

B A Y L I N E R

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# OWNER'S MANUAL

MOTORYACHT



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**THE WORLD'S NUMBER ONE PLEASURE BOAT BUILDER!**

# Welcome Aboard

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This manual has been prepared to assist you in the operation and care of your Bayliner boat. While not intended as an all-inclusive document designed to provide every detail, this manual can contribute to the more effective operation of your boat.

Understanding your new boat and how it works is essential to your boating enjoyment and safety. We recommend that you perform the following steps:

1. Make certain that you receive a full explanation of all systems from the dealer before taking delivery of your boat.
2. Read this manual thoroughly, paying particular attention to the subjects of **fueling, checking for fumes, starting, carbon monoxide, alcohol stoves, loading limits, trim tabs, recommendations for safety, and warranty.**
3. Practice—all members of the family should be familiar with the operation and systems of your boat.
4. Participate in a safe boating course. Call your local U.S. Coast Guard for the time and place of their next class.

There is information in this manual related to the following **Bayliner boats:**

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2850 Contessa Sunbridge  
2850 Contessa Command Bridge  
3250 Avanti Sunbridge  
3270 Motoryacht  
3450 Avanti Sunbridge  
3450 Tri-Cabin Motoryacht  
3460 Trophy Convertible  
3870 Motoryacht

Due to our ongoing commitment to product improvement, we reserve the right to change, without notice or other obligation, the specifications or information contained in this publication.

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## PREPARATION

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Prior to leaving on your first outing (or, for that matter, any outing) there are certain items to check and activities to perform. Familiarize yourself with your boat before leaving, and consider the following:

### Recommendations for Safety

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1. **Personal Flotation Devices:**  
One Coast Guard approved personal flotation device (PFD) of suitable size is required for each person aboard a recreational boat. New PFDs bearing Coast Guard approval are now identified as Types I, II, III, or IV.  
  
For boats sixteen feet (16' ) or over in length: One Type I, II, or III (wearable) for each person on board and one Type IV (throwable) in each boat is required.
2. Always have children wear PFDs. Always check those devices intended for young children for fit and performance in the water. Never hesitate to have "all hands" wear lifesaving devices whenever circumstances cause the slightest doubt about safety.
3. Do not overload or improperly load your boat. Maintain adequate freeboard at all times. Consider the sea conditions, the duration of the trip, the weather and the experience of the personnel. Do not permit persons to ride on parts of the boat that were not designed for such use. Bow riding and seat back or gunwale riding can be especially hazardous.
4. Falls are the greatest cause of injury both afloat and ashore. Eliminate tripping hazards wherever possible, make conspicuous those that must remain, and require proper footwear to be used on board.
5. Understand the meanings of navigation buoys, and never moor to one. (It is a Federal offense.)
6. 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.
7. Storm signals are for your information and safety. Learn them and be guided accordingly.
8. A special flag (red flag with white diagonal stripe) flown from a boat or buoy means skin diving operations. Approach with caution and stay clear by at least 25 yards.
9. Be especially careful when operating in any area where there might be swimmers.
10. Watch your wake. It might capsize a small craft. You are responsible for damage caused by your wake. Pass through anchorages at minimum speed.

11. Obey the "rules of the road". Disregarding such rules is the greatest cause of boating collisions.
12. Always have up-to-date charts of your area on board.
13. Keep an alert lookout. Serious accidents have resulted from failure in this respect.
14. Always instruct at least one person on board in the rudiments of boat handling in case you are disabled or fall overboard.
15. Consider what action you would take under various emergency conditions such as man overboard, fog, fire, a damaged hull or other bad leaks, motor breakdown, bad storm or collision.
16. 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.
17. Keep firefighting and lifesaving equipment in good condition and readily available at all times.
18. 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.
19. Have an adequate anchor and sufficient line to assure good holding in a blow (at least six times depth of water).
20. Boat hooks are valuable when docking or when needed to retrieve objects (including people) overboard.
21. Keep electrical equipment and wiring in good condition. No knife switches or other arcing devices should be installed in fuel compartments. Allow ample ventilation around batteries.
22. Good housekeeping in your boat is important. Cleanliness diminishes the probability of fire.
23. Know your fuel tank capacity and cruising range. If it is necessary to carry additional fuel, do so only in proper containers. Take special precautions to prevent the accumulation of fuel vapors in confined spaces.
24. 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 them advised of any changes in your cruise plans. Doing these things will enable your friend or relative 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 complete your trip to prevent any false alarms about your safety.
25. Your local U.S. Coast Guard Auxiliary/Power Squadron offers a Safe Boating Class several times a year. These are 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.

## **Safety Equipment**

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The following safety-related items should be considered as part of your standard equipment:

1. Fire extinguishers (located for easy access).
2. Personal flotation devices.
3. Fenders, lines and boat hook.
4. Flares (night and day type).
5. Flashlight.
6. Charts of intended cruising area.
7. First aid kit.

## **Tool Chest**

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1. Assorted screwdrivers (Phillips and flat blade).
2. Pliers (regular, vise-grip, and water pump).
3. Wrenches (box, open-end, allen, and adjustable).
4. Socket set (metric and U.S. standard).
5. Hacksaw with spare blades.
6. Hammer.
7. Battery jumper cables.
8. Electrical tape.
9. Assorted fasteners.
10. Gear grease and penetrating oil.
11. Feeler gauges.

## **Miscellaneous Items**

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1. Engine and accessories manual.
2. Propeller with fastening devices.
3. Propeller shaft packing material.
4. Spare shaft and strut.
5. V-belts.
6. Engine lubricating oil.
7. Transmission lubricant.
8. Fuel and oil filters.
9. Cooling pump impellers.

10. Fuel can.
11. Light bulbs.
12. Spare set of injectors for diesel engines, or spare set of spark plugs and other ignition parts for gas engines.

## Static Float Attitude

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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.

## Other Tips

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1. When commissioning a new boat, do not plan an extensive trip or party until you have taken a shakedown cruise to make sure all equipment on your boat is functioning properly and you are familiar with its operation.
2. Use big fenders and fender boards, as they will best protect your boat from floats, piers, and other boats.
3. Carry adequate line properly sized to your boat. We suggest at least four 50' lengths of 1/2" nylon line for boats up to 34 feet and four 60' lengths of 5/8" nylon line for boats over 34 feet.

## OPERATING

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### Fueling Procedures

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The following procedures apply primarily to gasoline engine-powered boats. However, by learning and using these steps, an extra margin of safety will be realized when fueling your Bayliner yacht equipped with diesel engines.

**CAUTION! Fuel vapors are explosive and can become trapped in the lower portions of a boat. While fueling, all doors, hatches, and portlights should be closed.**

1. Be sure that you are securely moored to the dock.
2. Turn off all equipment, including engines, generator, appliances, bilge blower, lights, etc.
3. Extinguish all cigarettes, cigars or other items that may produce a spark or flame.
4. Close all openings, including hatches, windows, doors, and portlights.



5. Through-deck fittings are provided for fuel tank filling. Remove cap and insert fuel supply nozzle, allowing the nozzle to maintain contact with the fitting, thereby preventing possible static sparking.
6. After about 10 gallons have been pumped into the tank, inspect the engine and tank area for signs of fuel leakage. Proceed with fueling if nothing is detected.
7. On very hot days, allow for expansion. Do not fill the fuel tank completely.
8. If, when filling the tank, you can't put fuel in at a reasonable rate, check the fuel vent line to see that it's not kinked or plugged.
9. Replace the fill cap and wipe off any fuel spillage.
10. Open engine compartment and windows, doors, etc., and inspect, visually and by smell, for fuel fumes or leakage. Any sign of fuel leakage or indication of fumes should be investigated and corrected prior to starting engine.
11. Operate bilge blower for at least four minutes prior to starting engine. Leave blower on until underway and at cruising speed.

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### Fuel Capacity Table

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Model	Fuel Capacity (Gallons)
2850 Contessa Sunbridge	120
2850 Contessa Command Bridge	120
3250 Avanti Sunbridge	205 (center line)
3270 Motoryacht	200 (100port/100stb)
3450 Avanti Sunbridge	205 (center line)
3450 Tri-Cabin Motoryacht	253 (190 fwd/63aft)
3460 Trophy Convertible	315 (190fwd/125aft)
3870 Motoryacht	304 (152port/152stb)

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### Launching

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1. Your Bayliner yacht may be equipped with a transom drain plug. Make sure this plug is tightly in place.
2. Inspect the bottom of your new Bayliner and make a mental note of all fittings below the waterline.
3. Once in the water, immediately board your boat and inspect the compartments for signs of leakage.
4. If any leaks are noted, the boat should be removed from the water. The selling dealer should be notified so the leaks can be repaired before relaunching the boat.

## Starting

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The engine operating and maintenance manual furnished with your boat describes pre-start and starting procedures. The following are basic reminders and are not intended to cover every detail of starting—we urge you to thoroughly read and understand your engine manual.

1. Check lubricating and cooling level fluids.
2. Visually check for fuel, oil, coolant, and exhaust leaks.

**WARNING: Gasoline vapors are highly explosive. To prevent explosion and fire, check engine and fuel compartments, before starting, for fumes or accumulation of fuel. Always operate blower for at least four minutes before starting, during starting and when operating below cruising speeds.**

3. Check that seawater coolant intake valve (seacock) is open.
4. Check water separators (if your boat is so equipped) and drain as required.
5. For gasoline-powered models, advance throttle fully to set the automatic choke (for cold engine) and then pump the throttle lever two to three times.
6. On boats so equipped, make sure the emergency engine shutdown switch cap is in place and the lanyard is attached to the operator.
7. With throttle in start position (approximately 1/4 throttle), start the engine. (Note—the engine will not start unless the gear selector is in the neutral position.)
8. **Do not** continuously operate the starter for more than 15 seconds at a time. Allow at least three minutes for cooling between start attempts.
9. For low temperature starting of diesel engines (below 14°F/-10°C), use the preheater system. Push button and hold in for 15-30 seconds (do not exceed 30 seconds).
10. If the engine fails to start, wait one minute and try again (on gas engines, pump the throttle only once).
11. As soon as the cold engine starts, set the engine speed at 1200 rpm for V8 engines (2000 rpm for 4-cylinder engines or 750-1200 rpm for diesels) and check oil pressure. Oil pressure will vary from one engine to another, but it should come up immediately. If it does not, turn the engine off!
12. With the engine running, the voltmeter should indicate a reading between 12-14 volts.
13. Check steering operation by turning wheel full port and starboard and observing your outdrive or rudder.

14. While the boat is still securely moored to the dock and engine is idling at 600-800 rpm, advance the shift control to forward, to reverse, and into neutral to check shifting operation.

