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› [Radtel RT-900 GMRS Radio User Manual](#)

radtel RT-900

Radtel RT-900 GMRS Radio User Manual

Brand: Radtel | Model: RT-900

1. INTRODUCTION

The Radtel RT-900 GMRS Radio is a professional-grade handheld walkie-talkie designed for long-range communication. It features an 8W high-power transmitter, 256 programmable channels, and support for Air Band and NOAA Weather reception. This manual provides essential information for setting up, operating, and maintaining your RT-900 radio.



Figure 1: Radtel RT-900 GMRS Radio and its components.

2. WHAT'S IN THE Box

- Radtel RT-900 Radio Unit
- 2200mAh Battery
- Professional Belt Clip
- Desktop Charger
- Antenna
- Type-C Charging Cable
- User Manual (this document)

3. KEY FEATURES

- **Professional-Grade Long Range & Aviation Band Support:** 8W high-power transmitter covering up to 5 miles in open areas. Features 256 programmable channels, including aviation radio bands (108-136MHz AM).
- **Smart VOX Hands-Free & Noise Cancellation:** Voice Activated Operation (VOX) for hands-free

communication. Advanced noise reduction technology ensures clear voice transmission.

- **Dual Programming + NOAA Weather:** Supports programming via Bluetooth app (iOS/Android) and PC software (CHIRP protocols compatible). Preloaded with NOAA weather channels.
- **Durability & Color LCD Display:** 1.77-inch color LCD displays real-time radio data, battery status, and functions. Ergonomic, lightweight (440g) and rugged construction for outdoor use.
- **2200mAh Long-Lasting Battery:** Provides 16-hour continuous usage with convenient USB-C fast charging.

Figure 2: Overview of RT-900 GMRS features.

4. SETUP GUIDE

4.1 Battery Installation and Charging

Before first use, fully charge the 2200mAh battery. Connect the Type-C charging cable to the radio and a compatible USB power source (e.g., wall adapter, computer, car charger). The charging indicator will show status.



Figure 3: Type-C charging of the RT-900 radio.

4.2 Antenna Attachment

Screw the antenna clockwise into the antenna connector on top of the radio until it is finger-tight. Do not overtighten.

4.3 Initial Power On

Rotate the power/volume knob clockwise to turn on the radio. Adjust the knob to set the desired volume level.

4.4 Programming Channels

The RT-900 supports dual programming modes:

- **Bluetooth App Programming:** Use the dedicated mobile app (available for iOS and Android) to configure channels and settings via Bluetooth.
- **PC Software Programming:** Connect the radio to a computer using a programming cable (not included) and use compatible PC software (e.g., CHIRP) for advanced channel management.



Figure 4: Programming the RT-900 via a smartphone app.

For Android users, the app can be downloaded from: [Radtel Android App](#)

Video: RT900 programming on PC

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This video demonstrates the process of programming the Radtel RT-900 radio using PC software, including connecting the radio and reading/writing data.

5. OPERATING INSTRUCTIONS

5.1 Basic Communication

- **Channel Selection:** Use the up/down arrow keys to navigate through programmed channels.
- **Push-to-Talk (PTT):** Press and hold the PTT button on the side of the radio to transmit. Release to listen.
- **Volume Adjustment:** Rotate the top knob to adjust the listening volume.

5.2 Display and Modes

The 1.77-inch color LCD provides clear information on current frequencies, channel numbers, channel names, battery status, and various function indicators.



Figure 5: Large LCD display showing multi-display options.

Video: RT-900 GMRS Display Video

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This video showcases the various display modes and information presented on the RT-900's color LCD screen.

Video: Switch between RT900 VFO mode and MR mode

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This short video demonstrates how to switch between VFO (Variable Frequency Oscillator) mode and MR (Memory Recall) mode on the RT-900 radio.

5.3 Advanced Functions

- VOX (Voice Operated Exchange):** Enables hands-free transmission when your voice is detected. Activate and adjust sensitivity through the radio's menu or programming software.
- NOAA Weather Receiver:** Access NOAA weather channels for real-time weather alerts and forecasts.
- Air Band Reception:** Listen to aviation communications on the 108-136MHz AM band.
- FM Radio:** The radio includes an FM broadcast receiver for entertainment.



Figure 6: Air Band Receive capability.

Video: Frequency Expansion for RT900

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This video demonstrates how to expand the frequency range of the RT-900 radio, allowing access to additional frequencies

6. MAINTENANCE

- Cleaning:** Use a soft, damp cloth to clean the radio's exterior. Do not use harsh chemicals or solvents.
- Battery Care:** To prolong battery life, avoid fully discharging the battery frequently. Store the radio and battery in a cool, dry place when not in use for extended periods.
- Storage:** Store the radio in a dry environment, away from direct sunlight and extreme temperatures.
- Antenna Care:** Ensure the antenna is securely attached. Avoid bending or forcing the antenna, as this can damage the connector.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on.	Low or dead battery; incorrect battery installation.	Charge the battery fully. Ensure the battery is correctly installed.
Cannot transmit or receive.	Incorrect frequency/channel; antenna not connected; out of range; squelch too high.	Verify frequency/channel settings. Ensure antenna is secure. Move closer to other radios. Adjust squelch level.
Poor audio quality / Noise.	Weak signal; interference; squelch setting.	Move to an area with better signal. Check for sources of interference. Adjust squelch. Ensure noise reduction is enabled if desired.
Radio locks up or malfunctions.	Software glitch; internal issue.	Perform a soft reset (power off, remove battery, wait 30 seconds, reinsert battery, power on). If issues persist, contact customer support.

8. SPECIFICATIONS

- Brand:** Radtel
- Model:** RT-900
- Item Weight:** 15.2 ounces
- Product Dimensions:** 0.13 x 0.17 x 0.86 inches
- Country of Origin:** China
- Batteries:** 1 x 9V battery (included)
- Number of Channels:** 256
- Special Feature:** Type-C charging
- Frequency Range:** 462/467MHz TX/RX (GMRS), 108-136MHz AM (Air Band Receive)
- Talking Range Maximum:** 8 Kilometers (approx. 5 miles in open areas)
- Tuner Technology:** AM/FM
- Water Resistance Level:** Not Water Resistant

9. WARRANTY & SUPPORT

The Radtel RT-900 GMRS Radio comes with a **1-Year Warranty**. Radtel also offers **lifetime firmware upgrades** and **24/7 expert technical support** for worry-free ownership.

For technical assistance or warranty claims, please refer to the contact information provided with your purchase or visit the official Radtel website.