

# VHF/PTT LT-80



**Dual Mode IP/Analog Radio  
VHF / PTT (POC)  
Communication**

**LT-80**

Items in the Package

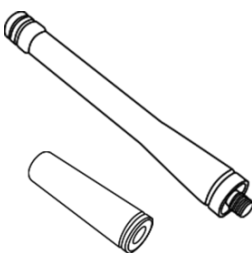
TH680  
VHF/PTT DEVICE

Checking Equipment

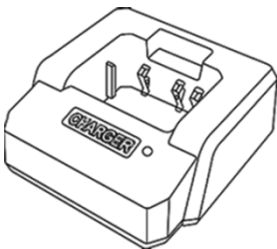
Carefully unpack the radio.

We recommend that you identify the items listed in the following table before discarding the packing material.

If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.



POC & Analog  
Antennas



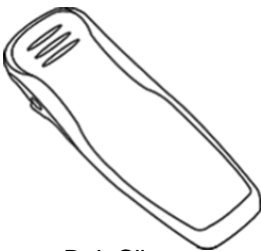
Charger Cradle



Adapter



Battery



Belt Clip

ITEM	QUANTITY
Network Radio	1
Antenna	2
Adapter	1
Charger	1
Battery	1
Belt Clip	1
Hand scrap	1



## TWO WAYS RADIO

### General

Operation Voltage	7.4V	
Weight (With Antennas + Battery)	280g	
Dimension (HxWxD) W/out Antennas	116x55x39mm	
Audio Power	$\geq 900$ mW	
Operating Temperature	-20°C - +55°C	
Frequency range	350-480 MHz	
Step Frequency	5KHZ, 6.25KHZ, 12.5KHZ, 25KHZ, 50KHZ, 100KHZ, 250KHZ, 1MHz	
Channel Capacity	200	
Standard Battery	2600mAh	
Antenna Impedance	50Ω	

Transmitter	Broadband	Narrow Band
Modulation type	16K F3E	11K F3E
Pro-Channel Power	$\geq 65$ dB	$\geq 60$ dB
Spurious & Harmonics	$\leq -36$ dBm	$\leq -36$ dBm
Audio Response	-1 – 3bd	
Maximum Frequency Offset	+/- 5KHz	+/- 2.5KHz
Frequency Stability	+/- 2ppm	
Audio Distortion	$\leq 5\%$	
RF Power Output	$\geq 9$ W	

Receiver	Broadband	Narrow Band
Adjacent Channel Selectivity	$\leq 65$ dB	$\leq 60$ dB
Intermodulation	$\leq 65$ dB	$\leq 60$ dB
Spurious Response Rejection	$\leq 65$ dB	$\leq 65$ dB
Audio Response	-1 – 3bd	
S/N	$\leq -45$ dB	$\leq -40$ dB
Audio Distortion	$\leq 5\%$	
Sensitivity	0.25μV (12dB/SINAD)	
Work time	12 hours	
Standby time	48 hours	

## NETWORK DIGITAL / POC RADIO

### General

Operating Bands	LTE-FDD Band B1/B3/B5/B7/B8/B20/B28 LTE-TDD Band B38/B40/B41	
Sim Cards	2 x Nano Sim	



*Communicate between two or more devices at just the push of a button*



## **PREPARATION**

### **1. Using the Battery Pack**

The battery pack is not charged at the factory, please charge it before use.

To extend the battery pack lifetime, please power off the transceiver and remove the battery pack when not in use and do not leave the battery in hot or cold place.

### **2. Battery Pack Characteristics**

The battery will slowly wear out even not in use. After charging and recharging, it's normal that the talk and standby times are noticeably shorter than normal times.

If leaving the battery in very hot place or conditions, it will reduce the capacity and lifetime of the battery.

Overcharging may also shorten its lifetime.

### **3. Charging the Battery Pack**

Please charge your battery only with our approved charger. Initially charging the battery pack after purchase or extended storage (greater than 2 months) will not bring the battery pack to its normal operating capacity.

