

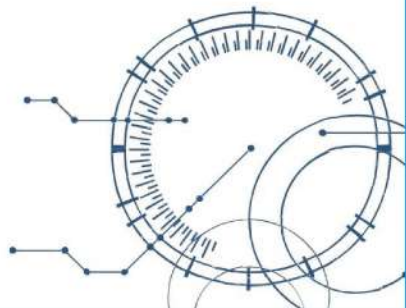


RECYCLABLE PACKAGING

# POC and Analog TWO-WAY RADIO

## USER'S MANUAL

 IP68



## SAFETY NOTICE

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### Safe boot

Do not turn on the radio when the use of the radio is prohibited or when the use of the radio may cause interference or danger.



### Shut down when refueling

Do not use the walkie-talkie in gas stations, and do not use the walkie-talkie near fuel or chemicals.



### Pay attention to traffic safety

Please obey traffic laws, try to use both hands to drive the car, and consider traffic safety first when driving.



### Shut down near the blast site

Follow all relevant restrictions and do not use the radio where blasting operations are taking place.



### Interference

All walkie-talkies can be subject to interference that can affect performance.



### Shut down in the hospital

Please observe all relevant restrictions and turn off the device when near medical equipment.



### Shut down on the plane

Please observe all relevant restrictions, the walkie-talkie will cause interference to the aircraft.



### Use qualified repair services

Only qualified service personnel should install or service this radio.



### Accessories and Batteries

Use only approved accessories and batteries, do not use unsuitable products.



### Connect other devices

When connecting other devices, do not connect products that are not compatible.

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## Product unpacking inspection

Please open the box with the front side up and carefully check whether the contents in the box are complete according to the "Product Packing List". If you find that the items are missing, damaged or inconsistent in specifications, please contact the seller immediately.

In order to effectively protect your business interests, please ask the seller for an invoice when purchasing, and carefully fill in the "Product Warranty Card" under the guidance of the seller, and keep it properly. At the same time, we also ask you to protect all the signs of the product during use, so that it can be correctly identified by the relevant parties during after-sales service.

### ■ Product Packing List

Item	Unit	Quantity
Radio Body	PCS	1
Lithium battery	PCS	1
Desk Charger	PCS	1
Adapter	PCS	1
Manual	PCS	1
Antenna	PCS	2
Back Clip	PCS	1
Lanyard	PCS	1

## Features

### ■ The function of PoC mode

- Nationwide intercom: 4G public network cluster intercom, nationwide roaming breaks through the distance limit
- All network connectivity
- Support to REAL-PTT
- Global GPS positioning: real-time upload of terminal position, speed, direction, status;
- Group/Member/Friend Call
- Telephone Function
- Security and confidentiality: The terminal transmits voice through the GPRS data channel, and the voice is safer and more confidential.
- SOS function

### ■ Walkie-talkie function

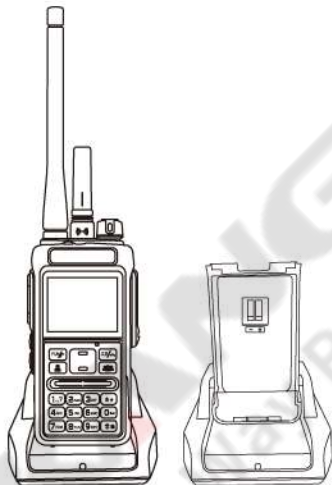
- UHF 400-470MHZ
- 16 memory channels
- CTCSS/DCS
- DTMF
- Signaling Tone 1000/1450/1750/2100HZ
- Repeater Function

## Properly charge and service batteries

Due to the battery's own characteristics, the company does not charge the battery before it leaves the factory, and usually cannot make the battery reach its normal capacity. To this end, please charge the newly purchased or long-term storage (more than 2 months) battery before use, and the battery capacity will be optimal after charging/discharging two or three times. If the battery is still found to be low after charging correctly several times, the battery needs to be replaced.

