

Retevis RT73

Retevis RT73 DMR Radio User Manual

Dual Band Mobile Transceiver with GPS APRS

1. INTRODUCTION

This manual provides detailed instructions for the proper use and maintenance of your Retevis RT73 DMR Radio. Please read this manual thoroughly before operating the device to ensure optimal performance and safety.

The Retevis RT73 is a compact and powerful dual-band digital mobile radio designed for vehicle and outdoor use, featuring DMR (Digital Mobile Radio) capabilities, GPS, and APRS functionality.

2. WHAT'S IN THE BOX

Upon unboxing your Retevis RT73, verify that all components listed below are present:

- 1 x RT73 Mini Mobile Radio
- 1 x Hand Microphone
- 1 x Cable & Power cord
- 1 x GPS antenna
- 1 x Instructions (this manual)



Image: The Retevis RT73 radio, hand microphone, power cable, GPS antenna, and user manual, all neatly arranged next to the product box.

3. PRODUCT OVERVIEW

3.1 Key Features

- **DMR Mobile Radio:** Supports both analog and digital working modes.
- **Dual Band Operation:** Operates on 2m (VHF: 136-174 MHz) and 70cm (UHF: 400-480 MHz) frequency bands.
- **GPS APRS Functionality:** Integrated GPS for location information and real-time digital communication.
- **Large Color TFT Screen:** Provides clear visual operation and displays various working states.
- **Customizable Keys:** 7 programmable keys (4 on microphone, 3 on radio base) for quick access to functions.
- **High Capacity:** Supports 200,000 contacts and 4,000 channels.
- **Dual Time Slot:** Efficient communication in digital mode.

- **Compact Design:** Mini size (121.5x73.5x42.5mm) for easy installation in vehicles.
- **Dual Speakers:** Option to use both or one speaker for audio output.

3.2 Components and Controls

Familiarize yourself with the main components and controls of the RT73 radio and its hand microphone.



Image: A close-up of the Retevis RT73 radio's front panel, highlighting its digital and analog working modes on the display.



Image: The Retevis RT73 radio and its hand microphone, with graphical overlays indicating features such as compatibility, dual band, mini size, 4000 channels, 200,000 contacts, and digital transceiver capabilities.

Buttons & Functions



Image: A detailed diagram illustrating the various buttons and functions on both the Retevis RT73 radio unit and its hand microphone, including power on/off, customizable function keys, volume/squelch, tone/T.SEL, B/E key, programming/earpiece jack, rotating knob, menu/confirm key, microphone speaker jack, antenna jack, cooling fan, GPS antenna jack, power input, speaker microphone, PTT key, indicator of speaker microphone, numeric keypad, and customizable function keys of the speaker microphone.

Large TFT Screen & Visual Operation

TFT screen displays various working states, and combine with visual icons for easy use and operation. Support 6 levels adjustable brightness

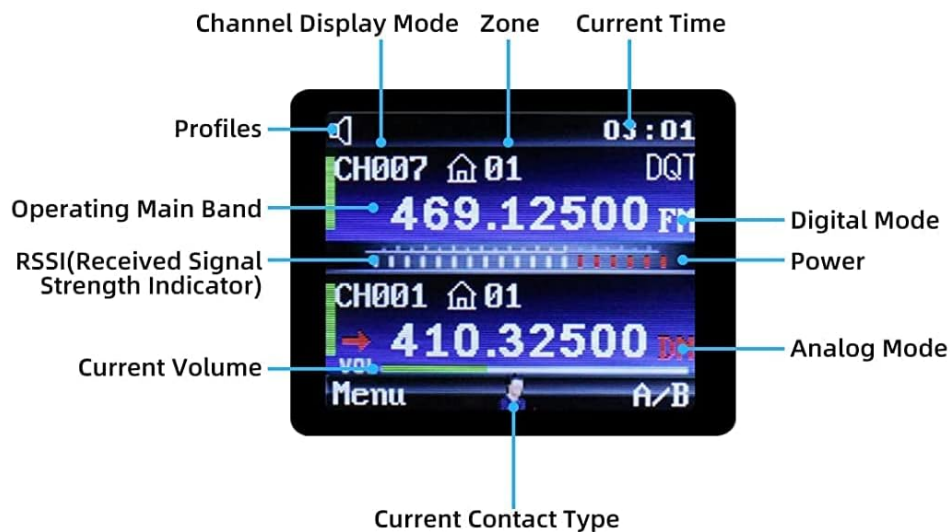


Image: A close-up view of the Retevis RT73's large TFT screen, demonstrating its visual operation and display of channel information, operating main band, RSSI, current volume, digital mode, analog mode, and current contact type.

Hand Microphone:

- **PTT Key:** Push-to-Talk button for transmitting.
- **Numeric Keypad:** For direct frequency input and DTMF functions.
- **P1-P4 Keys:** Four customizable function keys.
- **Speaker Microphone:** Integrated speaker and microphone for communication.

Radio Unit:

- **Rotating Knob:** For channel selection and menu navigation.
- **Power On/Off Button:** Located on the top.
- **P1-P3 Keys:** Three customizable function keys on the top.
- **Volume/Squelch Key:** Adjusts audio output and squelch level.
- **Tone/T.SEL Key:** For CTCSS/DCS settings.
- **B/E Key:** For viewing channel information and switching VFOs.
- **TFT Display:** Color screen for status and menu display.

- **Speaker:** Front-facing speaker.
- **Antenna Jack:** For connecting the main antenna.
- **GPS Antenna Jack:** For connecting the GPS antenna.
- **Cooling Fan:** Located at the rear for heat dissipation.
- **Power Input:** For connecting the power cord.
- **Microphone Speaker Jack:** RJ connector for the hand microphone.

