

RECYCLED PACKAGING

4G LTE

# **IP-39PLUS/IP-39S**

## **4G LTE Radio**

## **USER'S MANUAL**

10.5x14.3cm

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

Dual Sim card

Dialing function

PTT One touch communication,  
strong signal and long continuation  
talking

Unlimited talking distance,  
cover a whole country

Private call/Group call/Member  
list/Parent Group call

Battery power voice prompt

Talk priority setting

Loud voice, High fidelity output

Software remote updated

List quick search

PTT Kibitz function

Talk Permit Tone

GPS function ( optional)

IP-39PLUS



IP-39S



## **Contents**

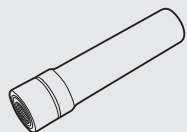
- 01** *Open the box and check the device*
- 03** *Preparation work*
- 05** *Installing and uninstalling of the accessories*
- 11** *Getting to know the radio*
- 14** *Introduction*
- 15** *Basic use*
- 16** *Menu Instruction*
- 19** *Setting*
- 20** *Simple troubleshooting*
- 21** *Software Instruction*
- 36** *Specification*

**Open the box and check the device**  
**Preparation work**

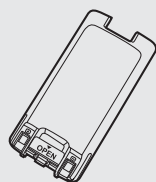
## Open the box and check the device

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.

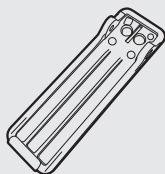
### IP-39PLUS



Antenna



Battery



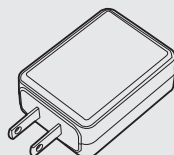
Belt clip and Screw



Charger



Verification

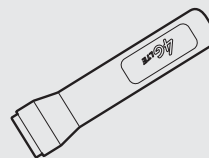


Adapter

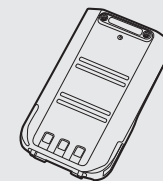


User Manual

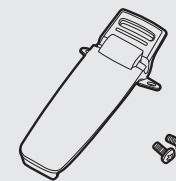
### IP-39S



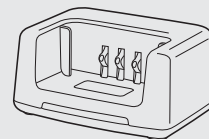
Antenna



Battery



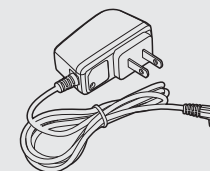
Belt clip and Screw



Charger



Verification



Adapter



User Manual

## 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 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.

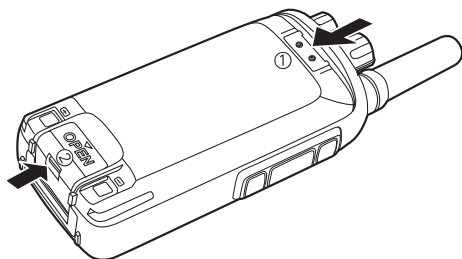
When storing the battery for long periods of time:

Remove battery from the radio.

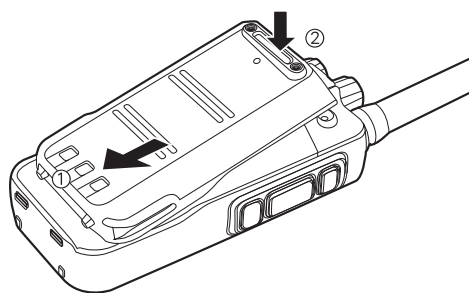
If possible, fully charge the battery before storage.

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

### IP-39PLUS



### IP-39S



## Attributes of Lithium battery

After repeated charging process, the battery capacity will decrease.

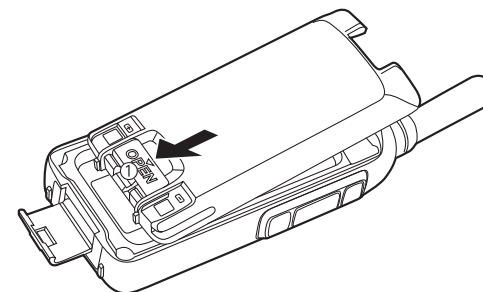
The battery degenerates gradually even without being used.

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

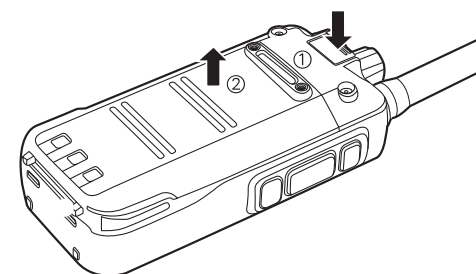
Charging and storage of the battery in relatively warm conditions will jeopardize its service life. Please do not store the radio inside a vehicle or near heating equipment.

