

Welcome Aboard

The purpose of this manual is to inform and familiarize both the novice and seasoned skipper with his new equipment. It will not tell you everything there is to know about boating, but will assist with the operation of equipment built and supplied by Buccaneer. (Equipment, specifications and price subject to change without notice.) When your Buccaneer needs service, see your authorized Buccaneer dealer.

Understanding your new boat and how it works is essential to boating enjoyment and your safety. We recommend a three-step program for fuller pleasure:

1. Make certain you get a full explanation of all systems from your dealer before taking delivery.

2. Read this manual thoroughly, with particular emphasis on these sections:

**STARTING
CHECKING FOR FUMES
ALCOHOL STOVES
LOADING LIMITS
SAFETY SUGGESTIONS
LIMITED WARRANTY**

3. Practice. All members of the family should be familiar with boat operation and how all systems work.

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Section I

Recommended Procedures for Launching, Fueling, Operating, Safety Inspecting and Trailing Your Boat.

At the time of the first launching of your Buccaneer, it is very important the procedure noted below be followed. Buccaneer sailboats in the 180 through 277 series are water-tested at our factories on a random sample basis. Each Buccaneer 295, 305 and 335 is water tested prior to delivery. Still, your new Buccaneer should be checked closely when first launched.

A. Launching

1. Inspect the bottom of your new Buccaneer and make note of all fittings below the waterline. Then proceed with the launching.
2. Once in the water, immediately board your boat and inspect for signs of leakage. Check the area of any other through-the-hull fittings for signs of leakage.
3. If any leaks are noted, the boat should be removed from the water. If the selling dealer is not present, he should be notified.
4. Check rigging for proper tuning. This should be done each time prior to getting underway.
5. On 180 and 220 models, install the rudder; attaching a safety line is advised as the rudder will not float. Turn the rudder to one side to fit the pintles into the gudgeons; the lower pintle is longer and will slip in before the upper pintle. Turn rudder lock down to assure rudder does not come out of gudgeons.

B. Fueling

1. Prior to fueling, extinguish all open lights; close all hatches, windows and doorways; stop all engines, motors, fans and other devices liable to produce sparks.
2. Inboard models are fitted with a through-the-deck fitting marked "diesel". This fitting is located so any fuel spilled will not enter the boat. Remove the cap and insert the fuel nozzle, allowing the nozzle to make contact with the through-the-deck fitting. This contact will protect against static electricity.
3. Proceed with filling the tank. After 4 or 5 gallons have been pumped in, stop to inspect the area of the engine and fuel tank for signs of leakage or fumes. If nothing is detected proceed with fueling. When tank is full, again check the motor/fuel tank area.
4. Install the fuel fill cap.

5. Wash down the area around the fuel fill with fresh water.
6. In the case of portable fuel tanks on outboards, remove tanks from the boat for filling. Once filled, they should be hosed down and wiped off before being replaced in the boat. **NOTE: Some portable tanks have vent screws which must be open to operate the outboard engine.**
7. On very hot days allow for expansion. Do not fill the fuel tank completely.
8. If, when filling the fuel tank, you can't put fuel in at a reasonable rate, check the fuel vent line to see that it's free and not kinked.
9. A periodic check should be made of the motor/fuel tank area. Any sign of seepage or fumes should be investigated and the cause repaired prior to operating the boat.

C. Starting (Inboard models only)

1. Check the engine oil level, test alternator/water pump belts for tension and check entire motor area to see everything is in its proper place. **IMPORTANT: check entire area visually as well as by sniffing to insure no fuel vapors or fuel are present.** Check transmission oil level.
2. If the diesel engine has not been run, bleeding of the fuel system is required. See the engine manual for instructions for bleeding the engine. To bleed fuel line from fuel tank to engine, open bleeder valve on engine and, using primer pump on fuel pump, pump until fuel comes out bleeder valve. If full rpm cannot be reached, this is an indication that additional bleeding is necessary.
3. Turn on the blower and allow to run for three minutes. Do not turn the blower off until you are underway and at cruising speed.
4. Position throttle at half throttle and turn the ignition key to the start position.
5. As soon as the engine starts, set the engine speed at 1000 rpm's and check your oil pressure. Oil pressure will vary from one engine to another, but it should come up immediately. If it doesn't, shut the engine down. On those engines equipped with indicator lights, if the warning light does not go out, shut the engine down.
6. When the oil pressure checks OK, check the engine again for fuel vapors or fuel leakage. Give particular attention to all fuel fittings and check for any sign of water. Water leaking from the engine might indicate the block drain plugs are open.

CAUTION: Check engine and fuel compartments and operate blower for at least three minutes before starting, during starting, and when operating below cruising speeds.

7. Check to see that the alternator indicator light is out. The temperature gauge should start coming up.
8. Now bring the engine back to an idle. Idle rpm should be 600-800 when the engine is warm.
9. Look over the stern of boat and make sure that water is coming out with the exhaust.

D. Packing gland on propeller shaft log (Inboard models)

1. The boat should be checked when first launched to see that the packing gland is not leaking.
2. When properly adjusted, with the shaft turning, a slight drip indicates correct adjustment.
3. During initial hours of operation, the packing gland should be checked regularly.
4. If excess leakage is noted, shut the engine down, loosen the jam nut on the shaft log and tighten the packing nut $\frac{1}{4}$ clockwise turn, start the engine and check. Continue this procedure until a slight drip is noted.

E. Packing gland on rudder shaft log (305 model only)

The boat should be checked when first launched to see that the packing gland is not leaking. If it is leaking, loosen the jam nut and tighten the packing nut until the leaking stops.

F. Controls (Inboard models)

With the boat tied securely to the dock, advance the shift control to forward. Bring back to neutral, hesitate and bring the shift lever back to reverse. Return the lever to neutral. The boat thrust should correspond to the shift lever position. When shifting in or out of gear, move the shift lever firmly and quickly.

If you have followed the procedures above, then the most important functions of your boat have been checked. Any discrepancies noted should be reported to your dealer immediately. **DO NOT ATTEMPT TO OPERATE YOUR BOAT UNTIL THE PROBLEM IS CORRECTED.** If everything has checked out OK, you're ready to go.

For maximum safety and fun afloat, the procedures above should be followed each time you operate your boat. They are not just for beginners. Seasoned skippers—like airplane pilots—perform these checks each time they launch, fuel or operate their boats.

G. Safety Inspection

1. You should check to make sure you have the following safety items, tools and spare parts on board.
 - a. fire extinguisher
 - b. life preservers—one for each person on board, plus one throwable flotation device. All should show a Coast Guard approval tag on them.
 - c. boat hook or paddle
 - d. fenders
 - e. lines
 - f. chart for intended operation area
 - g. flashlight
 - h. flares, night and day types
 - i. small tool box with:
 - phillips head screw drivers
 - slot head screw drivers
 - pliers, vise grip
 - regular open-end wrenches
 - electrical tape
 - jackknife
 - allen wrenches
 - hacksaw
 - hammer
 - ratchet, sockets and extension
 - feeler gauges
 - lubricating oil
 - battery jumper cables
 - water pump pliers
 - friction tape
 - hose clamps
 - assorted screws, bolts, nuts and washers
 - waterproof matches
 - NOTE: Metric tools are required for Volvo diesel engines.***
 - j. spare parts:
 - alternator belt and/or water pump belt
 - gear lubricant
 - cabin lights, courtesy bulb number GE-94 or GE-90
 - WD-40 (rust inhibitor)
 - navigation light bulb number GE-90
 - dome lights number GE-1141
 - propeller nut and washer

drive pin, if required
spare propeller
fuses, numbers SAE10, SAE30

2. Instruct passengers in the use and location of life jackets and fire extinguisher.
3. Check your self-contained head. It should be charged with a fresh chemical solution before starting a trip.
4. Check your water system. It should be filled and the operation of the manual or pressure pump should be tested. Your pressure pump system has a switch in the galley area that activates the pressure pump. When your water tank runs dry, you should shut off the pump as continuous running when dry will damage the pump.
5. Bilge pumps work well if their intakes are kept clear of debris and the outlet hose is kept free. Occasional checking of operation is advised. Don't run your pump dry. Add a little water to the bilge and pump out to make certain it is operating properly.

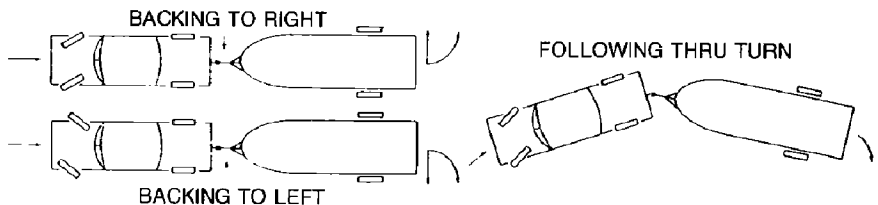
H. Trailer

1. Purchase a trailer with the proper capacity rating. A trailer that is sprung to carry more weight will ride too roughly and can damage your boat. Too little trailer capacity will be unsafe on the highway, and will not meet legal requirements.
2. Consult your state laws as to brake requirements, and check brakes for proper operation prior to departure on each trip.
3. Check tires for proper inflation. Underinflated tires heat up rapidly and tire damage is likely to occur.
4. Wheel bearings should be checked at least every 90 days and before putting your boat away for the season.
5. Your boat should be fastened to the trailer by a line from the bow eye to the winch line PLUS a safety chain or cable to the winch stand or trailer tongue. The stern of your boat should be tied down to the trailer from the stern eyes.
6. Check to be sure the tail lights and turn signals work when attached to the towing vehicle. Some automobiles require heavy duty flasher units to make turn signals work properly.
7. Your trailer should support your new boat in as many places as possible and be adjusted so the load is well divided among the supporting rollers or pads. Occasional lubrication of the rollers aids in launching and retrieving your boat.

