


NOTICE

THANK YOU!

We are grateful you have chosen  UHF/VHF FM handheld transceiver. This two-way radio represents novel design and stable performance. It is developed to meet demands of easy operation and multifunction. We believe all will meet your requirements.

Please read user's manual carefully before using.

MODEL COVERED:

 UHF/VHF FM HANDHELD TRANSCEIVER

SAFETY INFORMATION

It is important for you to read the followings carefully in order to use this transceiver safely and efficiently.


- Please DO NOT try to open the transceiver. Any modification made by lay-people may cause great damage.
- Please turn off the transceiver when you enter the place with sign "Please turn off radio", such as airport and oil station, to avoid electromagnetism interference or electromagnetic compatibility.
- Please DO NOT expose the transceiver to direct sunlight for a long time. DO NOT place the transceiver near any heating devices. High temperature might shorten the life of electrical parts or cause some plastic transformation. DO NOT put the transceiver in dusty and dirty place. Please keep the transceiver dry. Rain and damp may erode the PCB.
- Please turn off the power immediately and remove the rechargeable battery pack and contact dealer if unusual smell or smoke is detected from the transceiver.

CHECKING EQUIPMENT

Thank you for using  Before using, we recommend you:

- Please check whether the package is damaged.
- Please unpack the package carefully, and identify the items listed in the following table.
- Please contact dealer immediately when any damage or miss has occurred during shipment.

SUPPLIED ACCESSORIES

ITEM	QUANTITY
 Transceiver	1
Rubber Antenna	1
Li-ion Battery	1
Charger	1
Adapter	1
Belt Clip, Screw	1
User's Manual	1

MAIN FUNCTION

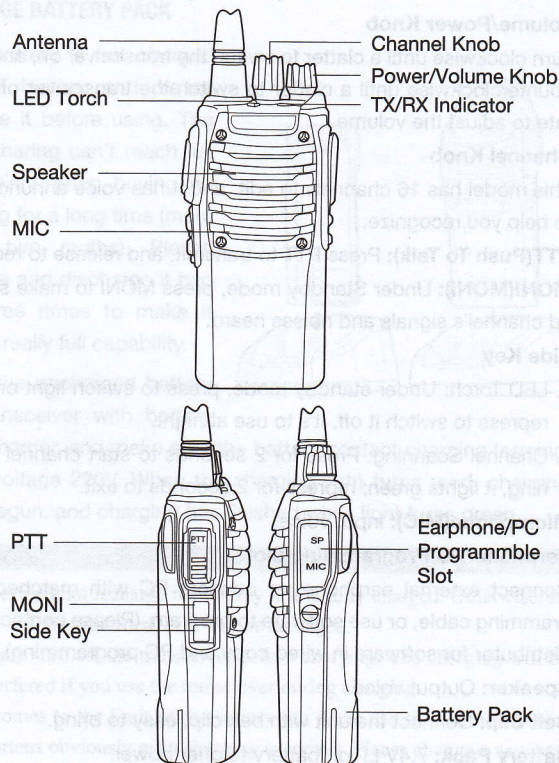
- VHF Frequency Range: 136MHz -173.995MHz
- UHF Frequency Range: 400MHz -469.995MHz
- 16 Memory Channels
- CTCSS
- DCS
- W/N Band Selection
- PC Programmable
- Channel Scanning
- Wired Copy Function
- EN/CH Voice Prompt
- FM Radio
- Superlight LED Torch

CONTENTS

(1) GETTING ACQUAINTED.....	1
(2) PREPARATION	3
Charge Battery Pack	3
Install/Remove Battery Pack.....	4
Install Belt Clip	5
(3) BASIC OPERATION	6
Switch Power ON/OFF	6
Adjust Volume	6
Select Frequency	6
Transmit/Receive.....	6
Channel Editing	7
(4) AUXILIARY FEATURES.....	8
Time Out Timer(TOT).....	8
Power Saving	8
Low Power Alert	8
Voice Prompt.....	8
QT/DQT Function	8
Channel Scanning	9
(5) FM RADIO	9

(6) LED TORCH	9
(7) SPECIFICATION	10
(8) COMMON ERROR AND SOLUTION	12
(9) FREQUENCY/INFORMATION LIST	13

(1) GETTING ACQUAINTED



Antenna: Rubber antenna used to receive and transmit signals.

TX Indicator: Press "PTT", and it lights red while transmitting.

RX Indicator: When receive signals, it lights green.

Volume/Power Knob

Turn clockwise until a clatter to switch the transceiver on, and turn counterclockwise until a clatter to switch the transceiver off. Rotate to adjust the volume.

