



RETEVIS RT40B Two Way Radio User Manual

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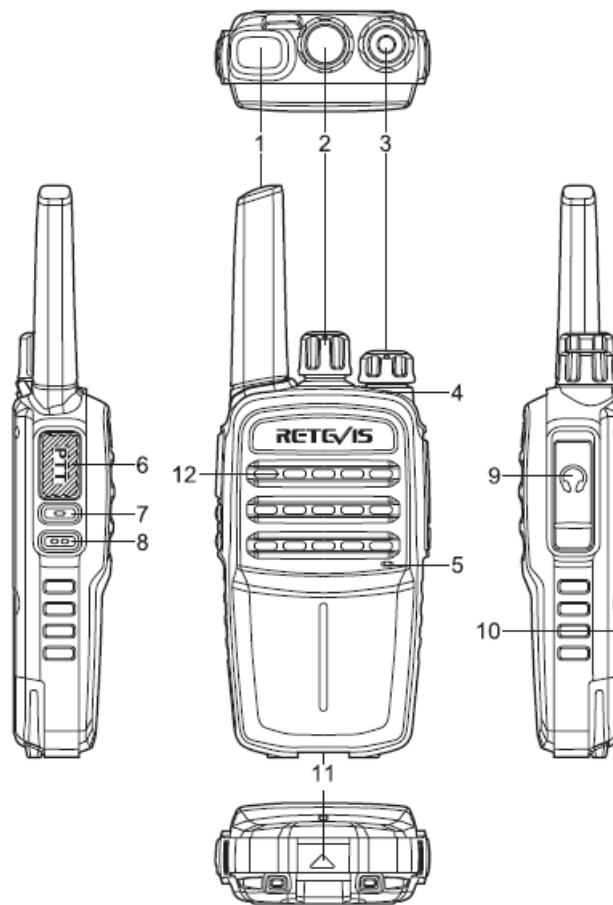
**Thank You!**

we are grateful that you chose our two way radio. We believe this Two Way Radio will provide dependable and reliable communication to personal operating at peak efficiency. The transceivers incorporate the latest in advanced technology. As a result, We feel strongly that you will be pleased with the quality and features of this product!

Product safety and RF Exposure for Two Way Radio:

Before using this Two way radio, please read the manual which contains important operating instructions for safe usage, RF Energy Awareness, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards, and also read the operational instructions for safe use

Getting Acquainted



1	Antenna	7	SKI Button (MONI/AlertNOX)	
2	Channel Select or Knob	8	Sk2 Button (Battery Indicator / SCAN)	
3	Radio ON-OFF /			
	Volume Control Knob	9	Accessory / Charge Jack	
4	LED Indicator	10	Battery Pack	
5	Microphone	11	Battery Latch	
6	PTT Switch (PTT)	12	Speaker	

UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

Packing List

DESCRIPTION	QUANTITY
Unit Transceiver	1
Li-ion Battery Pack	1
Charger	1
Adaptor	1
Belt Clip	1
User Manual	1
Hand Strap	1

PREPARATION

Li-ion Battery Pack Precautions

- Do not short the battery terminals or dispose of the battery by fire. Never attempt to remove the casing from the battery pack.
- Keep the charging temperature always between 5C and 40°C.
- Do not use the transceiver while charging the battery pack. We recommend you switch the transceiver power OFF while charging is taking place.
- Do not recharge the battery pack if it is already fully charged. Doing so may cause the life of the battery pack to shorten or the battery pack may be damaged.
- Use the battery pack only for its intended purpose. Never use any charger or battery pack that is damaged.
- Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) terminals ; of the battery. This might happen, for example, when you carry a spare battery pack in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

Charging the Battery Pack

The battery pack is not charged at the factory, please charge it before use. Initially charging the battery pack after purchase or extended storage (greater than 2 months) will not bring the battery pack to its normal operating capacity. After two or three complete charge and discharge cycles. The full performance of battery will be achieved.

1. Slide the battery pack or transceiver with a battery pack into the desktop charger.
2. Make sure the battery pack contacts are in contact with the charging terminals.
3. The charging LED lights red and charging begins.
4. After charging about 4 hours, when the light turns to green, it means the battery pack is fully

BASIC OPERATION

Switch Power On/Off

1. Turn On: turn the [Power] switch clockwise to switch the transceiver ON, an alert tone will be

2. Turn Off: turn the [Power] switch counterclockwise to switch the transceiver OFF.

Adjusting the Volume

Rotate the [Volume] control to adjust the volume. Clockwise increases the volume and counter clockwise decrease it.

Selecting a Channel

Rotate the [Channel Selector] to choose your desired channel. Clockwise increases the number and counter clockwise decreases it. If the channel number annunciation is activated, the radio will announce the current corresponding channel number.

