

TWO-WAY RADIO

128channels / PC programmable
DTMF function / Built in VOX
Dual-watch operation / Cable clone
.....

User's manual





Thank you for purchasing this Radio.
We believe this easy-to-use radio will provide reliable and
dependable communication.
The Radio incorporates the latest advanced technology.
As a result, we know that you will be pleased with the quality and
features of this product.

PRECAUTIONS BEFORE USING

Please read the User's Manual before using. It gives you important information about how to operate the portable radio.

Please put the radio and accessories where the children can not touch.

Maintenance can only be performed by professional technicians.

Please use the standard battery pack and charger in order not to destroy the radio.

Please use the standard antenna, in order not to shorten the distance.

Do not expose the radio to sunlight for a long period of time, nor put it near the heat, nor use it in a high temperature environment.

Do not put it in extreme dust nor wet or on unsteady surfaces.

Keep it dry. (Rain or moisture will erode the electronic board).

Do not transmit when the antenna is not installed.

If you find bad smell or smog, please turn off the radio immediately. And take the battery off the radio, then contact with company's agent.

FEATURES

- UHF/VHF dual band receive/transmit
- Large LCD display
- High capacity Li-ion battery and smart charger
- PC programmable
- Fast MENU operation
- Emergency alarm function
- H/L output power selective
- Squelch level adjustable
- Multi power saving function
- Voice prompt (Chinese and English)
- Reminding switch
- Dual display of frequency and channel
- Channel name edit
- Channel storing
- Frequency/channel mode shift
- Multi LCD backlight selective
- Time of backlight auto off selective
- VOX function
- Dual-watch operation
- Receive/transmit code setting separately
- Cable clone
- CTCSS/DCS code search automatically
- Offset frequency and offset direction setting
- Multi step frequency
- Busy channel lock
- Time-out-timer (TOT)
- Multi display mode: channel/frequency/channel name
- Multi scan function selective
- Channel scan additive
- Wide/narrow bandwidth selective
- Main/sub channel shift
- 1750Hz call tone
- Reminding of repeater transfer
- Auto-keylock
- 128 channels
- Channel delete function
- Reset
- DTMF function
- PTT-ID
- CTCSS/DCS
- Reverse function

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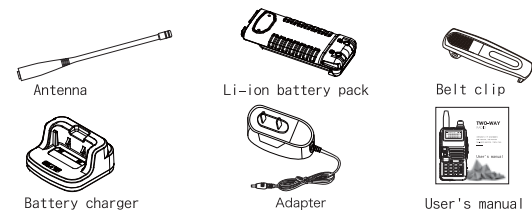
SUPPLIED ACCESSORIES

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

STANDARD SUPPLIED ACCESSORIES

ITEM	QTY
Portable radio	1
Antenna	1
Li-ion battery pack	1
Battery charger	1
Belt clip	1
Adapter	1
User's manual	1

STANDARD SUPPLIED ACCESSORIES

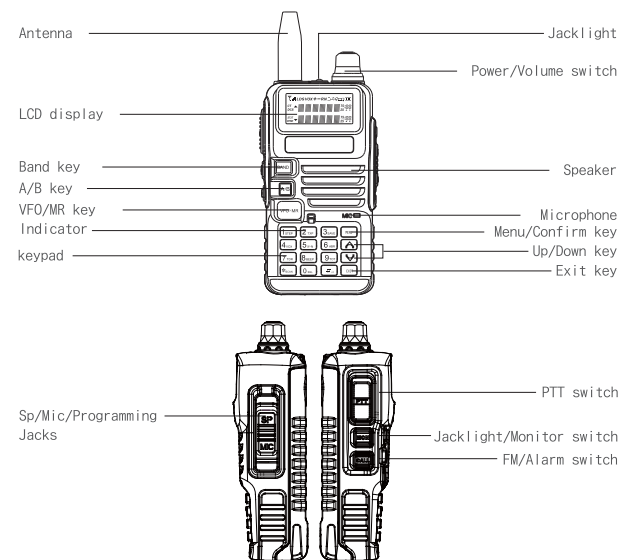


CHARGING NOTES

Charging the Li-ion battery pack:

