



RECYCLABLE PACKAGING

310

USER'S MANUAL



WiFi function



Bluetooth



Zello supported



GPS function

IP-310

4G LTE Network IP Radio

4G LTE

Thank you for purchasing the 4G LTE Radio.
Our radios have been designed with quality, reliability and efficiency in mind.
We hope that you are happy with your purchase, if you do have any queries or issues please do not hesitate to contact us
Please read this user manual before using your radio.

Warning

Turn radio off completely when in a flammable environment (gas, dust, fog) e.g. gas station.

General information before use

Please observe the following instructions to prevent, fire, injury and damage to the radio.

The recommended use pattern is one minute of transmission and 4 minutes of reception.

Constant transmission over long periods of time will cause over heating on the back of the radio. If this occurs, do not place the back of the radio on a plastic surface.

The radio must be remade under no circumstances.

Please do not expose the radio to direct sunlight or any other heat source for long periods of time.

Please do not expose the radio to dust, damp, spillages or objects that are unstable.

If abnormal odour or smoke is noted of the radio, please turn off the radio immediately, remove the battery unit and contact us.

Main function

Android system 10
WIFI 2.4/5GHz
Bluetooth 4.2
1.77 inch display
Noise Cancellation (Optional)
Voice records
GPS function
Mandown
SOS
Dual sim
Phone dialing
TYPE C High capacity battery
Low power alert
OTA Programming
ICCID code Scan
Support Soft-Sim
Group call / private call / Nested-group call
MTK6739 MCU / RAM+ROM :1+8G

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User's Manual

Open the box and check the device
Preparation work

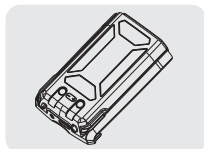
Open the box and check the device

Please remove the radio carefully from the box. We suggest you check the accessories thoroughly according to our list before discarding the packaging. If any part is missing or damaged when you receive it, please contact us

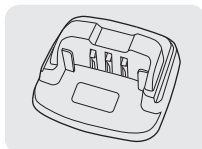
Packing list as follow:



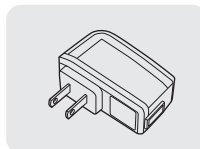
Radio body*1



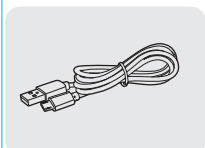
TYPE-C Battery
(4000mAh) *1



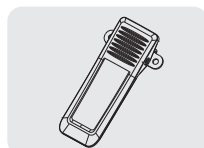
Charger*1



Adapter*1



USB Cable*1



Belt clip and Screw*1



User Manual*1

Preparation work

Warning:

- Do not over charge the battery.
If the battery charge is not completed in normal time, please stop charging. The battery may flame, smoke or crack due to an abnormal charging process.
- Do not put the battery in a microwave or high pressure container.
The battery may flame, smoke or crack.
- Do not expose a broken battery to a flame.
If the battery is broken or has an abnormal odour, please remove the battery from the radio and keep it away from any flammable environments. The battery fluid is extremely flammable.
- Do not use abnormal batteries
If the battery is abnormal in odour, colour, shape or in any other form, please remove it from the charger or radio and do not use.
- Please only use charger and adaptor
The charger and adaptor has been designed to be used exclusively with the Radio.
It ensures safety and reliability when charging the battery.

Installing And Uninstalling Of the Accessories

Getting To Know The Radio

Installing And Uninstalling Of the Accessories

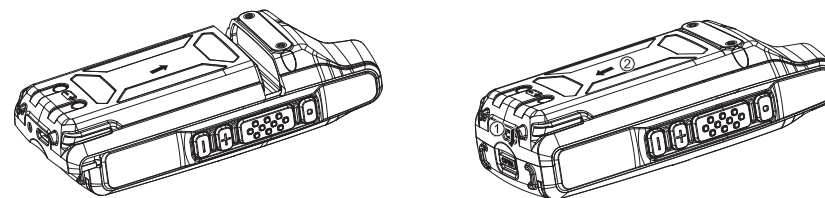
Installing the Lithium battery

Charge before use.