### ■ charging steps

1. Insert the plug of the charger into the power outlet, and the green light of the charger will turn on;
2. Insert the battery pack or the walkie-talkie with the battery pack into the charger slot; The battery red indicator light is on, indicating that the battery starts to charge;
3. When the battery indicator light is green, it means that the charging is completed and the battery can be used;
4. Take the charger plug out of the AC power outlet;



### Precautions

- *The ambient temperature during charging is 5°C ~ 40°C, and the battery will not be fully charged if the charging operation is outside this range;*
- *When charging, please turn off the power of the walkie-talkie with the battery installed;*
- *Do not open the battery case without authorization;*
- *It is best not to plug or unplug the power supply or battery during the charging process, so as not to interfere with the charging process;*
- *Even if the battery is fully charged, the usage time of the battery does not increase, indicating that the battery life has expired, please replace the battery.*

## Accessory installation and removal

### ■ Install/remove battery pack

After aligning the battery pack with the slot of the walkie-talkie, fasten the battery button, and hear a "click" sound, the battery is locked. When you need to remove the battery pack, turn off the radio first, and then press down the battery button on the bottom of the radio to remove the battery pack.

### ■ Install/Remove Antenna

Insert the threaded end of the antenna into the radio's screw hole and turn it clockwise until it is tight. When you need to remove the antenna, turn it counterclockwise until the antenna is unscrewed.

### ■ Install/Remove Belt Clip

Align the two supplied screws with the two screw holes on the back of the battery of the walkie-talkie and tighten it clockwise to fix the belt clip. When it is necessary to remove the belt clip, turn the screw counterclockwise until all the screws are loosened to remove the belt clip.

### ■ Installing/Removing External Headphones (Microphones)

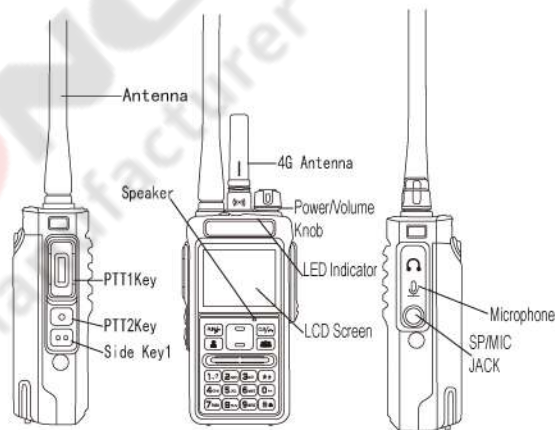
Remove the headphone cover and insert the headphone (microphone) at the MIC/SP port on the side. Remove the earphone (microphone) from the M1C/SP board and close the earphone cover.

### ■ Install the intercom lanyard

Pass the lanyard of the walkie-talkie through the lanyard loop in the middle of the back cover of the walkie-talkie.

## Getting Started

### ■ Walkie-Talkie diagram










#### ◇ Side key

1. PTT1 Button: POC
2. PTT2 Button: Analog
3. Side Key 1:

**Short press:** public network or analog working mode selection;  
**Long press:** report members, groups and power information (public network); noise suppression function (analog);

#### ◇ Keypad






1. Short Press [  ], Enter the menu OR dial the telephone function;
2. Short Press [  ], Exit button OR phone hang up function;
3. Short Press [  ]/[  ], Switch frequency or channel;
4. Long press [  ] into Group select, long press [  ], into Member select;
5. Short press [0-9], Enter frequency or channel number or phone number;
6. Long press [0-9], Enter the shortcut function;
7. Long press [  ], Toggle keyboard lock/unlock;

#### ■ LED indicators and LCD screen

##### ◇ LED indicator

When launching, the red light is on.

##### ◇ LCD screen display

Signal strength indicator		signal strength
battery power		Indicates that the battery power decreases sequentially
keyboard lock icon		Displayed when the keyboard is locked
dial phone switch		This icon indicates that the phone feature is on
time	00:25:46	This graph represents the time
Screen always on switch		This icon indicates that the keyboard light always on function is turned on

#### Basic operation

##### ■ Power on and off






Rotate the volume knob/power switch clockwise and hear a "beep" sound, the screen lights up to indicate that the transceiver is powered on, the green indicator lights up, and turn it counterclockwise to turn off the transceiver.

If the number card is not installed or the number card is not registered or invalid, it will prompt "Please insert the card".

##### ■ Volume adjustment

Rotate the volume knob/power switch to adjust the volume. Turn it clockwise to increase the volume, and counterclockwise to decrease it.

