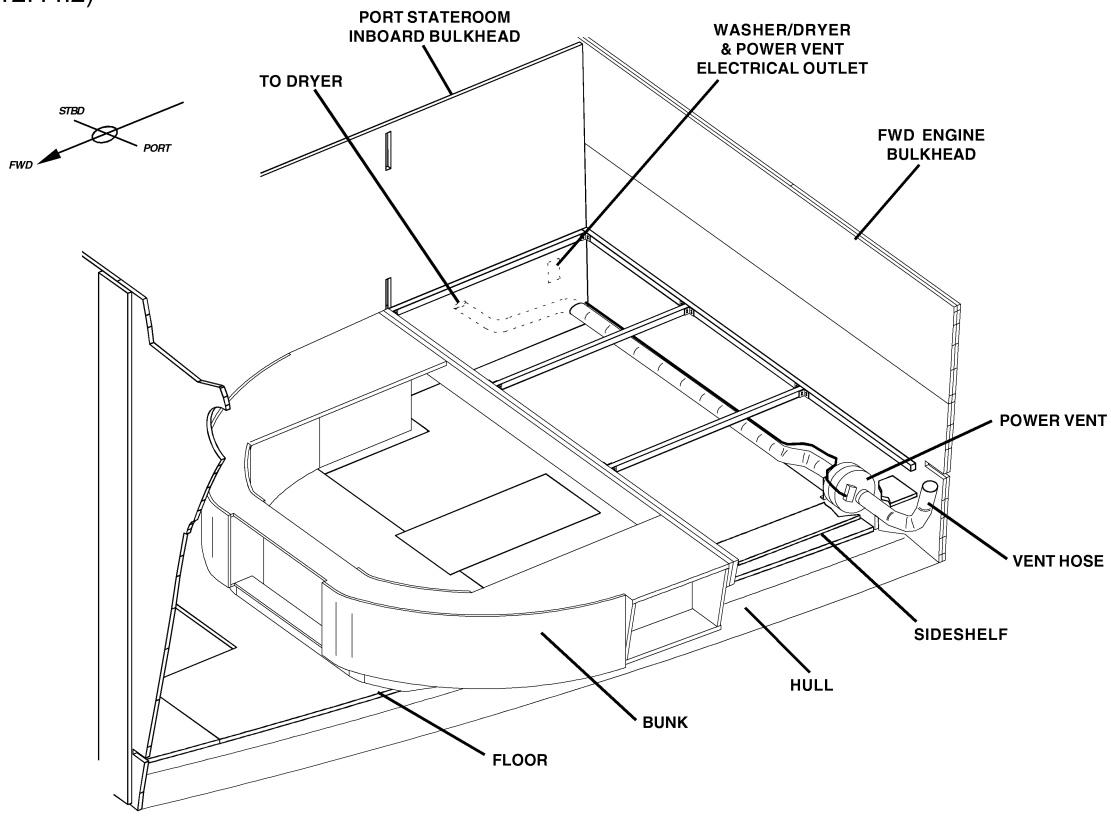
Oil Exchanger System Hose Routing
(Refer To Owner's Manual Section 8 For Operating Instructions) (fig. 12.43.3)



Starboard Stateroom Washer/Dryer & Access Door Installation
(fig. 12.44.1)



Starboard Stateroom Washer/Dryer Power Vent & Hose Location
(fig. 12.44.2)

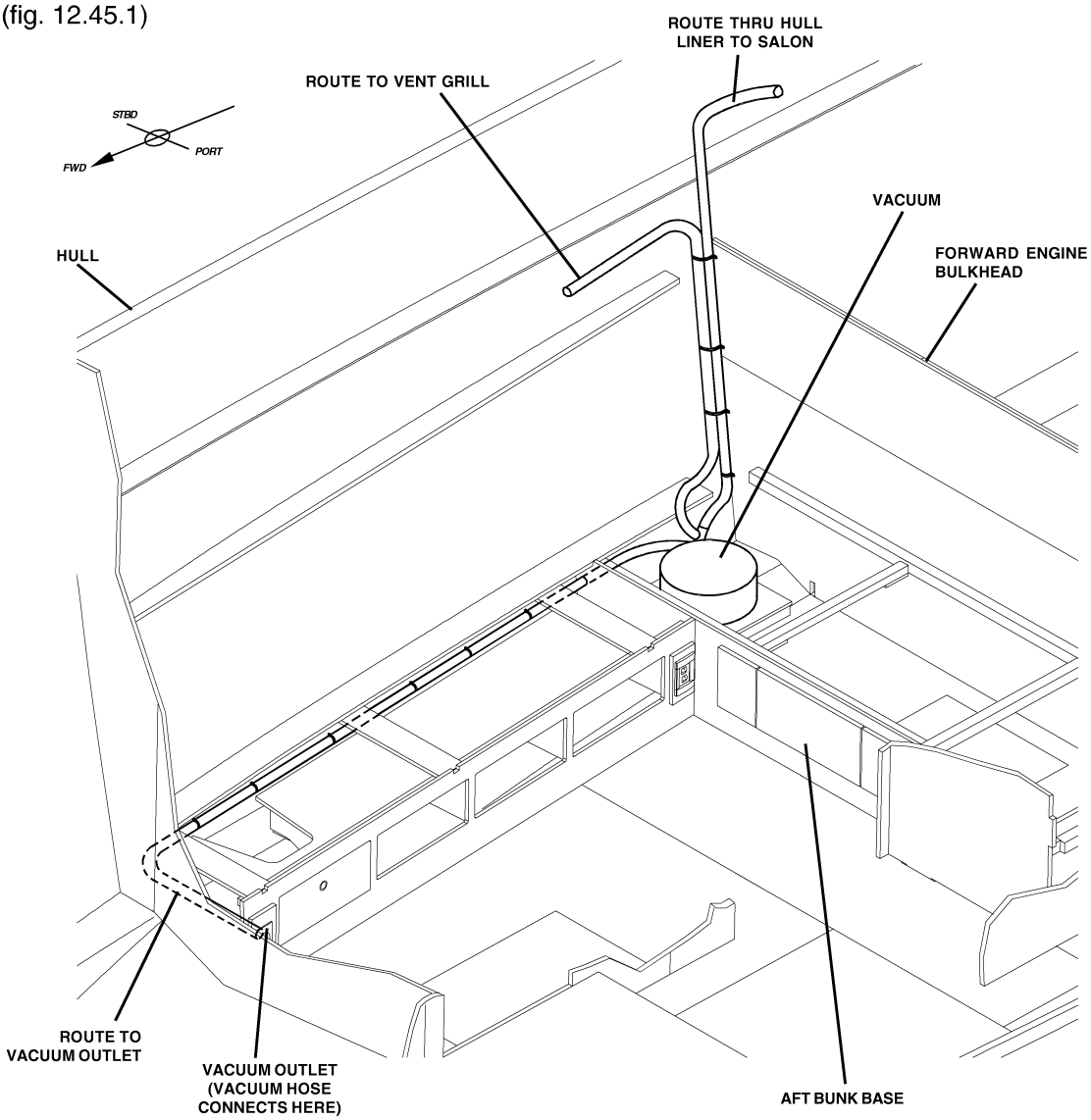


Central Vacuum System

The central vacuum unit is located under the starboard stateroom outboard aft end of bunk. The “STBD SYSTEMS” breaker must be ON to operate the system. The 24 foot hose connects to the inlet located in the base of the stateboard stateroom bunk base. The built in switch in the hose inlet fitting activates the vacuum when the hose is plugged in.

REFER TO THE OWNER’S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.

Central Vacuum System Installation
(fig. 12.45.1)



Canvas Information

Canvas

REFER TO OWNER'S MANUAL PACKET FOR CANVAS MANUFACTURER INSTRUCTIONS AND WARRANTY INFORMATION.

Attached to the inside of the bimini top is a DANGER tag for Carbon Monoxide Gas (CO) buildup and a WARNING tag for excessive speeds while canvas is installed. The Aft Curtain also has a WARNING tag stating "The Aft Curtain is not designed to be used while engine is running or boat is underway". If your canvas does not have these tags, they become lost or are unable to be read, contact your dealer for replacement lables.

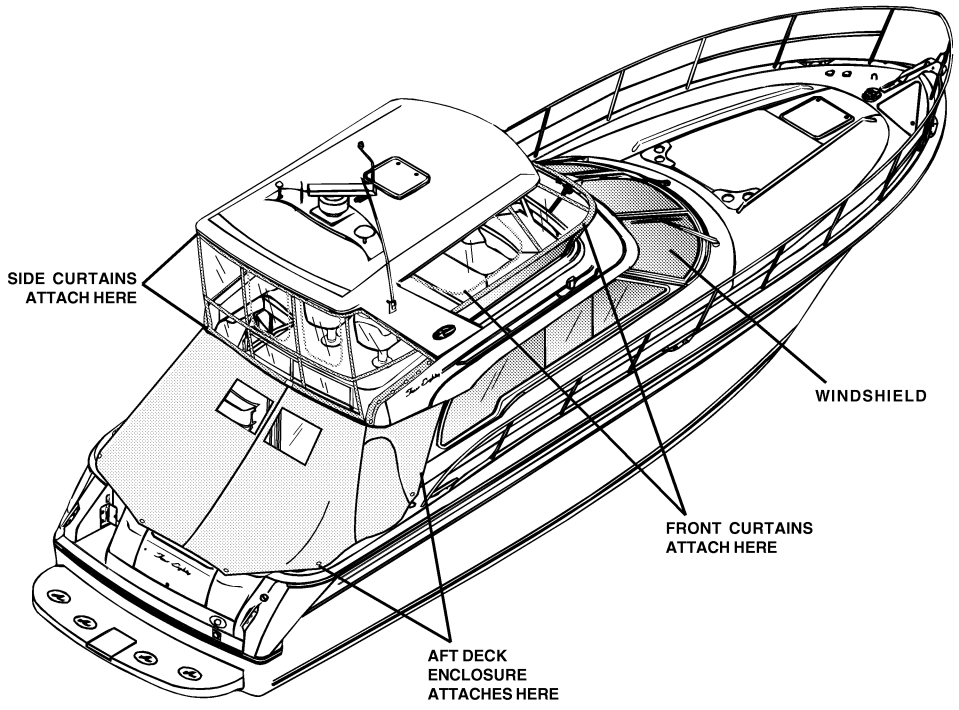
Your Sea Ray® boat standard canvas set consists of the following pieces:

Canvas Package:
- Aft Cover
- Bimini Enclosure
- Windshield Cover
- Canvas Storage Bag

Sport Yacht Canvas Package

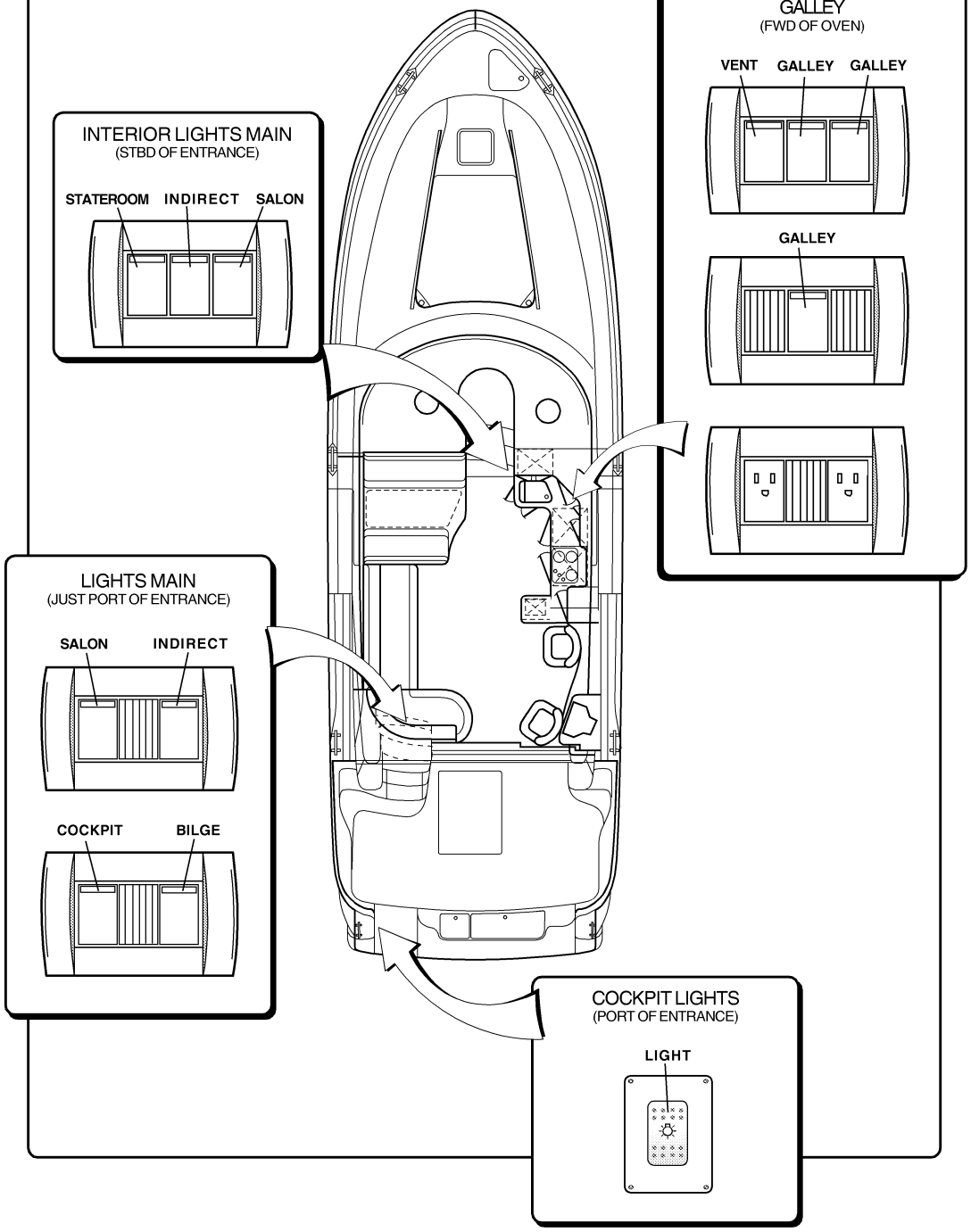
(Note: Your Sport Yacht May Not Be Equipped With All Of The Canvas Shown)

(fig. 12.46.1)

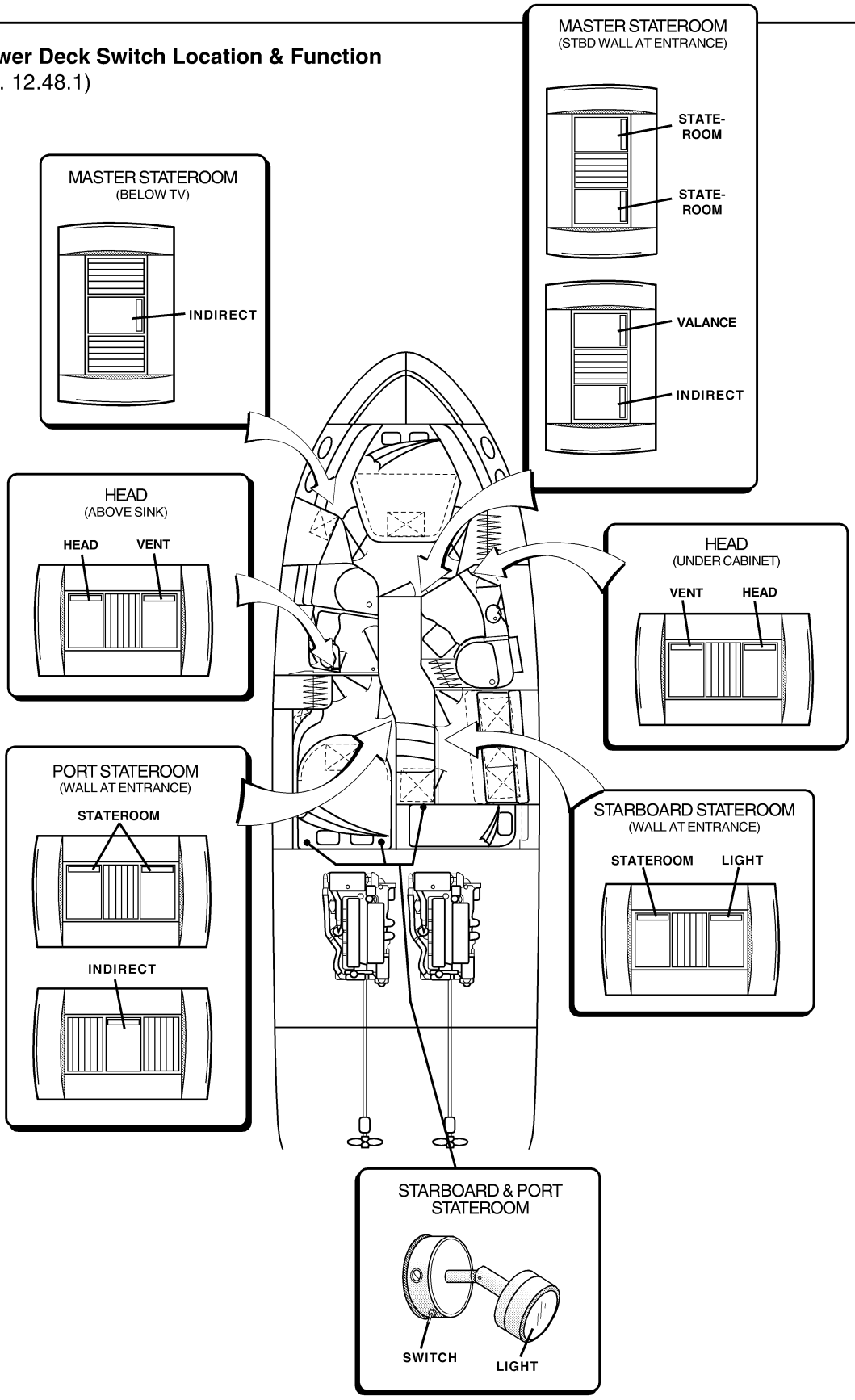


CABIN & COCKPIT SWITCH LOCATION & FUNCTION

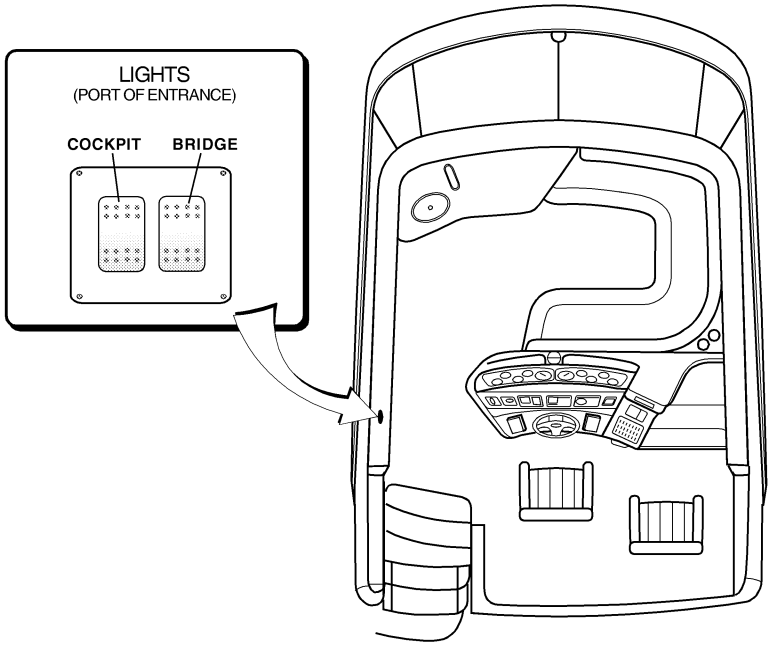
Main Deck
(fig. 12.47.1)



Lower Deck Switch Location & Function
(fig. 12.48.1)



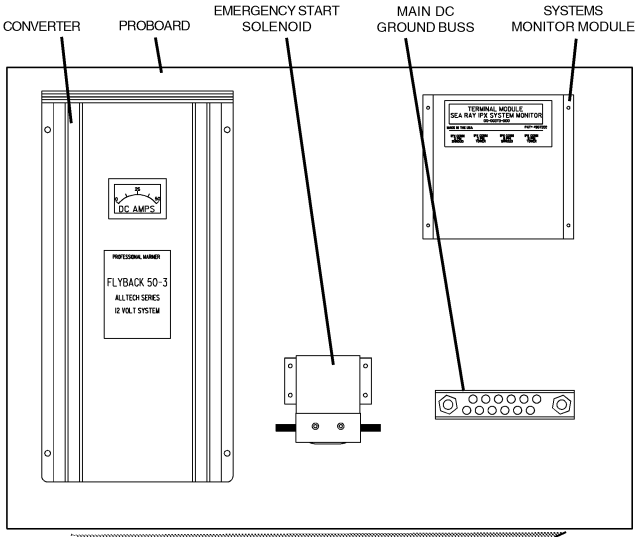
Bridge Area Switch Location & Function
(fig. 12.49.1)



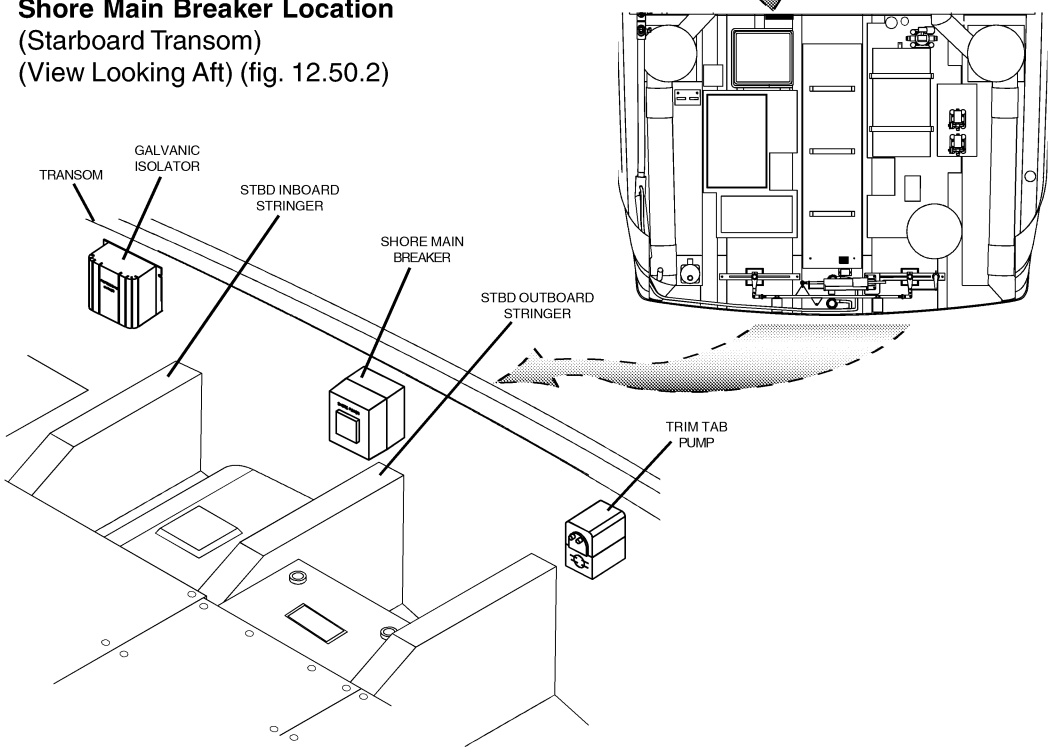
Electrical Installations

This owner's manual supplement contains electrical schematics for your boat. These electrical schematics were generated by technicians at the engineering division for technical reference and service technicians. Sea Ray® does not recommend that you attempt to work on the boat's electrical system yourself. Instead we recommend that you take your boat to your authorized Sea Ray® dealer for service. Sea Ray® reserves the right to change or update the electrical system on any model at any time without notice to the consumer and is NOT obligated to make any updates to units built prior to changes.

