

AXIS

WAKE RESEARCH



2015 OWNER'S MANUAL

CUSTOMER ACKNOWLEDGEMENT

Hull Identification Number: _____

Retail customer acknowledges that they have received a copy of the Malibu Boats / Axis Owner’s Manual and that the dealer has reviewed the following with you:

- Where to obtain service
- Terms of the Limited Warranties (trailer, engine, boat, etc.)
- Proper and safe operation of the boat
- All sections of the Owner’s Manual(s)

Retail customer acknowledges that the dealer has explained the operation and maintenance requirements of their trailer (as provided at the time of purchase) and that any trailer that is not provided as part of the OEM package at the time of manufacture, as well as any associated damage to the boat due to non-factory trailer usage, is specifically excluded from Warranty Coverage.

Retail customer acknowledges that the warranty for this boat will be voided if unauthorized components are added to the boat after the retail purchase unless specifically authorized by Malibu Boats, LLC. This includes components such as Surf Gates™, fins, wedges, etc.

Customer Name(s)

Print Name _____
Print Name _____
Print Name _____

Customer Signature(s)

Sign Name _____
Sign Name _____
Sign Name _____

Dealer Name(s)

Print Name _____
Print Name _____
Print Name _____

Dealer Signature(s)

Sign Name _____
Sign Name _____
Sign Name _____

Return of this form to Malibu Boats / Axis is a condition of Warranty Coverage. Selling Dealer must return this form to Malibu Boats / Axis via email (warrantyregistrations@malibuboats.com) during the Warranty Registration process.



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INTRODUCTION

Axis Wake Research manufactures high-performance wakeboard boats and brings new levels of quality, performance and style to the entry-level boat market with unparalleled pride of ownership.

Axis raises performance and customer satisfaction levels in this market segment through an aggressive grassroots research and development campaign. These efforts revolve around the specific needs and wants of core riders and families alike, or as the team at Axis Wake Research likes to say and the Axis name implies, “We’re centered on you.”

This manual has been assembled to help you operate your new Axis with safety and pleasure. Details of typical equipment as well as recommended safety and maintenance procedures about your boat are supplied. Please read carefully and familiarize yourself with the craft before using it.

We at Axis Wake Research thank you for choosing us as your boat manufacturer and assure you that your satisfaction and boating enjoyment will continue to be our #1 priority.

CERTIFICATIONS & STANDARDS

NMMA Certification

Your Axis boat has been built to meet or exceed the standards set by the National Marine Manufacturers Association (NMMA). NMMA verifies annually, or whenever a new boat model is introduced, to determine that they meet not only Coast Guard regulations, but also the more comprehensive standards set by the American Boat & Yacht Council (ABYC).

Standards to Which This Boat was Built

Your Axis boat was built with the utmost care throughout the complete manufacturing process. The deck, hull, stringers and floor, as well as many accessory components, were built using our hand-laid composite fiberglass scheduling techniques. All boats receive complete quality control checks. Each boat is lake tested, and all information is kept on file at our factory for future reference.

Exemption Notice

This boat complies with U.S. Coast Guard safety standards in effect on the date of certification with the exception of certain fuel systems requirements associated with its fuel injected engine as authorized by U.S. Coast Guard Grant of Exemption (CGB-06-005). Maintenance of the fuel system in this boat should be performed only by Axis Wake Research trained certified technicians using identical fuel system components.

Hull Identification Number (HIN)

Your Hull Identification Number can be found on the starboard transom of your boat below the rub rail. Federal law prohibits the tampering or removing of the number in any way. Use this number to register your boat with your local and state authorities.

US AWRAXXXXA001

Proposition 65**WARNING**

A wide variety of components used on this vessel contains or emits chemicals known to the state of California to cause cancer, birth defects and other reproductive harm.

EXAMPLES INCLUDE:

- ***Engine and generator exhaust***
- ***Engine and generator fuel, and other liquids such as coolants and oil, especially used motor oil***
- ***Cooking fuels***
- ***Cleaners, paints and substances used for vessel repair***
- ***Waste materials that result from wear of vessel components***
- ***Lead from battery terminals and from other sources such as ballast or fishing sinkers***

TO AVOID HARM:

- ***Keep away from engine, generator and cooking fuel exhaust fumes.***
- ***Wash areas thoroughly with soap and water after handling the substances above.***

Emission Control Warranty Information

The engine in your boat meets the strict requirements set forth by the California Air Resources Board (CARB). The engine has a special environmental tag and the boat has this label affixed to it. The tag and the label are required by the California Air Resources Board (CARB). The label has 1, 2, 3 or 4 stars. The label **MUST** be affixed to the boat, if the boat is operated in the state of California and/or bordering waters.



Chapter 1

BOATING SAFETY



At Axis Wake Research, safety is not an option!

Introduction

Congratulations on your purchase of a new high-performance recreational tow boat. Your Axis boat has been constructed to meet and/or exceed all U.S. Coast Guard (USCG) and National Marine Manufacturers Association (NMMA) requirements applicable at the time of its manufacture. However, it is still your responsibility as the boat owner to ensure the boat is operated in a safe manner and is properly maintained.

Before operating this vessel, please take the time to get acquainted with the vessel and its various features and controls. We recommend that you carefully read and familiarize yourself with this Owner's Manual and all on-product safety labels prior to operating your new watercraft. This manual contains important information on Boating Safety, Boating Rules, Proper Operation and Maintenance of your boat. This manual provides a guideline for proper operation and maintenance of your boat, and you should consider it a permanent part of your vessel. In the event that this boat is sold, this manual should be included along with the boat to ensure that it will provide the same important information to the next owner.

About this Owner's Manual

The recommended practices and warnings in this manual represent sound advice for recreational boating and identify common risks encountered by boaters engaging in towed watersport activities. Read and understand the contents of this manual. Ask questions of a boating professional if anything in this manual does not make sense to you. The manual does not cover all instances of risk or danger, so please use common sense and good judgment when boating. If you follow the advice provided in this manual you will significantly reduce risk to yourself, your passengers, towed participants, and other boaters.

This manual is not intended to be a substitute for taking a course on boating safety nor is it a substitute for boating experience. It is recommended that if you are unfamiliar with the use and operation of a boat you seek advice and training from a qualified individual or organization. Check with your local marine law enforcement agency or dealer for more information about boating safety classes in your area.

The precautions listed in this manual and on the boat are not all-inclusive. If a procedure or method is not specifically recommended, YOU must be satisfied that it is safe for you and your passengers, and that the boat will not be damaged or made unsafe as a result of your decision. Remember - always use caution and common sense when operating and maintaining your boat!

Signal Words and Symbols Used In This Manual

Throughout this manual specific precautions and symbols identify safety-related information. You will find **DANGER**, **CAUTION**, **WARNING** and **NOTICE** symbols which require special attention. Please read them carefully and follow these precautions as indicated! They will explain how to avoid hazards that may endanger you, your passengers, towed participants, and other boaters. **PLEASE REVIEW ALL SAFETY INFORMATION.**



The Safety Alert symbol means Attention! Become Alert! Your Safety Is Involved!

DANGER



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Is used to address practices not related to physical injury.

Basic Safety Rules

Make sure you understand all of the operating instructions prior to attempting to operate this boat. Boating-related accidents are generally caused by the operator's failure to follow basic safety rules or written precautions. Most accidents can be avoided if the operator is completely familiar with the boat and its operation, follows recommended practices, and is able to recognize and avoid potentially hazardous situations.

*Past accident data shows that most **fatalities** involve actions which cause falls or ejections overboard, mishaps with towed persons, propeller strikes, collisions, and carbon monoxide exposure. Past accident data shows that most **injuries** are associated with collisions, mishaps with towed persons, falls or ejections overboard, being struck by the propeller, and fires and explosions. These incidents are mostly caused by operator inattention, operator inexperience, reckless operation, alcohol/drug use, excessive speed, passenger or towed person behavior, and violation of navigation rules.*

Failure to observe the safety recommendations contained in this manual may result in severe personal injury or death to you or to others. Use caution and common sense when operating your boat. Don't take unnecessary chances! Basic safety rules are outlined in this section of the manual.

Pre-operation Check List - Before Leaving the Dock

WARNING | *Failure to follow these precautions may result in severe injury or death to you and/or others.*



The operator shall:

- Check that weather conditions are safe for boating. It is the driver's responsibility to determine if weather or other factors have created an unsafe boating environment. Boaters must continuously be aware of weather conditions. Sudden storms, wind, water conditions, lightning, etc., can unexpectedly put boaters in grave danger. Always check the local weather report before going boating.
- Check that drain plugs are securely in place.
- Check bilge pump, horn, lights, blower and other equipment to verify they are operating properly.
- Verify that the emergency cutoff switch lanyard is in proper operating condition and is properly affixed to the driver.
- Check the operation of the steering system. Verify that the steering is operational before launching the boat. If the boat is already in the water, verify proper steering wheel operation at low speed. Turn the steering wheel full stop in both directions and verify proper rudder movement. Ensure that there is no binding or stiffness in the steering wheel rotation. Binding and stiffness is an indication that the steering cable needs replacement. Failure of the steering cable will result in loss of control of the boat.

- Ensure that the load of persons, ballast, and equipment is within the limits stated on the USCG Maximum Capacities Plate and is properly distributed based on instructions in this manual.
- Check that all safety equipment and life jackets, personal flotation devices (PFDs), and throwable cushions are in good condition and suitable for your boat and passenger load.
- Inform all passengers where safety equipment is located and how to use it.
- Have at least one other passenger who is capable of operating the boat safely in case of an emergency.

WARNING

Gasoline vapors can explode. Before starting engine operate blower for 4 minutes and check engine compartment bilge for gasoline vapors.

- It is very important to open the engine cover and check the engine compartment and bilge for liquid gasoline and gasoline vapors prior to each use of your boat and after refueling. Failure to do so may result in fire or explosion as well as serious injury or death to you and/or others.
- If you see liquid gasoline in the engine compartments/bilge or smell gasoline vapors, DO NOT attempt to start the engine. Liquid gasoline in the bilge is an extreme fire and explosion hazard which may cause injury or death. Find and fix the source of the leakage, remove the liquid gasoline from the bilge. Then ventilate the engine compartment/bilge and run the blower to remove all gasoline vapors before starting the engine.
- If gasoline vapors persist after running the blower, DO NOT attempt to start the engine. Likely, there is a gasoline leak that is creating the excessive vapor.
- Always operate blower below cruising speed and after stopping the boat.

Precautions While Underway**DANGER**

Failure to follow these precautions will result in serious injury or death.

The operator shall:

- Check that the area behind the boat is all clear before starting the engine to AVOID PROPELLER INJURY to persons in the water behind the boat or on the swim platform.
- Turn off the engine prior to anyone occupying the swim platform or being in the water behind the boat to AVOID PROPELLER INJURY. Being in neutral gear is insufficient; the propeller may still be turning, or engine may be inadvertently shifted into gear.
- Not back the boat toward persons in the water behind the boat to AVOID PROPELLER INJURY.
- Not allow people to be on or near the swim platform or in the water near the swim platform while the engine is running because CARBON MONOXIDE will exist around the back of the boat when the engine is running. Engine exhaust contains carbon monoxide, which is a deadly, odorless, colorless gas.

- Not operate the engine in a confined space or while tethered to another vessel as CARBON MONOXIDE will be around the boats.
- Not go under the boat cover with the engine running or shortly after the engine has been running because CARBON MONOXIDE may remain under the cover. Remove cover to ventilate the area.

WARNING | *Failure to follow these precautions may result in severe injury or death to you and/or others.*



The operator shall:

- Follow safe operating practices, the “Rules of the Road”, and the Watersports Responsibility Code.
- Not operate a boat if under the influence of alcohol or other drugs.
- Attach the emergency cutoff switch lanyard to yourself when operating the boat.
- Maintain a proper course and safe speed at all times to avoid collisions.
- Maintain a lookout for other boats, swimmers and obstructions in the water.
- Operate slowly in congested areas such as marinas and mooring areas.
- Keep a safe distance from other boats, swimmers, personal watercraft, docks, and fixed objects.
- Look before you turn/maneuver the boat so as to avoid potential collisions with oncoming or overtaking vessels.
- Be aware that this boat is a high-performance boat and is capable of quick, tight turns and changes in direction. Familiarize yourself with the handling characteristics of the boat. It is the operator’s responsibility to operate the boat in a manner that ensures the safety of all passengers. Abrupt maneuvers may result in the ejection of unsecured, unseated, or improperly positioned passengers. Verbally warn passengers before making quick, tight turns so they may have time to grasp a handrail, hand-hold, or portion of the boat.
- Be aware that your boat will handle differently depending on loading and on-board weight distribution.
- Ensure that all passengers are properly and securely seated in appropriate seating locations to avoid falling or falling overboard.
- Instruct and ensure that passengers remain properly seated at all times while the boat is in motion above idle speed.
- Not allow passengers to sit on the transom, seat backs, engine cover or sides of the boat while the engine is running and the boat is in motion to avoid falling overboard.
- Not allow passengers to sit in a position that obstructs the operator’s view.
- NEVER leave children unattended and in the boat without adult supervision.
- Have children riding in the bow of the boat be accompanied by an adult in the bow and ensure that all remain seated when the boat is in motion.
- Not let passengers occupy seats which may be in the path of the tow line.
- Slow down when crossing waves or wakes in order to minimize the impact on passengers and the boat. Crossing waves or wakes at an angle (such as 45 degrees) rather than perpendicularly will reduce the severity of the impact. Avoid rough water, large waves and large wakes from other boats when at high speed. Jumping waves/wakes or slamming the bow will cause large vertical impacts which may cause injury to occupants or cause ejections.

- For safe towing (waterskiing, tubing, wakeboarding, wake surfing, knee boarding, etc.) be experienced and have an observer [an observer or “spotter” is required by law in most states]. A rear view mirror is helpful if you are allowed to tow without an observer in your state.
- Avoid letting tow lines or mooring lines wrap around anyone’s body parts/limbs. Doing so could allow body parts/limbs to become entangled in the line and could cause significant injury, such as amputations.
- Keep track of tow lines and dock lines so that they do not become entangled in the propeller. A tow line will wrap quickly around a spinning propeller and is capable of immobilizing the boat and dragging a person entangled in the tow line underwater or causing amputations. Shut off the engine if a tow line has potential for wrapping in the propeller.
- The tower is designed to pull a limited number of individual(s), and in some cases only one (1) individual. Please consult the remainder of this manual and warning labels on the tower for details. **DO NOT** climb, sit on, stand on or jump/dive off of the tower. Tow line may loop on inverted tricks. **DO NOT** sit behind the pulling point of the tower.
- **NEVER** allow any type of spark or open flame on board. It may result in fire or explosion.
- Avoid grounding the boat: be familiar with local conditions and water depth. If you are uncertain, then proceed slowly with caution. Sudden groundings from planing speeds may cause rapid decelerations and cause occupants to impact the boat and/or to be ejected from the boat. Boat damage may also occur.
- Always watch for low obstacles such as tree limbs, bridges or power lines, especially in boats with tow towers.
- Seek shelter from open water if there is threat of lightning or severe weather.
- **NEVER** dive from the boat without being absolutely sure of the depth of the water. Severe injury or death may occur from striking the bottom or submerged objects. Striking the bottom or a submerged object while diving head first can cause paralysis, head injury or death.
- Provide assistance to other boaters in distress while ensuring the safety of your own passengers.
- When you leave the boat, take the keys with you. This will keep untrained and unauthorized persons from operating the boat. (This may not be applicable on some keyless ignition systems.)

Safety While Maintaining the Vessel

WARNING



Failure to follow these precautions may result in severe injury or death to you and/or others.

The operator shall:

- Visually inspect the engine compartment and ventilate after refueling.
- Inspect fuel system regularly. Examine fuel tanks, hoses and fittings for leaks or corrosion at least annually because leaking fuel is a fire and explosion hazard.
- Never remove or modify components of the fuel system in any way except for maintenance by qualified personnel. Tampering with fuel components may cause a hazardous condition which could lead to a fire or explosion.
- Never override or modify the engine neutral starting safety switch in any way. Your boat engine should not start in gear. If it does, do not use the boat and have this safety feature fixed by an authorized dealer.
- Be aware that batteries generate small amounts of dangerous hydrogen gas when charging. This gas is highly explosive. Keep all sparks, flames and smoking well away from the area. Failure to follow instructions when charging a battery may cause an explosion of the battery or the atmosphere near the battery, which could result in death or serious injury.
- Keep the engine off whenever the engine box/cover/hatch is open. The engine box/cover/hatch serves as a machinery guard. Clothing or body parts can get caught in moving parts, causing death or serious injury. Keep away from moving parts.
- Not replace your boat's marine parts with automotive parts or parts that were not designed for your boat.
- Be aware that battery electrolyte fluid is dangerous. It contains sulfuric acid, which is poisonous, corrosive and caustic. If electrolyte fluid is spilled or placed on any part of the human body, immediately flush the area with large amounts of clean water and immediately seek medical attention.
- Check the tightness of the tower bolts BEFORE each use. If a tower collapses it may result in injury to boat occupants or towed persons.
- Not modify the tow bar. The tow pylon/bar is not designed for vertical extensions. Any modifications to the tow pylon/bar or its mountings may result in damage to the boat and injury to the user.
- Only lift the boat from approved lift points, which are identified in later parts of the manual.

Owner Responsibility and Boating Education

Important Safety Information

Your safety, the safety of your passengers, and the safety of other boaters is dependent on how you operate and maintain your boat. As operator or owner of this boat, you are responsible for the safety of those with and around you while boating.

Responsibilities of Boat Owner and Operators

It is the owner's responsibility to ensure that the operator of the boat has been properly instructed in the lawful and safe operation of this vessel. Therefore, before operating the boat, thoroughly read this owner/operator manual. Be sure you understand each item before operating it. Improper operation or trailering of the boat could lead to severe personal injury or death. Improper operation or trailering of the boat may also damage the boat.

The operator and the boat owner assume all risks for themselves, their guests and anyone in proximity to their boat and ensure that all passengers understand the risks and responsibilities associated with boating.

This manual is not intended to provide complete training on all aspects of boat operation. We strongly recommend that all operators of this boat seek additional training on boat handling and safety. Have all operators become familiar with the handling characteristics, and proper steering and control system usage before attempting high-speed operation.

At the time of delivery, the owner/operator is responsible for:

- Understanding the warranty terms and conditions of your boat, your engine, and your trailer.
- Obtaining insurance.
- Examining the boat to ensure the proper operation of all systems.

Before operating the boat, the owner/operator is responsible for:

- Registering the boat as required in the jurisdiction where the boat is being operated.
- Providing the proper (USCG) safety equipment, and checking local, state and federal agencies as to laws and regulations (USCG carriage requirements).
- Carefully reading and understanding safety information and proper operating procedures within this manual.
- Obtaining other boating education if you lack operational experience.
- Familiarizing yourself with the navigable waters where you intend to operate the boat.
- Following the proper break-in procedure for the engine.

Registration

Federal Law requires that all motorboats be registered and that all motorcraft not documented by the U.S. Coast Guard display registration numbers. In nearly all states, this means registration with the designated state agency. In a few jurisdictions, the Coast Guard retains registration authority. Your dealer will either supply registration forms or tell you where they may be obtained. The agency will supply you with a certificate which must be carried with you when the boat is in operation. International laws may vary as to required registration.

Insurance

The boat owner may be legally responsible for damages or injuries caused by both himself and the operator (if different than the owner). Common sense dictates that you carry adequate personal liability and property damage insurance on your boat, just as you would on your automobile. Many states have laws detailing minimum insurance needs. Your insurance agent or your dealer may be able to supply you with more information. You should also protect your boat from physical damage or theft.

Boating Safety Education Opportunities

It is recommended that the boat owner/operator obtain boater safety education. If you have never owned a boat before, you can get an excellent introduction to boat handling from organizations such as the U.S. Coast Guard, American Red Cross, United States Coast Guard Auxiliary, or your local boating authority. Even if you are a veteran boater, these courses will help sharpen your boating skills as well as bring you up to date on current rules and regulations. See your local boating agency or dealer for information on classes in your area.

Some states require youths, 16 years of age and younger, to complete a boating safety course before operating any watercraft. Many others require operators under the age of 18 to be licensed in small boat operation. Boat smart from the start: take a boating safety course and get a free vessel safety check annually for your boat. For more information, contact: United States Coast Guard Auxiliary, www.cgaux.org; United States Power Squadrons, 1-888-FOR-USPS, www.usps.org.

The following is a list of some other agencies and organizations that offer Water Safety, First Aid and CPR courses or information. To find boating safety courses in your area, call your state's local boating agency or the USCG boating safety course line at 1-800-336-2628 (1-800-245-2628 in Virginia).

- USCG Office of Boating (www.uscgboating.org)
- American Red Cross (www.redcross.org)
- U.S. Coast Guard Auxiliary (www.cgaux.org)
- U.S. Power Squadrons (www.usps.org)
- State Boating Offices
- Canadian Power and Sail Squadrons (www.cps-ecp.ca)
- Boat Owners Association of the United States (www.boatus.com)
- National Safe Boating Council (www.safeboatingcouncil.org)
- Water Sports Industry Association (www.wsia.net)
- European or international organizations

Operation by Minors and Licensing

If your boat will be operated by a minor, remember to have an adult present at all times. Many states have laws regarding minimum age and licensing requirements for minors. Some states require boat training courses, certification, or licensing for minors and/or adults. Contact state and local authorities for requirements that apply in your area.

Safety and Required Equipment

Your boat and equipment must be in compliance with federal, state and local safety equipment regulations. USCG regulations require certain safety equipment be present on your boat during operation. For a detailed description, obtain “Federal Requirements for Recreational Boats” published by the U.S. Coast Guard and available online at:

http://www.uscgboating.org/regulations/federal_requirements_brochure.aspx.

In addition to the USCG regulations, other local and/or international law enforcement agencies may have similar requirements. You should check with your local marine law enforcement agency regarding any such requirements before boating.

Equipment requirements for coastal and inland waters differ. Check with local authorities and/or the USCG for further information about coastal water requirements.

The Federal Boat Safety Act of 1971 (FBSA/71) and the National Recreation Boating Safety Program have established minimum safety standards for boats and associated equipment, specified by the USCG. In addition, the American Boat and Yacht Council (ABYC) and the National Marine Manufacturers Association (NMMA) work with boat builders to develop voluntary standards that exceed the USCG requirements. The included safety equipment on your boat meets or exceeds the standards of the USCG, ABYC and the NMMA.

Some required safety equipment, such as life jackets (PFDs), are not included with your boat. Your dealer can help you choose the appropriate equipment.

NOTICE *Many states' equipment requirements go beyond USCG requirements. Contact your state boating office for further information.*

Navigation Lights

Your boat is equipped with navigational lights. Recreational boats are required to display navigational lights between sunset and sunrise and other periods of reduced visibility (fog, rain, haze, etc.). Navigation lights are provided to keep other boats informed of your presence and course. It is up to you to make sure they are operational, displayed correctly, and turned on when required.

Emergency Safety Lanyard

Your boat is equipped with an Emergency Safety Lanyard (cutoff switch). We recommend that the lanyard be secured to the operator and the lock plate attached to the emergency cutoff switch prior to starting the engine and anytime the engine is operating. The Emergency Safety Lanyard is designed to turn off the engine whenever the operator moves far enough away from the helm to activate the switch. The purpose is to stop the engine, propeller, and boat in the event the operator leaves the helm location, falls overboard, or is ejected from the boat. If the engine is stopped it will prevent the boat from becoming a run-away, unmanned boat, which may cause injury or death to boat occupants who have fallen overboard or been ejected, or to other nearby people. If the engine stops it will minimize the subsequent opportunity for propeller contact with the operator or other persons in the water. If the engine and boat stop it will afford opportunity for the operator or other persons who have fallen overboard to safely re-board the boat.

WARNING



It is recommended that you use the Emergency Safety Lanyard system as failure to do so can cause death or serious injury.

DO NOT operate the boat if the Emergency Safety Lanyard system does not function properly.

- Attach the Emergency Safety Lanyard to a secure place on your clothing, your arm or your leg while operating.
- DO NOT attach the lanyard to clothing that could tear loose.
- DO NOT route the lanyard where it could become entangled, preventing it from functioning.
- Avoid accidentally pulling the lanyard during normal operation.
- Loss of engine power means loss of most steering control.
- Without engine power, the boat will decelerate rapidly. This could cause people in the boat to be thrown forward or ejected overboard if they are not properly seated in the boat.

