

TO CUSTOMERS

Thank you very much for using our two way radio.

This radio of modern design is reasonable structure with stable functions. It is designed to meet different customers' need for high quality with easy operation and perfect capability. We believe you are pleased with its nice shape and excellent performance. This manual is suitable for using the model of TH-UV8000D.

Welcome to use two-way radio

<http://www.tyt888.com>

Main Functions

Dual band, dual display, dual standby

2*128 channels to store

FM radio receiver and 25 channels

Channel spacing selectable(25/12.5kHz)

Hand free VOX function

CTCSS/DCS encoding and decoding

CTCSS/DCS scanning

Low battery alarm

Emergency Alarm

Shift repeater function

ANI function

DTMF &Remote kill/stun function

Reverse frequency function

Tri-color background light selectable

Chinese & English prompt

MSK

1750 Tone



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Using tips

Unpacking and checking equipments

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Using tips

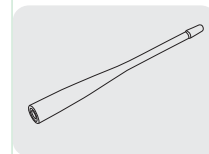
Please read the following brief instructions, non-compliance with these rules may cause danger or violate the law.

- Obey the local government regulation before using this radio, improper use may violate the law and be punished.
- Turn off the radio before entering flammable or explosive areas.
- Do not charge or change the battery in flammable or explosive areas.
- Turn off the radio before getting close to the blasting zone or detonator areas.
- Do not use radio whose antenna is damaged, touching of damaged antenna will cause heat injury.
- Do not attempt to open the radio; the maintenance work should be done by technical expert only.
- To avoid troubles caused by electromagnetic interference or electromagnetic compatibility, please turn off the radio in places where have the banner "Do not use wireless equipment", such as hospital and other healthcare places.
- In the car with an airbag, do not put the radio within the scope of the airbag deployment.
- Do not store the radio under the direct sunshine or in hot areas.
- When you transmit with the radio, do keep away from its antenna for 5cm at least.
- If the radio appears smelly or smoke, please shut off its power immediately and contact with your local dealer.
- Do not transmit too long, for the radio may heat and hurt the user.

Unpacking and checking equipments

Carefully unpack the radio. We recommend you check the items listed in the following table before discarding the package. If any item is missing or has been damaged during shipment, please contact us immediately.

Supplied accessories:



Antenna (1)



Li-ion battery (1)



Belt Clip (1)



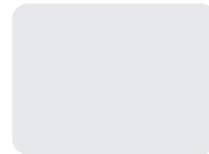
Charger (1)



Charger Adapter (1)



Verification (1)



User's Manual (1)



Antenna (2)

Note: The antenna frequency range please refers to the annular label at the bottom of antenna.

Battery Antenna

Installing and Uninstalling of supplied accessories

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Battery

Please use TYT designated battery; other batteries can cause explosion and hurt people.

- Notice:**
1. Please do not short-circuit the battery terminals or expose of in fire. Do not disassemble the battery by yourself.
 2. Charge the battery between temperature 0℃ and 45℃. The battery can not be fully charged beyond this temperature range.
 3. Please turn off the power when you charge the radio with battery. Transmit with the radio in charge will affect its correct charge.
 4. Do not unplug the power or battery when it is charged.
 5. The operating time becomes short even the battery is fully charged, the battery is exhausted, please replace battery.
 6. Please do not charge when the battery or the radio is wet. Please dry it with a cloth before charging to avoid any danger.

Warning: When the conductive metals such as jewelry, key or decorative chains touch the battery terminals, all the batteries are likely to cause damage to the items or personal injury. These conductive metals may form a short circuit and generates much heat. Do deal with any battery carefully, especially when put it into pocket, wallet or other metallic containers.

Charging operations:

Charge the battery as follows:

- 1) Power off
- 2) Insert the DC adaptor plug in the DC jack on the back of charger
- 3) Insert the AC adaptor plug in the AC power output socket
- 4) Insert the battery or radio with battery vertically in a charger, to check whether the battery and charger terminal is in normal contact.
- 5) Make sure the battery and charger terminal is in good contact, when the charging indicator light turns red, it starts charging.

Note: 1. Before inserting the battery, it is abnormal if the charging indicator blinks
2. To change the battery for charging, please wait until the indicator is stable.
3. When the battery is well inserted, the indicator turns red and the charging is on the process, if the indicator blinks, then the battery is damaged or the temperature is too high or too low.

