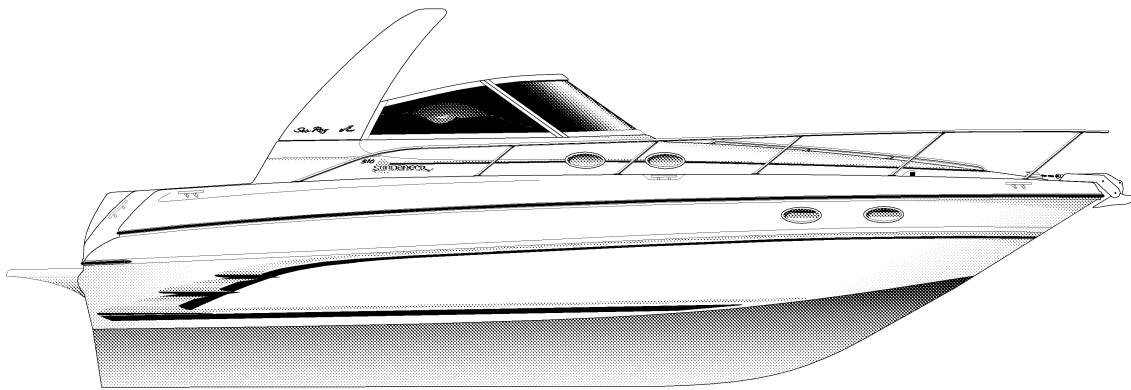


Owner's Manual Supplement

310 Sundancer



Sea Ray®

Sea Ray® • Owner's Manual Supplement 310 Sundancer • MRP #981894

Printed in the U.S.A. August 1996, June 1997, Reprinted December 1999, Revised May 2002, ©Sea Ray Boats, Inc.

Sea Ray Boats, Inc. 2600 Sea Ray Blvd., Knoxville, TN 37914.

For information call 1-800-SRBOATS. or fax 1-314-213-7878

Internet address: <http://www.searay.com>

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.

INTRODUCTIONS & TABLE OF CONTENTS

This owner's manual supplement has been written to provide additional specific information about your boat and should be read carefully. Keep this booklet with the owner's manual in the owner's manual packet.

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 familiarise 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 comforts 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.

Warranty Information	4	Docking / Lifting	11
Construction Standard	4	Instrument & Gauge Panel	12-13
Hull Identification Number	4	Systems Monitor Panel	13-14
General Arrangements, Specifications & Dimensions	5	Bilge Layout	15
Floor Plan Options	5	Location Of Through-Hull Fittings	16
Supplemental General Information	6	Bilge Hull Cutouts	16
Bilge Pumping System	6	Key To Electrical Symbols	17
Propulsion System	6	DC Wiring Schematic (1 of 5) thru (5 of 5)	18-22
Propellers	6	DC Wiring Diagram (w/ 4.2L Mercury	
Head System	6-7	D-Tronic Diesel Opt.) (1 of 3) thru (3 of 3)	23-25
Fuel System	8	DC Wiring Diagram (w/ V-Drive Opt.) (1 of 2)	
Exhaust System	8	thru (2 of 2)	26-27
Engine Cooling System	8	Cabin DC Wiring Schematic (1 of 2) thru (2 of 2)	28-29
Electrical Installations	8	Main DC Breaker Panel Wiring Diagram	30
Battery	8	Systems Monitor Module Wiring Diagram	31
Main DC Breaker Panel	9	TV/Stereo Cable Wiring Diagram	32
Ventilation System / Bilge Blower	10	Lofrans Progress Windlass Wiring Diagram	33
Steering System	10	Westerbeke® Generator High Voltage Wiring	34
Fire Extinguishing System	10	120 Volt AC Wiring Diagram	35
Anchoring	10	120 Volt AC Wiring Diagram (w/ Generator Opt.)	36
Anchoring Arrangement	10	AC Wiring Diagram (220 Vac/50 HZ)	37
Life Saving Equipment (PFD)	11	AC Wiring Diagram (220 Vac/50 HZ w/ Generator Opt.)	38
Boat Storage	11	AC Systems Wiring Diagram	39
Trouble Shooting	11	Interconnection Diagram	40
List of Reference Manuals and Drawings	11	International Homologations	41
Repair and Parts Facilities	11		

(This book contains 44 pages.)

Information in this publication is based upon the latest product specifications available at printing. Sea Ray Boats, Inc. reserves the right to make changes at any time, without notice, in the colors, equipment, specifications, materials and prices of all models, or to discontinue models. Should changes in production models be made, Sea Ray® is not obligated to make similar changes or modifications to models sold prior to the date of such changes.

The following are registered trademarks of the Brunswick Corporation: Sea Ray®, The SR Wave Logo.



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:

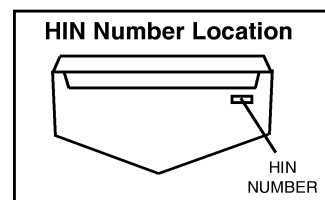
1-800-SRBOATS.

Fax: 1-314-213-7878

Domestic/International

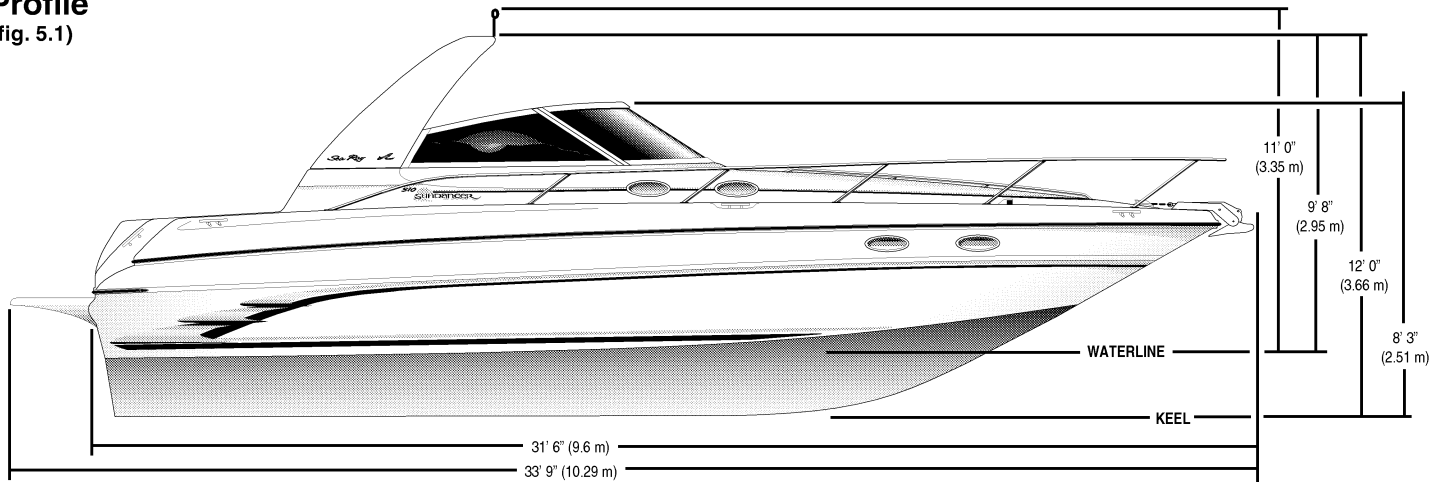
If a problem is not handled to your satisfaction:

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 to you.



GENERAL ARRANGEMENTS & DIMENSIONS

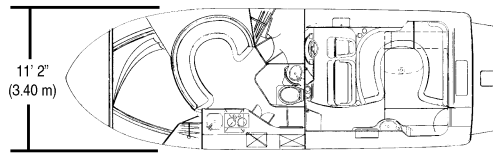
Profile (fig. 5.1)



SPECIFICATIONS

Overall Length	31' 6" (9.6 m)
Overall Length w/Std. Swim Platform	33' 9" (10.29 m)
Beam	11' 2" (3.40 m)
Draft (Stern Drive Down)	43" (1.09 m)
Draft (Stern Drive Up)	23" (.58 m)
Draft (Inboards)	36" (.91 m)
Dry Weight (Lbs.)	11,800 (5,352 kg)
Fuel Capacity (Gallons)	200 (757 liters)

Usable Fuel (Gallons)	190 (719.15 liters)
Water Capacity	35 gal. (132.5 liters)
Holding Tank	28 gal. (106 liters)
Dead Rise	23°

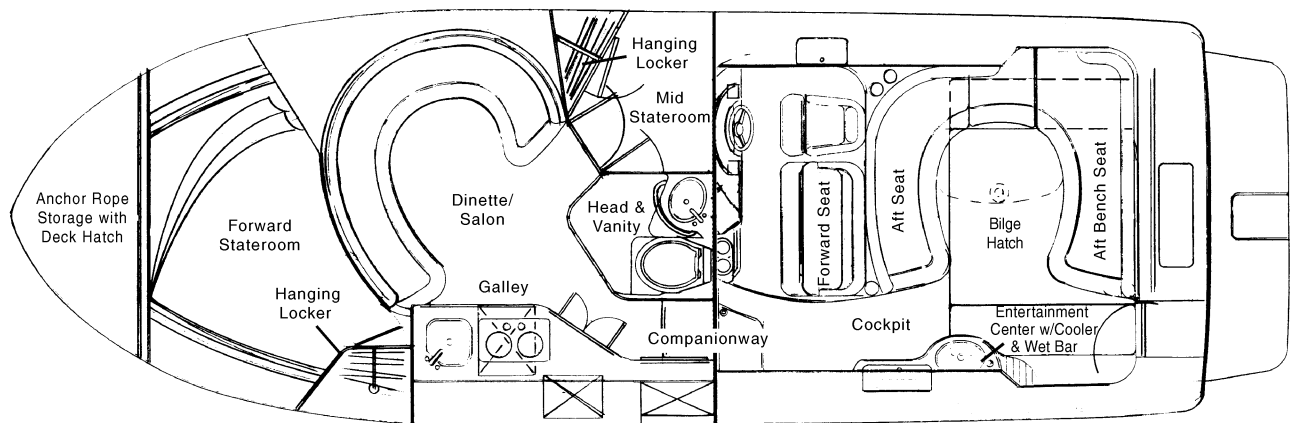


(fig. 5.2)

HEIGHT DIMENSIONS

Waterline To Top Of Spoiler	9' 8" (2.95 m)
Waterline To Top Of Masthead Light	11' 0" (3.35 m)
Keel To Top Of Windshield	8' 3" (2.51 m)
Keel To Top Of Spoiler	12' 0" (3.66 m)

FLOOR PLAN



(fig. 5.3)

SUPPLEMENTAL GENERAL INFORMATION

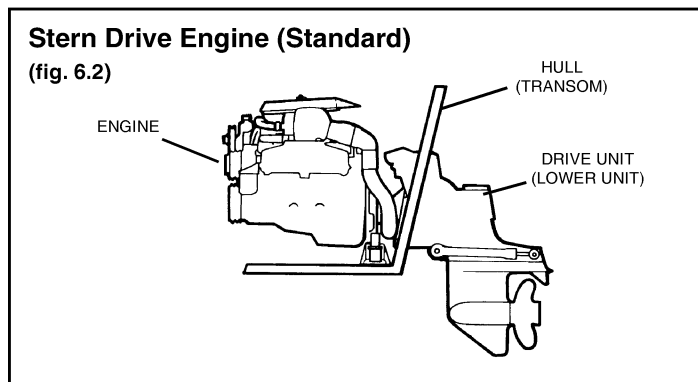
BILGE PUMPING SYSTEM

The boat 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

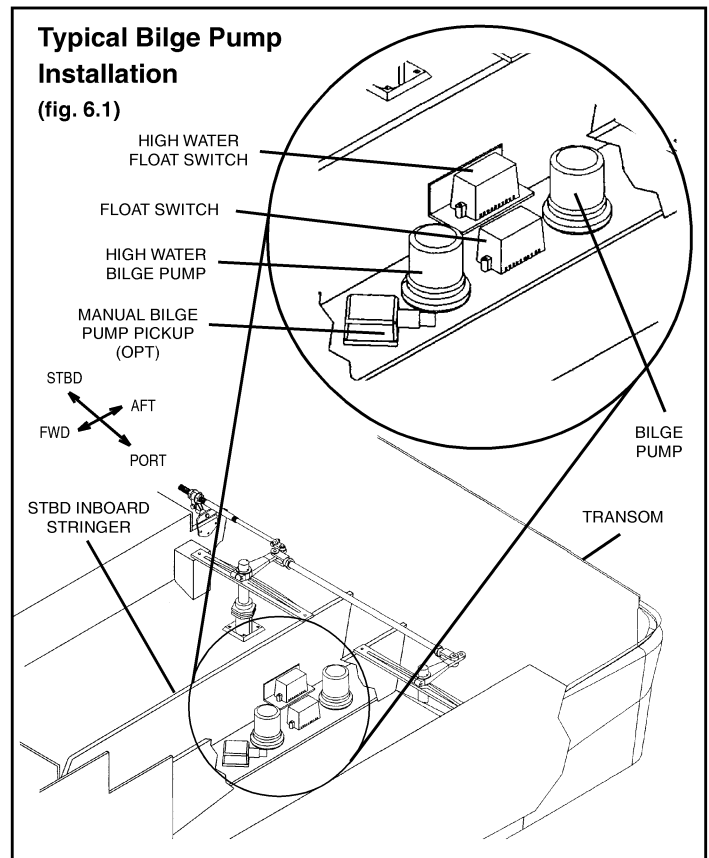
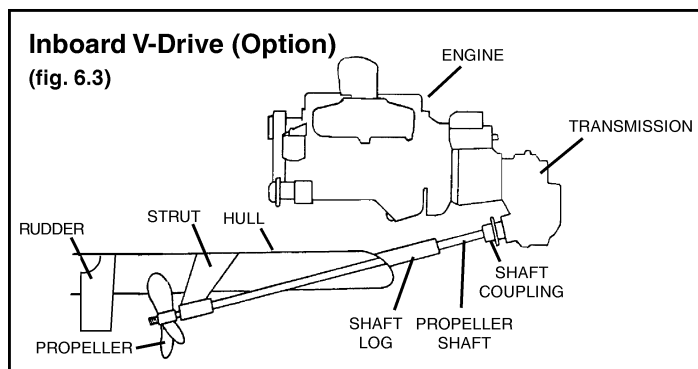
The standard engine is a stern drive type propulsion system also known as an inboard-outboard engine. This type of propulsion system has the engine secured to the hulls



stringers at the aft end of the hull. The drive unit, also called the lower unit because it hangs below the hull, is the part of the propulsion system that attaches to the outside of the hull or transom. The drive unit pivots to steer the boat.

The optional engine is an inboard V-drive type propulsion system. This system incorporates an inboard engine with an angled transmission that allows the drive shaft to pass through the hull under the engine.

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



PROPELLERS

Your Sea Ray® has been equipped with a propeller which our tests have shown to be the best suited for general use under normal conditions and load. In some situations you may wish to change propellers to give your boat slightly different performance characteristics. In general, changing to a lower pitch propeller will increase acceleration and load-pulling ability, but with a slight decrease in top speed. Conversely, moving to a higher pitch propeller will attain higher top speed with a light load, but will sacrifice acceleration and power. Your particular requirements should be discussed with your Sea Ray® dealer. **Under no circumstances use a propeller which allows the engine to operate at higher than recommended RPM.**

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.

SUPPLEMENTAL GENERAL INFORMATION

REQUIREMENTS FOR VESSEL OPERATORS

The Environmental Protection Agency (EPA) standards state that in freshwater lakes, freshwater reservoirs or other freshwater impoundments whose inlets or outlets are such as to prevent the ingress or egress by vessel traffic subject to this regulation, or in rivers not capable of navigation by interstate vessel traffic subject to this regulation marine sanitation devices certified by the U.S. Coast Guard installed on all vessels shall be designed and operated to prevent the overboard discharge of sewage, treated or untreated, or of any waste derived from sewage. The EPA standards further state that this shall not be construed to prohibit the carriage of Coast Guard-certified flow through treatment devices which have been secured so as to prevent such discharges. They also state that waters where a Coast Guard certified marine sanitation device permitting discharge is allowed include coastal waters and estuaries, the Great Lakes and interconnecting waterways, freshwater lakes and impoundments accessible through locks, and other flowing waters that are navigable interstate by vessels subject to this regulation (40 CFR 140.3).

HOLDING TANK OPERATION

Waste from the head is directed into the holding tank located in the bilge. The holding tank fluid level indicator is located on the main distribution panel or in the head which indicates "3/4 FULL," "FULL" and "DO NOT FLUSH." When the "FULL" light is on, the "DO NOT FLUSH" light will also be on. When these lights are ON, the holding tank must be emptied before the head can be reused.

