Thank you for choosing this Pofung mobile radios.

POFUNG always provide customers with high performance, high stability of the real radio communications products, this mobile radios are no exception. In the process of you learn to use this mobile radios can feel the POFUNG friendly design of the user interface.

Although the user friendly interface design, this mobile radios technically still is very complex, and some function is also new for you.This manual can be regarded as the designer to provide users with individual tutorial, please follow the manual step by step to complete the learning process, and retain for future reference.

When programming the mobile radio, read the factory initial date firstly, then rewrite the frequency and signaling etc.,otherwise errors may occur because of different frequency band etc..

FEATURES AND FUNCTIONS:

BF-9500 Mobile Radio has nice housing, stoutness & stability, advanced and reliable functions, perfect & valuable. More functions as follows:

- Display on a large LCD with adjustable brightness， convenient information access.
- Distribute buttons reasonably, convenient for operation.
- Adopt superior quality material, better technology and high quality radiator to ensure stable and durable operation.
- 200 programmable memorized channels.
- Using 5Tone to send Message, Emergency alarm, Call all, ANI, Remotely kill, Remotely Waken, etc.
- Programming different CTCSS, DCS, 2Tone, 5Tone in per channel, rejecting extra calling from other radios.
- High/medium/low power, can meet the needs of long distance communication, more energy saving province electricity.
- Automatic calling identification function by DTMA—ANI or 5Tone—ANI.
- Theft alarm provides extra safety.
- Compander function for decrease the background noise and enhance audio clarity. (Optional)
- Scramble function (Optional)

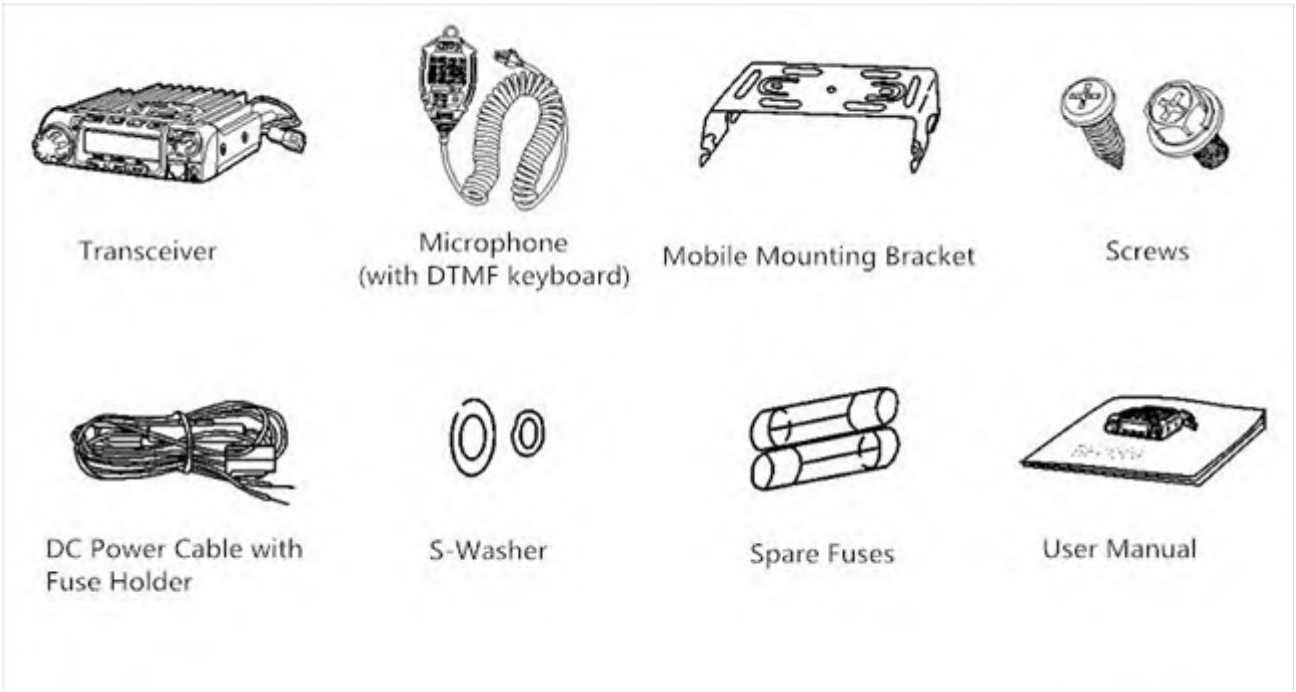
Precautions

Please observe the following precautions to prevent other accident damage mobile radio:

- Do not attempt to configure your mobile radio while driving,it is dangerous.
- Use mobile radio, shall comply with the local laws and regulations.
- Don't launch with high output power for a long time;This may lead to mobile radio is Overheating.
- Don't try to refit the mobile radio.
- Do not expose the transceiver to long periods of direct sunlight nor place it close to heating appliances.
- Do not place the transceiver in excessively dusty, humid or wet areas, nor unstable surfaces.
- If an abnormal odor or smoke is detected coming from the transceiver, turn OFF the power immediately. Contact an POFUNG service station or your dealer.
- This transceiver is designed for a 13.8V DC power supply. Don't use a 24V battery to power on the transceiver.

Supplied Accessories

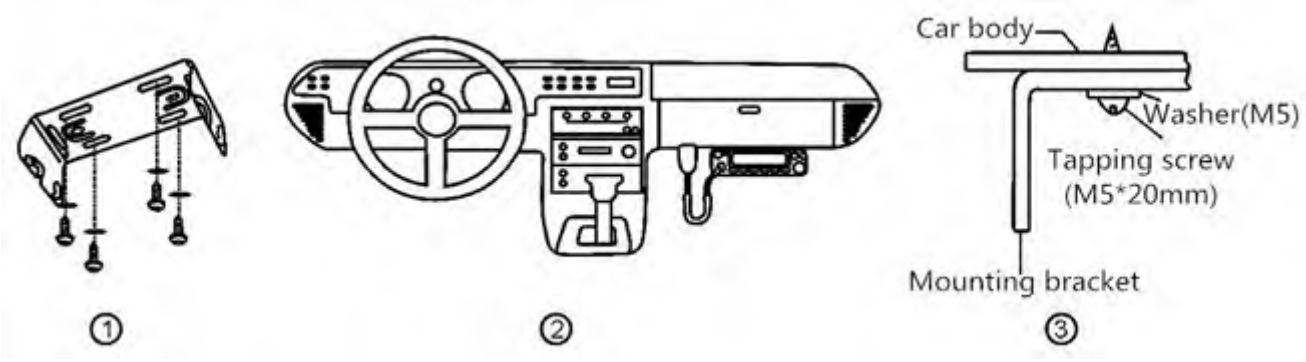
After carefully unpacking the transceiver, identify the items listed in the table below. We suggest you keep the box and packaging.



Mobile installation

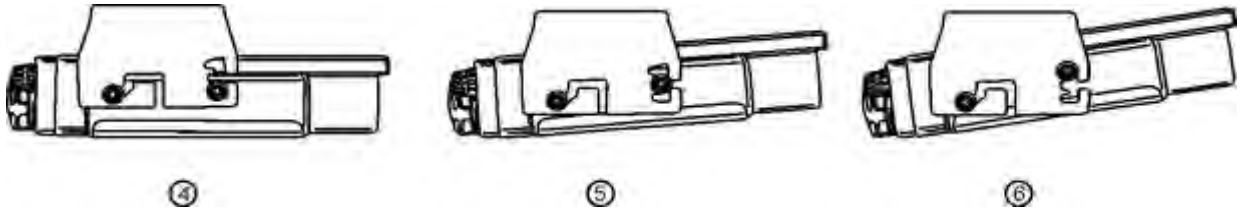
To install the transceiver, select a safe, convenient location inside your vehicle that minimizes danger to your passengers and yourself while the vehicle is in motion. Consider installing the unit at an appropriate position so that knees or legs will not strike it during sudden braking of your vehicle. Try to pick a well ventilated location that is shielded from direct sunlight.

1. Install the mounting bracket in the vehicle using the supplied self-tapping screws(4pcs) and flat washers(4pcs).

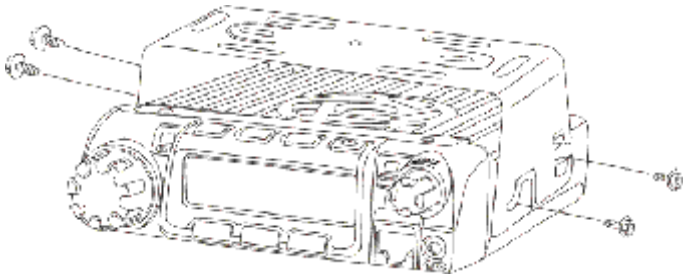


2. Position the transceiver, then insert and tighten the supplied hexagon SEMS screws(4pcs) and flat washer(4pcs).

·Double check that all screws are tightened to prevent vehicle vibration from loosening the bracket or transceiver.



·Determine the appropriate angle of the transceiver, using the 3 screw hole positions on the side of the mounting bracket.