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

### IP-39PLUS



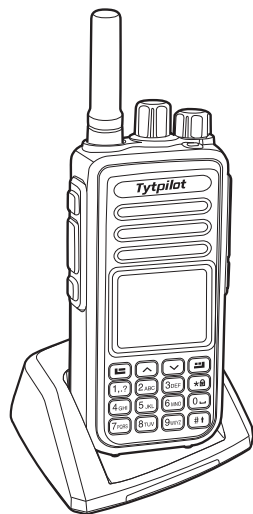
### IP-39S



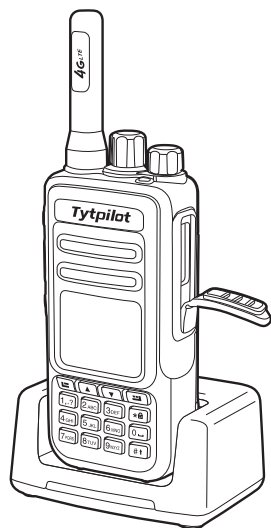
## Charging the Lithium battery

After the AC adaptor is connected and the battery is placed in the charger, the indicator will show red which means the battery is charging. The green light will indicate the battery is fully charged. The light will turn off if the temperature is too high or low, the battery is damaged, the charger is damaged or the connection is poor.

**IP-39PLUS**



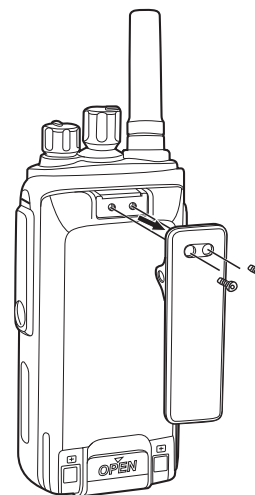
**IP-39S**



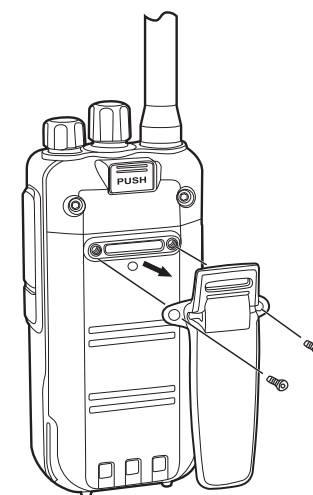
## Installing belt clipt

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

**IP-39PLUS**



**IP-39S**



## Installing SIM card

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

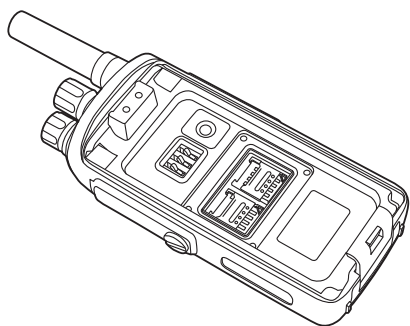
Revolve the volume button counter clockwise to switch OFF the radio.

Remove the battery by pulling down the latch, then pushing the battery backwards along the guides.

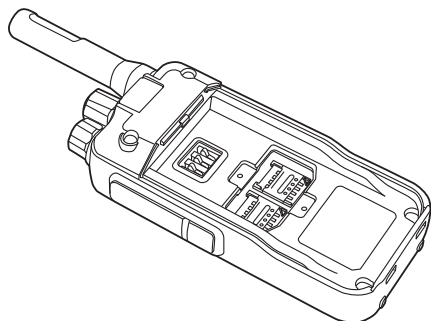
Lift SIM socket cover, place SIM card in the socket in the correct position.

Replace the battery.

