270Z

Owner's Manual

SEA VEE Boats

Lead the Way!

Congratulations on the purchase of your new boat. It was built for you with the fine craftsmanship and the utmost attention to detail that makes it a Sea Vee.

Please take some time before operating your vessel to carefully review your owner's manual along with any other literature that that may accompany it in the owner's documents pouch. The owner's manual provides a broad overview of some of the inherent systems found on your new Sea Vee and information on how to safely operate your new vessel.

Specific information regarding some onboard components manufactured or otherwise supplied by companies other than Sea Vee is also included in your owner's document pouch for your convenience. If required, additional information may often be obtained by visiting the manufacturers' website.

This owner's manual and accompanying literature is provided to assist in familiarizing you with the numerous products and systems that might be found onboard your new Sea Vee. Please note that due to their complexity, variety and possible specification changes that might occur after printing, such material may not cover every circumstance that could arise in owning and operating your vessel. Contact our factory customer service department at 305-762-5600 if you have any questions or require any assistance.

Much work went into the design and construction of your vessel to ensure first-rate performance, longevity and safety. Whether you go out fishing, diving or take family and friends cruising, we hope that you get many years of enjoyment from your new boat.

Welcome to the Sea Vee family!

PLEASE KEEP THIS OWNER'S MANUAL PACKET IN A SECURE PLACE,
AND BE SURE TO HAND IT OVER TO THE NEW OWNER IF YOU SELL THE BOAT.

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Preface

This Owner's Manual has been written to provide specific information about your boat and it should be read carefully. Keep this booklet with the Manuals in the Owner's Manual Packet. The Owner's Manual Packet has been compiled to help you operate your boat with safety and pleasure. It contains details of the boat, the equipment supplied or fitted, its systems and information on its operation and maintenance. Please familiarize yourself with the boat and its operation before using it. If this is your first boat, or you are changing to a type of boat you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before "assuming command" of your boat. Seavee will be pleased to advise you of marine safety classes and safe boating classes in your area.

INFORMATION IN THIS PUBLICATION IS BASED ON THE LATEST PRODUCT SPECIFICATIONS AVAILABLE AT PRINTING, SEAVEE® BOATS, INC. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE, IN THE COLORS, EQUIPMENT, SPECIFICATIONS, MATERIALS AND PRICES OF ALL MODELS, OR TO DISCONTINUE MODELS. SHOULD CHANGES OR MODIFICATIONS TO THE MODELS BE MADE SEAVEE® IS NOT OBLIGATED TO MAKE SIMILAR CHANGES OR MODIFICATIONS TO MODELS SOLD PRIOR TO THE DATE OF SUCH CHANGES.

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Seavee Limited Warranty

Refer to the 10 year limited warranty located in your Owner's Bag.

Owner's Manual

The material here and in the rest of the Owner's Manual Packet/Bag:

- Gives you basic safety information;
- Describes the features of your boat;
- Describes the equipment on your boat;
- Describes the fundamentals of boat use; and
- Contains service and maintenance information.

You must learn to operate this boat as well as read, understand and use this manual.

What this manual does not give you is a course in boating safety, or how to navigate, anchor or dock your boat. Operating a power boat safely requires more skills, knowledge and awareness than is necessary for a car or truck.

Your Responsibilities

For your safety, the safety of your passengers, other boaters and people in the water, you must:

- Take a boating safety course.
- Get instruction in the safe and proper handling of your boat.
- Understand and follow the "rules of the road".
- Learn how to navigate.

Source of Information

In North America, contact one of the following for boating courses:

- U.S. Coast Guard Auxiliary
- U.S. Power Squadron
- Canadian Power and Sail Squadrons
- Red Cross
- State Boating Offices
- Yacht Club
- Contact the Boat/U.S. Foundation at 1-800-336-2628 and/or your governmental boating agency for assistance.
- A comprehensive background in boating can be found in the book, Chapman - Piloting, Seamanship and Small Boat Handling, by Elbert S. Maloney, published by Hearst Marine.

Warranties

In addition to the Seavee® Limited Warranty for your boat, each component and/or system on your boat has its own warranty that will be found with the specific information and manual for that component. The manuals are included with your Owner's Manual Packet. Locate and read the individual warranties, then keep them together for easy future reference.

Contact Information

SEAVEE BOATS
Phone.....305-759-6419
Internet .....www.seaveeboats.com

United States Coast Guard
Phone.....1-800-368-5647
Internet .....www.uscgboating.org

Boat US Foundation
Phone.....1-800-336-2628
Internet ..... www.boatus.com/foundation

Section 1 • Safety

Explanation of Safety Labels

The most important aspect of boating is safety. Although every effort is made to address the numerous issues regarding the safe usage of your boat, it is strongly recommended that you avail yourself of the training and knowledge available through boating safety courses, etc.

⚠ CAUTION

Denotes hazards or unsafe practices that COULD result in minor personal injury, product or property damage.

NOTICE

Denotes information that is important to know prior to operation and/or maintenance, but is not hazard related.

Warning Labels

Mounted at key locations throughout your boat are warning labels which advise the owner/operator of imperative safety precautions to follow when operating and/or servicing equipment.
The examples below indicate the level of hazard by color and explanation.

⚠ DANGER

Denotes an immediate hazard exists that WILL result in severe personal injury or death.

⚠ WARNING

Denotes hazards or unsafe practices that MAY result in severe personal injury or death.

Safety Precautions

The precautions below appear throughout this manual and must be observed when operating or servicing your boat. Learn to recognize the degree of precaution and understand the explanations of safety prior to reading this manual. These precautions are not all-inclusive. Always use common sense in the operation of your boat.

⚠ DANGER

Denotes an immediate hazard exists that WILL result in severe personal injury or death.

⚠ WARNING

Denotes hazards or unsafe practices that MAY result in severe personal injury or death.

⚠ CAUTION

Denotes hazards or unsafe practices that COULD result in minor personal injury, product or property damage.

NOTICE

Denotes information that is important to know prior to operation and/or maintenance, but is not hazard related.

SAFE Boating means:

- Knowing the limitations of your boat
- Following the "RULES OF THE ROAD"
- Keeping a sharp lookout for people and objects in the water.
- Not boating in water or weather conditions that are beyond the boat's and operator's capability.
- Never operate the boat while under the influence of drugs or alcohol.
- Being aware of your passengers safety at all times.
- Reducing speed when there is limited visibility, rough water, and people in the water nearby, boats or structures.

Boating in beautiful weather and calm water conditions can be a wonderful experience. Boating however requires considerably greater skills than operating a land vehicle.

To obtain these skills:

- Take a Coast Guard, U.S. Power Squadron or equivalent boating safety course. (Call the Boat/U.S. Foundation at 1-800 336-2628 for information on available courses, or go to: "www.boatus.com/foundation" on the internet.)
- Get hands-on training on how to operate your boat properly.

In Addition:

- Maintain your boat and its safety and other systems as recommended in this manual.
- Have the boat inspected by a qualified mechanic or dealer, at least annually.
- Ensure that the Coast Guard required safety equipment is on board and functioning.

Safe Boating Checklist

Before Departure

- Update checklists when equipment is added or modified.
- Weather-forecast safe Required documents-on board
- Navigation charts & equipment-on board Safety equipment-on board
- Safety training-passengers & crew instructed on procedures, location, and use of safety equipment.
- Drain plugs-installed
- Bilge pumps-working & clean Blower-working Navigation lights-working Horn-working
- Fuel system-no leaks or fumes Fuel filter-tight & clean
- Power steering fluid- filled(if applicable)
- Steering system-working smoothly & properly Battery-electrolyte level within range
- Float plan-filed with friend or relative

Trailering (if applicable)

- Boat position-secure on trailer Tiedowns-tight
- Winch-locked Trailer hitch-connected
- Engine clearance-in trailering position Safety chains-attached
- Electrical-Lights, brake lights, turn signals working
- Mirrors-adjusted for trailering
- Console door closed and latched shut
- All Hatches closed and latched shut
- Aft seat back folded closed and latched shut

After Return

- PFD's & other safety gear-dry, stowed for next use
- Fuel tanks- filled (allow for expansion) to prevent condensation
- Fuel system-no leaks
- Bilge pump-operating properly Bilge-clean, no leaks
- Float plan-notify person with whom you filed plan

General Considerations

- Know how your boat handles under different conditions. Recognize your limitations and the boat's limitations. Modify speed in keeping with weather, sea and traffic conditions.
- Instruct passengers on location and use of safety equipment and procedures.
- Instruct passengers on the fundamentals of operating your boat in case you are unable to do so.
- You are responsible for passenger's actions. If they place themselves or the boat in danger, immediately correct them.
- Remember the "Rule of Thirds": one third total fuel usage for the trip out; one third total fuel sage while out; one third total fuel usage for the return trip.

Maintain Control

High performance boats require intimate knowledge of their handling characteristics for safe high speed operation.

- Learn the effects of trim, steering and throttle changes at gradually increasing levels of speed.
- Approach full throttle while adjusting trim for safe handling of the vessel.

On the water there are no marked traffic lanes, no traffic signs or lights, and boats have no turn signals. The boat operator must keep her or his attention focused not only on what's ahead but what's on the left, right and behind the boat.

The operator must always be alert to approaching boats (from the rear, right and left sides, as well as those ahead). There can be people in the water, partially submerged debris, and other navigational hazards such as rocks, sand bars or dangerous currents, to name a few.

Your passengers are relying on you to operate and maneuver the boat safely so that they are not in danger of going overboard. If you turn too quickly, increase or decrease speed abruptly, your passengers are at risk of being thrown overboard or thrown about the boat.

When visibility becomes impaired because of weather, time of day or high bow angle you must slow down so that you have sufficient time to react if an emergency occurs. Nearby boats face similar risks in avoiding a collision with you.

Boarding

- Board only one person at a time.
- Never jump into boat. Step or climb into cockpit.
- Load gear after you are aboard. Carrying gear while boarding can cause you to lose balance.
- Distribute weight evenly.
- Instruct passengers where to sit during on-plane operation to reduce the possibility of falling overboard during high speed maneuvers.
- If gear is not immediately needed, stow it in secure areas.
- Safety gear must be immediately accessible at all times

Impaired Operation

⚠ WARNING

CONTROL HAZARD-Federal laws prohibit operating a boat while under the influence of alcohol or drugs. These laws are vigorously enforced.

The detrimental effects of alcohol and drugs are increased by wind, waves and sun, and will decrease your response time and ability to act in critical situations. Give special attention to the effects of alcohol and drugs while boating. No other single factor causes as many marine accidents and deaths. Death or serious injury and damage to personal and private property can result from being impaired while operating a boat.

⚠ WARNING

Death or serious injury can result if you fail to observe these safety rules:

- **Anyone who controls the boat should have taken a boating safety course and have trained in the proper operation of the boat.**
- **Always operate the boat at speeds that will not put people or property in danger.**
- **Be constantly aware of conditions in all directions when underway and before turning.**
- **Reduce speed, use a lookout to identify possible hazards or difficulties, and turn on navigation lights when:**

  - visibility is impaired;

  - in rough water; and

  - in congested waterways.
- **Watch your wake. It can capsize a small boat or damage moored boats or other property. You are responsible for damage caused by your wake.**

⚠ WARNING

NEVER operate a boat at a speed at which you do not feel in control.

⚠ WARNING

A qualified operator must be in control of the boat at all times. Do not operate the boat while under the influence of alcohol or drugs. Never operate your boat at speeds which exceed the operator's ability to react if an emergency develops. At night, turn on the appropriate navigation lights and cruise at a reduced speed that will allow you plenty of time to avoid dangerous situations.

⚠ WARNING

STABILITY HAZARD

- **Load boat properly. The manufacturer's load rating is the maximum allowed under normal conditions. Adjust downward if weather, water or other conditions are adverse.**
- **Allow passengers to ride only in areas that do not pose a hazard to themselves or the boat.**

  DO NOT allow passengers to ride on the bow of a closed bow boat.

  DO NOT allow several passengers to ride in the bow of a small open-bow boat, causing the boat to "plow" into the water.

  DO NOT allow passengers to ride on the stern cushion or gunwales.

  DO NOT overload the stern.
- **Observe manufacturer's recommended on-plane seating locations.**
- **Passengers should remain seated while boat is moving.**

PERSONAL INJURY HAZARD-Stay alert. Use of drugs, alcohol, or other substances which impair judgement poses a serious threat to yourself and others. The boat operator is responsible for the behavior of passengers.

DROWNING HAZARD-Boats must carry one wearable personal flotation device (PFD) for every passenger on board. Boats must have at least one throwable life preserver.

SLIPPING HAZARD-Wet decks are slippery. Wear proper footwear and use extreme caution on wet surfaces.

Legally Mandated Equipment

(Minimum Required)

Consult your National Boating Law Enforcement Agency. The following equipment is the minimum required by the U.S. Coast Guard for a boat which is more than 26 ft. (7.9M) in length but less than 40 ft. (12.2M) in length.

Personal Flotation Devices (PFD's)

- One (1) Coast Guard Approved Type I, II, III is mandatory for each person aboard.
- One (1) throwable Type IV device is also required to be onboard.
- A Type V device is acceptable (See page 1.8) if worn for approved use.

⚠ WARNING

There is rarely time to reach stowed life jackets in time of emergency. Boaters should always wear a properly fitting, approved life jacket when on the water.

'Children and non-swimmers MUST wear PFD's at all times when aboard.

NOTICE

Depending on the state or country of operation, the operator of a vessel may be fined for failure to comply with local or national rules regarding PFD usage.

Fire Extinguishers (Portable)

For the Seavee 270Z, the Coast Guard requires two (2) Type B-I or one (1) B-II fire extinguisher(s) be on board. The American Boat & Yacht Council (ABYC) recommends that you carry three (3) A, B or C Type fire extinguishers on board and located within easy reach of the helm, Engine(s), and galley or passenger cockpit.

Whistle, Horn

You must have onboard; some means of making a loud sound signal. Navigation rules require that a sound made by any audible device be capable of a four (4) second blast, and be audible for 1/2 mi. (.80 Km).

Visual distress Signals

If you operate your boat in coastal waters or on the Great Lakes, you must have a visual distress signals for day and night use on board. At least three (3) U.S.C.G. approved pyrotechnic devices marked with date showing service life must be carried, be readily accessible, in serviceable condition and not be expired.

Store all pyrotechnic signals in a well-marked, waterproof container.

Additional Recommended equipment for safe operation

In addition to the legally mandated equipment, the following items are necessary for safe boating, especially if your boat is out of sight of land.

- First Aid kit
- Compass
- Charts/Maps
- Manual bilge pump
- Visual distress signals
- GPS
- Spare keys
- Marine VHF radio
- EPIRB-Emergency Positioning Indicating Radio Beacon
- Mosquito repellent
- Mooring Lines

- Fender
- Boat hook
- Waterproof flashlights
- Extra batteries
- High power spotlight
- Instruction manuals
- Spare propeller
- Lubricating oil
- Anchor
- Tool kit:
  - Screwdrivers, (Philips & flat)
  - Pliers, (regular, vise-grip, tongue & groove)
  - Wrenches, (box, open end, Allen & adjustable)
  - Socket set, (metric or U.S.)
  - Electrical tape & duct tape
  - Hammer
- Spare parts kit, (spark plugs, fuses, etc.)

Carbon Monoxide (CO)

⚠ DANGER

- **Fumes from engine(s), Generator(s) and other equipment and appliances that burn fuel contain Carbon Monoxide. Carbon Monoxide can kill you. Open all doors, hatches, curtains and windows to allow fresh air to circulate and dissipate the amounts of Carbon Monoxide present in enclosed spaces, especially when the boat is moored or anchored.**
- **Proper ventilation must be maintained, even during inclement weather to prevent dangerous levels of Carbon Monoxide build-up.**
- **Sleeping aboard a boat requires a working Carbon Monoxide detection system, preferably in each sleeping quarter.**

!

Carbon Monoxide is an odorless, colorless, extremely toxic gas that is the product of any type of combustion produced by engines, heaters, stoves or generators. When inhaled it combines with hemoglobin in the blood, preventing absorption of oxygen and resulting in asphyxiation and death.

Symptoms of Carbon Monoxide poisoning include:

- Dizziness
- Headaches
- Ringing in the ears
- Nausea
- Unconsciousness

GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

The poisoning victim's skin often turns cherry red. Carbon Monoxide is colorless, odorless and tasteless, it is unlikely to be noticed until the person is overcome.

If CO poisoning is suspected, have the victim breath fresh air deeply. If breathing stops, resuscitate.

OPEN ALL HATCHES, PORTLIGHTS OR CANVAS OPENINGS TO LET FRESH AIR CIRCULATE.

A victim often revives, then relapses because organs are damaged by lack of oxygen. Seek immediate medical attention.

Dangerous concentrations of Carbon Monoxide will be present if the engine(s) exhaust system leaks OR insufficient fresh air is circulating.

To minimize the danger of Carbon Monoxide accumulation when the Engine(s) and/or Generator are running (or by use of fuel burning equipment.):

- Be sure to have sufficient ventilation when using canvas enclosure.
- Open all forward hatches and leave cabin door open.
- Operate all fuel burning appliances, such as charcoal, propane, LPG, CNG or alcohol cooking devices in areas where

fresh air can circulate.
- Do not idle the engine(s) without moving the boat for more than 15 minutes at a time.
- Inspect the bilge blower, located aft of the generator in the equipment compartment.

⚠ DANGER

Even in rainy cold weather, ventilation must be maintained to avoid Carbon Monoxide poisoning. You will get wet and/or cold.

Lifesaving Equipment

PFD Requirement

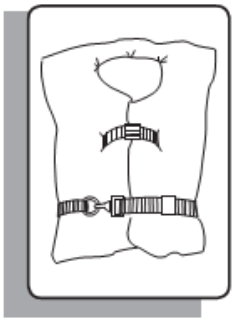
Even strong swimmers can tire quickly in the water and drown due to exhaustion, hypothermia, or both. The buoyancy provided by a personal floatation device (PFD) will allow the person who has fallen overboard to remain a float with far less effort and body heat loss, extending survival time necessary to find and retrieve them.

One (1) wearable personal floatation device (PFD, Type I, II, III or V) for every person onboard and at least one (1) throwable device, (Type IV).

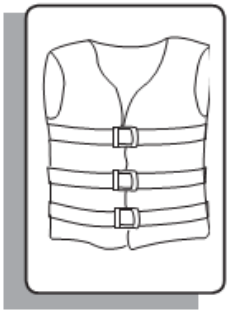
The law requires that PFD's must be readily accessible, if not worn. "Readily Accessible" means removed from storage bags and unbuckled. Children and non-swimmers must wear PFD's at all times when aboard.

Listed below are the several different types of PFD's, each life jacket has different purposes, choose one that will suit your purpose.

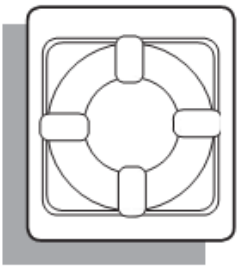
Type I, Off-shore Life Jacket is considered the most buoyant, it is designed to turn an unconscious person face up. Use in all types of waters where rescue may be slow, particularly in cold or rough water conditions.



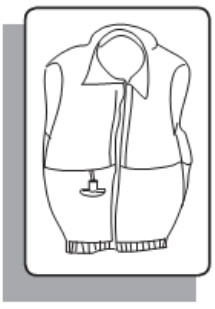
Type II, Near-shore Life Vest, "keyhole" vest with flotation filled head and neck support is also designed to turn a person face up, but the turning action is not as pronounced. Use in calm inland waters or where quick rescue is likely.



Type III, Flotation-aid Life vest is designed so that conscious wearers can turn face-up.
Designed for comfort while engaged in water skiing or other forms of water activities.



Type IV, Throwable Devices, horseshoe buoys, ring buoys and buoyant cushions are designed to be grasped, not worn.



Type V, Special-Use devices, sailboat harnesses, white water vests, float coats, and hybrid vests which have minimum inherent buoyancy and an inflatable chamber.

Before purchasing PFD's, ensure that there is an attached tag indicating they are approved by the U.S. Coast Guard or by your National Boating Law Enforcement Agency.

The operator is responsible for instructing everyone onboard on the location and use of the PFD. The best precaution is to wear the PFD at all times

Children and non-swimmers must wear a PFD at all times when aboard. All passengers and crew should wear them since an unworn PFD is often useless. The law requires that PFD's, if not worn must be readily accessible, that is, removed from storage bags and unbuckled. Throwable devices must be readily available, that is, right at hand.

General Considerations

- Know how your boat handles under different conditions. Recognize your limitations and the boat's limitations. Modify speed in keeping with weather, sea and traffic conditions.
- Instruct passengers on location and use of safety equipment and procedures.
- Instruct passengers on the fundamentals of operating your boat in case you are unable to do so.
- You are responsible for passenger's actions. If they place themselves or the boat in danger, immediately correct them.

⚠ WARNING

A qualified operator must be in control of the boat at all times. Do not operate the boat while under the influence of alcohol or drugs. Never operate your boat at speeds which exceed the operator's ability to react if an emergency develops. At night, turn on the appropriate navigation lights and cruise at a reduced speed that will allow you plenty of time to avoid dangerous situations.

⚠ WARNING

Death or serious injury can result if you fail to observe these safety rules:

- **Anyone who controls the boat must have taken a boating safety course and have trained in the proper operation of the boat.**
- **Always operate the boat at speeds that will not put people or property in danger.**
- **Be constantly aware of conditions in all directions when underway and before turning.**
- **Reduce speed, use a lookout to identify possible hazards or difficulties, and turn on navigation lights when:**

  - visibility is impaired;

  - in rough water; and

  - in congested waterways.
- **Watch your wake. It can capsize a small boat or damage moored boats or other property. You are responsible for damage caused by your wake.**

⚠WARNING

STABILITY HAZARD

- **Load boat properly. The manufacturer's load rating is the maximum allowed under normal conditions. Adjust downward if weather, water or other conditions are adverse.**
- **Allow passengers to ride only in areas that do not pose a hazard to themselves or the boat.**

  DO NOT allow passengers to ride on the bow of a closed bow boat at speeds over 5 mph.

  DO NOT allow several passengers to ride in the bow of a small open-bow boat, causing the boat to "plow" into the water.

  DO NOT allow passengers to ride on the stern cushion or gunwales.

  DO NOT overload the stern.
- **Passengers should remain seated while boat is moving.**

PERSONAL INJURY HAZARD-Stay alert. Use of drugs, alcohol, or other substances which impair judgement poses a serious threat to yourself and others. The boat operator is responsible for the behavior of passengers.

DROWNING HAZARD-Boats must carry one wearable personal flotation device (PFD) for every passenger on board. Boats must have at least one throwable life preserver.

SLIPPING HAZARD-Wet decks are slippery. Wear proper footwear and use extreme caution on wet surfaces.

Emergency Situation

NOTICE

The law requires the owner/operator to assist any person or boat in distress as long as rendering assistance does not endanger the owner/operator, the passengers or the boat.

Prevention is the safest approach. We hope that you are never involved in an emergency situation, but if you are it is imperative that you react.

Medical Emergency

You may be far from professional medical help when you are boating. At least two (2) persons on board your boat should be CPR certified, and should have taken a first aid course. Your boat should have a well-stocked first aid kit on board. In many situations your radio will be your only link to reaching medical assistance. Keep the radio in working order and understand which channels are used for emergencies, these channels are constantly monitored and will be useful when situations arise. Cell phones are becoming more common and can help in some areas, but they are limited and unreliable and should not be used in the place of a good VHF radio.

Water Rescue

In most situations a person that has fallen overboard will succumb to hypothermia if not rescued immediately. Life expectancy decreases as rescue time increases in water temperatures below 70° (21.1°C).

There are three (3) steps that must be taken when a person has fallen overboard:

Returning to the victim:

- Immediately make everyone onboard aware that someone is overboard and keep the victim in sight.
- Slow the boat and keep pointing toward the person overboard. At night or in low light, point the best available light source at the person.
- Throw a life ring/preserver to the victim, even if they are wearing one, it will serve as another marker.

Making Contact

- Stop or slow the boat and circle toward the person overboard.
- Try to approach heading into the wind or into the waves.
- Keep person overboard constantly in sight.
- When almost alongside, turn off the engine in gear to prevent the propeller "wind milling."

Getting back aboard

- Try to reach the person overboard with a pole, or by throwing a life preserver. NEVER swim to them except as a last resort.
- Assist the person in boarding. Boarding should be done at the stern of the boat.
- If the person is injured or incapable of boarding by themselves, a rescuer should don a life preserver with a safety line and enter the water to assist the person onto the boat.
- Handle the person carefully, spinal injuries might have occurred and could be worsened by rough handling.
- Check for other injuries, render medical assistance immediately.

Fire

Fire is a serious boating hazard. Boats will burn quickly. Do not remain onboard and fight a fire for more than a few minutes. If the fire is out of control and cannot be put out with the fire suppression equipment onboard, abandon ship immediately.

The fumes released during a fi re are toxic and should be avoided. Even after the fi re has been extinguished, proper ventilation of the area is required to minimize exposure to harmful fumes.

⚠ WARNING

NEVER operate a boat at a speed at which you do not feel in control.

⚠ DANGER

- **Fires can spread quickly. Your reaction to the fire is important. Have the proper fire fighting equipment close at hand, and in good working order to respond quickly.**
- **Small fire extinguishers have small discharge times. Aim at the base of the fire with a sweeping motion to maximize the use of the fire extinguisher contents.**

To lessen the danger of fire

- Extinguish all smoking materials, shut off blowers, stoves, engine(s) and generator(s).
- Keep bilge area clean, oil and fuel spills should be cleaned immediately.
- If possible, throw burning materials overboard.
- If fire is accessible, release the contents of the fire extinguisher(s) into the base of the fire.
- If the fire is in an enclosed compartment, and you have an automatic extinguisher for the compartment, wait 15 min. before opening the compartment. Have an extinguisher handy in case of a flare up.
- If possible, signal for help. Radio, visual, and audible signal should be used as needed. You must render assistance to any boater requesting help.
- If fire is out of control, grab all necessary survival gear, distress signals, don your PFD's and prepare to abandon ship.
- If you do abandon ship, make sure the passengers have PFD's. Take a head count before entering the water and take another head count when in the water. STAY TOGETHER.

Flooding, Swamping and Capsizing

In the event of Flooding, Swamping or Capsizing:

Flooding

- Always wear your PFD, or have it within reach.
- If the bilge pump(s) have not automatically turned ON, switch them ON immediately.
- Find the source of the flooding and determine the best fix.
- Keep the bilge pumps running until the flooding is under control.
- Call for assistance if the source of the flooding cannot be controlled.
- Head back to port if possible.

Swamping

- Always wear your PFD, or have it within reach.
- Swamping is usually a result of wave action, immediately get control of the helm and turn the boat into the waves.
- Swamping can also be caused by an overloaded boat.
- If the bilge pump(s) have not automatically turned ON, switch them ON immediately.
- The deck scuppers on your boat are designed to drain the deck of water.
- Keep the bilge pumps running until the flooding is under control.
- Take a head count of all passengers.

Capsizing

- "Capsized" is when a boat is on its side or completely upside-down (usually as a result of wave action, improper loading or load shifting).
- Always wear your PFD, or have it within reach.
- If the boat will not right itself, get out of the water and climb onto the exposed hull.
- Do a head count for all passengers.
- STAY TOGETHER
- Usually a capsizing will happen quickly and without warning.
- Use whatever is at hand to signal for help.
- The chances of flooding, swamping or capsizing can be reduced by being aware of:
  - Weather
  - Water Conditions
  - Proper boat handling techniques
  - Proper loading of the boat

Collision

In the event of collision:

- Cut the engine(s)
- Always wear your PFD, or have it within reach.
- Check on passengers
- If the bilge pump(s) have not automatically turned ON, switch them ON immediately.
- Determine the amount of damage to your boats structure.
- Call for assistance
- In the event of collision, you are required to file an accident report. Contact a state enforcement agency or the nearest U.S. Coast Guard office. If you are boating outside U.S. waters, consult the nation you are visiting for

accident reporting requirements.

Propulsion, Control or Steering Failure

If there is a propulsion, control or steering failure:

- Stop the engine, (shut off at Ignition or pull on the Emergency Engine Shut-Off Switch.)
- Drop anchor to prevent drifting.
- Determine if the problem can be fixed or will assistance be needed.
- Call for assistance if needed.

When loss of propulsion or steering is noticed, your quick reaction is required to prevent further damage to your boat or injuries to your passengers.

Outboard engines require propulsion to control the direction the boat will take. Without propulsion, the steering is virtually useless. If you are in a congested waterway you will need to react quickly to warn others that you have lost power, propulsion or steering control and that assistance will be needed.

Grounding

Running aground may be avoided by paying attention to marker buoys or indicated by waves as they form into breakers when passing over a sand bar.

