

Using the menu

1. Press [] key to enter the menu.
2. Press the [ or ] key to Messages, and then press [] key to choose.
3. Press [ or ] key to Quick Text, press [] key to choose.
4. Press [ or ] key to the required quick text, press [] key to choose.
5. A flashing cursor appears, using the keyboard to input messages, press [] key to move to the left one, press [] button to the right one, when editing area have content , press the [] key to delete any useless character, otherwise when editing area without content to return to the higher level menu.
6. After writing the text message, press [] to choose to send or save.
7. If the messages sent successfully, issued a prompt sound, and the screen displays 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, radio will return to chance to return to the retransmission selection screen.
8. After Choose send press [ or ] to the alias or ID, and then press [] key to choose.
Or press [ or ] key to manual dialing, and then press [0 k] key choice. Enter the user alias or ID, then press [].
9. The screen shows message: < user/group name or ID > call, text messages were a being sent to confirm.
10. If the messages sent successfully, issued a prompt sound, and 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.

Send Quick Text With A Key

1. Press Preprogrammed, single bond calls to a predefined alias or ID sends a prefabricated text messages.
2. The screen displays a text message: < user/group name or ID > call, to confirm text messages were being sent
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.

Manage The Failed SMS

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

- Resend
- Forward
- Edit

Resending message

1. Press [] to resend same message to 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 message

Choose to forward message to another User/group name or ID.

1. Press the [▲ or ▼] key to forward, and then press [⏎] key choose.
2. Press [▲ or ▼] to the alias name or ID, and then press [⏎] key to choose.
Or press [▲ or ▼] key to manual dialing, and then press [⏎] button to choose, enter your user ID and press [⏎] key.
3. The screen display a text message: < user/group name or ID > call, to confirm text messages were being sent.
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.

Editing messages

Choosing edit to edit message before you edit.

Note: if you have a subject line (receive text messages from email program), you can't edit the subject line.

1. Press [▲ or ▼] key to edit, then press [⏎] key to choose
2. A flashing cursor appears, using the keyboard to input messages, press [▲] key to move to the left one, press [▼] button to the right one, when editing area have content,

press the [⏎] key to delete any useless character, otherwise when editing area without content to return to the higher level menu.

3. After writing the text, press [⏎] choose to send or save.
4. When in the process of editing, can choose by pressing the [⏎] key to empty option to empty all the content of the editor, quickly return to the higher level menu
5. Choose after [▲ or ▼] button to send the required alias or ID, and then press [⏎] key to choose.
Or move [▲ or ▼] key to manual dialing, and then press [⏎] button, enter your user ID and press [⏎] key.
6. Screen displays message: < user/group name or ID > call, to confirm text messages were being sent
7. 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.

Manage The Sent SMS

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: at any time pressing the [⏎] key can return to the previous screen.

Check the sent messages

Using the menu function:

1. Press [] button to enter the menu.
2. Press the [ or ] key to Messages , and then press [] key to choose.
3. Press [ or ] to sent items, and then press [] key to choose.
4. Press the [ or ] key to the SMS, and then press [] key choose. If the message from the email program, a subject lines, will appear in the top right corner of the screen icon indicates state of SMS.

Sending the sent messages

When the view sent messages, you can choose the following options:

- Resend
- Forward
- Edit
- Delete

1. Check the message, press [] key again
2. Press the [ or ] key to resend, then press [] key to choose.
3. The screen displays: < user/group name or ID > call, confirm that it is preparing to send the same message to the same target radio.
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. Press the [] key to send SMS weight to the same user/group name or ID.

Note: Except for pressing the [] , [ or ] key, if you change the volume and the press any other key, will return to this message. When you press [PTT] for a single call or group call, or as a response to the group calling, radio will exit the retransmission selection screen. If received text messages or remote sensing information, emergency call, or call the police, or call reminder, radio will exit the retransmission selection screen.

If you press [PTT] in response to a single call (in addition to the radio in the show did not answer the call screen), or at the end of all call, the screen will return to resend selection screen. Press [] key, enter the forwarding, edit, or delete selection screen.

- choose forward, will choose the SMS sent to speak to other groups/user alias or ID.
- choose to edit, to edit the selected text messages before sending
- choose delete, delete the selected text.

Note: if you screen out SMS messages when send text messages, so radios will be in the "sent items" folder for SMS status updates, not the tip or by voice prompt. If the messages in the sent items folder state before update, walkie-talkie pattern changed or blackout, walkie-talkie will not be able to complete the ongoing message processing, and automatically start tag to the icon of failure. This radio can handle 5 text messages at the same time. At this stage, the radio can't send a new message, and automatically start tag icon to send failure.

Deleting all Sent Messages In the "sent items"

Using the Menu Function

1. Press the [] button to enter the menu.
2. Press the [ or ] key to Messages, and then press [] key choice.
3. Press [ or ] to Sent Items, and then press [] key choice.
4. Press the [ or ] key to delete all, and then press [] key choice.
5. When it appears to delete messages, press [] button, select "yes" project has clear screen display has been sent.
Or delete the text, press [ or ] to no, and click [] 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.

Receive SMS

When your radio are receiving SMS, the left of the screen shows the sender alias or ID ICONS and text messages.

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

- reading?
- Reading Later
- delete

Note: when the radio shows tip on the screen, please press (PTT), two way will exit and to establish a single call or text message screen group call.

