

330 Express Cruiser

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 to 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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Teleflex Engine

Schronizer Mudule Schematic 12.35

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(This book contains 36 pages.)

WARRANTY INFORMATION

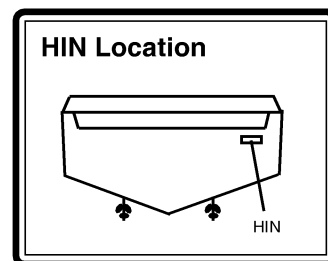
Sea Ray's® warranty is better than ever. Find the warranty information card in your owner's manual packet for complete details. If for some reason the card is missing contact your Sea Ray dealer for a new one.

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 International

If a problem is not handled to your satisfaction:

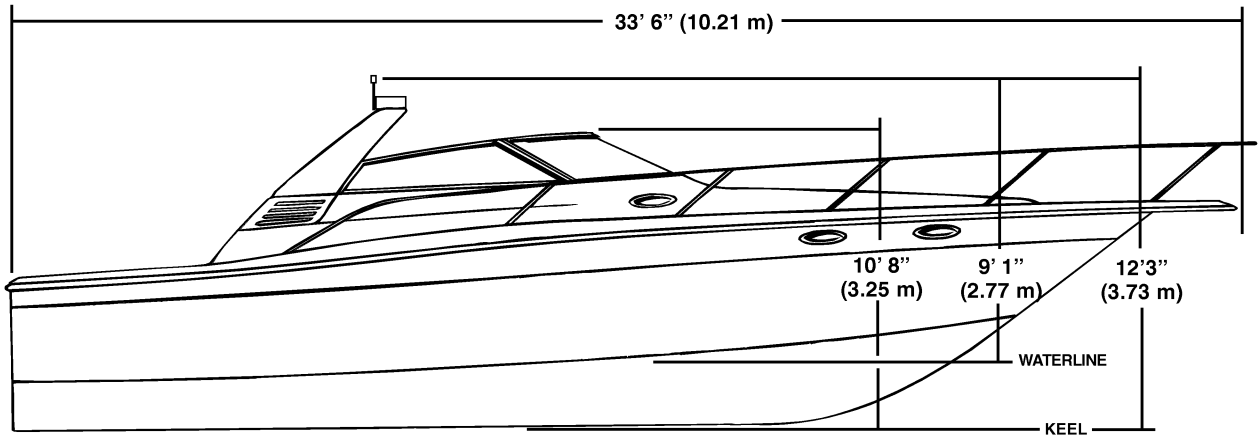
1. Discuss any warranty-related problems directly with the service manager of the dealership or your sales person. Give the dealer an opportunity to help the service department resolve the matter for you.
2. If a problem arises that has not been resolved to your satisfaction by your dealer, contact Sea Ray Boats at 1-800-SRBOATS and the appropriate customer service department information will be provided for you.

Sea Ray

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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.

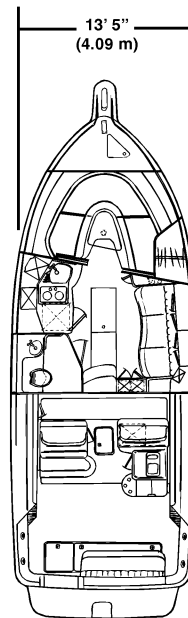
Specifications & Dimensions



(fig. 12.3.1)

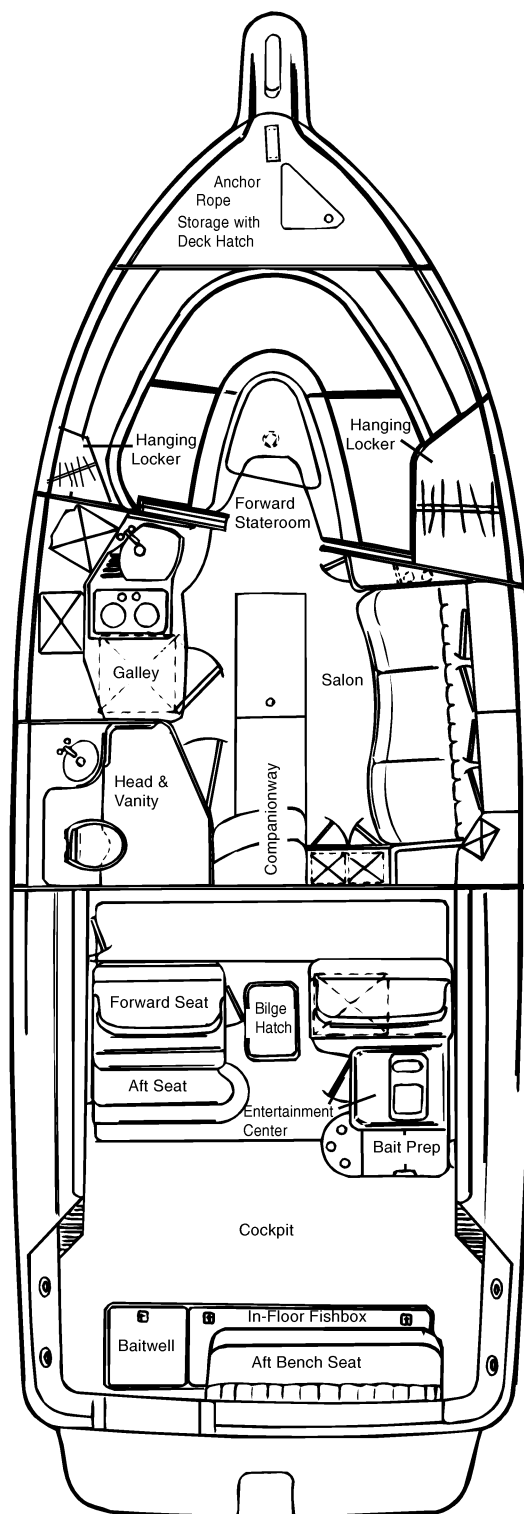
SPECIFICATIONS & HEIGHT DIMENSIONS

Overall Length	33' 6" (10.21 m)
w/Standard Pulpit & Platform	38'
Beam	13' 5" (4.09 m)
Draft	36"
Dry Weight – Standard Power	16,500 lbs. (7,484 kg)
Fuel Capacity	275 gal. (1,040.9 liters)
Useable Fuel	260 gal.
Water Capacity	50 gal. (189.3 liters)
Holding Tank	28 gal. (106 liters)
Dead Rise	19.5°
Waterline To Top Of Mastlight	9' 1" (2.77 m)
Keel To Top Of Mastlight	12' 3" (3.63 m)
Keel To Top Of Windshield	10' 3" (3.12 m)



(fig. 12.3.2)

Standard Accommodation Plans



(fig. 12.4.1)

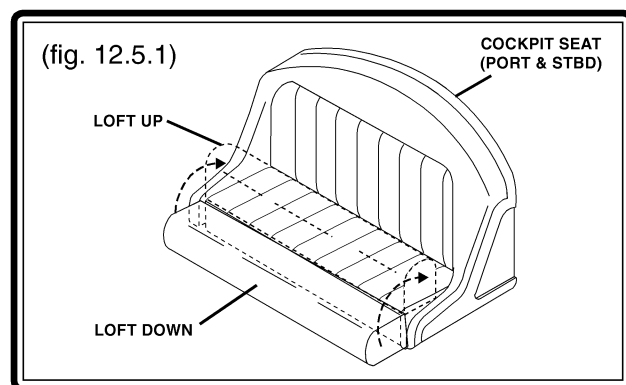
Supplemental General Information

ENGINE ACCESS

The 330 EC is equipped with a electrically actuated cockpit bridge deck to allow access to the engines and bilge area. The actuator switch is located at the transom to the port side of the cockpit seat.

WARNING

BEFORE RAISING ENGINE HATCH
Move power helm seat to aft position. Raise helm seat loft to vertical position. Move helm steering to lowest position close all cockpit wet bar lids.

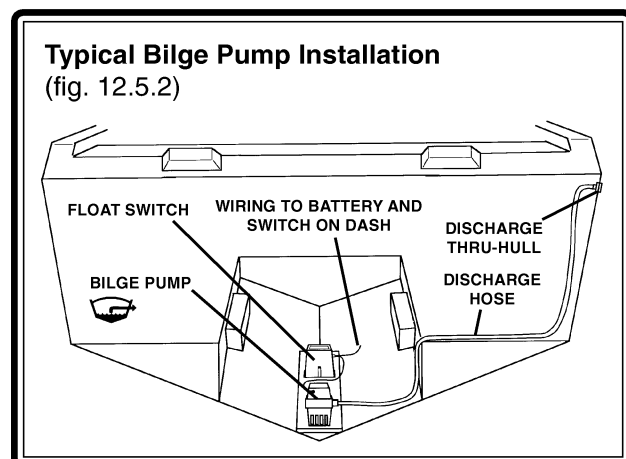


BILGE PUMPING SYSTEM



The 330 EC is equipped with an automatic bilge pump system.

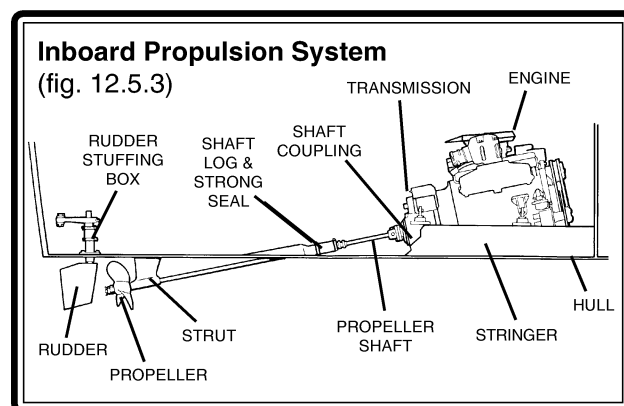
REFER TO THE OWNER'S MANUAL AND OWNER'S PACKET FOR INSTRUCTIONS AND WARRANTY INFORMATION.



PROPULSION SYSTEM

The 330 EC is equipped with an inboard drive type propulsion system also known as an inboard engine.

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



HEAD SYSTEM

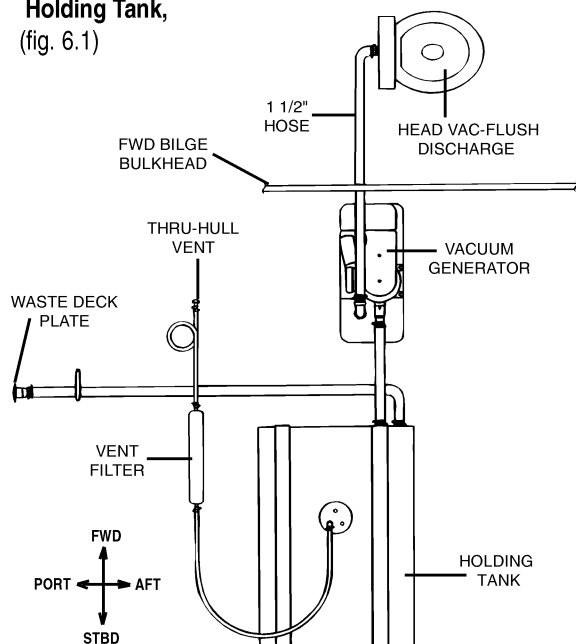
The head system on your Sea Ray® utilizes the following items: Vac-Flush Head, Vacuum Generator, Holding Tank, Vent Filter & Waste Deck Plate. Your boat maybe equipped with the macerator option. Below is a brief description of the system. The Owner's Packet in your boat contains information pertaining to your head system that should be carefully read.

CAUTION

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

Supplemental General Information

**Vacuum Flush With
Holding Tank,**
(fig. 6.1)



MACERATOR OPTION

The macerator gives the boat operator the means of discharging the holding tank contents directly overboard through a seacock in the bottom of the hull. This option is available in conjunction with the dockside pump-out. DISCHARGE OF SEWAGE DIRECTLY OVERBOARD IS FOR USE WHERE APPROVED ONLY.

To direct waste from the holding tank to the macerator, open the overboard discharge seacock.

To operate the macerator:

1. Turn ON the "HEAD SYSTEM" breaker and open the waste discharge seacock located on the bilge floor.
2. Operate discharge switch located in the head.
3. When tank is empty, release the switch and close waste discharge seacock.

FUEL SYSTEM

The 330 EC is equipped with either a gasoline or diesel fuel system. Refer to figures 12.7.1 & 12.8.1 for general layout of the fuel systems. Fueling instructions and precautions can be found in the *Owner's Manual*, Section 4, *Fueling & Starting*.

NOTICE

There is the possibility of being fined for having an operable overboard discharge in U.S. waters. Removing handle of seacock, in closed position, or other means must be utilized to avoid fine.



