



**CIGNUS Radio**

# **UVR-10pro**

**CIGNUS UVR-10pro Two way Radio**



**USER MANUAL**

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## **Main Functions**

- Wide / Mid / narrow bandwidth selectable
- 200 channels
- Dual band, dual wait, dual standby,
- Busy channel lock
- Scan: frequency and CTCSS scan
- TOT
- Remote stun/ kill/ activate
- Man down
- PTT ID
- VOX
- Battery saving
- Scrambler
- DTMF
- COMP
- 1750Hz tone
- 2Tone/5 Tone
- CTCSS/DCS

General

16 channels  
AVC  
100-150C  
High gain antenna  
FM

Channel Capacity  
Operating Voltage  
Operating Temperature  
Frequency  
Antenna Impedance

# TECHNICAL PARAMETERS

## GUARANTEE

Transmitter

100-150C  
27.5W  
100-150C  
FM  
100-150C

Modulation Type  
Spurious Radiation  
Modulated noise  
Modulation distortion  
Frequency stability

Professional FM Transceiver

## **USING TIPS**

# **UNPACKING AND CHECKING EQUIPMENT**

**Professional FM Transceiver**

## User's Manual

# CHARGING BATTERY PACK INSTALLATION OF ACCESSORIES

Professional FM Transceiver

Welcome to use two-way radio

Professional FM Transceiver

# TO CUSTOMERS

Thank you very much for using our two way radio.

This radio of modern design is reasonable structure with stable functions. It is designed to meet different customers' need for high quality with easy operation and perfect capability. We believe you are pleased with its nice shape and excellent performance.

## USING TIPS

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Please read the following brief instructions, non-compliance with these rules may cause danger or violate the law.

- Obey the local government regulation before using this radio, improper use may violate the law and be punished.
- Turn off the radio before entering flammable or explosive areas.
- Do not charge or change the battery in flammable or explosive areas.
- Turn off the radio before getting close to the blasting zone or detonator areas.
- Do not use radio whose antenna is damaged, touching of damaged antenna will cause heat injury.
- Do not attempt to open the radio; the maintenance work should be done by technical-expert only.
- To avoid troubles caused by electromagnetic interference or electromagnetic compatibility, please turn off the radio in places where have the banner "Do not use wireless equipment", such as hospital and other healthcare places.
- In the car with an airbag, do not put the radio within the scope of the airbag deployment.
- Do not store the radio under the direct sunshine or in hot areas.
- When you transmit with the radio, do keep away from its antenna for 5cm at least.
- If the radio appears smelly or smoke, please shut off its power immediately and contact with your local dealer.
- Do not transmit too long, for the radio may heat and hurt the user.



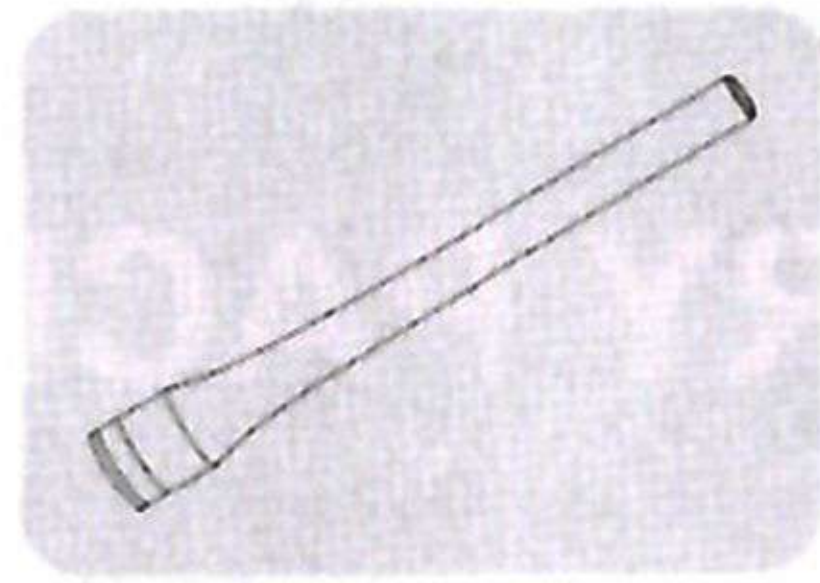
## UNPACKING AND CHECKING EQUIPMENT

Please check if any damage to the package when you receive it. Carefully unpack the transceiver. We recommend that you check the items listed in the following table. If any items are missing or damaged during shipment, please contact with your local dealer immediately.