**WARNING: CARBON MONOXIDE IS A POISONOUS GAS. IDLING AT THE DOCK FOR LONG PERIODS OF TIME, OR RUNNING YOUR BOAT WITH THE CAMPER BACK COVER OR SLANT COVER INSTALLED WITHOUT ADEQUATE VENTILATION, CAN RESULT IN DANGEROUS ACCUMULATIONS OF CARBON MONOXIDE GAS INSIDE THE BOAT. ALWAYS REMOVE THE CANVAS OR OTHERWISE VENTILATE THE BOAT WHEN OPERATING THE ENGINES.**

## **Before You Leave**

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Provided you have not encountered any problems, you are almost ready to go. (If you did encounter problems, do not attempt to operate your boat until they are corrected.) Before you leave, perform the following steps:

1. Check the operation of equipment such as bilge pumps, running lights, wipers, etc.
2. Instruct passengers in the use and location of flotation devices and fire extinguishers.
3. Obtain a reliable weather forecast and plan accordingly for comfort and safety.
4. Notify a responsible friend, relative, marine operator, or Coast Guard of your cruise plans. Upon your return or a change in your cruise schedule, notify that person in order to avoid unnecessary concern.
5. Fill potable water tanks.

## **Maneuvering**

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With all your pre-departure checks now completed, you are ready to leave the dock.

### **Basic Maneuvering**

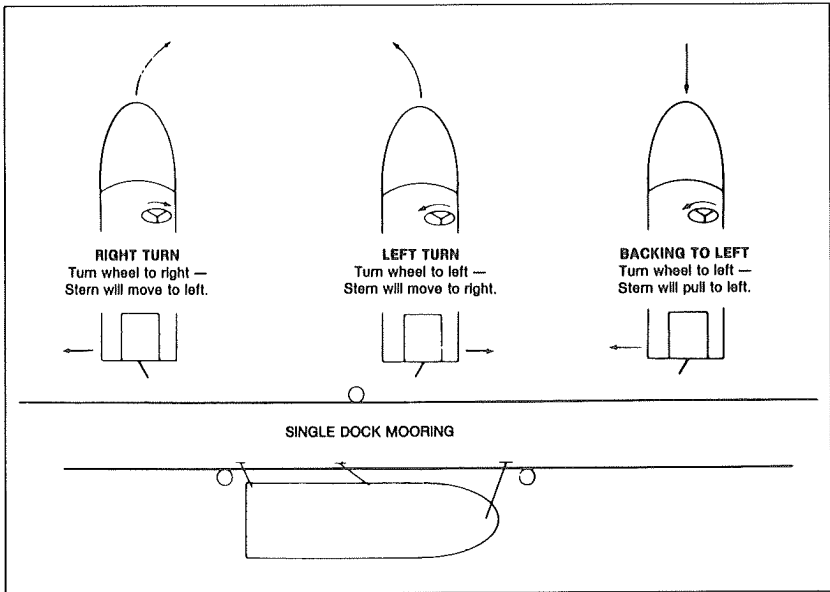
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Remember that all boats steer by the stern (the feeling is much like steering your automobile in reverse). For example, when you turn the steering wheel to the left, the stern of the boat will swing to the right as the boat goes into a left turn. This is especially important to keep in mind when docking and operating in close quarters with other boats.

There are no brakes on a boat. Stopping is accomplished by allowing the boat to slow down (under 5 mph) and then putting the engine in reverse. Gently increasing reverse power will allow you to stop the boat

in a very short distance. A boat does not respond to steering in reverse nearly as well as it does when going forward, so do not expect to accomplish tight turning maneuvers when backing up.

If your boat has twin propellers, you can engage one engine in forward gear, and the other in reverse gear, and turn the boat completely around in its own length if the rudder is left in the center position. You can, of course, make such a turn in either direction. Port engine forward and starboard engine in reverse spins you clockwise. Starboard engine forward and port engine in reverse spins you counterclockwise. You can accentuate the spin with full rudder in the spin's direction.



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

- Practice docking by using an imaginary dock.
- Practice stopping.
- When operating in close quarters or docking, all maneuvering should be done at idle speed. Proceed with caution in congested areas.
- Gradually increase your speed. Get used to the boat before any full throttle operation.

## Docking

### Preparation:

Proper docking requires proper preparation. Start by making sure you have adequate equipment, and that it is stowed correctly and ready

for use. Your dealer is the best source for the amount and type of equipment you should carry.

### *Approaching the Dock:*

When approaching a mooring area, lower your speed within a reasonable distance to allow your wake to subside before it reaches other boats or docks. As you get close to your moorage, check the wind and any tide current action that may affect your maneuver and make a conservative approach with these factors in mind. Try to use the elements to your advantage. Allow them to carry the boat into the dock. If there are high winds or strong currents, it is best to approach the moorage from the lee side. With a mild current or little or no wind it is best to approach from the windward side. When approaching, check to see that all lines are attached to the cleats on the side that you will be mooring and that fenders are lowered on that side. Be sure to check that the fenders are hung at the proper height.

As you approach your mooring it is desirable to have one person at the bow and one at the stern of the boat, each with a boat hook and a mooring line attached to a cleat. Approach at idle RPM in forward at approximately 45 degrees to the dock. When the bow is within a few feet of the dock (starboard side), the stern can be brought alongside the mooring by turning hard to port. Next, turn to starboard and at idle RPM put the boat into reverse. This will stop the boat and bring the stern even closer to the dock. These steps are reversed for docking to port.

### *Mooring:*

Attach lines to deck cleats by making a loop in one end, large enough to pass through the hole in the base of the cleat and back over entire cleat. The line now can be used to secure your boat. Lines may be kept this way while running as long as they are coiled and cannot become fouled in gear or props. In heavy sea conditions, all lines should be removed from decks.

**TIP:** Tie up by running line from boat, around dock cleat, and back to boat. This way you can untie without jumping from deck to dock and back aboard. Just cast off one end and then bring the whole line on board.

### *Leaving the Dock:*

Be aware of wind, tide, current or other forces that affect your direction when leaving the dock and account for this in your maneuvering. Most maneuvering to and from a dock is best accomplished at idle speeds.

Do not forget to release mooring lines and stow fenders.

When you are leaving a mooring on your starboard side and your bow cannot be pushed away from the dock first, start forward with wheel to starboard for two or three feet. Then shift to reverse with steering full to port. Repeat if necessary to get the stern far enough away from the dock so you can back clear of any other boats that may be moored ahead of you. (Reverse wheel directions when leaving port docking.)

## Boat Performance

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Boat speeds are affected by a great many factors. Some, such as temperature and altitude, you cannot change, but some factors you can:

1. **Loading:** Take only the necessary equipment with you. Keep weight low in the boat and balanced.
2. **Propeller:** Keep it in good repair and at the correct pitch for your particular situation. The factory standard equipment propeller may not be the best for your particular boat and load conditions. If the engine RPM at full throttle is less than the maximum rating, try a prop of less pitch. If the engine RPM exceeds the maximum rating, try a prop of greater pitch.

A slightly bent or nicked propeller will adversely affect the performance of your boat.

3. **Weeds, barnacles and other growth:** Keep your boat bottom clean. When your boat starts "growing grass" it will slow down greatly.

## Boat Running Attitude

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1. If your boat runs with its bow too high at cruising speeds, the following suggestions will help you lower the bow:
  - Move weight forward in the boat.
  - Adjust trim tabs. (See Trim Tab section below.)
  - Adjust thrust angle of your outdrive—reduce distance between bottom of transom and drive unit.
2. If your boat runs with its bow too low at cruising speeds (usually indicated by water coming off the hull way forward and steering difficulty—veering off course), you can raise the bow by performing the opposite of above.

## Trim Tabs

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Trim tabs are intended for corrections to boat trim on the port and starboard axis with very minor changes in pitch or fore-and-aft attitude. For major corrections, redistribute loads.

1. If tab position is unknown, put your tabs in the full bow-up position.
2. After power is applied and boat is cruising, push appropriate tab button to level the boat on lateral axis. Several short touches of the tab button are recommended. Allow the boat to react to the new position of the trim tab after each touch. When installed under manufacturer's recommendation, the port button on the trim tab switch operates the starboard trim tab and vice versa.

3. Both tabs can be lowered slightly to lower bow. Forcing the bow down with tabs will cause steering difficulty and a loss of efficiency.
4. When running in a following sea, run tabs in full bow-up position.

**WARNING: IMPROPER USE OF TRIM TABS CAN CAUSE A LOSS OF CONTROL. DO NOT USE TRIM TABS IN A FOLLOWING SEA AS THEY MAY CAUSE BROACHING OR OTHER UNSAFE HANDLING CHARACTERISTICS. DO NOT ALLOW THOSE UNFAMILIAR WITH TRIM TABS TO OPERATE THEM.**

## Steering Wheel Pressure

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Sterndrive models can be adjusted so there is no pull on the wheel at one given speed or trim angle. This is done by turning the trim tab on the lower unit in the direction the wheel is pulling. Small adjustments should be made until the steering has neutral torque at the speed you desire. (We suggest using your normal cruising speed.) When running faster or slower than this speed, a minimal amount of torque will be present.

## Instruments

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While under way, instruments should be checked frequently for possible indications of trouble.

1. *Tachometer*—A tachometer is an electrical instrument that indicates engine revolutions per minute (RPM). The tachometer is useful for monitoring engine speed to avoid exceeding the maximum RPM rating. In addition, it can be used to detect performance changes by comparing speedometer readings at various RPMs.
2. *Temperature Gauge*—The temperature gauge indicates engine coolant temperature by monitoring a signal from a sending unit installed in the engine water jacket. When the gauge reads in the danger area, shut off the engine and diagnose the problem. A common cause of overheating is picking up a foreign object in the seawater intake. Usually, raising and lowering your outdrive will free it. Backing up in reverse gear, then pulling ahead in forward gear for 10-15 feet can be helpful, too. On those twin engine powered boats equipped with a hot water system, whereby the cooling system of one engine is plumbed through the hot water tank to heat freshwater, the temperature gauge for that engine will indicate a different operating temperature than the other engine.
3. *Oil Pressure Gauge*—The oil pressure gauge indicates pressure by monitoring a signal from a sending unit. When gauge reads in the low pressure area, shut off the engine and diagnose the problem.

4. *Fuel Gauge*—The fuel gauge indicates fuel level. Since boats are exposed to rough water conditions and varying trim, fuel gauges may provide inaccurate readings at times. It is always good to keep track of your running time as a double check against an inaccurate gauge.

## Dual Station Operation

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Always start the engine at the station at which you will be operating the boat. Remind everyone near the unattended control station to KEEP HANDS OFF. When leaving one station to begin operating at the other, bring the boat to a complete stop. Never leave the helm while the boat is underway and assume that someone else has the boat under control. If you are operating your boat at the bridge and you encounter heavy sea conditions, bring your boat down to an idle, point it into the sea and have bridge passengers move down to the cabin. If sea conditions become very heavy, you should also leave the bridge and operate your boat from the lower station. Children should be required to wear life jackets.

