



PLASTIC THRU-HULL TRANSDUCER INSTALLATION GUIDE

INSTALLATION PREPARATION

Read the instructions in this transducer guide completely to understand the mounting guidelines before starting the installation.

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

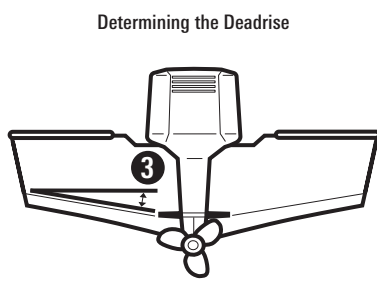
Review your boat manufacturer's owner's manual for recommended transducer installation locations and cable routing methods. You will also need your hull's deadrise angle.

Read and understand your boat's warranty before starting this installation.

Test Route the Cable Installation: Test route the transducer cable connector to the control head and 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 6: *Route the Cable* for requirements. Your installation may require extension cables and hardware for routing the cable to the control head.

Confirm your boat is level for the installation.

Supplies: In addition to the supplied hardware, you will need a drill, a small drill bit for the pilot hole, a 1 1/8" (2.8 cm) hole saw, a level, a Phillips-head screwdriver, and marine-grade silicone sealant.



Inside the Boat: There must be room to access the mounting location for installation and cable routing. If you need to use the leveling block, make sure the inside surface of the hull is smooth enough to seat the leveling block securely.

Installation

Before installing your transducer, review the following installation scenarios:

- 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 (*Standard Installation*).
- 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 (*Standard Installation*).
- For an installation where the deadrise is more than 8 degrees, use the included leveling block, cut at the appropriate angle, to compensate for the deadrise (*Alternate Installation*).

3. Drill the Hole and Prepare the Leveling Block

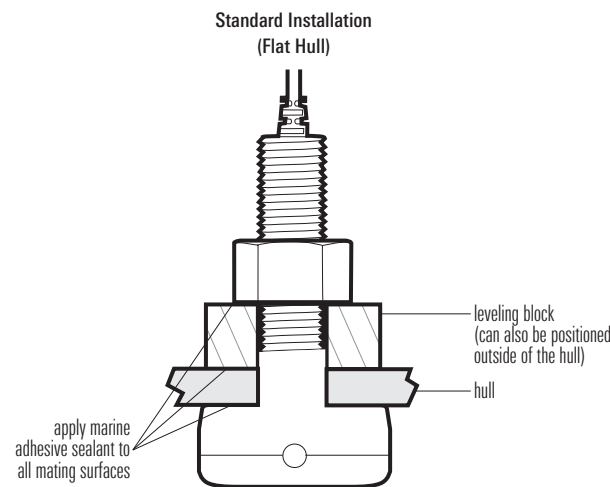
Follow the instructions below for the installation type that matches your hull and deadrise.

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.

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 8°):

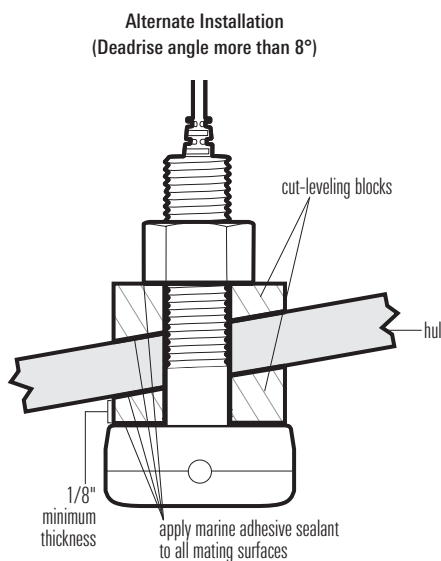
For an installation that needs to minimize the impact of a small obstruction, but where the deadrise is less than 8 degrees, use the included leveling block (uncut), and mount it outside the hull.



- 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.**
- 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.**
- Thoroughly clean and deburr the drilled hole and clean the outside of the hull.
- The leveling block will be installed (uncut) on the outside of the hull. Proceed to section 4: *Attach the Transducer*.

Alternate Installation (Deadrise more than 8°):

For an installation where the deadrise is more than 8 degrees, use the included leveling block, cut at the appropriate angle, to compensate for the deadrise.



- 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.**

- 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.**
- Thoroughly clean and deburr the drilled hole and clean the outside 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.

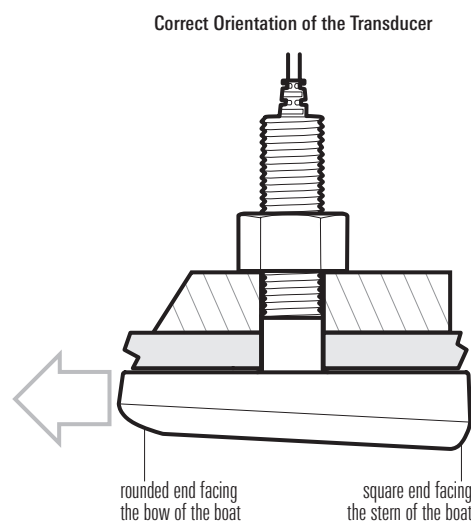
- The thinnest wall of the outside leveling block must be at least 1/8" (3 mm).
 - The leveling block included with your transducer can accommodate a maximum deadrise angle of 25 degrees.
- The leveling block will be installed (cut) on the inside and outside of the hull. Proceed to section 4: *Attach the Transducer*.

