HamGeek APX-8000 Manual

Using Precautions
This walkie talkie with excellent design and advanced technology. The following suggestions will help you fulfill your obligations under the warranty and understand the safety of using.

1. Please keep the transceiver and all its parts and accessories out of the reach of young children.
2. Please do not try to disassemble the transceiver. Handling the walkie talkie by non-professionals may cause damage.
3. Please use the battery pack and charger provided by our factory to avoid damaging the walkie talkie.
4. Please use the antenna provided by our factory 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 place.
6. Please do not place the walkie talkie in a dusty or damp place.
7. Please do not use harsh chemicals, cleaning agents or strong detergents to clean the walkie talkie.
8. Please do not transmit when the antenna is not installed.
9. If you find that the walkie talkie emits strange smell or smoke, please turn off the power of the walkie talkie immediately and contact the dealer.

Notify

● All the above suggestions apply equally to your walkie talkie and its various accessories. If they do not work properly, please contact your dealer in time.

● If you use attachments or accessories not produced and sold by our factory, our factory does not guarantee the safety and operability of the walkie talkie.

Table of contents

Unboxing configuration check
Please carefully pick up the radio from the packaging box. We recommend that you verify that the items listed in the table below are present in the box before discarding the packaging materials.
If any items are lost or damaged during transportation, please confirm with the dealer.

Standard accessories

Accessories	Quantity
Walkie talkie	1
Antenna	1
Lithium battery pack	1
Charger	1
Hand strap	1
User's manual	1
Belt clip	1

Note: If you need more information about optional accessories, please contact your dealer.

Installation before use

Installing/removing the battery pack
The battery pack is not charged before leaving the factory. Please charge it before use.

Notice
Don't short-circuit battery terminals or dispose of battery in fire.
Don't attempt to remove the cover from the battery pack.
1 Align the battery pack with the back of the walkie talkie, and then push up the battery pack until the bayonet of the walkie-talkie base can be locked.
2. To remove the battery pack, unfold the battery latch on the bottom of the radio outward and push the battery pack out of the radio.

Familiar with walkie-talkies

Functions and features introduction
1. Duplex different-segment relay function, same-frequency duplex relay

2. Duplex working mode
   AB zone can work in duplex {one zone transmits and the other zone can receive}

3. Double receiving
   Zone AB can be received at the same time in the same segment or in different segments.

4. Extra large color screen

5. Adapt to the working frequency matching of various countries and regions:
   136- 174 & 400-470MHz (receive/transmit)
   136- 174 & 400-480MHz (receive/transmit)
   136- 174 & 420-520MHz (receive/transmit)
   144- 146 & 430-440MHz (receive/transmit)
   (receiving) AM 109MHz- 135MHz (aviation receiving)
   (receiving) FM: 76MHz- 108MHz (frequency interval 100K)

6. Dual display
   Large screen dual-frequency display, two completely independent operating systems

7. The frequency difference and frequency difference direction can be set in the repeater state.
   UHF/VHF cross-section relay or VHF/UHF cross-section relay function,
   U/U or V/V same frequency relay.

8. 999 sets of memory channels

9. Strong and stable output power (VHF: 12W/ UHF: 12W)

Familiar with walkie-talkies

10. QT/ DQT sub-tone codec, QT/ DQT sub-tone scanning

11. VOX voice-activated transmitting function

12. Multiple side buttons and multiple definition functions

13. Double PTT design

14 Fast frequency scan

15. Day/night theme selection

16. Single-band/dual-band display

17. Priority channel scanning function

18.

19. Wide and narrow band optional (25KHz/ 12.5KHz)

20. Operation voice prompts in Chinese and English

21. Chinese and English display interface

22. Single tone pulse frequency 2100Hz/ 1750Hz/ 1000Hz/ 1450Hz
    (for signaling to activate relay)

23. Frequency reversal function

24. Companding function

25. 12W ultra-high power output

26. Scrambling function

Function Description

Multiple working modes of this walkie talkie
1. Walkie talkie working mode.

2. Cross-section directional relay working mode or cross-section two-way relay working mode, same-frequency two-way relay function
Note: The working mode is set through the EXIT/MR key.

