KINGFISHER

O W N E R ' S M A N U A L

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Welcome to the Kingfisher Family.

Congratulations on the purchase of your new Kingfisher boat. Kingfisher incorporates the latest innovations in aluminum boat manufacturing. Almost 50 years of research, manufacturing experience, and listening to our customers has produced the boat you own today. You can be assured that your new Kingfisher will provide you with years of worry free operation and enjoyment. With superior styling and performance, Kingfisher is leading the industry in quality and design.

Thank you for choosing Kingfisher

All of the component manufacturer's Owners Manuals referred to in this manual should be found at the back of this binder. If not, please contact your authorized Kingfisher dealer.

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SECTION 1 – INTRODUCTION

By reading this manual carefully you will learn how to care for your boat, and what your responsibilities are as the boat's operator. Your Kingfisher has a limited Lifetime Warranty which is detailed in Section 7 of this manual for reference.

Please take the time to complete and submit the Warranty Registration. Failure to submit the registration or neglect or improper care of your boat may void the warranty. The best way to protect your new Kingfisher is to carry out regular maintenance and inspect your boat regularly as recommended in this guide.

This manual refers to the other manuals that come with your boat's equipment and accessories. It is essential that you read all of these manuals and become familiar with the care, maintenance, and safe operation of all the equipment aboard your boat. Westwinn wants you to get the most out of your boating experience, and to come home safely every time. If you are missing any manuals, see your Kingfisher dealer or equipment retailer for a replacement.

In Section 1 of this manual you will find a place to record such information as your engine and boat serial numbers, and your dealership contact information. Keep this information with your boat for easy reference by yourself or qualified service personnel.

If you have any questions about your boat consult your Kingfisher Dealer. If you have any questions about your regional and federal boating regulations, contact the local United States Coast Guard, Transport Canada Office of Boating Safety, or Canadian Coast Guard, Fisheries and Oceans Office.

Before you go boating it is wise to read your boat Owner's Manual and go through the pre-trip safety checklist found in Section 2. Ensuring that your boat is in perfect working order before beginning a voyage will allow you to get the most enjoyment out of your boat every time you use it.

Important Identification Number Records

Record your Serial numbers of your Hull and Motor(s). The Hull Identification Number or H.I.N .is located on the starboard side of the transom. Consult the engine manufacturer's owners manual for engine serial number location.

HULL IDENTIFICATION NUMBER: _____

MOTOR 1 SERIAL NUMBER: _____

MOTOR 2 SERIAL NUMBER: _____

KICKER SERIAL NUMBER: _____

Note: It is also recommended to record the Serial Numbers of other significant items such as your radar set, etc, if your boat is so equipped.

SECTION 2 - SAFETY INFORMATION

Pre-trip Safety Checklist

1. Ensure that you are familiar with all applicable boating regulations. These can be obtained from Transport Canada Office of Boating Safety or your local United States Coast Guard office.

2. Ensure that your boat insurance and vessel license are complete and up to date

3. Check your on-board safety equipment
   - -Ensure your boat has paddles on board
   - -Ensure you have a class 5BC Fire extinguisher in good working condition on board
   - -Ensure that you boat has a container for bailing
   - -Ensure you have a watertight flashlight on board in good working condition
   - -Ensure your vessel has Type A, B, or C flares on board and that they are not expired. (Vessels less than 6m must carry 3, and vessels over 6m must carry 6)
   - -Ensure you have a buoyant heaving line on board at least 15m in length
   - -Ensure the horn works
   - -Check all lights and make sure they work
   - -Check your radio, cell phone and or signalling device
   - -Check your bilge pump
   - -Ensure every passenger has an approved, properly fitting personal floatation device
4. Check all seats and ensure they are firmly attached
5. Check battery and electrical system for damage or corrosion, and spare fuses
6. Check the steering for smooth operation through the full range of travel
7. Ensure that all loose items are safely and securely stowed
8. Check for any damage to the boat
9. Check that the hull drain plugs are in place
10. Check engine fluid levels
11. Check your capacity rating and ensure your boat is not overloaded or overpowered
12. Check bilge for water, fuel and oil.
13. If your boat is equipped with an inboard motor you must run your blower for 4 minutes prior to starting the engine.
14. Ensure you have a container to collect any garbage
15. Check the weather report
16. Leave an itinerary of your trip or "Float Plan" with someone on shore and have them contact local Search and Rescue if you don't return at the appointed time
17. Always have someone along who can operate the boat if you become incapacitated
18. Make sure you & your guests are wearing approved personal floatation devices
19. Instruct your guests on safety procedures and equipment on board

IMPORTANT LABELS AND WARNINGS`

General Information

Your boat is supplied with a number of identification and warning labels. These labels are intended to inform and protect the boat operator and passengers. Should any of these labels be damaged or lost they should be replaced immediately. Failure to comply with the warnings can result in severe injury or death. Should you need replacement warning labels, conformity/capacity labels, or instruction labels, contact your dealership. Each label carries a Westwinn part number for easy identification.

Warning Labels

Be sure to familiarize yourself with the following warning labels:

NOTE: *Not all models may carry all Warnings, depending on the options chosen.*

Decal 1: Is located in the starboard side rear deck tray and relates to the shore power system.

The Carbon Monoxide (CO) warning decal is located on the rear bait well.

The fuel system inspection decal is located inside the bilge doors.

The boarding ladder warning label is located on the rear swim platform.

Decal 2: The auxiliary and main engine operation warning decal is located above the auxiliary steering station.

Decal 3: The winterization warning decal is attached to the sink faucet and should be removed after the system is flushed.

Decal 4: The blower warning label is used on diesel inboard models only, and is installed on the starboard side of the engine box.

Decal 5: The auxiliary station visibility warning label is located above the rear helm station.

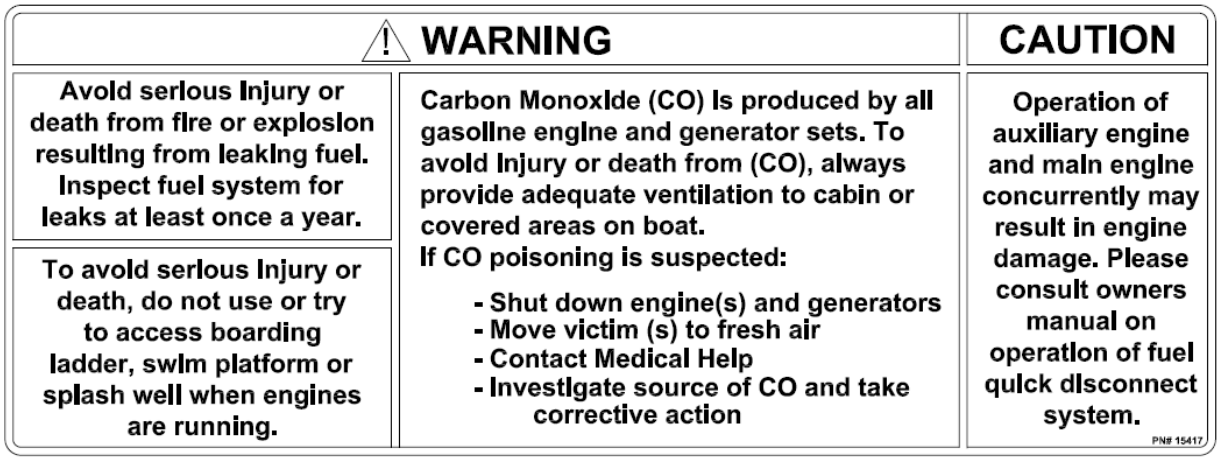
Decal 6: The water pickup shutoff label is located by the thru-hull petcock in the headstall, beside the toilet

Decal 7: The Watertight Closure decal is located near all doors or hatches which should be kept closed while underway, such as the cabin door.

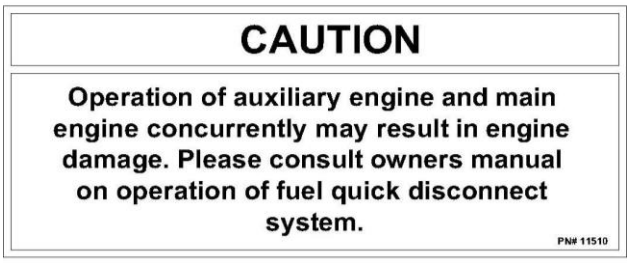
Decal 8: The Transport Canada Conformity Label is located on the baitwell at the stern of the boat.

Decal 9: The US Coast Guard Conformity Label is located on the baitwell at the stern of the boat.

DO NOT remove any of the safety decals!



Decal 1

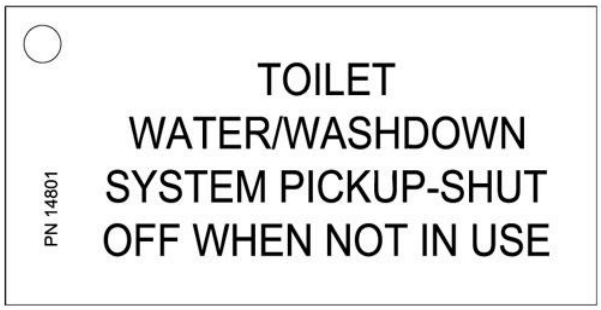


Decal 2

Decal 3

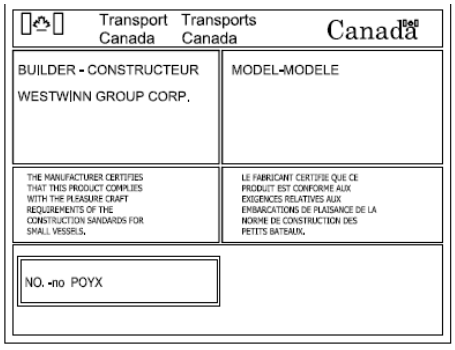
Decal 4

Decal 5



Decal 6

Decal 7



Decal 8

Decal 9

Capacity / Conformity Label Information

Every vessel is supplied with a label indicating that it conforms to related federal requirements as of the date of manufacture. Vessels over 6 m (19' 8") in length are required to display a USSG or Transport Canada Conformity Label (Decal 11).
If you find that your Conformity label is missing, it can be replaced by your Kingfisher dealer. When contacting the dealer please supply the Hull Identification Number (HIN) recorded in Section 1.

Safe Boating Information

It is strongly recommended to read the most recent edition of either "The Safe Boating Guide" (Fisheries and Oceans Canada, Coast Guard), or "Federal Requirements and Safety Tips for Recreational Boats" (US Coast Guard) prior to operating your boat. Similar publications may be available through other state or provincial bodies. Check with your local provincial or state regulations to see if a Pleasure Craft Operators card or other operator license is required within your jurisdiction. Marine safety and boat handling courses such as those offered through Power Squadrons are also highly recommended.

Exhaust Emissions Hazard

Carbon Monoxide (C0)

DANGER

Carbon Monoxide Carbon monoxide (CO) is a poisonous gas that is colorless, odorless and about the same weight as air. It will distribute itself throughout spaces of the boat in dangerous concentrations, if proper ventilation is not provided. A person breathing these fumes will become seriously ill. Direct and prolonged exposure will cause brain damage or death. Always run the bilge blower whenever the engine is idling. Opening windows or hatches may improve ventilation.

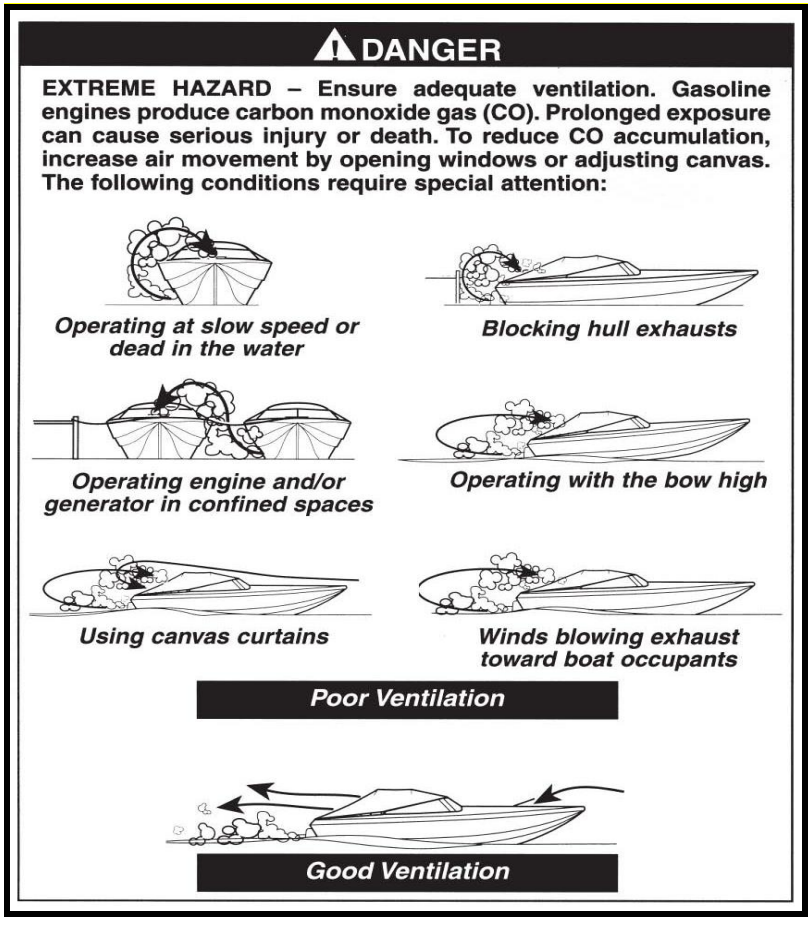
Enclosed cabins or cockpits may accumulate carbon monoxide. **You can be overcome by fumes from your own engine or from neighboring boats.** Ensure continuous movement of fresh air. You may wish to install one or more carbon monoxide detectors in the boat's enclosed cabin or cockpit. Do not run boat with cabin fully enclosed.

CO diffuses in the air much more rapidly than easily detectable gases; you cannot rely on smell to recognize its presence. CO will be produced anytime materials containing carbon are burned. Common sources of CO are internal combustion engines and open flame devices such as cooking ranges, space heaters, and charcoal grills.