To empty holding tank, the services of a dockside pumpout station will be needed. Follow instructions at the station and make sure pumpout station hose is inserted into the deck plate marked "WASTE." The holding tank can also be emptied through utilization of the macerator if your boat is equipped with this option (see "MACERATOR OPTION").

NOTICE

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



CAUTION

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

VACU-FLUSH HEAD

The Vacu-Flush head utilizes a "HEAD SYSTEM" breaker on the helm switch panel or main distribution panel. The foot pedal at the base of the toilet opens a mechanical seal and vacuum forces waste through the opening in the bowl to an accumulator tank, through the vacuum pump and then to the holding tank.

To Operate:

1. Turn ON the "WATER SYSTEM" breaker.
2. Turn ON the "HEAD SYSTEM" breaker.

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

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.**



CAUTION

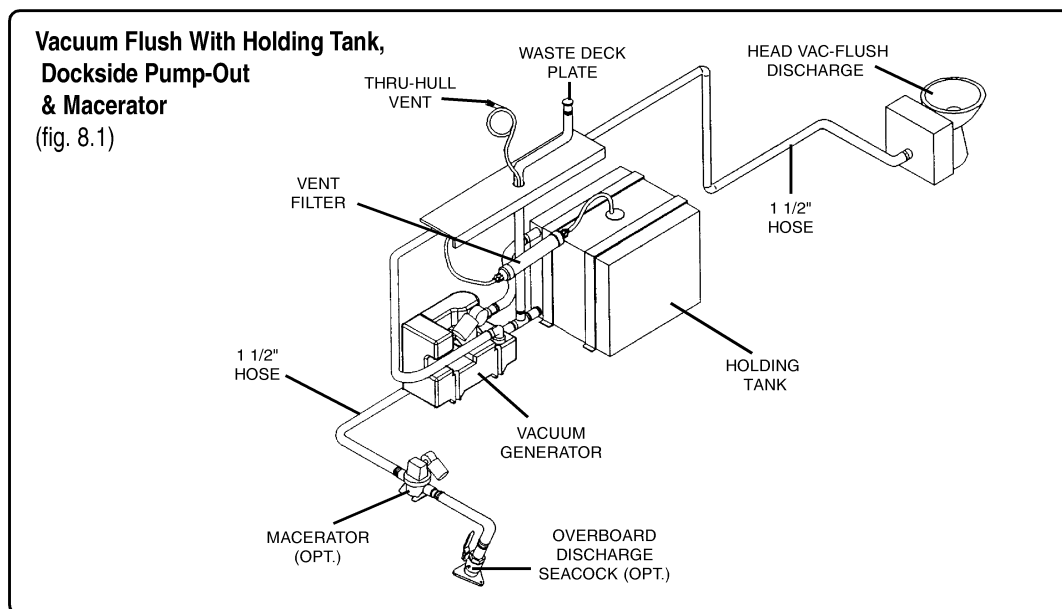
Damage will occur to the macerator if operated with the deck waste plate off or loose.

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.

SUPPLEMENTAL GENERAL INFORMATION



FUEL SYSTEM

The boat is equipped with a gasoline fuel system (diesel fuel system optional). A detailed drawing of the fuel system can be found in the *Part's Manual*. Fueling instructions and precautions can be found in the *Owner's Manual*.

ENGINE COOLING SYSTEM

The engine cooling system is an integral part of the propulsion system.

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

ELECTRICAL INSTALLATIONS

This owners 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.

EXHAUST SYSTEM

The boat's exhaust system is an integral part of the propulsion system.

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

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.

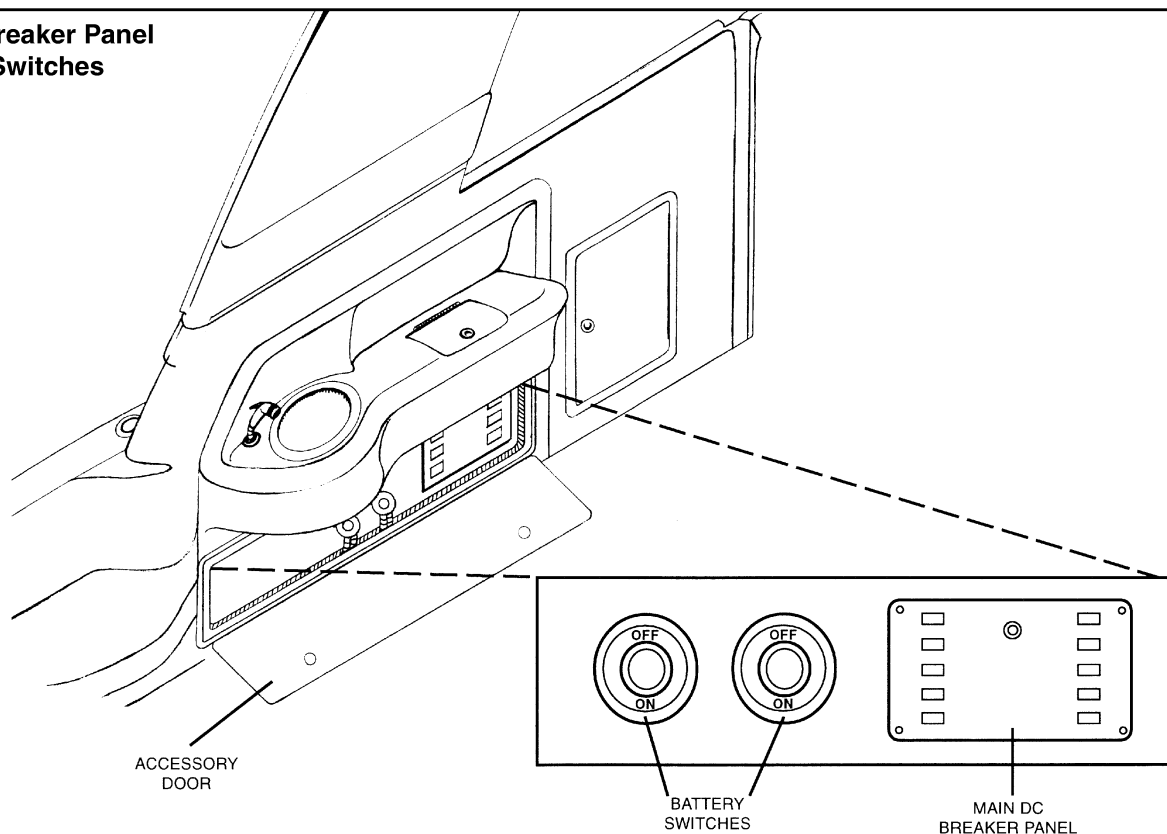
Recommended batteries are available through your Sea Ray® dealer.

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.

SUPPLEMENTAL GENERAL INFORMATION

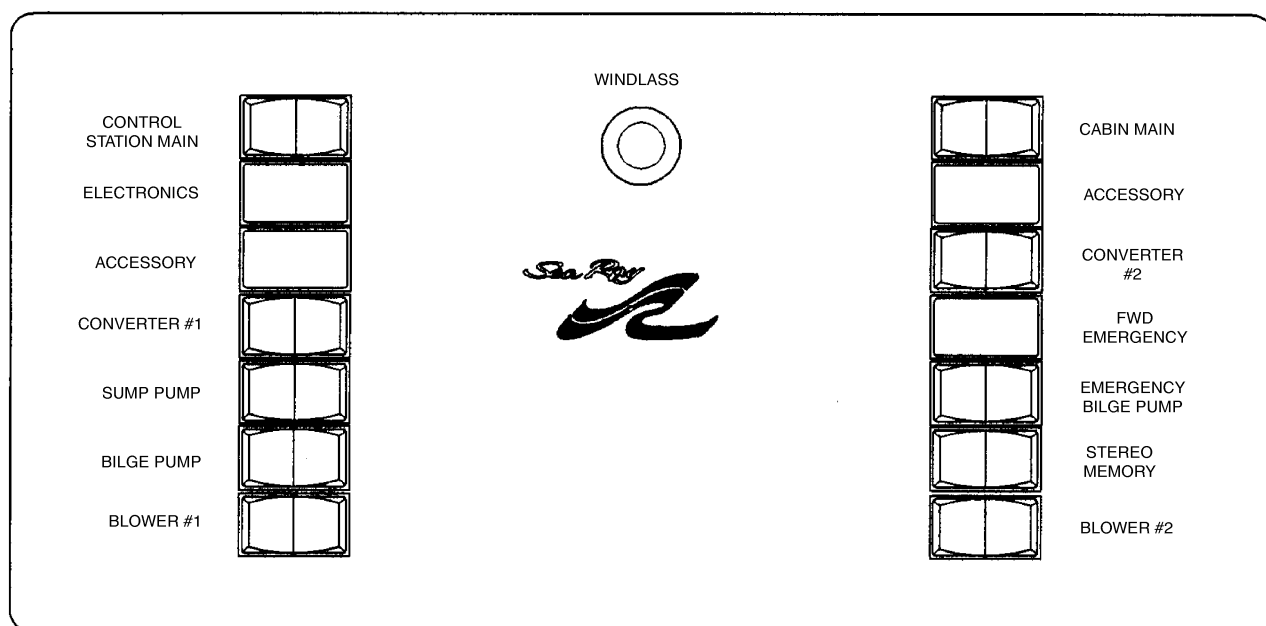
Main DC Breaker Panel & Battery Switches

(fig. 9.1)



Main DC Breaker Panel

(fig. 9.2)



SUPPLEMENTAL GENERAL INFORMATION

! 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.

VENTILATION SYSTEM / BILGE BLOWER

Sea Ray® Sport Cruisers are equipped with an electric bilge blower 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 blower is located in the bilge on the transom. The bilge blower switch is located on the helm switch panel.

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

FIRE EXTINGUISHING SYSTEM

The boat is offered with the halon fire extinguishing system. Models being exported may be equipped with the FM-200 fire extinguishing system.

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

! WARNING

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

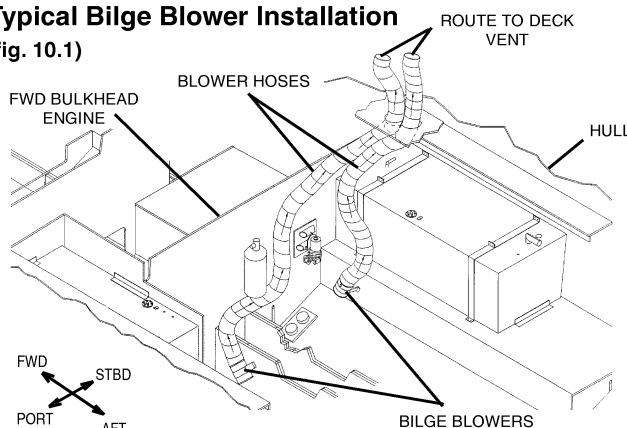
STEERING SYSTEM

The boat is equipped with a standard steering system. An hydraulic steering system is available with V-drives.

REFER TO OWNER'S MANUAL AND OWNER'S PACKET FOR OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS.

Typical Bilge Blower Installation

(fig. 10.1)



ANCHORING

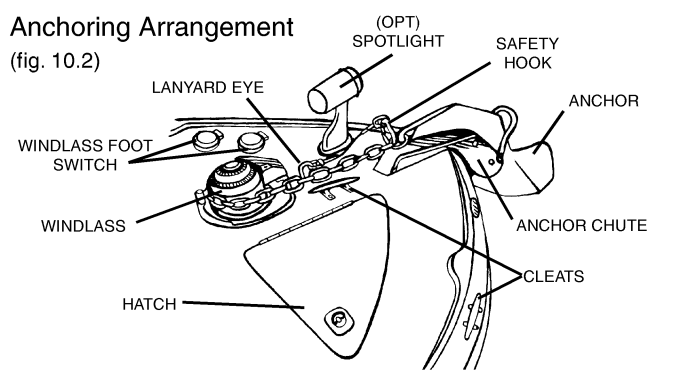
To anchor, bring the bow into the wind or current and put the engine in neutral. When the vessel comes to a stop, lower, do not throw, the anchor over the bow. The anchor line should be 5 to 7 times the depth of water.

ANCHORING ARRANGEMENT

The boat comes standard with an anchor storage hatch for anchor and rope stowage. Optional equipment includes an anchor chute with hause pipe and windlass. Stow the anchor in the storage hatch or anchor chute when not in use. Note: Before using the anchor be sure the anchor line is secured to the boat – to the bow cleat or windlass.

Anchoring Arrangement

(fig. 10.2)



SUPPLEMENTAL GENERAL INFORMATION

LIFE SAVING EQUIPMENT

(Personal Floation Device (PFD))

STORAGE: The boat offers storage under the helm companion seat, and in the forward port side 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.

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. DO NOT paint the engine drive surfaces.

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 key from the ignition, lock the sliding cabin door, store your boat in a secure place, put a lock on the trailer and if location permits chain your trailer to a pole or other permanently fixed object.

TROUBLE SHOOTING

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 owners 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: 1-314-213-7878

Domestic/International

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.

DOCKING / LIFTING

CLEATS: Cleats must not be used for lifting the boat, they are intended for mooring use only.

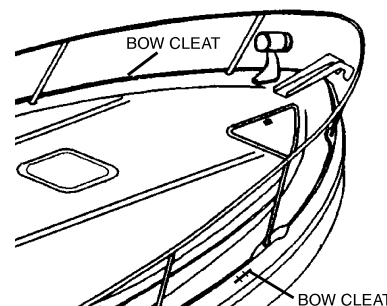
BOW AND STERN EYES: The bow eye should be used to haul the boat onto a trailer. The stern eyes should be used as tie down points for trailering the boat. **Do not** use bow or stern eyes for lifting. Instead, use slings at sling locations on the side of the hull.

For long term storage use flat, wide belt-type slings and spreaders long enough to keep pressure from gunwales. Do not place slings where they may lift on underwater fittings.

REFER TO OWNER'S MANUAL

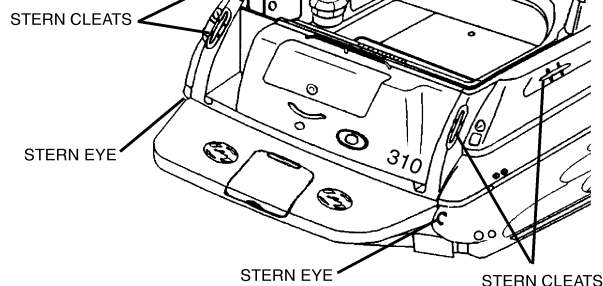
Bow Eye & Cleats

(fig. 11.1)



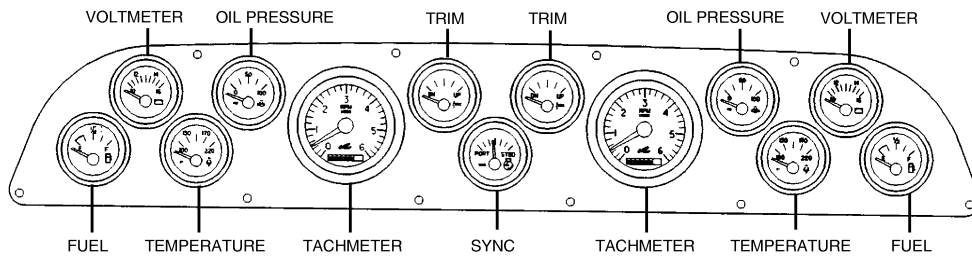
Stern Eyes and Cleats

(fig. 11.2)

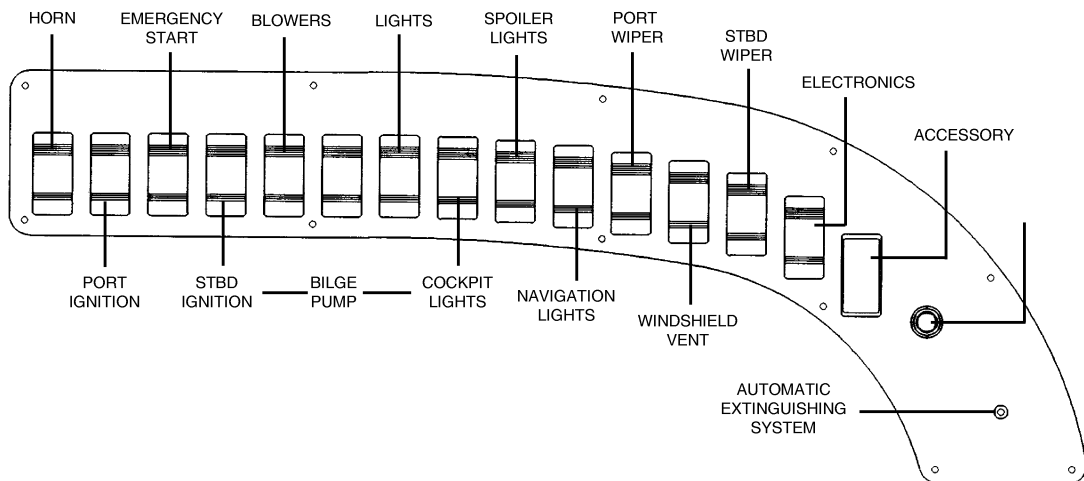


INSTRUMENT & SWITCH PANELS

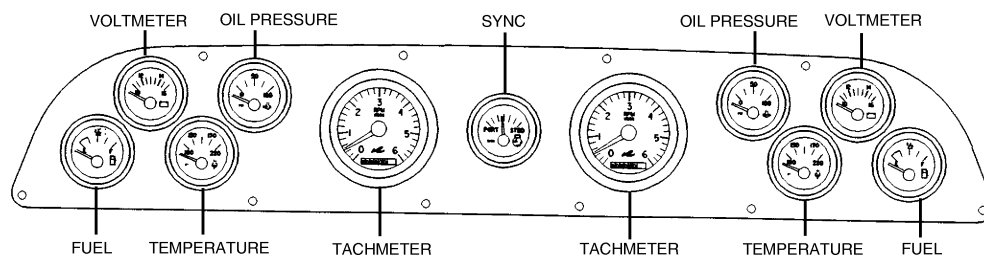
Instrument Panel
w/ Stern Drive
(fig. 12.1)



