

Menu Operation

Available menu items will be different between digital channels and analog channels. Some menu items can be chosen to display or not by PC programming software setting.

■ Menu Operation Method

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to required menu item.
3. Press [MENU] to choose and enter next menu item.
4. Press [BACK] to return previous menu item.
5. Press [↵] to exit menu operation status, directly return standby status and main interface displayed.
6. Repeat steps 1 ~ 4 to make all levels menu operation.

※ **Remark:**

- During menu operation, you can press [PTT] to transmit directly, after releasing [PTT], radio will directly exit previous menu operation status and return main interface.
- Radio will automatically return main interface standby after no operation for certain time, which can be set by programming software.

■ Radio Detection

If activated, this function helps you to confirm whether other radios are active in system, and will not disturb radio users, and not voice or visual notification appeared on target radio.

※ **Remark:**

This function is suitable for user name or ID only.

◆ Send Radio Detection

Use menu function:

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to Contacts, and then press [MENU] to select.

3. Press [↶] or [↷] to required user name or ID, then press [MENU] to select.
 - Or press [↶] or [↷] to Manual Dial, and then press [MENU] to select. If previous dialed ID available, ID displayed with flashing cursor, use keypad to edit ID, press [MENU] to select.
 - Or press [↶] or [↷] to Manual Dial, and then press [MENU] to select. Enter user name or ID, and then press [MENU].
4. Press [↶] or [↷] to radio detection, and then press [MENU] to select.
5. Radio detection displayed on screen: <User name or ID>, indicating radio detection ongoing, LED indicator light as red.
6. Wait for confirmation.
 - If target radio is active in system, you can hear a beep tone, screen briefly displays target radio answered.
 - If target radio is not active in system, you can hear a beep tone, screen briefly displays target radio not answered.
7. Radio returns user name or ID screen. If press [BACK] when waiting for confirmation, you can hear a beep tone, and exit radio detection mode.

■ Remote Monitoring

- Use remote monitoring function to open microphone of target radio (For user name or ID only).
- You can use this function to remote monitor any sound activity around the target radio.

※ **Remark:**

This radio should be programmed as allowing you to use this function.

◆ Start Remote Monitoring

Use menu function:

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to Contacts, and then press [MENU] to select.

3. Press [↵] or [↶] to required user name or ID, then press [MENU] to select.
 - Or press [↵] or [↶] to Manual Dialing, then press [MENU] to select. If previous dialed ID available, ID displayed with flashing cursor, use keypad to edit ID, press [MENU] to select.
 - Or press [↵] or [↶] to Manual Dial, and then press [MENU] to select. Enter user name or ID, and then press [MENU].
4. Press [↵] or [↶] to remote monitoring, and then press [MENU] to select.
5. You can hear prompt tone, LED lights as green.
6. Wait for confirmation.
 - Monitor Success: Radio start receiving voice signal from monitored radio and Monitoring display on screen, until programmable duration end, you can hear a prompt tone and LED indicator light out, remote monitoring terminated displayed.
 - Monitor Fail: Remote monitoring fail displayed on screen. Radio repeatedly attempts until programmable attempt times.

■ Contacts

Every item of the contacts is corresponding to an alias or ID which is used to call. The radio support digital contacts.

The items in the contacts: Call type, Call alias, Call ID.

※ Notice:

Contact items can be added, deleted or edited in the digital contacts.

◆ Start a Group Call by Contacts

1. Press [↵] or [↶] to the contacts, or directly press [↵] to enter contacts.
2. Then press the [MENU] to select, items are ranked by the alphabet order.
3. Press [↵] or [↶] to the needed call group alias or ID.
4. Press [PTT] to call, LED indicator light as red. Call group alias or ID,

group call icon displayed on screen.

5. Release [PTT] to receive, when any user of the the group calls, LED indicator light as green. Group call icon and user's ID displayed on screen.

