



### Emergency alarm

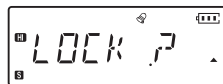
Hold down "Call" key for 1 second and press "Moni" key the radio will emergency alarm.

### Call to receiver



Press and hold the "Call" key for 2 seconds. The receiver will ring.

### Key lock function

Press  to display "LOCK?", displaying if locking the key (press for two seconds and the key is locked), and then press , after displaying "UNLOCK" for two seconds, it is unlocked.






### Scrambler function

After pressing  key, press  key to enter secret talk function; turning the encoding switch can select the switch of this function; enabling this function can make your talk content more secure.



### Channel scan

The scan is convenient for monitoring the frequency that you want without hand operation.

### Complete channel scan

Press  +  key, and press ENT key to confirm. The scan starts from the channel/frequency displayed; when scanning that the channel has signals, the transceiver stays three seconds on the channel; now press  key, and the transceiver stops scanning and stays on the channel scanned, otherwise it continues to scan the next channel.

### Scan mode selection





Press  key and turn the encoder to 20 item, displaying "SMODE.?20"; press  key to confirm, and turn the encoder again: Select "TO", indicating time scan; during time scan, the transceiver will stay in the channel with signals; set (scan stay time) to, and continue scanning the next channel. Select "CO", indicating carrier scan; during carrier scan, the transceiver will stay in the channel with signals, until the signals disappear; after the signals disappear, the scan goes on; Select "SE" indicating SE scan; During SE scan, the transceiver will stay, in the channel with signals.

### Wireclone Function

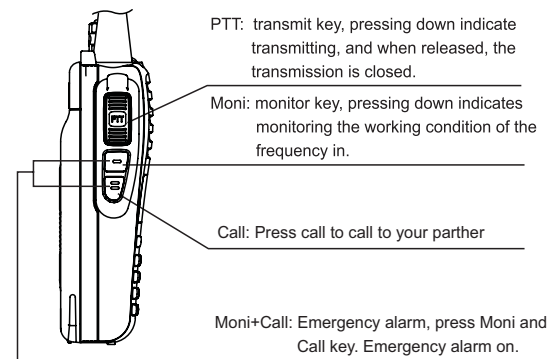
After connecting the duplication line, press LAMP key to turn on the phone; after the LCD displays "COPY", press PTT key to duplicate the data to another transceiver.

### Double audio frequency coding

The telephone set has the function of double audio frequency coding. The number keys or other function keys are directly input in transmitting mode, the corresponding double audio frequency coding will be sent out. The double audio frequency coding sent out by function keys are as follows:

 -A  -B  -C  -D

### Side key operation



### Select mode

Press **[VFO/M]** key, the transceiver can between channel and frequency mode.

### Store

In frequency mode select desired frequency or any other items like CTCSS, DCS. Press **[MENU]** then press **[VFO/M]** key. When one channel number need to store is blinking. Turn encoder to store channel number, press **[VFO/M]** to confirm and exit.

### Delete

1. Delete one store channel

Hold down **[VFO/M]** key and turn on the power. "DEL?" and stored channel number will display on LCD. Turn encoder which need to be deleted, press **[ENT]** until "YES?" display, and press **[ENT]** to delete the channel.

2. Delete all setting of frequency mode

Hold down **[MENU]** and turn on power until display "RESET?", press **[ENT]** until display "VFO?". Press **[ENT]** to confirm and delete all setting of frequency mode.

3. Delete all setting

Hold down **[MENU]** and turn on power until display "RESET?", press **[ENT]** until display "VFO?". Turn the encoder to select "FULL?", press **[ENT]** to confirm and delete all setting of channel mode.

## Shortcut function setting

### Squelch threshold setting

Press **[MENU]** + **[1 SQL]** key, and the screen displays "SQL?1"; press **[ENT]** key and it displays "SQL1"; turn the encoder to select the squelch level you need, and there are (0-9) for you to choose; press **[ENT]** key to confirm and press **[EXIT]** key to exit.

### The starting of ANI function

Press **[MENU]** + **[2 ANI]** key, "ANI? 2" will be displayed on the screen, press **[ENT]** key to display "ON" expressing ANI function has been started; selection for revolving coding switch; Press **[ENT]** to confirm, press **[EXIT]** to exit.