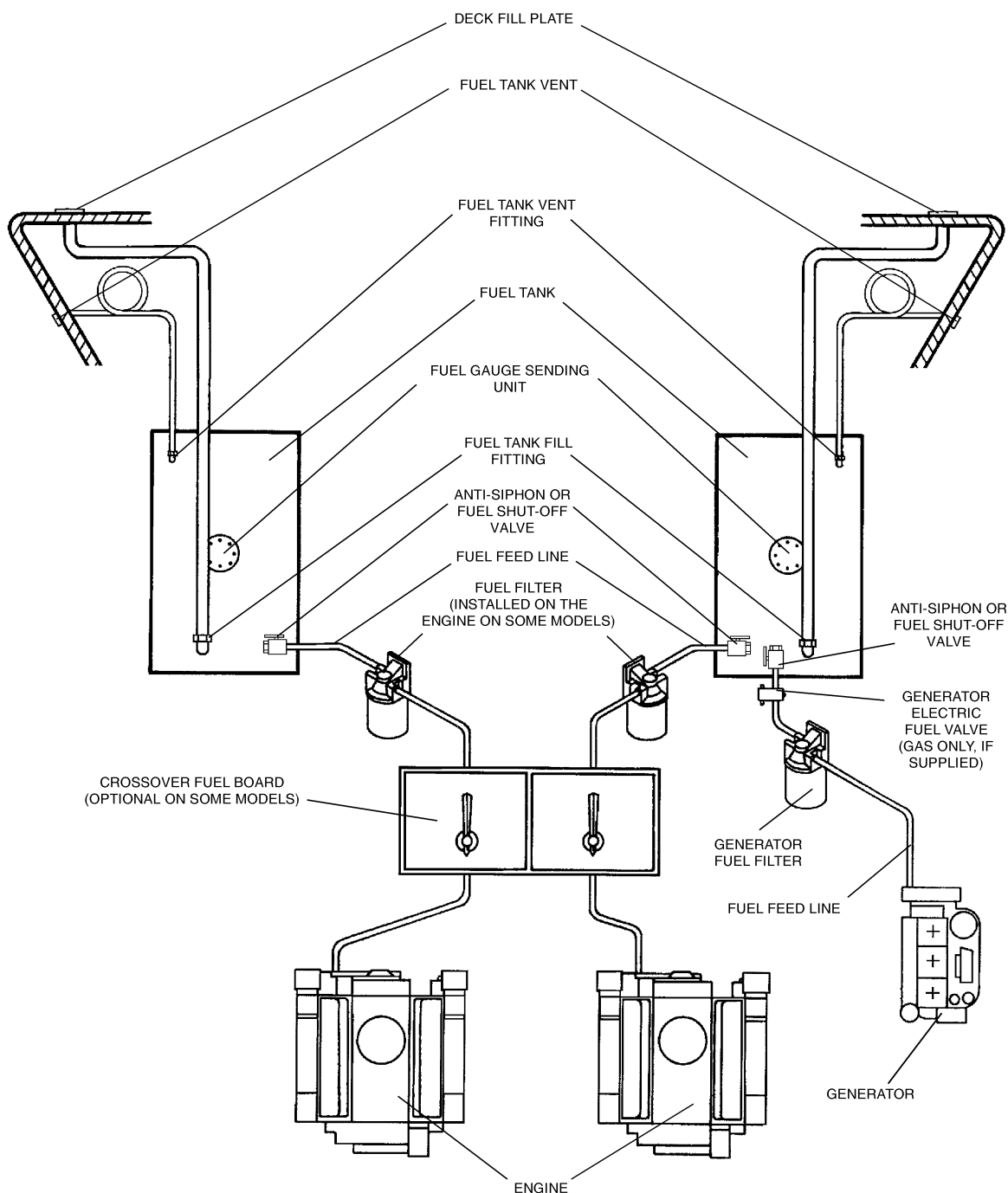
CAUTION

Damage will occur to the macerator if operated with the deck waste plate off or loose.

Gasoline Fuel System

Twin Engines/Twin Fuel Tanks

(fig. 12.7.1)

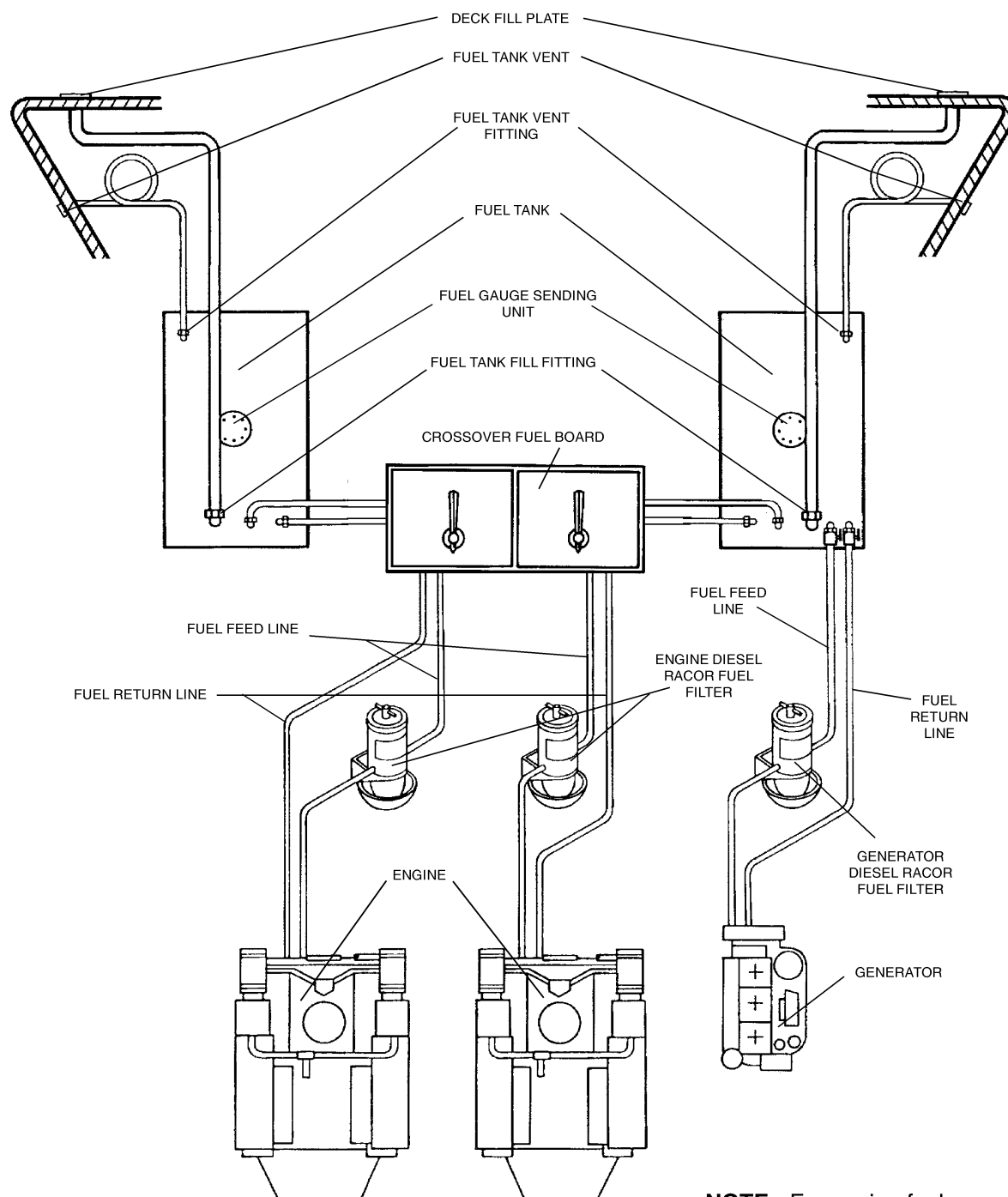


NOTE: For engine fuel system routing & service refer to engine owner's manual.

Diesel Fuel System

Twin Engines/Twin Fuel Tanks

(fig. 12.8.1)



NOTE: For engine fuel system routing & service refer to engine owner's manual.

Supplemental General Information

ENGINE COOLING SYSTEM

The engine cooling system consists of an internal integral system and an external system of seacocks, hoses and strainers. Refer to the *Owner's Manual, Section 2, Bilge & Underwater Gear* for instructions for seacocks and strainers.

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

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.



CAUTION

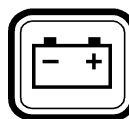
While the engine is running, the battery terminal clamps must not be loosened or detached nor should the battery switch(es) be turned off, otherwise the alternator and other electronic units will be damaged.



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



Refer to the owner's manual for battery disconnect and maintenance. When replacing a battery, refer to your engine operation and maintenance manual to find the recommended battery for the engine installed in your boat.

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.

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 on the port and starboard sides of the bilge.

Bilge blower switches are located on the helm switch panel and the DC main distribution panel. Bilge blower breakers are located on the main DC breaker and battery switch panel under the salon companionway steps.

Supplemental General Information

The Sea Ray® 330 Express Cruiser 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.

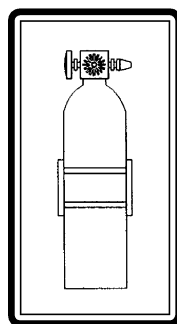
REFER TO "SECTION 2, BILGE & UNDERWATER GEAR" AND OWNER'S PACKET FOR OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS.

STEERING SYSTEM

The 330 EC is equipped with a hydraulic power steering system with tilt steering wheel.

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

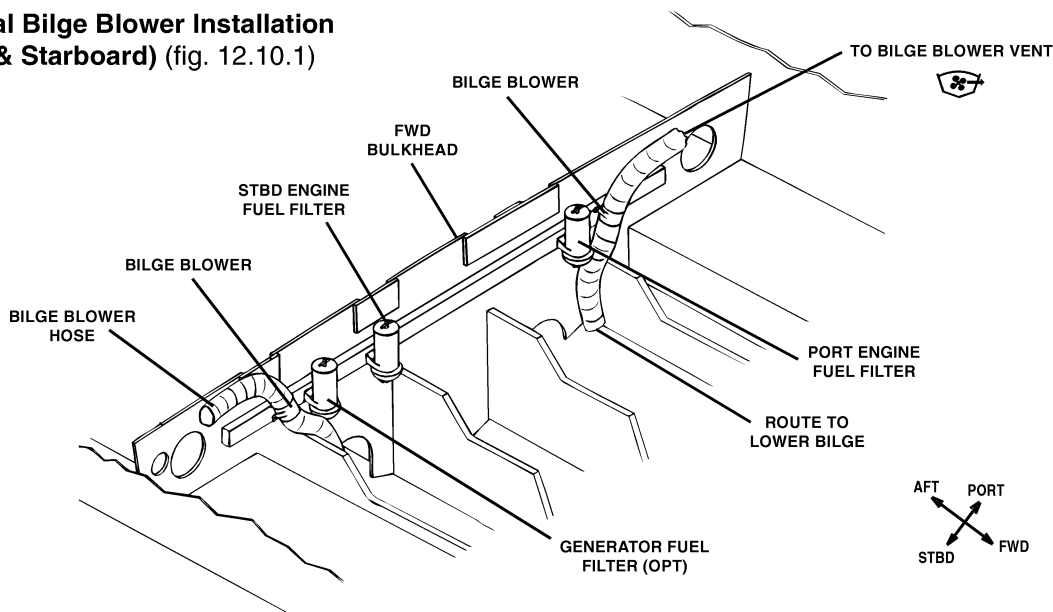
FIRE EXTINGUISHING SYSTEM



The 330 EC is offered with the standard automatic fire extinguishing system. Your boat should also be equipped with approved fire extinguishers.

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

**Typical Bilge Blower Installation
(Port & Starboard) (fig. 12.10.1)**



Supplemental General 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 330 EC is equipped with a windlass and an anchor chute. Stow the anchor in the chute when not in use. A wash down faucet is located inside the rope locker. This should be used to wash down your anchor and rope or chain after 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.



WARNING

Keep hands, feet, hair and loose clothing away from moving parts. Entanglement could cause severe bodily injury, ie. loss of fingers or toes.

LIFE SAVING EQUIPMENT

(Personal Floation Device (PFD))

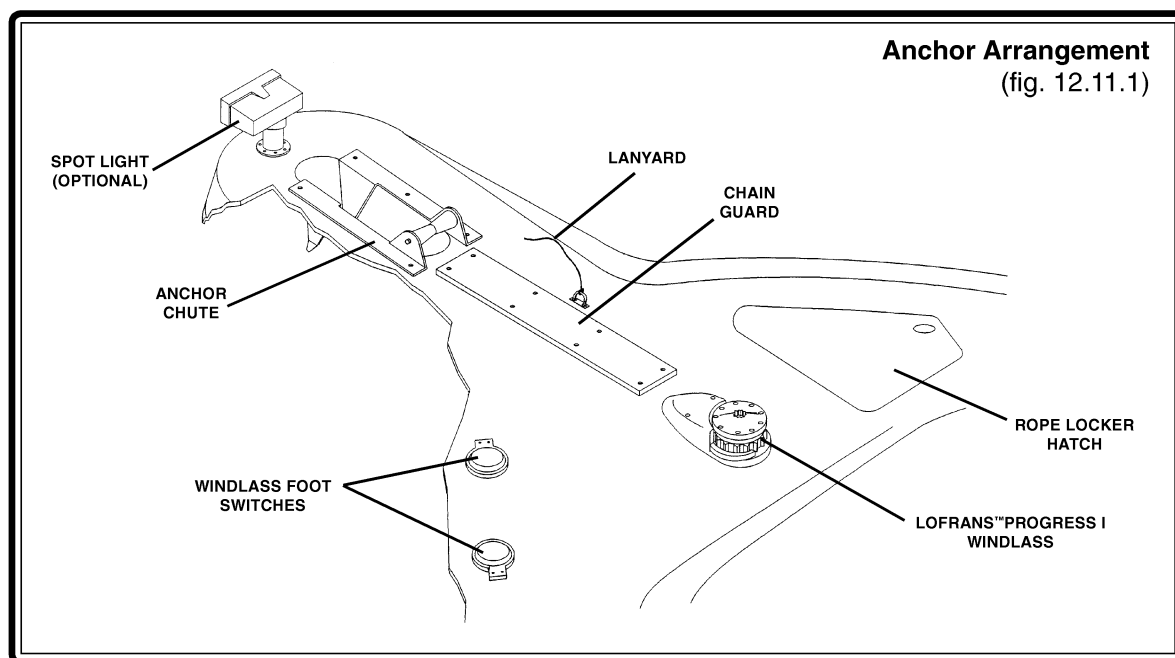
STORAGE: The 330 EC offers lifesaving equipment storage under the aft cockpit seat cushion, in the forward port cockpit seat area, under the main stateroom berth and in the salon floor storage area.

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 thoroughly. Do not store in a damp compartment. Avoid the possibility of mildew.

