



Manuals.plus /

› Retevis /

› Retevis RT3S DMR Radio: Analog and Digital Combined Amateur Radio Instruction Manual

Retevis RT3S

Retevis RT3S DMR Radio: Analog and Digital Combined Amateur Radio Instruction Manual

MODEL: RT3S

1. Introduction

The Retevis RT3S is a versatile dual-band digital and analog amateur radio designed for reliable communication. It supports Digital Mobile Radio (DMR) technology, including MOTOTRBO Tier I and II series, and offers features like dual time slots for repeaters, extensive channel capacity, and programmable functions. This manual provides essential information for setting up, operating, and maintaining your RT3S radio.

2. What's in the Box

Upon opening your Retevis RT3S package, you should find the following items:

- 1 x Retevis RT3S Walkie-Talkie
- 1 x Battery
- 1 x Adapter
- 1 x Antenna
- 1 x Charger
- 1 x Belt Clip
- 1 x Lanyard
- 1 x User Manual

PACKAGE DETAILS



Figure 2.1: Contents of the Retevis RT3S package, including the radio, battery, charger, antenna, belt clip, lanyard, and user manual.

Video 2.1: An unboxing demonstration of a Retevis RT95 radio, showing the typical contents and accessories included in a Retevis radio package. The RT3S package contents are similar.

3. Product Features

- The RT3S DMR amateur radio features 3000 channels, channel scanning, and a DTMF keypad. It is compatible with MOTOTRBO Tier I and II series.
- Switchable digital/analog mode. Supports text messages in digital mode, providing clearer voice communications.
- Equipped with a 2000 mAh lithium battery, offering up to 16 hours of working time and 48 hours of standby time.
- The DMR walkie-talkie can monitor signals on two channels and combine U-U / U-V / V-V in both digital and analog modes to prevent missing call information.
- Group call and all calls; 10,000 contacts; multifunctional communication. All can be easily managed to improve work efficiency.
- 2 time slots; CTCSS/DCS and DTMF function to filter irrelevant signals.

- The recording function helps remember important conversations and allows for repeated listening.
Supports PC and manual settings.



The advertisement features a dark red background with white and yellow text and icons. On the right side, a Retevis RT3S radio is shown vertically, displaying a screen with the following information: 'A 435.52500', '144.42500', 'Zone1', '23/02/2000 20:53:02', and a 'Menu' button. The radio has a black antenna, two side buttons, and a standard numeric keypad.

RT3S

- Dual band digital radio
- Programmable side buttons
- Up to 3000 channels
- Single/group/all call in digital mode (TDMA) digital function
- Dual time slot for repeater
- Dual time slot for point to point
- Compatible with Mototrbo Tier I & II
- Analog and digital combined
- Emergency Alarm

DMR AMATEUR RADIO

RETEVIS

RT3S

Figure 3.1: Visual representation of the Retevis RT3S radio highlighting its dual-band digital capabilities, programmable side buttons, up to 3000 channels, single/group/all call in digital mode, dual time slot for repeater, point-to-point communication, MOTOTRBO Tier I & II compatibility, analog and digital combined modes, and emergency alarm function.



Figure 3.2: The dual-band display interface of the Retevis RT3S, showing simultaneous frequency readings for both VHF (144.47500) and UHF (435.52500) bands.



Figure 3.3: Illustration of the Retevis RT3S's 2000mAh battery, indicating up to 16 hours of working time and 48 hours of standby time.



Figure 3.4: Two Retevis RT3S radios demonstrating their capability to operate in both analog and digital modes, ensuring compatibility with various communication systems.



Figure 3.5: The Retevis RT3S radio showcasing its capacity for 3000 channels and 10,000 contacts, facilitating extensive communication networks.



Figure 3.6: An illustration depicting the long-distance communication capabilities of the Retevis RT3S, suitable for various environments including city, suburbs, and seaside.

4. Setup

4.1. Battery Installation

Align the battery with the grooves on the back of the radio and slide it into place until it clicks securely. To remove, press the release latch and slide the battery off.

4.2. Antenna Attachment

Screw the antenna clockwise onto the connector on top of the radio until it is firmly seated. Do not overtighten.

4.3. Charging the Battery

Connect the adapter to the charger base, then plug the adapter into a power outlet. Place the radio (with battery installed) into the charger base. The indicator light on the charger will show the charging status (typically red for charging, green for fully charged).

4.4. Initial Programming (Optional)

While basic functions can be set directly on the radio, advanced features and a large number of

contacts/channels are best programmed using a PC with the appropriate software and programming cable. The RT3S supports importing up to 500,000 contacts via CSV file.

