# **CONTENTS**

-781D		
nain		
••••••	• • • • • • • • • • • • • • • • • • • •	2
•••••	• • • • • • • • • • • • • • • • • • • •	3
n		
		-
•••••	• • • • • • • • • • • • • • • • • • • •	5
descriptions ar	nd	
	• • • • • • • • • • • • • • • • • • • •	
descriptions ar	nd	
•••••	•••••	11
g	• • • • • • • • • • • • • • • • • • • •	13
	descriptions an	nain

### Description of main functions

- 1. Intuitive LCD menu-type operation
- 2. Battery: 3.7V 2000mAh battery capacity
- 3. Frequency range UHF: 400MHz~470MHz Frequency range BT: 2402MHz~2480MHz
- 4. Channel spacing: 12.5KHz
- 5. TX output power: FM H: 2W, L: 0.5W 4FSK: H: 2W, L: 0.7W
- 6. Analogue subsonic(CTCSS 38) and digital subsonic (CDCSS 83) and Reverse digital subsonic(CDCSS Inverse 83)
- 7. Channels numbers: 512
- 8. Contacts: 256
- 9. TOX (OFF, 30, 60.....150, 180S)
- 10. VOX (OFF/1/2/3)
- 11. Scanning: channels scan
- 12. Record: The number of recordable strips is determined by the memory size
- 13. Color code : 0-15

- 14. Basic Encryption
- 15. Backlight on/off
- 16. Power saving function
- 17. Monitoring function
- 18. Supplementary service
- 19. Low Battery Clarm
- 20. Tone
- 21. Voice Announcement (CN/CN/KR)
- 22. Squelch tail elimination
- 23. Scramble
- 24. Locking key

### Key operation instructions

### **Key operation**

PTT key

PTT key, Press this switch at launch, Release

after launch;

POWER key

Power knob, Rotate clockwise to hear a

"clatter", Start up, Rotate counterclockwise and hear a "clatter" sound, shut down:

VOL knob

Volume knob, same knob as the on/off

knob, Clockwise increase in volume, counter-clockwise decrease volume:

Programmable

Short or long press on programmable

keys to configure scanning on/off via CPS、VOX on/off、

high/low power, monitoring, Emergency Alarm, One-touch call and other functions:

Up/down

Switch key for function or channel, Press

the up key continuously to increase the channel number. Press the key continuously to decrease the channel number. Press the up/down keys to exit the scan during scanning;

Menu key

Function setting and selection key, Select

various functions:

Exit key

Return to upper level;

### Key combination functions

1.[Programmable key1]+[Programmable key2] Restore factory settings, Turn the switch knob, Within 5S of power on, Simultaneously long press [Programmable key1]+[Programmable key2], A flashing green light indicates that the factory settings are being restored, A long red light indicates that the factory has been restored, Then it restarts automatically.

### Menu content

menu item	Display and description	Setting content
01	Contact	Select individual call/group call/all call -
		initiate remote

		kill/activation/call
		alert/intercom
		check/remote monitoring
		for individual calls
02	Scan	off-open
03	Zones	Switching zones
04	Bluetooth	switch/connect/disconnect
		/Clear pairing
		information/Check
		Bluetooth status
05	Record	Recording switch /Play
		the recording file /Delete
		single or all recordings
06	Power setting	Low power /high power
07	Tone setting	off-on
08	VOX	off-on/Gain level
09	Power-saving setting	Off/level 1 /level 2/level 3
10	TOT	off/30s/60s/90s/120s/150s /180s
11	Brightness	Level 1/level 2/level 3
12	Backlight	Long bright/5s/10s/15s/30s/45s/

		60s/120s/180s/240s/300s
13	Language	Chinese/English/Korean

### Menu function descriptions and settings

#### 1. Contact

Choose [MENU] → [CONTACT], Enter the contacts screen, Select target contact, long press [PTT key] Initiate a call, The indicator keeps on red, release [PTT key] Stop Call, Enter call hold time, Long bright orange light, Press and hold again [PTT key], Launch another call to the contact.

If you long press on the main screen [PTT key], then the call is initiated to the default contact.

#### 2. Remote kill

Choose [MENU]→[CONTACT], Select a single contact, choose remote kill, The message "remote kill successfully" will appear after a successful remote kill...If after 15 seconds, Still no remote kill success, The message "Send failed" will pop up.

