P.O. Box 1527, Greenville, NC 27835-1527 Greenville Blvd, NE, Greenville, NC 27834 919/752-2111 FAX: 919/752-4217

## Dear Grady-White Owner:

## Welcome aboard!

Buying and owning a boat is a very special experience. Of all the many products you'll ever own we want your Grady-White experience to be the absolute best. That means providing the descriptions, explanations and technical support that you need to enjoy your Grady-White with confidence and security.

Your Grady-White exceeds all US Coast Guard safety standards and is built to standards certified by the National Marine Manufacturers Association (NMMA). Best of all, your boat is built to Grady-White standards, standards that have served our owners through some truly extraordinary conditions since our first models built in 1958.

The seaworthiness and safety of your Grady-White is highly dependent on the operation, maintenance and care of your boat, so please read this manual thoroughly and keep it around for reference. If you need further explanation or "hands-on" help don't hesitate to ask the people at your Grady-White dealership; they have experience with the systems and operations of your boat. If for any reason you need additional help, please feel free to call us at the factory. We sincerely want to provide you with the help and information that will make your Grady-White experience delightful.

Thanks for choosing a Grady-White. All of us at the factory and at your dealership are dedicated to earning your confidence in Grady-White Boats. Again, welcome aboard.

Sincerely yours,

GRADY-WHITE BOATS, INC.

Kris Sheppard

President

## CONSUMER INFORMATION

## **OWNER'S PACKET**

Your Grady-White has many features and accessories that have existing printed material provided by the various equipment manufacturers. This information is compiled in a package that we will reference throughout this manual as an "Owner's Packet." This Owner's Packet includes a Grady-White Owner's Manual and Engine Manual(s) to advise on operation, service, specifications, maintenance, warranty and other useful facts. While reading your Grady-White manual you will find other technical literature referenced as resources for detailed information. The Owner's Packet will also consist of operation guides, informative labels and product warranties you will need to be acquainted with. Your Owner's Packet can also be used to retain instructions and data compiled on additional equipment and accessories installed after delivery.

YOU AND YOUR BOAT, a book published by the National Marine Manufacturer's Association (NMMA), has been included with your Owner's Packet as a supplement. This publication will be referenced in your Grady-White Owner's Manual to present additional instructions and information on basic boating.

#### WARRANTY INFORMATION

The Grady-White warranty is located on the last page of this manual. Upon the purchase of your new Grady-White Boat, the dealer will fill out a warranty card. This card will be kept on file at the dealership and at the Grady-White factory. A copy will be provided for your records and should be kept with other valuable documents for future reference. For questions regarding your warranty please contact your dealership.

#### DEALER'S RESPONSIBILITIES

Throughout the fabricating and assembly processes your Grady-White has undergone a series of strict inspections. Subsequent to the final factory overview your dealer must perform additional pre-delivery checks and approve your Grady-White for delivery.

Dealer responsibilities include providing the following:

- An orientation of the general operation of your Grady-White.
- A warranty card to be completed and signed by the dealer and the customer. This warranty card is to be sent to Grady-White Boats to validate the warranty.
- An explanation of safety issues regarding the use of containment systems and components.
- A complete Owner's Packet containing literature and information regarding your Grady-White and its separate warranted product's operation, installation and maintenance instructions.
- A review of all warranties, pointing out the importance of mailing warranty and registration to various manufacturers within the required time limits.
- Guidance on acquiring local and out of area service during and out of warranty periods.

#### CONSUMER RESPONSIBILITIES

The following are responsibilities of the Grady-White owner:

- Read and understand the express limited warranty.
- Study in detail all literature and instructions enclosed and use all equipment in accordance.
- Examine the boat and confirm all systems are working suitably at the time of accepting delivery.
- Render proper maintenance and periodic servicing of the boat in accordance with suggestions in the Owner's Manual.
- Return the boat, following 20 hours of operation, to the selling dealer for a 20 hour inspection.

Grady-White Boats has a permanent record of your boat which is retained under its "Hull Identification Number" (HIN). Data regarding equipment and accessories as well as dealer/shipping information is documented. When contacting your dealer concerning warranties or service please have all relevant information such as serial numbers (HIN) and model number available. This information is on your copy of the warranty card.

The "Hull Identification Number" is located on the starboard side of the transom, and is a significant source of identification and must be noted in all correspondence and orders. Failure to include the HIN only creates delay.

## HAZARD WARNING SYMBOLS

The hazard warning symbols shown below are applied throughout this manual to alert the customer of potentially dangerous situations which can lead to death, personal injury and/or product damage. We urge you to observe these warnings and comply with all safety recommendations.

## **↑** DANGER

THIS SYMBOL ALERTS YOU TO IMMEDIATE HAZARDS WHICH WILL CAUSE SEVERE PERSONAL INJURY OR DEATH IF THE WARNING IS IGNORED.

# /\WARNING

THIS SYMBOL ALERTS YOU TO HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH IF THE WARNING IS IGNORED.

# 

THIS SYMBOL ALERTS YOU TO IMMEDIATE HAZARDS WHICH COULD RESULT IN MINOR PERSONAL INJURY, OR CAUSE PRODUCT OR PROPERTY DAMAGE IF THE WARNING IS IGNORED.

## NOTICE

THIS SYMBOL CALLS ATTENTION TO INSTALLATION, OPERATION OR MAINTENANCE INFORMATION WHICH IS IMPORTANT FOR PROPER OPERATION, BUT IS NOT HAZARD RELATED.

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## CHAPTER ONE BOATING SAFETY

## REQUIRED SAFETY EQUIPMENT

The US Coast Guard (USCG) requires that every boat between 26 and 40 feet have specific equipment on board. Check with local regulations on mandatory equipment apart from the list of Coast Guard requirements. Reference You and Your Boat for stipulations and facts pertaining to the items listed below.

## FIRE EXTINGUISHER

Your boat must be equipped with (2) marine approved fire extinguishers. Check extinguishers regularly for charge status.

#### PERSONAL FLOTATION

All passenger must have a USCG approved personal flotation device (PFD). Children and non-swimmers are advised to wear a PFD at all times.

## SOUND SIGNALING DEVICE (HORN, WHISTLE OR BELL)

Your Grady-White is equipped with a marine horn that meet the USCG stipulations of a sounding device on board.

## **VISUAL DISTRESS SIGNALS**

USCG approved visual distress signals are required for day and night use when operating on US waters.

#### LIGHTING

Grady-White boats are equipped with navigational lights that meet the requirements for inland or international waters.

## ADDITIONAL RECOMMENDED EQUIPMENT

In addition to the required safety equipment, there are additional items that will provide an extra margin of safety and convenience for you and your passengers while boating. For an extended list of basic gear, tools and spare parts reference the pamphlet You and Your Boat enclosed with this manual.

Keep tools and spare parts in good condition. Replace parts removed from spare parts kit. Most importantly use US Coast Guard approved or marine certified parts where applicable. Conditions found requiring corrective action should be worked on by a qualified repairman.

#### **REGISTRATION NUMBERS**

Federal and State laws require a power boat to be registered in the State where it is primarily used. Registration numbers and validation stickers must be displayed according to regulations. The registration certificate must be on board when boating. The boat serial number, or Hull Identification Number (HIN), is required on the registration form. The HIN is located on the upper right hand corner of the transom and is the most important identifying factor. The HIN should be included on all documents or any correspondence to provide you timely service.

#### **EMERGENCY STOP SWITCH**

Some Grady-Whites are equipped with an emergency stop switch. This is a safety feature that, if used properly, will shut the engines down if the operator leaves or falls from the helm position. This ignition shutdown switch includes a shut-off switch, switch clip, lanyard and lanyard clip. The lanyard clip is attached to the operator. If a situation arises where the boat should stop, a pull on the cord to release the clip from the shut-off switch will shut down the engines. To reset the emergency stop switch, simply reinstall the switch clip. The ultimate decision to use the emergency stop switch rests with the owner/driver.

## **EMERGENCY INFORMATION**

While boating, unpleasant situations may develop. When emergency situations materialize you should prepare yourself on how to cope with them, whether they happen aboard your vessel or someone else's. Anticipate a game plan for specific situation that may occur such as fire, man overboard or collision etc., to give you the confidence and ability necessary for an emergency. The key factor is to remain calm. Familiarize yourself with the procedures provided in *You and Your Boat* for emergency situations.

## RENDERING ASSISTANCE

The owner or operator of a vessel is required by law to render all practical or necessary assistance to any person or vessel affected by collision, accident or casualty. However, you should not endanger your vessel or passengers to render assistance.

#### ACCIDENT REPORTING

Report all boating accidents to your local authorities. Federal regulations require boat operators that are involved in an accident to submit a written report within 48 hours. In the event of death or disappearance notification is required immediately by phone or radio in addition to the written report. These reports can be submitted to the State Boating Law Administrator. Forms can be obtained through the USCG, local harbor patrol offices, sheriff and police stations.

#### LIGHTNING PRECAUTIONS

This awareness is included to ensure the safety of the owner and passengers. Always be mindful of the weather! When a lightning storm advances certain safety precautions should be taken. Dock the boat and seek shelter on land. If this is not possible seek refuge inside the boat until the storm has passed. **Stay out of the water!** Lightning will seek a ground when it strikes and may pass through metal components if it hits your boat. For this reason, avoid contact with metal parts of the boat under these conditions.

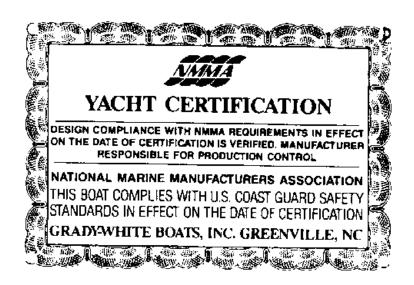
## **BOATING SAFETY TIPS**

Safety is an important aspect of boating. Your safety as well as the safety of your passengers and vessel are your responsibility. The following precautions and the ones mentioned in *You and Your Boat* will add to you and your passenger's boating safety and pleasure.

- Study all Operation and Maintenance Manuals for your Grady-White before operation. For any questions or concerns contact your dealer. Proper operation and maintenance will insure quality performance and the longevity of your boat.
- A written float plan left with a reliable person will be valuable information if you
  have a mishap and do not return on time. Upon returning inform the holder of
  the float plan to prevent false alarms about your safety.
- Never operate or allow anyone to operate your boat while under the influence of drugs or alcohol.
- Do not allow individuals under 16 years of age to operate your boat.
   Inexperienced drivers should not be allowed to operate the boat without constant and direct supervision.
- Instruct at least one person to pilot your boat and be familiar with basic boating techniques and safe operation in the event of an emergency.
- While boating, passengers should be settled in a safe position. Handholds and rails should be used. **Do not allow** bow-riding, transom or gunnel riding.
- Keep your boat speed under control. Respect for other boaters and those on shore is common courtesy. The operator of the boat is responsible for any injury or damage caused by the boat's wake. Your wake could swamp or damage a smaller craft or endanger its passengers. Stay alert for posted "No Wake Zones".
- Never allow swimmers/skiers to enter or exit the boat with the engines running. A shift lever in neutral could become engaged causing severe harm to swimmers. Do not operate your boat in swimming or diving areas at any time.
- When venturing into foreign waters collect information on the boating area. Obtain charts for new areas whenever possible.
- Recommend boat shoes or tennis shoes to passengers to prevent slipping or falling.
- Read and understand the "Rules of the Road" in You and Your Boat for a better
  understanding of who has the right of way when crossing or taking over another
  vessel. This will provide you with tips on signaling for particular situations.

## CERTIFICATION

At the helm station, you will find a NMMA (National Marine Manufacturers Association) Yacht Certification tag. This means your yacht complies with the Coast Guard safety standards. (NOTE: Any boat with an overall length of 26 feet or greater is defined as a "yacht" by NMMA.)





This label means that your Grady-White is certified by the NMMA. With this tag, you are assured that your fuel system, electrical system, lighting, ventilation, and steering, are not only in compliance with the US Coast Guard regulations, but also meet the more stringent standards of the NMMA. The NMMA is a national trade organization serving all elements of the recreational boating industry, including manufacturers of boating equipment. With this tag, you can have confidence in the safety of your boat.

# **BASIC FLOATATION**

THIS BOAT HAS "BASIC FLOTATION" AS DEFINED BY ABYC STANDARD H-8.

This label means that Grady-White has designed and built your boat to the ABYC basic flotation standard H-8. Basic flotation is defined as having enough foam, in the boat, to create buoyancy and prevent sinking under swamped conditions.

## LOADING CAPACITY

Though overloading is a primary cause of many boating accidents, improper loading is equally hazardous. Boaters should know the amount of weight on board and evenly **distribute** the weight within the boat.

## CARBON MONOXIDE

# THE ANGER

DO NOT INHALE EXHAUST FUMES! EXHAUST FUMES CONTAIN CARBON MONOXIDE, A DANGEROUS AND POTENTIALLY LETHAL GAS.

Exhaust fumes contain carbon monoxide (CO), an odorless and colorless gas. Carbon monoxide is poisonous and a health hazard that can be fatal if breathed over an extended period of time. Symptoms of CO poisoning can include: dizziness, nausea, headache, sleepiness, vomiting, throbbing in temples, muscular twitching and the inability to think clearly. If you or anyone else experience these symptoms immediately get away from fumes and into an area where plenty of FRESH air can be consumed. If any symptoms from above persist seek medical attention.

Carbon Monoxide is the gas formed by the combination of one molecule of carbon and one molecule of oxygen. Chemists refer to it as CO, its chemical formula "C" for carbon and "O" for oxygen. Its weight is about the same as air so it cannot be expected to rise or fall like some other gases but will distribute itself throughout space.

Carbon monoxide can accumulate in cabins and under canvas. If your boat is equipped with canvas that encloses the aft cockpit and the propulsion equipment do not operate the boat with this canvas closed.

The boat operator should be aware that CO is emitted from any boat's exhaust. The operation, mooring and anchoring in an area containing other boats may be in an atmosphere containing carbon monoxide that is not of the operator's making. An operator, likewise, needs to be aware of the consequence of his actions on other boats. Of primary concern is the operation of an auxiliary generator with boats moored along side each other.

# 

When operating center console or cuddy cabin at cruising speeds, slow speeds, or dead in the water with canvas tops, side curtains and/or back curtains in place, be aware of engine exhaust to ensure that emissions do not accumulate in the boats interior. Maintain proper ventilation by adjusting canvas enclosure.

## SUGGESTED BOATING CLASSES AND READING MATERIAL

Like a car, boats must be operated according to safety rules and traffic regulations. Although we include some basic boating tips in this manual, a thorough review of the safety rules and regulations for boating is beyond the scope of this text.

We support the work of the United States Coast Guard Auxiliary and the United States Power Squadrons. We urge you to exercise the opportunity to attend any instructional classes sponsored by these organizations. Reference the last page of You and Your Boat for different options on education and information on charts and maps. For further knowledge on boating we advise that you review the following publications:

PILOTING, SEAMANSHIP AND SMALL BOAT HANDLING
(Chapman)\*

Motor Boating and Sailing
Post Office Box 2319 -- F.D.R. Station
New York, New York 10022

\*Available on CD ROM

PLEASURE BOATING AND SEAMANSHIP
US Coast Guard Auxiliary
306 Wilson Road Oaklands
Newark, Delaware 19711

BOATMAN'S HANDBOOK
by Tom Bottomly
Motor Boating and Sailing
Post Office Box 2319 -- F.D.R. Station
New York, New York 10022

FOR MORE INFORMATION ON BOATING SAFETY COURSES IN YOUR AREA, CALL BOATING EDUCATION HOTLINE 1-800-336-BOAT (2628), US COAST GUARD BOATING HOTLINE 1-800-368-5647 or CONTACT YOUR LOCAL COAST GUARD.

## CHAPTER TWO GENERAL INFORMATION

#### FUELING

# **MARNING**

# Safety during fueling requires CAUTION and COMMON SENSE.

Observe the following precautions carefully. Check with your dealer if you have questions. Check your engine manuals to confirm the type of fuel specified by the manufacturer. Do not use gasoline containing alcohol. Alcohol in fuel will deteriorate the rubber material used to make up your fueling system. If operating an outboard with an oil injection system check the engine manual for the approved type of oil and fill the tank completely.