### Supplied Items:



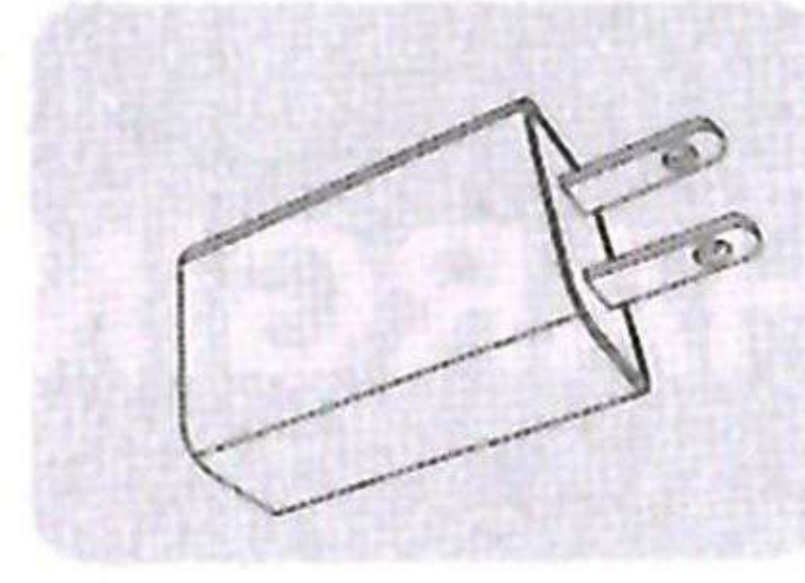
Body



Antenna



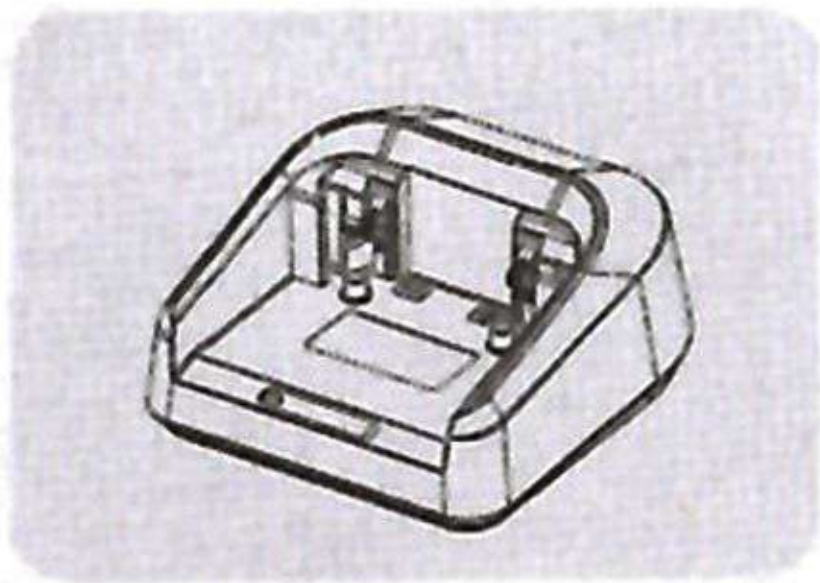
Li-ion battery(2800mAh)



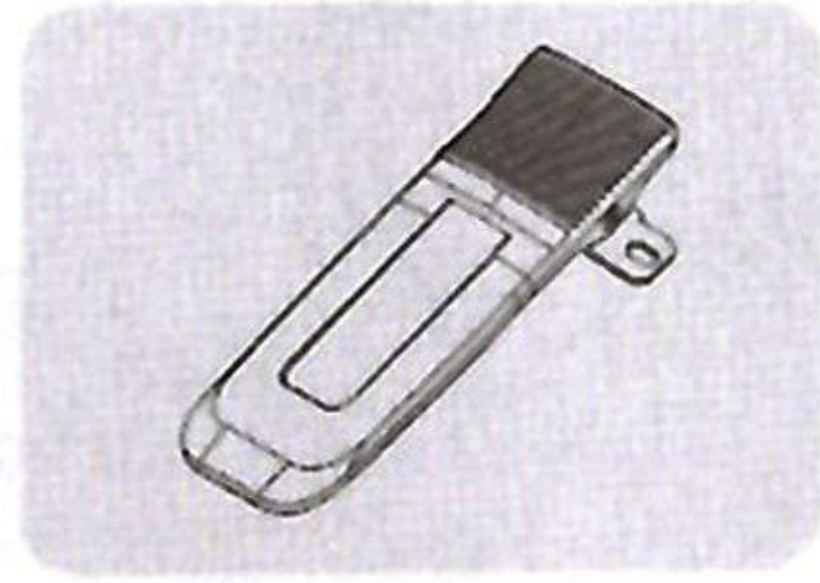
Adaptor



USB Charger



Charger



Belt Clip



User's Manual

**Note:** The antenna frequency range please refers to the annular label at the bottom of antenna.

# CHARGING BATTERY PACK

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## Charging Precaution


The supplied battery pack of this radio is a high –performance Li-ion with 7.4V standard voltage 2800mAh high capacity in a very compact package. Under normal use, the battery pack may be used for approximately 300 charge cycles and more, after which operating time maybe expected to decrease. If you have an old battery pack which is displaying capacity which has become diminished, you should replace the pack with a new one.

- Notice:
- Please do not short-circuit the battery terminals or expose of in fire. Do not disassemble the battery unauthorized.
  - Charge the battery between temperature 0°C and 45°C. The battery can not be normally charged beyond this temperature range.
  - Please turn off the transceiver when you charge it. Transmitting with the transceiver in charge will affect its normal charge.
  - Do not unplug the Power Adapter or battery when it is charged.
  - If the battery pack lasts shortly even it is full of power, it shows that the battery is depleted, please change the battery pack.
  - Please do not charge when the battery or the radio is wet. Please dry it with a cloth before charging to avoid any danger.

**Warning:** When the conductive metals such as jewelery, key or decorative chains touch the

battery terminals, all the batteries are likely to cause damage to the items or personal injury. These conductive metals may form a short circuit and generates much heat. Do deal with any battery carefully, especially when put it into pocket, wallet or other metallic containers.

## Charging Operation

After installing the battery pack, if the battery icon shows , it means that the battery pack is out of power, Please charge it.