There are practical limitations to what the Emergency Safety Lanyard can do. It can take several seconds for the engine and propeller to stop turning. The boat can continue to coast for several hundred feet depending on the boat speed at the time the switch is activated. While the boat is coasting, it can cause injury to anyone in its path. Accidental loss of power can be hazardous particularly when docking or in heavy seas, strong current, or high winds.

While at the dock or when the boat is not moving, periodically disconnect/pull the Emergency Safety Lanyard out of the switch while the engine is running to test for proper operation. The engine should shut off when the lanyard is disconnected/pulled from the switch. You should not be able to restart the engine until the lanyard is back in place.

Personal Flotation Devices

Federal law requires that you have at least one wearable Personal Flotation Device (PFD) of the proper size (Type I, II, III or V), for each person on board or being towed, and at least one throwable PFD (Type IV) in the boat. PFDs must be Coast Guard approved, in good and serviceable condition and the appropriate size for the user. To meet requirements, each lifesaving device must have a current, legible USCG approval stamp permanently affixed. At the beginning of each season, inspect life jackets (PFDs) for damage and test for proper flotation. Refer to the lifejacket (PFD) manufacturer's information.

REMEMBER- The best PFD is the one that is worn – that is, the one that can save your life. PFDs are intended to save lives; it is highly recommended that you and your passengers wear them while in the boat. Learn how to use them and adjust as necessary for comfort. *It is especially important that children and non-swimmers wear a life jacket (PFD) at all times.* Make certain all passengers know where life jackets are located, how to put on and properly adjust their life jackets (PFDs), and that life jackets are readily accessible at all times.

Your dealer can help you select appropriate life jackets (PFDs) and throwable lifesaving devices for your area. Some PFDs are specially made for use while waterskiing or wakeboarding and are not U.S.C.G. approved. Please check local law with respect to their use. Some states require children to wear a PFD at all times. There are four types of wearable PFDs (Type I, II, III or V) and one throwable type of PFD (Type IV) used for throwing in emergency situations. Examples of these USCG approved PFDs are shown:



Type I PFD – Offshore Lifejacket: This PFD is designed for extended survival in rough, open water. It usually will turn an unconscious person face up and has over 22 pounds of buoyancy. This is the best PFD to keep you afloat in remote regions where rescue may be slow in coming.



Type II PFD – Near Shore Buoyant Vest: This “classic” PFD comes in several sizes for adults and children and is for calm inland water where there is chance of fast rescue. It is less bulky and less expensive than a Type I, and many will turn an unconscious person face-up in the water.



Type III PFD - Flotation Aid: These life jackets are generally considered the most comfortable, with styles for different boating activities and sports. They are for use in calm water where there is good chance of fast rescue since they will generally not turn an unconscious person face-up. Flotation aids come in many sizes and styles.



Type IV Throwable Device: These are designed to be thrown to a person in the water. Throwable devices include boat cushions, ring buoys, and horseshoe buoys. They are not designed to be worn and must be supplemented by wearable PFD. It is important to keep these devices immediately available for emergencies.



Type V PFD - Special Use Device: Special use PFDs include work vests, deck suits, and hybrids for restricted use. Hybrid vests contain some internal buoyancy and are inflatable to provide additional flotation. These PFDs may be used instead of a Type I, II, or III PFD with non-towed participants if used in accordance with the approval conditions on the label and if worn when the boat is underway. Some Type V PFDs provide increased protection against hypothermia.

NOTICE *A Type V PFD must be worn to be counted toward the minimum carriage requirements.*

NOTICE *Special lifejackets are available for skiing and other water sports. These non-Coast Guard approved lifejackets do not count as PFD's.*

Fire Extinguisher

A portable fire extinguisher is required if your boat has an inboard engine, or when fuel is stored in closed stowage compartments.

Approved fire extinguishers are classified by a letter symbol, either B-I or B-II with the B designating that the material will extinguish flammable liquids such as gasoline, oil, etc. B-I extinguishers are required for boats less than 26 feet in length. Check periodically to ensure that the extinguisher is in working condition and fully charged. Check local, state and federal agencies as to laws and regulations.



Horn or Whistle

All boats over 16 feet (4.8 meters) in length must be equipped with an operable horn or whistle. Test the operation of the horn periodically, so as to make sure it will sound when you actually need to alert someone or another boat. The following are standard signals when using a whistle or a horn:

- One prolonged blast: Warning.
- One short blast: Pass on my port (left) side.
- Two short blasts: Pass on my starboard (right) side.
- Three short blasts: My engines are in reverse.
- Five or more blasts: Danger!

Bilge Pump(s)

Bilge pump(s) are installed in your boat to remove water that may accumulate in the bilge. Know the location of the pump(s), where they discharge, and where switches are located. Typically there are manual switch and/or an automatic switch position(s). Periodically test the operation of bilge pumps by activating the manual switch and observing the water discharge. It is best to leave the bilge pump switches in automatic mode, so as to not allow excess water to unknowingly accumulate in the bilge of your boat. If your bilge pump comes on too frequently or continuously, investigate the source of leaking water (check for hull damage, hose or piping leaks, missing drain plug, exhaust system or ballast system failures, etc.), and/or return to shore. Excess water in the bilge of your boat can cause loss of engine power, sinking, and/or capsizing.

Visual Distress Signals

All vessels used on coastal waters, the Great Lakes, territorial seas, and those waters connected directly to them up to a point where a body of water is greater than two miles wide, must be equipped with USCG approved visual distress signals. Your dealer or local authorities can help you select appropriate visual distress signals for your area.

If you are required to carry distress signals, you must have three USCG approved pyrotechnic devices. Be sure they are in serviceable condition, not exceeding the expiration date and stored in a cool, dry location in a red or orange waterproof container.

WARNING



Pyrotechnic signaling devices can cause fire and / or explosion, death, serious injury, and property damage if improperly handled. Follow the pyrotechnic manufacturer's directions.

Recommended Safety Equipment

As a precaution, a prudent boater will avoid potential problems on an outing by having additional equipment on board. Normally, this equipment is dependent on the size and type of the body of water and the length of the trip. Your dealer can assist you in acquiring this additional equipment.

We recommend the following equipment:

- First aid kit and manual
- Anchor with at least 75 feet (23 meters) of line
- Mooring lines and fenders
- Bailing device (bucket, hand pump)
- Combination paddle/boat hook
- Local charts and compass
- Day/night distress signals
- Waterproof flashlight and spare batteries
- Cellular phone
- Waterproof container for cell phone
- GPS Global Positioning System
- Binoculars
- Portable AM/FM radio with weather band
- A non-electric horn or whistle
- Extra engine oil
- Tool kit
- Spare propeller and mounting hardware
- Spare fuses
- Spare keys
- Sunglasses and sun block lotion



General Boating Safety Topics

Safe Speed

Navigation rules state that a boat be operated at a safe speed at all times. Determination of a safe speed involves consideration of many factors, such as, but not limited to:

- Boating activity (tubing, water skiing, wakeboarding, wake surfing, etc.)
- Boat traffic congestion
- Water conditions
- Environmental conditions (shore line, docks, and depth of water)
- Weather
- Visibility

The boat should not be driven at a rate of speed faster than will allow it to be brought to a full stop within the operator's field of view given the environmental conditions at the time. Safe speed for the conditions and driver attention (lookout) are important factors in avoiding collisions which may cause injury or death. When in doubt it is prudent to slow down within adequate time and distance so as to be able to assess the conditions and paths of other boats.

It is important to know the Rules of the Road, although do not assume that all boaters also know the rules or that they will abide by them. Avoid collisions by constantly assessing the ever-changing situation and be sure to make appropriate speed and course changes early.

Passenger Safety

The operator of the boat is responsible for the safety of the passengers, all skiers/riders, as well as his/her own safety. Ensure that you and your passengers adhere to these safety recommendations:

- Any time you take your boat out, make sure that there is at least one other passenger aboard who is familiar with the operation of your boat.
- Ensure that all passengers are properly and securely seated in appropriate seating locations to avoid falling or falling overboard.
- While the engine is running, and while the boat maneuvering, all occupants should be properly seated. DO NOT stand while the boat is moving.
- DO NOT sit on the engine box, seat backs, transom seating, sunpad, boarding platform or gunnels while the boat is underway. You could fall overboard and be hit by the propeller, or another boat.
- DO NOT allow objects, arms or legs, or any other body parts to hang over the bow or gunnels. Stay within the boat.
- Passengers should not sit in locations that obstruct the operator's visibility.
- Persons and gear should be stowed in a way that distributes weight appropriately and in a manner that trims the boat properly (pitch angle). Excessive weight at either the bow or the stern relative to one another can cause trim problems leading to reduced driver visibility, erratic steering, loss of control, or bow submergence and flooding/swamping.

- Passengers should be well aware of emergency equipment and instructed in its use.
- Passengers should assist with lookout duties and notify the operator of any approaching watercraft or potentially unsafe conditions to provide assistance with collision avoidance.

Recommended Seating Chart

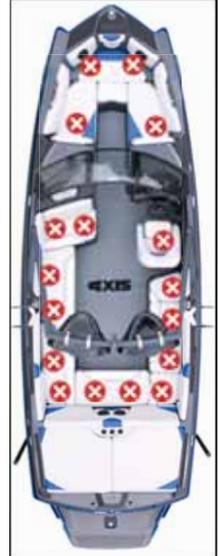
A20
11 TOTAL CAPACITY



A22
15 TOTAL CAPACITY



A24
17 TOTAL CAPACITY



T22
15 TOTAL CAPACITY



Carbon Monoxide Safety

Carbon Monoxide (CO) is a deadly, colorless and odorless gas produced by all engines and fuel burning appliances. Even with the best boat design and construction, plus the utmost care in inspection, operation and maintenance, hazardous levels of carbon monoxide may be present in or near the boat under certain conditions. The boat owner, operator, as well as all boat occupants, must understand the dangers of carbon monoxide and must comply with all safety recommendations/requirements. For boats with cabins, always ventilate the boat interior and avoid boating situations which cause increased exposure.

DANGER



Carbon monoxide (CO) can cause brain damage or death.

Engine and generator exhaust contains odorless and colorless carbon monoxide gas.

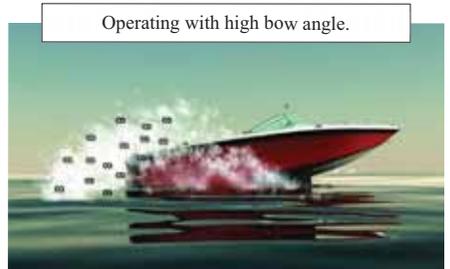
Carbon monoxide will be around the back of the boat when engines or generators are running.

Move to fresh air, if you feel nausea, headache, dizziness, or drowsiness.

- Do not allow people to be on or near the swim platform or in the water near the swim platform while the engine is running. Carbon monoxide will exist around the back of the boat when engines are running.
- Do not operate the engine in a confined space or while the boat is tethered to another vessel.

- Do not go under the boat cover while the engine is running or shortly after the engine has been running. Carbon monoxide may be trapped under the cover. It is important to remove the cover and/or ventilate the area before going under the boat cover.
- Do not “platform/teak” surf or platform drag. Carbon monoxide will exist in high concentrations in the vicinity of the swim platform near the water while the engine is running. The USCG has deemed platform dragging as a dangerous and hazardous activity which should be prohibited, as it can result in injury or death.
- In the event that someone exhibits the symptoms of carbon monoxide exposure (nausea, headache, dizziness, or drowsiness), have them breathe fresh air and, if necessary, immediately seek medical attention.

Hazardous boating situations involving carbon monoxide include:



For the most current information on carbon monoxide, you may call, write or visit on-line any of the following:

United States Coast Guard Office of Boating Safety (CG-5422)
2100 Second Street SW STOP 7581,
Washington, DC 20593-7581
1-800-368-5647 www.uscgboating.org
(www.uscgboating.org/safety/carbon_monoxide.aspx)

NMMA
National Marine Manufacturers Association\
231 S. LaSalle St., Suite 2050, Chicago, IL 60604
312-946-6200 www.nmma.org

American Boat & Yacht Council, Inc.
613 Third St., Suite 10, Annapolis, MD 21403
410-956-4460 www.abycinc.org

Proper Loading

WARNING | ***DO NOT overload your boat.***



Overloading or uneven loading can cause loss of control, capsizing, or swamping, which may lead to death or serious injury.

Adhere to the load capacity plate restrictions, and always account for persons, gear, and all non-factory-installed ballast or other equipment.

Your boat is equipped with a maximum load capacity plate indicating the maximum acceptable load as determined by the manufacturer following certain Federal guidelines. In addition to following these weight guidelines, it is critical that you properly distribute this weight throughout the boat. If too much weight is placed in one area it can have serious impact on the boat's handling and control, which has the potential to lead to injury or death.



The load capacity plate is used by boat manufacturers participating in the National Marine Manufacturers Association certification program. Your manufacturer has submitted your model for inspection and compliance with their guidelines. The maximum number of persons allowed on the boat has been determined by the manufacturer and displayed on the capacity plate. This information on the capacity plate applies under normal conditions and special care must be used in any abnormal conditions. Check the capacity plate on your boat and abide by these limits.

The capacity plate has the following information permanently printed on it:

- The total weight of persons, gear and other items which the boat is capable of carrying under normal conditions. This weight must include any added ballast above and beyond boat manufacturer’s factory installed ballast system(s).

WARNING | *Any non-factory installed ballast must be properly secured to prevent injury.*



WARNING | *Do not fill the bilge area with water. Excessive water in the bilge can cause changes in boat trim and reduce boat stability which may lead to submergence or capsize.*



Weighting Your Boat During Watersport Activities

Although water intrusion and waves spilling inside a boat is an obvious boating hazard, this hazard can be increased when weighting your boat for water sports such as wakeboarding or wakesurfing. As wakeboarding has evolved, ballast systems have been developed to add weight and increase the size of the wake. The simplest ballast system on the market is the water ballast type, such as the “FAT SAC.” The quest for the largest wake has caused some boat operators to excessively overload their boats. It is not uncommon to see operators use aftermarket ballast systems and then put additional people and gear in their boat. Be advised that this practice can lead to overloading your boat which may lead to any of the following: changes in handling and performance; capsizing, flooding, and sinking; boat occupants going overboard. **Do not overload your boat.**

Always be aware of the load in your boat and do not load the boat in excess of the listed capacity. Each boat has a maximum capacity label displaying the maximum weight of people, gear and ballast that can be placed in the boat.

When loading your boat, give attention to the effect that the load distribution has on the boat’s trim angle. Trim angle is the technical term for the up or down pitch angle of your boat (also known as the “bow up” or “bow down” angle). The fore and aft load distribution of weight, passenger, and gear can affect the running trim angle of the boat.

- Excessive weight placed in the stern of the boat can cause the inability to get on plane, high bow up angles, and can lead to steering difficulties. High bow up angles can be dangerous due to the reduction in the operator’s forward visibility which can lead to collisions and groundings. High bow up angles cause longer transition times from displacement mode (slow velocity, 0 to 5 mph) to planing speeds (18 to 20 mph and above). During transition, it is important that the boat operator pays attention so that they are able to see forward and that the time in transition (or in the “hump” speed region) is minimized.
- Excessive weight placed in the bow of the boat can lead to very flat planing trim angles which may lead the boat to turn aggressively, unpredictably, and without steer input. The phenomenon of yaw instability is caused by heavy bow weights and running very flat (bow down or flat trim angles). This can occur with excessive weight in the bow compared to weight in the stern of the boat. Another ill effect of too much bow weight in comparison to stern weight is that with extremely heavy bow loads, the boat’s bow may dive or submerge when coming off plane (decelerating rapidly, or encountering waves/wakes at slow speed). If the bow submerges, then water will enter and flood your boat.
 - When encountering conditions which may lead to bow diving or bow submergence, it is recommended to accelerate the boat before the wave/wake in order to help raise the bow and get over the wave/wake.
 - If the bow submerges, the recommended action is to reduce throttle to stop forward speed, get passengers to move aft, and turn on the bilge pump.

It is the boat operator’s responsibility to tell passengers to move to other seats on the boat, so as to not overload the stern or bow of the boat, nor restrict the boat operator’s forward visibility. There is no single recommended seating or load distribution for all conditions. Experience with your boat will allow you to determine where to properly allow passengers and gear to be placed.

WARNING

Excess and improper loading of bow area forward of windshield may cause water influx, operating instability, and loss of control resulting in injury or death.

Bow Capacity Limit – X persons or XXX lbs. person, gear and ballast. This is posted separately on your boat but still included in overall capacity.

Use good judgment when weighting your boat for any towed water sports.

Visibility of the Operator

The operator of the boat is responsible, by law, to “maintain a proper lookout by sight and hearing.” The operator must ensure that he/she has appropriate visibility for safe operation. No passengers or equipment should block the operator’s view, including the view of other boats, skier(s), rider(s), swimmer(s), or anyone or anything else in the water. Even momentary interference can result in the driver’s inability to respond to a situation that requires avoidance of another vessel or submerged or partially-submerged object(s).

Look carefully before turning, especially when you are turning around to pick up a fallen skier/rider. Other boats in your vicinity may not necessarily be following the “Rules of the Road.” Be alert and keep a visual check for other boats in and around your intended path. Do not turn or maneuver your boat without first checking that it is clear to do so. Failure to look before turning can result in an encounter with another boat where neither boat has enough time to avoid a collision. This situation can develop very quickly if you fail to look first and turn in front of another oncoming boat.

WARNING

Obstructed visibility can cause death or serious injury. The operator must maintain clear visibility at all times while operating the boat.

Arrange passengers and equipment appropriately or designate a passenger to assist when visibility is limited.

Boating Under the Influence

WARNING



Operating a boat or boating under the influence of alcohol and/or drugs can cause serious injury or death.

Alcohol and drugs slow your reaction time and impair your judgment.

Do not operate a boat or allow passengers to boat while under the influence of alcohol and/or drugs.

Boating under the influence of alcohol or drugs can be deadly. Alcohol and/or drug use is the leading contributing factor to all recreational boating fatalities. Alcohol and drugs can increase your reaction time and impair your judgment. Combined with the sun, wind, waves, and noise of other watercraft, the effects of drugs and alcohol can be increased and can significantly increase your reaction time. As the owner/operator, you are responsible for the alcohol/drug use and onboard behavior of your passengers. Additionally, civil lawsuits in cases of property damage or injury/death to others can result in significantly higher verdicts when alcohol or drugs are allowed.

WARNING



Impaired operation may result in severe personal injury or death.

Federal and state laws prohibit operating a boat under the influence of alcohol and other drugs.

If the operator's blood alcohol content is above the legal limit, violators are subject to fines and may go to jail. Violators may also lose automobile driving privileges.

Product Misuse

Misuse of the product or use of it in a manner for which it was never intended can create dangerous situations. The boat operator and passengers are responsible for using the product safely and as intended. The driver must operate the boat in a manner that ensures the safety of all passengers. If you or your passengers are unsure about the proper use of the product, unsure about performing certain boating maneuvers or are unsure about a particular water activity, refer to this manual or contact a knowledgeable source, such as your local dealer, the US Coast Guard, or your local boating authority.

Reporting Accidents

Boat operators may be required by law to file a Boating Accident report with their state boating law enforcement agency or local authority, the USCG, or their country's boating law enforcement agency when their boat is involved in certain boating accidents. A boating accident must be reported if there is a loss or probable loss of life or a personal injury requiring medical attention beyond first aid. In these situations, a formal report must generally be filed within 48 hours of the accident. Also a boating accident must be reported for accidents when damage exceeding \$500 is incurred, or there is a complete

loss of the boat. In these situations, a formal report must generally be filed within 10 days. If any of these events occur, seek further assistance from local law enforcement personnel. Please note that the submittal of a report is the responsibility of the boat owner. This requirement is different than laws associated with the reporting of automobile accidents.

Rendering Assistance

If you see a distress signal or suspect a boat is in trouble, you must assume it is a real emergency and render assistance immediately. By law, the operator in charge of the craft is obligated to provide assistance to any individual in danger, presuming assistance can be safely provided. Failure to render assistance can result in a fine and/or imprisonment. The 1971 Boating Safety Act grants protection to a “Good Samaritan” boater providing good faith assistance, and absolves a boater from any civil liability arising from such assistance.

Hazardous Conditions

Every waterway poses hazards that should be avoided. You will be best prepared to avoid these hazards if you are familiar with the waterway where you are boating. Whenever possible familiarize yourself with navigation charts, depth charts, and waterway maps before you go boating. The following information outlines some of the most common hazards which may be encountered:

Shallow Water Operation

Shallow water brings on obvious hazards such as sand bars, stumps, rocks, etc. Know the area in which you will be operating the boat. Grounding the vessel or striking submerged objects can result in serious injury or death and can cause severe damage to your watercraft. At high speed, this can cause rapid deceleration or stop your boat abruptly, which may cause occupants to impact the interior of the boat or be ejected. Stick to deeper water whenever possible, and if you must travel in shallow water, proceed at low speed and post a lookout.

Know the minimal depth your boat can safely travel.

Warning Markers

Learn to recognize the different buoys and day markers; they are used as the signposts of the waterways identifying navigable routes and water hazards. It is a good idea to ask local authorities about hazard areas and if they are marked. Stay within boundaries and clear of hazards.

Weeds

Weeds can generally be a threat to a boat’s engine and other components on the boat. If weeds wrap around the propeller, they can create vibration in the engine. They also can restrict water intakes or clog the water filter causing the engine to overheat. Learn to recognize the typical normal operating temperature range for your engine. If temperature rises high above normal, then check for blockage of the engine cooling water system.

NOTICE *Weeds can sometimes be removed by shifting to NEUTRAL, pausing for a moment, then shifting to REVERSE to unwind the weeds from the propeller.*

Dam Spillways

The area around dam spillways is very hazardous and conditions can change rapidly. Keep clear of the spillways and areas below dams. Currents created by spillways can draw in objects, including your boat.

Restricted Areas

Before boating, check with Local, State, and Federal authorities to identify restricted areas. Because of the threat of terrorism, the U.S. Coast Guard has and will continue to implement strict limits on watercraft near U.S. Navy and Coast Guard ships and other potential targets.

Weather/Seas

Learn and understand weather patterns and signs of change. Bad weather can cause an uncomfortable and unsafe situation. If a storm approaches, seek a safe harbor. Check forecasts before getting underway and continue to monitor conditions while on the water.

Environmental Concerns

As a boater, you already appreciate nature's beauty and the peace of the great outdoors. It is a boater's responsibility to protect the natural environment by keeping waterways clean.

Foreign Species

If you trailer your boat from lake to lake, you have the potential of unknowingly introducing a foreign aquatic species from one lake to the next. It is important to thoroughly clean the bottom of the boat below the water line, remove all weeds and algae, and drain the bilge, ballast, and livewells before launching the boat in a new body of water. Check local, state, country agencies as to laws and regulations.

Fuel/Oil Spillage

The spilling of fuel or oil into our waterways contaminates the environment and is dangerous to wildlife. DO NOT EVER discharge or dispose of fuel, oil or other chemicals into the water; it is prohibited and can result in fines. These are three common, accidental types of discharge:

- During initial fueling of a nearly empty tank
- Overfilling the fuel tanks
- Pumping contaminated bilge water

WARNING

Fumes from rags can collect in bilge and pose an extremely hazardous fire and explosion risk, which can result in injury or death.

Never store rags used to wipe up fuel or solvent spills in the boat.

Dispose of rags properly ashore.

Discharge/Disposal of Waste

Waste means all forms of garbage, plastics, recyclables, food, wood, detergents, sewerage and even fish parts in certain waters – in short, nearly everything. We recommend you bring back everything you take out with you for proper disposal ashore.

Excessive Noise

Noise means engine noise, radio noise, loud conversation, or even yelling. Many bodies of water have adopted noise limits. Noise can carry a considerable distance on water, especially at night. Be sure to follow regulations and be courteous.

Speed/ Wake/Wash

Be alert for NO WAKE zones. You are responsible for any damage or injury caused by your wake/wash. Prior to entering a NO WAKE zone, reduce throttle, come off plane to the slowest steerable speed. Use caution when operating around smaller crafts, in channels and marinas, and in congested areas.

Some states and boating areas have imposed speed limits for the operation of boats, including, but not limited to, no-wake zones. Check local, state, and federal agencies as to laws and regulations. The U.S. Coast Guard and local boating authorities are excellent sources for this information, which can include penalties for failure to observe the requirements.