## Diesel Engine Shut-Down

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1. Cool the engine gradually,\* allowing it to idle in neutral for at least five minutes.

**WARNING: It is important to follow steps 2, 3, 4, and 5 in sequence to avoid the possibility of electrical system damage.**

2. To turn engine off, push the stop button.
3. After engine stops, turn the ignition key counterclockwise to the "off" position.
4. Turn off DC ignition breaker switches.
5. Turn off the battery switch.
6. Close seawater intake valve.
7. Close fuel supply valves.
8. Carefully inspect engine and compartment for indications of oil, fuel, water or exhaust leakage.

**NOTE: Steps 6, 7, and 8 need not be followed for short term shut-down (overnight). For long-term storage refer to "Storage" herein.**

**\*Gradual cool-down of a turbocharged engine is very important!**



## COMPONENTS/SYSTEMS

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### Electrical System (12-Volt DC)

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Although Bayliner manufactures many different models of yachts, the electrical systems on all models follow the same basic format:

1. *Battery:*

Each battery is connected to a battery switch. Adjacent to the accessory battery switch is a fuse marked "battery charger" that provides excitation current to the starboard alternator through an oil pressure switch on the starboard engine.

On 2850 models with single engines, one battery supplies the engine and all 12-volt DC accessories. Installation of a second switched battery is recommended and is easily accomplished by your Bayliner dealer.

On 2850 models with twin engines, wiring is provided for two batteries. One battery will provide power to the port engine only and that engine will charge it. The other battery provides power to the starboard engine and all 12-volt DC accessories installed. This battery is charged by the starboard engine.

On model 3270, two batteries and battery switches are provided. One battery provides power to both engines and 12-volt DC accessories controlled from the switch panel at the helm stations. This battery is charged by the port engine. The other battery provides power to the remainder of the 12-volt DC accessories and is charged by the starboard engine alternator. Field current for the starboard alternator is obtained through a fuse marked "battery charger" on the battery switchboard and controlled by an oil pressure switch on the engine.

On the 3450, 3460, and 3870 models, three ON-OFF battery switches and two batteries are provided. One battery is used for starting and ignition on both engines and is charged by the port engine. The other battery is used for accessories and is charged by the starboard engine. The third battery switch is a crossover switch between the start and accessory battery and is used to start the engines if the start battery goes dead. The crossover switch should be turned on only in emergencies. Leaving this switch ON can drain all onboard batteries.

On 2850 models the condition of the battery can be read on the voltmeter when the ignition is in the ON position. On models 3250 through 3870 the condition of the main starting battery can be read on the voltmeter marked "ENGINE CIRCUIT" when the engine battery switch and the port ignition switch are in the ON position. The condition of the accessory battery can be read on the voltmeter marked "ACCESSORY CIRCUIT" when the accessory battery switch is in the ON position. The starboard ignition switch does not have to be ON to read the accessory battery condition.

With the engine not running, voltmeter readings in the 11.5 to 12.5-volt ranges are considered normal. Readings in the 10 to 11.5-volt range indicate a marginal charge condition. Readings below 10 volts indicate a serious discharge condition.

With the engine running (over 1500 rpm) voltmeter readings of 13 to 14 volts are considered normal. Readings below this indicate a severely discharged battery or a nonfunctioning charging system.

Check the battery 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 them with a preservative or a light film of grease. 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 away from extreme temperatures.

## 2. *Battery Charger:*

If a battery selector switch is installed on 2850 models, the battery charger output should be reconnected to the common terminal of this switch or no charging will occur when the switch is OFF.

On 3250 - 3870 models the battery charger operates when the 110-volt dockside power is connected and the battery charger circuit breaker is ON. On those models equipped with a generator, the battery charger also operates when the AC source selector switch is on "Generator", the generator is running, and the battery charger circuit breaker is ON. The battery charger will charge the batteries regardless of the battery switch position. The battery charger has two isolated outputs and charges both batteries simultaneously, as required. On 3870 and 34' diesel models the battery charger has three isolated outputs.

## 3. *Fuse and Circuit Breakers (12-Volt):*

On 2850 models the engine and accessory circuits are protected by a large circuit breaker located on the engine. In addition, the power tilt motors on all engines are protected by a fuse. Fuse blocks on these models are located behind the instrument panel (at both stations on bridge model boats). The fuses are marked as to which accessory they protect. AGC 10-amp fuses are used on all standard equipment accessories. Consult electrical schematics located in this manual for more information.

Electrical power for trim tabs is taken directly off the battery and is fused at the battery with a 20-amp in-line fuse.

Some equipment, such as the stereo, CB radio, and depth sounder, are individually fused. Literature specific to this equipment should be referred to for information.

On models 3250 through 3870, the engine circuits are protected by a large circuit breaker located on the engines. The accessory circuits are separate from the engine circuit and are protected by a large circuit breaker located at the main battery switches. The

ignition circuits are protected by an in-line fuse at the ignition switch or in the main fuse block.

The fuses or breakers for these models, except model 3270, are located on the face of the DC Master Panel. Model 3270 has two fuse blocks behind the instrument panel (at least until mid 1987). The main power supply for the accessories is protected by a large circuit breaker which is located at the main battery switch. Also located at the main battery switch are in-line fuses for the accessory battery charging circuit and for the automatic bilge pump. On the 3250 the blower and engine drive lift controls are fused in-line behind the instrument panel and receive power from the engine circuit.

Optional accessories are fused at the instrument panel with the exception of the power windlass which has its own control switch panel and is protected by a circuit breaker at battery switches.

## **COMPONENTS/SYSTEMS**

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### **Electrical System (110-Volt AC)**

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The AC system is energized by either shore power or the on-board generator (optional on some models).

Shore power receptacles are either 30- or 50-amp and appropriate power cords are furnished. Since not every shore installation has 30-amp service, we recommend that 15- and 20-amp adapters be purchased.

When connecting to shore power, turn off main circuit breakers. Always attach the cord to the boat first; then attach the cord to the shore outlet, thereby avoiding accidental dropping of a "hot" cord into the water. Correspondingly, remove the end at the dock outlet first. After connection to shore power, check "dockside polarity" indicators **before turning on main circuit breakers.**

Whether using shore power or the generator, the simultaneous operation of several 110-volt accessories can result in an overloaded circuit. It might be necessary to turn off one accessory while operating another.

All models with a 110-volt receptacle in the head are equipped with a ground fault interrupter to protect users from electric shock. This device will also protect other labeled outlets.

### **Generator**

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The literature package supplied with your boat has a very complete operator's manual for your generator. We urge you to read that manual prior to operating your generator, and to observe the following:

1. Follow instructions in the operator's manual for pre-start checks and break-in procedures.
2. For gas generators, be sure to operate the blower for at least four minutes before starting.
3. For the diesel generator which is standard on the 3870 and optional on the 3270, 3450 (Tri-Cabin Motoryacht) and 3460 models, follow the instructions included in the literature package. When starting the generator, it is important to continue depressing the preheat switch until the oil pressure reaches running pressure. Two or three seconds should be sufficient.
4. Never operate the starter for more than 30 seconds. If generator does not start, wait at least 30 seconds before another attempt.
5. In addition to servicing the filters attached to the generator, any separate filter/separators should be serviced as indicated by the instructions included in your literature package.
6. The coolant mixture installed at the factory consists of equal parts water and antifreeze.
7. The seawater intake valve must always be open during generator operation, and the seawater strainer should be checked frequently for debris.

## **Hot Water Heaters**

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On all models the hot water heater is connected to the 110-volt power system. On those models equipped with freshwater cooling, the coolant from the closed engine cooling system is circulated through the hot water tank for heating of potable water. Heaters must be kept full of water to avoid damage to the 110-volt heating elements. They should also be drained (power turned off) when the possibility of freezing exists.

## **Air Conditioning/Heating**

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On boats equipped with optional air conditioning, both heating and cooling are controlled at the same panel.

To operate the system, proceed as follows:

1. Be sure the seawater inlet valve is open and 110-volt panel circuit breaker switches are OFF.
2. Set the control switch at each location to OFF.
3. Turn on main circuit breaker on 110-volt panel.
4. Turn "Thermostat" fully clockwise for cooling or fully counterclockwise for heating.
5. Set fan speed control on "high" position.

6. Turn the control knob to "start". This energizes the fans and the seawater pump. Check the overboard discharges to be sure that water is flowing through the condensing units.
7. Turn the control knob to "run". The compressor will start to cool or heat according to the setting of the thermostat.
8. To set the thermostat, allow sufficient time for the unit to heat or cool the area to the desired temperature. When the area is sufficiently heated or cooled, turn the thermostat knob slowly toward the center position until it "clicks" once. The thermostat is now set to maintain a constant temperature.
9. Select a fan speed desired. When operating on the heat cycle, allow the unit to run on low fan for 5 to 15 minutes until it begins to heat well. Then increase fan for efficient heat output. On the cooling cycle, use any fan speed desired. Keep in mind, however, that the lower the fan speed, the less capacity the system has.
10. To turn the system off, turn the system switch on the switch panel to OFF. Do not use the circuit breaker switches on the 110-volt panel to turn the system off or on.

## Fuel Systems

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**CAUTION: It is very important that the fuel system be inspected thoroughly at the time it is first filled and then at each subsequent filling. For your safety and the safety of your passengers, the "Fueling" instructions of this manual must be followed.**

1. *Fuel Fills and Vents:*  
Fuel fills are located either on the aft deck or on the side decks and are marked "Fuel" or "Gas". Fuel vents are normally located in the hull or transom below and in the same general area as the fill. If you experience difficulty filling the fuel tank, check to see that the fuel fill and vent lines are free of obstructions and kinks.
2. *Antisiphon Valves:*  
As required by the U.S. Coast Guard, the fuel systems on all gas powered boats are equipped with an antisiphon valve. This valve is an integral part of the barb fitting on the fuel tank to which the neoprene fuel line attaches. The valve is spring-loaded and is opened by fuel pump pressure. These valves will prevent gasoline from siphoning from the fuel tank in the event of a fuel line rupture.

**NOTE: If an engine running problem is diagnosed as fuel starvation, the antisiphon valve should be checked. In the event the valve is stuck or clogged it should be cleaned or replaced with the engine off. Under no circumstances should it be removed except in an emergency.**

3. *Fuel Filters:*  
All fuel tanks installed by Bayliner are equipped with a fine mesh screen filter on the fuel pick-up tube in the tank. In addition, when supplied by the motor manufacturer, an additional filter is installed on the engine. Fuel filters should be checked periodically to see that they are clean and free of debris.
4. On those models equipped with two fuel tanks, the fuel lines from these tanks are run to a manifold system with valves. If the boat is equipped with a generator, there is also a valve on the manifold for the generator fuel line. Under normal conditions, the boat should be run with the main valves open and, if so equipped, the crossover valve closed. If for some reason one of the tanks runs dry, the valve to that tank can be shut, and both engines run off the tank with fuel. When running two engines off one tank, RPMs should be reduced.

