

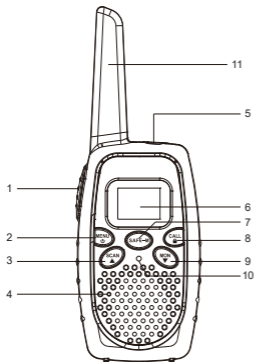
# RETAVIS



**Wireless Radio**  
**RT628S**  
User Manual

EN(01~12)








## Key Functions



1. PTT
2. Menu/Power Key
3. SCAN/UP Key
4. Speaker
5. Accessories/Charging Jack
6. LCD Display
7. Safe Mode Key
8. Call Tone/Key Lock
9. Monitor/DOWN Key
10. Microphone
11. Antenna

## Display Icon Instructions

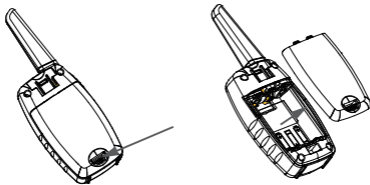


	Battery Indicate		Power
	Key Lock		Transmitting/Receiving
	Roger Beep		VOX
	Scan		

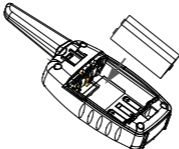
## Battery Installation and Function

Your device uses 3 x AA alkaline batteries.

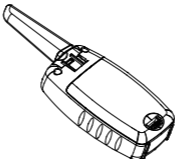
1. Place the back of the device to you, there is a hidden buckle to turn on/off the battery cover.



2. Install 3 x AA alkaline batteries as shown inside of the battery case.



3. Reinstall the battery cover and lock it down, the batteries can be replaced with NI-MH battery.



## Battery Power Measurement

The battery capacity is full, the battery power is high . When the battery displays 1 grid, the device is in low battery mode and makes a low battery warning in the form of the prompt.

### Note:

Take out the battery from the radio to save it. The battery may become corrosion by the time and do the forever damage to your device.

- Don't mix the old/new/alkaline/ NI-MH batteries together to use.
- Charge the provided NI-MH battery every 3 months when not using the radio.

### Turn ON/OFF the Device

After installing the batteries, the device is turned on and has a prompt. LCD display will briefly display all function icons, then it will display the available channel and CTCSS/DCS. Press the Power key, the radio is turned off.

### Set Volume

- Press UP key to increase the volume.
- Press the DOWN key to decrease the volume.
- The magnitude of the volume is indicated by the displayed number 1-16.

### Set Channel

- 1.Shortly press the Menu key and the current channel flashes.
- 2.Press the UP key or DOWN key to choose channel number.
- 3.Press the PTT key to confirm and save channel settings.

### Communication

When communicating, all the devices of the group set the same channel number and CTCSS/DCS code; When you start to communicate, please keep 2-3inch between the device and the mouth. Press the PTT key to talk. When you finish talking, release the PTT key. (Press the key to transmit, release the key to receive).

## Featured Function

### CTCSS/DCS Code

The distribution of the CTCSS/DCS code can decrease the interference between radios, but radios can't communicate with each other with different CTCSS/DCS codes. To ensure your private communication, each channel has 0-121 CTCSS/DCS codes to be set.

- 1.Shortly press the MENU/Power key twice or until the CTCSS/DCS code starts to flash.
- 2.Press the UP key or DOWN key to choose code 0-121 or 121-0.
- 3.Press the PTT key to save code settings.

You can use the procedure to set different CTCSS/DCS codes for each channel.

Note: if you want to communicate with the other device without setting CTCSS/DCS codes, you must set your CTCSS/DCS code to 0.

### TOT

To prevent accidental transmission or occupying channel for a long time, if you press the PTT key to continuously transmit for 60s, the device will make a continuous warning tone and stop transmitting.

