

# **SEA PRO**

## **OWNER'S MANUAL**



# WELCOME ABOARD

Congratulations! You have purchased a boat that has no equal for built-in quality, performance, and beauty. With common sense operations and periodic maintenance, your boat will provide years of trouble-free enjoyment and satisfaction.

Reading this manual is an important step in protecting and enhancing your investment. This manual should be read by Sea-Pro operators for specific information, as well as the applicable engine's owners manual. We cannot stress just how important the manual is to the safety and well being of your boat. Stow this manual along with your engine manual, in a safe, convenient place on board. This booklet, in combination with your engine manual, will answer most of your questions. It will enable you to prevent problems and correct minor ones should they arise.

For further information, contact your Sea-Pro dealer or call the factory direct.

Good fishing!!!

For further information, contact your Sea-Pro dealer or us at:

## SEA-PRO

P.O. Box 1167  
182 Sea-Pro Drive  
Newberry, SC 29108  
803-321-5777 • Fax 803-321-9096

MODEL \_\_\_\_\_

COLOR \_\_\_\_\_

SERIAL # \_\_\_\_\_

DEALER NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

DATE PURCHASED \_\_\_\_\_

ENGINE MODEL/SERIAL # \_\_\_\_\_

ACCESSORY/SERIAL # \_\_\_\_\_

# **SEA-PRO FISHING BOATS**

## **PROFESSIONAL SERVICE**

Your Sea-Pro dealer knows your boat inside and out and provides good advice and honest, courteous service. Our boats are built for ease of maintenance and feature quick, simple access to electrical and plumbing systems.

When towing your boat on trips away from home waters, a network of Sea-Pro dealers is ready to assist you. You can obtain a current listing of dealers by writing or calling us.

Should you have a problem that has not been rectified by the dealer, contact us directly.

Remember, factory authorized warranty repairs are made by the dealer who sold the boat, or at the factory, unless otherwise specified.

## **DEALER RESPONSIBILITIES**

Sea-Pro dealers are a vital link between boat owner and the manufacturer and have responsibilities to the customer that insure safe operation and quality performance.

Areas of responsibility include proper engine and equipment selection, plus correct installation. Familiarization of boat, engine, and equipment operation are included. The dealer adjusts and tunes the boat, engine, and related equipment for peak performance and trouble-free operation.

Some dealers arrange on-water demonstration rides to insure operator familiarization.

# **OWNER RESPONSIBILITIES**

It is the owner's responsibility to operate the boat in a safe manner and to perform all recommended maintenance checkups for peak boat and engine performance.

## **NIGHT AND FOG OPERATION**

Some of the best fishing occurs under cover of darkness or when heavy fog makes visibility poor. Use the same precautions in heavy fog as you would boating at night. However, under extreme fog conditions or "white-outs" when lights are ineffective, the best decision might be waiting until the fog lifts. Here are some tips:

- Be familiar with the lake in the daytime, before venturing out at night.
- Avoid traveling long distances at night.
- Make sure all boat and trailer lights are working.
- Boating regulations state that all motorboats at anchor between sunset and sunrise must display an anchor light visible for 360 degrees.
- Running and navigation lights must be displayed between sunset and sunrise while under power.
- Fish away from navigation or barge channels.



## **BOAT RIGGING**

Professional riggers play an important role in your boat's performance and trouble-free operation. Engine mounting and engine height is of vital concern. Various makes of engines vary in length and so does the height at which the engine is mounted. Be sure to consult your Sea-Pro dealer about rigging or engine mounting questions.

## **TRANSDUCER MOUNTING**

When a transducer for an electronic graph or a speedometer sensor is positioned outside the hull, at the stern, correct placement is necessary to avoid a loss of boat performance. Here is a simple guide to follow:

With the boat sitting on the trailer, use the 2x6 bunks as accessory mounting guides. Mount external devices on the same strake as where the boat sits on the 2x6. Mounting outside those guides is fine. The area of the hull inside the bunks should be kept free of external mounts. If mounted inside the guidelines, bubbles can be created when under power which results in engine cavitation and poor performance.

See WARRANTY information in this manual for more information on hull modifications. (Inside Back Cover).

## **LIVEWELL TROUBLE SHOOTING**

Livewell problems are generally minor and can be traced and repaired on the spot. Example:

### **Clogged Livewell**

Paper, weeds, and other debris can clog the livewell drain. We recommend blowing air from the outside of the boat in, to clear the drain. This can be done by cutting a two inch (2") circular piece of old inner tube that has the valve stem attached.

Place the tube (valve stem out) against the drain hole and use pressurized service station air to clear the debris. You can feel the pressure drop when the line is clear.

If forced air does not work, straighten a coat hanger or use a straight piece of wire and insert it from the outside, probing from back to front. The last two feet of drain line in the stem is the common source of blockage.

### **Livewell Not Working**

Check the wire connector at the pump.

## **LIVEWELL TIPS**

- 1 Drain livewells after each outing and leave the lids open during the day for ventilation.
- 2 Should parts of fish, bait or food be accidentally left in livewells or cooler causing spoilage, wipe the wells with a cloth saturated with vanilla extract to remove odors.

## **PROTECTING YOUR BOAT FROM THEFT/VANDALISM**

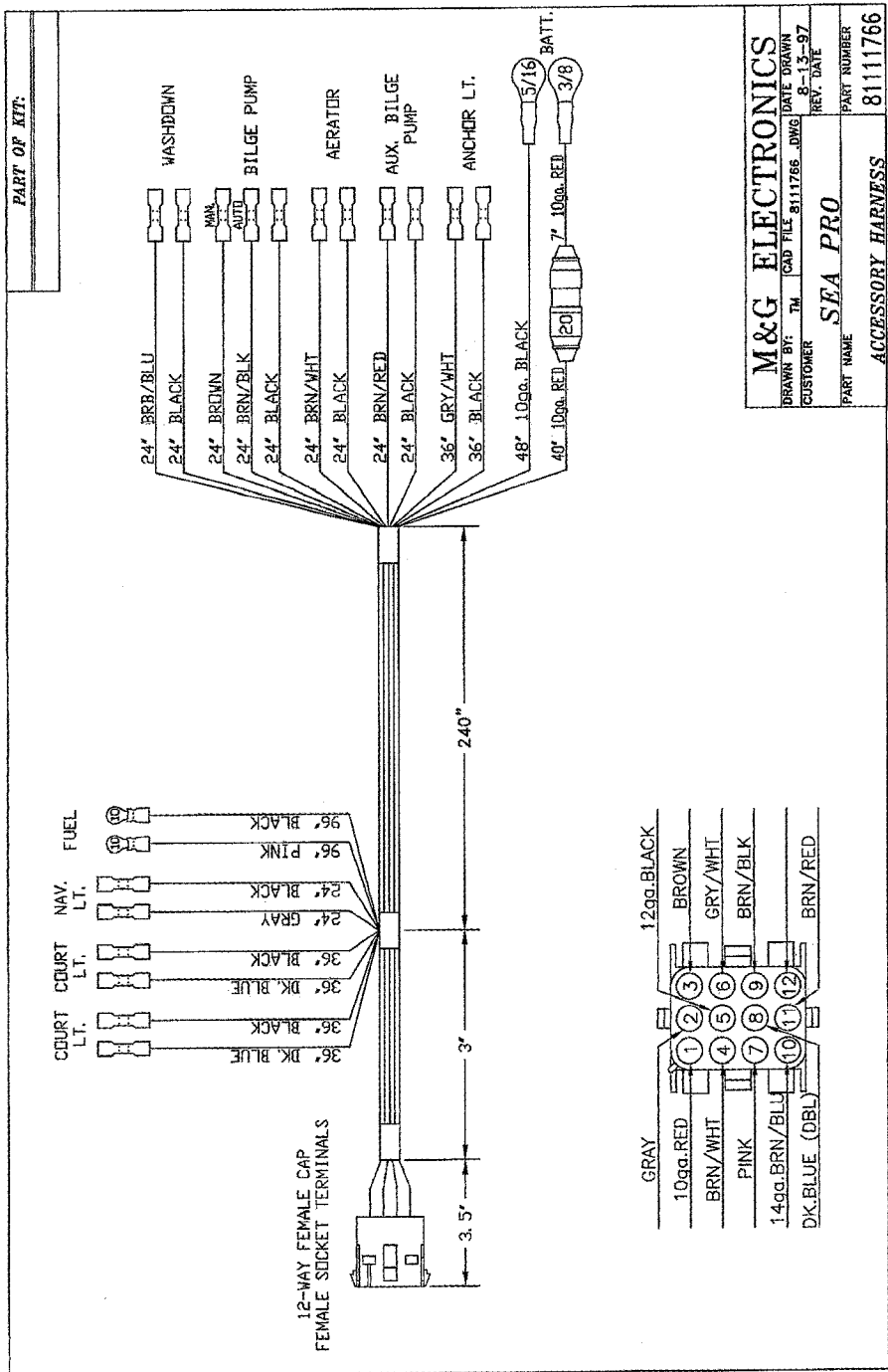
As the value of salt water boats and related equipment increases, so have instances of theft and vandalism. Record and keep serial numbers of all valuable equipment. Record information from hull identification plate, trailer and engine for insurance purposes. Here are suggestions on how to protect your equipment:

- Park trailer out of sight from the street, if possible.
- At home, keep the boat in the garage or a well lit car port. Protect it further with a mooring cover.
- Do not park the boat on the street, or on the driveway, unattended. A mooring cover and well lit area helps if there are no alternatives.
- Remove all fishing tackle, graphs, batteries, battery charger and other valuable equipment from the boat when it is left in the open.
- Choose storage areas, boat slips and services at marinas or boat docks, that utilize security personnel and equipment to protect the equipment of boating customers.
- Remove trolling motor from the boat if you intend to be away from the boat for any length of time.
- Never leave keys in the boat, even for a short time. Remove starter key, master switch key, and compartment keys.
- Some boats are robbed and vandalized in motel parking lots. Be selective where you stay on the road, and inquire about security measures. Some motels offer fenced outside storage areas.
- Always lock trailer coupler down. Also lock spare trailer tire to trailer frame.



# SCHEMATIC WIRING DIAGRAM

The following is an example of a Sea-Pro wiring harness. Consult your Sea-Pro dealer for details.



## SERVICE/MAINTENANCE LOG

[illegible]

# NOTES



# INTRODUCTION

Take a few minutes to read this manual completely before you use your boat for the first time, it should answer any remaining questions you may have. Contact your dealer or local boating administrator for further information.

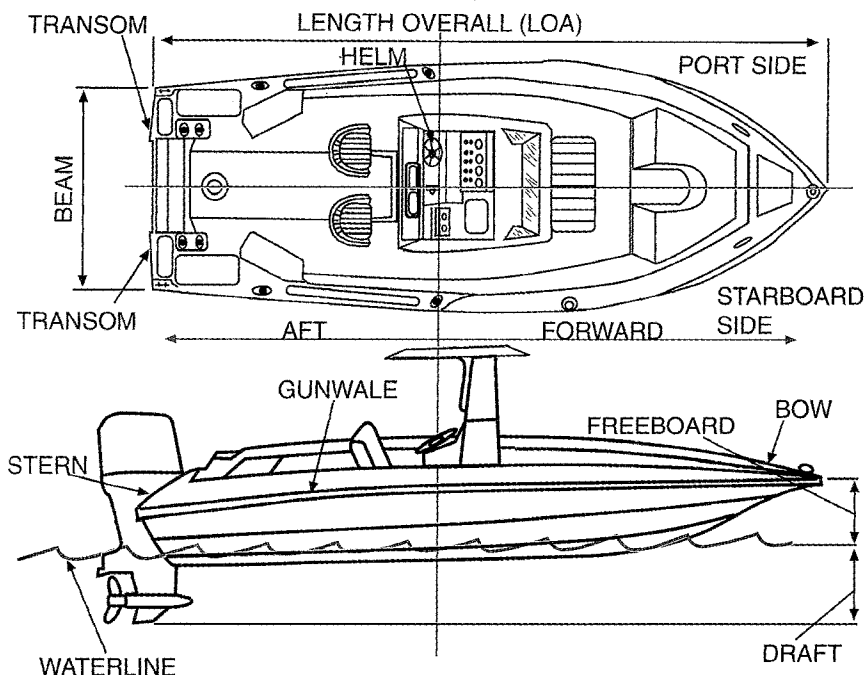
Because of our policy of continuous product improvement, the illustrations used in this manual may not be the same as on your boat and are intended only as representative reference views. Keep this manual on board for future reference.

## IDENTIFICATION NUMBERS

Safeguard information about your boat by recording the Hull Identification Number (HIN) and model of your boat, and model and serial numbers of the engine, trolling motor and accessories on the inside front cover of this manual. The HIN is located on the upper, starboard corner of the transom. The HIN must be clearly visible and may not be removed, altered or tampered with in any way by federal law.

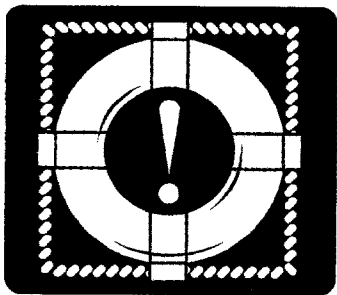
The identification numbers are important! Keep a copy of these numbers stored in a safe place off the boat. In case of theft, damage, etc., report these numbers to the local authorities, your insurance agent and your dealer.

## BOATING TERMINOLOGY



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# BOATING SAFETY

# 1

The popularity of boating and other water sports has undergone an explosion of growth in the past few years. Because of this, safety is an important issue for everyone who shares in the use of our waterways.

This section covers general boating safety information. Throughout this manual specific precautions and symbols identify safety related information.

 The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



## WARNING



This symbol and signal word indicate a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



## CAUTION

This symbol and signal word indicate a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. This symbol **MAY** also be used to alert against unsafe practices.

## CAUTION

This signal word indicates a situation which, if not avoided, **MAY** result in product or property damage.

The precautions listed in this manual and on the boat are not all-inclusive. If a procedure, method, tool or part is not specifically recommended, you must satisfy yourself that it is safe for you and others, and that the boat will not be damaged or made unsafe as a result of your decision. **REMEMBER - ALWAYS USE COMMON SENSE WHEN OPERATING!**



# **BOATING REGULATIONS**

The U.S. Coast Guard is the authority of the waterways; they are there to help the boating public. State boating regulations are enforced by local authorities. You are subject to marine traffic laws and "Rules of the Road" for both federal and state waterways; you must stop if signaled to do so by enforcement officers, and permit to be boarded if asked.

There are many pamphlets, prepared by the Coast Guard, available to you. These pamphlets explain "Rules of the Road", signal lights, buoys, safety, international and inland regulations and much more than is presented in this manual. For more information contact your local U.S. Coast Guard Unit or call the Coast Guard Boating Safety Hotline at 1-800-368-5647.

## **BOATER RESPONSIBILITIES**

### **Registration**

The U.S. Coast Guard requires that all power boats operated on the navigable waters of the United States must be registered in the state of main use; also, many States require registration in that state whenever boating on waters within their state boundary. Always contact your state boating authorities (and neighboring states) for registration on boats and trailers. Your dealer may be able to supply you with the appropriate forms.

### **Education**

This manual is not intended to provide complete training on all aspects of boat operation. We strongly recommend that all operators of this boat seek additional training on boat handling and safety. Many states require operators under the age of 17 to be licensed in small boat operation and offer courses for training and certification.

The following is a listing of some of the agencies and organizations that offer safety training or information; refer to your local telephone directory for their telephone numbers and addresses.

- American Red Cross
- U.S. Coast Guard Auxiliary
- National Fishing and Wildlife Foundation
- U.S. Power Squadrons
- State Boating Officers
- Sports Fishing Institute

### **Insurance**

You must get insurance before operating your new boat. Loss by fire, theft or other causes, or liability protection against accidents is a must for responsible boaters. The boat owner is legally responsible for any damage or injury caused when he, or someone else operating the boat, is involved in an accident. Many states have laws detailing minimum insurance needs. Your insurance agent or your dealer may be able to supply you with more information.



## Required Safety Equipment

• Our boat has been equipped at the factory with most federally required (Class 1, 16' to 26') safety equipment for inland waters.

