HUMMINBIRD®
MEGA SI TRANSDUCER INSTALLATION GUIDE

532508-2_B

Use the instructions in this guide to install the MEGA Side Imaging™ transducer on the transom of the boat.

Supplies: In addition to the hardware supplied with your transducer, you will need a powered hand drill and various drill bits, various hand tools, including a ruler or straightedge, a level, marker or pencil, Phillips-head screwdriver, flat head screw driver, a socket/nut driver, a 1/2" (13 mm) wrench and torque wrench, safety glasses and dust mask, marine-grade silicone sealant, and dielectric grease (optional). You may also need extension cables and hardware for routing the cable to the control head.

NOTE: Due to the wide variety of hulls, only general instructions are presented in this installation guide. Each boat hull represents a unique set of requirements that should be evaluated prior to installation. It is important to read the instructions completely and understand the mounting guidelines before beginning installation.

NOTE: When drilling holes in 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.

Preparation

1. Install the control head before you start the transducer installation. See the control head installation guide.
2. Read the instructions in this transducer guide completely to understand the mounting guidelines before starting the installation.

1. Determine the Transducer Mounting Position

Review the ***Turbulence-Free Mounting Guidelines*** and ***MEGA Side Imaging Mounting Requirements*** to find the best mounting location for the transducer, noting the following:

- **Mounting Position:** The transducer should be mounted in a location that is high enough on the transom, so it is out of the jet stream when the boat is on plane.
- **Operation Position:** During trolling speeds, the transducer must be submerged in the water for operation with the control head.
- **MEGA Side Imaging:** The transducer must not have anything obstructing its side viewing capabilities (see ***MEGA Side Imaging Mounting Requirements***).
- **XHS Bracket:** If you have a previously-installed XHS transducer on the transom, the transom bracket in this installation kit may be installed in the same location. However, you may need to slide the transom bracket up as far as possible, or you may need to drill new holes.
  Line up the metal bracket with the previously-used mounting holes to confirm that the slot holes match the previous installation, and review the mounting requirements in this section. Fill any unused holes with marine-grade silicone sealant.

Turbulence-Free Mounting Guidelines

Review the following information to find the best location with the least amount of turbulence:

- **Turbulence:** Do not mount the transducer in areas that are prone to turbulence. Turbulence is usually caused in areas immediately aft of ribs, strakes, or rows of rivets on the bottom of the boat, and around the propeller(s).
- **Propellers:** Clockwise propellers create more turbulence on the port side. If your **propeller moves clockwise** as the boat moves forward (as you're facing the stern of the boat from behind), plan to mount the transducer on the starboard side. If your **propeller moves counterclockwise** as the boat moves forward (as you're facing the stern of the boat from behind), plan to mount the transducer on the port side.
- **On outboard or inboard/outboard boats,** it may be best to install the transducer at least 15" (38 cm) to the side of the propeller(s) (Figure 5).
- **Observation:** The best way to locate turbulence-free water is to view the transom while the boat is moving. If this is not possible, select a location on the transom where the hull forward of this location is smooth, flat, and free of protrusions or ribs (Figure 1).
- **Stepped Hulls:** On boats with stepped hulls, it may be possible to mount the transducer on the step. The transducer must remain in the water for the control head to maintain the sonar signal (Figure 2).

Areas of Possible Turbulence

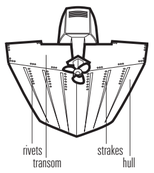


Figure 1

Stepped Hull

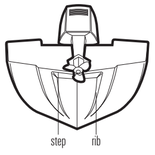


Figure 2

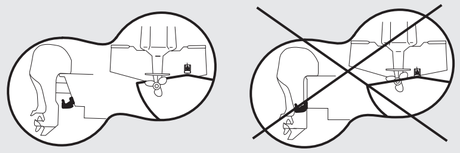
- **Trailering:** If you plan to trailer your boat, do not mount the transducer too close to trailer bunks or rollers to avoid moving or damaging the transducer during loading and unloading of the boat.

NOTE: If the transom is behind the propeller(s), it may be impossible to find an area clear from turbulence. If you cannot find a transom mount location that will work for your boat hull, a different mounting technique or transducer type should be considered.

MEGA Side Imaging Mounting Requirements

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

Transducer Mount Position



Unobstructed View: The jack plate gives the transducer safe distance from the motor and turbulence. The MEGA Side Imaging has a clear view side-to-side.

Obstructed View: The transducer is too close to motor turbulence, and the MEGA Side Imaging view is blocked by the motor. The view cannot extend from side-to-side.

Figure 3

- **Unobstructed Sides:** The MEGA Side Imaging transducer must NOT have anything obstructing the 'view' of the side looking beams. For example, nothing can be in the line of sight of these beams (not a hull, motor, or other transducer, etc. [Figure 3]).