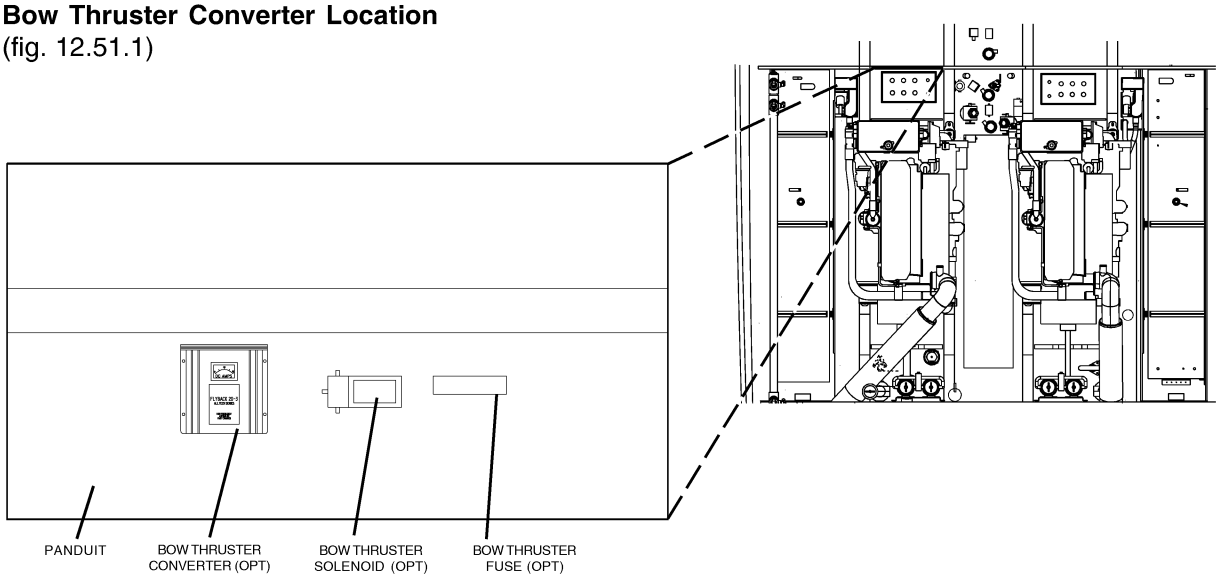
Bilge Component Board
(fig. 12.50.1)



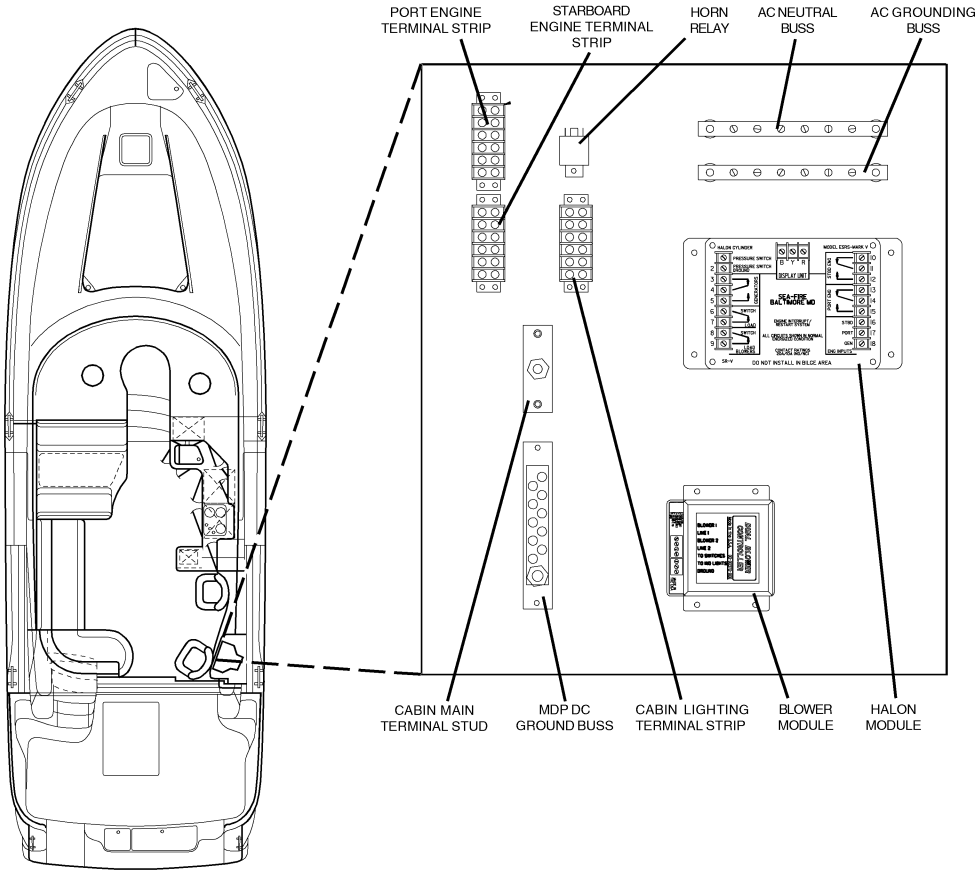
Shore Main Breaker Location
(Starboard Transom)
(View Looking Aft) (fig. 12.50.2)



Bow Thruster Converter Location
(fig. 12.51.1)



MDP Components Board Location
Behind Main Distribution Panel (MDP)
(fig. 12.51.2)



BATTERY

Refer to the owner's manual for battery disconnect and maintenance.

Battery Specifications:
Group: 8-D
Cold Cranking Amps: 1400 Volts
Reserve Capacity: 435 Minutes

Sea Ray® recommended batteries are available through your Sea Ray® dealer.

ALWAYS DISCONNECT BATTERY CABLES BEFORE DOING ANY WORK ON THE ENGINE'S ELECTRICAL SYSTEM OR ALTERNATOR WIRING TO PREVENT ARCING OR DAMAGE TO THE ALTERNATOR.

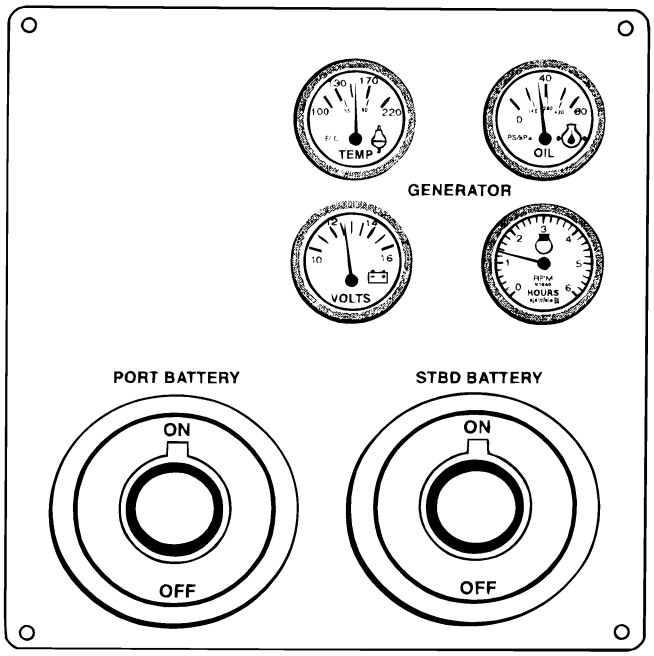
⚠ CAUTION

While the engine is running, the battery terminal clamps must not be loosened or detached nor should the battery switch(es) be turned off, otherwise the alternator and other electronic units will be damaged.

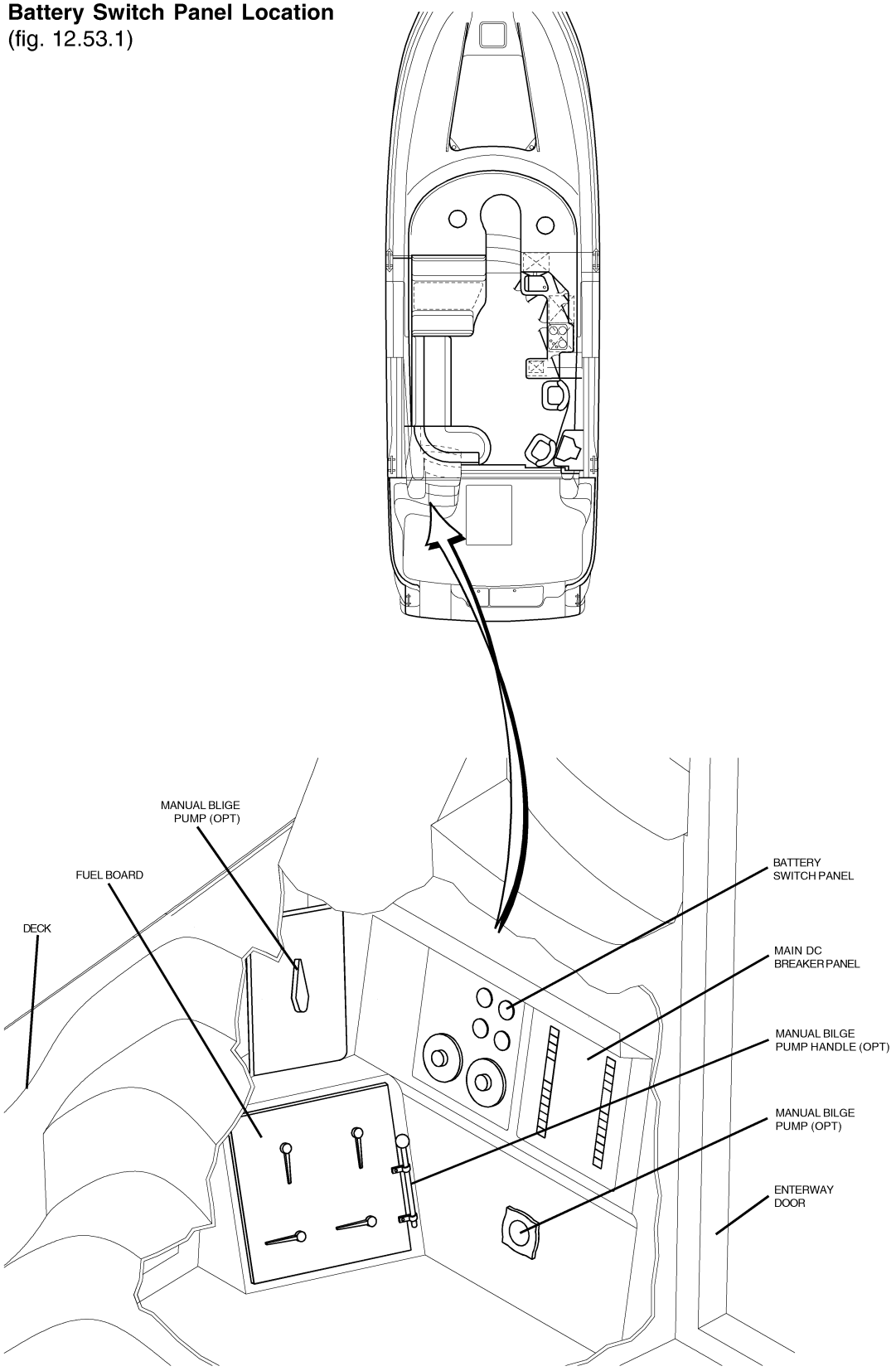
⚠ DANGER

- **Never use an open flame in the battery storage area.**
- **Avoid striking sparks near the battery.**
- **A battery will explode if a flame or spark ignites the free hydrogen given off during charging.**

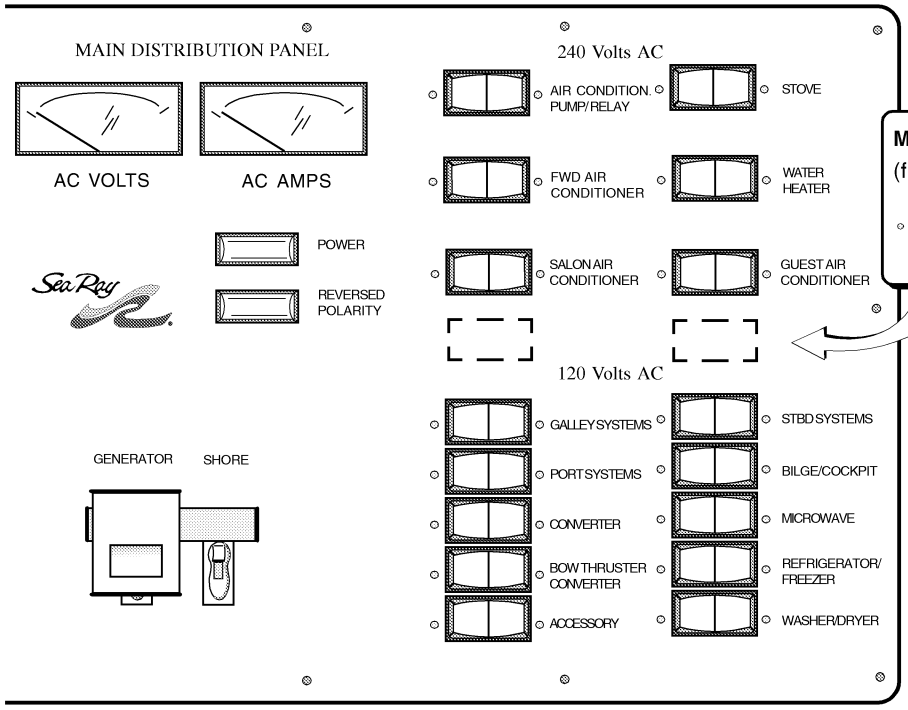
Battery Switch Panel
(fig. 12.52.1)



Battery Switch Panel Location
(fig. 12.53.1)



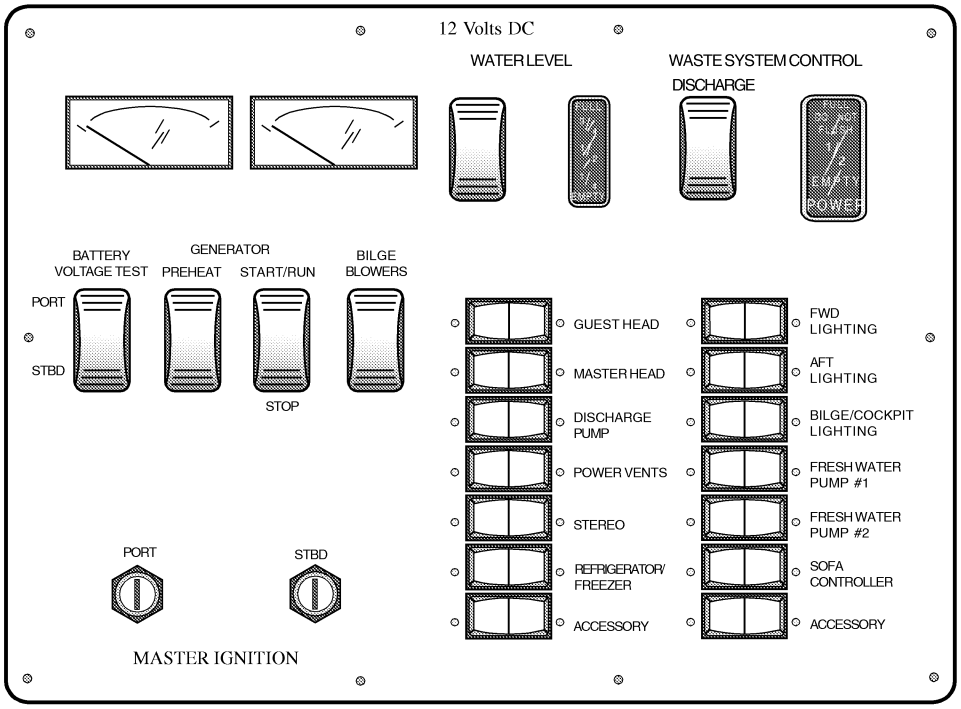
AC & DC Main Distribution Panels



MDP (240 VAC Bridge A/C Option)
(fig. 12.54.2)

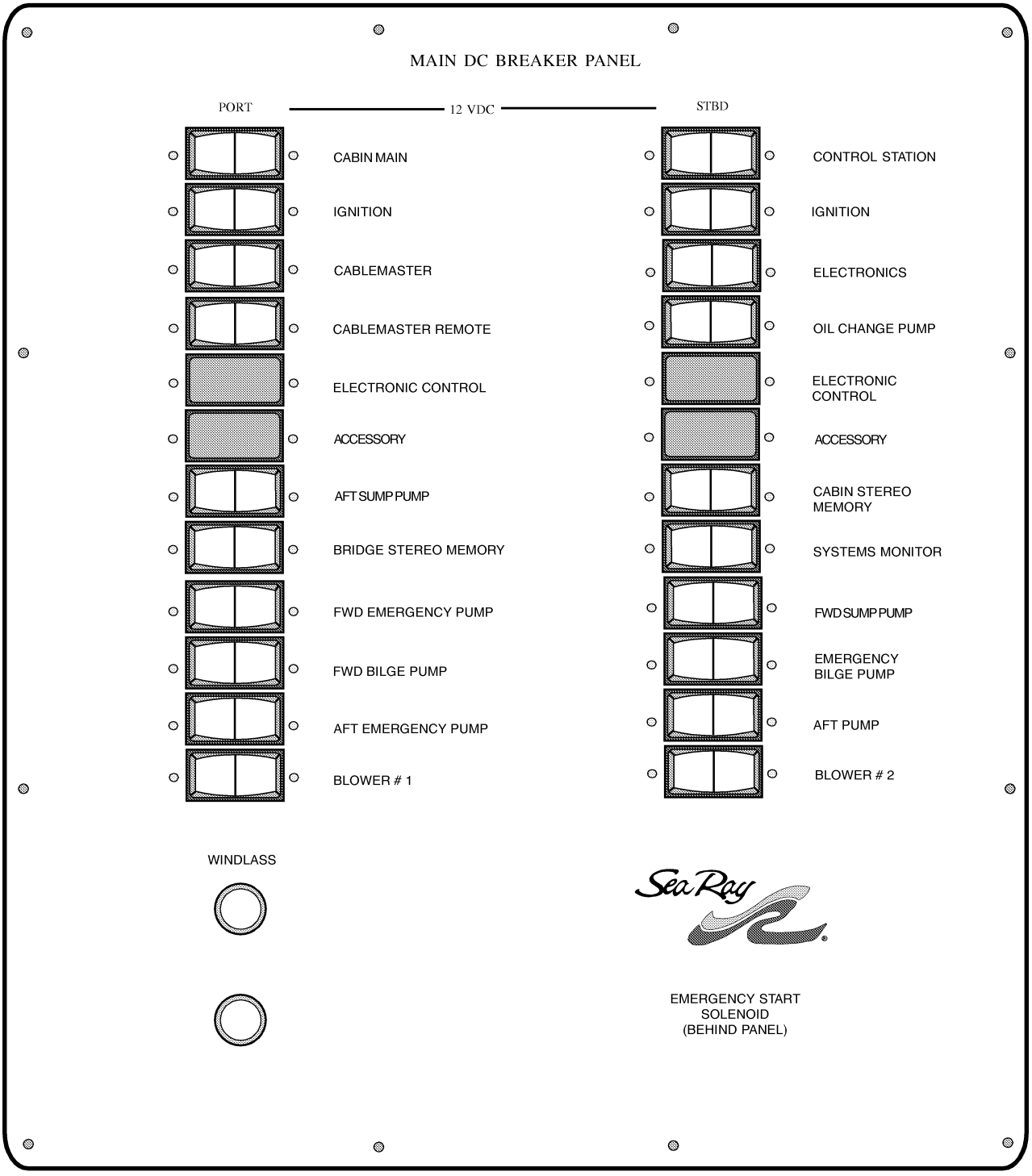
(fig. 12.54.1)

(fig. 12.54.3)



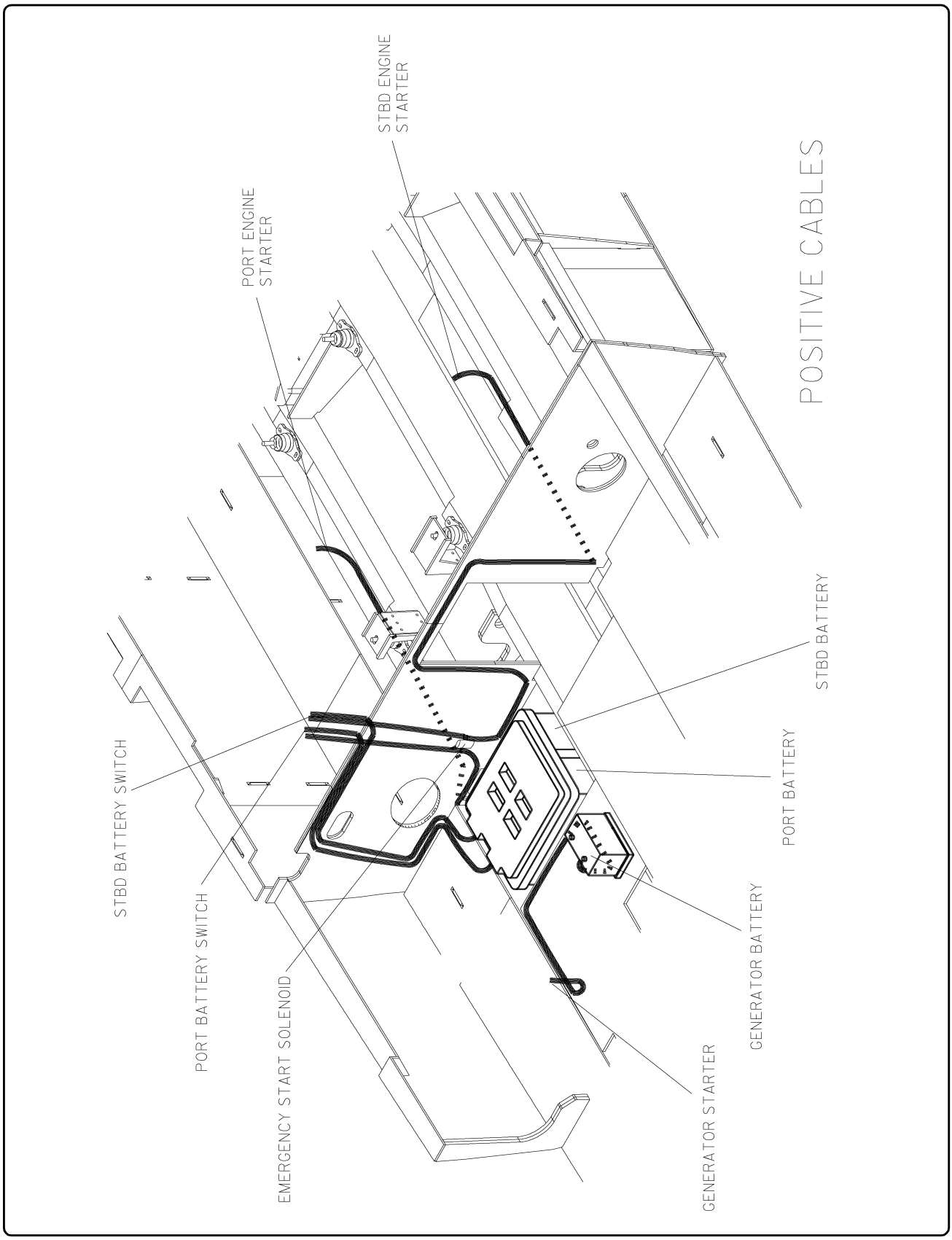
DC Main Distribution Panel

(Located under cockpit bridge stairway.)

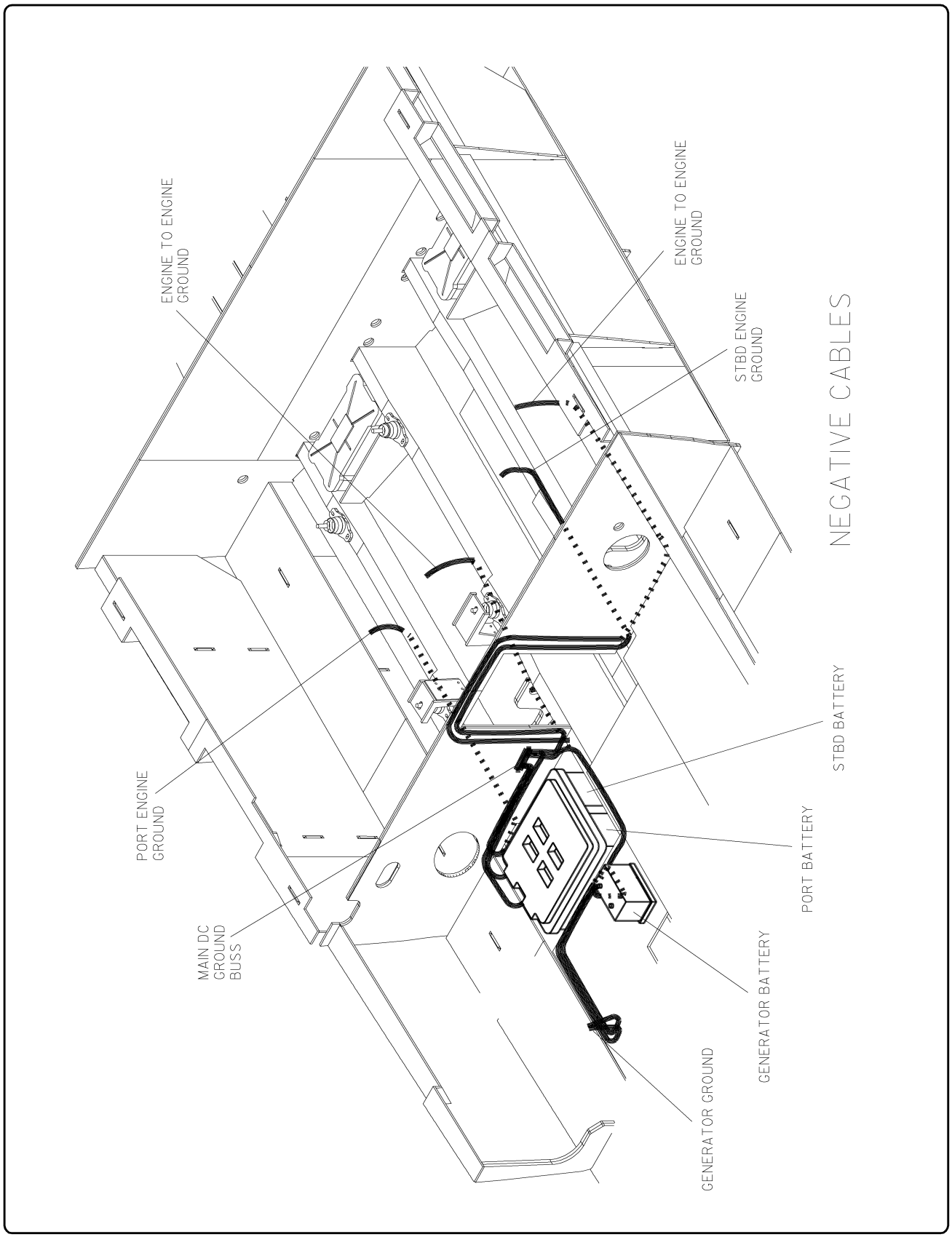


(fig. 12.55.1)