8. Too much or too little tongue weight will cause difficult steering and tow vehicle sway. A rough rule of thumb is 5% to 10% of boat and trailer weight on the tongue.
9. Close and secure all cabin windows and doors. Store equipment so that it cannot slide or fall.
10. Before towing, take down the cockpit dodger; it can be damaged.
11. Check springs and undercarriage for loose parts.
12. Carry a spare wheel and tire to fit your trailer and tools sufficient to change it.
13. On extended trips, carry spare wheel bearings, seals and races. Due to the immersion necessary to launch your boat, trailer bearings and packing will not last the mileage they will in your auto.

I. How to back up a trailer

We will attempt to show you how it is done in pictures. However, practice makes perfect, so we suggest using an empty supermarket parking lot can be the biggest benefit.



NOTE: When backing, be sure to have a lookout—your visibility may be severely impaired. Also, make certain the rudder will clear obstacles.

1. Turn the front wheels of the car in the *opposite* direction from which you want the trailer to go.
 2. Once the turn is started, follow the trailer as you would normally backing the car.
 3. When rounding turns on highways or streets, do not cut corners.
 4. Equip your vehicle with a right-hand mirror—a real benefit when passing and parking.
- J. Getting away from the dock
- Piloting a boat is a lot like learning to drive a car. Extra caution and

slow speeds cause fewer accidents. The following diagram will help you understand how your new Buccaneer steers. After leaving the dock, secure and store any fenders or mooring lines.

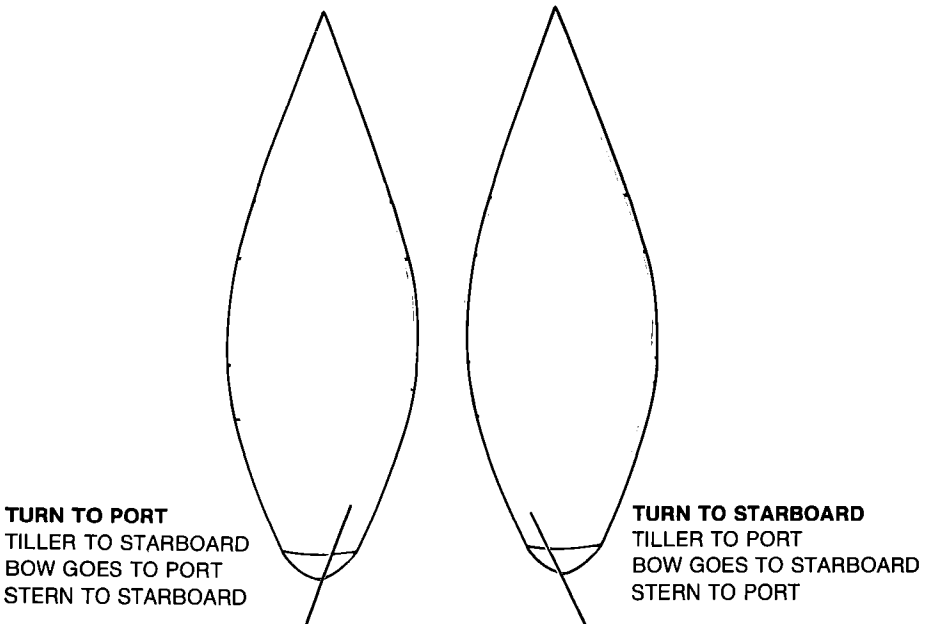
Your Buccaneer will steer well with the rudder. The motor, for most applications, can be left straight ahead.

K. Practice Maneuvers Under Power

Once you are away from the dock, devote some time to learning how to maneuver.

1. Practice docking by using an imaginary dock.
2. Practice stopping. You have no brakes, but reverse works well at low speeds. **NOTE: Inboard powered boats are difficult to steer in reverse due to the pronounced effect of engine torque and propeller rotation.**
3. Remember your boat is very heavy. When operating in close quarters or docking, all maneuvering should be done at idle speed. Proceed with caution in congested areas.

Have fun and stay calm. You will learn more quickly and enjoy it more.



Section II

Parts and Systems—Operation and Maintenance

A. Electrical systems

Although Buccaneer manufactures many different models, the electrical systems on all models operate on the same basic theory. The key to a good marine electrical system is the battery. The batteries on Buccaneer models 220 through 272 are a dealer installed item. Buccaneer makes the following recommendations on battery rating:

Models 220 through 272—minimum 60 amp/hour capacity.

1. Battery

The marine battery has a big job. It supplies you with lights, engine starting power and power to run many accessories. Don't neglect it! Check the water level regularly by removing the caps. If the zinc plates are exposed, add distilled water. Corroded battery terminals can also let you down. Clean them with baking soda and water, and coat with preservative or a light film of petroleum jelly. Be sure all battery connections are tight. When storing the boat, it is best to remove the battery, give it a full charge, and store it inside where there are not extreme temperatures. Do not store on a cement floor.

2. Fuses

The fuse blocks on all models are located at the switch panel on inside aft cabin bulkhead. The fuse block is marked with the names of the accessories. 10-amp fuses are used on all accessories. On Buccaneers equipped with optional electric refrigerator, an in-line fuse is located at the battery.

On the 295, 305 and 335 models the pressure water system pump and the shower sump pump, where applicable, also have an in-line fuse at the battery. In addition to fuses at switch panel, models 220 through 335 have a 30-amp in-line fuse on the positive main power lead at the battery.

On the 305, fuses for all accessories are on a fuse block located in the motor compartment in the main salon under the dinette seat. The main power switch is in the same location. The automatic bilge pump is fused at the batteries.

3. Dockside power

On 272 and 277 models (optional), the circuit breaker box is located next to the switch panel.

On the 295 model, the circuit breaker box is located on the starboard bulkhead adjacent to galley.

On the 305 Buccaneer, the circuit breaker is located in the motor box under the dinette seat in the main salon.

On the 335 Buccaneer, the circuit breakers are located on bulkhead next to port quarter berth.

CAUTION: When plugging into shore power you should always check the phase of the shore power. A phase tester can be purchased at any electrical supply store and should be plugged in to one of the 110 volt outlets on your boat. When you plug in your dock side, check the phase tester. If your boat outlet is not in phase with the shore power, disconnect your dockside plug, turn it over and replug it. Failure to make this check can result in damage to your 110v accessories.

All circuit breakers should be in the "on" position. The 110 volt accessories and wall outlets can now be used. The refrigerator (optional or standard) automatically switches over to 110 volt. The main battery switches can be in either the "off" or "on" position while on shore power.

The 305 Buccaneer is equipped with a battery charger which works automatically when the dockside power is plugged in. If the battery switch is on "off" or "1" position, the charger will charge #1 battery. If the switch is in "2" position, #2 battery will be charged. If the switch is in the "both" position, both batteries will be charged. The battery charger is most effective charging one battery at a time.

4. 110v/12v Refrigerator

On those models equipped with the Norcold 110v/12v refrigerator, when the dockside power is plugged in this accessory automatically switches over to 110 volts. When the dockside power is unplugged, it automatically switches back to 12 volts. On 12 volts, it is advisable to turn the refrigerator off at night. If you're mooring in one place for more than one day and have your refrigerator running constantly, you should start and run your engine(s) every day for 15 minutes or so at 1500 rpm or higher. This will help to keep your battery(s) up. When running on 12v *do not* set cold setting above #2 position.

5. Hot water heater

On the 305, the hot water heater is hooked up to dockside power and to the engine cooling water. When hooked up to dockside power the 110v heating element will maintain the water in the

tank at 140°. When cruising under power, the cooling water from the engine will only maintain the water in the tank at luke warm. The hot water tank, which holds approximately five gallons of water, is equipped with a thermostat and a reset button. These are located under the square removable plate on the tank itself.

CAUTION: When the water system has been run dry, the hot water must be shut off immediately or the 110v heating element will be damaged. This is done at the dockside power circuit breaker box.

Diagram of Electrical System

Buccaneer 220/250

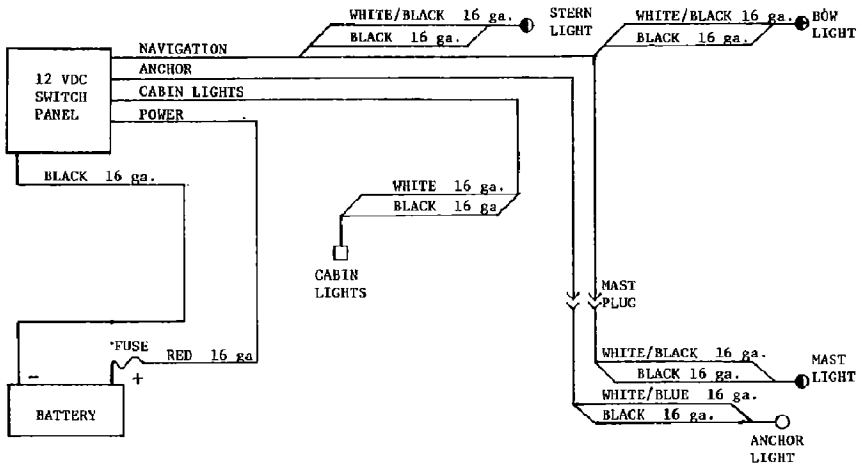
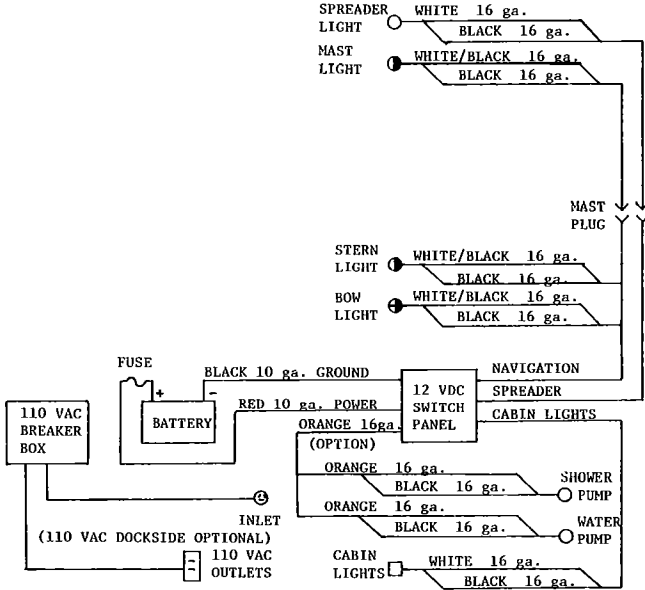


Diagram of Electrical System

Buccaneer 272



B. Fuel Tanks

1. Outboard:

Your outboard fuel tank should be stored in the port cockpit locker, as it is properly vented.

