

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 **TYT** 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

Cross band function

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

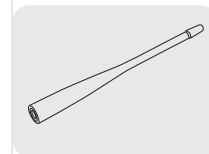
Please read the following brief instructions, non-compliance with these rules may cause danger or violate the law.

- 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.

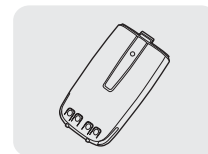
Unpacking and checking equipments

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)



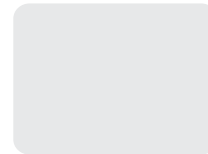
Charger (1)



Charger Adapter (1)



Verification (1)



User's Manual (1)

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 dissemble 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 jewelery, 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.

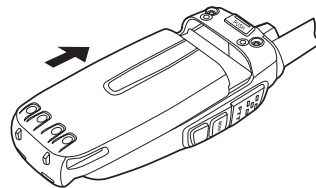
Antenna

- 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.

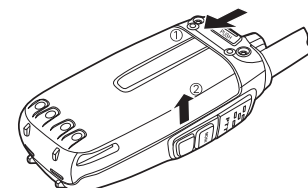
Installing and uninstalling of the accessories

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)



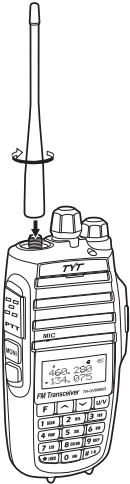
(picture 1)



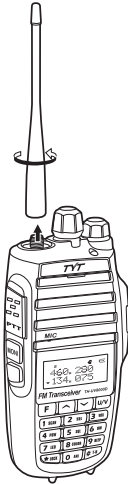
(picture 2)

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)



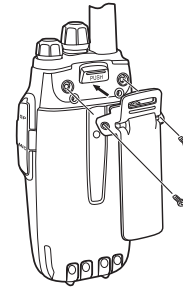
(picture 3)



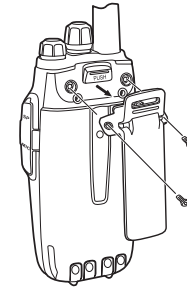
(picture 4)

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)

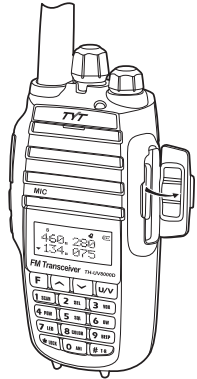


(picture 6)

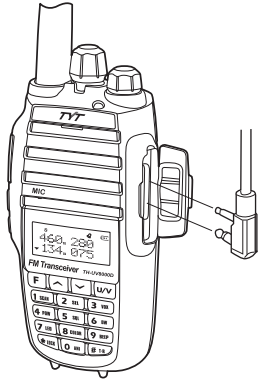
Installing external headset

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)

