

Digital Two Way Radio

SkyConnex Communications Limited

Attention

Please read this instruction manual carefully before use.

Please keep this manual, which contains important instructions on the use of Digital Trunking portable radio series.

Battery Usage Precautions.

- Do not disassemble or modify the battery.
Batteries have internal protective circuitry, and disassembly or modification of the battery may cause damage to the protective circuitry, and the battery may smoke, rupture, or catch fire.
- Do not short-circuit the battery.
Do not use any metal to connect the "+" and "-" terminals of the battery, and do not place or store the battery in a container with a metal object. If the battery is short-circuited, excessive current will be drawn, and the battery will heat up, smoke, rupture, or catch fire.
- Do not place the battery near a fire, furnace or other heater, and do not burn or heat the battery.
Batteries may generate heat, smolder, rupture, or catch fire.
- Do not expose the battery to rain, snow, seawater or any other liquids.
Do not charge or use wet batteries. If the battery gets wet, be sure to dry it before use.

Charger usage precautions.

- Do not block the air vents of the charger, as this may cause damage to the internal parts and result in electric shock or disaster.
- Do not allow the charger to get close to heat sinks or heat sources; do not put paper under the charger.
- Do not place the charger in a closed container or on a bed, sofa or carpet.
- Do not use the charger near bathtubs, pools, swimming pools or in wet basements.
- Do not place metal sheets in the card holder, as these conductive materials may damage the unit.
- Do not press the power supply strongly enough to bend or distort the pins.
- Do not leave the charger exposed to dirt, dust, water or food.
- Do not expose the charger to high temperatures or sunlight.

Content

1. Overview	1
1.1 product description.....	1
1.1.1 Product use	1
1.1.2 product composition	1
1.1.3 Main functions	1
1.2 product profile	2
1.2.1 Brief description of the appearance of the whole machine	2
1.2.2 Interface layout.....	3
1.2.3 Status bar icon indication	4
1.2.4 Introduction to the keyboard	4
2. Working mode.....	
2.1 Conventional mode.....	
2.2 Trunking mode.....	
3. Mounting and dismounting	4
3.1 Pre-installation inspection	4
3.2 Battery mounting and dismounting.....	4
3.3 antenna mounting and dismounting	5
3.4 Belt clip mounting and dismounting	6
3.4.1 Standard belt clip mounting and dismounting.....	
3.4.2 Optional cradle clip mounting and dismounting	
3.5 Accessories jack mounting and dismounting	7
4. Operating instructions.....	8
4.1 Basic operations	8
4.1.1 Start-up operation.....	8
4.1.2 Power off operations.....	8
4.1.3 Volume adjustment.....	9
4.1.4 Channel/group switching.....	
4.2 Conventional mode voice calls.....	9
4.2.1 PTT call	9
4.2.2 Manual dialing calls	9
4.2.3 Contact person paging	10
4.2.4 Contact list.....	
4.3 Conventional mode MESSAGE communication	10
4.3.1 New MESSAGE.....	11
4.3.2 Status MESSAGE sending	12
4.3.3 Sending Quick Text SMS	
4.3.4 Text SMS reception	
4.3.5 Inbox	
4.3.6 Outbox	
4.4 Zone selecting	
4.5 Scanning Settings	
4.5.1 Viewing a List	
4.5.2 Setting an Effective List	
4.6 Working Mode	

4.7 Other Settings	
4.7.1 Positioning Settings	
4.7.2 Arbitrary Call	
4.7.3 Language Settings	
4.7.4 Power Setting	
4.7.5 Display Settings	
4.7.6 Prompt Sound Settings	
4.7.7 Setting the standby interface	
4.7.8 Keylock Settings	
4.7.9 Time and Date Setting	
4.7.10 Short message types	
4.7.11 Encryption Settings	
4.7.12 Displaying Adjacent Devices	
4.7.13 Vibration Setting	
4.7.14 Inversion Setting	
4.7.15 Vocoder Types	
4.7.16 Recording Export	
4.8 Viewing Device Information	
4.8.1 Viewing Local Information	
4.8.2 LCD Information Viewing	
4.8.3 Viewing Location Information	
4.8.4 Viewing Battery Information	
4.8.5 Viewing the List of Receiving Groups	
4.8.6 Viewing Information on Adjacent Devices	
5. Routine maintenance of the product.....	13
5.1 Maintenance	13
5.2 Cleaning.....	14
6. transportation and storage.....	14
6.1 Requirements and methods of packing equipment.....	14
6.2 Transportation.....	14
6.3 Storage	15
6.3.1 Storage rules.....	15
6.3.2 Requirements for warehouses.....	15
6.3.3 Product storage period	15

1. Overview

1.1 Product description

1.1.1 Product use

The Digital Trunking portable radio series is a wireless communication terminal that supports voice, Message, positioning information and other services.

1.1.2 Product composition

Table 1 Product composition table

NO.	Items	Quantity
1	Radio unit	1 pcs
2	Battery pack	1 pcs
3	Antennas	1 pcs
4	Charger	1 pcs
5	Adapter	1 pcs
6	Belt clip	1 pcs
7	Instruction manual	1 pcs

1.1.3 Main functions

1.1.3.1 Voice calls

Use the keypad to dial and then press PTT to call, realizing single call, group call, full call and other functions.

1.1.3.2 Message

Support manual editing and preset Message, realize point-to-point and point-to-multipoint Message function, support up to 60 characters per MESSAGE.

1.1.3.3 Satellite positioning information transmission

The terminal uses the positioning module to send positioning information to the system and displays the device location information on the dispatch console via an electronic map.

1.1.3.4 Roaming

Under the Trunking mode, the terminal can automatically roam in any site in the system and scan and register according to the site field strength.

1.2 Product profile

1.2.1 Brief description of the appearance

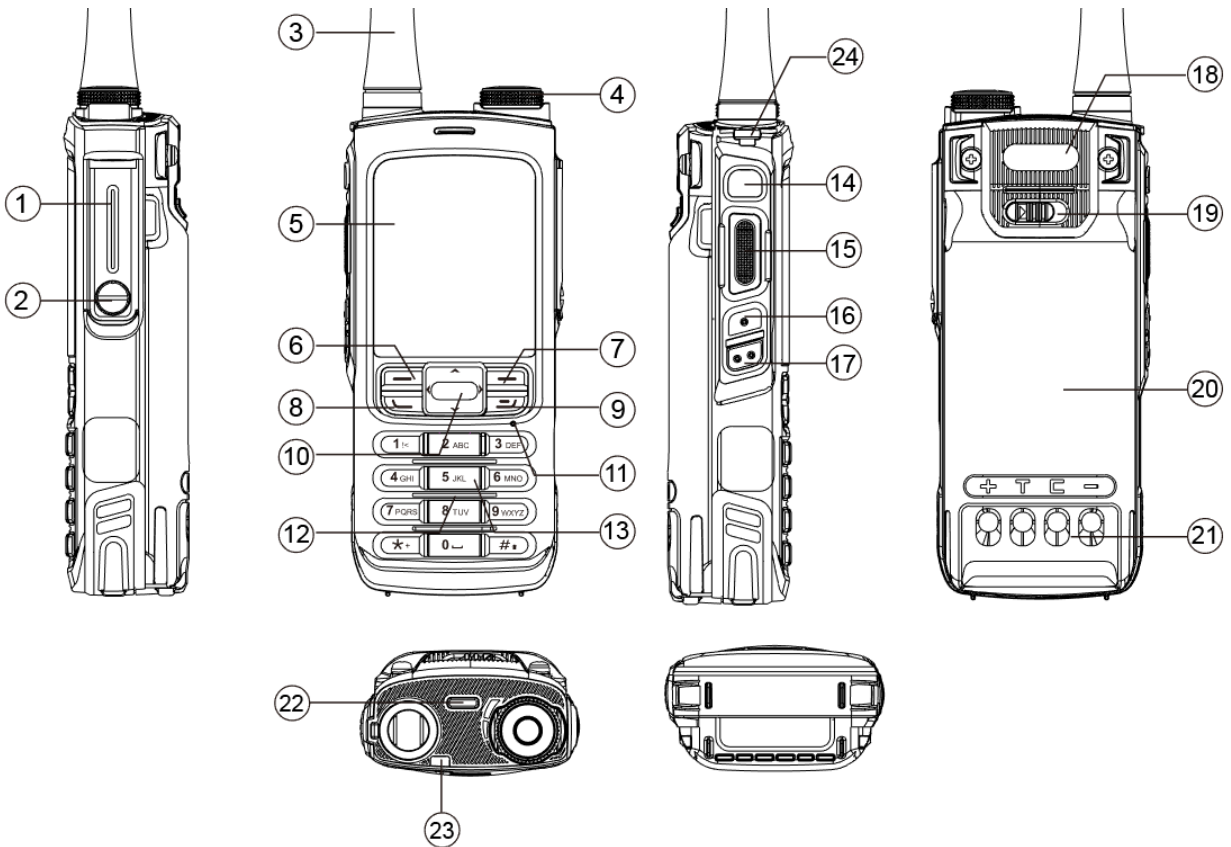


Fig. 1 Brief description of the appearance

Table 2 The exterior parts

S/N.	Parts	Serial	The name of the	Serial	The name of
1	Accessories interface cover	9	Hang-up key	17	SK2 side key
2	Accessories interface cover screws	10	Direction keys	18	Logo labeling
3	RF antennas	11	MIC sound inlet	19	Battery clip position
4	Volume/channel knob	12	Speaker outlet	20	Cradle clip (Optional accessories) position

5	LCD	13	Keypad	21	Battery charging contacts
6	Menu/confirmation key	14	Emergency call key	22	Battery charging contacts
7	Retune key	15	PTT key	23	Indicator LED
8	Call key	16	SK1 side key	24	Lanyard hole

1.2.2 Display Interface

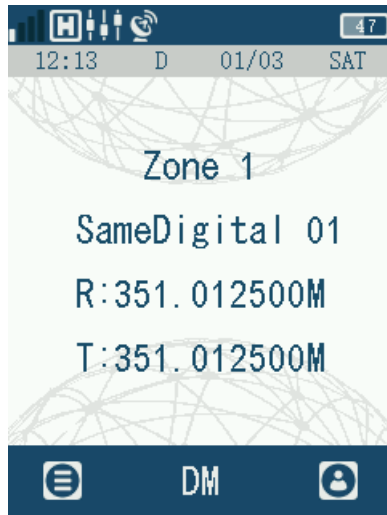


Figure 2 Layout of the interface

The interface is divided into: status display area, time display area, main display area, and operation instruction area.

- Status display area: display the current radio status icon, including signal strength, high and low power indication, unread MESSAGE indication, positioning indication, alarm indication, power indication, etc.;
- Time display area: displays the current time, date, day of the week, and channel mode.
- Main display area: displays area name, channel name, receive frequency point, TX frequency point.
- Operating instructions area: displays menu, contact list, working mode.