- Battery packs are not charged when they are shipped. Charge them before using.
- Initially charging the battery pack after purchase or extended storage (longer than 2 months) will not bring the battery pack to its greatest capacity or its normal charge, which can be done only after repeated charging and discharging two or three times.
- The average use time of battery pack is 10 hours.
- After the battery is charged to its highest capacity, and then used on the radio. If the radio still shows low power, please change a new battery pack.
- Do not short-circuit the battery terminals or throw the battery into fire.
- Never attempt to remove the casing from the battery pack.

DIAGRAM



BASIC OPERATION

Function Keypads

- Menu/Confirm key:  It's used for activating the menu, choose each menu item and confirm the parameter.
- Up key (Press more than 2s to scan, press up key to upward scanning): 
- Down key (Press more than 2s to scan, press down key to downward scanning): 
- Press key Exit to exit and clear: 

Number Keypads

- Input the information to the radio.
- Input the non-standard CTCSS code in non-standard mode.
- In transmitting mode, press number keys to send corresponding DTMF code.



BASIC OPERATION

*Scan Key

- Press scan key for a short time to activate RX/TX reverse function.
- Press scan key for more than 2s to start frequency or channel scanning.
- In FM radio mode, press scan key to automatically search FM radio channel.
- In CTCSS/DCS mode, press scan key to start CTCSS/DCS code scanning.

P-O Key

- In channel mode, press # P-O for a short time to switch H/L output power.
- Press # P-O key for more than 2 seconds to lock or unlock the keypad.

Power/Volume Switch

- Turn the Power/Volume switch clockwise to turn the power on.
- Turn the Power/Volume switch counter-clockwise to turn the power off.

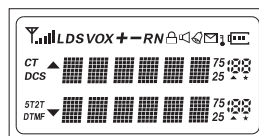
Indicator

- Transmitting: see the red light
- Receiving: see the green light

Sp/Mic/Programming Jacks

- It's used for external speaker/microphone.
- It's used for the connection of program by computer.

LCD DISPLAY



CT	This symbol will appear when transmitting, it means transmitting CTCSS code.
DCS	This symbol will appear when transmitting, it means transmitting DCS code.
+	In frequency mode, this symbol will appear, it means transmitting frequency equals receiving frequency plus the difference of frequency. It can set different frequency.
-	In frequency mode, it will appear this symbol, it means transmitting frequency equals receiving frequency minus the difference of frequency. It can set different frequencies.
+-	It means the transmitting and receiving frequencies are different at current channel.
S	It means it already set dual watch operation function.
VOX	VOX function
R	Reverse function
N	Narrow bandwidth
	It represents the remaining battery. When the battery is almost used up, the frame starts to flicker and it forbid transmitting the radio.
	It means the keypad is locked, pressing key #/Lock can unlock the keypad.
L	Low frequency.
▲▼	Current frequency and current menu setting.
	Signal strength.
	Channel number display
	Frequency ending display

BASIC OPERATION

PTT Key

- Transmitting/Receiving switch key:
Press "PTT" to transmit and speak to microphone.
- Release "PTT" to receive.

FM/Alarm Key

- Press it for a short time to turn on FM radio function.
Operate it again to turn it off.
- Press it for a long time to turn on Alarm function.
Operate it again to turn it off.

Jacklight/Monitor Key

- Press it for a short time to turn on Jacklight.
Operate it again to turn on Flashing Alarming light. Operate it again to turn it off.
- Press it for a long time to turn on Monitor function.
- Press Jacklight/Monitor key to turn the power on, and then enter channel clone condition. It can copy one radio's channel parameter to another one.

NOTE: Cloning cable must be used to connect these two radios.

