



Qixiang Electronic Technology Co., Ltd
Qixiang Electron Science & Technology Co., Ltd.

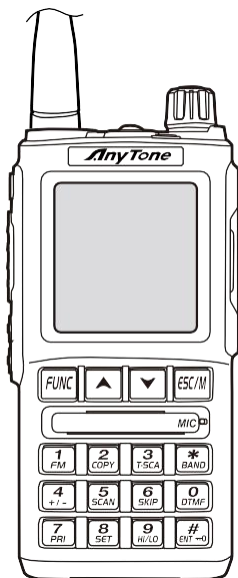
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AnyTone[®]

UVA1

Dual Band Analogue Handheld Two Way Radio

Instruction Manual



Notice

According to the Radio Management Regulations of the People's Republic of China, units and individuals who set up or use radio equipment within the territory of the People's Republic of China must apply for the establishment procedures at the corresponding radio management agency and obtain a radio license before they can use it.

Overview

Welcome to purchase **AnyTone** the FreePass UVA1 wireless color screen intercom. This product will provide you with reliable, clear, and efficient wireless communication services.

This product adopts a dedicated signal processing system, which has multiple professional functions and excellent stability and reliability. It has a novel and fashionable appearance, smooth body, simple lines, and is sturdy and durable. It has functions such as radio, encryption, scanning, Chinese and English display, Chinese and English input, emergency alarm, ground alarm, independent operation, vibration (optional) with GNSS, weather channel, CTCSS/DCS encoding and decoding. Especially suitable for outdoor work and hiking. It is a high-performance walkie talkie with multiple functions and safety configurations carefully designed for radio enthusiasts and hikers.

ATTN: When programming a walkie talkie, first read out the original factory data of the walkie talkie, change the frequency and signaling values, and then rewrite them, otherwise errors may occur due to differences in model frequency bands and other factors.

This manual is applicable to UVA1 dual band walkie talkie models

User security information

AnyTone Radio is a product with excellent design and advanced technology. The following suggestions will help you fulfill your obligations under the warranty terms, understand and recognize the safety of using walkie talkies.

- 1 Please keep the walkie talkie and all its components and accessories out of reach of children.
- 2 Please do not attempt to disassemble or modify the walkie talkie without permission, as handling by non professionals may cause damage.
- 3 Please use the batteries and chargers provided by our company to avoid damaging the walkie talkie.
- 4 Please use the antenna provided by our company to avoid shortening the communication distance.
- 5 Please do not expose the walkie talkie to sunlight for a long time or place it in an overheated area.
- 6 Please do not place the walkie talkie in dusty or damp areas.
- 7 Please do not use strong chemicals or cleaning agents to clean the walkie talkie.
- 8 Please do not transmit without antenna installed.
- 9 The recommended usage rate for walkie talkies is 1 minute for transmission and 4 minutes for reception. Long term emission or continuous use in high-power mode will cause heating on the back of the device. When placing this machine, do not allow the rear to come into contact with the surface of plastic objects.
- 10 If abnormal odor or smoke is detected from the walkie talkie, immediately turn off the power of the walkie talkie, remove the walkie talkie battery, and then contact the local **AnyTone** dealer.

Notice:

All the above suggestions are equally applicable to the various accessories of your **AnyTone** walkie talkie. If they do not work properly, please contact our distributor in a timely manner. If using accessories that are not produced or sold by our company, our company does not guarantee the safety and operability of walkie talkies.

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1. Product inspection

1.1 Standard Accessories



Antenna



1800mAh battery

1



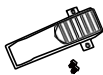
Charger



Adapter



Type-c cable



Belt clip



Manual

ATTN: Please be careful when removing the walkie talkie from the packaging box. We suggest that you confirm whether the items listed in the above table are inside the box before discarding the packaging materials. If any items are lost or damaged during transportation, please contact the dealer immediately.

1.2 Optional accessories

Note: The PMR446 antenna is a non-removable antenna.