1.2.3 Status bar icon indication

Table 3 Status bar icon indications

Serial	The name of the icon	The icon	The icon indicates the content
1	signal strength		Signal Strength. The more signal cells you have, the stronger the signal will be.
2	Transmit power		High power
			Low power
3	Volume/channel knob instructions		currently in volume adjustment mode
			Currently in channel/group switching state
4	Positioning instructions		Positioning the unconnected icon
			Positioning the being connected icon
			Positioning success icon
5	Keypad lock		keypad lock indication
6	Earphones		earphones insertion indication
7	Stun state		Remote stun indication
8	Alarm status		radio failure or failure to write parameters or frequency
9	model	DM	conventional mode indication
		TM	Trunking mode indication
10	Battery capacity		Power level indication
11	unread text messages		There are unread text messages in your inbox
12	Scan		Indicates that the current radio is scanning
13	Encryption		Voice or data encryption enabled
14	Recording		Recording turned on but no storage card detected
			Recording turned on and storage card detected

1.2.4 Introduction to the keyboard

The radio keypad is composed of a standard 3*4 keypad, arrow keys, confirmation keys, return keys, call keys and hang-up keys.

The 3*4 keypad allows for numeric, symbol, Chinese character and English input.

2. Working mode

2.1 Conventional mode



Figure 3 Conventional mode diagram

【DM】 Conventional mode between radio through air interface wireless radio frequency signals. This system only consists of radio terminals

2.2 Trunking mode



Figure 4 Trunking mode diagram

【TM】 Composed of base stations, servers, dispatch stations, radio terminals, and other device. The server and base station uniformly manage the frequency resources and business requests of terminal devices.

3. Mounting and dismounting

3.1 Pre-installation inspection

Before installation, check that the required components are complete and of the correct type in accordance with the product composition table.

3.2 Battery mounting and dismounting

- Insert the battery into the bottom slot as shown in the illustration, push the battery in the direction shown in the illustration until you hear a "click" and the battery is installed.
- Remove it by pushing the battery clasp upward in the direction of the arrow as shown in the illustration, then just pull the battery outward in the direction of the arrow.

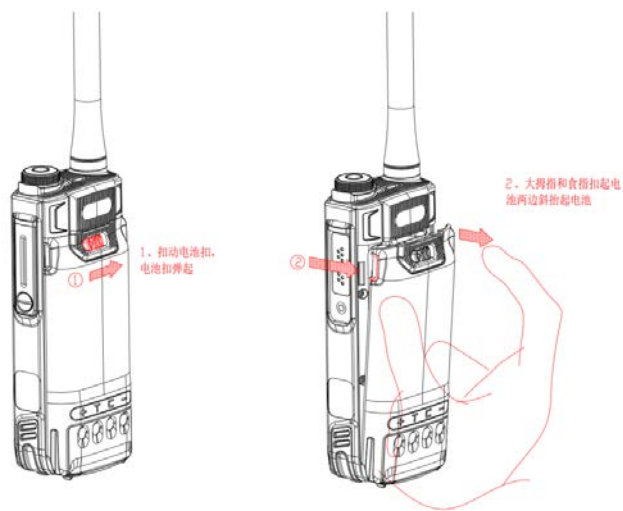


Fig. 5.1 Schematic diagram of mounting and dismounting

- The schematic diagram for removing the battery after assembling the buckle is shown in the figure. First, rotate the belt clip to a 90 degree position, and then pull the battery buckle to remove the battery.

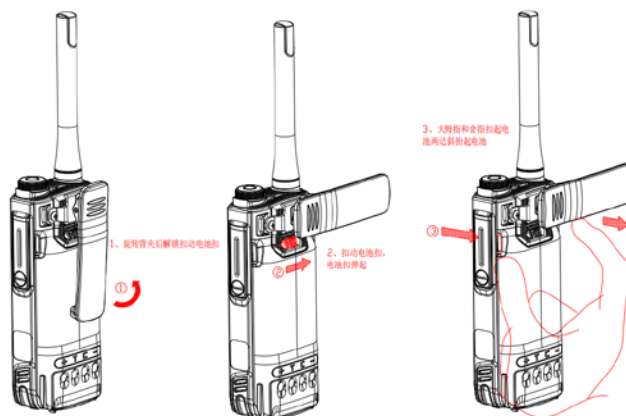


Fig. 5.2 Schematic diagram of battery mounting and dismounting

3.3 Antenna mounting and dismounting

- Tighten the antenna clockwise into the antenna bay.

- Unscrew the antenna counterclockwise.

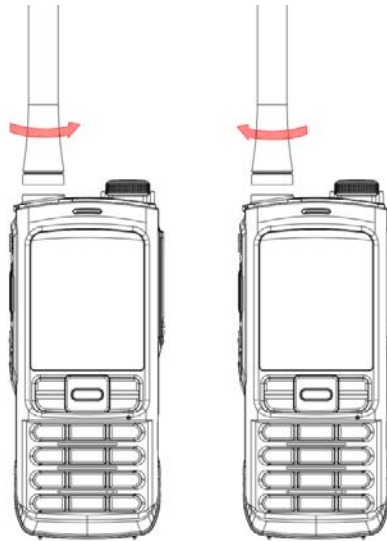
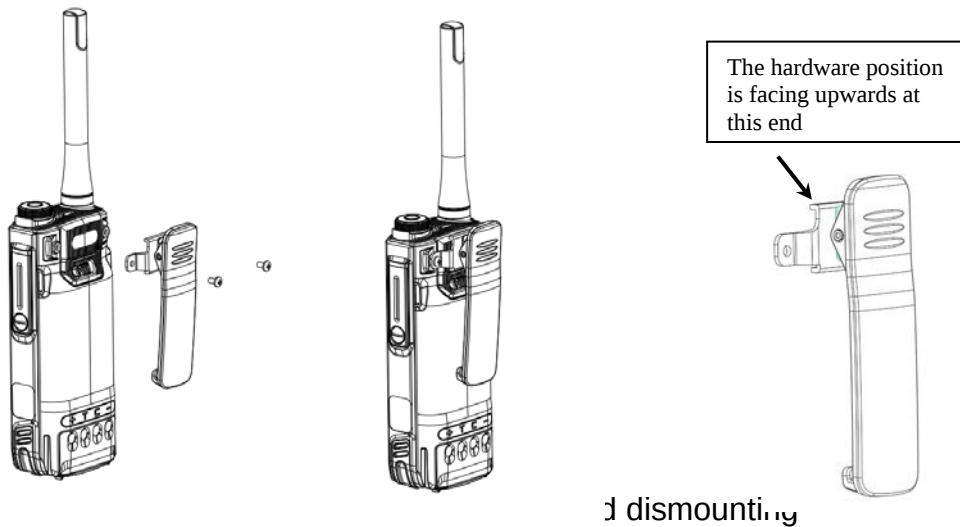


Fig. 6 Schematic diagram of antenna mounting and dismounting

3.4 Belt clip installation and removal

3.4.1 Standard belt clip mounting and dismounting

- The locking buckle screw is shown in the figure. Use a Phillips screwdriver to remove the screw on the belt clip and secure it. Pay attention to the direction of the back clip, with the long end facing upwards, as shown in the diagram



F

d dismantling

3.4.2 Optional cradle clip mounting and dismounting

- Push the belt clip down into the slot of the cradle clip until you hear a "click".
- Remove the belt clip on the cradle clip by pivoting the clip outward and pushing it upward.
- Once the cradle clip is assembled in the manner described in Figure 8.2, the radio is in a reliable mounting condition.
- The way the back rest is disassembled is the reverse operation of the way it is assembled.

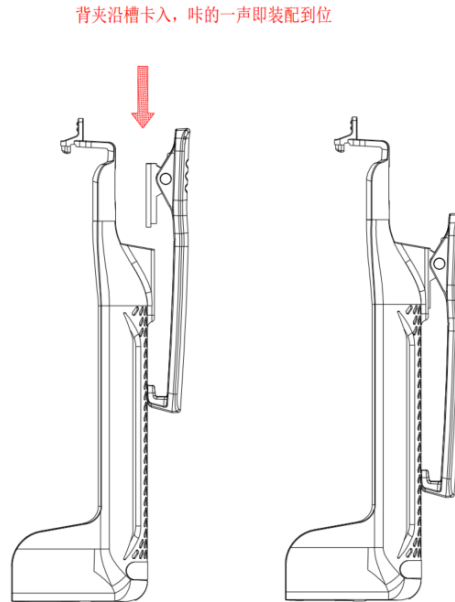


Figure 8.1 Schematic diagram of cradle clip mounting and dismounting

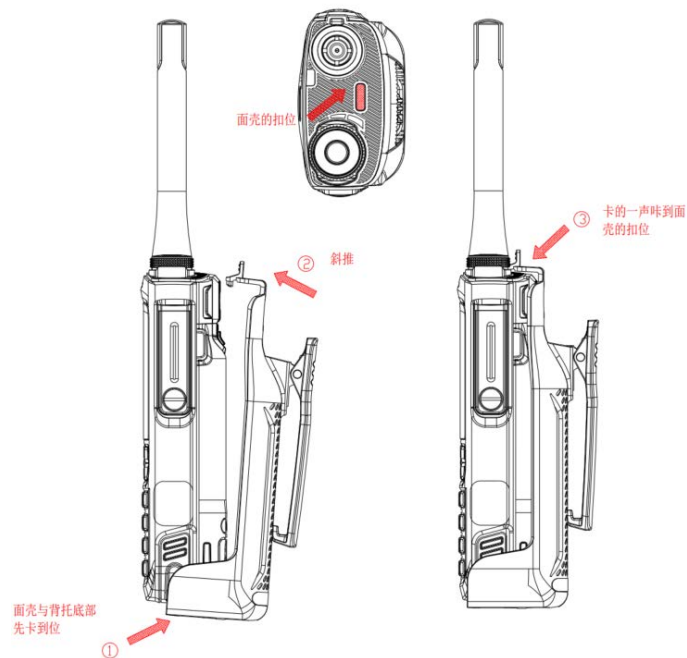


Figure 8.2 Schematic diagram of cradle clip mounting and dismounting

3.5 Accessories jack mounting and dismounting

- Twist the screwdriver to remove the cover of the Accessories jack.
- Snap the Accessories jack into the upper groove position, tighten the screw cap clockwise until there is no gap on the contact surface of the Accessories jack, at this time the Accessories jack mounting is complete.
- Loosen the screw cap counterclockwise to remove the Accessories jack.

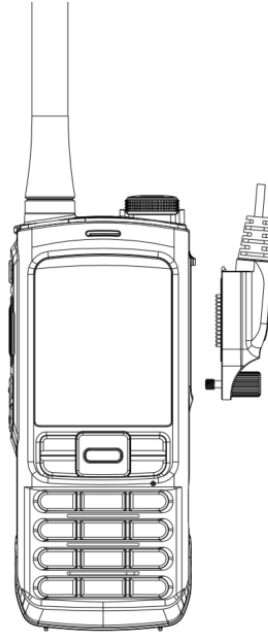


Fig. 9 Schematic diagram of accessories jack mounting and dismounting

4. Operating instructions

4.1 Basic operations

4.1.1 Start-up operation

4.1.1.1 Power on detection

- Checking the screen for physical breakage.
- Check if the antenna connection is correct.
- Check that the batteries are installed correctly

4.1.1.2 Power on

Press and hold the [Switch / Hang-up key] for more than 2 seconds, and the radio screen will display the startup interface, followed by the standby interface, and play the startup prompt sound.

4.1.2 Power off

Press and hold the [Switch / Hang-up key] for more than 2 seconds, the radio screen will display the power off interface, and then the display screen will close.

4.1.3 Volume adjustment

Select the volume adjustment mode by short pressing the [Volume/channel knob], and the display screen status bar will display the volume adjustment icon. At this point, rotate the [Volume/channel knob] clockwise to increase the volume. And rotate the [Volume/channel knob] counterclockwise to decrease the volume.

