

TRANSOM/GLUE IN TRANSDUCER INSTALLATION AND ADJUSTMENT INSTRUCTIONS

To ensure safety and many years of trouble-free operation of your product, please read this manual carefully before using this product.

SAFETY INFORMATION:

- Periodically wipe the face with a dry cloth. Do not use abrasives or solvents on this device.
- Only qualified personnel should perform repairs or servicing not covered in this manual.
- The LCD used in the product is made of glass. Therefore, it can break when the product is dropped or impacted.
- Keep this product away from heat sources such as radiators, heaters, stoves and other heat generating sources. Do not store in extreme temperatures above 150° F (65° C).
- Shade the LCD during storage. Do not expose LCD to direct sunlight for extended periods of time. Use the supplied cover at all times during storage.

NOTES, NOTICES, AND CAUTIONS



WARNING: Indicates a potential for property damage, personal injury or death.



IMPORTANT: Indicates potential damage to the device and tells you how to avoid it.



NOTICE: Indicates important information that helps you make better use of the device and tells you how to correct a performance problem.



INFORMATION: Indicates resources to obtain the proper information to help you make the most of your device.

WARNING:



This depth sounder should not be used as a navigational aid to prevent grounding, boat damage, or personal injury. Always operate the boat at slow speeds in unfamiliar water, or if you suspect shallow water or submerged objects.

PARTS SUPPLIED IN PACKAGING

The following parts should be included with the transducer:

- Transom/Glue-In Transducer with 30 ft Cable and Plug
- Transducer Support Bracket with Attached Kick-Up Bracket
- (2) Tapered Plastic Shims
- (2) Cable clamps
- Clam Shell Cable Cover
- (2) #10 x 1.25" self-tapping screws
- (4) #6 x 1/2" self-tapping screws

If any items are missing or damaged, please contact our customer service department.

SELECTING THE PROPER TRANSDUCER INSTALLATION

NOTICE:



The included transducer can be either Transom Mounted or Glued In-Hull. We also offer the option to trade-in the standard transducer for a customized transducer. Please visit our website for details.

Transom mounting is suitable for the following vessels:

- Outboard, inboard/outboard, single inboard or jet-drive propulsion.
- Hull deadrise angle below 30°.
- Transom angle from 3-20°.

Glue-in mounting is suitable for the following vessels:

- High speed boats to increase the performance of the depth sounder.
- Trailer boats to prevent accidental damage to the transducer from trailering.
- Shallow draft boats to prevent accidental damage to the transducer from intentional or unintentional ground.
- NON-CORED hulls or aluminum hulls thinner than 1/8".
- Inboard vessels that have a lot of running gear that creates significant turbulence.

NOTICE:



Glue-in mounting of the transducer is NOT suitable for all vessels. You MUST test the glue-in location on the water prior to using epoxy to permanently affix it to the hull. If you cannot obtain satisfactory readings during on water testing you will need to transom mount the transducer, or switch to a customer transducer.

TRANSOM MOUNTING THE TRANSDUCER

IMPORTANT:



Transom mounting the transducer is suitable for most vessels and generally offers the best performance. If you decide to glue the transducer in-hull, you MUST test the location on water prior to permanently affixing it to the hull.

If you cannot obtain satisfactory readings during on water testing you will need to transom mount the transducer, or switch to a custom transducer. If you have determined that you are going to try to glue the transducer in-hull, please skip to the next section.

Tools & Supplies Required for Installation

- Power Drill
- 5/8" (16 mm) drill bit, hole saw or spade bit
- 1/8" (3 mm) drill bit
- 9/64" (4 mm) drill bit
- Marine Sealant/Caulk
- 30 Grit Sandpaper
- "Phillips" Screwdriver
- Pencil
- Tie Wraps
- Water Based Antifouling Paint
- Masking Tape

Transom mounting is suitable for the following vessels:

- Outboard, inboard/outboard, single inboard, or jet-drive propulsion.
- Hull deadrise angle below 30°.
- Transom angle from 3-20°.

NOTICE:



To get a good “view” of the mounting location, while the vessel is out of the water, position yourself at the transom and look at the bottom of the hull towards the bow. Using illustrations A thru I, note anything that could interrupt the clean flow of water to the transducer mounting location.

NOTICE:



To achieve maximum performance try the following:

Have someone run the boat on plane for you in smooth water. CAREFULLY look over the transom at the water flowing from the bottom of the boat. Find the location which produces the least amount of turbulence (air bubbles). This is the location you will want to mount the transducer.

