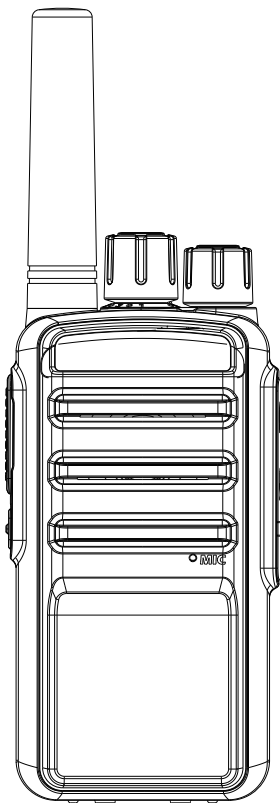


# RETEVIS



## RA55

### USER'S MANUAL

# Contents

NOTE	-----01
Technical parameters	-----02
Detail	-----02
Function operation	-----03
Factory Settings	-----04
WARNING	-----05
Guarantee	-----09

**NOTE:**

Please read this manual carefully before using this walkie-talkie.

- Do not charge this walkie-talkie in areas where flammable, explosive and radio communication is prohibited (e.g. gas stations, petrol stations, airports, etc.).
- Please do not operate this walkie-talkie without a license in areas where government laws prohibit it.
- Please make sure the walkie-talkie is protected from sunlight and avoid placing it near any heating equipment.
- Make sure that the walkie-talkie is protected from any dust, moisture and splashing water, and that it is placed near any heating equipment.
- If the walkie-talkie smells or smokes, remove the battery pack from the walkie-talkie immediately and contact your nearest dealer.
- The repair work of this walkie-talkie is in the hands of professional technicians, self disassembly is strictly prohibited.

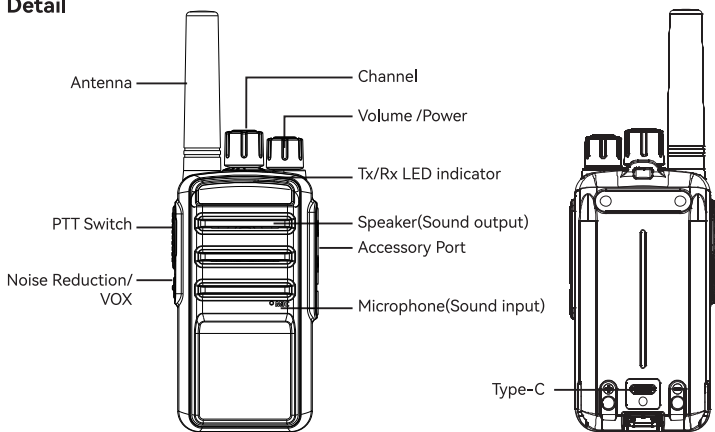
**Charging precautions**

- Please use the charging stand matched to this model for charging.
- When charging the whole machine, it is recommended to turn off the intercom first.
- In order to get the best battery performance for use, please charge at least 5 hours for the first time.
- Do not charge the battery pack for a long time, otherwise it will shorten the life of the battery pack. When the battery is fully charged, please stop charging in time.
- This charger only charges the battery pack of this product, please do not charge other battery packs, otherwise it will cause damage to the charger and the battery pack.
- The battery pack should be fully charged and placed in a cool, dry place. Do not put it near the fire source or expose it to the sunlight, otherwise there are safety hazards.
- It is forbidden to transmit the product during the charging process of the intercom.
- It is normal for the battery pack to heat up slightly during the charging process.

## Technical parameters

Technical Specifications		
1	Frequency range	FRS
2	Output power	High: 2W Low: 0.5W
3	Band width	12.5KHz
4	channels	16CH
5	Working voltage	3.7V DC
6	Antenna impedance	50Ω
7	Charging current	300mA
8	Battery capacity	1200mAh
9	Operating temperature	-10°C ~ +50°C
10	Receiving sensitivity	≤0.2μv
11	Audio output power	1W

## Detail



## Check the walkie talkie before unpack

Packing list (with two supporting products)		
Name Description	Quantity	
RA55-two way radio	1	
Protective cover	1	
Climbing buckle	1	
Coil spring chain	1	
Hand strap	1	
USB cable	1	
Manual	1	





## Function operation

### 1.Power on/off

1.1 Rotate the power switch clockwise to hear a click to turn on the power.

1.2 Rotate the power switch counterclockwise to hear a click to turn off the power.

### 2. Volume adjustment

2.1 In the receiving state, rotate the volume/power switch clockwise to increase the volume.

2.2 In the receiving state, rotate the volume/power switch counterclockwise to decrease the volume.

### 3. Transmitting/Receiving

3.1 In standby mode, press and hold the transmit button (PTT) to transmit the signal of the current channel and the LED lights up in red.

