

成品规格：9 X 13cm



CE FCC RoHS



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MADE IN CHINA

RETEVIS

two way radio

RT81&RT81V



User's Manual

**More Optional Accessories of
Retevis Optional Accessories
Trouble shooting guide
Specifications**

www.retevis.com

More Optional Accessories of Retevis



Speaker microphone



Finger PTT Headset



Acoustic Tube headset



Antenna



Throat mic



Programming cable

For more information ,please visit our website:www.retevis.com

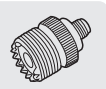
Optional Accessories



Vehicle Charger



Speaker



Antenna Adapter



Earphone



Clone Cable



Program Cable



Eliminator



Software CD

Welcome to use **RETEVIS**
two-way radio

www.retevis.com

Main Functions

Monitor
Battery save/low battery alarm
Lone worker
End-tone elimination
Battery Indicator
Side key programmable
Talk around
32 channels
Digital/analog double modes
Read and write by computer
TX High/low power selection
Time out timer
Chinese and English audio prompt
Busy channel lockout
Online update
QT(analog mode)
DQT (digital mode)
Wide band/narrow band selection
Encryption
Single call,group call
IP 67 waterproof
VOX
Zone Selectable
CompatibleMOTOTRBO
Series Tier I and II
Ultra Power:10W

Squelch
Double time slot



Contents

- 07 Using tips & Unpacking and checking equipments
- 08 Charging the battery
- 08 Battery type
- 10 Assembling/disassembling the accessories
- 11 Get familiar with this two wayradio
- 14 Programmable side key function
- 14 Setting
- 17 Frequency table
- 19 Troubleshooting guide
- 20 Radio write frequency operation process

Using tips

Unpacking and checking equipmen

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Using tips

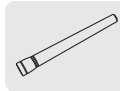
Please read the following brief instructions, non-compliance with these rules may causedanger or violate the law.

- Obey the local government regulation before using this radio, improper use may violatethe law and be published.
- Turn off the radio before entering flammable or explosive areas
- Do not use radio whose antenna is damaged, touching of damaged antenna will causeheat injury
- Do not attempt to disassemble this radio; the maintenance work should be done bytechnical expert only
- To avoid troubles caused by electromagnetic interference of electromagnetic compatibility, please turn off the radio in places where have the banner "Do not usewireless equipment", such as hospital and other healthcare places.
- In the car with an airbag, do not put 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 lwith your local dealer
- Do not transmit too long, for the radio may heat and hurt the user.

Unpacking and checking equipments

Carefully unpack the radio. We recommend you check the items listed in the followingtable before discarding the package. If any item is missing or has been damaged duringshipment, please contact us immediately.

Supplied accessories:



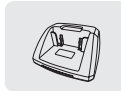
Antenna (1)



Li-ion battery (1)



Belt Clip (1)



Charger (1)



Charger Adapter (1)



Verification (1)



User's Manual (1)

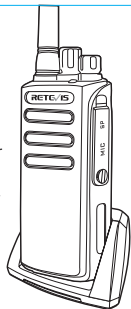
Note: The antenna frequency range please refers to the annular label at the bottom of antenna.

Charging the battery

- Insert the AC adaptor plug in the AC power output socket
- Insert the battery or radio with battery vertically in a charger
- Make sure the battery and charger terminal is in good contact, when the charging indicator light turns red, it starts charging.

Note:

- Before inserting the battery, it is abnormal if the charging indicator blinks.
- To change the battery for charging, please wait until the indicator is stable.
- When the battery is well inserted, the indicator turns red and the charging is on the process, if the indicator blinks, then the battery is damaged or the temperature is too high or too low.



Charging precautions:

The battery is not fully charged in factory, please charge before using it. Charge and discharge the battery for 2-3 times, the battery capacity will reach the best condition. When the battery capacity is low, please charge or change the battery.

