

## 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-568.

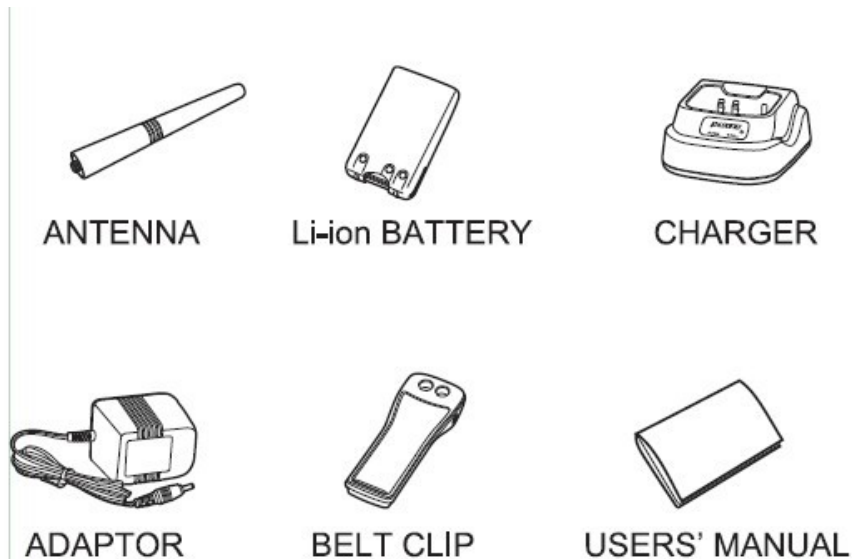
### **CAUTIONS:**

- 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**



## **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°C to 40°C 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 transceiver indicator displays , it means 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**

**INSTALL /REMOVE BATTERY**

The average us time of the battery pack is 10 hours.

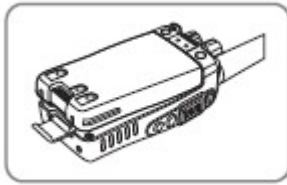
It calculated as 5%TX time,5% RX time and 90% standby time.

**CAUTION**

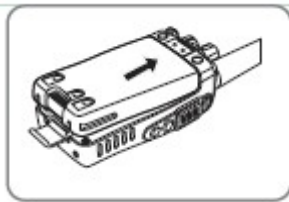
Don't short circuit the battery charger contacts or threw the battery into fire.

Don't disassemble the case of the battery.

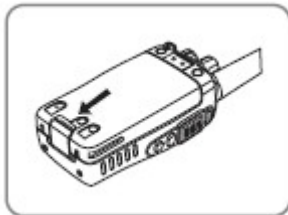
Match the top of the battery pack with the corresponding grooves on the radio.



Push the battery onto the bottom of the radio, buckle the safety lock.



To remove the battery pack, lift the safety lock and pull the battery pack away from the radio.



### **INSTALL ANTENNA**

Hold the radio, screw the antenna into the connector on the top of the radio.

Hold the antenna and turn it clockwise until being tight.

Note: Don't use the antenna as handle, keychain or speaker/microphone hook, it will damage the antenna and affect the function of the radio.

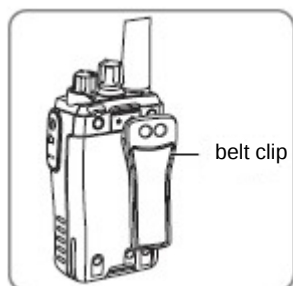


### **INSTALL BELT CLIP**

When necessary, you can install the belt clip to the back of the radio.

Note:

Without installing the belt clip, the installing area will become hot due to continuous communication or put in hot environment.  
You should remove the belt clip first before disassemble the battery pack.



Caution:

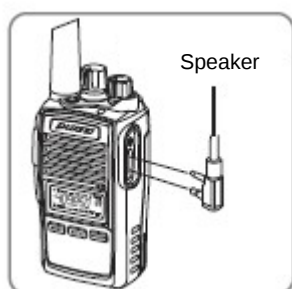
Please don't use glue to fix the screws of belt clip, otherwise it may ruin the housing!