(1) The display LCD screen of the walkie-talkie is divided into two areas, A and B, which display the information of the two working channels of the walkie-talkie respectively. [MAZN] will be displayed on the upper right side of the main frequency channel. This symbol is very important. All the following operations and instructions are for the channel where this symbol is located. Channels without this symbol are called sub-frequency.

(2) The parameters of the two working channels of the walkie-talkie can be set respectively. When setting, first set the channel to be set as the main frequency and then set it.

(3) When the walkie-talkie works in the cross-section directional transfer, span-section two-way transfer, and working modes, some walkie-talkie functions will be prohibited from being set.

Commonly basic operations

Quick search function
Each time you press the [UP] key or [DOWN] during the process of setting various functions or various function parameters,key to search functions and various parameters up or down: Press and hold the [UP] key or [DOWN] key to search quickly.

Fast frequency scan function

Working mode conversion
1. The working channel of the walkie-talkie can be set to VFO frequency mode and MR channel mode. The MR channel mode has three different display modes.
2. Channel number display mode
3. Channel frequency + channel number display mode
4. Channel name display mode.
The switching of VFO/MR (frequency/channel switching) is as follows:
VFO→ MR (channel number display) →MR (channel frequency + channel number display) →MR (channel number name)

Scrambling function

Companding function

Use of smart charger
When the battery power is low, the radio will give a "low battery" voice notification and a "beep" tone every 5 seconds.
1. Connect the AC plug of the smart charger to the power grid (AC: 90 -240V) socket. The indicator light of the smart charger flashes once, and the smart charger enters the charging state.
2. After the battery pack is inserted into the charger, the red light continues to light up, indicating that it is charging. When the green light continues to light up,Indicates charging is complete.

Notice
1. When the exhausted battery pack is inserted, the smart charger will precharge the battery pack in a trickle manner. At this time, the red light of the charger flashes. This process lasts for 10-20 minutes, and then enters normal charging. The red light stays on until it is fully charged and turns to green.
2. Precharging the exhausted battery pack in trickle mode is to better protect the lithium battery.

Function menu operation process

Step frequency (STEP) - Menu 1
In standby mode, press [MENU] + [1 STEP], the screen will display:
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required step frequency and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
There are 7 types of step frequencies of this radio, they are 5K, 6.25K, 10K, 12.5K, 25K, 50K, and 100K.

Squelch Level (SQL) - Menu 2
Selecting the squelch level actually means choosing the level at which the squelch will be turned on when the signal reaches a certain level, or the level at which the squelch will be turned off when the signal reaches a low level. The speaker will emit sound when the squelch is open and the signaling set by the unit is consistent. Selecting the squelch level too high may result in the inability to receive effectively when the signal is weak; selecting the squelch level too low may cause you to be disturbed by noise or other irrelevant signals.
In standby mode, press [MENU] + [2 SQL], the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired level and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state. The squelch level of this radio is divided into levels 0-9.
Notice
This radio has 0~9 options to choose from, among which level 0 always turns off the squelch, and levels 1~9, the larger the level, the higher the level.

Power saving mode (SAVE) - Menu 3
To reduce battery consumption, this feature turns the receiver circuitry off for a while and then on again for a moment to detect the signal.
In standby mode, press [MENU] + [3 SAVE], the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select ON (on)/OFF (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Power Level (TXP) - Menu 4
In standby mode, press [MENU] + [4 TXP], the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired level and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

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Function menu operation process

Transmitting beep (ROGER) - Menu 5
In standby mode, press [MENU] + [5 ROGER], the screen will display:
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required prompt mode and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
There are 4 ways of transmitting tone of this radio: BOT (start), EOT (end), BOTH (start + end), OFF (close).

Time out timer (TOT) - Menu 6
In standby mode, press [MENU] + [6 TOT], the screen will display:
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required timer number and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
The transmit timer of this radio has 60 levels, ranging from 15s to 900s, with each level increasing by 15s.

Voice control level (VOX_GRD) - Menu 7
In standby mode, press [MENU] + [7 VOX] and the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired level and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
The voice control levels of this radio are divided into levels 1~9. OFF: Turn off voice control.
Notice
»The higher the level, the louder the volume used to turn on the voice control.
»The voice control function can't be enabled in scanning state and FM radio state.