Federal law also requires at least one Type I, II or III Personal Flotation Device (PFD) for each person on board or being towed on water skis; and in addition, one throwable Type IV PFD. **As the owner, obtaining PFDs and other necessary safety equipment is your responsibility.**

### Note

**Requirements for coastal waters and inland waters differ; check with the local authorities for more information.**

PFDs are intended to help you save your own life; you and your passengers should wear a PFD whenever boating. It is especially important that children or non-swimmers wear a PFD at all times. Make certain you know how to use PFDs. Try it on and make adjustments for a comfortable fit. Show children how to properly put on a PFD. There are three types of acceptable PFDs to wear and one type used for throwing in emergency situations.

Type I - good for off-shore or rough water use.

Type II - good for near-shore and most inland waters.

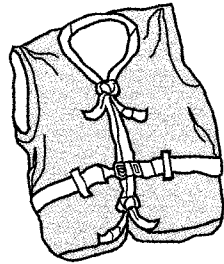
Type III - good for calm, inland waters. Type III PFDs are recommended for continuous use, especially when using casting platforms.

Type IV - designed to be thrown to person in the water.

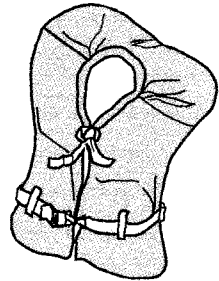
They are easy to hang on to in the water but do not protect as well as Types I, II or III. **Cushions should never be worn on a person's back and must always be kept handy for emergency situations.**

### Note

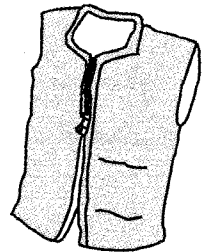
Special PFDs are available for skiing and other water sports. These PFDs are constructed with materials suitable for high impact falls into the water.



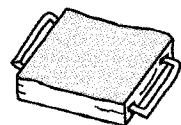
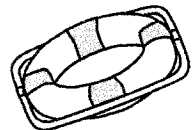
TYPE I  
LIFE PRESERVERS



TYPE II  
BUOYANT VESTS



TYPE III  
FLOTATION AIDS



TYPE IV  
THROWABLE DEVICES

Keep the following PFD points in mind:

- Set an example and wear your PFD. Require your passengers to wear them also.
- Make sure the PFD fits properly; this is especially important for children and non-swimmers.
- At the beginning of each season, check PFDs for damage and test for proper flotation.

Federal law also requires a USCG approved Sight Signaling Device on boats 16' and longer operating on the Great Lakes or coastal waters. The type of device is dependent on the size of the boat and if it is used during the day or night. Your dealer or the Coast Guard can provide you with more information.

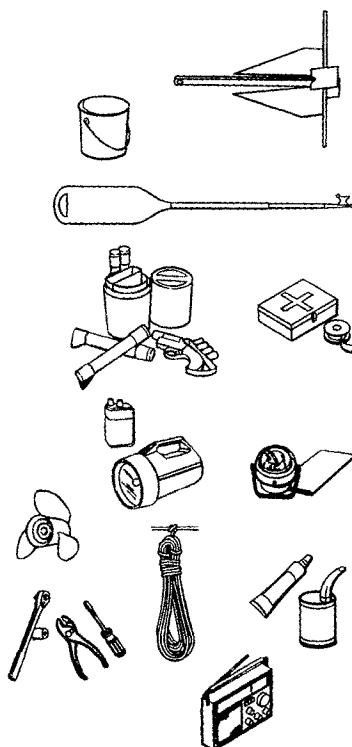
### Note

**Some signaling devices (pyrotechnics) are restricted from use on certain bodies of water, so always check with local authorities.**

## Recommended Equipment

As a precaution, a good boater will avoid potential problems on an outing by having additional equipment on board. Normally, this equipment is dependent on the body of water and the length of the trip, your dealer can assist you:

- First aid kit and manual
- Anchor with at least 75' of line
- Mooring lines and fenders
- Bailing device (bucket, hand pump, etc.)
- Combination oar/boat hook
- Day/night visual distress signal
- Lubricant
- Tool kit
- Spare propeller, nut and washer
- Spare fuses
- Extra keys
- Waterproof flashlight
- Portable AM/FM radio with weather band
- Spare flashlight and radio batteries
- Insect repellent
- Sunglasses and sun block







## EMERGENCIES

Be prepared to deal with emergencies before they happen. Try to formulate a plan for each type in advance so that decisions can be made quickly and without hesitation. Precious moments lost can mean the difference between losing and saving a life.

### Reporting

The operator of the boat is responsible for filing a report with the appropriate authorities. In general, reports are necessary for accidents involving loss of life, injury, or damage over \$200. Ask your insurance agent for detailed information.

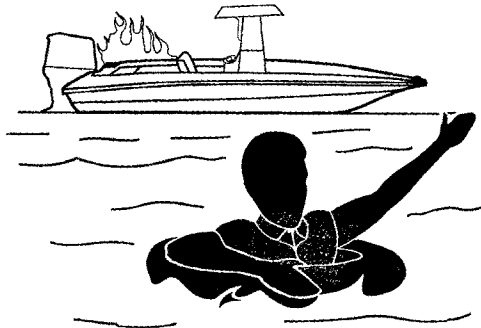
### Giving Assistance

If you see a distress signal you must assume it is a real emergency and render assistance immediately. If you can assist a boat in distress, you should. An unwritten law of the sea is that one boater will aid another boater in distress. The 1971 Boating Safety Act grants protection to a "Good Samaritan" boater offering good faith assistance, and absolves a boater from any civil liability arising from assistance given.

### Fires

Most fires are the result of gasoline and oil accumulating in the bilge from careless fueling practices. Use the fire extinguisher at **base of the flames** using a sweeping motion. Prudent and accurate use of the available chemicals could contain all but the worst fires. Verify that the fire has been extinguished. If so, check damage and get assistance immediately. **If not, get out and swim at least 25 yards upwind from the boat and use the visual distress signals to get assistance.**

On board fires involving the fuel system usually result in either an explosion that completely destroys the boat, or the boat burning to the waterline and self extinguishing. Deciding on abandoning the boat or trying to fight the fire is difficult and depends on many factors. Try to formulate a fire plan in advance to make the decision quickly and without hesitation.





## WARNING

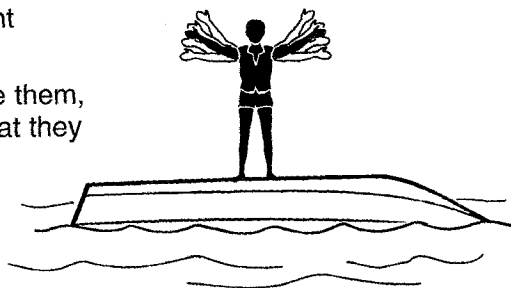


**Gasoline will float on top of water and can burn. If the boat is abandoned, swim up wind, far enough to avoid fuel that may spread over the surface of the water to avoid serious injury.**

### Capsizing

A boat may capsize or swamp when least expected. Like fires, try to formulate a plan in advance on what to do if it should happen. Keep in mind the following guidelines:

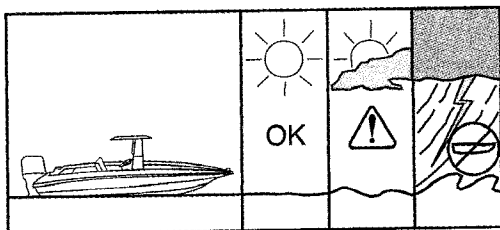
- Try to turn the engine OFF to prevent damage.
- If others were on board, try to locate them, make sure they're conscious and that they can swim.
- **Stay with the boat, it will float!** Climb up on the hull and try to get assistance.
- Don't try to swim to shore. It's usually further than it looks.



## HAZARDOUS CONDITIONS

Every waterway poses hazards that you should avoid; shallow water, tree stumps, sand bars, etc. Ask local boaters for information and consult a marine chart when boating on unfamiliar waters. Rivers and manmade lakes can have rapidly changing water levels which when low, increases the number of underwater hazards. As the operator of the boat, you should try to avoid all hazards, known and unknown. The following information does not contain all possible water hazards.

### Weather



Getting caught in sever weather is hazardous. Check with local weather stations, the U.S. Coast Guard, or Weather service broadcasts (162.55 or 162.40 Megahertz) for the latest conditions. It is recommended to check the weather not only before but periodically while you are boating.



## Dam Spillways

The water around a dam spillway is a hazardous area. It is subject to rapid changes. Boaters must keep clear of the spillway areas below dams.

## Weeds

Weeds are generally a threat to your boat's engine. Weeds on the propeller may cause the engine to vibrate. They may also restrict water intake causing the engine to overheat. If you run into weeds, stop the engine and clear the propeller and water intake completely of weeds. Consult the engine operating manual for more information.

### Note

**Weeds can sometimes be removed by shifting to neutral, pausing a moment, then shifting to reverse to unwind the weeds from the propeller.**

## Shallow Water Operation

Operation in shallow water presents a number of hazards. Water of any depth may contain stump fields, sand bars, rocks, or other unmarked underwater hazards.

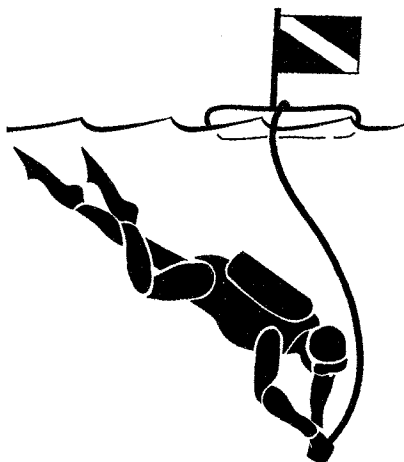
If the engine strikes an underwater hazard, check for boat and engine damage.  
If the engine vibrates excessively after striking an underwater obstruction, it may indicate a damaged propeller.

## Sand Bars

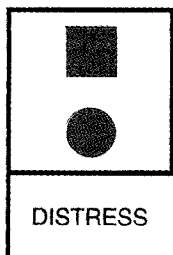
Sand bars in narrow inlets are constantly shifting, making it difficult to mark them with buoys. Sometimes, sand bars are indicated by waves as they form into breakers when passing over the sand bar. If you ground the boat on a sand bar, seek help from another boater.

## Warning Markers

It is a good idea to ask local authorities if there are hazardous areas and how they are marked. Boaters must also recognize the flag designs which indicate that skin divers are present and keep well clear of the area.



Watch for swimmers. Swimming areas may not be marked. Steer clear from the area and always remain alert.



Distress flags indicate a fellow boater is in need of assistance.



Navigation markers serve as a means of identifying navigable routes, and indicate water hazards. Boaters should become familiar with navigation markers and stay within marked boundaries and clear of hazards.

## OPERATION BY MINORS

Minors must always be supervised by an adult whenever operating a boat. Many states have laws regarding the minimum age and licensing requirements of minors. Be sure to contact the state boating authorities for information.

## PASSENGER SAFETY

Whenever you are going for an outing, make sure that at least one passenger is familiar with the operation and safety aspects of the boat in case of emergency. Show all passengers the location of emergency equipment and show how to use it. Don't allow passengers to drag their feet or hands in the water, or sit on the bow, casting deck, or gunwale while the boat is moving.

## FISHING

When fishing, it is important to remember that control of the boat comes first, and fishing second. Below is a list to guide you concerning safety while fishing:

- NEVER LEAVE THE HELM UNATTENDED WHEN BOAT IS UNDERWAY!
- Observe right-of-way when feasible and keep clear of congested waterways. Other fishermen's lines can become wrapped around your propeller shaft and damage the engine.
- Stow any fishing gear you are not using to prevent breakage or tripping.
- Never anchor in a channel or tie up to a navigational aid. Both are illegal.
- Proper boat lighting must be used when fishing at night. Lights may attract bugs and discharge the battery, but are the only means for being seen at night.



## WATER SPORTS

When using your boat for water sports, be safe and courteous and follow these guidelines:

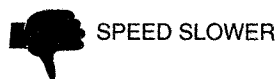
- Be considerate to fishermen and others you share the water with.
- Do not water ski in congested areas.
- Avoid navigation markers.
- Stay clear of other boats and skiers.
- Return immediately to a fallen skier.



### WARNING



- Skiers must wear a USCG approved flotation device. A type III water ski vest is an approved and practical PFD.
- Keep at least 100' away from all other objects.
- When skiing have an experienced driver and aft facing observer in the boat.
- Never ski in shallow water or at night.
- Never jump from a moving boat.
- Always keep a downed skier in sight.
- Turn the motor OFF before you get close to someone in the water.



# GENERAL PRECAUTIONS

Your safety, the safety of your passengers, and other boaters are among your responsibilities as operator of this boat. Your boat must be in compliance with U.S. Coast Guard safety equipment regulations. You should know how to react correctly to adverse weather conditions, have good navigation skills, and follow the "rules of the road" as defined by the Coast Guard and state/county/local regulation.

You must never operate a boat while under the influence of alcohol or any other drug. Remember...you are also responsible for the alcohol/drug use and on-board behavior of your passengers. Drugs reduce your reaction time and affect your better judgement. When combined with the sun, wind, noise and activity of boating, drugs compound fatigue and can be very dangerous.

Before each outing you should check all safety equipment, such as fire extinguishers, PFDs, flares, distress flags, flashlights, engine stop switch, etc. They should be operable, in good condition, readily visible, and easily accessed.

Tell someone of your travel plans. Check local weather reports before casting off; do not leave the dock area when strong winds and electrical storms are in the area or predicted to be in the area.

Know the weight capacity of your boat. Do not overload your boat.

When rigged with a high horsepower engine, your boat is capable of breath-taking performance. High performance operation requires a great skill and attention. Stay within your skill and driving limits to avoid dangerous situations.

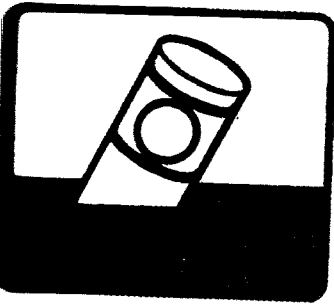


## **WARNING**



**Read and understand this manual and the engine manual, and be sure that you understand all controls and operating instructions before attempting to operate the boat. Improper operation can be extremely dangerous.**

Be aware that many minor injuries are the result of poor boat keeping. Perform periodic maintenance and stow loose gear to prevent movement while underway. Loose lures are particularly dangerous to passengers.



# BASIC RULES OF THE ROAD

# 2



## CAUTION

The nautical rules of the road must be followed to prevent collisions between vessels. Like traffic laws for automobiles, the operator is legally required to follow the rules.

The following information outlines only the most basic of the nautical rules of the road. For more information, contact your local U.S. Coast Guard Auxiliary.

## AIDS TO NAVIGATION

Learn to recognize the different buoys and day markers; they are the signposts of the waterway. There are 2 primary marking systems in use in the U.S.; the Uniform State Waterway Marking System (USWMS) used on inland waters and maintained by each state, and the Federal Waterways Marking System (FWMS) used on coastal waters and rivers and maintained by the U.S. Coast Guard (USCG). In addition, the FWMS has two modified systems; Western River Buoyage, and Intracoastal Waterway Buoyage. Be sure to check with local authorities on the buoyage system in use.

The type of hazard/warning buoys and markers depend on the area of jurisdiction. Check with local boating authorities.



## USWMS System

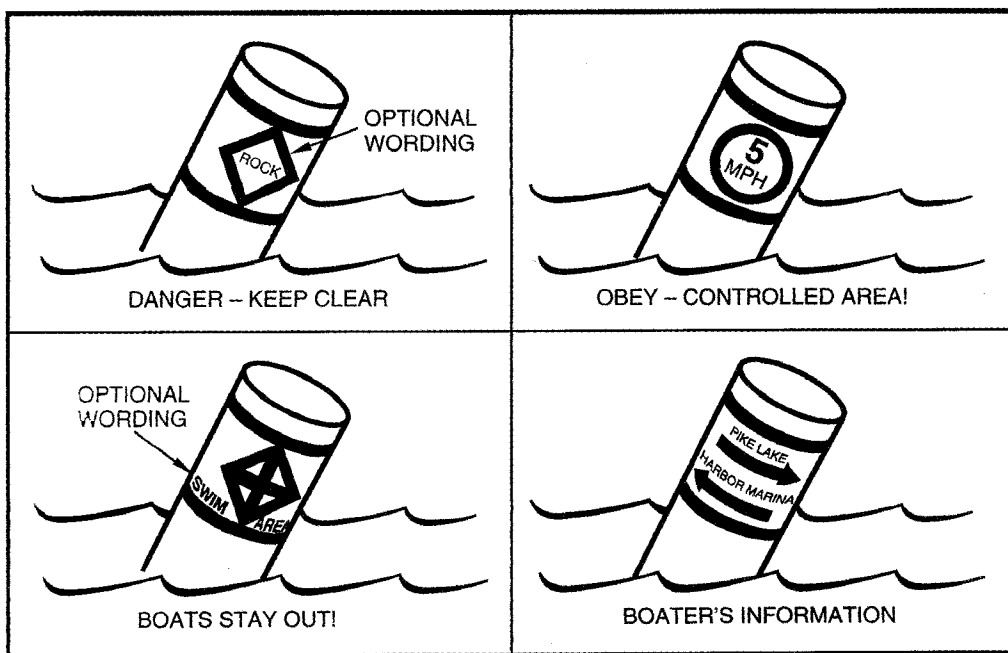
In the USWMS Lateral System, well defined channels are marked with red and black buoys. Lateral means the sides of the channel are marked and the boat should pass between them.

