

HUMMINBIRD

Inside the Hull Mounted Transducer

THANK YOU

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

ABOUT INSIDE THE HULL MOUNTING Inside the hull mounting of the transducer generally produces good results in single thickness fiberglass hulled boats (Figures 1 and 2). Humminbird cannot guarantee depth performance when transmitting and receiving through the hull of the boat, since some signal loss will occur. The amount of loss depends on hull construction and thickness, and the installation.

Note: This type of installation requires the use of a slow-cure two-part epoxy (included with your transducer). Do not use silicone or any other soft adhesive material to install the transducer, as this material will reduce the sensitivity of the unit. Do not use five-minute epoxy, as it has a tendency to cure before all the air bubbles can be purged, thus reducing signal strength.

TEST INSTALLATION It is best to perform a test installation on this type of transducer first, then run the boat at high speed to determine the best mounting area.

1. Refer to your Control Head operation manual for the proper operation of your depthsounder. The Control Head must be installed and working before the transducer installation can be tested. Connect the transducer cable temporarily to your Control Head. In water similar to your regular fishing depths, hold the transducer over the side of your boat, pointed straight down.

WARNING! Do not touch an active transducer during operation, as this may cause physical discomfort and may result in personal injury in the form of tissue damage. Handle the transducer only when the power to the depthsounder is off.

2. Power up your depthsounder and select a sonar diagnostic mode if available; if not, select regular sonar display. Adjust the sensitivity or gain to obtain the best sonar information. Use this information as a benchmark as you proceed with the installation process.
3. Observe the outside of the boat hull if possible, to determine the area which will be most free from turbulent water (Figures 3 and 4). Ribs, strakes, and other protrusions should be avoided, as these create turbulence.

Note: As a general rule, the faster the boat can travel, the further aft and closer to the centerline of the hull the transducer will have to be located to remain in contact with the water at high speeds.

4. Place the transducer body face down on the inside of the hull in the area you have selected. Keep the side tabs (or pointed end of the transducer) pointing towards the bow of the boat.
5. Fill the hull with enough water to submerge the transducer body. It may be helpful to use a sand-filled bag or other form of weight to hold the transducer in position on a sloping surface.

Note: The transducer cannot transmit through air. The water purges any air from between the transducer and the hull, and fills any voids in the coarse fiberglass surface.

6. Power up and operate your depthsounder as described in your operation manual.
7. Run the boat at various speeds and water depths while observing the screen of the depthsounder. The transducer can be moved to different locations in the hull until optimum performance is achieved. If you are installing an angled transducer, it may be necessary to rotate the transducer slightly to obtain the strongest signal.

INSTALLATION

1. Mark the location of the transducer and remove the water from inside the hull and thoroughly dry the mounting surface.
2. Mix an ample quantity of two-part slow-cure epoxy and coat the face of the transducer and the inside of the hull.
3. Press the transducer into place with a slight twisting motion to purge any trapped air from underneath. If you are using a transom-style transducer, make sure that the pointed end of the transducer points forward to the bow of the boat. Position angled-style transducers to transmit straight down and remain in parallel alignment with the keel (Figure 5).

Note: Puck or round, circular-bottomed transducers have no directional bias, and therefore orientation of these types of transducers is not as important.

4. Weight the transducer so that it does not move while the epoxy is curing.
5. When the epoxy has cured, no water will be necessary inside the hull, and water or spilled gasoline or oil will not affect the performance of the transducer.

ROUTING THE CABLE

The transducer cable has a low profile connector that must be routed to the point where the depthsounder is mounted. Every boat is different and there may be several ways to route the cable. Inside the boat, there is often a channel or

Inside the Hull Installation

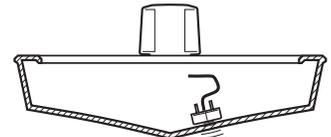


Figure 1

Angled transducer Installation

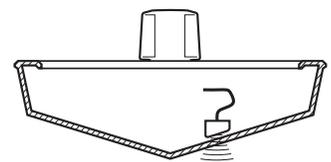


Figure 2

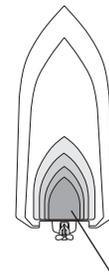


Figure 3

Preferred Mounting Area

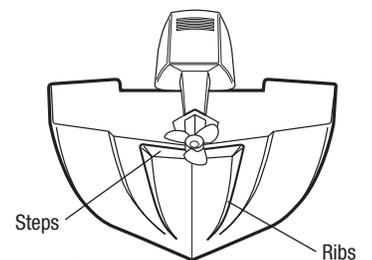


Figure 4

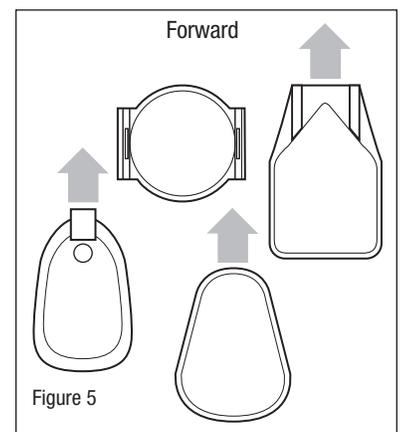


Figure 5

Correct orientation for transducer housings.

conduit used for other wiring, which can be used to route the transducer cable forward.