Self-testing

When the charger powers up, if the orange indicator lights for one second and then goes out, entering the standby mode, the charger passes the self-testing and can charge the battery. If the orange indicator blinks constantly, the charger fails to pass the self-testing, and can not charge the battery.

Normal charging indicator

When charging the battery, if the indicator light turns red, the battery is on the normal charge; if the red indicator light blinks constantly, the battery capacity is too low, and is on the trickling charge, and after the battery capacity reaches a certain level, it will switch to the normal charge.

Note: Trickle charge does not exceed 30 minutes, if the red indicator light blinks after 30 minutes, it means the charger can not charge battery, please check whether the battery or the charger has been damaged.

Charging precautions:

- 1) The battery is not fully charged in factory, please charge before using it.
- 2) Charge and discharge the battery for two or three times, the battery capacity will reach the best condition. When the battery capacity is low, please charge or change the battery.
- 3) The battery lasts shortly even if it is fully charged, the battery is exhausted, please contact your local dealer to buy a new authentic TYT battery.

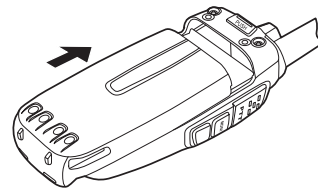
Antenna

- Short thick antenna is suitable for short-distance communication, while long thin antenna will offer you a better communication effect. Wearing the radio in your waist will not make you feel uncomfortable.
- The communication range will be shortened in bad weather or among the trees, please prepare in advance to avoid any inconvenience of your communication and security.

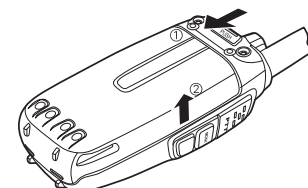
Installing and uninstalling of the accessories

Installing/Removing the battery

- 1) Align the two grooves of battery and the guide rail on the back of aluminum shell, ensuring full contact and in parallel, then push the battery up to the radio base along the rail on the back of aluminum shell, until the battery latch locks up. (picture 1)
- 2) To remove the battery, please make sure the radio is closed, push the battery latch down, and make sure the radio and battery is on the releasing state, and then push the battery out from the radio. (picture 2)



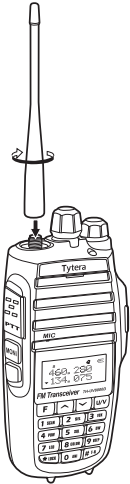
(picture 1)



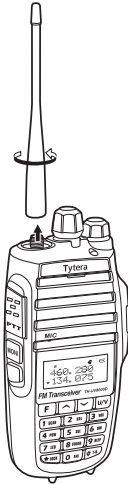
(picture 2)

Installing and removing the antenna

- 1) Align the threaded end of antenna and the threaded hole at the top of radio, rotate the antenna clockwise until it is tight. (picture 3)
- 2) To remove the antenna, rotate it counter-clockwise until the antenna spirals out. (picture 4)



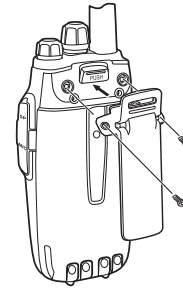
(picture 3)



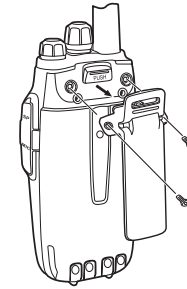
(picture 4)

Installing/removing the belt clip

- 1) Align the two holes of belt clip and the two holes of the radio, fix them with the supplied M2.5x5 screw. (picture 5)
- 2) Loosen the screw set to remove the belt clip (picture 6)



(picture 5)

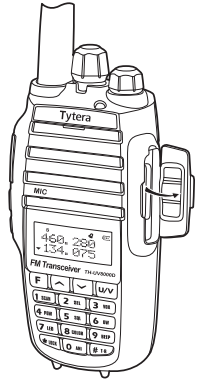


(picture 6)

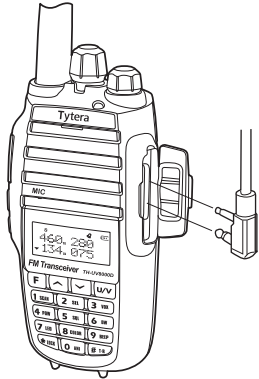
Installing external headset

Reveal (do not remove) the mic/speaker jack cover (picture 7), insert the headset into the mic/speaker jack (picture 8).

