MONTEREY
BOATS

378SE
OWNERS MANUAL

Dear Valued Customer,

Welcome to the Monterey Life!

We would like to extend to you our "Thank You" for choosing a Monterey boat!

You have made an investment in our product and we are confident you will enjoy many years of boating pleasure. Your new boat has been built to the standards set forth by the United States Coast Guard and National Marine Manufacturers Association. We are proud to have you in our "Family!"

At this time, we need you to read your owner's manual and become familiar with all systems on your boat. Make certain that you and your dealer have filled out and mailed your warranty registration card back to us here at the factory. It is very important to us and it is also a U.S. Federal Regulation.

This manual is an important aid in the operation and maintenance of your boat. The information is intended as a guide and cannot cover every question you may have about your boat and boating in general. We encourage you to contact your dealership for any additional information you might need. If there is a question about your boat that can't be answered by your dealer, please contact our factory direct by calling the Monterey Boats Customer Service Department, (352) 529-9181 or online if you prefer at: www.info@montereyboats.com.

If you are new to boating, we recommend you participate in a boating class or group to gain more knowledge and confidence. Contact your dealer, local U.S. Coast Guard or U.S. Power Squadron Organizations for information in your area.

With proper care, routine service and preventive maintenance, your Monterey boat will not only reward you with enjoyment, but with reliability, dependability and one of the higher resale values in today's boating industry.

Enjoy your new boat and please respect our environment at all times. Always remember to practice safe boating procedures for your protection as well as those around you.

Sincerely,

The M.O.S.T. (Monterey Owners Support Team)

NOTES

TABLE OF CONTENTS

Chapter 4:
HELM CONTROL SYSTEMS

Chapter 5:
FUEL SYSTEM

Chapter 6:
ELECTRICAL SYSTEM

Chapter 7:
FRESH WATER SYSTEM

Chapter 8:
RAW WATER SYSTEM

Safety Cautions and Warnings

Your Monterey owner's manual has been written to include a number of safety instructions to assure the safe operation and maintenance of your boat. These instructions are in the form of **DANGER, WARNING, and CAUTION** statements. The following definitions apply:

CAUTION

HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN MINOR PERSONAL INJURY OR PRODUCT AND PROPERTY DAMAGE.

WARNING

HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

DANGER

IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

All instructions given in this book are as seen from the stern looking toward the bow, with starboard being to your right, and port to your left. A glossary of boating terms is included.

IMPORTANT NOTE: Your boat uses an internal combustion engine and flammable fuel. Every precaution has been taken by Monterey to reduce the risks associated with possible injury and damage from fire or explosion, but your own precaution and good maintenance procedures are necessary in order to enjoy safe operation of your boat.

State of California Safety Requirements

WARNING

PROPOSITION 65

A WIDE VARIETY OF COMPONENTS USED ON THIS VESSEL CONTAIN OR EMIT CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS AND OTHER REPRODUCTIVE HARM.

EXAMPLES INCLUDE:
- **ENGINE AND GENERATOR EXHAUST.**
- **ENGINE AND GENERATOR FUEL, AND OTHER LIQUIDS SUCH AS COOLANTS AND OIL, ESPECIALLY USED MOTOR OIL.**
- **COOKING FUELS.**
- **CLEANERS, PAINTS, AND SUBSTANCES USED FOR VESSEL REPAIR.**
- **WASTE MATERIALS THAT RESULT FROM WEAR OF VESSEL COMPONENTS.**
- **LEAD FROM BATTERY TERMINALS AND FROM OTHER SOURCES SUCH AS BALLAST OR FISHING SINKERS.**

TO AVOID HARM:
- **KEEP AWAY FROM ENGINE, GENERATOR, AND COOKING FUEL EXHAUST FUMES.**
- **WASH AREAS THOROUGHLY WITH SOAP AND WATER AFTER HANDLING THE SUBSTANCES ABOVE.**

California Health & Safety Code §§ 25249.5-.13

State of California Emission Requirements

Your boat may be equipped with an engine that meets the special requirements outlined by the California Air Resources Board (CARB). If so, the engine is designed to meet strict requirements and the boat will have a special tag and one of the following labels affixed to it.

The tag and the label are required by CARB. The label has 1, 2, 3 or 4 stars and must be affixed to your boat if it is to be operated in the state of California and/or bordering waters. For more information visit: http://www.arb.ca.gov.

BOAT INFORMATION

Please fill out the following information section and leave it in your Monterey owner's manual. This information will be important for you and Monterey service personnel to know, if you may need to call them for technical assistance or service.

BOAT	
MODEL:	HULL SERIAL #:
PURCHASE DATE:	DELIVERY DATE:
IGNITION KEYS #:	REGISTRATION #:
DOOR KEY #:	OTHER KEYS #:
ENGINES	
MAKE:	MODEL:
PORT SERIAL #:	STARBOARD SERIAL #:
OUTDRIVES	
MAKE:	MODEL:
PORT SERIAL #:	STARBOARD SERIAL #:
RATIO:	
GENERATOR	
MAKE:	MODEL:
SERIAL #:	KILOWATTS:
PROPELLERS	
MAKE:	BLADES:
DIAMETER/PITCH:	DIAMETER/PITCH:
AIR CONDITIONERS	
MAKE:	MODEL:
SERIAL #:	BTU OUTPUT:
SERIAL #:	BTU OUTPUT:
SERIAL #:	BTU OUTPUT:
DEALER	**MONTEREY**
NAME:	REPRESENTATIVE:
DEALER/PHONE:	MONTEREY PHONE:
SALESMAN:	ADDRESS:
SERVICE MANAGER:	
ADDRESS:	
DEALER E- MAIL:	MONTEREY E- MAIL:

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of publication. Monterey Boats reserves the right to make changes at anytime, without notice, in colors, materials, equipment, specifications, and models.

Export Documentation

(For Export Only)

To be in compliance with European directives for recreational boats as published by the International Organization for Standardization (ISO) in effect at the time this boat was manufactured, we are providing the following information.

Manufacturer:

Name SEABRING MARINE INDUSTRIES, INC., d.b.a. Monterey Boats

Address 1579 SW 18th St.

Williston, FL Zip Code: 32696

Identification Numbers:

Hull Identification Number US-RGF

Engine Serial Number

Intended Design Category:

☐ Ocean (Cat A) ☐ Inshore (Cat C)

☐ Offshore (Cat B) ☐ Sheltered Waters (Cat D)

Weight and Maximum Capacities:

Unladen Weight - Kilograms (Pounds)

Maximum Load - Weight- Kilograms (Pounds)

Number of People

Maximum Rated Engine Horsepower - Kilowatts (Horsepower)

Certifications:

Certifications & Components Covered *See Declaration of conformity*

Boat certified by IMCI (#0009) under certificate BMOHT025

All instructions given in this book are as seen from the stern looking toward the bow with starboard being to your right, and port to your left. The information and precautions listed in this manual are not all inclusive. It may be general in nature in some cases and detailed in others and is designed to provide you a basic understanding of your Monterey boat and some of the responsibilities that go along with owning/operating your boat.

The suppliers of some of the major components such as the engine, pumps, and appliances, provide their own owner's manuals which have been included with your boat. You should read the information in this manual and the manuals of other suppliers completely and have a thorough understanding of all component systems and their proper operation before operating your boat.

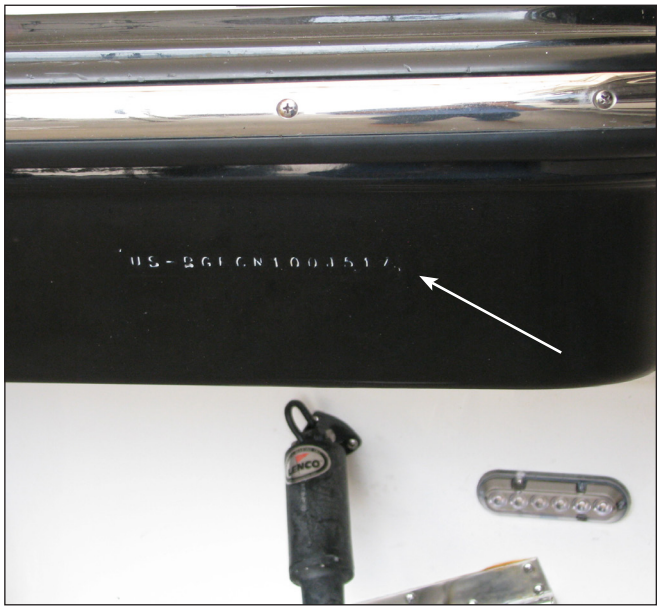
REMEMBER - IT IS YOUR RESPONSIBILITY TO ENSURE THAT YOUR BOAT IS SAFE FOR YOU AND YOUR PASSENGERS. ALWAYS EXERCISE GOOD COMMON SENSE WHEN INSTALLING EQUIPMENT AND OPERATING THE BOAT.

Warranty and Warranty Registration Cards

The Monterey Limited Warranty Statement is included with your boat. It has been written to be clearly stated and easily understood. If you have any questions after reading the warranty, please contact the Monterey Boats Customer Service Department

Monterey, engine manufacturers, and the suppliers of major components maintain their own manufacturer's warranty and service facilities. It is important that you properly complete the warranty registration cards included with your boat and engine and mail them back to the manufacturer to register your ownership. This should be done within 15 days of the date of purchase and before the boat is put into service. A form for recording this information for your records is provided at the beginning of this manual. This information will be important for you and service personnel to know, if and when you may need service or technical information.

The boat warranty registration requires the **H**ull **I**dentification **N**umber **"HIN"** which is located on the starboard side of the transom, just below the rubrail. The engine warranty registration requires the engine serial numbers. Please refer to the engine owner's manual for the location of the serial numbers.



Hull ID # On Starboard Side of Transom

IMPORTANT:

The terms and conditions of the Monterey Boats Limited Warranty are outlined in the warranty statement included in this manual. The manufacturer will automatically honor the warranty to the original purchaser for 15 days from the date of purchase. However, during that 15 day period, owners must comply with the steps outlined in the warranty statement to validate their warranty.

All boat manufacturers are required by the Federal Boat Safety Act of 1971 to notify first time owners in the event any defect is discovered "which creates a substantial risk of personal injury to the public." ***It is essential that we have your warranty registration card complete with your name and mailing address in our files so that we can comply with the law if it should become necessary.***

Your Monterey Boats Dealer will assist you in filling in the hull number and other data required on your Registration Card. Check to see that your card is complete and signed. Detach and mail. Your Warranty Registration Card will be added to our permanent files.

Notice:
Your dealer will also submit the registration electronically "on-line."

Transferring the Limited Structural Warranty

For a transfer fee, MONTEREY BOATS will offer to extend a Transferable Limited Structural Hull Warranty to subsequent owners of Monterey boats. Please refer to the Monterey Limited Warranty Statement for the terms and conditions of the Transferable Limited Structural Hull Warranty and the procedure to transfer the warranty.

Product Changes

Monterey is committed to the continuous improvement of our boats. As a result, some of the equipment described in this manual or pictured in the catalog may change or no longer be available. ***All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of publication. Monterey Boats reserves the right to make changes at anytime, without notice, in colors, materials, equipment, specifications, and models.*** If you have questions about the equipment on your Monterey, please contact the Monterey Boats Customer Service Department.

Service

All warranty repairs must be performed by an authorized Monterey Dealer. Should a problem develop that is related to faulty workmanship or materials, as stated in the Limited Warranty, you should contact your Monterey dealer to arrange for the necessary repair. If you are not near your dealer or another authorized Monterey dealer or the dealer fails to remedy the cause of the problem, then contact Monterey within 15 days. ***It is the boat owner's responsibility to deliver the boat to the dealer for warranty service.***

Registration and Numbering

Federal law requires that all undocumented vessels equipped with propulsion machinery be registered in the State of principal use. A certificate of number will be issued upon registering the boat. These numbers must be displayed on your boat. The owner/operator of a boat must carry a valid certificate of number whenever the boat is in use. When moved to a new State of principal use, the certificate is valid for 60 days.

In order to be valid, the numbers must be installed to the proper specifications. Check with your dealer or state boating authority for numbering requirements. The Coast Guard issues the certificate of number in Alaska; all others are issued by the state.

Insurance

In most States the boat owner is legally responsible for damages or injuries he or someone else operating the boat causes. Responsible boaters carry adequate liability and property damage insurance for their boat. You should also protect the boat against physical damage and theft. Some States have laws requiring minimum insurance coverage. Contact your dealer or state boating authority for information on the insurance requirements in your boating area.

Reporting Boating accidents

All boating accidents must be reported by the operator or owner of the boat to the proper marine law enforcement authority for the state in which the accident occurred. Immediate notification is required if a person dies or disappears as a result of a recreational boating accident.

If a person dies or there are injuries requiring more than first aid, a formal report must be filed within 48 hours.

A formal report must be made within 10 days for accidents involving more than $500.00 damage or the complete loss of a boat.

A Boating Accident Report form is located near the back of this manual to assist you in reporting an accident. If you need additional information regarding accident reporting, please call the Boating Safety Hotline, 800-368-5647.

Education

If you are not an experienced boater, we recommend that the boat operator and other people that normally accompany the operator, enroll in a boating safety course. Organizations such as the U.S. Power Squadrons, United States Coast Guard Auxiliary, State Boating Authorities and the American Red Cross offer excellent boating educational programs. These courses are worthwhile even for experienced boaters to sharpen your skills or bring you up to date on current rules and regulations. They can also help in providing local navigational information when moving to a new boating area. Contact your dealer, State Boating Authority or the Boating Safety Hotline, 800-368-5647 for further information on boating safety courses.

Required Equipment

U.S. Coast Guard regulations require certain equipment on each boat. The Coast Guard also sets minimum safety standards for vessels and associated equipment. To meet these standards some of the equipment must be Coast Guard approved. "Coast Guard Approved Equipment" has been determined to be in compliance with USCG specifications and regulations relating to performance, construction, or materials. The equipment requirements vary according to the length, type of boat, and the propulsion system. Some of the Coast Guard equipment is described in the Safety Equipment chapter of this manual. For a more detailed description, obtain "Federal Requirements And Safety Tips For Recreational Boats" by contacting the Boating Safety Hotline 800-368-5647 or your local marine dealer or retailer.

Some state and local agencies impose similar equipment requirements on waters that do not fall under Coast Guard jurisdiction. These agencies may also require additional equipment that is not required by the Coast Guard. Your dealer or local boating authority can provide you with additional information for the equipment requirements for your boating area.

NEW BOAT DELIVERY

MONTEREY BOATS

Your Monterey boat is inspected at each step of the manufacturing process. Before leaving the factory, every Monterey boat undergoes a thorough check for systems operation, fit and finish. Your Monterey Dealer also performs a Pre-Delivery inspection prior to final delivery. When the new boat is delivered to you, the customer, a final check is performed during orientation. Both the Pre-Delivery and Final Delivery inspections are documented to ensure trouble free operation and returned to Monterey Boats.

At the time of new boat delivery, your Monterey Dealer will ask you to sign the completed Inspection Report at the same time as the Warranty Registrations for the boat and other accessory equipment. By signing these documents, you acknowledge that you have reviewed and understand all information.

WARRANTY REGISTRATION AND NEW BOAT CHECKLIST FOR ALL 2011 AND NEWER MODELS

MONTEREY BOATS

1579 S.W. 18th Street
Williston, FL 32696
Tel 352-529-9181
Fax 888-922-6287
www.montereyboats.com

Boat Number (HIN): **RGF**_____ Boat Model:_____

Selling Dealer:_____ Dealer Code:_____

Engine Brand:_____ Engine Model:_____

Engine Serial #1:_____ Drive Serial #1:_____

Engine Serial #2:_____ Drive Serial #2:_____

Date of Sale:_____ Warranty Start Date:_____

Owner Name (Last, First):_____

Address:_____

City:_____ Province/State:_____ Postal Code/Zip:_____ Country _____

E-Mail Address:_____ (We respect your privacy and will use for internal purposes only.)

Phone:_____ 2nd Phone:_____

PLEASE, INSPECT AND CHECK OFF THE FOLLOWING OPERATIONS

Indicate Status with the following Key: √ or 1 – OK, 2 – Needs Correction, 3- Corrected, N/A – Not Applicable

BOAT

_____ Boat gel coat, striping & graphics
_____ Upholstery fit, clean and free of defects
_____ Sundeck/Sun Island/lounger operation
_____ Canvas fit, clean and free of defects
_____ Cabin Doors, port lights, hatches, cabinet & head doors, latches
_____ All thru-hull fittings, ball valves, head drain, galley drain, anchor well drain, drain plug-hull, wet bar drain are secure, no leaks
_____ Windshield fit
_____ Ladders

EQUIPMENT

_____ Running Lights (Navigation)
_____ Cabin lights, cockpit lights
_____ Toilet (Head) operation & hoses
_____ Stereo – Radio, CD, remote control
_____ Bilge Pumps – Auto float switch
_____ Air Conditioner/Heater – operation & components secure
_____ Water pressure system (let pressure stand 15 minutes to see if pump goes on) & heater
_____ Stove, coffee maker, oven, refrigerator, ice maker
_____ Generator – Operation & components secure
_____ Bilge Blower(s)
_____ Wipers & Horn
_____ Shore power (AC)
_____ Tables
_____ Plumbing Hose Clamps
_____ Battery – Polarity, Voltage, Tight Connections
_____ Battery Switch(es) - Operation

ENGINE – BEFORE STARTING

_____ Engine mounts – tight
_____ Fuel system operation - no leaks
_____ Engine compartment components not missing, disconnected, loose, kinked, pinched or could chafe
_____ Hose clamps on engine & exhaust
_____ Steering system operation, components secure, steering wheel straight
_____ Drains cooling system closed (Closed cooling coolant level)
_____ Throttle control, operation & adjustment
_____ Shifter control, operation & adjustment
_____ Stern drive oil level at full mark
_____ Crankcase & power steering oil levels at full mark
_____ Stern drive trim operation
_____ Prop Size: _____
_____ Prop installed correctly with grease, nut(s), cotter pins
_____ Prop rotation – Forward & Reverse
_____ Neutral start switch, engine will not start in gear
_____ Transom plate seal has no leaks – water, oil

COMMENTS:

_____

ENGINE - AFTER STARTING: (in water)

_____ Oil pressure
_____ Fuel line connectors – no leaks
_____ Engine has no water or oil leaks
_____ Idle speed per engine specs, in gear
_____ Ignition timing check with timing light or scan tool
_____ Gear shift works properly - forward, neutral, reverse
_____ Instruments read correctly
_____ Exhaust system - no leaks

SEA TRIAL

_____ Boat performance
_____ Port engine operation
_____ Starboard engine operation
_____ Steering –operation
_____ Stern drive trim operation
_____ Instruments register normal
_____ Maximum R.P.M. _____

Technical Check Performed by

_____
Technician Date

PRE-DELIVERY FINAL CHECK

_____ All accessory equipment operates (Mech. & Elect.)
_____ Carpets, curtains, cushions & canvas installed
_____ All boat, engine and accessory literature
_____ Boat properly cleaned, interior and exterior
_____ Trailer wiring, lights, wheels & brakes

OWNER ORIENTATION

_____ Review & familiarize Owner with operation of all features and options on boat
_____ Sea Trial with Owner
_____ Review of Owners Manual
_____ Review of Warranties
_____ Review of Owner Responsibilities
_____ Review of Service & Maintenance Procedures
_____ Review of Care & Cleaning

Owner Orientation Performed by:

_____
Dealer Personnel Date

I have read and agree with the checklist. I have read and understand the Monterey Boats Lifetime Limited Warranty as it appears on the back of this form.

_____
Signature of Boat Owner Date

MONTEREY

SAFETY EQUIPMENT

1.1 General

Your boat and inboard engine have been equipped with safety equipment designed to enhance the safe operation of the boat and to meet U.S. Coast Guard safety standards. The Coast Guard or state, county, and municipal law enforcement agencies require certain additional accessory safety equipment on each boat. This equipment varies according to length and type of boat and type of propulsion. The accessory equipment typically required by the Coast Guard is described in this chapter. Some local laws require additional equipment. It is important to obtain "Federal Requirements And Safety Tips for Recreational Boats," published by the Coast Guard, and copies of state and local laws, to make sure you have the required equipment for your boating area.

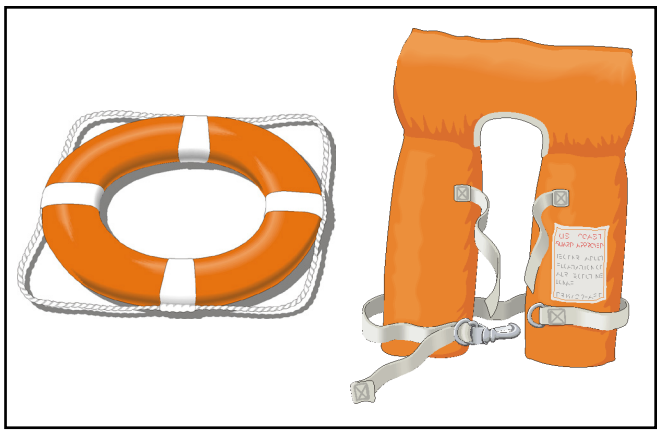
Your boat is equipped with engine alarms and could be equipped with an optional automatic fire extinguishing system. These systems are designed to increase your boating safety by alerting you to potentially serious problems in the primary power system and the engine compartment. Alarm systems are not intended to lessen or replace good maintenance and precruise procedures.

This chapter also describes safety related equipment that could be installed on your boat. This equipment will vary depending on the type of engine and other options installed by you or your dealer.

1.2 Engine Alarms

Your boat is equipped with engine alarms that monitor water temperature and oil pressure. The alarms are equipped with a buzzer and/or a light located in the helm. The alarm will sound if the water temperature reaches 205 degrees F. or the oil pressure drops below 6 PSI

If there is a problem with one of these systems, it will sound an alarm until the problem is found and resolved.



Throwable Device & Personal PFD

If the alarm sounds:

- Immediately throttle the engines back to idle.
- Shift the transmissions to neutral.
- Monitor the engine gauges to determine the cause of the problem.
- If necessary, shut off the engine and investigate until the cause of the problem is found.

1.3 Neutral Safety Switch

Every control system has a neutral safety switch incorporated into it. This device prohibits the engines from being started while the shift levers are in any position other than the neutral position. If an engine will not start, slight movement of the shift lever may be necessary to locate the neutral position and disengage the safety cutout switch. Control adjustments may be required to correct this condition should it persist. See your Monterey dealer for necessary control adjustments. Refer to the Helm Control Systems chapter for more information on the neutral safety switch.

1.4 Required Safety Equipment

Besides the equipment installed on your boat by Monterey, certain other equipment is required by the U.S. Coast Guard to help ensure passenger safety. Items like a sea anchor, working anchor, extra dock lines, flare pistol, life vests, a line permanently secured to your ring buoy, etc., could at some time save your passengers' lives, or save your boat from damage. Refer to the "Federal Requirements And Safety Tips For Recreational Boats" pamphlet for a more detailed description of required equipment. You also can contact the U.S. Coast Guard Boating Safety Hotline, 800-368-5647, for information on boat safety courses and brochures listing the Federal equipment requirements. Also, check your local and state regulations.

The Coast Guard Auxiliary offers a "Courtesy Examination." This inspection will help ensure that your boat is equipped with all of the necessary safety equipment. The following is a list of the accessory equipment required on your boat by the U.S. Coast Guard:

Personal Flotation Devices (PFDs)

PFDs must be Coast Guard approved, in good and serviceable condition, and of appropriate size for the intended user. Wearable PFDs must be readily accessible, meaning you must be able to put them on in a reasonable amount of time in an emergency. Though not required, the Coast Guard emphasizes that PFDs should be worn at all times when the vessel is underway. Throwable devices must be immediately available for use. All Monterey boats must be equipped with at least one Type I, II or III PFD for each person on board, plus one throwable device (Type IV).

Notice:
Many state laws now require that children 13 years old and under must wear a PFD at all times.

Anyone being towed on skis, wakeboards and other water sports equipment is considered a passenger on the boat and must wear a Coast Guard approved life jacket at all times.

Visual Distress Signals (VDS)

All boats used on coastal waters, the Great Lakes, territorial seas, and those waters connected directly to them, must be equipped with Coast Guard approved visual distress signals. These signals are either Pyrotechnic or Non-Pyrotechnic devices.

Pyrotechnic Visual Distress Signals:
Pyrotechnic visual distress signals must be Coast Guard approved, in serviceable condition, and readily accessible. They are marked with a date showing the service life, which must not have expired. A minimum of three are required. Some pyrotechnic signals meet both day and night use requirements. They should be stored in a cool, dry location. They include:

- Pyrotechnic red flares, hand held or aerial.
- Pyrotechnic orange smoke, hand-held or floating.
- Launchers for aerial red meteors or parachute flares.

WARNING

PYROTECHNICS ARE UNIVERSALLY RECOGNIZED AS EXCELLENT DISTRESS SIGNALS. HOWEVER, THERE IS POTENTIAL FOR INJURY AND PROPERTY DAMAGE IF NOT PROPERLY HANDLED. THESE DEVICES PRODUCE A VERY HOT FLAME AND THE RESIDUE CAN CAUSE BURNS AND IGNITE FLAMMABLE MATERIAL. PISTOL LAUNCHED AND HAND-HELD PARACHUTE FLARES AND METEORS HAVE MANY CHARACTERISTICS OF A FIREARM AND MUST BE HANDLED WITH CAUTION. IN SOME STATES THEY ARE CONSIDERED A FIREARM AND PROHIBITED FROM USE. ALWAYS BE EXTREMELY CAREFUL AND FOLLOW THE MANUFACTURER'S INSTRUCTIONS EXACTLY WHEN USING PYROTECHNIC DISTRESS SIGNALS.

Non-Pyrotechnic Devices
Non-Pyrotechnic visual distress signals must be in serviceable condition, readily accessible, and certified by the manufacturer as complying with U.S. Coast Guard requirements. They include:

- **Orange Distress Flag (Day use only)**
  The distress flag is a day signal only. It must be at least 3 x 3 feet with a black square and ball on an orange background. It is most distinctive when attached and waved from a paddle or boat hook.
- **Electric Distress Light (Night use only)**
  The electric distress light is accepted for night use only and must automatically flash the international SOS distress signal. Under "Inland Navigation Rules," a high intensity white light flashing at regular intervals from 50-70 times per minute is considered a distress signal.

Sound Signaling Devices

The navigation rules require sound signals to be made under certain circumstances. Recreational vessels also are required to sound fog signals during periods of reduced visibility. Therefore, you must have some means of making an efficient sound signal.

Navigation Lights

Recreational boats are required to display navigation lights between sunset and sunrise and other periods of reduced visibility (fog, rain, haze, etc.) Navigation lights are intended to keep other vessels informed of your presence and course. Your boat is equipped with navigation lights required by the U.S. Coast Guard at the time of manufacture. It is up to you to make sure they are operational and turned on when required.

Fire Extinguishers

Inboard boats less than 26 feet are required to carry one fire extinguisher. Coast Guard approved fire extinguishers are hand-portable, either B-I or B-II classification and have a specific marine type mounting bracket. It is recommended the extinguisher be mounted in a readily accessible position.

Fire extinguishers require regular inspections to ensure that:

- Seals & tamper indicators are not broken or missing.
- Pressure gauges or indicators read in the operable range.
- There is no obvious physical damage, corrosion, leakage or clogged nozzles.

Refer to the "Federal Requirements And Safety Tips For Recreational Boats" pamphlet or contact the U.S. Coast Guard Boating Safety Hotline, 1-800-368-5647, for information on the type and size fire extinguisher required for your boat.

Please refer to the information provided by the fire extinguisher manufacturer for instructions on the proper maintenance and use of your fire extinguisher.

CAUTION

INFORMATION FOR AGENT FE-241 AND FE-227 FIRE EXTINGUISHERS IS PROVIDED BY THE MANUFACTURER. IT IS ESSENTIAL THAT YOU READ THE INFORMATION CAREFULLY AND COMPLETELY UNDERSTAND THE SYSTEM, IN THEORY AND OPERATION, BEFORE USING YOUR BOAT.

1.5 Helm Visibility

Visibility while seated at the helm could be limited during certain operating conditions or while operating at night. Raising the bolster and operating the boat from the standing position significantly improves visibility during these conditions.

To avoid collisions or injuries, always slow down, operate the boat from the standing position and take all necessary precautions when operating the boat during periods of limited visibility.

WARNING

VISIBILITY FROM THE SEATED POSITION MAY BE LIMITED. USE BOLSTER IN UPRIGHT POSITION AS NEEDED.

NIGHT TIME VISION MAY BE OBSCURED DUE TO GLARE FROM ENCLOSED COCKPIT AND GLASS WINDOWS. AVOID COLLISIONS OR INJURIES.

MAINTAIN A LOOKOUT AS REQUIRED BY USCG NAVIGATION RULES.

1.6 Bilge and Fuel Fires

Fuel compartment and bilge fires are very dangerous because of the presence of gasoline or diesel fuel in the various components of the fuel system and the possibility for explosion. You must make the decision to fight the fire or abandon the boat. If the fire cannot be extinguished quickly or it is too intense to fight, abandoning the boat may be your only option.

If you find yourself in this situation, make sure all passengers have a life preserver on, go over the side and swim well upwind of the boat. This will keep you and your passengers well clear of any burning fuel that could be released and spread on the water as the boat burns or in the event of an explosion. When clear of the danger, check about and account for all those who were aboard with you. Give whatever assistance you can to anyone in need or in the water without a buoyant device.

Keep everyone together in a group for morale and to aid rescue operations.

WARNING

ALL TYPES OF FUEL CAN EXPLODE. IN THE EVENT OF A FUEL COMPARTMENT OR BILGE FIRE, YOU MUST MAKE THE DIFFICULT DECISION TO FIGHT THE FIRE OR ABANDON THE BOAT. YOU MUST CONSIDER YOUR SAFETY, THE SAFETY OF YOUR PASSENGERS, THE INTENSITY OF THE FIRE AND THE POSSIBILITY OF AN EXPLOSION IN YOUR DECISION.

1.7 Automatic Fire Extinguishing System

The engine compartment can be equipped with an automatic fire extinguishing system. The equipment has been chosen and located to provide sufficient volume and coverage of the entire engine compartment area. While the system ensures excellent bilge fire protection, it does not eliminate the U.S. Coast Guard requirement for hand held fire extinguishers. The automatic fire extinguishing system is automatically activated when the temperature in the engine compartment reaches a specific temperature, usually around 165^0 F.

The boat is equipped with an indicator light at the helm. Under normal circumstances, whenever the ignition key is turned on, the green indicator light will glow. This indicates that the system is operating and ready for activation if necessary. If the indicator light does not glow when the ignition switch is turned on, either the system has discharged or there is a problem that should be corrected before using the boat.
The green light on the fire extinguisher panel will go off and an alarm will sound if activation should occur during the operation of the boat. You may also hear a rushing air sound as the extinguishing agent discharges.

Typically, the extinguishing agent will shut down the engines when it discharges. If the engines continue to run, they should immediately be shut down manually, provided it is safe to do so. You should also shut off the blowers and the main battery switches. The engines can be restarted once the fire extinguishing agent has dissipated from the engine compartment.

When sufficient time has elapsed for the fire to be extinguished and a flashback is no longer possible, find and fix the problem, then activate the battery switches and the engines can be restarted.

Fire Extinguisher Panel In Helm

Automatic Fire Extinguishing System
In The Engine Compartment

WARNING

IF ACTIVATION SHOULD OCCUR, IMMEDIATELY SHUT DOWN THE ENGINES. TURN OFF ALL ELECTRICAL SYSTEMS, POWERED VENTILATION AND EXTINGUISH ALL SMOKING MATERIALS. DO NOT OPEN THE ENGINE COMPARTMENT HATCH IMMEDIATELY!! THIS FEEDS OXYGEN TO THE FIRE AND FLASH BACK COULD RESULT. ALLOW THE EXTINGUISHING AGENT TO SOAK THE ENGINE COMPARTMENT FOR AT LEAST 15 MINUTES AND WAIT FOR HOT METALS OR FUELS TO COOL BEFORE CAUTIOUSLY INSPECTING FOR CAUSE OR DAMAGE. HAVE AN APPROVED PORTABLE FIRE EXTINGUISHER AT HAND AND READY FOR USE. DO NOT BREATH FUMES OR VAPORS CAUSED BY THE FIRE!!

WARNING

THE OWNER'S MANUAL PROVIDED BY THE FIRE EXTINGUISHING SYSTEM MANUFACTURER SHOULD BE INCLUDED WITH YOUR BOAT. IT IS ESSENTIAL THAT YOU READ THE INFORMATION CAREFULLY AND COMPLETELY UNDERSTAND THE SYSTEM IN THEORY AND OPERATION BEFORE USING YOUR BOAT. IF YOU DID NOT RECEIVE THE FIRE EXTINGUISHING SYSTEM OWNER'S MANUAL, PLEASE CONTACT YOUR DEALER OR THE MONTEREY CUSTOMER SERVICE DEPARTMENT.

1.8 Carbon Monoxide Poisoning

A by product of combustion, carbon monoxide (CO) is invisible, tasteless, odorless, and is produced by all engines, heating and cooking appliances. The most common sources of CO on boats are the engines, auxiliary generators and propane or butane stoves. These produce large amounts of CO and should never be operated while sleeping. A slight buildup of carbon monoxide over several hours causes headache, nausea and other symptoms that are similar to food poisoning, motion sickness or flu. High concentrations can be fatal within minutes. Many cases of carbon monoxide poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the area or calling for help. Also, young children, elderly persons, and pets may be the first affected.

Drug or alcohol use increases the effect of CO exposure. Individuals with cardiac or respiratory conditions are very susceptible to the dangers of carbon monoxide. CO poisoning is especially dangerous during sleep when victims are unaware of any side effects. The following are symptoms which may signal exposure to CO: (1) Headache (2) Tightness of chest or hyperventilation (3) Flushed face (4) Nausea (5) Drowsiness (6) Fatigue or Weakness (7) Inattention or confusion (8) Lack of normal coordination.

Cabin Carbon Monoxide Detector

Persons who have been exposed to carbon monoxide should be moved into fresh air immediately. Have the victim breath deeply and seek immediate medical attention. To learn more about CO poisoning, contact your local health authorities.

DANGER

CARBON MONOXIDE IS COLORLESS, ODORLESS AND DANGEROUS. ALL ENGINES, GENERATORS AND FUEL BURNING APPLIANCES EXHAUST CARBON MONOXIDE (CO). DIRECT AND PROLONGED EXPOSURE TO CO WILL CAUSE BRAIN DAMAGE OR DEATH. SIGNS OF EXPOSURE TO CO INCLUDE NAUSEA, DIZZINESS AND DROWSINESS.

1.9 Propane Grill & Fuel

A portable propane gas grill is an available option. Portable gas grills can be a fire hazard if not used properly and are not intended for use in the cockpit. The grill should only be used on the special grill pedestal mounted on the swim platform or onshore in an open, uncovered area.

Propane fuel is very flammable and must be used and stored properly. Refer to the grill manufacturer's operating manual for additional safety and operating instructions before using the propane grill.

WARNING

PROPANE GAS IS EXTREMELY FLAMMABLE AND CAN CAUSE A FIRE OR AN EXPLOSION THAT WILL RESULT IN SEVERE INJURY OR DEATH IF IT IS NOT STORED AND USED PROPERLY. REMEMBER THAT PROPANE VAPOR IS HEAVIER THAN AIR AND CAN SETTLE AND ACCUMULATE IN UNVENTILATED COMPARTMENTS OR IN THE BILGE.

WARNING

PROPANE FUEL CANISTERS MUST BE DISCONNECTED FROM THE GRILL AND PROPERLY STORED IN A COCKPIT STORAGE COMPARTMENT THAT IS ABOVE THE COCKPIT SOLE. THE COMPARTMENT MUST BE DRY WITH NO ELECTRICAL COMPONENTS OR SWITCHES ON OR IN THE COMPARTMENT THAT COULD CAUSE A SPARK. NEVER STORE PROPANE FUEL CANISTERS IN THE CABIN, HEAD COMPARTMENT, ENGINE COMPARTMENT, BILGE OR A COMPARTMENT BELOW THE COCKPIT SOLE.

WARNING

GASOLINE VAPORS ARE EXPLOSIVE.

OPEN FLAME APPLIANCES CAN IGNITE GASOLINE VAPORS.

TO AVOID INJURY OR DEATH FROM EXPLOSION OR FIRE, TURN OFF ALL OPEN FLAME APPLIANCES WHEN FUELING THE BOAT.

Typical First Aid Kit

1.10 First Aid

It is the operator's responsibility to be familiar with the proper first-aid procedures and be able to care for minor injuries or illnesses of your passengers. In an emergency, you could be far from professional medical assistance. We strongly recommend that you be prepared by receiving training in basic first aid and CPR. This can be done through classes given by the Red Cross or your local hospital.

Your boat also should be equipped with at least a simple marine first-aid kit and a first-aid manual. The marine first-aid kit should be designed for the marine environment and be well supplied. It should be accessible and each person on board should be aware of its location. As supplies are used, replace them promptly. Some common drugs and antiseptics may lose their strength or become unstable as they age. Ask a medical professional about the supplies you should carry and the safe shelf life of prescription drugs or other medical supplies that may be in your first-aid kit. Replace questionably old supplies whether they have been used or not.

In many emergency situations, the Coast Guard can provide assistance in obtaining medical advice for treatment of serious injuries or illness. If you are within VHF range of a Coast Guard Station, make the initial contact on channel 16 and follow their instructions.

1.11 Additional Safety Equipment

Besides meeting the legal requirements, prudent boaters carry additional safety equipment. This is particularly important if you operate your boat offshore. You should consider the following items, depending on how you use your boat.

Satellite EPIRBS

EPIRBs (Emergency Position Indicating Radio Beacon) operate as part of a worldwide distress system. When activated, EPIRBs will send distress code homing beacons that allow Coast Guard aircraft to identify and find them quickly. The satellites that receive and relay EPIRB signals are operated by the National Oceanic and Atmospheric Administration (NOAA) in the United States. The EPIRB should be mounted and registered according to the instructions provided with the beacon, so that the beacon's unique distress code can be used to quickly identify the boat and owner.

Marine Radio

A marine radio is the most effective method of receiving information and requesting assistance. VHF marine radios are used near shore and single sideband radios are used for long range communication.

There are specific frequencies to use in an emergency. The VHF emergency channel is 16 in the United States. You should read the owners manual for your radio and know how to use it in an emergency or for normal operation. If you hear a distress call you should assist or monitor the situation until help is provided.

Additional Equipment to Consider:

Cell Phone
Fenders
Mirror
Tool Kit
Anchor
Boat Hook
Mooring Lines
Binoculars
Extra Clothing
Chart and Compass
Food & Water
Sunglasses
Spare Propeller
Spare Anchor
Heaving Line
First Aid Kit
Flashlight & Batteries
Search light
Sunburn Lotion
Ring Buoy
Whistle or Horn
Portable Radio
Marine Hardware
Spare Keys
Spare Parts

1.12 Caution & Warning Labels

The caution and warning labels shown are examples of the labels that could be on your boat. The actual labels and their location could vary on your boat.

Caution and warning labels must remain legible for the safety of you and your passengers. If a label becomes missing or damaged it must be replaced. Immediately contact your dealer or Monterey Customer Service for a replacement.

⚠ WARNING ⚠

ELECTRIC SHOCK HASARD.
GLOWING LIGHT INDICATES REVERSED POLARITY. DO NOT USE POWER WHILE LIGHT IS ON.
UNPLUG SHORE POWER AND DISENGAGE GENERATOR BEFORE REMOVING COVER OR SERVICING PANEL.

NOTICE:
THIS BOAT IS EQUIPPED WITH AN EPA COMPLIANT FUEL SYSTEM.
DO NOT ALTER OR BYPASS ANY OF THE COMPONENTS THAT ARE INSTALLED.
SEE YOUR DEALER FOR ANY FUEL RELATED SERVICE.

⚠ WARNING ⚠

CARBON MONOXIDE (CO) CAN CAUSE BRAIN DAMAGE OR DEATH.
ENGINE AND GENERATOR EXHAUST CONTAINS ODORLESS AND COLORLESS CARBON MONOXIDE GAS.
SIGNS OF CARBON MONOXIDE POISONING INCLUDE NAUSEA, HEADACHE, DIZZINESS, DROWSINESS, AND LACK OF CONSCIOUSNESS.
GET FRESH AIR IF ANYONE SHOWS SIGNS OF CARBON MONOXIDE POISONING.
SEE OWNER'S MANUAL FOR INFORMATION REGARDING CARBON MONOXIDE POISONING.

⚠ WARNING ⚠

AVOID SERIOUS INJURY OR DEATH FROM FIRE OR EXPLOSION RESULTING FROM LEAKING FUEL. INSPECT SYSTEM FOR LEAKS AT LEAST ONCE A YEAR.

⚠ WARNING ⚠

FALLING OVERBOARD CAN CAUSE INJURY OR DEATH. CLOSE THE TRANSOM GATE WHENEVER THE BOAT IS UNDERWAY.

⚠ WARNING ⚠

ROTATING PROPELLER MAY CAUSE SERIOUS INJURY OR DEATH.

DO NOT APPROACH OR USE LADDER WHEN ENGINE IS RUNNING.

⚠ WARNING ⚠

GASOLINE VAPORS CAN EXPLODE RESULTING IN INJURY OR DEATH.
BEFORE STARTING ENGINE:
CHECK ENGINE COMPARTMENT FOR GASOLINE OR VAPORS AND OPERATE BLOWER FOR 4 MINUTES.
VERIFY BLOWER OPERATION
RUN BLOWER WHEN VESSEL IS OPERATING BELOW CRUISING SPEED.

⚠ WARNING ⚠

GASOLINE VAPORS CAN EXPLODE.
BEFORE STARTING ENGINE:
CHECK ENGINE COMPARTMENT FOR GASOLINE OR VAPORS.
OPERATE BLOWER FOR FOUR MINUTES.
RUN BLOWER BELOW CRUISING SPEED.

⚠ DANGER ⚠

ENGINE COMPARTMENT IS PROTECTED BY AN AUTOMATED FIRE EXTINGUISHING SYSTEM. IF FIRE EXTINGUISHING SYSTEM DISCHARGS, IMMEDIATELY SHUTDOWN ENGINE, GENERATOR, AND BLOWERS. AVOID INHALATION OF TOXIC FUMES. VENTILATE SPACE BEFORE ENTERING.

⚠ WARNING ⚠

VISIBILITY FROM THE SEATED POSITION AT THIS HELM STATION MAY BE LIMITED. AVOID SERIOUS INJURY OR DEATH FROM COLLISIONS. OPERATION FROM A STANDING POSITION MAY BE NECESSARY TO MAINTAIN A LOOKOUT AS REQUIRED BY USCG NAVIGATION RULES AND COLREG.

⚠ WARNING ⚠

ROTATING PROPELLER MAY CAUSE SERIOUS INJURY OR DEATH. SHUT OFF ENGINE WHEN NEAR PERSONS IN THE WATER.

⚠ DANGER ⚠

CARBON MONOXIDE (CO) CAN CAUSE BRAIN DAMAGE OR DEATH.

ENGINE AND GENERATOR EXHAUST CONTAINS ODORLESS AND COLORLESS MONOXIDE GAS.

CARBON MONOXIDE WILL BE AROUND THE BACK OF THE BOAT WHEN THE ENGINES OR GENERATORS ARE RUNNING.

MOVE TO FRESH AIR, IF YOU FEEL NAUSEA, HEADACHE, DIZZINESS, OR DROWSINESS.

OPERATION

2.1 General

Before you start the engines on your Monterey, you should have become familiar with the various component systems and their operation and have performed a "Precruise System Check." A thorough understanding of the component systems and their operation is essential to the proper operation of the boat. This manual and the associated manufacturers' information is provided to enhance your knowledge of your boat. Please read them carefully.

Your boat must have the necessary safety equipment on board and be in compliance with the U.S. Coast Guard, local and state safety regulations. There should be one Personal Flotation Device (PFD) for each person. Non-swimmers and small children should wear PFDs at all times. You should know and understand the "Rules of the Road" and have had an experienced operator brief you on the general operation of your new boat. At least one other person should be instructed on the proper operation of the boat in case the operator is suddenly incapacitated.

The operator is responsible for his safety and the safety of his passengers. When boarding or loading the boat, always step onto the boat, never jump. All passengers should be properly seated whenever the boat is operated above idle speed. Your passengers should not be allowed to sit on the seat backs, gunnels, bows, or transoms whenever the boat is underway. The passengers also should be seated to properly balance the load and must not obstruct the operator's view, particularly to the front.

Overloading and improper distribution of weight can cause the boat to become unstable and are significant causes of accidents. Know the weight capacity and horsepower rating of your boat. Do not overload or overpower your boat.

You should be aware of your limitations and the limitations of your boat in different situations or sea conditions. No boat is indestructible, no matter how well it is constructed. Any boat can be severely damaged if it is operated in a manner that exceeds its design limitations. If the ride is hard on you and your passengers, it is hard on the boat as well. Always modify the boat speed in accordance with the sea conditions, boat traffic and weather conditions.

Remember, it is the operator's responsibility to use good common sense and sound judgement in loading and operating the boat.

2.2 Rules of the Road

As in driving an automobile, there are a few rules you must know for safe boating operation. The following information describes the basic navigation rules and action to be taken by vessels in crossing, meeting or overtaking situations while operating in inland waters. These are basic examples and not intended to teach all the rules of navigation. For further information consult the "Navigation Rules" or contact the Coast Guard, Coast Guard Auxiliary, Department of Natural Resources, or your local boat club. These organizations sponsor courses in boat handling, including rules of the road. We strongly recommend such courses. Books or videos on this subject also are available from your local library.

Notice:
Sailboats not under power, paddle boats, vessels unable to maneuver, vessels engaged in commercial fishing and other vessels without power have the right of way over motor powered boats. You must stay clear or pass to the stern of these vessels. Sailboats under power are considered motor boats.

Crossing Situations
When two motor boats are crossing, the boat on the right has the right of way. The boat with the right of way should maintain its course and speed. The other vessel should slow down and permit it to pass. The boats should sound the appropriate signals.

Meeting Head-On or Nearly-So Situations
When two motor boats are approaching each other head-on or nearly head-on, neither boat has the right of way. Both boats should reduce their speed and turn to the right so as to pass port side to port side, providing enough clearance for safe passage. The boats should sound the appropriate signals.

Overtaking Situations
When one motor boat is overtaking another motor boat, the boat that is being passed has the right of way. The overtaking boat must make the adjustments necessary to provide clearance for a safe passage of the other vessel. The boats should sound the appropriate signals.

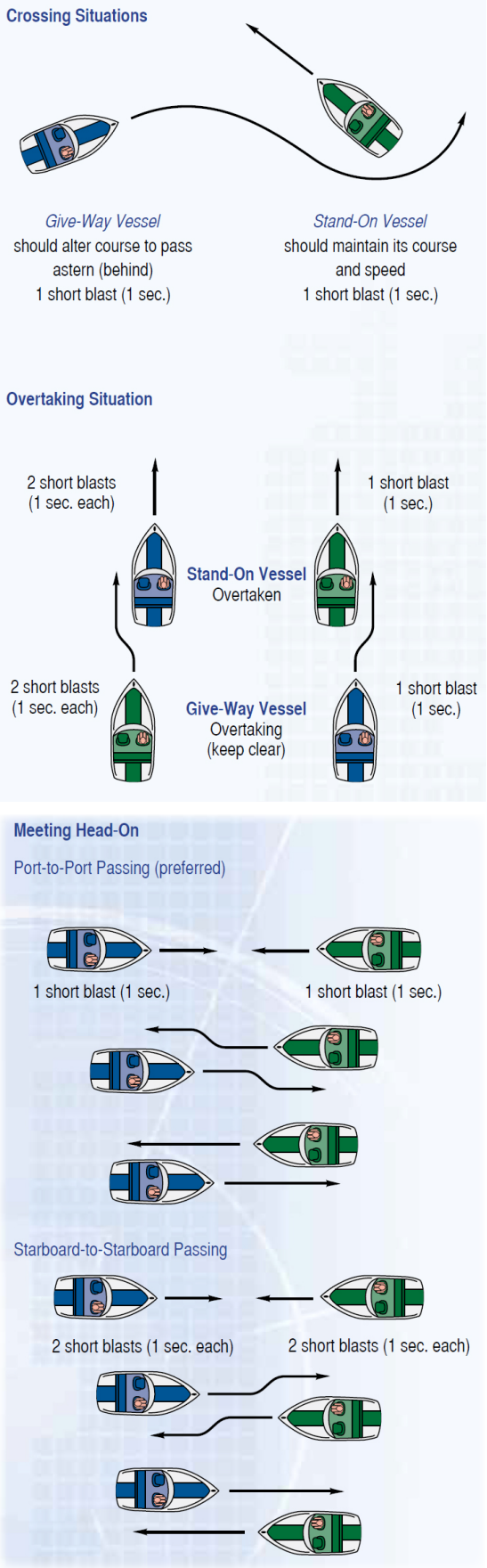
The General Prudential Rule
In obeying the Rules of the Road, due regard must be given to all dangers of navigation and collision, and to any special circumstances, including the limitations of the vessels, which may justify a departure from the rules that is necessary to avoid immediate danger or a collision.

Night Operation
Recreational boats are required to display navigation lights between sunset and sunrise and other periods of reduced visibility such as fog, rain, haze, etc. When operating your boat at night you should:

- Make sure your navigation lights are on and working properly. Navigation lights warn others of your position and course and the position and course of other vessels.
- All navigation rules apply. If the bow light of another vessel shows red, you should give way to that vessel, if it shows green, you have the right of way.
- Slow down and never operate at high speeds when operating at night, stay clear of all boats and use good common sense. Always be ready to slow down or steer clear of other vessels, even if you have the right-of-way.
- Avoid bright lights that can destroy night vision, making it difficult to see navigation lights and the lights of other boats. You and your passengers should keep a sharp lookout for hazards, other boats and navigational aids.

Navigation Aids
Aids to navigation are placed along coasts and navigable waters as guides to mark safe water and to assist mariners in determining their position in relation to land and hidden dangers. Each aid to navigation is used to provide specific information. You should be familiar with these and any other markers used in your boating area.

Notice:
Storms and wave action can cause buoys to move. You should not rely on buoys alone to determine your position.



Navigational Aids Chart

REMEMBER THESE RULES

1. OVERTAKING - PASSING: Boat being passed has the right-of-way. KEEP CLEAR.
2. MEETING HEAD ON: Keep to the right.
3. CROSSING: Boat on right has the right-of-way. Slow down and permit boat to pass.

← PORT — STARBOARD →

Yield right-of-way to boats in your DANGER ZONE!

DANGER ZONE (Dead ahead to 2 points abaft your starboard beam)

STORM WARNINGS

RED FLAG Small craft (winds to 33 knots)

2 RED FLAGS Gale (winds up to 47 knots)

SQUARE RED FLAG BLACK BOX (Storm)

2 SQUARE RED FLAGS BLACK BOX (Hurricane)

WHISTLE SIGNALS

ONE LONG BLAST: Warning signal (Coming out of slip)

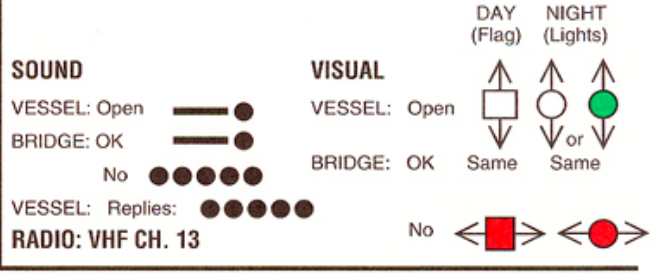
ONE SHORT BLAST: Pass on my port side

TWO SHORT BLASTS: Pass on my starboard side

THREE SHORT BLASTS: Engine(s) in reverse

FOUR OR MORE BLASTS: Danger signal

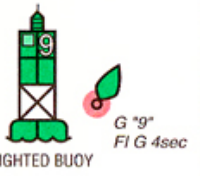
BRIDGE SIGNALS

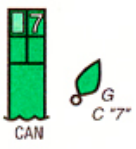


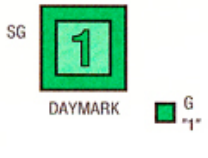
LATERAL AIDS AS SEEN ENTERING FROM SEAWARD

PORT SIDE
ODD NUMBERED AIDS

GREEN LIGHT ONLY
FLASHING
OCCULTING
QUICK FLASHING
ISOPHASE







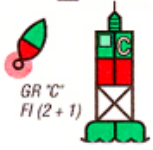
SAFE WATER MID-CHANNELS OR FAIRWAYS
NO NUMBERS — MAY BE LETTERED

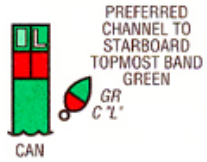
WHITE LIGHT ONLY
MORSE CODE
Mo (A)

PREFERRED CHANNEL
NO NUMBERS — MAY BE LETTERED

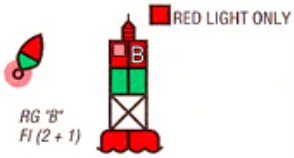
COMPOSITE GROUP FLASHING (2 + 1)

GREEN LIGHT ONLY





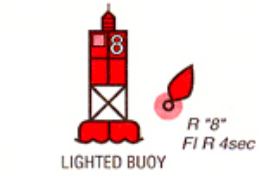
RED LIGHT ONLY

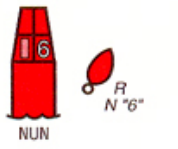


LIGHTED

STARBOARD SIDE
EVEN NUMBERED AIDS

RED LIGHT ONLY
FLASHING
OCCULTING
QUICK FLASHING
ISOPHASE





2.3 Pre-Cruise Check

Before Starting the Engines:

- Check the weather forecast and sea conditions before leaving the dock. Decide if the planned cruise can be made safely.
- Be sure all required documents are on board.
- Be sure all necessary safety equipment is on board and operative. This should include items like the running lights, spotlight, life saving devices, etc. Please refer to the Safety Equipment chapter for additional information on safety equipment.
- Make sure you have signal kits and flare guns aboard, and they are current and in good operating condition.
- Be sure you have sufficient water and other provisions for the planned cruise.
- Leave a written message listing details of your planned cruise with a close friend ashore (Float Plan). The float plan should include a description of your boat, where you intend to cruise, and a schedule of when you expect to arrive in the cruising area, and when you expect to return. Keep the person informed of any changes in your plan to prevent false alarms. This information will tell authorities where to look and the type of boat to look for in the event you fail to arrive.
- Check the amount of fuel on board. Observe the "rule of thirds:" one third of the fuel for the trip out, one third to return and one third in reserve. An additional 15% may be consumed in rough seas.
- The engine fuel filters should be checked for leaks or corrosion.
- Turn the battery switches on.
- Check the bilge water level. Look for other signs of potential problems. Monitor for the scent of fuel fumes.
- Test the automatic and manual bilge pump switches to make sure the system is working properly.
- Turn on the bilge blowers. Check the blower output and operate four (4) minutes before starting the engines. The blowers also should be activated when operating below cruising speed.
- Have a tool kit aboard. The kit should include the following basic tools:

Spark plug wrench	Hammer
Spark plug gap gauge	Electrician's tape
Screwdrivers	Offset screwdrivers
Lubricating oil	Pliers
Jackknife	Adjustable wrench
Basic 3/8" ratchet set	Vise grip pliers
Allen wrench set	Needle nose pliers
Wire crimping tool	Wire connector Set
End wrench set	Medium slip-joint pliers
Diagonal cutting pliers	DC electrical test light

WARNING

THERE MUST BE AT LEAST ONE PERSONAL FLOTATION DEVICE ON BOARD FOR EVERY PERSON ON BOARD AND ONE THROW-OUT FLOTATION DEVICE. CHECK THE U.S. COAST GUARD STANDARDS FOR THE CORRECT TYPE OF DEVICE FOR YOUR BOAT.

- Have the following spare parts on board:

Extra light bulbs	Spark plugs
Fuses and	circuit breakers
Main 12 volt fuses	Assorted stainless screws
Assorted stainless bolts	Flashlight and batteries
Drain plugs	Engine oil
Transmission oil	Propellers
Propeller nuts	Fuel filters
Fuel hose and clamps	Wire ties
Engine cooling pump	Hydraulic oil
Impeller Kit	Assorted hose
Clamps	Rags
Steering fluid	Pump & alternator belts

- Make sure all fire extinguishers are in position and in good operating condition.

2.4 Operating Your Boat

After Starting the Engine or engines:

- Check the engine gauges. Make sure they are reading normally.
- Visibly check the engines to be sure there are no apparent water, fuel or oil leaks.
- Check the operation of the engine cooling systems by monitoring the temperature gauges frequently until the engine temperature stabilizes at normal operating temperature.
- Check the steering and engine controls for proper operation.
- Make sure all lines, cables, anchors, etc. for securing a boat are on board and in good condition. All lines should be coiled, secured and off the decks when underway.
- Have a safe cruise and enjoy yourself.

Remember:

When you operate a boat, you accept the responsibility for the boat, for the safety of passengers and for others out enjoying the water.

- Alcohol and any drugs can severely reduce your reaction time and affect your better judgement.
- Alcohol severely reduces the ability to react to several different signals at once.
- Alcohol makes it difficult to correctly judge speed and distance, or track moving objects.
- Alcohol reduces night vision, and the ability to distinguish red from green.

WARNING

YOU SHOULD NEVER OPERATE YOUR BOAT WHILE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.

- Make sure one other person on the boat is instructed in the operation of the boat.
- Make sure the boat is operated in compliance with all state and local laws governing the use of a boat.

WARNING

DO NOT OPERATE THE BOAT UNLESS IT IS COMPLETELY ASSEMBLED. KEEP ALL FASTENERS TIGHT. KEEP ADJUSTMENTS ACCORDING TO SPECIFICATIONS.

- Always operate the blowers when operating the boat below cruising speed or when the generator is running to help cool the engine compartment and remove dangerous fumes.
- Avoid sea conditions that are beyond the skill and experience of you and your crew. Learn to understand weather patterns and indications for change. You should monitor NOAA weather broadcasts before leaving port and periodically while boating. If the weather deteriorates or a storm approaches, seek shelter in a safe harbor.
- Use caution during periods of reduced visibility due to weather or operation conditions. Reduce speed and designate a passenger to be a lookout for other boats, obstacles and navigational markers until you reach port or conditions improve.
- Your Monterey is a heavy boat that will produce a large wake at certain speeds. You are responsible for damage and injury caused by your boat's wake. Always observe no wake zones and be aware that your wake can endanger small vessels and their passengers. Always be courteous and slow down to reduce your wake when passing smaller boats.
- Before operating the boat for the first time, read the engine break-in procedures. The break-in procedures are found in the owner's manual for the engine. The manual is in the literature packet.
- As different types of engines are used to power the boat, have the dealer describe the operating procedures for your boat. For more instructions on "How To Operate The Boat," make sure you read the instructions given to you in the owner's manual for the engines you have selected.

Notice:
For more instructions on safety, equipment and boat handling, enroll in one of the several free boating courses offered. For information on the courses offered in your area, call the "Boating Course Hotline," 1-800-368-5647.

Notice:
If the running gear hits an underwater object, stop the engines. Inspect the propulsion system for damage. If the system is damaged, contact your dealer for a complete inspection and repair of the unit.

To stop the boat, follow this procedure:

- Allow the engines to drop to idle speed.
- Make sure the shift levers are in the neutral position.

Notice:
If the engines have been run at high speed for a long period of time, allow the engines to cool down by running them in the idle position for 3 to 5 minutes.

- Turn the ignition keys to the "OFF" position.
- Raise the trim tabs to the full up position.

After Operation:

- If operating in saltwater, wash the boat and all equipment with soap and water.
- Check the bilge area for debris and excess water.
- Fill the fuel tanks to near full to reduce condensation. Allow enough room in each tank for the fuel to expand without being forced out through the vent.
- Turn off all electrical equipment except the automatic bilge pumps.
- If you are going to leave the boat for a long period of time, put the battery main switches in the "OFF" position and close all sea cocks.
- Make sure the boat is securely moored.

⚠ CAUTION ⚠

TO PREVENT DAMAGE TO THE BOAT, CLOSE ALL SEACOCKS BEFORE LEAVING THE BOAT.

2.5 Docking, Anchoring & Mooring

Docking Introduction

Maneuvering the boat near the dock and securing the boat requires skill and techniques that are unique to the water and wind conditions and the layout of the dock. If possible, position a crew member at the bow and stern to man the lines and assist in docking operations. While maneuvering close to the dock, consideration must be given to the wind and current. You should anticipate the effect these forces will have on the boat and use them to help put the boat where you want it. It is important to practice in open water using an imaginary dock enough to develop a sense for the way your boat handles in a variety of docking scenarios. You must be able to foresee the possibilities and have solutions in mind before problems occur.

Approaching a dock or backing into a slip in high winds or strong currents requires a considerable amount of skill. If you are new to boat handling, you should take lessons from an experienced pilot to learn how to maneuver your boat in tight quarters in less than ideal conditions. You should also practice away from the dock during windy conditions.

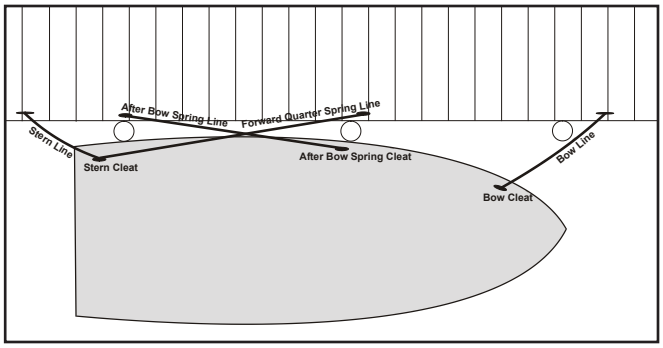
If your boat is equipped with a joystick integrated into the engine control system and you are using the joystick to maneuver the boat, you should leave all engines running while using the joystick to maneuver the boat to the dock or back into the slip.