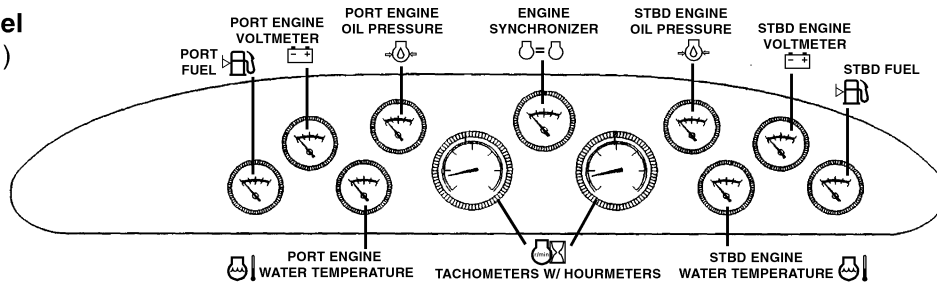
SECURITY CONSIDERATIONS

Be conscious of the security of your boat. Always remove the keys from the ignition, lock hatches, and 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.

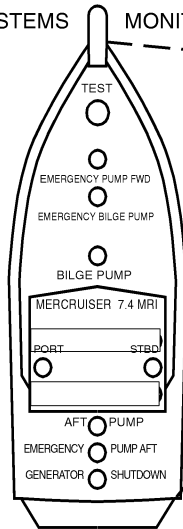


Control Station Layout

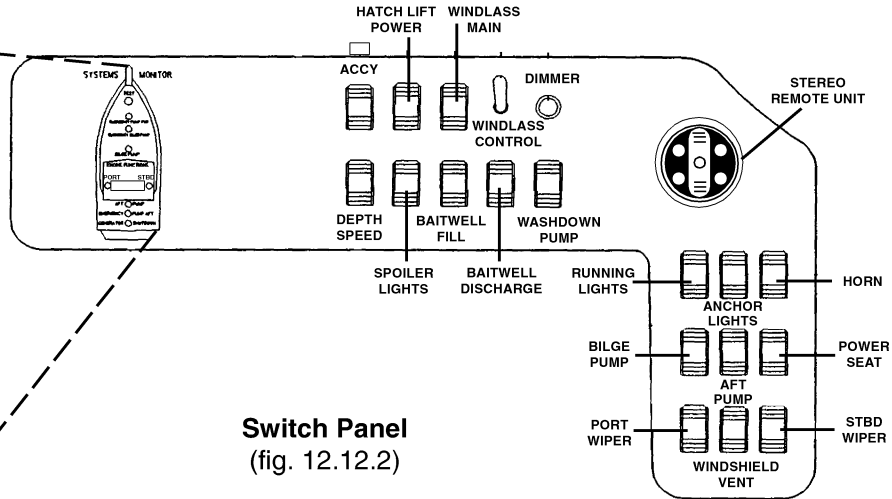
Gauge Panel
(fig. 12.12.1)



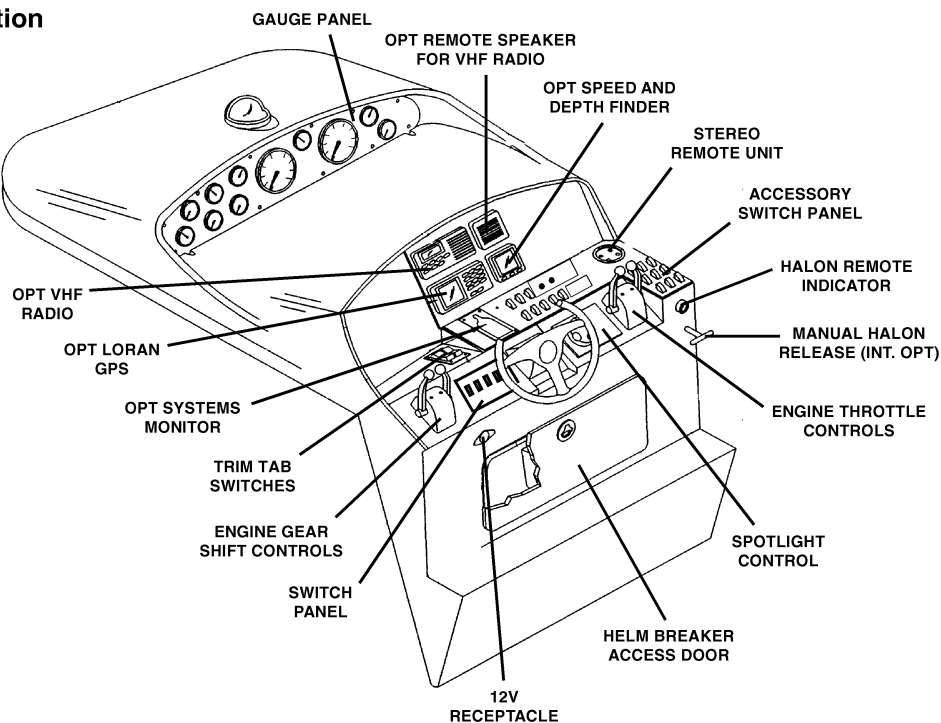
SYSTEMS MONITOR



Switch Panel
(fig. 12.12.2)



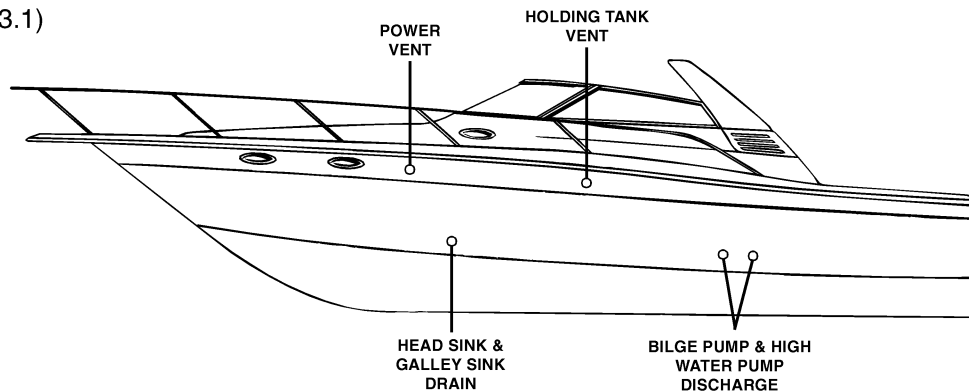
Control Station
(fig. 12.12.3)



Location of Through-Hull Fittings

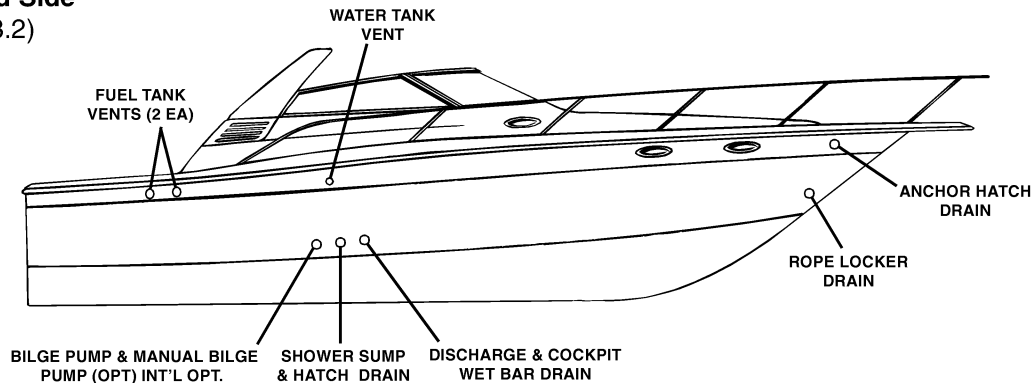
Port Side

(fig. 12.13.1)



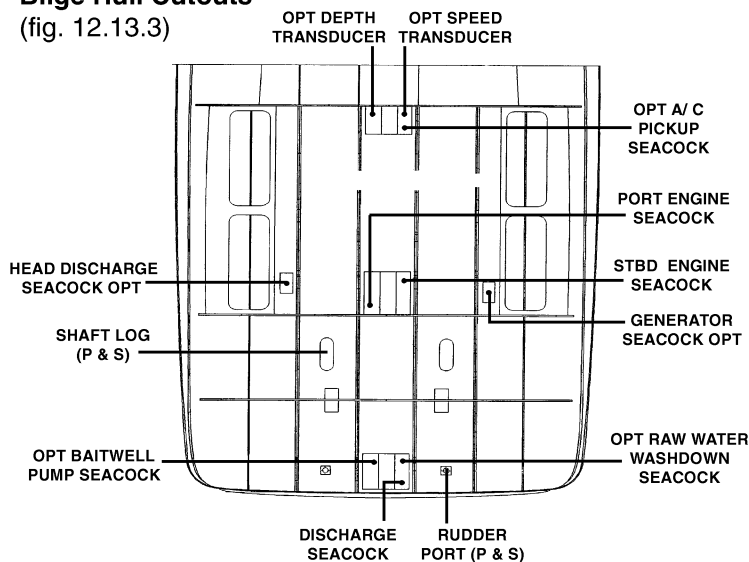
Starboard Side

(fig. 12.13.2)



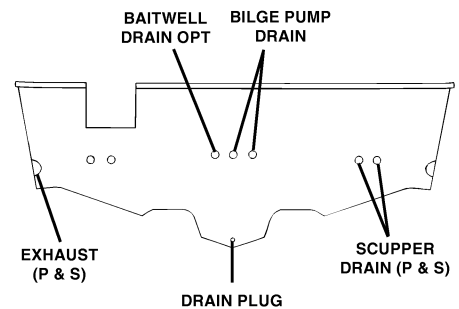
Bilge Hull Cutouts

(fig. 12.13.3)



Transom

(fig. 12.13.4)



Special Features

12 VOLT ACCESSORY RECEPTACLE

Your Sea Ray® Sport Yacht has a 12 volt accessory receptacle at the control station. Many accessories are equipped with 12V accessory plugs. Receptacles may be used with any 12 volt accessory using this type of plug.

OPERATING THE LIVE BAIT WELL

The live bait well is located on the aft port side of the cockpit next to the in-floor fish box. The live bait well switches are wired to the 12 volt system through the "CONTROL STATION MAINBREAKER" on the DC Distribution Panel located under the cabin entry steps. Two switches operate the live bait well system. The "LIVE BAIT" switch pumps the water in & the "DISCHARGE PUMP" pumps it out. The switches are located on the starboard side panel. Aft of the helm seat.

To operate live baitwell system:

1. Insert the rubber stopper into the bait well drain.
2. Press "BAIT WELL" switch. Refer to figure 12.12.2.

NOTE: A drain is provided to retain the water level. Leave switch on to aerate water for live bait.

To empty baitwell:

1. Remove rubber stopper.
2. Press the "DISCHARGE PUMP" switch. Turn off switch when bait well is empty .

Key To Electrical Symbols On Prints

LIGHT BATTERY SPOTLIGHT STARTER COIL HORN WATER TEMP. SENDER	GAUGE FLOAT SWITCH CIRCUIT BREAKER 2 CIRCUIT IGNITION SWITCH VARIABLE RESISTOR SPST SWITCH SPDT SWITCH	POWER TRIM & TRIM TAB PUMP FUSE MALE PUSH ON CONNECTOR FEMALE PUSH ON CONNECTOR MALE PLUG FEMALE CAP SPEED PICK UP SPEED PICK UP ELECTRONIC	WIRES CROSSING NO SPLICE WIRES CROSSING SPLICED GROUND ANTENNA RADIO DEPTH/SUM LOG 12V RECEPTACLE	SHIFT / THROTTLE CONTROLS TRIM ANGLE SENDER LIQUID LEVEL SENDER TEMP. ALARM ALARM HORN RECTIFIER	PUMP SPEAKER OIL PRESSURE SENDER BLOWER TRIM TAB SWITCH VHF RADIO SOLENOID PUSH BUTTON SWITCH	HALON 3 POSITION BATTERY SWITCH HOUR METER 2 CIRCUIT 5 POLE PROGRESSIVE SWITCH ALTERNATOR BATTERY ISOLATOR
RED -RED BLK -BLACK BLU -BLUE LT BLU -LIGHT BLUE BRN -BROWN GRAY -GRAY TAN -TAN PNK -PINK ORN -ORANGE VIO -VIOLET WHT -WHITE YEL -YELLOW GRN -GREEN RED/VIO -RED W/ VIOLET TRACER RED/BLK -RED W/BLACK TRACER WHT/RED-WHITE W/RED TRACER	BRN/ORN -BROWN W/ORANGE TRACER BLU/WHT -BLUE W/ WHITE TRACER TAN/BLU -TAN W/BLUE TRACER BRN/WHT -BROWN W/ WHITE TRACER BRN/RED -BROWN W/ RED TRACER ORN/GRN -ORANGE W/ GREEN TRACER VIO/WHT -VIOLET W/ WHITE TRACER GRN/WHT -GREEN W/ WHITE TRACER GRAY/WHT -GRAY W/ WHITE TRACER GRAY/BLU -GRAY W/ BLUE TRACER YEL/RED -YELLOW W/ RED TRACER GRAY/RED -GRAY W/RED TRACER BRN/YEL -BROWN W/YELLOW TRACER ORN/RED -ORANGE W/RED TRACER ORN/BLK -ORANGE W/BLACK TRACER P-U -PICK UP TUBE	NOTE 4 INSULATED BUTT SPLICE INSULATED RING CONNECTOR * 10 RING FULLY INSULATED FEMALE QUICK CONNECT FULLY INSULATED MALE QUICK CONNECT INSULATED FEMALE QUICK CONNECT PIGGYBACK	AMP 75 CONNECTOR INSULATED DOUBLE FEMALE SNAP PLUG INSULATED FEMALE SNAP PLUG INSULATED MALE SNAP PLUG			