DC Power Cable Connection

1. Mobile Radio Operation

The vehicle battery must have a nominal rating of 12V. Never connect the mobile radio to a 24V battery. Be sure to use a 12V vehicle battery that has sufficient current capacity. If the current to the mobile radio is insufficient, the display may darken during transmission, or transmitting output power may drop excessively.

1) Route the DC power cable supplied with the transceiver directly to the vehicle's battery terminals using the shortest path from the transceiver.

·We recommend you do not use the cigarette lighter socket as some cigarette lighter sockets introduce an unacceptable voltage drop.

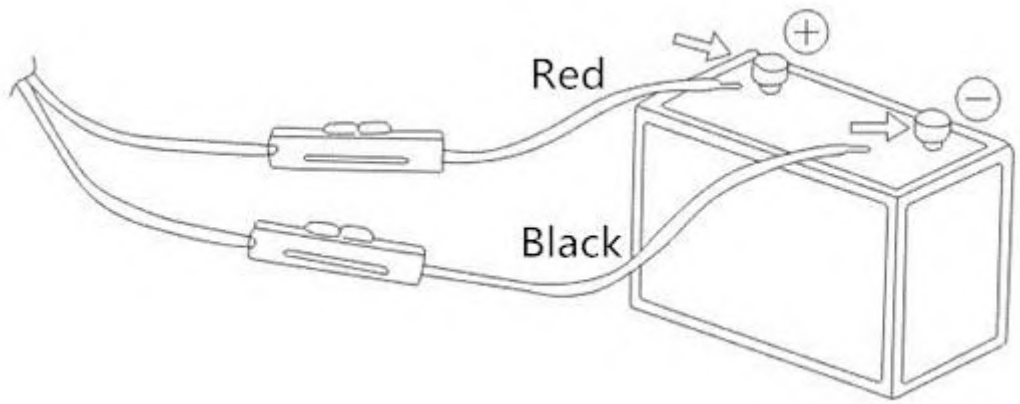
·The entire length of the cable must be dressed so it is isolated from heat, moisture, and the engine secondary (high voltage) ignition system/ cables. ⊖

2) After installing cable, in order to avoid the risk of damp, please use heat-resistant tap to tie together with fuse box. Don't forget to reinforce whole cable.

3) In order to avoid the risk of short circuit, please cut down connection with negative of battery, then connect with radio.

4) Confirm the correct polarity of the connections, then attach the power cable to the battery terminals; red connects to the positive ⊕ terminal and black connects to the negative ⊖ terminal.

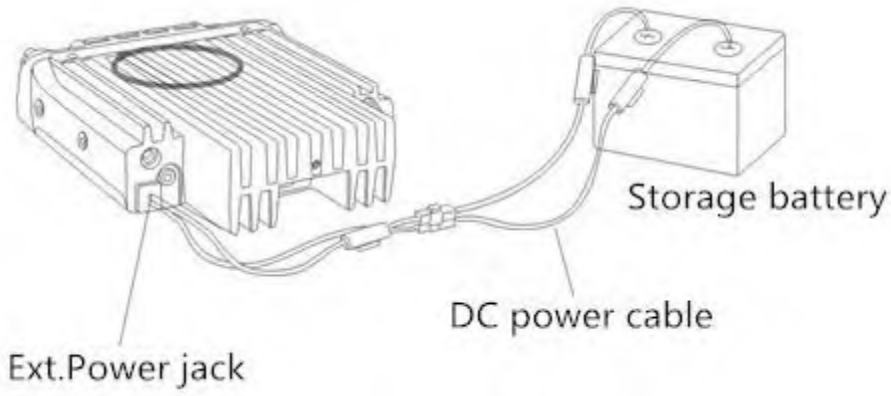
·Use the full length of the cable without cutting off excess even if the cable is longer than required. In particular, never remove the fuse holders from the cable.



5) Reconnect any wiring removed from the negative terminal.

6) Connect the DC power cable to the transceiver's power supplym connector.

·Press the connectors firmly together until the locking tab clicks.



2. Fixed Station Operation

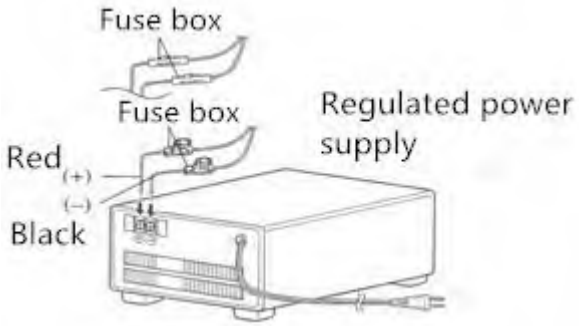
In order to use this transceiver for fixed station operation,you will need a separate 13.8V DC power supply (not included), The recommended current capacity of your power supply is 15A.

1) Connect the DC power cable to the regulated DC power supply and ensure that the polarities are correct. (Red: positive, Black:negative).

·Do not directly connect the transceiver to an AC outlet.

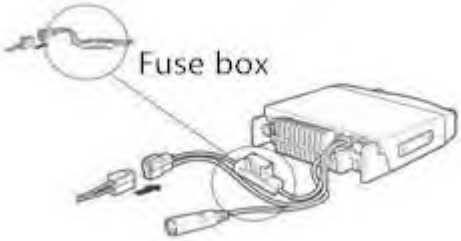
·Use the supplied DC power cable to connect the transceiver to a regulated power supply.

·Do not substitute a cable with smaller gauge wires.



2) Connect the transceiver's DC power connector to the connector on the DC power cable.

·press the connectors firmly together until the locking tab clicks.

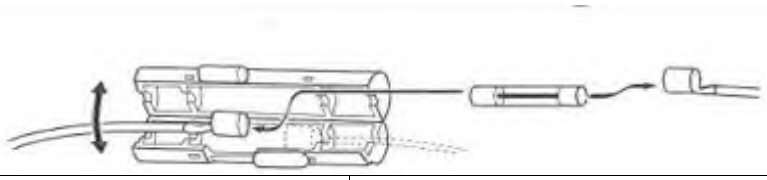


◆ Before connecting the DC power to the transceiver, be sure to switch the transceiver and the DC power supply OFF.

◆ Do not plug the DC power supply into an AC outlet until you make all connections.

■REPLACING FUSES

If the fuse blows, determine the cause, then correct the problem. After the problem is resolved, replace the fuse. If newly installed fuses continue to blow, disconnect the power cable and contact your authorized POFUNG dealer or an authorized POFUNG service center for assistance.



Fuse Location	Fuse Current Rating

Transceiver	15A
Supplied Accessory DC power cable	20A

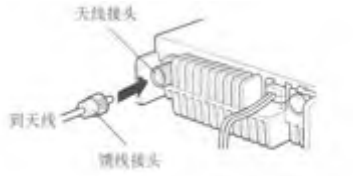
◆If you use the transceiver for a long period when the vehicle battery is not fully charged, or when the engine is OFF, the battery may become discharged, and will not have sufficient reserves to start the vehicle. Avoid using the transceiver in these conditions.

◆Only use fuses of the specified type and rating, otherwise the transceiver could be damaged.

Antenna Connection

Before operating, install an efficient, well-tuned antenna. The success of your installation will depend largely on the type of antenna and its correct installation. The transceiver can give excellent results if the antenna system and its installation are given careful attention.

Use a 50Ω impedance antenna and low-loss coaxial feed-line that has a characteristic impedance of 50Ω, to match the transceiver input impedance. Coupling the antenna to the transceiver via feed-line having an impedance other than 50Ω reduces the efficiency of the antenna system and can cause interference to nearby broadcast television receivers, radio receivers, and other electronic equipment.

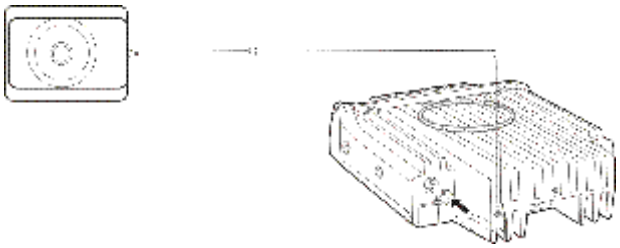


Transmitting without first connecting an antenna or other matched load may damage the transceiver. Always connect the antenna to the transceiver before transmitting. All fixed stations should be equipped with a lightning arrester to reduce the risk of fire, electric shock, and transceiver damage.

Accessories Connections

1. External Speaker

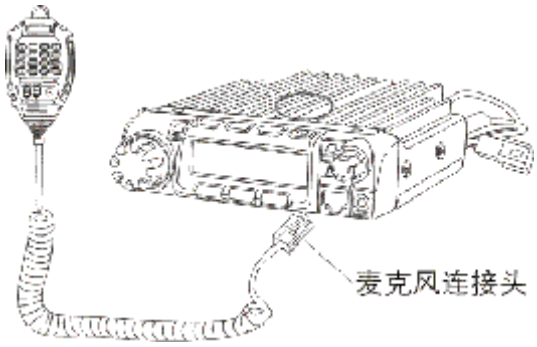
If you plan to use an external speaker, choose a speaker with an impedance of 4Ω. The extemal speaker jack accepts a 3.5mm(1/8")mono (2-conductor) plug.