  NOTE: You may need to tilt the motor up and out of the way when using the side looking beams.

- **Straight/Parallel:** In order for the side beams to be displayed accurately, the transducer must be mounted parallel with the waterline, so that it is looking straight down in the water when the boat is in the water.
- **Deadrise:** The hydrodynamic shape of your transducer allows it to point straight down without deadrise adjustment (Figure 4).

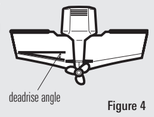


Figure 4

2. Mount the Transom Bracket to the Boat

1. Make sure the boat is level on the trailer, both from port to starboard and from bow to stern, by placing your level on the deck of the boat, first in one direction, then in the other.
2. Remove the transducer mounting template from this manual (see ***Transducer Mounting Template***).

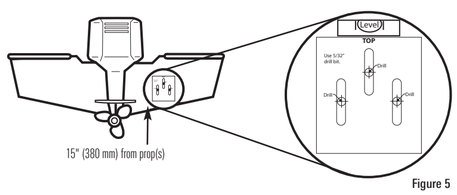


Figure 5

3. Hold the template on the transom of the boat in the location where the transducer will be installed based on the requirements in section ***1: Determine the Transducer Mounting Position***.

   If your propeller moves clockwise as the boat moves forward (as you're facing the stern of the boat from behind), mount the transducer on the starboard side. **If your propeller moves counterclockwise** as the boat moves forward (as you're facing the stern of the boat from behind), mount the transducer on the port side.
4. Confirm the template is level.
5. Using a pencil or punch, mark the three mounting holes on the transom. Do not mark or drill any other holes at this time.
6. Make sure the drill bit is perpendicular to the actual surface of the transom, NOT parallel to the ground, before you drill.

   Using a 5/32" (4.0 mm) bit, drill the three holes to a depth of approximately 1" (25 mm).

   On fiberglass hulls, it is best to use progressively larger drill bits to reduce the chance of chipping or flaking the outer coating.
7. Use a marine-grade silicone sealant to fill the drilled holes.
8. Align the transom bracket with the mounting holes. The center slot should be above the two outer slots. Confirm the bracket is level.
9. Using a hand socket/nut driver, install the three #10-1" (25 mm) screws into the drilled holes, but **do not tighten completely (**Figure 6).

Attaching the Bracket to the Transom

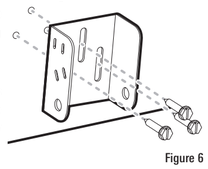


Figure 6

NOTE: Make sure the mounting screws are snug, but do not fully tighten the mounting screws at this time to allow the transducer assembly to slide for adjustment purposes.

3. Install the Transducer

The transom bracket allows you to adjust the height, and the pivot bolts allow you to adjust the angle of the transducer. These adjustments help reduce cavitation and air bubbles around the transducer during operation.

1. Align the transducer bracket with the holes on top of the transducer.
2. Use a Phillips-head screwdriver to install a 7/16" (11 mm) screw and #8 split ring lock washer into each bracket hole. Hand tighten each screw until each split ring lock washer flattens. **Hand tighten only.** (Figure 7)

Attaching the Transducer Bracket

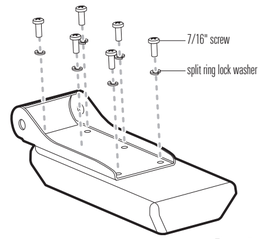


Figure 7

3. Align the holes on the transducer bracket with the holes on the transom bracket.
4. Install the pivot bolt, 2 washers, and lock nut into the first hole as shown in the illustration ***Installing the Transducer Bracket***. Repeat for the second hole.
5. Use a 1/2" (13 mm) wrench to tighten the assembly, but do not fully tighten the hardware at this time (so you can make adjustments if needed after testing the installation).

Installing the Transducer Bracket

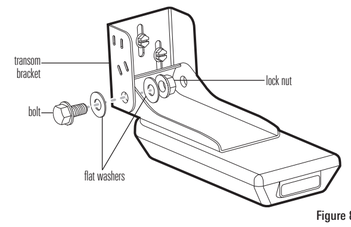


Figure 8

6. Confirm the height of the transducer is high enough on the transom so it is out of the jet stream when the boat is on plane and that it will be submerged in the water during trolling speeds.

   To adjust the height, loosen the screws slightly in the transom bracket, and slide the bracket up or down using the slots. If you cannot access the screws, you may need to uninstall the transducer, adjust the height, and repeat the installation instructions in sections 2 and 3.