If you do run aground, the course of action depends on how hard the boat hits bottom and whether the boat remains stranded. If it is a simple touch, you may need only to inspect the lower drive of the engine and the hull of the boat. If possible do a thorough inspection before trying to get loose, throwing the boat into reverse before this is done may do more damage.

Distress Signals

Visual Distress Signals, (VDS)

- U.S. Coast Guard regulations require boats in coastal waters and the Great Lakes to carry a Visual Distress Signal (VDS) for day and night use, as well as appropriate for the time of operation. Exempt from the day signals requirement, but not night signals, are boats less than 4.8 meters (16 feet), open sailboats less than 7.9 meters (26 feet), boats participating in organized events and manually propelled boats.
- If you are required to have visual distress signals, at least three safety approved pyrotechnic devices in serviceable condition must be readily accessible. They must be marked with a date showing the service life which must not be expired.
- Carry three signals for day use and three for night use. Some pyrotechnic devices such as red flares, meet both day and night use requirements.
- Store pyrotechnic signals in a cool, dry location. An orange or red watertight container prominently marked "DISTRESS SIGNALS" is recommended.

Other recognized visual distress signals include:

- Flames in a bucket
- Code flags November & Charlie
- Black square & ball on orange background flag
- Orange flag (certified)
- Electric distress light (certified)-for night use
- Dye marker (any color)
- Person waving arms (slowly)

- U.S. ensign flown upside down

Audible Distress Signals, (ADS)

Coast Guard regulations require one hand, mouth or power operated whistle or horn, audible for at least 1/2 mile.

Other recognized audible distress signals include:

- Radio communication (see Radio Communication below)
- Radio-telegraph alarm
- Position indicating radio beacon
- Morse Code S-O-S (3 short 3 long 3 short) sounded by any means.
- Fog horn sounded continuously.

Radio Communication

A radio is the boat operator's main method of receiving safety information and summoning aid.

VHF-FM radio is the primary means of short range communication. Single sideband radio (SSB) is used for longer range communication. VHF-FM channel 16 and SSB 2182 kHz are designated for emergency use. Such situations can be categorized as:

EMERGENCY-
"MAYDAY, MAYDAY, MAYDAY,"- used when life or vessel is in imminent danger.

URGENCY-
"PAN-PAN, PAN-PAN, PAN-PAN" (pronounced PAHN-PAHN)-used when a person or vessel is in some jeopardy less than indicated by a "MAYDAY" call.

SAFETY-
"SECURITY, SECURITY, SECURITY" (pronounced SAY-CURE-IT-AY)-used for navigational safety or weather warning.

An emergency situation will be hectic and there will not be time to learn proper radio procedure. LEARN WHAT TO DO BEFORE YOU NEED TO DO IT. If you hear a distress call, stop all radio transmissions. If you can directly assist, respond on the emergency frequency. If you cannot assist, do not transmit on that frequency. However, continue to monitor until it is obvious that help is being provided.

Weather

⚠ DANGER

DO NOT attempt to boat in severe weather conditions. Death or serious injury can occur. Get to shore before the weather turns bad.

Getting caught in severe weather is hazardous. Bad weather and/or rough sea or water conditions can cause an unsafe situation. Consult local weather services for up-to-date forecasts on weather and sea conditions. Television, Radio, and the Internet can give you access to NOAA weather reports that will help you make a determination on where and when to get underway.

Following are some weather related rules:

- Understand the design limitations of your boat.
- Check the weather forecast and water conditions before leaving and while underway.
- Wear a Personal Flotation Device (PFD)

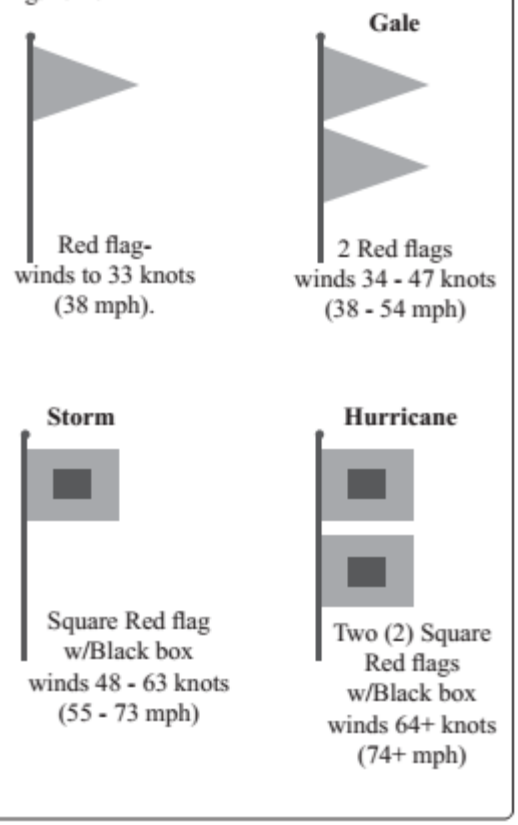
⚠WARNING

A sudden change in wind direction or speed or an increase in wave height indicates deteriorating weather.

NOTICE

Check the weather forecast and water conditions before leaving and while underway

Weather Warning Penants
Fig. 1.14.1



- If a storm approaches, immediately seek a safe harbor.
- If a storm hits have everyone sit in the cabin or cockpit deck in the boat. Head the bow into the wind with enough power to maintain slow headway.
- If you encounter fog, determine your position, set a safe course, slow down and alert other boats of your presence with a sound signal.
- If a lightning storm approaches, the safest action is to dock and disembark. If you cannot return to shore, have passengers go inside the cabin and remain there until the storm passes.
- Stay out of the water during a lightning storm. If caught swimming during a storm, get back into the boat and remain there until the storm passes. (remember that lightning can strike several miles away from the storm itself. Be aware of the storms location relative to your location and the direction the storm is moving).

Swimming, Diving & Water Skiing

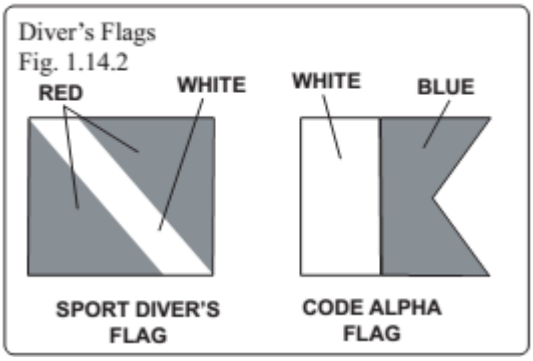
Swimming

- Do not swim from a moving boat.
- Many areas prohibit swimming from a boat except in designated areas.
- Turn off engine in gear (to prevent propeller "wind milling") before picking up swimmer.

Diving

Recognize and respect diving flags. Keep at least 30 meters (100 ft.) away.

Diver's Flags
Fig. 1.14.2



SPORT DIVERS FLAG-Red flag with diagonal white stripe marks a diver in the water.

CODE ALPHA FLAG-Blue and white pennant designates boat being used in dive operations.

Water Skiing

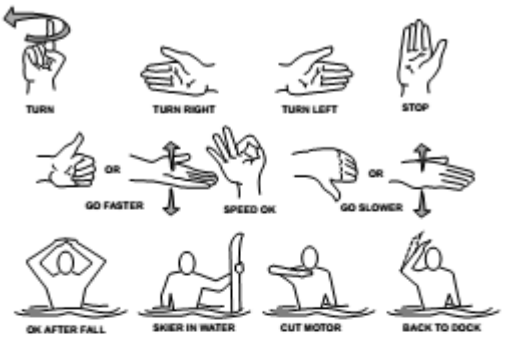
Always have two persons in the boat, one at the controls and one who can easily and continuously look at the skier. Insist that anyone who water skis must know how to swim. Insist that skiers wear approved Personal Flotation Devices (PFD's) Ski only in daylight when visibility is good.

Water Skiing Signals

Skiing Signals Fig. 1.15.1

- Never drive the boat directly behind a water skier. At 22 knots (25 m.p.h.), it takes only 5 seconds to overtake a fallen skier who was
- Ski only in areas where skiing is permitted.
- Observe local restrictions on length of tow line.
- Learn the signals to communicate with a skier. The skier is to control the boat through hand signals (Figure 1.15.1).
- Your boat will handle differently while towing a skier. Experiment carefully to learn the difference.
- Skiers may start from the shore or dock, if boat traf fi c allows. When returning, pick up skiers from water. Do not ski back to shore or dock.
- Give immediate attention to fallen skiers.
- Keep a downed skier in sight and on the operator's side of the boat when approaching the skier. Never back up to anyone in the water.
- Turn off engine in gear (to prevent propeller "wind milling") before picking up skier.
- If the skier suddenly releases the tow rope, it can backlash into cockpit. Spotters who are watching the skier must be aware of this fact and be prepared to take appropriate action to avoid injury.

Skiing Signals
Fig. 1.15.1



Turn – Arm raised, circle with index finger extended.

Turn Right – Extend arm out from body to the right.

Turn Left – Extend arm out from body to the left.

Stop – Raise arm with palm vertical and facing forward.

Faster – Thumb pointed up or palm up, move hand up and down.

Speed OK – Raise arm and form a circle with thumb and index finger.

Slow Down – Thumb pointed down or palm down, move hand up and down.

OK After a Fall – Clasp hands together overhead.

Skier in Water – Extend one ski vertically out of water.

Cut Motor – Draw finger across throat.

Back to Dock – Pat top of head.

⚠ DANGER

PROPELLER SAFETY

- **Before starting your boat, walk to the stern and look in the water to assure there is no one near your propeller.**

  People near propeller may not be visible from helm.
- **NEVER allow passengers to board or exit your boat from the water when engines are on.**
- **Educate passengers about the dangers of propellers**
- **Be especially alert when operating in congested areas. NEVER enter swimming zones.**
- **Take extra precautions near boats that are towing skiers or tubers.**
- **NEVER permit passengers to ride on the bow, gunwale, transom, seatbacks, or other locations where they may fall overboard.**
- **STOP! if someone falls overboard. Slowly turn the boat around, and keep the person in sight as you approach. Turn your engine off FIRST and then bring the person aboard.**
- **NEVER reverse your boat to pick someone up out of the water.**

⚠ WARNING

SWIMMING/DIVING HAZARD

- **Keep clear of areas designated only for swimmers and skin divers. Recognize markers used for such areas.**
- **Never swim when there is lightning in the area.**

SKIING HAZARDS

- **Skiers must use a safety approved Personal Flotation Device (PFD).**
- **Ski only during daylight and in good visibility.**
- **Avoid shallow water, other boats, navigational aids and other obstructions.**
- **Keep at least 30 meters (100 ft.) from other objects.**
- **Never drive directly behind a water skier.**
- **A competent observer must watch the skier at all times. A competent observer is a person that has the ability to assess when a skier is in trouble, knows or understands water skiing hand signals and is capable of helping a skier.**
- **Keep a downed skier in constant sight.**
- **Turn off engine in gear before you get close to person in the water.**
- **Never back up to anyone in the water.**
- **Use caution in boat when skier is being towed. Sudden release of tow rope can cause it to backlash into the cockpit.**

PERSONAL INJURY HAZARD

Use transom tow ring only to pull water skiers. Unless specified by the manufacturer, any other use, such as parasailing, kite flying, towing other boats, etc. may create too much stress on the tow ring, resulting in personal injury and/or equipment damage.

Emergency Engine Stop Switch

⚠WARNING

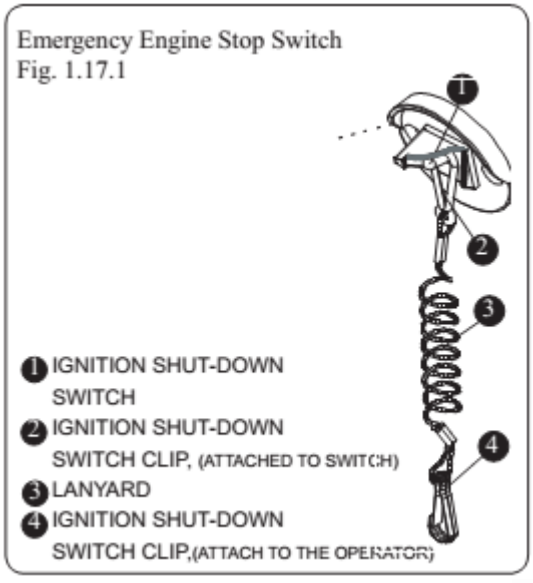
Wear the lanyard at all times when operating the boat. Use it to stop only in an emergency. DO NOT use it to shut off the engine during normal operation

Your boat is equipped with an emergency engine stop switch. The switch is located on the console, below the shift/throttle control. The ignition shut down safety switch incorporates a shut-off switch, switch clip, lanyard and lanyard clip, which is clipped to the operator when running.

If an emergency arises and the engine must be shut down, a pull on the cord to release the clip from the shut-off will shut off the engine.

This switch is designed to shut the engine off when the operator of the boat leaves the control station, either accidentally by falling into the boat, or by being ejected overboard. This would most likely occur as a result of poor operating practices.

Emergency Engine Stop Switch
Fig. 1.17.1



NOTICE

This switch only works when used properly. The decision of whether to use an ignition safety switch or not rests with you, the operator.

The lanyard should be long enough to prevent inadvertent activation. Do not let the lanyard become entangled.

Accidental loss of power can be hazardous, particularly while docking or in heavy seas, strong current or high winds. Passengers and crew may lose balance and the boat may lose steering control.

Should the operator fall out of the boat at planing speed, it may take several seconds for the engine and propeller to stop turning. The boat may continue to coast for several hundred feet, causing injury to anyone in its path.

Float Plan

Float plans are important to you should you encounter problems on the water. A float plan should describe where you will be boating, departure time and return, number and names of passengers and destination.

The float plan should be given to a friend or relative, so they can give the information to a national boating agency like the U.S. Coast Guard, in the event you do not return at the time specified on the float plan.

If there are any changes to the float plan they should be conveyed to the person holding the float plan. Once you return you should contact the person holding the float plan to let them know you are back.

Chart Your Course

To avoid boating in unsafe areas where there are

underwater obstructions, shallow water, unnavigable conditions such as dangerous currents, and others, you must chart a course. This means having and using National Oceanic and Atmospheric Administration (NOAA) charts for coastal waters, observing and understanding all navigational aids, using the knowledge and guidance of experienced boaters, and being aware of the tides and times where appropriate. If you are boating in an area you are unfamiliar with, proceed with caution and post a lookout to watch for hazards.

⚠ WARNING

Hitting an object in or under the water or boating in dangerous currents can cause serious injury or death to occupants in the boat.

You must know where the hazards are and avoid them. In uncharted waters, boat very slowly and post a lookout.

If an object is struck or if you run aground:

- **Shut the engine OFF**
- **Check the hull for damage**
- **Check propeller for damage**
- **If aground, consider the bottom grade before moving off, (damage to the hull and propellers could be worsened).**
- **Determine the tides and whether it will help or hinder you from the grounding.**
- **Do not have anyone other than a trained and competent service tow your boat.**

Environmental Considerations

Fuel & Oil Spillage

Regulations prohibit discharging fuel or oily waste in navigable waters. Discharge is defined as any action which causes a fi lm, sheen or discoloration on the water surface, or causes a sludge or emulsion beneath the water surface. A common violation is bilge discharge. Use rags or sponges to soak up fuel or oily waste, then dispose of it properly ashore. If there is much fuel or oil in the bilge, contact a knowledgeable marine service to remove it. Never pump contaminated bilge overboard. Help protect your waters.

Excessive Noise

Many areas regulate noise limits. Even if there are no laws, courtesy demands that boats operate quietly.

Wake / Wash

Power boat wakes can endanger people and vessels. Each power boat operator is responsible for injury or damage caused by the boat's wake. Be especially careful in confined areas such as channels or marinas. Observe "no wake" warnings.

⚠ WARNING

SPEED HAZARD - Watch your wake. It might capsize a smaller craft. You are responsible for damage caused by your wake.

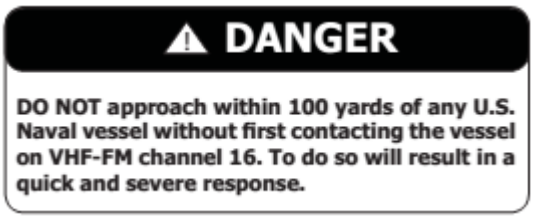
⚠ CAUTION

Reduce speed in congested waterway. Be alert for No Wake markers.

Homeland Security Restrictions

Recreational boaters have a role in keeping our waterways safe and secure. Violators of the restrictions below can expect a quick and severe response.

DO NOT approach within 100 yards, and slow to minimum speed within 500 yards of any U.S. Naval vessel. If you need to pass within 100 yards of a U.S. Naval vessel for safe passage, you must contact the U.S. Naval vessel or the Coast Guard escort vessel on VHF-FM channel 16.



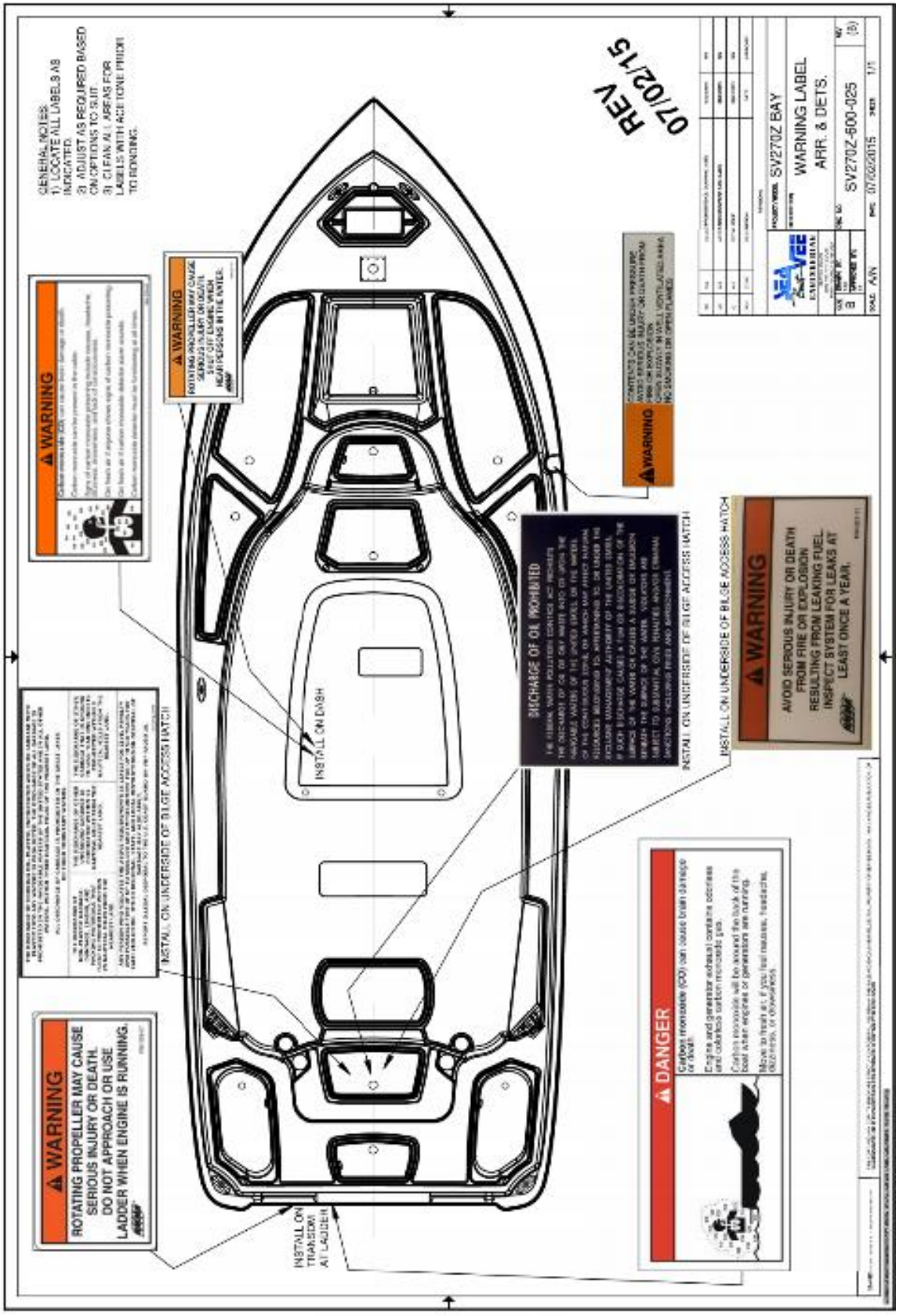
- Observe and avoid all security zones. Avoid commercial port areas, especially those that involve military, cruise line or petroleum facilities. Observe and avoid other restricted areas near dams, power plants, etc.
- DO NOT stop or anchor beneath bridges or in channels.

America's Waterway Watch

In March, 2005, the U.S. Coast Guard officially launched America's Waterway Watch to encourage the boating public to report suspicious activities in our nation's ports and waterways. America's Waterway Watch simply asks anyone who works, lives, or recreates on the water to keep an eye out for suspicious activities. Anyone who spots such activity is asked to call the National Response Center's 24-hour hotline, 800-424-8802 or 877-24WATCH (877-249-2824).

Warning Label Locations

Mounted at key locations throughout the boat, warning labels advise the owner/operator of imperative safety precautions to follow when operating and/or servicing equipment. DO NOT REMOVE OR OBSTRUCT ANY WARNING LABEL. Replace any label which becomes illegible.


REV
07/02/15
GENERAL NOTES:
1) LOCATE ALL LABELS AS INDICATED.
2) ADJUST AS REQUIRED BASED ON OPTIONS TO SUIT.
3) CLEAN ALL AREAS FOR LABELS WITH ACETONE PRIOR TO BONDING.
WARNING
ROTATING PROPELLER MAY CAUSE SERIOUS INJURY OR DEATH.
DO NOT APPROACH OR USE LADDER WHEN ENGINE IS RUNNING.
WARNING
ROTATING PROPELLER MAY CAUSE SERIOUS INJURY OR DEATH.
STOP ENGINE WHEN NEAR PERSONS IN THE WATER.
WARNING
DISCHARGE OF OIL PROHIBITED
INSTALL ON UNDERSIDE OF BILGE ACCESS HATCH
INSTALL ON DASH
INSTALL ON UNDERSIDE OF BILGE ACCESS HATCH
WARNING
AVOID SERIOUS INJURY OR DEATH FROM FIRE OR EXPLOSION
RESULTING FROM LEAKING FUEL
INSPECT SYSTEM FOR LEAKS AT LEAST ONCE A YEAR.
DANGER
Carbon monoxide (CO) can cause brain damage or death.
Engine and generator exhaust contains odorless and colorless carbon monoxide gas.
Carbon monoxide will be around the back of the boat when engines or generators are running.
Move to fresh air if you feel nausea, headache, dizziness, or drowsiness.
INSTALL ON TRANSOM AT LADDER
SV270Z BAY
WARNING LABEL ARR. & DETS.
SV270Z-600-025
07/02/2015

Section 2 – General Information

Construction Standards

Seavee is dedicated to creating a superior product which will provide comfort, performance, safety and dependability. All of our boats comply with the safety standards set by the United States Coast Guard and are designed, engineered and manufactured in accordance with applicable recommendations and guidelines of the American Boat and Yacht Council (ABYC.) and certified by the National Marine Manufacturers Association (NMMA).

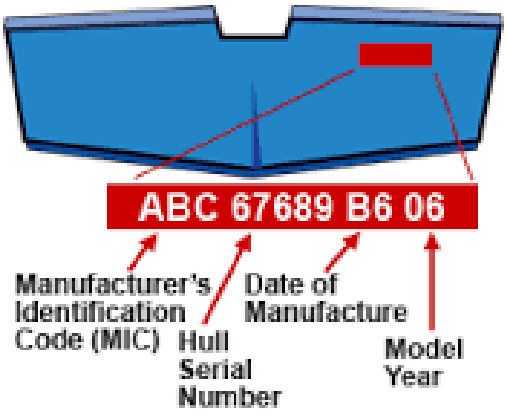
Our Hull

Seavee® hulls are constructed with our proprietary Vacuum Infusion process. This involves resin drawn into a sealed mold system where the resin fills voids in the hull laminate. The deck is fabricated in the same way. This process produces the highest quality composite structure, with very high modulus, strength and stiffness, but also light. This technology produces the strongest, lightest and most durable boat.

Hull Identification Number

The "Hull Identification Number" is located on the starboard side of the transom.

This is the most important identifying factor and must be included in all correspondence related to your vessel. Also of vital importance are the engine serial numbers, part numbers, etc. when writing about or ordering parts for your engine.



Record Your HIN:

S X J _ _ _ _ _ _ _ _ _ _

Servicing Your Seavee

Seavee provides factory direct sales and service. Consult with Seavee Service in Miami, Florida to have your boat serviced at our dedicated expert factory service center. If you are outside of the South Florida area, you may have your boat serviced locally by expert factory service representatives, supervised by our Miami Service center.

Manufacturer's Certification

All boats must comply with federal regulations regarding maximum capacities. The boat is Yacht Certified under auspices of the National Marine Manufacturer's Association. In accordance with applicable laws, standards and rules, this vessel exceeds 26' in length, and is not required to have a specific maximum capacity. The operator should consider the length of voyage, weather and weather forecast, conditions, passengers, and other numerous other factors in determining the safe operating load for a particular voyage.

An NMMA Certification means that your Seavee® has been judged by the National Marine Manufacturers Association to be in compliance with applicable federal regulations and American Boat and Yacht Council standards.

Power Capacity

The "Specifications & Dimensions" on the following page has the maximum rated power listed for your boat. DO NOT EXCEED THIS RATING. The various engine types offered today are more powerful and require constant maintenance to stay at optimal performance. It is required of the owner/operator to read all information regarding safety features, warning notices and maintenance schedules for continued safe operation of the engine.

Specifications & Dimensions

Model Summary

BASIC SPECIFICATIONS

MODEL		270Z
LENGTH		27'
BEAM		9'-1"
WEIGHT (W/O ENGINES & DRY)	(LBS)	3,500
HULL DRAFT	(IN.)	15
HULL DEADRISE	(DEG.)	17
FUEL (GASOLINE)	(GAL.)	116
FRESH WATER	(GAL.)	9
WASTE	(GAL.)	N/A
DIESEL FUEL (GENSET)	(GAL.)	N/A
MAX # ENGINES	(#)	2
MAX HP	(HP)	450
HULL CONSTRUCTION		CORED / INFUSED
NOTES		

1. All specifications provided as is, without warranty or gaurantee. Specifications subject to change without notice.
2. Weight is dry boat, no engines, basic hardtop (250#), basic leaning post/helm seat (350#) , no side door, as applicable. Each boat can vary in weight considerably based on options, construction, and other factors. Weights are provided for comparitive purposes only.
3. Fuel capacity based on latest fuel tank net capacities.
4. Freshwater and waste capacity based on latest tank capacities.
5. Some items listed may be optional, including waste tank, diesel generator and diesel tank, and others.