**CAUTION: Avoid the storage or handling of gear near the fuel lines, fittings and tanks.**

5. *Diesel Fuel:*  
The diesel fuel systems utilized in Bayliner boats are similar in many ways to the gas system. Diesel engine operation requires a return fuel line from the engine to the tank. Thus, the fuel system has two lines between the engine and the tank instead of one. The diesel fuel tanks are not fitted with antisiphon valves. Fuel filters are utilized in every diesel installation. It is very important that the filters be checked and cleaned regularly.

Make sure that your fuel suppliers are reputable and can be relied upon to furnish clean, proper, high quality fuel. Also, once you have found such suppliers, keep your tank as full as possible with their fuel. Then, if you are forced to add to the tank with a potentially poor quality supply, the portion of poor quality fuel will be minimized.

Diesel fuel of ASTM grade 2-D is recommended. The minimum cetane value is 40 (45 for cold temperature operation), and the maximum sulfur content is 0.5%. If sulfur content exceeds 0.5%, oil changes should be performed twice as frequently as indicated in the engine manual.

Air in the fuel supply system can stop an engine or severely restrict performance. Should air be introduced into your fuel lines, refer to your engine manual for detailed instructions on "bleeding".

Consult your dealer or local marina concerning fuel additives intended to prevent fungus or other growth in your fuel tanks.

## **Shaft-Transmission Alignment (Inboard Engines)**

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Alignment between your engine transmission output shaft and the propeller shaft is very critical. Although this alignment has been

performed at the factory, it should be checked again after the boat has been in the water for 48 hours. Alignment inspection should be performed as routine maintenance (after initial 30 hours of operation, then every 60 hours) and whenever unusual noise or vibration is noticed. To insure proper alignment when the boat has been launched after a haulout or dry storage, wait for 48 hours before making final adjustments.

Proper alignment is usually achieved by moving the engine. We recommend that alignment be performed by an experienced marine mechanic. However, checking alignment is relatively simply when these procedures are followed:

1. Remove the flange bolts at the transmission-to-shaft coupling and slide the shaft aft until the flanges are about 1/4" apart.
2. Rotate the shaft to see if there is obvious "wobble" of the shaft flange, indicating shaft damage.
3. Move the shaft up and down and from side to side to determine, as closely as possible, the central position where the shaft is normally located. At this position, the transmission flange should align with the shaft flange without moving the shaft to either side or raising it more than 1/8". If this is not the case, a misalignment condition exists.
4. Move the shaft flange into contact with the transmission flange. Check for gap between flange faces by attempting to insert a .003" feeler gauge at the top, bottom and each side. Repeat this operation after rotating the shaft flange 1/4 turn (3 times). Misalignment is indicated when the feeler gauge can be inserted easily at any point.

## Shaft Log Stuffing Box Packing (Inboard Engines)

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The propeller shaft emerges from the bottom of the boat through an opening called the shaft log. The shaft stuffing box is connected to the shaft log by a short length of special flexible hose. Packing rings are compressed around the shaft by the packing nut. The "Stuffing Box" prevents excessive amounts of water from leaking around the shaft and into the boat.

Normal wear can cause stuffing box leakage to increase. It usually can be stopped by loosening the locknut, tightening the packing nut slightly, and then resetting the locknut tightly. Do not overtighten. Bear in mind that a **slight leak** (up to 10 drops per minute while running) helps to lubricate the packing and is therefore **desirable**.

When stuffing box leakage becomes excessive, even after following the above steps, packing replacement can be performed as follows:

1. Remove boat from the water.

2. Loosen locknut and back packing nut off the sleeve. Remove old packing.
3. Wrap new packing around shaft and cut rings with a razor blade at approximately 30 degrees to long axis of shaft. Stagger ends of each ring and insure that rings are fully seated in packing nut recess.
4. Tighten packing nut by hand only until resistance of packing contacting the stuffing box is felt. Tighten locknut securely.
5. When initially launched, the packing must be allowed to leak at a rate of about 5 to 30 drops a minute, as it will expand and seal from water contact and friction heat of the turning shaft. Failure to allow this leakoff will result in packing burnout after a short period of running.

## **Rudder Stuffing Gland (Inboard Models)**

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As in the case of the shaft log stuffing box, the rudder stuffing gland is part of the assembly where the rudders emerge from the bottom of the boat.

It is very similar to the propeller shaft stuffing box and will require the same maintenance. Since it obviously does not receive the same wear as the propeller shaft, repacking is seldom required. This shaft stuffing gland should not leak water.

## **Steering**

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Depending on the model you own, your steering system may be either manually or hydraulically actuated. With hydraulic steering you may notice a rhythmic pulsing when turning the wheel. This is a standard characteristic of the hydraulic pump and not a malfunction. Also, when coming off a hardover position, a resistance may be felt, followed by a distinct sound. This is a normal situation resulting from the release of the check valve.

The fluid reservoir for hydraulic steering systems is usually located in the aft end of the engine compartment. Following instructions in your literature package and on the reservoir, check fluid level and pressure regularly.

## **Refrigerator**

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The refrigerator used by Bayliner operates on 110-volt AC and 12-volt DC power. When the 110-volt system is not operating, the refrigerator operates on 12 volts. When an AC source is supplied, by a generator or by dockside power, the refrigerator automatically switches to 110-volt.

The refrigerator is the heaviest continuous draw on the 12-volt DC system. If no other 12-volt accessories are used, the refrigerator can draw a battery dead in less than 24 hours. For this reason it is



recommended that when operating on 12 volts, the cold setting on the refrigerator should not be set higher than position two. It is also advisable to turn the refrigerator off at night. If you are going to be out more than one day and cannot connect to dockside, you should plan to run your generator or engines to maintain a charged battery.

## **Seawater Strainers**

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Seawater strainers should be periodically checked for debris. Depending on the boat model, there may be strainers for engines, for the generator, for the air conditioning system (option), and for the seawater washdown pump.

## **Exhaust System (Inboard Engines)**

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Your exhaust system is designed to keep water out of the engines in most conditions. However, care should be taken not to anchor stern to sea, and the engines should not be shut off if the seas are too high. Always use good seamanship and consider the seas before anchoring or shutting off the engines.

Check all of the clamps after the first 20 hours; then continue to check exhaust system clamps periodically.

## **Marine Head with Holding Tank**

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The marine head with holding tank is designed so waste may be flushed into the holding tank or, for those traveling where regulations permit, flushed overboard. On models larger than 28 feet, this is accomplished by routing the head discharge through a "Y" connector to the holding tank or overboard. There are valves in each of these lines. To flush waste overboard, the valve to the holding tank must be closed and the through-hull seacock (provided on some models) must be open. To flush into the holding tank, close the seacock and open the valve to the tank.

On 2850 models the head is flushed into the holding tank, from which the discharge is routed either through a macerator and overboard, or to the deck pump-out fitting.

It is suggested that overboard valves and seacocks normally be left closed to prevent inadvertent overboard discharge. 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 seawater intake. Before using, pump some water in to wet the bowl. After using, pump until thoroughly cleaned. 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 in the pump diaphragm. To remove such blockage, shut inlet seacock and dismantle pump, which generally

is 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 and pump again to remove all water. Do not use antifreeze. The inlet seacock should be closed while the boat is underway or when the boat is left moored in the water.

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### Holding Tank and Valve Location Table

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Model	Cap. (Gal.)	Location of Hold. Tank	Location of Inlet Seacock	Location of Dis- charge thru Hull	Location of Y-valve
2850 Contessa Sunbridge	13	stb side aft berth access	head compartment	stb side midship	
2850 Contessa Command Bridge	13	port side beneath dinette	beneath cabin sole thru access hatch	beneath cabin sole thru access hatch	
3250 Avanti Sunbridge	30	stb side engine well	under aft berth	stb side aft	stb side aft access
3270 Motoryacht	13	beneath salon stb side access	beneath salon stb side access	beneath salon stb side access	beneath salon stb side access
3450 Avanti Sunbridge	30	stb side engine well	under aft berth	stb side aft	stb side aft access
3450 Tri-Cabin Motoryacht	36	beneath shower & stb side aft	by stb engine & beneath port st'r'm	beneath v-berth & aft of head	beneath v-berth & outbd of head
3460 Trophy Convertible	34	beneath shower	beneath port stateroom	beneath V-berth	beneath V-berth
3870 Motoryacht	36	beneath forward cabin sole	beneath galley sole	behind galley stb side	beneath galley sole

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### Potable Water System

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The water filter should be inspected frequently and cleaned as required.

Sinks and showers ("gray water") drain overboard. Sinks above the waterline are gravity drained, and showers below the waterline are pump drained. Drain pumps should be turned OFF after the shower is drained.

Water tanks (excluding those on 2850 models) have level indicators. Water tanks should be topped-off at every opportunity to avoid the possibility of running short of potable water.

When your boat is to be left unattended for an extended period of time, it is advisable to pump the water tanks dry to prevent stored water from becoming stagnant and distasteful.

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### System Specifications

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Model	Location	System	Water Fill Location	Capacity (gallons)
2850 Contessa Sunbridge	V-berth	demand pump	bow deck	30
2850 Contessa Command Bridge	under cabin sole midship	demand pump	stb deck midship	30
3250 Avanti Sunbridge	engine room sole	demand pump	stb deck midship	50
3270 Motoryacht	under cabin sole	demand pump	stb deck midship	75
3450 Avanti Sunbridge	engine room sole	demand pump	stb deck midship	50
3450 Tri-Cabin Motoryacht	under floor midship	demand pump	stb deck midship	62
3460 Trophy Convertible	under floor midship	demand pump	stb deck midship	62
3870 Motoryacht	under galley sole	demand pump	stb deck midship	86

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Pressure type (demand) 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. On those models with showers, the shower sump switch is located in the head.

### Starter Motor

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The engine starter motor is designed to deliver high horsepower for only very short intervals. Avoid operation for more than 15 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 the battery charge and all direct wiring for shorts or loose connections. If excess bilge water is allowed to accumulate, the starter can be damaged. Automatic bilge pumps are recommended for boats left in open moorage. They are standard on 3270, 3450 and 3870 models.

## Bilge Blower

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The bilge blower removes fumes from the engine compartment and draws fresh air into the compartment through the deck vents.

To ensure fresh air circulation, the bilge blower is to be used before starting the engine, during starting, and while the boat is operating below cruising speed. Operate the blower for at least four minutes before starting the engine.