Check the SMS

1. Press the [ or ] key to Read, and then press [] key to choose.
2. the selected text messages on the inbox opened, if the message is from the email program, it will appear a subject line.
3. Click [] key to return to your inbox.
Or press [] to reply, forward or delete messages.
Press [ or ] key to enter later view or delete selection screen:
Later, select view screen before returning to receive messages.
Choose delete, delete receive text messages.

Manage Received SMS

Use your inbox to manage messages. inbox can store up to 50 text messages at Most. Two way radio supports the following text options:

- Reply
- Forward
- delete
- Delete all

store the message in the inbox in the order of received time .

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

Check The Inbox SMS

1. Press the [] button to enter the menu.
2. Press the [ or ] key to Messages, and then press [] key to choose.
3. Press [ or ] to the inbox, and then press [] key to choose.
4. Press the [ or ] key to check the message. If the messages are from the email program, it will appear a subject line.
5. Press the [] key to choose the current text, then press [] key again to reply, delete, or forward this message.

Unread messages:  , Already read message: 

Reply The Inbox SMS

Use the menu function:

1. Press [] button to enter the menu.
2. Press the [ or ] key to message, and then press [] key to choose.
3. Press [ or ] to the inbox, and then press [] key to choose.
4. Press the [ or ] key to the SMS, and then press [] key to choose. If the messages are from the email program, it will appear a subject line.
5. Press again [] button to enter submenu.
6. Press [ or ] to reply, and then press [] key to choose.
7. Press [ or ] to write messages, and then press [] key choice, a flashing cursor, using a keyboard editing text messages.
Or press [ or ] key to prefabricated text messages, and then press [] key to choose. Choose the required message after press [] a flashing cursor, if needed, with the keyboard editing your message.
8. After Writing the text, press [] .
9. The screen displays message : < user/ call group name or ID >, to confirm. text messages were being sent
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, radio return to the retransmission selection screen.

Deleting the inbox messages

Use the menu function:

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

Deleting all messages in the inbox

Use the menu function:

1. Press the [] button to enter the menu.
2. Press the [ or ] to the Message, and then press [] key to choose.
3. Press [ or ] to the inbox, and then press [] key to choose.
4. Press the [ or ] key to delete all, and then press [] key to choose.
5. When it appears Deleting the messages, press [ or ] select yes, and then press [] key to choose.
6. Then The screen inbox was empty already.

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. The launch of signaling and user identification part unencrypted. Your radio must be enabled on the channel encryption function, can send encrypted, even if the receiving transmission is not must request to do so.

Basic encryption

Two way radio can only be assigned more than one type of encryption. If users Call for encryption or decryption of data transmission, must make to be preprogrammed walkie-talkies and launch radio has the same "encryption keys" (suitable for basic encryption).

If your radio to receive different encryption keys or key values and key encryption call ID, you will hear the sound of the transport chaos encryption (basic).

Press the preliminary programming encryption keys on or off.

DTMF

Dual Tone Multi-Frequency (DTMF) function allows to operate radio when there is interference in the radio system.

To initiate a DTMF call

1. Press and hold [PTT] key.

2. Enter number you need.

You can disable DTMF tone by turning off all radio tone and prompts.

Secrecy

You can activate or kill any radio in the system. For example, you might want to disable a stolen radio, to prevent thieves use it, and enable it when you get it back.

Note: radio kill or activation is limited to activate the radios with these functions.

Radio Disable

Use menu mode

1. Press [] key to enter the menu mode.
2. Press [ or ] key to Contacts, and then press [] key to select, entries are in alphabetical order.
3. Press [ or ] key to the required alias or ID, and press [] key to select.
Or press [ or ] key to Manual Dial, then press twice [] key to enter a user alias or ID, and press [] key to select.
4. Press [ or ] key to radio disable, and then press [] key to select.
5. The display shows the radio disable: <user alias or ID> and the LED indicator light is red.
6. Wait for confirmation.
7. If successful, emit a beep and the screen displays radio disable successfully.
Or if it fails, emit a beep and the screen displays radio fail to disable.
During radio disable operation, do not press the [] key, because you will not get a confirmation message.

Radio Enable

Use menu function:

1. Press [] key to enter the menu mode.
2. Press [ or ] key to Contacts, and then press [] key to select, entries are in alphabetical order.
3. Press [ or ] key to the required alias or ID, and press [] key to select.
Or press [ or ] key to Manual Dial, then press twice [] key to enter a user alias or ID, and press [] key to select.
4. Press [ or ] key to radio enable, and then press [] key to select.
5. The display shows the radio enable: <user alias or ID> and the LED indicator light is red.
6. Wait for confirmation.
7. If successful, emit a beep and the screen displays radio enable successfully.
Or if it fails, emit a beep and the screen displays radio fail to enable.
During radio enable operation, do not press the [] key, because you will not get a confirmation message.

Scanning List

Create a scan list and assign to a single channel / talkgroup, your radio can support up to 250 scan lists, each up to 16 members. Each scan list support mixed analog and digital channels. You can edit the scan list to add / delete channels or set the priority channel.

Check members of list

1. Use the channel knob to select a channel with pre-programmed scan list;
2. Press the [] key to enter the menu mode;
3. Press [ or ] key to scan, and then press the [] key to select;
4. Press [ or ] key to Viewlist the list, and then press the [] button to select;
5. Use [ or ] key to see members of list.