To reduce electrical emission in the battery, please remove the battery from the radio when not in use and store the battery in a cool dry place. When storing the battery for long periods of time:

Remove battery from the radio. If possible, fully charge the battery before storage.

Store the battery in a cool dry place (temperature less than 25 Celsius).



Attributes of Lithium battery

After repeated charging process, the battery capacity will decrease.

The battery degenerates gradually even without being used.

More time is required if charging the battery in cool conditions.

Charging and storage of the battery in relatively warm conditions will jeopardize its service life.

Please do not store the radio inside a vehicle or near heating equipment.

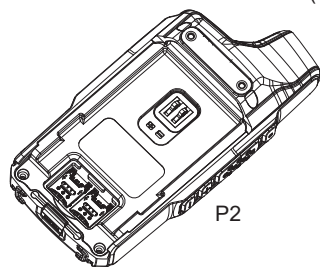
If the duration of the battery shortens significantly, please replace the battery immediately to prevent any fluid leaks.

Installing belt clip

If required, screw the belt clip onto the back of the radios using the two screw holes shown on the image below.(P1)

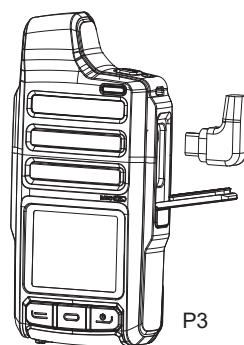
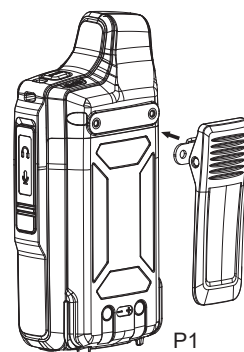
Installing SIM card

Please insert effective SIM card before use, make sure the SIM card can be effective in 4G/3G /2G radio.(P2)

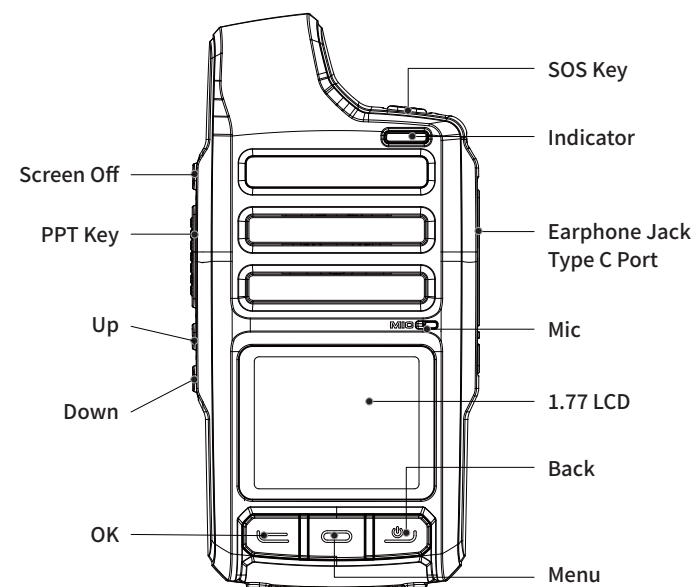


Installing headset

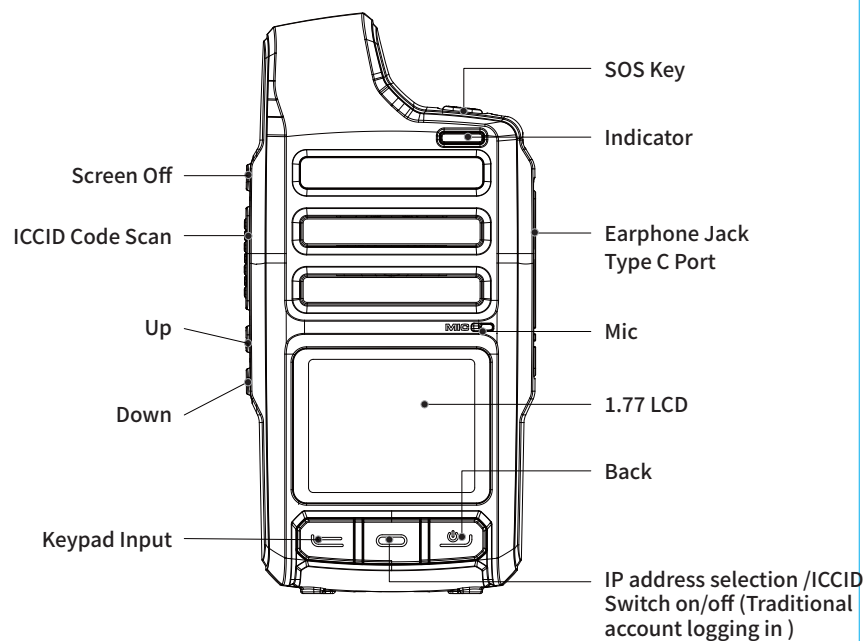
Open the cover on the side of the radio to show the headset sockets. Your headset will work immediately after being plugged in.(P3)



