User's Manual

WORKING MODE BASIC OPERATION SHORTCUT OPERATION NUMBER KEY OPERATION

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WORKING MODE

I . Frequency Mode(VFO)

Under this mode, you can use POWER/DIAL knob to change the frequency or input the frequency by keypad directly.

II. Frequency-Memory Channel Mode(MR)

The frequency will be indicated on the display and the channel No. will be indicated at the right top. If the transceiver display name option is "ON", it will show the name of the channel, Please see Menu operation ITEM 09, Page 32

III. Channel Mode(CH)

IV. FM Radio Mode

TH-UV3R provides frequency 76.00-108.00MHz FM radio

Under this mode, you can choose the FM frequency you need directly. Scan frequency range and store your favorite channels, please see Shortcut Operation ITEM 8.Page 25

V. MENU Mode

BASIC OPERATION

- I. Switching Power On And Off
 - 1. Be sure the battery pack is installed and connect the antenna correctly.
 - 2. Press and hold POWER/DIAL knob for 3 seconds, a "POWER ON" voice will be heard, the current voltage will indicated on the display, then the display will resume its normal indication of the operating frequency.
 - 3. To turn off the TH-UV3R, press and hold POWER/DIAL again for 3 seconds.

Note: If you dont hear the "POWER ON" voice when the radio power on, the Beep function may have been disabled via Shortcut Operation ITEM 9, Page 24

II. Frequency Adjustment

The TH-UV3R will be operating in the VFO mode, a channelized system which allows free tuning throughout the operating band.

Rotation of the POWER/DIAL knob allows turning in the pre-programmed steps established for the operating band. Clockwise rotation of the DIAL causes it toward a higher frequency, while counter-clockwise rotation will toward lower frequency.

III. Transmission

- Press PTT switch, and speak into the front panel microphone in a normal voice level.
 The BUSY/TX indicator will turn red during transmission.
 Release PTT switch to return to the receive mode.
- 2. During transmission, the relative power level will be indicated at the bottom of the LCD. Full scale deflection confirms "High Power" and deflection of four bars indicates "Low Power". Also "Low" icon will appear at the bottom of the display while operating on the "Low Power" setting Shortcut Operation ITEM 2. Page 23

IV. Keypad Lock

In order to prevent accidental frequency change or inadvertent transmission, the TH-UV3R provides KEYPAD LOCK function, you can activate it by Manual or Auto activates it. Please see Menu Operation ITEM 22. Page 36

- 1. Press [🖪] key + [🔊] key to enter MENU mode.
- 2. Rotate the POWER/DIAL knob to select ITEM 22:KEY LK
- 3. Press [Im] key to enable adjustment of this function.
- 4. Rotate the POWER/DIAL knob to choose between Manual and Auto.

Note: ■ And in this mode, if you rotate POWER/DIAL knob, you will adjust the volume.

- When you choose Manual Keypad Lock, press [📠] key to lock the keypad.

${ m V}$. Multifunction side key operation

The TH-UV3R provides two multifunction side keys for you. Both of them have the same options.

And you can set their function via program software according to your requirement.

There are six different options as below:

- A. None
- B. Monitor and volume adjustment:

When you set this function to the side key, press and hold it, the transceiver will be into Monitor state and talking volume will be indicated on the LCD. Rotate the POWER/DIAL knob to adjust it as your need.

C. Tone Calling (1750Hz)

If the repeaters in your country require a 1750Hz burst tone for access (typically in Europe), you can set the side key to serve as a T-Call key.

To access a repeater, press and hold in T-Call key for the amount of 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 T-Call key and use PTT for activating the transmission.

D. Emergency Alarm

When set this as emergency alarm function, short press to start emergency alarm, press PTT to transmit alarm signal, then press any key to exit. Long press to start emergency alarm and transmit alarm signal, it will exit when you loose it.

SHORTCUT OPERATION

The users can operate the TH-UV3R rapidly via [📠] + other keys. Details are as below.

- 1) Squelch grade setting(F+1)
- 2) High/Low power setting(F+2)
- 4) Shift offset direction setting(F+4)

 Press [] key + number key [] key to enter Shift offset direction setting under

 VFO mode. Rotate the DIAL knob to choose downward (-) or upward (+).And one of
 these icons will appear at the top of the LCD when repeater shifts have been enabled.