**IP-39PLUS**



**IP-39S**

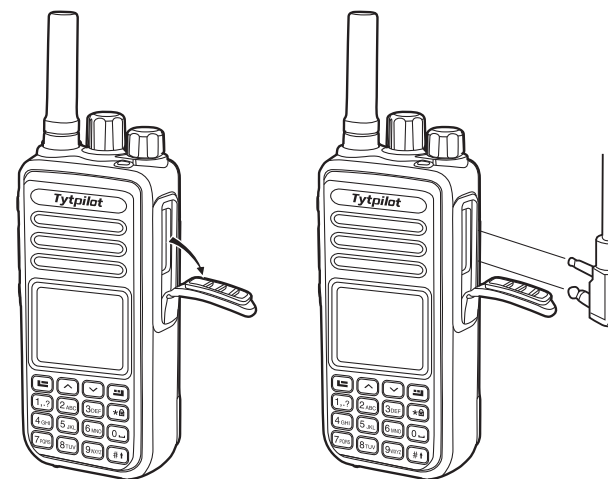


## Installing headset

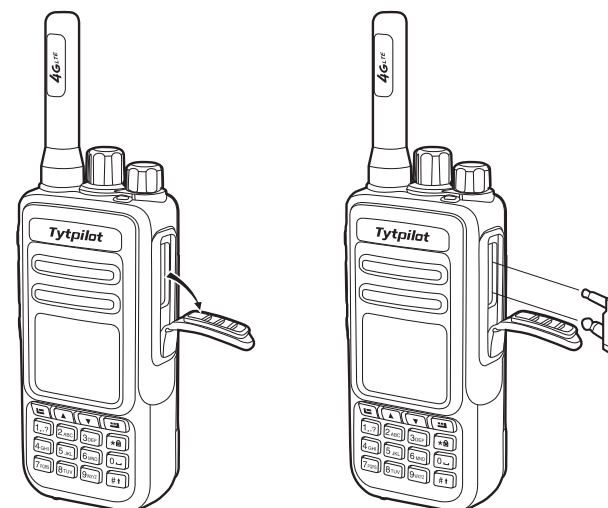
Open the cover on the side of the radio to show the headset sockets.

Your headset will work immediately after being plugged in.