Exhaust Emissions

Increased exhaust (hydrocarbon) emissions pollute our water and air. Keep your engine tuned and boat hull clean for peak performance. Consult your Axis dealer for information.

Paints

If your boat is kept in water where marine growth is a problem, the use of anti-fouling paint may reduce the growth rate. Be aware of environmental regulations that may govern your paint choice. Contact your local boating authorities for information.

Cleaning Agents

Household cleaners should be used sparingly and not discharged into waterways. Never mix cleaners and be sure to use plenty of ventilation in enclosed areas while cleaning your boat. **DO NOT** use products which contain phosphates, chlorine, solvents, non-biodegradable or petroleum based products. Refer to **CARE AND MAINTENANCE** in this manual for more information.

MARPOL Treaty

The USCG enforces the International Convention for the Prevention of Pollution from ships, commonly referred to as the MARPOL Treaty (Marine Pollution). This treaty prohibits the overboard dumping of all ship-generated plastics, chemicals, garbage and oil.

On Product Warning Labels

Warning Labels & Locations

Warning labels are placed at specific locations on your Axis boat at the time of manufacture to alert you to potential hazards that may not be obvious. These labels also indicate how to avoid these hazards. Warning labels should never be removed and must remain legible. If you suspect a label is missing, or if a label becomes damaged or becomes unreadable (damaged, faded, or sun bleached), contact your dealer for replacement.

It is the responsibility of the boat owner and occupants of the boat to understand and comply with all warning labels and safety recommendations/requirements. The driver of the boat and the boat owner are responsible for the proper operation of the boat and the safety of the occupants of the boat. Failure to adhere to and comply with the on-product warning labels and safety statements labeled as dangers, warnings, and cautions that appear in this manual can lead to serious injury, or death, as well as property damage. **READ AND ADHERE TO ALL WARNING PLATES AND LABELS** from bow to stern, including those that are installed inside the engine compartment, lockers, and underneath seating.

Warning Labels

Warning labels are displayed at various locations throughout your new Axis to point out safety hazards. It is important that you take the time to locate these labels. Do not remove or cover warning labels. Replace when illegible.



1



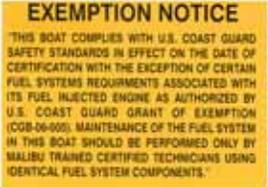
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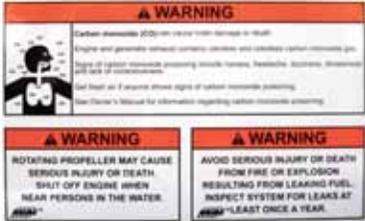
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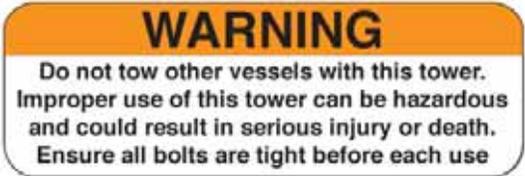
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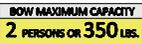
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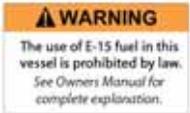
7



8



9



10

Refer to the diagram below for the location of each label.



Warning Labels: _____

Basic Rules of the Road

Boating Regulations

The U.S. Coast Guard (USCG) is the governing authority of the United States waterways and serves to help the boating public. State boating regulations are enforced by local authorities. Owners and users outside of the United States must be cognizant of that country's laws and regulations. You are subject to marine traffic laws and "Rules of the Road" for both federal and state waterways; you must stop if signaled to do so by enforcement officers, and permit them to board if asked.

Review and understand all local, state, federal, and country boating laws.

There are many USCG pamphlets available to you. These pamphlets go beyond the contents of this manual and explain "Rules of the Road," signal lights, buoys, safety, international and inland regulations. An example is the Ultimate Watersports Handbook you should have received with your new boat, or which can be ordered by contacting WSIA; go to: www.WSIA.net. For more information, contact your local USCG unit or visit <http://www.uscgboating.org>.

You should be aware of these rules and follow them whenever you encounter another vessel on the water. The rules presented in this manual outline only the most basic of the nautical "Rules of the Road" and have been provided as a convenience only. Consult your local U.S. Coast Guard Auxiliary (USCGA), Department of Motor Vehicles (DMV) or local maritime authority for a complete set of rules governing the waters in which you will be using your boat. If you plan to travel—even for a short trip—you would be well served to contact the regional USCGA or DMV in the area where you will be boating.

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

WARNING | *Collisions between boats can cause death or serious injury.*



Keep a proper lookout, safe speed, and follow the nautical "Rules of the Road."

Encountering Another Vessel

Any time two vessels on the water meet one another, one vessel has the right-of-way. It is called the "stand-on" or "privileged vessel". The vessel which does NOT have the right-of-way is called the "give-way" or "burdened vessel". These rules determine which vessel has the right-of-way, and accordingly, what each vessel should do.

Privileged Vessel

The privileged vessel has the right-of-way and has the duty to continue its course and speed, except to avoid an immediate collision. When you maintain your direction and speed, the other vessel will be able to determine how best to avoid you.

NOTICE *In general, boats with less maneuverability have right of way over more agile crafts. You must stay clear of the vessel with right of way and pass to his stern.*

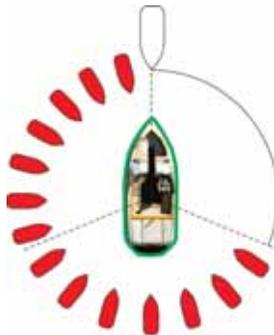
Sailboats and boats paddled or rowed have the right of way over motor boats. Sailboats under power are considered motorboats. Small pleasure craft must yield to large commercial boats in narrow channels.

Burdened Vessel

The burdened vessel does not have the right-of-way and has the duty to take positive and timely action to stay out of the way of the privileged vessel. Normally, the burdened vessel should not cross in front of the privileged vessel. The burdened vessel should slow down or change directions and pass behind the other vessel. The burdened vessel operator should always move in such a way that the privileged vessel operator can see what you are doing in ample time to avoid a collision.

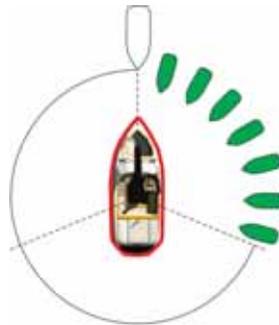
Crossing

In crossing situations, the boat to the right from the 12 o'clock to the 4 o'clock position has the right-of-way, and it must hold course and speed. The burdened boat passes behind the privileged boat. Boats going up and down a river have the privilege over boats crossing the river. The illustration below depicts a situation in which you are the boat in the center and you are the privileged vessel. You must hold course and speed. All vessels approaching your vessel from the directions depicted by the red vessels must yield to your boat.



You are the privileged vessel.
You must stand on.

Conversely, the following illustration depicts a situation in which you are the boat in the center and you are the burdened vessel. You must give right-of-way to all vessels coming towards you from the directions shown in green.



You are the burdened vessel.
You must give way.

Meeting Head-On

When meeting head-on, neither vessel has the right of way. Both boats should decrease speed, turn towards their right (starboard side) and pass on their left sides (port-to-port). However, if both boats are clearly on each other's right (starboard) side then, each vessel should sound two short blasts and pass on their right sides (starboard-to-starboard).



Passing
Port-to-Port



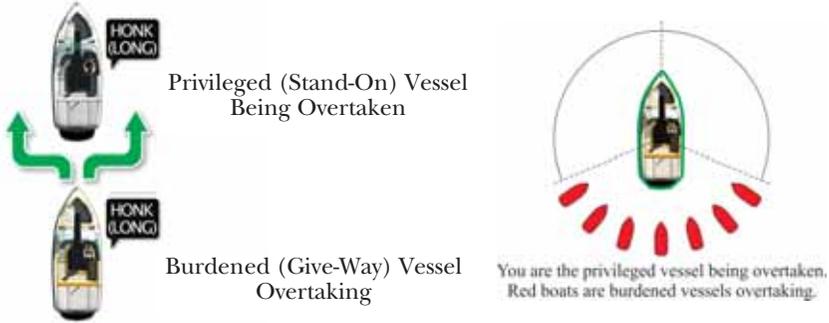
Meeting
Head-to-Head



Passing
Starboard-to-Starboard

Overtaking

The boat that is overtaking one ahead of it is the burdened boat and must make any adjustments necessary to keep out of the way of the privileged boat, until the burdened boat is well ahead and clear of the vessel being overtaken.



The General Prudential Rule

The General Prudential Rule regarding right of way, is that if a collision appears unavoidable, neither boat has right of way. As prescribed in the “Rules of the Road”, both boats must act to avoid collision.

Rule 2 in the International Rules says, “In construing and complying with these Rules due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these Rules necessary to avoid immediate danger.”

Other Rules of the Road

When navigating in narrow channels, you should keep to the right when it is safe and practical to do so. If the operator of a power-driven vessel is preparing to go around a bend that may obstruct the view of other water vessels, the operator should sound a prolonged blast on the whistle or horn—four to six seconds.

If another vessel is around the bend, it too should sound the whistle or horn. Even if no reply is heard, however, the vessel should still proceed around the bend with caution.

If you navigate these type of waters, you should carry a portable air horn, which are available from local marine supply stores.

Aids to Navigation

Learn to recognize the different buoys and day markers; they are the signposts of the waterways. The United States Aids to Navigation System (USATONS) is the primary marking system used on inland water, coastal waters and rivers in the United States. This system is maintained by the U.S. Coast Guard (USCG).

There are two primary marking systems in use in the U.S.: the Uniform State Waterway Marking System (USWMS), used on inland waters and maintained by each state, and the Federal Waterway Marking System (FWMS), used on coastal waters and rivers and maintained by the USCG. In addition, the FWMS has two modified systems: the Western River Buoyage, and the Intercoastal Waterway Buoyage. Be sure to check with local authorities on the buoyage system in use in your boating region.

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

USWMS System

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

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

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

FWMS System

The FWMS Lateral System is for use on navigable waters except Western Rivers and Intercoastal Waterways. The markings on these buoys are oriented from the perspective of being entered from seaward (the boater is going toward the port). This means that red buoys are passed on the starboard (right) side of the vessel when proceeding from open water into port, and green buoys to the port (left) side.

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

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



Spherical Safe Water Marker

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

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

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

Lights, bells and horns are used on buoys for night or poor visibility conditions. Buoys with unique light flashing characteristics are identified on nautical charts with the specific flashing pattern.

Types of Buoys

There are several types and shapes of buoys. Buoys may be unlighted, lighted, with sound or may have both an audible and a visual signal. Lights, bells and horns are used on buoys for night or poor visibility conditions. Different shapes of buoys are shown below.



Unlighted Bell Buoy



Spar Buoy



Nun Buoy



Lighted Buoy



Can Buoy

FWMS Marking System

Buoys with unique light flashing characteristics are identified on nautical charts with the specific flashing pattern.

Mooring Buoys

The only buoys from which you are permitted to moor are mooring buoys. Mooring buoys are white with a blue horizontal stripe. Mooring to a navigation buoy, regulatory markers or lateral markers is illegal.



**Mooring Buoy – White with Blue Band
May Show White Reflector or Light**

Uniform State Regulatory Markers

Regulatory markers indicate dangerous or restricted controlled areas. These markers are used to indicate speed zones, areas set aside for particular use, general information and directions.

Regulatory markers are white with orange geometric shapes and also have orange bands near the top and at the water line of the buoy. You must obey regulatory markers.

**CONTROLLED
AREA**



DANGER



**BOATS KEEP
OUT**



INFORMATION



Uniform State Waterway Marking System (USWMS)



Divers Flag

**USED BY
RECREATIONAL
DIVERS –
INDICATES
POSITION.**

Stay Far Away From Diver Flags
Someone is underwater in the vicinity



Alpha Flag

**WORLDWIDE VESSELS
ENGAGED IN DIVING
OPERATIONS – DOES
NOT INDICATE
DIVER'S POSITION**

Stay Far Away From Diver Flags
Someone is underwater in the vicinity



Distress Flag

**INDICATES
FELLOW
BOATER IS IN
NEED OF
ASSISTANCE**

Warning Markers

It is a good idea to ask local authorities if there are hazardous areas and how they are marked. Boaters must also recognize the flag designs, which indicate that skin divers are present and keep well clear of the area. Divers underwater cannot be seen. Stay well away from boats or floats displaying Diver Flags.



Skin Diver Warning Flag

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



Swim Area Warning Buoy

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

Night Running

Boats operating between sunset and sunrise (hours vary by state) must use navigational lights. Nighttime operation, especially during bad weather or fog can be dangerous. All “Rules of the Road” apply at night, but it is best to slow down and stay clear of all boats, regardless of who has right of way. Protect your night vision by avoiding bright lights and have a passenger, if possible, help keep watch for other boats, water hazards and aids to navigation. It is best to proceed slowly at night, as there is always the possibility of unlit boats, floating objects, and fixed objects which will be very difficult to see in time to avoid if you are at planing speeds or above.

There are many light patterns on different types of boats and for boats performing various functions while underway or at anchor. For most applications on recreational boats the following navigation light patterns are applicable.

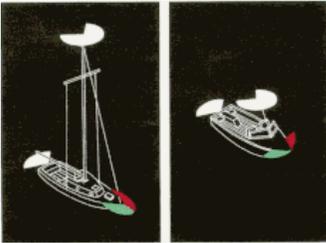


Figure 1

Motorboats less than 20 meters (65.62 feet) shall exhibit navigation lights as shown in **Figure 1**.

(Note: Two masthead lights are optional for boats under 50 meters. Boats over 50 meters (164 feet) will display two masthead lights.)

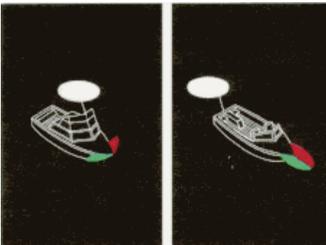


Figure 2

Motorboats of less than 12 meters (39 feet 4 inches) in length, may show the lights in either **Figure 1** or **Figure 2**.

Boats of less than 7 meters (23 feet) whose maximum speed cannot exceed 7 knots may exhibit an all-around white light, and if practicable sidelights instead of the lights prescribed above, **in international waters only**.

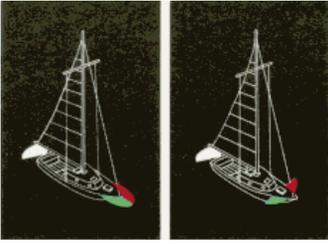


Figure 3

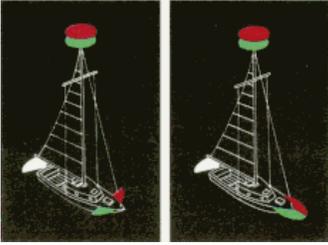


Figure 4



Figure 5

Sailboats and Watercraft Under Oars

Sailboats less than 20 meters (65.62 feet) may exhibit the navigation lights shown in **Figures 3** or **4**.

Another option for sailboats is to use a single combination lantern at the top of the mast as shown in **Figure 5**.

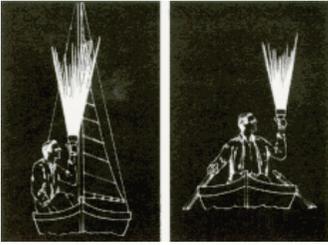


Figure 6

Sailboats less than 7 meters (22.96 feet) may carry an electric torch or lighted lantern showing a white light to be displayed in sufficient time to prevent collision (see **Figure 6** - left picture).

If practicable, the lights prescribed for sailboats less than 20 meters should be displayed.

Watercraft under oars (such as a canoe) may display the lights prescribed for sailboats, but if not, must have ready at hand an electric torch or lighted lantern (flashlight) showing a white light to be displayed in sufficient time to prevent collision (see **Figure 6** - right picture).

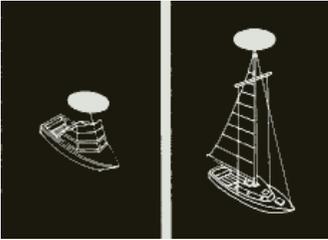


Figure 7

Anchored Boats

Motorboats and sailboats at anchor must display anchor lights. An anchor light for a watercraft less than 50 meters (164 feet) in length is an all-around white light, visible for 2 miles exhibited where it can best be seen (see **Figure 7**).

Sailboats operating under machinery, or under sail and machinery, are considered power driven and must display the lights prescribed for a power-driven boat.

Watersports Safety

Skiers or riders are obligated to be aware of the same fundamental safety rules as boat operators. If you are new to water skiing, wakeboarding, wake surfing, and other towed watersports, seek certified training before starting. You will find it especially helpful to join a local ski club, World Wakeboard Association, and/or the USA Water Ski, when possible.

Always remember that the majority of injuries occurring while water skiing/wakeboarding and other towed watersports are the result of impacts with other objects. Always look where you are going and be aware of what is going on around you. When participating in towing watersports, be safe and courteous and follow these guidelines:

- Be considerate to fishermen and others who are sharing the same body of water.
- DO NOT perform watersports in congested areas.
- Stay away from navigation markers.
- Stay away from other boats and watersports participants.

DANGER



Contact with a spinning propeller can cause injury and death.

Do not enter or exit the water when the engine is running (ON) and the propeller is spinning.

Do not get on the swim platform when the engine is running.

Do not swim towards the back of the boat if the engine is on.

WARNING

Failure to adhere to these warnings may result in severe injury or death to you and/or others.

- *Every towed person must always wear a USCG-approved personal flotation device.*
- *Always have an experienced driver and a designated observer in the boat while being towed.*
- *Maintain a distance of at least 100 feet from all other objects, including other boats, piers, rafts, mooring and navigational buoys, pilings, abutments, or any other items.*
- *Never waterski, wakeboard or participate in other towed watersports in shallow water, close to shore, or in water where you do not know the depth or what is beneath the surface.*
- *Never put your arm, head, or any other part of your body through the handle-bridle of the tow line nor wrap the line around any part of the body at any time.*
- *Do not participate in watersports while under the influence of alcohol and/or drugs.*
- *Do not participate in watersports during inclement weather or on rough water.*
- *Never waterski, wakeboard or participate in other towed watersports directly in front of other boats who may run over you if you fall.*
- *Never waterski, wakeboard or participate in other towed watersports at night.*
- *Never jump from a boat that is moving at any speed.*
- *Make sure that everyone knows and uses approved towed watersports hand signals.*

Hand Signals

Make sure that everyone knows and uses approved towed watersports hand signals, shown below.

**Circle****Back to Dock****Cut Engine****Skier in Water****Skiers OK****Speed OK****STOP****Speed Faster****Speed Slower****Turn Left****Turn Right****Towed Person Safety Responsibilities**

Most injuries and fatalities that occur on high-performance recreational tow boats occur to the persons being towed (water skiing, kneeboarding, wakeboarding, wake surfing, tubing, etc.). It is the responsibility of the boat operator to pay attention to a multitude of things while utilizing the boat for water tow sports. The towed person has little or no control over their path nor do they have much in the way of protection from impact with obstacles or other boats. Therefore, it is recommended that boat operators, observers, and towed persons communicate effectively and clearly as to their intentions and their surroundings. The main responsibilities for each participant are as follows:

Operators should:

- Assign a passenger to be a designated observer.
- Turn the engine off whenever a person is on the swim platform or in the water near the boat. This is especially important for the area near the back of the boat to avoid propeller injuries.

- Ensure that it is “all clear” behind the boat when starting the engine. Ask for verbal confirmation or hand signals that it is “all clear” behind the boat. Then, and only then, start the engine.
- Keep their main focus on maneuvering the boat safely while avoiding other boats, fixed objects, the shore, and shallow water.
- Use rear view mirrors to allow the driver to glance at the towed person, while still keeping their main attention on the path of the boat and the surroundings.
- Return safely to pick up towed persons or persons in the water. Keep the individual in view, approach slowly (preferably on the driver’s side), and shut off the engine when close to an individual in the water. Do not back up or operate the boat in reverse to a person in the water.

Observers should:

- Confirm for the boat operator that it is “all clear” behind the boat prior to starting the engine.
- Watch the towed person.
- Be responsible for communication of the signals and status of the towed person to the boat driver.
- Notify the boat operator of status and changing conditions with the towed person, and inform the boat driver of the towed person’s readiness to start, their desire to go faster or slower, or that they have fallen and are in need of retrieval.
- Deploy the fallen skier flag when the towed person falls, if needed. In some states, it is required to raise the “fallen skier” flag when the skier has fallen.
- Monitor the tow line to ensure that it does not become tangled, it does not become wrapped around anyone in the boat, and it does not become wrapped around the towed person. Also monitor the tow line so that it does not become tangled in the propeller. Notify the boat operator if any of these conditions are observed to avoid potential injury.
- Remind the boat operator to shut off the engine when persons are on the swim platform or in the water near the back of the boat.

Towed persons should:

- Wear a PFD.
- Not approach the back of the boat if the engine is running.
- Not become entangled in a tow line or wrap a tow line around any body part.
- Know signals to communicate with the observer and boat operator.

Additional Precautions for Towed Skier/Rider

- Wear wet suits or protective shorts when engaging in high energy skiing/riding to prevent abrasions, hypothermia, and injuries to orifices (rectal and vaginal) from impact with the water surface.
- Inspect watersports equipment for wear, fraying, etc., before use. DO NOT use if they show signs of wear or fraying. Ropes or watersport equipment tow points may break during use, causing you to coast into obstacles or fall with the risk of being struck by another vessel.
- Inspect the boat tow points before use. If there is any evidence of corrosion or other damage, do not use until it has been inspected by your authorized boat dealer.
- NEVER attach ski/wakeboard rope to anything but approved pylons and wakeboard towers. Make sure tow ropes are properly attached to the boat tow points.

- The skier/rider should verbally indicate that s/he is safely clear of the boat prior to operator starting the boat engine or putting the boat into gear.
- Slowly take up slack in tow lines before accelerating to watersports speeds. Jerking the slack out of a tow line can cause high forces on the rope and towing equipment. This may cause the rope or equipment to break and the rope to snap back at occupants of your boat and at the towed person.
- Never put your arm, head or any other part of your body through the handle/bridle of the ski or wakeboarding line, nor wrap the line around any part of the body at any time. If you fall, the line will tighten and forcefully constrict around your body part and may result in amputation.
- DO NOT ski near swimming areas, beaches, personal watercraft, or other vessels/boats.
- Never attempt land or dock starts. These activities will increase your risk of injury or death.
- DO NOT jump from a boat that is moving at any speed, nor enter or exit the water when the engine is running.
- DO NOT “back up” to anyone in the water; they will be in danger of hitting the spinning propeller which can cause severe injury or death.
- DO NOT follow directly behind another boat or skier/rider without leaving an adequate safe distance in case that towed person falls into the water. You will need ample time and distance to maneuver your boat away from that person in the water and to avoid their tow boat which will be circling back to retrieve their downed person.
- DO NOT participate in towed watersports at night. It is illegal and other boats will not be able to see you, nor will they anticipate or expect your presence behind the towing boat. Furthermore, once you fall they will not see you swimming.
- DO NOT tow with multiple skier/riders with different length ropes.
- DO NOT ski in limited visibility conditions.
- Never climb, sit or stand on a wakeboard tower. The wakeboard tower is intended for towing only as noted. It is designed to pull a limited number of individual(s), and in some cases only one (1) individual. Please consult the remainder of this manual and warning labels on tower for details. The wakeboard tower approved for use on your boat should be used only for water skis, wakeboards or recreational towables, and not for parasailing, kite flying or towing other boats.
- Many states require the use of “skier down” flags. Check your local lake and state requirements. Having the observer raise a skier down flag when your towed watersport participant falls down or off the towed device will alert boats around you to the fact that someone is in the water nearby and that they should avoid the area.
- Many lakes have recommended tow patterns. Other boats may expect that you know the local customs and practices. It is common that the tow pattern is counter-clockwise around the lake, but there are exceptions. Check for local recommendations or requirements.
- NEVER lift or trailer the boat with water in the bilge or in ballast tanks. Lift or trailer per manufacturer’s instructions.
- Around marina docks where electrical current is present (such as shore power connections) it is unsafe to swim as stray electrical currents may exist which can cause you to drown.

Tow Line Guidelines

Tow lines come in different lengths and strengths for different activities. Make sure any line you are using is suited for skiing or riding and that it is in good condition.