Earphone cable



car plug



hanging rope



12cm antenna

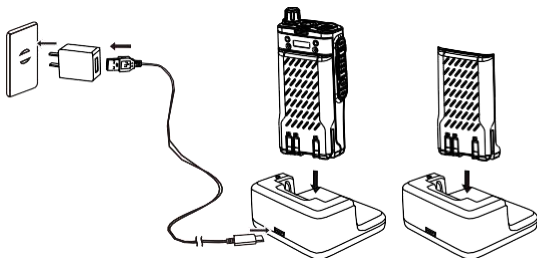


38cm antenna

2. Battery charging

2.1 Charging method

- 1 Insert the charging dock plug into the AC power output socket.
- 2 Insert the battery or walkie talkie into the charging dock, confirm that the battery is in good contact with the charging terminal, and the indicator light turns red. At this point, charging begins.
- 3 Charging takes about 3 hours (with standard battery), and when the indicator light turns green, charging is complete. At this time, the battery or walkie talkie can be removed.



ATTN: When the walkie talkie is plugged into the charging dock for charging while it is turned on, the charging indicator light cannot turn green to show full charge after the walkie talkie is fully charged (the charging indicator remains red). Only by turning off the power of the walkie talkie can it indicate normally (this phenomenon occurs because the walkie talkie is consuming power when turned on, and the charging dock unable to detect the full charge voltage of the battery, so the charging dock keeps charging the battery at a constant voltage, resulting in the inability to indicate that the battery is fully charged).

- 4 Explanation of the display status of the charging seat indicator light

status	LED
Waiting (without battery)	No lights on
precharge	Red light flashing
Normal charging	red
Battery fully charged	green

2. Battery charging

ATTN:

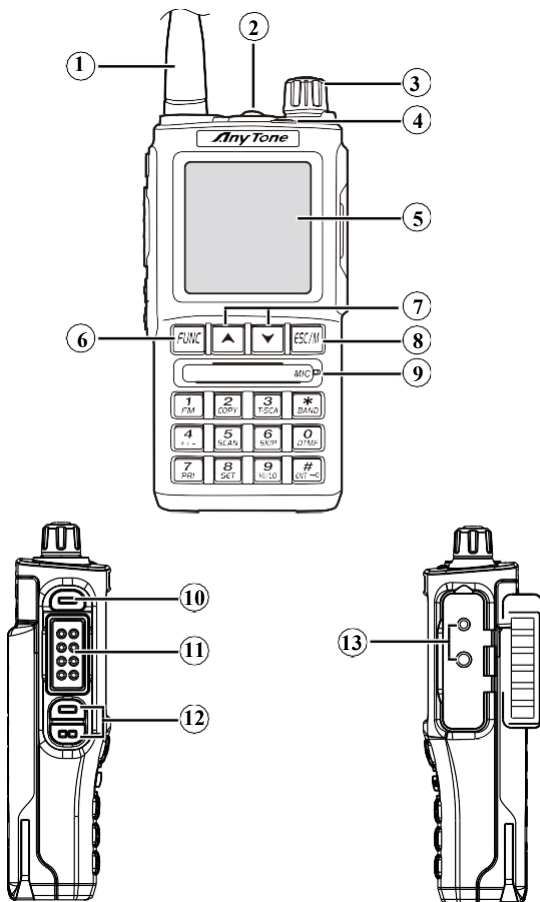
Please do not short-circuit the battery terminals.

Please do not attempt to remove the battery casing.

Please do not install batteries in hazardous environments as sparks may cause explosions.

Please do not place the battery in a high-temperature environment or throw it into a fire to avoid causing an explosion.

3. Knowing the device



3. Knowing the device

1. Antenna

2. Flashlight

3. POWER/VOLUME Switch

Turn clockwise to turn on the radio; turn counterclockwise until you hear a click to turn it off. After turning the radio on, turn clockwise to increase the volume, counterclockwise to decrease it.

4. Indicator Light

5. LCD Display

Displays the current frequency/channel and various function operations and status information.

6. Function Keys

7. Up/Down Keys

Changes the channel number/VFO frequency and switches options in the menu.

