

## MD720 function description

menu:

1. Press OK button to enter the menu, and then press up and down key to select menu options, press F2 to exit the menu mode.

2. press the left and right key to select the channels

### 二. Safety and overview

#### Safety and radio frequency radiation

Before use this mobile radio, please read manual instructions carefully included product safety and radio frequency radiation

1. Do not transmit when haven't confirmed all the RF plugs or any open plugs haven't connected to the corresponding terminals.

2. When near the electric detonator or in a flammable gas environment, please turn off the power supply, do not operate the equipment.

3. This equipment is to be serviced only by qualified technicians.

### 三. Overview

Turn on the radio:

Long Press the back key, LCD will show "welcome", LED blink to green, if the backlight is set to automatically open the main screen lights up

Attention:

If all the LED turn off, the main screen will not light up when you turn on the radio, Send out a short hint sound, means testing success.

Note: if forbid the reminders function, there will be no sound when turn on the radio. long press the back button to turn it off

Volume adjustment

The volume control knob clockwise to raise the volume; To reduce the volume, this spin counterclockwise.

### 五. Transmit and receive

Area selection:

Area is a channel group, this vehicle radio can support up to 250 regions and each region can add up to 16 channels.

Use the menu function:

1. Press [OK] key enter the menu mode

2. Press [ $\Delta$  delta or  $\nabla$  del] to the area, and then press [0 k] key choice 3. Show the current area, and displayed in a regional name.

4. Press [ $\Delta$  delta or  $\nabla$  del] to the area, and then press [0 k] key choice

5. Screen display immediately < the selected area >, and then return to screen the selected area

Choose mobile channel, user ID, group ID

After selecting the required area (if there are several areas), press (delta or Del) to select the channel, and the user

alias or ID, or call group name or ID.

Receive and reply the group call

Receive the call from the users' group, the mobile radio have to be grouped to the same group.

When receive the group call:

1. LED recording light will be green light.
2. The first line on LCD will show caller ID and RSSI icon, the second line will show group name and group call icon.  
(Only digital model)
3. Hold the microphone and make it to be vertical position with 1-2inches with your mouth.
4. Press PTT to call, LED will be red.
5. Release the PTT key to receive the call
6. If there is no voice activity, the call will be end within reserve time

Receive and reply single call

Single call is one radio call to another radio; it can be divided two types: one is checking the radio before call, two is ready call immediately.

When receive the single call,

1. LED is green
2. The first line on LCD will show user name or ID and RSSI icon, second line show single call and single call icon.
3. Hold the microphone and make it to be vertical position with 1-2inches with your mouth.

If use the function of "channel free reminder", you can hear a warning tone when the radio release the PTT, it means the channel is free and waiting for your answer.

4. Press PTT answer the call, LED is red
5. Release PTT to receive the call.
6. If there is no voice activity in preset time, the call will be ended

Receive all call

All call is one radio call all radios, it can be used to issue important notice to all users in the channel.

When receive all call:

1. LED is green
2. The first line of LCD show caller ID and RSSI icon, second line shows all call and all call icons.
3. When finished all call, the radio back to the screen of before receiving the all call. if use the function of "free channel reminder", you can hear a reminder voice when you release the PTT, it means the channel can be used.

Note: when receive all call ,if you shift to another channel ,the radio will stop to receive all call.

Start a call

You can use below way to choose a channel,user ID or group call :

Channel choice

Pre-program single call key

Address book list

Dial by hand by address book,this way only can be use to single call,and use the key pad

Use channel choice to start call

Start group call

If you need to start group call, the radio has to be joining this group.

1. Choose the channel; activate the group call ID to choose the channel
2. Hold the microphone and make it to be vertical position with 1-2inches with your mouth.
3. Call press (PTT), the LED indicator for the red light. Screen calls group name or ID, as well as the set of ICONS
4. Release button, when the target interphone reply, the LED indicator for the green light. Screen display group call icon, call group name or ID, and emission interphone alias or ID.
5. If you enable the "channel" free prompt function, when the intercom the PTT release button, you will hear a short beep, said this channel is idle, waiting for your answer. Press the call key (PTT) answer, or if at a predetermined time period without voice
6. Intercom return accept call in front of the screen. You can also through the address book caller grop shout.

Start single call

1. Choose channel (delta or del) key, use active user alias or ID to select the channel
2. Hold the microphone and make it to be vertical position with 1-2inches with your mouth.
3. Call press (PTT), the LED indicator for the red light. The first line shows the user alias or ID. The second line shows the single call and call icon
4. release button, when the target interphone reply, the LED indicator for the green light.
5. Free prompt if you enable the "channel" function, is when the target radio (PTT) release button, you will hear a short beep, said this channel is idle, waiting for your answer. Press the call key (PTT) answer, or if at a predetermined time period without

You can also through the address book a single call or through the keyboard entry for quick contact access, to find the required target interphone.