Symptoms of CO Poisoning include, but are not limited to, the following:

1. Watering and itchy eyes
2. Flushed appearance
3. Inattentiveness and the inability to think clearly
4. Ringing in the ears
5. Tightness in the chest
6. Headache and/or throbbing temples
7. Drowsiness and fatigue
8. Incoherence
9. Nausea and/or vomiting
10. Dizziness
11. Collapse
12. Convulsions

IMPORTANT: *If someone is suffering from CO poisoning move the person to fresh air, administer oxygen, if available, and contact medical help. If the victim is not breathing, perform approved CPR procedures until medical help arrives and takes over.*



SECTION 3 – OPERATOR & PASSENGER SAFETY

Who may operate the boat

The safe use and operation of this boat is dependent upon the use of proper operating techniques, as well as common sense, good judgment, and expertise. For boat operators, Proof of Competency is compulsory throughout Canada for all persons born after 1983. For persons born before 1983 Proof of Competency is required after August 2009.

Every operator must know the basics of marine navigation and boat handling. It is vital that the rules of the road and respect for others using the waterways be observed at all times.

Operators Responsibilities

As mentioned previously, it is the operator's responsibility to operate the boat safely in accordance with the law, common sense and good judgment. The Operator bears responsibility for the safety of the boat's passengers and others that may be in the immediate vicinity affected by the operation of the boat. In Canada it is compulsory to license your boat. Insurance, while not required everywhere, is also important to have.

The operator also has a responsibility to operate and maintain the boat and its equipment in accordance with the manufacturer's instructions. Failure to do so may result in damage to the boat or its equipment or void the warranty. Consult the owner's manuals supplied with the boat's installed equipment (such as the engine, etc) for correct maintenance and operating procedures. Your Kingfisher requires a modest amount of maintenance in order to provide many years of enjoyment. See Section 5 for detailed maintenance requirements and instructions. Everyone who operates the boat must read this manual and understand their responsibilities.

Approved personal floatation devices of the appropriate size must be worn at all times by persons aboard the boat while it is in the water.

Turn off the engines while any passengers are entering or leaving the water, or anyone is swimming in the vicinity of the boat, to avoid serious injury or death.

Always operate your boat at a safe speed for weather conditions. Slow down during periods of restricted visibility, choppy water and high winds. Failure to do so may result in serious injury or death.

Do not operate the boat if any object is obstructing the line of sight forward of the steering station. Doing so may result in damage to the boat, severe injury, or death.

Gasoline vapours are explosive. Always be careful when filling the fuel tank to avoid spilling fuel in the boat and in the water around the boat. Extinguish all smoking material and open flame while refueling or while within 15m of a refueling site. For safety all passengers should leave the boat while it is being fuelled. Avoid static electricity discharges and do not operate a cell phone while fueling.

Before embarking on a boating trip, perform an inspection of all vital components of the boat and all safety equipment. Check for water or gasoline in the bilge. If there is gasoline in the bilge, evacuate everyone from the immediate area and contact your local fire department. Never use the bilge pump to pump out even a tiny amount of gasoline or oil from the bilge. Doing so may result in fire or explosion causing severe, permanent injury or death and will cause environmental damage.

Never sit on seat backs or arm rests, and never stand on seats. This can result in persons being ejected from the boat and lead to severe injury or death.

Never consume alcohol and/or recreational drugs during or prior to operating any vessel. It is illegal and could result in legal penalty, serious injury, or death.

Never attempt to modify your vessel's hull or structure without explicit instructions from the manufacturer or your dealership. Doing so may result in catastrophic structural failure that could cause severe injury or death. Modifying your hull will also void the warranty.

Always use handrails or grab handles where provided. Failure to do so may result in a fall causing injury or death.

As the master of your boat, one of your legal responsibilities is to come to the aid of other boaters or persons in the water that are in danger, provided it does not put you or your vessel in danger. Consult the manuals that come with your life saving equipment. When approaching persons in the water approach as slowly as possible. When in the vicinity of persons in the water, turn off your engine and use paddles to manoeuvre. Your boat is not designed to tow other boats. In an emergency, use your bow or transom eyes for towing purposes. Your deck cleats are not designed for towing and can fracture suddenly or pull out of the deck. Towing another vessel at speeds above 5 mph will put an unusually heavy load on your motor, possibly resulting in mechanical damage not covered under warranty.

In the event of engine failure, check all electrical, mechanical and plumbing connections to the engine. Ensure that there is sufficient fuel in the tank, and that there has been no fuel or oil leakage. Attempt to re-start the engine in accordance with the manufacturer's instructions. If the motor will not start wait for it to cool down and try again. If the motor will not start after several attempts, summon assistance.

In the event of fire, use your fire extinguisher in accordance with its instructions. All other persons should abandon the boat immediately in the event of fire if it is safe to do so. In the event of loss of steering, throttle or shift control system failure, turn off the engine and summon assistance. Use the paddles to make your way back to shore.

WARNINGS:

- DELIBERATE MISUSE OF YOUR BOAT AND EQUIPMENT CAN VOID YOUR WARRANTIES, AND POTENTIALLY RESULT IN SERIOUS INJURY OR DEATH
- FAILURE TO COMPLY WITH NAVIGATIONAL REGULATIONS AND RESTRICTIONS COULD RESULT IN FINES, SEVERE INJURY OR DEATH

SECTION 4 - BOAT CHARACTERISTICS AND OPERATION

Your boat will always turn more aggressively the faster that you are going. Always be aware of your surroundings and give yourself lots of room to manoeuvre safely.

Placing heavy objects over to one side of the boat or very far forward in your boat can result in poor boat performance; or in an extreme situation result in loss of control or capsizing of the boat. Always distribute any cargo evenly around the centre of the passenger carrying area of your boat.

Safe Operation, Care and Attention

Operating your boat with due care and attention requires that the operator be aware of the surrounding environment at all times.

- A sudden stop or change of direction can cause loss of control of the boat resulting in injury or death.
- Operate the boat defensively at all speeds and keep a safe distance from people, objects, and other watercraft.
- Following directly behind other boats or operating the boat in an erratic manner can lead to collision, injury and death.
- Operators should reduce speed and exercise extreme caution when operating the boat in shallow areas or where there might be submerged objects.
- Be aware of the weather conditions at all times. If wind and waves begin to rise or visibility begins to deteriorate, return to the dock or boat ramp. Operating the boat in bad weather can lead to injury or death.
- Operators should always ensure that a responsible person on shore knows your boating plans and a description of your boat, so that if you fail to arrive at your destination at the expected time help can be called for in a timely manner.

Night Operation/Anchoring

Your boat is equipped with navigation lights which must be turned on from dusk till dawn. The anchor or "all-round" light must be displayed while at anchor during the night in any area that experiences marine traffic. Never operate your boat after dusk if the navigation and anchor lights are not functioning properly.

Stern Drive and Outboard Trimming

If your boat is equipped with power trim, you can change the angle the propeller shaft by adjusting the trim switch. See your engine operating and maintenance manual for an explanation of the handling characteristics caused by trimming your stern drive or outboard.

Your boat is designed for quick acceleration, with a minimum amount of time spent in the transitional bow-up condition. Planing your boat is most easily and quickly accomplished by trimming the stern drive or outboard (if applicable) fully "down" or "in". However, once on plane, the stern drive or outboard should be trimmed "up" or out a little to avoid a called "plowing". Plowing can cause "bow-steering" or "over-steering" and increase fuel consumption. In this condition (plowing), if attempting a turn or encountering diagonal waves, a more abrupt turn than intended may result.

Steering and Controls

Your boat is equipped with hydraulic or powered hydraulic steering. The fluid level must be checked frequently to ensure that the hydraulic system is intact and that there is sufficient fluid in the lines for your steering system to function correctly. It is very important to use the manufacturer's recommended steering oil type. The correct oil type is shown on a decal located near the helm. Steering should only be adjusted by a qualified technician.

Consult your engine and control owners manuals for instructions on operating or adjusting your boats throttle and shift controls. Marine engines can only be started with the controls in the "Neutral" position. Always shift your controls to "Neutral" before starting the motor. If you **are** able to start your engine with the shifter in gear have your Kingfisher dealer service the boat **immediately** to correct the problem. Your vessel may also be equipped with a safety lanyard. The lanyard consists of a clip attached to your boat's engine controls and a snap-hook that attaches to the operator's clothing. If the operator is ejected from the boat or collapses, the lanyard pulls the clip from the controls and shuts off the engine. Before starting the engine ensure that this lanyard is in place and the clip fits snugly into its receptacle. For other engine starting instructions consult your owner's manuals.

Instruments and Gauges

Your boat will likely be equipped with an electric fuel gauge, a tachometer and a voltmeter, or an electric fuel gauge and one or more multi-function gauges. Other gauges may also be installed by your dealership. For instructions on the use of any multi-function gauges, consult the gauge manufacturer's owners manual. Always be aware of your gauge readings. Low RPMs can mean a fouled prop, high RPMs can indicate prop damage or cavitation. Return to your dealership for service if either condition persists. Your voltmeter should read between 12 and 14.8V. If the reading is too high or too low your battery or engine electronics could be damaged. Return to your dealership for service.

Fuel and Oil

Consult your engine manufacturer's owner's manual for the proper type of fuel to use and any appropriate additives. Your 4-stroke engine may either have a wet-sump oil system which means that it has an oil filled crank case, or a dry-sump oil system which means it has an oil tank. In either case always check your oil before starting the motor. Consult your engine owner's manual for the location of your dipstick, the procedure for checking the oil level, and the correct type of oil to use.

Avoid filling your boat's fuel tank to its full capacity and never park your boat with a completely full fuel tank. Fuel expands when the surrounding air temperature increases. This can cause your fuel system to overflow. Spilled fuel creates a fire and explosion hazard, can cause severe irritation to skin and can damage the paint on your boat. Paint damage due to spilled fuel is not covered by your warranty.

Getting to Know Your Boat

Read all your owners manuals completely. Get to know where each of your switches and circuit breakers are on the dash, and the location of in-line fuses for the bilge pumps and other accessories. Use the various component owners manuals provided with your boat to learn where your check points are located, and what acceptable levels and conditions are at each point. Get to know where your shut-offs are for power, seawater, and fuel.

Starting your Engine

Consult your engine and control owner's manuals for proper engine starting, break-in, and shut-down procedures.

Learning to Operate Your Boat

Take it easy for the first little while until you know how your boat responds to the throttle, turning and encountering waves. The transition zone between planing and displacement speeds can be abrupt at times. Also, a boat's sensitivity to steering, wave impact and even wind at high speed can be unpredictable, because there is very little of the boat in contact with the water's surface to provide stability and control. Practice docking your boat carefully a few times to get the feel of your boat.

Your Passengers

The operator is responsible for the safety of all passengers. All passengers must be wearing an approved personal floatation device suitable for their weight. All passengers should be familiar with the location and use of all emergency equipment on board.

Boarding the boat

Never attempt to board a boat while the engine is running, whether from the water or from the shore or dock. When boarding from a dock or the shore, ensure that the boat is secured so that it cannot move away from you while you are boarding. Use a step if necessary to board comfortably. When boarding from the water, use the swim platform, and the ladder if so equipped. If the boat is not equipped with a dive ladder, use extra care entering the water from the boat or boarding the boat from the water.

Stopping

We recommend that operators avoid stopping the boat abruptly because the boats wake can catch up with the boat and lift the rear of the boat suddenly. Slow the boat down gradually prior to stopping, and never use reverse gear as a brake.

Docking

Always enter marinas and dock areas at low speed ~ 5mph (8km/h) or as posted. Approach the dock head-on, turning the steering wheel sharply as you come closer to the dock, bringing the side of the boat you wish to dock on around to face the dock. Put the boat into reverse gear and turn the wheel or tiller in the opposite direction to pull the stern towards the dock, then put the boat in "Neutral". The boat should drift sideways, gently towards the dock. Practice this often, carefully and at low speeds. Take advantage of any assistance you may be offered when docking.

Leaving a Dock

When leaving a dock, check for traffic and start the engine in neutral. Then have a passenger or someone on shore untie the boat and push the boat away from the dock. Once the boat is clear of the dock by approximately 1m (3 ft) and is clear of any obstructions or other boats, put the boat in gear and proceed with caution at the slowest throttle setting until the boat is into open water.

Beaching

When beaching the boat, it is critical that the motor be turned off and the motor or leg tilted up so that the propeller does not strike sand or rocks on the beach. When approaching the shore for beaching, slow the boat down so that a sudden stop will not cause jarring to the passengers or damage to the boat. As you approach the beach and the water becomes shallower turn the motor off, tilt the drive up fully, and drift onto the beach. If you don't have enough momentum, use the paddles on your boat to assist you. Once on the beach, disembark from the boat over the bow and secure the boat to a fixed object on shore. Take care in tidal waters that the boat is not beached long enough for the tide to come in and carry your boat away, or for the tide to go out and leave your boat stranded.

When you're ready to leave the beach, have your passengers board the boat, untie your boat from shore, and push it into the water. If the bow is wedged onto the beach, moving passengers to the stern of the boat can help.. Do not lower the outboard until there is sufficient water to avoid engine damage.

Post Operation Checks

- After you are finished enjoying your boat for the day return to the dock or boat ramp and turn your motor off.
- Check propeller or impellor for nicks and tangled debris
- Check the bilge for gasoline and water
- Remove garbage from the boat
- Tilt the outboard and trolling motor to the secure traveling position
- Secure all loose items prior to trailering
- When the boat is removed from the water
- Wash the boat down with fresh water and pull the hull's drain plugs to remove any water from the boat, securely replacing them afterwards.
- Consult your engine owners manual for special instructions on purging water from your boat's exhaust system and flushing your boat's cooling system
- Perform any post operation maintenance specified in your engine owner's manual

Trailer Checklist

- Refer to local and regional laws to ensure that your trailer complies with regulations
- Check the trailer for any loose fasteners, corrosion or damage.
- Check the tires for proper inflation and wear.
- Check all trailer lights for function.
- Secure the bow of the boat to the trailer with the winch line and safety chain.
- Secure the transom of the boat to the trailer with the supplied tie-downs.
- Check the trailer hitch on your vehicle and make sure that it is the correct size and load rating for the trailer you are towing.
- Take down the fabric top and stow it securely.
- Check your trailer wheel hubs periodically during your trip to ensure that they are not overheating.
- Secure the trailer tongue over the hitch on your vehicle using the release handle and locking pin on the trailer.
- Attach the trailer's break-away chains to your vehicle. Properly secured chains cross over each other.

Trailering your Boat

Please see your dealer regarding state or provincial regulations.
Westwinn recommends bunk style trailers for all of our aluminum boats. Damage due to trailering is not covered under warranty.

Setting up the correct trailer fit for your boat and vehicle is very important. Your trailer retailer can ensure that your trailer is set up properly for your boat. An improper trailer setup can do cosmetic as well as visible and unseen structural damage to your boat. Westwinn strongly recommends having a technician from an authorized Kingfisher dealership ensure your trailer is properly set up.