8. Return Key

Changes the channel/VFO frequency in standby mode. Press this key in the menu mode to return to the previous menu level.

9. Microphone

10. Programmable PF3 Key

Programmable shortcuts

11. [PTT] Key: Press and hold this key while speaking into the microphone to make a call; release this key to receive a call.

12. [PF1] Key/[PF2] Key: Programmable keys that can be programmed to perform various shortcuts.

13. External microphone/speaker jack, frequency reading and writing interface.

3.1 Indicator light status description

1 Red indicator light flashing: low battery

2 Red indicator light constantly on: walkie talkie transmission

3 The green indicator light is flashing; scan

4 Green indicator light constantly on: received matching carrier wave

5 The green indicator light is constantly on: a matching digital signal has been received

3. Knowing the device

3.2 Key Functions and Combination Functions

	single key	FUNC->
FUNC	Activate the combination key	--
	Increase channel/frequency	--

	Reduce channel/frequency	--
ESC/M	Switch VFO/channel mode	--
1	Enter 1	Turn on/off the radio
2	Enter 2	Enable search function
3	Enter 3	Enable sub audio scanning
4	Enter 4	Turn on/off differential frequency
5	Enter 5	Enable scanning
6	Enter 6	Current channel settings skip scanning
7	Enter 7	Set PRIMAY channel
8	Enter 8	enter menu
9	Enter 9	Switching transmission power
0	Enter 0	View DTMF List
*	Switching between primary and secondary channels	Switch between dual channel/single channel
#	Switching input methods on the keyboard	Long press to lock

3. Knowing the device

3.3 Programmable key functions

scan	Press the programmed 'Scan' button in standby mode to start scanning.
monitor	Press the button programmed as 'Monitor' in standby mode to enable monitoring.
flashlight	Press the button programmed as 'Flashlight' in standby mode to turn on the flashlight.
FM radio	Press the button programmed as 'Radio' in standby mode to turn on the radio.
first aid	Press the programmed 'First Aid' button in standby mode to initiate emergency treatment.
GNSS	Press the button programmed as 'GNSS' in standby mode to turn on the GNSS system.
search	Press the programmed 'Search' button in standby mode to start the search.
working alone	Press the programmed 'Work Alone' button in standby mode to start working alone.
1750HZ	Press the button programmed to 1750HZ in standby mode to send a 1750HZ message.
APRS sends	Press the button programmed as 'APRS Send' in standby mode to send APRS signals.
call	Press the programmed 'Call' button in standby mode to make a call.
zone	Press the button programmed as 'Area' in standby mode and enter the area number to switch to that area.
Battery display	Press the programmed 'Battery Level Display' button in standby mode to display the current battery level and voltage.
power	Press the programmed 'Power Switching' button in standby mode to switch the power during transmission.
VOX	Press the button programmed as 'VOX' in standby mode to turn on and off VOX.

4. Basic operations

4.1 Turn on/off the walkie talkie

Turn on the walkie talkie: When the walkie talkie is turned off, rotate the power/volume switch clockwise. After the walkie talkie makes a "click" sound, the power of the walkie talkie has been turned on, and the screen displays the walkie talkie brand logo. After 7 seconds, the walkie talkie will emit a prompt sound.

Turn off the walkie talkie: When the walkie talkie is turned on, rotate the power/volume switch counterclockwise until the walkie talkie makes a "click" sound and the information displayed on the screen disappears, then turn off the walkie talkie power.

4.2 volume adjusting

When the walkie talkie is turned on, rotate the power/volume switch to adjust the volume level, and the screen will indicate the current volume level through a progress bar. Rotate clockwise to increase the volume; Rotate counterclockwise to decrease the volume.

ATTN: In simulation mode, you can press the 【 PF2 】 key (programmed as 'monitor') to listen for background sound while rotating adjust the volume with the power/volume switch. When the walkie talkie is in communication mode, the required volume can be adjusted more accurately.

4.3 VFO/channel switching

In standby mode, press the button 【ESC/M】 to switch between VFO and channel.

