

# Dual Frequency—Transom Mount Transducer Installation Instructions

## **Contents:**



Transducer



**Transom Mounting Bracket** Mounts to the transom and holds the transducer



#### **Mounting Hardware:**

- 2 1/4" Wire Clamps 4 - 4 x 12 mm Screws 2- 5 x 30 mm Screws 1 - 10-32 Lock Nut
- 1- 1/4" Rubber Washer
- 2 5mm Flat Washers
- 1 Plastic Spacer 1 - 10-32 x 1.75" Screw
- 1- Cable Entry Cover

# <u>Tool List</u>

Drill 3/4", 5/32", 1/8" Drill Bits #2 Phillips Screw Driver

3/8" Wrench or Socket Scissors and Masking Tape Marine Sealant (not included)

#### Assembling the Transducer

- 1. Insert the Rubber Washer and Plastic Spacer in the transducer at the same time. DO NOT lubricate the Rubber Washer.
- 2. Slide the transducer into the mounting bracket.
- 3. Place a 5mm Flat Washer on the 10-32 x 1.75" screw and insert the screw through the Mounting Bracket, Spacer and Rubber Washer.
- 4. Place the remaining 5mm Flat Washer on the exposed end and install the 10-32 Lock Nut finger tight (see Figure 1). The transducer will be tightened further after installation on boat.

#### **Selecting a Location**

For your sonar to operate properly, the transducer has to be located in clean (non-turbulent) water. The transducer should be mounted as near the center of the boat as possible. The transducer should be positioned so that it is not in the path of the prop, or in the path of items on the hull that may cause the water to become turbulent (Figure 2).

**DO NOT** place the transducer near strakes, struts, fittings, water intake or discharge ports, or anything that causes the water to become turbulent.

## Mounting the Transducer

- 1. Cut out the Transducer Mounting Template provided with this document.
- 2. Position the template at the selected location making sure the mark on the template is aligned with the bottom of the transom, and the template is positioned vertically. Tape the template in place (see Figure 3).



Figure 1



# **GARMIN**

- 3. Using the 5/32" bit, drill the pilot holes approximately 1" (25mm) deep at the locations indicated on the template. To avoid drilling the holes too deep wrap a piece of tape around the bit 1" from the point of the bit. Remove the template from the transom.
- 4. Apply Marine Sealant to the 5 x 30mm screws.
- 5. Attach the transducer assembly to the transom using the 5 x 30mm screws. Adjust the transducer to extend beyond the bottom of the transom approximately 1/8" (3 mm) on fiberglass hulls or 3/8" (10mm) on aluminum hulls. Eyeball the transducer to be aligned parallel with the water (see Figure 4).
- 6. Tighten the 10-32 locking nut until it touches the mounting bracket and then tighten 1/4 turn more (do not overtighten).

# **Routing the Transducer Cable**

It may be possible to route the transducer cable through an existing drain hole or it may be necessary to drill a hole in the transom to route the cable through. Before drilling through the transom, make sure any wires, cables or lines are removed from the area inside the boat.

- 1. Using a 3/4" bit, drill a hole through the transom well above the waterline.
- 2. Route the transducer cable through the transom.
- 3. Place the first cable clamp on the transducer cable approximately one third of the distance between the transducer and the hole. Mark the location. Using a 1/8" bit, drill a pilot hole approximately 3/8" (10mm) deep.
- 4. Attach the cable clamp using a 4 x 12mm screw. Coat the screw with marine sealant before installation. Repeat steps 3 and 4 using the other cable clamp.
- 5. Coat the inside of the 3/4" hole with marine sealant. Place the cable entry cover over the transducer cable and the 3/4" hole and mark the screw locations. Using a 1/8" bit, drill pilot holes approximately 3/8" (10mm) deep. Coat the 4 x 12mm screws with marine sealant then secure the Cable Entry Cover to the transom.

When routing the transducer cable to the sonar, try to avoid routing the cable with electrical wires or other sources of electrical interference. Be careful not to cut the cable jacket while routing the cable. Do not cut the transducer cable. If the cable is too long, coil the extra cable and secure it using a cable tie. If your cable is too short contact your GARMIN dealer for an extension cable.

## **Testing the Installation**

When you place your boat in the water CHECK FOR LEAKS around the screw holes that are below the water line. DO NOT leave your boat in the water for an extended period of time without checking for leaks.

- Begin testing the installation at a slow speed. If the sonar appears to be working properly gradually increase the boat's speed observing the sonar's operation. If the sonar signal suddenly is lost or the bottom return is severely degraded, note the speed at which this occurs.
- 2. Return the boat to the speed the signal was lost. Make moderate turns in both directions and see if the signal improves.



Figure 3



Adjust the transducer so that is is parallel with the bottom. If the transducer is not adjusted properly the sonar will experience degraded performance.





Figure 5



- 3. If the signal strength improves while turning, adjust the transducer so that it extends another 1/8" below the transom of the boat. It may take several adjustments to eliminate the degradation.
- 4. If the signal does not improve it may be necessary to move the transducer to a different location.





#### © 2000 GARMIN Corporation

GARMIN International, Inc. 1200 East 151<sup>st</sup> Street, Olathe, Kansas 66062, U.S.A.

GARMIN (Europe) Ltd. Unit 5, The Quadrangle, Abbey Park Industrial Estate, Romsey, SO51 9AQ, U.K.

> GARMIN Corporation No. 68, Jangshu 2<sup>nd</sup> Road, Shijr, Taipei County, Taiwan

> > www.garmin.com Part Number 190-00227-00 Rev. A