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MADE IN CHINA

RETEVIS

Analogue two way radio

RT17

User’s Manual

14x12.5cm

RETEVIS

TO CUSTOMERS

Thank you very much for using our two way radio. This radio of modern design is reasonable structure with stable functions. It is designed to meet different customers' need for high quality with easy operation and perfect capability. We believe you are pleased with its nice shape and excellent performance.
This manual is suitable for using the model of RT17.

Contents

Using tips

Please read the following brief instructions, non-compliance with these rules may cause danger or violate the law.

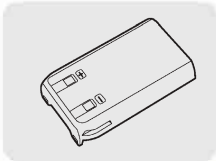
- Obey the local government regulation before using this radio, improper use may violate the law and be punished.
- Turn off the radio before entering flammable or explosive areas.
- Do not charge or change the battery in flammable or explosive areas.
- Turn off the radio before getting close to the blasting zone or detonator areas.
- Do not use radio whose antenna is damaged, touching of damaged antenna will cause heat injury.
- Do not attempt to open the radio; the maintenance work should be done by technical expert only.
- To avoid troubles caused by electromagnetic interference or electromagnetic compatibility, please turn off the radio in places where have the banner "Do not use wireless equipment", such as hospital and other healthcare places.
- In the car with an airbag, do not put the radio within the scope of the airbag deployment.
- Do not store the radio under the direct sunshine or in hot areas.
- When you transmit with the radio, do keep away from its antenna for 5cm at least.
- If the radio appears smelly or smoke, please shut off its power immediately and contact with your local dealer.
- Do not transmit too long, for the radio may heat and hurt the user.

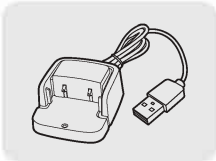
Unpacking and checking equipment

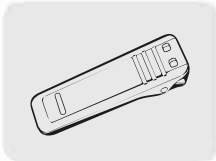
Welcome to use two-way radio. Carefully unpack the radio. We recommend you check the items listed in the following table before discarding the package. If any item is missing, please contact local dealer immediately.