Note: The PTT ID content should be programmed by PC software.

### Transmission power setting

Press **[MENU]** + **[3 POW]** key, and the screen displays "POW?3"; press **[ENT]** key and it displays "L", indicating selecting low power; turn the encoder the switch, and it displays "H", indicating high power. default setting is "H".

### Scrambling switch setting

Press **[MENU]** + **[4 SCR]** key, and the screen displays "SCRAM?4"; press **[ENT]** key and it displays "ON", indicating that the scrambler is on; turn the encoder to select; it displays "OFF", indicating that the scrambler is off; press **[ENT]** key to confirm and press **[EXIT]** key to exit.

### Voice Compander functions

Press "MENU" + "5 COMP" key, "COMP ? 5" will be displayed on the screen. Press "ENT" key to display "ON" expressing voice compander function has been open; selection for revolving code switch; press "ENT" key to confirm and press "EXIT" key to exit.



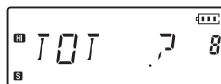
### Tone on and off

Press "MENU" + "7 BEEP" key, and the screen displays "BEEP?7"; press "ENT" key and it displays "ON", indicating that the tone is on; turn the encoder, and it displays "OFF", indicating that the tone is off. Press "ENT" key to confirm and press "EXIT" key to exit.



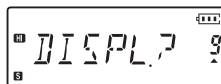
### Transmission time limit setting

Press "MENU" + "8 TOT" key, and the screen displays "TOT? 8"; press "ENT" key and turn the encoder to select "OFF~600S" step to 15S; Press "ENT" key to confirm and press "EXIT" key to exit.



### Display mode setting

Press "MENU" + "9 DIS" key, "DISPL ? 9" will be displayed on the screen, after press "ENT" key, revolving coding switch select the display mode of intercon (VFO/MR/CHANNE); press "ENT" to confirm, press EXIT to exit.



### Sound control sensitivity setting

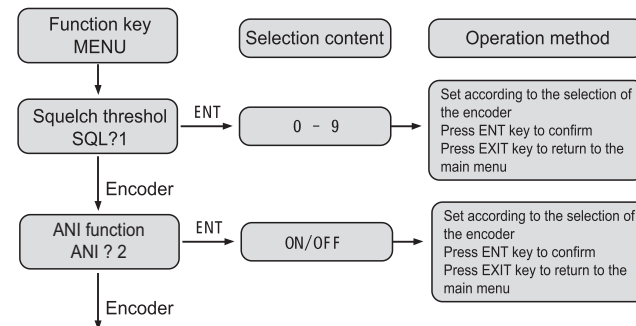
When you want to use the sound control function, press "MENU" + "6 VOX" key, and the screen displays "VOX?12"; press "ENT" key and it displays "VOX OFF". Turn the encoder (0-9) to select the sensitivity level needed. Press "ENT" key to confirm and press "EXIT" key to exit. The factory default setting is "VOX OFF".