Applicable battery types

Please use the battery supplied by factory, it might cause the explosion or harm to human body

Notice:

Do not short-circuit the battery terminal or drop the battery in the fire. Do not disassemble the battery by yourself.
Charge the battery between temperature 0°C and 45°C. The battery can not be fully charged beyond this temperature range.
Do not unplug the power or battery when it is charged. The operating time becomes short even the battery is fully charged, the battery is exhausted, please replace the battery. Please do not charge when the battery of the radio is wet. Please dry it with a cloth before charging to avoid any danger.

Warning

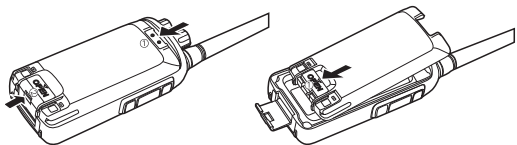
When the conductive metals such as jewellery, key or decorative chains touch the battery terminals, all the batteries are likely to cause damage to the items or personal injury. These conductive metals may from a short circuit and generates much heat. Do deal with any battery carefully, especially when put it into pocket, wallet or other metallic containers.

Assembling/disassembling
the accessories
Get familiar with this
two way radio

Assemble/ disassemble accessories

Assemble/disassemble battery

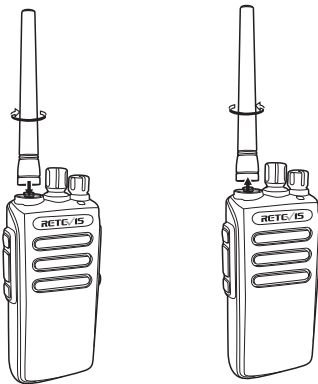
To install the battery into the battery positioning hole of radio bottom, the press the battery, make the button completely to lock battery. To remove the battery, please turn off the radio, and then push up the battery button of radio top, finally take off the battery



Assemble/disassemble antenna

Assemble: Hold the end of antenna and rotate the antenna clockwise to the antenna hole until it's tight

Disassemble: Rotate the antenna anticlockwise from the antenna hole



Earpiece jack/Programming cable jack

Open the earpiece cover, insert the earpiece into the earpiece jack.

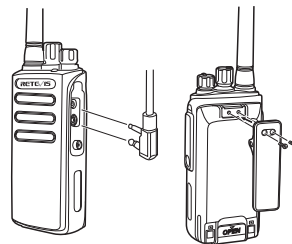
User can use the software to program the radio by this jack, too.

Assemble/disassemble the belt clip

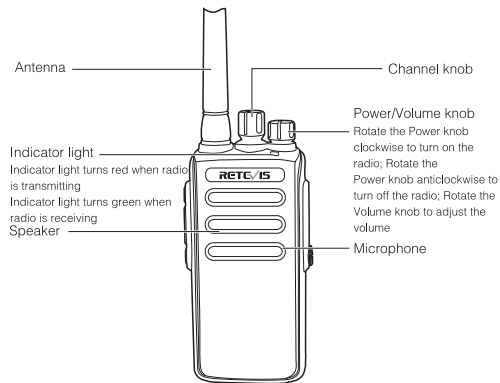
Assemble the belt clip

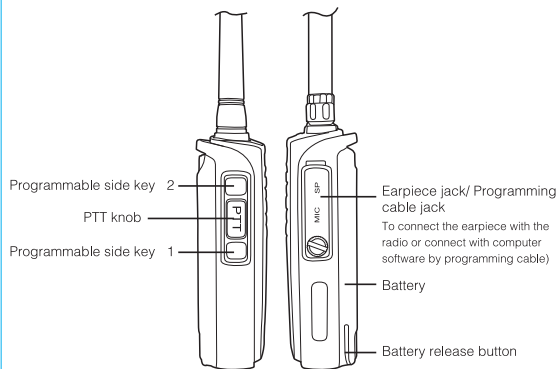
- 1.Remove the battery from the radio
- 2.Align the clamping slot of the belt clip to the mounting slot on the back of the battery, press the belt clip until it's tight

- 1.Remove the battery from the radio
- 2.Pull out the belt clip



Get familiar with this two way radio





Notice: In an emergency, users can press Programming side key 1 or 2 to activate the emergency call. Before using this radio, user should program the radio by matched software supplied by dealer.