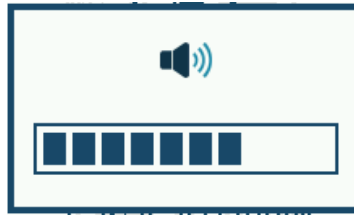


Figure 10 Volume interface

4.1.4 Channel/group switching

Select the channel/group switching mode by short pressing the [Volume/channel knob], and the channel/group switching icon will be displayed in the status bar of the display screen. At this point, rotate the [Volume/channel knob] clockwise to switch channels downwards on the radio. And rotate the [Volume/channel knob] counterclockwise to switch channels upwards on the radio.

4.2 Conventional mode voice calls

4.2.1 PTT call

Press [PTT] in standby mode to initiate PTT call. At this time, the red indicator light is on, and the LCD displays the called group number.

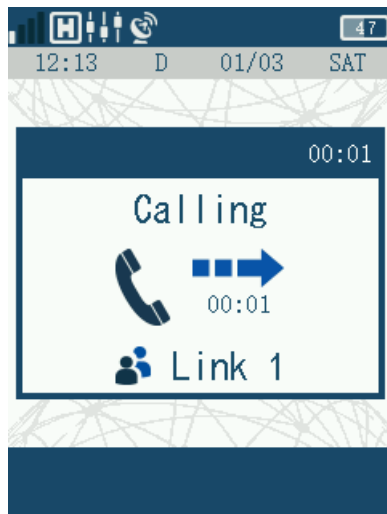


Figure 11 PTT call screen

4.2.2 Manual dialing calls

Press [Call key] in standby mode to enter the dialing interface. Enter the target number, and then press [PTT] to initiate a call. At this time, the red indicator lights up, and the LCD displays the call status and number.



Figure 12 Dial-a-Call screen

4.2.3 Contact person paging

Press [Menu/confirmation key] in standby mode to enter the menu list interface, then select "Contacts" to enter the contact menu, and then enter the "Contact List". Press [PTT] at the selected contact to initiate a call. At this time, the red indicator light is on, and the LCD displays the call status and contact.

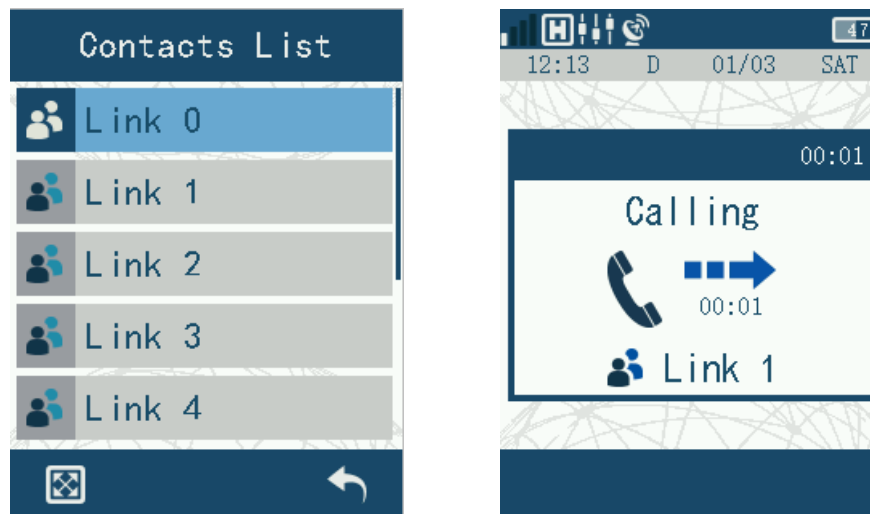


Figure 13 Contact person paging interface

4.2.4 Contact list

Enter the menu list and select "Contacts" to enter the contact menu. The contact menu includes the following three submenus: contact list, new contact, and manual dialing.



Figure 14 Contacts interface

4.2.4.1 Contact list operation

Enter the Contact List to view contacts and their specific information. You can edit and save the contact name and number, or delete contacts.

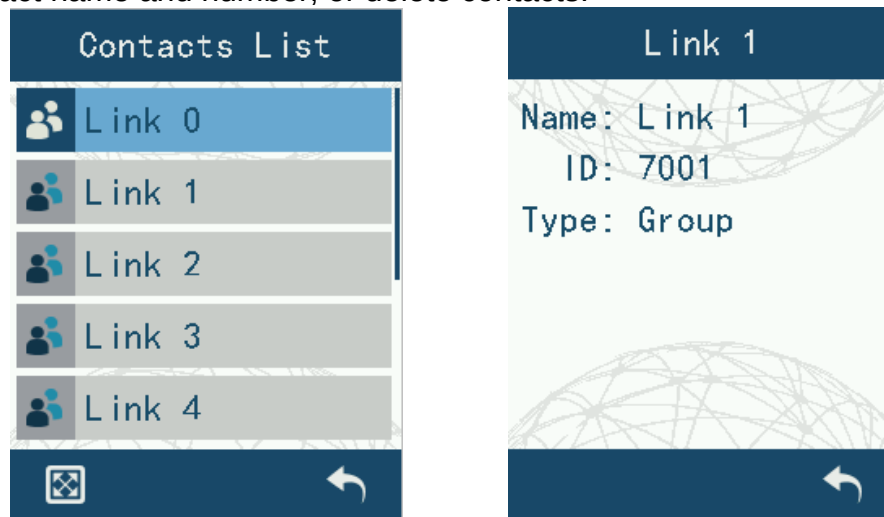


Figure 15 Contacts List interface

4.2.4.2 New Contact

Enter to “New Edit”, select individual or group contact, edit the number, edit the name, and then save the contact.

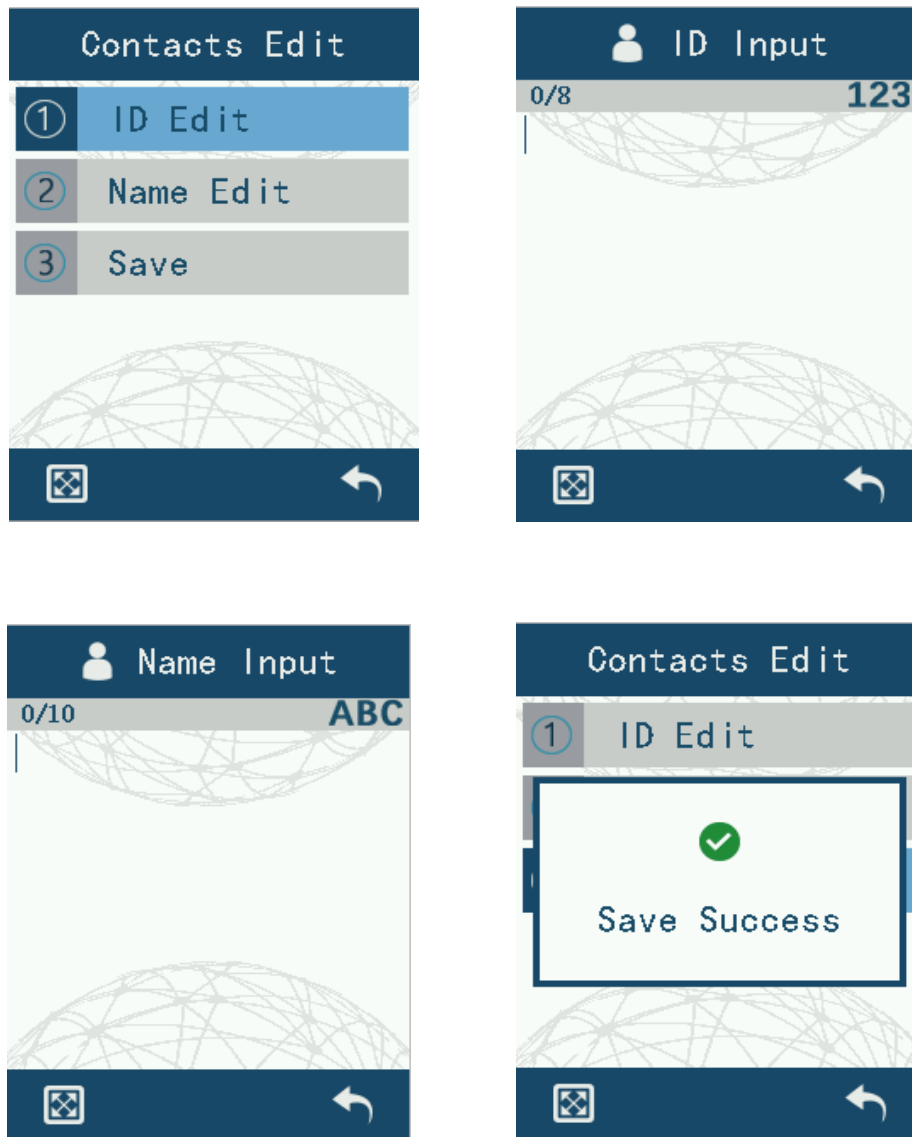


Figure 16 New contacts interface

4.3 Conventional mode Message communication

Enter the menu list and select “Message” to enter the MESSAGE menu. MESSAGE menu contains five parts: New MESSAGE, Status MESSAGE, Quick Text, Inbox, Outbox.



Figure 17 Message interface

4.3.1 New message

Enter the menu list, select“Message”->“New Message” to enter the MESSAGE editing interface. Input methods include uppercase English, Chinese Pinyin, numbers, lowercase English, by pressing [#] key to switch the input method. And the [Left key] of [direction key] can delete the entered content, [up key] and [down key] to switch the selected position, [Return key] to return to the previous menu.

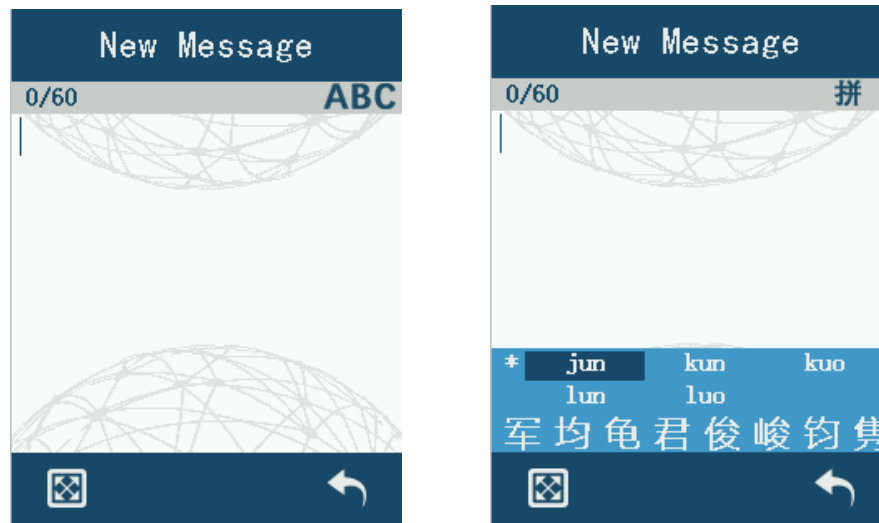


Figure 18 Message editing interface

Send MESSAGE by selecting the contact list, or manually enter the number to send MESSAGE.

