Airmar SS175C-20-HW-MM

Airmar SS175HW CHIRP Thru-Hull Transducer User Manual

Model: SS175C-20-HW-MM

1. Introduction

The Airmar SS175HW CHIRP Thru-Hull Transducer is a high-performance marine sensor designed for advanced fishfinding and depth sounding applications. Utilizing CHIRP (Compressed High-Intensity Radiated Pulse) technology, this transducer provides highly detailed and accurate underwater imaging, distinguishing individual fish targets and bottom structures with exceptional clarity. The "HW" designation indicates a High-Wide beam, offering excellent coverage and target separation in shallow to medium depths. This manual provides essential information for the proper installation, operation, and maintenance of your Airmar SS175HW transducer.

2. Safety Information

Please read all safety warnings and instructions carefully before installing or operating the transducer. Failure to do so may result in personal injury, damage to the vessel, or damage to the equipment.

- **Professional Installation Recommended:** Installation of thru-hull transducers requires drilling holes in the vessel's hull. It is highly recommended that installation be performed by a qualified marine technician to ensure proper sealing and structural integrity.
- **Electrical Safety:** Ensure all power to the vessel's electrical system is disconnected before beginning installation. Improper wiring can cause electrical shock or fire.
- **Water Intrusion:** Improper installation can lead to water leaks into the hull, potentially causing significant damage to the vessel. Always follow sealing instructions meticulously.
- **Tool Safety:** Use appropriate safety gear, including eye protection and gloves, when working with power tools and sealants.
- **Disposal:** Dispose of packaging materials and old components responsibly and in accordance with local regulations.

3. Package Contents

Verify that all components are present and undamaged before proceeding with installation. If any items are missing or damaged, contact your Airmar dealer immediately.

- Airmar SS175HW CHIRP Thru-Hull Transducer (1kW)
- Installation Hardware (e.g., nuts, washers, fairing block if applicable - contents may vary)
- Installation Template (if included)
- Documentation (this manual, warranty information)

Note: This transducer requires a separate "Mix and Match Cable" for connection to your specific fishfinder/sounder. This cable is not included with the transducer and must be purchased separately.

4. Setup and Installation

Proper installation is critical for optimal performance and to prevent water intrusion. Consult the detailed installation guide provided with the transducer for specific instructions and diagrams. The following is a general overview:

1. **Site Selection:** Choose a location on the hull that is free from turbulence, air bubbles, and obstructions. The 20° tilt of the transducer is designed to compensate for hull deadrise angles up to 24°.
2. **Drilling the Hole:** Carefully mark and drill the appropriate size hole through the hull, ensuring it is perpendicular to the hull surface. Use a hole saw as specified in the detailed installation guide.
3. **Fairing Block (if applicable):** If your hull has a significant deadrise, a fairing block may be required to ensure the transducer face is parallel to the waterline. Install the fairing block according to instructions.
4. **Transducer Mounting:** Insert the transducer through the hull from the outside. Secure it from the inside using the provided nuts and washers. Apply marine-grade sealant generously around the transducer body and mounting surfaces to ensure a watertight seal.
5. **Cable Routing:** Route the transducer cable away from engine noise, other electrical cables, and sharp edges. Secure the cable at regular intervals.
6. **Connecting the Mix and Match Cable:** Attach the appropriate Airmar Mix and Match cable to the transducer's pigtail connector. Ensure a secure and watertight connection.
7. **Connecting to Fishfinder:** Connect the other end of the Mix and Match cable to your compatible fishfinder or sounder unit. Refer to your fishfinder's manual for specific connection ports.

This image displays the Airmar SS175HW CHIRP Thru-Hull Transducer. It features a robust stainless steel housing designed for marine environments. The transducer's active face, visible as a dark oval with a small white dot, is angled at 20 degrees to optimize performance for specific hull deadrise angles. The threaded shaft for thru-hull mounting is visible on the left.

5. Operating Instructions

The Airmar SS175HW transducer operates in conjunction with a compatible CHIRP-enabled fishfinder or sounder. Once properly installed and connected, the transducer will automatically transmit and receive sonar signals when the connected display unit is powered on and configured for sonar operation.

- **Power On:** Turn on your marine display unit connected to the transducer.
- **Sonar Settings:** Navigate to the sonar or fishfinder screen on your display. Ensure the correct transducer type (CHIRP, High-Wide) is selected in the display unit's settings.
- **Frequency Range:** The SS175HW operates in the High-Wide CHIRP frequency band (typically 150-250 kHz). Your display unit will automatically sweep through this range to provide detailed returns.

- **Adjusting Gain/Sensitivity:** Adjust the gain or sensitivity settings on your display unit to optimize the sonar image for current water conditions and target visibility.
- **Depth and Temperature:** The transducer will provide accurate depth readings and water temperature data to your display unit.

For detailed operation of your fishfinder's specific features and settings, refer to the user manual of your display unit.

6. Maintenance

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

- **Cleaning the Transducer Face:** Periodically inspect the transducer's active face for marine growth, dirt, or debris. Clean gently with a soft cloth and mild soap or a marine-safe hull cleaner. Avoid abrasive materials that could scratch the surface.
- **Inspect Cable and Connections:** Regularly check the transducer cable for any signs of wear, cuts, or kinks. Ensure all connections, especially the Mix and Match cable connection, are secure and free from corrosion.
- **Antifouling Paint:** If applying antifouling paint to your hull, ensure that the transducer's active face is not painted. Only apply water-based antifouling paint to the stainless steel housing, avoiding the black active surface.
- **Winterization:** If the vessel is stored in freezing temperatures, ensure the transducer is not exposed to standing water that could freeze and cause damage.

7. Troubleshooting

If you experience issues with your Airmar SS175HW transducer, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
No Depth Reading / No Sonar Image	Power issue to display unit. Loose or corroded cable connection. Incorrect transducer selected in display settings. Air bubbles under transducer face. Damaged transducer or cable.	Check power supply to your fishfinder. Inspect all cable connections for security and corrosion. Verify transducer type in display unit's sonar settings. Clean transducer face; check for hull obstructions. Contact Airmar support or a qualified technician.
Poor Sonar Performance / Weak Returns	Fouling on transducer face. Incorrect gain/sensitivity settings. Electrical interference. Transducer not properly aligned.	Clean transducer face thoroughly. Adjust gain/sensitivity on your display unit. Check for nearby electrical noise sources; ensure proper grounding. Verify transducer angle and fairing block installation.

If problems persist after attempting these solutions, contact Airmar customer support or a certified marine electronics technician.

8. Specifications

Feature	Detail
Model Name	SS175C-20-HW-MM
Part Number	68366

Feature	Detail
Transducer Type	Thru-Hull
Technology	CHIRP (High-Wide)
Frequency Range	150-250 kHz
Power Rating	1 kW (RMS)
Beam Angle	20° (Fixed tilt for hull deadrise compensation)
Housing Material	Stainless Steel
Cable Type	Requires Mix and Match Cable (sold separately)
Item Weight	4627 Grams (approx. 10.2 lbs)
Package Dimensions	19 x 12 x 8 inches (L x W x H)
UPC	801769002171

9. Warranty and Support

This Airmar product is covered by a manufacturer's warranty. For specific details regarding the warranty period and terms, please refer to the warranty documentation included with your product or visit the official Airmar website. Keep your proof of purchase for warranty claims.

For technical support, troubleshooting assistance beyond this manual, or warranty inquiries, please contact Airmar customer service or your authorized Airmar dealer. Contact information can typically be found on the Airmar website or in your product's packaging.

Airmar Website: www.airmar.com (Example link, actual link may vary)