- Observe all safety regulations for the safe handling of fuel.
- Extinguish cigarettes and all other lighted materials.
- Before fueling shut down all engines.
- Before fueling close all ports, hatches, windows, and engine compartments to prevent fumes from accumulating in closed areas.
- Before fueling turn battery select switches to the "OFF" position to insure that all fans, lights, etc. are off.
- Keep the fuel supply nozzle in contact with the fuel tank opening to prevent any static sparks.
- Secure the fuel cap and check fuel lines and connections for leakage. Wash and clean-up any spilled fuel. Dispose of rags or sponges used for clean-up on shore. Do not store these clean-up rags in the boat.
- After fueling ventilate all ports, windows, hatches and other closed areas.
   Conduct a "sniff test" to make certain all fumes are vacant before using the battery select switches.

Reference the Fuel Tank Compartment section under Maintenance for more information on cleaning the fuel storage area.

## **DISCHARGE REGULATIONS**

The Federal Water Pollution Control Act prohibits the discharge of oil or any other hazardous substances which may be harmful into the US navigable waters. The US Coast Guard requires that any vessel 26 feet or greater display a placard in a prominent location notifying the crew and passengers of discharge restrictions. Each placard must be at least nine inches wide and four inches high, made of a durable material and printed with letters that are at least 1/8 of an inch in height.

## DISCHARGE OF OIL

The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters and contiguous zones of the United States; if such discharge causes a film, sheen upon, or 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 \$5,000.

## DISPOSAL OF PLASTICS AND OTHER GARBAGE IN WATERS OF THE UNITED STATES

The MARPOL ANNEX V is the Act to prevent pollution from ships and other vessels. Federal regulations prohibit the discharge of plastic garbage anywhere in the marine environment. Plastic includes but is not limited to: synthetic fishing nets, ropes, lines, straws, six pack holders, styrofoam cups and lids, bottles, buckets and plastic bags. These regulations also restrict the disposal of other types of garbage within specified boundaries from shore. The following plaque will help you determine the specific distances offshore that certain garbage is permitted.

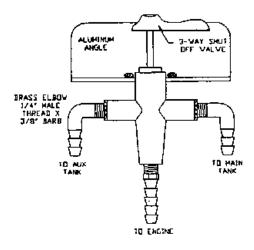
## NOTICE

It is illegal for any vessel to dump PLASTIC trash anywhere in the ocean or navigable waters of the United States.

It is illegal for any vessel to dump International Law for a cleaner, safer marine environment. Violation of these plastic trash anywhere in the ocean or navigable waters of the United States. requirements may result in civil penalty Annex V of the MARPOL TREATY is an up to \$25,000, fine and imprisonment.\* miles Outside 25 miles 12 to 25 miles ILLEGAL TO DUMP ILLEGAL TO DUMP ILLEGAL TO DUMP Plastic U.S. Lakes, Rivers, Plastic Plastic Bays, Sounds and Dunnage, lining & Dunnage, lining & 3 miles from shore packing materials packing materials ILLEGAL TO DUMP that float, also that float if not ground to Plastic & Garbage less than one inch: Paper Metal Crockery Crockery Paper Rags Metal Glass Dunnage Rags Food Food Glass \*UP TO \$50,000 AND 5 YRS. State and local regulations may further restrict the disposal of garbage.

## **FUEL SELECT VALVE**

You will have a manual fuel select valve installed if your boat is equipped with dual fuel tanks. This valve allows you to choose from which tank fuel will be consumed. Select the tank that allows the best performance for your boat. Remember as the fuel is consumed and the fuel load redistributes, performance will be influenced.



## BOARDING/STOWAGE

Reference You and Your Boat for information on how to board your boat and tips for stowage.

## DRIVING

Do not allow passengers to ride in the boat while trailering. Check brakes prior to leaving. Drive steady as possible and avoid sudden jerks. Anticipate stops to make them smooth. Road trips call for occasional stops to make sure the trailer is still secured properly.

#### TRAILERING

The adjustment and balance of your boat on the trailer determines how easily your boat may be transported. The tongue weight on the hitch ball should be 5-10% of the total weight of your boat, motor and trailer. Tail-heavy loads cause swaying while trailering. The rollers and/or bunkers of your trailer should be adjusted so that the weight is distributed evenly across the stern and forward throughout the keel sections. Your dealer is capable of adjusting your trailer properly.

You and Your Boat covers the trailering aspect in detail and also provides the checks essential for safe trailering.

## LAUNCHING

Practice maneuvering the trailer. The trailer always backs in the opposite direction of the vehicle. To maneuver the trailer, turn the steering wheel in the direction you want the trailer to go. Refer to Launching in *You and Your Boat*. Prior to initial launch familiarize yourself with this manual and all aspects of your boat. At the launch site go through a pre-launch checklist. The list should be suited to your specific needs.

## PRE-START CHECKLIST

You and Your Boat provides a boater's checklist on the first page titled BOATMAN'S CHECKLIST. When your predeparture checks have been completed you will be ready to leave the dock.

## APPROACHING/LEAVING THE DOCK

Unlike an automobile, the stern of your boat reacts first when turning. A turn to the right will swing the stern to the left and vice-versa. Remember that turning your boat away from an object such as a dock will tend to swing the stern toward that object. See Docking in your publication of *You and Your Boat*.

#### TOWING OR BEING TOWED

In the event of a mishap or power loss you may need to tow a boat or have yours towed. Remember you should not tow a boat larger than your own. Never tow a boat if you are not equipped with the proper lines. Nylon ropes are recommended. They have the strength and elasticity needed to absorb the shock of towing and sudden jerks. Individual should never hold a towline, always secure it to the boat.

Before towing a boat, make a bridle and tie it securely to the pad eyes on the transom with enough slack to clear the engines. Pad the line wherever it comes into contact with the boat to prevent chafing. Attach a tow line to the bridle so that it can slide from side to side to prevent too much pressure on a single pad eye. The tow line should then be attached to the bow eye or to a bridle on the towed boat. The tow line should be a minimum of twice the length of the towing boat, the longer the better. When passing the towline to the other boat do not try to run in too close. Send either a light line or attach the towline to a life preserver to be pulled in. Be aware of the other boat's propeller.

The towed boat should always have someone at the wheel since the boat may swing off course. Start the tow off slowly. A steady pull at a moderate speed should be used. It is important to keep the slack out of the propeller area. Watch the action of the towing boat. If excessive slack develops in the towline and contact is obvious turn in either direction to avoid hitting the stern.

## <u>A</u>WARNING

As a precaution passengers on both boats should stay clear of the towline, lines under stress could snap and fly in either direction causing injury.

## SHALLOW WATER

Most boats that becomes grounded can be floated off with motors tilted to reduce the draft at the transom. Do not try to power off if the propellers are in mud or sand due to possible damage to your engine's cooling system. With motors tilted, try rocking the boat from side to side to break the suction of mud from the keel. Move passengers or heavy objects from the point where the boat is grounded. Do not lower or start the engines until the boat is clear of the ground. Refer to shallow water in You and Your Boat.

When boating in water with tidal changes be mindful of water level fluctuations. If you are grounded on an incoming tide you can wait until the tide is high enough to refloat your boat. However, on an outgoing tide quick action should be taken to refloat your boat. If this is not possible set an anchor to keep the boat from becoming driven further aground. Set the anchor to counter the action of the wind or current. The anchor, in some cases, can also be used to pull the boat free.

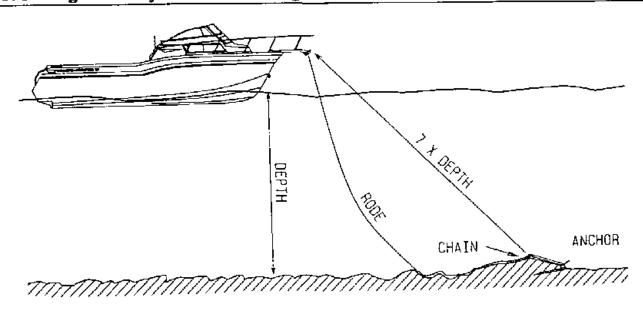
Many inland areas have rocks and stumps which could crack or puncture a fiberglass hull. Be familiar with the boating area and use caution in shallow water.

## **ANCHORING**

Some factors that determine the size and type of anchor most suitable for your boat include the size of your boat and the type of lake, sea or river bottom in your boating area. See You and Your Boat for a list of tips about anchoring.

A length of chain between the anchor and the length of anchor rode will help prevent the line from chaffing on rough obstacles and will also help hold anchor flukes down for more secure anchoring.

# NOTICE It is illegal to tie your boat to navigational aids such as buoys and markers.



To retrieve the anchor slowly drive the boat to the point directly above the anchor and pull upward on the anchor line until anchor is retrieved. If the anchor is difficult to break out tie off the anchor line while directly over the anchor and slowly motor forward to "break" the anchor free.

# AWARNING

Never anchor off the stern of the boat especially in strong winds or currents.

The weight of the stern and flat surface to the seas can easily cause water to enter over the transom and swamp the boat.

## WINDLASS

Anchoring can be less laborious if your boat has a windlass accessory. If your boat is equipped with a windlass reference your windlass Operation Manual for instructions.

## GENERAL INFORMATION ON BOAT HANDLING

The best method of learning how to handle and obtain the best performance from your boat is to practice and experiment. After several hours of operation you should experiment with the throttle settings to discover the setting that will be the most comfortable and economical range for your particular loading conditions.

We suggest that you make a speed/RPM chart in order to obtain the most economical operation. Operate the boat at various speeds and check the fuel consumption. Determine the amount of operating time remaining when the fuel gauge drops into the red band. Make a log of this type of information and have it available when using your boat. Other statistics you may want to determine could include the following:

- Minimum speed for effective steering.
- Turning radius at different speeds.
- Response to steering at low speeds.
- Acceleration and declaration rates.
- Time and distance to bring the boat to a stop at different speeds.
- Control of the boat using both engines in close quarters.

Also read the section in You and Your Boat for information on safe operating speed.

#### TWIN ENGINE BOATS

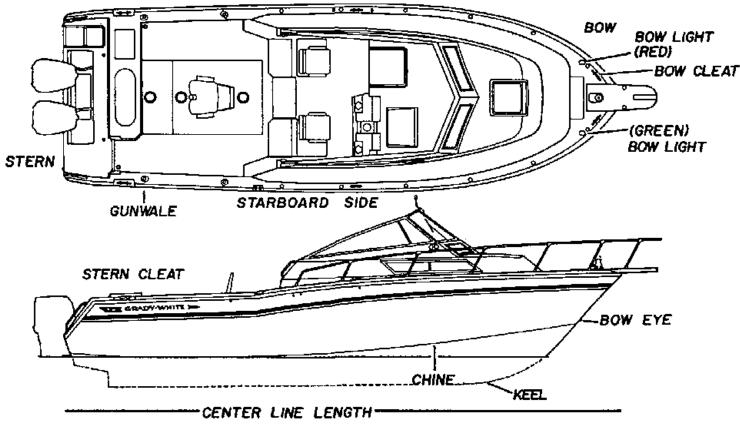
Twin engine boats are easy to maneuver. The boat will run ahead or backward in a straight line when both engines are working together at the same speed. When backing the engines can be used to steer to port as well as starboard.

Moving ahead on one engine will cause the bow to swing away from the running engine side and move forward at the same time. Backing up with one engine will cause the bow to swing toward the running engine side and the boat to move backward.

Running one engine ahead and one engine astern will cause the boat to turn endfor-end in little more than its own length.

Running both engines in the same direction at different speeds will cause the boat to move in the direction dictated by the faster engine but its influence will be modified by the slower engine.

# COMMONLY USED NAUTICAL TERMS PORT SIDE



ABEAM - A line perpendicular to a boat's keel

ACCESS PLATE - A removable, watertight cover that provides quick entry to enclosed areas for maintenance or visual inspection

AFT - Toward the rear or stem of the boat

SEAM - The greatest width of a boat

BILGE - The lower interior area of the hull

BOW - The fore part of a boat

BOW EYE - A U-shaped hall fitting used to attach the trailer winch to the boat

BULKHEAD - Vertical partition in a boat

CHINE - Meeting juncture of topside and bettern of boat

CLEAT - Deck litting with arms or horns on which lines are fastened

DECK - Upper structure which covers the hull

DRAFT - depth of water required to float a boat

FATHOM - A depth measurement equal to six feet

FREEBOARD - Height of topside from water line to the deck

GUNWALE (OR GUNNEL) - Meeting junction of hull and deck

HATCH - An opening in the deck to provide access below

**MEAD** - A toilet or toilet area in a boat

HEADROOM - Vertical distance between the deck and cabin or canopy top

HULL - The basic part of the boat; a watertight vessel that provides buoyancy to float the weight of the craft and its load

KEEL - The major longitudinal member of a hull - the lowest external portion of a boat

KNOT - Unit of speed in nautical miles per hour 2-7

LEE -The side that is sheltered from the wind

LIST - The tilt or lean to one side

PORT - A term designating the left side of the boat when facing forward

SCUPPER - Holes permitting water to drain overboard from deck or cockpit

SHEER - Curve or sweep of the deck as viewed from the side

STARBOARD - A term designating the right side of the boat when facing forward

STERN - The rear end of a boat

STRINGER - Longitudinal members fastened inside the hulf for additional structural strength

WAKE - The track or path left in the water by a moving boat

WINDWARD - Toward the direction from which the wind is blowing (against the wind

# CHAPTER THREE PERFORMANCE

#### PERFORMANCE FACTORS

Maximum performance is dependent on many factors and cannot be guaranteed. These factors will vary with changing conditions. Some of these factors are listed below. Reference the trouble shooting guide in *You and Your Boat* for additional suggestions on adjusting performance.

#### ENGINE EFFICIENCY

Engines operate most efficiently at the RPM confirmed in the engine Operating Manuals assuming your boat is equipped with the correct engines, the engines are properly tuned and the drive systems are in good condition. Efficiency will decrease if normal care and maintenance is not performed. If engines are neglected power will drop and speed will decrease. In addition, expensive repairs may become necessary. Be sure to follow all instructions in the engines' Operation Manuals.

## WEATHER CONDITIONS

Weather conditions affect engine performance. Barometric pressure and humidity both influence horsepower. A change of weather could amount to a 10% loss in horse power on some hot days.

#### LOAD DISTRIBUTION

A decrease in performance will be noted when gear, equipment, passengers and fuel are added. This type of extra load will affect the performance of the boat according to the distribution of the weight. Water accumulation in the bilge, another type of extra load, will affect the performance. Keep the bilge dry to eliminate this problem.

## MARINE GROWTH

Maximum performance is obtained only when your hull bottom is clean. Marine growth on the bottom of the boat will increase resistance and decrease speed. These conditions will also increase fuel consumption.

#### TRIM

Most outboard models are equipped with power tilt and trim mechanisms. The purpose of power tilt is to raise the engine for launching, loading or trailering your boat. Power trim may be used to adjust the boats planing performance and running attitude. Power trim is covered in detail in *You and Your Boat*.

Trim refers both to the weight distributions inside the boat and to the angle of thrust of the drive unit. The angle of thrust of the drive unit forces the bow up or down. The trim tabs on your boat also control the trim of the boat, similar to the power trim. Refer to the Trim Tabs section in Chapter 7 for additional information.

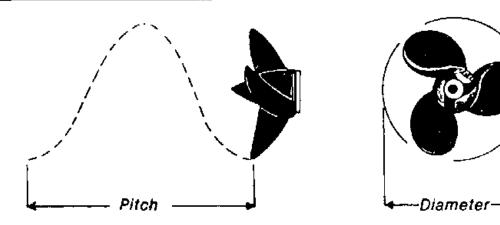
## PERFORMANCE

#### PROPELLER

The condition of your prop has a major influence on the performance of your boat. Your engines should be equipped with the best size prop for normal conditions. Unusual uses or weight conditions may require special props. A damaged prop can affect your boat's top speed, cause vibrations, create a sudden drop in RPMs or even increase fuel consumption. More information about propellers, including the topics of ventilation and cavitation can be found in You and Your Boat.

## ACAUTION.

Stay within the engine manufacturer's maximum and minimum RPM ranges when replacing props. This information is located in your engine Manuals. If your boat does not have a tachometer consult your dealer for propeller changes.