3.2 Release the transmit button (PTT) to receive the signal sent from the same channel, the speaker makes a call sound and the LED lights up in green.

### NOTE:

● When the walkie-talkie is transmitting, keep the walkie-talkie in a vertical position and keep the microphone 2.5-5 cm away from the mouth. When transmitting, the walkie-talkie is at least 2.5 cm away from your head or body.

● No need to perform multiple on and off actions during use, while adjusting the volume to a level suitable for your hearing.

● Before talking on the walkie-talkie: (1)Please set the frequency point of the transmitter and receiver to the same; (2)Please set the sub tone code of transmitter and receiver to be the same for the channel you need to talk to.

### 4.Channel selection

In the standby state, rotate the channel knob clockwise and counterclockwise while broadcasting and displaying the current channel number.

### 5.Sub-tone code

This product supports 260 groups of sub-tone code function. 50 groups of analog sub-tone code and 105\*2groups (N phase and I phase) of digital sub-tone code can be set through the programming software.

### 6.PTT switch

Press the PTT button and speak to the microphone to call another person, the indicator turns red. The indicator turns green while receiving. Upon finishing transmitting or receiving, it will sound a beep.

### 7.Noise reduction/VOX

Press the side key shortly to open/close the noise reduction function, long press to open/close the VOX function.

When noise reduction is on, only human voice can be recognized, and information other than human voice will be filtered out.

VOX control allows you to transmit without pressing the PTT button, only using the voice of the speech, and automatically stop transmitting when the speech stops. VOX level can be set through the software from 0-9, the default level is 5.

### 8.Squelch

The strength of the noise in the received signal corresponds to the strength of the signal: the stronger the signal, the weaker the noise. The squelch level can be set through from 0-9, the default level is 5.

### 9.TOT(Time out timer)

Namely transmit time limit function. In order to prevent some users from occupying the same channel communication for a long time, users can set to open the TOT function. When the user in the current channel reaches a specific transmitting duration, the walkie-talkie will stop transmitting. The transmitting time limit can be set by programming software, 30-180 seconds (default is 60 seconds) can be selected.

### 10.Scan

In order to use scan function, you need to set it in the programming software to the side key first.

If the current channel is 16 channels, the walkie-talkie will automatically detect the activity of channels 1 to 16 defined as scannable channels (software can define each channel can be scanned or not), when there is a signal on the scanned channel, the walkie-talkie will automatically stop on the channel in order to talk.

(1)The intercom will stop on the channel with signal, when the signal disappears and then after 10 or so, it will continue to scan the next channel.

(2)When there are less than 2 scannable channels, the walkie-talkie cannot scan.

(3)If you do not want to scan all of these 16 channels, please select "Scan Add" for each channel as "Yes" or "No".

### 11.Monitor

In order to use monitor function, you need to set it in the programming software to the side key first.

It is used to receive slight signals. Sometimes it is also regarded as a polite way of using walkie talkies: judge whether there is a call on the channel before transmitting.

#### 12.Low battery alert

When the walkie-talkie voice prompts "please charge", and the indicator light flashes red, it means the battery is in low voltage, please charge the battery as soon as possible. At this time, the walkie-talkie will prohibit the user from transmitting, remaining only in standby and receive mode.

(1) Press and hold the PTT key or voice-activated transmitting is invalid and "please charge" tone prompt, will sound a "beep" tone until PTT releases or voice-activated ends. (2) When the voltage is below a certain level, if the voice selection is turned off, it will sound a "de de de" tone every 15s.

## Factory Settings

Channel	Frequency(MHz)	Power(W)
1	462.5625	2W
2	462.5875	2W
3	462.6125	2W
4	462.6375	2W
5	462.6625	2W
6	462.6250	2W
7	462.7250	2W
8	462.6875	2W
9	462.7125	2W
10	462.5500	2W
11	462.5750	2W
12	462.6000	2W
13	462.6500	2W
14	462.6750	2W
15	462.7000	2W
16	462.7250	2W

## RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR TWO-WAY RADIOS

User' instructions should accompany the device when transferred to other users.