PREPARED BY: R. KAIDY 05/06/16 REV(H)

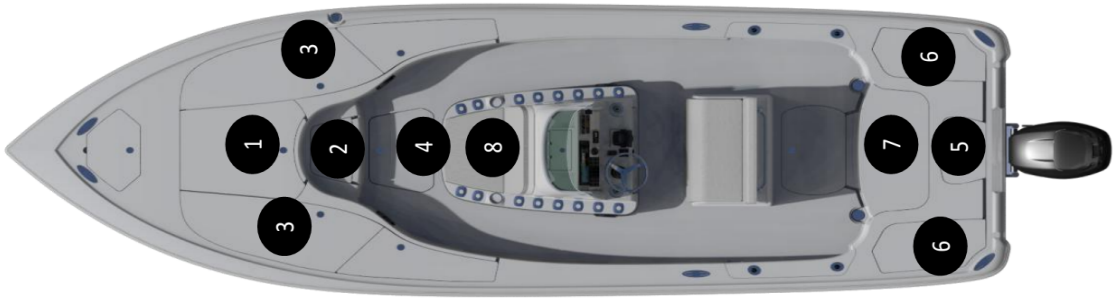
Model Summary

DETAILED ON-BOARD STORAGE SPECIFICATIONS

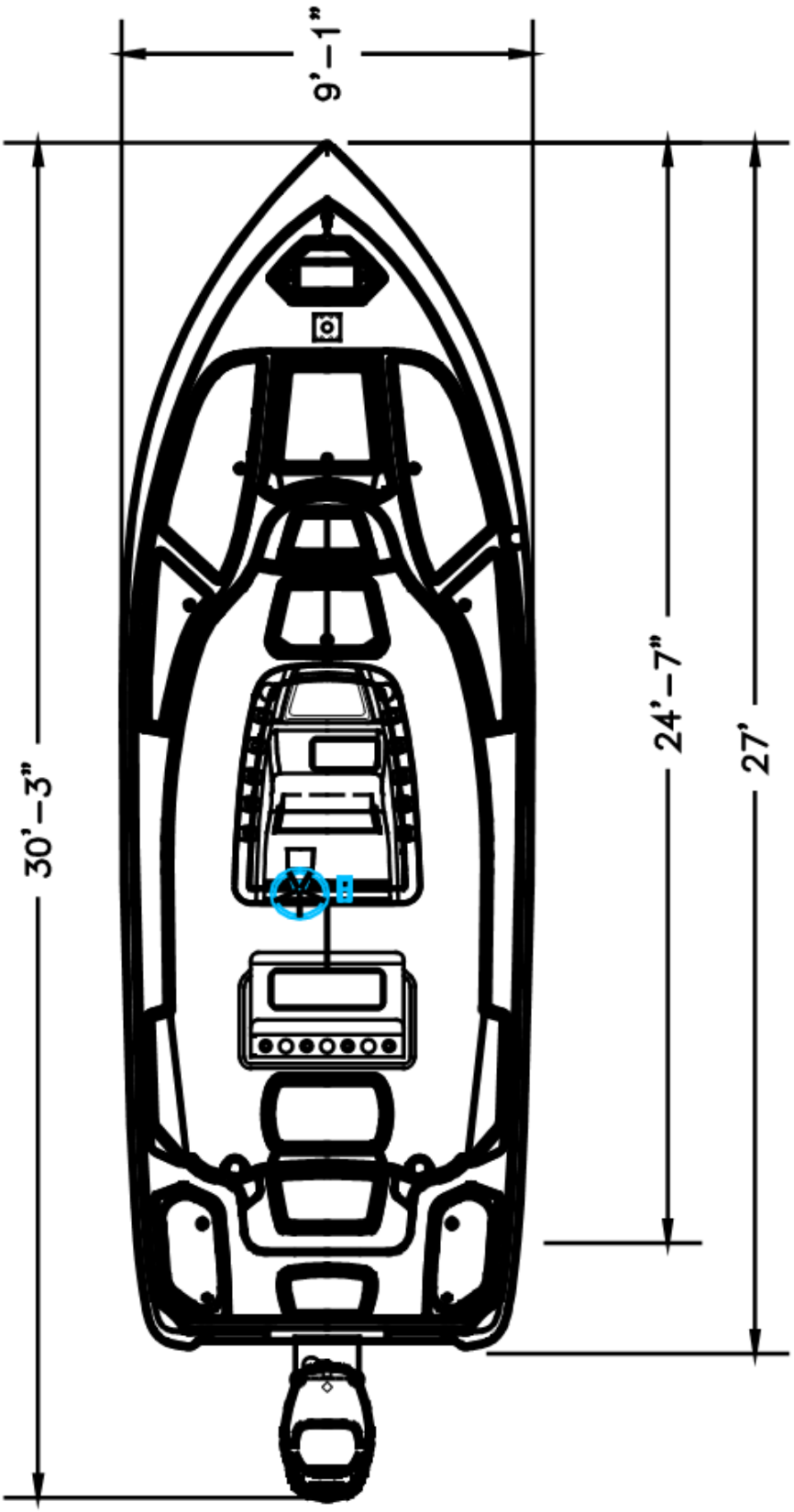
MODEL			270Z
LENGTH			27'
BEAM			9'-1"
FWD STORAGE / TROLLING MOTOR BATTERY STORAGE	1	GAL	107 gal
		L * W * D	32" * 32" * 31"
		HATCH DIMS	32" X 32"
FWD LIVEWELL	2	GAL	24 gal
		L * W * D	17" * 33" * 18"
		HATCH DIMS	14" X 25"
FWD FISHBOXES (EACH)	3	GAL	75 gal
		L * W * D	72" * 21" * 18"
		HATCH DIMS	55" X 22"
IN-DECK SAFETY GEAR / CASTNET STORAGE LOCKER	4	GAL	53 gal
		L * W * D	22" * 43" * 16"
		HATCH DIMS	21" x 32"
TRANSOM LIVEWELL	5	GAL	30 gal
		L * W * D	17" * 31" * 17"
		HATCH DIMS	15" x 26"
AFT SIDE RELEASE WELLS/LIVEWELL/FISHBOXES (EACH)	6	GAL	17 gal
		L * W * D	33" * 15" * 12"
		HATCH DIMS	35" x 17"
UNDER SEAT BILGE ACCESS	7	BILGE / UNDER DECK WET STORAGE	
CONSOLE COOLER	8	GAL	17 gal (68 qt)
		L * W * D	14" * 28" * 10"
		HATCH DIMS	11" x 30"

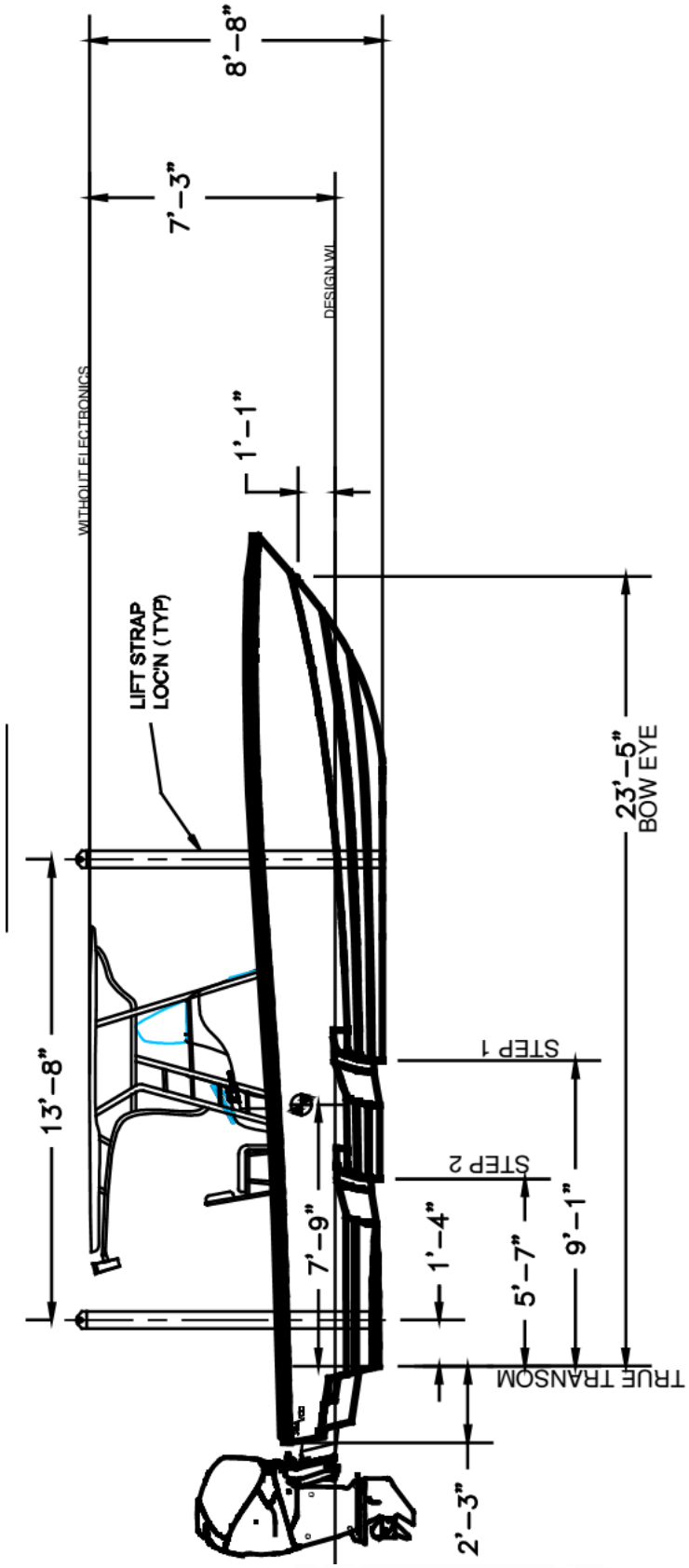
Notes:

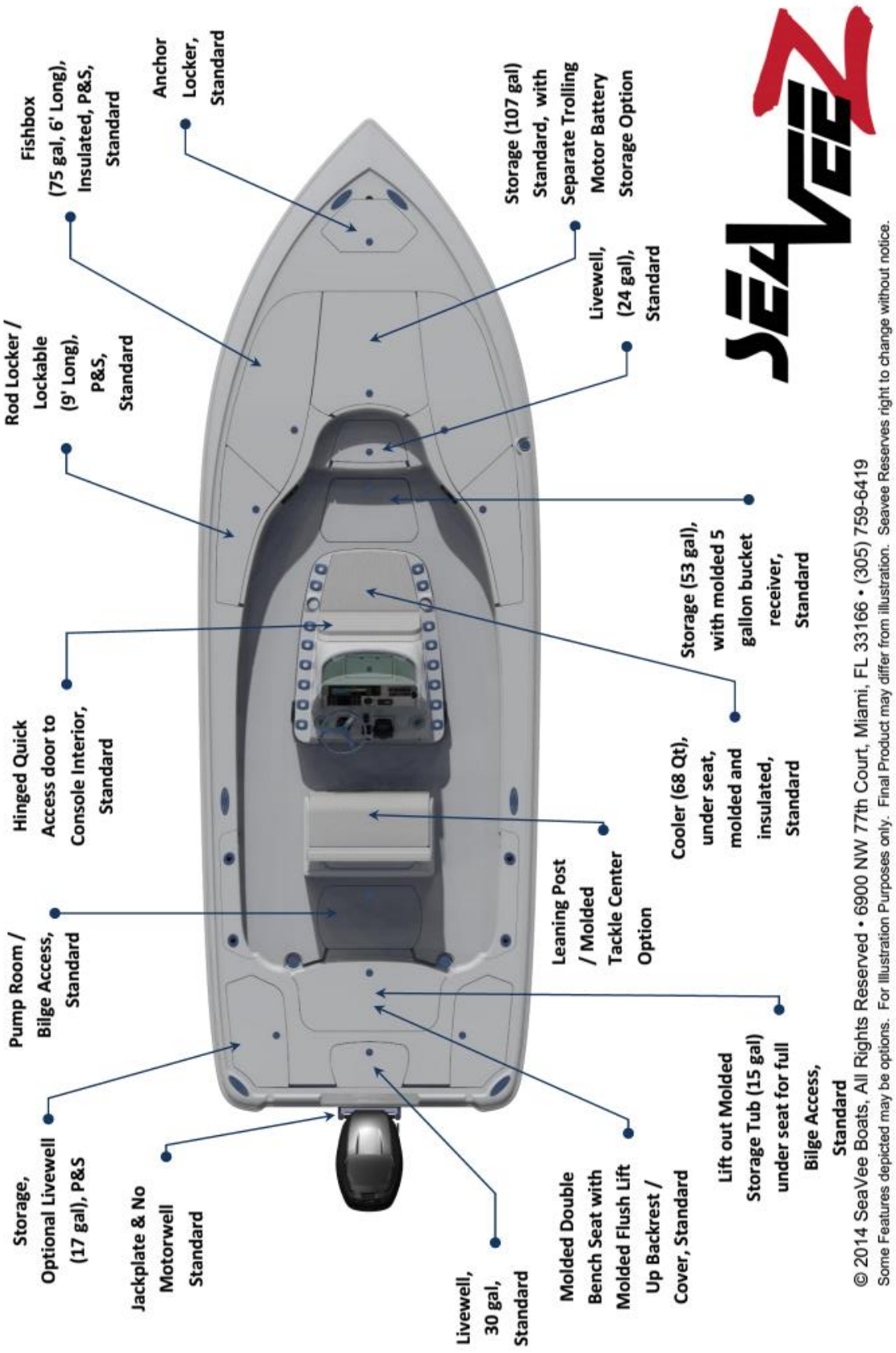
1. All specifications provided as is, without warranty or gaurantee. Specifications subject to change with notice.
2. Weight is dry boat, no engines, basic hardtop (250#), basic leaning post/helm seat (350#) , no side doo as applicable. Each boat can vary in weight considerably based on options, construction, and other f ors. Weights are provided for comparitive purposes only.
3. All hatch dimensions are length by width, rounded to nearest inch. Hatch dimensions for wing hatches are length x width aft x width fwd.
4. All capacities approximate and actual capacity may vary. Hatch sizes are total hatch size. Hatch coamings and gutters may reduce net hatch openning.
5. Some items listed may be optional, including waste tank, diesel generator and diesel tank, and others.
6. " L * W * D" indicates the length, width and depth of the interior volume approximately. Some storage volumes are oddly shaped and these dimensions may represent average dimensions.



PREPARED BY: R. KAIDY 02/10/15 REV(J)


9'–1"
30'–3"
24'–7"
27'


8'–8"
7'–3"
DESIGN WL
WITHOUT ELECTRONICS
1'–1"
LIFT STRAP
LOC'N (TYP)
23'–5"
BOW EYE
13'–8"
STEP 1
STEP 2
7'–9"
1'–4"
5'–7"
9'–1"
TRUE TRANSOM
2'–3"


Fishbox (75 gal, 6' Long), Insulated, P&S, Standard
Anchor Locker, Standard
Storage (107 gal) Standard, with Separate Trolling Motor Battery Storage Option
Livewell, (24 gal), Standard
Rod Locker / Lockable (9' Long), P&S, Standard
Storage (53 gal), with molded 5 gallon bucket receiver, Standard
Hinged Quick Access door to Console Interior, Standard
Cooler (68 Qt), under seat, molded and insulated, Standard
Leaning Post / Molded Tackle Center Option
Pump Room / Bilge Access, Standard
Lift out Molded Storage Tub (15 gal) under seat for full Bilge Access, Standard
Storage, Optional Livewell (17 gal), P&S
Jackplate & No Motorwell Standard
Livewell, 30 gal, Standard
Molded Double Bench Seat with Molded Flush Lift Up Backrest / Cover, Standard
SEAVEE 270Z
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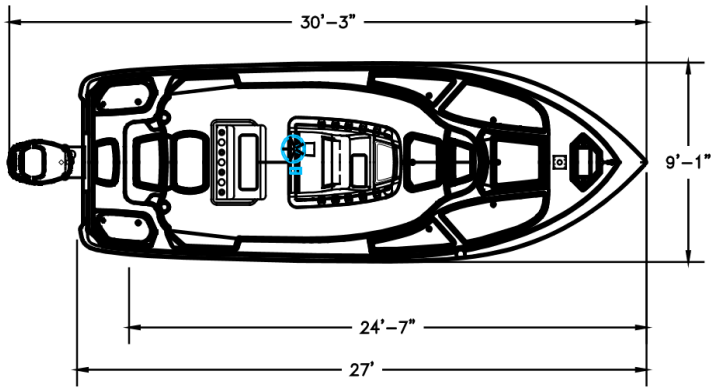
Some Features depicted may be options. For Illustration Purposes only. Final Product may differ from illustration. Seavee Reserves right to change without notice.

PARTICULARS:

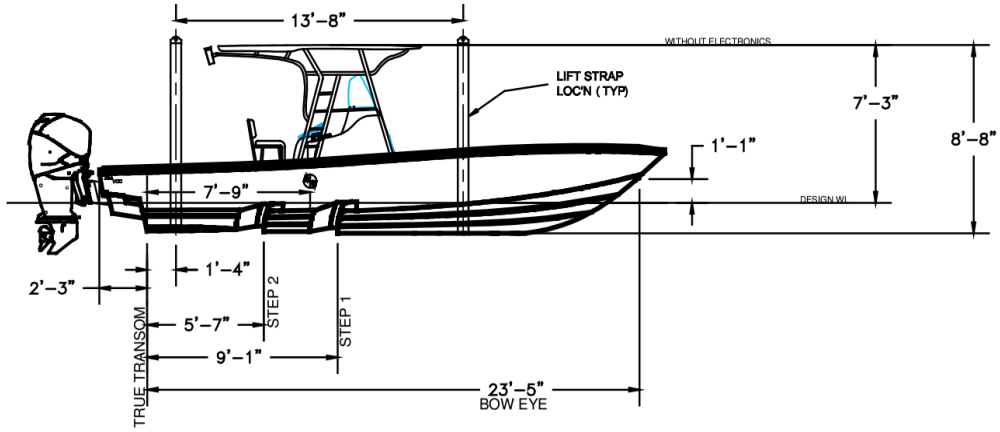
LENGTH HULL	= 27'"
LENGTH OVERALL W/ENGINES	= 30'-3"
BEAM MAX	= 9'-1"
HT. MAX (KEEL-HARDTP)	= 8'-8"
BRIDGE HEIGHT FROM DWL	= 7'-3"

WITH SINGLE VERADO 300HP ENGINE W/HARDTOP:

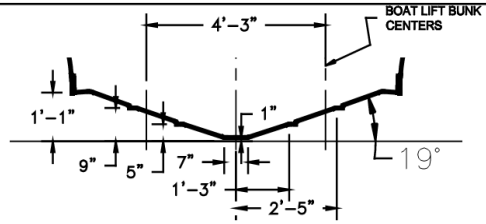
LIGHT LOAD (10% LIQ.) WT.	=	4850 LBS / 91" LCG
DESIGN LOAD (50%) WT.	=	6000 LBS / 93" LCG
FULL LOAD (100% LIQ.) WT.	=	6400 LBS / 94" LCG



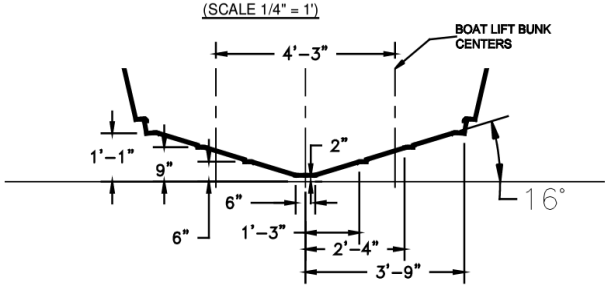
PLAN VIEW



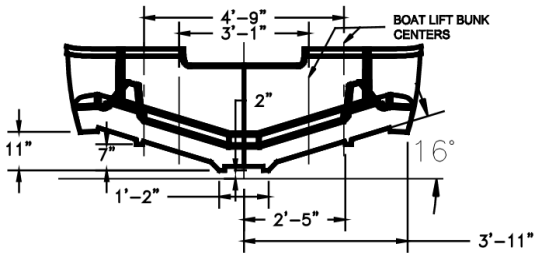
OUTBOARD PROFILE



SECTION VIEW - STEP 1 - HULL ONLY
(SCALE 1/4" = 1')



SECTION VIEW - STEP 2 - HULL ONLY
(SCALE 1/4" = 1')



TRANSOM SECTION VIEW - HULL ONLY
(SCALE 1/4" = 1')

GENERAL NOTES:

1. TYPICAL CONFIGURATION DEPICTED, MERC. VERADO 300HP.
2. ACTUAL AND PARTICULAR BOATS WILL VARY BASED ON ACTUAL AS-BUILT CONFIGURATION.
3. SHIPCHECK ALL DIMENSIONS PRIOR TO CONSTRUCTION OF BOATLIFT OR TRAILER.
4. SEAVEE MAKES NO GAURANTEE OR WARRANTEE, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS INFORMATION FOR A PARTICULAR BOAT. ALWAYS CHECK MEASUREMENTS ON ACTUAL BOAT.
5. ALWAYS SUPPORT BOAT ON STRINGERS AND BULKHEADS AS DEPICTED.

REV	ZONE	DESCRIPTION	DATE	APPROVED
(-)	ALL	INITIAL ISSUE	05/11/15	N/A

REVISIONS

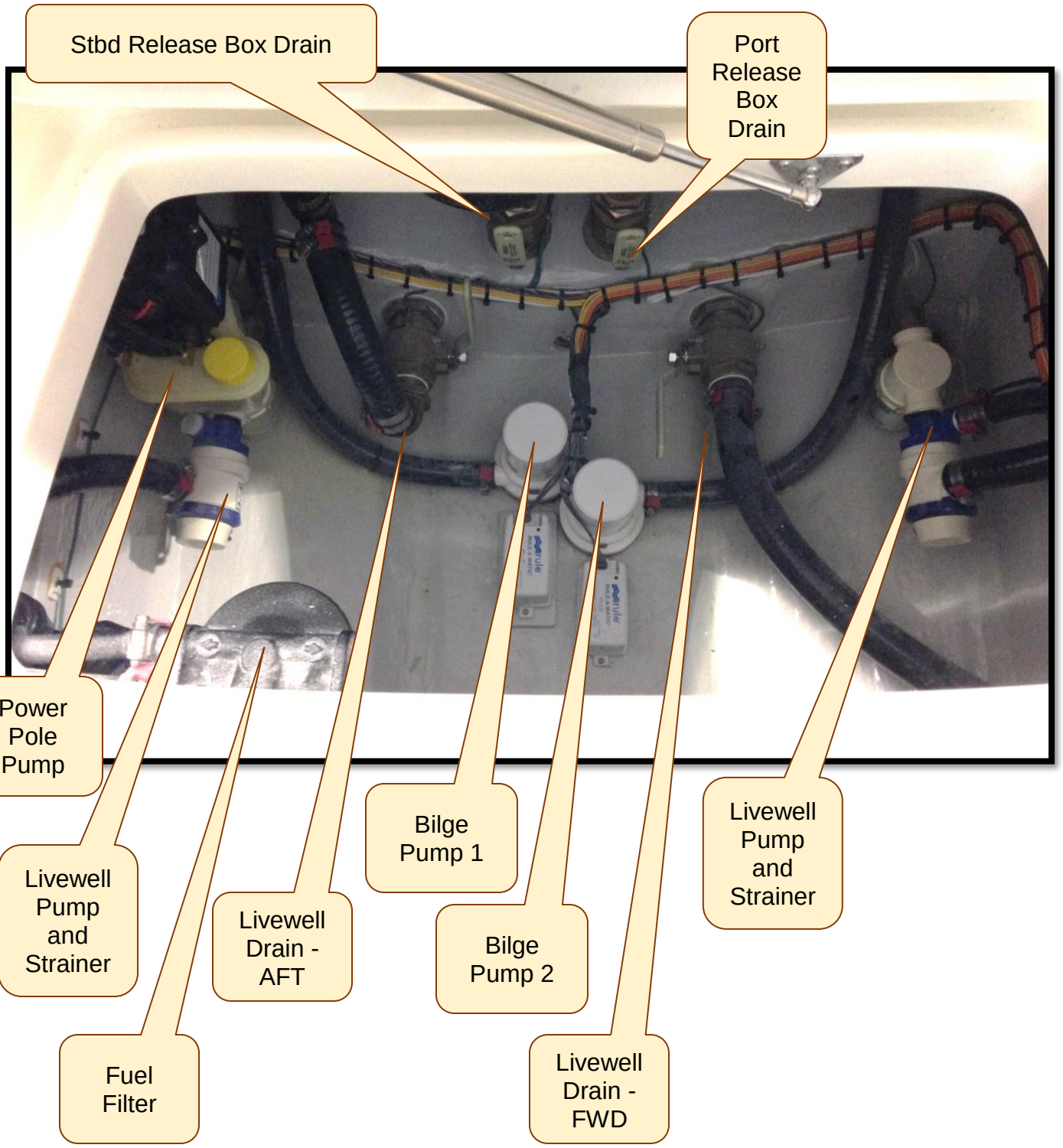
SEAVEE BOATS ENGINEERING
SEAVEE BOATS
6900 NW 77TH COURT
MIAMI FLORIDA 33166 USA

PROJECT/MODEL: 270Z

DESCRIPTION: TRAILER & BOAT LIFT GUIDANCE

SIZE	DRAWN BY:	APPROVED BY:	DWG NO.	REV
A	RSK	RT	SV270Z-808-001	(-)

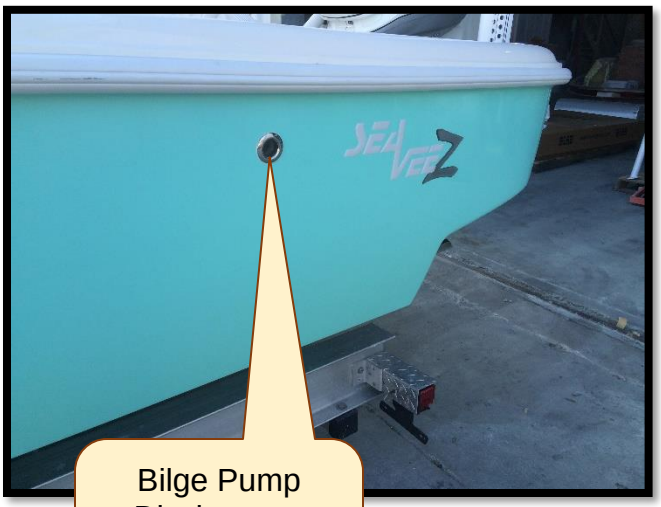
SCALE: 1/8"=1' DATE: 05/11/15 SHEET: 1/1



Typical Bilge Layout
Looking Aft through aft seat Hatch

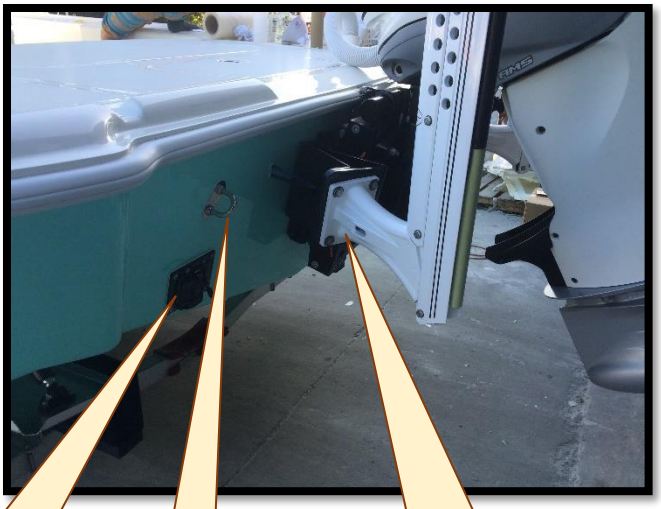
(Each boat customized and may vary)

Anchor locker gutter Drain



Bilge Pump Discharge – One each port and starboard

Fishbox Drain – One each port and starboard



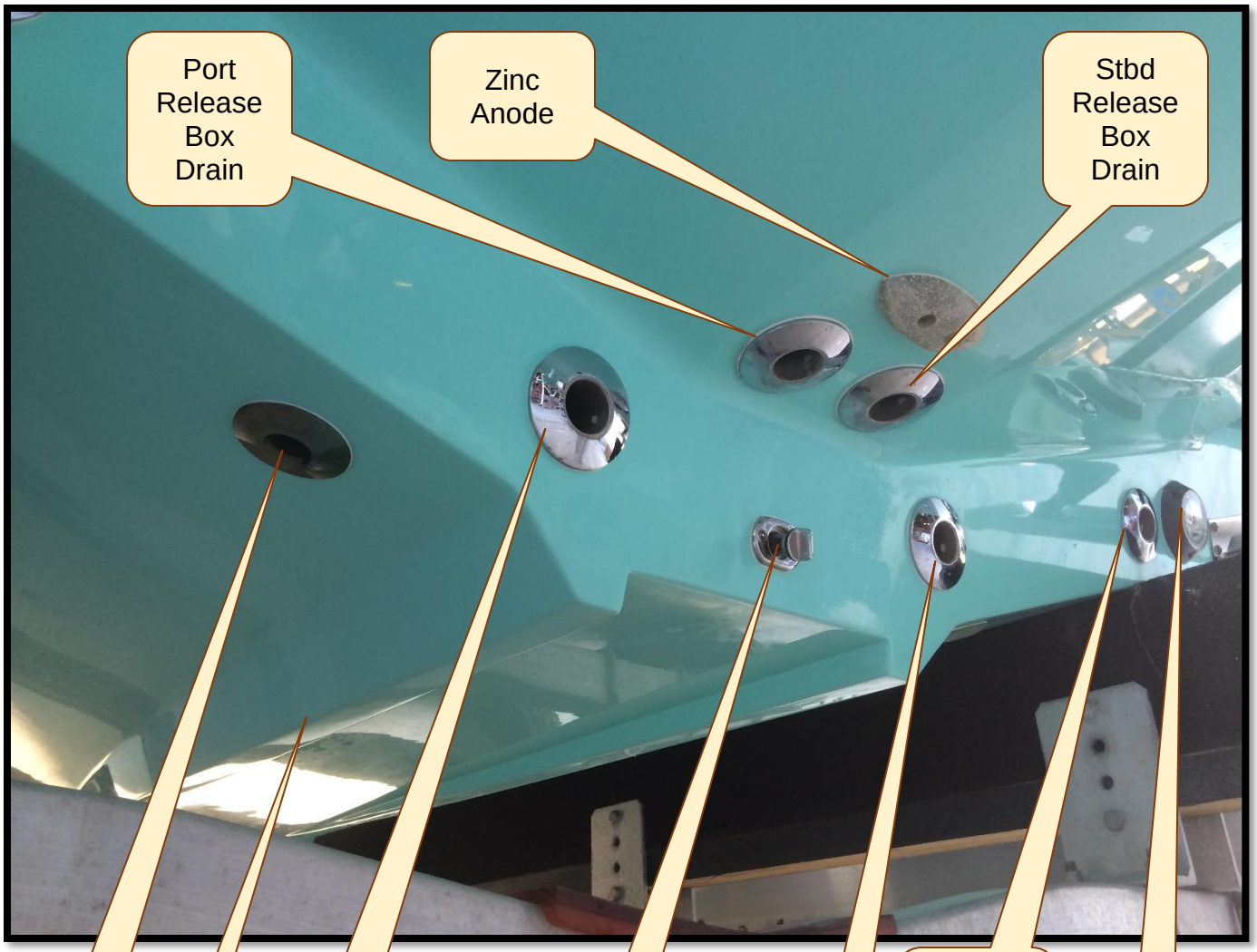
Pull Out Tube Swim Ladder

Stern Eye – One each port and starboard

Power Pole on Transom Relocation Bracket

Typical Fittings Layout – Hull Sides & Transom

(Each boat customized and may vary)



Typical Transom Layout Looking Forward from under and behind boat on trailer

(Each boat customized and may vary)

Typical Dash / Helm Layout

(Each boat customized and may vary)

Gear Shift & Throttle Control

⚠ DANGER

To avoid risk of injury or death, shut off engines when near swimmers or prior to using swim ladder.

