

## Retevis RT622

# Retevis RT622 PMR446 Two-Way Radio User Manual

Model: RT622

## 1. INTRODUCTION

The Retevis RT622 is a compact and lightweight PMR446 two-way radio designed for clear and reliable communication. This license-free radio features a durable build, VOX hands-free operation, and a long-lasting rechargeable battery, making it suitable for various applications from outdoor activities to professional use in environments like restaurants or schools.

Key features include:

- **Compact and Lightweight:** Weighs only 113g and measures 2.14cm wide, making it highly portable.
- **PMR446 License-Free:** Operates on PMR446 frequencies, ready for use out of the box.
- **Clear Sound:** Built-in CTCSS/DCS for filtering unwanted signals and ensuring crisp audio.
- **VOX Hands-Free:** Automatically transmits when voice is detected, eliminating the need to press the PTT button.
- **Rechargeable Battery:** Equipped with a 1000mAh Li-ion battery for extended standby and usage times.
- **User-Friendly:** Simple operation with quick access to multiple functions via side buttons and keyboard shortcuts.
- **Durable Design:** Constructed from robust ABS anti-fall material for comprehensive protection.

## 2. SAFETY INFORMATION

Please read and understand all safety instructions before using your Retevis RT622 two-way radio. Failure to follow these instructions may result in injury, damage to the radio, or voiding your warranty.

- **Battery Safety:** Use only the specified battery and charger. Do not short-circuit, incinerate, or disassemble the battery.
- **Charging:** Charge the radio in a well-ventilated area. Do not charge in extreme temperatures.
- **Antenna:** Do not touch the antenna during transmission.
- **Interference:** Turn off the radio in areas where radio devices are prohibited, such as hospitals or aircraft.

- **Water Exposure:** While water repellent (IPX4), avoid submerging the radio in water.
- **Disassembly:** Do not attempt to disassemble or modify the radio. Repairs should only be performed by authorized personnel.
- **Hearing Protection:** Keep the volume at a moderate level to avoid hearing damage, especially when using earpieces.

### 3. PACKAGE CONTENTS

Upon unpacking your Retevis RT622 Two-Way Radio, please verify that all items listed below are present and in good condition:

- 2 x Retevis RT622 Two-Way Radio
- 2 x Lithium Battery
- 2 x Type-C Charging Cable
- 2 x Belt Clip
- 1 x User's Manual

### 4. PRODUCT OVERVIEW

Familiarize yourself with the components of your Retevis RT622 radio:



Figure 1: Retevis RT622 Radio Components

- **Antenna:** For transmitting and receiving signals.
- **Power/Voice Volume Knob:** Rotate to turn the radio on/off and adjust volume.
- **Charger Light / Signal Light:** Indicates charging status or signal activity.
- **PTT Key (Push-to-Talk):** Press and hold to transmit, release to receive.
- **Speaker:** Outputs received audio.
- **MIC / Speaker Port:** For connecting external audio accessories.
- **Microphone:** For voice input during transmission.
- **Channel Selector Plus (+):** Increases the channel number.
- **Channel Selector Reduce (-):** Decreases the channel number.
- **Lock Key:** Used in combination with channel buttons for specific functions like keypad lock.
- **USB Plug:** Type-C port for charging.
- **Charger Connector:** Connects to the charging cable.

## 5. SETUP

### 5.1. Charging the Battery

Before initial use, fully charge the radio's lithium-ion battery. The RT622 supports convenient Type-C direct charging.

1. Connect the Type-C charging cable to the USB plug on the side of the radio.
2. Connect the other end of the cable to a compatible USB power source (e.g., wall adapter, power bank, PC, car charger).
3. The charger light will indicate charging status. Refer to the radio's LED indicator for full charge notification.



Figure 2: Type-C Direct Charging

### 5.2. Attaching the Belt Clip

The RT622 comes with a removable belt clip for easy portability.

1. Align the belt clip with the grooves on the back of the radio.
2. Slide the clip upwards until it clicks securely into place.
3. To remove, push the release tab (if present) and slide the clip downwards.



