

Thru-Hull Transducer Installation Instructions

Important Safety Information

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

The device must be installed with at least one of the included anti-rotation bolts. Failure to do so could result in the device rotating while the boat is moving and could cause damage to your vessel.

You are responsible for the safe and prudent operation of your vessel. Sonar is a tool that enhances your awareness of the water beneath your boat. It does not relieve you of the responsibility of observing the water around your boat as you navigate.

Failure to install and maintain this equipment in accordance with these instructions could result in damage or injury.

Always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

NOTICE

When drilling or cutting, always check what is on the opposite side of the surface.

This equipment should be installed by a qualified marine installer.

To obtain the best performance and to avoid damage to your boat, you must install the Garmin[®] transducer according to these instructions.

Read all installation instructions before proceeding with the installation. If you experience difficulty during the installation, contact Garmin Product Support.

Registering Your Device

Help us better support you by completing our online registration today.

- Go to http://my.garmin.com.
- Keep the original sales receipt, or a photocopy, in a safe place.

Contacting Garmin Product Support

- Go to www.garmin.com/support for in-country support information.
- In the USA, call 913-397-8200 or 1-800-800-1020.
- In the UK, call 0808 238 0000.
- In Europe, call +44 (0) 870 850 1241.

Loading the New Software on a Memory Card

You must copy the software update to a memory card.

1 Insert a memory card into the card slot on the computer.

- **2** Go to www.garmin.com/support/software/marine.html.
- **3** Select **Download** next to "Garmin Marine Network with SD card".
- 4 Read and agree to the terms.
- 5 Select Download.

- 6 If necessary, select Run or save and open the file.
- 7 If necessary, select the drive associated with the memory card, and select **Next** > **Finish**.

Updating the Device Software

Before you can update the software, you must obtain a software-update memory card or load the latest software onto a memory card.

- **1** Turn on the chartplotter.
- **2** After the home screen appears, insert the memory card into the card slot.

NOTE: In order for the software update instructions to appear, the device must be fully booted before the card is inserted.

- 3 Follow the on-screen instructions.
- **4** Wait several minutes while the software update process completes.

The device returns to normal operation after the software update process is complete.

5 Remove the memory card.

NOTE: If the memory card is removed before the device restarts fully, the software update is not complete.

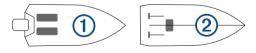
Tools Needed

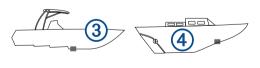
- Drill
- 3 mm bit (1/8 in.)
- 9 mm bit (³/₈ in.)
- 13 mm bit (¹/₂ in.)
- 25 mm spade bit (1 in.) (fiberglass hull)
- 29 mm spade bit (1 ¹/₈ in.) (fiberglass hull)
- 32 mm spade bit (1¹/₄ in.) (fiberglass hull)
- 32 mm hole saw (1 $^{1}/_{4}$ in.) (metal hull)
- Bandsaw or table saw
- Slip-joint pliers or crescent wrench
- Masking tape
- Marine sealant
- · Epoxy or exposed core sealant (cored fiberglass hull)

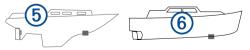
About the Transducer

The transducer transmits and receives sound waves through the water, and relays sound-wave information to your Garmin sonar device.

Mounting Location Considerations







- On outboard and sterndrive vessels ①, the transducer should be mounted in front of and close to the engine or engines.
- On inboard vessels ②, the transducer should be mounted in front of and far away from the engine propeller and shaft.
- On step-hull vessels ③, the transducer should be mounted in front of the first step.

- On full-keel vessels ④, the transducer should be mounted at a slight angle that aims at the bow, not parallel to the centerline.
- On fin-keel vessels (5), the transducer should be mounted from 25 cm to 75 cm (from 10 to 30 in.) in front of the keel and a maximum of 10 cm (4 in.) to the side of the centerline.
- On vessels with displacement hulls (6), the transducer should be mounted approximately ¹/₃ aft of the waterline length of the vessel from the bow, and from 150 to 300 mm (from 6 to 12 in.) to the side of the centerline.
- The transducer should be mounted parallel to the bow-stern axis of your vessel.
- The transducer should not be mounted behind strakes, struts, fittings, water intake or discharge ports, or anything that creates air bubbles or causes the water to become turbulent.

