


PLASTIC THRU-HULL SIDE IMAGING® TRANSDUCER

532145-1_A

OVERVIEW

Before you start installation, we encourage you to read these instructions carefully in order to get the full benefit from your Humminbird® accessory.

 **NOTE:** This type of transducer installation is not recommended for trailerable boats.

 **NOTE:** This transducer requires drilling a hole in the hull of the boat; therefore, installation should be performed by a qualified marine technician.

Supplies: In addition to the hardware supplied with your transducer, you will need a drill, a small drill bit for the pilot hole, a 1 1/8" [2.8 cm] hole saw, a level, and marine-grade silicone sealant.

Customer Service: To purchase additional equipment, or if you find that any items are missing from your installation kit, visit our Web site at humminbird.com or call us at **1-800-633-1468**.


INSTALLATION

Perform the procedures in the following sections to install the transducer on your boat.

1 | Testing the Transducer Prior to Installation

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


1. Connect the transducer cable connector to the SONAR port on the control head or black box sonar (depending on your system configuration).
2. Power on the control head. Select a sonar view to display on-screen.

 **NOTE:** See your control head operations manual for more information.

3. 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. The bottom image should be relatively strong and there should be detailed structure on the display.
4. After confirming proper operation, power off the control head, and unplug the transducer cable connector from the control head or black box sonar.

2 | Locating the Transducer Mounting Position

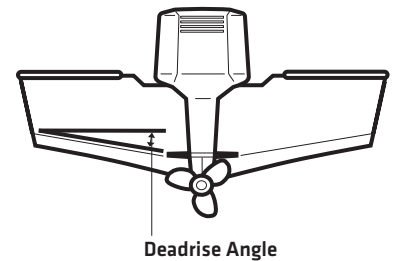
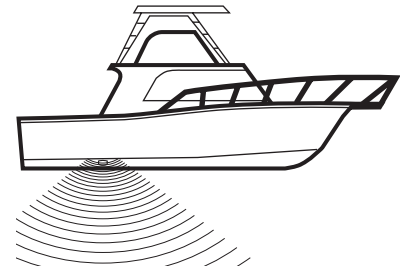
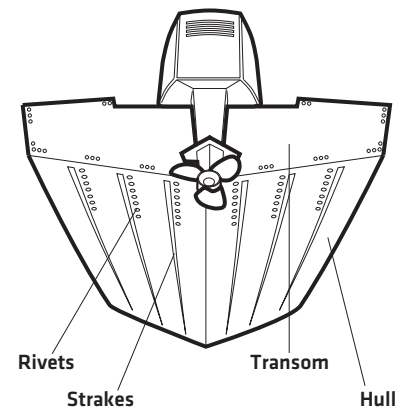
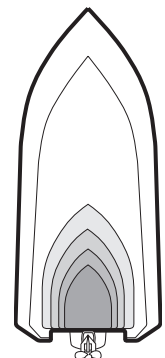
Outside the Boat: The best location for the transducer will be aft midship, as close to the centerline of the boat as possible. The transducer should be mounted forward of the propellers on inboard boats, and separated adequately from other transducers, strakes, rivet lines, or other protrusions. Make sure that there is nothing in front, behind, or to the side of the transducer that is closer than 12" [30.5 cm].

 **WARNING!** Do NOT install the transducer in line with the engine intake.

Inside the Boat: There must be room to access the mounting location for installation and cable routing.

Deadrise: Another consideration is the angle of deadrise.

- The transducer, when mounted, should point straight down. If the selected mounting location has a hull deadrise of 2 degrees or greater, the included leveling block should be used to level the transducer housing and direct the sonar signal straight down.
- If you need to use the leveling block, make sure that the inside surface of the hull is smooth enough to seat the leveling block securely.

Thru-Hull Installation

Areas of Possible Turbulence

Preferred Mounting Location


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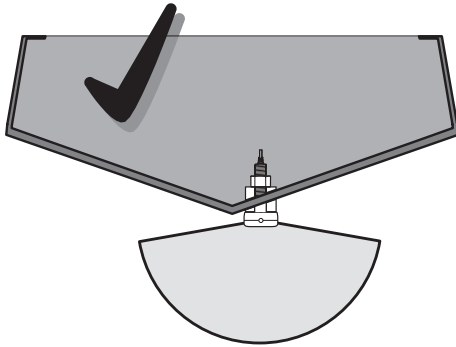
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Side Imaging®: The Side Imaging® transducer has some special requirements because of its side viewing capabilities.

