

Radtel RT-4D

Radtel RT-4D DMR Dual Band Two-Way Radio User Manual

Model: RT-4D

1. INTRODUCTION

The Radtel RT-4D is a versatile DMR (Digital Mobile Radio) dual-band two-way radio designed for reliable communication. It supports both analog and digital modes, offering 1024 channels and dual time slot functionality (Tier 1 and Tier 2). This manual provides essential information for setting up, operating, and maintaining your RT-4D radio.

2. WHAT'S IN THE BOX

Upon unboxing your Radtel RT-4D radio, please verify that all components are present:

- 2x Radtel RT-4D Radio Units
- 2x Rechargeable Batteries (12V)
- 2x Charging Docks
- 2x Antennas
- 2x Belt Clips
- 2x USB Type-C Cables
- 2x User Manuals (this document)



Image: The complete package contents for the Radtel RT-4D, showing two radio units along with their accessories.

3. PRODUCT OVERVIEW

The Radtel RT-4D radio features a robust design with a clear display and intuitive controls. Familiarize yourself with the radio's components for optimal use.

3.1 Key Features

- **Dual Band Operation:** Supports both UHF and VHF frequencies.
- **Analog and Digital Modes:** Seamlessly switch between traditional analog and advanced DMR digital communication.
- **1024 Channels:** Ample capacity for various communication needs.
- **Dual Time Slot (Tier 1 & 2):** Enhances communication efficiency in digital mode.
- **AES 128/256 Encryption:** Provides secure communication.

- **User-Friendly Interface:** Intuitive controls and clear display for ease of use.

DIGITAL ENCRYPTION SAFETY

Avoid Cross-Interference of
Frequency and Channels & Anti-spy



Image: The radio's display highlighting digital encryption capabilities, designed to prevent cross-interference and enhance privacy.

2 TIME-SLOT DIGITAL/ANALOG SIGNAL COMPATIBLE

High/Low Power Switching
Strong Penetration

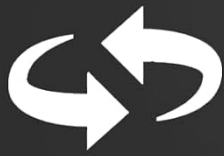


Image: The radio's screen indicating its compatibility with both digital and analog signals, featuring dual time slots and high/low power switching.



DMR+ANALOG DUAL MODE RADIO

DMR Digital + Analog Handheld Radio

RT-4D

Image: The Radtel RT-4D, a handheld radio capable of operating in both DMR digital and analog modes.

4. SETUP

4.1 Battery Installation

1. Ensure the radio is powered off.
2. Align the battery pack with the grooves on the back of the radio.
3. Slide the battery pack upwards until it clicks into place.
4. To remove, press the battery release latch and slide the battery downwards.

4.2 Charging the Battery

1. Insert the battery (or radio with battery installed) into the charging dock.
2. Connect the USB Type-C cable to the charging dock and a compatible power source.

3. The charging indicator light will show the charging status (e.g., red for charging, green for fully charged).
4. A full charge typically takes several hours. Do not overcharge.

4.3 Antenna Attachment

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

5. OPERATING INSTRUCTIONS

5.1 Power On/Off and Volume Control

- **Power On:** Rotate the Power/Volume knob clockwise until you hear a click. The display will illuminate.
- **Power Off:** Rotate the Power/Volume knob counter-clockwise until you hear a click. The display will turn off.
- **Volume Adjustment:** Rotate the Power/Volume knob to increase (clockwise) or decrease (counter-clockwise) the audio volume.

5.2 Channel Selection

- Use the Up/Down arrow keys on the keypad to navigate through available channels.
- Alternatively, enter the desired channel number directly using the numeric keypad.

5.3 Mode Switching (Analog/Digital)

The RT-4D supports both analog and digital modes. The current mode is typically displayed on the screen. Refer to the radio's menu system for specific instructions on how to switch between modes, as this may vary based on firmware version.

5.4 Making Calls

The RT-4D supports various call types in digital mode:

- **Single Call:** Direct communication with a specific radio user.
- **Group Call:** Communication with a predefined group of radio users.
- **All Call:** Broadcast message to all radios within range.

To initiate a call:

1. Select the desired channel and contact (for Single/Group calls).
2. Press and hold the Push-to-Talk (PTT) button on the side of the radio.
3. Speak clearly into the microphone.
4. Release the PTT button to listen for a response.

SINGLE/GROUP/ALL CALL MULTIPLE CALLING CHOICES



Single call group call group call communication function can be set according to their own needs

SINGLE CALL

Add Friend, Call Alone



GROUP CALL

Create Calling Group for All Member



ALL CALL

Up to 500 Contacts



Image: The radio's display illustrating the options for single, group, and all calls, allowing users to select communication based on their needs.

5.5 Advanced Functions

- **Spectrum Functions / TX Test:** The radio includes features for testing signals across different frequencies. Refer to the detailed menu for access.
- **Remote Sub-Tone Decoding:** Allows for quick matching and decoding of remote sub-tones.

SPECTRUM FUNCTIONS TX TEST

Testing Signal of Different Frequencies



Image: The radio's screen showing spectrum analysis and TX test functions, useful for evaluating signal performance across various frequencies.

ONE-CLICK DETECTING REMOTE SUB-TONE DECODING

Quick Matching,
Quick Decoding



Image: Two Radtel RT-4D radios demonstrating the one-click remote sub-tone detection and decoding feature for quick signal matching.

6. MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the radio's exterior. Do not use harsh chemicals or solvents.
- **Battery Care:** Store batteries in a cool, dry place. Avoid fully discharging batteries for extended periods.
- **Antenna:** Ensure the antenna is securely attached but not overtightened. Avoid bending or damaging the antenna.
- **Storage:** When not in use for extended periods, remove the battery and store the radio in a dry, dust-free environment.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on	Low or dead battery; Incorrect battery installation	Charge the battery; Reinstall the battery correctly
Cannot transmit or receive	Incorrect channel/frequency; Antenna not attached; Out of range; Mode mismatch (Analog/Digital)	Verify channel and frequency settings; Attach antenna securely; Move closer to other radios; Ensure radios are in the same mode (Analog or Digital)
Poor audio quality	Weak signal; Obstructions; Low battery	Move to an open area; Charge the battery
Battery drains quickly	Frequent transmission; Old battery; High power setting	Reduce transmission time; Replace battery if old; Use low power setting when possible

8. SPECIFICATIONS

Feature	Specification
Model Number	RT-4D
Brand	Radtel
Number of Channels	1024
Frequency Range	VHF: 136-174 MHz / UHF: 400-470 MHz (Analog/Digital) Analog RX: 108-136 MHz (Aviation AM), 136-520 MHz
Talking Range Maximum	5 Kilometers (approx. 3.1 miles)
Special Features	Dual Band Analog/Digital, Type-C charger, 2000 Contacts, AES 128/256 Encryption
Voltage	12 Volts (DC)
Batteries	2 x 12V batteries required (included)
Item Weight	Approx. 1.98 pounds (for the package)
Package Dimensions	9.45 x 7.09 x 4.33 inches
Water Resistance Level	Not Water Resistant

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The Radtel RT-4D radio comes with a **1-Year Warranty** from the date of purchase. This warranty covers manufacturing defects under normal use. It does not cover damage caused by misuse, accidents, unauthorized modifications, or natural disasters.

9.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Radtel customer support through their official channels. Refer to the packaging or the Radtel website for the most current contact information.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question