The speaker can not connect with the ground, otherwise the speaker will be fault.

2. DTMF Microphone

For voice communications, connect a microphone equipped with an 8-pin modular plug into the modular socket on the front of the main unit. Press firmly on the plug until the locking tab clicks. Attach the supplied microphone hanger in an appropriate location using the screws included in the screw set.



麦克风连接头：Microphone connector

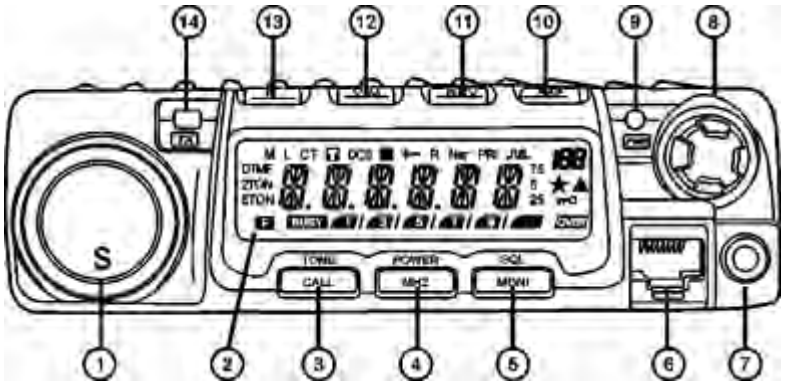
3. PC Connecting

To utilize the Programming software(BF-9500) , you must first connect the transceiver to your PC then using an optional programming cable PC (via USB socket).

Programming software acquisition can contact your dealer or visit the official website :www.baofengradio.com. Ask your dealer about purchasing a Programming Cable USB-PC-95.

■ Getting Acquainted

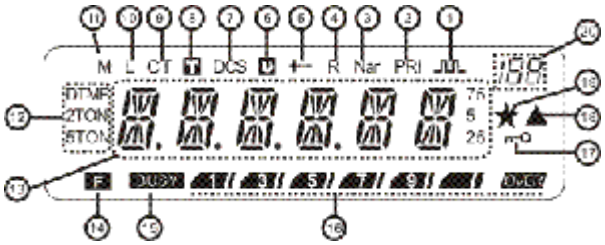
1. Front panel



· **Basic Functions**

No.	KEY	FUNCTION
1	Main Dial	Change frequency, memory channel and scan direction etc
2	LCD	**Display the menu, sfrequency, channel information etc..**
3	TONE and CALL Function keys	**Switches between 2TONE,5TONE and DTMF.**
4	POWER and MHz Function keys	**High/medium/low power switch； frequency regulation(MHz)**
5	SQL and MONI Function keys	**Set noise level** and monitor function
6	DTMF Mic.connector	Microphone connection port； PC programming port,
7	Theft Alarm Port	Theft alarm functions
8	VOL	Adjust Volume Key
9	Power Light	**Power lights**
10	（Power Key）	Power On/Off
11	REV	**Reverse Frequency； Long press 2 seconds lock the keyboard； Amateur/Professional mode switch； Channel deleted**
12	V/M	**Frequency and channel switch； Long press for 2 seconds to switch frequency and channel scan; Channel deleted**
13	F	**Function of open； Long press for 2 seconds to enter the menu mode**
14	TX	**TX light,**

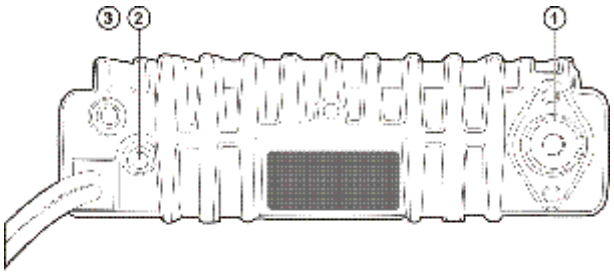
2. Display



No.	Icon	FUNCTION
1		Compander
2	PRI	**Priority Channel**
3	Nar	Narrow band
4	R	**Reverse Frequency**
5	+ −	Offset frequency direction
6		Auto power off
7	DCS	Set DCS function
8	T	CTCSS code
9	CT	CTCSS decode
10	L	Low power
11	M	Middle Power
12	DTMF 2TON 5TON	Set DTMF、2TONE、5TONE function
13		Indicates the frequency or memory name
14	F	Pressing 【F】 key

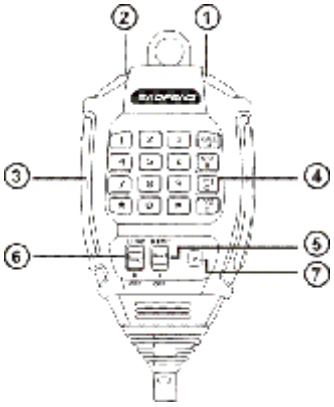
15	BUSY	Signal is being received or monitor
16		Signal strength of receiving and transmitting.
17		Keypad lock
18		**Current channel number has been stored**
19		**Channel scan skip this channel**
20	108	Indicates the channel number in channel mode

3. Rear Panel 后面板



No.	Port	FUNCTION
1	Antenna Connector	Connection for 50Ω coaxial cable and antenna.
2	Ext.Speaker Terminal	Terminal for optional external speaker SP01
3	Adjustable measuring port	Production of set parameters when special port

4. DTMF Microphone DTMF 手咪



1) Basic Functions

No.	Key	FUNCTION
1	UP	Increase frequency ,channel number or setting value
2	DOWN	Decrease frequency, channel number or setting value
3	PTT	Press the PTT (Push-TO-Talk) key to transmit
4	PF1/A	Custom key 1.(Default: CALL).Press the [PTT]then press the [PF1/A] transmit A.
5	PF2/B	Custom key 2. (Default:V/M). Press the【PTT] then press the [PF2/B] transmit B.
6	PF3/ C	Custom key 3. (Default:FM_RADIO). Press the [PTT] then press the [PF3/ C] transmit C.
7	PF4/ D	Custom key 4.(Default:BATTERY)。Press the [PTT] then press the [PF4/ D] transmit D.
8	Number Key	Input VFO frequency or DTMF dial out etc..
9	LOCK Switch	Locks out the UP/Down/Numerical keys and Function keys
10	D T M F O N /OFF	Switches between DTMF dialing or function operating
11	MIC	Speak here during transmission

2) 【PF1～PF4】Function List:

REV	Reverse Frequency
CALL	Optional signaling call
MONI	Monitor
MHZ	In **Frequency mode, Adjust the high MHZ**
SHIFT	Offset Direction
V/M	**Frequency/Channel**
CT/DT	OFF/CTCSS Code/CTCSS CODEC/DCS CODEC

SQL	**Set noise level**
POWER	**High/medium/low power switch**
SCAN	**frequency**、channel、CTCSS/DCS Scan
PRI	**Priority Channel switch**
BATT	Battery voltage detection
RADIO	**FM Radio switch**
DTMF	DTMF edit
M-V	**Storage of channel parameters**
TONE	Optional signaling switch
LOCK	key lock(**Except the PTT Key)**

3）FM Radio mode：

①**Press Microphones [UP] button UP the search；**

②**Press Microphones [DOWN] button Down the search；**

FM Radio mode, when there is a signal or press [PTT] launch, withdrew from the state of the radio automatically, over 5 seconds automatically return into the radio mode.

4）**Microphones keys function：**

·**DTMF launch: press and hold 【PTT】 + Mic key（The microphone on DTMF function effectively）**

·**press and hold 【PTT】, then press 【DOWN】 key: launch 1750 HZ, loose【DOWN】key to cancel the launch1750**

·**press and hold 【PTT】, Short press 【UP】 key： launch the set of optional signaling(DTMF/2TONE/5TONE)**

5) Keypad Lockout

Pull down the slide switch to lock position, the lamp is turned off and all of keypads is not work except PTT switch.

6) Transmitting DTMF by microphone keypad

Slide DTMF key to DTMF position, press and hold the [PTT] key, transmitting the desired DTMF signaling by the numeric key directly. (Note: Slide DTMF key to DTMF position, the keyboard is invalid in standby)

■Professional Transceiver Mode 专业机模式

According to practical application, you can set the radio works as Professional Transceiver mode.

1. Sets the display mode 显示模式设定

1） By manual setup:： Prees the REV and ⏻ keys boot, amateur or professional machine display mode switch

2） By programming software: In PC software's "General Setting"menu ,choose "Display Mode" to select Amateur Transceiver mode or Professional Transceiver mode.

2. Amateur Transceiver Mode 业余机模式

Except setting as "CH" mode, others considered as Amateur transceiver mode. Under this mode,press V/M key to switch between Channel mode and VFO mode .

1）Frequency+Channel mode：When set display as"FR",it enters into Frequency+Channel mode, new setting of channel operation and shortcut operation can be temporarily used by user. Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings.