Band Key

- UHF/VHF frequency band shift;
- In transmitting mode, press Band key to send 1750Hz call tone.

FAST MENU SETTING

- 1 Press Menu key;
- 2 Press Menu key again;
- 3 Press Up/Down key to select Menu No.
- 4 Press Menu to exit/confirm (As picture below).



NOTE:

- ① In channel mode, the setting of following features is invalid:
CTCSS/DCS, Wide/narrow bandwidth, PTT-ID, Busy channel lock, Channel scan additive, Channel name edit.
- ② High/Low power can only be changed by pressing fast key #.

FAST MENU OPERATION FLOW

0	Squelch Level	SOL	MENU+0	▲ SQL 0 5	Press Menu key, and then press ▲ or ▼ key to choose.	▼ SQL 0 6	0-9 levels 0:Lowest 9: Highest	MENU	PTT or EXIT
1	Step Frequency	STEP	MENU+1	▲ STEP 1 25, OK	Press Menu key, and then press ▲ or ▼ key to choose.	▼ STEP 1 12, 5K	2, 5/5, 0/6, 25/10, 0/12, 5/25, 0KHZ	MENU	PTT or EXIT
2	Output Power	TXP	MENU+2	▲ TXP 2 HIGH	Press Menu key, and then press ▲ or ▼ key to choose.	▼ TXP 2 LOW	HIGH: 4W LOW: 1W	MENU	PTT or EXIT
3	Battery Saving	SAVE	MENU+3	▲ SAVE 3 1	Press Menu key, and then press ▲ or ▼ key to choose.	▼ SAVE 3 2	OFF: OFF 1: 1 2: 2 3: 3 4: 4	MENU	PTT or EXIT
4	VOX	VOX	MENU+4	▲ VOX 4 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	▼ VOX 4 9	OFF: OFF 1: Lowest Sensitivity 10: Highest Sensitivity	MENU	PTT or EXIT
5	Channel Bandwidth	W/N	MENU+5	▲ WN 5 WIDE	Press Menu key, and then press ▲ or ▼ key to choose.	▼ WN 5 NARR	W: 25, OK N: 12, 5K	MENU	PTT or EXIT
6	Auto Backlight	ABR	MENU+6	▲ ABR 6 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	▼ ABR 6 NARR	OFF 1-5s	MENU	PTT or EXIT
7	Dual-watch Operation	TDR	MENU+7	▲ TDR 7 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	▼ TDR 7 ON	ON OFF	MENU	PTT or EXIT
8	Keypad Sound Reminding	BEEP	MENU+8	▲ BEEP 8 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	▼ BEEP 8 ON	ON OFF	MENU	PTT or EXIT
9	Time-Out-Timer	TOT	MENU+9	▲ TOT 9 15	Press Menu key, and then press ▲ or ▼ key to choose.	▼ TOT 9 600	15, 30..... 600S	MENU	PTT or EXIT
10	Receive DCS	R-DCS	MENU+10	▲ R-DCS 10 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	▼ R-DCS 10 D023N	OFF D023N-D754N D0231-D754I	MENU	PTT or EXIT