**IP-39PLUS**

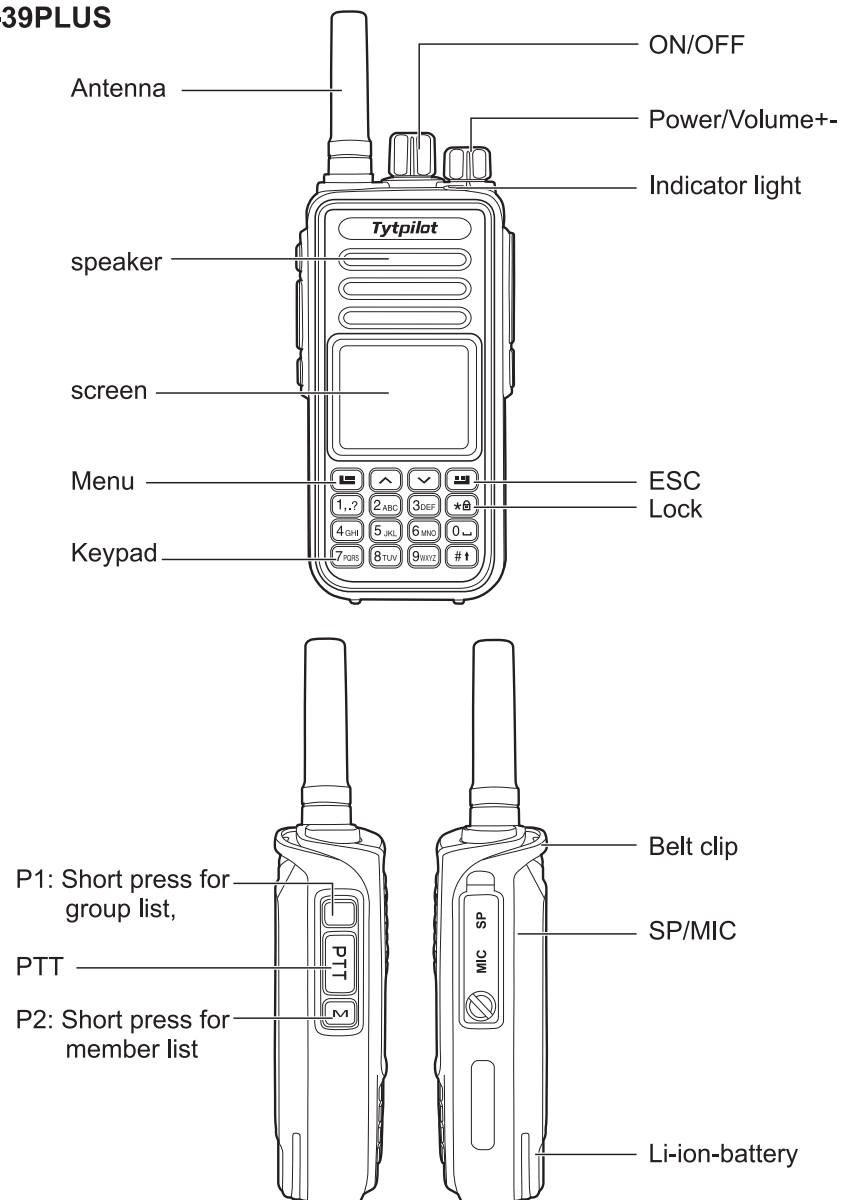


**IP-39S**

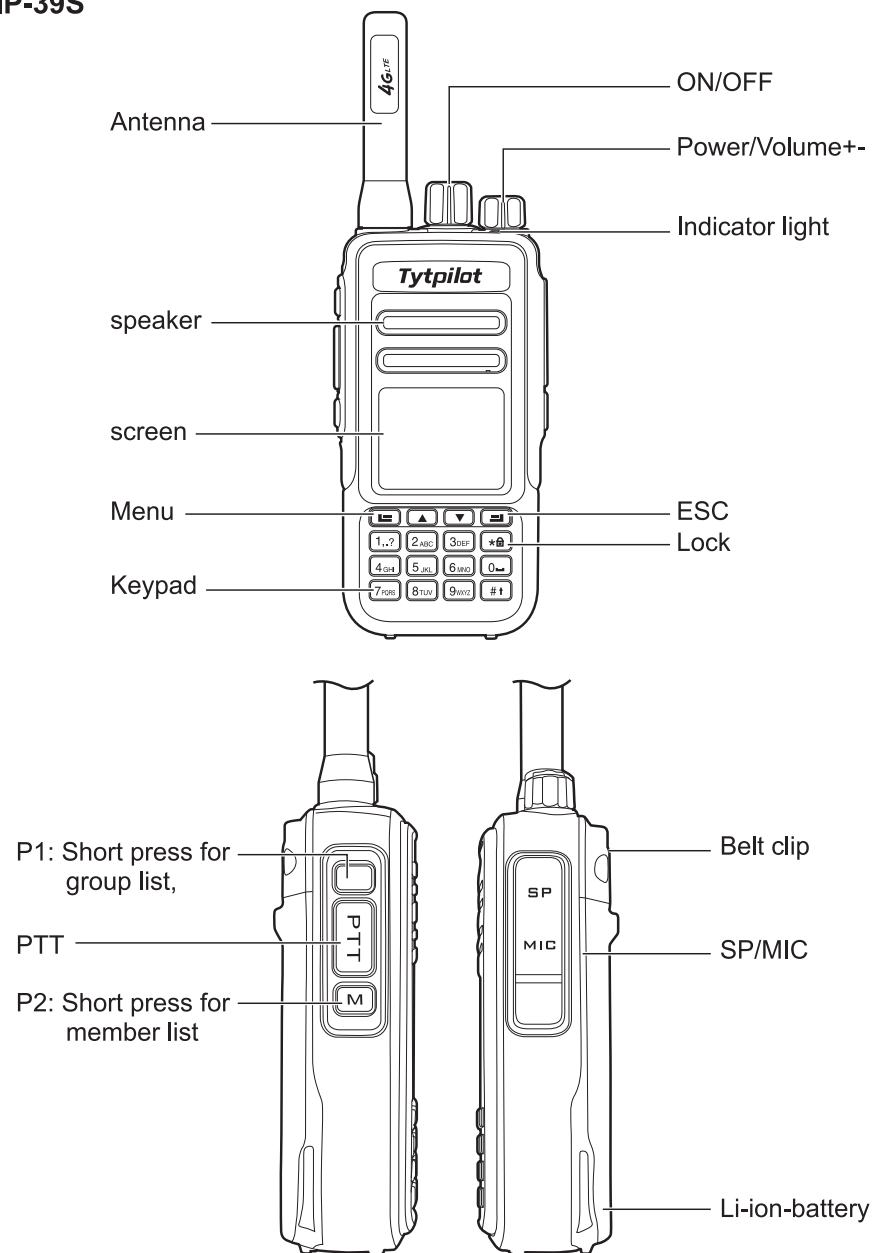


## Getting to know the radio

### IP-39PLUS



### IP-39S



# Introduction

## Basic use

## Menu Instruction

### Introduction

#### Volume selector/ON/OFF switch

Press the ON/OFF for switch ON

#### Push To Talk (PTT) button

When the device is standing by (Blue light will flashing slowly), press PTT button to initiate a call (red light will go on)

During the call, the blue light will go on to show successful reception. If not in reception, hold PTT to apply for turn to talk (red light will go on) Release the PTT to end call and go back to standing by.

In channel selection, press PTT button to confirm the channel.

#### Group/member selector

Press P1/P2 to choose the member. Press PTT button to confirm the current channel with voice prompt.

