

Before operating the radio, please read all safety and operating instructions. Save all instructions in a safe place for future reference.

FCC WARNINGS

Replacement or substitution of transistors, regular diodes or other parts of a unique nature, with parts other than those recommended by My Company may cause a violation of the technical regulations of part 95 of the FCC rules, or violation of type acceptance requirements of part 2 of the rules.



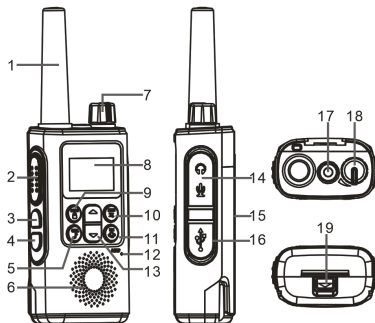
FCC Part 15.21 Warning Statement

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

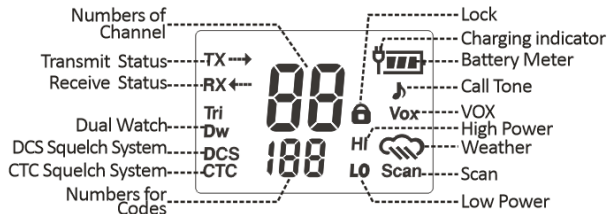
PRODUCT FEATURES

- 22 FRS Channels
- Hands-Free Operation (VOX)
- Call Alert
- Speaker/Microphone/Charge Jack
- Battery/Power Saver
- Battery Level Indicator
- Auto Squelch
- 11 NOAA Weather Channels
- 4 VOX Level Adjust
- Channel Scanning
- LED Flashlight
- 121 Privacy Codes (38 CTCSS codes/ 83 DCS codes)
- Backlit LCD Display
- Button Lock
- Roger Beep
- Keystroke Tones
- Low Battery Audible Alert
- Holster
- 10 Type Call Tones/- Selectable Call Alert
- Dual Watch
- Channel Monitor
- Type-C USB Charging

RADIO OVERVIEW



- | | |
|--------------------------------|------------------------------|
| 1. Antenna | 10. Scan Button |
| 2. PTT button | 11. ESC Weather Button |
| 3. LAMP/ Emergency Button | 12. Microphone |
| 4. Monitor Button | 13. / (UP/DOWN) button |
| 5. Call Button | 14. Accessory Port |
| 6. Speaker | 15. Battery pack |
| 7/18. Power On/Off/Volume Knob | 16. Type-C USB Charging Port |
| 8. Backlit LCD Display | 17. Flashlight |
| 9. MENU Button | 19. Battery latch |



BATTERY INSTALLATION

Your radio can be fitted with the 1500mAh Li-ion battery pack.

To install the battery pack:

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

To remove the battery pack:

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

INSTALLING THE BELT CLIP

To install the BELT CLIP, slide the clip down into the slot on the back of the radio until the BELT CLIP LATCH clicks.

To remove the BELT CLIP, press the LOCK TAB down, then gently pull the belt clip up toward the top of the radio.

CHARGING THE BATTERY PACK

Your radio can be recharged using the Desktop Charger.

To charge using a Desktop Charger:

1. Insert the AC adapter plug into the desktop charger jack. Connect the AC adapter into an AC wall outlet.
2. Place the radio to the appropriate charger slots as shown in the figure.

The LED indicator with RED color will light up indicating charging function, and will change to GREEN color once they are fully charged.

If the Li-ion battery pack is new, it is necessary to fully charge it before using it.

1. Only use our Li-ion battery pack.
2. Do not attempt to charge any battery packs other than the one indicated in the manual. This may cause leakage and damage to the radio.
3. For long term storage of the radio, turn the radio OFF and remove the batteries from the radio.

Using the Type-C USB Charger

The Type-C USB charger is a handy port that allows you to conveniently charge your Li-ion battery. Use certified adaptor (5V/1A). Do not attempt to charge alkaline batteries.

1. Make sure your radio is turned OFF
2. Plug the Type-C USB cable into the Type-C USB charging port on your radio. Connect the other end of the Type-C USB charger to wall power outlet.
3. The battery meter on LCD will move to indicate the battery is charging.

BATTERY LEVEL INDICATOR

Your radio has a BATTERY LEVEL METER  that shows the battery power level. The greater the number of bars visible, the stronger the battery level. When the battery level is low, the Battery Shell icon will flash in the display indicating your batteries should be replaced or recharged.