Figure 3: Attaching the Removable Belt Clip

## 6. OPERATING INSTRUCTIONS

## 6.1. Power On/Off and Volume Adjustment

To turn the radio on or off and adjust the volume:

- **Power On:** Rotate the Power/Voice Volume knob clockwise until you hear a click. The radio will announce the current channel.
- **Volume Adjustment:** Continue rotating the Power/Voice Volume knob clockwise to increase volume, or counter-clockwise to decrease volume.
- **Power Off:** Rotate the Power/Voice Volume knob counter-clockwise until you hear a click.

## 6.2. Channel Selection

The RT622 supports 16 PMR446 channels.

- Press the **Channel Selector Plus (+)** button to move to a higher channel number.
- Press the **Channel Selector Reduce (-)** button to move to a lower channel number.
- The radio will announce the selected channel number.

## 6.3. Transmitting and Receiving

- **To Transmit:** Press and hold the **PTT (Push-to-Talk)** button. Speak clearly into the microphone. The signal light will illuminate red.
- **To Receive:** Release the PTT button. The signal light will illuminate green when a signal is received.

## 6.4. VOX (Voice Operated Exchange) Function

The VOX function allows for hands-free transmission when your voice is detected.

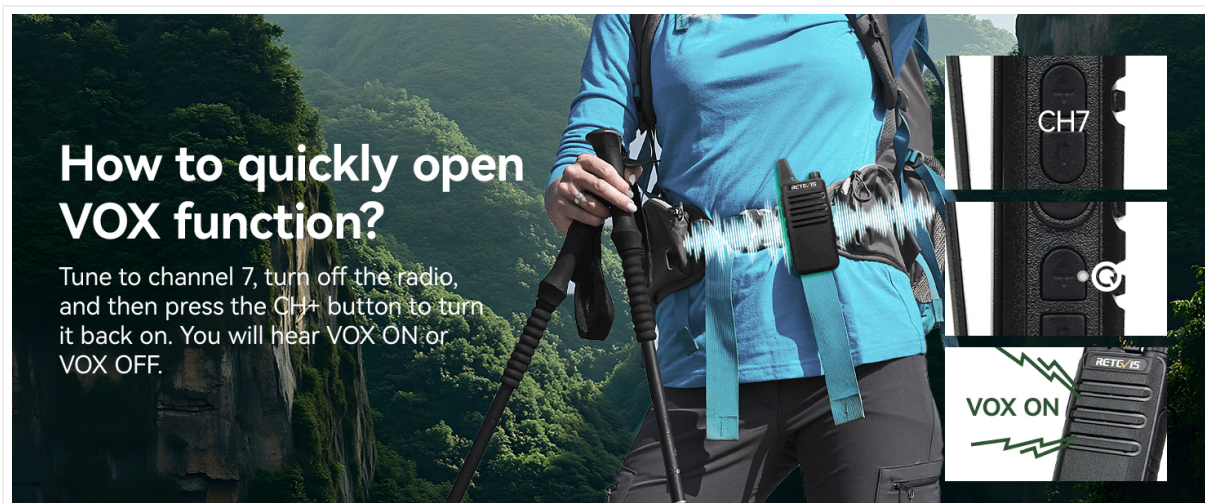


Figure 4: Activating VOX Function

To quickly activate the VOX function:

1. Tune the radio to channel 7.
2. Turn the radio off.
3. Press and hold the **Channel Selector Plus (+)** button while turning the radio back on.
4. You will hear a voice prompt indicating "VOX ON" or "VOX OFF".

## 6.5. Keypad Lock Function

The keypad lock prevents accidental changes to settings during use.

## Power saving, long battery life and low battery warning



### Battery Saving

If there is no operation for more than 10 seconds, the power saving function will automatically turn on and resume after receiving a signal.



### Low Battery Warning

When the voltage fall down to lowest level, the tone of "Please Charge" will sound, required to replace battery or recharge the battery.

Figure 5: Keypad Lock/Unlock

To lock or unlock the keypad:

- In standby mode, simultaneously press the **Channel Selector Plus (+)** and **Channel Selector Reduce (-)** buttons.
- A single beep indicates the radio is locked. Repeat the process to unlock.