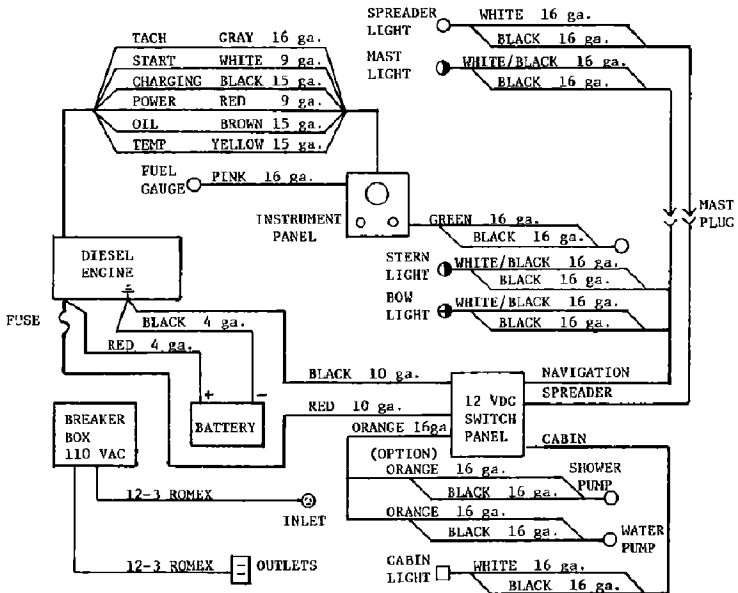
2. Inboard:

In your new inboard Buccaneer, the fuel tank is equipped with an anti-siphon valve to prevent fuel from filling the bilge due to a broken line.

Contaminated fuel may occasionally cause the check valve to malfunction.

Diagram of Electrical System

Buccaneer 277



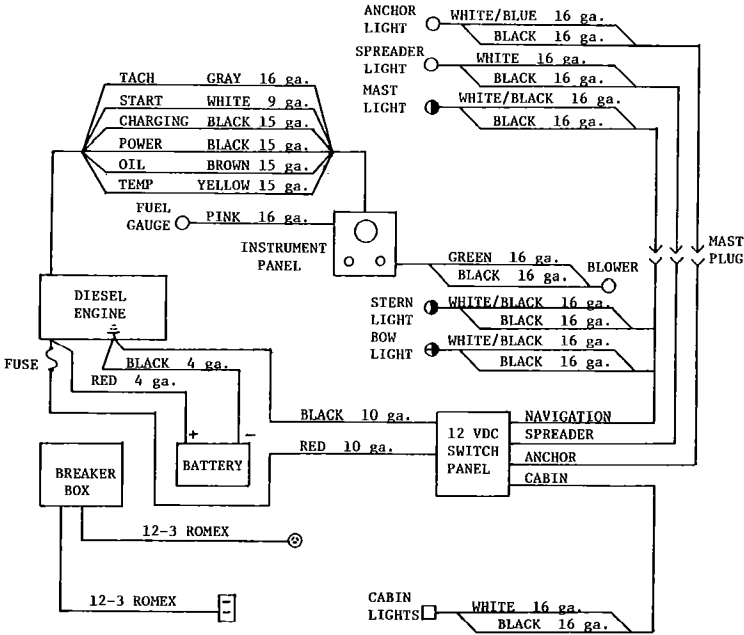
In emergency situations, the check valve may be removed if the engine is not getting enough fuel.

Do not attempt to repair the valve—replace it with a new one. During winter storage or in case of contaminated fuel, a fuel conditioner is recommended.

In addition to the anti-siphon valve, the 305 Buccaneer is equipped with a manual shutoff valve at the fuel filter.

Diagram of Electrical System

Buccaneer 295



<u>Buccaneer</u>	<u>Fuel Capacity</u>	<u>Tank No.</u>
277	12 gallons	2414
295	12 gallons	40483
305	42 gallons	420-B
335	12 gallons	40483

C. Freshwater System

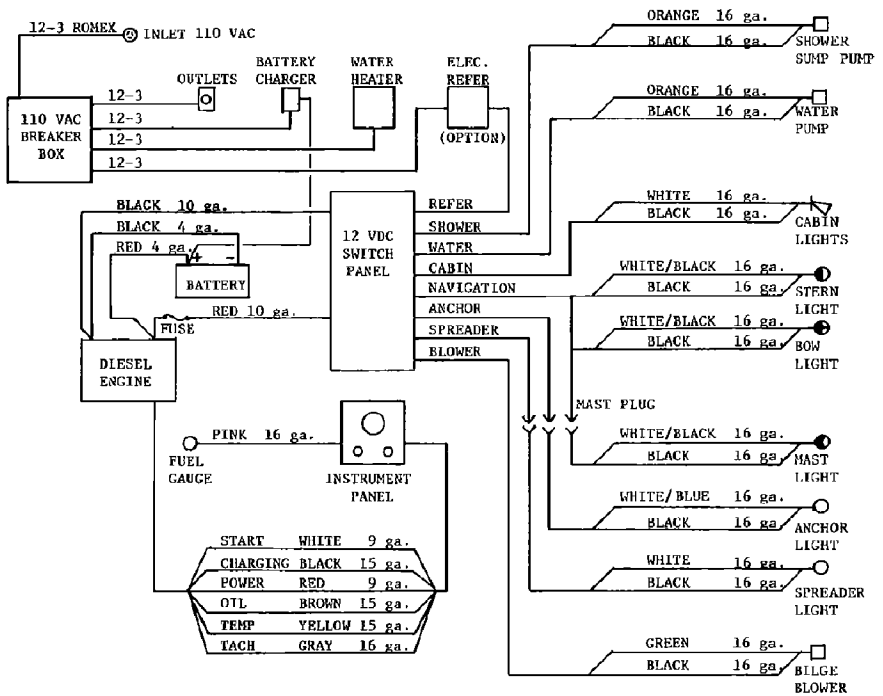
The freshwater systems in Buccaneer models vary in tank size and location.

Manual pumps work on a push-pull basis.

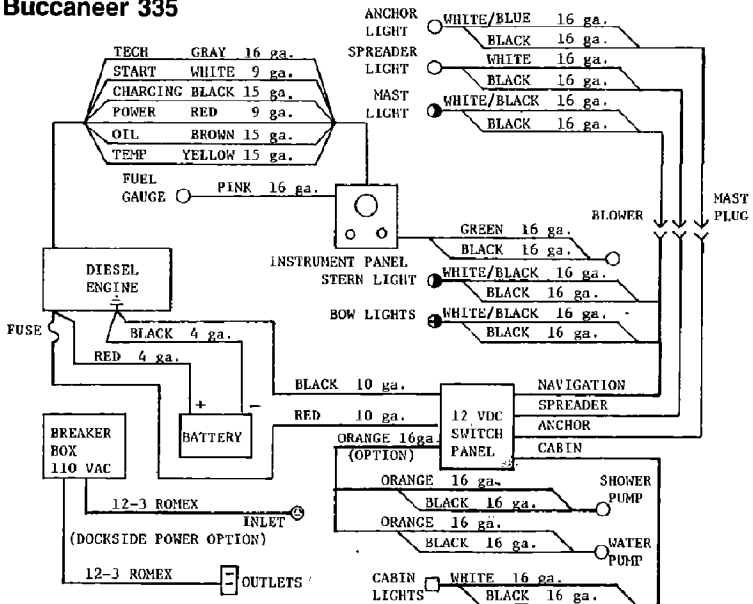
Pressure systems operate at any time the electrical switch is on. When not using the boat, or when tank is dry, be sure the switch is off. Pressure pump switches are located in the galleys on all models. On those models with showers, the shower stall sump pump switch is located in the head. Because the shower floor is below the waterline, a sump pump must be used to remove the shower water.

Diagram of Electrical Systems

Buccaneer 305



Buccaneer 335



<u>Buccaneer</u>	<u>Water Capacity</u>	<u>Tank No.</u>
220 (option)	3 gallons	Genfoam 952
250 (option)	3 gallons	Genfoam 952
272	24 gallons	V.S.I. 2204
277	24 gallons	V.S.I. 2204
295	24 gallons	V.S.I. 2204
305	48 gallons	R.V.I. 2413
335	20 gallons	V.S.I. P-512-B (2)

D. Starter Motor

The engine starter motor is electronically different from most motors. It is designed to deliver high horsepower for very short intervals only. Avoid operation for more than 30 seconds at one time. Due to its high horsepower, this motor builds up considerable heat and can be permanently damaged with prolonged use. If it does not operate, check battery for charge and all direct connections for shorts or loose connections.

E. Bilge Blower

The bilge blower is a factory installed item designed to clear the bilge area of diesel fumes. In essence, it is a squirrel cage type electric fan which sucks out engine compartment air and causes fresh air to circulate into the compartment through the deck vents.

The bilge blower is designed to be used before starting the engine, during starting and while the boat is operating below cruising speed to insure fresh air circulation. Operate blower for 3 minutes before starting engine.

NOTE: The blower will not prevent explosion. If you smell fuel, shut off all electrical accessories and engine and investigate immediately. If the blower does not operate, check fuse and check lead wires.

F. Bilge Pump

Model 220 through 335 Buccaneers are supplied with a manual bilge pump located in the cockpit. In addition to that, the 295, 305 and 335 Buccaneers have an electrical bilge pump.

The electric bilge pump is on an impeller type. If you see water and the pump motor is running but not pumping, check to see that it is not clogged by debris. If it still does not pump, check the discharge hose for kinks or a collapsed area.

NOTE: The federal water pollution control act prohibits the discharge of oil or oil waste into or upon the navigable waters and contiguous zone of the United States if such discharge causes a film or sheen upon, or discoloration of, the surface of the water, or causes a sludge or emulsion beneath the surface of the water. Violators are subject to a penalty of \$5,000.

