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› ASA Electronics XMH100 Gauge Marine Radio User Manual

ASA Electronics XMH100

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Model: XMH100

INTRODUCTION

The ASA Electronics XMH100 is a robust gauge-style marine radio designed for harsh marine environments. It features AM/FM/WX radio, USB MP3 playback, Bluetooth connectivity, and auxiliary inputs, all housed in a waterproof and UV-resistant chassis with a dimmable backlit LCD control. This manual provides detailed instructions for installation, operation, and maintenance of your XMH100 marine radio.

BOX CONTENTS

Upon unpacking, please verify that all items listed below are present in the box:

- XMH100 Radio Unit
- Radio Mounting Bracket
- Screw Posts (x2)
- Locking Hex Nuts (x2)
- Washers (x2)



Figure 1: XMH100 Box Contents. This image displays the packaging and included components of the ASA Electronics XMH100 marine radio, ensuring all parts are accounted for upon unboxing.

KEY FEATURES

- **Waterproof IPx6:** Designed to withstand powerful water jets, making it suitable for marine environments.
- **Dimmable Backlit LCD Control:** Provides clear visibility in various lighting conditions.
- **AM/FM Tuner (US/EURO):** Supports both US and European frequency bands.
- **24 Programmable Presets:** Store up to 12 AM and 12 FM stations for quick access.
- **Weather Band Tuner:** Receive NOAA weather alerts and forecasts.
- **Electronic Bass, Treble, Balance and Fader Controls:** Customize your audio output.
- **USB MP3 Player:** Play audio files directly from a USB drive.
- **Rear Auxiliary Audio Input (RCA):** Connect external audio devices.
- **Rear Auxiliary Audio Output (RCA):** Connect to external amplifiers or other audio systems.
- **4-Channel Amplified Audio Output:** Provides power for four speakers.
- **Bluetooth (Supports A2DP and AVRCP):** Wireless audio streaming and control from compatible devices.

SETUP AND INSTALLATION

Mounting the Unit

The XMH100 is designed for gauge-style mounting. Ensure the mounting surface is flat and provides sufficient depth for the unit and its wiring. The unit dimensions are 3.602" Diameter and 3.465" Deep. The mounting dimensions require a 3.866" Wide and 4.465" Deep space.

1. Choose a suitable location on your vessel's dashboard or panel.
2. Cut a circular opening of approximately 3.6 inches (91.4 mm) in diameter.
3. Insert the XMH100 unit into the opening.
4. Secure the unit using the provided mounting bracket, screw posts, locking hex nuts, and washers from the rear of the panel.



Figure 2: XMH100 Angled View. This image illustrates the compact design and depth of the XMH100 unit, important for planning installation space.