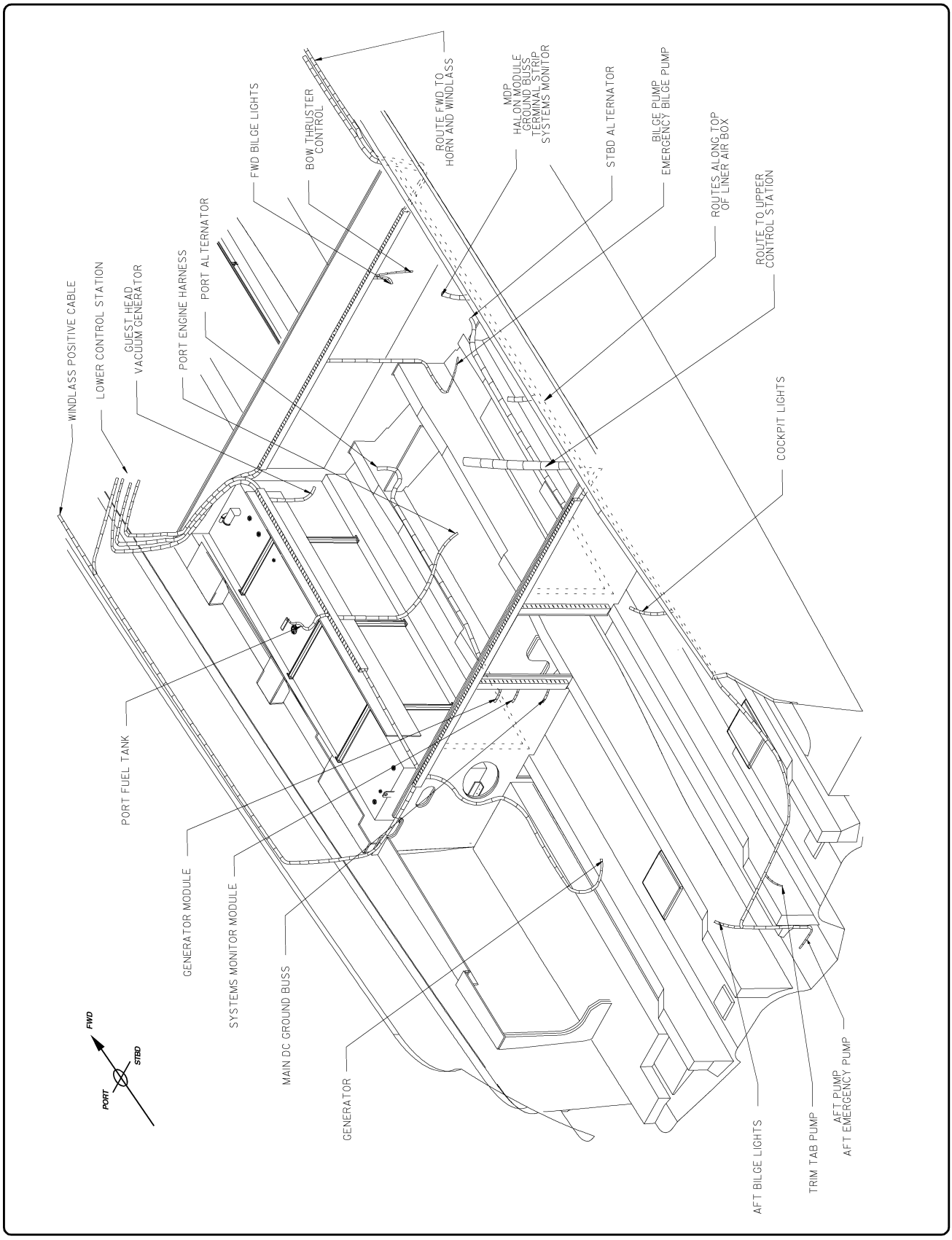
Battery Cable Installation



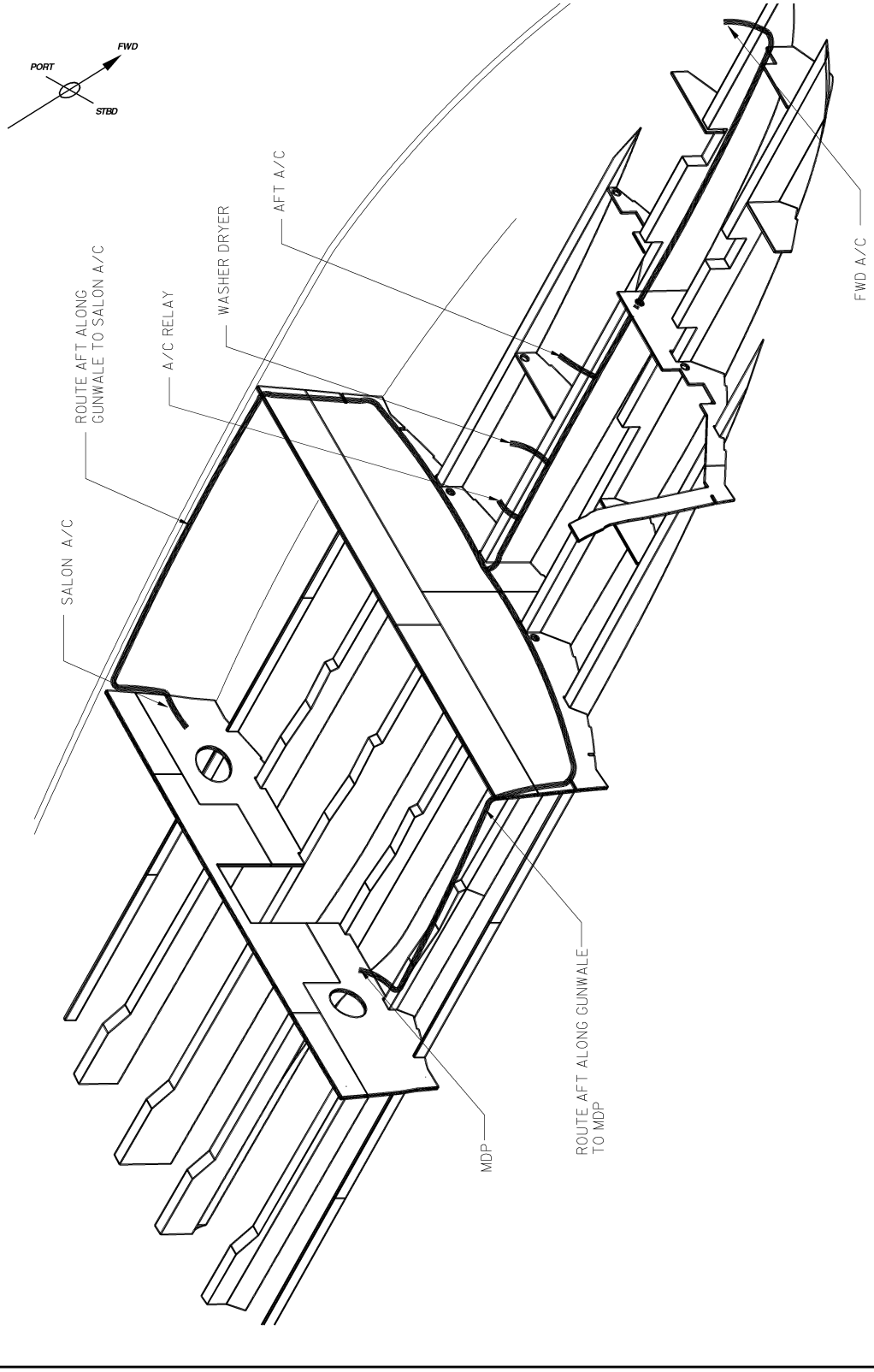
Battery Cable Installation



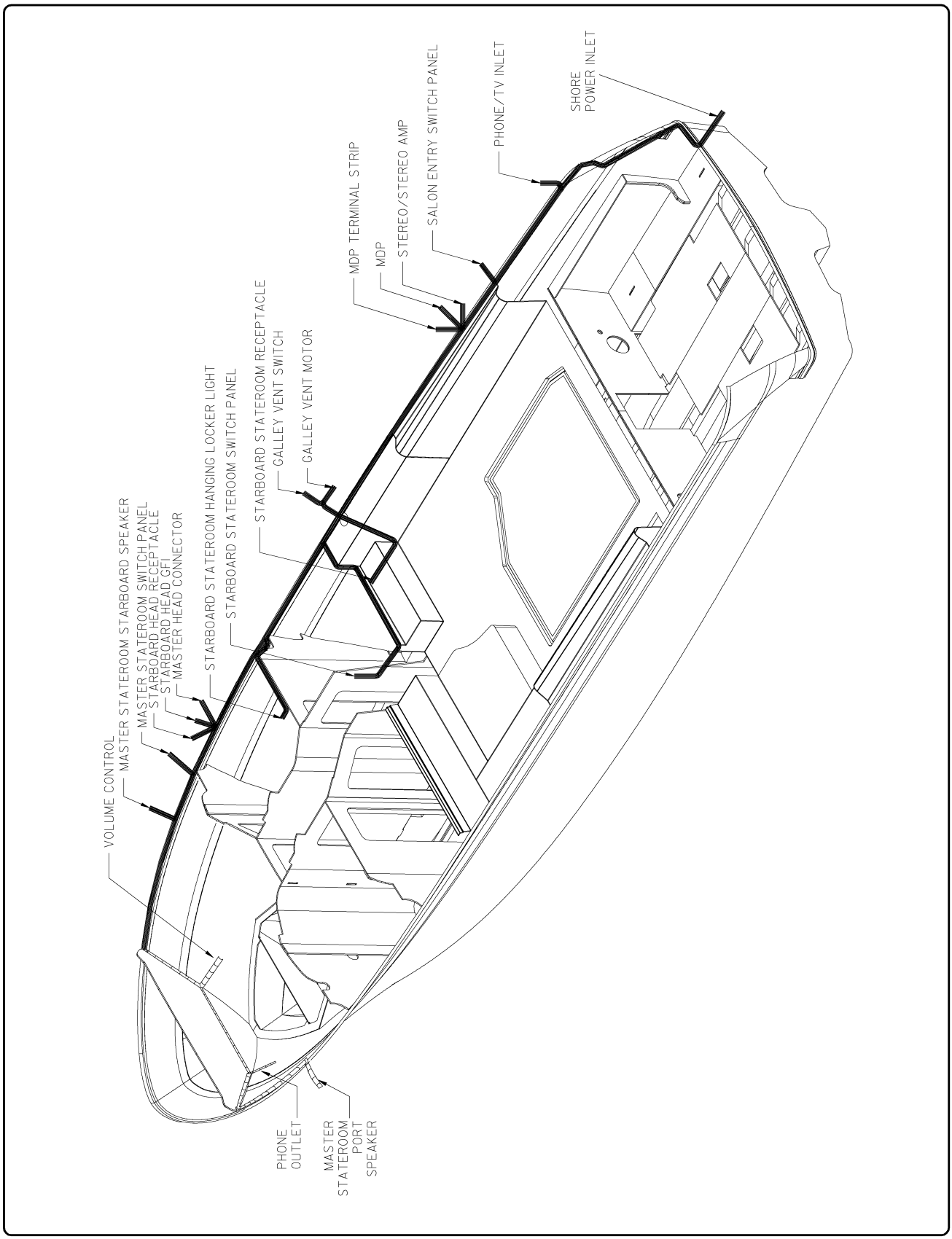
Bilge Harness Installation



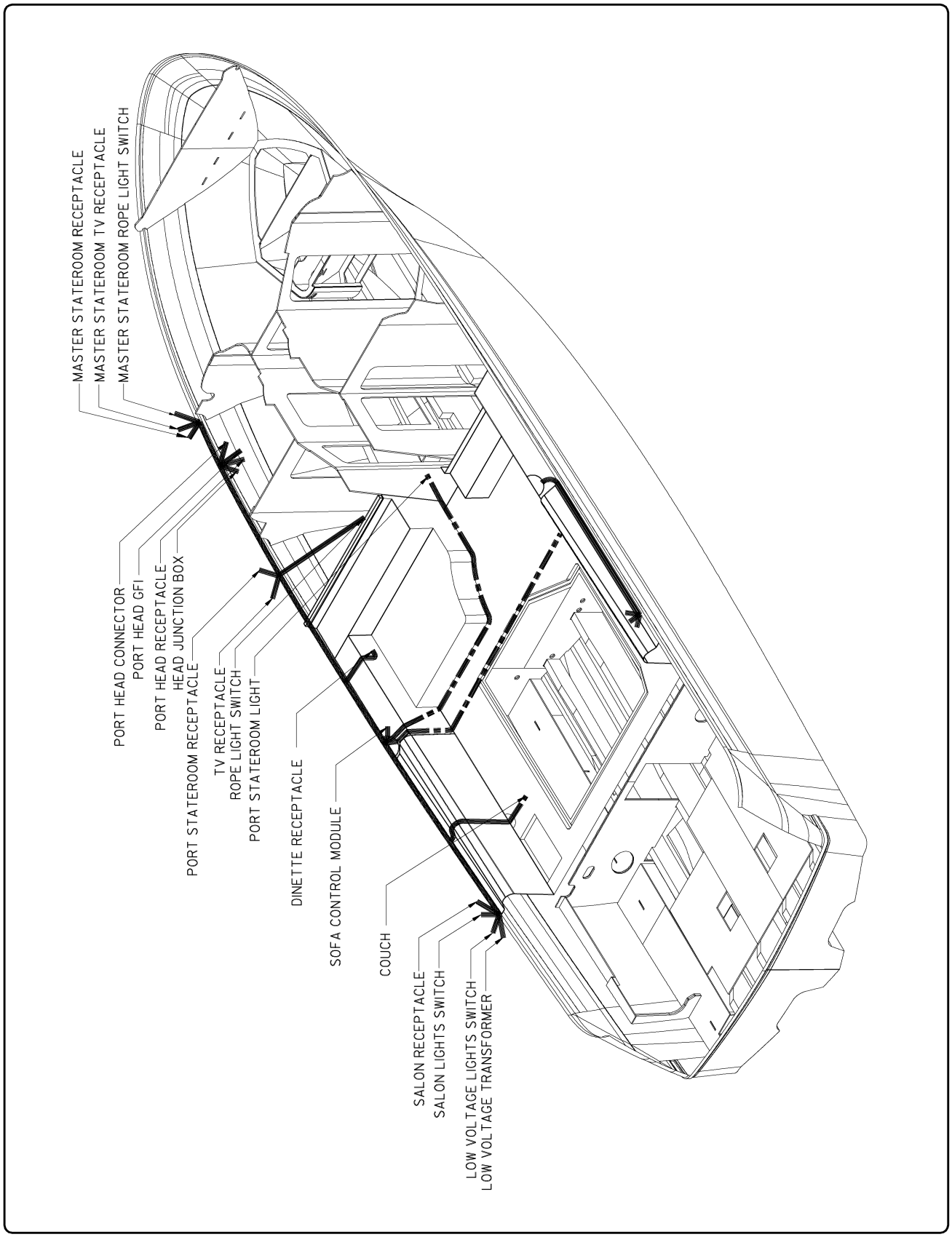
Cabin Subfloor Harness Installation



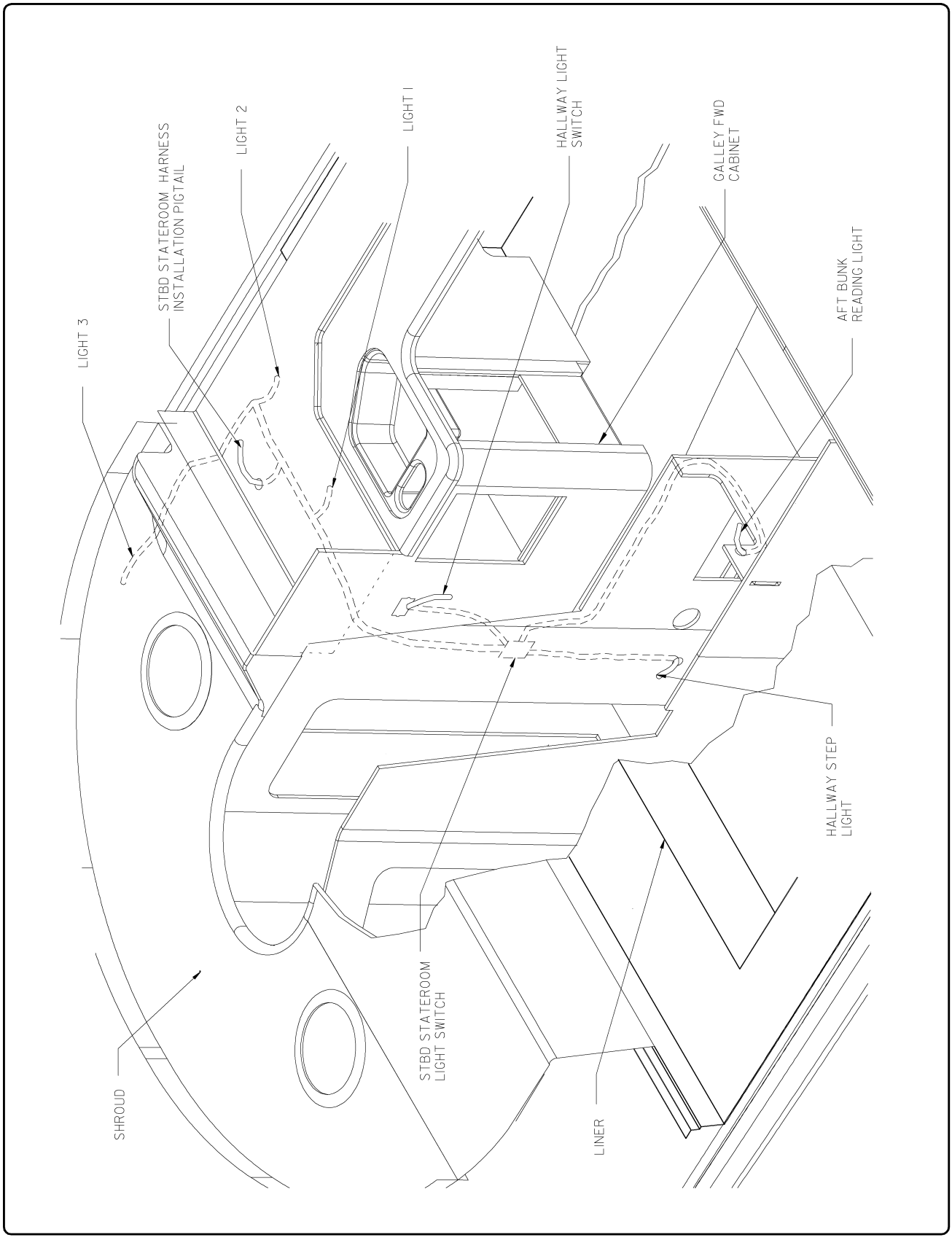
Starboard Cabin Harness Installation



Port Cabin Harness Installation

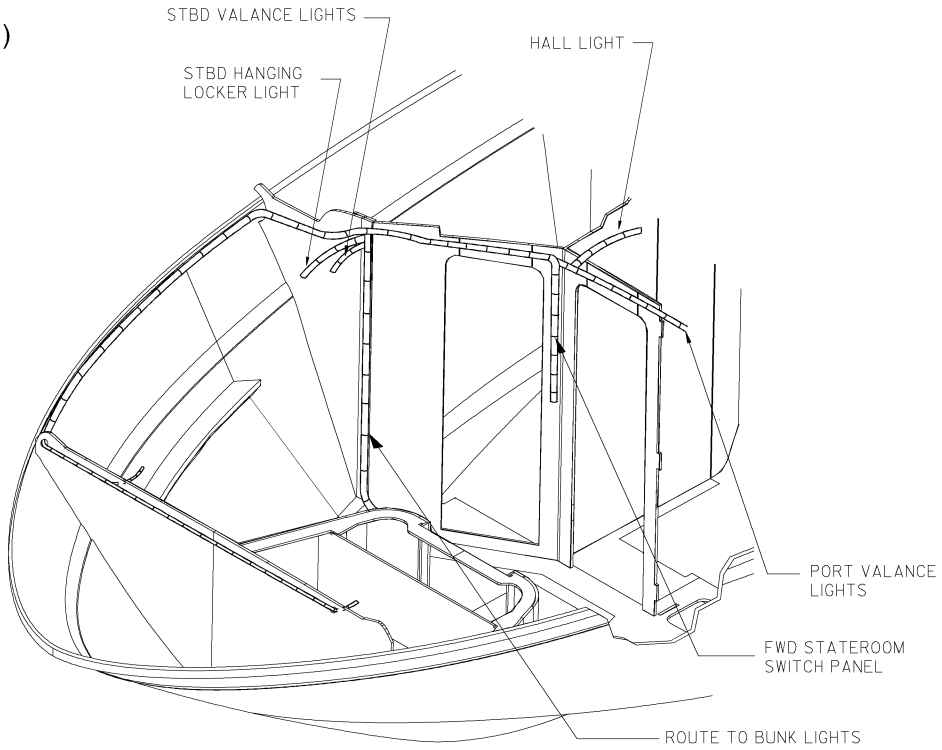


Starboard Stateroom Harness Installation

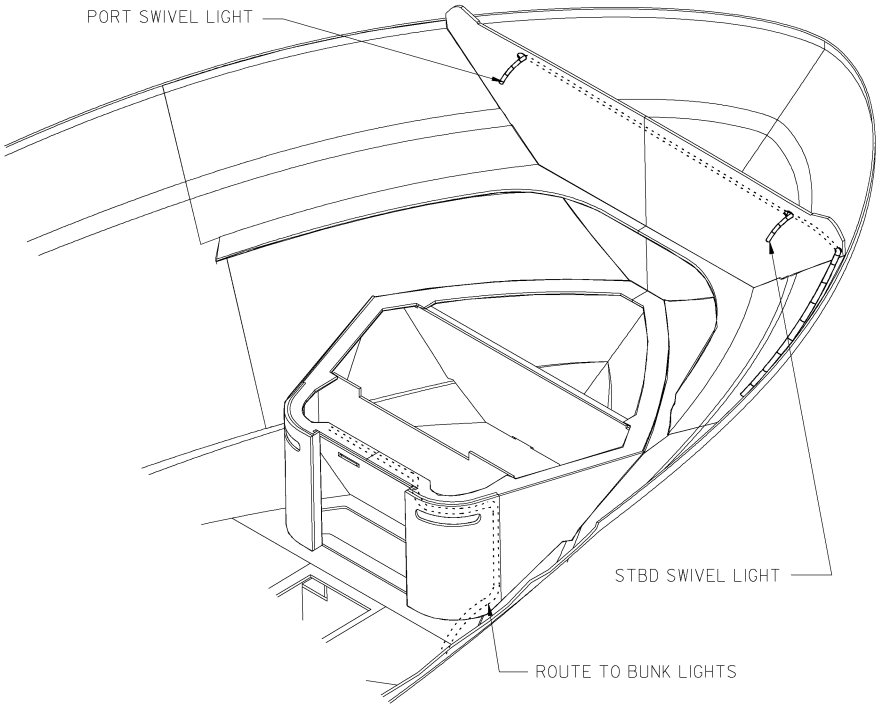


Forward Stateroom Harness Installation

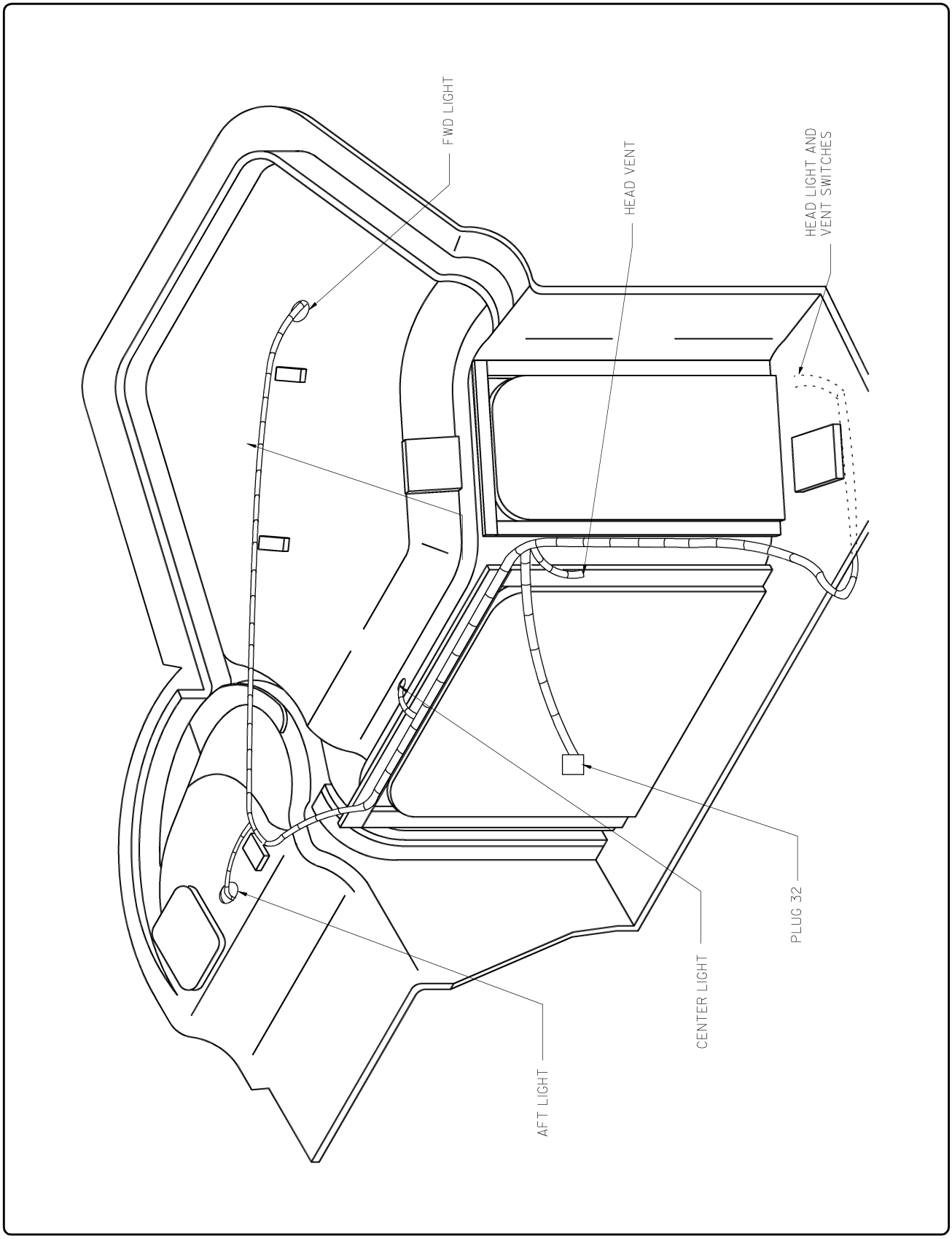
(fig. 12.63.1)



