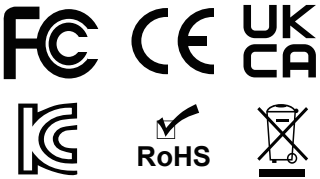

This package is
100% recyclable

K5-3

TWO-WAY RADIO

User’s Manual

Emergency Weather Channel Receiving/Fast Copy One Channel/VOX/
Multi-Band Transmitting and 50~600MHz Receiving/Remote Kill
/Revive/TPYE-C and Charger-base Charging/200 Channels

FCC WARNING

■FCC Compliance Statements:
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.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. Do not use this device when the antenna shows obvious damages.
Hold this transmitter approximately 25 mm away from your face and speak normal with the antenna pointed up and away. Use the supplied belt clip for body-worn configuration as other accessories may not comply to the limits.

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

■Licensing Information
Use our radio in USA is subject to the rules & regulations of FCC. Changes or modifications not expressly approved by our may void the user authority granted by the FCC to operate this radio and should not be made. To comply with FCC 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 FCC equipment authorization for this radio could violate FCC rules.

Note: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Important: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

Your radio is set up to transmit a regulated signal on an assigned frequency. It is against the law to alter or adjust the settings inside the radio to exceed those limitations. Any adjustments to your radio must be made by qualified technicians.

CE WARNING:

Use the two way radio in the environment with the temperature between 0-40℃,otherwise,it may damage your two way radio . It can be operating under 2000m.

Hereby, Our declare that the radio equipment type two way radio is compliance with Directive 2014/53/EU. For this device,Head SAR and Body SAR was performed with the device configured in the positions according to EN62209-2:2010,and face-up SAR was performed with the device 25mm from the phantom,and Body SAR was performed with the device 0mm from the phantom. Body SAR was also performed with the headset and belt clip attached and without.

IC Compliance Statements:

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.

L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique 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' appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d' en compromettre le fonctionnement.

RF Warning Statements

This EUT is compliance with SAR for uncontrolled exposure limits in IC RSS-102 at operating duty factors of up to 50% and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528 and IEC 62209. This equipment should be installed and operated with a minimum distance of 2.5cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original accessories (belt clip), a minimum distance of 0 cm.

Cet EUT est conforme au SA R pour les limites d'exposition incontrôlées dans IC RSS-102 à des facteurs de service allant jusqu'à 50% et a été testé conformément aux méthodes et procédures de mesure spécifiées dans IEEE 1528 et IEC 62209. Cet équipement doit être installé et utilisé avec une distance minimale de 2,5 cm doit être maintenu lorsqu'il est tenu face à face, et les opérations portées sur le corps sont limitées aux accessoires d'origine approuvés (clip de ceinture), une distance minimale de 0 cm.

PRECAUTIONS BEFORE USING

This radio incorporates excellent design and the latest advanced technology. The following advice will help you fulfill your obligations in the warranty clause. And it gives you important information about how to operate this portable radio safely.

- ◆ Please put the radio and accessories where the children cannot reach.
- ◆ Maintenance can only be performed by professional technicians.
- ◆ Please use the standard battery pack and charger in order not to destroy the radio.
- ◆ Please use the standard antenna, in order not to shorten the communication distance.
- ◆ Do not expose the radio to sunlight for a long period of time, nor put it near the heat.
- ◆ Do not put it in extreme dust or wet environment.
- ◆ Do not clean the radio with fierce chemical products, cleaning agents or strong washing agents.

◆ Do not transmit when the antenna is not installed.
◆ If you find bad smell or smog, please turn off the radio immediately. And take the battery off the radio, then contact with the agent.

Charging Notes:

◆ Battery packs are not charged when they are shipped. Charging them before use.
◆ Initially charging the battery pack after purchase or extended storage (longer than 2 months) will not bring the battery pack to its greatest capacity or its normal charge, which can be done only after repeated charging and discharging two or three times.
◆ Do not use the radio during charging. This will affect the normal charging of the battery pack, causing damage to the radio and accidents.
◆ After the battery pack is fully charged, please take it out of the charger-base. Do not charge it again before the battery is completely running out. Or it will destroy the memory effect of the battery.
◆ Although using the right charging ways, but the battery does not gain capacity or using time, it means the battery life is near the end, please change a new battery pack.
◆ Please adopt original factory battery pack and charger. They are available with your local agent.
◆ If you have question about non original factory battery pack and accessory, please do not use them. Or it will cause dangerous accidents.