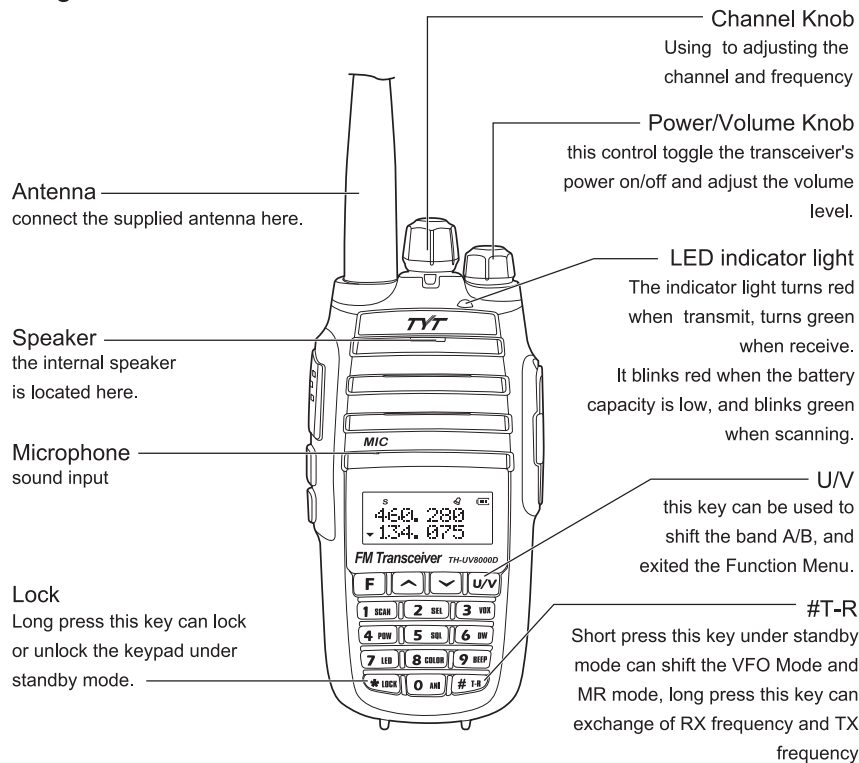


(picture 8)

Getting familiar

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Getting familiar

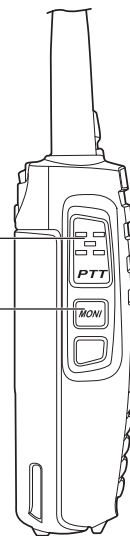


PTT

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

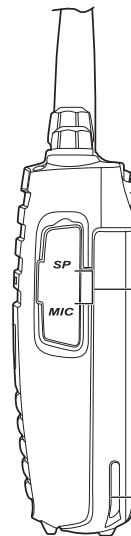
You can clip the radio in the belt and is easy to take.

Mic/speaker jack/ programming port

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

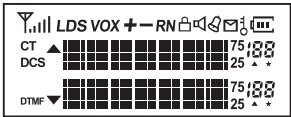
Li-ion battery

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
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 channel knob 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 **#1#** 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 **#1#**, then turn on the radio, it will enter CH mode, Press **#1#**, 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 channel knob 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 **W/V** 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 channel knob to change the frequency	PTT/MONI/U/V	F W/V
2)	Priority Transmit	F + 2 TX		Press [▲] or [▼] to select available values	EDIT / BUSY	F W/V
3)	VOX level setting	F + 3 VOX		Press [▲] or [▼] to select available values	VOX level: 1~9	F W/V
4)	TX power setting	F + 4 POW		Press [▲] or [▼] to select available values	High / Low	F W/V
5)	SQL level setting	F + 5 SQL		Press [▲] or [▼] to select available values	SQL level: 0~9	F W/V
6)	Dual wait/standby	F + 6 D.WAIT		Press [▲] or [▼] to select available values	ON / OFF	F W/V
7)	LED display mode	F + 7 LED		Press [▲] or [▼] to select available values	ON / AUTO / OFF	F W/V
8)	Background light color	F + 8 COLOR		Press [▲] or [▼] to select available values	1/2/3	F W/V
9)	Keypad beeper	F + 9 BEEP		Press [▲] or [▼] to select available values	ON / OFF	F W/V
10)	Automatic Number Identity	F + 1 SCAN 0 ANI		Press [▲] or [▼] to select available values	ON / OFF	F W/V

Item No.	Item Name	Enter item	Screen Display	Select parameter	Parameter Explanation	Confirm	Return Standby
11)	Repeater frequency setting	F + 1 SCAN 1 SCAN	TURN	Press or OR channel knob to select available values	ON / OFF	F	
12)	ID	F + 1 SCAN 2 SEL	ID	input 0-9	F to confirm, *lock to delete	F	
13)	PTT ID	F + 1 SCAN 3 SEL	PTT ID	Press or rotate the channel knob to change the frequency	BOT/EOT/BOTH/OFF	F	
14)	Transmitter time-out timer	F + 1 SCAN 4 POW	TOT OFF	Press or to select available values	OFF / 30... / 270s	F	
15)	Busy channel lock-out	F + 1 SCAN 5 SEL	BCLO OFF	Press or to select available values	OFF/WAVE/CALL	F	
16)	VOX switch	F + 1 SCAN 6 SEL	VOX SW OFF	Press or to select available values	ON / OFF	F	
17)	Transmit over beeper	F + 1 SCAN 7 LED	ROGER OFF	Press or to select available values	ON / OFF	F	
18)	Monitor	F + 1 SCAN 8 CHNN	DW	Press or rotate the channel knob to change the frequency	ON / OFF	F	
19)	Receive saver	F + 1 SCAN 9 REP	RX SAV ON	Press or to select available values	ON / OFF	F	
20)	Scan mode	F + 2 SEL 0 AND	SCANS CO	Press or to select available values	TO / CO / SE	F	