1. Route the transducer cable to 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' (15 m). For assistance, contact the Customer Resource Center at www.humminbird.com or call 334-687-0503 for more information.

**IF YOU HAVE A
TRANSDUCER/TEMP
PROBE COMBO**

If you have purchased a puck-style transducer with temperature probe pigtail, you must

mount the temperature probe so that it has direct contact with the water. After installing the transducer, install the temperature probe on the transom of the boat according to the following instructions.

The temperature probe incorporates a temperature-sensitive probe in a high-impact plastic housing with 10 feet of cable. **Do not cut this cable.** The probe is intended for installation on the transom, and will work well on almost any boat. In addition to the parts supplied, you will need a hand drill with various bits, marine-grade silicone sealant, and a Phillips head screwdriver.

Areas selected for mounting the temperature probe should stay in contact with the water at high speeds. Do not mount the probe directly in front of the propeller or outdrive, and make sure that there are no protrusions such as ribs, rows of rivets, or transducers directly forward of the mounting location, as these may affect the flow of water over the temperature probe.

1. Assemble the probe in the clamp, and align the probe on the transom so that the lower edge is flush with the hull of the boat. Mark the hole location.
2. On fiberglass hulls, it is best to start with a smaller bit and use progressively larger drill bits to reduce the chance of chipping or flaking the outer coating. Drill a $\frac{5}{32}$ " (3 mm) mounting hole

CUSTOMER RESOURCE CENTER

Your Humminbird accessory is designed for trouble-free operation and is backed by the same warranty as our depthsounders, VHF Marine-band radios, and GPS Navigation equipment. Refer to your Humminbird Warranty Card for the specific details of this warranty. If you have any questions, call our Customer Resource Center:

1-800-633-1468

Throughout the U.S. and Canada, hours are Monday-Friday, 8:00 a.m. to 4:30 p.m. Central time.

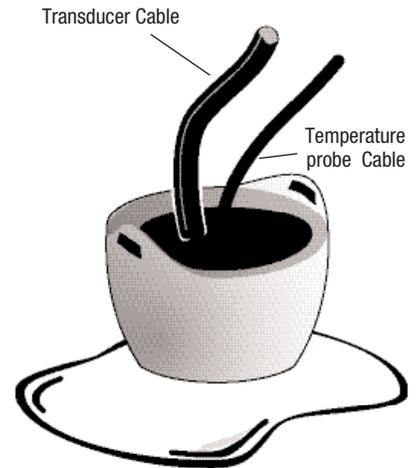
**Humminbird
678 Humminbird Lane
Eufaula, AL 36027**

**CONNECTING THE
CABLE**

1. Insert the transducer cable into the appropriate terminal

slot. The cable connectors are labeled, and there are corresponding labels on the cable holder on the rear of the Control Head. The slots are keyed to prevent reversed installation, so be careful not to force the connector into the holder.

2. Refer to your Control Head Installation Guide for the correct procedure for installing the cable connectors to the Control Head.



In-hull transducer with external temperature probe

Figure 6

**ROUTING THE
PROBE CABLE**

The cabling from your transducer should already be routed from its location to the Control Head.

The cabling from the temperature probe goes into the transducer module and its readings are transferred through the same cable to the depthsounder. Refer to your Control Head installation guide for more information about the quick disconnect or connector collector included with your Control Head. If the connection is correct, the Control Head will begin displaying sonar and water temperature immediately. If the temperature probe fails to read temperature at high speeds, adjust the height of the probe on the transom of your boat.

Your depthsounder is now ready for operation.

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approximately $\frac{3}{4}$ " (19 mm) deep (Figure 7).

1. Once you have tested the location, you may route the cable from the in-hull mounted transducer to the transom: either over the top of the transom, or you may drill a $\frac{5}{8}$ " (16 mm) hole in the transom directly above the tested location, above the waterline.
2. Use the cable clamps provided to secure the cable to the transom of the boat. If a through-hole is used, an escutcheon plate is included to dress the hole (Figure 7).
3. After final high-speed adjustments have been made, seal this upper through-hull hole with marine-grade silicone sealant.

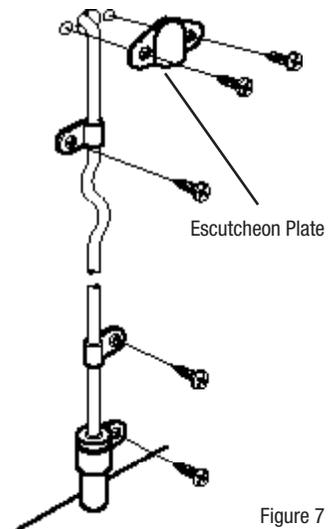


Figure 7

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 and birth defects and other reproductive harm.