### Key Lock

To prevent accidentally changing the setting of the radio, press the CALL/Key Lock for 3s or until the key lock icon is displayed. At this time, you can turn on/off the radio, adjust the volume, receive, transmit, transmit call

tone and monitor channel. But other functions are locked. To unlock the device, press the CALL/Key Lock for 3s or until the key lock icon is not displayed.

### Scan Channel

Use scan to monitor the reeving of the channel or find the people who accidentally change the channel in your group. Press the SCAN key for 3s and the scan icon appears, the radio starts to scan. When detecting the channel activities, you can hear the receiving. To answer, press the PTT key in 5s and the channel will be confirmed.

### Enter the Scan Again

If the scan stops on the unwanted channel, shortly press the SCAN key, the scan restores and enters next effective channel scan.

### Set and Send Call Tone

Your device can send different call tones to other devices in your group to remind the people you want to communicate.

Set Call Tone

1. Press the MENU key until the call tone number flashes.
2. Press the UP key or DOWN key to choose the needed call tone.
3. Press the PTT key to confirm the selected call tone.

Send to call tone other devices, the device needs to set the same channel and CTCSS/DCS codes as yours, then press the call tone key to call.

Note: the call tone is set to 0, all call tones are ineffective.

VOX Function

The VOX function allows the user to start transmitting towards the microphone without pressing the PTT key.

1. To turn on the VOX function, press the MENU key until the VOX icon appears, and the current setting flashes (OF,1,2,3).
2. Press the UP key or DOWN key to choose OFF or sensitivity level.
3. Press the PTT key to choose the new level.

L3 = High sensitivity
L2 = Middle sensitivity
L1 = Low sensitivity
L0 = Turn off the VOX function

### Set Dual Standby Channel

1. Press the MENU key until the CH icon appears and the current setting flashes (OF, 1-21).
2. Press the UP key or DOWN key to choose the monitor channel.
3. Press the PTT key to save the dual channel settings.
4. Two channels display alternatively.

### Check Channel Before Transmitting

Your device has 21 channels and they display with the cyclic method. To achieve uninterrupted communication, please don't communicate on the channel if other people are communicating on that channel. To check channel activities before communication, long press the MON/DOWN key, the channel can be used if you listen to the white noise.

### Set Squelch Level

1. Press the MENU key until the SQL icon appears, and the current level number will flash (1-6).
2. Press the UP key or DOWN key to choose the needed squelch level: 01=high receive sensitivity, 02-05=middle receive sensitivity, 06= low receive sensitivity

### Set Transmitting Power

- 1.Press the MENU key until the PR icon appears. The current setting power level flashes (HI or LO).
- 2.Press the UP key or DOWN key to choose high/low power.
- 3.Press the PTT key to save the new setting of the transmitting power and the correspond power icon displays.

### Set Safe Mode

Press the SAFE-M key for 3s until the SF icon appears, the device enters the safe mode. Press the SAFE-M key for 3s again, the device exits the safe mode.

Note: in the safe mode, other function can't be used except the PTT function and volume adjustment.

## Frequency List

This FRS device is approved for USA					
Channel	Frequency (MHz)	Max Power Out put	Channel	Frequency (MHz)	Max Power Out put
1	462.5625	1W	12	467.6625	0.5W
2	462.5875	1W	13	467.6875	0.5W
3	462.6125	1W	14	467.7125	0.5W
4	462.6375	1W	15	462.5500	1W
5	462.6625	1W	16	462.5750	1W
6	462.6875	1W	17	462.6000	1W
7	462.7125	1W	18	462.6250	1W
8	467.5625	0.5W	19	462.6500	1W
9	467.5875	0.5W	20	462.6750	1W
10	467.6125	0.5W	21	462.7000	1W
11	467.6375	0.5W	22	462.7250	1W