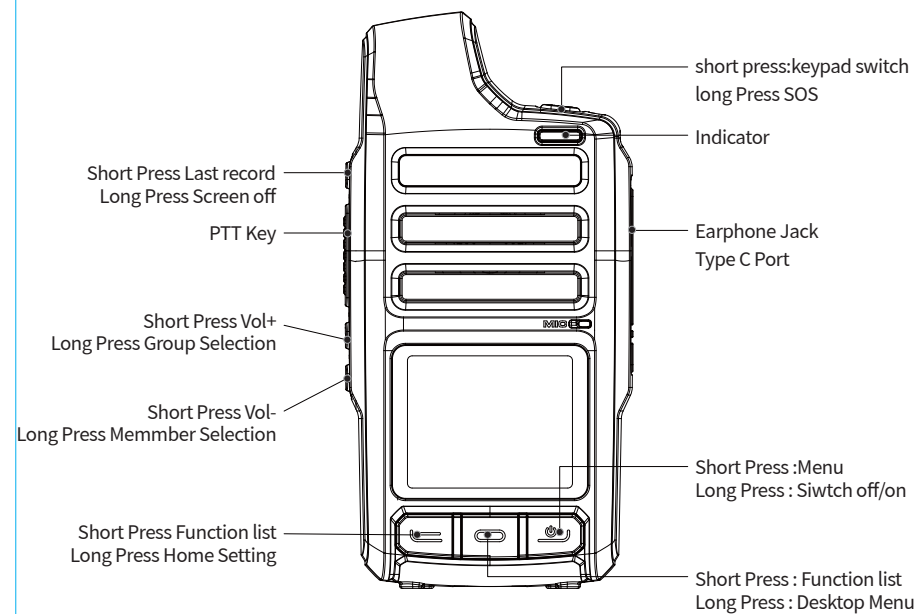
Getting to know the radio Basic key value



Getting to know the radio Basic key value In logging mode:



PoC Mode:



Introduction

Basic use

Simple troubleshooting

Introduction

This PoC Radio with Android 10 system , and we use the new MCU MTK6739 RAM module to keep more stable performance , the memory RAM+ROM = 1+8GB, this capacity allow you to have your own apk to installed or pre-installed by factory, if you have interesting please ask or contact with your seller to offer the key code to matching your own apk .

With 4000mAh high capacity battery support at least 8 hours working and 40 hours stand by.

APPLICATIONS



TO PROGRAM DEVICE

you can select the traditional software programming and also can radio programming .
For the software programming : use the type-c programming cable and connect radio with computer , open the software and make sure equipment status show : connected , Read it and write the account which you already register in the platform (account id and password / functions selected) , choose the correct ip address :

Singapore : 47.74.211.230

USA : 47.254.88.91

South Africa : 110.238.72.179

Germany : 35.158.114.65

Account writing types
☒ programming cable account writing
☐ on-the-air account writing

MEID server IP

Account writing management
 dealer password
 account ID ☐ Increment
 password
 IP address

☐ New password setting
☒ Private call ☒ GPS on/off ☐ ICCID login

progress

Help Read Write

Equipment connected!

2.For Wifi connection,Click Wifi Setup,Wifi on , choose wifi name and input the password to connect with .

Wifi setup
☒ Wifi On ☐ Wifi Off

123
 Redmi K60
 Redmi K60
 3LSC
 3LFC
 BSyf
 BSyf
 @Ruijie-s9AB6
 3LSC
 3LFC
 51

name password Connect

3.Bluetooth connection ,click bluetooth setup,and then turn it on, scan the available bluetooth , Choose the one you want connect with .