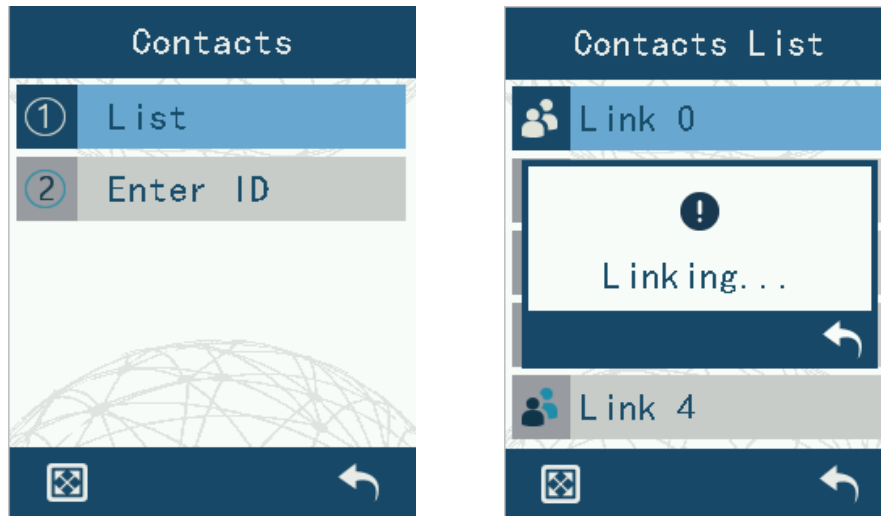


Figure 19 Message sending interface

4.3.2 Status Message sending

Enter the menu list, select “Message”->“Status Message”, enter the “Status” list. In the list, select the content with sending, use the [Menu/confirmation key] to view the specific content of the status MESSAGE.

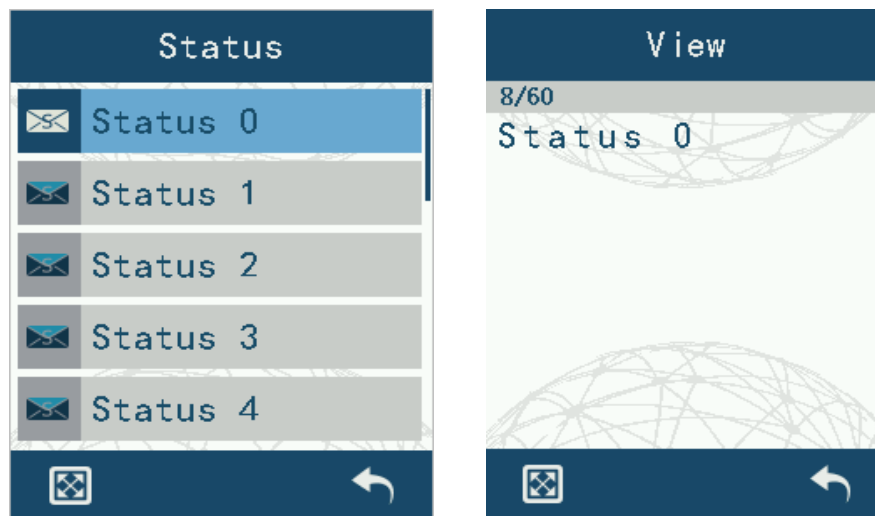


Figure 20 Status Message interface

Continue to use the [Menu/confirmation key] to select “Contact List”, then select the target contact in the contact list, and then use the [Menu/confirmation key] to send message. At this time, the LCD shows the status of message sending.



Figure 21 Status message sending interface

4.3.3 Shortcut text messaging

Enter the menu list, select “Message” -> “Quick Text”, enter the “Quick Text” list. In the list, select the content with sending, use the [Menu/confirmation key] to view the specific content of the status message.

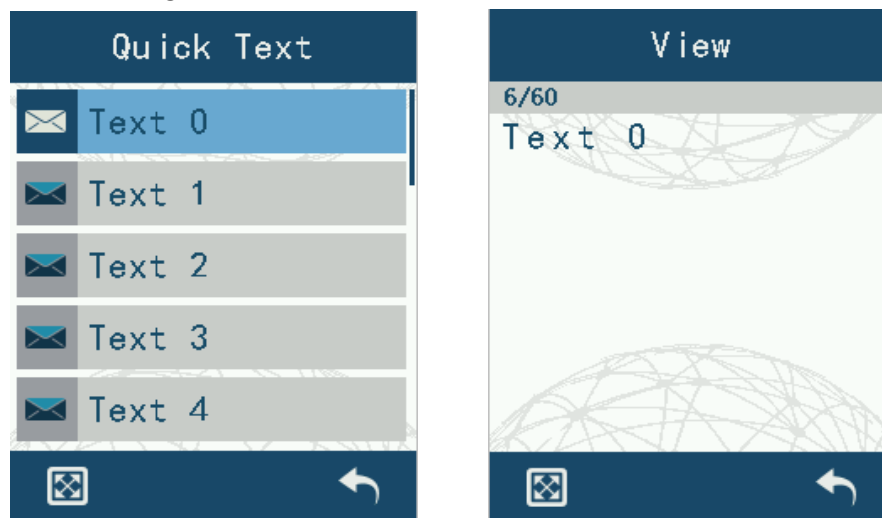


Figure 22 Shortcut text messaging interface

Continue to use the [Menu/confirmation key] to select “Contact List”, then select the target contact in the contact list, and then use the [Menu/confirmation key] to send message. At this time, the LCD shows the status of message sending.

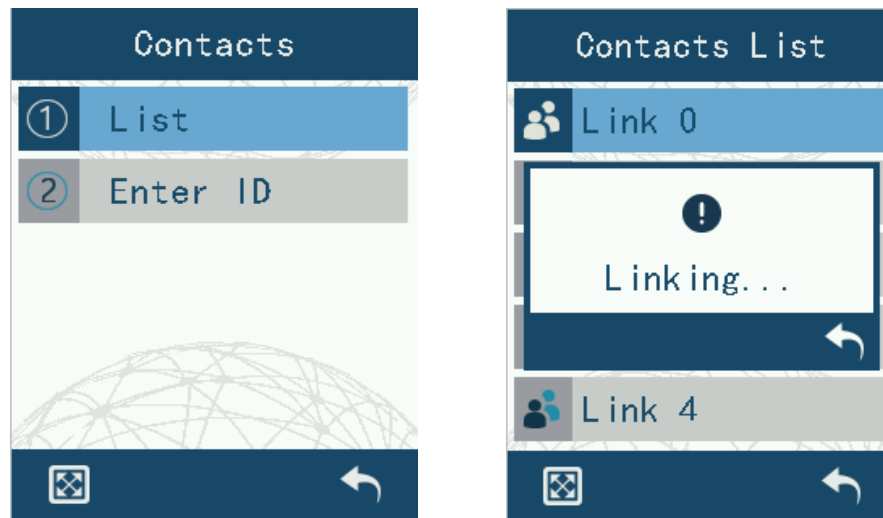


Fig. 23 The sending shortcut text message interface

4.3.4 Text message reception

When you receive a text message that matches the local number, the local receiving group list, the all-call number in the team, or the all-call number, the text message receiving prompt box will pop up. Press [Return key] to return to the interface before receiving message, and use [Menu/confirmation key] to reply, forward, delete and so on.

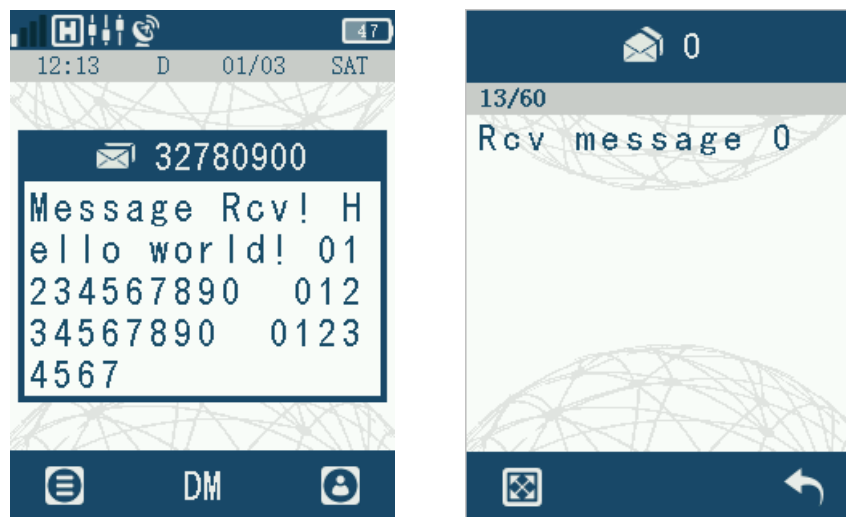


Figure 24 Message reception interface

4.3.5 Inbox

Inbox includes: Inbox List, Delete All.

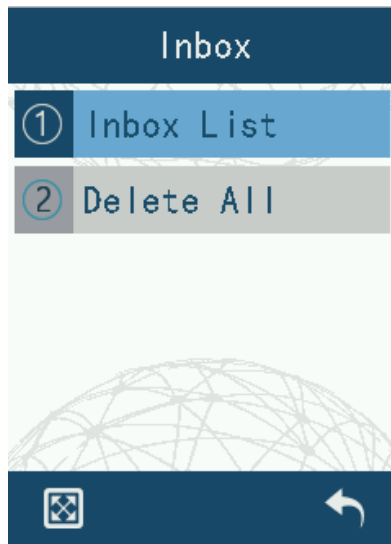


Figure 25 Inbox interface

4.3.5.1 Inbox list

Enter the menu list, select “Message”-> “Inbox”-> “Outbox List”, enter the outbox message content list. Use [Up] and [Down] keys to switch the list, and use [Menu/ confirmation key] to enter the message content view interface.

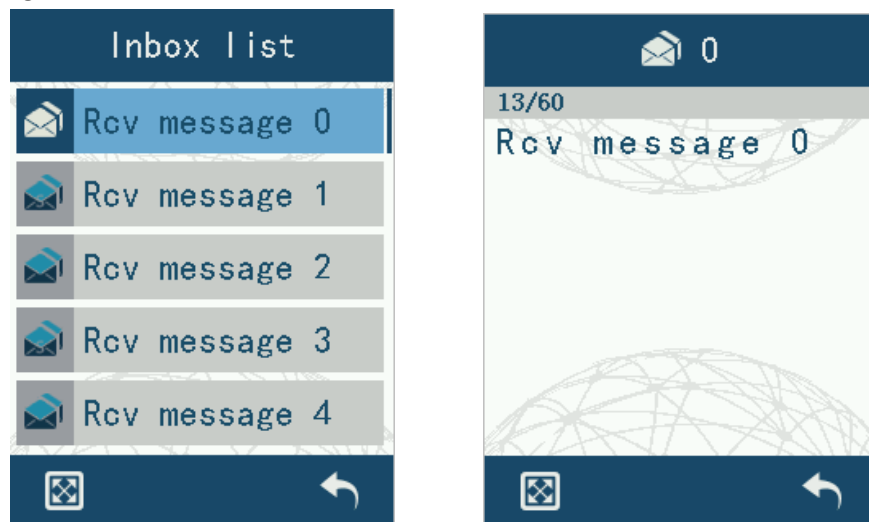


Figure 26 Inbox list screen

For text messages, you can use the [Menu/confirmation key] to reply, forward, delete and so on. For text messages, you can use the [Menu/confirmation key] to delete the message. Inbox can be emptied of all incoming message.

