

Motorola Solutions AAH11JDC9JA2N

Motorola Solutions R2 Two-Way Radio (Model AAH11JDC9JA2N) User Manual

Digital 64 Channels VHF 136-174MHz

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your Motorola Solutions R2 Two-Way Radio, model AAH11JDC9JA2N. Please read this manual thoroughly before using the radio to ensure proper functionality and to understand all features.

The Motorola Solutions R2 is a digital two-way radio designed for reliable communication, featuring 64 channels and operating in the VHF 136-174MHz frequency range. It is built for durability and clear audio performance in various environments.





Figure 1: Front view of the Motorola Solutions R2 Two-Way Radio.

2. PACKAGE CONTENTS

Verify that your package contains the following items:

- Motorola Solutions R2 Two-Way Radio (Model AAH11JDC9JA2N)
- Microphone
- *(Note: Battery, antenna, and charger may be sold separately or included depending on specific package configuration.)*

3. SETUP

3.1. Attaching the Antenna

1. Align the threaded end of the antenna with the antenna connector on top of the radio.
2. Turn the antenna clockwise until it is finger-tight. Do not overtighten.

3.2. Installing the Battery (if applicable)

1. Ensure the radio is powered off.
2. Align the battery with the battery compartment on the back of the radio.
3. Slide the battery into place until it clicks securely.

3.3. Charging the Battery

Before initial use, fully charge the radio's battery. Use only Motorola Solutions approved chargers.

1. Place the radio (with battery installed) into the charging tray.
2. Ensure the charging indicator light illuminates, indicating proper charging.
3. A full charge typically takes several hours. Refer to your charger's manual for specific charging times.

4. OPERATION

4.1. Power On/Off and Volume Control

1. To power on the radio, rotate the On/Off/Volume knob clockwise until you hear a click.
2. Continue rotating the knob clockwise to increase the volume, and counter-clockwise to decrease it.
3. To power off, rotate the knob counter-clockwise until it clicks.

4.2. Channel Selection

The R2 radio supports 64 channels. To select a channel:

- Rotate the Channel Selector knob (typically located next to the On/Off/Volume knob) to choose the desired channel.
- The radio may announce the channel number or display it if equipped with a screen.

4.3. Transmitting and Receiving

1. To transmit, press and hold the Push-to-Talk (PTT) button located on the side of the radio. Speak clearly into the microphone.
2. Release the PTT button to stop transmitting and return to receive mode.
3. When receiving a transmission, the radio's speaker will output the audio.



Figure 2: The Push-to-Talk (PTT) button is designed for easy activation.

4.4. Key Features and Functions

The Motorola Solutions R2 incorporates several features to enhance communication:

- **SINC+ Noise Suppression:** Utilizes advanced algorithms to reduce background noise for clearer audio.
- **Voice Announcement:** Provides audible feedback for channel changes or feature activation.
- **Programmable Buttons:** The radio features two programmable buttons that can be customized for quick access to frequently used functions (e.g., priority scan, home channel reminder). Refer to your dealer for programming options.
- **Extended Range Direct Mode:** Allows for communication without a repeater, extending direct radio-to-radio range.
- **Dual Capacity Direct Mode:** Doubles the capacity of your 12.5 kHz channel without a repeater.
- **Transmit Interrupt:** Enables a high-priority user to interrupt another conversation for critical messages.
- **Dual Priority Scan:** Monitors two priority channels more frequently while scanning other channels.
- **Keypad Lock:** Prevents accidental button presses.



SLEEK AND TOUGH

ALL-WEATHER CONFIDENCE

Carrying an IP55 rating — and meeting Mil-Std-810 requirements across 11 environmental conditions — the MOTOTRBO R2 is designed to weather diverse work environments. Use with confidence in dusty factories, wet landscaping and more; and with ease, even while wearing gloves. Specially engineered to survive the bumps and bruises of an active workday, the R2's durability means confident, quick communication whenever and wherever you need it.

SLIM & LIGHTWEIGHT

No more dragging around clunky equipment — this radio is as light as it is tough, engineered to survive the harsh conditions of everyday business. Weighing less than 11 ounces with a high-capacity battery, the R2 endured a rigorous Accelerated Life Testing program (ALT), which stimulates up to 5 years of field use. And when connected to an audio accessory, the robust design extends to the dust cover, which rotates to match the slim contour.

FULL-SHIFT LIFE

The MOTOTRBO R2's slim, high-density battery — won't wear down before shift change. And the R2 won't catch you off guard; press the PTT button to see the LED light, which blinks red to signal a low battery charge state.