The transducer must be in clean (non-turbulent) water for optimal performance.

- The transducer should not be mounted in a location where it might be jarred when launching, hauling, or storing.
- On single-drive boats, the transducer must not be mounted in the path of the propeller.

The transducer can cause cavitation that can degrade the performance of the boat and damage the propeller.

• On twin-drive boats, the transducer should be mounted between the drives, if possible.

Fairing Block Angle Cut

A fairing block positions your transducer parallel to the water line for increased sonar accuracy. You must measure the deadrise angle of your boat hull to determine if a fairing block is necessary to mount the transducer. If the deadrise angle of your mounting location exceeds 5°, you should use a fairing block to mount the transducer.

Deadrise Angle

Deadrise is the angle formed between a horizontal line and a boat hull at a single point. You can measure the deadrise angle with an angle finder, a protractor, or a digital level. You can also ask your boat manufacturer for the deadrise angle of the specific point on your boat hull.

NOTE: A boat may have several deadrise angles depending on the shape of the hull. Measure the deadrise angle only at the location where you plan to install the transducer.

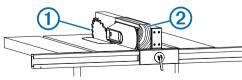
Cutting the Fairing Block

Always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

1 Using wood screws, attach the fairing block to a piece of wood.

The wood becomes a cutting guide for the fairing block.

- 2 Measure the deadrise angle of the hull at the mounting location.
- **3** Tilt your table saw blade ① to match the deadrise angle and secure the cutting fence.



- 4 Position the fairing block on the table so the cutting guide rests against the fence ② and the angle matches the angle of the mounting location.
- **5** Adjust the cutting fence to ensure the fairing block has a minimum thickness of 13 mm $(^{1}/_{2} \text{ in.})$.

NOTE: The maximum cutting angle of the fairing block is 25°.

- 6 Cut the fairing block.
- **7** Using a rasp or power tool, shape the fairing block to the hull as precisely as possible.
- **8** Use the remaining section of the fairing block as the backing block inside the hull.

Cored Fiberglass Boat Hull Installation Instructions

Thru-Hull Transducer in a Cored Hull with a Fairing Block

If the deadrise angle of your mounting location exceeds 5° , you must use a fairing block to mount the device.



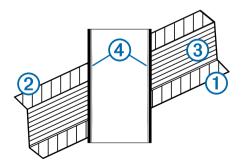
Drilling the Transducer Stem Hole and the Anti-Rotation Bolt Holes in a Cored Fiberglass Hull

Before you can drill holes for the anti-rotation bolts, you must drill the hole for the transducer stem (Drilling the Transducer Stem Hole and the Anti-Rotation Bolt Holes in a Cored Fiberglass Hull) and you must cut the fairing block (Cutting the Fairing Block).

The device must be installed with at least one of the included anti-rotation bolts. Failure to do so could result in the device rotating while the boat is moving and could cause damage to your vessel.

The core must be cut and sealed carefully to protect against water seepage.

- 1 Select a mounting location without surface irregularities or obstructions.
- **2** Using the template, mark the location of the stem hole and anti-rotation bolts.
- **3** Drill a 3 mm ($^{1}/_{8}$ in.) pilot hole through the template and hull at the stem hole location.



The hole must be perpendicular to the water surface.

- 4 Place masking tape over the pilot hole and surrounding area outside the hull to prevent damage to the fiberglass.
- **5** Using a 25 mm (1 in.) bit at the stem hole location, drill from outside the hull through the outer skin ①, inner skin ②, and the core ③.

The hole must be perpendicular to the water surface.

- 6 Sand and clean the inner skin, core, and outer skin around the hole.
- 7 Seal the exposed inner core with epoxy ④, and allow the epoxy to set thoroughly.
- 8 While holding a drill with a 9 mm $({}^{3}/_{8}$ in.) bit plumb, drill the anti-rotation bolt holes through the hull from outside the hull.

