

Fusion MS-RA70NSX

Fusion MS-RA70NSX Marine Entertainment System User Manual

Model: MS-RA70NSX (FUS-010-01516-30)

Brand: Fusion

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Fusion MS-RA70NSX Marine Entertainment System. The MS-RA70NSX is a value-packed marine stereo designed to deliver a quality on-water entertainment experience, incorporating the latest marine technologies. It is engineered to seamlessly replace any standard DIN sized non-marinized stereo without the need to reconfigure dash space. Key features include SiriusXM capability, Bluetooth audio streaming, USB MP3 playback, AM/FM radio, and NMEA 2000 connectivity for integration with compatible Multi-Function Displays.

2. SAFETY INFORMATION

WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

- Always disconnect power before installation or maintenance.
- Ensure proper ventilation around the unit to prevent overheating.
- Use only specified fuses and wiring. Incorrect wiring can cause damage or fire.
- The front panel is IPX7 waterproof when mounted correctly; however, the rear of the unit is not. Protect the rear connections from water exposure.
- Do not attempt to disassemble or modify the unit. This will void the warranty and may cause damage.
- Consult a qualified marine electronics technician for complex installations or troubleshooting.

3. PACKAGE CONTENTS

Verify that all items are present in the package before proceeding with installation:

- Fusion MS-RA70NSX Marine Entertainment System
- Mounting Hardware (screws, gasket)
- Power/Speaker Wiring Harness
- Auxiliary Input Cable
- USB Extension Cable
- Documentation (Quick Start Guide, Warranty Information)

4. PRODUCT OVERVIEW

The Fusion MS-RA70NSX features a user-friendly interface with a rotary encoder and dedicated buttons for easy control. The optically bonded LCD provides clear visibility in marine environments.

4.1 Front Panel Controls and Display



Figure 4.1: Front view of the Fusion MS-RA70NSX Marine Entertainment System, showing the display, rotary knob, and control buttons.

- **Rotary Encoder:** Used for volume control, menu navigation, and selection.
- **Power Button (●):** Press to turn the unit on/off.
- **Play/Pause Button (▶ ||):** Controls playback for supported sources.
- **Skip/Track Buttons (◀◀ / ▶▶):** Skips tracks or tunes radio stations.
- **Source Button (≡):** Selects the audio source (e.g., Bluetooth, USB, AM/FM, SiriusXM).
- **Menu/Settings Button (⚙):** Accesses system settings and options.
- **Display:** Shows current source, track information, radio frequency, and system status.

4.2 Rear Panel Connections



Figure 4.2: Rear view of the Fusion MS-RA70NSX, illustrating the various input and output connections.

The rear panel houses all necessary connections for power, speakers, auxiliary inputs, USB, and NMEA 2000. Refer to the wiring diagram in the Setup section for detailed connection points.

5. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your marine entertainment system. If you are unsure about any step, consult a professional installer.

5.1 Mounting Considerations

- The MS-RA70NSX can be mounted with a conventional flush finish or integrated flat into a glass helm.
- Ensure sufficient space behind the unit for wiring and ventilation.
- The mounting surface must be flat and strong enough to support the unit.
- Use the provided mounting template (if included) for accurate cutout dimensions.

5.2 Wiring Diagram

The following table outlines the typical wiring connections for the MS-RA70NSX. Always refer to the specific wiring harness labels for accurate connections.