**WARNING: Operation of the blower is NOT A GUARANTEE that explosive fumes have been removed. If you smell any fuel, shut off all electrical accessories and engine and investigate immediately.**

## Bilge Pump

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The electric bilge pump supplied with your Bayliner is of an impeller type. If bilge water is present and the pump motor is running but not pumping, check to see if it is clogged by debris. If it is clear but 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 penalty of \$5000.**

## Running Lights

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Although the night lights or navigation lights supplied with your Bayliner are of top quality, failure may occur for a variety of reasons:

1. You may have blown a fuse.
2. The bulb may be burned out.
3. The bulb base may be corroded.
4. A wire may be loose due to vibration or mis-stowed gear.

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

## Alcohol Stoves

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Carefully read and follow manufacturer's operating instructions supplied with your stove, and observe the following:

1. Use only denatured alcohol labeled specifically for marine use.
2. Do not operate the stove while underway.
3. Do not fill stoves near an open flame or hot object.
4. All alcohol spilled should be wiped up prior to lighting the stove.
5. Do not put cooking utensils on stove until burners are lit and functioning properly.

**CAUTION: On pressure type alcohol stoves, 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.**

## Electric Stoves

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Carefully read and follow manufacturer's operating instructions supplied with your stove. The breaker switch must be on in order to operate the stove.

## Alcohol/Electric Stoves

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Again, carefully read and follow the manufacturer's operating instructions supplied with the stove. If using the alcohol stove, it is recommended that the 110-volt electrical breaker switch is off.

## Loading Limits

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1. Command bridges:  
1000 pounds maximum for model 3870.  
700 pounds maximum for all other models (2850 - 3460).
2. Hardtops: 100 pounds maximum.
3. Transom platforms: 250 pounds maximum.
4. Auxiliary outboard motor (transom platforms with molded outboard brackets): 10 horsepower maximum.

## GENERAL MAINTENANCE AND REPAIRS

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In addition to instructions found elsewhere in this manual and in the literature specific to certain components, the following information is provided for general maintenance and repair.

Because conditions vary widely in different areas, and since frequency and type of use can differ greatly between owners, intervals for maintenance are not stated herein. Common sense should determine the frequency of maintenance.

## **Bilges/Engine Compartment**

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1. Pump bilges dry and remove all loose dirt. Be sure all limber holes are open. If there is oil in the bilge and the source is not known, look for leaks in engine oil lines or engine gaskets. Oil stains are best removed by use of a bilge cleaner available from your dealer or a marina. Do not use flammable solvents.
2. Check all wiring to be sure that it is properly supported, that insulation is intact, and that there are no loose or corroded terminals. If there are corroded terminals, they should be thoroughly cleaned with sandpaper or replaced. Tighten securely using a lock washer and spray with WD-40 or similar preservative.
3. Inspect the entire fuel system (including fill lines and vents) for any evidence of leakage. Any stains around joints could indicate a leak. Try a wrench on all fittings to be sure they are not loosening, but do not overtighten. Clean fuel filters and vent screens. Operate all valves to be sure they are in good condition.
4. Inspect the entire bottom for evidence of seepage, damage or deterioration, paying particular attention to hull fittings, hoses, and clamps. Straighten kinked hoses and replace any that do not seem pliable. Tighten loose hose clamps and replace those that are corroded. Tighten any loose nuts, bolts, or screws. Operate seacocks to be sure they are in good condition.
5. Refer to your engine operating manual for details of maintenance. Wipe off engines to remove accumulated dust and grease. If a solvent is used, make sure it is nonflammable. Go over the entire engine and tighten nuts, bolts, and screws, including the mounts. Inspect the wiring on the engine and clean and tighten terminals. Inspect belts and tighten if needed. Replace any belt that is cracked or frayed. Clean and lubricate battery terminals; fill cells with distilled water as needed.

## **Cabin and Topside Areas**

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1. Test all electrical equipment and appliances to make sure they operate properly. Inspect all wiring for proper support, sound insulation and tight terminals. Pay particular attention to portable appliance cords and plugs.
2. Inspect and operate heads, basins, showers, sinks, and freshwater system, including tank. Check and operate water pumps, including shower pump and sink drain pumps. Check all water lines and connections for leaks and make sure all connections are secure.
3. Check bow rails, ladders, and grab rails for loose screws, breaks, sharp edges, etc., that might be hazardous in rough weather. Inventory and inspect life jackets for tears and deterioration. Check your first aid kit to make sure it is complete. Check signalling equipment. Inspect anchor lines, mooring and towing lines and repair or

replace as required. DO NOT stow wet lines or they may mildew and rot.

4. Salt and brackish water are capable of etching and damaging window glass. Keeping windows clean is the best preventive measure you can take. When cleaning, flush with plenty of freshwater.

When cleaning plexiglass, which is being used with much more frequency because of its safety and weight, caution should be exercised because of its tendency to scratch.

First, use generous amounts of water to wash off as much dust as possible. Use your bare hands with plenty of water to dislodge any caked dirt. Then use a soft grit-free cloth or clean soft sponge with a detergent or nonabrasive soap. Dry with a clean damp chamois, using a blotting action. Never use a glass-cleaning solution or a duster, as these will scratch the surface. Remove any grease or oil with kerosene or hexane. DO NOT use solvents such as acetone, benzene, carbon tetrachloride, fire extinguisher fluid, dry cleaning fluid, or lacquer thinner since they will attack the surface.

5. 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.
6. Use nearly any of the metal 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 and hardware, should be sprayed with a rust inhibitor similar to WD-40. If not maintained on a regular basis, stainless steel railings and fittings will discolor.
7. A variety of high quality fabrics have been used in the construction of your boat. Proper care and cleaning of all fabrics will contribute to their long life.

We suggest that, prior to cleaning any fabric, you **test your cleaning solution and method** on a hidden or inconspicuous area.

Fabric tops, windshield covers and component covers, as well as vinyl upholstery can be cleaned using a regular vinyl cleaner. Vinyl cleaners may be obtained in grocery or auto parts stores. To prevent rainwater seepage at the seams a coating of "Scotch Guard" can be applied to the seams on the inside of the vinyl. Mildew can occur if your boat does not have adequate ventilation. Heat alone will not prevent mildew. If mildew does occur, it can be removed using a solution of hot water and "Clorox" (one cup of "Clorox" to one gallon of hot water). Brush into affected area, let sit for 10 to 15 minutes and rinse with fresh water. 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.

Dry cleaning should be considered for interior fabrics other than vinyl.

8. 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 instruments are exposed to a saltwater environment, salt crystals may form on the bezel and the plastic covers. 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.

## Hull

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1. The finish on a fiberglass boat is similar to that of an automobile and will respond to the same system of care and cleaning. Car waxes and cleaners are often used to maintain a sparkling finish. Also, a variety of polishes and cleaners for fiberglass are now on the market. Some are very good and we suggest you experiment with different brands to determine what you like best.
2. 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.

*Scratches:* If the scratch does not penetrate the gelcoat surface, use automotive rubbing compounds. Dampen a soft rag and apply rubbing compound with plenty of elbow grease. The scratch may not disappear completely; however, its noticeability will decrease.

*Gouges and Chips:* To repair, simply obtain "patch paste" from your Bayliner dealer and follow this recommended procedure:

- Clean area to be repaired of wax and oil. Acetone is a good solvent.
- Use a small portion of patch paste on a piece of cardboard and mix thoroughly with the catalyst (two or three drops of catalyst to a tablespoon of paste).
- Apply to pit, chip, or gouge with a single edge razor blade to match the surface contour of the area being repaired. It is better to have an excess than not enough of the paste.
- Allow to harden thoroughly. In most climates, one to two hours should be sufficient.
- Shape the patch as desired, using fine wet sandpaper.
- Finish using automotive rubbing compound in the same manner as for scratches.

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



3. There are many factors that will come into play in determining if and how often it will be necessary for you to paint the bottom of your boat. First of all, it is necessary for you to understand that the bottom paint on boats is designed to slowly dissolve to prevent the retention of marine growth. This fact is generally not understood, but it is unusual to find a boat bottom that does not need repainting after a season's use.

As necessary, usually once a year, your boat should be pulled from the water, scrubbed and repainted. It is not always necessary to repaint the bottom each time it is scrubbed, but no bare spot should be allowed to remain.

Our recommended procedure for repainting the bottom is as follows:

- Prepare the bottom by sanding, cleaning and fairing as required.
- It is imperative that the new paint be applied over a perfectly dry surface. Fiberglass hulls should never be hauled, painted and relaunched in the same day, since this does not allow sufficient time for the moisture which has been absorbed into the old paint film to completely dry out. Generally, 24 -36 hours of drying time is required.
- If factory applied, the hull below the waterline has been originally painted with either "Pettit" Bioguard (#1265) or "International" Tri-Lux (#66). When repainting, use either of these two paints or a paint that is compatible.

**IMPORTANT: Blistering can occur in the gelcoat finish below the waterline on boats that are permanently moored. To protect against this possible occurrence Bayliner recommends that antifouling bottom paint be applied. This should include three coats of International Paint Company's Interlux 404/414 barrier coat primer and two coats of Tri-Lux bottom paint or an equivalent. It is best and least expensive to have antifouling paint applied prior to first launching.**

4. Whenever your boat is out of the water you should check all metal parts for stray current corrosion. Stray current corrosion, or electrolysis, can be prevented several ways. The following are the most common causes and the simplest cures:
  - Wiring may leak a certain amount of electricity. Keep a clean dry bilge.
  - A poorly grounded zinc anode: Check ground wire, clean contact surfaces.
  - The zinc anode may be deteriorated beyond effectiveness: Replace at 50% loss.
  - Do not use a copper-based bottom paint, as it can cause electrolysis on some metal parts. If your boat is permanently moored, we recommend you contact someone in your area specializing in corrosion control and have them check your boat in its moorage to see that it is properly protected.

Also, while your boat is out of the water, propellers, rudders, and shafts should be inspected for damage.

5. Every attempt has been made to equip your boat with a propeller that will optimize performance. Variation in altitude and load can impact performance. Your boating needs may dictate a propeller change. Your Bayliner dealer can help you in the selection of propellers better suited to your needs.

Rudders should be parallel such that the difference between the center of the leading edges and trailing edges is less than 1/4-inch. Adjustment is performed at the transom, inside the engine compartment.

6. Flapper valves (such as on scuppers) should be checked often to see that they are pliable and operating properly to provide sealing action.