Bandwidth Settings (W/N) - Menu 8
In standby mode, press [MENU] + [8 W/N], the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired bandwidth type and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
The bandwidth of this radio is divided into two types, WIDE: wideband (25K) and NARR: narrowband (12.5K).

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Function menu operation process

Voice switch (VOICE)——Menu 9
In standby mode, press [MENU] + [9 VOICE], the screen will display:
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the desired prompt sound mode and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
There are two types of operation prompts for this radio: ON (open) and OFF (closed).

Special Note
If you need to turn off all operation prompts, you must turn off Menu 9 Voice Prompt Settings (VOICE) and Menu 11 Beep Prompt Settings (BEEP) at the same time.

Working mode (V/M) - Menu 10
In standby mode, press [MENU] + [1STEP] + [0DW]. The screen displays: Working mode
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the required timer number and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
There are 2 working modes of this radio: channel mode/frequency mode.

Channel Display Mode (CH-MDF)--Menu 11
In standby mode, press [MENU] + [1STEP] + [1STEP]. The screen displays: Beep switch
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select ON (on)/OFF (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
Only when the operating mode of the radio is channel mode, 3 display modes are available: frequency + channel number/channel number/channel name

Transmit Digital Subtone (TX-DCS) - Menu 12
In standby mode, press [MENU] + [1STEP] + [2SQL]. The screen will display: To transmit digital subtones, press [MENU] to enter. Press [UP]/[DOWN] to select the desired subtone and then press [MENU] key to confirm,
Press [EXIT] key to return to standby state.
There are a total of 105 groups of standard digital Asian tones with positive codes and 105 groups with negative codes. Range: D023N-D754I, OFF: closed.

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Function menu operation process

Transmitting CTCSS (TX-CTC) - Menu 13
In standby mode, press the keys [[MENU] + [1STEP] + [3SAVE]. The screen displays: To transmit CTCSS, press the [MENU] key to enter. Press the [UP]/[DOWN] keys to select the desired subtone and press [MENU] key to confirm, press [EXIT] key to return to the standby state.
There are a total of 50 groups of standard CTCSS, the range of CTCSS is 67.0-254. 1Hz, OFF: turned off.

Receive Digital Subtone (RX-DCS) - Menu 14
In standby mode, press [MENU] + [1STEP] + [4TXP], the screen will display: RX-DCS
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the desired subtone and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
There are a total of 105 groups of standard DCS with positive codes and 105 groups with negative codes. Range: D023N-D754I, OFF: closed.

Receive Analog Tone (RX-CTC) - Menu 15
In standby mode, press the keys [MENU] + [1STEP] + [5ROGER]. The screen displays: To receive CTCSS, press the [MENU] key to enter. Press the [UP]/[DOWN] keys to select the desired subtone and press [MENU] key to confirm, press [EXIT] key to return to the standby state.
There are a total of 50 groups of standard CTCSS, the range of CTCSS is 67.0-254. 1Hz, OFF: turned off.

Single Display Settings (TDR) - Menu 16
In standby mode, press [MENU] + [1STEP] + [6TOT] keys, the screen will display: Language selection
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired language type and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
There are two types of displays on this radio, single segment and double segment.

Frequency difference selection (OFF-SET) - Menu 17
In standby mode, press [MENU] + [1STEP] + [7VOX], the screen will display: Frequency difference selection
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required frequency difference and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

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Function menu operation process

The frequency difference frequency range of this radio is 0~599.995MHz.The 78 bits of the input frequency difference frequency are automatically judged by the step frequency.

Menu Language (LANGUAGE) - Menu 18
In standby mode, press [MENU] + [1STEP] + [8WN] keys, the screen will display: Language selection
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the desired language type and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
This radio has two display languages: CHINESE (Chinese) and ENGLISH (English).