- Never use a tow line that is frayed, knotted, unraveling or discolored from use or being left in the sun. If a line breaks while in use it can recoil at the skier/rider being towed or into the watercraft where it might strike passengers. Replace tow lines with any sign of damage.
- Never use a tow line with elastic or bungee material to pull skiers or riders.
- Tow line should be attached to the watercraft in an approved fashion with hardware designed for towing. Refer to your watercraft manual for instructions on proper tow line attachment.
- Always route tow lines away from the propeller, even when idling. Shut off the engine if your boat starts to cross a floating tow line.
- If a tow line should become entangled in a propeller, shut off engine, remove the key and put it in your pocket before retrieving the line.
- Tow lines should be neatly coiled and stowed in the boat when not in use.

Fallen Skier or Rider

Falling and injuries are common in water skiing and other towed watersports. Keep tow speeds in a comfortable range given the rules of the activity and the skill level of participants.

- Display a red or orange skier/rider down flag to alert other vessels that a skier/rider is down. In some states, it is required to raise the “fallen skier” flag when the skier has fallen.
- Turn the boat and slowly circle toward the person in the water to return the tow line handle or towed device to that person.
- Always keep the fallen skier/rider in view and preferably on the operator’s side of the watercraft.
- Put the watercraft in neutral whenever you are near a fallen skier/rider.
- Shut off the engine when retrieving someone from the water or if the person in the water gets too close to the boat. Do not trust neutral gear with an idling engine. Someone may accidentally or prematurely shift the gear, or the linkages may be out of adjustment and the propeller may still be slowly spinning.

Develop WATER SENSE

The Watersports Responsibility Code and the Watersports Safety Code have been developed by WSIA and industry equipment manufacturers. These Codes are reproduced here for your reference.

Watersports Responsibility Code



Familiarize yourself with and follow The Watersports Responsibility Code

WATERSPORTS RESPONSIBILITY CODE

Be aware that there are risks in boating and Watersports that good judgment and personal awareness can help reduce. To increase your enjoyment of Watersports, follow the ten elements of the Code.

In Watersports it is your responsibility to:

- **ALWAYS** familiarize yourself with applicable laws, waterways and inherent risks
- **ALWAYS** have a capable observer in addition to driver and agree on hand signals
- **ALWAYS** wear a USCG type III, ISO or other agency approved (PFD) life jacket
- **ALWAYS** read user's manual and inspect equipment before use
- **ALWAYS** ski or ride under control, at proper speeds and within your limits
- **ALWAYS** turn ignition off when anyone is near watercraft power drive unit
- **ALWAYS** stay clear of engine exhaust to avoid Carbon Monoxide poisoning
- **NEVER** "Platform Drag" or touch swim platform while the engine is running
- **NEVER** ski or ride near swimmers, shallow water, other boats, or obstacles
- **NEVER** operate watercraft, ski or ride under the influence of alcohol or drugs

wsia

BOAT Responsibly

Watersports Safety Code

WATERSPORTS SAFETY CODE

Before you get in the water: Skiing or riding instruction is recommended before use. Instruction will teach general safety guidelines and proper skiing or riding techniques, which may reduce your risk of injury. For more information on skiing or riding schools, contact your dealer, Association, or local ski club.

- Know the federal, state and local laws that apply to your area.
- If you are not familiar with a waterway, ask someone who is knowledgeable to tell you about any hidden dangers or things to avoid.
- Whether you plan to be in a watercraft, or skiing/riding behind one it is important you are wearing a properly fitted life jacket (PFD) approved by your country's agency, USCG Type III, ISO, etc.
- Inspect all equipment prior to each use, check bindings, fins, tube, attachment, tow rope and flotation device. Do not use if damaged.

Watercraft Safety: A knowledgeable and responsible driver is the most important safety device on any watercraft.

- Never operate a watercraft, ski or ride under the influence of alcohol or drugs.
- Only use water ballast and people for additional weight.
- Never exceed the passenger or weight limitations of the watercraft.
- Never allow passengers to hang outside the watercraft or towed device or sit on the gunwales or anywhere outside of the normal seating area.
- Never allow water to overflow the bow or gunwales of the watercraft.
- Uneven weight distribution or additional weight may affect the handling of the watercraft.

Carbon Monoxide: The exhaust from the engine on a watercraft contains Carbon Monoxide (CO) which is a colorless, odorless and poisonous gas. Excessive exposure to CO can cause severe injury or death. Follow this advice to avoid injury.

- Never "Platform Drag" by holding onto the boarding platform or being dragged directly behind the watercraft. This is where CO will be.
- Do not sit on the watercraft transom or boarding platform while the engine is running.
- Make sure the engine is properly tuned and running well. An improperly tuned engine produces excessive exhaust and CO.
- If you smell engine exhaust do not stay in that position.
- Go to the United States Coast Guard's website: (www.uscgboating.org) for more information on how to help protect yourself and others from the dangers of CO.

Tow Ropes: Tow ropes come in different lengths and strengths for different activities. Make sure any rope you are using is suited for that activity and that it is in good condition.

- Never use a rope that is frayed, knotted, unraveling or discolored from use or being left in the sun. If a rope breaks while in use it can recoil at the skier/rider being towed or into the watercraft where it might strike passengers. Replace tow ropes with any sign of damage.
- Never use a tow rope with elastic or bungee material to pull skiers or riders.
- Rope should be attached to the watercraft in an approved fashion with hardware designed for towing. Refer to your watercraft manual for instructions on proper tow rope attachment.
- Always keep people and tow ropes away from the propeller, even when idling.
- If a tow rope should become entangled in a propeller, shut off engine, remove the key and secure it in a safe location before retrieving the rope.
- Tow ropes should be neatly stowed in the boat when not in use.

Preparing to ski or ride: Always have a person other than the driver act as an observer to look out for the skier/rider.

- Be sure the driver is aware of the experience and ability of the skier/rider.
- The driver, observer and skier/ rider need to agree on hand signals before skiing or riding. Signals should include READY, STOP, SPEED UP, and SLOW DOWN.
- Start the engine only after making sure that no one in the water is near the propeller.
- Turn the engine off when people are getting into or out of the watercraft, or in the water near the watercraft.
- Always make sure the tow rope is not wrapped around anyone's hands, arms, legs, or other parts of the body.
- Start the watercraft and move slowly to remove slack until the tow rope is tight.
- When the skier/rider signals READY and there is no traffic ahead, take off in a straight line. Adjust the speed according to the signals given by the skier/rider.

Skiing or Riding: The watercraft and skier/rider should always maintain a sufficient distance from obstacles so a skier/rider falling or coasting and/or watercraft will not encounter any obstacle.

- Do not use in shallow water or near shore, docks, pilings, swimmers, other watercraft, or any other obstacles.
- Use only on water.
- Never attempt land or dock starts. This will increase your risk of injury or death.
- Always wear a properly fitted life jacket (PFD) approved by your country's agency, USCG Type III, ISO, etc.
- The faster you ski or ride, the greater your risk of injury.
- Never make sharp turns that may cause a slingshot effect on the skier/rider's speed.
- The Skier/Rider should be towed at an appropriate speed for his or her ability level.

Fallen skier or rider: Falling and injuries are common in skiing or riding.

- Circle a fallen skier/rider slowly to return the tow rope handle or pick up the fallen skier/rider.
- Turn off the engine when near a fallen skier/rider.
- Always keep the fallen skier/rider in view and on the driver's side of the watercraft.
- Display a red or orange skier-down flag to alert other vessels that a skier/rider is down if required by the state in which you are operating.

The Warnings and practices in the Watersports Safety Code represent common risks encountered by users. The code does not cover all instances of risk or danger. Please use common sense and good judgment.

Emergency Procedures

In an emergency situation, you may have to resort to measures which are not commonly practiced. Always assess the dangers of being in harm's way versus the protection of equipment. Keep a sound mind during an emergency and always use common sense.

Explosion and Fire

Many boat fires and explosions involve flammable liquids such as gas or oil, which are used in your boat's propulsion engine(s) and generator. **Carefully follow all warning labels and safety precautions while handling flammable substances.** Many fires in inboard boats start in the bilge area due to gasoline vapors. Gasoline vapors are heavier than air and collect in the bilge of boats.

Explosion

- If explosion is imminent, put on PFDs, grab distress signals and survival gear, and immediately abandon ship.

Fire

- Immediately turn off engines, generators, stoves and blowers.
- Extinguish smoking materials.
- A fixed fire suppression system, if equipped, has heat sensors that automatically flood the machinery space with a fire extinguishant. Allow extinguishant to "soak" the compartment for at least 15 minutes to cool the hot metals or fuel before cautiously inspecting the fire area. Have portable fire extinguishers ready. Do not breathe fumes or vapors caused by the fire or extinguishant.
- If no fixed fire suppression system is installed and a fire is in the engine compartment, discharge portable fire extinguishers through the engine compartment access plate, if equipped. DO NOT open the engine hatch as this feeds oxygen to the fire.
- If you have access to the fire, direct the contents of the fire extinguishers at the base of flames, not at the top.
- Throw burning materials overboard if possible.
- Move anyone not needed for firefighting operations away from the flames.
- Signal for help.
- Put on PFDs (Personal Flotation Devices), grab distress signals and survival gear, and prepare to abandon ship.

WARNING



Burn hazard from gasoline floating on water which is ignited can cause death or serious injury.

Gasoline will float on top of water and can burn. If the boat is abandoned, swim upwind, far enough to avoid fuel that can spread over the surface of the water.

Swamping and Flooding

In the event that the vessel begins to take on water, turn on the bilge pump to evacuate water and slow its accumulation, and try to determine the source of the water. A collision with an underwater object can cause the hull to develop a leak. A loose fitting hose clamp on a piece of equipment can cause a leak. Try to repair the leak if possible. If a leak is threatening the safety of you and your passengers, call or signal for assistance.

- Turn on bilge pump(s).
- Access PFDs, pass them out to everyone, and put them on.
- Identify source of leak and try to stop the leak and flooding.
- **STAY WITH THE BOAT!** A boat will usually float even if there is major hull damage. Rescuers can spot a boat much easier than a head bobbing in the water.
- Signal or call for help.
- If others were on board, try to locate them, make sure that they are conscious and that they can swim.
- Immersion in water speeds the loss of body heat and can lead to hypothermia (the abnormal lowering of internal body temperature).

Capsizing

- If others were on board, try to locate them, make sure that they are conscious and they can swim.
- If possible, access lifejackets (PFDs), pass them out to everyone, and put them on.
- **STAY WITH THE BOAT!** A boat will usually float even if there is major hull damage. Rescuers can spot a boat much easier than a head bobbing in the water.
- Signal or call for help.
- Immersion in water speeds the loss of body heat and can lead to hypothermia (the abnormal lowering of internal body temperature).

Staying Afloat

- Remain calm. Do not thrash about or try to remove clothing or footwear. This leads to exhaustion and increases the loss of air that may keep you afloat.
- Keep your lifejacket (PFD) on.
- Keep your knees bent.
- Float on your back and paddle slowly to safety.

Collisions

- Immediately account for all passengers.
- Check for injuries.
- If any person is in the water make sure they have proper flotation devices.
- Assess the hull for damage.
- Activate the bilge pump(s) to reduce any flooding.
- Try to operate the boat to keep the damaged area above water.
- If necessary, call or signal for assistance.
- **STAY WITH THE BOAT!**

Grounding

In the event you run aground, assess the situation before proceeding. Your response to grounding will depend on how hard the boat hits bottom and whether the boat remains stranded, the extent of damage, and proximity to shore and help.

- If it is a simple touch, you may need only to inspect the hull.
- If you are aground, assess the situation before reacting. In some cases, throwing the boat into reverse can cause more damage.
- Check for leaks and immediately stop any water from entering the boat.
- Inspect the hull, steering system and propulsion system for damage.
- Maneuver the boat to safe water only if the hull and all operating systems are in satisfactory operating condition. Otherwise, call or signal for assistance.

Person Overboard

- Immediately react to a person who has fallen overboard by sounding an alarm.
- Keep the victim constantly in your sight.
- If another passenger is on board, assign them to look at and keep pointing at the person in the water. They are to do nothing else but stay focused on the person in the water and to point at them.
- Throw the person a life preserver even if they are wearing a PFD. It will serve as a marker in the water and will provide additional flotation.
- Immediately slow or stop the boat and safely circle toward the victim as soon as possible.
- Keep the victim on the helm side of the vessel so as to keep the victim constantly in your sight.
- When almost alongside, shut off the engine.
- Assist the person into the boat.

Drowning

- Swim to rescue a drowning victim only as a last resort.
- Immediate resuscitation is critical! It may be possible to revive a drowning victim who has been under water for some time and shows no sign of life. Start CPR immediately and get the victim to a hospital as quickly as possible.
- Keep the victim warm.
- Use care in handling. Spinal injury may exist if the victim fell overboard.
- Call and signal for help.

Medical Emergency

In an emergency, you may be far from professional medical assistance. Be prepared and know how to use your first aid kit. Be aware of any special medical conditions of your passengers.

Operation Failure

If you experience a propulsion, electrical, steering or control failure, immediately shut off the engine. If it is safe to do so and you are qualified, then try to determine the cause of the failure and repair. Otherwise, call or signal for assistance. Anchor the boat if drifting will put you and others in danger.

Towing

WARNING



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

A recreational boat towing another should be a last resort due to the potential for damaging one or both boats. The Coast Guard or a private salvage company is better equipped for this activity. A recreational boat may assist by standing by, and possibly by keeping the disabled boat's bow at a proper angle until help arrives. Only when conditions are ideal—that is, waters are calm, disabled boat is small, appropriate hardware is available, and one or both skippers know the correct technique—should a recreational boat tow another.

Towing Vessel

- Be sure your boat will not run aground too.
- Because you are maneuverable and the grounded boat is not, you should pass the towline to the grounded boat.
- Select an appropriately strong tow line. Use double-braided or braid-on-braid line. Never use three-strand twisted nylon; it has too much elasticity and can snap back dangerously.
- Select an appropriate attachment point. If available fasten the towline to the forward tow pylon of the towing boat. Otherwise fasten tow line to stern tow point. Fastening to the stern tow point will restrict maneuverability of the towing boat.
- If possible, use a bridle.
- Move slowly to prevent sudden strain on slack line.
- Proceed at slow speed.
- Avoid abrupt changes in throttle as that may cause the tow line to slacken and jerk tight. Sudden strain or jerking the line causes excessive tow line forces which may part the line. Keep slack out of the tow line, but if it occurs proceed slowly to again take up the strain on the line and avoid sudden jerks in the line.
- Be ready to cast loose or cut the line if the towing situation becomes hazardous.

Vessel Being Towed

- Attach the towline to the bow eye.
- If it is necessary to be towed after being freed, keep someone at the wheel to steer.

Both Vessels

- If you attach the towline to a fitting, be sure the fitting is fastened with a through bolt and is reinforced on the underside.
- Keep lines clear of propellers on both boats.
- Keep hands and feet clear of the other boat. Do not get caught, or pinched between the two boats as severe injury could occur.
- Never hold a towline after it is pulled taut.

Chapter 2

GAUGES & CONTROLS



No other ski boat manufacturer incorporates in their product as many innovative and technically advanced features as Axis Wake Research.

Standard Gauges

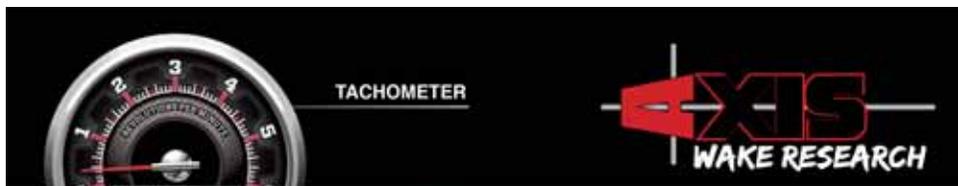
The following gauges are included on all models. It is important for the safe and proper operation of your boat to fully understand these gauges.

Axis In-Dash Graphical Display



Figure 2-1. Graphical Display

Tachometer



TACHOMETER

The **AXIS** Tachometer has an alphanumeric display that allows the user to access both boat and engine information. The toggle switch is located on the Tachometer. Some information such as the depth and GPS may not be present depending on if a depth module or GPS Puck has been installed.

Toggle between screens using the LEFT and RIGHT buttons.

OIL PSI
0 42 80

ENG TEMP
80 163 240

VOLTS
9 13.8 16

AIR 32 F
LAKE 32 F

DEPTH DEEP

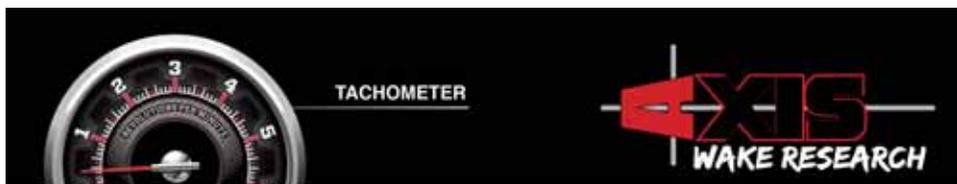
AIR 32
LAKE 32
8.0 HRS

OIL PSI	ENG TEMP
42	163
VOLT	HOLES
13.8	17.6

COURSE	COURSE
SW	233°
GPS TIME	2:28

TACHOMETER ICONS

<p>MIL Engine Alarm Check Go to Check Fault Codes Menu Item</p>	<p>CHECK ENGINE Check Engine Alarm Go to Check Fault Codes Menu Item</p>
<p>CRUISE ON</p>	<p>WEDGE DOWN Wedge Down Warning</p>



To enter the SETUP MODE, hold down both buttons for 3 seconds. Press the next button until EXIT SETUP option is available to exit SETUP MODE.

Press and hold BOTH buttons until SETUP appears.



Press LEFT button for next menu item.



(ENGLISH, METRIC)



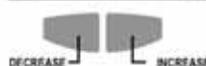
(OFF, MIN, MID, MAX)



(ON, OFF)



SELECT

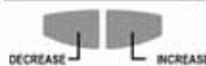


DECREASE

INCREASE



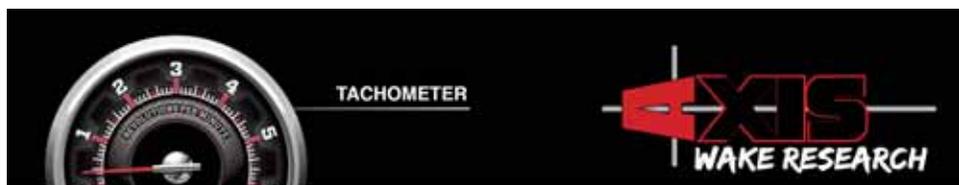
SELECT



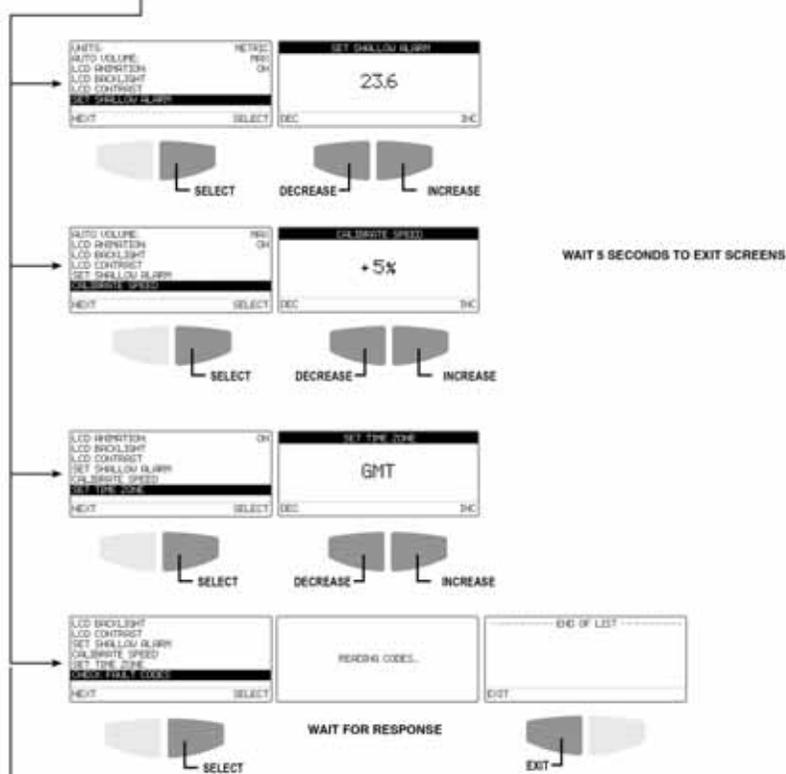
DECREASE

INCREASE

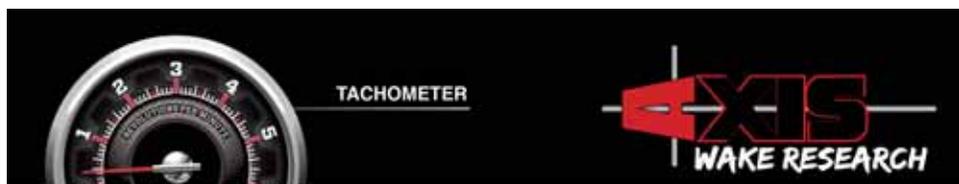
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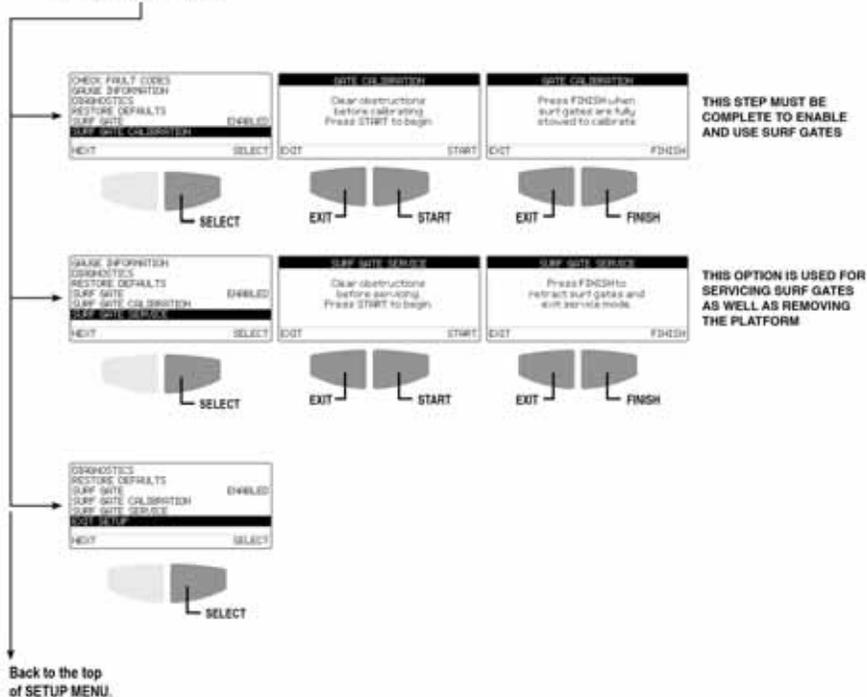
Press LEFT button
for next Menu Item.