## **STORAGE**

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1. If your boat is to be stored out of the water, it is extremely important that its hull is properly supported to avoid permanent hull shape distortion. If stored inside, it should be in a well-ventilated building.
2. If covered storage isn't available, then a temporary winter cover is recommended. A proper winter cover should keep the weather off the boat, but still provide adequate ventilation. Wrapping a boat in a tight plastic cover can do more damage than good. Dampness and lack of air circulation provide ideal conditions for the fungi that cause mildew and dry rot.
3. Remove batteries, fill cells to proper level, and charge. Store in a warm place and periodically (once per month) charge.
4. Refer to your engine manual for storage instructions.
5. Drain the freshwater tanks and system by first opening all faucets and operating the water pump (be sure that the hot water tank power switch is turned off). Operate the pump until empty, draining water accumulated in the pump to avoid damage due to freezing.
6. Flush each head several times. If stored in saltwater, close seacock, add fresh water to bowl and allow to stand for a day or more to dissolve accumulated salt. With seacock closed, flush until pumped dry. Pump out holding tank.
7. Fuel tanks should be filled so there is little air space, thereby minimizing condensation.
8. Refer to your engine manual for storage procedures related to the engine seawater cooling system and batteries.
9. Thoroughly clean your boat. If possible, remove cushions, mattresses, blankets, towels, and other items that can hold

moisture and cause mildew. Such items left on board should be positioned for maximum air circulation—stand mattresses and cushions on edge.

10. Defrost and dry out refrigerator and freezer; prop doors open. Leave drawers and locker doors open.
11. Clean hardware and coat with rust inhibitor.
12. Lubricate steering mechanism and throttle control in engine compartment.
13. Close seacocks.
14. Provide as much heat and ventilation for interior spaces as is safe and practical.

We hope these preventive measures will help make a spring get-ready easier. Should you have any questions, your Bayliner dealer is anxious to provide assistance.

## **NAUTICAL TERMS**

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<b>ABEAM:</b>	On either side of the boat.
<b>AFT:</b>	To the rear or near the stern.
<b>BEAM:</b>	The width of the hull.
<b>BILGE:</b>	The lowest portion inside a boat (in a fiberglass boat, generally the underdeck and lower portion of the engine compartment).
<b>BOW:</b>	The forward portion of the boat.
<b>CHINE:</b>	The intersection of the side and bottom of a V-bottom boat.
<b>DRAFT:</b>	Vertical distance from the waterline of boat to the lowest point of the boat.
<b>FATHOM:</b>	A measurement of six feet generally used to measure water depth.
<b>FREEBOARD:</b>	Vertical distance from deck to waterline.
<b>GUNWALE:</b>	The point where hull and deck meet.
<b>HATCH:</b>	A covered opening in the deck.
<b>HEAD:</b>	Toilet or toilet room.
<b>HELM:</b>	Steering wheel.
<b>KEEL:</b>	The lowest external portion of the boat.
<b>KNOT:</b>	Nautical mile per hour; nautical mile is 6,076 ft.; land mile is 5,280 ft.
<b>LEE:</b>	Opposite from which the wind blows.
<b>MAYDAY:</b>	International spoken distress signal for radiotelephone.
<b>PORT:</b>	To the left or left side of the boat.
<b>PORTLIGHT:</b>	A hinged window in the boat's cabin or hull.
<b>SCUPPER:</b>	An opening in a deck or cockpit permitting water to drain overboard.
<b>STANCHION:</b>	A fixed, upright post used for support (of rails or lifelines).
<b>STARBOARD:</b>	To the right or right side of the boat.
<b>STERN:</b>	The rear of the boat.
<b>STERNDRIVE:</b>	Inboard/outboard unit.
<b>TRANSOM:</b>	The vertical part of the stern.
<b>WINDWARD:</b>	The direction from which the wind is blowing.

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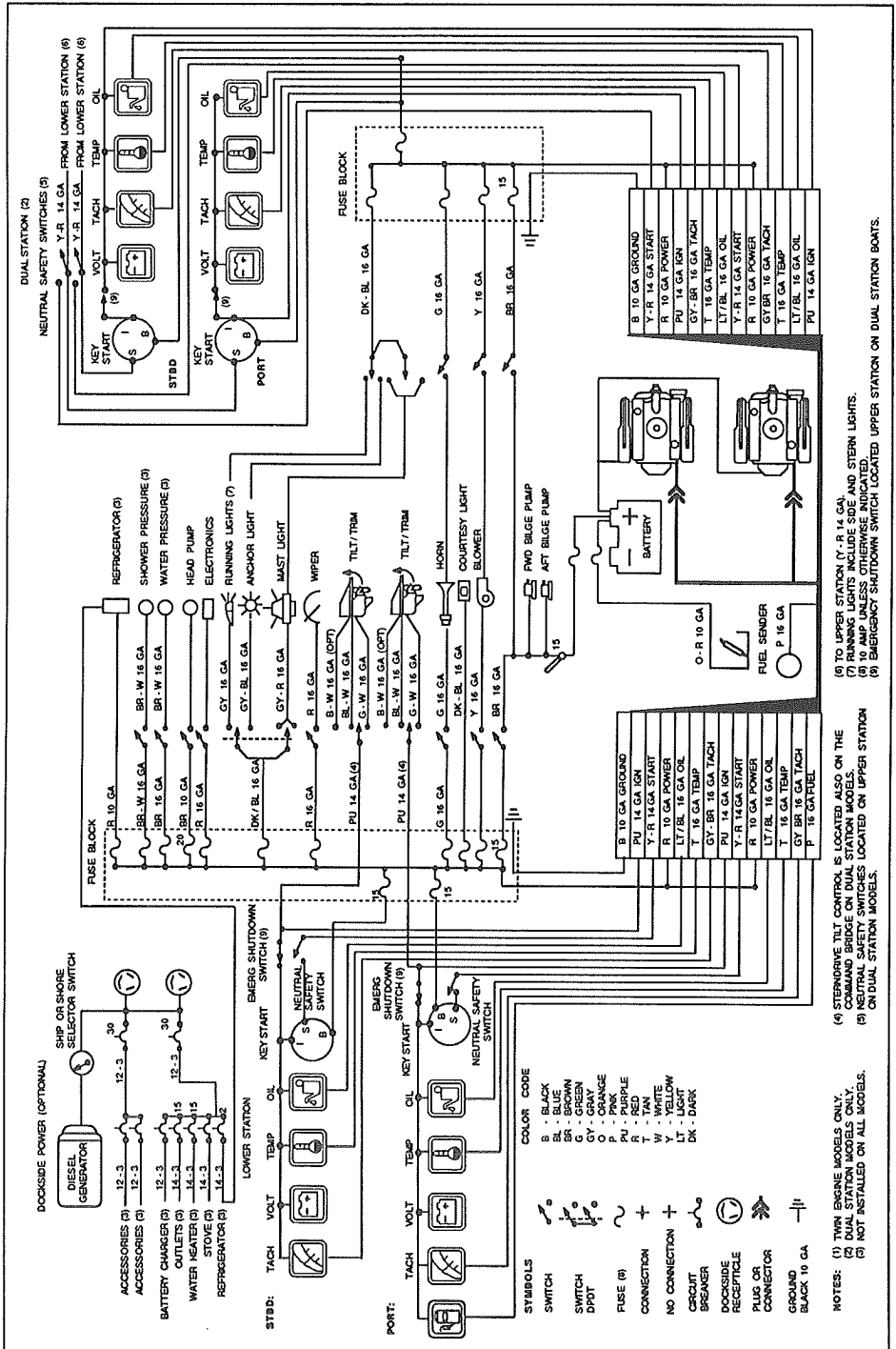
## SPECIFICATIONS

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Model/Engine	Prop/Rotation	Max RPM
2850 Contessa Sunbridge		
260 OMC	15-1/2 X 13 R	4600
335 OMC	15 X 17 R	4800
230 OMC (Twin)	15 X 17 L/R	4600
2850 Contessa Command Bridge		
335 OMC	15 X 17 R	4800
230 OMC (Twin)	15 X 17 L/R	4600
3250 Avanti Sunbridge		
260 OMC (Twin)	15 X 17 L/R	4600
230 OMC (Twin)	15 X 17 L/R	4600
3270 Motoryacht		
225 USM (Twin)	16 X 16 L/R	4400
135 USM (Twin)	17 X 17-1/2 HSL/R	3000
3450 Avanti Sunbridge		
330 USM (Twin)	17 X 18 L/R	4200
3450 Tri-Cabin Motoryacht		
255 USM (Twin)	18 X 19 L/R	4400
330 USM (Twin)	17 X 18 L/R	4200
3460 Trophy Convertible		
255 USM (Twin)	18 X 19 L/R	4400
330 USM (Twin)	17 X 18 L/R	4200
220 USM (Twin)	20 X 20 L/R	3000
3870 Motoryacht		
175 USM (Twin)	20 X 22 L/R	3000