1 name password 3 Connect

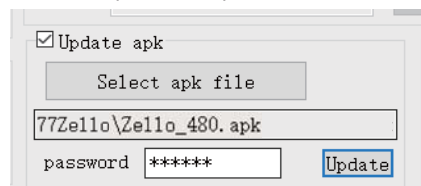
☒ Bluetooth
☒ Bluetooth On ☐ Bluetooth Off Scan

name	address
LE-Bose Free SoundSport	28:11:A5:CD:5F:8B
LE-reserved_C	28:11:A5:CD:4B:07
OPPO Reno7 5G	A8:98:92:DE:01:20
DESKTOP-MOPRR83	04:ED:33:91:BC:60
DellKing E0 v1.26	28:C8:26:00:07:BF
Venu Sq 2	EE:57:EA:0B:98:2C

name Connect

4.Update APK

Choose the APK files to update , the password : 123456



Radio Programming

Switch on radio , around 40 seconds radio will into the poc logging interface :



Keypad in the account which you already register in the platform (account id and password / functions selected), Click the Middle keypad ,choose the correct ip address :

Singapore : 47.74.211.230

USA : 47.254.88.91

South Africa : 110.238.72.179

Germany : 35.158.114.65

Also you can select another way to log in ,by ICCID ,Click the middle keypad , it will have a ICCID switch key, switch on then the logging interface will ICCID number (you should out the SIM Card advanced). Or long press PTT Key 2seconds , it will come out a ICCID barcode to scan !



Dispatch management platform Instruction

If your radio shows and of the following problems, please check the instructions below and if the problem still persists then contact us

Poor reception: Possible reasons are signal in your current location is weak or the line is busy. If this happens, please move somewhere with improved signal or wait a while before attempting again.

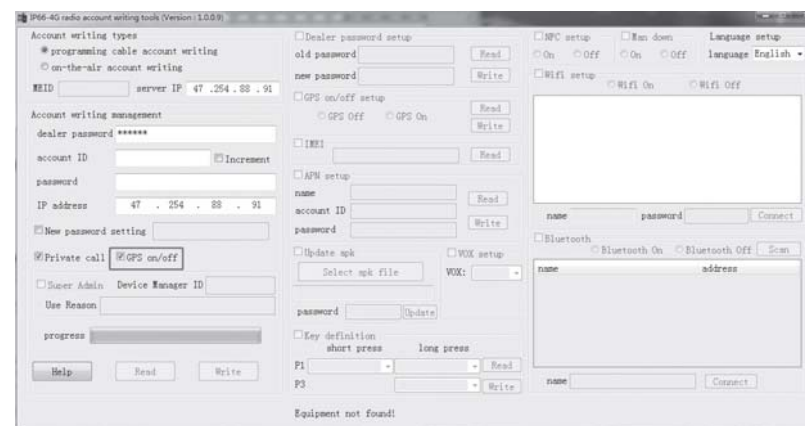
Echo or noise: A possible reason is that the quality of the network provider is flawed. Please restart the radio, this will let it automatically search for an available network with better quality.

Less battery duration: Possible reasons are using and charging the battery in high temperature conditions or searching for a network constantly in a weak network area. If you are in an area with a weak signal, please temporarily switch OFF the radio.

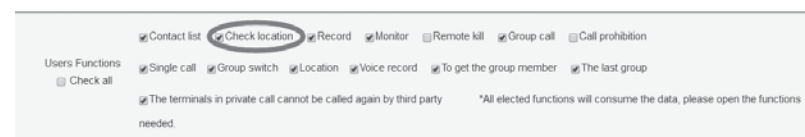
Unable to connect to a network: Possible reasons are that the SIM card is not effective, poor signal or being out of the network service area. Please try either replacing the SIM card or move to a position that is more open, i.e. if you are in a building, move nearer the window.