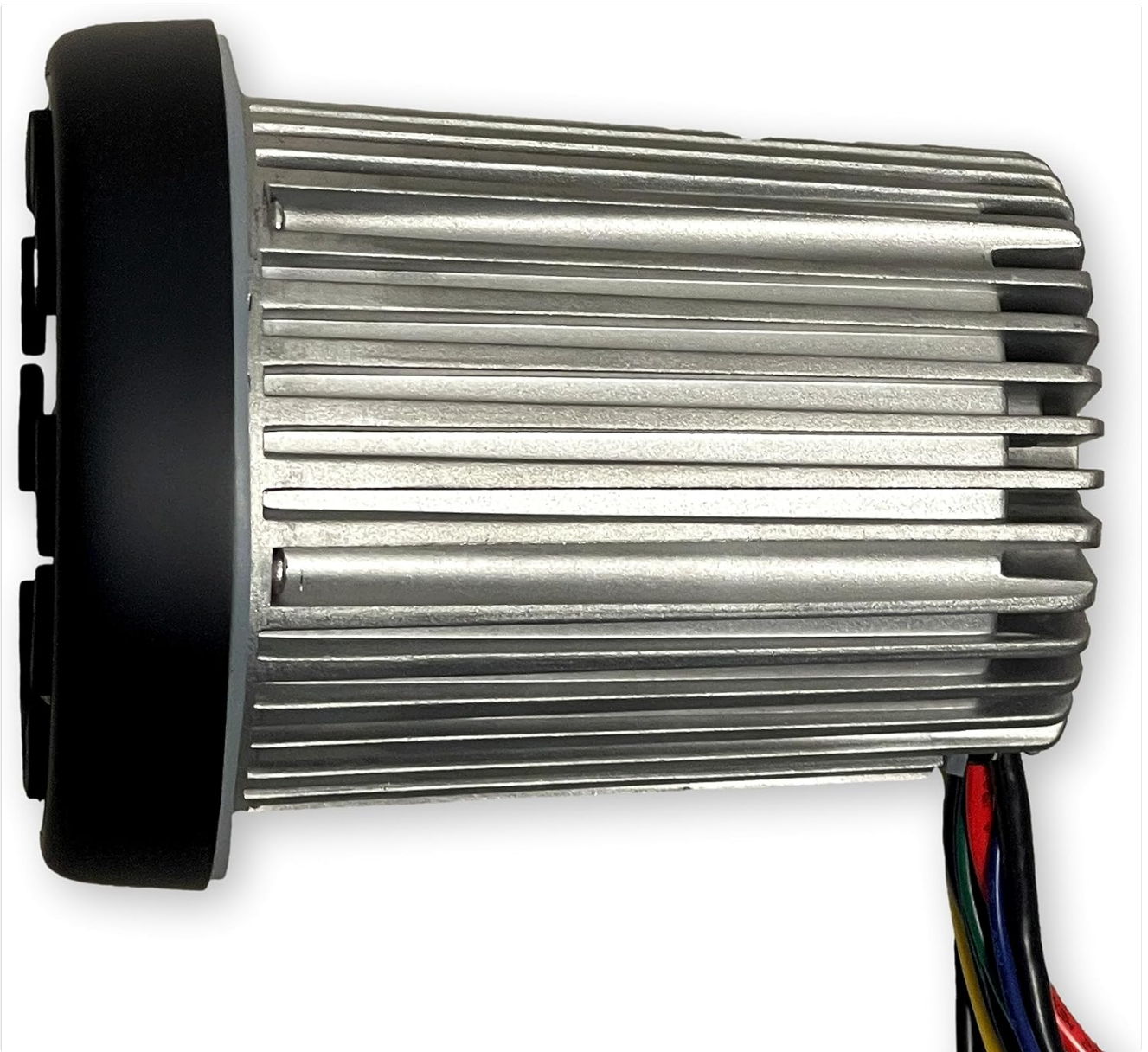


Figure 3: XMH100 Side View. This view emphasizes the robust construction and heat management features of the radio.



Figure 4: XMH100 Rear View. This image details the rear connections and mounting points crucial for proper installation.

Wiring Connections

Proper wiring is essential for the safe and correct operation of your XMH100 radio. Refer to the wiring diagram below for all connections. Ensure all connections are secure and insulated to prevent short circuits.

- **Power (Red):** Connect to a switched 12V DC power source (Accessory).
- **Ground (Black):** Connect to a reliable chassis ground.
- **Power Amp Remote (Blue):** Connect to the remote turn-on lead of an external amplifier, if used.
- **Speaker Outputs (Various Colors):** Connect to your marine speakers. Ensure correct polarity. The amplifier supports 4-8 Ohm speakers, with a 4 Ohm load minimum.

- **Auxiliary Inputs (RCA, Yellow/Red):** Connect external audio sources.
- **Auxiliary Outputs (RCA, Gray/White):** Connect to external amplifiers.
- **USB Input:** For connecting USB storage devices.
- **Antenna Input:** Connect your marine antenna.