6) Channel spacing step setting(F+6)

Press [a] key + number key [a] to enter frequency step setting. Rotate the DIAL knob to select 6.25/12.5/25.0/50.0/100.0KHz.

7) VOX switch on/off setting(F+7)

Regarding VOX level setting please see MENU OPERATION ITEM 23. Page 36.

8) FM radio mode(F+8)

Press [a] key + number key [a] to enter FM radio mode. A FM icon will appear on the bottom of the LCD.

Rotate the DIAL knob to select FM frequency or directly input the frequency by keypad.

Under FM Radio mode, TH-UV3R can monitor the receiver signals. When there is a call, TH-UV3R will exit FM radio mode temporarily and receive the call. After finishing the call for 5 seconds, return back FM radio mode automatically.

9) Keypad beeper setting.(F+9)

Press [a] key + number key [a] to enter keypad beeper setting. Rotate the DIAL knob to select OFF/TONE/VOICE.

10) CTCSS/DCS setting(F+0)

- 1. Switch between RX and TX via [📠] key.
- 2. Switch between CTCSS and DCS via [🚾] key.

OFF->CTCSS->DCS N->DCS I->OFF

- 3. Rotate the DIAL knob to select CTCSS/DCS.
- 4. Press [Im] key to confirm and [Im] to exit.
- 11) Scanning function(F+VFO)

12) Channel Storage(F+U/V)

13) Menu mode(F+ENT)

Press [📠] key+ [📠] key to enter menu mode. Pls see Menu Operation. Page 30

NUMBER KEY OPERATION

Under VFO mode, you can select the frequency by number key directly. If the input number is out of band, it will prompt "ERROR". If you input frequency is available, the transceiver will enter your desired frequency. Under channel mode, press number key to change the current channel.

SET MENU MODE

MENU OPERATION

DESCRIPTION AND SETTING OF OPERATION MENU

TECHNICAL PARAMETERS

GUARANTEE

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SET MENU MODE

Set Menu Mode	Icon and Function	Available Values
1	TX_SEL (Priority Transmit)	BUSY/EDIT
2	APRO (Voice Mode)	OFF/COMP/SCRM
3	BCLO (Busy Channel Lock)	OFF/ON
4	Narrow Band	NARROW
5	TAIL (End-tone Elimination)	OFF/ON
6	SCAN (Scan Added)	ADD/DEL
7	OFFSET (Shift Frequency Setting)	0,000 - 99,950MHz
8	CH-NAM (Channel Name Setting)	0-9,A-Z, +, -, /, _
9	NAM_SW (Channel Name Displaying)	OFF/ON
10	OPENS (Power-on Display)	OFF/DC/MSG
11	MSG (Power-on Message)	0-9, A-Z, +, -, /, _
12	D_WAIT (Dual Watching)	OFF/ON
13	LAMP (Back Light Setting)	OFF/ON/AUTO
14	DC (Battery Voltage Display)	CURRENT VOLTAGE
15	1750_S (1750 TX)	OFF/1-15S
16	TOT (Time-out-timer)	OFF/30-360S
17	RX_SAV (Battery Saving Mode)	OFF/1-1/1-2/1-3/1-4
18	SCAN-S (Scan Mode setting)	CO/TO/SE

Set Menu Mode	Icon and Function	Available Values
19	SCAN_V (Scan velocity setting)	100ms, 150ms, 500ms
20	APO_SW (Auto Power-off setting)	OFF/30-180S
21	RX_ALT(RX Alarm Setting)	OFF/ON
22	KEY_LK (Key Lock Setting)	AUTO/MANUAL
23	VOX_LV (VOX Level Setting) (1-9)	1-9
24	VOX-DV (VOX ending delay time)	0.5S, 1.0S, 2.0S, 3.0S
25	FM_STP (FM radio Frequency Step setting)	25K, 50K, 100K, 200K
26	SK_CTS (CTCSS Scan)	67.0Hz-2541.0Hz
27	SK_DCS(DCS Scan)	D023N-D754N, D023I-D0754

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MENU OPERATION

Press [] key, "F" will be indicated at the left bottom of the LCD, and then press [] key, LCD displays "MENU" to enter menu mode. Rotate encoder key to select the menu items, then press [] key to enter the desired menu. Rotate encoder key to select the desired one, then press [] key to confirm, During operation, press [] key to exit and back to the last menu, press [] key to exit menu mode.