Note: Using the external headset will affect the water-tightness performance of radio.



(picture 7)

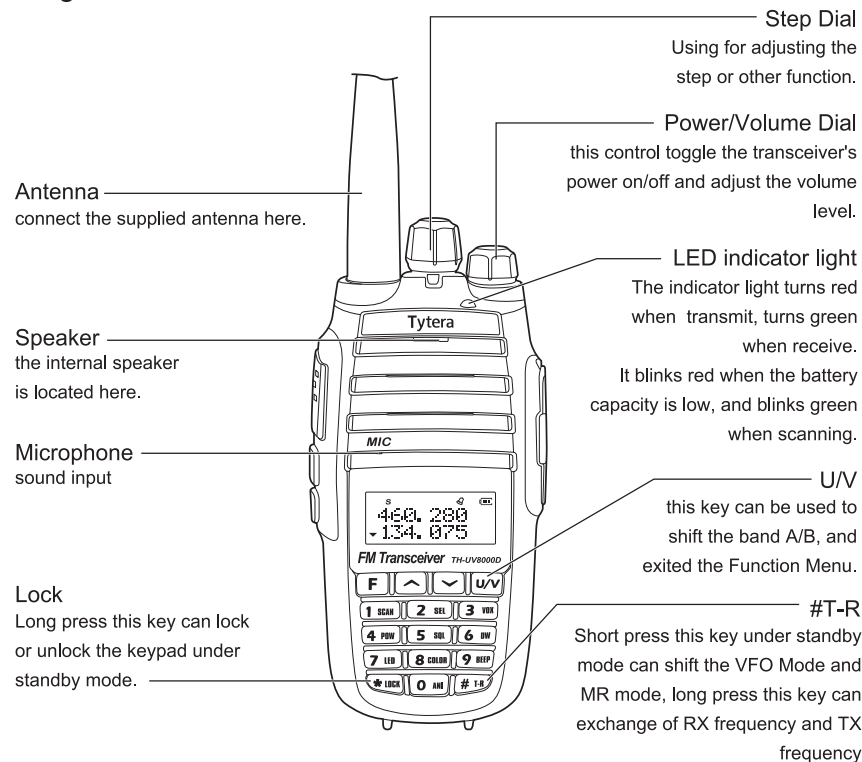


(picture 8)

Getting familiar

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Getting familiar

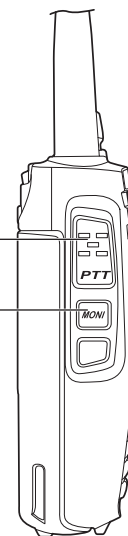


PTT

press it to transmit and release it to receive after your transmission is completed.

MONI

Press and hold this key disables the noise squelching action ,allowing you to hear very weak signals near the back-ground noise level.



Belt clip

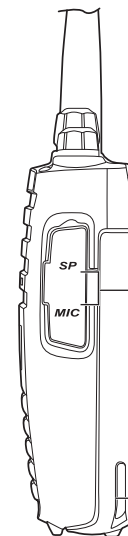
You can clip the radio in the belt and is easy to take.

Mic/speaker jack/ programming port

Used to connect headset or external programming cable.
Programmable via PC programming software.

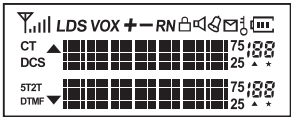
Li-ion battery

For charging the radio.



LCD DISPLAY

You will see various icons shown on the screen when power on. The following table can help you identify icons' meaning which display on LCD.