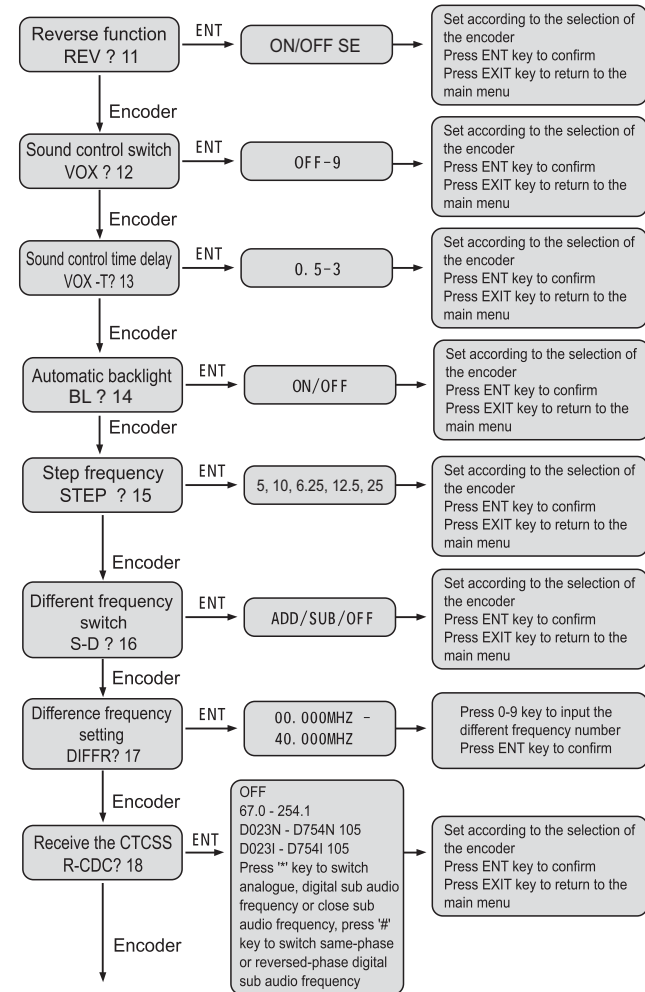
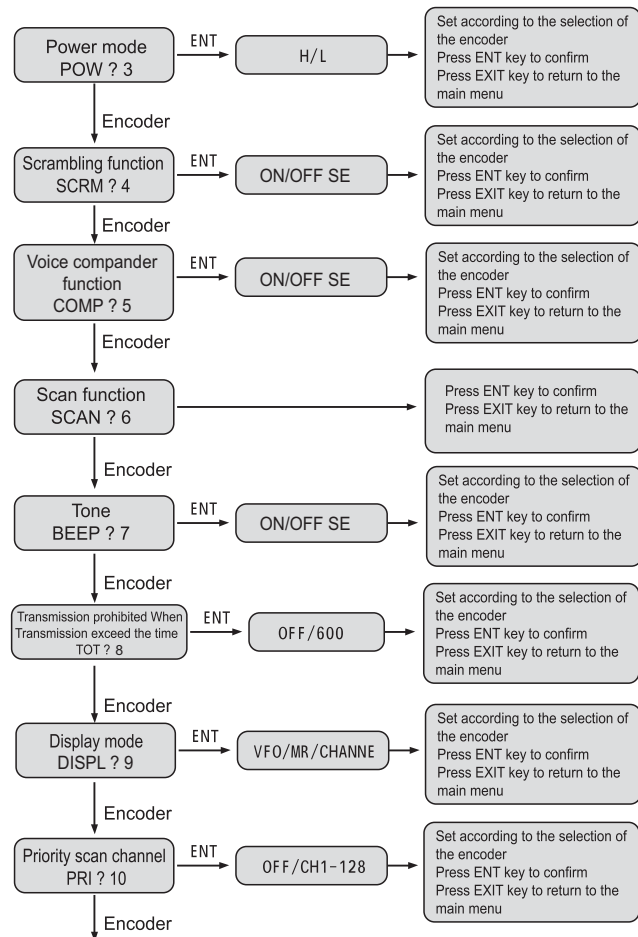


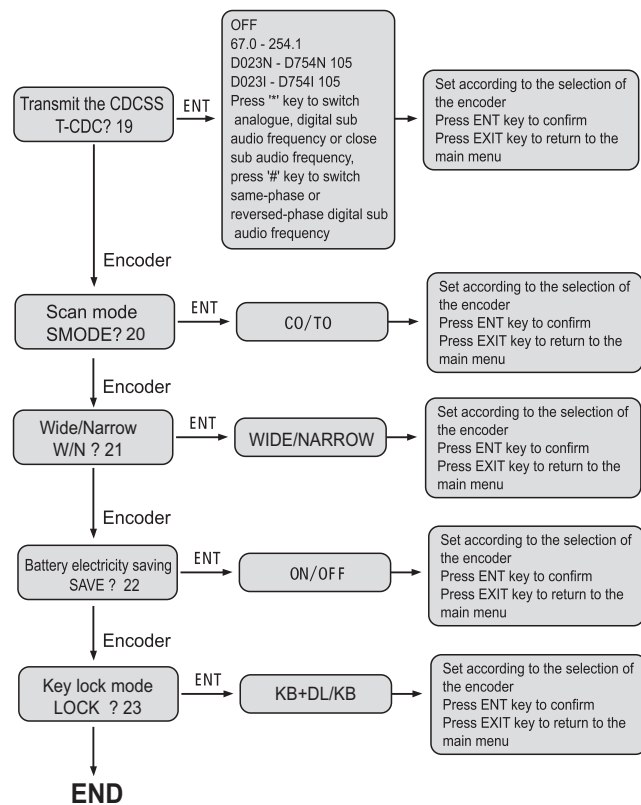
### Menu function setting

1. Press "MENU" key to enter menu mode
2. Turn the encoder to select the menu option to be used.
3. Press "ENT" key and enter the menu item to set.  
For some menu items, it is necessary to press "ENT" key, and then use the encoder to select the numeric value, and finally press "ENT" key to finish the setting.
4. After the setting is finished, press "EXIT" key to exit the menu mode.