Charging-base instructions:

◆ Plug the lithium battery or radio equipped with the lithium battery into the charger base, and ensure that the battery is in normal contact with the charging base.
◆ The green light is steady on when the charging base is empty; When the red light is on, charging begins; When full, the green light is steady on.
◆ After the lithium battery pack is fully charged, take it out of the charger.

Type-C charging instructions:

◆ Type-C charging is only used for emergency charging. Use charging base for normal charging.`
◆ Type-C Charging head logo in the upper right corner of the screen shows " ⇋ " during startup and charging.
◆ The shutdown does not affect the charging of Type-C.
◆ When charging, the blue light will be on for a long time, and the blue light will blink to indicate that the charging is about to be completed.
◆ After Type-C is charged, the blue light will be turned off.
◆ Do not remove the battery when charging through Type-C.

There are two versions of this series:
A body with Type-C charging; B body does not have Type-C charging
The configuration of the product is as what your real purchase.

Note:

1. When the radio is charging (charger /Type-C charging), it is forbidden to transmit so as to avoid damage to the radio and accidental danger.
2. When the radio is charged (charger /Type-C charging), the receiving effect will be affected.
3. Do not short circuit the battery terminal or discard the battery in the fire.
4. Do not remove the battery pack cover without permission.

Main Feature

- 200 Channel
- Cross-Band Intercom
- 1750HZ Call Tone
- Program On Site
- Emergency Alert
- FM Radio
- 10-Group Scrambler
- Multi-Scan
- CTCSS/DCS
- Remote Kill/Revive
- Keypad Lock
- Jacklight
- PC Programmable
- Busy Channel Lock
- VOX
- Dual-watch opertion
- Time-Out-Timer
- Reset
- Large LCD Display
- Voice Prompt
- Reminding Switch
- 10 Emergency Weather Channels
- Power-on Password Protection
- AM/FM Aviation Band Receiving
- Reverse Frequency Function
- Type-C And Charger-Base Charging
- Wide/Narrow Bandwidth
- Offset Frequency Direction Set1
- Wireless Radio Replication
- Squelch Level Adjustable
- Repeater Forwarding Confirmation Function
- Frequency And Channel Mode Shift
- Offset Frequency Setting
- Channel Scan And Add
- DTMF Calling
- DTMF ANI
- DTMF Select Call (single call, group call, all call)
- Backlight Auto Off Time Selective
- Automatic Signaling Search
- Multi Step Frequency
- One Key Call Channel
- Multi Display Of Channel No./Channel Frequency/Channel Name
- H (High), M (Medium), L (Low) Output Power Selective
- Multi-Band Transmitting & 50∽600MHz Receiving
- Receive/Transmit Code Setting Separately
- High Capacity Battery\Long Standby Time
- Fast Copy One Channel

(ACT AS FREQUENCY METER (FOR TWO-WAY RADIO & SOME OTHER DEVICES))

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Supplied Accessories

Carefully unpack the portable radio. We suggest that you check the following items before you throw away the packing materials.

Standard Accessories

Item	Qty
Portable Radio	1
Antenna	1
Li-ion Battery	1
Battery Charger	1
Belt Clip	1
User's Manual	1