Indicator light of charger will show charging condition

Indicator Display	Status
Red	Charging
Green	Completed

### Battery Tips:

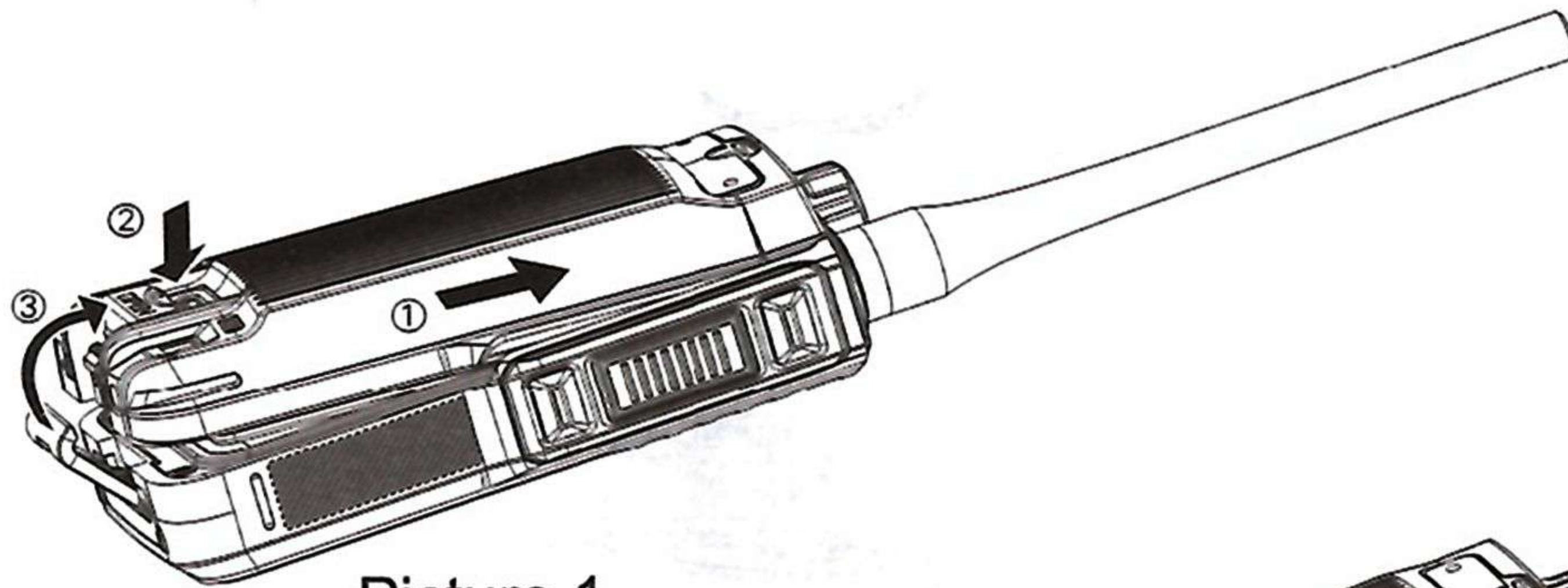
- The battery is not fully charged in factory, please charge before using it.
- charge and discharge the battery for two or three times, the battery capacity will reach the best condition. When the battery capacity is low, please charge or change the battery.
- The battery lasts shortly even if it is fully charged, the battery is depleted, please contact your local dealer to buy a new authentic battery.

# INSTALLATION OF ACCESSORIES

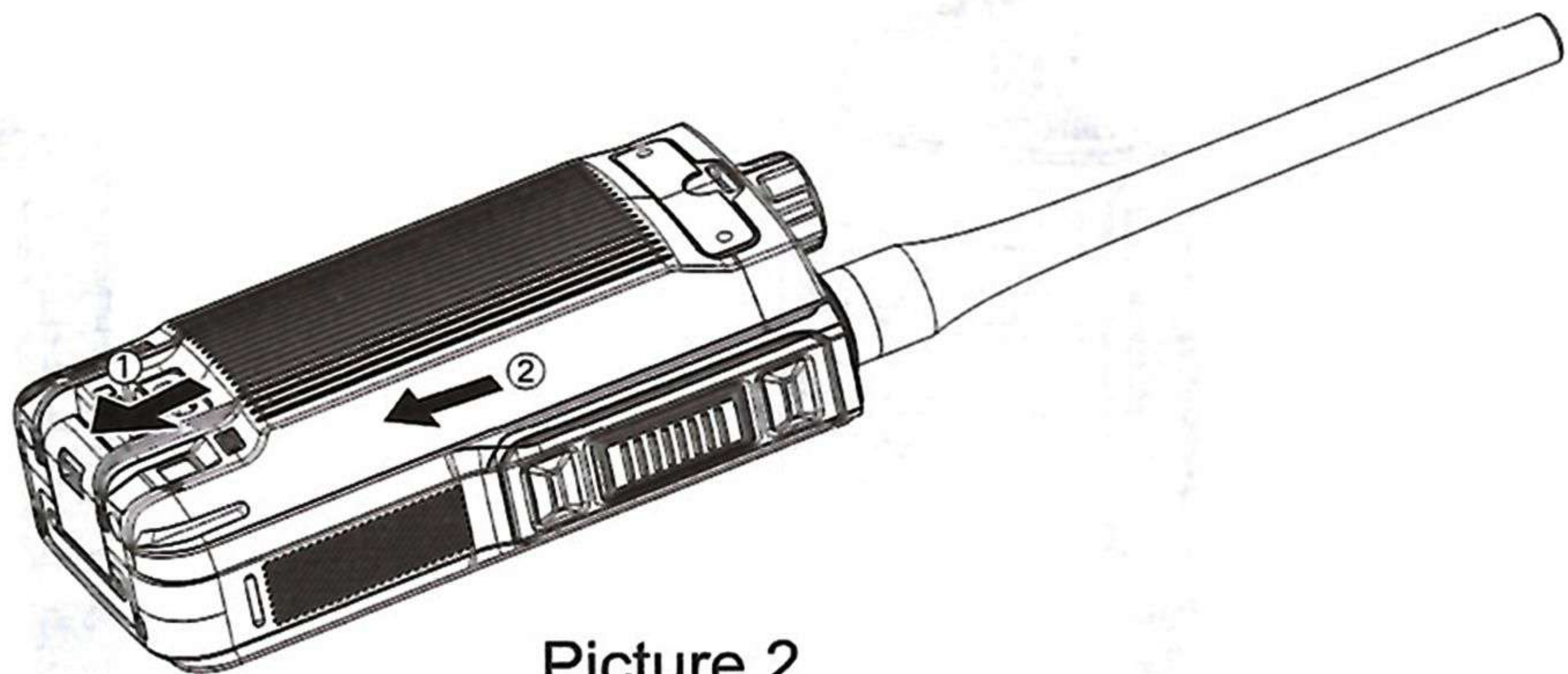
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## Installation of Battery Pack

To install the battery into the battery positioning hole of radio bottom, the press the battery, make the button completely to lock battery. To remove the battery, please turn off the radio, and then push up the battery button of radio top, finally take off the battery.