FAST MENU OPERATION FLOW

11	Receive CTCSS	R-CTCS	MENU+11		Press Menu key, and then press ▲ or ▼ key to choose.		OFF 67, 0-254, 1HZ
12	Transmit DCS	T-DCS	MENU+12		Press Menu key, and then press ▲ or ▼ key to choose.		OFF D023N-D754N D0231-D7541
13	Transmit CTCSS	T-CTCS	MENU+13		Press Menu key, and then press ▲ or ▼ key to choose.		OFF 67, 0-254, 1HZ
14	Voice Reminding	VOICE	MENU+14		Press Menu key, and then press ▲ or ▼ key to choose.		ON OFF
15	ANI-ID	ANI-ID	MENU+15				1-5 digit arbitrary selection (It can be programmed by software.) OFF DT-ST: Sending by keypad ANI-ST: Auto sending DT-ANI: Auto sending and sending by keypad 1-19 group (It can be programmed by software.) DT: Time scanning DT: Carrier wave scanning SE: Search scanning OFF: Press PTT not send BOT: Press PTT to send. (PTT-ID code can choose from program software BOT: Release PTT to send. BOTH: Press or release PTT to send.
16	DTMFST	DTMFST	MENU+16		Press ▲ or ▼ key or input numbers directly.		
17	Signal Code	S-CODE	MENU+17		Press Menu key, and then press ▲ or ▼ key to choose.		
18	Scan Resume Mode	SC-REV	MENU+18		Press Menu key, and then press ▲ or ▼ key to choose.		
19	PTT ID	PTT-ID	MENU+19		Press Menu key, and then press ▲ or ▼ key to choose.		
20	PTT ID Prolong Time	PTT-LT	MENU+20		Press Menu key, and then press ▲ or ▼ key to choose.		0, 1, 2..... 30ms

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FAST MENU OPERATION FLOW

21	A Channel Display Mode	MDF-A	MENU+21		Press Menu key, and then press ▲ or ▼ key to choose.		FREQ: Channel+ frequency CH: Channel NAME: Channel name (It can be programmed by software.) FREQ: Channel+ frequency CH: Channel NAME: Channel name (It can be programmed by software.)
22	B Channel Display Mode	MDF-B	MENU+22		Press Menu key, and then press ▲ or ▼ key to choose.		
23	Busy Channel Lock	BCL	MENU+23		Press Menu key, and then press ▲ or ▼ key to choose.		ON OFF
24	Auto Keypad Lock	AUTOLK	MENU+24		Press Menu key, and then press ▲ or ▼ key to choose.		ON OFF
25	Frequency Deviation Setting	SFT-D	MENU+25		Press Menu key, and then press ▲ or ▼ key to choose.		OFF +: TX frequency >RX frequency -: TX frequency <RX frequency
26	Frequency of Different Frequency	OFFSET	MENU+26		Press Menu key, and then input numbers directly.		00, 000-69, 990MHZ
27	Channel Store	MEN-CH	MENU+27		Press Menu, and then press ▲ or ▼ key to choose, or input three numbers directly.		0-127 Channels
28	Channel Delete	DEL-CH	MENU+28		Press Menu, and then press ▲ or ▼ key to choose, or input channel numbers directly.		Any one of the stored channels.
29	Standby Backlight	WT-LED	MENU+29		Press Menu, and then press ▲ or ▼ key to choose.		Green Purple Sky Blue
30	RX Backlight	RX-LED	MENU+30		Press Menu, and then press ▲ or ▼ key to choose.		Green Purple Sky Blue