⚠ DANGER

Be aware of your footing while the boat is underway, slipping or falling could result in serious injury or death, especially if the boat is in motion or in rough seas. Keep the accomodation deck clean, so if movement is neccessary it will be free of obstruction.

⚠ WARNING

- **Gelcoat surfaces are slippery when wet. Use extreme caution when walking on wet surfaces.**
- **Never occupy the working decks while the boat is underway.**
- **Use care when waxing to ensure that walkways are not made dangerously slippery.**

⚠ WARNING

NEVER allow passengers to ride in an area (i.e. bow, gunnels, transom, etc. that will pose a hazard to themselves or the boat.

The following information is generally applicable to all outboard engine manufacturer installations. Refer to the engine manuals and other documentation for the specific operation of your engine manufacturer's equipment installed on your boat for specific and safety, detailed operation and maintenance information.

⚠ CAUTION

Shift controls into NEUTRAL before starting engine. Shift only when engine is at idle. Reversing at high speeds can cause flooding/ swamping due to water being pushed over the transom.

NOTICE

Wind and sea currents can change how your boat responds while in motion. Understanding your boat and its reactions at speed will make your boating safer and more enjoyable.

Your boat features a state of the art digital "drive-by-wire"gear shift and throttle control system.

The throttle control regulates the RPM of the engine. Regulating the RPM of the engine will control the speed of the boat. Moving the lever forward engages the forward gear. Continuing to move the lever forward will increase the forward speed of the boat.

Likewise, to reverse power, bring the control lever back to engage the reverse gear and increase the reverse thrust by continuing to pull back on the throttle control.

The control must be in the "NEUTRAL" position to start your engine(s). Neutral is in the center position of the unit and acts as an idle.

While in this position, the propeller is not rotating. By moving the control arms back and forth you can feel a detent in the center position and will hear a click when neutral is engaged.

Power Trim Operation

The trim switches are used to obtain an ideal boat

angle (in relation to the water surface) for a given load and water condition. In most cases, best all-around performance is obtained with the engine adjusted so that the boat will run at a 3° to 5° angle to the water.

The trim switch is located on the handle of the shifter/throttle lever.

NOTICE

Motor trim, hull trim plane and speed are factors that affect a boat's trim angle such that visibility can be obscurred.

The power trim & tilt system allows you to raise and lower the engine(s) for optimum performance in the water and for trailering, launching and beaching.

The switches are a momentary type switch; which means that constant pressure must be applied to the switch during the raising and lowering cycle.

Refer to The Engine Manufacturer's Manual In Your Owner's bag for Complete Instructions, Information And Warranty.

It is recommended to have the engines trimmed all the way down or in for best visibility and reduced planing time. Once on-plane adjust trim angle for maximum engine RPM and efficiency.

Power Trim and Trim Tabs

To achieve maximum performance, first adjust the engine trim to the desired running attitude. Then, using the trim tabs to level the boat port and starboard. It may be necessary to re-adjust and fine tune the trim tabs to achieve optimum attitude and performance.

Trim Guidelines

When running in choppy waters it is suggested that you trim your prop out to keep the bow high and proceed at slower speed with caution.

Running in heavy seas (3-4 feet) requires increased attention to the control of your boat. As such it is best to trim the engine far enough down to keep the boat level and on plane at slower speeds.

⚠ WARNING

STOW LADDER COMPLETELY BEFORE OPERATING BOAT. LADDER OR HULL COULD BE DAMAGED BY OPERATION OF THE BOAT WITH LADDER DEPLOYED OR NOT FULLY LOCKED IN STOWED POSITION.

After use in saltwater, a freshwater wash is provided for the ladder to flush the ladder and mechanism, if the boat is equipped with the optional freshwater system. Turn on the freshwater pump, then rotate the valve located on the forward bulkhead in the bilge, accessed through the hatch under the aft seat. Align the valve handle horizontally to allow water to flow to the ladder flush. Close the valve by rotating handle to vertical position. Note that this feature uses a large amount of water quickly, so only leave the valve open for a short time, approximately 30 seconds.

Navigation Lighting

Your boat comes equipped with navigation lighting for your safety. Regulations state that all boats, no matter the size, must display navigation lights. The lights must be displayed at night or in low visibility conditions. It is the responsibility of the operator to ensure that the navigation lights are in good working order and that the proper lighting is shown.

When not equipped with a hardtop, the stern light is mounted on a removable pole. When navlights are required to be displayed, remove the pole from its stowage location (ships from factory in the rod locker) and insert in the socket in the aft casting platform. Ensure that the pole is locked in place with the locking collar.

When equipped with an optional hardtop or 2nd station, the anchor light will be located on a folding stanchion mounted on top of the hardtop or 2nd station. Ensure that the stanchion is in the up and locked position prior to operating at night. Lowering the light may be necessary when traversing under low bridges or while the boat is transported on a trailer.

Operating the Navigation Lighting

A three-position switch, located on the console switch panel marked "NAV/ANC" (Figure 2.28.2), controls the navigation and anchor lighting.

Side Lights are located in the Rubrail on the port and starboard side of the bow. These lights are LED, and do not have a bulb that requires replacement. They are mounted in a stainless steel plate that provides the required cutoff angles.

In the "Navigation Lights" position (See below), the port (red) and starboard (green) and mast (white) lights will illuminate. These lights let other vessels know the approximate size and direction of travel of your boat, depending on which lights they can see.

In the "Anchor Lights" position, the white, 360-degree light will illuminate, showing other boaters your location while at anchor.

Docking

Your boat has six (6) 6 inch cleats, two located at the bow (P&S), two located amidships (P&S) and two at the stern (P&S). The cleats are used to secure the boat to the dock. While loading/unloading or mooring, please learn the proper way to secure the boat and how best to use the mooring points of your boat.

⚠ WARNING

DO NOT use cleats to tow another boat.

Lifting

DO NOT use the bow eye for lifting the boat.

⚠ DANGER

Use only flat, wide belt-type slings and spreaders to lift the boat.
Lifting with bow and stern eyes will cause stress on the fiberglass & gel coat and may cause injury or death.

Whether you are lifting your boat out of the water for routine maintenance or long term storage, consider the following:

- If you are using a professional lifting service, it is prudent to check all credentials and ask for proof of insurance to protect your investment.

- Ensure that fishboxes and bilge are pumped out prior to lifting.
- Use a wide, flat, belt sling for lifting to minimize stress on the gunwales.
- Careful location of the sling is required. Use the reference drawing in this manual for guidance.
- DO NOT place slings where contact with underwater fittings will occur.
- When secured on land, pull the garboard drain, ensure that motorwell drains and deck drains are free flowing and position the boat with the bow slightly higher than the stern so that any water which is allowed to accumulate in the cockpit, motorwell or bilge can easily drain from the boat.

Bilge Pumps

Your boat is equipped with two (2) automatic bilge pumps, each aft (2000 GPH - 7,571 LPH).

Each pump is activated automatically by a mercury- free float switch when the water in the bilge reaches a predetermined level.

By operating the switch on the control station switch panel labeled BILGE 1 or BILGE 2 (See figure 2.22.1) the operator can energize the pumps regardless of the position of the float switches.

The aft pumps discharge water overboard by way of a thru-hull fitting on the port and starboard sides of the hull.

Emergency High Water Bilge Pump

In the event that water has risen in the bilge sufficiently to activate the high water float switch, the emergency high water bilge pump will automatically begin to pump water out of the bilge through a thru hull fitting either on the aft starboard side or port side of the hull (See fi g. 2.6.2). The red LED light above the bilge switch will also illuminate

Take immediate action:

- Switch all bilge pumps ON.
- Use your radio to broadcast a PAN-PAN distress call (See page 1-13).
- Turn OFF all AC and DC breakers before stepping into the water in the bilge.
- Determine the problem and take necessary action to stop the inflow of water.
- If after you determine your situation no longer requires assistance, you must cancel the PAN-PAN call.

Access to the Pumps

The aft pumps can be accessed through the machinery/bilge hatch located under the aft seat.

NOTICE

Inspect the bilge pump intakes frequently and keep them free of dirt or material which may impede the flow of water through the pump.

Maintenance

To clean the pump strainer, depress the lock tabs on both sides of the pump and lift the pump motor (Figure 3.1.2).

If water does not come out of the discharge hose:

1. Remove the motor module to see if the impeller rotates with the power on.
2. Remove any debris that may have accumulated in the impeller section or strainer base.
3. Check hose and connection on hull side for debris and proper connections.

Float Switch

Frequently inspect the area under the float switches to ensure they are free from debris and gummy bilge oil.

To clean:

- Soak in heavy duty bilge cleaner for 10 minutes, agitating several times.
- Check for unrestricted operation of the fl oat.
- Repeat the cleaning procedure if necessary.

Fuel & Oil Spillage

Regulations prohibit discharging fuel or oily waste in navigable waters. Discharge is defined as any action which causes a film, sheen or discoloration on the water surface, or causes a sludge or emulsion beneath the water surface. A common violation is bilge discharge.

Use rags or sponges to soak up fuel or oily waste, then dispose of them properly ashore. If there is a large quantity of fuel or oil in the bilge, contact a knowledgeable marine service to remove it. Never pump contaminated bilge discharge overboard.

Fill fuel tank less than rated capacity. Allow for fuel expansion.

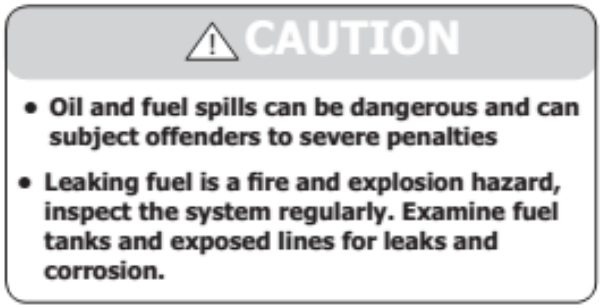
Thru Hull Discharge Hoses

Access

Aft thru-hulls may be accessed via the aft machinery/bilge hatch located under the aft seat.

The forward fishbox thru-hulls may be accessed by removing the forward speaker, or reaching through the round access hatch located on the aft face of the forward storage locker.

Fuel System



This system has been designed to meet the EPA regulations using certified components to limit the fuel vapor emissions.

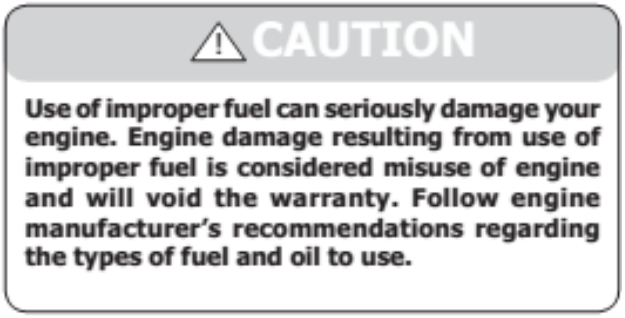
Your fuel system provides the following benefits:

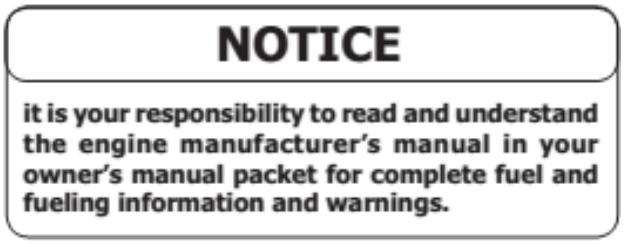
- Automotive style refueling, automatic nozzle shut-off, fuel nozzle retention. This system sends a signal to the pump nozzle to shut off before there is any spit-back or well-back through the fill opening.
- Overfill protection is included with each system, reducing the possibility of accidental fuel spills.

- Reduced hydrocarbon emissions through the use of a specially designed fuel fill. This fuel fill has a permanently attached cap with a positive closure mechanism with an audible click, to let you know when it is sealed.

Fuel tank

Your boat is equipped with a low permeation welded aluminum, coal tar epoxy coated, and foamed-in permanently installed fuel tank with a useable fuel capacity of about 116 gallons. It may not be possible to use then entire capacity of the tank due to pickup location and running trim angle. You should count on the use of approximately 100 gallons for planning.





It is recommended that you follow all instructions regarding the filling of fuel tanks. **Please take time to read and understand all the fuel related information and warnings regarding gasoline and your boat, in the engine owner's packet.**

Fuel tanks with levels less than 1/4 full can cause engine stalling problems due to fuel starvation or by allowing sediment and dirt to enter the fuel supply lines. Keep the tank full and monitor the fuel level often to prevent this from happening.

Fuel Vent

The fuel tank vent is integrated into the fuel fill deck fitting. The vent serves as an over pressure/vacuum release with anti-surge and flame/spark arresting protection. The fuel vent system also plays an important role in controlling the "FULL" level of fuel with the use of the FLVV (Fill Limit Vent Valve). Grade Valves have been added to the tank which allows proper ventilation of the tank when the boat is stored, or trailered, on a moderate incline, without fuel seepage.

Fuel Distribution System

The fuel is delivered from the tank to the engine through the fuel line. The combination Anti-syphon/FDV prevents the built up pressure inside the tank from being transferred to the engine while still allowing fuel to flow as the engine requires it for operation. The anti-siphon valve is a safety feature designed to prevent the fuel from siphoning out of the tank if the fuel line were to be cut or broken below the level of the fuel in the tank. In this case, some fuel would leak from the line, but would not allow the entire contents of the tank to siphon into the boat.

Filling the Tank

This fuel system is designed to automatically shut off the fuel nozzle when the tank is full, similar to an automotive fuel system. The tank is filled when the fuel fill nozzle has shut itself off the second time. Attempting to fill the tank past this point may cause some of the components to not function properly, or malfunction.

Do not overfill the tank. Stop filling from the fuel nozzle after the fuel nozzle automatically clicks off. The fuel could overflow and spill onto the boat and yourself. This could damage the boat's

gelcoat, Rubrail, cushions and other equipment. This is not covered by warranty. You may also be responsible for environmental damage and legal penalties from such an event.

NOTICE

Fuel gauge only reads accurately when boat is level (not underway).

⚠WARNING

The use of a portable fuel tank to fill your boat's tank can result in overfilling and circumvent the safety features designed into your tank.

⚠WARNING

The modification of any of the fuel system components or the replacement of these components with unathorized parts may result in over-pressurization of the fuel system and circumvent the safety features designed into your tank.

NOTICE

Keep records of the fuel capacity and consumption of your boat. Drastic changes in consumption and mileage may indicate a problem.

Refer To The Engine Manufacturer's Manual In Your Owner's Manual Packet For Complete Instructions And Warranty.

Static Electricity and the Fuel System

There is a danger that static electricity can ignite gasoline vapors that have not been ventilated outside an enclosed area. Use extreme caution when fueling your boat from a source outside the regular venues, (e.g. marinas, fuel service stations).

Your boats bonding system protects it from creating and discharging static electricity. Your boat must be in contact with the water or a land based grounding system while fueling.

Your boat has safety features that can be circumvented by not adhering to standard fueling practices. The following suggestions will help keep you safe from static electricity while refueling your boat.

- **NEVER** fuel your boat in unsafe conditions such as suspended on a sling or in a situation that increases the likelihood of static discharge.
- **NEVER** use homemade containers to fill your fuel tanks.
- Fuel carried on-board outside of a fixed fuel system should be stored in an approved container or in a portable tank such as provided for outboard engines and be stowed safely outside of the engine or living compartment(s).
- Shut down the engine, motors and fans prior to taking on fuel. Any ignition sources should be extinguished before filling the fuel tanks.
- Close all ports, windows, doors and hatches.
- Fueling should never be done at night except in well-lighted areas.
- Always keep the fuel nozzle in contact with the fuel fill plate or the edge of the fuel tank opening throughout the filling process.
- Allow areas where gasoline vapors could collect to be ventilated before starting the engine.
- Wipe any spillage completely and dispose of rags or waste on shore.
- Secure the fuel cap tightly.

- Portable tanks should only be filled while on the ground, never on board the boat.

⚠ DANGER

Static electricity can ignite gasoline vapors causing serious injury/death and/or destruction of property.

Check for leaks in tubing, connections and hoses. Correct the cause of any leaks and ventilate the area to insure that no fumes remain, prior to energizing any electrical equipment and/or starting the engines.

Ethanol-Blended Fuels

Ethanol is an oxygenated hydrocarbon compound that has a high octane rating and therefore is useful in increasing the octane level of unleaded gasoline.

NOTICE

The use of improper gasoline or additives can damage your fuel system and is considered misuse of the system. Damaged caused by improper gasoline or additives WILL NOT be covered under warranty.

The fuel-system components of your engine(s) have been tested to perform with the maximum level of ethanol-blended gasoline (10% ethanol) currently allowed by the EPA in the United States.

Special precautions should be considered with the use of fuel containing ethanol in your system. Fuels with ethanol can attack some fuel-system components, such as tanks and lines, if they are not made from acceptable ethanol-compatible materials. This can lead to operational problems or safety issues such as clogged filters, leaks or engine damage.

Seavee recommends the use of REC90 or other non-ethanol fuels when possible. In particular, the use of ethanol-blended gasoline is not recommended when the boat is stored for long periods of time due to phase separation.

Filling The Tank

It is best to maintain a full tank of fuel when the engine is not in use. This will reduce air flow in and out of the tank due to changes in temperature as well as limiting exposure of the ethanol in the fuel to humidity and condensation.

Phase Separation

Humidity and condensation create water in your fuel tank which can adversely affect the ethanol blended fuel. A condition called phase separation can occur if water is drawn into the fuel beyond the saturation point. The presence of water in the fuel beyond the saturation level will cause most of the ethanol in the fuel to separate from the bulk fuel and drop to the bottom of the tank, significantly reducing the level of ethanol in the fuel mixture in the upper level (phase). If the lower level (phase), consisting of water and ethanol, is deep enough to reach the fuel inlet, it could be pumped directly to the engine(s) and cause significant problems. Engine problems can also result from the reduced ethanol/fuel mixture left in the upper phase of the tank.

Additives

There is no practical additive known that can prevent or correct phase separation. The only solution is to keep water from accumulating in the tank.

If phase separation does occur, your only remedy is to drain the fuel, clean and dry the tank completely and refill with a fresh, dry load of fuel.

Fuel Filters

Your fuel system may be equipped with a fuel/water separator filter. It is advisable to carry extra filters in case filter plugging from debris in the fuel tank becomes a problem during boating.

Maintenance

Periodically inspect for the presence of water in the fuel tank. If any is found, all water must be removed and the tank completely dried before re filling the tank with any fuel containing ethanol.

⚠ CAUTION

The use of fuels containing ethanol higher than 10 percent (E-10) can damage your engine and/ or fuel system and will void the warranty.

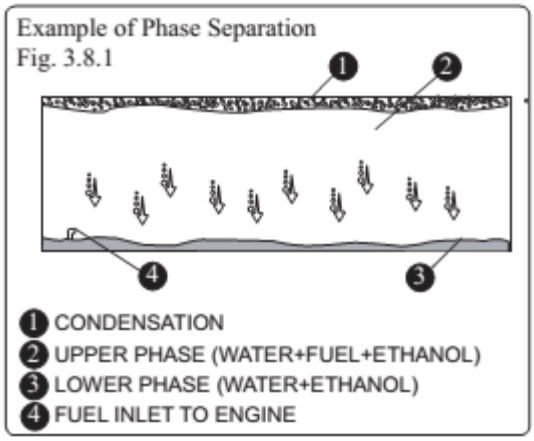
E85 FUELS COULD SERIOUSLY DAMAGE YOUR ENGINES AND MUST NEVER BE USED.

Storage

Long periods of storage and/or non-use, common to boats, create unique problems. When preparing to store a boat for extended periods, of two months or more, it is best to completely remove all fuel from the tank. If it is not possible to remove the fuel, maintaining a full tank of fuel with a fuel stabilizer added to provide fuel stability and corrosion protection is recommended.

- Add fuel stabilizer/treatment at manufacturers recommended dosage.
- Run engine(s) for 10 minutes.
- Top off fuel tank, leaving space for expansion. DO NOT fill to point of over flow.
- DO NOT cap the tank vent.

Example of Phase Separation
Fig. 3.8.1

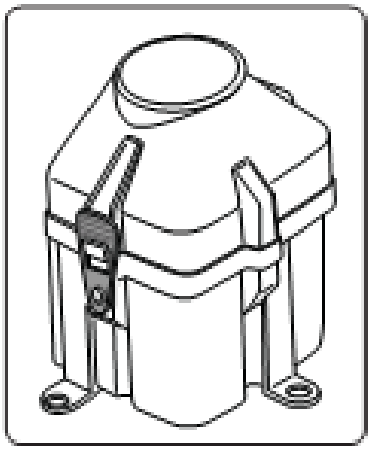


A partially full tank is not recommended because the void above the fuel allows air movement that can bring in water through condensation as the air temperature moves up and down. This condensation could potentially become a problem.

Refer To The Engine Manufacturer's Manual In Your Owner's Manual Packet For Complete Instructions And Warranty.

Power Steering

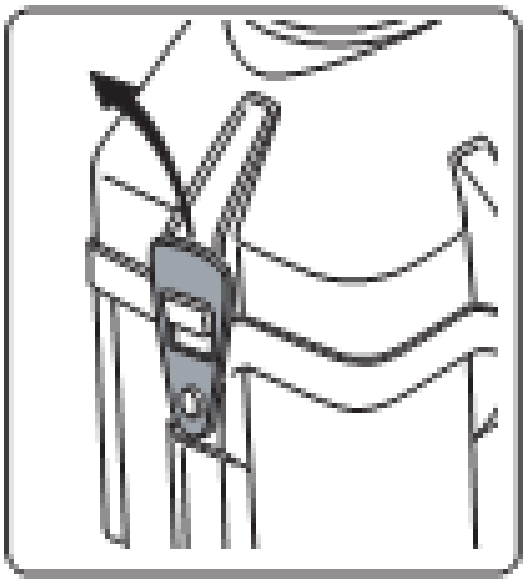
The steering system uses an enclosed hydraulic pump unit. **The pump is electrically operated to provide hydraulic pressure to the steering system.** The pump is located in the aft console and can be accessed through the footrest hatch on the aft face of the console.



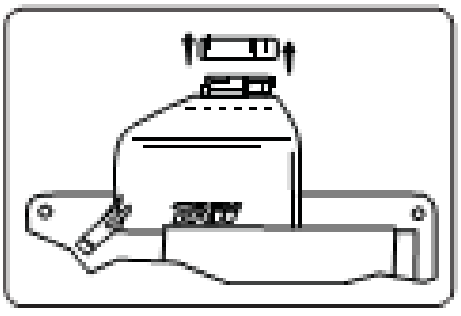
Filling & Maintenance

The system is virtually maintenance free, aside from regular fluid checks and visually inspecting the outside of the unit for signs of leaks or damage.

- Remove the pump cover by pulling up and out on the locking tabs on the sides of the unit.



- Unscrew the cap and check the fluid level in the reservoir, fill **ONLY** with SAE 0W-30 Full Synthetic Power Steering Fluid if necessary.

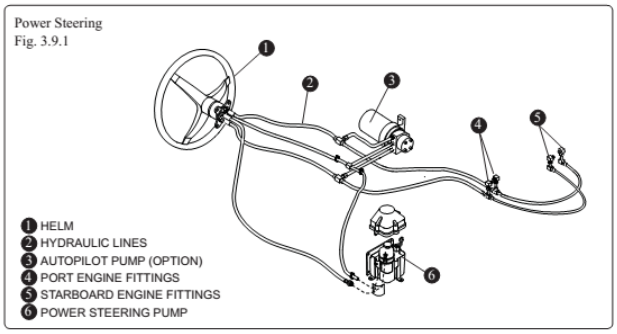


- Replace cap and cover

NOTICE

Ensure that cover is properly seated to prevent intrusion of water into the pump enclosure.

Make a habit of checking the fluid level before each trip.



Proper maintenance of this system will ensure worry- free usage for the life of your boat. Steering system integrity is imperative when engaging in recreational water activities. Special care and attention must be taken to ensure proper performance of the steering system and should include the following:

- After the first few hours of operation and at regular intervals, check all fasteners and the complete steering system for security and integrity.
- Inspect for corrosion. Any part affected by corrosion must be replaced.
- When replacing parts, self-locking hardware must be used.
- Check the fluid level in the helm pump unit.
- Lubricate slides on the engine cylinders.

All steering systems whether mechanical or hydraulic require regular inspections, periodic adjustment and occasional replacement may be necessary.

Starting the Engines

The master battery switch and main DC Panel Breaker Switch are located on the main distribution panel inside the console. The battery switch must be set to on, and the Main breaker must be set to on to enable engine starting.

- Operator should know boating safety, safe navigation, and boat operating procedures.
- Make sure that the lower unit of the engine is in the water.
- Make certain the gear shift/throttle control is in the neutral position. (The engine will not start if the control lever is in any other position than NEUTRAL)
- Be sure the emergency stop switch (See figure 1.14.1) is in the "RUN" position.

⚠ CAUTION

NEVER start or operate your engines (even momentarily) without water circulating through all the cooling water intake holes in the gearcase to prevent damage to the water pump (running dry) or overheating of the engine.

NOTICE

The gear shift/throttle control levers will not allow engine starting if the control levers are in any other position than NEUTRAL.

- Turn the master ignition key switches ON (clockwise).
- Be sure the throttle control lever is in the NEUTRAL position.
- Press START/STOP button(s) for the appropriate engine.
- The "ACTIVE" light located on the throttle remote pad will become illuminated once the engines are started and communicating with the throttle control.

Warming Up the Engines

The "THROTTLE ONLY" button on the throttle control pad allows the operator to increase engine RPM for warm-up without shifting the engines into gear.

- Be sure that the gear shift and throttle control levers are in the NEUTRAL position.
- Press and hold the "THROTTLE ONLY" button while moving the control handle ahead to the forward position.
- Hold in the button until the horn sounds twice and the neutral lights start flashing. The flashing lights indicate that throttle only is engaged.
- Advance the control handles to increase engine RPM.
- NOTE: Engine RPM is limited to prevent engine damage.
- To disengage, return the control handles back to the neutral position.
- The warm-up mode can be re-activated by turning the engines off and re-starting.

Stopping the Engines

Be sure that the gear shift and throttle controls are in the NEUTRAL position.

- Press the start/stop button on the ignition pad for the appropriate engine.

Refer To The Owner's Manual In Your Owner's Manual Packet For Complete Instructions And Warranty.

Livewell & Seawater Systems

The standard livewell system for each livewell includes, a flush mounted hull bottom pickup, seacock, and pump. A dedicated pickup is provided for each livewell (2 standard).

The seacocks must be set in the OPEN position (Figure 3.16.1) for the livewell system to function. The seacock, livewell pump and raw water pump can be accessed through the machinery/bilge hatch in the stern under the aft seat.

An optional raw water washdown pump is available. This pump is mounted on the port side forward bulkhead in the bilge/pump room area and is accessible via the machinery/bilge access hatch located under the aft seat. It uses water pulled from the port livewell seacock.