Dispatch management platform Instruction

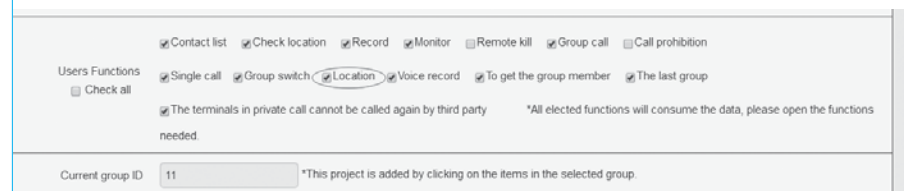
1. In the software, turn on the GPS function



2. The dispatcher should select the function for “Check Location” in the platform, so that the dispatcher can get the other radios GPS information.



3.The radio should select the function for “Location” in the platform, and the radio should be outdoors to get the location. Also the programming software should be open the GPS

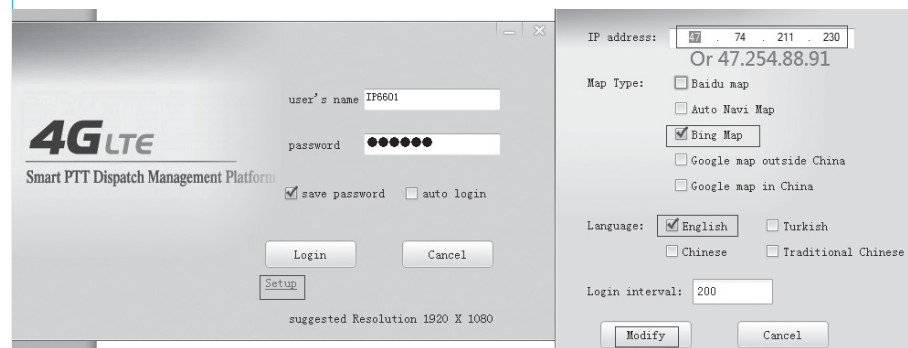


4.Set the IP address and Google Map, and login in.

Use the account and password to log in.

△: Caution : Once you log in the dispatch. Radio account must log out

Dispatch and radio Cannot be using same time



5.Menu in the Dispatch management platform

5.1Group list

Group list is in the left of the Dispatch platform, which can show the group available and the member, click the group can show all the member and statue. Right click, can start the Private call/ Get location/ Get track.



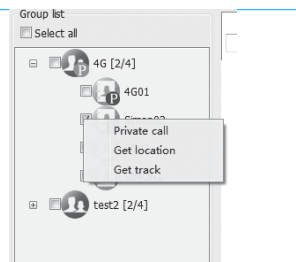
Note: The “P” means that the radio is in this group. When the radio is in the group same as dispatcher, it can receive a group call from dispatcher and transmit a group call to dispatcher.

Notice: the dispatcher will login the default group, if you want to login other group, you need modify the default group.

ID	Status	Username	Account	Password	GPS	Level	Default group	Created time	Valid time	Remark	Users Functions	Edit member list	Operations
57	On line	IP6601	IP6601	123456	30	1	Default group	2018-07-13	2019-07-13		Show	Edit	Modify

5.2 Temporary Group call

This is in the right side of the Menu, which can show the all users which the dispatcher choose, can start the temporary call.



5.3 Group call

To start the group call

In the group call, choose the desired group and click twice to enter the group.

Long press the  to start the group call

After you choose the private call, Press "PttDown" and you can transmit the radio, and release the "PttDown" to wait for replying.

The radio can press "PTT" to reply.

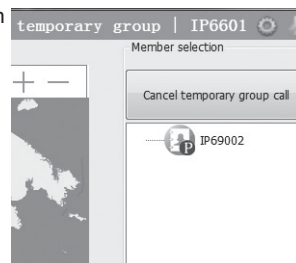
Notice: the continuous transmission maximum time is 50S, when you over 50S, it will exits transmit automatic.

To start the Temporary call

In the Group list, choose the desired member, right click the member, choose the Private call/

Click to cancel temporary group call

If it is no one start talking within 10s, The temporary will exit automatically/

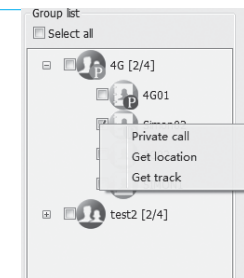


5.4 To start the private call

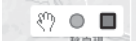
Private call, when the dispatcher choose this function, it can transmit anyone in private call.