Note, most joystick controls will be deactivated if either throttle & shift control lever is moved while maneuvering the boat.

Electronic control system and joystick operation is unique to the engines installed on your boat. Operation manuals for the engines and control systems are included with this manual. You should read these manuals thoroughly and understand the control system in theory and operation before operating your boat. Additionally, your dealer should demonstrate the operation of the control system and instruct you in operating the controls properly.

Dock Lines

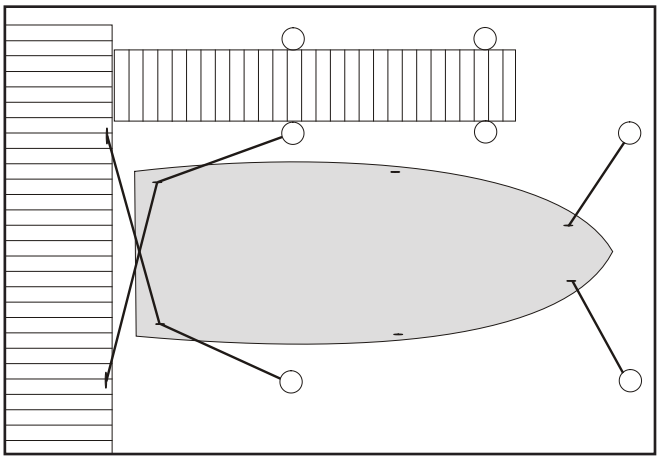
Dock lines are generally twisted or braided nylon. Nylon is strong and stretches to absorb shock. It also has a long life and is soft and easy on the hands. The line's size will vary with the size of the boat. Typically a 30 to 40 foot boat will use 5/8- inch line and a 20 to 30 foot boat will use 1/2-inch line. The number of lines and their configuration will vary depending on the dock, the range of the tide, and many other factors. Usually a combination of bow, stern and spring lines is used to secure the boat.



Securing The Boat Along Side A Dock (Typical)

Maneuvering to the Dock

Approach the dock slowly at a 30 to 40 degree angle. Whenever possible, approach against the wind or current. Turn the outdrives straight & shift to neutral when you feel you have enough momentum to reach the dock. Use reverse on the engines while turning the steering wheel toward the dock to slow the boat and pull the stern toward the dock as the boat approaches. Straighten the outdrives and use the engines to stop the boat if it is still moving forward against the pilings. If you executed your approach properly, the boat will lightly touch the pilings at the same time the forward momentum is stopped. Have the dock lines ready and secure the boat as soon at it stops. Use fenders to protect the boat while it is docked. Keep the engines running until the lines are secured.



Securing The Boat In A Slip (Typical)

Backing into a Slip

Approach the slip with the stern against the wind or current and the outdrives straight ahead. Use the engines and turn the steering wheel to maneuver the boat into alignment with the slip. Reverse the engines and slowly back into the slip. Shift from reverse to neutral frequently to prevent the boat from gaining too much speed. Move the stern right and left by shifting the engines in and out of gear or turning the wheel. When nearly in the slip all the way, straighten the outdrives and shift to forward to stop. Keep the engines running until the lines are secured.

Securing Dock Lines

Securing a boat that is tied along side the dock typically requires a bow and stern line and two spring lines. The bow and stern lines are usually secured to the dock at a 40° angle aft of the stern cleat and forward of the bow cleat. The after bow spring line is secured to the dock at a 40° angle aft of the after bow spring cleat. The forward quarter spring line is secured to the dock at a 40° angle forward of the stern cleat or the stern spring cleat. The spring lines keep the boat square to the dock and reduce fore and aft movement while allowing the boat to move up and down with the tide.

Securing a boat in a slip is somewhat different. It typically requires two bow lines secured to pilings on each side of the bow, two stern lines secured to the dock and two spring lines that prevent the boat from hitting the dock. The bow lines are typically secured with enough slack to allow the boat to ride the tide. The stern lines are crossed. One line runs from the port aft boat cleat to the starboard dock cleat and the other line runs from the starboard aft boat cleat to the port cleat on the dock. The stern lines center the boat, control the forward motion, and allow the boat to ride the tide. Two forward quarter spring lines typically are secured to the stern cleats and to mid ship pilings or cleats. The spring lines keep the boat from backing into the dock while allowing it to ride the tide.

Leaving the Dock
Always start the engines and let them warm up for several minutes before releasing the lines. Boats steer from the stern and it is important that you achieve enough clearance at the stern to maneuver the boat as quickly as possible. Push the stern off and maneuver such that you get stern clearance quickly. Proceed slowly until well clear of the dock and other boats.

Mooring
Approach the mooring heading into the wind or current. Shift to neutral when you have just enough headway to reach the buoy. Position a crew member on the bow to retrieve the mooring with a boat hook and secure the line. Keep the engines running until the line is secured.

Leaving a Mooring
Start the engines and let them warm up for several minutes before releasing the mooring line. The boat will already be headed into the wind, so move it forward enough to loosen the line and untie it. Back the boat away from the mooring until you can see the buoy. Move the boat slowly away from the mooring.

Anchoring
Make sure the bitter end of the anchor line is attached to boat before dropping the anchor. Bring the bow into the wind or current and put the engine in neutral. When the vessel comes to a stop, lower the anchor over the bow. Pay out anchor line so that it is at least 5 to 7 times the depth of the water and secure the line to a cleat. Use caution to avoid getting your feet or hands tangled in the line. Additional scope of 10 times the depth may be required for storm conditions. Check landmarks on shore to make sure the anchor is not dragging. If it is dragging, you will have to start all over. It is prudent to use two anchors if your are anchoring overnight or in rough weather.

Releasing the Anchor
Release the anchor by driving the boat slowly to the point where the anchor line becomes vertical. It should release when you pass that point. If the anchor doesn't release right away, stop the boat directly above the anchor and tie the line to the cleat as tight as possible. The up and down movement of the boat will usually loosen the anchor within a minute. Make sure you secure the anchor and properly stow the line before operating the boat.

WARNING

NEVER ANCHOR THE BOAT BY THE STERN. THE STERN OF THE BOAT IS VULNERABLE TO SWAMPING FROM WAVE ACTION AND WIND AND CURRENT WILL PUT MORE STRESS ON THE ANCHOR WHEN IT IS ATTACHED TO THE STERN. ONLY ANCHOR THE BOAT BY THE BOW

2.6 Controls, Steering or Propulsion System Failure

If the propulsion, control or steering system fails while you are operating the boat, bring the throttle to idle and shift to neutral. Decide whether you need to put out the anchor to prevent the boat from drifting or to hold the bow into the seas. Investigate and correct the problem if you can. Turn the engines off before going into the engine compartment to make repairs. If you are unable to correct the problem, call for help.

If only one engine has failed, you can usually run home on the other engine. Be careful not to apply too much power to the engine that is running. When only one engine is used to power a twin engine boat, that engine is over propped and can be overloaded if too much throttle is applied. You should contact your dealer or the engine manufacturer for the maximum power settings when running on one engine.

2.7 Collision

If your boat is involved in a collision with another boat, dock, piling or a sandbar, your first priority is to check your passengers for injuries and administer first aid if necessary. Once your passengers situations are stabilized, thoroughly inspect the boat for damage. Check below decks for leaks and the control systems for proper operation. Plug all leaks or make the necessary repairs to the control systems before proceeding slowly and carefully to port. Request assistance if necessary. Haul the boat and make a thorough inspection of the hull and running gear for damage.

2.8 Grounding, Towing & Rendering Assistance

The law requires the owner or operator of a vessel to render assistance to any individual or vessel in distress, as long as his vessel is not endangered in the process.

If the boat should become disabled, or if another craft that is disabled requires assistance, great care must be taken. The stress applied to a boat during towing may become excessive. Excessive stress can damage the structure of the boat and create a safety hazard for those aboard.

Freeing a grounded vessel or towing a boat that is disabled, requires specialized equipment and knowledge. Line failure and structural damage caused by improper towing have resulted in fatal injuries. Because of this, we strongly suggest that these activities be left to those who have the equipment and knowledge, e.g., the U.S. Coast Guard or a commercial towing company, to safely accomplish the towing task.

DANGER

THE MOORING CLEATS ON MONTEREY BOATS ARE NOT DESIGNED OR INTENDED TO BE USED FOR TOWING PURPOSES. THESE CLEATS ARE SPECIFICALLY DESIGNED AS MOORING CLEATS FOR SECURING THE BOAT TO A DOCK, PIER, ETC. DO NOT USE THESE FITTINGS FOR TOWING OR ATTEMPTING TO FREE A GROUNDED VESSEL.

WARNING

WHEN TOWING OPERATIONS ARE UNDERWAY, HAVE EVERYONE ABOARD BOTH VESSELS STAY CLEAR OF THE TOW LINE AND SURROUNDING AREA. A TOW LINE THAT SHOULD BREAK WHILE UNDER STRESS CAN BE VERY DANGEROUS AND COULD CAUSE SERIOUS INJURY OR DEATH.

WARNING

RUNNING AGROUND CAN CAUSE SERIOUS INJURY TO PASSENGERS AND DAMAGE TO A BOAT AND ITS UNDERWATER GEAR. IF YOUR BOAT SHOULD BECOME GROUNDED, DISTRIBUTE PERSONAL FLOTATION DEVICES AND INSPECT THE BOAT FOR POSSIBLE DAMAGE. THOROUGHLY INSPECT THE BILGE AREA FOR SIGNS OF LEAKAGE. AN EXPERIENCED SERVICE FACILITY SHOULD CHECK YOUR UNDERWATER GEAR AT THE FIRST OPPORTUNITY. DO NOT CONTINUE TO USE YOUR BOAT IF THE CONDITION OF THE UNDERWATER EQUIPMENT IS QUESTIONABLE.

2.9 Flooding or Capsizing

Boats can become unstable if they become flooded or completely swamped. You must always be aware of the position of the boat to the seas and the amount of water in the bilge. Water entering the boat through the transom door or over the stern gunnels can usually be corrected by turning the boat into the waves. If the bilge is flooding because of a hole in the hull or a defective hose, you may be able to plug it with rags, close the thru-hull valve or assist the bilge pump by bailing with buckets. Put a mayday call in to the Coast Guard or nearby boats and distribute life jackets as soon as you discover your boat is in trouble.

If the boat becomes swamped and capsizes, you and your passengers should stay with the boat as long as you can. It is much easier for the Coast Guard, aircraft, or other boats to spot, than people in the water. If your boat is equipped with an EPIRB, make sure it is activated. When activated, EPIRBs will send distress code homing beacons that allow Coast Guard aircraft to identify your boat and find you quickly.

2.10 Fishing

Fishing can be very exciting and distracting for the operator when the action gets intense. You must always be conscious of the fact that your primary responsibility is the safe operation of your boat and the safety of your passengers and other boats in the area.

You must always make sure the helm is properly manned and is never left unattended while trolling. If you are fishing in an area that is crowded with other fishing boats, it may be difficult to follow the rules of the road. This situation can become especially difficult when most boats are trolling. Being courteous and exercising good common sense is essential. Avoid trying to assert your right of way and concentrate on staying clear and preventing tangled or cut lines and other unpleasant encounters with other boats. Also keep in mind that fishing line wrapped around a propeller shaft can damage the seal in the lower unit.

2.11 Water Skiing & Wakeboarding

Your boat could be equipped with an optional ski tow pylon for water skiing and wakeboarding. If you have never driven skiers before, you should spend some hours as an observer and learn from an experienced driver. If you are an experienced driver, you should take some time to become familiar with the boat and the way it handles before pulling a skier. The driver should also know the skier's ability and drive accordingly.

Always use high quality tow ropes with attachment loops when pulling wakeboarders or skiers and only attach the tow rope to the ski tow fittings on the transom, arch or wakeboard tower. Never use mooring cleats or grab rails to pull skiers. They are not designed for towing skiers and injury to skiers or passengers and/or damage to the boat could result.

The tow rope should always be attached using the attachment loops and never tied to the ski tow or to any type of metal hook attached to the tow fitting. Tied ski ropes are very difficult to remove and metal hooks will damage the ski tow fitting and the fiberglass around it. Metal hooks also can cause injury to your skiers if the metal hook breaks under the strain of the tow.

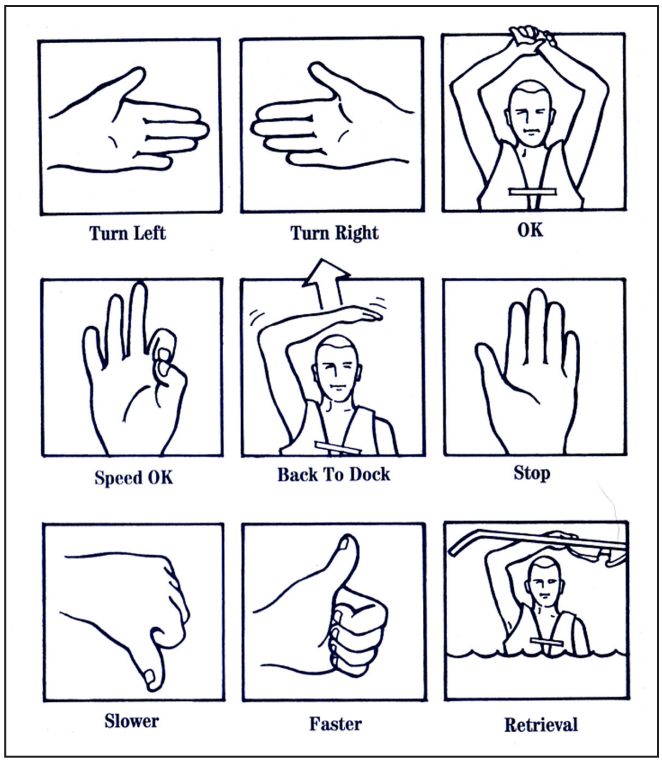
When attaching a tow rope using the attachment loops, hold the attachment loop in one hand and pull a length of rope on the handle side of the loop through the loop, creating another 6" loop. Slide the loop just created over the ski tow fitting and pull the handle side of the rope to tighten the loop around the tow fitting. This procedure will attach the rope securely to the ski tow, be easy to remove and will not come off if the skier or wakeboarder falls.

⚠ WARNING ⚠

THE SKI TOW PYLON IS DESIGNED FOR TOWING WATER SPORTS DEVICES ONLY. DO NOT TOW MORE THAN ONE OR TWO AVERAGE SIZED SKIERS OR WAKEBOARDERS AT A TIME FROM THE PYLON. IMPROPER USE OR OVERLOADING THE TOW PYLON MAY CAUSE DAMAGE TO THE PYLON.

The following safety precautions should be observed while towing water skiers.

- Water ski only in safe areas, away from other boats and swimmers, out of channels, and in water free of underwater obstructions. The area should be at least 5 feet deep, 3000 feet long and have at least 100' between each side of the boat and any obstructions.



Common Hand Signals For Water Sports Activities

- Make sure that anyone who skis can swim. Do not allow people who cannot swim to water ski.
- Be sure that the skier is wearing a proper life jacket. A water skier is considered on board the boat and a Coast Guard approved life jacket is required. It is advisable and recommended for a skier to wear a flotation device designed to withstand the impact of hitting the water at high speed.
- Make sure to inspect the ski equipment and tow rope before each ski session. Never use equipment that is damaged or with loose screws, torn boots, severe corrosion or tears in the fabric. You should also inspect the ski tow rope and replace if it is frayed, has unnecessary knots or damage. Never use a ski tow line that is questionable.
- Always carry a second person on board to observe the skier or wakeboarder so that your full attention can be given to the safe operation of the boat. The operator should pay attention to driving the boat and have the observer keep him updated on the skier. Never ski after dark. It is hazardous and illegal. Neither the boat operator or skier can see well enough to navigate at skiing or wakeboarding speeds safely at night.

- Never spray swimmers, boats, rafts or other skiers. The risk for a collision makes this dangerous for the skier and people being sprayed.
- Some lakes have an approved tow pattern for skiing. Always make sure to follow the pattern on these lakes.
- Never follow directly behind another boat while pulling skiers. Always stay a safe distance behind or off the side of other boat traffic. If the boat you are following stops unexpectedly, you may not be able to respond quick enough endangering your skier and occupants of both boats.
- Never follow behind another boat pulling a skier for any reason, even if you are not pulling a skier. If the skier you are following falls, you may not be able to respond quick enough and could run over the skier.
- When pulling multiple skiers, make sure the ropes are the same length. Never pull multiple skiers with tow ropes of different length
- Always make sure to slowly pull the slack out of the ski rope and wait for the OK from the skier before advancing the throttle to ensure the rope is not wrapped around the skier and that the skier is ready. Never advance the throttle until the skier provides the ready signal.
- When turning around to pick up a fallen skier, make sure to look for other boat traffic in the direction of the turn before you turn the boat.
- Approach a skier in the water from the downwind side and be certain to stop the motion of the boat and your motor before coming in close proximity to the skier.
- Give immediate attention to a fallen skier. A fallen skier is very hard to see by other boats and is extremely vulnerable. When a skier falls, be prepared to immediately turn the boat and return to the skier.
- Never leave a fallen skier alone in the water for any reason and have an observer display a skier down flag to alert other boaters that your skier has fallen.
- Agree on hand signals to be used between the observer and skier to communicate. This is important to eliminate confusion and ensure the safety of your skiers, wakeboarders or tubers. Refer the Hand Signals drawing in this section for signals that are commonly used during water sports activities.
- Make sure the observer watches for the skier's signal to indicate he or she is OK. If the signal is not seen immediately, assume the skier is injured and in need of immediate assistance. Be prepared to respond quickly.
- For additional information on water skiing, including hand signals and water skiing manuals, contact the American Water Skiing Association in Winter Haven, Florida, 813-324-4341.

WARNING

MOVING PROPELLERS ARE DANGEROUS. THEY CAN CAUSE DEATH, LOSS OF LIMBS, OR OTHER SEVERE INJURY. DO NOT USE THE SWIM PLATFORM OR SWIM LADDER WHILE THE ENGINE IS RUNNING. STOP THE ENGINE IF DIVERS, SWIMMERS OR SKIERS ARE ATTEMPTING TO BOARD. ALWAYS PROPERLY STORE THE LADDER BEFORE STARTING THE ENGINE.

2.12 Wake/Teak Surfing

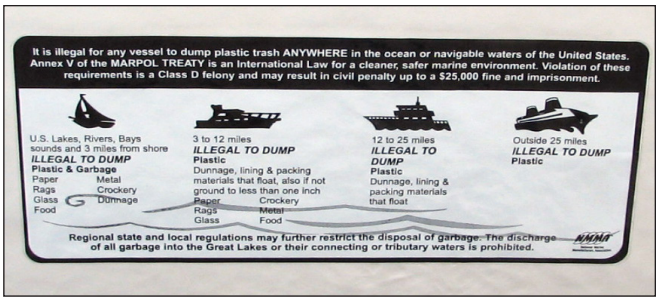
Wake or Teak Surfing is a new and dangerous boating fad that involves an individual holding on to the swim platform of a vessel while a wake builds up then lets go to body surf the wave created by the boat; hence the term- "Wake Surfing." This activity puts that individual directly in the path of the boat's exhaust and poisonous carbon monoxide. Because of the multiple dangers associated with wake surfing and the carbon monoxide problem in particular, the Coast Guard has issued a safety alert that strongly advises the public not to engage in wake surfing and warns that the activity may cause carbon monoxide poisoning and even fatalities.

Wake surfing not only exposes an individual to potentially fatal concentrations of carbon monoxide from the engine exhaust, it exposes them unnecessarily and dangerously to the boat's propeller. The danger is compounded by the fact that individuals do not usually wear a life jacket when wake surfing.

Wake surfing is an extremely dangerous activity and you should never allow anyone to "Wake Surf" behind your boat or be in the water near the ladder or swim platform while the engine is operating.

WARNING

WAKE OR TEAK SURFING (HOLDING ONTO THE SWIM PLATFORM WHILE BOAT IS UNDERWAY) IS EXTREMELY DANGEROUS AND CAN CAUSE SEVERE INJURY OR DEATH. WAKE SURFING PUTS AN INDIVIDUAL DIRECTLY THE PATH OF THE BOAT'S EXHAUST AND EXPOSES THEM TO POISONOUS LEVELS OF CARBON MONOXIDE. IT ALSO EXPOSES AN INDIVIDUAL TO THE POSSIBILITY OF BEING THROWN INTO THE PROPELLERS. YOU SHOULD NEVER ALLOW ANYONE TO WAKE SURF BEHIND YOUR BOAT OR TO BE IN THE WATER NEAR THE LADDER OR SWIM PLATFORM WHILE THE ENGINE IS RUNNING.



Marpol Treaty Placard - Displayed In The Cockpit

2.13 Man Overboard

If someone falls overboard, you must be prepared to react quickly, particularly when you are offshore. The following procedures will help you in recovering a person that has fallen overboard.

- Immediately stop the boat and sound a man overboard alarm and have all passengers point to the person in the water.
- Circle around quickly and throw a cushion or life jacket to the person, if possible, and another to use as a marker.
- Keep the person on the driver side of the boat so you can keep him in sight at all times.
- Make sure to approach the person from the downwind side and maneuver the boat so the propellers are well clear of the person in the water.
- Turn off the engines when the person is alongside and use a ring buoy with a line attached, a paddle or boat hook to assist him to the boat. Make sure you don't hit him with the ring buoy or the boat.
- Pull the person to the boat and assist him on board.
- Check the person for injuries and administer first aid if necessary. If the injuries are serious, call for help. Refer to the Safety Equipment chapter for more information on first aid and requesting emergency medical assistance.

WARNING

MOVING PROPELLERS ARE DANGEROUS. THEY CAN CAUSE DEATH, LOSS OF LIMBS, OR OTHER SEVERE INJURY. DO NOT USE THE SWIM PLATFORM OR SWIM LADDER WHILE THE ENGINE IS RUNNING. STOP THE ENGINE IF DIVERS OR SWIMMERS ARE ATTEMPTING TO BOARD. ALWAYS PROPERLY STORE THE LADDER BEFORE STARTING THE ENGINE.

2.14 Trash Disposal

The discharge of plastic trash or trash mixed with plastic is illegal anywhere in the marine environment. U.S. Coast Guard regulations also restrict the dumping of other forms of garbage. Regional, state and local restrictions on garbage discharges also may apply.

Responsible boaters store refuse in bags and dispose of it properly on shore. You should make sure your passengers are aware of the local waste laws and the trash management procedure on your boat. Refer to the placard mounted on your boat for more specific information regarding solid waste disposal.

Federal law requires that vessels of 26 feet or longer must display in a prominent location, a durable placard at least 4 by 9 inches notifying the crew and passengers of the discharge restrictions (Marpol Treaty). A label for this purpose has been shipped with the boat and is attached to the inside of the port storage access door in the cockpit. It is the boat owner's responsibility to make sure this placard remains mounted and legible in accordance with the law.

2.15 Yacht Certification Plate

Coast Guard rules require boats less than 20 feet (6 meters) to display a gross weight and person-capacity plate provided by the manufacturer. The person/load capacity is determined by the US Coast Guard.

Boat manufacturers in the National Marine Manufacturers Association (NMMA) program will display a gross weight and person-capacity plate on boats up to 26 feet (7.9 meters). Larger boats, including your boat, will display a Yacht Certification plate indicating compliance with the NMMA and U.S. Coast Guard requirements instead of a capacity plate.

The yacht certification plate is usually located near the helm in clear view of the operator.

Yacht Certification

2.16 Transporting Your Boat

Your Monterey is a large boat and should only be trailered by professionals that have the knowledge and equipment to move large boats without causing damage.

You should contact your dealer or the Monterey Boats Customer Service Department if you are planning to transport your boat and have any questions in regard to the proper equipment and support for the hull.

CAUTION

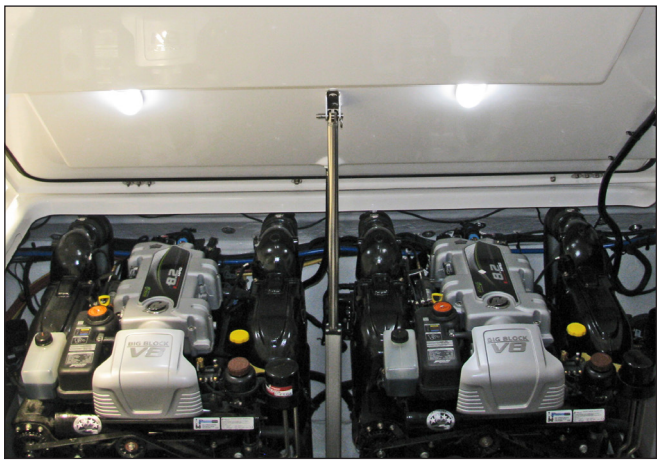
BOATS HAVE BEEN DAMAGED BY TRAILERS THAT DON'T PROPERLY SUPPORT THE HULL. ALWAYS MAKE SURE THE TRAILER BUNKS AND PADS ARE ADJUSTED SO THEY ARE NOT PUTTING EXCESSIVE PRESSURE ON THE LIFTING STRAKES AND ARE PROVIDING ENOUGH SUPPORT FOR THE HULL. HULL DAMAGE RESULTING FROM IMPROPER TRAILER SUPPORT IS NOT COVERED BY THE MONTEREY WARRANTY.

NOTES

PROPULSION SYSTEM

3.1 General

Your boat is designed to be powered with twin inboard engines and outdrive systems. Each manufacturer of the various inboard/outboard drive systems provides an owner's information manual with its product. It is important that you read the manual(s) very carefully and become familiar with the proper care and operation of the engine and drive system. A warranty registration card has been furnished with each new engine and can be located in the engine owner's manual. All information requested on this card should be filled out completely by the dealer and purchaser and then returned to the respective engine manufacturer as soon as possible.



Typical Mercruiser Inboard Engines

WARNING

CERTAIN MOVING PARTS ARE EXPOSED AND CAN PROVE DANGEROUS TO SOMEONE UNFAMILIAR WITH THE OPERATION AND FUNCTION OF THE EQUIPMENT. DO NOT ATTEMPT TO SERVICE ANY ENGINE OR DRIVE COMPONENT WITHOUT BEING TOTALLY FAMILIAR WITH THE SAFE AND PROPER SERVICE PROCEDURES.

Typical Vovlo Outdrives

3.2 Drive Systems

The inboard engines are mounted in the stern and coupled to a transom mounted outdrive which does all shifting, steering, and propulsion functions. The outdrives are supplied by the engine manufacturer and have specific lubrication and maintenance requirements.

Proper engine alignment is very important. This was done by the factory when the engines were installed and should be checked once per season with Volvo engines and once every three years with Mercruiser engines thereafter. If you experience excessive vibrations or suspect that the engine is out of alignment, please contact your Monterey dealer.

Marine growth and galvanic corrosion is a concern if the boat is to be kept in the water. Marine growth occurs when components are left in the water for extended periods and can cause poor performance or permanent damage to the exposed components. The type of growth and how quickly it occurs is relative to the water conditions in your boating area. Water temperature, pollution, current, etc. can have an effect on marine growth. If the boat is to be left in saltwater, the hull and outdrives must be protected with antifouling paint. It is extremely important that the proper antifouling paint is used on each component. Contact your Monterey dealer for information on the proper paint to use in your area.

Galvanic corrosion is the corrosion process occurring when different metals are submerged in an electrolyte. Seawater is an electrolyte and submerged engine components must be properly protected. Outdrives are equipped with sacrificial anodes to prevent galvanic corrosion problems. The anodes must be monitored and replaced as necessary.

On some outdrives, the standard anode may not provide an acceptable level of protection when a drive is used in fresh water and a magnesium anode must be used. A magnesium anode, when used for combined operation in both fresh and saltwater, or water with a low salt content, will deteriorate quicker and must therefore be replaced more often. For recommendations regarding corrosion protection for the engine or outdrive, please refer to the engine owner's manual.

CAUTION

SOME OUTDRIVES REQUIRE SPECIAL ANODES FOR FRESH WATER AND A DIFFERENT TYPE OF ANODE FOR SALTWATER TO PROTECT THE DRIVE FROM GALVANIC CORROSION. CONTACT THE ENGINE MANUFACTURER OR YOUR MONTEREY DEALER FOR THE PROPER ANODE TO USE IN YOUR BOATING AREA.

CAUTION

MANY ANTIFOULING PAINTS DESIGNED FOR BOAT HULLS CAN CAUSE SEVERE DAMAGE TO THE OUTDRIVE. DO NOT PAINT THE OUTDRIVE OR ALLOW IT TO COME IN CONTACT WITH ANTIFOULING PAINTS DESIGNED FOR BOAT HULLS. CONTACT YOUR MONTEREY DEALER OR ENGINE MANUFACTURER FOR INFORMATION ON THE PROPER PAINTING PROCEDURES.

3.3 Engine Exhaust System

Inboard/outboard engines use the exhaust system to expel exhaust gases and cooling water. Engine exhaust exits the rear of the boat through the exhaust system. The system consists of engine exhaust manifolds, exhaust hoses and the outdrives.

A periodic inspection of the coolant hoses, exhaust hoses and related parts should be made to ensure that leaks, heat deterioration or damage has not resulted. Replace them as necessary. Refer to the engine owner's manual for more information on the exhaust system in your boat.

Exhaust Diverter Valves (Optional on some Engines)

Some models can be equipped with an optional exhaust diverter valve system that directs exhaust either through the outdrive and prop or to thru-hull exhaust ports in the hull sides. Valves in each exhaust pipe are opened or closed by electric actuators that are controlled by an Exhaust switch at the helm.

The thru-hull exhaust ports provide added performance and enhanced sound. Using the switch at the helm, the operator can select the aggressive sounding thru-hull mode (Exhaust switch ON) or the quieter thru-prop mode (Exhaust switch OFF).

If this option is installed in your boat, it is important to change the exhaust from thru-prop to thru-hull at least once each time the boat is used. Changing exhaust mode opens and closes the diverter valves which keeps them free and operating properly.

WARNING

DO NOT INHALE EXHAUST FUMES! EXHAUST CONTAINS CARBON MONOXIDE THAT IS COLORLESS AND ODORLESS. CARBON MONOXIDE IS A DANGEROUS GAS THAT IS POTENTIALLY LETHAL.

3.4 Engine Cooling System

All marine engines use surface water as a cooling medium. The cooling water enters the system through a water intake in the outdrives and is expelled through the exhaust system. Water is pumped through the water inlets, circulated through the engine block or heat exchanger, and relinquished with the exhaust gases through the outdrive or thru-hull exhaust system.

The water pump uses a small impeller made of synthetic rubber. The impeller and water pump cannot run dry for more than a few seconds.

CAUTION

RUNNING THE ENGINE WITHOUT WATER FLOWING TO THE WATER PUMP CAN CAUSE SERIOUS DAMAGE TO THE WATER PUMP IMPELLER OR ENGINE. NEVER RUN THE MOTOR WITHOUT WATER FLOWING TO THE WATER PUMP.

Notice:
If the boat is used in salt or badly polluted water, engines without fresh water cooling should be flushed after each use. Refer to the engine owner's manual for the proper engine flushing procedure.

Fresh Water Cooling (Optional)

Your boat could be equipped with a fresh water cooling system. Installation of a "Fresh Water" or Closed" cooling system that is cooled by a heat exchanger and the seawater cooling system

provides adequate engine cooling without exposing the internal engine cooling system to the harmful effects of surface water. This system is optional with the gasoline engines on your boat. The engine owner's manual provides additional information regarding service and maintenance of this equipment.

CAUTION

A RUPTURED COOLING OR EXHAUST HOSE CAN CAUSE SEVERE ENGINE DAMAGE OR ALLOW A LARGE AMOUNT OF WATER TO FLOW INTO THE BILGE. SHOULD AN ENGINE INTAKE, EXHAUST OR COOLING HOSE RUPTURE, TURN THE ENGINE OFF IMMEDIATELY. PROCEED UNDER TOW IF NECESSARY, TO A SERVICE FACILITY FOR APPROPRIATE REPAIRS. MAINTAIN A CLOSE VISUAL WATCH ON THE PROBLEM HOSE AND THE BILGE WATER LEVEL.

Typical Mercruiser Bravo III Propellers

Neutra-Salt Engine Flushing System (Optional with Volvo Engines)

Your boat could be equipped with the optional Neutra-Salt Engine Flushing System designed to provide you with an effective and simple solution to flushing the seawater cooling system and combat internal corrosion of your engine. The system is designed with a solution reservoir for each engine that is connected to the raw water intake hose. A momentary rocker switch in the helm activates a solenoid valve near each reservoir. When activated, the system injects a concentrated solution into the seawater as it enters the engine. The solution effectively neutralizes the salinity of the seawater and applies a protective coating to the metal surfaces.

Neutra-Salt System Operation:

1. To operate, simply engage the "Flush" switch by pushing and holding the dash-mounted switch for 45 seconds while running the engine at idle speed, making sure the engine has an adequate supply of raw water.

2. Once the Flush switch is engaged, the Neutra-Salt concentrate solution will be injected into the cooling system, leaving a corrosion-inhibiting coating on all metal surfaces, thereby neutralizing the salinity of incoming seawater.

3. Before disengaging the Flush switch, you must turn off the engine. For best results, use the Neutra-Salt Engine Flushing System after every trip outing. You will typically get 10 to 15 flushes before a refill is needed.

Refer to the Neutra-Salt owner's manual for specific information on the system installed in your boat. It is important that you completely understand the system in theory and operation to achieve the best results. Contact your Monterey dealer to acquire solution for refills.

3.5 Propellers

Outdrives can be equipped with a single propeller or dual, counter rotating propellers that convert the engine's power into thrust, depending on engines and outdrives selected for your boat. Propellers come in a variety of styles, diameters and pitches. Pitch is the theoretical distance traveled by the propeller in each revolution.

The propellers that will best suit the normal needs of your boat will depend somewhat on your application and expected average load. Propeller sizes are identified by a number or code stamped on the prop. Always repair or replace a propeller immediately if it has been damaged. A damaged and therefore out of balance propeller can cause vibration that can be felt in the boat and could damage the outdrive gear assembly.

Please refer to the outdrive owner's manual for specific information on propellers and the proper installation procedure.

3.6 Performance Issues and Propellers

It is extremely important that the boat is propped to run at or very near the recommended top RPM with an average load. If the top RPM is above or below the recommended range, the propellers must be changed to prevent loss of performance and possible engine damage.

The engines can be damaged and the warranty voided if the boat is not propped correctly. Always consult your Monterey or authorized engine service dealer when making changes to the propellers or if the boat does not run near the top recommended RPM.

Your boat was shipped with propellers that typically provide optimum performance for your boat. However there are factors that can affect performance and propeller requirements.

Typical Volvo DP Propellers

Notice:
Before changing propellers to correct boat performance problems, be sure other factors such as engine tuning, bottom and running gear growth, etc. are not the source of performance changes. Always be sure the load conditions are those normally experienced before changing propellers.

- The addition of heavy equipment like excessive gear, additional coolers, etc., will cause additional load on the engine. Consequently, different propellers may be required.

- If the boat ran in the required RPM range when it was new and you have not added any additional gear or heavy equipment and have not damaged a propeller, there is a good chance the propellers are not the problem.

- Boats operated at high altitudes (above 2000 feet). Engines operated at high altitudes will not be able to develop as much horsepower as they do at or near sea level. Consequently, different propellers may be required.

Helm & Instrument Panel

3.7 Helm and Engine Instrumentation

The helm station is equipped with a set of engine instruments and/or alarms. These instruments allow the operator to monitor engine operational conditions. Close observation of these instruments allows the operator to operate the engines at the most efficient level and could save the engines from serious costly damage. The instrumentation is unique to the type of engines installed in your boat.

Most engine installations include LCD multifunction display and control modules that monitor all critical engine systems in analog and/or digital views. These systems can be integrated with the electronic navigation equipment installed on your boat. Display screens are controlled by buttons and/or touch screen icons, depending on the control module.

A brief description of the integrated gauges and their basic functions are listed in this section. Other functions that are dependent on the engines and electronics installed on your boat may also be available. Refer to the engine and control module owner's manuals and the manuals for the electronics installed on your boat for detailed information on the operation of the instruments and additional functions available. Some manufacturers also provide a quick reference guide that provides information and instructions for most display applications. Contact your dealer if you need assistance with the operation and features for the control modules in your boat.

Typical Mercruiser Vessel View 4 Display Modules

The following data is typically available on control module LCD displays:

- Total engine hours
- Engine diagnostic codes
- Engine alarms/faults
- Engine speed (RPM)
- Vessel speed
- Distance to waypoint
- Oil pressure
- Engine coolant temperature
- Engine water pressure
- Battery voltage
- Outdrive oil level
- Fuel level in tank
- Water tank level
- Waste tank level
- Fuel consumption
- Outdrive trim position
- Outdrive steering position
- Seawater temperature
- Air temperature
- Depth
- Compass heading

Typical Volvo EVC Display Module

Notice:
Additional data may be available depending on the engines, electronics and display modules installed on your boat.

Notice:
Some display modules broadcast a "SERVICE ENGINE SOON" message on the digital display when the ignition is turned to the "ON" position. This message is required as part of the EPA emissions check routine during startup. This is normal operation for some engines and does not indicate a problem with the display. Not all engine modules display this message because this function is covered by other display modules. Contact your dealer for additional information on the digital display modules installed in your boat.

The following gauges are present to monitor critical engine and outdrive functions:

Tachometer
The tachometer displays the speed of each engine in revolutions per minute (RPM). This speed is not the boat speed nor necessarily the speed of the propellers.

The tachometer screen may also display outdrive trim indicators, engine oil pressure, water pressure, water temperature, volt meters and the overheat warning indicator. The functions monitored will vary depending on the engine model and other optional equipment installed on your boat.

CAUTION

MAINTAINING MAXIMUM, OR CLOSE TO MAXIMUM RPM FOR EXTENDED PERIODS CAN REDUCE THE LIFE OF THE ENGINE. NEVER EXCEED THE MAXIMUM RECOMMENDED OPERATION RPM OF THE ENGINE.

Temperature Gauge
The temperature gauge indicates the temperature of the engine cooling system. A sudden increase in the temperature could signal a blocked cooling passage or a water pump malfunction

CAUTION

CONTINUED OPERATION OF AN OVERHEATED ENGINE CAN RESULT IN ENGINE SEIZURE. IF AN UNUSUALLY HIGH TEMPERATURE READING OCCURS, SHUT THE ENGINE OFF IMMEDIATELY. THEN INVESTIGATE AND CORRECT THE PROBLEM.

Oil Pressure Gauge
The oil pressure gauge monitors the engine lubrication system pressure. The oil pressure indicated when the engine is new is usually the reference for normal oil pressure for that engine. A drop in oil pressure is a possible indication of oil pump problems, a leak or fuel diluted oil.

Voltmeter
The voltmeter displays the voltage for the battery and the charging system. The normal voltage is 11 to 12.5 volts with the engines off, and 13 to 14.5 volts with the engines running.

Tilt/Trim Gauge
The tilt/trim gauge monitors the position of each outdrive. The upper range of the gauge indicates the tilt, which is used for trailering and shallow water operation. The lower range indicates the trim position. This is the range used to adjust the hull angle while operating your boat on plane. Please refer to the Helm Control Systems chapter and the engine owner's manual for more information on the operation of the outdrive power tilt and trim.

Engine Alarms
Inboard engines are equipped with an audible alarm system mounted in the helm area that monitors selected critical engine systems. The alarm will sound if one of these systems begins to fail. Refer to the engine owner's manual for information on the alarms installed with your engine.

If an engine alarm sounds, immediately shut off the engine, if safe to do so, until the problem is found and corrected.

Additional important gauges typically present in the display modules:

Speedometer
The speedometer indicates the speed of the boat in miles per hour. Most speedometers measure the water pressure against a small hole in a pickup tube located in the outdrive lower unit or mounted on the bottom of the transom.

Fuel Gauges
The fuel gauge indicates the amount of fuel in the fuel tank. This gauge is merely a relative indication of the available fuel supply and not a calibrated instrument.

Hour Meter
The hour meter keeps a record of the operating time for each engine.

Depth Gauge
The Depth gauge is a separate electronics unit that can be integrated with the engine display module that indicates the depth of the water below the bottom of the boat. Most gauges are equipped with a shallow water alarm. The alarm will sound at a depth preset by the operator.

Fuel Management
Fuel management systems are optional and could be installed on your boat as part of the engine monitoring system. On most engines, the fuel management gauge is built into the digital display and can monitor miles per gallon, total gallons used and total gallons remaining.

If you have a fuel management system installed on your boat, please refer to the engine or fuel management manual for information on that system.

Compass
The compass is on top of the console. To adjust the compass for your area, read the instructions on "Compass Compensation" given to you in the literature packet. The compass cannot be adjusted accurately at the factory because it must be compensated for the influence of the electrical equipment and electronics unique to your boat. Therefore, the compass should be adjusted by a professional after the electronics and other equipment is installed and before operating the boat.

Typical Compass

Instrument Maintenance
Electrical protection for the engine instruments and ignition circuitry is provided by circuit breakers located on the engine. The navigational electronics are protected by the electronics breaker in helm breaker panel and/or in-line fuses.

The ignition switches and instrument wire connectors should be sprayed periodically with a contact cleaner/lubricant. The ignition switch and all instruments, controls, etc. should be protected from the weather when not in use. Excessive exposure can lead to gauge and ignition switch difficulties.

HELM CONTROL SYSTEMS

Typical Mercruiser Helm Controls

4.1 General

The helm controls consist of three systems: the engine throttle and shift controls, the steering system, and the trim tab control switches. These systems provide the operator with the ability to control the direction and attitude of the boat from the helm station.

In addition to the primary helm controls, your boat could be equipped with an optional bow thruster and/or a joystick control that provides the operator additional control of the boat while docking or anchoring in tight quarters or high winds and strong currents. An overview of these control systems is provided in the this chapter.

Each manufacturer of the control components provides an owner's manual with its product. It is important that you read the manuals and become familiar with the proper care and operation of the control systems.

4.2 Engine Throttle and Shift Controls

The shift and throttle controls on your boat may vary depending on the engine and options selected. The following description is typical of most electronic inboard/outboard remote controls. Refer to the engine or control manual for specific information on the controls installed on your Boat.

Electronic Engine Controls

The helm is designed for a binnacle style control with a single lever for each engine. The electronic control system consists of three major components: the electronic control head with an integrated keypad, the control processors and applicable harnesses. Most controls are completely electronic and have no cables.

Movement of the helm control arm sends a signal to the control processor, located in the engine compartment, that operates the engine throttle and transmission control servos. The controls have a single lever for each engine that operates as a gearshift and a throttle. General operation will include a position for neutral (straight up and down or slightly aft of vertical), a forward position (the 1st detent forward of neutral), and a reverse position (the 1st detent aft of neutral). Advancing the control lever beyond the shift range advances the throttle in forward or reverse. Each control is equipped with a means of permitting the engine to be operated at a higher than idle RPM while in neutral for cold starting and warm-up purposes. The control levers are equipped with adjustable control head detents and friction settings.

The control head key pad has integrated switches and indicator lights which allow the operator to control all aspects of the boat's propulsion system. The most common features activated or monitored by the keypad are:

- Starter lockout, which prevents the engine from being started in gear.
- Gear lockout, which allows the engine RPM to be advanced in neutral safely.
- Low speed or docking mode that reduces engine speed and power surge for more controlled maneuvering in tight quarters and while docking.
- Battery voltage warning indicator that warns the operator of high or low voltage supplied to the system (audible alarm)
- An engine synchronization feature that automatically keeps both engines at the same RPM. Refer to Engine Synchronizing in this section for more information regarding engine synchronization.

These features and others not mentioned require specific procedures to activate and operate them properly. Some of the procedures and features

Typical Volvo Dual Engine Binnacle Control


Typical Mercruiser Dual Engine Binnacle Control

are unique to the engines, drive system and other options installed on your boat. ***It is essential that you read the owner's manual for the controls and be completely familiar with their operation before using your boat.***

CAUTION

ALWAYS RETURN THE ENGINE THROTTLE LEVERS TO THE EXTREME LOW SPEED POSITION BEFORE SHIFTING. NEVER SHIFT THE UNIT WHILE ENGINE SPEED IS ABOVE IDLE RPM.

Engine Synchronizing

During most operations of a twin engine boat, it is advantageous for both engines to be operated at the same RPM. This reduces noise and vibration and can increase engine efficiency. Setting the throttles so that the engines are running the same RPM (synchronized) can be done by listening to the engine sounds or with the synchronizer feature built into the electronic engine controls. Attempting to synchronize the engines solely by using the tachometer readings or control lever placement generally will not work. When the engines are in proper synchronization, the throttle levers may not necessarily be even. Refer to the engine or control owner's manual for more information on the using the engine synchronizer feature of your control system.

4.3 Neutral Safety Switch

Every control system has a neutral safety switch. This device prohibits the engines from being started while the control lever is in any position other than the neutral position. If the engine will not start, slight movement of the control lever may be necessary to locate the neutral position and disengage the safety cutout switch. Control system adjustments may be required to correct this condition, should it persist. See your Monterey dealer for necessary control adjustments.

Neutral safety switches should be tested periodically to ensure that they are operating properly. To test the neutral safety switch, make sure the outdrives are tilted down and move the control levers to the forward position with the engines off. ***Make sure the control levers and throttles are set to the idle position.*** Activate the starter switch to engage the starter.

Notice:
Mercury DTS and volvo EVC systems are equipped with a computer controlled start feature that will keep the starter engaged until the engine starts if the neutral safety switch fails and allows the starter to engage.

The starter should not engage. Repeat this test with the control levers in reverse and the engine throttles at idle. Again, the starter should not engage. If a starter engages with the control levers in any position other than the neutral position, then the neutral safety switch is not functioning properly and you should contact your dealer to have the neutral safety switch repaired by a qualified technician before using your boat. If the engine starts in gear during this test, immediately move the control levers to the neutral position and turn the engine off.

WARNING

IN SOME SITUATIONS, IT MAY BE POSSIBLE TO ACCIDENTALLY START THE ENGINE IN GEAR WITH THE THROTTLE ABOVE IDLE IF THE NEUTRAL SAFETY SWITCH IS NOT OPERATING PROPERLY. THIS WILL CAUSE THE BOAT TO ACCELERATE UNEXPECTEDLY IN FORWARD OR REVERSE AND COULD RESULT IN LOSS OF CONTROL, DAMAGE TO THE BOAT, OR INJURY TO PASSENGERS. ALWAYS TEST THE NEUTRAL SAFETY SWITCH PERIODICALLY AND CORRECT ANY PROBLEMS BEFORE USING THE BOAT.

4.4 Outdrive Power Tilt and Trim

All inboard/outboard drive systems have a tilt and trim feature for the outdrives. This allows the operator to control the position of each outdrive from the helm. Moving the outdrive closer to the boat transom is called trimming "in" or "down." Moving the outdrive further away from the boat transom is called trimming "out" or "up." In most cases, the boat will run best with the drive unit adjusted so the hull runs at a 3 to 5 degree angle to the water.

Typically, a switch or switches on the control lever grip activates the tilt/trim. On twin engine boats, there are typically three switches. One switch that activates both outdrives simultaneously on the port control lever and two switches, one for each outdrive, that activates each tilt/trim individually. The individual tilt/trim switches are usually located either on the port control lever or on a keypad on the control housing.

The term "trim" generally refers to the adjustment of the outdrive within the first 20° range of travel. This is the range used while operating your boat on plane. The term "tilt" is generally used when referring to adjusting the outdrive further up for shallow water operation or trailering. For information on the proper use and maintenance of the power tilt and trim, please refer to the engine owner's manual.

The maximum trim angle for the outdrives is preset at the factory. If necessary, the maximum trim angle can be adjusted by your Monterey dealer.

WARNING

EXCESSIVE TRIM FOR THE OPERATING CONDITIONS, EITHER TRIM UP OR DOWN, CAN CAUSE BOAT INSTABILITY, PROPELLER CAVITATION, OR MAKE STEERING THE BOAT MORE DIFFICULT. IF THE BOAT BEGINS TO FEEL UNSTABLE OR IS HARD TO STEER, SLOW DOWN AND ADJUST THE TRIM ANGLE.

4.5 Steering System

Your Monterey is equipped with power assisted cable or full hydraulic power steering, depending on the model and selected options. All steering systems are equipped with a tilt steering wheel at the helm. The steering wheel can be tilted to five different positions by activating the tilt lock lever located on the bottom side of the steering wheel mounting bezel. When the lever is released, it automatically locks the steering wheel at or close to the selected angle.

Twin Engine Hydraulic Assist Steering

Boats powered with twin engines and no joystick control are equipped with a power assisted, cable steering system that uses a hydraulic pump driven by one of the engines to provide the "POWER" for the power steering system. Turning the steering wheel moves the gears in the helm, pushing or pulling the cable assembly and turning the outdrives. An engine driven power hydraulic steering pump and cylinder assist the cable steering and reduces the effort required to turn the boat.

An oil reservoir near the engine hydraulic pump allows for easy system fluid check and fill. It is important that the fluid level in the reservoir be checked frequently and maintained at or near the maximum level. Only use hydraulic fluid recommended by the engine manufacturer.

Typical Tilt Steering Wheel & Tilt Lock Lever

The outdrives are coupled together at the tiller arms by a tie bar. Mercruiser drives are typically set parallel and Volvo drives are toed in 1/2" at the aft end of the cavitation plates to provide maximum stability on straight ahead runs and proper tracking through corners. Outdrive or steering system damage may require the outdrives to be realigned.

Notice:

If your boat is equipped with hydraulic steering and the joystick option, the outdrives will be independent and not coupled together with a tie bar.

Refer to the engine and steering system manufacturer owner's manuals for specific information on the operation and maintenance for the steering system.

Twin Engine Electronic Steering

Twin engine boats equipped with the joystick control option are equipped with an electronic steering system that provides precise and responsive steering. The system is 100% electronic and there are no mechanical connections between the steering wheel and the drives. Each drive unit is turned independently allowing improved tight quarter

maneuvering and the convenience of an optional Joystick control at the helm.

For safety and improved tight quarter maneuvering, the controlling software on most systems senses engine speed and adjusts maximum steering angle and steering wheel resistance to preset limits as the engine speed increases or decreases. The steering angles and steering wheel resistance at specific engine speeds are programed into the system at the factory and are not adjustable.

The steering on each drive is totally independent with full redundancy built into the system. If the steering fails on one drive unit, the other will continue to operate. Should a failure in one steering system occur, the controlling software will sense the failure and limit the engine RPM as a safety precaution.

Refer to the engine manufacturer owner's manuals for specific information on the operation and maintenance for the steering system installed in your boat.

Typical Mercruiser Joystick & Binnacle Controls

Typical Volvo Joystick & Binnacle Controls

4.6 Joystick Controls

A joystick control system is an option on most twin engine boats. The joystick can only be used at slow speeds. It is engaged by moving the shift and throttle controls to the neutral position and pressing the ON/OFF button on the base of the joystick control or the keypad on the main engine controls. Once activated, the boat moves in the direction the joystick is pushed with the engine speed increasing the further the stick is pushed, up to preset limits. Turning the knob on the top of the joystick rotates the boat in the direction the knob is turned. Another button on the joystick or engine control key pad raises the preset engine speed for maneuvering in high winds and/or strong tides.

When the joystick is released, it automatically returns to center, the drives shift to neutral, rotate to the straight ahead position, and the engine speed is reduce to idle. It is deactivated by pressing the ON/OFF button at the base of the joystick or control keypad or by moving the shift and throttle control levers.

Joystick control systems are 100% electronic. ***Always refer to the engine manufacturer owner's manuals for specific information on the operation and maintenance for the joystick and steering control systems on your boat.***

4.7 Bow Thruster (Optional)

The optional bow thruster provides the operator additional control of the bow while docking or anchoring the boat in tight quarters or high winds and strong currents. The control touch pad is located in the helm and controls the bow thruster that is mounted to the hull in the bilge below the forward cockpit sole.

The momentary touch pad buttons are activated by the pressing and holding the power button in the touch pad for 1 second. Press the button for the direction you wish to thrust. Press the opposite button to change direction. A one second delay protects the thruster when the direction is changed. The arrow on each button indicates the direction the bow will move when it is pressed. The bow thruster will stop when the button is released.

Press and hold the power button for 1 second to deactivate the bow thruster control pad. The bow thruster will power down automatically if it is operated constantly for 3 minutes or senses no operation for 15 minutes.

The bow thruster circuit is protected by a fuse or circuit breaker and emergency shut off button/ battery switch located in the forward compartment below the forward cockpit sole. It is activated automatically when the thruster control panel is switched on and turns off when the panel is de-activated. It can also be activated manually with the red knob on the switch.

Refer to the bow thruster owner's manual for details on operating the bow thruster and using the control pad.

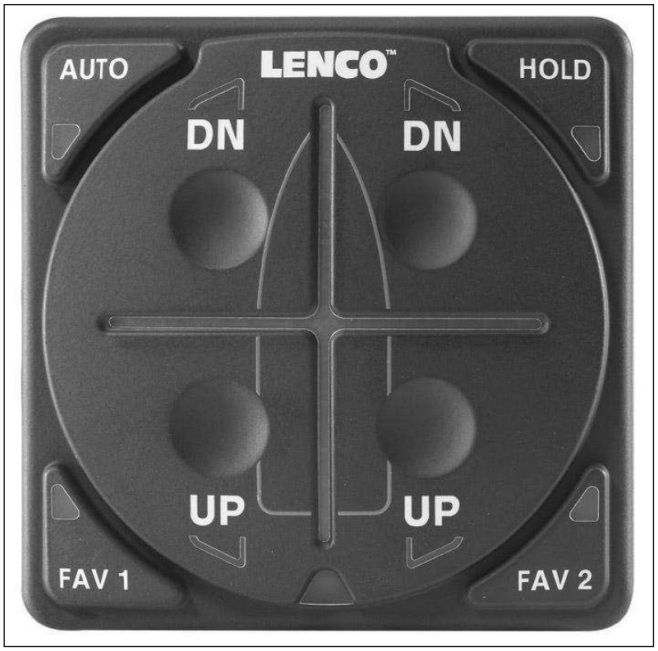
Standard Trim Tab Control Switch Panel

4.8 Trim Tabs

Trim tabs are mounted to the hull on the transom below the swim platform. Dual rocker switches or optional Auto Glide key pad control the trim tabs. The switches or control buttons are labeled and control bow up and down movements. They also control starboard and port up and down movements. Bow up and bow down will control the hull planing attitude, while port and starboard up and down provides control for hull listing.

LED indicators next to the rocker switches, built into the touch pad and/or on the engine display modules show the position of your trim tabs. The display indicates trim tab deflection. When the indicator is at the bottom of the display, the tabs are in the "full-up" (bow up) position. When the indicator is at or near the top of the display, the tabs are fully extended (bow down).

The trim tabs are programmed to automatically retract when the engines are shutdown to keep the actuators clean and set the tabs in the full "UP" position when leaving the dock. The Auto Glide trim tab control system also includes the ability to memorize programmed hull attitude settings in the touch pad memory.
Before leaving the dock, make sure that the tabs are in the full "UP" position. If they are not, press and hold the control in the bow up position for ten (10) seconds to fully retract the tabs.



Optional Auto Glide Trim Tab Control Switch Panel

Notice:
The trim tabs can be damaged by boat trailers if the bunks extend beyond the transom or the boat is not centered properly. They can also be damaged by fork lifts at dry stack marinas during lifting. To reduce the possibility of damage, always make sure the tabs are in the full up position before loading your boat on a trailer or having it lifted by a fork lift.

Trim Tab Operation

Standard Trim Tab Switch Panel

Always establish the intended heading and cruise speed before attempting to adjust the hull attitude with the trim tabs. After stabilizing speed and direction, move the trim tabs to achieve a level side to side running attitude being careful not to over trim.

After depressing a trim tab switch, always wait a few seconds for the change in the trim plane to take effect. Avoid depressing the switch while awaiting the trim plane reaction. By the time the effect is noticeable the trim tab plane will have moved too far and thus the boat will be in an overcompensated position.

When running at a speed that will result in the boat falling off plane, lowering the tabs slightly, bow down, will improve the running angle and operating efficiency. Positioning trim tabs too far in the down position can reduce operating efficiency and cause substantial steering and handling difficulties.

Be extremely careful when operating in a following sea. The effect of trim tabs is amplified under such conditions. Steering and handling difficulties can result from improper trim tab usage, particularly in a following sea. Always raise the tabs to the full bow up position in these conditions.

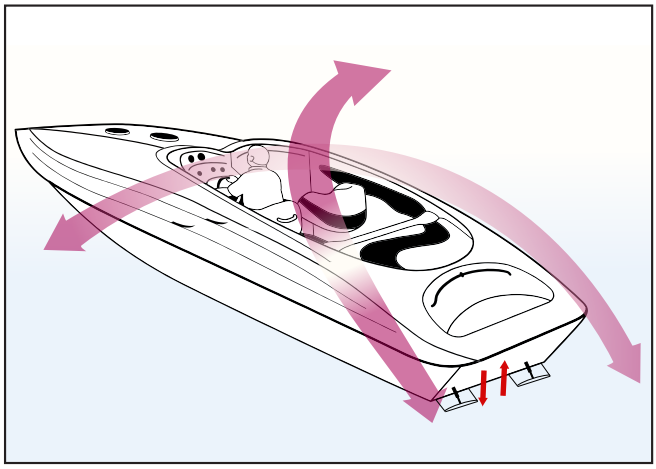
When running at high speeds, be sure that the tabs are in the full "UP" position. Only enough trim plane action should be used to compensate for any listing. Trim tabs are extremely sensitive at high speeds. Adjust for this and be prepared to slow down if difficulties arise.

When running into a chop, a slight bow down attitude will improve the ride. Be careful not to over trim. Handling difficulties may result.

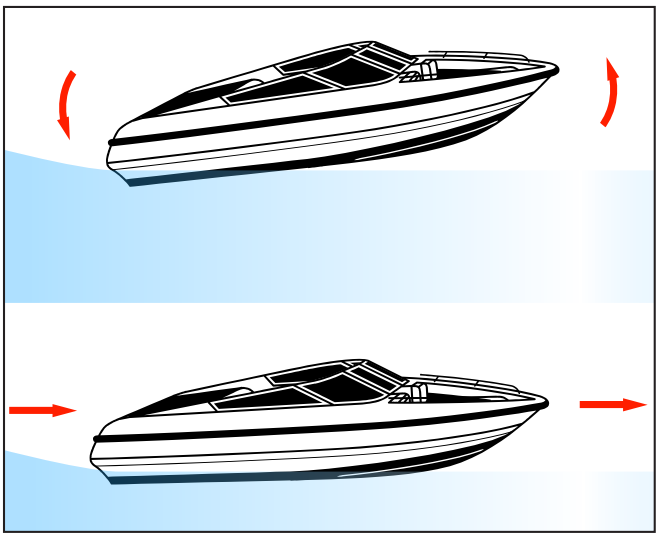
Refer to the trim tab Owner's Manual for additional information on the operation for additional operation instructions.

Optional Auto Glide Control System

The Auto Glide system uses engine data and GPS data (depending on your installation and boat options selected) to automatically set your boat to the most efficient running angle by adjusting the trim tabs as needed. The default optimum running angle (activated by the AUTO button) is determined and programed by your dealer during the pre-delivery set-up process.



Tabs Control Port & Starboard Listing



Trim Tabs Control Bow Up & Bow Down

The Auto Glide system has 3 automatic operational modes, 4 automatic settings, and 2 manual operational modes. Although you will most likely keep your Auto Glide in automatic mode, you may immediately convert to manual mode simply by pressing one of the 4 UP/DOWN buttons on the key pad. All of these functions are fully explained in the manufacturer's Owner's Manual and Quick Reference Guide operational instructions.

When in Automatic Mode your boat's running angle is measured 25 times per second. This data is used by the Auto Glide control system to:

- Automatically put your boat in the most efficient running angle.
- Reduce the amount of bow rise of your boat during hole shot mode.

- Eliminate bow porpoising (bow bounce).
- Keep your boat level at all times.

When manual mode is selected by pressing one of the UP/DOWN buttons, automatic control of the trim tabs will be cancelled. The trim tabs will then be manually controlled by the UP/DOWN buttons on the control pad and the system will operate much like the standard trim tab control system described previously in this chapter.

An Auto Glide Owner's Manual and Quick Reference Guide has been included with this manual. It is important that you completely understand the Auto Glide Boat Control System in theory and operation before operating your boat. You should read the manual carefully and keep the Quick Reference Guide in a safe location on the boat.

4.9 Control Systems Maintenance

Hydraulic and Power Assisted Steering System Maintenance

A periodic inspection of all steering hoses, linkage and helm assemblies should be made. Signs of corrosion, cracking, loosening of fastenings, leaking fluid, excessive wear, or deterioration should be corrected immediately. The transom area in the engine compartment should be checked for leakage around outdrives and for wires, hoses and cables that may be rubbing against the steering cylinder or tiller arm.

You also should make sure there are no wires or cables secured to the steering cable near the power steering cylinder on boats with power assisted cable steering. The cable is attached to the power steering cylinder control valve and must be free to move slightly to activate the valve. Hard or erratic steering is an indication that the steering cable is not moving freely.

Generally, periodic lubrication of all moving parts and connections with a light waterproof grease is in order. Failure to do so could lead to steering system failure that would result in loss of control.