Picture 1

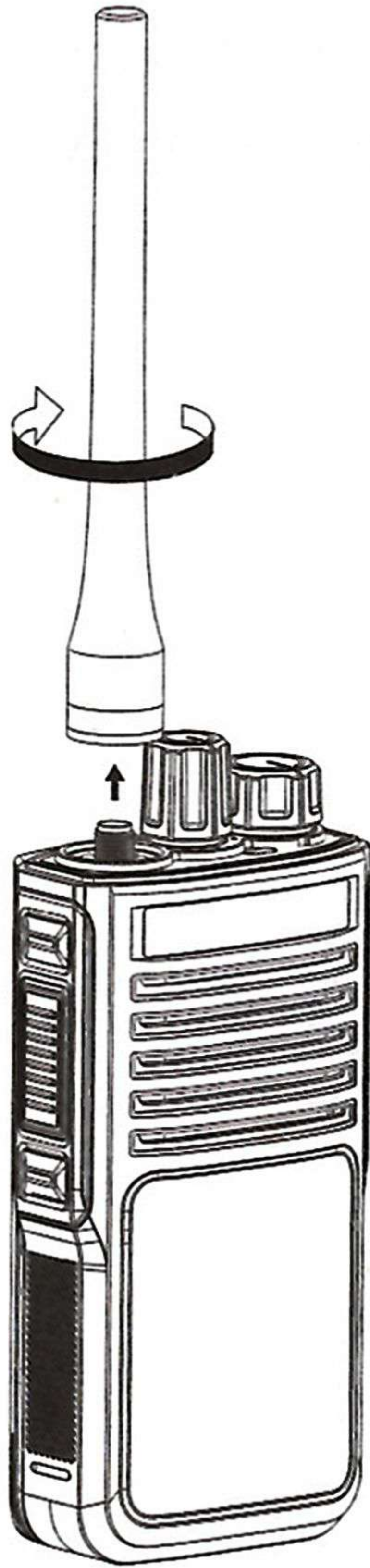


Picture 2

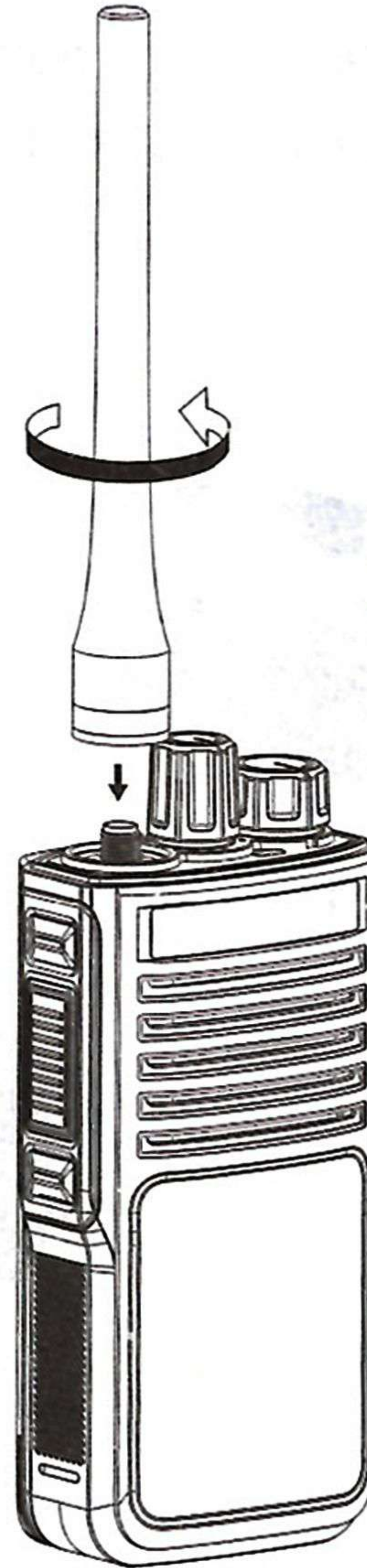
## Installing and removing the antenna

1) Align the threaded end of antenna and the threaded hole at the top of radio, rotate the antenna clockwise until it is tight. (picture 3)

2) To remove the antenna, rotate it counter-clockwise until the antenna spirals out. (picture 4)