4.3.6 Outbox

Outbox Includes: Outbox List, Delete All.



Figure 27 Outbox interface

4.3.6.1 Sending lists

Enter the menu list, select “Message”-> “Outbox”-> “Outbox List”, enter the outbox message content list. Use [Up] and [Down] keys to switch the list, and use [Menu/confirmation key] to enter the message content view interface.



Figure 28 Outbox list screen

For text messages, you can use the [Menu/confirmation key] to resend, forward, delete and other operations. For text messages, you can use the [Menu/confirmation key] to delete the message. You can empty the outbox of all sent messages. The following is a list of all the message that have been sent to the Outbox

4.4 Zone selecting

Enter “Zone” to display the current radio zone list, you can select the desired zone in the list, and switch to the zone to use.

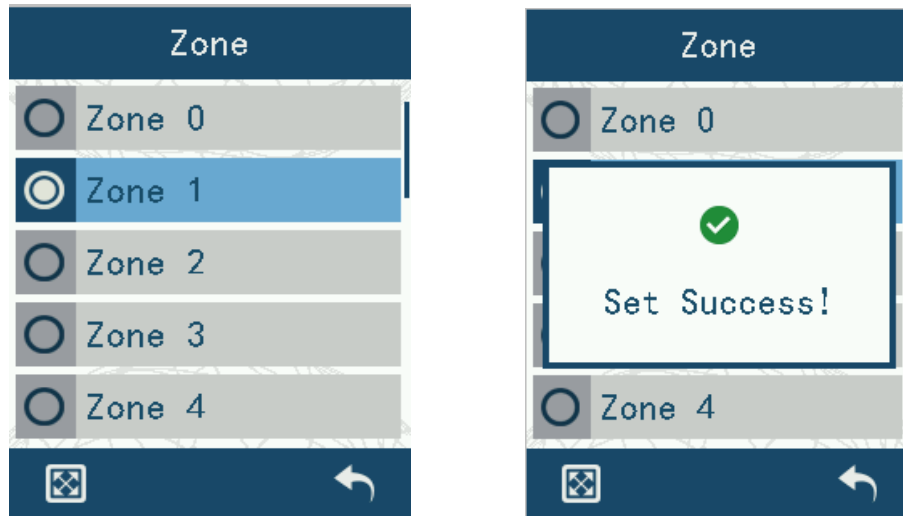


Figure 29 Zone interfaces

4.5 Scanning Settings

In “Scan Settings”, if channel auto-scanning is on, you cannot manually turn off the scan. If channel auto-scanning is off, you can manually turn scanning on or off. Three options: open/close, view the list, set the effective list.

[On/Off] appears only when channel auto scanning is not turned on.

4.5.1 Viewing the list

Enter “View List” to see the scanning channels under the current scanning list.

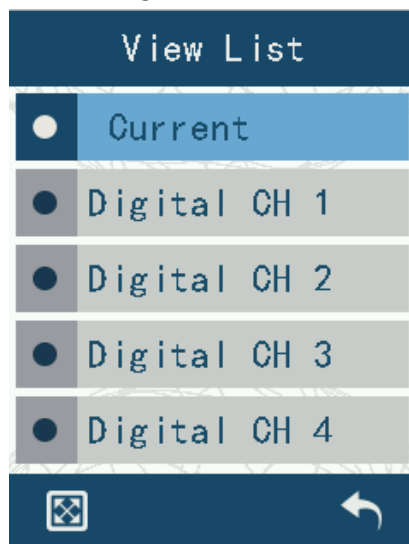


Figure 30 Viewing the Scan Channel List screen

4.5.2 Setting up the active list

Entering “Scan List” allows you to switch and set the current channel scanning list.



Figure 31 The Scan List screen

4.6 Working modes

Radio operation mode selection, including "Conventional mode" and "Trunking mode".
Conventional mode: This mode includes digital and analog services in the direct mode (DM) and repeater mode (RM).

Trunking mode: In this mode, the radio is registered to the system. Realize the functions of group call, individual call, cross-area call and dispatch call for voice and data.

4.7 Other settings

4.7.1 Positioning settings

The contents of “Location” are divided into four parts: module switch, time report, call report, and positioning mode.

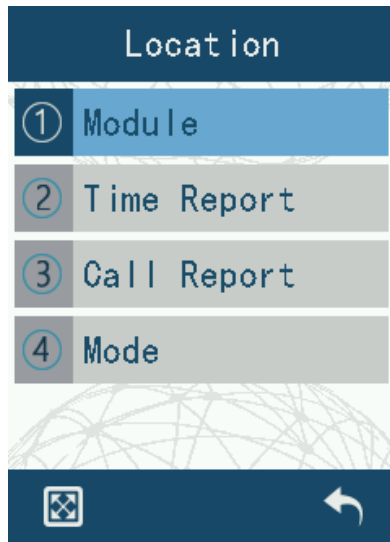


Figure 32 Positioning interface

4.7.1.1 Module switch

Entering “Module Switch” allows you to select the module to be turned on or off.

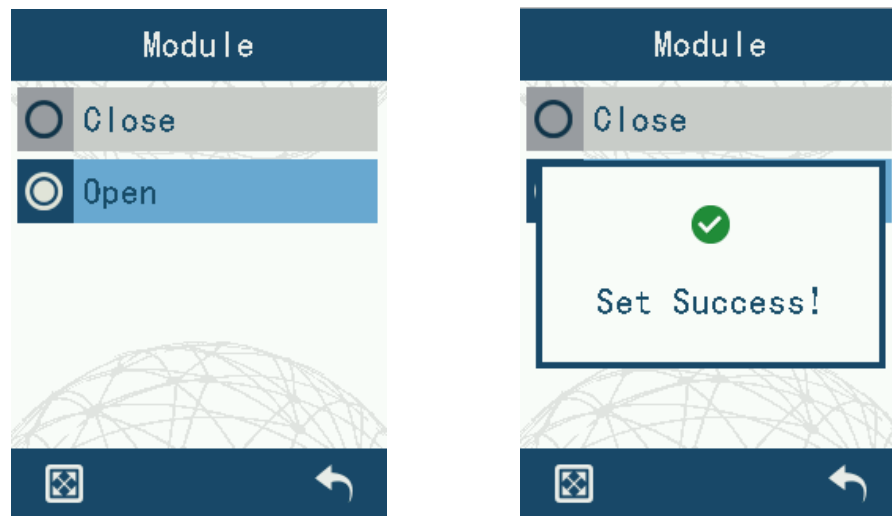


Figure 33 Positioning module switches

4.7.1.2 Timed reporting

Enter “Time Rep” to choose whether to turn on or off Timing Report. When Timed Reporting is enabled, the device will periodically report the local positioning information to the positioning receiving channel when positioning. The console can display the real-time geographic location information of the device.

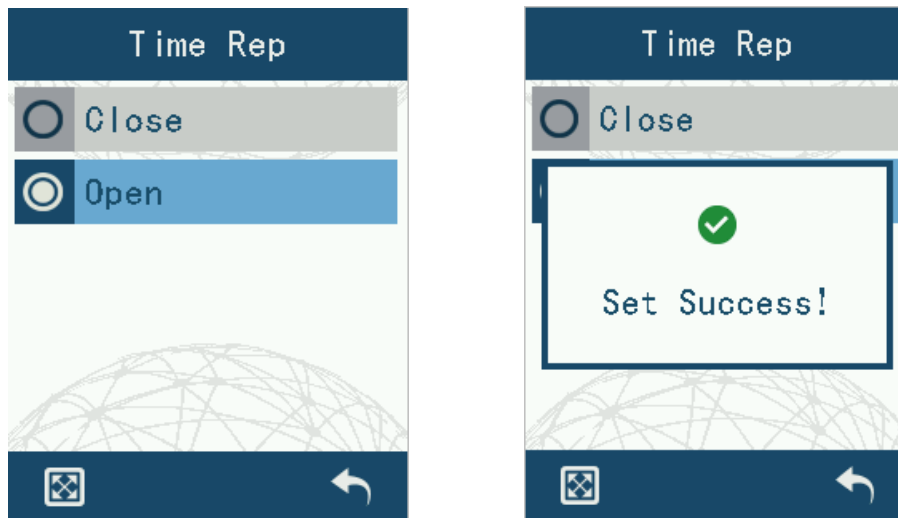


Figure 34 Timed Reporting Setup interface

4.7.1.3 Reporting with the call

You can choose to turn on or turn off the call report function by entering "Call Rep". When the Call Report function is on, the device will report the location information of the device to the voice channel every time you make a call. The console can display the geographic location information of the device in real time.

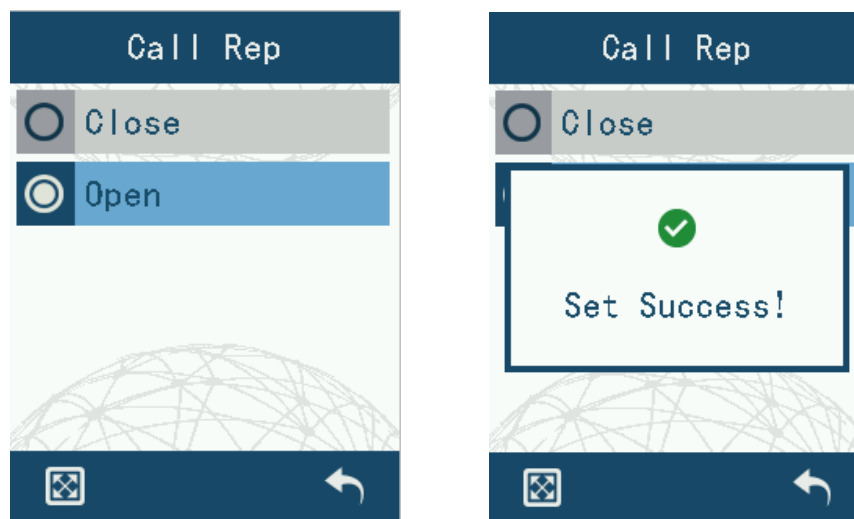


Fig. 35 The Call Reporting interface

4.7.2 Arbitrary calls

Entering "Any Call" you can choose to receive only group list calls and any meet protocol calls.



Figure 36 Any call switch interface

4.7.3 Language settings

Enter “Language” to select Chinese Simplified Display and English Display.



Figure 37 Language selection screen

4.7.4 Power settings

Enter to “Power Setting” to select high power and low power.

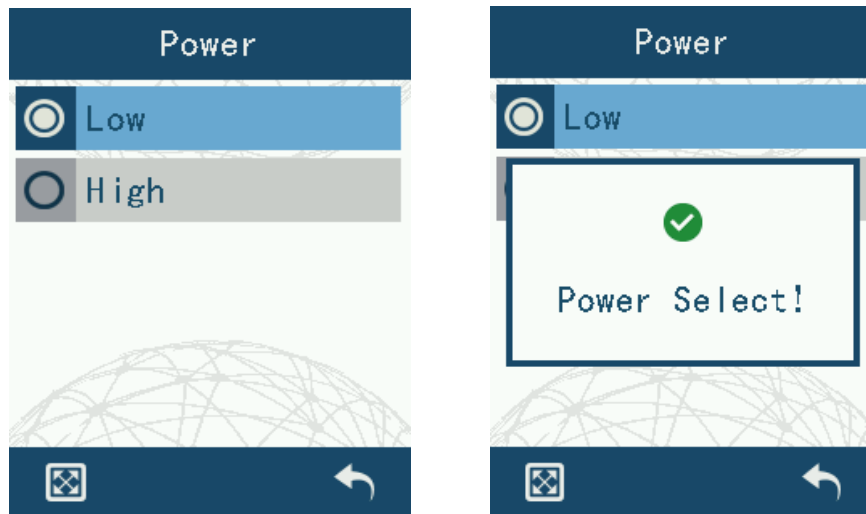


Figure 38 Power Selection interface

4.7.5 Display settings

The contents of “Display” are divided into four sections: Mode, Brightness, Timer, Day/Night.