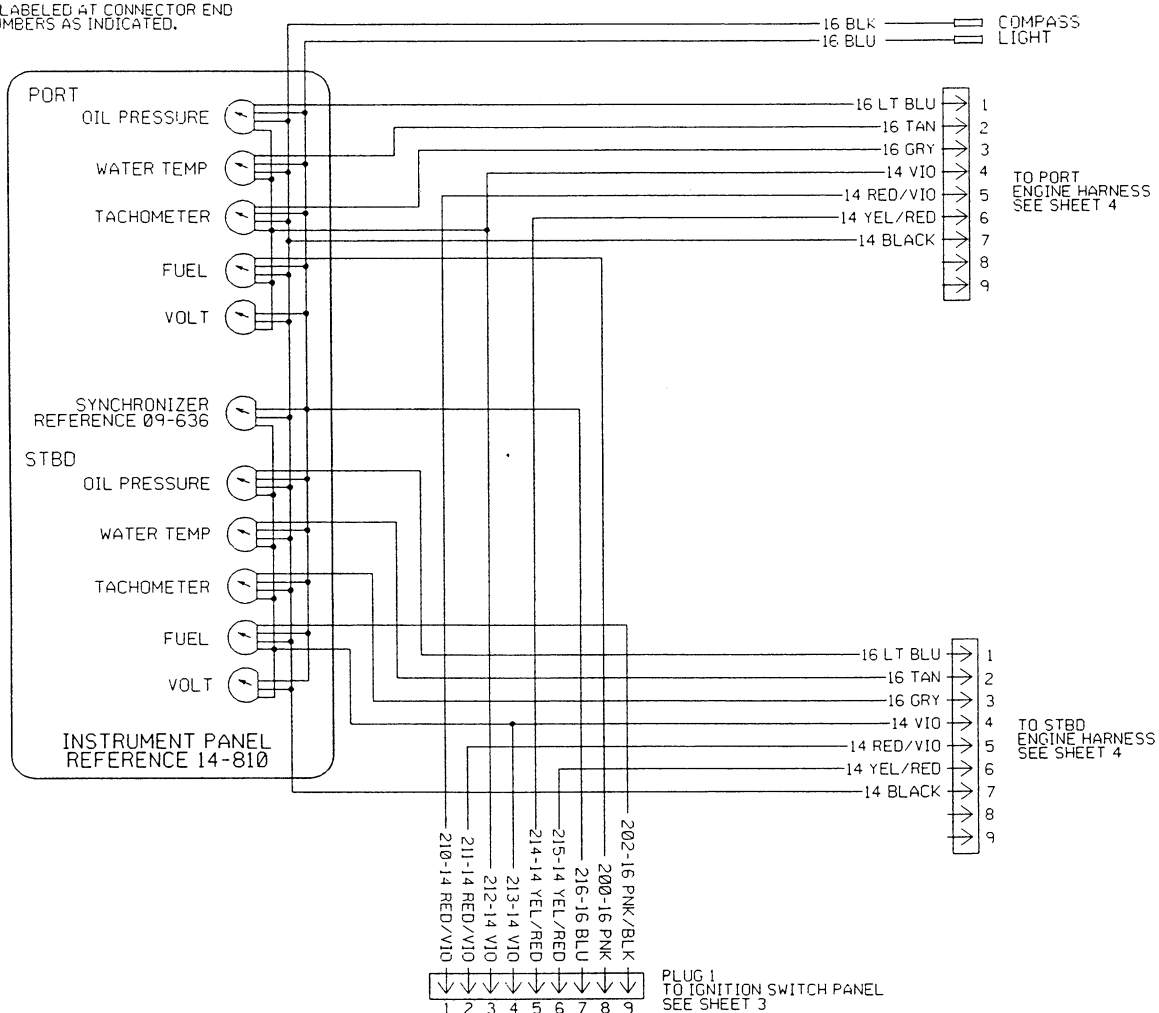
NOTES:

- 1) ALL WIRE IS AMERICAN WIRE GAUGE (AWG) STANDARDS
- 2) THE CONNECTOR SIZE IS DETERMINED BY THE GAUGE OF THE WIRE THE CONNECTOR IS USED ON.
- 3) QUICK CONNECT TERMINALS TO BE .250 UNLESS OTHERWISE INDICATED. TAB THICKNESS IS .032"
- 4) TERMINALS ARE TO BE TIN PLATED COPPER WITH NYLON INSULATION AMP, ETC OR EQUIVALENT.

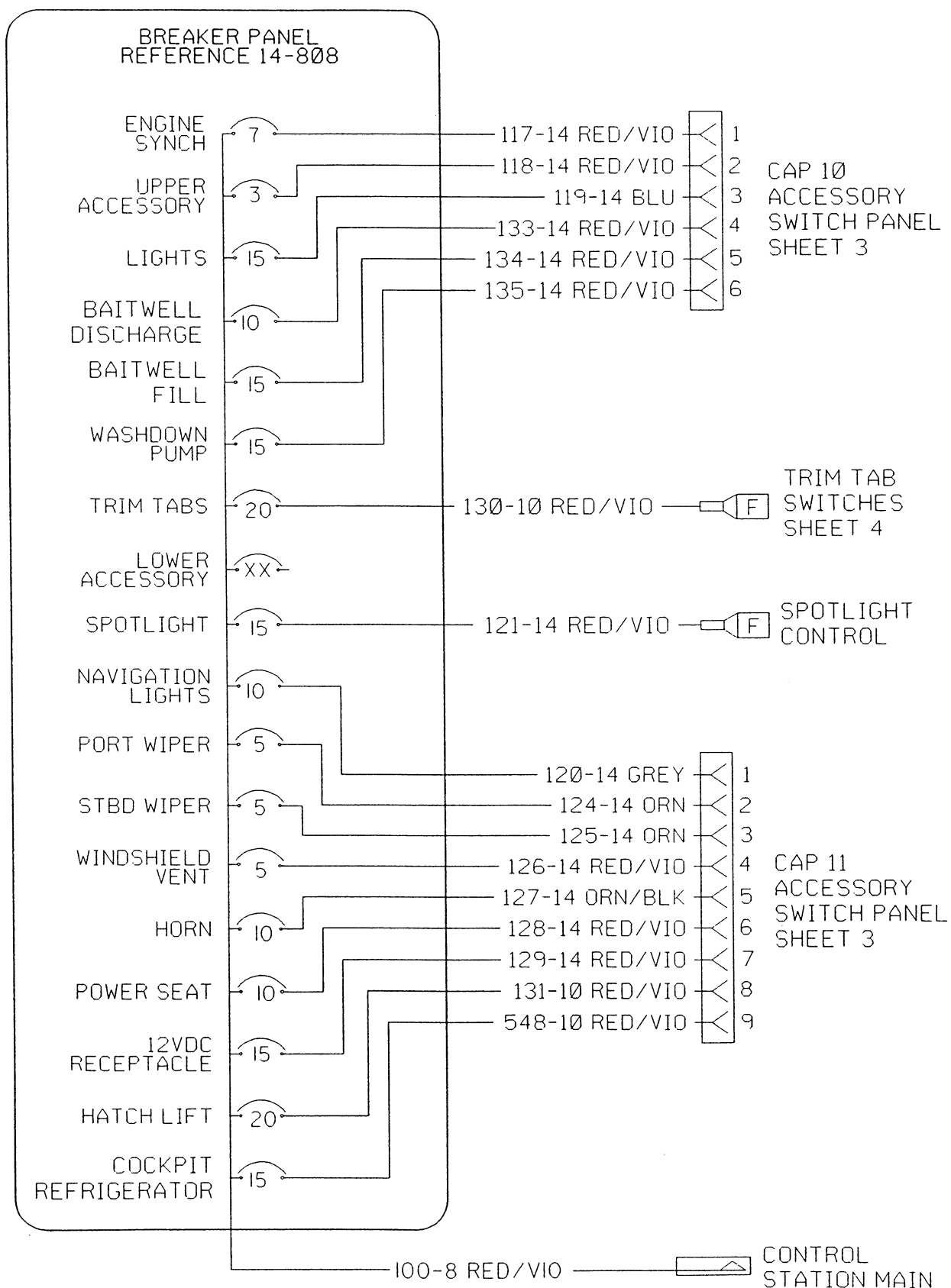
DC Wiring Schematic (1 of 5)

NOTE:

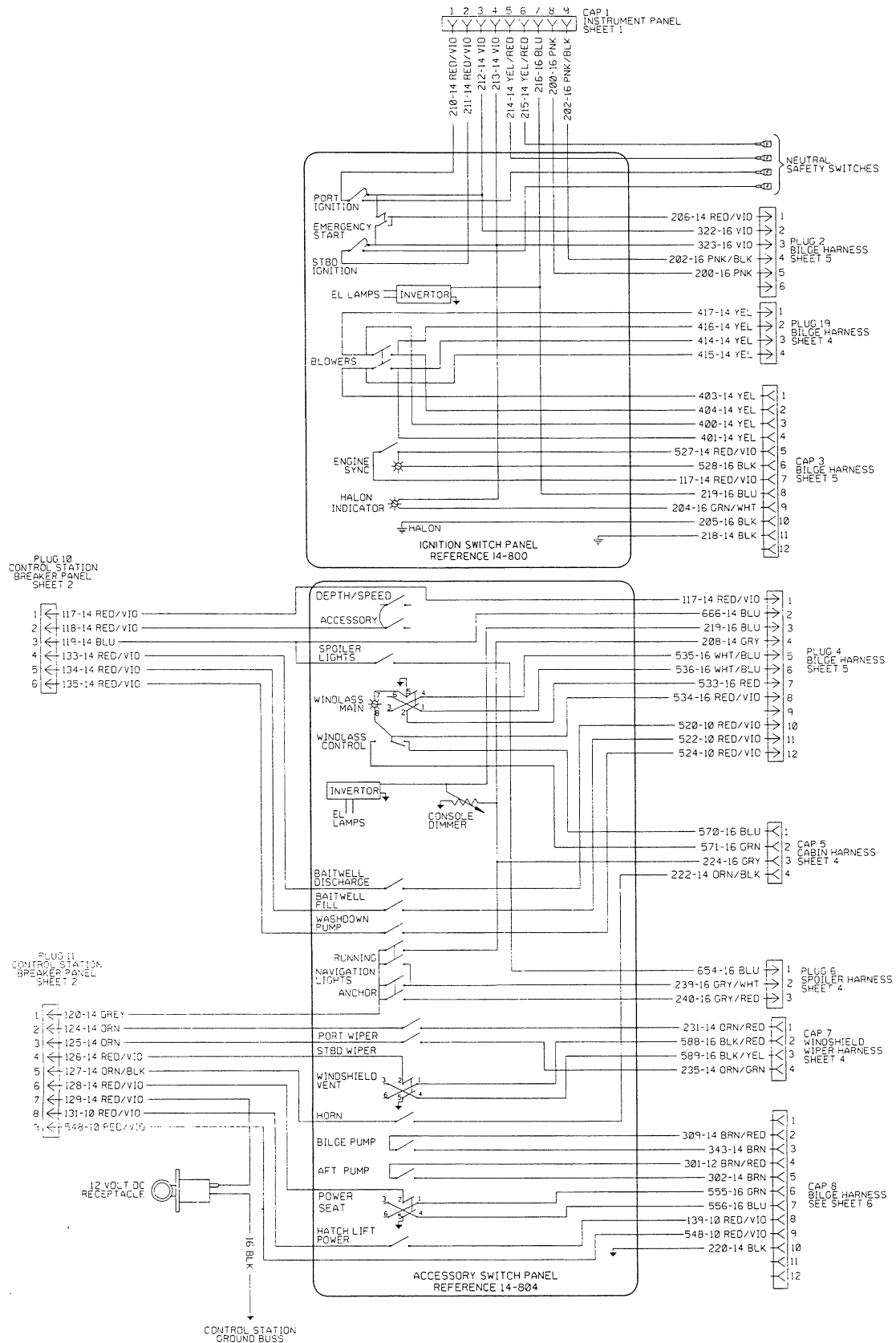
WIRES TO BE LABELED AT CONNECTOR END
WITH WIRE NUMBERS AS INDICATED.



DC Wiring Schematic (2 of 5)

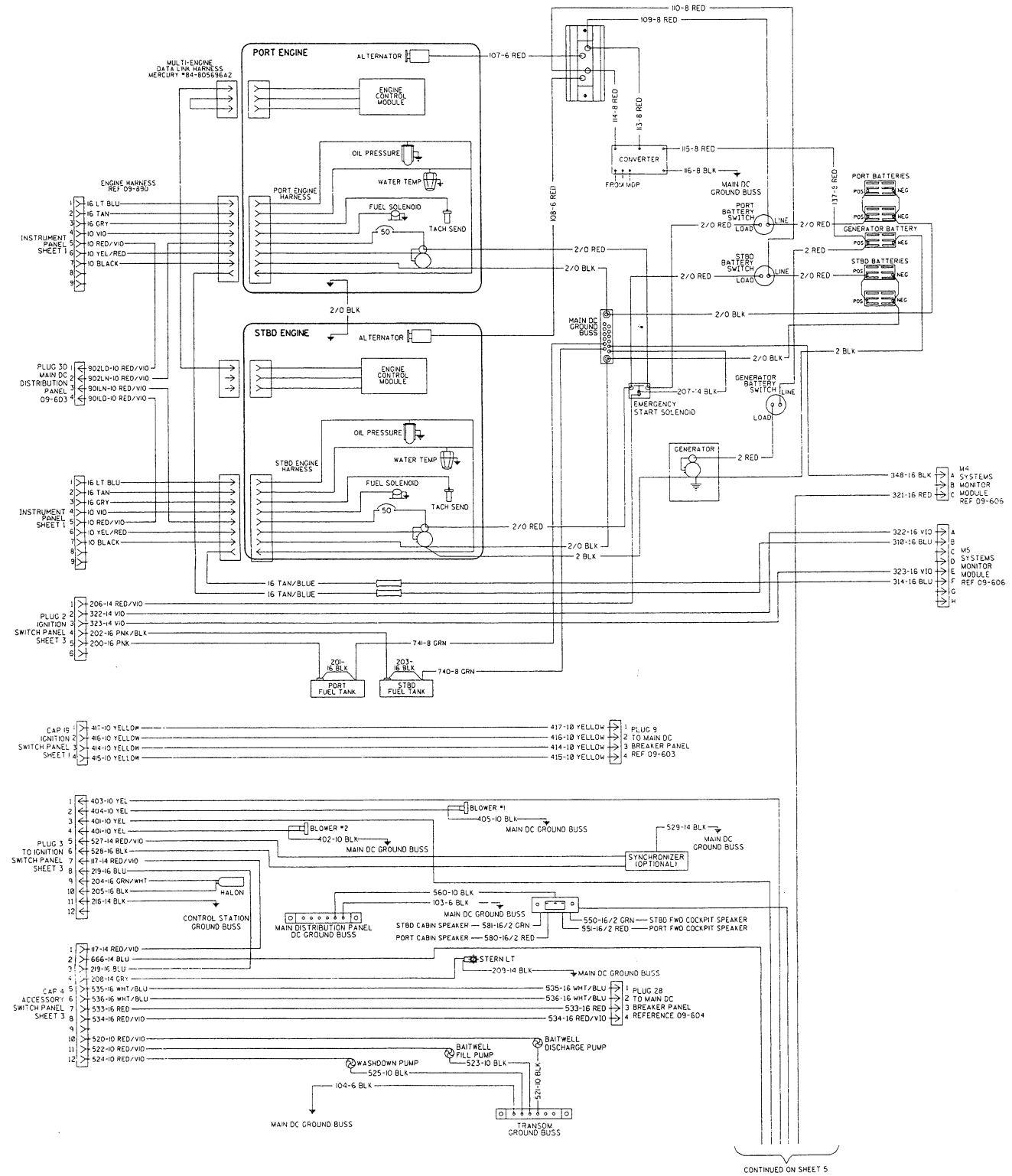


DC Wiring Schematic (3 of 5)