## INSTALL SPEAKER/MICROPHONE

Insert the speaker/microphone plugs into the speaker/microphone jack.

Note:

The radio is not entirely waterproof when use the speaker/microphone.



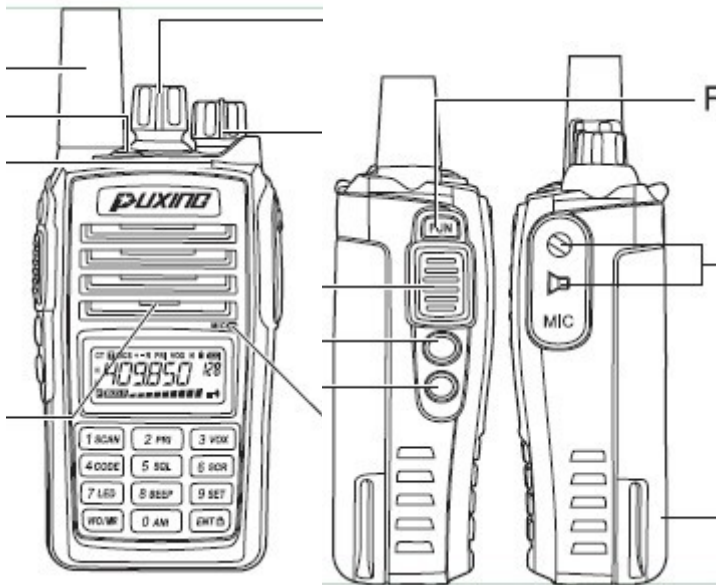
## I INSTALL THE COVER OVER THE SPEAKER/MICROPHONE JACKS

If not use a speaker/microphone, please use the screw to install the cover over the speaker/microphone jack.

Note: If you need your transceiver to be waterproof you have to install the cover.



## GETTING ACQUAINTED



### ANTENNA

### EMERGENCY CALL

LED INDICATOR.: Lights red while transmitting.

Lights green while receiving.

### SPEAKER

### PTT(push to talk) BUTTON

Press this key, then speak into the microphone to call. Release it to receive.

SIDE 3 KEY/SIDE 4 KEY use to define various of functions

### CHANNEL SWITCH

Rotate to select a channel from 1 to 128

### POWER SWITCH/VOLUME CONTROL

Turn clockwise to switch on the transceiver. Rotate to adjust the volume.

To switch off the transceiver, turn counterclockwise fully.

MICROPHONE  
FUN(function key)  
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  
DCS tone  
CTCSS tone  
Priority scan  
High/Lower power  
Scrambler  
VOX  
Menu function  
Received signal strength and TX power  
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.

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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**

Press ENTER key and turn on the radio at the same time. You can switch between channel mode and frequency mode.

On frequency mode press VFO/MR key, you can switch between frequency mode and “Memory mode+Frequency mode”(VFO) mode.

## **Talk Around**

Talk around allows you to communicate directly with other radios without the repeater. When using talk around, the transmitting frequency is same with receive frequency. The CTCSS code is also same.

- **Storage**

In frequency mode, select the frequency and other parameters (such as CTCSS, DCS, repeater shift, etc.). Press [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 encoder to select the channel you needed, press the [VFO / MR] key to complete the channel storage and returns to the frequency mode.

## **Delete**

### **1. Delete one store channel**

On channel mode or frequency mode, turn off the power.

Hold on the VFO/MR key and turn on the power at the same time. The display will show “**DEL001?**” and the channel number you want to delete. Turn the **Encoder** knob or select the channel to delete. Press ENT key the display will show “**YES? 001**” ; press ENT key again to confirm. If you don’t want to delete it, just press VFO/MR key. Repeat all the operation to delete all the channels (1-128).