Picture 3

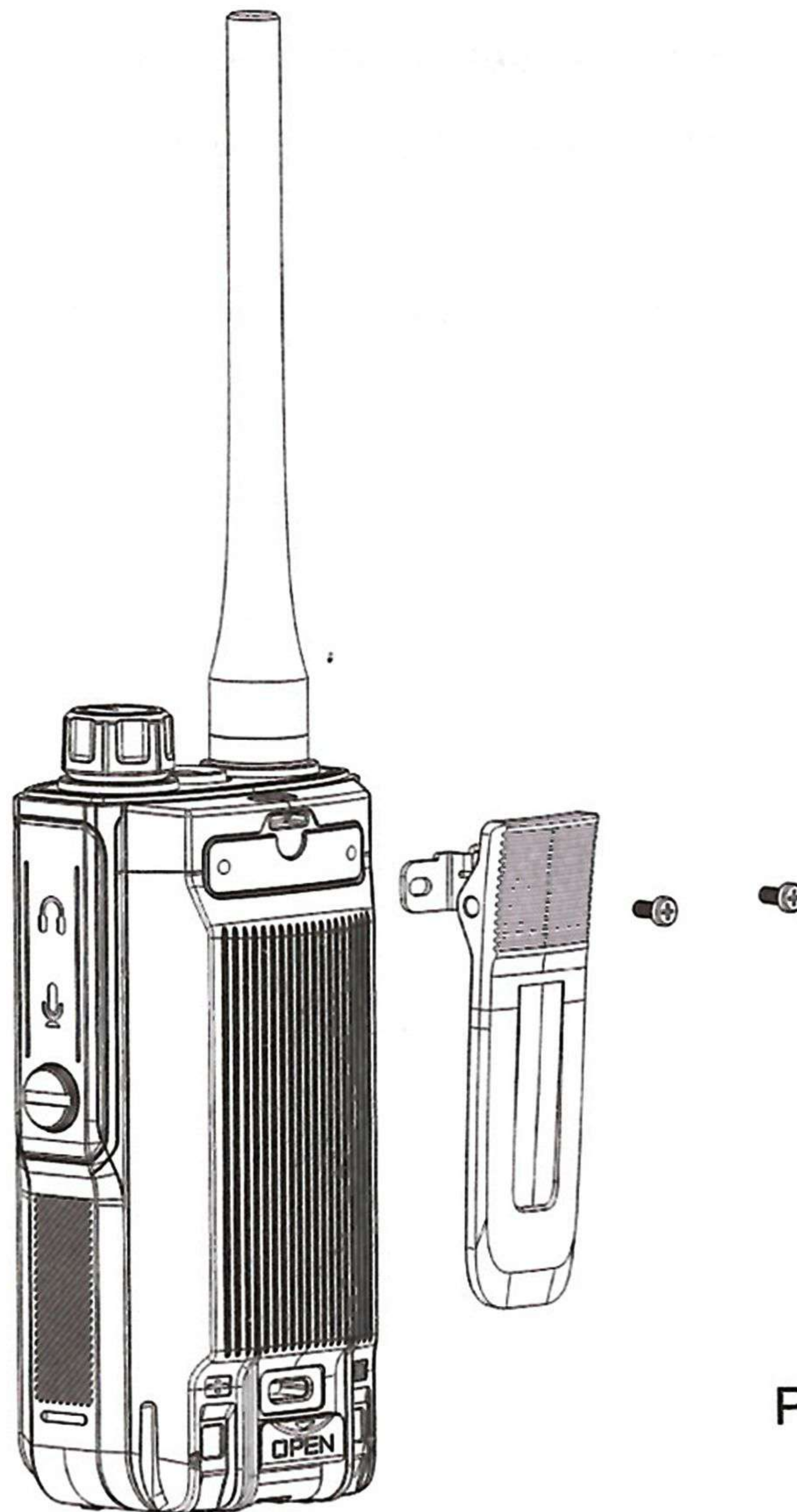


Picture 4

## Installing Belt Clip

Align the two holds of belt clip and the two holes of the radios, fix them with the supplied M2.5x5 screws. Loosen the screw set to remove belt clip.

Picture 5

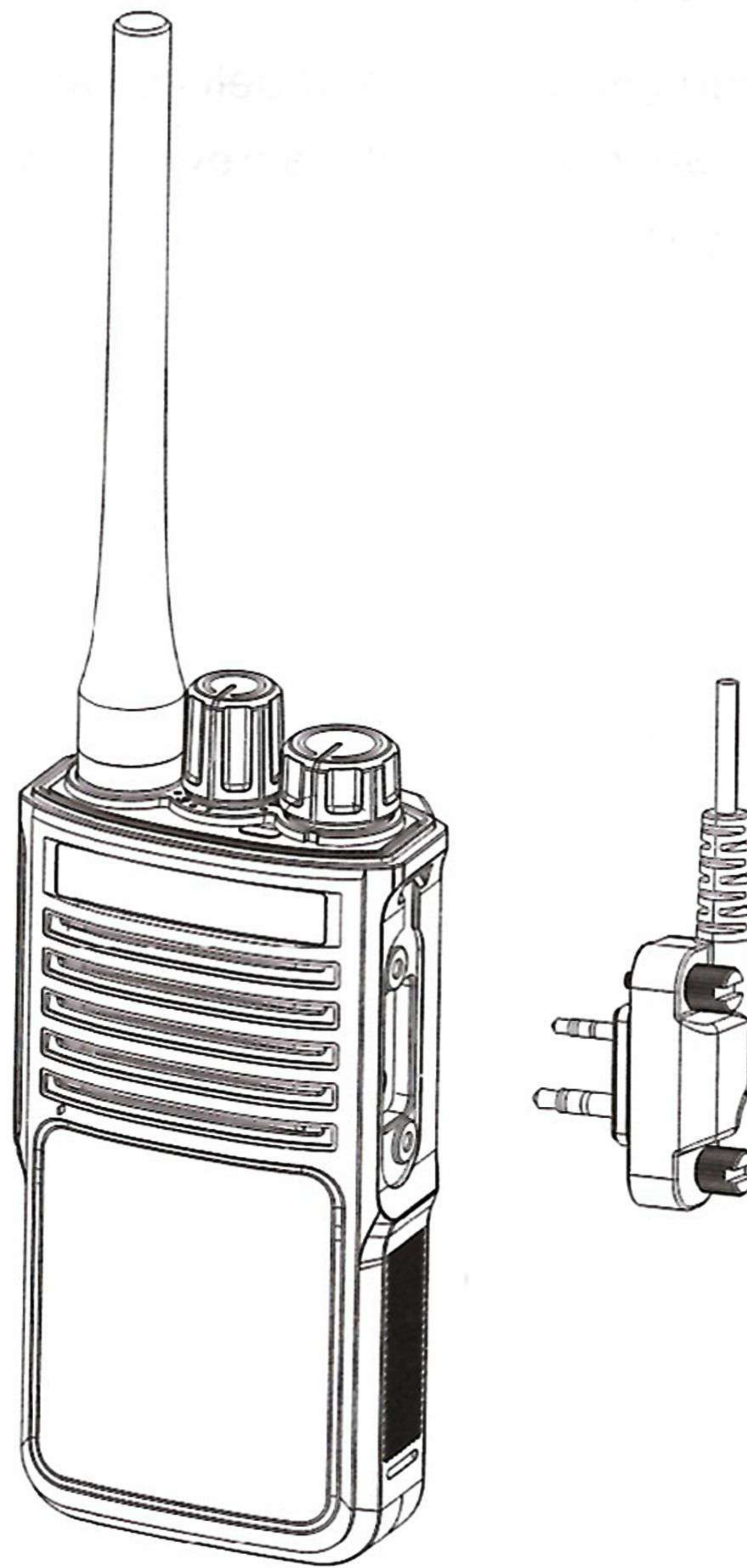


Picture 5

## Installing External Micro/Speaker

Open the cover of the Mic/speaker jack and insert the microphone/speaker plugs into the jack. Picture 7