Figure 3: The R2 radio features SINC+ noise suppression for clear communication in noisy environments.



WORK, UNINTERRUPTED

FOOLPROOF SWEET SPOT

The MOTOTRBO R2's curved push-to-talk (PTT) button has a large sweet spot, making it quick to locate and activate. And if you need further convenience, attach the purpose-built remote speaker mic (RSM) to communicate without reaching for your belt.

SEAMLESS INTEGRATION

Upgrading workforce technology can be costly, and managing a mixed-fleet of devices can be time consuming. MOTOTRBO R2 — whose user interface will be familiar to a workforce using CP200d — is compatible with select MOTOTRBO chargers and audio accessories, which makes for a low-cost, easy to manage migration.

SIMPLIFIED EXPERIENCE

Designed with the user in mind

Pick from a menu of features that help manage a busy day — easy to program and a familiar design, so your team stays productive without interruption.

2 programmable buttons

Priority scan, canned text messaging, rental timer and more



Figure 4: The R2 radio offers programmable buttons for a simplified user experience.

5. MAINTENANCE

5.1. Cleaning the Radio

- Wipe the radio's exterior with a soft, damp cloth.
- Do not use harsh chemicals, solvents, or abrasive cleaners.
- Ensure the radio is powered off and the battery is removed before cleaning.

5.2. Battery Care

- Always use genuine Motorola Solutions batteries and chargers.
- Avoid exposing batteries to extreme temperatures.
- Do not short-circuit battery terminals.
- Dispose of old batteries according to local regulations.

5.3. General Care

- Protect the radio from dust, moisture, and extreme temperatures.

- The radio is rated IP55 for dust and water ingress protection, but it is **not water resistant**. Avoid submerging the radio in water.
- Avoid dropping the radio or subjecting it to severe impacts.



BLOCK OUT THE NOISE

Loud noise can make for unproductive, unsafe workspaces. MOTOTRBO R2's feature SINC+ is a noise suppressor that uses advanced algorithms to single out and eliminate disruptive background noise. Communicate with clarity to stay safe near a punch press, pneumatic drill, bulldozer and more.

GO THE DISTANCE

MOTOTRBO R2 has you covered with clarity and noise suppression, but what if your workforce is spread out over a large warehouse or field? Expect superior range; high receiver sensitivity, high efficiency antennas and high interference immunity promise clear audio over a long distance, even in noisy environments.

KEEP IT CLEAR

With MOTOTRBO R2's selectable audio profiles, you can amplify low, middle or high frequencies to satisfy your listening preference and environment needs. Together with the R2's loud speaker and low distortion, this feature makes sure that your message comes across loud and clear.



Figure 5: The R2 radio is designed to be sleek and tough, meeting Mil-Std-810 requirements and featuring an IP55 rating for dust and water ingress protection.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on.	Battery is depleted or not properly installed.	Charge the battery or ensure it is securely installed.
Cannot transmit or receive.	Incorrect channel selected, out of range, or antenna not attached.	Verify channel, move closer to other radios/repeater, check antenna connection.
Audio is unclear or distorted.	Volume too low/high, SINC+ noise suppression settings, or interference.	Adjust volume, check audio profile settings, move away from sources of interference.
Battery life is short.	Battery is old or not fully charged.	Replace battery if old, ensure full charge before use.

If the problem persists after attempting these solutions, contact Motorola Solutions customer support or your authorized dealer.

7. SPECIFICATIONS

- **Model:** AAH11JDC9JA2N
- **Brand:** Motorola Solutions
- **Frequency Range:** 136 - 174 MHz (VHF)
- **Number of Channels:** 64
- **Talking Range Maximum:** 5 Miles (approximate, varies with terrain and conditions)
- **Voltage:** 7.2 Volts (DC)
- **Item Weight:** Approximately 3 pounds (with standard battery)
- **Package Dimensions:** 12 x 9 x 3 inches
- **Water Resistance Level:** Not Water Resistant (IP55 rated for dust and water ingress protection)

- **Special Features:** Keypad Lock, Portable, SINC+ Noise Suppression, Voice Announcement, Programmable Buttons, Extended Range Direct Mode, Dual Capacity Direct Mode, Transmit Interrupt, Dual Priority Scan, Home Channel Reminder.
- **Environmental Standards:** Meets Mil-Std-810 requirements.