Channel Knob

This model has 16 channels to edit, and it has voice annunciation to help you recognize.

PTT(Push To Talk): Press PTT to transmit, and release to receive.

MONI(MONI): Under Standby mode, press MONI to make selected channel's signals and noises heard.

Side Key

1. LED Torch: Under standby mode, press to switch light on, and repress to switch it off. It's to use at night.
2. Channel Scanning: Press for 2 seconds to start channel scanning, it lights green; repress for 2 seconds to exit.

Microphone(MIC): Input voice.

Earphone/PC Programming Slot

Connect external earphone, or connect PC with matched programming cable, or use software to program. (Please contact local distributor for software in wired copy and PC programming).

Speaker: Output voice.

Belt Clip: Connect the unit with belt clip, easy to bring.

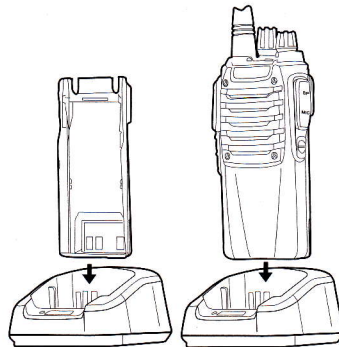
Battery Pack: 7.4V Li-ion battery to offer power.

(2) PREPARATION

CHARGE BATTERY PACK

The battery is not charged out of factory, and please charge it before using. The first charging can't reach full capability after buying or storing for a long time (more than two months). Please charge and discharge it two or three times to make it reach really full capability.

Plug the uncharged battery or transceiver with battery into charger, and make sure the battery contact charging terminal with voltage 220V. When the charging light turns red, charging has begun, and charging has finished while light turns green.



NOTICE:

- Please do not recharge the battery if it is fully charged. Otherwise, its life will be shortened, or it will be damaged.
- Please turn off the transceiver before charging. The charging will be interfered if you use the transceiver during charging.
- It comes to the limit of the battery life if the use time of transceiver shortens obviously even charging is correct. Please change a new battery.

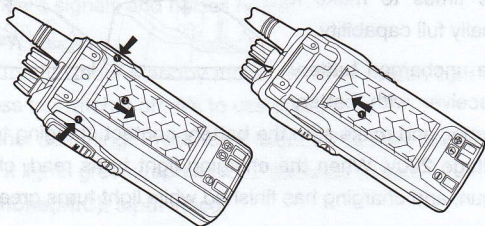
tery pack.

- Please do not charge in high-temperature or damp environment; please remove adapter when charging is finished.

INSTALL/REMOVE BATTERY PACK

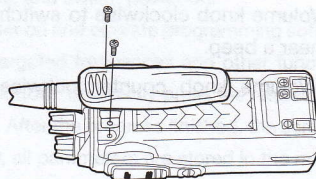
Match two juts on the top and two grooves at the bottom of the battery pack with the corresponding guides on the aluminous frame on the back of the transceiver. Slide the battery pack upon until hearing a clatter.

Please turn off the transceiver before removing the battery pack. Push battery latch on the top of the transceiver to release the upside battery pack, and then pull it away from the transceiver.



INSTALL BELT CLIP

Use two matched screws fixing two belt clip to make it convenient to take if necessary.



(3) BASIC OPERATION

SWITCH POWER ON/OFF

Turn the Power/Volume knob clockwise to switch the transceiver on, and you will hear a beep.

Turn the Power/Volume knob counterclockwise to switch the transceiver off.

ADJUST VOLUME

Please hold **[MONI]**, then turn the Power/Volume knob clockwise to increase volume, while turn Power/Volume knob counterclockwise to decrease volume.

SELECT FREQUENCY

Turn the Channel knob clockwise, and it will announce the channel number. If the channel has not stored frequency, you will hear a beep.

TRANSMIT/RECEIVE

When ready to transmit, press **[PTT]** and speak normally when it lights red. It may cause distortion if you are too close to the MIC or speak too loud. This may also cause unclear voice in receiver side. When talk is over, release **[PTT]** to receiving state, and it lights green when signals are received.

CHANNEL EDITING

1. PC Programming:

- Well connect computer COM and radio's SP/MIC with matched programming cable, and switch power on.
- Switch computer on and operate programming software. Then select and set your targeted frequencies and other functions. Afterwards, press Editing button , or directly press the related button on toolbar to start writing. After the progress finished, the screen displays **[Succeeded]**. Till now, all parameters are stored in the radio.

2. Wired Copy:

Well connect one programmed radio and your targeted radio with a special data cable, and copy complete data from programmed radio to targeted radio.