#### Indicator light status

The blue light goes on after the device is switched on. The blue light flashes fast to indicate network searching. In standby mode, the blue light flashes every five seconds. The blue light remains on for reception, and the red light remains on for transmission.

## Basic use

**Switch ON/OFF:** press the ON/OFF to turn ON/OFF the radio, there will then be a voice prompt. After the radio is successfully switched on, the green light goes on first then flashes to indicate network searching. After the network is connected, there will be a voice prompt.

**Note:** Do not do any operation between ON and OFF, it may affect the switch function.

**Volume adjustment:** press the side- key on the right for volume UP and volume DOWN.

**Headset:** Plug in headset, press the PTT button on headset (if there is one) to initiate a call, release the button to end the call.

### Group/Member selection

Press P1/P2 to channel 1 when turning the radio on (default channel is 1). Press UP/DOWN further to select other channels. If the channel is not available, there will be a voice prompt.

## Menu Instruction

When insert SIM and set the correct setting on the Platform: turn on the radio, it will login in the platform automatically, with the voice: welcome to use PTT system, if the account is added in the platform successfully, the radio will have the Voice with the Group and User's name.

**Note:** if turn off the Tone set (function, the radio will not have voice.

### Select the Group call

There are 4 methods to start the group call:

1. Press the menu to enter the group call menu
2. short press the P1 to enter the group call menu
3. Using the pre-programmed key to enter the group call menu
4. Using the knob to enter the group call menu

### Select the single call

1. Using the Menu key to enter the menu and enter the member list, confirm to choose the desired member, if there is member online. Press the PTT key to start the single call, press back key to exit.
2. Short press the P1 key to start single call.
3. Using the pre-programmed key to start single call.

### Add friend



1. **Add friend:** enter to the friend list, using the knob, or up/down key to desired friend , press to confirm to add friend

2. **There is two methods to select the friend:** one is short press P2, another is to using pre-programmed key to enter. Press PTT to start single call and back to exit.

## Phone function

1. **Contacts:** enter menu and press up/down key to desired contacts
2. **New contacts:** press # to switch the input method, press \* to delete, please note the name and phone number all should have.
3. **Dial:** using the keypad to input the number, press dial key to make a call, using \* to delete the number.
4. **Call records:** using up/down key to check the record and recall, delete.

## GPS

**Checking GPS information:** enter the menu, press the   key to GPS menu, confirm to check the latitude, longitude and satellite.

**Note:** GPS only working outside, if it is succeed open, the GPS icon will be white.

# Setting Simple troubleshooting Software Instruction

## Setting

**Scene Set:** Outdoor, indoor

**Tone Set:** turn off, small, loud

When press PTT or release PTT, it will not have PTT sound

**Small, Loud:** when press PTT or release PTT, it will have PTT sound

Backlight 15s, 20s, 30s, always on

**Net mode:** auto mode, 4G mode, 3G mode, 2G mode, 2G/3G mode

**Auto:** Suggested to choose this one.

4G mode

3G mode: if the 4G signal is not stable, please change to 3G.

## SIM card setting

The radio is dual SIM card

Press the P1, can switch the SIM 1/2.

If now is using the SIM card 1, press P1 to open the radio, it will be switch to SIM card 2.

## Simple troubleshooting

If your radio shows any 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.

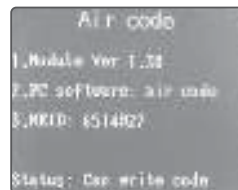
## Software Instruction

### IP address:

Singapore: 47.74.211.230

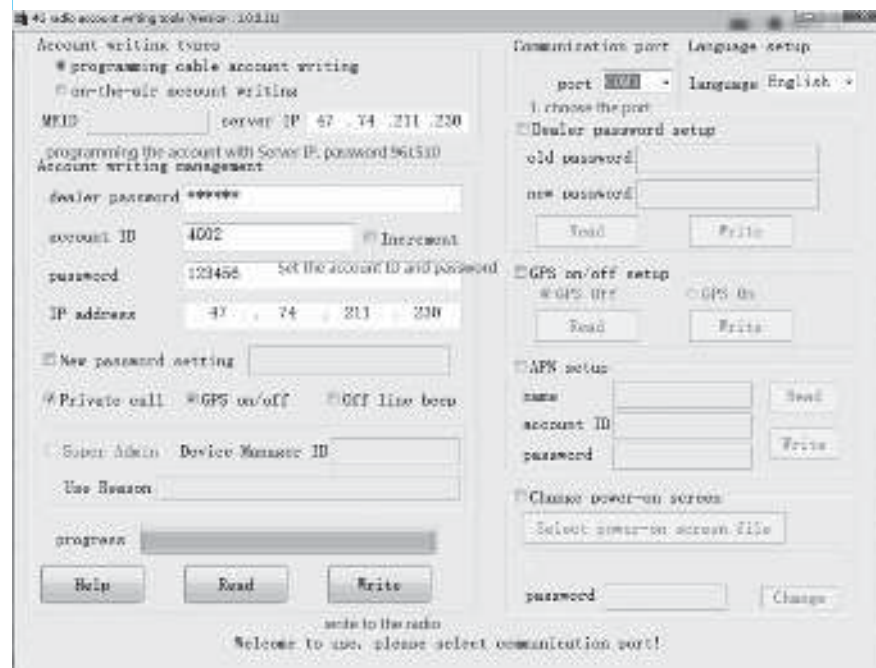
#### 1. Create account in programming software

