

# GARMIN<sup>®</sup>

## GT36UHD/GT56UHD

### TRANSDUCERS

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## INSTALLATION

## INSTRUCTIONS

### Important Safety Information

#### **⚠ WARNING**

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

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.

#### **⚠ CAUTION**

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

To avoid possible personal 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 to avoid damaging the vessel.

To obtain the best performance and to avoid damage to your boat, you must install the Garmin<sup>®</sup> device according to these instructions.

Read all installation instructions before proceeding with the installation. If you experience difficulty during the installation, go to [support.garmin.com](http://support.garmin.com) for more information.

### Software Update

You must update the Garmin chartplotter software when you install this device. For instructions on updating the software, see your chartplotter owner's manual at [support.garmin.com](http://support.garmin.com).

### Tools Needed

- Number 2 Phillips screwdriver

#### Transom mount

- Drill
- Drill bits: 4 mm ( $\frac{5}{32}$  in.), 3.2 mm ( $\frac{1}{8}$  in.), 25 mm (1 in.)
- Masking tape
- Marine sealant

#### Trolling motor mount

- Waterproof tape

### Mounting Considerations

To ensure peak performance with the lowest noise and interference, you should route the transducer cable away from ignition wires, house batteries and wires, trolling motor batteries and wires, and high-energy wires such as radar, audio amplifier, and autopilot pump wires.

If your transducer cable is not long enough to reach the chartplotter, you can add an extension cable (Garmin part number 010-11617-42 or 010-11617-32, not included). To avoid signal degradation, do not extend the cable more than 9 m (30 ft.).

### Preparing the Transducer for Long-Term Exposure to Water

#### **NOTICE**

Do not use acetone or acetone-based products on the transducer. Acetone damages the plastic transducer housing.

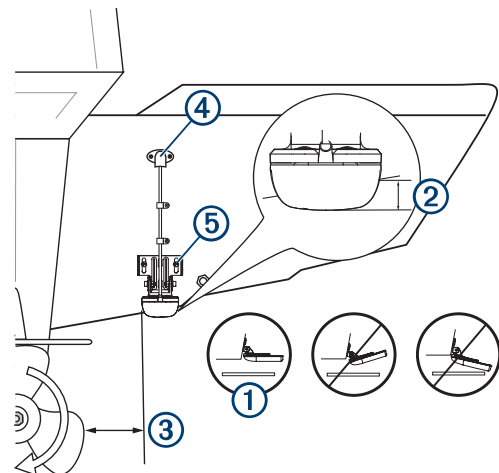
When you install a transducer on a boat that spends a significant amount of time in the water, you should coat the transducer and mounting hardware with a water-based anti-fouling paint to prevent marine growth.

- 1 Lightly sand the transducer and mounting hardware with a fine-grit abrasive pad.
- 2 Wipe the transducer and mounting hardware with isopropyl alcohol.
- 3 Apply water-based anti-fouling paint to the transducer and mounting hardware.

### Installing the Transducer on a Transom

#### Mounting Location Considerations

- The transducer should be mounted parallel to the water line **①**.



- The transducer should extend 3.5 mm (0.125 in.) below a fiberglass hull or 10 mm (0.375 in.) below an aluminum hull **②**.
- On boats with outboard or inboard/outboard motors, the transducer should be mounted as close to the centerline of the transom as possible but at least 38 cm (15 in.) from the propeller **③**.
- If your propeller moves clockwise when the boat moves, the transducer should be mounted on the starboard side (right side when facing forward).
- If your propeller moves counter-clockwise when the boat moves, the transducer should be mounted on the port side (left side when facing forward).
- 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.

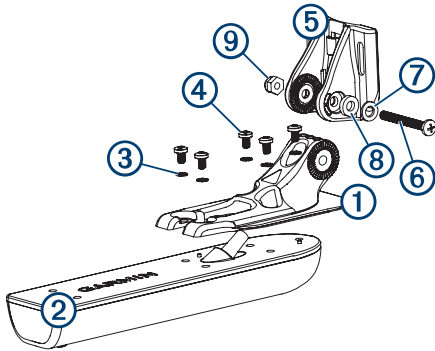
- On single-drive boats, the transducer must not be mounted in the path of the propeller.