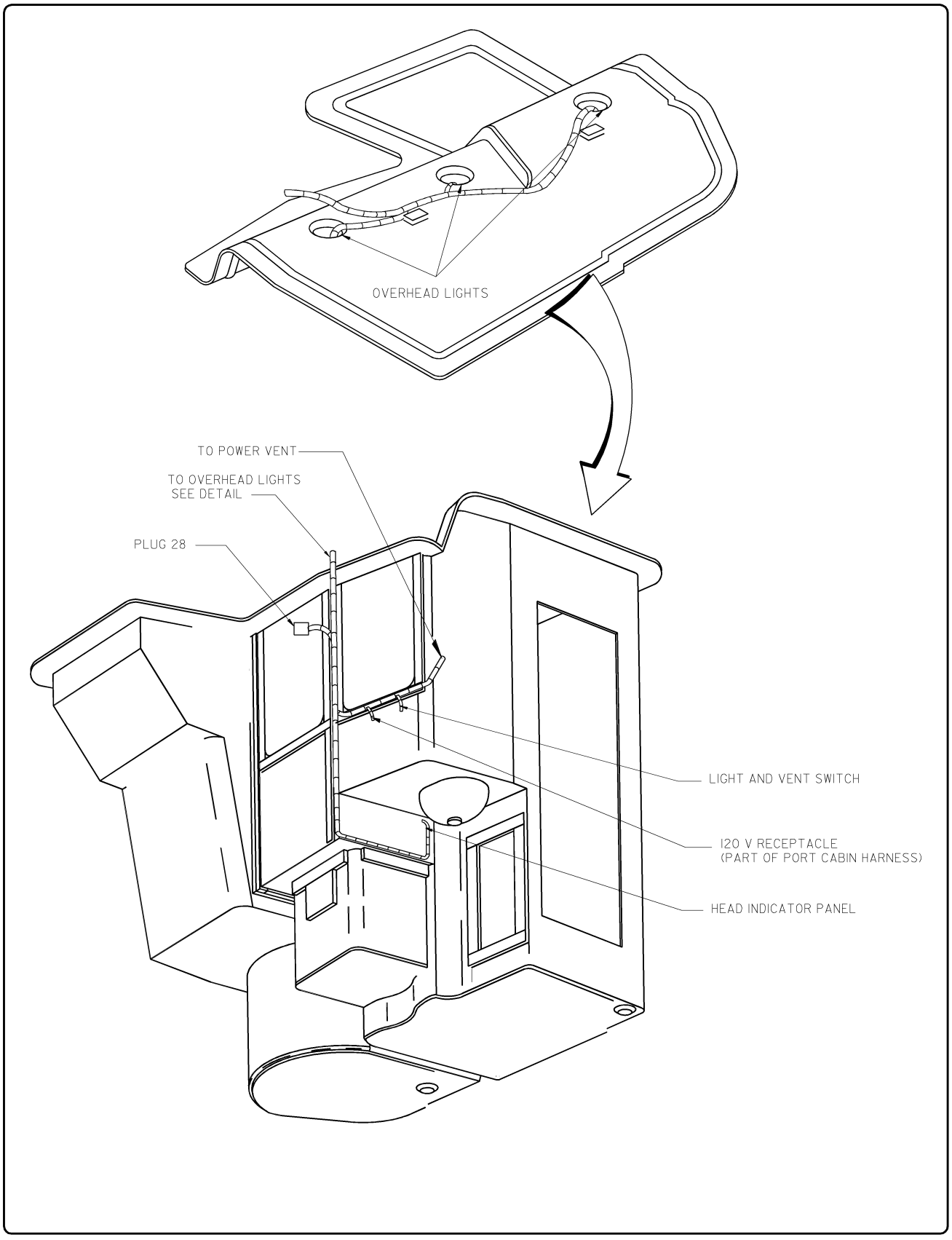
(fig. 12.63.2)



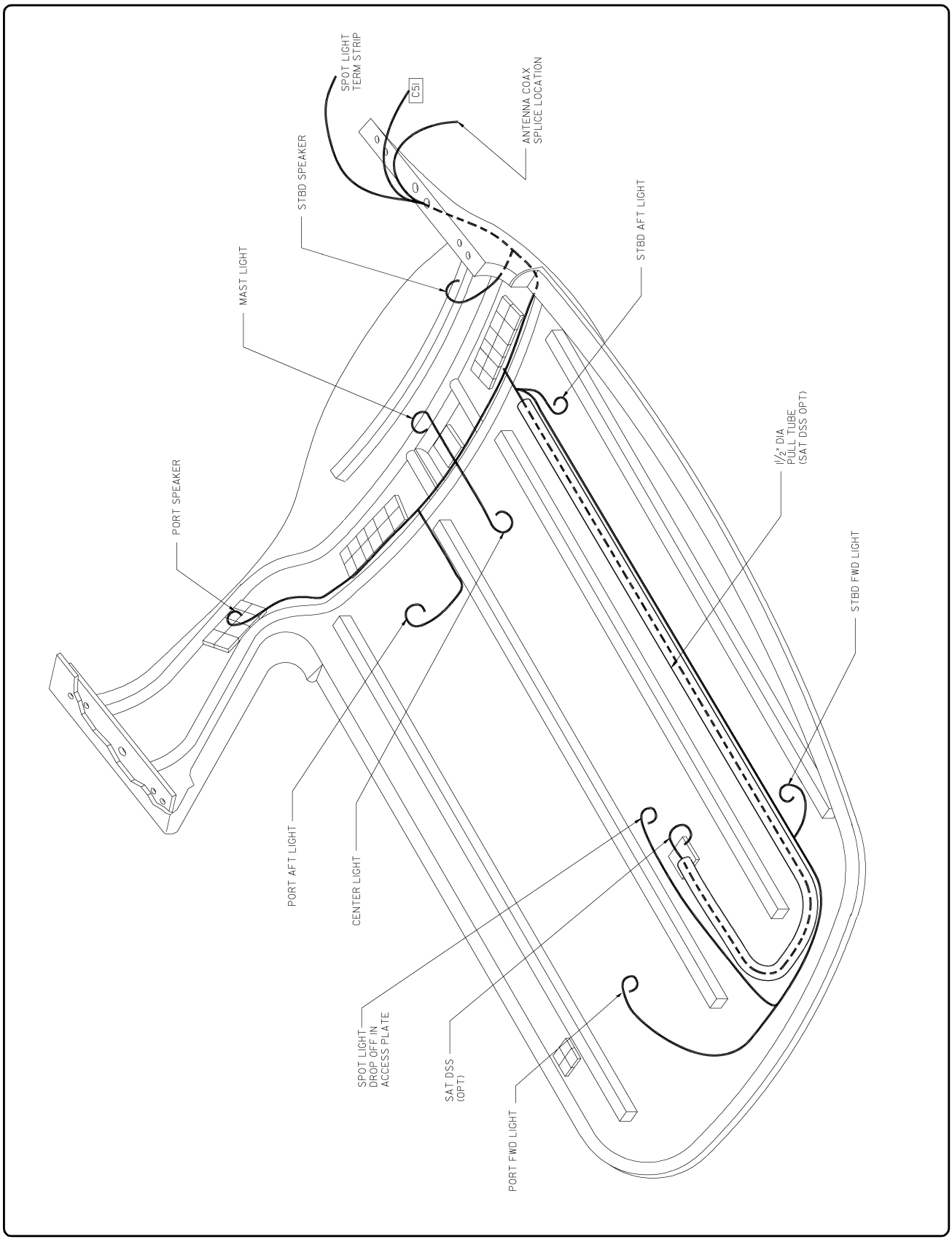
Forward Stateroom Head Harness Installation



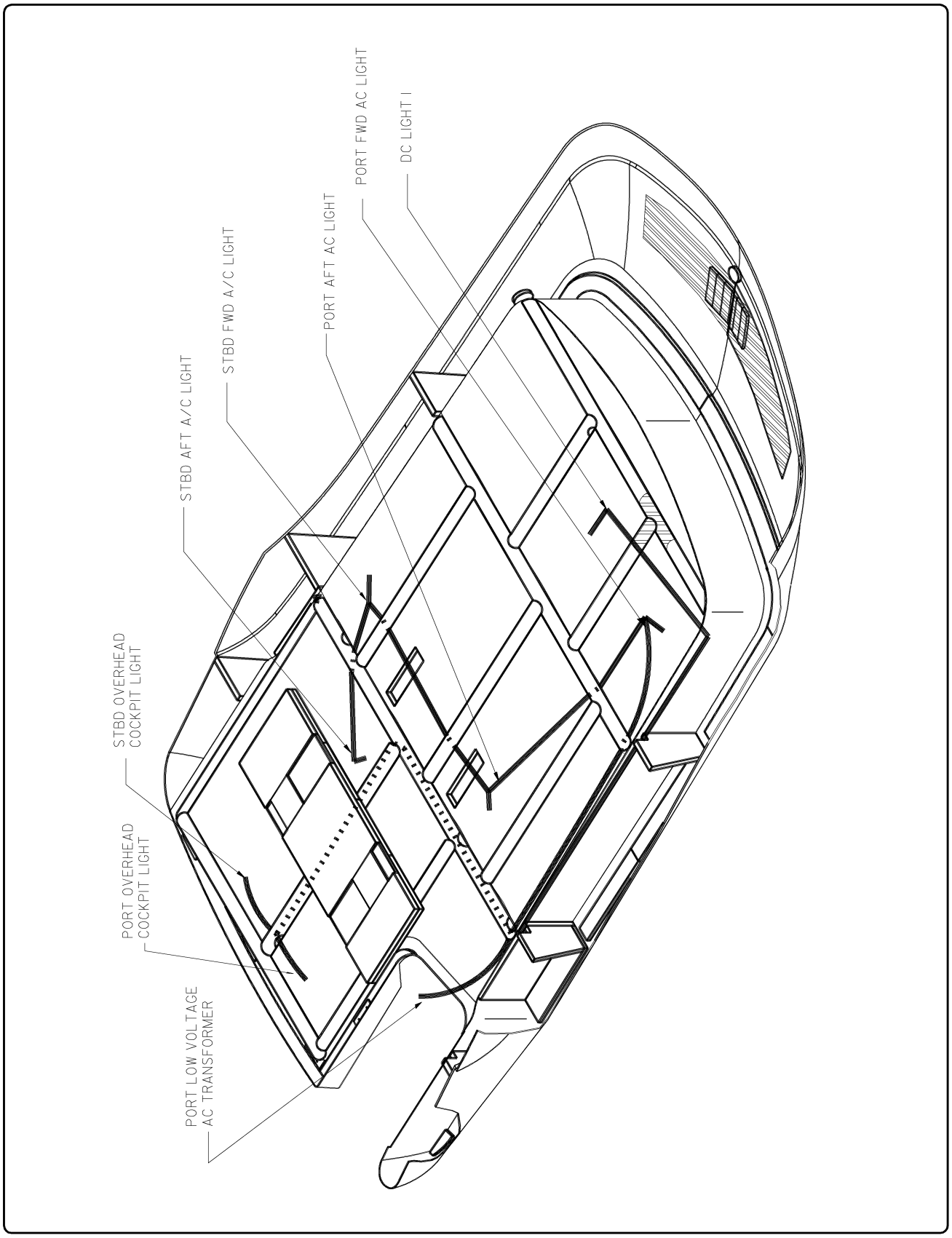
Guest Head Harness Installation



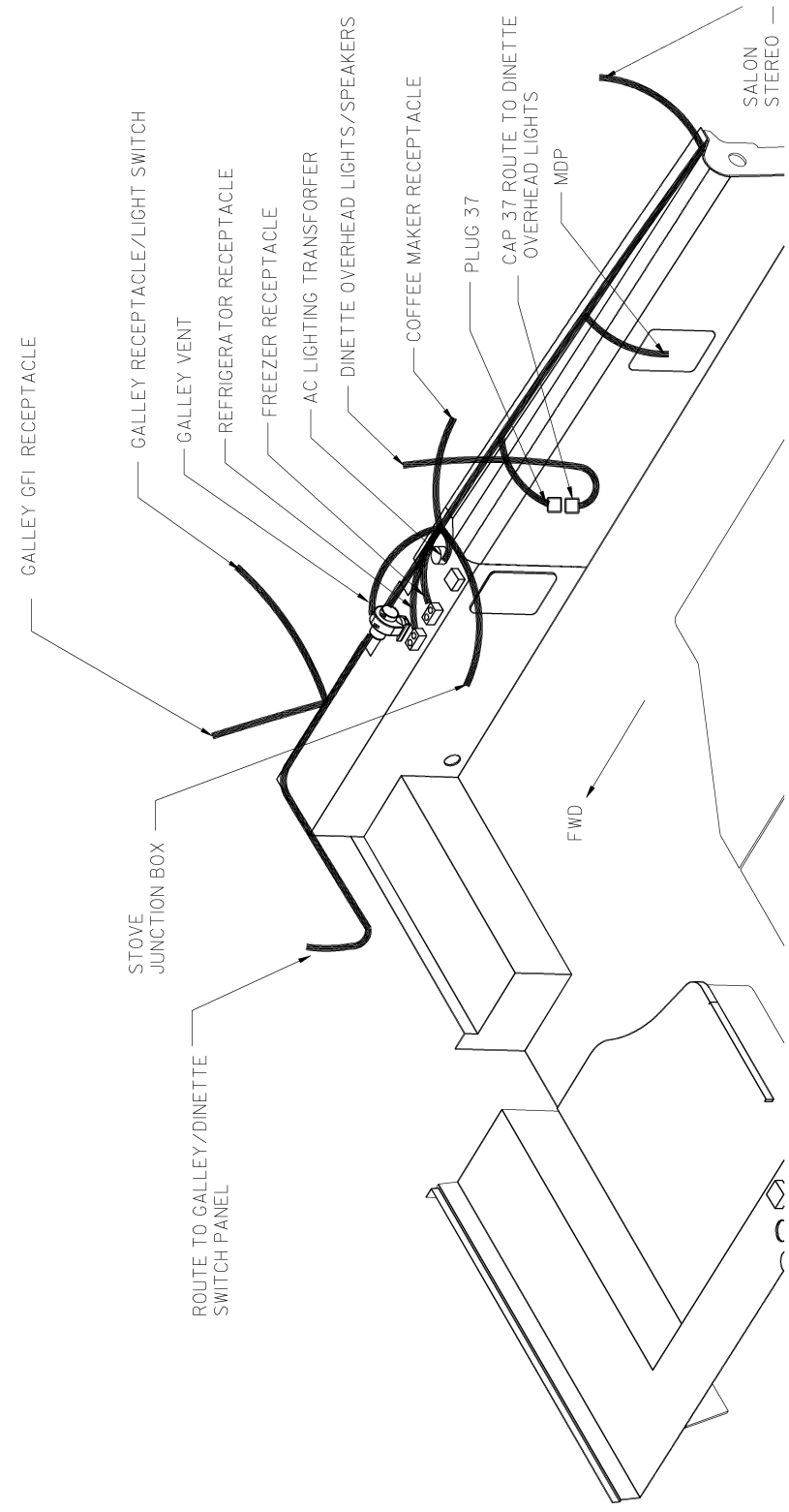
Spoiler / Hardtop Harness Installation



Salon Lights Harness Installation

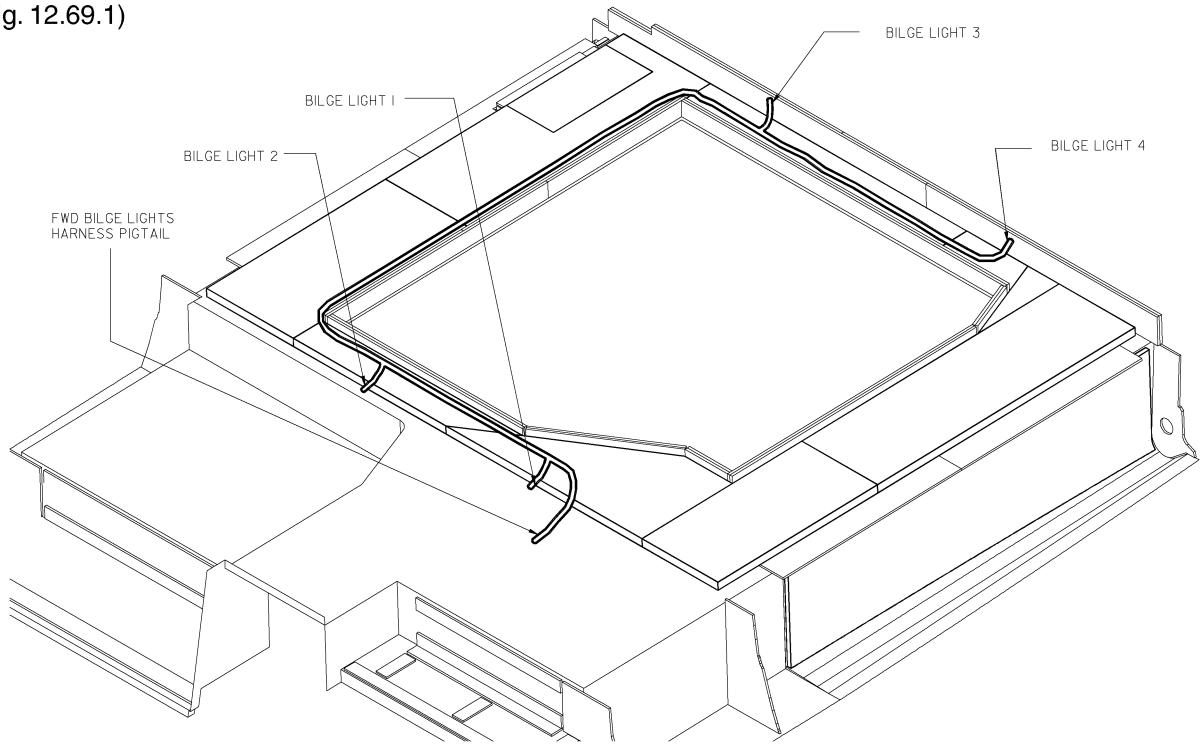


Galley Harness Installation

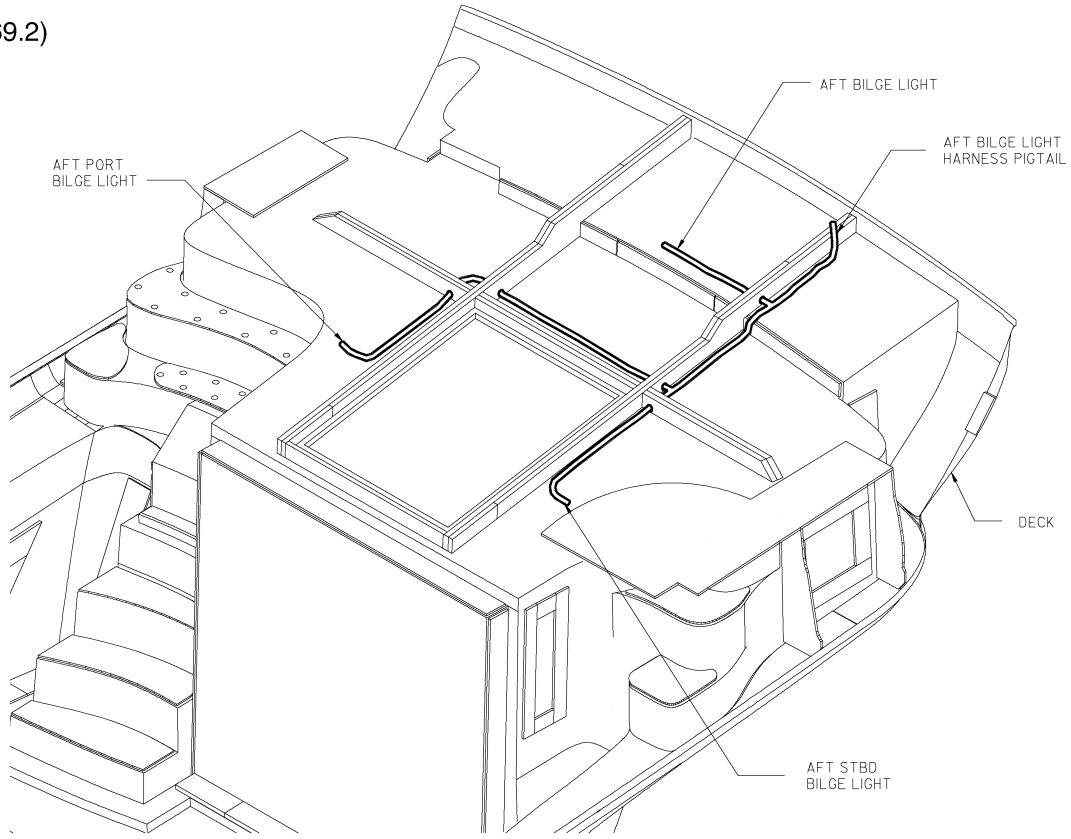


Bilge Lights Harness Installation

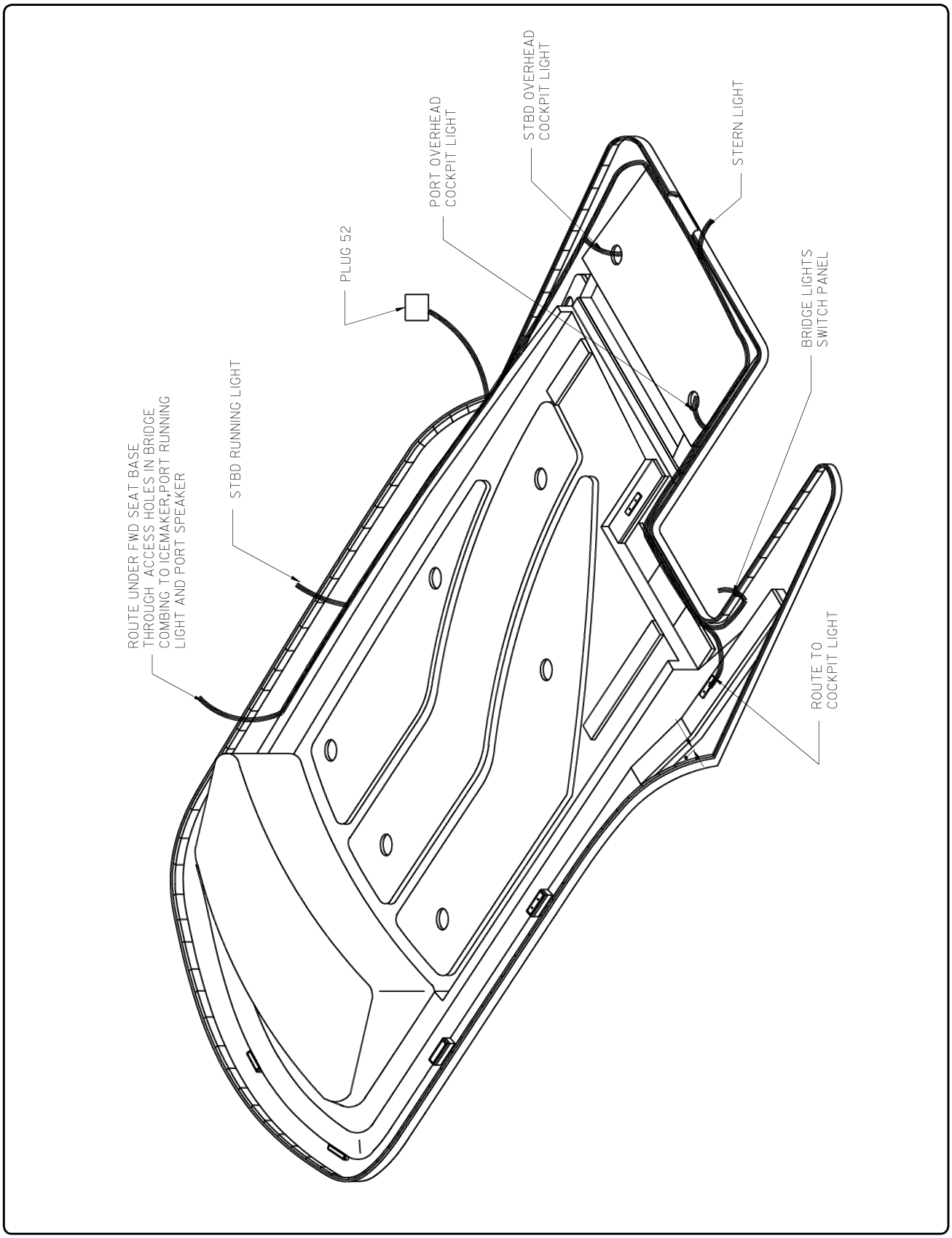
(fig. 12.69.1)



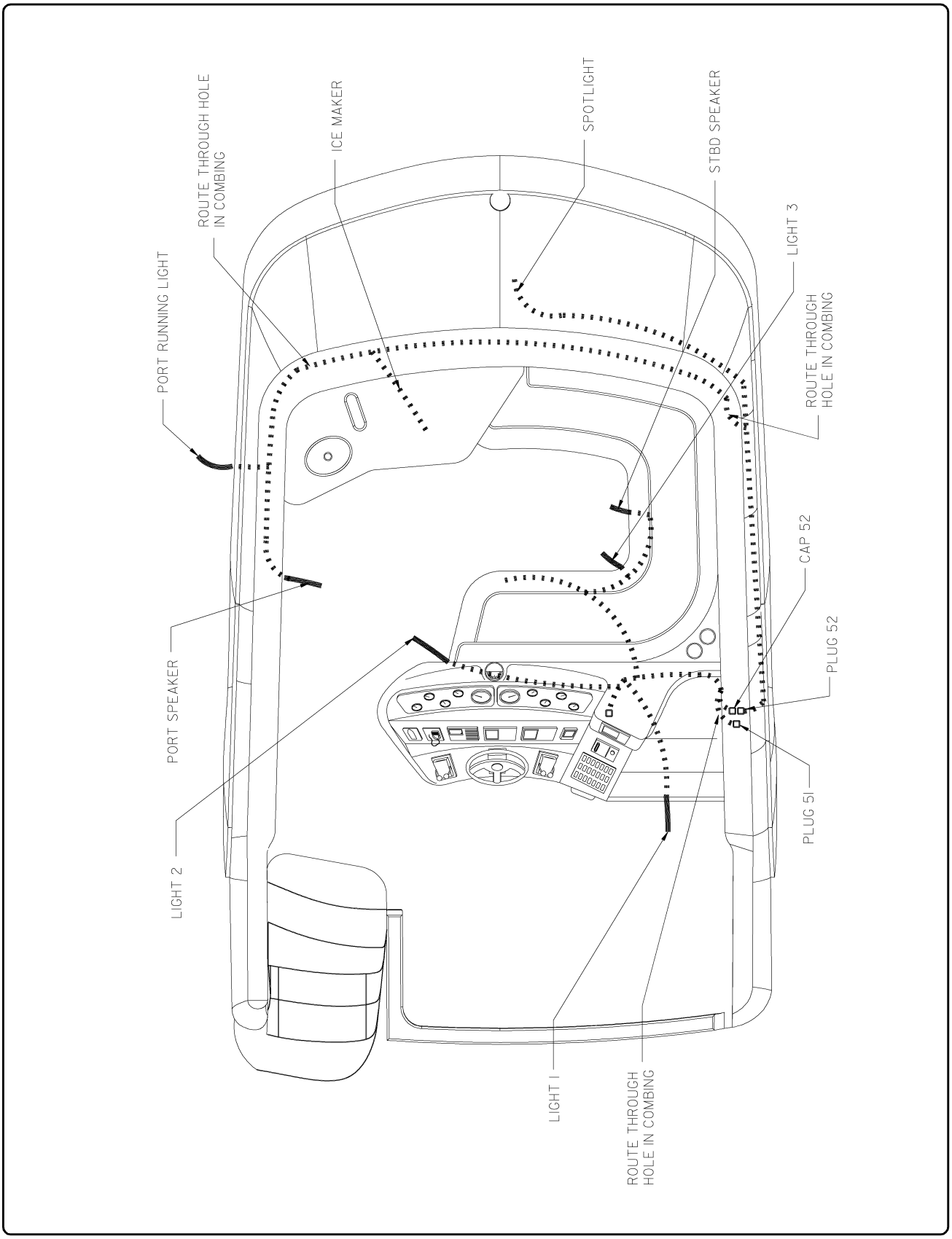
(fig. 12.69.2)