Accessories Photo

Antenna

Li-ion Battery

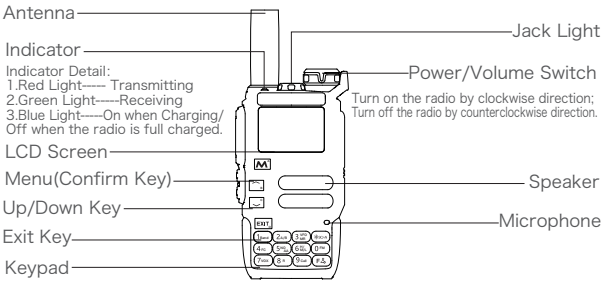
Belt Clip

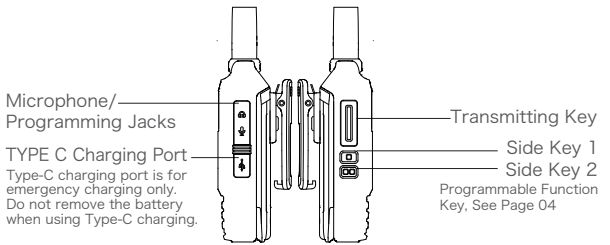
Battery Charger

Separate Charger (Optional)

User's Manual

Radio Diagram

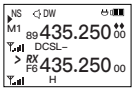




Type-C charging function of this series of products is optional.
The configuration of the product is as what your real purchase.

LCD Display

You could check the different designated symbols in the LCD.
The following chart helps you to understand them.



	Signal Strength. The smaller the number of grids, the weaker the signal.
HML	Transmitting Output Power Indicator. The current transmittingoutput power is high(H), medium(M) or low(L).
CT DCS	CT will appear when current code is CTCSS code. DCS will appear when current code is DCS code.
	Voice prompt is on.
N	The radio work in narrow band mode.
VOX	VOX Function. When the sound pressure reaches the set value, the transmission is started. This function can be set through the menu.
+ –	+It means transmitting frequency equals receiving frequency plus a frequency deviation -It means transmitting frequency equals receiving frequency minus a frequency deviation
DTMF	DTMF signal decoding is on.
DW	Frequency dual watch is on. Could dual watch the two frequency bands show on the display
	Keypad locking.
	Display of the current battery.when the battery is nearly exhausted, it shows [⚡]. It means the battery needs to charge and the radio will send low power alarm prompt regularly.
	Main channel indicates. When pressing PTT to initiate a call on the secondary channel, all operation will work on main channel.
SCR	The voice encryption of this channel is on.
R	Reverse mode. Receive and transmit frequency reverse
♦♦	Scanning. ♦Participating in scan list 1. ♦♦Participating in scan list 2.
WX	Cross-Band Receiving/Transmitting.
RX	Receiving.
TX	TransmittingNOAA channel atuomatic scan
	Type-C charging mark
AM	AM receiving mark
NS	NOAA channel atuomatic scan
>	Temporary transmitting channel, when sub-channel receives a call, it becomes temporary transmitting channel.

Key

PTT Key(Transmitting Key)

● Transmitting/ Receiving Switch Key. Press “PTT” to transmit and speak to microphone. Release “PTT” to receive.

Programmable Function Key and Its Function

● Initial Function

Side Key 1: Press it for a short time to turn on Monitor function.
Press it for a long time to turn on 1750Hz.
Side Key 2: Press it for a short time to turn on Jacklight.
Press it for a long time to turn on emergency alarm.

The function of the side key that could be set by program software:

Emergency Mode On/Off	Press it to turn on Emergency Alarm. It will alarm as the setting of program software.
High/Low Output Power Selection	Allow user to switch between High/Low output power.
Monitor	Allow user to turn on/turn off Monitor function. The radio will ignore all receiving CTCSS/DCS, and monitor the actual channel. You can listen to monitor noise to adjust volume.
FM Radio	Turn on/turn off FM Radio Mode.
Scan On/Off	Allow user to turn on/turn off Scan function.
VOX On/Off	Allow user to turn on/turn off VOX function.
Transmitting1750	Turn on 1750 continuous transmitting.
Jacklight	Turn on/ turn off Jacklight

Keypad Key

● Menu /Confirm Key: MENU

A. In main page, short press it to enter the menu, choose menu item and press MENU key to confirm the parameter.
B. Long press this key to enter the last setting item.
C. Under the DTMF Function, it means A code word.

● Exit/Clear Key: EXIT
A. In Edit status, short press it to exit and come to upper menu; long press it to exit and come to main page.
B. In Input status, press it to clear the input info.
C. Under the DTMF Function, it means D code word.