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

Hold on the FUN key and turn on the radio at the same time, the display will show “**RESET?**” . Press ENTER until “**VFO?**” is shown on the display; press it again for confirmation to clear all the setting under the frequency mode.

### **3. Delete Frequency and the setting under frequency mode**

Hold on 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 the frequency and all the settings in Frequency mode.

- 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.

### **Spread frequency by manual**

Hold on FUN+SIDE KEY 4 and turn on the radio at the same time, the display will show "SELF" then input the password "5858".

The display will show the minimum frequency and maximum frequency.

Input the frequency you need by keypad and press ENT key to confirm.

### **FM RADIO function**

This radio has a FM radio function.

1) Press [FUN] key the display will show "F" icon, press the side key 3 (predefined as FM radio) again to enable and disable the FM radio.

Under FM radio mode, you can use the keypad to input the frequency of the station you need. Turn the channel switch clockwise, the frequency or channel will rise; turn the channel switch counterclockwise, the frequency or channel will fall, the step is 50K/100K.

2) FM radio mode switch: Press [VFO/MR] key then press the keypad to enter the FM radio station you stored.

3) FM radio scan: Press SIDE KEY 3 the FM radio frequency will rise, press SIDE KEY 4 the FM radio frequency will fall. It will stop scan and show the current frequency you scan when the radio receive a signal.

### **HOT KEYS**

FUN+1SCAN=enter the channel scan

FUN+2PRI=enter the priority channel scan

FUN+3VOX=enter the VOX sensitivity setting

FUN+4CODE=enter the RX&TX CTCSS/DCS setting

FUN+5SQL=enter the SQL setting

FUN+6SCR=enter the scrambler on/off setting

FUN+7LED=enter backlight on/off setting

FUN+8BEEP=enter the beep on/off setting

FUN+9SET=enter the menu function

FUN+0ANI= enter the ANI code setting

FUN+VFO/MR= enter the channel store setting

FUN+ENT= enter the keypad lock

Function key FUN

- 1) As the function key, when the keypad is locked, hold on [FUN] key and rotate the knob to enter the menu function, release [FUN] key and press [ENT] key to enter the menu operation.
- 2) 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 top right corner, rotate the knob to store the frequency and setting on the channel you want to stored. press VFO/MR key to finish the channel store. Note: if the channel has stored some setting the channel number will not flashing when you rotate the channel to select the channel you need.
- 3) As the menu key: Press FUN+9SET key to enter the :”001” menu function.
- 4) As the high/low output power switch, press FUN key and press PTT key to switch between high/low power.
- 5) As the keylock button, press FUN and press ENT to lock the keypad. Repeat once again to unlock.
- 6) 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.
- 7) As the clear key: Hold on [FUN] key and turn on the radio at the same time to enter the all clear mode and clear frequency mode.
- 8) FUN+NUMBER KEY to enter the shortcut menu.
- 9) FUN+SIDE KEY 3 enter or exit the “FM” mode.

## **MENU FUNCTION**

### **Menu setting**

1. Press FUN+9set key to enter the menu mode.
2. Turn the channel switch to select the menu item you need.
3. Press [ENT] key to enter the menu item setting, some function can be set by the number keys and some functions should be use the channel switch to find the menu item you need, press [ENT] key to confirm your selection.
4. Press [VFO/MR]key to exit the menu mode after setting.

## **MENU FUNCTION LIST**

| NO. | Indication and description | Definition            |
|-----|----------------------------|-----------------------|
| 1   | SCAN(channel scan)         | All channels scan     |
| 2   | PRI(priority channel scan) | Priority channel scan |
| 3   | VOX(VOX sensitivity)       | OFF-9                 |