Screen saver time (ABR) - Menu 19
In standby mode, press [MENU] + [1ATEP] + [9VOICE], the screen will display:
Press [MENU] to enter backlight selection, press [UP]/[DOWN] to select the parameters you need to set, and then press [MENU] key to confirm, press [EXIT] key to return to the standby state.
OFF: 5S- 150S: Set time to turn off the backlight display regularly
OFF: Backlight is always off

Beep switch (BEEP) - Menu 20
In standby mode, press [MENU] + [2SQL] + [0DW], the screen will display: Beep switch
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select ON (on)/OFF (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Display mode (DIS_MODE) - menu 21
In standby mode, press [MENU] + [2 SQL] + [1 STEP]. The screen displays: Beep switch
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select day/night theme selection and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Function menu operation process

Backlight Level (ABR-LV) - Menu 22
In standby mode, press [MENU] + [2 SQL] + [2 SQL], the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired level and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
The backlight level of this radio is divided into levels 0-10.

Busy Channel Lock-out (BCL) – Menu 23
In standby mode, press [MENU] + [2 SQL] + {3SAVE]. The screen displays: Busy Channel Lock-out.
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select on (on)/off (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
Note: The walkie-talkie works in cross-segment relay or relay/transmitter mode, and this function is prohibited.

Frequency Difference Direction (SFT-D) - Menu 24
In standby mode, press the [MENU] + [2 SQL] + {4TXP} keys, the screen displays: Frequency difference direction
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the desired frequency difference direction and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
The frequency difference direction of this radio refers to:
a. The transmitting frequency is higher than the receiving frequency, which is the positive difference direction (+):
b. The transmitting frequency is lower than the receiving frequency, which is the negative difference direction (-);
c. Turn off the frequency difference direction (OFF);

Timeout Alert (TOA) - Menu 25
In standby mode, press MENU] + [2 SQL] + [5 ROGER], the screen will display:
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required timer number and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Function menu operation process

Voice control delay (VOX-DLY) - Menu 26
In standby mode, press [MENU] + [2 SQL] + [6 TOT], the screen will display: Voice control delay
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required timer number and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
When the voice-activated transmitter of this radio is set, it will stop transmitting after a few seconds after the VOX signal stops. There are OFF, 1S-10S.

Scan mode (SC-REV) - Menu 27
In standby mode, press [MENU] + [2 SQL] + [7 VOX], the screen will display: Scan mode
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the required scanning mode and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
TO: After scanning the carrier signal, continue scanning if no operation is performed within 5 seconds.
CO: Stop scanning when the carrier signal is detected, and continue scanning after the carrier signal disappears for 3 seconds.
SE: Stop scanning when the carrier signal is scanned.

Lock mode (LOCKMODE) - Menu 28
In standby mode, press [MENU] + [2 SQL] + [8 W/ N]. The screen displays: Key lock mode
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select keyboard/ keyboard+encoder/keyboard+encoder+PTT, press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Keyboard automatic lock (AUTOLOCK) - Menu 29
In standby mode, press [MENU] + [2 SQL+][9 VOICE], the screen will display: Keyboard automatic lock, press [MENU] key to enter, press [UP/DOWN] key to select automatic/manual and press [MENU] key to confirm. Press [EXIT] key to return to standby mode.
After the automatic lock is turned on, the keyboard will automatically lock if there is no operation within 15 seconds. To unlock, press the [#LOCK] key for more than 2 seconds.

Function menu operation process

Notice
Manual lock: In standby mode, press and hold the [#AB] key for more than 2 seconds to lock the keyboard. To unlock, press and hold the [#AB] key for more than 2 seconds.

Single tone pulse frequency (TONE) - Menu 30
Used to start a relay system activated by a single audio pulse. Some relays require an audio single pulse signal to activate. If the relay has already been started, this activation pulse is not needed. The optional pulse signals are 1000Hz, 1450Hz, 1750Hz, 2100Hz,.
In standby mode, press [MENU] + [3 SAVE] + [0DW]. The screen displays: Single tone pulse frequency
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the required parameters and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
In the transmitting state, the selected single tone pulse frequency can be sent out by pressing the side key PF1.

Short press side button 1 (PF1 -SHORT) - Menu 31
In standby mode, press [MENU] + [3 SAVE] + [1 STEP], the screen will display:
Short press side button 1, press [MENU] to enter, press [UP]/[DOWN] to select the required parameter type Then press the [MENU] key to confirm, and press the [EXIT] key to return to the standby state.
The parameters of the side button 1 short press of this radio are: backlight (BRT_LV), scan key (SCAN), squelch (SQL-KEY)
AB key (KEY-AB) Fast frequency sweep (FreQScan) Power switching (TXP) Working mode switching (CH_MODE).