The USWMS Cardinal System is used when there is no well defined channel or where an obstruction may be approached from more then one direction. With the cardinal system:

- Pass north or east of BLACK-TOPPED WHITE buoy.
- Pass south or west of RED-TOPPED WHITE buoy.
- RED and WHITE VERTICALLY STRIPED buoy indicates boat should pass outside of the buoy (away from shore).

## Uniform State Regulatory Markers

USWMS regulatory markers are white with international orange geometric shapes; you must obey regulatory markers.



# BASIC RULES OF THE ROAD



## FWMS SYSTEM

The FWMS Lateral System is for use on navigable waters except Western Rivers and Intracoastal Waterways.

The markings on these buoys are oriented from the perspective of being entered from seaward (the boater is going towards the port). This means that red buoys are passed on the starboard (right) side when proceeding from open water into port, and black buoys are to port (left) side.

The right side (starboard) of the channel is marked with RED, even numbered buoys. The left (port) side of the channel is marked with GREEN, off numbered buoys.



LIGHTED  
BELL BUOY



SPAR BUOY



CAN BUOY



LIGHTED BUOY



NUN BUOY

The middle of the channel is marked with RED and WHITE vertically striped buoys; pass close to these buoys.

Obstructions, channel junctions, etc. are marked with RED and GREEN horizontally striped buoys.



- ▲ RED band at the top means the preferred channel is to the left of the buoy;
- GREEN top band means the preferred channel is to the right of the buoy.

STARBOARD  
DAY  
MARKER



Day markers are colored and numbered the same as buoys. RED, triangular day markers with even numbers mark the starboard side of the channel. GREEN, square day markers with odd numbers mark the port side of the channel.



PORT  
DAY  
MARKER

Lights, bells and horns are used on buoys for night or poor visibility conditions.

# RIGHT-OF-WAY



## CAUTION

In general, boats with less maneuverability have right-of-way over more agile craft. Likewise, smaller boats should give-way to larger boats. You must stay clear of the vessel with right-of-way and pass to his stern.

## Privileged Boats

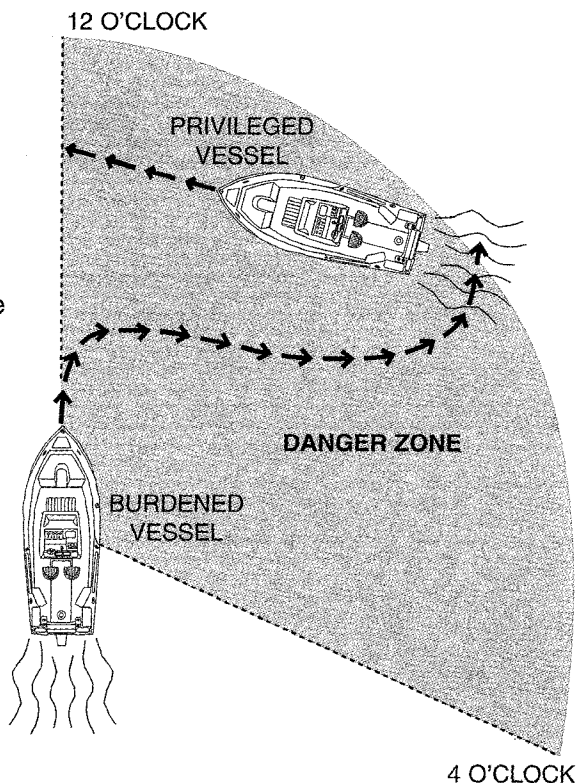
Privileged boats have right-of-way and can hold course and speed. Sailboats and boats paddled or rowed have the right-of-way over motor boats. Sailboats under power are considered motorboats. Small pleasure craft must yield to large commercial boats in narrow channels.

## Burdened Boats

The burdened boat is the boat that must make whatever adjustments to course and speed necessary to keep out of the way of the privileged boat.

## Crossing Situation

In crossing situations, the boat to the right from the 12 o'clock to the 4 o'clock position has the right-of-way. It must hold course and speed. The burdened boat keeps clear and passes behind the privileged boat. Boats going up and down a river have the privilege over boats crossing the river.

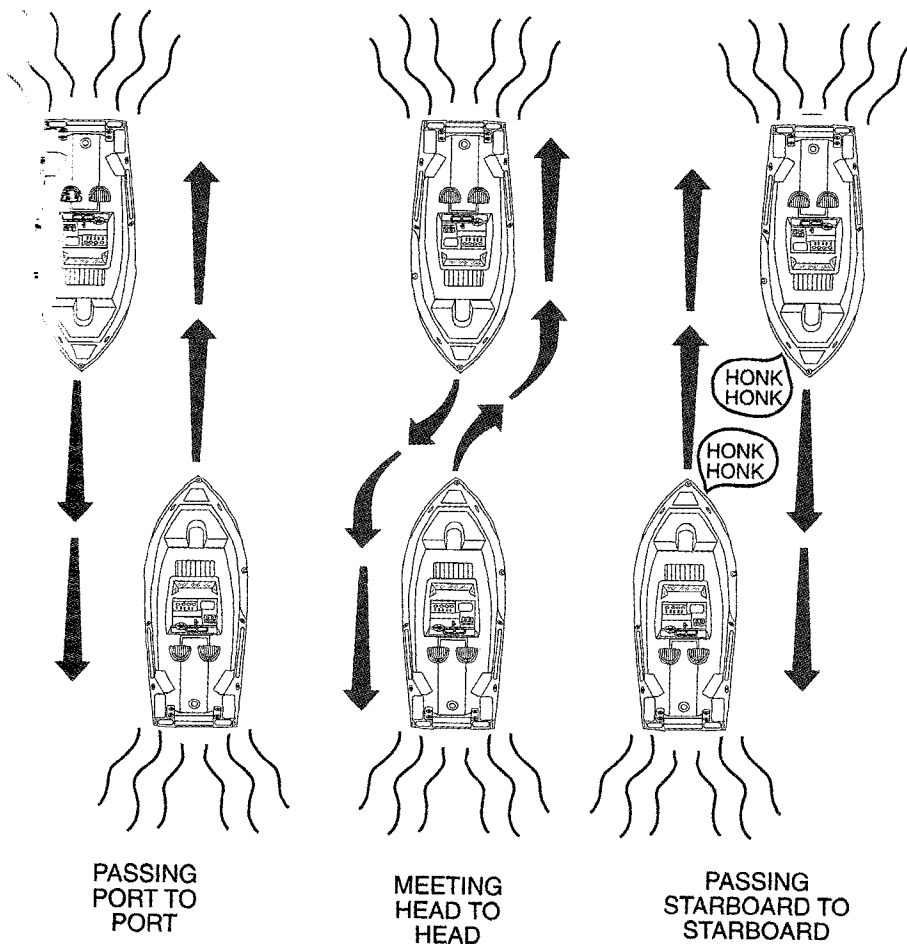


# BASIC RULES OF THE ROAD



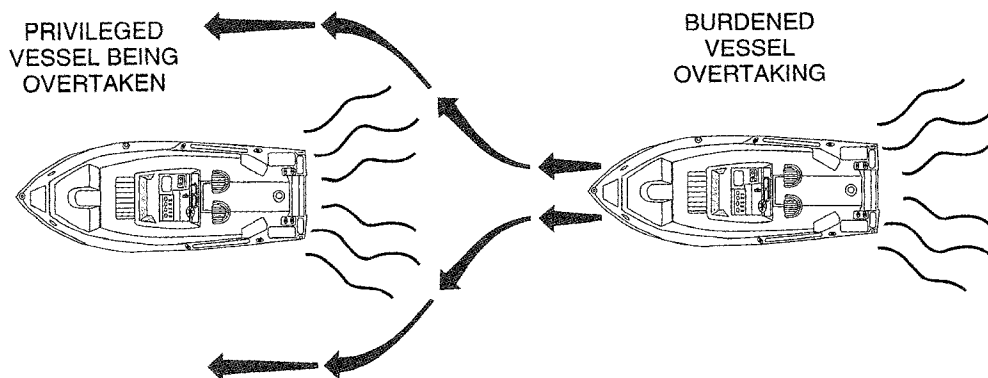
## Meeting Head-On

Neither boat has the right-of-way in this situation. Both boats should decrease speed, should turn to the right, and pass port-to-port. However, if both boats are on the left side of a channel, each vessel should sound two short horn blasts and pass starboard to starboard.



## **Overtaking**

The boat that is overtaking one ahead of it is the burdened boat and must make any adjustments necessary to keep out of the way of the privileged boat.



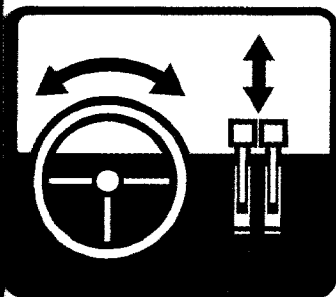
## **The General Prudential Rule**

The general prudential rule regarding right-of-way is that if a collision appears unavoidable, neither boat has right-of-way. As prescribed in the Rules of the Road, both boats must act to avoid collision.

## **Night Running**

Boats operating between sunset and sunrise (hours vary by state) must use navigational lights. Nighttime operation, especially during bad weather or fog can be dangerous. All Rules of Road apply at night, but it is best to slow down and stay clear of all boats, regardless of who has right-of-way. Protect your night vision by avoiding bright lights and have a passenger, if possible, help keep watch for other boats, water hazards, and aids to navigation. The size, speed, and direction of other boats are determined at night from the running lights. A green light indicates the starboard side of the boat and a red light indicates the port side. Generally, if you see a green light, you have the right-of-way; if you see a red light, give-way to the vessel.

# 3



## CONTROLS AND INDICATORS

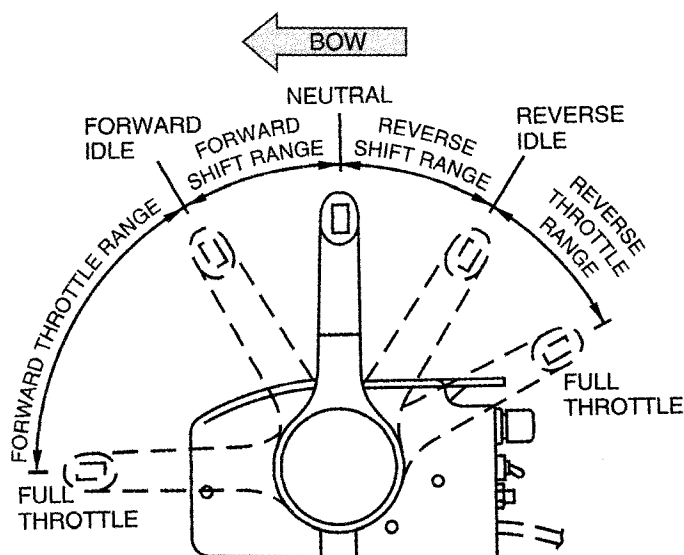
Knowing the controls and indicators on your boat is essential for safe and proper operation. The controls and indicators shown in this section may be optional or slightly different than those on your boat.

### SHIFT/THROTTLE CONTROL

The shift/throttle control on your boat differs from model to model and may depend on the engine used. The following control is typical of the operation of most remote controls. Be sure to consult the engine or control manual for operational differences.

#### CAUTION

Do not shift too quickly from forward to reverse. Stay in neutral, or idle position until the boat has lost most of its headway before completing the shift to reverse or engine damage may occur.



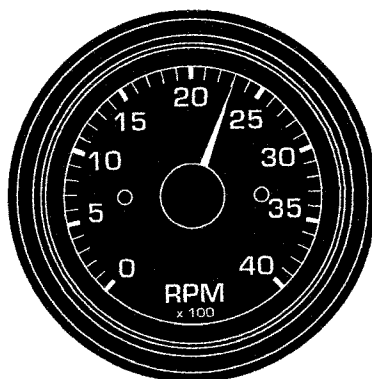
This one-hand, single lever control operates as both a gear shifter and throttle. The lever automatically locks in the neutral (straight up and down) position for safety when starting. The lever can only be moved from neutral by pressing the neutral lock release button. Shifting is accomplished by moving the lever into the first 15° of travel; push the lever for forward, and pull the lever back for reverse. By advancing the lever beyond 15°, you move from the shifting range to the throttle range.

## INSTRUMENTS

Instruments are illuminated for night operation. Their type, number, and location vary by model; some may not appear on your model.

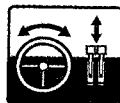
### Tachometer

Registers engine speed in revolutions per minute. Use this gauge to keep the engine within the proper operating range. Consult the engine manual for the proper RPM operating range for your engine.



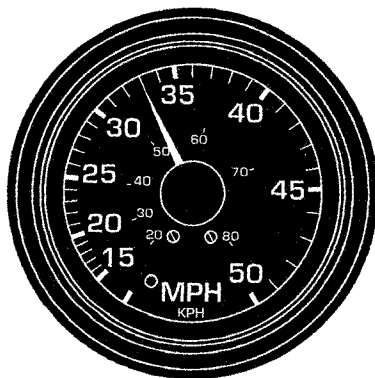


# CONTROLS AND INDICATORS



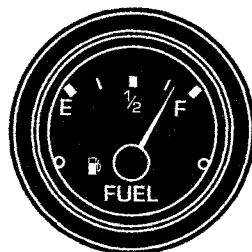
## Speedometer

Registers forward boat speed in miles per hour. Use this gauge to monitor fuel consumption and propeller performance. Since most marine speedometers operate with water pressure, accuracy is only approximate.



## Fuel Gauge

On models with a permanent fuel tank, this gauge registers approximate fuel level in the gas tank. The ignition switch must be in the RUN position to activate the gauge.



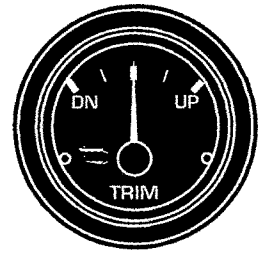
## Water Pressure Gauge

Registers the water circulated by the water pump in pounds per square inch (PSI). Use this gauge to observe that the engine cooling system is operating properly. Consult the engine manual for the normal operating PSI range.



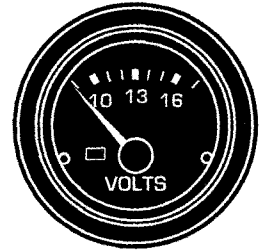
## **Trim Gauge**

Measures engine or stern drive tilt and indicates the relative position of the bow, up or down when boat is on plane. Use this gauge to monitor boat trim.



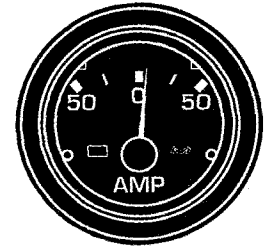
## **Voltmeter**

Indicates the condition of the main or cranking battery in volts DC. Normal operating range is 12+ volts.



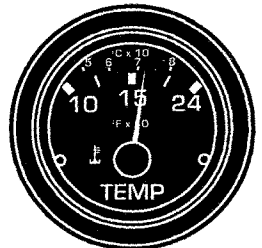
## **Ammeter**

Measures the charging current in the electrical system. Consult the engine manual for the normal operating range.

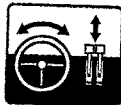


## **Engine Water Temperature Gauge**

Indicates the water/coolant temperature inside the engine. Consult the engine manual for the normal operating range.