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.
- Mount the transducer cable cover well above the water line ④.
- Apply marine sealant to all screw threads to prevent water from seeping into the transom ⑤.
- This transducer has an integrated spray guard, but if your transducer throws an excessive amount of water spray, recheck these mounting considerations and adjust the position of the transducer as needed to eliminate the spray.

### Assembling the Transducer with a Transom Mount Bracket

- 1 Attach the mount ① to the transducer ② with the included star washers ③, and screws ④.



- 2 Attach the mount to the bracket ⑤ with the bolt ⑥, flat washer ⑦, rubber washer ⑧, and lock nut ⑨.

**NOTE:** The bolt should be tight enough to hold the transducer in place when the boat moves at high speed, but loose enough to allow the transducer to pivot out of the way if the transducer hits an obstruction.

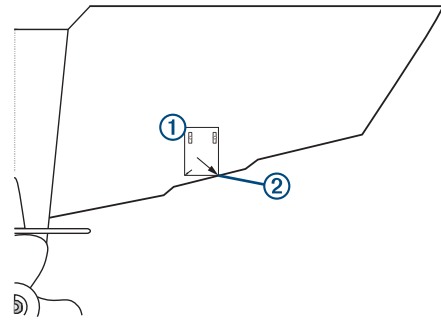
### Installing the Transom-Mount Hardware

#### NOTICE

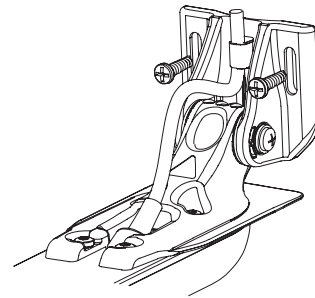
If you are mounting the bracket on fiberglass with screws, it is recommended to use a countersink bit to drill a clearance counterbore through only the top gel-coat layer. This will help to avoid cracking in the gel-coat layer when the screws are tightened.

The cables connected to the transducer should not be cut, because cutting the transducer cables voids your warranty.

- 1 Choose an installation location on the transom ([Mounting Location Considerations, page 1](#)).
- 2 Cut out the template.
- 3 With the template ① aligned vertically on the transom at the installation location ([Mounting Location Considerations, page 1](#)), place the bottom corner ② of the template on the edge of the transom.



- 4 Mark the center location of the two holes of the template.
- 5 Remove the template from the transom.
- 6 Wrap a piece of tape around a 4 mm ( $5/32$  in.) bit at 18 mm ( $7/10$  in.) from the point of the bit, to avoid drilling the pilot holes too deep.
- 7 If you are installing the bracket on fiberglass, place a piece of tape over the pilot-hole location to reduce cracking of the gel coat.
- 8 Using the 4 mm ( $5/32$  in.) bit, drill the pilot holes approximately 18 mm ( $7/10$  in.) deep at the marked locations.
- 9 Apply marine sealant to the included 20 mm screws, and attach the transducer assembly to the transom.
- 10 Route the cable under the transom mount cable hook.



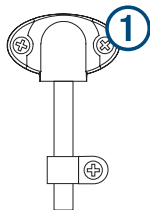
- 11 If you must route the cable through the transom, choose a pilot-hole location well above the waterline and mark it.
- 12 Place a cable clamp on the transducer cable, approximately halfway between the transducer and the top of the transom or the pass-through pilot hole.
- 13 Mark the pilot-hole location for the cable clamp, and using a 3.2 mm ( $1/8$  in.) bit, drill a pilot hole approximately 10 mm ( $3/8$  in.) deep.
- 14 Apply marine sealant to the included 12 mm screw, and attach the cable clamp to the transom.
- 15 If you marked a pilot hole in step 11, use a 25 mm (1 in.) drill bit to drill a pass-through hole completely through the transom.
- 16 Route the transducer cable to the chartplotter:
  - If you are routing the cable using a pass-through hole, push it through the pass-through hole, and install the cable-entry cover ([Installing the Cable-Entry Cover, page 2](#)).
  - If you are not routing the cable using a pass-through hole, route the cable up and over the top of the transom.