4. Attach the Transducer

- Feed the transducer cable through the drilled 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 and leveling block.
- Proceed to the instructions that correspond with your installation type (control head model) and transducer orientation.

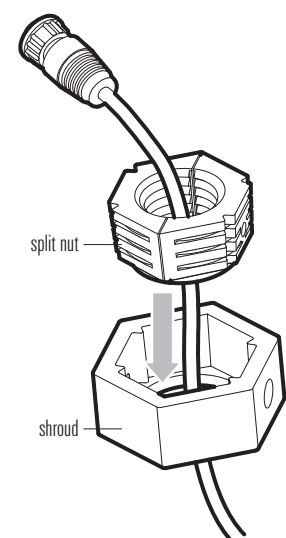
SOLIX Series

- Make sure the rounded end of the transducer is facing the bow, pointing forward, and parallel to the centerline.

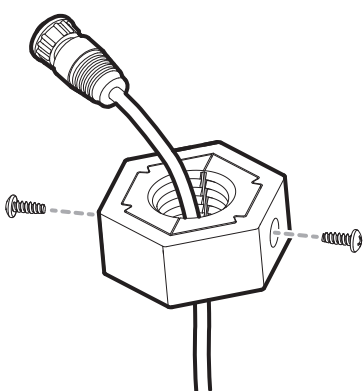


- Insert the transducer into the drilled hole from outside the boat with the leveling block(s) installed according to your installation type.
- Hold the shroud horizontally with the inside teeth facing up. Thread the cable connector through the shroud. See the illustrations below.
- Fit the split nut pieces to each other with the cable in the center. The ridged side of the split nut should face down.
- Slide the split nut into the shroud so that the assembly is flat. Install the two screws into the shroud holes to secure the assembly. Hand tighten only.

Inserting the Split Nut into the Shroud



Installing the Screws



HELIX Series

- Make sure the rounded end of the transducer is facing the bow, pointing forward, and parallel to the centerline.
- 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.

5. Finish the Installation

- Hand tighten the split nut onto the threaded transducer stem 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 centerline. Failure to align the transducer properly will result in incorrect bottom readings and incorrect fish locations. (See the illustrations for orientation).

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

6. Route the Cable

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

- Route and secure the transducer cable connector to the control head, 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.

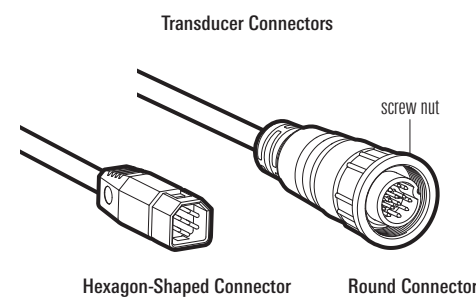
CAUTION! Do NOT mount the cables where the connectors could be submerged in water or flooded. If cables are installed in a splash-prone area, it may be helpful to apply dielectric grease to the inside of the connectors to prevent corrosion. Dielectric grease can be purchased separately from a general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

7. Connect the Cable

- Connect the transducer cable connector to the sonar port on the control head or cable tray (if applicable). See your control head installation guide for details.

The ports are labeled and the connectors are keyed to prevent incorrect installation, so do not force the connector into the wrong port.

- The control head will automatically detect the transducer and configure it with the control head. For additional configuration information, see your control head operations manual.



8. Set 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 cable connector, the control head will automatically detect the transducer and configure it with the control head. For additional configuration information, see your control head operations manual. The instructions in this section do not apply to your fishing system.

- If your control head does not include the 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.

- Press the POWER key to power on the control head.
- Press the MENU key. When the control head detects a functioning transducer, it will automatically start Normal operating mode. Follow the on-screen prompts.
- Main Menu:** Press the Menu key twice.
- Use the Cursor Control key to select the Sonar tab > Connected Transducer.
- Press the RIGHT or LEFT Cursor keys to select the transducer type. The available menu options are determined by the transducer model you have attached.
- Close:** Press the EXIT key until the Menu System is closed. Your control head is now ready for operation.

MAINTENANCE

If your transducer remains in the water for long periods of time, slush, 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 transducer 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.

Important Notices

WARNING! The transducer must be fully submerged in water during operation because the sonar signal cannot pass through air. Air pinging can damage the transducer.

NOTE: Product specifications and features are subject to change without notice.

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.

ENVIRONMENTAL COMPLIANCE STATEMENT: It is the intention of Johnson Outdoors Marine Electronics, Inc. to be a responsible corporate citizen, operating in compliance with known and applicable environmental regulations, and a good neighbor in the communities where we make or sell our products.

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.