Engine driven power steering system has specific fluid and maintenance requirements. The fluid level and belt tension should be checked frequently. Refer to the engine manufacturer's owner's manual for fluid specifications and maintenance instructions for hydraulic assisted steering systems.

Electronic Steering and Control Systems Maintenance

Electronic steering and control systems are supplied by the engine manufacturer. The systems have maintenance requirements that are specific to the engines, drive units and control options installed in your boat.

You should refer to the engine and controls systems owner's manuals for information and maintenance on the control and steering system installed in your boat. Their recommendations should be followed exactly.

The engine controls and steering systems are fully electronic and activated by micro processors and controlling software in each drive unit. If adjustment becomes necessary do not attempt to address the problem yourself. You should contact your Monterey dealer or Monterey Customer Service for assistance.

WARNING

IMPROPERLY ADJUSTED ELECTRONIC ENGINE CONTROLS CAN CAUSE LOSS OF CONTROL AND SEVERE ENGINE OR DRIVE DAMAGE. IF YOUR CONTROLS ARE NOT OPERATING PROPERLY, DO NOT ATTEMPT CONTROL SYSTEM ADJUSTMENTS YOURSELF. CONTACT YOUR DEALER OR MONTEREY CUSTOMER SERVICE FOR ASSISTANCE AND DO NOT USE THE BOAT UNTIL THE SITUATION IS CORRECTED.

Outdrive Lubrication

Please refer to the engine owner's manual for maintenance and lubrication instructions for the outdrive.

Trim Tab Maintenance

The trim tab actuators are electric and require no routine maintenance except to periodically inspect the tab actuators for corrosion or marine growth and test the system to ensure that it is operating properly.

Marine growth can interfere with the proper operation of the trim tab planes and actuators. To reduce problems due to marine growth, always return the trim tabs to the full "UP" position after operating the boat and periodically inspect and clean marine growth from the actuators and planes.

If the boat is kept in the water, the trim tabs must be equipped with a zinc anode to prevent

galvanic corrosion. Galvanic corrosion is the corrosion process occurring when different metals are submerged in an electrolyte. Seawater is an electrolyte and submerged metal components must be properly protected. The anodes will need to be changed when they are 75% of their original size. Refer to the Routine Maintenance chapter of this manual for information on maintaining zinc anodes.

To discourage any marine growth on tabs or actuators, antifouling paint can be applied. When applying paint to the actuators, make sure it is fully retracted. Do not paint the stainless ram above the area that is exposed when retracted. The bottom paint will damage the O-ring seals when the ram is retracted and allow seawater to enter the actuator motor. Also don't paint the zinc anode. Contact your dealer or the trim tab manufacturer for information regarding the correct bottom paint for the trim tabs.

Refer to the trim tab owner's manual for additional maintenance information, specifications, troubleshooting and operating instructions.

Typical Trim Tab Plane, Actuator & Anode

Bow Thruster Maintenance (Optional)

The bow thruster is mounted in the forward bilge below the V-berth. Periodically inspect the components inside the hull for leaks and for loose or corroded electrical connections. Signs of leaks and loose or corroded electrical connections should be corrected immediately by a qualified marine technician.

Marine growth, weeds and debris can interfere with the proper operation of the bow thruster so you should inspect the tunnel regularly and clean as necessary. This is particularly important when operating in areas with weeds or if the thruster is not responding normally. You should also check the propeller. If the propeller is damaged or heavily contaminated, it should be replaced.

The thruster is protected from galvanic corrosion by an anode on the propeller shaft. The anode should be inspected regularly and changed when it is 75% of it's original size.

If the boat is kept in the water, the anode should be inspected at least once every 3-4 months. Antifouling paint can be applied to the tunnel and underwater components to discourage marine growth. Bow thrusters have specific requirements for the type of antifouling paint that can be used and where it can be applied. Applying the wrong paint or paint that is not applied correctly can damage the bow thruster and void the warranty. Contact your dealer or the bow thruster manufacturer for information regarding the correct bottom paint and application.

Refer to the bow thruster owner's manual for additional maintenance information, specifications, troubleshooting and operating instructions.

NOTES

FUEL SYSTEM

5.1 Gasoline Fuel Systems

General

The Gasoline fuel system used in Monterey boats sold in the United States is designed to meet or exceed the emission control standards of the Environmental Protection Agency (EPA) and the requirements of the U.S. Coast Guard, the Boating Industry Association and the American Boat and Yacht Council in effect at the time of manufacture.

Notice:
This boat is equipped with an epa compliant fuel system. Do not alter or bypass any of the components that are installed. See your dealer for any fuel related service.

Boats sold internationally (all countries other than the United States and Canada) are equipped with fuel systems that are not equipped with U.S. EPA required emission controls but do meet or exceed the requirements of the U.S. Coast Guard, the Boating Industry Association and the American Boat and Yacht Council in effect at the time of manufacture.

Notice:
Beginning with 2016 models, all boats sold in Canada will be equipped with fuel systems designed to meet or exceed emission control standards of the USA EPA. These boats are certified for use in Canadian waters by the Canadian government.

All gasoline fuel systems have been factory inspected and pressure tested in accordance with regulations in effect at the time of manufacture. This inspection assures that the system is air tight, leak proof and safe. It is the responsibility of the purchaser to maintain it in that condition. Make frequent inspections to assure that no deterioration or loosening of connections is resulting from vibration.

DANGER

DO NOT LET THE ODOR OF GASOLINE GO UNCHECKED. ANY ODOR OF GASOLINE MUST BE IMMEDIATELY INVESTIGATED AND STEPS TAKEN TO PROTECT THE BOAT AND ITS OCCUPANTS UNTIL THE PROBLEM IS CORRECTED. IF THE ODOR OF GASOLINE IS NOTICED, SHUT OFF ALL ENGINE AND ELECTRICAL EQUIPMENT. INVESTIGATE AND CORRECT THE SITUATION IMMEDIATELY. HAVE ALL PASSENGERS PUT ON PERSONAL FLOTATION DEVICES AND KEEP A FIRE EXTINGUISHER READY UNTIL THE SITUATION IS RESOLVED.

Fuel Withdrawal Tube

The fuel withdrawal tubes are positioned in the fuel tank to achieve optimum fuel usage, fuel line routing, etc. At certain speeds and hull trim angles, the fuel supply at the withdrawal tank location can increase or decrease accordingly. Be extremely careful when attempting to operate the boat when low on fuel. Though some fuel may be in the tank, the relative trim angle of the boat may cause the fuel to flow away from the withdrawal.

Fuel Gauge

This indicates the amount of fuel in the tank. Due to the mechanical nature of the fuel sender and fuel tank shapes, variations in readings during various speeds of operation may occur. This system is merely a relative indication of the available fuel supply and not a calibrated instrument.

Fuel Fill & Vent System - U.S. Fuel Systems

In order to comply with U.S. EPA emission regulations, boats sold in the United States are equipped with special fuel systems that do not vent directly to the atmosphere. The system is equipped with "keyless" fuel caps located on the gunnel on each side of the swim platform that are marked "GAS." The fill caps are not vented and the fill system is completely sealed when the caps are closed.

There is a fuel tank vent built into each fuel fill. Another vent equipped with vapor emission control

components in each hull side provides ventilation for the tank when the fuel fill system is sealed. While the tank is being filled, most air displaced by the fuel escapes through the fuel fill vent. The fuel fill and vent system are designed such that an automatic shutoff valve in the marina fuel pump will stop the flow before fuel can be ejected into the vent system when the tank is full. You should never attempt to "top off" the tank after the pump shutoff valve has activated. This could force fuel into the vent system and damage emission control components.

The fuel fill caps are opened by turning the cap counterclockwise until it can be removed. After refueling, replace the fill cap and tighten until it clicks, indicating that the cap has been properly closed and the fill system is sealed. Wash the areas around the fuel fill if any fuel splashed on the deck or hull during filling operations. Residual fuel left on the deck and hull sides can be dangerous and will yellow the fiberglass or damage the striping.

Be sure to use the proper type and grade fuel. Refer to the engine owner's manual for additional information.

Fuel Fill - International Fuel Systems

Boats sold in countries other than the United States are not equipped with sealed fuel fill systems or vapor emission control components. The fuel tank is vented through the fill fittings and caps. The system is equipped with "keyless" fuel caps located on the gunnel on each side of the swim platform that are marked "GAS." The fuel fill caps are designed to seal out water and allow the fuel tank to vent to the atmosphere when the caps are installed and tight.

The fuel fills are opened by turning the cap counterclockwise until it can be removed. After fueling, install the fuel cap and tighten. Be sure to use the proper type and grade fuel. Refer to the engine owner's manual for additional information.

Notice:
Do not overtighten the fuel caps on boats with international fuel systems. If the cap is overtightened, the O-ring seal could be damaged allowing water to contaminate the fuel system.

Typical Keyless Fuel Fill

WARNING

DO NOT CONFUSE FUEL FILL DECK PLATES WITH THE WATER OR WASTE FILL DECK PLATES. THESE PLATES ARE ALSO LABELED ACCORDINGLY. IF GASOLINE IS ACCIDENTALLY PUMPED INTO THE WATER OR WASTE TANK, DO NOT ATTEMPT TO PUMP IT OUT YOURSELF. WATER AND WASTE PUMPS ARE NOT DESIGNED TO PUMP FUEL AND A FIRE OR EXPLOSION COULD RESULT. CONTACT YOUR DEALER OR THE MONTEREY CUSTOMER SERVICE DEPARTMENT FOR ASSISTANCE IN HAVING THE FUEL PROFESSIONALLY REMOVED.

Fuel Vents - U.S. Fuel Systems

In order to comply with U.S. EPA regulations, the fuel tank is equipped with special vents located on each hull side and vent system emission control components. A carbon filled canister in each vent hose between the fuel tank and the vent absorbs fuel vapors before they can escape to the atmosphere and returns them to the fuel tank.

Carbon canisters can be damaged if they are repeatedly exposed to liquid fuel. Special valves in the vent system and the automatic shutoff valve on marina fuel pumps prevent the tank from being overfilled and forcing fuel into the vent system. You should never attempt to "top off" the tank after the pump shutoff has activated. This could force fuel into the vent system that can damage the carbon canister or other components.

Fuel Vent - International Fuel Systems

Boats sold in countries other than the United States are equipped with fuel tank vent systems incorporated into each fuel fill. The fuel fill caps are designed seal out water and allow the fuel tank to vent to the atmosphere when the caps are installed and tight.

While the tank is being filled, the air displaced by the fuel escapes through the vent and fuel fill . When the tank is full, a small amount of fuel could be ejected from the fuel fill/vent.

After fueling, replace the fill cap, and wash the areas around the fuel fill. Residual fuel left on the deck and hull sides can be dangerous and will yellow the fiberglass or damage the striping.

5.2 Engine Fuel Delivery System

The fuel system on your boat has one fuel tank. Each fuel withdrawal line is equipped with an anti-siphon valve where the line attaches to the fuel tank. This valve prevents gasoline from siphoning out of the fuel tank should a line rupture.

WARNING

IF A FUEL LINE SHOULD LEAK, ANTI-SIPHON VALVES PREVENT A SUBSTANTIAL AMOUNT OF FUEL FROM FLOWING INTO THE BILGE. SHOULD AN ANTI-SIPHON VALVE BECOME CLOGGED, CLEAN AND REINSTALL OR REPLACE. DO NOT REMOVE THE ANTI-SIPHON VALVE FROM THE SYSTEM. ANTI-SIPHON VALVES ARE REQUIRED, BY THE U.S. COAST GUARD, TO BE INSTALLED IN ALL BOATS EQUIPPED WITH A GASOLINE ENGINE.

Fuel Filter

Each gasoline engine is equipped with a fuel filter on the engine. Some engines are equipped with a spin on, water separator type fuel filter located on the engine. Other engines are equipped with fuel filters that are integrated into the fuel injection pump system.

Spin on fuel filters should be checked frequently and changed as recommended by the engine manufacturer to assure an adequate supply of clean, dry fuel to the engine.

Filters integrated into the fuel injection pump system require special service procedures. These filters must be serviced at regular intervals by a qualified technician.

Typical Spin On Engine Fuel Filter

Always refer to the engine manufacturer owner's manual for service intervals and instructions for servicing or replacing the fuel filters.

WARNING

BEFORE STARTING THE ENGINES, ALWAYS OPEN ALL HATCHES, WINDOWS, AND DOORS AND RUN THE BLOWERS FOR AT LEAST FOUR (4) MINUTES TO COMPLETELY VENTILATE THE BOAT AFTER SERVICING THE FUEL SYSTEM.

5.3 Gasoline Generator Fuel System

A generator is optional equipment. The generator fuel system is much like the primary fuel engine fuel system. There is a separate fuel supply line equipped with an anti-siphon valve for the generator. A fuel shut-off valve is located on the fuel line near the filter. The valve should always be closed before servicing the fuel filter.

The generator withdrawal tube is shorter than the main engine withdrawal tubes to prevent the generator from consuming the reserve fuel. Therefore, the generator will run out of fuel if the fuel level in the tank drops below 1/4 of the tank.

A water separating fuel filter is located on the generator near fuel pump. The filter element should be replaced on the generator when the main engine fuel filters are changed.

5.4 Fueling Instructions

Boats sold in the United States are built with fuel systems designed to meet emission control standards established by the U.S. Environmental Protection Agency. Boat sold internationally (all countries other than the United States) are built with fuel system that are not equipped with U.S. EPA required emission controls.

The fueling procedure is somewhat different for each fuel system design. Consequently, fueling instructions in this section that are specific to each type of fuel system are identified as being for either boats with U.S. fuel systems or boats with international fuel systems. Procedures for preparing the boat for fueling at a marina and preparing the boat for operation when fueling is completed are the same for both fuel systems. Make sure to the follow the correct fueling procedure for the system installed in your boat.

DANGER

FUEL IS VERY FLAMMABLE AND THE VAPORS CAN EXPLODE. BE CAREFUL WHEN FILLING THE FUEL TANK. NO SMOKING. NEVER FILL THE TANK WHILE AN ENGINE IS RUNNING. FILL THE FUEL TANK IN AN OPEN AREA. DO NOT FILL THE TANK NEAR OPEN FLAMES.

WARNING

TO PREVENT DAMAGE TO THE FUEL SYSTEM, USE ONLY A GOOD GRADE OF GASOLINE. DO NOT USE A FUEL THAT CONTAINS HARSH ADDITIVES OR MORE THAN A 10% ETHANOL ALCOHOL BLEND. ANY DAMAGE DONE TO THE FUEL SYSTEM THAT IS THE RESULT OF USE OF A HIGHER ALCOHOL BLEND IS NOT COVERED BY THE MONTEREY WARRANTY. REFER TO THE ENGINE MANUFACTURER OWNER'S MANUAL REGARDING FUEL REQUIREMENTS FOR YOUR ENGINE.

Preparing the Boat for Fueling - All Boats

Use the following procedure to prepare the boat for fueling at a marina fuel pump:

- Make sure the boat is securely moored and all engines are off.
- Make sure all switches are in the "OFF" position.
- Make sure all passengers leave the boat.
- Close all doors and hatches and make sure the blowers are off to prevent fuel fumes from entering the engine compartment.

WARNING

GASOLINE FUEL VAPORS THAT ACCUMULATE IN THE BILGE OR ENGINE COMPARTMENT WHILE FUELING CAN EXPLODE!! FUEL VAPORS ARE HEAVIER THAN AIR AND CAN ACCUMULATE IF THEY ARE CARRIED BY THE WIND INTO THE BILGE AND ENGINE COMPARTMENT THROUGH OPEN DOORS, HATCHES OR VENTS. VAPORS CAN ALSO BE DRAWN INTO THE ENGINE COMPARTMENT BY THE BLOWERS. ALWAYS TURN BILGE BLOWERS OFF AND CLOSE DOORS AND HATCHES BEFORE FUELING.

- Estimate how much fuel is needed and avoid overfilling the fuel tank.

WARNING

STATIC ELECTRICITY GENERATED BY FLOWING FUEL CAN CAUSE A FIRE OR EXPLOSION. TO PREVENT STATIC SPARKS WHEN FILLING THE TANK, MAKE SURE THE NOZZLE IS ALWAYS IN CONTACT WITH THE FUEL FILL OPENING.

Fueling Instructions For Boats Sold in the United States.

In order to comply with U.S. EPA emission regulations, boats sold in the United States are equipped with special fuel systems that prevent fuel vapors from entering the atmosphere when fueling operations are complete.

These fuel systems meet U.S. EPA emission standards and are designed to maintain a specific air space at the top of the fuel tank that provides proper tank ventilation and protection for emission control components. Special valves in the fuel tank vent system, the fuel fill and a shutoff valve in marina fuel pump nozzles are designed to automatically stop the fuel flow when the tank is full and maintain this air space.

Notice:

When the fuel tank is full, the shutoff valve in the marina fuel pump will activate and automatically shut off the flow, indicating that the tank is filled to the maximum level. You should stop filling the tank at this point and never attempt to "top off" the tank. Attempting to "top off" the tank could damage fuel level control valves or force fuel into the vent system which could damage vapor emission control components.

To fill the fuel tank on boats with vapor emission control systems, follow this procedure:

- The fuel caps are designed to be opened by hand and do not require a key. Turn the cap counterclockwise to remove it for fueling.
- Make sure the nozzle is equipped with an automatic shutoff valve. Then put the nozzle in the fuel fill opening and make sure it stays in contact with the fuel fill fitting during the entire fueling operation.
- Fill the tank until the shutoff valve clicks and automatically stops the fuel flow.
- Remove the nozzle.
- Install the fuel cap and tighten until the cap clicks, indicating that the cap is tight and the system is sealed.

Fueling Boats with International Fuel Systems

Boats sold in countries other than the United States are not equipped with sealed fuel fill systems or vapor emission control components. The fuel tank is vented to the atmosphere through the fill fitting and cap. Consequently, the fueling process for boats equipped with international fuel systems is somewhat different than for boats sold in the United States.

Notice:
When the fuel tank is full, some fuel will surge out through the fuel fill/vent. The fuel tank vents are built into each fuel fill fitting located on the gunnel on each side of the swim platform. Monitor the vent/fill closely while fueling to prevent fuel from spilling into the water.

To fill the fuel tank on boats with international fuel systems, follow this procedure:

- The fuel cap is designed to be opened by hand and does not require a key. Turn the cap counterclockwise to remove it for fueling.
- Put the nozzle in the fuel fill opening and make sure it stays in contact with the fuel fill fitting during the entire fueling operation.
- Fill the tank slightly less than the rated capacity to avoid spilling fuel out of the vent/ fuel fill and to allow for expansion.
- Remove the nozzle.
- Install and tighten the fuel cap. Make sure you don't overtighten the fuel cap and damage the O-ring seal.

WARNING

SPILLED FUEL CAN CAUSE A FIRE OR AN EXPLOSION. MAKE SURE YOU DO NOT SPILL ANY FUEL. IF A SMALL AMOUNT OF FUEL IS SPILLED ON THE FIBERGLASS, USE A CLOTH TO REMOVE THE FUEL AND PROPERLY DISPOSE OF THE CONTAMINATED CLOTH. IF FUEL IS SPILLED ON THE WATER, EXERCISE EXTREME CAUTION. FUEL FLOATS ON THE SURFACE OF THE WATER AND CAN IGNITE. IF FUEL IS SPILLED INTO THE WATER, IMMEDIATELY EVACUATE THE AREA AND NOTIFY THE MARINA AND THE PROPER OFFICIALS.

Preparing the Boat for Operation - All Boats

Use the following procedure to prepare the boat for operation when fueling operations are complete:

- Open all hatches, windows and doors. **Run the blower for at least four minutes to completely ventilate the boat.**
- Check the fuel compartment and below the deck for fuel odors. If you smell fuel, do not start the engine.

DANGER

GASOLINE FUEL VAPORS THAT ACCUMULATE IN THE CABIN OR ENGINE COMPARTMENT WHILE FUELING CAN EXPLODE!! TO REDUCE THE RISK OF A FIRE AND/OR EXPLOSION AFTER FILLING THE FUEL SYSTEM, ALWAYS RUN THE BLOWERS FOR AT LEAST FOUR (4) MINUTES AND OPEN ALL HATCHES, WINDOWS AND DOORS TO COMPLETELY VENTILATE THE BOAT BEFORE STARTING THE ENGINES.

5.5 Fuel System Maintenance

Periodically inspect all connections, clamps and hoses for leakage and damage or deterioration. Replace as necessary. Spray the valves, tank fuel gauge sender and ground connections with a metal protector.

Frequently inspect and lubricate the fuel fill cap O-ring seal with Teflon or silicone grease. The O-ring seal prevents water from entering the fuel system through the fuel fill cap and should be replaced immediately if there is any sign of damage or deterioration.

Contaminated fuel may cause serious damage to your engine. The filters must be checked for water and other contamination frequently. Gasoline engine filters must be changed at least once each year or more frequently depending on the type of engine and the quality of the fuel. Refer to the engine manufacturer's instructions for information on servicing and replacing the fuel filter elements.

The age of gasoline can affect engine performance. Chemical changes occur as the gasoline ages that can cause deposits and varnish in the fuel system as well as reduce the octane rating of the fuel. Severely degraded fuel can damage the engine and boat fuel tank and lines. Therefore, if your boat is not being run enough to require at least one full tank of fresh fuel a month, a fuel stabilizer should be added to the gasoline to protect the fuel from degradation. Your dealer or the engine manufacturer can provide additional information on fuel degradation and fuel stabilizers recommended for your engine.

In many states, most gasoline is blended with ethanol alcohol. Ethanol is a strong solvent and can absorb water during periods of storage. You should refer to the engine operating manual for information regarding alcohol blended fuels and how it affects the operation of your marine engine.

WARNING

AFTER THE FILTER ELEMENT HAS BEEN CHANGED, PRIME THE FUEL SYSTEM AND CHECK ALL FITTINGS FOR LEAKS BEFORE AND AFTER STARTING THE ENGINE FOLLOWING ANY FUEL SYSTEM SERVICE.

WARNING

TO REDUCE THE POSSIBILITY OF A FIRE OR EXPLOSION, MAKE SURE ALL ELECTRICAL SWITCHES ARE IN THE "OFF" POSITION BEFORE SERVICING THE FUEL SYSTEM.

WARNING

BEFORE STARTING THE ENGINE, ALWAYS OPEN ALL HATCHES AND DOORS. THEN RUN THE BLOWERS FOR AT LEAST FOUR (4) MINUTES TO COMPLETELY VENTILATE THE BOAT AFTER SERVICING THE FUEL SYSTEM.

DANGER

AVOID SERIOUS INJURY OR DEATH FROM FIRE OR EXPLOSION RESULTING FROM LEAKING FUEL, INSPECT SYSTEM FOR LEAKS AT LEAST ONCE A YEAR. DO NOT DRAIN ANY FUEL INTO THE BILGE.

ELECTRICAL SYSTEM

6.1 General

Your Monterey is equipped with 120 volt AC (220 volt AC in some countries) and 12 volt DC electrical systems. The AC system can draw current from one of two sources, either shore power outlets at dockside or the generator. The DC system draws current from on board batteries.

Most boat and engine charging systems are designed for 12 volt, lead acid wet cell, absorbed glass mat (AGM) or gel cell marine batteries. Most wet cell batteries will require similar maintenance as those in automobiles. AGM, gel cell and some wet cell batteries are sealed and require no maintenance except to periodically clean battery tops, terminal posts and connections.

All wires in the electrical system are color coded to make identifying circuits easier. Wiring schematics have been included with this manual to aid in following an individual circuit of the boat.

6.2 12 Volt DC System & Batteries

The 12 volt system is a standard marine system. There are four batteries, one for the starboard engine, one for the port engine and two for the house, accessory circuits and the optional generator. The batteries themselves can be charged by the engines or by the battery charger when hooked to shore power or when operating the optional generator.

An automatic battery isolator/relay manages the charging current for the starboard engine and house batteries. Whenever the starboard engine is running, the isolator/relay automatically senses the condition of each battery bank and directs the available current to the batteries that require charging. The port engine battery is charged by the port engine. The system is equipped with a battery parallel feature that will connect both engine starting batteries in parallel for extra battery power while starting the engines. The battery parallel switch is activated by a momentary rocker switch located in the helm switch panel. When the switch is pressed, the motorized Emergency Parallel switch turns to the ON position to connect both engine starting batteries. When the switch is released, the switch remains ON for 10 minutes, then automatically turns to the OFF position and the batteries are isolated.

Most 12 volt power is distributed to the 12 volt accessories through individual circuit breakers located in the 12 volt breaker panels in the cabin, at the helm and in the battery switch panel in the engine compartment. Main breakers located in the battery switch panel protect the house, helm systems and electronics from an overload. A separate main breaker next to the battery switch panel protects the windlass. Other circuit breakers in the battery switch panel protect the circuits for the battery charger DC circuits, stereo and electronics memory, engine control memory, CO monitors, amplifier, sump pump, and the automatic switches for the bilge pumps and the high water alarm. Main breakers located on each engine protect the ignition, charging systems and gauges. Some 12 volt accessories are operated directly by a circuit breaker in the cabin breaker panel while others are operated by a switch fed by the panel breakers. Most of the 12 volt accessories on the deck and in the cockpit are operated by switches in the helm switch panel.

CAUTION

PROPER FUSE OR BREAKER PROTECTION MUST BE PROVIDED FOR ALL 12 VOLT EQUIPMENT ADDED. DO NOT OVERLOAD THE ACCESSORY CIRCUIT BREAKERS OR OTHER CIRCUITRY THROUGH ADDITIONAL 12 VOLT EQUIPMENT.

Batteries and Battery Switches

Your boat is equipped with the latest in marine battery switching. Rather than having manually operated battery switches located somewhere in the cockpit, this boat has remotely operated, motorized battery switches mounted in the engine room. This method of switching is more convenient and secure since they are activated by switches on the DC circuit breaker panel inside the lockable cabin.

Your boat is equipped with four batteries and four battery switches. There is a battery switch for each engine, a switch for house, optional generator and

Battery Switch Panel, Battery & Parallel Switches, Main Circuit Breakers & Continuous Duty Circuit Breakers

accessory circuits, and an emergency battery parallel switch. Battery switches are identified by red knobs and the parallel switch knob is yellow. An automatic isolator/relay (DVSR) controls the charging of the house batteries whenever the starboard engine is operating. The port engine battery is dedicated to starting and operating the port engine. It is charged by the port engine whenever the port engine is operating. The port and starboard engine batteries can be temporarily connected in parallel by the PARALLEL START switch to provide additional starting current for each engine. The engine and house batteries are also charged by the battery charger whenever it is operating.

The motorized battery switches can be controlled remotely, in Auto Mode, by switches in the cabin DC panel and the Parallel Start switch at the helm or manually, in Manual Mode, by turning the knob on the battery switches. There are LED lights on both the remote switches and the battery switches indicating battery switch mode and status. These lights will blink when the switch has been activated and the motor is turning the battery switch ON or OFF. The Emergency Parallel switch operates in exactly the same manor as the battery switches.

Remote Battery Switches In Cabin DC Panel

Press the top of each remote switch to engage the battery switch. A red light in the switch will illuminate to indicate that the battery switch is "ON." To turn the battery switch off, simply press the bottom of the momentary switch. The red light may not turn off immediately or will slowly fade out if there are no loads present on the system. This is normal as the capacitors in the system drain.

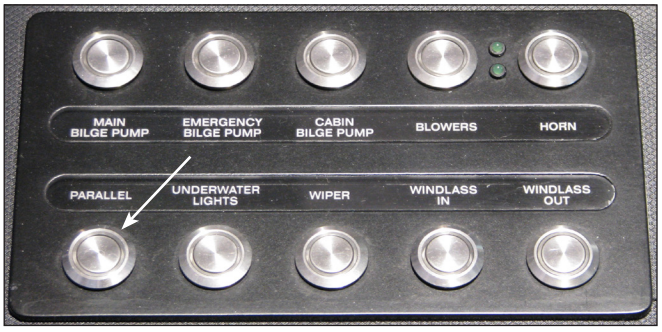
To operate the battery switches remotely in Auto Mode, the manual knob on each battery switch must be set to "AUTO OFF." In this position, each battery switch will move from "AUTO OFF" to "AUTO ON" when the remote switch is turned on and from "AUTO ON" to "AUTO OFF" when the remote switch is turned off. LED lights at the remote switches and on each battery switch will be lit when the battery switches are in the ON position. The LED lights at the remote switches and on the battery switches will be off and the battery switches will indicate "AUTO OFF" when the battery switches are turned off. Remote operation of the battery switches is not possible when they are set to Manual Mode. If auto operation is attempted, the LED lights will flash for 3 seconds, then stop. The knob on the battery switches must be set to "AUTO OFF" before they can be activated remotely.

The remote operation of the battery switches can be overridden at anytime by depressing the control knob on the battery switch and turning it to the "MAN ON" or "MAN OFF" position. The "MAN ON" LED light on the battery switch will be lit whenever the battery switch is activated in Manual Mode. The knob on the battery switch must be returned to the "AUTO OFF" position before the battery switch can be activated remotely. For more information on the motorized battery switches, refer to the switch manufacture's operation manual.

When in port or at anchor, the PORT and STARBOARD ENGINE battery switches should be off. Only the battery switch that activates the house batteries should be on. This will keep both engine starting batteries in reserve for starting the engines. If the house battery bank becomes discharged to the point that the accessories will not operate or the optional generator will not start, the starboard engine can be started to recharge the house battery bank and, if equipped, to start the generator.

Notice:
Current is supplied to the high water alarm and automatic float switches for the bilge pumps, sump pump , the electronic corrosion controllers and the cabin CO monitor when the batteries are connected and the battery switches are off.

The DC electrical system on your boat is designed for wet cell, gel cell or AGM marine batteries. The battery charger is equipped with a switch to select the type of batteries to be charged. The batteries will be damaged if the charger is not set properly.



Helm Switch Panel & Parallel Start Switch

You should refer to the battery charger owner's manual to make sure the charger is set to the type of batteries in your boat and do not mix the size, type or brand of marine batteries. Always consult your dealer before changing the type of batteries.

Parallel Start Switch and Dead Batteries

In the event of a dead starting battery for either engine, the port and starboard engine batteries can be placed in a temporary parallel configuration. This allows you to start either engine from both the port and starboard engine batteries. To do this, locate the "PARALLEL START" switch at the helm. Make sure the HOUSE battery switch is on. Hold down the Parallel switch for 3 seconds, then start the engine with the dead battery normally. After 10 minutes, the PARALLEL START switch will automatically disengage.

In the event of a dead house battery bank, there are several options.

- If at the dock, simply plug in your shore power and turn on the battery charger until the battery is recharged.
- If at sea, start the starboard engine. Once the starboard engine is running, the alternator will charge the starboard engine battery. As the voltage in the battery raises to a preset level, the automatic isolator relay between the starboard engine battery and the house batteries will close and direct charging current to the house batteries. The starboard engine battery and house batteries will continue to be charged until the engine is shutdown and the automatic relay opens, isolating the house batteries from the engine battery.

Typical Helm & Helm Switch Panels

- If your boat is equipped with the optional generator, allow the starboard engine to run for 10 to 15 minutes to charge the house batteries enough to engage the generator starter. Then start the generator and activate the battery charger to accelerate the charge into the house battery bank.

Notice:
If a battery is fully discharged/dead for a lengthy period it may become permanently damaged and will not be able to hold a charge.

The batteries were installed by your dealer. Labels on the battery cables indicate the specifications for the batteries required to power the house and engine electrical systems. Always consult your dealer before changing the type of batteries in your boat or if you have questions regarding the batteries.

6.3 12 volt Accessory Switch Panels

General

The main accessory switch panels and the engine start switches are located at the helm. Each circuit is protected by individual "push to reset" circuit breakers located in a panel in the helm below the throttle and shift controls .

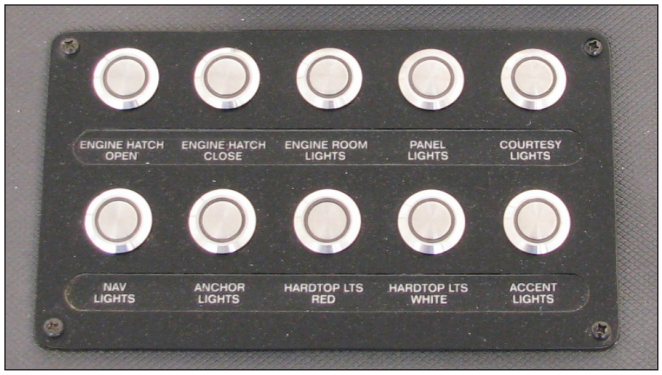
The switch panels are equipped with push button switches that are labeled for the accessories they control. An LED light built into most switches indicates that the circuit is activated.

Port & Starboard Ignition Switches

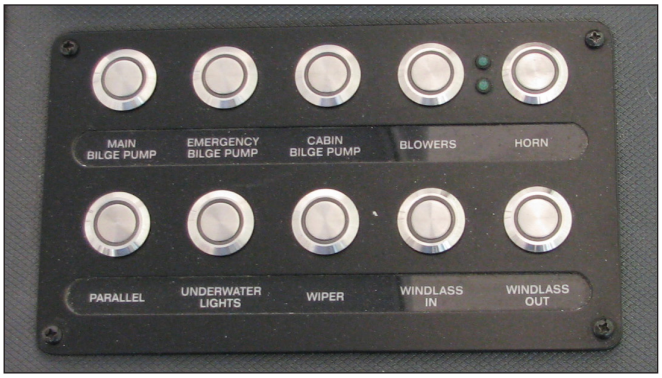
Each ignition switch is a separate, key activated switch, located in the helm near the steering wheel, which starts and stops the engine. Each switch has OFF-ON and momentary START positions. To start the engines, make sure the outdrives are down and your hand is on the engine control handles in the neutral position. Turn the port engine ignition key to the START position briefly, then release the key. The computer will automatically check all engine systems and start the engine. Once the engine stabilizes, repeat the starting procedure for the starboard engine. Stop the engines by turning the key switches to the OFF position. The ignition circuits are protected by a breaker located in the main DC breaker panel and main breakers located on the engine.

Helm Switch Activated Accessories

The following is a description of the accessories typically controlled by the helm switch panels. Some of the accessories described in this section are optional and may not be installed on your boat.



Port Helm Switch Panel



Starboard Helm Switch Panel

Engine Hatch OPEN/CLOSE Switches
Momentary switches that control the electric actuator for the engine hatch. Press and hold the OPEN switch to raise engine hatch. Press and hold the CLOSE switch to close hatch. The switches automatically return to the OFF position when released. Note that a safety interlock switch prevents the engine hatch from raising when the transom door is closed to prevent damage to the door and cockpit.

Engine Room
Press the switch once to activate the engine room lights. Press the switch again to turn the lights off.

Panel Lights
Press the switch once to activate the helm gauge and switch panel lights. Press the switch again to turn the lights off.

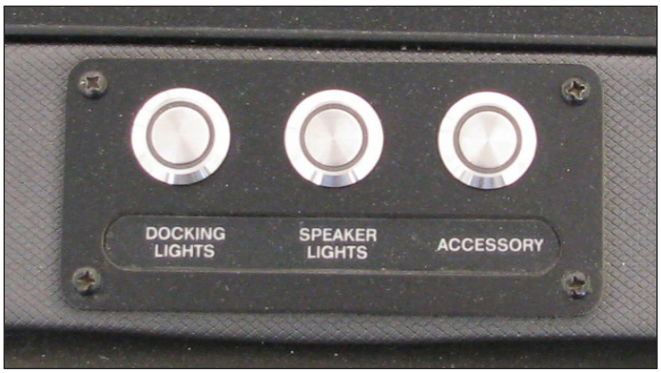
Courtesy Lights
Press the switch once to activate the lights that illuminate the cockpit area. Press the switch again to turn the lights off.

Nav Lights
Press the switch once to activate the navigation lights. Press the switch again to turn the lights off.

Anchor Lights
Press the switch once to activate the anchor lights. Press the switch again to turn the lights off.

Hardtop Lgts Red
Press the switch once to activate the red LED lights in the hardtop liner. Press the switch again to turn the lights off.

Hardtop Lgts Blue
Press the switch once to activate the blue LED lights in the hardtop liner. Press the switch again to turn the lights off.



Center Helm Switch Panel

Notice:
Red lights have less effect on night vision and should be selected if you need to illuminate the bridge deck while navigating at night.

Accent Lights
Press the switch once to activate the LED accent lights in the cockpit, engine compartment vents and swim platform. Press the switch again to turn the lights off.

Docking Lights (Optional)
Press the switch once to activate the lights in the hull on each side of the bow that illuminate the area in front of the boat for better visibility while docking at night. Press the switch again to turn the lights off.

If the docking lights option is not installed, this switch is reserved for additional 12 volt accessories.

Speaker Lights
Press the switch once to activate the blue LED speaker lights in the hardtop liner. Press the switch again to turn the lights off.

Accessory
Reserved for additional 12 volt equipment.

Main Bilge
Manually activates the aft bilge pump which is installed in the stern bilge between the engines. The pump moves water out through the thru-hull fitting in the hull. To start the pump, press the switch once. Press the switch again to turn the pump off. The pump is also activated by an automatic float switch mounted in the bilge next to the pump. This pump will run as needed whenever the water in the bilge accumulates high enough to cause the switch to activate and turn off when the water is removed.

Emergency Pump
Manually activates the aft emergency bilge pump which is installed in the stern bilge between the engines. To start the pump, press the switch once. Press the switch again to turn the pump off. The pump moves water out a thru-hull fitting in the hull. The emergency pump is also activated by the high water alarm automatic float switch located below the engine compartment step. This pump will run to assist the forward and aft bilge pumps if water in the bilge accumulates above the normal operating range of the main bilge pumps or if the main pumps fail to operate. The high water alarm will sound when this pump is automatically activated to alert the operator of unusually high water in the bilge.

Cabin Pump
Manually activates the forward bilge pump located in the forward bilge below aft berth. To start the pump, press the switch once. Press the switch again to turn the pump off. The pump moves water out a thru-hull fitting in the hull. The cabin pump is also activated by an automatic float switch that is mounted in the bilge near the pump. This pump will run as needed whenever the water in the bilge accumulates high enough to cause the switch to activate and turn off when the water is removed.

Notice:
The bilge pumps will start automatically when there is sufficient water in the bilge to activate the float switch located near each pump. The automatic float switches are protected by circuit breakers located in the battery switch panel and are always supplied current when the batteries are connected.

Blowers
Press the switch once to activate the blowers that provide ventilation to the engine compartment. Press the switch again to turn the blowers off.

WARNING

GASOLINE VAPORS CAN EXPLODE. BEFORE STARTING THE ENGINES OR GENERATOR, OPERATE THE BLOWERS FOR FOUR (4) MINUTES. OPEN THE ENGINE COMPARTMENT ACCESS HATCH, INSPECT THE FUEL SYSTEM AND CHECK THE FOR THE ODOR OF GASOLINE VAPORS. ALWAYS OPERATE THE BLOWERS WHILE THE ENGINES ARE OPERATING BELOW CRUISE SPEED OR WHENEVER THE GENERATOR IS OPERATING. UNDER NO CIRCUMSTANCES SHOULD THIS PROCEDURE BE OVERLOOKED

Horn
A momentary switch that activates the boat horn.

Parallel
A momentary switch that provides additional starting power to the engine starters. When activated, both port and starboard engine batteries are temporarily connected in parallel to provide additional battery power to start an engine with a depleted or dead battery. After 10 minutes, the parallel switch will automatically disengage and isolate the engine batteries.

Underwater Lights (Optional)
Press the switch once to activate the LED underwater lights in the stern below the water line. Press the switch again to turn the lights off.

If the underwater lights option is not installed, this switch is reserved for additional 12 volt accessories.

Wiper (Optional)
Press the switch once to activate the windshield wiper. Press the switch again to turn the wiper off.

Windlass IN/OUT Switches
Momentary switches that control the windlass which is mounted to the deck forward of the rope locker. Press and hold the IN switch to pull the anchor line in. Press and hold the OUT switch to pay the anchor line out. The switches automatically return to the OFF position when released.

Additional Accessory Switches & Panels

Additional switch panels are located in various locations in the helm, cockpit and head compartment. The following is a description of additional panels that may be on your boat and the accessories they control. Some of the accessories described in this section are optional equipment and may not be installed or available on your boat.

Helm Seat

An ON-OFF-ON momentary switch that controls the electric helm seat. Press and hold the FWD side of the switch to move the seat forward. Press and hold the AFT side of the switch to move the seat aft. The switch automatically returns to the OFF position when it is released.

Trim Tab Switch

Located in the helm. This switch controls the trim tabs located on the transom of the boat. Please refer to the Helm Control Systems chapter for detailed information on the operation of the trim tabs.

Engine Trim and Tilt Switch

Located in the helm. This switch is usually installed in the port engine control handle. It controls the trimming and tilting of the outdrives. Please refer to the Helm Control Systems chapter and the engine owner's manual for information regarding the proper use of the tilt and trim switch.

Bow Thruster (Optional)

Activates the control panel for the optional bow thruster. To activate the bow thruster, press the switch once. The LED light in the switch flashes. Press the switch again, the steady LED light in the switch indicates the bow thruster control panel is activated and the bow thruster is operational. Refer to the bow thruster owner's manual for additional instructions on the operation of the bow thruster.

Helm Stereo Control Pads

Located in the helm and bow seating area. Controls the stereo. Refer to the stereo owner's manual for details on operating the stereo control pads.

Holding Tank Macerator

The holding tank overboard discharge macerator switch panel is located in the head compartment toilet control panel. It is a momentary switch that activates the macerator discharge system for the holding tank. Refer to the Marine Head System in the Interior Equipment chapter for additional information on the operation of the overboard macerator discharge system.

Automatic Fire Extinguisher Indicator Panel

The panel is equipped with a light that indicates the status of the automatic fire extinguishing system. When the green light is lit, it indicates the system is charged and ready. If the green light is not lit, the system has discharged.

If the system discharges, the fire extinguishing agent will shut down the engine, which can be restarted once the fire extinguishing agent has dissipated from the engine compartment. Refer to the Automatic Fire Extinguishing System in the Safety Equipment chapter and the manufacturer's owner's manual for more information on the operation of the automatic fire extinguishing system.

12 volt Receptacles

Provides electrical current for portable 12 volt equipment. Your boat is equipped with more than one 12 volt accessory plug. There is typically accessory plugs in the helm panel near the accessory switches, in the storage compartment forward of the companion seat, in the cabin and next to the bow and aft lounge seats.

MP3 Connection

Provides an input for MP3 players to connect to the boat stereo system. Your boat is equipped with more than one MP3 connection plug. There is typically MP3 input connections in the helm panel near the accessory switches, in the storage compartment forward of the companion seat, in the cabin and next to the bow and aft lounge seats.

Battery Switches & Battery Switch Circuit Breaker Panel

6.4 Circuit Breaker Panels

Power is distributed to most of the 12 volt accessories through individual circuit breakers located in the DC breaker panels. There are three separate DC breaker panels, one on the battery switch panel in the engine compartment, one in the cabin DC panel and one at the helm station below the engine controls.

The following is a description of the circuit breaker panels and the accessories they control. Some accessory circuit breakers described in this section provide protection for optional equipment that may not be installed on your boat.

Battery Switch Panel Circuit Breakers - Constant Hot Breakers

The panel beneath the battery switches houses the constant hot and switched circuit breakers.

These are "push to reset" style circuit breakers that always active when the HOUSE batteries are connected. There is no need to do anything with these circuit breakers unless one of the listed functions fails to operate indicating that the circuit breaker may have tripped.

The following is a description of the accessories controlled by the constant hot breakers in the battery switch panel.

Cabin Pump
Provides protection and power for the automatic float switch on the forward bilge pump located in the bilge below the aft berth. This "push to reset" breaker is always supplied current when the batteries are connected.

Emerg Pump
Provides protection and power for the automatic float switch on the emergency bilge pump in the engine compartment bilge. This "push to reset" breaker is always supplied current when the batteries are connected.

Memory
Provides protection and continuous power for the stereo and electronics memory. This "push to reset" breaker is always supplied current when the batteries are connected.

Port Charge
Provides protection for the battery charger output wire that supplies DC charging current to the port engine battery.

Port IGN
Provides protection and power for the computer memory for the port engine. This "push to reset" breaker is always supplied current when the batteries are connected.

Bilge Pump
Provides protection and power for the automatic float switch on the aft bilge pump. This "push to reset" breaker is always supplied current when the batteries are connected.

Stbd IGN
Provides protection and power for the computer memory for the starboard engine. This "push to reset" breaker is always supplied current when the batteries are connected.

Sump Pump
Provides protection and power for the automatic float switch in the shower sump pump. This "push to reset" breaker is always supplied current when the batteries are connected.

STBD Charge
Provides protection for the battery charger output wire that supplies DC charging current to the starboard engine battery.

House/Gen Charge
Provides protection for the battery charger output wire that supplies DC charging current to the HOUSE/GENERATOR batteries.

Battery Switch Panel Circuit Breakers - Switched Breakers

The listed circuits these breakers protect are activated when the HOUSE battery switch is on, unless the breaker has been tripped by an overload. Some of these are main, heavy duty breakers with a red, "push to reset" button that requires a firm push to reset when it trips.

Notice:
If a main circuit breaker trips, always make sure the problem that caused the breaker to trip is found and corrected before resetting the breaker.

The following is a description of the accessories controlled by the switched circuit breakers in the battery switch panel.

CO Monitor
Supplies 12 volt electrical current to the carbon monoxide detectors in the cabin. This is a "push to reset" breaker that is normally on, unless tripped by an overload, when the HOUSE battery switch is activated. It should be checked, and the power indicator on the carbon monoxide detectors should be lit whenever someone is occupying the cabin. If the breaker has tripped, it indicates that there is a problem with the carbon monoxide detector, the breaker, or the wiring from the breaker panel to the detector. Always determine the cause of the problem and correct it before resetting the breaker.

Amplifier
A "push to reset" circuit breaker that provides protection and power for the stereo amplifier for the boat speaker system. This breaker is supplied current when the HOUSE battery switch is activated.

Cabin Main
The primary circuit for the cabin DC breaker panel is protected and powered by this heavy duty circuit breaker. Other circuit breakers located in the cabin DC breaker panel protect the individual DC circuits. This "push to reset" breaker is supplied current when the HOUSE battery switch is activated.

Helm Main
The primary circuit for the main DC panel near the helm is protected and powered by this heavy duty circuit breaker. Other circuit breakers located in the helm accessory circuit breaker panel protect the individual circuits. This "push to reset" breaker is supplied current when the HOUSE battery switch is activated.

Electronics
A heavy duty, "push to reset" breaker that provides protection and electrical current to the main electronics circuit for the helm. This "push to reset" breaker is supplied current when the HOUSE battery switch is activated.

Helm Accessory Breaker Panel

The helm accessory circuit breaker is located in the cockpit near helm. The listed circuits these breakers protect are activated when the HOUSE battery switch is on, unless the breaker has been tripped by an overload. The following is a description of the accessories supplied power and protected by the "push to reset" breakers in this panel.

Engine Hatch
Protects the up and down circuits for the engine hatch actuator.

Engine RM LTS
Protects the circuit for the lights in the engine room.

Helm Circuit Breaker Panel

Cockpit LTS
Protects the circuit for the lights that illuminate the cockpit sole.

Panel LTS
Protects the circuit for the lights that illuminate the helm switch panel and compass.

Hardtop LTS
Protects the circuit for the lights in the hardtop that illuminate the cockpit.

Underwater LTS (Optional)
Protects the circuit for the underwater lights that illuminate the water around the boat. If a underwater lights are not installed, this breaker is reserved for additional 12 volt equipment.

Helm Seats
Protects the circuit for the switches that control the forward and aft movement of the helm seat.

Horn
Protects the circuit for the horn.

Wipers
Protects the circuit for windshield wipers.

Windlass
Protects the up/down switch circuit for the windless to raise or lower the anchor.

Windshield Door
Reserved for additional 12 volt equipment.

VHF
Provides protection and electrical current to the circuit for the VHF radio at the helm.

Chart PLTR
Protects the circuit for the chart plotter.

Seatalk
Protects the circuit that powers the electronics network.

Nav/Anc LTS
Protects the circuit for the navigation and anchor lights.

Wine Racks
Reserved for additional 12 volt equipment.

12V #1
Provides protection and electrical current directly to the 12 volt accessory plug at the helm.

Cabin DC Circuit Breaker Panel

12V #2
Provides protection and electrical current directly to the 12 volt accessory plug in the compartment forward of the passenger seat.

Spotlight (Optional)
Provides protection and electrical current to the that controls the optional spot light. If a spotlight is not installed, this breaker is reserved for additional optional equipment.

Trim Tabs
Provides protection and electrical current to the switches that control the trim tabs.

Acc 1
Reserved for additional 12 volt equipment.

Acc 2
Reserved for additional 12 volt equipment.

Acc 3
Reserved for additional 12 volt equipment.

Cabin DC Breaker Panel

The cabin DC breaker panel is located on the forward side of the cabin bulkhead. The following is a description of the accessories controlled by the circuit breakers in the cabin DC breaker panel:

DC Volt Meter
Indicates the voltage available to the panel from the house batteries.

Water Tank Level Gauge
Indicates the water level in the fresh water tank whenever the house battery bank is activated.

DC Main
Supplies the 12 volt current to the DC accessory breakers and protects the panel from an overload.

Cabin Lighting
Provides protection and 12 volt electrical current to the cabin light switches.

Stereo
Provides protection and 12 volt electrical current to the stereo located in the main cabin.

Water Pump
Provides protection and 12 volt electrical current directly to the fresh water pump pressure switch located on the pump. The pressure switch automatically controls the water pump when the system is activated and properly primed. It is protected by the circuit breaker in the panel and an automatically resetting breaker on the pump motor.

TV/DVD
Provides protection and 12 volt electrical current to the TV's and DVD players.

Head System
Provides protection and 12 volt electrical current to the toilet control switches for the electric head system.

Macerator
Provides protection and 12 volt electrical current to the holding tank monitor and the macerator pump.

Cabin Refrig
Provides protection and 12 volt electrical current directly to the refrigerator in the galley when AC current is not being used.

Cockpit Refrig
Provides protection and 12 volt electrical current directly to the optional cockpit refrigerator when AC current is not being used.

12 ACC
Provides protection and power for the cabin 12 volt accessory plug. This "push to reset" breaker is always supplied current when the DC main breaker is activated.

Head Fan
Provides protection and power for the head compartment ventilation fan. This "push to reset" breaker is always supplied current when the DC main breaker is activated.

Generator Operation Panel (Optional)
Located in the DC panel in the cabin. There are two switches. One switch activates the blowers and one switch controls the starting, running, and stopping of the optional generator.

Windlass Main Circuit Breaker

Two "push to reset" breakers next to the blower switch protect the blower circuits.

Battery Switch Panel
The motorized battery switches in the engine compartment are controlled remotely by the switches in this panel. Press the top of each switch to engage the battery switch. A red light in the switch will illuminate to indicate that the battery switch is "ON." To turn the battery switch off, simply press the bottom of the momentary switch. The red light may not turn off immediately or will slowly fade out if there are no loads present on the system. This is normal as the capacitors in the system drain.

Other Main Circuit Breakers

Windlass Circuit Breaker
A heavy duty circuit breaker located next to the battery switch panel that provides protection and power for windlass relay. This breaker is supplied current when the HOUSE battery switch is activated. If the circuit breaker is tripped by an overload, a yellow lever will be exposed near the center of the breaker. Reset the breaker by rotating the lever until it locks in the vertical position.

Engine Main Breakers

The primary circuits for the engines are protected by heavy duty, "push to reset" breakers on each engine. They are supplied power whenever the engine battery switches are on. Refer to the engine owner's manual for information on the location and operation of the engine circuit breakers.

6.5 Fuse Panels

Your boat could be equipped with additional DC fuse panels, depending on the options selected. The fuses are labeled for the accessory circuit they protect. Some fuse panels contain blank fuse holders that are reserved for additional accessories not usually installed by the factory.

If a fuse blows, it must be replaced with a fuse of the same amperage as the original. The fuses are labeled and color coded. The amperage rating is also clearly printed on the fuse housing. Never try to correct a problem with a 12 volt accessory by installing a larger fuse. This could cause the accessory or circuit with a problem to overheat, which could result in an electrical fire.

A fuse panel is typically installed on the optional generator near the controls to protect the DC circuits. Other fuse panels could be installed in the starboard cabin storage compartment below the helm to protect the circuits for optional electronics such as radar and an auto pilot or other optional equipment.

Typical Generator DC Circuit Fuse Panel

Optional Electronics Fuse Panel In Cabin Storage Compartment Below The Helm

Typical Fuse Panel For Optional Electronics

Shore Inlet Connections

6.6 120/220 Volt AC System

Your boat is equipped with one or two 30 amp shore power cords and inlets located below a hatch on the port side transom, just forward of the swim platform. If your boat is equipped with optional air conditioning, it will be equipped with two shore power cords. If the boat is not equipped with air conditioning, it will be equipped with one shore power cord.

Notice

Some boats sold internationally (all countries other than the United States and Canada) are equipped with 16 amp, 220 volt shore power cords and inlet plugs.

There is a main circuit breaker for each power cord circuit located in the panel near the shore power inlet connectors and a main breaker for each circuit in the AC breaker panel located in the cabin. The AC system can be fed by either the shore power inlets or by the optional generator. It is wired totally separate from the 12 volt DC system and is equipped with an on board isolation system. If an optional generator is installed, the main breakers in the AC panel are used to select the source of power desired.

Each main circuit breaker that protects the circuits from the shore inlet connections to the cabin AC panel is also equipped with an Equipment Leakage Circuit Interrupter (ELCI). The Equipment Leakage Circuit Interrupters provide whole-boat ground fault protection (electrical shock protection from stray current) for the entire AC shore power system. Another main circuit breaker for each shore circuit and breakers for each accessory branch circuit are located in the cabin AC panel.

The AC system can be fed by either the shore power inlets or by an optional generator. If your boat is equipped with a generator, main breakers in the AC panel are used to select the source of power desired, Shore 1 and Shore 2 or Generator. The AC main breakers must be switched to the OFF position before selecting a different power source.

All AC current is distributed to the AC accessories through individual circuit breakers located in the cabin AC panel. The main breakers protect the system from an overload and reverse polarity lights indicate any problems due to an improper shore power supply. All AC outlets in the cabin and cockpit are protected by ground fault interrupts to protect against electrical shock.

While moored dockside, 120/220 volt AC power should be utilized from dockside power, if available. A single or dual cord set is provided to supply power from the shore power outlets to the boat 120/220 volt AC system, depending on the options selected.

DANGER

TO REDUCE THE RISK OF ELECTRICAL SHOCK IN WET WEATHER, AVOID MAKING CONTACT WITH THE SHORE CABLES OR MAKING A CONNECTION TO A LIVE SHORE OUTLET. NEVER SPRAY WATER ON ELECTRICAL CABLES WHILE WASHING DOWN DECKS.

DANGER

TO REDUCE THE POSSIBILITY OF AN ELECTRICAL SHOCK, IT IS IMPORTANT THAT THE AC GROUND SYSTEM IS FUNCTIONING PROPERLY AND THAT A PROPER CONNECTION EXISTS BETWEEN THE SHORE POWER CORDS, THE SHORE POWER INLETS, THE BOAT BONDING SYSTEM AND THE OUTLET GROUND CIRCUITS. IF THERE IS ANY DOUBT ABOUT THE INTEGRITY OF THE GROUND CIRCUIT, A QUALIFIED MARINE ELECTRICIAN SHOULD BE CONTACTED IMMEDIATELY AND THE AC POWER SHOULD BE DISCONNECTED UNTIL THE NECESSARY REPAIRS ARE COMPLETED.

Recommended procedure for making a shore connection:

Turn the AC Shore Main breakers and all accessory circuit breakers in the cabin AC panel to the OFF position. If the dockside outlets include a disconnect breakers, turn them to the OFF position also.

To avoid strain on the cables make sure they have more slack than the mooring lines. Dress the cables so they cannot be damaged by chafing between the boat and the dock. Make sure the cables don't come in contact with the water and connect the cables to the boat inlet plugs and then to the dockside outlets, making sure the connection plugs include a three-prong plug with a ground wire. Tighten the lock rings on both the shore and the boat connector plugs.

Turn the dockside disconnect circuit breakers to the ON position. Then turn the main circuit breaker for each boat inlet plug ON and check for proper polarity. If reversed polarity has been achieved, the red reversed polarity indicators in the cabin AC panel will light. If this should happen, make sure the Shore Main breakers on the cabin AC panel and the AC inlet panel are in the

ELCI Inlet Circuit Breakers

OFF position. Then turn the dock power breakers OFF. If the red reversed polarity lights ***do not*** illuminate when power is supplied to the panel, the polarity is correct and the AC main breakers can be moved to the ON position.

If one or both main ELCI inlet breakers trip and open the main circuit, there is an overload or ground fault condition. Some faults are self-clearing. Try resetting the ELCI circuit breakers once. If neither breaker trips again the fault has cleared and normal activation can continue.

If a reversed polarity light is lit or the ELCI inlet breaker continues to trip after being reset there is a problem with the AC electrical system and it is unsafe to use. Make sure the main inlet breakers and Shore main breakers on the panel are in the OFF position and turn the dock power breakers OFF. Disconnect the shore power supply cords from the boat and notify a qualified marine electrician to check the wiring and correct the problem.

DANGER

REVERSED POLARITY AND GROUND FAULT CONDITIONS WILL DAMAGE THE SYSTEM AND EXPOSE PASSENGERS TO ELECTROCUTION HAZARDS THAT WILL CAUSE SEVERE INJURY OR DEATH. THIS CONDITION COULD ALSO CAUSE A FIRE IN THE ELECTRICAL SYSTEM. NEVER OPERATE THE AC ELECTRICAL SYSTEM WITH REVERSED POLARITY OR A GROUND FAULT CONDITION.

WARNING

ELECTRIC SHOCK CAN CAUSE SEVERE INJURY OR EVEN DEATH. DO NOT ATTEMPT TO CORRECT THE WIRING YOURSELF. ALWAYS HAVE A QUALIFIED ELECTRICIAN CHECK WIRING.

KEEP CHILDREN AWAY FROM ANY ELECTRICAL CABLES OR EQUIPMENT AND ALWAYS USE GROUNDED APPLIANCES ON BOARD YOUR BOAT.

WARNING

UNDETECTED FAULTS IN THE AC ELECTRICAL SYSTEM COULD CAUSE THE WATER AROUND THE BOAT TO BECOME ENERGIZED. THIS COULD CAUSE A SEVERE SHOCK OR EVEN DEATH TO SOMEONE IN THE WATER NEAR THE BOAT. NEVER SWIM OR ALLOW SWIMMING AROUND THE BOAT WHEN THE AC SYSTEM IS ACTIVATED BY THE SHORE POWER CONNECTION OR THE GENERATOR.

Disconnecting procedure for shore power connection:
Turn the inlet main breakers and the Shore main breakers on the AC panel to the OFF position. Turn the disconnect breakers on the dockside outlets to OFF.

Disconnect the cables from the dockside outlets and replace the outlet caps. Disconnect the cables from the boat and close the outlet caps. Store cables.

Equipment Leakage Circuit Interrupter/ Circuit Breakers

The ELCI built into each shore power inlet circuit breaker provides whole-boat ground fault protection (electrical shock protection from stray current) for the entire AC shore power system. Each ELCI circuit breaker is equipped with a TEST button in the panel next to the breaker and a rocker style lever for turning the circuit breaker ON or OFF and resetting the breaker if it is tripped.

ELCI breakers trip and open the main circuit when there is an overload or ground fault condition. Some faults are self clearing. If a breaker trips, try resetting it once. If the breaker doesn't trip again, the fault has cleared and normal activation can continue.

If the ELCI breaker trips again make sure all AC accessory circuit breakers supplied by this breaker (Shore 1 or Shore 2) on the cabin AC panel are OFF and try resetting the breaker. If it does not trip, the problem is an overload or fault in an accessory circuit. Do not activate the AC electrical system. Turn the main ELCI inlet breakers and Shore main breakers on the cabin panel OFF. Then turn the dock outlet breakers OFF and disconnect the shore power cords from the boat. Notify a qualified marine electrician to check the wiring and correct the problem.

It is important that the ELCI circuit breakers are working properly to provide protection against electric shock. Each breaker should be tested at least once each month to ensure proper operation by pressing the TEST buttons next to the breakers in the faceplate. If the ELCI breaker is functioning properly, it will trip when the test button is pressed. If the breaker does not trip when the test button is pressed, the breaker is defective and must be replaced by a qualified marine electrician. Refer to the ELCI circuit breaker instructions for additional information and testing procedures.

120/220 Volt AC Circuit Breaker Panel

The AC panel is located in the cabin on the forward bulkhead. The operation of the panel and the main circuit breakers installed will vary depending on the options installed. Boats with optional air conditioning are equipped with two shore power cords, inlet connections and Shore main circuit breakers. Boats not equipped with air conditioning are equipped with one shore power cord, inlet connection and Shore main circuit breaker.

The following is a description of the operation of the most common AC panel configurations, components and the circuit breakers that protect the accessories:

AC Volt Meters

Indicates the voltage supplied to the panel for each shore circuit. The voltage should be checked each time the AC system is activated. The AC system and accessories can be damaged by voltage that is below 105 volts or above 125 volts. You should monitor the voltage and never operate your AC electrical system if the voltage is below or above this range.