Icons	Description of functions
	Operating band signal & power meter
L	Low TX power active
D	Dual watch/standby active
S	RX power save active
VOX	VOX active
+-	Repeater shift direction
R	Reverses the transmit and receive frequency active
N	Narrow band mode active
	Keypad lock active

Icons	Description of functions
	Squelch active
	Beep tone active
	Receive calling ID or MSG
	Scrambler active
	Battery power indicator
CT	Set CTCSS tone
DCS	Set DCS code
5T	5T 5Tone signaling active
2T	2T 2Tone signaling active
DTMF	DTMF signaling active
▲	Operating A band indicator
▼	Operating B band indicator
75 25	Frequency mantissa indicator
188	Channel number/Menu items number indicator
▲	Busy channel indicator
★	Channel scanned available under CH mode

Working mode

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Working mode

Frequency Mode(VFO)

Under this mode, you can use **WV** key to change the frequency, then press **▲** or **▼**, or the step dial or input the frequency by keypad directly and store channel.

Frequency Channel (MR) Mode

When you have stored a memory channel at least and under VFO mode, press **# F#** key to enter MR mode.

The frequency will be indicated on the display and the channel No. will be indicated at the right side. If the transceiver display name option is ON and the channel name edited, it will show the name of the channel.

Channel Mode(CH)

When you have stored a memory channel at least, it can work in CH mode, Channel NO, will be indicated on the display. Press **# F#**, then turn on the radio, it will enter CH mode, Press **# F#**, then turn on the radio, it will exit CH mode.

SET MENU MODE

No.	LCD Display	Available Values	Description of Function
01	SCAN	/	Frequency/Channel Scan
02	TX.SEL	EDIT / BUSY	Priority Transmit
03	VOX	1-8	VOX Level Setting
04	POWER	LOW / HIGH	High/Low TX Power
05	SQL	0-9	SQL level setting
06	D.WAIT	ON / OFF	Dual Wait/Standby
07	LED	ON / AUTO / OFF	LED Display mode
08	LIGHT	COLOR1 / COLOR2 / COLOR3	Background Light Color
09	BEEP	ON / OFF	Keypad Beeper Setting
10	ANI	ON / OFF	Automatic Number Identity
11	Turn	ON/OFF	Repeater frequency setting
12	ID	0-9	ID
13	PTT ID	BOT/EOT/BOTH/OFF	Code
14	TOT	OFF/30/60/...../360	Transmitter Time-Out Timer
15	BCLO	OFF / WAVE / CALL	OFF / WAVE / CALL

No.	LCD Display	Available Values	Description of Function
16	VOX.SW	ON / OFF	VOX Switch ON/OFF
17	ROGER	ON / OFF	Transmit Over Beeper
18	DW	ON / OFF	Dual Watch/Monitor
19	RX.SAV	ON / OFF	Receive Saver
20	SCAN.S	TO / CO / SE	Scan Mode
21	AUTOLK	ON / OFF	Auto Keypad Lock
22	VOICE	ON / OFF	Voice Prompt
23	TALK	ON/OFF	End-tone elimination
24	OPNSET	OFF / DC / MSG	Power-on Display
25	VTL	/	Battery Power Voltage
26	MSGSET	-1A, @	Power-on Message
27	DIS.NM	ON/OFF	Display channel name
28	CHNAME	-1A, @	Channel Name Editing
29	C-CDC	OFF / 67.0 / D023N	TX/RX Tone coder
30	R-CDC	OFF / 67.0 / D023N	RX Tone coder
31	T-CDC	OFF / 67.0 / D023N	TX Tone coder

No.	LCD Display	Available Values	Description of Function
32	S-D	+ / - / OFF	Shift Direction
33	OFFSET	0.000-99.995MHz	Repeater Shift (Under VFO mode)
34	STEP	2.5K / 5K / 6.25K / ... / 25K	VFO Step
35	N/W	WIDE/NARROW	Select Channel Spacing
36	SEEK 67.0	/	CTCSS Scanning
37	SEEK D023N	/	DCS Scanning

Menu Operation

- 1) Under standby mode, press F to enter menu setting, LCD displays "MENU"
- 2) Press or , or rotate the step dial to select the desired menu item, LCD display current setting of selected item.
- 3) Press F to enter and then press or to select the desired setting.
- 4) Press to exit and return to the standby mode.