If you set the priority, the priority icon is displayed in the left of member alias, indicating that the member is the Priority  or Priority  channel; if the priority is set to  , no priority icon.

In a scan list, you can not have more than one Priority  or Priority  channel.

Scanning Instruction

When scanning, your radio can view if there is a voice activity in current channel through circulating pre-programmed scan list. LED lights flashing for a red light, and the scan icon  appears on the screen.

When scanning in dual mode, if you're in a digital channel and your radio locking an analog channel, radio will switch automatically from digital mode to analog mode throughout the

duration of the call. And vice versa.

There are two scanning methods

- Manual Scan: According to a pre-programmed scan on / off key or menu function to start the scan, when you start scanning, radio will detect all channels / contact groups on pre-programmed scan list.
- Auto Scan: When you select an already activated auto scan channels / contact groups, radio scans from the activated auto scan channel.

Start/Stop Scan

Press Pre-programmed Scan On / Off Key Or Enter The Scan Menu Function

1. Using the channel knob to select a channel of pre-programmed scan list;
2. Press [] to enter menu mode;
3. Press [ or ] to scan, and then press [] to select;
4. If the scan is disabled, the screen displays on or if the scan is activated, the screen displays off.
5. Press [] to select.
6. When the scan is activated, LED indicator flashes red and displays scan icon  ; or when scanning is disabled, LED light goes out and does not display the scan icon.

Scanning reply

Radio detect active channel/contact group when scanning, at this time radio will stay in the channel/ contact group, which is called "Scan hang time" pre-programmed time.

Procedure:

1. Hold the radio in a vertical position and keep one to two inches (2.5 to 5.0 cm) distance from the mouth. If you enable the "channel idle tone" function, when transmitting radio release [PTT] key, you will hear a short beep, indicating that the channel is idle, waiting for your respond.
2. Within the hang time by pressing [PTT] button, LED indicator light is red.
3. Release [PTT] key to respond.
4. If you do not respond within the hang time, radio will continue down the scan.

Add Scan Channel

1. Press [] key to enter the menu.
2. Press [ or ] to select the Scan, press [] key to enter the corresponding submenu.
3. Press [ or ] and select to add channel, press [] key to enter the corresponding submenu and add the corresponding channel.

Note: In frequency mode, when scan turned on ,rotating knob can can change the scanning direction.

Utilities

Utilities includes the following contents:

- Radio settings
- Radio Info
- Program Radio

Radio Settings

Radio Setting includes:

- Talkaround
- Tones/Alerts
- Power
- Backlight
- Squelch
- Intro Screen
- Keypad Lock
- Language
- LED Indicator
- VOX
- Passwd Lock
- Clock
- Mode

Talkaround

When the transponder does not work, or when the radio located outside the range of the transponder but located within the range of other radios call, you can continue to communicate. This is called "talk around."

Press Pre-programmed repeater / talk around button, you can switch between repeater / talk around mode.

Use the menu function

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press the [] key to select.
4. Press [ or ] key to talk around, and then press [] key to select.
5. If radio is currently in repeater mode, you can see the open, or if radio is currently in talk around you can see the close.
6. Press [] key to select.
7. Screen showing turn on talk around [] or turn off talk around.
8. The screen automatically returns to the previous menu.
Even after the shutdown, still remains talk around.

Tones/Alerts

including the following contents:

- All Tones
- Talk Permit
- Keypad Tones

All Tones

If desired, you can enable or disable all radio tone and prompts (except emergency incoming tone).

Press pre-programmed all Beep ON / OFF to turn on or off all radio tones.

Use the menu function:

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press the [] key to select.
4. Press [ or ] key to tones/alerts, and then press [] key to select.
5. Press [ or ] key to all tone, and then press [] key to select.
6. Press [] key to select on, then enable all tone and prompts, screen displays all tone is open.
Or press [] key to select Off, then turn off all tones and prompts, screen displays all tone is off.

Keypad Tones

If desired, you can activate and deactivate call admission tone.

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press the [] key to select.
4. Press [ or ] key to tones/alerts, and then press [] key to select.

5. Press [▲ or ▼] key to keyboard tone, then press [⏻] key to select.
6. Press [⏻] key to select Open, then enable the keyboard tone, the screen shows keyboard tone is turned on.
Press [⏻] key to select off, then turn off the keyboard sound, the screen shows keyboard tone is turned off.

Power

You can set each channel power level to high or low. Setting: High-power radio implement communications with relatively far distance radios. Low-power radio implement communications with relatively close distance radios.

Press pre-programmed high / low power selection key, you can switch high / low transmit power.

Using the menu function:

1. Press the [⏻] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏻] key to select.
3. Press [▲ or ▼] key to radio settings, and then press the [⏻] key to select.
4. Press [▲ or ▼] key to power, and then press [⏻] key to select.
5. Follow the on-screen instructions to change the current settings.
6. Press [⏻] key to select the new power level.
7. Return to the previous menu screen.

Press [⏻] to return to the main screen, the screen displays the power level icon.

Backlight

You can turn on or off the screen backlight according to the need. This setting also affects the menu button and the keyboard backlight.

