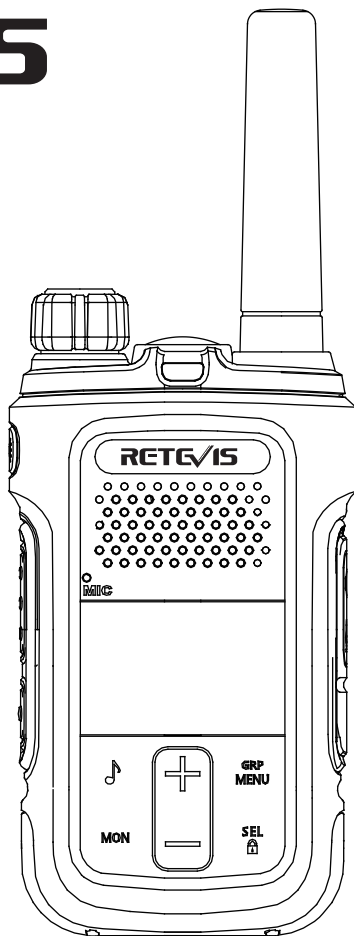


RETG/IS



RB27B/V TWO WAY RADIO USER'S MANUAL

FRS:

Programmed with the 22 FRS frequencies *; Max Transmission power: 2W; Bandwidth 12.5 kHz; Send time limit max. 180 seconds; fixed antenna; no registration or fees; For country approvals, see device pass.

Serial number	Frequency	Sub audio	Power
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	462.6875	141.3	2W
7	462.7125	146.2	2W
8	467.5625	D243N	0.5W
9	467.5875	D032N	0.5W
10	467.6125	D047N	0.5W
11	467.6375	D051N	0.5W
12	467.6625	D053N	0.5W
13	467.6875	D065N	0.5W
14	467.7125	D116N	0.5W
15	462.5500	123.0	2W
16	462.5750	D7431	2W
17	462.6000	D3321	2W
18	462.6250	127.3	2W
19	462.6500	D2431	2W
20	462.6750	D606N	2W
21	462.7000	D7311	2W
22	462.7250	136.5	2W

MURS:

Programmed with the 5 MURS frequencies **; Max Transmission power: 2W; Bandwidth 11.25KHz/20.00KHz; no registration or fees; For country approvals, see device pass.

** = MURS frequencies

01-151.820 MHz

02-151.880 MHz

03-151.940 MHz

04-154.570 MHz

05-154.600 MHz

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1.GETTING STARTED

1.1Content of the packaging

- 1 transceiver
- 1 Li-Ion battery pack 1500mAh 3.7V
- 1 Fast desktop charger

1.2 Main features

- 10 Selectable Call/Call Alerts
- 258 Privacy Codes (50 CTCSS Tones and 208 DCS Codes)
- SOS Emergency function
- Channel Monitor, Channel Scan, Dual Watch functions
- CTCSS and DCS codes research
- Hands-Free Operation (VOX)
- VOICE: Vocal indication of the function selected
- Low battery voice indicator
- LED Flashlight
- Li-Ion 1500mAh battery pack
- 11 Channels NOAA Weather Radio
- 1750Hz tone for repeaters
- FM radio receiver (76-108MHz)
- TOT (Time out timer)30/60/90/120/150/180s
- Busy Channel Lockout function (BCL)
- Squelch adjustable in 9 levels
- Keypad lock
- Battery Saver
- Support USB (Type-C) charging
- 2pin Kenwood accessory jack

About Range

Your Series radios are designed to give you maximum range under optimum conditions.

- Maximum Range: Little to No sight Obstruction.
- Medium Range: Partial Obstruction to line of sight.
- Short Range: Major Obstruction to Line of Sight.

Optimum Conditions are:

- Over water
- Open rural areas without obstructions
- Flat areas where you can see the other person

To ensure you get maximum range:

- Be sure to use fresh or fully charged batteries - low batteries will cause low power conditions.

2. BATTERY INFORMATION

2.1 Charging the Battery Pack

The Li-ion battery pack is not charged at the factory; please charge it before use. Charging the battery pack for the first time after purchase or extended storage (more than 2 months) may not bring the battery pack to its normal maximum operating capacity.

