

PiranhaMAX™ Portable 150 PT, 160 PT, 190c PT Installation and Operations Manual

531679-1_B



PiranhaMAX™

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Contact our Customer Resource Center at **1-800-633-1468** or visit our website at **www.humminbird.com**.

WARNING! *This device should not be used as a navigational aid to prevent collision, grounding, boat damage, or personal injury. When the boat is moving, water depth may change too quickly to allow time for you to react. Always operate the boat at very slow speeds if you suspect shallow water or submerged objects.*

CAUTION: *Do not handle the bottom of the transducer while it is transmitting sonar. Prolonged contact with the transducer element can cause physical discomfort or minor tissue damage.*

WARNING! *Disassembly and repair of this electronic unit should only be performed by authorized service personnel. Any modification of the serial number or attempt to repair the original equipment or accessories by unauthorized individuals will void the warranty. Handling and/or opening this unit may result in exposure to lead, in the form of solder.*

WARNING! *This product contains lead, a chemical known to the state of California to cause cancer, birth defects and other reproductive harm.*

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WEEE compliance may not be required in your location for electrical & electronic equipment (EEE), nor may it be required for EEE designed and intended as fixed or temporary installation in transportation vehicles such as automobiles, aircraft, and boats. In some European Union member states, these vehicles are considered outside of the scope of the Directive, and EEE for those applications can be considered excluded from the WEEE Directive requirement.



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ROHS STATEMENT: Product designed and intended as a fixed installation or part of a system in a vessel may be considered beyond the scope of Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

CALIFORNIA PROPOSITION 65 STATEMENT: Lead in cable jackets and boots is restricted to 300 parts per million or less as determined by ICP-AES test methods.

NOTE: Some features discussed in this manual require a separate purchase, and some features are only available on international or certain models. Every effort has been made to clearly identify those features. Please read the manual carefully in order to understand the full capabilities of your model.

NOTE: Illustrations in this manual may not look the same as your product, but your unit will function in the same way.

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NOTE: Entries in this Table of Contents which list (*International Only*) are only available on products sold outside of the U.S. by our authorized International Distributors. It is important to note that products sold in the U.S. are not intended for resale in the international market. To obtain a list of authorized International Distributors, please visit our website at www.humminbird.com or contact our Customer Resource Center at 1-800-633-1468 to locate the distributor nearest you.

PiranhaMAX™ Portable Case Assembly

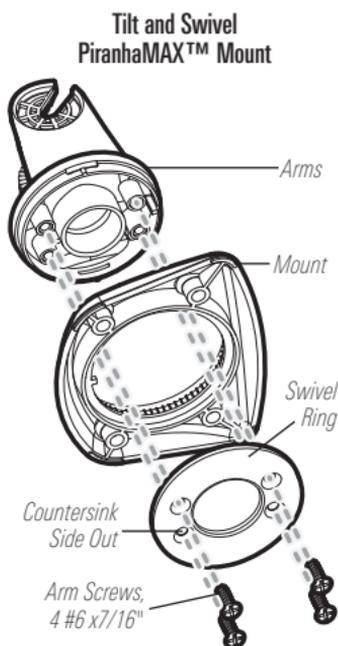
It is important to perform the PiranhaMAX™ portable case assembly tasks in order, referring to the step-by-step procedures that represent the following main assembly tasks:

- Assembling the PiranhaMAX™ mount
- Assembling the base and handle
- Assembling the control head to the base and handle
- Routing the cables in the base
- Assembling the portable case
- Charging and installing the battery
- Assembling the transducer mounting bracket
- Stowing the portable transducer and battery charger into the portable case.

When you are done, the control head and the transducer will be part of the portable case assembly, and you will be ready to take your portable case to the boat for final setup.

1. Assembling the PiranhaMAX™ Mount

Your PiranhaMAX™ mount will either have a tilt mount or a tilt and swivel mount. Refer to either procedures A or B below to assemble the mount.



A. If you have a tilt mount, refer to the following information:

No assembly is required for the tilt mount. Proceed to ***Assembling the Base and Handle***.

B. If you have a tilt and swivel mount, use the following steps:

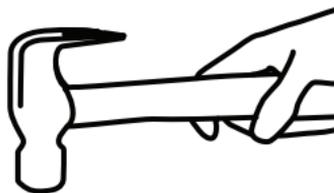
1. Insert the arms into the mount. Then, hold the arms in place as you turn the mount upside down.
2. Insert the swivel ring into the mount, with the countersink holes for the arm screws facing out.
3. Secure the arms with the 4 #6 screws provided. **Hand tighten only!**

2. Assembling the Base and Handle

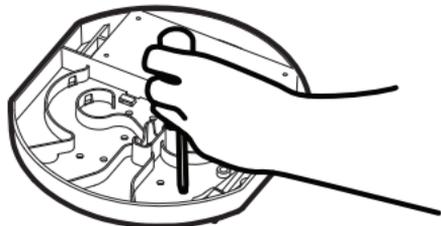
In this procedure, you will install the PiranhaMAX™ mount and handle to the base of the portable case.

1. Turn the base upside down. Punch out the mounting holes labeled "C" with a hammer and a screwdriver (or an awl) as shown in the illustration ***Punching Holes***.

Punching Holes

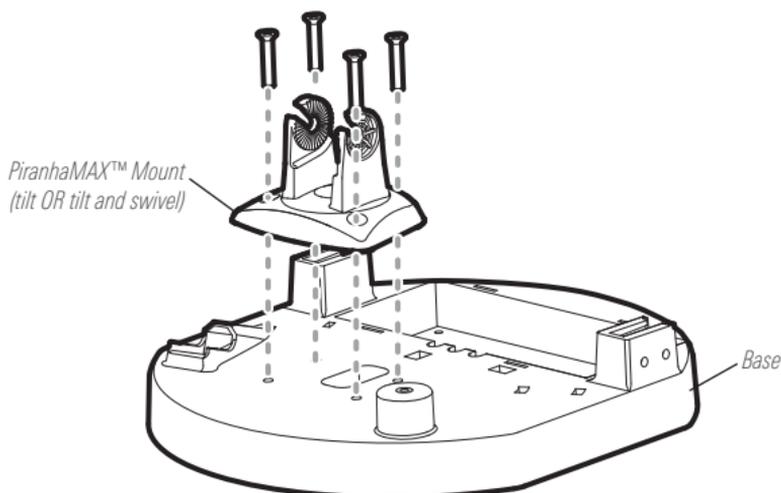


2. Turn the base right side up. Line up the PiranhaMAX™ mount with the holes you punched out in step 1.



- Using a socket wrench and a Phillips screwdriver, secure the PiranhaMAX™ mount to the base with the four included 3/4" screws, lock washers, and nuts. **Hand tighten only!**