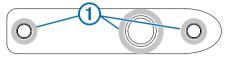
The holes must be perpendicular to the water surface.

9 Sand and clean the area around the holes.

Applying Marine Sealant to a Thru-Hull Transducer

You must apply marine sealant to the transducer to ensure a tight, waterproof seal between the fairing block and the hull. Do not apply sealant directly to the stem or anti-rotation bolts.

Apply marine sealant ① around the base of the stem and anti-rotation bolts on the transducer.

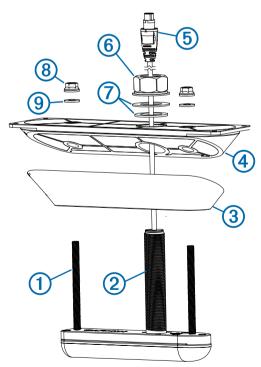


Installing the Transducer with a Fairing Block

It is recommended that two installers complete these instructions, with one positioned outside the boat and one inside the boat.

NOTE: When installing the transducer in a cored fiberglass hull, avoid over-tightening the nuts to prevent damaging the hull.

- 1 If the anti-rotation bolts ① are installed on your transducer, remove them.
- 2 Apply marine sealant at the base of the anti-rotation bolts and transducer stem 2.



- **3** Seat the transducer housing firmly within the fairing block ③ recess.
- **4** Apply marine sealant to the face of the fairing block that must contact the hull.
- **5** Apply marine sealant to the face of the backing block ④ that must contact the inner hull.
- **6** From outside the hull, insert the transducer cable (5) and transducer stem through the mounting hole.

- 7 From inside the hull, slide the backing block onto the transducer stem and seat it firmly against the inner hull. The fairing and transducer must be parallel to the keel.
- 8 From inside the hull, apply the included anti-seize compound to the exposed transducer stem and anti-rotation bolts.
- **9** From inside the hull, use slip-joint pliers or a crescent wrench to secure the backing block to the transducer stem with the included 35 mm hull nut ⑥, rubber 24 mm washer, and nylon 26 mm washer ⑦.

Do not over-tighten the hull nut.

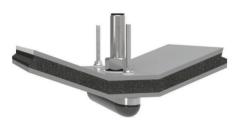
10 From inside the hull, use slip-joint pliers or a crescent wrench to secure the backing block to the anti-rotation bolts with the included M8 nuts (a) and 8 mm washers (a).

Do not over-tighten the M8 nuts.

11 Before the sealant hardens, remove all excess sealant on the outside of the fairing block and exterior hull to ensure smooth water flow over the transducer.

Thru-Hull Transducer in a Cored Hull without a Fairing Block

If the deadrise angle of your mounting location does not exceed 5° , you can mount the device without a fairing block.



Drilling the Transducer Stem and Anti-Rotation Bolt Holes Using a Template

The device must be installed with at least one of the included anti-rotation bolts. Failure to do so could result in the device rotating while the boat is moving and could cause damage to your vessel.

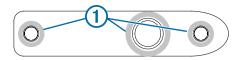
You should follow these instructions if you are not using a fairing block or isolator plate to mount your transducer.

- 1 Trim the included transducer template.
- 2 Select a mounting location without surface irregularities or obstructions.
- **3** Using the template, mark the location of the stem hole and anti-rotation bolts.
- **4** While holding a 25 mm (1 in.) spade bit plumb, drill the transducer stem hole from outside the hull.
 - The hole must be perpendicular to the water surface.
- 5 While holding a drill with an 9 mm $(^{3}/_{8}$ in.) bit plumb, drill the anti-rotation bolt holes from outside the hull.
 - The holes must be perpendicular to the water surface.
- 6 Sand and clean the inner skin, core, and outer skin around the holes.

Applying Marine Sealant to a Thru-Hull Transducer

You must apply marine sealant to the transducer to ensure a tight, waterproof seal between the fairing block and the hull. Do not apply sealant directly to the stem or anti-rotation bolts.

Apply marine sealant 1 around the base of the stem and anti-rotation bolts on the transducer.