##### ■ Menu type

1. Press [  ], enter Menu select, 11 types of public network menu settings, 24 types of analog menu settings;
2. Press [  ]/[  ], select type;
3. Press [  ], Confirm to enter menu type;
4. Press [  ], Exit processing;
5. In the menu type selection, long press the [0-9] key, it can be set as a shortcut operation function.

##### ■ Analog Setting

No.	Display characters	Secondary menu display characters	Secondary menu setting description
1	Scanning		
2	Mode Selection	Frequency Mode	
		Channel Mode	
		Ch-Name Mode	

No.	Display characters	Secondary menu display characters	Secondary menu setting description
3	TOT	OFF 30s/.../600s	Unlimited launch time If the transmission exceeds the time, the walkie-talkie will automatically turn off the transmission
4	Tone	1000/ 1450/ 1750/ 2100Hz	
5	SQL	SQL-0.....SQL-9	Adjust between levels 0-10, the higher the level, the deeper the squelch
6	RX-CTCSS	OFF/.../CTC-254.1	
7	RX-DCSN	OFF/DCS-D023N/.../ DCS-D754N	
8	RX-DCSI	OFF/DCS-D023N/.../ DCS-D754I	
9	TX-CTCSS	OFF/.../CTC-254.1	
10	TX-DCSN	OFF/DCS-D023N/.../ DCS-D754N	
11	TX-DCSI	OFF/DCS-D023N/.../ DCS-D754I	
12	TX-DTMF1	OFF DTMF1.....DTMF8 DTMF1+ANI-ID.... DTMF8+ANI-ID ANI-ID	

No.	Display characters	Secondary menu display characters	Secondary menu setting description
13	TX-DTMF2	OFF	
		DTMF1.....DTMF8	
		DTMF1+ANI-ID.... DTMF8+ANI-ID	
		ANI-ID	
14	POWER	HIGH/LOW	low power transmission / high power transmission
15	W/NA		"N" will be displayed when narrowband is selected, and "W" will be displayed when wide- band is selected
16	DUP	OFF	The transmit frequency is equal to the receive frequency
		ADD	The transmit frequency is equal to the current frequency minus the beat frequency
		RED	The transmit frequency is equal to the current frequency plus the differ- ence frequency
17	OFFSET Freq	0.000-119.995MHz	difference between transmitted and received frequencies
18	Step Freq	2.5KHz/.../50K	Selectable from 2.5KHz,...50KHz

No.	Display characters	Secondary menu display characters	Secondary menu setting description
19	CH-MEM		Press [▲]/[▼] key, Select the channel you want to store, press [MEM] key to confirm
20	CH-DEL		Press [▲]/[▼] key, Select the channel you want to delete, press [MEM] key to confirm
21	DTMF-TM	50/100/150/200ms	
22	DTMF	8/1, 8/2.....8/8	
23	ANI_ID		
24	Data Reset	Reset Setting	The parameters of the setting mode and the full frequency are restored to the factory settings.
		Reset Setting+CH	Delete all memory channels
25	simulate the operation state, long press the function key to enter the one-key frequency function.		
26	To simulate the operating state, hold down the * key to switch between channel mode and frequency mode		




## ■ Digital Set

No.	Display characters	Secondary menu display characters	Secondary menu setting description
1	Group Selection		
2	Single call selection	Member selection	
		Member search	
		Friend selection	
3	Network Settings	2G/3G/23G/4G/Automatic mode	You can choose the appropriate network settings, the default: Automatic mode
4	Sounds settings	Standard Sound/high Sound	HD sound quality for 4G network
5	GPS settings	GPS switch	GPS on/off
		GPS upload	Off/5s/10s/15s/30s/60s
		GPS infotmation	
6	Other settings	Backlight setting	Normally closed/ 5s/ 10s/ 15s/ 20s/ 30s/ normally open
		Key tone setting	Key tone on/off
		Pubilc switch	Public network switch on/off
		Analog switch	Analog switch on/off
		Priority setting	Select the mode for priority reception






No.	Display characters	Secondary menu display characters	Secondary menu setting description
6	Other settings	Transfer settings	Transit Off/ Transfer Off/Transfer and Intercom
		Master PTT set	PTT1 transmit simulation or public network priority setting
		Automatic lock set	Off/30s/60s/90s/120s
		Device Info	
		Theme setting	night mode/ default mode
		Backlight bright	Brightness level 1/2/3/4...8
		Language set	Chinese/English
7	Power Settings	Power saving mode	
		Normal mode	
8	Intercom tone	ON/OFF	
9	Quick settings		
10	Firmware update		
11	Time Zone Settings		