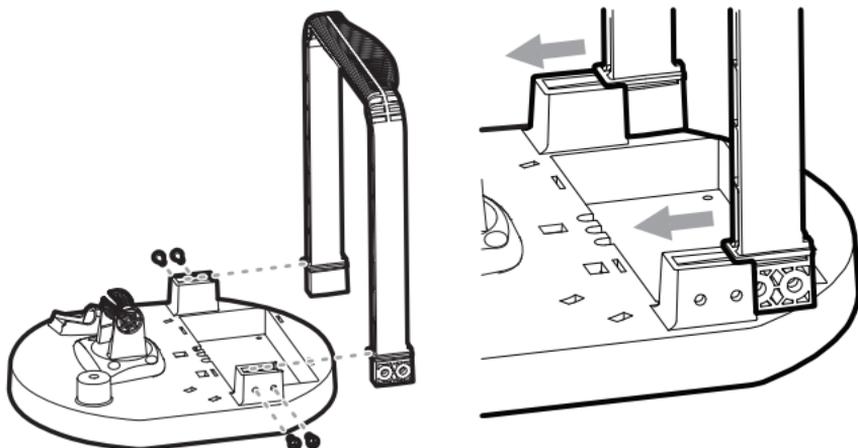
Attaching the Mount to the Base



- Install the handle onto the base, so that the curved part of the handle faces towards the back of the base, towards the battery well. Use the four included #8-32 x 7/16" screws, two on each side, to attach the handle to the base (see the illustrations *Installing the Handle Onto the Base* and *Sliding in the Handle*). **Hand tighten only!**

Installing the Handle Onto the Base

Sliding in the Handle



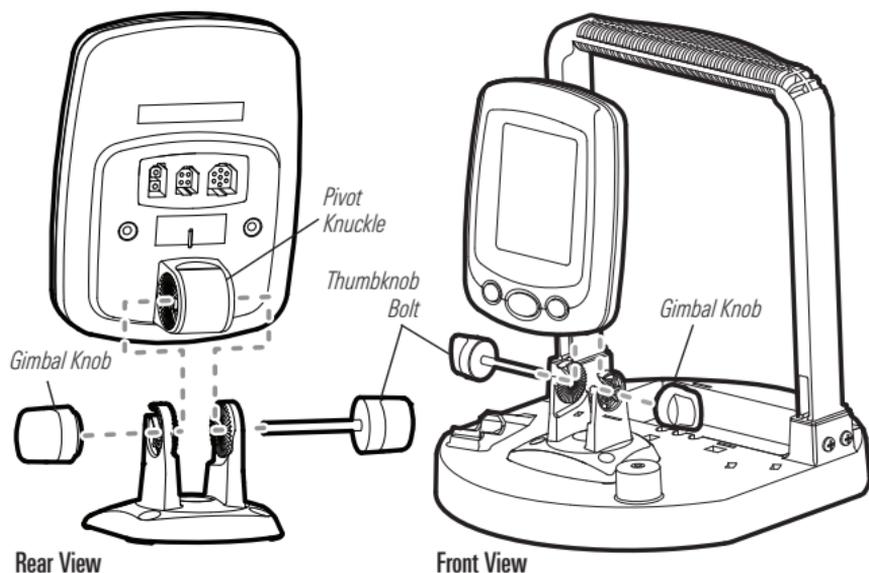
NOTE: The handle is keyed so that it only fits onto the base in one direction.

3. Assembling the Control Head to the Base and Handle

In this procedure you will install the control head onto the base assembly.

1. Insert the thumbknob bolt through the pivot knuckle on the control head.

Assembling the Control Head to the Base and Handle



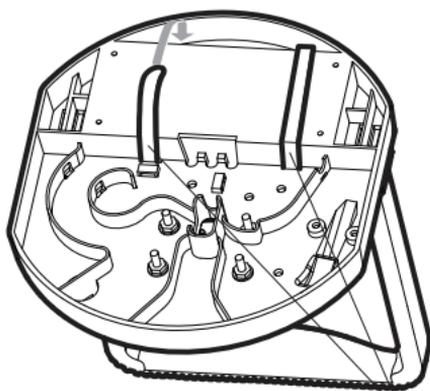
2. Align the pivot knuckle with the mount arms and slide into place, twisting slightly if necessary, until the unit is firmly seated.
3. Rotate the control head to the desired angle and hand tighten the thumbknob bolt.
4. Thread the gimbal knob onto the pivot bolt and tighten.

4. Routing the Cables in the Base

In this procedure, you will route the power and transducer jumper cables on the underside of the base, and attach the tie-down straps that will be used to secure the battery to the base in a later procedure.

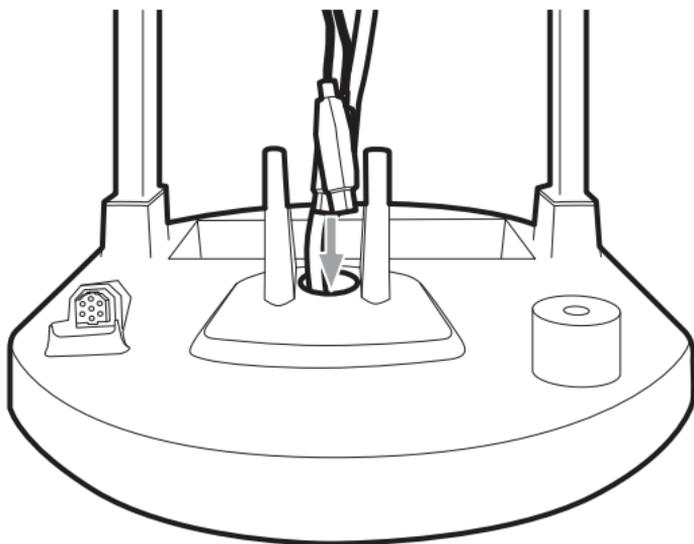
1. Turn the base upside down, then thread the two included hook and loop battery tie-down straps from the bottom of the base up through each side of the battery well, using the strap holes (see the illustration ***Attaching the Battery Tie-Down Straps***).
2. Route the power cable from the mount **DOWN** through the center hole of the base. Route the transducer jump cable **UP** through the base and mount.

Attaching the Battery Tie-Down Straps



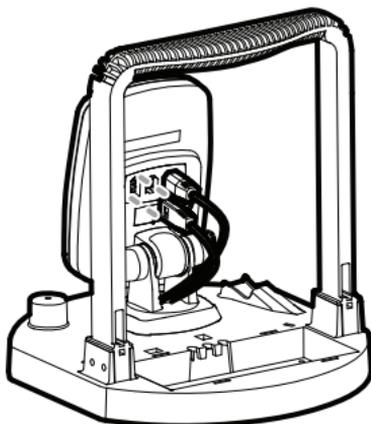
Battery tie-down straps

Pulling the Cables Through the Base

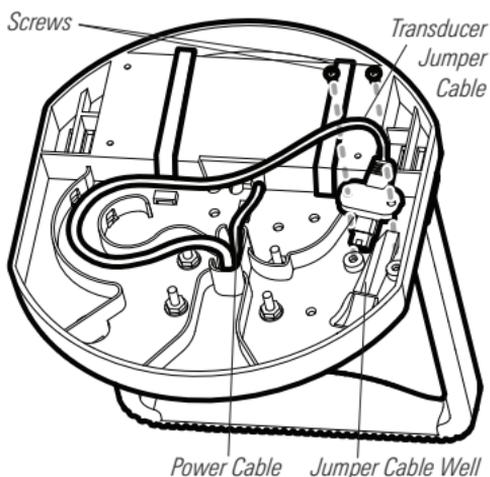


3. Connect the cables to the control head. The slots for the plugs are keyed to prevent reverse installation, and insertion should be easy. Do not force the connectors into the control head.
4. Pull the power cable through the opening in the long side of the cable well and insert it into the battery well (see the illustration *Installing the Cables Onto the Base*).