#### Start all call

This feature allows you to all the users on the channel signal. Walkie talkie must be programming allows you to use this feature.

1. Rotate knob channel, the use of activated all call on the phone to choose channel group name or ID.
2. Hold the microphone and make it to be vertical position with 1-2inches with your mouth.
3. Call press (PTT), the LED indicator for the red light. All call on the phone screen display group name or ID, as well as all call icons

Using a single bond call key caller group shout or shout

Single bond call feature allows you to easily alias or ID of a predefined set of call or a single call. This function can be assigned to a short programming or long programming keys.

You can only assign an alias or ID a single bond the call button. Intercom can have multiple single call key programming.

1. Press the preprogrammed single bond calls, initiate a set of predefined alias or ID shout or shout.
2. Hold the microphone and make it to be vertical position with 1-2inches with your mouth.
3. Call press (PTT), the LED indicator for the red light. Screen display group/user alias call or ID, and group calling/single icon.
4. (PTT) release button, when the target interphones reply, the LED indicator for the green light.
5. Free prompt if you enable the "channel" function, is when the target radio (PTT) release button, you will hear a short beep, said this channel is idle, waiting for your answer.

Press the call key (PTT) answer, or if at a predetermined time period without voice activity, the call is terminated.

6. Intercom return accept call in front of the screen

#### Emergency alarm function

Emergency alarm is used to represent an emergency, you can at any time or any screen, even there is activity on the current channel, an emergency call

Alarm has the following types:

- Ban: This machine can't fire alarm signal, but can receive other radio alarm.
- General: Intercom fired a warning signal with voice or visual hints.
- Silent: intercom fired a warning signal, without any voice or visual hint, before you call press (PTT), target interphone will not response (call).• Silent voice: intercom alarm signal launch and receive incoming calls, all without any voice or visual hint, unless you press [PTT] key to initiate the call or respond to the call.

Only can assign the emergency alarm in a preprogrammed emergency call button

#### Exit the emergency mode

When one of the following situations occurs, walkie-talkie to exit the emergency mode:

- Received an emergency alarm (only for emergency alarm), or
- Has reached the alert attempts, or
- Press programming beforehand alarm shut down, or
- press PTT key

Note: If the shutdown, exit mode of emergency intercom. When open again, interphone will not start the emergency mode

## Six.Menu function

character input

DTMF input, press [#]shift to input types( Upper/lower case/number) Input corresponding to the table below:

DTMF KEY	Default Character Cycle
1	1
2	A>B>C>2
3	D>E>F>3
4	G>H>I>4
5	J>K>L>5
6	M>N>O>6
7	P>Q>R>S>7
8	T>U>V>8
9	W>X>Y>Z>9
0	SPACE>0

The use of the menu

1. press[OK]into menu, Then press the up or down key [delta or del] to access the menu functions
2. press[OK]choose a function key or into a submenu
3. Press F2 to return at the next higher level menu

Note: After a period of time not activity interphone will automatically exit and return to the main menu screen (hang time is set by the programming software)

Menu function instruction and setting

Radio test

If activate ,This feature allows you to determine whether there is other interphone is active inside the system, and does not disturb the walkie-talkie users, without voice or visual notice appeared on the target interphone.

This feature applies only to the user alias or ID.

[Send radio detection](#)

Use the menu function:

1. Press [OK] key enter the menu mode。
2. Click [delta or del] key to address book, and then press [0 k] key choice.
3. Press [delta or Del] to the required user alias or ID, and then press [0 k] key choice.
- Or press [delta or Del] key to manual dialing, and then press [0 k] key choice. Enter the user alias or ID, and then press [0 k] key.
4. Press [delta or del] key to radios, and then press [0 k] key choice.
5. Screen display radio detection: < user alias or ID >, indicating the ongoing radio detection.The LED indicator for the red light.
6. If the target radio in the system is not active, issued a prompt sound, short screen target interphone no answer.
7. Intercom return user alias or ID screen. If you press [back] when waiting for confirmation, issued a prompt sound, walkie-talkie terminate all retry and exit the intercom test patterns.

[The remote monitoring](#)

Using remote monitoring function to open the target on the intercom microphone (only the user alias or ID). No voice or visual indication appeared on the target interphone. You can use the function of remote monitor target intercom any sound around. Your intercom must programming allows you to use this feature.

### Start the remote monitoring

Use the menu function:

1. Press [OK] key enter the menu mode
2. Click [delta or del] key to address book, and then press [0 k] key choice
3. Press [delta or del] to the required user alias or ID, and then press [0 k] key choice.

Or press [delta or del] key to manual dialing, and then press [0 k] key choice. Enter the user alias or ID, and then press [0 k] key to select.