You should avoid routing the cable close to electrical wires or other sources of electrical interference.

### Installing the Cable-Entry Cover

If you routed the cable through the transom after you installed the transducer, you should install the cable-entry cover to keep water from entering your boat.

- 1 Place the cable-entry cover ① over the hole and the cable, with the opening pointing downward, and mark the location of the two pilot holes.



- 2 Remove the cable-entry cover, and, using a 3.2 mm (1/8 in.) bit, drill the pilot holes approximately 10 mm (3/8 in.) deep.
- 3 Fill the pass-through hole with marine sealant so it covers the cable completely and there is excess sealant around the hole and the cable.
- 4 Place the cable-entry cover over the hole and the cable, with the opening pointing downward.
- 5 Apply marine sealant to the included 12 mm M4 screws, and attach the cable-entry cover to the transom.
- 6 Wipe away all excess marine sealant.

### 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.

### Testing the Transom-Mount Transducer Installation

#### NOTICE

When adjusting the depth of the transducer, make the adjustments in small increments. Placing the transducer too deep can adversely affect the performance of the boat and put the transducer at risk of striking underwater objects.

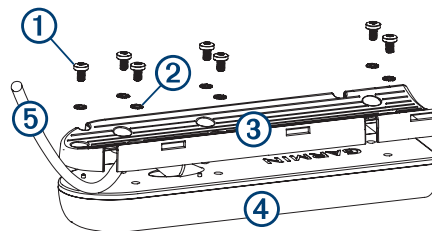
Test the transom-mount transducer installation in open water free of obstacles. Pay attention to your surroundings as you test the transducer.

- 1 With the boat in the water, turn on the chartplotter.
- 2 Drive the boat at a slow speed. If the chartplotter appears to be working properly, gradually increase speed while observing the chartplotter.
- 3 If the sonar signal is suddenly lost or the bottom return is severely degraded, note the speed at which this occurs.
- 4 Return the boat to the speed at which the signal was lost, and make moderate turns in both directions while observing the chartplotter.
- 5 If the signal strength improves while turning, adjust the transducer so that it extends another 1/8 in. (3 mm) below the transom of the boat.
- 6 Repeat steps 2–4 until the degradation is eliminated.
- 7 If the signal does not improve, move the transducer to a different location on the transom, and repeat the test.

## Installing the Transducer on a Trolling Motor

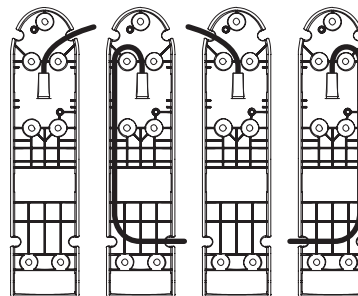
### Assembling the Trolling Motor Mount

- 1 Using the 8 mm M4 screws ① and 4 mm star washers ②, attach the trolling motor mount ③ to the transducer ④.



- 2 Before tightening the screws, route the cable ⑤ inside the mount to a cable exit.

The trolling motor mount is designed with multiple cable exits. You should use a cable exit that allows the cable to be on the top side of the trolling motor housing when the motor is stowed. See the image below for recommended cable routes.



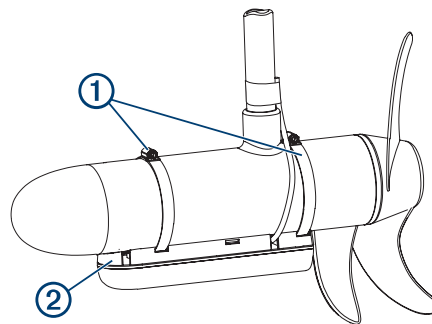
You must avoid pinching the cable or bending it too tightly.