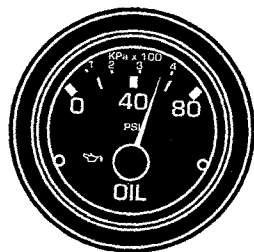


# CONTROLS AND INDICATORS



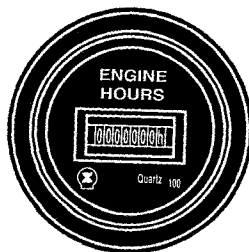
## Engine Oil Pressure Gauge (Stern Drive Only)

Indicates the pressure of the lubricating oil inside the engine. Consult the engine manual for the normal operating range.



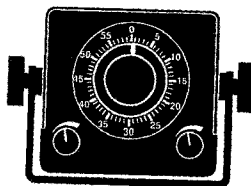
## Engine Hourmeter

Registers accumulated engine operating time, and is activated when the ignition switch is in the "ON" position. Be aware that time will be logged whenever the ignition switch is "ON", even when the engine is not running. Use the hourmeter to keep accurate logs for scheduled maintenance.



## Flasher

The flasher is a sonar depth finder which indicates the distance between the bottom of the boat and an object such as the lake bottom or a boat. Consult the depth finder owner's manual for proper operating instructions, adjustments and features.



## Switches

Each electrical circuit on your boat is equipped with a control switch. Some switches may have an LED indicator for easy ON/OFF identification. Most switches will have a fuse holder, or circuit breaker adjacent to the switch.

**Master Power Switch** – Disconnects the boat electrical systems from the battery. When not using the boat, keep this switch in the OFF position.

**Navigation Lights Switch** – Controls the running and anchor lights for night operation. NAV position will turn on the red and green bow lights, white stern light, and gauge illumination. ANC position turns on only the white stern light for night anchoring.



## CAUTION

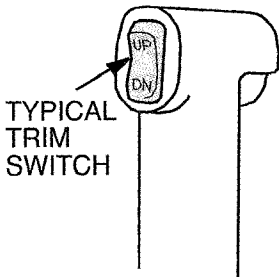
**Never operate the boat between sunset and sunrise with the switch in the anchor light position. Running lights are required to indicate direction and right-of-way at night.**

**Blower Switch (Stern Drive Only)** – Activates the engine box ventilation blower to remove explosive fumes from the box and bilge areas.

**Bilge Switch** – Activates the bilge pump to remove excess water from the bilge. Some models are equipped with an automatic bilge pump setting. Switch to AUTO whenever the boat is in operation, water will be pumped-out as it enters the bilge.

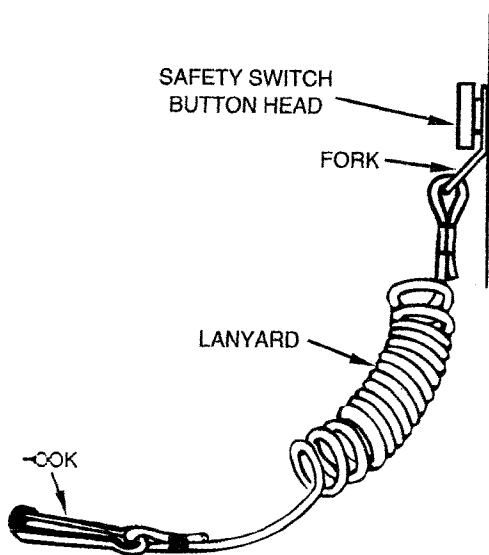
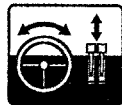
**Ignition Switch** – Starts and stops the engine. Be sure to consult the engine operator's manual for information.

**Horn Button** – Push and hold to sound the horn.



**Trim Switch** – If your engine is equipped with power trim and tilt, this switch activates that function. Push and hold the switch until the engine is at the desired angle. Use this switch in combination with the trim gauge.

## CONTROLS AND INDICATORS



### Engine Stops Switch and Lanyard –

The engine stop switch stops the engine when engaged. Attach the lanyard to the boat operator whenever the engine is running. If the operator is thrown from the seat or moves too far from the helm lanyard will engage the switch and shut off the engine.

To attach the lanyard, hold out the button head and slide the fork beneath the safety switch. Attach the hook on the opposite end of the lanyard to a strong piece of clothing on the operator, such as a belt loop.



### WARNING



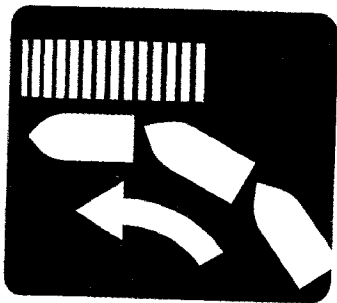
Attach the Engine Stop Switch lanyard to the operator before starting the engine. This will prevent the boat from becoming a runaway if you are accidentally thrown from the boat.

The Engine Stop Switch can only be effective when it is in good working condition. Observe the following:

- Never remove or modify the Engine Stop Switch and/or lanyard.
- Lanyard must always be free from obstructions that could interfere with its operation.

**ONCE A MONTH:** Check switch for proper operation. With engine running, pull lanyard. If engine does not stop, see your DEALER for replacement of switch.





# 4

## OPERATION

This section describes the basics of fueling, starting, running, trimming, docking and starting your boat. Since there is a variety of control and engine options, be sure to consult the other owner's manuals provided with your boat.

### FUEL

There are two types of fuel systems: portable and built-in. Portable tanks must be removed from the boat when fueling. Consult the engine operator's manual for proper procedures. Built-in tanks have the fuel filter aft in the boat. Some models with oil injection also have filters for the oil reservoir.



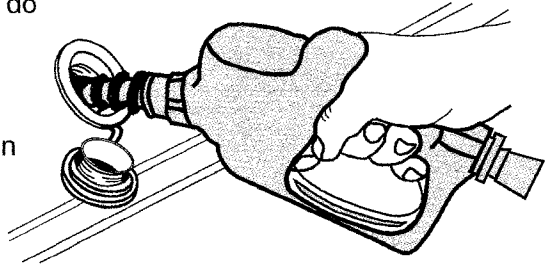
### WARNING



Gasoline is extremely flammable and highly explosive under certain conditions. Always stop the engine and never smoke or allow open flames or sparks within 50 feet of the fueling area when refueling.

Take care not to spill gasoline. If gasoline is spilled accidentally, wipe up all traces of it with dry rags and immediately dispose of the rags properly onshore. When fueling:

- Extinguish cigarettes, pipes, stoves, and all other flame producing items.
- Make sure all power is OFF, and do not operate any electrical switches.
- Remove fuel fill cap. Insert hose nozzle and make sure nozzle is in contact with or grounded against fill opening. This will reduce the risk of static spark.
- Add fuel. Do not fill capacity to allow for fuel expansion.
- Tighten the fuel filter cap completely after refueling.
- Check oil level.



### Note

**Each time you fill up, inspect fuel lines for leaks and hose deterioration.**

After fueling, close fill cap securely and wipe up spillage.

## **LUBRICATION**

Your engine may be equipped with an oil injection system that automatically feeds oil to the engine. Use lubricant that is recommended by the manufacturer, or NMMA TC-III certified. You will find the recommended lubricant listed in the engine manual. If you need assistance, consult your dealer.

## **STARTING**

1. Squeeze fuel primer bulb several times until firm (outboard models).
2. Operate blower (stern drive models).



### **WARNING**



**Gasoline is extremely flammable and highly explosive under certain conditions. Always stop the engine and never smoke or allow open flames or sparks within 50 feet of the fueling area when refueling.**



## OPERATION



- 3 Attach Emergency Engine Stop Switch lanyard to its switch and to the operator.
- 4 Place shift/throttle control handle in NEUTRAL.
- 5 Turn key clockwise to START position. After motor starts, release key.
- 6 Push control handle forward to go forward, pull back for reverse.

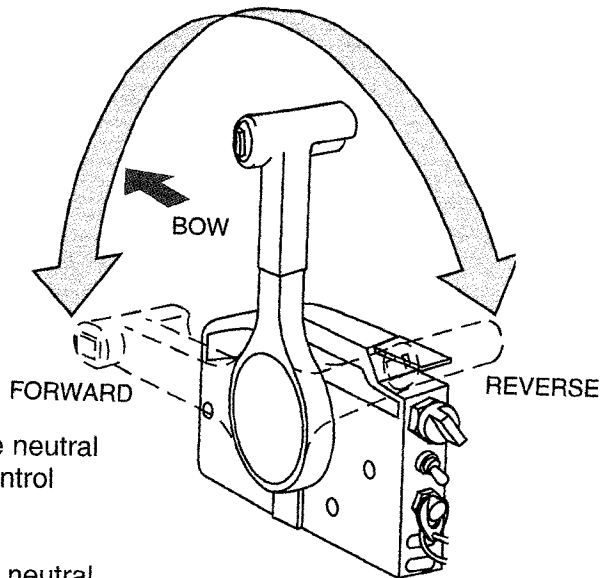
## CAUTION

**Always go slowly in reverse to avoid taking water in over the transom. You can swamp the boat by taking on too much water.**

## SHIFTING/RUNNING

Follow these guidelines when shifting your boat:

- Pause in neutral before shifting from forward to reverse, or reverse to forward.
- Avoid shifting into reverse while the boat is traveling forward at speed.
- Keep the shifter control clean and clear of obstructions.



**To shift into forward:** press the neutral lock button while pushing the control lever forward.

**To shift into reverse:** press the neutral lock button while pushing the control lever backward.

# WARNING ALARM

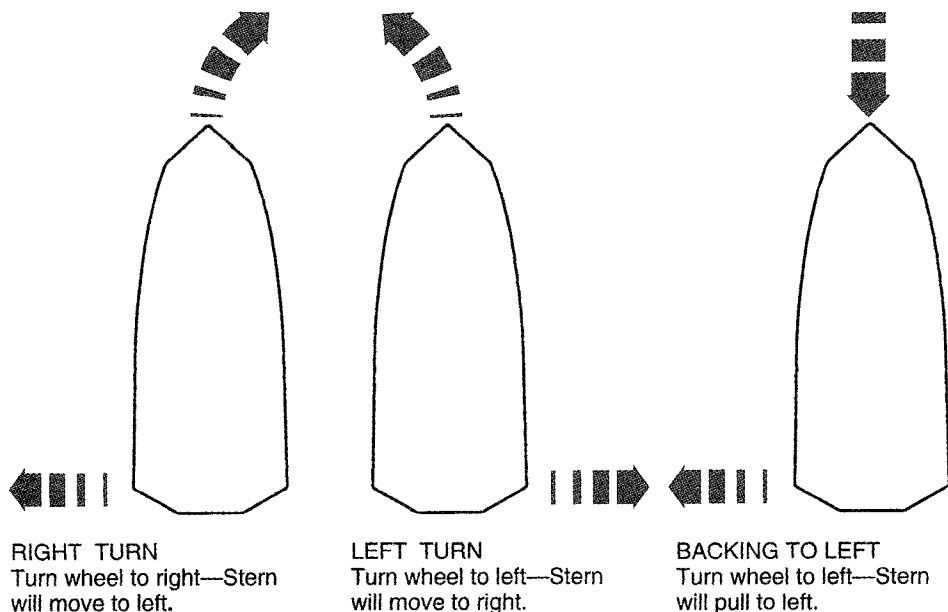
## CAUTION

**Continued operation after the warning alarm has sounded may cause severe engine damage.**

Your boat may be equipped with a warning alarm that will sound if an engine problem develops. If the warning alarm sounds, **IMMEDIATELY** throttle back to idle speed and shift into neutral. **IMMEDIATELY** check the gauges and stop the engine. On some models, the horn may emit a short chirping sound during starting to verify operation.

## STEERING CONTROLS

Practice steering your boat. Make sure that the steering system is working correctly and is properly maintained. Follow these guidelines to keep your boat handling well:



- Keep the cable end clear of obstructions such as wiring, control cables, fuel lines, tow lines and mooring lines.
- Keep the moving parts clean and lubricated.
- Inspect the steering cables for kinks, damage, and corrosion.



## WARNING



The steering system must be in good operating condition for safe boat operation. Frequent inspection, lubrication, and adjustment by your dealer is recommended.

1. boats have a tendency to wander somewhat at slow speeds. A natural reaction to this effect is to steer the boat back and forth in an attempt to compensate for wandering. Invariably, the compensation will result in position, the boat will wander back and forth somewhat, but the overall course will be a straight one.

## STOPPING

1. Slowly bring the control lever to the idle position. If the boat has been driven for a long period of time at high speed, allow the engine a 2-3 minute cool-down period at low idle.
2. Turn the ignition key to the OFF position.
3. If any problems were encountered during the outing, have the boat inspected by your dealer and request any necessary repairs before the next outing.



## CAUTION

Do not use the engine stop switch for normal shut down. Doing so may impair your ability to re-start the engine quickly or may create a hazardous swamping condition.

## DOCKING

1. Practice docking before attempting it for the first time. Use a float, like a plastic milk jug with a line and small weight, as your docking target.



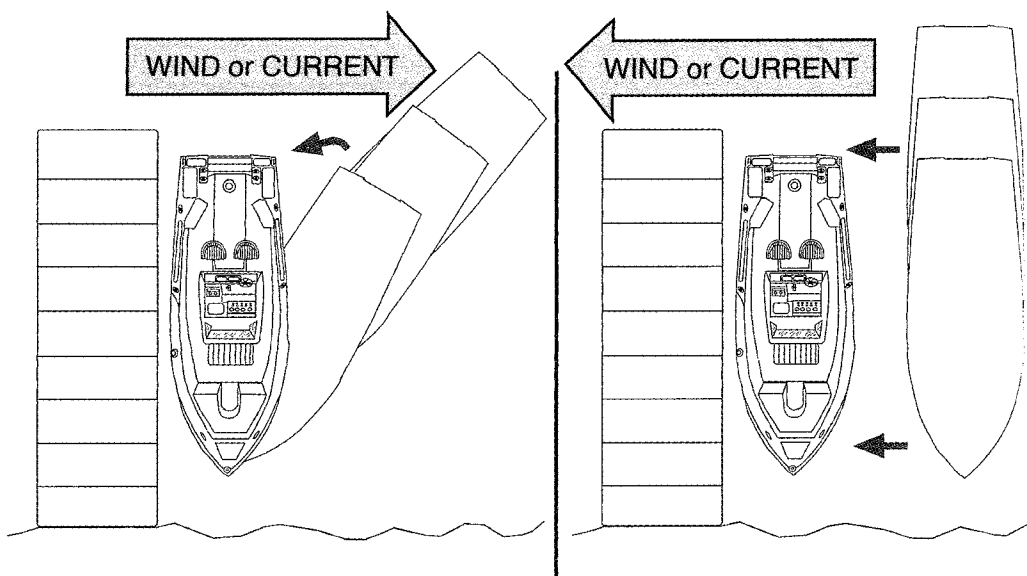
## WARNING



Never use your hand, arm or other part of your body to attempt to keep the boat from hitting the dock. The boat could push against the dock, causing an injury.

Follow these guidelines when docking:

- Approach docks with the port side of the boat if possible.
- Come to a stop a short distance from the dock, then proceed slowly.
- Have fenders, mooring lines and crew ready.
- Observe how the wind and current are moving your boat. Approach the dock with the boat pointed into the wind, if possible. If the wind or current is pushing you away from the dock, use a sharper angle of approach. If you must approach the dock downwind or down current, use a slow speed and shallow angle. Be ready to reverse to stop and maintain position.
- If there is no wind or current, approach the dock at a 10 to 20 degree angle.
- If possible, throw a line to a person on the dock and have that person secure a bow line.
- With the bow secure, swing the stern in with the engine, or pull it in with a boat hook.



Before tying-up the boat, be sure to use enough fenders to protect the boat from damage. If possible, tie-up with the bow towards the waves with a good quality double-braided nylon line. Tie up only to the lifting or tie-down eyes; never use the handrails or windshield frames. If the boat is to be moored for a long period of time, use chafing protectors on lines to protect the gelcoat finish. Leave a little slack in the lines to allow for some wave movement or tidal action if applicable.



Follow these guidelines when departing:

- Very slowly shift into forward at idle speed.
- When the stern moves away from the dock, turn the engine away from the dock.
- Cast off bow line and back away.