Radio Battery Meter

Battery full bars indicates battery high . When battery meter shows 1 bar, device is on low battery mode and will indicate low battery alert in the forms of alert tone and blinking bar display.

Quick Start

1. Turn On/Off VOL Knob clockwise to turn the radio on and counter clockwise to turn the radio off.
2. Select a desired channel.
3. Press and hold the PTT button while speaking into the microphone.
4. When finished talking, release the PTT button and listen for a response.

NOTE: Both radios must be tuned to the same channel/privacy code to communicate.

This radio is equipped with default Privacy Code on each channel for minimizing unwanted signals from others. See [page 7 to 8](#) for procedures changing your radio from default Privacy Code to a different Privacy Code or disabling Privacy Code.

OPERATION

Using Your Radio

Turning on Your Radio

Turn **Power On/Off/Volume Knob** clockwise to turn the radio on and counterclockwise to turn the radio off.

1. In the ON position, the radio chirps and briefly shows all feature icons available on the radio.
2. The display screen then shows the current channel, code and all features that are enabled.

To Adjust Volume

1. Rotate Power On/Off/Volume Knob clockwise to increase the volume.
2. Rotate Power On/Off/Volume Knob counterclockwise to decrease the volume. Do not hold the radio close to your ear. If the volume is set to an uncomfortable level, it can hurt your ear.

To Select a FRS Channel

In standby mode, directly press the  (Up) button or  (Down) button on the front panel to step down or down to select the channel.

Both radios must be tuned to the same channel to communicate.

Communicating with Another Person

1. Press and hold the **PTT** button.
2. Position the microphone about two inches (5 cm) from your mouth, speak in a normal voice. When transmitting, the **TX**  icon is shown.
3. Release the **PTT** button when you are finished talking and listen for a response.

You cannot receive incoming calls while pressing the **PTT** button.

NOTE: Both radios must be tuned to the same channel and privacy code to communicate.

Listening for a Response

Release the **PTT** button to receive incoming transmissions. Your radio is always in Standby mode while the Talk or Call buttons are not pressed. When receiving, the **RX**  icon is shown.

Monitor Button

1. Press and hold **Monitor** button on the left to enter monitor mode and listen for weak signals on the current channel.
2. You can also press **Monitor** button to check for activity on the current channel before you talk.
3. Release the **Monitor** button to exit monitor mode.

Scanning Channels

To Start Scanning:

1. Briefly press the **SCAN**  button to start scanning. **SCAN** icon will appear in the display. The device will stop scrolling and receiving when matched channel and Privacy Code detected.
2. After the end of transmission, press the **PTT** button within 5 seconds to respond. The device will resume scanning after end of any received activity.
3. If you press **PTT** button when the device is scrolling, the transmission will be on the 'home channel'.
4. Press **SCAN**  button to exit scanning feature.

***NOTE:** If the device stops on an unintended/undesired transmission, press  /  button to resume scan.*

CALL ALERT

Your radio can transmit a call alert for a fixed length of time. To send a call alert, press the **CALL**  button. When a call alert is sent, the **TX**  icon will appear on the display.

Keypad Lock Function

The Lock function locks the , , **Menu** and **SCAN**  buttons to prevent accidental operation. To turn the lock on or off:
– Press and hold the **MENU**  button for two seconds.

A double beep sound is used to confirm your lock enabled. When in Lock mode, the Lock icon will be displayed also.

1. To lock the radio, press and hold **MENU**  button until the key lock indicator  icon on display appear.

2. To unlock the radio, press and hold **MENU**  button until key lock indicator  on display disappear.
3. Repeat the step to unlock the device.

Using the Flashlight

You can use this radio in an emergency. If you press **LAMP/ Emergency** button, the radio turns on the high-intensity LED flashlight on your radio.

Your radio operates normally when the emergency strobe is activated.

1. Press **LAMP/ Emergency** button once, it will turn on continuously. (Always On mode)
2. And then, press **LAMP/ Emergency** button once, the radio will send out a loud siren sound and the flashlight will flash. (Emergency Alert mode)
3. And then, press **LAMP/ Emergency** button once, the light will be turned off.

About Range

Your range will vary depending on terrain and conditions. In flat, open country your radio will operate at maximum range.

Buildings and foliage in the path of the signal can reduce the range of the radio.