● Up Key: ▲
A.Move Upward
B.Under the DTMF function, it means B code word.

● Down Key: ▼
A. Move Downward
B. Under the DTMF function, it means C code word.

● * Key
A. Short press* Key to enter manual dial and call page
B. Under the DTMF function, it means * code word.
C. Long press* Key to start frequency or channel scanning.

● F Key
A. it could work with 0-9 and * to quickly implement function switching.
B. Long press this key to lock or unlock the keyboard.
C.Under the DTMF , it represents the # code word.

Fast Key	Function	Function Description
F+1	BAND	(F1-F7)Frequency Switch
F+2	A/B	Main Channel Switch
F+3	VFO/MR	Switch between VFO and MR Mode
F+4	Frequency Meter	Start Fast Copy One Channel
F+5	NOAA Weather Alert	Start or Exit NOAA Channel
F+6	H/M/L	Switch Output Power
F+7	VOX	Switch to VOX
F+8	R	Switch to Reverse Function
F+9	CALL	Switch to one key emergency calling
F+*	SER	Start CTCSS/DCS Search Function
F+0	FM	Start or Exit FM

Menu Info

Press Menu key to enter Menu Selection; Press Up/Down Key to select Menu No., and press MENU Key to confirm the selection; Press EXIT Key to return to Upper Menu. Long press EXIT key to return to main page.

Item Name	No.	Function Description	Value Range
SQL	1	Squelch Level	0-9
STEP	2	Step Frequency (2.5K/5K/6.25K/10K/12.5K/25K)	0-5
TXP	3	Output Power (LOW/MID/HIGH)	0-2
R_DCS	4	Receive DCS(OFF,1-104:DCS, 105-208: reverse DCS). Short Press F+* to trigger DCS to scanning.	0-208
R_CTCS	5	Receive CTCSS.(OFF, 1-50: CTCSS). Short Press F+* to trigger CTCSS scanning.	0-50
T_DCS	6	Transmit DCS(OFF, 1-104: DCS, 105-208: reverse DCS)	0-208
T_CTCS	7	Transmit CTCSS(OFF, 1-50: CTCSS)	0-50
SFT-D	8	Frequency Deviation Setting(OFF:TX frequency =RX frequency; ADD: TX frequency=RX frequency + frequency deviation; SUB: TX frequency=RX frequency-frequency deviation)	0-2
OFFSET	9	Frequency of Frequency Deviation (0-999.9999M)	
W/N	10	Channel Bandwidth (0:WIDE, 1:NARROW)	0-1
SCR	11	Encrypted Communication (OFF, 1-10: 1 to 10 types of scrambling frequency.)	0-10
BCL	12	Busy Channel Lock (OFF,ON)	0-1
MEM-CH	13	Channel Save (Choose the channel by Up/Down Key and Number Key, press MENU key to Save the channel.)	
SAVE	14	Battery Save (OFF/1:1/1:2/1:3/1:4) The rate between active time and sleep time.	0-4
VOX	15	VOX Setting(OFF: turn off VOX, 1-10: 1 to 10 grade.)	0-10

Menu Info

Item Name	No.	Function Description	Value Range
ABR	16	Auto Backlight(OFF: turn off Backlight; 1-5: turn off Backlight in 1-5 seconds)	0-5
TDR	17	Dual-watch On/Off(OFF: Close, CHAN_A: Default TX Channel is A channel, CHAN_B: Default TX Channel is B channel.)	0-2
WX	18	Cross-Band Receiving/Transmitting (OFF: Close, CHAN_A: TX Channel is A channel, CHAN_B: TX Channel is B channel.)	0-2
BEEP	19	BEEP Control(OFF, ON)	0-1
TOT	20	Time-Out-Timer(1-10min)	1-10
VOICE	21	Voice Prompt(OFF, CHI: Chinese, ENG: English)	0-2
SC-REV	22	Scan Resume Mode (TO: Resume scan after 5 seconds` pause; CO: Resume scan after signal disappear; SE: After receive the signal, stop scan.)	0-2
MDF	23	Channel Display Mode(FREQ: Display frequency, CH: Display channel No., NAME: Display channel name)	0-2
AUTOLK	24	Auto Keypad Lock (OFF,ON)	0-1
S-ADD1	25	Whether to participate in list 1 scanning (OFF: not participating, ON: participation)	0-1
S-ADD2	26	Whether to participate in list 2 scanning (OFF: not participating, ON: participation)	0-1
STE	27	Tail Tone Elimination (OFF,ON)	0-1
RP-STE	28	Repeater Tail Tone Elimination (OFF,ON)	0-1
MIC	29	MIC Sensitivity (0-4: 0-4 level)	0-4
1-CALL	30	One Key Call Channel (Select the channel through the Up/Down keys and the Number keys)	
S-LIST	31	Channel Scan List Select (LIST1:Scan list 1; LIST2:Scan list 2)	1-2