Switch Panel
w/ Gas Engines
(fig. 12.2)

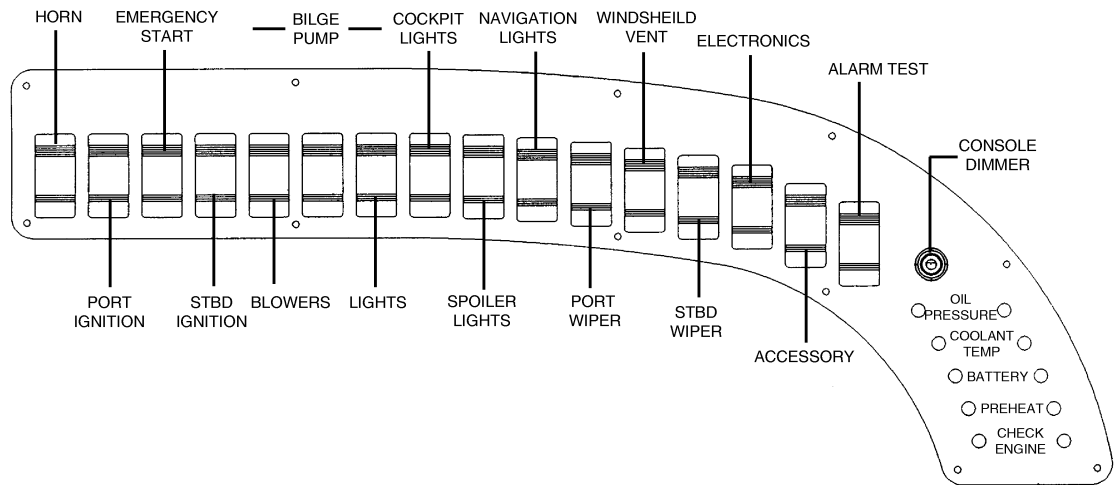


Instrument Panel
w/ V-Drive (Opt.)
(fig. 12.3)



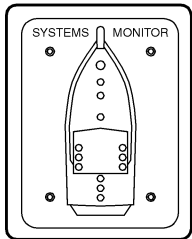
INSTRUMENT & SWITCH PANELS

Switch Panel
w/ Diesel Engines
(fig. 13.1)



SYSTEMS MONITOR PANEL

SYSTEMS MONITOR PANEL



The systems monitor panel, located at the control station, monitors critical engine functions, bilge pumps, high water emergency bilge pump, shower sump pump (if installed) and generator shutdown. It is equipped with a test button to test the indicator lights and the engine alarm buzzer. The panel is protected by

a 3 amp fuse installed in the circuit breaker which is on the main DC breaker panel.

Each engine is equipped with three alarm senders – water temperature, oil pressure and transmission temperature – which are connected to the alarm buzzer and appropriate indicator light on the systems monitor panel.

The warning buzzer and corresponding indicator light will be activated if the cooling system water temperature rises too high, the engine oil pressure gets too low, or the transmission temperature rises too high. Refer to the Engine Operator's Manual for proper gauge readings or aid in finding and correcting the problem.

Note: Engines equipped with electronic fuel injection (EFI) or multi port injection (MPI) are equipped with one engine indicator light. If the alarm sounds and the light activates, pay particular attention to the engine gauges to distinguish the problem.

It is recommended that the system indicator lights and alarm be tested at least once every five hours of operation. To test, push the test switch on the systems monitor panel. All indicator lights and alarm should activate.

In the event the bilge high water alarm and light are activated, immediate attention to the bilge is required.

NOTICE

If an engine stalls during docking or slow maneuvering, the buzzer will sound until the engine is restarted. The buzzer will also sound while the engines are cranking and will continue until they start.

SYSTEMS MONITOR PANEL

12 VOLT ACCESSORY RECEPTACLE

Your Sea Ray® Sport Cruiser may have a 12 volt accessory receptacle at the control station. It is a cigarette lighter style receptacle to be used with any 12 volt accessories using this type of plug.

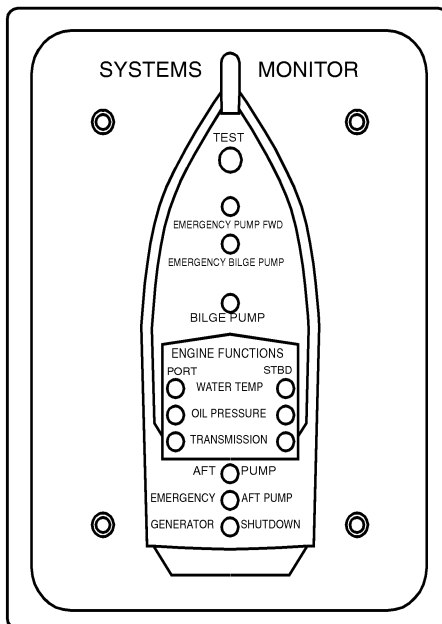
120 VOLT AC/12 VOLT AC TRANSFORMERS

Your Sport Cruiser may be equipped with one or more 120 volt AC converters. This will allow you to operate the 12 volt AC lighting while your Sport Yacht is using the 120 volt AC shore power or generator. This helps relieve some of the lighting load from the DC system. Read and understand the information for the transformer in your Owner's Manual Packet.

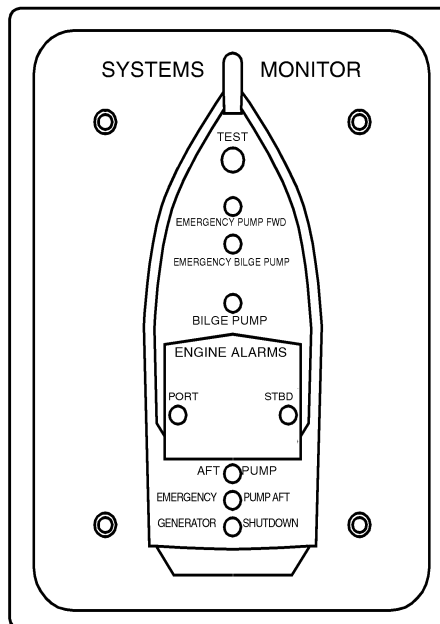
CAUTION

IF THE ENGINE INDICATOR(S) AND ALARM COME ON WHILE RUNNING, QUICKLY CHECK AND NOTE THE OIL PRESSURE AND WATER TEMPERATURE GAUGE READINGS. TURN OFF ENGINE IMMEDIATELY. Check for leaks and see if the cooling water pickup is blocked or clogged. If necessary, clear the water pickup of any foreign matter. DO NOT RESTART THE ENGINE UNTIL CAUSE FOR ALARM SOUNDING HAS BEEN FOUND AND CORRECTED.

Standard Systems Monitor Panel
(fig. 14.1)

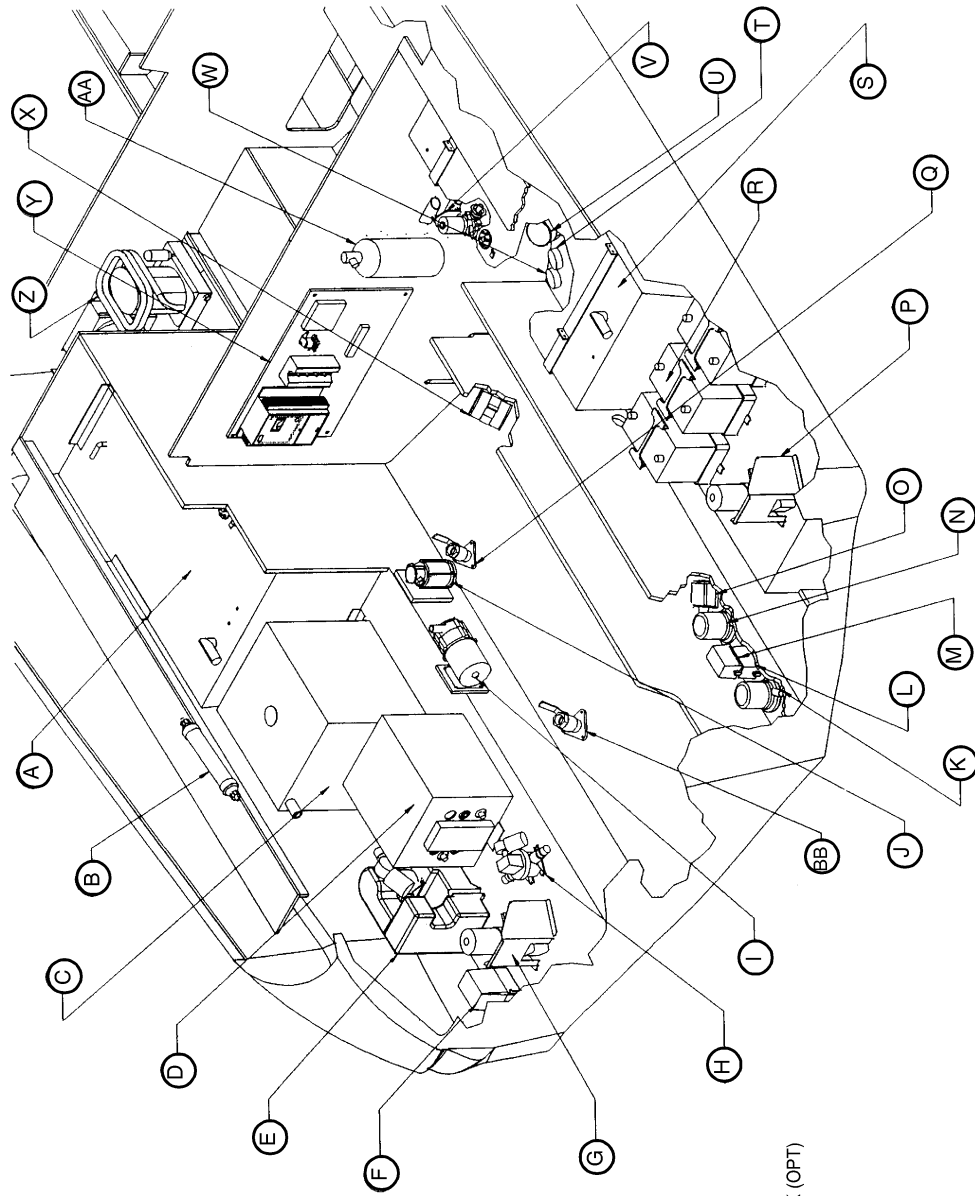


Systems Monitor Panel
(With EFI/MPI Engine Option)
(fig. 14.2)



Light	Indicates (When Lit)
SUMP PUMP (IF SUPPLIED)	SHOWER SUMP PUMP IS RUNNING
EMERGENCY PUMP	FWD EMERGENCY BILGE PUMP IS RUNNING
FWD BILGE PUMP	BILGE PUMP IS RUNNING
WATER TEMPERATURE	ENGINE COOLING SYSTEM IS TOO HOT
OIL PRESSURE	ENGINE OIL PRESSURE IS TOO LOW
TRANSMISSION TEMPERATURE	TRANSMISSION TEMPERATURE IS TOO HOT
AFT BILGE PUMP	BILGE PUMP IS RUNNING
EMERGENCY BILGE PUMP	EMERGENCY BILGE PUMP IS RUNNING
GENERATOR SHUTDOWN	GENERATOR OIL PRESSURE IS TOO LOW

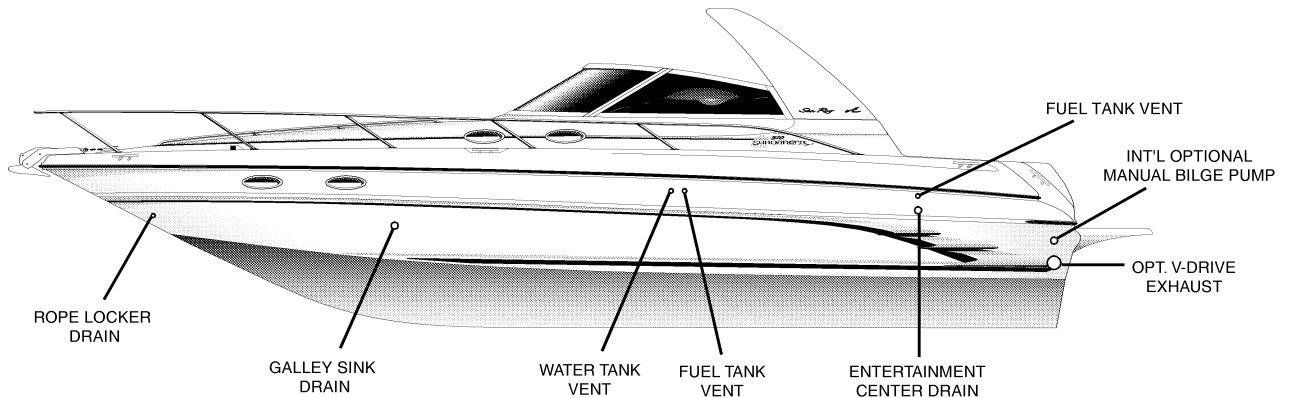
BILGE LAYOUT



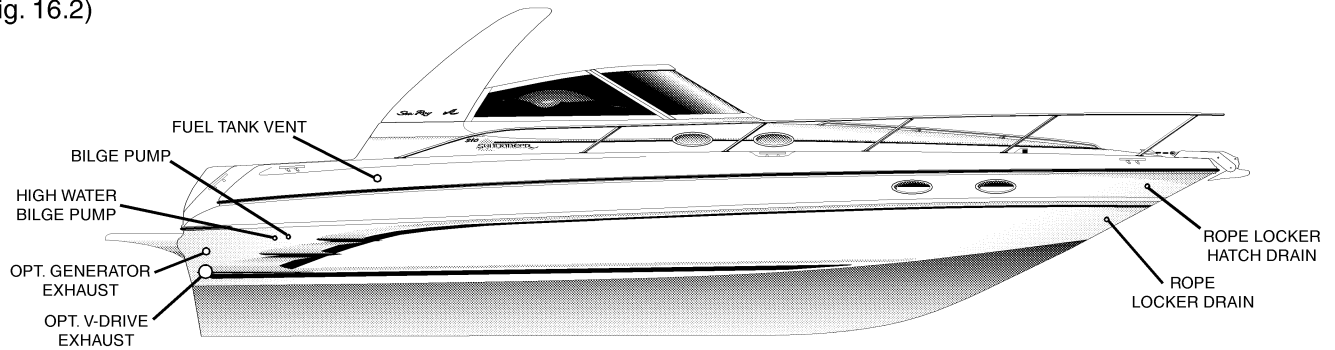
- A PORT FUEL TANK
- B HEAD SYSTEM VENT FILTER
- C HEAD SYSTEM HOLDING TANK
- D WATER HEATER
- E HEAD SYSTEM VACUUM GENERATOR
- F TRIM TAB PUMP
- G PORT ENGINE POWER TRIM PUMP
- H W/ STERN DRIVE ENGINES
- I HEAD SYSTEM MACERATOR (OPT)
- J A/C WATER PUMP (OPT)
- K A/C STRAINER (OPT)
- L BILGE PUMP
- M FLOAT SWITCH
- N HIGH WATER FLOAT SWITCH
- O MANUAL BILGE PUMP PICKUP (OPT)
- P STBD ENGINE POWER TRIM PUMP
- Q W/ STERN DRIVE ENGINES
- R A/C SEACOCK (OPT)
- S BATTERIES
- T STBD FUEL TANK
- U SPEED TRANSDUCER (OPT)
- V STBD BILGE BLOWER
- W WATER PUMP
- X DEPTH TRANSDUCER
- Y STBD BILGE BLOWER
- Z BILGE COMPONENT BOARD
- AA A/C UNIT (OPT)
- BB AUTOMATIC FIRE EXTINGUISHER BOTTLE
- BB HEAD SYTEM OVERBOARD DISCHARGE SEACOCK (OPT)