To turn on a livewell pump, make sure that the hull seacock is set in the open position and turn ON the "livewell" switch on the switch panel at the helm.

To turn on the raw water washdown pump, open the port seacock, and set the switch on the dash control panel to on. The raw water pump will be activated and the system will become functional. Turn on the spigot or hose nozzle to begin spraying seawater.

Livewell pumps are fitted with filter strainers to prevent debris from entering the pump. Close the seacock and unscrew the strainer bottom to reveal the filter basket. Clean the filter basket and screw the strainer bottom back on carefully and tightly before opening the seacock.

"Pressurized" Livewells Concept

Your boat is equipped standard with two (2) livewells that can be pressurized. A 55 gal. (208 L) livewell is located immediately forward of the transom, and 24 gal. (90.8 L) livewell is located forward of the console in the step up to the bow casting platform.

The livewells keep baitfish alive by circulating seawater through the tank. You can regulate the amount of water in the livewell by inserting the drain plug (supplied) into the drain, thus raising the level of water to the hatch of the tank. An upper drain in the tank will allow water to drain out of the tank when the lower drain is plugged. A livewell fill valve is also located in the tank that permits the adjustment of flow into the tank. Adjusting the fill and the drain seacock located in the machinery/bilge area below the aft seat so that water slights vents out the hatch permits the tank to fill completely, and still drain without overflowing onto the deck.

By eliminating the air in the top of the baitwell tank, it prevents livewell water from sloshing. This sloshing could cause baits to be tossed about inside the tank, and to strike each other, the tank walls, and the tank fittings. This pressurized design greatly reduces the sloshing, and therefore provides a stable environment to reduce fatigue on your baitfish resulting in a more active and healthier bait.

Pressurized Livewell Operation

Make sure that the hull seacocks are in the open position.

Insert a drain plug (supplied) into the bottom drain inside the livewell, ensure that the livewell fill valve located on the side of the livewell tank is open, by turning the blue knob on the fitting counter clockwise until it stops. Turn on the livewell pump, and fill the livewell completely.

The upper overflow drain will allow the water to rise to just below the lid before starting to drain. Maintaining this water level enhances the stability of the water in the tank.

NOTICE

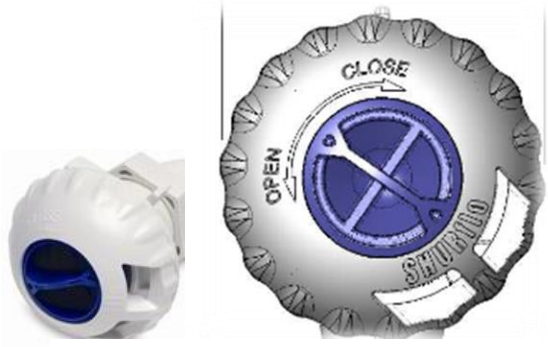
The seacock MUST be in the OPEN position. Running the pump dry may cause damage to the unit.

The livewells have two drains to regulate the amount of water in the unit. The bottom drain is used to empty the livewell of water completely. By utilizing the drain plug (supplied) and the seacock controlling the upper drain, you can adjust the level of water in the unit.

Your livewells do not require and do not use separate tubes or other internal parts that might block the access to bait, or damage valuable baits.

Filling the livewells to overflowing will not damage the boat, but may make it uncomfortable to fish. Adjust pressurized livewells so that water level is even with the top of the hatch or very slightly overflowing. Each hatch is fitted with a small gap in the gasket forward to permit air to escape and allow the tank to fill completely. Some water may leak out of this gap when the tank is pressurized.

Each livewell is also fitted with an adjustable livewell fill fitting. To reduce the flow into the tank, turn the blue knob clockwise, or to the right (tighten).



Livewell Fill Valve

You may need to adjust both the drain and the fill fitting to get just the right amount of flow and level in your bait tanks. Some experimentation may be necessary to achieve this balance.

NOTICE

Running Livewell Pumps dry could damage or destroy them.

Maintenance

Maintenance of the raw water system requires periodic inspection of the raw water intake strainer and all fittings and hoses for system integrity to prevent leaks.

Clean away debris and/or tighten hose connections as required. The system should be run at least every other month to keep the pumps impellers in good condition.

Cockpit Lighting

Courtesy lights are placed around the cockpit, including under the gunwales, along the side of the console, and on the aft face of the forward bow step. The blue LED lights will provide years of service and require no maintenance.

Switch the Courtesy Light Switch on the console dash helm switch panel to on to illuminate the lights.

Livewell Lighting

Livewells are equipped with sealed LED lighting. Blue LED lights will provide years of service and

require no maintenance. The lights will illuminate when the navigation lights are switched on.

Rod Lockers

Your boat is equipped with built-in rod lockers for storage of six rods on each side.
The rod lockers are located in the gunwales on the port and starboard side just forward of the console. Each locker is fitted with a fiberglass molded hatch and a locking latch.

Keys to these latches are supplied in the owner bag originally supplied with the boat. Seavee Service can supply replacements if needed.

Each locker is fitted with two folding rod hangers. The hinge on each hanger permits the rod hangers to fold forward to permit stowage of other items when not storing rods.

To store rods, fold each hanger so that it is locked into position approximately perpendicular to the rod locker sides. These hinges have strong built-in detents, and some effort may be required to fold them, and is normal.

⚠ CAUTION

USE CAUTION OPERATING AT NIGHT. FORWARD FLOOD LIGHT COULD CAUSE LIGHT TO REFLECT OFF THE BOW AND HINDER NIGHT VISION OF THE OPERATOR.

Load the locker from the bottom, and slide each rod, tip first into the rod tubes located in the aft face of the rod locker. Note that the rod locker can accommodate rods up to approximately 10' long, depending on configuration. Slide rod tip into tube, then gently lower rod into hanger. Repeat for each rod.

Some experimentation may be required to fit rods of different sizes and different reel sizes and configurations into the lockers.

Trim Tabs

The boat is equipped with electric trim tabs located on the true transom of the boat, port and starboard.

They are used to trim the list of your boat caused by uneven weight distribution, to many people of one side of the boat, or strong cross winds.

An untrimmed boat will:

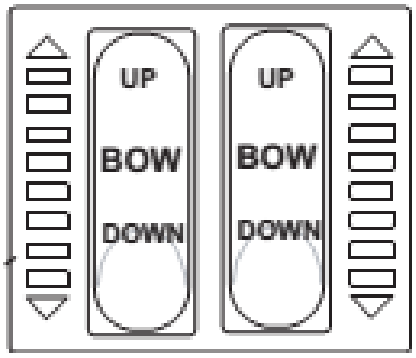
- Decrease operator visibility
- Reduce fuel economy
- Increase wear on your engine.

Trim tabs are sometimes also beneficial when accelerating from a non-planing to a planing operation. While accelerating, the trim tabs can be used to decrease the time to plane when in shallow water or with an unusually high load.

Operation

The trim tabs are controlled by rocker switches located on the helm dash panel, inboard of the steering wheel.

Short momentary bursts of the rockers will achieve proper attitude of the hull. The trim tab switch is marked "bow up" and "bow down".



Proper use of trim tabs:

- Level the boat fore and aft, port and starboard.
- Reduce resistance in the steering system.
- Provide a smoother more stable ride.
- Increase speed and fuel efficiency.

NOTICE

Ensure continuous visibility of other boats, swimmers and obstacles during bow-up transition to planing. Adjust engine to an intermediate trim as soon as boat is on plane.

Electrolytic Corrosion & Zinc Anodes

Electrolytic corrosion of metals on power boats can result in serious deterioration. You should be aware of the possibility of electrolysis and/or galvanic action (the deterioration of metals due to dissimilar characteristics when placed in salt water).

Zinc buttons (anodes) are installed on the trim tabs to protect underwater hardware. Zinc, being less noble than copper based alloys and aluminum used in underwater fittings, will deteriorate first and protect the less noble metals.

A zinc anode is also fitted on the transom, and on the outboard engine.

The zinc anodes generally need replacement once a year in fresh water, every 6 months in a salt water environment. The need to replace anodes more frequently may indicate a stray current problem within your boat or at the slip or mooring. If your anodes do not need replacement after one year, loose anodes or low-grade zinc may be the problem.

Maintenance of Trim Tabs

The trim tabs are a completely sealed unit and are waterproof and maintenance free. Aside from a general cleaning when the boat is out of the water you should also inspect the planes and hinges for marine growth and remove as necessary.

Propeller

The engines on your Seavee have been equipped with propellers which our tests have shown to be best suited for general use under normal conditions and load. Your boat has been propped to achieve maximum RPMs which meet Engine Manufacturer's requirements.

A different propeller may be a better choice if you intend to use the boat extensively for one or another dedicated activity, such as skiing, tubing, or towing, or use in very shallow water. Consult Seavee Service for an optional propeller that may better suit these dedicated activities.

Trimming the Engines

When trimmed correctly, your boat will achieve maximum RPMs, minimize steering effort, allow for more stability and increased performance.

Trimming the engines IN full will drive the bow

down causing the boat to plow through the water and will prevent the engines from achieving maximum RPMs.

Trimming the engines OUT will push the stern down and raise the bow. If OUT too far the engine may over rev, and RPMs may exceed the optimal maximum. The engine may also more easily ventilate and 'loose grip.'

A properly trimmed boat will have the bow slightly UP while running at full speed.

Different seas or operating conditions will necessitate running the boat in different trim positions. The operator will need to use his/her best judgement while boating in different conditions.

Jack Plate

Your boat is equipped with a hydraulically actuated jack plate. This allows the engine to be raised or lowered vertically. It is operated from a rocker switch located on the helm, and/or a small lever mounted on the steering wheel column. Depressing the switch or lever up or down causes the engine to move in the same direction up or down on the transom.

Keep hands and fingers clear of the jack plate when operating to prevent pinching.

⚠ WARNING

USE CAUTION WHEN OPERATING JACK PLATE. KEEP HANDS AND FEET AWAY. PINCHING COULD RESULT.

Certain engine manufacturers have external steering components, such as Yamaha and Suzuki, which protrude from the front of the engine. Special caution should be taken when lowering the jack plate with these engines to ensure that the steering system parts do not collide with the deck of the boat. The engines should be trimmed down to clear the deck when lowering the jack plate.

⚠ CAUTION

USE CAUTION WHEN OPERATING JACK PLATE. STEERING ON SOME ENGINES OR DECK COULD BE DAMAGED IF ENGINE NOT TRIMMED DOWN.

When operating in shallow water it may be desirable to raise the entire engine up from the hull bottom to prevent hitting the propeller or engine skeg on the seabed. Raising the jack plate may also allow the entire boat to raise out of the water more when on a plane.

When adjusting for jack plate height, first trim the engine to optimal trim for speed and conditions, then trim the jack plate up.

Observe the wake and the spray from the lower unit cavitation plate. Adjusting the jack plate up so that the spray from the cavitation plate just dissipates is typically the optimal height for a particular speed.

You may wish to experiment with the jack plate to get the best combination of speed, fuel efficiency, handling and running draft based on RPM, load and sea and water conditions.

When turning, lower the jack plate prior to hard turning maneuvers to ensure that the engine raw water pressure is o.k.

⚠ CAUTION

USE CAUTION OPERATING THE BOAT AT HIGH SPEED WITH THE JACK PLATE RAISED. DO NOT TURN AT HIGH SPEED WITH JACK PLATE RAISED. UNEXPECTED TURNING BEHAVIOUS COULD RESULT.

Changing Propellers

In some situations, you may wish to change the propeller to give your boat slightly different performance characteristics.

In general, changing to a lower pitch propeller will increase acceleration and load pulling capability, with a slight decrease in top end speed. If you choose to change propellers, the type should be discussed with Seavee Service.

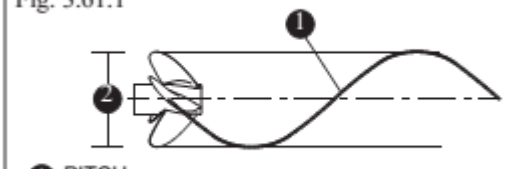
All propellers are designed to provide maximum forward thrust, consequently, the reverse thrust of the propeller will not be as efficient.

Propellers have two basic characteristics, diameter and pitch.

Diameter is that distance measured across the propeller hub from the outer edge of the 360° that is made by the propeller's blade during a single rotation.

Pitch is that distance in inches that a propeller will travel if rotated one revolution without any slippage.

Propeller Pitch & Diameter
Fig. 3.61.1



⚠ DANGER

Disconnect power by moving the battery switch to the "OFF" position prior to removing the propeller.

Anchoring

The boat may be equipped with an optional anchor, chain and rode, or you may choose to supply your own. Stow the anchor in the anchor locker when not in use.

The anchor locker is designed for use with a "Danforth" type anchor.

In particular, the boat is equipped with storage fixtures molded into the anchor locker specifically designed for a Fortress FX11 model aluminum Danforth style anchor.

Other manufacturer's anchors may also fit, but but the owner should measure and check dimensions to ensure that their chosen anchor will fit.

The anchor should be stowed with the stock set inside the dedicated molded grooves in the anchor locker, and the poly retaining clips should be rotated over the stock to ensure that the anchor remains secure while running.

The bow eye includes an anchor retaining clip bolted to the inside of the bow eye bolt inside the anchor locker. The bitter end of the anchor rode should be tied off to this clip to ensure that if the anchor comes to the end of the rode, the anchor will not be lost overboard.

To anchor, bring the bow into the wind or current and put the engines in neutral. When the vessel comes to a stop, lower the anchor from the bow.

A dedicated anchor tie-off cleat is located under the anchor locker hatch to allow the deck to remain clear and provide direct lead to the anchor when the boat is tied off.

Considerations

- Wind and sea conditions can affect the boat.
- Because the boat is not moving through the water, there is no control.
- Be sure that the anchor will hold under all circumstances if you are leaving the boat.
- Understand the principles of rode and scope and their effect on anchor performance.
- Proper anchoring requires knowledge of RODE and SCOPE and understanding the relationship between rode, scope and anchor performance.
- The minimum is 5:1 for calm conditions; normal is 7:1, and severe conditions may require a 10:1.

  Example:

  Rode length = (3 feet + 10 feet) X 7* Rode length = 13 feet X 7*

  Rode length = 91 feet
- Scope may range from 5 to 10 or more. However, less than 5, the anchor will break out too easily.

Lowering the Anchor

- Be sure there is adequate rode.
- Secure rode to both the anchor and the boat.
- Stop the boat completely before lowering the anchor.
- Keep feet clear of lines.
- Turn on the anchor light when at anchor or drifting (not under power) at night or in low visibility.

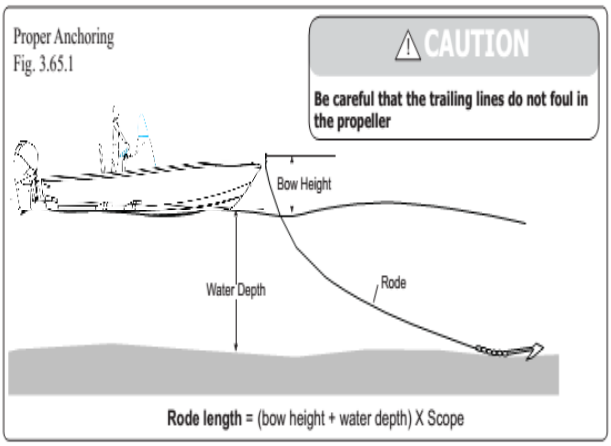
Setting the Anchor

There is no best way to set an anchor. Experiment to see how it performs. One method is to turn the rode around a cleat and slowly pay out as the boat backs from the anchor site. When the proper scope has been reached snub the rode quickly, causing the anchor to dig in to the sea bottom.

Reverse the engine slowly to drive the anchor in and to prevent it from dragging.

Weighing the Anchor

To weigh (or retrieve) the anchor, start the boat and run slowly up to the anchor, taking up the rode as you go. The anchor will usually break out when the rode becomes vertical. Coil lines to let them dry before stowing.



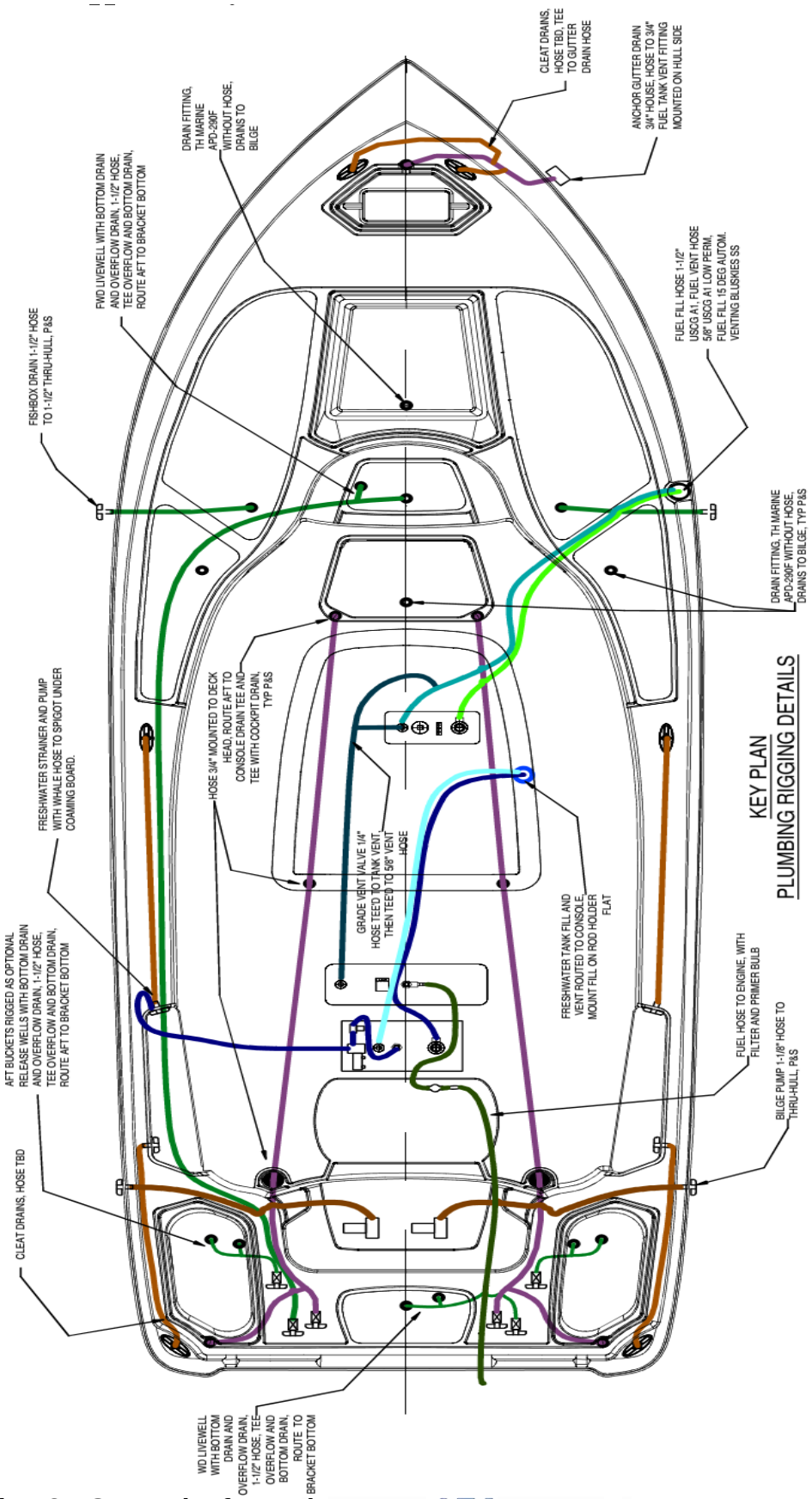

CLEAT DRAINS, HOSE TBD, TEE TO GUTTER DRAIN HOSE
ANCHOR GUTTER DRAIN 3/4" HOUSE, HOSE TO 3/4" FUEL TANK VENT FITTING MOUNTED ON HULL SIDE
DRAIN FITTING, TH MARINE APD-290F WITHOUT HOSE, DRAINS TO BILGE
FWD LIVEWELL WITH BOTTOM DRAIN AND OVERFLOW DRAIN, 1-1/2" HOSE, TEE OVERFLOW AND BOTTOM DRAIN, ROUTE AFT TO BRACKET BOTTOM
FISHBOX DRAIN 1-1/2" HOSE TO 1-1/2" THRU-HULL, P&S
FUEL FILL HOSE 1-1/2" USCG A1, FUEL VENT HOSE 5/8" USCG A1 LOW PERM, FUEL FILL 15 DEG AUTOM. VENTING BLUSKIES SS
DRAIN FITTING, TH MARINE APD-290F WITHOUT HOSE, DRAINS TO BILGE, TYP P&S
HOSE 3/4" MOUNTED TO DECK HEAD, ROUTE AFT TO CONSOLE DRAIN TEE AND TEE WITH COCKPIT DRAIN, TYP P&S
FRESHWATER STRAINER AND PUMP WITH WHALE HOSE TO SPIGOT UNDER COAMING BOARD.
GRADE VENT VALVE 1/4" HOSE TEED TO TANK VENT, THEN TEED TO 5/8" VENT HOSE
FRESHWATER TANK FILL AND VENT ROUTED TO CONSOLE, MOUNT FILL ON ROD HOLDER FLAT
KEY PLAN
PLUMBING RIGGING DETAILS
AFT BUCKETS RIGGED AS OPTIONAL RELEASE WELLS WITH BOTTOM DRAIN AND OVERFLOW DRAIN, 1-1/2" HOSE, TEE OVERFLOW AND BOTTOM DRAIN, ROUTE AFT TO BRACKET BOTTOM
FUEL HOSE TO ENGINE, WITH FILTER AND PRIMER BULB
BILGE PUMP 1-1/8" HOSE TO THRU-HULL, P&S
CLEAT DRAINS, HOSE TBD
WD LIVEWELL WITH BOTTOM DRAIN AND OVERFLOW DRAIN, 1-1/2" HOSE, TEE OVERFLOW AND BOTTOM DRAIN, ROUTE TO BRACKET BOTTOM

TABLE OF THRU HULLS

#	THRU-HULLS	SIZE	LOCATION	STD/OPT	THRU-HULL SIZE	THRU HULL TAIL	BRONZE ELBOW SIZE	BRONZE BALL VALVE SIZE
1	AFT LIVEWELL DRAIN	1-1/2"	BRACKET BOTTOM, STBD	STD	1-1/2"	F-NPT	1-1/2"	1-1/2"
2	FWD LIVEWELL DRAIN	1-1/2"	BRACKET BOTTOM, PORT	STD	1-1/2"	F-NPT	1-1/2"	1-1/2"
3	PORT RELEASE WELL DRAIN	1-1/2"	TRUE TRANSOM OUTBOARD PORT	OPT	1-1/2"	F-NPT	1-1/2"	1-1/2"
4	STBD RELEASE WELL DRAIN	1-1/2"	TRUE TRANSOM OUTBOARD STBD	OPT	1-1/2"	F-NPT	1-1/2"	1-1/2"
5	DECK DRAIN PORT	1-1/2"	TRUE TRANSOM INBD PORT	STD	1-1/2"	F-NPT	N/A	1-1/2"
6	DECK DRAIN STBD	1-1/2"	TRUE TRANSOM INBD STBD	STD	1-1/2"	F-NPT	N/A	1-1/2"
7	BILGE PUMP AFT1	1-1/8"	AFT HULL SIDE PORT	STD	1-1/8"	1-1/8" HOSE BARB	N/A	N/A
8	BILGE PUMP AFT 2	1-1/8"	AFT HULL SIDE STBD	STD	1-1/8"	1-1/8" HOSE BARB	N/A	N/A
9	ANCHOR GUTTER DRAIN	3/4"	FWD HULL SIDE	STD	FUEL VENT 3/4"	N/A	N/A	N/A
10	PORT FISHBOX DRAIN	1-1/8"	FWD PORT HULL SIDE	STD	1-1/2"	1-1/2" HOSE BARB	N/A	N/A
11	STBD FISHBOX DRAIN	1-1/8"	FWD STBD HULL SIDE	STD	1-1/2"	1-1/2" HOSE BARB	N/A	N/A
12	HIGH SPEED PICKUP	1-1/2"	TRUE TRANSOM PORT	STD	1-1/2"	N/A	N/A	1-1/2"
13	STBD FISHBOX DRAIN	1-1/2"	TRUE TRANSOM PORT	OPT	1-1/2"	N/A	N/A	1-1/2"

Section 3 • Options & Special Equipment

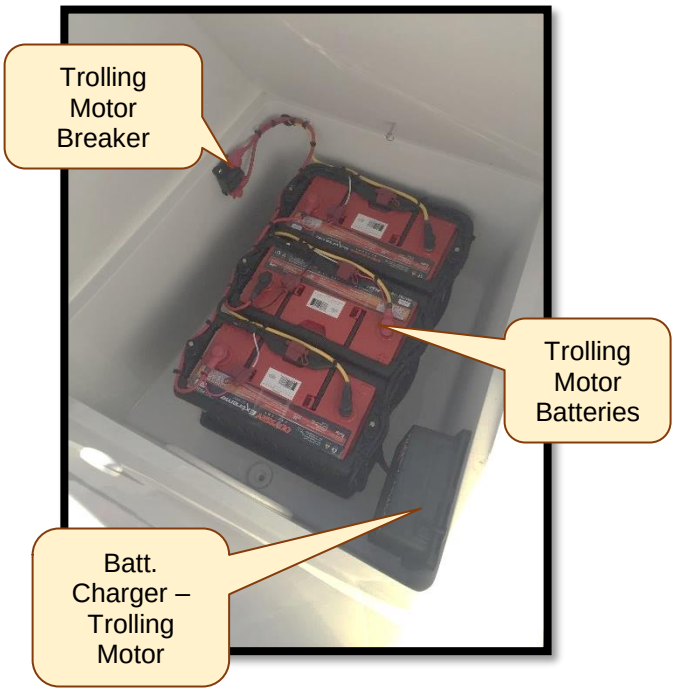
Trolling Motor System (Option)

A trolling motor system provides a method to operate the boat at slow speed for fishing, or to hold the boat in position without anchoring, using the IPILOT or PrecisionPilot Feature, depending on Trolling Motor Manufacturer.

The trolling motor system consists of a trolling motor, mounted on a removable base, a plug receptacle for attaching the trolling motor electrical cable to the boat, and a dedicated 36 volt battery system, with battery charger.

The trolling motor is controlled by a wireless remote, and more information concerning trolling motor operation can be found in the trolling motor operating manual in your owner's bag.

The 36 volt battery system includes three 12 volt AGM style batteries attached in series to create 36 volts. The batteries are connected through a flip style circuit breaker mounted near the batteries. The battery system is located under the removable poly floor in the forward storage compartment.



The trolling motor batteries are completely separate from the rest of the DC power system on the boat.

Running down the trolling motor batteries will have no effect on the rest of the boat functions.

Running the engines will NOT charge the trolling motor batteries. There is NO way to charge the trolling motor batteries while underway.

The battery charger is attached to the batteries, and is also located in this compartment. The battery charger is attached to a circuit of the 120VAC panel if the boat is equipped with the shore power option.

When the boat is equipped with a "on Trailer" charging system, the trolling motor battery

charger is completely separate from all other systems. In this case, the 110VAC outlet for the trolling motor battery charger is located in the anchor locker. A conventional extension cord may be used to charge the trolling motor batteries, by connecting to this receptacle.

The trolling motor battery charger could draw large amperage, and a suitably sized extension cord, and an AC source with sufficient amperage will be required to operate the charger.

DANGER

DO NOT USE THE TROLLING SYSTEM BATTERY CHARGING SYSTEM WHILE THE BOAT IS IN THE WATER UNLESS BOAT IS EQUIPPED WITH SHORE POWER OPTION. SERIOUS INJURY OR DEATH COULD RESULT.

If the breaker on the source AC pops, you may need to use a shorter extension cord, a larger gauge wire extension cord, an outlet with more ampacity, an outlet with fewer other electrical demands on the circuit, or a combination of all of these things to have sufficient ampacity to run the trolling motor charger.

Unless equipped with the shore power option, do not operate the trolling motor battery charger with the boat in the water.

DANGER

DO NOT SWIM NEAR OR LEAVE THE BOAT UNATTENDED WITH THE BOAT IN PRECISION PILOT/ SKY HOOK/ VIRTUAL ANCHOR MODE. SERIOUS INJURY OR DEATH COULD RESULT.

The trolling motor electrical cable is connected to the boat's battery system via a plug attached to the trolling motor cable, and a receptacle located inside the anchor locker. Route the cable through the notch in the anchor locker hatch on the forward center of the hatch. Push the plug into the receptacle and turn the plug to lock it into place.