KEY FEATURES

- UHF, VHF
- 64 channels
- Single-site conventional
- Extended Range Direct Mode
- Dual Capacity Direct Mode
- Transmit Interrupt
- Dual priority scan
- Quick Call II / MDC1200 capable

- Secure Enhanced Linux operating system
- Enhanced privacy
- Radio disable/enable
- Remote monitor
- Voice announcement
- Loudness up to 101 phons
- SINC+ noise suppression
- Acoustic feedback suppression

- User selectable audio profiles
- Received audio leveling
- Sleek & ergonomic form factor
- Rugged to MIL-STD 810
- IP55 (dust and water ingress protection)
- 2 programmable buttons
- Home channel reminder
- Rental timer


**MOTOROLA SOLUTIONS**

Figure 6: Overview of key features including frequency bands, channel capacity, and ruggedness standards.



8. WARRANTY AND SUPPORT





For warranty information, please refer to the warranty card included with your product or visit the official Motorola Solutions website. Technical support and service are available through authorized Motorola Solutions dealers.

Online Resources: For additional information, FAQs, and software updates, visit the [Motorola Solutions official website](#).



Related Documents - AAH11JDC9JA2N

<div><div>safer starts here</div><div>PDR8000® Ordering Guide</div><div></div><div>Revision 2.1 April 2024</div></div>	<p>Motorola Solutions PDR8000 Ordering Guide - Part Numbers, Accessories, and Specifications</p> <p>Comprehensive ordering guide for the Motorola Solutions PDR8000 repeater system. Details frequency plans, model mapping, accessories, training, and warranty information.</p>
<div><div>safer starts here</div><div>PDR8000® Ordering Guide</div><div></div><div>Revision 2.1 May 2024</div></div>	<p>Motorola Solutions PDR8000 Ordering Guide</p> <p>Comprehensive ordering guide for the Motorola Solutions PDR8000 repeater system, detailing frequency plans, common options, standalone accessories, training programs, and warranty information. Includes technical specifications for VHF, UHF, 700MHz, and 800MHz bands.</p>

 <p>The image shows the cover of the 'PDR8000* Ordering Guide'. It features a blue header with the Motorola logo and the tagline 'safer starts here'. Below the header, the title 'PDR8000* Ordering Guide' is prominently displayed. Underneath the title, there is a photograph of the PDR8000 device, which is a rugged, black, rectangular unit with a screen and various buttons. The bottom right corner of the cover indicates 'Revision 1.1 February 2023'.</p>	<p>PDR8000 Ordering Guide - Motorola Solutions</p> <p>Comprehensive ordering guide for the Motorola Solutions PDR8000 Portable Digital Repeater, detailing frequency plans, model mapping, standalone accessories, training, and warranty information.</p>
 <p>The image shows the cover of the 'Motorola Advisor TPG2200 Quick Start Guide'. It features a blue header with the Motorola logo. The title 'Motorola Advisor TPG2200 Quick Start Guide' is displayed in a large, bold font. Below the title, there is a photograph of the TPG2200 device, which is a small, black, rectangular unit with a screen and buttons. The bottom right corner of the cover indicates 'Revision 1.1 February 2023'.</p>	<p>Motorola Advisor TPG2200 Quick Start Guide</p> <p>Get started quickly with the Motorola Advisor TPG2200 pager. This guide covers device controls, LED indicators, battery management, and basic terminal operations for efficient communication.</p>
 <p>The image shows the cover of the 'Motorola IMPRES 2 Multi Unit Chargers Safety Leaflet'. It features a blue header with the Motorola logo. The title 'Motorola IMPRES 2 Multi Unit Chargers Safety Leaflet' is displayed in a large, bold font. Below the title, there is a photograph of the IMPRES 2 Multi Unit Chargers, which are two black, rectangular units with multiple charging slots. The bottom right corner of the cover indicates 'Revision 1.1 February 2023'.</p>	<p>Motorola IMPRES 2 Multi Unit Chargers Safety Leaflet</p> <p>Safety and operating instructions for Motorola IMPRES 2 Multi Unit Chargers, including important safety warnings, operational guidelines, and additional information on features and resources.</p>
 <p>The image shows the cover of the 'Motorola Curve Series Two-Way Radio Quick Reference Guide'. It features a blue header with the Motorola logo. The title 'Motorola Curve Series Two-Way Radio Quick Reference Guide' is displayed in a large, bold font. Below the title, there is a photograph of the Curve Series Two-Way Radio, which is a small, black, rectangular unit with a screen and buttons. The bottom right corner of the cover indicates 'Revision 1.1 February 2023'.</p>	<p>Motorola Curve Series Two-Way Radio Quick Reference Guide</p> <p>A quick reference guide for the Motorola Curve Series Two-Way Radio, covering setup, operation, and features like private reply and channel changing.</p>