Connecting the Cables to the Control Head

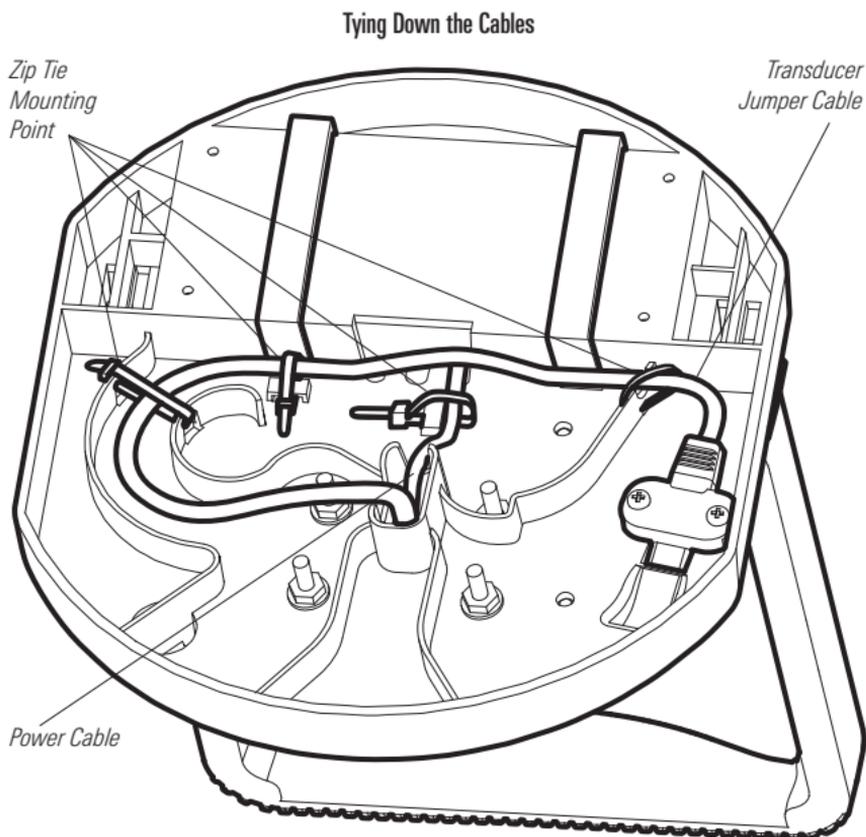


Installing the Cables Onto the Base



5. Route the transducer jumper cable (see the illustration *Installing the Cables Onto the Base*) out the long side of the cable well and follow the arrows on the base.
6. Fit the transducer jumper cable connector down into the jumper cable well and snap it into place. Insert the two #6-32 x 1/4" screws included to secure the transducer jumper connector and tighten using a Phillips screwdriver. **Hand tighten only!**

- Secure all cables to the base, using the included zip ties, at the mount points shown in the illustration (see the illustration *Tying Down the Cables*).



- Turn the base right side up and pull up gently on the battery tie-down straps to remove the slack.

NOTE: You will need to perform more assembly procedures, as well as charge the battery for 8 hours, before you install the battery into the portable case. See **Charging and Installing the Battery** for more information.

5. Assembling the Portable Case

In this procedure, you will install the base assembly into the portable case.

1. Unzip the largest opening on the front of the portable case.
2. Insert the base assembly into the portable case, so that the PiranhaMAX™ control head is facing out of the case. For best results, pull the case over one shoulder of the handle at a time.
3. Adjust the case so that you can easily grab the handle, through the fabric handhold inset, from the outside top of the portable case.

Installing the Base into the Case



Pulling the Case over the Handle



Holding the Portable Case



6. Charging and Installing the Battery

In this procedure you will charge and then install and secure the battery.

1. Charge the battery, using the included battery charger, until it is fully charged as indicated by the LED on the charger. Charging usually requires 8 continuous hours but may vary depending on your configuration.

NOTE: Some international models may not include a battery or battery charger.

2. Open the bottom back zipper on the portable case, and install the battery in the battery well. While holding the tie-down straps out of the way, make sure the power cable is fitted snugly into the slot in the well so that the battery does not rest on it (see the illustration *Installing the Battery*).

Installing the Battery



Tying Down the Battery



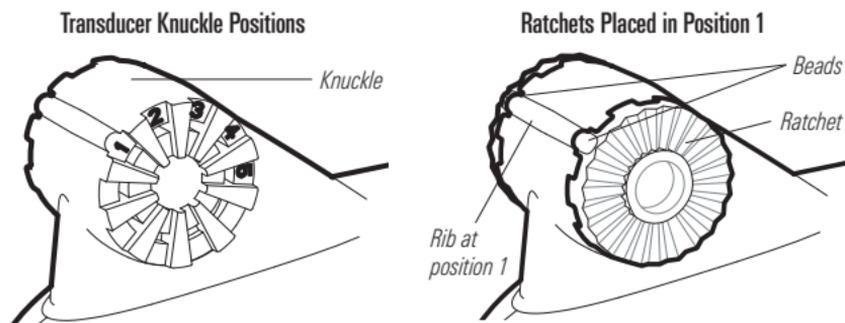
3. Pull the two battery tie-down straps over the top of the battery and connect both ends of each strap over the top, making sure that the straps are pulled tight around the battery and that the battery is seated securely in the battery well.
4. Zip up the back opening.

NOTE: Do NOT connect the power cable to the battery at this time. You should wait until just before fishing to connect the power cable to the battery.

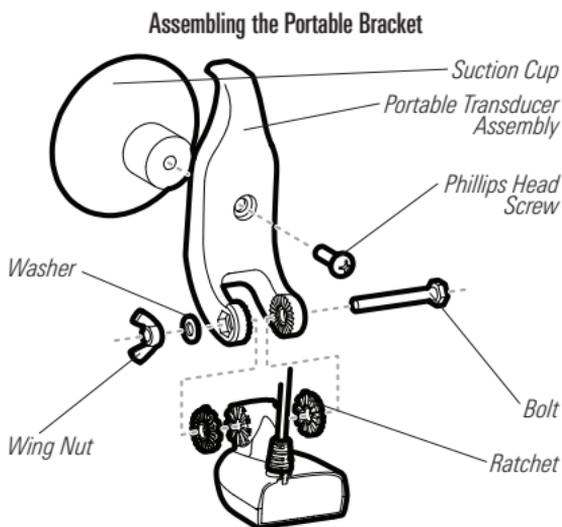
7. Assembling the Transducer Mounting Bracket

In this procedure you will assemble the portable transducer mounting bracket.

1. Line up the two ratchet pieces at position 1 so that the beads are aligned with the rib on the transducer. See illustrations.

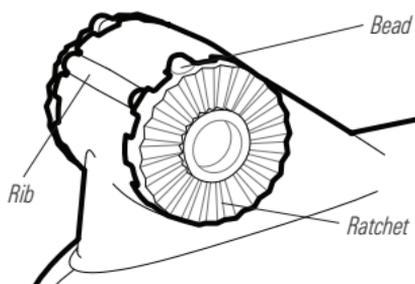


2. Assemble the other transducer parts as shown (see the illustration *Assembling the Portable Bracket* below). **Hand tighten only!**



NOTE: If you are unable to ratchet the transducer so that it rests below the water and points straight down, you can disassemble it and align the beads with a different number until you reach a position that allows the proper alignment.