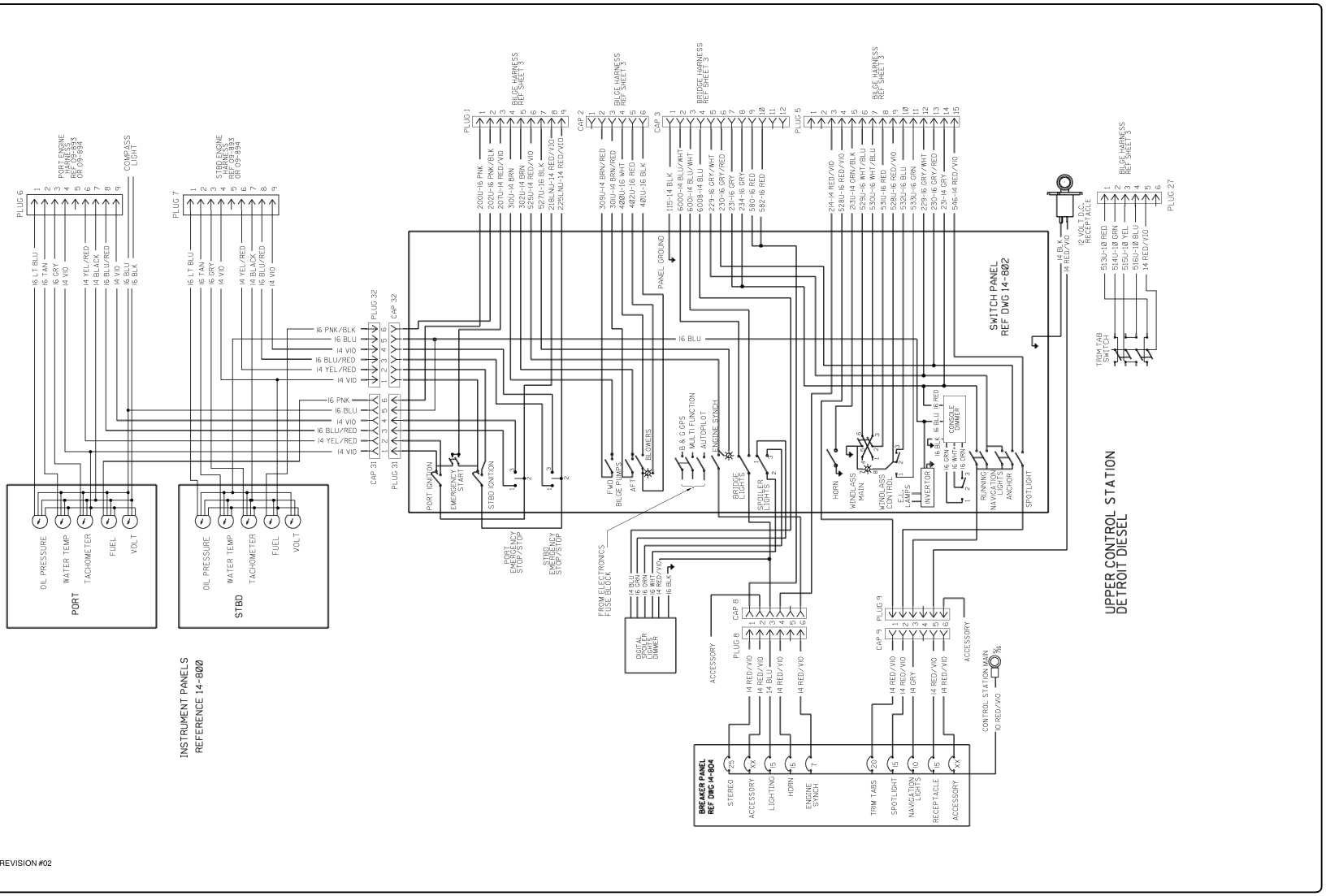
Bridge Harness Installation (1 of 2)



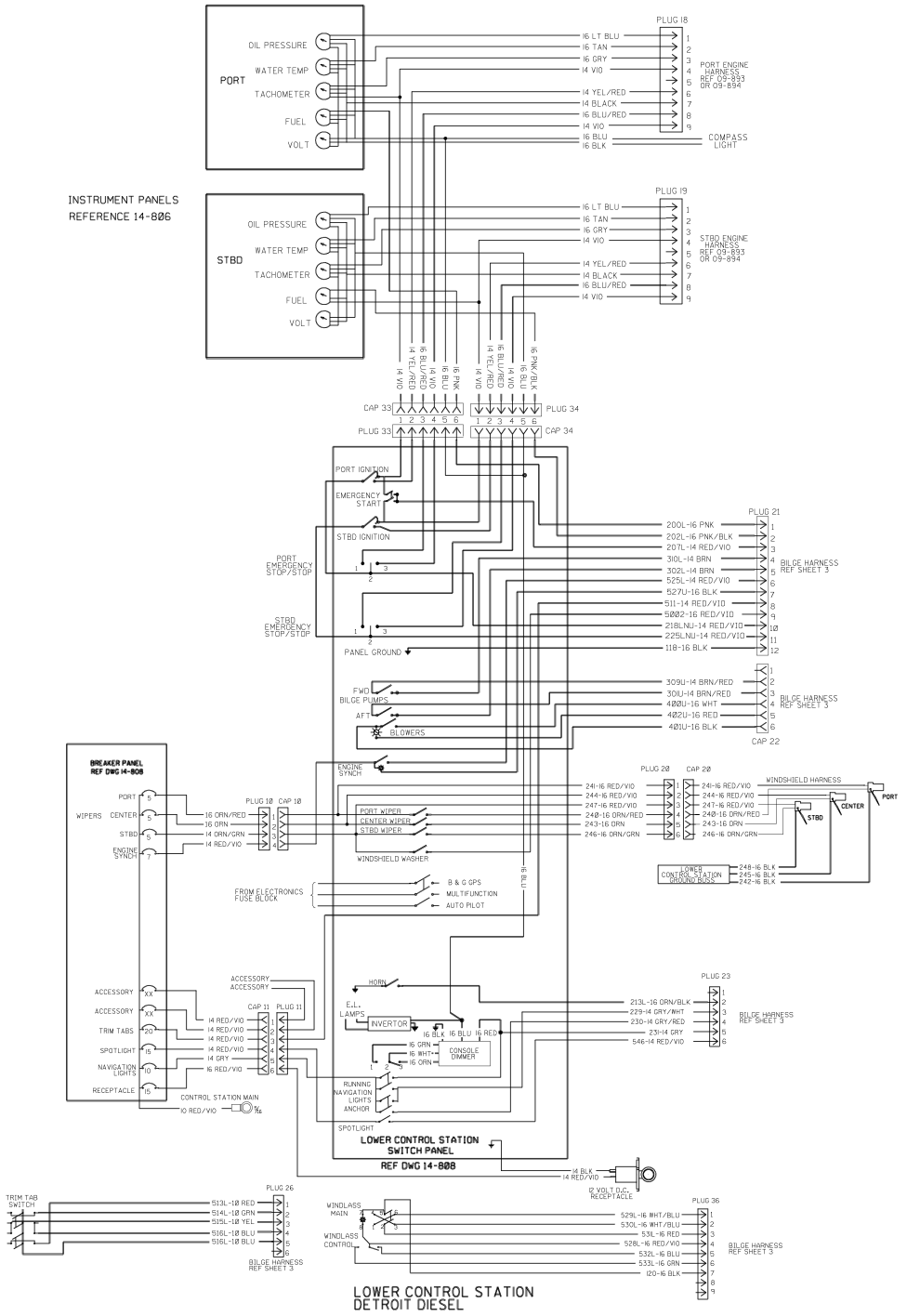
Bridge Harness Installation (2 of 2)



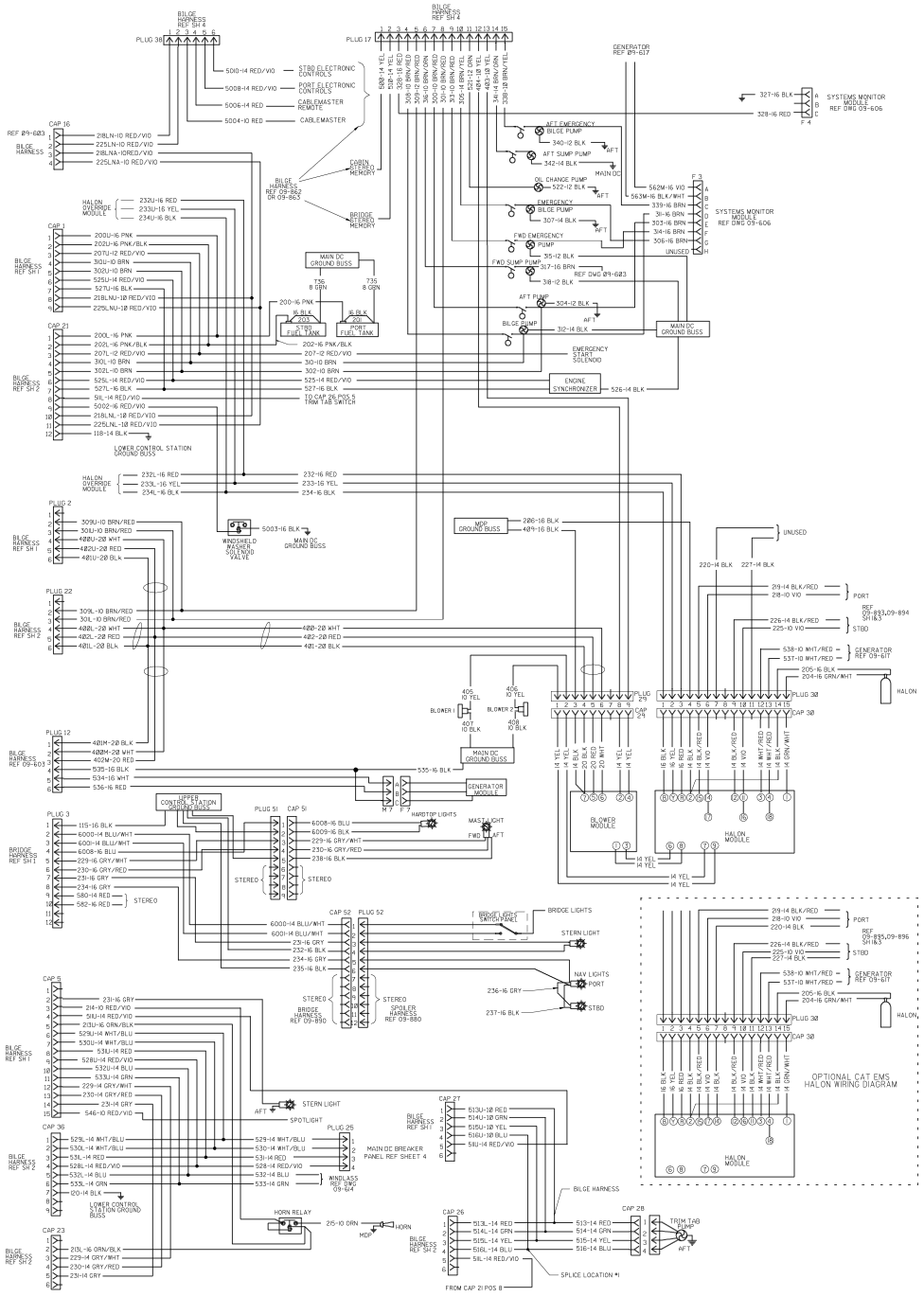
DC Wiring Schematic (1 of 6)



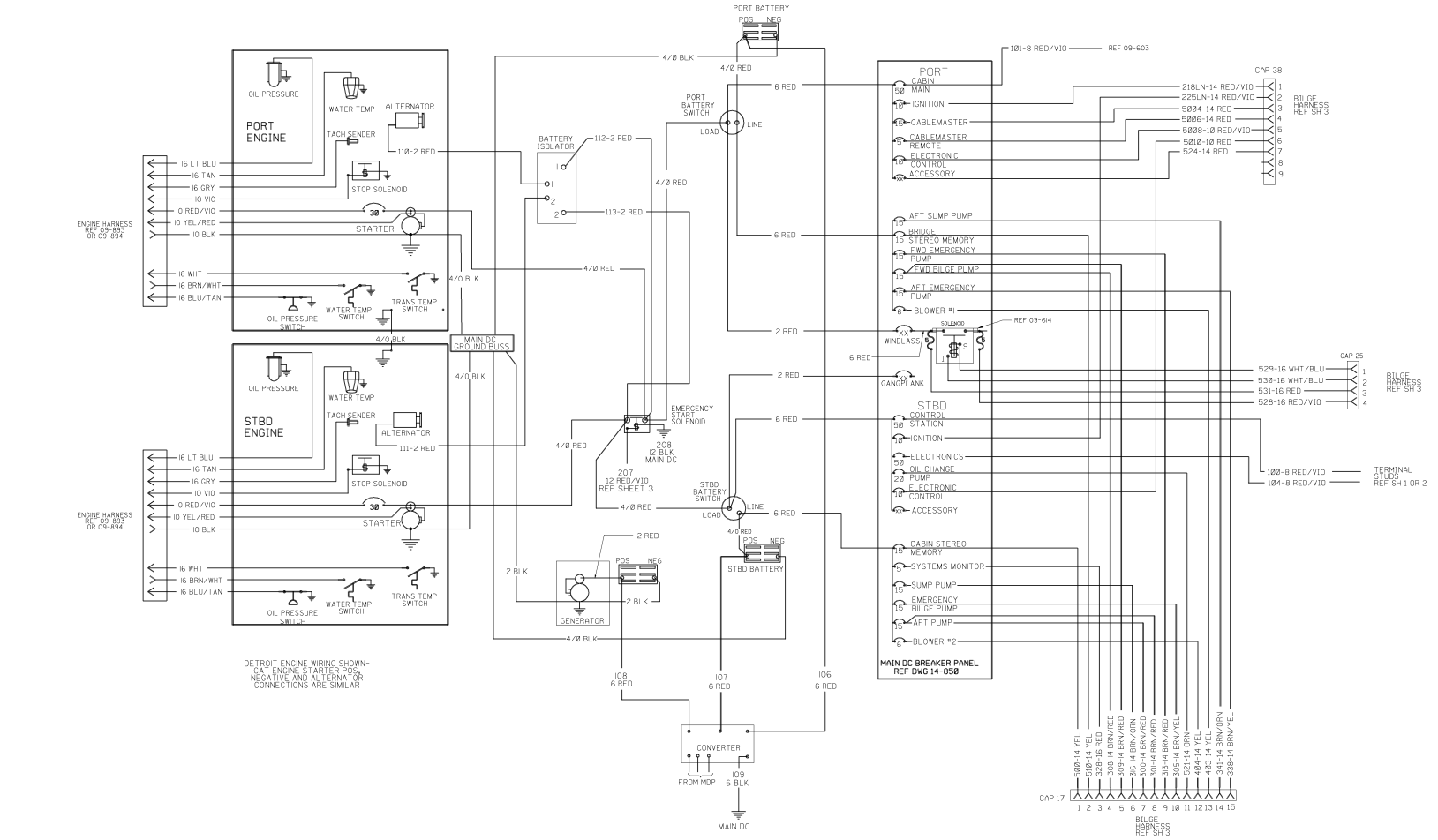
DC Wiring Schematic (2 of 6)



DC Wiring Schematic (3 of 6)

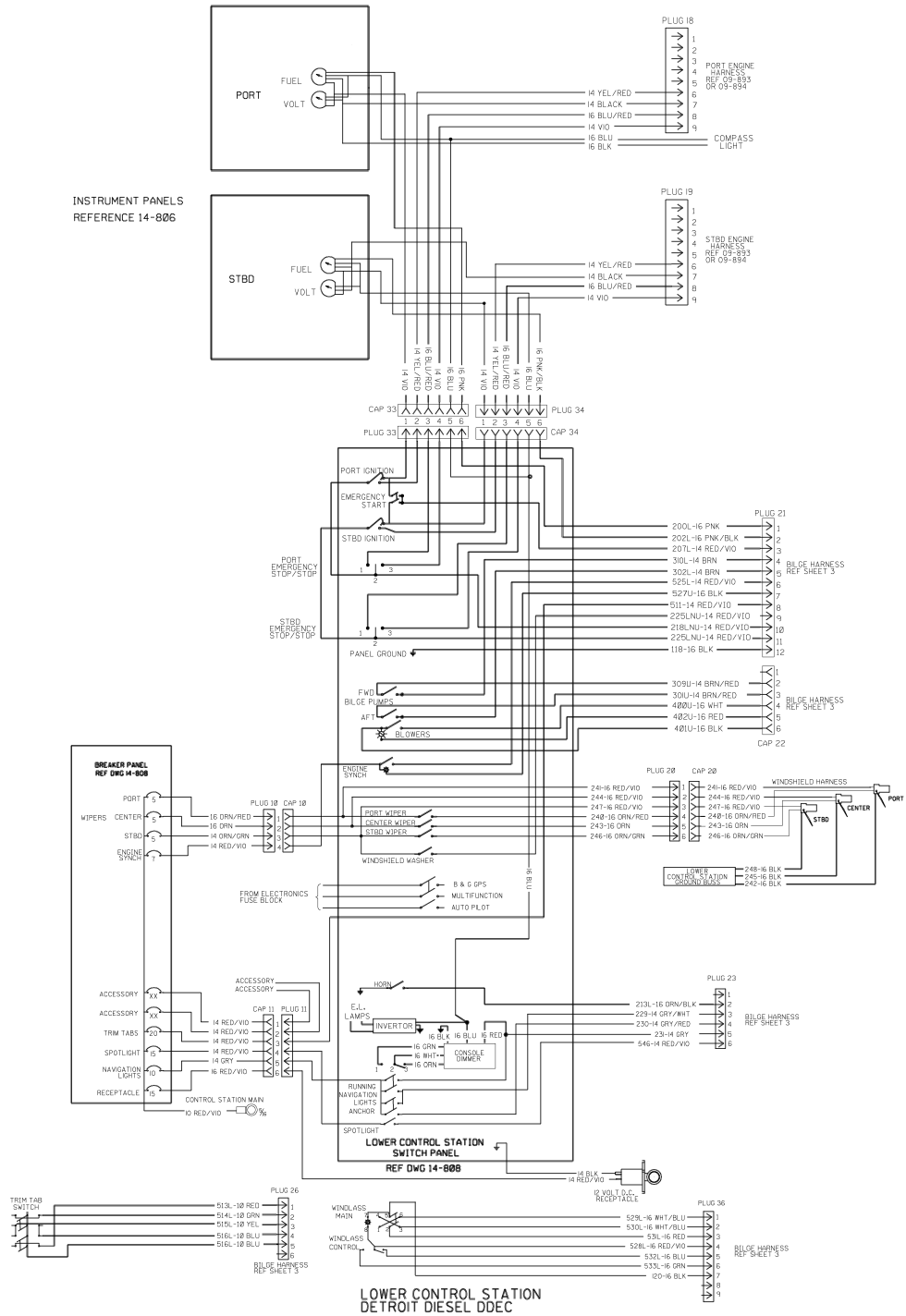


DC Wiring Schematic (4 of 6)



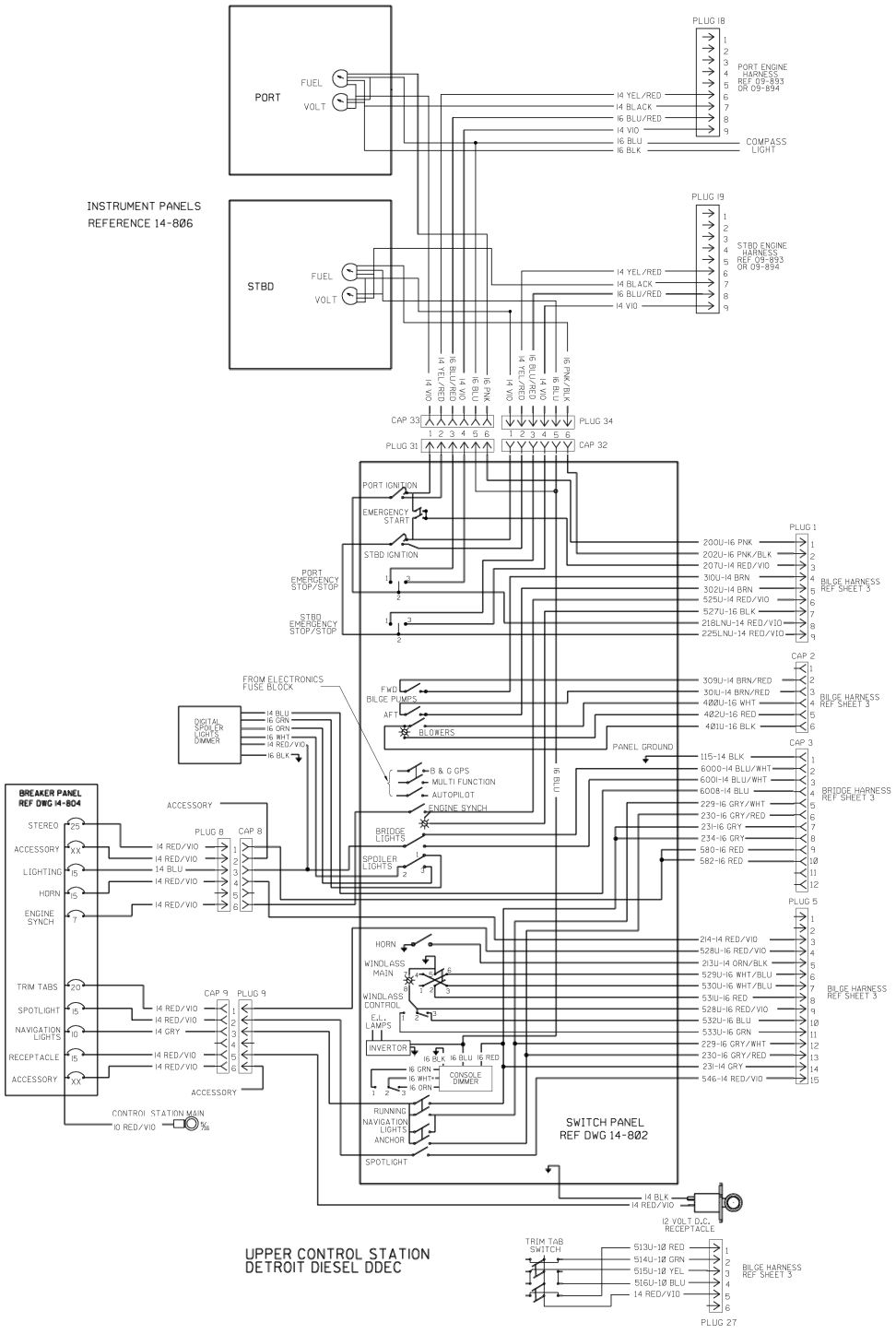
PRINT #09-601, 4 of 6, REVISION #02

DC Wiring Schematic (5 of 6)