If the wind or current is pushing away from the dock, cast off all lines and allow to drift until you are clear.

## **BOAT TRIM**

The performance of your boat depends on load weight and distribution.

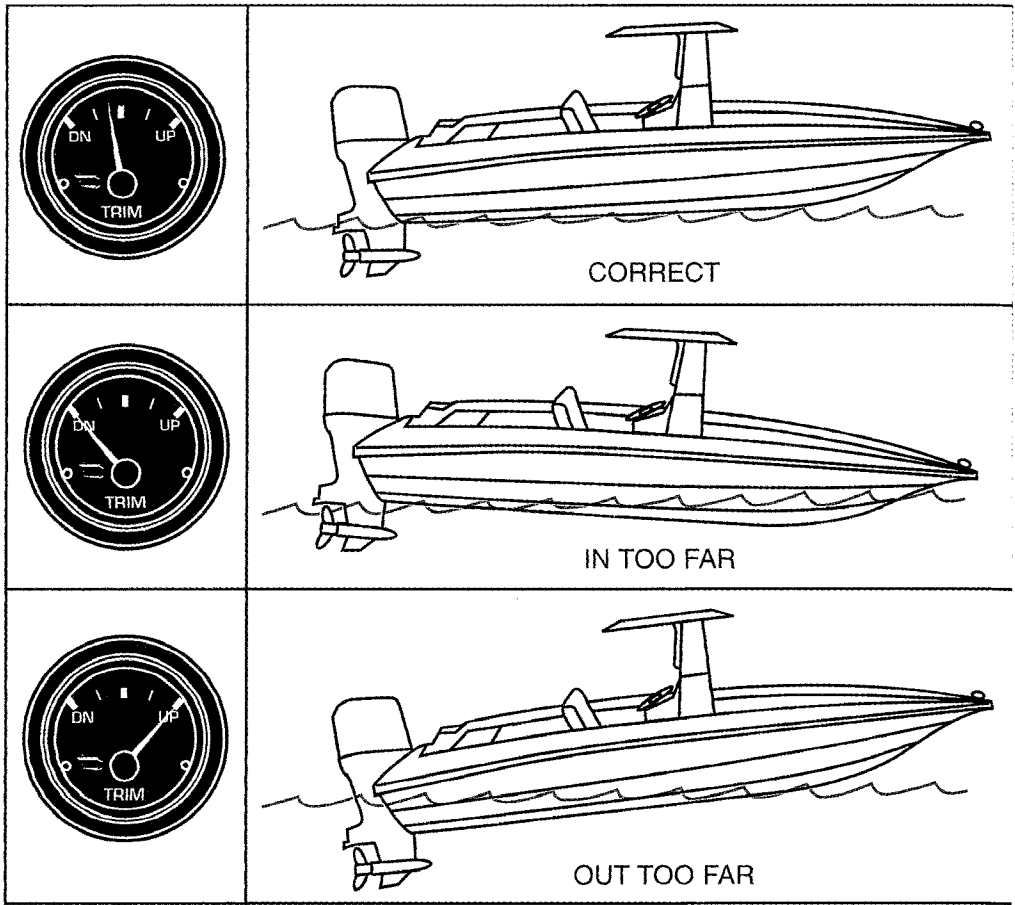
Distribute weight evenly, from bow to stern, and also from port to starboard.

After loading, the boat's trim can be adjusted by changing the engine trim angle.

## **DRIVE TRIM ANGLE**

Trim angle is the angular relationship between the lower drive unit and the transom of the boat. Boat trim while underway greatly affects boat performance and efficiency. For best results, the boat should be on plane and trimmed to reduce the wetted surface. With less boat in the water, both speed and fuel economy increases. Engines with manual trim must be adjusted for best overall operation for the load and conditions. Engines with power trim should be adjusted continuously for best results.

If the engine is trimmed in too far (closer to the boat bottom), speed drops, fuel economy decreases, and the boat may not handle correctly. However, it does provide better acceleration from a stand still; and because it forces the bow down, visibility is improved. If the engine is trimmed out too far (away from the boat bottom), steering torque may increase, the boat may be difficult to get on a plane, and may bounce.

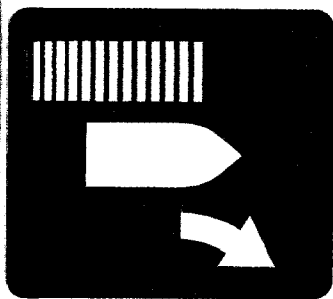


## WARNING



Do not trim the engine out too far or the boat may begin to “porpoise” (bounce up and down). Porpoising reduces control and visibility.

To use power trim effectively, always start with the engine trimmed in. As the boat planes, increase the angle out. Experience is the best teacher for understanding proper trim.



## GETTING UNDERWAY

There are many things to consider to make your boating trip safe and enjoyable. This section includes a safety checklist, boarding guidelines, boat loading, and capacity information.

The contents of this section should be read and understood before casting off. Remember, if you have a problem during your outing, you can't get out and fix it, or walk to safety or for help.

You are responsible for the safety of all passengers, the boat, and any damage the boat or its wake may cause. Always keep passengers from blocking your view so that you do not run into other boats, swimmers, water skiers, personal water vehicles, or aids to navigation.

## SAFETY CHECKLIST

The following checks are essential to safe boating and must be performed before starting the engine. Get in the habit of performing these checks in the same order each time so that it becomes routine.



### WARNING



**DO NOT** launch the boat if any problem is found during the Safety Check. A problem could lead to an accident during the outing causing severe injury or death. Have any problem attended to immediately; see your dealer.

## **Pre-Operation**

- Check the weather report, wind and water conditions.
- Check that the required safety equipment is on board.
- Check that the fire extinguisher is fully charged.
- Check that bilge drain plug is installed properly.
- Check that no fuel, oil or water is leaking or has leaked into the bilge compartment.
- Check all hoses and connections for leakage and damage.
- Check the engine cooling water intake pick-up for blockage.
- Check that battery terminals are clean and tight.
- Check electrical circuits (lights, pumps, horn, etc.) for proper operation.
- Check that throttle/shift control is in neutral.
- Check that the steering system operates properly.
- Check that all required maintenance has been performed.

## **During Operation**

- Check gauges frequently for signs of abnormal behavior.
- Check that control operate smoothly.
- Check for excessive vibration.

## **After Operation**

- Fill fuel tank to prevent moisture due to condensation.
- Check for fuel, oil and water leakage.
- Check the propeller for damage.

# **SAFETY EQUIPMENT**

Federal and local laws require certain safety equipment to be on board at all times. In addition, responsible boaters carry other equipment in case of emergency. Check with local boating authorities for any additional requirements over and above federal requirements.





## BOARDING

When boarding the boat, always step in. Do not jump. Avoid stepping onerglass or other potentially slippery surfaces. Board one person at a time.

Do not board the boat while carrying gear. Set gear on the dock, board the boat and then pick-up the gear.

### Boat Loading

The performance of your boat is dependent on load weight and distribution. Passengers should board one at a time and should distribute themselves to maintain trim. Remember to distribute weight from right to left, and also from front to back.



### WARNING



All passengers should be carefully seated and not be riding on the deck, gunwale, rear sun deck, or elevated pedestal fishing seats while underway. Passengers riding in the bow rider seats should exercise extreme caution. During rough water operation, passengers in the bow rider seats should move to the aft passenger seats.

- Do not allow your passengers to ride with their feet dangling over the side, floating debris can cause serious injury.
- Avoid excess weight in the bow or stern.
- Securely stow all extra gear in stowage areas to prevent load shifting. Do not stow gear on top of safety equipment; safety equipment must be quickly accessible.
- In adverse weather, reduce the load in the boat. People/load capacity ratings are based upon normal boating conditions.
- Do not use the engine unit as a boarding ramp. Make sure engine is off when swimmers, divers, and skiers are boarding to prevent injury.

## Capacity

Boats up to 26' in the National Marine Manufacturers Association (NMMA) program have a maximum rated load capacity, which is stated on the certification place (if equipped). The load capacity of boats under 20' are determined by the USCG. The person/load capacity is determined by various USCG formulas. Actual capacity is determined by the availability of proper seating on the boat. Acceptable seating determines the number of passengers, not the overall load capacity.

U.S. COAST GUARD	
<b>MAXIMUM CAPACITIES</b>	
<b>8 PERSONS OR 1150 LBS.</b>	
1600	LBS. PERSONS, (MOTOR), GEAR
140	H.P. MOTOR
THIS BOAT COMPLIES WITH U.S. COAST GUARD SAFETY STANDARDS IN EFFECT ON THE DATE OF CERTIFICATION	
MANUFACTURER: _____	
MODEL: _____	
DESIGN COMPLIANCE WITH NMMA REQUIREMENTS BELOW IS VERIFIED. MFR. RESPONSIBLE FOR PRODUCTION CONTROL.	
LOAD CAPACITY • COMPARTMENT VENTILATION STEERING, FUEL AND ELECTRICAL SYSTEMS INTERNATIONAL LIGHTS • BASIC FLOTATION MANEUVERABILITY	
	NATIONAL MARINE MANUFACTURERS ASSN.

OUTBOARD  
POWERED  
BOATS ONLY

### Note

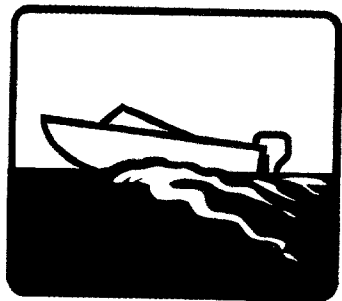
The capacity plate for outboard powered boats lists the maximum horsepower that the boat can safely use. It is unlawful to overpower a boat.



## WARNING



All passengers should be carefully seated and not be riding on the deck, gunwale, rear sun deck, or elevated pedestal fishing seats while underway. Passengers riding in the bow rider seats should exercise extreme caution. During rough water operation, passengers in the bow rider seats should move to the aft passenger seats.



# 6

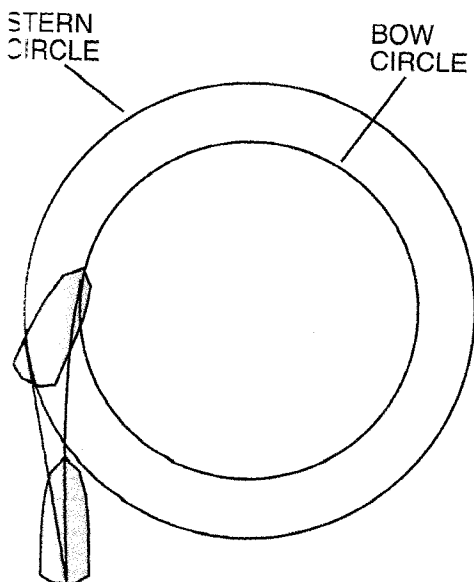
## RUNNING

We urge you and all others operating the boat to seek certified instruction from the local boating authorities.

This section is designed to present the most basic operational principles. It is NOT intended to cover all conditions encountered during operation. The principles presented in this manual are limited directly to the operation of the boat. The responsibility for the proper application of these principles belongs to you.

## MANEUVERING TECHNIQUES

Steering response depends on three factors: engine position, motion and throttle.



Like an automobile, high speed maneuvering is relatively easy and takes little practice to learn. Slow speed maneuvering, on the other hand, is far more difficult and requires time and practice to master.

When making tight maneuvers, it is important to understand the effects of turning. Since both thrust and steering are at the stern of the boat, the stern will push away from the direction of the turn. The bow follows a smaller turning circle than the stern.

The effects of unequal propeller thrust, wind, and current must also be kept in mind. While wind and current may not always be present, an experienced boater will use them to his advantage. Unequal thrust is an aspect shared by all single engine propeller-drive watercraft. A clockwise rotation propeller tends to cause the boat, steering in the straight ahead position, to drift to starboard when going forward, and to port when going backward. At high speed, this effect is usually unnoticed, but at slow speed; especially during backing, it can be powerful. For this reason, many veteran boaters approach the dock with the port side of the boat toward the dock, if possible.

Stopping (checking headway) is a technique that must be developed. Since a boat has no brakes, reverse thrust is used to slow and stop the boat. The momentum of the boat will vary according to the load as well as the speed. Make it a practice to slow to idle (no-wake) speed before shifting into reverse.

It is best to learn maneuvering skills in open water away from traffic. Adequate practice is the only way to develop your boating skills.

## **SALT WATER**

If boat is moored in salt water for long periods, tilt the engine out of the water (except during freezing temperatures). After removing the boat from the water, lower the engine to the run (down) position until the cooling system has drained thoroughly. Hose the entire hull down with fresh water and wipe dry.

Today's engines are built for operation in either fresh or salt water. Fresh water internal flushing is not normally required, however, it may be desirable after use in salt, polluted, or brackish water. Your dealer will assist you in obtaining the appropriate engine flushing device.

## **FREEZING TEMPERATURES**

When the boat will be operated and left in the water and temperatures drop below freezing, the engine must remain in the tilted down (submerged) position at all times to prevent water in the engine from freezing. When the boat is removed from the water, drain the engine completely.

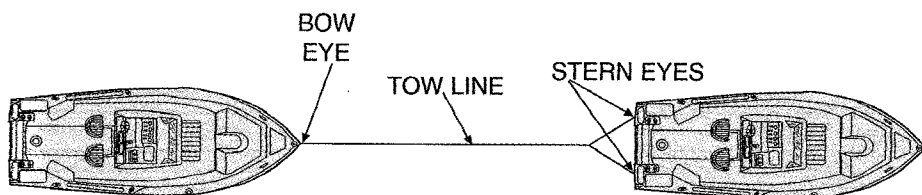


## TOWING PROCEDURE

If seas are rough, it may not be easy to extend the tow line from one boat to another. In these cases, use a light throwing line with a weight on one end and attach the heavier towing line secured to it.

Never attempt to tow a much larger or grounded vessel. Because of the tremendous stress caused to towing, use a tow line that is rated at least 4 times the gross weight of the boat being towed. Tow ropes must always be in good condition, free of any cuts or abrasions.

Attach tow line to the bow eye on the disabled boat. Attach the opposite end of the bridle only to the stern eyes of the tow boat. Wrap the bridle with chafing gear where it rubs against the boat or any corners. Leave at least 2 boat lengths between the boats for adequate movement..



### WARNING



When towing, use only the bow and stern eyes; never use cleats, handrails, etc. Do not allow anyone to be in line with the tow rope. If the rope should break or pull free, a dangerous recoil could occur which may seriously injure or kill anyone in its path.

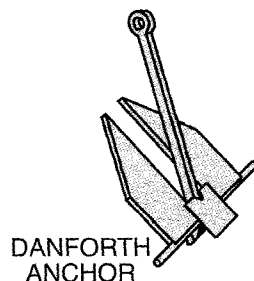
Adjust the tow line to match wave action. Keep the boats on the crest or in the trough of the waves at the same time. In protected, calm waters, shorten the line for better handling. Always tow at moderate speed, allowing for adverse wind and wave conditions. Have the operator of the towed boat steer with you if possible.

If you need a tow, or wish to tow another boat, use great care. The boat structure can be damaged by excessive pulling strain. You should always offer help to a boat in trouble. However, towing a capsized, grounded, or hull damaged boat is dangerous. Give assistance to the occupants; then call the proper authorities.

## ANCHORING

### Dropping Anchor

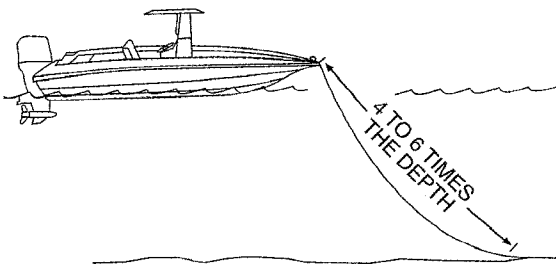
There are many types of anchors available on the market. The choice of one anchor over another depends on many factors. An anchor will usually hold best in a mixture of mud and clay or in hard sand. A lightweight Danforth anchor is recommended for general boating. For more information on anchors consult your dealer.



### CAUTION

**Always anchor from the bow; NEVER anchor from the stern. A small amount of current will make the boat unsteady...a strong current can pull a boat, anchored by the stern, under water and keep it there.**

When anchoring, it is helpful to keep a few guidelines in mind.



- Make sure the line is tied to the anchor and tie the other end of the line to the forward cleat or bow eye.
- Head the boat into the wind or current over the spot where you want to lower the anchor.