Item No.	Item Name	Enter item	Screen Display	Select parameter	Parameter Explanation	Confirm	Return Standby
21)	Auto keypad lock	F + 2 SEL 1 SCAN	AUTOLK OFF	Press or to select available values	ON / OFF	F	
22)	Voice prompt	F + 2 SEL 2 SEL	VOICE ON	Press or to select available values	ON / OFF	F	
23)	End-tone elimination	F + 2 SEL 3 SEL	TALK	Press or rotate the channel knob to change the frequency	ON / OFF	F	
24)	Power-on display	F + 2 SEL 4 POW	POW SET OFF	Press or to select available values	OFF / DC / MSG	F	
25)	Battery power voltage	F + 2 SEL 5 SEL	ULT 7.6V	Press or to select available values	Show current voltage	F	
26)	MSG setting	F + 2 SEL 6 SEL	MSG SET	Press or rotate the channel knob to change the frequency	*LOCK/#T-R/U/V	F	
27)	Display the name	F + 2 SEL 7 LIN	DIS.NM	Press or rotate the channel knob to change the frequency	ON/OFF	F	
28)	Channel Name	F + 2 SEL 8 CHNN	CHNAME	Press or rotate the channel knob to change the frequency	*LOCK/#T-R/U/V	F	
29)	TX/RX tone coder	F + 2 SEL 9 REP	C-CDC 254.1	Press or to select available values	OFF / QT / DCS	F	
30)	RX tone coder	F + 3 SEL 0 SEL	R-CDC 254.1	Press or to select available values	OFF / QT / DCS	F	

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	F Press [] or [] to select available values	OFF / QT / DCS	F	
32)	Shift direction	F + 3 2	S-D OFF	F Press [] or [] to select available values	+ / -	F	
33)	Repeater Shift	F + 3 3	OFFSET 2.000	F Press [] or [] or rotate the channel knob to change the frequency	0.000-99.9975MHz	F	
34)	VFO step	F + 3 4	STEP 25K	F Press [] or [] to select available values	2.5K / 5K / 6.25K / 10K...100K	F	
35)	Wide/Narrow band	F + 3 5	N/W WIDE	F Press [] or [] to select available values	Wide/Narrow	F	
36)	CTCSS scan	F + 3 6	SEEK 67.0	F Press [] or [] to select available values	Press [] key to start scan	F	
37)	DCS scan	F + 2	SEEK D023H	F Press [] or [] to select available values	Press [] key to start scan	F	

Detailed Function Descriptions

Basic Operations

<http://www.tyt888.com>

DETAILED FUNCTION DESCRIPTIONS

1) Scan & Scan Mode setting (SCAN&SCANS---MENU 1&20)

Functions: under VFO/MR/CH mode, TH-UV8000D allows you to scan the entire current operating band and memory channels.

Enter Menu 1st and press [F] key to start scanning.

When you have started scanning, press [] / [] key to change direction. And it will halt on a signal it encounters, press **PTT** key to stop scanning; Press **MONI** key to stop scanning temporarily; Press [F] key again to exit the scanning function.

Scanning operation is basically the same in each of the above modes. Before you begin, take a moment to select the way in which you would like the scanner to halt on a signal.

Enter Menu 20th to set scan mode. Default: TO.

Three options for the scan mode are available under VFO mode:

TO: In this mode, the scanner will halt on a signal it encounters, and will hold there for some time. If you do not take action to disable the scanner within the time period, the scanner will resume even if the stations are still active.

CO: In this mode, the scanner will halt on a signal it encounters, and will hold there if the stations are still active. And after the carrier has dropped, the scanner will resume.

SE: In this mode, the scanner will halt on a signal it encounter, it will not restart automatically; you must manually re-initiate scanning if you wish to resume.

2) Priority Transmit (TX.SEL---MENU 2)

Functions: TH-UV8000D allows you to transmit on the sub band even if you are working on the operating band.

Enter Menu 2nd to select priority transmit band. Default: EDIT.

EDIT: It will transmit on the operating band.

BUSY: It will transmit on the band last talking used.