Dense foliage and hilly terrain will further reduce the range of the radio.

On Channels 8 through 14, your radio automatically switches to low power, which will limit the range the radio can communicate.

MENU FUNCTIONS

Privacy Codes

Your radio incorporates two advanced coded squelch systems that can help to reduce interference from other users on any given channel. CTCSS (Continuous Tone Coded Squelch System) provides 38 privacy codes and DCS (Digitally Coded Squelch) provides 83 privacy codes. This provides a total of 121 Privacy Codes. Either system can be used on all channels, but both systems cannot be used on the same channel at the same time.

For ease of use and to reduce interference from other users, the 22 channels of your radio have been customized, see Channel and Default Privacy Code Table.

You can change your radio Privacy Codes in order to work with other radios with different privacy codes or radio without privacy codes.

To activate 1 of 38 different CTCSS/83 DCS tones in RX and TX:

1. Turn on the radio.
2. Select the desired channel.
3. Press once **MENU** until the Display shows OF (blinking on the right side).
4. By pushing the $\square$ / $\square$ button the display will show CTCSS (ct blinking) or DCS (dc blinking); press **MENU** to enter the CTCSS or DCS tones. Now select the desired tone with the $\square$ / $\square$ buttons.
5. Press the **PTT** button to exit menu or **MENU** to continue set up.

Setting and Transmitting Call Tones

The radio can transmit different call tones to other radios in your group so you can alert them that you want to talk. Your radio has 10 call tones for you to choose from.

To select the call tones:

1. Press the **MENU** button 2 times and 'LL' will appear on the display.
2. Press $\square$ / $\square$ button to change and listen to the call tone.
3. Press the **PTT** button to exit menu or **MENU** to continue set up.

• *To disable the Call Tones follow the instructions above and select option OF (OF: Disabled).*

In order to transmit your call tone to other radios, set up the same channel and **Privacy Codes** on your radio and press and hold the **CALL** button.

Voice Activated Transmit (VOX)

In VOX mode, your radio can be used "hands-free," automatically transmitting when you speak. You can set the VOX sensitivity level to fit the volume of your voice and avoid transmissions triggered by background noise.

1. To activate VOX function press the **MENU** button 3 times and 'LE' will appear on the display.
2. Use the $\square$ / $\square$ buttons to select the desired setting:

The VOX sensitivity can be set in 4 different levels:

• **0 1** = low sensitivity (useful in very noisy areas or if you talk loudly)

- **02-03 = Medium Sensitivity for most environments**
- **04 = high sensitivity (normal voice with no background noise)**

3. Press the **PTT** button to exit menu or **MENU** to continue set up.

To disable the VOX function follow the instructions above and select option of **(OF: Disabled)**.

Keypad beep

To deactivate the keypad beep, follow these steps:

1. Press the **MENU** button 4 times and until “**on bp**” is displayed.
2. Use the **□** / **□** buttons until the display shows “**on bp**”.
3. Press the **PTT** button to exit menu or **MENU** to continue set up.

Now you won't hear any beep at the pressure of any button.

Power Save

The power save feature enables a reduction in the consumption of the battery when the radio is in standby.

1. To activate Power Save feature press the **MENU** button 5 times and ‘**5U**’ will appear on the display.
2. Use the **□** / **□** buttons to select the desired setting:
 - **01= 1s' working and 1s' battery saving.**
 - **02= 1s' working and 2s' battery is saving.**
 - **03= 1s' working and 4s' battery is saving.**
3. Press the **PTT** button to exit menu or **MENU** to continue set up.

To disable the **Power Save** feature, follow the instructions above and select option of **(OF: Disabled)**.

NOTE: The higher the number the longer the battery lasts. The higher number increases the RX sleep cycle, but you may miss the first few syllables before the RX opens.

Dual Watch Mode

Your radio has a **DUAL WATCH** function, to enable user to scan 2 channels for any activity. The first channel will be the current channel setting and the second channel will be the selected channel on the.

To set another channel and start Dual Watch:

1. Press the **MENU**  button 6 times and until the display shows 'DW ';
2. Using the buttons  /  select the **Watch Channel**, then press **MENU** .
3. The radio starts to Dual Watch.

The screen will alternate between home channel and Dual Channel Monitor channel.

Note: If you set the same channel and Privacy Codes as the current channel, Dual Watch doesn't work.