DESCRIPTION AND SETTING OF FUNCTION MENU

1) Priority Transmit (TX,SEL—MENU 2)

Functions: TH-UV3R 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.

2) Voice mode (APRO)

Set it through menu 2, two modes are available

- 1) OFF
- 2) COMP: voice compander
- 3) SCRM: voice scrambler
- 3) Busy channel lock (BCLO)

ON: busy channel lock function is on

OFF: busy channel lock function is off

4) Narrow bandwidth

Press [], and then press [] key, rotate the POWER/DIAL knob key to select
Menu 3, LCD displays "N", press PTT or [] key to confirm then press [] key
to exit.

NARROW: narrow bandwidth is selected

5) End tone elimination (TAIL)

It can eliminate nasty sound when transmission is finished. The benefit of this function is particularly evident for those using earphone.

Note: This function will only activate when other radios also turn on TAIL function.

6) Scan added (SCAN)

Press [a], and then press [a] key, rotate the POWER/DIAL knob key to select Menu 6,LCD displays "SACN", press [a] to enter and rotate the POWER/DIAL knob key to select "ADD" or "DEL". Press PTT or [a] key to confirm then press [w] key to exit. This function is only available under channel mode in order to add scan function into the current channel.

ADD: scan added

DEL: scan deleted

7) Offset frequency (DIFFER)

Press [], and then press [] key, rotate the POWER/DIAL knob key to select Menu 5, LCD displays "DIFFER", press [] to enter and rotate the POWER/DIAL knob key to select the differ frequency from 00.000MHz-70.000MHz. Press PTT or [] key to confirm then press [] key to exit.

8) Channel name setting (CH_NAM)

Channel name can be edited by users, 6 digits or letters in maximum, this function is only available under channel mode. Under CH and MR mode, press [•], and then

press [] key , rotate the POWER/DIAL knob key to select Menu 8, LCD displays "NAME" , press [] to enter, the first digit blinks on the screen, rotate the POWER/DIAL knob key to choose from "0" - "9" and "A" - "Z" , press [] key to switch to next character, press [] key to back to last character, then press [] key to confirm the setting

9) Channel name displaying (NAM_SW)

Under CH and MR mode, rotate DIAL/VOLUME knob to swift "ON" and "OFF" $\,$

"ON": display as channel name you edit

"OFF": display as frequency

Note: please edit the channel name first when you swift as "ON"

10) Power on message displaying (OPEN_S)

The desired power on message will be displayed when you turn on the radio

- 1) OFF: normal power on, displaying frequency or channel number directly
- 2) MSG: displaying your edited power-on message
- 3) DC: displaying current battery voltage
- 11) Power on message setting (MSG)

Power on message can be edited, 6 digits or letters in maximum

- **a.** when the first digit blinks on the screen, rotate DIAL/POWER knob to choose from "0"-"9", "A"-"Z"," ", "+", "-", "*", "/", and "_".
- **b.** press number key 2 to switch to nest character, press number key 1 to back to last character, and press number key 0 to delete current edited one

- c. press [💌] to confirm
- 12) Dual monitor (D_WAIT)

OFF: dual monitor is on, radio works uncer both channels

ON: dual monitor is off, radio works under only current channel

13) Backlight setting (LAMP)

Press [a], and then press [a] key, rotate the POWER/DIAL knob key to select Menu 10, LCD displays "LAMP", press [a] to enter and rotate the POWER/DIAL knob key to select the mode, press PTT or [a] key to confirm then press [a] key to exit.

ON: LCD backlight will be turned on constantly
OFF: LCD backlight will be turned off constantly

AUTO: Keypad and LCD backlight will be turned on upon any operation, and stay for 5 seconds. It will be automatically turned off when there is not any operation.