4. Press [delta or del] key to remote monitoring, and then press [0 k] key choice.
5. Screen remote monitoring: (user alias or ID), indicating the ongoing remote monitor, the LED indicator for the red light.
6. Screen display remote monitoring successfully. Or screen display remote monitoring failure.
7. If successful, interphone began to receive from the voice of the radio signal monitoring, until the end of the duration of the preprogrammed, LED light is put out.

Or if not successful: intercom repeating until reach preprogrammed attempts.

The address book set:

Address book for handheld walkie-talkie "address book". Each entry corresponds to an alias or ID used to start the call.

The address book entries displayed in the following information:

- Call type
- Call the alias
- The call ID

Note: you can to digital contacts list to add, delete, or edit contacts.

By the address book caller group shout

1. Press [OK] key enter the menu mode.
2. Click [delta or del] key to address book, and then press [OK] key choice.
3. Press [delta or del] to the group name or ID.

4. Hold hand microphones that its in a vertical position and keep mouth 1 to 2 inches (2.5 to 5.0 cm).

5. Call press (PTT), the LED indicator for the red light. Screen calls group name or ID, as well as the set of ICONS.

6. Release (PTT) release button, when any user response within the group, the LED indicator for the green light. You will see on the screen group call icon user ID.

7. Free prompt if you enable the "channel" function, is when the target radio (PTT) release button, you will hear a short beep, said this channel is idle, waiting for your answer. Press the call key (PTT) answer. If in a preprogrammed group called hang time without voice activity, the call is terminated.

Single call initiated by the address book

1. Press [OK] key enter the menu mode.
2. Click [delta or del] key to address book, and then press [OK] key choice
3. Press [delta or del] to the required user alias or ID

Or press [delta or del] key to manual dialing, and then press [OK] key choice.

Or press [delta or del] key to manual dialing, and then press [OK] key choice, using the keyboard to enter a new ID.

4. Hold hand microphones that its in a vertical position and keep mouth 1 to 2 inches (2.5 to 5.0 cm).
5. Call press (PTT), the LED indicator for the red light. The first line shows the user alias or ID, the second line shows the single call and call icon.
6. **(PTT) release button, when the target radio sends a response, the LED indicator is a green light and screen display user ID of the launch.**
7. Free prompt if you enable the "channel" function, is when the target radio (PTT) release button, you will hear a short beep, said this channel is idle, waiting for your answer. Press the call key (PTT) answer. If in a preprogrammed single call hang time without voice activity, the call is terminated.

### Calling record function

Your intercom can record all the recent have dialed, received, and did not answer the call. Use the call record function view and manage the recent calls.

To view the latest call number

**Menu items have not answer the call and received calls and have dial call**

1. **Press [OK] key enter the menu mode.**
2. **Press [delta or del] key to call history, and then press [OK] key choice.**
3. Press [delta or del] to the list, and then press [OK] key choice.
4. Screen on the top of the list shows the recent entries.
5. Press [delta or Del] check list, press (PTT) at the current selected aliases or ID to start a call.

The store did not answer the call list aliases or ID

1. **Press [OK] key enter the menu mode**
2. Press [delta or del] key to call history, and then press [OK] key choice
3. **Press [delta or del] key to not answer the call, and then press [OK] key choice.**
4. According to [delta or del] key to answer the call alias or ID, and then press [OK] key choice.
5. **Press [delta or del] key to storage, and then press [OK] key choice.**
6. A flashing cursor, if needed, enters the ID alias, and then press [OK] key.
7. **Screen display contacts saved.**

You can also enter ID no alias.

Delete the call in the list of call

1. **Press [OK] key enter the menu mode.**
2. Press [delta or Del] key to call history, and then press [OK] key choice.
3. **Press [delta or Del] to the list, and then press [OK] key choice.**
4. Press [delta or Del] to the alias or ID, and then press [OK] key choice.
5. Press [delta or Del] to delete entries? And then press [OK] key to choose whether or not to delete the entry.
6. Select "yes" to press [OK] key to delete the entries, screen appears entry deleted; Or select "no" press [OK] key to return to previous screen.

When you select a call list but there is no entry in, the screen will display the list is empty.

### Call instructions

Call tips so you can suggest specific radio users in the possible time to call you back.

**This feature applies only to the user alias or ID, and can be used through the menu by address book or manual dialing.**

## Receive and confirm the call reminder

When you receive a call reminder, screen calls prompt, alternating call intercom alias or ID.

1. You will hear a repeated sound.LED lights flashing for a red light.
2. Press and release [PTT] key to confirm the prompt, or press [OK] to choose "ignore?"To exit the call reminder.