3) VOX Level & VOX Switch (VOX&VOX.SW---MENU 3&16)

Functions: the VOX function provides automatic transmit/receive switching based on voice input to the microphone. With the VOX switch ON, you do not need to press **PTT** switch in order to transmit, and it is not necessary to use a VOX headset in order to utilize VOX operation.

Enter Menu 16th to set VOX switch. Default: OFF.

When the VOX is activated, the “VOX” icon will appear on the display.

Enter Menu 3rd to set VOX level. It has 9 grades.

The higher level is, the more sensitive will be.

TH-UV8000D provides for adjustment of “Hang-Time” of the VOX (the transmit-receive delay after the cessation of speech) via program software.

Default: 2s.

4) TX Power setting (POW---MENU 4)

Functions: you can select high/low TX power according to your talking environment and need. When you store memories, you can store High and Low power

settings separately in each memory.

Enter Menu 4th to set TX power.

High: 10W

Low: 5W, when you select Low power, the “L” icon will appear on the display.

5) Squelch Adjustment (SQL---MENU 5)

Functions: TH-UV8000D’s Squelch system allows you to mute the background noise when no signal is being received. Not only does the Squelch system “standby” operation more pleasant, it also significantly reduces battery current consumption.

Enter Menu 5th to set SQL level. Default: 5.

6) Dual Wait/Standby (D.WAIT---MENU 6)

Functions: TH-UV8000D allows you to receive the sub band signal even if you are working on the operating band. It could monitor the signal under both master and sub band at the same time.

Enter Menu 6th to set Dual Wait. Default: ON.

7) LED Display Mode (LED---MENU 7)

Function: select the LED/Keypad Lamp mode.

Enter Menu 7th to select LED display mode. Default: AUTO.

ON: LED display lights all the time.

AUTO: Illuminates the LED when any key is pressed and after 3s the light is off.

OFF: Disable the LED lamp.

8) Background Light Color (LIGHT---MENU 8)

Functions: choose LED background light color.

Enter Menu 8th to select background light color. Default: Default1.

1: Purple.

2: Orange.

3: Blue.

9) Keypad Beeper setting (BEEP---MENU 9)

Functions: enable/disable the keypad beeper.

Enter Menu 9th to set keypad beeper. Default: ON.

10) Automatic Number Identity (ANI---MENU 10)

Functions: sending ID code when TH-UV8000D transmits, the others can receive it directly on the display if they also have ANI function.

Enter Menu 10th to set ANI. Default: OFF.

11) Repeater frequency setting

Enter Menu 11th to turn on/off the setting.

12) ID setting

Enter Menu 12th to set the ID number.

13) PTT ID setting

Enter Menu 13th to set the PTT ID

14) Transmitter Time-Out Timer (TOT---MENU 14)

Functions: the TOT feature provides a safety switch which limits transmission to a pre-programmed value. This will promote battery conservation by not allowing you to make excessively-long transmissions, and in the event of a stuck PTT switch it can prevent interference to other users as well as battery depletion.

Enter Menu 14th to set TOT. Default: OFF.

15) Busy Channel Lock-Out (BCLO---MENU 15)

Functions: the BCLO feature prevents the radio's transmitter from being activated if a signal strong enough to break through the "noise" squelch is present. On a frequency where stations using different CTCSS or DCS codes may be active, BCLO prevents you from disrupting their communications accidentally (because your radio may be muted by its own tone decoder).

Enter Menu 15th to set BCLO. Default: OFF.

OFF: Disable BCLO feature.

WAVE: the radio's PTT will be prevented only if the frequency is busy used.

CALL: the radio's PTT will be prevented only the frequency and tone coder is the same.

16) VOX Switch

Enter Menu 16th to switch on /off the Vox function.

17) Transmit Over Beeper (ROGER---MENU 17)

Functions: sending a beeper to inform the receiver TX is over.

Enter Menu 17th to set ROGER. Default: OFF.

18) Dual Watch/Monitor (DW---MENU 18)

Functions: Dual Watch feature makes TH-UV8000D can monitor the calling signal when FM radio is on and you won't miss any calling.

Enter Menu 18th to set DW. Default: OFF.

19) Receive Saver (RX.SAV---MENU 19)

Functions: this feature significantly reduces quiescent battery drain, and you may not receive the full data burst.