Transmitting & Receiving

1. Press the [PTT] switch and speak into the microphone in your normal speaking voice, for best sound quality at the receiving station, hold the microphone approximately 1-2 inches (2.5-5 cm) from your mouth.
2. Release the [PTT] switch to receive.

ADVANCED OPERATIONS

Side keyboard button function explain

Function	Activate operation
MONI	Press SK1 button
Alert	Long press SK1 button
Battery indicator	Press SK2 button
SCAN	Long press SK2 button

VOX function

When the VOX function is set to on, you can use the radio to talk without pressing the [PTT] key, and speaking directly into the microphone will automatically start the transmission.

In the power off of the walkie-talkie mode, press and hold the SK1 button and turn the power switch on till you hear “Di” tone, then release the SK1 button, it mean the VOX function was ON. To turn the walkie-talkie off, repeat same operation till you hear “Di,Di” tone, then release the SK1 button, it mean the VOX function was OFF.

Narrow Bandwidth Selection

You can select Narrow bandwidth via programming software, the default setting is Narrow.

Time-Out Timer (TOT)

The Time-Out Timer is used to prevent any caller from using a channel for an extended period of time (OFF, 15-600 seconds). If you continuously transmit for a period of time that exceeds the programmed time, the transceiver will stop transmitting and an alert tone will sound. To stop the tone, release the PTT switch.

Battery Save

The battery save function decreases the amount of power used when signal is not being received and no

operations are being performed (no keys are being pressed and no switches are being turned) for 5 seconds, the battery save function activates. When a signal is received or an operation is performed, battery save is disabled. The default setting is ON.

Channel Number Annunciation

Your dealer may have programmed channel number annunciation on your transceiver. There are 3 kinds of channel number annunciation: "Chinese Male Voice, English Male Voice (Default Setting), None". When you turn the [Channel Selector], the transceiver sounds the current corresponding channel number.

Low Battery Alert

For extra convenience, if the battery level runs low, the transceiver will sounds "do do do" at every 5 seconds, to alert the user to recharge the battery. Please change new battery pack or charge this battery pack.

Compandor

Activate this function for more clear audio output. The default setting is OFF.

CTCSS/DCS

There are 50 CTCSS 105 DCS for selection, you can also define your own CTCSS/DCS, or activate the DCS hopping feature, the CTCSS/DCS is a sub-audible tone/code which allows you to ignore (not hear) calls from other parties who are using the same channel, when a channel is set up with a CTCSS/DCS, squelch will only open when a call containing a matching tone or code is received. Meanwhile, signals that you transmit will only be heard by parties whose CTCSS/DCS signaling matches your transceiver.

Wireless Replication

Wireless copy transmission operation:

- In channel 1, press and hold the SK2 button to start the machine at the same time, and the red light flashes to enter the copy transmission mode.
- Wireless copy receiving operation:
- In channel 2, press and hold the SK2 button to start the machine at the same time, and the green light flashes to enter the copy receiving mode.
- After two sets of operation, press PTT of transmitter, red light of transmitter will flash, green light of receiver will flash, and receiver will restart automatically after transmission and save it

Care and Cleaning

- To guarantee optimal performance as well as a long service life of your radio, please follow the tips below,
- Keep your radio dry. Rain, moisture and liquid or water may contain mineral substance that can corrode the electronic circuit.
- Take out the battery when the radio is wet, install the battery pack when it is completely dry.
- Keep away the radio from hot place. High temperature may cause electrical instrument working life shorten, battery pack damaged and plastic component deformation or dissolved.
- Do not throw, knock or shock the radio. Use it rudely may damage internal circuit board and accurate structure.
- Do not use any strong chemicals, cleaner or detergent to clean the radio.
- Do not paint the radio. Painting may block the demountable component to influence normal operation.
- Do not hold the radio by its antenna or headset cable directly.
- Use supplied or approved antenna when change antenna. Unapproved antenna, modified accessories may damage the radio and violate the relevant rules.

- Attach the accessory jack cover when the radio is not in use.
- Make a back-up copy (like frequencies and channels) before you take your radio to service center.

Note: Every tip above are all applicable for your radio, battery pack, desktop charger and accessories. Consult your dealer or take your radio to the nearest service center if any parts cannot work normally

Troubleshooting Guide

PROBLEM	SOLUTION
	· The battery pack maybe dead. Recharge
	or replace he battery pack.
No power	· The battery pack may not be installed
	correctly. Remove the battery pack and install it again.
Battery power dies	· The battery pack life is finished. Replace
shortly after charging	the battery pack with a new one.
	· Make sure you are using the same
Cannot talk to or hear	frequency and CTCSS/DCS as the other
other members in	members in your group.
your group.	· Other group members may be too far
	away. Make sure you are within range of the
	other transceivers.
Other voices (besides	· Change the CTCSS/DCS setting. Be sure
group members) are present on the channel.	to change the tone on all transceivers in your group.