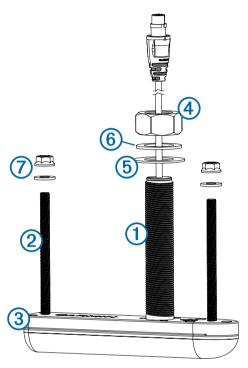


Installing the Transducer without a Fairing Block

It is recommended that two installers complete these instructions, with one positioned outside the boat and one inside the boat.

NOTE: When installing a transducer in a non-cored fiberglass hull, avoid over-tightening the nuts to prevent damaging the hull.

1 Apply marine sealant to the base of the anti-rotation bolts and transducer stem ②, and to the sides of the transducer plate ③ that must contact the hull.



- **2** From outside the hull, insert the transducer through the mounting hole and seat it firmly against the hull.
- **3** From inside the hull, apply the included anti-seize compound to the exposed transducer stem and anti-rotation bolts.
- 4 From inside the hull, use slip-joint pliers or a crescent wrench to secure the included 35 mm hull nut ④, 26 mm nylon washer ⑤, and 24 mm rubber washer ⑥ to the transducer stem.

Do not over-tighten the hull nut.

5 From inside the hull, use slip-joint pliers or a crescent wrench to secure the included M8 nuts ⑦ and 8 mm nylon washers to the anti-rotation bolts.

Do not over-tighten the M8 nuts.

6 Before the sealant hardens, remove all excess sealant on the outside of the exterior hull to ensure smooth water flow over the transducer.

Non-cored/Fiberglass Boat Hull Installation Instructions

Thru-Hull Transducer in a Non-cored/Fiberglass Hull with a Fairing Block

If the deadrise angle of your mounting location exceeds 5° , you should use a fairing block to mount the device.



Drilling the Transducer Stem Hole and the Anti-Rotation Bolt Holes in a Non-Cored or Fiberglass Hull

Before you can drill holes for the anti-rotation bolts, you must drill the hole for the transducer stem, and you must cut the fairing block (Cutting the Fairing Block).

The device must be installed with at least one of the included anti-rotation bolts. Failure to do so could result in the device rotating while the boat is moving and could cause damage to your vessel.

You should follow these instructions when you are using a fairing block to mount the transducer on a boat that does not have a cored fiberglass hull.

- 1 Select a mounting location without surface irregularities or obstructions.
- **2** Using the template, mark the location of the stem hole and anti-rotation bolts.
- **3** Drill a 3 mm (¹/₈ in.) pilot hole and hull at the stem hole location, from outside the hull.

The hole must be perpendicular to the water surface.

- **4** If the vessel has a fiberglass hull, place masking tape over the pilot hole and surrounding area outside the hull to prevent damage to the fiberglass.
- **5** If you taped over the pilot hole, use a utility knife to cut out the hole in the tape.
- **6** While holding a 25 mm (1 in.) spade bit plumb, cut a hole from outside the hull at the stem hole location.

The hole must be perpendicular to the water surface.

- 7 Sand and clean the area around the hole.
- **8** While holding a drill with a 9 mm (${}^{3}\!/_{8}$ in.) bit plumb, drill the anti-rotation bolt holes through the hull.

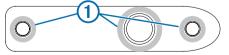
The holes must be perpendicular to the water surface.

9 Sand and clean the area around the holes.

Applying Marine Sealant to a Thru-Hull Transducer

You must apply marine sealant to the transducer to ensure a tight, waterproof seal between the fairing block and the hull. Do not apply sealant directly to the stem or anti-rotation bolts.

Apply marine sealant ① around the base of the stem and anti-rotation bolts on the transducer.



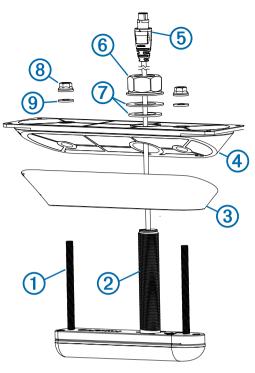
Installing the Transducer with a Fairing Block

It is recommended that two installers complete these instructions, with one positioned outside the boat and one inside the boat.

NOTE: When installing the transducer in a cored fiberglass hull, avoid over-tightening the nuts to prevent damaging the hull.

