To Customers

Thank you very much for using our FM VHF/UHF Two Way Radio. This radio of
modern design is reasonable structure with stable functions. It is designed to
meet customer's needs for the high quality with easy operation and perfect capability.
We believe you are pleased with the finished shape and the reasonable price.
This manual is suitable for using the model of PX-578.

CAUTIONS:

- Before use this radio may need get local government authorization.
- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also exceed exposure limits
- Refer service to qualified technicians only.
- Turn off the radio while taking on fuel or while parked in a gasoline service station.
- Do not expose the radio to long periods of direct sunlight, nor place it close to heating appliances.
- If it appears that the radio diffuses peculiar smell or smoke, please shut off its power immediately, then contact with the nearest dealer.
- Don't keep the radio transmitting too long .It may be too hot to hurt body or damage the radio itself.
- Please turn off the radio before entering the inflammable and explosive environment.

- **CHECKING EQUIPMENT**

- Welcome to use our radio. Please check if any damage to the packing box before use. Carefully unpacks the radio. We recommend that you identify the items listed in the following table. If any items are missing or have been damaged during shipment, please inform the seller.

- **SUPPLIED ACCESSORIES**

ANTENNA   Li-ion BATTERY   CHARGER

ADAPTOR   BELT CLIP   USERS' MANUAL
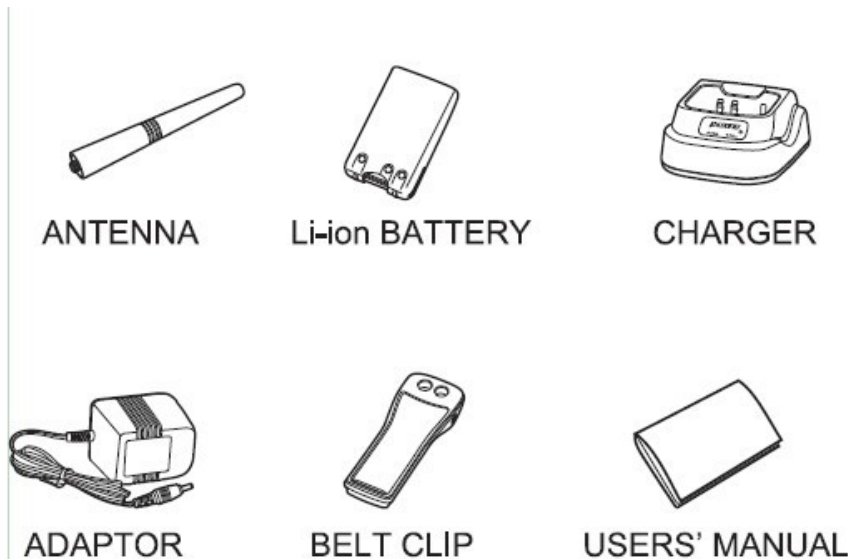
RUBBER ANTENNA   Li-ion BATTERY PACK   BATTERY CHARGER
POWER SUPPLY   BELT CLIP   USERS'MANUAL

CHARGING THE BATTERY PACK

The battery pack is not charged at the factory; charge it before use.
Initially charging the battery pack after purchase or extended storage will not bring the battery pack to its normal operating capacity. After repeating the charge/discharge cycle two or three times, the capacity will increase to best status. You should charge or change the battery pack if the battery's power is weak.

CAUTION

》 Use the original battery pack only. It is likely to explode or hurt your body if you use other battery.
》 Don't short-circuit the terminals or put it in fire. Don't attempt to open the unit.
》 The ambient temperature should be between 0℃ to 40℃ while charging is in progress. Charging beyond this range may not fully charge the battery.
》 Always switch OFF the transceiver equipped with a battery pack before charging. Using the transceiver while charging, it will interfere with correct charging.
》 Don't cut off the power or take off the battery during the charging process or else it will interfere with correct charging.
》 The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack.
》 Don't recharge the battery pack if it is already fully charged or it will short the life of the battery.

》 Don't charge the battery pack or transceiver while it is wet. Please wipe up it first to avoid danger.

Charging Operation
If the battery pack is out of power, please charge it.
Please always use the original charger. The charger's indicator shows the charging status below.