2） Channel+Name Tag Mode： When set display as "NM",it enters into Channel +Name Tag mode. At this mode, it will display corresponding channel name when the current channel is edited with name. Otherwise, it will display frequency + channel. Its operations are the same as frequency + channel mode.

3） VFO Mode（Frequency mode）： This mode shows only frequency on the display. Shortcut operation and Channel setting will be changed & stored as the latest value permanently.Once the radio is turned off or changed to new VFO frequency, the latest setting is remained until next change.

3. Professional Transceiver Mode 专业机模式

When set display mode as "CH",it enters into Professional Transceiver mode.At this mode,except scan,other shortcut operation can't operate.And from No.1-15 menu in function setting will be auto-hidden,They should be set by PC software.If there is corresponding name for current channel,the LCD will display current channel name Otherwise,it shows current channel number.

■ Basic Operations 基本操作

1. Switching The Power On/Off 车载台开启与关闭

1） Press the key to open the radio power.(Light is light orange)

2） Press the key for 1s to turn off.

2. Adjusting The Volume 调节音量

1）Turn the VOL knob clockwise to increase the audio level.

2）counterclockwise to decrease the audio level.

3. Transmitting （发射）

1）Please hold the Microphone, Then press and hold [PTT] key to speak into microphone.

·Please hold the microphone approximately 5.0cm from your lips, and then speak into the microphone in your normal speaking voice to get best timbre.

·Press and hold [PTT] key, TX light and a red glow.

·If use outside launch coverage area, walkie-talkie fault of a loud sound.

2.）Loosen the microphones [PTT] to receive。

4. Receiving 进行接收

When the channel you are operating is called, the screen shows BUSY, in this way, you can hear the calling from transmitting party.

If the transceiver has set at higher squelch level, it may fail to hear the calling.

When the channel you are operating is called,the screen shows BUSY ,you can't hear the calling from transmitting party,it means current channel receives a matching carrier but not match signaling(Refer to CTCSS/DCS encode and decode or Optional Signaling setup).

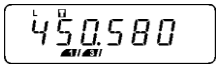
5. Squelch Function 监听功能

In standby mode, short press the [MONI] key open squelch, mute circuit to shut down, you will hear the background noise a hint sound ;Again a short press [MONI] close squelch, can’ t hear background noise (two consecutive hint sound).

If you need to check whether there is the channel interference, please press this button, and then turn the volume control knob, you can hear the background noise or interference.

6. HIGH/MID/LOW Power switch 选择输出功率

Press [F] key until LCD display icon,then press [POW] key to switch between high/Mid/low power. The LCD appears:

·L:Transmit in low power 

·M: Transmit in middle power

·None: Transmit in high power.

·Don't use high output power for a long time to call, this may result in interphone overheating and can't work normally.

·Continuous use can lead to overheating radiator, this case, be careful not to touch the radiator.

·Mobile Radio overheat protection circuit may will interphone switch to low emission power output.

7. Switch between VFO and Channel mode 工作模式切换

In standby mode, press [V/M] key or Microphone [UP][DOWN]key until appear Channel number. this indicates current channel in channel mode. Repeat above operation to switch between Frequency mode (VFO) and Channel mode.

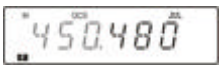
8. Selection Frequency 选择频率

1） VFO Mode (Frequency Mode)

In standby mode, press the [V/M] key, switch to VFO mode, main knob clockwise control higher frequency, rotate counterclockwise to reduce the frequency, or use the microphone [UP] [DOWN] key raise or lower frequencies.

2） MHz Mode

① In VFO mode, press the MHZ key, the frequency of the screen display area MHZ digital flicker.



② Turning the knob to select the required value MHz. Main knob clockwise control increases MHZ, rotate counterclockwise to reduce MHZ. Rise and fall MHZ or use hand microphones F key values.

③ Press any key to set the selected frequency and return to normal VFO mode.

3） Incoming Frequency

① In standby mode, press the V/M key, switch to VFO mode.

·Must be in VFO mode to use.

② Press numeric keys ([0] to [9]) enter the required frequency (the three decimal point as the MHZ, three decimal places for KHZ).

9. Channel memory 信道存储

1） Frequency to save channel：

① Under frequency mode (VFO), turn selector knob to select the desired frequency or input frequency by MIC's numeric keys；

④ Press F Key,LCD appears F, channel number icon flashing；

⑤ Press TONE key to enter CTCSS/DCS signaling setup, turn selector knob to select the desired signaling；

④ Turn selector knob to select the desired channel number to store;

⑤ Press V/M key, , F icon and channel number disappears and emit a prompt voice, thus the channel storage succeed.

2） Channel storage channel 信道存信道：

① Under channel mode， turn selector knob to select the desired channel；

② Press F Key,LCD appears F, channel number icon flashing；

③ Turn selector knob to select the desired channel number to store；

④ Press V/M key, , F icon and channel number disappears and emit a prompt voice, thus the channel storage succeed.

10. Channel Delete 删除信道

1）Under channel mode, turn selector knob to select channel which you want to delete；

2）Short press the F key, then press the REV key, the screen appears SURE?Short press REV again, current channel will be deleted and emitted a prompt voice.

11. Transmitting Tone-Pulse 发射中转导频频率（即单音脉冲）

Press and hold [PTT] key, then press Microphone DOWN key to transmit 1750Hz tone-pulse signal；loosen the DOWN key to cancel the transmit 1750Hz tone-pulse signal.

12. Transmitting OPTIONAL SIGNALING 发射可选信令

Press and hold the Microphone [PTT] key, then press [UP] key to transmit pre-stored and selected DTMF/2Tone/5Tone optional signaling.

13.Transmitting DTMF 发射 DTMF

Slide DTMF key to DTMF position, press and hold the [PTT] key, transmitting the desired DTMF signaling by the numeric key directly.

14. KEYPAD LOCKOUT 键盘锁定

Avoiding unintentional operation, this function will lock main keys, all keys except [⏻] and [PTT] key are invalid.

1）Long press [REV] key until LCD displays icon, it indicates keypad lockout function is valid.

2）Repeat above operation, icon disappears, it indicates keypad lockout function is invalid.

15. Power supply voltage display function 电源电压显示功能

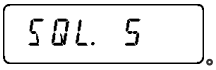
After the machine is connected to the power supply, long hands the microphone [PF4] key can confirm that the power supply voltage, the display screen displays the machine power supply voltage. When the supply voltage changes, the display will immediately change. When restart the power supply or repeat the above operation, the machine will return the user operation mode.

Voltage range shown only from 7 v - 16 v dc voltage, as shown in the numerical value is for reference only, if you want to have more accurate readings, please use the voltmeter.

Shortcut Operations 快捷功能操作

1. Squelch level Setup（[F]+[MONI]）

Setting the radio to a tight squelch level,you can avoid unwanted signals or noise,but you may not receive a weak signal. Therefore,it will be better for you to select the normal squelch level.

1） While standby, press the [F] key, the screen display F icon, then press [SQL], screen display  。

·The display screen shows the current squelch level。

2）Turn selector knob or press Mic [UP] [DOWN] key to set desired squelch level, Press any key to exit and save the Settings.

2. Frequency/Channel Scan 频率及信道扫描

1）Frequency Scan 频率扫描

①In VFO mode,long press V/M to enterinto frequency scan;

② Turn selector knob or press Microphone UP DOWN key to change scan direction;

③ Press any key except F key to exit.

2） Channel Scan 信道扫描

① In channel mode,Press V/M key to enter into channel scan;

② Turn selector knob or press Microphone UP DOWN key to change scan direction;

③Press any key except F key to exit.

3） CTCSS/DCS SCAN 扫描

When CTCSS or DCS functions activation, walkie-talkie to stop on the busy frequency, and decoding the CTCSS or DCS signaling.If CTCSS or match the DCS signaling, cancel the mute interphone.Otherwise, the intercom restore scanning.

① **Standby mode, Short press F key, the screen display F icon,then shore press CAL key, until the screen display "CTCSS" or "DCS";**

② **Long press V/M key, Begin CTCSS or DCS signaling scanning;**

③ **When decoding to match the CTCSS or DCS signaling, automatic exit CTCSS/DCS scan mode, display the current signal value, press any key to exit in the process of scanning scanning state;**

④ **If you want to save the current data, short press the F key, the channel number flashes, main knob choose channel number, short press the V/M key, save the current data to the specified channel.**

4. CTCSS/DCS Encode and Decode setup CTCSS/DCS 编解码设置

1）**Standby mode, Short press F key, then shore press CAL key,**

·When LCD appears CT icon, it means current channel with CTCSS CODEC, turn selector knob or press Microphone's UP DOWN key to select desired CTCSS CODEC.

·When LCD appears T icon, it means current channel with CTCSS encode, turn selector knob or press Microphone's UP DOWN key to select desired CTCSS encode.

·When LCD appears DCS icon, it means current channel with DCS encode, turn selector knob or press Microphone's UP DOWN key to select desired DCS encode.