1 If the anti-rotation bolts ① are installed on your transducer, remove them.

2 Apply marine sealant at the base of the anti-rotation bolts and transducer stem 2.



- **3** Seat the transducer housing firmly within the fairing block ③ recess.
- **4** Apply marine sealant to the face of the fairing block that must contact the hull.
- 5 Apply marine sealant to the face of the backing block ④ that must contact the inner hull.
- **6** From outside the hull, insert the transducer cable (5) and transducer stem through the mounting hole.
- 7 From inside the hull, slide the backing block onto the transducer stem and seat it firmly against the inner hull.

The fairing and transducer must be parallel to the keel.

- 8 From inside the hull, apply the included anti-seize compound to the exposed transducer stem and anti-rotation bolts.
- **9** From inside the hull, use slip-joint pliers or a crescent wrench to secure the backing block to the transducer stem with the included 35 mm hull nut (6), rubber 24 mm washer, and nylon 26 mm washer ⑦.

Do not over-tighten the hull nut.

10 From inside the hull, use slip-joint pliers or a crescent wrench to secure the backing block to the anti-rotation bolts with the included M8 nuts (3) and 8 mm washers (9).

Do not over-tighten the M8 nuts.

11 Before the sealant hardens, remove all excess sealant on the outside of the fairing block and exterior hull to ensure smooth water flow over the transducer.

Thru-Hull Transducer in a Non-cored/Fiberglass Hull without a Fairing Block

If the deadrise angle of your mounting location does not exceed 5° , you can mount the device without a fairing block.



Drilling the Transducer Stem and Anti-Rotation Bolt Holes Using a Template

The device must be installed with at least one of the included anti-rotation bolts. Failure to do so could result in the device rotating while the boat is moving and could cause damage to your vessel.

You should follow these instructions if you are not using a fairing block or isolator plate to mount your transducer.

- 1 Trim the included transducer template.
- 2 Select a mounting location without surface irregularities or obstructions.
- **3** Using the template, mark the location of the stem hole and anti-rotation bolts.
- 4 While holding a 25 mm (1 in.) spade bit plumb, drill the transducer stem hole from outside the hull.

The hole must be perpendicular to the water surface.

5 While holding a drill with an 9 mm $(^{3}/_{8}$ in.) bit plumb, drill the anti-rotation bolt holes from outside the hull.

The holes must be perpendicular to the water surface.

6 Sand and clean the inner skin, core, and outer skin around the holes.

Applying Marine Sealant to a Thru-Hull Transducer

You must apply marine sealant to the transducer to ensure a tight, waterproof seal between the fairing block and the hull. Do not apply sealant directly to the stem or anti-rotation bolts.

Apply marine sealant ① around the base of the stem and anti-rotation bolts on the transducer.

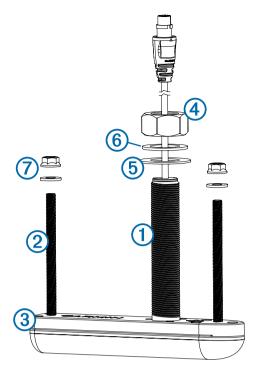


Installing the Transducer without a Fairing Block

It is recommended that two installers complete these instructions, with one positioned outside the boat and one inside the boat.

NOTE: When installing a transducer in a non-cored fiberglass hull, avoid over-tightening the nuts to prevent damaging the hull.

 Apply marine sealant to the base of the anti-rotation bolts and transducer stem (2), and to the sides of the transducer plate (3) that must contact the hull.



- **2** From outside the hull, insert the transducer through the mounting hole and seat it firmly against the hull.
- **3** From inside the hull, apply the included anti-seize compound to the exposed transducer stem and anti-rotation bolts.
- 4 From inside the hull, use slip-joint pliers or a crescent wrench to secure the included 35 mm hull nut ④, 26 mm nylon washer ⑤, and 24 mm rubber washer ⑥ to the transducer stem.

Do not over-tighten the hull nut.