4.4 Switching between primary and secondary channels

In standby mode, press the button 【*/BAND】 to switch between the primary and secondary channels.

4.5 Set VFO frequency

※ **Set the VFO frequency of the walkie talkie through the keyboard:**

Set the walkie talkie frequency through the numeric keypad: When the walkie talkie is in VFO mode, the frequency of the main channel can be entered through the numeric keys. To enter 150.1125.30MHz, simply enter [1] [5] [0] [1] [1] [2] [5] [3] [0] or Just enter [1] [5] [0] [1] [1] [2] [5] [3] [#], and any number of [0] can end with [#].

4.6 Receive

When the currently used channel is called, the local device will display the signal strength below the channel frequency. When the other party's information is encrypted, the local machine cannot receive the sound without setting the same decryption.

4.7 Transmit

Press and hold the PTT key, speak into the microphone, keeping the microphone at a distance of approximately 2.5-5.3CM from your mouth, and speak in a normal tone to achieve the best sound quality for the receiving radio station.

5. Settings

5.1 Zone Selection

- (1) In standby mode, press the key **【FUNC】**, after the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select 'Zone', press the key **【FUNC】** to enter the 'Zone' menu.
- (3) Press the key / to select the desired area, and press the key **【FUNC】** to switch to the selected area.

ATTN: There is no zone option in VFO mode.

5.2 scan

5.2.1 frequency range

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to move the "Scan" and press the key **【FUNC】** to enter the "Scan" menu.
- (3) Press the key / to select "Frequency Range" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the scan range and press the key **【FUNC】** to confirm.

5.2.2 Channel Range

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to move the cursor to "Scan" and press the key **【FUNC】** to enter the "Scan" menu.
- (3) Press the key / to select "Channel Range" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the channel range to scan and press the key **【FUNC】** to confirm.

5.2.3 Scan mode

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to move the cursor to "Scan" and press the key **【FUNC】** to

enter the "Scan" menu.

- (3) Press the key / to select "Scan mode" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the scan mode and press the key **【FUNC】** to confirm.

5.2.4 Scan SubCode

- (1) In standby mode, press the key **【FUNC】** . After the “**F**” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to move the cursor to "Scan" and press the key **【FUNC】** to enter the "Scan" menu.
- (3) Press the key / to select "Scan SubCode" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the CTCSS/DCS and press the key **【FUNC】** to confirm.

5.2.5 Scan Memory

- (1) In standby mode, press the key **【FUNC】** . After the “**F**” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to move the "Scan" and press the key **【FUNC】** to enter the "Scan" menu.
- (3) Press the key / to select the "Channel Range" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the memory type and press the key **【FUNC】** to confirm.

5. Settings

5.3 Radio Setting

5.3.1 Squelch

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Squelch" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired squelch level and press the key **【FUNC】** to confirm.

5.3.2 Power Save

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Power Save" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired level of power save and press the key **【FUNC】** to confirm.

5.3.3 VOX level

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "VOX level" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired VOX level and press the key **【FUNC】** to confirm.

5.3.4 VOX delay

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the

screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "VOX Delay" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed VOX delay and press the key **【FUNC】** to confirm.

5.3.5 TOT time

(1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "TOT Time" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed TOT time and press the key **【FUNC】** to confirm.

5.3.6 TOA time

(1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "TOA Time" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed TOA time and press the key **【FUNC】** to confirm.

5.3.7 VOICE TYPE

(1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "Voice Type" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed Prompt tone language and press the key **【FUNC】** to confirm.

5.3.8 Language

(1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "Language" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed language and press the key **【FUNC】** to confirm.

5.3.9 Beep sound

(1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "Beep Sound" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed on/off beep sound and press the key **【FUNC】** to confirm.

5.3.10 Roger Beep

(1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

(3) Press the key / to select the "Roger Beep" and press the key **【FUNC】** to enter.

(4) Press the key / to select the designed roger beep and press the key **【FUNC】** to confirm.