(1) Press the PTT key then turn on the radio, you will find the screen:



(2) That is for the Air account writing

(3) Choose the port:



(4) After finished set up, press write. Then you can see the radio name in the radio's screen.

## Platform Instruction

### 4G LTE smart PTT management platform

**Click:** Platform website. Using the account and password to enter in, you will find the interface as below:

**I: For second level admin, which can not add the device, can only creat the third admin or deal with the order issue**



**II: for third level admin**

11	Offline	427m	20180905	0114	30	0	1108	2018-07-17	2018-07-17		Shen	0.0	0.00
12	Offline	846.3	125m	0114	30	0	1108	2018-07-17	2018-07-17		Shen	0.0	0.00
13	Online	846.2	20180905	111008	30	0	1108	2018-07-13	2018-07-13		Shen	0.0	0.00
14	Offline	846.2	125m	0114	30	0	1108	2018-07-13	2018-07-13		Shen	0.0	0.00
15	Offline	40m	880m	0114	30	0	1108	2018-07-13	2018-07-13		Shen	0.0	0.00
16	Offline	40m	880m	0114	30	0	1108	2018-07-13	2018-07-13		Shen	0.0	0.00

1. Add the admin, and set the Terminal Number



Click “Order management”, then click “Add order”.



## 1.4 Main group and Sub-group



### 1.4.1 Nested groups definitions

Every group can be merged into a new group; it can also be merged into a new group separately; or be combined with other subgroups. However, new groups that are combined by sub-groups cannot be merged.

The new group that merged by subgroups has all members of the subgroup.

### Return the surplus account

When the quantity for account has exceed the radios, you can return the accounts to the upper level administrator



## 1.5 Renew the account

When your account want to expand the valid time, you need renew the validity period by this order.



After that, click “Save”, and you will find this order in the “Order list”  
When the order type is “Return the surplus account, the previous administrator will approve this order automatic, so that the “order states” will shows “Admin approved”, this order is deal with.

When the order type is “Add account or renew the account”, you need wait the previous administrator to approve your order.

Order No.	Order type	Previous state	Operational objects	Order status	Order time	Operations
8	Add account	Done	DeviceID	Waiting previous admin to approve	2018-07-10	Order cancel
9	Renew the expired account	Done	DeviceID	Admin approved	2018-07-10	Order cancel

## 1.6 File data

You can change the password in this interface

Edit Password

Old Password

\*\*\*\*\*

New Password

Confirm New Password

Save

Back to list

Notice: when you want to delete the device in the device list, you need, you need to ask the first-level administrator to delete.

## Smart PTT dispatch Management Platform

Note: If the Dispatch management platform has registered, The radio will off-line, The same to the radio on and dispatch management off. we suggested that the Dispatch management account is different with PTT platform

### 1. In the software, turn on the GPS function

Account writing types

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

MEID

server IP 114.141.132.4

Account writing management

donor password

\*\*\*\*\*

account ID

TIFA

password

123456

IP address

47.254.98.91

☐ New password setting

☒ Private call

☒ GPS on/off

☐ Off line beep

program

Help

Read

Write

Communication port

port COM3

Language setup

Language English

☐ Dealer password setup

old password

new password

Read

Write

☐ GPS on/off setup

☒ GPS Off

☐ GPS On

Read

Write

☐ APIX setup

name CTNET

Read

account ID card

Write

password card

☐ Change power-on screen

Select power on screen file

password

Change

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



1.3 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



1.4 Set the IP address and GOOGLE/Baidu Map, and login in.



## 2. Menu in the Dispatch management platform

### 2.1 Group 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	Phone	GPS	Level	Default group	Created time	Valid time	Remark	User function	Can operation	Operation
52	Online	1000000000	1000000000	1000000000	0	1	Group1	2010-01-13	2010-01-13		Group	Full	Modify

### 2.2 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.



### 2.3 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.

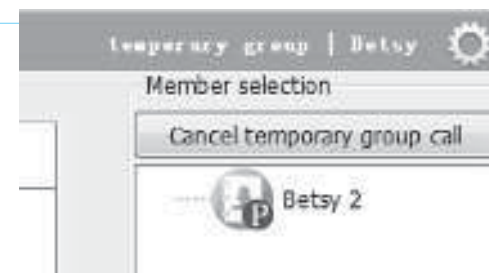
Notice: the continuous transmission maximum time is 50S, when you over 50S, it will exits transmit automatic.

