

radtel RT-590

Radtel RT-590 Tri-Band Radio User Manual

Model: RT-590

Brand: Radtel

1. INTRODUCTION AND OVERVIEW

The Radtel RT-590 is a versatile tri-band two-way radio designed for a wide range of communication needs. It features extensive frequency coverage, including air band reception, and offers advanced functionalities such as one-key frequency copy, NOAA weather alerts, and cross-band intercom. This manual provides essential information for setting up, operating, and maintaining your RT-590 radio.



Figure 1.1: Radtel RT-590 Tri-Band Radio and Accessories

MULTI BAND RECEPTION RADIO



AM:108-136MHZ RX
FM:50-76MHZ RX
76-108MHZ RX

UHF:400-470MHZ RX
470-600MHZ RX

VHF:136-174MHZ RX
174-350MHZ RX
350-400MHZ RX

Figure 1.2: Multi-Band Reception Capabilities



Villages 5km

is tested in ideal conditions, with optimal conditions and no obstructions.

City 3km

is effected by a large host of factors, and are very hard to quantify.

Mountain range 8km

the weather, radio signals, elevation, foliage, buildings, mountains and more all play a factor.

Figure 1.3: Typical Communication Range Examples



Figure 1.4: Key Features Overview

2. PACKAGE CONTENTS

Upon opening your Radtel RT-590 package, please verify that all the following items are included:

- RT-590 Radio Body x1
- Li-ion Battery Pack x1
- Dual Band Antenna x1
- Belt Clip x1
- ENG Manual x1
- Desktop Charger x1 (110V ~ 240V)
- Handstrap x1



Figure 2.1: Radtel RT-590 Package Contents

3. SETUP

3.1 Battery Installation

1. Align the battery pack with the grooves on the back of the radio body.
2. Slide the battery pack upwards until it clicks securely into place.

3.2 Antenna Attachment

1. Screw the dual-band antenna clockwise onto the antenna connector at the top of the radio until it is finger-tight. Do not overtighten.

3.3 Charging the Battery

Before first use, fully charge the battery. The RT-590 supports charging via the included desktop charger or directly via a USB-C cable (not included).

- **Using the Desktop Charger:** Place the radio with the battery installed into the charging cradle. Ensure the charging indicator light illuminates.
- **Using USB-C:** Connect a compatible USB-C cable to the USB-C port on the side of the radio.



Figure 3.1: USB-C Charging Port

Video 3.1: Radtel RT-590 Radio Setup and Basic Functions. This video demonstrates battery installation, powering on the radio, using the monitor button, activating the flashlight, and showing the Kenwood connector and USB-C port.

4. OPERATING INSTRUCTIONS

CROSS-BAND INTERCOM

Can be used with cross-band repeater
or using only through radio cross-band intercom

Figure 4.2: Cross-band Intercom Function

4.6 NOAA Emergency Weather Receiver

The RT-590 includes a NOAA Emergency Weather Receiver. This feature allows you to receive critical weather alerts and forecasts, providing important safety information during adverse weather conditions.

4.7 Flashlight

The radio is equipped with a built-in flashlight for illumination in low-light conditions. Refer to your specific unit's button layout for activation (often a dedicated button or a long press of a function key).



Figure 4.3: Flashlight and Loudspeaker Details

4.8 Frog Sound Tail Signal

After an intercom transmission concludes, the receiving radio can emit a distinctive 'frog sound' signal. This tone indicates the end of the call, providing clear communication etiquette.

FROG SOUND SIGNAL



After the intercom transmission is over the receiver radio sends out a frog sound signal indicating the end of the call



Figure 4.4: Frog Sound Tail Signal

4.9 CHIRP Programming Support

The Radtel RT-590 is compatible with CHIRP programming software, allowing for advanced customization and channel management via a computer. A standard Baofeng two-prong programming cable can be used.

5. MAINTENANCE

5.1 Cleaning

Regularly clean the radio's exterior with a soft, damp cloth. Avoid using harsh chemicals, solvents, or abrasive cleaners, as these can damage the casing and electronic components.

5.2 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Charge the battery when the low battery indicator appears. If storing the radio for an extended period, remove the battery and store it in a cool, dry place, partially charged.

5.3 Storage

Store the radio in a dry, dust-free environment away from direct sunlight and extreme temperatures. When not in use, ensure the radio is powered off to conserve battery life.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on	Battery is low or not installed correctly.	Ensure battery is fully charged and properly seated.
Cannot transmit or receive	Incorrect frequency/channel, antenna not attached, or radio is out of range.	Verify frequency/channel settings. Check antenna connection. Move closer to the other radio or repeater.
Poor audio quality	Low battery, antenna issue, or interference.	Charge battery. Check antenna connection. Move away from sources of electrical interference.
One-key copy not working	Radios are too far apart.	Ensure radios are within 1 meter distance for the function to work effectively.

7. SPECIFICATIONS

Feature	Detail
Model Number	RT-590
Frequency Range	144-148Mhz/420-450Mhz (TX/RX), 50-600.000MHz (RX only), Air band reception 108-136Mhz
Number of Channels	200
Talking Range Maximum	5 Mile (under ideal conditions)
Item Weight	15.2 ounces
Product Dimensions	4.33 x 1.77 x 4.33 inches
Batteries	1 Lithium Ion battery required (included)
Special Feature	Weather Alert
Water Resistance Level	Not Water Resistant



Figure 7.1: Product Dimensions



Figure 7.2: Detailed Views of the Radio

8. WARRANTY AND SUPPORT

8.1 Warranty Information

The Raddtel RT-590 Tri-Band Radio comes with a 1-year manufacturer's warranty from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

8.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact Radtel Direct customer support. Refer to the contact information provided in your product packaging or visit the official Radtel website for the most up-to-date support details.

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