Launched by communication list call reminder

1. [Press \[OK\] key enter the menu mode](#)

2. [Click \[delta or Del\] key to address book, and then press \[OK\] key choice](#)

3. Press [delta or Del] to the required user alias or ID, and then press [OK] key choice.

Or press [delta or del] key to manual dialing, and then press [OK] key choice, a flashing cursor, enter the user ID you want to call, and then press [OK] key.

4. [Press \[delta or del\] key to call, the screen display call tip: alias or ID > < user, and then press \[OK\] key and instructions have been sent call reminder.](#)

5. When the intercom send call reminder, LED indicator for the red light.

6. If received calls prompt confirmation, issued a prompt, and display the call indicate success.

Or prompt confirmation if not received a call, send a hint sound, and the screen call tip failure.

## SMS function

### [Your intercom can receive data, message of a maximum length of 164 characters](#)

**note:** press the [back] key at any time can return to the previous screen.

Edit and send text messages

Use the menu function:

1. Press [OK] key enter the menu mode.

2. Press [delta or del] key to information, and then press [0 k] key choice.

3. Press [delta or del] key to write a message, and then press [0 k] key choice.

4. A flashing cursor, use the keyboard input messages, press [delta] move to the left one, press (del) to the right one, press [D] to remove any useless characters.

5. [After writing the text, press \[0 k\] choose to send or save.](#)

6. Choose after [delta or Del] button to send the alias or ID, and then press [0 k] key choice.

Or press [delta or del] key to manual dialing, and then press [0 k] button, enter your user ID and press [0 k] key.

7. Screen display message: < user/group name or ID > call, text messages were also being sent to confirm

8. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure.If message sent failure, intercom chance to return to the retransmission selection screen

## [Sent prefabricated text](#)

Intercom maximum 50 programming of prefabricated text messages to the agent:

When a predefined text message, before you can send each message to edit.

Press the preprogrammed SMS button and then perform step 3.

Use the menu function:

1. Press [OK] key to enter the menu mode.

2. Press the [delta or del] key to information, and then press [0 k] key choice.

3. Press the [delta or del] key to prefabricated text messages, and then press [0 k] key choice.
4. Press [delta or del] to the prefabricated text, and then press [0 k] key choice.
5. A flashing cursor, if needed, use the keyboard editing text messages. Press [delta] move to the left one. [del] button to the right one. Press [D] to remove any useless characters.
6. After writing the text, press [0 k] choose to send or save.
7. Choose to send after press [delta or del] to the alias or ID, and then press [0 k] key choice.  
Or press [delta or del] key to manual dialing, and then press [0 k] key choice. Enter the user alias or ID, then Press [0 k].
8. The screen message: < user/group name or ID > call, text messages were also being sent to confirm.
9. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent. Or if the message can't send, send out a high tone hint sound, screen display message sent failure, failure if the SMS messages, intercom chance to return to the retransmission selection screen.

Using a single bond send call button prefabricated messages

1. According to the preliminary programming to a predefined menu call, alias or ID sends a prefabricated text messages.
2. The screen display a text message: < user/group name or ID > call, text messages were also being sent to confirm.
3. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.  
Or if you cannot send text messages, screen display text message sent failure. If message sent failure, intercom chance to return to the retransmission selection screen.

Send management failed messages

In retransmission selection screen, you can choose the following options:

Resend,

Forward,

• edit

Heavy text

1. According to the [0 k] key to send the same message heavy to the same user/group name or ID.
2. If the messages sent successfully, issued a prompt sound, and display messages sent or if you cannot send text messages, screen display text message sent failure.

## Forwarding messages

Choose forward send text messages to another user/group name or ID.

1. According to the [delta or del] key to forwarding, and then press [0 k] key choice.

2. Press [delta or del] to the alias name or ID, and then press [0 k] key choice.

Or press [delta or del] key to manual dialing, and then press [0 k] button, enter your user ID and press [0 k] key.

3. The screen display a text message: < user/group name or ID > call, text messages were also being sent to confirm.

4. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure.

## Edit text

Select edit to edit text messages before send text messages.

1. According to the [delta or del] key to edit, then press [0 k] key choice.

2. The message appears next to a flashing cursor, using a keyboard editing your text messages, press [delta] move to the left one, press (del) to the right one. Press [D] to remove any useless characters.

3. After writing the text, press [0 k] choose to send or save.

4. Select after [delta or del] button to send the alias or ID, and then press [0 k] key choice.

Or press [delta or del] key to manual dialing, and then press [0 k] button, enter your user ID and press [0 k] key.

5. The screen message: < user/group name or ID > call, text messages were also being sent to confirm.

6. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure.

## Management has send text messages

Once a message is sent to another radio, it will be saved in the "sent items". Send after sending a text message has always been to "sent items" at the top of the list. The sent items folder can store up to 50 recently send text messages. After the folder is full, the next send text messages will automatically replace the earlier messages in this folder.

Note: according to [F2] key at any time can return to the previous screen.