Ratchets Placed in Position 2



8. Stowing the Portable Transducer and Battery Charger into the Portable Case

1. Load the portable transducer into the carrying compartment (upper zip opening on the back of the portable case) and close the zipper.
2. Turn the portable case around so that you can access the front, and load the battery charger into the zip pocket on the left as you face the front of the portable case.
3. Make sure all the zippers are closed.

Installing the Portable Case On the Boat

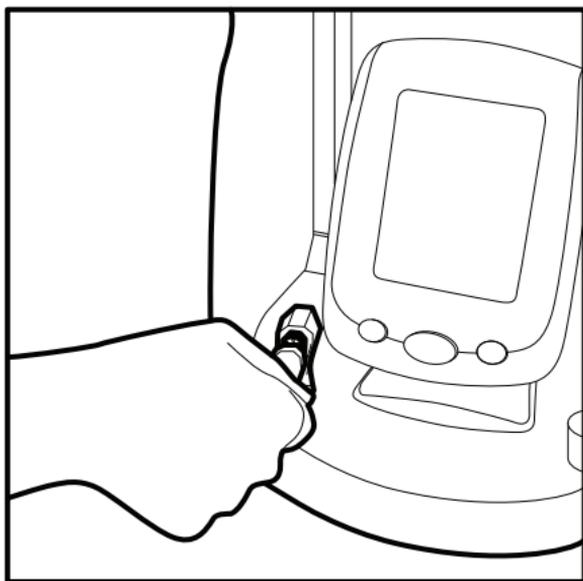
Since the portable case has a large non-skid mounting surface, it may be attached to almost any surface.

In this section, you will route the cables on the boat, connect the transducer and power cables to the portable case, and attach the portable case to a dry and convenient location on your boat.

1. Connecting the Transducer and Power Cables to the Portable Case

1. Make sure the large opening in the front of the portable case is unzipped; you may want to roll up the flap and secure it with the provided strap and clip while you're working.
2. Plug the transducer cable into the jumper port in the portable case to the left of the control head, as you face the front of the bag (see the illustration *Plugging in the Transducer*).

Plugging in the Transducer



3. Turn the portable case around so that you can access the back, and open the back zipper. Connect the spade clip on the red wire of the power cable to the red terminal on the battery, and the spade clip on the black wire of the power cable to the black terminal on the battery. Make sure that the spade clips are snugly attached to the terminals (see the illustration *Connecting the Spade Clips*).

Connecting the Spade Clips



4. Make sure the back battery door and side pockets are zipped, but leave the front of the bag unzipped for easy access during installation.

2. Attaching the Portable Case to the Boat

1. Attach the portable case to a surface on the boat by threading rope or bungee cord (not provided) through the D-rings on either side of the portable case.

NOTE: Humminbird® recommends that you do NOT position the portable case on the bottom of the boat, or in a location where it can be splashed by or immersed in water, as the portable case is water resistant, but not waterproof.

Mounting the Portable Transducer

Once your Portable fishfinder is fully assembled (see the *Portable Case Assembly* section for more information), it takes just a few easy steps before you are ready to fish:

- Test the transducer prior to installation
- Mount the portable transducer on the boat

1. Testing the Transducer Prior to Installation

Prior to installation, test the transducer to make sure that no damage occurred during shipping.

1. Hold the transducer in the water over the side of the boat to confirm proper operation. If the transducer is working properly, you should be able to see the bottom on the control head display.

2. Mounting the Portable Transducer on the Boat

Perform the procedures in this section to install the transducer on your boat.

NOTE: *The suction cup mount is designed for quick, easy installation and removal, NOT for high speed operation. If you intend to operate your boat at any speed faster than trolling speeds, remove the suction cup transducer from the water.*

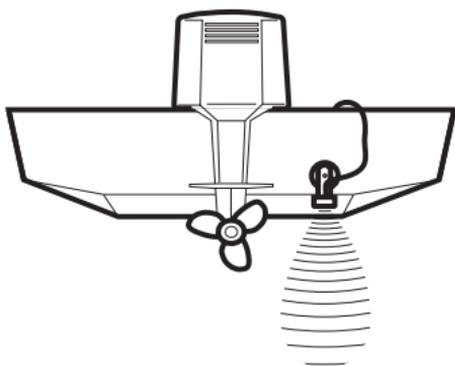
It is important that the mounting position allows the transducer to rest beneath the surface of the water, pointing straight down. You can mount the transducer anywhere on the side of the boat if your boat remains stationary. If you are trolling, it is best to mount the transducer on the transom of the boat.

Your portable transducer is designed to be installed and adjusted without the use of tools. Mounting the transducer to the boat is a simple yet important operation. A poor mounting location will affect the overall performance of the Humminbird® unit, so follow the mounting instructions carefully. It is important that the mounting position allows the transducer to rest beneath the surface of the water, pointing straight down. You can mount the transducer anywhere on the side of the boat if your boat remains stationary.

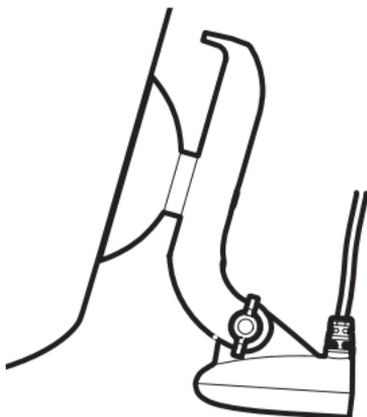
NOTE: *If you are trolling, it is best to mount the transducer on the transom of the boat.*

1. Mount the transducer so that it points straight down and so that the transducer itself is submerged in the water (see the illustration *Portable Transducer Mount*).

Portable Transducer Mount



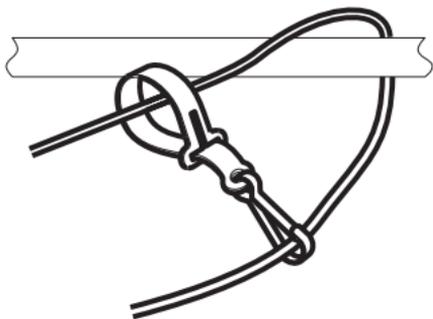
Transducer Running Angle



2. Adjust the running angle so that the transducer is parallel to and below the surface of the water (see the illustration *Transducer Running Angle*).
3. Hand-tighten the wing nut so that the transducer will not rotate.

4. Secure the transducer cable in case of accidental release when the boat is moving, since a loose transducer can cause damage to itself, your boat, or become tangled in the propeller. Attach the tie-down strap to the transducer cable around an immovable object such as a rail or fitting, as shown in the illustration (see the illustration *Transducer Tie-Down Strap*).

Transducer Tie-Down Strap



5. When you have finished using the transducer, unplug the transducer cable from the transducer jumper port on the base, then coil the cable around the assembly.