Best operation will require fully charging/ discharging the battery two or three times before the operating capacity will reach its best performance. The battery pack life may be depleted when it's operating time decreases even though it has been fully and correctly charged. If this is the case, replace the battery pack.

2.2 Charger Supplied

Please use the specified charger provided by Retevis. Other models may cause explosion and personal injury. After installing the battery pack, and if the radio displays low battery with a voice prompt, please charge the battery.

2.3 Use Caution with the Li-ion Battery

- Do not short the battery terminals or throw the battery into a fire. Never attempt to remove the casing from the battery pack, as Retevis cannot be held responsible for any accident caused by modifying the battery.
- The ambient temperature should be between 5°C - 40°C (40°F - 105°F) while charging the battery. Charging outside this range may not fully charge the battery.
- Please turn off the radio before inserting it into the charger. It may otherwise interfere with correct charging.
- To avoid interfering with the charging cycle, please do not cut off the power or remove the battery during charging until the green light is on.
- Do not recharge the battery pack if it is fully charged. This may shorten the life of the battery pack or damage the battery pack.
- Do not charge the battery or the radio if it is damp. Dry it before charging to avoid damage.

WARNING!

When keys, ornamental chain or other electric metals contact the battery terminal, the battery may become damaged or injure a human. If the battery terminals are short circuited it will generate a lot of heat. Take care when carrying and using the battery. Remember to put the battery or radio into an insulated container. Do not put it into a metal container.

2.4 How to Charge

Your radios include a charging cradle and battery packs. Follow these instructions to recharge your radios. Make sure to turn the radio OFF before placing the radio in the charging cradle.

- The USB plug of the charging stand can be connected to the USB port of the mobile phone adapter, mobile power supply, personal computer, and car cigarette lighter.
- Set the charging cradle on the desk or tabletop and place the radio in the charging cradle with the keypad facing forward.
- Make sure that the LED illuminates. Charge the battery pack for 6 hours and remove the radio from the charging cradle after charging.

Note:

- Use only the supplied battery and AC adapter or approved accessories from Retevis
- Charge time may vary depending on the battery life remaining.
- The battery must be installed for the unit to operate, even if the unit is also connected to external power.
- If battery power is low, you cannot operate the radio even using external power. Allow the battery to charge before using. If you try to transmit while power is low, the radio will automatically turn off.
- For fastest charging, turn off the radio before charging.

2.5 LED Indicator

STATUS	LED
No Battery	Green and red alternately flashing
Charge Normally	Red
Fully Charged	Green
Trouble	Red blinks fast for a long time

NOTE: Trouble means battery too warm, battery short-circuited or charger short-circuited.

2.6 How to Store the Battery

- a. If the battery needs to be stored, keep it in status of 80% discharged.
- b. It should be kept in low temperature and dry environment.
- c. Keep it away from hot places and direct sunlight.
 - » Do not short circuit the battery terminals.
 - » Never attempt to remove the casing from the battery pack.
 - » Never store the battery in unsafe surroundings, as a short may cause an explosion.
 - » Do not put the battery in a hot environment or throw it into a fire, as it may cause an explosion.

3. INSTALLATION OF ACCESSORIES

Before the radio is ready for use we need to attach the battery pack, as well as charge the battery.

3.1 Installing the belt clip

- a. To install the BELT CLIP, slide the clip down into the slot on the back of the radio until the BELT CLIP LATCH clicks.
- b. To remove the BELT CLIP, press the LOCK TAB down, and then gently pull the belt clip up toward the top of the radio.

3.2 Installing the battery pack

Before attaching or removing the battery make sure your radio is turned off by turning the power/volume knob all the way counter-clockwise.

To install the battery pack:

- a. With the back of the radio facing you, insert the bottom part of the Li-ion battery pack to the bottom of the radio.
- b. Push down the Li-ion battery pack into the radio until the Battery Lock Tab locks into place.