If equipped, ensure that the locking collar on the shaft is on the very bottom of the shaft when the trolling motor is stowed to prevent the trolling motor from accidentally deploying while underway. This could seriously damage the trolling motor and/or the boat.

CAUTION

LOCK THE SHAFT COLLAR AT THE LOWEST POSITION WHEN THE TROLLING MOTOR IS STOWED TO PREVENT ACCIDENTAL DEPLOYMENT WHILE RUNNING. DAMAGE TO THE TROLLING MOTOR OR BOAT COULD RESULT.

Consult manufacturer's instructions and manuals for detailed information concerning operation, maintenance and safety of the trolling motor.

Hardtop Lighting (Option)

The hardtop is equipped with three (3) LED overhead lights. These lights are multi-colored, and the colors may be cycled by switching the hardtop lights switch on the console dash helm switch panel.

Forward and Aft Flood Lights (Option)

The hardtop may be equipped with forward and/or aft flood lights. These LED lights require no maintenance and should provide years of service. Switch on each of these lights independently on the console dash helm switch panel.

Underwater Lights (Option)

If equipped, the underwater lights are located on the true transom below the surface of the water. When lit the lights illuminate the water in a translucent glow which enhances the after dark experience of being on the water and in addition may on occasion attract a myriad of marine life.

The underwater lights are powered by the "Underwater Lights" switch on the helm switch panel. The lights are protected by the Underwater Lights breaker on the Main Distribution panel located in the console.

Freshwater System (Option)

The freshwater system on your boat includes: one pump, a 9 gal fresh water tank and plumbing connections for water service to the cockpit hose coil or spigot.

NOTICE

- **Be sure to fill the water tank from a source known to provide safe, pure drinking water.**
- **If you do not use the freshwater system for long periods of time or only use it seasonally it is recommended that you follow the disinfecting practice before using it.**

This system is designed for freshwater for cleaning but is not potable and should not be used for drinking or food preparation.

The pump is located on the forward bulkhead of the machinery space/bilge area. It is accessed through the machinery/bilge hatch located below the aft seat.

The pump includes a small filter that should be checked regularly for debris. The filter is removed by unscrewing the clear plastic cap and removing the filter.

Filling the Tank

The water tank can be filled through the water fill deck plate located on the starboard side of the console.

The hose should be dedicated to filling use only and should be stored in a clean, dry place. It is a good practice to cover the ends of the hose to ensure the inside stays clean.

The tank is located below the deck under the bonded/glued access hatch in the aft cockpit.

The following procedure is recommended to disinfect the freshwater system:

1. Flush the entire system thoroughly by allowing potable water to flow through it.
2. Drain the system completely.
3. Fill the entire system with an approved disinfecting solution (check with your dealer for recommendations) and follow the method prescribed by the manufacturer.
4. After disinfecting, drain the entire system.
5. Flush the entire system thoroughly several more times with potable water.
6. Now the system is ready for use, fill with potable water.

This should be done annually or before using the system if it has been laid up for an extended amount of time.

Freshwater Pump

Your boat has a fresh water pump located in the port side bilge area aft of the battery trays. To access the pump, lift the equipment hatch in the aft cockpit deck.

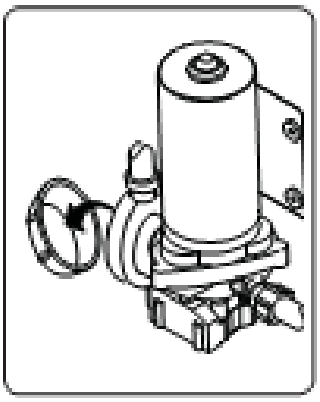
To operate the system, turn ON the "FRESHWATER" breaker located on the DC Breaker Panel located on the starboard wall of the cabin (See page 4-7).

When activated, the freshwater pump draws water from the water tank and provides pressure to the entire freshwater system.

Periodically check the hoses and connections for leaks and/or loose fittings. A loss of pressure will result in low water flow.

Fresh Water System Maintenance

Very little maintenance is required for the freshwater system, other than annual disinfecting and winterizing. Periodically check the entire system to assure that the hose connections, tube fittings, electrical connections and mounting bolts are properly secured, and free of chafing.



Periodically check the in-line strainer attached to the pump, and clean if necessary

The system should be run at least every other month to maintain the pump's impellers in a stable operating condition.

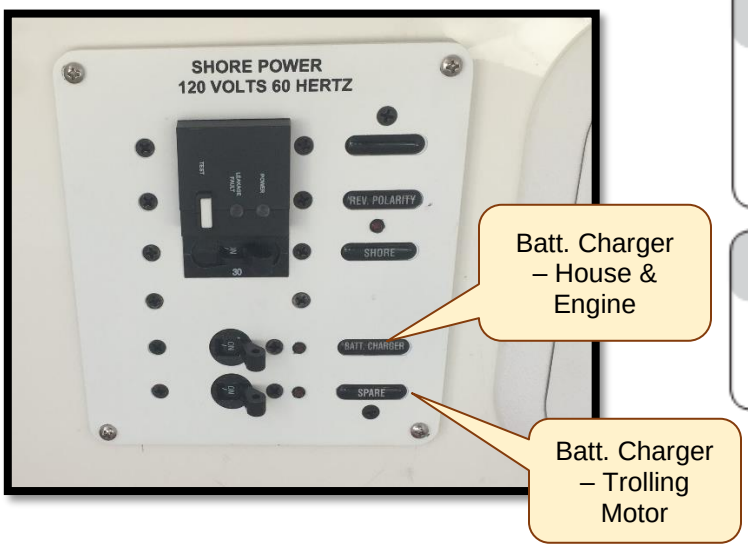
Shore Power (Option)

The shore power system provides 120volt Alternating current, 30 ampere dockside power to operate the battery charger. The AC Main Breaker panel is located inside the console on the aft bulkhead.

⚠ DANGER

EXTREME HAZARD - Swimming near a boat operating on an AC electrical system can lead to severe shock and/or death. Never swim or allow swimming when AC system is in use.

The shore power system on your boat includes an ELCI (Equipment Leakage Circuit Interrupter) located on the main A/C panel located inside the forward part of the console.



The ELCI is designed to protect people from line to-ground shock hazards which may occur from defective, misused or neglected electrical equipment. The ELCI will not prevent line-to-ground electric shock, but does limit the time of exposure to a period considered safe for normal healthy persons. If an imbalance of current is sensed, the ELCI will trip when the ground fault exceeds 0.030 amps. This tripping action will occur within a fraction of a second to prevent serious injury.

The plug to attach shore power is located under the gunwale aft, on the port side, forward of the aft speaker, on the deck vertical side.

⚠ DANGER

The receptacle will not protect against line-to-line or line-to-neutral faults, short circuits or overloads.

⚠ CAUTION

- **Be certain that the shore power main switch is turned OFF before connecting the power cord cordset.**
- **Connect the cordset to the boat inlet first, then to the shore inlet.**
- **NEVER alter the cordset connectors.**

⚠ CAUTION

The use of extension power cords is not recommended. Excessive power cord extensions can cause a voltage drop and may prevent some electronic devices from operating properly.

⚠ CAUTION

It is imperative that the shore power outlet is dry before plugging into the dock power outlet.

TESTING & TROUBLESHOOTING
TEST BEFORE EACH USE

NORMAL OPERATING STATE - Sensing device GREEN LED is ON and circuit breaker is at ON position.

Step 1 - Press TEST button. GREEN LED should go OUT and RED LED should come ON and circuit breaker should trigger to OFF position.

Step 2 - If sensing device LED or breaker does not trip or change state DO NOT USE. Consult an electrician for assistance.

Step 3 - Press RESET button. The RED LED should turn OFF and the GREEN LED should turn ON.

Step 4 - Manually reset (switch) circuit breaker to ON position to restore circuit power.

WARNING

IF ABOVE TESTS FAIL, **DO NOT USE**. CONSULT A QUALIFIED ELECTRICIAN FOR REPAIR OR REPLACEMENT.

Connecting to Shore Power

1. Before making shore power connections, ensure that your boat is securely moored.
2. Make sure all AC breakers are off.
3. Using Shore power cord, connect the female plug to the boat first.
4. Ensure that plug is twisted and locked in position.
5. Ensure that the dockside breaker is off.
6. Connect the male plug of the cord to the dockside power and twist and lock.
7. Turn on dockside Power breaker.
8. Switch on boat side AC main breaker.
9. It is now safe to turn on the battery charger breaker on the AC panel.

⚠ CAUTION

Shore power cords should be secured or routed to avoid laying or falling into water and to avoid stress on shore power plug and inlet.

On-Trailer Battery Charging System (Option)

Your boat may be equipped with an 120Volt dedicated charging system for charging the boat's batteries while the boat is on the trailer, or stored on land.

⚠ CAUTION

DO NOT USE THE ON-TRAILER BATTERY CHARGING SYSTEM WHILE THE BOAT IS IN THE WATER. SERIOUS INJURY OR DEATH COULD RESULT.

A standard 3-prong outlet is located on the console aft to enable the boat to be plugged into normal household outlet for charging the batteries.

Use a heavy duty exterior grade household extension cord to plug into the system.

The system is automatic and will charge both boat batteries while plugged in.

It is best to leave the system plugged in overnight to ensure a full charge.

Battery Charging (Option)

Your boat may be equipped with a battery charger to charge the batteries without running the engine.
The battery charger system is automatic. Each battery has its own lead to the battery charger, and the battery charger automatically charges

each battery. The charger requires no maintenance. However, it does include a small display panel that indicates charge mode.

The battery charger is located inside the forward console and may be accessed via the forward console door. The battery charger is located on the aft face of the inside of the console.

Electric Reel / Downrigger Receptacles (Option)

If equipped, the two (2) 12V/30 amp electrical receptacles for powering electric Reels or downriggers, or any electrical equipment aptly rated, are located inside the cockpit on the aft section of the port and starboard gunwales.

Push the plug into the receptacle and turn clockwise to secure the connection.

The receptacles are protected by 30 amp breakers located in the aft portion of the console and can be accessed through the aft console hatch / footrest on the aft face of the console. The receptacles are active when the battery switches are ON and the breakers are on.

The receptacles are protected by a weatherproof cover. There are areas on the gunwales that are designed specifically for downrigger mounting bases.

Consult with Seavee Service for details on selecting and mounting the downriggers that will best suit your application.

Seachest (Option)

An optional Seachest provides an enhanced amount of livewell water, with upgraded pumps mounted inside of a stainless steel box. The seachest is located under a hatch located in the aft cockpit.

To operate the seachest, with the boat in the water, ensure that the aft transom pickup seacock is open (handle aligned fore and aft) and that the hull bottom pickup/vent fitting seacock is also open (handle vertical). Next, open the small vent valve on the top of the seachest to fill it with water and purge air from it. Open the vent valve, observe water filling the chest, then close it. This only needs to be done once when the boat is launched in the water, and everytime the boat is hauled and relaunched. This small vent valve on top of the seachest is left in the CLOSED position for normal operation (handle perpendicular to the valve).

Ensure that the transom pickup and the flush hull bottom pickup seacocks are open. The pumps can be operated normally and the livewells operate normally.

In the event that the seachest injests debris, you must remove all of the bolts holding the top of the seachest cover in place. Be sure to close both the transom pickup seacock and the hull bottom pickup/vent seacock valves before loosening these bolts. After clearing the obstruction, replace the cover, including the rubber gasket between the seachest and the cover. Use the rubber backed washers between the bolts and the cover. Be careful to apply only about 10 inch pounds of torque to bolts holding the top cover to prevent cracking the cover. Tighten bolts in a criss-cross pattern. Test the seal of the cover to the seachest before departing.

DANGER

DO NOT REMOVE BOLTS HOLDING SEACHEST TOP COVER BEFORE CLOSING ALL SEACOCKS THAT PROVIDE SEAWATER TO SEACHEST. FLOODING OF THE BOAT COULD RESULT.

The seachest may include pumps which may be backup, or secondary supplies to one or more livewells. Each of these backup pumps has it's own dedicated fill valve in the livewell. These fittings must remain CLOSED at all times unless using the pump to supply water to the livewell. Leaving these unused fills open will result in water and air being drawn out of the livewell backwards, and through the pump into the seachest. This will cause the searchest, and the livewell to empty, and may kill all of the bait in the livewell, and damage the pumps. Ensure that fill valve fittings in the livewell are always closed unless using the pump that it serves.

This caution also includes ensuring that optional above deck livewell fill fitting caps are secure unless the pump is being used to supply water.

Canvas (Option)

To install optional canvas, place it gently over the covered area, and spread it loosely. Start from the front and snap each button. This will make it easier to gather the loose canvas at the last snaps.

To remove the canvas, reverse the process. Do not pull the snaps from the canvas, which may cause the canvas to rip or tear. Pull directly at the snap directly up to remove.

Bow Tow Eye (Option)

WARNING

PERSONAL INJURY HAZARD

Towing or being towed stresses the boat(s). hardware and lines. Failure of any part can seriously injure people or damage the boat(s).

DO NOT stand directly in line with the tow line. If it were to break, it would "snap Back" causing injury or damage to everything in its path.

The optional heavy duty welded stainless steel bow tow eye may be installed, located on the hull, extreme front of the boat, is reinforced with a stainless steel backing plate located in the anchor locker.

Towing or being towed stresses the boat(s). hardware and lines. Failure of any part can seriously injure people or damage the boat(s).

DO NOT stand directly in line with the tow line. If it were to break, it would "snap Back" causing injury or damage to everything in its path.

The tow eye may be used to tow the boat by another larger yacht. Extreme care should be taken, and it is the responsibility of the master of the tow vessel to determine proper speed based on sea conditions, length of scope, type of tow line, type and arrangement of tow fittings, and many other factors. This should only be attempted by a very experienced operator. Loss of the boat could result from an improper or poorly executed tow.

In the event that it becomes necessary for you to have your boat towed, the U.S. Coast Guard or a

private salvage company experienced in this type of operation are better equipped to perform the service.

Use another recreational boat only as a last resort. Doing so may cause damage to one or both boats due to operator inexperience or other conditions such as weather and/or current.

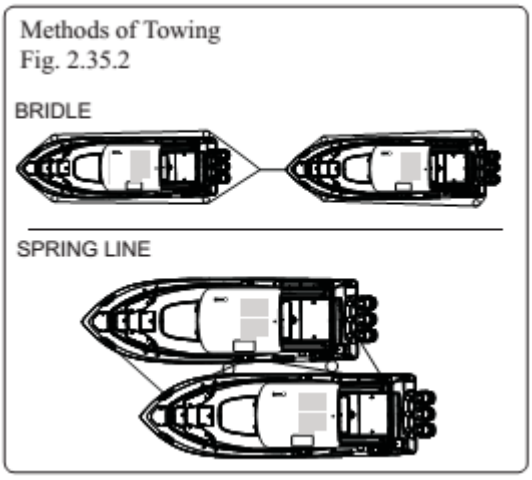
In addition, the pitch of most propellers on average recreational vessels is geared toward maximizing the speed of the vessel, not torque, thus making towing inefficient and stressful on the engine

Another recreational boat may assist by standing by, and possibly keeping the disabled boat's bow at a proper angle until help arrives.

If it becomes necessary to tow your boat:

If possible, create a bridle with a line around the hull or superstructure or use spring lines to secure the towed vessel to the towing vessel (See below).

Either of these methods will distribute the load over a wide area. Be sure to use fenders or other chafe protection at the pressure points.



If using the bow eye to tow is the only option:

- Use double-braided or braid-on-braid line. NEVER use three-stranded twisted nylon; it has too much elasticity, can break and "snap back" causing severe injury or damage.
- Attach the tow line to the bow tow eye only. DO NOT attach the tow line to a cleat or deck rail.
- Have towing vessel move slowly to prevent strain on a slack line.
- Keep someone at the helm of the towed vessel to steer.
- Keep lines clear of propellers on both boats.
- Keep hands and feet clear of the other boat.
- NEVER hold a towline after it is pulled taut.

Hardtop (Option)

An optional Molded Hardtop mounted on a custom welded aluminum frame mounted on the console is available. The hardtop frame stainless steel mounting bolts are isolated from the welded aluminum frame by polyethylene washers which help to prevent electrolytic corrosion. The mounting bolts are through bolted onto the leaning post. The hardtop is bolted to the frame using socket head stainless bolts and aluminum washers bolted from the top to the top plates of the frame, which are drilled and tapped.

The Hardtop and frame include dedicated wire ways, and all cables are routed from the hardtop through the rear hardtop legs and into the console.

Hardtop rigging includes overhead LED lights which are controlled at the helm, as well as a forward and rear LED floodlight. Overhead

lights are multicolor LED, and the color may be selected by operating the light switch on the dash on and off to change the color.

An LED anchor/steaming light is located on the aft end of the hardtop. To fold the anchor light down, turn the round collar at the base to loosen it, raise the light pole, then tighten the collar firmly to secure it. This light illuminates whenever the navigation lights are on.

Antenna's for optional stereo radio and VHF may also be located on the hardtop, and may be tightened by using the level attached to the side of the stainless steel base for each. Be sure to lower these for trailering or when going under low bridges or other obstructions, or damage may result.

Hardtop frame may be powder coated with a baked on paint or clear anodized. Exercise special care to prevent scratching or damage to the coating, to prevent corrosion and/or paint failure. Do not tie, wrap, or otherwise fasten anything to the hardtop frame. This could cause coating failure.

Hardtop Frames are equipped with welded rod holders. Each rod holder includes a vinyl insert to prevent rod butts from rubbing and scuffing aluminum rod holders. Ensure that the insert is inside of each rod holder before storing a rod in the holder. Rods could be damaged if stored in these rod holders when operating the boat in a seaway due to whipping. Remove rods from these hardtop rod holders when operating the boat in seas or conditions when whipping of rod tips could occur.

The hardtop is a vacuum infused fiberglass part with a foam core. It includes a center wireway hollow chase, and an athwartship chase.

You may climb on top of it to clean or inspect the top, and it is designed to support the weight of one adult. However, special care should be exercised since there are no handholds to prevent falling. Never occupy the top of the hardtop while the boat is underway. Severe injury could result. Do not jump off the hardtop into the water. Severe injury could result. Jumping off the hardtop may also damage the hardtop or frame.

The hardtop frame is not designed to withstand any towing loads of any sort. Do not use the hardtop frame in any way for wakeboarding, wake surfing, tubing, water skiing or any other towing of any sort.

Do not stow or lash anything to the top of the hardtop. This could damage the console, hardtop and/or cause the the hardtop frame to fail.

Low Profile 2nd Station (Option)

An optional low profile 2nd Station includes a special platform mounted on top of the helm, and a second station system installed on the hardtop. This system permits the operator to step up through the hardtop, and operate the boat while standing on the platform on top of the console.

The system includes a seat which travels forward and aft on a track system, and is operated by an electric actuator which is controlled by a rocker switch on both the upper and lower dash stations.

The rocker switch controlling the seat position is located on both the upper and lower dash panels, and is white, and unmarked.

The seat should be in the fully aft position to enter and exit and the upper station. Ensure that the steering wheel is in the up position

before moving the seat to the full forward position to prevent damage to the seat upholstery or steering system.

The seat may be moved in the forward position while seated in the upper station, or to close the opening in the hardtop when operating the boat from the lower helm. Extreme caution should be used when operating the seat with a person on it to prevent injury due to pinching.

Special care should be taken when operating the seat to prevent injury. The operator should ensure that the seat is clear of obstruction prior to operating.

⚠ DANGER

Keep Clear of Seat when operating. Items between seat and upper dash could be crushed.

⚠ WARNING

Ensure Steering wheel is in the most upward position when bringing seat all the way forward to prevent damage.

Transom Tube Ladder (Option)

An optional transom mounted tube ladder allows access to the boat from the water. The ladder is extended by pulling up on the pin located above the ladder, and pulling the ladder out.

Extend the ladder all the way out of the boat before tilting it downwards. Rotate each tread out away from the ladder to use the ladder.

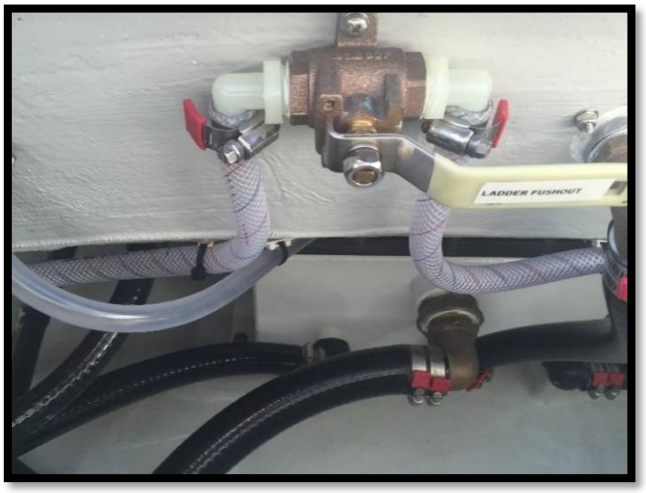
To stow the ladder, fold each tread completely against the ladder tube. Rotate the entire ladder up, and gently push it into the boat.

Ensure that the ladder is properly stowed and the locking pin is fully engaged before running the boat, or damage to the ladder could occur. Never operate the boat in any way with the ladder deployed. Damage to the ladder or boat could occur.

Do not use the ladder when the engine is on. Severe injury could occur. Read and observe all manufacturer's instructions and warnings.

⚠ DANGER

USE OF THE LADDER WITH ENGINE RUNNING COULD RESULT IN SEVERE INJURY.



If your boat is equipped with freshwater system in addition to the tube ladder, a freshwater flushing nozzle and control valve are permanently plumbed to the ladder housing. After using the ladder, stow it properly, then open the valve by rotating the handle to allow freshwater to flush the ladder. The valve is located on the forward bulkhead, inside the bilge area that is accessed through the aft seat. Note that there is a limited amount of freshwater stored in the tank, and the valve permits a full flow of water to the ladder. Open the ladder flush valve for a short time to conserve freshwater. You must turn on the freshwater pump at the dash panel control switch to cause the flow of freshwater to the ladder. Ensure that the valve is set in the off or closed position after flushing the ladder (Handle Vertical). Shut off the freshwater pump switch also.

Upper Control Station (Option)

Your boat may be equipped with a second control station located in the tower or low profile second station. This system is designed to provide all of the same control features that are provided on the lower main control station.

Station Transfer

To operate the boat from the upper station, first place the engine in idle out of gear from the lower station. Maintain a proper watch and ensure the boat is in a safe place before attempting to climb up to the upper station.

⚠ DANGER

Limited visibility from the upper station.
Ensure boat is clear before placing in gear

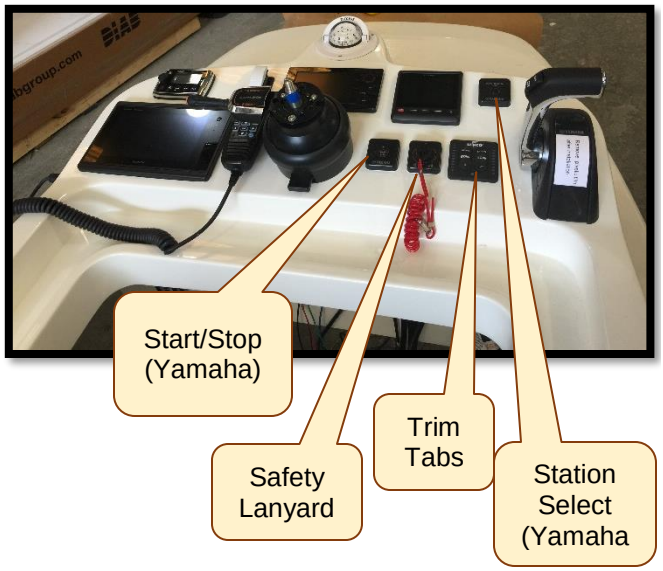
After climbing up to the upper station, and securing yourself by attaching the safety lanyard, you make take the helm control by pressing the transfer button on the top of the shifter/throttle control. You now have control of the shifter throttle. The steering wheel is always operable from the upper station. Use caution when operating from the upper station. Visibility to the cockpit may be extremely limited, and you should be sure that swimmers or other hazards are completely clear before putting the boat in gear. Proceed with extreme caution when operating from the upper station.

When exiting the upper station, ensure the engine is in idle, out of gear and remove the safety lanyard.

The upper station steering wheel is always operational. Warn all passengers in the upper station not to turn the wheel while the boat is underway.

⚠ DANGER

Upper station steering wheel is always operational.
Ensure that passengers in upper station do not operate steering wheel.



Typical Upper Station Dash / Helm Layout
(Each boat customized and may vary)

Section 4 • Electrical System

DC Electrical System

The boat is equipped with an electrical system powered by a series of Absorbed Glass Matt dual purpose, lead-acid batteries (AGM). The batteries are charged when the engines are running or can be charged by shore power when the engines are off.

An optional battery charger located inside the forward portion of the console facilitates the charging of the batteries when using shore power. See Section 3, page 3-30 for shore power operation.

The electrical system utilizes battery selector switches to control the delivery of power to the following:

- Engine Ignition.
- Engine tilt trim system
- Helm switch panel & helm instrument panel
- Lighting/Navigation systems
- Livewell system
- Add-on accessories and electronics

Your boat contains two separate battery banks. One battery powers the engine only and 24 hour bilge pump circuit. The other battery (or optional batteries) powers all other 12VDC loads. Batteries are switched by one battery switch but are kept separate inside the battery switch.

If emergency paralleling is required, the battery switch may be turned to parallel mode and this will join both batteries. This may result in the depletion of the engine starting battery, and prevent the engine from starting.

Batteries

⚠ DANGER

Batteries contain sulfuric acid which is dangerous and can cause serious injury. AVOID contact with skin, eyes and clothing. If contact occurs, immediately flush the affected area with large quantities of water and call for medical assistance.

NOTICE

Always store the batteries in the battery trays. Tighten the knobs on the top of the trays to keep the batteries secure.

The boat is equipped standard with one group 27 size battery for the engine starting and one group 27 size battery for the house loads. The boat may be equipped with upgraded size batteries, Group 31 for the house, and additional house batteries. The boat may also be equipped with a separate optional trolling motor system, which includes three additional Group 31 AGM batteries located in the forward bow locker. Use only AGM batteries with Verado engines.

Battery Trays

The battery trays, located in the aft electrical rigging compartment of the console, house and secure the batteries. Your batteries should always be secured in the battery trays provided with your boat and secured in place by the retaining brackets. The trays will ensure that while underway the batteries will not move around, thus

causing damage to components fitted in the same area.

The batteries can be removed from the trays by first removing the negative wires from the terminal posts followed by removing the positive wires then removing the retaining lid on the battery tray.

⚠ CAUTION

- **Never use an open flame in the battery storage area.**
- **Avoid striking sparks near the battery.**
- **A battery will explode if a flame or spark ignites the free hydrogen given off during charging.**
- **The battery should always be disconnected before doing any work or maintenance on the electrical system.**
- **If equipped with a battery switch, you will need to stop the engine before moving the switch to the "OFF" position.**

Battery Charger

The battery charger, mounted on the aft wall of the forward part of the interior of the console, automatically increases current output when there is a drop in battery voltage. When the batteries are charged, the unit maintains a small current flow to keep the batteries fully charged and ready for service without overcharging.

Overload Protection

If an electrical short or overload occurs in the electrical system, the charger will reduce its output voltage to avoid internal damage. When an electrical short occurs, the red LED on the front panel of the unit will be illuminated. The overload or short must be removed in order for the charger to resume charging characteristics.

Maintenance

The charger is fully automatic and requires no maintenance. However, the battery terminals should be cleaned periodically with baking soda and all connections tightened to provide trouble free operation.

Battery Switches

Your boat uses a single battery switches to control delivery of DC power from the batteries. This battery switch is located on the main distribution panel inside the console. The switch is an advanced type, with two internal separate switches controlled by one knob. Batteries are switched by one battery switch but are kept separate inside the battery switch. Placing the knob in the "ON" position energizes both the house and engine batteries separately.

If emergency paralleling is required, the battery switch may be turned to a third position, to the right of the "ON" position, "COMBINE BATTERIES" position or parallel mode and this will join both batteries. This may result in the depletion of the engine starting battery, and prevent the engine from starting.

When the engines are shut down or not providing a charge, the boats systems will draw power from the house and engine batteries separately.

Use of the stereo, electronics and other loads will discharge the house battery bank.

Automatic Charging Relays (ACR)

The two battery banks are automatically connected in parallel through the use of ACRs (Automatic Charging Relay) when a sufficient charging source is present. The battery banks are automatically separated when the charging source falls below a certain voltage level for a predetermined amount of time.

The use of ACRs eliminates the need for the operator to monitor battery voltage and decide whether or not it is ok to parallel the battery banks. It also eliminates the chance of a dead battery bank if a paralleling switch were left in the "Combined" position without a sufficient charging source present.