INDICATOR DISPLAY	STATUS
RED	CHARGING
GREEN	COMPLETED

Please charge the battery pack as follow,
1. Put the DC plug of the transformer into the DC socket of the charger unit.
2. Connected the supplied transformer to the AC jack
3. Slide the battery or the transceiver with a battery pack into the charger.
4. Make sure the battery pack contacts are in contact with the charging terminals, and the charger LED is on, it begins to charge.
5. After charging the supplied battery pack for 4 hours, remove it or the transceiver equipped with it from the charger. The charger light turns to green automatically after charging is completed.

CAUTION
1. It is abnormal in case of the charger glisteningly before sliding the battery pack into the charger.
2. Don't replace the battery pack until the indicator light is stable.
3. Make sure contact well, LED indicates red when it is charging, if LED always blinking the battery pack is damaged or over the environment temperature.

MAINTENANCE
1. Don't carry the radio by the antenna or microphone directly.
2. Use a soft, clean, dry cloth to clean the radio.
3. Please cover the speaker/microphone jacks with the supplied cover when the radio is not in used.
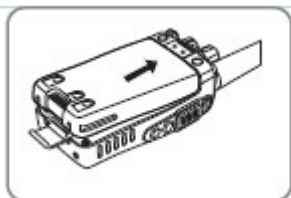4. The keypad, knobs and case will become dirty after long use; you can use the soft detergent and cloth to clean it.

INSTALLING ACCESSORIES AND OPTIONAL
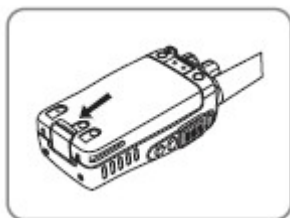INSTALLING /REMOVING THE BATTERY PACK

Place the top of the battery pack on the chassis of radio.
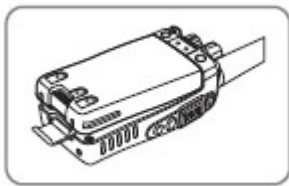
Push the battery pack to make the well connection with the chassis and push the battery locker to lock the battery.

To remove the battery pack, pull the battery locker

INSTALLING/REMOVING THE ANTENNA
Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.
Turning or spiraling the antenna counterclockwise to remove the antenna.

Antenna

INSTALLING/REMOVING THE BELT CLIP
Attach the belt clip using the two supplied screws.
You can unscrew it to remove the belt clip.

belt clip
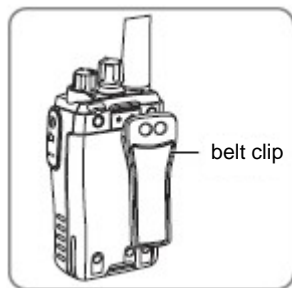
INSTALLING THE SPEAKER/MICROPHONE