To remove the battery pack:



- a. Press the Battery Lock Tab downward until the Li-ion battery pack unlocks from the radio.
- b. Pull the Li-ion battery pack away from the radio.

3.3 Installing the Additional Speaker/Microphone (Optional)

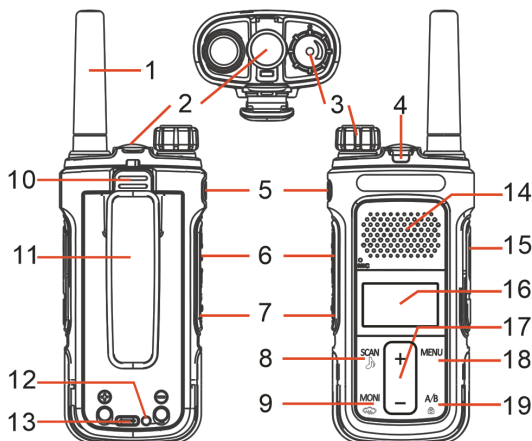
Pry open the rubber MIC-Headset jack cover and then insert the Speaker / Microphone plug into the double jack.

4. RADIO OVER VIEW

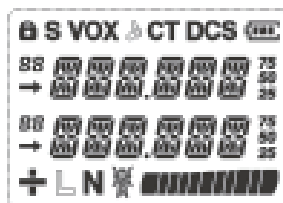
4.1 Main controls and parts of the radio











1. Antenna
2. LED Flashlight
3. Power Switch/ Volume control
4. Led: transmission (red) / reception (green)
- 5.[LAMP]: Press the key once to turn on the flashlight, Press and hold the key again to flash the flashlight, and press the hand again to turn off the flashlight; Press and hold the key to turn on the audible and visual alarm function.
6. [PTT]:Transmit key, hold the key to speak, release the key after speaking, and receive incoming calls;
7. FM: Press to turn on the radio function, and press again to turn off the radio function;
8. [SCAN ]: Press to send a CALL ALERT signal; Press and hold to enter SCAN mode.
9. [MONI ]: Press to enter weather forecast mode; Press and hold to enter MONITOR mode.

10. Battery release latch
11. Belt clip
12. Charging indicator: The red light is always on during charging, and the green light is always on when charging is full.
13. Micro-USB Charging Port: DC5V USB input
- 14 Speaker
15. External Speaker/Microphone Jack: allows the connection with external devices such as headsets, microphones.
16. LCD Display
17. +/- keys: push to select functions or Menu. Channel mode, press + to switch up the channel; press - to switch channel down.
18. Menu: press to enter the Menu functions and to confirm your selections.
- 19.[A/B] In standby mode, press this key to switch between main/sub channels between A/B channels. Press and hold this key to lock or unlock the keyboard. Menu mode, Press the key to exit the menu; Press to enter SCAN mode. Press and hold to turn KEY LOCK on/off.



4.2 LCD Display



	Transmit and receive instructions
	In channel mode, display the current channel frequency; In menu mode, display menu items;
	Battery level indicator. When the battery is almost used up, the icon starts blinking and the transmission is blocked. Charge the radio.
	Indicates the channel number that you stored
	Appears when a positive shift is activated.
	Appears when a negative shift is enabled.
VOX	Activation of the VOX function
	This icon indicates the keypad lock. To unlock it press A/B key.
	This symbol appears during transmission (when you press the PTT key) or reception. When the radio is in rx mode, the led will light up green, while in tx mode it will be red.
	Press and release to transmit your unique Call Tone signal to another radio. The other person will hear a two second call tone. This tone is used only to establish voice communications.
S	This letter is displayed when the Dual Watch function is active.
L	Low power selection
N	Narrow bandwidth: N = narrow.
CT	These symbols show that you set a CTCSS code in tx or rx. In tx mode it appears while you are transmitting, while in rx mode it is shown also in stand-by condition.
DCS	These symbols show that you set a DCS code in tx or rx. In tx mode it appears while you are transmitting, while in rx mode it is shown also in stand-by condition.
	This icon indicates where the radio is operating, in which frequency or function. The arrow is displayed close to the frequency band in use.
WEATHE	Enter weather forecast receiving mode (transmission prohibited in this mode)

5. BASIC OPERATIONS

5.1 Turning your Radio On and Off

To turn your radio ON, turn the rotary knob clockwise.