Press a pre-programmed automatical backlight key to switch backlight settings

Using the menu function:

1. Press [⏻] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏻] key to select.
3. Press [▲ or ▼] key to radio settings, and then press the [⏻] key to select.
4. Press [▲ or ▼] key to backlight, and then press [⏻] key to select.
5. The screen displays always open, 5S, 10S, 15S options, press [⏻] key to select always open, the screen will remain lit and won't turn off, or if you choose 5S, 10S, 15S, the screen backlight will be off in the corresponding time under users without any operations.

Squelch

You can adjust radio squelch level, thus filtering low signal intensity useless call or channel higher than normal value. Setting: Normal is the default, strict filtering (useless) call or background noise. However, a call from a remote location may also be filtered out.

Press pre-programmed strict / normal squelch button to switch between normal and strict squelch level.

Using the menu function:

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

2. Press [▲ or ▼] key to utilities, and then press [⏏] key to select.
3. Press [▲ or ▼] key to radio settings, and then press [⏏] key to select.
4. Press [▲ or ▼] key to squelch, and then press [⏏] key to select.
5. Select strict or normal, and then press [⏏] key to select.
6. The screen returns to the previous menu.

Intro Screen

If desired, you can enable and disable the Intro Screen display.

1. Press [⏏] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏏] key to tight.
3. Press [▲ or ▼] key to radio settings, and then press the [⏏] key to tight.
4. Press [▲ or ▼] key to Intro Screen, then press [⏏] key to select.
5. The screen is on, press [⏏] key to enable the Intro Screen display, the screen displays the boot screen display on.
Or the screen is off, press [⏏] key to close the Intro Screen display, the screen displays the boot screen display off.

Keypad Lock

You can lock the keypad to prevent accidental key input. Ways include manual and automatic keypad lock, which includes 5S, 10S, 15S three options.

1. Press [⏏] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏏] key to select.

3. Press [▲ or ▼] key to radio settings, and then press [⏏] key to select.
4. Press [▲ or ▼] key to keypad lock, then press [⏏] key to select.
5. Press [▲ or ▼] key to manual, and then press [⏏] key to select, screen show to select Manual, you need to long press [*⏏] key to lock keypad on the main interface.
6. Press [▲ or ▼] key 5S, 10S, 15S, the screen shows to select the corresponding time, then keypad will be locked and return to the main screen if user have not any keypad operation after corresponding period of time.
7. To unlock the keypad, press [⏏] key, then press [*⏏] key.
8. Screen shows unlock keyboard, and then return to the main screen.

Language

Radio supports the following languages:

- English
- Chinese

1. Press [⏏] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏏] key to select.
3. Press [▲ or ▼] key to radio settings, and then press [⏏] key to select.
4. Press [▲ or ▼] key to the language selection, then press [⏏] key.
5. Press [▲ or ▼] key to the corresponding language option, then press [⏏] key.
6. Screen displays to select corresponding language, and then jump back to the main interface.

LED Indicator

If desired, you can activate and deactivate the LED.

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press [] key to select.
4. Press [ or ] key to LED indicator, and press [] key to select.
5. The screen displays open, press [] button to enable LDE light, screen shows to turn on the LED light.

Or The screen displays off, press [] button to turn off the LED light, screen shows to turn off the LED light.

If you disable the LED light, buttons and keyboard backlight automatically turns off.

VOX

This function allows you to initiate voice-activated hands-free calls on pre-programmed channels. Whenever a microphone with VOX function detect voice, radio will automatically transmit signals within pre-programmed period of time.

During radio operation press [PTT] key will disable VOX function, to re-enable the VOX function, do one of the following:

- Turn off and return on radio
- Through the channel knob to change the channel, or
- Perform the following procedure:

Note: Enabling or disabling this function is limited to activate radios of these function.

Press pre-programmed VOX on / off key, to turn on or off this function.

Using the menu function:

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press the [] key to select.
4. Press [ or ] key to VOX, and then press [] key to select.
5. Screen shows VOX off and VOX level 1-10S, if you choose to turn off, press [] key to disable the VOX function, emitting a beep and the screen displays VOX off. If you choose 1-10S, VOX function is enabled, and the voice transmit sensitivity is on the corresponding level. If you activate the call allowing sound, you can initiate a call using a trigger word. Waiting sound end (if activated), and then speak clearly into the microphone.

Passwd Lock

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press [] key to select.
4. Press [ or ] key to passwd lock password, and then press [] key.
5. Use the keypad to enter the correct 8 digits password (You can pre-set by software), and then press the [] key.
6. If the password is incorrect, the screen displays an error code. If the password is correct, the screen displays options.
7. If the first line shows open, press [] key to display the power-on password application. Next time you need to enter the correct password to turn on radio. If the first line shows off, press [] key to display the power-on password cancellation, next time you can directly turn on radio.
8. Press [ or ] key to change power-on password, and then press [] key to select.
9. Enter 8 digits new password, and then press [] key to select.
10. Once again, enter 8 digits new password, and then press [] key to select.
11. Screen displays that password was successfully changed.

Note: The power-on password must be set to eight digits.

Clock

Clock settings are divided into:

- Time
- Date
- Time Zone

Time

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press [] key to select.
4. Press [ or ] key to clock, and then press [] key.
5. Press [ or ] key to time, and then press [] key to display the current time.
6. Press [] key to enter time setting interface.
7. Press [ or ] key to move left and right to select the desired number, the selected number will reverse video display, then enter the corresponding numbers to change the time via the numeric keypad.
8. Press [] key to save, the screen displays the time has been saved.

Date

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio settings, and then press [] key to select.
4. Press [ or ] key to clock, and then press [] key.