5 From inside the hull, use slip-joint pliers or a crescent wrench to secure the included M8 nuts ⑦ and 8 mm nylon washers to the anti-rotation bolts.

Do not over-tighten the M8 nuts.

6 Before the sealant hardens, remove all excess sealant on the outside of the exterior hull to ensure smooth water flow over the transducer.

Metal Boat Hull Installation Instructions

Thru-Hull Transducer in a Metal Hull with a Fairing Block

If the deadrise angle of your mounting location exceeds 5°, you should use a fairing block to mount the device.



Drilling the Transducer Stem Hole and the Anti-Rotation Bolt Holes in a Metal Hull

You should follow these instructions when you are using a fairing block to mount the transducer on a boat that has a metal hull.

1 Select a mounting location without surface irregularities or obstructions.

- **2** Using the template, mark the location of the stem hole and anti-rotation bolts.
- 3 Drill a 3 mm $(^{1}/_{8}$ in.) pilot hole through the ull at the stem hole location, from outside the hole.

The hole must be perpendicular to the water surface.

4 Using a 32 mm (1 ¹/₄ in.) hole saw, cut the stem hole from outside the hull.

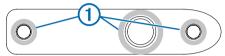
The hole must be perpendicular to the water surface.

- **5** While holding a drill with a 13 mm (1/2 in.) bit plumb, drill the anti-rotation bolt holes through the hull from outside the hull.
- 6 Sand and clean the area around the holes.

Applying Marine Sealant to a Thru-Hull Transducer

You must apply marine sealant to the transducer to ensure a tight, waterproof seal between the fairing block and the hull. Do not apply sealant directly to the stem or anti-rotation bolts.

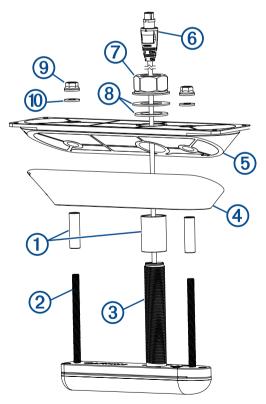
Apply marine sealant ① around the base of the stem and anti-rotation bolts on the transducer.



Installing the Transducer with a Fairing Block

It is recommended that two installers complete these instructions, with one positioned outside the boat and one inside the boat.

1 Secure the bushings ① to the anti-rotation bolts ② and transducer stem ③.



- 2 Apply marine sealant to the bushings, and at the base of the anti-rotation bolts and transducer stem.
- **3** Seat the transducer housing firmly within the fairing block ④ recess.
- **4** Apply marine sealant to the side of the fairing block that must contact the hull.
- **5** Apply marine sealant to the side of the backing block (5) that must contact the hull.

- **6** From outside the hull, insert the transducer cable (6) and transducer housing through the mounting hole.
- 7 From inside the hull, slide the backing block onto the transducer and seat it firmly against the hull.
- 8 Apply the included anti-seize compound to the exposed transducer stem and anti-rotation bolts.
- 9 From inside the hull, use slip-joint pliers to secure the backing block to the transducer stem with the included 35 mm hull nut 7, the nylon 26 mm washer, and the rubber 24 mm washer 8.
- **10** From inside the hull, use slip-joint pliers to secure the backing block to the anti-rotation bolts with the included M8 nuts (1) and 8 mm washers (1).
- **11** Before the sealant hardens, remove all excess sealant on the outside of the fairing block and exterior hull to ensure smooth water flow over the transducer.

Thru-Hull Transducer in a Metal Hull without a Fairing Block

If the deadrise angle of your mounting location does not exceed 5°, you can mount the device without a fairing block.



Drilling the Transducer Stem and Anti-Rotation Bolt Holes Using a Template

The device must be installed with at least one of the included anti-rotation bolts. Failure to do so could result in the device rotating while the boat is moving and could cause damage to your vessel.

You should follow these instructions if you are not using a fairing block to mount your transducer.