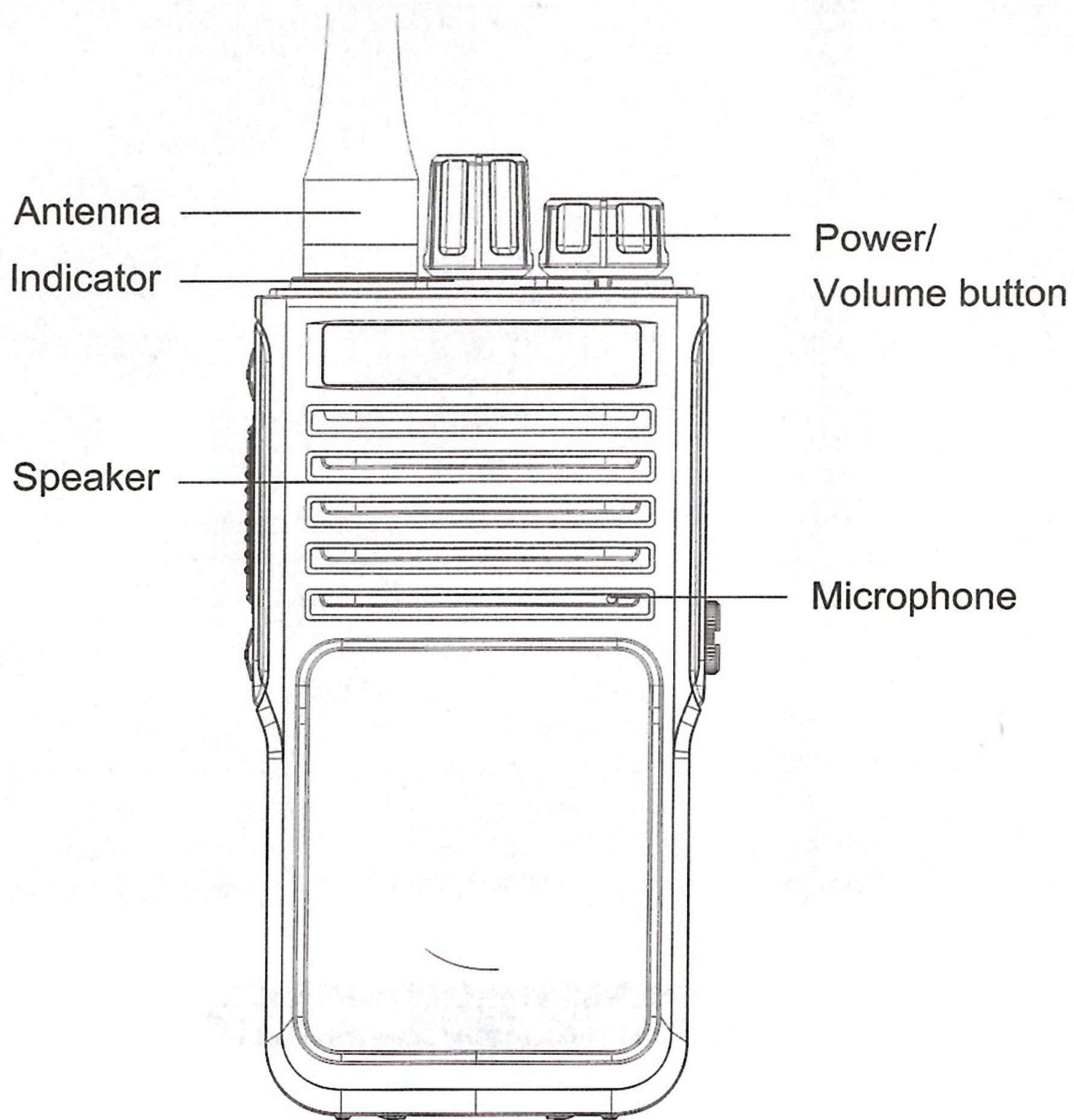
- Note:**
- Using the external headset or Mic/speaker will affect the water-tightness performance of radio.
  - If the external headset is not workable, please use the headset case.