To turn your radio OFF, turn the rotary knob counterclockwise.

5.2 Setting the Volume

Increase volume by turning the rotary knob clockwise.

To decrease volume, turn the rotary knob counterclockwise.

Do not hold the radio close to your ear. If the volume is set to an uncomfortable level, it could hurt your ear.

5.3 Choosing a Channel

Your radio has 30 channels and 260 Privacy codes you can use to talk to others. In order to speak to someone, both your radios must be set to the same channel and Privacy code.

Press [+ / UP] to move up one channel at a time. Press and hold the key to scroll quickly up the channels.

Press [- / DOWN] to move down one channel at a time. Press and hold the key to scroll quickly down the channels.

5.4 Talking and Listening

All radios in your group must be set to the same channel and Sub-Code in order to communicate.

1. Hold your radio 2–3 cm from your mouth.

2. Press and hold the [PTT] key while speaking. The Transmit TX --- icon appears on the display.
 3. Release the [PTT] key. You can now receive incoming calls. When you do, the Receive RX --- icon appears on the display.
- For maximum clarity, hold the radio 2 to 3 cm away and avoid covering the microphone while talking.

5.5 SCAN

Your can scan all 30 channels for activity. Pressing and holding [SCAN] key for 2 seconds to enter. Repeat the same procedure to exit.

Your radio will rapidly scan each of the 30 channels and stop on any active channel. Your radio will resume scanning after 4seconds when the channel is no longer active.

When you press the [PTT] key to transmit on an active channel, the scanning function will stop and remain on the active channel for 5 seconds before resuming scan when [PTT] key is no longer pressed. To resume scanning, quickly press the key.



5.6 Monitor

Press and hold the [MONI] key for around 2 second will let you hear noise so you can adjust the volume level of the radio when not receiving a signal. This should be used to check activity on your current channel before transmitting.

Press and hold the [MONI] key for 3 second again to get out of Monitor mode.

5.7 Keypad lock

This function locks the keypad to prevent accidental pressure of the controls.

To avoid accidentally changing the radio setting, press the [A/B ] key for 2 seconds. The  icon will appear on the display.

PTT, LAMP, MONITOR, and FM Radio keys will still be active. Repeat the same procedure to unlock the keypad.

5.8 A/B switch

Press the [A/B ] switch to select the master frequency.

5.9 Flashlight and Emergency Alert

This function is very useful for night illumination.

To turn it on press [LAMP]; push it again, the flash light will be strobe; push it again: it will turn off.

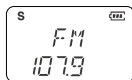
Open radio, press and hold the [LAMP] key for about 2 seconds to activate the sound and light alarm function. Press [LAMP] key again to exit the alarm state.

5.10 FM Radio (FM)

The frequency range to listen to the radio is 76-108MHz.

With turned on, Press [FM] to turn on the radio. Select the desired radio frequency with the [+UP]/[-DOWN] keys. Press [FM] to exit FM radio.

Note: while you are listening to the radio, the channel of A / B receiving signal will automatically switch to the channel mode for normal transmitting and receiving. When the signal disappears the radio will automatically switch again to FM radio mode.



5.11 NOAA Weather Radio

Your radio can receive weather broadcasts from the NOAA National Weather Service.

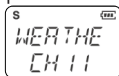
While using the Weather Radio, you are not able to receive GMRS communications.

1> To turn on the Weather Radio Broadcast mode, press [MONI ]. WEATHE appears.

2> Press [+UP]/[-DOWN] to select the desired number of weather channels.

3> To exit the Weather Radio Broadcast mode, press [MONI ]. WEATHE disappears.

NOTE: There are 11 NOAA channel frequencies available and these frequencies are common between the US and Canada. You need to know what frequency is being transmitted in your location.