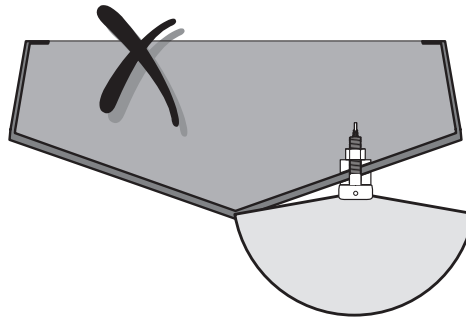
- The Side Imaging® transducer must not have anything obstructing the “view” of the side looking beams. For example, nothing can be in the sight line of these beams (not a hull, motor, or other transducer, etc). See the illustration below.
- In order for the side beams to be displayed accurately, the transducer must be mounted so that it is looking straight down in the water when the boat is in the water.

Side Imaging® - Install the transducer so the beams are not obstructed.
RECOMMENDED:

In the illustration below, the transducer is close enough to center line so that the hull will not interfere with the Side Imaging® beams.


NOT RECOMMENDED:

In the illustration below, the transducer is too far from the center line, and the hull is blocking the Side Imaging® beams.



NOTE: Side Imaging® sonar is best performed at boat speeds from 2 to 6 mph, and it is not recommended for high-speed operation as gaps between strips of information can appear. However, the transducer can support traditional 2D sonar and Down Imaging™ sonar at higher speeds. Rough seas and air bubbles can also affect the reading of the Side Imaging® transducer.

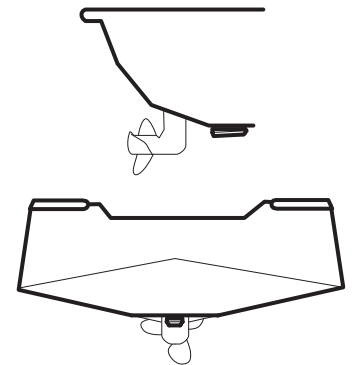
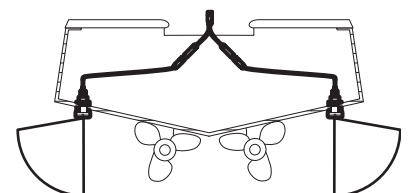
Cable Route: Test route the transducer cable connector to the control head (or black box sonar) to confirm that the cable is long enough for the planned route. Your boat may have a pre-existing wiring channel or conduit that you can use for the transducer cable. See section **5: Routing the Cable** for requirements. Extension cables are also available. Contact Customer Service for more information.

Installation Scenarios for Consideration:

- **Flat Hull, One Transducer:** Locate a flat area on the bottom of the hull, forward of where the propeller shaft comes out of the hull. Make sure there is nothing lower than this location to the right or left.
- **V-shaped Hull, Two Transducers:** Install two thru-hull Side Imaging® transducers, one on each side of the V. Connect the transducers with an AS 14 SI LR Y cable.
- **Two Back Engines, Two Transducers:** Install two thru-hull Side Imaging® transducers outboard from the dual engines. Connect the transducers with an AS 14 SI LR Y cable.



NOTE: The AS 14 SI LR Y cable, extension cables, and additional Side Imaging® Thru-Hull Transducers must be purchased separately. Contact Customer Service for details.

Flat Hull, One Transducer

**V-shaped Hull, Two Transducers
OR
Two Back In-Board Engines,
Two Transducers**


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3 | Drilling the Hole and Preparing the Leveling Block

Follow the instructions below for the installation type that matches your hull and deadrise.



CAUTION! Use only the leveling block included with this transducer. Do NOT use a wooden leveling block, as any swelling of the wood might cause the plastic on the transducer to shatter. Replacement leveling blocks are available from Customer Service.



NOTE: A separately-purchased fairing block can also be used to create a hydrodynamic waterflow around the transducer body. The design and fabrication of this block varies greatly with different hull shapes; therefore, it should be customized by a qualified marine technician.