LOCATION OF THROUGH - HULL FITTINGS

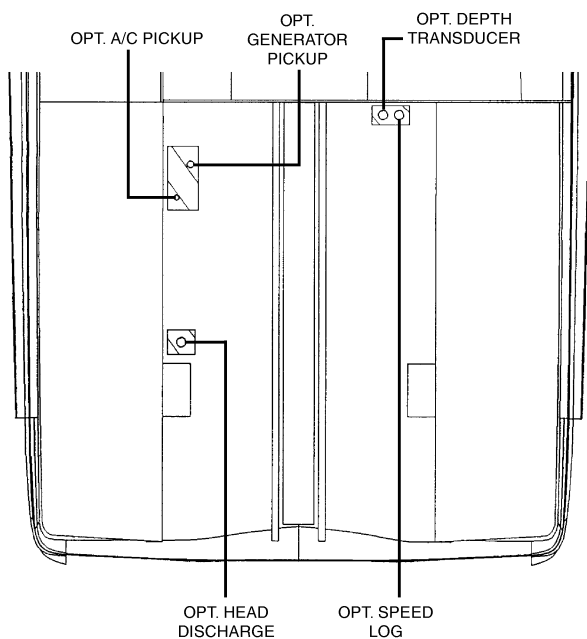
Port Side
(fig. 16.1)



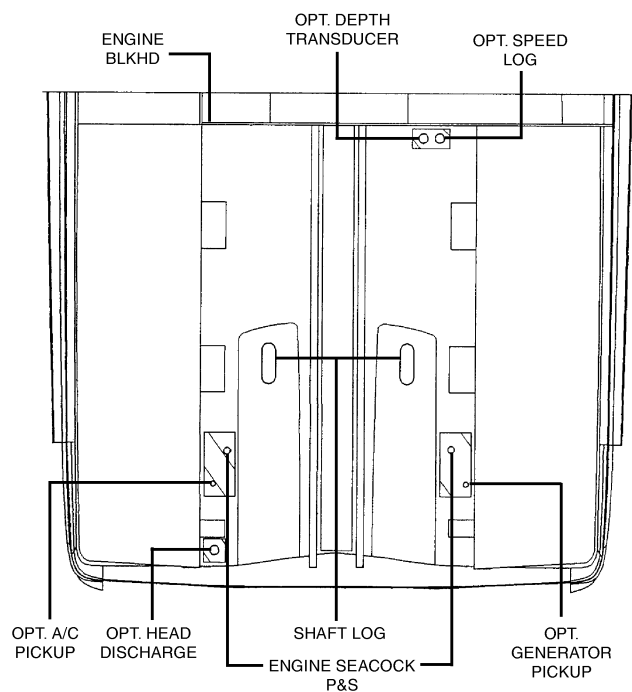
Starboard Side
(fig. 16.2)



Bilge Hull Cutouts
w/ Standard Stern Drives
(fig. 16.3)



Bilge Hull Cutouts
w/ Opt. V-Drives
(fig. 16.4)



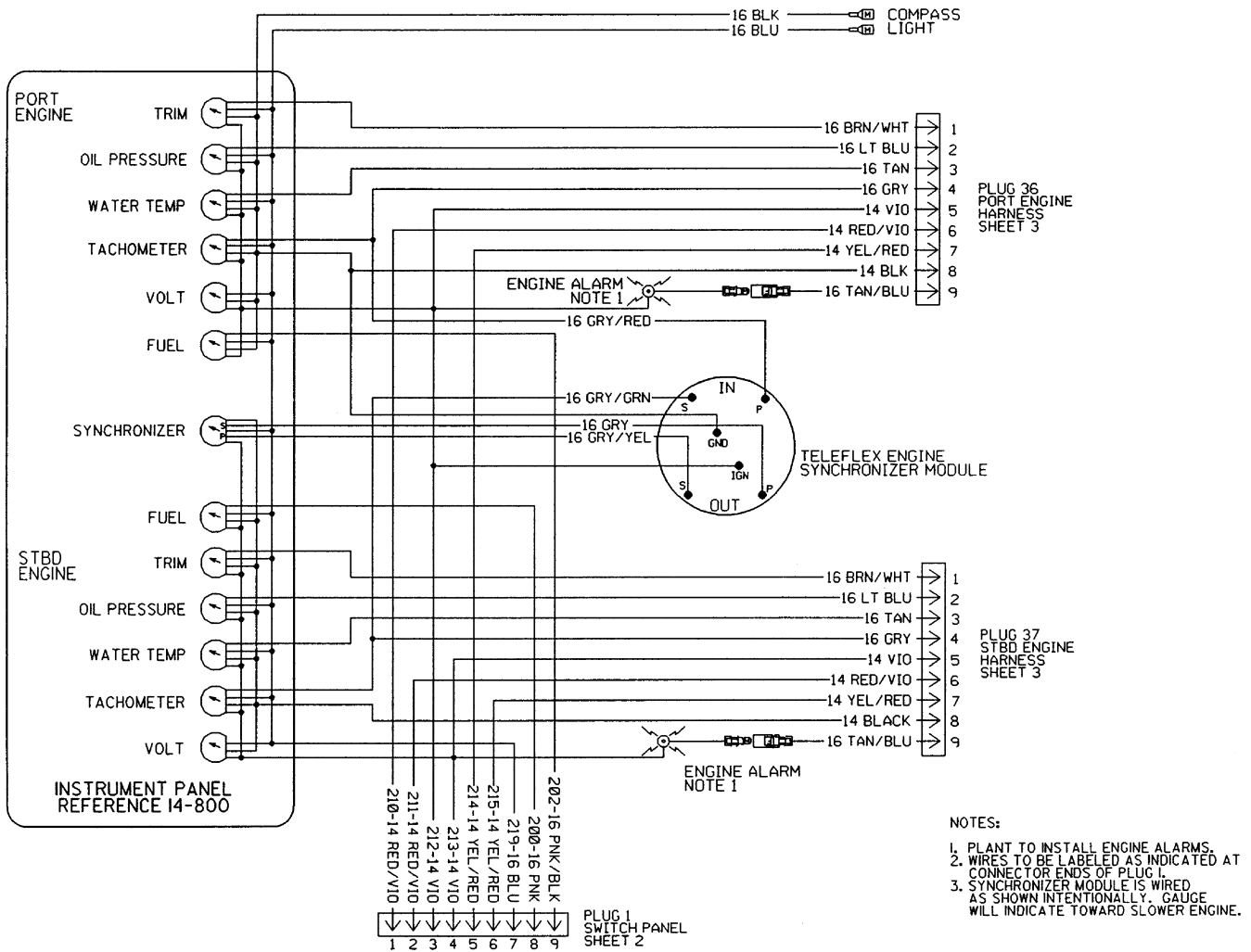
KEY to ELECTRICAL SYMBOLS

LIGHT BATTERY SPOTLIGHT STARTER COIL HORN WATER TEMP. SENDER	GAUGE FLOAT SWITCH CIRCUIT BREAKER 2 CIRCUIT IGNITION SWITCH VARIABLE RESISTOR SPST SWITCH SPDT SWITCH DPDT 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 GRY -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 GRY/WHT -GRAY W/ WHITE TRACER GRY/BLU -GRAY W/ BLUE TRACER YEL/RED -YELLOW W/ RED TRACER GRY/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:

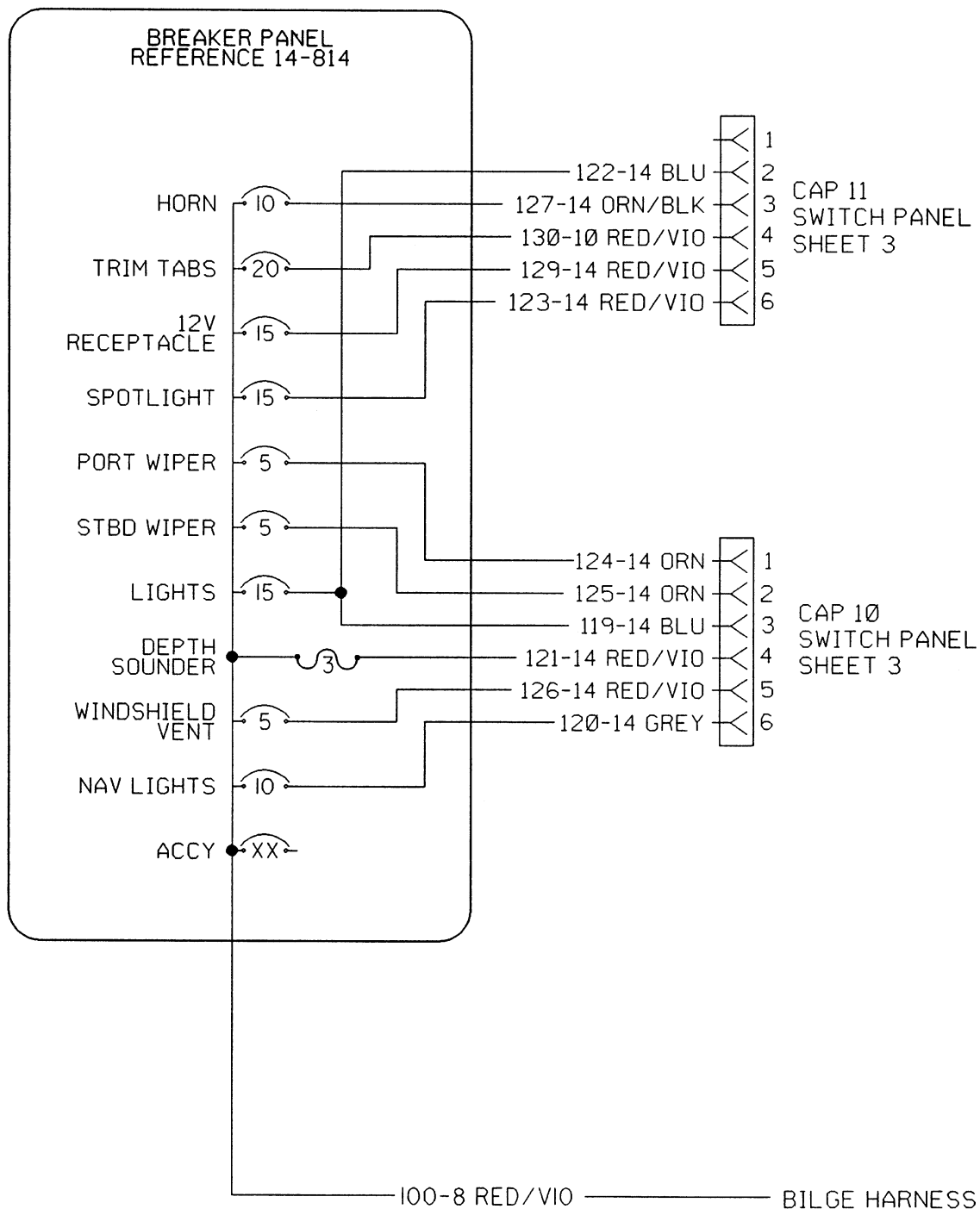
- 1) ALL WIRE IS AMERICAN WIRE GAUGE (AWG) STANDARDS
- 2) THE CONNECTOR SIZE IS DETERMINED BY THE GAUGE OF THE WIRE THE CONNECTOR IS USED ON.
- 3) QUICK CONNECT TERMINALS TO BE .250 UNLESS OTHERWISE INDICATED, TAB THICKNESS IS .032"
- 4) TERMINALS ARE TO BE TIN PLATED COPPER WITH NYLON INSULATION AMP,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

D C WIRING SCHEMATIC (1 of 5)



D C WIRING SCHEMATIC

(2 OF 5)

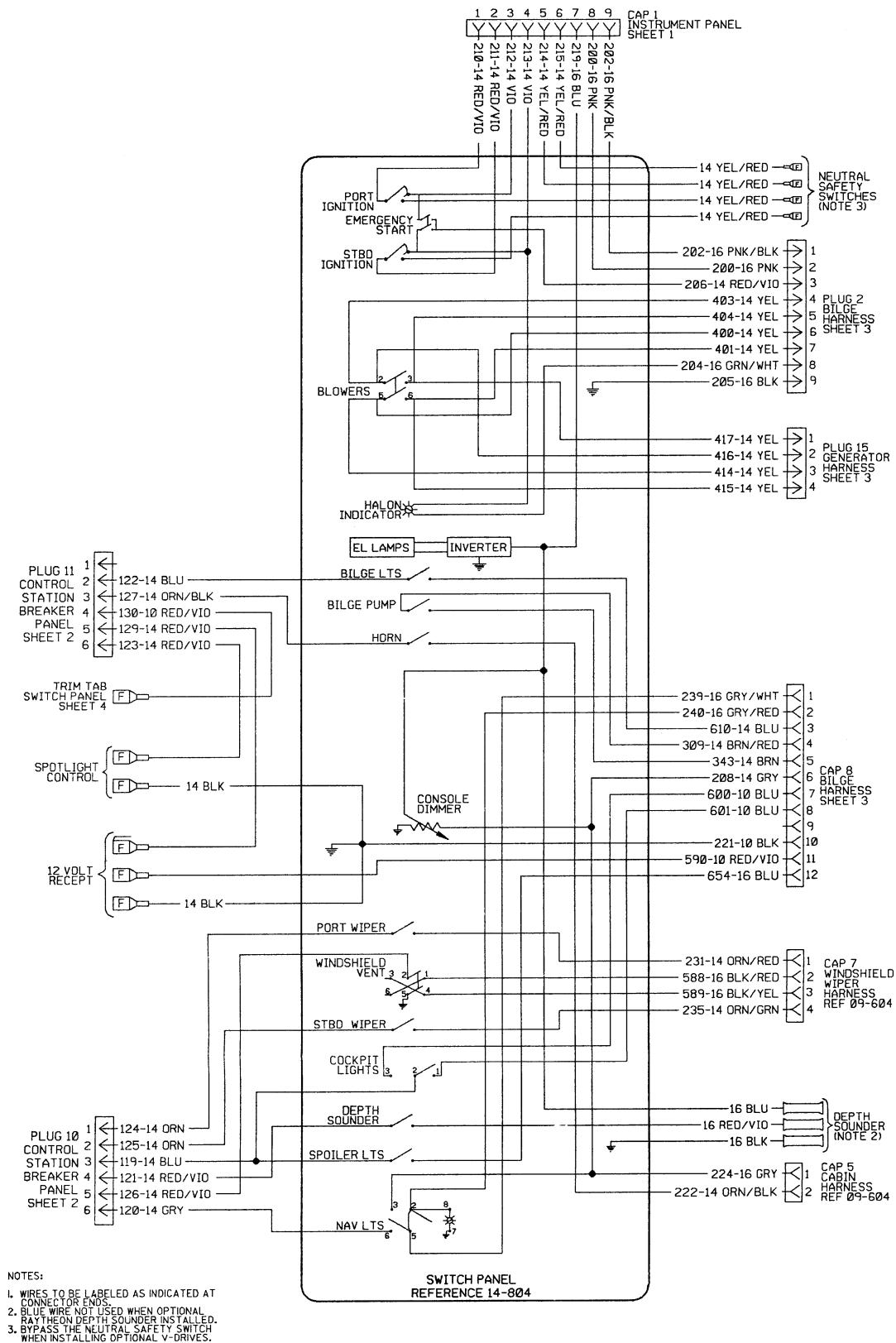


NOTE:

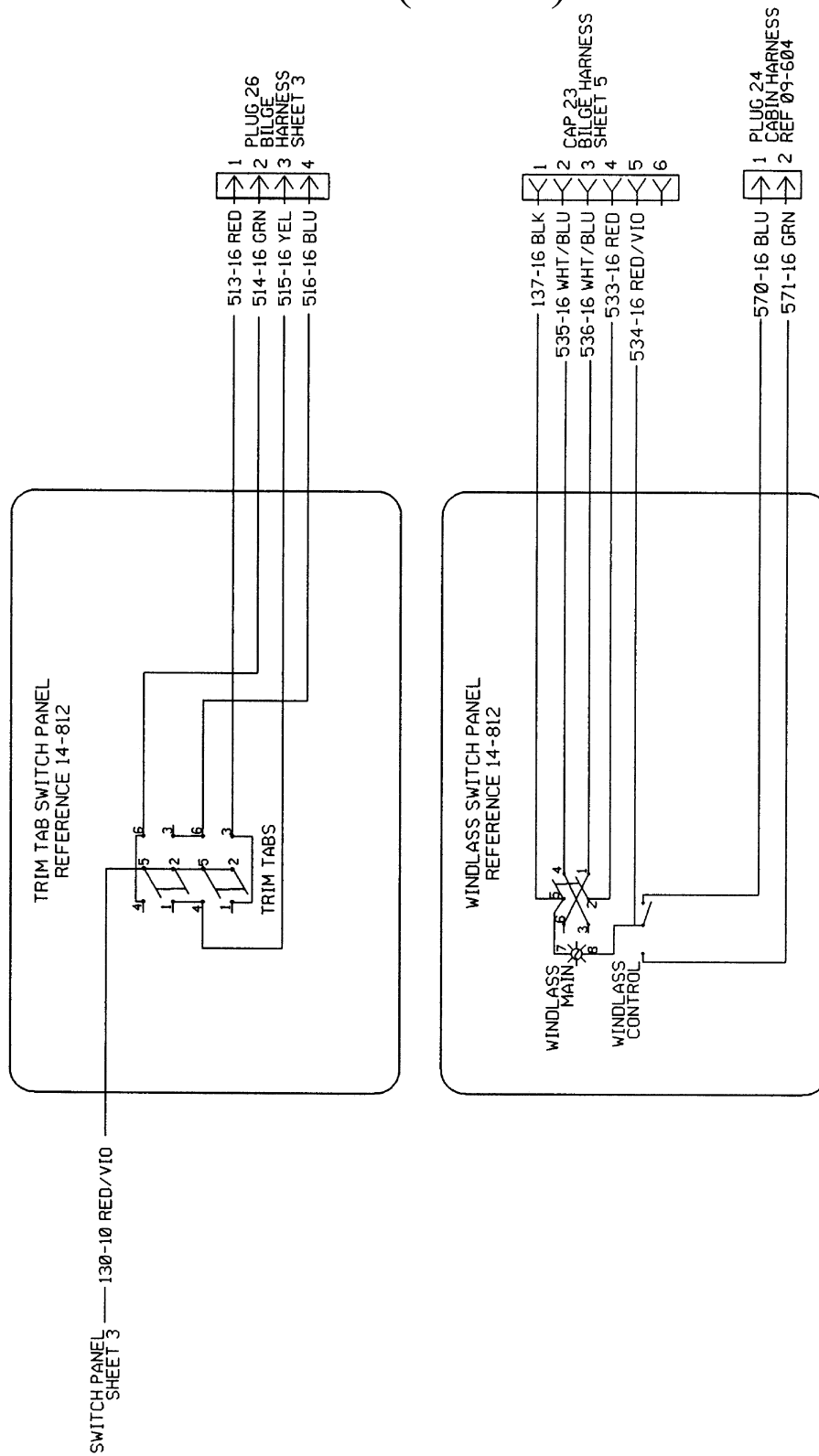
1. WIRES TO BE LABELED AS INDICATED AT CONNECTOR ENDS.
2. WIRE 100 SHOWN FOR INSTALLATION PURPOSES ONLY. NOT TO BE INSTALLED BY VENDOR.

D C WIRING SCHEMATIC

(3 OF 5)



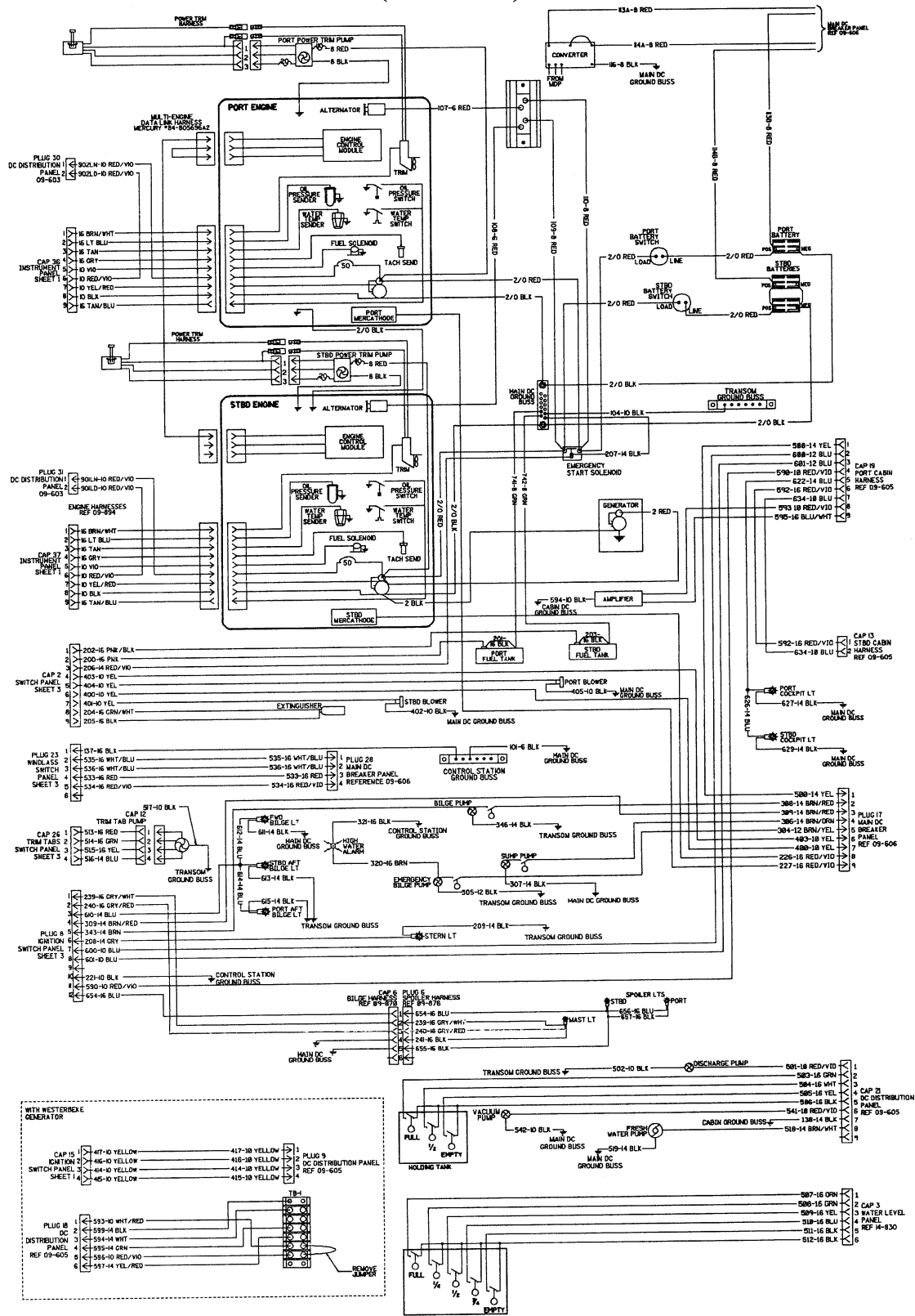
D C WIRING SCHEMATIC (4 OF 5)



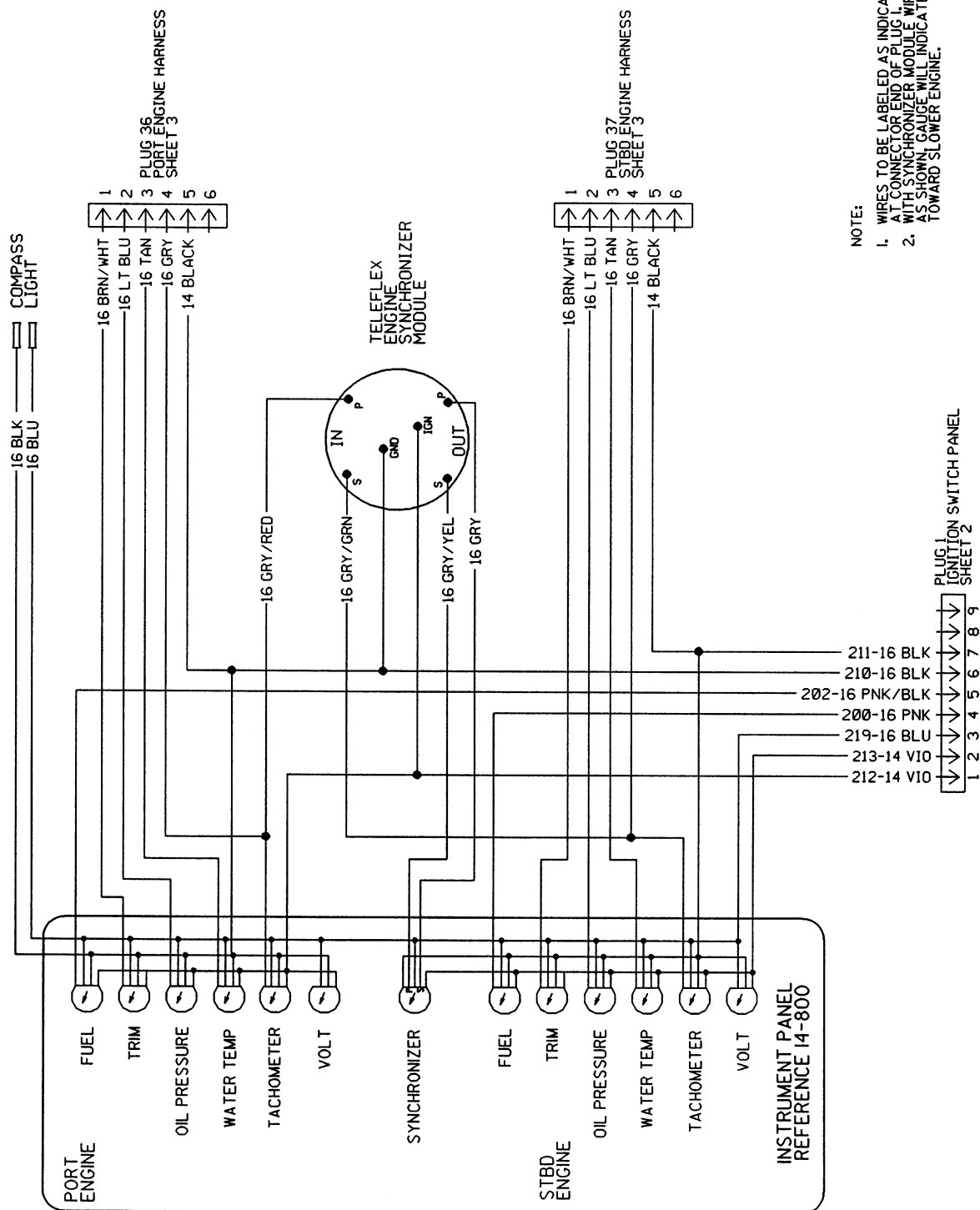
NOTES:
1. WIRES TO BE LABELED AS INDICATED AT CONNECTOR ENDS.
2. WIRE 130 SHOWN FOR INSTALLATION PURPOSES ONLY, NOT TO BE INSTALLED BY VENDOR.

D C WIRING SCHEMATIC

(5 OF 5)



D C WIRING DIAGRAM (WITH 4.2 L MERCURY D-DEISEL OPTION) (1 OF 3)

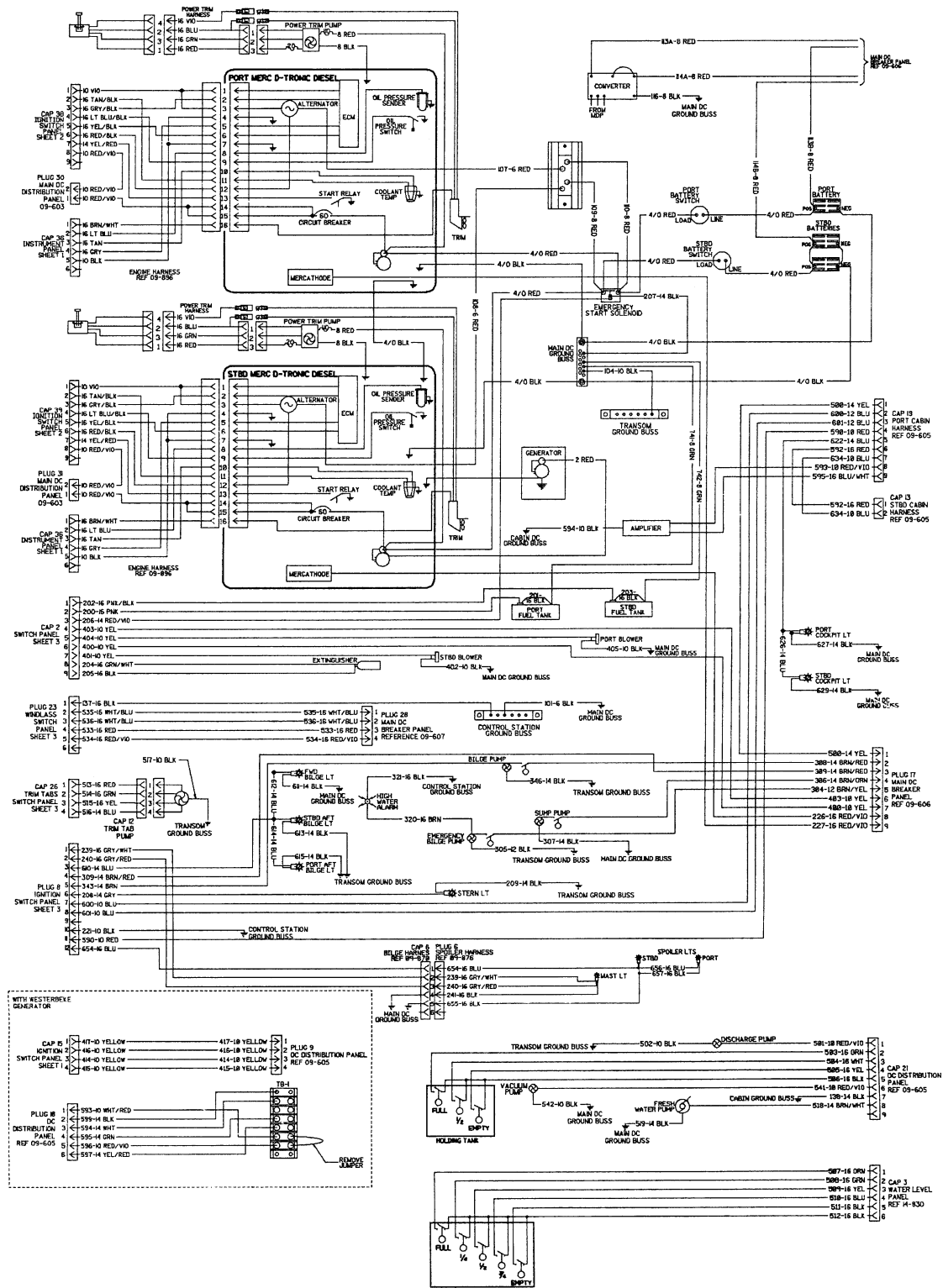


(2 OF 3)

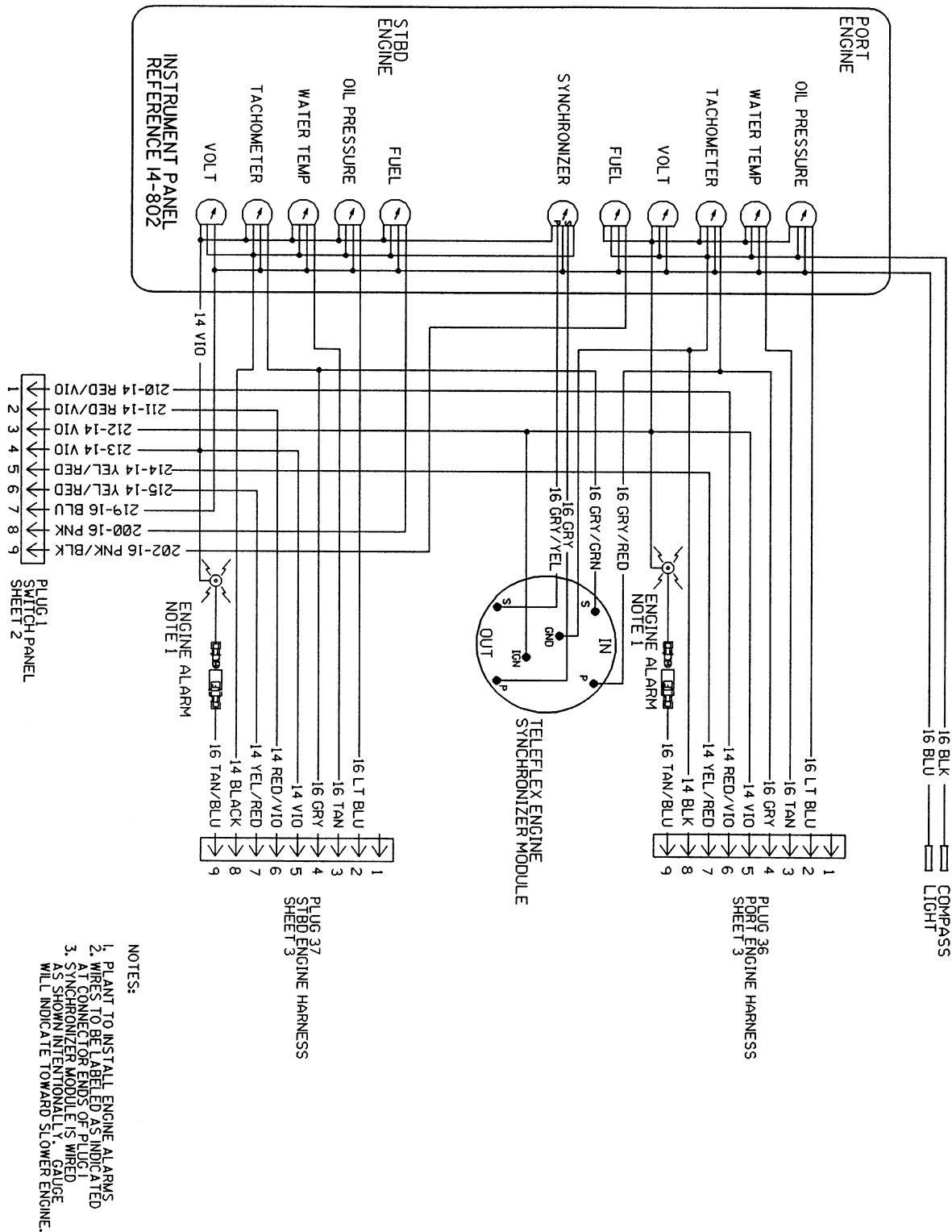


24

D C WIRING DIAGRAM (WITH 4.2 L MERCURY D-DEISEL OPTION) (3 OF 3)