Figure 39 Display setup interface,

4.7.5.1 Backlight mode

Entering “Mode” allows you to select Backlight Off, Backlight Normally On and Delayed Off. The LCD backlight can be set to off, normally on and delayed off.

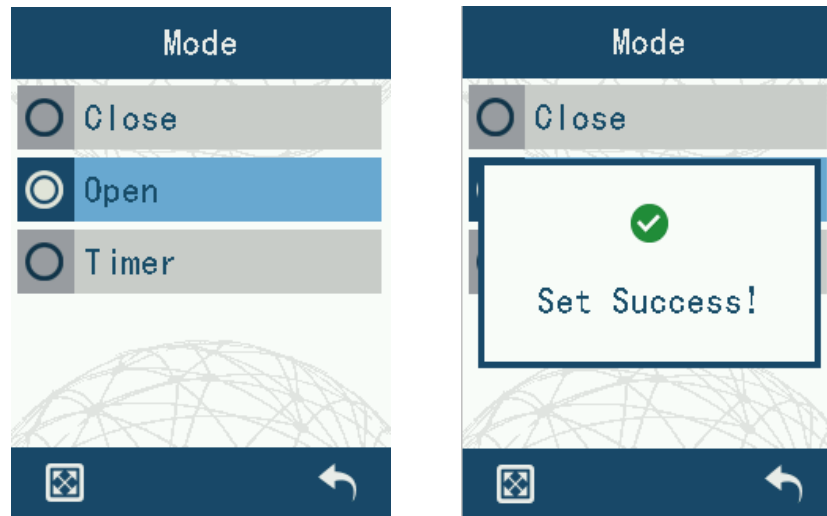


Figure 40 Backlight mode selection interface

4.7.5.2 Backlight brightness

Enter “Display” to adjust the LCD backlight brightness display.

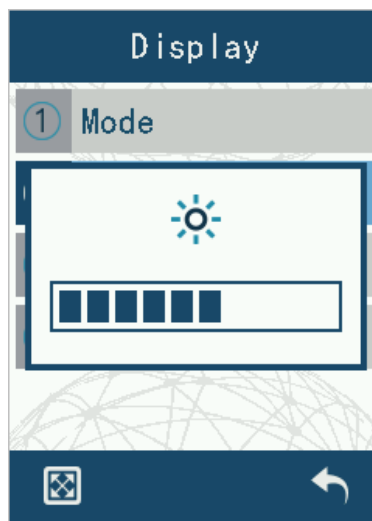


Figure 41 Backlight Brightness Interface

4.7.5.3 Backlighting time

Enter “Timer” to adjust the backlight delay off time. The time is divided into 5s, 10s, 15s, 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s and 60s.



Figure 42 Backlight Time Setting interface

4.7.5.4 Day/Night

Entering “Day/Night” allows you to set the LCD mode to Day mode and Night mode.

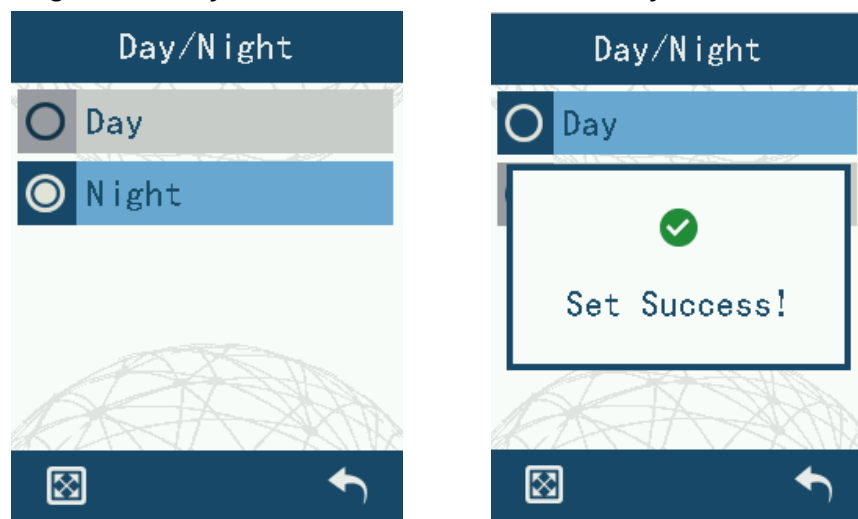


Figure 43 Backlight Day/Night Settings interface

4.7.6 Beep settings

The content of “Ring” is divided into five parts: Radio Silent, keypad Ring, Msg ring, Call ring and Ring vol.



Figure 44 Tone Settings screen

4.7.6.1 Radio Silent

Enter “All Silent” to select on and off. When the function is turned on, all beeps will be disabled.

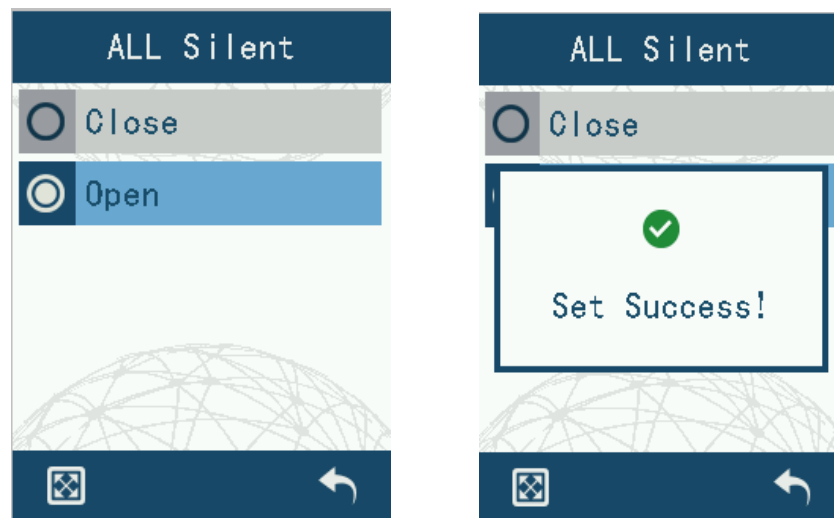


Figure 45 Radio silent Settings interface

4.7.6.2 Key beeps

Enter “Keypad Ring” to select on or off. When the function is turned on, all key beeps will be disabled.

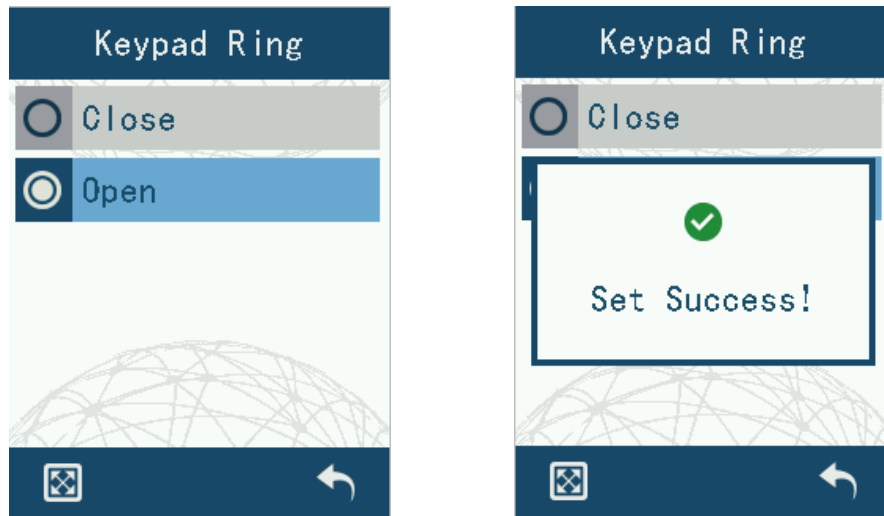


Figure 46 Keypad ring setting interface

4.7.6.3 Message Ring

You can choose to turn on or off by entering “Msg Ring”. When the function is turned on, all message beeps will be disabled.

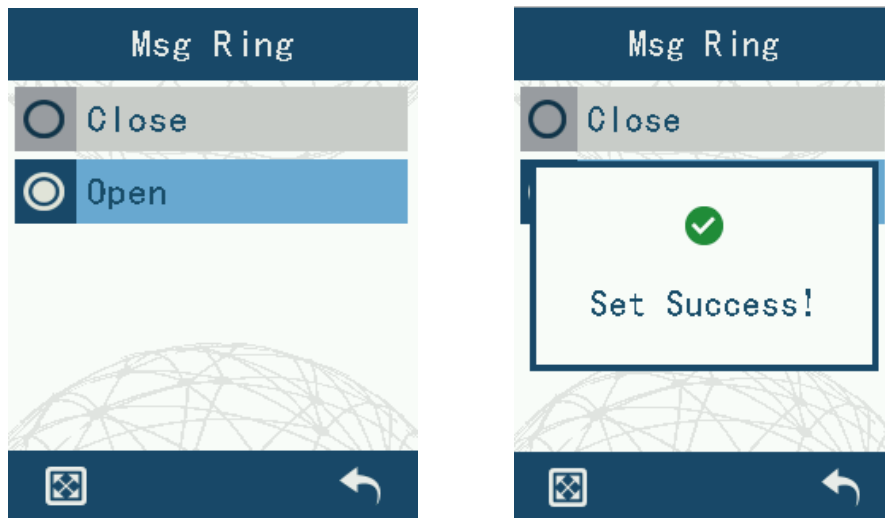


Figure 47 Message ring setting interface

4.7.6.4 Call Ring

You can choose to turn on and off by entering “Call Ring”. When the function is turned on, all call tones will be disabled.

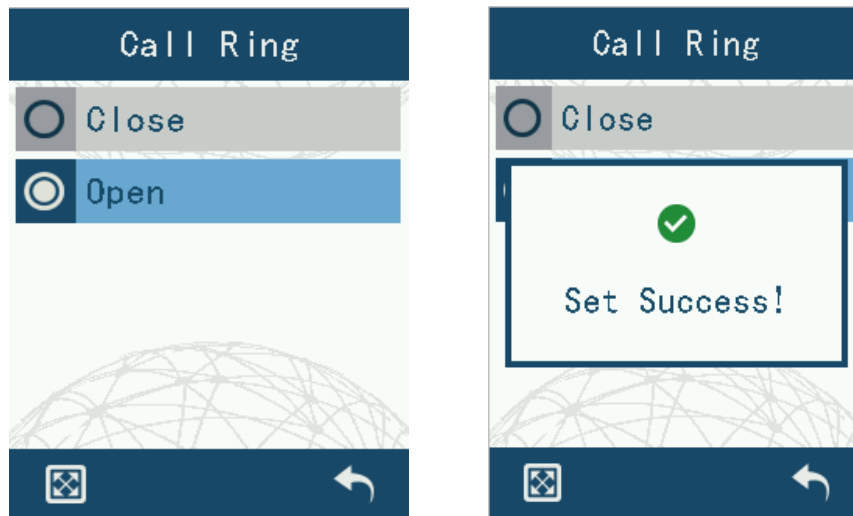


Figure 48 Call ring setting interface

4.7.6.5 Ring volume

Enter “Ring” to adjust the beep volume level.