## CTCSS 38

No	Code	No	Code	No	Code	No	Code
39	23	49	71	59	134	69	223
40	25	50	72	60	143	70	226
41	26	51	73	61	152	71	243
42	31	52	74	62	155	72	244
43	32	53	114	63	156	73	245
44	43	54	115	64	162	74	251
45	47	55	116	65	165	75	261
46	51	56	125	66	172	76	263
47	54	57	131	67	174	77	265
48	65	58	132	68	205	78	271
79	306	90	412	101	516	112	662
80	311	91	413	102	532	113	664
81	315	92	423	103	546	114	703
82	331	93	431	104	565	115	712
83	343	94	432	105	606	116	723
84	346	95	445	106	612	117	731
85	351	96	464	107	624	118	732
86	364	97	465	108	627	119	734
87	365	98	466	109	631	120	743
88	371	99	503	110	632	121	754
89	411	100	506	111	654		

# RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR 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.

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

**•Do not use this device if the operational requirements described herein are not met.**

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 of 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/>

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 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.

## **Radio License(only applicable to licensed radio)**

Governments keep the radios in classification, business two-way radios operate on radio frequencies that are regulated by the local radio management departments (FCC, ISED, OFCOM, ANFR, BFTK, Bundesnetzagentur...).To transmit on these frequencies, you are required to have a license issued by them.

The detailed classification and the use of your two radios, please contact the local government radio management departments.

Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

## **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:**

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference. (Licensed radios are applicable);

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



devices are applicable)

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

(Only Applicable to GMRS radio station):

A valid individual license is required to operate a GMRS station. To obtain an individual license, an applicant must be eligible and follow the applicable rules and procedures established by FCC. The applicant must pay the required application and regulatory fees. Each individual license in the GMRS will normally have a term of ten years from the date of grant or renewal, and may be renewed pursuant to the procedures of FCC. To obtain a GMRS operator license, you need FCC Form 605 & 159, we suggest visiting the FCC website at <https://www.fcc.gov/wireless/support/fcc-form-605>, which includes necessary instructions. More questions about the license application, please contact the FCC at 1-888-225-5322 or go to the FCC's website: <http://www.fcc.gov>.

According to FCC rules, any individual who holds an individual license may allow his or her immediate family members to operate his or her GMRS station or stations. Immediate family members are the licensee's spouse, children, grandchildren, stepchildren, parents, grandparents, stepparents, brothers, sisters, aunts, uncles, nieces, nephews, and in-laws.

\*(Only applicable to industrial environment) This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

\*(Only applicable to home) 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](http://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.

•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 the following two conditions:

- (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 Compliance and Control Guidelines and Operating Instructions**

•Occupational/Controlled Radio, this radio is designed for and classified as "Occupational/Controlled Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards; NOT intended for use in a General population/uncontrolled environment.

•General population/uncontrolled Radio, this radio is designed for and classified as "General population/uncontrolled Use".

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits, always adhere to the following procedures. 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.

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 necessary information or less, is important because the radio generates measurable RF energy exposure only when transmitting in terms of measuring for standards compliance.

- 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 head and the device or its 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. 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.

### Hand-held Mode(if applicable)

• 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(if applicable)

•When placing or receiving a phone call, hold your radio product as you would a wireless telephone. Speak directly into the microphone. Do not use the equipment when you are driving

### Electromagnetic Interference/Compatibility

NOTE: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility.

### Avoid Choking Hazard



Small Parts. Not for children under 3 years.

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



- 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 (flammable gas, dust particles, metallic powders, grain powders, etc.).
- Turn off your radio while taking on fuel or while parked at gasoline service stations. 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:



- 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

### ••BATTERY WARNING: KEEP OUT OF REACH OF CHILDREN

•Store spare batteries securely

•If the battery compartment (if applicable) does not close securely, stop using the product and keep it away from children

•If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention

•Dispose of used batteries immediately and safely

### 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.

### 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>

### For downloading further resources:

Brochures, Software/Firmware, Manual etc, Pls contact your direct reseller first OR go to website [retevis.com](http://retevis.com) and check "support" in the each product link to download it.

## 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.



CE FC RoHS 

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MADE IN CHINA