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> [TYT TH-8600 Dual Band VHF/UHF Mini Mobile Transceiver User Manual](#)

TYT TH-8600

TYT TH-8600 Dual Band VHF/UHF Mini Mobile Transceiver User Manual

Model: TH-8600

INTRODUCTION

This manual provides detailed instructions for the proper setup, operation, and maintenance of your TYT TH-8600 Dual Band VHF/UHF Mini Mobile Transceiver. Please read this manual thoroughly before using the device to ensure safe and efficient operation.

SAFETY INFORMATION

Important Safety Notice: This transceiver is designed for a 13.8V DC power supply. **DO NOT USE A 24V BATTERY TO POWER ON THE TRANSCEIVER.** Using an incorrect power supply can cause severe damage to the unit and pose a safety risk. Always operate this radio in compliance with FCC rules, specifically Part 15B and Part 97. Ensure proper antenna installation and grounding. Avoid touching the antenna during transmission.

PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are present and in good condition:

- TH-8600 Mobile Radio Unit
- Microphone
- Mounting Brackets & Screws
- Programming Cable
- User Manual (this document)



Image: The complete TYT TH-8600 package contents, showing the radio unit, microphone, mounting accessories, programming cable, and documentation.

PRODUCT FEATURES

- Dual Band VHF/UHF Operation: 144-148MHz (VHF) and 420-450MHz (UHF).
- Output Power: 25W (VHF) / 20W (UHF).
- IP67 Dust/Waterproof Rating: Provides protection against dust ingress and temporary immersion in water.
- Full Color Screen: For clear display of operating information.
- P1-P4 Programmable Functional Keys: Customizable shortcuts for frequently used functions.
- Dual Display, Dual Watch: Monitor two frequencies simultaneously.
- 200 Memory Channels: Store your preferred frequencies and settings.
- CTCSS/DCS: Tone squelch for selective calling.
- DTMF: Dual-Tone Multi-Frequency signaling.
- Priority Channel Scanning: Monitor a priority channel while scanning others.

- 2Tone/5Tone Signaling: Advanced selective calling features.
- Remote Kill/Stun/Activate: Security features for remote control.
- Compact Size: Approximately 4.2" (W) x 1.8" (H) x 5.4" (D) (107 x 45 x 125 mm).

SETUP

1. Power Supply Connection

Connect the radio to a stable 13.8V DC power source. Ensure correct polarity (red wire to positive, black wire to negative). The power cable is typically pre-wired with a fuse for protection. Do not bypass the fuse.

2. Antenna Connection

Connect a suitable dual-band VHF/UHF antenna to the SO-239 connector on the rear of the transceiver. Ensure the connection is secure. An improperly connected or mismatched antenna can damage the radio's final amplifier.



Image: Rear panel of the TH-8600, highlighting the cooling fan and the antenna connector for proper installation.

3. Microphone Connection

Plug the microphone cable into the designated microphone jack on the front panel of the radio. Ensure it clicks into place securely.



Image: The TH-8600 transceiver with its microphone attached, illustrating the primary operating components.

4. Mounting the Transceiver

Use the provided mounting brackets and screws to securely install the transceiver in your desired location. Ensure adequate ventilation around the unit, especially the rear cooling fan, to prevent overheating during extended operation.



Image: Side profile of the TH-8600, showing the heat sink design for thermal management.

5. Programming Cable (Optional)

For computer-based programming, connect the included programming cable to the radio and your computer. Driver installation may be required for Windows 10 and other operating systems. Software for programming can be downloaded from the official TYT website.

OPERATING INSTRUCTIONS

1. Power On/Off

Press and hold the **POWER** button (usually located on the front panel) to turn the radio on or off.

2. Volume Adjustment

Rotate the **VOLUME** knob (typically on the left side of the front panel) clockwise to increase volume and counter-clockwise to decrease it.

3. Squelch Adjustment

The **SQUELCH** knob (often paired with the volume knob or a separate control) adjusts the receiver's sensitivity to background noise. Rotate it until background noise disappears, but weak signals can still be heard.

4. Frequency and Channel Selection

The TH-8600 supports both VFO (Variable Frequency Oscillator) mode for direct frequency input and Memory mode for recalling

stored channels.

- **VFO Mode:** Use the main tuning knob or the microphone keypad to enter frequencies directly. Press the **V/M** button to switch between VFO and Memory modes.
- **Memory Mode:** Rotate the main tuning knob to scroll through programmed memory channels.



Image: Front panel of the TH-8600, showing the full-color display and control knobs for frequency and channel selection.

5. Dual Band, Dual Display, Dual Watch

The radio can display two frequencies simultaneously. Use the **A/B** button to switch the active VFO (A or B). In Dual Watch mode, the radio monitors both frequencies and will stop on the first active signal.