Figure 49 Ring volume setting interface

4.7.7 Standby Interface Settings

Entering “Desk Dispay” you can set the content of the guard interface display. You can choose: CH+Freq, Name+Freq, CH+ID, Name+ID.

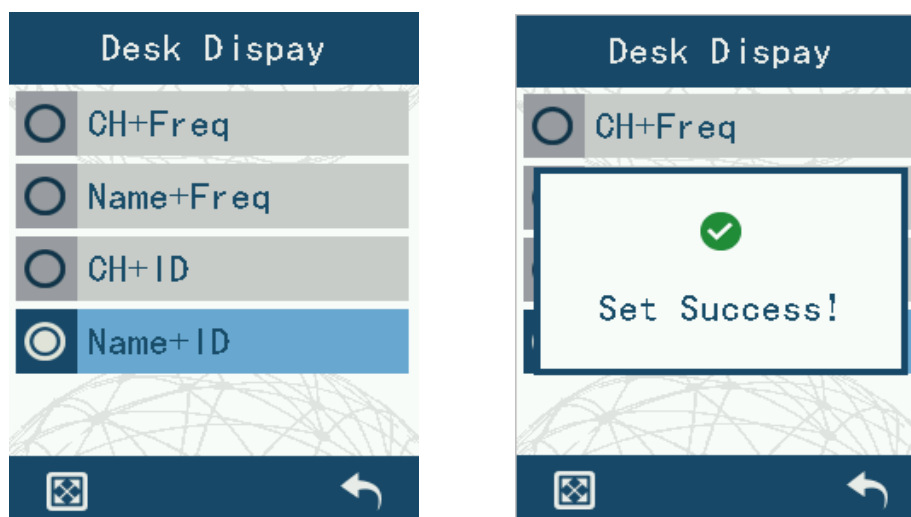


Figure 50 Standby Settings interface

4.7.8 Keypad lock setting

Enter the “Key Lock” to choose between on and off. After the function is turned on, the keypad will be locked if you don't operate the keypad for a long time, and you need to press the [*#] key to unlock it.

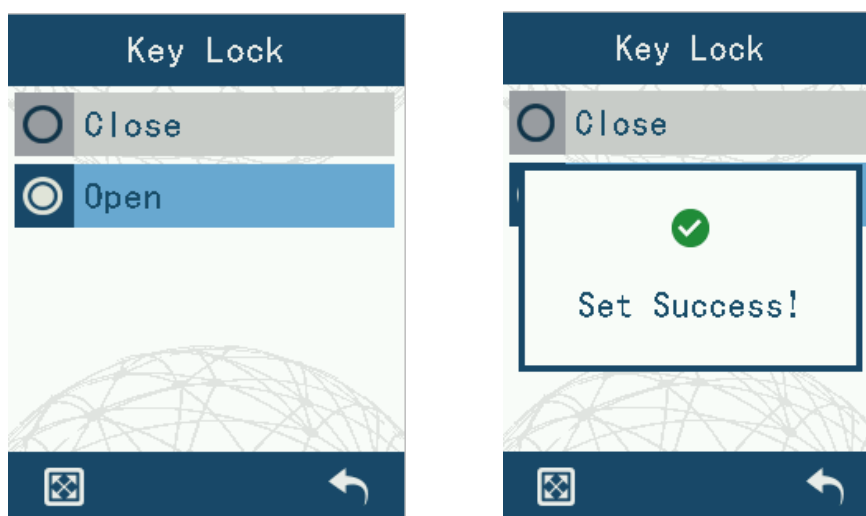


Figure 51 Keyboard Lock Settings screen

4.7.9 Time and date settings

Enter “Date & Time” to set the time and date of the radio. The radio has an automatic time calibration function, in the case of positioning module positioning, it will be automatically calibrated to the positioning time.

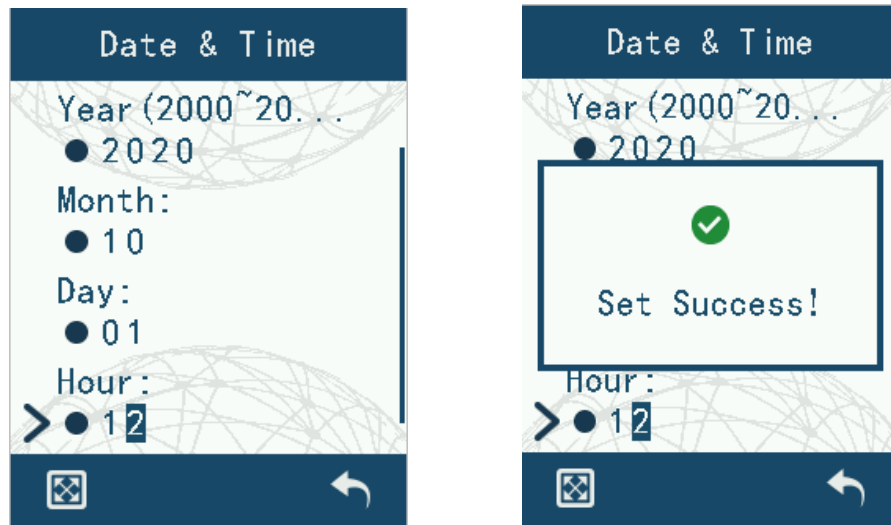


Figure 52 Time and date setting interface

4.7.10 Short message type

Message type selection, including standard Motorola compatible IP compatible and M-mode compatible.

4.7.11 Encryption settings

The contents of "Encryption" are divided into three sections: Encryption Type, Encryption Enable and Encryption List.

Encryption type: including none, ordinary encryption, hardware encryption ARC4 encryption and AES256 encryption.

Encryption Enable: Includes off, voice only, data only, voice+data .

Encryption List: Used to display and select the list of keys that have been pre-set by the Write Frequency software.

4.7.12 Show nearby devices

You can choose to turn it on or off by entering " Nearby Devices". When the function is turned on, after receiving a call in digital conventional mode, you can see the relative position and distance of the transmitter under the main display area. In addition, you can view the latitude and longitude information of the transmitter by going to [Local Information] - [Nearby Device Information].

4.7.13 Vibration settings

Entering "Vibration" you can choose to turn it on or off. When the function is turned on, there will be vibration alerts when switching on and off, calling, and receiving message.

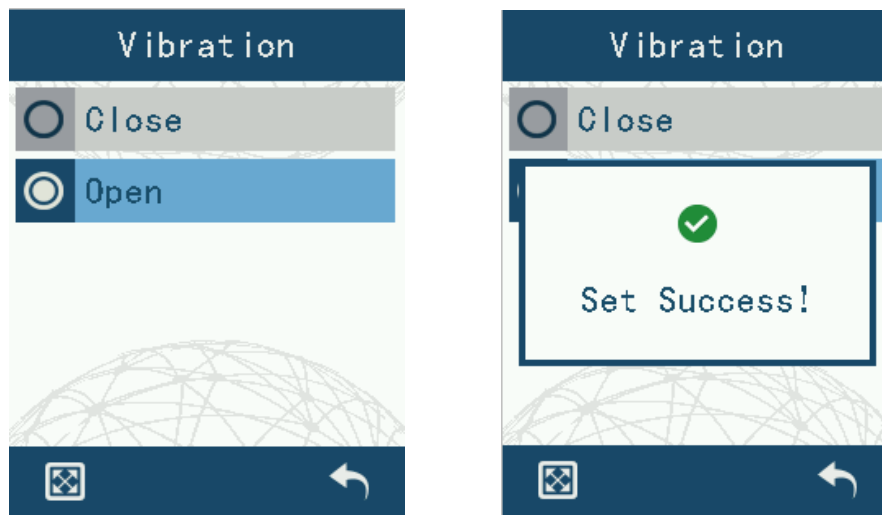


Figure 53 Vibration Settings interface

4.7.14 Man down setting

You can choose to turn it on or off by entering the “Man Down”. When the function is turned on, there will be sound and light alarm when the device is tilted or placed upside down for a long time.

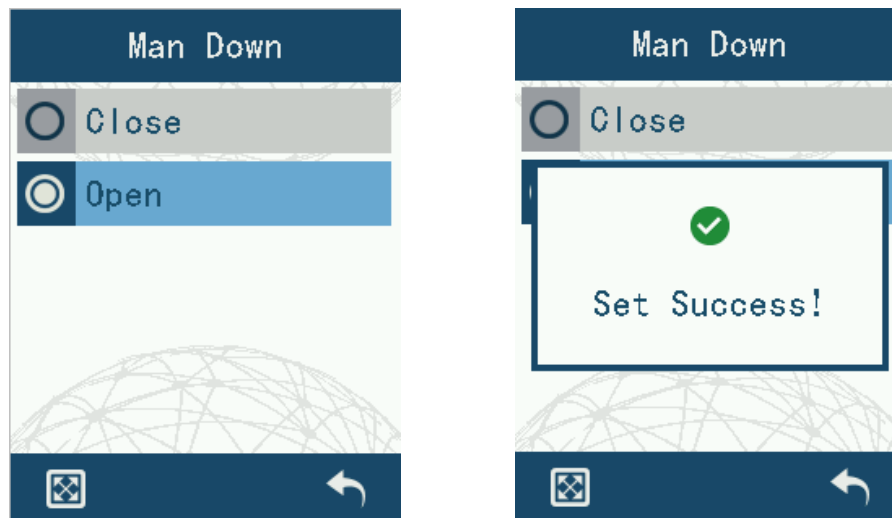


Figure 54 Man down setting interface

4.7.15 Vocoder type

Vocoder type selection, including AMBE and NVOC.

4.7.16 Export of recordings

After connecting the data cable to the machine with the recording memory card installed and the recording function enabled, entering this option will enter the recording file export status. At this point, the computer will recognize the removable disk of the memory card.

4.8 Device information view

The content of “Device Info” is divided into six parts: local information, LCD board information, positioning information, battery information, receiving group list and neighboring device information.

4.8.1 Local Information View

In “Device Info”, you can query the name of the station, the model number of the device, the local number, the software version, the hardware version, the database version, the serial number of the device, and other information.

Note: The following figure shows the information for the demonstration information, specific equipment information according to the equipment native display information for the real information.



Figure 55 Local Information Interface, the

4.8.2 LCD information view

In “LCD Info”, you can query the LCD board software version number, LCD board hardware version, LCD board database version, LCD board device serial number and other information.

Note: The following figure shows the information for the demonstration information, specific equipment information according to the equipment native display information for the real information.