Menu Info

Item Name	No.	Function Description	Value Range
SLIST1	32	Channel Scan List 1 Configuration	
SLIST2	33	Channel Scan List 2 Configuration	
AL-MOD	34	Alarm Mode(SITE: local alarm; TONE: Distant + local alarm)	0-1
ANI-ID	35	ANI-ID, DTMF communication radio ID	
UPCODE	36	DTMF UP CODE	
DWCODE	37	DTMF DOWN CODE	
D-ST	38	DTMF Side Tone Switch (OFF, ON)	0-1
D-RSP	39	DTMF Decoding Response (NULL: Close, Ring: Local ringing, REPLY: reply response, both: local ringing +reply response)	0-3
D-HOLD	40	DTMF Auto Reset Time (5s-60s)	5-60
D-PRE	41	DTMF pre-load time(30-990ms)	3-99
PTT-ID	42	DTMF PTT-ID TX Mode (OFF: Close, BOT: Press PTT to send UP CODE, EOT: Release PTT to send DOWN CODE, BOTH: Press or release PTT to send.)	0-3
D-DCD	43	DTMF decoding enable signal (OFF,ON)	0-1
D-LIST	44	DTMF Contact List(Choose the contact by Up/Down Key and Number Key, press MENU key to select the contact and call directly.)	1-16
PONMSG	45	Displays of Power On(FULL: full screen display, MSG: Welcome info, VOL: Voltage. It can modify it by program software.)	0-2
ROGER	46	Reminding of End Talk(OFF: no reminding, ROGER: with reminding, MDC: Frog Sound Tail Tone)	0-2
VOL	47	Battery Voltage	0-1
AM	48	AM Channel Mode On/Off (Used only for 108-136MHz)	0-1
NOAA_S	49	NOAA Channel Auto Scan On/Off	
DEL_CH	50	Channel Delete (Choose the channel by Up/Down Key and Number Key, press MENU key to delete the channel.)	
RESET	51	Reset (VFO: Reset parameter beside channel parameter; ALL: Reset all parameter.)	0-1

Common Operation Introduce

◆(6.1)Power On Password Protection

● Turn the “Power/Volume Switch” in clockwise direction to power on this radio. If the program set Power On Password Protection, then the screen will show “LOCK”. The user has to input the password first. Then the radio could be normally used.

◆(6.2)Switch Main Channel

● Press F+2 Key to switch main channel.
The solid arrow ▶ pointed to the main channel.
● Press PTT to start TX in main channel.
● If sub channel receives a call, it displays > and temporarily becomes the TX channel. After symbol > disappears, primary channel becomes TX channel again.

◆(6.3)Dual Band Single - Watch/Dual - Watch Switch

● Dual-watch operation mode could be set by menu. The method is: MENU →17→CHAN_A: Default TX Channel is A channel, or CHAN_B: Default TX Channel is B channel. The screen will show “DW”.

◆(6.4)Frequency/Channel Mode Switch

● In main page, press F+3 key to switch between Frequency Mode and Channel Mode.
● Frequency Mode: In this mode, the users could manually input the RX frequency. Or you could press Up/Down key to adjust the frequency by step frequency. The parameter could be modifying by menu. In this mode, the users could not input TX frequency. You could set Frequency or Direction of Offset Frequency to change the TX frequency.
● Channel Mode: Display the actual channel No.. In this mode, the users could manually input the channel No.. Or you could press Up/Down key to switch channel. The parameter could be modified by menu.