- 14) Battery Voltage (DC)

 Display battery current voltage.
- 15) 1750Hz tone transmit settting (1750_S)

To press [PTT] to transmit 1750Hz tone or mot

OFF: not to transmit 1750Hz tone

ON: to transmit 1750Hz tone and transmitting time can be adjusted and is 1-15S

16) Time out timer (TOT)

To prevent radio from being damaged due to continue transmission for a long time, the radio will alert you when transmission time limit is up.

A transmitting time can be selected: OFF, 15S, 30S, 45S, 60S, 75S, 90S, 105S, 120S, 135S, 150S, 165S, 180S, 195S, 210S, 225S, 240S, 255S, 270S, 285S, 300S, 315S, 330S, 345S, 360S, 375S, 390S, 405S, 420S, 435S, 450S, 465S, 480S, 495S, 510S, 525S, 540S, 555S, 570S, 585S, 600S.

17) Rx power saving (RX_SAV)

Press [], and then press [] key, rotate the POWER/DIAL knob key to select Menu 13, LCD displays "SAVE", press [] to enter and rotate the POWER/DIAL knob key to select the time, press PTT or [] key to confirm then press [] key to exit.

OFF: RX power saving function is off Level: 1:1, 1:2, 1:3, 1:4, the higher the level, the better the performance of RX power saving.

18) Scan mode selecting (SCAN_S)

a. Time-operated scan(TO)

The radio will stop scanning if there is signal and stay for 5S. it will continue scanning even the signals still exists.

b. Carrier-operated scan(CO)

The radio will stop scanning if there is signal and stay in the same frequency till the signal disappears. Before the radio begins scan again, there will be 15S for the radio to transmit and receive.

c. Search scan(SE)

The radio will stop scanning if there is signal and stay in the same frequency, and then exits.

19) Scan velocity setting (SACN_V)

It can adjust the time for scanning, the available values are 100ms, 150ms, 200ms, 250ms, 300ms, 350ms, 400ms, 450ms, 500ms.

20) Auto power off (APO_SW)

Press [], and then press [] key, rotate the POWER/DIAL knob key to select Menu 14, LCD displays "APO", press [] to enter and rotate the POWER/DIAL knob key to select the tome, press PTT or [] key to confirm then press [] key to exit. If APO is on, The radio will be turned off when there is no operation within the pre-determined time.

OFF: APO is off

30MIN, 60MIN, 90MIN, 120MIN, 150MIN, 180MIN mean that the radio will turn off when there is no operation after these pre-determined time.

21) Emergency alert receiving (RX_ALT)

OFF: won't receive the emergency alert

ON: receive the emergency alert

22) Lock mode (KEY_LK)

23) VOX level setting (VOX_LV)

VOX sensibility can be adjusted by setting VOX level, Level 1 is the lowest, so it needs the strongest voice.

24) VOX ending delay time (VOX_DV)

The radio resumes to receiving mode soon after transmitting, your TX voice may sometimes not be sent out successfully. To avoid this problem, you can adjust VOX delay time after transmission. The available values are 1.5S, 1.0S, 2.0S, 3.0S.

25) FM radio frequency step (FM_STP)

To select frequency step for FM radio, the available values are 25K, 50K, 100K, 200K.

26) CTCSS scanning (SK CTS)

Press [[] , and then press [[] key , rotate the POWER/DIAL knob key to select Menu 19, LCD displays "SK CTS", press [m] to begin scanning, press PTT when a same CTCSS code of other radios is received., and CTCSS code blinks. Rotate the POWER/DIAL knob key to changescanning direction.

27) DCS scanning (SK DCS)

select Menu 20, LCD displays "SK DCS", press [m] to begin scanning, press PTT a same CTCSS code of other radios is received and DCS code blinks. Rotate the POWER/DIAL knob key to change scanning direction.

Reset

It is used to clear all the settings.

1) Press and hold [📠] key to turn on radio, LCD displays "RESET YES ?", then press [] to enter it, you will hear first sound, which means RESET begins and it finished when you hear second sound then radios enter VFO mode automatically



VOX OFF

Press [w] to turn on the radio, LCD displays "VOXOFF" and then you will heard a sound. VOX function is off. To turn off the VOX is to avoid radio transmit continuously when you turn on the radio and VOX is on and sensitive.