◆ Start a Individual Call by Contacts

1. Press [↵] or [↶] to the contacts, or directly press [↵] to enter contacts.
2. Then press the [MENU] to select, items are ranked by the alphabet order.
3. Press [↵] or [↶] to the needed user's name or ID.
 - Press [↵] or [↶] to manual dialing, then press [MENU] to select. If previous user name or ID available, ID displayed with blinking cursor, use the keypad to edit the ID.
 - Press [↵] or [↶] to manual dialing, then press [MENU] to select, use the keypad to input a new ID.
4. Press [PTT] to call, LED indicator light as red. User's name or ID displayed on the first line, individual call and icon displayed on the second line.
5. Release [PTT] to receive, when the target radio transmits, LED indicator light as green, transmitting user ID displayed on screen.
6. When call terminated, you will hear a short beep tone, call end displayed on screen.

※ Notice:

- If release the [PTT] when starting a call, then will return to the previous screen without any prompt.
- The radio can be programmed to perform "Radio Detection" before starting an individual call. If the target radio not responds, you will hear a short beep tone, NO ANSWER displayed on screen. The radio will return to the previous screen before starting the "Radio DetectionTest".

■ Call Log

The radio can record all recent Outgoing, Answered, Missed individual call. You can use call log to check and manage recent call records.

◆ Check the Latest Call Number

Missed, answered and outgoing calls are included in menu item.

1. Press [MENU] to enter the menu mode.
2. Press [↵] or [⏏] to the call log, then press [MENU] to select.
3. Press [↵] or [⏏] to the needed list, then press [MENU] to select.
4. The screen will display the latest item on the top.
5. Press [↵] or [⏏] to check the list, press [PTT] to start an individual call by current user alias or ID.

◆ Missed Call Interface

Whenever miss calls, radio will display a message of missed call, choose to check now or later.

1. Screen displays missed calls, numbers and check.
2. Press [MENU] to check the ID of missed call, screen displays missed call record list. Press [MENU] to save or delete the item, or press [↵] or [⏏] to check later, then press [MENU] to select, return the main interface.

※ Notice:

If press the [PTT] when checking the missed calls, radio will exit the missed calls screen and start a individual call.

◆ Save the alias name or ID of the missed calls

1. Press [MENU] to enter menu mode.
2. Press [↵] or [⏏] to call log, then press [MENU] to select.
3. Press [↵] or [⏏] to missed calls, then press [MENU] to select.
4. Press [↵] or [⏏] to missed calls alias or ID, then press [MENU] to select.
5. Press [↵] or [⏏] to save, then press [MENU] to select.
6. Blinking cursor appeared, if needed, input alias name of the ID, then press [MENU].

※ Notice:

You can input an ID without alias.

7. Screen displays the contact been saved.

◆ Delete the Calls of Call Log

1. Press [MENU] to enter the menu mode.
2. Press [↵] or [⏏] to call log, then press [MENU] to select.
3. Press [↵] or [⏏] to needed list, then press [MENU] to select.
4. Press [↵] or [⏏] to needed alias or ID, then press [MENU] to select.
5. Press [↵] or [⏏] to delete the item, then press [MENU] to select yes or no.
6. Select “Yes” and press [MENU] to delete the item, item deleted displayed on screen. Or select “No” and press [MENU] to return previous screen.

※ Notice:

When selecting a call log without any list or item, the screen will display the list is empty.

■ Call Prompt Operation

Call prompt can remind one specific radio user to call you back within possible time.

This function can only be used by user name or ID, and use through the contacts or manual dialing to achieve.

◆ Initiate Call Prompt By Contacts

1. Press [MENU] to enter menu mode.
2. Press [↵] or [⏏] to the contacts, then press [MENU] to select.
3. Press [↵] or [⏏] to the needed user name or ID, then press [MENU] to select.
Or press [↵] or [⏏] to manual dialing, then press [MENU] to select, blinking cursor appeared, input the user ID which you want to call, then

press [MENU].