Common Operation Introduce

◆(6.5)Cross-Band Receiving/ Transmitting

The method is: MENU→18→WX, Press MENU to enter setting
OFF: Main Channel TX When CHAN_A or B receives a valid call, the channel automatically becomes the transmitting channel until the call ends.
CHAN_A:No matter which channels receive valid calls, Default TX Channel is A channel, displaying the "DW" character.
CHAN_B:No matter which channels receive valid calls, Default TX Channel is B channel, displaying the "DW" character.

◆(6.6)Channel Save

● In MR Mode, Channel Save is workable. You could copy current channel to new channel.
● IN VFO Mode,And you should set the parameter of RX Frequency, Frequency Deviation Direction, Wide/Narrow Bandwidth, RX/TX CTCSS /DCS, TX Output Power, Whether to Participate in Scanning, DTMF code, Scrambler,etc. First Press MENU→13→CH-001,then press MENU again to enter the Channel Save. Choose he channel by Up/Down Key. Or you could use Number Key to input the channel No.. After that, you press MENU key again, the LCD will show “SURE?”. And you could press MENU key to Save the channel.
● When you select the Saved channel, if it show CH-XXX, then the channel is saved. If it show XXX, then the channel is empty.

◆(6.7)Channel Delete

● Press MENU→50→CH-XXX, ,then press MENU again to enter the Channel Delete. Choose the channel that you want to delete by Up/Down Key. Or you could use the Keypad to input the channel No.. After that, you press MENU key again, the LCD will show “SURE?”. And you could press MENU key to delete the channel.

◆(6.8)Receiving/ Transmitting CTCSS/DCS Setting

Process Flow:
MENU→4→R-DCS Press MENU to enter and choose the RX DCS Code that you want to set from DCS List by Up/Down Key.
MENU→5→R-CTCS Press MENU to enter and choose the RX CTCSS Code that you want to set from CTCSS List by Up/Down Key.
MENU→6→T-DCS Press MENU to enter and choose the TX DCS Code that you want to set from DCS List by Up/Down Key.
MENU→7→T- CTCS Press MENU to enter and choose the TX CTCSS Code that you want to set from CTCSS List by Up/Down Key.

- CTCSS/DCS is used to remove the unwanted noise signals when receiving.

◆(6.9)Fast Copy One channel(ACT AS FREQUENCY) METER(FOR TWO-WAY RADIO & SOME OTHER DEVICES)

- Fast Copy require strong signal. Both the Transmitter and Receiver should install antenna. And their distance should not be too far away.
- Press F+4, the Receiver will enter into Frequency meter interface. When it receive strong signal, the LCD screen will display signal carrier frequency and transmitting channel (CTCSS or DCS). Press * key to re-measure the frequency.
- After the effective frequency is measured, press the MENU key to Save the currently measured frequency and the transmitting CTCSS/DCS to specified channel.
- During frequency measuring, press EXIT or PTT to exit Frequency meter.

◆ (6.10) Auto CTCSS/DCS Search

- First set correct receiving frequency, then press F+*to start channel searching. When the radio receive valid CTCSS/DCS signal, it will display the searched TX CTCSS/DCS signal. Press MENU to saved searched CTCSS/DCS signal to current channel.
- If the screen display SCAN CMP, it means that the radio have searched valid CTCSS/DCS signal and stop auto searching;
- If the screen display SCAN FAIL, it means that the radio did not searched valid CTCSS/DCS signal and stop auto searching;

◆ (6.11) DTMF

◇ (6.11-1) DTMF Calling

Initiative:

- Manual dialing:Press PTT and the Number key of the keypad to make calling.
- Automatic calling: Press *, enter 3 digits, short press PTT to start the DTMF call. It automatically sends its own ID number when transmitting
- Single call: send the ID of the other party plus our own ID code, for example, 123 * 100. ID 100 call ID 123.
- Group call: Use a group calling code instead of one or more code words in the ID number, you can call a communication group. The group calling code is set by the program software. For example, the group call code is set as #,send 12# you can call 10 radios with ID number 120 ~ 129, and send 1## , you can call 100 radios with ID number 100~199.
- All call:send ### group call TD, can all all the users.