Pitch and Diameter are the two basic dimensions of a propeller. Example of propeller dimension: 14 x 17 Diameter = 14 Pitch = 17

#### PROPULSION SYSTEM

#### OUTBOARD

The engine manufacturer supplies all vital information concerning your engines in the Operation and Maintenance Manuals. Details of important engine functions such as the lubrication system, cooling system and alarm/monitoring system are outlined in these manuals. Your familiarization with this engine reference material will result in the proper usage and service that is essential for safe and enduring engine performance. These manuals are included with the Owner's Packet.

# DO NOT INHALE EXHAUST FUMES! EXHAUST CONTAINS CARBON MONOXIDE A DANGEROUS GAS WHICH IS POTENTIALLY LETHAL.

## PERFORMANCE

## /NWARNING

Do not attempt to service any engine or drive component without being totally familiar with the safe and proper service procedures. Certain moving parts are exposed and can be dangerous.

# **ACAUTION**

Do not paint the outboard motors with anti-fouling paints designed for boat hulls. Many of these paints can cause severe damage to the engines.

## **ENGINE WARRANTY**

A warranty registration card is included with all engine manuals and should be completed and returned to the engine manufacturer as soon as possible.

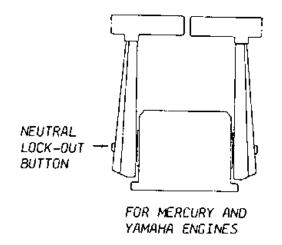
## THROTTLE/SHIFT CONTROL

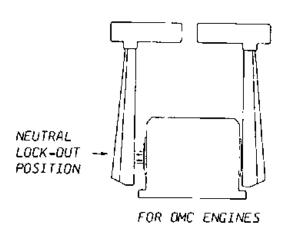
The throttle/shift controls located at the helm station, control the flow of fuel to the engine and act as gear shift levers to control the forward and aft thrust of the propellers.

The middle position of the throttle control is usually the neutral position. Move the control forward to engage the shifting mechanism which creates a forward thrust of the propeller. Advance the forward movement to increase the fuel flow to the engine and boost the forward lunge.

Move the control lever aft of the neutral position to reverse the shift mechanism and create a reverse thrust of the propeller. Increase the aft movement to increase the reverse thrust. Remember that propellers are designed for maximum forward thrust so reverse thrust will not be as efficient.

All controls have a neutral safety mechanism. This mechanism will not allow the engine to start when the control is in gear. To increase the flow of fuel to the engine while remaining in the neutral position you may use the neutral lock out feature on the control handle.





## PERFORMANCE

To stop a boat that is moving forward you may reverse the shift mechanism. This change in direction will provide a "braking action," slowing the boat.

## **ACAUTION**

BRAKING ACTION CAUSES A WAKE WHICH MAY RISE ABOVE THE TRANSOM AND FLOOD THE BOAT IF THE BOAT IS MOVING TOO FAST. ALLOW ENGINE RPMs TO DECREASE BEFORE SHIFTING INTO REVERSE.

Reference You and Your Boat for maintenance. If your throttle or shift cables need replacing use the same style and length as the original equipment.

#### STEERING

Most outboard engines are equipped with an adjustable rudder trim tab. This trim tab should be adjusted to balance the steering at the speed which you travel most frequently. Variations in speed, boat load or changes in the engine trim will cause the steering to pull in one direction. If the boat pulls to the left adjust the trim tab to the left and vice-versa.

#### HYDRAULIC STEERING

Hydraulic steering systems (not to be confused with power steering) require regular preventative maintenance for continued safe and reliable operation. The oil level in the helm pump must be maintained within acceptable operating levels. A low oil level will cause air to be introduced into the steering system and result in unresponsive steering. The oil level should always be within 1/2 inch from the base of the fill hole located on the front top portion of the helm pump. Check the entire steering system regularly for oil leaks. Unobserved leaks over a period of time will result in unresponsive steering or loss of steering.

Any moving mechanical linkages, sliders, etc. should be greased as needed with a high quality marine grease. Refer to the manufacturer's steering manual for specific recommendations and additional maintenance.

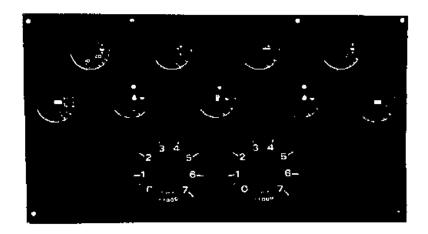
Any slow or sudden change in the "feel" of your steering system indicates an immediate need for a thorough inspection. All repairs and replacements to steering systems should be made by an authorized repairman.

#### TILT STEERING

Tilt steering is available as an optional feature. This feature enables the operator to tilt the wheel up or down. Refer to the steering system Owner's Manual for information on oil levels with tilt steering.

# CHAPTER FOUR GAUGES AND SWITCHES

## MERCURY AND OMC ENGINE INSTRUMENTATION



## FUEL GAUGE

The fuel gauge indicates the fuel level. When reading this gauge remember two things: (1) the accuracy of your gauge varies with the attitude of your boat in the water (trim or list), (2) the fuel pickup tube inside the gas tank is not capable of withdrawing all of the fuel from the tank. For these reasons never operate your boat at extremely low fuel levels.

## OIL QUANTITY GAUGE

OMC and Mercury pre-rigs are equipped with an oil quantity gauge that indicates the oil level in the tank.

## TACHOMETER GAUGE

The tachometer indicates engine revolutions per minute (RPMs). Consult your engine Owner's Manual for recommended operating RPM ranges.

## TRIM GAUGE

The trim gauge indicates the angle of thrust of the lower unit of the engines.

## VOLTMETER

The voltmeter indicates the battery charge with the engines off and the charging system output with the engine running. A reading of 12 or 13 volts with the engines off is normal indicating a fully-charged battery. Readings below 11 indicate a weak battery which may not start the engine(s). A reading of 13 to 15 volts when the engine is running is normal. Readings over 15 volts may indicate regulator problems. Low or fluctuating readings may indicate loose connections or trouble in the regulator and alternator circuit.

## WATER PRESSURE GAUGE (OMC RIG ONLY)

The water pressure gauge indicates the water pressure in the engine cooling system. Readings help determine if water pressure is too low for adequate cooling.

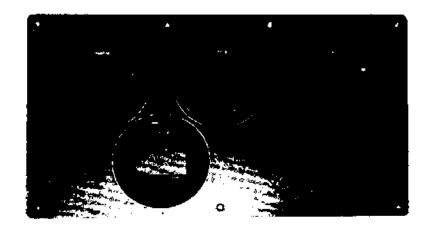
## WATER TEMPERATURE GAUGE (MERCURY RIG ONLY)

This gauge indicates the temperature of the cooling water circulating through the engine. When the temperature exceeds the recommended operating range for your engine immediately shut off the engine to prevent damage. Overheating is often caused by obstruction of your engine's water intake on the lower unit. Check the water intake first if you experience trouble.

## WATER TEMPERATURE, OIL LEVEL, AND FUEL SYSTEM WARNING BUZZER

Your Grady-White has a factory installed warning buzzer located behind the dash. The purpose of the buzzer is to alert the driver to potentially damaging engine operating conditions. Consult your engine Owner's Manual for details on particular systems that are monitored and what action to take if the buzzer sounds.

## YAMAHA ENGINE INSTRUMENTATION



## DIGITAL SPEEDOMETER

## BATTERY VOLTAGE INDICATOR

This feature indicates the battery charge when the engine is off and indicates the alternator output when the engine is running. A reading of 12 or 13 volts is normal indicating a fully-charged battery. Readings below 11 indicate a weak battery which may not start the engines. A reading of 13 to 15 volts when the engine is running is normal. Readings over 15 volts may indicate regulator problems. Low or fluctuating readings may indicate loose connections or trouble in the regulator and alternator circuit.

#### CLOCK

This feature is battery powered and may need to be reset if the battery select switch is turned to the "off" position.

#### FUEL METER

This feature indicates the gas tank fuel level. When reading this gauge remember two things: (1) the accuracy of your gauge varies with the attitude of your boat in the water (trim or list), (2) the fuel pickup tube inside the gas tank is not capable of withdrawing all of the fuel from the tank. For these reasons never operate your boat at extremely low fuel levels.

## LOW FUEL WARNING INDICATOR

This feature indicates when the fuel level in the main fuel tank is becoming low.

#### OVERHEAT WARNING INDICATOR

This feature indicates when the temperature of the cooling water circulating through the engine is too high. When the temperature exceeds the recommended operating range indicated by your engine owner's manual immediately shut off your engine to prevent damage. Overheating is often caused by obstruction of your engine's intake on the lower unit. Check the water intake first if you experience trouble.

## SPEEDOMETER

This feature indicates boat speed in miles per hour, knots per hour or nautical miles per hour.

#### TRIP METER

This feature indicates the distance traveled since the meter was last set.

## DIGITAL TACHOMETER

#### OIL LEVEL WARNING LIGHT

Refer to your engine owner's manual for information regarding oil level and warning light.

## REVOLUTIONS PER MINUTE (RPM's)

Consult your engine Owner's Manual for recommended operating RPM range.

#### TRIM

This feature indicates the angle of thrust of the lower unit of the engine.

## DIGITAL FUEL MANAGEMENT GAUGE

## **ECONOMIZER**

The economizer feature on the fuel management gauge gives readings in gallons per hour and miles per gallon.

#### SYNCHRONIZER

The synchronizer tells the operator when the engines are running at the same RPMs.

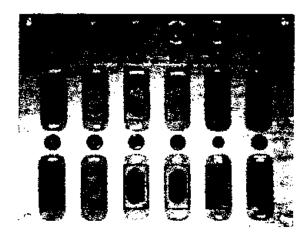
## TOTALIZER

The totalizer feature displays the amount of fuel consumed since it was last set. To reset the totalizer press the SET and MODE buttons together.

The digital fuel meter can display information for the port side only, the starboard side only, and then a total consumption. For more detailed information refer to engine Owner's Manual.

## SWITCH PANEL

At the helm station you will find an accessory switch panel. These accessory switches are specified below.



## BILGE PUMP

This two-way switch serves as an overriding manual switch in the event of failure of the automatic switch in the bilge.

## COCKPIT LIGHTS

The cockpit lights provide illumination for the cockpit area.

#### FUEL

This two-position switch (MAIN-AUX) provides separate quantity readings for each tank.

#### HORN

The horn meets the requirements of the United States Coast Guard's emergency sound signaling device.

#### LIVEWELL

This switch activates the livewell. Reference the Livewell operation section in Chapter Seven of this manual for information on this feature.

## WASHDOWN

This switch pressurizes the washdown system. Reference the Washdown operation section in Chapter Seven for information on this feature.

## **NAVIGATIONAL/ANCHOR LIGHTS**

Your boat is equipped with lights that meet international lighting regulations. The three position switch (NAV-OFF-ANCHOR) changes the lighting configuration to running or anchor lights. Note that this switch also operates the gauge lights.

## PRIMER PUMP SWITCH

The primer pumps should be activated at the initial "start-up" time. The "up" position is for the starboard engine and the "down" position is for the port engine.

## WIPERS

This switch activates the windshield wipers.

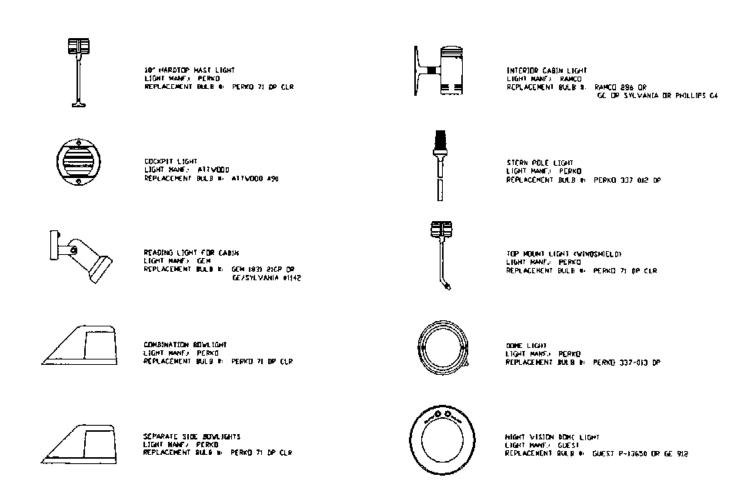
#### ACCESSORY

Switches, fuses and breakers labeled "ACC" are unused. These components are provided for the addition of non-factory installed accessories.

Switch identification labels are available from your dealer for non-factory installed options.

## LIGHT BULB REPLACEMENT GUIDE

The following chart provides identification of replacement light bulbs for your Grady-White. All of the lights shown may not be used on every model boat. If you have difficulty finding replacement bulbs under the part numbers listed contact your Grady-White dealer for further assistance. Always use the specified replacement bulb. Improper substitution my result in electrical malfunction, insufficient lighting, boat damage or personal injury.

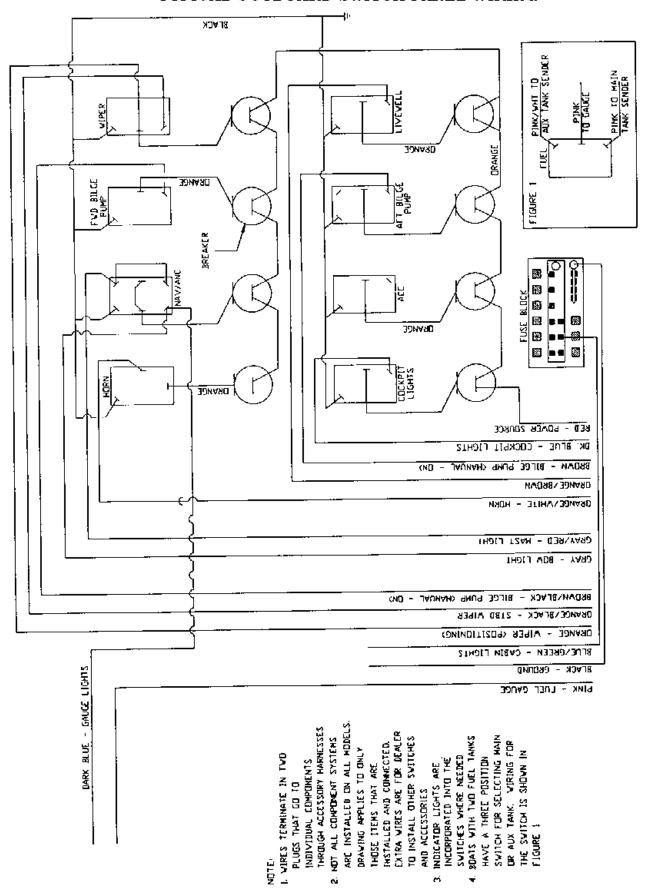


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# ACCESSORY WIRING COLOR AND FUSE CHART