Programmable side key function Setting

Programmable side key function

User can set side key P1 and P2 as the programmable function key as following functions
Monitor (Analog) Permanent Monitor (Analog) Encryption On/Off(Digital) Zone Selection BER Test (Digital) High/low Power Repeater/Talk around.

Monitor

Once user activates programmable side key as "Monitor", radio will make a squelch. This function is used to check if the current channel is occupied before communication. Monitor can release CTCSS/DCS temporarily. Also this function is used to receive the weak signal Release side key to exit function.

Permanent Monitor (Analog only)

Once user activates programmable function key as "Permanent Monitor", radio will monitor the chosen channel whether there someone is talking at the same channel. If not radio will make rustle.

Encryption Digital only.

Only set the same encryption type of TX and RX can user communication with each other Zone Selection.

Once user activates programmable function key as "Zone Selection", user can press this side key to select different zones programmed by software. Enter Zone2 when radio make the sound "Di" exit Zone2 when radio make the sound "DIDI".

BER Test(Digital)

User can activate programmable function key as "BER Test" to transmit the inspection code, inspection code is used to test radios which can decode by inspection code High/low Power. User can activate programmable function key as "High/low Power" to switch to high or low power.

Repeater/Talk around

User can activate programmable function key as "Repeater/Talk around" to switch to Repeater or Talk around.

Talk around: Two way radio's TX frequency and RX frequency become the same, TX signaling and RX signaling become the same.

Setting

QT/DQT

1)If user set the OT/DOT on one channel, user is able to ignore other calls on the same channel
2)When users set OT/DOT on one channel, only receive the same OT/DOT can radio open the squelch. In the same way, only other people set OT/DOT the same as yours can they receive your call

3)This radio has 50 groups of analog OT/DOT, 105 groups of digital OT/DOT available.

Battery save

In a period of time if user do not have any operation and not receiving data or measured effective carrier wave, radio will enter battery save mode, receiving circuit and DSP enter a low power state in cycle, which prolongs the use time of radio. Every time the radio is transmitting, according to the battery save mode settings, will send some pre carrier wave or voice head, in order to ensure that the sleep mode of the radio can be normally received We call this time "Battery save mode delay time", which can be programmed by the programming software, ranging from 1S to 600S, the default value is 50S. Users can choose whether to open the battery

save mode.

Low battery alarm

When the voltage is lower than 5.8V, the radio is always in a low battery state, the red light flashes every 2 seconds, and the radio makes the "low power" alarm, remind the end user to charge or replace the battery in time

Communication setting

Analog communication

Right click Zone1 to add the analog channel (Open software-Zone setting - Zone1) Enter the channel setting

Select channel bandwidth:12.5K or 25K

Set TX Frequency and TX Frequency

Set TX Enc QT/DOT and RX Dec QT/DOT Set RX squelch mode

Set the TX power

Set the TX authority

Right click Zone1 to add the digital channel (Open software- Zone setting- Zone1)

Enter the channel setting, to set the Colour Code, only the same Colour Code can call on digital channel

Set TX Frequency and TX Frequency

Set the RX Group Lists (Correspond to TX Contacts)

Set the TX Contacts (Use can set the Call Type: Individual Call/Group Call /All Call) Set the TX Authority: Impolite

Set the In Call Criteria: Allow TX

Contacts

Contacts only support digital mode

Write click [Digital Contacts], and set the Call Type Edit the corresponding ID

TX radio is able to select call the corresponding contacts

RX Group Lists

RX Group Lists only support digital mode

Select the contacts from RX Group Lists for group call(For the communication with TX radio