G. Running Lights

The night lights or navigation lights supplied with your Buccaneer are of top quality. However, failure may occur for several reasons.

1. You may have blown a fuse. (Replace fuse in switch panel.)
2. The bulb may be burned out. (Carry spare bulbs for replacement.)
3. The bulb base may be corroded. (Clean periodically as required and coat with non-conductive grease or vaseline.)
4. A wire may be loose, due to vibration or mis-stowed gear. (Repair where break occurred.)

NOTE: Prolonged operation of cabin interior lights (overnight) will result in a dead battery. Be conservative in the use of battery power.

H. Head Operation

1. Marine head with holding tank (optional):

The marine head with holding tank is designed so waste may be flushed into the holding tank or, for those traveling offshore and beyond federally regulated waterways, flushed overboard. This is accomplished by routing the head discharge hose through a "Y" connector to the holding tank and also overboard. There are valves in each of these lines. To flush waste overboard the gate valve to the tank must be closed and the thru-hull seacock should be open. To flush into the holding tank, close the thru-hull seacock and open the gate valve to the holding tank. To empty the holding tank the boat must be taken to a pump out station.

To operate the marine head, open the seacock on the sea water intake. Before using, pump some water in to wet the bowl. After using, pump until thoroughly cleansed. Pump a few more times to clean lines. If excess waste should cause water to rise in bowl, stop pumping until water recedes. If at any time you are unable to pump water into the bowl, the probable reason is debris sucked into pump diaphragm. To remedy, shut inlet sea cock and dismantle pump. Pump is generally held together with six screws. The design is simple and the problem will be obvious when pump body is split open. To winterize toilet, shut off intake valve. Pump until dry. Remove drain plug in base. Pump again to remove all water. Do not use antifreeze. The inlet sea cock should be closed while the boat is under way or when the boat is left moored in the water. The following chart will help you locate the holding tank and valves in your Buccaneer.

Model	Location of Holding Tank	Location of Overboard Discharge Sea Cock	Location of Holding Tank Gate Valve
Buccaneer 272/ Buccaneer 277	forward of bulk-head under port side v-berth	port side forward under v-berth	aft side of holding tank
Buccaneer 295	forward of bulk-head under port side v-berth	port side forward under v-berth	aft side of holding tank
Buccaneer 305	under aft end of port side settee in salon	port side ahead of galley bulkhead	under vanity in head
Buccaneer 335	under aft end of port side settee in salon	port side ahead of settee bulkhead	under vanity in head

2. Portable Heads:

POTPOURRI To use:

1. Mix 1½ to 2 gallons of water with four ounces of Liquid Gold concentrate and pour the mixture through the opening of the basin, while operating the flushing handle on the side.
2. Pump the liquid into the basin, and push on the flush handle. Repeat the operation to assure perfect mixing.
3. Before using, it is always necessary to pump liquid into the basin.
4. Keep the basin dry when running.

NOTE: Use only white toilet tissue as colored dyes may impair the effectiveness of the chemical. Use regular ply tissue. Do not use disintegrating tissue as this may clog the entire pump system.

Cleaning:

Use only mild cleansers, detergents or soaps. Avoid using abrasive cleaners. Clean the toilet bowl periodically as you would your household toilet.

To empty:

1. To empty the portable model into another toilet, remove the pour-spout cap at the rear right-hand corner and connect the hose adapter with an adequate length of three-inch (7.62 cm) flexible sewer hose clamped on to submerge the hose below the waterline in an existing toilet bowl.
2. Gradually tilt the unit to drain out.
3. After emptying, flush a half pail of clear water into the holding tank and swirl contents to rinse out. Repeat if necessary.
4. To use toilet again, recharge with Liquid Gold as done originally.

NOTE: There are many brands of toilet chemicals, any of which will work very well in any of the portable toilets supplied by Buccaneer.

SEA FARER

The Sea Farer is divided into two basic components. The top section consists of the seat, seat cover, flushing bellows, bowl and freshwater storage chamber. The lower section consists of an odor-tight, gas-tight seal, and the holding tank for waste storage.

Preparation:

1. Set the unit on the ground. Tilt unit forward, then remove the large threaded cap from the lower rear of the unit and pour in $\frac{1}{2}$ bottle of AquaKem Concentrate to control odor and prevent gaseous buildup within the holding tank. Replace and tighten cap.
2. Unsnap the cap on the top, back of the unit and fill the tank to the specified level with fresh water. **DO NOT POUR ODOR CONTROL CHEMICALS INTO THIS SECTION.** Replace the cap.

To Use:

1. If you wish to add water to the bowl before using, depress the flushing bellows. To flush after use, depress the flushing bellows one or more times and raise the valve handle. Water and waste in the bowl will pass into holding tank. For the most efficient use and conservation of water, it is recommended that you raise the valve handle and depress the bellows simultaneously to flush.
2. Should the holding tank become overfilled, tilt the toilet back slightly and open the valve.

To Empty:

1. The holding tank of the Sea Farer is ready to empty when the holding tank contents approach the level of the blade of the mechanical seal. Carry the unit to any permanent toilet facility.
2. Tilt forward. Remove the large threaded cap on the lower right and pour the contents into a toilet.

Trouble Shooting:

Symptom: Valve operates harder than normal or the blade sticks.
Cure: Apply a light film of silicone spray to blade.

I. Alcohol Stoves

The alcohol stove supplied with your Buccaneer is the finest available. Read carefully and follow the operating instructions. Use only stove alcohol labeled specifically for marine stove use. Do not operate stove while under way.

To fill: Unscrew filler cap. Fill tank with denatured ethyl alcohol using a funnel. Replace cap. The filler cap is equipped with a safety valve and must not be replaced by any other type of cap. To start: Pump approximately 20 times to pressurize fuel tank. Pump is located at front of stove.

To operate: Burners must be preheated to produce vaporized alcohol. Slowly open (counterclockwise) one burner at a time to allow alcohol to flow into priming cup below the burner body. Fill priming cup $\frac{3}{4}$ full (about $\frac{1}{4}$ ounce). Shut off burner (clockwise) and ignite priming alcohol. When this alcohol is fully consumed, turn control knob toward open position and light burner.

CAUTION: All alcohol spilled while filling tank or as a result of priming cup being filled to overflowing should be cleaned up prior to lighting alcohol stove. Follow starting instructions above carefully. Flare-up may occur during preheating, particularly if burner valve is opened before preheating is completed. If flare-up occurs, shut off burner and restart per instructions DO NOT PUT COOKING UTENSILS ON STOVE UNTIL BURNERS ARE FUNCTIONING PROPERLY.

To shut off burner: Turn control knob to extreme right. Release pressure in tank by loosening filler cap.

Buccaneer's 305 and 335 models are equipped with remote alcohol tanks. Each of these models is equipped with a small tire pump for pressurizing the tank. A pressure gauge and pump valve are on the tank itself. To pressurize, make certain stove control knobs are in the "off" position, then pump the tank pressure to 15 psi. As the stove is used, check and maintain this pressure.

J. Sails

To familiarize yourself with the sails on your **Buccaneer**, it is best to hoist all sails while securely moored to a float. This should be done only in moderate or light winds. It is proper procedure to hoist sails when the boat is headed into the wind.

Your sails are made of Dacron. The stiff, crinkly sound is caused by filler that is added to help the sail maintain its best shape for sailing.

1. The mainsail is first removed from the storage bag and the foot (bottom) of the sail is fed into the groove on the boom. The clew (the aftmost corner) has a small line attached that is reefed through a pulley on the aft end of the boom and led back to the cleat on the boom. This arrangement is called a clew outhaul. It keeps the foot of your sail taut and may be adjusted for proper sail shape. Install the battens in the batten pockets. These small pieces of fiberglass help maintain proper sail shape.

The main halyard is the one on the starboard side of the mast. Fasten the halyard to the starboard mast cleat; take the shackle end and fasten the shackle to the head of the sail. (The head is the top point.) Be sure the halyard moves easily in its block at the top of the mast and it is free of the spreaders and the jib halyard.

To raise the sail, pull down on the starboard halyard while inserting the plastic slides, which are attached to the luff of the sail, into the slide track on the mast. Pull the halyard very taut and secure to the cleat. Attach a short piece of line from the boom gooseneck down to the cleat on the aft side of the mast; this is called the downhaul. The main sheet should be left with a small amount of slack; if it is too tight, you will be unable to raise the mainsail properly. In light airs or with the bow into the wind, it is permissible to leave the topping lift attached to the boom while raising the sail.

2. Jib sails come in many different sizes. Standard equipment on the **Buccaneer 180, 220, 250, 272 and 277** is a 110% lapper which will work well in most winds. After you have familiarized yourself with sailing in strong winds with the standard jib sail, you probably will want to add a larger sail called a genoa. We recommend a 130% or 150% genoa. The 150% genoa can be ordered through your **Buccaneer** dealer. If your area is subject to extremely strong winds, you might want to have a smaller or storm jib in your sail inventory.

The jib halyard is on the port side of the mast. Attach the halyard to the cleat on the port side of the mast and the shackle end to the head of the jib sail. Insert the middle of the jib sheet through

the clew and insert both ends through the loop to form a simple hitch at the clew. The jib sheets are led back to a block about midships on the genoa rail and then led back under the lifelines to the winches. This block should be adjusted forward or aft while under sail to obtain proper sail shape. The plastic snaps on the luff of the jib are snapped to the forward stay, starting with the snaps nearest to the head (top) of the sail.

Raise the sail by pulling on the port halyard. The luff of the jib should be quite taut. The jib sheets are tightened on the lee side and left loose on the windward side.

3. The Buccaneer 305 comes standard with a 150% genoa and roller furling. The genoa halyard is on the port side of the mast. Attach the roller furling swivel to the halyard and to the head of the sail. The keeper rods on the swivel must be passed around the headstay. Pass the roller furling line through the hole in the top of the roller furling drum and knot the end so the knot is exposed on top of the drum. Wind the furling line around the drum until the drum is full, leaving approximately 30' of line. Pass the remaining line through the bull's-eye fairleads on the port side of the deck and secure in the cam cleat just forward of the cockpit. Attach the tack of the sail to the top of the roller furling drum with its pin and cotter key. Then attach the roller furling drum to the chain plate in a similar manner. Raise the sail by pulling on the port halyard.