REFER TO THE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS, WARRANTY AND SAFETY INFORMATION.

Battery Maintenance

Before use, check each battery and the charging system for loose connections or wiring. Normal maintenance should include:

- Coat the terminals with dielectric grease
- Keep the batteries dry
- Remove the batteries from the boat during cold weather or long term storage.

The most life shortening experience for the battery is to be drained to zero charge before recharging.

When a battery discharges, the active material on both positive and negative plates converts to lead sulfate, causing the plates to become more alike in an electrical charge. The electricity conducting battery acid becomes weaker and the voltage drops. As the battery remains discharged, the process continues until recharging the battery becomes impossible.

If the battery does become run-down be sure to recharge it as soon as possible. Over charging the battery can be just as detrimental to its life as running it down too far.

12 Volt Accessory Receptacles

NOTICE

DO NOT insert a cigarette lighter into the 12V receptacles. Damage to the unit and system may occur.

Your boat is equipped with two (2) 12 volt receptacles. They are located on the dash panel.

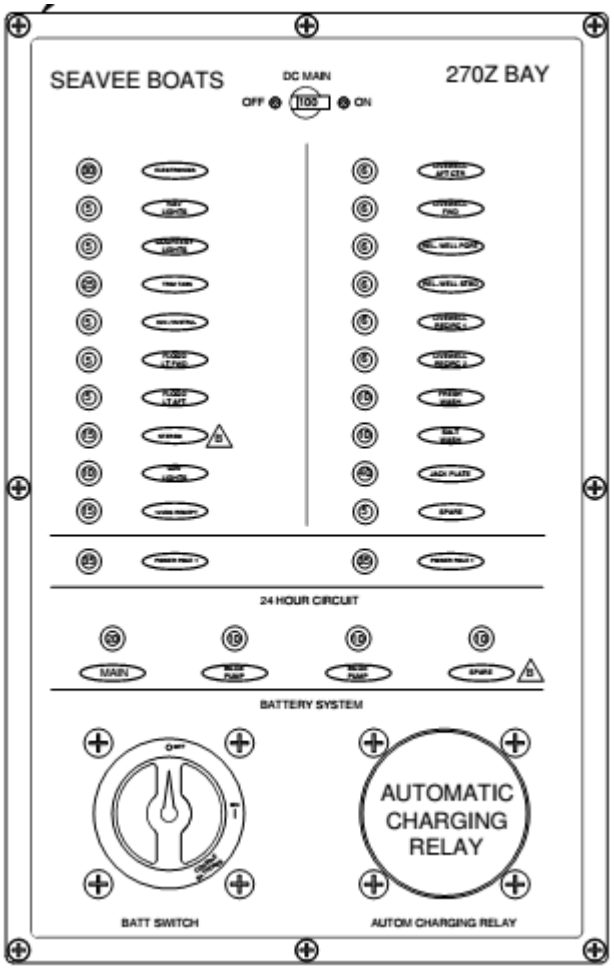
These receptacles are made of corrosion resistant marine grade materials and have a moisture proof cap. There is a 15 amp reset breaker button located on the main distribution panel which protects the receptacles at the helm.

Be sure to use accessories that DO NOT EXCEED the rated capacity of the circuit, (15 amps).

Main Distribution Panel

Your boat's DC electrical system operates on 12VDC Power supplied by the engine battery and house battery. The DC distribution panel is located inside the console, and is accessed via the

hinged door on the front of the console.



120VAC System (Option)

Your boat may be equipped with either the shore power AC system or the On-trailer system.

Refer to Section 3 for more detailed information.

The shore power system is designed to safely permit charging of the batteries with the boat in the water.

The On-Trailer charger system is designed to permit the charging of the batteries with the boat only on shore, and NOT IN THE WATER.

⚠ CAUTION

DO NOT USE THE ON-TRAILER BATTERY CHARGING SYSTEM WHILE THE BOAT IS IN THE WATER. SERIOUS INJURY OR DEATH COULD RESULT.

Component Breakers

Your boat utilizes manual reset breakers for the various components throughout the boat. The breakers can be found on the main distribution panel inside the forward portion of the console. Separate breakers for the stereo amps and other high amperage equipment may be located inside the aft portion of the interior of the console. All breakers are labelled.

If a component breaker trips, determine and correct the problem before resetting the breaker.

Should a circuit breaker trip repeatedly, have a qualified marine electrician determine and correct the cause of the trip.

In the event it is necessary to replace a breaker, use only the same amperage as the original. If a breaker is replaced with one of lower amperage, it will not be sufficient to carry the electrical load of the equipment it is connected to and will cause nuisance breaker tripping. Conversely, if a breaker is replaced with one of higher amperage, it will not provide adequate protection against an electrical malfunction and will create a fire hazard.

⚠ WARNING

Use of higher amperage fuses or breakers is a fire hazard.

Fuse Blocks

⚠ WARNING

Use of higher amperage fuses or breakers is a fire hazard.

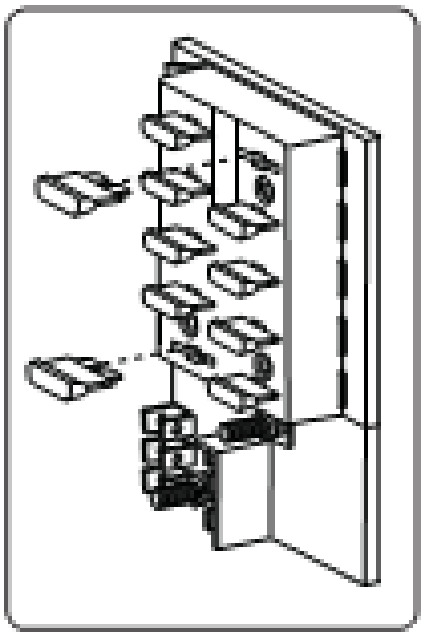
Use fuses and breakers having the same amperage rating as the original or as specified.

There is an electronics fuse block located in the electrical rigging compartment in the aft portion of the console, mounted on the starboard wall. It can be accessed through the aft console hatch/footrest.

In the event you need to replace a fuse, use only the same amperage as the original. It is recommended that you carry spare fuses.

If a fuse is replaced with one of lower amperage, it will not be sufficient to carry the electrical load of the equipment it is connected to and will cause nuisance fuse failure or breaker tripping.

If a fuse is replaced with one of higher amperage, it will not provide adequate protection against an electrical malfunction and will create a fire hazard.



Transducer Mounting Location

Your boat is designed to permit the installation of a thru-hull style transducer in a location that will hold bottom in most conditions. Due to the stepped hull configuration, the transducer is located forward of the forward step, to prevent entrained air in the flow along the hull bottom from decreasing the transducer performance.

Access to the location is made through the access hatch bonded into the deck inside the console, located on the deck just aft of the console door. This fiberglass hatch is held in with silicone. Removing the silicone around the joint will allow the hatch to be removed easily.

There is a molded flat in the keel for the installation of the transducer, and the hull is solid laminate in this area.

In certain instances, a high power transducer, such as an Airmar 275/265, may be installed as specified by the customer. These are located in the same position on the hull, but a molded recess integral to the hull lamination is included to permit the flush mounting of the transducer in the hull.

Electrical Schematics

The following pages contain schematics pertaining to the electrical system in your boat. These schematics are for reference and to be used by service technicians.

Seavee does not recommend that you attempt to work on the electrical system yourself. Instead, we suggest that you take your boat to Seavee Service for electrical service.

Seavee reserves the right to update the electrical system on any model at any time without notice to the customer and is not obligated to make any updates to units built prior to the change.

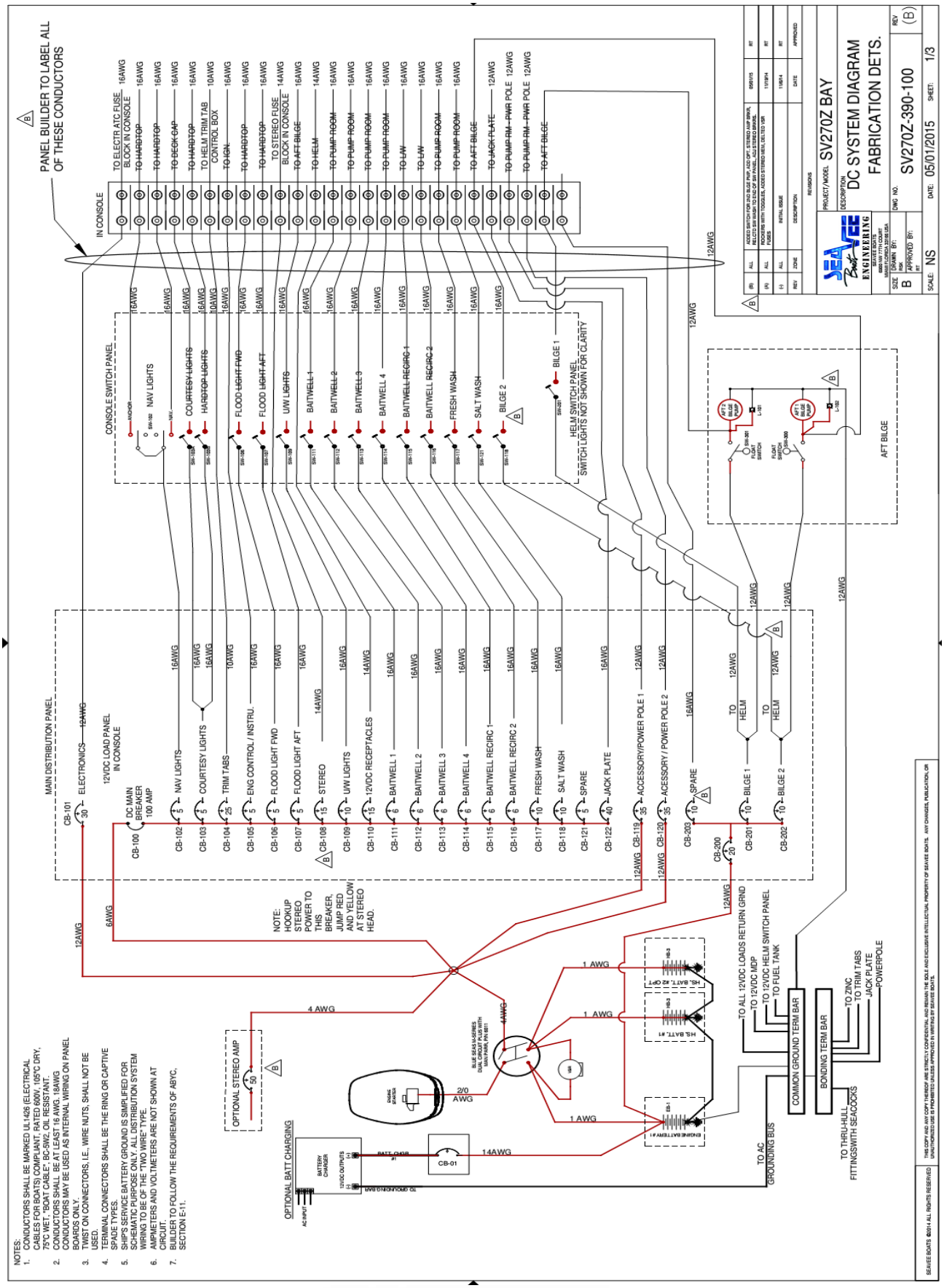
Wiring Identification Chart

Seavee attempts to adhere to electrical wiring requirements which meet all the ABYC-11 standards where suitable and applicable. The following chart outlines the gauge, color and function of the wiring used.

Wire Color Chart

Wire Color Chart for DC and Special Circuit

COLOR	FUNCTION	COLOR	FUNCTION
GRN	GROUNDING MAIN/TOWER & ALUMINUM FUEL TANKS	BRN/ORN	SUMP PUMP
		BRN/RED	BILGE PUMP (UNSWITCHED)
GRN	GROUNDING	BRN/VIO	FORWARD FISHBOX PUMP
ORN	STARBOARD 30 AMP RECEPTACLE	BRN/WHT	MACERATOR
		BRN/YEL	LIVEWELL PUMP
RED	MAIN FEEDS/PORT 30 AMP RECEPTACLE	GRY	RUNNING LIGHTS
		GRY/BLK	ACC 1
BRN/BLK	STARBOARD FISHBOX PUMP	GRY/BLU	ACC 2
BRN/VIO	FORWARD FISHBOX PUMP	GRY/GRN	ACC 3
BRN/YEL	LIVEWELL PUMP (HIGH CURRENT)	GRY/RED	AFT MAST/ACC 4
		GRY/WHT	ALL ROUND/FWD MAST LIGHT
BRN/BLU	PORT FISHBOX PUMP	GRN	GROUNDING
BLK	GROUND	ORN	REFRIGERATOR or CENTER WIPER
RED	+12V MAIN		
BLK	GROUND	ORN/BLU	HORN
BLK/YEL	STOP CIRCUIT	ORN/BRN	STARBOARD WIPER PARK
BLK/WHT	GEN SHUTDOWN	ORN/GRN	STARBOARD WIPER
BLU	COMPASS	ORN/RED	PORT WIPER
BLU/BLK	DOME LIGHT	ORN/VIO	VACUUM PUMP
BLU/GRN	SPREADER LIGHT	ORN/WHT	CENTER WIPER
BLU/ORN	LIVEWELL LIGHT	PINK	FUEL SENDER
BLU/RED	COURTESY LIGHTS	RED	12V RECEPTACLE
BLU/VIO	CABIN LIGHTS	VIO	IGNITION
BRN	BILGE PUMP (SWITCHED)	WHT	CO MONITOR/ELECTRIC TRIM TAB (SWITCHED)
BRN/BLK	STARBOARD FISHBOX PUMP		
BRN/BLU	PORT FISHBOX PUMP	YLW	BLOWER/STEREO MEMORY
BRN/GRY	RAW WATER	YLW/RED	START
BRN/GRN	FRESH WATER		


PANEL BUILDER TO LABEL ALL OF THESE CONDUCTORS
IN CONSOLE
TO ELECTR ATC FUSE BLOCK IN CONSOLE
TO HARDTOP
TO HARDTOP
TO DECK CAP
TO HARDTOP
TO HELM TRIM TAB CONTROL BOX
TO IGN
TO HARDTOP
TO HARDTOP
TO STEREO FUSE BLOCK IN CONSOLE
TO AFT BILGE
TO HELM
TO PUMP ROOM
TO PUMP ROOM
TO PUMP ROOM
TO LHV
TO LHV
TO PUMP ROOM
TO PUMP ROOM
TO AFT BILGE
TO JACK PLATE
TO PUMP RM - PWR POLE
TO PUMP RM - PWR POLE
TO AFT BILGE
CONSOLE SWITCH PANEL
ANCHOR
NAV LIGHTS
COURTESY LIGHTS
HARDTOP LIGHTS
FLOOD LIGHT FWD
FLOOD LIGHT AFT
U/W LIGHTS
BAITWELL 1
BAITWELL 2
BAITWELL 3
BAITWELL 4
BAITWELL RECIRC 1
BAITWELL RECIRC 2
FRESH WASH
SALT WASH
BILGE 2
BILGE 1
HELM SWITCH PANEL
SWITCH LIGHTS NOT SHOWN FOR CLARITY
AFT BILGE
MAIN DISTRIBUTION PANEL
CB-101
ELECTRONICS
12VDC LOAD PANEL IN CONSOLE
CB-100
DC MAIN BREAKER 100 AMP
CB-102 NAV LIGHTS
CB-103 COURTESY LIGHTS
CB-104 TRIM TABS
CB-105 ENG CONTROL / INSTRU.
CB-106 FLOOD LIGHT FWD
CB-107 FLOOD LIGHT AFT
CB-108 STEREO
CB-109 U/W LIGHTS
CB-110 12VDC RECEPTACLES
CB-111 BAITWELL 1
CB-112 BAITWELL 2
CB-113 BAITWELL 3
CB-114 BAITWELL 4
CB-115 BAITWELL RECIRC 1
CB-116 BAITWELL RECIRC 2
CB-117 FRESH WASH
CB-118 SALT WASH
CB-121 SPARE
CB-122 JACK PLATE
CB-119 ACCESSORY/POWER POLE 1
CB-120 ACESSORY / POWER POLE 2
CB-203 SPARE
CB-200
CB-201 BILGE 1
CB-202 BILGE 2
NOTE: HOOKUP STEREO POWER TO THIS BREAKER, JUMP RED AND YELLOW AT STEREO HEAD.
OPTIONAL STEREO AMP
OPTIONAL BATT CHARGING
BATTERY CHARGER
AC INPUT
CB-01
BATT CHRG #1
ENGINE BATTERY #1
HS- BATT. #1
HS- BATT. #2 OPT
BLUE SEA 1-4 SERIES DUAL CIRCUIT PLUS WITH MAN PARK PM 6811
ENGINE STARTER
TO ALL 12VDC LOADS RETURN GRND
TO 12VDC MDP
TO 12VDC HELM SWITCH PANEL
TO FUEL TANK
COMMON GROUND TERM BAR
BONDING TERM BAR
TO ZINC
TO TRIM TABS
JACK PLATE
POWERPOLE
TO AC GROUNDING BUS
TO THRU-HULL FITTINGSWITH SEACOCKS
NOTES:
1. CONDUCTORS SHALL BE MARKED UL1426 (ELECTRICAL CABLES FOR BOATS) COMPLIANT, RATED 600V, 105°C DRY, 75°C WET, BOAT CABLE F, BC-SWZ, OIL RESISTANT.
2. CONDUCTORS SHALL BE AT LEAST 16 AWG, 16AWG CONDUCTORS MAY BE USED AS INTERNAL WIRING ON PANEL BOARDS ONLY.
3. TWIST ON CONNECTORS, I.E., WIRE NUTS, SHALL NOT BE USED.
4. TERMINAL CONNECTORS SHALL BE THE RING OR CAPTIVE SPADE TYPES.
5. SHIP'S SERVICE BATTERY GROUND IS SIMPLIFIED FOR SCHEMATIC PURPOSE ONLY. ALL DISTRIBUTION SYSTEM WIRING TO BE OF THE "TWO WIRE" TYPE.
6. AMPMETERS AND VOLTMETERS ARE NOT SHOWN AT CIRCUIT.
7. BUILDER TO FOLLOW THE REQUIREMENTS OF ABYC, SECTION E-11.
SEAVEE BOATS
PROJECT/MODEL: SV270Z BAY
DESCRIPTION: DC SYSTEM DIAGRAM FABRICATION DETS.
DWG NO.: SV270Z-390-100
REV: (B)
SIZE: B
DRAWN BY: NS
APPROVED BY: RT
SCALE: NS
DATE: 05/01/2015
SHEET: 1/3
REVISIONS
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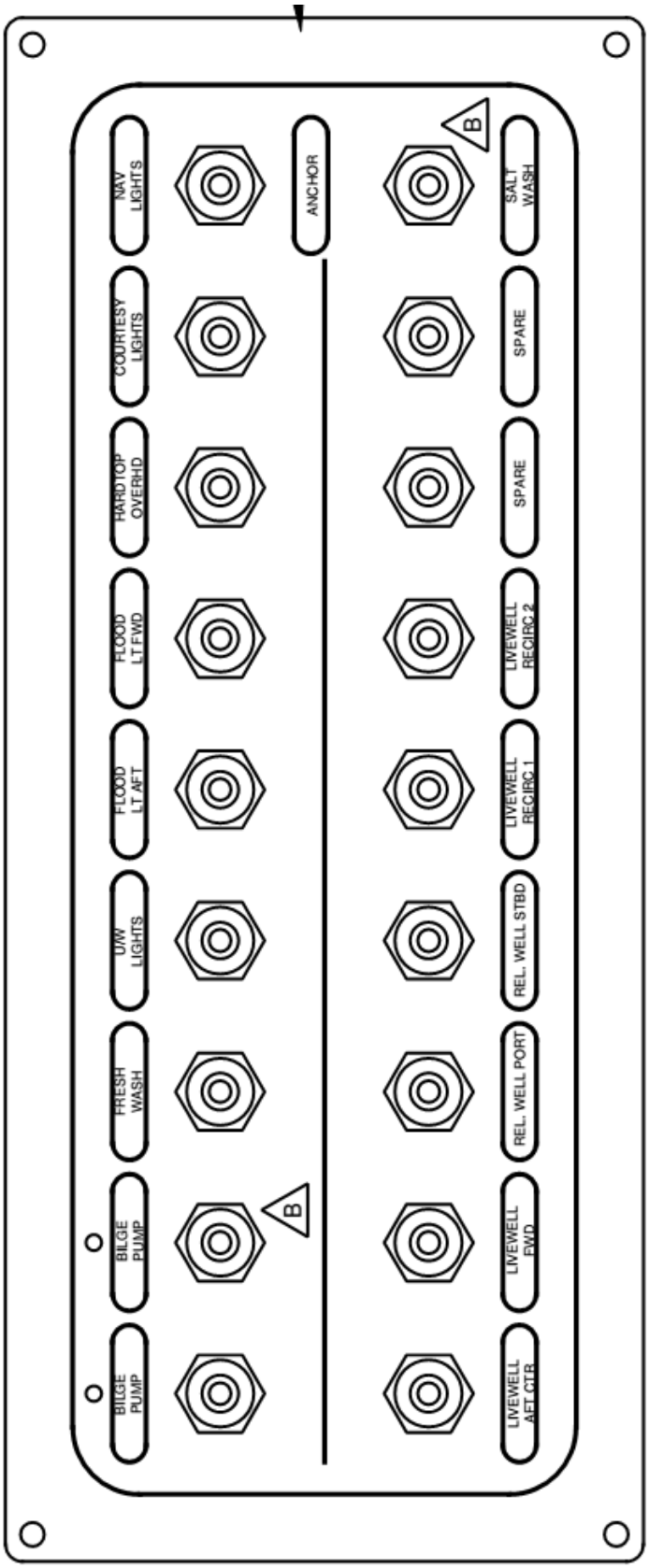
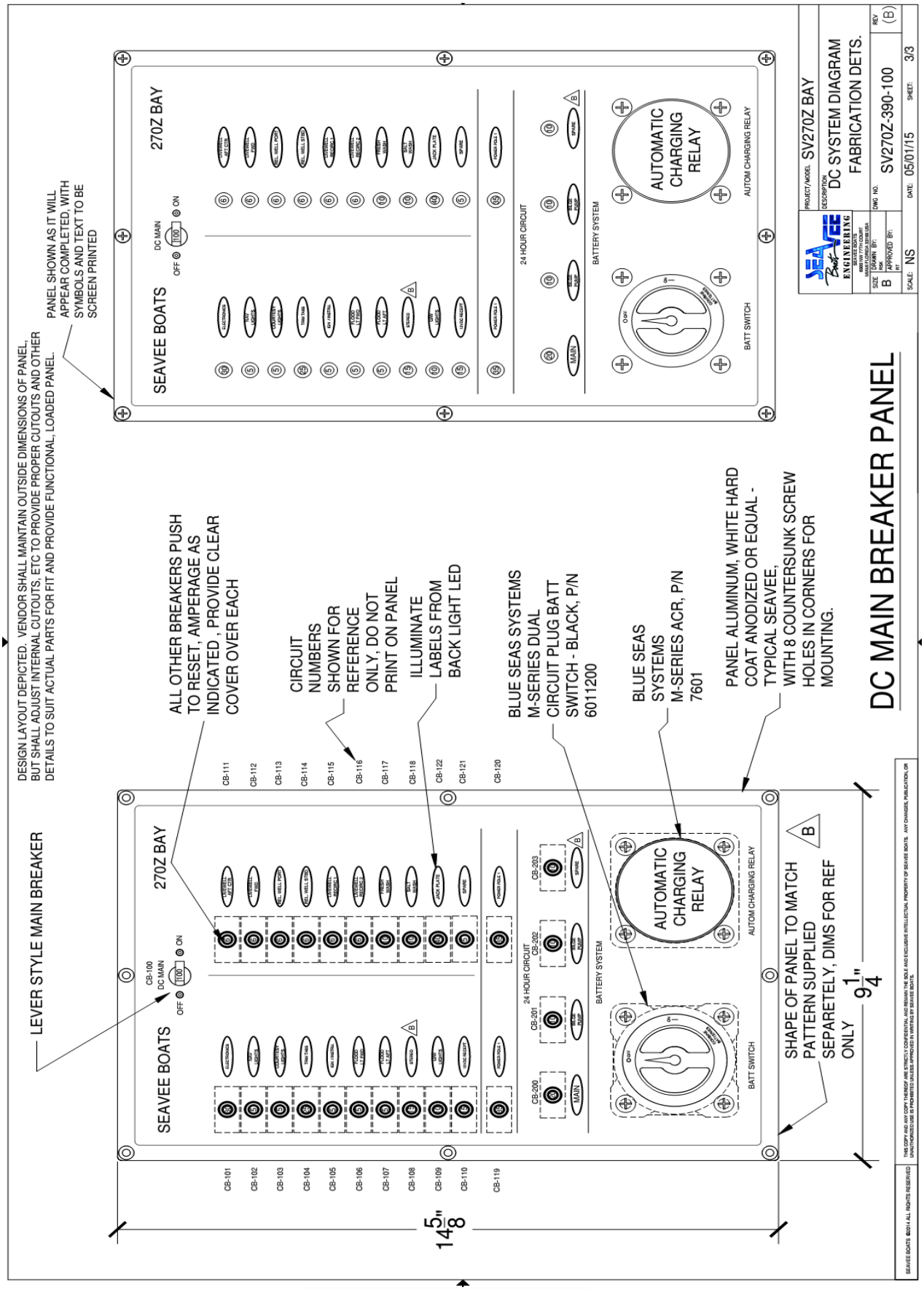
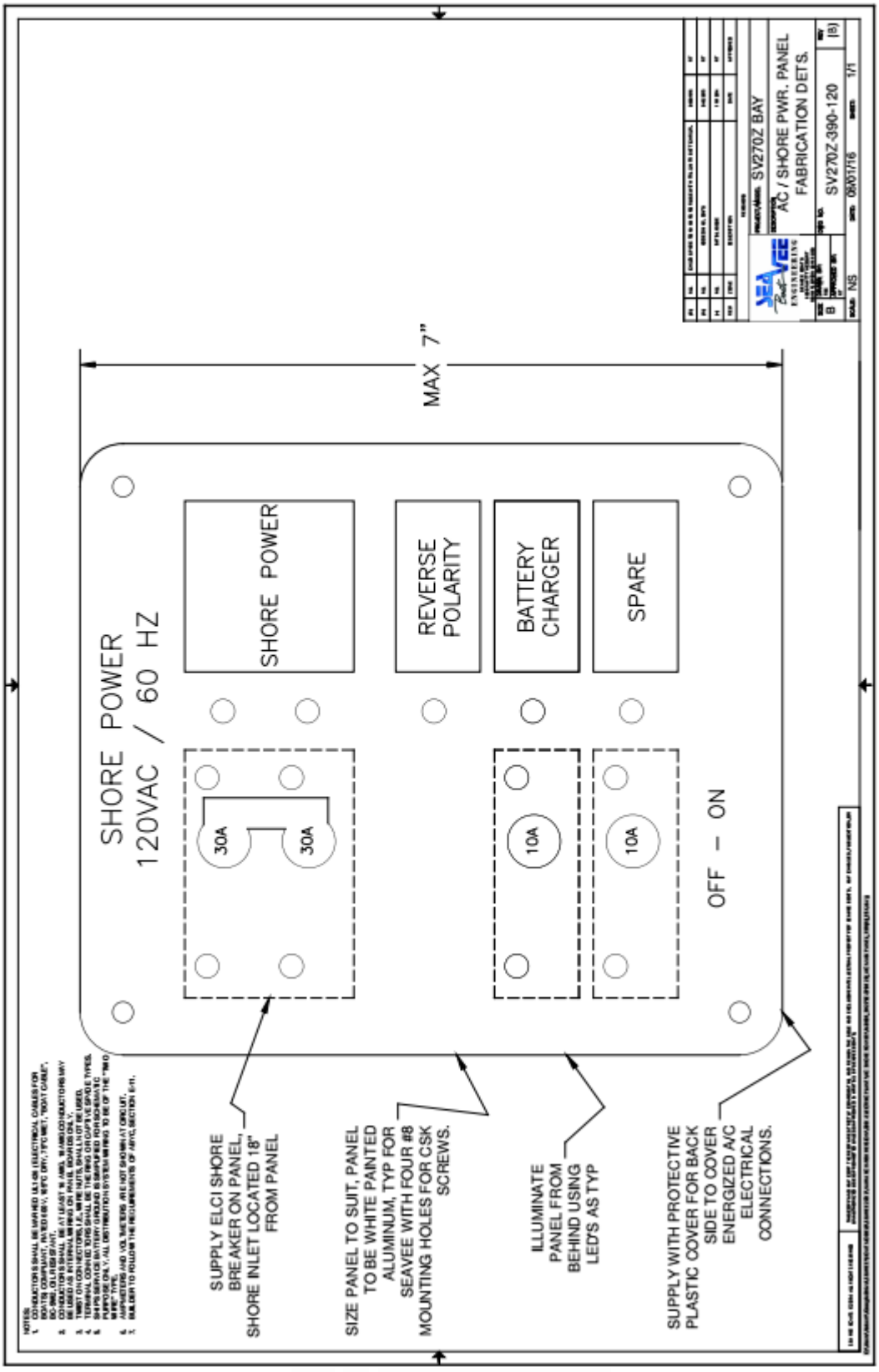

NAV LIGHTS
COURTESY LIGHTS
HARDTOP OVERHD
FLOOD LT FWD
FLOOD LT AFT
U/W LIGHTS
FRESH WASH
BILGE PUMP
BILGE PUMP
ANCHOR
B
B
SALT WASH
SPARE
SPARE
LIVEWELL RECIRC 2
LIVEWELL RECIRC 1
REL. WELL STBD
REL. WELL PORT
LIVEWELL FWD
LIVEWELL AFT CTR


DC MAIN BREAKER PANEL
SEAVEE BOATS
270Z BAY
DC MAIN
OFF
ON
100
24 HOUR CIRCUIT
BATTERY SYSTEM
BATT SWITCH
AUTOMATIC CHARGING RELAY
AUTOM CHARGING RELAY
MAIN
LEVER STYLE MAIN BREAKER
DESIGN LAYOUT DEPICTED. VENDOR SHALL MAINTAIN OUTSIDE DIMENSIONS OF PANEL, BUT SHALL ADJUST INTERNAL CUTOUTS, ETC TO PROVIDE PROPER CUTOUTS AND OTHER DETAILS TO SUIT ACTUAL PARTS FOR FIT AND PROVIDE FUNCTIONAL, LOADED PANEL.
PANEL SHOWN AS IT WILL APPEAR COMPLETED, WITH SYMBOLS AND TEXT TO BE SCREEN PRINTED
ALL OTHER BREAKERS PUSH TO RESET, AMPERAGE AS INDICATED , PROVIDE CLEAR COVER OVER EACH
CIRCUIT NUMBERS SHOWN FOR REFERENCE ONLY, DO NOT PRINT ON PANEL
ILLUMINATE LABELS FROM BACK LIGHT LED
BLUE SEAS SYSTEMS M-SERIES DUAL CIRCUIT PLUG BATT SWITCH - BLACK, P/N 6011200
BLUE SEAS SYSTEMS M-SERIES ACR, P/N 7601
PANEL ALUMINUM, WHITE HARD COAT ANODIZED OR EQUAL - TYPICAL SEAVEE, WITH 8 COUNTERSUNK SCREW HOLES IN CORNERS FOR MOUNTING.
SHAPE OF PANEL TO MATCH PATTERN SUPPLIED SEPARETELY, DIMS FOR REF ONLY
14 5/8"
9 1/4"
PROJECT/MODEL SV270Z BAY
DESCRIPTION DC SYSTEM DIAGRAM FABRICATION DETS.
DWG NO. SV270Z-390-100
REV (B)
SIZE B
DRAWN BY:
APPROVED BY:
SCALE: NS
DATE: 05/01/15
SHEET: 3/3

120 VAC Shore Power Panel



Section 5 • Care & Maintenance

Routine inspection, service and maintenance of your boat, boat systems and components are vital to assure your safety, as well as prolonging the life of your boat. You should develop regular routines for inspecting and servicing your boat.