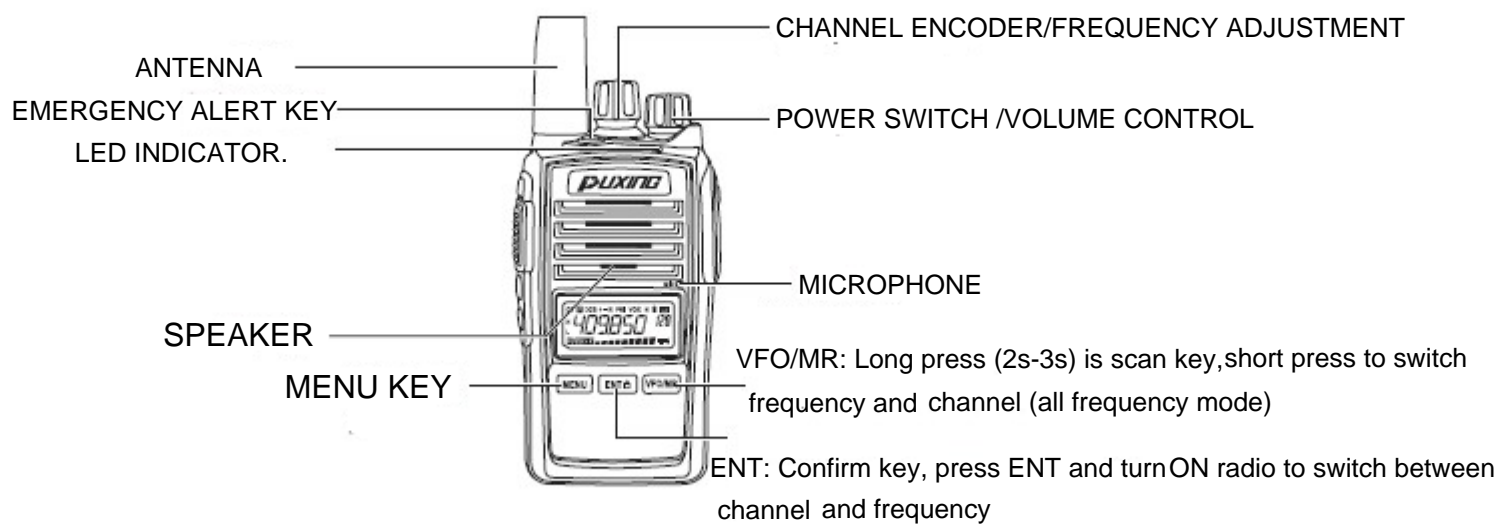Open the cover of the speaker/microphone jack and insert the speaker/microphone plugs into the jacks.

Speaker/Microphone

INSTALLING JACK COVER

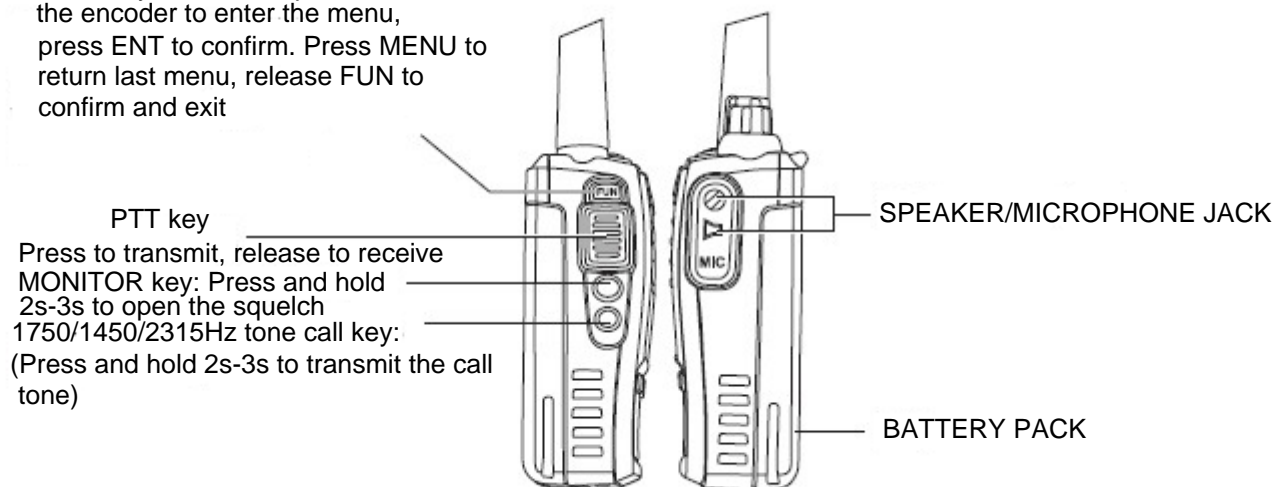You can install the jack cover with supplier screws to make it waterproof.

Speaker/Microphone
Jack cover

GETTING ACQUAINTED

CHANNEL ENCODER/FREQUENCY ADJUSTMENT

ANTENNA

EMERGENCY ALERT KEY

LED INDICATOR.