NOAA Weather Radio Frequency List:

Chan.	Freq.(MHz)	Chan.	Freq.(MHz)
WEATHER 1	162.550	WEATHER 7	162.525
WEATHER 2	162.400	WEATHER 8	161.650
WEATHER 3	162.475	WEATHER 9	161.775
WEATHER 4	162.425	WEATHER 10	161.750
WEATHER 5	162.450	WEATHER 11	162.000
WEATHER 6	162.500	--	--

5.12 1000Hz, 1450Hz, 1750Hz Tone-burst

To send out a tone-burst; you simultaneously will press a key while holding down the PTT. No further configuration required using this feature.

The following configurations will transmit accordingly:

- [PTT] +[-DOWN] = Transmits 1450Hz Tone Burst
 - [PTT] +[+UP] = Transmits 1750Hz Tone Burst
 - [PTT] +[MENU] = Transmits 2100Hz Tone Burst
- If you have the keypad lock enabled on your radio, you can still send a 1750Hz tone the regular way without having to unlock your radio.

6. WORKING THE MENU SYSTEM

6.1 Basic use

Using the menu with arrow keys

1> Press the [MENU] key to enter the menu.

2> Use the [+UP] and [-DOWN] keys to navigate between menu items.

3> Once you find the desired menu item, press [MENU] again to select that menu item.

4> Use the [+UP] and [-DOWN] keys to select the desired parameter.


5> When you've selected the parameter you want to set for a given menu item;


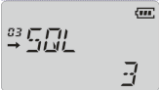






a). To confirm your selection, press [MENU] and it will save your setting and bring you back to the main menu.





b). To cancel your changes, press [A/B] and it will reset that menu item and bring you out of the menu entirely.

6> To exit out of the menu at any time, press the [A/B] key

6.2 Shortcut Menu operations

MEN No	Name(Full Name)	LCD display	Selectable
1	RXCODE -Receiver Privacy		OFF;67.0...D754N The Privacy Codes is off, and the display is OFF. When the display is OFF, press +key to select CTCSS with priority; When the display is OFF, press - key to select DCS with priority

MEN No	Name (Full Name)	LCD display	Selectable
2	TXCODE-Transmitter Privacy Codes		OFF;67.0...D754N The Privacy Codes is off, and the display is OFF. When the display is OFF, press +key to select CTCSS with priority; When the display is OFF, press - key to select DCS with priority.
3	SQL- Squelch Level LIGHT-Back Light		0-9 Levels 0:Lowest 9:Highest
4	LIGHT-Back Light		OFF ON KEY
5	BEEP- Keypad Beep		OFF ON *Allows audible confirmation of a key press.
6	VOX - VOX		OFF will turn off VOX function. .1:Lowest Sensitivity .5:Highest Sensitivity
7	TDR – Dual Watch Operation		OFF ON *Monitor [A] and [B] at the same time. Activate the dual watch, and the screen will display the 'S' icon.
8	SAVE- Battery Saving		OFF: ON:
9	TOT- Time-Out-Timer		OFF,30,60...180S *This feature provides a safety switch that limits transmission time to a programmed value. This will promote battery conservation by not allowing you to make excessively long transmissions, and in the event of a stuck PTT switch it can prevent interference to other users as well as battery depletion

MEN No	Name (Full Name)	LCD display	Selectable
10	BCLO -Busy Channel Lock-out		OFF ON *Disables the[PTT] key on a channel that is already in use. The transceiver will sound a beep tone and will not transmit if the[PTT] key is pressed when a channel is already in use.
11	RING -Call Tone Select		OFF- close call tone; .Select 1-10 process, you can listen to the call tone.
12	VOICE -Voice Reminding		OFF - turn off voice prompts; .CHI- voice prompt is Chinese; .ENG- voice prompts in English. *Allows audible voice confirmation of a key press.
13	RESET -Restore defaults		*Resets the radio to factory defaults.

6.3 Menu settings

6.3.1 Receiving with Privacy Codes (RXCODE) - MENU 01

You can configure different Receiving Privacy Codes for each channel. The selected Privacy Code may be different for each channel.

Note: Selecting a Privacy Code of "OFF" will disable the Privacy feature. To communicate between two radios, all radios in your group must be set to the same channel and Privacy Code selections.