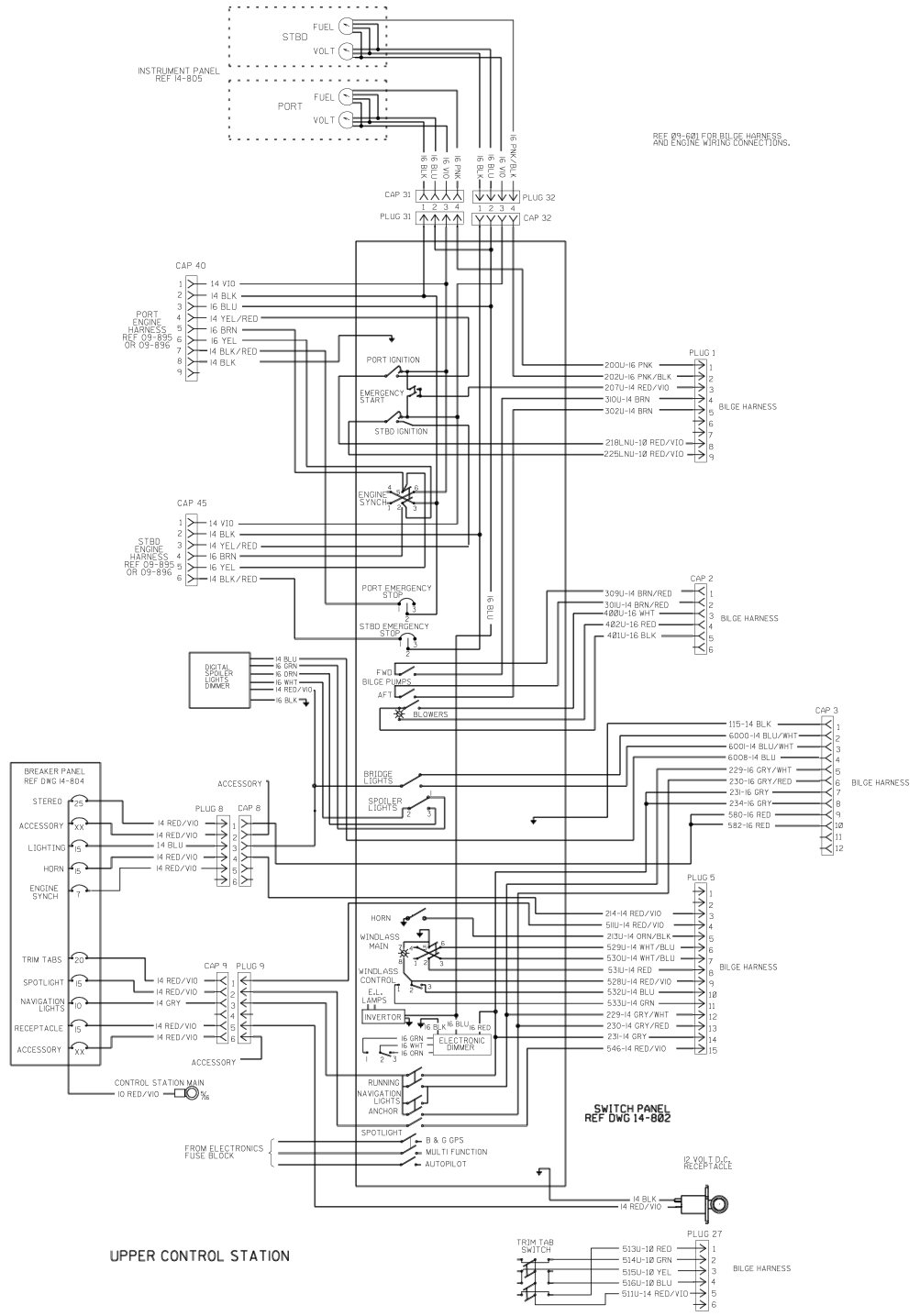


DC WIRING SCHEMATIC (6 OF 6)

PRINT #09-601.6 of 6, REVISION #0

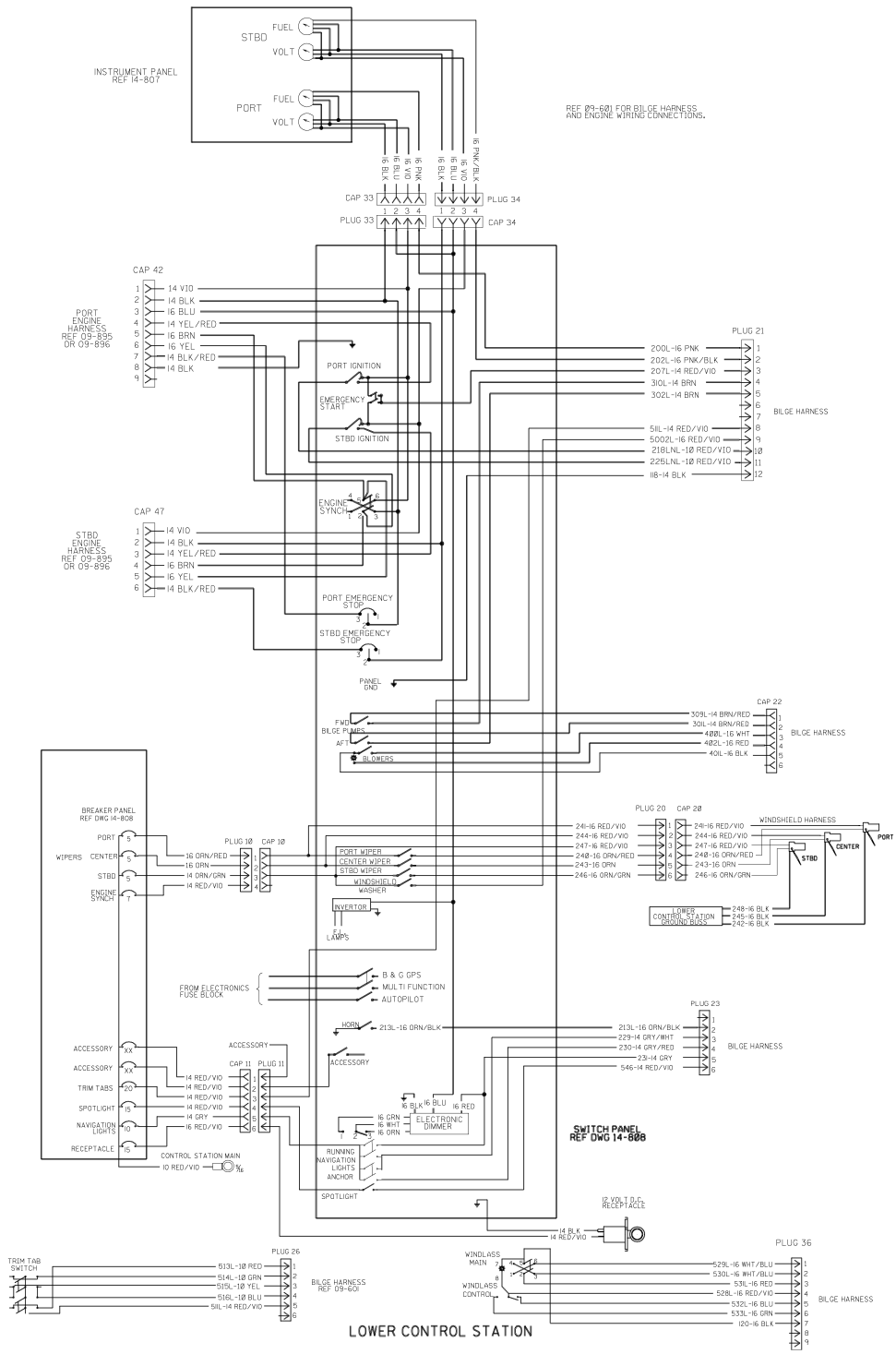


DC Wiring Diagram CAT EMS (Option)



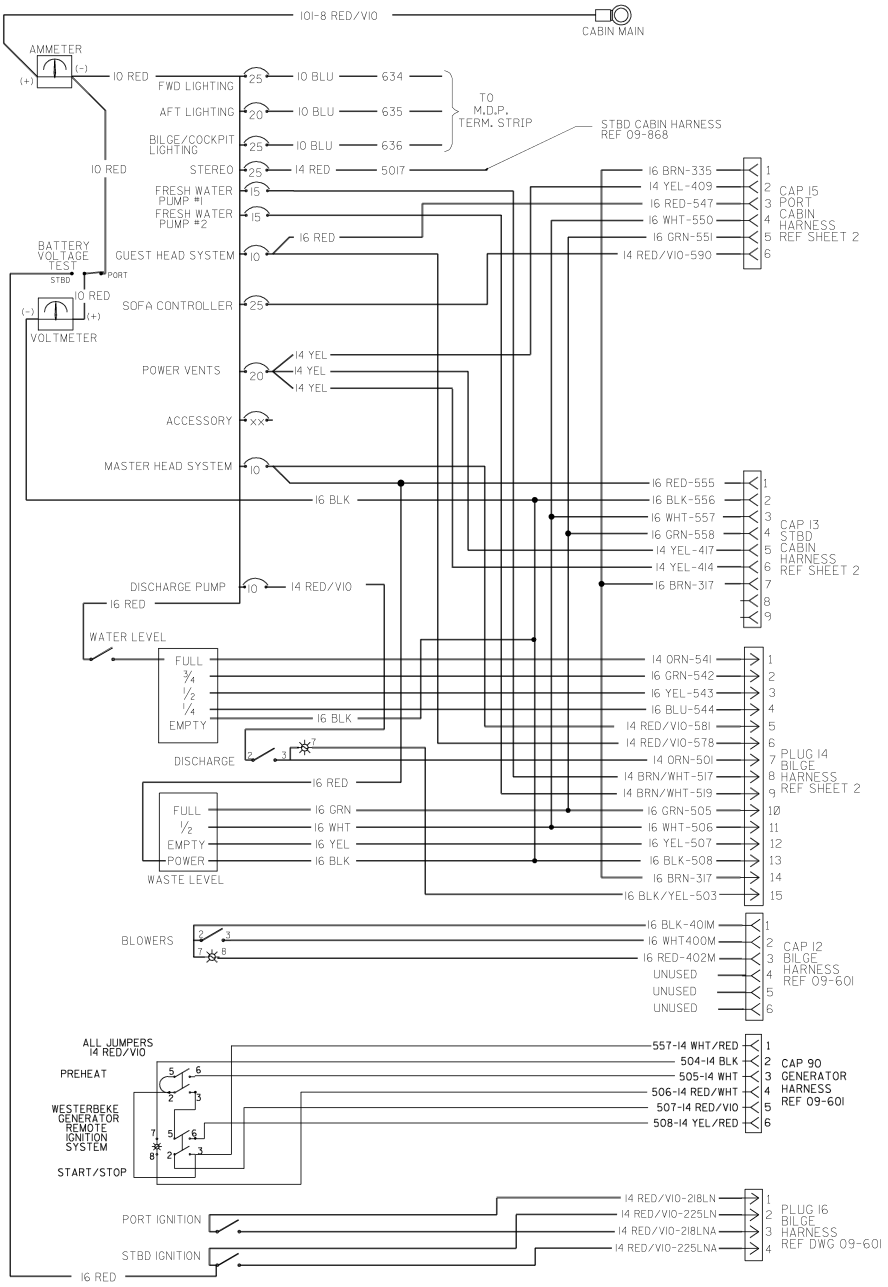
PRINT #09-602 2-12 REVISION #01

DC Wiring Diagram CAT EMS (Option)

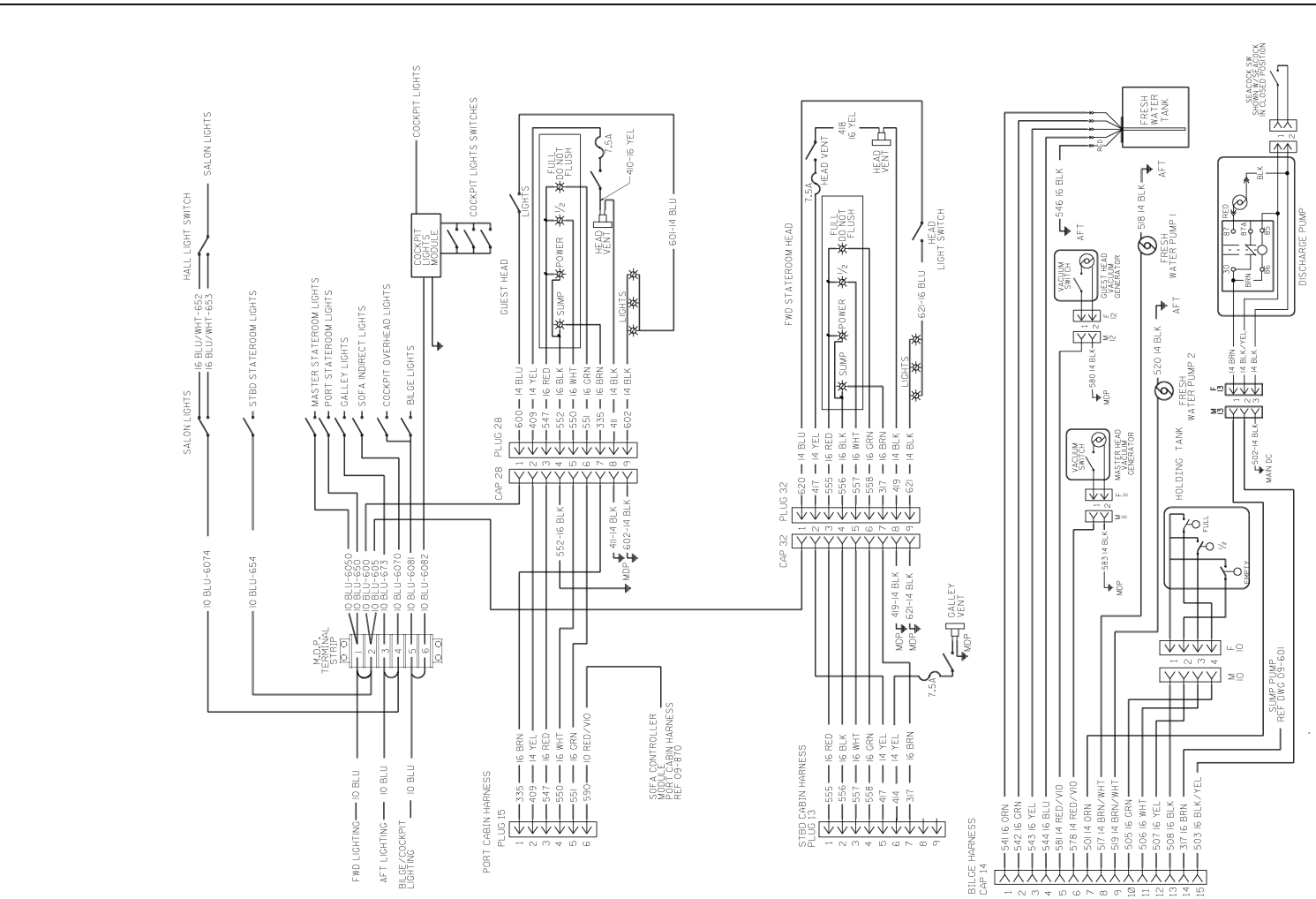


PRINT #09-603.1 of 2, REVISION #03

CABIN DC WIRING DIAGRAM

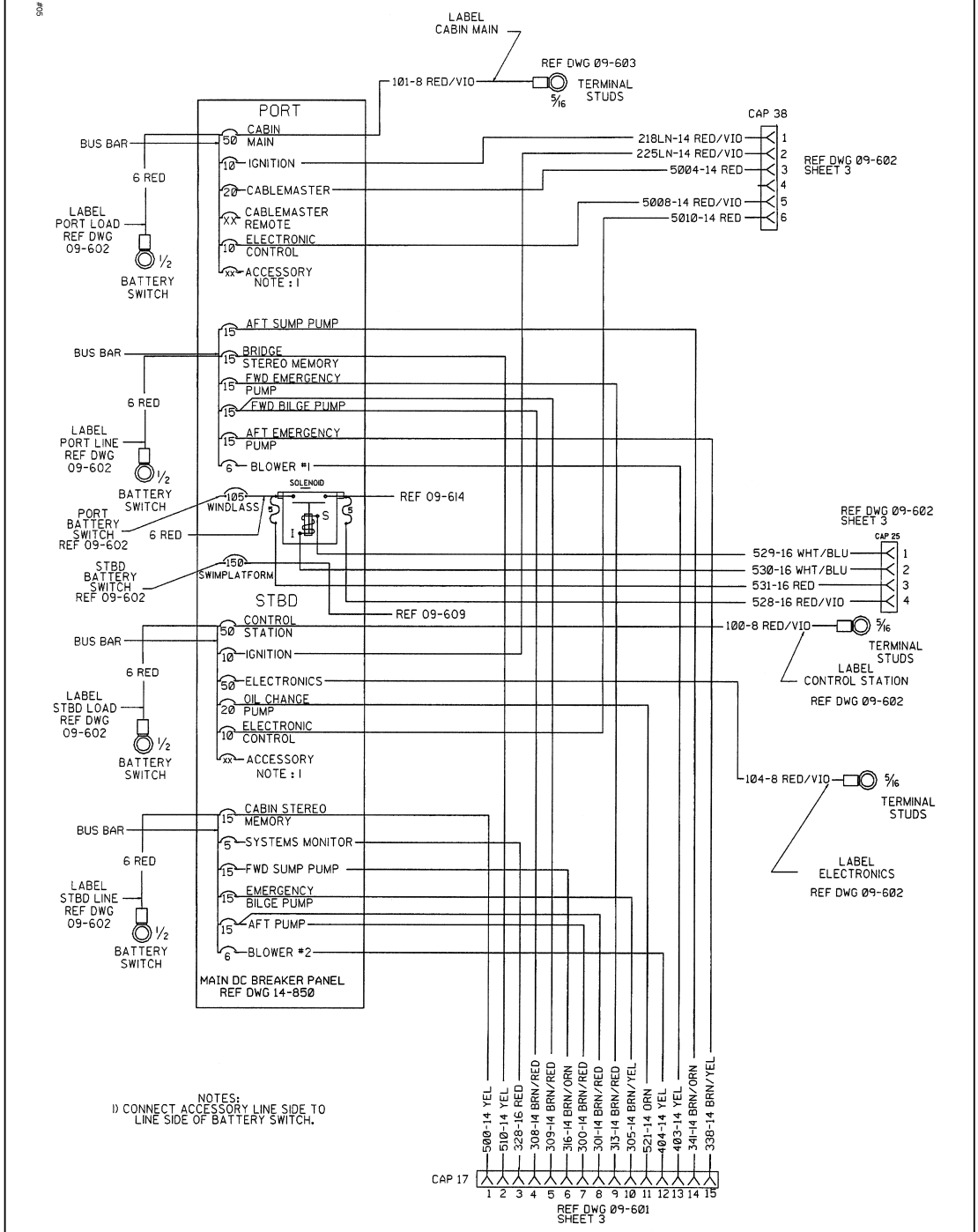


CABIN DC WIRING DIAGRAM

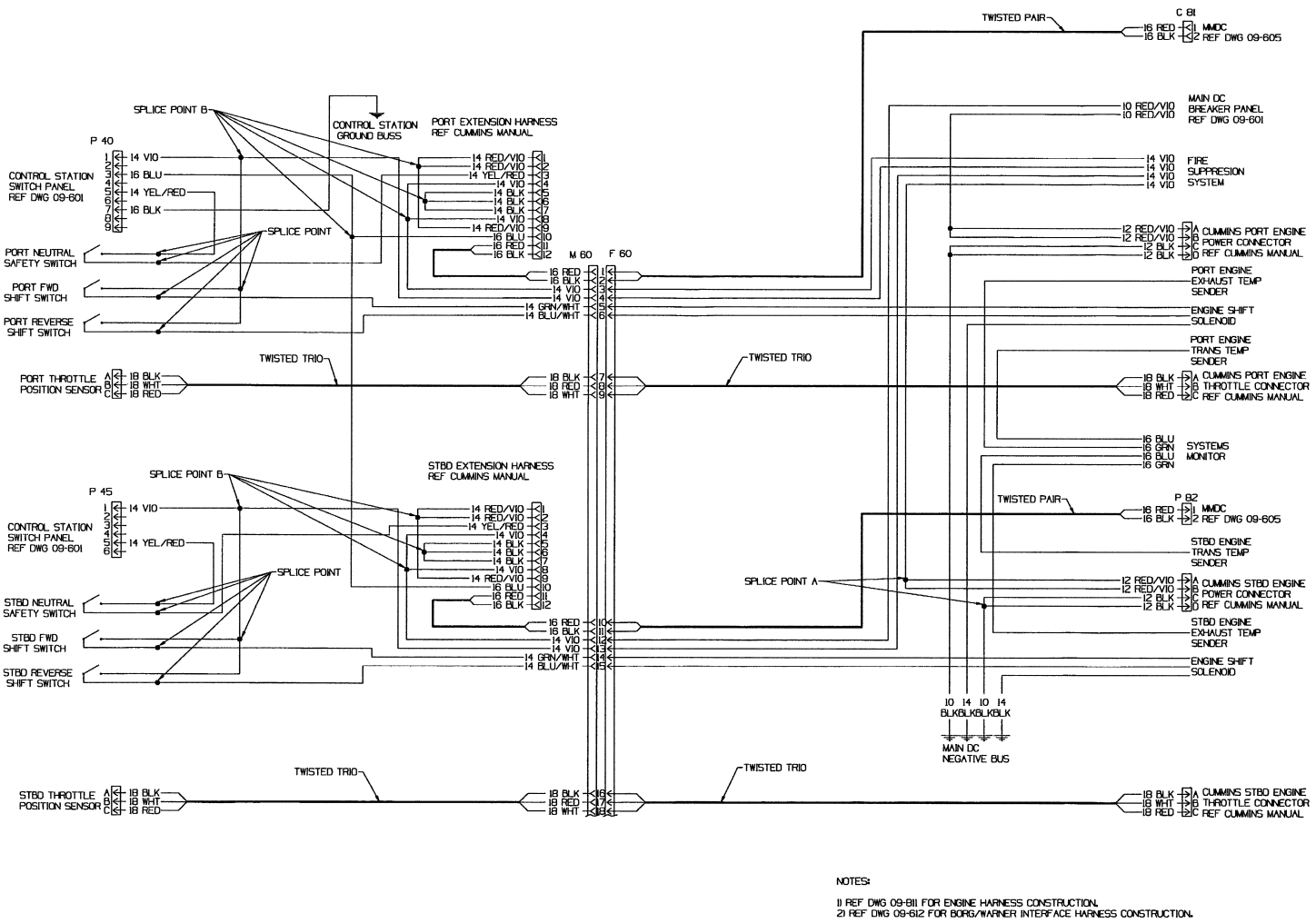


PRINT #09-603, 2 of 2, REVISION #01

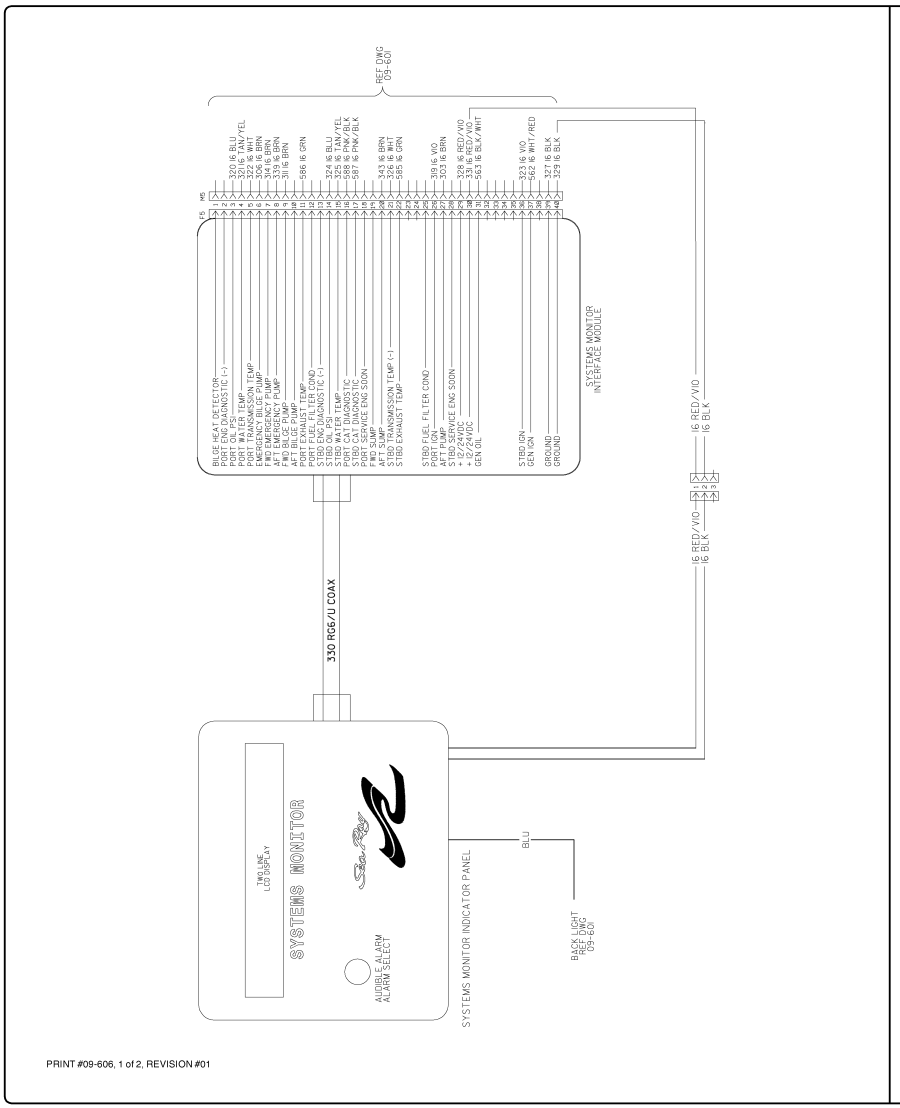
Main DC Breaker Panel Wiring



ENGINE HARNESS SCHEMATIC (CUMMINS QSM-11)