POWER SWITCH /VOLUME CONTROL

MICROPHONE

SPEAKER

VFO/MR: Long press (2s-3s) is scan key, short press to switch frequency and channel (all frequency mode)

MENU KEY

ENT: Confirm key, press ENT and turn ON radio to switch between channel and frequency
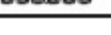
FUN function key

In the key lock mode, press FUN and turn
the encoder to enter the menu,
press ENT to confirm. Press MENU to
return last menu, release FUN to
confirm and exit

PTT key

Press to transmit, release to receive
MONITOR key: Press and hold
2s-3s to open the squelch
1750/1450/2315Hz tone call key:
(Press and hold 2s-3s to transmit the call
tone)

SPEAKER/MICROPHONE JACK

BATTERY PACK

▣	🔋	Battery power indicator
▣	✚	TX offset direction in relation to the Rx frequency
▣	▬	TX offset direction in relation to the Rx frequency
▣	🔒	Keypad locked
▣	DT	DCS tone
▣	CT	CTCSS tone
▣	PRI	Priority scan
▣	H/L	High/Lower power
▣	S	Scrambler
▣	VOX	VOX
▣	F	Menu function
▣	▬▬▬▮▮▮▮▮	Received signal strength and TX power
▣	888888 128	Frequency display

Turn on and off the power/ Adjusting volume

If you want to turn on the power, rotate the **PWR/VOL** knob clockwise until a beep sound is heard .All icons and frequencies appeared on the screen. You can adjust your desired volume by turning the knob.

To turn off the power, rotate the **PWR/VOL** knob counter-clockwise rotation. All the icons on the display will disappear and the radio is off.

_____

After turning on the radio, rotate the **PWR/VOL** knob clockwise to increase the volume and counter-clockwise to decrease.

MONITOR

Press and hold the defined side key 3 or 4, and with the PWR / VOL control knob to hear the background noise of the channel and adjust the voice to comfortable degree, you can directly listen to the sound without having to wait for your call. To turn off the squelch release the side key.

Transmitting

Press the [PTT] key, and then facing the front of the radio microphone to speak. Press and hold [PTT] key LED is red for the period.

If you rely on the microphone too close or too loudly may increase distortion and reduce your signal in the receiver's clarity. Release [PTT] key received signal in order to listen to the partner's speech.

● Mode Selection

By pc software you can program three modes: frequency mode; PMR; PMR + LPD.

Press and hold the ENT key while turn on the power, you can switch it between frequency mode and channel mode

In frequency mode, short press VFO / MR key to switch between frequency mode and channel+frequency mode.

In the PMR + LPD mode, long press [MENU] button for 4 seconds to switch it between PMR channel and LPD channel.

● Storage channel

In frequency mode, select the frequency and other parameters (such as CTCSS, DCS, repeater shift, etc.). Click [FUN] key and then press [VFO / MR] key, the screen displays "F" icon and the channel number flashing in the upper right corner (If the channel has already stored frequency, then the channel number will not flashing), use the rotary encoder to select the channel you wanted, press the [VFO / MR] key to complete the channel storage and returns to the frequency mode.

Delete a momory

1.Delete one store channel

In channel mode turn off the power.

Hold down the VFO/MR key and turn on the unit. "**DEL001**?" and stored channel number will be displayed. Turn the **Encoder** knob or select the channel to delete. Push ENT until "**YES? 001**" appears on the display; push it again to confirm. If you don't want to delete it, just press VFO/MR.

2. Reset (Delete all the settings in Frequency mode)

Hold down the FUN key and turn on the unit until **"RESET?"** is displayed. Press ENTER until "VFO?" is shown on the display; push it again for confirmation.

3. Delete all settings (Delete the settings in both frequency and channel mode)
Hold down FUN key and turn on the unit until display "**RESET?**", press ENT until display "VFO?". Turn the **Encoder** knob to select "**FULL?**", then press ENT to delete all the settings in Frequency and VFO mode.

FM RADIO function
This radio has a FM radio function, click [FUN] key screen displays "F" icon, then press the side key 3 to enter or exit the FM radio feature.

● on-site alarm
Press the emergency call button, radio sounds alarm tone, while sending the alarm tone and ANI personal identification code to your partner, press [PTT] key to cancel the alarm.

● Busy Lockout
This feature prevents interference with other radio in this channel, dealer can use pc software to set, it provides the following two options:

◆ Carrier: When the radio receiving signal, not transmitted.