Insert the middle of the genoa sheet through the clew and insert both ends through the loop to form a simple hitch at the clew. The genoa sheets are led back outside the lifeline through the snap blocks fastened to the genoa rail and then led back under the lifelines to the winches.

To furl the genoa, pull the roller furling line into the cockpit. To unfurl, release the roller furling line and pull either genoa sheet.

4. Care of Sails

To protect sails when in use, tape or rubber protectors on turn-buckles and on tips of spreaders are recommended.

Sails will last longer when stored if they are protected from sunlight, folded rather than stuffed into sailbags. To avoid mildew, sails should be stored dry. Remove sails from boat in winter and store in dry heated area. Occasional hand washing with mild soap and a hose will remove dirt and salt. Do not use detergents.

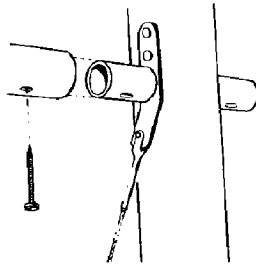
Section III

Rigging Instructions and Specifications

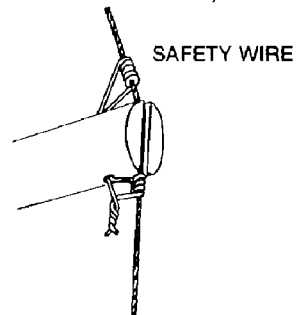
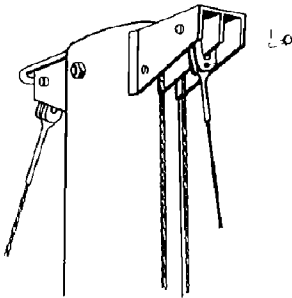
Your new Buccaneer has been carefully designed to be easily rigged by two people. Included in the rigging kit are all items necessary for setting up the boat for immediate sailing.

A. Standing Rigging Procedure

1. Make sure the area where you will be raising the mast is clear of overhead wires and obstructions.
2. Slide the spreaders over the sleeve on the mast and attach them with self-tapping screws. Make sure the grooves on the end of the spreaders are vertical.



3. Run the main and jib halyards through the sheaves in the masthead fitting. The jib shackle should be forward and to port, the main halyard shackle should be aft and to starboard. Secure both ends of the halyards to the cleats on the mast (this will prevent them from coming out when you raise the mast).

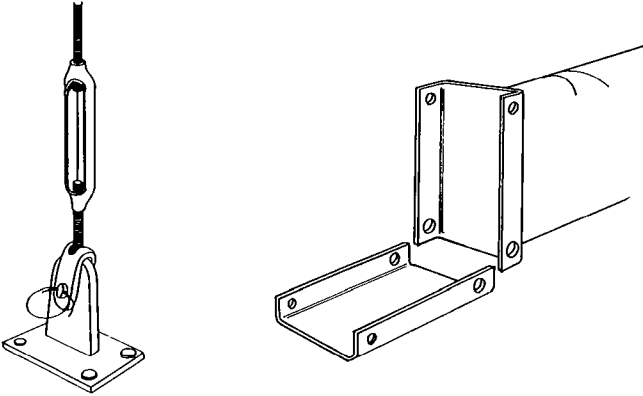


4. Attach the backstay, forestay, upper and lower shrouds to the mast. Safety wire the upper shrouds in the slots at the end of the spreaders. The shrouds should be able to run freely in the slots but they should be wired so they will not come out of the slots.

5. Loosen the turnbuckles until four threads are showing in each end of the turnbuckle barrel.

CAUTION: To prevent the turnbuckle from coming apart, insure that a minimum of four threads are showing.

6. Position the mast so that it may be raised from aft to forward with the butt of the mast in the mast tabernacle.
7. Attach the upper shrouds to the outboard hole in the chainplates. Next, attach the backstay to after chainplate. Make sure the cotter pins (or wire cotter ring) are through the holes in the rigging pins.



8. Bolt the mast to the mast tabernacle. Raise the mast and attach the forestay and the lower shrouds.

NOTE: It is the responsibility of the Buccaneer dealer to step the mast on the 305. A hoist is required to lift the mast into place.

B. Mast Tuning

Proper tuning of your new Buccaneer will help the boat sail up to its excellent performance potential, making sailing safer and more fun.

1. Dockside tuning
 - a. Athwartship (port and starboard). Adjust the upper shrouds until the mast is straight and centered. By running a measuring tape up the jib halyard, you can measure the distance from the masthead to the chain plates on either side of the boat. Adjust the upper shrouds until the distance is equal on both sides. The upper shrouds should be firm but not tight. When pulling against them at chest height, they should move approximately

1½" to 2". Now adjust the lower shrouds until they move from 2" to 3". **CAUTION: Do not over-tighten the shrouds because it will not help performance and can weaken the mast by placing excessive compression loads on it.** Sight up the side of the mast to make sure that it is straight.

b. Fore and aft tuning

Adjust the forestay and backstay with equal tension until the forestay will move approximately ½" when pulled at chest height. At deck level sight up the aft edge of the mast, making sure that it is still straight.

2. Final tuning

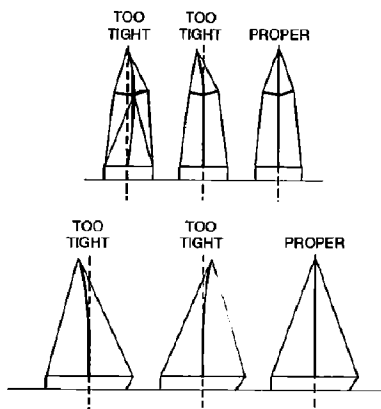
The final tuning of the mast should take place while sailing on a close reach in winds of six to ten knots. **NOTE: While adjusting the turnbuckles, always hold the upper sleeve to prevent unlaying the wire rigging.**

a. Athwartship tuning

The adjusting should be done with the lower shrouds. If the mast is bowed to weather, tack and then loosen the turnbuckle. Tack again and check for straightness. If the mast is bowed to leeward, tack, then tighten the turnbuckle. Repeat the procedure until you are satisfied the mast is straight to port and starboard.

b. Fore and aft

The primary purpose of proper fore and aft adjustment is to balance the helm. Your Buccaneer should have a tendency to point toward the direction of the wind while sailing on a close reach. This is called weather helm. To increase weather helm, the mast should be raked aft by loosening the forestay and tightening the backstay. To reduce weather helm, rake the mast forward by loosening the backstay and tightening the forestay.



3. After tuning your Buccaneer
 - a. Mark all the turnbuckles so that the next time you launch the boat, it is properly tuned.
 - b. **IMPORTANT: Always make sure that the cotter pins are in the turnbuckles and in the rigging pins. If they aren't, having the mast come down could ruin your whole day.**
 - c. From time to time check the mast's tuning. Even stainless steel wire rigging stretches. So keep your boat tuned; it's good seamanship and makes sailing more fun.

C. Mast Tuning — 295/335

The mast on your 295/335 has been specifically selected to provide the flexibility and ability to change the mast shape, thus changing the sail shape and helm while sailing. With this flexibility, it is critical to have proper tuning. Here are a few recommendations to help tune your rig.

Tuning involves adjusting the tension in the shrouds and stays so that the mast will remain straight under most sailing conditions and give the proper amount of helm balance. Tuning involves two phases: tuning at the dock and tuning while under sail.

1. Tuning at the dock
 - a. Be sure all toggles at the end of the turnbuckles are free to swivel at their base to eliminate any bending load on the swage and turnbuckle threads, especially the toggles at both ends of the forestay. As the boat tacks and the headsail loading varies from side to side, the forestay terminals experience a much higher fatigue loading.
 - b. Start tuning the spar by ensuring that the mast is properly seated on the tabernacle. There should be a little clearance under both ends of the mast base to allow for minor adjustments fore and aft. Masts should fit evenly and perpendicular to the athwartship (across boat) waterline. Boats often will not sit level at the dock due to the distribution of the accommodation layout and the internal weight or location of the crew. To make sure the mast is plumb athwartship, slacken the lower shrouds fully by loosening the turnbuckles. Take the main halyard and lead the shackle end to a point on the outboard rail or chainplate. Adjust the tension in the halyard so that the shackle just touches the rail or chainplate with a given tension and then cleat the halyard. Take the halyard to the same location on the opposite side of the deck and with the same tension (equal pull), the shackle should just touch the rail or the chainplate in the same place as it did on the opposite side. If not, let

off one upper shroud's turnbuckle and take up on the other to bring the masthead close to the centerline until the halyard shackle touches both points under the same tension. Care should be taken that the particular part of the rail or deck you choose as your reference point is the same point on each side. After the mast is centered athwartship, tighten both upper shroud turnbuckles uniformly, one full turn on one side, then one full turn on the other. Repeat until the turnbuckles become difficult to turn. **Pin the turnbuckles.** This amount of tension should be approximately equivalent to deflecting the stays at chest height 1" with medium pressure on the shroud. Tighten up the lower shroud turnbuckles so that almost all of the slack is removed. Sight up the trailing edge of the spar to make sure that it is still straight. Adjust to a straight alignment by tightening the lower shroud first on the side that will pull the mast into column. Once aligned, tighten both evenly, one turn at a time to the same approximate tension as on the upper shroud. Repeat lower shroud procedure for intermediate shrouds to upper spreader.

c. Adjusting the rake of your spar

Rake is the fore and aft angle of the spar. You will want to adjust the rake, depending on the helm and sailing conditions. To start, your mast should be between plumb (vertical) and approximately 6" aft at the top. Forward rake should be avoided. Again, use the main halyard to check the amount of rake. Wait for a reasonably calm day and hang a weight, such as a hammer, a wrench, or other reasonably small but heavy object from the main halyard at approximately 6" above the gooseneck. The fore and aft distance between the halyard and the trailing edge of the mast will give you the amount of rake the mast has. Ease off the forestay turnbuckle and tighten up on the backstay turnbuckle or vice versa until the desired rake is achieved. Now, **pin the forestay turnbuckle and the backstay turnbuckle.** Unless the rake has to be readjusted in the future to correct the helm balance, there will be no need for further-adjusting. Any additional tensioning can be applied by the backstay adjuster.