4. Press [↶] or [↷] to call prompt, screen displays call prompt: <User Name or ID>, then press [MENU], indicating call prompt has been sent.
5. When radio sends a call prompt, LED indicator light as red.
6. If receiving the call prompt confirmation, you can hear a beep tone, and displays call prompt succeed.
Or if not receiving the call prompt confirmation, you can hear a beep tone, and displays call prompt failed.

■ Messages

The radio can receive the messages from another radio, the max length of the message is 144 characters. The message should be not more than 50 lines.

◆ Write Messages

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to messages, then press [MENU] to select.
3. Press [↶] or [↷] to Write, then press [MENU] to select.
4. When blinking cursor appeared, use keypads to input message, press [↶] to move left for a charater, press [↷] to move right for a charater.
When edit area with contents, press [BACK] to delete any useless charater; When edit area without contents, press [BACK] to return previous menu.
5. When finish writing, press [MENU] to select to send or save.
6. During editing, you can press [MENU] to select clear option, clear all the edited contents, and return previous menu.
7. Refer to “Send Messages” chapter for sending messages operation.

◆ Send Messages

Finish editing the message or check the quick text, then send the message.

1. After sending, press [↶] or [↷] to the needed alias or ID, then press [MENU] to select.
Or press [↶] or [↷] to manual dialing, then press [MENU] to select, input the user' s ID and press [MENU].
2. Screen displays the message: <User/Call group alias or ID>, confirm sending message.
3. If the message been sent, you can hear a beep tone, and screen displays the message has been sent.
If the message not been sent, you can hear a a high pitch beep tone, and screen displays the message has not been sent, and return resend selection screen.

◆ Send Quick Text

The radio can support max 50 quick texts, quick texts can be edited by PC programming software.

When the quick text is set, you can edit it before sending the message.

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to Messages, then press [MENU] to select.
3. Press [↶] or [↷] to Quick Text, then press [MENU] to select.
4. Press [↶] or [↷] to to needed quick text, then press [MENU] to select.
5. When blinking cursor appeared, use keypad to input the message, press [↶] to move left for a charater, press [↷] to move right for a charater.
When edit area with contents, press [BACK] to delete any useless charater; When edit area without contents, press [BACK] to return previous menu.
6. When finish writing the message, press [MENU] to select to send or save.
7. During editing, you can press [MENU] to select clear option, clear all the edited contents, and return previous menu.
8. Refer to “Send Messages” chapter for sending messages operation.

◆ Use One-touch Call Button to Send Quick Text

1. Press programmable one-touch call button, send a quick text to a user alias or ID.
2. Refer to “Send Messages” chapter for sending messages operation.

◆ Manage Sent-failed Messages

You can select Resend, Forward or Edit in resend selection screen.

◇ Resend Messages

1. Press [↶] or [↷] to resend, then press [MENU] to select.
2. Select resend, refer to “Send Messages” chapter for sending messages operation.

◇ Forward Messages

Forward messages to another user/talk group alias or ID.

1. Press [↶] or [↷] to forward, then press [MENU] to select.
2. Select forward, refer to “Send Messages” chapter for sending messages operation.

◇ Edit Messages

1. Press [↶] or [↷] to edit, then press [MENU] to select.
2. Select edit, refer to “Write Messages” chapter for writing messages operation.

※ Notice:

If with topic line (Messages received from e-mail), topic can not be edited.

◆ Manage Sent Messages

After sending the message to another radio, the message will be saved in the “Sent items” , it can save max 50 latest messages. When the quantity reaches 50, the newly sent message will replace the earliest

sent message.

When checking the sent message, you can select: Resend, forward, edit or delete.

◇ Check Sent Messages

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to messages, then press [MENU] to select.
3. Press [↶] or [↷] to Sent Items, then press [MENU] to select.
4. Press [↶] or [↷] to needed message, then press [MENU] to select. If the message is from the e-mail, then there will be a topic line, the icon on top right corner of the screen displays message status.