Before trailering your boat, become familiar with how your vehicle handles while towing a trailer. Practice making turns and get to know the turning clearance that you will require while towing. Practice backing up with your trailer and get to know how quickly your trailer will respond to small movements of your steering wheel. An empty parking lot is an excellent place to practice.

Before towing your boat, check the following:

- Read the trailer manufacturer's owners manual.
- Check for correct function of the trailer braking system. (refer to trailer manufacturer's owners manual.)
- The boat should be level and sit squarely on the trailer.
- The winch strap and safety chain should be securely fastened to the bow eye.
- Tie down straps should be attached from the eyehooks in the transom to the rear of the trailer (cinch style).
- When trailered correctly, the aft end of the bottom of the hull should line up as close as possible with the end of the trailer bunks.

⚠ CAUTION

Improper trailering may cause irreparable damage to your boat. If you are unsure about how to properly secure your boat, please contact your authorized Kingfisher dealer.

Handling of the boat on and off the trailer as well as towing a trailer should never be attempted on a trial and error basis. If you are a novice boater or have not been boating in a while, please ask your dealer to show you the proper handling of the boat on and off the trailer. Use special care for boats equipped with bow pulpits and anchor systems.

For trailer maintenance parts and warranty information, please refer to the trailer manufacturer's owners manual.

Launching

When you arrive at the boat ramp remove the rear tie-downs from your boat and perform all pre-operation checks. Ensure the drain plug is in place. When safe to do so, back your trailer slowly down the ramp until the underside of the boat is touching the water. Stop your vehicle and set the parking brake. Disconnect the trailer safety chain from your boat and let out a few feet of winch line. Ensure you do not let out enough winch line to become tangled on your vehicle or the trailer. Back your trailer down the ramp until the boat is ready to float free. Set your parking brake. Disconnect your winch line from the boat and attach a long mooring line to the bow. Guide your boat off of the trailer and secure it to the shore using the mooring line or have someone on shore hold the line. Park your trailer and vehicle. Board your boat. Ensure that there is enough water under your boat before lowering the motor.

Loading

Tilt your outboard motor into the traveling position. Moor your boat on shore or have someone on shore hold the mooring line. Carefully back your trailer down the ramp when safe to do so until the trailer bunks are just underwater. Set your parking brake. Guide your boat onto the trailer as squarely between the trailer fenders as possible. Attach the trailer winch line to the bow eye of the boat, detach the mooring line and winch the boat the remainder of the way onto the trailer. Attach the safety chain to the bow eye of the boat. Remove your boat from the water and perform all post operation checks prior to leaving the parking lot. Attach the tie downs to the transom, stow all loose items securely and store the boats fabric top in the down position. Perform all trailer checks.

SECTION 5 - MAINTENANCE AND CARE

General

Kingfisher uses marine grade aluminum in the construction of its boats. Special care must still be taken to minimize electrolytic action (galvanic corrosion) in any water environment. Avoid dissimilar metals coming in contact with aluminum surfaces (e.g. all ferrous metals including steel, brass, or copper fittings). If there is a need to attach fittings made of a dissimilar metal make sure that a non-wicking gasket or sealant is placed between the fitting and the boat hull. If the hull is drilled for any reason, a sealant such as a marine grade silicone should be used as a barrier between the hull and components.

Salt Water Operation and Care

The high electrically conductive nature of salt water intensifies corrosive action on aluminum. The hostility of the marine environment affects most materials - metals, wood, plastic, fibreglass, etc.

Kingfisher boat hulls are manufactured with marine grade aluminum alloys such as 5086 - H32 and 5052 - H32. Marine grade aluminum alloys produce a natural protective film - either a whitish or darker surface layer - when exposed to oxygen or water. Although extremely thin, (approx. 5 to 10 millionths of a millimetre), this oxide film forms a corrosive-resistant barrier. Experience shows that large and small vessels constructed of these alloys can stay in constant saltwater service for decades.

Cleaning

Wash your boat with soap and fresh water the way you would wash a car. Power washing at more than 1000psi may cause paint to delaminate. Pull the hull drains if practical and allow the boat to dry thoroughly. Clean all surfaces and apply a coat of automotive or marine grade wax protectant two to three times annually to protect your painted finish from the elements, and to seal the metal where any paint scratches may have occurred. Always spot test new cleaners and waxes before using. Marine growth, barnacles and other debris deposits should be removed from the hull prior to storage.

Never use a metal brush of any kind on the exterior surface of your boat. Do not use abrasive or acidic cleaners on exposed aluminum.

Touch Ups:

For small scratches that need repainting, clean the area to be painted of wax, grease and dirt. Apply the touch up paint. When the paint is dry, (at least 24 hours) polish the area with an automotive cutting wax compound.

For larger scratches that need repainting, please see your authorised Kingfisher dealer or an automotive body shop.

Cabinets and Countertops:

Laminate countertops are offered on all Kingfisher models. To keep the maple cabinets and laminate countertops in optimum condition, clean them periodically with a damp rag and mild detergent or a wax based furniture polish.

NOTE: Any use of abrasives or harsh caustic cleaning products will permanently harm the finish of the cabinets and countertops.

Floor Coverings:

Treat vinyl covered floors the same way you would household vinyl. Periodic vacuuming of marine carpeting is recommended.

Seats & Windows:

Clean vinyl seats only with a cleaner specifically made for vinyl. For windows, any commercial window cleaner will work satisfactorily. Caution should be exercised to avoid spraying cleaner on painted areas of the boat as this can damage painted surfaces.

Maintenance and Adjustments

Periodic Inspection Checklist:

- Check entire fuel system for leaks.
- Check all engine mount fasteners for tightness.
- Check all deck fasteners for tightness.
- Inspect hull and motor mounts for cracks and other signs of fatigue such as deep scuffing. Check hull drain plug.
- Check bilge for oil, water and gasoline.
- Check steering lines or cables and shift cables for wear and ease of function.
- Check oil level.
- Test battery and check for damage or corrosion.
- Test all switches, lights, horn, and accessories.
- Check for burnt out lights.
- Check seat fasteners and swivels for tightness and wear.
- Inspect zinc hull anode and replace if required.

Inspecting the Fuel System:

The fuel system can be accessed through removable panels in the transom and in the deck. Remove the panels and check the fill fitting, the tank fittings and the vent lines at the filler cap and at the tank for signs of leakage. Also check the hoses for signs of wear, chafing and other deterioration. Replace any damaged fuel hoses immediately.

Inspecting the Steering:

Your boat will come with an owner's manual for the type of steering system that your boat is equipped with. Refer to this manual for information on proper maintenance. Never operate your boat with a damaged or improperly functioning steering system. Confirm that the hydraulic reservoir is full, and check all hoses and connections are leak-free.

Inspecting the Shift Cable/Throttle Cable:

Your boat will come with a manual for the type of engine controls fitted. Refer to this manual for information on proper maintenance. Never operate your boat with a damaged or improperly functioning set of controls, cables or linkages.

Inspecting the Circuit-Breakers and Fuses:

Your boat is equipped mainly with resettable circuit breakers. These will pop out if overloaded, and can be pushed back in with a fingertip to reset them. There is an in-line fusible link coming off the main battery lead to your distribution panel. It is a Type ATC 30A fuse. Have a spare available in case you need to replace it. Inspect the fuses and the electrical system of your boat monthly. Shut off the main electrical switch by your battery (or disconnect the battery) and inspect the accessories. Trace the circuits and inspect them for chafing and for broken or damaged wires, plugs, switches or connectors. Never bypass a fuse or circuit breaker. If you are unable to find the cause of the blown circuit, have your boat serviced by your Kingfisher dealer.

Servicing Under the Deck:

Access to the bilge and fuel tank is gained by simply unscrewing the aluminum service panel on the aft deck. If it is necessary to replace the floorboard screws, ensure that you use high quality stainless steel screws.

Transducer Mounting Plates:

Transducer brackets are a standard design feature. They are intended to reduce the need to drill holes directly into the hull below the water line. The plates are located at the base of the transom, where the hull meets the rear of the boat. Simply attach your transducer(s) directly to this plate on the transom. Your hull also has a ½" thick plate mounted in the stern area of the bottom inside the hull which can be used to mount a thru – hull transducer. Extreme caution must be used when installing this type of transducer to avoid leakage and potential injury or death.

Sacrificial Anodes:

Your Kingfisher hull is fitted with two sacrificial anodes welded to the stern of the boat. By welding on the anodes, Kingfisher ensures that the best possibility contact with the hull has been achieved. The boat's motor(s) will also be fitted with sacrificial anodes. Careful inspection and replacement of worn anodes are essential to keep the hull in the best condition possible. Failure to replace a worn anode will result in hull damage and may void your warranty. See your authorized Kingfisher dealer for sacrificial anode replacement information.

Storage and Winterizing

Westwinn recommends that your boat be winterized by an authorized Kingfisher dealer. Your boat should be stored in a covered, well ventilated area to prevent fungus, mold and mildew. It is best to store it with a breathable cover over it to prevent corrosion and staining promoted by leaves, tree sap and other debris, and to prevent rainwater from accumulating inside the boat.

Engine:

Refer to engine manufacturer's owners manual for information and instructions on preparing your engine(s) for winter storage.

Fuel System:

Top off the fuel tank with fresh fuel to approximately 7/8 full, adding a fuel conditioner and stabilizer. Consult your Kingfisher dealer for fuel conditioner and stabilizer purchase information). A 7/8 full fuel tank is less likely to develop condensation, reducing the risk of contaminating the fuel. This will also prevent the fuel from expanding and running out of the fuel vent hose. Running treated fuel through the engine during the engine winterization process will also help protect the fuel system.

> ***NOTE:*** *The use of fuel conditioner and stabilizer eliminates the need to drain the fuel system. Consult your dealer if you prefer to drain the fuel system.*

Always store your boat in a well ventilated area. Unlike a car, your boat is not equipped with a vapour-tight fuel tank.

WARNING:

GASOLINE VAPORS CAN EXPLODE IF IGNITED, CAUSING SERIOUS INJURY OR DEATH. INSPECT FUEL SYSTEM FOR LEAKS REGULARLY.

Batteries

The battery(s) should be removed for winter storage. Batteries can suffer permanent damage as a result of excessive or prolonged periods of discharge. Use terminal paste to prevent corrosion on the battery terminals and clamps.

1. Turn off the battery switch(es) and remove the battery(s).
2. Inspect each battery for cracks or leakage and ensure the battery terminals are free from corrosion and dirt. Clean the battery's casing and terminals with a mixture of baking soda and water (one tbsp of baking soda to one-cup water). Apply Dielectric grease or petroleum jelly to the battery terminals and to all exposed connectors.
3. If the battery is to be stored for a long period of time, store the battery in a cool, dark place. Check the specific gravity of the battery fluid at least once a month and recharge if the battery gets too low. Specific Gravity: 1.28 at 68 degrees F. Sparks, cigarettes, and open flame can lead to a hydrogen explosion. Your battery should be kept fully charged at all times.

WARNING:

BATTERIES CAN PRODUCE EXPLOSIVE HYDROGEN GAS.
BATTERY EXPLOSION CAN LEAD TO BURNS, INJURY AND DEATH
ALWAYS SERVICE BATTERIES IN A WELL VENTILATED AREA
KEEP AWAY FROM SPARK AND OPEN FLAME

Drain Plug:

Always remove the drain plug from the boat when storing it for long periods of time. This will ensure that any water that has collected in the bilge will drain. When storing the boat the bow should be slightly higher than the stern, this will help excess bilge water to drain fully. Inspect the drain plug when re installing it and replace it if necessary.

Fresh Water System:

Drain fresh water and grey water holding tanks. Once tanks have been drained, add RV anti-freeze and ensure that it is circulate throughout complete water system. Ensure that all fresh water has been flushed from all faucets and pumps and that antifreeze is present in all of the water lines.

Ensure that hot water system is drained, flushed and winterized with R.V. anti-freeze.

⚠ CAUTION

Use RV anti-freeze solution designated as safe for potable water systems. Do not use automotive or commercial ethylene glycol based or alcohol-based products**.**

Trailer:

We recommend that your trailer be winterized by an authorized Kingfisher dealer or by a qualified technician. The trailer frame should be washed and internally flushed if used in salt water. Wheel bearings and breaking system can be permanently damaged if not properly winterized and free of all water.

Re-commissioning Boat After Storage

Engine:

Refer to the engine operator's manual for detailed information on re-starting after winter storage.

Batteries Checklist:

- Terminal posts – clean with wire brush or steel wool
- Cable clamps – attach positive (+) cable first, then negative (-) cable
- Wiring – inspect for deterioration and service or replace as required

Steering System :

Have steering system checked by and an authorized Kingfisher dealer.

Fuel System:

Inspect for fuel in the bilge, loose connections, worn hoses, and leaks.

Miscellaneous Items Checklist:

- Through hull fittings – Check to ensure water passage is unobstructed and hoses and fittings are serviceable.
- Navigation lights – Check for proper operation.
- Bilge pumps – Check all pumps and float switches for correct operation
- Wiring – Check for loose connections
- Switches – Check for proper operation of all equipment and components.
- Bilge blowers – Check for proper operation; turn blowers on and place hand over hull blower vent to make sure air is exiting from vent.
- Anchor lines and gear – Inspect and replace if necessary.
- Hull drain plugs – Installed.
- Bilge – Clean thoroughly.
- Engine fluids – Check for proper levels as described in the manufacturer's owners manual.

Trailer:

Refer to the trailer manufacturer's owners manual for re-commissioning of the trailer after storage.