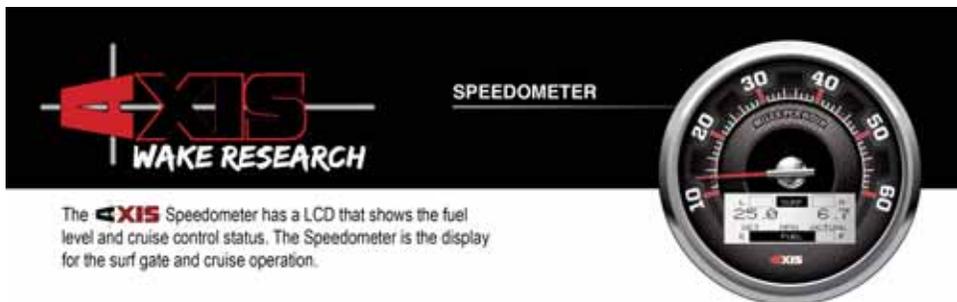
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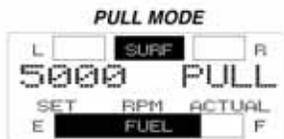
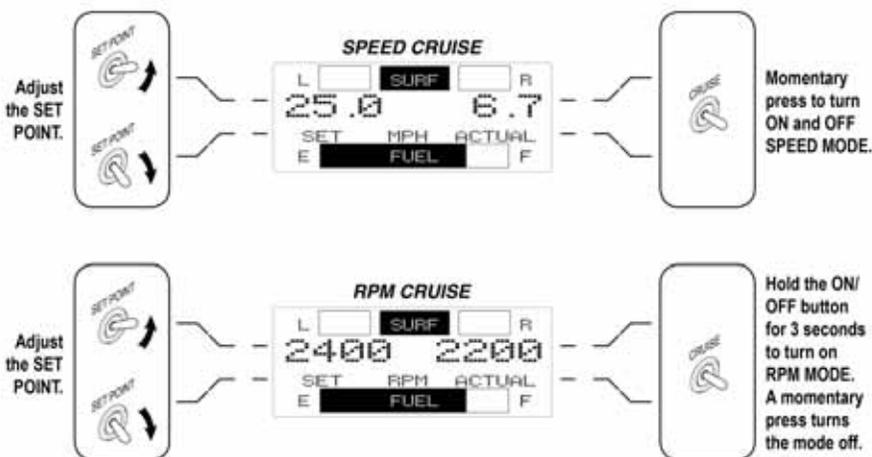
Press LEFT button
for next menu item.



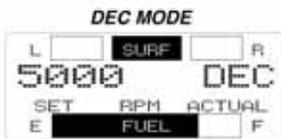
Speedometer



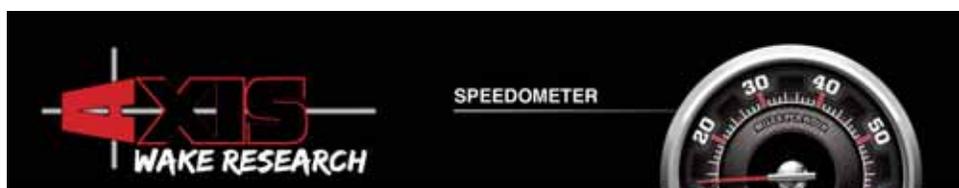
The **AXIS** Speedometer has a LCD that shows the fuel level and cruise control status. The Speedometer is the display for the surf gate and cruise operation.



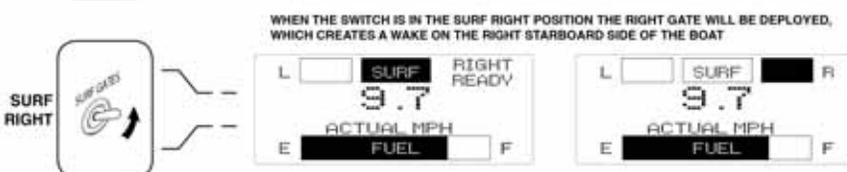
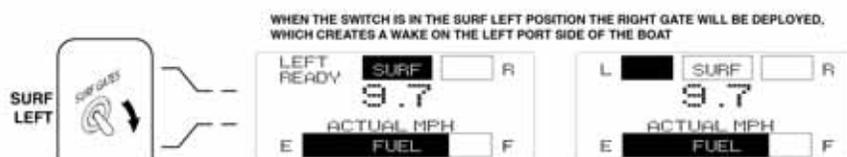
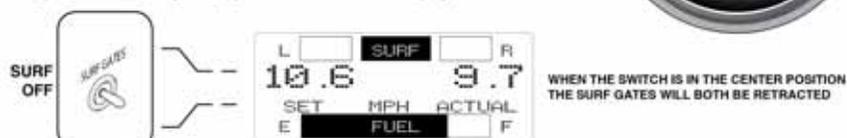
THE BOAT WILL ACCELERATE BEFORE LIMITING THE RPM TO THE SET POINT



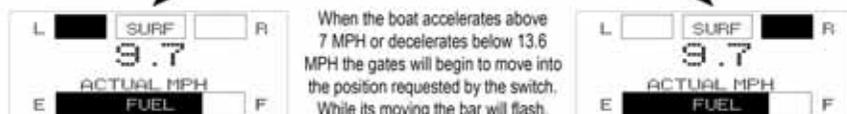
THE BOAT WILL AUTOMATICALLY DECELERATE TO THE RPM SET POINT WHEN IT HAS REACHED SPEED



The **AXIS** Speedometer has a LCD that shows the fuel level, surf gate, and cruise control status. When used with surf gates the speedo will display surf gate status. Warnings will appear on the Tachometer display.



The **LEFT** or **RIGHT** bar will flash while gate is moving.



ALARMS

SURF GATE HIGH SPEED
 SURF GATE LOW SPEED
 SURF GATE GENERAL ERROR
 SURF GATE RETRACT LEFT OR RIGHT
 SURF GATE EXTEND LEFT OR RIGHT

Occurs when speed is above 13.6 MPH with gate active.
 Occurs when speed is below 7 MPH with gate active.
 General error reported by Lenco module.
 Over current alarm when gate is trying to retract.
 Over current alarm when gate is trying to extend.

If any alarm occurs the surf gate will be locked out from operation. The lock out can only be cleared by pressing the either button on the tach and the error being corrected.

Circuit Breakers

All major boat circuits are protected from shorting and overload by resettable circuit breakers. If a problem develops with one of the following circuits, switch off the circuit and wait about one minute. Then push the appropriate breaker button fully and switch on the circuit. If the circuit continues to trip, there is a problem somewhere in the system. See your dealership immediately to locate and correct the problem.

WARNING | *If a circuit breaker continues to trip, do not hold the breaker in position to activate the electrical circuit. See your dealership immediately to locate and correct the problem before operating the boat.*



Figure 2-2. Circuit Breaker Panels

Switches & Indicators

Accessory Switch Panels

These panels are located in the dash directly below the standard gauges and are used to activate the following features. You will find the feature or accessory provided within each button face for description.

- Horn
- Navigation/Anchor Lights
- Interior/Dash Lights
- Blower
- Bilge Pump
- Docking Lights
- Center Ballast
- Left, Rear Ballast
- Right, Rear Ballast
- Accessory
- Accessory
- Info Adjustment
- Speed/RPM Adjustment
- Cruise ON/OFF



Figure 2-3. Accessory Switch Panel

Navigation/Anchor Lights

In the ANC (anchor) position, this switch is used to activate the all-around light on the tower. Keep the all-around light on after dusk whenever your boat is at anchor in the open waterway. While underway, place the switch in the NAV position to also activate the red and green navigation bow lights.

Interior/Dash Lights

This switch is used to activate the interior lights. The interior lights include lights in the gunnels, storage compartments, dashboard and optional underwater transom lights and underseat lighting, if equipped.

Blower

This switch activates the blower for the engine compartment. The primary function of the blower is to eliminate any fumes in the motor compartment prior to starting the engine and while operating below cruising speed.

WARNING



Gasoline Vapors Can Explode. Before starting engine, operate blower for 4 minutes and check engine compartment for gasoline leaks or vapors. Run Blower below cruising speed.

Bilge Pump

The bilge pump switch is used to activate the bilge pump so that any excess water in the bilge area may be drained out. The bilge pump has a sensor in the bilge area and will turn on automatically whenever 2 in. or more of water is detected.

The bilge pump is wired directly to the battery. This circuit can be identified by an inline fuse from the battery labeled “Auto Bilge Power.” If your boat takes on water for any reason, the auto bilge pump will activate and continue to run until the water level drops low enough to deactivate the pump. If water continues to enter the boat, the pump will continue to run until the battery is drained.



Figure 2-4. Inline Fuse

Docking Lights

This switch is used to activate the docking lights. Only use docking lights during slow speed docking maneuvers.

Ballast Switches

These switches are used to fill or drain the corresponding ballast tank. Press up to fill the tank. Press down to drain the tank.

Accessory #1

This switch is used to supply power to the optional heater unit. (For information on the use of the heater, please see *Heater* in the optional equipment section of this manual.)

Accessory #2

This switch is used to supply power to aftermarket accessories. Attaching an accessory to this switch should only be done by a qualified technician.

Stereo Power

The optional stereo system can be activated by either turning the ignition key on, or can be used without the engine started by turning the key to the left position; the stereo head unit is located on the helm to the left of the steering wheel.

Surf Service

Surf Service will enable both gates to fully deploy. This feature can only be accessed while the boat is not moving.

The Surf Service feature is recommended to be used when the swim platform needs to be removed or added without the interference of Surf Gates.

Throttle Control

The throttle lever is located to the right of the driver. When the throttle is vertical, it is in the “NEUTRAL” position. At the base of the throttle you will find the shift lock knob. Pulling outward on this knob disengages the transmission, thereby allowing use of the throttle without engaging the transmission. This is used for warm-up of the engine in neutral. Be sure to position the throttle vertically (in “NEUTRAL”), before re-engaging the transmission, by depressing the knob.



Figure 2-5. Throttle

When engaging the transmission from “NEUTRAL” to either forward or reverse, you must pull up on the safety collar located directly below the throttle lever knob.

WARNING



Do not shift from forward to reverse at high RPMs; damage to the transmission will result. When shifting from forward to reverse you must stop in the NEUTRAL position, doing this allows the engine to run in its idle position before moving into the opposite gear. Moving the shift lever from FORWARD to REVERSE without stopping in NEUTRAL can cause the transmission to “slam” into gear, damaging the transmission and/or causing the engine to shut off. This will cause temporary loss of boat control which can cause damage and/or injury to the boat and/or persons in or around the boat.

WARNING



Before starting the engine or engaging transmission, ensure all swimmers are out of the water.

Steering System

It is important that you get the “feel” of your Axis boat’s steering system. Turn the wheel from full left to full right, and make sure the rudder is turning accordingly. The system should operate freely and smoothly. See *Axis Exclusive Adjustable Rudder System* in Chapter 3 for rudder adjustment.

NOTICE *It is normal for your Axis steering to pull slightly to the right under normal driving conditions.*

Emergency Engine Stop Switch

The emergency stop switch attaches to the operator of the boat and shuts down the engine if the operator is accidentally forced away from the helm.

The switch consists of an ON/OFF switch and a switch clip/lanyard clip, which is connected between the stop clip and the operator. Should the operator move away from the controls, the clip pulls free, flipping the switch to the OFF position and stopping the engine. If the engine must be shut down quickly, a pull on the lanyard cord to release the clip from the switch will stop the engine.

To reset the switch after activation, reinstall the lanyard clip and flip switch to the UP position.

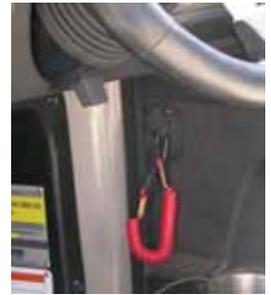


Figure 2-6. Emergency Engine Stop Switch

Engine Compartment Fire Extinguisher

Your boat is equipped with a Fireboy® Fire Extinguishing System. The extinguisher is mounted in the engine compartment.

The fire extinguishing system is activated when the key is turned to the ON position. An indicator light mounted next to the emergency safety lanyard will illuminate green, indicating the fire extinguishing system is activated.



Figure 2-7.



Figure 2-8.

WARNING

Do not start the engine if the indicator light does not illuminate green when the key is in the ON position. See your dealership immediately to locate the problem.

The extinguisher is equipped with a pressure gauge indicating the level of charge. Inspect the pressure gauge daily before starting the engine.

If the gauge indicates RECHARGE, service the fire extinguishing system before operating the boat.



Figure 2-9.

WARNING

Do not operate the boat if the fire extinguishing system requires service. See your dealership immediately to service the system.

The fire extinguishing system will automatically actuate when the sensor on the extinguisher detects the temperature in the engine compartment reaches 175°F.

When actuation occurs:

- Immediately shut down the engine, powered ventilation and electrical systems.
- Extinguish all smoking materials.
- Do not open the engine compartment.

After actuation:

- Before inspecting for damage, allow the agent to “soak” the compartment for at least 15 minutes and wait for hot metals or fuels to cool.
- Have an approved portable fire extinguisher in hand and ready to use.
- Do not breathe fumes of vapors cause by the fire. They are hazardous and toxic.

NOTICE

For additional fire extinguishing system information and safety concerns, refer to the Fireboy® owner’s manual in the information packet shipped with your boat.

Motorbox Cover

The motorbox reduces engine noise and provides protection for the passengers on board. To open, grasp the pull strap and lift open. The motorbox is equipped with a gas-assisted spring to provide support for the compartment when opening.



Figure 2-10. Motorbox

WARNING

Running the engine with the motorbox open exposes rotating machinery which can cause injury to occupants of the boat.

V-Drive Engine Access Hatch

An engine access hatch is located behind the rear observers' seat on the V-Drive. Access allows the ability to service engine for required maintenance and for additional storage on both sides of the engine.

WARNING



Ensure the access hatch is securely closed before operating the boat. Failure to do so could allow the access hatch to open while underway and could cause injury to the occupants and damage to the boat.



Figure 2-11. Engine Access Hatch

Driver's Seat

The driver's seat can be adjusted forward and backward by pulling the lever located on front left side of the driver's seat. Pull lever outward and adjust seat as needed.

Swivel Seat Base

All models are equipped with a swivel seat adjustment. To adjust the seat, pull up on the lever located on the port side of the seat. The seat should swivel freely. To reset the seat position, rotate the seat back to its original bow-facing position.



Figure 2-12. Bolster Seat



Figure 2-13. Seat Adjuster

Sundeck

Most boat models are equipped with a standard sundeck feature designed for sunbathing comfort.

WARNING



The Sundeck is not to be used while the engine is running. Serious injuries or death could occur to persons not seated properly should the boat come to an abrupt halt.



Figure 2-14. Sundeck

Ski Pylon

The pivoting-head ski pylon is an aluminum post located directly in front of the motorbox/sundeck area.

WARNING



The optional ski pylon is designed for normal water skiing activities: slalom, jumping, kneeboarding, tricks and barefooting. Any other uses such as parasailing, kite flying, towing pyramids of skiers, etc., may over-stress the pylon and possibly cause personal injury and/or equipment damage. DO NOT overload the pylon or use it for anything other than watersports.



Figure 2-15.
Pivoting-head Ski Pylon

Swim Platform

A removable swim step is located on the stern of the boat to provide easy access into and out of the water for boat skiers and swimmers. To remove, disconnect the pins located on each side the platform brackets, and, depending on model, either lift or slide back on platform. To replace, reverse these steps. Be sure the pins are securely attached.

WARNING



DO NOT use the boarding platform for any other purpose than boarding the boat or preparation of entering the water, and DO NOT use the boarding platform when the engine is running.



Figure 2-16. Swim Platform

WARNING

A spinning propeller or carbon monoxide can cause serious injury or death. Stay off and keep away from boarding platform while engine is running. The boarding platform must be attached when the boat is in use.



Figure 2-17. Swim Platform Pins

Navigational Lights

As required by the U.S. Coast Guard and most maritime authorities, all recreational vessels are required to display navigational lights between sunset and sunrise and other periods of reduced visibility. All Axis Boats are equipped with bow and all-around navigational lights.

The bow light located at the tip of the bow is two colored — red and green, and is used to keep others aware of your presence when operating your boat at night.



Figure 2-18. Bow Light

The all-around light is attached to the tower on all Axis boats.

CAUTION

The bow light will get hot upon illumination, which can cause burns if touched. The light can stay hot for an extended period of time after it has been turned off.

Storage Areas

Observer Storage Area

The storage area behind the observer seat is accessible by opening the observer seat door.

Under Seat Storage

Conveniently located on both sides of the boat, these storage areas are ideal for all of your gear.

Transom Storage

The storage is accessible from either the interior or from the transom swim platform by lifting the hatch cover.



Figure 2-19. Transom Storage

Bow Storage

The seat cushions can be removed to provide additional storage.



Figure 2-20. Bow Storage

Glove Box Storage

Located on the port side of the boat above the observers' seat for easy access and storage. This small area can be used to store registrations, tools, wallets, cell phones, etc.

NOTICE

The glove box is not water-tight. To prevent water damage to paperwork and/or electronics, we suggest placing electronics such as cell phones and iPods in a ziplock bag to prevent damage from rain or water over the bow.



Figure 2-21. Glove Box Storage

Drain Plugs

Your Axis is equipped with two drain plugs; one located at the transom of your boat and one T-handle located mid-ship near the driver's seat, reachable through the access plate in the floor.

Transom Drain Plug

This plug is located in the center of the transom at the bottom edge, and is provided to allow for drainage of the bilge area, when needed.



Figure 2-22. Transom Drain Plug

NOTICE *Ensure all drain plugs are secure prior to launching your boat. Damage caused as a result of these plugs not being installed will not be covered under your Axis warranty.*

Bilge Drain Plug

A T-handled, brass bilge drain plug is located in the bilge. Location is mid-ship near the driver's seat, reachable through the access plate in the floor.

NOTICE *Ensure that all transom and bilge drain plugs are securely in place before placing the boat in the water.*



Figure 2-23. Bilge Drain Plug

Speedometer Pickup

Your boat is equipped with a Paddle wheel speedometer pickup, which can be found directly under the running surface of your boat. The paddle wheel is used to measure static water by rotation of the paddle wheel unit. The paddle wheel unit also monitors the Water Temperature unless a Depth Transducer is installed (which will then assume the responsibility to measure Water Temperature). This information is transferred to the dash computer and a computer program converts information which is transferred to the speedometer gauge. The GPS puck is located under the dash.



Figure 2-24. Thru-Hull Paddle Wheel Pickup

See *Troubleshooting* section of this manual for basic maintenance information.

Tilt Steering Wheel

The tilt steering wheel allows for maximum driver comfort. To adjust the height of the wheel, simply press down on the lever located under the wheel. Move the wheel to the position that is most comfortable. When the wheel is in the desired position, simply release the lever to lock the wheel in place.

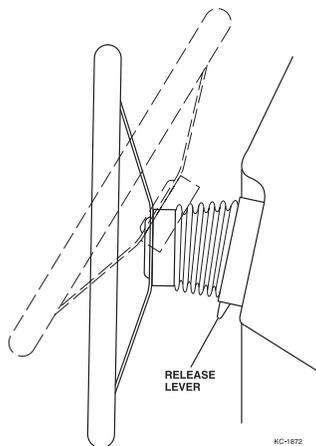


Figure 2-25. Tilt Steering

Exhaust

The exhaust system is used to remove engine exhaust fumes. To ensure that your boat's exhaust system is working correctly, it is important that you inspect for exhaust leaks. The following information will allow you to check these systems. Keep in mind that you will be checking engine while turned on, and that you will need to take safeguards against getting yourself or others caught in the moving parts. Use extreme caution while performing this task.

- Turn engine off and disconnect the engine safety switch. Be sure the throttle shift control is neutral. The engine must be cool.
- Open the engine hatches and check the exhaust system from the engine to the transom for obvious damage.
- Reinstall engine safety switch and start the engine with engine compartment open. Check hose connections between the exhaust manifolds and the muffler for leakage.
- If leakage is apparent, tighten the hose clamps, being careful not to crimp the hose. See your Axis dealer for parts and or service.

NOTICE

Any engine equipped with Catalyst Exhaust Manifolds may produce an unusual smell which is characteristic of an engine with a catalyst exhaust system.

WARNING



Allow the catalyst exhaust manifolds to cool before touching them. While the engine is operating and right after turning the engine off, the manifolds are extremely hot and will burn the skin.

Ventilation

The ventilation is used to remove potentially hazardous accumulation of explosive vapors from the bilge areas of your boat's hull and engine compartment. Therefore, proper ventilation is essential to the safety of the boat and persons in or around the boat structure.

Your boat is equipped with a ventilation system that will ensure complete removal of these dangerous fumes. However, it is your responsibility as the operator of the boat to ensure these systems are working efficiently. The boat's primary source for expelling fumes from the boat is the blowers located in the bottom of the bilge and at the transom venting points.

Your boat is also equipped with a natural air-intake that forces air through a venting system on the deck of your boat, and channels air from the bilge to the transom vent.

Closed Cooling System

If your boat is equipped with an optional closed cooling system, you will need to maintain correct fluid levels.

- Open engine compartment and remove reservoir cap.
- Ensure coolant is to the top of the reservoir filler neck.
- Use Sierra Anti-Freeze.

NOTICE *To ensure we are always mindful of our environment, it is an Axis Boat recommendation to use Sierra Brand antifreeze because of its propylene glycol formulation. SIERRA Antifreeze is less toxic and safer than ethylene glycol coolants to children, pets and wildlife, in case of spills, leaks, boil-over or careless disposal.*

CAUTION



The engine must be cool when checking the coolant level. Hot coolant and steam under pressure may cause injury.

NOTICE *For specific engine information including its warranty, refer to the engine's owner's manual in the information packet shipped with your boat.*

Optional Equipment

Heater

If your boat is equipped with a heater, you will find a HIGH/LOW accessory switch located on the dash panel. Located in the dash is a snorkel tube that can be pulled out and directed wherever you like within a five-foot radius. Please refer to the information provided in your owner's packet for specific use.



Figure 2-26. Heater

Boat Cover

If your boat is equipped with this option, know the type of cover you are placing on your boat. Some Boat Covers have been made strictly for mooring and storage only, and some have been made for storage and travel. If you question the type of cover that you have purchased, check with your Axis dealer for assistance. Do not cover the boat if the interior is wet or damp. This can promote mildew growth.



Figure 2-27. Boat Cover

NOTICE

Damage caused to your boat as a result of improper cover use is not covered under your Axis Boats warranty. Damage can result from wind whipping, and possibly cause abrasions to your gelcoat surface or upholstery. Use the proper shipping cover for travel purposes. Usage of any color boat cover other than the factory gray will void the upholstery warranty.

NOTICE

Warranty coverage for your boat's cover, canvas or bimini is not included in the Axis boat warranty. For warranty assistance for these items, contact the manufacturer directly.

Pull-Up Cleats

Pull-Up cleats are available for all boat models. These cleats will sit flush on the side of the boat deck when depressed. To use the cleats, simply pull them up. Push the cleats down to stow them.



Figure 2-28. Pull-Up Cleat

Docking Lights

The docking lights should only be used during slow speed docking maneuvers. The lights are activated by a switch on the accessory switch panel and have a 10 amp circuit breaker. The docking lights use LED bulbs and cannot be replaced.

Tower

FatAX Tower (Standard)

This tower's main hoop is made of oversized 3" tubing and the bases are billet aluminum and through-bolted with backing plates.

Properly stow the bimini top in its boot and remove all boards from the board racks prior to towing/trailing your boat. Damage to the bimini from towing while not stowed is not covered under warranty. Damaged or excessive wear to board racks caused by towing or trailering with boards attached is not covered under warranty.



Figure 2-29. FatAX

WARNING



Due to vibration and rough water conditions it is possible for bolts to loosen. Before each use, inspect all mounting bolts (Tower, Wakeboard Racks, Lights, Speakers, etc.) to ensure they are tight. See your local dealer for any questions and/or assistance. Failure to do so can cause serious damage and/or injury to the boat and/or passengers.

The tower is rated for a maximum of 130 lbs (58.9 kg) accessory weight and not more than 600 lbs (272.1 kg) total rider weight. Exceeding these limits voids any structural warranty pertaining to the tower. Approved activities for usage of the tower include wakeboarding, wake skating, skiing or tubing.

NOTICE

Exceeding these recommended tower weights may cause damage to the tower and structure of the boat. Damage to the boat and/or tower due to overweighting will not be covered by the Axis boat warranty.

Only factory pre-drilled holes should be used to install factory accessories on the tower. The use of aftermarket accessories not supplied by Axis Wake Research may cause damage not covered by the tower warranty. Drilling any additional holes in the tower will void any structural warranty.

Towers are configured with shocks to help stabilize the tower when the tower knobs/bolts are removed for lowering the tower.

Appropriate care must be taken to ensure the tower is not allowed to fall.

Towers are configured from the factory with shocks based on the factory-installed components. If ANY additional components are mounted to the tower after the boat leaves the factory, it is the dealer and the consumer's obligation to validate that the installed shocks and the tower are rated for these additional components.

Hardware

Most of the metal hardware on your boat consists of brass, stainless steel, or aluminum and should be cleaned on a periodic basis with soap and water. In fresh water, metal fittings and hardware should be sprayed regularly with a rust inhibitor, and after every use in saltwater.

DO NOT use cleaners that are not intended for use on stainless steel. Glass, tile, counter or citrus cleaners can damage hardware permanently. Always follow cleaning, by applying a high-quality metal polish or automotive wax after cleaning. Test products in an inconspicuous area before applying to the complete surface, especially if you are not familiar with the product.