|    |                                       |                                      |
|----|---------------------------------------|--------------------------------------|
| 4  | POW(TX power)                         | HIGH/LOW                             |
| 5  | SQL(Squelch level)                    | 0-9                                  |
| 6  | SCRM(scrambler)                       | OFF/1-8 scrambler groups             |
| 7  | LED(backlight on/off)                 | OFF/AUTO/ON                          |
| 8  | BEEP (keytone)                        | ON/OFF                               |
| 9  | ANI (Automatic Number identification) | OFF/ON                               |
| 10 | KEYBO(keyboard lock)                  | MANUAL/AUTO                          |
| 11 | TOT(time out timer)                   | OFF-270 seconds                      |
| 12 | SCANS(scan mode)                      | TO/CO/SE                             |
| 13 | VOICE(voice guide)                    | OFF/CHS/ENG                          |
| 14 | OFFSET(offset setting)                | 0-42.000(VHF)0-80.000(UHF)           |
| 15 | C-CDC(RX/TX CTCSS/DCS)                | OFF-254.1/D023-D754                  |
| 16 | R-CDC(RX CTCSS/DCS)                   | OFF-254.1/D023-D754                  |
| 17 | T-CDC(TX CTCSS/DCS)                   | OFF-254.1/D023-D754                  |
| 18 | S-D(+/- offset)                       | 0/+/-                                |
| 19 | STEP(frequency step)                  | 2.5K/5K/6.25K/10K/12.5K/25K/50K/100K |
| 20 | NW(wide/narrow band)                  | NARROW/WIDE                          |
| 21 | NAME(channel name edit)               | OFF/ON                               |
| 22 | ROGER(call end tone)                  | OFF/ON                               |

## Menu function setting

### All channel scan

Hold on [F] key, and press[ 1scan ]key, "SCAN?" will show on the screen, Then press [ ENT] key to enter all channel scan mode, and scan starts with the displayed channel and it will pause for 5 seconds if any signal is detected on a channel, otherwise it will continue to scan next channel. Press any keys except [PTT] key and [ENT] key to stop scanning and return to the previous displayed channel.

### Priority channel scan

Press [F] key, then press [1SCAN] key and turn the channel switch, then "PRI?" will show on the screen, Then press[ENT] key to enter priority scan mode, and scan starts with the priority channel and it will pause for 5 seconds if any signal is detected in a channel, then it will scan other channels in turn, press any keys except [PTT] key and [ENT] key, it will stop scanning and return to the previous displayed channel.

Otherwise it will scan the next channel. For instance, if channel 3 is set as priority channel, the radio will scan 3-1,3-2……in turn.

### **VOX SENSITIVITY(VOX)**

VOX allows you to perform transmission by voices activation without pressing PTT key, and the radio will stop transmission automatically after the talk ends.

Under channel/frequency mode, hold on [FUN] key and [3VOX] key, the display will show “VOX?,” and press [ENT] key then press the number keys(0-9) or turn the channel switch to select the sensitivity level you need, select “OFF” means close the VOX function. Press [ENT] key to confirm and press [VFO/MR] to exit.

### **TRANSMISSION POWER(POW)**

Hold on [FUN] key, then press [9set ] key and turn the channel switch, then “POW?” will show on the screen. Press [ ENT ] key to choose high or low power, ”POW L?” indicates low power; turn the channel switch to switch to “POW H?” which indicates high power, press [ENT] key to confirm. Press [VFO/MR] key to exit.

### **SQUELCH(SQL)**

Hold on [F] key and press [5SQL] key , “SQL” will show on the screen. Press [ENT] key to enter squelch setting, and turn the channel switch to select the desired squelch level. Select(SQL5)( factory default setting is “SQL 5”). Press [ ENT] key to exit after selection.

### **SCRAMBLER ( optional )**

Under frequency/channel mode, press [FUN]+[6SCR] key, the screen will show “SCRM?”, press [ ENT ] then turn the channel switch to select OFF/ON, the scrambler will be off if you select “OFF”, press [ENT] to confirm after selection and press [VFO/MR] key to exit.

### **Backlight ON/OFF**

Under frequency/channel mode, press [FUN]+[7LED] key, the screen will show “LED?”, press [ENT] key then turn the channel switch to select “OFF/AUTO/ON”.