# SCHEMATIC DIAGRAM

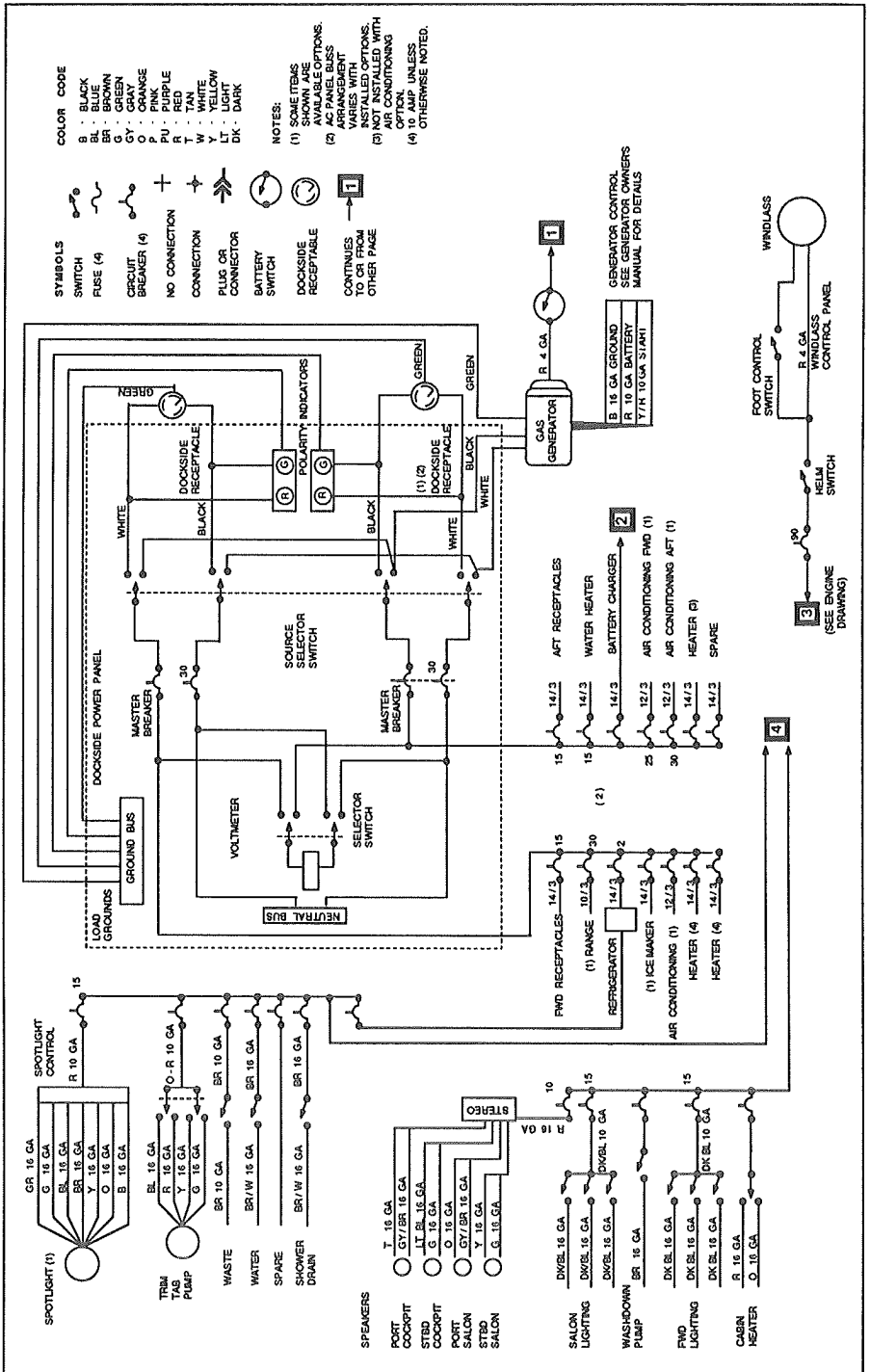
2850 Contessas





# SCHEMATIC WIRING DIAGRAM

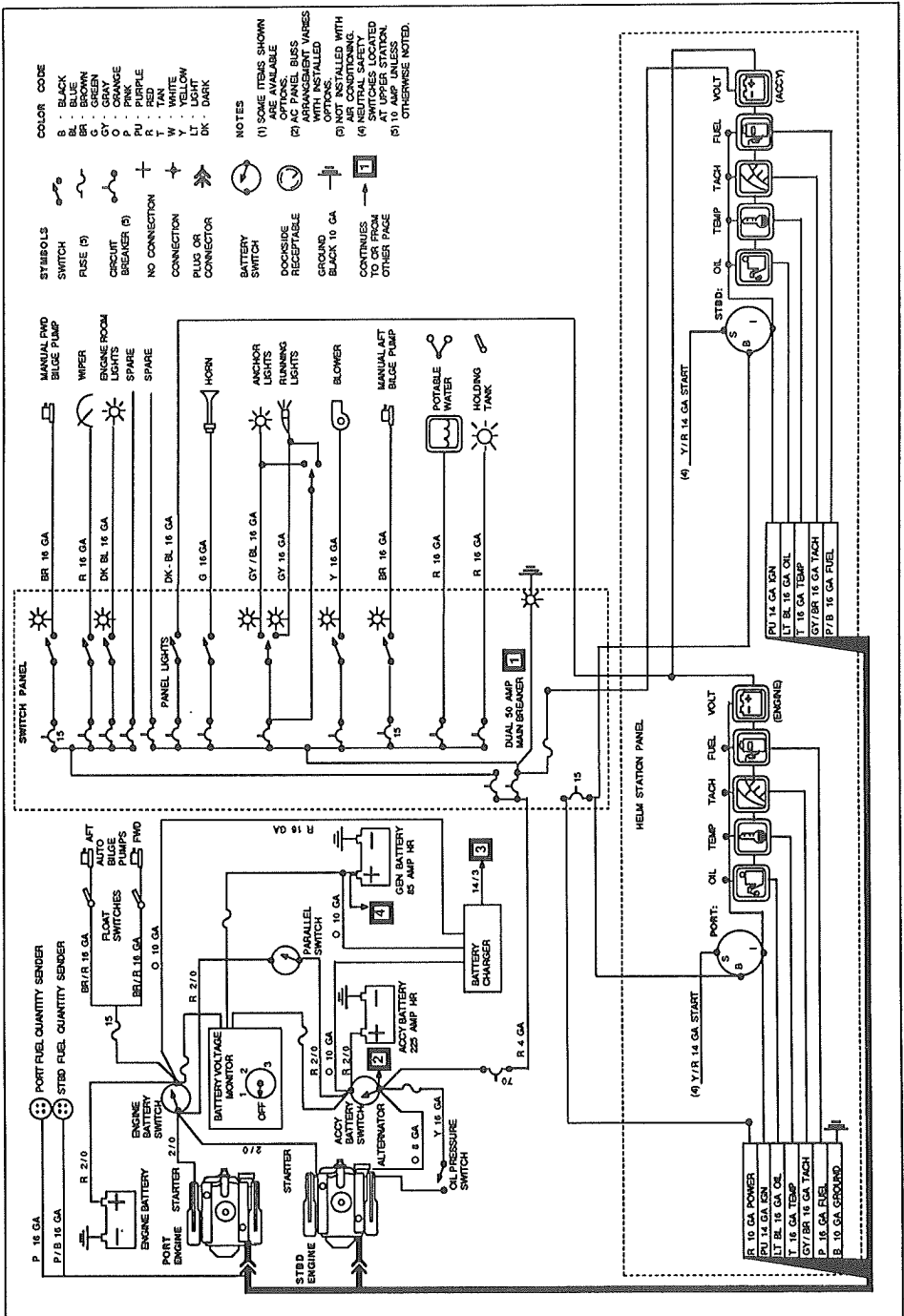
3250 Avanti #2





# SCHEMATIC WIRING DIAGRAM

3450 Avanti #1



# SCHEMATIC WIRING DIAGRAM

3450 Avanti #2

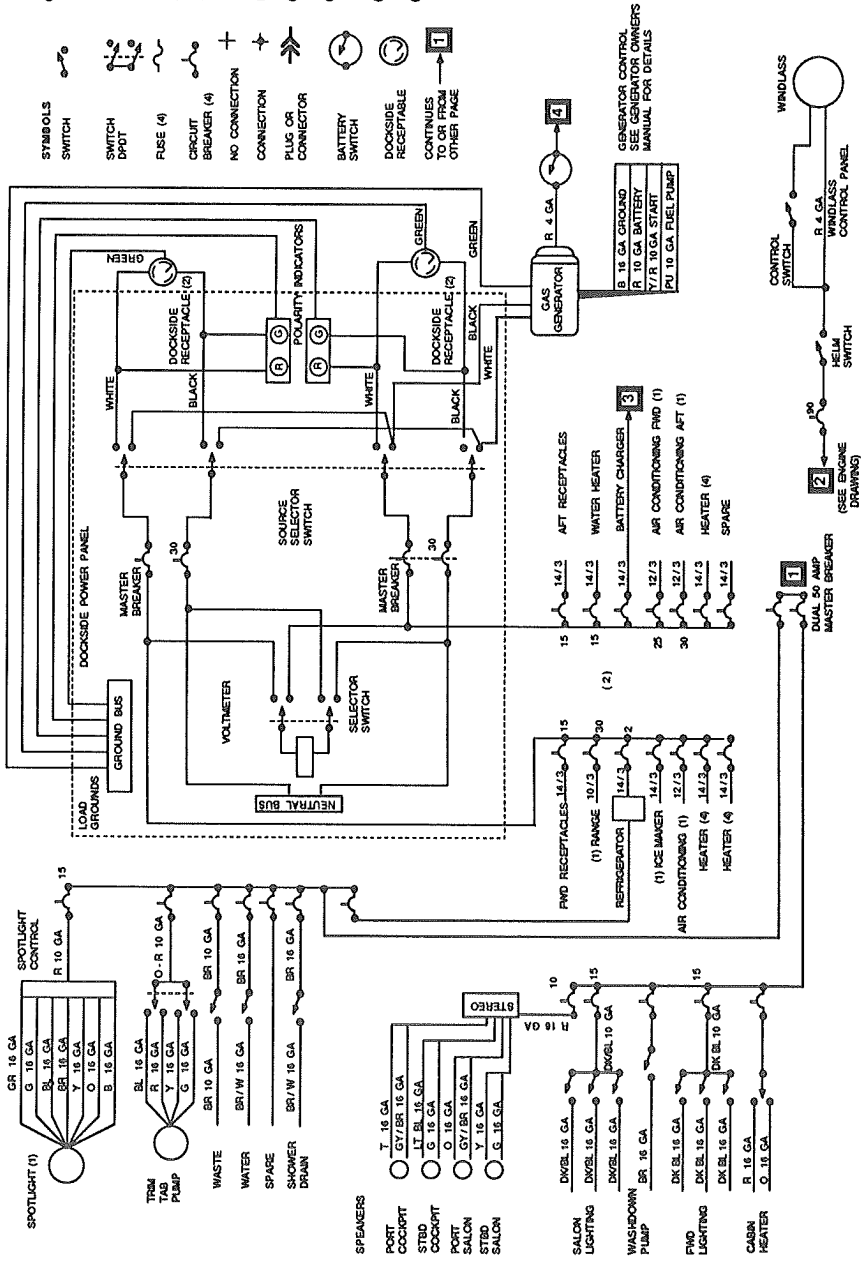
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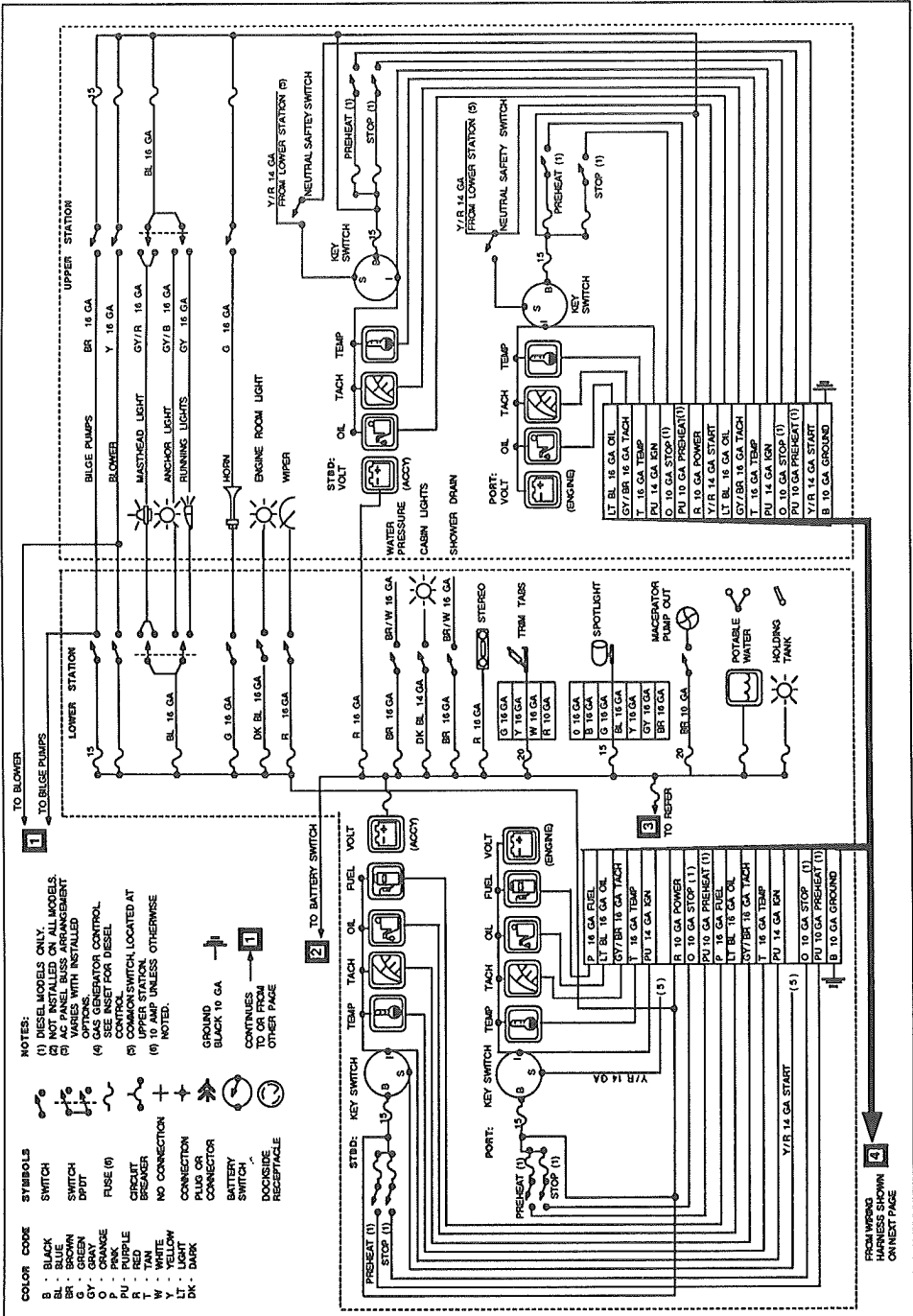
- B - BLACK
- BL - BLUE
- BR - BROWN
- GY - GRAY
- O - ORANGE
- P - PINK
- PU - PURPLE
- R - RED
- T - TAN
- W - WHITE
- Y - YELLOW
- LT - LIGHT
- DK - DARK