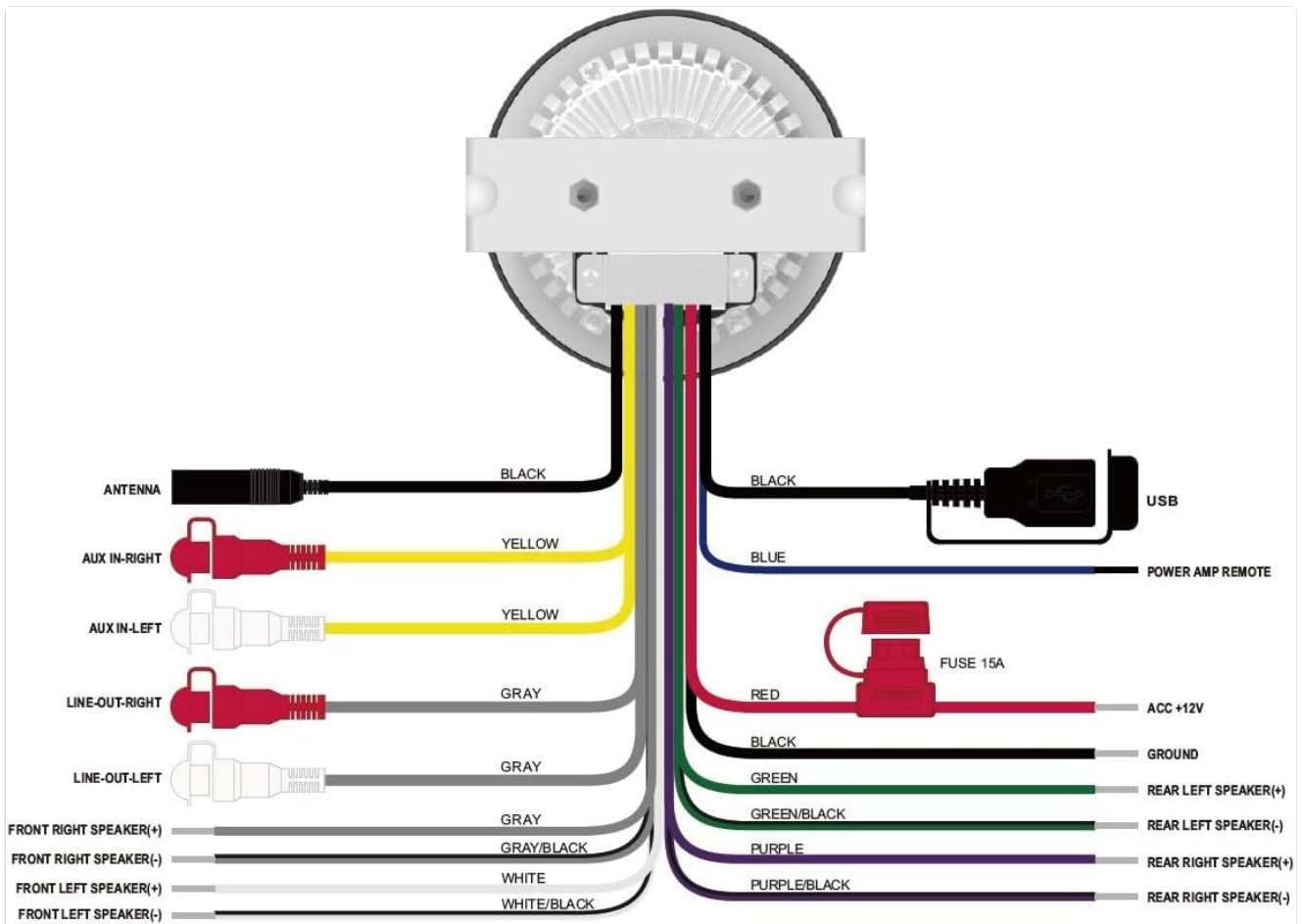


Figure 5: XMH100 Wiring Diagram. This diagram provides a comprehensive guide for all electrical connections, including power, ground, speaker outputs, and auxiliary inputs/outputs.



Figure 6: XMH100 Wiring Harness. This image provides a visual reference for the physical wiring harness, aiding in identification of connections.



Figure 7: XMH100 Unit with Wiring. This image shows the complete unit with its wiring, providing context for installation.

OPERATING INSTRUCTIONS

Control Panel Overview

The XMH100 features an intuitive control panel with a central LCD display and surrounding buttons. Familiarize yourself with the button functions:



Figure 8: XMH100 Control Panel. This image highlights the layout of the buttons and the LCD screen for easy navigation and control.

- **Power Button (⏻)**: Press to turn the unit ON/OFF.
- **Volume Up/Down (+ / -)**: Adjust audio volume.
- **Track Skip/Tune (⏮ / ⏭)**: Skip tracks in USB/Bluetooth mode; tune radio stations in AM/FM/WX mode.
- **Play/Pause/Enter (▶||)**: Play/pause audio; confirm selections.
- **Mode Button (⏏)**: Cycle through available audio sources (AM, FM, WX, USB, Bluetooth, AUX).
- **Bluetooth Button (📶)**: Enter Bluetooth pairing mode.
- **Settings Button (⚙️)**: Access audio and system settings.
- **Star/Preset Button (★)**: Save/recall radio presets.

Radio Operation (AM/FM/WX)

1. Press the **Mode** button to select AM, FM, or WX (Weather Band).
2. Use the **Track Skip/Tune** buttons to manually tune to a station.
3. To auto-seek, press and hold the **Track Skip/Tune** buttons.

4. To save a preset, tune to the desired station, then press and hold the **Star/Preset** button until the preset number flashes. Use the **Track Skip/Tune** buttons to select a preset slot (1-12 for AM/FM), then press **Play/Pause/Enter** to confirm.
5. To recall a preset, short press the **Star/Preset** button and use **Track Skip/Tune** to select.

Bluetooth Operation

1. Press the **Mode** button to select Bluetooth mode. The unit will display "PAIRING".
2. On your Bluetooth device (e.g., smartphone), search for available devices and select "XMH100".
3. Once paired, the unit will display "CONNECTED". You can now stream audio from your device.
4. Use the **Track Skip/Tune** buttons to control playback (next/previous track) and the **Play/Pause/Enter** button to play/pause.