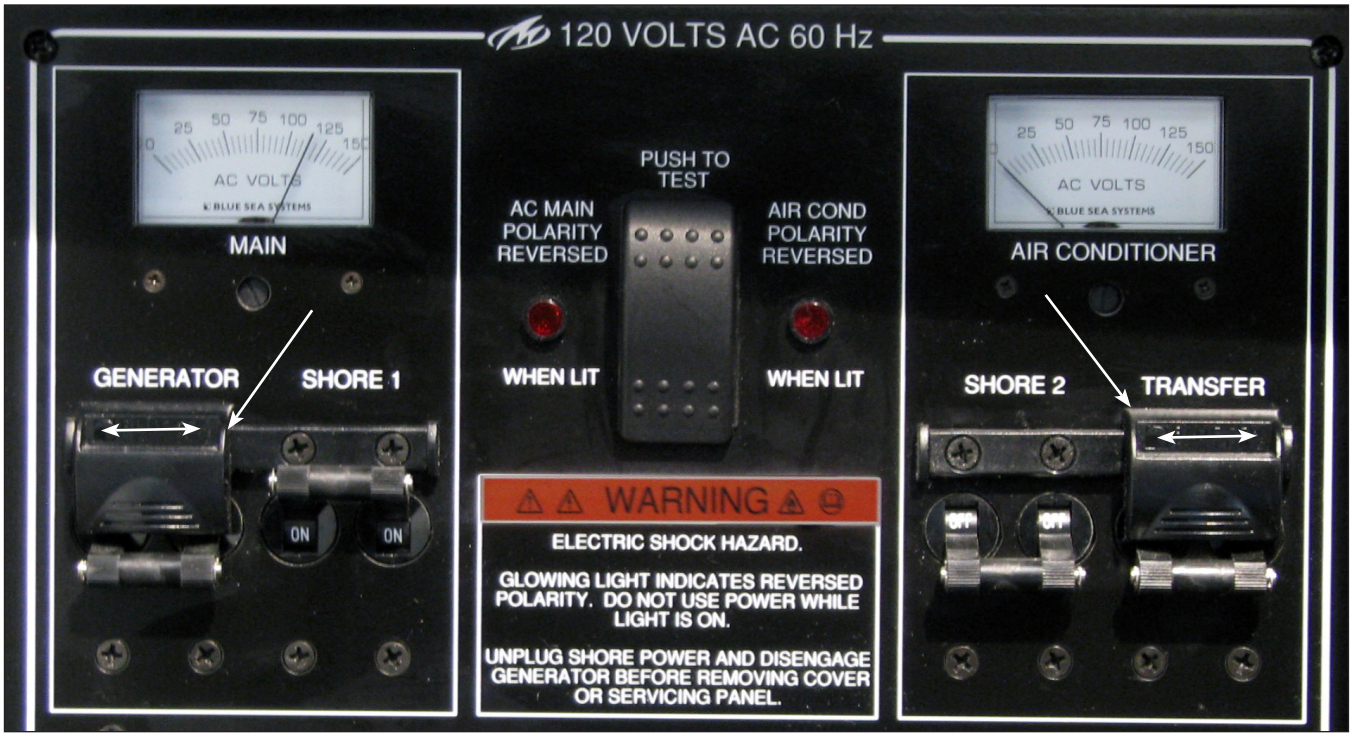
Shore Main and Generator Main Breakers (No Optional Air Conditioning)
These circuit breakers select the power source and protect the general distribution network. There is a main breaker for the shore circuit and the generator, if this option is installed. If your boat is not equipped with a generator, there will only be a Shore main breaker. If your boat is

120/220 Volt AC Circuit Breaker Panel

equipped with a generator, there will be a Shore and a Generator main breaker with a sliding safety cover to prevent activating the breakers for the generator and shore circuits simultaneously. The main breakers must be in the OFF position before the sliding cover can be moved.

These breakers are very sensitive. The resulting power surge that occurs when connecting the dockside cord may cause the main breaker to trip. To avoid this surge, always turn the Shore main breaker to the OFF position before plugging or unplugging the shore power cord and the Generator main breaker to the OFF position when starting the generator.

Care must be taken when operating the AC system from the generator or the shore power supply line. On some boats it may be possible to overload the generator or shore power circuit if too many AC accessory breakers are activated. Too much amperage being supplied through the panel will cause the Shore main or Generator main breaker to trip and could damage the system. This is particularly important when operating the water heater. You should always be aware of the electrical load needed to activate accessories and manage the amperage being supplied so the load can be kept within safe limits. If you have any questions about managing the power in your boat, contact your Monterey dealer.



120/220 Volt AC Main Breaker Sliding Covers

Shore 1, Shore 2 and Generator Main Breakers (Boats Equipped With Optional Air Conditioning)
If your boat is equipped with optional air conditioning, the AC system will include two power cords and inlet connectors. One cord supplies Shore main breaker 1 and the other cord supplies Shore main breaker 2. These breakers select the power source and protect the general distribution network. If your boat is not equipped with an optional generator, there will only be a Shore main breaker for each main circuit and a Transfer main breaker. If your boat is equipped with a generator, there will be a Shore and Generator breaker for the Shore 1 circuit and a Shore and Transfer breaker for Shore circuit 2. A sliding safety cover on the main breakers prevents activating the generator and shore circuits or the Shore 2 and Transfer circuits simultaneously. These breakers are very sensitive. The resulting power surge that occurs when connecting the dockside cords may cause the main breakers to trip. To avoid this surge, always turn the Shore Power main breakers to the OFF position before plugging or unplugging the shore power cords and the Generator breaker to the OFF position when starting the generator.

If your boat is equipped with the optional generator, the main breakers are used to select either shore power or the generator to supply 120/220 volt power to the AC breaker panel. When connected to dockside power, move each sliding cover to the shore power position and activate the Shore 1 and Shore 2 main breakers. When using the generator, move the Shore 1 sliding cover to the generator position and activate the Generator main breaker. Move the Shore 2 sliding cover to the transfer position and activate the Transfer main breaker to connect 120/220 volt power from the generator to the Shore 2 circuits. The main breakers must be in the OFF position before the sliding covers can be moved to the Generator, Transfer or Shore power positions.

Transfer Main Breaker
The transfer circuit breaker is located next to the Shore 2 main breaker. It is used to connect the Shore 1 circuit and the Shore 2 circuits together to energize the entire 120/220 volt distribution network when only one 30 amp dockside outlet is available or while operating the generator.

Notice:
When only one 30 amp dockside outlet is available, always connect the shore power cord to the Shore 1 inlet connection. Then use the Transfer main breaker to energize Shore 2. If the shore power cord is connected to Shore 2, the sliding cover will prevent the Transfer breaker from being activated to energize the Shore 1 circuits.

Care must be taken when operating the AC system from the generator or only one 30 amp shore power supply line. On some boats it may be possible to overload the generator or shore power circuit if too many AC accessory breakers are activated. You should be aware of the load each accessory draws and make sure you don't overload the circuit. Overloading the circuit can damage accessories and cause Shore main or Generator breaker to trip. This is particularly important when operating the water heater or optional air conditioner units. You should always be aware of the electrical load needed to activate accessories and manage the amperage being supplied so the load can be kept within safe limits.

The table at the end of this section will assist you in documenting the load AC accessories on your boat require and managing the electrical load on the circuit. If you have any questions about managing the power in your boat, contact your Monterey dealer.

Reversed Polarity Lights
The red lights indicate reverse polarity current supplied to the panel for each circuit. This situation will cause the red light to remain lit. If reverse polarity is achieved, immediately turn off all cabin AC breakers and dockside outlet breakers. Disconnect the power cable from the dockside outlet and notify a qualified marine electrician to check the dockside wiring.

Reverse Polarity Light Test Switch
There is a momentary switch located next to the reverse polarity lights in the AC breaker panel. This switch is used to test the reverse polarity lights to ensure they are functioning. The lights can be tested by depressing the switch whenever the AC system is activated. The reverse polarity lights should be tested each time the AC system is activated. If the light does not activate when the switch is pressed, disconnect the shore power cable and notify a qualified electrician to check the light and the dockside wiring if necessary.

AC Accessory Circuit Breakers
Stove
Supplies 120/220 volt AC electrical current to the stove in the galley.

Outlets
Supplies 120/220 volt AC electrical current to the ground fault interrupter (GFI) electrical outlets.

Notice:
All AC electrical outlets are provided with ground fault interrupts to protect against electric shock. These outlets should be tested periodically to ensure proper operation by pressing the test/reset buttons in the center of faceplate. GFI outlets do not protect against short circuits and overloads. This is done by the outlet breakers on the AC panel.

WARNING

GFI OUTLETS DO NOT PROVIDE 100% PROTECTION FROM ELECTRIC SHOCK. EVEN THOUGH GROUND FAULT INTERRUPTERS PROVIDE PROTECTION BY REDUCING EXPOSURE TIME FROM LINE TO GROUND SHOCK HAZARDS, IT IS STILL POSSIBLE TO RECEIVE AN ELECTRIC SHOCK FROM DEFECTIVE APPLIANCES OR POWER TOOLS AND MISUSED ELECTRICAL EQUIPMENT.

Water Heater
Supplies electrical current directly to the hot water heater circuit. A thermostat in the water heater control panel automatically controls the water temperature. Before operation, you must have water in the water heater. (See the water heater manual for details)

Battery Charger
Supplies electrical current directly to the automatic battery charger. The battery charger recharges and maintains the 12 volt batteries simultaneously when activated. It is fully automatic. See the battery charger manual for more information.

The charge to the engine batteries can be monitored by using the volt meters in the engine gauge cluster. To monitor the engine batteries, activate the charger and turn the engine battery switches on. Turn the ignition key switch for each engine to the ON position ***(DO NOT START THE ENGINES)*** and read the voltage on the volt meter for each engine. To monitor the house batteries, activate the charger and turn the HOUSE battery switch on. Read the volt meter in the cabin DC

breaker panel. If the batteries are in good condition and charging properly, the volt meters will indicate between 12 and 14.5 volts. If the reading is below 12 volts, then the battery is not accepting a charge or the charger is not working properly. Always turn the ignition switches off immediately after the monitoring is complete. Refer to the battery charger manual for more information.

The wires that supply DC charging current to the batteries are protected by an internal fuse in the battery charger and 3 external breakers, one for each battery output wire, located in the battery switch breaker panel in the engine compartment. The external breakers protect the DC charging circuit from the batteries to the charger. The internal fuses in the charger protect the DC charging circuit from the charger to the batteries.

Battery Charger

Cockpit AC
Supplies electrical current to the optional cockpit air conditioner and control panel. It also activates the air conditioner raw water pump.

If the optional cockpit air conditioner is not installed, this breaker is reserved for additional 120/220 volt AC accessories.

Accessory
Reserved for additional AC equipment.

Microwave
Supplies 120/220 volt AC electrical current to the cabin ground fault interrupter (GFI) electrical outlet that activates the Microwave.

Cabin Refrig
Supplies 120/220 volt electrical current directly to the galley refrigerator when AC power is available and chosen over the 12 volt power supply. See the refrigerator manual for more information.

Cockpit Refrigerator/Ice Maker
Supplies 120/220 volt electrical current directly to the cockpit refrigerator when AC power is available and chosen over the 12 volt power supply. See the refrigerator manual for more information.

This breaker will also supply 120/220 volt electrical current directly to the ice maker when this option is selected instead of the refrigerator. The ice maker only operates on the 120 or 220 volt electrical power.

Vacuum
Supplies electrical current directly to the central vacuum system.

Shore 2 AC Accessory Circuit Breakers

Cockpit AC STBD
Supplies electrical current to the starboard side cockpit air conditioner and control panel located near the helm seat. It also activates the air conditioner raw water pump.

Additional AC Switch Panels and Breakers

Shore Power Inlet Breakers/ELCI
Located in the port transom storage compartment near the shore power inlet plugs. These breakers protect the AC system between the shore power inlet plug and the main AC panel. They also provide whole-boat ground fault protection (electrical shock protection from stray current) for the entire AC shore power system.

Typical Generator Control Panel

Generator Remote Control Panel in Cabin

6.7 Generator

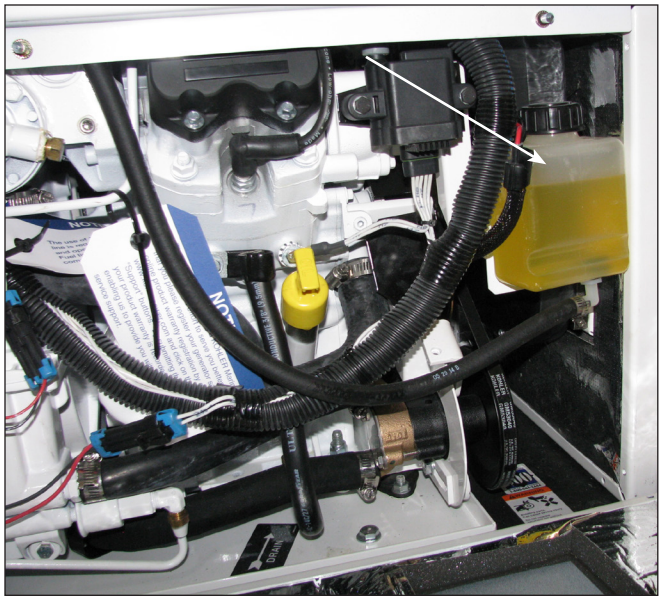
The generator is optional equipment. It is activated by the house batteries and is located in the engine compartment. The generator oil and coolant should be checked whenever you check the oil and coolant in the main engines.

There are two switches in the cabin DC panel that activate the generator. One switch activates the blowers and one switch controls the starting, running, and stopping of the generator. The generator can also be operated from a control panel on the generator. The circuit breakers that protect the generator AC and DC circuits are also on or near this panel. An owner operator's manual for the generator has been supplied with this manual. Please refer to it for details on the generator operation.

WARNING

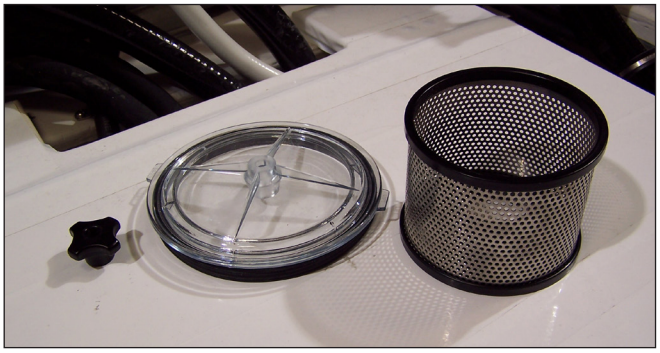
ALWAYS CHECK THE ENGINE COMPARTMENT FOR GASOLINE FUMES AND RUN THE EXHAUST BLOWER FOR AT LEAST 4 MINUTES BEFORE STARTING THE GENERATOR. OPERATE THE BLOWERS WHILE THE GENERATOR IS OPERATING TO ENSURE ADEQUATE VENTILATION AND COOLING OF THE ENGINE COMPARTMENT.

The generator engine uses a closed cooling system with a seawater cooled heat exchanger. There is an expansion tank for the engine coolant mounted near the generator. Make sure the fluid level in the expansion tank is kept between the maximum and minimum lines of the tank.



Typical Generator Coolant Expansion Tank

Generator Sea Strainer & Seacock



Sea Strainer Screen

Sea Strainer Housing

The seawater cooling system operates exactly like the cooling system on the main engines. It includes an inlet sea strainer that prevents debris in the seawater from entering the cooling pump. The strainer is located near the generator. It is important to check and clean the strainer regularly to ensure the seawater system can circulate enough water to provide cooling for the closed cooling and exhaust systems on the generator. You should also check the exhaust port for water flow each time the generator is started. If there is no discharge within thirty seconds, shut down the generator and find and correct the problem.

Notice:
Generators consume DC electrical current and charge the house/generator battery just enough to compensate for the DC electrical current the engine requires to operate. Therefore, it is important to activate the battery charger to maintain the house and engine batteries whenever the generator is running.

Notice:
The generator may not be able to operate all 120/220 volt accessories at the same time. POWER MANAGEMENT PRACTICES may need to be observed depending on the AC power load and the generator option selected.

Cleaning the Sea Strainers

- Turn off the engines and generator.
- Close the generator water intake valve.
- Open the top of the strainer and remove the screen.
- Thoroughly flush the screen and the inside of the strainer to remove foreign matter.
- Lubricate the seal.
- Reassemble the strainer making sure that all fasteners are tight.
- Open the intake valve.

- Start the generator and inspect the strainer for leaks.

The generator fuel system is equipped with a water separating fuel filter and operates much like the fuel system for the main engines. Refer to the Fuel System chapter for more information on generator fuel system.

You also should read the generator owner's manual for detailed information on the safe operation and maintenance of the generator.

DANGER

GENERATOR ENGINES PRODUCE CARBON MONOXIDE WHICH IS A LETHAL, TOXIC GAS THAT IS COLORLESS AND ODORLESS. IT IS A DANGEROUS GAS THAT WILL CAUSE DEATH IN CERTAIN LEVELS. ONLY OPERATE THE GENERATOR IN WELL VENTILATED AREAS AND NEVER OPERATE THE GENERATOR WHILE YOU ARE SLEEPING.

6.8 Bonding System

Your boat is equipped with a bonding system that interconnects all underwater metal hardware and thru-hull fittings to ensure that they are of the same electrical potential. Anodes are attached to the bonding system at the transom trim tab planes and outdrives. The anodes deteriorate before the other metals, thereby protecting the underwater metals from galvanic corrosion or stray electrical current. Since the anodes are sacrificial, it is important to monitor them and replace the anodes when they have deteriorated to 50 - 75% of their original size. The bonding system is connected to the DC ground and the earth ground wire for the AC electrical system. It provides a path to the safety earth ground in the event of a fault in the shore earth ground connection and when the boat is away from the dock.

6.9 Electrical System Maintenance

12 Volt DC Electrical System Maintenance

At least once a year, spray all exposed electrical components behind the helm and in the plugs, with a protector. Exterior light fixture bulbs should be removed and the metal contact areas coated with a non-water soluble lubricant like Teflon or silicone grease. The sockets should be sprayed with a protector. Care must be taken not to get any oil or grease on the glass portion of the bulbs as this will cause the bulb to overheat and burn out.

WARNING

WHEN REPLACING LIGHT BULBS IN MARINE LIGHT FIXTURES, ALWAYS USE A BULB WITH THE SAME RATING AS THE ORIGINAL. USING A DIFFERENT BULB COULD CAUSE THE FIXTURE TO OVERHEAT AND MELT OR SHORT CIRCUIT.

Notice:
LED lights are sealed and cannot be serviced.

Inspect all wiring for proper support, sound insulation, and tight terminals, paying particular attention to portable appliance cords and plugs.

Check all below deck wiring to be sure it is properly supported, that the insulation is sound, and that there are no loose or corroded terminals. Corroded terminals should be thoroughly cleaned with sandpaper or replaced, tightened securely and sprayed with a metal and electrical protector. Inspect all engine wiring.

Check the electrolyte level in the batteries regularly and add distilled water as necessary. If the batteries are frequently charged by the automatic battery charger, the electrolyte level will have to be checked more often. The correct fluid level in the cells is usually approximately 1/4 to 1/2 inch above the plates. If fluid is needed, fill to the proper level with distilled water. **Do not over fill!**

Notice:
Some batteries are sealed and do not require or allow the inspection of the electrolyte.

Keep the battery tops clean and dry. Dirt and water can conduct electricity from one post to the other causing the battery to discharge.

The battery posts should be kept free of corrosion. Remove the cables and clean the posts and cable clamps with a battery post cleaner or sandpaper as required. Coating the battery posts and cable clamps with Teflon or silicone grease will protect them and reduce corrosion.

Battery cables, both hot and ground, must be replaced when they show signs of corrosion or fraying. Deteriorated cables cause a considerable voltage loss when high currents are drawn, such as starting the engine.

DANGER

A BATTERY CAN EXPLODE IF A FLAME OR SPARK IGNITES THE HYDROGEN GAS THE BATTERY EMITS WHILE BEING CHARGED. NEVER USE AN OPEN FLAME IN THE BATTERY STORAGE AREA. AVOID STRIKING SPARKS NEAR THE BATTERY.

AC Electrical System Maintenance

Periodically inspect all wiring for nicks, chafing, brittleness, improper support, etc. Examine each shore power cord closely for cracks in the insulation and corrosion in electrical connectors. Spraying receptacles and electrical connections with an electrical contact cleaner or a metal and electrical protector will reduce corrosion and improve electrical continuity.

Inspect all wiring for proper support, sound insulation, and tight terminals, paying particular attention to portable appliance cords and plugs.

The entire AC circuitry, especially the shore power cords, should be seasonally tested for proper continuity by an experienced electrician. This will detect any shorts, open wires, or ground faults. Ground fault interrupts should be tested periodically to ensure proper operation by pressing the test/reset buttons in the center of outlet face plates and the test button next to the ELCI main inlet circuit breakers . The polarity indicator system also should be inspected for proper operation.

Generator Maintenance

The engine maintenance required on the generator is similar in many ways to the main engines. The most important factors to the generator's longevity are proper ventilation and maintenance of the fuel system, ignition system, cooling system, lubrication system and the AC alternator.

Maintenance schedules and procedures are outlined in your generator owner's manual. They should be followed exactly.

WARNING

CORROSION ALLOWED TO BUILD ON THE ELECTRICAL CONNECTORS CAN CAUSE A POOR CONNECTION RESULTING IN SHORTS, GROUND FAULTS OR POOR GROUND CONNECTIONS. ELECTRICAL CONNECTORS SHOULD BE CHECKED AT LEAST ANNUALLY AND CLEANED AS REQUIRED. DO NOT ALLOW CORROSION TO BUILD ON CONNECTIONS.

WARNING

ELECTRIC SHOCK CAN CAUSE SEVERE INJURY OR EVEN DEATH. THE AC AND DC ELECTRICAL SYSTEMS ALWAYS SHOULD BE DISCONNECTED FROM THE POWER SOURCE BEFORE INSPECTING OR SERVICING THE SYSTEM. NEVER SERVICE ANY COMPONENT OF AN ELECTRICAL SYSTEM WHILE IT IS ENERGIZED.

6.10 AC Line Load Estimator

Depending on the AC power load your boat requires and the power available from the shore supply or the generator, you may not be able to operate all 120/220 volt AC accessories at one time. POWER MANAGEMENT PRACTICES may need to be observed particularly when only one 30 amp shore supply outlet is available or when supplying power from the optional generator. You should be aware of the load each accessory draws and make sure you don't overload the circuit.

The table in this section will assist you in documenting the load AC accessories on your boat require and managing the electrical load on each circuit. An owner's manual for each AC accessory installed on your boat at the factory has been included with your boat. Additionally, you should make sure you have the manuals for accessories installed by your dealer or that you bring aboard. The specification section of the owner's manual will provide the wattage or amperage the accessory requires. Enter the load requirements in the table provided and use the information as a quick reference tool to calculate the electrical load. If only watts are given in the specifications, divide the watts by the voltage to determine the amps.

Appliances	Start-up Watts/Amps	Running Watts/Amps	Line 1 Amps	Line 2 Amps
Air Conditioner – 1				
Air Conditioner – 2				
Air Conditioner - 3				
Battery Charger				
Blender				
Coffee Maker				
Crock Pot				
Cockpit Grill				
Computer				
Curling Iron				
Electric Blanket				
Freezer Plate				
Fan				
Fry Pan				
Hair Dryer				
Ice Maker				
Iron				
Microwave				
Refrigerator - Cabin				
Refrigerator - Cockpit				
Space Heater				
Stereo				
Television				
Toaster				
Stove – Per Element				
DVD/CD				
Water Heater				
		Line Totals		

NOTES

FRESH WATER SYSTEM

7.1 General

The fresh water system consists of a potable water tank, distribution lines and a distribution pump. The pump is equipped with an automatic pressure switch and is located on the water heater in the engine compartment. The water tank is located in the bilge below the cockpit. The tank is filled through a labeled deck plate located near the transom door. Shutoff valves in the cold and hot water lines in the engine compartment enable the operator to turn off the water lines if necessary.

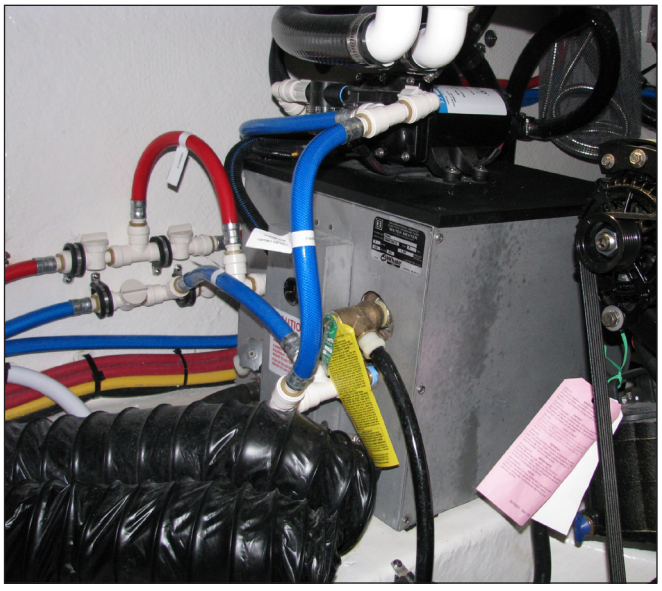
Fresh Water Fill

WARNING

DO NOT FILL SYSTEM WITH ANYTHING OTHER THAN WATER. SHOULD THE SYSTEM BECOME CONTAMINATED WITH FUEL OR OTHER TOXIC FLUIDS, COMPONENT REPLACEMENT MAY BE NECESSARY.

WARNING

WATER AND WASTE PUMPS ARE NOT DESIGNED TO PUMP FUEL AND A FIRE OR EXPLOSION COULD RESULT. DO NOT CONFUSE FUEL FILL DECK PLATES WITH THE WATER OR WASTE FILL DECK PLATES. THESE PLATES ALSO ARE LABELED ACCORDINGLY. IF GASOLINE OR DIESEL FUEL IS ACCIDENTALLY PUMPED INTO THE WATER OR WASTE TANK, DO NOT ATTEMPT TO PUMP IT OUT YOURSELF. CONTACT YOUR DEALER OR THE MONTEREY BOATS CUSTOMER SERVICE DEPARTMENT FOR ASSISTANCE IN HAVING THE FUEL PROFESSIONALLY REMOVED AND COMPONENTS OF THE FRESH WATER SYSTEM REPLACED AS NECESSARY.


Water Heater, Fresh Water Pump & Shutoff Valves

7.2 Fresh Water System Operation

Fill the water tank slowly through the labeled deck plate. After filling the water tank, partially open all faucets. The Water Pump breaker on the cabin DC panel should be on. Allow the pump to run until all of the air is purged from the system and a steady stream of water is flowing from each outlet. Next, turn off the faucets one by one. As the pressure builds, the pump will automatically shut off.

When properly primed and activated, the water system will operate much like the water system in a home. An automatic pressure sensor keeps the

system pressurized. If the system has been recently filled or has not been used for an extended period, air bubbles may accumulate at the pump and the system may have to be reprimed.

Whenever the boat is left unattended, the Water Pump breaker should be placed in the "OFF" position.

CAUTION

DO NOT ALLOW THE FRESH WATER PUMP TO RUN DRY. THE FRESH WATER PUMP WORKS ON DEMAND AND WILL NOT SHUT OFF AUTOMATICALLY WHEN THE TANK IS EMPTY. THIS CAN RESULT IN DAMAGE TO THE PUMP. ALWAYS TURN THE WATER PUMP BREAKER OFF WHEN THE FRESH WATER SYSTEM IS NOT IN USE.

Shore Water Connection

7.3 Water Heater

The water heater is located in the engine compartment. It has a 120/220 volt element that is thermostatically controlled at the heater and activated by a circuit breaker located in the AC panel. The water heater is also equipped with a heat exchanger that is plumbed to the water cooling system on one of the engines. The heat exchanger will heat the water in the water heater tank whenever that engine is operating.

Plumbing the heat exchanger to an engine is standard on Monterey boats. For highest efficiency, the engine heat exchanger is of the single wall type. The fresh water supply could become contaminated with engine coolant if the heat exchanger in the water heater fails.

WARNING

MOST ENGINE COOLANT IS TOXIC AND CAN CAUSE SERIOUS INJURY OR DEATH IF IT CONTAMINATES THE FRESH WATER SUPPLY AND SOMEONE DRINKS THE WATER. NEVER DRINK THE WATER FROM THE FRESH WATER SYSTEM FAUCETS WHEN THE ENGINE HEAT EXCHANGER IS ACTIVATED IN THE WATER HEATER.

A high pressure relief valve protects the system from excessive pressure. Always make sure all air is purged from the water heater and lines before activating the water heater breaker. Refer to the water heater owner's manual for additional information.

CAUTION

DO NOT SUPPLY CURRENT TO AN EMPTY WATER HEATER. DAMAGE TO THE HEATER WILL RESULT. THE SYSTEM MUST BE FILLED AND PRIMED BEFORE USING THE WATER HEATER.

7.4 Shore Water Connection

The shore water connection allows the direct connection of the water system to a shore side water supply. This provides the system with a constant supply of fresh water and minimizes the pressure pump operation. A female inlet fitting is mounted in the stern near the AC inlet plugs. A pressure reducer is installed in the system along with two check valves. One check valve keeps water from running out of the shore water inlet fitting when the pressure pump operates. The second prevents hot water from mixing with the cold water.

To use shore water, connect a hose from the shore water faucet to the shore water fitting. Next, turn on the shore water. The pressure pump will not run and the water in the boat's water tank will not be used.

Notice:
The water tank will not be filled by connecting to shore water.

CAUTION

DO NOT MODIFY OR CHANGE THE SHORE WATER INLET CONNECTOR WITH ANOTHER TYPE WITHOUT CONSULTING MONTEREY BOATS CUSTOMER SERVICE OR YOUR DEALER. THE USE OF THE WRONG TYPE OF INLET CONNECTOR CAN DAMAGE THE FRESH WATER SYSTEM.

CAUTION

A SHORE WATER CONNECTION PROVIDES AN UNLIMITED SUPPLY OF WATER THAT COULD SINK THE BOAT. YOU SHOULD MONITOR THE SYSTEM FOR LEAKS WHEN IT IS CONNECTED AND ALWAYS TURN THE SHORE WATER SUPPLY VALVE OFF WHEN LEAVING THE BOAT UNATTENDED.

Cockpit Shower

7.5 Shower Operation

There is a shower located in the head compartment and at the transom on the starboard side, near the transom door. Each shower has hot and cold water and a retractable shower head with an on/off valve.

Make sure the Water Pump breaker in the DC breaker panel is on, then turn the water on. Adjust the hot and cold water faucet until the desired temperature is obtained. Some minor variations in the water temperature may occur as the pressure pump cycles. To conserve water, use the valve on the shower head to turn the water on and off as you shower.

Shower water is drained from the head compartment by a sump pump system located below the aft berth in the cabin. An automatic float switch in the shower sump controls the pump. The pump is protected by the sump pump circuit breaker in the battery switch breaker panel. After showering, let the cold water flow for a period of time to flush the drainage system of soap residue. It is essential that the shower drain strainer is cleaned regularly and the sump is inspected periodically for accumulated debris that needs to be removed.

Head Compartment Shower

7.6 Fresh Water System Maintenance

Information and owner's manuals supplied with water system components is included with this manual. Refer to this information for additional operation and service data.

The following items should be done routinely to maintain your fresh water system:

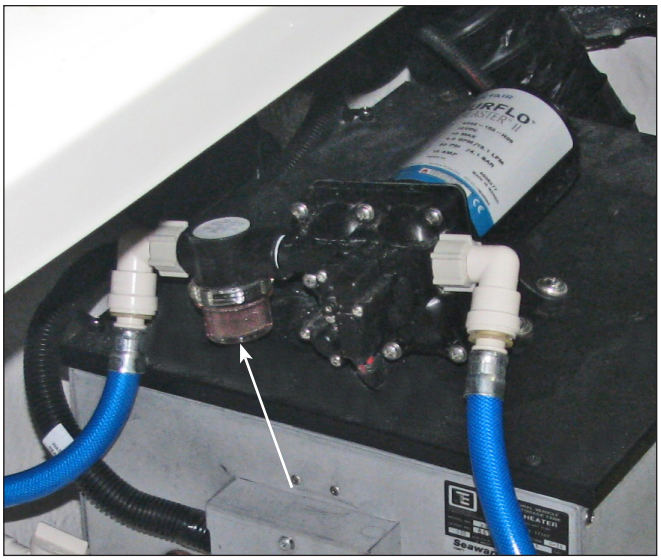
- Periodically remove and clean the water strainer located near the intake side of the fresh water pump.
- Remove the filter screens from the faucet spouts and eliminate any accumulation of debris. A build up of debris can cause the pump to cycle excessively.
- Periodically remove the lid on the sump pump assembly located below the aft berth in the cabin. Clean debris from the sump and flush with clean water.
- Periodically spray the pumps and metal components with a metal protector.
- The batteries must be properly maintained and charged. Operating the pressure pump from a battery with a low charge could lead to pump failure.
- Add a commercially available potable water conditioner to the water tank to keep it fresh.

Notice:
The freshwater system must be properly winterized prior to winter lay-up. Refer to the section on winterizing for more information.
Sanitizing the Fresh Water Tank.

The fresh water system should be sanitized if it has not been used for a long period or you are unsure of the quality of the water in the system.

The following steps can be used to sanitize the system:

- Activate the system, open all hot and cold faucets and pump out as much water as you can.



Fresh Water Pump & Strainer

- Make a chlorine solution by mixing two ounces of household chlorine bleach in a gallon of water. This mixture will treat approximately fifteen gallons. If the water tank on your boat is larger or smaller than 15 gallons, then adjust the mixture accordingly. Always mix the chlorine with water in a separate container first and never add straight chlorine to the fresh water tank.
- Fill the water tank half full with fresh water, then pour the mixture into the water tank and top off the tank.
- Activate the system and allow the water to run for about one minute at each faucet. Let the treated water stand for 4-6 hours.
- Drain the system by pumping it dry and flush with several tank fulls of fresh water.
- The system should now be sanitized and can be filled with fresh water. If the chlorine smell is still strong, it should be flushed several more times with fresh water.

Notice:
The quality of the water in marine freshwater systems can be questionable. We recommend that you avoid using the water from the fresh water system for drinking and cooking. You should only use bottled water for these purposes.

RAW WATER SYSTEM

6.1 General

In the raw or sea water systems, all water pumps are supplied by hoses connected to ball valves and thru-hull fittings located in the in the bilge. Always make sure the ball valves are open before attempting to operate any component of the raw water system.

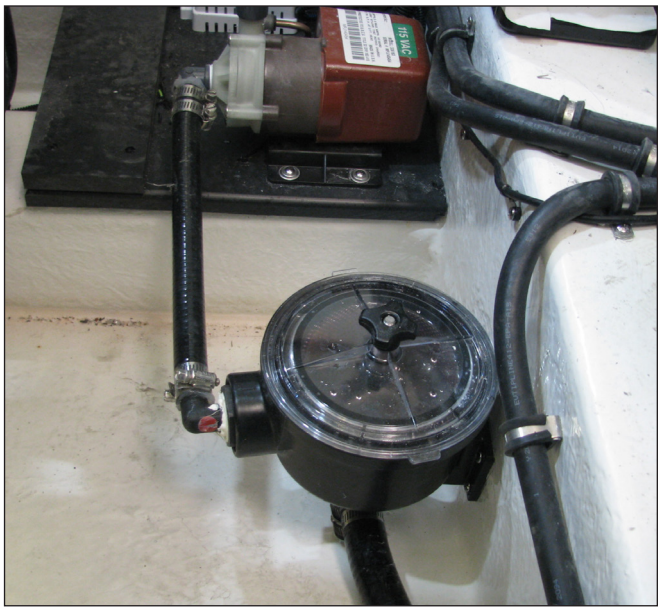
The air conditioning system uses a 120/220 volt AC sea water supply pump or pumps, depending on the options installed on your boat. The air conditioning pumps are the only 120/220 volt AC pumps in the system and are automatically activated when the air conditioning or heating system is in use.

Priming the System

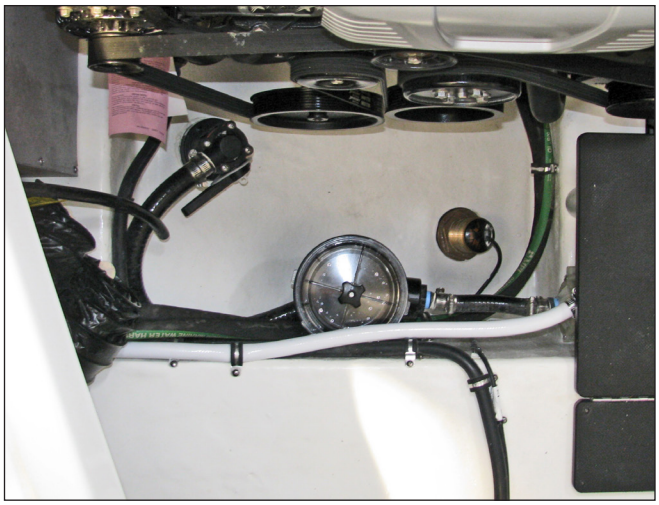
The intake for each air conditioner sea water pump is equipped with a scoop style thru-hull fitting and ball valve. If the pump runs but will not prime after cleaning the strainer or at the time of launching, make sure the valve is open. If the pump still won't prime, it may be air locked. Make sure the valve is open and run the boat at or above 15 M.P.H. The water pressure from the scoop will force the trapped air through the pump and allow it to prime. If this procedure doesn't work, contact your Monterey dealer.

Closing the thru-hull ball valves before the boat is hauled from the water will help to eliminate air locks in raw water systems.

Notice:
It may be necessary to reprime the raw water system if the system is not used for an extended period and at the time of launching.



Air Conditioner Pump & Strainer



Air Conditioning Pump Intake Valve & Sea Strainer

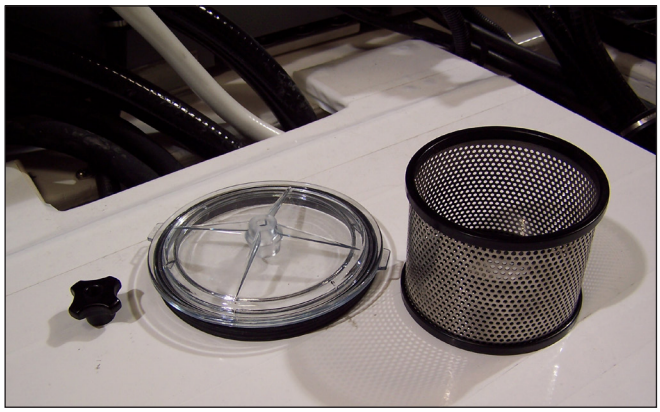
6.2 Air Conditioning Systems

Cabin and cockpit air conditioning units are optional. Each air conditioning system is self-contained and sea water cooled. An AC centrifugal raw water pump supplies sea water that cools the condensing unit as it circulates through the system and is discharged overboard. The pump or pumps are located in the engine compartment below the step. They are activated whenever AC current is available and the air conditioning system supplied by the pump is operating.

Sea water is supplied to each pump from thru hull fittings located in the hull near the pump. A sea strainer between the pump and thru hull valve protects the system from contaminants that could damage the pump or the air conditioning system. Make sure the sea water pump receives adequate sea water by periodically cleaning the sea strainer screen and housing.

Cleaning the Sea Strainer

- Turn the air conditioners off at the control panel. Then turn the air conditioning breaker in the AC panel off.
- Close the water intake valve.
- Open the top of the strainer and remove the screen.
- Thoroughly flush the screen and the inside of the strainer to remove foreign matter.
- Lubricate the seal.
- Reassemble the strainer making sure that all fasteners are tight.
- Open the intake valve.
- Activate the air conditioner and inspect the strainer for leaks.



Air Conditioner Sea Strainer Screen

Air Conditioner Sea Strainer Housing

- If the system will not prime, follow the procedure for priming the system in this chapter.

You should refer to the air conditioner owner's manual for more information on the operation and maintenance of the air conditioner.

6.3 Raw Water System Maintenance

The following items should be done routinely to help maintain your raw water system:

- Check hoses, particularly the sea water supply lines, for signs of deterioration.
- Remove and clean the sea water strainer for the air conditioner as required.
- Spray pumps and thru-hull valves with a protective oil periodically.
- Operate all thru-hull valves at least once a month to keep them operating properly.

CAUTION

SHOULD A HOSE RUPTURE, TURN THE PUMP OFF IMMEDIATELY. ALWAYS CLOSE THE THRU-HULL VALVE WHEN PERFORMING MAINTENANCE ON A SEA WATER PUMP.

THE RAW WATER SYSTEM MUST BE PROPERLY WINTERIZED PRIOR TO WINTER LAY-UP. SEE SECTION ON WINTERIZING.

Air Conditioner Seacock (Thru-Hull Valve)

DRAINAGE SYSTEMS

9.1 General

Most water is drained by gravity to overboard thru-hull fittings located in the hull sides above the waterline. The cockpit, engine hatch and rear compartments drain by gravity to overboard thru-hull fittings in the hull sides. You should check the drain system frequently to ensure it is free flowing and that the hoses on the thru-hull fittings are secure and not leaking.

9.2 Bilge Drainage

There are four bilge pumps located in the engine compartment, cabin, and bow below deck storage compartment. The bilge pumps are activated both manually by switches in the helm station and automatically by float switches located near the pump or integrated automatic switches. The automatic switches are connected to the house battery bank. They are protected by "push to reset" circuit breakers in the battery switch breaker panel and remain activated when the battery switches are in the OFF position and the batteries are connected. The manual switches are supplied current when the HOUSE battery switch is activated. They are protected by a breaker in the helm accessory breaker panel.

All bilge pumps pump water out of thru-hulls located above the waterline in the hull sides. The aft bilge pump and automatic switch are located near the transom, between the engines. The emergency bilge pump is located just forward of the aft bilge pump and the automatic switch for the pump and high water alarm is on a shelf below the engine compartment step. The forward pumps with integrated automatic switches are located in the bilge below the aft berth in the cabin and in the bow below deck storage compartment.

The manual bilge pump switches should be activated briefly each time the boat is used. This will ensure that the pumps are operating properly and increase the service life of the pumps.

The automatic switches should be manually activated periodically to verify operation. This is particularly important before operating the boat offshore. The aft pump and emergence auto switches are manually activated by pressing the test knob on the side of the external switches. The forward cabin and bow below deck compartment pump automatic switches are activated by touching and holding the test button on the side of the pump for until it activates (about five seconds).

Aft & Emergency Bilge Pumps & Aft Pump Automatic Switch In The Stern Bilge, Between The Engines

Forward Bilge Pump With Integrated Automatic Switch

The pumps can also be activated by flooding the bilge with a garden hose until they activate.

The automatic float switch for the emergency bilge pump is mounted above the normal operating range of the aft bilge pump automatic switch. It activates an alarm if the bilge water level rises above the normal operating range of the bilge pump automatic switches. The alarm/emergency pump switch is connected to the house battery bank and is protected by the Emergency Pump "push to reset" breaker in the battery switch breaker panel. It remains activated when the battery switches are in the OFF position and the batteries are connected.

When the boat is out of the water, the bilge can be drained by a thru-hull drain located in the hull at the transom. The plug should be removed whenever the boat is hauled out of the water and installed just prior to launching. It is important to check the drain plug regularly to make sure it is tight.

CAUTION

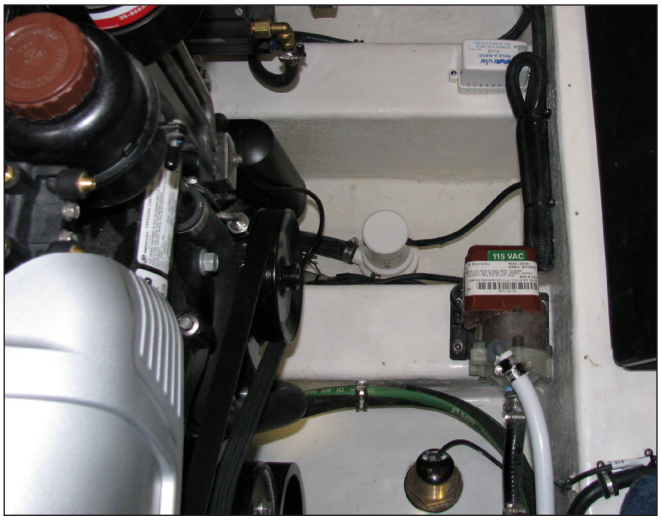
A LOOSE DRAIN PLUG WILL ALLOW SEAWATER TO ENTER THE BILGE AND COULD CAUSE THE BOAT TO SINK. IT IS VERY IMPORTANT TO CHECK THE DRAIN PLUG FREQUENTLY TO ENSURE IT IS PROPERLY TIGHTENED.

Notice:
See Electrical Systems for additional information on bilge pump operation.

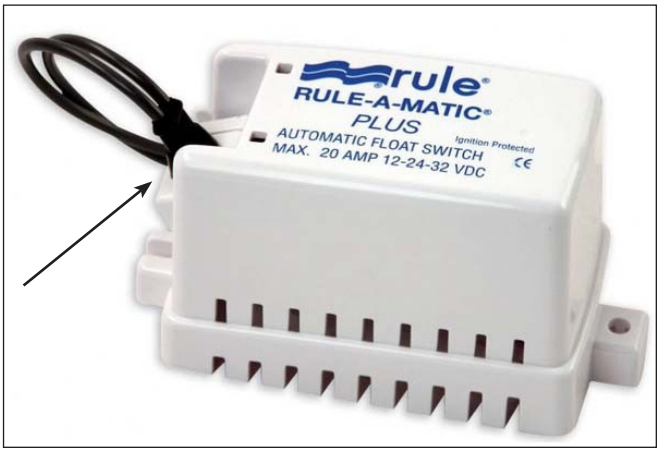
Notice:
Any oil spilled in the bilge must be thoroughly removed and properly disposed of before operating the bilge pump. The discharge of oil from the bilge is illegal and subject to a fine.

CAUTION

THE FEDERAL WATER POLLUTION CONTROL ACT PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON THE NAVIGABLE WATERS OF THE UNITED STATES OR THE WATERS OF THE CONTIGUOUS ZONE IF SUCH DISCHARGE CAUSES A FILM OR SHEEN UPON, OR A DISCOLORATION OF THE SURFACE OF THE WATER, OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THE WATER. VIOLATORS ARE SUBJECT TO A PENALTY OF $10,000.



High Water Alarm & Emergency Pump Float Switch



Automatic Float Switch Test Button
Push Button Down & Hold Until Pump & Alarm Activate

Cabin & Bow Below Deck Compartment Bilge Pump Test Button
Hold For 5 Seconds Or Until Pump Activates

9.3 Cockpit and Deck Drains

Cockpit and Engine Compartment

Water is drained from the cockpit through the transom door opening and drain system for the engine compartment hatch. The engine compartment hatch is equipped with a gutter that drains the water to the swim platform and thru-hull fittings in the hull side. A flap built into the thru-hull fittings on side of the hull reduces the surge of sea water through the scupper and into the cockpit.

Cockpit Storage Compartments

The storage compartments on the port and starboard rear sides of the cockpit can be used to store items that won't be damaged if they get wet or as a cooler. These compartments drain by gravity to the cockpit drain system.

Wet Bar Drains

The sink, refrigerator or ice maker are drained by gravity to a thru-hull fitting in the hull side.

Rear Lounge Seat Storage Compartments

The storage compartments below the cockpit lounge seat are drained by gravity to the bilge or overboard through the engine compartment hatch/cockpit drain system.

Bow Seat Storage Compartments

The bow seat storage compartments are equipped with drain fittings that drain by gravity to thru-hull fittings in the hull sides.

Below Deck Cockpit Storage compartment

The storage compartment below the cockpit is drained by a bilge pump with an integrated automatic switch that pumps the accumulated condensation overboard thru a fitting in the hull side. The pump is located below a removable grate in compartment floor.

Above Deck Cockpit Storage Compartments

The storage compartment below the cockpit helm seat and other drawers and compartments in the cockpit are drained by gravity to the cockpit deck or to the bilge.

Rope Locker Drains

The rope locker drains overboard through fittings in the hull sides. It is important to inspect the drains frequently to remove any accumulated debris.

Engine Hatch & Cockpit Drains

Sump Pump System

9.4 Cabin Drains

The head sink, shower and air conditioner condensation pan are drained by a sump pump system. An automatic float switch in the sump controls the pump. The sump pump is protected by the Sump Pump circuit breaker in the battery switch breaker panel. The sump system is activated whenever the house batteries are connected to ensure the shower and cabin air conditioner will drain properly whenever they are used. After showering, let the cold water flow for a period of time to flush the drainage system of soap residue.

The sump system is located below the aft berth in the cabin and accessed by removing the mattress and opening the access hatch. The sump has a

removable lid to allow the system to be inspected and serviced. It is essential that the sump system be inspected periodically and any accumulated debris removed. Manually activate the system to verify operation.

Optional Grey Water System
If your boat is equipped with this option, all sink drains and the head shower are drained by a dedicated sump system which pumps the waste water to the waste/grey water holding tank. The cabin air conditioner condensation pan is connected to a separate sump system that pumps the accumulated condensation overboard thru a fitting in the hull side. Both sump systems are controlled by an automatic float switch in each sump and are protected by individual circuit breakers in the battery switch breaker panel. They are activated whenever the batteries are connected and are located below the berth in the mid cabin.

The fluid level in the waste/grey water holding tank is monitored by a lighted LED symbol in the in the lower starboard corner of the toilet control panel in the head compartment. The symbol lighted green indicates the waste tank is less than half full. Symbol light yellow indicates the tank is at least half full. Symbol lighted red indicates the waste tank is full.

When the waste/holding tank is full, it must be pumped out by an approved waste dumping station. You should monitor the waste level carefully and not allow the tank to become full. A lockout system built into the toilet prevents it from flushing when the holding tank is full. Never attempt to flush the toilet or operate the sinks or shower when the tank is full. An overfilled waste tank will force waste into the holding tank vent filter and could cause waste water to back up into the shower through the drain. This will clog the holding tank vent filter, prevent the sinks from draining and could cause damage to the holding tank. It will also cause unpleasant odors in the cabin or flood the cabin floor.

Notice:
The overboard macerator discharge pump option for the waste holding tank is not available with the grey water system.

9.5 Drainage System Maintenance

It is essential that the following items be done periodically to maintain proper drainage of your boat:

- Clean the cockpit and engine hatch gutters with a hose to remove debris that can block water drainage.
- Clean the bilge pump strainers of debris and check the bilge for foreign material that can cause the automatic switches to malfunction.
- Frequently test the bilge pump automatic switches. This is accomplished by pushing down on the button on the side of the float switch or by touching and holding the test button on the side of the pump for five seconds until the pump is activated. You can also use a garden hose to raise the water level in the bilge until it is high enough to activate the automatic switches.
- Frequently test the emergency pump automatic float switch. This is accomplished by pushing down on the button on the side of the float switch until the pump and alarm is activated.
- Flush all gravity drains with fresh water to keep them clean and free flowing.
- Flush the drain in the air conditioning condensation pans with fresh water periodically to remove mold and debris that can accumulate and prevent proper drainage.
- Clean and inspect the shower, head sink and air conditioner drain sump system. Remove accumulated debris and flush with fresh water. Frequently test the automatic pump switch for proper operation.
- If your boat is equipped with the optional grey water system, periodically clean and inspect the drain sump system. Remove accumulated debris and flush with fresh water. Frequently test the automatic pump switch for proper operation.

Notice:
All drains and pumps must be properly winterized before winter lay-up.

Notice:
Never use harsh chemical drain cleaners in marine drain systems. Permanent damage to the hoses and fittings may result.

VENTILATION SYSTEM

10.1 Cabin Ventilation

Ventilation to the cabin area and head compartment is provided by the cabin doors and an opening port window in the head compartment. Additionally, there is a 12 volt exhaust blower in the head compartment that provides forced ventilation to that area whenever the blower is activated by the switch on the head compartment wall.

Head Compartment Port Window

An opening port window is located in the head compartment. The window opens to provide ventilation into the area and is equipped with a removable screen.

The window is secured by adjustable cam levers. The cam levers should be adjusted so they are tight enough to seal the window in the closed position, but not so tight that the window becomes difficult to secure.

Always make sure the window is closed and secured with the cam levers whenever the boat is underway. Sea spray could enter the compartment through an open window and damage woodwork and equipment.

Head Port Window Closed

Head Port Window Open

Center Windshield Panel Closed

10.2 Windshield & Helm Ventilation

Windshield & Cockpit Ventilation

Ventilation to the helm area and cockpit and access to the bow seating area is provided by the opening center windshield panel and a walk-through door below the windshield.

Windshield Center Panel

The windshield center panel is opened by releasing the locks on the inside of the windshield. A magnetic stop on the deck automatically secures it in the open position. To close the windshield panel, pull on the bottom of the panel until the magnetic latch releases. Then close the panel and secure it with the locks. Make sure the panel is properly secured in the open or closed position before cruising.

CAUTION

USE CAUTION WHEN OPENING CENTER WINDSHIELD PANEL. THE MAGNET THAT HOLDS THE PANEL OPEN IS VERY POWERFUL AND COULD CAUSE INJURY OR DAMAGE TO VESSEL.

TO AVOID INJURY, THE CENTER WINDSHIELD SECTION MUST BE SECURED IN THE OPEN OR CLOSED POSITION WHEN VESSEL IS IN MOTION. MAKE SURE TO USE BOTH LOCKS WHEN SECURING THE WINDSHIELD SECTION IN THE CLOSED POSITION.

Center Windshield Panel Locks

Walk-Thru Door Closed

Walk-Thru Door Open

Bow Walk-Thru Door

An acrylic door secured with a flush, push to close latch provides the ability to close off the walk-through area below the opening windshield panel when desired. The door is designed to "nest" in a recess on the side of the walk-through when it is open. The latch secures the door in the open or closed position. To secure the door in either position, push the door until the latch catches.

Always make the walk-through door is securely latched in the open or close position before operating the boat. Periodically clean and lubricate the latches to protect them from corrosion and help keep them operating properly.

10.3 Carbon Monoxide & Proper Ventilation

DANGER

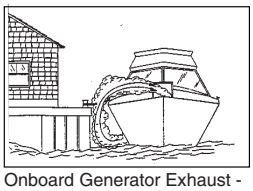
FAILURE TO PROPERLY VENTILATE THE BOAT WHILE THE ENGINES OR GENERATOR ARE RUNNING MAY PERMIT CARBON MONOXIDE TO ACCUMULATE WITHIN THE CABIN AND OPEN AREAS OF YOUR BOAT. CARBON MONOXIDE IS A COLORLESS AND ODORLESS GAS THAT IS LETHAL WHEN INHALED. CARE MUST BE TAKEN TO PROPERLY VENTILATE THE BOAT AND TO AVOID CARBON MONOXIDE FROM ACCUMULATING IN THE BOAT WHENEVER AN ENGINE IS RUNNING.

Carbon Monoxide Detector

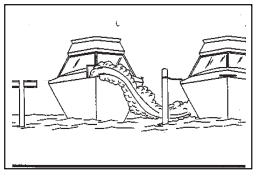
A by-product of combustion, carbon monoxide (CO) is invisible, tasteless, odorless, and is produced by all engines and gas heating and cooking appliances. The most common sources of CO on boats are gasoline engines, auxiliary generators and propane or butane stoves. These produce large amounts of CO and should never be operated while sleeping. The hazard also may be created by a boat nearby whose exhaust fumes are entering your boat. Boats also have a problem due to the "station wagon effect" where engine exhaust fumes are captured in the vacuum or low pressure area, usually the cockpit, helm area and cabin, that can be created by the forward speed of the boat.

Boats underway should close all aft facing hatches and doors. Forward facing deck hatches should be open whenever possible to help pressurize the living spaces of the boat. No sleeping in the cabin should be permitted while underway. Proper ventilation should be maintained at the helm and passenger seat by opening the windshield vent panel to help pressurize the cockpit area. The canvas drop or aft curtain must be removed and the hardtop side windows opened to increase air flow and maintain proper ventilation whenever the engines are running. ***Under no circumstances should the engines be operating with side windows closed and the aft or drop curtain installed.***

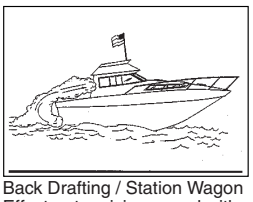
Extreme caution must be taken while at anchor or in a slip when an auxiliary power generator is operating. Wind still nights can easily allow exhaust fumes, containing high concentrations of



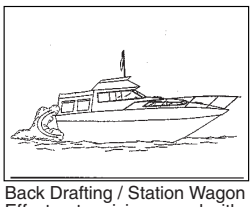
Onboard Generator Exhaust - exhaust accumulates because of bulkhead.



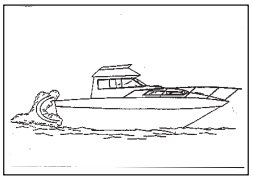
Nearby Generator Exhaust - wind carries exhaust to the other boat



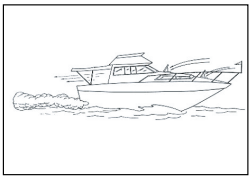
Back Drafting / Station Wagon Effect - at cruising speed with no forward ventilation



Back Drafting / Station Wagon Effect - at cruising speed with canvas closed



Slow Speed or Boat Stopped w/ engines running - CO can accumulate in cabin, cockpit & bridge



Desired Air Flow Through the Boat

CO, from the generator on your boat or from an adjacent boat's generator to enter the boat. The exhaust fumes may enter your boat through open hatches or windows.

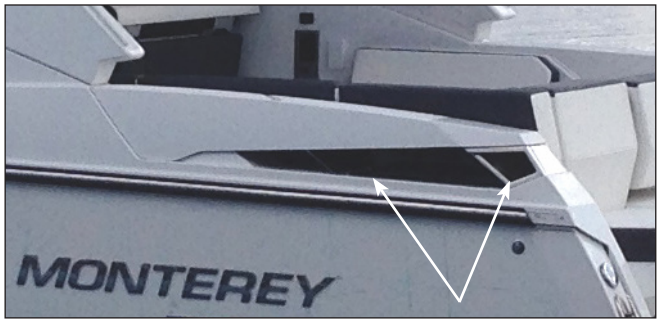
A carbon monoxide detector has been installed in the cabin as standard equipment. While a CO detector enhances your protection from CO poisoning, it does not guarantee it will not occur. Do not use the carbon monoxide detector as a replacement for ordinary precautions or periodic inspections of equipment. Never rely on alarm systems to save your life, common sense is still prudent and necessary. Remember, the operator of the boat carries the ultimate responsibility to make sure the boat is properly ventilated and the passengers are not exposed to dangerous levels of carbon monoxide. You should always be alert to the symptoms and early warning signs of carbon monoxide poisoning. You also should read the "Carbon Monoxide Monitoring System" in the Safety Equipment chapter of this manual, and the owner's manual supplied by the CO detector manufacturer for operation instructions and additional information regarding the hazards and symptoms of carbon monoxide poisoning.

Notice:
CO detectors are equipped with a battery powered 5 year End-of-Life (EOL) timer. When the timer has run for 5 years from the date of manufacture, the unit will signal the first EOL warning. After this time the unit will continually signal EOL and will no longer detect CO. The unit must be replaced.

Refer to the CO detector Operation Manual for additional operating instruction and information on the EOL alarm.

DANGER

ACTIVATION OF THE CARBON MONOXIDE DETECTOR INDICATES THE PRESENCE OF CARBON MONOXIDE (CO) WHICH CAN BE FATAL. EVACUATE THE CABIN IMMEDIATELY. DO A HEAD COUNT TO CHECK THAT ALL PERSONS ARE ACCOUNTED FOR. DO NOT REENTER THE CABIN UNTIL IT HAS BEEN AIRED OUT AND THE PROBLEM FOUND AND CORRECTED.



Engine Compartment Vent

DANGER

PERIODICALLY TEST THE CARBON MONOXIDE ALARMS PER THE MANUFACTURER'S INSTRUCTIONS. PLEASE REFER TO THE CARBON MONOXIDE ALARM MANUAL OR CONTACT THE MANUFACTURER FOR MORE INFORMATION ON MAINTAINING AND CALIBRATING THE ALARM.

10.4 Engine Compartment Ventilation

All Monterey inboard boats are equipped with an engine compartment ventilation system consisting of intake ducts and exhaust blowers. The ventilation system is designed to meet or exceed the requirements of the United States Coast Guard in effect at the time of manufacture and remove fuel vapors and excess heat from the engine room.

Free Air System

A flow of air into the engine compartment is provided by two vents located on either side of the deck. Exhaust ventilation designed into the vents provides a flow of air out of the engine compartment. The exhaust area of the vents have ducts that reach to the lower part of the engine compartment. This provides adequate air movement while operating at or near cruise speeds.

The vents are designed with special baffles that prevent sea water or spray from entering the engine compartment while providing adequate air movement for the engines.

Forced Ventilation

Electric blowers provide ventilation to the engine compartment prior to start up of the main engines or optional generator and while operating below cruise speed or running the generator. The blowers are activated by a switch at the helm or in the generator control panel in the cabin. The blowers are located in the vent hoses on the port side of the engine compartment. When activated, the blowers will remove bilge fumes through the bilge exhaust vents. Refer to the Electrical Systems chapter for more information on blower operation.

Inspect the blowers frequently to make sure they are operating properly. Always replace worn or defective components with new components of the same type. Refer to the Electrical Systems chapter for more information on blower operation.