Encryption

Select encryption type : Enhanced Mode0 /Enhanced Mode1 Set the Key No. and corresponding Key Value

Enter [Zone1], select digital channel, enter [RX Setting], tick the Encryption Select one encryption key

Only the same encryption key can communicate

Frequency table
Technical specifications
Troubleshooting guide
Warranty card

www.retevis.com

CTCSS standard frequency table

CTCSS			
1-67.0	14-103.5	27-159.8	40-199.5
2-69.3	15-107.2	28-162.2	41-203.5
3-71.9	16-110.9	29-165.5	42-206.5
4-74.4	17-114.8	30-167.9	43-210.7
6-79.7	19-123.0	32-173.8	45-225.7
7-82.5	20-127.3	33-177.3	46-229.1
8-85.4	21-131.8	34-179.9	47-233.6
9-88.5	22-136.5	35-183.5	48-241.8
10-91.5	23-141.5	36-186.2	49-250.3
11-94.8	24-146.5	37-189.9	50-245.1
12-97.4	25-151.4	38-192.8	
13-100.0	26-156.7	39-196.6	

DCS standard group number

DCS							
023	071	143	266	355	452	532	664
025	072	145	271	364	454	546	703
026	073	152	274	365	455	565	712
031	074	155	306	374	462	606	723
032	114	156	311	411	464	612	731
036	115	162	315	412	465	624	732
043	116	165	325	413	466	627	734
047	122	172	331	423	503	631	743
051	125	174	332	431	506	632	754
053	131	205	343	432	516	645	
054	132	212	346	445	523	654	
065	134	223	351	446	526	662	

Specifications

General

Frequency range	136-174 / 400-470MHz
Channel NO	32
Working voltage	7.4V
Working temperature	-30°C~+60°C
Storage temperature	-40°C~+80°C
Continuous working time	Analog:15 hours; Digital:25 hours
Battery capacity	2200Mah

Receiver

Frequency range	136-174 / 400-470MHz
Channel spacing	12.5KHz/25KHz
Frequency stability	+/-1.0ppm
Analog sensibility	0.35 μ V/-116dB m(20dB SINAD) 0.22 μ V/-120dB m(Typical)
Digital sensibility	0.3 μ V/-117.4dB m(BER5%) 0.7 μ V/-110dB m(BER1%)
Spurious response	TIA03C:65dB ETSI:65dB
Adjacent channel selectivity	TIA603C:60dB@12.5KHz ETSI:60dB@12.5KHz
Spurious response suppression	TIA603C:70dB ETSI:70dB
Receiving spurious emissions	< -57dBm@1GHz, > -47dBm@
Blocking	84dB
Rated audio power	1W
Audio response	+1dB~-3dB
Rated audio distortion	≤3%

Transmitter

Frequency range	136-174 / 400-470MHz
Channel spacing	12.5KHz/25KHz
Frequency stability	+/-1.5ppm
TX power	Low: 1W High: 10W
FM noise	-40dB@12.5KHz
Spurious emission	< -36dBm@1GHz, > -30dBm@
Adjacent channel selectivity	-60dB@12.5KHz
FM modulation mode	12.5KHz:11F0F3E
4FSK digital modulation mode	12.5KHz(data only)7K60FX 12.5KHz(data+voice)7K60FX
Modulation limit	2.5KHz@12.5KHz
Audio response	+1dB~-3dB
Reted audio distortion	≤3%
Digital protocol	ETSITS02361-1,-1,-3
Vocoder type	AMBE+2TM

Note: Specifications will be revised without notice due to technical improvement Thank you 1

Trouble shooting guide

Troubles	Solution
No Electrical Source	<ul style="list-style-type: none"> • The battery has been exhausted. Replace or recharge the battery. • The battery is installed incorrectly. Remove it and install again.
The operating time becomes short, even the battery is fully charged.	<ul style="list-style-type: none"> • Replace the battery.
Not able to communicate with the transceivers of the same group.	<ul style="list-style-type: none"> • Confirm the QT/DQT is the same. • The distance is outside of range.
The voice of another group can be heard.	<ul style="list-style-type: none"> • Change all QT/DQT of the group.
Other radios can not receive the TX signals or receive signals in a low volume.	<ul style="list-style-type: none"> • Switch the volume knob to the highest level • The microphone may be damaged, send it to the local dealer for check.
Noise is always heard.	<ul style="list-style-type: none"> • The distance is outside of range. Turn on the radio in nearer range and try again.