5. Press [▲ or ▼] key to date, and then press [⏻] key to display the current date.
6. Press [⏻] key to enter the time setting interface.
7. Press [▲ or ▼] key to move left and right to select the desired numbers, the selected numbers will reverse video display, then enter the corresponding number to change the date via the numeric keypad.
8. Press [⏻] key to save, the screen displays the date has been saved.

Time Zone

1. Press [⏻] to enter the menu.
2. Press [▲ or ▼] to Utilities, and then press [⏻] to select.
3. Press [▲ or ▼] to Radio Settings, then press [⏻] to select.
4. Press [▲ or ▼] to Clock, then press [⏻] to select Timezone.
5. Press [▲ or ▼] to choose the timezone you need.
6. Press [▲ or ▼] save timezone you selected.

Mode

Mode settings are divided into:

- CH Mode
- MR Mode

1. Press [⏻] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏻] key to select.
3. Press [▲ or ▼] key to radio settings, and then press [⏻] key to select.
4. Press [▲ or ▼] key to mode and then press [⏻] key.

5. Press [▲ or ▼] key to select CH mode or MR mode, then press [⏻] key to select the corresponding mode, the screen displays this mode is selected.
6. The main screen will show channel name or frequency (receiving frequency) according to the selected mode.

Private Call Match

1. Press [⏻] to enter the menu.
2. Press [▲ or ▼] to Utilities, and then press [⏻] to select.
3. Press [▲ or ▼] to Radio Settings, then press [⏻] to select.
4. Press [▲ or ▼] to Private Call Match.
5. Press [⏻] to save Private Call Match you selected.

Group Call Match

1. Press [⏻] to enter the menu.
2. Press [▲ or ▼] to Utilities, and then press [⏻] to select.
3. Press [▲ or ▼] to Radio Settings, then press [⏻] to select.
4. Press [▲ or ▼] to Group Call Match.
5. Press [⏻] to save Group Call Match you selected.

Note: After Group Call Match turned off, the radio will not match with all groups' ID.

Call Interrupt

1. On the software, choose "Allow Interrupt" on the submenu of "Chanel information".
2. If some radios are on TX, when the receiving channel parameter is set, the call interrupt is allowed to transmit the transmitter to another transmitter signal, then it will automatically enter the receiving state.

Menu Hang Time

1. Press [] to enter the menu.
2. Press [ or ] to Utilities, and then press [] to select.
3. Press [ or ] to Radio Settings, then press [] to select.
4. Press [ or ] to Menu Hang Time.
5. Press [ or ] to select the Hang time you need, then press [] to save.
6. The screen will confirm you the hang time selected.

TX Mode

The TX mode is set to;

- The final active channel is that any situation is TX on the last call channel and is not hung up.
- The last active channel + hang up is normally TX on the last call channel and TX on a hanged channel.
- The selected channel is always TX according to the main channel.
- Selected channels + hang up under the main channel under normal circumstances and TX on a hanged channel.

Last CH

1. Press [] to enter the menu.
2. Press [ or ] to Utilities, and then press [] to select.
3. Press [ or ] to Radio Settings, then press [] to select.
4. Press [ or ] to Tx Mode, then press [] .

5. Press [ or ] to select from Last CH ,Last CH+H, Designed CH,Designed CH+H, press [] to select.
6. The screen will confirm Tx Mode selected.

Radio Info

Radio contains the following information:

- My Number
- Versions

Note: At any time you can return to the previous screen by pressing the [] key.

My Number

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to radio information, and press [] key to select.
4. Press [ or ] key to my number, then press [] key.
5. The display shows radio ID and name.

If you need to change the radio ID, you get two ways:

- Changing by ID number
- Changing by Radio Num List

Changing by ID number(On software Edit Radio ID should be choosed)

1. Press [] to enter the menu.
2. Press [ or ] to Utilities, and then press [] to select.

3. Press [▲ or ▼] to Radio Info, then press [⏏] to select.
4. Press [▲ or ▼] to My number then press [⏏] .
5. Press [▲ or ▼] to select Edit Radio ID, press [⏏] .
6. Press ID you need, then press [⏏] , the screen will confirm ID has been changed.

Changing by Radio Num List

1. Press [⏏] to enter the menu.
2. Press [▲ or ▼] to Utilities, and then press [⏏] to select.
3. Press [▲ or ▼] to Radio Info, then press [⏏] to select.
4. Press [▲ or ▼] to My number then press [⏏] .
5. Press [▲ or ▼] to Radio Num List, press [⏏] .
6. Press [▲ or ▼] to the radio number you need, press [⏏] .
7. The screen will confirm ID has been selected.

Versions

Display radio firmware version.

1. Press [⏏] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏏] key to select.
3. Press [▲ or ▼] key to radio information, and press [⏏] key to select.
4. Press [▲ or ▼] key to radio versions, and then press [⏏] key.
5. The screen will display the current firmware version, Codeplug version.

Program Radio

Program radio mainly includes editing the channel contents

Channel contents can be edited include:

- RX Frequency
- Tx Frequency
- Channel Name
- Time Out Timer
- CTC/DCS
- Add CH
- Color Code
- Time Slot
- VOX
- TxContact
- GroupList
- Mic Level

Rx Frequency

1. Press [⏏] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏏] key to select.
3. Press [▲ or ▼] key to program radio, and then press [⏏] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [⏏] key to select.