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FAST MENU OPERATION FLOW

31	TX Backlight	TX-LED	MENU+31	▲ TX-LED 31 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	TX-LED 31 ▼ RED	Green Purple Sky	MENU	PTT or EXIT
32	Alarm Mode	AL-MOD	MENU+32	▲ AL-MOD 32 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	AL-MOD 32 ▼ SITE	SITE: Site alarm TONE: Sending alarm tone CODE: Sending alarm code	MENU	PTT or EXIT
33	Frequency Band Shift	BAND	MENU+33	▲ BAND 33 UHF	Press Menu key, and then press ▲ or ▼ key to choose.	BAND 33 ▼ VHF	UHF: 400 - 450 MHz VHF: 136 - 150 MHz	MENU	PTT or EXIT
34	Dual-watch Operation (Cross Band TX/RX)	TDR-AB	MENU+34	▲ TDR-AB 34 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	TDR-AB 34 ▼ A	OFF: A band transmit (Upper row frequency) A band transmit (Bottom row frequency)	MENU	PTT or EXIT
35	Tail Tone Elimination	STE	MENU+35	▲ STE 35 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	STE 35 ▼ ON	ON	MENU	PTT or EXIT
36	Repeater Tail Tone Elimination	RP-STE	MENU+36	▲ RP-STE 36 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	RP-STE 36 ▼ 5	OFF 1, 2, ..., 10ms	MENU	PTT or EXIT
37	Time of Repeater Tail Tone Elimination	RPT-RL	MENU+37	▲ RPT-RL 37 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	RPT-RL 37 ▼ 5	OFF 1, 2, ..., 10ms	MENU	PTT or EXIT
38	Displays of Power On	PONMSG	MENU+38	▲ PONMSG 38 FULL	Press Menu key, and then press ▲ or ▼ key to choose.	PONMSG 38 ▼ MSG	FULL: Full frequency character MSG: Display of Guangsheng logo	MENU	PTT or EXIT
39	Reminding of End Talk	ROGER	MENU+39	▲ ROGER 39 OFF	Press Menu key, and then press ▲ or ▼ key to choose.	ROGER 39 ▼ ON	ON	MENU	PTT or EXIT
40	Reset	RESET	MENU+40	▲ RESET 40 ALL	Press Menu key, and then press ▲ or ▼ key to choose.	RESET 40 ▼ VFO	VFO: Menu initialization ALL: Menu and channel initialization	MENU	PTT or EXIT
	Manually Lock the Keypads			▲ 140, 875 3 146, 225 4		▲ 140, 875 3 146, 225 4		Auto	Auto

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FAST MENU OPERATION FLOW

	Rapid Alert	ALARM		Press CALL key for more than 2s.	▲ ALARM 144, 825				Auto	PTT
	Jacklight			Tap MON key					Auto	Auto
	Monitor	MON		Press key MON for more than 2s.					Auto	Auto
	Cable Clone	COPING		Press key MON to turn the power on.	COPING				Auto	Auto
	Channel / Frequency Conversion	VFO/MR		Press the VFO/MR key.	▲ 140, 875 3 146, 225 4	▲ 140, 875 3 146, 225 4	Display channel mode according to menu(1) and 22		Auto	Auto
	Reverse Function	R		Tap "*" key	▲ 140, 875 3 146, 225 4		Repeatedly tap key "*" to turn it on or off.		Auto	Auto
	Frequency Scanning	FM		In frequency mode, press key "*" for more than 2s.	▲ 140, 875 3 146, 225 4	Press key ▲ or ▼ to change the scanning direction.	Scan upward or downward according to the set step frequency.		Auto	PTT or EXIT
	Channel Scanning			In channel mode, press key "*" for more than 2s.	▲ 140, 875 3 146, 225 4	Press key ▲ or ▼ to change the scanning direction.	Scan upward or downward according to the set channels.		Auto	PTT or EXIT
	Research CTCSS/DCS Code			MENU+10 or MENU+11	R-CTCS or R-DCS	Press "*" key	Automatically research CTCSS/DCS code.		MENU	PTT or EXIT
	Cursor	A/B		Tap key "AB"	▲ 140, 875 3 146, 225 4	Repeatedly press key "AB"	A (Upper row) / B (Bottom row)		Auto	Auto
	High/Low Power Fast Conversion	H/L		In Channel mode, tap key "H"	▲ 140, 875 3 146, 225 4	Repeatedly press key "*" .	H: 4W L: 1W		Auto	Auto

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FAST MENU OPERATION FLOW

NOTE:This model has dual-frequency display function.In frequency mode it can display two different receiving and transmitting frequencies;In channel mode it can display two related parameters of two different channels.
In frequency or channel mode,press key A/B to shift between main-channel A and sub-channel B. When "▲" points to the main channel,all operations are against channel A; When "▼" points to the sub-channel, all operations are against the sub-channel.

FUNCTION OPERATION AND DESCRIPTION
(The following description is without voice prompt.)