SECTION 6 – TROUBLESHOOTING

The following trouble shooting information is a basic general guideline to possible issues. Always consult your authorized Kingfisher dealer if issues persist. Check engine operator's manual for detailed engine trouble-shooting information

Troubleshooting chart

Symptom	Probable Cause	Corrective Action
Electrical system dead	Battery switch turned off/Main fuse blown	Turn main switch on / replace main fuse/ inspect electrical system for overload / short circuit
Wipers or Bilge Pump or Light won't work	Blown circuit breaker / fuse Pump plugged or hose disconnected	Inspect component and circuit Unplug pump or connect hose Have boat serviced
Fuel gauge not functioning	No fuel in tank Loose or disconnected wire Faulty gauge	Fill fuel tank Check sending unit wires Have the sending unit or gauge serviced
Tachometer not functioning	Loose wire Faulty sensor Faulty gauge	check sending unit wires Have the sensor or gauge serviced
Boat performance is poor or boat vibrates	Propeller or outboard leg is fouled Incorrect propeller Boat is overloaded or poor load distribution Motor is not trimmed properly Engine damage or problem Hull damage	Turn off engine and inspect prop and motor leg. Change prop Check and adjust boat loading. Check for water in bilge Adjust trim angle Consult your engine manual Inspect hull bottom for damage
Abnormal amount of water in boat	Boat has a leak Hull drain plug missing	Bail water out Turn bilge pump on Plug leak Insert hull drain plug/ call for help
Engine quits/won't start	Engine problems Dead battery	Consult engine owner's manual Replace battery / have boat serviced Use paddles / call for help
Engine coughs / sputters	Inadequate Fuel Supply Dirty spark plugs	Confirm fuel in tank, clear obstructed or pinched lines, clean fuel filters /strainers, check fuel filter/sediment bowl for water in fuel Replace spark plugs
Rough Ride	Excessive speed Engine trimmed incorrectly Poor load distribution	Reduce speed Adjust trim Adjust loading
Alarm buzzer sounding	Engine problems – low oil or overheating	Turn motor off immediately Consult engine owner's manual Have boat serviced

Boat persistently smells of gasoline	Fuel spilled into bilge/fuel system leak	Check bilge for gasoline/evacuate boat/inspect fuel system for leaks

Symptom	**Probable Cause**	**Corrective Action**
Engine runs hot	Low oil or coolant Broken / stretched belt Plugged water inlet Damaged water pump or thermostat	Check oil level/coolant level (after engine cool down) Replace broken/stretched cooling system belt Clear raw water intake Replace raw water pump Replace thermostat Replace water pump impeller
Engine stops suddenly	Ignition or battery problems Safety lanyard pulled	Check ignition wiring and fuse Check battery connections Check safety shut off lanyard Check engine manufacturer's operations manual for more detailed information
Boat persistently smells of gasoline	Fuel spilled into bilge/fuel system leak	Check bilge for gasoline/evacuate boat/inspect fuel system for leaks
Erratic Steering	Trim set incorrectly Steering system loose or low on fluid	Adjust motor/drive trim Tighten steering wheel Bleed hydraulic lines Check oil level

Electrical System

Trouble shooting an electrical problem:

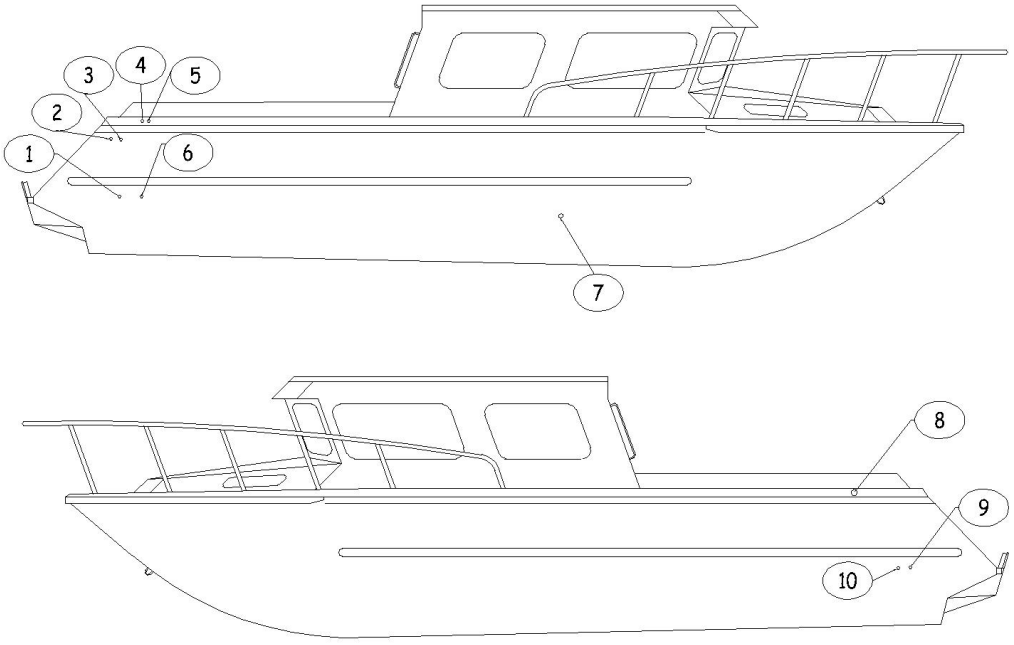
- Check the circuit breakers on the control panel
- Check the main fuse
- Check wire lead connections
- Check for clean battery terminals
- Check battery for sufficient charge

Consult an authorised Kingfisher dealer if the problem persists.

SECTION 7 – SYSTEMS AND OPTIONS

Thru - Hulls

25' / 27' Thru-Hull layout

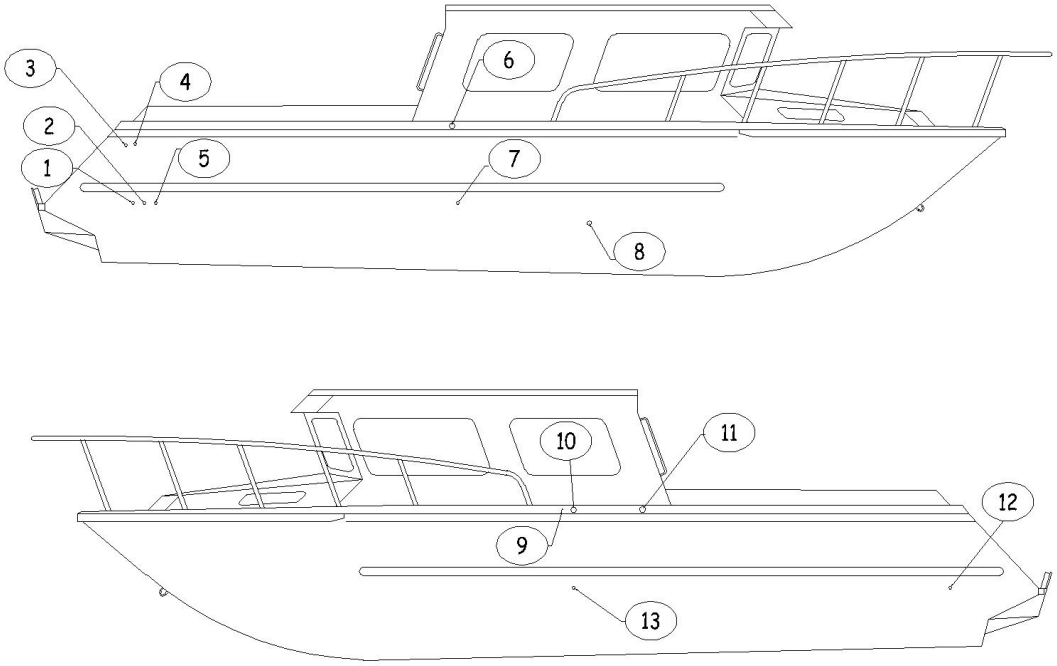


1. Baitwell drain
2. Bilge pump discharge
3. Bilge pump 2 discharge (25' / 27' only)
4. Grey water tank vent (25' / 27' only)
5. Grey water pump out (25' / 27' only)
6. Livewell discharge (Optional)
7. Sink drain (25' / 27' only)
8. Fresh water deckfill (25' / 27' only)
9. Fish box macerator discharge (25' / 27' only)
10. Grey water overboard discharge (25' / 27' only)

NOTE: *On 24' / 25' / 27' models the fuel fill cap is located on the port side of the transom.*

IMPORTANT: *Check with the Coastguard and local authorities prior to discharging any grey water overboard.*

28' / 30' Thru-Hull layout



1. Baitwell drain
2. Fish box macerator discharge
3. Main bilge pump discharge
4. Secondary bilge pump discharge
5. Livewell drain
6. Fresh water deckfill
7. Cabin bilge pump discharge
8. Sink drain
9. Grey water tank vent
10. Grey water pump out
11. Fuel fill
12. Starboard side fish box macerator
13. Grey water overboard discharge

IMPORTANT: *Check with the Coastguard and local authorities prior to the discharging of grey water overboard.*

NOTE: *Through hull location may vary due to individual options selected.*

WARNING

SEVERE INJURY OR DEATH MAY RESULT IF YOU IGNORE ANY OF THE FOLLOWING. Before operating your boat, become familiar with all controls. Consult your authorized Kingfisher dealer about any controls or functions that you do not understand.

Bilge Drain

The bilge drain is located at the lowest part of the bilge at the stern of the boat. When draining the bilge or storing the boat for longer periods of time, the drain plug should be removed. When replacing the drain plug it is advised that a small amount of marine sealant be applied to the threads before the plug is installed.

Steering system

The steering system requires checking each time that the boat is taken out on the water.

1. Check to ensure that the steering system operates correctly and smoothly prior to each trip out on the water.
2. Poor or erratic steering may be a sign that the oil level is low, or that fluid or air are leaking out of or into the system. Leaks can occur in the steering hoses , the cylinder, or at connection points. **Do not attempt to operate your boat if you suspect a steering system problem.**
3. Consult an authorized Kingfisher dealer if the steering system is not functioning correctly. Only a qualified technician should adjust steering systems. Ensure that the steering system is lubricated at the beginning of the boating season and properly winterized at the end of the season.

Fuel System

CAUTION

When filling the gas tank care should be taken not to spill fuel onto the paint of your boat. Any fuel that may be spilled on the paint should be immediately wiped off. Keep tanks approximately 7/8" full during boating season to avoid condensation and fuel expansion. You may wish to have a fuel separator installed to prevent water from entering the engine(s).

If the fuel tank needs to be cleaned or water is found in the fuel system, refer the boat to an authorized Kingfisher dealer.

WARNING

GASOLINE AND ITS VAPOURS ARE HIGHLY FLAMMABLE AND EXPLOSIVE. To avoid serious injury or death from fire or explosion, have fuel system inspected by an authorized Kingfisher dealer, at least once per year.

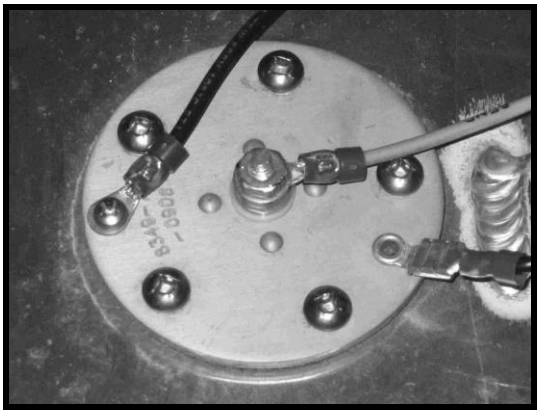
The fuel that comes from commercial fuel stations is stored in a cool underground tank. It will expand when it heats up as much as 3 to 4 gallons on a regular sized tank. The fuel can then spill over onto the boat through the filler vent.
Paint that is damaged by fuel spillage is not covered under warranty.

Recommended Fuel:

For recommended fuel, consult the Engine manufacturer's owners handbook.

Fuel Sending Unit:

The fuel sending unit is a mechanical device that is located in the fuel tank. It sends a signal to the fuel gauge monitoring the amount of fuel that is present in the tank.



Fuel sending unit

On 24' Kingfishers the fuel sending unit is located underneath a 4" plastic deck plate screwed to the floor panel directly behind the cabin.

On 25' & 27' Kingfishers the fuel sending unit is accessed by removing the screwed on board directly below the cabin door.

On 28' & 30' Kingfishers the fuel sender is located beneath a 6" screw out access hatch in the rear deck plate.

NOTE: *The fuel sending unit will only give an accurate reading when the boat's fuel tank is level. Do not depend on the fuel gauge as your only means of determining fuel levels.*

Fuel Leak Check:

⚠ CAUTION

Before operating the boat, always check fuel system for leaks. Open the bilge doors and visually check all fuel hoses, vent hoses, fittings, and the tank for leaks. If no leaks are found, carry on with your pre-operation inspection. If a leak is found or strong gasoline odor is detected, **DO NOT START THE ENGINE**. Consult an authorized Kingfisher dealer.

In the case of an inboard engine, the engine box will need to be removed to perform this inspection.

Engine Compartment Blower (2850 & 3050 Models Only):

⚠ WARNING

Fuel vapors are flammable and explosive. Before starting any inboard engine, operate the blower for 4 minutes and then check the engine compartment bilge for fuel or fuel vapors. The blower system draws fresh air from outside of the boat to the engine compartment.

To operate the engine compartment blower,

1. Turn on the dashboard mounted blower switch. Place your hand in front of the blower vent on the rear sides of the boat to confirm that the blower is functioning.
2. Run the blower for a minimum of four minutes and then open the engine cover to check for fuel vapors in the bilge.
3. If vapors are present, **DO NOT START THE BOAT**. Consult an authorized Kingfisher dealer.

Kicker Motor Fuel Quick Disconnect Option:

A quick disconnect option is offered for the kicker fuel supply line. The quick disconnect is located on the starboard side of the transom.

The quick disconnect allows the fuel supply line to the kicker to be easily detached from the transom bulkhead. To do this, grasp the fitting located at the transom end of the kicker fuel supply hose and pull back firmly on the fittings collar.

The safety fuel shut off valve is clearly labeled and located behind the rear bilge doors.

When the kicker is not in use, always turn off the fuel supply shut off valve.

Re-fueling the Boat:

1. Do not smoke when refueling. Keep away from all other ignition sources.
2. Stop engine and turn off ignition.
3. Refuel in a well-ventilated area. If the boat is in the water, be sure it is securely moored prior to refueling. Avoid overfilling the tank as fuel expansion may result in a fuel spill. Gasoline spilled directly on the hull paint of your boat may result in paint damage that will not be covered by warranty.
4. All passengers must be out of the boat during refueling.
5. Open the gas cap and begin refueling. Refer to hull plan for location of gas cap.
6. When tank is filled to the appropriate level, replace the gas cap.

⚠ CAUTION

If gasoline spills onto your skin, immediately wash with soap and water. Change clothing if saturated with gasoline. If gasoline gets into your eyes or gasoline fumes are inhaled, seek medical attention. If gasoline is swallowed, contact a poison control center and seek immediate medical attention.

Engine oil and fluid levels:

For engine oil and other engine fluid levels, consult the engine manufacturer's owners manual.