### 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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device. 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.

- Restriction on putting into service

This product may be used in following 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).

### Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that all electrical and electronic products, batteries, or accumulators 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 and rules in your area.lug



### RF Safety

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. 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/>

Keeping the radio at a proper distance is important as RF exposure decreases with increasing distance from the proper antenna. A proper antenna is an antenna supplied with this radio by the manufacturer or specifically authorized by the local authority for use with this radio. This radio can only be operated by use of an antenna of a type and maximum (or lesser) gain approved for the transmitter under regulations and rules. This transmitter must operate with the antenna(s) documented and in Push-to-Talk and body-worn configurations as documented. Using authorized accessories is important because the use of Non-Retevis accessories may result in exposure levels, which exceed the IEEE/ICNIRP RF exposure limits.

Transmit no more than the rated duty factor 50% of the time. Transmitting necessary information or less, is important because the radio generates measurable RF energy exposure only when transmitting in terms of measuring for standards compliance. For users who wish to further reduce their exposure, some effective measures to reduce RF exposure include:

- Reduce the amount of time spent using your wireless device.
- Use a speakerphone, earpiece, headset, or other hands-free accessory to reduce proximity to the head (and thus head exposure). While wired earpieces may conduct some energy to the head and wireless

earpieces also emit a small amount of RF energy, both wired and wireless earpieces remove the greatest source of RF energy (handheld device) from proximity to the head and thus can greatly reduce total exposure to the head.

- Increase the distance between wireless devices and your body.
- This radio is designed for and classified as “General population/uncontrolled use”. General population/uncontrolled environments are defined as locations where there is exposure of individuals who have no knowledge or control of RF exposure level.

#### **Hand-held Mode:**

To control your exposure and ensure compliance with the controlled environment exposure limits, always adhere to the following procedure:

- To receive calls, release the PTT button.
- To transmit (talk), press the Push-to-Talk (PTT) button in front of the face.
- Hold the radio in a vertical position by the microphone (and other parts of the radio including the antenna) at least one inch (2.5 centimeters) away from the nose or lips.



#### **Electromagnetic Interference/Compatibility**

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility. 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, such as hospitals or healthcare facilities.

Persons with pacemakers, implantable cardioverter defibrillators (ICDs) or other active implantable medical devices should:

- Consult with their physicians regarding the potential risk of interference from radio frequency transmitters, such as portable radios (poorly shielded medical devices may be more susceptible to interference).
- Turn the radio OFF immediately if there is any reason to suspect that interference is taking place.
- Do not carry the radio in a chest pocket or near the implantation site, and carry or use the radio on the opposite side of the body from the implantable device to minimize the potential for interference.

Hearing Aids: Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices: If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

#### **Turn off your radio in the following conditions:**

- Turn off your radio prior to entering any area with a potentially hazardous or explosive atmosphere. Only radio types that are especially qualified should be used in such areas as “Intrinsically Safe”.
- Note: the areas with potentially explosive atmosphere referred to above include blasting caps, blasting areas, inflammable gas, dust particles, metallic powders, grain powders, fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles (such as grain, dust or metal powders) and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often – but not always posted.
- Turn off your radio when taking on fuel or parked at gasoline service stations.
  - 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.
  - Do not use any radio that has a damaged antenna. If a damaged antenna comes into contact with the skin when the radio is in use, a burn can result.
  - Turn off your radio before removing or installing accessories.
  - When the transceiver is used for long transmissions, the radiator and chassis will become hot.

#### **Use of Communication Devices While Driving**

- Always check the laws and regulations on the use of radios in the areas where you drive. Use of Communication Devices, for example, mobile radio, may not be allowed.
- Give full attention to driving and to the road.
- Use hands-free operation, if available.
- Pull off the road and park before making or answering a call, if driving conditions or regulations so require.

• Do not place a portable radio in the area over an air bag or in the airbag deployment area. The radio may be propelled with great force and cause serious injury to occupants of the vehicle when the airbag inflates.

### Protect your hearing

- Use the lowest volume necessary to do your job. Turn up the volume only if you are in noisy surroundings.
- 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 carefully with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.

CAUTION: 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.

### Batteries Safety

- WARNING: KEEP NEW OR OLD USED BATTERIES OUT OF REACH OF CHILDREN.

• In the event of a battery leaking, do not allow the liquid to come into contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice immediately.