Starboard Bilge Vent Hoses & Blower

DANGER

GASOLINE VAPORS CAN EXPLODE. BEFORE STARTING THE ENGINES OR GENERATOR, OPERATE THE ENGINE COMPARTMENT BLOWER FOR FOUR (4) MINUTES, OPEN THE ENGINE ACCESS HATCH, INSPECT THE FUEL SYSTEM AND CHECK THE ENGINE COMPARTMENT FOR THE ODOR OF GASOLINE VAPORS. ALWAYS OPERATE THE BLOWER WHILE THE ENGINES ARE AT IDLE. UNDER NO CIRCUMSTANCES SHOULD THIS PROCEDURE BE OVERLOOKED.

WARNING

ALWAYS RUN THE EXHAUST BLOWER WHEN OPERATING THE BOAT BELOW CRUISE SPEEDS OR WHEN THE OPTIONAL GENERATOR IS OPERATING TO ENSURE ADEQUATE VENTILATION AND COOLING OF THE ENGINE COMPARTMENT.

10.5 Maintenance

General

- Periodically lubricate all hinges and latch assemblies with a light oil.
- Periodically clean and coat gasket materials with silicone to help keep them pliable.
- Opening cabin doors and hatches are made of acrylic plastic glass. Acrylic glass scratches easily. Never use a dry cloth or glass cleaning solutions on acrylic glass. Use a soft cloth and mild soap and water for routine cleaning. Solvents and products containing ammonia can permanently damage acrylic glass. Refer to the Routine Maintenance chapter for more information on the proper maintenance for acrylic plastic glass.
- Periodic inspection and cleaning of the engine compartment ventilation ducts is necessary to ensure adequate air circulation. A buildup of leaves, twigs, or other debris can severely reduce ventilation. It also is important to be sure that the drains in the vent baffles are open to prevent excessive sea water from accumulating in the vents and overflowing into the engine compartment.
- The bilge blowers are permanently lubricated and require no maintenance. Blower operation can and should be tested by placing a hand over the exhaust vents. Do not rely on the sound of the blowers. A substantial amount of air should be exhausted by the blower. Frequently check the intake vents for obstructions, preferably before each cruise.

Notice:
Should blower noise become excessive, the source of the noise should be found and corrected before operating the boat.

EXTERIOR EQUIPMENT

11.1 Deck Equipment

Rails and Deck Hardware

The rail system and hardware fittings have been selected and installed to perform specific functions. Bow and hand rails are installed to provide a hand hold in certain areas of the boat. You should make sure you keep at least one hand on the hand holds as you move about the boat.

The stern of your boat is equipped with cleats that are retractable and flush with the deck when not in use. To use the cleats, pull up on the center of the cleat until it locks in the mooring position. Mooring lines should be secured to the cleats and not to rails or stanchions. Be sure a clear lead exists when running dock lines or anchor lines. A line inadvertently run around a stanchion or over the rail could cause damage.

Retractable Cleat Deployed

Notice:
All fittings must be inspected periodically for loose fit or wear and damage. Any problems should be corrected immediately.

Retractable Cleat Stowed

⚠ WARNING ⚠

MONTEREY BOATS ARE NOT EQUIPPED WITH HARDWARE DESIGNED FOR TOWING PURPOSES. THE MOORING CLEATS ARE NOT TO BE USED FOR TOWING ANOTHER VESSEL OR HAVING THIS BOAT TOWED.

Stainless Steel Bow Roller

The bow roller assembly is mounted to the deck at the bow and allows the anchor to be operated and stored at the roller. The roller is designed for a Delta plow anchor. The anchor line is stored in the rope locker below the windlass and routed out the locker through the windlass and connected to the anchor chain. A cleat and chain binder is provided on the deck near the roller to secure the anchor.


Bow Roller & Delta Plow Anchor

Always make sure the anchor is properly secured when it is in the stored position on the bow roller. The chain binder is accessed by opening the hatch and is designed to connect to a link in the anchor chain when the anchor is hauled in. To release the binder, pull the anchor chain in slightly to relieve

the tension on the binder, then release the binder from the chain. To secure the anchor in the up and stored position, raise the anchor until it seats firmly in the roller with the chain snug. Attach the chain binder to a link in the chain. Before getting underway after hauling the anchor, always make sure the binder is properly attached to the anchor chain and the hatch is closed and latched.

Anchor and Rope Locker

The anchor rope locker and windlass are concealed in a recess below a hatch in the deck. A flush, twist lock latch secures the hatch in the closed position. There is a large red dot in the handle that indicates that the latch is in the open position and that it is not secure. Always make sure the hatch is closed with the latch in the secured position before operating the boat above idle speed.

The rope locker and anchor line is accessed through an opening next to the windlass. The anchor line is always stored in the rope locker and there is an eye fitting to secure the bitter end of the anchor line.

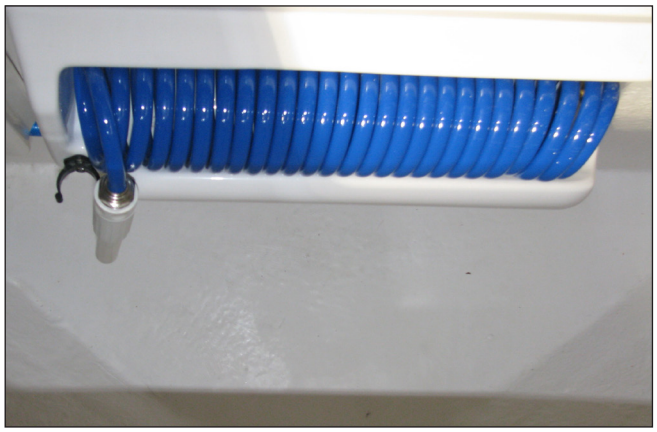
After the anchor is hauled in and secured with the chain binder, the anchor, line, windlass and all hardware should be rinsed with fresh water using the washdown hose located in the storage compartment below the center bow seat, behind the cooler. Rinsing with fresh water will reduce odors in the rope locker and reduce corrosion on the hardware, anchor and windlass. Make sure the Water Pump breaker in the cabin DC panel is on before using the washdown hose.

The rope locker is designed for the anchor line and not for storing anchors or additional anchor lines. Do not store anchors or any heavy objects in the locker. Anchors or other heavy items will bounce and damage the hull or rope locker if they are stored there. They will also interfere with the operation of the windlass. Always store and secure additional anchors and heavy items in a storage compartment in the cockpit as far aft as possible.

The rope locker is drained by drain fittings in the hull sides at the bottom of the locker. It is very important to check the drains frequently to make sure they are clean and free flowing.

Periodically remove the anchor line from the rope locker, rinse it with fresh water and allow it to dry in the sun. Cleaning the anchor line regularly will reduce odors in the rope locker and increase the life of the line.

Anchor Rope Locker & Windlass



Anchor Rope Locker Fresh Water Washdown

The line should also be inspected for abrasions or signs of deterioration. Replace the line if it shows any sign of damage or deterioration. It is important to replace the anchor line with a new line of the type recommended or supplied by the windlass manufacturer.

Windlass

The windlass is mounted in the compartment below the hatch in the deck. The anchor is stored on the bow roller and is raised and lowered by the windlass. The anchor line is stored in the rope locker and routed out through the windlass to the anchor chain.

The anchor is lowered by releasing it from the chain binder near the roller and operating the WINDLASS OUT switch at the helm or pressing the WINDLASS DOWN side of the switch in the anchor

locker near the windlass. The windlass control switches are activated and protected by a "push to reset" breaker in the helm switch breaker panel. The main circuit for the windlass is protected by a heavy duty circuit breaker near the battery switch breaker panel in the engine compartment.

After the anchor is set, the windlass must not be left to take the entire force from the anchor line. Boats lying to their anchor in a high swell or heavy weather conditions will snub on the line. This can cause slippage or apply excessive loads to the windlass. The line should be made fast to the anchor line cleat mounted in the compartment next to the windlass to relieve the load on the windlass.

The anchor is hauled in by releasing the line from the anchor line cleat and operating the WINDLASS UP switch at the helm or pressing the WINDLASS UP side of the switch in the anchor locker near the windlass. Always start the engines before hauling the anchor and motor up to the anchor as the line is retrieved to relieve the load on the windlass.

Once the anchor is retrieved, independently secure the anchor to the chain binder to prevent it from being accidentally released. This is especially important while the boat is under way.

The windlass manufacturer provides an owner's manual with its product. It is extremely important that you read the manual and become familiar with the proper care and operation of the windlass.

WARNING

A WINDLASS MUST BE USED WITH CARE. IT IS EXTREMELY IMPORTANT THAT YOU READ THE OWNER'S MANUAL AND BECOME FAMILIAR WITH THE SAFETY INSTRUCTIONS AND PROPER OPERATION OF THE WINDLASS BEFORE USING IT WITH YOUR BOAT. ALWAYS ENSURE THAT LIMBS, FINGERS, HAIR AND CLOTHING ARE KEPT CLEAR OF THE WINDLASS AND ANCHOR LINE DURING OPERATION.

WARNING

DO NOT USE A WINDLASS AS A SOLE MEANS OF SECURING AN ANCHOR IN THE BOW PULPIT. ALWAYS SECURE THE ANCHOR LINE TO A CLEAT OR CHAIN BINDER BEFORE OPERATING YOUR BOAT.

Windlass, UP/DOWN Switch In The Anchor Locker


Anchor Chain Binder

Windshield

Windshield

Your boat is equipped with heavy duty aluminum windshield with tinted glass and a windshield wiper. The center windshield panel opens to provide ventilation and access to the bow seating area.

The windshield wiper should only be used when the windshield is wet. The windshield glass can be scratched by activating the wiper when there is dried salt or dirt on the windshield.

WARNING

VISIBILITY FROM THE SEATED POSITION MAY BE LIMITED. USE BOLSTER IN UPRIGHT POSITION AS NEEDED.

AVOID COLLISIONS OR INJURIES. MAINTAIN A LOOKOUT AS REQUIRED BY USCG NAVIGATION RULES.

The center panel is opened by releasing the locks on the inside of the windshield. A magnetic stop on the deck automatically secures the windshield section in the open position. To close the windshield panel, pull on the bottom of the panel until the magnetic latch releases. Then close the panel and secure it with the locks. Make sure the center section is properly secured in the open or closed position before cruising.

CAUTION

USE CAUTION WHEN OPENING WINDSHIELD WALK-THROUGH SECTION. THIS MAGNET IS VERY POWERFUL AND COULD CAUSE INJURY OR DAMAGE TO VESSEL

TO AVOID INJURY, THE CENTER WINDSHIELD SECTION MUST BE SECURED IN THE OPEN OR CLOSED POSITION WHEN VESSEL IS IN MOTION. MAKE SURE TO USE BOTH LOCKS WHEN SECURING THE WINDSHIELD SECTION IN THE CLOSED POSITION.

If the boat is operated in saltwater, the windshield should be washed after each use with soap and water to keep it clean. Saltwater allowed to remain on the windshield frame will eventually begin to attack the aluminum and cause corrosion, usually around fasteners and hardware mounted to the windshield. Snaps or any hardware mounted to the windshield must be properly sealed and isolated with caulk or a Teflon sealer to prevent salty moisture and galvanic corrosion from damaging the frame. Poor maintenance or improperly mounted hardware and snaps can void the warranty on the windshield.

Refer to the Routine Maintenance chapter for more information on the care and maintenance of anodized aluminum.

11.2 Hull Equipment

Swim Platform and Stern Ladder

Your boat is equipped with a fiberglass swim platform located in the stern of the boat. The standard swim platform is equipped with a gelcoat non-skid surface. A synthetic teak (Flexi Teak or SeaDek) inlay is optional. The synthetic teak surface is maintenance free other than routine cleaning.

A telescoping boarding ladder is recessed into the swim platform on the port side. A retractable handle recessed into the platform near the ladder provides a handhold to assist boarding.

To use the ladder, make sure the engines are shutdown and pull the release button on the side of the ladder track. Slide the ladder out of the recess and rotate it to the down position. Extend the ladder to the open position. The ladder must be retracted and secured in the recess before starting the engines.

WARNING

MOVING PROPELLERS ARE DANGEROUS. THEY CAN CAUSE DEATH, LOSS OF LIMBS, OR OTHER SEVERE INJURY. DO NOT USE THE SWIM PLATFORM OR SWIM LADDER WHILE THE ENGINES ARE RUNNING. STOP THE ENGINES IF DIVERS OR SWIMMERS ARE ATTEMPTING TO BOARD. ALWAYS PROPERLY STORE THE LADDER BEFORE STARTING THE ENGINES.

Unassisted Boarding Situations

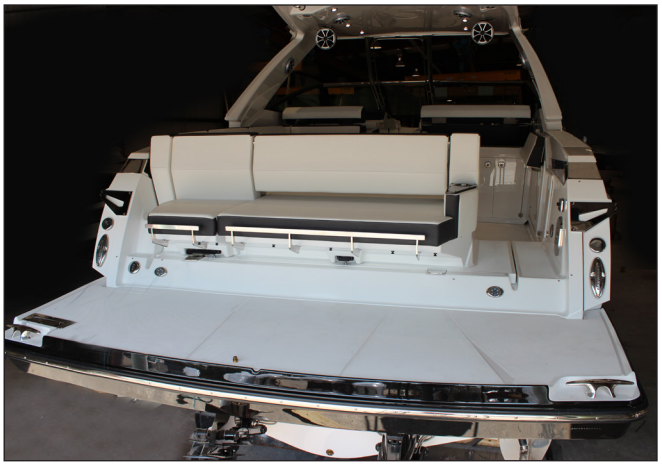
When using the swim platform ladder in an unassisted boarding situation in deep water, hold the stern eye and brace your body against the hull side for stability. Then pull the release button on the side of the ladder track. Slide the ladder out of the recess and rotate it to the down position with your free hand. Use your free hand and feet to extend the ladder to the extended position. Use the ladder side rails, top rail and retractable boarding handle for stability while boarding. Remember to retract the ladder and secure it in the recess before starting the engine.

Transom Ski Tow (Optional)

A removable ski tow pylon that mounts in a flush base in the center of the swim platform is optional. The pylon base can also accommodate the pedestal for the optional gas grill..

To use the ski tow pylon, insert it into the base and push down firmly to seat the pylon all the way into the base. When skiing or wakeboarding operations are completed, remove and properly stow the pylon.

The tow pylon is designed for pulling one or two averaged sized skiers or wakeboarders. Always use high quality tow ropes with attachment loops



Transom & Swim Platform

Ladder Release Button

Retractable Ladder Boarding Handle

when pulling wakeboarders or skiers. The tow rope should always be attached to the ski tow using the attachment loops and never tied to the ski tow or to any type of metal hook. Tied ski ropes are very difficult to remove and metal hooks will damage the pylon. Additionally, metal hooks can cause injury to your skiers if the metal hook breaks under the strain of the tow.

When attaching a tow rope using the attachment loops, hold the attachment loop in one hand and pull a length of rope on the handle side of the loop through the loop, creating another 6" loop. Slide the loop just created over the ski tow fitting and pull the handle side of the rope to tighten the loop around the tow fitting. This procedure will attach the rope securely to the ski tow, be easy to remove and will not come off if the skier or wakeboarder falls.

Refer to Water Skiing in the Operation chapter for safety information on operating the boat with a skier.

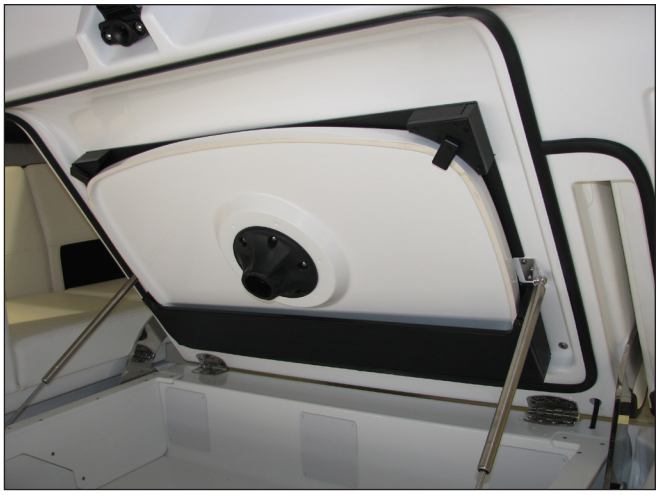
Transom Storage Compartment and Shore Connectors

There is a storage compartment just forward of the swim platform, below the rear of the stern sun lounge seat. Another compartment on the port side of the transom provides protection for the shore connections for the 120/220 volt AC system, TV, telephone and shore water which are located in this compartment. A large cut out at the bottom of the hatch and compartment allows the hatch to be closed with the shore cords and hoses attached to the utilities at the dock. The compartment hatch protects the inlet plugs from the elements and should be closed and latched at all times. It should only be open when making the connection to shore utilities.

The compartment below the sun lounge seat provides storage for the shore cords, water hose, and fenders. The hatch is equipped with special mounting brackets for the aft cockpit table and pedestal. It is drained by gravity to the engine hatch drain system.

Gas charged springs on the storage compartment hatches help lift the hatches and support them when in the open position. A lift to release latch secures each hatch when closed and LED lights come on when they are open.

Port Stern Storage Compartment & Shore Connectors



Aft Cockpit Table In Sun Lounge Compartment

Underwater Lights & Trim Tabs

WARNING

DO NOT STORE FUEL OR FLAMMABLE LIQUIDS IN THE TRANSOM STORAGE COMPARTMENT. VENTILATION WAS NOT PROVIDED FOR EXPLOSIVE VAPORS.

Trim Tabs

The trim actuators are mounted to the hull at the transom. The trim tabs are an important part of the control systems. Refer to the Helm Control Systems chapter for detailed information on the trim tabs.

Underwater Lights (Optional)

LED underwater lights are mounted in the transom, below the water line. The lights are activated by the Underwater Lights switch at the helm and should only be used when the boat is in the water with the lights submerged.

Docking Lights (Optional)

Located at the bow above the bow eye. These lights provide lighting forward of the bow while docking or maneuvering in tight quarters at night. They are activated by the Docking Lights switch in the helm switch panel and should only be used during docking, mooring or anchoring situations. Never use docking lights while cruising. They are not legal for night navigation and may obstruct the visibility of the bow navigation lights to oncoming vessels.

Bow Eye and Bow Plate

The bow eye assembly includes a stainless steel bow plate that protects the hull from scuffs and scratches from a trailer bow roller. Whenever possible, the trailer bow roller should be adjusted so that it is positioned on the plate, just below the bow eye.

Docking Light, Bow Eye & Anchor Roller

11.3 Cockpit Equipment

Hatch Latches

Some of the hatches and doors in the cockpit are secured with special flush mounted, twist lock latches with handles that store flush in the latch. Others are secured with push to close latches. Gas charged springs are used on some hatches that help raise the hatches and hold them in the open position.

Some hatches in the cockpit sole and deck are secured with special flush mounted, twist lock latches with handles that store flush in the latch. The latch handles can be stored flush in either the open or secured positions. There is a large red dot in the handle that indicates that the latch is in the open position and the hatch is not secure.

Twist Latch Unlatched
Red Dot Showing

Twist Latch latched
Red Dot Is Not Showing

WARNING

IN CERTAIN CONDITIONS, OPEN DOORS AND HATCHES THAT ARE NOT SECURED PROPERLY CAN SLAM CLOSED UNEXPECTEDLY AND CAUSE INJURY TO PASSENGERS OR DAMAGE TO THE BOAT. MOST DOORS AND HATCHES ARE EQUIPPED WITH SPECIAL FASTENERS, HATCH LIFTERS, OR SNAPS AND/OR STRAPS, TO SECURE THEM IN THE OPEN POSITION. ALWAYS MAKE SURE THAT THESE HATCHES AND DOORS ARE PROPERLY SECURED WHENEVER THEY ARE IN THE OPEN POSITION.

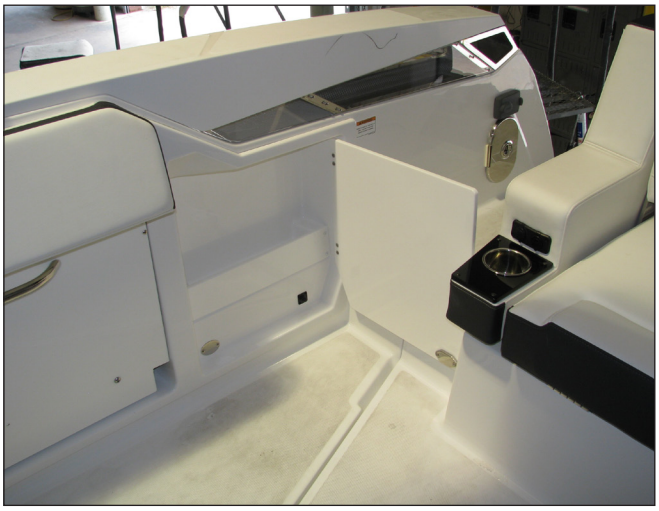
Transom Door Open

Transom Door

A transom door is incorporated into the rear of the cockpit. The door is secured automatically in the open or closed position by a special magnetic latch system. The magnet releases and allows the door to be moved to the open or closed position when enough force is exerted to overcome the magnet. When closing the transom door, make sure it is completely closed and secured by the magnetic latch.

When the transom door is closed, a safety lockout switch is automatically activated to prevent the engine hatch from being raised with the door closed, which will cause damage to the door and L-Lounge. Always make sure the transom door is open before raising the engine hatch.

The transom door should be opened only when the engines are shutdown or in neutral. The door must be secured in either the open or closed position. Never leave the transom door unsecured.



Transom Door Closed

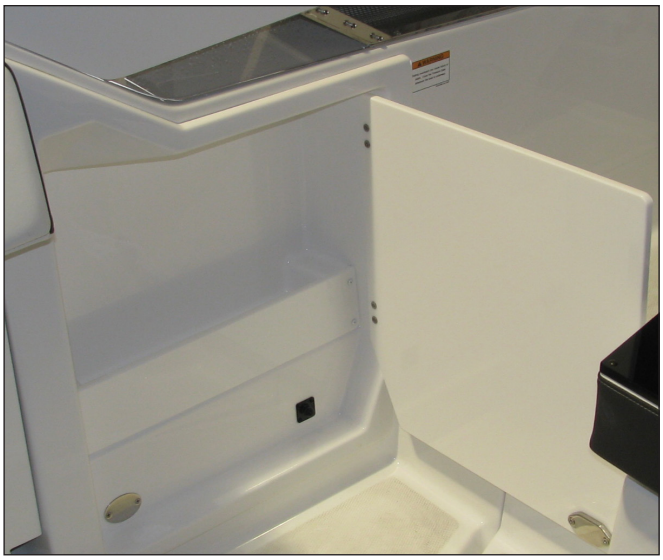
Notice:
Periodically inspect the transom door fittings for wear, damage, or loose fit. Any problems should be inspected and corrected immediately.

WARNING

OPERATING THE BOAT UNDER POWER WITH THE TRANSOM DOOR OPEN MAY ALLOW PERSONS TO FALL OVERBOARD AND INTO BOAT PROPELLERS OR TO BE LOST IN OPEN WATER. ALWAYS CHECK TO MAKE SURE THE TRANSOM DOOR IS PROPERLY CLOSED AND SECURED BEFORE STARTING THE ENGINES AND NEVER OPERATE THE BOAT UNDER POWER WITH THE TRANSOM DOOR OPEN.

Starboard Cockpit Storage Compartment

A small compartment to stow items that will not be damaged if they get wet is located behind the transom door. The optional cockpit shower is just aft of the transom door.



Storage Compartment Behind Transom Door

Cockpit Carpet (Optional)

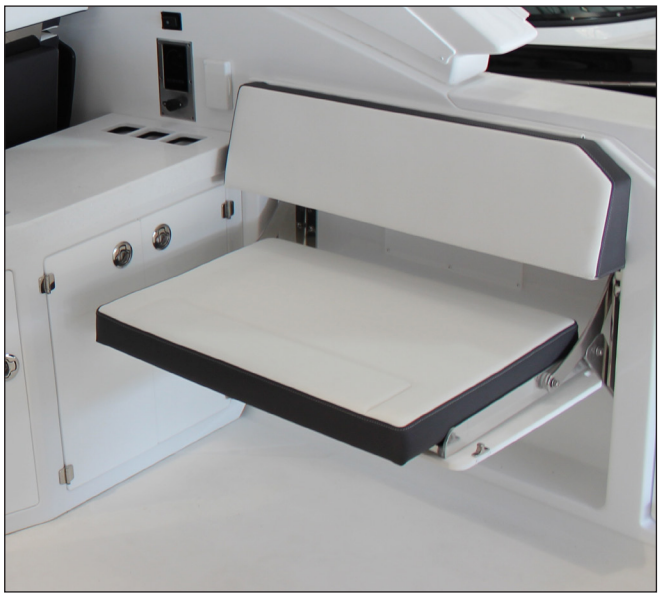
Cockpit carpet is an available option. The carpet is custom fit and includes snaps in the carpet and cockpit sole. For the safety of your passengers, always make sure the carpet is secured with the snaps. Carpet that is not secured with the snaps can slide unexpectedly.

Starboard Foldaway Seat

A foldaway bench seat is recessed in the starboard side of the cockpit. The seat is designed to fold flush against the side of the cockpit when not in use. The seat is secured in the folded position by a hinged cockpit bolster that becomes the backrest when the seat is in use.

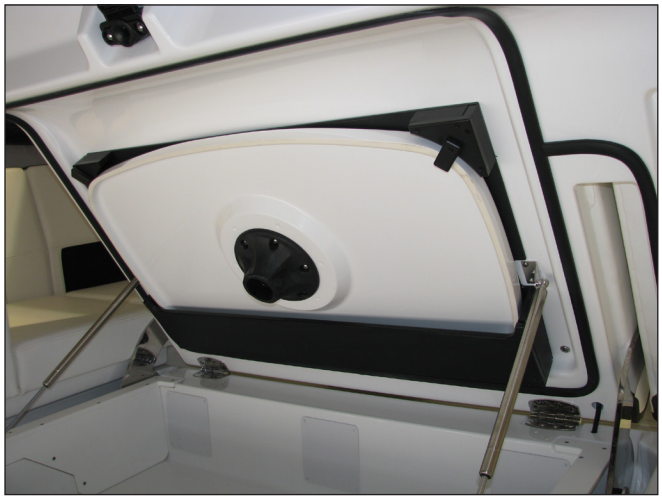
To use the seat, swing the bolster up, then pull the handle at the top of the seat toward the cockpit. The bottom of the seat slides in a track and two side supports move out with the seat as it folds out. The seat automatically locks into the seating position when the cushion reaches the full down position.

To store the seat, pull the seat out slightly as you raise the front. The rear supports will release and slide down in the track as the seat and side supports fold into the recess. Swing the bolster up and fold the seat in until it is flush with the recess. Lower the bolster to secure the seat in the folded position.

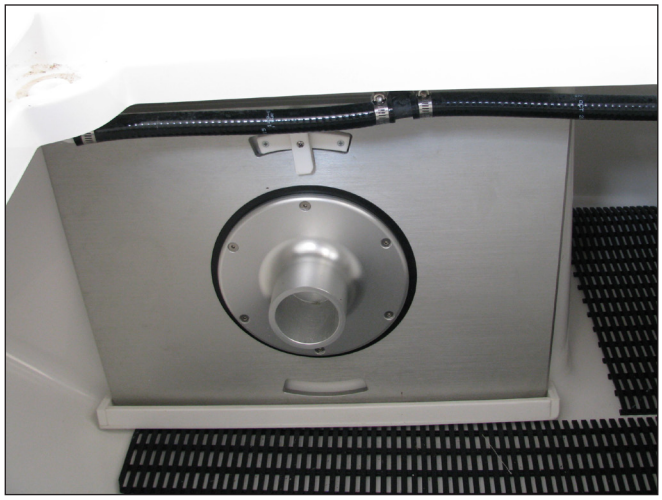


Foldaway Seat In Seat Position

Foldaway Seat In Folded Position



Aft Cockpit Table Below Sun Lounge Seat Hatch



Forward Cockpit Table In Forward Below Deck Compartment

Cockpit Tables

Two removable cockpit tables mount to moveable pedestals and base assemblies located in the aft cockpit and in the bow seat area. The aft cockpit table and pedestal assembly are stored in special brackets in the sun lounge seat hatch when not in use. The bow cockpit table and pedestal are stored in special brackets in the forward below deck storage compartment.

To use either table, remove the table and pedestal from the storage compartment. Pull the safety pin in the side of the mounting bracket and insert the pedestal base firmly in the bracket. Then release the pin and make sure it extends into the pedestal base to secure the pedestal to the base. Install the table on the pedestal. Reverse the process to remove the table.

The table should only be used while running at slow speeds, at the dock or at anchor. Always remove and properly stow the tables and pedestals before cruising or pulling skiers or wakeboarders.

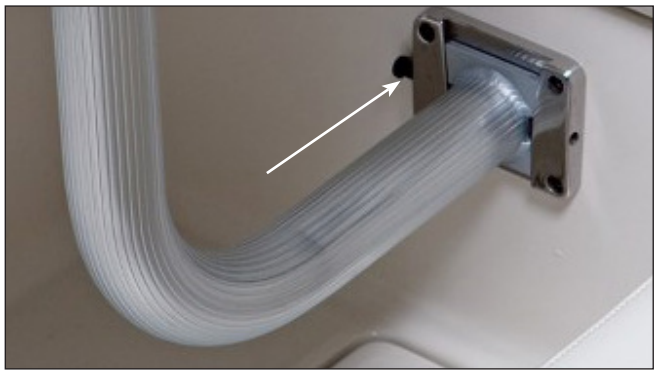


Table Mounting Bracket & Spring Loaded Pin

Cockpit L-Lounge Seat

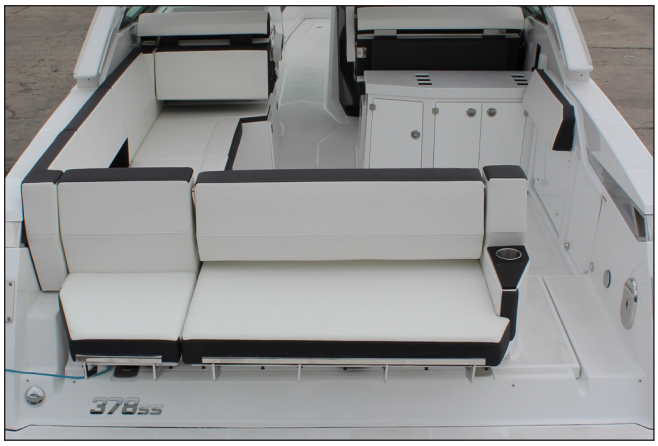
The aft L-Lounge seat provides passenger seating in rear of the cockpit and the rear portion converts to a sun island. The seat is mounted to the engine hatch and raises with the hatch when it opens. There is storage for dunnage below the port side seat cushions.

The backrest on the sun island portion of the seat has three positions. In the aft position, it is a back rest cushion for the lounge seat. In center position it converts the seat to a reverse facing sun lounge with backrest. In the forward position, it makes a full lay down sun lounge.

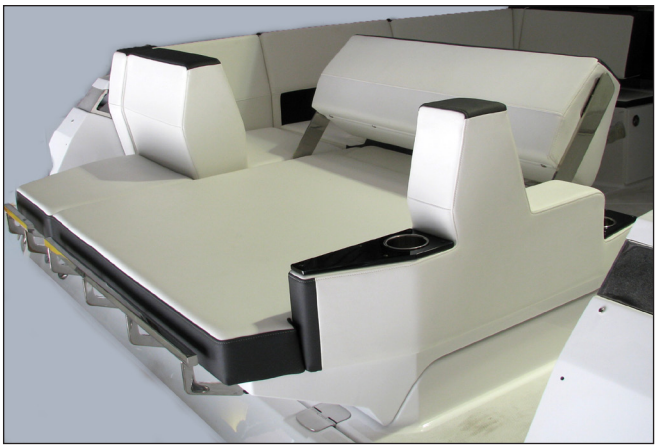
Cockpit L-Lounge Seat

The backrest is moved by lifting the center of the back rest and moving it toward the desired position. When the backrest reaches the next pre-set position, it will drop slightly and lock.

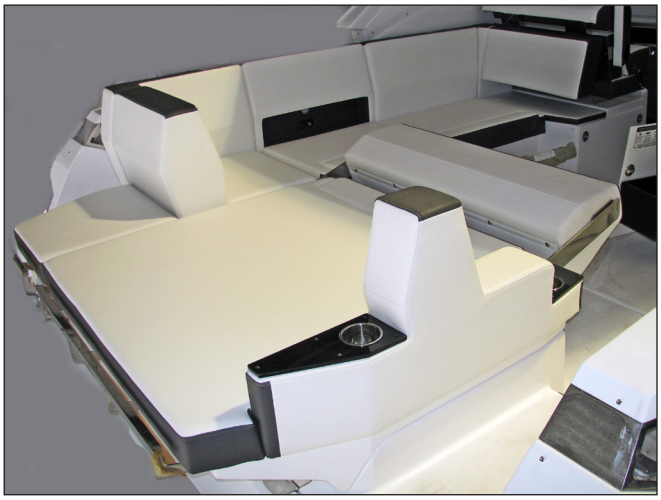
For the safety of your passengers, always make sure the stern sun lounge backrest is in the full aft, L-lounge backrest position whenever the engines



Sun Lounge Backrest In Seat Position


Sun Lounge Backrest In Reclined Position

are running or the boat is underway. The backrest secures the cockpit and lounge seat area and prevents someone from accidently falling overboard when it is in the aft position. Never allow someone to be on the reverse facing sun island seat with the backrest in the center or forward position when the engines are running.


Sun Lounge Backrest In Lounge Position

Engine Access

Access to the engines is provided by raising the cockpit deck and L-Lounge above the engine room. The cockpit deck and L-Lounge is hinged at the rear and raised by an electric hatch lifter activated by the Engine Hatch OPEN/CLOSE switches in the helm switch panel. The deck section is designed to raise high enough to provide adequate access to service the components in the engine compartment.

The transom door must be secured by the magnetic latch in the open position before the engine hatch is lifted. There is an interlock switch built into the transom door that activates the circuit for engine hatch actuator and allows the engine hatch to be lifted when the transom door is in the open position. The interlock system is necessary to prevent the transom door, cockpit and L-Lounge from being damaged by lifting the engine hatch with the transom door closed.


Engine Hatch Open

Port Wet Bar

The port wet bar forward of the passenger seat is equipped with a sink, bottle or cup holders, a refrigerator and an ice keeper. It could also be equipped with an optional ice maker instead of the refrigerator. The counter top and sink cover is made of Karadon. A compartment forward of the counter top provides storage for small items. The compartment is equipped with USB/MP3 and 12 volt accessory plugs. A grab rail on the wet bar below the counter top provides a hand hold for the passenger seat.

Other drawers and a storage compartment are located in the walkway below the sink. The doors

and drawers are secured in the closed position with dual action, push to lock latches. To open a drawer or the storage compartment door, push on the latch knob. The knob is spring loaded and will pop out one inch, providing a finger hold and releasing the dead bolt on the latch mechanism. A slight pull is required to release the friction latch and open the door or drawer. The cabinet doors and drawers will be held closed by the friction latches while at anchor or at the dock. To close and secure, make sure the door or drawer is completely closed and push the knob in. The knob will stay in and the locking mechanism will be activated. The knobs should be pushed in to activate the positive lock dead bolts whenever the boat is underway.

The ice keeper and sinks are equipped with removable Karadon lids and are drained by gravity to a thru-hull fitting in the hull side above the waterline.

Fresh Water Sink

The sink is plumbed to the fresh water system. To use the sink, remove and stow the Karadon lid. Then rotate the faucet to the operating position and make sure the Water Pump breaker in the cabin DC breaker panel is on. The faucet works like faucets in your home when the fresh water system is activated. Always lower the faucet to the stored position and replace the lid when the sink is not being used.

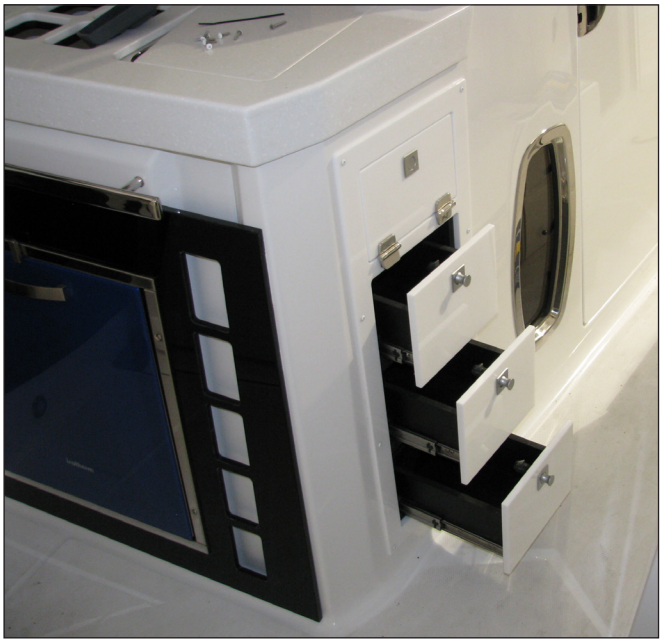
Refrigerator and Optional Ice Maker

An AC/DC refrigerator or an optional ice maker are mounted in the wet bar below the sink. The dual voltage refrigerator is standard equipment and will operate on 120/220 volt AC or 12 volt DC power. The refrigerator switches to 12 volt DC automatically when the AC power is disconnected and the Cockpit Refrig breaker is activated on the cabin DC panel. When 120/220 volt AC current is provided by the Cockpit Refrig/Ice Maker circuit breaker on the cabin AC panel, the refrigerator automatically switches to AC power.

Care should be exercised while operating the refrigerator on 12 volt power without the engines running. It draws a substantial amount of current and can severely drain the house batteries through extended use. The refrigerator door has a special latch to secure the door while under way. Make sure the door is properly secured whenever the boat is moving.

The optional ice maker operates on AC power only and can be chosen instead of the cockpit refrigerator. It is activated by the Cockpit Refrig/Ice Maker circuit breaker in the cabin AC panel. A switch located just below the ice maker door turns the unit on or off. The ice maker door has a special latch to secure the door while under way. Make

Port Wet Bar, Sink & Refrigerator



Port Wet Bar Storage Compartment door & Drawers with Push To Lock Latches

sure the door is properly secured whenever the boat is moving. The fresh water system supplies the water for the ice maker. Make sure the Water Pump breaker is activated and there is water in the fresh water system before turning on the ice maker.

Refer to the refrigerator or ice maker owner's manual for additional operating and maintenance instructions.

Slide Out Cooler

A cockpit cooler is mounted in a slide out storage compartment located below the passenger seat that is secured in the closed position with push to close latches. The cooler can be slid out of the compartment for easy access or removal.

To open the compartment, pull the handles to release both latches and slide the compartment and cooler out. To close, push the compartment and cooler in and press against the door until the latches catch. Periodically clean and lubricate the latches to protect them from corrosion and help keep them operating properly.

Slide Out Cooler

Starboard Storage Compartment

The starboard storage compartment and counter top is equipped with bottle or cup holders, a compartment with slide out waste basket and a storage area. It could also be equipped with an optional electric grill. The counter top is made of Karadon.

The storage compartment doors are secured in the closed position with flush mounted push to close latches. To open, pull the latch handle to release the latch. To close, push the door until the latch catches. Periodically clean and lubricate the latches to protect them from corrosion and keep them operating properly.

Slide Out Waste Basket

The compartment on the starboard rear can be used for storage if the boat is not equipped with the optional electric grill. The slide out waste basket is located behind the port storage door.

Starboard Storage Compartment
With Optional Slide Out Electric Grill

Electric Grill (Optional)

An electric, stainless steel grill can be installed as optional equipment. It is mounted in a slide out storage compartment behind the starboard access doors. A touch control pad with a dedicated grill electrical outlet in the side of the cockpit next to the counter top provides power and control for the grill.

The grill is designed to be removed from the slide track and placed on the counter top for operation. The grill operates on AC power only. ***Never use the grill while it is in the slide out storage rack.***

To use the grill, make sure the Cockpit AC breaker in cabin AC panel is on. Remove the grill from the slide track and place it on the counter top. Plug the grill electrical cord into the outlet on the grill touch control pad. Use the control pad to activate the burner and control the temperature. Refer to the grill operation manual for additional information and instructions for operating the grill and control pad.

After cooking, be sure the burner is turned off and allowed to cool before closing the lid and handling the grill. Never close the lid or place the grill in the storage compartment while it is hot. Once the grill is cool, turn the Electric Grill breaker in the cabin AC panel off. Then close the grill lid and disconnect the electrical cord. Properly stow the grill in the storage compartment.

Optional Electric Grill In Operating Position On Counter Top

Portable Propane Grill (Optional)

A portable propane gas platform grill is an available option. Propane fuel for the grill is usually provided by 1 lb disposable propane fuel canisters. The fuel canisters are sold separately and were not included with the grill.

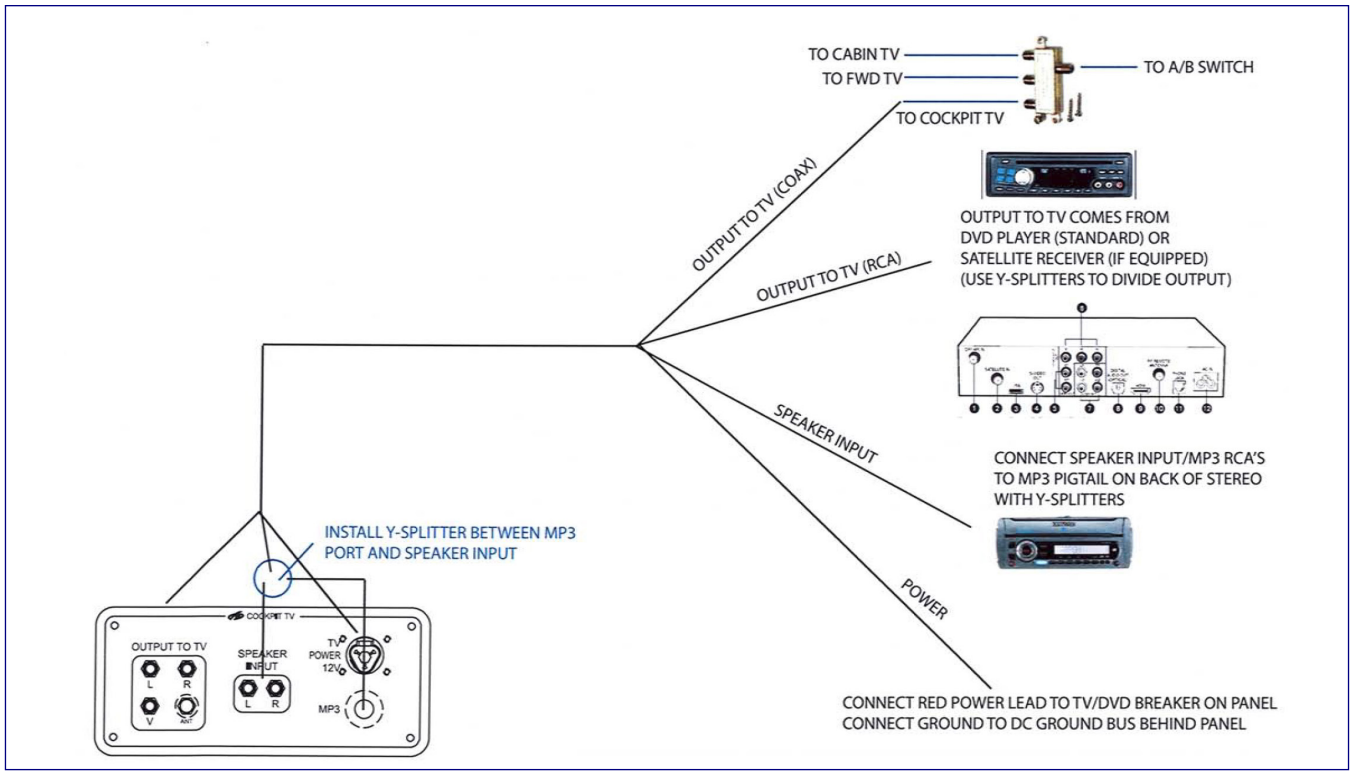
Portable gas grills can be a fire hazard if not used properly and are not intended for use in the cockpit. The grill should only be used on the special grill pedestal mounted on the swim platform or onshore in an open, uncovered area. When using the grill on the swim platform, make sure the "S" shaped pedestal is rotated such that the grill is over the water so grease drippings fall to the water and not onto the swim platform.

Always make sure the grill is allowed to cool and that the propane fuel canister is removed and capped before storing the grill and fuel canister onboard the boat. Propane fuel is very flammable and must be used and stored properly. Refer to the grill manufacturer's operating manual for additional safety and operating instructions before using the propane grill.

Grill Control Panel & Plug

WARNING

PROPANE GAS IS EXTREMELY FLAMMABLE AND CAN CAUSE A FIRE OR AN EXPLOSION THAT WILL RESULT IN SEVERE INJURY OR DEATH IF IT IS NOT STORED AND USED PROPERLY. REMEMBER THAT PROPANE VAPOR IS HEAVIER THAN AIR AND CAN SETTLE AND ACCUMULATE IN UNVENTILATED COMPARTMENTS OR IN THE BILGE.



Optional TV Connection Panel & Wiring Harness

WARNING

PROPANE FUEL CANISTERS MUST BE DISCONNECTED FROM THE GRILL AND PROPERLY STORED IN A COCKPIT STORAGE COMPARTMENT THAT IS ABOVE THE COCKPIT SOLE. THE COMPARTMENT MUST BE DRY WITH NO ELECTRICAL COMPONENTS OR SWITCHES ON OR IN THE COMPARTMENT THAT COULD CAUSE A SPARK. NEVER STORE PROPANE FUEL CANISTERS IN THE CABIN, HEAD COMPARTMENT, ENGINE COMPARTMENT, BILGE OR A COMPARTMENT BELOW THE COCKPIT SOLE.

Cockpit TV (Optional)

A 12 volt DC Flat screen TV or TV/DVD is available as optional equipment. The TV mounts to a special bracket on the hardtop. A special electrical harness connects the TV to a receptacle panel located in a compartment below the TV. The compartment door has a cutout that enables the door to be closed when the TV harness is plugged into the panel.

The TV comes with a special waterproof case that allows it to be stowed in any convenient compartment on the boat. To mount the TV, remove it from the case. Pull the safety pin in the side of the mounting bracket on the hardtop and slide the bracket on the TV firmly into the mount. Release the pin and make sure it extends into the TV bracket to secure the TV to the mounting bracket. Plug the color coded connectors on the harness into the receptacles on the panel. Reverse the process to remove the TV.

The TV should only be used while at running at slow speeds, at the dock or at anchor. Always remove and properly stow the TV in the waterproof case before cruising.

Helm and Passenger Seats

The helm and passenger seats are equipped with a flip up bolster to provide more room between the seat and the helm. The bolster converts the seat to a leaning post style seat with a backrest and allows the operator to sit or stand at the helm. To convert the seats to a leaning post, lift the front of the seat cushion to raise the bolster and push it back above the seat cushion.

Helm Seat Bolster In Seat Position

Helm Seat Bolster In Leaning Post Position

The helm seat is equipped with an electric actuator that adjusts the seat forward and aft. The seat is controlled by the Helm Seat FWD/AFT switch in the helm. An armrest built into each seat backrest swings up next to the backrest cushion to make it easier to enter and exit the seat area.

The passenger seat is also equipped with a folding footrest that folds against the seat base when it is not in use.

Passenger Seat In Seat Position

Helm and Passenger Seat Storage Compartments

There is a storage compartment that drains to the bridge deck located below the helm seat. The compartment hatch is recessed and secured with push to close latches.

Additional storage is located in two compartments behind the passenger seat backrest. The compartments are accessed by raising the aft facing backrest cushion at the front of L-lounge.

The L-lounge backrest cushion is secured in the closed position by a magnetic latch. To access the passenger seat storage compartments, lift the bottom of the L-lounge cushion with enough force to overcome the magnetic latch and raise the cushion.

Passenger Seat Storage

Helm

The steering, engine controls, engine instruments and switches for exterior equipment and navigation lights are located on the helm station. The helm station is designed to provide good visibility, room for electronics and a more functional control station.

Helm

The steering wheel and engine controls are located on the rear of the helm console. The helm switch panels are just forward of the steering wheel and the engine ignition switches are located on a separate panel below the steering wheel. The circuit breakers for the helm activated accessories are located in a panel below the engine controls.

Electronics and engine instrumentation are mounted in the center of the helm, forward of the steering wheel. Access to install or service electronics and helm wiring is provided by removing the electronics and helm switch mounting panels.

Typical electronics packages include depth, speed, water temperature, a VHF radio, chart plotter, and GPS. Radar and an auto pilot are optional. Electronic Navigational equipment manufacturers provide detailed instruction manuals with their products. You should read them carefully and review the operation of the electronics with your dealer at the time of delivery.

Bow Seating Area Access

Opening Windshield Panel

The bow seat area is accessed by opening the center windshield walk-through panel. To open the panel, release the locks on the inside of the windshield. A magnetic stop on the deck automatically secures the panel in the open position. Use caution when opening the windshield walk-thru panel. The magnet is very powerful and could cause injury or damage to the deck or windshield if the window is allowed to slam against the stop. To close the panel, pull on the bottom with enough force to release the magnetic latch. Then close the panel and secure it with the locks. Always make sure the center section is properly secured in the open or closed position and the passengers in the bow seating area are properly seated before operating the boat above idle speed. Refer to the Windshield section of this chapter and the Ventilation chapter for more information on the windshield.

Walk-Through Door & Opening Windshield Panel

Walk-through Door

An acrylic door on the side of the walk-through is used to close off the walk-through area below the opening windshield panel when desired. It is designed to "nest" into a recess on the port side of the walk-through when it is open. To secure the door in either position, push the door until the latch catches.

The door could be damaged or hurt a passenger by the motion of the boat if it is allowed to swing

free. Always make sure it is latched in either the open or closed position in rough water or when the boat is underway.

Periodically clean and lubricate the latches to protect them from corrosion and help keep them operating properly.

Head and Cabin Compartment Doors

The doors and hatches are made of acrylic plastic glass. Each hatch is supported in the open position by a gas charged spring and latches to the door with a lockable latch when closed.

The doors are hinged and swing open against the side of the walk-through. A magnetic latch secures each door in the open position. It is very important that the cabin or head compartment door is secured properly in the open or closed position. The door could be damaged or hurt a passenger by the motion of the boat if it is allowed to swing free. The doors and hatches should be closed and latched whenever the boat is underway. The magnetic latch that holds the doors in the open position could allow them to slam closed in rough water.

When securing the door and hatch, close the door first. Then close the hatch with enough pressure to latch the hatch to the door.

The door and hatch are made of acrylic plastic glass. Acrylic glass scratches easily and can chip. Please refer to the Routine Maintenance chapter for information on the proper care and maintenance of acrylic plastic glass.

Refer to the Interior Equipment chapter for information on cabin and head compartment equipment and operation.

WARNING

NEVER LEAVE THE HEAD OR CABIN DOOR UNLATCHED. THE DOORS ARE HEAVY AND SWING EASILY. IF A DOOR IS LEFT UNLATCHED, IT COULD SWING UNEXPECTEDLY AS THE BOAT ROCKS, DAMAGING THE DOOR OR CAUSING AN INJURY TO A PASSENGER. TO AVOID INJURY TO PASSENGERS OR DAMAGE TO THE BOAT, ALWAYS CLOSE AND SECURE COMPARTMENT DOORS WHENEVER THE COMPARTMENTS ARE NOT BEING USED, THE BOAT IS IN MOTION OR IN ROUGH WATER CONDITIONS.

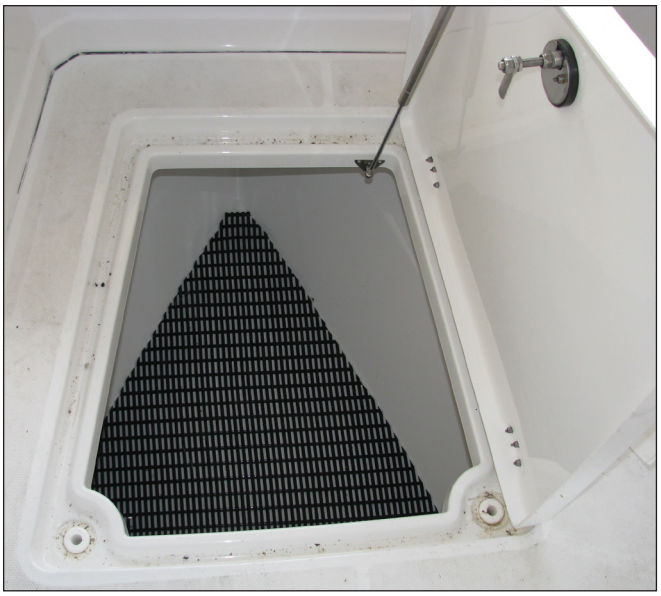
Head & Cabin Companionway Doors & Hatches Open

Cabin Companionway Door & Hatch Closed

In-Floor Storage Compartment

There is a large storage compartment located below the cockpit floor between the forward bow seats. The compartment is drained overboard by a bilge pump with an integrated automatic switch. The compartment floor is equipped with "dry deck" padding to allow for better drainage and air circulation in the compartment. A drain rail around the hatch channels water away from the compartment and overboard through a fitting in the hull side.

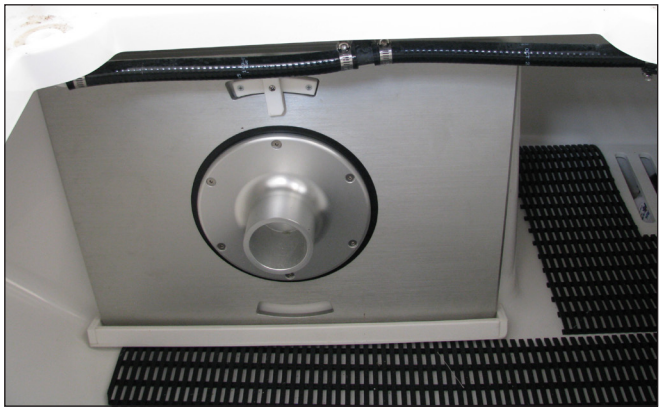
A gas charged spring holds the hatch in the open position and a flush twist latch holds it closed. There is a large red dot in the handle of the latch that indicates that the latch is in the open position and the hatch is not secure. Always make sure the hatch is closed with the latch in the secured position and the handle folded flush to the deck before operating the boat above idle speed.



In-floor Storage Compartment Drain Rails

The forward cockpit table and pedestal are mounted to a special brackets in the rear of the compartment.

Refer to the cockpit table section in this chapter for instructions on installing the table.



Forward Cockpit Table

Bow Seats and Storage Compartments

The bow area is equipped with seats, grab rails and built in drink holders that drain to the bilge. The anchor locker is located just forward of the bow seating area. The area is illuminated by LED lights recessed into the seat bases. The lights are activated by the Courtesy Lights switch in the helm switch panel.

Seating

The bow seat area is equipped with a molded in, rear facing bench seat with a removable cooler and freshwater washdown hose below the seat cushion. There are forward facing seats on each side with folding armrests forward of the head and cabin companionways. 12 volt accessory and USB/MP3 plugs are located on each side of the bow seating area. There is also a remote control panel for the stereo on the starboard side.

A removable filler cushion for the starboard bow seat converts the seating area to a forward or aft facing lounge seat. The seat cushion rests on molded fiberglass supports at the front of the forward facing seat and rear edge of the bench seat. The removable filler cushion is stored in the cabin when not being used.

In-Floor Storage Compartment & Bow Seating Area

Forward Facing Bow Seats & Arm Rests

A storage compartment is located below the removable port side bow cushion. The compartment drains overboard to a thru-hull fitting in the hull side.

A removable cooler is located in the compartment below the forward seat cushion. The cooler is secured in the compartment by special mounting brackets and a stretch cord on each side. Water from the cooler drains to the compartment floor, then overboard through the cockpit drain system. Always make sure the cooler is properly secured with the stretch cords and the seat cushion is closed before operating the boat.

WARNING

PASSENGERS RIDING IN THE BOW SEATING AREA WHILE CRUISING COULD RESTRICT THE OPERATOR'S VISIBILITY. THIS IS A FREQUENT CAUSE OF ACCIDENTS. POSITION PASSENGERS SO THEY DON'T BLOCK THE OPERATOR'S VISIBILITY OR MOVE THEM TO SEATS IN THE MAIN COCKPIT WHILE THE BOAT IS CRUISING.

Removable Cooler & Washdown Hose
Below Forward Bow Bench Seat

Hardtop

11.4 Hardtop

Hardtop

The hardtop consists of molded fiberglass top and integrated arch that is bolted to the deck. It is equipped with stereo speakers, LED overhead lighting for the cockpit and speakers. It could also be equipped with an optional retractable sunshade. Removable hatches in the hardtop liner provide access to wiring and rigging for hardtop mounted accessories and antennas.

Stereo speakers and courtesy lights are built into the headliner. The courtesy lights are activated by the HARDTOP LTS RED/BLUE switches in the helm switch panel.

The top is designed to accommodate radio antennas, radar antennas and navigation lights. It is not designed to support the additional weight of items like a life raft. Radar and electronics antennas must be mounted in locations on the top designed for these antennas.

The warranty for the hardtop will be void if the top is modified in any way or heavy accessories like life rafts are mounted to the top. Additionally, if items like radar antennas, spotlights and other accessories are mounted in the wrong location, the warranty could be void. If you intend to add equipment or make modifications to the hard top, you should contact your dealer to make sure the equipment you would like to add or the intended modification will not void the warranty on the top.

Retractable Aft Sun Shade (Optional)

The sun shade extends to provide shade for the rear cockpit. Electric actuators on each side of the hardtop extend or retract the awing. The actuators are controlled by the Shade switch on the starboard side of the cockpit near the 120/220 volt outlet.

The Shade switch is a momentary three-position rocker switch. The center position is off. Move the switch in one direction to extend the sunshade. Move the switch in the opposite direction to retract the shade. The switch automatically returns to the off position when it is released. Limit switches built into the actuators automatically stop the sunshade when it is fully extended or retracted.

Refer the retractable sun shade operation manual for additional operation instructions and maintenance information for the sun shade.

11.5 Weather Enclosure

The side curtains, front clear connector and aft curtain are custom made to each boat at the factory. To install the curtains, close the center section of the windshield and attach the clear connector to the slide track at the front of the hardtop and snap it to the top of the windshield frame beginning with the center snaps. The clear connector will have to be stretched just enough to pull out the wrinkles and reach the snaps on the windshield.

Weather Enclosure

Once the clear connector is completely installed, the forward side curtains can be put on. Slide the rear of each side curtain into the slide track on forward side of the arch. Slide the top of each curtain into the slide track on the hardtop. Then attach the curtains to the zippers on the front connector. Snap the curtains to the windshield beginning with the forward snaps. The side curtains will have to be stretched slightly to pull out the wrinkles and reach the snaps.

Slide the top of each rear side curtain into the slide track on the rear side of the top. Then snap the curtains to the arch beginning with the forward snaps. The side curtains will have to be stretched slightly to pull out the wrinkles as the curtains are snapped to the arch.

With the side curtains installed, the slide the aft curtain into the slide track on the rear of the top. Attach each side of the aft curtain to the zippers on the rear of the side curtains. Then snap the curtain to the deck and sun lounge beginning with the forward snaps.

There is a panel in the center of the clear connector that can be rolled up and secured by straps. This roll up panel allows the walk-through feature of the windshield to be used when the clear connector is installed.

Aft Curtain

The rear window in the aft curtain can be rolled up and secured by straps at the top of the window to provide ventilation to the cockpit. There is also a cockpit access door on the starboard side.

The side curtains, aft curtain window and clear connector should be stored either rolled or flat, without folds or creases. Folding the curtains will make permanent creases that could cause the vinyl to crack.

NOTICE:
Cold weather can make the clear vinyl material on the curtains stiff and difficult to stretch to the snaps. This can be particularly difficult with new canvas that has been stored off the boat. Laying the curtains in the sun for 30 minutes during the heat of the day will make installing them much easier in cold weather.

11.6 Aftermarket Fabrications

Monterey does not recommend installing an after market electronics arch to the hardtop or a tower. An improperly designed or installed fabrication can cause structural damage to the deck or hardtop and void the Monterey Limited Warranty. Additionally, Monterey will not be responsible for any damage resulting from the installation of a fabrication not installed at the Monterey factory. If you intend to install an aftermarket fabrication on your boat, please contact your authorized Monterey dealer.

Refer to the Routine Maintenance section for more information on maintaining aluminum fabrications and precautions for adding additional equipment and fasteners.

NOTES

INTERIOR EQUIPMENT

10.1 Head Compartment & Marine Toilet

The head compartment is located on the port side, forward of the passenger seat. It is equipped with a fresh water sink and faucet located below a hinged hatch in the vanity counter top. A retractable shower head is located in a special compartment below the port window. The sink and shower are equipped with hot and cold water. The shower head is equipped with a valve that allows the shower water to be turned on and off without affecting the temperature to conserve water while showering.

To use the sink, open the hatch. Then rotate the faucet to the operating position and make sure the Water Pump breaker in the cabin DC breaker panel is on. Always lower the faucet to the stored position and close the lid when the sink is not being used.

The head compartment/shower floor and sink drains to the cabin sump system. The sump is always activated whenever the house batteries are connected.

Storage compartments are located below the vanity and in the forward bulkhead. Daylight is provided by a window equipped with a privacy shade in the side of the hull above the vanity. Additional daylight and fresh air are provided to this area by the cabin door and an opening port window. The window opens to the cockpit walk-through and is equipped with a removable screen. Refer to the Ventilation System chapter for more information on operating the port window.