- 1 Trim the included transducer template.
- **2** Check whether the mounting location has an irregular surface or nearby obstructions.
- **3** Select an option:
 - If the mounting surface has no irregularities or obstructions, make sure the template fits the mounting location on the outside of the hull and tape the template to the mounting location.
 - If the mounting surface has irregularities or nearby obstructions, or if the template doesn't fit the mounting location, select a new mounting location and repeat steps 2 and 3.
- **4** Using the template, mark the location of the stem hole and anti-rotation bolts.
- 5 Drill a 3 mm $(^{1}/_{8}$ in.) pilot hole through the hull at the stem hole location, from outside the hull.
- **6** Using a 32 mm (1 $^{1}/_{4}$ in.) hole saw, cut the stem hole from outside the hull.

The hole must be perpendicular to the water surface.

7 While holding a drill with a 12 mm (¹/₂ in.) bit plumb, drill the anti-rotation bolt holes from outside the hull.

The holes must be perpendicular to the water surface.

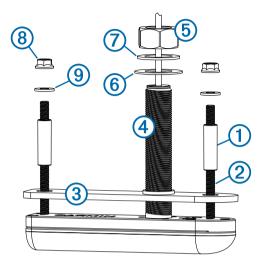
- 8 Remove the template from the mounting location.
- **9** Sand and clean the area around the holes.

Installing the Transducer in a Metal Hull without a Fairing Block

It is recommended that two installers complete these instructions, with one positioned outside the boat and one inside the boat.

NOTE: When installing a transducer in an aluminum or steel hull, you must use the included isolation plate.

- 1 Secure the bushings (1) to the anti-rotation bolts (2).
- 2 Seat the isolation plate ③ firmly against the transducer.



3 Apply marine sealant to the base of the transducer stem ④ and anti-rotation bolts, and the side of the isolation plate that must contact the hull.

NOTE: Apply enough marine sealant on all surfaces to ensure bonding between the plate and the hull, including a tight perimeter seal.

- **4** From outside the hull, insert the transducer through the mounting hole and seat it firmly against the hull.
- **5** From inside the hull, apply the included anti-seize compound to the exposed transducer stem and anti-rotation bolts.
- 6 From inside the hull, use slip-joint pliers or a crescent wrench to secure the included 35 mm hull nut (5), 26 mm nylon washer (6), and 24 mm rubber washer (7) to the transducer stem.
- 7 From inside the hull, use slip-joint pliers to secure the included M8 nuts (8) and 8 mm nylon washers (9) to the anti-rotation bolts.
- 8 Before the sealant hardens, remove all excess sealant on the outside of the exterior hull to ensure smooth water flow over the transducer.

Connecting a Pair of Transducers

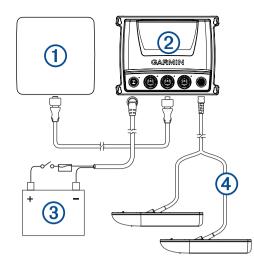
Before you connect a pair of transducers, you must complete all other installation instructions.

You can connect a pair of transducers to the sounder.

- 1 Connect each transducer cable into one of the split cable ends of the included Y-cable.
- **2** Connect the remaining Y-cable end to your sounder.

Installation Diagram

You can use this diagram to identify the connection points from your transducers to the network, power, and sounder using the Y-cable.



Item	Description
1	Chartplotter
2	Sounder
3	Power Source
4	Y-cable

Maintenance

Testing the Installation

NOTICE

You should check your boat for leaks before you leave it in the water for an extended period of time.

Because water is necessary to carry the sonar signal, the transducer must be in the water to work properly. You cannot get a depth or distance reading when out of the water. When you place your boat in the water, check for leaks around any screw holes that were added below the water line.

Anti-Fouling Paint

To prevent corrosion on metal hulls and to slow the growth of organisms that can affect a vessel's performance and durability, you should apply a water-based anti-fouling paint to the hull of your vessel every six months.

NOTE: Never apply ketone-based anti-fouling paint to your vessel, because ketones attack many types of plastic and could damage or destroy your transducer.

Cleaning the Transducer

Aquatic fouling accumulates quickly and can reduce your device's performance.

- 1 Remove the fouling with a soft cloth and mild detergent.
- **2** If the fouling is severe, use a scouring pad or putty knife to remove growth.
- 3 Wipe the device dry.

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