For easy reference please note the engine manufacturer's recommended oil specifications here:

Main Engine(s) Crankcase Oil: _____

Main Engine(s) Gearcase Oil: _____

Main Engine(s) Power Trim Oil: _____

Kicker Motor Crankcase Oil: _____

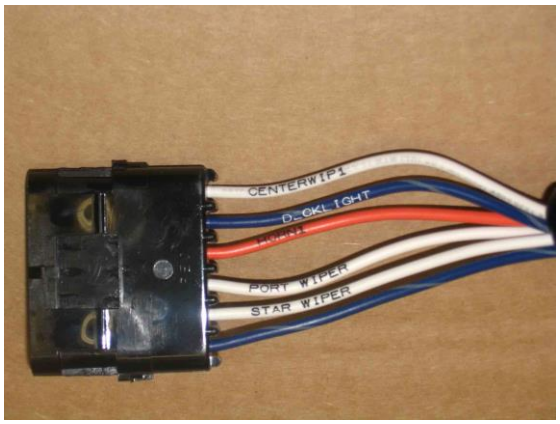
Kicker Motor Gearcase Oil: _____

Kicker Motor Power Trim Oil: _____

Electrical System

Kingfisher Wiring Harness:

Kingfisher's standard main wiring harness has been spliced and fitted with female weather proof plugs for each option offered.

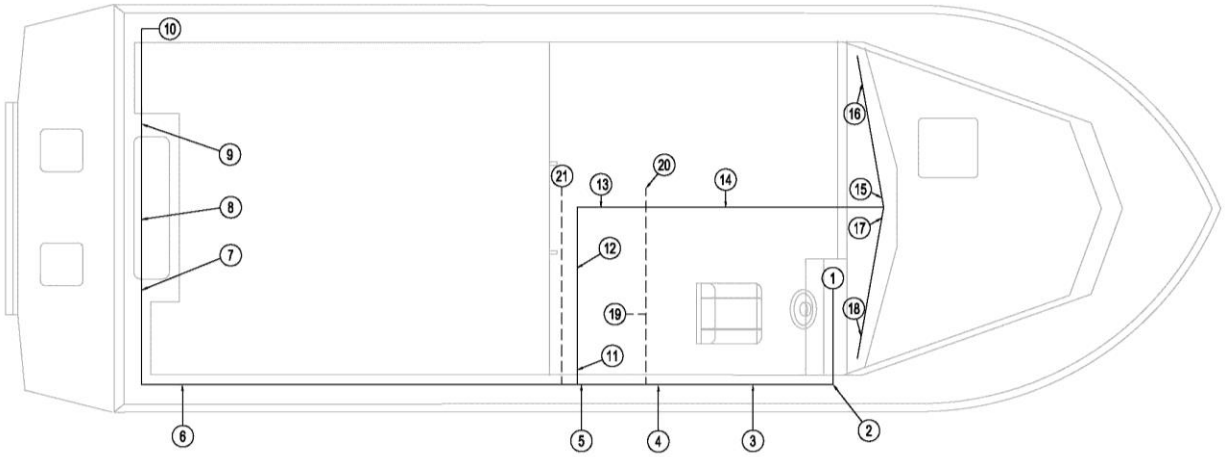


Weather proof female plug

Each wire contained within the main harness is clearly labelled every 10 to 12 inches, with its intended option usage.

If a boat has not been factory installed with a specific Kingfisher option, the wiring harness may still have been spliced and plugged to provide a connecter to accommodate the installation of that option after the boat has left the factory.

The following diagrams shows general wiring harness routings and plug locations for standard and optional features:

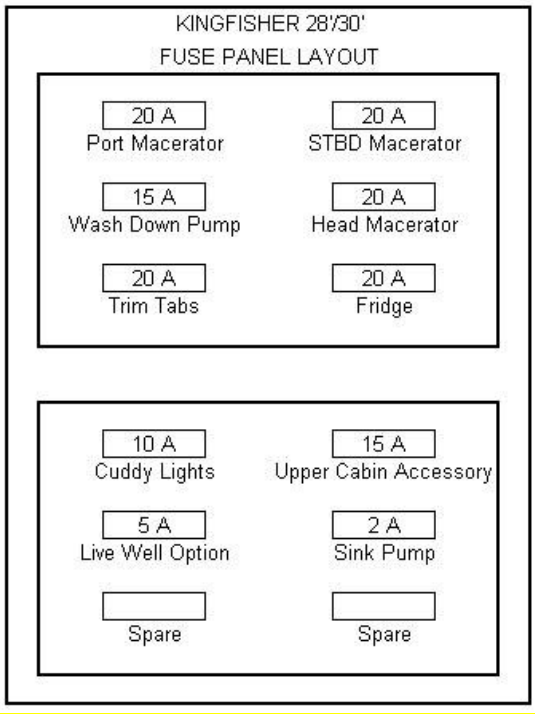


1. fuse panel at ground block
2. cuddy light connection
3. AC panel lighting, DC fridge switch, galvanic isolator
4. carbon monoxide (CO) detector, electric faucet, fridge
5. toilet macerator switch
6. washdown switch, fishbox switch
7. washdown pump, toilet macerator (25/27 only), fishbox macerator (28/30 only)
8. battery switch, main fuse, bilge fuse
9. bilge pump, livewell pump (option), fishbox macerator, sink pump (25/27 only)
10. fishbox macerator switch (28/30 only), livewell switch (option)
11. head stall light, anchor light
12. deck light
13. center shroud lights
14. center shroud lights
15. center wiper, radio (option)
16. port wiper, port nav. light
17. horn
18. starboard wiper, starboard nav. light
19. shower sump (option)
20. sink pump (28/30 only), water system (option, 28/30 only)
21. macerator pump (28/30 only), cabin bilge (28/30 only)

Fuse Panel:

The fuse panel is located on the carpeted bulkhead underneath the dash.

A fuse panel label is located under the dash console. This label shows the location of the fuses for each option.



Example of a fuse panel layout

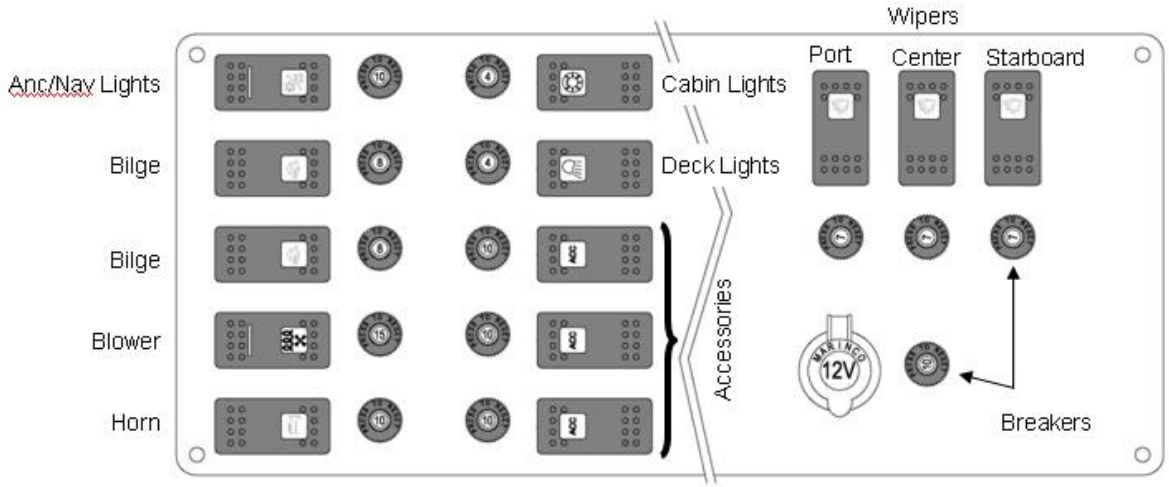
When a fuse is suspected to be blown, the following procedure should be followed:

- Turn off the component or appliance
- Turn the battery switch to the off position
- Locate and remove the blown fuse
- Replace the blown fuse
- Turn on the battery switch to the desired location
- Turn on the component or appliance

IMPORTANT: *If a fuse burns out continually, consult your authorized Kingfisher dealer.*

NOTE: *As part of the pre-trip safety check list, it is a good idea to make sure that there is a selection of spare fuses on board that can be used in case of emergency.*

Dash panel:



28' / 30' Dash Shown

Breakers:

The breakers are located next to each of the dashboard switches and the 12v accessory plug in. When the breaker is tripped, the button will pop out. Simply press the breaker button back in to re-set. If the same breaker pops continually, consult an authorized Kingfisher dealer.

NOTE: *The dash layout may change depending on the boat model or options chosen.*

Navigation Lights & Horn:

The correct function of the navigation lights and horn are critical to the safe operation of the boat.

If the navigation, anchor lights or horn are not operating correctly,

- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts.
- Check that the main 30 amp fuse and the fuse under the dash have not blown.
- Check that the bulbs in the lights are not blown.
- Once the above has been checked, if the lights or horn are not functioning correctly consult an authorized Kingfisher dealer.

NOTE: *If the boat is going to be operated at night or in poor visibility, the navigation light and the anchor light must be turned on. If the boat is being anchored at night or in poor visibility, the anchor light must be turned on. Check the local State or Provincial guidelines or with the U.S. or Canadian Coastguard for this and further safety regulations.*

Heater (Optional):
25', 27', 28' and 30' boats may be fitted with an optional heater. The dash heater switch will operate the dashboard heater fan. The rear bus heater which is located below the port side countertop is operated by the Accessory 1 switch.

Blower:
All inboard models are fitted with an engine compartment blower. The blower is controlled by the dash mounted switch.

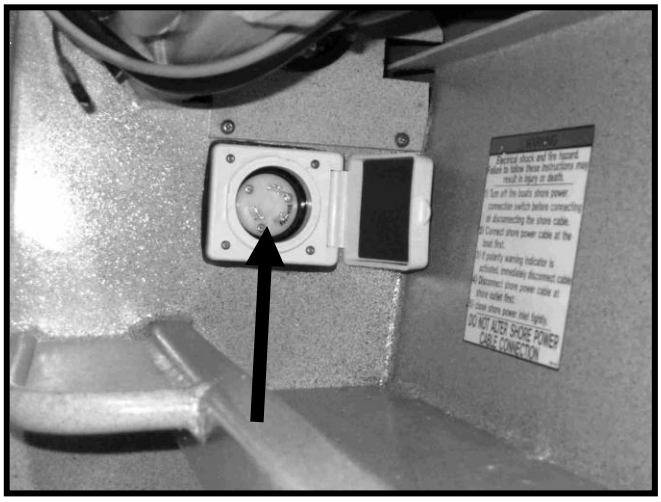
Cabin lights:
The cabin lights are controlled by the cabin light switch.

Deck lights:
The deck light illuminates the cockpit area of the boat and is operated by the deck light switch.

Wipers:
The wipers are controlled by operating their corresponding dash mounted switches.

Shore Power System (Optional):
This option is available on 25', 27', 28' and 30' Models. The shore power breaker panel is located to the starboard side of the helm seat.

The shore power option enables the boat user to run the boats electrical components without the use of the internal battery system. To hook up to shore power:



- Ensure that the AC main 30 amp switch on the shore power panel is turned off.
- Plug the shore power cord into the boat's shore power socket. The boat's plug in socket is located below the starboard side gunnel in the top side tray.
- Plug the shore power cord into the dock power supply.
- Turn on the shore panel AC main 30 amp switch.
- Check the shore power panel for reverse polarity warning lights.

  These lights are located adjacent to the panel's breakers. If reverse polarity is indicated immediately disconnect the shore power cord, and consult an authorized Kingfisher dealer.

A green light on the shore power breaker panel will be illuminated when the system is operational. Each breaker in the breaker panel is clearly labelled with its intended use.

If a component or appliance trips the breaker:

- Turn off the appliance or component
- Move the breaker switch back into the on position
- Turn on the component or appliance

***NOTE**: If an appliance or component trips its breaker continually, do not use the appliance or component and refer to an authorized Kingfisher dealer.*

The shore power system is installed with two 110v power receptacles. The first is located next to the breaker panel with the second located below the rear port side counter top. These receptacles are GFI protected and have a breaker button built into the front of the receptacle. If the GFI breaker trips, the button will pop out. Depress the button to re-set the breaker. There is also a test button located on the face of the GFI plug in, simply depress the test button until the built in breaker button pops out. This test should be carried out frequently to ensure that the circuit breaker is working correctly. Be sure to re-set the breaker button before using the plug in.

Galvanic Isolator:

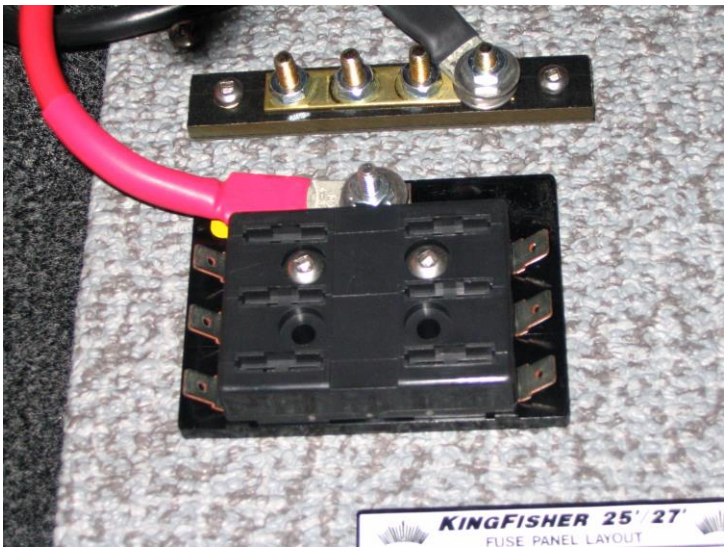
Every boat that receives a shore power package also receives a galvanic isolator. The isolator works by interrupting galvanic circuits created with other boats and the dock when the boat shore power is plugged in and operational.

The galvanic isolator's operational indication lights are visible behind the helm seat through an access hole in the carpeted shore power panel mounting board.

For operational instructions please refer to the manufacturer's owners manual.

Accessory Wire Harness (Optional):

An optional wiring upgrade is available on all Kingfisher models.
This consists of a direct power feed from the battery switch to a fuse block and bus bar located underneath the dash.
The positive feed is fused with a 30 amp inline fuse located close to the battery switch, behind the bilge doors.



If components that are wired into the upgrade wiring system fail to operate:

- Confirm that the battery switch is turned on.
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts.
- Check that the 30 amp inline fuse has not blown.
- Check that the component fuse has not blown, and that the component is not faulty.
- Once that all the above has been checked, if the component is still not operating, consult an authorized Kingfisher dealer.