NOTICE:



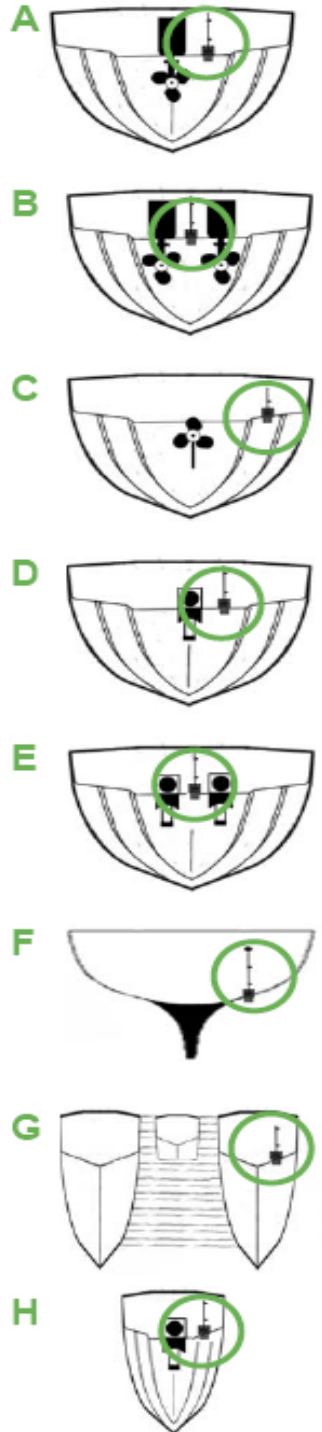
To prevent drilling holes too deeply, wrap masking tape around the bit 7/8" (22 mm) from the point. To minimize surface cracking on fiberglass hulls use a chamfer or countersink bit. If either is not available, start drilling with a 1/4" (6 mm) bit to a depth of 1/16" (1 mm), then finish the hole with the 9/64" (4mm) bit.

STEP 1

Choosing a Mounting Location

To obtain the best performance, the transducer should be mounted in a location where the water flow beneath the hull is aeration and turbulence-free. Try to mount the transducer as close to the centerline of the boat as possible. Consult the boat manufacturer for the best in-hull transducer placement. If this information is unavailable, follow the guidelines below.

- A.** On a single drive outboard or inboard/outboard boat, mount on the starboard side at least 4" beyond the radius of the propeller.
- B.** On a twin outboard or inboard/outboard boat, mount between the drives, making certain that the transducer is not directly in front of either drive or propeller (avoid aligning directly in line with the bottom of the boat if the hull comes to a point).
- C.** On an inboard boat, mount as far to the port or starboard as possible so that the propeller turbulence does not affect the performance of the sensor.
- D.** On a single jet drive boat, mount on the starboard side at least 4" outside the intake grate.
- E.** On twin jet drive boats, mount on the center line, between the intake grates (avoid aligning directly in line with the bottom of the boat if the hull comes to a point).
- F.** On sailboats, mount on the starboard side at least 6" outside the keel.
- G.** On pontoon boats and catamarans, mount on the starboard hull at least 2" outside the hull protector or centerline.
- H.** On PWC's, mount on the starboard side, at least 2" outside the intake grate.



Mounting Location “DONT’S”

NOTICE:

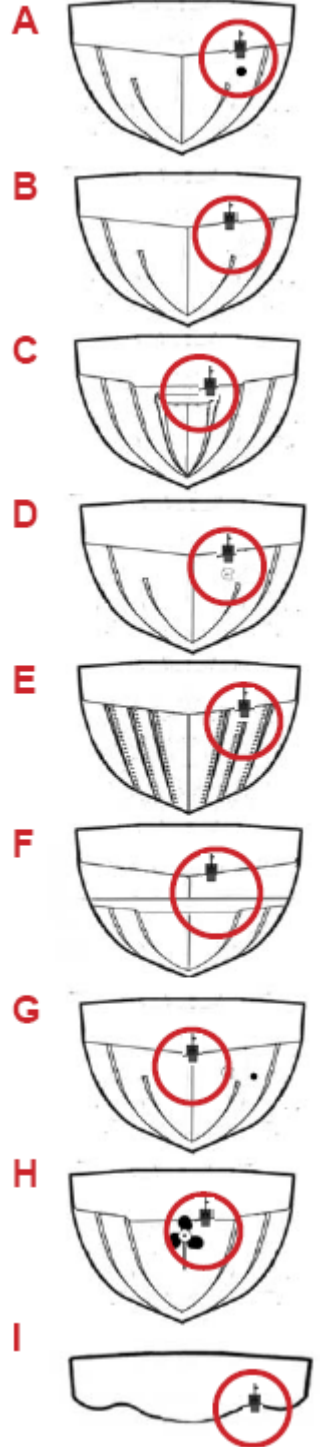


To deliver consistent, accurate readings, the transducer must have a continuous supply of non-turbulent water. Do not mount the transducer in an area of turbulence or bubbles.