2）**Repeat steps**（1）, **Switch the CTCSS encode**（T）/ **CTCSS CODEC** (CT)/ DCS **CODEC** (DCS)/OFF。

3）Press any key except F key to **Standby mode.**

Under channel mode,this operation can be temporarily used by user. Once the radio is turned off or switched to another

channel,the temporary setting will be erased.

5. Offset Direction and offset frequency setup 差频方向及差频频率设置

Repeater receives a signal(UP-LINK) on one frequency and retransmits on another frequency(DOWN-LINK). The difference between these two frequencies is called the offset frequency. If the UP-LINK frequency higher than DOWN-LINK frequency, the direction is positive, If it is lower, the shift direction is negative.

1）**Standby mode,long press** M/Z **key, LCD displays offset direction and offset frequency**；

2）Repeatedly press M/Z key to select positive offset and negative offset；

3）When LCD displays "+ " icon, it indicates positive offset, which means transmitting frequency higher than receiving frequency；

When LCD displays " " icon, it indicates negative offset, which means transmitting frequency lower than receiving frequency；

4）Turn selector knob or Mic's UP DOWN key to change offset frequency, offset frequency changed as per stepping；

5）Press any key except M/Z key to **save and exit the Settings .（Channel mode, the temporary save ）**

Under channel mode,this operation can be temporarily used by user. Once the radio is turned off or switched to another channel,the temporary setting will be erased.

6.可选信令选择设置

DTMF/5Tone/2Tone signalling function as similarily as CTCSS/DCS. Without receiving correspondent tone signalling, the speaker will remain mute. DTMF and 5Tone signalling can be applied for other advanced features such as ANI, PTT ID, group call, remotely stun,remotely kill, waken,...etc.

1） **Standby mode,long Press** TONE **key, Optional signaling required to set the current channel.**

2） **Repeat the above operation can be set optional signal to DTMF, 2TONE and 5TONE.**

- **LCD appears "DTMF" icon**：enable DTMF CODEC
- **LCD appears "2TONE" icon**：enable 2TONE CODEC；
- **LCD appears "5TONE" icon**：enable 5TONE CODEC；
- None: No signaling.

Under channel memory mode,this operation can be temporarily used by user. Once the radio is turned off or switched to another channel,the temporary setting will be erased.

7. Transmitting OPTIONAL SIGNALING 可选信令发码

If the current channel are optional to choose the corresponding signaling, short press the CAL **key, send the optional signaling**；

1）Display the DTMF: sending DTMF code, sending categories for menu "5" category, specific content can be found in the menu "21";

2）Display the"2TON" : sending 2TON code, sending categories for menu "3" category;

3）Display the "5TON" :sending 5TONE code,sending categories for menu"4" category;

4）No optional signaling is sending DTMF, with (1).

8. Reverse TX/RX 倒频功能设置

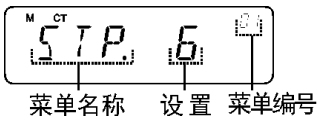
TX frequency turns to RX frequency & RX frequency changes to TX frequency. The signaling will also be reversed if CTCSS/DCS signaling exited in this channel.

In standby mode, the repetition of short [REV] key, set the current channel switch the function. the function opens, the screen R icon.

■ Menu Operation 菜单操作

■Menu access and operation(standby mode) 菜单访问与操作（待机模式下操作）

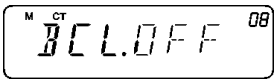
1）Long press the [F] key for 2 seconds, enter the function menu Settings.



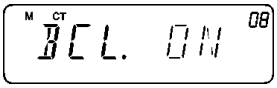
2）Turn selector knob or Mic's [UP] [DOWN] key, select the desired menu number.

·When change the menu number, display screen will be displayed on the brief explanation of each menu and the parameters.

3）Short press [F] to confirm to the contents of the menu, the menu content flicker.



4）Turn selector knob or Mic's [UP] [DOWN] key, select the desired menu content;



5） Short press the [F] key to confirm, after a prompt tone to save and return to the higher level menu;

6） Set up process short press [V/M] or [REV], cancel the save.

7） Press to other keys, cancel the save, send 3 the sound and return to the main interface.

■The edit menu content 菜单内容编辑：

1） **According to the menu operation flow into the content editor interface(Menu No.10 and Menu No.21)；**

2） **Scintillation screen "_", rotate the knob switch or Mic's UP DOWN key, and select the desired content, short press F confirm to save the current character and into the next character editing, short press MONI confirm the current character (not save) and into the next character editing, short press CALL move to the left a character editor, short press MHZ button to delete the cursor and on the right side of the content.When the cursor is at the far left short press CALL automatic save and exit is set to the main interface, When the cursor at the far right position and the without setting content and press the CALL key does not automatically save and return to the higher level menu interface, When the cursor at the far right position and the without setting content and press the F key to save and return to the higher level menu interface.**

■Menu item list 菜单项列表

Menu	Display	**Function**	**option**	default	
1	STP.	Frequency step	2.5、5、6.25、8.33、10、12.5、20、25、50、100K	6.25K	
2	SPK.	**Horn open mode**	SQ、CTC、TON、C*T、C/T	SQ	
3	2TONE	**2TONE signaling group**	00～31	00	
4	5TONE	**5TONE signaling group**	00～49	00	
5	DTMF	DTMF **signaling group**	0～9	0	
6	FMN.	**Narrow-band switch**	ON、OFF	OFF	
7	TX.	**Launch**	ON、OFF	ON	
8	BCL.	busy channel lockout	ON、OFF	OFF	
9	TALK.	Talk Around	ON、OF	OF	
10	M.NAME	Editing Channel Name			
11	BS.	**Beat Frequency**	ON、OFF	OFF	
12	L. OUT.	Scan skip	ON、OFF	OFF	
13	COMP.	Voice Compander	ON、OF	OF	
14	SCR.	**Scrambler setup**	ON、OFF	OFF	
15	MDF.	**Channel display mode**	MN、FRQ	MN	
16	D.	**Radio's DTMF SELF ID ENQUIRY**		12345	
17	F.	Radio's 5TONE SELF ID ENQUIRY		12345	
18	BP.	Voice Prompt	ON、OFF	OFF	
19	TOT.	Time-out timer	OFF、1～30 分钟	3	
20	APO.	Auto power off	OFF、0.5H、1H、1.5H、2H、4H	OFF	

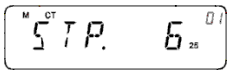
21	DTMF.MR	DTMF sending content editor	CH？0～9		
22	SPD.	DTMF Transmitting Time	50、100、200、300、500 毫秒	50	
23	SCAN.	Scan mode	TO、CO、SE	TO	
24	LAMP.	Backlight luminance	1～8	8	
25	COLOR	**Backlight Color**	CL-RX 1～3	1	
			CL-TX 1～3	2	
			CL-ST 1～3	3	
26	PF1	PF1	See the microphone programmable key definitions	CALL	
27	PF2	PF2	See the microphone programmable key definitions	V/M	
28	PF3	PF3	See the microphone programmable key definitions	RADIO	
29	PF4	PF4	See the microphone programmable key definitions	BATT	
30	TB.	**Pilot Frequency**	1000、1450、1750、2100Hz	1750Hz	
31	P.VFO	VFO Range	400～470MHz	400 ～ 470MHz	
32	RESET	Restore to default setting	VFO、FULL	VFO	

This Mobile Radio is equipped with 2 levels operation menu.From No.1 to No.15 are channel function setup, From No.15 to No. 29 are general setting setup.

■ General Setting 菜单设置操作详细说明：

1. Frequency Channel Step Setup 步进频率设置

1）In frequency (VFO) mode, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's [UP] [DOWN] key, and select 01 menu option, the screen display** 

；

3）**Short press the [F] key, enter the function menu, the screen flashing "6^{25}";**

4）**Adjust the knob switch or Mic's [UP] [DOWN] key, Select the desired, there are 2.5 K, 5 K, 6.25 K, 8.33 K, 10 K, 12.5 K, 20 K and 25 K, 50 K, 100 K;**

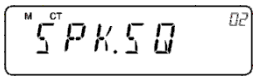
5）**Short press the [F] key, save and exit the Settings；**

6）**Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

2.喇叭打开模式

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 02 menu option, the screen display** 

；

·**If open the CTCSS/DCS and DTMF / 2 TON / 5 TON, options are "SQ, CTC, TON, C * T, C/T"**；

·**If open the CTCSS/DCS, options are "SQ, CTC,"**

·**If open the DTMF / 2 TON / 5 TON, options are "SQ, TON,"**；

·**If all closed, options have 'SQ"**；

3）**Short press the** [F] **key, enter the function menu, the screen flashing " SQ ";**

4）**Adjust the knob switch or Mic's** [UP] [DOWN] **key to selection**；

5) **Short press the** [F] **key, save and exit the Settings**；

6) **Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu**；

7) **Press to other keys , cancel the save and return to main interface**.