System Monitor Schematic



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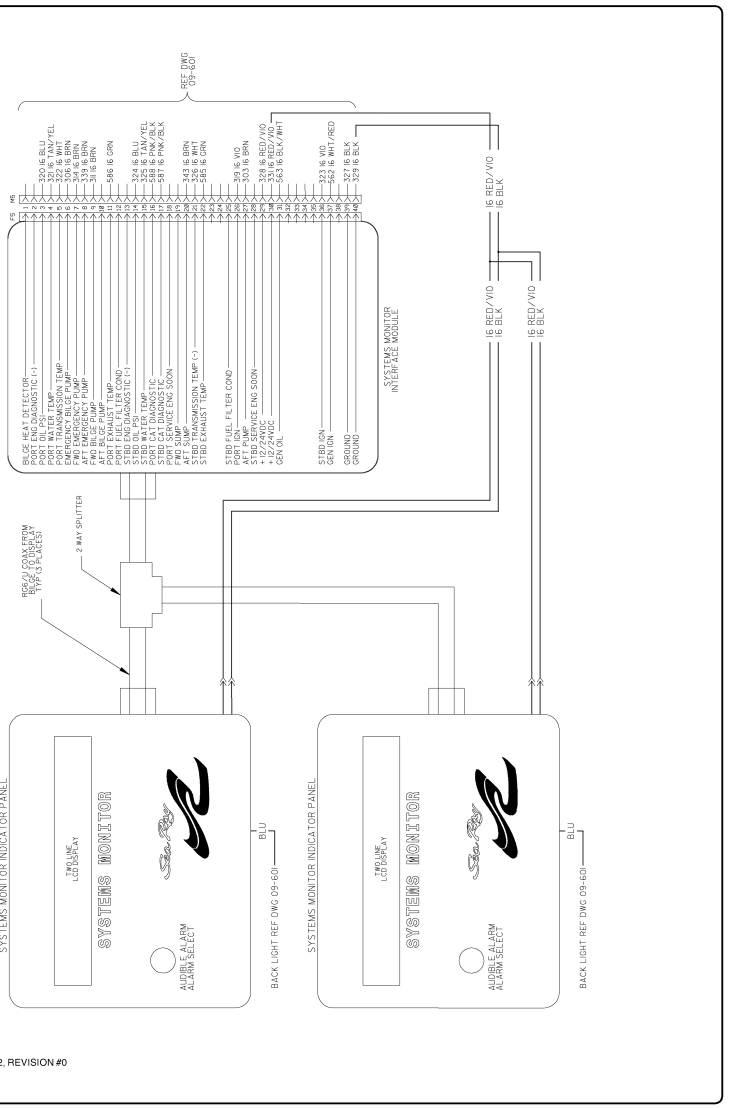
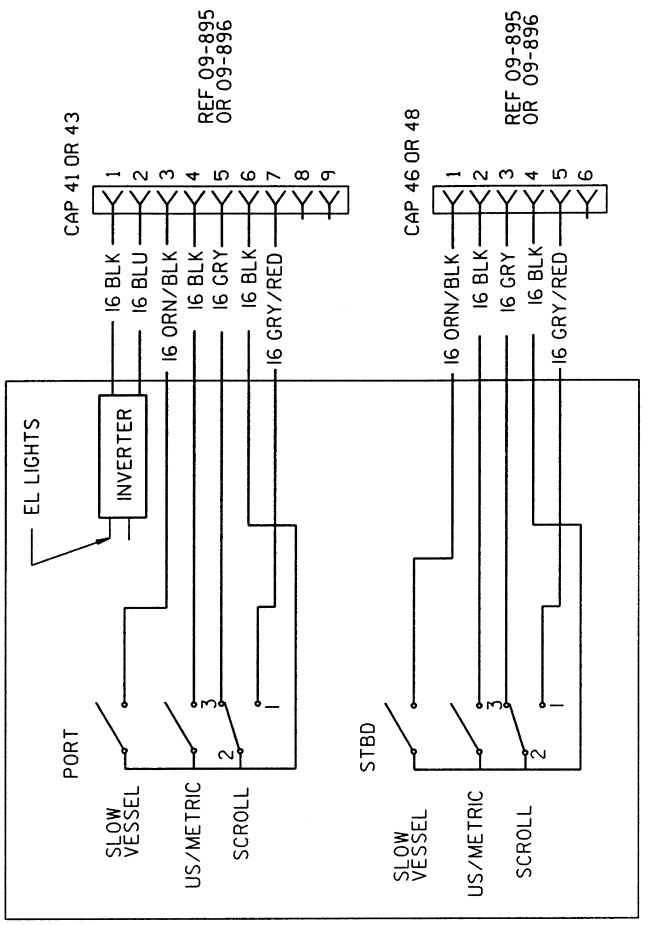


PRINT #09-606, 2 of 2, REVISION #0

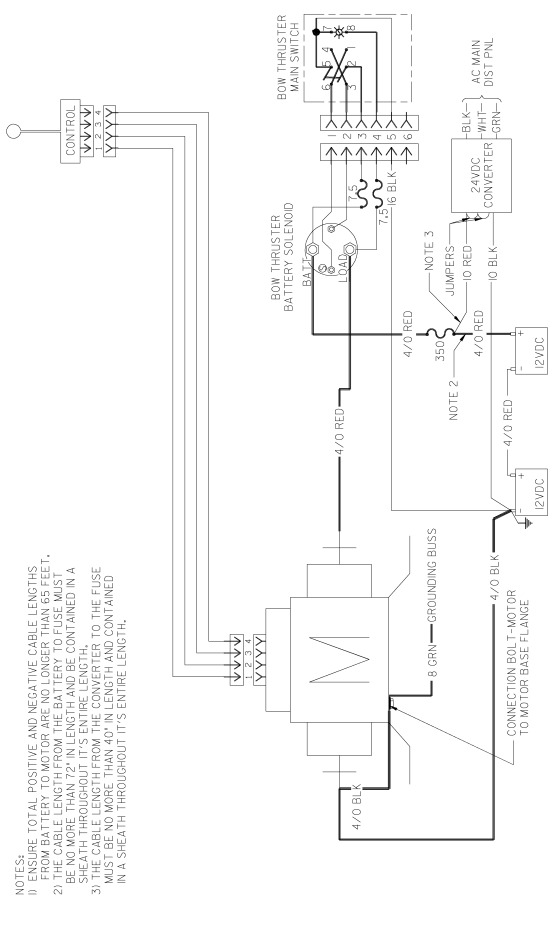
CAT EMS Switch Panel Wiring Diagram



PRINT #09-607, 1 of 2, REVISION #02

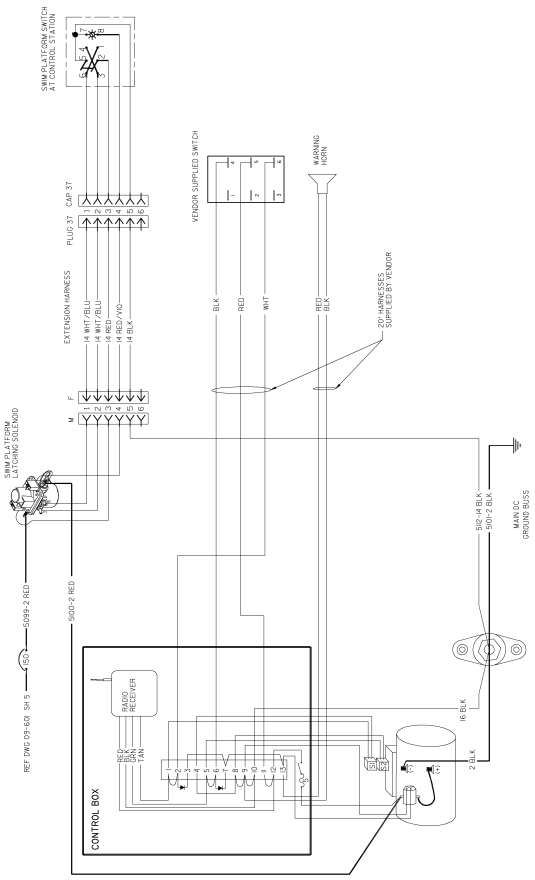
Bow Thruster Schematic

(Vetus 130k GF/160 GF)



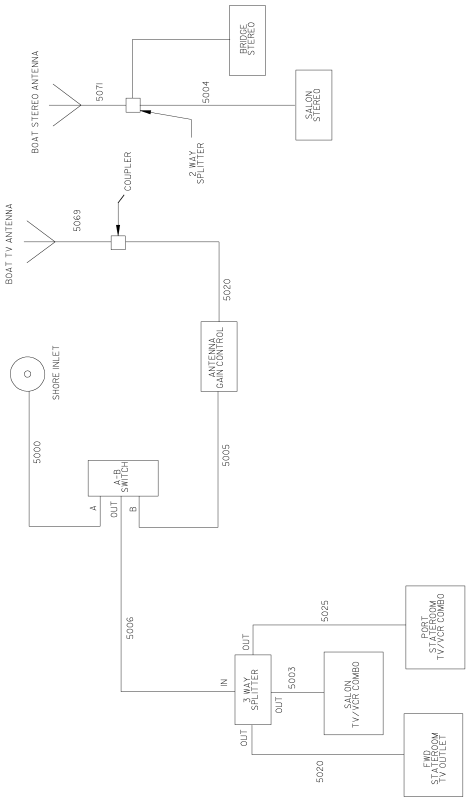
PRINT #09-608, 1 of 1, REVISION #0

SWIM PLATFORM SCHEMATIC (NAUTICAL STRUCTURES)



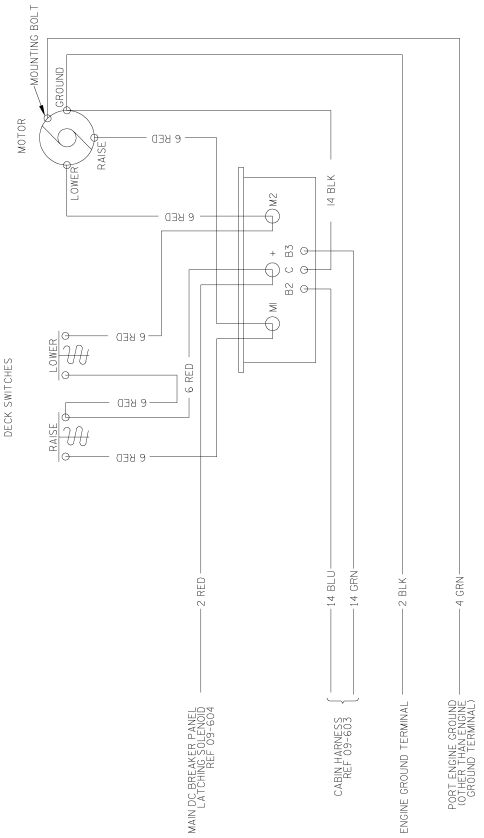
PRINT #09-609, 1 of 1, REVISION #0

TV & STEREO ANTENNA SYSTEM



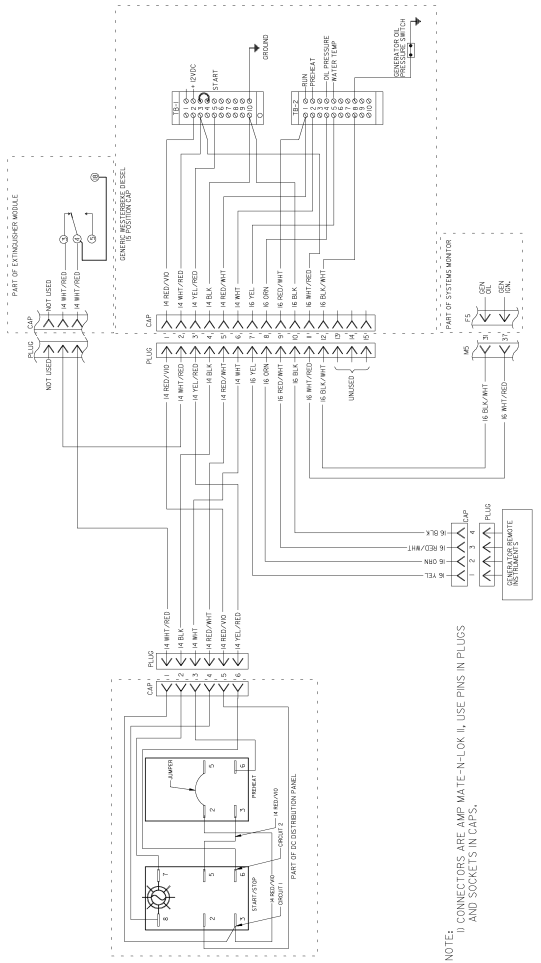
PRINT #09-612, 1 of 1, REVISION #0

LOFRANS PROGRESS II WINDLASS WIRING DIAGRAM



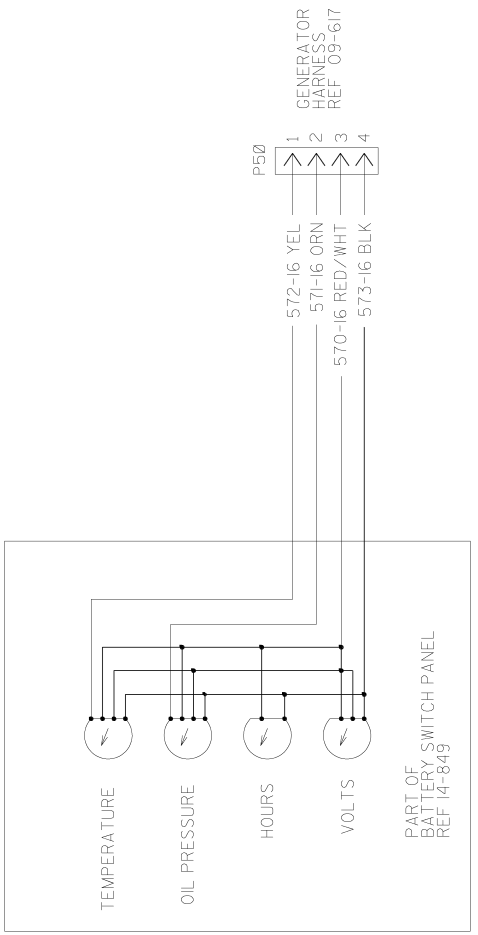
PRINT #09-614, 1 of 1, REVISION #0

WESTERBEKE DIESEL GENERATOR REMOTE WIRING



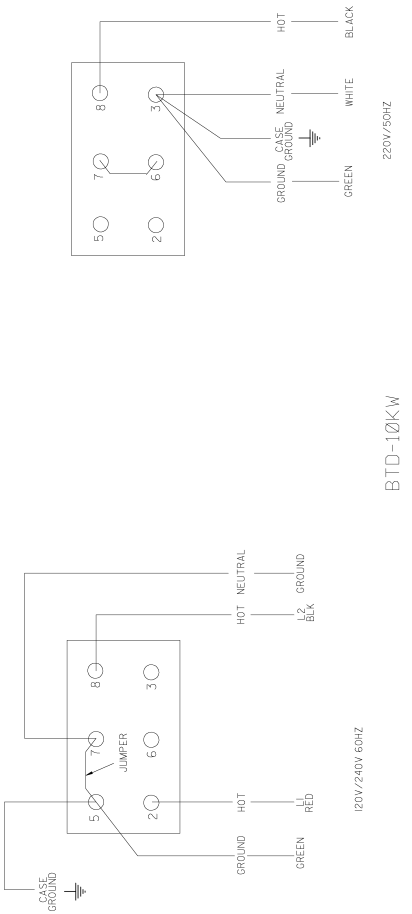
PRINT #09-617, 1 of 1, REVISION #01

WESTERBEKE DIESEL GENERATOR REMOTE INSTRUMENT PANEL WIRING



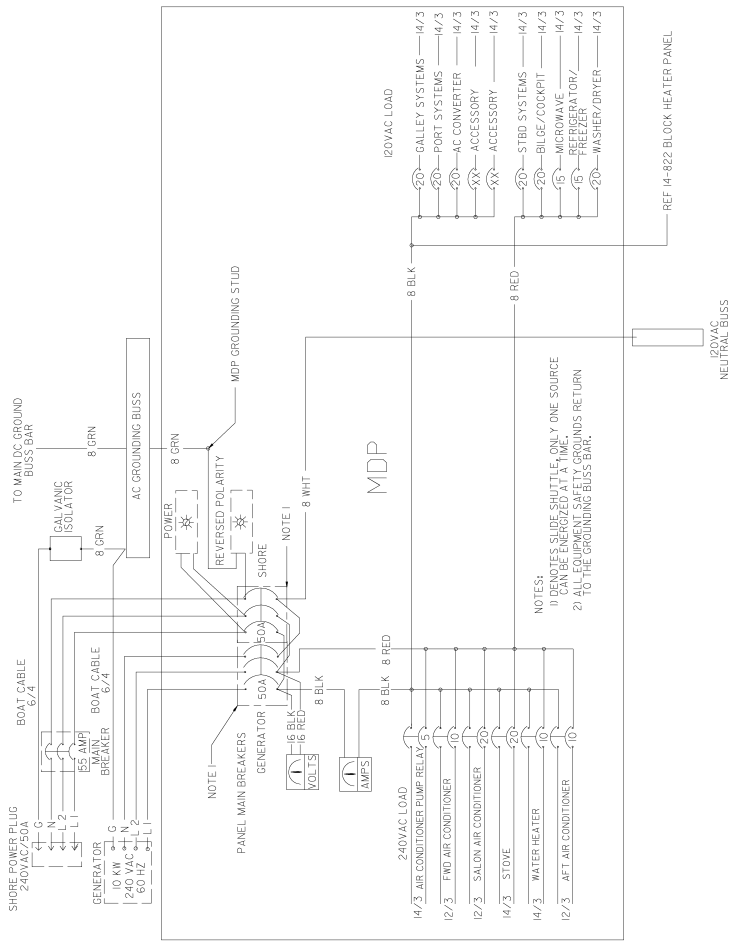
PRINT #09-618, 1 of 1, REVISION #0

WESTERBEKE DIESEL GENERATOR HIGH VOLTAGE WIRING



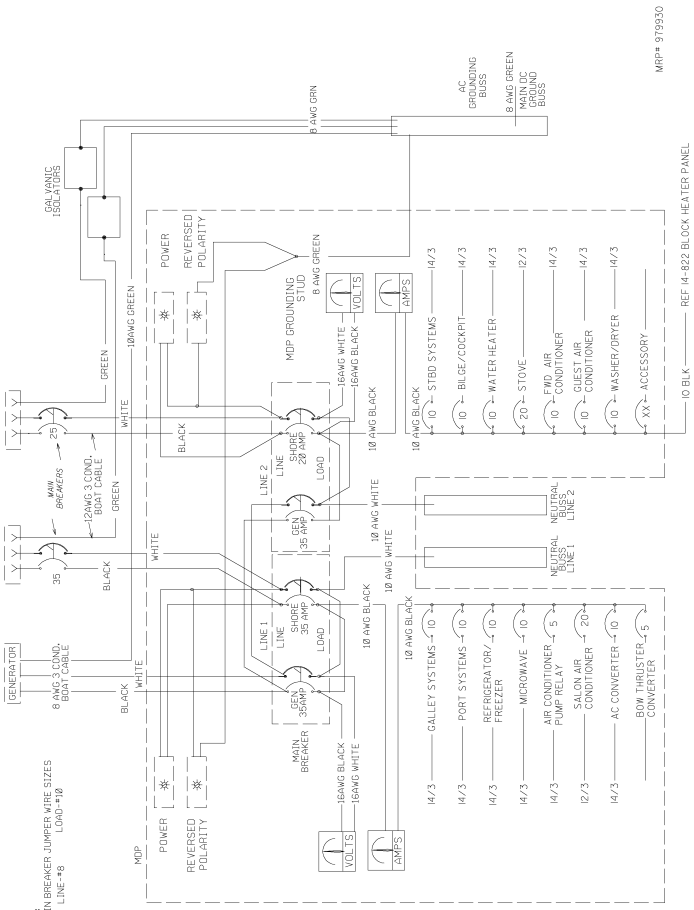
PRINT #09-619, 1 of 1, REVISION #0

AC WIRING SCHEMATIC (240 VAC)



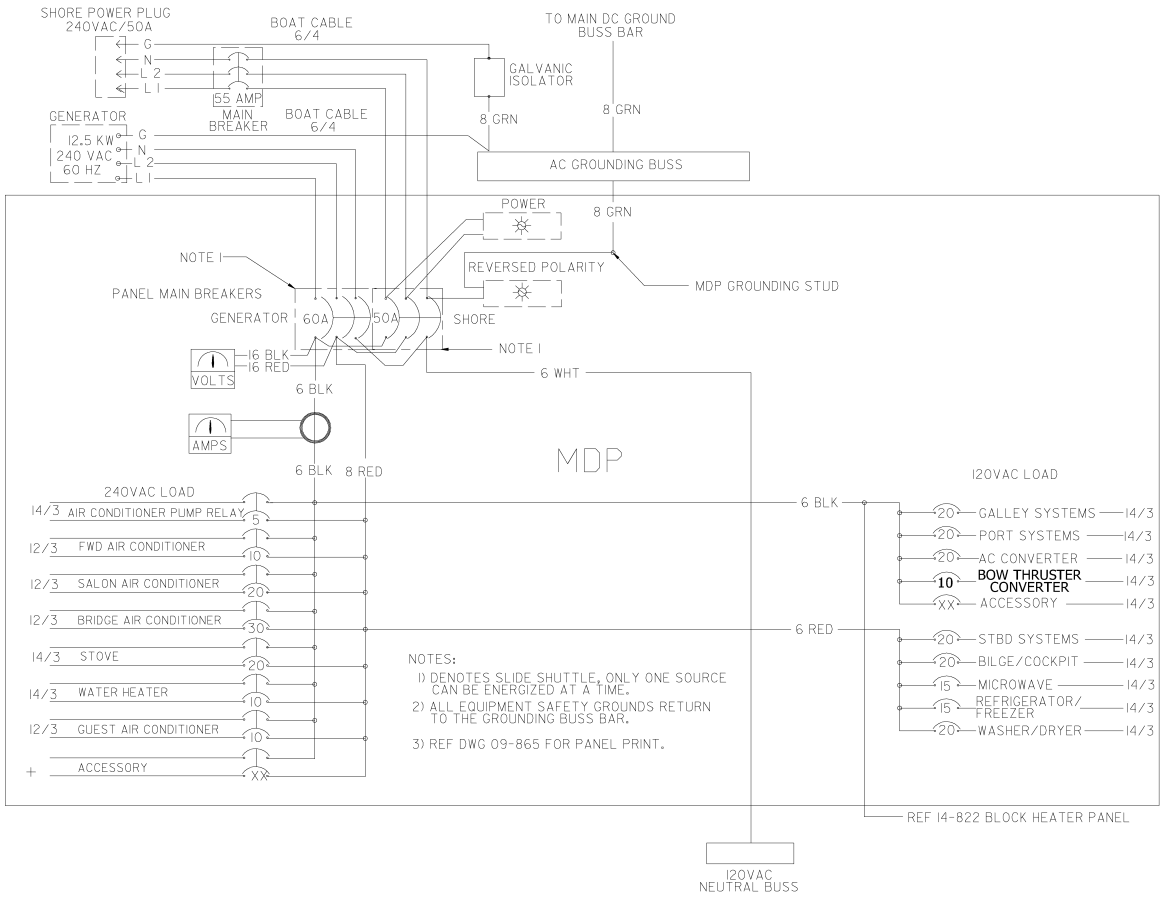
PRINT #09-631, 1 of 1, REVISION #02

AC WIRING SCHEMATIC (220 VOLT/50 HERTZ)



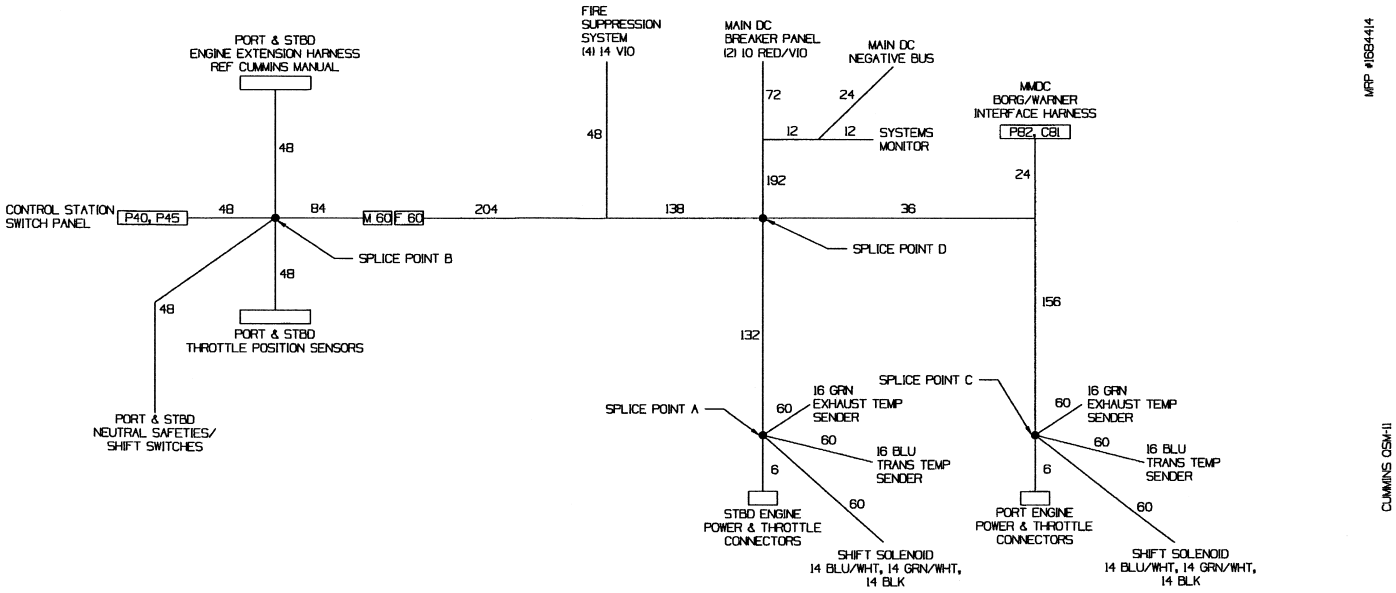
PRINT #09-633, 1 of 1, REVISION #02

AC Wiring Schematic (240 Vac With Bridge A/C)



PRINT #09-634, 1 of 1, REVISION #01

ENGINE HARNESS CONSTRUCTION (CUMMINS QSM-11)



PLUG 40
CONTROL STATION SWITCH PANEL
AMP MATE-N-LOK II (9 POS)
PLUG #770021-1
PINS #770250-1

ENGINE EXTENSION
HARNESS CONNECTOR
DEUTSCH DT06-12S
ALL SOCKETS 0462-209-16141
SEC LOCK W12S

PORT & STBD
THROTTLE POSITION SENSOR
YAZAKI CONNECTOR P/N 7283-1334-30
REAR HOLDER P/N 7157-6827-301
SEAL P/N 7157-7935
TERMINAL P/N 7116-1521

CAP 81
BORG/WARNER INTERFACE
AMP MATE-N-LOK II (2 POS)
CAP #770024-1
PINS #770257-3

PLUG 82
BORG/WARNER INTERFACE
AMP MATE-N-LOK II (2 POS)
PLUG #770017-1
PINS #770250-1

F 51 (9 POS)
DEUTSCH DT04-12P
ALL PINS 0460-215-16141
SEC LOCK W12P

M 52 (4 POS)
DEUTSCH DT06-4S
ALL SOCKETS 0462-209-16141
SEC LOCK W4S

F 53 (4 POS)
DEUTSCH DT04-4P
ALL PINS 0460-215-16141
SEC LOCK W4P

PLUG 45
CONTROL STATION SWITCH PANEL
AMP MATE-N-LOK II (6 POS)
PLUG #770020-1
PINS #770250-1

PORT & STBD ENGINE
POWER CONNECTORS
PACKARD 12010974
ALL PINS 12124587
SEALS 12015360

PORT & STBD ENGINE
THROTTLE CONNECTORS
PACKARD 12010717
ALL PINS 12089040
SEALS 12015323

F 60 (23 POS)
DEUTSCH HDP24-24-23-PN
ALL PINS 0460-215-16141

M 60 (23 POS)
DEUTSCH HDP26-24-23SN
ALL SOCKETS 0642-209-16141

NOTES:

1) WIRES TO BE UL STANDARD 1426, 105°C, 600V PER ABYC E 9.14.
2) TWISTED PAIRS OF 16 AWG WIRES, APPROXIMATELY 3 TWISTS PER 1".
3) ALL DIMENSIONS ARE IN INCHES.
4) ALL CONNECTORS TO BE PERMANENTLY MARKED WITH IDENTIFING NUMBER INDICATED.
5) SPLICES ARE TO BE MECHANICALLY CRIMPED AND COVERED WITH ADHESIVE LINED HEAT SHRINK TUBING.
6) USE CAVITY PLUGS ON ALL EMPTY POSITIONS IN ALL CONNECTORS.
7) CONNECTORS TO BE IDENTIFIED WITH RED TAPE FOR PORT AND GREEN TAPE FOR STBD.
8) REF DWG 09-605 FOR WIRING SCHEMATIC.

