

Retevis RB648

Retevis RB648 Professional IP67 Waterproof Walkie Talkie User Manual

Model: RB648

1. INTRODUCTION

Thank you for choosing the Retevis RB648 Professional IP67 Waterproof Walkie Talkie. This device is engineered for reliable communication in demanding environments, featuring robust construction, advanced waterproofing, and a long-lasting battery. This manual provides essential information for safe and effective use of your walkie talkie.

1.1 Product Overview

The Retevis RB648 is a durable two-way radio designed for professional use. Its triple protection design ensures resilience against water, dust, and drops, making it ideal for construction sites, outdoor activities, and other challenging conditions. It operates on PMR446 frequencies, offering license-free communication.

1.2 Key Features

- **IP67 Waterproof and Dustproof:** Submersible in 1 meter of water for 30 minutes and fully protected against dust ingress.
- **Robust Construction:** Made from PC+TPE plastic, designed to withstand drops from up to 2 meters.
- **Long-lasting Battery:** Equipped with a 2000mAh Li-ion battery for extended operational time.
- **Dual PTT Button:** Allows for flexible and convenient transmission.
- **Emergency Alarm:** For critical situations.
- **Vibration Call:** Discreet alert function.
- **VOX Function:** Hands-free voice-activated transmission.
- **Backlit Display:** Ensures readability in various lighting conditions.
- **USB-C Charging:** Versatile charging options with USB-A to USB-C cable and charging base.

2. SAFETY INFORMATION

Please read and understand all safety precautions before using the device. Failure to do so may result in injury or damage to the product.

- Do not operate the radio in explosive atmospheres (e.g., flammable gases, dust particles, metallic powders).
- Do not attempt to disassemble or modify the radio. Repairs should only be performed by authorized personnel.
- Use only original or approved batteries and chargers to prevent damage and ensure safety.
- Avoid exposing the battery to extreme temperatures, direct sunlight, or fire.
- While the device is IP67 rated, ensure the USB-C port cover is securely closed before exposure to water or dust.
- Keep the radio away from medical devices to avoid interference.
- Do not transmit without an antenna attached.

3. PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are present and in good condition:

- Retevis RB648 Walkie Talkie Unit (2 pieces)
- Rechargeable Li-ion Battery (2 pieces)
- USB-A to USB-C Charging Cable (2 pieces)
- Charging Base (2 pieces)
- Belt Clip (2 pieces)
- User Manual

4. PRODUCT OVERVIEW

4.1 Radio Components

Familiarize yourself with the main components of your RB648 walkie talkie:



Image: Retevis RB648 Walkie Talkie from multiple angles, highlighting its robust design and various ports.

- **Antenna:** For transmitting and receiving signals.
- **Power/Volume Knob:** Rotate to turn the radio on/off and adjust volume.
- **LCD Display:** Shows channel number, battery status, and other indicators.
- **PTT (Push-to-Talk) Button:** Press and hold to transmit, release to receive.
- **Dual PTT Buttons:** Additional PTT button for convenience.
- **CALL Button:** Initiates a call tone.
- **MENU/LOCK Button:** Accesses menu options or locks/unlocks the keypad.
- **Up/Down Buttons:** Navigate menu or change channels.
- **SOS Button:** Activates the emergency alarm.
- **Speaker/Microphone:** For audio output and input.
- **USB-C Charging Port:** For direct charging.
- **Accessory Jack:** For connecting compatible audio accessories (e.g., earphones).

5. SETUP

5.1 Battery Installation

1. Ensure the radio is powered off.
2. Locate the battery compartment cover on the back of the radio.
3. Slide the cover down or unlatch it according to the design.
4. Insert the Li-ion battery, ensuring the contacts align correctly with the radio's terminals.
5. Replace the battery compartment cover and secure it.

5.2 Charging the Battery

The RB648 features a 2000mAh battery and can be charged via the included charging base or directly via the USB-C port.



Image: Illustration highlighting the 2000mAh battery capacity of the Retevis RB648, indicating long standby time.

Using the Charging Base:

1. Connect the USB-A to USB-C charging cable to the charging base and a compatible USB power adapter (not included).
2. Place the radio (with battery installed) into the charging slot of the base.
3. The charging indicator light on the base will illuminate, typically red for charging and green for fully charged.

Direct USB-C Charging:

1. Open the protective cover of the USB-C port on the side of the radio.
2. Connect the USB-A to USB-C charging cable to the radio and a compatible USB power source.
3. The radio's display or an indicator light will show charging status.
4. Ensure the USB-C port cover is securely closed after charging to maintain IP67 rating.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off

Rotate the Power/Volume knob clockwise to turn the radio on. Rotate it counter-clockwise until you hear a click to turn the radio off.