NOTICE

Refer to the individual manufacturers' manuals for important information regarding service, care and maintenance of your boat, equipment and components. Failure to do so may in some cases void the warranty.

Owner's Manuals for your boat and each of the various components and equipment can be found in your Owner's Manual Packet.

⚠ DANGER

When using solvents read all information from the solvent manufacturer regarding safety and handling of the material.

Wear proper protective equipment to ensure your personal safety.

Only use solvents in a well ventilated area and keep all solvents away from open flame and any other forms of ignition.

The interval between necessary service or maintenance is highly variable, depending on the environment in which your boat will be used. For example, corrosion of boat parts and components will occur far more rapidly in a salt water environment than on a boat which is used in fresh water.

⚠ WARNING

IMPORTANT

Regularly inspect & test hardware, fittings, windshields, hatches, seams, etc. for proper seal. Reseal and/or readjust/tighten fittings, latches, etc. as needed.

This section provides **only general guidelines** for the care and cleaning of your boat. It is **your responsibility** to determine whether maintenance and care intervals need to be accelerated due to your boat usage and/or operating environment.

Hull

Fresh water, saltwater and water temperature can all affect the types of growth that you will fi nd on your boat's hull.

Any growth will affect the boat's performance and overall look. If it has been a while between inspections you might notice algae or slime growth on the hull. This can be cleaned with a coarse towel or soft bristle brush. The growth should be cleaned immediately after the boat has been removed from the water. If the growth is allowed to dry it will be much harder to remove.

Compounding may be necessary to remove more stubborn stains and chalking from the surface of your boat. If compounding is necessary it must be done after a thorough washing and prior to waxing.

If the growth is more severe, you may need to enlist the services of a professional hull cleaning company.

Check with Seavee Service for recommendations on a compatible rubbing compound for your boat or a professional hull cleaning company in your area.

Waxing the Gel Coat Surfaces

Waxing is necessary to provide added protection to the gel coat. A periodic good cleaning and waxing will also ensure that your boat will be protected and look good longer.

NOTICE

Waxing of the exterior surfaces is recommended to be done at least twice a year to protect the gel coat of your boat.

Do not wax over dirt. Make sure the surface of your boat has received a thorough washing and rinsing and is clean before waxing. If a rubbing compound has been necessary, make sure that any minor scratches or surface pitting is cleaned of compound residue. Use a good quality carnauba wax or a high quality wax designed for marine gel coat. Apply several coats.

Hull Maintenance

If using a pressure washer to clean the hull and deck surfaces of your boat it is important that you use the wide fan nozzle only and move the spray head in a continuous motion. Do not concentrate the high pressure on a small area of the boat surface and NEVER use the fine pinpoint nozzle as the concentrated stream can cause damage to the surface of your boat.

It is also recommended that you refrain from pressure washing the console as high pressure may compromise the integrity of the electronics and gauges as well as other equipment installed on your boat. Also avoid pressure washing all caulk seams.

When staining from build-up does occur, use only cleaning agents that are recommended for marine gel coat for use on those stubborn stains.

NEVER use an abrasive cleaner to wash your boat's hull.
NEVER use an abrasive pad to attempt to remove stubborn stains.
NEVER use strong solvents to clean.
NEVER apply tape or any other type of adhesives directly to the painted surfaces on your boat.
Use care when covering your boat's painted surfaces as tarps and other such covers can trap dirt and cause cha fi ng. It is best to use a frame of either aluminum or wood to keep the cover up and allow air to circulate.

Hull Blistering

Due to the quality of the materials used in the hulls, blistering is rarely ever seen. Blistering is caused by water soluble materials in the hull laminate. The fiberglass and resin structure of your boat is porous. However, intrusion of water into the gel coat will take some time. The effect of osmotic pressure allows water to impregnate below the gel coat and substrate thus forming a blister.

There have been extensive university studies funded by the United States Coast Guard regarding the cause and effect of blistering in the gel coat of fiberglass boats. Fiberglass blisters can form anywhere from near-surface layers of the gel coat to very deep into the fiberglass structure. The damage can range from cosmetic to catastrophic, (although the latter is a very rare occurrence). The studies seemed to point toward long term immersion of the hull in warm water as a primary cause of hull blisters. Stress cracks on the hull below the waterline also contribute to the formation of hull blisters.

Prevention

There are a variety of ways to prevent the formation of hull blistering. Epoxy coatings can be applied to the hull, followed by hull painting. An alkyd- urethane-silicone marine paint can also be used to aid in the prevention of hull blisters. Reducing the amount of time that your boat stays in the water also helps prevent hull blisters from forming. Use of a trailer or boat lift will reduce the likelihood of hull blisters forming. Be sure to use a bunk type lift or trailer for storage of the boat out of water.

Bottom Painting

⚠ DANGER

There are risks and dangers inherent with the use of paints and solvents. Dispose properly of all rags, rollers and trays used for painting. Follow all the precautions and regulations listed by the manufacturer before and after painting your boats hull.

NOTICE

If blisters are present in the hull, they need to be properly cleaned and dried out before any barrier protection can be applied.

If your boat will spend most of its time in the water, painting the bottom of your boat's hull is a good way to slow the formation of hull blisters and to keep bottom growth (fouling) under control.

If you will be trailering the boat to and from the water, you might want to forgo the painting.

⚠ CAUTION

DO NOT paint over zinc plates. This action will render them usless and lead to deterioration of the underwater metal parts of your boat.

Some bottom paints contain metals that can cause corrosion of the outboard engine. Leave a minimum of 3/4" unpainted around all engine parts. Use only a paint specifically designed for aluminum engines as anti fouling protection.

Bottom Painting a Bare Hull

Since the boat has never been painted preparation is the key to successful hull painting. Take extra care and time in preparation before proceeding to paint.

Begin by scrubbing the surface thoroughly with a stiff brush using an all-purpose marine soap and water to remove loose dirt and contamination. Flush with fresh water to remove all soap residue.

The gelcoat will have to be dewaxed of mold release wax before sanding can begin, otherwise the wax will be dragged into the scratches and will reduce the adhesion properties of the paint.

Remove any mold release wax that may be present using fiberglass surface prep solvent and a scrub pad. Scrub only a few square feet at a time. Flush with fresh water. If the water beads up or separates, continue scrubbing the surface. When the water sheets off, the wax contaminate has been removed.

After the dewaxing is complete, application of a primer coat is recommended. Pay close attention to scratches, nicks and dings in the surface. If necessary, fill any repair areas with a watertight epoxy filler. After filler is cured, sand with 80 grit paper until smooth. Remove the sanding residue using a fiberglass solvent wash.

The paint can be applied after sanding and cleaning is complete. Follow the paint

manufacturer's recommendations for application.

Bottom Painting a Pre-Painted Hull

⚠ WARNING

Bottom paint is designed to resist algae growth which means it has chemicals embedded in the paint that are harmful if ingested. Take all necessary precautions required before painting or repainting your boat's hull.

If the hull bottom is already painted, you must be sure to test the paint's adhesion to the already painted surface. If the paints are incompatible, the new paint will not adhere to the hull bottom or the paint will "lift" the old paint. **NEVER** apply paint without first preparing the old painted surface following the paint manufacturer's recommendations.

Follow the paint manufacturer's recommendation for applying the paint. Humidity and weather will play a role in how and when the paint is applied. Several thin layers are better than one thick layer.

To determine the waterline, you will need to place the boat in water with a full load of fuel and gear. Mark the waterline and measure above the marked line 1 to 3 inches for placement of the tape line.

Make sure that there is enough paint left to cover areas that were not accessible, (slings, jack stands etc.) and paint accordingly. Follow the paint manufacturer's recommendation for do's and don'ts after the painting is complete.

NOTICE

Painting your boat's hull will adversely affect the boat's speed and performance and may require re-propping if the maximum engine RPMs drop below the engine model/mfg recommended operating range.

NOTICE

Masking tape is NOT recommended for the types of paint you will be using.

Rubrail Care

The rubrail on your boat is constructed of an injected high density PVC vinyl material which laboratory tests have proven to be highly resistant to staining, fading and cracking.

As resilient as this material is, you still need to follow some basic maintenance precautions.

General maintenance requires a thorough cleaning with mild soap & water. **DO NOT** use any cleaning agents which contain chemicals.

Although the outer shell is tough and durable, there is a chance that it can be breached. Use care when docking or exposing the rubrail to conditions which may cause damage such as docking against heavily barnacle-encrusted pilings.

Some tears (cleanly sliced) can be repaired with a "Super Glue" type product.

Thoroughly clean and dry the affected area. Apply glue and hold the surfaces together.

Areas which have been torn or are affected by heavy abrasion will have to have the damaged section replaced. Please see Seavee Service for this type of repair.

Cleaning Fiberglass &

Non-Skid

To protect your deck and non-skid areas from the deteriorating effects of the sun, oxidation, water spots and pollution, use a good quality fiberglass and non- skid deck wax every two to three months.

When applied to your deck and non-skid areas, as recommended by the manufacturer, the wax forms a protective non-slick surface which will keep debris from sticking. Dirt, soot, bird droppings, and even fish blood will rinse right off.

NOTICE

NEVER use abrasive cleaners, detergents or soft scrub type cleaners to wash your boats surfaces.

NEVER use abrasive pads, brushes or sponges to attempt to remove stubborn stains.

NEVER use strong solvents or detergents which contain chlorine.

Stainless Steel Care

The cleaner your stainless trim and fittings can be kept, the greater the assurance of optimum corrosion resistance. Without proper care even the best stainless steel will corrode.

Stainless steel is strong and corrosion resistant, but still requires maintenance to keep its appearance. Frequent routine cleaning of your stainless steel with a mild soap and water solution and coating with a good grade cleaning wax will help maintain the finish.

- Wash with mild soap and cold or lukewarm water.
- Dry THOROUGHLY.
- Apply cleaning wax with a soft, dry cloth.
- Allow wax to dry, then polish and buff.

Even the finest cleaning powders can scratch or burnish a mill-rolled surface. On polished finishes, rubbing or wiping should be done in the direction of the polish lines, NOT across them.

Crevice corrosion, a brownish coloring which occurs where two pieces of stainless hardware meet is caused by impurities in water and air. It can be easily cleaned with a good grade marine polish using a sponge, cloth or small bristled brush (for nooks and crannies).

NOTICE

NEVER use abrasive cleaners, detergents or soft scrub type cleaners to wash your boats surfaces.

NEVER use abrasive pads, brushes or sponges to attempt to remove stubborn stains.

NEVER use strong solvents or detergents which contain chlorine.

NEVER use silver cleaners.

Aluminum Care

Preventative maintenance is essential to life of the metals on your boat. The presence of salt particles and moisture is the major cause of white spots, pitting and corrosion.

The use of harsh chemicals can also cause deterioration. Manufacturers and applicators of protective coatings will not warrant protective coatings on metals in the marine environment. Proper owner maintenance is required to reduce deterioration which will result in most cases by failure to wash down and wipe dry after each use

and/or the use of abrasive, acidic or other improper cleaners.

Wash completely using a soft cloth and mild detergent to remove salt particles. Hosing alone will not dislodge all particles. **DO NOT** allow soap to dry as it may cause stains on coated surfaces. Make sure to wash and dry the full circumference of aluminum parts.

Apply an aluminum protectorant at least twice each year, more frequently as conditions warrant. Neglect will cause pitting of the surface which cannot be reversed.

Inspect and repair or replace all damaged nylon bushings, washers or other hardware designed to prevent contact with dissimilar metals.

Whenever electrical or electronic changes are made to the boat, a qualified marine technician should check aluminum parts for stray currents. Make sure all electronic equipment is properly grounded with adequate sized wire.

Powder Coated Surfaces

Your boat may have been manufactured with a powder coating on the Hardtop frame and/or leaning post.

While most powder coat finishes are tougher and much more flexible than conventional solvent based paints, they are about the same hardness as automotive paint, so they will scratch.

To clean a powder coated surface, gently wash with a clean, soft cloth and a mild detergent followed by a clear water rinse.

Even though most powder coatings are highly resistant, certain solvents can harm them and should be avoided. DO NOT APPLY:

- Nail polish remover
- Paint or lacquer thinner
- Motor oils
- Transmission or brake fluids
- Parts cleaning fluids

If any of the above should contact the powder coated surface, immediately wipe the area with a soft, clean cloth, and wash as described above.

Do not screw into, mount, or clamp anything to your powder coated surfaces. This could damage the coating, and permit the aluminum to corrode. This will further accelerate the damage, and could cause large areas of the powder coating to fail, and flake off.

Immediately repair any damage to the powder coating.

Powder Coating Touch-Up

If it is necessary to apply touch-up paint on areas of the finish that have been scratched or damaged the powder material supplier should be contacted for their recommendation of the proper touch-up material to use.

Single component Acrylic Enamel (spray enamel) touch-up paint is commonly used for repair of minor damage in the powder coated finish. In some cases, a two-component catalyzed paint system may be required to achieve the desired repair. In all cases, perform a color and adhesion test in an inconspicuous area of the finish to assure compatibility before applying the paint to the damaged area.

Touch-up Procedure

- CLEAN surface of dirt, oil, grease, etc.
- SAND LIGHTLY with 400 grit wet/dry abrasive paper.

- REMOVE sanding dust with a lint-free cloth dampened with mineral spirits.
- TEMPERATURE of surface and paint must be at room temperature (between 70 to 90 degrees is ideal).
- APPLY paint to minor scratches by spraying a small amount of paint into the container's cap. Using a small brush, carefully apply the paint sparingly to the properly prepared surface. DO NOT APPLY A HEAVY COAT ALL AT ONCE. Apply several light coats allowing the paint to dry until tacky between each coat.

NOTICE

The visual, mechanical, chemical as well as corrosion protective and weather resistance properties of repaired areas ARE NOT equal to those of the original powder coating and are not suitable for long term performance.

NOTICE

If painting over exposed or bare metal, a chemical pretreatment process and/or primer sealer is recommended.

Follow manufacturer's recommendations.

NOTICE

It is highly recommended that you DO NOT penetrate the powder coating on your boat by securing equipment or other objects onto the coated surface. If necessary, contact the manufacturer for repair recommendations.

Canvas Care and Maintenance

NOTICE

DO NOT use detergents, bleach or solvents to clean your canvas.

To keep your canvas and metal parts in good working condition and in good appearance, you will need to keep them clean.

The fabric should be cleaned regularly before substances such as dirt, pollen, etc. are allowed to accumulate on and become embedded in the fabric. The canvas can be cleaned without being removed from the installation.

Chafing, fiber wear from dirt and grit and deterioration from ultraviolet light can cause your canvas to degrade over time.

Maintaining a good appearance

After each use, especially if used in salt water areas, rinse the canvas completely with fresh cold water.

On a regular basis

Brush off any loose dirt, pollen, etc.

- Hose down with fresh cold water and clean with a mild solution of a natural soap in lukewarm water (maximum 100°F / 38°C).
- Allow the canvas to soak. DO NOT ALLOW THE SOAP TO DRY.
- Rinse thoroughly with fresh water.
- Let the canvas dry completely. **DO NOT** store any of the canvas pieces while wet.

The effects of ultraviolet light can sometimes be reduced by chemical treatment of canvas items.

Consult Seavee Service or check your canvas manufacturer's manual **BEFORE** using any chemical treatments on your canvas.

Cleaning Stubborn Stains

Soak fabric for approximately twenty minutes in a mild solution consisting of no more than 1/2 cup (4 oz.) of bleach and 1/4 cup (2 oz.) of natural soap per gallon of lukewarm water (not to exceed 100° F / 38° C).

Rinse thoroughly in cold water several times. Allow the fabric to air dry completely.

NOTICE

Failure to remove all of the soap solution can cause deterioration of seams and prevent fabric from proper retreating.

Retreat the fabric using an air curing product such as 303 High Tech Fabric Guard to ensure water and stain repellency.

All canvas should be stored flat or rolled in a clean, dry space.

NOTICE

DO NOT use petroleum based products, such as petroleum jelly, on the zippers or fasteners.

Maintaining Zippers and Hardware

Lubricate zippers and fasteners periodically with a clear silicone spray. In the absence of silicone spray, a wax candle can be used to lubricate the zipper track.

Replace any missing fasteners or any fasteners showing signs of corrosion.

Maintaining Your Vinyl Windows

The canvas on your boat may incorporate polycarbonate windows. With a few care and cleaning steps your windows will provide lasting enjoyment. Regular cleaning, utilizing compatible cleaners, coupled with proper maintenance techniques will significantly improve the vinyl's service life.

- Rinse vinyl thoroughly with clear water to remove any dust, dirt particles, salt water or environmental agents before applying cleaning products.

This should be done frequently to avoid buildup of salt water, dirt and other environmental contaminants.

- Using a soft non-abrasive cloth, wash windows inside and out with a mild soap (Woolite, Joy, Palmolive, etc.) and water solution. Rinse completely with cool water.

DO NOT USE DETERGENTS.

- Use separate clean, soft cloths or sponges for application of cleaners and polishes (Use the manufacturer's recommended products).
- Use a small amount of cleaner or streaking may occur.

If you get streaking or a leftover fi lm, follow up the application with a water rinse.

- Dry with a soft cloth or chamois to prevent water spots. Polish with a separate cloth.
- Don't leave cleaners on for long periods; wash immediately.
- Don't apply cleaners in direct sunlight or at elevated temperatures.
- Don't use scrapers, squeegees, razors, brushes, or towels.

Using a soft non-abrasive cloth, wash the vinyl curtains inside and out with mild soap and water mixture. **RINSE COMPLETELY** with cool water.

To minimize fine or hairline scratches apply a mild automotive polish (i.e. Johnson's Paste Wax) and remove with a soft, clean cloth. **DO NOT USE ABRASIVE PLASTIC POLISHES.**

Cushions

⚠ CAUTION

Solvents are flammable. Exercise proper care. Wear rubber gloves during all cleaning activity.

Use caution when cleaning around buttons, stitching and wooden or decorative trim as these solvents could seriously damage such areas.

Saltwater, salt residue, dirt, ultra-violet rays etc. will take their toll on vinyl products causing them to lose their luster and texture.

To Clean Your Cushions

- **Remove ordinary dirt and smudges** with a mild soap and water solution. Dry with a soft, lint- free cloth or towel.
- **More difficult stains** can be cleaned using rubbing alcohol (isopropyl alcohol). Rinse cleaned area with fresh water and dry with a clean, soft, lint-free cloth or towel.
- **Seemingly permanent stains** like ballpoint ink can be cleaned with active solvents such as nail polish remover when applied with a soft cloth or damp sponge and rubbed. Rinse cleaned area with fresh water and dry with a clean, soft, lint-free cloth or towel.

The vinyl material and superior finish has been tested to resist heavy abrasion. Complete cleaning instructions are included in the owner's packet. Read all information provided by the cushion manufacturer regarding the proper cleaning and maintenance.

Your cushions are not waterproof. They are constructed of open-cell foam and will absorb and hold water. **Do not leave the cushions in standing water or exposed to heavy, prolonged rain**.

If, in the event your cushions become waterlogged, remove the foam from the cushion, press as much water as you can from the foam and allow to air dry.

To prevent mildew, keep the vinyl dry and make sure that moisture does not accumulate between the cushions.

Cleaning Tempered Glass Windshield

NOTICE

DO NOT USE abrasives, harsh chemicals or metal scrapers on glass.

NOTICE

For windshields with aluminum frames refer to "Aluminum Care" in this section.

Your boat is equipped with a tempered glass windshield that will provide years of service. It requires very little maintenance.

Use commercially available glass cleaners or a mixture of fresh water and vinegar to clean your glass windshield. Dry with a soft terry cloth towel or chamois, or microfiber towel.

Note that the windshield is tempered glass, and is subject to shattering if impacted by any hard sharp objects.

Cleaning Your Instrument Gauges

When gauges are exposed to a saltwater environment, salt crystals may form on the bezel and plastic covers. Remove the salt crystals with a soft damp cloth. Clean with a mild household detergent or plastic cleaner.

Never use abrasives or rough, dirty cloths to clean plastic parts. A mild household detergent or plastic cleaner should be used. Wipe clean with a damp chamois.

FOR MORE INFORMATION, CONTACT MERCURY MARINE CUSTOMER SERVICE AT 1-920-929-5040

Long Term Storage & Winterization

Long periods of storage, winter lay-up and/or non- use, common to boats, create unique problems. When preparing to store a boat for extended periods of two months or more it is best to make sure that the boat and its systems are properly conditioned for such extended periods of non-usage.

The guidelines presented on the following pages give basic instructions on "winterizing" your boat and boat systems. If inexperienced with the process of winterization it is best to hire the services of a professional.

Engine

⚠ CAUTION

Never start or run your outboard (even momentarily) without having water circulating through the cooling water intake holes in the gear case. This will prevent damage to the water pump (running dry) or overheating of the engine.

Protecting your engine's vital moving parts from corrosion and rust caused by freezing of trapped water or excessive condensation due to climatic changes is very important. Freezing water in the engine can cause extensive damage to the internal moving parts. Internal engine parts can also be affected by rust due to lack of proper lubrication

- Replace the engine oil and filter, running the engine to drain out as much old oil as possible.
- Flush the engine with fresh water using flush muffs or a similar device attached to the raw water pickup.
- Let all water drain from the engine.
- Fog the engine while it is running. Spray until it stalls.
- Run fuel which has been treated with conditioner and stabilizer through the engine.
- Replace lower unit gear oil. Check for moisture in old oil, a sign of deteriorating seals.
- Remove the prop and grease the shaft and threads.
- Treat all grease fittings with the recommended lubricant.
- Lightly lubricate the exterior of the engine or polish with a good wax.
- Check engine mount bolts. Ensure that they are torqued to 55 ft/lbs.

- In addition, it is important that you follow all the recommendations set by the engine manufacturer's operation manual.
- Store the battery in a cool, dry area.
- Use a trickle charger to keep the battery charged or charge the battery every 30-60 days.

Fuel System

Tank(s), hoses, and fuel pumps should be treated to help prevent the formation of varnish and gum.

Temperature extremes will cause condensation to accumulate in an empty or partially filled fuel tank leading to fuel contamination and/or premature wear of your system.

Fill the tank completely (100%) full and add fuel stabilizer and conditioner, following the manufacturer's recommendations, to provide fuel stability and corrosion protection.

NOTICE

Pay particular attention to the information provided in "Ethanol-Blended Fuel" in section 3 of this manual.

Battery

NOTICE

Follow the manufacturer's recommendations for long term storage of your battery(s).

- Disconnect the battery cables (negative cable first).
- Remove the battery from the boat.
- Clean the terminal ends of the cables and battery terminals with a solution of baking soda and water. Rinse thoroughly with clean water.
- Apply a coat of grease on the terminal ends of the cables and the battery terminals.

Livewell/Raw Water System

Drain the livewells. Ensure that all water is removed from the drain hose.

Remove the fill hose from the pump in the bilge and drain the water from the hose. Replace the hose on the pump and tighten the two clamps.

Fresh Water System

If the water system will not be used for an extended amount of time it is recommended that it be drained.

- Energize the freshwater pump switch on the instrument panel.
- Open all faucets and wash-down connections. Activate any sprayers connected to the system.
- Run the system until the fresh water tank is completely empty.
- De-energize the freshwater pump switch on the instrument panel.
- Add a non-toxic antifreeze to the water tank per manufacturer's recommendations.
- Energize the freshwater pump switch on the instrument panel.
- Run the system until antifreeze is seen running out of all faucets, wash-down connections and sprayers.
- Close all faucets, wash-down connections and sprayers.
- De-energize the freshwater pump switch on the instrument panel.

After Long Term Storage

Before you fill the freshwater system it is vital that it be properly disinfected.

The following procedure is recommended to disinfect the freshwater system:

- Flush the entire system thoroughly by allowing potable water to flow through it.
- Drain the system completely.
- Fill the entire system with an approved disinfecting solution and follow the method prescribed by the manufacturer.
- After disinfecting, drain the entire system.
- Flush the entire system thoroughly several more times with potable water.
- Fill with potable water.

This should be done annually or before using the system if it has been laid up for an extended amount of time.

- Add fresh water and flush several times while pumping out holding tank again.
- Add antifreeze and flush/fill entire system.

Electrical System

- Check all connections and tighten if necessary.
- Spray all connections with an anti-corrosion spray.

Deck

Clean the deck with soap, hot water and a stiff brush to clean up any oil spills.

Drainage

It is important to raise the bow of the boat enough to allow for proper drainage of water from the deck and bilge area. Make sure all the drainage fittings are clear and free of debris. Store the engine in an upright (trimmed down) position to promote adequate drainage of water.

NOTICE

Ensure that ALL drain plugs are removed (i.e. fishboxes, garboard drain, livewells, etc.)

Cover

When covering your boat it is best to use a frame of either aluminum or wood to keep the cover up. This allows air to circulate and discourages water from pooling on the cover.

NOTICE

DO NOT USE a bimini top in lieu of a cover. Damage and aging will occur while providing no protection for your boat.

Vents along the entire length of the cover will allow condensation to escape. Placing a series of foam pads between the hull and cover will also aid in air circulation and reduce condensation.

To help keep your boat dry and mildew free, consider placing commercial odor and moisture absorbing products in the boat under the cover.

Avoid Loss

Remove any valuables or anything that can be easily removed from the boat such as electronics, lines, PFDs, fenders, cushions, etc. and store at home.


SEAVEE
Boats