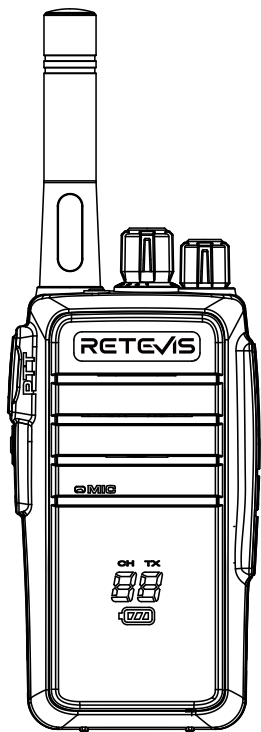


RETEVIS



RT21H USER'S MANUAL

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For downloading further resources: Brochures, Software/Firmware, Manual etc, Please contact your direct reseller first OR go to website retevis.com and check “support” in the each product link to download it.

Warnings

Before using this radio, please read this manual carefully.

Do not charge the radio in flammable, explosive, or radio-restricted areas (e.g., gas stations, airports).

Do not operate this radio without authorization in areas restricted by government regulations.

Keep the radio away from direct sunlight and heat sources.

Avoid exposing the radio to dust, moisture, or splashing water.

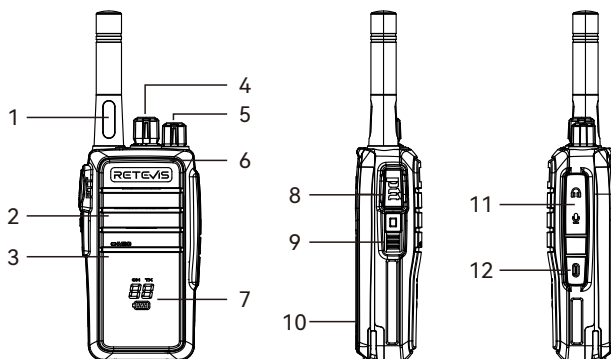
If you notice smoke or an unusual odor, immediately remove the battery pack and contact your dealer.

Repairs must be carried out by qualified technicians. Do not disassemble the radio.

Charging Notes:

- Use only the supplied charger for this model.
- Turn off the radio before charging.
- For best performance, charge the battery at least 5 hours before first use.
- Do not charge for more than 12 hours continuously; overcharging shortens battery life. If charging time exceeds 12 hours without a full charge, disconnect immediately.
- This charger is only for the specified battery pack. Do not charge other batteries.
- Store fully charged batteries in a cool, dry place. Keep away from fire or direct sunlight.
- Do not transmit while charging.
- Slight heating of the battery during charging is normal.

Get Familiar with The Device



1. Antenna
2. Speaker
3. Microphone
4. Channel Knob
5. Power/Volume Knob
6. Status Indicator
7. Hidden Display
8. PTT
9. Side Key
10. Battery
11. Audio/Data Port
12. Type-C Port

Basic Operations

1. Status Indicator

Red light for transmit, green light for receive.

2. Channel Knob

Rotate the knob clockwise to increase or counterclockwise to decrease the channel. A total of 16 channels are available.

3. Power/Volume Knob

Rotate the knob clockwise to turn on the radio and adjust the audio level. Rotate counterclockwise until a click is heard to power off.

4. PTT

Hold down the PTT button and speak into the microphone to transmit; the red indicator will light up. If the channel has no transmit frequency, a warning tone will sound. Release the PTT to switch to receiving; if there is an incoming signal, the green indicator lights and the speaker activates.

5. Squelch Level

Squelch sets the signal strength required to unmute the speaker. Lower levels allow longer range but admit more noise, while higher levels reduce background noise but limit range. The factory default is level 5, and it can be adjusted between 0 and 9 via CPS software.

6. TOT

TOT prevents prolonged transmissions and protects the radio from overheating. If transmission exceeds the preset limit (0–180 seconds, set in CPS), the radio stops transmitting and emits a warning tone. Releasing the PTT resets the function.

7. Power-Saving Mode

The radio can be set to Battery Save mode via CPS software.

Note: a、Unchecked: Battery Save mode is off. b、Checked: Battery Save mode is on.

8. Monitor

The monitor function, programmable to a side key, opens the squelch so that weak or background signals can be heard.

9. Scan

Channel 16 is used for scanning. When selected, the radio automatically scans through programmed channels to detect activity.

10. Channel Lock

This function locks or unlocks the channel selector to prevent accidental operation. It can be assigned to a side key in CPS.

11. Roger Beep

An optional tone can be sent at the roger beep. The feature is off by default and can be enabled through CPS.

12. Busy Channel Lock

When enabled, it prevents transmission on a busy channel. Pressing the PTT under this condition will only trigger a warning beep until released.

13. VOX

VOX feature enables transmission without pressing the PTT button—just speak into the mic to transmit, and it stops automatically when you stop talking. By default, long-press the side button to activate VOX, with voice

prompts ("VOX ON"/"VOX OFF") for status changes. This feature is off by default.

- a. When VOX is enabled on your radio's channel, speaking into the mic starts transmission automatically, and it stops when you're silent, waiting for incoming signals.
- b. When using a headset mic, adjust the VOX gain for proper sound level detection. Overly sensitive settings may trigger transmission with ambient noise, while insufficient sensitivity may miss your voice. Fine-tune the gain for smooth communication.

Note: With high VOX sensitivity and a connected speaker/mic, amplified received signals may unintentionally trigger transmission.

14. One-Key Emergency Alert

Define side-button long-press via CPS for emergency alerts. Hold for 2s to activate; press PTT to exit.

15. One-Key CTCSS/DCS Off

On Channel 3, long-press side + PTT at startup: "On" enables CTCSS/DCS; "Off" disables it.

16. CTCSS/DCS

Supports 260 CTCSS/DCS codes: 50 analog CTCSS & 105*2 digital DCS (N/I-phase), set via software.

17. Battery Level Alert

Short-press side button for level announcement: battery voltage one/two/three, "One" (0-30%), "Two" (40-60%), "Three" (70-100%).

Factory Frequencies

FRS			
Channel	Frequency (MHz)	CTCSS/DCS	Max Power Output
1	462.5625	67.0	2W
2	462.5875	118.8	2W
3	462.6125	127.3	2W
4	462.6375	131.8	2W
5	462.6625	136.5	2W
6	462.6250	127.3	2W
7	462.7250	136.5	2W
8	462.6875	141.3	2W
9	462.7125	146.2	2W
10	462.5500	123.0	2W
11	462.5750	D743I	2W
12	462.6000	D332I	2W
13	462.6500	D243I	2W
14	462.6750	D606N	2W
15	462.7000	D731I	2W
16	462.7250	D462I	2W

CAUTION

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.

Radio License

Governments keep the radios in classification. Two-way radios are only operated on authorized radio frequencies that are regulated by the local radio management departments (such as FCC, ISED, OFCOM, ANFR, BFTK, Bundesnetzagentur, and so on.). The detailed classification and the use of your two-way 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.

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FCC compliance information

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.
- (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. 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.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

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



RF exposure 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/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 “Occupational/Controlled Use Only”.

● 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 with 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 cardiovascular 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.

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 airbag 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.



Authorized Accessories List

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

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.



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



Made in China

说明书印刷要求:

尺寸:120*160mm

样式:钉装

印刷:黑色

**印刷封面封底内页为空白，
质保卡为单独一页**

纸张:封面封底铜版纸

内页双胶纸

此面不用印刷