- Stop the boat before lowering the anchor.
- When the anchor hits bottom, slowly back up the boat, keeping tension on the line. Let out an anchor line that is 4 to 6 times the depth of the water. For example, if you are in 10 feet of water, let out 40 to 60 feet of line.



- Secure anchor line to the bow cleat. Pull on line to make sure anchor is holding.
- Occasionally check your position against the shoreline. If the anchor is dragging and you are drifting, reset the anchor..

### **Weighing (Pulling In) Anchor**

Start engine and move forward until anchor line is straight up and down. Pull hard to lift anchor from the bottom material.

If anchor is stuck, attach line to the bow cleat so that it is taut. The up and down motion of the bow from wave action may lift the anchor from the bottom. If the anchor remains stuck, let out a few more feet of line and attach it to the bow cleat. Slowly maneuver the boat around the anchor until the anchor pulls loose. Be sure to keep the line tight during this procedure.

## **PERFORMANCE BOATING**

Some boat models; especially those with high horsepower engines, are capable of truly exhilarating performance. Don't be tempted to push your boat to its limits until you are familiar with your boat's operating characteristics. The operator should have at least 10 hours of experience with the boat before any extended full throttle operation.

Here are some guidelines for performance operation. Read them, practice them, and soon you will be operating your boat to its full capability.

### **Before Running**

- Keeping the bottom clean and free of scum, barnacles and other growth. Growth on the hull can slow the boat down considerably.
- Prepare the boat. Be sure all gear is properly stowed and compartments are latched.

- Weight distribution affects performance. Keep weight in the boat low and evenly distributed. Remove unnecessary weight and keep on shore.
- The propeller should be of the proper pitch to turn the recommended RPM rating for the engine and of the proper type for your average load and individual requirements. Your dealer can help you select a performance propeller..

## **Boat Loading**



### **WARNING**



**Keep one hand on the wheel and the other on the throttle at all times. If the boat begins to operate in an unsafe way, pull back on the throttle and trim the engine IN at the same time.**

- Increase speed. The bow will start to come down.

### **Note**

**Do not trim the engine out too far or the boat may begin to “porpoise” (bounce up and down). Porpoising lowers top speed and fuel efficiency, and reduces control and visibility.**

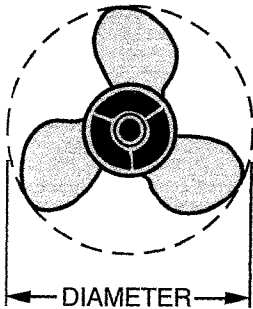
- When the bow begins to fall, trim the engine out. Trimming the engine out at speed will cause the boat to rise up. The boat will begin accelerating without adjusting the throttle because less of the boat is dragging in the water. Steering will become easier because the propeller has less torque.
- Watch the tachometer to keep the engine within the full throttle operating range. See the engine operator’s manual for the proper tachometer reading at full throttle.

High speed operation on smooth water is very stable, but quick reactions and adjustments are needed to maintain control. Know your limits and stay within them. Always keep one hand on the steering wheel and the other on the throttle; constant adjustments are necessary for rapidly changing conditions. Small inputs of throttle and steering are exaggerated at high speeds. Depending on the speed, keep watch well ahead so that you may have enough time to react.



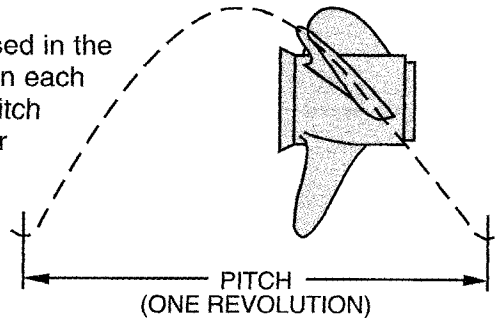


## PROPELLERS



The propeller converts the engine's power into the thrust needed to propel the boat. Care and selection of your propeller is very important to proper boat operation. Propellers are identified by two numbers, such as 13 x 19, and a material identification, such as aluminum or stainless steel. In the number sequence, the first number is the diameter of the propeller and the second is pitch.

Pitch is the angle of the blades expressed in the theoretical distance a propeller travels in each revolution. In the above example, the pitch is 19, or each revolution of the propeller pushes the boat 19 inches through the water. A 19" pitch is considered "higher" pitched and a 15" propeller is considered "lower" pitched.



Keep these guidelines in mind when selecting a propeller:

- There are many different propeller designs for specific operating characteristics, including the number of blades, relief holes, cupping, etc. Do not attempt to change propellers until after you have a chance to determine your average load and individual requirements. Your dealer is best qualified to help you select a propeller.
- Engine RPM must be within the recommended operating range. Refer to the engine operator's manual.
- Higher propeller pitch reduces: RPM, acceleration, engine noise, and usually improves fuel economy and top speed.
- Lower propeller pitch increases: RPM, acceleration, engine noise, reduces fuel economy and top speed.



## **WARNING**



**Before installing or removing the propeller.**

- **Put the remote control in the "NEUTRAL" position.**
- **Put the main switch in the "OFF" position and remove the key.**

A smaller pitch propeller should be selected for water skiing or for heavy loads. A smaller pitch propeller will develop more thrust for raising skiers quickly. When a skier has fallen, or a skier is not being towed, it is important that the operator watch the tachometer to make sure engine RPM does not continuously exceed the maximum full throttle RPM range.

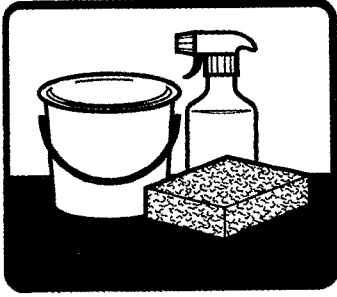


## **WARNING**



**DO NOT use your hand to hold the propeller when loosening the nut. You could be injured. Put a wood block between the cavitation plate and the propeller blade to prevent the propeller from turning.**

Problems associated with propellers include ventilation, cavitation, and blowout. These problems have similar symptoms and are best diagnosed by an expert. If you think you have a propeller related problem, consult your dealer.



# **CARE AND MAINTENANCE**

# **7**

This section describes how to care and maintain your boat. It includes information about maintaining electrical components, corrosion protection, and general maintenance.

## **ELECTRICAL**

### **Battery**

The boat is equipped with a 12-volt direct current (12 VDC) negative ground electrical system. The positive (red) wire is hot and feeds current from the battery to the electrical systems. The negative (black) wire is ground and completes the circuit back to the battery. Until the engine is running at high idle or faster, all electrical power comes from the main battery. Once the engine is started and running above 1200 rpm, electrical power is then provided by the engine alternator. The alternator provides more power as engine speed is increased. When the engine is operating, the alternator is charging the main battery.

Continuous operation of electrical accessories when the engine is not operating, at low idle (trolling) speeds may discharge the battery to the point where it may not be able to crank the engine. A poorly maintained battery will discharge more quickly, and if corrosion is present, the engine might not start due to high electrical resistance at the battery terminals, even though there may be sufficient battery reserves to start the engine.

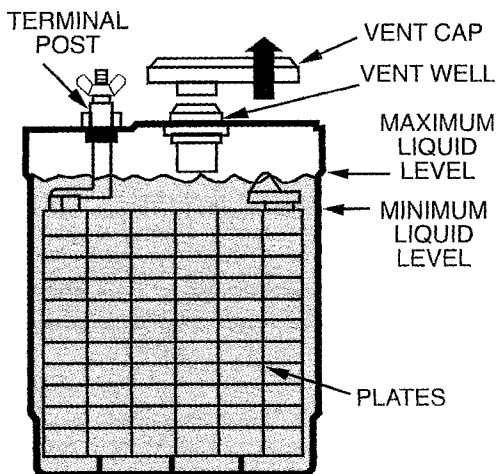


## WARNING



**Batteries contain sulfuric acid which can cause severe burns. Wear protective clothing to avoid acid contact with skin, eyes, etc.**

Check the battery frequently for signs of corrosion. If corrosion is evident, clean terminal posts with a baking soda and water solution and a wire brush. Before cleaning, remove the vent caps and seal the vent wells with corks to prevent the solution from getting inside the battery. Also, check the fluid levels in the cells. Usually, a level approximately  $\frac{1}{4}$  to  $\frac{1}{2}$  inch above the plates is sufficient. If needed, fill with distilled water; do not overfill! Some batteries are sealed, and cannot be filled.



## CARE AND MAINTENANCE



Batteries are perishable products and will self-discharge. If you operate your boat sparingly, you may want to charge your battery occasionally. To recharge, remove the battery from the boat and remove the battery caps (when applicable). Recharge the battery according to the directions enclosed with your battery charger. When installing the battery in the boat, make sure the battery is secured in the battery box.



### **WARNING**



**Batteries produce explosive hydrogen gas. Never attempt starting your engine with jumper cables under any circumstances. Keep all sparks, flames and smoking materials away from batteries. Risk of spark at the battery post igniting gasoline or hydrogen fumes is too great. Always wear eye protection when near batteries and have adequate ventilation when charging. An explosion can cause blindness or other serious injuries.**

## **Circuit Breakers and Fuses**

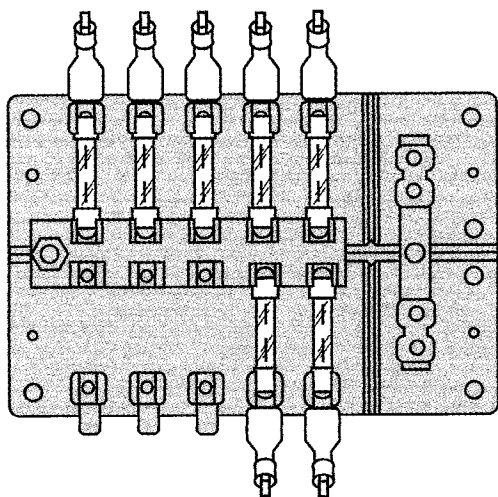
All electrical circuits are protected from overload by the use of fuses or circuit breakers. In the event of an overload or short circuit, the fuse will blow or circuit breaker will trip. If a circuit continuously overloads under normal operating conditions, have your boat inspected by the dealer immediately.



### **WARNING**



**Never exceed the recommended fuse sizes or bypass the fuse safeguard. Always install the proper (type and rating) fuses whenever replacing or changing fuses. Continuous fuse/breaker failures indicate a severe problem that requires immediate attention. Failure to install correct fuse may result in damage to the electrical system or severe personal injury. Trolling motor fuses/breakers are located in the battery compartment.**



TYPICAL FUSE BLOCK

Some boat models have each individual circuit protected with a circuit breaker located next to the switch. To reset a tripped circuit breaker, switch OFF the circuit, wait about one minute for the breaker to cool, push the breaker button fully, and switch ON the circuit.

Some boat models have circuits protected by fuses. If the fuse should blow-out, locate the fuse block behind the instrument panel. Use a fuse removal/installation tool to replace the fuse.



## WARNING



**The electrical system is designed to protect you from short circuits and overload. Any modifications to the system, such as adding electrical accessories, should be done by a qualified technician.**

Some installed accessories, such as the stereo, have an additional fuse located in the positive lead of the stereo. Some in-line fuse holders can be found near the battery.

TYPICAL IN-LINE FUSE HOLDER



(TWIST AND PULL TO OPEN)

## CORROSION PROTECTION

### Galvanic Corrosion

Galvanic corrosion (electrolysis), to the boater, is the break-up of metals due to the effects of electrolytic action. When two dissimilar metals are immersed in a conductive fluid (salt water), an electric current is produced, much like a battery. As the current flows, it takes with it tiny bits of the softer metal. If not stopped, a great deal of damage could occur.

If you operate in salt, polluted, or brackish water, your boat should be equipped with a transom mounted zinc anode to prevent damage to those metal parts coming in contact with the water. The zinc is, by design, self-sacrificing. It is slowly eroded away by electrolytic action and requires periodic inspection

## CARE AND MAINTENANCE



for deterioration. If the zinc shows extreme erosion, it must be replaced to continue protection, or damage to other metal parts may result.

Most engines are equipped with one or more zinc anodes which must also be inspected regularly for deterioration. Some boat models may be equipped with an electronic cathode system. This system emits a low current electrical charge into the water close to the metal components. This charge cancels the effect of electrolysis.

### CAUTION

**Never paint or coat zinc anodes or cathodes with any substance. Once covered, they do not provide protection from galvanic corrosion. Replace anodes if they have deteriorated 50% or more.**

### Salt Water Corrosion

The entire boat should be rinsed with fresh water and washed immediately after use in salt water. If the boat is used primarily in salt water, wax the hull monthly and apply corrosion inhibitor to all hardware. See your dealer for products suitable for the marine salt water environment. Fresh water internal flushing is recommended when used in salt, polluted, or brackish waters. Flush the entire engine cooling system with fresh water for at least 5 minutes after use in these waters. See your dealer for appropriate flushing devices.

## GENERAL MAINTENANCE

### Marine Growth

If accelerated growth is a problem in your area, an anti-fouling bottom paint may be necessary to slow growth and prevent gelcoat damage. Before selecting a bottom paint, talk with other boaters and your dealer to determine which product works best in your area. Many local variables can affect the selection of paint. Be sure to follow the paint manufacturer's directions exactly.

### Cleaning

Periodic cleaning is the best way to keep your boat looking new. Regular washing and waxing keep dirt and scum from building up and deteriorating the finish. Keeping your boat in "show room" condition means greater personal satisfaction and higher resale value. Special cleaning products are available from your dealer to remove mildew.

## **Hull**

When washing the boat, be sure to use a mild detergent and warm water solution. **DO NOT** use abrasive cleaners, solvents, ammonia or chlorine as these will damage the gelcoat surface. Under extreme conditions, special cleaners may be used to remove marine growth, such as scum or algae, from the hull; see your dealer.

Waxing the entire gelcoat surface at least twice a season is recommended for all climates. Use of a specially formulated marine gelcoat wax will prevent color fade and soil and scum adhesion. If the gelcoat has chalked or faded from lack of proper maintenance, buffing may be necessary to bring back the shiny appearance. Hand buffing #7 rubbing compound or power buffing with glazing compound #1 will quickly restore the surface.

## **Upholstery**

Regular washing with mild detergent and warm water or automotive vinyl cleaners is sufficient to keep the cushions, canopy top, and vinyl coverings in good condition. Keep the cushions from becoming soaked and dry off thoroughly after washing to prevent mildew accumulation after the boat is covered. Prop the cushions up in the boat when covered to allow air circulation and spray with mildew repellent. Lubricate canopy top snaps with petroleum jelly.

## **CAUTION**

**Caution automotive, household and industrial cleaners can cause further damage and discoloration. Solvents and dry cleaning fluids, or products that contain dyes such as waxes, should be used with caution. Whenever cleaning stubborn stains, be sure to test the treatment in an unseen area first. The following stain treatments should be used with discretion. Between steps, be sure to rinse thoroughly with plenty of clean water and allow to dry.**



# CARE AND MAINTENANCE



Stain	Steps		
	1	2	3
Ballpoint Ink*	A	B	E
Chewing Gum	D	A	B
Coffee, Tea or Chocolate	B		
Fish Scent*	A	B	E
Grease	D	B	E
Ketchup	A	B	
Latex Paint	A	B	E
Mildew or Wet Leaves*	C	A	B
Motor Oil	B		
Paint, Oil Base (Dried)	D	A	B
Paint, Oil Base (Fresh)	D	B	E
Permanent Marker*	B	C	E
Shoe Polish*	D	B	E
Soil	A	B	
Spray Paint	B	E	
Suntan Lotion	A	B	E
Tar/Asphalt	D	A	B
Yellow Mustard	A	B	C

\*These products contain certain dyes that stain permanently.

## Treatment

- A. Medium soft brush-warm soapy water.
- B. Household spray cleaner (Fantastic).
- C. One (1) tablespoon bleach to one (1) quart water.
- D. Wipe or scrape off excess. (Chill gum with ice).
- E. Follow instructions of staining agent manufacturer.

## Windshield

A clean windshield is important. The windshield requires special cleaning to prevent scratches to the surface. Use a mild soap solution and damp cloth only. Harsh detergents, solvents, chemicals or dry cloths will scratch the surface.

