

## Flush Mount Transducer

### 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 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 2" hole saw and marine-grade silicone sealant or slow curing epoxy.

### Installation

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

#### 1. Test 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. Locate 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.

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

**Deadrise:** If the selected mounting location has a hull deadrise angle of 10 degrees or greater, a fairing block should be used to level the transducer housing and direct the sonar signal straight down.

**NOTE:** When installing this transducer on a trailerable boat, be sure the transducer is free of all obstructions. Using a fairing block for this transducer is not recommended for a trailerable boat.

#### 3. Attach the Transducer

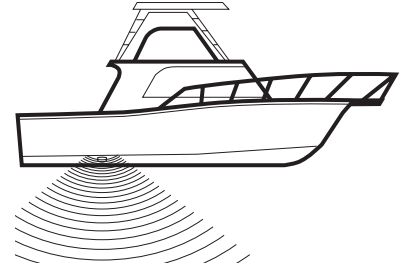
Before attaching your transducer, you will need to decide which type of installation to use:

- **For a standard installation, where the deadrise is less than 10 degrees,** you do not need to use a leveling block because the transducer will be mounted directly to the hull. Drill the hole perpendicular to the hull.
- **For an installation where the deadrise is greater than 10 degrees,** use a suitable leveling block (not included), 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.

Thru-Hull Installation



## Flush Mount Transducer

- Use the pilot hole (from the outside of the hull) to drill a hole sized to fit the threaded stem of the transducer.

**NOTE:** If you are mounting the transducer body directly to the hull, drill the hole perpendicular to the hull.

**NOTE:** If you are using a leveling block, drill the hole perpendicular to the waterline.

- Thoroughly clean and deburr the drilled hole and clean the outside of the hull.
- If you are not using a leveling block, skip to step 5.

OR...

- If the hull angle is greater than 10 degrees, you should use a leveling block (not included) to level the transducer. The block (usually made of wood) should be cut to match the angle of the deadrise of the hull. 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 level 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. A fairing block is required for round body transducers as well. The design and fabrication of this block varies greatly with different hull shapes; therefore, it should be customized by a qualified marine technician.

- Feed the cable through the hole, then temporarily install the transducer to check the fit.
- 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. Seal the mating edges of the leveling block (if using one) as well.
- Insert the transducer into the drilled hole from outside the boat, then install the nut onto the threaded stem from inside the boat.

**NOTE:** If you are using a leveling block outside the hull (to correct for deadrise), you must use a similar block inside the hull to provide a level bearing surface.

- Tighten the nuts to 10 ft/lbs or use moderate pressure on an adjustable wrench.

**CAUTION!** Do not overtighten the nuts, especially if you are using a leveling block made of wood, as the block will swell when wet.

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

## 4. Route the Cable

The transducer cable must be routed to the point where the fishfinder 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.
- Connect the extension cables to the transducer cable and route the cable to your control head.
- Route and secure the cable, avoiding areas where it may be damaged or interfere with normal boating operations.