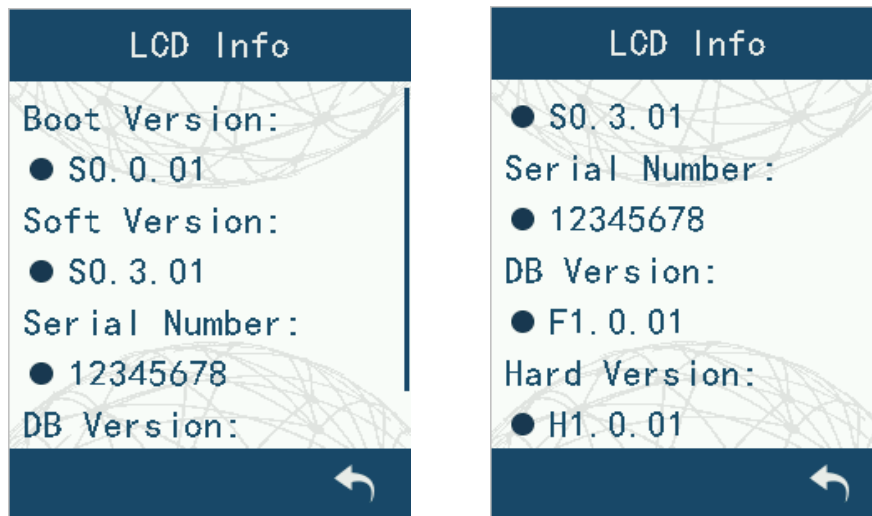


Figure 56 LCD information interface

4.8.3 Positioning information view

In “Location”, you can query the current radio positioning status, number of receiving satellites, longitude, latitude, altitude, speed, navigation angle UTC time and date information.

Note: The following figure shows the information for the demonstration information, specific equipment information according to the equipment native display information for the real information.

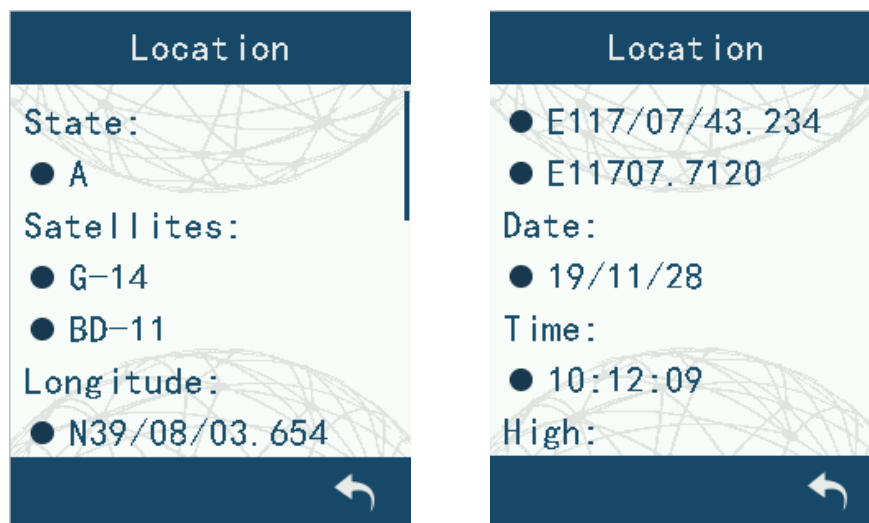


Figure 57 Positioning information interface

4.8.4 Battery information view

Battery Information allows you to query the current battery level information of the intercom, which is displayed as a percentage sign.

4.8.5 Receiving Group List View

In "GrpID List", you can query the current device can receive group call list information.

Note: The following figure shows the information for the demonstration information, specific equipment information according to the equipment native display information for the real information.

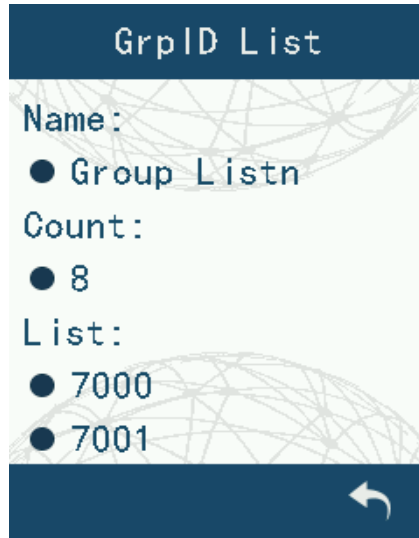


Figure 58 Receive group list interface

4.8.6 Proximity equipment information view

In "Nearby Devices", you can query the name ID number and longitude and latitude information.

5. Routine maintenance of products

5.1 maintenance

In order to ensure better use, the hand-held table requires routine maintenance.

- The battery is fully charged before use; monthly maintenance of the battery, when not in use for a long time, the battery should be taken out and stored separately, and the battery is placed halfway to prevent the phenomenon of battery loss.
- The screen of the hand-held table is protected accordingly when it is in use, preventing contact with sharp, pointed and corrosive objects, which may cause damage to the screen.
- Cover the external connector with a protective cover when not in use to avoid damage to the connector.
- Replace or repair the antenna connector if rust appears.

4.2 Cleaning

- Use a clean, dry, lint-free cloth or brush to wipe away dust on the surface of the product and the charging pole piece on a regular basis.

- The buttons, control knobs and housing of this product are very susceptible to soiling. They can be cleaned with a neutral detergent and a non-woven cloth. Do not use chemicals such as detergents, alcohol, sprays, or petroleum-based agents to avoid damage to the surface and housing. After cleaning, make sure the product is thoroughly dry, otherwise do not use it.

5. transportation and storage

5.1 Requirements and methods of packing equipment

A single set of hand-held table mainframe and spare accessories should be stored in a box. Multiple sets of boxes can be unified into a strong, permanent wooden box with handles on both sides for easy handling. Open the box does not require special tools, the lid side of the locking buckle, release the locking buckle can be lifted off the lid of the wooden box, revealing the box, take out the box, unpacking can be.

5.2 Transportation

- Strictly install the transportation requirement operation on the packing box.
- Loads are stacked neatly and securely so that the weight of the load does not exceed the truck's load rating.
- When loading trucks to meet the requirements of the relevant over-height, loading and unloading boxes placed in a balanced manner, not allowed to be biased to one side.
- (b) Not to allow through-vehicle shipments of flammable, explosive, or corrosive materials
- The equipment should be protected from rain, sun, dust and impact during transportation. Cover with canvas when transported in open trucks.
- Equipment loading and dispatching shall be under the supervision of the ordering
- In case of damage to equipment found during transportation and handling, notify the relevant authorities in a timely manner

5.3 Storage

5.3.1 Storage rules

- Equipment of different models and specifications are placed separately, stacked neatly, not inverted
- The packages shall be stacked on sleepers 30cm above the ground, with the stacking height not more than 4.5m and the distance from the wall more than 1m to ensure air circulation.

5.3.2 Requirements for warehouses

- The warehouse complies with the following atmospheric conditions: temperature 5~30; relative humidity: 50%~70%.
- The warehouse shall have a certified cement floor, which shall be more than 40cm higher than the floor
- The warehouse should be free of harmful gases and corrosive substances packaging to

cause damage.

- The warehouse should be well ventilated and dust-proofed and maintained.

5.3.3 Product storage period

The effective storage period of the equipment (except batteries) is at least 2 years, and the batteries need to be charged and discharged every 6 months for maintenance. Under the specified storage conditions, the technical performance of the equipment should meet the requirements of the relevant standards or this specification and be free of corrosion and mildew. Software recording media (CD-ROM, disk and chip and other carriers) should be deterioration, damage and failure.

Caution:

1. Frequency: 400-470MHz, High power: 4W, Low power: 1W
2. RF exposure information: The device complies with RF exposure require when the device used at 25mm form your face and 0mm from the body with the belt-clips.
3. Declaration of Conformity.
Manufacturer: LISHENG COMMUNICATIONS CO., LTD.
Address: 5#, ChongXiang St., Econ & Tech. Area, Quanzhou, Fujian, China.
Hereby, LISHENG COMMUNICATIONS CO., LTD. declares that this product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU. This product is allowed to be used in all EU member states.
4. AC adapter
The adapter shall be installed near the equipment and shall be easily accessible.
5. Lithium Battery
Risk of explosion if battery is replaced by an incorrect type, dispose of used battery according to the instructions.

Engineering personnel setting up those frequency ranges whit Customer Programming Software, the mechanism implemented in the product to avoid the end user to managing changes in the definition of operating frequency ranges in order to avoid usage of un-allowed frequency ranges.

The authorized to set up the permitted frequency ranges for marketing in the specific country:

Country	Frequency Range(MHz)
Austria(AT)	444.9 - 444.900001, 450 - 456, 457.33 - 457.330001, 457.45 - 458.3,460 -470
Belgium(BE)	406.1-430 ,440-470
Bulgaria(BG)	410 -430,440-470
Croatia (HR)	406.1-430 ,440-470
Cyprus (CY)	406.1-430 ,440-470
Czech Republic (CZ)	448 - 451.3 ,457.38 - 461.3 ,467.38 - 470
Denmark(DK)	406.1-430 , 450 - 470
Estonia(EE)	406.1 - 410,412.5 - 420 , 422.5-430 ,440 - 442.5, 443 - 450,446 -446.2,450 -453 ,457.575 - 463,467.575 - 470
Finland(FI)	407.525 - 408.55,410.0125 - 410.8875,417.525 - 417.9, 419.15 - 419.525,419.55625 - 419.71875,420.0125 - 420.8875,426.35 - 427.5,427.525 - 427.9, 429.15 -

	429.525,429.55625- 429.71875,440.0125 - 440.5875, 440.60625 - 440.89375,442.775 - 443, 443.025 - 444, 444.025 - 444.525,444.55 - 444.975,445 - 446, 447.00625 - 447.29375,447.30625 - 447.70625, 449.025 - 449.525,449.55 - 449.975, 450.325 - 452.475, 452.525 - 452.975,453.0125 - 453.6625,469.725 - 469.975
France (FR)	406.1-430,444.5-447, 451.5-460, 461.5-470
Germany(DE)	406.1-430 ,440-470
Greece(EL)	406.1-430 ,440-470
Hungary(HU)	417 - 420,442 - 445,456 - 460, 461.3 - 470
Ireland (IE)	410 - 430,440 - 455, 456 - 459,460 - 470
Italy(IT)	440-443,445-470
Latvia (LV)	406.1-430,440-450,456 -470
Lithuania(LT)	406.1 - 410 , 413 - 418.6 ,423- 428.6 ,440 - 450 , 450 - 452.9875 ,458.1125 - 462.9875 ,467.4875 - 467.5875
Luxembourg (LU)	410-430,440- 470
Malta(MT)	406.1-430 ,440-470
Netherlands(NL)	410 -430,440-470
Poland(PL)	448 - 449.5,457 - 460,467 - 470
Portugal (PT)	148 - 149.9,150.05 - 156.4875 , 156.8375 - 174
Romania(RO)	408 - 410.8,415 - 420.8,425 - 429.8, 440 - 450.55, 457.5 - 458.2, 460 - 460.55,467.5 - 468.2
Slovakia(SK)	441.025 - 451.31,455.73 - 461.31,465.73- 470
Slovenia(SI)	406.1-430 ,440-470
Spain(ES)	406.1-430 ,440-470
Sweden(SE)	406.1 -430, 442 - 444,444.5875 - 452.5, 457.5 - 462.5,467.5 - 470
United Kingdom (UK)	400-470
USA	400-470



FCC STATEMENT:

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

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

RF Exposure Statement:

SAR tests are conducted using standard operating positions accepted by FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC. Tests for each product are performed in positions and locations as required by the FCC. For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with and accessory designated for this product or when used with and accessory that contains no metal. To maintain compliance with FCC RF exposure guidelines, hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR
RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND
FEDERAL LAW.**