### NOTES:

- (1) SOME ITEMS SHOWN ARE OPTIONS.
- (2) AC PANEL BUS ARRANGEMENT VARIES WITH EQUIPMENT.
- (3) NOT INSTALLED WITH AIR CONDITIONING OPTION.
- (4) 10 AMP UNLESS OTHERWISE NOTED.

- ### SYMBOLS
- SWITCH
  - SWITCH DPDT
  - FUSE (4)
  - CIRCUIT BREAKER (4)
  - NO CONNECTION
  - PLUG OR CONNECTOR
  - BATTERY
  - DOCKSIDE RECEPTACLE
  - CONTINUES TO OR FROM OTHER PAGE









# SCHEMATIC WIRING DIAGRAM

3450 Tri-Cabin, 3460 Trophy, 3870 Motoryacht #2

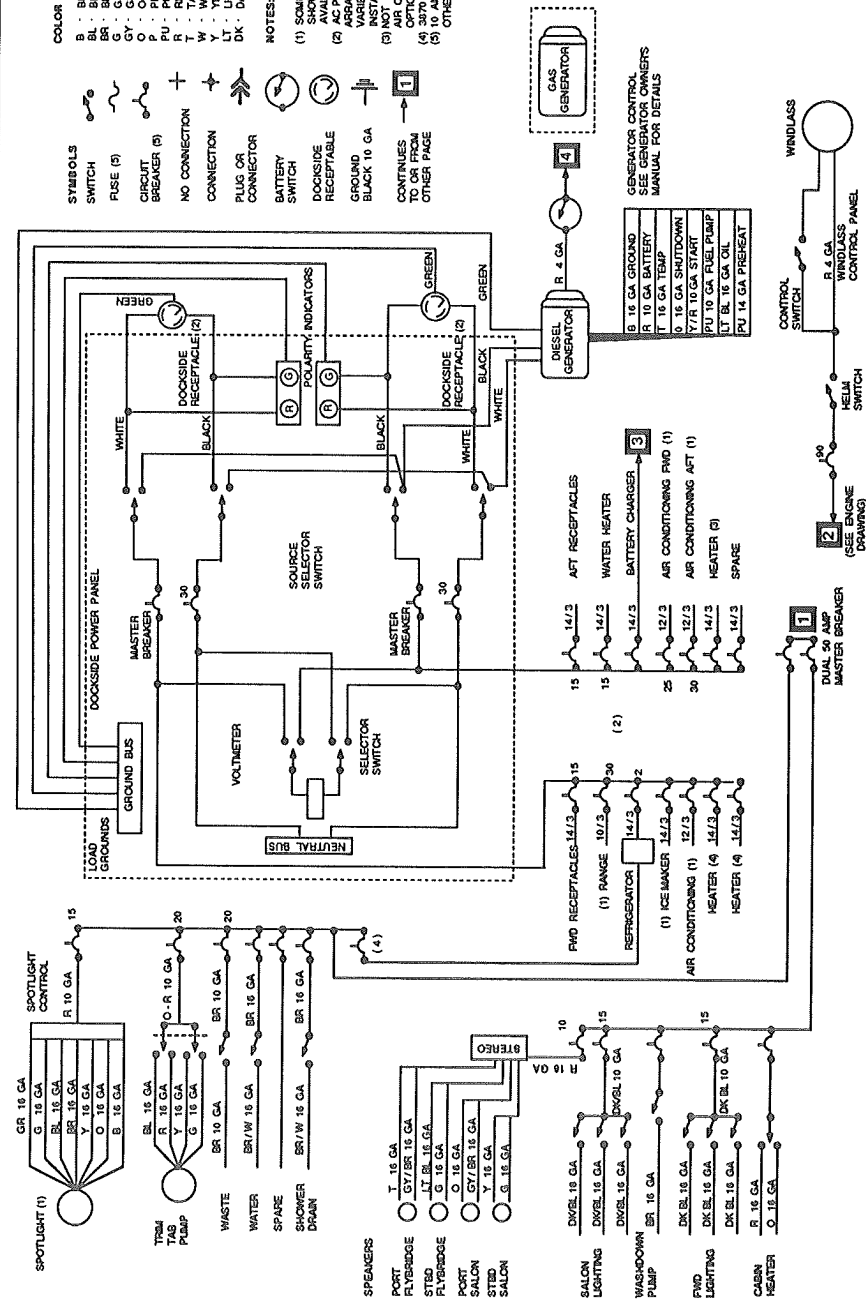
**COLOR CODE**

- B : BLACK
- BL : BLUE
- BR : BROWN
- G : GREEN
- GY : GRAY
- O : ORANGE
- P : PINK
- PU : PURPLE
- R : RED
- T : TAN
- W : WHITE
- Y : YELLOW
- DK : DARK

**SYMBOLS**

- [Switch symbol] SWITCH
- [Fuse symbol] FUSE (R)
- [Circuit breaker symbol] CIRCUIT BREAKER (R)
- [No connection symbol] NO CONNECTION
- [Plug symbol] PLUG OR CONNECTOR
- [Battery symbol] BATTERY SWITCH
- [Dockside receptacle symbol] DOCKSIDE RECEPTACLE
- [Ground symbol] GROUND BLACK 10 GA
- [Continues symbol] CONTINUES TO OR FROM OTHER PAGE

- NOTES:**
- (1) SOME ITEMS AVAILABLE AS OPTIONS.
  - (2) AC PANEL BUS ARRANGEMENT INSTALLED WITH OPTIONS.
  - (3) NOT INSTALLED WITH AIR CONDITIONING OPTION.
  - (4) 10 AMP UNLESS OTHERWISE NOTED.



GENERATOR CONTROL  
SEE GENERATOR OWNERS  
MANUAL FOR DETAILS

- B 16 GA GROUND
- R 10 GA BATTERY
- T 16 GA TEMP
- O 16 GA START
- Y/R 10 GA START
- PU 10 GA FUEL PUMP
- LT 16 GA OIL
- PU 14 GA PREHEAT

2  
(SEE ENGINE DRAWING)

1  
DUAL 50 AMP MASTER BREAKER

## **WARRANTY**

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### **One Year Limited Warranty**

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Bayliner warrants to the original purchasers of its boats operated under normal, noncommercial use in the U.S. or Canada that it will repair or replace any parts found to be defective in factory materials or workmanship within one year from date of retail delivery.

### **What is Not Covered**

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This warranty does not apply to: (1) Engines, drive trains, controls, props, batteries or other equipment or accessories carrying their own individual warranties; (2) Engines, parts or accessories not installed by Bayliner; (3) Window breakage or leaks; gelcoat finish, blisters, cracks or crazing; (4) Hardware, vinyl tops, vinyl and fabric upholstery, plastic, metal, wood or tape trim; (5) Any Bayliner boat which has been altered, subjected to misuse, negligence or accident, or used for racing purposes; (6) Any Bayliner boat which has been overpowered according to the maximum horsepower specifications on the capacity plate provided on each Bayliner outboard boat; (7) Any Bayliner boat used for commercial purposes; (8) Any defect caused by failure of the customer to provide reasonable care and maintenance.

### **Other Limitations**

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THERE IS NO OTHER EXPRESS WARRANTY ON THIS BOAT. TO THE EXTENT ALLOWED BY LAW:

1. Any implied warranty of merchantability is limited to the duration of this written warranty.
2. Neither Bayliner nor the selling dealer shall have any responsibility for loss of use of the boat, loss of time, inconvenience, commercial loss or consequential damages.
3. Some states do not allow limitations on how long any implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## **Your Obligation**

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In order to comply with Federal regulations, it is essential that your warranty registration card be submitted within 30 days of delivery of your boat. Return of this card is a condition precedent to warranty coverage. Before any warranty work is performed, we require that you contact your selling dealer to request warranty assistance.

We require that you return your boat, at your expense, to your selling dealer or, if necessary, to the Bayliner factory. You will be responsible for all transportation, haulouts and other expenses incurred in returning the boat for warranty service.

Bayliner Marine Corporation  
PO Box 24467  
Seattle, WA 98124



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**BAYLINER MARINE CORPORATION,**  
PO Box 24467, Seattle, WA 98124, 206-435-5571, Telex 474-0071 BAYLINER ALG