Moving the Portable Fishfinder

You should take the portable case with you when you leave the boat and will not be using it. Perform the following steps to make your unit mobile:

1. With the boat engine off, loosen all cable retainers/clips holding the transducer.
2. Remove the case from the surface mount.
3. Remove the transducer from the surface where it has been mounted, wipe it dry, and stow it in the portable case rear pocket.
4. Unplug the power cable when not in use.

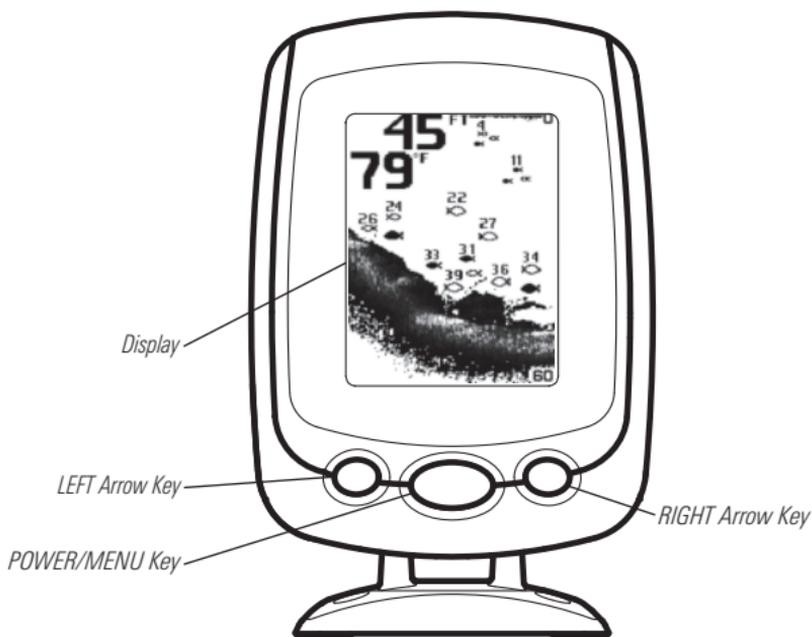
Powering ON and OFF

Press and hold the POWER-MENU key until the PiranhaMAX™ powers on, then release the key. To power off, press and hold the POWER-MENU key until the unit shuts down.



When the PiranhaMAX™ powers on, the Start-Up menu temporarily appears. From this menu, select either Start-Up, Simulator, or SetUp.

- Use Start-Up for on the water use.
- Use Simulator for learning how to use the system with simulated sonar data; access Simulator by pressing the Right Arrow Key once.
- Use SetUp to display additional set-up menu choices; access SetUp by pressing the Right Arrow Key twice (See **Setup Menu** for more information).

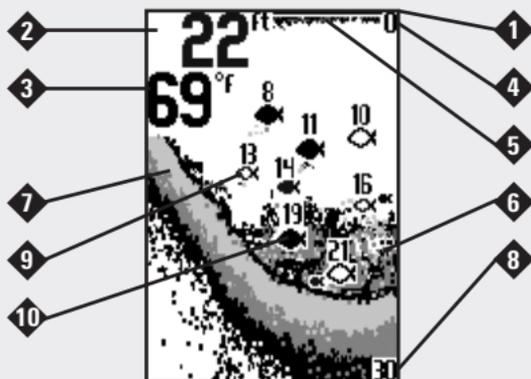


What You See On the Display

The PiranhaMAX™ displays underwater information in an easy-to-understand format. The top of the display corresponds to the water surface at the transducer, and the bottom of the display corresponds to the Depth Range automatically selected for the current water depth. The Bottom Contour varies as the depth under the boat changes. Digital readouts provide precise information for depth, fish and water temperature.

As the boat moves, terrain and bottom composition variations are displayed. Fish, baitfish and thermoclines (underwater temperature changes) are displayed when detected. Underwater conditions vary greatly, so some experience and interpretation is needed to realize all the benefits of the PiranhaMAX™ – use the picture below as a guide to the most common conditions and practice using your PiranhaMAX™ over known bottom types.

PMAX150/190c (Single Beam) and
PMAX160 (Dual Beam) Display



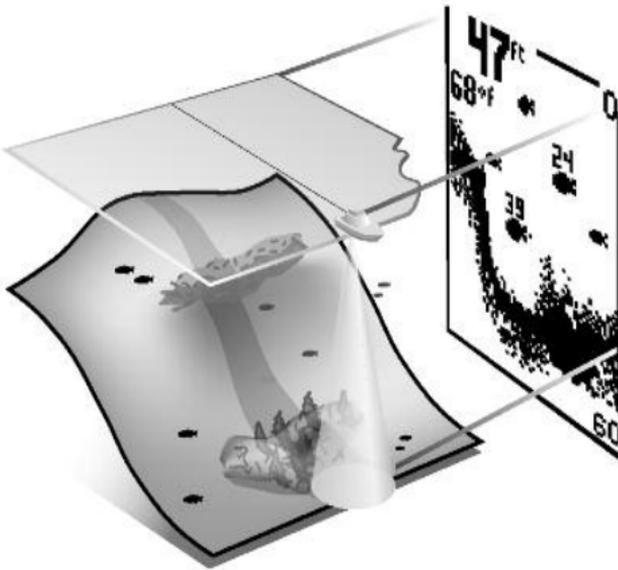
* Units with 83 kHz Dual Beam sonar show targets in the wide beam as hollow fish icons.

- | | |
|---|----------------------------|
| 1 - Water Surface Line | 5 - Surface Clutter |
| 2 - Depth - Measured at the Transducer | 6 - Structure |
| 3 - Temperature | 7 - Bottom Contour |
| 4 - Upper Range | 8 - Lower Range |
| 9 - 83 kHz, Wide Beam Hollow Fish Symbol (Dual Beam Units only)* | |
| 10 - 200 kHz, Narrow Beam Shaded Fish Symbol | |

PiranhaMAX™ Sonar Technology

The PiranhaMAX™ is the easiest to use fishfinder ever. For most anglers, all you'll ever need to do is power on and fish! The PiranhaMAX™ automatically determines depth and makes adjustments to keep the bottom and fish visible on the display.

The PiranhaMAX™ uses sonar technology to send sound waves from the transducer into the water. The returned "echoes" are plotted on the display, creating a very accurate picture of the underwater world, including distance to underwater objects such as the bottom, fish, and structure.



Your PiranhaMAX™ will have Single or Dual Beam sonar. Find the correct sonar description that applies to your unit.

Single Beam Sonar

The **PiranhaMAX™150** and **PiranhaMAX™190c** use a 200 kHz single beam sonar system with a 20° area of coverage. Boat speed, wave action, bottom hardness, water conditions and transducer installation can all affect depth capability.

Dual Beam Sonar

The **PiranhaMAX™160** uses a 200/83 kHz dual beam sonar system with a wide (60°) area of coverage. Dual Beam sonar is optimized to show the greatest bottom definition using a narrow (20°) beam yet can still indicate fish found in the wide (60°) beam when the Fish ID+™ feature is turned on. Dual Beam is ideal for a wide range of conditions - from shallow to very deep water in both fresh and salt water. Boat speed, wave action, bottom hardness, water conditions and transducer installation can all affect depth capability.

