SAFETY TRAINING INFORMATION

Our TYT ELECTRONICS CO., LTD radio generators RF electromagnetic 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 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:

--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.

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 asÿsure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, 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.

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). 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 FCC ID:POD-DMR2 to gain further information include SAR Values.

SAFETY INFORMATION FOR USER

The transceiver is excellently designed with advanced technology. Please observe the following precautions to perform your obligation, prevent personal injury and ensure the safety of transceiver usage.

1. Keep the transceiver and accessories away from children.
2. Please do not try to open or modify the transceiver without permission, non-professionals process may also cause damage.
3. Please use assorted battery and charger to avoid damage.
4. Please use assorted antenna to ensure the communication distance.
5. Please do not expose the transceiver to long period of direct sunlight, nor place it close to heat appliances.
6. Please do not put the transceiver in excessively dusty or humid areas.
7. Do not use harsh chemicals, cleaning solvents to clean the transceiver.
8. Do not transmit without antenna.
9. When using this transceiver, we recommend transmitting for 1 minute then receiving for 4 minutes. Continuous transmitting for long time or working in high power will heat the back of the transceiver. Do not place the transceiver's hot back close to any surface of plastic.
10. If any abnormal odor or smoke detected coming from the transceiver, turn off the power and take off the battery pack and its case. Then contact local dealers.
11. We and our distributors will offer safety/RF exposure trainings to the users after purchasing the devices.

> **ATTENTION:**
> **All tips above apply to accessories of your transceiver. If any device can not work normally, please contact local dealers.**
> **If you use any accessories made by other companies, our Company does not guarantee the operability and safety of the transceiver.**

To customers

Thank you very much for using our two-way radios. This product has a newly developed function menu and humanism operation design, making it easy to use. It will meet your requirement by the compact size and reasonable price.

Welcome to use our two-way radio

Frequency band:

136-174 & 400-480MHz

10000 Contacts

IP67 Waterproof

GPS Optional

Use Time-Division Multiple-Access

(TDMA) digital function

Dual time slot for repeater

Dual time slot for point to point

Firmware upgradeable

Lone worker

Encryption function

Compatible with Mototrbo Tier I & II

Single call,group call and all call

Analog and digital combined

Remote kill/stun and activate

Comply with digital protocol ETSI TS 102 361-1,-2,-3

Color LCD display

Up to 3000 channels

Transmit interruption

Group call match (Promiscuous)

Private call match (Promiscuous)

Professional FM Transceiver

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User's Manual

Getting familiar

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Overview

Professional FM Transceiver

Getting familiar

Power/ Volume knob
To power on/off and adjust the volume. Rotate it clockwise, a "click" sound is heard and a "Du" tone prompts the radio power on, continue to rotate it to adjust the volume. Rotate it counter-clockwise until a "click" sound is heard, it powers off.

Side key 1

PTT

Side key 2

Side key 3

P1

LED indicator light
The indicator light turns red when transmit, turns green when receive. It blinks red when the battery capacity is low, and blinks green

Top Orange key

Antenna
with threaded head, for transmitting and receiving

**Programming connector
Microphone connector**

P2

DMR

TYT

D. 144.25000 14
432.55000 10
Zone1
12/04/2017   00:00:43
Menu

P1 MENU   P2 BACK

1 I◂   2 ABC   3 DEF   * +
4 GHI   5 JKL   6 MNO   0 ⎵
7 PQRS   8 TUV   9 WXYZ   # ↑
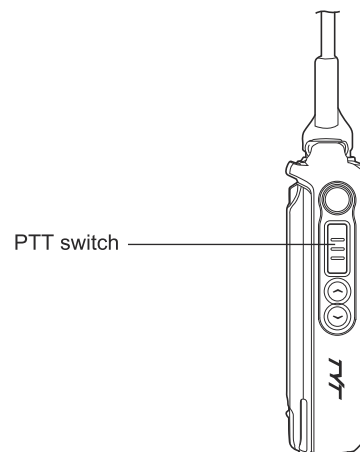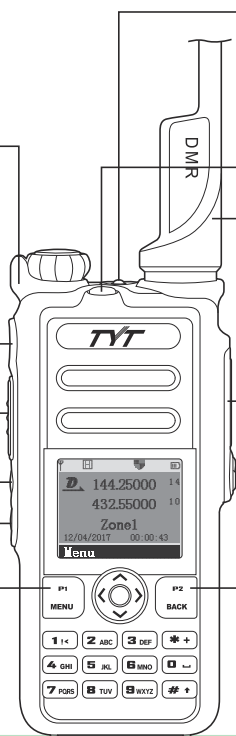
Belt clip
You can clip the radio in the belt and is easy to take.