Never install the transducer where the boat may be supported during trailering, launching, hauling, or storage.

NEVER MOUNT:

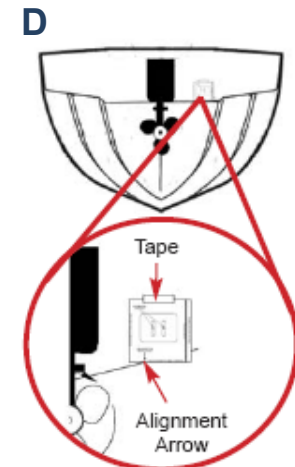
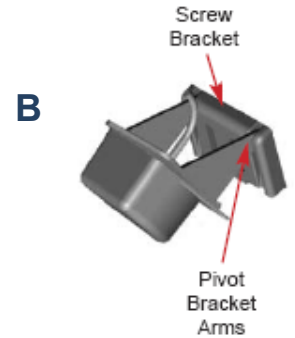
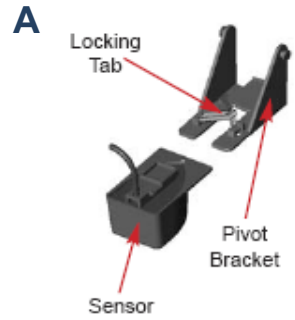
- A.** Behind water intakes, discharge openings, or thru-hull fittings.
- B.** Behind strakes, struts, or hull irregularities.
- C.** Behind transom steps or pockets.
- D.** Behind eroding paint, hull deformities, or marine growth.
- E.** Behind rivets or strakes on aluminum boats.
- F.** Behind the step on stepped hulls.
- G.** Directly on the “V” in the hull.
- H.** Behind propellers or anywhere propeller turbulence will interrupt the flow of “clean” water to the transducer.
- I.** In areas where the hull has a reverse angle.




STEP 2

Assembling the Transom Mount Bracket

1. With the Locking Tab in the up position, align the transducer and bracket, then slide the transducer into the Pivot Bracket until it cannot slide any further (*minimal force is required*) (*illustration A*).
2. Press the Locking Tab down against the Pivot Bracket until it locks firmly into place.
3. Slide the Pivot Bracket arms through the back of Screw Bracket as pictured. (*illustration B*).
4. Grasp the transducer in your hand as shown in the picture to the right. Rest the screw bracket against a solid object (ground) and press the Pivot Bracket into the Screw Bracket with enough force until it snaps into place (*illustration C*).



NOTICE:	
	To unlock the locking tab use a flat head screwdriver to pry the tab up.

STEP 3

Mounting the Transom Mount Bracket

1. Locate Transom Template inserted in this manual.
2. At the desired mounting location, position the template so the arrow at the bottom is aligned with the bottom edge of the vessel making certain that the template is parallel to the waterline of the vessel.
3. Using a 9/64" (4 mm) drill bit, drill two holes 7/8" (22 mm) deep at the locations indicated on the template marked with an "X".

4. The bracket is designed for a standard 13° transom angle. To determine if the plastic shim is needed, position the transducer at the desired location. Using a straight edge, compare the underside of the transducer relative to the underside of the hull. The stern (trailing edge) of the transducer should be 1/16" - 1/8" (1 - 3 mm) below the bow (leading edge) of the sensor.



5. Apply a marine sealant to the threads of the two #10 x 1-1/4" self-tapping screws and screw the bracket to the hull. DO NOT tighten the screws completely until you position the transducer as per # 4 above.



NOTICE



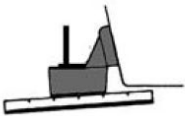
Do not allow the leading edge of the transducer to extend more than 1/8"(3 mm) of an inch below the bottom of the boat as this will create increased aeration and turbulence.

NOTICE:



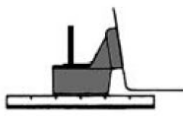
Align the included shims to achieve a slight angle as per the illustration below. To prevent aeration, NEVER position the transducer in a manner that the Leading Edge (*bow*) is LOWER than the Trailing Edge (*stern*).