The Menu System

A simple menu system allows you to access your PiranhaMAX™ adjustable settings. To activate the menu system, press the POWER-MENU key. Press the POWER-MENU key repeatedly to display the PiranhaMAX™ menu settings, one at a time. When a menu setting is on the display, use the RIGHT and LEFT Arrow keys to adjust the menu setting. Menu settings are saved and removed from the screen automatically after several seconds. In Normal operating mode, most menu settings saved to memory will not return to their default values when the unit is turned off. See individual menu choices for more information.

NOTE: Each time the POWER-MENU key is pressed, the backlight momentarily illuminates for easy viewing at night. Adjust the LIGHT menu setting to keep the backlight on.

NOTE: If Simulator Mode is selected from the Start-Up Menu and a transducer is plugged in, some menu setting changes will be saved in memory even after the unit is powered down. Menu setting changes will not be saved from Simulator mode when a transducer is not connected.

NOTE: Turning on the SetUp menu choice from the Main Menu System allows you to access additional set-up menu choices. See **SetUp Menu** for more information.



Light

(Setting Not Saved in Memory)

Press the POWER-MENU key until LIGHT appears. Use the backlight for night fishing. Select either 0 (Off), or 1 through 5 to activate the backlight at the desired level. (0 to 5, Default = 0 [PiranhaMAX™150/160]; 0 to 10, Default = 10 [PiranhaMAX™190c])

NOTE: Continuous backlight operation will significantly decrease the battery life for PiranhaMAX™ Portables.



Sensitivity

(Setting Saved in Memory)

Press the POWER-MENU key until SENSITIVITY appears. Sensitivity controls how much detail is shown on the display. Increasing the sensitivity shows more sonar returns from small baitfish and suspended debris in the water; however, the display may become too cluttered. When operating in very clear water or greater depths, increased sensitivity shows weaker returns that may be of interest. Decreasing the sensitivity eliminates the clutter from the display that is sometimes present in murky or muddy water. If Sensitivity is adjusted too low, the display may not show many sonar returns that could be fish. (0 – 10, Default = 5)

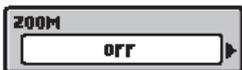


Depth Range

(Setting Not Saved in Memory)

Press the POWER-MENU key until DEPTH RANGE appears. Automatic is the default setting. When in automatic, the lower range will be adjusted by the unit to follow the bottom. (Auto, 15 to 600 ft [PiranhaMAX™150 and 160], 15 to 800 ft [PiranhaMAX™190c], Default = Auto)

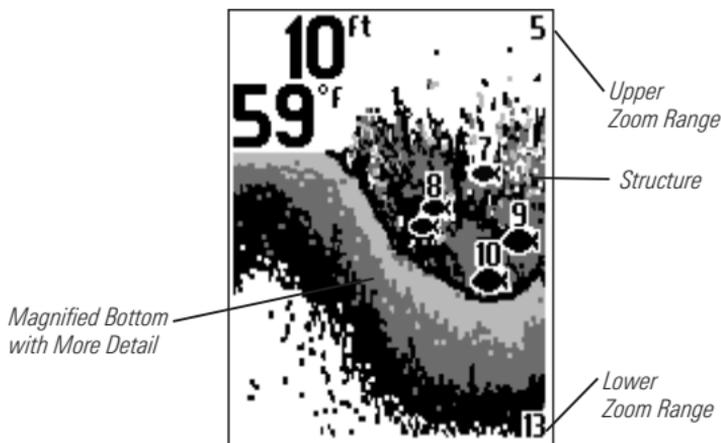
NOTE: In manual operation, if the depth is greater than the depth range setting, the bottom will not be visible on the display. Select AUTO to return to automatic operation.



Zoom

(Setting Not Saved in Memory)

Press the POWER-MENU key until ZOOM appears. Select Auto to magnify the area around the bottom in order to reveal fish and structure close to the bottom that may not be visible during normal operation. When ZOOM is set to Auto, the upper and lower Depth Ranges are automatically adjusted to keep the area above and below the bottom on the display. Select Off to return to normal operation. (Off, Auto, Manual Ranges, Default = Off)



There is also a series of manual ranges which can be selected. The manual depth ranges are determined by the present depth conditions.



Chart Speed

(Setting Saved in Memory)

Press the POWER-MENU key until CHART SPEED appears. Select a setting from 1-5 to increase or decrease the chart speed, where 1 is the slowest and 5 is the fastest chart speed. Chart speed determines the speed at which the sonar information moves across the display, and consequently the amount of detail shown. A faster speed shows more information and is preferred by most anglers; however, the sonar information moves across the display quickly. A slower speed keeps the information on the display longer, but the bottom and fish details become compressed and may be difficult to interpret. (1 to 5, Default = 5)



Fish Alarm

(Setting Saved in Memory)

Press the POWER-MENU key until FISH ALARM appears. Select Off for no fish alarm, or one of the following symbols to set the alarm. An alarm will sound when the PiranhaMAX™ detects fish that correspond to the alarm setting. Fish Alarm will only sound if Fish ID+™ is also set to On. (Off, Large, Large/Medium, All, Default = Off)



Large fish only



Large/Medium fish only



All fish



Depth Alarm

(Setting Saved in Memory)

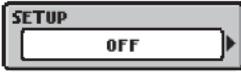
Press the POWER-MENU key until DEPTH ALARM appears. Select OFF for no Depth Alarm, or select 3 to 99 feet to set the alarm depth. An audible alarm sounds when the depth is equal to or less than the setting. (Off, 3 to 99 feet, Default = Off)



Filter

(Setting Saved in Memory)

Press the POWER-MENU key until FILTER appears. Select either Off or On. Filter adjusts the sonar filter to limit interference on the display from sources such as your boat engine, turbulence, or other sonar devices. (On, Off, Default = Off)



SetUp Menu

(Setting Not Saved in Memory)

Press the POWER-MENU key until SetUp appears. Press the RIGHT Arrow key to select On. (Off, On, Default = Off)

When you activate SetUp, additional menu choices will become available that are not a part of the Main Menu system. After selecting SetUp, press the POWER-MENU key to display the SetUp menu choices, one at a time. SetUp Menu choices include:

- Contrast
- Battery Alarm
- Fish ID+™
- Language (International only)
- Bottom View
- Units (International only).

Scroll through all SetUp menu choices to exit the SetUp menu.



Contrast (SetUp Menu)

(Setting Saved in Memory, Monochrome only)

Make sure that the SetUp menu is selected, then press the POWER-MENU key until CONTRAST appears. Select a setting from 1 through 5. (1 to 5, Default = 3)

Scroll through all SetUp menu choices to exit the SetUp menu.



Fish ID+™ (SetUp Menu)

(Setting Saved in Memory)

Make sure that the SetUp menu is selected, then press the POWER-MENU key until FISH ID+™ appears. Select either Off to view “raw” sonar returns or On to view Fish symbols. Fish ID+™ uses advanced signal processing to interpret sonar returns, and will display a Fish Symbol when very selective requirements are met. A select number of possible fish returns will be displayed with their associated depth. (On, Off, Default = On)

Scroll through all SetUp menu choices to exit the SetUp menu.