Picture 7

# RADIO ILLUSTRATION

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1. Flashlight

2. Activates 1750HZ for  
repeater access and transmit  
DTMF and 2/5 tone signaling

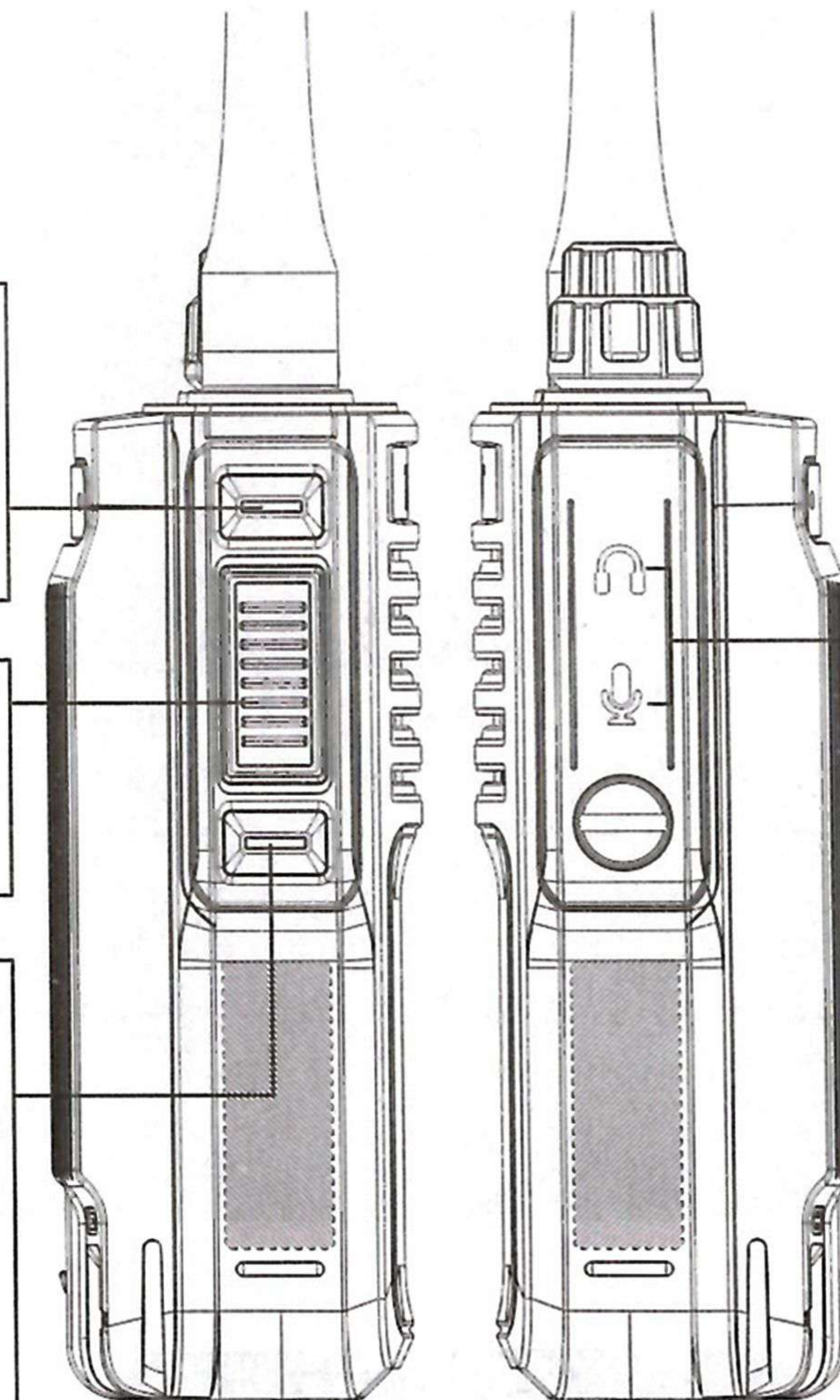
PTT

Press it to transmit and release  
it to receive after your  
transmission is completed.

MONI

1. Short press this key disables  
the noise squelching action, al-  
low you to hear very weak  
signals near the back-ground  
noise level.

2. Long press to scan, When the  
radio is on FM radio mode.



MIC/SP

The jack provides connection  
points for microphone  
audio, earphone audio,  
speaker and program cable.

## **Radio illustration**

### **Led indicator**

It lights red when transmitting, and lights green when receiving.

### **Channel-selecting knob**

Rotate it to select channel 1-16, clockwise rotation to increase, counter-clockwise rotation to decrease. An alert tone will sound when an empty channel is selected.

### **Power/Volume knob**

Rotate it by clockwise to power on the radio. To turn off the radio, rotate it by counter-clockwise until a click sound is heard.

### **PTT switch**

Press PTT switch and then talk to the microphone, the indicator light turns red, if the channel does not have transmitting frequency, a "Du Du" tone sounds, and indicator light turns red.

Release PTT switch to receive. It lights green when there is signal.

## Scan Function

When the radio is allowed to be scanned, which can be set by the software, When the scan begins, indicators lights green, the radio will scan automatically from channel 1 to 16 which is defined as scan added. When there is signal in the scanning channel, it will stop in the channel for talk.

### **Note:**

When there is signal in the scanning channel, it will stop in the channel for a talk and after several seconds.

Please note that scan is only available when there are two or more than two memory channels and two or more scan added channels.

## Battery Save Function

This function can be set by the software.

Turn on this function can make the standby time more longer.

In the software:

“Edit” → “Function Setup” → “Battery Save”

**Off:** Battery save function is off.

**ON:** Battery save function is on.

## **Scrambler**

When the radio is allowed the scrambler function, and press the key, TX voice will be sent out with scrambler, other radio only received the signal when its scrambler also turns on.

## **Busy Channel Lock**

You can turn on/off this function via software.

A: if the current channel does not have CTCSS/DCS, When there is signal, TX prohibited when you press PTT.

B: If the current channel does not have CTCSS/DCS, when there is signal which does not have CTCSS/DCS, TX prohibited when you press PTT.

C: If the current channels does not have CTCSS/DCS, when there is signal which have CTCSS/DCS, the radio will transmit when you press PTT.

## **Wide/Narrow Bandwidth Setting**

The default is wide band. You can select the wide band (25KHz) or narrow band(12.5KHz) through the menu "Channel Spacing" of the "Channel Edit" in the software.

## VOX

Speak to the microphone in normal voice to transmit, no need to press PTT switch, turn VOX on/off through the software.

A: when VOX is on in your working channel.

Speak to the microphone directly, it will transmit automatically.

The radio stops transmitting when there is no voice, and waits for receiving.

B: when a headset with a microphone is used.

When VOX is on, you should VOX again for the radio to identify voice volume.

If the microphone is too sensitive, the noise around radio will start transmitting.

If the microphone is not sensitive, the radio can not collect your voice, Please Adjust VOX level well to guarantee smooth communications.

## English/Chinese Voice Prompt

### Voice prompt

The default setting is Chinese voice prompt, and you will know the working condition of the radio with voice prompt.

- 1) The voice prompt can be selected "Chinese/English/Tone/OFF" through the menu "Voice/Beep Tone" of the "Optional Features" in the software for. When choosing "OFF", voice prompt turns off.
- 2) **Channel annunciation:** You will get to know the working conditions of current channel which is being operated.
- 3) **Low battery alert:** The radio will alert you when the battery capacity reaches the minimum operating voltage.

## Low battery prompt

The default setting is Chinese voice prompt. When transmitting or standby, if the battery capacity reaches the pre-determined low level, the indicator light blinks red, and a low battery alert tone will be heard.

The indicating tone can be "Please change the battery". When the low battery alert occurs, it can not transmit, please change or charge the battery.