### Menu operation mode







## Self-station programming mode

After entering self-station programming mode, the hand held phone allows carrying out channel setting.

### Operation

- Press **EXIT** key to turn on the transceiver , and keep pressing for two seconds; after the screen displays "SELF", it enters self-station programming mode.
- After entering self-station programming mode, press **ENT** key.
- After you set the data, press **ENT** , and you can go on to coordinate the next item.

SELF

### Select the setting item    Display (for example)    Setting content

#### Set Channel Number

When the channel numbers are not set, the following items will not be selected

CH- 1

Channel scope 1-128

#### Set receiving frequency

When the receiving frequency is not set (the setting is "blank"), the following items will not be selected (item number 3-8 will not be selected); when the setting is "blank", you will return to "set channel number".

..... 2

135000 2

#### Set receiving

#### CTCSS/DCS

When the channel number is not set, this item will be skipped

OFFSE 3

OFF

670 3



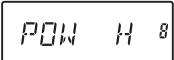

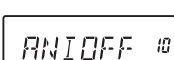
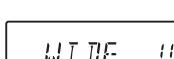
CTCSS(CTCSS frequency table)67.0.Hz-250.3Hz (Note: ①)

D023N 3

DCS (DCS normal/reverse table)023-754 normal setting(Note: ②)

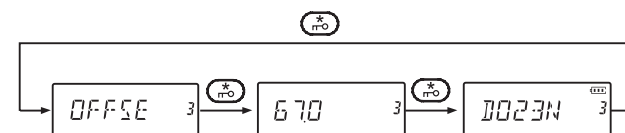
D023I 3

DCS (DCS normal/reverse table)023-754 normal setting(Note: ②)

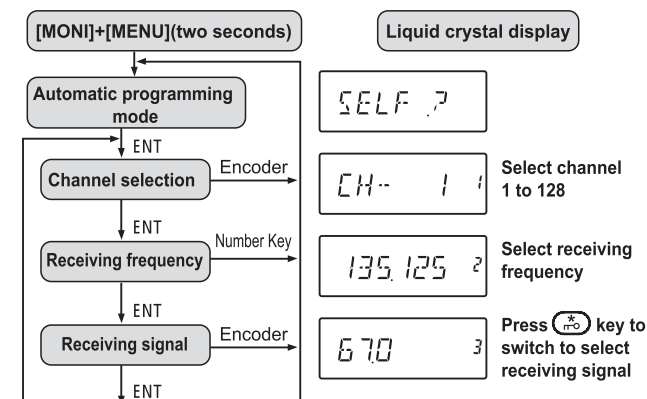
<b>Set transmission frequency</b>	Same as receive display (the item number is "4")	Same as the content of "receiving frequency"
<b>Set transmitting CTCSS/DCS</b>	Same as receive display (the item number is "5") the transmission frequency is not set, the item is skipped	Press $\left(\frac{*}{F0}\right)$ to select CTC/DCS, and turn the encoder When to select the needed
<b>Set busy channel locking(BUYOFF)</b>		OFF ON
<b>Set priority channel scan Delete/add</b>		Add: enable scan adding Del: Dixable scan
<b>Set transmission power</b>		H: High power L: Low power
<b>Voice Compander</b>		OFF ON
<b>Set ANI function</b>		OFF ON
<b>Wide /Narrow</b>		Narrow Wide