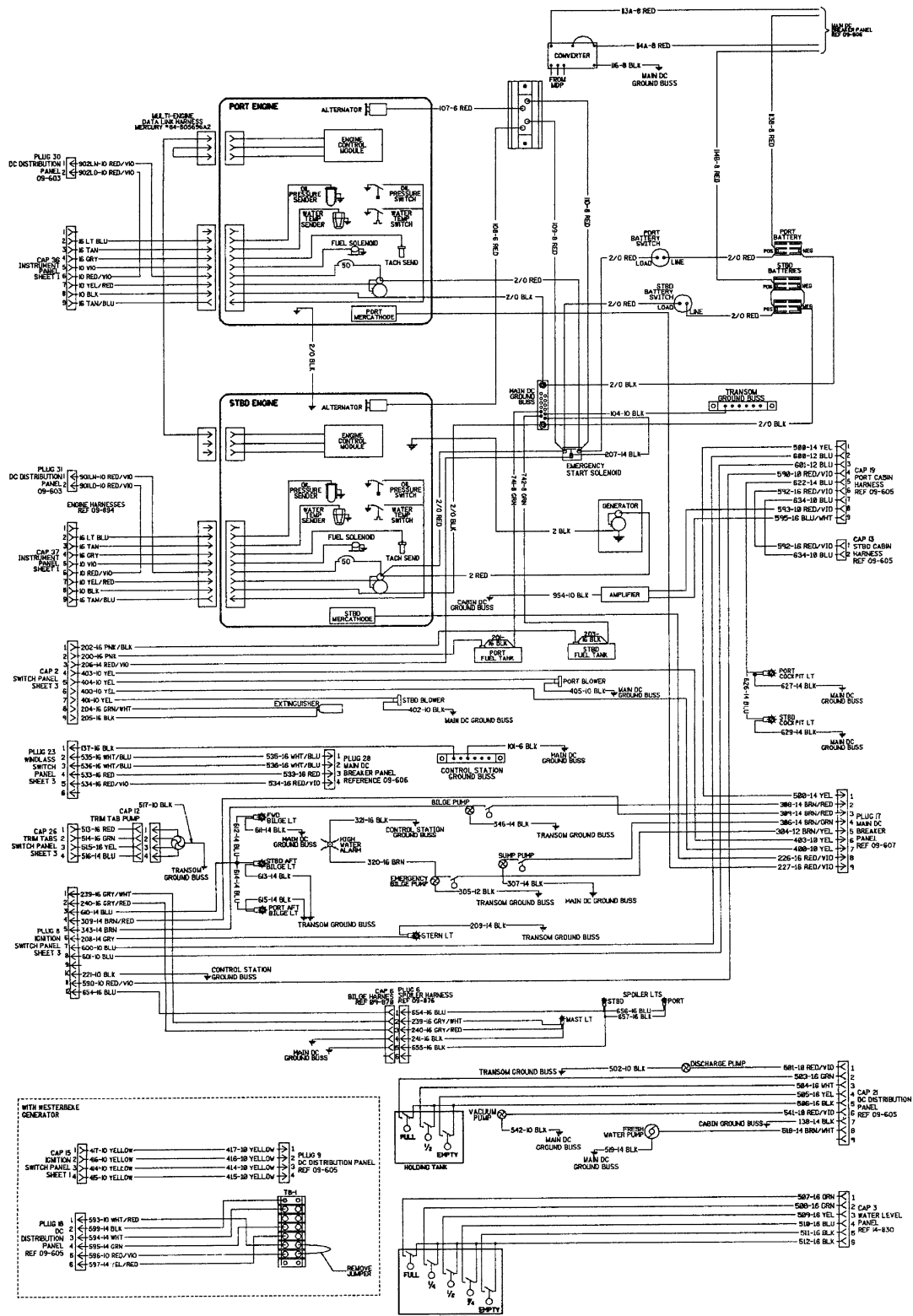


D C WIRING DIAGRAM (WITH V-DRIVE OPTION) (1 of 2)

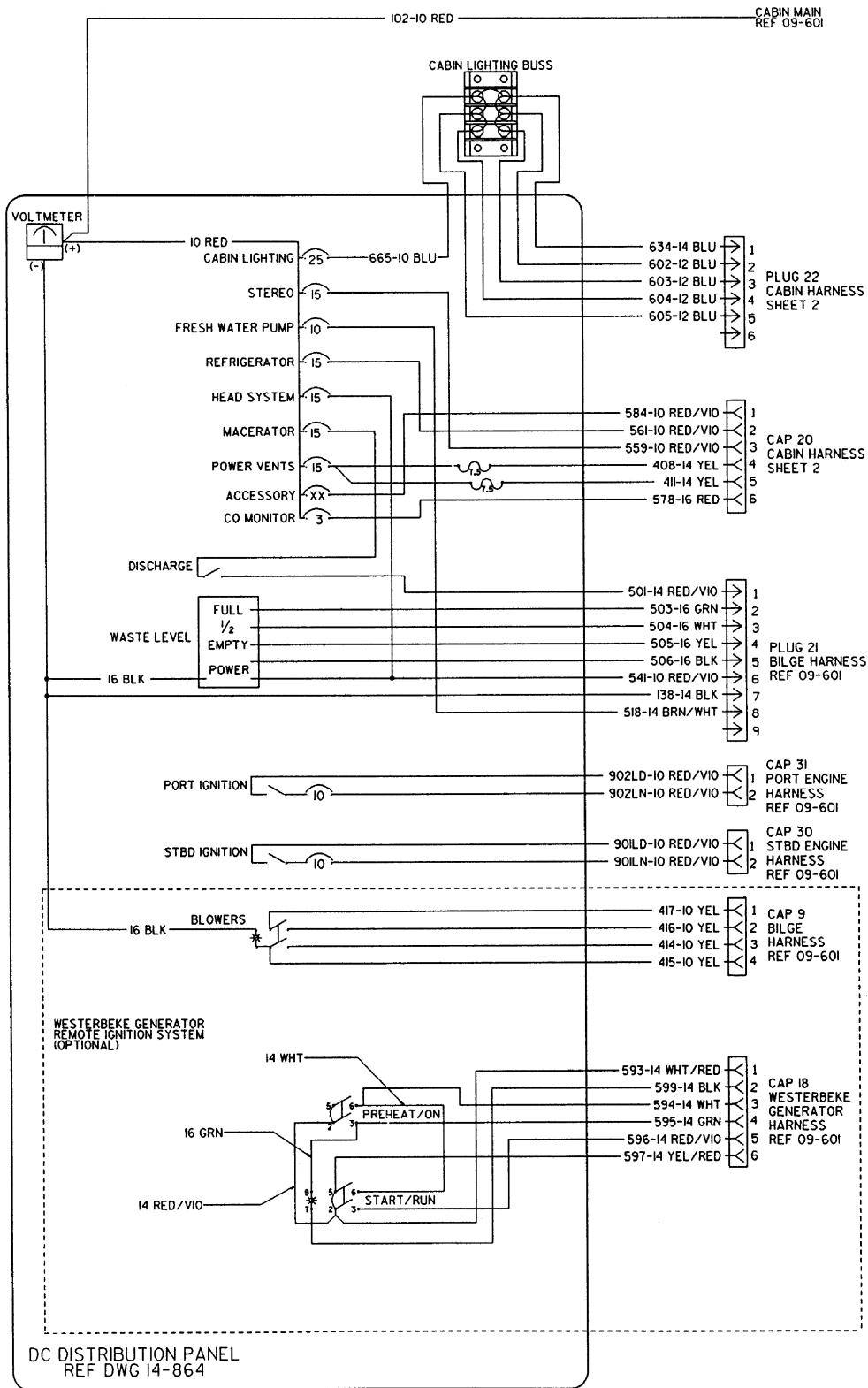


D C WIRING DIAGRAM (WITH V-DRIVE OPTION)

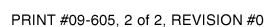
(2 of 2)



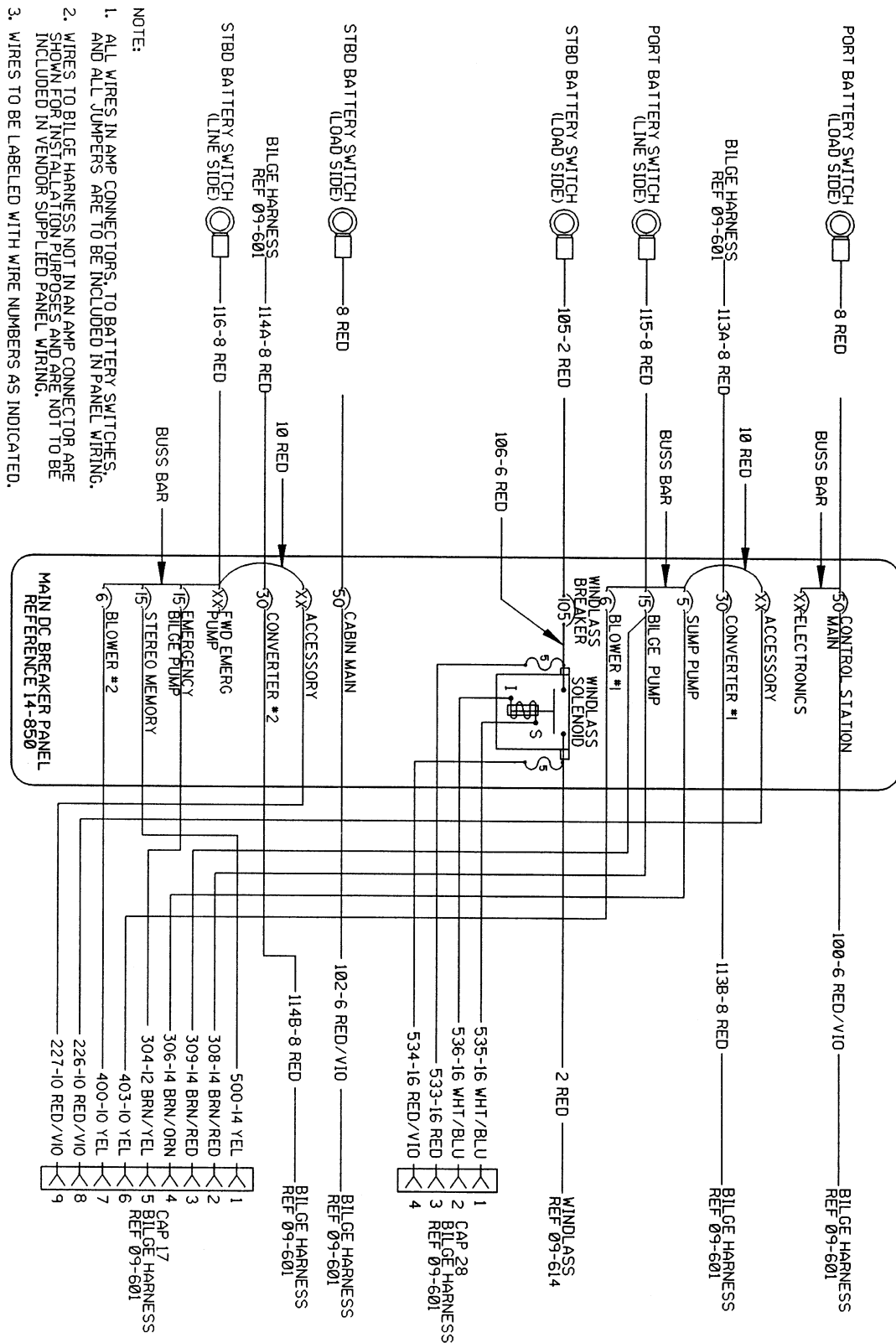
CABIN D C WIRING DIAGRAM (1 of 2)



NOTE:
EACH GROUND SYMBOL DENOTES A CONNECTION TO THE CABIN GROUND BUSS UNLESS OTHERWISE INDICATED.