Video 4.1: A demonstration of programming contacts and setting Talker Alias on a Retevis Ailunce H1 radio, which shares similar programming capabilities with the RT3S. This video illustrates how to manage a large contact list (up to 500,000 contacts) via PC software.

5. Operating Instructions

5.1. Power On/Off and Volume Control

Rotate the Power/Volume knob clockwise to turn the radio on and increase volume. Rotate counter-clockwise to decrease volume and turn the radio off.

5.2. Channel Selection

Use the Channel-selecting knob on top of the radio to navigate through available channels. Alternatively, use the keypad for direct channel input or menu navigation.

Video 5.1: A demonstration of channel adjustment and VFO mode operation on a Retevis HA1UV radio, illustrating similar controls and display functionality to the RT3S.

5.3. Push-to-Talk (PTT) Button

Press and hold the PTT button on the side of the radio to transmit. Release it to receive.

5.4. Programmable Side Keys

The RT3S features programmable side keys that can be customized for quick access to various functions such as scanning, alarm, or other settings. Refer to the programming software for configuration options.

5.5. Digital and Analog Mode Switching

The radio supports both digital (DMR) and analog modes. This can typically be switched via the menu settings or pre-programmed channels.

5.6. Contact Management and Calls

The RT3S supports individual calls, group calls, and all calls. Contacts can be managed through the radio's menu or via PC software.

Video 5.2: A demonstration of various features on a Radtel RT-6D radio, including contact management for single, group, and all calls, which are also available on the Retevis RT3S.

5.7. Scanning Function

Activate the scanning function to monitor active channels within a programmed zone or frequency range. This can be assigned to a programmable side key for quick access.

Video 5.3: A demonstration of spectrum scanning on a Radtel RT-880G radio, showcasing how to receive and observe frequencies emitted by other devices. This feature is similar on the Retevis RT3S.

5.8. NOAA Weather Channel Reception

The RT3S can receive NOAA weather forecast channels (where available) to keep you informed of real-time weather changes.

Video 5.4: A demonstration of receiving NOAA Weather Channels on a Radtel RT-880G radio, a feature also supported by the Retevis RT3S.

5.9. Encryption (DMR Mode)

In DMR mode, the RT3S supports ARC/AES-128/AES-256 encryption for secure communications. This setting is configured via the programming software.

Video 5.5: A demonstration of encryption settings (ARC/AES-128/AES-256) on a Radtel RT-6D radio, illustrating a feature available for secure digital communication on the Retevis RT3S.

6. Maintenance

6.1. Cleaning

Wipe the radio's surface with a soft, damp cloth. Do not use harsh chemicals or solvents. Ensure the radio is dry before use or charging.

6.2. Battery Care

To prolong battery life, avoid overcharging or completely discharging the battery. Store the radio and battery in a cool, dry place when not in use for extended periods.

6.3. Antenna Care

Ensure the antenna is securely attached. Avoid bending or twisting the antenna excessively, as this can damage the connector or the antenna itself.

7. Troubleshooting

7.1. No Power

- Check if the battery is properly installed and charged.
- Ensure the Power/Volume knob is turned on.

7.2. Cannot Transmit or Receive

- Verify that the antenna is correctly attached.
- Check if the radio is on the correct channel and frequency.
- Ensure the battery has sufficient charge.
- Confirm that the squelch level is set appropriately.

7.3. Poor Audio Quality

- Adjust the volume level.
- Check for obstructions between radios or interference sources.
- Ensure the microphone and speaker are clear of debris.

8. Specifications

Feature	Specification
Brand	Retevis
Color	Black
Number of Channels	3000
Special Feature	Digital
Frequency Spectrum	144-146 MHz / 430-440 MHz
Maximum Talk Range	5 Kilometers
Voltage	7.4 Volts (DC)
Water Resistance Level	Not water resistant
Product Dimensions (DxWxH)	61P x 36l x 131H mm
Number of Batteries	1 Lithium Ion (included)
Compatible Devices	DMR radio and analog walkie-talkies
Average Battery Life	48 Hours (standby)
Broadcast System	DAB (Note: This specification may be a generic listing and not directly applicable to all radio functions.)
Connectivity Protocol	DMR
Item Weight	820 Grams
Model Number	EUA9110E-J9110P
UPC	609378743702
Country of Origin	China

9. Warranty and Support

Retevis provides a 2-year warranty for the radio body and a 1-year warranty for accessories. A 30-day no-reason return policy is also offered. Beyond the warranty period, maintenance services are available, with buyers responsible for associated costs. For support, please contact Retevis through Amazon, and a response will be provided within 12 hours.