The Receiving Privacy Codes setting steps are as follows:

1> Press [MENU] key to enter the main menu, and press [+UP]/[-DOWN] key to enter the MENU 01.

2> Press [MENU] key again to enter the RXCODE menu;

3> Press [+UP]/[-DOWN] key to select the Privacy Code, and the selection range is OFF / 67.0~754N.

Note: The state of the Privacy Code is off, and the display is OFF. When the display is OFF, press the [+UP] key to select CTCSS with priority, range 67~254.1Hz (50 groups in total); when the display is OFF, press the [-DOWN] key to select DCS with priority, range D754I-023N (104 groups in total).

During the selection process, Pressing and holding the [+UP]/[-DOWN] key to quickly search for the sub-tone code.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.2 Transmitting with Privacy Codes (TXCODE) --- MENU 02

You can configure different transmission Privacy Codes for each channel. The selected Privacy Code may be different for each channel.

Note: Selecting a Privacy Code of "OFF" will disable the Privacy feature. To communicate between two radios, all radios in your group must be set to the same channel and Privacy Code selections.

The transmission Privacy Codes setting steps are as follows:

1> Press [MENU] key to enter the main menu, and press [+UP]/[-DOWN] key to enter the MENU 02.

2> Press [MENU] key again to enter the TXCODE menu;

3> Press [+UP]/[-DOWN] key to select the Privacy Code, and the selection range is OFF / 67.0~754N.

Note: The state of the Privacy Code is off, and the display is OFF. When the display is OFF, press the [+UP] key to select CTCSS with priority, range 67~254.1Hz (50 groups in total); when the display is OFF, press the [-DOWN] key to select DCS with priority, range D754I-023N (104 groups in total).

During the selection process, Pressing and holding the [+UP] / [-DOWN] key to quickly search for the sub-tone code.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.3 Squelch level (SQL) - MENU 03

This function turns on the Squelch when the signal is strong; the Squelch will stay off when the signal is weak. Set the same DCS codes of your group and turn on the squelch.

By setting the level too high, you may not receive the weak signals; while by setting it too low you may receive noises or undesired signals.

NOTE: This transceiver has 10 (0-9) available levels: 0 means that the Squelch is turned on. From level 1 to level 9 you will have different levels of noises reduction.

The higher is the level, the louder will be the Squelch.

The steps for setting the squelch level are as follows:

1> Press [MENU] key to enter the main menu, and press [+UP]/[-DOWN] key to enter the MENU 03.

2> Press [MENU] key again to enter the SQL menu;

3> Press [+UP]/[-DOWN] key to select the squelch level, select the range 0, 1-9

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.4 Backlight intensity (LIGHT) - MENU 04

The LCD backlight is convenient for you to use at night or in a dark environment. The LCD backlight setting steps are as follows:

1> Press [MENU] key to enter the main menu, and press [+UP]/[-DOWN] key to enter the MENU 04.

2> Press [MENU] key again to enter the LIGHT menu;

3> Press [+UP]/[-DOWN] key to select the LCD backlight switch, and the selection range is ON/OFF/KEY; Note: ON-backlight will be always on; OFF-backlight will be always off; KEY-touch key will automatically activate the backlight. Without any key operation, the backlight will be automatically turned off after a delay of 5 seconds.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.5 Beep tone (BEEP) - MENU 05

If you enable this function, every time a key is pressed, you will hear a Beep tone. You can set it as follows:

MENU 05.

2> Press [MENU] key again to enter the BEEP menu;

3> Press [+UP]/[-DOWN] key to select the BEEP switch, and the selection range is ON/OFF;

Note: ON-turn on the key prompt sound; OFF-turn off the key prompt sound.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.6 VOX (VOX) - MENU 06

Your radio has 5 VOX level settings: (OFF/1~5).

This function allows hands-free conversations: just speak in the direction of the microphone and the communication will be automatically activated.

The steps for setting up VOX voice control transmission are as follows:

1> Press [MENU] key to enter the main menu, and press the [+UP]/[-DOWN] key to enter the MENU 06.