. “SQ”： **Receives the matching of the carrier wave,the horn to open**；

.“CTC”： **Receives the matching of the carrier wave and CTCSS/DCS, the horn to open**；

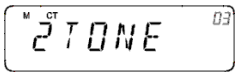
.“TON”： **Receives the matching of the carrier wave and DTMF/2TON/5TON, the horn to open**；

.“C*T”： **Receive the carrier wave and the CTCSS/DCS and DTMF / 2TON/ 5TON are matched, the horn to open**； ；

.C/T：**Receive the carrier wave and the CTCSS/DCS or DTMF / 2TON/ 5TON are matched, the horn to open**.

3. 2TONE Signaling Group 2TONE 信令编码组别

1) In **standby mode**, press and hold [F] key to enter general setting menu；

2) **Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 03 menu option, the screen display** 

3) **Short press the** [F] **key, enter the function menu, the screen flashing " 00 "(Total:32groups,00-31,Default:00);**

: **If the group has a name will display name, No name display "XX (group)"**

4) **Adjust the knob switch or Mic's** [UP] [DOWN] **key choose to group**；

5) **Short press the** [F] **key, save and exit the Settings**；

6）**Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu**；

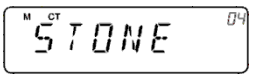
7）**Press to other keys , cancel the save and return to main interface**.

Content and name of 2TONE will be edited by programming software. This radio only query edited group or name.If there is

corresponding name for 2TONE,this operation will display 2TONE corresponding name.

4. 5TONE Signaling Group 5TONE 信令编码组别

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's [UP] [DOWN] key, and select 04 menu option, the screen display** 

3）**Short press the [F] key, enter the function menu, the screen flashing " 00 "(Total:50 groups,00-49,Default:00);**

If the group has a name will display name, No name display "XX (group)"

4）**Adjust the knob switch or Mic's [UP] [DOWN] key choose to group；**

5）**Short press the [F] key, save and exit the Settings；**

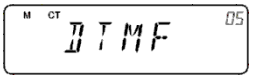
6）**Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

Content and name of 5TONE will be edited by programming software.This radio only query edited group or name.If there is corresponding name for 5TONE,this operation will display 5TONE corresponding name.

5. DTMF Signaling Group DTMF 信令编码组别

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's [UP] [DOWN] key, and select 05 menu option, the screen display** 

。

3）**Short press the [F] key, enter the function menu, the screen flashing " 00 "(Total:10 groups,00-09,Default:00);**

4）**Adjust the knob switch or Mic's [UP] [DOWN] key choose to group；**

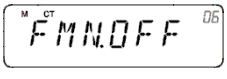
5）**Short press the [F] key, save and exit the Settings；**

6）**Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；**

7) **Press to other keys , cancel the save and return to main interface**.

6.Narrow-band switch 窄带开关

1) In **standby mode**, press and hold [F] key to enter general setting menu；

2) **Adjust the knob switch or Mic's [UP] [DOWN] key, and select 06 menu option, the screen display** 

；

3) **Short press the [F] key, enter the function menu, the screen flashing "OFF", Options are "OFF/ON";**

4) **Adjust the knob switch or Mic's [UP] [DOWN] key choose to ON；**

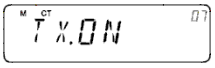
5) **Short press the [F] key, save and exit the Settings. LCD display the Nar icon,**

6. **Setup process short press V/M R/EV, then cancel save , and switch to the on a menu or next a menu;**

7. **Press to other keys , cancel the save and return to main interface**.

7. Launch 发射允许

1) In **standby mode**, press and hold F key to enter general setting menu;

2) **Adjust the knob switch or Mic's UP DOWN key, and select 07 menu option, the screen display** 

3) **Short press the F key, enter the function menu, the screen flashing "OFF", Options are "OFF/ON";**

4) **Adjust the knob switch or Mic's UP DOWN key choose to OFF;**

5) **Short press the F key, save and exit the Settings;**

6) **Setup process short press V/M R/EV, then cancel save , and switch to the on a menu or next a menu;**

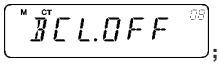
7) **Press to other keys , cancel the save and return to main interface**.

Set to TX. OFF, press (PTT) function is invalid, launch is prohibited.

8.Busy Channel Lockout 繁忙禁发

BCLO is to disable transmitting while RX signal is received. Once the channel is busy and you press PTT, the radio will beep as warning and get back to receiving.

1） In **standby mode**, press and hold F key to enter general setting menu;

2） **Adjust the knob switch or Mic's UP DOWN key, and select 08 menu option, the screen display** 

;

3） **Short press the F key, enter the function menu, the screen flashing "OFF", Options are "OFF/ON";**

4） **Adjust the knob switch or Mic's UP DOWN key choose to ON;**

5） **Short press the F key, save and exit the Settings;**

6） **Setup process short press V/M R/EV, then cancel save , and switch to the on a menu or next a menu;**

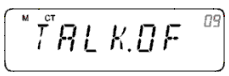
7） **Press to other keys , cancel the save and return to main interface**.

9.Talk Around 脱网功能

△This function effective if used with relay point.

By Talk Around function,you can directly communicate with other radios in your group in case the repeater is not activated or when you are out of the repeater range. The transceiver will transmit by RX frequency with its CTCSS/DCS signaling.

1） In **standby mode**, press and hold F key to enter general setting menu;

2） **Adjust the knob switch or Mic's UP DOWN key, and select 09 menu option, the screen display** 

;

3） **Short press the F key, enter the function menu, the screen flashing "OF", Options are "OF/ON";**

4）Adjust the knob switch or Mic's [UP] [DOWN] key choose to ON；

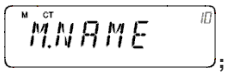
5）Short press the [F] key, save and exit the Settings；

6）Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；

7）Press to other keys , cancel the save and return to main interface.

10.Editing Channel NAME 信道名称编辑

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）Adjust the knob switch or Mic's [UP] [DOWN] key, and select 10 menu option, the screen display 

；

3）Short press the [F] key, enter the function menu,the screen cursor flashing；

4）Adjust the knob switch or Mic's [UP] [DOWN] key choose the desired content, press [F] to save the current character and into the next character to edit, press [MONI] to confirm the current character (don't save) and into the next character editing, Press [CALL] to move to the left one character edit, Short press the [M-CLR] key to delete the cursor and on the right side of the content.

5）Repeatedly press the [F] key, save and exit the Settings;

6）Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；

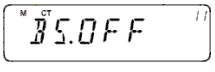
7）Press to other keys , cancel the save and return to main interface.

VFO mode, this option will automatically be hidden.

11. Beat frequency 拍频

Mobile Radio using microprocessor to control its various functions, may sometimes CPU clock oscillator on the receive frequency interference. In this case, you can open the beat frequency offset function.

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）Adjust the knob switch or Mic's [UP] [DOWN] key, and select 11 menu option, the screen display 

；

3）Short press the [F] key, enter the function menu, the screen flashing "OFF", Options are "OFF/ON"；

4）Adjust the knob switch or Mic's [UP] [DOWN] key choose to ON；

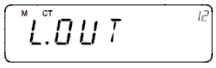
5）Short press the [F] key, save and exit the Settings；

6）Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；

7）Press to other keys , cancel the save and return to main interface.

12. Scan skip 扫描跳过设置

1）In channel mode, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 12 menu option, the screen display** 

;

3）**Short press the** F **key, enter the function menu, the screen flashing "OFF", Options are "OFF/ON"；**

Set the scan skip display "★"

4）**Adjust the knob switch or Mic's** UP DOWN **key choose to ON；**

5）**Short press the** F **key, save and exit the Settings；**

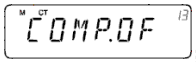
6）**Setup process short press** V/M REV**, then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

13. Voice Compander(Optional function) 语音压扩设置(可选购功能)

Enable this function to reduce background noise and enhance audio clarity, especially in long range communication.

1）In **standby mode**, press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 13 menu option, the screen display** 

;

3）**Short press the** F **key, enter the function menu, the screen flashing "OF", Options are "OF/ON"；**

4）**Adjust the knob switch or Mic's** UP DOWN **key choose to ON, the screen display** ;

5）**Short press the** F **key, save and exit the Settings；**

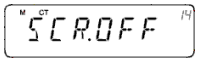
6）**Setup process short press** V/M REV**, then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

14. Scrambler setup (Optional function) 语音加密（可选购功能）

An analog voice inversion scrambler can be equipped as optionals.This special audio process can offer a more confidential communication.Other radios at same frequency will receive only disordered noises.

1）In **standby mode**, press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 14 menu option, the screen display** 

;

3）**Short press the** F **key, enter the function menu, the screen flashing "OFF", Options are "OFF/ON"；**

4）**Adjust the knob switch or Mic's** UP DOWN **key；**

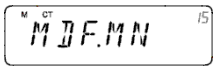
5）**Short press the** F **key, save and exit the Settings；**

6）**Setup process short press** V/M REV**, then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

15. Channel display mode 信道显示类型设置

1）In **standby mode**, press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 15 menu option, the screen display** 

;

3）**Short press the** F **key, enter the function menu, the screen flashing "MN", Options are "MN/FRQ"；；**

In frequency mode cannot be set, MN: name of the channel, FRQ: channel frequency

4）**Adjust the knob switch or Mic's** UP DOWN **key;**

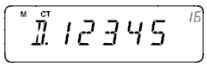
5）**Short press the** F **key, save and exit the Settings;**

6）**Setup process short press** V/M REV**, then cancel save , and switch to the on a menu or next a menu;**

7）**Press to other keys , cancel the save and return to main interface**.