Enter Menu 19th to set RX.SAV. Default: OFF.

20) Scan Mode Setting

Enter Menu 20th to set the scan mode.

21) Auto Keypad Lock (AUTOLK---MENU 21)

Functions: in order to prevent accidental frequency change or inadvertent transmission, various aspects of the TH-UV8000D's keys and switches may be locked out.

Enter Menu 21th to set AUTOLK. Default: OFF.

When you switch AUTOLK ON, the keypad will be locked automatically if there is no key operation for 5 second.

If the radio is locked, press [] key to unlock it. Also you can lock it using [] key

by manual.

22) Voice Prompt (VOICE---MENU 22)

Functions: enable/disable voice prompt.

Enter Menu 22th to set VOICE.

23) End-tone elimination

Enter Menu 23th to switch on/off the tail elimination function

24) Power-on Display setting (OPN.SET&VLT&MSG.SET---MENU 24&25&26)

Functions: choose power-on display mode and edit power-on message

Enter Menu 24th to set OPN.SET. Default: OFF.

OFF: display model version

DC: battery power voltage

MSG: power-on message

Enter Menu 25st to check battery voltage.

Enter Menu 26nd to edit power-on message, also you can edit it directly by

25) Display the name (DIS.NM&CH.NAME)

Functions: switch channel name display mode ON/OFF and edit channel name under MR/CH mode .

26) Tone coder & Tone Search Scanning & Tone calling (C-CDC& R-CDC& T-CDC

Function 1: CTCSS/DCS Operation

Operation: Press **F** + **2** **MR** **9** **MR** to enter the CTCSS setting, Press **F** to confirm, then press **↵** to enter 32nd Menu.

OFF: Disable the CTCSS/DCS.

67.0: the CTCSS number.

D023N: DCS number.

Many repeater systems require that a very-low-frequency audio tone be superimposed on your FM carrier in order to activate the repeater. This helps prevent false activation of the repeater by radar or spurious signals from other transmitters.

Enter Menu 29th/30th/31th to set TX&RX Tone coder/ RX Tone coder/ TX Tone coder.

If the Tone scan feature does not detect a tone or code, it will continue to scan indefinitely. When this happens, it may be that the other station is not sending any tone. You can press **PTT** key to halt the scan at any time.

You also can press **MONI** key during Tone scanning to listen to the (muted) signal from the other station. When you release the **MONI** key, Tone scanning will resume.

Tone Scanning works either in the VFO or MR modes.

27) Offset frequency and direction setting(S-D&OFFSET--MENU 32 & 33)

Functions: Under VFO mode, you can set the offset frequency and direction to connect with repeater.

Enter Menu 32nd to set offset direction.

Default: OFF

Enter Menu 33rd to set offset frequency.

Available values: 0.000-99.995MHz

28) VFO Step setting (STEP---MENU 34)

Functions: setting of the synthesizer steps

Enter Menu 34th to set VFO step.

Available Values: 0.5/2.5/5/6.25/10/12.5/25/37.5/50/100K.

Basic Operations

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.

Channel Knob

After turning on the radio, rotate the channel knob 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 **#14** 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,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.

Remote Stun/Kill and Activated

If you want to use this function, please program signaling via programming software:

Remote Stun

DTMF >Decode>-Stun Type->TX Inhibit->Stun Code

Remote Kill

DTMF >Decode->Stun Type->TX/RX Inhibit->Stun Code

A, To input stun code of radio you want to stun/kill.

B, Remote Activated: to input stun code+# to activate the stunned/killed radio.

eg. Stun code of A is 12345678, and if you want to remote kill A, please use the same frequency of B, press and hold on PTT, key input 12345678, A will be killed and if you want to activate A, please key input 12345678+# to activate it.

C, you also can press **F** + **uv** , then key input 12345678, press PTT, radio will be killed and then key input 12345678+# to activate it.

DTMF
12345678

DTMF

Channel Name storage and delete

• Channel Storage

Under VFO mode, input desired frequency by keypad directly, press **F**, then press **# 18**, the digits blink at the right top of the LCD, press number to input desired channel directly or press **▲** or **▼** or the channel knob to choose desired one, then press **F** for storage.