Check have send text messages

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. Press the [delta or del] key to information, and then press [0 k] key choice.
3. Press [delta or del] key to send project, and then press [0 k] key choice.
4. Click [delta or del] key to the SMS, and then press [0 k] key choice.

Send the sent messages

When the view has send text messages, you can choose the following options:

Resend,

Forward,

• edit

• delete

1. Check the message, then a [0 k] key.
2. Press the [delta or del] key to resend, then press [0 k] key choice.
3. The screen display to: < user/group name or ID > call, confirm is preparing to send the same message to the same target interphone.
4. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure. If message sent failure, intercom chance to return to the retransmission options screen. According to the [0 k] key to send SMS weight to the same user/group name or ID.

, choose forward, will choose the SMS sent to speak to other groups/user alias or ID.

, choose to edit, before sending to edit the selected text messages.

• choose delete, delete the selected text.

1. In the "sent items" delete all have send text messages

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. Press the [delta or del] key to information, and then press [0 k] key choice.
3. Press [delta or del] key to send project, and then press [0 k] key choice.
4. According to the delta or del keys to delete all, and then press [0 k] key choice.
5. Appeared to delete messages [0 k] button, select "yes" project has clear screen display has been sent.

Or delete the text, press [delta or del] to no, and click [0 k] key to return to the previous screen. When you select the "sent items" but not one of them text messages, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.

## 1. Receive SMS

When your intercom is receiving SMS, the screen on the left shows the sender alias or ID ICONS and text messages.

When receive text messages, you can choose the following options:

- reading

Later, read

- delete

Note: if the radio show tip screen press (PTT), walkie-talkie exit and to establish a single call or text message screen group call.

Check the SMS

1. According to the [delta or del] key to reading, and then press [0 k] key choice.
2. The inbox open the selected text, click [0 k] key to return to your inbox.

Or press [0] k reply, forward or delete messages.

Press [delta or del] key to enter later view or delete selection screen:

Later, select view screen before returning to receive messages.

Choose delete, delete receive text messages.

## Management receive text messages

Use your inbox management messages. Most inbox can store up to 50 text messages.

Intercom supports the following text options:

Reply,

Forward,

• delete

Delete all,

According to the recently received text messages in order to store the inbox.

Note: at any time according to the [back] key can return to the previous screen.

## View the inbox messages

1. Press [OK] key to enter the menu mode.
2. Press the [delta or del] key to information, and then press [0 k] key choice.
3. Press [delta or del] to the inbox, and then press [0 k] key choice.
4. Click [delta or del] key to check the information. If the message from the email program, will be a subject line.
5. Press the [0 k] key to choose the current text, then press [0] k key again to reply, delete, or forward this message.

Unread messages to exclamation mark (!) Said.

## Reply inbox messages

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. Press the [delta or del] key to information, and then press [0 k] key choice.
3. Press [delta or del] to the inbox, and then press [0 k] key choice.
4. Click [delta or del] key to the SMS, and then press [0 k] key choice. If the message from the email program, will be a subject line.
5. Press it again [OK] button to enter submenu.
6. Press [delta or del] to reply, and then press [0 k] key choice.
7. Press [delta or del] to write messages, and then press [0 k] key choice, a flashing cursor, using a keyboard editing text messages.

Or press [delta or del] key to prefabricated text messages, and then press [0 k] key choice. Choose the required message after press [OK] a flashing cursor, if needed, with the keyboard editing your message.

After 8. Write the text, press [0 k].

9. The screen message: < user/group name or ID > call, text messages were also being sent to confirm.
10. If the messages sent successfully, issued a prompt sound, and screen display text message has been sent.

Or if you cannot send text messages, screen display text message sent failure. If message sent failure, intercom chance to return to the retransmission selection screen.

Delete the inbox messages

Press the preprogrammed SMS button and then perform step 3.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. Press the [delta or del] key to information, and then press [0 k] key choice.
3. Press [delta or del] to the inbox, and then press [0 k] key choice.
4. Click [delta or del] key to the SMS, and then press [0 k] key choice. If the message from the email program, will be a subject line.
5. Press it again [0 k] button to enter submenu.
6. [delta or del] button to delete, and then press [0 k] key choice.
7. Delete messages, press [delta or del] key to "yes", then press [0 k] key choice.
8. Screen appears short message has been deleted.
9. The screen back to inbox.

Delete all messages in the inbox

Press the preprogrammed SMS button and then perform step 3.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. According to the delta or del to information, and then press [0 k] key choice.
3. Press [delta or del] to the inbox, and then press [0 k] key choice.
4. According to the delta or del keys to delete all, and then press [0 k] key choice.
5. Delete messages, press [delta or del] to be, and then press [0 k] key choice.
6. The screen inbox is empty.