5. Press [▲ or ▼] key to receiving frequency, and then press [⏎] key to select.
6. The screen displays receiving frequency of the current channel, and then press [⏎] key to select.
7. Press the number keys to enter the corresponding number, press [▲] key to delete the last number, press [⏎] to return to the previous menu.
8. After finish the change, press [⏎] key, the screen displays receiving frequency has been saved.

Note: Editing frequency will be limited within the frequency range setted by programming software, if less than the write frequency range setted by software, the final change result will be the minimum frequency of frequency range setted on software, otherwise it is maximum.

Tx Frequency

1. Press [⏎] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏎] key to select.
3. Press [▲ or ▼] key to program radio, and then press [⏎] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [⏎] key to select.
5. Press [▲ or ▼] key to transmitting frequency, and then press [⏎] key to select.
6. The screen displays transmitting frequency of the current channel, and then press [⏎] key to select.
7. Press the number keys to enter the corresponding number, press [⏎] key to delete the last number, press [⏎] to return to the previous menu.

8. After finish the change, press [⏎] key, the screen displays transmitting frequency has been saved.

Note: Editing frequency will be limited within the frequency range setted by programming software, if less than the write frequency range setted by software, the final change result will be the minimum frequency of frequency range setted on software, otherwise it is maximum.

Channel Name

1. Press [⏎] key to enter the menu mode.
2. Press [▲ or ▼] key to utilities, and then press [⏎] key to select.
3. Press [▲ or ▼] key to program radio, and then press [⏎] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [⏎] key to select.
5. Press [▲ or ▼] key to the channel name and press [⏎] key to select.
6. The screen displays the current channel name, press the [*Ⓜ] key to switch the input method to enter the relevant letters, numbers or characters, the same as the input method and text editing.
7. After the change is complete, press [⏎] key, the screen displays channel name has been saved.

TOT

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to program radio, and then press [] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [] key to select.
5. Press [ or ] key to TOT, and then press [] key to select.
6. The screen displays infinite, 15S, 30S ... 555S and other options (increasing 15S each time), press [ or ] key to the corresponding option, then press [] key to select; if you choose infinite, the screen displays transmit time close, if you select others, the screen display corresponding time selected.

CTC/DCS

CTCSS/DCS can only be set on analog mode, including:

- CTCSS/DCS encoding
- CTCSS/DCS decoding

Encode

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to program radio, and then press [] key to select.

4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [] key to select.
5. Press [ or ] key to CTCSS/DCS, and then press [] key to select.
6. Press [ or ] key to CTCSS/DCS encoding, and then press [] key to select.
7. Screen display off and a set of CTCSS/DCS encoding value, press [ or ] key to off, and then press [] key to select, and there will be no CTCSS/DCS encoding value, screen displays CTCSS/DCS encoding value off; press [ or ] key to CTCSS/DCS encoding value, and then press [] key to select, then set the corresponding value, screen displays the corresponding CTCSS/DCS encoding value.

Decode

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to program radio, and then press [] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [] key to select.
5. Press [ or ] key to CTCSS/DCS, and then press [] key to select.
6. Press [ or ] key to CTCSS/DCS decoding, and then press [] key to select.
7. Screen display off and a set of CTCSS/DCS decoding value, press [ or ] key to off, and then press [] key to select, and there will be no CTCSS/DCS decoding value, screen displays CTCSS/DCS decoding value off; press [ or ] key to CTCSS/DCS

decoding value, and then press [] key to select, then set the corresponding value, screen displays the corresponding CTCSS/DCS decoding value.

Color Code

Color code only can be set on digital channels.

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to program radio, and then press [] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [] key to select.
5. Press [ or ] key to color code, then press [] key to select.
6. Press [ or ] key to select color code values, and then press [] key to select.
Screen shows X(the selected color code value) is selected.

Repeater Slot

Repeater slot only can be set on digital channels.

1. Press [] key to enter the menu mode.
2. Press [ or ] key to utilities, and then press [] key to select.
3. Press [ or ] key to program radio, and then press [] key to select.
4. Use the keypad to enter the correct Program radio password (programmed by software), and then press [] key to select.

5. Press [ or ] key to repeater slot, and then press [] key to select.
6. Press [ or ] key to select repeater slot values, and then press [] key to select.
Screen shows X(the selected repeater slot value) is selected.

VOX level

1. Press [] to enter menu mode.
2. Press [ or ] to Utilities, then press the [] key.
3. Press [ or ] to radio Programming Radio, then press [] .
4. Input the correct password of radio (set by software), press [] .
5. Press [ or ] to VOX, then press [] .
6. Press [ or ] to set the VOX level you need, there are level 1-10 to be selected.

Tx Contact

1. Press [] to enter menu mode.
2. Press [ or ] to Utilities, then press the [] key.
3. Press [ or ] to radio Programming Radio, then press [] .
4. Input the correct password of radio (set by software), press [] .
5. Press [ or ] to TxContact, then press [] .
6. Press [ or ] to select the Contacts you need, radio will show the info “TxContact Selected”.

GroupList

1. Press [] to enter menu mode.
2. Press [ or ] to Utilities, then press the [] key.
3. Press [ or ] to radio Programming Radio, then press [] .
4. Input the correct password of radio (set by software), press [] .
5. Press [ or ] to GroupList, then press [] .
6. Press [ or ] to GroupList, you will be able to add and delete group members from the selected group list. Or you can press [ or ] to select to add group list.