16. Radio's DTMF SELF ID ENQUIRY 本机 DTMF ID 查询

1）In **standby mode**, press and hold F key to enter general setting menu;

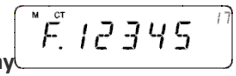
2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 16 menu option, the screen display** 

DTMF ID code only by write frequency software Set.

3）**Press to other keys , cancel the save and return to main interface**.

17. Radio's 5TONE SELF ID ENQUIRY 本机 5TONE ID 查询

1）In **standby mode**, press and hold F key to enter general setting menu;

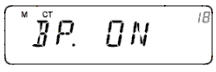
2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 17 menu option, the screen display** 

5TONE ID code only by write frequency software Set.

3）**Press to other keys , cancel the save and return to main interface**.

18. Voice Prompt 提示音设置

1）In **standby mode**, press and hold F key to enter general setting menu;

2）**Adjust the knob switch or Mic's** UP DOWN **key, and select 18 menu option, the screen display** 

;

3）**Short press the** F **key, enter the function menu, the screen flashing "ON", Options are "ON/OFF";**

4）**Adjust the knob switch or Mic's** UP DOWN **key;**

5）**Short press the** F **key, save and exit the Settings;**

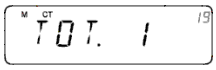
6)Setup process short press V/M REV**, then cancel save , and switch to the on a menu or next a menu;**

7）**Press to other keys , cancel the save and return to main interface**.

Suggestion: Enable this function to check incorrect operation and malfunctions.

19. TOT (Time-out timer) 发射限时 TOT

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 19 menu option, the screen display** 

；

3）**Short press the** [F] **key, enter the function menu, the screen flashing "3", Options are "OFF/1-30 Minute"；**

■**1 ~ 30 minutes: a total of 30 minutes time to choose, each level interval of 1 min.**

■OFF：**Close the function, the set is not recommend to OFF**

4）**Adjust the knob switch or Mic's** [UP] [DOWN] **key；**

5）**Short press the** [F] **key, save and exit the Settings；**

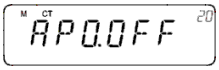
6）**Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

20. Auto Power Off 自动关机设置

Open this function, if the selected period of time without any operation, the radio will automatically be turned off.A minute before shutdown, walkie-talkie warning beep sound, And the flashing "APO" .Selection of APO time OFF (forbidden), 30, 60, 90, 120 or 180 minutes.

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 20 menu option, the screen display** 

；

3）**Short press the** [F] **key, enter the function menu, the screen flashing "OFF", Options are " OFF/0.5H/1H/1.5H/2H/4H "；**

4）**Adjust the knob switch or Mic's** [UP] [DOWN] **key；**

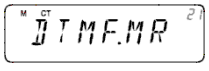
5）**Short press the** [F] **key, save and exit the Settings；**

6）**Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys , cancel the save and return to main interface**.

21.DTMF Code DTMF 码编辑

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 21 menu option, the screen display** 

；

3）**Short press the** [F] **key, enter the function menu, the screen flashing** "CH？X"（0～9）, "X" **is for the serial Number**

4）**Adjust the knob switch or Mic's** [UP] [DOWN] **key** to select the serial Number which you need, then press [F] to edit it. Adjust the knob switch or Mic’s [UP] [DOWN] **key to enter the words. Press** [F] again to save and edit the next word. Press [MONI] to

cofirm but not save and go on edit the next word. Press [CALL] to edit the left word. Short press [MHZ] to delete the cursor and the words on the right side.

Caution: When the cursor is on the left, short press [CALL] the radio do not save automatically return to the previous menu. When the cursor is on the left, short press [F], the radio save the operate to return to the previous menu.

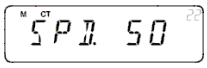
5）**Short press the [F] key, save and exit the Settings；**

6）**Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**.

22. DTMF Transmitting Time DTMF 发射时间

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's [UP] [DOWN] key, and select 22 menu option, the screen display** 

；

3）**Short press the [F] key, enter the function menu, the screen flashing** “50”.

4) **Adjust the knob switch or Mic's [UP] [DOWN] key** to choose “50/100/200/300/500”, which indicates each DTMF being sent.

Default: 50ms。

5）**Short press the [F] key, save and exit the Settings；**

6）**Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**.

23. Scan Mode 扫描方式

1）In **standby mode**, press and hold [F] key to enter general setting menu；

2）**Adjust the knob switch or Mic's [UP] [DOWN] key, and select 23 menu option, the screen display**

；

3）Press [F]，**the screen flashing** “TO”.

4) Adjust the knob switch or Mic's [UP] [DOWN] key

■TO：It pauses 5s once scanning a matching signal, then resume scan.

■CO：it pauses once scanning a matching signal, signal disappeared then resume scan.

■SE：it stops once scanning a matching signal.

5）Press [F] to confirm the selection and exit；

6）**Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；**

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**.

24. LCD Backlight 背光灯亮度

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's UP DOWN key, and select 24 menu option, the screen display**

；

3）Press F， the screen flashing "32"

4) Adjust the knob switch or Mic's UP DOWN key to select a desired LCD backlight brightness 1-32. Total 32 level backlight brightness.

5）Press F to confirm the selection and exit；

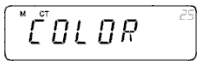
6）**Setup process short press V/M REV, then cancel save , and switch to the on a menu or next a menu**；

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**. Default: 25

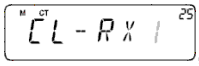
25. Backlight color 背光灯颜色

1：Blue 2：Red 3：Purple

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's UP DOWN key, and select 25 menu option, the screen display** 

；

3) Press F， the screen shows 

， "1"flashing， there are "1/2/3" selectable；

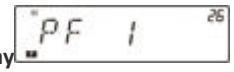
4) Adjust the knob switch or Mic's UP DOWN key to select the colors

5）**Setup process short press V/M REV, then cancel save , and switch to the on a menu or next a menu**；

6）**Press to other keys(includes PTT) , cancel the save and return to main interface**.

26. Microphone PF1 手咪可编程键 PF1 设置（初始化默认为 CALL）

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's UP DOWN key, and select 26 menu option, the screen display** 

；

3) Press F， the screen flashing "CALL", Options see "PF1, PF2, PF3, PF4 function selection list", Default: "CALL"

4) Adjust the knob switch or Mic's UP DOWN key to select

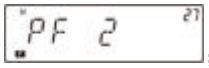
5）Press F to confirm the selection and exit；

6）**Setup process short press V/M REV, then cancel save , and switch to the on a menu or next a menu**；

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**

27. Microphone PF-V/M 手咪可编程键 PF-V/M 设置

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's UP DOWN key, and select 27 menu option, the screen display** 

；

3) Press F， the screen flashing "V/M"， Options see "PF1, PF2, PF3, PF4 function selection list", Default: "V/M"；

4) Adjust the knob switch or Mic's UP DOWN key to select

5）Press F to confirm the selection and exit；

6）**Setup process short press V/M REV, then cancel save , and switch to the on a menu or next a menu**；

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**

28. Microphone PF3 手咪可编程键 PF3 设置

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's UP DOWN key, and select 28 menu option, the screen display**

；

3) Press F， the screen flashing "RADIO"， Options see "PF1, PF2, PF3, PF4 function selection list", Default: "RADIO"；

4) Adjust the knob switch or Mic's UP DOWN key to select

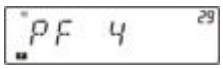
5）Press F to confirm the selection and exit；

6）**Setup process short press V/M REV, then cancel save , and switch to the on a menu or next a menu**；

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**

29. Microphone PF4 手咪可编程键 PF4 设置

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's UP DOWN key, and select 29 menu option, the screen display** 

；

3) Press F， the screen flashing "BATT"， Options see "PF1, PF2, PF3, PF4 function selection list", Default: "BATT"；

4) Adjust the knob switch or Mic's UP DOWN key to select

5）Press F to confirm the selection and exit；

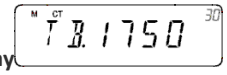
6）**Setup process short press V/M REV, then cancel save , and switch to the on a menu or next a menu**；

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**

30.Pilot Frequency 中继导频频率设置

This function uses to start repeater. It needs a certain intensity Pilot Frequency to start dormant repeater. As usual, no need to send pilot frequency again once repeater started.