Supplied Accessories


Transceiver


Li-ion battery

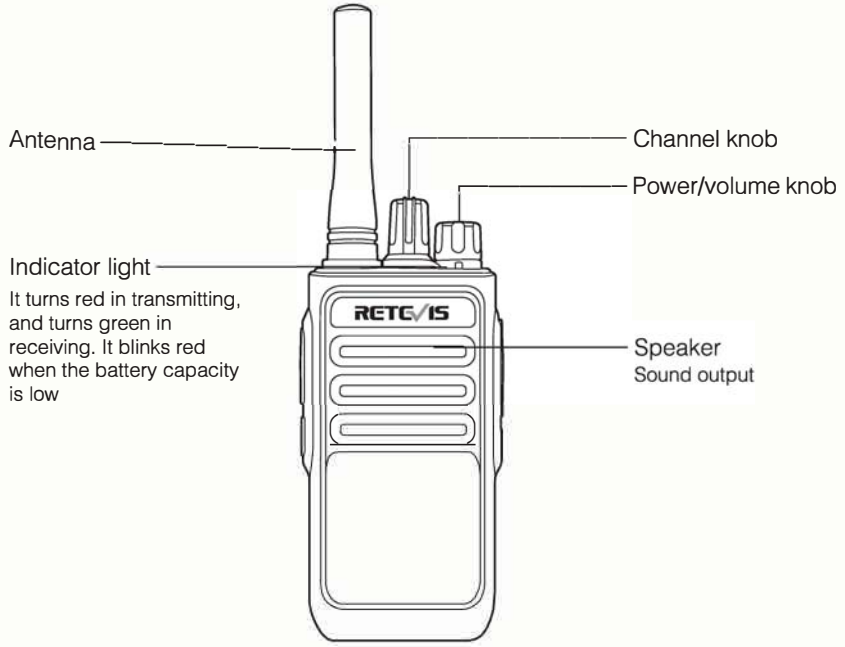

Charger

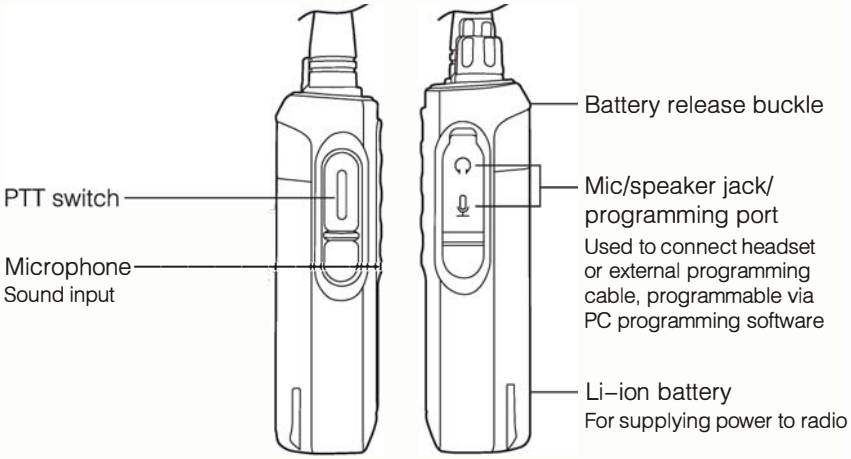

Belt clip


Handstrap

Note: The antenna frequency range please refers to the annular label at the bottom of antenna.

Getting Familiar





BASIC OPERATION

1. Indicator

Indicator turns red when transmitting, and it turns green when receiving.

2. Channel Knob

Rotate the knob to select the channel 1 to channel 16, counterclockwise rotate to decrease the value of channel name, clockwise rotate to increase the value of channel name.

3. Power Knob/Volume Knob

Clockwise rotate to turn on the radio, and counterclockwise rotate to turn off the radio. Rotate the knob can adjust the volume.

4. PTT switch

Press PTT switch and then talk to the microphone, the indicator light turns red, if the channel does not have transmitting frequency, a "DU DU" tone sounds, and indicator light turns red. Release PTT switch to receive, it lights green when there is signal.

5. Squelch level

The squelch level will determine the signal strength to open the speaker of the radio. If the squelch level is lower, the background noise of opening the radios speaker the radios speaker will be higher, and the corresponding communication range will be further, but the anti-interference capacity will be weaker. The default setting of squelch level is 5, you can adjust it through the menu "Squelch level" of the "Optional Features" in the programming software. Level 0 to 9 can be selected. 0 is the lowest level.

6. TOT

The purpose of TOT is to prevent any radio from talking in one channel for a long time, and to prevent the transceiver from being damaged because if continuous transmission. If the transmitting time exceeds the TOT pre-set time, the radio will sounds "DU" and stops transmit, release the "PTT" key to back to receive status and stop sound "DU".

7. Scan

When the current channel is channel 16, the radio will will automatically detect the 16 channels which defined as scan. When the channel which is be scanned has signal, the radio will stop in the channel to communication.

Notice:

A. When the scannable channels is less than 2 channels, radio can't go to scan.

B. When the radio is stopping in the channel which has signal, after the signal disappears 10s, the radio will scans the next channel.

C. If radio do not want to scan, please choose the "No" in the "Scan Add" for every channel.

8. English voice prompt

The voice prompt can be selected "English/None" through the programming software.

9. Battery save function

This function can be set by the software.

Turn on this function can make the standby time more longer.

10. Low battery alert

The radio will alert you when the battery capacity reaches the minimum operating voltage.

11. Busy channel lock

You can turn in/off this function via software.

A. If the current channel does not have CTCSS/DCS, when there is signal, TC prohibited when you press PTT.

B. If the current channel does not have CTCSS/DCS, when there is signal which does not have CTCSS/DCS, TX prohibited when you press PTT.

C. If the current channel does not have CTCSS/DCS, when there is signal which have CTCSS/DCS, the radio will transmit when you press PTT.

12. Wide/narrow bandwidth select

The default is wide band, you can select the wide band or narrow band through the programming software.

13. VOX

Speak to the microphone in normal voice to transmit, no need to press PTT key, turn VOX on /off through the software.

A: When VOX is on in your working channel.

Speak to the microphone directly, it will transmits automatically.

The radio stops transmitting when there is no voice, and waits for receiving.

B. When a headset with a microphone is used.

When VOX is on, you should VOX gain for the radio to identify voice volume.

If the microphone is too sensitive, the noise around radio will start transmitting.

If the microphone is not sensitive, the radio can not collect your voice, please adjust VOX level well to guarantee smooth communications.

14. Scrambler

When the radio is allowed the scrambler function, and press the key, TX voice will be sent out with scrambler, other radio only received the signal when its scrambler also turns on.

15. CTCSS/DCS

CTCSS and DCS is the sub-audio signaling, to prevent the radio from receiving unwanted signalin the same channel.