Table 5.1: Wiring Connections

Wire Color	Function	Connection Point
Red	Switched 12V DC (Accessory)	Ignition or accessory power source
Yellow	Constant 12V DC (Battery)	Direct to battery (fused)
Black	Ground	Common ground point
Blue	Remote Turn-On	To amplifier or power antenna remote input
White/White-Black	Front Left Speaker (+/-)	Front Left Speaker
Gray/Gray-Black	Front Right Speaker (+/-)	Front Right Speaker
Green/Green-Black	Rear Left Speaker (+/-)	Rear Left Speaker (Zone 2)

Wire Color	Function	Connection Point
Purple/Purple-Black	Rear Right Speaker (+/-)	Rear Right Speaker (Zone 2)
RCA (Red/White)	Auxiliary Input	External audio device
USB Port	USB Input	USB storage device or compatible smartphone
NMEA 2000 Port	NMEA 2000 Network	To NMEA 2000 backbone

Important: Ensure all connections are secure and insulated to prevent short circuits. Install an appropriate fuse on the constant 12V DC line close to the battery.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off and Volume Control

- **Power On:** Press the ● button.
- **Power Off:** Press and hold the ● button for 2 seconds.
- **Volume Control:** Rotate the large rotary encoder clockwise to increase volume, counter-clockwise to decrease.

6.2 Source Selection

Press the ☰ (Source) button repeatedly to cycle through available audio sources:

- **AM/FM Radio:** Select this source to listen to terrestrial radio broadcasts. Use the skip buttons to tune stations.
- **Bluetooth:** For wireless audio streaming from a compatible device.
- **USB:** For playing audio files from a USB storage device or compatible smartphone.
- **AUX:** For connecting external audio devices via the auxiliary input.
- **SiriusXM:** (Requires optional SiriusXM Connect Vehicle Tuner and subscription, sold separately).

6.3 Bluetooth Pairing

1. Ensure the MS-RA70NSX is powered on and Bluetooth is selected as the source.
2. On your mobile device, enable Bluetooth and search for available devices.
3. Select "Fusion MS-RA70NSX" from the list of devices.
4. Once paired, your device will connect automatically when in range and Bluetooth is selected on the stereo.

6.4 USB Playback

Connect a USB storage device containing MP3 audio files to the USB port. The unit will automatically detect the device and begin playback. Use the skip buttons to navigate tracks and the play/pause button to control playback. The MS-RA70NSX supports Apple iAP2 and Android AOA music protocols for compatible smartphones, allowing control and charging.

6.5 NMEA 2000 Connectivity

The MS-RA70NSX is FUSION-Link NMEA 2000 certified. Connect the unit to an existing NMEA 2000 network to enable on-screen audio control from compatible Multi-Function Displays (MFDs). Refer to your MFD's manual for specific instructions on integrating marine entertainment systems.

6.6 FUSION-Link App Control

Download the free FUSION-Link remote control app for Bluetooth from the Apple App Store or Google Play store. This app allows for localized zone control, source navigation, track selection, and wireless control of the MS-RA70NSX from your connected Apple or Android device.

7. MAINTENANCE

- **Cleaning:** Clean the front panel with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Connections:** Periodically check all wiring connections for corrosion or looseness. Ensure connections are secure and dry.
- **Storage:** If storing the vessel for an extended period, ensure the unit is powered off and protected from extreme temperatures and moisture.
- **Software Updates:** Check the Fusion website periodically for firmware updates to ensure optimal performance and compatibility.

8. TROUBLESHOOTING

This section addresses common issues you might encounter. If the problem persists, contact Fusion support or a qualified technician.

Table 8.1: Common Troubleshooting Steps

Problem	Possible Cause	Solution
No power	Blown fuse, incorrect wiring, no power to accessory/battery line	Check fuses, verify wiring connections, ensure power is supplied to the unit.
No audio output	Volume too low, incorrect source selected, speaker wires disconnected, mute activated	Increase volume, select correct source, check speaker connections, ensure unit is not muted.
Bluetooth not connecting	Device not in pairing mode, unit not in Bluetooth source, interference, previously paired device connected	Ensure device is discoverable, select Bluetooth source on stereo, move closer to unit, disconnect other paired devices.
USB device not recognized	Incompatible format, damaged USB device, incorrect file system	Ensure USB is formatted to FAT32, check for supported audio formats, try a different USB device.
Display issues (dim, flickering)	Power fluctuation, unit overheating, internal fault	Check power supply, ensure adequate ventilation, perform a soft reset (power cycle).