Mic Level

1. Press [] to enter the menu.
2. Press [ or ] to Utilities, and then press [] to select.
3. Press [ or ] to Program Radio, then press [] to select.
4. Input the password, press [] to enter.
5. Press [ or ] to Mic Level, press to select the Mic Level you need ,then the screen will confirm the Mic Level Selected.

Export/Import the Digital Contact

- 1 Click the Digital Contact on the programming software
- 2 If you click "Export" after read the radio's digital contact, you can export the corresponding digital contact from radio.
If you want to import the digital contacts which have been edited in advance, just click "Import" to select the pre established digital contacts into radio.

Record(Be able to record for more than 8 hours when it's 3000 channels & 10000 contacts)

Record On/ Off

Note: Record function is only available on digital mode.

1. You can set one of the Buttons Definitions to turn on/off the record.
2. Menu operations

- (1) Press [] to enter menu mode.
- (2) Press [ or ] to Utilities, then press [] to select.
- (3) Press [ or ] to select Radio Settings.
- (4) Press [ or ] to Record.
- (5) Press [ or ] to Turn On/ Turn Off.
- (6) Press [] to select.

When the record function is turned on, each digital call will be recorded and stored in the Call Log submenu.

Record Check/Playback

1. Press [] to enter menu mode.
2. Press [ or ] to Call Log, press [] to select.
3. Press [ or ] to Record, press [] to select.
4. Press [ or ] to record Directory (records will be stored each day), press []
5. Press [ or ] to select the record you need.
6. Press [] to choose from: Play, Destination ID, Source ID, Date, Time ,Tx/Rx, RecordTime.
7. Press [] to select.

*****CSV Contacts(Optional function)*****

This feature adds 100 thousand CSV contacts, but this version has no record function.

CSV Contacts On/Off

1. Press [] to enter menu mode.
2. Press [ or ] to Utilities, press [] to select.
3. Press [ or ] to Radio Settings, press [] to select.
4. Press [ or ] to CSV contacts, press [] to select.
5. Press [ or ] to select CSV On/Off.

When CSV contacts function is selected, if the receiving call is in the CSV contact list, the corresponding information will be displayed.

Check and send CSV contacts

1. Press [] to enter menu mode.
2. Press [ or ] to Contacts, press [] to select.
3. Press [ or ] to CSV contacts, press [] to select.
4. Press [ or ] to CSV contacts list, press [] to select.

Or press [ or ] to the enter number, you can enter a known number to view the corresponding CSV contact information.

5. The CSV contact list function is similar to the private call in the contact.

Import the CSV contacts

1. Open the computer software of radio
2. Click:Program->Write contacts
3. Import contacts file(format:*.csv)
4. Write the CSV contacts

Export the CSV contacts

1. Open the computer software of radio
2. Click:Program->Write contacts
3. Read the contacts
4. Export the contacts

Specifications

General Specifications

Frequency	136-174 & 400-480MHz
Channel	3000 Channels
Frequency Stability	± 1ppm
Operating Temperature	-10°C~+40°C
Operating Voltage	7.4V DC
Dimension(Hxwx d)	131*61*36
Weight	258g(with battery)
Battery Type	Li-in
Battery Capacity	2000 mAh (MD-UV380,MD-UV380G) 2200 mAh (MD-UV390)
Antenna Impedence	50Ω
Audio Output Power	≤1000mW @ 16 Ω
Channel Spacing	12.5KHz

Transmitter

Output power	High: $\leq 5\text{W}$ (HI) Low: $\leq 1\text{W}$ (Low)
Frequency Stability	$\pm 1.0\text{PPM}$
Adjacent Channel Power	$\leq -60\text{dB}$
Free Time Slot Power	TDMA: $\leq 57\text{dBm}$
Hum and Noise	$-40\text{dB}@12.5\text{KHz}$
Spurious Radiation	Antenna: $9\text{KHz}-1\text{GHz}$ $\leq -36\text{dBm}$ $1\text{GHz}-12.75\text{GHz}$ $\leq -30\text{dBm}$
FM Modulation Mode	12.5KHz: 11K0F3E 25 KHz: 16K0F3E
4FSK Digital Mode	12.5KHz(data only): 7K60FXD 12.5KHz(data +voice): 7K60FXE
Modulation Maximum Deviation	$2.5\text{KHz}@12.5\text{KHz}$
Nonactive Slot Power	-57dBm
Digital Protocol	ETSI TS 102 361-1 -2 -3
Vocoder Type	AMBE+2TM
Audio Response	$+1\text{dB}\sim -3\text{dB}$
Modulation BER(Bit Error Rate)	$\leq 5\%$

Receiver

Analog Sensibility	$0.2\mu\text{V}$ @ 12dB SINAD
Digital Sensibility	$0.25\mu\text{V}$ (BER:5%)
Adjacent Channel Selectivity	$\leq -60\text{dB}$ @ 12.5KHz
Intermodulation	$\leq 60\text{dB}$
Spurious response	$\geq 70\text{dB}$
Audio response	$+1\sim -3\text{dB}$
Rated audio power	1W
Rated audio distortion	$<5\%$
FM Noise	$\geq 45\text{dB}$ @ 25KHz $/\geq 40\text{dB}$ @ 12.5KHz

Note: Specifications will be revised without notice due to technical improvement. Thank you.