### Attaching the Transducer to the Trolling Motor

#### NOTICE

Do not cut the transducer cable. Cutting the transducer cable will void your warranty.

- 1 Insert the hose clamps ① through the slots on the transducer mount ②, until equal lengths extend on both sides of the mount.



- 2 Place the transducer mount against the body of the trolling motor with the narrow end of the transducer pointed away from the propeller.
- 3 Secure the hose clamps around the body of the trolling motor, and tighten the hose clamps.
- 4 Position the transducer so it is parallel to the bottom when in use.
- 5 Use waterproof tape (not included) to secure the transducer cable to the trolling motor shaft.
- 6 Route the transducer cable to the installation location of the chartplotter while taking these precautions.
  - You should avoid routing the cable close to electrical wires or other sources of electrical interference.
  - You must avoid routing the cable where it is pinched when the trolling motor is deployed or stowed.

## Appendix

### Specifications

#### All models

Dimensions (L x W x H)	218.5 x 51.8 x 27.7 mm (8.61 x 2.04 x 1.09 in.)
Operating temperature range	From 0° to 50°C (from 32° to 122°F)
Storage temperature range	From -40° to 70°C (from -40° to 158°F)
Cable length	7.6 m (25 ft.)
Number of cable pins	12
Water rating	IPX7 <sup>1</sup>

#### GT36UHD models

Transmit power (RMS)	Traditional: Not applicable Garmin ClearVü™: 500 W Garmin SideVü™: 500 W
Frequency	Traditional: Not applicable Garmin ClearVü and Garmin SideVü: CHIRP 455 kHz (420-490 kHz); UHD CHIRP 800 kHz (770-840 kHz); UHD CHIRP 1 MHz (1000-1120 kHz)
Maximum depth/distance <sup>2</sup>	Traditional: Not applicable Garmin ClearVü at 455 kHz: 122 m (400 ft.) Garmin ClearVü at 1 MHz: 61 m (200 ft.) Garmin SideVü at 1 MHz, max. depth of 15 m (50 ft.): 61 m (200 ft.) each side; 122 m (400 ft.) total Garmin SideVü at 455 kHz, max. depth of 30 m (100 ft.): 152 m (500 ft.) each side; 305 m (1,000 ft.) total

#### GT56UHD models

Transmit power (RMS)	Traditional: 350 W Garmin ClearVü: 500 W Garmin SideVü: 500 W
Frequency	Traditional: CHIRP High Wide (140-240 kHz) Garmin ClearVü and Garmin SideVü: CHIRP 455 kHz (420-490 kHz); UHD CHIRP 800 kHz (770-840 kHz); UHD CHIRP 1 MHz (1000-1120 kHz)
Maximum depth/distance <sup>2</sup>	Traditional: 244 m (800 ft.) Garmin ClearVü at 455 kHz: 122 m (400 ft.) Garmin ClearVü at 1 MHz: 61 m (200 ft.) Garmin SideVü at 1 MHz, max. depth of 15 m (50 ft.): 61 m (200 ft.) each side; 122 m (400 ft.) total Garmin SideVü at 455 kHz, max. depth of 30 m (100 ft.): 152 m (500 ft.) each side; 305 m (1,000 ft.) total

### 物質宣言

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
印刷电路板组件	X	○	○	○	○	○
金属零件	X	○	○	○	○	○
电缆 电缆组件 连接器	X	○	○	○	○	○

本表格依据 SJ/T11364 的规定编制。

○: 代表此种部件的所有均质材料中所含的该种有害物质均低于 (GB/T26572) 规定的限量

X: 代表此种部件所用的均质材料中, 至少有一类材料其所含的有害物质高于

(GB/T26572) 规定的限量

\*該產品說明書應提供在環保使用期限和特殊標記的部分詳細講解產品的擔保使用條件。



產品

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<sup>1</sup> The device withstands incidental exposure to water of up to 1 m for up to 30 min. For more information, go to [www.garmin.com/waterrating](http://www.garmin.com/waterrating).

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<sup>2</sup> Dependent upon water salinity, bottom type, and other water conditions.