6. Transmitting

To transmit, press and hold the **PTT (Push-To-Talk)** button on the microphone. Speak clearly into the microphone. Release the PTT button to receive.

7. Menu Functions

Press the **MENU** button to access the radio's settings. Use the tuning knob to navigate through options and the **ENTER** or **CONFIRM** button to select. Refer to the detailed manual for specific menu item functions.

8. Programmable Keys (P1-P4)

The P1, P2, P3, and P4 keys on the microphone can be customized to provide quick access to frequently used functions. These can be configured via the radio's menu or programming software.

MAINTENANCE

1. Cleaning

Wipe the radio's exterior with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners. Ensure all ports are dry before operation, especially after exposure to moisture.

2. Waterproofing (IP67)

The TH-8600 is rated IP67, meaning it is protected against dust and the effects of temporary immersion in water (up to 1 meter for 30 minutes). While robust, avoid unnecessary exposure to water and ensure all covers and connectors are properly sealed if the radio is exposed to wet conditions.

3. Firmware Updates

Periodically check the official TYT website for firmware updates. Updates can improve performance and add new features. Follow the instructions provided with the firmware carefully.

TROUBLESHOOTING

No Power

- Check power cable connections and ensure they are secure.
- Verify the power source is providing 13.8V DC.
- Inspect the inline fuse on the power cable. Replace if blown.

Cannot Transmit or Receive

- Ensure the antenna is properly connected.
- Check the frequency and ensure it is within the radio's operating range and legal for your license class.
- Adjust the squelch level. If set too high, it may block weak signals.
- Verify CTCSS/DCS settings match the receiving station or repeater.

Difficulty Programming Channels

- Manual programming can be complex. Refer to the detailed programming section of the full user manual or online resources.
- For computer programming, ensure the correct drivers for the programming cable are installed and the software is compatible with your operating system.
- Confirm the programming cable is securely connected to both the radio and the computer.

Microphone Issues

- Ensure the microphone cable is fully inserted into the radio's jack.
- Check for any visible damage to the microphone cable or connector.

SPECIFICATIONS

Feature	Specification
Model Number	TH-8600

Feature	Specification
Frequency Range (TX)	VHF: 144-148MHz, UHF: 420-450MHz
Output Power	VHF: 25W, UHF: 20W
Number of Channels	200
Power Supply	13.8V DC
Water Resistance Level	IP67 (Dustproof, Waterproof)
Dimensions (W x H x D)	107 x 45 x 125 mm (4.2" x 1.8" x 5.4")
Item Weight	Approx. 3.43 pounds (1.55 kg)
Manufacturer	TYT ELECTRONICS CO., LTD
FCC ID	POD25W-WP

WARRANTY AND SUPPORT

The TYT TH-8600 Mobile Transceiver comes with a **ONE YEAR U.S. Based Warranty**. For warranty claims or technical support, please contact your retailer or the manufacturer directly.

Software downloads, additional resources, and frequently asked questions can be found on the [TYT Official Website](#).

FCC ID: POD25W-WP. This device complies with Part 15B and Part 97 of the FCC rules.

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Related Documents - TH-8600

	<p>TYT TH-UVF1 Dual Band Two-Way Radio User Manual</p> <p>Comprehensive user manual for the TYT TH-UVF1 dual band handheld two-way radio, covering safety, features, operations, troubleshooting, and technical specifications.</p>
	<p>TYT TH-UVF9 Two-Way Radio User Manual: Features, Operation, and Specifications</p> <p>Comprehensive user manual for the TYT TH-UVF9 dual-band two-way radio. Covers main functions, setup, operation, detailed descriptions, and technical parameters for this portable transceiver.</p>
	<p>TYT UV99 User Manual: 10W Dual Band IP68 Waterproof Walkie Talkie Features and Operation</p> <p>Comprehensive user manual for the TYT UV99 walkie talkie. Learn about its features, installation, operation, advanced functions, and technical specifications for this 10W dual-band, IP68 waterproof device.</p>

	<p>TYT TH-UV8000D Amateur Handheld Transceiver User's Manual</p> <p>Comprehensive user manual for the TYT TH-UV8000D Amateur Handheld Transceiver, covering features, operation, installation, specifications, and troubleshooting.</p>
	<p>TYT TH-350 Two-Way Radio User Manual - Functions, Settings, and Specifications</p> <p>Comprehensive user manual for the TYT TH-350 tri-band analog two-way radio. Covers main functions, installation, settings, technical parameters, and guarantee information. Learn how to operate your TH-350 transceiver effectively.</p>
	<p>TYT TM-D70W Dualband Mobile Radio User Manual</p> <p>Comprehensive user manual for the TYT TM-D70W Dualband Mobile Radio, covering features like Cross Band Repeater, DTMF, 2-TONE, and 5-TONE signaling, programming, and technical specifications.</p>