5.3.11 Standby time (Backlight)

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Backlight Time" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the designed backlight time and press the key **【FUNC】** to confirm.

5.3.12 Brightness

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Brightness" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the designed brightness and press the key **【FUNC】** to confirm.

5.3.13 Boot display

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Boot Display" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the designed boot display mode and press the key **【FUNC】** to confirm.

5.3.14 Boot Message

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Boot MSG" and press the key **【FUNC】** to enter.
- (4) Enter the desired text on the keyboard and press the key **【FUNC】** to confirm, press the key **【ESC/M】** to recall

5.3.15 Display direction

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "DIR" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the forward/reverse and press the key **【FUNC】** to confirm.

5.3.16 Main channel standby mode (MDF-A)

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "MDF-A" and press the key **【FUNC】** to enter.
- (4) Frequency/channel name/channel number are optional, press the key / to select the desired mode and press the key **【FUNC】** to confirm.

5.3.17 Side channel standby mode (MDF-B)

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.

- (3) Press the key / to select the "MDF-B" and press the key **【FUNC】** to enter.
- (4) Frequency/channel name/channel number are optional, press the key / to select the desired mode and press the key **【FUNC】** to confirm.

5.3.18 Dual Watch

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Dual Watch" and press the key **【FUNC】** to enter.
- (4) OFF/Double Wait/Single Wait, press the key / to select the desired mode and press the key **【FUNC】** to confirm.

5.3.19 Auto Lock

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Auto Lock" and press the key **【FUNC】** to enter.
- (4) Press the key / to select on/off and press the key **【FUNC】** to confirm.

5.3.20 Alarm Mode

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Alarm Mode" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired alarm mode and press the key **【FUNC】**

to confirm.

5.3.21 Encoding method (Side Tone)

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Side Tone" and press the key **【FUNC】** to enter.
- (4) DTMF/2TONE/5TONE/BIIS is optional, press the key / to select the desired method and press **【FUNC】** to confirm.
- (5) Press the key / to select on/off and press the key **【FUNC】** to confirm.

5.3.22 PTT-ID

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "PTT-ID" and press the key **【FUNC】** to enter.
- (4) BOT/EOT/BOTH/OFF is optional, press the key / to select the desired method and press the key **【FUNC】** to confirm.

5.3.23 PTT delay

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "PTT Delay" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired delay time and press the key **【FUNC】** to confirm.

5.3.24 Alarm frequency

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Alarm Frequency" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired Alarm Frequency and press the key **【FUNC】** to confirm.

5.3.25 CTC TAIL

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Tail" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired tail and press the key **【FUNC】** to confirm.

5.3.26 ~31 Programming button settings

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the options 26~31, press the key to set the function and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired function and press the key **【FUNC】** to confirm.

5.3.32 FM Radio

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.

- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "FM Radio" and press the key **【FUNC】** to enter.
- (4) Press the key / to select radio on/off and press the key **【FUNC】** to confirm.

5.3.33 Auto Power Off

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "APO" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired auto power off standby time setting and press the key **【FUNC】** to confirm.

5.3.34 Password Setting

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Password" and press the key **【FUNC】** to enter.
- (4) Enter the password by the keyboard and press the key **【FUNC】** to confirm and press the key **【ESC/M】** to recall.

ATTN: After setting the power-on password, you need to enter the password to enter the system when power on.

5.3.35 Reset

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Set" and press the key **【FUNC】** to enter the setting menu.
- (3) Press the key / to select the "Reset" and press the key **【FUNC】** to enter.

- (4) Press the key / to select VFO/ALL and press the key **【FUNC】** to confirm.

5.4 Channel settings

5.4.1 Channel Name

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Channel Name” and press the key **【FUNC】** to enter.
- (4) Enter the desired text by the keyboard and press the key **【FUNC】** to confirm and press the key **【ESC/M】** to recall.

5.4.2 Receiving Frequency

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “RX Frequency”
- (4) Enter the desired RX frequency by the keyboard and press the key **【FUNC】** to confirm and press the key **【ESC/M】** to recall.