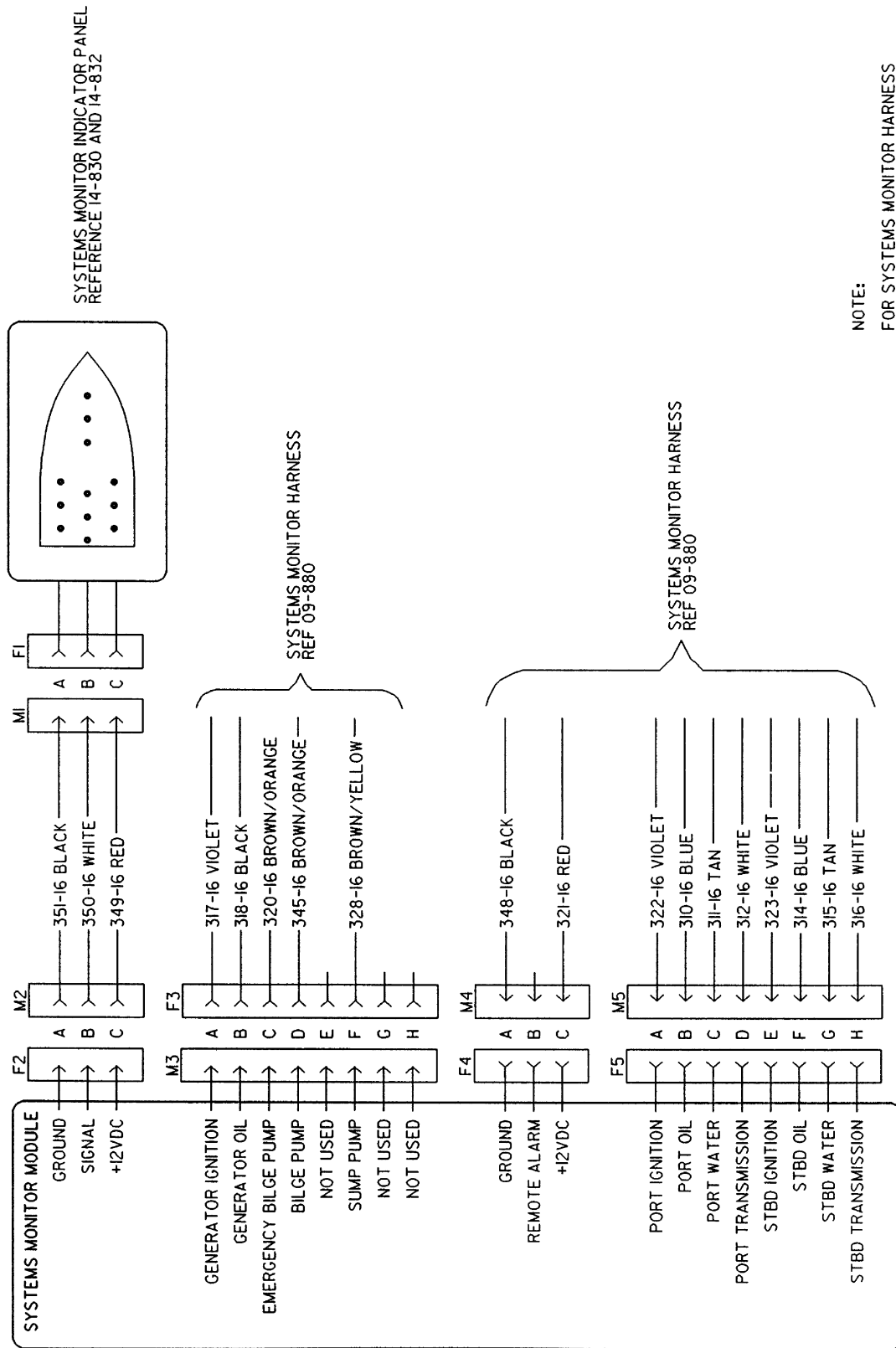


MAIN DC BREAKER PANEL WIRING DIAGRAM

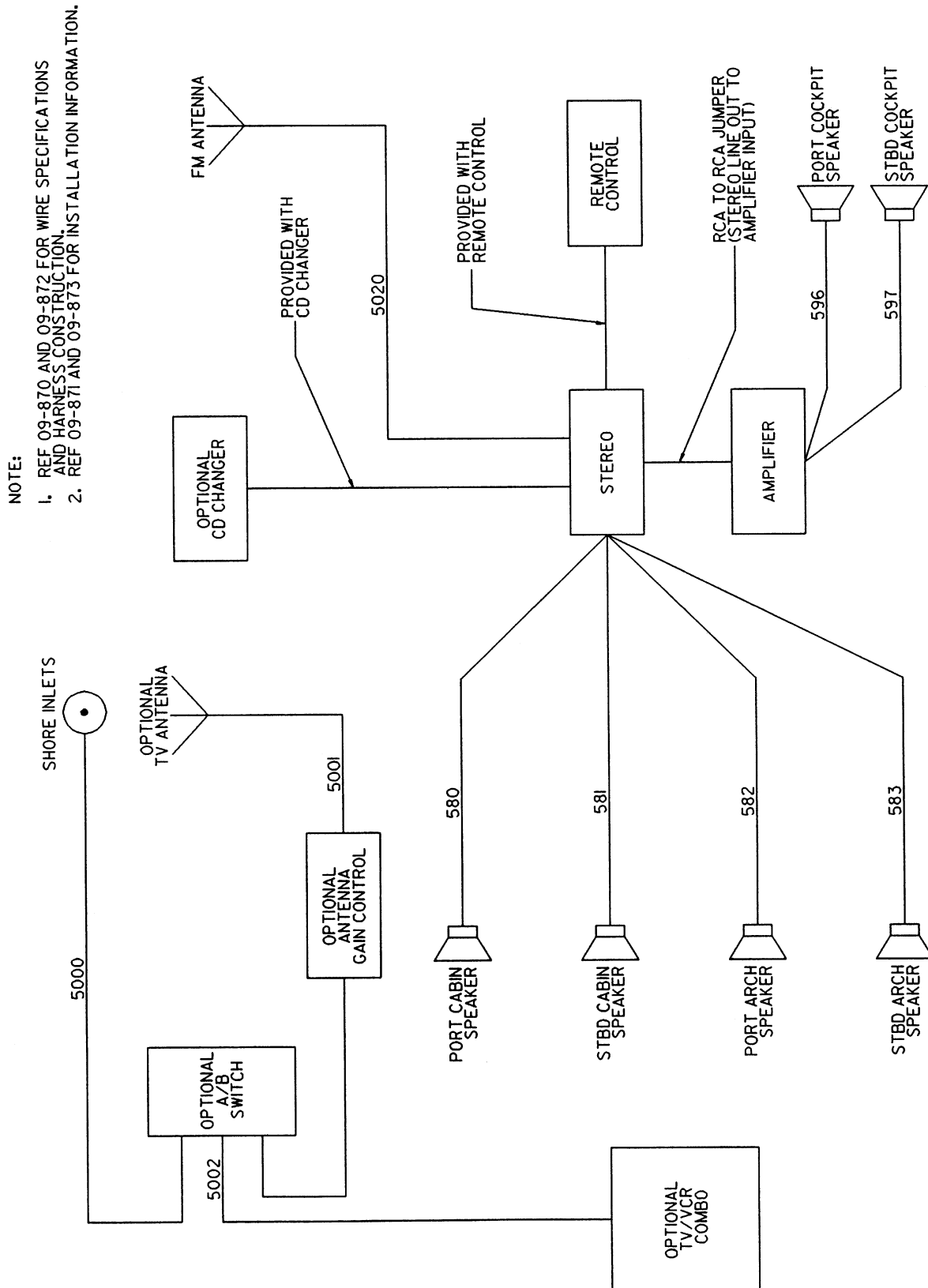


- NOTE:
1. ALL WIRES IN AMP CONNECTORS, TO BATTERY SWITCHES, AND ALL JUMPERS ARE TO BE INCLUDED IN PANEL WIRING.
 2. WIRES TO BILGE HARNESS NOT IN AN AMP CONNECTOR ARE SHOWN FOR INSTALLATION PURPOSES AND ARE NOT TO BE INCLUDED IN VENDOR SUPPLIED PANEL WIRING.
 3. WIRES TO BE LABELED WITH WIRE NUMBERS AS INDICATED.

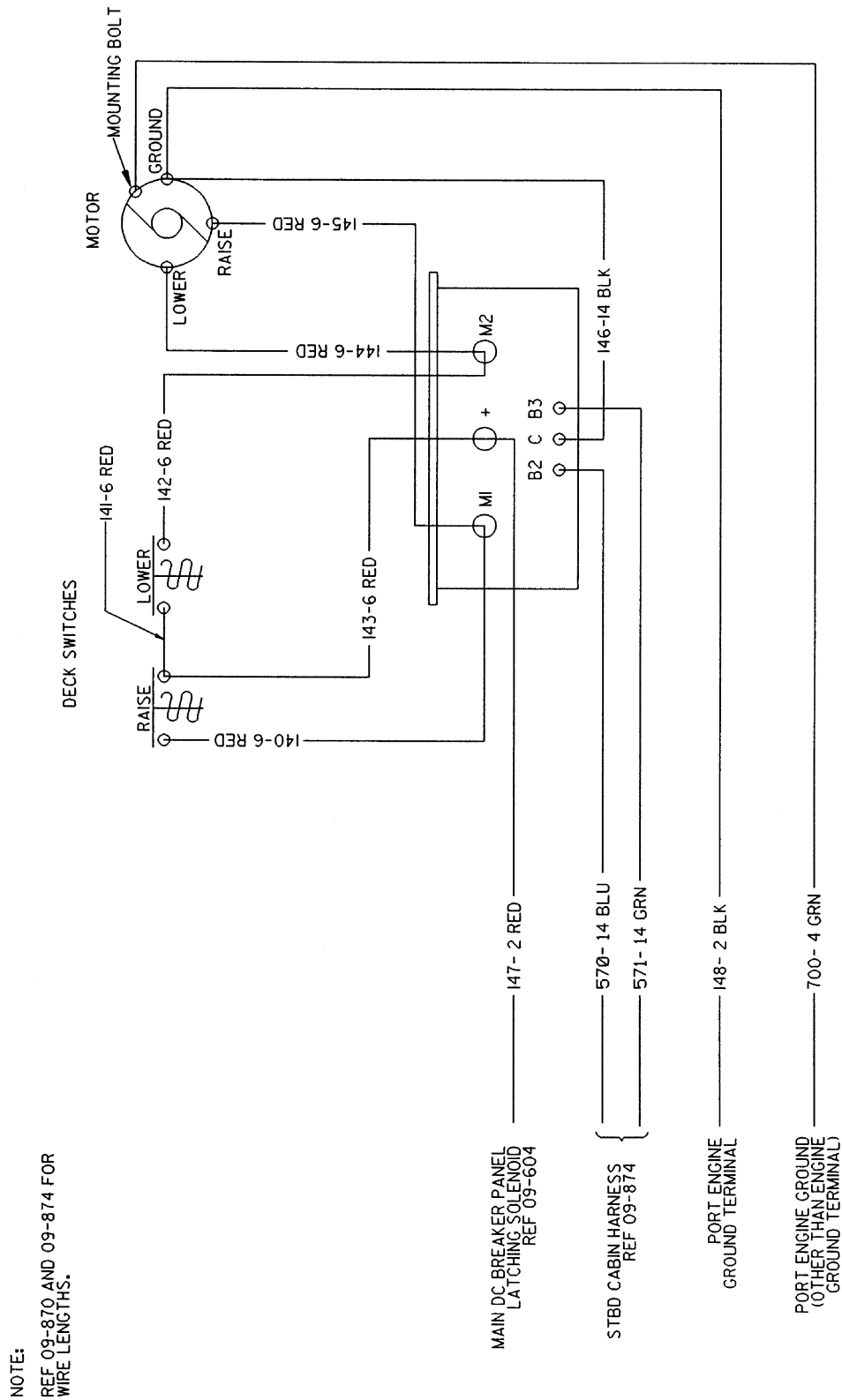
SYSTEMS MONITOR MODULE WIRING DIAGRAM



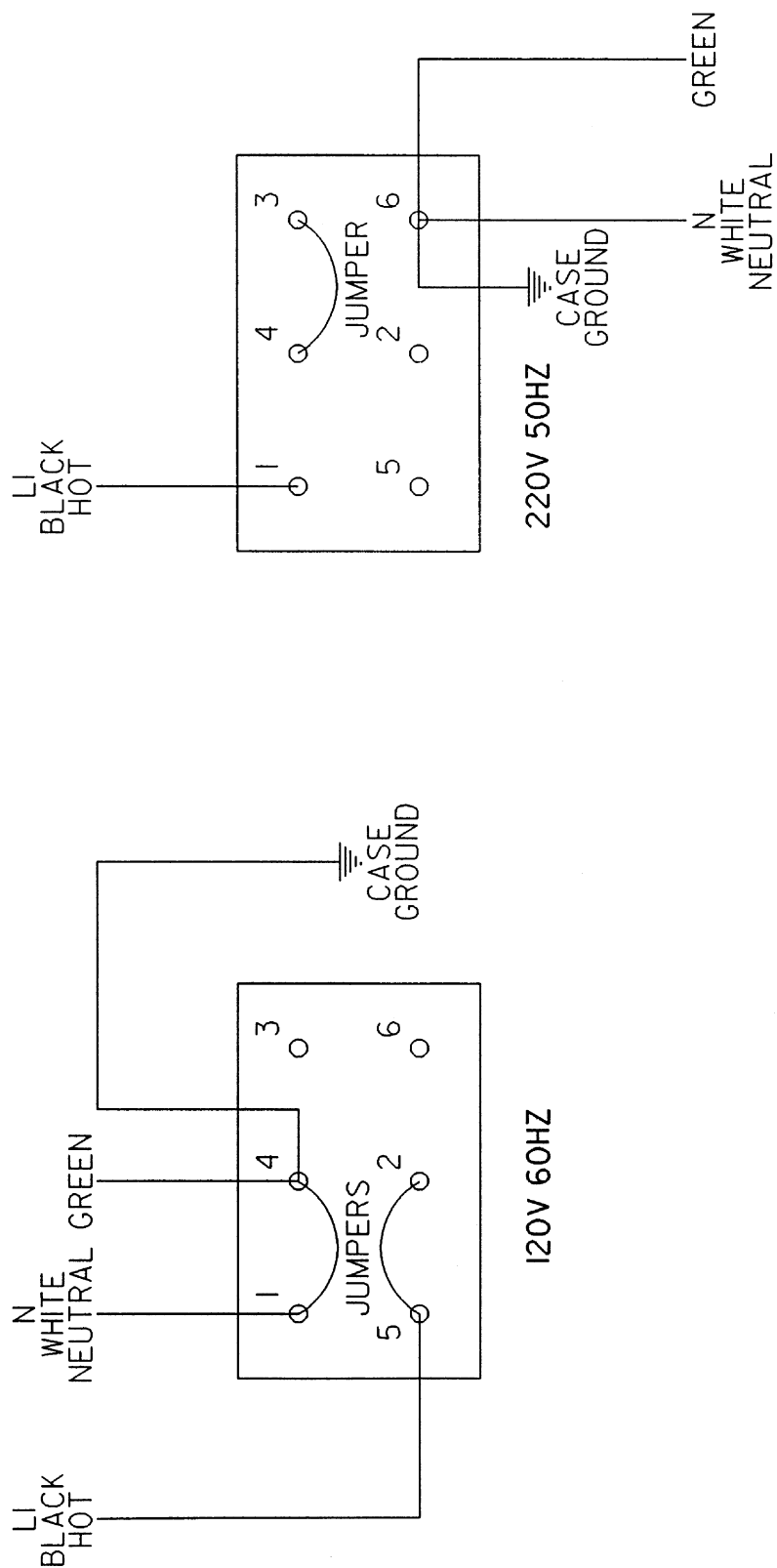
TV / STEREO CABLE WIRING DIAGRAM



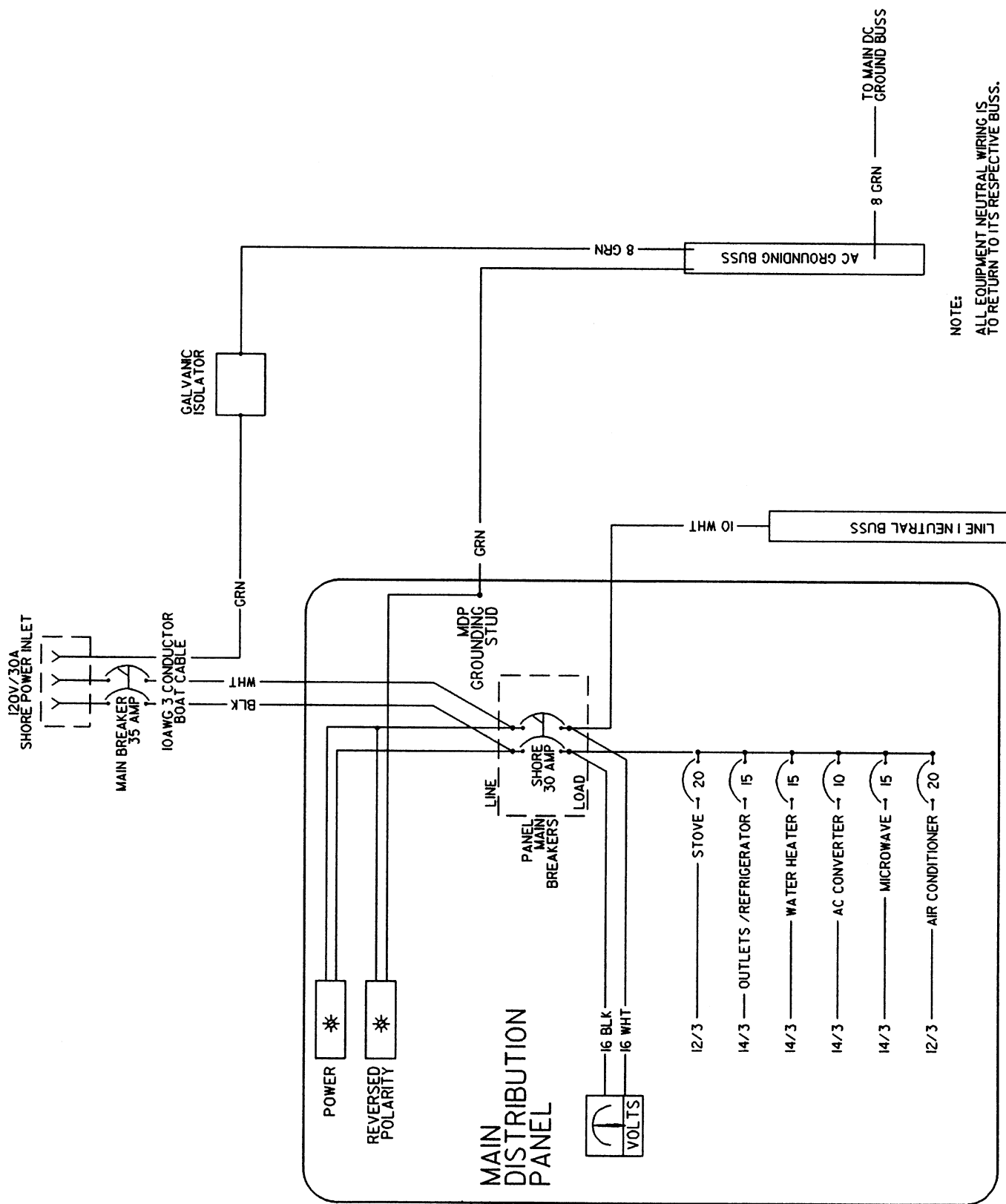
LOFRANS PROGRESS WINDLASS WIRING DIAGRAM