### 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

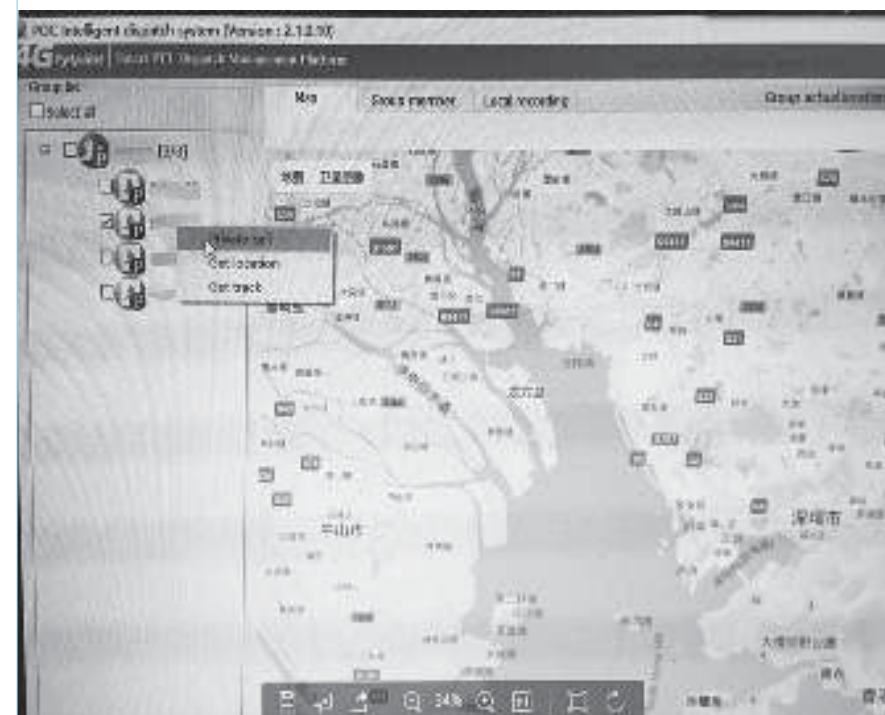


### 2.4 To start the private call







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



## 2.5 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 work 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

## 2.6 Get track:

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

### Operation:

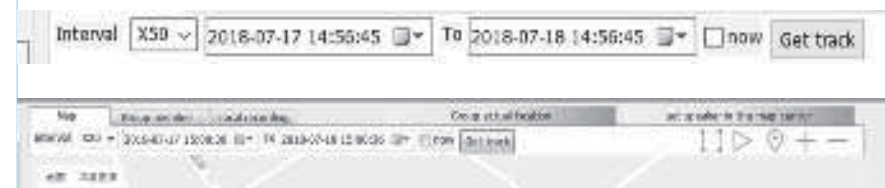
1. Click one radio you want to speak to, then right click, you can find three options: Private call/Get location/Get track.
2. After you choose the get location, you can see the radio's trajectory on the map.

You can also click the  to get track.

## 3. Interval: 5/10/20/50S

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

4. 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 2018-07-18 14: 56: 46 to 2018-07-19 14: 56: 44



[illegible]