ACCESSORY	WIRE SIZE AND COLOR	AMPERAGE	LOCATION
LIGHTS			
BOW LIGHT	16 GA. GRAY	15.0	ACCESSORY PANEL
AFT POLE LIGHT	16 GA GRAY/WHITE	15.0	ACCESSORY PANEL
MAST LIGHT (FORWARD BULB)	16 GA GRAY/RED	15.0	ACCESSORY PANEL
MAST LIGHT (AFT BULB)	16 GA GRAY/BLACK	15.0	ACCESSORY PANEL
PANEL LIGHTS	16 GA DARK BLUE	15.0	ACCESSORY PANEL
CABIN LIGHTS	16 GA DARK BLUE/GREEN	10.0	FÜSE BLOCK
COCKPIT LIGHTS	16 GA DARK BLUE	10.0	ACCESSORY PANEL
SPREADER LIGHTS	16 GA DARK BLUE/WHITE	10.0	ACCESSORY PANEL
PUMPS			
BILGE PUMP (FORWARD):			
RULE 1100	16 GA BROWN/BLACK	5.0	ACCESSORY PANEL
RULE 1500	16 GA BROWN/BLACK	7.5	ACCESSORY PANEL
AUTO FLOAT SWITCH (FORWARD)	16 GA BROWN/RED IN LINE	5.0/7.5	NEAR BATTERY
BILGE PUMP (AFT):			
RULE 1100	16 GA BROWN	5.0	ACCESSORY PANEL
RÜLE 1500	16 GA BROWN	7.5	ACCESSORY PANEL
AUTO FLOAT SWITCH (AFT)	16 GA BROWN/WHITE IN LIN	5.0/7.5	NEAR BATTERY
AERATOR PUMP	16 GA ORANGE/2BROWN	2.0	ACCESSORY PANEL
SHOWER SUMP PUMP (FLOAT SWITCH)	16 GA BROWN/ORANGE	4.0	FUSE BLOCK
WATER PRESSURE PUMP (CABIN SHOWE	12 GA ORANGE/RED	15.0	ACCESSORY PANEL
WATER PRESSURE PUMP	16 GA ORANGE/BLUE	5.0	FUSE BLOCK
WASHDOWN PUMP	12 GA ORANGE/BROWN	15.0	ACCESSORY PANEL
LIVEWELL PUMP	16 GA ORANGE/BROWN	5.0	ACCESSORY PANEL
IN-LINE MACERATOR PUMP	12 GA ORANGE/GRAY	20.0	ACCESSORY PANEL
PRIMER PUMPS (PORT)	16 GA PINK/RED	5.0	ACCESSORY PANEL
(STARBOARD)	16 GA PINK/BLUE	5.0	ACCESSORY PANEL
MISCELLANEOUS			
BILGE BLOWER	16 GA YELLOW	10.0	ACCESSORY PANEL
HORN	12 GA ORANGE/WHITE	15.0	ACCESSORY PANEL
WINDSHIELD WIPER (ACTUATOR):			
PORT	16 GA ORANGE/GREEN	5.0	ACCESSORY PANEL
STARBOARD	16 GA ORANGE/BLACK	√ 5.0⟩	ACCESSORY PANEL
WINDSHIELD WIPER (POSITION)	16 GA ORANGE		
WINDLASS SOLENOIDS	14 GA ORANGE/PURPLE		
	14 GA ORANGE/YELLOW	*	
WINDLASS POWER LEAD	4 GA RED	*	
	4 GA BLACK	•	
ACCESSORY	16 GA ORANGE	10.0	ACCESSORY PANEL
ACCESSORY GROUNDS	16 GA BLACK	N/A	
ACCESSORY GROUNDS MAINS	10 GA BLACK	N/A	
HYDRAULIC TRIM TABS	16 GA HARNESS (SUPPLIED)	20.0	FUSE BLOCK
MAIN FUEL TANK (SENDER)	16 GA PINK	N/A	ACCESSORY PANEL
AUXILIARY FUEL TANK (SENDER)	16 GA PINK/WHITE	N/A	ACCESSORY PANEL
ACCESSORY PANEL POWER LEAD	10 GA RED CIRCUIT BREAKER	40.0	NEAR BATTERY
VHF (HARDTOP RADIO BOX) POWER LEA		20.0	NEAR BATTERY
MEMORY WIRE	16 GA RED/PINK	2.0	NEAR BATTERY
CO MONITOR	16 GA RED/BLACK	1.0	NEAR BATTERY
OIL SENDER (STBD)	16 GA LT. BLUE	N/A	
OIL SENDER (PORT)	16 GA LT. BLUE/WHITE	N/A	
FUEL GROUNDS	16 GA GREEN	N/A	<u> </u>

## TYPICAL OUTBOARD SWITCH PANEL WIRING



# CHAPTER FIVE MAINTENANCE AND SERVICE

#### GENERAL

The amount of maintenance required to keep your boat operating properly and to maintain the appearance is dependent on how the boat is used, amount of usage, type of water, geographic location etc..

Your hull and deck are constructed by the hand lay-up method using the highest quality fiberglass mat and woven roving. This method of construction ensures a proper fiberglass-to-resin ratio and uniform thickness, which together result in a much stronger boat than those constructed of "chopped glass". This process ensures that your Grady-White is the strongest most durable fiberglass boat possible.

The bilge areas should be kept clean and dry. Leaks found early and corrected will less likely cause damage. Do not allow grease and dirt to build up.

Proper maintenance of your boat is not only a source of pride. It is the key to maintaining your boat's value. A few simple steps will keep your fiberglass Grady-White looking showroom bright for years.

#### **EXTERIOR FIBERGLASS FINISH**

The exterior finish of your Grady-White is a thin layer of resin with a finished color pigment called gelcoat. It is used for cosmetic purposes and makes routine maintenance relatively simple. Although gelcoat has a hard smooth surface it does contain microscopic pores that will allow surface discoloration if not kept clean.

## **MAINTENANCE**

Normal exterior finish maintenance of your Grady-White boat is similar to the care you would give your automobile. Do not use caustic, highly alkaline cleaners or those containing ammonia. These cleaning agents may darken gelcoat. The resulting stain is a chemical reaction and can be removed with a rubbing compound followed by waxing.

#### CLEANING

The best way to prevent discoloration and soil build-up is to hose the boat with fresh water after each outing or on a regular basis. This build-up is the result of use and environmental pollutants. Clean the boat regularly with a mild household detergent and plenty of fresh water. Use a sponge on smooth surfaces including the deck and a brush on the nonskid. Be sure to rinse away all grime and residue.

## WAXING

As the gelcoat begins to lose gloss from constant exposure to the natural environment and pollutants, it will require some special attention to restore the original gloss and color. Check with a local dealer for advice on a suitable wax for that boating region. The wax film will seal the pores as well as enhance the looks of your boat. **DO NOT wax surfaces that may be walked on as they will become slippery**. While waxing your boat, inspect the surface for any damage. Have the damage corrected as soon as possible.

## MAINTENANCE AND SERVICE

Gelcoat will age or dull naturally. Discoloration's are shallow in depth. Factors that will affect the rate of discoloration are: the sun, pollution, old wax accumulation and the salt content of water. Polishing compound (fine abrasive) or rubbing compound (coarse abrasive) is recommended for use on fiberglass finishes to remove scratches, stains or restore severely weathered surfaces. These products can be applied by hand or mechanical means. The process below will help restore fiberglass finishes:

- · Clean the affected area with a good detergent.
- Remove stubborn stains or discoloration by gently wet sanding the affected areas
  with 600 grit "wet or dry" sandpaper. ALWAYS SAND IN ONE DIRECTION. Use
  plenty of water and sand curves in the same direction. Dry the area to make
  sure all the discoloration has been removed. Repeat this process if necessary.
- Buff using a polishing compound suitable for fiberglass, an electric buffer (1750-1800 RPM) and an 8 inch lambs' wool pad.

# ACAUTION ...

Keep buffer moving. Do not allow it to rest in one spot. Heat build up will quickly distort the surface.

- When buffing is complete wash away compound with clear water and dry the area.
- Once the area is clean it may be waxed. This will enhance the gloss while providing a seal to retard staining or soil accumulation.

# /\CAUTION

Compounding too often or excessive compounding can wear away the gelcoat.

#### REPAIRING

Though gelcoat is a very durable material, it is susceptible to scratches, blistering and web-like cracks (crazing) over time. It is elastic enough, however, to withstand strong blows while flexing with the hull's movement. Gelcoat problems are cosmetic and will not effect the structural integrity of your boat.

Some gelcoat damage and imperfections, such as nicks and scratches can be repaired by obtaining a color match patch kit. This kit can be purchased through your Grady-White dealer. Acetone, the most suitable cleaning agent for gelcoat can also be acquired through your dealer. Instructions are included in the patch kit.

# **AWARNING**

M.E.K. (Methyl ethyl ketone peroxide), gelcoat and acetone are flammable and hazardous chemicals that must be handled properly. Follow instructions carefully. After the gelcoat is catalyzed it will soon heat up and put off fumes. When finished with catalyzed chemicals or if they start to build up heat, submerse completely in water until cool.

## MAINTENANCE AND SERVICE

## **BOTTOM PAINT**

If your boat is left in the water for more than a few days at a time, the hull bottom (below the waterline) should be painted with anti-fouling paint to protect it from marine growth and barnacles which hinder performance. Since anti-fouling paint slowly dissolves to prevent marine growth inspection and cleaning of the boat bottom at least once per season is advisable. Repaint when necessary. To help prevent blistering use an epoxy barrier coat to be applied in conjunction with the anti-fouling paint.

## **CANVAS**

Although your Grady-White boat's canvas is made using the highest quality vinyl and latest sewing techniques, your boat's canvas will not be completely leak proof. The seam holes in your canvas may stretch and leak. However, you can correct much of this problem by applying paraffin, Apseal® or Uniseal™, to the seams.

Please understand that Grady-White does not warrant the fit and design of the canvas to be entirely watertight.

#### MAINTENANCE

To maintain your boat's top and other canvas follow these steps:

Fabric should be cleaned regularly to prevent soil build-up that will become embedded in the fabric. Simply brush off any debris, hose down canvas and clean with a mild solution and warm water. Do not use petroleum or ammonia based cleaners on canvas or clear vinyl as they will yellow. For heavily soiled fabric remove top from frame. Soak the fabric in a solution of 1/2 cup of Clorox and 1/4 cup of Ivory or Lux soap per gallon of warm water. Let canvas soak until mildew and stains can be brushed out with a common kitchen brush. Rinse thoroughly with cold water until all soap is removed. Allow fabric to air dry completely. To avoid damage to the canvas fabric.... DO NOT STEAM PRESS OR DRY IN AN ELECTRIC OR GAS DRYER.

A water repellent was applied to your canvas during manufacturing. After various cleanings some of the repellent may have been released and retreatment of the fabric is recommended. Do not use wax based products. Use a water based repellent such as Apseal® or Uniseal™. Scotchguard® is effective for short term use only.

#### SNAPS

Zippers and snaps will loosen with use. Use care when starting the zipper to
prevent damage. Lubricate the snap buttons and zippers with petroleum jelly or
paraffin. Fasteners should be unsnapped as close to the button as possible.

Apseal® is a register trademark of Astrup.

Uniseal™ is a trademark of Unitex.

Scotchguard® is a registered trademark of 3M.

## MAINTENANCE AND SERVICE

#### VINYL

- Clean clear vinyl thoroughly with denatured alcohol and then apply a protective layer of clear wax. Do not use paste wax as it will turn the vinyl yellow. This process should be repeated as necessary to maintain the protective wax coating.
- Store and secure canvas before trailering.
- Dry all canvas before storing to prevent mildew.
- Remove the top, front and side panels and roll them up for storage. This
  procedure is necessary to prevent the front and side vinyl pieces from cracking.
  NEVER FOLD THESE PIECES!

## STORAGE

Consider the following steps when putting your folding top canvas option in the stored position:

- Fold the top and zip it into the canvas cover provided.
- Pivot the covered top into the stowed position on the foredeck. The canvas cover is equipped with a strap on each side and an eyelet in each strap. Place the eyelet over the male fasteners located on the port and starboard foredeck.
- Twist the male fasteners 90 degrees to engage.

# **ACAUTION**

Secure the folded top when in the stowed position to prevent damage or the loss of the canvas.

#### UPHOLSTERY

Your exterior vinyl upholstery may be cleaned with a mild solution of household detergent and fresh water. Commercial cleaners for vinyl also work well.

Since the seams of your exterior upholstery are not waterproof, your upholstery should be stored in the cabin or covered when not in use.

Most cabin cushions are removable and may be dry cleaned. Some cabin cushions are of a Herculon-type fabric and may be cleaned with upholstery cleaner.

# ACAUTION ....

# DO NOT MACHINE-WASH THE CABIN FABRICS.

## DURATRIM/POLYETHYLENE/PLEXIGLAS

Duratrim and polyethylene are used for toe rails, trim, cutting boards, lids etc.. Duratrim has an appearance similar to teak but requires almost no maintenance. Maintenance of your duratrim should include regular cleaning with soapy water. Apply a surface protector at least twice per year. Polyethylene can be cleaned with products such as 409 or any spray and wipe cleaner. Plexiglas, used to cover your instruments radio box and also as storage doors, can be maintained by use of a glass cleaner and a soft cloth.

# MAINTENANCE AND SERVICE

# HARDWARE MOUNTING

When drilling holes for mounting hardware in boat surfaces make sure each hole is sealed properly. Sealing will prevent water leakage which is extremely important in fiberglass areas that have been reinforced with plywood. A drilled hole sealed improperly allows water inside the fiberglass this allows the plywood reinforcement to become saturated. See Hardware and Fittings in You and Your Boat.

# CAULKING/GASKET

Deck fittings, bow rails, windows, hatches etc., have been caulked or gasketed with the highest quality material to ensure a waterproof joint with the boat. However, the working action of normal use will tend to flex the joint and eventually break down the seal. Periodically inspect the caulking or gaskets for leaks. Recaulk or replace the gaskets when necessary or have your dealer do the repairs.

# STAINLESS STEEL RAILS & HARDWARE/HARDTOP FRAME

Your hardware is made of laboratory grade 316 stainless steel, and needs regular cleaning to maintain its "less staining" properties. The key to maintaining stainless steel is to keep it clean with a mild solution of soap and fresh water. Remove salt or dirt from your stainless steel on a regular basis. If acid rain is a problem, you should rinse your boat with fresh water after each rainfall. If your boat is equipped with an optional hardtop the frame for this top is made from brushed aluminum. This aluminum should also be cleaned with soap and water. To protect the hardtop frame from corrosion and the hinges from rust or sticking a light application of Boeshield T-9®, a metal preservative, is recommend.

#### **MAINTENANCE** for stainless and aluminum

- Wash with warm fresh water and a mild detergent or a mild stainless steel cleaner.
- After cleaning rinse with clear water and wipe dry with a clean soft cloth to avoid water marks.
- If discoloration or deposits persist use a non-scratching household cleanser or stainless steel polish with a little water and a soft cloth.
- For stubborn deposits use a **plastic** scouring pad or a soft bristle brush with cleaner and water. Rub lightly in the direction of the polishing lines. Too much pressure may mar the surface.
- Do not allow deposits to remain on the finish for long periods.

#### SHOWER SUMP

If your boat is equipped with a shower in the head compartment, it drains into a contained "sump" which is used to prevent hair, soap, scum and bacteria from accumulating in the bilge and creating odors. This sump should be cleaned regularly. In the sump pump box there is also a filter. Remove this filter and rinse with water to clean. The filter should always be installed when using the shower to prevent the sump pump from becoming clogged.

T-9® was developed by Boeing Aviation for long-term protection of aircraft. It protects metal by coating and penetrating which displaces moisture and dries to a clear wax film that lubricates for months. T-9® can be used to protect hardware, engines, electronics and fishing tackle.

# MAINTENANCE AND SERVICE

#### SCUPPERS

All Grady-White boat has a self-bailing cockpit. This means that water on the cockpit floor is expelled through overboard drains and **NOT** into the bilge. The aft drains or scuppers have an external scupper flap assembly (as shown below), which restricts the flow of water back into the boat. Inspect the flaps periodically to make sure that they are free of debris. The scupper flaps may need periodic replacement if the rubber becomes damaged or no longer seals properly in the thru-hull.



#### **FUEL SYSTEM MAINTENANCE**

If you are experiencing fuel flow problems there is a simple method of determining whether the problem is in your fuel system or your engine. Connect a six gallon portable tank to the engine and operate the engine. If the problem persist the likely cause is with the engine itself. If the problem goes away, the source must be in the boats' fuel system. One component that should be inspected if a restriction occurs is the anti-siphon valve. If fuel does not flow properly through this part it must be cleaned and/or replaced. **DO NOT** remove the anti-siphon valve and replace it with a regular barb.

Do not use fuels containing alcohol. Alcohol, particularly methanol, will absorb water which makes fuel more corrosive to metals in tanks and carburetors it also shortens the durability of elastomers, such as hose and gaskets.

After fueling, inspect the fuel hoses, connections, and tanks for tightness, signs of leaks, and deterioration. Annually conduct a more detailed inspection of fuel system components, especially those hidden from routine inspection. Replace any fittings, deteriorated hoses, clamps or connections immediately.

### FUEL TANK COMPARTMENT

The fuel compartments need to be rinsed periodically, especially when used in a salt water environment. Dirt accumulation attracts salt which creates salt crystals. Salt crystals can corrode most metal surfaces if left untreated over a period of time. To help protect your fuel tank from rust and corrosion rinse the compartment with **FRESH** water. Remove access plates from fuel tank lids and inspect this area for leaks or unsecured lines.

The access plates on your fuel compartment lid seals this area. Over a period of time the opening and closing of these plates cause the o-rings to wear-out. Replace these o-rings as necessary to maintain the watertight integrity of the plates.