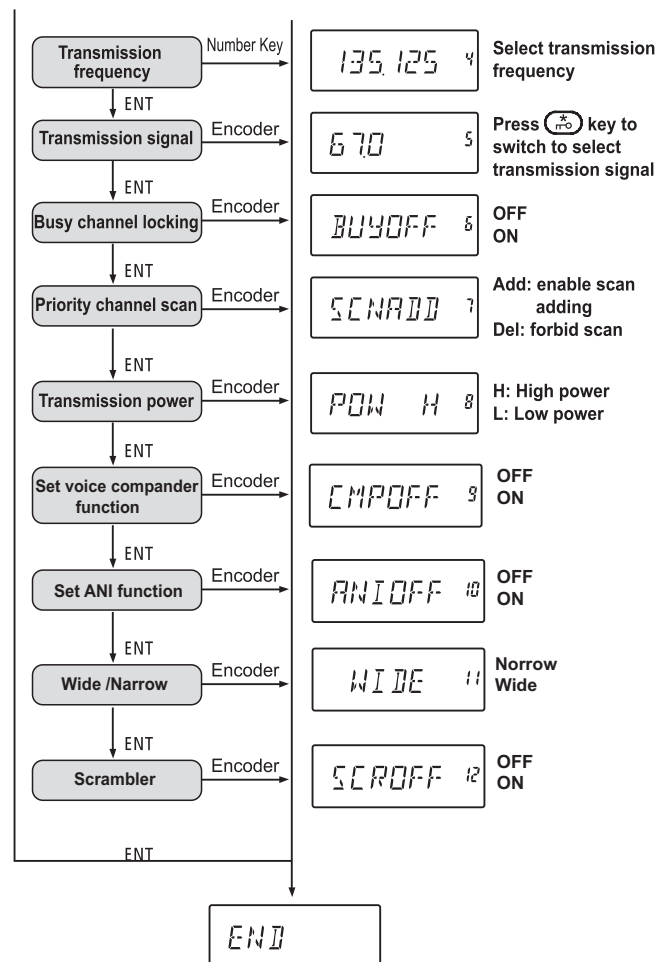
**Scrambler**OFF  
ON**Notes**

1. Set receiving and sending signal  
Select: OFF/CTCSS/DCS, press  $\left(\frac{*}{F0}\right)$  key to select



2. DCS normal/reverse: Press  $\left(\frac{\#}{V05}\right)$  key to set

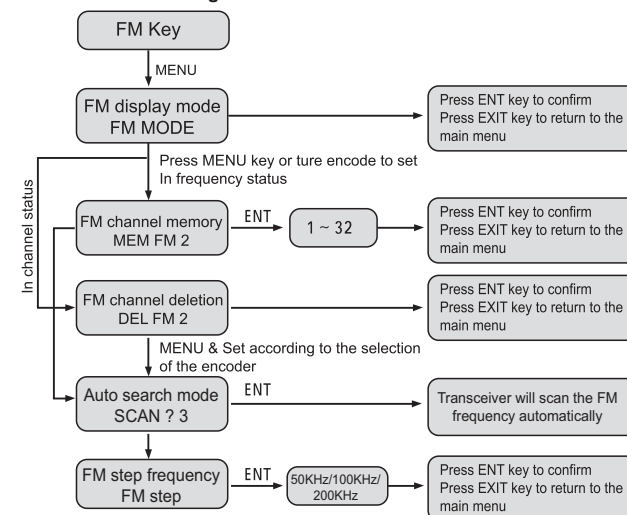
**Automatic programming operation flow diagram**



## Radio function




Press **FM** Key, and the transceiver enters FM radio status.

### Radio function setting



**Remark:**

①FM auto search: When entering FM auto search mode, the transceiver will scan the FM frequency automatically, from 76~108MHz. Once one FM frequency is scanned, the frequency will be displayed on LCD and the transceiver will save the frequency to the memory automatically ( transceiver can save maximum 32 frequencies). When FM auto search completed, the transceiver will return to FM radio status.

② In the Menu 24 , you can choose the interruption type of FM Radio. If  set "ON", once transceiver is received correct RF signal. The transceiver will be exited FM radio mode and will entering transceiver receiver mode automatically. After transceiver signal is disappeared 10 seconds, it will entering FM mode again. If  set "OFF", in the FM radio mode, no matter receiver to the signal of transceiver, it will be working in the FM radio mode all the time, but transceiver signal level will be displayed on LCD.