When the CTCSS/DCS is set, then within the communication range, you can only receive signals from the same channel with the same CTCSS/DCS setting. When the CTCSS/DCS is not set, you will get all the signal from the same channel within the communication range.

You can set the CTCSS/DCS through the menu "ENC" or "DEC" of the "Channel Setting" in the software.

16. Programming protect

You can add the programming password in the programming software, after you set the password, you need to input the password before programming.

SPECIFICATIONS

GENERAL

Channel:	15
Working voltage:	3.7VDC
Working temperature:	-10℃ ~ +50℃
Weight:	106g (including antenna and battery)
Dimension:	116x53x36mm

TRANSMITTER

Frequency range:	462.5500-462.7250 MHz
RF power:	2W
Modulation type:	FM
Spurious radiation:	≤0.75 μ W
Modulation noise:	< -40dB
Modulation distortion:	< 5%
Frequency stability:	2.5ppm
Max Fr. Deviation:	≤ ± 2.5KHz
Current:	≤1200mA
Audio response:	+6.5~-14dB
Adjacent Ch. Power:	≥65dB

RECEIVER

Frequency range:	FRS
Receiving sensitivity:	≤0.2μV
Occupied bandwidth:	≤12.5KHz
Selectivity:	≥65dB
Inter mediation:	≥55dB
Audio power output:	>500mW
Modulation distortion:	≤10%
Frequency stability:	2.5ppm
Current:	standby 55mA, working 150Ma
Audio response:	+7~-12.5dB

CH.NO	Freq.(MHz)	ERP	CTCSS/DCS	CH.NO	Freq.(MHz)	ERP	CTCSS/DCS
1	462.56250	High	67.0	9	462.71250	High	146.2
2	462.58750	High	118.8	10	462.55000	High	123.0
3	462.61250	High	127.3	11	462.57500	High	D743I
4	462.63750	High	131.8	12	462.60000	High	D332I
5	462.66250	High	136.5	13	462.65000	High	D243I
6	462.62500	High	127.3	14	462.67500	High	D606N
7	462.72500	High	136.5	15	462.70000	High	D731I
8	462.68750	High	141.3				

Rf Energy Exposure And Product Safety Guide For Portable Two-way Radios

ATTENTION!

Before using this radio, read this guide which contains important operating instructions for safe usage and RF energy awareness and control for compliance with applicable standards and regulations.

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 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 RF 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 user's 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:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Note: 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.

Disposal

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:

Licence-exempt radio apparatus

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to he following two conditions:

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(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage;

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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 car 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's face and the devic's antenna shall be at least 2.5 cm.
- Mobile Device, during operation, the separation distance between user and the antenna subjects to actual regulations, this separation distance will ensure that there is sufficient distance from a properly installed externally-mounted antenna to satisfy the RF exposure requirements.
- 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 exposure limits, always adhere to the following procedures.

Guidelines:

- User awareness instructions should accompany the device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

- Transmit no more than the rated duty factor of 50% of the time. To Transmit (Talk), push the Push to Talk (PTT) button. To receive calls (listen), release the PTT button. Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy exposure only when transmitting in terms of measuring for standards compliance.
- Transmit only when people outside the vehicle are at least the recommended minimum lateral distance away from a properly installed according to installation instructions, externally mounted antenna.
- When operating in front of the face, worn on the body, always place the radio in a Retevis approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of Non-Retevis approved accessories may result in exposure levels, which exceed the IEEE/ICNIRP RF exposure limits.

Hand-held Mode

- Hold the radio in a vertical position with the microphone (and other parts of the radio including the antenna) at least 2.5 cm (one inch) away from the nose or lips. The antenna should be kept away from the eyes. Keeping the

radio at a proper distance is important as RF exposure decreases with increasing distance from the antenna.

Phone Mode

- When placing or receiving a phone call, hold your radio product as you would a wireless telephone. Speak directly into the microphone.

Electromagnetic Interference/Compatibility

NOTE: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility. During transmissions, this radio generates RF energy than can possible cause interference with other devices or systems.

Avoid Choking Hazard

Small Parts. Not for children under 3 years.

Turn off your radio power in the following conditions:

WARNING

- Turn off your radio before removing (installing) a battery or accessory or when charging battery.
- Turn off your radio when you are in a potentially hazardous environments: Near electrical blasting caps, in a blasting area, in explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.).
- Turn off your radio while taking on fuel or while parked at gasoline service stations.