Battery Saving (SAVE)

This function is mainly to save the capacity of battery when the radio is standby.
The operation steps are as follows:

1、In frequency or channel mode, press Menu+3, the LCD displays:

2、Press key Menu, and then press key ▲ or ▼ to choose battery saving function.The LCD displays:

There are five kinds of mode. ①OFF ②1: 1 ③1: 2 ④1: 3 ⑤1: 4
Example: 1: 1(1s' working, 1s' battery saving,) 1: 2 (1s' working, 2s' battery saving.)

3、After setting, press key Menu to confirm, and then press key PTT or Exit to standby.

NOTE:If you choose OFF,the radio is not battery saving.In general,we suggest you choose 1:1.

VOX Function (VOX)

When this function is on, the system will inspect your talking to the microphone and then it will automatically shift to transmitting mode without manual operation (This function is useful for earphone users).
The operation steps are as follows:

1、In frequency or channel mode, press Menu+4, the LCD displays:

2、Press key Menu, and then press key ▲ or ▼ to choose VOX level.The LCD displays:

There are (OFF-10) levels, OFF:OFF 10: Lowest level 1: Highest level

3、After setting, press key Menu to confirm, and then press key PTT or Exit to standby.The LCD displays:

NOTE:The higher the level is, the higher the sensitivity of microphone is.
This function is invalid in scanning and FM radio mode.

Dual-watch Operation (TDR)

When this function is on, you may receive the frequency of channel A and channel B at the same time.
If any AB channel or frequency receives signal, "▲" will glitter on corresponding channel or frequency.

Example: Channel A: 440.125 Mhz, Channel B: 141.235 Mhz ,

The LCD displays: or

The operation steps are as follows:

- 1、In standby mode, press Menu+7, the LCD displays: 
- 2、Press key Menu, and then press key ▲ or ▼ to choose on, the LCD displays: 
- 3、After setting, press key Menu to confirm, and then press key PTT or Exit to standby.
The LCD displays: 

NOTE: In dual-watch operation mode, you can change the parameter of AB channel or frequency freely.

Scan Resume Mode (SC-REV)

This function can scan activities from other radios' frequencies or channels. You can select the scan mode according to your request.

The operation steps are as follows:

- 1、In frequency or channel mode, press Menu+18, the LCD displays: 
- 2、Press key Menu, and then press key ▲ or ▼ to choose, the LCD displays: 
There are three ways of scanning.
TO: Time scanning, continue scanning after searching signal for 5s.
CO: Carrier scanning, when it searches the signal, it continues scanning after the signal disappear.
SE: Search scanning, stop scanning after searching the signal.
- 3、After setting, press key Menu to confirm, and then press key PTT or Exit to standby.

Channel Store (MEM-CH)

When the radio is in frequency working mode or standby mode, input the desired frequency or parameters directly.

The operation steps are as follows:

- 1、In frequency mode, press Menu+27, the LCD displays: 
- 2、Press key Menu, and then press key ▲ or ▼ to choose channel number, or you can input your desired channel number directly.
For example, if you want to input No. 25 channel, please input number 0、2、5 directly.
- 3、After setting, press key Menu to confirm, and then press key PTT or Exit to standby.
Example: Channel 1 (Same frequency) Receiving frequency: 445.875 MHz CTCSS: 71.9 Hz
Transmitting frequency: 445.875 MHz CTCSS: 71.9 Hz
Channel 2 (different frequency) Receiving frequency: 445.575 MHz
Transmitting frequency: 440.575 MHz CTCSS: 88.5 Hz

First, storing channel 1:

- a. In frequency mode, input number 4、4、5、5、7、5、5.
- b. Press Menu+11, the LCD displays: 
- c. Press key Menu, and then press key ▲ or ▼ to adjust to 71.9 Hz, the LCD displays: 
- d. After setting, press key Menu to confirm, and then press key PTT or Exit to standby. The LCD displays: 
- e. Press key Menu+13, the LCD displays: 

f. Press key Menu, and then press key ▲ or ▼ to adjust to 71.9 Hz, the LCD displays:

g. After setting, press key Menu to confirm, and then press key PTT or Exit to standby. The LCD displays:

h. Press Menu+27, the LCD displays:

i. Press key Menu, and then press ▲ 001 channel or input number 0、0、1、directly, the LCD displays:

j. After setting, press key Menu to confirm, and then press key PTT or Exit to standby.

k. Press key VFO/MR to channel mode, display modes see Menu No.21 and Menu No.22.