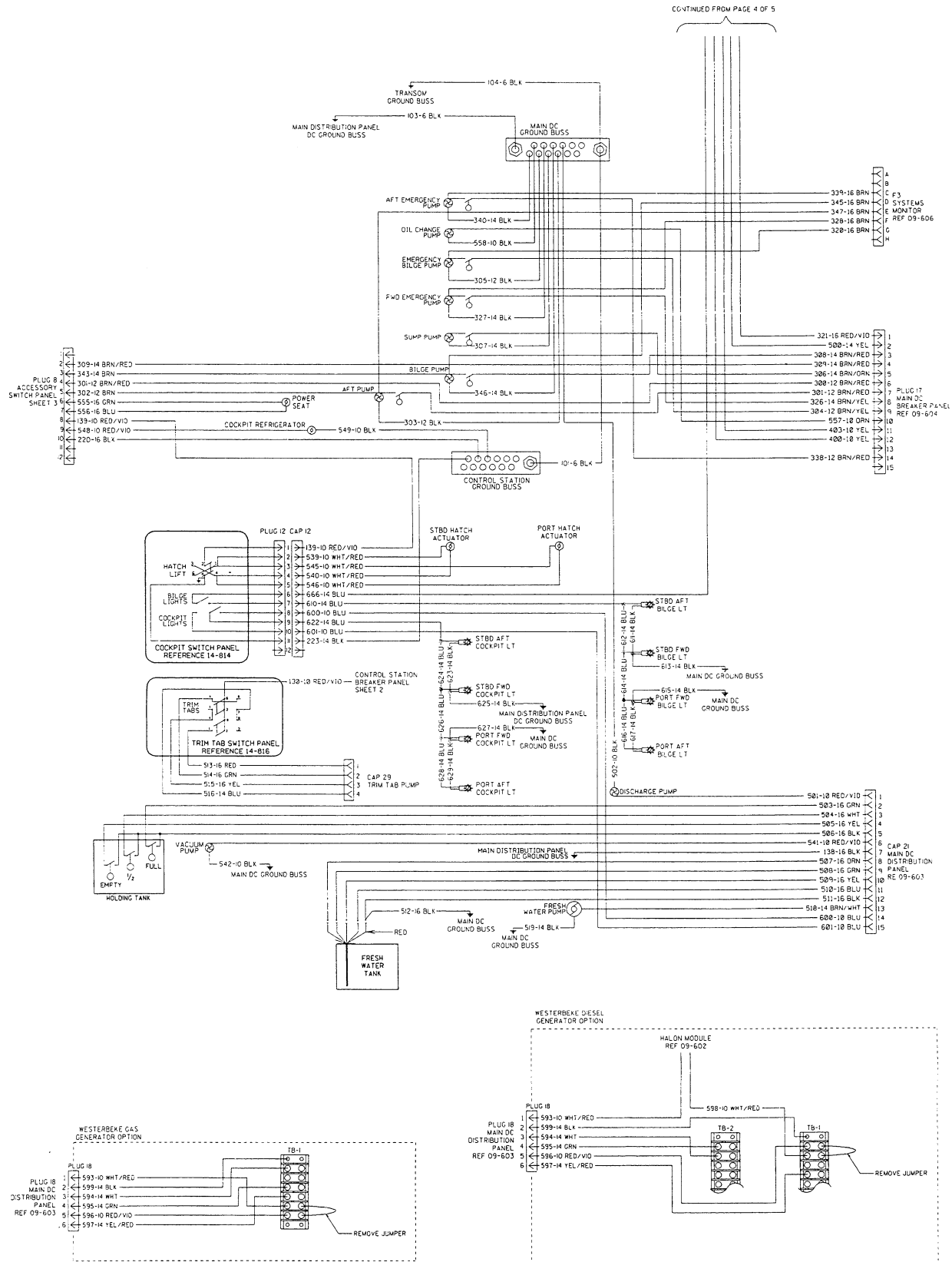
DC Wiring Schematic (4 of 5)

1. REFERENCE 09-604 FOR ADDITIONAL BATTERY SWITCH CONNECTIONS.

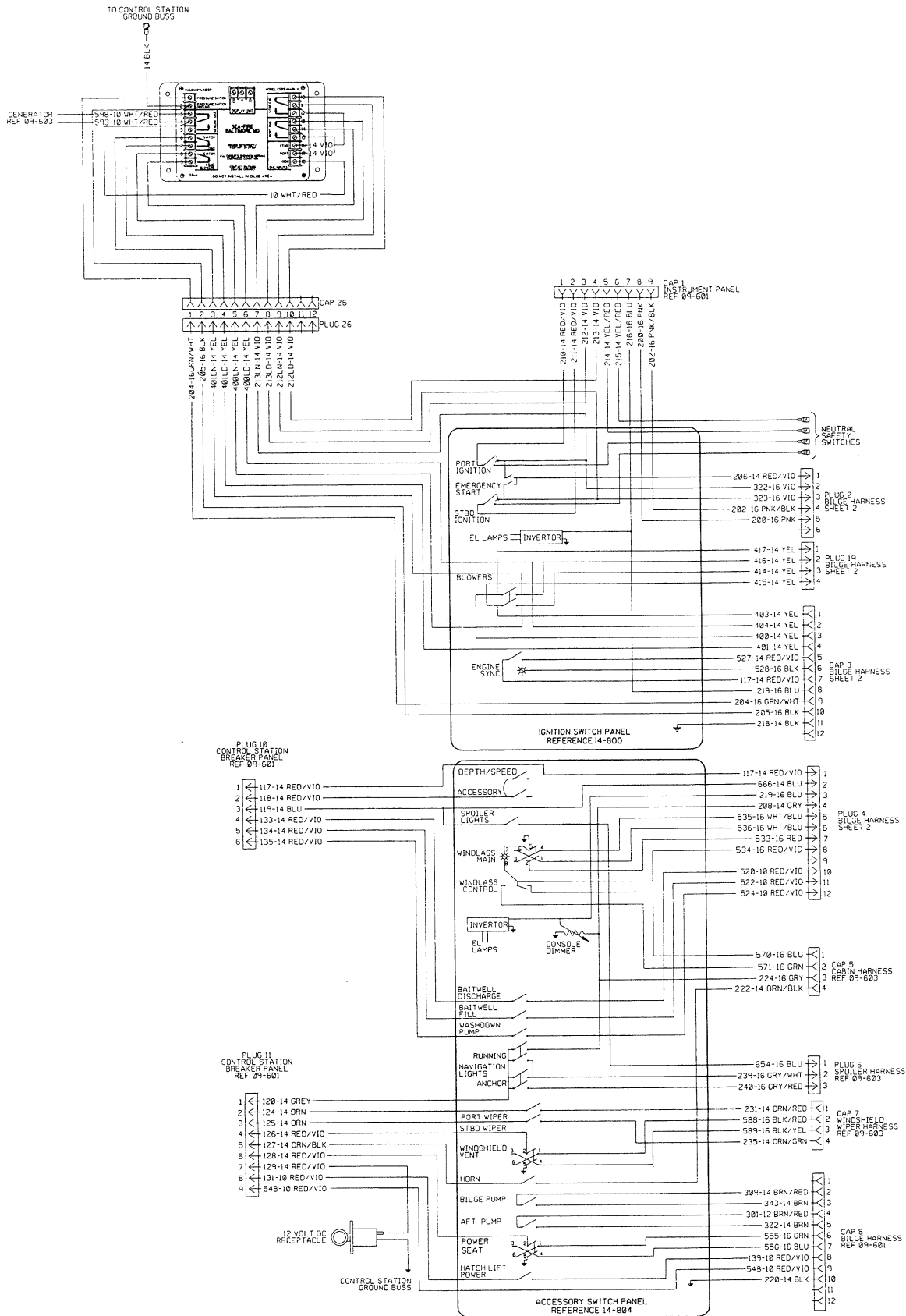


CONTINUED ON SHEET 5

DC Wiring Schematic (5 of 5)

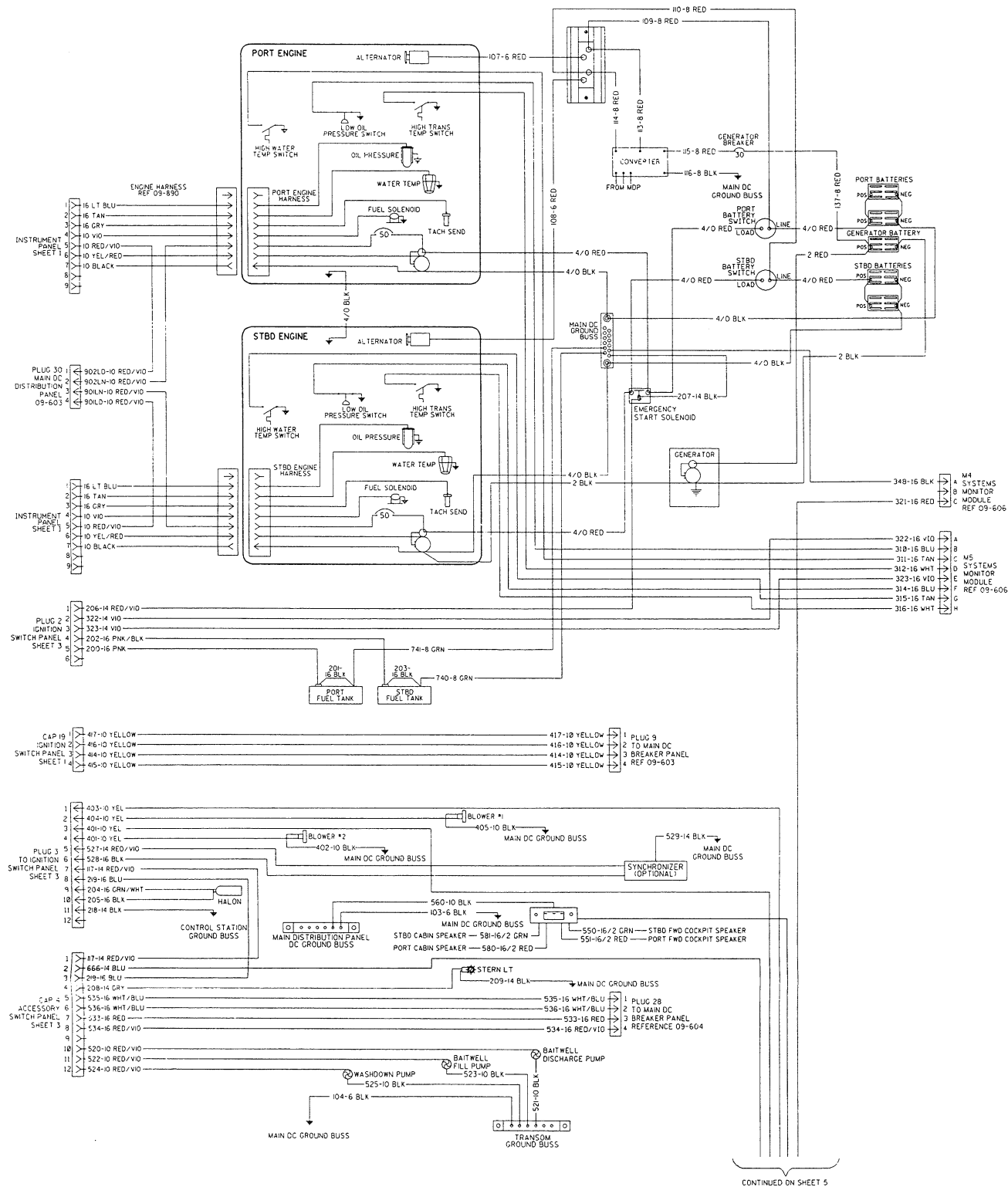


DC Wiring Schematic (Diesel) (1 of 2)