## **Bilge**

Your bilge accumulates oil and greasy dirt over a period of time and should be cleaned out. Usually, ordinary soap and water does not remove the accumulation, and something stronger is necessary. Consult your dealer for recommendations on special bilge cleaning products.

## **Stainless Steel and Chrome**

Stainless steel and chrome plated parts are not totally resistant to corrosion. Occasional cleaning and polishing with a marine chrome and stainless polish will maintain and extend the useful life. In salt water areas, rinse all hardware with fresh water and apply a light coating of corrosion inhibitor oil to enhance appearance.

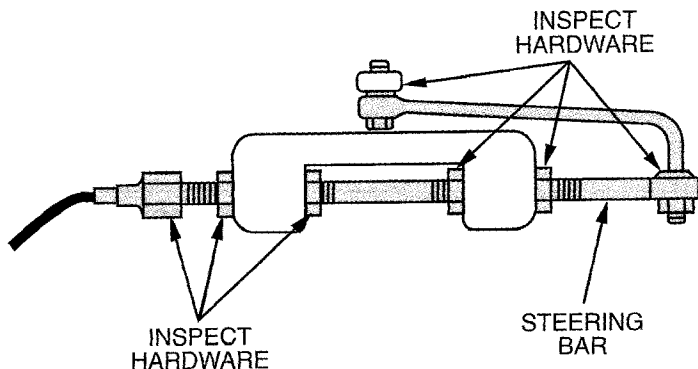
# **FUEL SYSTEM**

Fuel lines, vent hoses, and drain hoses should be checked frequently for leaks. Some models are equipped with removable inspection plates for fuel system component inspection. If a leak occurs around the fitting, then tightening of the hose clamps may be all that is necessary. However, if the leak continues, replace the hose immediately to prevent a build-up of fluids or gases. Surface cracking on the hose indicates wear, and replacement is recommended. Use fuel system parts certified for marine use only; do not substitute automotive parts in marine application.

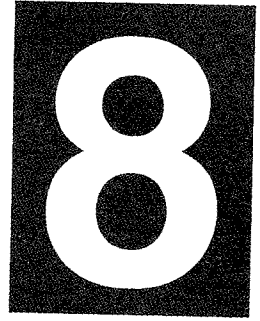
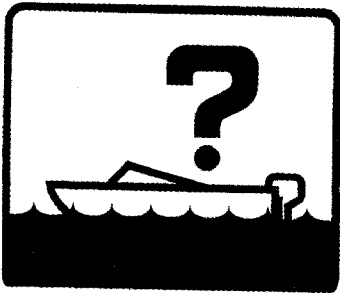
# **STEERING SYSTEM**

The steering system is the primary link for engine control and must be inspected and maintained regularly. The hardware at both the helm and engine end of the steering cable must be checked frequently for tightness. Refer to the engine operator's manual for the appropriate torques.

The steering bar must be lubricated monthly to ensure smooth operation. Turn the steering wheel to a full starboard turn to expose the bar. Use a high quality waterproof marine grease and fully coat the bar. Turn the steering wheel back and forth to work the grease in.



TYPICAL ENGINE STEERING LINK



# TROUBLESHOOTING

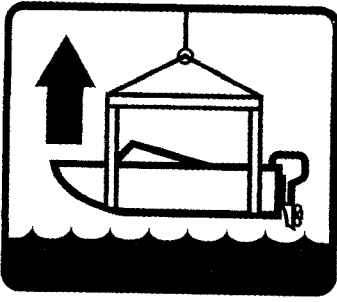
The following chart will assist you in finding and correcting minor mechanical and electrical problems. If an engine problem is indicated, consult your engine owner's manual.

Some problems may require specialized skill and tools to correct them; see your dealer.

## TROUBLE CHECK CHART

Symptom	Possible Cause
Engine will not crank	<ul style="list-style-type: none"><li>● Emergency safety switch not connected</li><li>● Throttle/shift control in gear</li><li>● Main circuit breaker open</li><li>● Battery terminals corroded</li><li>● Weak battery</li><li>● Loose or corroded battery wiring connections</li><li>● Engine problem</li></ul>
Engine cranks but will not start	<ul style="list-style-type: none"><li>● No fuel in tank</li><li>● Fuel filter clogged</li></ul>

Symptom	Possible Cause
<b>Engine cranks but will not start</b>	<ul style="list-style-type: none"> <li>● Contaminated fuel</li> <li>● Engine problem</li> </ul>
<b>Poor boat performance</b>	<ul style="list-style-type: none"> <li>● Contaminated fuel</li> <li>● Uneven load distribution</li> <li>● Engine trim wrong</li> <li>● Improper propeller selection</li> <li>● Excessive water in bilge</li> <li>● Engine problem</li> </ul>
<b>Poor gas mileage</b>	<ul style="list-style-type: none"> <li>● Plugged flame arrestor (stern drive)</li> <li>● Engine trim wrong</li> <li>● Marine growth on hull</li> <li>● Engine problem</li> </ul>
<b>Throttle/shifting problems</b>	<ul style="list-style-type: none"> <li>● Corroded cable</li> <li>● Kink in cable</li> <li>● Engine problem</li> </ul>
<b>Excessive vibration</b>	<ul style="list-style-type: none"> <li>● Propeller damaged or fouled</li> <li>● Engine problem</li> </ul>
<b>Electrical problems boat will not start</b>	<ul style="list-style-type: none"> <li>● Blown fuse or open circuit</li> <li>● Loose wiring connections</li> <li>● Defective switch or gauge</li> </ul>



# 9

## STORAGE

Storage or winter lay-up requires special preparation to prevent damage to the boat. Perform all annual maintenance at this time.

Without proper preparation, storage for long periods of time may cause internal parts of the engine and drive unit to rust because of lack of lubrication. Or, if the boat is stored in below freezing temperatures, water inside the bilge or cooling system may freeze causing damage. Damage to the boat due to improper storage will not be covered by the warranty. The following procedures should help prevent damage to your boat.

### While The Boat Is Still In The Water

1. Fill fuel tank and add the proper amount of fuel stabilizer and conditioner according to the manufacturer's recommendations.
2. Operate boat for at least 15 minutes to be sure that treated fuel has reached engine.

#### Note

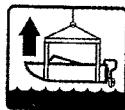
If the boat is to be stored for more than 5 months, stored in a high moisture (humidity) environment, in temperature extremes, or stored outdoors, "fog" the engine with a rust preventative fogging oil according to the manufacturer's recommendations. See your dealer.

### When The Boat Is Removed From The Water

#### Note

Remove the bilge drain plug immediately after taking the boat out of the water. After washing, raise the bow of the boat high to allow as much water as possible to drain while performing other storage preparations. Be sure livewells are completely drained of water.

- Flush the engine cooling system with clean water. DO NOT exceed 1500 rpm when flushing.
- Perform all scheduled maintenance. For stern drives, tuning the engine and changing the oil and fuel filters (if equipped) is especially important.
- Thoroughly clean the hull, deck and interior of the boat as soon as it is removed from the water. Cleaning at this time is easier because the marine growth is still wet. Be sure to allow for a couple of days of air drying to prevent mildew due to trapped moisture.
- Apply a coat of wax to the entire surface of the boat and rust inhibitor on all metal parts.
- Clean all traces of dirt, oil, grime, and grease from the engine and bilge. Touch-up areas of engine where paint has been removed.
- Prepare the engine for storage according to the instructions contained in the engine owner's manual.
- Store the bilge drain plug in a plastic bag and tape it to the throttle control lever so that it is easily found for reactivation.
- Remove the batteries from the boat. Clean, fully charge and store the batteries in an area not subject to freezing temperatures. Never store batteries close to heat, spark, or flame producing devices.
- Repack trailer wheel bearings with water resistant wheel bearing grease. If the trailer is equipped with bearing protectors, squirt grease into hubs with a grease gun.
- Park trailer and boat in a protected area. If the rig is left outside, install a boat cover. See your dealer.
- Loosen tie-downs and winch line but be sure the boat is resting properly on hull supports.
- Jack up trailer and place blocks under trailer frame to relieve weight on trailer tires and springs.

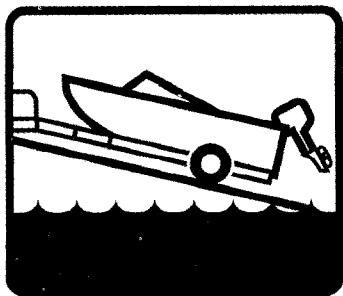


## **Reactivating The Boat After Storage**

- Charge and install batteries in boat.
- Check engine and bilge for signs of nesting animals; clean as necessary.
- Check entire engine for cracks and leaks caused by freeze damage.
- Check hose condition and all hose clamps for tightness.
- Install bilge drain plug.
- Perform daily maintenance. If not performed during lay-up, perform annual maintenance.
- If the boat is equipped with the optional fresh water cooling system (stern drive only) and was drained for storage, fill the system with fresh coolant solution.
- Check and lubricate steering system.
- Remove blocks from under trailer frame.
- Tighten tie-downs and trailer winch line.
- Check tire pressure and lug nuts on trailer.
- Take the boat to the water and start it. It may take a minute of cranking to allow the fuel system to prime. Allow a one minute cool down period for every 15 seconds of cranking. When the engine starts, keep a close watch over the gauge readings and check for leakage and abnormal noises. Keep speeds low for the first 15 minutes until the engine has reached normal operating temperature.







# 10

## TRAILERING

This section provides information about trailering. It describes the hitch and safety chains, backing your trailer, preparing to launch, launching, and loading your trailer. Also included is a trailering checklist.



### WARNING



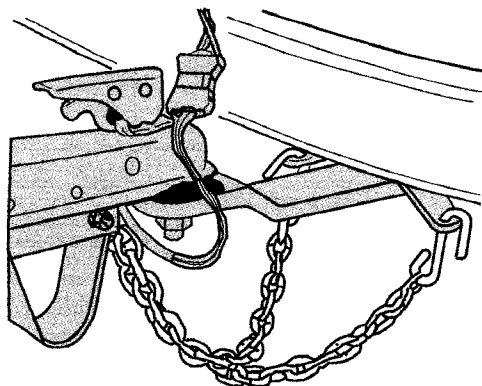
- The trailer must be matched for the boat's weight and hull.
- The towing vehicle must have the capability of pulling the load. Pulling a load that exceeds the vehicle's towing capacity may cause a loss of control.

### Note

Check the certification label on the left forward side of your trailer. The label is required to show the Gross Vehicle Weight Rating (GVWR), which is the load carrying capacity plus the weight of the trailer itself. Be sure that the total weight of your boat, engine, gear, and trailer do not exceed the GVWR.

Trailer laws on things such as lighting, registration, trailer brakes, gross vehicle weight, etc., vary widely from state to state. Contact your state Dept. of Motor Vehicles (and that of other states through which you may be traveling) for laws with which you must be in compliance.

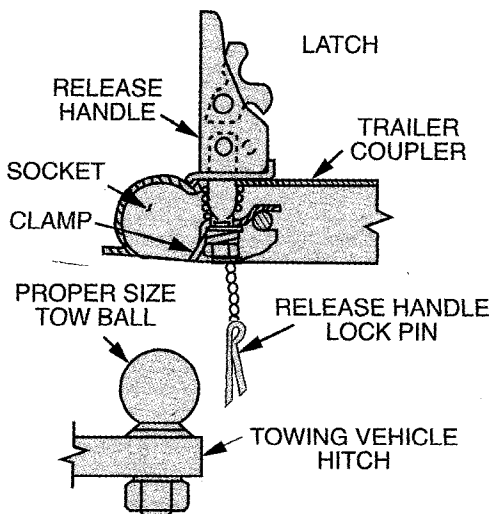
# HITCH



The trailer hitch coupler must match the size of the hitch ball. Never use a hitch ball that does not match the trailer coupler. The correct ball diameter is marked on the trailer coupler.

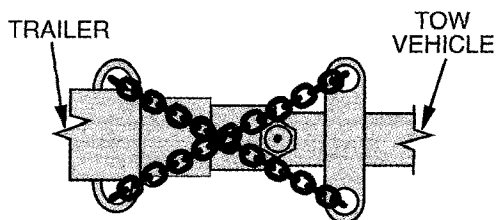
Hitches are divided into classes that specify the gross trailer weight (GTW) and maximum tongue weight for each class. Always use a hitch with the same class number as the trailer, or greater.

Most boat trailers connect to a ball hitch that is bolted or welded to the towing vehicle. Clamp-on bumper hitches are not recommended.



# SAFETY CHAINS

## CRISSCROSS SAFETY CHAINS

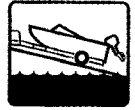


BOTTOM VIEW OF HITCH COUPLING

Safety chains on your boat trailer provide added insurance that it will not become completely detached from the towing vehicle when underway.

Crisscross the chains under the trailer tongue to prevent the tongue from dropping to the road if the trailer separates from the hitch ball. Rig the chains as tight as possible with just enough slack to permit tight turns.

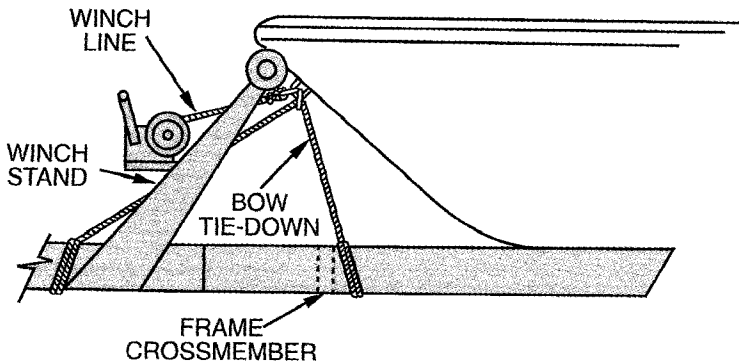
Make sure the proper chains are correctly attached between the towing vehicle and trailer before and during each trip.



## TRAILERING CHECKLIST

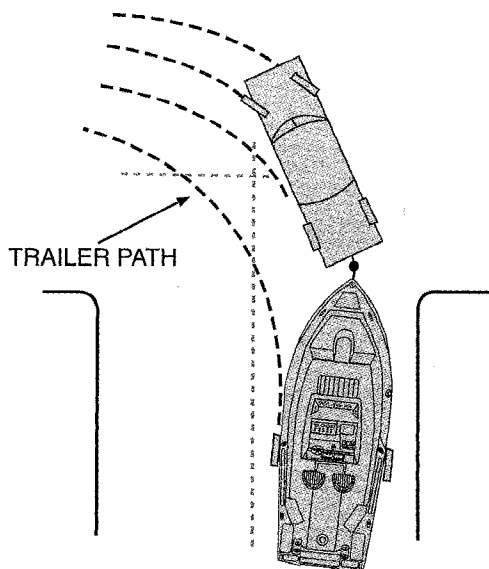
Below is a checklist to follow when trailering your boat:

- Consult your state laws as to brake and axle load requirements. Check brakes for proper operation and fluid level prior to departure on each trip.
- Check springs and undercarriage for loose parts.
- Check tires for proper inflation. Under-inflated tires heat up rapidly and tire damage or failure is likely to occur.
- Wheel bearings and lug nuts should be checked before each trip.



- Your boat should be fastened to the trailer by a line from the bow eye to the winch line PLUS a bow tie-down to the winch stand or trailer tongue. The stern of your boat should be tied down to the trailer from the stern eyes.
- Check to be sure the taillights and turning signals work prior to towing.
- Too much or too little tongue weight will cause difficult steering and will make tow vehicle sway. A rough rule of thumb is 5% to 10% of boat and trailer weight on the tongue.
- Convertible tops are not designed to stay on boats at highway speeds. Before towing, take down the convertible top.
- Carry a spare tire for both your trailer and your towing vehicle along with sufficient tools to change them.
- Consult the engine operator's manual for engine related trailering precautions.

- On extended trips, carry spare wheel bearings, seals, and races.
- While traveling, check the wheels hubs every time you stop for gas or refreshments. If the hub feels abnormally hot, the bearing should be inspected before continuing your trip.