◆ CTCSS tone: When the radio receives a signal, if it receives the same carrier, different sub-audio, the radio can be transmition. if the radio receive the same carrier and CTCSS exactly, transmition is prevented.

Function key FUN
   1) As the storage key: In frequency mode, setting all information in frequency mode, press FUN key and press VFO/MR key until "F" icon and channel number flashing on corner, to storage the channel, press VFO/MR key.
   2) As the function key, in key lock mode, press FUN key and rotate the knob to enter the menu function.
   3) As the high/low output power switch, press FUN key and press PTT key
   4) As the keylock button, press FUN and press ENT to lock the keypad.
   5) As the frequency step key, in frequency mode, press and hold FUN key, the number above the "MHZ" is flashing, rotate the knob to increase/decrease the frequency (1MHZ), release FUN key to change the frequency as per current frequency step.
   6) As the clear key: press and hold FUN key and turn ON power to enter the all clearance mode.

```
Menu functions
● use the menu
1. Press the Menu button [MENU] screen shows "MENU";
2. Press the [ENT] to enter the menu mode;
3. Rotary encoder to select the menu option you want to use;
4. Press the [ENT] to enter the menu settings, through the rotary encoder
to select the desired menu function settings, and press [ENT] key to
confirm;
5. After setting press [VFO / MR] key to exit the menu mode.
```

Menu function setting

All channel scan
In Channel/Frequency status, press VFO/MR for 3s , the radio will scan from the channel in use through all the channels/frequency, whenever any activity is detected, the radio will suspend the scan for 5 seconds. It will then continue to scan unless you press PTT or ENT key to end scanning.

Priority channel scan
Priority scan is to scan the priority channel firstly then scan other channel, if you set priority channel 1, it will scan 1-2; 1-3; 1-4; and continue.   In channel Mode, press MENU , and press ENT until displays "PRI? 001" and press ENT to scan, radio begin to scan priority channel,   whenever any activity is detected, the radio will suspend the scan for 5 seconds. It will then continue to scan unless you press PTT or ENTER key to end scanning.

Select scan type

In channel/frequency mode, press MENU and press ENT to enter menu mode,
Rotate the **Encoder**   until the display shows "**SCANS 010**". Press ENT and turn the Encoder knob again to select the scan type (TO/CO/SE).

TO: Time-operated scan
Even though the radio stops on a busy channel, it will continue scanning the other channels.

CO: Carrier-operated scan
The radio stops on a busy channel until there is no activity, and then radio begins scanning the other channels

SE: Search scan

The radio stops on a busy channel and exits the Scan mode.

Setting the VOX sensitivity level

The VOX function is deactivated by default. To activate it follow the procedure here below:

1. press the MENU and ENT button to enter;
2. turn the Encoder knob until the display shows "VOX? 002" (menu 002);
3. push the ENT key;
4. turn again the Encoder knob and select the desired VOX level (you can choose amongst 9 different levels);
5. push the ENT key again;
6. to exit, press VFO/MR

Setting the transmission power

To select desired power level:

1. press the MENU and ENT button;
2. turn the Encoder knob until the display shows "POW? 003" (menu 003)
3. push ENT;
4. turn again the Encoder knob and select the desired power level (you can choose between 2 levels: 'H' and 'L');
5. press ENT
6. press the VFO/MR to exit

Setting squelch

To select the squelch level:

1. press the MENU and ENT button;
2. turn the Encoder knob until '**SQL? 004**'(menu 004) is displayed
3. push ENTER;
4. turn the Encoder knob and select the desired squelch level (9 different levels are available);
5. press ENTER
6. press the VFO/MR to exit

Scrambler Setting

1. press the MENU and ENT button;
2. turn the Encoder knob until '**SCRM ? 005**'(menu 005) is displayed
3. push ENTER;
4. turn the Encoder knob to select ON or OFF.
5. press ENTER
6. press the VFO/MR to exit

Backlight color selection

To select the LCD backlight color, follow this procedure:
1. press the MENU and ENT button;
2. turn the Encoder knob until '**LED? 006**'(menu 006) is displayed
3. push ENTER;
4. turn the Encoder knob to select AUTO, ON, OFF ;
5. press ENTER
6. press the VFO/MR to exit