OFF means that the backlight is off upon any keyboard operation;

ON means that the backlight led keeps on constantly even you do not operate on any button.

AUTO means that the backlight led is on upon any keyboard operation, and it will remain on for 10 seconds. If there is no subsequent operation, the backlight will be cut off automatically.

### **BEEP ON/OFF**

Under frequency/channel mode, press [FUN]+[8BEEP] key, the screen will show “BEEP?”, press [ENT] key and turn the channel switch to select “OFF/ON”, select “ON” it means beep function is on, ”OFF” means the function is off. Press [ENT] to Confirm after selection and press [VFO/MR] to exit.

### **Automatic Numbering Identification (ANI) setting**

Under frequency/channel mode, press [FUN]+[0ANI] key, the screen will show “ANI?”, press [ENT] then turn the channel switch to select “OFF/ON”, select “OFF” It means the ANI function is off, select “ON” it means ANI function is on. After selection press [ENT] key to confirm, press [VFO/MR] key 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

## **KEYPAD LOCK SETTING**

Under frequency/channel mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to select “MANUAL” “AUTO”. After selection press [ENT] Key to confirm and press [VFO/MR] to exit.

## **TIME OUT TIMER(TOT)**

Continuous transmission may damage the radio, and the radio allows to set a time limit for transmission among OFF/30-270S. When time limit expires, the radio may Give a warning tone.

Under frequency/channel mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to select the eleventh item, the screen will show “TOT?” press [ENT] key and turn the channel switch to select “OFF-270”, select “OFF” it means TOT function is off. After selection press [ENT] to confirm and press [VFO/MR] to exit.

## **SCAN MODE**

Under frequency/channel mode, press FUN+[9SET] key to enter the menu mode, turn the channel switch to select the twelveth item, the screen will show “SCAN?” press [ENT] to confirm, you can select the three types: TO,CO,SE.

### **Time Operation mode (TO)**

When the radio detects a signal, it will pause scanning and remain the current status for 5 seconds, and it will go on with the scanning even if the signal still exists.

### **Carrier frequency mode (CO)**

When the radio detects a signal, it will stop scanning and stay on the same frequency till such signal disappears. There is 2 seconds latency between the disappearance of signal and continuing to scan.

### **Search scan mode (SE)**

When the radio detects a signal, it will stay on the frequency or channel of such signal and exit scanning.

## **VOICE GUIDE FUNCTION**

Under frequency/channel mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to select the thirteenth item, the screen will show “VOICE?”, Press [ENT] key and turn the channel switch to select “OFF/CHS/ENG”, if you select “OFF”, it means turn off the VOICE GUIDE function. After selection press [ENT] key to confirm and press[VFO/MR] to exit.

### **FREQUENCY DIFFERENCE**

Choose the difference between transmitting frequency and receiving frequency. Under frequency mode, press[F] button, then press [9SEL] button. Turn the channel switch to fourteenth item, then “DIFFER?” will show on the screen. Press [ENT] key to enter setting. Turn the channel switch or use the number keys to input directly the frequency difference you need, for VHF the range is between 00.000-42.000(MHZ). For UHF the range is 00.000-80.000(MHZ).Press [ENT] button to confirm and press [VFO/MR] key to exit.

### **TRANSMIT/RECEIVE CTCSS/DCS**

Under frequency mode, press [FUN] +[4CODE] key, the screen will show “C-CDC?”, press [ENT] key then turn the channel switch to select CTCSS(OFF-254.1). Press SIDE KEY 3 to switch between CTCSS and DCS. DCS range is OFF-D754. Press SIDE KEY 4, you will select the normal (N) or inverted (I) DCS codes.

You also can input the non-standard CTCSS and DCS by number keypad or programming software.