NOTE:If you don't want to set CTCSS, do not follow b、c、d、e、f operation steps.

Secondly,storing channel 2:(Transmitting frequency is 5MHz lower than receiving frequency.)

a. In frequency mode, input number 4、4、5、5、7、5.

b. Press Menu+13, the LCD displays:

c. Press key Menu, and then press key ▲ or ▼ to adjust to 88.5 Hz, the LCD displays:

d. After setting, press key Menu to confirm, and then press key PTT or Exit to standby.

After transmitting, the LCD displays:

e. Press Menu+25, the LCD displays:

f. Press key Menu, and then press key ▲ or ▼ to choose, the LCD displays:

g. After setting, press key Menu to confirm, and then press key PTT or Exit to standby. The LCD displays:

h. Press Menu+26, the LCD displays:

i. Press key Menu, then input number: 0、5、0、0、0

j. Press Menu+27, the LCD displays:

k. Press key Menu, and then press key ▲ or ▼ to choose No.2 channel or input number 0、0、2 directly. The LCD displays:

L. After setting, press key Menu to confirm, and then press key PTT or Exit to standby.

M. Press key VFO/MR to channel mode, the LCD displays:

Display modes see Menu No.21 and Menu No.22.

NOTE:Pls check the channel you store has the original channel or not,if does, you need to delete it before channel storing. (Channel delete see Menu No.28)

Channel Delete (DEL-CH)

This function is used to delete channels and information of the radio.
Example: Delete channel 2

The operation steps are as follows:

1、In frequency or channel mode, the LCD displays:

- 2、Press key Menu, and then press key ▲ or ▼ to adjust channel 002 or input number 0、0、2 directly. The LCD displays: 
- 3、After setting, press key Menu to confirm, and then press key PTT or Exit to standby.

NOTE: Please correctly choose the channel you want to delete in case of restorage and unnecessary trouble.
With display CH-*** means there is storage channel, and then can be deleted

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

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.

SPECIFICATIONS

GENERAL	
Frequency range	Rx VHF: 136~174 MHz, UHF: 400~520 MHz Tx VHF: 144~148 MHz, UHF: 420~450 MHz
Memory channel	128 channels
Step frequency	2, 5/6, 25/10/12, 5/20/25KHz
Rated voltage	DC7.2V (Rechargeable Li-ion battery)
Frequency sensitivity	±2.5ppm
Working temperature	-20°C ~+50°C
Working manner	Same frequency single operation or different frequency single operation
Antenna impedance	50Ω
Dimensions	122x58x37mm (Not include antenna)
TRANSMITTER	
Output power	5W
Modulation mode (W/N)	16KΦF3E/11KΦF3E
Maximum frequency deviation (W/N)	≤5KHz/≤2.5KHz
Supurious radiation	≤7.5μW
Adjacent channel selectivity	≤-65dB/≤-60dB
Signal-noise rate (W/N)	≥-45dB/≥-40dB
CTCSS/DCS frequency deviation (W/N)	0, 7±0, 1KHz/0, 4±0, 1KHz
Modulation sensitivity	8-12mV
Emission current	≤1.4A (H)
RECEIVER	
Sensitivity	-122dB (12dB SINAD)
Audio power	1W
Audio distortion	<10%
Intermodulation (W/N)	≥65dB/≥60dB
Adjacent channel selectivity	≥65dB/≥60dB
Spurious rejection	≥65dB
Receiving current	≤380mA

All stated specifications are subject to change without notice or obligation