Single Beam	 Raw Sonar, Fish ID+™ Off	 19 200 kHz Narrow beam, Fish ID+™ On	
Dual Beam	 Raw Sonar, Fish ID+™ Off	 19 200 kHz Narrow beam, Fish ID+™ On	 19 83 kHz Wide beam, Fish ID+™ On

NOTE: Returns from the 200 kHz narrow beam are shown with shaded fish symbols while the 83 kHz wide beam returns are displayed with hollow fish symbols.

NOTE: Hollow fish symbols are not available on 200 kHz Single Beam sonar units.



Bottom View (SetUp Menu)

(Setting Saved in Memory)

Make sure that the SetUp menu is selected, then press the POWER-MENU key until BOTTOM VIEW appears. Bottom View selects the method used to represent the bottom and structure on the display. (Structure ID, Black, WhiteLine, Inverse, Default = Inverse)

Scroll through all SetUp menu choices to exit the SetUp menu.



Structure ID® represents weak returns as light pixels and strong returns as dark pixels. This has the benefit of ensuring that strong returns will be clearly visible on the display.

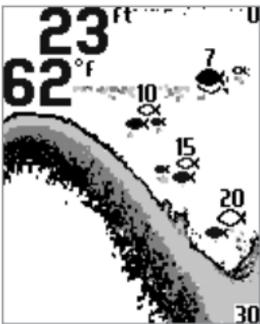


Black (Bottom Black) displays all pixels below the bottom contour as black, regardless of signal strength. This has the benefit of providing a high contrast between the bottom and other sonar returns on the display.

NOTE: Bottom Black View is not available on color models.



WhiteLine™ highlights the strongest sonar returns in white resulting in a distinctive outline. This has the benefit of clearly defining the bottom on the display.



Inverse is a method where weak returns are shown with dark pixels and strong returns with lighter pixels. This has the benefit of ensuring that weak signals will be clearly visible on the display.

NOTE: Inverse View is not available on color models.



Battery Alarm (SetUp Menu)

(Setting Saved in Memory)

Make sure that the SetUp menu is selected, then press the POWER-MENU key until BATTERY ALARM appears. Select Off or 8.5 to 13.5 Volts. Battery Alarm sounds when the input battery voltage is equal to or less than the menu setting. (Off, 8.5 to 13.5 Volts, Default = Off)

Scroll through all SetUp menu choices to exit the SetUp menu.

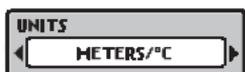


Language (SetUp Menu)

(Setting Saved in Memory, International only)

Make sure that the SetUp menu is selected, then press the POWER-MENU key until LANGUAGE appears (International Units only). LANGUAGE selects the display language for menus. (Settings vary, Default = English)

Scroll through all SetUp menu choices to exit the SetUp menu.



Units (SetUp Menu)

(Setting Saved in Memory, International only)

Make sure that the SetUp menu is selected, then press the POWER-MENU key until UNITS appears (International Units only). UNITS selects the units of measure. (Feet/F, Meters/C, Fathoms/C, Default = Meters/C, where F stands for Fahrenheit and C stands for Celsius)

Scroll through all SetUp menu choices to exit the SetUp menu.

Maintenance

Your Humminbird® Portable fishfinder is designed to provide years of trouble-free operation with virtually no maintenance. Follow the simple procedures below to ensure that your Humminbird® Portable continues to deliver top performance.

If the Portable case comes into contact with salt spray, wipe the affected surfaces with a lint-free cloth, then apply a commercially available anti-corrosive treatment to all exposed electrical contacts.

If the portable case bag becomes dirty, clean the bag with mild soap, water, and a soft rag or brush and then hang it up to dry.

Do not use a chemical glass cleaner on the lens - this may cause cracking in the lens.

When cleaning the LCD protective lens, use a chamois and non-abrasive, mild cleaner. Do not wipe while dirt or grease is on the lens. Be careful to avoid scratching the lens.

If your boat remains in the water for long periods of time, marine growth can reduce the effectiveness of the transducer. Periodically clean the face of the transducer with liquid detergent.

If your boat remains out of the water for a long period of time, it may take some time to wet the transducer when returned to the water. Small air bubbles can cling to the surface of the transducer and interfere with proper operation. These bubbles dissipate with time, or you can wipe the face of the transducer with your fingers after the transducer is in the water.

Never leave your Humminbird® Portable unit in a closed car or trunk - the extremely high temperatures generated in hot weather can damage the electronics. Repairs should be performed only by authorized Humminbird® technicians.

How to Remove Water from the Portable Case

Open the front zipper and pull the case down to allow water to exit the case. If needed, remove the case from the plastic base and air-dry it. Follow recommended maintenance procedures for salt spray exposure if needed.

Troubleshooting

Do not attempt to repair the PiranhaMAX™ yourself. There are no user-serviceable parts inside, and special tools and techniques are required for assembly to ensure the waterproof integrity of the housing. Repairs should be performed only by authorized Humminbird® technicians.

Many requests for repair received by Humminbird® involve units that do not actually need repair. These units are returned “no problem found.” If you have a problem with your PiranhaMAX™, use the following troubleshooting guide before calling the Customer Resource Center or sending your unit in for repair.

1. Nothing happens when I turn the unit on.

Check the power cable connection at both ends. Be sure the cable is connected correctly to a reliable power source — red lead to positive, black lead to negative or ground. Ensure the power available is between 10 and 20 VDC.

Check the power connection to the PiranhaMAX™. It is possible to force the power cable connector into the cable holder incorrectly. If the connector is reversed, the unit will not work. Examine the contacts on the back of the unit to ensure there is no corrosion.

2. There is no transducer detected.

The PiranhaMAX™ has the ability to detect and identify that a transducer is connected. When powering on, if a message indicates “transducer not connected”, make sure that an appropriate transducer connector is plugged into the unit. In addition, inspect the transducer cable from end to end for breaks, kinks, or cuts in the outer casing of the cable. Also make sure that the transducer is fully submerged in water. If the transducer is connected to the unit through a switch, temporarily connect it directly to the unit and try again. If none of these actions identifies an obvious problem, the transducer itself is probably at fault. Be sure to include the transducer if returning the unit for repair.

3. There is no bottom reading visible on the display.

In very deep water, it may be necessary to increase the sensitivity setting manually to maintain a graphic depiction of the bottom. If you are using a transducer switch to connect two transducers to the PiranhaMAX™, make sure that the switch is in the correct position to connect a transducer that is in the water. (If a trolling motor transducer is selected and the trolling motor is out of the water, no sonar information appears.) If none of these actions solves the problem, inspect the transducer cable from end to end for breaks, kinks, or cuts in the outer casing of the cable. If the transducer is connected to the unit through a switch, temporarily connect it directly to the unit and try again. If none of these actions identifies an obvious problem, the transducer itself may be at fault. Be sure to include the transducer if returning the unit for repair.

4. When in very shallow water, I get gaps in the bottom reading and inconsistent digital depth indication.

The PiranhaMAX™ will work reliably in water 3 feet (90 cm) or deeper. Remember that the depth is measured from the transducer, not from the surface of the water.

5. The unit comes on before I press the POWER-MENU key, and won't turn off.

Check the transducer cable — if the outer jacket of the cable has been cut and the cable is in contact with bare metal, you will need to repair the cut with electrical tape. If there is no problem with the cable, disconnect the transducer from the unit and see if the problem is corrected, to confirm the source of the problem.