◇ Send Sent Messages

1. When checking messages, press [MENU] once again.
2. Press [↶] or [↷] to resend, then press [MENU] to select.
3. After selecting resending, refer to “Send Messages” chapter for sending messages operation.

※ Notice:

- Besides pressing [MENU],[↶] or [↷],if you change the volume and press any keypads, it will return messages interface.
- When pressing [PTT] to initiate individual call or group call, or when respond to group call, radio will exit to resend selection interface.
- If messages or remote sensing information, emergency call or alarm, or call prompt received, radio will exit to resend selection interface.
- If press [PTT] to respond individual call (Besides when radio missed calls displayed), or when all call is terminated, radio will exit to resend selection interface.
- Press [↶] or [↷] to enter the forward, edit or delete selection screen.

◇ Delete All Sent Messages in “Sent Items”

1. Press [MENU] to enter menu mode.
2. Press [↵] or [↶] to Message, then press [MENU] to select.
3. Press [↵] or [↶] to the sent items, then press [MENU] to select.
4. Press [↵] or [↶] to delete all, then press [MENU] to select.
5. When deleting the message, press [MENU], select "YES" to clear the sent items.
Or when deleting the message, Press [↵] or [↶] to "NO", then press [MENU] to previous screen. When no messages in the "sent items", the screen will display the list is empty. If keypads tone on, you can hear a low pitch beep.

■ Receive Messages

When radio receives the messages, sender alias or ID and message icon displayed on screen left.

When a message received, you can select to read, read later or delete.

※ Notice:

If press [PTT] when prompt screen displayed, radio will exit message editing screen and start an individual call or group call.

◆ Check Messages

1. Press [↵] or [↶] to read, then press [MENU] to select.
2. Open the selected message in inbox, if the message is from e-mail, then there will be a topic line.
3. Press [MENU] to return inbox.
 - Press [MENU] to reply, forward or delete the message.
 - Press [↵] or [↶] to check-later or deleting selection interface:
Selecting checking later, return previous screen before receiving the message. Select delete, to delete the received message.

◆ Manage Received Messages

Use Inbox to manage the messages. Max 50 messages can be saved in inbox, will always save the latest messages.

1. Press [MENU] to enter menu mode.
2. Press [↵] or [↶] to Messages, then press [MENU] to select.
3. Press [↵] or [↶] to inbox, then press [MENU] to select.
At inbox interface, you can select to reply, forward, delete or delete all.

◇ Check Messages in Inbox

1. At inbox interface, press [↵] or [↶] to check the message. If the message is from e-mail, then there will be a topic line.
2. Press [MENU] to select the current message, then press [MENU] again to reply, delete or forward this message.

※ Remark:

✉ means unread, ✉ means read.

◇ Reply Messages in Inbox

1. At Inbox Interface, press [↵] or [↶] to the needed message, then press [MENU] to select. If the message is from the e-mail, then there will be a topic line.
2. Press [MENU] to enter submenu.
3. Press [↵] or [↶] to reply, then press [MENU] to select.
4. Press [↵] or [↶] to write messages, then press [MENU] to select, when with blinking cursor, you can edit message by keypad.
 - Or press [↵] or [↶] to the quick text, then press [MENU]. Select the needed message, then press [MENU], when with blinking cursor, you can edit message by keypad if needed.
5. After editing, press [MENU], the screen will display the message with <User/talk group alias or ID>, confirm sending message.
 - If the message is sent successfully, you can hear a beep tone and screen displays the message has been sent.
 - If the message can not be sent, the screen will display sending failed,

and radio will return resend selection screen.