# MAINTENANCE AND SERVICE

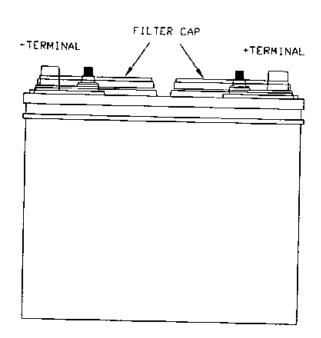
#### BATTERIES

Despite the type of batteries your engines require they are extremely important. They should be secured in a non-metallic tray to avoid electrolyte spills and battery terminals should be covered by an insulated boot. Fluid levels should be checked at least once a month. Fill the battery to the upper level with distilled water. **Never** overfill the battery.

Keep terminals clean by scrubbing them with a stiff brush and a mixture of baking soda and water. Afterwards, apply a light coat of grease. The mixture should not enter the battery. When the batteries are not in use check them each month by using a battery hydrometer that measures the specific gravity.

# **ACAUTION**

Never disconnect the batteries when the engines are running. This can cause damage to the charging system. When replacing your battery, reference your engine Owner's Manual for recommended battery type and required performance specifications.



A battery contains sulfuric acid. Avoid contact with skin, eyes or clothing.

#### Antidote:

EXTERNAL - Flush with water.

INTERNAL - Drink large quantities of water or milk. Follow with milk of magnesia, a beaten egg or vegetable oil. Contact a physician immediately.

EYES: Flush constantly with water and get prompt medical attention.

#### SHIELD EYES WHEN WORKING NEAR BATTERIES.

Batteries produce explosive gases. Keep sparks, flame and cigarettes away. Ventilate when charging or using in an enclosed space.

### KEEP OUT OF REACH OF CHILDREN

# ACAUTION .

When disconnecting and reconnecting battery cables, the black cable must be connected to the negative terminal and the red cable must be connected to the positive terminal. Reversing this procedure will immediately damage your system.

# CHAPTER SIX WINTERIZATION AND STORAGE

#### **GENERAL**

Boats stored during the winter or for an extended period of time require some routine maintenance. Prior to and during the storage process the boat and its systems should be checked for maintenance and repairs. Arrange repairs during the storage period.

Avoid costly damage and delay when launching your boat by having it stored and winterized properly. This information is presented as a general guide and the actual storage should be performed by a professional and qualified dealership.

# **BOAT STORAGE**

To avoid personal injury and property damage it is advised to take extra precautions when lifting or moving the boat for storage. Grady-White boats are built with pad eyes forward and aft. These pad eyes are provided for moving or temporary lifting. No boat should be lifted and continuously hung by the pad eyes. Pad eyes should be inspected regularly to insure structural integrity.

# THE BOAT IS NOT TO BE STORED BY USE OF THE PAD EYES.

While transporting a boat by lift or tow motor the structure should remain as close to ground level as possible. If slings are necessary for lifting or transporting they should be in proper condition and tied together to prevent any movement (separating or slipping) which could cause damage to the boat. If tow motors are used to move the boat the forks should be padded and in a secure location under the hull near the chine. The forks should be long enough to prevent the boat from rocking forward and aft causing it to become unbalanced.

# MWARNING.

THE 300 MARLIN SHOULD NOT BE LIFTED BY THE PAD EYES.
TO LIFT THIS MODEL USE SLINGS.

Other conditions that should be considered before hauling, transporting or storing your boat include overhead lines ground conditions (frozen or soft) and storm conditions that may arise.

When storing your boat on the trailer raise and block the trailer axle to prevent tire deterioration. This is an excellent time to lubricate and pack the wheel bearings per the manufacturer's instructions.

Make sure the keel, chine and transom are fully supported. Indoor storage is beneficial particularly if your climate produces freezing weather. The storage unit should not be airtight but should be ventilated. Ventilation is extremely important both around and through the boat.

# WINTERIZATION AND STORAGE

For outdoor storage a canvas cover should be used to prevent "sweating". One method is to build a frame 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. The cover should be fastened securely so that winds cannot remove it or cause it to chafe the boat. A poor covering job will eventually cost more than the price of a well-made cover.

# **AWARNING**

IF THE BOAT IS SHRINK WRAPPED WITH PLASTIC DURING STORAGE, THE FUEL FILL AND VENT FITTING MUST BE OUTSIDE OF THE ENCLOSURE TO PREVENT THE TRAPPING OF DANGEROUS FUMES OR SPILLAGE FROM THERMAL EXPANSION.

# CLEANING AND LUBRICATING THE BOAT

Clean and wax the boat before storage. If your boat stays in the water there may be a layer of growth on the bottom. As it dries, this debris will harden. Clean, scrub, and scrape the bottom promptly when the boat is removed from the water. Thoroughly remove all marine growth and other foreign matter from the hull. Clean the inside of hull openings, thru hull fittings and scupper drains. Inspect the hull bottom for damage.

Check cleats and rails for corrosion and tightness. Clean all stainless steel as directed under MAINTENANCE. Use a good quality metal preservative like T-9® on all metal surfaces to prevent salt water damage. Check all hinges for corrosion. Lubricate hinges as necessary. Check for loose silicone, hinges, and unseated gaskets. Replace or tighten where necessary. Heavy seas pounding and twisting the hull can cause leaks in your windows, doors and hatches.

#### DRAINING AND WATER SYSTEMS

Remove the garboard drain plug and open all valves and seacocks to keep the bilge dry. Store your boat with the bow elevated for drainage.

Drain all water tanks, lines and pumps to prevent freeze damage. The fresh water system may be drained by running any faucet until the tank is empty. When empty, turn the faucet off to prevent pump damage. Residual water will not damage the tank. If desired, the fresh water system may have a non-toxic antifreeze added. This antifreeze can be purchased at marine or camping dealerships.

To drain other lines, close seacocks and run the pumps until the lines are dry. After lines are dry open the seacocks. In warmer climates draining will help prevent water stagnation.

### **HEAD SYSTEM**

Empty upper tank and holding tank and make sure all water is cleared. Reference Owner's Packet for manufacturer's information on winterization. Water should be removed from deck pump-out lines.

# WINTERIZATION AND STORAGE

#### **FUEL SYSTEM**

The compartments that house the fuel tank(s) should be rinsed with fresh water to keep salt crystals from forming and corroding the fuel tanks. After rinsing, make sure all water is drained from the compartments.

Do not use fuel that contains alcohol by reason of it absorbing humidity. The resulting condensation will separate from the fuel as winter temperatures drop. An accumulation of this condensation can lead to corrosion. There are fuel additives available to inhibit condensation. Keep tanks full but do not overfill.

This is also a good time to have your fuel filters/water separators replaced.

### BATTERIES

Check the electrolyte level in your batteries and fully charge the batteries before storing. A weak battery loses its charge more rapidly than a strong battery. Ideally, you should disconnect the batteries and cover the terminals with grease to prevent corresion.

When replacing batteries in the boat remove excess grease from terminals and charge as necessary before reinstalling.

### **ENGINES**

Check your engine Owner's Manual regarding the procedures for winterizing the engines. Follow these important instructions carefully, and your engines should survive most weather conditions. Change all filters. Check hoses and clamps. If you have any vibrations during the season look for loose engine bolts, bent shafts or bent propellers.

### STORAGE CHECKLIST

In addition to the winterization guidelines, the following checklist can be used as a guide for storing your boat. Additional details should be added as needed for your personal application.

- Remove all loose items and personal effects.
- Remove any detachable and valuable equipment such as electronics. Store electronics inside. A built-in compass should be covered. Ultraviolet rays from the sun will "cloud" the compass and make it difficult to read.
- All equipment should be winterized as directed in the manufacturer's manuals.
- Store cushions indoors to prevent mildew.
- Clean the exterior and interior of the boat. Remove all grease, oil, salt spray etc...
- Remove all garbage. Clean the refrigerator, cabinets, lockers/storage, fishboxes and livewells. The lids and doors should be propped open for ventilation.
- Empty toilet and holding tank. Flush with fresh water.
- Lubricate all hinges, valves, the backs of electrical panels and other surfaces that may rust.
- Check underwater items. Hardware should be in good condition and tight.
- Inspect electrical systems and have any repairs performed.

# WINTERIZATION AND STORAGE

## GETTING BOAT OUT AFTER STORAGE

Before placing boat in the water for the boating season, have hull bottom sanded and reapply anti-fouling bottom paint, if necessary. Leave as much equipment and personal effects off the boat until after launch and final check.

#### PRIOR TO LAUNCHING

Start your own personalized list if items to check and perform prior to placing your boat in the water. The following list will give you some ideas and suggestions.

- · Check all gear and replace if necessary.
- · Check thru hull fittings for cleanliness, damage and tightness.
- Check prop installation and tightness.
- Clean battery terminal posts with a wire brush or bronze wool. Install batteries, attach cables and tighten. Apply grease to post to exclude air and acid. Check all wire connections for contact corrosion and tightness.
- Check hull valves for easy operation and for condition of hose.
- Check operation of bilge pumps in manual and automatic modes. Check shower sump pump. Check operation of all DC circuits if applicable.
- Check the hose and lines on the fresh water system, install drain plug and close drain valves.

# AFTER LAUNCHING

- With the boat in the water check all sources of possible leaks stem to stern.
- Fill fuel system and thoroughly check out fuel system including lines, fittings, connections, valves and filters for leaks.
- Perform maintenance on engines according to the manufacturer's manuals prior to returning them to service.
- Check all engine and steering control cables and linkage for operation. Lubricate cables and linkage as necessary.
- · Fill fresh water system and check for leaks.
- Connect to shore power. Check out all electrical equipment, lights, hot water heater, air conditioning system etc., these are optional on some models and may not apply to your boat.
- Check operation of toilet (reference manufacturer's manual).
- Check safety equipment including flares, fire extinguisher and first aid kits. Replace items as necessary.
- Test run engines and generator (if installed) as directed in manufacturer's manual.

### LIMITED WARRANTY

**REGISTRATION OF PURCHASE:** The "Federal Boat Safety Act of 1971" requires all boat manufacturers to maintain a record of all first retail purchasers and their current addresses for the purpose of notification in case of defective parts or equipment, or in case of non-compliance with standards or regulations set forth by this act. Under the act, failure to complete and return your factory warranty card for our records will waive your right to notification of defect and/or repair at manufacturer's expense.

#### **FIVE YEAR HULL WARRANTY**

Grady-White warrants to the original retail purchaser of each new Grady-White boat that under normal use the hull will be free from structural defects for a period of five years from the date of delivery to the original retail purchaser. Any structural defects covered by the warranty will be repaired free of charge at either the Grady-White factory in Greenville, North Carolina, or at an authorized Grady-White dealer location as elected by Grady-White. Transportation to and from the point of repair will be the responsibility of the owner, with all repairs subject to prior written authorization by Grady-White Boats, Incorporated, NO BOAT IS TO BE SENT TO THE GRADY-WHITE FACTORY WITHOUT SUCH WRITTEN AUTHORITY.

#### TRANSFERABLE HULL STRUCTURAL WARRANTY

The Five Year Hull Structural Warranty is transferable to second and subsequent owners for the remainder of the five (5) years from the date of delivery to the original purchaser. There is no fee involved in the transfer of warranty to the new owner. The Grady-White Boats Transferable Warranty Form must be completed and returned to Grady-White at the time of sale. Upon receipt of this form, Grady-White will update our records to reflect the new ownership and warranty coverage will be provided for the remainder of the five years. Please refer to the Hull Structural Warranty for specific details of warranty coverage.

#### ONE YEAR MATERIAL AND WORKMANSHIP WARRANTY

Grady-White further warrants to the original retail purchaser of each Grady-White boat that under normal use, it will be free from defects in workmanship and material for a period of 12 months from the date of delivery to the original retail purchaser. Necessary repairs under this warranty will be made free of charge at Grady-White's factory in Greenville, North Carolina or at an authorized Grady-White dealer as elected by Grady-White. Transportation to and from the point of repair will be the responsibility of the owner, with all repairs subject to prior written authorization. NO BOAT OR PART THEREOF IS TO BE SENT TO THE GRADY-WHITE FACTORY WITHOUT SUCH WRITTEN AUTHORITY.

#### **EXCLUSIONS**

This warranty specifically does not include the following:

- 1. Damage caused by abuse, negligence, vandalism, lack of maintenance, improper storage or accident.
- Any statements, representations, or warranties given by dealer or other third persons other than those provided within this warranty.
- 3. Any unit which is part of a rental fleet, used for racing or commercial purposes.
- 4. The following consequential damages: a) loss of time; b) inconvenience; c) towing charges; d) expenses for travel, lodging, telephone, and gasoline; e) loss or damage to personal property or loss of revenue; f) loss of use of the boat.
- 5. This warranty specifically does not apply to engines, outdrives, propellers, controls, steering, bilge pumps and any other part expressly warranted by the manufacturer thereof. In addition, also excluded are gel coat cracking, gel coat crazing, gel coat blistering or fading, chrome, windshields, glass breakage, all vinyl upholstery and canvas, instruments and gauges, and leakage around windshields, windows, hatches and other apertures.
- 6. Any boat which has been overpowered according to the maximum Grady-White recommended engine horsepower specifications on the capacity plate affixed to the boat.

### WARRANTY CLAIM PROCEDURES

Upon the discovery of a defect, the owner is to promptly contact the Grady-White dealer from whom the original retail purchaser purchased the boat, who will effect the corrective action under this warranty upon prior written authorization from Grady-White Boats, Incorporated.

THESE WARRANTIES ARE EXPRESSLY MADE IN LIEU OF ALL OTHER WARRANTIES, DURATION OF ANY IMPLIED WARRANTY OF MERCHANTIBILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE SHALL BE LIMITED TO AND COINCIDENT WITH THE DURATION OF THESE EXPRESSED WARRANTIES.

THIS WARRANTY SHALL NOT BE VALID UNLESS THE FACTORY WARRANTY POSTCARD IS PROPERLY EXECUTED AND MAILED WITHIN 10 DAYS OF THE PURCHASE OF YOUR GRADY-WHITE BOAT.

