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Garmin GT21-TH

Garmin GT21-TH Transducer Instruction Manual

Model: GT21-TH (Part Number: 010-01962-10)

1. Introduction

The Garmin GT21-TH is a thru-hull mount transducer designed for coastal and offshore fishing. It provides both traditional sonar and CHIRP ClearVü scanning sonar capabilities. This transducer is engineered to deliver clear and crisp fish arches with superior target separation, along with detailed definition of underwater structures directly below your boat.
This manual provides essential information for the proper installation, operation, and maintenance of your GT21-TH transducer to ensure optimal performance and longevity.

2. What's in the Box

Verify that all components are present before beginning installation.

- Garmin GT21-TH Transducer (8-pin) with stainless steel stem
- Fairing block
- Isolation plate and bushings
- Mounting hardware
- Installation instructions (this document)

Image 1: Garmin GT21-TH Transducer and its primary components. This image shows the main transducer unit, which is an 8-pin device with a stainless steel stem, alongside the fairing block, isolation plate, bushings, and various mounting hardware pieces. These are the items typically found in the product packaging.

3. Setup and Installation

Proper installation is critical for the performance of your GT21-TH transducer. It is recommended that installation be performed by a qualified marine technician. **Always follow all safety precautions and wear appropriate personal protective equipment.**

3.1 Important Considerations

- **Hull Deadrise:** This transducer is designed for hull deadrises less than 25 degrees. Installing on a hull with a greater deadrise may result in reduced performance.
- **Location:** Select a location on the hull that is free from turbulence, air bubbles, and obstructions. The transducer should be mounted in an area with minimal water flow disturbance for optimal sonar returns.
- **Cable Routing:** Ensure the transducer cable can be routed to your sonar unit without sharp bends, kinks, or interference from other electrical systems.

3.2 Installation Steps (Overview)

1. **Prepare the Mounting Location:** Mark and drill the necessary holes in the hull according to the provided template (if applicable) and instructions. Ensure the hole size is appropriate for the transducer stem.
2. **Apply Sealant:** Apply marine-grade sealant around the drilled holes and the transducer stem to ensure a watertight seal.
3. **Insert Transducer:** Carefully insert the transducer stem through the hull from the outside.
4. **Install Fairing Block and Hardware:** From inside the hull, install the isolation plate, bushings, fairing block, and mounting hardware. Tighten fasteners securely but do not overtighten. The fairing block helps orient the transducer for optimal water flow and performance.
5. **Route Cable:** Route the transducer cable to your compatible Garmin sonar unit. Secure the cable to prevent damage or entanglement.
6. **Connect to Sonar Unit:** Connect the 8-pin connector to the appropriate port on your Garmin sonar device.
7. **Test Installation:** After installation, perform a water test to check for leaks and verify proper sonar operation. Refer to your sonar unit's manual for testing procedures.

Warning: *Failure to properly seal the transducer installation can lead to water intrusion and damage to your vessel. Always consult the detailed installation instructions included with the product for specific drilling templates and torque specifications.*

4. Operating Instructions

The GT21-TH transducer works in conjunction with a compatible Garmin sonar unit. Refer to your sonar unit's owner's manual for detailed instructions on operating sonar functions and adjusting settings.

4.1 Sonar Frequencies and Capabilities

- **Traditional Sonar:** Operates at 50/200 kHz with a power rating of 600 W. This provides classic fish arches and general depth information.
- **CHIRP ClearVü Sonar:** Operates at 260/455 kHz with a power rating of 500 W. This scanning sonar provides photographic-like images of fish and structure below your boat.

4.2 Basic Operation Tips

- **Select Sonar View:** On your Garmin display, select the desired sonar view (e.g., Traditional, ClearVü, Split Screen).
- **Adjust Gain/Sensitivity:** Start with automatic gain settings and adjust manually if needed to enhance target returns or reduce clutter.
- **Depth Range:** Set the depth range appropriate for the water depth you are fishing in.
- **Scroll Speed:** Adjust scroll speed to match your boat's speed for accurate representation of the bottom and targets.

- **Temperature Sensor:** The built-in fast-response temperature sensor will display water temperature on your compatible sonar unit.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your transducer.

- **Cleaning:** Periodically clean the transducer face with mild soap and water to remove marine growth, dirt, or oil. Avoid abrasive cleaners or solvents that could damage the transducer material.
- **Inspection:** Regularly inspect the transducer cable for cuts, abrasions, or kinks. Check the mounting hardware for tightness and corrosion.
- **Antifouling:** If your boat is kept in water, apply a water-based antifouling paint to the transducer face to prevent marine growth. Do not use solvent-based paints, as they can damage the transducer.

6. Troubleshooting

If you experience issues with your GT21-TH transducer, consider the following common troubleshooting steps.

- **No Sonar Reading or Weak Returns:**
  - Check all cable connections between the transducer and the sonar unit. Ensure they are secure and free of corrosion.
  - Inspect the transducer face for marine growth, dirt, or damage. Clean if necessary.
  - Verify the transducer is properly submerged and not experiencing air bubbles from hull turbulence.
  - Adjust gain/sensitivity settings on your sonar unit.
  - Ensure the correct transducer type is selected in your sonar unit's settings.
- **Inaccurate Depth Readings:**
  - Check for obstructions near the transducer that might interfere with the sonar signal.
  - Ensure the transducer is mounted correctly and not angled improperly.
  - Calibrate depth offset on your sonar unit if available.
- **Interference/Noise on Screen:**
  - Ensure the transducer cable is routed away from other electrical wiring, especially engine wiring or VHF cables.
  - Check for loose electrical connections on other marine electronics.
  - Try adjusting noise rejection settings on your sonar unit.

For further assistance, refer to your Garmin sonar unit's manual or contact Garmin customer support.

7. Specifications

Feature	Specification
Model Name	GT21-TH (010-01962-10)
Mounting Type	Thru-Hull Mount

Feature	Specification
Traditional Sonar Frequencies	50/200 kHz
Traditional Sonar Power	600 W
CHIRP ClearVü Frequencies	260/455 kHz
CHIRP ClearVü Power	500 W
Pin Count	8-pin
Temperature Sensor	Built-in, fast-response
Recommended Hull Deadrise	Less than 25 degrees
Item Weight	8.5 pounds (3.86 kg)
Product Dimensions	20.3"L x 14.3"W x 6.7"H (51.6 cm x 36.3 cm x 17 cm)
Power Source	Corded Electric
UPC	753759152833

8. Warranty and Support

For information regarding the warranty of your Garmin GT21-TH transducer, please refer to the warranty card included with your product or visit the official Garmin website. Garmin provides a limited warranty against defects in materials and workmanship.
For technical support, product registration, or to find authorized service centers, please visit garmin.com/support.

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