Long press side button 1 (PF1 -LONG) - Menu 32
In standby mode, press [MENU] + [3 SAVE] + [2 SQL], the screen will display:
Press and hold side button 1, press [MENU] to enter, press [UP]/[DOWN] to select the required parameter type Then press the [MENU] key to confirm, and press the [EXIT] key to return to the standby state.
The parameters for long pressing side button 1 of this radio are: backlight (BRT_LV), scan key (SCAN), squelch (SQL-KEY)
AB key (KEY-AB) Fast frequency sweep (FreQScan) Power switching (TXP) Working mode switching (CH_MODE).

Function menu operation process

Memory channel (MEM-CH) - Menu 33
In channel mode or standby mode, press [MENU] + [3 SAVE] + [3 SAVE], the screen will display: Save channel
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the desired channel number, and then press the [MENU] key to confirm storage. There will be a voice prompt to confirm, and press the [EXIT] key to exit.
When the current working channel is in channel mode (MR), all parameters of the channel except channel name and scan addition will be copied to the stored channel.
When the current working channel is in frequency mode (VFO), you can set different frequency differences, frequency difference directions and other channel parameters and then store the channel, so that you can set channels with different frequencies in the same frequency band or different frequency bands.
For example, "Save the receiving frequency to 450.025MHz, the receiving analog tone to 67.0Hz, and the transmitting frequency to 460.025MHz to the 10th channel.
1. In the frequency mode, enter the 450.025 frequency point, press [MENU] + [1 STEP][5 ROGER] to enter the sub-tone receiving setting function, press the [UP]/[DOWN] key to select 67.0Hz, press [MENU] confirm.
2. Press [MENU] + [2 SQL] + {4TXP] to set the frequency difference to 10.000MHz, and press to set the direction of the frequency difference to positive frequency difference +.
3. Press [MENU] + [3 SAVE] + [3 SAVE] to enter the storage channel. Select the 10th channel and press the [MENU] key to confirm and then return to the standby state.
In the standby state, press the [MENU] + [3 SAVE] + [3 SAVE] keys to enter channel storage. At this time, the LCD displays: Enter the hundreds, tens, and ones digits of the channel number to be saved in sequence, and then press the [MENU] key. confirm.

Notice
When the selected channel is an empty channel, the font of the channel number is blue; if the selected channel is a channel with originally set parameters, the font of the channel number is dark red.

Function menu operation process

Channel Delete (DEL-CH) - Menu 34
In standby mode, press [MENU] + [3 SAVE] + [4 TXP], the screen will display: Channel Delete
Press the [MENU] key to enter , press the [UP]/[DOWN] key to select the channel number to be deleted or directly enter the channel number to be deleted and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
Special Note
»The first channel can't be deleted.
» When the selected channel is an empty channel, the font of the channel number is blue; if the selected channel is a channel with originally set parameters, the font of the channel number is dark red.

Relay switch (RPT-SW) - Menu 35
This function can turn on and off the relay function for the walkie-talkie. When the relay function is turned on, other relay settings will take effect.
In standby mode, press [MENU] + [3 SAVE] + [5 ROGER], the screen will display: Press [MENU] to enter relay switch, press [UP/DOWN] to select ON/OFF Then press the [MENU] key to confirm, and press the [EXIT] key to return to the standby state.

Relay receipt sound ((RPT-RCT)) - Menu 36
The relay acknowledgment tone refers to the relay station offline confirmation tone received when the intercom relays the transfer signal and is offline.
In standby mode, press [MENU] + [3 SAVE] + [6 TOT] keys, the screen will display: Transfer receipt sound
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select ON (on)/OFF (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Battery voltage (V-BAT) - - Menu 37
In the standby state, press the [MENU] + [3 SAVE] + [7VOX] keys, the screen will display: display the current battery voltage, press the [EXIT] key to return to the standby state.

Scan to add (SCAN-ADD) - Menu 38
Scan Add (SCAN-ADD) is a function that determines whether the current channel participates in scanning when channel scanning is started.