SHORTCUS MENU OPERATION

Item No.	Item Name	Enter item	Screen Display	Select parameter	Parameter Explanation	Confirm Return Standby
1)	Frequency /Channel scan	F + 1 SCAN			Press or or rotate the step dial to change the frequency	PTT/MONI/U/V
2)	Priority Transmit	F + 2 TX			Press or to select available values	EDIT / BUSY
3)	VOX level setting	F + 3 VOX			Press or to select available values	VOX level: 1~9
4)	TX power setting	F + 4 POW			Press or to select available values	High / Low
5)	SQL level setting	F + 5 SQL			Press or to select available values	SQL level: 0~9
6)	Dual wait/standby	F + 6 D.WAIT			Press or to select available values	ON / OFF
7)	LED display mode	F + 7 LED			Press or to select available values	ON / AUTO / OFF
8)	Background light color	F + 8 COLOR			Press or to select available values	1/2/3
9)	Keypad beeper	F + 9 BEEP			Press or to select available values	ON / OFF
10)	Automatic Number Identity	F + 1 SCAN 0 AM			Press or to select available values	ON / OFF

Item No.	Item Name	Enter item	Screen Display	Select parameter	Parameter Explanation	Confirm	Return Standby
11)	Repeater frequency setting	F + 1 SCAN 1 SCAN		Press [F] or [V] OR Step dial to select available values	ON / OFF	F	U/V
12)	ID	F + 1 SCAN 2 ID		input 0-9	F to confirm, *lock to delete	F	U/V
13)	PTT ID	F + 1 SCAN 3 PTT		Press [F] or [V] or rotate the step dial to change the frequency	BOT/EOT/BOTH/OFF	F	U/V
14)	Transmitter time-out timer	F + 1 SCAN 4 POW		Press [F] or [V] to select available values	OFF / 30... / 270s	F	U/V
15)	Busy channel lock-out	F + 1 SCAN 5 CH		Press [F] or [V] to select available values	OFF/WAVE/CALL	F	U/V
16)	VOX switch	F + 1 SCAN 6 VO		Press [F] or [V] to select available values	ON / OFF	F	U/V
17)	Transmit over beeper	F + 1 SCAN 7 LID		Press [F] or [V] to select available values	ON / OFF	F	U/V
18)	Monitor	F + 1 SCAN 8 CH		Press [F] or [V] or rotate the step dial to change the frequency	ON / OFF	F	U/V
19)	Receive saver	F + 1 SCAN 9 RSP		Press [F] or [V] to select available values	ON / OFF	F	U/V
20)	Scan mode	F + 2 ID 0 AM		Press [F] or [V] to select available values	TO / CO / SE	F	U/V

Item No.	Item Name	Enter item	Screen Display	Select parameter	Parameter Explanation	Confirm	Return Standby
21)	Auto keypad lock	F + 2 ID 1 SCAN		Press [F] or [V] to select available values	ON / OFF	F	U/V
22)	Voice prompt	F + 2 ID 2 ID		Press [F] or [V] to select available values	ON / OFF	F	U/V
23)	End-tone elimination	F + 2 ID 3 ID		Press [F] or [V] or rotate the step dial to change the frequency	ON / OFF	F	U/V
24)	Power-on display	F + 2 ID 4 POW		Press [F] or [V] to select available values	OFF / DC / MSG	F	U/V
25)	Battery power voltage	F + 2 ID 5 ID		Press [F] or [V] to select available values	Show current voltage	F	U/V
26)	MSG setting	F + 2 ID 6 ID		Press [F] or [V] or rotate the step dial to change the frequency	*LOCK/#T-R/U/V	F	U/V
27)	Display the name	F + 2 ID 7 ID		Press [F] or [V] or rotate the step dial to change the frequency	ON/OFF	F	U/V
28)	Channel Name	F + 2 ID 8 CH		Press [F] or [V] or rotate the step dial to change the frequency	*LOCK/#T-R/U/V	F	U/V
29)	TX/RX tone coder	F + 2 ID 9 RSP		Press [F] or [V] to select available values	OFF / QT / DCS	F	U/V
30)	RX tone coder	F + 3 ID 0 ID		Press [F] or [V] to select available values	OFF / QT / DCS	F	U/V