AC/DC Fridge:

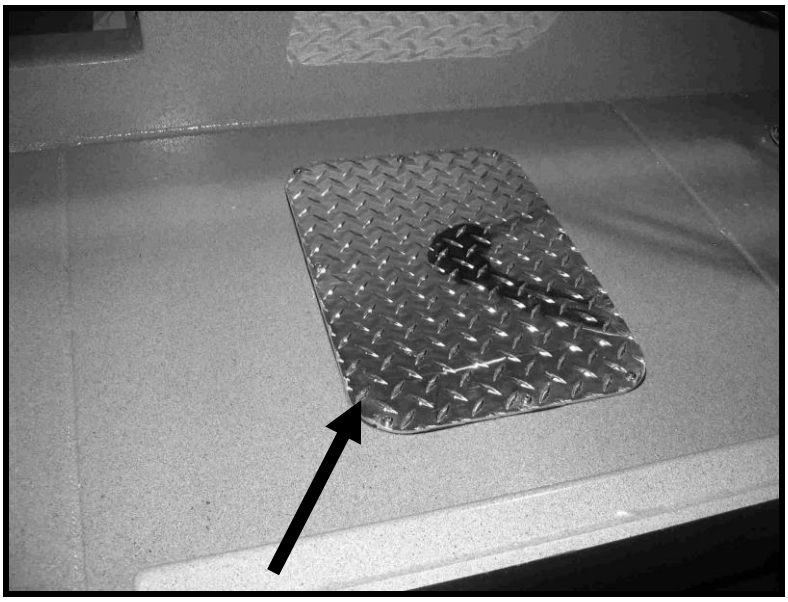
An AC/DC fridge option is provided with the shore power package. When the boat is moored and hooked up to shore power, simply plug the fridge into the GFI receptacle next to the breaker panel and the fridge will then run directly off of the shore power. Once the boat leaves the dock, unplug the fridge and it will automatically switch back to 12v power.

Batteries:

Battery location: 25' / 27' Models

The batteries are located in a 25' or 27' Kingfisher, inside the motor pod and are accessed through the bilge doors or by unscrewing the rear platform checker plate covers. The third battery in the triple battery management system option is also located within the motor pod.

NOTE: *When re-installing the checker plate motor pod covers, care should be taken to ensure that the covers are sealed to the motor pod. The foam sealant tape around the edge of the cover plates may need replacing if a full seal cannot be achieved.*



Motor pod battery access.

28' / 30' Models

The battery locations in a 28' or 30' Kingfisher are located either side of the boat directly behind the bilge doors.

Inboard engines

The batteries on a diesel inboard are located, along with the battery switch, in a box recessed into the port side cabin door bulkhead. Access is gained through a hatch from the rear deck. A third battery in the triple battery management system option is located inside a sealed vented box beneath the cuddy platform

***NOTE**: All Kingfishers are pre-wired to accept 2 Group 24 batteries as standard. If boat owners choose to install their own battery system, the battery locations on 25', 27', 28' & 30' models can accommodate up to four Group 24 gel cell batteries.*

Battery Switch:

The battery switch on 25', 28' and 30' Kingfishers is located directly behind the bilge doors. The battery switch on an inboard diesel is located in the recessed battery box in the port side, cabin door bulkhead.

The battery switch has four settings:

- OFF
- BATTERY 1
- ALL (both)
- BATTERY 2

When the switch is in the BATTERY 1 position the boat's electrical systems are only drawing power from BATTERY 1. When the switch is turned to the ALL position then both BATTERY 1 and BATTERY 2 are supplying the boat's electrical systems.

When the switch is turned to BATTERY 2 the electrical systems of the boat are drawing power from battery 2 only. When the battery switch is turned off, the only draw to the battery are emergency systems such as the floats on the bilge pumps which are hooked directly to one of the batteries.

Please check with your authorized Kingfisher dealer as to how the boats engine(s) have been hooked up to the battery system.

Three Bank Battery Management System (Optional):

An optional three bank battery system is available on all Kingfisher models. With the three bank system, the house battery is isolated but receives a charge from the engine(s) through a voltage sensitive relay.

Three bank battery system switches

Battery Maintenance

1. Keep the battery cables tightly connected and corrosion free.
2. Make sure that the batteries are securely mounted at all times.
3. If the boat is not used for a month or more,
    - Remove the batteries
    - Clean the battery's casing and terminals with a mixture of baking soda and water (one tbsp of baking soda to one-cup water)
    - Apply Dielectric grease or petroleum jelly to the battery terminals

NOTE: *If the battery is to be stored for a long period of time, store the battery in a cool, dark place. Check the specific gravity of the battery fluid at least once a month and recharge the battery if required.*

CAUTION

The presence of stray electrical currents from batteries hastens the electrolytic process. Batteries should be disconnected for storage or when not in use.

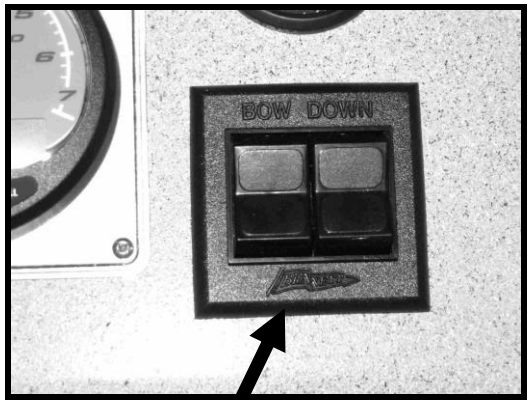
Battery Chargers:

The optional charger is located behind the rear starboard side inspection panel and is set up to charge all batteries when the shore power is plugged in.

Please refer to the manufacturer's owners manual for operating and safety instruction.

Trim Tab Operation:

The trim tab switch is located to the starboard side of the main steering wheel. The trim tab pump is located behind the starboard side bilge door or in the case of a 24', behind the bilge curtain.



Trim tab switch mounted on the dash


Trim tab pump

Please refer to the manufacturer's owners manual for operating and safety instruction.

WATER AND PLUMBING

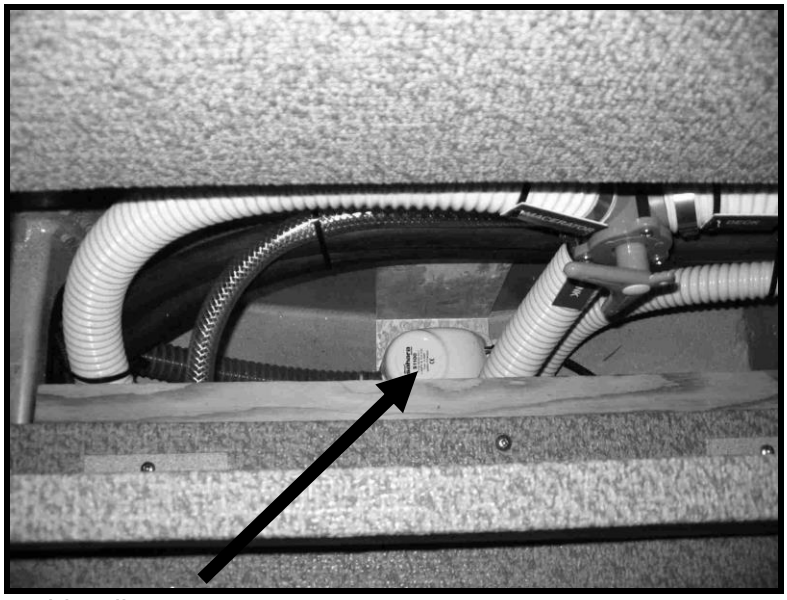
Bilge Pumps:

NOTE: The bilge pump will only reduce the water level to 3/4" from the bottom of the hull. Some water will always be left in the bottom of the hull. Do not run the bilge pump dry for prolonged periods of time. Never depend upon an automatic system as the only guarantee to keep water out of your boat, periodical manual checking of the bilge water level must be done. Bilge pumps should always be checked for correct operation each time the boat is operated.

There are 2 bilge pumps located in the stern portion of the bilge directly behind the fuel tank. The first of these two bilge pumps is located at the lowest point of the bilge, below the battery trays. The second pump is installed approximately 3" up the side of one of the main stringers behind the fuel tank. This bilge pump is installed as a back up emergency pump. If the pump located in the bilge becomes clogged or malfunctions, the second back up pump will kick in if the bilge water level rises and trips its float switch.

***NOTE**: The second bilge pump location is designed to minimize the possibility of the pump becoming clogged with foreign objects and debris that may accumulate in the bilge of the boat.*

In a 28' or 30' Kingfisher there is a third bilge pump located under the rear step in the main cabin of the boat. This third pump can be accessed by lifting up the hinged cabin step. This pump clears bilge water from inside the cabin. It is important not to forget to clean out all bilge pumps and check for correct operation as part of your pre-trip safety check.



Cabin Bilge Pump

Bilge Pump Operation:

⚠ CAUTION

Do not operate the pump dry for longer that a few seconds as this may seriously damage the pump.

The main bilge pump(s) is controlled by means of a switch located on the dash and secondly, by an integral float switch that will be tripped by rising water levels. The battery switch will need to be in the Battery 1, Battery 2 or the "All" position for switched power at the dash to trip the pump. The float switch power to all bilge pumps is hooked up directly to the battery bypassing the battery switch.

To test the operation of the pumps:

- Turn the small knob located on the back of the bilge pump, this lifts up on the float paddle and trips the pump

Float Switch Test Knob

- Once the float switch is tripped, the pump will turn on. Once correct operation is confirmed, release the knob
- Turn on the battery switch to Battery 1, Battery 2 or to the All position
- Switch on the bilge pump switch at the dash and check that the pump has tripped, once correct operation is confirmed turn off the switch

Back Up Bilge Pump:

The back up bilge pumps is located approximately 3" up onto the port side stringer at the rear of the bilge. This bilge pump is an emergency back up pump and is wired directly to the battery only. This pump is tripped by an internal float switch only. To test this pump,

- Turn the small knob located on the back of the bilge pump, this lifts up on the float paddle and trips the pump
- Once the switch is tripped, the pump will turn on. Once correct operation is confirmed, release the knob

IMPORTANT: If the back up pump fails to work, clean out the pump as described in the 'cleaning a bilge pump section'. Check the main 10 amp fuse that is located on the bilge pumps positive lead to the battery and check that the battery system is fully charged and operational. After confirming the above, if the pump is still not working, **DO NOT OPERATE THE BOAT**, consult a Kingfisher dealer.

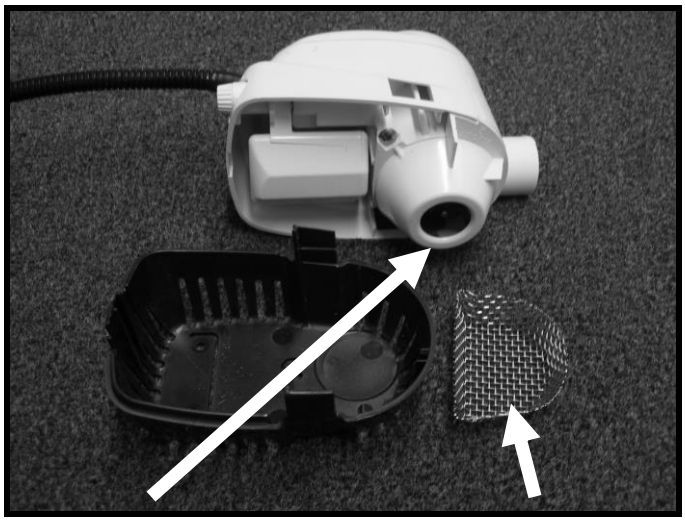
Cleaning a Bilge Pump

IMPORTANT: Before each time that the boat is operated, the bilge pumps should be cleaned out thoroughly, tested and checked for any signs of wear or damage.

- Remove the top section of the bilge pump by pressing in the two tabs located at the sides of the pump body.

Depress both sides.

- Lift up on the pump body to expose the pick up and strainer basket.

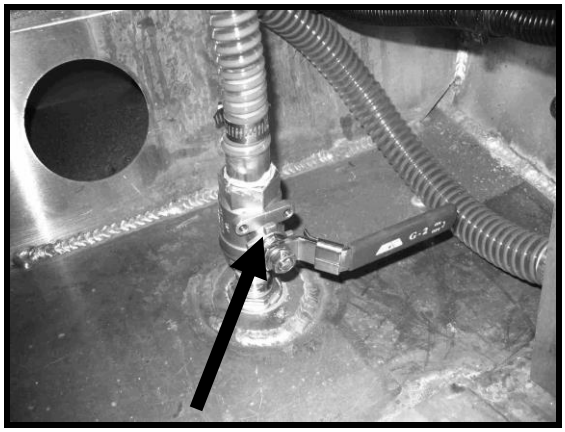


Pick Up Strainer Basket

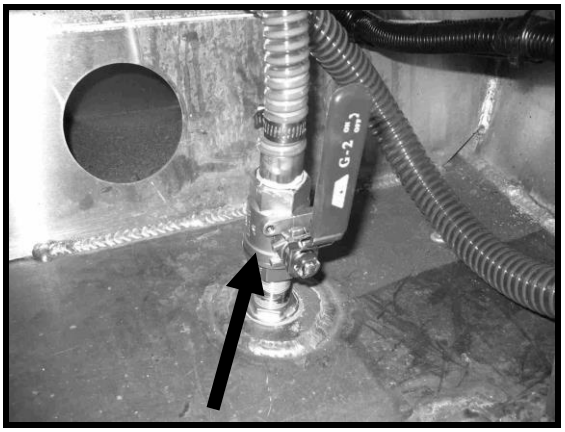
- Clean out strainer basket and the pick up of all debris
- Replace the bilge pump if the pump is showing any signs of wear or damage.
- Re-assemble the bilge pump and test as described in the bilge pump operation

Ball Valve Operation:

Every option that requires water to be drawn from the outside of the boat is fitted with a stainless steel ball valve. The valve is attached to the water pick up thru-hull and is opened by turning the handle 90 degrees.



Ball valve in shut position



Ball valve in open position

IMPORTANT: When not in use, any water pick up ball valve should be in the shut or off position.

Fresh Water Systems:

There are two fresh water systems that may be offered;

- Cold fresh water system
- Hot and cold fresh water system

⚠ WARNING

Each Kingfisher is delivered fully winterized. All water system components are treated with RV anti-freeze. These components **MUST** be flushed out with fresh water thoroughly before use.

Cold Fresh Water System:

The cold fresh water system consists of a fresh water holding tank and a demand pump that is operated by the turning on of the sink tap.