2> Press [MENU] key again to enter the VOX menu;

3> Press [+UP]/[-DOWN] key to select the VOX switch and sensitivity, the selection range is OFF, 1~5;

Note: Level 5 low sensitivity, use under high background noise; Level 1 high sensitivity, use under low background noise.

Select 'OFF' will turn off the VOX function. After the VOX function is turned on, the screen will display the 'VOX' icon.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.7 Dual Watch function (TDR) - Menu 07

This function is a dual-channel monitor scan, which can monitor the A and B segments in the normal mode. If a signal is received on the monitoring channel, the scan stays on this channel.

The steps for setting the dual-frequency waiting function are as follows:

1> Press [MENU] key to enter the main menu, press [+UP]/[-DOWN] key to enter the MENU 07.

2> Press [MENU] key again to enter the TDR menu;

3> Press [+UP]/[-DOWN] key to select the dual-frequency wait switch, and the selection range is ON/OFF;

Note: OFF-turn off the dual watch function; ON-turn on the dual watch function.

Turn on the dual watch function; the screen will display the 'S' icon.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.8 Power save (SAVE) - MENU 08

To save battery power, this function can turn off the transceiver when no signal is received.

1> Press [MENU] key to enter the main menu, press [+UP]/[-DOWN] key to enter the MENU 08.

2> Press [MENU] key again to enter the SAVE menu;

3> Press [+UP]/[-DOWN] key to select the power saving mode, and the selection range is ON/OFF;

Note: ON-turn on the power saving mode; OFF-turn off the power saving mode.

4> Press [MENU] key to confirm;

5> Press [PTT] or [A/B] key to exit the menu and return to normal operation mode.

6.3.9 Time out Timer (TOT) - MENU 09

The TOT function is used to prevent a too long transmission. This function temporarily blocks transmissions if the radio has been used beyond the maximum time permitted. Once reached the preset timer, the radio will be forced in reception mode.

The transmission time can be set in 6 levels with 30 seconds each (between 30 and 180 seconds). The setting steps are as follows:

- 1> Press [MENU] key to enter the main menu, press [+UP]/[-DOWN] key to enter the MENU 09.2> Press [MENU] key again to enter the TOT menu;
- 3> Press [+UP] / [-DOWN] key to select the transmission time limit, the selection range is OFF/30S/60S/90S/120S/150S/180S;
- 4> Press [MENU] key to confirm;
- 5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.10 Busy channel lockout (BCL) - MENU 10

When this function is active, if you select a busy channel and press the PTT, the transceiver will not transmit.

- 1> Press [MENU] key to enter the main menu, press the [+UP]/[-DOWN] key to enter the MENU 10.
- 2> Press [MENU] key again to enter the BCLO menu;
- 3> Press [+UP]/[-DOWN] key to select the switch and select the range ON/OFF;
- 4> Press [MENU] key to confirm;
- 5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.11 Call Tone Select (RING)- MENU 11

This setting will allow you to transmit a unique Call Tone alert to identify your radio when you transmit messages. You can select from one of 10 different Call Tone signals. To Set Call Tone:

- 1> Press [MENU] key to enter the main menu, press [+UP]/[-DOWN] key to enter the MENU 11.
- 2> Press [MENU] key again to enter the RING menu;
- 3> Press the [+UP]/[-DOWN] key to select a different Call Tone. An example of each call tone will sound for 1.5 seconds.

Note: OFF-turn off the call reminder tone; during the selection of 1-10, you can listen to the call tone.

Before you initiate a voice intercom, you can press the [CALL] key to remind the call.

- 4> Press [MENU] again to confirm;
- 5> Press [PTT] or [A/B] key to exit the menu and return to normal operation mode.