## Squelch function

The squelch level will determine the signal strength to open the speaker of the radio. If the squelch level is lower, the background noise of opening the radios speaker will be higher, and the corresponding communication range will be further, but the anti-interference capacity will be weaker.

The default setting of squelch level is 5, you can adjust it through the menu "Squelch Level" of the "Optional Features" in the software for . Level 0 to 9 can be selected. 0 is the lowest level.

## Time out timer (TOT)

The purpose of TOT is to prevent any radio from talking in one channel for a long time, and to prevent the transceiver from being damaged because of continuous transmission. If the transmitting time exceeds the TOT pre-set time, the radio will sound "Du". Release

## CTCSS/DCS

CTCSS and DCS is the sub-audio signaling, to prevent the radio from receiving unwanted signal in the same channel.

When the CTCSS/DCS is set, then within the communication range, you can only receive signals from the same channel with the same CTCSS/DCS setting. When the CTCSS/DCS is not set, you will get all the signal from the same channel within the communication range. You can set the CTCSS/DCS through the menu "CTCSS/DCS ENC" or "CTCSS/DCS DEC" of the "Channel Setting" in the software.

## CTCSS

67.0	69.3	71.9	74.4	77.0	79.7	82.5	85.4	88.5	91.5
94.8	97.4	100.0	103.5	107.2	110.9	114.8	118.8	123.0	127.3
131.8	136.5	141.3	146.2	151.4	156.7	162.2	167.9	173.8	179.9
186.2	192.8	203.5	210.7	218.1	225.7	233.6	241.8	250.3	254.1

## DCS code 1

D023N	D025N	D026N	D031N	D032N	D043N	D047N	D051N	D054N	D065N
D071N	D072N	D073N	D074N	D114N	D115N	D116N	D125N	D131N	D132N
D134N	D143N	D152N	D155N	D156N	D162N	D165N	D172N	D174N	D205N
D223N	D226N	D243N	D244N	D245N	D251N	D261N	D263N	D265N	D271N
D306N	D311N	D315N	D331N	D343N	D346N	D351N	D364N	D365N	D371N
D411N	D412N	D413N	D423N	D431N	D432N	D445N	D464N	D465N	D466N
D503N	D506N	D516N	D532N	D546N	D565N	D606N	D612N	D624N	D627N
D631N	D632N	D654N	D662N	D664N	D703N	D712N	D723N	D731N	D732N
D734N	D743N	D754N	D765N						

## DCS code 2

D023I	D025I	D026I	D031I	D032I	D043I	D047I	D051I	D054I	D065I
D071I	D072I	D073I	D074I	D114I	D115I	D116I	D125I	D131I	D132I
D134I	D143I	D152I	D155I	D156I	D162I	D165I	D172I	D174I	D205I
D223I	D226I	D243I	D244I	D245I	D251I	D261I	D263I	D265I	D271I
D306I	D311I	D315I	D331I	D343I	D346I	D351I	D364I	D365I	D371I
D411I	D412I	D413I	D423I	D431I	D432I	D445I	D464I	D465I	D466I
D503I	D506I	D516I	D532I	D546I	D565I	D606I	D612I	D624I	D627I
D631I	D632I	D654I	D662I	D664I	D703I	D712I	D723I	D731I	D732I
D734I	D743I	D754I	D765I						

## ENC (Environment Noise Cancelling)

Audio sound active control is a signal-processing methodology that reduces the effective sound amplitude to improve signal-to-noise ratio (SNR) so that unwanted noise is less perceptible. The ENC methodology is also called audio noise reduction (ANR). ENC or ANR is based on coherent acoustics that accurately replicate the original sound field in all forms. : This radio equipped with the ENC (Environment Noise canceling) function, can help you hear clear: in the noisy environment.

The ENC is turned on while production, press MONI key to turn off the ENC.



## Frequency Copy

Frequency Copy all channels at one times

Press PTT key and MONI key key switch on radio but radio should be channel 2. and Green Light Flashing slowly, Both radio same operate, Transmit (Press PTT) the radio (the one we want to copy) 3 seconds, Radio Green light will Flashing quickly around 1 seconds and recovery slowly flashing, Radio will save all channels successfully at the same time. Switch off and on radio again.

Only support the same solutions walkie talkie.

## One-Key Frequency Copy

Press PTT key and MONI key switch on radio but radio should be channel 1. Radio will broadcast voice "turn on the radio-one" and Green Light Flashing slowly (Switch the channel to the number which you want save it). Transmit (Press PTT) the radio (the one we want to copy), Radio will finished copy current frequency and CTCSS when Green light Flashing quickly 2 times and Radio will Broadcast "Di" prompt sound with green light always on when save successfully. Same operate method for others channels Copy save, Switch off and on radio again once all done.

▲ : Support different brand walkie talkie copy.

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# SPECIFICATION

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## General

Channel Capacity	16 channels
Operating Voltage	7.4VDC
Operating Temperature	-20 °C ~ +60 °C
Antenna	High gain antenna
Antenna Impedance	50Ω
Mode of operation	Simplex or semi-duplex

## Transmitter

Modulation Type	16KF $\phi$ 3E
Spurious Radiation	$\leq 7.5\mu\text{W}$
Modulated noise	<-40dB
Modulation distortion	<5%
Frequency stability	5ppm
Max Fr. Deviation	$\leq \pm 5\text{KHz}$
Audio response(300-3000Hz)	+6.5~-14dB
Adjacent CH. Power	$\geq 65\text{dB}$
Intermediation sensitivity	8~12mv

## Receiver

Sensitivity	$\leq 0.2\mu\text{V}$
Occupied bandwidth	$\leq 16\text{KHz}$
Selectivity	$\geq 65\text{dB}$
Intermediation	$\geq 55\text{dB}$
Audio Output	$> 1\text{W}$
Audio Distortion	$\leq 5\%$
Frequency Stability	5ppm
current	55mA(when standby);150mA(when working)
Audio response(300-3000Hz)	+7~-12.5dB

Note: Specification will be revised without notice due to technical improvement. Thank you.

# 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