1）Press and hold F key to enter general setting menu；

2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 30 menu option, the screen display** 

;

3) Press [F]**, the screen flashing**"1750", Options see "1000,1450, 1750,2100Hz", Default:"1750Hz";

4) Adjust the knob switch or Mic's [UP] [DOWN] **key to select**

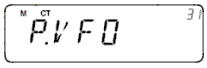
5）Press [F] to confirm the selection and exit;

6）**Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu;**

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**

31. VFO Range 范围设置

1）Press and hold [F] key to enter general setting menu;

2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 31 menu option, the screen display** 

;

3) Press [F]**, the screen shows** "LLL.HHH", "LLL" **flashing, adjust the knob switch or Mic's** [UP] [DOWN] **key to set the lowest frequency; Press** [F]**, the screen flashing** "HHH", **adjust the knob switch or Mic's** [UP] [DOWN] **key to set the highest frequency;** Press [F] to confirm the selection and exit;

4）**Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu;**

5）**Press to other keys(includes PTT) , cancel the save and return to main interface**

the frequency should be more than 1OOkHz; the highest frequency can not lower than the lowest frequency.

32. All Reset 恢复出厂设置

1）Press and hold [F] key to enter general setting menu;

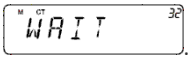
2）**Adjust the knob switch or Mic's** [UP] [DOWN] **key, and select 32 menu option, the screen display**

;

3) Press [F]**, the screen flashing** "VFO", Options see "VFO/FULL"

4) Adjust the knob switch or Mic's [UP] [DOWN] **key to select** FULL;

5）Press [F] to confirm the selection, the screen shows

, press [F] to confirm, the screen shows 

. Restar the radio then press any key to exit;

6）**Setup process short press** [V/M] [REV]**, then cancel save , and switch to the on a menu or next a menu;**

7）**Press to other keys(includes PTT) , cancel the save and return to main interface**

Data will be cleared after reset, restore factory Settings, prudent use this feature.

Assistant Function 辅助功能

1. Cable Clone 有线克隆功能

This feature will copy the programmed data and parameters in the master unit to slave units. It copies the parameters and memory program settings.

1) Use the selectable accessory CL95 clone cable to connect A and B two way radio

2) Turn on the radio B

3)Press CALL and ⏻ to trun on the radio A. The screen shows CLONE, press 【F】(on radio A) to clone the radio from A to B. Re star both A and B radio after finished

Repeat step 2 and step 3 to clone more radios. Radio A can only be trun off by long press ⏻ in this situation. If the radio can not clone, please check the power and the cable connection.

2. RESET 复位对讲机

Users can reset the radio when the radio can not work correctly. After reset the radio may not save any info which you need. Save the radio’s important info before reset if necessary.

3.1 ALL Reset 完全复位

1) Long press F and ⏻ to turn on the radio, keep on pressing F key until the LCD shows all the Icon

2) Release F, the screen shows FLASTP ,Press F, the screen shows SURE?, press F again, then the screen shows WAIT. The radio begin to reset all the message, after finished it will restar auto. Press any key to exit.

Initialize the contents of the factory.

3.2 VFO Reset VFO 复位

Reset the Mobile Radio except DTMF, channel and call channel parameters. There are two kinds of reset Mobile Radio method.

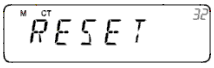
■Reset 1 VFO 复位方法 1

1) Press V/M and ⏻ to turn on the radio, the screen shows VFASTP, then release V/M;

2) Press V/M to confirm, the screen shows SURE?, Press V/M again to confirm and reset VFO. Press any key to exit.

■Reset 2 完全复位方法 2

1）In **standby mode**, long press [F], to enter general setting menu；

2）**Adjust the knob switch or Mic's [UP] [DOWN] key, and select 32menu option, the screen display** 

3）Press[F], **the screen flashing** "VFO"；

4）Press[F] to confirm, the screen shows

, press [F]again to confirm the reset and restart the radio, press any key to exit.

5) Setup process short press [V/M] [REV], then cancel save , and switch to the on a menu or next a menu；

6）**Press to other keys(includes PTT) , cancel the save and return to main interface**

■ Maintenance 维护保养

1. General Information 一般信息

Before shipment, the products have been carried out in accordance with the technical parameters calibration and test in factory. Under normal circumstances, mobile radio will work according to these parameters. All adjustable micro capacitor、coil and resistance have been through the preset in the factory. Only familiar with this mobile radio and qualified technical personnel, with the necessary test equipment to the above-mentioned micro capacitor、coil and resistance to adjust. Without factory authorized without authorization for repair and calibration, may cause the mobile radio can' t warranty.

If the operation is proper, mobile radio can use for years without having to set-up. This section describes several routine maintenance process, the maintenance process does not need or simply test equipment.

2. Maintain 维修

If you need to return this equipment to dealer or repair center to repair, should be packed in original packing and filling materials, and attach a complete description about the encountered problems. Also attach your phone number, fax number, E-mail address (if any), name and address, maintenance personnel in the survey questions may need to call you to understand more information about the mobile radio. In general do not need to return the attachment, unless you think that have a direct bearing accessories and maintenance problems. Please do not send component or printed circuit board only, must return the complete mobile radio.

3. Maintenance of annotation 维修注释

Please provide the following information:

·Type and serial number of the equipment

·You have encountered the difficulty or problem

·Meter reading

·Other relevant information（Menu Set, mode, frequency, etc）

Do not use broken paper to wrap the mobile radio! Improper handling or transportation, improper may lead to damage of mobile radio.

注意：

◆Record the purchase date, serial number and dealer.

◆Please keep a written record, record the product passes through any maintenance.

◆When asked the warranty service, please attach a copy of invoice or other documents can prove that purchase date.

- **4. Clean 清洁**

After long time use, on the intercom button, control knob may become dirty. Please use neutral detergent or warm water wash.

5.OPTIONAL ACCESSORIES 可选配件

有线复制线：Cloning Cable　　USB 写频线：USB Programming　　报警电缆 A：Alarm cables（lead）

报警电缆 B：Alarm cables（extension cord）　　稳压电源：Regulated Power Supply

外接扬声器:External Speaker

车载天线：Car Antenna

5.Trouble Shooting 故障排除

Problem 问题	Possible Causes	Potential Solutions
Power is on, nothing appears on Display.	1. Power cable contact error. 2. Power cable of a root or more fuse disconnect.	1. Connect the power cable correctly:Red(+);Black(-) 2 . Check and solve problem resulting in blown fuse and replace fuse with new fuse.
Display is too dim.	The power supply voltage is too low.	Power supply voltage of DC 13.8 V ±15% (DC 11.7 V to 15.8 V). If the input voltage is beyond this range, please adjust the voltage regulator power supply device and check all the power cable connection.
Key and Dial do not function	1.Key-lock function is activated. 2.In the channel display mode	1.Cancel Key-lock function. 2. Reset, cancel some lock function.
Rotating Dial will not change memory channel.	No storage memory channel	Settings are stored memory channel
PTT key is pressed but transmission does not occur.	Microphone connection is poor.	Connect microphone properly.

■ Specifications 主要技术指标

Receiver 接收部分（用 ETSIEN 300 086 标准测试）

	Wide band 宽带	Narrow band 窄带
Sensitivity 灵敏度（12dB SINAD）	≤0.25uV	≤0.35uV
Adjacent Channel Selectivity 邻信道选择性	≥70 dB	≥60 dB
Intermodulation 互调	≥65dB	≥60dB
Spurious Rejection 假信号响应	≥70 dB	≥70 dB
Audio Response 音频响应	＋1~－3dB(0.3~3K)	＋1~－3dB(0.3~2.55K)
Hm&Noise 信噪比	≥45dB	≥40dB
Audio distortion 音频失真	≤5%	
Audio power output 音频输出功率	＞2W@10%	

Transmitter 发射部分(用 ETSIEN300 086 标准测试)

	Wide band 宽带	Narrow band 窄带
Power Output 输出功率	45W/25W/10W(UHF)	
Modulation 调制方式	16KΦF3E	11KΦF3E
Adjacent Channel Power 邻信道功率	≥70 dB	≥60 dB
Hum&Noise 信噪比	≥40dB	≥36dB
Spurious Emission 寄生和谐波	≥60 dB	≥60 dB
Audio Response 音频响应	＋1~－3db(0.3~3K)	＋1~－3db(0.3~2.55K)
Audio Distortion 音频失真	≤5%	

General 总体规格

Frequency Range 频率范围	UHF:400-470MHz
Numberof Channels 信道数量	200 channels(0~199)
Channels Spacing 信道间隔	25KHz(Wide Band)、20K(Middle Band)、12.5K（Narrow Band）
Phase-locked Step 锁相步进	2.5 KHz、5 KHz、6.25 KHz、8.33 KHz、10 KHz、12.5 KHz、25 KHz、50 KHz、100 KHz
Operating Voltage 工作电压	DC13.8V±15%

Squelch 静噪方式	Carrier/CTCSS/DCS/5TONE/2TONE/DTMF
Frequency Stability 频率稳定度	±2.5ppm
Operating Temperature 工作温度	－20~＋60℃
Dimensions(W*H*D) 尺寸	145(W)*47(H)*190(D)mm
Weight 重量	About 1.2Kg
Specifications are subject to change without notice due to advancements in technology.	

Disclaimer 免责声明(放在说明书封底)

- **This manual has been carefully collated to reach high accuracy. If any error occurs during translation or printing, our company is not responsible for it.**
- **Due to the continuous development of technology, the company reserves the right to change product design and specifications, without prior notice.**