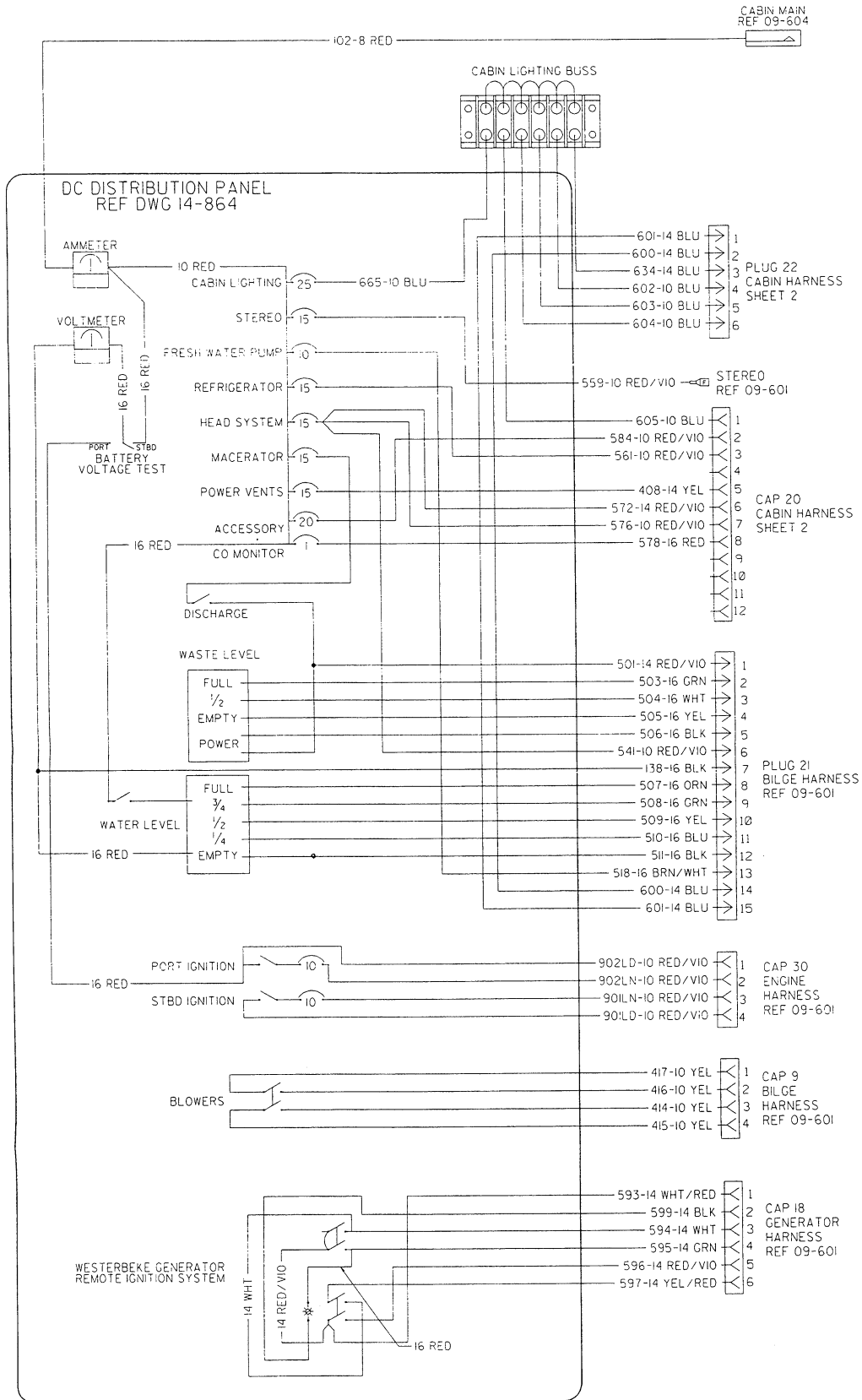


DC Wiring Schematic (Diesel) (2 of 2)

I. REFERENCE 09-604 FOR ADDITIONAL BATTERY SWITCH CONNECTIONS.



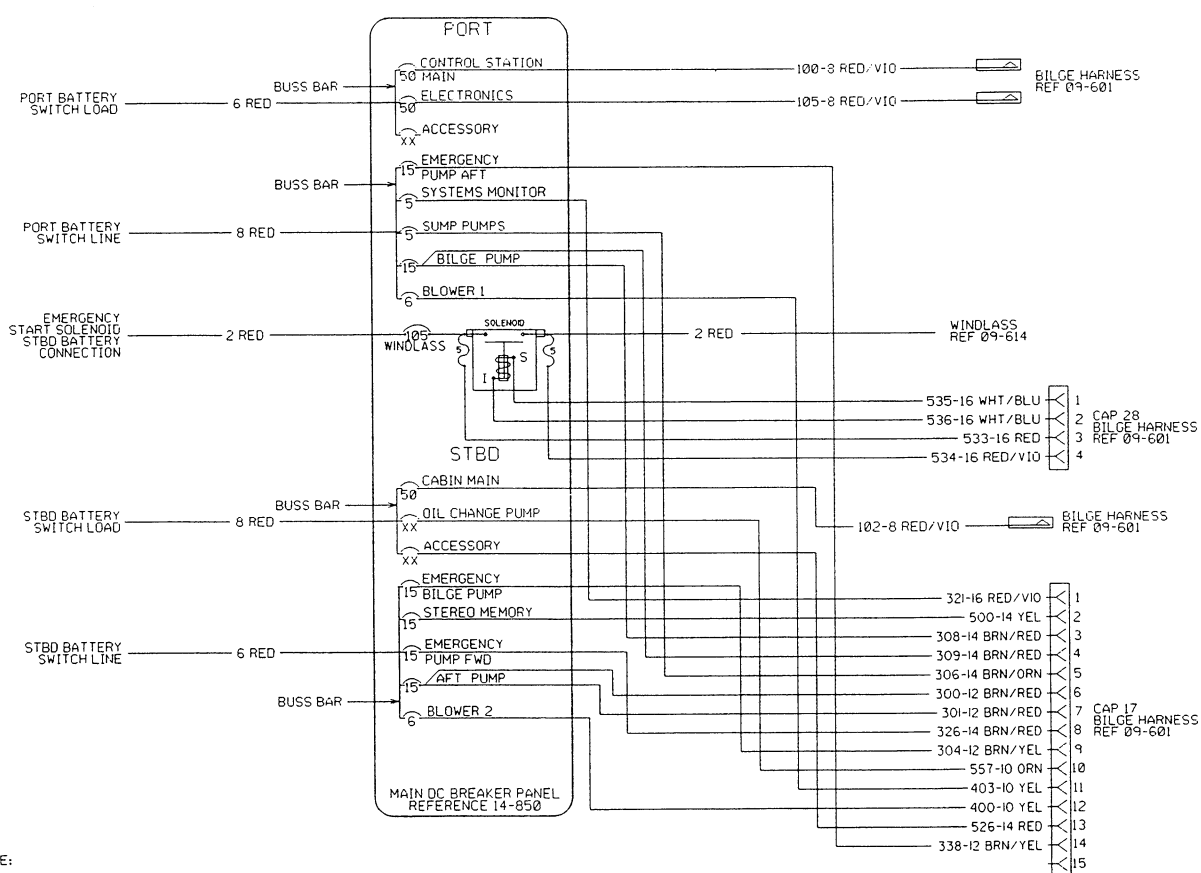
Cabin DC Wiring Schematic (1 of 2)



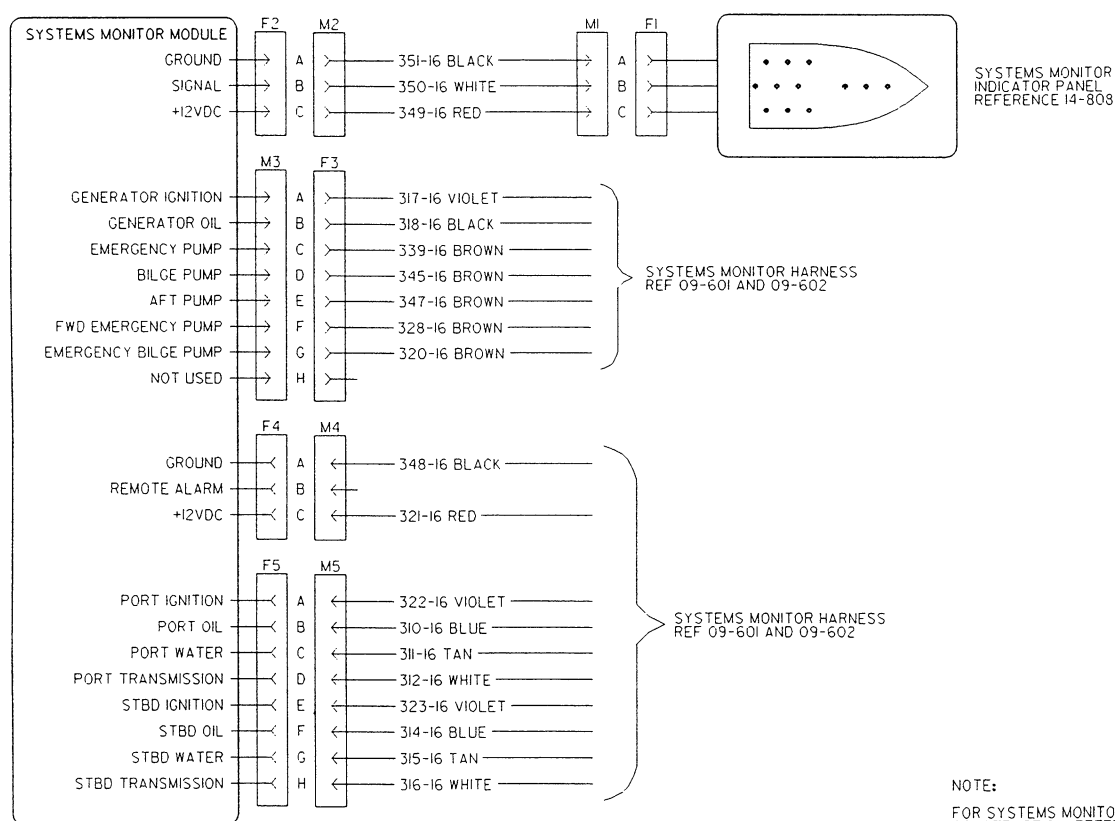
Cabin DC Wiring Schematic (2 of 2)