PTT switch

TYT

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.

Notice: Either long-press or short-press of side-key1/ side-key2/side-key3/top orange key/P1/P2 can be programmed by software for the following functions: 1.Unassigned 2.All Alert Tones On/Off 3.Emergency On 4.Emergency Off   5.High/Low   6. Monitor 7. One Touch Access 1 8.One Touch Access 2 9. One Touch Access 3 10.One Touch Access 4 11.One Touch Access 5   12 .One Touch Access 6 13.Repeater/Talkaround   14.Scan On/Off   15.Tight/Normal Squelch   16 .Privacy On/Off 17.VOX On/Off   18.Zone Select   19.Battery Indicator   20.Lone Work On/Off   21.Record On/off (Firmware)   22.Record Playback (Firmware)   23.Delate All Record (Firmware)   24.1750Hz 25.Switch Up/down Screen   26.Right Key   27.Left Key

Safety and Overview

Product safety and RF Exposure for handheld two way radio .

⚠	Before using this two way radio, please read the manual which contains important operating instructions for safe usage, RF Energy Awareness, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards Also read the operational instructions for safe use.

Overview

Switch On

Clockwise to turn on the radio volume knob, there will be a "KADA" sound, message sound, while the LED indicator lights up and becomes Green color if the battery is full charged.

Notice: if all LED indicators are forbidden, the screen will not light up when switch on the walkie talkie, but with a message sound.

Notice: if the Tones/Alerts is forbidden, there will not any sound when power on. Here, need to power off the walkie talkie and anticlockwise with the knob until a "KADA" sound.

Adjust Volume

Clockwise the volume knob to higher the volume or anticlockwise to lower: And there shows a volume line on the screen

Launch And Receive Calls

Emergency Function

Professional FM Transceiver

Launch And Receive Calls

Zone Selection

Zones is a channel group. Each radio can set 250 zones and each zone with max 16 channels
The menu function:
1. Press [MENU] key to enter the menu.
2. Move [⌃or⌄] key to choose, after that with [MENU] key to confirm.
3. Screen shows the chosen zone and named by it.
4. Move [⌃or⌄] key to chose, after that press [MENU] key to confirm.
5. Screen shows the chosen zone and named by it.

Selection Of Channels, User ID Or Group ID

Select the needed zone (if there are more than one zone), using the channel knob to select
the channel, user name or ID, group name or ID.

Receive And Reply Group Call

The radio must be under a group, then can receive the group call.
When received the group call:
1. LED indicator is green color.
2. On the top of the middle screen will show RSSI mark: First line will show the group name,
   income call ID will be in the middle, group call ICON will be the last (this happens only
   under Digital mode)

3. Hold the radio and place it between your lip within 2.5~3cm

4. Press[PTT]key to answer the call, LED indicator light change to red color.

5. Release[PTT]key to receive next call

6. If there are not any voice activity, the call end.

Notice: When the radio out of the home page and if there is a group call income, it will be show all the time on the screen before you answer it.

Press [BACK] key to receive the call, and check the income ID before reply.

Receive And Reply The Single Call

Single call means one on one call. Only with two types: One is testing presence of radio before call, and another one is to call immediately.

When Receive The Single Call:

1. LED indicator is green color.

2. On the top of the middle screen will show RSSI mark, follows shows single call, user name or ID in the middle, single call mark at the end (Only for analogue mode).

3. Hold the radio and place it between your lip with 2.5~3cm

If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound, means this channel is free for you to answer.