Function menu operation process

Therefore, this function setting can only be set for the current channel in channel mode, and the setting is invalid in frequency mode. In standby mode, press [MENU] + [3 SAVE][8 W/N] keys, the screen will display: Scan to add
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select ON (on)/OFF (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.
Note: The walkie-talkie works in cross-segment relay or relay/transmitter mode, and this function is prohibited.

Priority Channel (PRI_CH) - Menu 39
In standby mode, press [MENU] + [3 SAVE] + [9 VOICE], the screen will display: Priority channel switch, press [MENU] to enter, press [UP/DOWN] to select ON/OFF Then press the [MENU] key to confirm, and press the [EXIT] key to return to the standby state.
Sometimes it may be necessary to check for activity on a preferred frequency while listening to other frequencies. In this case, the priority scan function can be used. Example: Scan 6 common channels CH1, CH2, CH3, CH4, CH5, CH6, among which CH6 is set as the priority channel. Then the scan is: CH1→CH6→CH2→CH6→CH3→CH6→CH4→CH6→ CHS5→CHS6 If the walkie-talkie detects a signal on the "priority channel", it will call out the frequency. The priority channel can be selected through our frequency writing software.

Priority Scan (PRI_SCN) - Menu 40
Whether to add a channel to the priority scanning channel in the current standby state, press [MENU] + [4 TXP] + [0] keys, the screen will display: Priority scanning
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select ON (on)/OFF (off) and press the [MENU] key to confirm, press the [EXIT] key to return to the standby state.

Scramble Switch (RP-SW) - Menu 41
When the frequency is the same as that of others, the scrambling function can be turned on to prevent others from hearing the call content. There are 8 sets of scrambling codes to choose from.
In standby mode, press [MENU] + [4 TXP] + [1 STEP] keys, the screen will display: Scramble switch
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the required scrambling code, press the [MENU] key to confirm, and return to the standby state.

Function menu operation process

Companding switch (YK-SW) - Menu 42
In standby mode, press [MENU] + [4 TXP] + [2 SQL] keys, the screen will display: Companding switch
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the required scrambling code, press the [MENU] key to confirm, and return to the standby state.

Fast Scan - - Menu 43
In standby mode, press [MENU] + [4 TXP] + [3 SAVE] keys, the screen will display: Scanning...
Scans for nearby transmitters, displays the frequency and subtone or digital subtone signaling of the received signal, and provides save or return exit options.

Version number (VERSION) - - Menu 44
In the standby state, press the [MENU] + [4 TXP] + [4 TXP] keys. The screen will display: the current firmware version number. Press the [EXIT] key to return to the standby state.

Reset (RESET) - Menu 45
Reset function parameters (VFO), reset all function settings and restore factory function parameter values, but channel parameters are not reset.
Resent function parameters (ALL), reset all function settings and channel parameters, and return the factory function parameter values.
In standby mode, press [MENU] + [4 TXP] + [5 ROGER] keys, the screen will display:
Press the [MENU] key to enter, press the [UP]/[DOWN] key to select the required parameters and press the [MENU] key to confirm. The screen displays: Reset settings
The handheld device will perform function parameter reset(VFO)/all parameter reset (ALL). After the reset is completed, the handheld device will automatically restart and return to the standby state.

CTCSS/DCS

Table 1:CTCSS

1-67.0	11-94.8	21-131.8	31-171.3	41-203.5
2-69.3	12-97.4	22-136.5	32-173.8	42-206.5
3-71.9	13-100.0	23-141.3	33-177.3	43-210.7
4-74.4	14-103.5	24-146.2	34-179.9	44-218.1
5-77.0	15-107.2	25-151.4	35-183.5	45-225.7
6-79.7	16-110.9	26-156.7	36-186.2	46-229.1
7-82.5	17-114.8	27-159.8	37-189.9	47-233.6
8-85.4	18-118.8	28-162.2	38-192.8	48-241.8
9-88.5	19-123.0	29-165.5	39-196.6	49-250.3
10-91.5	20-127.3	30-167.9	40-199.5	50-254.1