PRINT #09-810

NOTES:
1) WIRES TO BE 105° C, SAE J378/J1128, AND TYPE 2 STRANDING PER ABYC E 9.14.
2) TWISTED PAIR OF SHIELDED 16 AWG WIRES, APPROXIMATELY THREE TWISTS PER 1".
3) ALL DIMENSIONS ARE INCHES UNLESS OTHERWISE SPECIFIED.
4) TOLERANCES ARE + OR - 1" (NONCUMULATIVE) ON DROP-OFF LOCATIONS AND + OR - 2" ON DROP-OFF LENGTHS.
5) ALL CONNECTORS ARE TO BE PERMANENTLY MARKED WITH THE IDENTIFYING NUMBER INDICATED.
6) SPLICES ARE TO BE MECHANICALLY CRIMPED AND COVERED WITH ADHESIVE LINED HEAT SHRINK TUBING.
7) HARNESS TO BE IDENTIFIED WITH RED HEAT SHRINK AT EACH CONNECTOR.
8) CONNECTORS:

AMP MATE-N-LOK II

PLUG 40
9 POS 770021-1
ALL PINS 770007-1

PLUG 41
9 POS 770021-1
ALL PINS 770007-1

PLUG 99
15 POS 770023-1
ALL PINS 770007-1

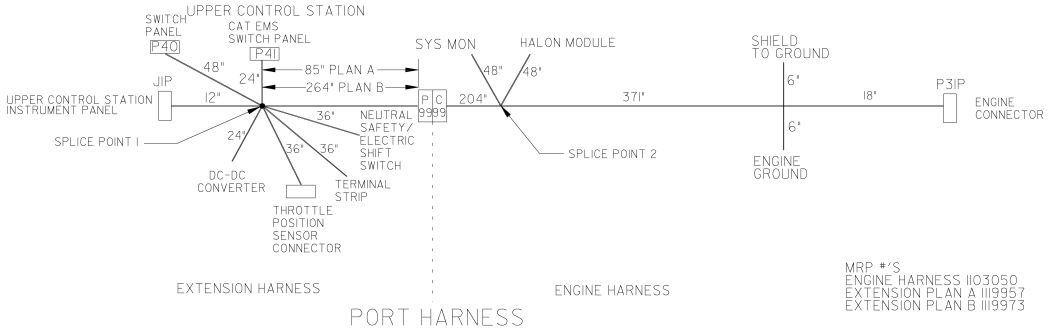
CAP 99
15 POS 770030-1
ALL SOCKETS 770008-3

DEUTSCH

J1P
12 POS DT06-12SA
SOCKETS 0462-201-16141
SECONDARY LOCK W12S

P3IP
40 POS DRC 16-40S
SOCKETS 0462-201-16141

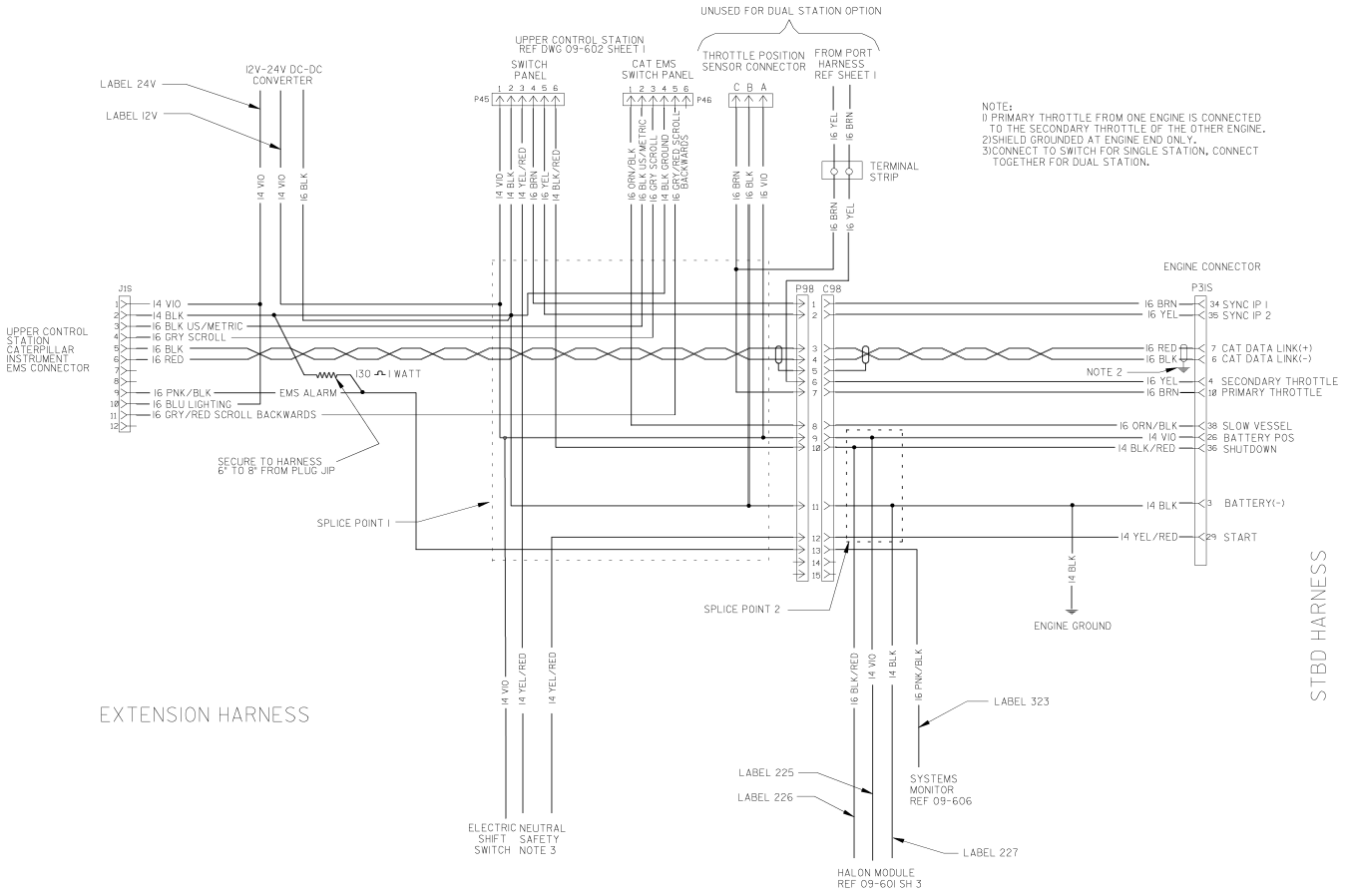
THROTTLE POSITION SENSOR
3 POS DT06-3S
SOCKETS 0462-209-16141
SECONDARY LOCK W-3-S



MRP #'S
ENGINE HARNESS 1103050
EXTENSION PLAN A 1119957
EXTENSION PLAN B 1119973

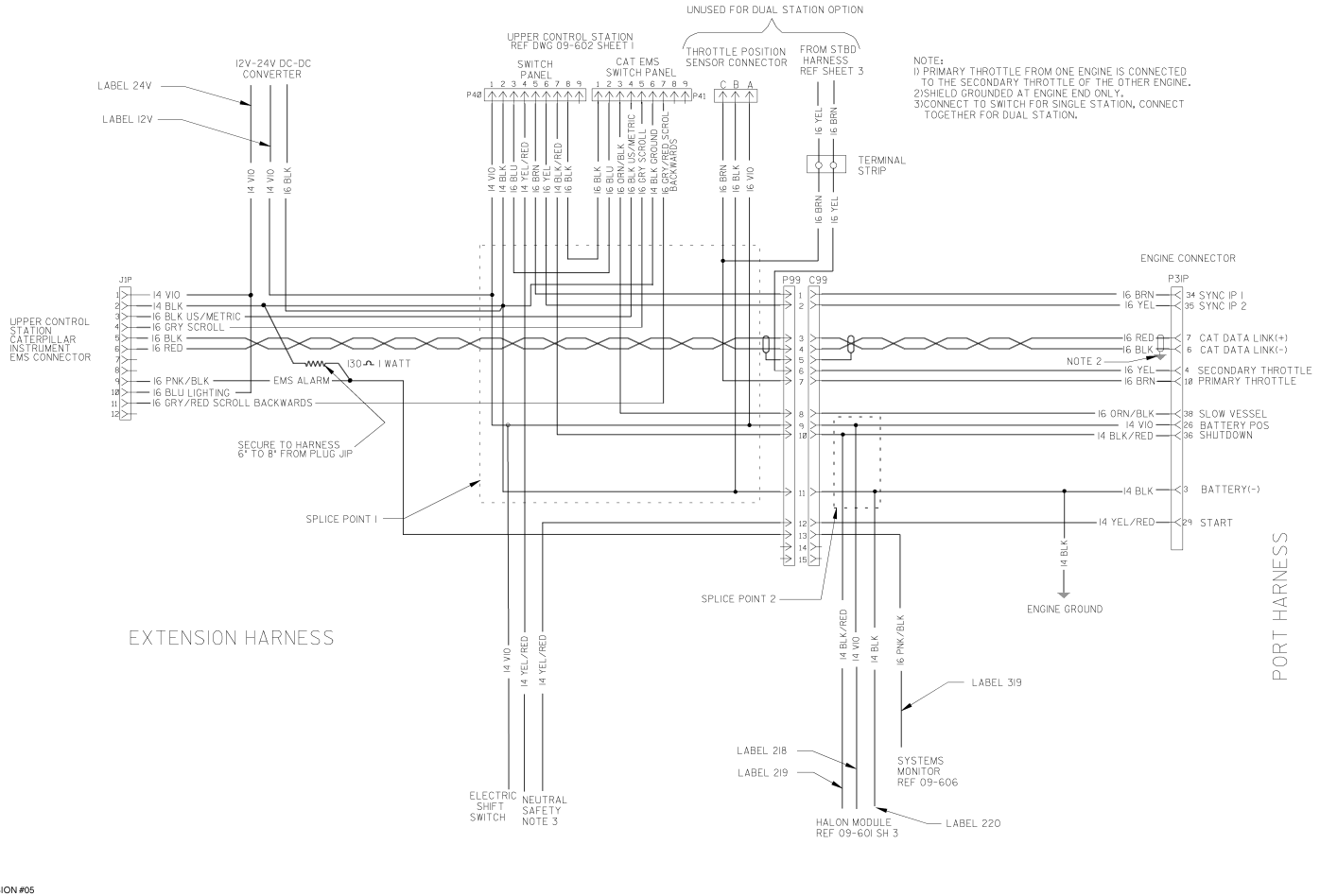
PRINT #09-895, 2 of 4, REVISION #06

ENGINE HARNESS CONSTRUCTION (STARBOARD SIDE) (CAT 3196)



PRINT #09-895, 3 of 4, REVISION #05

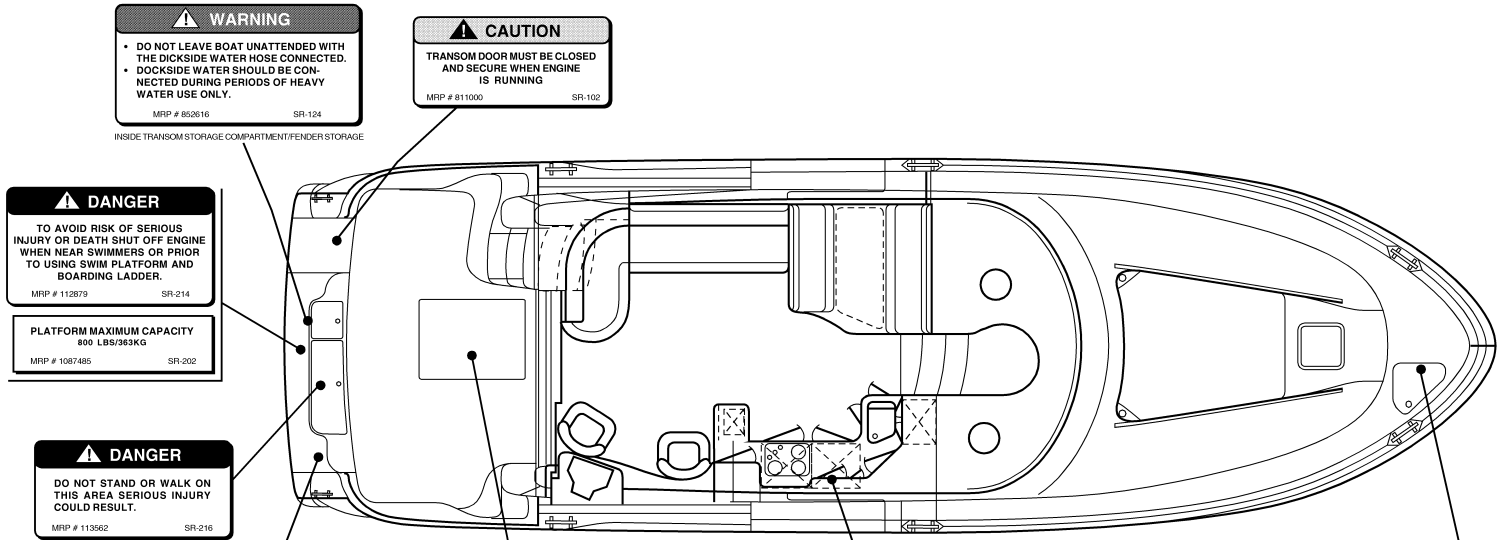
ENGINE HARNESS CONSTRUCTION (PORT SIDE) (CAT 3196)



PRINT #09-895, 4 of 4, REVISION #05

SAFETY LABEL LOCATIONS

Main Deck
(fig. 12.95.1)



WARNING
- DO NOT LEAVE BOAT UNATTENDED WITH THE DICKSIDE WATER HOSE CONNECTED.
- DOCKSIDE WATER SHOULD BE CONNECTED DURING PERIODS OF HEAVY WATER USE ONLY.

MRP # 852616 SR-124

INSIDE TRANSOM STORAGE COMPARTMENT/FENDER STORAGE

CAUTION
TRANSOM DOOR MUST BE CLOSED AND SECURE WHEN ENGINE IS RUNNING
MRP # 811000 SR-102

DANGER
TO AVOID RISK OF SERIOUS INJURY OR DEATH SHUT OFF ENGINE WHEN NEAR SWIMMERS OR PRIOR TO USING SWIM PLATFORM AND BOARDING LADDER.
MRP # 112879 SR-214

PLATFORM MAXIMUM CAPACITY
800 LBS/363KG
MRP # 1087485 SR-202

DANGER
DO NOT STAND OR WALK ON THIS AREA SERIOUS INJURY COULD RESULT.
MRP # 113562 SR-216

SHORE POWER
WARNING
To minimize shock hazard, connect and disconnect cable as follows;
1. Turn off boat's shore power switch.
2. Connect cable at boat first.
3. If equipped with polarity indicator which activates, disconnect and connect polarity.
4. Disconnect at shore outlet first.
5. Close inlet cover tightly.
DO NOT ALTER SHORE POWER CABLE CONNECTORS

LOCATED UNDER BILGE ACCESS DOOR

DISCHARGE OF OIL PROHIBITED
THE FEDERAL WATER POLUTION CONTROL ACT PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON THE NAVIGABLE WATERS OF THE UNITED STATES OR THE WATES OF THE CONTIGUOUS DISCOLORATION OF THE SURFACE OF THE WATER OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THEWATER. VIOLATORS ARE SUBJECT TO A PENALTY OF $5,000.

NOTICE
CHECK BATTERY CELL FUEL LEVEL APPROXIMATELY EVERY 4 WEEKS AND MORE OFTEN IN SUMMER AND HOT ZONES.
MRP # 914341 SR-139

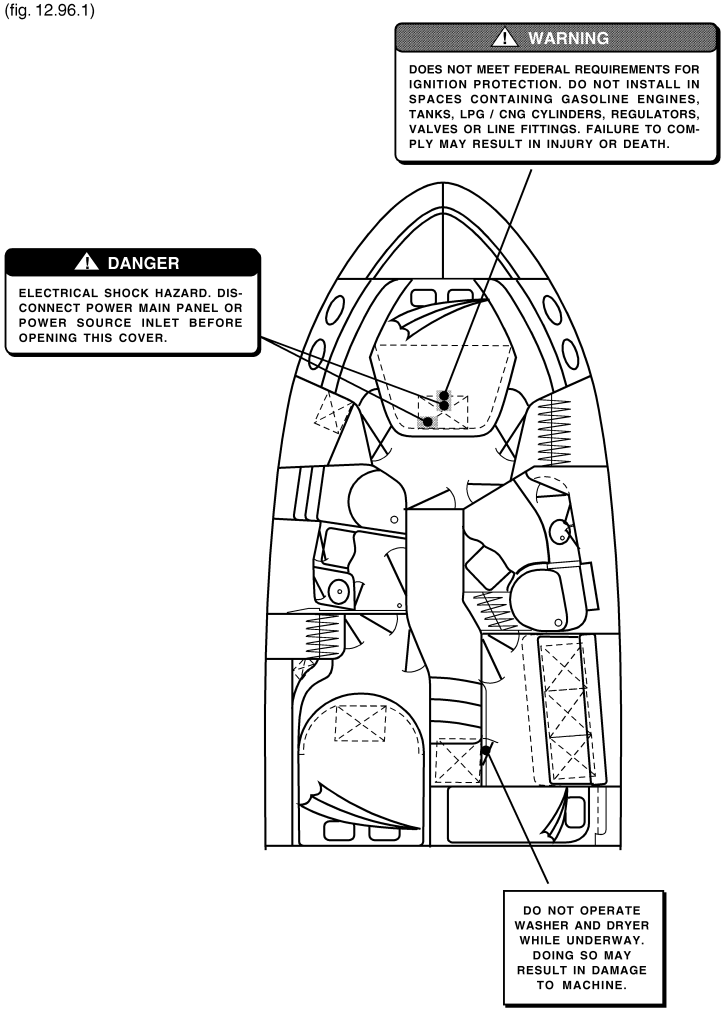
DANGER
STAY CLEAR OF MOVING PARTS
MRP # 921759 SR-162

WARNING
TURN OFF COFFEE MAKER BEFORE CLOSING DOOR.
MRP # 868380 SR-134

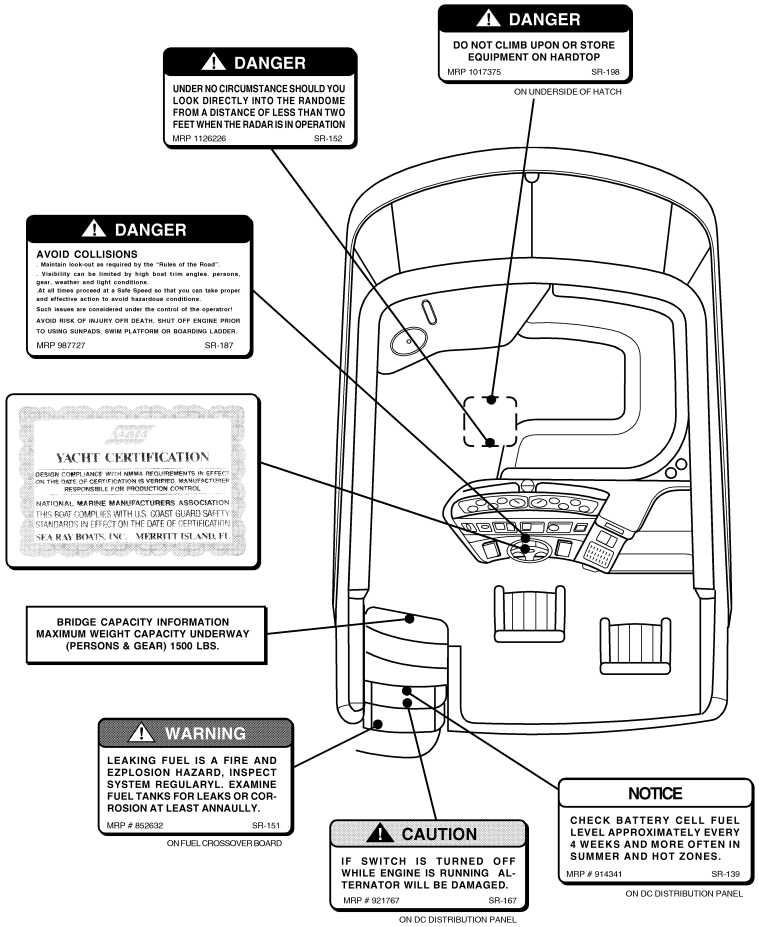
DANGER
STAY CLEAR OF MOVING PARTS
MRP # 921759 SR-162

LOCATED UNDER ANCHOR HATCH

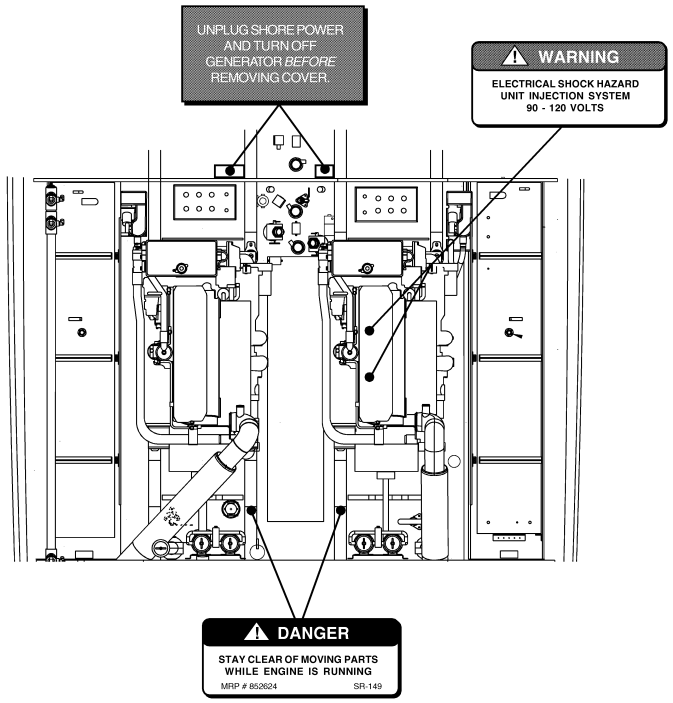
Lower Deck
(fig. 12.96.1)



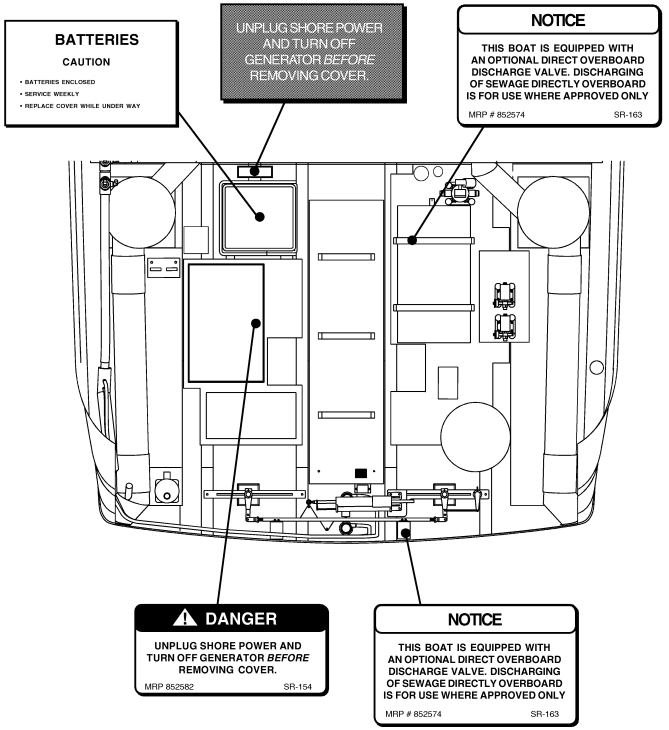
Bridge Plan A
(fig. 12.96.2)



Engine Room
(fig. 12.97.1)



Lazeret
(fig. 12.97.2)



International Homologations

This vessel and its systems have been constructed in accordance with standards and specifications in effect at the time of manufacture as published by the various regulatory authorities listed below.

1. Ministere De La Mer - France

2. Registro Italiano Navale - Italy

3. Det Norske Veritas - Norway

4. Securite des Nauires - Canada

5. J.C.I. (Japan Craft Inspection) - Japan

6. N.K.K. (Nippon Kaiji Kyokai) - Japan

7. B.S.I. (British Standards Institute) - England

8. Ministerio Obras Publicas Y Transporters - Spain

9. EC Directive - European Community

Further information may be obtained from Sea Ray® Customer Service. 1-800-SRBOATS.