

## Plastic Thru-Hull Transducer

### Thank You

Thank you for choosing Humminbird®, the #1 name in fishfinders. Humminbird® has built its reputation by designing and manufacturing top-quality, thoroughly reliable marine equipment. Genuine Humminbird® accessories offer the opportunity to upgrade and expand the capabilities of your Humminbird® product.

Your Humminbird® is designed for trouble-free use in even the harshest marine environment. In the unlikely event that your Humminbird® does require repairs, we offer an exclusive Service Policy - free of charge during the first year after purchase, and available at a reasonable rate after the one-year period. For complete details, see the Warranty section included in this manual.

### Installation Overview

Following are instructions for the installation of this accessory. 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 a pilot hole, a 1 1/8" hole saw, a level, marine-grade silicone sealant, and dielectric grease.

### 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. After connecting the transducer to the control head, 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.

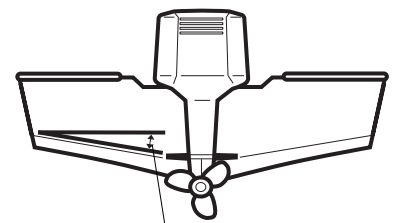
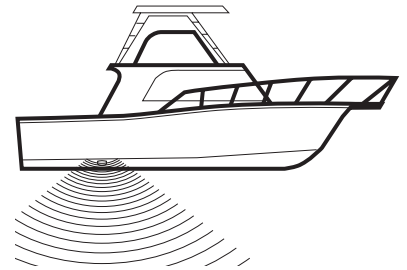
#### 2. Locating the Transducer Mounting Position

**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". **Inside the boat,** there must be room to access the mounting location for installation and cable routing.

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

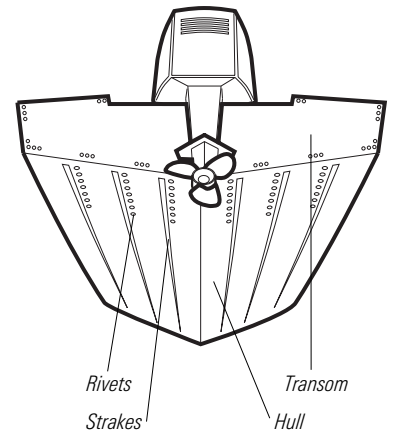
**Deadrise:** Another consideration is the angle of deadrise. The transducer, when mounted, should point straight down. If the selected mounting location has a hull deadrise of 8 degrees or greater, the included leveling block should be used to level the transducer housing and direct the sonar signal 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

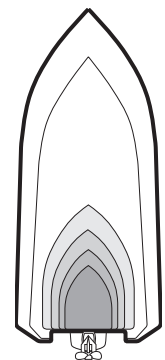


Deadrise Angle

Areas of Possible Turbulence



Preferred Mounting Location



## Plastic Thru-Hull Transducer

### 3. Attaching the Transducer

Before attaching your transducer, you will need to decide which type of installation to use:

- For a standard installation, where there are no major obstructions and the deadrise is less than 8 degrees, use the included leveling block (uncut), and mount it inside the hull. Drill the hole perpendicular to the hull.
  - For an installation that needs to minimize the impact of a small obstruction, but where the deadrise is less than 8 degrees, use the included leveling block (uncut), and mount it outside the hull. Drill the hole perpendicular to the hull.
  - For an installation where the deadrise is greater than 8 degrees, use the included leveling block, cut at the appropriate angle, to compensate for the deadrise. Drill the hole perpendicular to the waterline.
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 procedure 2.

**CAUTION!** Before you drill, make sure you are drilling in the correct orientation according to the installation guidelines above.

2. Use the pilot hole (from the outside of the hull) to drill a 1 1/8" hole that is sized to fit the threaded stem of the transducer:

**NOTE:** For installations where the deadrise is less than 8 degrees, where you will not be cutting the leveling block, drill the hole perpendicular to the hull.

**NOTE:** For installations where the deadrise is greater than 8 degrees, and you will be cutting the leveling block at an angle, drill the hole perpendicular to the waterline.

3. Thoroughly clean and deburr the drilled hole and clean the outside of the hull.
- 4a. **If the deadrise is less than 8 degrees**, you will not be cutting the leveling block; install it either on the inside of the hull (standard installation) or on the outside of the hull to compensate for small obstructions.

OR...

- 4b. **If the hull angle is greater than 8 degrees**, you should 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. The leveling block included with your transducer can accommodate a maximum deadrise angle of 25 degrees.