NOTE: Be sure to check the outboard ends of upper and lower spreaders for tape and padding to avoid wear and tear on the genoas.

2. Tuning while sailing

- a. Select a pleasant, low sea condition day with a steady 8 to 12 knot breeze. Put the boat on a starboard tack, close hauled. Sight up the luff groove of the spar. If the mast seems to fall off

to leeward at the spreaders, luff up slightly and tighten the starboard shroud where the most bend occurs, a couple of turns. Put the boat back on the wind and check the spar again. The balance between the upper and lower spreaders may have to be adjusted a couple of times. When the mast appears straight, put the boat about and do the same on the port side. Check the following carefully. First, if the upper shrouds are at optimum tension, when at about 15° - 20° of heel, the leeward rigging should begin to look slack. This is quite normal and should never be tightened. Secondly, when close hauled under genoa and main, the forestay will appear quite sagged. Tensioning the backstay will reduce the amount of sag, but the sag itself can never be eliminated. As a rule of thumb, the maximum static backstay pressure should not exceed one-quarter the backstay breaking strength.

- b. If your boat is equipped with an intermediate forestay (babystay) and running backstays, commonly referred to as preventers, additional adjustment is required. With normal tension on the backstays slide the babystay car forward until tension puts a slight bow (center) forward in the mast (2" - 3"). Attach running backstays approximately 4' - 5' aft of mast on the rail. Apply only enough tension to be taut and to reduce the bow of the mast to 2"+. Aft bow (center) should not be allowed as it destroys the sail shape and is countered only by the babystay. The forward bow is counteracted by the luff of the mainsail and the backstays. If you find that the mast tends to bow aft rather than forward under (minimal) backstay tension, the problem may then lie in your mast step. For example, if the mast is resting on its forward end, it may tend to bow aft. To correct this situation, wedge up the heel to encourage a forward bow. Additional bow top bending aft can be applied with a backstay adjuster. Do not exceed approximately 2,500 pounds with 1/4" 1-19 SS stays.
- c. With a brand new boat, chainplates may seat and the rigging may stretch to the extent that tuning from scratch will be necessary in a matter of weeks. However, after this initial working-in period, you will find that your boat tends to hold its tune for fairly long periods of time. After becoming used to the feel of the boat, you may wish to either increase or decrease the amount of 'weather helm'; that is, the amount of feel on the tiller. Any sailboat, when going upwind, should have a tendency to 'round up' slightly or head into the wind if you let go of the helm. However, if you're constantly fighting the boat in order to hold her off the wind, you have too much weather helm. This can be alleviated by taking some rake out of the spar; i.e., raking the spar farther forward, and thus moving the

center of effort of the sailplan further forward. If you find when sailing upwind that the boat tends to fall off the wind and you are constantly having to push her to weather, then you probably have lee helm. This can be overcome by putting a bit more rake into the spar.

- d. With constant tuning as the season progresses, your boat performance will improve. The boat will feel more comfortable to sail. You will find that tuning is a bit of an art; you will begin to notice subtle changes in the behavior and response of your boat as you make subtle changes in tuning. The important thing to remember is to go about things in a slow and orderly fashion and before you make any change, be sure it makes sense to you.

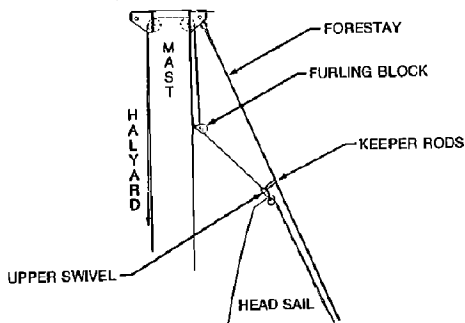
NOTE: Swaged terminals on 1 x 19 wire are susceptible to stress, corrosion, and freeze cracking when water seeps between the wire and the terminals. Check each season or when subjected to abnormal conditions.

D. Running Rigging Sequence

1. Set boom in mast slot and rig. Attach topping lift (it is a small cable attached to backstay) to the aft end of boom.
2. Main sheet—attach eye of sheet to becket on port block. Reeve line through boom block (attach to heavy support bar), down through starboard side block, back up through boom block, down through port block and through jam cleat.
3. Jib sheet—attach the jib sheet to the clew of the jib sail and reeve each end through snap blocks attached to their respective toe rails. Snap blocks should nominally be set near the forward end of the toe rail.

E. Roller furling

1. Run genoa halyard through small block, 12" down from mast-head on forward side of mast. This block holds the genoa away from the forestay and allows the genoa to furl more easily.



2. Attach the roller furling swivel to the genoa halyard and the head of the genoa to the swivel.
3. Attach the furling drum to the loop on the stem head and attach the tack of the genoa to the top of the furling drum.
4. With the genoa raised and furled run the end of the furling line through the black bull's-eye fairlead and wrap it 60 to 80 times around the drum. Then run the line through one of the holes in the top of the drum and tie a stopper knot in the end of the line. The other end of the line should run back through the black bull's-eye fairleads and the cam cleat on the cockpit coaming.
5. To unfurl the genoa, release the furling line from the cam cleat and pull it on the genoa sheet. To furl the genoa, cast loose the genoa sheet and pull in on the furling line.

Section IV

Underway Operating Instructions

While under power, check instruments frequently. They are the advance warning system that will enable you to avoid troublesome malfunctions.

A. Instruments

1. **Tachometer**—All tachometers are of the electric type, indicating engine revolutions per minute (rpm) in 100's.
2. **Temperature Gauge**—The temperature gauge indicates engine coolant temperature by monitoring a signal from a sending unit installed in the engine water jacket. The sender changes resistance value as its temperature changes. This changing resistance value is then measured by the instrument. When gauge reads in the danger area, shut the engine off and diagnose the problem. A common cause of overheating is picking up a foreign object on the water intake.
3. **Oil Pressure Gauge**—The oil pressure gauge indicates pressure by monitoring a signal from a sending unit. When gauge reads in the danger area, shut the engine off and diagnose the problem.
4. **Fuel Gauge**—The fuel gauge indicates fuel level. Since boats are many times exposed to rough water conditions and varying trim, fuel gauges may provide inaccurate readings at times. It is always wise to keep track of your running time as a double check against an inaccurate gauge.
5. **Hour Meter (Optional)**—The hour meter measures engine running time. It is an aid to maintenance and warranty requirements. The meter has a range of 10,000 hours with automatic recycle.

B. Static Float Attitude

The static attitude of your boat can be affected by many variables. Optional equipment and loading of gear are the biggest contributors to a boat's listing. After launching, any new boat can be adjusted. If your boat lists to one side, store heavy items on the light side and light items on the heavy side.

Batteries have a big effect on static float attitude of a boat. Move batteries to light side if required.

C. Tips for Boat Owners

1. When commissioning a new boat, do not plan an extensive trip or party until you have a shakedown cruise to make sure all equipment on your boat is functioning properly and you are familiar with its operation.
2. Use big bumpers as they will best protect your boat from floats, piers and other boats.
3. Carry adequate line properly sized to your boat. A minimum of two 30' lengths of $\frac{3}{8}$ " nylon line should be aboard on models 180 through 250; three 30' lengths of $\frac{3}{8}$ " nylon on 272 through 295, and four 50' lengths of $\frac{1}{2}$ " line on 305 and 335.
4. Be courteous to other boats. Slow down in congested areas and watch that your wake does not damage other boats.

D. Boating Safety Courses

Your local U.S. Coast Guard Auxiliary/Power Squadron generally puts on a Safe Boating Class several times a year. They are very comprehensive and generally of minimal cost to you. Call your local U.S. Coast Guard Auxiliary or Power Squadron Flotilla for the time and place of the next class.

Section V

General Maintenance and Repairs

A. Fiberglass Staining and Discoloration

These problems can generally be removed by many of the fine fiberglass cleansers available. However, they take elbow grease. For best results follow the manufacturer's recommendations. If the marine products are not available in your area, try the new liquid household cleaners such as 409, Ajax Liquid, Fantastik or others. **CAUTION: Household cleaners with abrasives will dull the finish on your boat. If this occurs, wax and buff the area to restore luster.**

B. Hardware Cleaning

Use nearly any of the modern chrome cleaners on the market today to spruce up hardware. After a good cleaning, a coat of paste wax will add greatly to its luster. All metal fittings, including dash panel, instruments, railings and hardware, should be sprayed with a rust inhibitor similar to WD-40 every three months when exposed to salt water and annually in fresh water. If not maintained on a regular basis, stainless steel railings and fittings, in particular, will discolor because of surface carbon steel granules picked up in processing and, in some areas, because of contaminants carried in the air.

C. Vinyl Upholstery

Use any good automotive vinyl cleaner; cleaner concentrates such as Fantastik work well also. **CAUTION: Avoid solvents and bleaches, as they may permanently damage the vinyl.**

D. Vinyl Flooring

Use one of the liquid cleaners mentioned previously and a scrub brush. Rinse thoroughly to avoid slickness when wet.

E. Teak

To keep teak looking fresh, it should be treated with teak oil at least twice a year (more often if exposure is severe). If the teak is in particularly bad condition, the teak oil should be rubbed in, using 220 grit wet-and-dry sandpaper. (See note on next page.)

F. Repairing Fiberglass, Gelcoat Chips, Gouges and Scratches

Almost unavoidable during the life of your boat is damage to the Gelcoat or colored surface. This is not as serious as you might think. Repair is not costly and can be done by the novice.