◇ Delete Messages in Inbox

1. At inbox interface, press [↶] or [↷] to the needed message, then press [MENU] to select. If the message is from e-mail, there will be a topic line.
2. Press [MENU] again to enter submenu.
3. Press [↶] or [↷] to delete, then press [MENU] to select.
4. When deleting the message, press [↶] or [↷] to “YES”, then press [MENU] to select.
5. When the message is deleted, radio will return inbox interface.

◇ Delete All Messages in Inbox

1. At Inbox interface, press [↶] or [↷] to Delete All, then press [MENU] to select.
2. When deleting the message, press [↶] or [↷] to “YES”, then press [MENU] to select.
3. The screen displays the inbox is empty.

※ Remark:

When selecting the “Inbox”, but no messages in it, the screen will display the list empty. If the keypad tone is on, you can hear a low pitch beep.

■ Encryption

This radio has encryption function. Use this function to prevent disclosure of communications voice and data, to ensure the privacy of communication. The TX signaling and user ID section of this radio are not encrypted.

◆ Encryption Setting

You can set encryption type and key in the PC programming software “Encryption Setting” window.

This radio only supports one basic encryption type, total 16 groups of

encryption key can be set.

If you want to decrypt the encrypted call or data transmission, the encryption key of the transmitting radio and the receiving radio must be the same.

If this transceiver receive call with different encryption key, you will hear chaos voice.

◆ Encryption Switch

Use the programming software to set the encryption on/off key. Press encryption on/off key to turn on/off the function.

■ DTMF

For analog channels, use DTMF to achieve the radio call.

Manually initiate a DTMF call, operation as follows:

1. Press [PTT].
2. Use keypad to input needed call number. Screen displays manual dialing and input interface.

You can switch off all tones/alerts to turn off DTMF tone.

■ Confidentiality

You can activate or remote kill any radio in the system. For example, you can disable one stolen radio, to prevent others to use it, and revive it when getting back..

※ Notice:

Please enable these functions before using the remote kill or revive.

◆ Remote Kill

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to Contacts, then press [MENU] to select, the entry is

1. ranked by the Alphabet order.
2. Press [↶] or [↷] to needed alias or ID, then press [MENU] to select.
Or press [↶] or [↷] to manual dialing, press [MENU] twice to input the
3. user' s name or ID, then press [MENU] to select.
- Press [↶] or [↷] to remote kill the radio, and then press [MENU] to select.
Screen displays Remote Kill: <User' s name or ID> and LED indicator
4. light as red.
5. If the remote kill is successful, screen displays radio remote kill success,
and you can hear a beep tone.
6. If the remote is failed, screen displays radio remote kill failed, and you
can hear a beep tone.

※ **Notice:**

During remote kill operation period, do not press [BACK] or [↵], or the
info will not be confirmed.

◆ **Activate**

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to Contacts, then press [MENU] to select, list ranked
by the alphabet order.
3. Press [↶] or [↷] to needed alias or ID, then press [MENU] to select.
- Or press [↶] or [↷] to manual dialing, press [MENU] twice to input the
user' s name or ID, then press [MENU] to select.
4. Press [↶] or [↷] to activate radio, then press [MENU] to select.
5. Screen displays activate: <User' s name or ID> and LED indicator light
as red.
6. If activate successful, screen displays radio activate is successful, and
you can hear a beep tone.
If activate fail, screen displays radio activate fail, and you can hear a
beep tone.

※ **Notice:**

During activate operation period, do not press [BACK] or [↵], or the info
will not be confirmed.

■ **Scan List**

Set up scan list and allocate to single channel/talk group, this radio can
support max 250 scan lists, and 31 members for each list. Every scan list
can support mixed channel of analog and digital. You can edit the scan
list to add/delete channel or set the priority for the channel.

◆ **Check the Members in Scan List**

1. Use the knob to select a channel with presetted scan list.
2. Press the [MENU] to enter menu mode.
3. Press [↶] or [↷] to Scan, then press [MENU] to select.
4. Press [↶] or [↷] to check/edit the list, then press [MENU] to select.
5. Press [↶] or [↷] to check the members of the list.
If the priority is setted, then the icon of the priority will be displayed on the
left of the member' s alias.
①means the priority level of the member is 1,②means the priority level
of the member is 2, ③ means the member has no priority. In a scan list, it
can not have multiple priority 1 or priority 2.