GRADY-WHITE BOATS, INC. P.O. Box 1527 Greenville, NC 27834-1527

# **Grady-White Boats Transferable Warranty Form**

(Not for original owner use)

- Note: For ascend owner use in transferring remainder of 5 year fruit structural warranty.
Hull Identification #
ABOUT YOUR BOAT
1. What is your boat model number? (Example: 192, 272, etc.)
2. Date purchased?
3. What type of power is your boat equipped with?
Single Outboard 2 Dual Outboard 3 Inboard/Outboard
4. Which engine brand does your boat have?
I Johnson 2 Mercury 1 Evinrude 4 Yamaha 1 Other
5. Engine horsepower (total if twin power) H.P
6. Engine serial # 7. Propeller size  Engine serial #
ABOUT YOUR DECISION TO BUY A GRADY-WHITE BOAT
8. Is your Grady-White boat the first boat you have owned?
yes <sup>2</sup> no (If no, please complete the following about your last boat.)
Builder's name: Length:
Why did you sell this boat?
How long did you own this boat?
9. Please rank your two most important uses for your Grady-White. (1 = most important 2 = second most important)
Weekend Living Aboard  Serious Offshore Fishing  Skin Diving
Socializing/Entertainment  Socializing/Entertainment  Water Skiing & Water Sports  Tournament Fishing  Other (please specify)
4 Casual Fishing Casual Cruising
10. Concerning your most important use of your boat (ranked number 1 in question #9), what percentage of your boating time do you spend in your most important use?
1 0 - 25% 2 26 - 50% 3 51 - 75% 4 76 - 99% 4 100%
11. What percentage of your time do you spend in your second most important use?
1 0 - 25% 2 26 - 50% 3 51 - 75% 4 76 - 99% 3 100%
<ul> <li>12. Please rank your three most important reasons for buying your Grady-White boat.</li> <li>(1 = most important 2 = second most important 3 = third most important)</li> </ul>
Boat Show Brand of Motor "Safety/Seaworthiness
GW Dealer 7 Friends Recommendation 12 Low Maintenance
Reasonable price Exterior Styling Resale Value  Hull Design/Ride Previous GW Experience Management
Hull Design/Ride   Previous GW Experience   14   Cabin Features

PLEASE TELL US ABOUT YOURSELF						
13. Which of the following magazines do you subscribe to or read often?						
ALASKA MAGAZINE  BOATING  MOTORBOATING & SAILING  MOTORBOATING & SAILING  PROATING WORLD  MOTORBOATING & SAILING  MOTORBOATING & SAILING  TEXAS FISH & GAME  TEXAS FI						
14. What is your age?						
1 Under 25 2 25 - 34 3 35 - 44 4 45 - 54 55 - 64 6 65 +  15. Are you? 1 Married 2 Single 3 Widowed						
16. You are?  Image 2 Female						
17. Do you have any children living at home?  Per language Tennage IV.  Yes 2 No If yes, how many?						
What is the age of your oldest child? 1 0-5 2 6-10 3 11-15 4 15+						
18. Which of the following best describes your educational background?						
Some High School 4 College Graduate						
2 High School Graduate 5 Some Post - Graduate Work						
Some College or Technical School  Some College or Technical School						
19. What is your total annual household income?						
Under \$ 30.000 6 \$ 70.001 - \$ 85.000						
2 \$\infty\$ \$ 30,001 - \$ 40,000 \qquad 7 \$\infty\$ \$ 85.001 - \$ 100,000						
3 \$40,001 - \$50,000						
4 50,001 - \$ 60,000						
20. Does your family own a second home, where you most often do your boating?						
If yes, where is your second home?,						
City State						
21. Compared to other boaters, would you say you use your boat						
1 Much more often 2 More often 3 About the same 4 Less often 5 Much less						
amount of time often						
22. Please complete the following: Name:						
Address:						
City:   State:   Zip Code:						
Telephone: Dealership:						

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# CHAPTER SEVEN 300 MARLIN

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#### **OPTIONAL FEATURES**

- Air Conditioning
- Anchor Windlass
- Generator
- Hardtop W/Radio Box & Spreader Lights
- Hardtop Rod Holders
- Head Marine Head W/Electric Flush
- Outrigger Kit 24 Ft. (Lee Sr. Fold Down)
- Outrigger Kit 19 Ft. (Lee Jr. Cabin Side Mount)
- Rod Storage Folding Cabin Rack (6)
- Steering Hydraulic Tilt
- Windshield Washer Starboard (Freshwater)

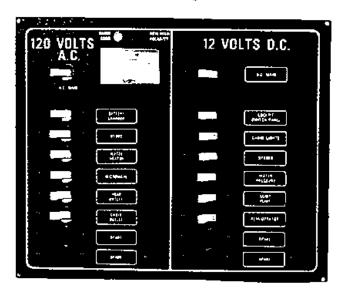
### **CANVAS OPTIONS**

- Drop Curtain
- Hardtop Front & Side Curtains
- · Helm Station Cover

### OPERATION OF STANDARD FEATURES

# AC/DC PANEL

The 300 Marlin AC/DC panel is located in the aft wall of the cabin on the starboard side. AC and DC powered switches are noted below. A wiring diagram of the AC/DC panel is located at the end of this chapter.



# AC POWERED ACCESSORY SWITCHES

The dockside power feature must be connected to the shore. The circuit breaker is located under the deckwing. This breaker switch must be in the "on" position to allow these auxiliary switches to operate. The AC panel wiring and the receptacle wiring schematic diagrams are provided at the end of this chapter.

# MAIN POWER SWITCH

The main power switch must in the "on" position to feed current to the other various accessory switches.

# BATTERY CHARGER SWITCH

The battery charger has a voltmeter for indicating the output to the batteries during operation.

# STOVE

Reference the manufacturer's Operation Manual for information on safe handling and proper procedures prior to using the stove.

# /NWARNING

UNDERSTAND THE INSTRUCTIONS AND WARNINGS BEFORE OPERATING YOUR STOVE.

### WATER HEATER SWITCH

This switch activates the six-gallon water heater.

# //\WARNING

TO AVOID HEATING ELEMENT FAILURE DO NOT TURN ON THE HOT WATER HEATER UNLESS IT IS FILLED WITH WATER.

### MICROWAVE

An outlet has been designated for microwave use only. Read instructions in the manufacturer's Operating Manual before using your microwave.

# OUTLETS SWITCH

This switch provides power to the three electrical outlets. The head outlet located on the aft wall of the head compartment is a duplex ground fault receptacle and is equipped with a cover plate. The cabin and helm station outlet are duplex receptacles, both equipped with a cover plate. The cabin and helm receptacles are wired in series with the head outlet and has ground fault protection.

# AIR CONDITIONER

This switch operates the **optional** air conditioner. This system must be winterized if freezing temperatures are possible. Refer to the manufacturer's Operating Manual in your "Owners Packet" for detailed instructions.

## DC POWERED AUXILIARY SWITCHES

#### MAIN POWER SWITCH

The main power switch must be in the "on" position to operate the DC auxiliary switches.

## COCKPIT SWITCH PANEL

This switch activates the auxiliary switches at the helm accessory panel.

#### CABIN LIGHTS

This switch provides power for the dome and reading lights located in the cabin.

#### STEREO

This switch furnishes power to the stereo.

# WATER PRESSURE SWITCH

This switch powers the 38 gallon pressurized fresh water system for the galley faucet, head faucet, cockpit rigging station and cockpit shower.

# SHOWER SUMP PUMP

The shower sump pump removes water from the shower floor. This unit is located under the cabin sole floor and can be reached through the access plate.

#### REFRIGERATOR

Refer to the manufacturer's Operating Manual for use, maintenance and safety instructions.

## **ACCESSORY OUTLET - 12 VOLT**

A 12 volt outlet at the helm provides an easily accessible power supply for accessories such as cellular phones and spotlights.

#### NOTICE

This outlet cannot be used with a cigarette lighter.

#### **BATTERY CHARGER**

This feature is located in the aft rigging compartment near the batteries. The generator or the dockside power must be performing for the charger to work. To activate the charger turn the AC panel breaker switch to the "ON" position. The charger has a built-in isolator which senses the charging needs of all the batteries and distributes charge accordingly. At the point that all batteries are nearly fully charged the charger will automatically reduce the current being sent to the batteries to a maintenance level. See the Operation Manual for further information.

## **BATTERY SELECT SWITCH**

The Marlin is equipped with three battery select switches and four batteries. Two of the batteries are wired in parallel and function as a single battery bank (#1 position) on the switches. The remaining batteries are a separate bank (#2 position) on the other battery select switch for the accessories. Accessories are powered by the batteries that corresponds to the position chosen on this switch.

An outboard engine should be connected to each battery select switch. Either engine may be started with either battery bank by selecting position #1 or position #2 on the select switches. In normal use select position #1 on the starboard switch and position #2 on the port so that both batteries will be charged simultaneously with the engines running. The DC accessories on the boat will always be controlled by the starboard switch. This setting also insures that the accessories are being powered by the larger battery bank. See the Battery Select Wiring diagram at the end of this chapter.

# /I/WARNING

Never turn the battery select switch to the "OFF" position with the engine running as this could damage the engine charging system.

# BILGE PUMP with FLOAT SWITCH

Your boat is equipped with an automatic float switch on each of the bilge pumps. This will enable the pumps to come on automatically if a significant amount of water accumulates in the bilge. The float switch is wired directly to the batteries and should be inspected frequently to ensure proper operation. The float switch functions independently of the battery select switches and can activate the bilge pump with the battery select switches in the "off" position. If the switch at the helm is in the MANUAL position the pump will run continuously. Therefore, the switch should not be left in the MANUAL mode unless someone is monitoring the system and can turn the pump off when the bilge is dry.

# ACAUTION

Do not run bilge pumps dry for a prolonged period of time.

## **BILGE PUMP LOCATIONS**

303

Your boat has two bilge pumps. One is located under the motorwell just forward of the transom and the other one is in the cabin under the sole floor. These pumps can be reached by lifting the access plates.

#### COCKPIT SHOWER

To operate the cockpit shower the water pressure switch located on the DC panel must be in the "on" position. Open the flap and pull the shower wand out from the recessed deck fitting. Depress the button on the back of the wand to spray water. To reinstall the shower wand into the recessed fitting gently feed the hose down through the deck and replace the flap on the fitting.

#### COMPASS

The compass is located at the helm station in direct view of the operator when navigating the boat. Compensation adjustments to the compass may be made by following the instructions included in the "Owners Packet".

# DOCKSIDE POWER

The dockside power feature allows the use of AC equipment on board the boat. This equipment includes any permanently installed appliances such as a battery charger or water heater or it may be a household item plugged into a receptacle. The dockside power is utilized by connecting the heavy duty cable supplied with the boat to an appropriate external power source. This cable provides power to the boat's AC inlet which is wired to the AC panel. The AC panel allows for distribution to the various appliances and outlets. See the Dockside Wiring diagram at the end of this chapter for more information on component location and wiring specifics

# CAUTION

Always disconnect the dockside power cable if leaving the boat unattended for an extended period of time.

# CONNECTING THE DOCKSIDE POWER

- 1. Verify that the external power source is a 3 wire grounded system with amperage and voltage ratings compatible with the boat's AC system ratings.
- 2. Be sure there is sufficient cable length to allow for normal movement between the boat and the dock.
- 3. Turn all AC panel switches (including the MAIN) to the "OFF" position. Turn the circuit breaker at the dock outlet to "OFF".
- 4. Connect the dockside power cable at the boat inlet first.
- 5. Connect the dockside power cable at the dock outlet and turn the dock outlet circuit breaker to "ON".
- 6. Turn the MAIN circuit breaker to the "ON" position.

# NOTICE

If there is no power at the AC panel after completing the above steps, check the in-line circuit breaker under the starboard deckwing. This breaker protects the wiring between the cable inlet and the AC panel and must be in the "ON" position for the panel to receive power.

# / WARNING

If the reverse polarity indicator on the AC panel is activated immediately disconnect the dockside power cable and have a qualified electrician correct the fault.

#### DISCONNECTING THE DOCKSIDE POWER

- 1. Switch all circuit breakers at the boat's AC panel "OFF".
- 2. Switch the circuit breaker "OFF" at the dock outlet.
- 3. Disconnect the dockside power cable at the dock outlet first.
- 4. Disconnect the dockside power cable at the boat inlet.

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Keep inlet cover closed tightly when not in use.

#### HEAD OPERATING INSTRUCTIONS

#### MARINE HEADS

## HAND PUMP MARINE HEAD OPERATION

- 1. Open the marine head inlet seacock (handle in the vertical position). This seacock is located under the access plate in the head floor on the outboard side of the keel.
- 2. Position the wet/dry bowl selector in the wet bowl setting. Fill the toilet with water by pumping the handle several times.
- 3. **Flush** the toilet by pumping the handle several more times in the wet bowl position.
- 4. Move the bowl selector to the dry bowl position and pump the handle until most of the water is removed. Leave the toilet in the dry bowl position when not in use.

#### **ELECTRIC MARINE HEAD OPERATION**

- 1. Open the marine head inlet seacock (handle in the vertical position). This seacock is located under the access plate in the head floor on the outboard side of the keel.
- 2. **Flush** the toilet by turning the flush control knob clockwise on the pump beside the bowl. Turn the flush control knob counter clockwise to remove most of the water from the bowl.

# EMPTYING MARINE HEAD HOLDING TANK BY USE OF OVERBOARD DISCHARGE

- 1. Open the marine head discharge seacock (handle in the vertical position). This seacock is located under the access plate in the head floor on the inboard side of the keel.
- 2. Turn the monitor "ON" at the control panel.
- 3. Press the discharge button until the light on the control panel indicates the tank is empty.
- 4. Turn the monitor "OFF" and close the discharge seacock (handle in the horizontal position).

/CAUTION

Overboard discharge seacock must be sealed and secured in the closed position in accordance with the laws in your boating area.

# EMPTYING MARINE HEAD HOLDING TANK THROUGH DECK PUMP-OUT

- 1. Remove the cap from the deck pump-out fitting located in the starboard walkaround.
- 2. Connect a vacuum hose from a pump-out station to the deck fitting and run until the tank is empty. Replace the cap on the deck pump-out fitting.

See the Marine Head Layout diagram at the end of this chapter.

#### HEAD SHOWER

The head shower is activated by the water pressure switch located on the DC panel. After turning this switch to the "ON" position the shower water flow can be controlled by the head shower fixture.

### LIVEWELL - AERATED

Before operating the aerated livewell plug the drain in the bottom of the livewell box. The livewell can be filled by using either a bucket to dip water or fill the livewell with the pressurized washdown hose. 'Flip the switch "ON" at the helm designated for the aerated livewell. The aeration process will now begin by one of the following two methods.

- If your boat is equipped with a sprayer type livewell you will find a pump mounted inside the box. This pump will recirculate the water through a sprayer type fitting. The flow rate of water through the sprayer can be adjusted by a valve built into the top of the fitting.
- If your boat is equipped with the bubbler type livewell there will be an air pump mounted outside the box. This air pump will force air through a screened fitting located in the lower part of the box. This will create bubbles in the water.

To evacuate water from the livewell box turn the system "off" at the panel and remove the drain plug.

### LIVEWELL - CIRCULATING

To operate the circulating (raw water) livewell open the seacock in the port side of the aft bilge. Next plug the drain in the bottom of the livewell box. The switch at the helm needs to be pressed in the "ON" position. The livewell will then fill with water through an inlet fitting near the bottom of the box. The water level will rise to a point slightly below the top of the livewell and will drain overboard through a screen overflow fitting.

### NOTICE

If the seacock is left open and the pump is not "ON" the boats forward motion through the water will gradually fill the box. This inadvertent filling may be prevented by closing the seacock when the livewell option is not in use.

### NOTICE

Under certain conditions placing the outboard engine(s) in reverse will ventilate the water under the boat and create an airlock in the livewell pump. To prevent this situation from occurring it is recommended that the livewell be turned "OFF" prior to any high RPM or continuous reverse operation. In the event the livewell pump becomes air-locked, this situation may sometimes be corrected by turning the pump "OFF" for 15-20 seconds.

#### MAIN CIRCUIT BREAKER

There is a 40 AMP circuit breaker located between the battery select switches. This breaker is the main protection for the wiring supplying power to the accessory switch panel and helm fuse block. If this breaker is tripped it may be reset by depressing the red button on the breaker box.

#### MICROWAVE

The dockside power must be connected or the generator must be operating for the microwave to function. Refer to the Operation and Maintenance manual for specific instructions on the safe and proper use of the microwave.

# RIGGING COMPARTMENTS

The rigging compartment is aft of the fuel tank compartments. This enclosure is helpful in rigging ignition protected accessories and for better access to rigging components located aft of this compartment. This compartment contains two flats for mounting transducers.

### NOTICE

The rigging hatch and mounting screws must be sealed with silicone sealer after rigging is complete. If the lid is removed it must be resealed to insure watertight integrity.

#### SEACOCKS

Ball valve seacocks are installed on the thru hulls for the livewell and washdown accessories. The seacocks must be in the open position for operation. The open position can be obtained by pulling up on the remote arm attached to the seacock handle. Pushing down on the remote arm closes the seacock.

#### NOTICE

All seacocks should be in the closed position if not in use or if the boat is unattended to prevent the taking on of water if a plumbing component fails.

#### TRANSDUCER FLATS

The inverted transducer flats are designed primarily for a bronze style torpedo shaped transducer. An example of a torpedo shaped unit would be an Aero Mar Tri-Transducer. This transducer is approximately 3/4" thick. This thickness allows the transducer face to protrude below the bottom of the hull. The proper installation location on the inverted flat is mounting the transducer as far forward as possible and parallel with the keel.

# NOTICE

A flush mount style transducer will not work with the inverted flat.

# TRIM TABS AND TRIM TAB SWITCH

Trim tabs are electrically-hydraulically operated and are used to modify the attitude of the boat while moving. These trim tabs may also be used to adjust the boat's running angle in adverse seas or to compensate for unusual load conditions.

The trim tabs are operated by a two rocker switch panel and will aid in trimming the boat fore and aft for a smoother ride. The switches are marked "bow down" and "bow up". Trim tabs in the extreme "bow up" positions will have no effect on the boat's ride.

Trim tabs in the extreme "bow down" position will cause the boat to come on plane with minimum bow rise. Unless you are operating at low speeds or with considerable cockpit weight you will want to raise the tabs slightly when underway to avoid "plowing" water. With the tabs in the "bow down" position you will be able to maintain a plane at the least possible RPMs.