- Switch the programmed radio to Channel 8. Press **[PTT] + [MONI]** to switch power on, and you hear a beep. Red light flashes, and it starts copying.
- Well connect the data cable, and turn on the targeted radio. Press **[PTT]** when programmed radio lights, then it starts copying; programmed radio lights red while targeted radio lights green. Till programmed radio lights red, copying finished.
- During copying, if two radios flash unusually, it means copying failure. You should check if cable is well connected. When programmed radio lights, please repress **[PTT]** to restart.
- Repeat the operation when you want to copy data to more radios, after removing data cable and move to next targeted radio.
- Please restart radio to have all new functions resume.

(4) AUXILIARY FEATURES

TIME OUT TIMER(TOT)

Time out timer aims to prevent user from using one certain channel too long(with longest 10 minutes). When reaches set time, the transceiver stops transmitting and alarms, please release **[PTT]**.

POWER SAVING

Battery saving allows receiving circuit to cut down power consumption when there is no signal, finally expand battery life.

LOW POWER ALERT

Low power alarms you to charge the battery. During operation, the radio lights red when power is lower to a set level. The radio stops transmitting when it beeps. Please recharge the battery or change a new battery.

VOICE PROMPT

This model has Voice Prompt Function to help you recognize present channel at night. This function can be set through software.

QT/DQT FUNCTION

Set QT/DQT through software in channels. When certain channels has DT/DQT function on, it can only turn squelch function on when signals are with same DT/DQT; Only those that have same QT/DQT

can receive your signals. If others transmit at same channel with different QT/DQT, your speaker not receive voice, with only green light indicating. Therefore, QT/DQT can be set to avoid unexpected voice.

CHANNEL SCANNING

Hold "Side Key" for 2 seconds to start scanning, and the unit scans every channel with frequency till signals are scanned. The unit stay at channel with signals till they disappear. Please repress "Side Key" to finish.

(5) FM RADIO

This model has FM radio function, allowing you to listen to FM broadcast news.

When power is off, hold **[MONI]**, and switch power on, then it lights green and FM radio is on; press **[MONI]** to search stations, and it stop when stations are searched. Press **[MONI]** for 2 seconds, or press **[PTT]**, to exit. It auto exit FM radio to receiving state when signals are searched.

(6) LED TORCH

Press "Side Key", torch lights; repress "Side Key", it's off.

(7) SPECIFICATION

General Part	
Frequency Range	VHF: 136~173.995MHz UHF: 400~469.995MHz
Operating Temperature	-10°C to +60°C
Frequency Combination	Phase lock loop frequency synthesizer
Rated Voltage	7.4V (Li-ion Battery)
Memory Channels	16 Channels
Antenna Disposition	Rubber Antenna
Antenna Impedance	50Ω
Operating Mode	Simplex of co-frequency or alien frequency
Dimension	120mm×62mm×34mm (Antenna not included)
Weight	About 280g

Transmitter	
Output Power	7W
Modulate Mode	Frequency Modulate
Maximum Deviation	≤5KHz (W) ≤2.5KHz (N)
Transmit Current	≤1500mA

Receiver	
Sensitivity	<0.16uV(12dB SINAD)
Squelch Sensitivity	<0.16uV
Audio Power	≥500mW
Receive Current	≤150mA
Squelch Standby Current	20mA

FM Radio	
Frequency Range	FM: 87.5~108MHz

NOTICE:

- To save your presence, no additional notice will be sent if specification changes because of technology improvement.

(8) COMMON ERROR AND SOLUTION

Error	Solution
No reaction when turn on the radio	<ul style="list-style-type: none"> Battery power used up, please change the battery or recharging. Wrong connect of battery, please remove the battery and reinstall it.
Battery power easily get lost	<ul style="list-style-type: none"> The battery life is ended, please use new battery.
Could not talk with other members in the same team	<ul style="list-style-type: none"> Beyond the communication range. Different frequencies or DCS/CTCSS, please reset.
Voices from non members	<ul style="list-style-type: none"> Please reset DCS/CTCSS. Please change all radios DCS/CTCSS.
No FM Radio Reaction	<ul style="list-style-type: none"> Check whether in the Radio Mode, if not please shift setting in the Radio Mode. Check your local Radio station signal, or signal problem.

We endeavor to achieve the manual's accuracy and completeness, but sorry that not liable for any possible emission and printing errors.

(9) FREQUENCY/INFORMATION LIST

Model No.: _____

Serial No.: _____

Channel	Transmit Frequency	Receive Frequency	CTCSS	DCS
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				