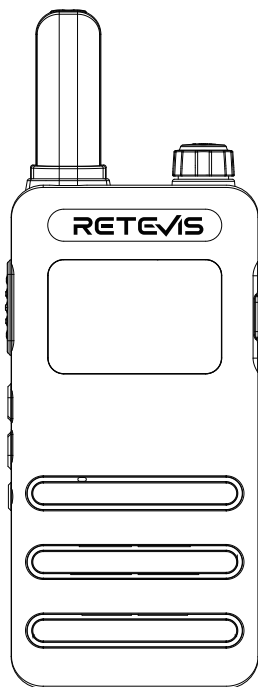


RETEVIS



B3S

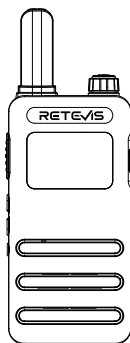
User Manual

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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.

Functional Profile



- Display
- Scan
- Monitor
- VOX
- English Prompt
- Keypad Lock
- TOT
- Battery Indicate
- Busy Channel Lockout
- High/Low Power
- Battery Save
- Low Battery Alert
- 50 CTCSS/210 DCS
- Squelch
- Emergency Alarm
- Backlight Delay Off

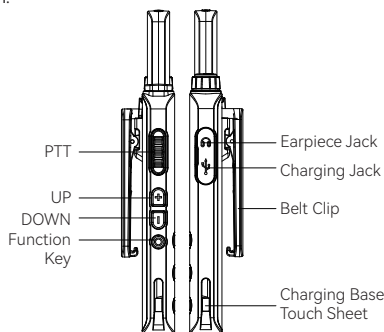
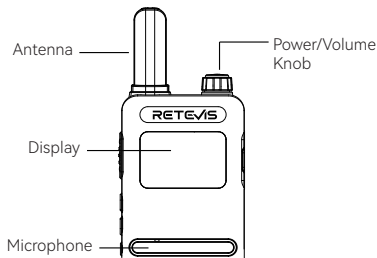
Charging Attentions (1)

- The Li-ion battery is not charged at the factory, please charge the battery before using it at an ambient temperature of 5-40°C.
- After purchase or long-term storage (more than two months), don't reach its saturated capacity when charging the walkie-talkie for the first time. After repeated charging/discharging two or three times, the normal charging effect and battery energy can be achieved.
- Before charging the battery, it is strictly forbidden to use the walkie-talkie while charging, which will affect the normal charging of the Li-ion battery and cause accidental danger.
- After the walkie-talkie is fully charged, please unplug the USB charging plug of the walkie-talkie. Do not overcharge for a long time to shorten the battery life. The battery energy (power) is not fully used, please do not recharge it. Otherwise, it will cause the memory effect of the battery and damage it.
- When the battery life of the walkie-talkie does not increase even after fully and correctly charged, it means that the Li-ion battery has reached the end of its life, please replace the battery.

Note: this walkie-talkie is charged directly with Power adapter. When charging the battery, first insert the plug of the "Power adapter" into the mains 110~220V power supply, and then directly plug the small output plug of the Power adapter into the walkie-talkie.

USB charging port, charging starts when the charging marquee on the walkie-talkie screen cycles. After fully charged, the battery level of the marquee light is all on.

Familiar with Radio



Basic Operations

Power Knob

1. Rotate the power/volume knob clockwise and turn on the walkie-talkie after a click is heard. Voice prompt welcome, the screen displays the current channel and the machine is turned on.
2. Rotate the power/volume knob anticlockwise and turn off the walkie-talkie after a click is heard. The screen light is off and the machine is turned off.

Channel Selection

Shortly press the UP/DOWN key to switch the channel, the channel on the screen displays the current channel and voice prompts, and the operation button is to increase/decrease the channel number in a cycle, that is, short press for the operation.

When shortly press UP key: 1—16->1—16->.....

When shortly press DOWN key: 16—1->16—1->.....

PTT: While pressing the PTT transmit button, please keep the distance between the microphone and your mouth 3-8cm, and speak into the microphone with a normal tone, so that the receiver can get the best call quality.

Function Introduction

1. Squelch Setting

The squelch function is to strictly filter out the excessive background noise, eliminate or suppress the background noise when no signal is received, and make the speaker of the walkie-talkie remain silent when no signal is received. The purpose of the squelch is to strictly suppress the noise, but if the suppression is excessive, the weak call signal will also be limited and cannot be received. The user requires a longer communication distance, and the received signal will become weaker at this time, which requires higher receiving sensitivity and lower squelch level. Shortly press the Function Key to access the main menu, then press the + or - key to enter the 0 SQL menu to set off or 1-9 level is adjustable. After setting successfully, press the Function Key to confirm and return to the previous menu. Press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

2. Transmit Power Setting

Adjust the transmitting power of the walkie-talkie. When communicating at a short distance, it can be set to low power, which can save power. If long-distance communication is required, it can be set to high power. Shortly press the Function Key to access the main menu, then press the + or - key to enter the 1 TXP menu to set the transmit power. Set the high and low power according to the usage requirements. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

3. Battery Save

The battery save function allows the walkie-talkie to reduce power consumption by reducing the work of the receiving circuit when there is no signal reception in the receiving state, prolonging the use time of the walkie-talkie after charging once.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 2 SAVE menu to set OFF, 1 (1:1), 2 (1:2), 3 (1:3) or 4 (1:4). After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

4. VOX Function

VOX refers to the function of speaking into the walkie-talkie but not pressing the PTT button to transmit. Shortly press the Function Key to access the main menu, then press the + or - key to enter the 3 VOX menu to set OFF or 1-10. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

Earpiece: wired earpiece is 3.5mm 1 pin designed for the walkie talkie. After turning on the VOX function, transmit without pressing the PTT key. When the sending volume is higher than the set trigger volume level, the walkie talkie will automatically transmit voice.