5.4.3 Transmit Frequency

- (1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “TX Frequency”
- (4) Enter the desired TX frequency by the keyboard and press the key **【FUNC】** to confirm and press the key **【ESC/M】** to recall.

5.4.4 Transmit Power

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Transmit Power” and press the key **【FUNC】** to enter.
- (4) Press the key / to select the Low/Middle/High and press the key **【FUNC】** to confirm.

5.4.5 Bandwidth

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Bandwidth” and press the key **【FUNC】** to enter.
- (4) Press the key / to select the Narrow/Wide and press the key **【FUNC】** to confirm.

5.4.6 Receive analog sub audio (RX CTCSS)

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “RX CTCSS” and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired RX CTCSS and press the key **【FUNC】** to confirm.

5.4.7 Receive digital sub audio (RX DCS)

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.

- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the "RX DCS" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired RX DCS and press the key **【FUNC】** to confirm.

5.4.8 Transmit analog sub audio (TX CTCSS)

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the "TX CTCSS" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired TX CTCSS and press the key **【FUNC】** to confirm.

5.4.9 Transmit digital sub audio (TX DCS)

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the "TX DCS" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired TX DCS and press the key **【FUNC】** to confirm.

5.4.10 Signaling

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the "Signaling" and press the key **【FUNC】** to

enter.

(4) Press the key / to select the desired signaling and press the key **【FUNC】** to confirm.

5.4.11 Coded combination (SP-Mute)

(1) In standby mode, press the key **【FUNC】**. After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.

(3) Press the key / to select the “SP-Mute” and press the key **【FUNC】** to enter.

(4) Press the key / to select the desired signaling combination and press the key **【FUNC】** to confirm.

ATTN: This option is only available when channel coding is enabled.

5.4.12 Scan Add

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Scan Add” and press the key **【FUNC】** to enter.
- (4) Press the key / to select ON/OFF and press the key **【FUNC】** to confirm.

5.4.13 Scan Priority

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Scan Priority” and press the key **【FUNC】** to enter.
- (4) Press the key / to select ON/OFF and press the key **【FUNC】** to confirm.

5.4.14 Busy Lockout

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Busy Lockout” and press the key **【FUNC】** to enter.
- (4) Press the key / to select Off/Repeater/Busy and press the key **【FUNC】** to confirm.

5.4.15 Skip Frequency

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.

- (3) Press the key / to select the "Skip Freq" and press the key **【FUNC】** to enter.
- (4) Press the key / to select ON/Off and press the key **【FUNC】** to confirm.

5.4.16 Scrambler

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the "Scramber" and press the key **【FUNC】** to enter.
- (4) Press the key / to select the desired frequency and press the key **【FUNC】** to confirm.

5.4.17 Comparator

- (1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the "Compand" and press the key **【FUNC】** to enter.
- (4) Press the key / to select ON/OFF and press the key **【FUNC】** to confirm.

5.4.18 Channel Memory

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “CH Memory” and press the key **【FUNC】** to enter.
- (4) Press the key / to select desired setting channel and press the key **【FUNC】** to confirm.

5.4.19 Channel delete

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Channel Set" and press the key **【FUNC】** to enter..
- (3) Press the key / to select the “CH Delete” and press the key **【FUNC】** to enter.
- (4) Press the key / to select desired deleting channel and press the key **【FUNC】** to confirm.

5.5 Radio Information

5.5.1 Version

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Info" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “Versions” and press the key **【FUNC】** to enter.
- (4) After entering the version, you can view the local software and hardware versions.

5.5.2 My Radio

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "Radio Info" and press the key **【FUNC】** to enter.
- (3) Press the key / to select the “My Radio” and press the key **【FUNC】** to enter.
- (4) After entering, you can choose radio ID and radio name, press the key **【FUNC】** to enter .