There is also an exhaust blower, overhead light and 120/220 volt GFI duplex outlet. The 12 volt light and exhaust blower are activated by switches in the forward bulkhead.

The storage compartment doors are secured with dual action, push to lock latches. To open a door, push on the latch knob. The knob is spring loaded and will pop out one inch, providing a finger hold and releasing the dead bolt on the latch mechanism. A slight pull is required to release the friction latch and open the door. The doors will be held closed by the friction latches while at anchor or at the dock. To close and secure, make sure the door

Head Compartment

Head Compartment Sink

is completely closed and push the knob in. The knob will stay in and the locking mechanism will be activated. Make sure all knobs are pushed in to activate the positive lock dead bolts whenever the boat is underway.

Marine Head System

The 12 volt marine toilet is connected to the pressurized fresh water system which results in less odor in the head compartment. It has an automatic pumping device that fills and empties the bowl. Once a button on the control is pressed, the entire cycle is completely automatic. The system uses very little water, approximately 2.27 quarts (2.5 liters) per flush.

To use the toilet, make sure the Head System and Water Pump circuit breakers are on. Then press the "Add Water" button on toilet control panel to add a preset amount of water to wet the bowl which prevents organic residues dirtying the ceramic sides. After using the toilet, pressing the "Flush" button starts an automatic flushing cycle that moves the waste to the holding tank and leaves the bowl completely clean and dry in the rest position.

The head contains an integrated, high-speed turbine grinding pump that transfers waste to the holding tank where it remains until it is pumped out by a waste dumping station or the overboard diaphragm discharge system.

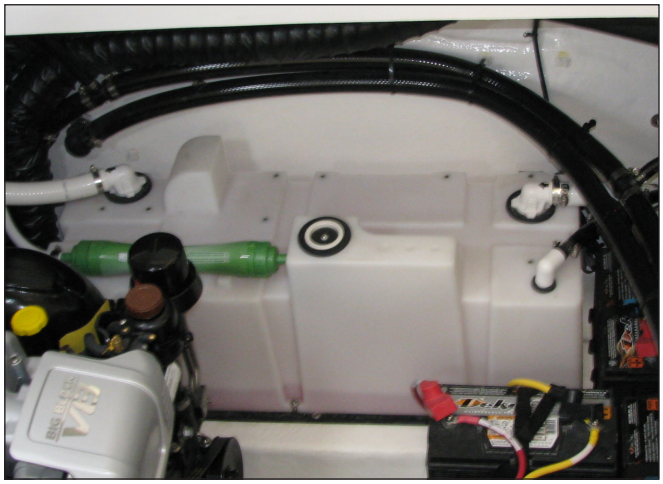
The fluid level in the waste/holding tank is monitored by a lighted LED symbol in the in the lower starboard corner of the toilet control panel. The symbol lighted green indicates the holding tank is less than half full. The symbol lighted yellow indicates the tank is at least half full. The symbol lighted red indicates the tank is full and flushing is not recommended. A lockout system built into the control panel prevents the toilet from flushing when the holding tank is full.

Refer to the toilet manufacturer owner's manual for more information on the operation of the marine head system.

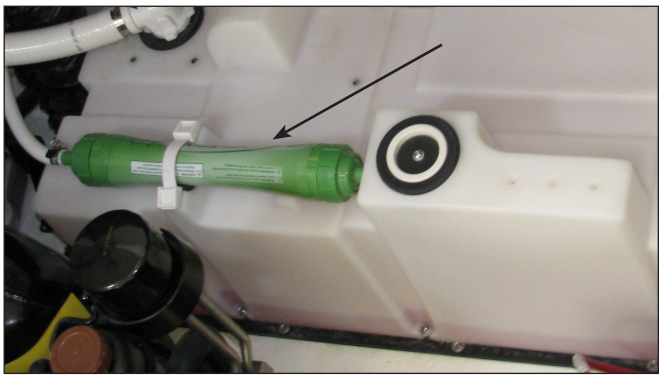
Head System Holding Tank

The holding tank is located in the engine compartment bilge. When the tank is full, the red LED light on the toilet control panel will be lit, indicating that flushing is not recommended. The tank must either be pumped out by an approved waste dumping station through the waste deck fitting or the optional overboard discharge pump.

Tecma Toilet Control Panel &
Overboard Macerator Discharge Switch



Waste Holding Tank



Holding Tank Vent Filter

A lockout system built into the toilet prevents it from flushing when the holding tank is full. You should not attempt to bypass the lockout and flush the toilet when the tank is full. An overfilled holding tank will force waste into the holding tank vent filter. This will clog the vent filter and could cause damage to the holding tank. It will also cause unpleasant odors in the cabin and cockpit.

To pump out the holding tank with the overboard waste discharge system, open the valve at the discharge thru-hull fitting in the engine compartment. Activate and hold the momentary overboard macerator switch in the toilet control panel. Monitor the fluid level closely as the tank is pumped. Release the switch to turn off the overboard pump when pumping is complete. Then close the ball valve at the thru-hull fitting.

Notice:
Monitor the pumping operation as the overboard discharge pump drains the holding tank. Be prepared to turn the pump off immediately when draining is complete.

Notice:
In order to comply with current State, Federal and Coast Guard regulations, the valve at the discharge thru-hull fitting must be turned off and secured whenever the boat is operating in areas where the discharge of sewage is prohibited.

CAUTION

IN MANY AREAS IT IS ILLEGAL TO PUMP HEAD WASTE DIRECTLY OVERBOARD. VIOLATION OF THESE POLLUTION LAWS CAN RESULT IN FINES OR IMPRISONMENT. ALWAYS KNOW THE LAW FOR THE AREAS IN WHICH YOU BOAT. NEVER DUMP HEAD OR HOLDING TANK WASTE OVERBOARD ILLEGALLY.

Notice:
The overboard discharge pump option for the waste holding tank is not available with the grey water system.

Head System Maintenance

The head should be cleaned and inspected for leaks regularly.

The holding tank should be pumped out and flushed as needed. Periodically add chemical to the holding tank to help control odor and to chemically break down the waste. See the head manufacturer owner's manual for additional operating and maintenance information.

Discharge Thru-Hull Valve

The vent hose for the holding tank is equipped with a charcoal filter to reduce odor from the holding tank. The filter should be changed once a year or if the holding tank has become overfilled, which will plug the filter and could cause damage to the waste system.

Notice:
The head system must be properly winterized before winter lay-up. Please refer to the Seasonal Maintenance chapter and the manufacturer owner's manual for winterizing instructions.

10.2 Cabin

Overview

The cabin is located on the starboard side, forward of the helm. It is equipped with berths, entertainment center, refrigerator and microwave. Storage for dunnage is provided by drawers in the main salon and cabinets on each side of the mid berth. A central vacuum and the optional cabin air conditioning unit are located in the compartment on the starboard side of the mid berth.

The counter tops next to the berth are made of Karadon. The refrigerator, microwave oven, a 120/220 volt GFI outlet, 12 volt outlet, entertainment center/stereo, AC/DC electrical panels and antenna gain control panel are built into the forward bulkhead.

Cabinet Door and Drawer Latches

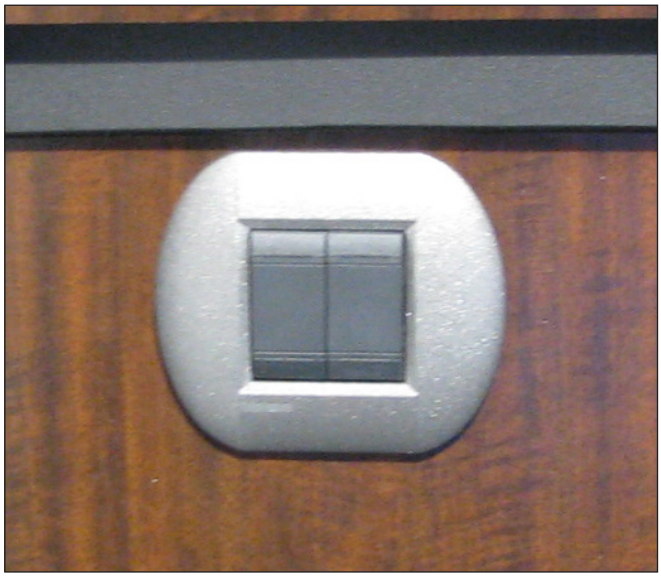
The cabinet doors and drawers in the cabin are secured with dual action, push to lock latches. To open a drawer or cabinet door, push on the latch knob. The knob is spring loaded and will pop out one inch, providing a finger hold and releasing the dead bolt on the latch mechanism. A slight pull is required to release the friction latch and open the door. The cabinet doors and drawers will be held closed by the friction latches while at anchor or at the dock. To close and secure, make sure the door is completely closed and push the knob in. The knob will stay in and the locking mechanism will be activated.

The knobs should be pushed in to activate the positive lock dead bolts whenever the boat is underway.

Cabin Dual Action Drawer Latches In Latched/Secure & Unlatched Position

Cabin Light Switches

Most of the cabin lights are controlled by switches on the cabin walls. Other lights have switches on the light fixture. Some of the lights are controlled by electronic dimmer switches. Pressing and holding the top of the switch will turn the lights on and make them brighter. Pressing and holding the bottom of the switches will dim the lights or turn them off.



Cabin Light Switches

10.3 Main Salon

Refrigerator (AC/DC)

A dual voltage refrigerator is supplied as standard equipment and is mounted in the forward cabin bulkhead. This unit will operate on 120/220 volt AC or 12 volt DC power. The refrigerator switches to 12 volt DC automatically when the AC power is disconnected and the Cabin Refrigerator breaker is activated in the cabin DC panel. When 120/220 volt AC current is provided by the Cabin Refrigerator circuit breaker on the 120/220 volt panel, the

refrigerator automatically switches to AC power. Care should be exercised while operating the refrigerator on 12 volt power without the engines running. It draws a substantial amount of current and can severely drain the house batter bank through extended use. The refrigerator slide out drawer has a latch to secure the drawer while under way. Make sure the drawer is properly secured whenever the boat is moving. Refer to the refrigerator owner's manual for additional operating and maintenance instructions.

Microwave Oven

A microwave oven is provided as standard equipment. It operates on AC power and is protected by the Microwave breaker in the AC breaker panel. Refer to the microwave owner's manual for detailed information on the microwave oven installed in your boat.

TV and Entertainment Center

The optional CD/DVD/Blu-Ray player and stereo are built into the forward bulkhead. The TV is in the side bulkhead across from lounge seat/berth They are activated by circuit breakers in the DC electrical panel.

TV Antenna Amplifier

The antenna amplifier allows you to monitor and adjust the TV antenna gain by adjusting the intensity of the signal input or output. Generally the amplifier allows the adjustment of the signal power in order to optimize the reception. Refer to the TV antenna owner's manual for additional operating and maintenance instructions.

Cabin Forward Bulkhead, AC/DC Panels, Refrigerator, Microwave, Stereo, CD/DVD/Blu-Ray Player & TV Antenna Amplifier

Cabin Stereo & Blu-Ray Player

Antenna Gain Control & Monitor

Cabin Lounge Seat/Berth In Lounge Position

Cabin Lounge Seat/Berth In Berth Position

Berth and Lounge Seat

The Lounge seat and stools with cushions that can be used as a table are located in the main salon. Daylight is provided by a window equipped with a privacy shade in the side of the hull above the lounge. The stools store in a compartment below the TV when they are not being used.

To convert the lounge to a berth, lift slightly on the front of the lounge seat and slide the seat out until the backrest lays flat. Lift the backrest cushion while sliding the lounge seat toward the hull side to convert the berth back to a lounge seat. Make sure the front of the lounge seat cushion drops into the seat base to secure the cushion in the lounge position.

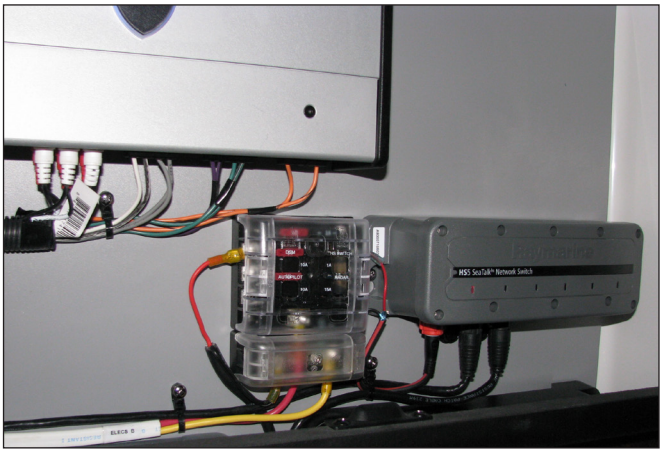
Electronics Modules and Fuses

Modules and a fuse panel for the helm electronics are located in the overhead compartment on the starboard side of the cabin, aft of the lounge seat.

Windshield Wiper Access

A removable panel in the head liner above the lounge seat provides access to the windshield wiper motor.

Electronics Modules & Fuse Panel Compartment



Fuse Panel In Electronics Module Compartment

Mid Cabin

Central Vacuum & Optional Air Conditioner

10.4 Mid Cabin

The mid cabin is located aft of the lounge seat. Lighting is provided by recessed 12 volt lights in the headliner that are controlled by a wall switch on the starboard side and two lights with switches on the light fixtures mounted on the each side of the cabin. A hatch below the mid berth cushion provides access to the cabin bilge, sump pump, and the forward bilge pump and automatic switch. A carbon monoxide detector is mounted on the port bulkhead and storage compartments are built into the port and starboard bulkheads.

The central vacuum and optional cabin air conditioner are located in the port storage compartment. Make sure not to store heavy items that could damage the vacuum or air conditioning system in rough water in this compartment.

Central Vacuum

The central vacuum, hose and accessories are located in the starboard mid cabin storage compartment. The vacuum is activated by a circuit breaker in the AC panel. The connection for the hose is on the starboard mid cabin bulkhead. Refer to the vacuum manufacturer's owner's manual for more information on the operation and maintenance of the central vacuum cleaner.

Vacuum Hose Connection, Mid Cabin Light Switches & 120/220 Volt GFI Outlet

Cabin Sump Pump & Bilge Pump with Automatic Switch

Carbon Monoxide Detector

A carbon monoxide (CO) detector is installed on starboard mid cabin bulkhead. If excess carbon monoxide fumes are detected, an audible beeping will sound indicating the presence of the toxic gas.

A by-product of combustion, carbon monoxide is invisible, tasteless, odorless, and is produced by all engines, heating and cooking appliances. The most common sources of CO on boats are the engines, auxiliary generators and propane or butane stoves. These produce large amounts of CO and should never be operated while sleeping.

Please read the owner's manual supplied by the detector manufacturer for operation instructions and additional information regarding the hazards of carbon monoxide gas. Also read more about carbon monoxide, carbon monoxide detectors, and proper ventilation in the Ventilation Systems and Safety Equipment chapters in this manual. This is especially essential if your boat is equipped with the optional generator. If you did not receive a manual for your carbon monoxide detector, please contact your dealer or the Monterey Boats Customer Service Department.

Carbon Monoxide Detector

WARNING

ACTIVATION OF THE CARBON MONOXIDE DETECTOR INDICATES THE PRESENCE OF CARBON MONOXIDE (CO) WHICH CAN BE FATAL. EVACUATE THE CABIN IMMEDIATELY. DO A HEAD COUNT TO CHECK THAT ALL PERSONS ARE ACCOUNTED FOR. DO NOT REENTER THE CABIN UNTIL IT HAS BEEN AIRED OUT AND THE PROBLEM FOUND AND CORRECTED.

10.5 Cabin Air Conditioner

The optional air conditioning unit operates on AC power. It is equipped with reverse cycle heat and can be operated as a cooling or heating unit. There is one air conditioner with ducts for the main cabin, mid cabin and head compartment. It is protected by a circuit breaker in the 120/220 volt AC breaker panel.

To operate, make sure the thru-hull valve for the cabin air conditioner raw water supply pump, located in the engine compartment, is on. Turn the cabin air conditioning breaker in the AC breaker panel to the ON position. The air conditioning or heat will then be controlled by the electronic control panel in the V-berth. When activated, water should continuously flow from the overboard thru-hull in the port hull side.

Typical Air Conditioner Control Panel

The air conditioning system produces heat when it is operated in the reverse cycle mode. The ability of the unit to produce heat is affected by the temperature of the seawater. As the seawater temperature lowers, the air conditioner's ability to produce warm air decreases. When the seawater temperature drops below 40 - 45 degrees, the air conditioner will not be able to produce heat. You should not operate the air conditioner to produce heat when the water temperature is below 40 degrees.

The air conditioning unit creates condensation that drips into the pan at the base of the unit. A hose attached to the pan drains the water to the sump

system. The sump system is activated whenever the house batteries are connected and must be operating properly when the air conditioner is operating. It is normal for some water to be in the pan whenever the air conditioner has been used. The condensation pan should be checked periodically to make sure it is draining properly.

The drain hoses, condensation pan and sump should be flushed clean if they become restricted by mold or debris. If drain becomes plugged, the condensation pan will overflow into the mid cabin storage compartment and into the mid cabin.

You should always keep the cabin door closed when operating the air conditioner. If the cabin door is left open, it could cause the air conditioner unit to run continuously and not cycle enough to defrost the coils on the condenser. This could cause the coils to develop enough ice to reduce the unit's ability to cool the boat.

The intake line for the pump is equipped with a sea strainer that must be checked for debris frequently and cleaned as necessary. Refer to the Raw Water System chapter for information on the air conditioning pump and cleaning the sea strainer.

You also should refer to the air conditioner owner's manual for additional operating and maintenance instructions.

Notice:
Air conditioners use surface water as a cooling medium. The boat must be in the water and the raw water supply system must be properly activated prior to use. After a certain amount of time without water flow, the air conditioning unit will automatically power down. Always check for proper water flow out of the air conditioning pump discharge thru-hull when the air conditioner is operating.

Cabin Air Conditioning Unit & Condensation Pan


Cabin Floor & Steps

10.6 Cabin Woodwork

Cabin Floors
The cabin floor and steps are a simulated wood material with teak image and texture. It is important to avoid tracking sand and dirt on the cabin floor and steps. Sand and dirt acts like sand paper and will eventually damage the finish in the traffic areas.

The floors and steps can be vacuumed and cleaned with a mixture of water and Murphy's Oil Soap. Wipe dry with a clean towel.

Carpeted areas are cleaned and maintained in the same fashion as the carpeting in your home.

Walls, Cabinets and Trim
The hardwood used for the wall trim moldings is finished with a high quality urethane varnish. The walls themselves and the cabinet doors are made of a laminated, simulated wood that requires no maintenance. The walls and molding can be routinely cleaned with a damp cloth. For heavy duty cleaning, use a mixture of water and Murphy's Oil Soap or white vinegar and water to clean the wood or laminate and wipe it dry with a clean towel. Apply a furniture polish to add luster and help to preserve the finish.

NOTES

ROUTINE MAINTENANCE

13.1 Exterior Hull and Deck

Hull Cleaning Below The Water Line

When the boat is removed from the water, clean the outer bottom surface immediately. Algae, grass, dirt and other marine growth is easier to remove while the hull is still wet. Use a pressure cleaner or a hard bristle brush to clean the surface.

Marine Growth, Bottom Paint and Osmosis Blistering

If the boat is to be left in saltwater for extended periods, the hull must be protected from marine growth by antifouling paint. Because of variations in water temperature, marine growth, and pollution in different regions, a qualified boat yard in your area should be consulted when deciding what bottom paint system to apply to your hull. This is extremely important as pollution and marine growth can damage fiberglass hulls.

Your Monterey hull is manufactured using state-of-the-art materials and processes. A layer of super tough, Ashland "AME" Resin with high density and superior adhesion properties provides an exceptionally effective barrier to osmotic blistering. Osmosis is caused by a chemical reaction between water and substances in the hull laminate below the waterline. If water breaches the exterior gelcoat and barrier layer, it can react with the chemical components in the laminate creating acidic substances. These substances create pressure behind the gelcoat which causes blisters.

CAUTION

SANDBLASTING THE HULL BOTTOM WILL DAMAGE THE FIBERGLASS. USE A FIBERGLASS WAX REMOVER AND SAND TO SCUFF THE GELCOAT SURFACE. THE INSTRUCTIONS AND RECOMMENDATIONS OF THE BARRIER COATING AND ANTIFOULING PAINT MANUFACTURERS SHOULD BE FOLLOWED EXACTLY.

CAUTION

BARRIER COATINGS AND BOTTOM PAINT SHOULD BE APPLIED ONLY BY QUALIFIED MARINE PROFESSIONALS IN A BOAT YARD OR DEALERSHIP THAT SPECIALIZES IN THEIR APPLICATION. USE ONLY STANDARD, HIGH QUALITY ANTIFOULING PAINTS AND BARRIER COATINGS FROM NAME BRAND MANUFACTURES SUCH AS INTERLUX AND PETTIT.

CAUTION

DO NOT ALLOW THE HULL ANTIFOULING PAINT TO CONTACT THE OUTDRIVES. MOST ANTIFOULING PAINTS DESIGNED FOR HULL BOTTOMS CONTAIN COPPER AND CAN CAUSE SEVERE GALVANIC CORROSION DAMAGE TO OUTDRIVE UNITS. USE ONLY ANTIFOULING PAINT DESIGNED FOR OUTDRIVES AND OUTBOARD MOTORS. ALWAYS LEAVE A ONE INCH BARRIER BETWEEN THE HULL BOTTOM PAINT AND OUTDRIVE.

Most bottom paints require some maintenance. Proper maintenance is especially important when the boat is in saltwater and not used for extended periods or after dry storage. If the hull bottom has been painted with antifouling paint, contact your dealer for the recommended maintenance procedures.

Sacrificial Anodes

Sacrificial anodes are installed on the inboard engine's fresh water cooling system, catalytic converter raw water exhaust manifold, the outdrives, and the trim tab planes. The optional bow thruster and generator cooling system are also equipped with anodes.

The anodes are less noble than copper based alloys, aluminum, cast iron and stainless steel. They will deteriorate first, protecting the more noble engine and underwater hardware against galvanic corrosion. Anodes should be checked monthly and changed when they are 75% of their original size. Additionally, anodes that are subjected to frequent wetting and drying require periodic scraping with sandpaper to remove scale

and oxidation to maintain their effectiveness. When replacing the anodes, make sure the contact surfaces are clean, shiny metal and free of paint and corrosion. Never paint over the anode. The bonding system should be inspected by a qualified marine electrician once a year to make sure all connections are sound and there is continuity throughout the system.

Boats stored in saltwater will normally need to have the anodes replaced every 6 months to one year. Anodes requiring replacement more frequently may indicate a stray current problem within the boat or at the slip or marina. Anodes that do not need to be replaced after one year may not be providing the proper protection. Loose or low quality anodes could be the problem. There could also be a problem in the bonding system. Contact your dealer for the proper size and type of anodes to be used and the specific installation procedure.

Notice:
Your Volvo Penta or Mercruiser product has been shipped with Aluminum anodes. Aluminum is effective in both saltwater and in fresh water. If you will be boating in saltwater exclusively, we recommend switching the anodes to Zinc. If you will be boating in fresh water exclusively, we recommend switching the anodes to Magnesium. Using the recommended anode is more critical when stainless steel propellers are installed. Consult your dealer or the engine manufacturer for information on the proper anode for your boating area.

Typical Mercruiser Outdrive Anodes


Typical Volvo Outdrive Anodes

Trim Tab Anode

Fiberglass Gelcoat Surfaces

- Keep the gelcoat surface out of direct sunlight or covered when it is not in use.
- Wash gelcoat frequently (daily in salt or polluted environments) with mild detergent and plenty of fresh water. Remove any stains quickly. Gelcoat is microscopically porous, so long term staining may become permanent.
- Regularly wax gelcoat surfaces with marine grade wax recommended for fiberglass finishes in the spring and fall. (Monthly in salt or polluted environments) The washing and waxing of your boat will have the same beneficial effects as they have on an automobile finish. The wax will fill minute scratches and pores thus helping to prevent soiling and will extend the life of the gelcoat.

DON'TS

- Do not use plastic or other nonporous (nonbreathable) materials to cover gelcoat surfaces. Trapped moisture from condensation can cause gelcoat damage. Shrink wrap storage covers must be properly ventilated, including hull sides.
- Do not use abrasives, bleaches, ammonia, acids, harsh detergents or highly alkaline (high PH) cleaners. See your dealer for special marine formulations. Harsh abrasive and chemical cleaners are not recommended because they can damage, stain or dull the gelcoat, reducing its life and making it more susceptible to stains.
- NEVER apply wax or buffing compound to a gelcoat surface in direct sunlight.
- Do not attempt to remove stains and scratches. Chalking, stains, and minor scratches can be removed in most cases with careful rubbing and polishing with appropriate chemicals and is best done by a professional - see your dealer.

After the boat is exposed to the direct sunlight for a period of time, the color in the gelcoat tends to fade, dull or chalk. A heavier buffing is required to bring the gelcoat back to its original luster. For power cleaning use a light cleaner. To clean the boat by hand, use a heavier automotive cleaner. Before cleaning the surfaces, read the instructions given with the cleaner. After cleaning the surfaces, apply wax and polish all fiberglass surfaces except the nonskid areas.

If the fiberglass should become damaged and need repair, contact your dealer for an authorized repair person to make the repairs.

Stainless Steel Hardware

Marine grade stainless steel components such as hardware, cleats, eyes and rails offer superior corrosion resistance. When properly maintained, stainless steel will not rust or stain, even in harsh saltwater environments. However, if not maintained, stainless steel can rust, discolor or even corrode. The following guidelines will help keep stainless steel looking good for years to come.

DO'S

- Clean stainless steel frequently (daily in salt or polluted environments) with mild soap and plenty of water. Any cleaner safe for use on glass is usually safe for stainless.
- Remove rust spots (especially around welds) immediately with a brass, silver or chrome cleaner. Irreversible pitting will develop under rust allowed to remain on stainless for any period of time.
- Remove rust stains on gelcoat. See dealer for recommended product.
- Protect stainless with waxes or polishes suitable for marine use.

DON'TS

- Do not use coarse abrasives like sandpaper or steel wool which may actually cause rusting.
- Do not use acids or bleaches which may etch the naturally occurring protective coating.
- Do not leave stainless steel in contact with iron, steel or other metals which cause contamination leading to rust or corrosion.

GEMLUX MAINTENANCE INSTRUCTIONS

Job	Cleaning Agents	Method	Comments
Routine Cleaning	Soap and Water	Apply with a sponge or soft cloth. Dry area completely.	Once your stainless is free of discoloration and/or bleeding, spray GEMLUX Passivation Solution directly onto stainless. Allow to cure for 30-60 seconds. Rinse with fresh water and dry the area. This solution will help re-passivate the stainless steel.
Stubborn stains, discoloration or bleeding	GEMLUX Cleaning Wax	Apply with soft, dry cloth.	

Gemlux Stainless Steel Hardware

Most of the stainless steel hardware on your boat is made of Gemlux, polished stainless steel. In order to ensure that your Gemlux stainless steel maintains its beautiful finish, it is critical that you care for it properly.

⚠ CAUTION ⚠

STAINLESS STEEL CAN BE DAMAGED BY EXPOSURE TO ACIDS AND OTHER CORROSIVE AGENTS FOUND IN MANY CLEANING PRODUCTS. A PARTIAL LIST OF ADDITIVES THAT MAY CAUSE STAINING AND A WEAKENING OF THE FINISH IS PROVIDED BELOW. USE OF THESE AND OTHER SIMILAR SOLUTIONS TO CLEAN YOUR BOAT CAN CAUSE YOUR STAINLESS STEEL TO BLEED AND WILL VOID YOUR WARRANTY.

Chlorsuphonic Acid	Sodium Hypochlorite
Ferrous Lodide	Sulphuric Acid
Hydrobromic Acid	Muriatic Acid
Iodine	On & Off Cleaner
Sodium Chlorite	Rust StainsAway
Sulphur Chloride	Ferrous Chloride
Bleach	Hydrochloric Acid
Comet	Hydrofluoric Acid
EZ-ON EZ-OFF Cleaner	Sodium Bifluoride
Ferric Chloride	Stannic Chloride
Fluorine	SnoBol
Hydrofluosilicic Acid	Soft Scrub
Silver Chloride	Marine Spray Nine

When using the boat in saltwater, the hardware should be washed with soap and water after each use. Frequent cleaning of your stainless steel with soap, water and Gemlux Cleaning Wax will help maintain the finish. Always rinse the metal thoroughly with clean water and dry completely. Clean soft cloths or pads should be used. The use of steel wool pads or other highly abrasive brushes or sponges are not recommended and will damage the surface.

Contamination of the surface by chemicals, dirt or other material hinders the passivation process and traps corrosive agents, thus reducing corrosion protection. If your stainless is exposed to such chemicals it should be re-passivated with Gemlux Passivation solution.

For purchase information on the Gemlux Cleaning Wax or Gemlux Passivation Solution, please contact Gemlux at: Phone: 888-436-5891 Fax: 904-269-5905 or on the web at www.gemlux.com.

⚠ CAUTION ⚠

UNDER NO CIRCUMSTANCES SHOULD ANY ABRASIVE MATERIALS SUCH AS SANDPAPER, BRONZE WOOL, OR STEEL WOOL BE USED ON STAINLESS STEEL. DAMAGE TO THE HARDWARE WILL RESULT.

Anodized Aluminum Surfaces

Anodized aluminum should be washed periodically with soap and water to keep it clean. If the boat is used in saltwater or polluted water, the aluminum should be washed with soap and water after each use. Saltwater allowed to remain on anodized aluminum will penetrate the anodized coating and attack the aluminum.

If your boat is used in saltwater and equipped with a wakeboard tower and fiberglass hardtop, it will require special attention to the anodized aluminum just below the top. This area is subject to salt build up from salty condensation and sea spray. It is also frequently overlooked when the boat is washed and will not be rinsed by the rain. Consequently, the aluminum just below the top is more likely to become pitted than the exposed aluminum on the structure. Make sure the aluminum in this area is washed frequently with soap and water and rinsed thoroughly. Pay particular attention to places where the top material contacts the frame.

Once a month coat the entire frame with a metal protector made for anodized aluminum to protect against pitting and corrosion caused by the harsh effects of saltwater. Do not use automotive or boat wax designed for paint or gel coat on anodized aluminum. The wax can contaminate the aluminum and damage the anodized surface.

CAUTION

ONE DRAWBACK TO METAL PROTECTORS IS THAT THEY CAN MAKE THE METAL SLIPPERY. THEREFORE, METAL PROTECTORS SHOULD NOT BE USED ON TOWER LADDERS, STEERING WHEELS AND OTHER AREAS WHERE A GOOD GRIP AND SURE FOOTING IS IMPORTANT.

Stains can be removed from anodized aluminum with a metal polish or fine polishing compound. To minimize corrosion, use a caulking compound or Teflon based sealer to bed hardware and fasteners mounted to aluminum fabrications. If the anodized coating is badly scratched it can be touched up with paint. With proper care, anodized aluminum will provide many years of service.

Powder Coated or Painted Aluminum

Powder coated or painted aluminum should be washed periodically with soap and water to keep it clean. If the boat is used in saltwater or polluted water, the aluminum should be washed with soap and water after each use. Saltwater allowed to remain on powder coated or painted aluminum will penetrate the coating and attack the aluminum, usually around fasteners and hardware mounted to the aluminum.

If your boat is used in saltwater and equipped with a wakeboard tower and fiberglass hardtop, it will require special attention to the aluminum just below the top. This area is subject to salt build up from salty condensation and sea spray. It is also frequently overlooked when the boat is washed and will not be rinsed by the rain. Consequently, the aluminum just below the top is more likely to become pitted than the exposed aluminum on the structure. Make sure the aluminum in this area is washed frequently with soap and water and rinsed thoroughly. Pay particular attention to places where the top material contacts the frame.

Once a month check for damage, scratches and corrosion, particularly around fasteners and hardware. Nicked or badly scratched paint and powder coating can be sanded and touched up with enamel paint. Corrosion around fasteners will have to be sanded, then touched up with paint. The fasteners will require fiber washers and sealing with caulk or a Teflon based sealer to isolate the fastener from the aluminum and prevent damage to the paint or powder coating when the fastener is installed. Periodically applying automotive or boat wax to the surface will provide additional protection from the harsh effects of saltwater.

Always repair scratches, nicks and corroded areas as soon as possible. Corrosion left unaddressed will lift the paint or powder coating, allowing moisture to travel between the coating and the aluminum causing the corrosion to spread below the coating and damage the aluminum.

If excessive chipping and peeling occurs, it could be an indication of an electrical fault in the boat or aluminum fabrication. You should contact a qualified marine electrician to inspect your boat immediately and correct the problem if you suspect that your boat may have a fault in the aluminum frame. You should also contact Monterey Boats Customer Service.

Notice:
Boats that are towed behind larger vessels require special attention to the aluminum hardware. The salt spray, salty steam, and chemicals in exhaust gases are particularly corrosive and will eventually penetrate and damage the surface of anodized, painted or powder coated aluminum. It is imperative that the boat and the aluminum are cleaned thoroughly at the completion of each trip or at the end of each day on long cruises to reduce accelerated deterioration of the anodizing or powder coating and premature corrosion to the aluminum.

Chrome Hardware
Use a good chrome cleaner and polish on all chrome hardware.

Acrylic Plastic Glass
Acrylics and Plexiglas have properties that make them ideal for the marine environment. Components such as cabin doors and deck hatches need special care to prevent scratches and other damage. The following guidelines will help keep acrylics and Plexiglas looking good for years to come.

DO'S
- Wash your hatches, windshield connector, side curtains and other clear plastic pieces, as well as other acrylic components on your boat with a mild soap and plenty of lukewarm water.
- Use a clean, soft cloth, applying only light pressure.
- Rinse with clear water and dry by blotting with a damp cloth or chamois.
- Grease, oil or tar may be removed with a good grade of hexane, aliphatic naphtha or kerosene. These solvents may be obtained at a paint or hardware store and should be used in accordance with the manufacturer's recommendations.
- To maintain a high-luster finish on your acrylics, we recommend that after properly cleaning, apply Meguiar's™ Mirror Glaze #10 with a soft towel. Note: If slight scratches appear on acrylics, use Meguiar's™ Mirror Glaze #17

Notice:
Clear plastic (Isinglass) is subject to ultraviolet (sunlight) degradation over time. It may turn yellow-brown (a burnt appearance) and get brittle.

Two things that can accelerate this degradation are:
1. Direct contact with aluminum or stainless steel frames. Use "Standoffs."
2. In salt water areas, dried salt crystals on the plastic will amplify sunlight. Wash after each use and/or windy days.

DON'T'S
- Do not subject acrylic material to high temperatures when polishing.
- Do not use glass cleaning sprays, cleaners containing ammonia, scouring compounds, or solvents like acetone, alcohol, gasoline, benzene, carbon tetrachloride or lacquer thinner.
- Do not use masking tapes, duct tapes or packing tapes on your acrylic materials.
- Do not drill holes in your acrylic materials without proper drill bits (special bits are used in acrylic material to avoid damage).

13.2 Upholstery, Canvas and Enclosures
Marine Interior Vinyl Upholstery
The vinyl upholstery used on the seats, cushions, bolsters and headliners should be cleaned periodically with mild soap and water. Any stain, spill or soiling should be cleaned up promptly to prevent the possibility of permanent staining. When cleaning, always rub gently. Avoid using products containing ammonia, powdered abrasive cleaners, steel wool, ink, strong solvents, acetone and lacquer solvents or other harsh chemicals as they can cause permanent damage or shorten the life of vinyl. Never use steam heat, heat guns or hair dryers on vinyl.

Stronger cleaners, detergents and solvents may be effective in stain removal, but can cause either immediate damage or slow deterioration. Lotions, sun tan oil, waxes and polishes, etc., contain oils and dyes that can cause stiffening and staining of vinyl.

The following are typical stains and cleaning tips for marine vinyl:

- For normal cleaning – In general most common stains can be cleaned using warm, soapy water and clear water rinses. Moderate scrubbing with a medium bristle nylon brush will help to loosen soiling material from the depressions of embossed surfaces. For stubborn stains, use commercially available mild detergents in accordance with manufacturers instructions.

- Full strength rubbing alcohol or mineral spirits may be tried cautiously as a last resort on very stubborn stains, if the above suggestions do not work. Indiscriminate use of any solvent or solvent containing cleaner can severely damage or discolor vinyl.

Notice:
Certain stains may become permanently set unless they are removed immediately. The procedure for the removal of more severe staining agents are outlined below:

- Ballpoint Ink, Permanent Marker – Ink spots will stain vinyl permanently. Immediate wiping with rubbing alcohol in a well-ventilated area will remove much of the stain.

- Oil based paint – The use of turpentine in a well ventilated area will remove any fresh paint. Dried paint must be moistened carefully with a semisolid gel-type stripper so that the softened paint can be gently scraped away. Rinse with soap and water.

CAUTION

DIRECT CONTACT WITH PAINT STRIPPERS WILL REMOVE THE PRINT PATTERN FROM VINYL. PAINT STRIPPERS ARE VERY CORROSIVE. TAKE CARE TO AVOID SKIN CONTACT BY WEARING PROTECTION.

- Latex paint – Fresh paint can be wiped off with a damp cloth. Hot soapy water will normally remove dried latex.

- Tar, Asphalt – Remove immediately as prolonged contact will result in a permanent stain. Use a cloth lightly dampened with mineral spirits and rub the stain gently, working from the outer edge of the stain towards the center in order to prevent spreading. Rinse with soap and water.

- Crayon, mustard, ketchup – Sponge with mild soap and water. For stubborn stains that may have set, use a cloth soaked in diluted mild detergent with gentle rubbing. Any remaining stain should be washed with diluted bleach. Rinse repeatedly with clean water.

- Chewing gum – Scrape off as much as possible with a dull knife. Rubbing with an ice cube will assist and make it easier to remove when scraping. The remaining gum should then be removed in a well ventilated area using a cloth saturated with mineral spirits. Use light rubbing. Rinse thoroughly with clean water.

- Lipstick, grease, oil, eye shadow, shoe polish – Apply a small quantity of mineral spirits by means of a cloth with gentle rubbing. Take care not to spread the stain by smearing it beyond its original source. No time should be lost in removing shoe polish as it contains a dye that will cause permanent staining. Rinse thoroughly with water.

- Candy, ice cream, coffee, tea, fruit stains, liquor, wine, suntan lotion, soft drinks. - Use clear lukewarm water and a sponge repeatedly. Any loose material should be gently scraped with a dull knife. Any soiled area remaining after drying should be gently rubbed with a cloth spotted with a mild detergent solution. Rinse thoroughly with clean water.

- Blood, leaf residue - Sponge the area with a clean cloth soaked in cool water. If stubborn stains remain, use household ammonia and rinse repeatedly with a clean, wet cloth. Do not use hot water or soapsuds, as this will set the stain.

- Bird excreta, nausea stains - Sponge the area with soapy water containing diluted bleach until the stain is removed. Rinse thoroughly with water.

- Urine Stains – Sponge with soapy water containing a small amount of household ammonia. Rinse thoroughly with clean water.

- Surface mildew – Wash with diluted bleach using a soft nylon brush for stubborn growth. Rinse repeatedly with clean cold water.

The following are typical stains and cleaning tips for interior marine vinyl:

- Dry soil, dust and dirt, dried on dirt - Remove with a soft cloth. Wash with a soft cloth or nylon brush dampened with water.
- Variations in surface gloss - Wipe with a water dampened soft cloth and allow to air dry.
- Stubborn dirt - Wash with a soft cloth or soft nylon brush dampened with Ivory Soap® and water. Rinse with clean water.
- Stubborn spots and stains - Spray with Tannery Car Care Cleaner® and rub with a soft cloth. Rinse with clean water.
- Liquid spills - Wipe immediately with a clean absorbent cloth. Rinse with clean water.
- Food grease and oily stains - Spray immediately using either Fantastik Cleaner® or Tannery Car Care Cleaner®, wiping with a soft cloth. Take care not to extend the area of contamination beyond its original boundary. Rinse with clean water.

Additional Warnings for Vinyl Fabrics

- Detergents should not be used on a regular or repeated basis for normal cleaning.
- Powdered abrasives, cleaners containing abrasives, steel wool and industrial strength cleaners are not recommended for vinyl.
- Any lacquer solvent will cause immediate, irreparable damage to the vinyl.
- Wax should never be used on any vinyl upholstery, as it will cause premature embrittlement and cracking.
- Dilute chlorine bleach before using. Never use at full strength.
- If flammable solvents such as alcohol, turpentine or varsol are used for cleaning, then only small quantities should be employed in a well ventilated area. Exercise proper care by advising any personnel in the area and keep away from any ignition source. Always wear protective gloves.

Marine Interior Fabrics

Spot clean only with water based shampoo or foam upholstery cleaner. Pretest a small, inconspicuous area before proceeding. Do not over wet. Do not use solvents to spot clean. Pile fabrics may require brushing with a nonmetallic, stiff bristle brush to restore appearance.

Notice:
Water extraction or steam cleaning is not a recommended cleaning method. Cushion covers should not be removed and laundered.

To prevent overall soiling, frequent vacuuming or light brushing with a nonmetallic, stiff bristle brush to remove dust and grime is recommended. When cleaning a spill, blot immediately to remove spilled material. Clean spot or stains from the outside to the middle of the affected area to prevent circling.

Use a professional furniture cleaning service when an overall soiled condition has been reached.

Marine Exterior Vinyl Upholstery with PreFixx® Coating

Monterey Boats uses OMNOVA white, smoother and embossed pleated vinyl material with PreFixx top coating. All other accent embossed white and colored vinyl requires different care and maintenance.

PreFixx Cleaning Instructions

PreFixx is engineered so that upholstery can be cleaned again and again without showing signs of wear. With easy cleanablility, proven stain and abrasion resistance, PreFixx protective finish can reduce maintenance costs and frequent reupholstery.

Durability

Creates a barrier that resists stains from penetrating to the surface of the vinyl for proven, long-lasting protection. With laboratory-tested stain resistance and improved wear properties, BoltaSoft® upholstery treated with PreFixx protective finish can retain a "like-new" appearance longer.

Easy Maintenance

Enables most common stains like dirt and smudges to wipe off easily. Many difficult stains like ballpoint ink also can be cleaned with active solvents, such as nail polish remover, without damaging the PreFixx protective finish (when recommended cleaning instructions are followed).

Normal Care and Cleaning

Remove ordinary dirt and smudges with a mild soap and water solution and a clean, soft cloth or towel. Dry with a soft, lint-free cloth or towel.

CAUTION

THE USE OF VINYL "CONDITIONERS" OR "PROTECTANTS" IS NOT RECOMMENDED AND SHOULD BE AVOIDED ON VINYL UPHOLSTERY TREATED WITH PREFIXX PROTECTIVE FINISH.

Special Cleaning Problems

Although BoltaSoft upholstery treated with Pre-Fixx protective finish is resistant to most common stains, the dyes and pigments in some staining agents have the ability to create a permanent stain if not treated properly. To clean difficult stains from upholstery treated with PreFixx protective finish, locate the staining agent in lists below and follow its recommended cleaning method. For best results, treat all stains immediately.

Cleaning Tip: To determine the method and type of cleaners, the source of the stain should be identified.

Staining Agents: Baby oil, ketchup, chocolate, motor oil, olive oil, grape juice, urine, blood, hair oil tonic, tea, coffee and betadine. Use Method 1.

Staining Agents: Eye shadow, crayon and grease. Use Method 1. If stains remain, use Method 2.

Staining Agents: Tobacco tar (nicotine) permanent felt tip marker, yellow mustard, lipstick, ballpoint pen and spray paint. Use Method 1 If stains remain, use Method 2. For stubborn stains still remaining, use Method 3.
The recommended cleaners used in Cleaning Methods 1, 2 and 3 are progressively more aggressive. Often, it is better to begin with the least aggressive cleaner and move the next strongest only if the stain remains. NEVER EXCEED a staining agent's recommended cleaner or cleaning method, however.

Method 1

Use one of the following cleaners with a soft cloth or damp sponge. Rinse area with fresh water, and then dry with a clean, lint-free cloth.

- Formula 409® All-Purpose Spray Cleaner
- Fantastik® Spray Cleaner

Method 2

Use a solvent-type cleaner, such as rubbing alcohol (isopropyl alcohol). Rinse cleaned area with fresh water, and then dry with a clean, lint-free cloth.

Method 3

Use a strong, active solvent cleaner diluted in water (70% water/30% solvent cleaner), such as nail polish remover (acetone/water). Clean with a soft cloth or damp sponge. Stain should be removed with less than six (6) rubs. If the stain persists after six rubs, the stain has set and probably cannot be removed. Rinse cleaned area with fresh water, and then dry with a clean, lint-free cloth.

CAUTION

SOME SOLVENTS ARE HIGHLY FLAMMABLE. EXERCISE PROPER CARE IN CLEANING AND NOTIFY PERSONNEL IN AREA OF DANGER. WEAR RUBBER GLOVES DURING ALL CLEANING ACTIVITIES. USE CAUTION IN CLEANING AROUND BUTTONS, STITCHING AND WOODEN OR DECORATIVE TRIM, SINCE THESE SOLVENTS COULD SERIOUSLY DAMAGE SUCH AREAS.

Exterior Carpet

Exterior carpet manufactured by Syntec® Industries is produced with a special blend of resilient fibers to withstand traffic and retain its beauty.

Carpets manufactured by Syntec are inherently stain-resistant. To keep your carpet at its best, we recommend regular vacuuming for general cleaning, soap and water for hard-to-remove spots and an approved cleaner for deep cleansing and to revitalize the carpet.

Stain Removal

If a spill does occur, it can easily be removed by following the stain removal chart. All stains should be removed as soon as possible, as this enhances the ability to remove the stain.

Notice:
Most stains should be removed easily from Olefin fibers. If the stain persists, the cleaning procedure should be repeated to ensure stain removal. Remember, the sooner the stain removal process begins, the easier the stain will be to remove. Under no circumstances should any solvent normally associated with the dry cleaning of apparel (perchlorethylene), carbon tetrachloride, etc,) be utilized, as permanent damage to the fiber will result.

CARPET STAIN REMOVAL INSTRUCTIONS

Miscellaneous Stains	Removal Process
Coffee, Tea, Coke, Dye, Fruit Juice, Ice Cream, Motor Oil, Clay, Grease, Blood, Catsup, Chocolate, Milk, Rust, Latex Paint, Water Colors, Berry Stains, Egg, Salad Dressing, Wine, Furniture Polish, Fish Formula, Mayonnaise or urine.	Apply warm water and household detergent in minimal amounts to the stained area. Sponge or scrape until stain is removed and wash thoroughly with clean water.
Persistent Stains	**Removal Process**
Chewing Gum, Crayon, Ink, Wax, Lipstick, Tar Polish or Oil Paint.	Apply warm water and household detergent. Work well into the stained area, then flush with warm water.

Canvas and Side Curtains

Acrylic (Sunbrella) canvas should be rinsed frequently with clear, fresh water and cleaned periodically by using a mild soap and water. Scrub lightly and rinse thoroughly to remove the soap. Do not use detergents. The water should be cold or luke warm, never hot. Scrub with a soft brush and rinse thoroughly. Allow to air dry.

The top or accessories should never be folded or stored wet.

After several years, the acrylic canvas may lose some of its ability to shed water. If this occurs, wash the fabric and treat it with a commercially available water proofing designed for this purpose. Monterey recommends 303 High Tech Fabric Guard.

To apply waterproofing, wash the canvas and allow it to dry completely. Then apply a thin, even coat of waterproofing, allowing the first coat to air dry. Apply a second coat for increased protection.

Notice:
Some leakage at the seams is normal and unavoidable with acrylic enclosures.

Notice:
Some boats are equipped with acrylic (Sunbrella) canvas that is coated with a permanent water proofing called Sea Mark. Canvas treated with Sea Mark will not lose its ability to shed water and never needs to be retreated.

Side curtains and clear connectors can be cleaned with mild soap and water. They should not be allowed to become badly soiled. Dirt, oil, mildew, and cleaning agents containing ammonia, will shorten the life of the vinyl that is used for clear curtains. After cleaning the curtains and allowing them to dry, apply a non-lemon furniture polish or an acrylic glass and clear plastic protector to extend the life of the curtains.

Vinyl curtains should be stored either rolled or flat, without folds or creases. Folding the curtains will make permanent creases that could cause the vinyl to crack.

Notice:
Do not use any polish containing lemon scents or lemon. The lemon juice will attack the vinyl and shorten its life.

Snaps should be lubricated periodically with Teflon or silicone grease. Zippers should be lubricated with silicone spray, paraffin or a product designed to lubricate zippers in marine canvas.

The bimini top, side curtains, clear connector, back drop and aft curtain must be removed when trailering. Canvas enclosures are not designed to withstand the extreme wind pressure encountered while trailering and will be damaged. Always remove and properly store the enclosure before trailering your boat.

Notice:
Your Monterey boat is basically an open vehicle. Therefore, in spite of well-designed and well-fitting canvas enclosures, your boat is not waterproof. We have made every effort to design these enclosures to conform with the boat, but a certain amount of leakage may occur, especially at the seam lines. After cleaning with soap and water, allow seams to thoroughly dry. A sealant can be applied on the seams to somewhat close the needle holes according to the manufacturer's instructions.

WARNING

DO NOT OPERATE THE ENGINE, FUEL CONSUMING HEATERS OR BURNERS WITH THE CANVAS ENCLOSURES CLOSED. THE COCKPIT MUST BE OPEN FOR LEGAL VENTILATION AND TO PREVENT THE POSSIBLE ACCUMULATION OF CARBON MONOXIDE FUMES, WHICH COULD BE LETHAL.

WARNING

CARBON MONOXIDE IS A LETHAL, TOXIC GAS THAT IS COLORLESS AND ODORLESS. IT IS A DANGEROUS GAS THAT WILL CAUSE DEATH IN CERTAIN LEVELS.

CAUTION

NEVER TRAILER YOUR BOAT WITH THE CANVAS ENCLOSURE (INCLUDING SIDE CURTAINS, AFT CURTAIN, WINDSHIELD CONNECTOR, BOW COVER AND COCKPIT COVER) UP. MONTEREY BOATS' CANVAS IS NOT DESIGNED TO WITHSTAND THE HIGH WIND LOADS OF TRAILERING. SEVERE WIND DAMAGE CAN OCCUR SUCH AS TORN MATERIAL, FASTENER PULL-OUT AND FRAME DISTORTION. DAMAGE CAUSED BY TRAILERING IS NOT COVERED UNDER THE LIMITED WARRANTY.

13.3 Cabin Interior

The cabin interior can be cleaned just like you would clean a home interior. The simulated wood floors and steps can be vacuumed and cleaned with a mixture of water and Murphy's Oil Soap or white vinegar and water. Wipe dry with a clean towel. To preserve the cherry and teak woodwork, use furniture polish with wax. To maintain the carpeting, use a vacuum cleaner.

Because air and sunlight are very good cleansers, periodically put cushions, sleeping bags, etc. on deck, in the sun and fresh air to dry and air out. If cushions or equipment get wet with saltwater, remove and use clean, fresh water to rinse off the salt crystals. Salt retains moisture and will cause damage. Dry thoroughly and reinstall.

Vinyl headliner material should be cleaned periodically as explained in the previous section. Avoid using products containing ammonia, bleach, or harsh chemicals as they can shorten the life of vinyl.

If you leave the boat for a long period of time, put all cushions on their sides, open all interior cabin and locker doors, and hang a commercially available mildew protector in the cabin.

CAUTION

ALWAYS READ THE LABEL CAREFULLY ON MILDEW PROTECTORS. REMOVE THE PROTECTOR AND ALLOW THE CABIN TO VENTILATE COMPLETELY BEFORE USING THE CABIN.

Karadon Surfaces

A mild liquid detergent and water or ammonia-based cleaners will remove most dirt and stains from Karadon. For heavy cleaning, oil, and grease, use Fantastik® spray cleaner. Rinse with a clean cloth moistened with fresh water. Wipe dry with a clean cloth.

In most cases, Karadon can be repaired if accidentally damaged. Minor damage, including scratches, general or chemical stains, scorches or burns, and minor impact marks, can be repaired with a light abrasive cleanser and a Scotch-Brite® pad. For heavier damage, light sanding and machine buffing may be necessary so contact your dealer or a professional.

- Avoid exposing Karadon to strong chemicals, such as paint removers, oven cleaners, etc. If contact occurs, quickly flush the surface with water.
- Remove nail polish with a non acetone-based polish remover and flush with water.
- Do not cut directly on Karadon counter tops.

13.4 Bilge and Engine Compartment

To keep the bilge clean and fresh, use a commercial bilge cleaner regularly. Follow the directions carefully. The engine and engine compartment should be kept clean and free of oil accumulation and debris. All exposed pumps and metal components, including the engine and drive gear, should be sprayed periodically with a protector to reduce the corrosive effects of the high humidity always present in these areas.

Maintenance intervals are outlined in the engine owner's manuals. Their recommendations should be followed exactly.

Periodically check the bilge pump for proper operation and clean debris from the strainers and float switch. Inspect all hoses, clamps and thru-hulls for leaks and tightness on a regular basis and operate all thru-hull valves at least once a month to keep them operating properly.

A flow of air into the bilge is provided by vents located in the deck near the engine compartment. Periodic inspection and cleaning of the ventilation ducts is necessary to ensure adequate air circulation.

Engines

Proper engine maintenance is essential to the proper performance and reliability of your inboard engines. Maintenance schedules and procedures are outlined in your engine owner's manual. They should be followed exactly.

Proper engine operation requires a good supply of clean, dry fuel. Improper marina fuel storage techniques, limited boat usage, etc. can cause the fuel to become contaminated.

The age of fuel can affect engine performance. Chemical changes occur as the fuel ages that can cause deposits and reduce the cetane or octane rating of the fuel. Severely degraded fuel can damage the engine and boat fuel tank and lines. Therefore, if your boat is not being run enough to require at least one full tank of fresh fuel a month, a fuel additive should be added to protect it from degradation. Your dealer or the engine manufacturer can provide additional information on fuel degradation and fuel stabilizers recommended for your engine.

In many states, most gasoline is blended with ethanol alcohol. Ethanol is a strong solvent and can absorb water during periods of storage. You should refer to the engine operating manual for information regarding alcohol blended fuels and how it affects the operation of your marine engine.

Generator (Optional)

The engine maintenance required on the generator is similar in many ways to the main engines. The engine incorporates a pressure-type lubrication system and a fresh water cooled engine block which is thermostatically controlled.

The seawater cooling system on the generator is equipped with a sacrificial anode to protect cooling system components from galvanic corrosion. The anode should be inspected when the generator is serviced and replaced when it is 75% of its original size or at least once each year.

The most important factors to the generator's longevity are proper ventilation and maintenance of the fuel system, ignition system, cooling system, lubrication system and the AC alternator.

Maintenance schedules and procedures are outlined in your generator owner's manual. They should be followed exactly.

Notice:

The generator charges the house batteries just enough to compensate for the DC electrical current the engine requires to operate. Therefore, it is important to activate the battery charger to maintain the house and engine batteries whenever the generator is running.

13.5 Drainage System

It is essential that the following items be done periodically to maintain proper drainage of your boat:

- Clean the cockpit drains with a hose to remove debris that can block water drainage.
- Frequently test the automatic bilge pump and high water alarm/emergency pump switches for proper operation. This is accomplished by lifting the float switch until the pump or alarm is activated. You can also use a garden hose to flood the bilge until the water level is high enough to activate the pump.
- Flush all gravity drains with fresh water to keep them clean and free flowing.
- Operate the thru-hull valves once a month and service as required.
- Clean and inspect the shower and cabin drain sump system. Remove accumulated debris and flush with fresh water. Frequently test the automatic pump switch for proper operation.
- Flush the air conditioner condensation pans and drain hoses with fresh water at least once each season to remove mold and debris. This is particularly important because mold tends to accumulate in condensation pan drains and, if they not cleaned regularly, the drains can clog and flood the cabin sole or cockpit when the air conditioners are operating.
- Run all overboard pumps briefly at least once a month to keep them operating properly.

Notice:
All drains and pumps must be properly winterized before winter lay-up.

CAUTION

NEVER USE HARSH CHEMICAL DRAIN CLEANERS IN MARINE DRAIN SYSTEMS. PERMANENT DAMAGE TO THE HOSES AND FITTINGS MAY RESULT.

NOTES

SEASONAL MAINTENANCE

14.1 Lay-up and Storage

Before Hauling:

- Pump out the head and holding tank. Flush the holding tank using clean water and a deodorizer. Pump out the cleaning solution.
- The fuel tank should be left nearly full to reduce condensation that can accumulate in the tank. Allow enough room in the tank for the fuel to expand without leaking out the vent.
- The age of fuel can affect engine performance. Chemical changes occur as the fuel ages that can cause deposits and reduce the octane rating of the fuel. Severely degraded fuel can damage the engine and boat fuel tank and lines. Therefore, if your boat is not being run enough to require at least one full tank of fresh fuel a month, a fuel additive should be added to protect it from degradation. Operate the boat for at least 15 minutes after adding the additive to allow the treated fuel to reach the engine.
- Your dealer or the engine manufacturer can provide additional information on fuel degradation and fuel additives recommended for your engine. For more recommendations for your specific area, check with your dealer.
- Drain water from the fresh water system.
- Consult the engine owner's manual for detailed information on preparing the engine for storage.

Lifting

It is essential that care be used when lifting your boat. Make sure the spreader bar at each sling is at least as long as the distance across the widest point of the boat that the sling will surround. Put the slings in position. The fore and aft slings should be tied together to prevent the slings from sliding on the hull.

Typical Sling Locations

CAUTION

BOATS CAN BE DAMAGED FROM IMPROPER LIFTING AND TRANSPORTING WITH FORK LIFTS. CARE AND CAUTION MUST BE EXERCISED WHEN TRANSPORTING A BOAT WITH A FORK LIFT. NEVER HOIST THE BOAT WITH A SUBSTANTIAL AMOUNT OF WATER IN THE BILGE.

SEVERE GEL COAT CRACKING OR MORE SERIOUS HULL DAMAGE CAN OCCUR DURING HAULING AND LAUNCHING IF PRESSURE IS CREATED ON THE GUNWALES (SHEER) BY THE SLINGS. FLAT, WIDE BELTING SLINGS AND SPREADERS LONG ENOUGH TO KEEP PRESSURE FROM THE GUNWALES ARE ESSENTIAL. DO NOT ALLOW ANYONE TO HAUL YOUR BOAT WHEN THE SPREADERS ON THE LIFT ARE NOT WIDE ENOUGH TO TAKE THE PRESSURE OFF THE GUNWALES.

Supporting The Boat For Storage

A trailer, elevating lift, well-made cradle or proper blocking is the best support for your boat during storage.

When storing the boat on a trailer for a long period:

- Make sure the trailer is on a level surface and the bow is high enough so that water will drain from the bilge and cockpit.
- Make sure the outdrives are in the down position.
- The trailer must properly support the hull. The bunks and rollers should match the bottom of the hull and should not be putting pressure on the lifting strakes.
- Make sure the hitch is properly supported.
- Check the tires once each season. Add enough air for the correct amount of inflation for the tires.

Notice:
Read the owner's manual for the trailer for the correct amount of inflation for the tires.

When storing the boat on a lift or cradle:

- The cradle must be specifically for boat storage.
- Make sure the cradle or lift is well supported with the bow high enough to provide proper drainage of the bilge.
- Make sure the outdrives are in the down position.
- The cradle or lift must be in the proper fore and aft position to properly support the hull. When the cradle or lift is in the correct location, the bunks should match the bottom of hull and should not be putting pressure on the lifting strakes.

CAUTION

BOATS HAVE BEEN DAMAGED BY IMPROPER BLOCKING AND BY TRAILERS, LIFTS, AND CRADLES THAT DON'T PROPERLY SUPPORT THE HULL. ALWAYS MAKE SURE THE BLOCKS BUNKS AND ROLLERS ARE ADJUSTED SO THEY ARE NOT PUTTING PRESSURE ON THE LIFTING STRAKES AND ARE PROVIDING ENOUGH SUPPORT FOR THE HULL. HULL DAMAGE RESULTING FROM IMPROPER CRADLE OR TRAILER SUPPORT IS NOT COVERED BY THE MONTEREY WARRANTY.

When supporting the boat with blocking:

- Make sure the boat is blocked on a level surface and the bow is high enough so that water will drain from the bilge, cockpit and exhaust system.
- Make sure the keel is supported with large, solid wood blocks in at least three points.
- Use at least three heavy duty jacks on each side of the hull and make sure the boat is level from side to side. The jacks must be on a solid surface like packed gravel, concrete or pavement. All of the supports must be set up properly to prevent the boat from shifting while it is in storage.
- Make sure the outdrives are in the down position.

Preparing The Boat For Storage:

- Remove the bilge drain plug, if installed.
- Thoroughly wash the fiberglass exterior, especially the antifouling portion of the bottom. Remove as much marine growth as possible. Lightly wax the exterior fiberglass components.
- Remove all oxidation from the exterior hardware, and apply a light film of moisture displacing lubricant, wax or a metal protector.
- Remove propellers and grease the propeller shafts using light waterproof grease.

- Remove the batteries and store in a cool place. Clean using clear, clean water. Be sure the batteries have sufficient water and clean terminals. Keep the batteries charged and safe from freezing throughout the storage period.

Notice:
Refer to the Electrical System chapter, for information on the maintenance of the AC and DC electrical systems.

- Coat all faucets and exposed electrical components in the cabin and cockpit with a protecting oil.
- Clean out, totally drain and completely dry the storage compartments and sinks.
- Thoroughly clean the interior of the boat. Vacuum all carpets and dry clean drapes and upholstery.
- Remove cushions, open as many locker doors as possible. Leaving as many of these areas open as possible will improve the boat's ventilation during the storage period.