After the receiver was successfully killed remotely, Will always be in the remote kill interface, No effect of any

operation. After the restart is still stay in the remote kill interface. It will not return to normal until it is activated.

#### 3. Activation

Choose [MENU]→[CONTACT], Select the individual contacts that have been remotely killed, Select Activation, A pop-up message "Activation successful" will appear after successful activation .If after 15 seconds, Still not activated successfully, The message "Send failed" will pop up.

#### 4. Call alert

Choose [MENU]→[CONTACT], Select a single contact, Select Call Alert, A pop-up message "Call alert successful" will appear after a successful call alert.If after 15 seconds, Still no call alert success, The message "Send failed" will pop up.

After the receiver has been called to indicate success. The "drip drip" beep will always sound. Press PTT to reply directly to the transmitter.

#### 1. Radio check

Choose [MENU]→[CONTACT], Select a single contact, Select radio check, The pop-up message "radio check successful" will appear after a successful radio check. If after 15 seconds, Still no intercom check success, The message "Send failed" will pop up.

If the receiver has a service, The launcher failed to launch. The transmitter can't transmit until the receiver is idle.

### 2. Remote monitoring

Choose [MENU]→[CONTACT], Select a single contact, select Remote monitoring, A pop-up message "Remote listening successful" will appear after a successful remote listening succeed. If after 15 seconds, Still not listening remotely successfully, The message "Send failed" will pop up.

The receiver has been remotely monitored successfully, Press any key to exit the monitored state.

### 3. Review ID

Choose [MENU]→[CONTACT], Press to select any contact, Select preview, The ID of the contact can be viewed.

#### 4. Scan

There are two ways to turn on scanning. The first choice is **[MENU]→[SCAN]**, select on , Voice announcement "Scan On", Automatic return to the main screen, Scan icon appears at the top, Keep scrolling to display the scanned channels, And the orange light is flashing. The second one is to configure

programmable keys, Configure a short or long press of programmable key to scan on/off.

During scanning, Access to the menu. After entering the menu, Will stay on the same channel as when you entered the menu, and the orange light no longer flashes. After exiting the menu, Re-enter the scanning state. There are three ways to turn off scanning. The first is to press the up or down key directly, The scan will automatically exit. The second is to go to the menu to turn off scanning. The third is to turn off scanning by short or long press of a programmable key.

#### 5. Zone

Choose [MENU]→[ZONE], Select target area. After successful selection, it will automatically return to the main screen, and stays on the first channel of the selected area.

#### 6. Bluetooth

Choose [MENU]→[Bluetooth switch], Select on.After successful Bluetooth switch-on, Voice announces "on" and the Bluetooth icon appears at the top.

Press [EXIT] key Back to previous level, choose [bluetooth connect], A pop-up message will appear if the Bluetooth connection is successful or unsuccessful.

#### 7. Record

Choose [MENU]→[RECORD]→[RECORDING FILE], Select on.When recording is successfully turned on, Voice announcement "on".Voice transmitted or received by the radio is recorded in full, Save to [RECORDING FILE].

Choose [MENU]→[RECORD]→[RECORDING FILE], Select a recording to play.During the playback of the recording, Pressing the [MENU] key will play from the beginning, pressing the [EXIT] key will stop playback.

Choose [MENU]→[RECORD]→[RECORDING

FILE], Select a recording to delete, Confirming the deletion will delete the currently selected audio file.

Choose [MENU]→[RECORD]→[DELETE ALL],

Confirming the deletion will delete all the recording files in the list

#### 8. Switch power

Choose [MENU]→[SET]→[POWER SET], Choose low power or high power. After successful switching of power, Voice announcement of "Low" or "High" and "L" or "H" icon at the top.

### 9. Tone settings

Choose [MENU]→[SET]→[Tone settings], Select on or off. Voice announcement of "On" or "Off" after successful selection. With the beep off, both key tones and beeps are turned off.

#### 10. VOX

Choose [MENU]  $\rightarrow$  [SET]  $\rightarrow$  [VOX]  $\rightarrow$  [VOX GAIN LEVEL], default is level 2, level 1 to level 3, Incremental increase in sensitivity.

Back to previous level, enter [SWITCH], Select on. Voice announcement of "on" after successful voice control, The "V" icon appears at the top.

### 11. Power saving settings

Choose [MENU]→[SET]→[POWER SAVING SETTING], There are three levels of power saving modes.