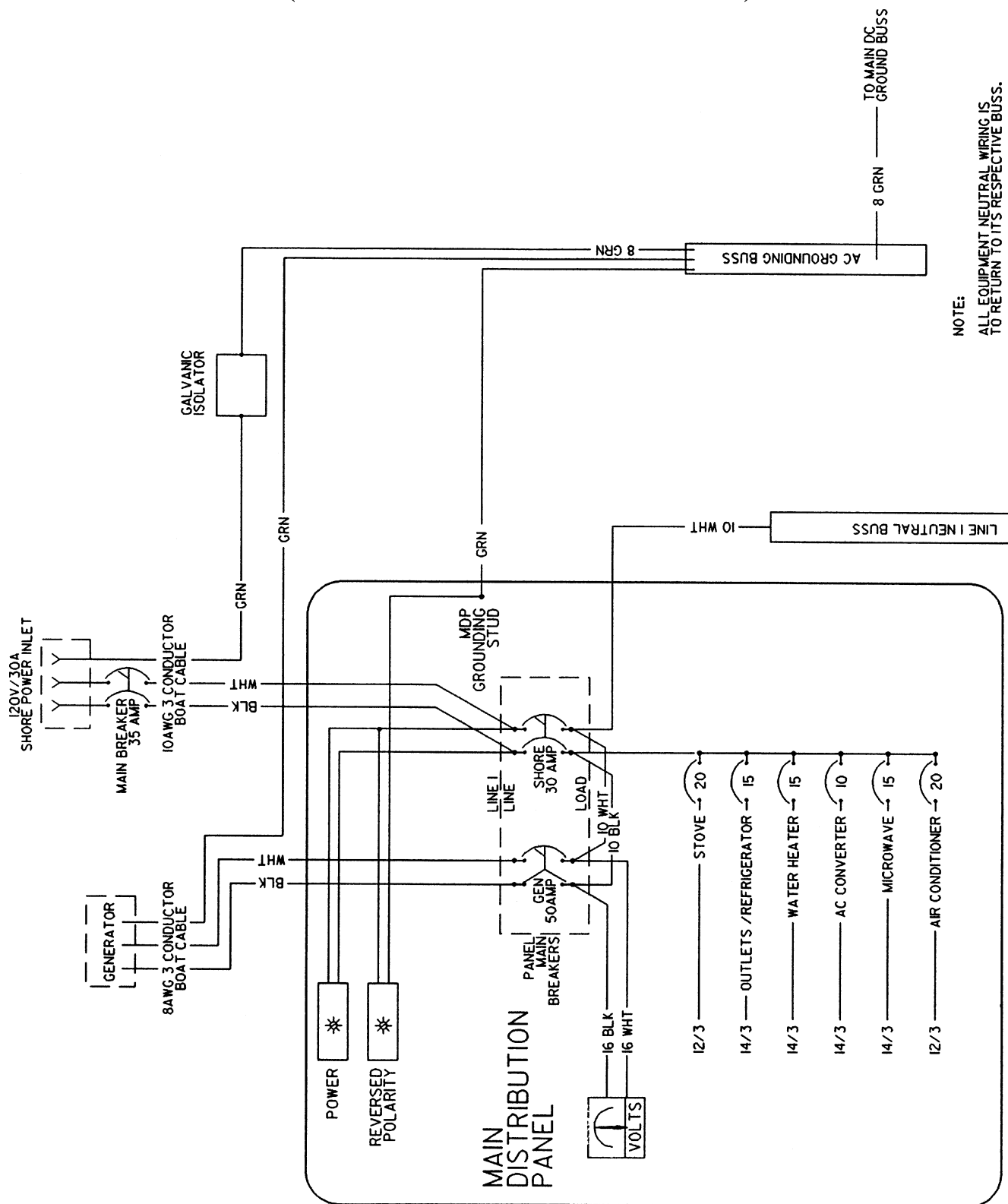
WESTERBEKE® GENERATOR HIGH VOLTAGE WIRING



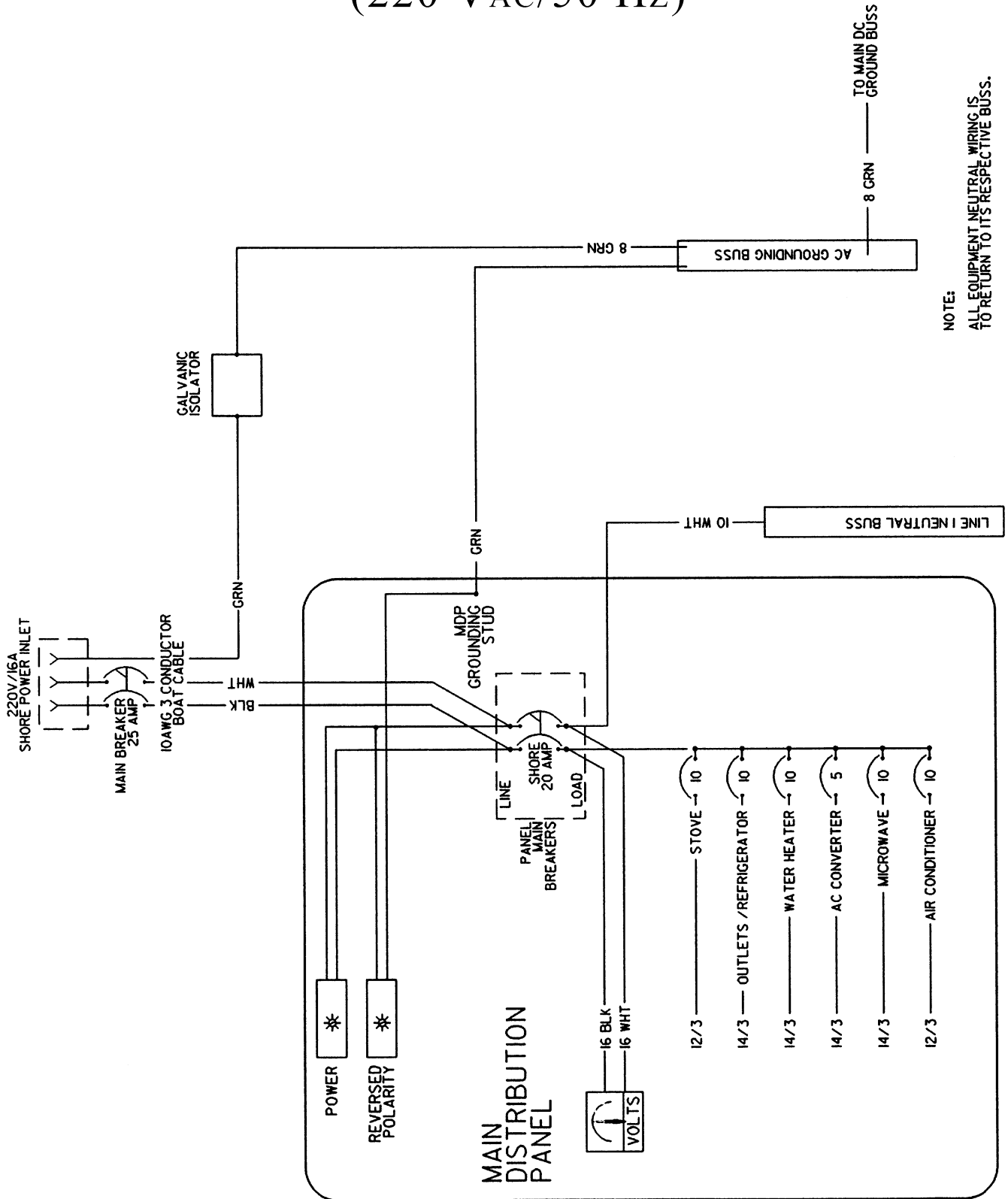
120 VOLT AC WIRING DIAGRAM



120 VOLT AC WIRING DIAGRAM (WITH GENERATOR OPTION)



AC WIRING DIAGRAM (220 V_{AC}/50 Hz)



The diagram illustrates the electrical system for a boat, centered around a **MAIN DISTRIBUTION PANEL**. It shows the connection between shore power, a generator, and various onboard loads.

Shore Power Inlet: A 220V/16A shore power inlet is connected to a **MAIN BREAKER 25 AMP**. The incoming lines are labeled **10 AWG 3 CONDUCTOR BOAT CABLE**. The main breaker feeds the **MAIN DISTRIBUTION PANEL** and a **GALVANIC ISOLATOR**.

Generator: A generator is connected to the **MAIN DISTRIBUTION PANEL** via a **10 AWG 3 CONDUCTOR BOAT CABLE**. The generator output is labeled **GENERATOR**.

Main Distribution Panel: The panel contains a **GEN MAIN BREAKERS 35 AMP** and a **SHORE MAIN BREAKERS 20 AMP**. It also features a **MDP GROUNDING STUD** and a **VOLTS** meter. The panel is connected to a **LINE 1 NEUTRAL BUSS** (10 WHT) and an **AC GROUNDING BUSS** (8 GRN).

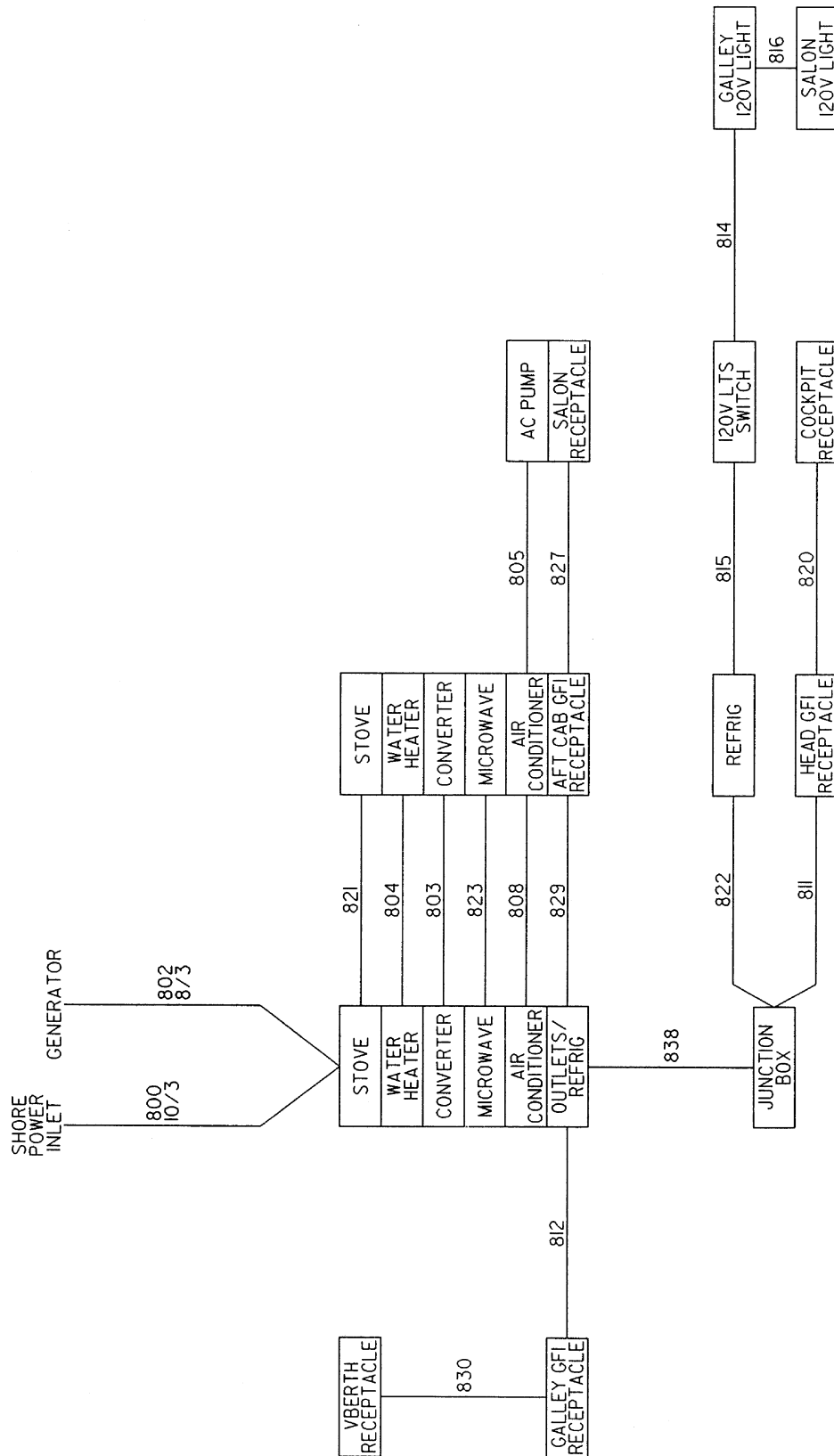
Loads: The panel feeds several loads, each with a specified wire size and current rating:

- POWER** (16 BLK, 16 WHT)
- REVERSED POLARITY** (16 BLK, 16 WHT)
- STOVE** (12/3 → 10)
- OUTLETS / REFRIGERATOR** (14/3 → 10)
- WATER HEATER** (14/3 → 10)
- AC CONVERTER** (14/3 → 5)
- MICROWAVE** (14/3 → 10)
- AIR CONDITIONER** (12/3 → 10)

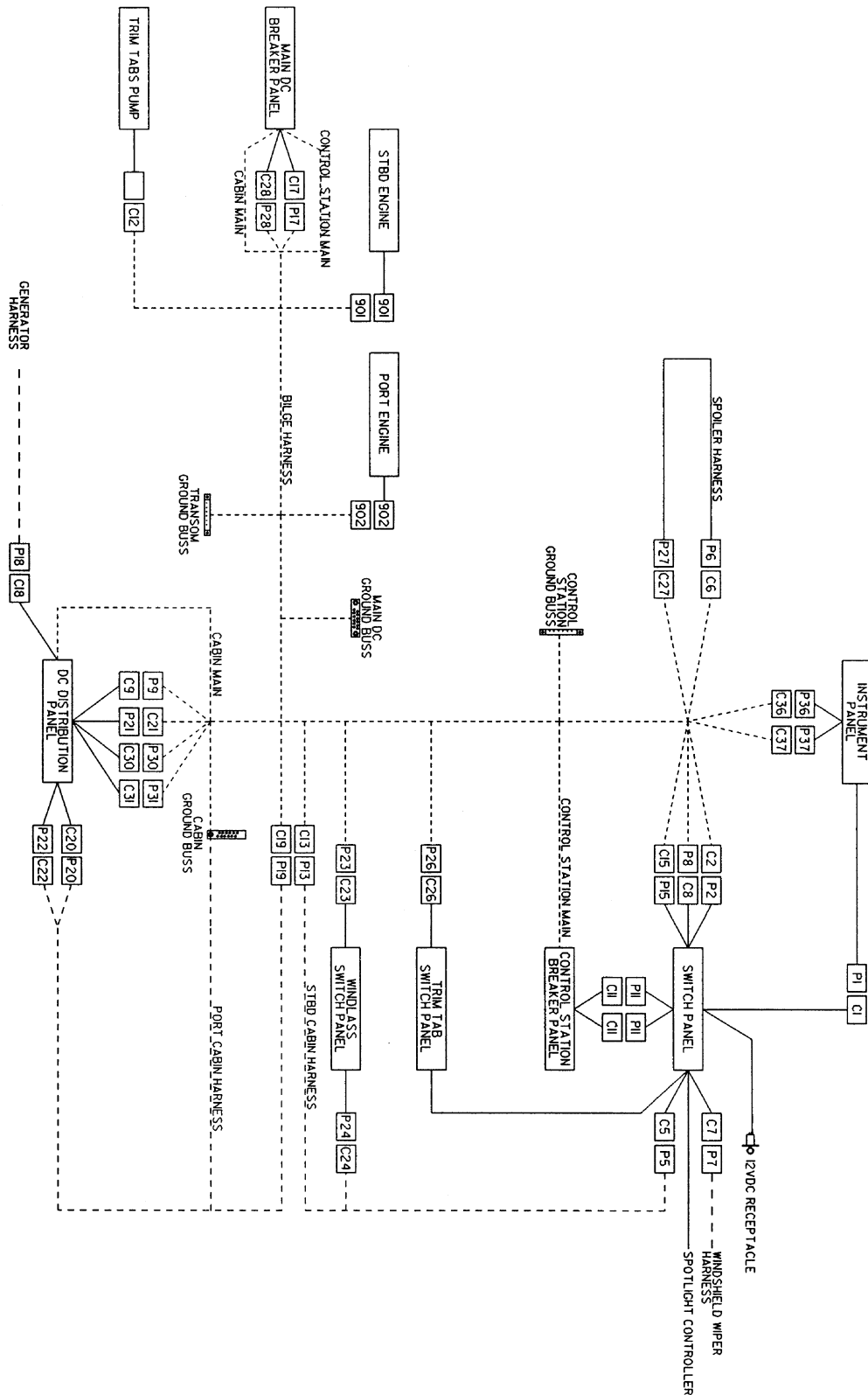
Grounding: The system includes a **GALVANIC ISOLATOR** and a **GND** (ground) connection. The **AC GROUNDING BUSS** is connected to the **MDP GROUNDING STUD** and the **LINE 1 NEUTRAL BUSS**.

NOTE: ALL EQUIPMENT NEUTRAL WIRING IS TO RETURN TO ITS RESPECTIVE BUSS.

AC SYSTEM WIRING DIAGRAM



INTERCONNECTION DIAGRAM



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.