Notice:
It is recommended that a mildew preventer be hung in the head compartment or cabin before it is closed for storage.

- Clean the exterior upholstery with a good vinyl cleaner and dry thoroughly. Spray the weather covers and boat upholstery with a spray disinfectant. Enclosed areas such as the in-floor compartments, storage locker areas, etc. should also be sprayed with this disinfectant.

14.2 Winterizing

Fresh Water System

The entire fresh water system must be completely drained. Disconnect all hoses, check valves, etc. and blow all the water from the system. Make sure the water heater and fresh water tank are completely drained. Use only very low air pressure when doing this to prevent possible system damage. Because of the check valve mechanism built in the pump, blowing the lines will not remove the water from the fresh water pump. Remove the inlet and outlet hoses on the pump. Turn the pump on and allow it to pump out any remaining water (about a cupful).

A recommended alternative to the above-mentioned procedure is the use of commercially available non toxic, fresh water system antifreeze. After draining the potable water tank, lines and water heater, pour the antifreeze mixture into the fresh water tank, prime and operate the pump until the mixture flows from all fresh water faucets. Be sure to open all hot and cold water faucets, including the fresh water showers in the cockpit and head compartment, washdown hose, the faucet in the wet bar and the marine toilet. Make sure antifreeze has flowed through all of the fresh water drains and the ice maker supply line.

The shower drain water sump system must be properly winterized. Clean debris from the drain and sump, then flush for several minutes with fresh clean water. After the system is clean, pump the drain sumps as dry as possible. Then pour a potable water antifreeze mixture into the shower drain until antifreeze has been pumped through the entire system and out of the thru-hull. Follow the same procedure for the optional grey water sump system. Pour the antifreeze for the grey water sump into the cabin sink drains until antifreeze has been pumped through the entire system and out of the thru-hull.

For additional information refer to the Fresh Water System chapter. Also, refer to the ice maker owner's manual for information on winterizing the ice maker.

Engines and Optional Generator Raw Water Systems

Drain all of the sea strainers, heat exchangers and raw water supply and discharge lines for the engine and generator raw water supply pumps. Make sure all seawater has drained from the exhaust system. Some, but not all, generator engine mufflers could have a drain plug that must be removed to properly drain the muffler. Once this is accomplished, pour a non toxic marine engine antifreeze mixture into a large pail and put the engine raw water intake lines into the solution. Run each engine one at a time until the antifreeze solution is visible at the transom exhaust port or the propeller exhaust hub, then shut the engine off.

Notice:
Properly winterize the engines and fuel system by following the engine manufacturer's winterizing procedures located in your engine owner's manuals or contact a Monterey dealer.

Refer to the Raw Water System chapter for additional information on the raw water system.

Marine Toilet

The marine toilet must be properly winterized by following the manufacturer's winterizing instructions in the marine toilet owner's manual. The fresh water supply will be winterized with the fresh water system. Drain the discharge hoses completely by turning off the fresh water supply so the bowl stays dry and flushing the toilet several times. The head holding tank and macerator discharge pump must be pumped dry and three gallons of potable water antifreeze poured into the tank through the deck waste pump out fitting. After the antifreeze has been added to the holding tank, open the overboard discharge valve and activate the discharge pump (if your boat is equipped with the optional overboard discharge system) until the antifreeze solution is visible at the discharge thru-hull.

Notice:
Make sure you follow the marine toilet manufacturer's winterizing instructions exactly.

Grey Water System

The drain sump system must be properly winterized. Clean debris from the drain and sump. After the system is clean, pump the drain sump as dry as possible. Then pour a potable water antifreeze mixture into each sink drain until antifreeze has been pumped through the entire system and into the waste tank.

Air Conditioners

Disconnect and drain the seawater pump intake and discharge hoses. Remove all water from the sea strainer and thru-hull fitting. Allow all water to drain from the system. The air conditioner components must be properly winterized by following winterizing procedure in the manufacturer's owner's manual.

The drain sump system must be properly winterized. Clean debris from the drain and sump and flush for several minutes with fresh clean water. After the system is clean, pump the drain sump as dry as possible. Then pour a potable water antifreeze mixture into the air conditioning condensation pan until antifreeze has been pumped through the entire system and out of the thru-hull.

The air conditioning system and cabin sink and shower drains share the same sump system on boats with no grey water system. There is a sump pump for the cabin sink and shower drains and a separate sump pump for the air conditioning system on boats equipped with an optional grey water system.

Notice:
The air conditioning, engine control system, head, and steering systems have specific lay up requirements. Please refer to their owner's manuals for recommended winterizing procedures.

Bilge

Coat all metal components, wire busses, and connector plugs in the bilge with a protecting oil. It is also important to protect all strainers, sea cocks and steering components. The bilge pumps and bilge pump lines must be completely free of water and dried out when the boat is laid up for the winter in climates where freezing occurs. Compartments in the bilge that will not drain completely should be pumped out and then sponged until completely free of water. Dry the hull bilge and self-bailing cockpit troughs. Water freezing in these areas could cause damage.

Special Notes Prior To Winter Storage

If the boat will be in outside storage, properly support a storage cover and secure it over the boat. It is best to have a frame built over the boat to support the canvas. It should be a few inches wider than the boat so the canvas will clear the rails and allow passage of air. If this cover is fastened too tightly there will be inadequate ventilation and this can lead to mildew, moisture accumulation, etc. It is essential to fasten the canvas down securely so that the wind cannot remove it or cause chafing of the hull superstructure. Do not store the boat in a damp storage enclosure. Excessive dampness can cause electrical problems, corrosion, and excessive mildew.

Whenever possible, do not use the enclosure curtains in place of the winter storage cover. The life of these curtains may be significantly shortened if exposed to harsh weather elements for long periods.

CAUTION

PLACING AN ELECTRIC OR FUEL BURNING HEATING UNIT IN THE BILGE AREA CAN BE POTENTIALLY HAZARDOUS AND IS NOT RECOMMENDED.

Proper storage is very important to prevent serious damage to the boat. If the boat is to be stored indoors, make sure the building has enough ventilation. It is very important that there is enough ventilation both inside the boat and around the boat.

Notice:
If the boat is to be stored indoors or outdoors, open all drawers, clothes lockers, cabinets, and doors a little. If possible, remove the upholstery, mattresses, clothing, and carpets. Then hang a commercially available mildew protector in the cabin.

14.3 Recommissioning

WARNING

DO NOT OPERATE THE BOAT UNLESS IT IS COMPLETELY ASSEMBLED. KEEP ALL FASTENERS TIGHT. KEEP ADJUSTMENTS ACCORDING TO SPECIFICATIONS.

Notice:
It is important and recommended that the fitting out procedure for the marine gear be done by a qualified marine technician. Read the engine owner's manual for the recommended procedure.

WARNING

IF YOUR BOAT IS EQUIPPED WITH A GENERATOR MAKE SURE THE MUFFLER HAS NOT BEEN DAMAGED DURING WINTER STORAGE AND THAT THE DRAIN PLUGS ARE INSTALLED AND PROPERLY TIGHTENED. LOOSE OR MISSING DRAIN PLUGS AND DAMAGED OR LEAKING MUFFLERS OR EXHAUST HOSES WILL ALLOW CARBON MONOXIDE, ENGINE GASES, AND WATER INTO THE BILGE CREATING A POTENTIALLY HAZARDOUS CONDITION.

Notice:
Not all generator mufflers are equipped with drain plugs.

Reactivating The Boat After Storage:

- If your boat is bottom painted, apply a fresh coat of bottom paint to the hull and outdrive
- Inspect outdrives and thru-hull fittings.
- Install the propellers. Refer to the outdrive owner's manual for information on installing propellers.
- Install the drain plug in the hull.
- Charge and install the batteries.
- Check the engines for damage and follow the manufacturer's instructions for recommissioning.
- Check the engine mounting bolts to make sure they are tight.
- Perform all routine maintenance.
- Check all hose clamps for tightness.
- Pump the antifreeze from the fresh and raw water systems and flush several times with fresh water. Make sure all antifreeze is flushed from the water heater and it is filled with fresh water before it is activated.
- Check and lubricate the steering system.
- Clean and wash the boat.
- Install all upholstery, cushions and canvas.
- Check the fluid levels in the engine and outdrive.

After Launching:

- Carefully check the engines and all water systems for leaks. Operate each system one at a time checking for leaks and proper operation.
- Check the bilge pump automatic and manual switches.
- Prime the fuel system and start each engine.
- Carefully monitor the gauges and check for leakage and abnormal noises. Monitor the temperature gauges closely until they stabilize at normal operating temperature to ensure that the cooling pumps are operating properly.
- Operate the boat at slow speeds until the engine temperature stabilizes and all systems are operating normally.

Generator Commissioning:

- Start the generator and monitor the exhaust port for a steady stream of water. It may take 20 or 30 seconds for the muffler to fill and for water to appear at the port. This ensures that the cooling pump is operating. Carefully inspect the generator and all hoses for leaks, paying particular attention to the muffler and exhaust hoses. Any leak, no matter how minor must be corrected immediately.

- Once the generator is started and operating normally, activate the air conditioners and monitor the outlet port for a steady stream of water. It may take 20 or 30 seconds for the sea strainer and system to fill and for water to appear at the port. This ensures that the cooling pump is properly primed and operating. Carefully inspect all hoses for leaks, paying particular attention to the hoses below the waterline and those connected to the air conditioning system.
- If the pump runs but no water is visible at the outlet port after 45 seconds the air conditioning cooling pump may be air locked. The intake for the raw water manifold is equipped with a scoop and ball valve. Make sure the valve is open and run the boat at or above 15 M.P.H. for several minutes. The water pressure from the scoop will force the trapped air through the pump and allow it to prime. If this procedure doesn't work, contact your Monterey dealer.

Maintenance Log

Date	Hours	Dealer	Service/Repairs

Date	Hours	Dealer	Service/Repairs

Date	Hours	Dealer	Service/Repairs

Date	Hours	Dealer	Service/Repairs

Float Plan

Monterey Boats recommends filling out a float plan each time you use your boat for an offshore day trip or a long cruise. Leave this information with a responsible person ashore, like a close friend or relative that you know well.

1. *Name of person reporting and telephone number.*

   _____

2. *Description of boat.*
   Type _____ *Color* _____ *Trim* _____
   Registration No. _____ *Length* _____
   Name _____ *Make* _____ *Other Info* _____

3. *Engine type* _____ *H.P.* _____
   No. of Engines _____ *Fuel Capacity* _____

4. *Survival equipment: (Check as appropriate)*

☐ *PFDS*	☐ *Flares*	☐ *Mirror*
☐ *Smoke Signals*	☐ *Flashlight*	☐ *Food*
☐ *Paddles*	☐ *Water*	☐ *Others*
☐ *Anchor*	☐ *Raft or Dinghy*	☐ *EPIRB*

5. *Radio* ☐ *Yes* ☐ *No* *Type* _____

6. *Automobile license* _____
   Type _____ *Trailer License* _____
   Color _____ *and make of auto* _____

7. *Persons aboard* _____
   Name _____ *Age* _____ *Address & telephone No.* _____

   _____

   _____

   _____

8. *Do any of the persons aboard have a medical problem?*
   ☐ *Yes* ☐ *No* *If yes, what?* _____

9. *Trip Expectations: Leave at* _____
   From _____ *Going to* _____
   Expect to return by _____ *(time)*
   and no later than _____

10. *Any other pertinent info.* _____

11. *If not returned by* _____ *(time)*
    call the COAST GUARD, or (Local authority) _____

12. *Telephone Numbers.*

    _____ _____

    _____ _____

    _____ _____

    _____ _____

NOTES

Boating Accident Report

DEPARTMENT OF TRANSPORTATION **U.S. COAST GUARD** CG-3865 (Rev. 9/95)	**BOATING ACCIDENT REPORT** STATE ASSIGNED CASE NO._____	FORM APPROVED OMB NO. 2115-0010

THE OPERATOR/OWNER OF A VESSEL USED FOR RECREATIONAL PURPOSES IS REQUIRED TO FILE A REPORT IN WRITING WHENEVER AN ACCIDENT RESULTS IN: LOSS OF LIFE OR DISAPPEARANCE FROM A VESSEL; AN INJURY WHICH REQUIRES MEDICAL TREATMENT BEYOND FIRST AID; OR PROPERTY DAMAGE IN EXCESS OF $2000 OR COMPLETE LOSS OF THE VESSEL. REPORTS IN DEATH AND INJURY CASES MUST BE SUBMITTED WITHIN 48 HOURS. REPORTS IN OTHER CASES MUST BE SUBMITTED WITHIN 10 DAYS. REPORTS MUST BE SUBMITTED TO THE REPORTING AUTHORITY IN THE STATE WHERE THE ACCIDENT OCCURRED. THIS FORM IS PROVIDED TO ASSIST THE OPERATOR IN FILING THE REQUIRED WRITTEN REPORT.

COMPLETE ALL BLOCKS (INDICATE THOSE NOT APPLICABLE BY "NA")

ACCIDENT DATA

DATE OF ACCIDENT	TIME AM PM	NAME OF BODY OF WATER	LOCATION (GIVE LOCATION PRECISELY)

NUMBER OF VESSELS INVOLVED	NEAREST CITY OR TOWN	COUNTY	STATE	ZIP CODE

WEATHER (CHECK ALL APPLICABLE)	WATER CONDITIONS	TEMPERATURE (ESTIMATE)	WIND	VISIBILITY
[ ] CLEAR [ ] RAIN [ ] CLOUDY [ ] SNOW [ ] FOG [ ] HAZY	[ ] CALM (WAVES LESS THAN 6") [ ] CHOPPY (WAVES 6" TO 2') [ ] ROUGH (WAVES 2' TO 6') [ ] VERY ROUGH (GREATER THAN 6') [ ] STRONG CURRENT	AIR_____°F WATER_____°F	[ ] NONE [ ] LIGHT (0-6 MPH) [ ] MODERATE (7-14 MPH) [ ] STRONG (15-25 MPH) [ ] STORM (OVER 25 MPH)	DAY NIGHT [ ] GOOD [ ] [ ] FAIR [ ] [ ] POOR [ ]

NAME OF OPERATOR	OPERATOR ADDRESS

OPERATOR TELEPHONE NUMBER ( )	DATE OF BIRTH MO DAY YR	OPERATOR'S EXPERIENCE	INSTRUCTION IN BOATING SAFETY
[ ] MALE [ ] FEMALE		[ ] NONE [ ] UNDER 100 HOURS [ ] > 100 HOURS	[ ] STATE COURSE [ ] U.S. POWER SQUADRON [ ] USCG AUXILIARY [ ] AMERICAN RED CROSS [ ] NONE

NAME OF OWNER	OWNER ADDRESS

OWNER TELEPHONE NUMBER ( )	NUMBER OF PEOPLE ON BOARD	NUMBER OF PEOPLE BEING TOWED	RENTED BOAT?
			[ ] YES [ ] NO

BOAT NO. 1 (THIS VESSEL)

BOAT REGISTRATION OR DOCUMENTATION NUMBER	STATE	HULL IDENTIFICATION NUMBER	BOAT NAME

BOAT MANUFACTURER	LENGTH	MODEL	YEAR BUILT

TYPE OF BOAT	HULL MATERIAL	ENGINE	PROPULSION	PERSONAL FLOTATION DEVICES (PFDS): WAS BOAT ADEQUATELY EQUIPPED WITH COAST GUARD APPROVED PFDS?
[ ] OPEN MOTORBOAT [ ] CABIN MOTORBOAT [ ] AUXILIARY SAIL [ ] SAIL (ONLY) [ ] ROWBOAT [ ] CANOE/KAYAK [ ] PERSONAL WATERCRAFT [ ] PONTOON BOAT [ ] HOUSEBOAT [ ] OTHER (SPECIFY)	[ ] WOOD [ ] ALUMINUM [ ] STEEL [ ] FIBERGLASS [ ] RUBBER/VINYL/CANVAS [ ] RIGID HULL INFLATABLE [ ] OTHER (SPECIFY)	[ ] OUTBOARD [ ] INBOARD [ ] INBOARD-STERNDRIVE (I/O) [ ] AIRBOAT	[ ] PROPELLER [ ] WATER JET [ ] AIR THRUST [ ] MANUAL [ ] SAIL	[ ] YES [ ] NO WERE PFDS ACCESSIBLE? [ ] YES [ ] NO

FUEL	NUMBER OF ENGINES	FIRE EXTINGUISHERS
[ ] GASOLINE [ ] DIESEL [ ] ELECTRIC	TOTAL HORSEPOWER	ON BOARD? [ ] YES [ ] NO USED? [ ] YES [ ] NO

OPERATION AT TIME OF ACCIDENT (CHECK ALL APPLICABLE)	ACTIVITY AT TIME OF ACCIDENT (CHECK ANY IF APPLICABLE)	TYPE OF ACCIDENT	WHAT CONTRIBUTED TO ACCIDENT? (CHECK ALL APPLICABLE)
[ ] CRUISING [ ] CHANGING DIRECTION [ ] CHANGING SPEED [ ] DRIFTING [ ] TOWING [ ] BEING TOWED [ ] ROWING/PADDLING [ ] SAILING [ ] LAUNCHING [ ] DOCKING/UNDOCKING [ ] AT ANCHOR [ ] TIED TO DOCK/MOORED [ ] OTHER (SPECIFY)	[ ] FISHING [ ] TOURNAMENT [ ] HUNTING [ ] SWIMMING/DIVING [ ] MAKING REPAIRS [ ] WATERSKIING/TUBING/ETC. [ ] RACING [ ] WHITEWATER SPORTS [ ] FUELING [ ] STARTING ENGINE [ ] NON-RECREATIONAL [ ] OTHER (SPECIFY)	[ ] GROUNDING [ ] CAPSIZING [ ] FLOODING/SWAMPING [ ] SINKING [ ] FIRE OR EXPLOSION (FUEL) [ ] FIRE OR EXPLOSION (OTHER) [ ] SKIER MISHAP [ ] COLLISION WITH VESSEL [ ] COLLISION WITH FIXED OBJECT [ ] COLLISION WITH FLOATING OBJ. [ ] FALLS OVERBOARD [ ] FALLS IN BOAT [ ] STRUCK BY BOAT [ ] STRUCK BY MOTOR/PROPELLER [ ] STRUCK SUBMERGED OBJECT [ ] OTHER (SPECIFY)	[ ] WEATHER [ ] EXCESSIVE SPEED [ ] IMPROPER LOOKOUT [ ] RESTRICTED VISION [ ] OVERLOADING [ ] IMPROPER LOADING [ ] HAZARDOUS WATERS [ ] ALCOHOL USE [ ] DRUG USE [ ] HULL FAILURE [ ] MACHINERY FAILURE [ ] EQUIPMENT FAILURE [ ] OPERATOR INEXPERIENCE [ ] OPERATOR INATTENTION [ ] CONGESTED WATERS [ ] PASSENGER/SKIER BEHAVIOR [ ] DAM/LOCK [ ] OTHER (SPECIFY)

ESTIMATED SPEED		
[ ] 10 - 20 MPH	[ ] 21 - 40 MPH	[ ] OVER 40 MPH
[ ] NONE	[ ] UNDER 10 MPH	

[ ] HIT AND RUN

Boating Accident Report

MONTEREY BOATS

DECEASED (IF MORE THAN 2 FATALITIES, ATTACH ADDITIONAL FORMS)

NAME OF VICTIM		ADDRESS OF VICTIM	WAS PFD WORN? [ ] YES [ ] NO
DATE OF BIRTH	[ ] MALE [ ] FEMALE	DEATH CAUSED BY [ ] DROWNING [ ] OTHER	[ ] DISAPPEARANCE
NAME OF VICTIM		ADDRESS OF VICTIM	WAS PFD WORN? [ ] YES [ ] NO
DATE OF BIRTH	[ ] MALE [ ] FEMALE	DEATH CAUSED BY [ ] DROWNING [ ] OTHER	[ ] DISAPPEARANCE

INJURED (IF MORE THAN 2 INJURIES, ATTACH ADDITIONAL FORMS)

NAME OF VICTIM		ADDRESS OF VICTIM	
DATE OF BIRTH	MEDICAL TREATMENT BEYOND FIRST AID? [ ] YES [ ] NO ADMITTED TO HOSPITAL? [ ] YES [ ] NO		DESCRIBE INJURY

WAS PFD WORN? [ ] YES [ ] NO PRIOR TO ACCIDENT? [ ] YES [ ] NO AS A RESULT OF ACCIDENT? [ ] YES [ ] NO
WAS IT INFLATABLE? [ ] YES [ ] NO

NAME OF VICTIM		ADDRESS OF VICTIM	
DATE OF BIRTH	MEDICAL TREATMENT BEYOND FIRST AID? [ ] YES [ ] NO ADMITTED TO HOSPITAL? [ ] YES [ ] NO		DESCRIBE INJURY

WAS PFD WORN? [ ] YES [ ] NO PRIOR TO ACCIDENT? [ ] YES [ ] NO AS A RESULT OF ACCIDENT? [ ] YES [ ] NO
WAS IT INFLATABLE? [ ] YES [ ] NO

OTHER PEOPLE ABOARD THIS BOAT (IF MORE THAN 2 PEOPLE, ATTACH ADDITIONAL FORMS)

NAME		ADDRESS	
DATE OF BIRTH	WAS PFD WORN? [ ] YES [ ] NO PRIOR TO ACCIDENT? [ ] YES [ ] NO AS A RESULT OF ACCIDENT [ ] YES [ ] NO WAS IT INFLATABLE? [ ] YES [ ] NO		
NAME		ADDRESS	
DATE OF BIRTH	WAS PFD WORN? [ ] YES [ ] NO PRIOR TO ACCIDENT? [ ] YES [ ] NO AS A RESULT OF ACCIDENT [ ] YES [ ] NO WAS IT INFLATABLE? [ ] YES [ ] NO		

BOAT NO. 2 (IF MORE THAN 2 VESSELS, ATTACH ADDITIONALIDENTIFYING INFORMATION)

NAME OF OPERATOR	OPERATOR ADDRESS
OPERATOR TELEPHONE NUMBER ( )	BOAT REGISTRATION OR DOCUMENTATION NUMBER STATE
NAME OF OWNER	OWNER ADDRESS
OWNER TELEPHONE NUMBER ( )	

PROPERTY DAMAGE

ESTIMATED AMOUNT:	THIS BOAT AND CONTENTS: $	OTHER BOAT(S) AND CONTENTS: $	OTHER PROPERTY: $
DESCRIBE PROPERTY DAMAGED			

WITNESSES NOT ON THIS VESSEL

NAME	ADDRESS	TELEPHONE NUMBER ( )
NAME	ADDRESS	TELEPHONE NUMBER ( )

PERSON COMPLETING REPORT

NAME	ADDRESS	TELEPHONE NUMBER ( )
SIGNATURE	QUALIFICATION [ ] OPERATOR [ ] OWNER [ ] INVESTIGATOR [ ] OTHER	DATE SUBMITTED

FOR AGENCY USE ONLY

CAUSES BASED ON (CHECK ONE): [ ]THIS REPORT [ ] INVESTIGATION [ ] INVESTIGATION AND THIS REPORT [ ] OTHER

NAME OF REVIEWING OFFICE	DATE RECEIVED	RECREATIONAL [ ] NON-REPORTABLE [ ] COMMERCIAL [ ]
PRIMARY CAUSE		SECONDARY CAUSE

Call the Coast Guard Infoline 1-800-368-5647 for information on **Federal Requirements for Recreational Boats**

Boating Accident Report

ACCIDENT DESCRIPTION

DESCRIBE WHAT HAPPENED (SEQUENCE OF EVENTS. INCLUDE FAILURE OF EQUIPMENT. INCLUDE A DIAGRAM IF NEEDED. CONTINUE ON ADDITIONAL SHEETS IF NECESSARY. INCLUDE ANY INFORMATION REGARDING THE INVOLVEMENT OF ALCOHOL AN/OR DRUGS IN CAUSING OR CONTRIBUTING TO THE ACCIDENT. INCLUDE ANY DESCRIPTIVE INFORMATION ABOUT THE USE OF PFD'S.)

NOTES

Glossary of Terms

Aft: In, near, or toward the stern of a boat.

Aground: A boat stuck on the bottom.

Amidships: In or toward the part of a boat midway between the bow and stern.

Anchor: A specially shaped heavy metal device designed to dig efficiently into the bottom under a body of water and hold a boat in place.

Anchorage: An area specifically designated by governmental authorities in which boats may anchor.

Ashore: On shore.

Astern: Behind the boat, to move backwards.

Athwartship: At right angles to the center line of the boat.

Barnacles: Small, hard-shelled marine animals which are found in salt water attached to pilings, docks and bottoms of boats.

Beam: The breadth of a boat usually measured at its widest part.

Bearing: The direction of an object from the boat, either relative to the boat's direction or to compass degrees.

Berth: A bunk or a bed on a boat.

Bilge: The bottom of the boat below the flooring.

Bilge Pump: A pump that removes water that collects in the bilge.

Boarding: Entering or climbing into a boat.

Boarding Ladder: Set of steps temporarily fitted over the side of a boat to assist persons coming aboard.

Boat Hook: Short shaft of wood or metal with a hook fitting at one end shaped to aid in extending one's reach from the side of the boat.

Bow: The front end of a boat's hull.

Bow Line: A line that leads forward from the bow of the boat.

Bow Rail: Knee high rails of solid tubing to aid in preventing people from falling overboard.

Bridge: The area from which a boat is steered and controlled.

Bridge Deck: A deck forward and usually above the cockpit deck.

Broach: When the boat is sideways to the seas and in danger of capsizing; a very dangerous situation that should be avoided.

Bulkhead: Vertical partition or wall separating compartments of a boat.

Cabin: Enclosed superstructure above the main deck level.

Capsize: When a boat lays on its side or turns over.

Chock: A deck fitting, usually of metal, with inward curving arms through which mooring or anchor lines are passed so as to lead them in the proper direction both on board and off the boat.

Cleat: A deck fitting, usually of metal with projecting arms used for securing anchor and mooring lines.

Closed Cooling System: A separate supply of fresh water that is used to cool the engine and circulates only within the engine.

Coaming: A vertical piece around the edges of cockpit, hatches, etc. to stop water on deck from running below.

Cockpit: An open space, usually in the aft deck, outside of the cabin.

Companionway: Opening in the deck of a boat to provide access below.

Compartment: The interior of a boat divided off by bulkheads.

Cradle: A framework designed to support a boat as she is hauled out or stored.

Cutlass Bearing: A rubber bearing in the strut that supports the propeller shaft.

Deck: The floor-like platform of a boat that covers the hull.

Displacement: The volume of water displaced by the hull. The displacement weight is the weight of this volume of water.

Draft: The depth of water a boat needs to float.

Dry Rot: A fungus attack on wood areas.

Dry-dock: A dock that can be pumped dry during boat construction or repair.

Electrical Ground: A connection between an electrical connector and the earth.

Engine Beds: Sturdy structural members running fore and aft on which the inboard engines are mounted.

EPIRB: Emergency Position Indicating Radio Beacon. Operates as a part of a worldwide satellite distress system.

Even Keel: When a boat floats properly as designed.

Fathom: A measure of depth. One Fathom = 6 feet.

Fender: A soft object of rubber or plastic used to protect the topsides from scarring and rubbing against a dock or another vessel.

Fend off: To push or hold the boat off from the dock or another boat.

Flying Bridge: A control station above the level of the deck or cabin.

Flukes: The broad portions of an anchor which dig into the ground.

Fore: Applies to the forward portions of a boat near the bow.

Foundering: When a boat fills with water and sinks.

Freeboard: The height from the waterline to the lowest part of the deck.

Galley: The kitchen of a boat.

Grab Rail: Hand hold fittings mounted on cabin tops or sides for personal safety when moving around the boat, both on deck and below.

Ground Tackle: A general term including anchors, lines, and other gear used in anchoring.

Grounds: A boat touches the bottom.

Gunwale: The upper edge of a boat's side.

Hand Rail: Rail mounted on the boat, for grabbing with your hand, to steady you while walking about the boat.

Harbor: An anchorage which provides reasonably good protection for a boat, with shelter from wind and sea.

Hatch: An opening in the deck with a door or lid to allow for access down into a compartment of a boat.

Head: A toilet on a boat.

Heat Exchanger: Used to transfer the heat that is picked up by the closed cooling system to the raw cooling water.

Helm: The steering and control area of a boat.

Hull: The part of the boat from the deck down.

Inboard: A boat with the engine mounted within the hull of the boat. Also refers to the center of the boat away from the sides.

Inboard/outboard: Also stern drive or I/O. A boat with an inboard engine attached to an outboard drive unit.

Keel: A plate or timber plate running lengthwise along the center of the bottom of a boat.

Knot: Unit of speed indicating nautical miles per hour. 1 knot = 1 nautical mile per hour (1.15 miles per hour). A nautical mile is equal to one minute of latitude: 6076 feet. Knots times 1.15 equals miles per hour. Miles per hour times .87 equals knots.

Lay-up: To decommission a boat for the winter (usually in northern climates).

Leeward: The direction toward which the wind is blowing.

Length On The Waterline (l.w.l.): A length measurement of a boat at the waterline from the stern to where the hull breaks the water near the bow.

Limber Hole: A passage cut into the lower edges of floors and frames next to the keel to allow bilge water to flow to the lowest point of the hull where it can be pumped overboard.

Line: The term used to describe a rope when it is on a boat.

Lists: A boat that inclines to port or starboard while afloat.

L.O.A.: Boat length overall.

Locker: A closet, chest or box aboard a boat.

Loran: An electronic navigational instrument which monitors the boat's position using signals emitted from pairs of transmitting stations.

Lunch hook: A small light weight anchor typically used instead of the working anchor. Normally used in calm waters with the boat attended.

Midships: The center of the boat.

Marina: A protected facility primarily for recreational small craft.

Marine Ways or Railways: Inclined planes at the water's edge onto which boats are hauled.

Moored: A boat secured with cables, lines or anchors.

Mooring: An anchor permanently embedded in the bottom of a harbor that is used to secure a boat.

Nautical Mile: A unit of measure equal to one minute of latitude. (6076 feet)

Nun Buoy: A red or red-striped buoy of conical shape.

Outboard: A boat designed for an engine to be mounted on the transom. Also a term that refers to objects away from the center line or beyond the hull sides of a boat.

Pad Eye: A deck fitting consisting of a metal eye permanently secured to the boat.

Pier: A structure which projects out from the shoreline.

Pile or Piling: A long column driven into the bottom to which a boat can be tied.

Pitching: The fore and aft rocking motion of a boat as the bow rises and falls.

Pitch: The measure of the angle of a propeller blade. Refers to the theoretical distance the boat travels with each revolution of the propeller.

P.F.D: Personal Flotation Device.

Port: The left side of the boat when facing the bow.

Porthole (port): The opening in the side of a boat to allow the admittance of light and air.

Propeller: A device having two or more blades that is attached to the engine and used for propelling a boat.

Propeller Shaft: Shaft which runs from the back of the engine gear box, aft, through the stuffing box, shaft log, struts, and onto which the propeller is attached.

Pyrotechnic Distress Signals: Distress signals that resemble the brilliant display of flares or fireworks.

Raw Water Cooled: Refers to an engine cooling system that draws seawater in through a hull fitting or engine drive unit, circulates the water in the engine, and then discharges it overboard.

Reduction Gear: Often combined with the reverse gear so that the propeller turns at a slower rate than the engine.

Reverse Gear: Changes the direction of rotation of the propeller to provide thrust in the opposite direction for stopping the boat or giving it sternway.

Roll: A boat's sideways rotational motion in rough water.

Rope Locker: A locker, usually located in the bow of a boat, used for stowing the anchor line or chain.

Rubrail: Railing (often rubber or hard plastic) that runs along the boat's sheer to protect the hull when coming alongside docks, piers, or other boats.

Rudder: A moveable flat surface that is attached vertically at or near the stern for steering.

Sea anchor: An anchor that does not touch the bottom. Provides drag to hold the bow in the most favorable position in heavy seas.

Scupper: An opening in the hull side or transom of the boat through which water on deck or in the cockpit is drained overboard.

Sea cock: Safety valves installed just inside the thru-hull fittings and ahead of the piping or hose running from the fittings.

Shaft Log: Pipe through which the propeller shaft passes.

Sheer: The uppermost edge of the hull.

Sling: A strap which will hold the boat securely while being lifted, lowered, or carried.

Slip: A boat's berth between two pilings or piers.

Sole: The deck of a cockpit or interior cabin.

Spring Line: A line that leads from the bow aft or from the stern forward to prevent the boat from moving ahead or astern.

Starboard: The right side of a boat when facing the bow.

Steerageway: Sufficient speed to keep the boat responding to the rudder or drive unit.

Stem: The vertical portion of the hull at the bow.

Stern: The rear end of a boat.

Stow: To pack away neatly.

Stringer: Longitudinal members fastened inside the hull for additional structural strength.

Strut: Mounted to the hull which supports the propeller shaft in place.

Strut Bearing: See "cutlass bearing."

Stuffing Box: Prevents water from entering at the point where the propeller shaft passes through the shaft log.

Superstructure: Something built above the main deck level.

Swamps: When a boat fills with water from over the side.

Swimming Ladder: Much the same as the boarding ladder except that it extends down into the water.

Taffrail: Rail around the rear of the cockpit.

Thru-hull: A fitting used to pass fluids (usually water) through the hull surface, either above or below the waterline.

Topsides: The side skin of a boat between the waterline or chine and deck.
Transom: A flat stern at right angles to the keel.

Travel Lift: A machine used at boat yards to hoist boats out of and back into the water.

Trim: Refers to the boat's angle or the way it is balanced.

Trough: The area of water between the crests of waves and parallel to them.

Twin-Screw Craft: A boat with two propellers on two separate shafts.

Underway: When a boat moves through the water.

Wake: Disrupted water that a boat leaves astern as a result of its motion.

Wash: The flow of water that results from the action of the propeller or propellers.

Waterline: The plane of a boat where the surface of the water touches the hull when it is afloat on even keel.

Watertight Bulkhead: Bulkheads secured so tightly so as not to let water pass.

Wharf: A structure generally parallel to the shore.

Working Anchor: An anchor carried on a boat for most normal uses. Refers to the anchor used in typical anchoring situations.

Windlass: A winch used to raise and lower the anchor.

Windward: Toward the direction from which the wind is coming.

Yacht Basin: A protected facility primarily for recreational small craft.

Yaw: When a boat runs off her course to either side.

NOTES

Troubleshooting Guide

PROBLEM	CAUSE & SOLUTION
CONTROL PROBLEMS	
Steering is slow to respond and engine RPM has been reduced.	• There is a problem with the electronic steering system at the helm, EVC module or at the one of the drives. Have the system serviced by a qualified marine technician. • The outdrive steering spindle is binding. Grease outdrive.
An engine will not start with the shift control lever in neutral.	• The shift control lever is not in the neutral detent. Try moving the shift lever slightly. • The starter, ignition switch or an electrical component in the starter circuit is defective. Have the system serviced by a qualified technician. • There is a problem with the electronic control system at the helm control, EVC module or at the engine. Have the system serviced by a qualified marine technician.
An engine does not respond properly to the throttle control.	• The throttle control in the helm control is corroded and binding. Lubricate the control. • There is a problem with the electronic control system at the helm, EVC module or at the engine. Have the system serviced by a qualified marine technician.
An outdrive does not respond properly to the shift control.	• The shift control in the helm control is corroded and binding. Lubricate the control. • There is a problem with the electronic control system at the helm, EVC module or at the drive. Have the system serviced by a qualified marine technician.
PERFORMANCE PROBLEMS	
Boat is sluggish and has lost speed & RPM.	• The boat may be need to have marine growth cleaned from hull and running gear. • Propellers may be damaged & need repair. • Weeds or line around the propellers. Clean propellers. • Boat is overloaded. Reduce load. • Check for excessive water in the bilge. Pump out bilge & find & correct the problem. • One of the throttles is not responding properly and the engine is not getting full throttle. Have the throttle control system checked by a qualified marine technician. • One or both of the engines is not producing adequate power. Have engines checked by a qualified technician.

PROBLEM	CAUSE & SOLUTION
The boat vibrates at cruising speeds.	• Propellers may be damaged & need repair. • A propeller or propeller shaft is bent. Repair or replace damaged components. • The running gear is fouled by marine growth or rope. Clean running gear. • The engine outdrives are not trimmed properly. Trim outdrives. • The engines are not at the same RPM. Synchronize throttles.
ENGINE PROBLEMS	
An engine is running too hot.	• The raw water supply line to the pump is kinked. Replace hose. • The engine raw water pump belt is loose or worn. Tighten or replace the belt. (Mercruiser Engines) • The engine raw water pump impeller is worn or damaged. Repair the pump. • The engine thermostat is faulty and needs to be replaced. • The fresh water cooling heat exchanger is clogged and needs to be cleaned. • The exhaust manifolds or riser water ports are clogged and need to be cleaned or the manifold or riser replaced.
An engine alternator is not charging properly.	• The engine alternator belt is loose or worn. Tighten or replace the belt. • The alternator is not charging and must be replaced. • The isolator in the charging system is not working properly. Replace the isolator. • A battery is defective and not accepting a charge.
An engine suddenly will not operate at or above cruise RPM.	• The engine emergency system has been activated. The on board computer has sensed a problem and has limited the RPM to protect the engine. Find and correct the problem. • The tachometer is bad and needs to be replaced. • A throttle control is not responding properly. Have the throttle setting checked by a qualified technician.
An engine is loosing RPM. The boat is not overloaded and the hull bottom and running gear are clean and in good condition.	• The fuel filter could be dirty. Inspect and replace the fuel filter. • The electronic engine control system on the engine is mal-functioning. Repair the engine control system.
Both engines suddenly shut down and won't restart.	• The automatic fire extinguisher in the engine compartment has activated and the engines were shut down by the ex-tinguishing agent. Check the monitor panel for no green light. If the green light is out, wait 15 minutes, if safe to do so, to ensure a possible fire is out. Then inspect the engine compartment. Correct any problems found and then ventilate the engine compartment and restart the engines.

PROBLEM	CAUSE & SOLUTION
An engine runs too cold.	• The thermostat is faulty. Replace thermostat. • The temperature gauge is not reading properly. Replace the temperature gauge or sender.
ENGINE PROBLEMS	
The engine starter will not operate.	• The battery switch is off. Turn on switch. • The shift control is not fully engaged in neutral. Move shifter from forward to neutral and try again. • The fuse or circuit breaker for the starting circuit is blown. Reset the breaker or replace the fuse. Repair circuit if necessary. • The battery is weak or low. Charge or replace battery. • Corroded or loose battery connections. Tighten, clean and protect connections.
ACCESSORY PROBLEMS	
The fresh water pump runs, but will not pump water.	• The water tank is empty. Fill the tank. • The in-line strainer for the pump is clogged. Clean the strainer. • The intake hose is damaged and sucking air. Replace or repair the hose. • The pump is defective. Repair or replace the pump.
The fresh water pump switch is on but the pump fails to run.	• The water system circuit breaker has tripped. Reset the circuit breaker. • There is a loose or corroded wiring connection. Find and repair the bad connection. • The thermal breaker on the pump is tripped. Repair or replace pump. • The pressure switch on the pump has failed. Replace the pressure switch. • The pump is defective. Repair or replace the pump.
The fresh water pump fails to turn off after all outlets are closed.	• There is a leak in a pressure line or outlet. Repair the leak. • There is an air leak in the intake line. Repair the air leak. • The pressure switch is defective. Replace the pressure switch. • The voltage to the pump is low. Check for corroded or loose wiring connections or low battery. • The strainer is clogged. Clean strainer. • The pump is defective. Repair or replace the pump.

PROBLEM	CAUSE & SOLUTION
Reduction in water flow from the bilge pump.	• Impeller screen plugged with debris. Clean screen at the base of the pump. • The discharge hose is pinched or clogged. Check discharge hose and clean or repair. • Discharge hose is sagging below the pump and creating an airlock. Reroute hose so it runs uphill from the pump to the thru-hull fitting. • Low voltage to the pump. Check the battery and wire connections.
ACCESSORY PROBLEMS	
The automatic float switch on the bilge pump raises but does not activate the pump.	• The circuit breaker in the battery switch breaker panel has blown. Reset the circuit breaker. • The house batteries are dead. Charge or replace the battery. • The pump impeller is jammed by debris. Clean pump impeller housing. • The wire connections in the bilge have corroded. Replace connectors and secure above the bilge waterline. • The automatic switch is defective. Replace the switch. • The pump is defective. Replace pump.
The bilge pump will not run when the manual switch is activated.	• The circuit breaker supplying the switch has tripped. Replace or reset the circuit breaker. • The battery switch is off. Turn on the battery switch. • The pump impeller is jammed by debris. Clean pump impeller housing. • The wire connections in the bilge have corroded. Replace connectors and secure above the bilge waterline. • The switch is defective. Replace the switch. • The pump is defective. Replace pump.
Porcelain head will not add water.	• The fresh water pump is not activated. Turn on fresh water pump. • The fresh water tank is empty. Fill fresh water tank. • The Add Water button in the control panel is not working. Replace control panel. • The solenoid on the head fresh water valve is defective. Replace fresh water supply valve.

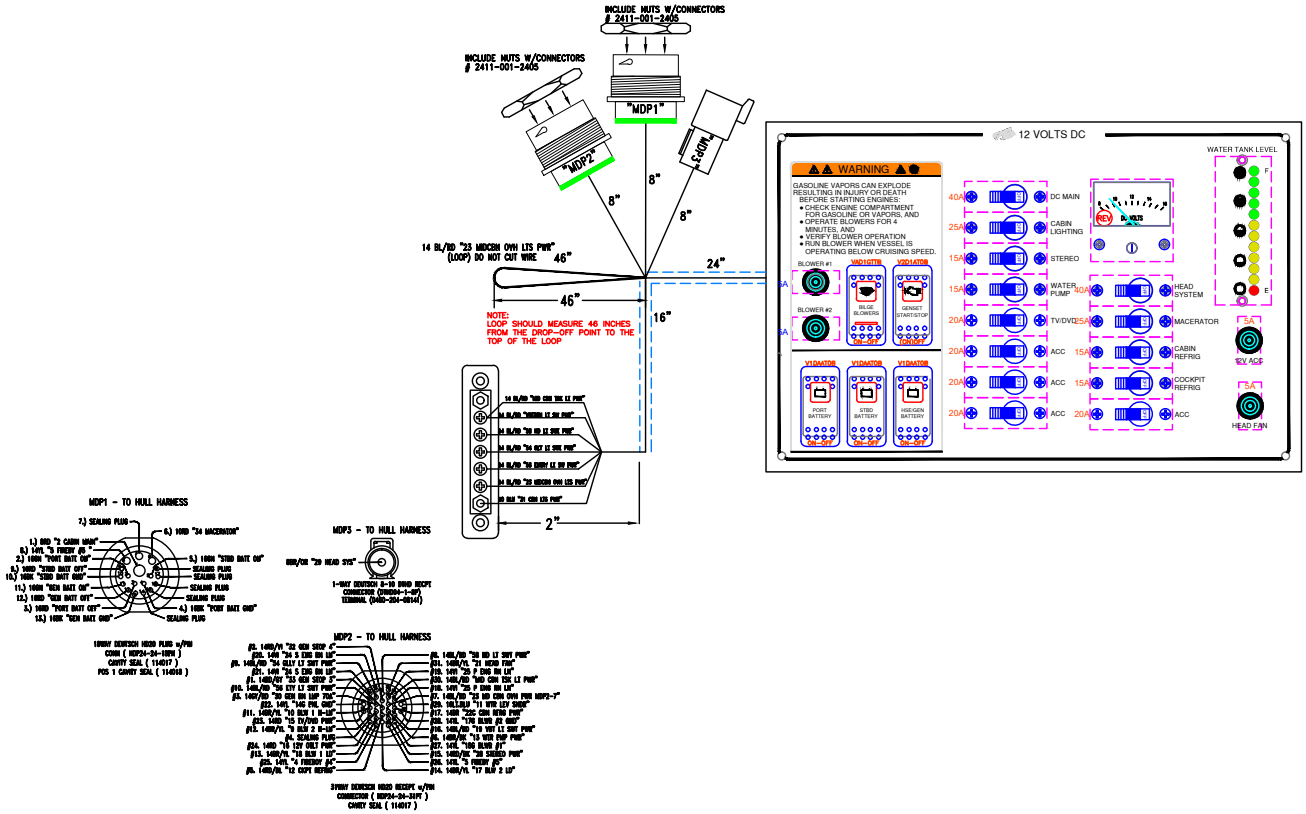
PROBLEM	CAUSE & SOLUTION
Porcelain head will not flush.	• Electric head circuit breaker is tripped. Turn on breaker. • The holding tank is full. Pump out the holding tank. • There is bad connection at the head pump or the switch. Repair the connection. • The Flush button in the control panel is not working. Replace control panel. • The head pump is defective. Replace the pump.
Holding tank will not empty.	• Overboard discharge valve in the bilge is closed. Open discharge valve. • Holding tank vent is clogged. Replace vent filter or clean vent. • There is a vacuum leak in the hose from the holding tank to the deck pump out fitting. Tighten loose fittings or replace damaged hoses.
ACCESSORY PROBLEMS	
Excessive odor from marine head.	• Back pressure in the holding tank. Pump out holding tank or replace the vent filter. • Waste is in the discharge hose. Flush enough to move waste to the holding tank, particularly at the end of each day. • No deodorizer in the holding tank. Add deodorizer to the holding tank each time it is pumped out. • The waste in the tank is over two weeks old. Pump the holding tank if it has contained waste for two weeks or more.
The air conditioner runs for a short time & then cuts out.	• The raw water supply thru hull valve is closed. Open the valve. • The intake for the air conditioning raw water system is clogged with weeds or debris. Back down the boat to clear debris or clean the intake. • The air conditioner pump sea strainer is clogged. Clean the strainer. • The raw water system is air-bound. Make sure the thru hull valve is open and run the boat above 15 m.p.h. The scoop on the thru hull fitting will force the air lock out of the system. • The air conditioner raw water pump is not pumping and needs to be repaired or replaced.

PROBLEM	CAUSE & SOLUTION
The refrigerator compressor runs frequently and the house battery life seems shorter than it should be whenever the refrigerator is operating on DC power.	• The thermostat in the refrigerator is set too cold. Check the temperature in the refrigerator and set the thermostat to a warmer setting if necessary. • The door gasket is dirty or moldy and not sealing properly. Clean or replace the door seal. • The house batteries are weak and not providing the proper voltage to the refrigerator compressor. Replace the batteries. • The refrigerator is defective. Replace the refrigerator.
The carbon monoxide detector sounds the alarm when the engines or generator are running.	• The canvas curtains are installed and none of the forward facing vents are open, allowing carbon monoxide to accumulate in the cockpit and cabin. Open the center windshield panel and side curtains to provide proper ventilation. • The boat is operating at slow speed and the wind is on the stern pushing CO into the cockpit and cabin. Increase boat speed or change heading if possible. • The carbon monoxide detector is defective and needs to be calibrated by the manufacturer or replaced. Have the boat checked by a professional before condemning the CO monitor.
ACCESSORY PROBLEMS	
No AC power to cabin breaker panel and the shore cord are properly connected.	• The breaker at the shore outlet is off or has tripped. Activate breaker. • The circuit breakers at the transom shore power inlet connections are off. Turn on the circuit breakers. • A shore power cord is damaged or defective. Replace the cord. • One or both ELCI circuit breakers at the inlet connection has detected a fault in the electrical system and the breakers have tripped. Contact a qualified marine electrician to find and correct the problem.

PROBLEM	CAUSE & SOLUTION
The cabin Main breaker for AC power trips when activating the system from shore power.	• The AC accessory breakers are on and the power surge is tripping the breaker. Turn off all AC accessory breakers and reactivate main breaker. • The main breaker is defective. Contact a qualified marine electrician to replace the breaker.
The cabin AC main breaker activates the panel but trips while using accessories.	• There are too many AC accessories activated causing excess amperage draw. Manage AC accessory use to reduce excess amperage draw. • Voltage supplied from the shore outlet is low or high. Check the voltage. Contact the marina operator or qualified marine electrician to correct the problem. • The main breaker is defective. Contact a qualified marine electrician to replace the breaker.
No AC power at cabin outlets	• Outlet breaker in cabin AC panel is off. Activate breaker. • Ground fault interrupter has tripped. Push reset button on outlet to reset. • Accessory powered by the outlet has a fault that is tripping the interrupter. Turn the breaker in the cabin AC panel off and contact a qualified marine electrician to repair the defective accessory. Replace defective accessory. • The GFI outlet is defective. Contact a qualified marine electrician to replace the outlet.
GENERATOR PROBLEMS	
The generator will not start.	• The House battery switch is off. Turn on the House battery switch. • House batteries are not charged. Charge or replace battery. • The generator fuel supply valve is off. Turn on fuel supply valve. • The fuel level is too low in the fuel tank. Fill the fuel tank.
The generator runs for a short time and shuts down.	• There is a problem with the generator and the emergency shut down system has activated to shut down the generator. Find and correct the problem, then restart the generator. • The fuel level is too low in the fuel tank that supplies the generator. Fill the fuel tank. • The generator is overloaded. Manage AC accessory use to reduce excess amperage draw. **Note: The fuel withdrawal tube for the generator is shorter than the main engine tubes. Therefore, the generator will run out of fuel before the boat engines. This is to prevent the generator from consuming reserve fuel.**

NOTES

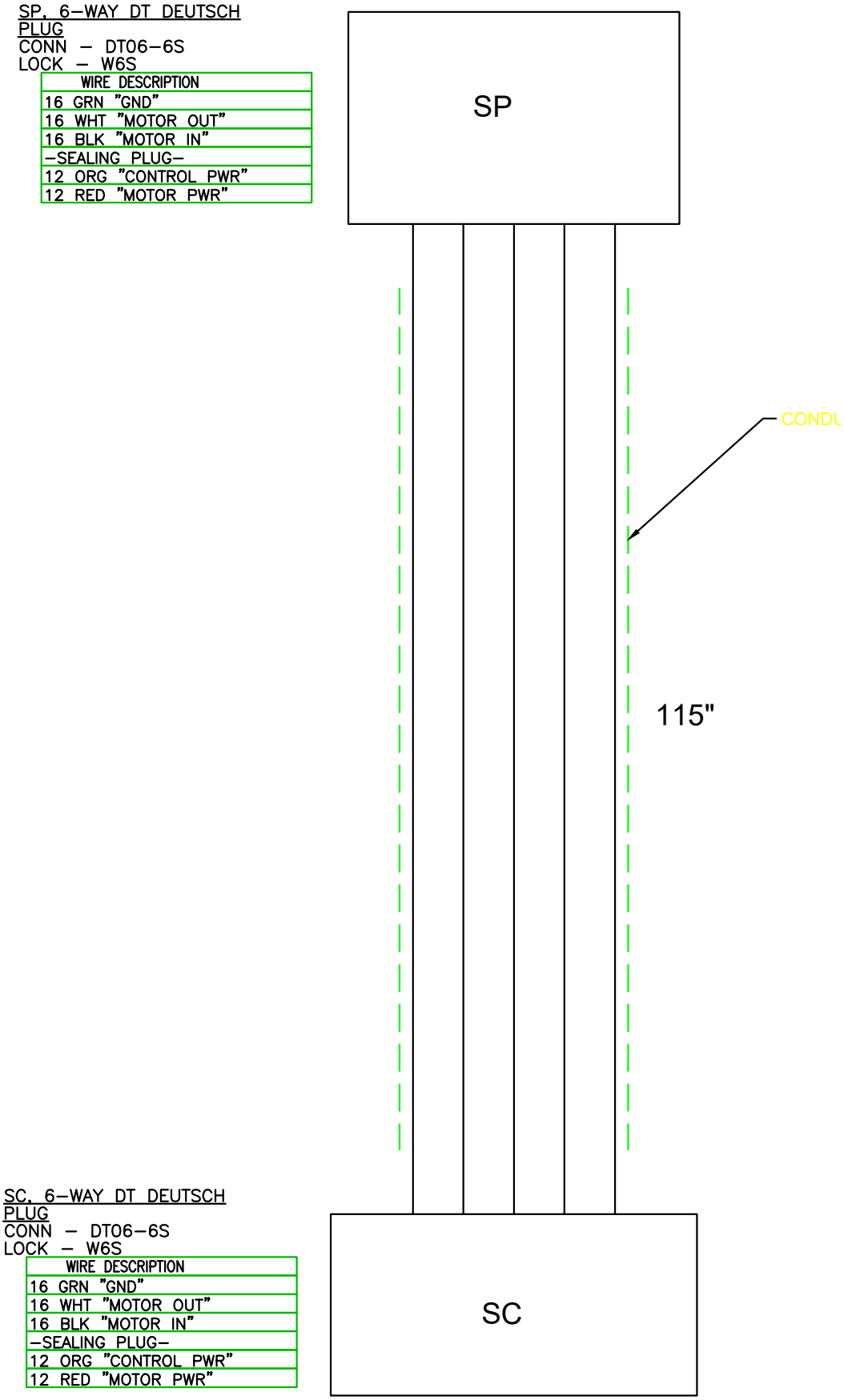
Wiring Diagrams



378SE Wiring Diagrams

SP, 6-WAY DT DEUTSCH PLUG
CONN – DT06-6S
LOCK – W6S

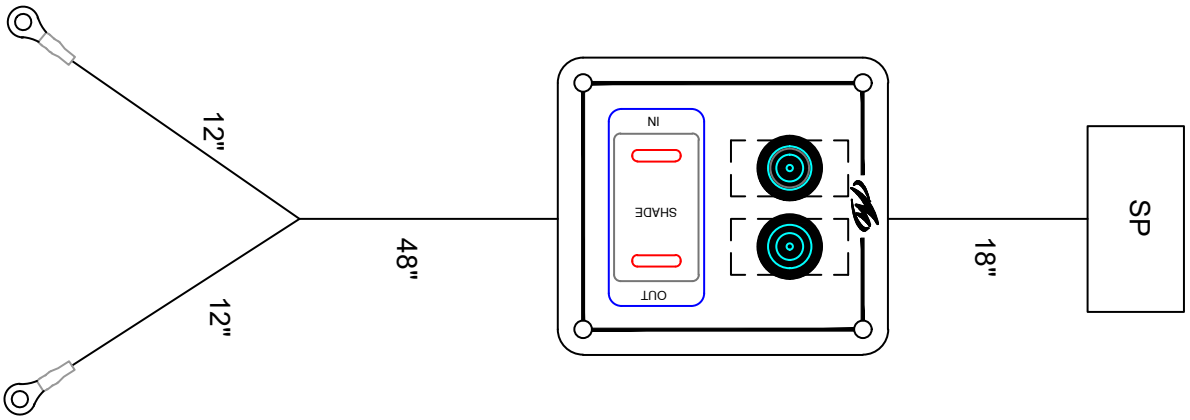
WIRE DESCRIPTION
16 GRN "GND"
16 WHT "MOTOR OUT"
16 BLK "MOTOR IN"
–SEALING PLUG–
12 ORG "CONTROL PWR"
12 RED "MOTOR PWR"

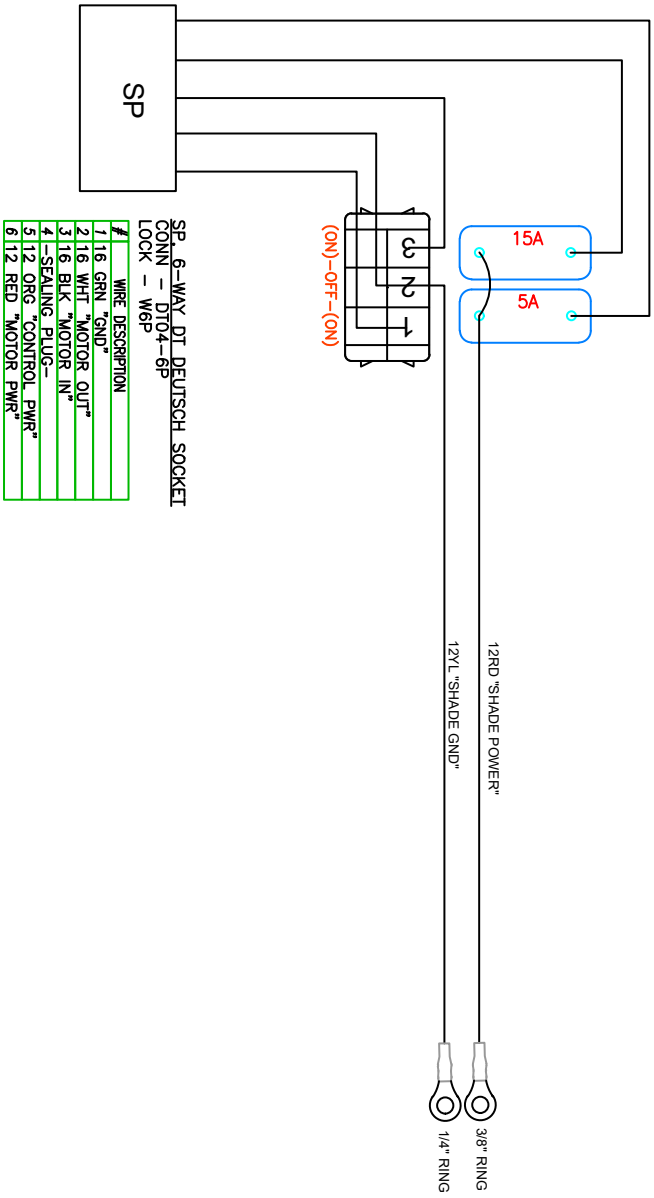


SC, 6-WAY DT DEUTSCH PLUG
CONN – DT06-6S
LOCK – W6S

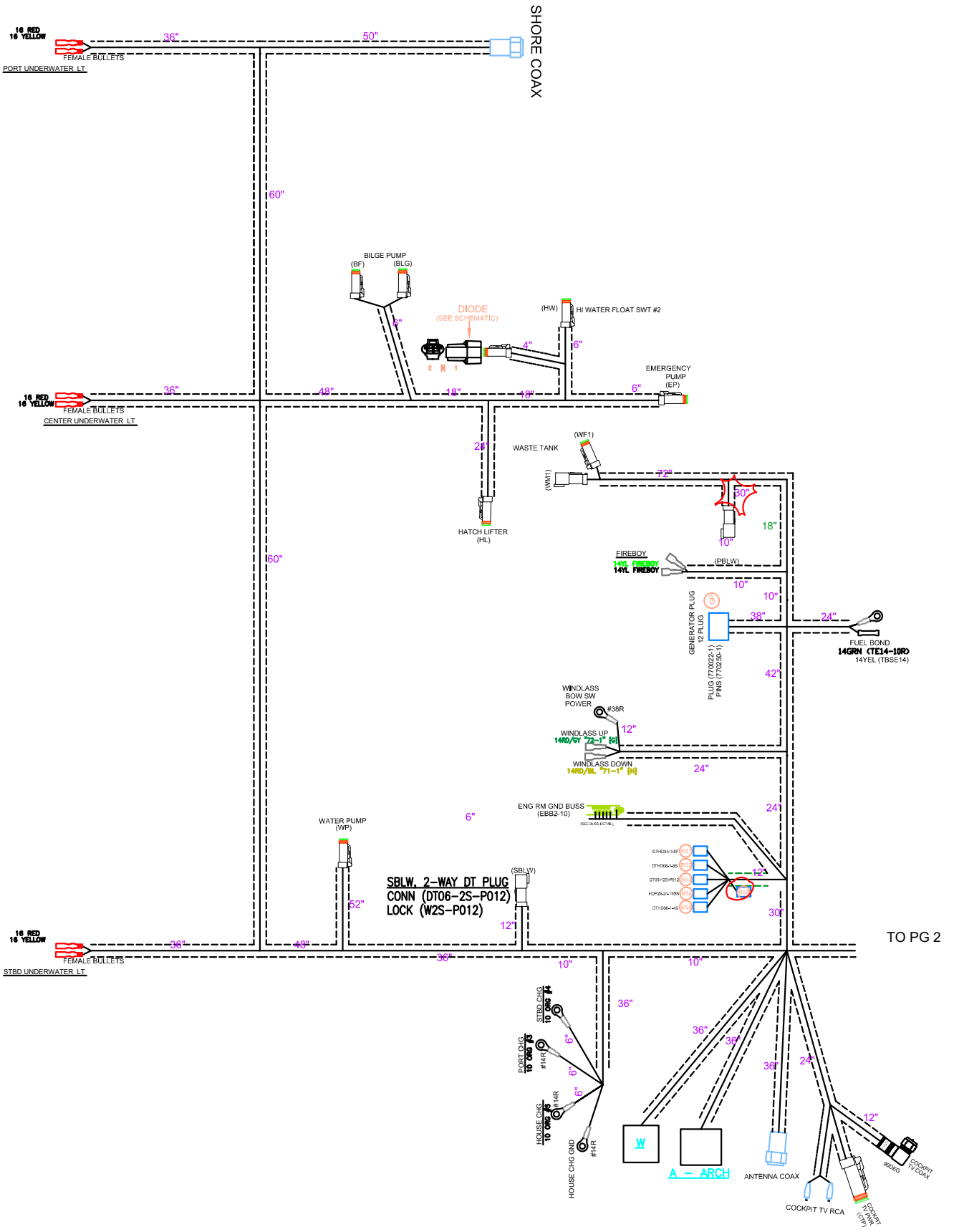
WIRE DESCRIPTION
16 GRN "GND"
16 WHT "MOTOR OUT"
16 BLK "MOTOR IN"
–SEALING PLUG–
12 ORG "CONTROL PWR"
12 RED "MOTOR PWR"