#### 12. TOT

Choose [MENU]  $\rightarrow$  [SET]  $\rightarrow$  [TOT], Select close launch time, launch time is unlimited. Select a launch time of 30s/60s/90s/120s/150s/180s, When the transmitting time reaches the time limit, the transmitting will be forced to stop and the receiver will stop receiving.

### 13. Brightness

Choose [MENU]→[SET]→[BRIGHTNESS], press
[MENU]key Select different levels of brightness.

### 14. Backlight

Choose [MENU]→[SET]→[BACKLIGHT], Select Long light and the display will stay on. The backlight duration is set to 5s/10s/15s/30s/45s/60s/120s/180s/240s/300s, The screen will automatically go out when the duration of no action has been reached.

#### 15. Language

Choose [MENU]→[SET]→[LANGUAGE], Select Chinese/English/Korean by pressing the [Menu] key.

#### 16. Firmware version

Choose [MENU]→[SET]→[Firmware version], The current software version can be viewed

#### 17. RADIO ID

Choose [MENU]→[SET]→[RADIO ID], The machine ID can be viewed,

### • Other function descriptions and settings

### 1. Digital channel emergency alarm

After the transmitter has been configured with the digital alarm system via [programmable key], Press and hold [programmable key] to initiate an emergency alarm, The receiver receives an emergency alarm and enters the first hot mic time, which lasts 10 seconds.

After the first hot mic time, the alarm sounds, and the alarm lasts for 10 seconds, Go to the second hot mic time, which still lasts 10 seconds. After the second hot mic time, the alarm will continue to sound if there is no other operation of the transmitter and receiver, Receiver presses any key to exit the alarm state, transmitter presses [programmable key] long to exit the alarm state.

### 2. Analog channel emergency alarm

After the transmitter has been configured with an analog alarm system via the programmable button. Long press [programmable key] to initiate emergency alarm, receiver receives emergency alarm. Enter the first hot mic time, hot mic time lasts 10 seconds

After the first hot mic time, the alarm sounds, and the alarm lasts for 10 seconds. Enter the second hot mic time, hot mic time still lasts 10 seconds. After the second hot mic time, the transmitter and receiver will automatically exit the alarm state. The number of non-polite retransmissions configured in the alarm system will be as many as the number of hot mic times.

### 3. Basic encryption

Configuring secret key values via CPS. Secret key values support pure numbers, pure letters and mixed alphanumeric values up to 8 characters in length. The secret key values of the transmitter and receiver must be the same in order for the call to work. If the secret key values of the transmitter and receiver do not match. Or if one of the units does not have encryption turned on, the call will turn into a noise-like sound.

### 4. Remote monitoring

The receiver is idle, and the transmitter initiates remote monitoring of the receiver. After successful remote monitoring, the transmitter enters the receiving state and automatically ends reception after reaching the duration of remote monitoring. Maximum duration of remote listening is 120 seconds, default is 10 seconds. If the receiver presses the **[PTT key]** or other keys while being monitored, the remote listening will be interrupted.

## • Troubleshooting

Issue	Solution
Unable to switch on	Battery may be depleted, replace
	with a new one or recharge.
	The battery may not be installed
	correctly. Remove the battery
	and reinstall it.
Battery power doesn't last long after a charge, either	The battery pack has expired.  Please renew the battery.
Cannot talk to other members of the group	Check that you are using the same frequencies and dummy audio signals as the other members of the group.  Other members of the group may be too far away, check that you are within effective range of the other radio.
Other (non-group)	Please change the dummy audio

voices appear in the channel	signal. Be sure to change the signal tone of all intercoms in the group at this point.
Supplementary service delivery failure or no permission	Codecs for ticking supplementary services via CPS. Receiver in idle state.

#### **FCC 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 received, including interference that may cause undesired operation.

SAR tests are conducted using standard operating positions accepted by FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is a available for sale to the public, it must be tested and certified to the FCC that is does not exceed the exposure limit established by the FCC. Tests for each product are performed in positions and locations as required by the FCC.

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with and accessory designated for this product or when used with and accessory that contains no metal.

To maintain compliance with FCC RF exposure guidelines hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face.

The equipment complies with FCC radiation exposure limits set forth for and occupational/ Controlled exposure. In order to comply with the FCC RF exposure requirement, the antenna installation must comply with following:

Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

Your wireless hand-held portable transceiver contains a low power transmitter. This product sends out radio frequency (RF) signals when the Push-to-Talk(PTT) button is pressed.

The device is authorized to operate at a duty factor not to exceed 50%.

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.