Operation:

click one radio you want to speak to, then right click, you can find three options: Private call/Get location/Get track



5.5 Location in the MAP

Function	Instruction
	 Terminal Box selected, use the Rectangular Box or round box to choose the desired area
	Track replay
	Terminal Location
	Map Zoom-in
	Map Zoom-out

Note: The GPS function only works outside, in the common case, it will open within 1 minutes, the weather will affected.

If the GPS is succeed get the location, the GPS icon will be black, if not it will be red Icon/

5.6 Get track:

You can check the radio's activity trajectory within a period of time.

Operation:

1.click one radio you want to speak to, then right click, you can find three options: Private call/Get location/Get track

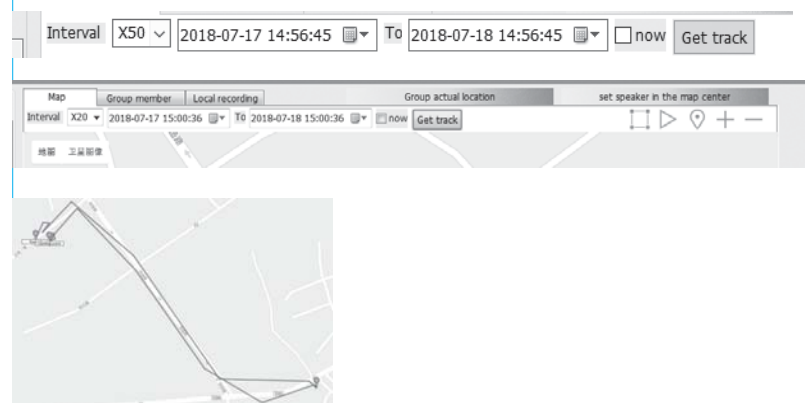
2.After you choose the get location, you can see the radio's trajectory on the map.

3.You can also click the to get track

4.Interval: 5/10/20/50S,

It means the radio will uploads the GPS information in the chosen time.

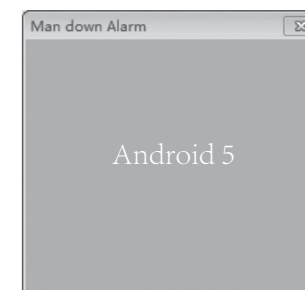
5.The activity trajectory records will be saved one month, and every time you can track the activity trajectory within 24 hours, for example, when the start time is 2018-7-18 14:56:45, the end time should be within 2018-07-19 14:56:44



Call type	Group call(Call in)	Caller	Shane02	Call time	2018-07-19 00:00:01	To	2018-07-19 23:59:59	Search	Replay	Export
☒	Number	Caller	Called one	Call type	Call time	Call duration	Voice recording file	(Red means that the file		
☒	1	02	Group2	Group call(Call in)	2018-07-19 09:48:41	1s	D:\PocData\Record\20180719\us7-20180719-094841-S			
☒	2	02	Group2	Group call(Call in)	2018-07-19 09:48:43	3s	D:\PocData\Record\20180719\us7-20180719-094843-S			
☒	3	02	Group2	Group call(Call in)	2018-07-19 09:48:46	3s	D:\PocData\Record\20180719\us7-20180719-094846-S			
☒	4	02	Group2	Group call(Call in)	2018-07-19 09:51:21	2s	D:\PocData\Record\20180719\us7-20180719-095121-S			
☒	5	02	Group2	Group call(Call in)	2018-07-19 09:51:28	4s	D:\PocData\Record\20180719\us7-20180719-095128-S			
☒	6	02	Group2	Group call(Call in)	2018-07-19 10:53:03	4s	D:\PocData\Record\20180719\us7-20180719-105303-S			
☒	7	02	Group2	Group call(Call in)	2018-07-19 10:53:09	3s	D:\PocData\Record\20180719\us7-20180719-105309-S			
☒	8	02	Group2	Group call(Call in)	2018-07-19 10:53:15	14s	D:\PocData\Record\20180719\us7-20180719-105315-S			
☒	9	02	Group2	Group call(Call in)	2018-07-19 11:15:17	4s	D:\PocData\Record\20180719\us7-20180719-111517-S			
☒	10	02	Group2	Group call(Call in)	2018-07-19 11:15:43	2s	D:\PocData\Record\20180719\us7-20180719-111543-S			
☒	11	02	Group2	Group call(Call in)	2018-07-19 11:15:53	2s	D:\PocData\Record\20180719\us7-20180719-111553-S			
☒	12	02	Group2	Group call(Call in)	2018-07-19 11:15:57	7s	D:\PocData\Record\20180719\us7-20180719-111557-S			
☒	13	02	Group2	Group call(Call in)	2018-07-19 11:17:20	2s	D:\PocData\Record\20180719\us7-20180719-111720-S			
☒	14	02	Group2	Group call(Call in)	2018-07-19 11:17:23	8s	D:\PocData\Record\20180719\us7-20180719-111723-S			
☒	15	02	Group2	Group call(Call in)	2018-07-19 11:18:21	17s	D:\PocData\Record\20180719\us7-20180719-111821-S			
☒	16	02	Group2	Group call(Call in)	2018-07-19 15:53:11	2s	D:\PocData\Record\20180719\us7-20180719-155311-S			