Adjusting the Height

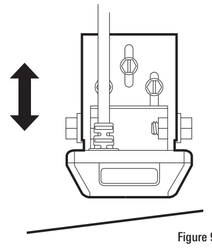


Figure 9

Leveling the Bracket

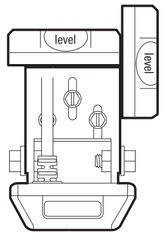


Figure 10

7. **Adjust the angle of the transducer,** so it is parallel with the length of the boat hull, with a slight down angle (approximately 5 degrees).

Adjusting the Transducer Running Angle

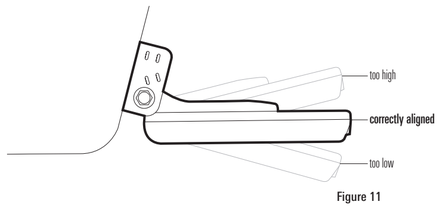


Figure 11

8. Hand tighten the two pivot bolts, using a 1/2" (13 mm) wrench.

NOTE: You will finalize the installation after you route the cable and test the installation in the following procedures.

4. Route the Cable

You can route the cable **over the transom** or **through a hole in the transom above the waterline**. Your boat may have a pre-existing wiring channel or conduit that you can use to route the cable. Select the routing method that is best for your boat configuration, and purchase any extension cables, cable clips, clamps, etc. as needed.

Also, keep in mind the following:

- It is best to route the cable to the side of the transducer so the transducer will not damage the cable during movement.
- The transducer can pivot in the bracket. Allow enough slack in the cable for this movement.
- If you drill any holes, fill them with marine-grade silicone sealant.

Routing the Cable

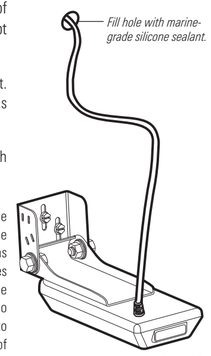


Figure 12

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'. For assistance, contact Humminbird Customer Service.

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.

Excess Cable: If there is excess cable that needs to be gathered at one location, dress the cable routed from both directions so that a single loop is left extending from the storage location. Doubling the cable up from this point, form the cable into a coil. Storing excess cable using this method can reduce electronic interference (Figure 13).

Storing Excess Cable

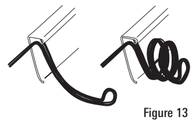


Figure 13

5. Connect the Cable

1. Connect the transducer cable to the transducer port on the control head. The ports are labeled and the cable connectors are keyed to prevent incorrect installation, so be careful not to force the connector into the wrong port. See your control head installation guide for details.

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

6. Test and Finish the Installation

Once you have installed both the control head and the transom transducer, and have routed all the cables, you must perform a final test before locking the transducer in place. Testing should be performed with the boat in water deeper than 2 feet. The transducer should be fully submerged because the sonar signal cannot pass through air.

1. Press the POWER key to turn on the control head.

   If the transducer is detected, the control head will start Normal mode.
2. Select a 2D Sonar View to display on-screen.

   HELIX®: Press and hold the VIEW key. Select Sonar > Sonar View.

   SOLIX®: Press the Home key. Select a 2D Sonar View.

   Other: See your control head operations manual.
3. If the bottom is visible on-screen with a digital depth readout, the unit is working properly.
4. **2D Sonar Test:** If the unit is working properly, gradually increase the boat speed.
5. Review the sonar returns displayed on the (2D) Sonar View.

CAUTION! If you do change the transducer position, re-trace the position of the mounting bracket before proceeding.

6. **Side Imaging® Test:** Select a Side Imaging View.

   HELIX: Press and hold the VIEW key. Select Sonar > Side Imaging View.

   SOLIX: Press the Home key. Select a Side Imaging View.

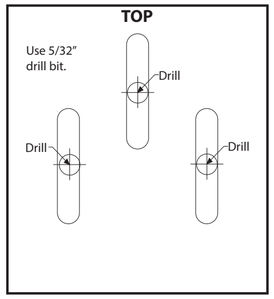
   Other: See your control head operations manual.
7. Navigate the boat in a straight line at trolling speed. Confirm there is nothing obstructing the display of the MEGA Side Imaging beams.
8. Once you have reached a consistently good sonar signal, you are ready to lock down the transducer settings.

   Confirm the transom bracket is level and hand tighten the screws until they are secure. **Hand tighten only!**

   Fully tighten the two pivot bolts, using a 1/2" (13 mm) torque wrench to 12 ft-lbs. If you don't have a torque wrench, use a crescent/box wrench to hand tighten the two pivot bolts until they are secure, then turn the wrench 45 to 60 degrees more. **Hand tighten only!**

Transducer Mounting Template: XM 9 20 MSI T, XM 14 20 MSI T

Remove and use for transducer installation



Important Notices

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.

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