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Garmin B175HW 010-12181-22

Garmin Airmar B175HW Transducer User Manual

Model: 010-12181-22

Brand: Garmin

1. INTRODUCTION

The Garmin Airmar B175HW is a high-performance bronze thru-hull transducer designed for marine applications. It provides accurate depth and temperature readings, essential for navigation and fish finding. This manual provides essential information for the proper installation, operation, and maintenance of your transducer.



Figure 1: Garmin Airmar B175HW Transducer. A bronze thru-hull transducer with a black sonar element visible on the front face. The body features ribbed threading for secure installation.

2. KEY FEATURES

- **High-Wide CHIRP Technology:** Provides excellent target separation and clear returns across a wide beam angle.
- **Power Output:** Capable of 2 to 3 kilowatts for powerful sonar performance.
- **Maximum Depth Capability:** Designed for depths up to 10,000 feet (3,048 meters).
- **Operating Frequencies:** Supports a wide range of frequencies from 28 to 60 kHz and 150 to 250 kHz.
- **Bronze Thru-Hull Design:** Durable construction for reliable long-term use in marine environments.

3. SETUP AND INSTALLATION

Proper installation is critical for the optimal performance of your B175HW transducer. Due to the nature of thru-hull installations, it is highly recommended that installation be performed by a qualified marine technician.

3.1. Choosing a Location

- Select a location on the hull that is free from turbulence, air bubbles, and obstructions (e.g., keel, propeller, other transducers).
- Ensure the location provides adequate clearance inside the hull for mounting and cable routing.
- The transducer should be mounted in an area where it will remain submerged at all speeds.

3.2. Installation Steps (Overview)

1. Drill the appropriate size hole through the hull at the selected location.
2. Apply marine sealant around the transducer body and insert it through the hull.

3. Secure the transducer from inside the hull using the provided backing block and nut.
4. Route the transducer cable to your compatible Garmin sonar unit, ensuring it is protected from sharp edges and excessive bending.
5. Connect the transducer cable to the designated port on your Garmin sonar device.

Refer to the detailed installation guide provided with your transducer for specific drilling templates, sealant recommendations, and torque specifications.

4. OPERATING INSTRUCTIONS

Once the B175HW transducer is correctly installed and connected to a compatible Garmin sonar unit, operation is largely automatic.

4.1. Powering On

Power on your Garmin sonar display unit. The transducer will automatically begin transmitting and receiving sonar signals, and data will be displayed on your screen.

4.2. Sonar Settings

Adjust the sonar settings on your display unit for optimal performance. Common adjustments include:

- **Gain/Sensitivity:** Controls the sensitivity of the sonar receiver. Increase for weaker returns, decrease to reduce clutter.
- **Range/Depth:** Sets the maximum depth displayed on the screen.
- **Frequency:** Select between the available CHIRP frequency ranges (e.g., High-Wide CHIRP) based on your fishing or navigation needs.
- **Scroll Speed:** Adjusts how quickly the sonar history scrolls across the screen.
- **Noise Rejection:** Filters out unwanted interference.

Experiment with these settings in different water conditions to achieve the clearest possible sonar image.

5. MAINTENANCE

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

- **Cleaning:** Periodically inspect the transducer face for marine growth (algae, barnacles) or dirt. Clean gently with a soft cloth and mild, non-abrasive soap. Avoid using harsh chemicals or abrasive materials that could scratch the transducer surface.
- **Cable Inspection:** Check the transducer cable for any signs of wear, cuts, kinks, or corrosion, especially near connections and where it passes through bulkheads.
- **Mounting Security:** Ensure the transducer remains securely fastened to the hull. Check the mounting nut for tightness periodically.
- **Winterization:** If operating in freezing conditions, ensure the transducer is not exposed to ice formation, which can cause damage.

6. TROUBLESHOOTING

If you experience issues with your B175HW transducer, consider the following common troubleshooting steps:

6.1. No Depth Reading or Intermittent Signal

- **Check Connections:** Ensure the transducer cable is securely plugged into the sonar unit.

- **Transducer Submerged:** Verify that the transducer is fully submerged in water.
- **Sonar Unit Power:** Confirm the sonar unit is powered on and functioning correctly.
- **Settings:** Check sonar gain/sensitivity settings; they might be too low.

6.2. Poor Sonar Performance / Clutter on Screen

- **Clean Transducer Face:** Marine growth or dirt on the transducer can significantly degrade performance. Clean as described in the Maintenance section.
- **Air Bubbles:** Air bubbles passing under the transducer (due to hull design, speed, or turbulence) can interfere with the signal. Try adjusting boat speed or trim.
- **Interference:** Other electronic devices or transducers nearby can cause interference. Adjust noise rejection settings on your sonar unit.
- **Installation Angle:** An improperly angled transducer can lead to poor returns. This typically requires professional adjustment.

If problems persist, consult your Garmin sonar unit's manual or contact Garmin customer support.

7. SPECIFICATIONS

Specification	Value
Model Name	GARMIN ELEC. Garmin Airmar B175HW 010-12181-22 Transducer
Part Number	010-12181-22
Brand Name	Garmin
Manufacturer	Garmin
Item Weight	1 Kilograms
Package Weight	4.92 Kilograms
Item Dimensions (LxWxH)	11.02 x 11.02 x 11.02 inches
Item Package Dimensions (LxWxH)	11.5 x 10.5 x 8 inches
Color	gold
Material	Plastic
Number of Items	1
Included Components	GARMIN ELEC. Garmin Airmar B175HW 010-12181-22 Transducer
Date First Available	March 20, 2015

8. WARRANTY INFORMATION

This Garmin product is covered by a manufacturer's warranty. For detailed information regarding the warranty period, coverage, and terms and conditions, please refer to the warranty card included with your purchase or visit the official Garmin website. Keep your proof of purchase for warranty claims.

9. SUPPORT

For technical assistance, product registration, software updates, or additional information about your Garmin Airmar B175HW transducer, please visit the official Garmin support website:

www.garmin.com/support

You may also contact Garmin customer service directly for personalized assistance.