WARNING

To avoid electromagnetic interference and/or compatibility conflicts

- Turn off your radio in any facility where posted notices instruct you to do so, hospitals or health care facilities (Pacemakers, Hearing Aids and Other Medical Devices) may be using equipment that is sensitive to external RF energy.
- Turn off your radio when on board an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

Protect your hearing:

WARNING

- Use the lowest volume necessary to do your job.
- Turn up the volume only if you are in noisy surroundings.
- Turn down the volume before adding headset or earpiece.
- Limit the amount of time you use headsets or earpieces at high volume.
- When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.
- Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.

Note: Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the radio's volume, the less time is required before your hearing could be affected. Hearing damage from loud noise is sometimes undetectable at first and can have a cumulative effect.

Avoid Burns

WARNING

Antennas

- Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with the skin when the radio is in use, a minor burn can result.

Batteries (If appropriate)

- When the conductive material such as jewelry, keys or chains touch exposed terminals of the batteries, may complete an electrical circuit (short circuit the battery) and become hot to cause bodily injury such as burns. Exercise care in handling any battery, particularly when placing it inside a pocket, purse or other container with metal objects.

Long transmission

- When the transceiver is used for long transmissions, the radiator and chassis will become hot.

Safety Operation

WARNING

Forbid

- Do not use charger outdoors or in moist environments, use only in dry locations/conditions.
- Do not disassemble the charger, that may result in risk of electrical shock or fire.
- Do not operate the charger if it has been broken or damaged in any way.
- Do not place a portable radio in the area over an air bag or in the air bag deployment area. The radio may be propelled with great force and cause serious injury to occupants of the vehicle when the air bag inflates.

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 WARNING	To reduce risk • Pull by the plug rather than the cord when disconnecting the charger. • Unplug the charger from the AC outlet before attempting any maintenance or cleaning. • Contact Retevis for assistance regarding repairs and service. • The adapter shall be installed near the equipment and shall be easily accessible.

Approved Accessories

 WARNING	• This radio meets the RF exposure guidelines when used with the Retevis accessories supplied or designated for the product. Use of other accessories may not ensure compliance with the RF exposure guidelines and may violate regulations. • For a list of Retevis-approved accessories for your radio model, visit the following website: http://www.Retevis.com

CAUTION

Test position and configuration Head SAR was performed with the device configured in the positions according to IEEE1528, and face up SAR was performed with the device 25 mm from the phantom. Body SAR was performed with the belt clip on the device 0 mm form the platform. Body SAR was also performed with the headset attached and without.

This product complies to FCC Exposure requirements and refer to FCC website https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm search for FCC ID: 2ASNSRT17 to get further information about SAR values.

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Warranty card

Note:

1. This warranty card is only applicable to two-way radio of the above-listed model and serial number.
2. The warranty card is an important document for the end-user to enjoy warranty service, please keep it well.
3. The warranty card shall be filled and chopped by the dealer, or it is invalid.

Customer's name: Gender:

Add and postal code:

Customer's Tel:

Model:

Serial number:

Purchasing date:

Invoice No.:

Dealer: Stamp:

Add and postal code of the dealer:

Contact Tel:

Handling people:

Thank you for buying Retevis two-way radios, we will do our best to provide you with a stable, clear and efficient wireless communication services. In order for you to enjoy a better quality warranty service, please focus on the following information:

The products warranty period begins from the purchasing date, if product failure under normal use within warranty period occurs, according to the contents of this warranty, (the radio is guaranteed for 12 months, accessories 6 months), please carry the warranty card originals and purchase invoice to Retevis designated authorized warranty repair station for warranty service.

The following situations occur during warranty period will be implemented in paid service:

(1) Failure to produce the warranty card
(2) The card has altered traces or inconsistent with the product
(3) Defect or damage caused by abnormal or non-normal use
(4) Defect or damage caused by misuse, accident, water or negligence
(5) Defect or damage caused by improper testing, operation, maintenance, installation, disassembly or adjustment
(6) Defect or damage caused by unauthorized repair or disassembly
(7) Defect or damage caused by force majeure
(8) Wear and tear under normal use

When you are in need of repair, please send the radio, warranty card and purchase invoice together by post or take directly to Retevis designated authorized service stations, shipping costs should be borne by the user.

Maintenance record

Carry-in date			
Completion date			
Fault description			
Maintenance staff numbers			
Maintenance personnel No.			
Signature			

This warranty card to be kept by the user, no replenishment if lost