## Attached tables

50 Groups of CTCSS Frequency (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 Groups of DCS Codes

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	

## Fault handling guide

Problem	Solution
No power	<ul style="list-style-type: none"> <li>The battery group may be consumed up; please replace the battery or charge again.</li> <li>The battery group may not be correctly installed; please take off the battery group and install again.</li> </ul>
The battery cannot last long after being charged.	<ul style="list-style-type: none"> <li>The life of the battery group is to the end, please replace the battery.</li> </ul>
Cannot talk with the other members in the group.	<ul style="list-style-type: none"> <li>Confirm if the frequency and sub audio frequency signal sound that you use is the same as those of the other members.</li> <li>The other members in the group may be too far away. Confirm if you are in the effective range of the other interphones.</li> </ul>
Other voice (non group member) appear in the channel.	<ul style="list-style-type: none"> <li>Please change the sub audio frequency signal sound. Now, it is a must to change the signal sound of all the transceiver in the group.</li> </ul>



## SAFETY TRAINING INFORMATION

This Radio has been tested and complies with the Federal Communications Commission(FCC) RF exposure limits for Occupational Use/Controlled exposure environment. In addition, it complies with the following Standards and Guidelines:

- ☐ 47 CFR part 2 sub-part j, United States Federal Communications Commission, Code of Federal Regulations
- ☐ FCC OET Bulletin 65 Edition 01-01(2001) Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- ☐ ANSI/IEEE C95.1-1992, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300GHz.
- ☐ ANSI/IEEE C95.3-1992, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields-RF and Microwave.



**WARNING:** This radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as **Occupational Use Only**, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is not intended for use by the **General Population** in an uncontrolled environment.



**CAUTION:** To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

### ***RF Exposure Compliance and Control Guidelines and Operating Instructions***

- This radio is **NOT** approved for use by the general population in an uncontrolled environment. This radio is restricted to occupational use, work related operations only where the radio operator must have the knowledge to control its RF exposure conditions.
- When transmitting, hold the radio in a vertical position with its microphone 1 to 2 inches (2.5 to 5.0cm) away from your mouth and keep the antenna at least 1 inch (2.5cm) away from your head and body.
- The radio must be used with a maximum operating duty cycle not exceeding 50%, in typical Push-to-Talk(PTT) configurations, **DO NOT** transmit for more than 50% of total radio use time (50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded.

The radio is transmitting when the red LED on the top of the radio is illuminated. You can cause the radio to transmit by pressing the PTT button.

*Note: **Time-out timer:** The selected channel has been programmed for Time-Out timer, you must limit the length of each transmission, While transmitting, a beep will sound 10 seconds before time-out. Another beep will sound just before the deadline; The TX indicator will*

*disappear the transmission will cease soon thereafter. To resume transmitting, you must release the PTT switch and wait for the “penalty timer “ to expire (if you press the PTT switch before this timer expires, the timer restarts, and you will have to wait another “penalty” period). To ensure that the radio must be used with a maximum operating duty cycle not exceeding 50%, but for VOX mode, the maximum operating duty cycle may be up to 100%.*

- **DON NOT transmit when the radio is used in Body Worn configuration with the following accessory: belt-clip(CLIP-18). It must be used ONLY for (1) there is a 1 inch (2.5cm) distance from the body during transmitting, (2) monitoring purposes, using the speaker only and (3) for carrying purposes.**

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC RF exposure limits of this radio.

### **Electromagnetic Interference/Compatibility**

**During transmission, this radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so.**

**Do not operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, health care facilities, aircraft, and blasting sites.**

**Changes or modifications to this device, not expressly approved by KONGTOP, could void your authority to operate this transceiver under FCC regulations.**

### **FCC LICENSE INFORMATION**

**This radio operates on communications frequencies which are subject to FCC (Federal Communication Commission) Rules and Regulations. FCC Rules require that all operators using Private Land Mobile radio frequencies obtain a radio license before operating their equipment.**

### **CE Notes:**

Manufacturer: KONGTOP Industrial (Shenzhen) Co., Ltd.

Address: Xinwuyuan Industrial Area, Gushu, Xixiang, Baoan, Shenzhen, P.R.China

Factory: KONGTOP Industrial (Shenzhen) Co., Ltd.

Address: Xinwuyuan Industrial Area, Gushu, Xixiang, Baoan, Shenzhen, P.R.China

declare that this **KT-500** is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the DoC may be obtained through the address above.