Standard Installation (Flat Hull, Deadrise less than 2°):

For an installation that needs to minimize the impact of a small obstruction, but where the deadrise is less than 1 to 2 degrees, use the included leveling block (uncut), and mount it outside the hull.

1. From the outside of the hull, drill a small pilot hole (smaller than the centering bit of your drill bit or hole saw), at the mounting location you selected in section 2. **Drill the hole perpendicular to the hull.**
2. Use the pilot hole (from the outside of the hull) to drill a 1 1/8" [2.8 cm] hole that is sized to fit the threaded stem of the transducer. **Drill the hole perpendicular to the hull.**
3. Thoroughly clean and deburr the drilled hole and clean the outside of the hull.
4. The leveling block will be installed (uncut) on the outside of the hull. Proceed to **Section 4: Attaching the Transducer.**

Alternate Installation (Deadrise more than 2°):

For an installation where the deadrise is more than 2 degrees, use the included leveling block, cut at the appropriate angle, to compensate for the deadrise.

1. From the outside of the hull, drill a small pilot hole (smaller than the centering bit of your drill bit or hole saw), at the mounting location you selected in section 2. **Drill the hole perpendicular to the waterline.**
2. Use the pilot hole (from the outside of the hull) to drill a 1 1/8" [2.8 cm] hole that is sized to fit the threaded stem of the transducer. **Drill the hole perpendicular to the waterline.**
3. Thoroughly clean and deburr the drilled hole and clean the outside of the hull.
4. If the hull angle is greater than 2 degrees, cut the included leveling block and use both pieces to level the transducer. The block should be cut to match the angle of the deadrise of the hull.
 - Cut the leveling block into two equal pieces: one which mounts outside the hull and is shaped to match the profile of the transducer, and one which mounts inside the hull and provides a level surface for the fasteners.
 - The thinnest wall of the outside leveling block must be at least 1/8" [3 mm].
 - The leveling block included with your transducer can accommodate a maximum deadrise angle of 25 degrees.
5. The leveling block will be installed (cut) on the inside and outside of the hull. Proceed to **Section 4: Attaching the Transducer.**

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4 | Attaching the Transducer

1. Feed the transducer cable through the drilled hole, then temporarily install the transducer to check the fit.
2. Apply a generous amount of marine-grade silicone sealant or slow-curing epoxy inside the drilled hole and along the mating surfaces of the transducer housing and leveling block.
3. See the illustrations that correspond with your installation type and transducer orientation. Make sure the rounded end of the transducer is facing the bow, pointing forward, and parallel to the center line.

Insert the transducer into the drilled hole from outside the boat with the leveling block(s) installed according to your installation type, then install the nut onto the threaded stem from inside the boat. Hand tighten the nut **ONLY** until the assembly is firmly seated, then tighten **NO MORE** than 1/8 of a turn extra.

⚠ WARNING! To avoid damage, do not overtighten the nut.

📐 NOTE: This type of transducer is directional in nature and must be aligned with the front of the boat (the direction of travel) and parallel to the center line. Failure to align the transducer properly will result in incorrect bottom readings and incorrect fish locations. [See the illustrations for orientation].

4. Remove the excess adhesive sealant from the outside of the hull to ensure smooth water flow over the transducer.

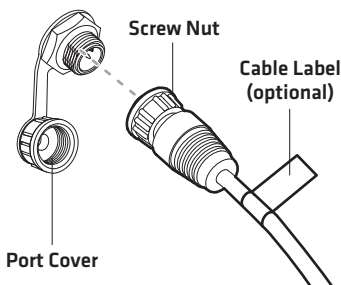
5 | Routing the Cable

The transducer cable must be routed to the point where the control head (or black box sonar) is mounted. Your boat may have a pre-existing wiring channel or conduit that you can use for the routing.