1. **Scratches:** If the scratch does not penetrate the Gelcoat surface, use automotive rubbing compounds. Dampen a soft rag or use a power buffer. Apply rubbing compound with plenty of elbow grease. The scratch may not disappear completely; however, its noticeability will decrease.
2. **Gouges and Chips:** To repair, simply obtain "Patch Paste" from your Buccaneer dealer and follow this recommended procedure:
 - a. Clean area to be repaired of wax and oil. Acetone is a good solvent.
 - b. Using a small portion of patch paste on a piece of cardboard, mix thoroughly with catalyst (two or three drops of catalyst to a tablespoon of paste).
 - c. Apply to pit, chip or gouge with a single-edged razor blade to match the surface and contour of the area being repaired. (It's better to have an excess than not enough on the patch.)
 - d. Allow to harden thoroughly. In most climates, one to two hours should be sufficient.
 - e. Shape the patch to desired thickness, using fine wet sandpaper on a sanding block.
 - f. Finish using automotive rubbing compound in the same manner as for scratches.

CAUTION: Teak oil, acetone and catalyst are hazardous materials and should be used only in well ventilated areas. Follow manufacturer's instructions.

G. Saltwater Special Care

If permanently moored in salt water your boat will collect barnacles and grass on its bottom. This will detract from the boat's beauty and greatly affect its performance. There are two methods of preventing this:

1. Periodic haulout and cleaning. (About every 30 to 45 days use soap and water and plenty of elbow grease.)
2. Coating with antifouling paint. A chemical toxic base—which does not contain copper or mercury—works best on fiberglass hulls. All paints require special preparation of the fiberglass finish. For best results, contact your Buccaneer dealer or your marine paint dealer.

H. Underwater Corrosion

Stray current corrosion or electrolysis can best be compared to elec-

troplating of chromium or brass, with the salt water acting as the electrolyte and the battery acting as the source of direct current.

Electrolysis can be prevented in several ways. The following are the most common causes and the simplest cures for the problem:

1. Keep a clean, dry bilge. Wiring may leak a certain amount of electricity.
2. A poorly grounded zinc anode; check ground wire or clean contact surfaces.
3. The zinc anode may be deteriorated beyond effectiveness; replace, usually at 50% loss.

I. Cabin Windows

Salt and brackish water are capable of etching and damaging glass. Keeping windows clean is the best preventive measure you may take.

J. Window Leakage

Cabin window leakage is uncommon; but if it does occur, it is simply remedied.

1. Mark the leak using crayon or other nonpermanent marking.
2. Dry thoroughly. You might have to wait for a dry day. Sealer will not bond if moisture is present.
3. Coat area with silicone-type rubber sealant.
4. Allow sealant to dry well, then check by sprinkling with a hose. (Cabin window or windshield leakage is not covered under the Buccaneer Warranty.)

K. Sail Covers and Cockpit Dodger

Sail covers and the cockpit dodger can be cleaned using a regular vinyl cleaner. Vinyl cleaners may be obtained in grocery stores or auto parts houses. To prevent rainwater seepage at the canvas seams, a coating of Scotch Guard can be applied to the seams on the inside of the vinyl. If at all possible, the vinyl top parts of your boat should be stored indoors in a fairly warm, dry place. This will greatly extend the life of the material.

L. Instruments—Care and Service

Your marine instruments have been designed and constructed of the best possible materials and with proper care will give you years of trouble-free operation.

When using your instruments in a saltwater environment, salt crystals may form on the bezel and the plastic dial. These salt crystals should be removed with a soft damp cloth; never use abrasives or rough, dirty cloths to wipe plastic parts. Mild household detergents or plastic cleaners can be used to keep the instruments bright and clean.

Section VI

Winterizing

If your boating season has ended or cold weather is setting in, follow these suggestions:

- A. Drain the engine block and manifolds. Frozen water expands and can crack your engine. Consult your engine owner's manual for location of drains. There can be drains on the block and manifolds.
- B. Consult operating instructions provided with your head (toilet) for winterizing. Drain self-contained heads.

Drain water tanks to avoid freezing and insure fresh taste in the spring. Be sure to drain accumulated water in the pump to avoid damage due to freezing. This is best accomplished by running the pump until empty.

On those boats equipped with hot water tanks, remove the drain plug on the tank after all the water has been pumped out of the regular water tank(s).

- C. Fuel tanks should be kept completely full. With full tanks, there is little air space to allow condensation, a major cause of sludge and gum that eventually create problems.
- D. Remove the marine battery from your boat. Fill the cells to proper level and store in a warm, dry place. do not store on a cement floor. A fully charged battery will survive storage better.
- E. Lubricate control and steering push-pull cables.
- F. Clean the boat thoroughly. Coat deck hardware and other metallic parts with a rust inhibitor.
- G. Your boat should be stored inside during winter if possible. If outside storage can't be avoided, a special cover should be used. Heat should be kept in the boat to avoid dampness and adequate flow-through ventilation should be assured. Lack of ventilation will cause mildew.
- H. Bunk cushions and dinette cushions may be left aboard; however, they should be stored on edge with plenty of ventilation.
- I. If storing on a trailer:
 - 1. Now is a good time to repack wheel bearings. Your local automotive service shop can help you.
 - 2. Block the trailer wheels off the ground to avoid tire deterioration.
 - 3. Loosen stern tiedowns to avoid stress on hull.
 - 4. Touch up trailer paint.

We hope the above preventive measures will help make a spring get-ready less work. However, don't forget to consult your dealer as well as the engine owner's manual for engine winterizing requirements.

NOTE: Buccaneer cannot sell accessories or other items directly to the public due to production commitments and dealer franchising. Our dealers normally stock many of our accessories or can supply you with them in a short time.

Your dealer will be happy to help you in any way possible.

Section VII

Suggestions for Safety

- A. Fuel vapors are explosive and, being heavier than air, will settle in the lower parts of a boat. While fueling, all doors, hatches and ports should be closed, galley fires and pilot lights extinguished, smoking strictly prohibited, and the filling nozzle kept in contact with the fill pipe to prevent static spark. Avoid spilling. Do not use gasoline stoves, heaters, or light on board. Whenever possible, portable tanks should be fueled out of the boat.
- B. After fueling, thoroughly ventilate all compartments and check the machinery and fuel tank areas for fumes before attempting to start the motor. Remember that the electrical ignition and starting system could supply the ignition to any accumulation of explosive vapors. Take time to be safe. Keep all lines tight and bilges always clean.
- C. Do not overload or improperly load your boat. Maintain adequate freeboard at all times; consider the sea conditions, the duration of the trip, the predicted weather and the experience of the operator. Do not permit persons to ride on parts of the boat not designed for such use. Bow riding and seat back or gunwale riding can be especially hazardous.
- D. Keep an alert lookout. Serious accidents have resulted from failure in this respect.
- E. Be especially careful when operating in any area where swimmers might be. They are often difficult to see.
- F. Watch your wake. It might capsize a small craft; it can damage boats or property along the shore. You are responsible. Pass through anchorages only at minimum speed.
- G. Keep firefighting and lifesaving equipment in good condition and readily available at all times.
- H. Obey the Rules of the Road. Neglect of this is the greatest single cause of collision.
- I. Always have children wear lifesaving devices. Always check those intended for young children for fit and performance in the water on each individual child. Never hesitate to have "all hands" wear lifesaving devices whenever circumstances cause the slightest doubt about safety.

PERSONAL FLOTATION DEVICES: REQUIREMENTS—One Coast Guard approved personal flotation device (PFD) of suitable size for each person aboard recreational boats, including sailboats, rowboats, kayaks and canoes. New PFD's bearing Coast Guard approval are now identified by "Types I, II, III or IV."

MANDATORY EQUIPMENT—1. Boats sixteen (16) feet or over in length; one Type I, II or III (wearable) for each person on board and one (1) Type IV (throwable) in each boat. 2. Boats less than sixteen (16) feet in length and all canoes and kayaks: one (1) Type I, II, III or IV PFD for each person on board.

Type I—A Type I PFD is an approved device designed to turn an unconscious person in the water from a face downward position to a vertical or slightly backward position, and to have more than 20 pounds of buoyancy. Recommended for offshore cruising. Acceptable for all size boats.

Type II—A Type II PFD is an approved device designed to turn an unconscious person in the water from a face downward position to a vertical or slightly backward position and to have at least 15.5 pounds of buoyancy. Recommended for closer, inshore cruising. Acceptable for all size boats.

Type III—A Type III PFD is an approved device designed to keep a conscious person in a vertical or slightly backward position and to have at least 15.5 pounds of buoyancy. While having the same buoyancy as Type II, the Type III has a lesser turning ability to allow for a comfortable design for water activities such as water skiing. Recommended for inwater sports, or on lakes, impoundments, and close inshore operation. Acceptable for all size boats.

Type IV—A Type IV PFD is an approved device designed to be thrown to a person in the water and not worn. It is designed to have at least 16.5 pounds of buoyancy. Acceptable for boats less than 16 feet and canoes and kayaks and as a throwable device for boats 16 feet and over in length.

- J. Know your fuel tank capacity and cruising range. If it is necessary to carry additional gasoline do so only in proper containers and take special precautions to prevent the accumulation of such vapor in confined spaces.
- K. If you ever capsize, remember that if the boat continues to float it is usually best to remain with it. You are more easily located by a search plane or boat.

CAUTION: Some Buccaneer trallerable boats contain flotation material; however, no boat is unsinkable. Therefore, personal flotation devices should be carried for each passenger in accordance with U.S. Coast Guard requirements.

- L. Good housekeeping is even more important afloat than ashore. Cleanliness diminishes the probability of fire.
- M. Know the meaning of the buoys. Never moor to one—it is a Federal offense.