All metal parts, including but not limited to tower accessories, board racks or speaker cans, should be cleaned with mild soap and water frequently and waxed periodically. A corrosion protectant is highly recommended on these components for use in areas of salt/brackish water. Pitting or oxidation is not covered under warranty. Pitting is not the same as separation.

Wedge

The Axis Auto-Set Wedge foil is a solid, one piece, welded design constructed from solid stainless steel. The wedge foil does not lock in the down position. It is designed to move up or down freely and locate in the down position.

To lower wedge unit, depress spring loaded pins and lower foil. Be sure to raise and lock foil in the up position each time after use.

If your boat is equipped with the Wedge option, you will find that the unit has two positions - DOWN or UP. To adjust wedge position, access wedge through the swim platform door.



Figure 2-30. Wedge Down



Figure 2-31. Wedge Up

WARNING



When the wedge is up, ensure both spring loaded pins are engaged before taking off. DO NOT adjust manual wedge while engine is on or boat is moving.

WARNING



Excessive speeds over 25 MPH could cause adverse handling conditions. It is recommended that you put the Wedge unit in the UP position if you will be traveling over these speeds.

Chapter 3

OPERATION



Everyone benefits from the safety of others.

Trailer

The trailering information contained in this section describes general guidelines and procedures used by many boaters. We recommend, in addition, that you always follow the specific information provided by the manufacturer of your trailer.

NOTICE *Your trailer is not manufactured by Axis. For specific trailer information, refer to the trailer's owner's manual in the information packet shipped with your boat.*

Load Carrying Capacity

The certification label attached by the manufacturer on the left forward side of the trailer will show the maximum load carrying capacity of the trailer. The label is required to show the Gross Vehicle Weight Rating (GVWR), which is the load carrying capacity plus the weight of the trailer itself. Be sure that the total weight of your boat, gear and trailer does not exceed the GVWR. Verify tire pressure for load capacity.

NOTICE *Consult your trailer dealer for other state regulations concerning brakes, lighting and other equipment options.*

Hitch

Hitches are divided into classes that specify the gross trailer weight (GTW) and maximum tongue weight for each class. Always use a hitch with the same class number as the trailer, or greater. Most boat trailers connect to a ball hitch that is bolted or welded to the towing vehicle. Clamp-on bumper hitches are not recommended.

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

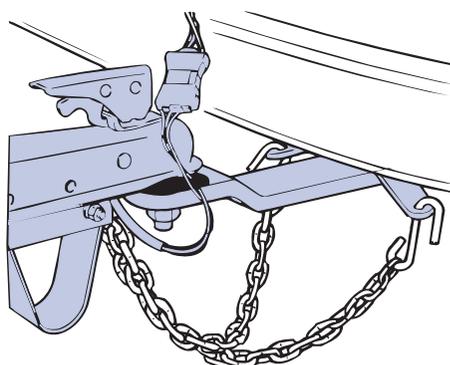
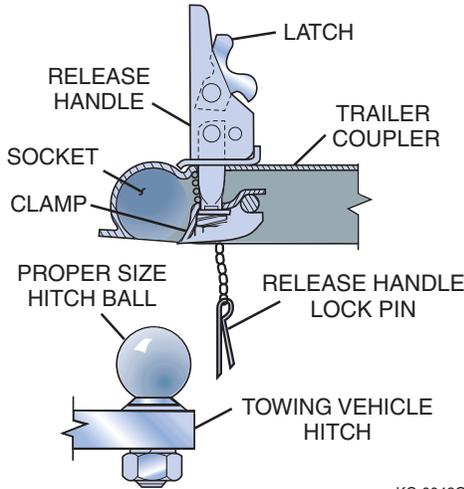


Figure 3-1. Trailer Hitch

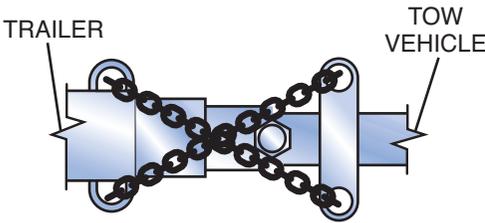
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Safety Chains

CRISSCROSS SAFETY CHAINS



BOTTOM VIEW OF HITCH COUPLING

KC-0045C-B

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

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

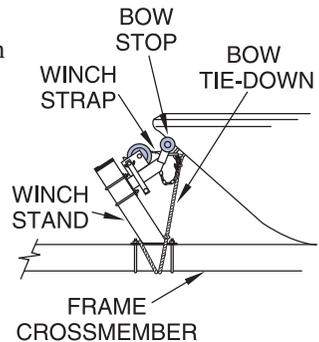
Make sure the proper chains are correctly attached between the towing vehicle and trailer before and during each trip.

Figure 3-2. Safety Chains

Tie-Downs

Making sure your boat is held securely in place on the trailer hull supports is extremely important, especially when underway. Regardless of your trailer make or model, there are two key areas to consider:

- **Bow Tie-Downs:** A bow stop to hold the front of your boat in place is located on the winch stand. It should be positioned so that the winch line pulls straight and is parallel to the trailer frame. A separate tie-down should then be attached to hold the boat downward and forward. This may be accomplished by a line from the bow eye to an attachment point on the trailer frame or winch stand.



KC-1711.3M

Figure 3-3. Bow Tie-Down

- **Rear Tie-Downs:** It is very important to be sure the transom of your boat is resting fully and securely on the supports provided at the rear of the trailer, and that it remains in place when parked or underway. Special rear tie-downs are available for this purpose. Check often to be sure the rear tie-downs are securely locked in place and tight enough to prevent any movement of the boat.



Figure 3-4. Transom Tie-Down

Backing the Trailer

Backing the boat trailer may sometimes be a difficult task. It is recommended that you practice backing the trailer in a vacant lot or open area before attempting it at a congested boat launch.

Follow these basic rules when backing:

- 1) Turn the front vehicle wheels in the opposite direction in which the trailer is to travel.
- 2) Back vehicle normally once the trailer turn is started.
- 3) Have your vehicle equipped with a right hand mirror, as required by law when towing.

Launching

Following are some helpful tips to assist you with launching your boat:

- Before launching, check the type and condition of the ramp. Ramps are usually made of cement but often times are made of asphalt or even sand. When wet, these ramps can get very slick and can cause additional difficulties when launching your boat.
- Have someone assist you when backing your boat. Back the trailer to the edge of the water and stop. Be sure to properly secure your vehicle.
- Prepare for placing the boat in the water by removing any tie-down straps, disconnecting tail light connections, and attaching a line to the bow eye fitting. If you are using an outboard, be sure that the outboard unit is trimmed up. Be sure to reinstall the bilge drain plug if it has been removed.
- To launch, back the trailer into the water to a point where the boat will clear the bottom. Stop and secure the vehicle.
- Unlock the winch line from the boat. Push the boat into the water and have your assistant guide the boat with the bow line.
- Once the boat is cleared of the trailer, pull your vehicle out of the water and park it.

Reloading Procedures

To reload, repeat the unloading procedures in reverse. Other important tips to remember are:

- Try to idle coast onto the trailer; do not power onto the trailer.
- When pulling the boat onto the trailer, be sure the boat is centered as much as possible. The distance between the boat and runner board should be approximately equal on both sides.
- Make sure the boat is securely in place before moving the trailer.

Load Capacity

The U.S. Coast Guard and most maritime authorities require that boats under 20 ft have a certification or builder's plate stating the number of persons and maximum weight a boat will handle safely under normal conditions. Weather conditions and other factors can adversely affect the performance of the boat and must be taken into consideration when loading to avoid an unsafe condition. The certification is attached near the helm forward of the throttle. Overloading is a violation. Do not carry more weight or passengers than indicated on the plate. The presence of the plate does not relieve the owner/operator from responsibility for using common sense and sound judgment.

Occupants must ensure that ALL weight in the boat is evenly distributed to prevent unsafe operation. Care must be taken to ALWAYS avoid creating a "bow heavy" or any other unsafe condition. If in doubt contact an authorized Axis Wake Research service center. Do not allow anyone to sit on the back of the boat, swim platform, side of the boat or any other non-approved seating area while the engine is running or the boat is in motion.

CAUTION



Never exceed the load capacity and distribute weight evenly between bow and stern, and port to starboard.

CAUTION



SWAMPING HAZARD

Overloading may reduce the stability and seaworthiness of the boat.

- The weight of all persons and gear including non-factory fitted ballast bags, water bladders, ballast tanks and fat sacks should never exceed the maximum weight capacity listed on the capacity label specified by the U.S. Coast Guard or your local maritime authority.
- Add the weight of water contained in non-factory installed ballast bags or tanks to the weight of the persons and gear. When determining total weight on board, calculate the weight of water at 9 lbs/gal (1.1 kg/L).

Axis Wake Research reminds you that when your boat is fully loaded with the maximum number of persons and gear as indicated on the capacity plate, boat speed and performance will be affected. Operate a boat in this condition with extra care.

Axis Wake Research designs and engineers our boats to have the best possible performance at sea level with factory-installed equipment. For this reason, it is likely your boat can be equipped or loaded in a way that can restrict its performance when operated at higher elevations. Not all available options may be able to be utilized under these conditions. Consult your dealer for more information.

Fueling

It is very important to take special precautions to avoid spillage while fueling your boat. Gasoline vapors are heavier than air and will develop in the lower cavities of the boat, such as the bilge.

NOTICE *Do not allow the fuel tank to empty completely during operation. Doing so may damage the fuel pump. Damage from running fuel systems empty is not be covered under standard warranty.*

Below is a list of guidelines you should follow when fueling your boat:

- 1) Extinguish all cigarettes and other flame or spark producing items.
- 2) Make sure all power is off, and do not operate any electrical switches.
- 3) Be sure to wipe off any spillage that may have occurred.
- 4) Operate the bilge blower for a minimum of four minutes before starting the engine.

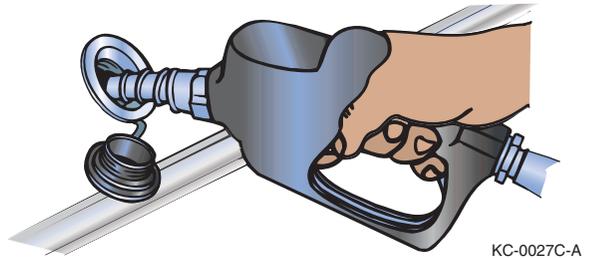


Figure 3-5. Fueling

WARNING



Do not overfill fuel tank. The fuel tank will expand and contract based on weather conditions, and can cause fuel to spill out the fuel exhaust vent, which may cause fire/explosion to occur. Damaged caused to your boat from leaking fuel due to overfilling is not covered by your warranty.

First Start-Up of the Day

On the first start-up of the day, you may find it beneficial to “key up” once or twice to prime the fuel system prior to cranking the engine to start. The fuel system pressure will drop after a few hours of non-use. To prevent long crank times when starting for the first time, turn the key ON once to prime the fuel system.

This is a “High Pressure” fuel system. If you ever smell a strong fuel odor, shut down immediately and inspect for leaks.

NOTICE *The PIT fuel system is not to be serviced by anyone other than an Axis Factory Trained and Certified Technician. Special tools and training are required to service this fuel system.*

Pay close attention to the information regarding the break-in period listed in your engine owner's manual. Top engine performance is dependent upon following the guidelines listed.

Pre-Start Checklist

A routine pre-starting procedure should always be carried out before the first start-up of the day. Below is a list of basic, necessary checks to perform before starting your engine.

- 1) Replace drain plugs.
- 2) Check oil and transmission fluid levels.
- 3) Check fuel supply.
- 4) Inspect the engine compartment for water or fuel leaks.
- 5) Operate bilge pump until bilge is dry.
- 6) Operate blower for a minimum of four minutes to expel fumes.

Starting the Engine

Axis boats are equipped with sensors that constantly monitor various functions of the boat. Certain functions, if outside of pre-determined operating parameters, may activate an alarm located under the dash. When the ignition key is turned ON, the alarm will sound to indicate it is operating. Once the engine is running, the alarm should be off unless a problem is detected. If the alarm sounds during operation, stop the boat as soon as possible and turn off the engine. Investigate and correct the problem before returning to operation. Pressing the ENTER button on the display will silence the alarm for five minutes. Following is a list of monitored functions that can activate the alarm:

Engine Oil Alarm:

- Oil pressure is less than 5 psi @ idle.
- Oil pressure is less than 24 psi @ 4000 RPM.

Engine Temperature Alarm:

- Engine coolant exceeds 200°F. Alarm will reset when engine cools.

Exhaust Manifold Temperature Alarm:

- Water temperature exceeds 220°F.

Water Depth Alarm:

- Water is shallower than water depth alarm setting.

Refer to Section 4, *Care and Maintenance, Electrical*, for more information on the alarm. Please refer to your engine owner's manual for the proper starting procedures.

Shifting / Running

The throttle lever is located to the right of the driver. When the throttle is vertical, it is in the “NEUTRAL” position.

Located at the base of the throttle you will find the shift lock knob. Pulling outward on this knob disengages the transmission, thereby allowing for use of the throttle without engaging the transmission. This is used for warm-up of the engine in neutral. Be sure to position the throttle vertically (in neutral) before re-engaging the transmission by depressing the knob.

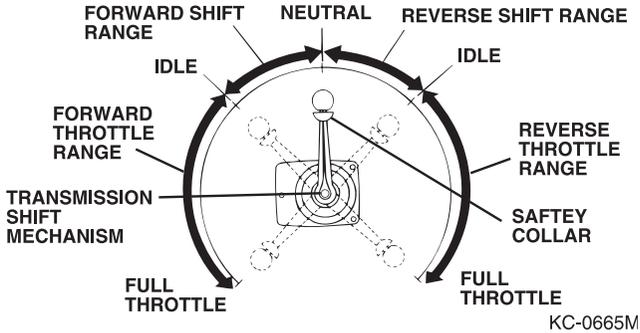


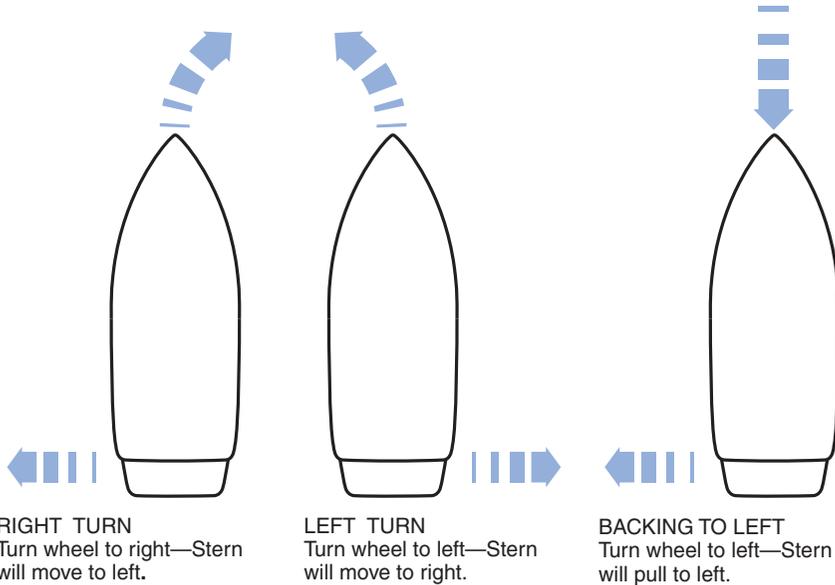
Figure 3-6. Throttle Positions

When engaging the transmission from neutral to either forward or reverse, you must pull up on the safety collar located directly below the throttle lever knob.

NOTICE *For more information regarding the safe operation and maintenance of the throttle control, refer to the separate instructions located in the information packet shipped with your boat.*

Steering

It is important that you get the “feel” of your boat’s steering system. Turn the wheel from full left to full right, and make sure the rudder is turning accordingly. The system should operate freely and smoothly.



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Figure 3-7. Turning with a Rudder

WARNING



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

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

Maneuvering Techniques

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

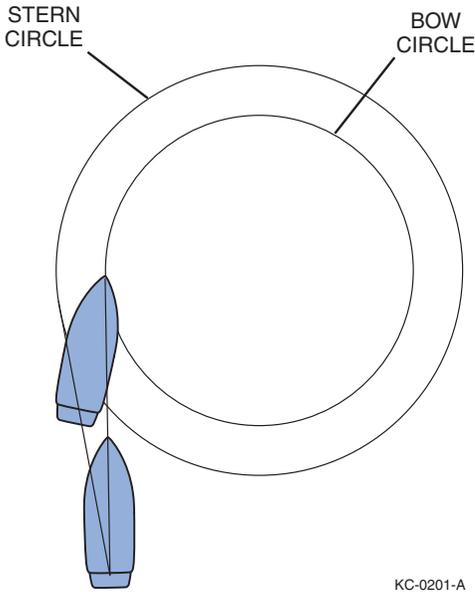


Figure 3-8. Stern Push

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

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

The effects of unequal propeller thrust, wind, and current must also be kept in mind. While wind and current may not always be present, an experienced boater will use them to his advantage. Unequal thrust is an aspect shared by all single engine

propeller-driven watercraft. A counterclockwise rotation propeller tends to cause the stern of the boat, steering in the straight ahead position, to drift to port when going forward, and to starboard when going backward. At high speed, this effect is usually unnoticed, but at slow speed; especially during backing, it can be powerful. For this reason, many veteran boaters approach the dock with the starboard side of the boat toward the dock, if possible, since the stern of the boat will drift starboard when reverse thrust is applied.

Shallow Water Operation

If you know you will be navigating the boat in shallow water, post a lookout and proceed slowly.

NOTICE *Damage to boat and its underwater components caused by shallow water maneuvering is not covered by the Axis boat warranty.*

Stopping

When stopping the boat, it is important to remember there are no brakes to allow coming to a complete, immediate stop. To stop your boat, anticipate ahead of time and begin slowing down by pulling back on the throttle.

Once the throttle is in neutral and the engine has stopped pulling the boat forward, it may be necessary to pull the throttle into reverse to further slow the forward momentum of the boat. The reverse thrust of the engine will decrease the forward speed and slow the boat down to a safer maneuvering speed. Never shift the transmission into reverse if the boat is moving faster than 2 MPH (3.2 km/h).

WARNING

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

Docking

Docking procedures for the new boat owner usually bring surprising results. Remember, operate your boat at slow speeds to avoid accidents and practice docking to gain experience and confidence.

Once away from the dock, practice docking in open water with an imaginary dock. Pull up to the dock at a slow rate of speed. Shift the boat into neutral and drift slowly toward the dock. Shift the boat into reverse slightly to slow or stop the boat altogether.

WARNING

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

Follow these guidelines when docking:

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

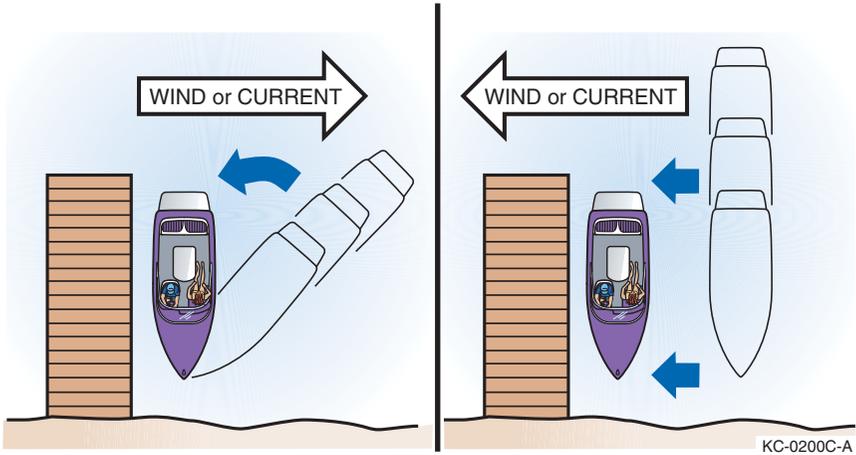


Figure 3-9. Docking with Wind/Current

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

The foredeck handrails should only be used for tying a “Jackline” in an emergency situation. If possible, tie up your boat with the bow toward the waves and leave a little slack in the lines to allow for movement from waves or the tide.

Follow these guidelines when departing:

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

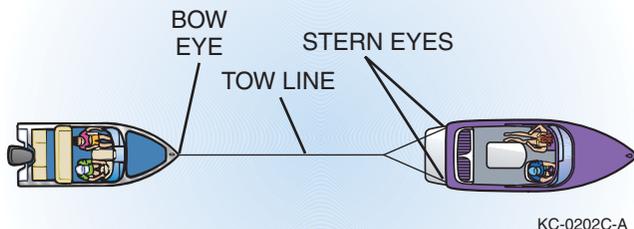
If the wind or current is pushing away from the dock, cast off all lines and allow to drift until you are clear.

High-Speed Operation

A great deal of caution must be exercised when operating any boat at high speeds. This is particularly true during turns. Gradual turns can be completed at high speed by a competent driver, but it must be emphasized that sudden turns at any speed, particularly at high speed can be especially dangerous. It is possible to throw passengers from their seats and even from the boat if caution is not exercised.

Towing Another Boat

Towing is normally a last resort because damage can be created by stress from the towing lines or uncontrollability of the boat being towed. Only when ideal conditions arise — lake is calm, the disabled boat is smaller than yours, and both boat operators know correct technique — should a recreational boat be towed by another.



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Figure 3-10. Towing

Because the towing boat is the maneuverable boat and the grounded boat is not, you should pass the tow line to the grounded boat. Use double-braided line. Never use three strand twisted nylon; it has too much elasticity and can snap back dangerously. Fasten the towline as far forward as possible on the upwind or up current side of the boat being towed. Fastening it to the stern will restrict maneuverability. Attach the line to the stern lifting eyes of the towing boat. Keep lines free of propellers on both boats. Keep hands and feet clear of other boat and never hold towline after it is pulled taut.

Move slowly to prevent sudden strain on slack line.

Be ready to cast loose or cut the line if conditions become hazardous.

Anchoring

There are many types of anchors available on the market. The choice on which one to choose depends on the usage. Contact your dealer on what anchor would suit your situation.

WARNING



Always anchor from the bow of the boat. The boat has less chance of breaking free if a heavy wind comes.

Propellers

CAUTION



- *A propeller can be very sharp. Be careful when you handle it. Wear a pair of protective gloves when handling any propeller.*
- *Remove your key from the ignition to prevent accidental starting of the engine.*
- *DO NOT reuse the nylon locknut or the cotter pin.*

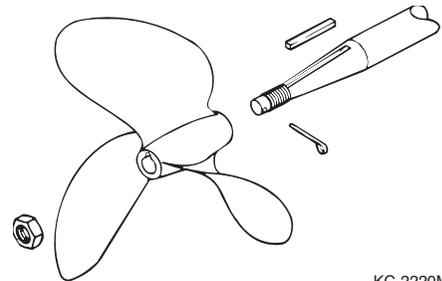
NOTICE

DO NOT use a damaged propeller. A damaged propeller can damage your engine and/or your boat.

Nothing is more important to the proper performance of your boat than the condition of the propeller. Even slight propeller damage can mean the loss of one MPH. Greater damage can mean considerably more speed loss. Worse yet, damage usually is not done to each blade uniformly and, therefore, sets up imbalanced vibrations that can cause fatigue damage to other parts of the engine or drive system.

Your propeller is custom calibrated for your Axis by our Research and Design team to give maximum performance. Before installing props other than those suggested by Axis Wake Research contact your dealer, otherwise adverse handling and top speed characteristics may be experienced.

The prop is identified by two numbers, i.e., 13 x 14, and material identification such as brass or stainless steel. The first number is the diameter of the prop and the second is the pitch. The pitch is the angle of the blades and is measured in how far the boat will travel through the water in one revolution. In this case, for every one revolution the boat will travel 14 in.



KC-2220M

Figure 3-11. Propeller

NOTICE

Do not operate engine above the manufacturer's recommended RPM rating; severe damage could result, voiding the warranty.

At least once a year, more often if you use your boat extensively, you should have your local Axis dealer inspect the propeller for any possible damage.

At least once a month, if you use your boat regularly, you should check and tighten the prop nut. If it is necessary to remove the prop, use care. If the prop is not removed correctly, damage could result if it comes off the shaft too quickly and hits the ground. Whenever possible, use a prop pulling tool to remove prop, this will reduce the chance of damaging the prop.