6.2 Channel Selection

Use the Up/Down buttons to select one of the 16 available channels. Ensure all radios in your group are set to the same channel for communication.

6.3 Transmitting and Receiving



Image: Close-up of the Retevis RB648, illustrating the convenient Dual PTT button design.

- **To Transmit:** Press and hold the PTT button (either main or dual PTT). Speak clearly into the microphone. Release the PTT button when finished speaking.
- **To Receive:** Ensure the PTT button is not pressed. The radio will automatically receive signals on the selected channel.

6.4 Volume Adjustment

Rotate the Power/Volume knob clockwise to increase the volume and counter-clockwise to decrease it.

6.5 Special Features

TRIPLE PREUVE AVANCÉE

300000 +
UNITÉS
VENDUES

Image: Retevis RB648 Walkie Talkie with an 'Emergency Alert' graphic, emphasizing its safety feature in harsh environments.

- **VOX (Voice Operated Exchange):** Activates transmission automatically when you speak, allowing for hands-free operation. Refer to the menu settings to enable/disable and adjust sensitivity.
- **Emergency Alarm:** Press the dedicated SOS button to activate an audible alarm, alerting others to your situation.
- **Vibration Call:** The radio can vibrate to alert you of an incoming call, useful in noisy environments or when discretion is required.
- **Squelch:** Automatically mutes weak signals or background noise to improve audio clarity. This is usually an automatic function.
- **Scan:** Allows the radio to automatically scan through channels to find active conversations.
- **Backlit Display:** The LCD display features a backlight for improved visibility in low-light conditions.

7. MAINTENANCE

7.1 Cleaning

To maintain optimal performance and appearance:

- Wipe the radio's surface with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- For stubborn dirt, a mild soap solution can be used, followed by rinsing with clean water (ensure all port covers are sealed).
- Dry the radio thoroughly after cleaning, especially around ports and buttons.

7.2 Storage

When not in use for extended periods:

- Store the radio in a cool, dry place.
- Remove the battery if storing for more than a month to prevent battery degradation.

7.3 Battery Care

- Charge the battery fully before first use.
- Avoid overcharging or completely draining the battery.
- If the battery is not used for a long time, charge it to about 50% capacity before storing.

8. TROUBLESHOOTING

If you encounter issues with your RB648, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Radio does not power on	Battery is low or not installed correctly.	Charge the battery or re-install it correctly.
Cannot transmit or receive	Incorrect channel selected; out of range; antenna not properly attached.	Verify channel settings; move closer to other radios; ensure antenna is secure.
Poor audio quality	Low battery; interference; squelch level too high.	Charge battery; move away from sources of interference; adjust squelch if configurable.
Battery drains quickly	Frequent transmission; old battery; extreme temperatures.	Reduce transmission time; consider replacing battery; avoid extreme temperatures.

If the problem persists after trying these solutions, please contact Retevis customer support.

9. SPECIFICATIONS

Detailed technical specifications for the Retevis RB648 Walkie Talkie:



Image: A table summarizing the key specifications of the Retevis RB648 Walkie Talkie.

Feature	Specification
Model	RB648

Feature	Specification
Brand	Retevis
Color	Yellow
Number of Channels	16
Frequency Range	446.00625-446.19375 MHz (PMR446)
Maximum Range	Up to 167 meters (547.7 feet) under optimal conditions (actual range varies significantly with terrain and obstructions)
Water Resistance Level	IP67 (Waterproof and Dustproof)
Battery Composition	Lithium-ion
Battery Capacity	2000mAh
Voltage	3.7 Volts
Rechargeable Battery	Yes (2 included)
Product Dimensions (D x W x H)	3.3 x 6 x 18 centimeters
Material	PC+TPE
Special Features	Waterproof, Dustproof, Long Range, Vibration Call, Dual PTT, Emergency Alarm, VOX
Compatible Devices	Other compatible Retevis two-way radios, earphones, external antennas with Dual-PTT support
Country of Origin	China

10. WARRANTY AND SUPPORT

10.1 Manufacturer Warranty

Retevis offers the following warranty for the RB648 Walkie Talkie:

- **Radio Body:** 5-year warranty
- **Accessories:** 1-year warranty
- **Return Policy:** 30-day no-reason return period.

Beyond the warranty period, maintenance services are available, with buyers responsible for associated costs.

10.2 Customer Support

For any questions, technical assistance, or warranty claims, please contact Retevis customer support through the Amazon platform. We aim to respond to all inquiries within 12 hours.