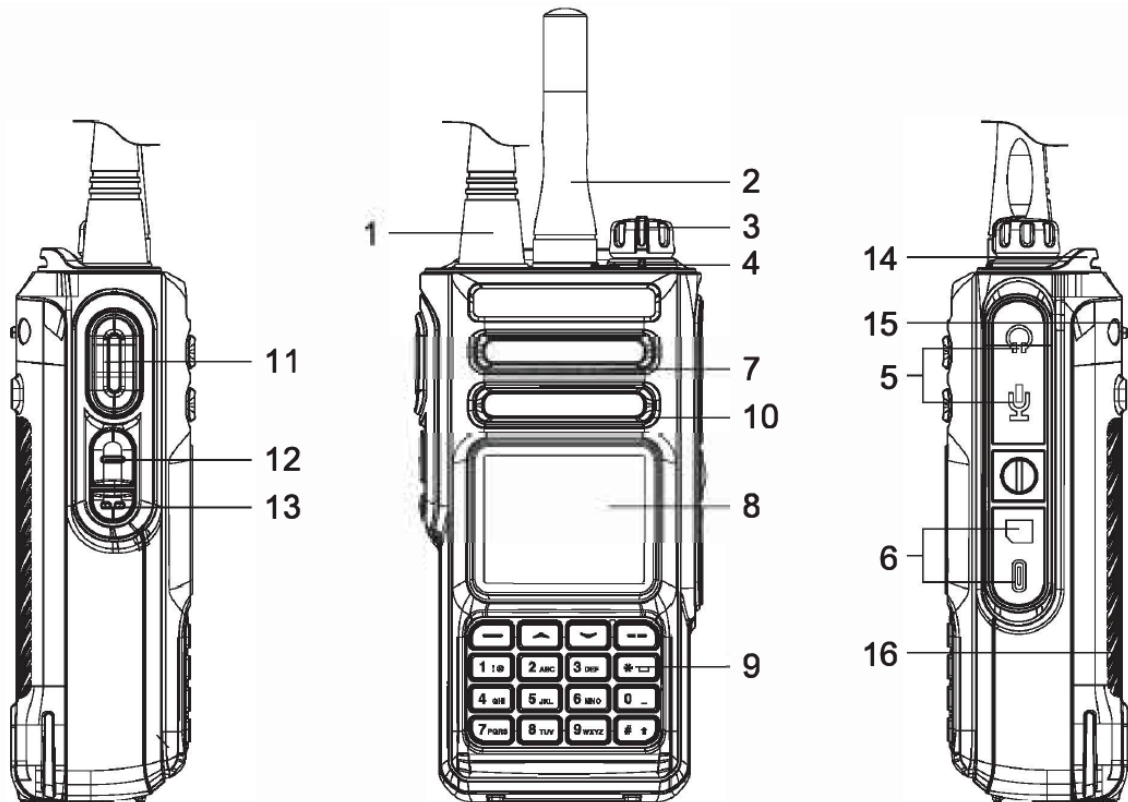
After repeating the charge/discharge cycle two or three times, the operating capacity will increase to normal level.

#### **Please charge the battery pack as follows:**

1. Insert the AC adapter into 220V power socket.
2. Slide the battery pack or transceiver with a battery pack into the desktop charger.
3. Make sure the battery pack contacts are in contact with the charging terminals.
4. The charging LED lights red and charging begins.
5. After charging about 6 hours, when the light turns to green, it means the battery pack is fully charged.
6. Then you can take off the battery pack or transceiver with the battery pack and use it.