◆ **Scan indication and method**


When start the scan, yellow light flashing, and screen displays the sca-
nning icon ,the radio can check whether the channels of the scan list
have communication signal.
During scanning of analog and digital dual modes period, if radio on a
digital channel and one analog channel is locked, it will automatically
switch the mode from digital to analog. Vice versa.

Two scanning methods available:

- Manual Scan: Start the scanning according to the programmable scanning on/off key or menu. When activating the scanning, the radio will detect all the channels/talk groups of the scan list.
- Automatic scan: When choosing a activated automatic scan channel/talk group, radio will start scan from automatic scan channels.

◆ Start and Stop Scan

Press the programmable scanning on/off key or enter scan menu.

1. Use channel knob to select a channel with preset scan list.
2. Press [MENU] to enter menu mode.
3. Press [↶] or [↷] to Scan, then press [MENU] to select.
4. If the scan is disabled, screen displays turning on; If the scan is activated, screen will displays turning off.
5. Press [MENU] to select.
6. When the scan is activated, yellow light flashes, screen displays scan icon ; when the scan is disabled, LED indicator light out and no scan icon displayed.

◆ Scan Reply

When scanning, radio detects a channel/talk group with signal, radio will stay on the channel/group, residence time called as “Suspension time” . It can be set by the programming software.

1. During the “Suspension time” , press the [PTT], LED indicator light as red.
2. Release [PTT] to receive.
3. If no response during “Suspension time” , then radio will continue to scan.

Setting


The setting includes: Radio settings, radio info, and radio allocation.

■ Radio Settings

Radio settings includes: Talk Around, Tones/Alerts, RF Power, Backlight, Squelch Startup Interface, Keypad Lock, Language, LED Indicator Light, VOX, Startup Password, Clock, Mode.

Use menu operation to enter radio setting interface.

1. Press [MENU] to enter menu mode.
2. Press [↶] or [↷] to setting, then press [MENU] to select.
3. Press [↶] or [↷] to radio setting, then press [MENU] to select, enter radio setting interface.
4. Press [↶] or [↷] to required set next menu item, then press [MENU] to select.
Repeat the step to enter all level menu item, and then make corresponding operations.
5. Press [MENU] to select the needed setting.
6. Press [BACK] to previous menu.
7. Press [↵] to quit the radio setting, directly return standby status and display main interface.

NO.	Setting Items		Options	Function Operation	Remark
1	Talk Around		On/Off	Press [↶] or [↷] to select on/off. Turn on talk around, screen displays  .	Press programmable [Repeater/Talk Around] key to switch between the modes.
2	Tone / Alert	All Tones	On/Off	Press [↶] or [↷] to switch on/off.	Switch on/off all tones/Alerts (Except for emergency prompt tone) by programmable switch.
		Call Permission	On/Off	Press [↶] or [↷] to switch on/off.	After turning on, when call, you will hear communication permission prompt tone.
		Keypad Tone	On/Off	Press [↶] or [↷] to switch on/off.	After turning on, you can hear prompt tone when pressing keypad.