To operate the system:

- Fill the fresh water holding tank with fresh water. The holding tank in a 24' / 25' model is located underneath the deck plate on the port side of the boat. On a 28' / 30' boat it is located to the front of the cabin underneath the floor.
- The deck fill cap on the 28' / 30' models is clearly marked "water" and is located approximately at the mid point of the boat on the port side gunnel. On the 25'/ 27' models it is located on the rear port side gunnel. On all models the deck fill cap is blue in colour.
- Ensure that the battery switch is in the correct battery position. (See battery switch)
- Turn on the sink faucet, wait a few seconds for the demand pump to prime and supply water.

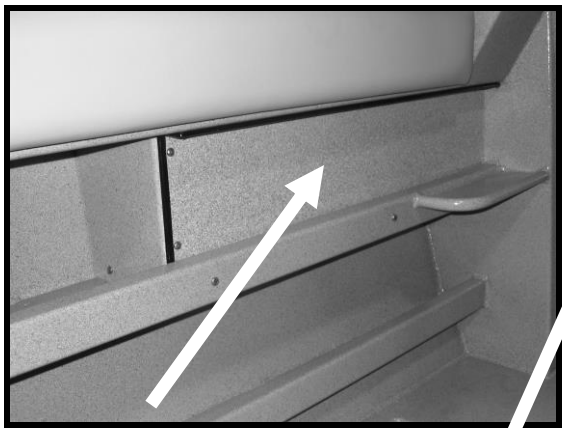
The demand pump on a 25'/27' is located at the back of the water tank and is accessed through the bilge doors or by removing the deck plate.

On a 28'/30', the pump is located beneath the center of the main cabin floor and is accessed by removing the screw out deck port.

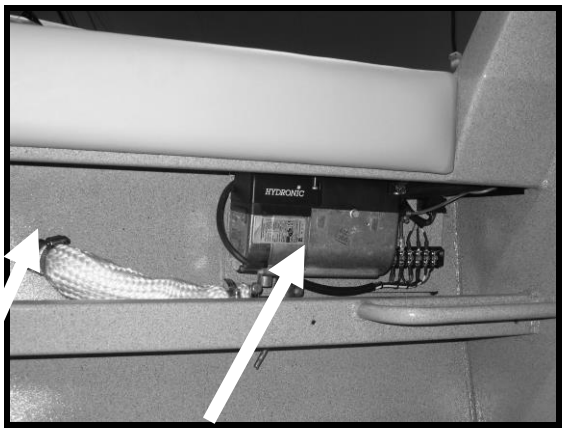
- When the sink is emptied, the wastewater will be drained overboard by means of a through hull located half way down the boat on the starboard side.
- If the sink pump fails to work, confirm that the battery switch is turned on.
- Check the main 30amp fuse and check the fuse under the dash.
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts.
- Check that the demand pump fuse under the dash has not blown.
- Once the above has been checked, if the sink pump is still not working, consult a Kingfisher dealer.

Hot / Cold Water System with Heater / Defroster & Shower:

The hot water system is heated by an Espar Hydronic diesel heater, which is located behind an aluminum plate in the port side rear deck tray.



Heater Cover



Espar Hydronic heater cover removed.

The Espar Hydronic heater not only provides hot water but also cabin heat by ducting hot air via fan heaters into the cabin, cuddy and dashboard vents. The Espar Hydronic heater works by circulating heated water in a closed loop through a heat exchanger in the hot water tank and then in turn through two different radiator blower units located below the rear counter top and underneath the dash footrest. The blowers for these units are operated by switches on the dash.

The reservoir tank for the Espar Hydronic system is located behind a 4" screw out port in the rear countertop.

Reservoir Tank Fill Cap

Espar Thermostat
The Espar thermostat is located on the upper port side trim board above the dinette table.

The diesel fuel tank for the Espar systems is located below the rear port side countertop in a 25' or a 27' model. In the 28' and 30' models it is located to the starboard side of the helm seat cabinet, just below the fuse panel.

To fill the diesel fuel tank:

- Expose the tank by removing the carpeted cover board covering the tank. To do this, simply pull up on the nylon loops attached to the side of the board
- Undo the rubber bungee cord that secures the tank to the mounting frame
- Unscrew the fuel fill cap
- Remove the tank from the cabin
- Fill the tank 7/8 full with fuel
- Carefully replace the tank in the mounting frame and secure it with the bungee cord
- Tightly screw on the fuel cap

CAUTION

Care should be taken not to overfill the diesel fuel tank as fuel may expand and overflow out of the tank or fittings. Only fill the fuel tank to 7/8 of the tank's capacity.
To avoid potentially dangerous onboard fuel spills, always remove the diesel tank out of the cabin area before filling it with fuel.
If diesel fuel spills onto your skin, immediately wash with soap and water. Change clothing if saturated with diesel fuel. If diesel fuel gets into your eyes or diesel fumes are inhaled, seek medical attention. If diesel fuel is swallowed, seek medical attention.

Refer to the Espar Hydronic heater manufacturer's owners manual for operating and safety instructions.

Shower System:

The showerhead is located behind the flip down door at the rear of the shower stall.

The water pick-up and ball valve for the toilet is clearly labelled and located behind the fuel tank, below the bilge doors.

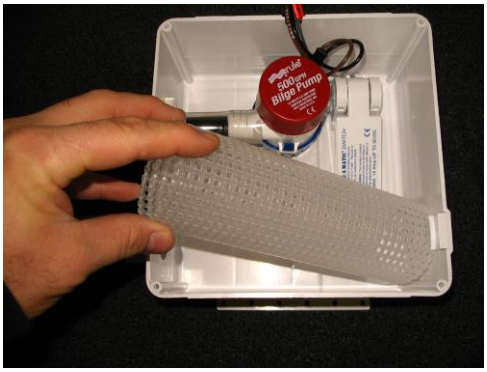
Showerhead

The shower drains directly into a sump pump which is located on the 28' and 30' models, underneath the bottom draw of the drawer cabinet. On the 25' and 27' models, the sump is located below the cabin door, behind a vinyl covered board. The sump contains a small pump which is tripped by the way of a float switch. When the pump is tripped, the waste water is directed overboard by way of a through hull.

IMPORTANT: To maintain sump operation it is necessary to clean out the filter screen in the sump box on a regular basis.

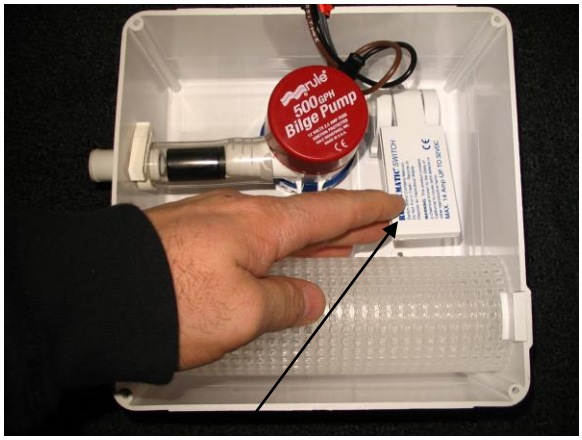
To clean out the shower sump;
Expose the sump by, in the 28' and 30' models, removing the bottom draw of the drawer cabinet. On 25' and 27' models, unscrew and remove the vinyl covered board located beneath the cabin door.

- Remove the Philips screws in the four corners of the sump box lid and carefully remove the lid



. **Shower sump box.** **Remove filter screen.**

- Remove the sump inlet filter screen
- Clean the screen of debris and foreign objects
- Replace the screen.
- Test the pump function by lifting up on the float switch



Tripping the float switch

NOTE: *Do not activate the pump dry for longer than a second or two as this may damage the pump rendering it inoperable.*
When operating the shower system the water pressure pump switch must be turned on. The water pressure switch is located in the top draw front of the cabinet adjacent to the head stall.

Pressure pump switch

NOTE: Always ensure that there is sufficient water in the fresh water tank to allow water to be drawn by the pressure pump prior to operating the shower system. Running the system dry may cause severe damage and render the system inoperable.

If the pump fails to activate:

- Confirm that there is sufficient water in the water tank
- Confirm that the battery switch is turned on
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts
- Check that the main 30 amp fuse and the fuse under the dash have not blown
- Once the above has been checked, if the shower pump is still not working, consult a Kingfisher dealer

Hot water tank

The hot water tank is located behind the helm seat box in the 28' / 30' models and below the rear starboard side countertop in the 25' / 27' models. The fresh water in the hot water tank can be heater either by the Espar Hydronic system or by AC shore power. The hot water tank is hard wired into the shore power system and will automatically run off of the shore power source once that the power supply is connected.

Refer to the hot water tank manufacturer's owners manual for operating and safety instructions.

Head (Toilet):

The water supply for the head is drawn via a ball valve fitting directly from the outside water. To operate the head,

- Before use, make sure that there is enough water in the toilet bowl to prevent the toilet paper becoming compacted at the bottom of the bowl. To do this:
- Open the water pick up ball valve which is clearly labelled and located in the bilge of the boat, behind the fuel tank
- Ensure that the Flush Control Lever is set to open
- Pump the toilet handle with long smooth strokes until adequate water has flown into the toilet bowl
- During use, pump as necessary to keep contents of the bowl low enough for comfort
- Pump as much water in the bowl as necessary to flush the contents into the holding tank
- Once the toilet bowl is clear, close the ball valve and turn the Flush Control Lever to the closed position

Pro series head option.

The Pro series head system components including the toilet, 'Y' valve and waste tank are contained within the same seat box. The macerator pump is bolted to the back of the seat box.

The Pro series head option operates in the same way as the system as the weekender package head systems.
The macerator switch is located in the top RH corner of the head box next to the 'Y' valve handle. The waste tank capacity in the Pro series head is 6 gallons.
The water pick up is clearly marked and located beneath the bilge doors in the stern of the boat.
The Pro head water pick up line has been fitted with a one way check valve. This check valve is located on the water pick up line close to the ball and should be cleaned and serviced annually.

Grey water Holding Tank:

The head waste will flush directly into the grey water holding tank. On a 25' / 27' boat the holding tank is located beneath the rear deck plate on the starboard side. On a 28' / 30' the holding tank is located underneath the floor of the main cabin towards the stern of the boat. The grey water holding tanks are grey in color.

The Pro style waste water holding tank is located within the head box, to the right hand side of the toilet.

From the holding tank there are two choices,

- Firstly, the holding tank can be pumped out through the Waste Pump Out. See Hull Layout for pump out deck location. To do this simply turn the "Y" valve to the "Pump Out" location and ensure that the toilet lever is in the open or up position.

Toilet lever

Secondly, the waste tank contents can be directed overboard. See Hull Layout for discharge location. To do this simply turn the "Y" valve to the "Discharge overboard" location and turn on the toilet macerator pump. Once that the tank has been emptied be sure to turn off the macerator pump.

NOTE: It is only necessary to turn on the macerator pump when pumping the contents of the waste tank overboard.

"Y" Valve Operation and Holding Tank Contents Disposal:

28' / 30' Y Valve Location

The "Y" Valve has two functions. It can direct the holding tank contents overboard by way of a thru-hull (See Hull Layout for thru-hull location). The valve can also be switched to allow the holding tank to be pumped out via the deck fill. (See Hull Layout for waste pump out location and ensure that the Flush Control Lever is set to open.) The "Y" Valve is located in the 28' and 30' models, underneath the hinged step lid on the rear cabin step. On the 25' and 27" models, it is located behind the starboard side bilge door. On Pro series head system the "Y" valve is located within the head box.

IMPORTANT: Be sure to check with local authorities or Coast Guard regarding state or provincial overboard waste discharge regulations.

IMPORTANT: Take care not to allow any foreign object or materials to enter the waste system

⚠ CAUTION

Plastic parts may crack and the enamel coating on the seat and lid may blister if they come into contact with aggressive chemical agents such as Acetone or Bleach. Do not use abrasive pads on any part of the toilet and do not use cream cleaners on any part of the toilet except for the toilet bowl.

Cleaning the Toilet:

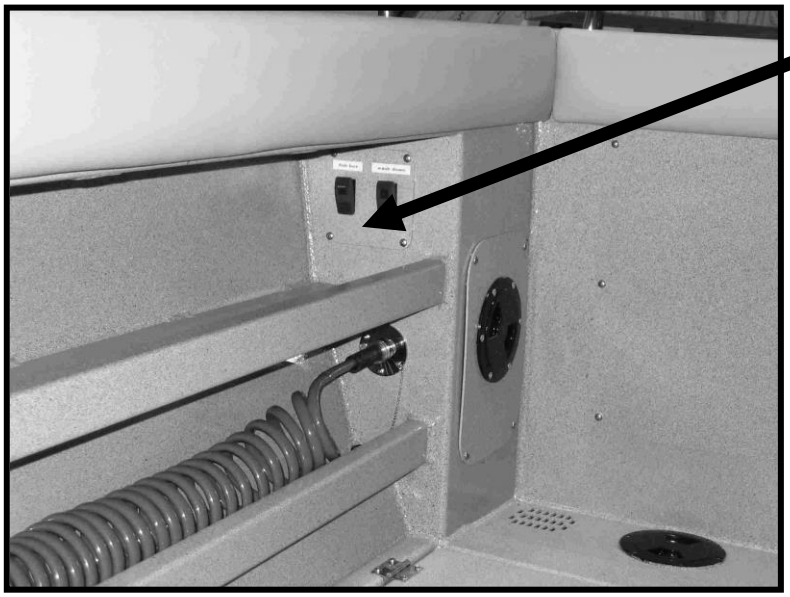
- To clean the bowl, use any liquid or cream ceramic cleaner.
- To clean the rest of the toilet, including the seat and lid, use a non-abrasive liquid cleaner. Polish with a dry cloth only.
- To disinfect the toilet, use a liquid disinfectant diluted in accordance with the manufacturer's instructions. You may apply it to all parts of the toilet using a sponge or soft brush as necessary.

CAUTION
Do not use thick liquid toilet cleansers or undiluted bleach. They may damage the valves, gaskets, seals and the enamel coating of the seat and lid.

Fish Box Diaphragm Pumps:

The fish lockers are located in the rear deck of the boat. On the 28' / 30' Kingfisher models, there are two fish lockers, in the 25' / 27' there is a single locker.

Each fish locker is fitted with a diaphragm evacuation pump. These pumps are operated by switches located under the rear gunnel of the boat. On a 28' / 30', each switch is located on its corresponding fish locker side. On a 25' / 27', the switch is located underneath the port side rear gunnel.



Fish Box Diaphragm Pump Switch.

- When a fish locker needs to be drained, simply turn on the battery switch and then operate the pump switch until the locker has drained fully.
- Once the locker has drained, turn off the pump switch.

CAUTION
Never run the pump(s) dry for long periods of time as this will result in serious damage to the pump.