To exit Dual Watch:

1. Press the **MENU**  button 6 times and until the display shows 'DW ';
2. Using the buttons  /  to select **OF** and then press **MENU**  button.
3. The radio exits Dual Watch mode.

Using the Weather Radio/Scan Weather Channel

Your radio has a NOAA Weather Radio function, to enable the user to receive weather reports from designated NOAA stations. Your radio also has a NOAA Weather Scan function, to enable the user to scan all 11 channels of the NOAA Weather Radio. While using the Weather Radio, you are not able to receive FRS communications.

1. To turn the NOAA Weather Scan on, press and hold the **ESC**  button for 3 seconds while in FRS mode,  icon appears.
The radio will go to Weather band mode.
2. Press the **SCAN**  button to start scanning all 11 channels and stop on any active channel. The radio will resume scanning when the channel becomes inactive for 10 seconds.
3. Press the **SCAN**  button during a NOAA weather scan, the radio will stop scanning and the display will show the current weather band channel setting and icon. Pressing the **MENU**  button will store the weather channel.
4. To exit Weather Radio broadcast mode, press and hold the **ESC**  button.  icon disappears.

EXTERNAL SPEAKER/MICROPHONE JACK

Your radio can be used with an optional external speaker/ microphone or headset, freeing your hands for other tasks. To use an optional speaker/ microphone or headset:

-Cover must first be removed. Loosen the screw and remove the Cover.

-Insert the plug(s) into the SPK/MIC jacks

-Place the earbud into your ear, and adjust the mic into your desired position.

Note: The radio will no longer be water proofed when the accessory jack cover is removed.

Technical Specifications

General Part

Channels	22 FRS/11 Weather
privacy code	38 CTCSS Tones/ 83 DCS Codes
Frequency Range	462.5500-467.7125(FRS)
Working temperature	-10°C to +40°C
Operation Voltage	DC 3.7 V $\pm$ 10%
Operation Mode	Simplex

Transmitter Part

RF Output Power	2W (FRS)
FM Modulation	11K0F3E@12.5KHz
Adjacent Channel Power	60dB @ 12.5KHz
Transmission current	$\leq$ 1000mA

Receiver Part

Receive Sensitivity	0.25 μ V (12dB SINAD)
Adjacent Channel Selectivity	$\geq$ 55dB@12.5KHz
Inter Modulation and Rejection	$\geq$ 55dB@12.5KHz
Conducted Spurious Emission	$\leq$ -57dB@12.5KHz
Rated Audio Power Output	0.75W @8 ohms
Receive current	$\leq$ 380mA

Rated Audio Distortion

≤5%

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

FRS Frequency Chart (MHz)

CH.No	CH.Freq.	CH.No	CH.Freq.	CH.No	CH.Freq.	CH.No	CH.Freq.
1	462.5625	7	462.7125	13	467.6875	19	462.6500
2	462.5875	8	467.5625	14	467.7125	20	462.6750
3	462.6125	9	467.5875	15	462.5500	21	462.7000
4	462.6375	10	467.6125	16	462.5750	22	462.7250
5	462.6625	11	467.6375	17	462.6000		
6	462.6875	12	467.6625	18	462.6250		

CTCSS Table

CTCSS CHART (Hz)

Number	Frequency	Number	Frequency	Number	Frequency
OF	OFF	13	103.5	26	162.2
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123	31	192.8
6	82.5	19	127.3	32	203.5

7	85.48	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100.0	25	156.7	38	250.3

DCS Table

DCS CODE LIST

Number	Code	Number	Code	Number	Code
39	023	67	174	95	445
40	025	68	205	96	464
41	026	69	223	97	465
42	031	70	226	98	466
43	032	71	243	99	503
44	043	72	244	100	506
45	047	73	245	101	516
46	051	74	251	102	532
47	054	75	261	103	546
48	065	76	263	104	565
49	071	77	265	105	606
50	072	78	271	106	612
51	073	79	306	107	624
52	074	80	311	108	627

53	114	81	315	109	631
54	115	82	331	110	632
55	116	83	343	111	654
56	125	84	346	112	662
57	131	85	351	113	664
58	132	86	364	114	703
59	134	87	365	115	712
60	143	88	371	116	723
61	152	89	411	117	731
62	155	90	412	118	732
63	156	91	413	119	734
64	162	92	423	120	743
65	165	93	431	121	754
66	172	94	432		

NOAA Weather Radio Frequency List (US, CAN)

Channel No.	RX Freq.(MHz)	Channel No.	RX Freq.(MHz)	Channel No.	RX Freq.(MHz)
1	162.5500	5	162.4500	9	161.7750
2	162.4000	6	162.5000	10	161.7500
3	162.4750	7	162.5250	11	162.000
4	162.4250	8	161.6500		

IMPORTANT NOTICE

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

Safety Information for Radios

Your wireless handheld portable transceiver contains a low power transmitter. When the PTT button is pushed, it sends out radio frequency (RF) signals. The device is authorized to operate at a duty factor not to exceed 50%. In August 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld wireless devices.