4. Press[PTT]key to answer the call, LED indicator light change to red color.

5. Release [PTT]key to receive.

6. If there are not any voice activity, the call end.

7.You will hear a message sound and screen shows the call finished.

Receive all calls

All call means a walkie talkie call up all other users in a channel to public an important information

When receive the all calls:

1. LED indicator becomes green.

2. On the top of the middle screen will show RSSI mark,follows shows all call, User name or ID in the middle, all call mark at the end (Only for digital mode)

3. End of the all call, radio back to the screen before all call. If under the "free channel message sound" function, when release the PTT key, you will hear a message sound, means this channel is free to use and cannot reply

Notice: when receive the all call, if you turn over to another channel, the radio stop to receive all call. During the all call, You cannot use any re-programmed key until the call finished.

Launch a radio call

You can choose a channel, user ID or group call with following methods

- Channel Knob
- Pre-programmed key
- Contacts
- Manual dialing (only for single call)

Using Channel Knob To Make A Call

Group Call

The radio should be under the group then can have the group call

1. Turn over channel knob , use group name or ID to choose channel

2. Hold the radio and place it between your lip with 2.5~3cm.

3. Press[PTT]key to call, LED indicator changes to red. Screen shows group name or ID with group mark.

4. Let go [PTT] key to receive, when target radio is replying, LED indicator becomes green. Screen shows group mark or name or ID .

5. If on the "free channel message sound" function. let go [PTT] key, you can hear a message sound, means it channel is free for you to answer.

If there are not any transmitter within the time limited, the call failed.

6. when walkie talkie back to home screen, you can make a group call with contacts.

Single Call

1. Turn over channel knob, use the name or user ID to choose channel.

2. Hold the radio and place it between your lip with 2.5~3cm.

3. On the top of the middle screen will show RSSI mark, follows shows single call.
    User name or ID in the middle, single call mark at the end (Only for analogue mode).

4. Let go [PTT] key to receive, when target radio is replying, LED indicator becomes green

5. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound (means it channel is free for you to answer)

If there are not any transmitter within the time limited, the call failed.

6. you will receive a message sound and screen shows call finished.

You can make a single call with contacts or use keyboard to search the target walkie talkie to make a call.

All Call

Walkie talkie must be programmed with this function, so that you can send information to every user who are under the channel.

1. Turn over channel knob, use the name or user ID to choose channel.

2. Hold the radio and place it between your lip with 2.5~3cm.

3. Press [PTT] key to release a call, LED indicator becomes to red color. Screen shows Group name or ID with all call mark.

User under the channel can not reply the call.

Use A Key To Make A Group Call Or Single Call

Single key call function is convenient for you to set a name or ID for group call or single call with long-press or short-press the program key. Set a name or ID for a key there are more than one single call key

1. Press pre-programmed call key.

2. Hold the radio and place it between your lip with 2.5~3cm

3. Press [PTT] key to call, LED indicator becomes to red color. Screen shows name or ID with a mark.

4. Let go[PTT] key to reveive, when target walkie talkie is replying, LED indicator changes
   to green.
5. If on the "free channel message sound" function, let go [PTT] key, you can hear a message
   sound, means it channel is free for you to answer.
   If there are not any voice activity, the call end.
6. Walkie talkie back to before call screen.

Emergency Function

Emergency alarm only use to transfer emergency situations, you can release a emergency
call at anytime and anywhere. Even the walkie talkie is busy in transferring or receiving
Radio support 3 types of emergency call:
- Emergency Call
- Call follow emergency alarm
- A voice follow emergency alert

Moreover: alarm has the following types:
- Prohibit: radio can not send emergency call but can receive.
- Local + Remote: An emergency call with voice or notice.
- Remote: an emergency call without any voice or notice. Before press [PTT]key to call,
  local radios will not receive any voice or notice.
- Remote + Voice: radio sending an emergency call while accept to receive calls. Before
  press the [PTT] key to transmitter or reply, there are not any notice

Only one part of above emergency situations can be set as pre-programmed key.