Guarantee

Model Number: _____

Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's Name: _____ Telephone: _____

Address: _____ Post Code: _____

Remarks:

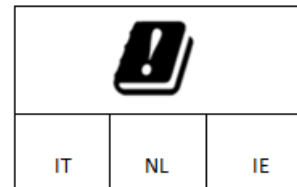
- 1 This guarantee card to be kept by the user, no replenishment if lost.
- 2 This guarantee card to be filled & chopped by the dealer, or it is invalid.
- 3 Don't alter the guarantee card, please confirm the serial number on the guarantee card is same as that on the machine.
- 4 One-year guarantee, charger, battery, ear-phone, antenna and cable are not under guarantee.
- 5 The user can get repairing service from the following ways:
 - Go to the shop where you buy the machine.
 - Our local repairing agents.
 - Send back to our company.

Please cut along with this line



Use the DMR Digital Transceiver in the environment with the temperature between -10°C and 40°C, otherwise, it may damage your DMR Digital Transceiver. It can be operating under 2000m.

Hereby, (TYT Electronics Co.,Ltd) declare that the radio equipment type (DMR Digital Transceiver) is compliance with Directive 2014/53/EU.



Operation Frequency: 136-174 & 400-480MHz

Max. Output Power: 5W/1W

AC ADAPTER: MD-UV380 /MD-UV390 , Input: 100-240V~ 50/60Hz, 0.6A; output: 12V 0.5A

Antenna Gain:1.5dBi

Test position and configuration Head SAR was performed with the device configured in the positions according to EN 62209-2:2010, and face up SAR was performed with the device 25mm from the phantom. Body SAR was also performed with the headset and belt clip attached and without 0mm from the phantom.

Caution:

For Adapter: Shall be installed near the equipment and shall be easily accessible.

For Battery: Risk of explosion battery is replaced by an incorrect type, dispose of used batteries according to the instructions.

EU Declaration of Conformity

We, hereby declare that the essential requirements set out in the **RED Directive 2014/53/EU**, have been fully fulfilled on our product with indication as below:

Product Name	DMR Digital Transceiver
Brand Name / Model	TYT/ MD-UV380, MD-UV380G, MD-UV390

The following standards have been applied for the investigation of compliance:

☒ Safety	EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
☒ Health	EN 62209-2:2010; EN50566:2017
☒ EMC	EN 301 489-1 V2.2.0 (draft) EN 301 489-5 V 2.2.0 (draft) ETSI EN 300 086 V 2.1.2 ETSI EN 300 219 V 2.1.1
☒ Radio	EN 300 113 V2.2.1

Notified Body number 0700 PHOENIX TESTLAB GmbH

Furthermore, the ISO requirement for the in-process quality control procedure as well as the manufacturing process has been reached. The technical document as well as the test reports will be kept for a period at least 10 years after the last product has been manufactured at the disposal of the relevant national authorities of any Member State for inspection.

Detail contact information for this declaration has been listed below as the window of any issues relevant for this declaration.

Hardware Version: UV-V2.1-171109

Software Version: V1.06

AC ADAPTER: (MD-UV390) TYT Electronics Co., Ltd, MD-UV390, Input: 100-240V~ 50/60Hz, 0.6A, output: 12V==0.5A

(MD-UV380& MD-UV380G)TYT Electronics Co., Ltd, MD-UV380, Input: 100-240V~ 50/60Hz, 0.6A; output: 12V==0.5A

Battery: (MD-UV390) TYT Electronics Co., Ltd, MD-390, 7.4V, 2200mAh

(MD-UV380& MD-UV380G)TYT Electronics Co., Ltd, MD-380, 7.4V, 2000mAh

Antena: Detachable , Gain 1.5dBi

Charger: (MD-UV390)TYT Electronics Co.,Ltd, Model name: CH390 , INPUT: DC 12V 0.5A, OUTPUT: DC 8.4V, 0.5A;

(MD-UV380& MD-UV380G)TYT Electronics Co.,Ltd, Model name: CH380 , INPUT: DC 12V 0.5A, OUTPUT: DC 8.4V, 0.5A

Manufacturer Information:

Company	TYT Electronics Co.,Ltd		
Address	Block 39-1,Optoelectronics-information industry base, Nan'an, Quanzhou, Fujian, China		
Name/Title	Sophia Wong	E-mail	tyt@tyt888.com
Tel. No.	+86-15259596756	Fax No.	

Signature / stamp Date:

SAFETY TRAINING INFORMATION



our TYT Electronics Co., Ltd. radio generators RF electromagnetic during transmit mode. This radio is designed for and classified as "Occupational Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment. This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only". In addition, our TYT Electronics Co., Ltd. radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

--IEEE Std. 1528:2013 and KDB447498, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

--American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

--American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields- RF and Microwave.



The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, TYT Electronics Co., Ltd. radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Occupational/Controlled Use

The radio transmitter is used 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.

Attention:

This radio complies with IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% and is authorized by the FCC for occupational use only. An appropriate warning label is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original accessories (belt clip). Do not use this device when the antenna shows obvious damages.

This product is compliant with FCC RF Exposure requirements and refers to FCC website

<https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm> search for (Model:MD-UV380 &MD-UV380G FCC ID:

POD-MDUV380) (Model:MD-UV390 FCC ID: POD-MDUV390) to gain further information include SAR Values.