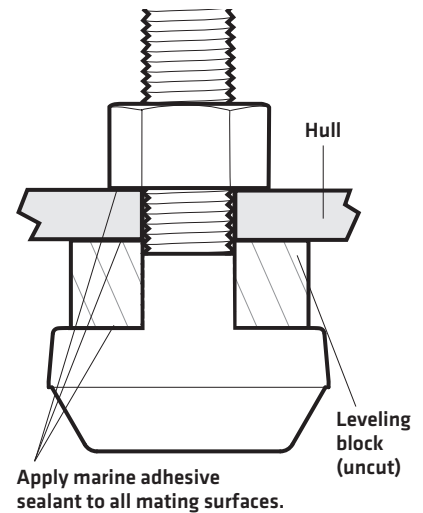
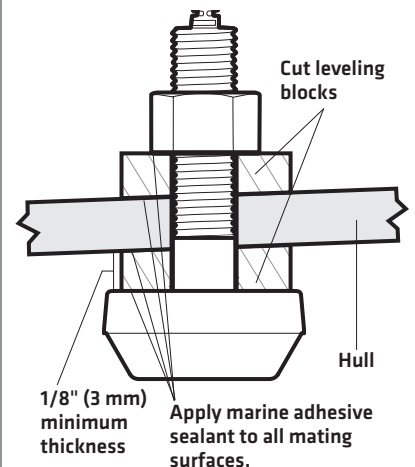
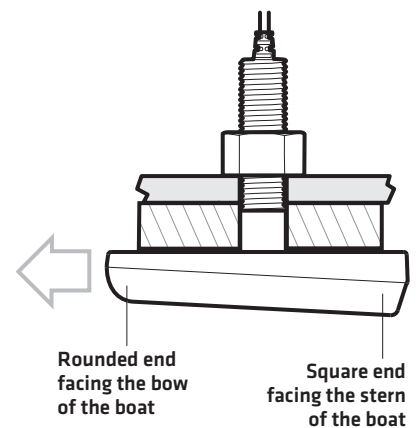
1. Route and secure the transducer cable connector to the control head or black box sonar (depending on your system configuration), avoiding areas where it may be damaged or interfere with normal boating operations.

⚠ CAUTION! Do not cut or shorten the transducer cable, and try not to damage the cable insulation. Route the cable as far as possible from any VHF radio antenna cables or tachometer cables to reduce the possibility of interference. If the cable is too short, extension cables are available to extend the transducer cable up to a total of 50' (15 m). For assistance, contact Customer Service for more information.

⚠ CAUTION! Do NOT mount the cables where the connectors could be submerged in water or flooded. If cables are installed in a splash-prone area, it may be helpful to apply dielectric grease to the inside of the connectors to prevent corrosion. Dielectric grease can be purchased separately from a general hardware or automotive store.

Connecting to the SONAR Port
(magnified view)


2. Insert the cable connector into the SONAR port on the control head (or black box sonar). The ports are labeled and the connectors are keyed to prevent incorrect installation, so do not force the connector into the wrong port.
3. Hand tighten the screw nut to secure the connection.
4. See your control head operations manual for start up information.

Standard Installation (Flat Hull)

Alternate Installation
(Deadrise greater than 2°)

Correct Orientation of Transducer


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MAINTENANCE

If your boat remains in the water for long periods of time, algae and other marine growth can reduce the effectiveness of the transducer. Periodically clean the face of the transducer with a mild, marine-safe and plastic-safe soap or solution.

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

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 repaired or replaced 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 Web site 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 **humminbird.com**, click **SUPPORT**.


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

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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, or a money order. 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.


CONTACT HUMMINBIRD®


Web site humminbird.com


E-mail service@humminbird.com

Telephone 1-800-633-1468

Direct Shipping Humminbird
Service Department
678 Humminbird Lane
Eufaula, AL 36027 USA


 **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.

 **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.

 **WARNING!** This product contains chemicals known to the State of California to cause cancer and/or reproductive harm.

WEEE DIRECTIVE: EU Directive 2002/96/EC "Waste of Electrical and Electronic Equipment Directive [WEEE]" impacts most distributors, sellers, and manufacturers of consumer electronics in the European Union. The WEEE Directive requires the producer of consumer electronics to take responsibility for the management of waste from their products to achieve environmentally responsible disposal during the product life cycle.

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.

 This symbol [WEEE wheelie bin] on product indicates the product must not be disposed of with other household refuse. It must be disposed of and collected for recycling and recovery of waste EEE. Johnson Outdoors Marine Electronics, Inc. will mark all EEE products in accordance with the WEEE Directive. It is our goal to comply in the collection, treatment, recovery, and environmentally sound disposal of those products; however, these requirements do vary within European Union member states. For more information about where you should dispose of your waste equipment for recycling and recovery and/or your European Union member state requirements, please contact your dealer or distributor from which your product was purchased.