C O R R E C T

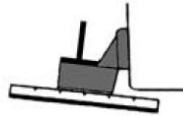


Slight Angle

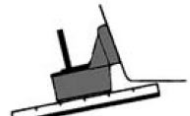
I N C O R R E C T



Parallel



Reversed Angle



Too Steep of An Angle

STEP 4

Cable Routing

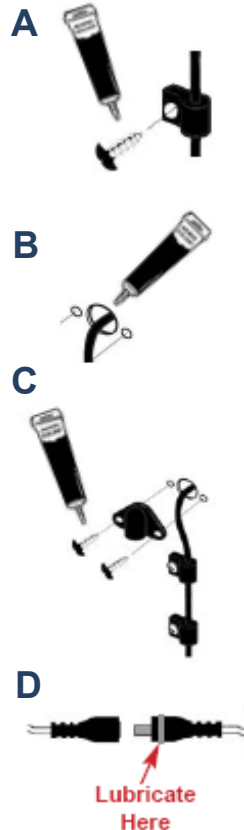
Route the transducer cable over the transom, through a deck or splash-well drain hole or through a new hole drilled in the transom. If a new hole is required, it **MUST** be drilled well above the waterline.

To Drill a Cable Pass Through:

1. Mark the desired location with a pencil.
2. Check for obstructions behind the desired location inside the hull.
3. Drill a 5/8" or 16 mm hole through the transom.
4. Route the cable through the transom.
5. On the outside of the hull, secure the cable against the transom using the included cable clamps. Evenly distribute the clamps between the transducer and the location where the cable passes through or over the hull and mark the location with a pencil.
6. At the marked locations, use a 1/8" (3 mm) bit to drill a hole 3/8" (10 mm) deep.
7. Apply marine sealant to the threads of the 2 #6 x 1/2" self-tapping screws, position the two cable clamps and fasten them in place (*illustration A*).

Skip to #12 if the cable was routed over the transom or a hole that was already in the hull.

8. If a hole has been drilled in the transom for the cable pass through, position the clam shell cover over the cable where it enters the hull and mark the two screw holes.
9. Use a 3 mm or 1/8" bit to drill a hole 10 mm (3/8") deep. To prevent drilling too deeply, wrap masking tape around the bit 10 mm (3/8") from the point of the bit.
10. Fill the remaining space in the hole with marine sealant (*illustration B*).
11. Apply marine sealant to the 2 #6 x 1/2" self-tapping screws and fasten the cable clam shell cover into place (*illustration C*).
12. Route the cable to the mounting location of the depth sounder transducer plug. To reduce electrical interference, separate the transducer cable from other electrical wiring. Coil any excess cable and secure it in place using tie wraps.
13. Lubricate the plug by applying a generous amount of silicon grease or petroleum jelly to the ridge on the Display plug (*illustration D*)
14. Plug the cable into the transducer plug on the depth sounder.



STEP 5

Antifouling Paint

Marine growth can accumulate rapidly on the transducer's surface. If the vessel is left in saltwater for extended periods of time, all components of the transducer below the waterline must be painted with WATER BASED antifouling paint.

- Never use ketone-based paint, as this type of paint can damage the transducer's plastic shell.
- Clear, spray-on antifouling paints are very easy to apply and can be purchased from your local boating supply store.
- Reapply paint as needed to prevent marine growth

STEP 6

Testing and Troubleshooting the Transom Mount Installation

1. Make sure that the display is functioning properly by following the display testing procedures in the Display Installation and Operation Manual.
2. Place the vessel in the water. Once the display is turned ON, it will display the test sequence and then display the current depth.
3. Become familiar with the depth sounder's function and performance at idle speeds.
4. Gradually increase the boat speed and observe the depth readings (*pay attention to minimum and maximum depth capabilities*).
5. If "---" readings appear:
 - Check to make sure that the transducer is not "kicked-up". To prevent damage to the transducer, it will automatically release from the mounting bracket (kick-up) when it is impacted. If this occurs, refer to Page 4 of this manual to reset the transducer for normal operation. If this happens frequently, make sure that the trailer or boat lift bunks do not interfere with the transducer during loading and unloading.
 - Have someone run the boat on plane for you in smooth water. CAREFULLY look over the transom at the water flowing from the bottom

of the boat over the base of the transducer. The water should be "Clean" with very little turbulence (air bubbles). If there are any air bubbles or turbulence seen passing underneath the transducer, move the transducer farther down on the transom bracket. If the performance does not improve, move the transducer to "Clean Water" making sure to fill any unused screw holes with marine sealant.

NOTICE



High Speed performance of the depth sounder may require extensive adjustment and testing to find the best transducer mounting location. This transducer has been tested to perform up to 63 MPH in an In-Hull application. Not all boat hull configurations will allow for this type of performance. If you are not satisfied with the performance of the depth sounder, it is recommended that you seek the advice of a professional marine electronics installer.