5.6 GNSS

5.6.1 GNSS switch

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "GNSS" and press the key **【FUNC】** to enter GNSS menu.
- (3) Press the key / to select the “GNSS On/Off” and press the key **【FUNC】** to enter.
- (4) Press the key / to select on/off and press the key **【FUNC】** to confirm.

5.6.2 GPS Information (optional)

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "GNSS" and press the key **【FUNC】** to enter GNSS menu.
- (3) Press the key / to select the “GPS Info” and press the key **【FUNC】** to enter.
- (4) Press the key / to view local position/APRS and press the key **【FUNC】** to confirm.

5.6.3 time zone

- (1) In standby mode, press the key **【FUNC】** . After the “F” icon appears on the screen, press the key **【8】** to enter the main menu.
- (2) Press the key / to select the "GNSS" and press the key **【FUNC】** to enter

GNSS menu.

(3) Press the key / to select the "Time Zone" and press the key **【FUNC】** to enter.

(4) Press the key / to select the desired time zone and press the key **【FUNC】** to confirm.

5.7 Weather Channel (Noaa)

(1) In standby mode, press the key **【FUNC】**. After the "F" icon appears on the screen, press the key **【8】** to enter the main menu.

(2) Press the key / to select the "Noaa" and press the key **【FUNC】** to enter weather menu.

(3) Press the key / to select the "GPS Info" and press the key **【FUNC】** to enter.

(4) Press the key / to select the desired weather channel and press the key **【FUNC】** to confirm.

6. Restore factory settings

When the device cannot be used normally due to misoperation or malfunction, this function can be used to restore the machine to its factory state.

Press and hold the **【PTT】** + **【SK1】** button to power on, and the screen will display 'resetting' indicating successful reset.

7. Specification

Overview		
frequency range	US 144-148/420-450Mhz	
No of channels	640 channels	
Channel Spacing	25KHz (broadband), 12.5KHz (narrowband)	
Phase locked stepping	5KHz, 6.25KHz	
Working Voltage	7.4V DC $\pm 20\%$	
Frequency stability	$\pm 1.5\text{ppm}$	
Operating Temperature	$0^{\circ}\text{C} \sim +45^{\circ}\text{C}$	
size	$123 \times 58 \times 33\text{mm}$ (including 1800mAh battery)	
weight	220g (including 1800mAh battery)	
Receiver		
	broadband	narrowband
Sensitivity (12dB SINAD)	$\leq 0.25\mu\text{V}$	$\leq 0.35\mu\text{V}$
adjacent-channel selectivity	$\geq 65\text{dB}$	$\geq 60\text{dB}$
Discrete emission	$\leq 57\text{dB}$	$\leq 57\text{dB}$
spurious response	$\geq 70\text{dB}$	$\geq 70\text{dB}$
block	84db	
signal-to-noise ratio	$\geq 45\text{dB}$	$\geq 40\text{dB}$
Audio Distortion	$\leq 5\%$	
Audio output	1000mW/16 Ω	
TRANSMITTER		
	broadband	narrowband
output power	5/2.5/0.5W (GMRS 4W/PMR446 Only 0.5W max)	
Modulation restrictions	$\pm 5.0\text{KHz}@25\text{KHz}$	$\pm 2.5\text{KHz}@12.5\text{KHz}$
Adjacent channel power	$\geq 70\text{dB}$	$\geq 60\text{dB}$
signal-to-noise ratio	$\geq 40\text{dB}$	$\geq 36\text{dB}$

Parasitic and harmonic waves	$\leq -36\text{dB}$	$\leq -36\text{dB}$
Audio Distortion	$\leq 5\%$	

FCC Warning Statement

Any Changes or modifications 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 including received 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.

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

EU Warning Statement

Use the Mobile RADIO in the environment with the temperature between 0°C and 40°C, otherwise, it may damage your radio. It can be operating under 2000m.

Hereby, We, declare that the radio equipment type Two Way Radio is compliance with RED Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.XXXXX.com

For this device, Head SAR and Body SAR was performed with the device configured in the positions according to EN 50566:2023 & EN IEC/IEEE 62209-1528:2021, 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.

CAUTION:

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.