5. Backlight Delay Time

The delay time for the backlight to turn off when there are no operations on the walkie talkie.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 4 ABR menu to set OFF or 1 to 10s. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

6. Prompt Setting

Turn on or off keypad prompt sound.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 5 Beep menu to set ON or OFF. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

7. TOT

The purpose of the TOT is to prevent a person from using a channel for too long. If you continuously transmit to the time set by the TOT, the walkie-talkie will stop transmitting and send out Warning tone. To stop the warning tone, release the PTT key. Press the PTT key again to resume transmission.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 6 TOT menu to set OFF or 15 to 180s, the step is 15s. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

8. CTCSS/DCS

Sometimes, you may only want to hear calls from a specific person or group. In this case, selective calling can be used. This walkie-talkie has CTCSS and DCS functions. By using selective calling, you are protected from unwanted calls from others using the same frequency. The walkie talkie will unmute only when it receives a signal with the same CTCSS or DCS signaling code.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 7 R-DCS or 8 R-CTCS menu to set the receive CTCSS/DCS of the current channel. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Only turn on R-CDS or R-CTCS, if the one is turned on, the other one will automatically turn off.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 9 T-DCS or 10 T-CTCS menu to set the transmit CTCSS/DCS of the current channel. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Only turn on T-CDS or T-CTCS, if the one is turned on, the other one will automatically turn off.

9. Busy Channel Lockout

Busy channel lockout means that when the walkie-talkie receives a signal, it is in a busy state and cannot perform other operations, that is, it cannot transmit.

Shortly press the Function Key to access the main menu, then press the + or - key to enter the 11 BCL menu to set ON or OFF. After setting successfully, press the Function Key to confirm and return to the previous menu, press the PTT key to exit the menu and return to the standby interface. Also, it can be realized by programming software.

10. Scan Function

The scan function is convenient for users to search for calls of users on other channels.

When setting the side key 2 to the scan function through computer programming, long press the DOWN key for 2 seconds and release it after hearing a beep, the walkie talkie enters the scanning working mode. The walkie talkie will start scanning with the current channel, and the conversation can be made when the matching carrier and subtone signals are scanned. If you do not press the PTT key or receive a signal within 7 seconds, the scan will continue. In the scanning working mode, long press the DOWN key for 2 seconds and release it after hearing two beeps, the walkie talkie exits the scanning working mode. (Note: when scanning is added less than 2, the walkie-talkie cannot scan, it can be realized by computer programming).

11. Keypad Lock Function

Long press the Function Key and hear Lock prompt, the keyboard is locked and the screen displays a lock icon; long press the Function Key again and hear Unlock prompt, the keyboard is unlocked and the screen displays an unlock icon.

12. Monitor Function

Set the side key as Monitor and operate the key to enter the monitor mode, and the screen displays the receiving status. Release to exit monitor mode.

13. Low Battery Alert

When the battery power is low, the walkie talkie will issue a voice prompt, please charge it in time.

14. Emergency Alarm Function

When the side key2 is defined as emergency alarm through the programming software, long press the DOWN key for 2 seconds, the emergency alarm will sound, and an emergency alarm signal will be sent, which can be received by the walkie-talkie with the same frequency within the receiving range. Press the transmit button to end the emergency alarm transmission.

Specifications

General	
Frequency Range	462.550-462.725MHz;
Rated Voltage	3.7V --- 1620mAh(Packable Polymer Battery)
Memory Channel	16
Antenna Type	Built-in Antenna
Working Method	Same Frequency Simplex
Grounding Method	Negative Pole
Receiving	
Sensitivity	0.16μV(12dB SINAD)
Audio Power	2300mW
Audio Distortion	<5%
Intermodulation	≥60dB
Receive Current	≤380mA
Standby Current	≤20mA
Transmitting	
Output Power	2W/0.5W
Modulation Method	FM(F3E)
Maximum Frequency Deviation	≤2.5KHz
Pre-emphasis	6dB per octave
Transmit Current	≤1200mA

Factory Setting

No	Frequency	CTCSS/DCS	Bandwidth	Power
1	462.5625	67.0	Narrow	High
2	462.5875	118.8	Narrow	High
3	462.6125	127.3	Narrow	High
4	462.6375	131.8	Narrow	High
5	462.6625	136.5	Narrow	High
6	462.6250	127.3	Narrow	High
7	462.7250	136.5	Narrow	High
8	462.6875	141.3	Narrow	High
9	462.7125	146.2	Narrow	High
10	462.5500	123.0	Narrow	High
11	462.5750	D743I	Narrow	High
12	462.6000	D332I	Narrow	High
13	462.6500	D243I	Narrow	High
14	462.6750	D606N	Narrow	High
15	462.7000	D731I	Narrow	High
16	462.7250	D462I	Narrow	High

CAUTION

RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE



ATTENTION!

Before using this device, please read this guide which contains important operating instructions for safe usage, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards.

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

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

- This device may not cause harmful interference.
- 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.

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:

- This device may not cause interference.
- 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 :

- l'appareil ne doit pas produire de brouillage;
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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.



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/>

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 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 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 Radiocommunication device 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 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.
- 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.



Authorized Accessories List

Earbuds and Earpieces: C9239A

- 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.



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RoHS



MADE IN CHINA