- **Make sure the radio is powered off before charging and do not use the radio during charging.**
- **Read the safety Information booklet in advance to get necessary safety information.**

## GETTING ACQUAINTED

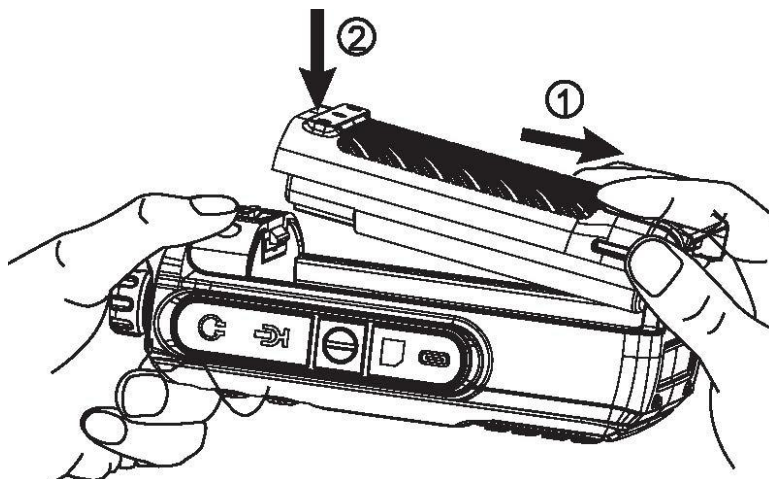


1. **Analog Antenna:** Rubber antenna using for receiving or transmitting a signal.
2. **4G L TE Antenna:** Rubber antenna using for receiving or transmitting a signal.
3. **Power/Volume Switch:** Rotate clockwise to switch power on or to increase the audio output; Rotate counter-clockwise to switch power off or to reduce the audio output level.
4. **TX/RX Indicator:** **Lights Green** while receiving a signal or when the squelch is open; **Lights Red** while transmitting.
5. **Earphone/Data Cable Jack/SIM Card Slot 1:** Connects an earphone or connects a data cable for PC software programming. Slot to insert the SIM Card 1.
6. **Type-C/SIM Card Slot 2:** For software upgrades. Slot to insert the SIM Card 2.
7. **Speaker:** Output the audio.
8. **LCD Display:** On the display you will see various indicators which show what function you have selected.
9. **Keypad:** You can input desired number, edit messages or enter to the menu.
10. **Internal Microphone:** Input the audio signal while you talk.
11. **PTT Switch 1 (POC):** Push and hold to transmit; Release to receive.
12. **PTT Switch 2 (Analog):** Push and hold to transmit; Release to receive.
13. **Side Key:** In POC mode, broadcast current group;  
In analog mode, open the squelch.
14. **Hand Strap Hook:** The loop on the top of transceiver, it is facilitated to carrying the transceiver.
15. **Battery Lock Button:** Use to lock/unlock the battery pack.
16. **Battery Pack:** Supply the power to the transceiver.

**Assembling the Battery Pack** To install the battery pack.

Fit the extensions at the bottom of the battery into the slots at the bottom of the transceiver's body.

Press the top part of the battery towards the transceiver until a "click" sound is heard.



### **Assembling the Belt Clip**

1. Screw the belt clip at the back of the radio to assemble.
2. Screw counter clockwise the screws to remove.

### **Assembling the Accessories**

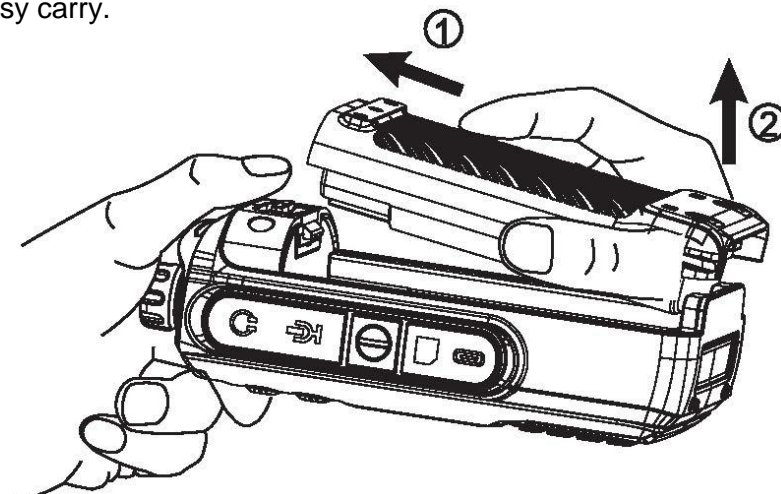
- 1 . Open the cap of accessory jack.
2. Insert the accessories (such as: earphone/programming cable) plug into the jacks.