**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.

**NOTE:** You should 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".

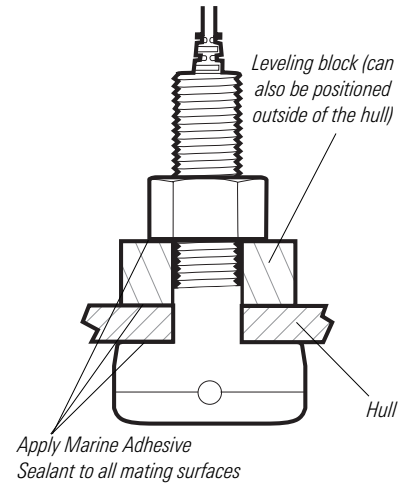
**NOTE:** A separately-purchased fairing block can also be used to create a hydrodynamic waterflow around the transducer body. The design and fabrication of this block varies greatly with different hull shapes; therefore, it should be customized by a qualified marine technician.

5. Feed the cable through the hole, then temporarily install the transducer to check the fit.
6. 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. Also, seal the mating edges of the leveling block.
7. Make sure that the narrow (thin) end of the transducer is pointing forward. Insert the transducer into the drilled hole from outside the boat, then install the nut onto the threaded stem from inside the boat.

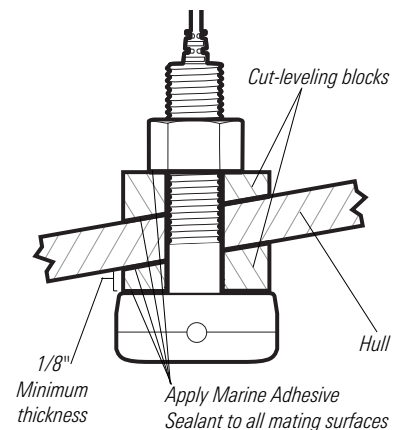
**NOTE:** This type of transducer is directional in nature and must be aligned with the front of the boat (the direction of travel) and parallel to the center line. Failure to align the transducer properly will result in incorrect bottom readings and incorrect fish locations (see the illustration **Correct Orientation of Transducer**).

8. Hand tighten the nut ONLY until the assembly is firmly seated, then tighten NO MORE than 1/8 of a turn extra.

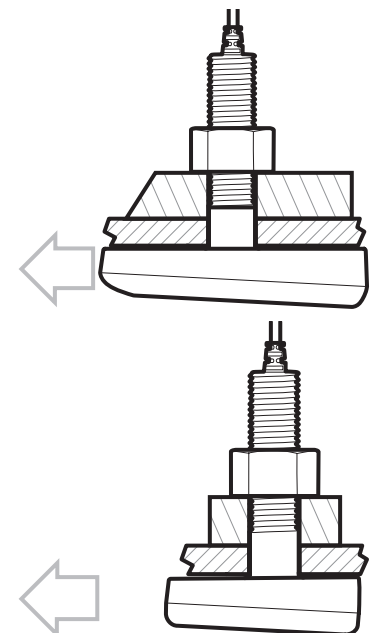
Standard Installation



Installation for deadrise angle greater than 8°, using a cut leveling block to level transducer.



Correct Orientation of Transducer



## Plastic Thru-Hull Transducer

**CAUTION!** To avoid damage, do not overtighten the nut.

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

### 4. Routing the Cable

The transducer cable must be routed to the point where the control head is mounted.

**NOTE:** Your boat may have a pre-existing wiring channel or conduit that you can use for the transducer cable.

- Unplug the other end of the transducer cable from the control head.

**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'.

**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.

- Route and secure the cable, avoiding areas where it may be damaged or interfere with normal boating operations.

### 5. Connecting the Cable

Refer to your manual and/or control head installation guide for the correct procedure for installing the cable connectors to the control head. Whether through the cable collector or directly to the control head, insert the transducer cable connector into the appropriate slot or port. The cable connectors are labeled, and there are corresponding labels on the cable collector and control head. The connectors are keyed to prevent reversed installation, and insertion should be easy — do not force the connectors into the ports.

**NOTE:** If the connector on the cable is round, it has a screw nut (see the illustration **Transducer Connectors**). Hand tighten the screw nut to secure the cable connection. **Hand tighten only!**

### 6. Setting up the Transducer on the Control Head

Use the following instructions to set the transducer type in the control head. When you select the transducer type, the related views and menus will be added to the system. **Before you proceed, review the following information:**

- If your transducer has the round connector, see your Humminbird® control head operations manual to set up the transducer sources on the control head. The instructions in this section do not apply to your fishing system.
- If your fishfinder is a PiranhaMAX, or does not include the Transducer Select or Connected Transducer menu option, no further action is required. The transducer will be detected automatically if it is compatible with the control head. See your control head operations manual for details.
- If the transducer you've purchased is not compatible with your Humminbird® control head, the unit will not function properly.

- Press the POWER/LIGHT key to power on the control head.
- Press the MENU key. When the control head detects a functioning transducer, it will automatically enter Normal operating mode. Follow the on-screen prompts.
- Main Menu:** Press the Menu key twice.
- Use the 4-WAY Cursor Control key to select the Sonar tab > Transducer Select or Connected Transducer.