Receive Emergency Call

1. When receiving emergency call, number of emergency calls and alarms received, exch-
   ange the sender name or ID.
2. With a message sound and LED indicator becomes red
3. If the radio have activated, then will confirm the emergency alarm automatically. When

the radio receive the emergency alarm, screen shows the emergency alarm warning mark, until send with a confirm message then can logout. While, you will not receive any calls and notices from other radios during this situation.

Notice:short-press [BACK] key, then with the pre-programmed off key, delect all received emergency call and logout the emergency mode .

Reply the emergency call

When received the emergency call:

1. Press any key to stop the emergency call alarm
2. Hold the radio and place it between your lip with 2.5~3cm. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound, means it channel is free for you to answe.
3. Press [PTT]key to have a call. LED indicator becomes red. walkie talkie under the emergency call mode.
4. Let go [PTT] key to receive, when reply the emergency call, LED indicator becomes green. The screen shows group mark or ID and call ID
5. After the call, short-press [BACK] key, then press pre-programmed emergency key to off, delect all the emergency call and logout.
6. Radio back to home screen.

Emergency Alarm

This function called not-speech signal and allows to send emergency alarm and will trigger on another radio.

1. Press pre-programmed power on key.
2. Screen shows sending emergency call, exchange ID with other walkie talkie. LED indicator changes to red and emergency call mark will down on the home screen.
3. When receive the emergency call, the radio issues the emergency call and LED indicator changes to green, screen shows emergency call send out successfully.

Or, if the radio does not receive any confirm with the emergency call and out of the sending times, the radio will with a message sound and screen shows the emergency call failed.

4. Radio logout the emergency mode and back to home screen. If the radio under silence mode, there will not any sounds or reminder during the emergency mode.

Emergency Alarm call

This function allows you to send emergency call to other radio. After confirmed by the radio, the two radios can contact by a pre-programmed channel.

1. Press pre-programmed key to switch on
2. Screen shows sending emergency alarm call, exchange ID. LED indicator becomes red, emergency call mark will down on screen.
3. when the radio confirm with the sending emergency, screen will show emergency call successful and LED indicator change to green.

4. Hold the radio and place it between your lip with 2.5~3cm.

5. Press[PTT]key to call, LED indicator light changes to red, screen shows the group mark.

6. Let go [PTT] key to receive.

7. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound (means it channel is free for you to answer)

Or press pre-programmed emergency call to off and logout the mode.

8. Radio back to home screen. If the radio is under the silence mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie, until press the [PTT] key. If the radio under "with voice mute" mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie. Until press the [PTT]key to call or receive, then the screen will show up.

Voice emergency Alarm

This function allows you to send emergency call to others ,after confirm with you, your radio microphone activate, allows you to call other radios with press the [PTT] key. This called "Emergency microphone". If press [PTT] key during pre-programmed emergency microphone. radio without ignore the [PTT] and stay on emergency mode.

Notice: If press[PTT]key during the emergency microphone, hold the key before duration within limits, let go [PTT]key to transfer.

1. Press the pre-programmed emergency start key.

2. Screen shows sending emergency call, LED indicator becomes red color and emergency call Mark will show on Screen.

3. Screen will show emergency call successful, then speak clearly. When under activated emergency microphone, radio transfer automatically without press [PTT] key before duration within limits

4. During transfer, LED indicator becomes red and emergency alarm mark will show on screen.

5. After the time of emergency microphone, radio stop to transmit. Press [PTT] key to transmit again If the radio under the "Silence" mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie, until pass the pre-programmed emergency microphone limited time and press with [PTT] key. If the radio under "with voice mute" mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie. Until press the [PTT]key to call or receive, then the screen will show up.

Notice: If the emergency call failed, then the walkie talkie will back to home screen.

Restart Emergency Mode

Two situations will be happen:

• It will logout the emergency mode, if the walkie talkie change the channel under the emergency mode. While, reset the emergency mode under the new channel, the walkie talkie restart the emergency call.

• If press the Pre-programmed emergency key during the emergency call, the walkie talkie will be stop the emergency call but restart later.