Sureshade Harness

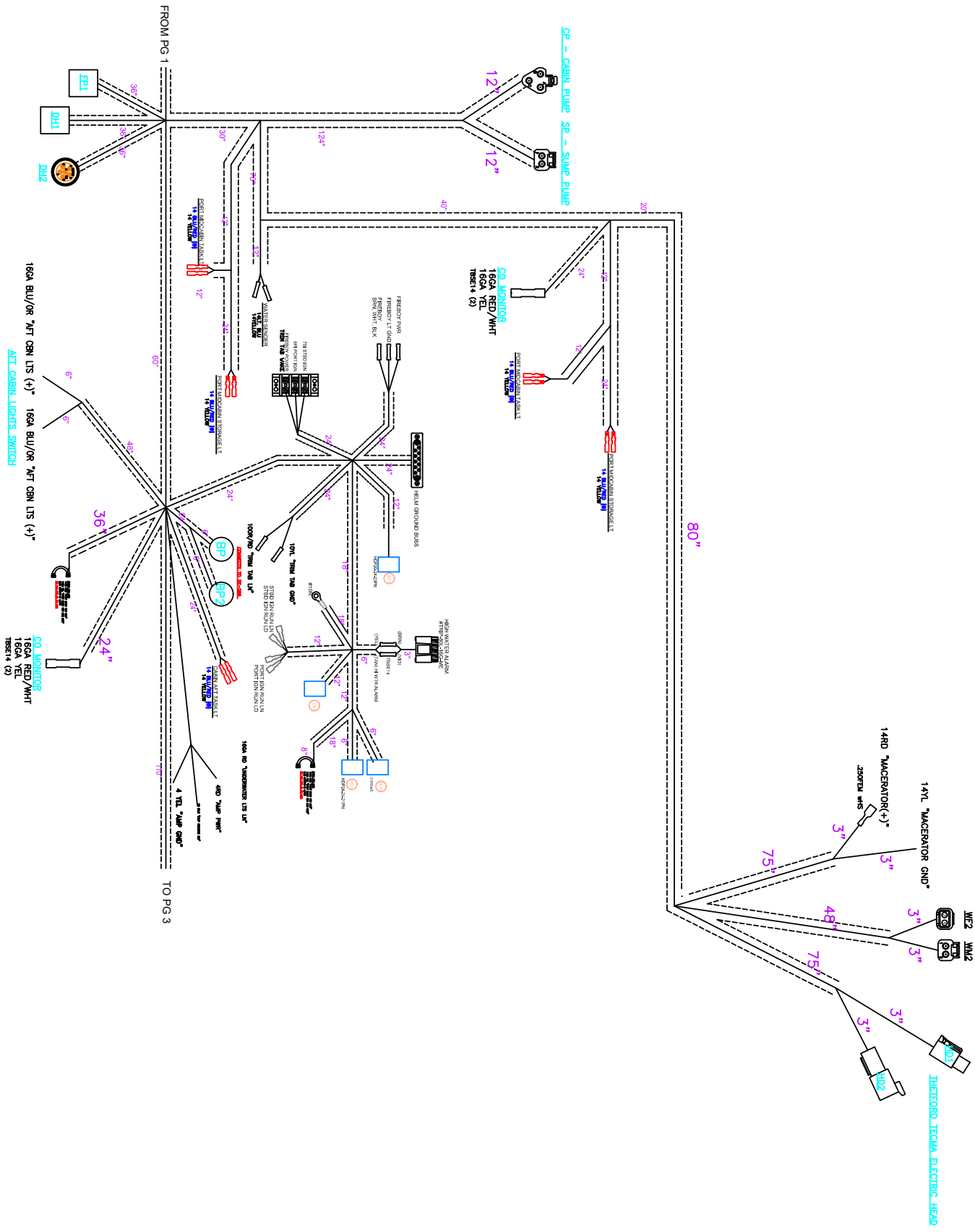




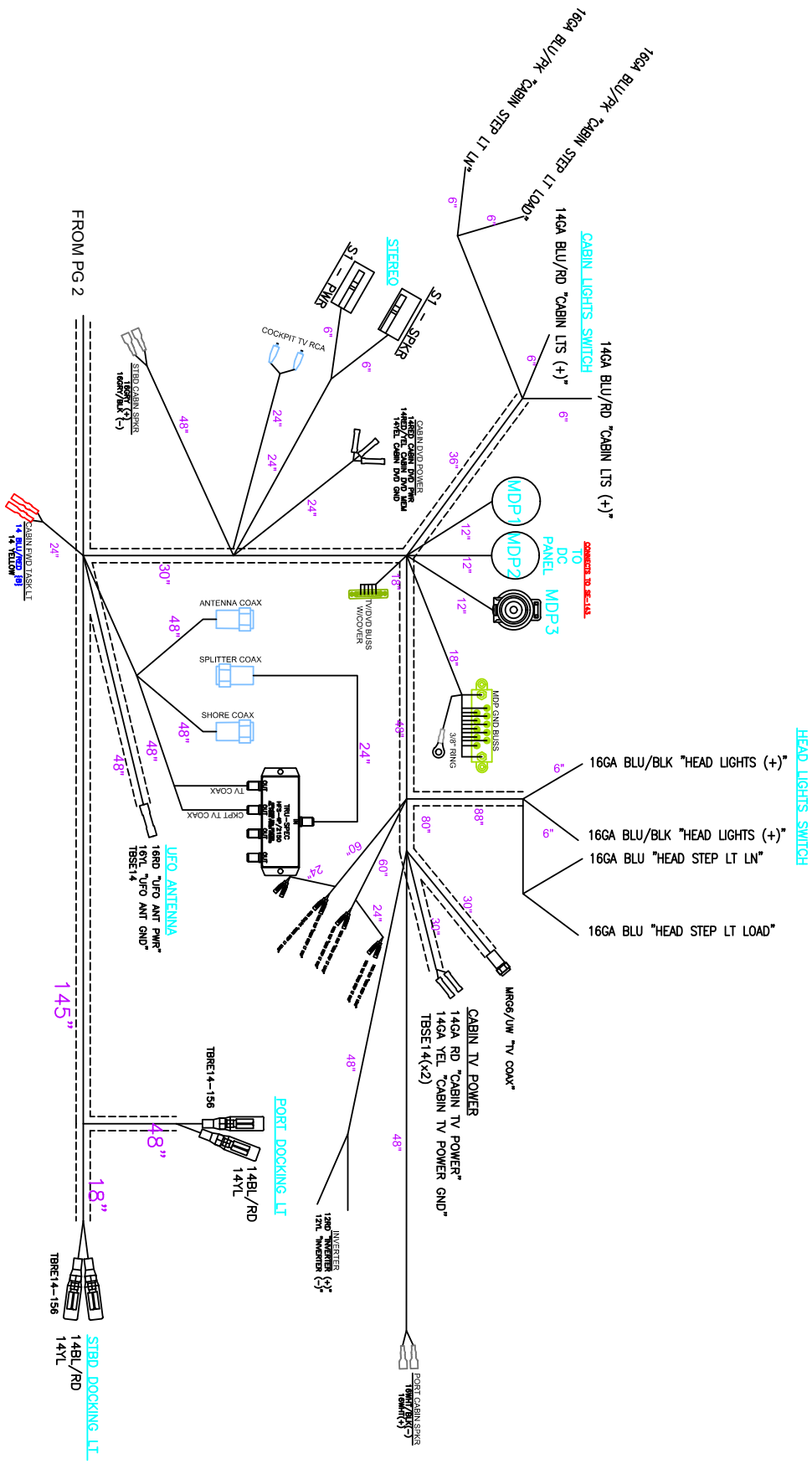
Sureshade Switch Panel



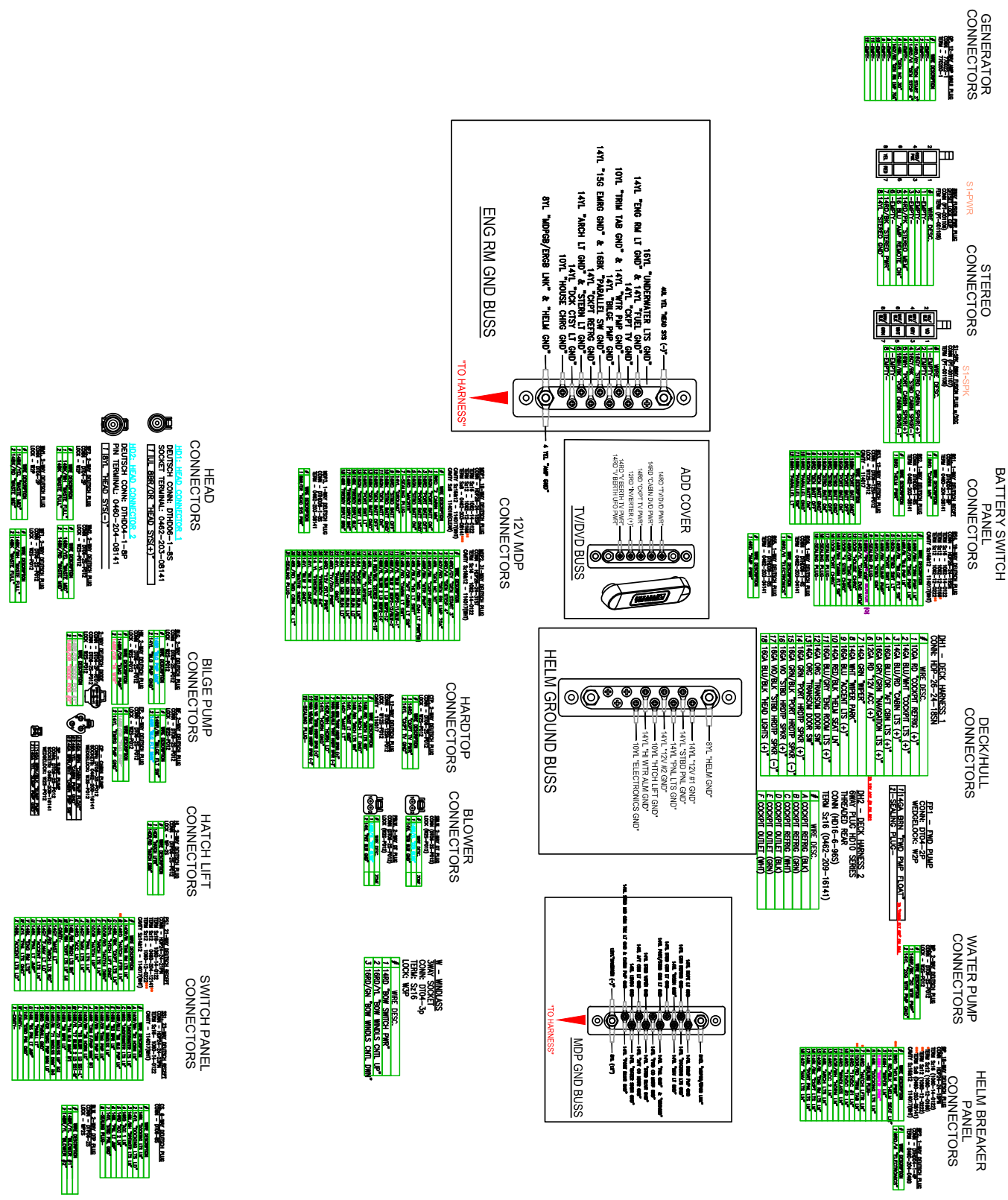
12V Hull Harness-Page 1



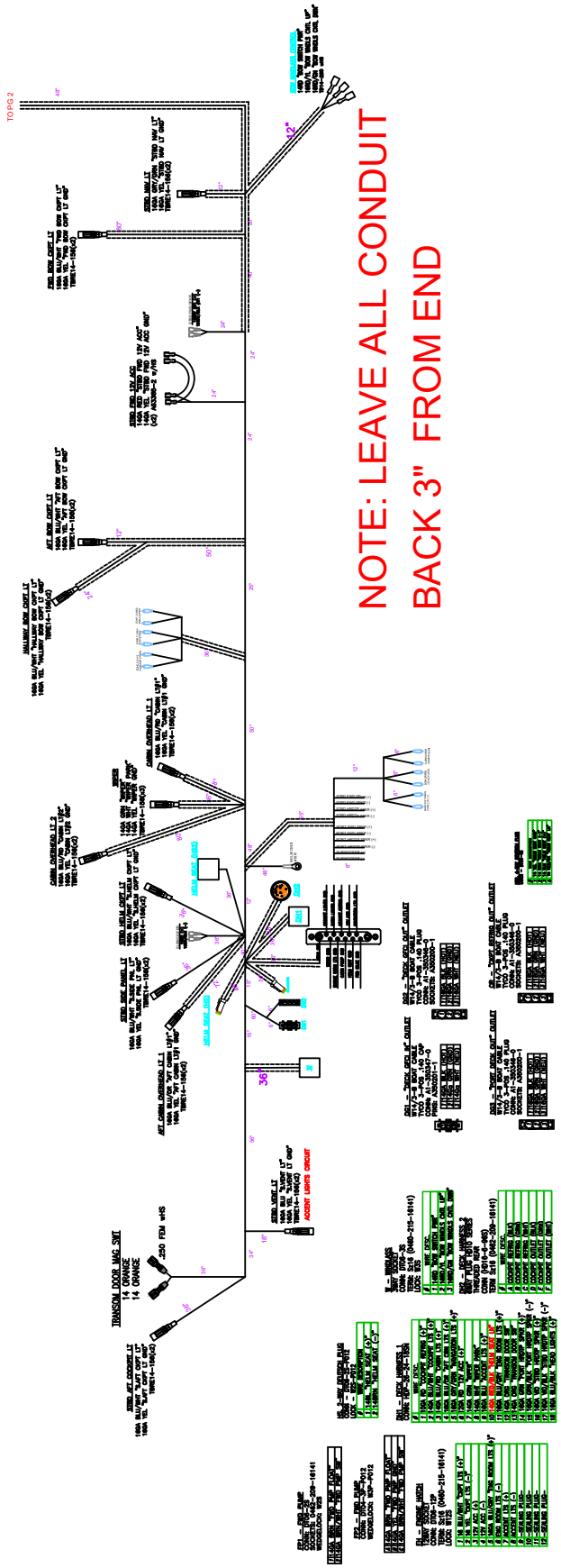
12V Hull Harness-Page 2



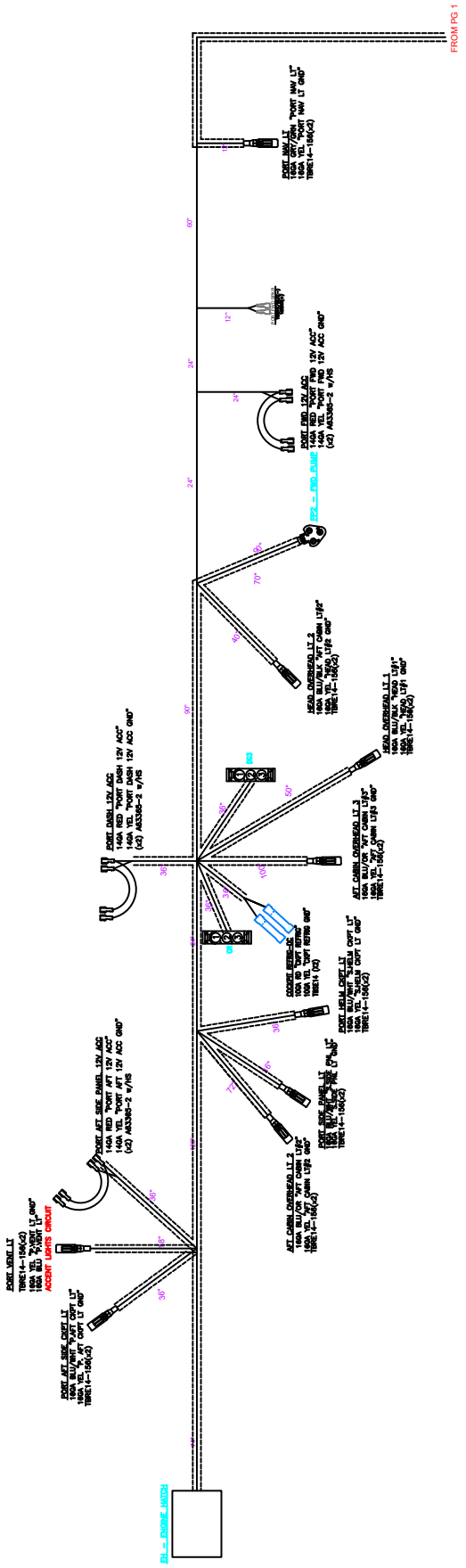
12V Hull Harness-Page 3



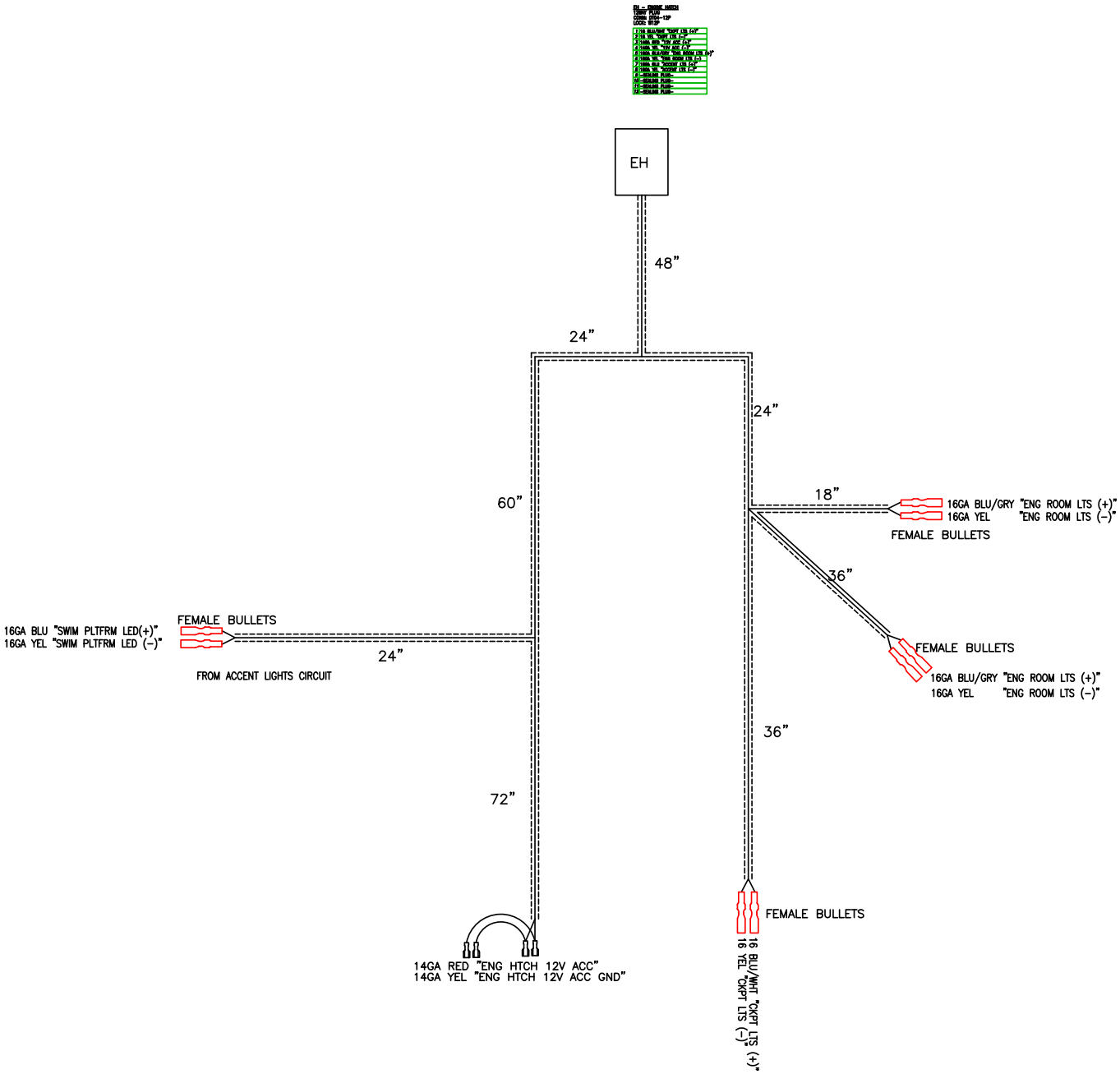
12V Hull Harness-Page 4



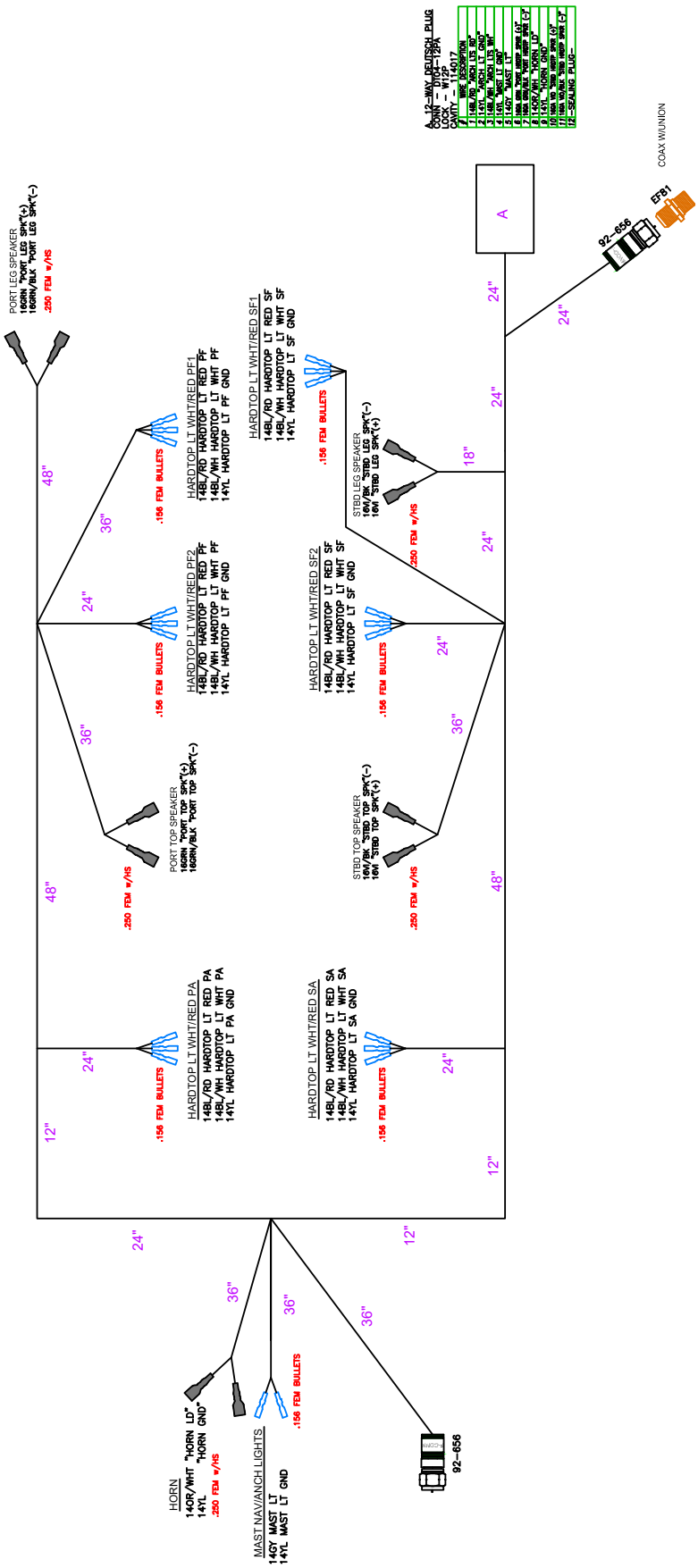
12V Deck Harness-Page 1



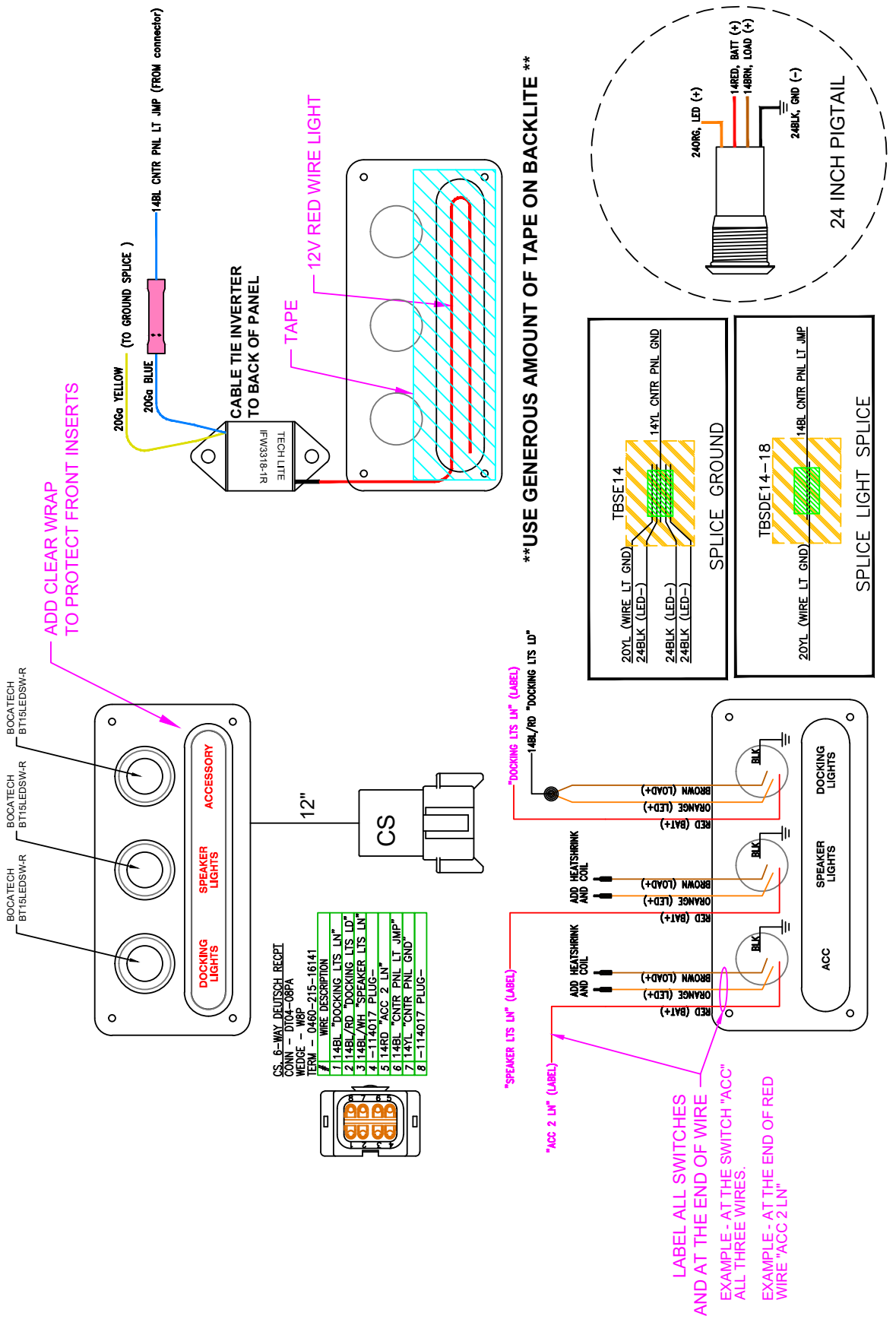
12V Deck Harness-Page 2



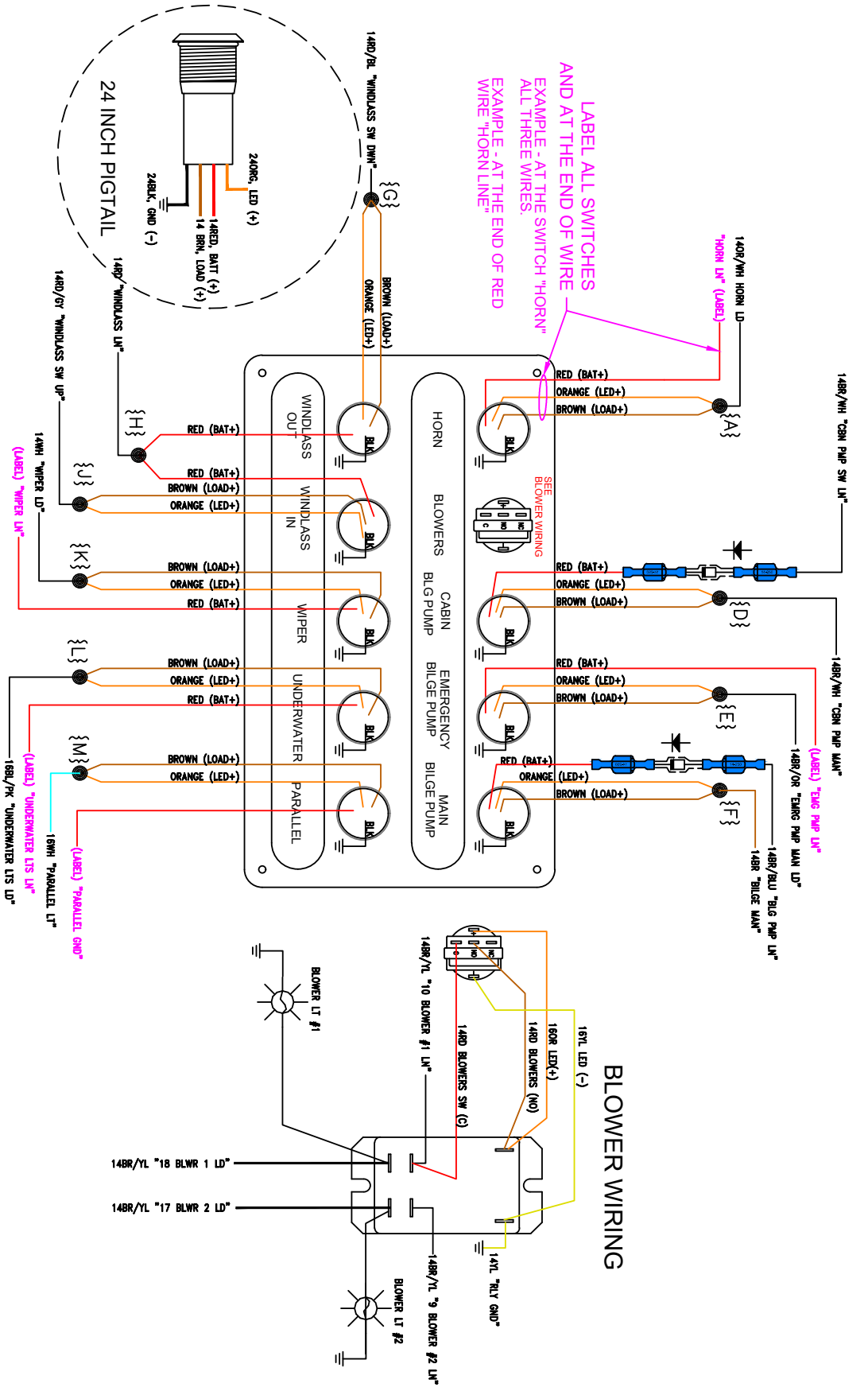
12V Engine Hatch Harness



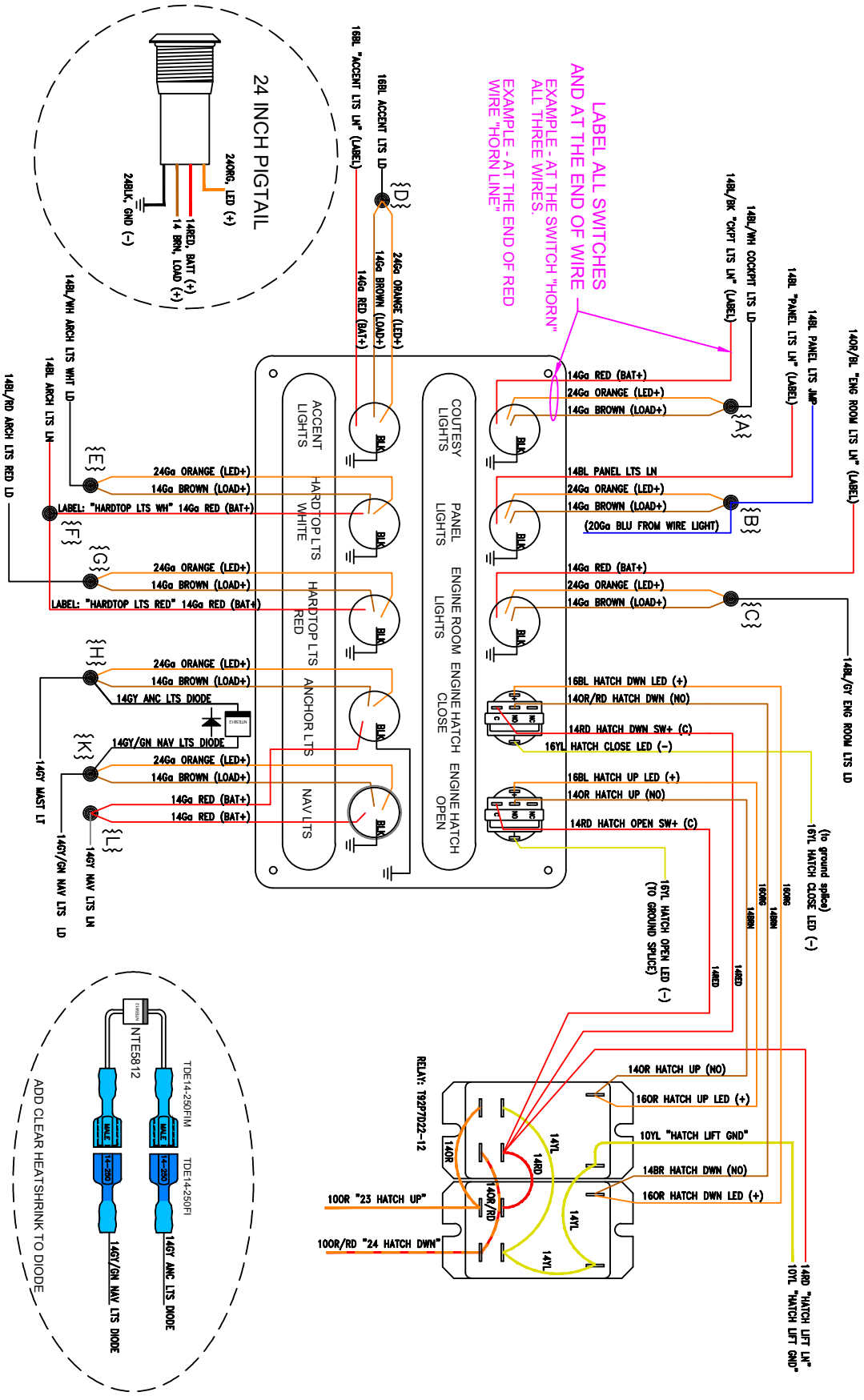
12V Hardtop Harness



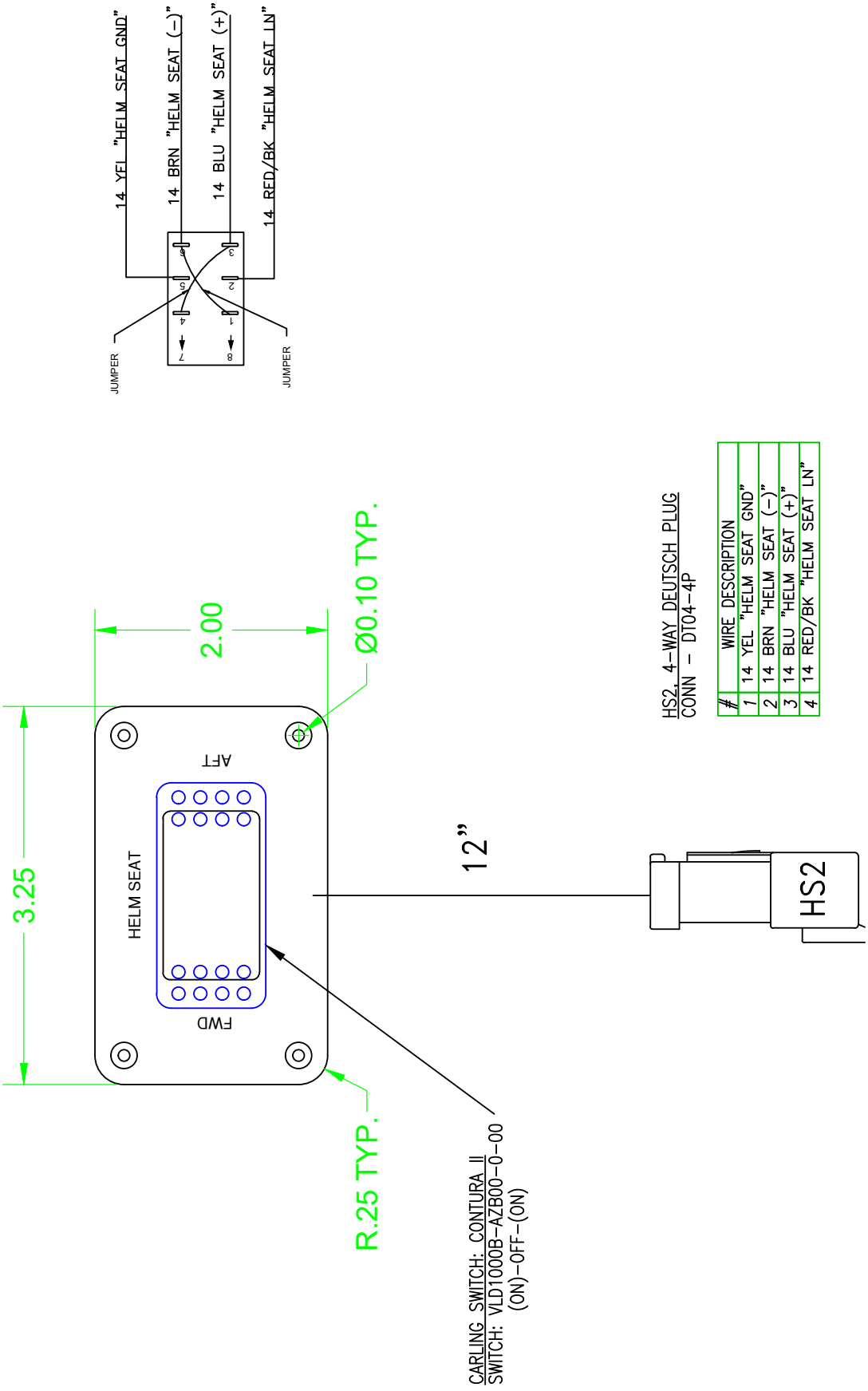
Center Helm Switch Panel



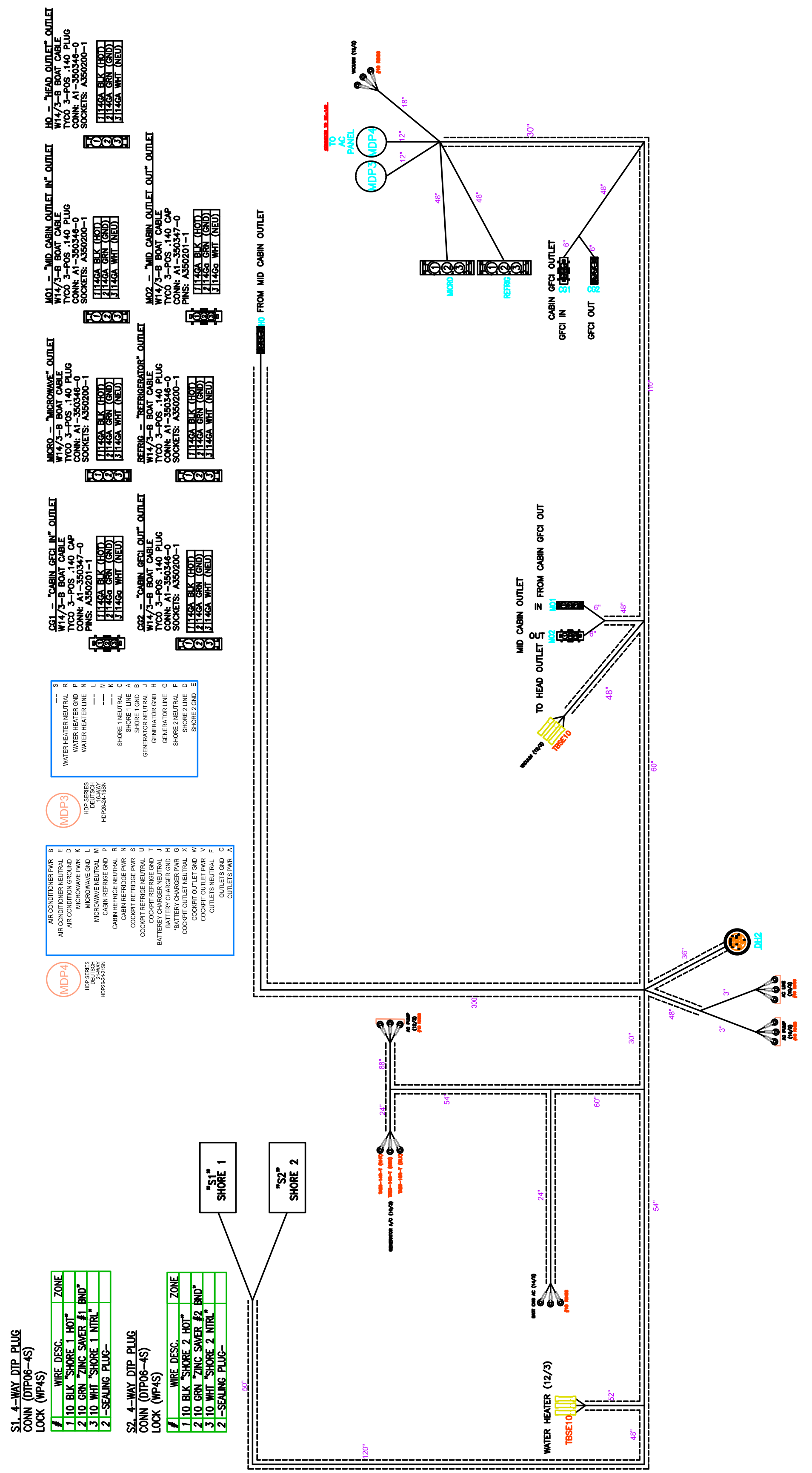
Starboard Helm Switch Panel



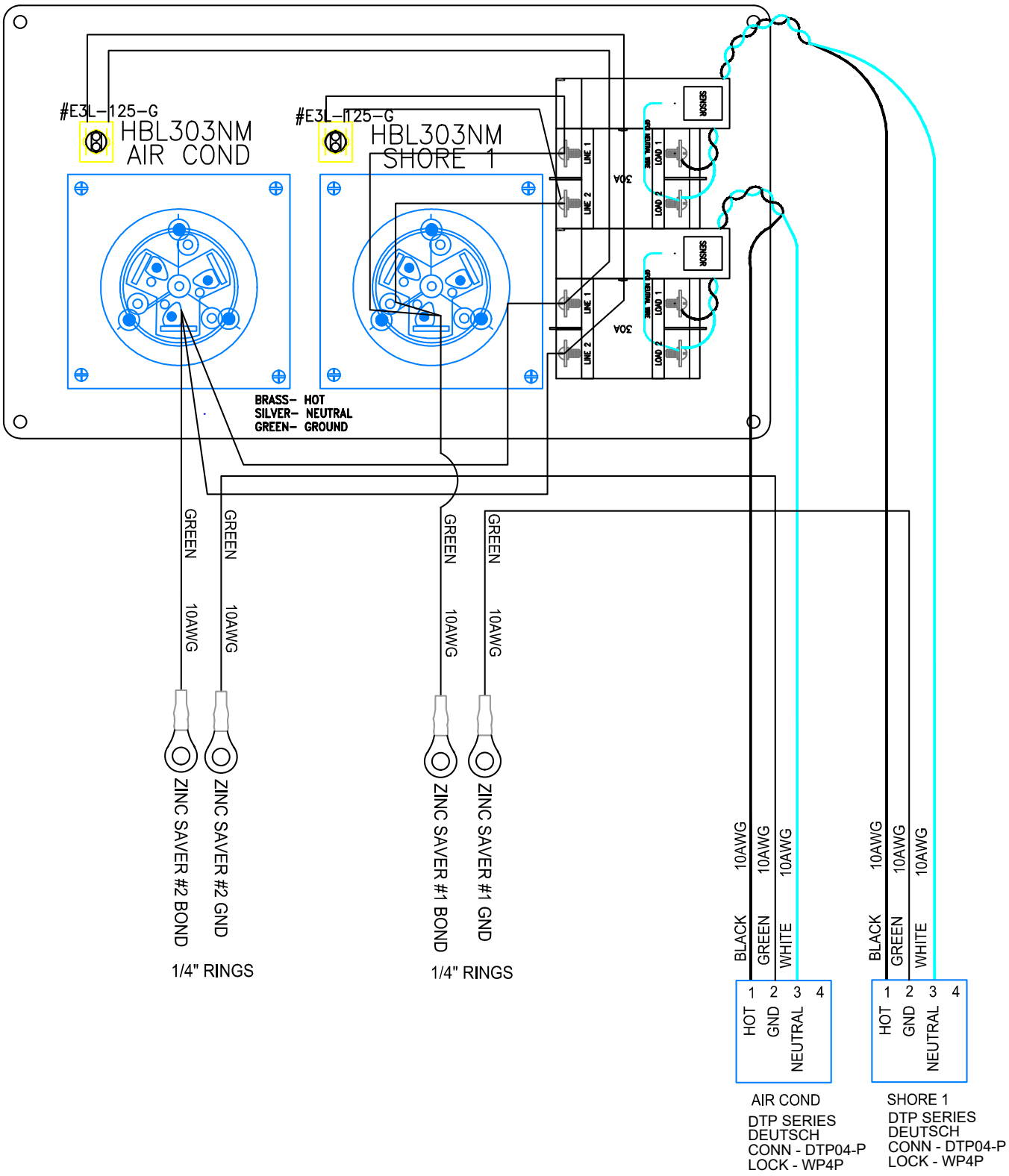
Port Helm Switch Panel



Helm Seat Switch Panel



120V Hull Harness



120V Shore Power Inlet Panel

NOTES

Specifications

378SE

SPECIFICATION ITEM	US UNIT	METRIC UNIT
BEAM	11’	3.4 M
BRIDGE CLEARANCE W/ ARCH	10’ 3”	3.1 M
DEADRISE	21 DEGREES	21 DEGREES
DRAFT - STERN DRIVE DOWN	38”	96.5 CM
DRAFT - STERN DRIVE UP	26”	66.0 CM
DRY WEIGHT	16,000 LBS	7,257 KG
FUEL CAPACITY	200 GAL	757 LTR
LOA W/ SWIM PLATFORM	37’ 0”	11.3 M
MAX CABIN HEADROOM	6’2”	1.9 M
MAX POWER	T-520 HP	T-387.8 KW
WASTE CAPACITY	28 GAL	106 LTR
WATER CAPACITY	49 GAL	185 LTR

NOTES

Monterey Boats Lifetime Limited Warranty

MONTEREY BOATS warrants to the original retail purchaser of its product beginning with the 2011 models that it will repair or replace defects in materials and workmanship found to exist in its product during the applicable warranty periods defined below if purchased from an authorized MONTEREY BOATS dealer, subject to the exclusions, limitations, conditions and provisions noted below. All repairs and replacements under the following warranties will be performed by MONTEREY BOATS or an authorized MONTEREY BOATS dealer or representative selected by MONTEREY BOATS at its sole discretion.

LIFETIME LIMITED STRUCTURAL HULL AND DECK WARRANTY:

MONTEREY BOATS warrants to the original retail purchaser of its product that MONTEREY BOATS will repair or replace the fiberglass hull or deck of its product if it is found to be structurally defective in materials or workmanship for as long as the original retail purchaser owns the product. For purposes of this limited warranty: (1) a structural defect is defined as a defect that causes the hull or deck to be unsafe or unfit for use under normal operating conditions; (2) the fiberglass hull is defined as the single fiberglass molded shell and integral fiberglass structural components including stringers, transom and related structural components which are below the hull flange; and (3) the deck is defined as the single fiberglass molded shell and integral fiberglass structural components attached to the hull flange. This warranty is further subject to the exclusions, limitations, conditions and provisions noted below.

TEN-YEAR TRANSFERABLE LIMITED STRUCTURAL HULL AND DECK WARRANTY:

Beginning with the 2011 models, MONTEREY BOATS also offers a Ten-Year Transferable Limited Structural Hull and Deck Warranty. Under this warranty, MONTEREY BOATS will repair or replace the fiberglass hull or deck if it is found to be structurally defective in materials or workmanship within the first ten (10) years after the warranty commencement date. For purposes of this warranty: (1) a structural defect is defined as a defect that causes the hull or deck to be unsafe or unfit for use under normal operating conditions; (2) the fiberglass hull is defined as the single fiberglass molded shell and integral fiberglass structural components including stringers, transom and related structural components which are below the hull flange; and (3) the deck is defined as the single fiberglass molded shell and integral fiberglass structural components attached to the hull flange. This warranty may be transferred to subsequent purchasers (hereinafter "new owner") provided the new owner registers the transfer and pays the transfer fee in accordance with the requirements set forth below. This transfer will only apply to the balance of any warranty period left during the ten (10) year period commencing on the warranty commencement date.

1. The request for transfer must be made in writing by the new owner and sent within thirty (30) days of the date of his/her purchase of the boat to:

MONTEREY BOATS
1579 SW 18th Street
Williston, Florida 32696

2. The request must include: A copy of the bill of sale with the Hull ID number, the new owner's name and address and a Certified Check or Money Order for the correct transfer fee amount.

3. The transfer fee is $300.00 for boats with hull lengths under 27', $500.00 for boats with hull lengths from 27' but under 33', and $700.00 for boats with hull lengths 33' and over.

In the event fiberglass hull or deck work is required, the new owner must return the boat to the original selling dealer or to a dealer authorized to service MONTEREY BOATS products. The cost of returning the boat to and from MONTEREY BOATS or an authorized MONTEREY BOATS dealer or representative will be the sole responsibility of the new owner. This warranty is further subject to the exclusions, limitations, conditions and provisions noted below.

FIVE-YEAR LIMITED HULL BLISTER WARRANTY:

MONTEREY BOATS warrants to the original retail purchaser of its product that MONTEREY BOATS will repair any osmotic blisters which occur on the underwater gelcoated surfaces of the hull as a result of defects in materials or workmanship within five (5) years from the warranty commencement date according to the following prorated schedule provided that the original factory gelcoat surface has not been altered in any way:

1. Up to two (2) years from the warranty commencement date, MONTEREY BOATS will pay 100% of the repair costs.
2. After two (2) years but up to three (3) years from the warranty commencement date, MONTEREY BOATS will pay 85% of the repair costs.
3. After three (3) years but up to four (4) years from the warranty commencement date, MONTEREY BOATS will pay 65% of the repair costs.
4. After four (4) years but up to five (5) years from the warranty commencement date, MONTEREY BOATS will pay 35% of the repair costs.
5. After five (5) years from the warranty commencement date, MONTEREY BOATS will pay 0% of the repair costs.

Alterations which will void this warranty include, without limitation, damage, accident repair, sanding, scraping, sandblasting, or improper surface preparation for application of a marine barrier coating or bottom paint. A marine barrier coating must be properly applied to the hull bottom if the boat is to be moored in water for periods of more than sixty (60) days in any ninety (90) day period and a marine barrier coating is also required if the boat is to be bottom painted. This warranty is further subject to the exclusions, limitations, conditions and provisions noted below.

TWO-YEAR EXTERIOR COSMETIC GELCOAT LIMITED WARRANTY:

MONTEREY BOATS warrants to the original retail purchaser of its product that MONTEREY BOATS will correct or repair any cracking, crazing or fading of, and any air voids in, the exterior gelcoat surface of the boat as result of defects in materials or workmanship within two (2) years from the warranty commencement date according to the following prorated schedule provided that the original factory gelcoat surface has not been altered in any way:

1. Up to twelve (12) months from the warranty commencement date, MONTEREY BOATS will pay 100% of the repair costs.
2. After twelve (12) months but up to fifteen (15) months from the warranty commencement date, MONTEREY BOATS will pay 55% of the repair costs.
3. After fifteen (15) months but up to twenty-four (24) months from the warranty commencement date, MONTEREY BOATS will pay 30% of the repair costs.
4. After twenty-four (24) months from the warranty commencement date, MONTEREY BOATS will pay 0% of the repair costs.

Alterations which will void this warranty include, without limitation, damage, accident repair, sanding, scraping, sandblasting, improper surface preparation for application of a marine barrier coating or paint, or if damage to the exterior gelcoat surface results from or is attributable to the addition of items not installed by MONTEREY BOATS. This warranty is further subject to the exclusions, limitations, conditions and provisions noted below.

LIMITED WARRANTY FOR NON-STRUCTURAL PARTS AND COMPONENTS:

MONTEREY BOATS warrants to the original retail purchaser of its product that MONTEREY BOATS will repair or replace the following described non-structural parts and components for the reasons and during the periods indicated below measured from the warranty commencement date whether or not separately warranted by the part or component manufacturer:

1. Canvas: if it fades or dry rots within five (5) years or if it is found to be defective in materials or workmanship within two (2) years.

2. Upholstery: if it is found to be defective in materials or workmanship within two (2) years.

3. All other non-structural parts and components: if they are found to be defective in materials or workmanship within one (1) year.

WHAT IS NOT COVERED:

The limited warranties set forth above do not cover:

1. Engines, outdrives, generators, air conditioners, and trim tabs;

2. Any boat that has been repaired or altered by persons other than MONTEREY BOATS or an authorized MONTEREY BOATS dealer or representative or modified in any way so as to affect its use and operation;

3. Any boat used for racing or for rental or commercial purposes or that has been subject to misuse, neglect, accident or structural modification;

4. Normal wear, tear, deterioration (including rust) of hardware, vinyl coverings, vinyl and fabric upholstery, plastic, stainless steel, other metal, wood, and trim tape.

5. Any defect caused by the failure of the owner to provide reasonable care and maintenance.

6. Installation of engines, generators, air conditioners, wake board towers, parts or other aftermarket accessories produced, installed or attached by anyone other than MONTEREY BOATS.

7. Loss of time, inconvenience, loss of the use of the boat or other matters not specifically covered hereunder; and

8. Any boat purchased from an authorized MONTEREY BOATS dealer located in the United States that is registered and/or operated outside the United States.

9. Any boat which has previously been repossessed from an authorized MONTEREY BOATS dealer. However, this exclusion shall not affect the Lifetime Limited Structural Hull and Deck Warranty set forth above.

GENERAL PROVISIONS:

ALL GENERAL, SPECIAL, INDIRECT, INCIDENTAL AND/OR CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM THIS WARRANTY AND ARE TOTALLY DISCLAIMED BY MONTEREY BOATS. IT IS THE INTENT OF THE PARTIES THAT THE OWNER'S SOLE AND EXCLUSIVE REMEDY IS THE REPAIR OR REPLACEMENT OF THE PRODUCT OR ITS ALLEGEDLY DEFECTIVE COMPONENT PARTS AND THAT NO OTHER LEGAL OR EQUITABLE REMEDIES SHALL BE AVAILABLE TO SAID OWNER. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE INCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU. THIS IS A LIMITED WARRANTY. MONTEREY BOATS MAKES NO WARRANTY OTHER THAN CONTAINED HEREIN. TO THE EXTENT ALLOWED BY LAW ANY WARRANTIES OF **MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE** ARISING IN STATE LAW ARE EXPRESSLY EXCLUDED. TO THE EXTENT ALLOWED BY LAW, ANY IMPLIED WARRANTY OF **MERCHANTABILITY** IS LIMITED TO THE DURATION OF THE LIMITED WARRANTY APPLICABLE TO THE PARTICULAR WARRANTED PART, COMPONENT, OR DEFECT. ALL OBLIGATIONS OF MONTEREY BOATS ARE SPECIFICALLY SET FORTH HEREIN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. MONTEREY BOATS' OBLIGATION WITH RESPECT TO THIS WARRANTY IS LIMITED TO MAKING REPAIRS TO OR REPLACING THE DEFECTIVE PARTS AND NO CLAIM FOR BREACH OF WARRANTY SHALL BE CAUSE FOR CANCELLATION OR RESCISSION OF THE CONTRACT OR SALE FOR ANY BOAT MANUFACTURED BY MONTEREY BOATS.

This Lifetime Limited Warranty commences on the date of delivery to the original retail purchaser or when the boat has been operated for twenty-five (25) hours or on the first day of the twenty-fifth (25th) month from the date of shipment from MONTEREY BOATS to an authorized MONTEREY BOATS dealer, which ever occurs first.

MONTEREY BOATS will discharge its obligations under this Lifetime Limited Warranty as rapidly as possible, but

cannot guarantee any specific completion date due to the different nature of claims which may be made and services which may be required. This Lifetime Limited Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. No person, including a MONTEREY BOATS dealer, is authorized to make any repairs or replacements under this Lifetime Limited Warranty without the prior written approval of MONTEREY BOATS. MONTEREY BOATS shall in no way be responsible for any repairs not PRE-AUTHORIZED by a MONTEREY BOATS Customer Service Manager or repairs performed by a repair shop not PRE-AUTHORIZED by a MONTEREY BOATS Customer Service Manager.

MONTEREY BOATS does not authorize any person to create or assume for it any other obligation or liability with respect to its products. The sales personnel or other employees of MONTEREY BOATS dealers are not authorized to make warranties concerning MONTEREY BOATS products. No brochure, pamphlet or other written or pictorial presentation constitutes a warranty or representation as to any aspect of MONTEREY BOATS products.

MONTEREY BOATS shall have no obligation under this Lifetime Limited Warranty unless and until each of the following conditions are met:

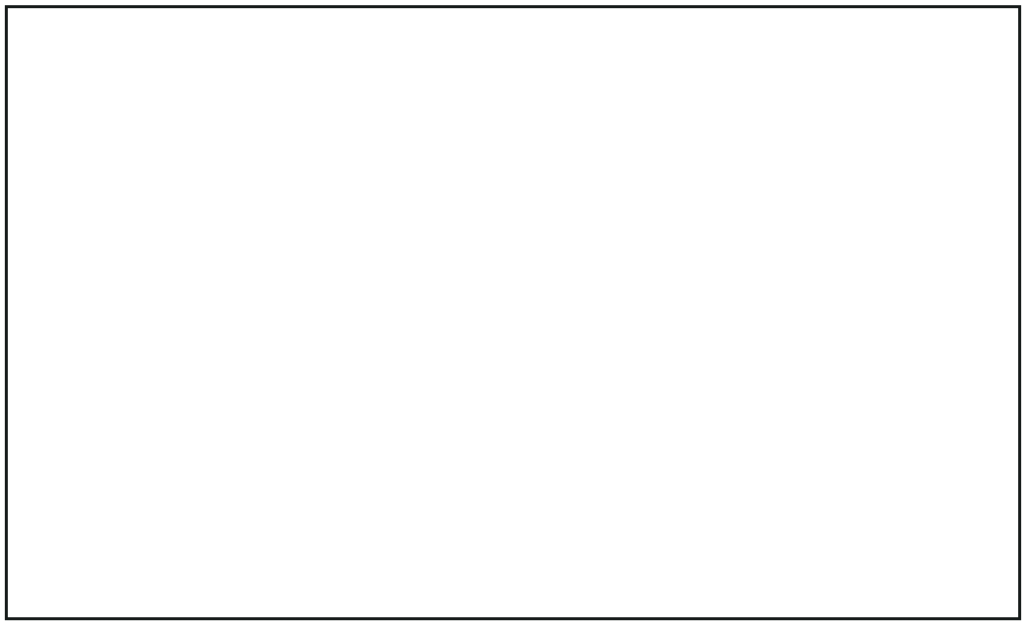
1. The original retail purchaser of its product or the MONTEREY BOATS dealer either completes and returns the Warranty Registration to MONTEREY BOATS by mail or facsimile or the MONTEREY BOATS dealer registers the Warranty electronically "online" within fifteen (15) days from the date the product is delivered to the original retail purchaser;
2. Notice of each warranty claim is given to the MONTEREY BOATS dealer within a reasonable period of time after discovery of any claimed defect;
3. Notice of each warranty claim is made in writing to MONTEREY BOATS within the applicable time periods identified in the respective warranties as measured from the date of purchase by the original retail purchaser; and
4. All transportation charges incurred in transporting the boat for warranty work are paid for by the owner.

MONTEREY BOATS reserves the right to make changes at any time, without notice, in prices or to make changes in design, colors, specifications, equipment, options, materials, etc., and MONTEREY BOATS shall be under no obligation to equip or modify product built prior to such changes.

IMPORTANT: Proper registration of the Warranty with MONTEREY BOATS is important for purposes of recording customer information for notification and correction of product defects under the Federal Boat Safety Act.

MONTEREY BOATS is the registered tradename and trademark of SEABRING MARINE INDUSTRIES, INC., a Florida corporation, the warrantor herein.

SEABRING MARINE INDUSTRIES, INC.
d.b.a. MONTEREY BOATS
1579 SW 18th Street – Williston, Florida 32696- Phone (352) 528-2628 / Fax (352) 529-2628



MONTEREY BOATS

1579 S.W. 18TH STREET
WILLISTON, FL 32696
PHONE: 352-529-9181 FAX: 352-529-9173

WWW.MONTEREYBOATS.COM