### **RECEIVE CTCSS/DCS**

Under frequency mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to the sixteenth item, the screen will show “R-CDC?”, press [ENT] key then turn the channel switch to select CTCSS(OFF-254.1), press the SIDE KEY 3 you can switch between CTCSS and DCS. DCS range is OFF-D754. Press SIDE KEY 4, you will select the normal (N) or inverted (I) DCS codes. After selection, press [ENT] key to confirm and press [VFO/MR] key to exit.

### **TRANSMIT CDC**

Under frequency mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to the seventeenth item, the screen will show “T-CDC?”, press[ ENT] key and turn the channel switch to select the CTCSS(OFF-254.1). press the SIDE KEY 3 you can switch between CTCSS and DCS. DCS range is OFF-D754. Press SIDE KEY 4, you will

select the normal (N) or inverted (I) DCS codes. After selection, press [ENT] key to confirm and press [VFO/MR] key to exit.

### **FREQUENCY DIRECTION**

Under frequency mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to the eighteenth item, the screen will show “S-D?”, press [ENT] key and turn the channel switch to select “0/+/-“, (+) indicates increasing frequency, (-) indicates reducing frequency and (0) indicates identical frequency. After selection press [ENT] key to confirm and press [VFO/MR] key to exit.

### **FREQUENCY STEP**

Under frequency mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to the nineteenth item, the screen will show “STEP?”, press [ENT] key turn the channel switch to select “2.5K/5K/6.25K/10K/12.5K/25K/50K/100K”. (VHF default is 10k, UHF default is 12.5K). After selection press [ENT] key to confirm and press [VFO/MR] key to exit.

### **WIDE/NARROW BAND**

Under frequency/channel mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to select the twentieth item, the screen will show “N/W?”, press [ENT] key and turn the channel switch to select “NARROW/WIDE”, “WIDE” means wide band, “NARROW” means narrow band. After selection press [ENT] key to confirm and press [VFO/MR] key to exit.

### **NAME OF CHANNELS**

Under frequency mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to the twenty-first item, the screen will show “NAME?”, press [ENT] key and turn the channel switch to select “OFF/ON”. “OFF” means turn off the channel name, “ON” means turn on the channel name. After selection press [ENT] key to confirm and press [VFO/MR] key to exit.

### **TALK END TONE**

Under frequency/channel mode, press [FUN]+[9SET] key to enter the menu mode, turn the channel switch to twenty-second item, the screen will show “ROGER?”, press [ENT] key and turn the channel switch to select “OFF/ON”, “OFF” means turn off the TALK END TONE function. After selection press [ENT] key to confirm and press [VFO/MR] key to exit.

## DTMF CODE

This radio has DTMF function, under channel/frequency mode, in the transmitting status, input the number on the keypad or other function key, then it will have the corresponding DTMF code issue. The DTMF code issued by the function keys are as follow:

FUN → A      SIDE KEY 4 → C  
SIDE KEY 3 → B      EMERGENCY KEY → D

## DTMF/MSK/5-Tone Operation

Using DTMF/5-Tone to achieve select call/STUN/remove STUN etc.function.

Take advantage of the programming software set the ID code of

DTMF/5-Tone,STUN transmitting/remove STUN transmitting/STUN

receive/transmitting code. Define the SIDE KEY 3 or SIDE KEY 4 as optional call signaling, when the channel optional signaling select DTMF or 5-Tone, press the Side key defined as optional signaling, the screen will show “CALL?”, at this time you can press the number key to select the stored optional signaling. Press [PTT] key to enter the shortcut call or press [ENT] key the screen will show “-----” to input your desired code. If the input number is mistake, or you decide not dial the number, rotate the encoder. Counter clockwise rotate to delete one by one, to exit rotate clockwise. Input your desired number, press [PTT] key to call.

When your partner receives the correct code it will execute the corresponding function.