Item No.	Item Name	Enter item	Screen Display	Select parameter	Parameter Explanation	Confirm	Return Standby
31)	TX tone coder	F + 3 1	T-CDC 254.1	Press [] or [] to select available values	OFF / QT / DCS		
32)	Shift direction	F + 3 2	S-D OFF	Press [] or [] to select available values	+ / -		
33)	Repeater Shift	F + 3 3	OFFSET 2.000	Press [] or [] or rotate the step dial to change the frequency	0.000-99.9975MHz		
34)	VFO step	F + 3 4	STEP 25K	Press [] or [] to select available values	2.5K / 5K / 6.25K / 10K...100K		
35)	Wide/ Narrow band	F + 3 5	N/W WIDE	Press [] or [] to select available values	Wide/Narrow		
36)	CTCSS scan	F + 3 6	SEEK 67.0	Press [] or [] to select available values	Press [] key to start scan		
37)	DCS scan	F + 2	SEEK 0023H	Press [] or [] to select available values	Press [] key to start scan		

Basic Operations

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Turning the Radio On/Off

Rotate the Radio On-Off/Volume Control knob clockwise/counter-clockwise until a click is heard to turn the radio on/off.

Adjusting the Volume

After turning the radio on, rotate the Radio On-Off/Volume Control knob clockwise to increase the volume, or counter-clockwise to decrease the volume.

Step Dial

After turning on the radio, rotate the step dial clockwise or counter-clockwise to adjust the step frequency.


PTT

PTT: press it to transmit and release it to receive after your transmission is completed.


Locking/Unlocking the Keypad

When the keypad is not in use, you can lock the keypad to prevent accidental keypad operation. Three methods are available for you to lock or unlock the keypad:

1. Through  key

Short press  key for 2s to lock or unlock the keypad.

Reverse the frequency

Under standby mode, long press  to turn on this function, "R" will displayed at the top of LCD when you turn on this function. At this time, radio's transmitting frequency is its receiving one, and its receiving frequency is its transmitting one. If it is been set the CTCSS/DCS, the code will also been exchanged.

MONI

MONI: Press and hold this key disables the noise squelching action ,allowing you to hear very weak signals near the back-ground noise level.

FM radio

Under standby mode, press F+MONI, you can input the frequency of radio or press F, then 1 to search the FM, it will stop when the FM found, if you want to continue to search the FM, press F then 1. can turn off the radio by pressing the PTT, press F+MONI, can exit the FM radio function.

Tone Calling(1750Tone)

To access a repeater, press and hold in "call" key for the amount of the time specified by the repeater. The transmitter will automatically be activated, and a 1750Hz audio tone will be superimposed on the carrier. Once access to the repeater has been gained, you may release "Call" key and use PTT for activating the transmission.

Emergency Alarm

Under standby mode, press F+CALL, to activate this function, until you press PTT, it will exit.

Channel Name storage and delete

• Channel Storage

Under VFO mode, input desired frequency by keypad directly, press **F**, then press **# 1#**, the digits blink at the right top of the LCD, press number to input desired channel directly or press **▲** or **▼** or the step dial to choose desired one, then press F for storage.

Note: After you input desired channel number, if it is blinks, it means that this channel is already occupied, you can choose another one.

e.g. to store the frequency:450.325MHz to the channel 05, the step are as follows

1) under VFO mode, input 4-5-0-3-2-5

2) press **F** + **# 1#**, press **▲** or **▼** the step dial to choose number .5

3) press **F** to confirm

• Channel delete

1) Under MR or CH mode, press **U/V** to turn on the radio, LCD displays "DEL?" and channel number blinks at the right top of LCD.

2) Press **▲** or **▼** or input channel number you want to delete, then press **F** to confirm

3) After delete, it will skip into next channel, if you want to delete it, repeat above operation.

FM RADIO FUNCTION

1) On/off radio receiver

Under standby mode, press F+MONI to open FM radio function, LCD display "76.00M", press F+MONI to exit DFM radio function.

Note: Under FM radio mode, if receiving the signal, the radio will be out of FM mode, after 5s, it will back to FM mode when the signals disappear.

2) FM Radio storage

It is the same as the channel storage.

Or you can storage the channel by software.

3) FM radio channel delete

Under FM memory mode, turn off the radio, press U/V key to turn on the radio, you will see "DEL" in the screen and the channel number blinks, press **▲** OR **▼** to choose the channel number you want to delete, press **F** to confirm. Repeater this operation, you can delete all memory channel, 25 in maximum.

NOTE: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.