NO.	Setting Items		Options	Function Operation	Remark
3	RF Power		High/Low	Press [↵] or [↶] to select High/Low power.	Each channel can be set as RF high/low power Press programmable high/low key to switch.
4	Backlight		Always/5S/10S/15S.	Press [↵] or [↶] to select the needed backlight time. Always means the backlight will be on always.	Press programmable [Backlight automatic switch] to turn on/off the backlight.
5	Squelch		Tight/Normal	Press [↵] or [↶] to select required squelch level.	Press the programmable [Tight/Normal] to switch squelch level.
6	Intro Interface		On/Off	Press [↵] or [↶] to switch On/Off.	When switch on, radio will display intro interface.
7	Keypad lock		Manual/5S/10S/15S.	Press [↵] or [↶] to select the keypad lock option.	Manually keypad lock: In main interface, keep pressing [☐] to lock the keypad. Unlock the keypad: Press [MENU], then press[☐].
8	Language		English/Chinese	Press [↵] or [↶] to select the language option.	This radio supports Chinese and English display.
9	LED Indicator Light		On/Off	Press [↵] or [↶] to select to turn on/off the LED indicator light.	If LED indicator disabled,the light will be out when operating the radio.
10	VOX		Off and Level 1~10S	Press [↵] or [↶] to select to turn on/off the VOX and sensitivity level.	Press programmable [VOX] to turn on/off the VOX. If choosing 1~10S,then the VOX is activated, and the sensitivity of VOX is corresponding to the digital gears When activating the call permission t one, you can use the VOX to call.
11	Startup Password		8 digits	Use the keypad to input the required password, and it can also be setted by programming software.	If the password is set, radio can only be powered on when inputting the correct password.
12	Clock	Time	H,M,S(6 digits)	Press [↵] or [↶] to select number needed to be modified.	After setting, time and the date will be displayed on the bottom of the screen.
		Date	Y,M,D (8 digits)	Input corresponding number by keypad.	
13	Mode		Frequency Mode/ Channel Mode	Press [↵] or [↶] to select the modes.	Main interface will display receiving frequency or channel name according to selected mode.

■ Radio info

The radio info includes: My number, Versions. The versions contains firmware version, CP (CodePlug) version.

◆ My number

You can check radio name and number (ID).

1. Press [MENU] to enter menu.
2. Press [↵] or [↶] to setting, then press [MENU] to select.
3. Press [↵] or [↶] to the radio info, then press [MENU] to select.
4. Press [↵] or [↶] to my number, then press [MENU].
5. Screen displays radio name and ID.

◆ Versions

The radio can check the firmware version and CP (CodePlug) version.

1. Press [MENU] to enter menu mode.
2. Press [↵] or [↶] to setting, then press [MENU] to select.
3. Press [↵] or [↶] to the radio info, then press [MENU] to select.
4. Press [↵] or [↶] to versions, then press [MENU].
5. Screen displays current firmware version and CP version.

◆ Radio Allocation

The radio allocation is to edit the channel content, including RX frequency, TX frequency, channel name, TOT, CTCSS/DCS, color code, repeater slot.

Enter the “Channel Edit” interface.

1. Press [MENU] to enter menu mode.
2. Press [↵] or [↶] to settings, then press[MENU] to select.
3. Press [↵] or [↶] to the radio allocation, then press [MENU] to select.

4. Use keypad to input correct radio allocation code (Programming software setting), then press [MENU] to select and enter the “Channel edit” interface.
5. Press [↵] or [↶] to the required allocation item, then press [MENU] to select.
6. Press [↵] or [↶] to the required the options, or input the required contents.
7. Press [MENU] to save the result; Press [BACK] to return previous menu.
8. Press [↵] to quit the radio allocation, return standby status and display main interface.