Radio write frequency operation process

I. System Requirements

Operating System Windows98, Windows Me, Windows XP, Windows Vista, Windows7, Windows8

Hard Disk Space: At least 50MB of available

The minimum memory: 64M

II. Install the USB driver

1. Find the USB drive which your system corresponded to. 2. Click to install, successful installation is ok

III. Write frequency software installation

Programming cable readying

1. USB Programming cable - need to install the driver before they write frequency
2. Serial port Programming cable does not need to install the driver, it can directly write
3. If the USB driver has been installed successfully, the port will be at least 2 port. Remove the cable, then one port will be disappeared, that is the correct port which we find, then connect the cable and choose the correct port.

Computer terminal preparations

1. Open the computer, run the computer operating system
2. Install the write frequency software which has been downloaded well or Install it From the programming software CD
3. Installed, and open the write frequency software programming interface.

Radio end preparations

1. USB(or serial) Programming cable connect the computer end
2. The USB Programming cable pin is connected with one end of the walkie talkie programming interface
3. Ensure the walkie talkie under the condition of power, open it

IV. Write frequency software operating process

1. Find the software settings, open communication port, to ensure the communication port Option and computer connection port consistent (inconsistent will not read frequency) to solve the related problem
2. In the menu to find reading frequency and click in the window that appears can reading frequency
3. This process needs waiting for a while, after the completion of reading the progress bar shows the radio channels and frequencies that have been read into the current software
4. Modify the radio channel and frequency data, and other functional parameter data
5. Find the write frequency in the menu, click the appeared window to confirm, complete the progress bar
6. If multiple radio needs the same frequency, frequency steps can be repeated to write.

V. Related problem solving

When reading or writing frequency of radio long time no response or a communication error?

1. Check the write frequency line to find if it is damaged.
2. Check whether the write frequency line with computer serial port or radio interface is bad or loose
3. Check to find whether the radio battery is low or out of power, if this, please replace the

battery or charging the battery

4. Check whether the programming software is match with the current model

5. Please check whether the write frequency software port settings are assigned to the computer USB port

6. Please check whether the power is switched on the radio

7. Whether to choose the corresponding drive system and the correct installation

When writing the frequency is completed, found two radio cannot normal call or receive

1. Make sure whether the two walkie-talkie are in the same channel

2. Determine the same channel at the receiving end CTCSS, CDS and the transmitter is not the same

3. Make sure whether the two radio volume is too low, if it is too low, Turn on the volume

4. Please check whether the two walkie-talkies are open, or at low/no power status

5. Check whether the walkie-talkie installed antenna

6. Check and confirm whether the communication distance is too far

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



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 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

Governments keep the radios in classification, business two-way radios operate on radio frequencies that are regulated by the local radio management departments (FCC, ISCED, 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.

NOTE:

*(If applicable) 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.

*(If applicable) 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.

•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 Information(if applicable)

•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.

•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.

•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".

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment 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 (if applicable).
- 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/CINRP RF exposure limits.

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.

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



- 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. 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



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



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



- 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>

EU Importer: Germany Retevis Technology GmbH
Address: Uetzenacker 29,38176 Wendeburg
For downloading further resources:
Brochures, Software/Firmware, Manual etc, Pls contact your direct reseller first
OR goto website [retevis.com](http://www.retevis.com) and check "support" in the each product link to download it.

Cut along this line

RETEVIS

Guarantee

Model Number: _____ Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's: _____ 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.