Beep on/off

The keypad beep is activated by default. To deactivate it::
1. press the MENU and ENT button;
2. turn the Encoder knob until '**BEEP? 007**'(menu 007) is displayed
3. push ENTER;
4. turn the Encoder knob and activate/deactivate the beep (ON=beep enabled; OFF=beep disabled);
5. press ENTER
6. press the VFO/MR to exit

Keypad lock setting

To lock the keypad to prevent the wrong operation:
1. press the MENU and ENT button;
2. turn the Encoder knob until '**KEYBO? 008**'(menu 08) is displayed
3. push ENTER;
4. turn the Encoder knob to select AUTO, MANUAL
5. press ENTER
6. press the VFO/MR knob to exit

TOT setting

To prevent continuous emission of the radio, the unit can be set of 30-270 seconds continuous emission limits, a warning tone will be hear in the due time.
1. press the MENU and ENT button;
2. turn the Encoder knob until '**TOT?**'(menu 09) is displayed
3. push ENTER;
4. turn the Encoder knob to select from OFF, 30, 60, 90, 120, 150, 180, 210, 240, 270.
5. press ENTER
6. press the VFO/MR knob to exit

Voice function

With this function, you activate a voice that informs about any operation/selection you are doing. To activate or select it. Follow these steps:.
1. press the MENU and ENT button;

2. rotate the Encoder knob until '**VOICE**'(menu 119) is displayed
3. push ENTER;
4. turn the Encoder knob to activate or select from CHS, ENG (CHS=Chinese; ENG=English);
5. press ENTER again;
6. press the VFO/MR to exit.

Select CTCSS and DCS tones
There are 3 kinds
--- RX and TX
--- RX only
--- TX only

1. Press the MENU and ENT button;
2. rotate the Encoder knob to item 12/13/14 until 'C-CDC? 012'(setting RX/TX tone), 'R-CDC? 013'(setting RX tone), 'T-CDC? 014'(setting TX tone),   is displayed
3. push ENTER;
4. turn the Encoder knob and select the desired CTCSS tone, or press side key 3 to select DCS tone,
   (While selecting the codes, if you press side key 4, you will select the normal (N) or inverted (I) DCS codes.)
5. press ENTER to confirm and VFO/MR to exit ;

Channel name edit
   1. press the MENU and ENT button;
   2. turn the Encoder knob until '**NAME?**'(menu 15) is displayed
   1. push ENTER;
   2. turn the Encoder knob to select ON/OFF;
   3. press ENTER
   4. press the VFO/MR to exit

Repeater shift adjustment (for communications through repeaters)
   1. Press the MENU and ENT button;
   2. rotate the Encoder knob until '**OFFSET**'(menu 16) is displayed
   3. push ENTER;
   4. turn the Encoder knob and select the repeater shift. (VHF range 0-42Mhz, UHF range 0-80Mhz)
   5. press ENTER ;
   6. press the VFO/MR to exit

Repeater shift (for communications through repeaters)
   To activate this function, follow these steps:

1. Press the MENU and ENT button;
2. rotate the Encoder knob until '**S-D?**'(menu 17) is displayed
3. push ENTER;
4. Turn the Encoder knob and select the repeater shift. You can choose amongst the following options +**, - and 0;**
5. press ENTER again;
6. press the VFO/MR to exit

Wide and Narrow band selection
1. press the MENU and ENT button;
2. turn the Encoder knob until '**N/W?**'(menu 18) is displayed
3. push ENTER;
4. turn the Encoder knob to select from NARROW or WIDE.
5. press ENTER
6. press the VFO/MR knob to exit

Automatic Numbering Identification (ANI) setting
You can set an automatic number identifier visible from the radio's display of your partner each time you send a call signal.
To activate it or select different mode:
1. press the MENU and ENT button;
2. turn the Encoder knob until '**ANI**'(menu 19) is displayed
3. push ENTER;
4. turn the Encoder knob to select ON/OFF
5. press ENTER
6. press the VFO/MR knob to exit

Identification code (ANI), can be programmed by software to two ways: ① Before TX, ② End TX; There are two signaling for choose: MSK, DTMF

Note: item 16-19 insert by programming software, 16-17 only available in frequency mode.