USB MP3 Playback

1. Insert a USB drive containing MP3 audio files into the USB port.
2. Press the **Mode** button to select USB mode. Playback will begin automatically.
3. Use the **Track Skip/Tune** buttons to navigate between tracks.
4. Press the **Play/Pause/Enter** button to play or pause the current track.

Auxiliary Input (AUX)

Connect an external audio device (e.g., portable music player) to the Rear Auxiliary Audio Input (RCA) using appropriate cables.

1. Press the **Mode** button to select AUX mode.
2. Audio from the connected device will now play through the XMH100. Control playback from the external device.

Audio Settings

Press the **Settings** button (⚙️) to access audio adjustments:

- **Bass:** Adjust low-frequency sound levels.
- **Treble:** Adjust high-frequency sound levels.
- **Balance:** Adjust audio distribution between left and right speakers.
- **Fader:** Adjust audio distribution between front and rear speakers.
- **Loudness:** Toggle loudness compensation ON/OFF for enhanced bass and treble at low volumes.
- **Beep:** Toggle button beep sound ON/OFF.
- **Dimmer:** Adjust LCD backlight brightness.

Use the **Track Skip/Tune** buttons to change values and **Play/Pause/Enter** to confirm or cycle through settings.

MAINTENANCE

To ensure the longevity and optimal performance of your XMH100 marine radio, follow these maintenance guidelines:

- **Cleaning:** Use a soft, damp cloth to clean the unit's surface. Avoid abrasive cleaners or solvents, as they may damage the finish or seals.
- **Waterproofing:** While the unit is IPx6 waterproof, ensure all connections are properly sealed and the unit is securely mounted to maintain its water resistance. Do not submerge the unit.
- **Connections:** Periodically check all wiring connections for corrosion or looseness, especially in a marine

environment. Clean and re-secure as necessary.

- **UV Protection:** The unit is UV resistant, but prolonged exposure to direct sunlight can still affect its appearance over time. Consider using a cover when the unit is not in use for extended periods.

TROUBLESHOOTING

If you encounter issues with your XMH100 marine radio, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No Power	Blown fuse; incorrect wiring; no 12V power.	Check the 15A fuse on the red power wire. Verify power and ground connections. Ensure the ignition is on if wired to a switched source.
No Sound	Volume too low; incorrect source selected; speaker wires disconnected; amplifier not powered.	Increase volume. Select the correct audio source. Check all speaker wire connections. If using an external amplifier, ensure its remote turn-on wire is connected and it is powered.
Bluetooth Not Connecting	Device not in pairing mode; XMH100 already paired to another device; interference.	Ensure XMH100 is in Bluetooth pairing mode. Forget "XMH100" on your device and try pairing again. Move closer to the unit.
Poor Radio Reception	Antenna not connected; damaged antenna; interference.	Ensure the marine antenna is securely connected. Check antenna for damage. Move away from sources of electrical interference.
USB Playback Error	Unsupported file format; corrupted USB drive; drive too large.	Ensure files are in MP3 format. Try a different USB drive. Format the USB drive to FAT32.

SPECIFICATIONS

Detailed technical specifications for the ASA Electronics XMH100 marine radio:

- **Power Supply Requirements:** DC 12 Volts, Negative Ground
- **Operating Voltage:** 10-16V DC
- **FM Tuner Tuning Range:** 87.5 to 107.9 MHz
- **FM Tuner Sensitivity:** Less than 5uV
- **FM Tuner Stereo Separation at 1kHz:** Over 30dB
- **AM Tuner Tuning Range:** 530-1710 KHz
- **AM Tuner Sensitivity:** Less than 63uV
- **Amplifier Maximum Output Power:** 180 Watts Total (45 Watts, 4 Channel)
- **Amplifier Output Impedance:** Compatible with 4-8 Ohm Speakers, 4 Ohm Load Minimum
- **Amplifier RMS Power Specs:** 4 x 26 WRMS at 10%THD, 14.4V
- **Unit Dimensions:** 3.602" Diameter, 3.465" Deep (8.79 x 9.14 x 9.14 cm)
- **Mounting Dimensions:** 3.866" Wide, 4.465" Deep
- **Weight:** 1.3 Pounds (589.67 g)
- **Frequency Bands for Bluetooth:** 2.4-2.4835GHz
- **Maximum Radio Frequency Power Transmitted for Bluetooth:** 10 dBm

- **Waterproof Rating:** IPx6
- **Material:** Plastic

WARRANTY AND SUPPORT

ASA Electronics products are manufactured to high quality standards. For information regarding warranty coverage, technical support, or service, please visit the official ASA Electronics website or contact their customer service department. Keep your proof of purchase for warranty claims.

For further assistance, please refer to the official [ASA Electronics website](#) or contact their customer support.