DTMF Receiving:

Process Flow: Press MENU→43→DCD ON, when the code word receives is DTMF personal ID code, the decoding is successful, and you communicate with the other party within the resetting time. When the reset time arrives, you need to re -decoding.

- MENU→40→D-HOLD 5S Sets the automatic reset time. The initial value is 5 seconds.
- MENU→39→D-RSP Sets the automatic response after receiving a DTMF call. NULL: off, RING: local ring. REPLY: Automatic callback; BOTH: local ring + automatic callback

◇ (6.11-2) PTTID

Initiative: You can configure the DTMF online code and offline code through the program software.When online code and offline code is enabled, this radio will send the online code when pressing PTT, and send the offline code when the PTT releases.

◆(6.12)Scanning

Start Scanning:

- Method 1: Long press*Key to Start Scanning or Exit Scanning
- Method 2: Set Side Key as Scanning Start/Close Switch
- Frequency Scanning: During the scanning process, you can change the scan direction by the Up/Down key. Press PTT Key or Exit key to exit Scanning or long press*Key to exit the Scanning.
- Channel Scanning: When scanning starts, it will detect the channels in the scan list in turn. And during the scanning process, you could answer the incoming call by PTT Key.

- Process: Press MENU → 31 → S-List LIST1 or LIST2, scanning the specify channel list;
- Process: Press MENU → 32 →SLIST1 to View the channel listed in the LIST1;
- Process: Press MENU → 33 →SLIST2 to View the channel listed in the LIST2;
- Process: Press Menu → 25 → S-ADD1 to add the current channel into the scan LIST1;
- Process: Press MENU → 26 → S-ADD2 to add the current channel to the scan LIST2;
- Process: Press Menu → 22 → SC- REV to Select Scanning Mode
- Priority Scanning: You can specify the priority scanning channel. During the scanning process, 50% of the scanning is located at priority 1 members. If there is a priority 2 members, the scanning rate of priority 1 member will be reduced from 50% to 25%.Even the scanning is located at non -priority channel or priority 2 members, the radio will continue to scanning the activity of the priority 1 member. If the radio finds activity of the priority 1 members, it will stop the current transmitting and call the priority 1 members.

◆(6.13)Emergency Alarm

- Emergency Alarm is used to represent emergency situations. You can initiate emergency calls at any time or on any screen, or even there is activity on the current channel. The users have to configurate the emergency alarm button to this radio by programming software.
- Press the emergency alarm key to start the local audible alarm and sending remote alarm. The alarm type can be set as local alarm/remote alarm.
- Exit the alarm mode by any key.
- Process: Press MENU → 34 →AL-MOD TONE, this radio will make alarm sound and send remote alarm signal.
- Process: Press MENU → 34 → AI-MOD SITE, this radio will make alarm sound.

◆(6.14)FM Radio

- Press F+0 to enters the FM radio mode, press the Up/Down keys change the frequency or the pre-stored FM channels. And you can use the keyboard to enter the FM frequency or pre-stored FM channels.
- Press F+1 to switch between VFO and MR mode.
- Press F+2 to starts the automatic FM radio channel searching process. This process will automatically store the searched FM channels, up to 20 FM channels could be stored.
- Press F+3 to starts the manual FM channel searching process. In this process, users need to manually store the searched FM channels.
- Menu key is used to store FM channel;
- Exit key is used to exit the FM channel searching process;
- Up/Down keys is used to switch the scanning direction.
- In the FM Mode, if the radio receive effective calls or you press PTT to initiate calls, it will temporarily exit the FM Mode to enter into communication status. After the intercom is finished, the radio will return to FM radio status.
- Press the EXIT Key or F+O Key to exit the FM Mode.

