USER'S MANUAL

PROFESSIONAL
FM TRANSCEIVER

TOT / Scan / Voice Prompt / Battery save function
Vox / Low battery prompt / Narrow/Wide bandwidth selection
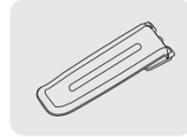Scrambler / Busy channel lock / Squelch

PROGRAMMING PROTECT   CLEAR VOICE
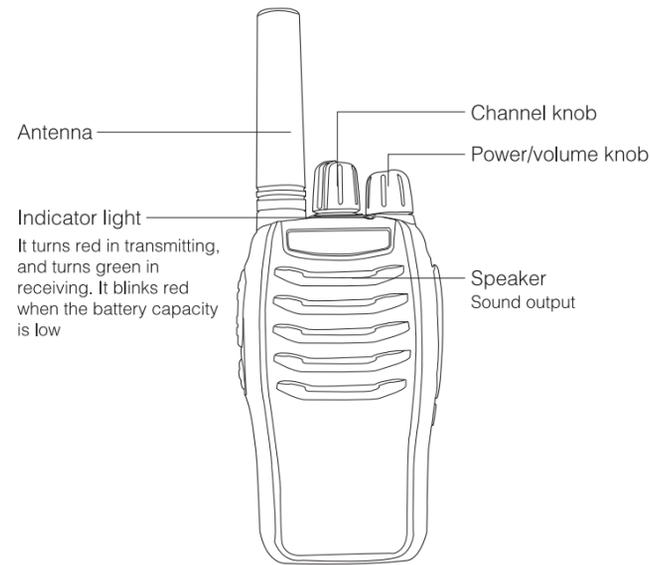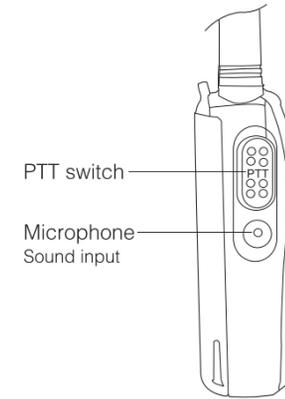
Supplied Accessories

Li-ion battery   Charger   Belt clip

GETTING FAMILIAR

Antenna

Indicator light
It turns red in transmitting,
and turns green in
receiving. It blinks red
when the battery capacity
is low

Channel knob

Power/volume knob

Speaker
Sound output

Note:
Use only the supplied or an approved antenna(max gain 1.5dBi). Unauthorized antennas,
modifications, or attachments could impair call quality, damage the radio,
or result in violation of FCC regulations.
Do not use the radio with a damaged antenna.

PTT switch

Microphone
Sound input

Li-ion battery
For supplying power to radio

Mic/speaker jack/
programming port
Used to connect headset
or external programming
cable, programmable via
PC programming software

Battery release buckle

BASIC OPERATION

1. Indicator
Indicator turns red when transmitting, and it turns green when receiving

2. Channel Knob
Rotate the knob to select the channel 1 to channel 16, counterclockwise rotate
to decrease the value of channel name, clockwise rotate to increase the value
of channel name

3. Power Knob/Volume Knob
Clockwise rotate to turn on the radio, and counterclockwise rotate to turn off
the radio. Rotate the knob can adjust the volume.

4. PTT switch
Press PTT switch and then talk to the microphone, the indicator light turns red,
if the channel does not have transmitting frequency, a "DU DU" tone
sounds, and indicator light turns red.
Release PTT switch to receive, it lights green when there is signal.

5. Squelch level
The squelch level will determine the signal strength to open the speaker of the
radio. If the squelch level is lower,the background noise of opening the radios
speaker the radios speaker will be higher, and the corresponding communi-
cation range will be further, but the anti-interference capacity will be weaker.
The default setting of squelch level is 5, you can adjust it through the
menu "Squelch level" of the "Optional Features" in the programming
software. Level 0 to 9 can be selected. 0 is the lowest level.

6.Monitor
Press the squelch button to monitor different DCS calls at the same frequency,
or press to press the button to listen when the signal strength does not reach
the threshold.

7. TOT
The purpose of TOT is to prevent any radio from talking in one channel for a
long time, and to prevent the transceiver from being damaged because if
continuous transmission. If the transmitting time exceeds the TOT pre-set
time, the radio will sounds "DU" and stops transmit, release the "PTT"
key to back to receive status and stop sound "DU"

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8. Scan
When the current channel is channel 16, the radio will will automatically detect
the 16 channels which defined as scan. When the channel which is be
scanned has signal, the radio will stop in the channel to communication
Notice:
A. When the scannable channels is less than 2 channels, radio can't go to
scan
B. When the radio is stopping in the channel which has signal, after the signal
disappears 10s, the radio will scans the next channel
C. If radio do not want to scan, please choose the "No" in the "Scan Add"
for every channel

9. English voice prompt
The voice prompt can be selected "English/None" through the program-
ming software.

10. Battery save function
This function can be set by the software
Turn on this function can make the standby time more longer.