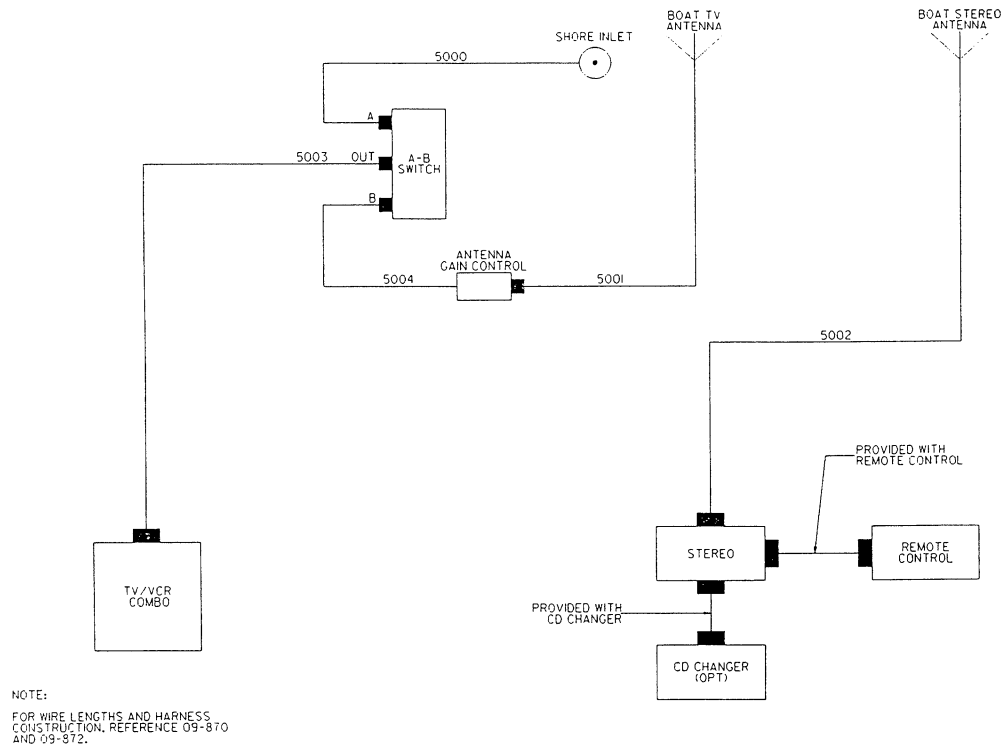
Main DC Breaker Panel Wiring Diagram



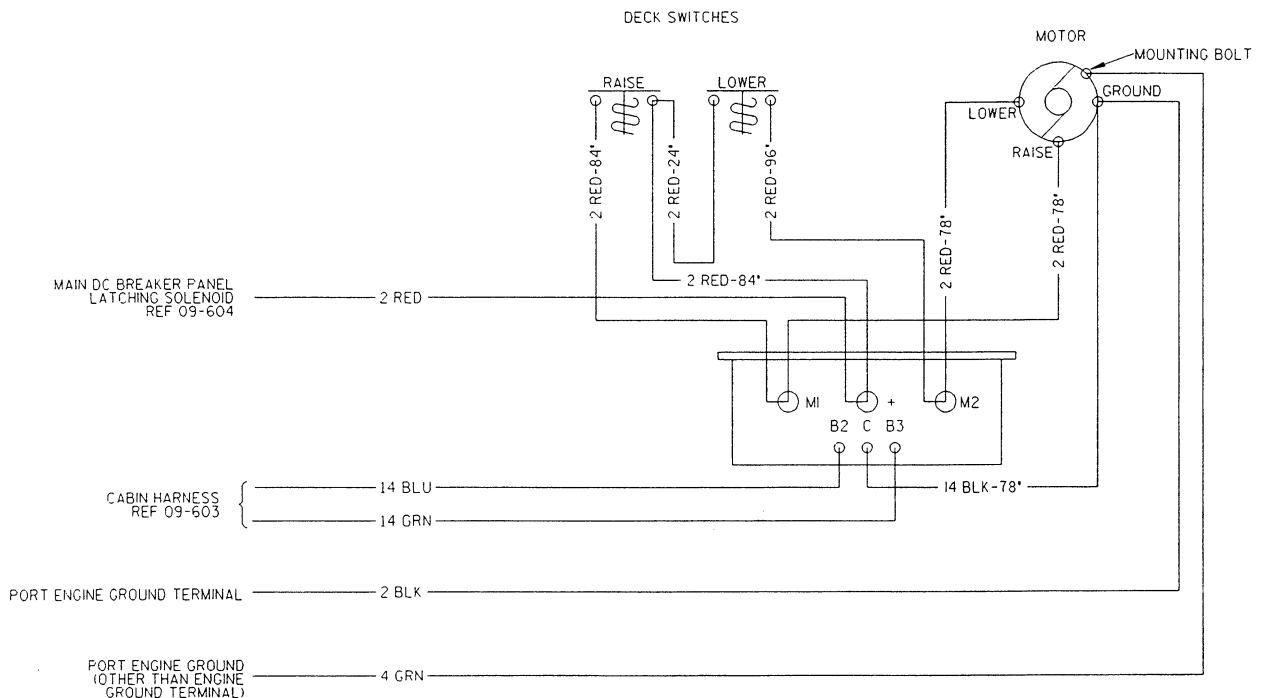
Systems Monitor Module Wiring Diagram



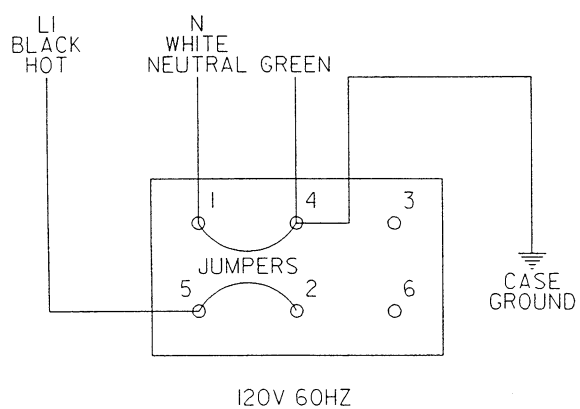
TV & Stereo Coaxial Cable Wiring



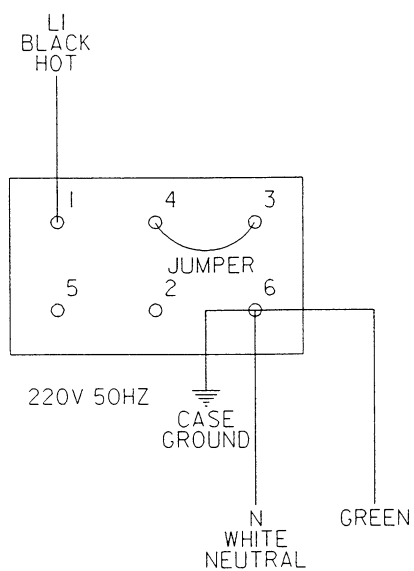
Windlass Wiring



Westerbeke Generator High Voltage Wiring

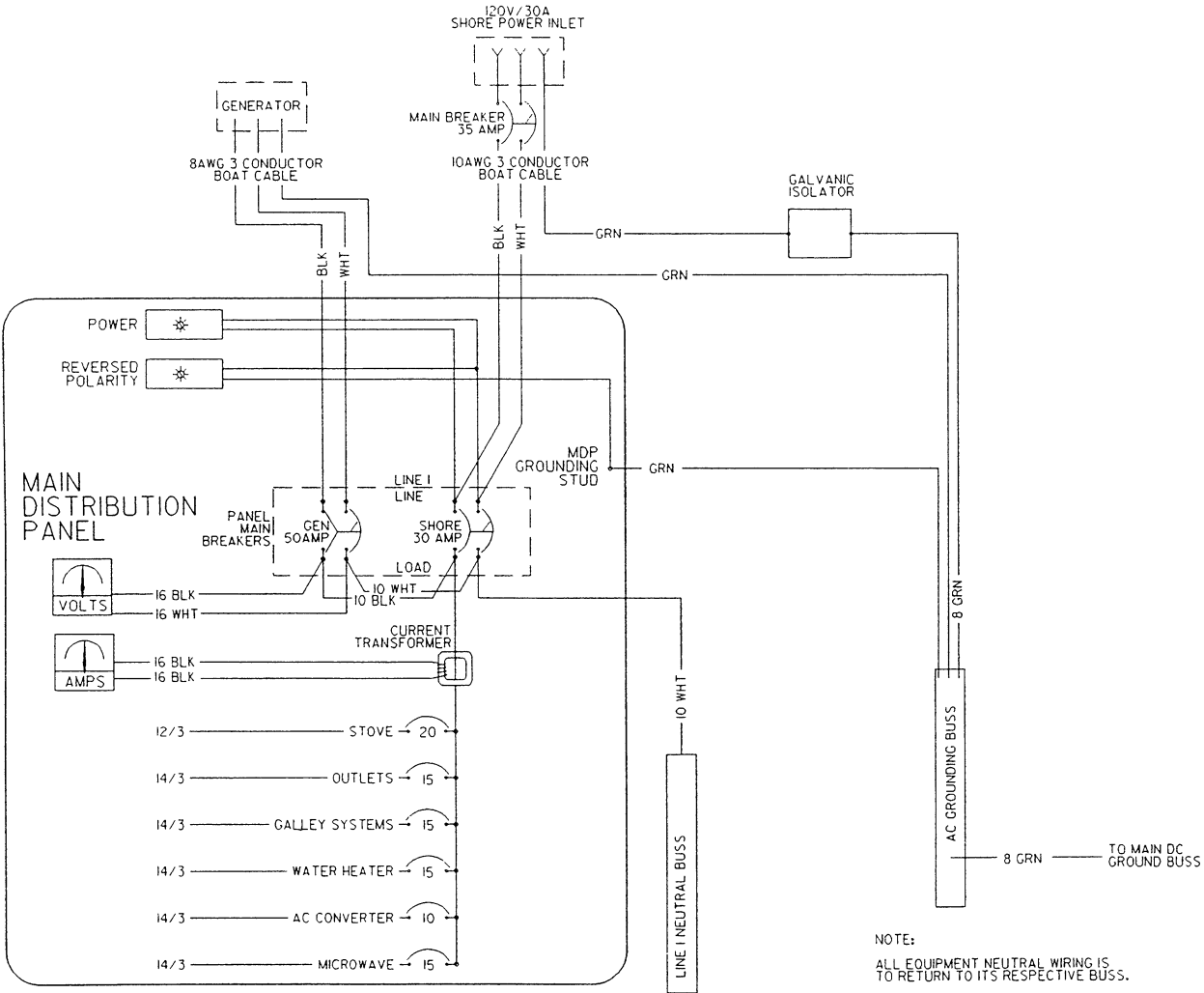


120V 60HZ



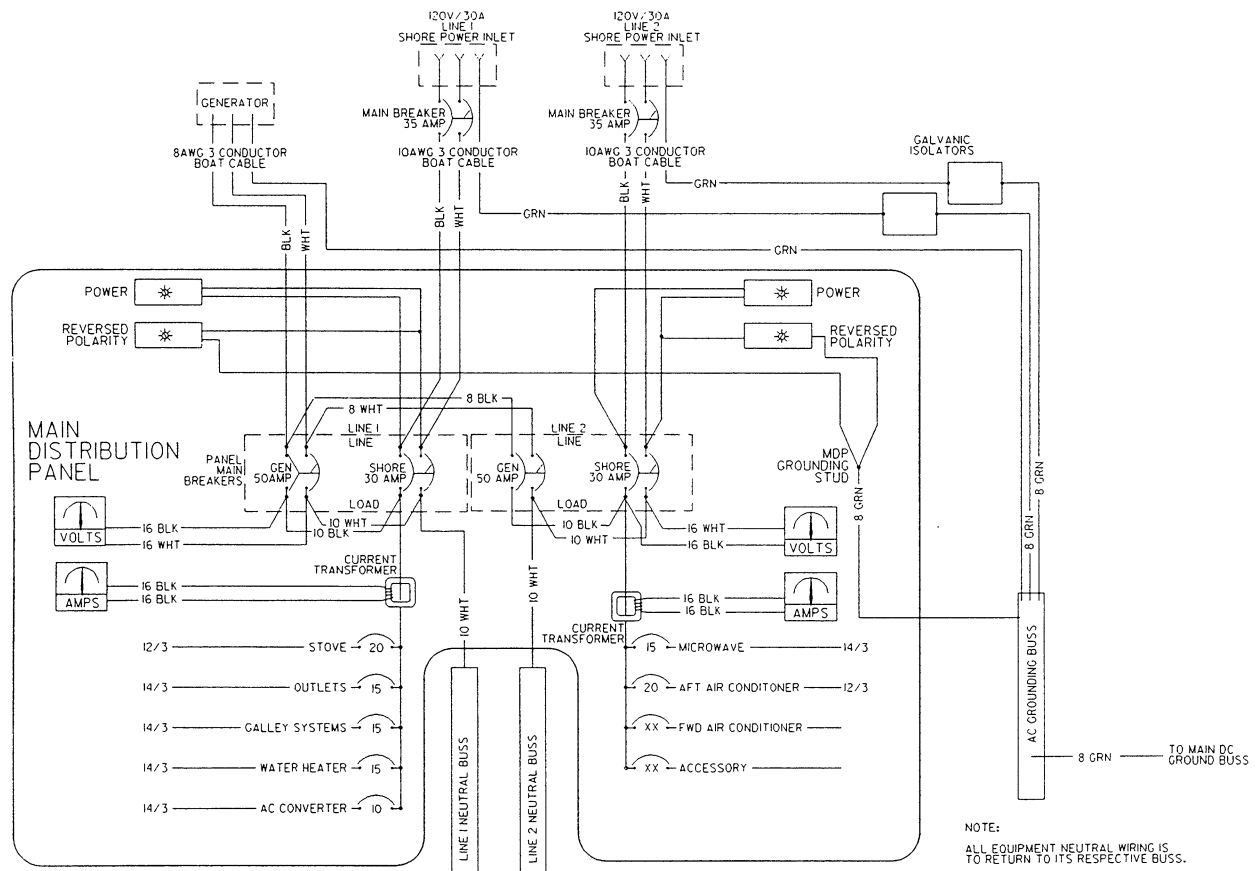
220V 50HZ

AC Wiring Schematic (120 Volt/30 Cycle)

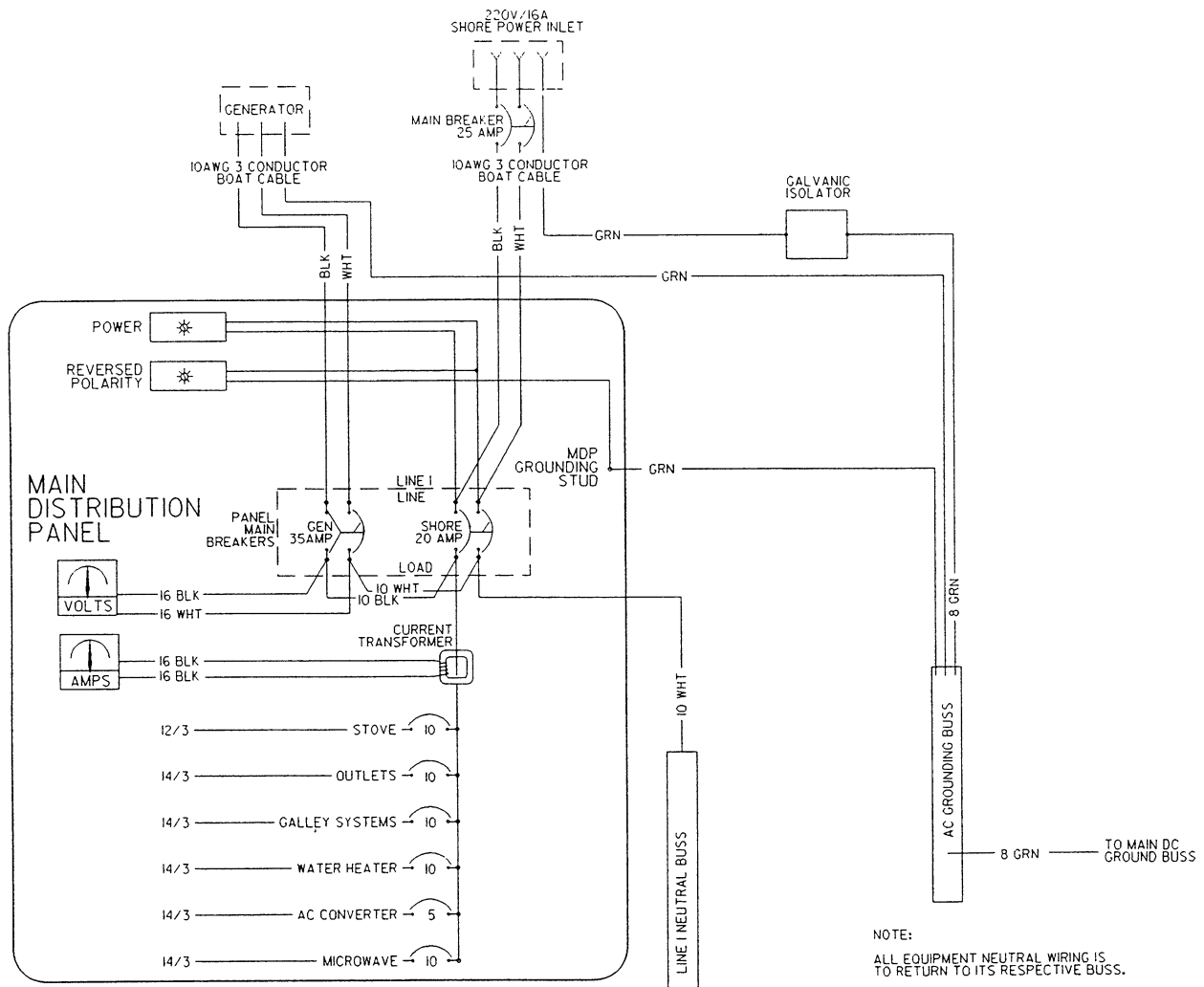


AC Wiring Schematic (120 Volt/30 Cycle)

With Air Conditioning Opt.