## 5-TONE call(optional)

1)5-Tone Call: Select the channel with 5-Tone optional signaling, press SIDE KEY as “optional signaling call” to enter the shortcut call or press [ENT] key, the screen display “-----”, at this time you can input select call/STUN/remove STUN codes, press [PTT] key to call. When your partner receives the corresponding call code his radio will start to receive, turn of the speaker and you can hear the voice from your partner.

2)5-Tone encoder: You can set by programming software and 9 groups available. You can input the characters0-9/A-F,and 5 bits for each group.

## DTMF(Dual Tone Multi-Frequency) Call

Achieved the radio select call、 group call and broadcast call by DTMF.

1)DTMF call: Select the channel with DTMF optional signaling, press SIDE KEY as “optional signaling call” to enter the shortcut call or press [ENT] key, the screen display “-----”, at this time you can input select call/STUN/remove STUN codes, press [PTT] key to call. When your partner receives the corresponding call code his

radio will start to receive, turn of the speaker and you can hear the voice from your partner.

2) DTMF encoder: You can set by programming software and 9 groups available.

You can input the characters0-9/A-D、 \* and #,and 16 bits for each group.

DTMF select call ID code without A-F characters, but group call and broadcast call ID code with A-F characters.

MSK call: Select the channel with MSK optional signaling, press SIDE KEY as “optional signaling call” to enter the shortcut call or press [ENT] key, the screen display “-----”, at this time you can input select call/STUN/remove STUN codes, press [PTT] key to call.

2) MSK encoder :You can set by programming software and 9 groups available. You can input the characters0-9/A-F, 4bits for each group.

50 CTCSS ( Hz )

|      |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|
| 67.0 | 85.4  | 107.2 | 136.5 | 165.5 | 186.2 | 210.7 | 254.1 |
| 69.3 | 88.5  | 110.9 | 141.3 | 167.9 | 189.9 | 218.1 |       |
| 71.9 | 91.5  | 114.8 | 146.2 | 171.3 | 192.8 | 225.7 |       |
| 74.4 | 94.8  | 118.8 | 151.4 | 173.8 | 196.6 | 229.1 |       |
| 77.0 | 97.4  | 123.0 | 156.7 | 177.3 | 199.5 | 233.6 |       |
| 79.7 | 100.0 | 127.3 | 159.8 | 179.9 | 203.5 | 241.8 |       |
| 82.5 | 103.5 | 131.8 | 162.2 | 183.5 | 206.5 | 250.3 |       |

104+1 DCS

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

Note:CTCSS and DCS can set between the highest frequency and lowest frequency.

## Technical specification

### General

|                   |                                            |
|-------------------|--------------------------------------------|
| Frequency Range   | 138MHz-174MHz,400-500MHz                   |
| Working Temperate | -25°C—+55°C                                |
| Operating Voltage | DC 7.4V                                    |
| Operate Mode      | Same frequency/different frequency simplex |
| Dimension         | 115mm×55mm×35mm (Not included Antenna)     |
| Weight            | 238g (Including battery)                   |
| Antenna impedance | 50Ω                                        |

|                             |                 |
|-----------------------------|-----------------|
| Transmitter                 |                 |
| Carrier Frequency Tolerance | ±250Hz          |
| Carrier Output Power        | H≤5W L≤1W       |
| Modulation limit            | ≤2.5KHz@12.5KHz |
| Audio Distortion            | ≤5%             |
| Modulation Character        | +3dB~-3dB       |
| Adjacent Channel Power      | ≥65dB           |
| Spurious Radiation          | ≤7.5UW          |
| Occupied Bandwidth          | ≤11KHz          |

|                            |           |
|----------------------------|-----------|
| Receiver                   |           |
| RF Sensitivity             | <0.224uV  |
| Audio Distortion           | ≤5%       |
| Audio Response             | +3dB~-3dB |
| Co-channel Rejection       | ≥-8dB     |
| Adjacent channel selective | ≥55dB     |
| Spurious Response          | ≥55dB     |
| Blocking                   | ≥85dB     |

\* 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 Warning

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

fonctionner 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, or less, 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.