■Specification Table

GENERAL		TRANSMITTER		RECEIVER	
Freq uenc y	462. 550 0-	RF Power	2 W / 0.5 W	Audi o O utpu t	500 mW
Ran g	467. 712 5MH z			Pow er	-100 1+0
Cha nnel	22 CH	Freq Stability	+/- 3 .36p pm	Audi o	6dB +/-3
				Freq uenc y	

				Res pons e	
Wor king	3.7 V	Freq Tolerance	2pp m	Squ elch	8dB -0/+ 7
Volt age				Ope ning	
				SIN AD	
Wor king	12 H	Spurious	-36d Bm	Spur ious	65d B -5/ +0
Time (5:5: 9)		Emission		Res pons e	
				Reje ction	
Wor king	-10' C-5 5'C	Modulation	5%	Con duct ed	-57d B
Tem pera ture		Distortion		Spur ious	
				Emi ssio n	
Batt ery Type	Li-io n	Tx Hum &	40d B +0 /-5	Rx Hum &	40d B +0 /-5
		Noise		Nois e	

Frequency Table

CH	Frequency	Max.Pr	CH	Frequency	Max.Pr
1	462.5625MHz	2 W	12	467.6625 MHz	0.5 W
2	462.5875 MHz	2 W	13	467.6875 MHz	0.5 W
3	462.6125MHz	2 W	14	467.7125MHz	0.5 W
4	462.6375MHz	2 W	15	462.5500 MHz	2 W
5	462.6625 MHz	2 W	16	462.5750 MHz	2 W
6	462.6875 MHz	2 W	17	462.6000 MHz	2 W
7	462.7125 MHz	2 W	18	462.6250 MHz	2 W
8	467.5625 MHz	0.5 W	19	462.6500 MHz	2 W
9	467.5875 MHz	0.5 W	20	462.6750 MHz	2 W
10	467.6125 MHz	0.5 W	21	462.7000 MHz	2 W
11	467.6375MHz	0.5 W	22	462.7250 MHz	2 W

RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR PORTABLE TWO-WAY RADIO

This two-way radio uses electromagnetic energy in the radio frequency (RF) spectrum to provide communications between two or more users over a distance. RF energy, which when used improperly, can cause biological damage. All Retevis two-way radios are designed, manufactured, and tested to ensure they meet government-established RF exposure levels. In addition, manufacturers also recommend specific operating instructions to users of two-way radios. These instructions are important because they inform users about RF energy exposure and provide simple procedures on how to control it.

Please refer to the following websites for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits: <http://www.who.int/en/>

Local Government Regulations

When two-way radios are used as a consequence of employment, the Local Government Regulations requires users to be fully aware of and able to control their exposure to meet occupational requirements. Exposure awareness can be facilitated by the use of a product label directing users to specific user awareness information. Your Retevis two-way radio has a RE Exposure Product Label. Also, your Retevis user manual, or separate safety booklet includes information and operating instructions required to control your RF exposure and to satisfy compliance requirements.

Unauthorized modification and adjustment

Changes or modifications not expressly approved by the party responsible for compliance may void the users

the authority granted by the local government radio management departments to operate this radio and should not be made. To comply with the corresponding requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the local government radio management departments equipment authorization for this radio could violate the rules.

FCC Requirements

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE Requirements

“(Simple EU declaration of conformity) Shenzhen Retevis Technology Co., Ltd. declares that the radio equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU and the ROHS Directive 2011/65/EU and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: www.retevis.com.

Restriction Information

This product can be used in EU countries and regions, including Belgium (BE), Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and United Kingdom (UK).

For the warning information of the frequency restriction, please refer to the package or manual section. The crossed-out wheeled bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

IC Requirements

License-exempt radio apparatus This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s license-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device

RF Exposure Information


- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio, and the antenna gain shall not exceed the specified gain by the manufacturer declared.

- DO NOT transmit for more than 50% of total radio use time, more than 50% of the time can cause RF exposure compliance requirements to be exceeded.
- During transmissions, your radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so.
- DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.
- Portable Device, this transmitter may operate with the antenna(s) documented in this filing in Push-to-Talk and body-worn configurations. **RF** exposure compliance is limited to the specific belt-clip and accessory configurations as documented in this filing and the separation distance between user and the device or its antenna shall be at least 2.5 cm. population/uncontrolled environment.
- General population/uncontrolled Radio, this radio is designed for and classified as “General population/uncontrolled Use”.

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the General Population/Uncontrolled environment exposure limits, always adhere to the following procedures

Documents / Resources

	<p>Retevis RT40B Two Way Radio [pdf] User Manual RT40B, 2ASNSRT40B, RT40B Two Way Radio, Two Way Radio, Way Radio, Radio</p>
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