5.7 Mandown function:

IP-66 has mandown function, it actives and shows on the map when radio falls down 90 degrees after 10s.



System Specification		
CPU		MTK6739
Opratioh system		android 10
Earphone/Mic		3.5mm
Size		1.77inch
Display		128*160
SIM card		Dual SIM
BT		4.2
Flash		1+8G
WIFI		2.4/5GHz, IEEE 802.11b/g/n
Battery		4000mAh
Asian & European Frequency band		
LTE FDD frequency	B1	Tx frequency: 1920~1980MHz Rx frequency: 2110~2170MHz
	B3	Tx frequency: 1710~1785MHz Rx frequency: 1805~1880MHz
	B7	Tx frequency: 2500~2570MHz Rx frequency: 2620~2690MHz
	B8	Tx frequency: 880~915MHz Rx frequency: 925~960MHz
	B20	Tx frequency: 832~862MHz Rx frequency: 791~821MHz
	B28	Tx frequency : 703~748MHz Rx frequency :758~803MHz
LTE TDD frequency	B38	Tx frequency: 2570~2620MHz Rx frequency: 2570~2620MHz
	B39	Tx frequency: 880~1920 Rx frequency: 1880~1920MHz
	B40	Tx frequency: 2300~2400MHz Rx frequency: 2300~2400MHz
	B41	Tx frequency: 2555~2655MHz Rx frequency: 2555~2655MHz
WCDMA	B1	Tx frequency: 1920~1980MHz Rx frequency: 2110~2170MHz
	B8	Tx frequency: 880~915MHz Rx frequency: 925~960MHz
GSM	900/1800MHz	

US Frequency band		
LTE FDD frequency	B2	Tx frequency:1850~1910MHZ Rx frequency:1930~1990MHZ
	B4	Txfrequency:1710~1755MHZ Rx frequency:2110~2155MHZ
	B5	Txfrequency:824~849MHZ Rx frequency:869~894MHZ
	B7	Txfrequency:2500~2570MHZRx frequency:2620~2690MHZ
	B12	Tx frequency:699~716MHZ Rx frequency:729~746MHZ
	B17	Tx frequency:704~716MHZ Rx frequency:734~746MHZ
LTE TDD frequency	B28	Tx frequency:703~748MHZ Rx frequency:758~803MHZ
	B38	Tx frequency:2570~2620MHz Rx frequency:2570~2620MMHz
	B39	Tx frequency:1880~1920MHZ Rx frequency:1880~1920MHZ
	B40	Tx frequency:2300~2400MHz Rx frequency:2300~2400MHz
WCDMA	B41	Tx frequency:2555~2655MHz Rx frequency:2555~2655MHz
	B2	Tx frequency:1850~1910MHZ Rx frequency:1930~1990MHZ
	B4	Txfrequency:1710~1755MHZ Rx frequency:2110~2155MHZ
GSM	B5	Txfrequency:824~849MHZ Rx frequency:869~894MHZ
	850/1800/1900MHz	

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



FCC compliance statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference including received interference that may cause undesired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

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

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.

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 an 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.