The waste from the fish lockers is evacuated out of through hulls located at the rear of the boat. If the pump(s) do not work correctly,

- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts
- Confirm that the battery switch is turned on.
- Check that the main 30 amp fuse and the fuse under the dash have not blown.
- Once the above has been checked, if the pump is still not working, consult a Kingfisher dealer.

Other Optional Features:

The following features are optional features and may not be offered on all Kingfisher models.

Interior Upholstery Options:

In the 28' and 30', Kingfisher models the port side interior seats can be extended to allow for more seating room. This is done by firmly pulling on the seat's nylon loops towards the center of the boat. This will extend the seating by approximately 12". If the seats are hard to pull out into their extended position,

- Open the cabinet doors and loosen the seat mounting screws by one full turn.
- Pull on the nylon loops to confirm correct operation of the slider. If the seat is still hard to slide, repeat the above process.

Pull loops towards the center of the boat.

On the 25' / 27' models, the rear seat can **only** be moved this way.
The interior upholstery in the 25', 27', 28' and 30' can be easily converted into a berth.

- Firstly, in a 28' or 30' remove the forward starboard side backrest and stow it securely.
- Lift up the table and remove the table leg. Stow the leg securely.
- Place the table down onto the two wooden supports located on the side of the galley cabinets.
- Place the table cushion on top of the table to complete the berth.


Forward back rest


Back rest removed.


Table Wooden berth support


Table in full berth position.

For 25' and 27' models

- Instead of removing the forward backrest, simply tip the backrest all the way forward so that it lies flat with the forward seat.

- Remove the table leg, place the table in the down position and lay the table cushion on top of the table.

The back rest on the 25' and 27' models can be turned around so that the seat faces the table. To do this,

Lift up slightly on the back rest and push the legs of the backrest firmly towards the bow of the boat.

Lift up on the backrest and remove it from the seat cabinet.

Rotate the backrest 180 degrees and re-insert it into the cabinet through the slots on the seat cushion. Line up the slots in the backrest legs with the stainless steel pivot bar that is visible in the cabinet through the seat cushion slots.

Once that the backrest leg slots have been positioned over the pivot bar, slide the bottom of the legs toward the bow of the boat.

The backrest will locate into position when the legs are pushed all the way forward.

Live well

To operate the live well:

- Firmly insert the supple end of the live well drain tube into the drain in the live well.
- Ensure that the ball valve on the live well water pick up is open. The ball valve is located in front of the main bilge pump slightly to the port side.

IMPORTANT: Whenever the live well is not being used, the water pick up ball valve should be in the off position.

- Ensure that battery power is turned on.
- Turn on the live well pump by operating the switch located underneath the port side rear gunnel.
- The water level in the live well will climb up the drain tube until it can drain into the top of the tube and out of the boat. Water will continually pour into the live well and drain out of the drain tube until the live well pump is turned off. Water from the drain tube is evacuated out of a through hull located at the rear of the boat (see through hull layout).

To empty the live well of water, simply turn off the pump and remove the tube.

If the live well pump fails to work,

- Confirm that the battery switch is turned on.
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts.
- Check that the main 30 amp fuse and the fuse under the dash have not blown.
- Once the above has been checked, if the live well pump is still not working, close the ball valve and consult a Kingfisher dealer.

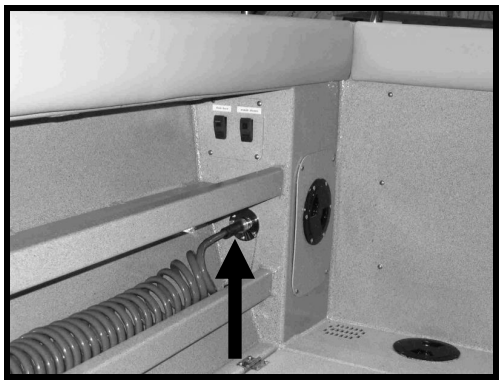
Wash Down System

To operate the wash down pump:

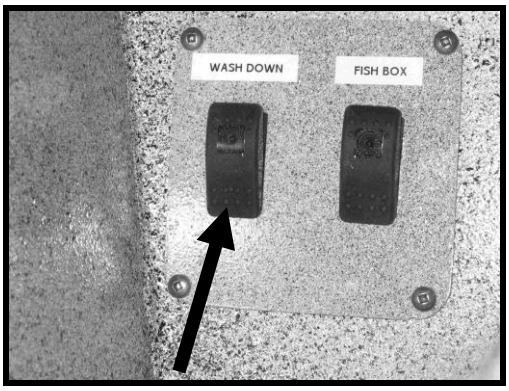
- Ensure that the ball valve on the wash down water pick up is open. This is clearly marked and located behind the fuel tank, below the bilge doors.

IMPORTANT: Whenever the wash down system is not being used, the water pick up ball valve should be in the off position.

- Ensure that battery power is turned on.
- Remove the cap from the wash down hose fitting located above the lower tray in the rear starboard gunnel.



Wash down hose fitting.



Wash down switch.

- Attach the hose to the wash down fitting and attach the hose nozzle to the other end of the hose.
- Turn on the wash down pump by operating the switch located underneath the starboard side rear gunnel.
- Hold the hose nozzle open and wait a few seconds for the wash down pump to prime and supply water.

If the wash down pump fails to work correctly:

- Confirm that the battery switch is turned on.
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts.
- Check that the main 30 amp fuse and the fuse under the dash have not blown.
- Once the above has been checked, if the wash down pump is still not working, close the ball valve and consult an authorized Kingfisher dealer.

Carbon Monoxide Detector

NOTE: *THE USE OF A CARBON MONOXIDE DETECTER IS STRONGLY RECOMMENDED IN ANY CABIN OR ENCLOSED AREA.*

The optional carbon monoxide (CO) detector is located to the starboard side of the helm seat, just below the gunnel pad.

To test the operation of the detector:

- Turn on the main battery switch and ensure that green light on the front the detector is on. This shows that the detector is correctly powered.
- Press in the test switch on the front of the CO detector, an alarm will sound if it is functioning correctly.

Consult the CO detector manufacturer's owners manual for additional important safety information.

Refer to the carbon dioxide section of section 1, safety information, for symptoms of carbon dioxide poisoning.

NOTE: *All Carbon Monoxide Detectors have a shelf life and must be replaced within the manufacturers suggested replacement time.*

Espar Airtronic Heater / Defroster

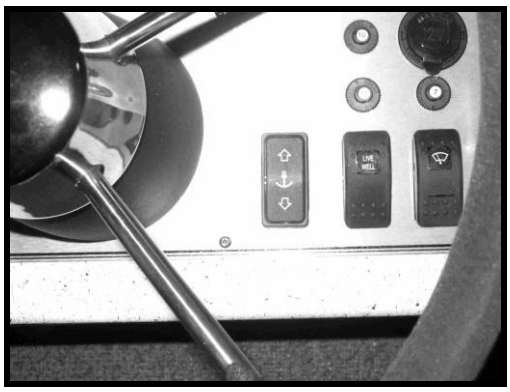
The Espar Airtronic heater defroster system works by ducting heated air through out the cabin. The Espar Airtronic system provides instant heat when the unit is operated. The Espar Airtronic heater is located underneath the starboard side rear countertop. The diesel fuel tank for the heater is located behind the helm seat box. As with the Hydronic system, the thermostat is located on the port side upper trim board above the table.

Refer to the Espar Airtronic heater manufacturer's owners manual for operating and safety instructions.

SECTION 9 – NAUTICAL TERMS

Windlass System

The windlass anchoring system can be operated form a main switch mounted on the dash or from the two foot switches located on the bow of the boat adjacent to the winch. The system is fitted with an overload breaker located on the starboard side of the bait well.



Dash switch

Deck switches

Breaker

Refer to the Windlass system manufacturer's owners manual for operating and safety instructions.

Alcohol stove

Refer to the Alcohol stove manufacturer's owners manual for operational and safety instructions.

Wallace diesel stove / Cabin heater

The diesel fuel tank for the Wallace stove is located on 28' and 30' models, behind a carpeted access hatch located to the outside of the helm seat box. On the 25' and 27' models the fuel tank is located beneath the rear port side countertop.

To fill the fuel tank,

- Undo the rubber bungee cord that secures the tank the mounting frame.
- Unscrew the fuel cap.
- Remove the tank from the cabin.
- Fill the tank 7/8 full with fuel.
- Carefully replace the tank in the mounting frame and secure it with the bungee cord.
- Tightly screw on the fuel cap.

CAUTION

To avoid potentially dangerous onboard fuel spills, always remove the diesel tank out of the cabin area before filling it with fuel.

CAUTION

Care should be taken not to overfill the diesel fuel tank as fuel may expand and overflow out of the tank or fittings. Only fill the fuel tank to 7/8 of the tank's capacity.

CAUTION

If diesel fuel spills onto your skin, immediately wash with soap and water. Change clothing if saturated with diesel fuel. If diesel fuel gets into your eyes or diesel fumes are inhaled, seek medical attention. If diesel fuel is swallowed, seek medical attention.

Prior to operating the Wallace system check that:

- The battery switch is turned on.
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts.

Refer to the Wallace stove manufacturer's owners manual for operating and safety instructions.

Cold Air Defroster

The cold air defroster fan is located either on the inside of the dash support leg or behind a carpeted panel directly below the dash foot rest.

Cold air defroster fan

To operate the fan:

- Ensure that the battery power is turned on.
- Open and direct the dash mounted defroster vents

Defroster vents

- Turn on the fan switch located to the left hand side of the steering wheel

If the cold air defroster fails to work:

- Confirm that the battery switch is turned on
- Confirm that the battery system is fully charged and functioning and that all wires leading to the batteries are secured firmly to the battery posts
- Check that the main 30amp battery fuse has not blown
- Check that the blower fuse underneath the dash has not blown
- Once that all the above has been checked, if the blower is still not operating, consult your authorized Kingfisher dealer

Bilge Alarm

The bilge alarm monitors the level of bilge water under the rear deck area or the boat.

NOTE. In the 28' and 30' Kingfisher models, there is a watertight bulkhead between the cabin area and the stern area of the boat. The bilge alarm in these models will not monitor bilge water levels below the cabin floor only bilge water levels in the stern, below the deck area.

The bilge alarm will sound when the bilge alarm float switch is tripped by rising bilge water levels. The float switch is wired directly to the battery. A test to confirm the correct operation of the bilge alarm as part of every Pre-trip safety inspection is strongly recommended.

To test the bilge alarm:

- Locate the bilge alarm float switch that is installed on the starboard side stringer behind the fuel tank.

Bilge alarm float switch test lever

- Locate the float switch test lever.
- Press down on the float switch test lever until the alarm sounds. Release the lever upon confirmation of correct operation.

If the bilge alarm fails to sound:

- Check that the bilge alarm wires are secured firmly to the battery posts.
- Check that the inline fuse from the float switch to the battery has not blown.
- Once that all the above has been checked, repeat the test and if the bilge alarm is still not operating, consult your Kingfisher dealer.

There are many possible causes of excessive water accumulating in the bilge area. If the bilge alarm sounds, the following process is recommended:

- Open the bilge doors.
- Turn all water pick up ball valves to the closed positions.
- Confirm that the main bilge pump is working by checking if bilge water is being expelled through the main bilge pump discharge through hull, which is located at the rear starboard side of the boat.

If bilge water is not being discharged:

- Locate the main bilge pump, clean out the water pick up and strainer as described in Section 4 under 'Cleaning out a bilge pump'.
- Confirm that the battery switch is turned on.
- Confirm that the battery system is functioning and that all wires leading to the batteries are secured firmly to the battery posts.
- Check that the inline bilge pump fuse has not blown.

If after these checks the bilge pump is still not operating but bilge water level has not risen, proceed to port for the necessary repairs.
If the bilge pump is still not operable and the bilge water levels continue to climb, proceed to port promptly while a second person attempts to find and control the source of the incoming bilge water. Ensure that all of the boat's occupants are wearing their personal flotation devices.
Prepare to use your manual bailing device or manual bilge pump.

Bow Thruster

An optional bow thruster is available on the 28' and 30' models. The bow thruster is operated by way of a dash mounted joy stick.

The bow thruster motor and tube are located beneath the cuddy platform. The main 250-amp fuse for the bow thrusters is located at the stern of the boat beside the battery switch

Bow Thruster prop

Joy stick

For bow thruster operational instructions please refer to the manufacturer's owners manual.

SECTION 8 – NAUTICAL TERMS

Abeam	Object 90 degrees to centreline on either side of the boat
Abaft	A point on a boat that is aft of another
Aft	Toward the rear or stern of the boat
Beam	The width of a boat.
Bow	The fore part of a boat
Bulkhead	Vertical partition in a boat
Chine	Meeting juncture of side and bottom of boat.
Chock	Deck fitting, used as guide for mooring or anchor Lines. Also, a wedge to stop wheels from rolling
Cleat	Deck fitting with arms or horns on which lines may be made fast
Cockpit	An open space from which a boat is operated
Deck	Upper structure that covers the hull between gunnels
Draft	Depth of water required to float boat and its propulsion system
Fathom	Six feet
Fenders	Rope or plastic pieces hung over the side to protect the hull from chafing
Freeboard	Height of exposed hull from water line to deck
Ground Tackle	General term referring to anchors, anchor lines, etc
Gunnel/Gunwale	Meeting juncture of hull and deck; or the highest edge of the hull side
Hatch	A deck opening providing access to the space below
Head	Toilet or toilet room
Helm	The tiller, wheel and other steering gear
Keel	The lowest external portion of the hull
Knot	Nautical mile per hour; one nautical mile is 1851.96m (6,076 ft.); a land mile is 1609.34m (5,280 ft.)
Lee	The direction toward which the wind blows
Port	To the left side of the boat facing forward
Porthole	A hinged window in the boat's cabin or hull
Scupper	An opening in a deck or cockpit permitting water to drain overboard
Stanchion	A fixed, upright post used for support (of rails or lifelines)
Starboard	To the right side of the boat facing forward
Stern	The after portion of the boat
Stern Drive	Inboard / outboard propulsion unit
Transom	The transverse part of the stern
Windward	The direction from which the wind is blowing

MAINTENANCE LOG

Kingfisher Model: _____

Serial # (HIN): _____

Make of Motor: _____ HP: _____

Trailer: _____

Date	Maintenance	Description	Engine Hours

MAINTENANCE LOG

KINGFISHER Model: _____

Serial #: _____

Make of Motor: _____ HP: _____

Trailer: _____

Date	Maintenance	Description	Engine Hours