Radiation Exposure Statement:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. For Remote controller, SAR tests are conducted using standard operating positions accepted by the FCC/ISED with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model device is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC/ISED, Tests for each device are performed in positions and locations (e.g. at the ear and worn on the body) as required by the FCC/ISED.

For body worn operation, this model device has been tested and meets the FCC/ISED. RF exposure guidelines when used with an accessory designated for this product or when used with an accessory that contains no metal and that positions the handset a minimum of 10 mm from the body. Non-compliance with the above restrictions may result in violation of RF exposure guidelines.

Electromagnetic Interference

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility. Turn off your radio in any facility where posted notices instruct you to do so. These facilities may include hospitals or health care facilities that may be using equipment that is sensitive to external RF energy.

- When instructed to do so, turn off your radios when on board an aircraft. Any use of a RF device must be in accordance with applicable laws, regulations and airline crew instructions.
- Some radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer or physician to discuss alternatives.
- 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 doctor or physician may be able to assist you in obtaining this information.



WARNING: Important Safety Instructions

1. Only accessories included in this package or specified by the manufacturer should be used with the radio. The 5V micro-USB charging input is compatible with most high quality micro-USB chargers that fully conform to the USB standards.
2. Do not use cleaners or solvents to clean the exterior of the radio. Use only a damp or dry cloth.
3. Do not expose this product to splashing or dripping water.
4. Do not attempt to service the receiver yourself. Removing the cover will void the warranty. Changes or modifications not expressly approved by my company may void the user's authority granted by the FCC to operate this device and should not be made.
5. Do not plug the wall adaptor into the power outlet if the outlet is wet.
6. Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.



Operational Cautions

Exposure to high volume sound levels may cause temporary or permanent damage to your hearing. Although there is no single volume setting that is appropriate for everyone, you should always use your radio with the volume set at low level and avoid prolonged exposure to high volume sound levels.

1. Set the volume control in a low position and use as low a volume as possible.
2. Avoid turning up the volume to block out noisy surroundings. Whenever possible, use your radio in a quiet environment with low background noise.
3. Limit the amount of time you use headsets or earpiece at high volume levels.
4. When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.
5. Observe all signs and instructions that require an electrical device or RF radio product to be switched off in designated areas, such as gas/refueling stations, hospitals, blasting areas, potentially explosive atmospheres, or aircraft.

6. If you experience a skin irritation after using this product, discontinue use and seek medical attention.
7. If the product or charger: overheats; has a damaged cord or plug; has been dropped or damaged; has been dropped into water, disconnect any charger from its power supply, discontinue use of the product.



WARNING: Important Safety Instructions for Battery

Read All Instructions

- Do not incinerate the battery even if it is severely damaged or is completely worn out.
- Do not discard battery in a fire. The battery pack can explode in a fire.
- Do not replace battery in any area labeled “Hazardous Atmosphere”. Any sparks created in a potentially explosive atmosphere can cause an explosion or fire.
- Do not disassemble, crush, puncture, shred, or otherwise attempt to change the form of your battery.
- Do not dry a wet or damp battery with an appliance or heat source, such as a hair dryer or microwave oven.
- A small leakage of liquid from the battery cells may occur under extreme usage or temperature conditions. This does not indicate a failure. Do not open, deform or mutilate the battery as there may be corrosive materials which can cause damage to eyes or skin and may be toxic if swallowed.

However, if the outer seal is broken and this leakage gets on your skin:

1. Wash quickly with soap and water.
2. Neutralize with a mild acid such as lemon juice or vinegar.
3. If battery liquid gets into your eyes, flush them with clean water for a minimum of 10 minutes and seek immediate medical attention.

This product uses Lithium Polymer Battery. Do not transport package if damaged, a fire hazard could exist.

Recycle Battery

Local, state or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.