Removal

- 1) Remove the cotter pin from the propeller shaft and discard.
- 2) Wedge a piece of 1" x 4" wood between the propeller blade and the starboard side of the strut and rudder.
- 3) Loosen the nylon locknut and unthread it until it is flush with the end of the prop shaft.
- 4) Use a propeller puller to separate the prop from the taper on the shaft. Holding the prop with one hand, remove the nylon locknut and discard.
- 5) Remove the propeller, then remove the key from the keyway. Inspect the keyways and key for any damage.

Installation

Before installing the prop, look at the keyway on the shaft and in the propeller. The key should slide freely in both keyways. **DO NOT** use the prop nut to advance the prop onto shaft.

If the key has slight damage or burrs, remove them by filing the flat sides or replace the key. **DO NOT** file the key beyond its normal shape or size.

- 1) Rotate the shaft until the keyway is "up."
- 2) Place the key in the shaft keyway. Align the keyway in the prop to the key. The prop will only slip on in one direction. Once the prop starts to go on the shaft, push the propeller "solidly" on the shaft and make sure you feel that it is seating properly.
- 3) Wedge a piece of 1" x 4" wood between the propeller blade and the port side of the strut and rudder.
- 4) Install a new nylon locknut and torque the nut to maximum of 30 ft-lbs (40.7 N•m).
- 5) Install new cotter pin. Bend the retaining ends of the cotter pin in the opposite directions. Make sure the cotter pin is snug and cannot rotate.

Axis Exclusive Adjustable Rudder System

Your Axis steering is custom calibrated at the Axis factory at the time of manufacturing. However, it may be necessary from time to time to adjust the steering due to normal operations. Axis Boats' unique adjustment feature allows custom calibration to your specific driving needs. The Axis Adjustable Rudder system allows you to increase or decrease the amount of load that is typically on the steering system.



Figure 3-12.
Adjustable Rudder

If it is determined that your rudder needs adjustment, you can do so by adjusting tunable feature located on the trailing edge of the rudder surface. Locate the two hex-head retaining screws. Loosening the screws will release the adjustment tab. If your boat pulls to the right, slide the tab to the right 1/8th to 1/4". Do not move beyond this point. Only minor adjustments are needed to make a correction. Note that it may take more than one adjustment to get the desired setting. Tighten the hex-head screws when adjustment is completed.

WARNING



Make sure the hex-head screws are tightened after each adjustment. Failure to tighten the screws could cause erratic steering and serious damage could result. If you are unsure of the correct procedure to conduct this adjustment, it is recommended that you return your boat to your local Axis Boat dealership for assistance.

Corrosion Protection

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

If you operate your boat in salt or brackish waters, you should have your boat equipped with a transom mounted zinc anode to prevent damage to the parts coming in contact with the water. The zinc anode being the softer metal will deteriorate and erode much faster than the other metals in the boat. Inspect the anode periodically and replace as needed. Consult your local Axis dealer for this part.

Saltwater Corrosion

If you use your boat in salt or brackish water, wash the entire boat, including trailer and tower (if fitted), thoroughly with a mild detergent and rinse with fresh water after EVERY USE. Apply a corrosion inhibitor to all hardware regularly. Consult your dealer for products suitable for the marine saltwater environment and proper usage instructions.

Axis strongly recommends freshwater internal engine flushing after using the boat in salt, polluted or brackish waters. Flush the entire cooling system with fresh water for at least five minutes after use in these waters. See your Axis dealer for appropriate flushing devices and additives.

NOTICE

Salt water is commonly very harsh on all components of boat. Saltwater corrosion is not covered under your Axis or engine manufacturer warranties. It is the boat owner's responsibility to understand and ensure they have taken proper precautions to safeguard boat.

Chapter 4

CARE AND MAINTENANCE



The following guidelines discussed in this section will protect the investment you have made by preserving the beauty and performance of your new boat for years to come.

Interior

Carpet

Your Axis boat is equipped with a top quality, all-weather indoor/outdoor carpet. It is essentially waterproof and fade resistant. Occasional vacuuming and scrubbing with soap and water will remove embedded dirt and grit.

Gauges

Clean the gauges with mild, soapy water and a damp, soft cloth. Do not use window or glass cleaner on the gauge lenses.

Vinyl

All upholstery items aboard your boat are made of a tough marine vinyl that is easily cleaned with a mild detergent and warm water. After washing the vinyl, be sure to dry it thoroughly.

Our materials are mildew resistant, but there are no products available to us that are mildew proof. Therefore, we also recommend that you dry the upholstery thoroughly at the end of each day's boating activity to prevent mildew which will rot the upholstery threads and backing. We also recommend that you tip up all seat base cushions on edge after each use to allow any accumulated water to drain.

NOTICE

In some instances, color or dye transfer can occur when wet clothing comes in contact with vinyl. If this occurs, the vinyl should be cleaned immediately to avoid permanent staining. Unfortunately, due to the porous nature of the upholstery, you may find that the dye has set into the vinyl surface, and you cannot remove it. If this should occur, it is recommended that you contact Final Finish/MSG to get assistance in cleaning.

Upholstery finish stains caused by secondary sources are not covered under your Axis Boats Warranty.

It is important to keep your vinyl clean at all times. Some substances can stain the vinyl if you leave them on for even a short period. Remove any contaminant and clean the area immediately. Some household cleaners, powdered abrasives, steel wool, industrial cleaners, dry cleaning fluids and lacquer solvents can damage and discolor. Failure to care for your vinyl properly, or use of improper cleaners may damage the vinyl and void your warranty.

DO NOT use products such as acetone, ArmorAll®, bleach, baking soda, Fantastik®, Formula 409®, gasoline, kerosene, Murphy® Oil Soap, Simple Green®, Son of a Gun!® or any silicone based protectants. DO NOT clean your vinyl with power washers, as they can generate pressures up to 3,500 psi and could damage the surface of your interior.

Common stains and steps to treat:

Type of Stain	Step #1	Step #2	Step #3
General care	A	B	
Dirt buildup	A	B	
Ballpoint ink*	B	A	
Chewing gum	B	A	
Coffee, tea, chocolate	B	A	
Grease	C	B	A
Household soil	A	B	
Ketchup	A	B	
Latex paint	A	B	
Lipstick	C	A	B
Mildew or wet leaves*	B	A	
Motor oil	C	B	A
Oil-based paint	C	B	A
Permanent marker*	B	A	
Spray paint	B	A	
Suntan lotion*	A	B	
Tar/asphalt	C	B	A
Yellow mustard	A	B	

- a. Medium-soft brush, warm, soapy water, rinse/dry
- b. 303 Fabric and Vinyl Cleaner®, rinse/dry
- c. Wipe or scrape off excess (chill gum with ice)

After all cleaning methods, rinse well with clear, warm water.

NOTICE

Always allow the boat to dry completely before covering it for storage. Covering a wet boat will trap moisture, allowing for mold and mildew to grow. Stains from mold and mildew will not be covered by the Axis boat warranty.

* Suntan lotion, tree pollen, wet leaves and some other products, including waxes, can contain dyes that stain permanently.



Use only a damp, soft cloth with mild, soapy water to clean the in-dash graphical displays and switches. Ammonia-based or harsh chemical cleaners will damage the lenses.

Exterior

Your Axis boat is highly resistant to weathering, water pollution and minor scrapes which occur during normal use. However, regular care and maintenance of your boat is a general responsibility for all Axis boat owners. By following the boat care instructions listed below, you will be able to extend the life and beauty of your Axis boat.

Fiberglass and Gelcoat

The fiberglass hull and deck of your Axis boat consist of a molded shell and exterior gelcoat. The gelcoat protects the fiberglass shell and gives all Axis boats a smooth and shiny surface. The following are some general instructions which will help you maintain your boat's sleek appearance:

- 1) Wash monthly or more frequently, depending on use. Use a mild dish washing soap and lukewarm or cold water. Rinse your boat with fresh water and wipe down immediately to avoid water spots.
- 2) Wax the boat hull and deck after every three or four outings to decrease water friction and to lessen the potential for staining or spotting the gelcoat surface. In cases where the original gelcoat shine cannot be restored by waxing, hand buff the surface using any commercial compound. Be sure to apply several coats of wax over the area that has been polished.

Surface Stains

Stains can appear as a result of dust, road tar, plant sap, rust from metal fittings and other materials coming in contact with your boat's exterior. Listed below is a step-by-step procedure to remove stains from your boat:

- 1) Wash area with dish washing soap
- 2) Apply a mild cleanser on a small area (3 x 3 ft)
- 3) Rinse with fresh water
- 4) Buff with a fine rubbing compound
- 5) Wax

If the stain is not removed by the dish washing soap or mild cleanser, then the next procedure is to use either denatured or rubbing alcohol. Common rubbing alcohol is excellent for removing stains.

Scratches

Scratches to the gelcoat sometimes occur during normal use. Your dealer can usually restore the gelcoat to like-new condition.

Underwater Corrosion

Corrosion occurs in saltwater conditions from the interaction of the saltwater and the direct current of the battery. To prevent corrosion, it is important to keep the bilge area as dry and clean as possible.

Care for Boats that are Moored

Due to gelcoat discoloration, osmosis (blistering) and algae growth, it is not recommended that you leave your boat moored for 21 days or more. If your boat will be moored in fresh water or saltwater for extended periods of time, you should do the following:

- 1) Haul-out and clean your boat regularly (every 14 to 21 days). Use soap, water and plenty of elbow grease.
- 2) Apply wax after cleaning.

You should also check with your local Axis dealer about anti-fouling paint and other products that can be applied to the hull bottom below the water line.

If the boat will be moored for more than 21 days, we recommend applying an anti-fouling paint.

Engine / Drive Train

Engine

Please refer to the appropriate engine manual for engine/transmission service, maintenance, and/or Customer Support.

Hydraulic steering systems require specific hydraulic fluids. Please consult your dealer for details.

Rudder Stuffing Box

The rudder stuffing box is a greaseless design and requires no regular maintenance.

Dripless Shaft Seal

Located in the bilge, under the rear center access panel, is the dripless shaft seal. This seal is where the prop shaft goes through the hull of the boat.

Prop Shaft/Engine Alignment

As per recommended routine service maintenance, it is necessary to regularly evaluate the prop shaft coupler bolts that attach the prop shaft to the engine. See the engine owner's manual for proper prop shaft alignment. If the prop shaft bolts loosen prematurely, major damage to your boat structure and driveline could result.

It is recommended that only a trained service technician perform this maintenance due to the complications that can arise from an improperly balanced prop shaft engine alignment.



Figure 4-1. Dripless Shaft Seal

NOTICE

Damage caused from loosened coupler bolts and improper engine alignment is not covered under your Axis Boats warranty, and should be part of the owner's service responsibilities to ensure system is correct. See Axis Boats and the engine owner's manuals for appropriate timelines for evaluation or checkup.

Fuel System

Fuel System

All Axis Boats are equipped with Pump-in-tank (PIT) fuel systems. This means the fuel pump is no longer mounted on the engine and is now located in the fuel tank. There are many benefits to using Pump-in-Tank; most notably is the prevention of vapor lock and improved filtration of contaminants.

This is a "High Pressure" fuel system. If you ever smell a strong fuel odor, shut down immediately and inspect for leaks.

NOTICE

The PIT fuel system is not to be serviced by anyone other than an Axis Factory Trained and Certified Technician. Special tools and training are required to service this fuel system.

Do not use fuel containing more than 15% MTBE. Also, fuel containing more than 10% ethanol or grain alcohol is not recommended. A higher percentage of either of the two fuel additives can cause damage to the engine and fuel system.

DO NOT mix MTBE and ethanol. Drain your tank, or use up as much of the old fuel as you can before making the switch to E10. Once done, do not go back to MTBE gas. Also, drain the tank when storing the boat, and put in additives.

Does the gas you are buying have ethanol or MTBE? By law, roadside stations must put stickers on pumps designating whether the gas has ethanol and how much. A lot of marinas do not put up stickers, so ask.

Find out when your fuel provider switched to E10 and how it was done. Old fuel and water should have been removed and the tanks cleaned to reduce the possibility of the ethanol loosening up old sludge. If they mixed ethanol with gas, you could be pumping a potential disaster into your boat.

Mixing the two additives can and will cause damage to the engine and fuel system which will void all warranties supplied by Axis Wake Research and engine manufacturer.

Refer to the engine owners manual for further information.

Green Fuel System

The only maintenance required for the new Attwood fuel system is that all hose connections be inspected annually for tightness.



Figure 4-2. P-Trap and Deck Fill

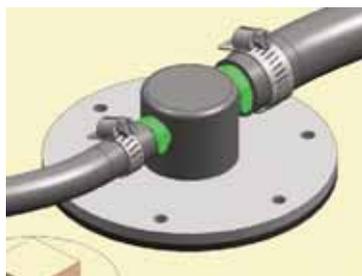


Figure 4-3. FLVV



Figure 4-4. GRV



Figure 4-5. ICV

Replacement Fuel System Components

Should any part of the fuel system become damaged, it is required that the correct replacement Attwood part be used.

Electrical

Engine Circuit Breaker

Depending on your engine model, the engine may be equipped with a 35 AMP Circuit Breaker to protect the engine electrical system and components from overload, and is found on the lower right side of the engine. If your engine should lose power and will not crank, reset the breaker by firmly pressing the red button (an audible sound will be heard). For additional engine electrical issues, see your Engine Owners Manual, or contact your Local Axis dealership.

Main Circuit Breaker

Located adjacent to the battery is a 80 AMP Circuit Breaker. If your boats systems lose electrical power, and you have no dash gauges or your engine does not turn over, you will need to reset the breaker to restore power to your boats systems. To reset, find breaker switch and depress until lever locks into position.

WARNING



Power loss to the Main Breaker is an indication of serious issues to your boats electrical and/or engine components Contact your local dealer for evaluation of these components.



Figure 4-6. Main Circuit Breaker

NOTICE

If additional loads are added to the dash feeder circuits, such as amplifiers, tower lights, etc., this can overload the 80 AMP breaker. Large loads over 20 AMPS should be wired directly to the battery with proper overload protection.

Boat Alarms

Axis boats are equipped with sensors that constantly monitor various functions of the boat. Certain functions, if outside of pre-determined operating parameters, may activate an alarm located under the dash. Both the engine Electronic Control Module (ECM) and the dash gauge computer may activate the alarm.

If the ECM activates the alarm, it will store a trouble code in memory. Stop the boat as soon as possible and turn off the engine. You will need to have your Axis dealer run a diagnostics test to repair the engine and clear any codes from memory. The ECM uses the engine oil pressure, engine temperature and transmission temperature switches for input and parameters are stored in the ECM.

If the dash gauge computer activates the alarm, the Multi Function Display Panel will indicate the source of the problem. If the alarm sounds during operation, stop the boat as soon as possible and turn off the engine. You will need to have your Axis dealer run a diagnostics test to repair the engine and clear any codes from memory. The dash gauge computer uses a separate set of sending units on the engine, fuel tank and depth transducer for input and parameters are stored in the computer.

Refer to Section 3, *Operation, Starting*, for more information on the alarm.

Battery

A minimum of 650 cold cranking amps is the recommended battery size.

NOTICE Do not connect battery cables to incorrect Terminal

Post ±. Doing so may cause a reverse polarity current to run through your electrical system and cause damage to your engine and other electrical components. Damage done to your boat due to incorrect terminal placement is not covered under your Axis warranty.

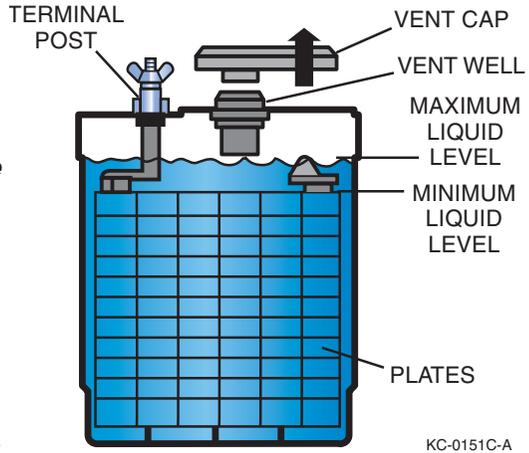


Figure 4-7. Battery Level

Check your battery terminals frequently for corrosion and tightness. Clean terminals with a baking soda and water solution and a wire brush. Also, check the fluid levels in the cells. Usually, a level approximately 1/4 to 1/2 in. above the plates is sufficient. If needed, fill with distilled water. Some batteries are sealed and this process is not necessary. Read directions when applicable.

Electrical Distribution-Battery Switches:

All main engine battery cables are the larger, 2/0 size. Always use a Starter/Cranking battery, minimum size of 650 Cold Cranking Amps on the big cable. This is the starter or cranking circuit.

There are also a set of smaller #2 AWG battery cables with the positive/red coming from an 80-AMP main circuit breaker (on the smaller boats, a #6 AWG cable and a 60-AMP main breaker). These smaller cables are the feeder circuit to the boats breakers and switches. These are referred as the House circuit.

#1 on a Single Battery System:

Both the cranking circuit and the house circuit are connected to the same battery. One battery running everything all connected together.

#2 on a Dual Battery System:

With a battery selector switch commonly called a “battery isolator switch”; both the house and the cranking circuits are always connected together at the selector switch. You have the ability to switch between 1-2 or all of the batteries to connect to the house and starter circuits. The current to charge the batteries, will come from the starter circuit, flowing from the engine alternator to the battery switch common terminal. When the engine is running you will have the ability to charge either #1 or #2 or both of the batteries at the same time. When the engine is off, you will pull current for both the house and cranking circuit on which ever battery you have selected or both batteries.

With this system you are required to manage the battery system, keeping both batteries charged and never run the second battery dead. Sitting listening to an amplified stereo system with the selector switch on “all” with lights on can drain both batteries. The best feature of this switch is you can disconnect the electrical system of the boat and engine, and the amperage draw for the computers and stereo memory during long and short term storage will be minimal. To maintain optimum performance, make sure to manage the batteries properly.



Figure 4-8. Battery Switch

Battery Isolator Switch

This option provides the ability to isolate the boat batteries if more than one battery is used. If so equipped, the isolator switch is located behind the front observer’s seat under the dash next to the battery. Under normal situations, the switch should be in “POSITION 1” or “POSITION 2” rather than in the “ALL” position. This will keep one battery charged should one of the batteries fail.

Circuit Breakers and Fuses

Most electrical standard equipment devices are controlled with circuit breakers. These breakers will activate if overloaded and cut power to the switch. To restore power, simply push the breaker button in and release. Breakers do not require fuse replacement. The breaker panel can be found under the dash next to the 12-V adapter. The stereo, if so equipped, has an inline fuse. If your stereo should quit working, check fuse as well as the breaker.

12-V DC Accessory Outlets

All models are equipped with two 12-V DC Accessory Outlets; one on the electrical panel below the dash, and one in the port side cupholder panel. These outlets provide power from your boat battery to accessory equipment such as cellular phones, video cameras, marine spot lights, etc.

Miscellaneous

Hardware

Most of the metal hardware on your boat consists of brass, stainless steel, or aluminum and should be cleaned on a periodic basis with soap and water. In fresh water, metal fittings and hardware should be sprayed regularly with a rust inhibitor, and after every use in saltwater.

DO NOT use cleaners that are not intended for use on stainless steel. Glass, tile, counter or citrus cleaners can damage hardware permanently. Always follow cleaning, by applying a high-quality metal polish or automotive wax after cleaning. Test products in an inconspicuous area before applying to the complete surface, especially if you are not familiar with the product.

All metal parts, including but not limited to tower accessories, board racks or speaker cans, should be cleaned with mild soap and water frequently and waxed periodically. A corrosion protectant is highly recommended on these components for use in areas of salt/brackish water. Pitting or oxidation is not covered under warranty. Pitting is not the same as separation.

Bilge

The bilge of your boat can accumulate oil and greasy dirt over a period of time and should be cleaned out periodically. Usually, ordinary soap and water does not remove the accumulation and something stronger will be needed. Check with your Axis dealer for recommendations.

Windows and Windshields

The windows and windshields on your Axis boat are made of tempered safety glass and are similar to the windows in your car. The glass will scratch however, and abrasive cleaners should not be used to clean your windows. Soap and water or automotive glass cleaners may be used.

Winterizing

When the boating and ski season comes to an end, it is recommended that the boat be removed from the water and stored. It is extremely important that proper winterizing procedures are read and followed to ensure longer boat life. Here is our list of suggestions to keep your boat in top condition:

- Prepare the engine according to the instructions found in your engine owner's manual. It our recommendation that you contact your local Axis dealer for full winterization procedures.
- Clean and dry the boat interior and exterior thoroughly. Inspect boat hull for residue and remove any if present.
- Clean the bilge area thoroughly and operate the bilge pump to remove any water from bilge lines.
- Remove all seat cushions and open all storage areas. Store the seat cushions in a cool and dry place.
- Cover the boat and store it in a garage or other protected facility.
- If the boat is stored on a trailer, you should block the trailer wheels.

Storage and Winter Lay-up

Due to the problems that can occur from improper winterization, we recommend that you take your boat to a certified Axis dealership to perform this task. Without proper preparation, storage for long periods of time may cause parts of the engine and transmission to rust due to lack of lubrication. Also, if your boat will be stored in freezing conditions, water inside these components to include cooling system, heater and shower could result in major damage to your boat. Damage done due to improper winter storage will void your warranty. Here is our list of suggestions to keep your boat in top condition.

Prior to boat being removed from water:

- Fill fuel and add 1 ounce of **STA-BIL**® fuel stabilizer for each 5 quarts of gasoline.
- Operate boat for at least 15 minutes in water or using a flush system to allow treated fuel to flush engine.
- Add lightweight engine oil (SAE-10 or fogging oil) slowly to the engine while engine is slightly above idle. Turn engine off. Consult your local dealer for correct procedure.

To be completed when boat is put on trailer or resting cradle:

- Remove bilge T-handle and transom drain plug immediately after removing the boat from the water and drain all ballast tanks.
- Clean and dry the boat interior and exterior thoroughly. Inspect boat hull for residue and remove if present.
- Clean bilge area thoroughly and operate the bilge pump to remove any water from bilge lines.
- Remove all seat cushions and open all storage areas. Store the seat cushions in a cool dry place.
- Apply coat of wax to entire gelcoat surface of boat.
- Flush engine-cooling system with clean water. Do not exceed 1500 RPM while flushing for 5-10 minutes.
- Turn fuel supply line to the OFF position (handle perpendicular to fuel line). Perform annual scheduled maintenance. Refer to engine owner's manual for complete engine winterization procedures as well as scheduled maintenance.

Note: Damage done due to improper engine winter storage will void your warranty. It is highly suggested that you allow a trained Axis technician to perform this service.

- After performing engine winterization, remove engine safety switch and spin engine over a few seconds to remove excess water found in pump bodies.
- Remove the negative cable from battery. Charge battery to full charge and remove from boat.
- Clean all traces of dirt, oil and grease from engine, transmission and bilge. Coat all areas on transmission and engine where paint has been removed with touchup paint.
- Use duct tape to seal the exhaust flaps closed to prevent dirt and rodents from entering exhaust.
- Remove propeller assembly, and store in safe place.
- If your boat is equipped with an optional heater or hot-water shower, remove both hoses and blow through hose to remove excess water.
- Cover the boat with cover, tarp or, if available, shrink-wrap tarp. Also, due to the excess weight that can occur from rain and snow for boats that are stored outside, it is suggested that you make a support of 2 inch PVC piping that can be mounted under the covering material. The rounded PVC piping will ensure the cover does not tear and will eliminate pooling water inside boat.

Winterization Re-Commission

- Remove boat cover or shrink-wrap from boat.
- Remove Duct tape from exhaust flaps.
- Charge and install battery in boat. Follow all safety precautions associated with changing batteries.
- De-winterize engine using engine manufacturer's specifications.
- Check propeller shaft alignment. Tighten coupling hardware.
- Check engine compartment for nesting animals. Clean as needed.
- Reinstall seat cushions from storage.
- Check entire engine for signs of cracks caused by freeze damage. Check all hose clamps for tightness. Install bilge drain plugs: transom, T-handle plug and ski locker drain plug.
- Reinstall propeller assembly.
- If not performed during winterization, perform annual maintenance at this time.
- If boat is equipped with optional fresh-water cooling, and was drained at winterization, fill at this time.
- With the boat in the water or using a flush kit, turn key on and off 2-3 times to allow fuel to return to engine, then start engine. When engine starts, watch gauges closely, and watch for abnormal readings.