## Specification

	Working voltage	3.7V	
	Operation system	Linux system	
	Language	Chinese/English	
CDMA frequency		EVDO Rev.A800M	
GSM frequency		900/1800MHz	
	Antenna	all networks external antenna、GPS antenna built-in	
	Screen	1.77 SPI color screen， resolution： 128*160	
	CPU	Yiyuan EC20	
	Battery capacity	≧4000mA	
	Rx sensibility	-106dbm	
	Max. Tx power	23dBm~25dBm@All up bits	
	Working temperature	-20----+75° C	
	Storage temperature	-40----+85° C	
	Audio output power	2W@10% distortion	
Performance parameter	Receiver Type	56-channel u-blox 7 engine GPS/QZSS L1 C/A, GLONASS L1 FDMA SBAS:WAAS,EGNOS,MSAS	
	Maximum	up to 10Hz	
Update rate	Accuracy	GPS	GLONASS
	Positioning	2.5m CEP	4.0m
	SBAS	2.5m-CEP	N.A.
Capture	Cold start	20S	30S
	Weight	5S	N.A.
	Accuracy	1S	1S
Sensitivity	Track	-161dBm	-158dBm
	Cold start	-148dBm	-140dBm
	Warm start	-148dBm	-145dBm
	Assisted GPS	AssistNow Online	AssistNow Offline
		AssistNow Autonomous	OMA SUPL & 3GPP
	Oscillator	built-in(MAX-7Q/7W),the ordinary crystal(MAX-7C)	
	RTC crystal	built-in(MAX-7Q/7W) Or more cost-effective solution	
		Current solution	
	An-ti interference	Active CW detection and removal	
Storage	ROM		
Support	active antenna and passive antenna		
Voltage Level	Power consumption	16.5mA@3V(Continuous Mode)	
		4.5mA@3V(Saving Mode,1Hz)	
	Power Supply	1.4V-3.6V	

Asian version		
TE FDD B1	TX: 1920~1980MHz	RX: 2110~2170MHz
TE FDD B3	TX: 1710~1785MHz	RX: 1805~1880MHz
TE FDD B5	TX: 824~849MHz	RX: 869~894MHz
TE FDD B8	TX: 880~915MHz	RX: 925~960MHz
TE TDD B38	TX: 2570~2620MHz	RX: 2570~2620MHz
TE TDD B39	TX: 1880~1920MHz	RX: 1880~1920MHz
TE TDD B40	TX: 2300~2400MHz	RX: 2300~2400MHz
TE TDD B41	TX: 2555~2655MHz	RX: 2555~2655MHz
WCDMA B1	TX: 1920~1980MHz	RX: 2110~2170MHz
WCDMA B8	TX: 880~915MHz	RX: 925~960MHz
TDSCDMA B34	TX: 2010~2025MHz	RX: 2010~2025MHz
TDSCDMA B39	TX: 1880~1920MHz	RX: 1880~1920MHz
GSM	900MHz	1800MHz
European version		
LTE FDD B1	TX: 1920~1980MHz	RX: 2110~2170MHz
LTE FDD B3	TX: 1710~1785MHz	RX: 1805~1880MHz
LTE FDD B5	TX: 2500~2570MHz	RX: 2620~2690MHz
LTE FDD B8	TX: 880~915MHz	RX: 925~960MHz
LTE TDD B28	TX: 832~862MHz	RX: 791~821MHz
LTE TDD B38	TX: 703~748MHz	RX: 758~803MHz
LTE TDD B39	TX: 2570~2620MHz	RX: 2570~2620MHz
LTE TDD B40	TX: 2300~2400MHz	RX: 2300~2400MHz
LTE TDD B41	TX: 2555~2655MHz	RX: 2555~2655MHz
WCDMA B1	TX: 1920~1980MHz	RX: 2110~2170MHz
WCDMA B8	TX: 880~915MHz	RX: 925~960MHz
GSM	900MHz	1800MHz
American version		
LTE FDD B2	TX: 1850~1910MHz	RX: 1930~1990MHz
LTE FDD B4	TX: 1710~1755MHz	RX: 2110~2155MHz
LTE FDD B5	TX: 824~849MHz	RX: 869~894MHz
LTE FDD B12	TX: 699~7160MHz	RX: 729~746MHz
LTE TDD B13	TX: 777~787MHz	RX: 746~756MHz
LTE TDD B14	TX: 788~798MHz	RX: 758~768MHz
LTE TDD B66	TX: 1710~1780MHz	RX: 2100~2200MHz
LTE TDD B71	TX: 663~698MHz	RX: 617~652MHz
WCDMA 82	TX: 1850~1910MHz	RX: 1930~1990MHz
WCDMA B4	TX: 1710~1755MHz	RX: 2110~2155MHz
WCDMA B85	TX: 824~849MHz	RX: 869~894MHz

## WARNINGS AND STATEMENTS

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 conditions that this device does not cause harmful interference.

**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.

SAR tests are conducted using standard operating positions accepted by the FCC with the walkie talkie 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 walkie talkie 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 when used with an accessory designated for this product or when used with an accessory that Contains no metal.

To maintain compliance with the FCC RF exposure guideline, hold the transmitter and antenna at least 2.5 centimeters from your face and speak in a normal voice, with the antenna pointed up and away from the face.

This equipment comply with FCC radiation exposure limits set forth for an uncontrolled environment .

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