When you select the "inbox" but not one of them text messages, the screen will display the list is empty, if the

keyboard is open at this time, will be a low tone hint sound.

encryption

If you enable this feature, which is beneficial to prevent other users on the channel by using the method of software encryption for unauthorized eavesdropping. Your radio must be enabled on the channel encryption function, can send encrypted transmission.

Call for encryption or decryption of data transmission, must make to be preprogrammed walkie-talkies and launch radio has the same encryption key ", "if your radio to receive different encryption key to encrypt the call, you will hear the sound of the transport chaos.

Through the programming software can be preset 16 group encryption, encryption key (4 byte), according to preliminary programming encryption key encryption on or off.

If the encryption type, intercom has assigned the main screen displays encryption or no encryption ICONS.

#### DTMF signal set

DTMF signal receiving/launch system has four (programming software setting), 32 codes can be set, each group of up to 30 characters.

The called party: the called party can be set by programming software decoding response types, as follows:

Remote shoot: when the radio receives the remote after death, the interphone receiving/launch is prohibited.

Activation: radio remote shoot conditions, receives the activation code is walkie-talkie back to normal.

#### Die/activation function

You can activate or remote shoot any intercom system. For example, you may want to disable a stolen interphone, prevent the thieves use it, and enable it when back.

Note: perform radio remote shoot or activate only activate the intercom with these functions and is only suitable for single call.

#### Radio remote shoot

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. Click [delta or del] key to address book, and then press [0 k] key choice, entries arranged in alphabetical order.
3. Press [delta or del] to the alias name or ID, and then press [0 k] key choice.

Or press [delta or del] key to manual dialing, and then press twice [0 k] key input user alias or ID, and then press [0 k] key choice.

4. Click [delta or del] key to radio remote shoot, and then press [0 k] key choice.
5. The screen display radio remote shoot: < user alias or ID > and the LED indicator for the red light.
6. Wait for confirmation.

7. If successful, issued a prompt sound, and screen display radio remote shoot success.

Or if it fails, issued a prompt sound, and screen display interphone die failure.

In radio remote shoot during operation, do not press [back], because you will not get confirmation.

Intercom activation

Use the preprogrammed interphone activation keys.

1. According to the preprogrammed interphone activation key.

2. Press [delta or del] to the alias name or ID, and then press [0 k] key choice.

3. The screen display radio activation: < user alias or ID > and the LED indicator for the red light.

4. Wait for confirmation.

5. If successful, issued a prompt sound, and screen display radio activation success.

Or if it fails, issued a prompt sound, and screen display radio activation failed.

Use the menu function:

1. Press [OK] key to enter the menu mode.

2. Click [delta or del] key to address book, and then press [0 k] key choice, entries arranged in alphabetical order.

3. Press [delta or del] to the alias name or ID, and then press [0 k] key choice.

Or press [delta or del] key to manual dialing, and then press twice [0 k] key input user alias or ID, and then press

[0 k] key.

4. Click [delta or del] key to intercom activation, and then press [0 k] key choice.

5. The screen display radio activation: < user alias or ID > and the LED indicator for the red light.

6. Wait for confirmation.

7. If successful, issued a prompt sound, and screen display radio activation success.

Or if it fails, issued a prompt sound, and screen display radio activation failed.

In radio activation during operation, do not press [back], because you will not get confirmation.

Scan the list

To create scan list/call groups and assigned to a single channel, your intercom can support up to 250 scan list, each list up to 16 members. Each scan list support a mixture of analog and digital channels. You can edit scan through the list to add/remove channel or channel setting priorities.

Check the scan in the list of members

1. Use the select a channel knob preprogrammed scan the list of channels;

2. Press [OK] key to enter the menu mode;

3. Press the [delta or del] key to scan, and then press [OK] key choice;

4. Click [delta or del] key to view/edit list, and then press [OK] key choice;

5. Use [delta or del] key to view in the list of all members.

If the set the priorities, the priority icon is displayed in the left members alias, said the members as priority 1 or 2 channel priority. In a scan list, there can be multiple priority 1 or 2 channel priority.

If priority is set to no, do not show the priority icon.

## Scanning instructions and methods

When to start scanning your intercom circulation preprogrammed scan through the list if there is a voice activity to view the current channel.LED lights flashing for a red light, and the scan icon appears on the screen.

In dual mode during the scan, if you're in a digital channel and your intercom locking an analog channel, will be in the call of the last period automatically by digital mode switch for the simulation model.And vice versa.

There are two kinds of scanning methods:

Manual scanning: according to the preliminary programming to start scanning for scanning on/key or menu function, start scanning, interphone will detect the default scan the list of all channel/group.

Automatic scanning: when you select a already activated automatically scan channel/group calls, walkie-talkie from activated automatically scan channel scan.