### ■ Group Selection

1. Enter Group Selection
2. Select group
  - a. Press [  ] key: Skip to next group.

- b. Press [  ] key: Skip to previous group.
  - c. Enter 1-8 digits or \* (represents any) to find a group that meets the conditions. If only one meets the conditions, it will enter the group.
  - d. If there is no operation within 10s, it will automatically exit the group selection mode.
  - e. If there is no group, it will prompt "No group information"
3. Press [  ] key: enter the selected group.
  4. Press [  ] key: Exit group selection.

### ■ Member/Friend Selection

1. Enter Member/Friend selection
  2. Select member/friend operation
    - a. Press [  ] key:Skip to next member/friend.
    - b. Press [  ] Key:Skip to previous member/friend.
    - c. Enter 1-8 digits or \* (representing any) to find qualified members/friends. If only one meets the conditions, it will enter a single call.
    - d. If there is no operation within 10s, it will automatically exit the member/friend selection mode.
    - e. If there are no online members/friends, it will prompt "No online members/friends"
3. Press [  ] key: Select members and enter a temporary group.
  4. Press [  ] key: Exit member/friend selection.
  5. Press [  ] key, Exit Selective Call.

## Specification

Frequency Range	Analog UHF: 400-470MHz
	LTE 4G B1/B3/B7/B8/B20 WCDMA: B1/B8 GSM/GPRS: B3/B8 or LTE 4G B2/B4/B5/B12/B17 WCDMA B2/B5 or LTE 4G B1/B2/B3/B5/B7/B8/B28/B40 WCDMA: B1/5/8 GSM: B2/3/5/8
Network System	LTE FDD/WCDMA/GSM/GPRS
Working Mode	Simplex
LCD Display	1.77inches
Operating Voltage	7.4V
Battery Capacity	2500mAh(Li-Ion)
Battery Life	About 15~28h
Mode	Dual Mode and Dual Standby
Operating Temperature	(-)20 - (+)60°C
Store Temperature	(-)30 - (+)80°C

RX Sensitivity	LTE ≤-96 dBm;
	WCDMA 900MHz: ≤-108 dBm;
	WCDMA 2100MHz: ≤-109 dBm;
	GSM 900MHz/1800MHz: ≤-106 dBm;
Dimension	120x57x38.5--140x57x38.5
Weight	≈331.5g
Occupied Bandwidth	≤1.48MHz
RF Power	≤30dBm
Frequency Error	±300Hz
Audio Output	500mW
Antenna Impedence	50ohm

## Maintenance and cleaning

- Handle the walkie-talkie with care, and do not move the walkie-talkie with the antenna or external microphone;
- Wipe the dust and stains on the walkie-talkie with a lint-free cloth to prevent poor contact;
- When the walkie-talkie does not use an external headphone/microphone, please cover the headphone/microphone jack;
- After a long-term use of the walkie-talkie, the buttons, control knobs and casings are easy to become dirty, and can be cleaned with neutral detergent (do not use strong corrosive chemicals) and a damp cloth;

## ■ Simple Troubleshooting

If your walkie-talkie has the following phenomena during use, please check the following information first, if it cannot be ruled out, please contact the dealer.

Issue	Cause	Solution
Poor signal reception:	The current location network signal is relatively weak;	<ol style="list-style-type: none"><li>1. Please move to a location where you can receive the network well;</li><li>2. Please avoid using it during similar periods or try again later.</li></ol>
Interrupted or delayed calls	Base station switching or poor wireless signal, or the network operator's network trunk line is poor;	After shutting down and restarting, it can automatically search for base stations and switch to a better quality network.

Issue	Cause	Solution
Shorter standby time	The standby time is related to the system settings of the network operator; Unable to connect to the network, the intercom device will continue to transmit the base station search signal, which will continue to consume battery power, resulting in short standby time;	If you are in a weak signal area, please temporarily turn off the intercom equipment;
Can't connect to network	The USIM card is invalid or has poor contact, the signal is poor, the network connection times out or you are not in the network service area;	Change to a valid USIM card or try again in an open place;

**KANGLONG®**  
Two-Way Radio Manufacturer

If product parameters are changed, the actual product shall prevail, and the description shall not be changed.