4. SETUP

4.1 Power Connection

1. Connect the provided power cord to the Power Input port on the rear of the RT73 radio.
2. Ensure the power cord is securely connected to a stable 13.8 Volt DC power source.

4.2 Antenna Connection

1. Connect your VHF/UHF antenna to the Antenna Jack on the rear of the radio.
2. Connect the supplied GPS antenna to the GPS Antenna Jack.
3. **Caution:** Do not transmit without an antenna connected to avoid damaging the radio.



Image: The Retevis RT73 DMR radio unit mounted on its bracket, with the coiled cable of the hand microphone connected to the front panel. This image illustrates the compact size and typical setup of the radio.

4.3 Hand Microphone Connection

1. Plug the RJ connector of the hand microphone into the Microphone Speaker Jack on the front of the radio unit.

4.4 Initial Power On

1. Press and hold the Power On/Off button located on the top of the radio until the display illuminates.
2. The radio will perform a self-check and display the main operating interface.

5. OPERATING THE RADIO

5.1 Basic Operation

- **Channel Selection:** Rotate the main knob on the left to select channels.
- **Volume Adjustment:** Press the "VOL/SQL" button on the top, then rotate the main knob to adjust volume. Press again to exit volume adjustment.
- **Squelch Adjustment:** Long press the "VOL/SQL" button, then rotate the main knob to adjust squelch level.
- **Dual VFO Display:** The radio can monitor two frequencies simultaneously. Use the "B/E" button to switch between VFO A and VFO B for active control.

5.2 Digital Mobile Radio (DMR)

The RT73 supports DMR Tier II, allowing for digital communication with two time slots.

- **Contacts and Channels:** The radio supports up to 200,000 contacts and 4,000 channels, enabling single calls, group calls, and all calls.
- **Promiscuous Mode:** Allows listening to DMR traffic without needing specific group contact information.
- **Dual Time Slot:** Utilizes two time slots for efficient use of frequency spectrum.

5.3 GPS and APRS Functionality

The integrated GPS antenna allows the radio to receive location information, which can be used for APRS (Automatic Packet Reporting System) for real-time digital communication and location tracking, especially useful in areas with weak signals.



Image: The Retevis RT73 radio with a graphical representation of GPS functionality, showing a map in the background, indicating its ability to provide location information.

5.4 Customizable Keys

The RT73 features 7 customizable keys (P1, P2, P3 on the radio unit; P1, P2, P3, P4 on the hand microphone). These keys can be programmed for various functions, with both short press and long press options, to suit your operational needs.



Image: A visual representation highlighting the definable keys on the Retevis RT73 radio and its hand microphone, emphasizing the dual

band (2m and 70cm) and support for promiscuous mode and dual speaker design.

5.5 Menu Navigation

Access the radio's settings and features through the menu system using the rotating knob and selection buttons.

- **Scan:** Configure and initiate channel scanning.
- **Zone & Channel Select:** Manage and select operating zones and channels.
- **Local Settings:** Adjust language, keypad lock, backlight, LED indicators, display modes, VOX, and perform factory reset.
- **Parameters:** Set Time-Out Timer (TOT), power level, squelch level, band settings, busy channel lockout (BCLO), and signaling.
- **Tone & Sound Settings:** Customize key tones and other audio alerts.
- **Appendix:** Access GPS information, FM radio, date and time settings, and configure audio output between radio speaker, microphone speaker, or both.
- **Device Info:** View firmware version and other device details.
- **Channel Edit:** Edit and program channel parameters directly on the radio.

Your browser does not support the video tag.

Video: "How about retevis RT73 mobile radio?" - An official video from Retevis Direct demonstrating the features and operation of the RT73 mobile radio, including its display, controls, and various functions. This video provides a visual guide to the radio's capabilities.

6. MAINTENANCE

6.1 Cleaning

- Use a soft, dry cloth to clean the radio's exterior.
- Do not use harsh chemicals or abrasive cleaners.

6.2 Storage

- Store the radio in a cool, dry place away from direct sunlight and extreme temperatures.
- Ensure the radio is powered off before storage.

6.3 Firmware Updates

Periodically check the official Retevis website for firmware updates to ensure optimal performance and access to new features. Firmware updates typically require a programming cable and specific software.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on.	No power connection or insufficient voltage.	Check power cable connection and ensure 13.8V DC supply.
No audio output.	Volume too low, squelch too high, or speaker issue.	Increase volume, lower squelch, check speaker connection, or try external speaker.
Cannot transmit.	Antenna not connected, incorrect frequency/channel, or busy channel lockout active.	Connect antenna, verify channel settings, or disable BCLO.

Problem	Possible Cause	Solution
GPS not acquiring signal.	GPS antenna not connected or obstructed view of sky.	Ensure GPS antenna is connected and placed with clear view of the sky.

If problems persist after attempting these solutions, please contact Retevis customer support.

8. SPECIFICATIONS

Feature	Detail
Model Number	RT73
Brand	Retevis
Frequency Range	VHF: 136-174 MHz, UHF: 400-480 MHz
Number of Channels	4000
Contacts	200,000
Display Type	LCD (Color TFT Screen)
Item Weight	11.5 ounces
Product Dimensions	4.78 x 2.89 x 1.67 inches
Voltage	13.8 Volts
Tuner Technology	DMR
Special Features	DMR Radio, Mini mobile radio, 2-time slot, GPS/APRS, Promiscuous mode

9. WARRANTY AND SUPPORT

Retevis provides a **2-year warranty** for the radio body and a **1-year warranty** for accessories. You are eligible for a 30-day no-reason return policy.

For any inquiries, technical assistance, or warranty claims, please contact Retevis customer support via Amazon. They aim to reply within 12 hours.

For more information, visit the official [Retevis Store on Amazon](#).

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