◆(6.15)Emergency Weather Channel Receiving

- Press F+5 to enter or exit NOAA Weather Alert.
- This radio could receive 10 NOAA channels.
- This mode could be set through Menu 49 NOAA_S.

◆(6.16)Keypad Locking

- Long press the # key to lock or unlock all the keys of the keyboard. The side keys could be normally used while keypad locking.

◆(6.17)Reset

- Process: Press MENU→51→RESET
- VFO: Reserve all storage channels.

- ALL: Reset all parameter, which including storage channels.
- LCD will display "Sure?", Press the MENU key and wait for the radio to restart, and all menu of radio will return to the initial value when it leave the factory.

◆(6.18)One Key Call Channel

- F+9 immediately jumps to one key call channel,and you can set the important channel to one call channel by MENU→30→1-call.

◆(6.19)Aviation Band Receiving

- Enter the receiving frequency.If the local aviation frequency is not clear, the scanningfunction can scan the 108-136 full frequency band.
- Menu→48→AM ON set the channel modulation method to AM, listen to aviation intercom.
- Menu→48→AM OFF set the channel modulation method to FM.
- Menu 48 settings are only valid for 108-136 frequency band.

◆(6.20)Wireless Radio Replication

- Hold the PTT + side key 2 to enter the Wireless Radio Replication interface. The LCD will display Air Copy (RDY). Both the transmitting radio and receiving radio can use the digital keyboard to set the frequency of wireless replication. The frequency of transmitting radio and receiving radio must be consistent. The default receiving/ transmitting frequency is 410.0125MHz.
- Press EXIT key of the receiving radio to enter the receiving mode, and its LCD will display Air Copy.Presses MENU key of the transmitting radio to start the frequency data transmitting.And its LCD will display Air Copy.
- During the copy process, the LCD will display copy progress RCV:XX E:XX. E:XX indicates the number of error of the copy data. When copy is finished, the transmitter will display SND: 120.

Specifications

General Specifications	
Channel:	200
Stored FM Radio Channel Quantity:	20
NOAA Channel:	10
Frequency Stability:	±1ppm
Modulation Mode:	FM:11KΦF3E(12.5KHz),16KΦF3E(25KHz)
Dimension:	115mmX60mmX37.5mm
Weight:	234g
Operating Temperature:	-20℃+60℃
Antenna Impedance:	50Ω

RECEIVING		
Sensitivity: FM(12dB SINAD)	F1(50∽76)	-121dBm
	F2(108∽135.9975)	-121dBm
	F3(136∽173.9975)	-123dBm
	F4(174∽349.9975)	-123dBm
	F5(350∽399.9975)	-123dBm
	F6(400∽469.9975)	-123dBm
	F7(470∽599.9975)	-121dBm
WFM(20dB SINAD)	WFM(76∽108)	-110dBm
AM(10dB S/N)	F2(108∽135.9975)	-113dBm
Audio Frequency: ⩾0.5W		
Audio Distortion: ⩽10%		

Specifications

TRANSMITTING		
●FCC version transmitting band		
Frequency:	UHF420∽450MHz	VHF144∽148MHz
●CE/UKCA version transmitting band		
Frequency:	UHF430∽440MHz	VHF144∽146MHz
●NORMAL version transmitting band		
Frequency:	UHF400∽470MHz UHF350∽400MHz	VHF136∽174MHz
●IC Version transmitting band		
Frequency:	UHF430∽450MHz	VHF144∽148MHz
Output Power:	⩽5W	⩽5W
Emission Current:	⩽1.5A	⩽1.5A
Max Frequency Deviation:	⩽5KHz(25KHz), ⩽2.5KHz(12.5KHz)	⩽5KHz(25KHz), ⩽2.5KHz(12.5KHz)
Modulation Distortion:	⩽5%	⩽5%
Stray Power:	⩽7.5uW	⩽7.5uW
Adjacent Channel Power:	70dB(25KHz), 60dB(12.5KHz)	70dB(25KHz), 60dB(12.5KHz)
Residual Modulation:	40dB	40dB

All stated specifications are subject to change without notice or obligation.