- N. Consider what action you would take under various emergency conditions—man overboard, fog, fire, a stove-in plank or other bad leak, motor breakdown, bad storm, collision.
- O. Have an adequate anchor and sufficient line to assure good holding in a blow (at least six times depth of water).
- P. Boat hooks are not required equipment but they are valuable when mooring or when needed to retrieve pets, preservers (and people) "over the side."
- Q. Know the various distress signals. A recognized distress signal used on small boats is to slowly and repeatedly raise and lower the arms outstretched to each side.
- R. Storm signals are for your information and safety. Learn them and be guided accordingly.
- S. Falls are the greatest cause of injury both afloat and ashore. Eliminate tripping hazards where possible, make conspicuous those which must remain, have adequate grabrails and require proper footwear to be used on board. Use safety harness when handling sails during adverse conditions.
- T. Always have an up-to-date chart (or charts) of your area on board.
- U. Always instruct at least one person on board in the rudiments of boat handling in case you are disabled—or fall overboard.
- V. Keep electrical equipment and wiring in good condition. No knife switches or other arcing devices should be in fuel compartments. Allow ample ventilation around batteries.
- W. Before departing on a boat trip, you should advise a responsible friend or relative about where you intend to cruise. Be sure that the person has a good description of your boat. Keep him advised of any changes in your cruise plans. By doing these things, your friend or relative will be able to tell the Coast Guard where to search for you and what type of boat to look for if you fail to return. Be sure to advise the same person when you arrive so as to prevent any false alarms about your safety.
- X. Do not test fire extinguishers by squirting small amounts of the agent. The extinguisher might not work when needed. Always follow approved instructions in checking fire extinguishers.
- Y. A special flag hoist (red flag with white diagonal) flown from boat or buoy means skindiving operations. Approach area with caution and stay clear at least 25 yards.
- Z. Your local U.S. Coast Guard Auxiliary/Power Squadron generally puts on a Safe Boating Class several times a year. They are very comprehensive and generally of minimal cost to you. Call your local U.S. Coast Guard Auxiliary or Power Squadron Flotilla for the time and place of the next class.

Section VIII

Nautical Terms

ABEAM:	Either side of the boat.
AFT:	To the rear or near the stern.
BACKWINDING:	When one sail throws wind onto lee side of another sail.
BEAM:	The width of the hull.
BEARING OFF:	Steering more to leeward, or away from the wind.
BILGE:	The lowest portion inside a boat (in a fiberglass boat, generally the underdeck and lower portion of the engine compartment).
BLANKETING:	When windward boat takes wind from leeward boat's sail.
BLOCK:	Sailor's term for pulley.
BOOM:	Horizontal pole along bottom of sail.
BOW:	The forward portion of the boat.
CHINE:	The intersection of the sides and bottom of a V-bottom boat.
DRAFT:	Vertical distance from the waterline of boat to the lowest point of the boat.
FATHOM:	A measurement of 6 feet generally used to measure water depth.
FORWARD:	Toward the bow.
FREEBOARD:	Vertical distance from deck to waterline.
GUNWALE:	Where hull and deck meet.
HALYARD:	Line used for raising or lowering a sail.
HATCH:	A covered opening in the deck.
HEAD:	Toilet or toilet room.
HEADING UP:	Steering more to windward, or toward the wind.
HEELING:	When a boat leans over.
HELM:	Steering wheel.
KEEL:	The lowest external portion of the boat.
KNOT:	Nautical mile per hour; nautical mile is 6,076 ft.; land mile is 5,280 ft.
LEEWARD:	Side opposite from which the wind blows.
LINE:	General term for rope.
LUFFING:	Shaking of sails that occurs when boat heads too much into the wind or sail is improperly trimmed.
MAST:	Vertical pole supporting sails.
MAYDAY:	International spoken distress signal for radiotelephone.
POINTING:	Sailing as close into the wind as possible.
PORT:	To the left side of the boat.
PORTLIGHT:	A hinged window in the boat's cabin.

QUARTER:	Side of boat near the stern.
REEF:	Lessen a sail's area by gathering in and tying down part of the sail.
RUNNING:	Sailing with the wind more or less astern.
SCUPPER:	An opening in a deck or cockpit permitting water to drain overboard.
SHEET:	Line used in adjusting the angle of a sail to wind.
SHROUDS:	Wires from mast to deck, for support of mast in fore and aft direction.
STANCHION:	A fixed, upright post used for support (of rails).
STARBOARD:	To the right or right side of the boat.
STAYS:	Wires from mast to deck, or support of mast in fore and aft direction.
STERN:	To the rear of the boat.
STERNDRIVE:	Inboard/outboard unit.
STRAKE:	One line of planks from bow to stern.
TOPSIDES:	Sides of the boat from the waterline to the deck.
TRANSOM:	The vertical part of the stern.
TRIM:	Adjust angle of sail to wind.
WAKE:	The track or path a boat leaves behind while in motion.
WINDWARD:	The direction from which the wind is blowing.

LIMITED WARRANTY FOR BUCCANEER SAILING YACHTS

Bayliner Marine Corporation

1979 Model Year

P.O. Box 24467

Seattle, Washington 98134

Bayliner Marine Corporation warrants each new boat to be free from defects in material and workmanship under normal use and service for a period of one year (12 months) from date of delivery to the original purchaser. The obligation of Buccaneer under this warranty is limited to replacement or repair of a defective part free of charge by an authorized Buccaneer dealer or at a Buccaneer factory; this is Buccaneer's option. Return transportation of any boat to a Buccaneer factory, return transportation of any boat to a Buccaneer dealer, dealer's travel expense, haulouts and miscellaneous handling expense is to be paid by the claimant. All repairs are subject to the authorization of the Buccaneer factory.

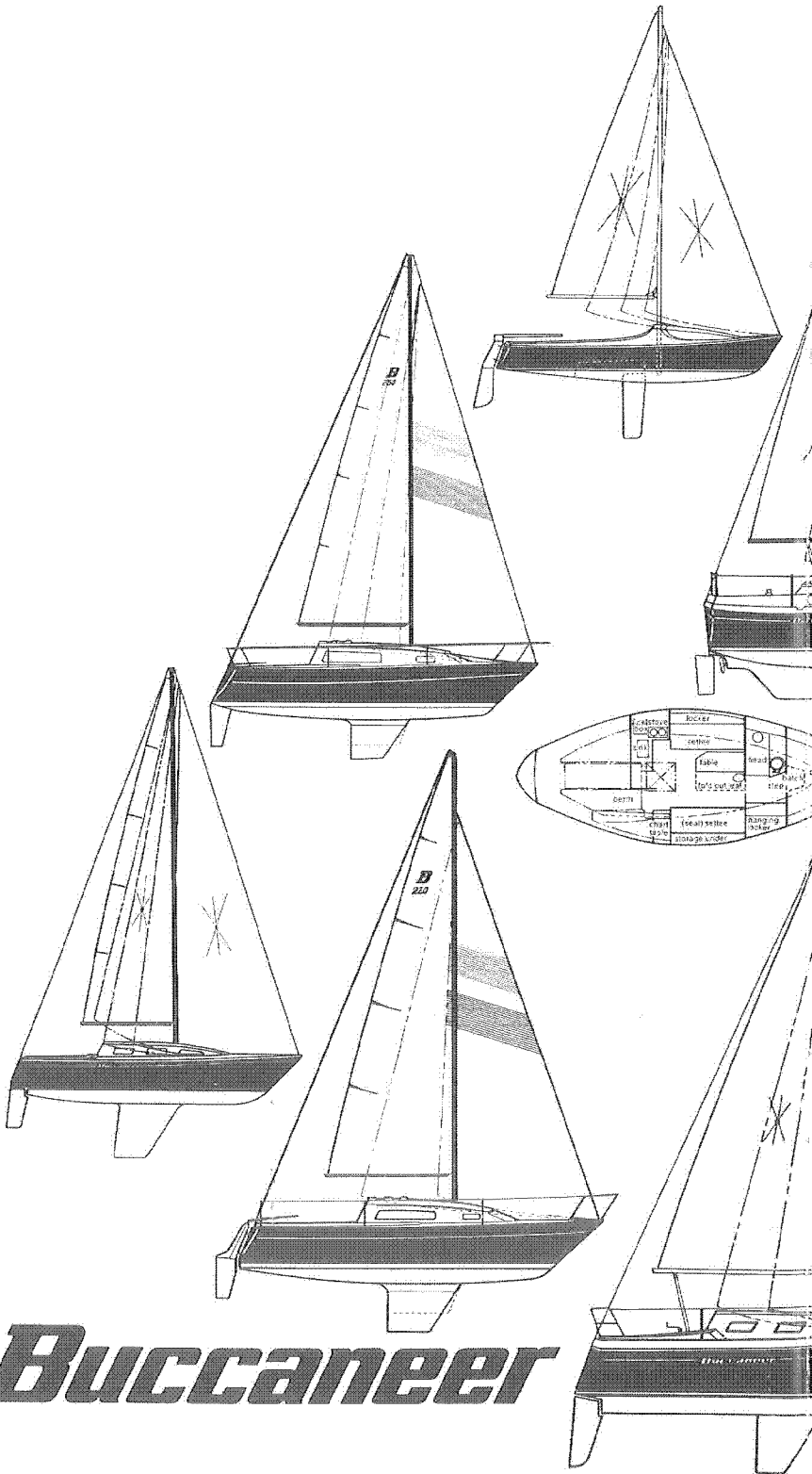
This warranty does not apply to (1) masts, engines, controls, props, batteries or other equipment or accessories carrying their respective manufacturer's warranties; (2) installation of engines or accessories installed by others; (3) windshield breakage or leakage; gel coat finish, blisters, cracks or crazing; (4) all canvas, vinyl, upholstery, plastics, fabric and trim; (5) any Buccaneer boat which has been altered, subjected to misuse, negligence or accident, or used for racing purposes; (6) any Buccaneer used for commercial purposes.

The implied warranties of merchantability or fitness for a particular purpose, if any, shall not extend beyond the period of one year (12 months) from date of delivery of the new boat to the original purchaser from an authorized Buccaneer dealer. Bayliner Marine Corporation shall not be liable for special or consequential damages to person or property. Some states do not allow limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Consumer's claim under this warranty must be made to the dealer from whom the boat was purchased. In the event the consumer is not satisfied with dealer's performance, he should contact Bayliner Marine Corporation. If all else fails, the consumer has the privilege of action at law to claim damages for breach of warranty.

Bayliner Marine Corporation and its dealers will perform the obligations under this warranty promptly upon notice of claim and decision that the warranty claim is valid. Obligations of the warranty will be completed within sixty (60) days after notice of a defect within the warranty.

This is a limited warranty.



Buccaneer