### Start and stop the scan

According to the preliminary programming scan on/key or enter the scan menu function

1. Use the select a channel knob preprogrammed scan the list of channels;
2. Press [OK] key to enter the menu mode;
3. Press the [delta or del] key to scan, and then press [OK] key choice;
4. If the scanning is disabled, the screen display open or if the scan is activated, the screen shows close;
5. Press [OK] to select.
6. When the scan is activated, the LED indicator lights flashing red light, and display the scan icon;Or when scanning is stopped, the LED light is put out and does not display the scan icon.

### Scanning reply

Scan when radio detection to the active channel/group calls, walkie-talkie stays in the channel/group calls, this is called "scanning hang time" preprogrammed time limit.

### Process:

1. Hold the hand microphones to keep its in a vertical position and with the mouth 1 to 2 inches (2.5 to 5.0 cm).Free prompt if you enable the "channel" function, when launch intercom (PTT) release button, you will hear a short beep, said this channel is idle, waiting for your answer.
2. In the hang time press (PTT), the LED indicator for the red light.
3. (PTT) release button to answer.
4. If you did not respond, within the time hang the intercom opportunities continue to scan down.

Set up the

Take off the net

When the repeater does not work, or when the intercom located outside the scope of the repeater but in other intercom call scope, you can continue to communication. This is the so-called "net".

According to the relay/net off key, in the process of the programming switching between network and relay mode.

Use the menu function

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press [delta or del] to take off the net, and then press [0 k] key choice.
5. If the intercom current is in the repeater mode, you can see the open, or if the intercom current in the network mode, you can see close.
6. Press [0 k] key to choose.
7. The screen to take off the net open, closed or screen net.
8. Automatically return to the previous menu screen.

Even after shutdown, remain to take off the network Settings.

1. The mode selection

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press [delta or del] to the model, and then press [0 k] button to enter submenu.
5. Press [delta or del] choose channel model or frequency model, and then press [OK] key.

Set the level of noise

You can adjust the radio noise level, filter low signal intensity of unwanted calls or background noise is higher than the normal value of the channel. Setting: normal is the default value, strict filtering (useless) call or background noise. Calls from a remote location, however, may also be filtered out.

Press preprogrammed strict/normal noise in the switching between normal and strict noise level.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to noise, and then press [0 k] key choice.
5. Choose strictly or normal, and then press [0 k] key choice.
6. Return to the previous menu screen.

Set the power level

Your radio power level of each channel can be set to high or low.

Setting: high power distance is relatively far and radio communication.Low power implementation from a nearby radio communications.

Press preprogrammed high/low power selection, switching between high/low transmission power level.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to power, and then press [0 k] key choice.
5. According to the screen prompts to change the current Settings.
6. Press [0 k] choose new power level.
7. Return to the previous menu screen.

Click [back] key to return to the main screen, screen display power level icon.

Open or close the acoustic transmission (VOX) function

This feature allows you to have programming on the channel of a hands-free voice activation calls.No matter which has the function of VOX microphone when detect the voice on the attachment, radio will automatically transmitting in the programming period.

During the intercom operation press (PTT) key will disable VOX function, to restart VOX function, perform one of

the following:

- , close and reopen the interphone, or
- knob to change the channel by channel, or

Perform the following process:

Note: enable or disable this feature is limited to activate the intercom function.

According to the acoustic emission on/key programming, open or close the function.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to acoustic emission, and then press [0 k] key choice.
5. Open screen, press [0] k V acoustic emission features, and the screen shows that acoustic emission level.

Or the screen shut down. According to [0 k] key to disable the function of acoustic emission, and screen display acoustic emission.

Control screen backlight

You can according to need to open or close the intercom screen backlight. This setting can also affect the menu button and keyboard backlighting.

According to the preprogrammed backlight automatically open the key switch backlit Settings.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to backlight, then press [0 k] key choice.
5. The screen automatically open, press [0 k] open screen backlit display backlighting, automatically open.

Or screen shows closed, according to the [0 k] button to turn off the screen backlight, the screen display backlight close.

If stop using the LED indicator light, the screen backlight, buttons and keyboard backlight automatically shut down.

Open or close the interphone tone/hint

If you need, you can enable or disable all walkie talkie tone and suggest (except incoming emergency warning tone).

According to the preliminary programming on/off all prompt to open or close the walkie-talkie all tones.

Use the menu function:

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to tone/prompt, and then press [0 k] key choice.
5. Press [delta or del] to all tones, and then press [0 k] key choice.
6. Open screen, press [0 k] enable all tones and tips to screen all tones to open.

Or shut down in the screen press [0] k close all tones and tips to screen all tones to shut down.

Open or close calls permission

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to tone/prompt, and then press [0 k] key choice.
5. Press [delta or del] permission to speak to, and then press [0 k] key choice.
6. Open screen, press [0 k] enabled phone license, permission to open the screen calls.