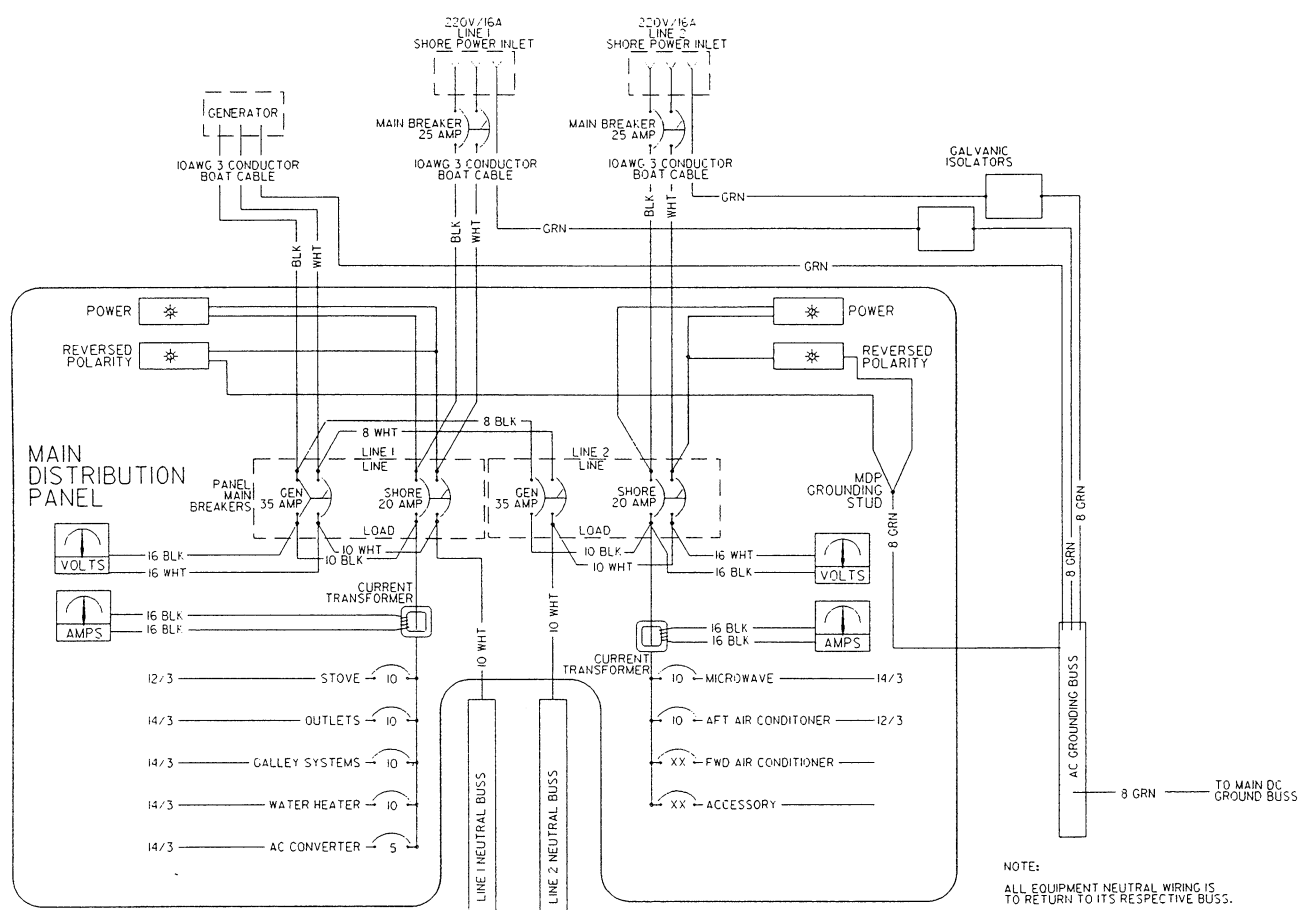


AC Wiring Schematic (220 Volt/50 HZ)

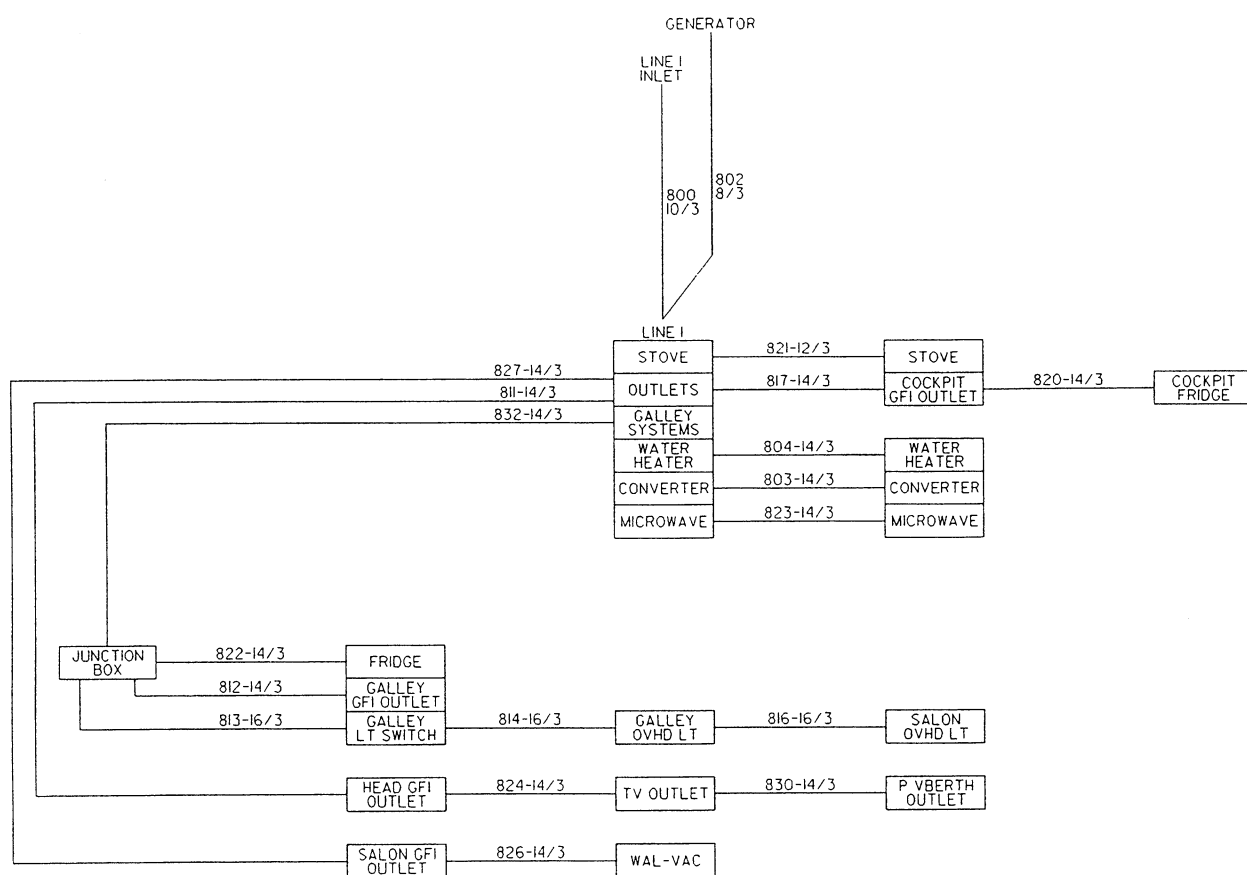


AC Wiring Schematic (220 Volt/50 HZ)

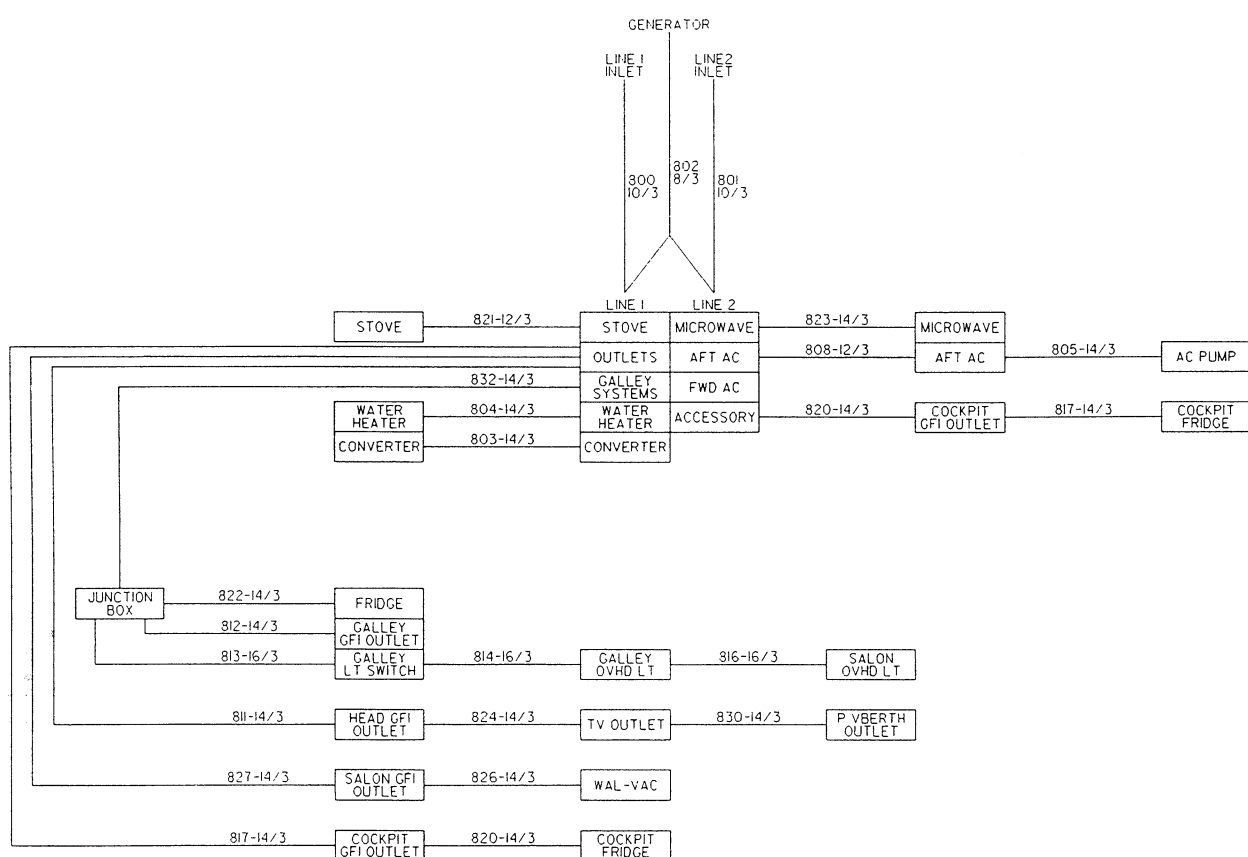
With Air Conditioning Opt.



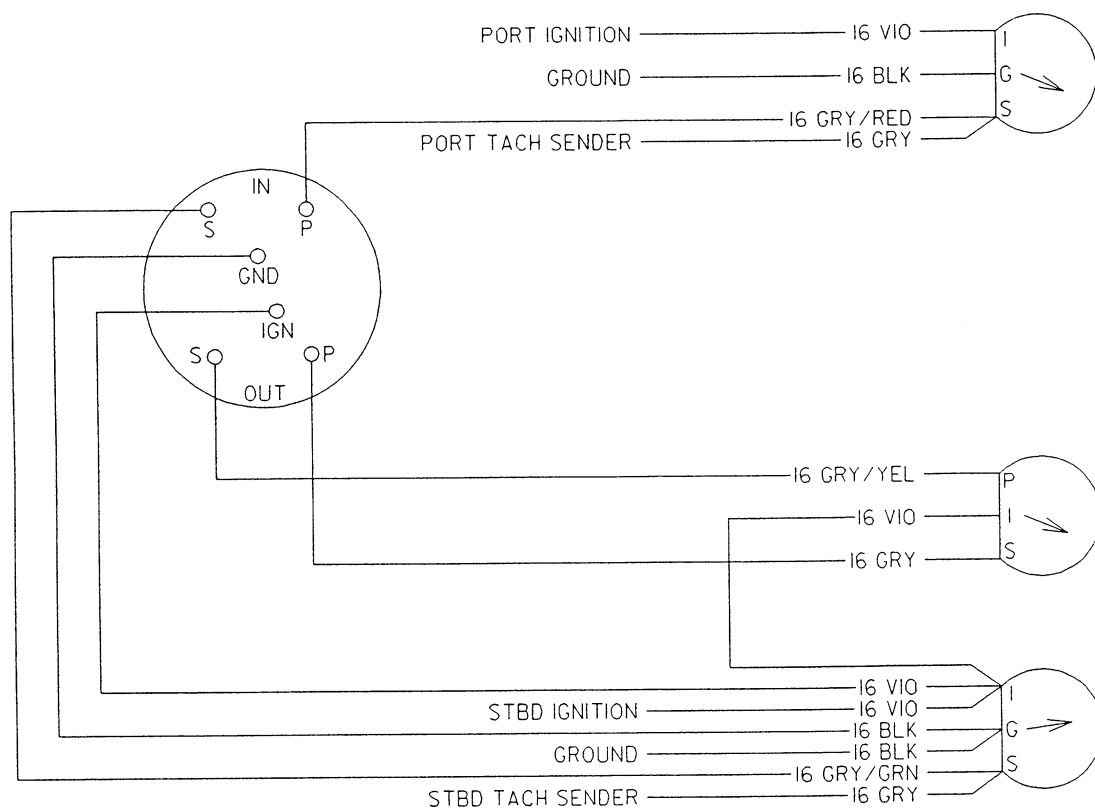
AC Wiring Schematic



AC Wiring Schematic



Teleflex Engine Synchronizer Module Schematic



NOTE:

WIRED AS SHOWN, GAUGE WILL INDICATE TOWARD SLOWER ENGINE.

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.