Note: After you input desired channel number, if it 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** + **# 18**, press **▲** or **▼** the step dial to choose number .5

3) press **F** to confirm.

• Channel delete

1) Under MR or CH mode, press **UV** 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 **UV** 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.

DTMF Encoding

1. Press PTT and hold one, then key input DTMF code to send DTMF signaling, release PTT to pause, after 2S, it will exit.

DTMF
123_____

2. When transmitting part transmits with self ID, and receiving part decodes this ID. It will save this ID automatically.

eg: ID for receiving one is 123 and for transmitting one is 456, press **F** of transmitting one and then press **UV**, LCD will display

CALL
456

when receiving one receives this signaling and decodes successfully, it will save this ID

3. Press **F** , then press **u/v** , if radio has saved last calling ID, it will display this ID, if no, it is none, then key input DTMF code, 16 digits in maximum, then press PTT to send this ID.

DTMF
123_____

Note:

- 1. when key input code, press MONI to delete last digit, short press CALL to be back to standby mode.
- 2. in MR mode or CH mode, long press CALL to get ID of respective channel of others.
- 3. when key input code, if you end it as #*, the code will be changed into XX#123, self ID is 123, eg, if input 78945#*, self ID is 123, you can call the radios with ID as 78945, whose LCD will display DTMF, if you want to check self ID, please press **F** , then press **u/v** , LCD will display ID.

DTMF selective call

1. Signal call

Code of calling part is 456(Radio A), and called one is 123(Radio B), press **F** , then press **u/v** and key input 1,2,3,#,*, then press PTT to call radio B.

After sending, LCD of radio B will display DTMF;

Press **F** , then press **u/v**, LCD of radio A will display

CALL
456

Note:

if radio A transmit 1,2,3 or 1,2,3,# or 1,2,3,#,X,X, radio B also can receive and decode.

2. Group call

Code of calling one is 456, press **F** , then press **u/v** , then key input 1,1,A,#, press PTT to transmit, the actual transmitting code is 1,1,A,#,4,5,6.

Key input by sequence	The radios you can call
11A#* or 11A#456	110*119(10 pcs)
15A#* or 15A#456	150*159(10 pcs)
1AA#* or 1AA#456	100*199(100 pcs)
5AA#* or 5AA#456	500*599(100 pcs)
AAA#* or AAA#456	000*999(1000 pcs)

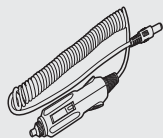
CTCSS/DCS

CTCSS									
1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	162.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

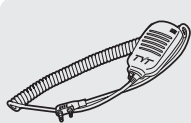
DCS

1	017	18	073	35	165	52	261	69	356	86	464	103	632
2	023	19	074	36	172	53	263	70	364	87	465	104	645
3	025	20	114	37	174	54	265	71	365	88	466	105	654
4	026	21	115	38	205	55	266	72	371	89	503	106	662
5	031	22	116	39	212	56	271	73	411	90	506	107	664
6	032	23	122	40	217	57	274	74	412	91	516	108	703
7	036	24	125	41	223	58	305	75	413	92	523	109	712
8	043	25	131	42	225	59	306	76	423	93	526	110	723
9	047	26	132	43	226	60	311	77	425	94	532	111	731
10	050	27	134	44	243	61	315	78	431	95	534	112	732
11	051	28	135	45	244	62	325	79	432	96	546	113	734
12	053	29	143	46	245	63	331	80	445	97	565	114	743
13	054	30	145	47	246	64	332	81	446	98	606	115	754
14	055	31	152	48	251	65	343	82	452	99	612	116	765
15	065	32	155	49	252	66	345	83	454	100	624		
16	071	33	156	50	254	67	346	84	455	101	627		
17	072	34	162	51	255	68	351	85	462	102	631		