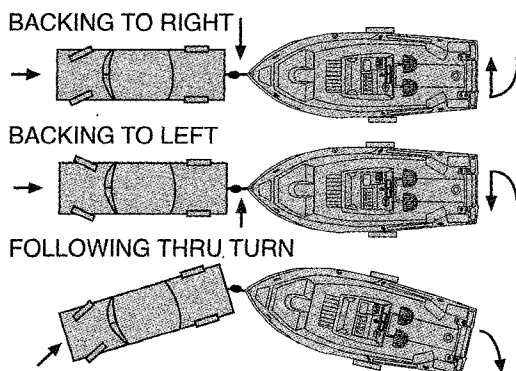


- When rounding turns on highways or streets, do not cut corners. Also, go slow over railroad tracks.
- Outboard motors should be tied in place so they will not tilt or turn due to road shock. Continuous road shocks may fatigue the boat steering system.
- Before backing your trailer into water, disconnect the light plug from the towing vehicle to reduce the likelihood of blowing out lights when they become submerged.

## BACKING UP TRAILERS

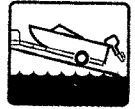
If you have never towed a trailer before, take the time to practice backing your trailer before using it for the first time. Follow these guidelines when backing:

- Back slowly and make small steering adjustments.
- Turn the car wheels in the opposite direction you want the trailer to go.
- After the trailer begins moving, turn the car to follow it.
- Have a second person assist you with hand signals.



## BACKING UP TRAILERS

Before launching your boat, stay to one side and watch a couple of launchings to notice any problems on the ramp and the effects of the wind and current on launching. It is a common courtesy to prepare the boat for launching away



from the ramp especially during busy periods. Perform the pre-launch sequence as follows:

1. Remove the boat cover, if equipped.
2. Check that bilge drain plug is in place.
3. Remove any additional trailering tie-downs from the boat.
4. Attach the bow and stern docking lines and fenders if necessary
5. Disconnect the trailer lights from the car.

Launching with two people is recommended. Since all launches are different from each other in some way, the following procedure must be modified to fit the launch in use:

1. Back the boat down the ramp until the wheels are at least halfway submerged. Keep the trailer/car combination as straight as possible and at 90 degrees to the shore line.
2. Loose and detach the bow strap from the bow eye.
3. Back the boat further down until the top of the fenders are about 2" above the water.
4. Board the boat and start it. If possible, remain on the trailer until the engine has warmed-up.

## LOADING

Loading, like launching, is best done with two people:

1. Back the trailer into the water until the top of the fenders are about 3" above the water. Keep the trailer/car combination as straight as possible and, if possible, at 90 degrees to the shoreline. Set the parking brake securely.
2. Approach the trailer in a straight line at least 5' out. Use "bursts" of propeller thrust to move towards the trailer at the slowest steerable speed. Guide the boat onto the support bunks.
3. Check to see that the boat is centered on the support rails and is headed in a straight line for the bow stop (bumper board).



### WARNING



**Excessive throttle can cause the boat to travel over the bumper board causing extensive damage to the boat, trailer, and car and could cause severe personal injury.**

4. Using a very light touch on the throttle, ease the boat forward until the bow comes to rest against the bow stop (bumper board).

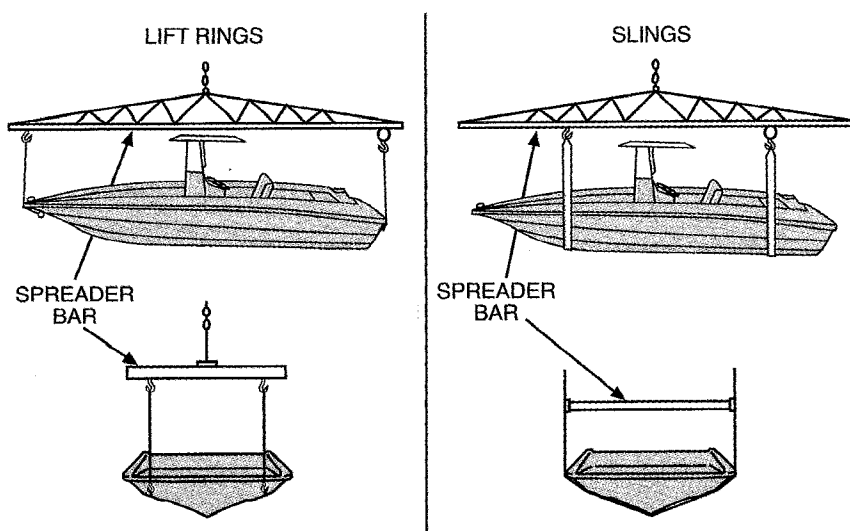


## CAUTION

The winch bow strap is merely a means of securing the boat to the trailer and is not intended to winch or pull the boat onto the trailer.

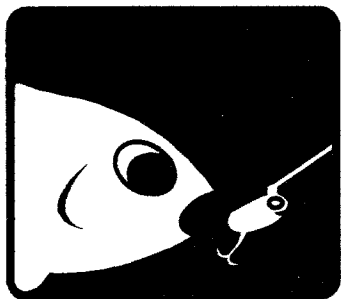
5. Attach and tighten the winch bow strap.
6. Pull the trailer up the ramp and attach any additional tie-downs and connect the trailer light harness.
7. Pull drain plug.

## SLINGING/LIFTING



If the boat is to be removed from the water without a trailer, follow these guidelines:

- Never attach lifting cables to cleats, ski tow eyes or hand rails. Attach cables only to the lifting eyes in the transom and bow.
- Cover lifting cables with rubber hose or other protectors to prevent damage to the finish.
- Attach guide lines to the bow and stern to control movement.
- Use spreader bars and keep lifting pressure vertical to prevent side load damage.
- Keep the bow slightly higher than the stern to prevent engine damage.



# 11

## **SPECIAL FISHING FEATURES**

This section describes the special fishing features of your boat. Although your boat may be slightly different from what is presented, the basic operating principles are the same for all types.

### **TROLLING MOTORS**

The trolling motor is used for precise boat maneuvering while fishing. Never use the trolling motor in combination with the engine. The trolling motor is dependent on the type of battery system in use, and may be connected through a bow panel for fishing ease. Always disconnect the trolling motor when not in use and never operate the motor out of the water. For more information about the trolling motor, consult the operator's manual that came with your unit.

### **DEPTH FINDER**

Use the depth finder to locate drop-offs, creek channels, sand bar and bottom formations. Pay attention to the area you are fishing. After catching a fish, you will know the cover that is attracting them and the depth of the water. This knowledge allows you to move to a similar location and possibly catch more fish. For more information about your depth finder, consult the operator's manual that came with your unit.

# LIVEWELL

Your boat is equipped with one or more livewells for protection of your catch. Each livewell is equipped with an aeration pump that oxygenates the water to keep the fish alive. To prevent stagnation of water, empty the livewell after you are finished using it. Never allow soap or detergents inside the livewell, residue from cleaners may be harmful to fish.

## OPERATING INSTRUCTIONS

### Baitwell Only

1. Open sea-cock valve at thru hull in bilge.
2. Turn baitwell switch to the "ON" position.
3. Insert overflow standpipe.

### Washdown

1. Open sea-cock valve.
2. Install marine washdown hose on washdown fitting.
3. Turn washdown switch to the "ON" position.
4. Washdown pump will run only when the spray nozzle is activated.

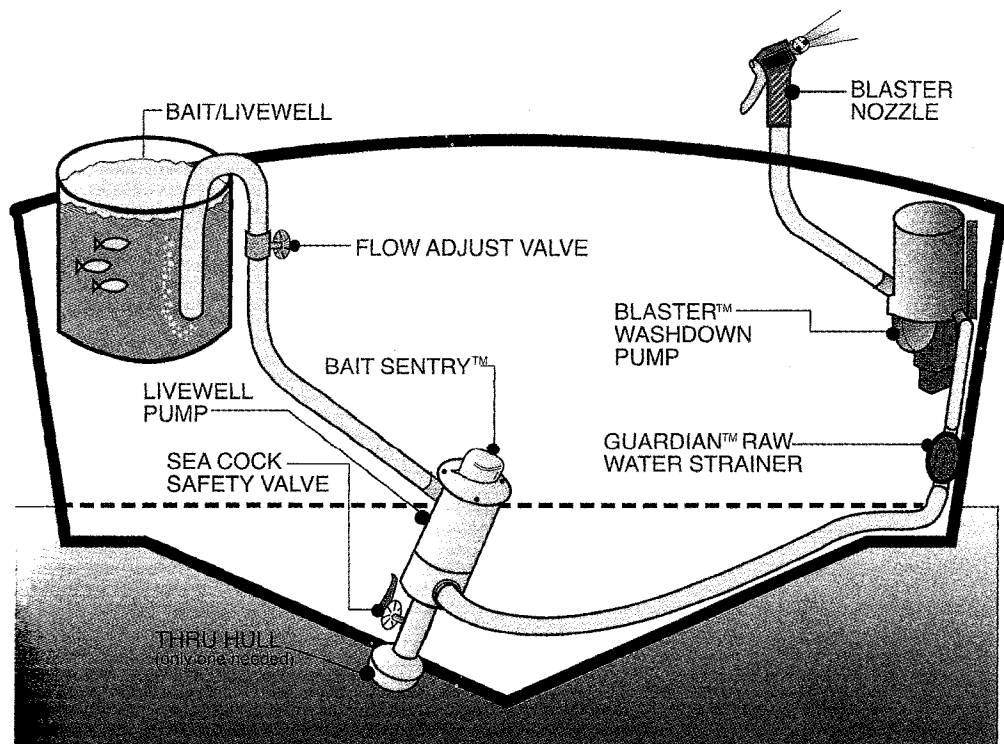


## SPECIAL FISHING FEATURES

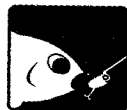


### BAIT SENTRY™

The First Pump Designed As A Livewell & Bait Pump



# NOTES

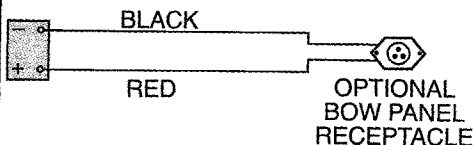


## TROLLING BATTERY SETUPS

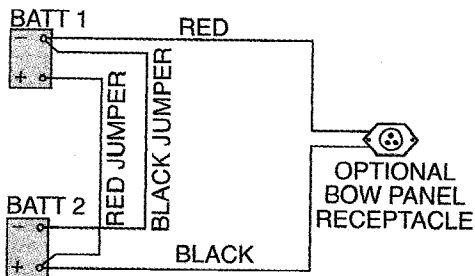
A variety of battery setups may be encountered depending on the model of your boat. Many factors including 12 volt, 12/24 volt, 24 volt, a bow panel with charge/run selection, and the addition of a battery isolator all have an effect on the setup in use. For more information on the interaction of an isolator with the various battery setups, refer to Care and Maintenance.

The following illustrations cover some of the possible installations. Be sure to consult your dealer for more information. If you wish to increase the battery capacity of your system, you must have modifications performed by a qualified technician.

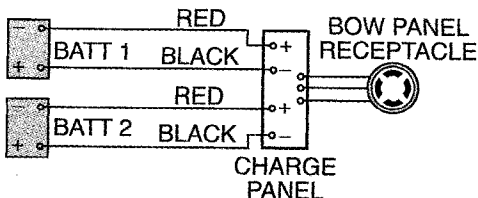
### 12 VOLT/ONE BATTERY



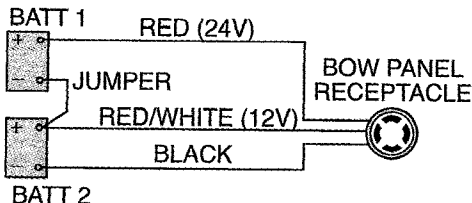
### 12 VOLT/TWO BATTERIES



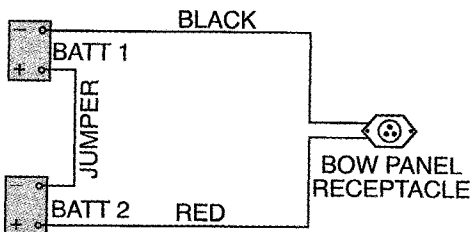
### 12 VOLT/24 VOLT WITH CHARGE/RUN SWITCH



### 12 VOLT/24 VOLT DIRECT



### 24 VOLT DIRECT





## **WARNING**



Improper battery system modifications could cause an electrical short circuit or overload and could be extremely dangerous. Be sure to wear protective clothing for skin, eyes, and hands whenever working with batteries. Be sure all electrical circuits are switched OFF before beginning any modification. Be sure modified circuits are protected from short circuits and overloads. Failure to follow this warning may result in death, severe personal injury or property damage.

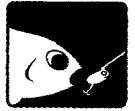
## **FISHING SEATS**



## **WARNING**



Passenger's using pedestal seats on high platform locations while running more than trolling speed could be thrown overboard, resulting in injury or drowning. Platform seats in the bow will restrict the driver's view and must be removed during operation.



# NOTES

## SERVICE/MAINTENANCE LOG

[illegible]

## SERVICE/MAINTENANCE LOG

[illegible]





# SEA-PRO BOATS, INC. LIMITED WARRANTY

## One-Year limited warranty

(a) SEA-PRO Boats, Inc. ("SEA-PRO") warrants to the original purchaser for a period of one year from the date of delivery to the original purchaser that each SEA-PRO boat will be free from defects in material and workmanship under normal recommended use.

(b) During this one-year period, warranty repairs will be made without charge by SEA-PRO at its plant in Newberry, S.C. or, at SEA-PRO's option, by an Authorized SEA-PRO Marine Dealer. Transportation charges to and from the place of repair will be the responsibility of the original purchaser. All repairs made under this warranty are subject to the approval of an Authorized SEA-PRO Representative.

(c) This One-Year Limited Warranty does not apply to carpet, upholstery, gelcoat finishes, blisters, cracks, or crazing, or to equipment and accessories not manufactured by SEA-PRO, including windshield, windshield breakage, installation of engines by others, or parts which have been altered or subjected to misuse or negligence, or to the achievement of any particular level of performance.

(d) This One-Year Limited Warranty extends only to the original purchaser and may not be transferred to subsequent purchasers.

## Ten-Year Hull limited warranty

(a) SEA-PRO warrants to the original purchaser for a period of ten years from the date of delivery to the original purchaser that each SEA-PRO hull will be free from structural defects in fiberglass material and fiberglass workmanship under normal recommended use.

(b) SEA-PRO will repair or replace, at its option, any SEA-PRO hull found to have a structural defect, provided the original purchaser returns the boat to SEA-PRO at its plant in Newberry, S.C. or, at SEA-PRO's option, to an Authorized SEA-PRO Marine Dealer. Transportation charges to and from the place of repair will be the responsibility of the original purchaser.

(c) This Ten-Year Hull Limited Warranty does not apply to non-structural hull surface changes, such as fading, checking, crazing, blisters, and gelcoat cracks. Further, this warranty does not apply to hull damage caused by accidents, neglect, unauthorized repairs, items not installed on the boat by SEA-PRO or the boat's trailer. This warranty also does not apply to boats used for or in racing or for governmental, commercial or business use.

(d) This Ten-Year Hull Limited Warranty may be transferred to subsequent purchaser(s) of the boat during the warranty period provided that the boat passes a re-certification inspection by an Authorized SEA-PRO Marine Dealer. Subsequent purchaser(s) shall pay a \$200.00 inspection fee and be responsible for transportation charges to and from the place of inspection. Re-certification is not automatic and SEA-PRO expressly reserves the right to deny re-certification should it determine the boat fails inspection.

## Limitation of Liability and Disclaimer

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IMPLIED WARRANTIES, IF ANY, WHICH CANNOT BE DISCLAIMED, ARE LIMITED IN DURATION TO THE DURATION STATED ABOVE. ALL OTHER OBLIGATIONS OR LIABILITIES, INCLUDING LIABILITY FOR LOSS OF USE, INCONVENIENCE, COMMERCIAL LOSS, OR CONSEQUENTIAL DAMAGES ARE HEREBY EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

## Warranty Card Requirement/Acknowledgment of Limited Warranty

Return of the SEA-PRO Warranty Registration Card is a condition precedent to warranty coverage. It is the sole responsibility of the original purchaser to require the dealer to fill out, sign, and return the SEA-PRO Warranty Registration Card within 10 days of date of sale.

## Miscellaneous

SEA-PRO reserves the right to alter models, change colors, specifications, materials, equipment, component parts and prices, or cease production of certain models at any time without notice. Such changes shall be made without incurring obligations to equip or modify units produced prior to the date of such changes.

## SEA-PRO BOATS, INC.

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www.seaproboats.com • email: seapro@scmail.com

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