6.3.12 VOICE Selection (VOICE) - MENU 12

Your radio has voice prompt function for channel and function operation, you can choose to switch voice function or prompt language type. The setting steps are as follows:

- 1> Press [MENU] key to enter the main menu, and press [+UP]/[-DOWN] key to enter the MENU 12.2> Press [MENU] key again to enter the VOICE menu;
- 3> Press [+UP]/[-DOWN] key to OFF or Chinese and English selection, the selection range is OFF/CHI/ENG

Note: OFF-turn off the voice prompts function; CHI-prompt voice is Chinese; ENG-prompt voice is English. After turning off the voice prompt function, there will be a beep prompt when you select a channel or menu setting.

- 4> Press [MENU] key to confirm;
- 5> Press [PTT] or [A/B] key to exit the menu mode.

6.3.13 Restore factory settings (RESET)-MENU 13

Your radio has a reset function. To reset the radio, proceed as follows:

- 1> Press [MENU] key to enter the main menu, and press [+UP]/[-DOWN] key to enter the MENU 13, the screen displays RESET.
- 2> Press [MENU] key to confirm, and the radio resets the parameters.

7. ON-LINE SERVICE AND SUPPORT

Appendix A. – Trouble shooting guide

Phenomena	Analysis	solution
You cannot turn on the radio.	The battery may be installed improperly.	Remove and reattach the battery.
	The battery power may run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirty or damaged battery contacts.	Clean the battery contacts or replace the battery.
During receiving, the voice is weak or intermittent.	The battery voltage maybe low.	Recharge or replace the battery.
	The volume level may be low.	Increase the volume.
	The antenna maybe loose or maybe installed incorrectly.	Turnoff the radio, and then remove and reattach the antenna.
You cannot communicate with other group members.	The speaker maybe blocked.	Clean the surface of the speaker.
	The frequency or signaling type maybe inconsistent with that of other members.	Verify that your TX/RX frequency and signaling type are correct.
You hear unknown voices or noise.	You may be too far away from other members.	Move towards other members.
	You may be interrupted by radios using the same frequency.	Change the frequency, or adjust the squelch level.
	The radio in analog mode maybe set with no signaling.	Request your dealer to set signaling for the current channel to avoid interference
You are unable to hear anyone because of too much noise and hiss.	You may be too far away from other members.	Move towards other members.
	You may be in an unfavorable position. For example, your communication may be blocked by high buildings or blocked in an underground area.	Move to an open and flat area, restart the radio, and try again.
	It may be the result of external disturbance (such as electromagnetic interference).	Stay away from equipment that may cause interference.
The radio keeps transmitting.	VOX may be turned on or the headset is not installed in place.	Turn off the VOX function. Check that the headphones are in place.

Appendix B. - Technical Specifications

General	
Frequency Range	FRS / MURS
Memory Channel	22 FRS CH + 11 NOAA Weather / 5 MURS CH
Operation Voltage	DC3.7V \pm 10%
Battery Capacity	1500mAh (Li-Ion)
Frequency Stability	\pm 2.5ppm
Operating Temperature	-20 °C to +60 °C
Mode of Operation	Simplex
Antenna Impedance	50ohm
Transmitter Part	
Max RF Output Power	2W (FRS/MURS)
FM Modulation	11K0F3E@12.5KHz
Adjacent Channel Power	60dB @ 12.5 KHz
Transmission current	\leq 1200mA
Receiver Part	
Receive Sensitivity	0.25 μ V (12dB SINAD)
Rated Audio Power Output	0.5W @8ohms
Receive current	\leq 350mA
Rated Audio Distortion	\leq 5%

NOTE: All specifications may be modified without prior notice or liability. Thank you.

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, 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.

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/ICNIRP 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
- 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



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. charging battery.

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



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://www.retevis.com) and check “support” in the each product link to download it.



Guarantee

Model Number: _____ Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's: _____ Telephone: _____

Country: _____ Address: _____

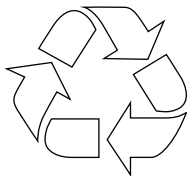
Post Code: _____ Email: _____

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.



CE FCC RoHS



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Facebook: facebook.com/retevis



MADE IN CHINA

说明书要求

尺寸：120*160mm

印刷：

- 1、黑白印刷
- 3、内页黑白印刷

装订：

- 1、折页

纸张材质：

- 1、普通印刷纸

Sh

本页无需印刷