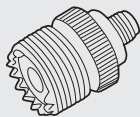
Optional Accessories



Vehicle Charger



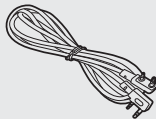
Speaker



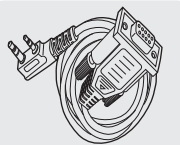
Antenna Adapter



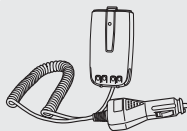
Earphone



Clone Cable



Program Cable



Eliminator



Software CD

Optional Accessories Trouble shooting guide Specifications

<http://www.tyt888.com>

Trouble shooting guide

<i>Troubles</i>	<i>Solution</i>
No Electrical Source	<ul style="list-style-type: none"> ● The battery has been exhausted. Replace or recharge the battery. ● The battery is installed incorrectly. Remove it and install again.
The operating time becomes short, even the battery is fully charged.	<ul style="list-style-type: none"> ● Replace the battery.
Not able to communicate with the transceivers of the same group.	<ul style="list-style-type: none"> ● Confirm the QT/DQT is the same. ● The distance is outside of range.
The voice of another group can be heard.	<ul style="list-style-type: none"> ● Change all QT/DQT of the group.
Other radios can not receive the TX signals or receive signals in a low volume.	<ul style="list-style-type: none"> ● Switch the volume knob to the highest level ● The microphone may be damaged, send it to the local dealer for check.
Noise is always heard.	<ul style="list-style-type: none"> ● The distance is outside of range. Turn on the radio in nearer range and try again.

Specifications

General

Frequency range	136-174MHz/220-260MHz 220-260MHz/400-520MHz 136-174MHz/400-520MHz
Frequency Stability	± 2.5PPm
Operating voltage	DC 7.2V (Rechargeable Li-ion battery)
Channel No	128*2
Antenna	High gain antenna
Antenna impedance	50Ω
Mode of operation	Simplex or semi-duplex
Battery capacity	3600mAh

Receiver

RF Sensitivity	-122dBm (12dB SINAD)
Audio power	>0.5W
Audio distortion	<10%
Blocking	≥ 85dB
Intermediation	≥ 60dB ≥ 55dB
Selectivity	≥ 65dB ≥ 60dB
Spurious rejection	≥ 65dB

Transmitter

Output power	≤ 10W ≥ 5W
Modulation mode	16kΦF3E / 11kΦF3E
Maximum deviation	<5KHz / <2.5KHz
Adjacent Ch. power	≤ -65dB / ≤ -60dB
Spurious radiation	<7μW
Pre-emphasis characteristics	6dB
Current	≤ 2.8A(10W) ≤ 1.8A(5W)
CTCSS/DCS deviation	0.55KHz ± 0.15KHz 0.4KHz ± 0.1KHz
Intermediation sensitivity	8-12mV
Intermediation distortion	<5%

Note: Specifications will be revised without notice due to technical improvement. Thank you.



Warranty card

Note:

1. This warranty card is only applicable to two-way radio of the above-listed model and serial number.
2. The warranty card is an important document for the end-user to enjoy warranty service, please keep it well.
3. The warranty card shall be filled and chopped by the dealer, or it is invalid.

Customer's name: _____ Gender: _____

Add and postal code: _____

Customer's Tel: _____

Model: _____

Serial number: _____

Purchasing date: _____

Invoice No.: _____

Dealer: _____ Stamp: _____

Add and postal code of the dealer: _____

Contact Tel: _____

Handling people: _____

Thank you for buying TYT two-way radios, we will do our best to provide you with a stable, clear and efficient wireless communication services. In order for you to enjoy a better quality warranty service, please focus on the following information:

The products warranty period begins from the purchasing date, if product failure under normal use within warranty period occurs, according to the contents of this warranty, (the radio is guaranteed for 12 months, accessories 6 months), please carry the warranty card originals and purchase invoice to TYT designated authorized warranty repair station for warranty service.

The following situations occur during warranty period will be implemented in paid service:

- (1) Failure to produce the warranty card
- (2) The card has altered traces or inconsistent with the product
- (3) Defect or damage caused by abnormal or non-normal use
- (4) Defect or damage caused by misuse, accident, water or negligence
- (5) Defect or damage caused by improper testing, operation, maintenance, installation, disassembly or adjustment
- (6) Defect or damage caused by unauthorized repair or disassembly
- (7) Defect or damage caused by force majeure
- (8) Wear and tear under normal use

When you are in need of repair, please send the radio, warranty card and purchase invoice together by post or take directly to TYT designated authorized service stations, shipping costs should be borne by the user.

Maintenance record

Carry-in date			
Completion date			
Fault description			
Maintenance staff numbers			
Maintenance personnel No.			
Signature			

This warranty card to be kept by the user, no replenishment if lost