To remove the battery pack, lift up the battery latches in the middle of the transceiver.

Pull the top part of the battery away from the transceiver's body, and lift the battery from the transceiver's body.

### **Installing Hand Strap**

If necessary, you can install the hand strap in the back of radio in order to easy carry.





# MENU

Main Menu	Function	Description
Group		Can select Enter Group, Monitor
Member	GRP MBR FDP MBR	Select group MBR or Other entity MBR to mark cell-cal
Channel Settings	Bandwidth	Can Select Wide/Narrow
	Output Power	Can Select High/Low Power
	RX SQT	Can Select On/Off/CTCSS/NDCS/IDCS
	RX SQT	Can Select On/Off/CTCSS/NDCS/IDCS
	Offset Setting	
	Offset Direction	Can select Plus & Minus Offset Direction
	Offset Frequency	00.00000 – 99.99999
	Chanel Name	User defined manually
	Jumping Frequency	Can select On/Off
	Study Code	Can select On/Off
Analog Settings	TOT	Can select Off/10"/30"/60"/120"
	Power Save	Can select Off or Level 1,2,3 or 4
	BCLO	Can select On/Off
	Step Frequency	5KHZ, 6.25KHZ, 12.5KHZ, 25KHZ, 50KHZ, 100KHZ, 250KHZ, 1MHz
	Auto Frequency Detect	---
	Chanel Clone RX	---
	Chanel Clone TX	---
POC Settings	Profile	Can Select Outdoor/Standard/Indoor/Earphone
	Mic Mode	Can Select Low/Middle/High
	Power Save Configuration	Can Select Power Save Level / Sleep Switch / Super Power Save
	Auto SIM Switch	Can select On/Off
	Beep	Can select On/Off
	Time zone	Can Select You Local GMT Time Zone
	Sound Quality	Can Select Standard / High Definition
Dispatcher	Message List	---
	Delete All	---
Phone Book	Phone Book List	User defined manually
	New	Can select Name/Number/Save
	Delete All	---
Call Log		---

# MENU

Main Menu	Function	Description
Settings	Work mode	Can Select POC/Analog/Mix/ Repeater
	Backlight	Can Select Continue/5/10/15/20/25/30 seconds
	Call Backlight	Can select On/Off
	Beep	Can select On/Off
	Programmable Key	
	SK1 Short	Can Select Null / Battery Level / Group / Members / Others entities / SOS / Mute / Quick Call / Backlight / Group / FM / Monitor / SIM Change / Auto Frequency Detect
	SK1 Long	Can Select Null / Battery Level / Group / Members / Others entities / SOS / Mute / Quick Call / Backlight / Group / FM / Monitor / SIM Change / Auto Frequency Detect
	RX Priority	Can Select POC Priority / Analog Priority / Both
	Repeat Volume	
	POC Volume	Can Select Volume 1, 2, 3, 4, 5, 6, 7, 8, 9
	Analog Volume	Can Select Volume 1, 2, 3, 4, 5, 6, 7, 8, 9
	Repeat Sound	Can Select On/Off
GPS / LOCATION	Position Info	---
Radio Info	Account Info	Check Current Account
	Software Version	Check Current Software Version
	Module Version	Check Device Module Model Number
	IMEI	Check IMEI Number
	ICCID	Check ICCID Number
	POC Version	Check the POC Version
	Analog Version	Check the Analog Version

- 4G LTE with ANALOG RADIO and MOBILE Phone
- IP65 Rating
- Dual Sim/Phonebook
- GPS and Repeater Function
- 200 Memory Channels
- Single Call / Group Call / Quick Call
- CTCSS/DCS
- TOT/BCLO/High & Low Power
- Auto Frequency Detect