CHANNEL STORAGE AND DELETE

Channel Storage

Under VFO mode, input desired frequency by keypad directly or select one by rotating the knob, and then press [[64]] + [[64]]. the digits blinks at the left top of frequency, press number to input desired channel directly or rotate the knob to choose desired one, then press [Im] for storage.

Channel delete

- 1) Under MR or CH mode, press [w] to turn on the radio, LCD displays "DEL?" and channel number blinks at the right top of LCD.
- 2) Rotate the knob or input channel number you want to delete, then press [Im] to confirm
- 3) After delete, it will skip into next channel, if you want to delete it, repeat above operation.

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FM RADIO STORAGE AND DELETE

- 1) FM radio storage
 - Under FM frequency mode, press [a] and then press [], the channel number for storage blinks at the left top of frequency. Rotate the knobor use number key to select the desired channel number, press [a] to confirm.
- 2) Mode selection:
- Under FM radio mode, press [] to switch between FM memory mode and FM frequency mode (this function is unavailable when there is not FM memory channel)
- 3) FM radio channel delete:

can delete all memory channel, 25 in maximum.



Tail P

User's Manual

SPECIFICATION

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(General .
Frequency Range	136-174MHz 400-470MHz
Channel Capacity	128
Antenna	High gain antenna
Antenna Impendence	50 Ω
Working Voltage	DC3.6V
Working Mode	Simplex
Dimensions	84x48x26mm
1	ransmit
Output Power	≤2.5W
Modulation	11kΦF3E
Max. Deviation	<2.5KHZ
Spurious Radiation	<7µW
Adjacent Channel Power	>65dB/>60db
Pre-emphasis Character	6db
Emission Current	≤1.5A

A CONTRACT OF THE RESIDENCE OF THE PARTY OF	0.7KHz ± 0.1kHz
Modulation Sensitivity	8-12mv
Modulation Distortion	<5%
Re	eceive
Sensitivity	-122dbm(12db SINAD)
Audio Power	>0.5W
Audio Distortion	<5%
ntermodulation	> 55dB
Adjacent Channel Selectivity	> 60dB
Spurious Radiation	>65dB
Blocking	≥ 85dB

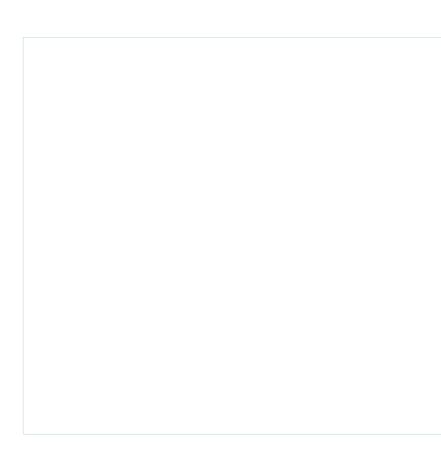
Guarantee

Model Number:				
Serial Number:				
Purchasing Date:				
Dealer:	Telephone:			
User's Name:	Telephone:			

Address: _____ Post Code:____

Remarks:

- 1 This guarantee card to be kept by the user, no replenishment if lost.
- 2 This guarantee card to be filled & chopped by the dealer, or it is invalid.
- 3 Don't alter the guarantee card, please coufirm the serial number on the guarantee card is same as that on the machine
- 4 One-year guarantee, charger, battery, ear-phone, antenna and cable are not under guarantee.
- 5 The user can get repairing service from the followingways:
 - Go to the shop where you buy the machine.
 - Our local repairing agents.
 - Send back to our company.



SAFETYTRAINING INFORMATION



Your TYT ELECTRONICS CO.,LTD 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.

This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only". In addition, your TYT ELECTRONICS CO.,LTD radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields— RF and Microwave.
- The following accessories are authorized for use with this product. Use of accessories other than those (listed in the instruction) specified may result in RF exposure levels exceed the FCC requirements for wireless RF exposure.



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

- **DO NOT** operate the radio without a proper antenna attached, as this may damaged the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.
- DO NOT transmits 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 "TX indicator" lights red. You can cause the radio to transmit by pressing the "PTT" switch.
- ALWAYS keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the HYT belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

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 as-sure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your TYT ELECTRONICS CO.,LTD 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, aircraft, and blasting sites.

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.