Troubleshooting

The following charts will assist you in finding and correcting minor mechanical and electrical problems with your boat. Problems are listed in the order of the most likely event to the least likely.

To correct a problem, first determine what the problem is. Start with the first cause and eliminate the possibility of each until the problem is corrected. Because of the specialized skills and tools needed to correct major issues, we have not included that information. If you suspect a problem not listed here, please contact your Axis dealer.



PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine will not turn over	<ul style="list-style-type: none"> • Throttle control in gear. • Main circuit breaker open. • Weak or dead battery. • Poor or loose battery connections. 	<ul style="list-style-type: none"> • Shift into neutral. • Reset circuit breaker. • Charge or change battery. • Clean and tighten battery cable connections.
Engine turns over, but will not start	<ul style="list-style-type: none"> • No fuel in tanks. • Contaminated Fuel. • Distributor Problems. 	<ul style="list-style-type: none"> • Fill fuel tank. • See your dealer. • See your dealer.
Engine is hard to start	<ul style="list-style-type: none"> • Flooded engine. • Plugged flame arrestor. • Fouled spark plugs. • Loose coil or ignition wires. • Battery cables loose or corroded. • Weak battery. • Ignition problems. 	<ul style="list-style-type: none"> • Start engine full throttle and back off. • Clean flame arrestor. • Replace spark plugs. • Tighten coil or ignition wires. • Clean and tighten battery cables. • Charge or replace the battery. • See your dealer.
Engine misses or idles rough	<ul style="list-style-type: none"> • Fouled spark plugs. • Loose of defective high-tension leads. • Plugged PCV valve. • Weak ignition coil. • Vacuum leak. 	<ul style="list-style-type: none"> • Replace spark plugs. • Tight or replace the high-tension leads. • Replace PCV valve. • Replace ignition coil. • See your dealer.
Poor boat performance	<ul style="list-style-type: none"> • Fouled spark plugs. • Plugged flame arrestor. • Weak ignition coil. • Contaminated fuel. • Fuel filter clogged. • Ignition problems. 	<ul style="list-style-type: none"> • Replace spark plugs. • Clean the flame arrestor. • Replace the ignition coil. • See your dealer. • See your dealer. • See your dealer.
Poor gas mileage	<ul style="list-style-type: none"> • Fouled spark plugs. • Plugged flame arrestor. • Inefficient driving habits. • Plugged PCV valve. • Ignition problems. 	<ul style="list-style-type: none"> • Replace spark plugs. • Clean the flame arrestor. • Plan the boat quickly, then slow down to desired speed. • Replace PCV valve. • See your dealer.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Throttle/shifting problems	<ul style="list-style-type: none"> • Corroded cables. • Defective throttle return spring. • Low transmission oil level. • Sticking transmission shift detent ball. • Kink in cables. 	<ul style="list-style-type: none"> • Clean and lubricate cables. • Replace the throttle return spring. • Replenish the transmission fluid. • Clean and lubricate detent ball. • Replace the cable(s). See your dealer.
Steering problems	<ul style="list-style-type: none"> • Corroded cables. • Rudder worn. 	<ul style="list-style-type: none"> • Clean and lubricate the cable. • See your dealer.
Excessive vibration.	<ul style="list-style-type: none"> • Damaged propeller. • Misaligned propeller shaft coupling. • Bent propeller shaft. 	<ul style="list-style-type: none"> • Replace the propeller. • Check the alignment. See your dealer for proper realignment. • See your dealer.
Electrical problems	<ul style="list-style-type: none"> • Open circuit breaker or blown fuse. • Loose wiring connections or corrosion. • Defective sending unit. • Shorted wiring harness. • Defective switch or gauge. 	<ul style="list-style-type: none"> • Reset the circuit breaker or replace the fuse. • Clean and tighten wiring connections. • Replace the sending unit. • Repair the wiring harness. • See your dealer.
No speedometer	<ul style="list-style-type: none"> • Paddle Wheel. • Defective speedometer. 	<ul style="list-style-type: none"> • Replace the paddle wheel. • Replace the speedometer.
Incorrect speedometer	<ul style="list-style-type: none"> • Paddle Wheel. • Defective speedometer. 	<ul style="list-style-type: none"> • Replace the paddle wheel. • Replace the speedometer.

Glossary

AFT:	To the rear of the boat near the stern. Generally used to give directions.
BEAM:	The widest portion of the hull.
BILGE:	The lowest portion inside the boat. This is generally the section directly below the engine compartment.
BOW:	The forward portion of the boat.
BULKHEAD:	Vertical portion in a boat.
CHINE:	The intersection of the sides and bottom of a “V” bottom boat.
DEADRISE:	The degree of angle from the keel to the chine.
DECK:	Upper structure which covers the hull.
DRAFT:	Vertical distance from the waterline of the boat to the lowest part of the boat.
FibECS II:	An engine mounting method, using fiberglass instead of other materials such as aluminum or steel; patented by Axis Boats LLC. that provides major reduction in noise and vibration.
FIBERGLASS:	Fibers similar to wool or cotton, but made from fibrous glass. Glass fiber forms include cloth, yarn, mat, milled fibers, chopped strands, roving and woven roving.
GELCOAT:	A surface, either colored or clear, providing a cosmetic enhancement and exposure improvements to a fiberglass laminate.
GUNNEL:	The upper edge of a boat’s side.
HELM:	Device attached to rudder for steering a vessel.
HULL:	The bottom section of the boat.
KEEL:	The lowest most portion of the bottom of the boat.
LIFTING STRAKES:	Strips molded or attached to the surface of a hull designed to create lift as speed and pressure increase with the static water.
PORT:	To the left side of the boat, when facing the bow.
STARBOARD:	To the right side of the boat, when facing the bow.
STERN:	To the rear of the boat.
STRINGER:	Longitudinal members that are fastened inside the hull of the boat which provide structural integrity.
TRANSOM:	The area forming the stern, or rear, of a boat.
WAKE:	The track or path a boat leaves behind while in motion.
WORKING DECK:	Floor within cockpit or bow area.

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HULL NUMBER	OWNER NAME	PHONE NO.
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SERVICE DATE	WORK ORDER #	BOAT COLOR	SERVICE TECHNICIAN
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INSTRUCTIONS

Please complete following; check each item as completed.

1. Inspect prop
2. Check engine alignment, motor mounts, and jam nuts
3. Check shaft packing
4. Service rudder (lubrication)
5. Check battery, battery hold down, cable connections
6. Check instrumentation
7. Check lights (bow, stern, and dash)
8. Check steering wheel cable fasteners, lubricate support tube and cable
9. Check control mechanism MV-2, MV-3 (freedom of movement)
10. Check neutral safety switch operation
11. Check security of fasteners (seat slides, seats, platform, interior handles)
12. Check all fuel connections (engine, tank, pump, filter)
13. Check engine exhaust clamps
14. Change engine oil and filter
15. Change transmission fluid/ filter
16. Change V-Drive oil (clean screens / magnetic plugs)
17. Inspect belts
18. Inspect impeller
19. Clean / change flame arrestor
20. Check engine coolant (closed cooling only)
21. Check trailer: wheel lugs, lights, and loading bar
22. Inspect and lubricate wheel bearings
23. Check brake fluid level (if applicable)

LAKE TEST

1. Perform Diacom data list scan
2. Check PROM ID and record in customer file
3. Check fuel pressure and log reading
4. Verify oil levels (engine, Trans, V-Drive)
5. Verify blower operation, check hose attachment
6. Verify bilge pump operation and float control
7. Check for engine / boat water leaks
8. RE-check fuel connections
9. Verify neutral safety switch operation
10. Check for presence of vibration
11. Verify instruments operate properly
12. Verify controls operate properly (IE; steering, shifter)
13. Verify options function properly (IE; heater, shower etc.)

I certify that all checks have been performed and completed, this vessel has been prepared in conjunction with Axis Boats specifications.

To ensure proper warranty status, Boat/ Engine MUST receive recommended maintenance schedule.

Technician Signature _____ Date _____

Service Contact _____ Phone _____

Customer Signature _____
 PLEASE RETAIN IN CUSTOMER FILE FOR FUTURE REFERENCE

AXIS WAKE RESEARCH LIMITED WARRANTY

Thank you for choosing to purchase an Axis Wake Research (“Axis”) product manufactured by Malibu Boats, LLC (“Malibu Boats”). Axis and Malibu Boats are committed to assuring your satisfaction with your new Axis boat. Malibu Boats will provide for repairs to your boat during the applicable warranty periods in accordance with the following terms, conditions and limitations.

Warranty Coverage – Summary

The warranty coverages are summarized below. Please refer to the warranty details that follow for complete terms, conditions, and limitations.

Axis Wake Research Limited Warranty	
Coverage Type	Coverage Period
Base Limited Warranty	24 Months Total (12 Months Parts and Labor + 12 Months Parts ONLY)
Tower Structural Limited Warranty	24 Months Total (12 Months Parts and Labor + 12 Months Parts ONLY)
Tower Cosmetic Limited	12 Months
Gelcoat Limited Warranty	12 Months
Hull Limited Warranty	Lifetime

In addition to the Axis Wake Research Limited Warranty, your boat also comes with other limited warranties provided by the engine and trailer manufacturers, among other items. Please refer to their limited warranty disclosures for details, including their terms, conditions and limitations.

Limitations and Disclaimer of Implied Warranties

ANY IMPLIED WARRANTY THAT IS FOUND TO ARISE BY STATE OR FEDERAL LAW, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS, IS LIMITED IN DURATION TO THE DURATION SET FORTH IN THIS LIMITED WARRANTY OR THE DURATION SET FORTH BY APPLICABLE STATE OR FEDERAL LAW, WHICHEVER IS SHORTER. MALIBU BOATS DISCLAIMS ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS, AFTER EXPIRATION OF THE WARRANTY PERIOD.

PERFORMANCE OF REPAIRS AND NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. MALIBU BOATS SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, LOST WAGES, SLIP FEES, TRANSPORTATION TO OR FROM REPAIR, OR RENTAL EXPENSES, RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Who Is Covered Under the Axis Wake Research Limited Warranty

Subject to all other terms, conditions, and limitations, original owners of the boat are provided coverage under the Axis Wake Research Limited Warranty. The warranty is not transferable to subsequent owners of the boat.

This Axis Wake Research Limited Warranty does not provide coverage for owners of boats manufactured in the United States by Malibu Boats, LLC and imported into Australia or New Zealand. This Axis Wake Research Limited Warranty does not provide coverage to any boat purchased from a dealer in another country, where the primary use of the boat will require the boat to cross an international border.



What “Is” Covered by the Axis Wake Research Limited Warranty

Coverages:

Base Limited Warranty

For a period of twelve (12) months beginning on the date the boat is purchased by the first retail purchaser through an authorized Axis sales facility, or, beginning on the date the boat was first put into service as a demonstrator or otherwise, whichever is earlier, Malibu Boats will repair, including parts and labor to perform such repair, substantial manufacturing defects related to materials or workmanship supplied by it during construction of the boat.

For a period of twelve (12) months immediately following the twelve (12) month period described in the paragraph directly above, Malibu Boats will provide the parts necessary to repair substantial manufacturing defects related to materials or workmanship supplied by it during construction of the boat. Malibu Boats nor Axis will not provide the labor nor reimburse for labor to perform such repair.

Tower Limited Warranty

For a period of twelve (12) months beginning on the date the boat is purchased by the first retail purchaser through an authorized Axis sales facility, or, beginning on the date the boat was first put into service as a demonstrator or otherwise, whichever is earlier, Malibu Boats will repair, including parts and labor to perform such repair, substantial manufacturing defects related to structural materials or structural workmanship supplied by it during construction and installation of the boat's tower.

For a period of twelve (12) months immediately following the twelve (12) month period described in the paragraph directly above, Malibu Boats will provide the parts necessary to repair substantial manufacturing defects related to structural materials or structural workmanship supplied by it during construction and installation of the boat's tower. Malibu Boats nor Axis will not provide the labor nor reimburse for labor to perform such repair.

Tower Cosmetic Limited Warranty

For a period of twelve (12) months beginning on the date the boat is purchased by the first retail purchaser through an authorized Axis sales facility, or, beginning on the date the boat was first put into service as a demonstrator or otherwise, whichever is earlier, Malibu Boats will repair substantial manufacturing defects related to cosmetic materials or cosmetic workmanship supplied by it during construction and installation of the boat's tower.

Towers are configured with shocks to help stabilize the tower when the tower knobs/bolts are removed for lowering the tower.

Appropriate care must be taken to ensure the tower is not allowed to fall.

Towers are configured from the factory with shocks based on the factory-installed components. If ANY additional components are mounted to the tower after the boat leaves the factory, it is the dealer and the consumer's obligation to validate that the installed shocks and the tower are rated for these additional components.



Gelcoat Limited Warranty

For a period of twelve (12) months beginning on the date the boat is purchased by the first retail purchaser through an authorized Axis sales facility, or, beginning on the date the boat was first put into service as a demonstrator or otherwise, whichever is earlier, Malibu Boats, conditioned on the owner having provided maintenance and care as described in the Axis Owner's Manual will repair substantial manufacturing defects related to materials or workmanship supplied by it in applying the Gelcoat finish to the boat. This Gelcoat Limited Warranty shall not include gelcoat finish, blistering, discoloration, fading or osmosis as well as damage due to in-water storage without proper barrier coat and bottom paints.

Lifetime Hull Limited Warranty

For the life of the boat, Malibu Boats will repair substantial manufacturing defects related to structural materials or structural workmanship supplied by it during the construction of the hull, deck, liner, stringer or upholstery frame.

All repairs performed by Malibu Boats, or an Axis authorized service facility, will be performed using either new or re-manufactured parts. Malibu Boats may, at its option, install parts which have similar or greater performance characteristics if an identical replacement part is no longer available. Repairs will be warranted only for the remainder of the original warranty period.

In addition to Axis Wake Research Limited Warranty, your boat also comes with other limited warranties provided by the engine and trailer manufacturers, among other items. Please refer to their limited warranty disclosures for details, including their terms, conditions and limitations.

What "Is Not" Covered by the Axis Wake Research Limited Warranty

The following are **NOT** covered under the Axis Wake Research Limited Warranty:

- Normal maintenance of boat, or any component thereof
- Normal wear and tear of boat, or any component thereof
- Damages caused by defects in materials, components or parts not supplied by Malibu Boats
- Damages or needed adjustments caused by items that are added, altered or changed after the boat leaves the possession of Axis, such as installation of aftermarket towers, tower accessories, ballast systems, barefoot booms, canvas accessories, and bottom painting
- Damages caused by accident (including impacts and collisions with any object), abuse, misuse, neglect, mishandling or alteration, including any damages caused by or during trailering or towing
- Damages caused by heat, fire, explosion or freezing (including the failure to perform proper winterization)
- Damages caused by the installation of non-Axis materials, components or parts
- Damages caused by lightning, hail, rain, flooding, wind, sand, floods or other environmental or natural conditions

- Damages caused by atmospheric fallout, chemical treatments, tree sap, salt, ocean spray, mold, or animal droppings
- Corrosion, oxidation, electrolysis including chrome plated, anodized or aluminum finish or colorfastness of finish (Exposure to a salt or brackish water environment can cause corrosion, or damage. Failure to rinse thoroughly after each use and apply a protective coating will void warranty.)
- Damages caused by aftermarket cleaning products or non-Axis approved additives
- Damages due to insufficient or improper maintenance, including use of oils, lubricants or fluids other than those recommended in the boat's Owner's Manual
- Conditions resulting from normal wear and tear
- Conditions resulting from use of the boat for anything other than recreational purposes
- Manufacturing variations or imperfections in cosmetic, convenience or aesthetic components or features of the boat, including the gelcoat finish, which have no effect on use, value or safety. Because the gelcoat finish is applied manually by a Malibu Boats craftsman, minor distortions or imperfections may be found in certain areas of the boat. Such distortions and imperfections are considered normal.
- Damages caused by the use of any trailer not sold through Axis
- Damages caused by improper support of the boat on davits, hoist system or boat lift of any kind
- Damages caused by overloading or overpowering the boat
- Any material, component or part of the boat that is covered by a warranty supplied by another entity
- Damages caused by water intrusion into any part of the boat (including the glove box)
- Gelcoat finish, blistering, discoloration, fading or osmosis as well as damage due to in-water storage without proper barrier coat and bottom paints (NOTE: Although Axis uses the highest-grade gel coat materials, a condition may develop where the bottom of the boat may show signs of discoloration and/or blisters if the boat is left in the water for 21 days or longer; therefore, a proper barrier coat and bottom paint should be used whenever it is anticipated that the boat will be left in the water for an extended period of time)
- Performance characteristics, such as speed, acceleration, fuel or oil consumption, etc., as they are estimated and can vary under numerous conditions
- Any and all consequential damages including, but not limited to, costs incurred for haul-out, launching, towing, and storage charges, telephone, expedited shipping of replacement parts, or rental charges of any type (including slip fees), inconveniences, or loss of time or income
- Components such as Surf Gates™, Fins, Wedges must not be added on any boat that is not equipped with those components at the time of manufacture. Installation of any of these items, or any other component not installed at the time of manufacture, will void the warranty and other components of the boat that have their own warranty(ies) due to potential damage to the boat and its occupants
- Damage to the boat, the trailer, or anything / anyone else caused by any trailer is not covered under the Malibu Warranty(ies). Malibu Boats does not work with any trailer manufacturer other than Boatmate™ to allow for trailers to be fitted to the boat at the time of manufacture. Malibu specifically disavows any and all responsibilities for any trailer

The following events will discharge Axis and Malibu Boats from their obligations under the Axis Wake Research Limited Warranty:

- Unauthorized disconnection, tampering with, or altering of the boat's hour meter
- Unauthorized disabling of any Malibu Boat's installed warning device or system
- Unauthorized disconnection, disturbance or compromise of any wires, hoses, tubes, cables, looms or other components of the boat's electrical or fuel systems
- Determination by any state or federal entity or private insurance carrier that the boat is a total loss or fit only for salvage

This Axis Wake Research Limited Warranty does not provide coverage to any boat which has ever been: (a) a repossession from a retail customer; (b) purchased at auction (bank auction, online auction, auction house, etc.); (c) purchased from a salvage yard; (d) purchased from an insurance company that obtained the product as a result of an insurance claim.

The Axis Wake Research Limited Warranty does not cover the costs of maintenance, which include, but are not limited to, boat inspections, lubrication, engine tune-ups, replacement of filters, coolants, spark plugs, bulbs, fuses, impellers, packing materials, cleaning and polishing.

No oral or written information, advice or communication of any nature by or from Axis or Malibu Boats or their representatives, employees, dealers, agents, distributors or suppliers shall create a warranty or in any manner increase or modify the scope of this Axis Wake Research Limited Warranty in any manner whatsoever.

This Axis Wake Research Limited Warranty is expressly conditioned upon the timely completion and return of the warranty registration card to Axis.

How to Get Warranty Service

To obtain warranty service and/or repairs, you must do all of the following:

1. Notify Axis or Malibu Boats or an authorized Axis service facility of the substantial defect in materials or workmanship attributable to Malibu Boats, within thirty (30) days of discovery of the defect; and,
2. Promptly schedule an appointment with and deliver your boat to Axis or an authorized Axis service facility for repairs. Warranty service must be performed by Malibu Boats or an authorized Axis dealer. While not required, it is preferable that you deliver your boat to your selling sales and service facility. If you need assistance locating an authorized Axis service facility, please visit the Axis website at www.axiswake.com, email us at warranty@axiswake.com or call Axis at (865) 458-7110.

Please note that Axis authorized repair facilities, generally, are independently owned and operated businesses. Axis and Malibu Boats do not control the scheduling of service work. However, if you encounter any material delays in obtaining service at one of Axis authorized service facilities, please email or call Axis for assistance at warranty@axiswake.com or (865) 458-7110.



Important Additional Things to Know about the Axis Wake Research Limited Warranty

In addition to the warranty terms and exclusions noted above, below you will find some additional important things to know about the Malibu Boats Limited Warranty:

Boat Operation, Care and Maintenance

To ensure that you receive the maximum benefit from your purchase and this limited warranty, Axis strongly recommends that you follow all of the instructions in the boat's operating manuals, including if applicable, any accompanying maintenance or service schedules. Because questions may sometimes arise relating to the cause of a particular failure, Axis strongly recommends that you keep detailed records of any maintenance or service performed on your boat so that you may be able to assist, if necessary, in the determination of whether a failure is covered under this Limited Warranty. Damages to your boat caused by improper operation, care and maintenance are not covered by the Axis Wake Research Limited Warranty.

Pre-Delivery Service

Defects and/or damage to the finish surfaces, trim, upholstery or other observable cosmetic components of your boat may occur at the factory. These items are usually detected and corrected at the factory or by the selling dealer prior to delivery to the retail customer. You are encouraged to inspect your boat for this type of damage when you take delivery. If you find any such defects or damage you must notify the selling Axis dealer at the time of delivery to have these items covered by this limited warranty and to have work performed on the items at no cost to you.

Design and/or Manufacturing Changes

Axis and Malibu Boats reserve the right to make changes in boats built by it at any time without incurring any obligation to make the same or similar changes on boats previously built and/or sold.

Other Warranties

Some materials, components or parts of the boat which are NOT covered by the Axis Wake Research Limited Warranty are separately warranted by their manufacturers or suppliers. These other warranties include, but are not limited to, warranties covering the engine, audio system, trailer, tires, mooring covers, batteries and Bimini tops. See copies of these other warranties for details relating to their terms, conditions and limitations.

Customer Satisfaction Procedure

Satisfaction with your boat is very important to Axis and Malibu Boats. Ordinarily all concerns related to your boat can be addressed by your authorized Axis service facility. If for some reason your concerns are not satisfied, the following steps should be followed:

First, ask to discuss your concern with a member of the authorized service facility's management. Ordinarily this will be the facility's service manager or service foreman. If your concerns already have been reviewed by the service manager or foreman, request to speak with the facility's general manager or owner.

Second, if your concerns are not resolved to your satisfaction by the representatives of the service facility, contact the Axis Customer Service Department at the address noted below. For the most helpful service, be prepared to provide your customer service representative with your name, address and phone number, your boat's hull identification number, the authorized Axis service facility or facilities at which your boat has been serviced, and the nature of the concerns you have with the boat or the service. Axis and Malibu Boats will thereafter provide assistance to you and the authorized service facility, as necessary, to resolve your concerns.

TO THE EXTENT PERMITTED OR REQUIRED BY ANY STATE OR FEDERAL LAW, YOU ARE REQUIRED TO PROVIDE MALIBU BOATS WRITTEN NOTICE, AT THE BELOW ADDRESS, OF ANY SUBSTANTIAL DEFECT IN MATERIALS OR WORKMANSHIP THAT REMAINS UNRESOLVED TO YOUR SATISFACTION UNDER THE TERMS OF THE MALIBU BOATS LIMITED WARRANTY, PRIOR TO INITIATING ANY LEGAL ACTION AGAINST MALIBU BOATS. TO THE EXTENT PERMITTED OR REQUIRED BY ANY STATE OR FEDERAL LAW, YOU MUST FIRST USE AN AVAILABLE STATE RUN INDEPENDENT DISPUTE SETTLEMENT MECHANISM OR ARBITRATION MECHANISM PRIOR TO INITIATING ANY LEGAL ACTION AGAINST MALIBU BOATS.

Contact Information:

Axis Wake Research
5075 Kimberly Way
Loudon, TN 37774
(865) 458-5478

warranty@axiswake.com

Axis Wake Research Internet Site
www.axiswake.com

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH VARY FROM STATE TO STATE



Axis Commercial Use Warranty

In the event your boat is used for commercial use, then the standard implied warranties do not apply and Axis Wake Research completely disclaims them to the extent allowed by law. The Implied warranty of fitness for a particular purpose does not apply if you boat is used for exhibition, even if the boat is equipped for that purpose.

Commercially used boats will have the following warranty:

Axis Wake Research Commercial Limited Warranty

Coverage Type	Coverage Period	Transferable
Base Limited Warranty	90 days	no
Tower Structural Limited Warranty	90 days	no
Tower Cosmetic Limited Warranty	30 days	no
Gelcoat Limited Warranty	30 days	no
Hull Limited Warranty	5 years	no



AXISWAKE.COM

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