Trim tabs can improve the ride of your boat by adjusting where the water is hitting the keel line. In a slight chop the waves may be hitting the keel of your boat around the helm area causing a rough ride. By adjusting the trim tabs and lowering the bow the waves will hit the keel at a more forward point softening the ride. Experiment with trim tabs in various sea conditions to determine the best positions for your boat under special load conditions.

Trim tabs are also useful in correcting a port or starboard list. If the boat is listing to the port side press the starboard trim tab switch toward "bow down". Press the port trim tab switch toward "bow down" to correct a starboard list. This will tend to lower the bow by pulling the higher side to a level position. If your bow is already in a low position you may correct list by pressing the trim tab switch toward "bow up". This will cause the low side to rise and level the boat. It will also gradually improve the running angle.

#### TRIM TAB PUMP LOCATION

The Marlin trim tab pump is located on the bulkhead on the starboard side of the rigging compartment inboard stringer. This pump is accessible through the aft seat lid.

#### WASHDOWN OPERATION

To operate the washdown feature open the seacock located on starboard side of the aft bilge. Depress the washdown switch on the accessory switch panel at the helm station. The washdown system will now be pressurized at the washdown faucet outlet. This outlet can be used alone or with a washdown hose. A washdown hose with a spray nozzle attached may be used intermittently without turning the switch "off", basically the same as a home yard hose with a nozzle. The washdown pump has an internal pressurization switch which will maintain water pressure as needed until the switch is turned "OFF" at the switch panel.

### WATER HEATER

The generator must be operating or the dockside power connected with the AC breaker switch "ON" for the water heater to function. This will provide hot water to the pressurized fresh water system. Follow the Operation and Maintenance manual provided in the "Owner's Packet" for instructions and care of the water heater.

# OPERATION OF OPTIONAL FEATURES

### AC TRANSFER SWITCH

If your Marlin is equipped with a generator there will be a transfer switch located in the cabin on the wire cover box. This switch permits you to operate your AC accessories by either shore power or generator. This switch eliminates the operation of the shore power and the generator simultaneously.

#### AIR CONDITIONER

The control panel for the air conditioner is located in the galley cabinet. There are two vents in the cabin, one is located forward of the galley in the port V-berth and the other in the aft berth. The generator or dockside power must be operating in order to use the air conditioner. For detailed instructions refer to the Operation and Maintenance Manual provided in your "Owner's Packet".

### NOTICE

If your boat is removed from the water, the air conditioning system will drain if the seacock is left open. This situation may create an airlock in the air conditioner water pump in subsequent operation.

To prohibit this drainage, simply close the air conditioner seacock.

If winterization is desired, leave the seacock open so the water can drain and then remove any remaining water by blowing pressurized air through the system.

See the Operation and Maintenance for additional winterization information.

## BLOWER

A blower is included with the generator option. The blower provides ventilation to the engine compartment and should run at least 4 minutes before starting the generator. Using the blower does not take the place of checking the engine compartment by sight and smell for gasoline vapors. The blower is located in the aft rigging compartment under the livewell lid.

# GENERATOR START/STOP SWITCH

The generator start/stop switch is located in the cabin on the wire cover box. This switch permits you to start and stop your **optional** generator from the cabin. An additional start/stop switch is on the generator which is housed in the aft bilge.

#### GENERATOR

A generator package is available as an optional feature. This feature allows the boat owner to utilize AC accessories without being attached to shore power.

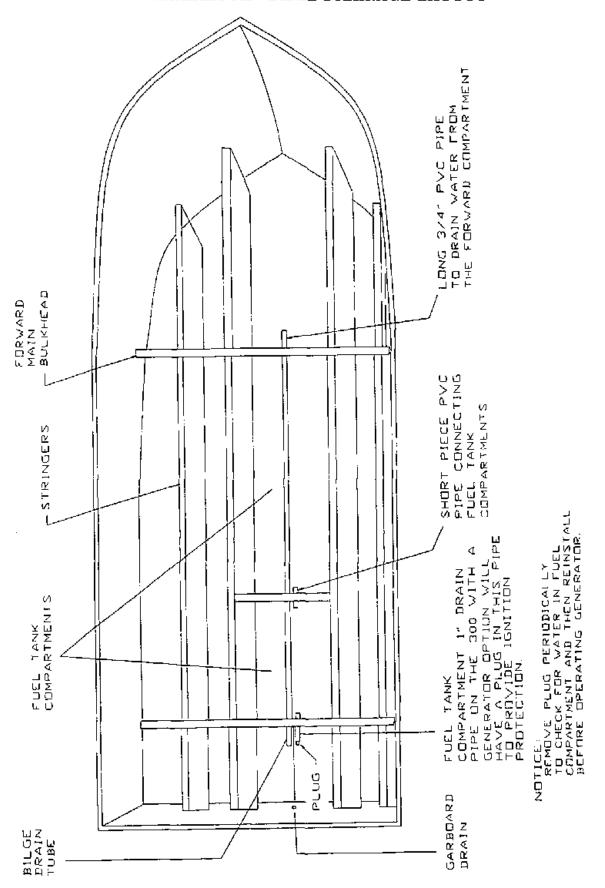
The generator should not be used when an outboard engine speed is greater than 2500 RPMs. When the generator is not in use the intake seacock should be closed. At higher speeds excessive sea water may be forced into the generator cooling system causing water to back up into the exhaust manifold.

With 3000 watts of generator power available usually 3 of the 5 accessories can be used at the same time without much problem. Even if the combined wattage is greater than 3000, remember that these are maximum values and that the full amount will not necessarily be "ON" all at once. Also, this is a 3600 RPM (high speed) unit and can withstand excessive loads momentarily with out any problems. Listed below are the wattage requirements for the accessories.

Electric Stove	1100
Microwave	910
Hot Water Heater	1250
Air Conditioner	1000
Battery Charger	636

A CARBON MONOXIDE MONITOR is included with your generator package. This monitor, if properly installed, serves as a warning system for exposure to poisonous carbon monoxide fumes. Carbon monoxide is a colorless, odorless gas produced in the exhaust of combustion engines and can accumulate in amounts that may be hazardous or fatal. (Reference Chapter One "Carbon Monoxide" for more details). This accumulation may occur very quickly in a boat with a defective exhaust or one in which the exhaust is re-entering the boat due to wind currents, low pressure areas in the cabin, or other means of air movement. A CO monitor provides an extra measure of safety but does not replace the need to regularly check the entire generator exhaust system, including the exhaust manifold, hose and muffler condition, hose connection joint, etc. For proper operation and maintenance refer to the literature provided by the manufacturer in the "Owner's Packet".

# **GENERATOR - BILGE DRAINAGE LAYOUT**



#### **OUTRIGGERS**

The optional outriggers spread the fishing lines being trolled from your boat and decrease the chance of entanglement.

#### **ADVANTAGES**

Advantages of outriggers include offering bait throughout a larger area behind the boat placing bait out of the wake zone, automatic drop back following strikes (which allows for fish to completely accept bait) and a reduction in unnecessary twisting action characteristic of artificial bait.

#### INSTRUCTIONS

For installation and use, reference the sheet included in your "Owner's Packet".

#### CARE AND MAINTENANCE

Outriggers should be washed with fresh water, mild soap and a soft cloth. The poles should be sprayed with fresh water. Never use abrasive cleaners on outriggers.

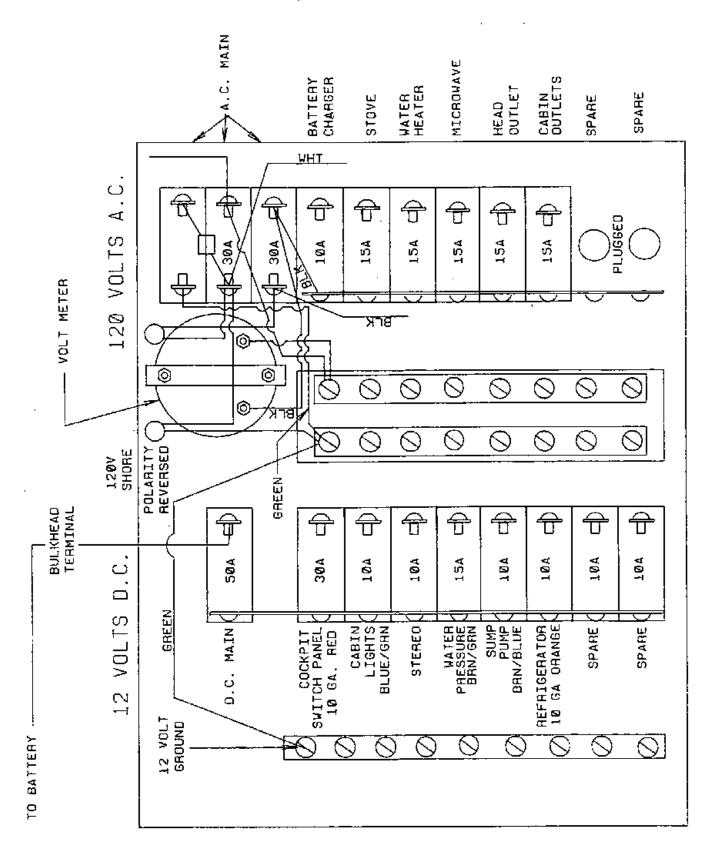
A periodic waxing is suggested if your outriggers are exposed to salt water. The wax will provide a protective coating and seal the pores of the metal. A non-abrasive high quality marine or automotive wax is recommended. Before storage clean and wax the outriggers.

During assembly grease all threads, bolts and tubes where one section is inserted into another. Disassemble and regrease all applicable surfaces on an annual basis.

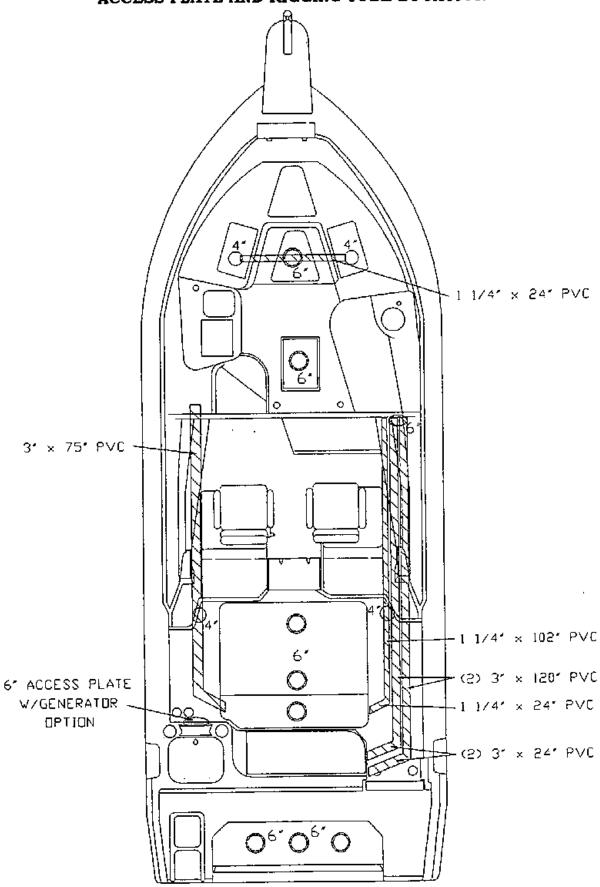
## WINDSHIELD WASHER SWITCH

Your windshield washer is controlled by a valve located in the forward wall of the deckwing. Water may be sprayed on the windshield by opening this valve with the Fresh Water System pressurized (the water pressure switch on the DC panel must be in the "on" position). This water will come from your fresh water tank.

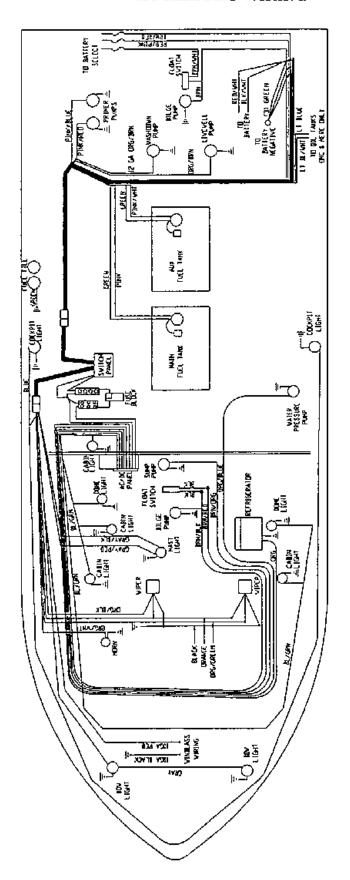
# AC/DC PANEL WIRING



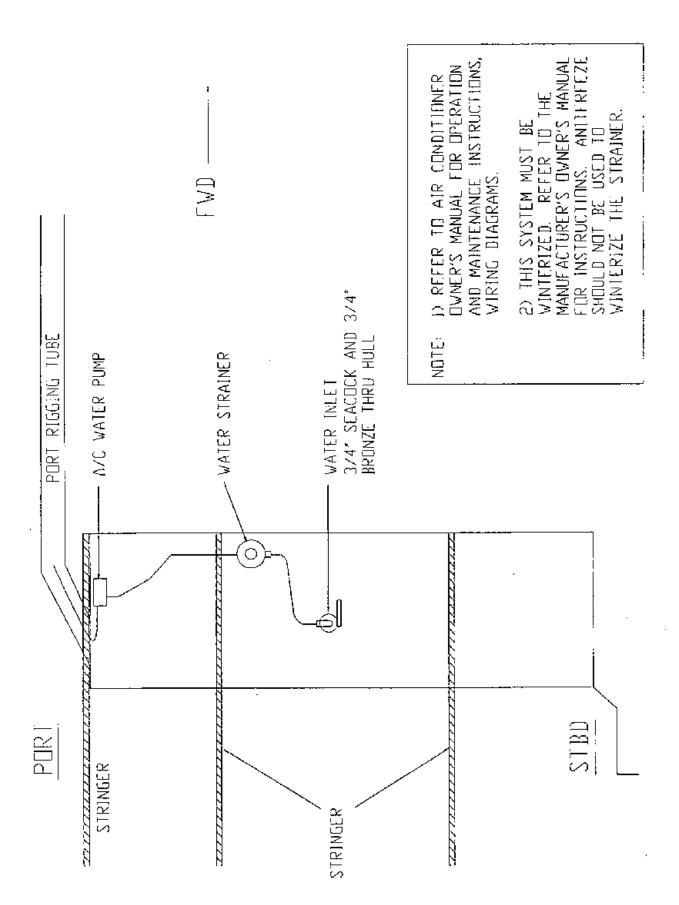
# ACCESS PLATE AND RIGGING TUBE LOCATION