11. Low battery alert
Notice:
when the voltage is lower than a certain level,if the voice selection is turned off,
the sound of "DuDu" will appear every 15 seconds. If the voice is on, it will
prompt "please charge." If the voice choice of Chinese or English, press PTT
key or Vox transmission is invalid and the spund of "please charge" will still
prompt, at the same time, the sound "Di" will ring until PTT release or Vox end.

12. Busy channel lock
If the busy lock is set, press PTT after receiving the signal to prohibit transmis-
sion and sound "Di" is ringing until PTT release.

13. Wide/narrow bandwidth select
The default is wide band, you can select the wide band or narrow band through
the programming software

14. VOX
Speak to the microphone in normal voice to transmit, no need to press PTT
key, turn VOX on /off through the software.
A: when VOX is on in your working channel.
Speak to the microphone directly, it will transmits automatically.
The radio stops transmitting when there is no voice, and waits for receiving
B. When a headset with a microphone is used
When VOX is on, you should VOX gain for the radio to identify voice volume.
If the microphone is too sensitive, the noise around radio will start transmit-
ting
If the microphone is not sensitive, the radio can not collect your voice, please
adjust VOX level well to guarantee smooth communications.

15. Scrambler
We can use programming software to turn on or off the function of scrambler.
Scrambling is one of the methods of information encryption. Scrambler is
achieved through cepstrum to complete the goal of change of transportation
spectrum. After receiving and releasing the signal, it is restored to achieve
the effect of secrecy. Each channel can select the scramble solely.

16. CTCSS/DCS
You can set the CTCSSQT / DCSDQT via programming software. After
setting the CTCSS or DCS, the squelch can only be turned on when the
channel receiving the same CTCSS or DCS. If the same channel uses differ-
ent QT / DQT for calling, the squelch cannot be turned on, the lights in green.

17. Programming protect
Enter the programming software interface, password box will appear (pass-
word default is empty), Tick the new password, the new password will be
changed from the original gray into white editable state, fill in the password
and click, password set successfully.

18.Special signal
This function occurs when there is DCS on the current channel, the purpose
is to make the radio under the same group of DCS unable to hear the call
content, to achieve the function of encryption.

SPECIFICATIONS

GENERAL
Frequency Range: 400.000~470.000MHz
Channel No.: 16
Operating Voltage: 3.7V DC
Working Temperature: −10℃~+50℃
Antenna: high gain antenna
Antenna Impedance: 50Ω
Mode of Operating: Simplex
Charging Current: 500mA
Dimension: 158x57x33mm
Battery capacity: 1200mAh

TRANSMITTER
Frequency Range: 400.000~470.000MHz
RF Power: 2W
Modulation Type: 11KFℂ3E
Spurious Component: ≤7.5μW
Modulation Noise: <−40dB
Modulation Distortion: <5%
Frequency Stability: 5ppm
Max Fr. Deviation: ≤±5KHz
Current: ≤1200mA
Audio Response（300~3000Hz）：+6.5~−14dB
Adjacent Channel power: ≥65dB
Modulation Sensitivity: 10±2mv

RECEIVER
Frequency Range: 400.000~470.000MHz
Receiving Sensitivity: ≤0.2μV
Occupied Bandwidth: ≤16KHz
Adjacent Ch. Selectivity: ≥65dB
Intermodulation: ≥55dB
Audio Output Power: 1W
Audio Distortion: ≤5%
Frequency Stability: 5ppm
Transmission current: 150mAh
Receiving current: 55mAh
Standby current: 55mAh
Audio Response（300~3000Hz）：+7~−12.5dB
Reference Frequency: 26.000MHz

WARNING

Our TYT two way radio generators 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".Inaddition, our TYT two way 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:

---IEEE Std. 1528:2013 and KDB447498, 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.

CAUTION

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, TYT two way 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.

Attention:

This radio complieswith IEEE and ICNIRP exposure limits for occupational/controlled RF exposure emvironment at operating duty factors of up to 50% and is authorized by the FCC for occupational use only. An appropriate warning lable is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original acessories (belt clip)a minimum distance of 0 cm.

Do not use this device when antenna shows obvious damages.

This product is compliance to FCC RF Exposure requirements and refers to FCC website https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm search for Model TC-666 FCC ID: POD-ANA2W or Model TC-666A FCC ID:POD-ANA2 to gain further information include SAR Values.