9. SPECIFICATIONS

Technical specifications for the Fusion MS-RA70NSX Marine Entertainment System:

- **Product Dimensions:** 9 x 8 x 5 inches
- **Item Weight:** 2.57 pounds (1.17 Kilograms)
- **Manufacturer:** FUSION
- **Model Number:** FUS-010-01516-30 (MS-RA70NSX)
- **Connectivity Technology:** Auxiliary, Bluetooth, RCA, USB
- **Controller Type:** Android (also compatible with Apple via FUSION-Link app)
- **Special Feature:** RDS (Radio Data System)

- **Compatible Devices:** Smartphone, Speaker
- **Connector Type:** USB
- **Audio Encoding:** Stereo
- **Audio Output Mode:** Stereo
- **Color:** Black
- **Waterproof Rating:** IPX7 (front panel when mounted correctly)
- **NMEA 2000 Certified:** Yes, FUSION-Link compatible
- **SiriusXM Ready:** Yes (requires optional tuner)



10. WARRANTY AND SUPPORT

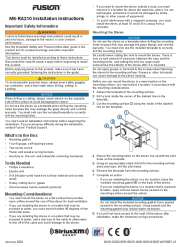
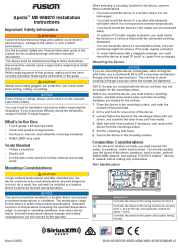


Fusion products are designed and manufactured to the highest standards. For detailed warranty information, please refer to the warranty card included with your product or visit the official Fusion website. For technical support, troubleshooting assistance, or service inquiries, please contact Fusion customer support through their official website or authorized service centers. When contacting support, please have your product model number (MS-RA70NSX) and serial number ready.

Online Resources:

- Official Fusion Website: www.fusionentertainment.com
- FUSION-Link App (Apple App Store): Search for "FUSION-Link"
- FUSION-Link App (Google Play Store): Search for "FUSION-Link"

Related Documents - MS-RA70NSX

	<p>FUSION MS-RA70NSX Owner's Manual Marine Audio System Guide</p> <p>Comprehensive owner's manual and installation guide for the FUSION MS-RA70NSX marine audio system. Learn about setup, operation, connectivity, SiriusXM, Bluetooth, and troubleshooting.</p>
	<p>FUSION MS-NRX200i Marine Wired Remote User Manual & Installation Guide</p> <p>Comprehensive user manual and installation guide for the FUSION MS-NRX200i Marine Wired Remote. Learn about setup, operation, NMEA 2000 connectivity, SiriusXM, and troubleshooting.</p>

	<p>Fusion MS-RA210 Marine Stereo Installation Guide</p> <p>Comprehensive installation instructions for the Fusion MS-RA210 marine stereo system, covering safety, mounting, wiring, and specifications. Learn how to properly install your Fusion audio device on a vessel.</p>
	<p>FUSION Apollo MS-WB670 Installation Instructions Guide</p> <p>Comprehensive installation guide for the FUSION Apollo MS-WB670 marine stereo system, covering safety, mounting, wiring, networking, specifications, and software updates.</p>
	<p>Fusion MS-RA205 Quick Start Manual & Installation Instructions</p> <p>This document provides quick start and installation instructions for the Fusion MS-RA205 marine stereo. It covers precautions, installation steps, wiring diagrams, button descriptions, general operation, radio operation, USB, AUX, iPod/iPhone, Android, and Bluetooth operations, SiriusXM satellite radio, zone operation, troubleshooting, and additional features.</p>
	<p>Fusion Apollo MS-RA800 Installation Instructions</p> <p>This document provides installation instructions for the Fusion Apollo MS-RA800 marine stereo, covering safety information, required tools, installation steps, connection details, and network setup.</p>