6. I get gaps in the reading at certain speeds.

The suction cup mount is designed for quick, easy installation and removal, NOT for high speed operation. If you intend to operate your boat at any speed faster than trolling speeds, remove the suction cup transducer from the water.

The transducer position may need to be adjusted. A mix of air and water flowing around the transducer (cavitation) may be interfering with the interpretation of the sonar data. See your Installation Guide for suggestions on adjusting the transducer position, height, and running angle.

7. The display begins to fade out. Images are not as sharp as normal.

Check the input voltage. The PiranhaMAX™ will not operate on input voltages below 10 VDC.

8. The display shows many black dots at high sensitivity settings.

You are seeing noise or interference caused by one of several sources. Noise can be caused by electronic devices. Turn off any nearby electronics and see if the problem goes away. Noise can also be caused by the engine. If engine noise is causing the interference, the problem will intensify at higher RPMs. Increase the engine speed with the boat stationary to isolate this cause. Propeller cavitation can also appear as noise on the display. If the transducer is mounted too close to the propeller, the turbulence generated can interfere with the sonar signal. Make sure that the transducer is mounted at least 15" (380 mm) from the propeller.

International Purchases

A separate warranty is provided by international distributors for units purchased outside the United States. This warranty is included by your local distributor and this distributor maintains local service for your unit. Warranties are only valid in the area of intended distribution. Units purchased in the United States or Canada must be returned to our factory in the United States for service.

Humminbird® 1-Year Limited Warranty

We warrant the original retail purchaser that products made by Humminbird® have been manufactured free from defects in materials and workmanship. This warranty is effective for one year from the date of original retail purchase. Humminbird® products found to be defective and covered by this warranty will be replaced or repaired free of charge at Humminbird's option and returned to the customer freight prepaid. Humminbird's sole responsibility under this warranty is limited to the repair or replacement of a product that has been deemed defective by Humminbird®. Humminbird® is not responsible for charges connected with the removal of such product or reinstallation of replaced or repaired parts.

This warranty does not apply to a product that has been:

- Improperly installed;
- Used in an installation other than that recommended in the product installation and operation instructions;
- Damaged or has failed because of an accident or abnormal operation;
- Repaired or modified by entities other than Humminbird®.

Please retain your original receipt as a proof of the purchase date. This will be required for in-warranty service.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, OBLIGATIONS OR LIABILITIES ON THE PART OF HUMMINBIRD® AND WILL BE THE CUSTOMER'S EXCLUSIVE REMEDY, EXCEPT FOR ANY APPLICABLE IMPLIED WARRANTIES UNDER STATE LAW WHICH ARE HEREBY LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. IN NO EVENT WILL HUMMINBIRD® BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY RELATING TO THE PRODUCTS.

Some states do not allow limitations on an implied warranty, or the exclusion of incidental or consequential damages, so the above exclusions may not apply to you. You may also have other rights, which vary from state to state.

Humminbird® Service Policy

Even though you'll probably never need to take advantage of our incredible service policy, it's good to know that we back our products this confidently. We do it because you deserve the best. We will make every effort to repair your unit within three business days from the receipt of your unit at our factory. This does not include shipping time to and from our factory. Units received on Friday are typically shipped by the following Wednesday, units received Monday are typically shipped by Thursday, etc.

All repair work is performed by factory-trained technicians to meet exacting factory specifications. Factory-serviced units go through the same rigorous testing and quality control inspections as new production units.

After the original warranty period, a standard flat rate service charge will be assessed for each repair (physical damage and missing parts are not included).

Any repairs made after the original warranty will be warranted for an additional 90 days after service has been performed by our factory technicians. You can contact our Customer Resource Center or visit our website to verify the flat rate repair fee for your product (visit the Product Support section):

<http://www.humminbird.com>

We reserve the right to deem any product unserviceable when replacement parts are no longer available or impossible to obtain. This Service Policy is valid in the United States only. This applies only to Humminbird® products returned to our factory in Eufaula, Alabama. This Service Policy is subject to change without notice.

DOMESTIC (USA) CUSTOMERS:

PLEASE DO NOT RETURN THIS PRODUCT TO STORE FOR SERVICE

For all technical issues please call **1-800-633-1468**

Or visit www.humminbird.com, click **SUPPORT**

Please reference product serial number and model number when contacting Humminbird®.

Returning Your Unit for Service

Before sending your unit in for repair, please contact the factory, either by phone or by email, to obtain a Repair Authorization Number for your unit.

***NOTE:** Please do not return your Humminbird® to the store for service.*

Please have your product model name and serial number available before calling the factory. If you contact the factory by e-mail, please include your product model name and serial number in the e-mail, and use Request for Repair Authorization Number for your e-mail subject header. You should include your Repair Authorization Number in all subsequent communications about your unit.

For IN-WARRANTY service, complete the following steps:

- Obtain a Repair Authorization Number from the Humminbird® Customer Resource Center.
- Tag product with your name, street address, phone number and your assigned Repair Authorization Number.
- Include a brief written description of the problem.
- Include a copy of your receipt (to show proof and date of purchase).
- Return product freight prepaid to Humminbird®, using an insured carrier with delivery confirmation.

For OUT-OF-WARRANTY service, complete the following steps:

- Obtain a Repair Authorization Number from the Humminbird® Customer Resource Center.
- Include payment in the form of credit card number and expiration date, money order or personal check. Please do not send cash.
- Tag product with your name, street address, phone number and your assigned Repair Authorization Number.
- Include a brief written description of the problem.
- Return product freight prepaid to Humminbird®, using an insured carrier with delivery confirmation.

Specifications

Depth Capability.....	600 ft (185 m) – (PMA150/160) 800 ft (250 m) – (PMA190c)
Power Output	800 Watts (PTP) – (PMA150/160) 1600 Watts (PTP) – (PMA190c)
Operating Frequency.....	200 kHz Single Beam (PMA150/190c) 200 kHz and 83 kHz Dual Beam™ (PMA160)
Area of Coverage (PMA150/190c).....	20° @ -10 dB in 200 kHz
Area of Coverage (PMA160).....	60° @ -10 dB in 83 kHz 20° @ -10 dB in 200 kHz
Target Separation	2 1/2 Inches (63.5 mm)
Portable Case	8.75" H x 10.25" W x 9.83" D 223 mm H x 261 mm W x 250 mm D
Power Requirement	10-20 VDC
LCD Matrix	160 V x 128 H – (PMA150/160) 320 V x 240 H – (PMA190c)
Transducer.....	XPT-9-20-T
Transducer Cable Length	20 ft (6 m)

NOTE: Product specifications and features are subject to change without notice.

NOTE: Humminbird® verifies maximum stated depth in saltwater conditions, however actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition and slope.

Contact Humminbird®

Contact the Humminbird® Customer Resource Center
in any of the following ways:

By Telephone

(Monday - Friday 8:00 a.m. to 4:30 p.m. Central Standard Time):

1-800-633-1468

By e-mail

(typically we respond to your e-mail within three business days):

cservice@johnsonoutdoors.com

For direct shipping, our address is:

**Humminbird
Service Department
678 Humminbird Lane
Eufaula, AL 36027 USA**



HUMMINBIRD®