

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.

GMRS
RT-900 APP Program
8W POWER

UV full frequency band
462/467MhzTX/RX

Copy Frequency

Aviation band

256 Channel

2200mAh

Type-c charging

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.