Table 2:DCS

023	071	143	225	266	356	452	532	664
025	072	145	226	271	364	454	546	703
026	073	152	243	274	365	455	565	712
031	074	155	244	306	371	462	606	723
032	114	156	245	311	411	464	612	731
036	115	162	246	315	412	465	624	732
043	116	165	251	325	413	466	627	734
047	122	172	252	331	423	503	631	743
051	125	174	255	332	431	506	632	754
053	131	205	261	343	432	516	645	
054	132	212	263	346	445	523	654	
065	134	223	265	351	446	526	662	

Technical specifications

General part	
Working frequency	Suitable for working frequencies in various countries and regions: (can transmit/receive) 136-174MHz & 400-470MHz 136-174MHz & 400-480MHz 136-174MHz & 420-520MHz 144-146MHz & 430-440MHz 144-148MHz & 420-450MHz
Channel step frequency	Channel step frequency5KHz / 6.25KHz / 10KHz / 12.5KHz / 25KHz / 50KHz / 100KHz Signal-to-noise ratio ≥ 45dB ≥ 40dB Audio distortion ≤5%
Channel	Number999
Working mode	F2D / F3E
Operation temperature	-20℃ - 40℃
Antenna impedance	50Ω
Power requirement	7.4VDC
Weight	490g
Size	124.5× 61.49×33.88 (mm)

Transmitting	Wide band	Arrowband
Adjacent channel selectivity	≤70dB	≤60dB
Intermodulation	≤65dB	≤60dB
Spurious response	≤70dB	≤70dB
Audio response	+1~3dB (0.3~3KHz)	+1~3dB(0.3~2.55KHz)
Signal-to-noise ratio	≥45dB	≥40dB
Audio distortion	≤5%	
Audio power	≤500mW	
Sensitivity	UHF/VHF: 0.25μV (12dB SINAD)	

Receiving	Wide band	Arrowband
Modulation method	16K F3E	11K F3E
Maximum frequency difference	±5KHz	12.5KHz
Adjacent channel power	≥70dB	≥60dB
Frequency stability	±2.5ppm	
Spurious	≥60dB	≥60dB
Audio distortion	≤5%	
Audio response	+1~3dB (0.3~3KHz)	+1~3dB(0.3~2.55KHz)
Output power	12W/1W (VHF) 12W/1W (UHF)	

Common Troubleshooting Guide

Before confirming that radio is indeed faulty, please check according to the table below; if the problem persists, reset the radio can sometimes revise incorrect operations.

Fault phenomenon	Troubleshooting method
Receive instructions persist, There is no sound from the speaker.	• Make sure the volume knob is turned to maximum. • Have you set a different subtone from other team members? Please check again.Then proceed to the subtone settings. • Is the mute mode set correctly?
No response to key presses.	• Is the keyboard locked? • Are there any other keys stuck?
Unable to enter scanning.	• Please check whether the channel in the scanning group is scanned and added.
Setting up cross-segment relay failed.	• Please confirm whether the working channel in area A/B is a cross-segment frequency.
The transfer status cannot be forwarded.	• Please check whether the silent mode and subtone of the receiver are correct.
When in standby, if the [PTT] key is not pressed, the walkie-talkie will automatically transmit.	• Check whether the voice control function is turned on and whether the level is set too low.
Others voice appear in the channel (Non-member).	• Please change the CTCSS.

Cleaning and maintenance

In order to ensure that this product performs well and extends its service life, please familiarize yourself with the following content in order to better perform daily clean and maintenance of this product.

Cleaning
◆ Please regularly use a clean and dry lint-free cloth or brush to wipe away the dust attached to the surface of the product and the charging electrodes;
◆ The buttons, control knobs and casing of this product become dirty easily. Neutral detergents and non-woven fabrics can be used to clean it. Do not use chemicals such as detergents, alcohol, sprays or petroleum preparations to avoid damage to its surface and shell. After cleaning, please make sure this product is completely dry, otherwise do not use it.

Notice:
Before cleaning, turn off the radio and remove the batteries.

Maintainance
◆ Don't use hard objects to puncture or scratch this product;
◆ Don't store this product in an environment containing substances that corrode electronic circuits;
◆ Don't use portable antennas or headphone cables when carrying or using this product; when accessories are not in use, please close the accessory connector cover.