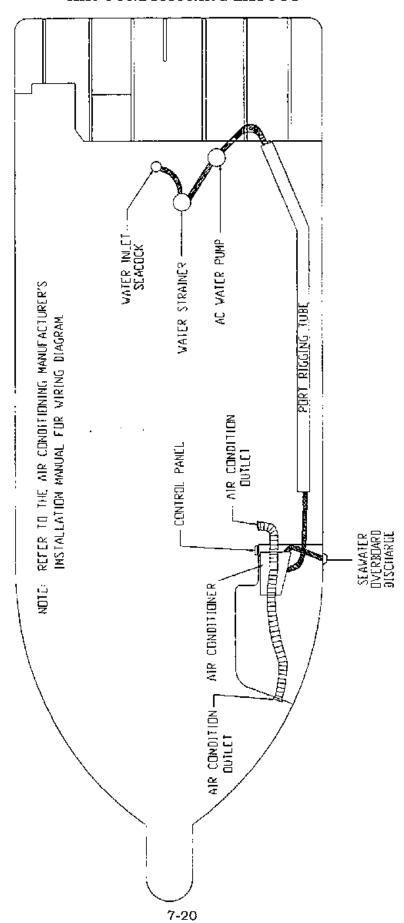
# **ACCESSORY WIRING**



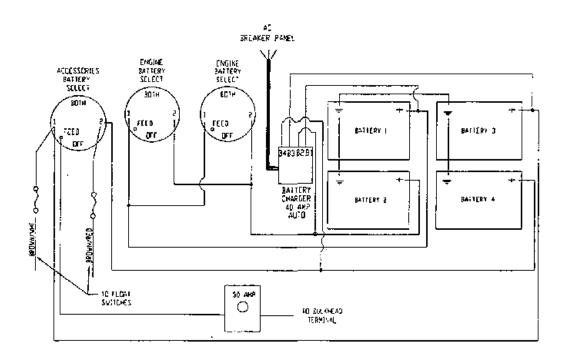
# AIR CONDITIONING ASSEMBLY

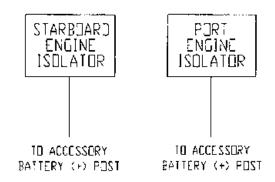


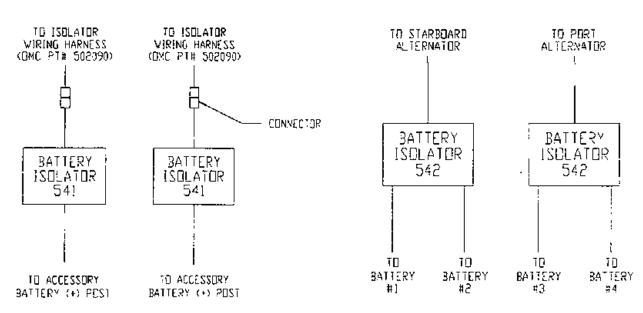
# AIR CONDITIONING LAYOUT

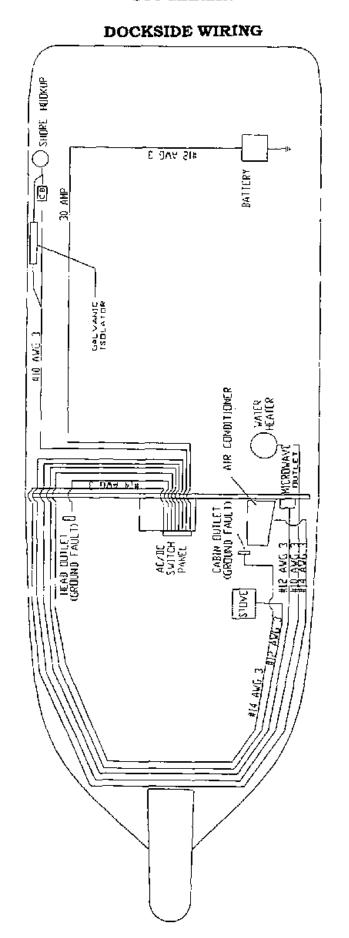


# BATTERY SELECT SWITCH WIRING

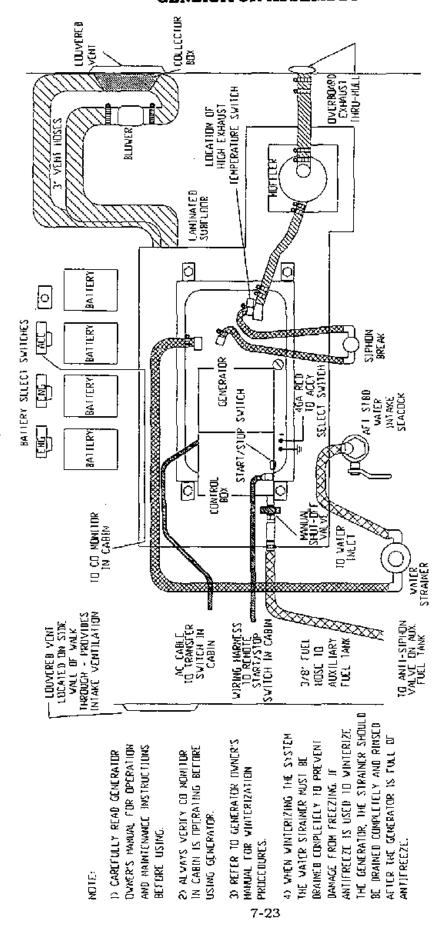




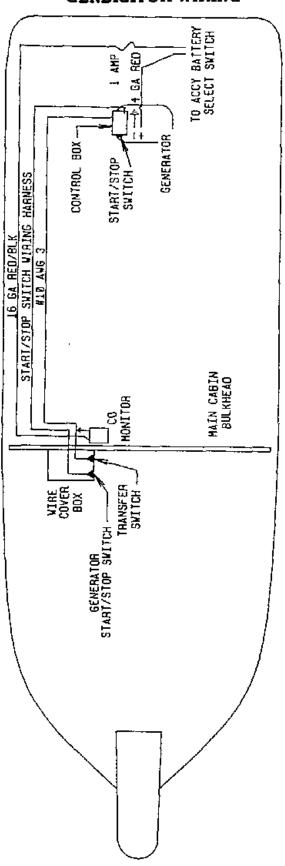




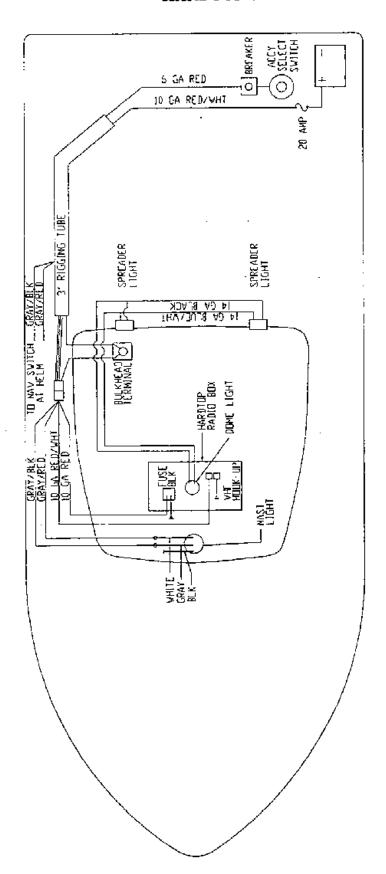
# GENERATOR ASSEMBLY



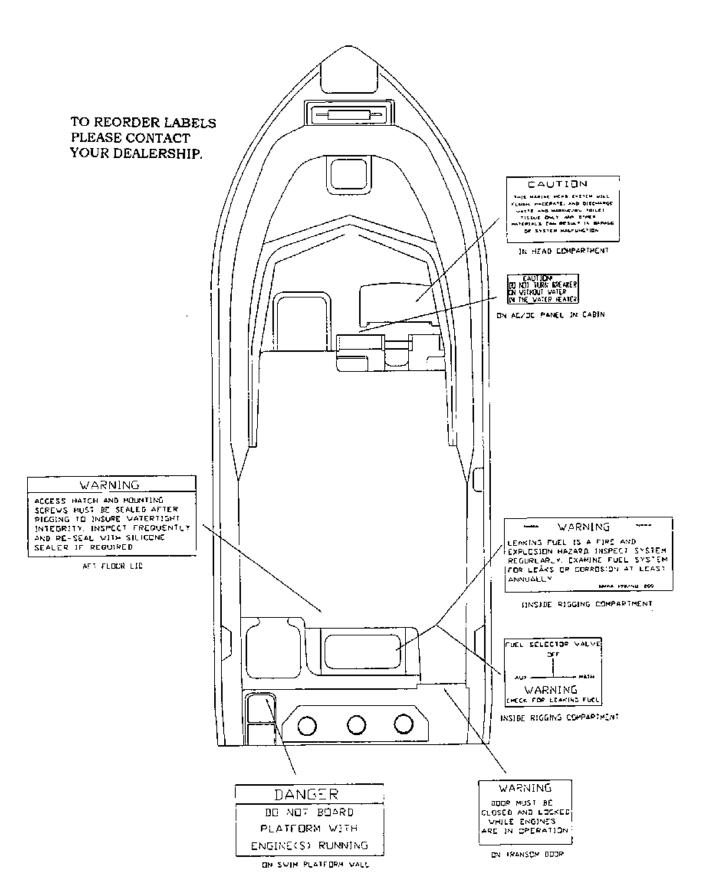
# **GENERATOR WIRING**



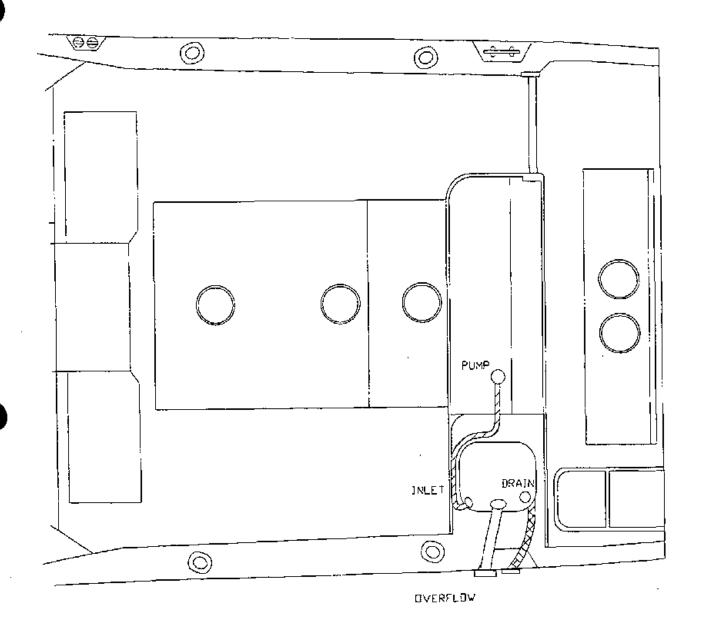
# HARDTOP WIRING



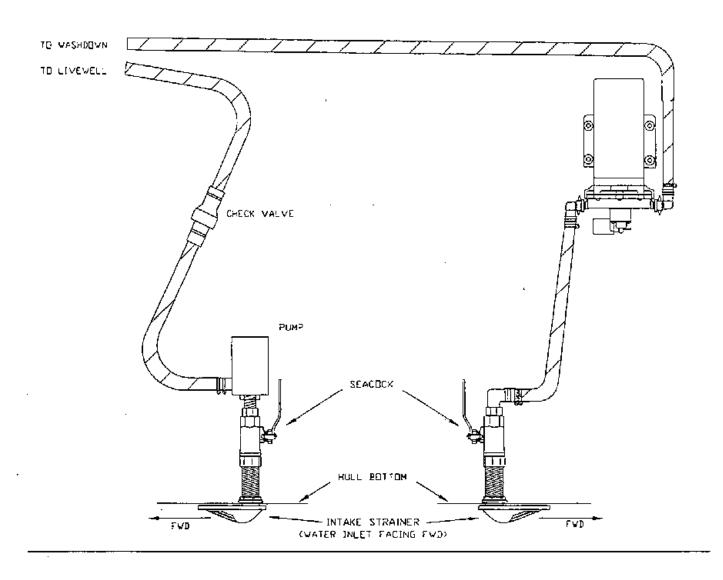
# LABELS AND LOCATION

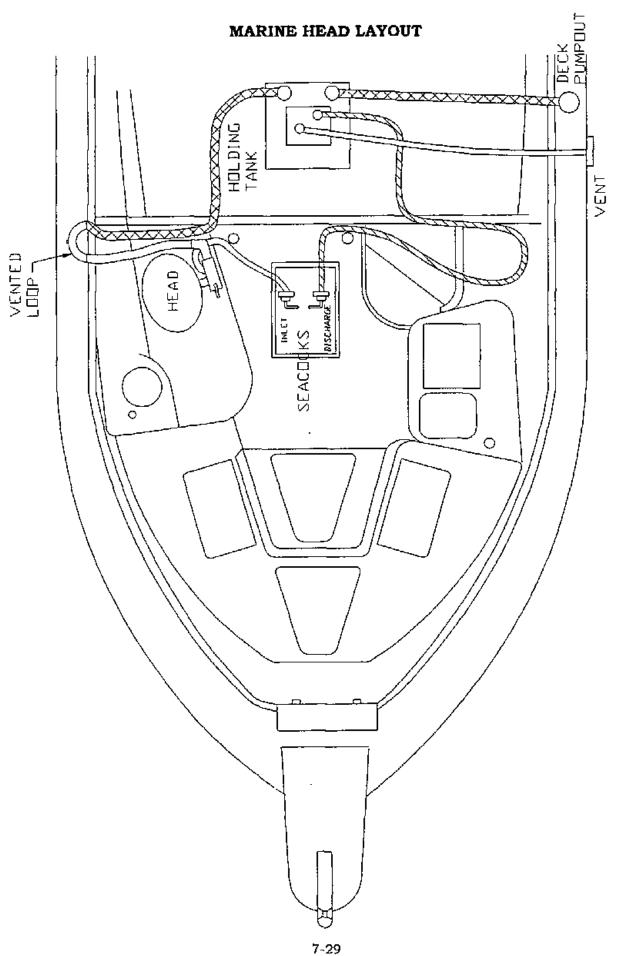


# LIVEWELL SYSTEM LAYOUT

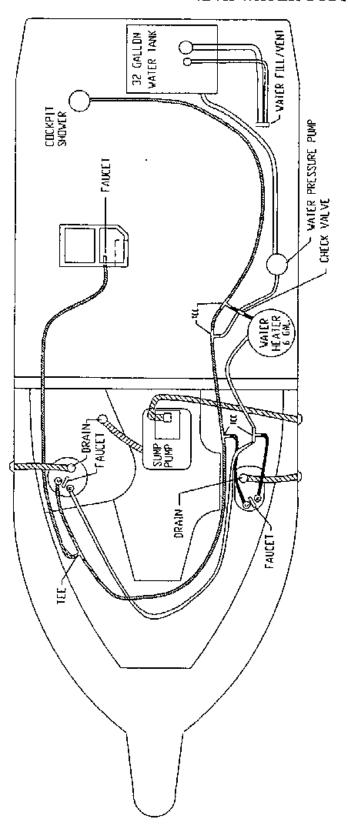


# LIVEWELL/WASHDOWN SYSTEM

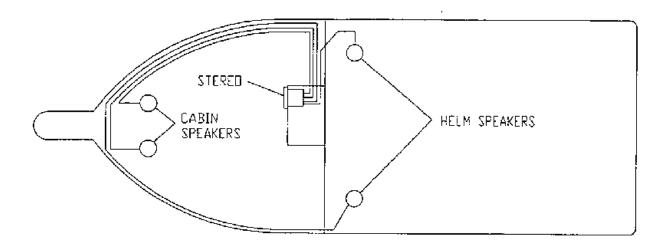




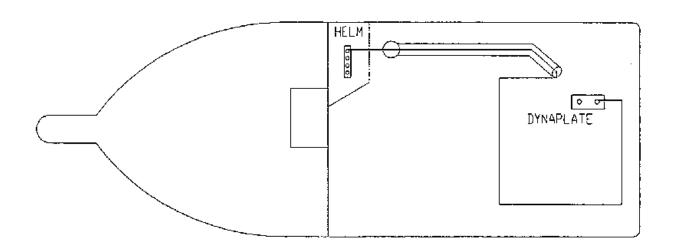
# PRESSURIZED FRESH WATER SYSTEM



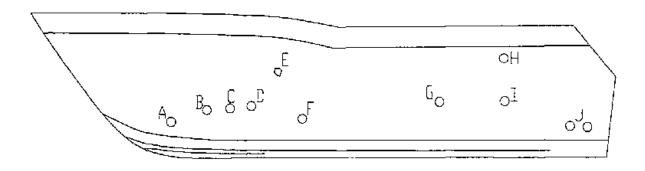
# STEREO WIRING

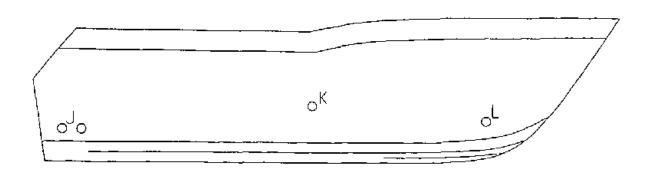


# DYNAPLATE WIRING



# THRU HULL DETAIL





# THRU HULL/DESCRIPTION

- A SINK DRAIN
- B SHOWER SUMP
- C FWD BILGE
- D OPTIONAL A/C
- E HEAD VENT
- F FISHBOX DRAIN
- G OPTIONAL GEN. EXHAUST
- H AFT BILGE
- 1 LIVEWELL DRAIN/OVERFLOW
- J SCUPPER DRAIN
- K STBD RIGGING STA. DRAIN
- L SINK DRAIN