## 6.6. Language Switching

You can switch the voice prompt language between Chinese and English.



Figure 6: Switching Language

To switch the language:

1. Tune the radio to channel 16.
2. Turn the radio off.
3. Press and hold the **Channel Selector Plus (+)** button while turning the radio back on.
4. The language will switch between Chinese and English.

## 7. MAINTENANCE

### 7.1. Battery Care and Power Saving

Proper battery care ensures optimal performance and longevity.

# Strong shell material

Suitable for outdoor environment,  
extending service life



Figure 7: Battery Management Features

- **Power Saving Function:** If there is no operation for more than 10 seconds, the power saving function will automatically activate and resume upon receiving a signal.
- **Low Battery Warning:** When the battery voltage drops to its lowest level, the radio will emit a "Please Charge" tone, indicating that the battery needs recharging or replacement.
- **Charging Cycle:** For best battery life, avoid frequent partial charges. Fully charge and discharge the battery periodically.
- **Storage:** If storing the radio for an extended period, ensure the battery is partially charged (around 50%) and store in a cool, dry place.

## 7.2. Cleaning

- Wipe the radio's surface with a soft, damp cloth.
- Do not use harsh chemicals, solvents, or abrasive cleaners.
- Ensure the charging port cover is securely closed to prevent dust and moisture ingress.

## 7.3. Durability



Figure 8: Strong Shell Material

The RT622 is built with a strong PC material shell, providing superior impact and abrasion resistance, making it suitable for various outdoor and demanding environments.

## 8. TROUBLESHOOTING

If you encounter issues with your Retevis RT622 radio, refer to the following common troubleshooting steps:

| Problem                      | Possible Cause                                         | Solution                                                                                             |
|------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Radio does not power on      | Battery is depleted or not properly installed.         | Charge the battery fully. Ensure the battery is correctly seated.                                    |
| Cannot transmit or receive   | Incorrect channel selected. Out of range. Battery low. | Verify both radios are on the same channel. Move closer to the other radio. Recharge battery.        |
| Poor sound quality or static | Weak signal. Interference. Volume too low/high.        | Move to an open area. Adjust volume. Ensure no obstructions.                                         |
| VOX function not working     | VOX is off. Microphone sensitivity too low.            | Activate VOX as per instructions (Section 6.4). Ensure you are speaking clearly into the microphone. |
| Keypad is unresponsive       | Keypad lock is active.                                 | Unlock the keypad by simultaneously pressing CH+ and CH- (Section 6.5).                              |

## 9. SPECIFICATIONS

---

Detailed technical specifications for the Retevis RT622 Two-Way Radio:

- **Brand:** Retevis
- **Model Number:** EUA9121H
- **Colour:** Black
- **Number of Channels:** 16
- **Frequency Range:** 446.00625-446.19375MHz (PMR446)
- **Talking Range Maximum:** 3 Kilometers (in open and unobstructed areas)
- **Voltage:** 3 Volts
- **Water Resistance Level:** Water Repellent (IPX4)
- **Product Dimensions (D x W x H):** 2.1 x 5.5 x 13.5 cm
- **Item Weight:** 113 Grams (battery included)
- **Battery Type:** Lithium Ion
- **Battery Average Life:** 10 Hours (continuous use)
- **Standby Time:** Approximately 72 Hours
- **Audible Noise:** 40 Decibels
- **Temperature Range:** -20 to 50 Degrees Celsius
- **Compatible Devices:** Walkie talkies with the same PMR frequency band and Kenwood dual pin headphones.

## 10. WARRANTY AND SUPPORT

---

Retevis provides comprehensive warranty and support for your RT622 Two-Way Radio:

- **Warranty Period:** 2-year warranty for the radio body and 1-year warranty for accessories.
- **Return Policy:** 30 days no-reason return policy.
- **Post-Warranty Service:** Maintenance services are available beyond the warranty period; buyers are responsible for associated costs.
- **Customer Support:** For any inquiries or support needs, please contact Retevis customer service on Amazon. We aim to reply within 12 hours.