CTCSS

1 - 67.0	14 - 103.5	27 - 159.8	40 - 199.5
2 - 69.3	15 - 107.2	28 - 162.2	41 - 203.5
3 - 71.9	16 - 110.9	29 - 165.5	42 - 206.5
4 - 74.4	17 - 114.8	30 - 167.9	43 - 210.7
5 - 77.0	18 - 118.8	31 - 171.3	44 - 218.1
6 - 79.7	19 - 123.0	32 - 173.8	45 - 225.7
7 - 82.5	20 - 127.3	33 - 177.3	46 - 229.1
8 - 85.4	21 - 131.8	34 - 179.9	47 - 233.6
9 - 88.5	22 - 136.5	35 - 183.5	48 - 241.8
10 - 91.5	23 - 141.3	36 - 186.2	49 - 250.3
11 - 94.8	24 - 146.2	37 - 189.9	50 - 254.1
12 - 97.4	25 - 151.4	38 - 192.8	
13 - 100.0	26 - 156.7	39 - 196.6	

DCS

023	071	143	225	266	356	452	532	664
025	072	145	226	271	364	454	546	703
026	073	152	243	274	365	455	565	712
031	074	155	244	306	371	462	606	723
032	114	156	245	311	411	464	612	731
036	115	162	246	315	412	465	624	732
043	116	165	251	325	413	466	627	734
047	122	172	252	331	423	503	631	743
051	125	174	255	332	431	506	632	754
053	131	205	261	343	432	516	645	
054	132	212	263	346	445	523	654	
065	134	223	265	351	446	526	662	

Technical specification

General

Frequency Range	138-174MHz,400-500MHz
Working Temperate	－20℃—＋50℃
Operating Voltage	DC 7.4V
Operate Mode	Same frequency/different frequency full duplex
Dimension	115mm×55mm×35mm (Not included Antenna)
Weight	243g (Including battery)
Antenna impedance	50Ω

Transmitter	
Frequency Stability	±2.5PPM
Output Power	≦5W
Max Frequency Deviation	≦2.5KHz
Audio Distortion	≦5%
Modulation Character	+3dB−-3dB
Adjacent Channel Power	≥65dB
Spurious Radiation	≤7.5UW
Occupied Bandwidth	≤11KHz

Receiver	
RF Sensitivity	＜0.2UV
Audio Distortion	≦5%
Audio Response	+2dB−-10dB
Adjacent Channel Selectivity	≥60dB
Intermodulation Rejection	≥60dB
Spurious Response	≥60dB
Blocking	≥80dB

* Technical specification subject to change without notice

FCC Caution:

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

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.

IC Waring

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux   conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut

onctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.

Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the following procedures.

Guidelines:

Do not remove the RF Exposure Label from the device.

User awareness instructions should accompany device when transferred to other users.

Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

Transmit no more than the rated duty factor of 50% of the time.   To transmit (talk), push the Push-To-Talk (PTT) button.   To receive calls, release the PTT button. Transmitting 50% of the time, orless, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance). Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose.   Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna.   Antenna should be kept away from eyes.

When worn on the body, always place the radio in a Xiamen Puxing Electronics Science&Technology Co., Ltd approved clip, holder, holster, case, or body harness for this product.

Using approved body-worn accessories is important because the use of Xiamen Puxing Electronics Science&Technology Co., Ltd or other manufacturer's non-approved accessories may result in exposure levels, which exceed the FCC's occupational/controlled environment RF exposure limits.

If you are not using a body-worn accessory and are not using the radio in the intended use position in front of the face, then ensure the antenna and the radio are kept at least 2.5 cm (one inch) from the body when transmitting. Keeping the radio at the proper distance is important because RF exposures decrease with increasing distance from the antenna.

Use only Xiamen Puxing Electronics Science&Technology Co., Ltd approved supplied or replacement antennas, batteries, and accessories.   Use of non-manufacturer-nameapproved antennas, batteries, and accessories may exceed the FCC RF exposure guidelines.