NO.	Allocation Items		Options	Function Operation	Remark	
1	RX Frequency		400.00000~469.90000 MHz	Input the frequency, press [↵] to delete the last number, press [BACK] to return previous menu.	Use the programming software to select the frequency range,if the range is less than the limit,then correct it to the minimum range of the software,likewise the contrary.	
2	TX Frequency		400.00000~469.90000 MHz			
3	Channel Name		Channel name,letter and number	Press [#] to switch the relevant letter, number or character of the input method.	Input method and the way of editing the message are the same.	
4	TOT		Infinite/15S/30S~555S	Press [↵] or [↶] to select required time.	Select infinite means TOT is off.The rest means the length of time.	
5	CTC SS/DCS	CTC Decoding	Off/67.0/69.3/71.9~254.1	Press [↵] or [↶] to select receiving CTCSS frequency.	Select Off means cancel the CTCSS decoding. Total 50 CTCSS frequencies.	CTCSS/ DCS can only be set on the analog channel
		DCS Decoding	Off/D023N/D025N~D754N/D023I/D025I~D754I	Press [↵] or [↶] to select receiving DCS signaling.		
		CTC Encoding	Off/67.0/69.3/71.9~254.1	Press [] or [] to select transmitting CTCSS frequency.	Select off means cancel the CTCSS encoding.	
		DCS Encoding	Off/67.0/69.3/71.9~254.1	Press [↵] or [↶] to select transmitting DCS signaling.	Select off means cancel the DCS encoding.Total 105 DCS Frequencies.N means positive phase,I means negative phase.	

NO.	Allocation Items	Options	Function Operation	Remark
6	Color Code	0/1/2/3/4~15	Press [↵] or [↶] to select to set the value of the color code.	Color code can only be set on the digital channel.
7	Repeater Slot	1/2	Press [↵] or [↶] to select to set the value of the repeater slot.	Repeater slot can only be set on the digital channel.

Main Specification

General Specifications		
Frequency Range		(2) 400~470MHz
Channel Capacity	≥ 1000	
Channel Spacing	12.5kHz	
Frequency Stability	± 2.5ppm	
Operating Voltage	DC7.4V ± 15%	
Dimension (W × H × D)	62mm × 136mm × 37mm (Antenna Excluded)	
Weight	288g (With Battery and Belt Clip)	
Battery Pack	1500mAh (Li-ion Battery)	
Working Temperature	-30 °C ~ +40 °C	
Receiver		
Analog Sensitivity	≤ 0.22 μ V / -121dBm	
Digital Sensitivity	-119dBm (BER ≤ 5%); -117dBm (BER ≤ 1%)	
Intermodulation	≥ 50dB @ 12.5 kHz	
Adjacent Channel Selectivity	≥ 50dB @ 12.5 kHz	
Co-channel Rejection	≥ -8dB	
Blocking	≥ 85dB	
Modulation RX bandwidth	≥ 2 × 3kHz @ 12.5 kHz	
Audio Power	> 1W (16 Ω)	
Audio Distortion	≤ 5%	
Transmitter		
RF Power		(2) 4W/1W
Modulation Sensitivity	10 ± 3mV	
Spurious RF Components	≤ -58dB	
Adjacent Channel Power	≤ -55dB @ 12.5KHz;	
4FSK Modulation Accuracy	≤ 5% @ 25°C	
Audio Distortion	≤ 5%	

Troubleshooting

NO.	Troubles	Troubleshooting
1	Power-on no response	<ul style="list-style-type: none"> ● Battery life exhausted, please replace battery or charge. ● Battery not installed correctly, please remove and reinstall the battery.
2	The battery is easily exhausted after fully charging	<ul style="list-style-type: none"> ● Battery pack life is ending, please replace it.
3	Communication voice is low	<ul style="list-style-type: none"> ● Too far from the mic, the best distance is 3~10cm. ● Volume is not set properly, rotate the volume knob, to increase the volume.
4	Can not intercom	<ul style="list-style-type: none"> ● The channel value is not correct, please reset it. ● ID is not correct, please select the right ID. ● Surpass the communication range of the radio.

FCC Statement:

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.

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.

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

RF Radiation Information

RF Radiation Profile

Radio Frequency (RF) is a frequency of electromagnetic radiation in the range at which radio signals are transmitted. RF technology is widely used in communication, medicine, food processing and other fields. It may generate radiation during use.

RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;

American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;

Institute of Electrical and Electronic Engineers (IEEE) C95. 1 – 1999;

International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998;

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

- a. Your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.
- b. Keep the radio at least 2.5 centimeters away from your body during transmission.