Or screen display closed, according to the license of the [0 k] button to turn off the phone screen calls permission to shut down.

Open or close the keyboard

If you need, you can activate and deactivate the call to allow the sound.

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Press the [delta or del] key to tone/prompt, and then press [0 k] key choice.
5. Press [delta or del] to the keyboard, then press [0 k] key choice.
6. Open screen, press [0 k] enable keyboard sounds, open the screen keyboard sound.

Or screen shows closed, according to the [0 k] button to turn off the keyboard, the screen keyboard sound close.

Switch in both Chinese and English

If you need, you can switch display in both Chinese and English.

1. Press [OK] key to enter the menu mode.
2. According to the [delta or del] key to set up, and then press [0 k] key choice.
3. Press the [delta or del] key to radio set, and then press [0 k] key choice.
4. Click [delta or del] key to language choice, then press [0 k] key choice.
5. Press [delta or del] choose display in both Chinese and English, and then press [0 k].

LED lights on and off

If you need, you can activate and deactivate the LED indicator light.

1. Press [OK] key to enter the menu mode.

2. According to the [delta or del] key to set up, and then press [0 k] key choice.

3. Press the [delta or del] key to radio set, and then press [0 k] key choice.

4. Click [delta or del] key to LED lights, and then press [0 k] key choice.

6. Open screen, press [0 k] enable LDE lights, screen display of LED light is open.

Or screen shows closed, according to the [0 k] button to turn off the LED indicator light, screen display of LED light is closed.

If stop using the LED indicator light, the screen backlight, buttons and keyboard backlight automatically shut down.

Open or close boot interface

If you need, you can enable and disable boot interface display.

1. Press [OK] key to enter the menu mode.

2. According to the [delta or del] key to set up, and then press [0 k] key choice.

3. Press the [delta or del] key to radio set, and then press [0 k] key choice.

4. Click [delta or del] key to boot interface, and then press [0 k] key choice.

5. Open screen, press [0 k] enable boot interface display, the screen display boot interface to open.

Or screen shows closed, according to the [0 k] button to turn off the boot interface display, the screen display boot interface shut down.

Access to radio information in general

Intercom include the following information:

- radio ID
- software version
- Codeplug version

Note: at any time according to the [back] key can return to the previous screen.

Check the intercom ID

1. Press [OK] key to enter the menu mode.

2. According to the [delta or del] key to set up, and then press [0 k] key choice.

3. Press [delta or del] to intercom information, and then press [0 k] key choice.

4. Press [delta or del] to the machine number, then press [0 k] key.

5. The screen interphone ID.

Check the firmware version

According to radio firmware version.

1. Press [OK] key to enter the menu mode.

2. According to the [delta or del] key to set up, and then press [0 k] key choice.

3. Press [delta or del] to intercom information, and then press [0 k] key choice.

4. Click [delta or del] key to the firmware version, and then press [0 k] key.

5. The screen will display the current firmware version.

# 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.

## PRECAUTIONS

Observe the following precautions to prevent fire, personal injury, and transceiver damage.

- Do not attempt to configure the transceiver while driving; it is too dangerous.
- Do not disassemble or modify the transceiver for any reason.
- Do not expose the transceiver to long periods of direct sunlight, nor place it near heating appliances.
- If an abnormal odor or smoke is detected coming from the transceiver, switch the transceiver power off immediately, and contact your **COVALUE** dealer.
- Use of the transceiver while you are driving may be against traffic laws. Please check and observe the vehicle regulations in your area.
- Do not use options not specified by **COVALUE**.



### CAUTION

- ◆ The transceiver operates in 12 V negative ground systems only! Check the battery polarity and voltage of the vehicle before installing the transceiver.
- ◆ Use only the supplied DC power cable or a **COVALUE** optional DC power cable.
- ◆ Do not cut and/or remove the fuse holder on the DC power cable.



### WARNING

For passenger safety, install the transceiver securely using the supplied mounting bracket and screw set so the transceiver will not break loose in the event of a collision.

Antenna requirement:The device should not be installed with an antenna greater than 0 dBi.



### WARNING

Maintain a separation distance from the antenna to person(s) of at least **80 cm**.

To comply with RF exposure requirements, a minimum separation distance of 80cm is required between antenna and all public persons. The device should not be installed with an antenna greater than 0 dBi.

## RF Energy Exposure Compliance

- Your radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.
- Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

### **Your radio complies with the following of RF energy exposure standards and guidelines**

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

### **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 always adhere to the following procedures:
- Gain of antenna must not exceed 0dBi
- Antenna Installation: Install the mobile antenna at least 80 cm away from your body, in accordance with the requirements of the antenna manufacturer/supplier.

### **Transmit and Receive**

To transmit (talk), push the Push-To-Talk (PTT) key; to receive, release the PTT key.

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.