• If a radio or a battery has been submerged in water, please dry and clean it before use. Do not dry the radio or battery with an appliance or heat source, such as a hair dryer or microwave oven. If the radio has been submersed in a corrosive substance (e.g. saltwater), rinse the radio and battery in fresh water, then dry them.

• Since batteries are sensitive to high temperatures when storing them, keep them in a cool and dry place. The recommended temperature should be between +10 °C and +25 °C and never exceed +30 °C. Batteries should therefore not be stored next to radiators or boilers nor in direct sunlight. Extremes of humidity (below 35% and above 95% relative humidity for sustained periods should be avoided since they are detrimental to both batteries and packing. Although the storage life of batteries at room temperature is good, storage is improved at lower temperatures provided special precautions are taken. Also, accelerated warming is harmful.

• Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;

A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

• Turn off your radio before removing or installing a battery. Store spare batteries securely. Dispose of used batteries immediately and safely.

• The battery supply terminals are not to be short-circuit.

• Do not replace the battery in any area labeled "Hazardous Atmosphere". Any sparks created in a potentially explosive atmosphere can cause an explosion or fire.

• When the conductive material such as jewelry, keys or chains touches 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.

• Dirty battery contacts need to be wiped with clean dry cloth, both on the battery and in the appliance.

• Batteries should be removed from the appliance when not being used for long periods of time (months).

The batteries should be enclosed in special protective packaging (such as sealed plastic bags or variants) which should be retained to protect them from condensation during the time they are warming to ambient temperature.

• Exhausted batteries are to be removed from the equipment.

• Do not dismantle, open or shred batteries. Batteries should be dismantled only by trained people.

• Disposal of a battery into fire, or a hot oven, or mechanically crushing or cutting of a battery, that can result in explosion;

• Turn off your radio before charging.

• Batteries shall be charged at 10°C~40°C environment temperature specified. If the environment temperature is lower than 0°C, the charge shall be prohibited.

• Rechargeable batteries need to be charged with a dedicated charger provided for each piece of equipment before you first use them.

• Rechargeable batteries are only to be charged by adults or by children at least 8 years old under adult

supervision.

- 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.
- Do not use the charger outdoors or in moist environments, use only in dry locations/conditions.
- Do not disassemble the charger, which may result in a risk of electrical shock or fire. A charger should be dismantled only by trained people.
- Do not operate the charger if it has been broken or damaged in any way.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of a fire and/or electric shock. If an extension cord must be used, make sure that:
  - The pins on the plug of the extension cord are the same number, size and shape as those on the plug of the charger.
  - The extension cord is properly wired and in good condition.
  - Make sure the cord is located so it will not be stepped on, tripped over or subjected to damage or stress.



WARNING: CHOKING HAZARD—Small Parts. Not suitable for children under 3 years old.

The plug of the adapter is considered a disconnect device. The socket-outlet shall be installed near the equipment and shall be easily accessible.

- Contact Retevis for assistance regarding repairs and service
- For a list of Retevis-approved accessories for your radio model, visit the website: <http://www.Retevis.com>

## Guarantee

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Purchasing Date: \_\_\_\_\_

Dealer: \_\_\_\_\_ Telephone: \_\_\_\_\_

User's Name: \_\_\_\_\_ Telephone: \_\_\_\_\_

Country: \_\_\_\_\_ Address: \_\_\_\_\_

Post Code: \_\_\_\_\_ Email: \_\_\_\_\_

### Remarks:

- 1.This guarantee card should be kept by the user, no replacement if lost.
- 2.Most new products carry a two-year manufacturer's warranty from the date of purchase. Further details, pls read <http://www.retevis.com/after-sale/>
- 3.The user can get warranty and after-sales service as below:
  - Contact the seller where you buy.
  - Products Repaired by Our Local Repair Center
- 4.For warranty service, you will need to provide a receipt proof of purchase from the actual seller for verification

### Exclusions from Warranty Coverage:

- 1.To any product damaged by accident.
- 2.In the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs.
- 3.If the serial number has been altered, defaced, or removed.



## Shenzhen Retevis Technology Co.,Ltd.

7/F, 13-C, Zhonghaixin Science&Technology Park, No.12 Ganli  
6th Road, Jihua Street, Longgang District, Shenzhen, China

Web: [www.retevis.com](http://www.retevis.com)

E-mail: [kam@retevis.com](mailto:kam@retevis.com)

Facebook: [facebook.com/retevis](https://facebook.com/retevis)



MADE IN CHINA