Anytone AT-D578 UV PRO

Anytone AT-D578UV PLUS - Dual Band DMR Digital Mobile Transceiver User Manual

Model: AT-D578 UV PRO | Brand: Anytone

1. Introduction

The Anytone AT-D578UV PLUS is a versatile dual-band mobile transceiver designed for both digital DMR radio systems (compatible with MOTOTRBO Tier 1 and 2) and traditional FM operation. This device stands out with its VFO features, allowing for direct frequency and parameter adjustments, unlike many other DMR radios that rely solely on pre-programmed memory. It supports up to 4000 memory slots and offers extensive configurability directly from the radio, reducing the need for constant PC connection for minor adjustments. This manual provides essential information for setting up, operating, and maintaining your AT-D578UV PLUS transceiver.

2. Key Features

- **Dual Band Operation:** Supports both VHF (2m) and UHF (70cm) bands.
- **DMR Digital & Analog Modes:** Compatible with MOTOTRBO Tier 1 & 2, alongside traditional FM.
- **VFO Functionality:** Allows direct frequency and parameter adjustments without relying solely on memory channels.
- **Extensive Memory:** Up to 4000 channels (digital and analog) and 200,000 digital contacts.
- **Simultaneous Reception:** Capable of receiving a DMR channel and an analog channel simultaneously, or two analog channels.
- **Adjustable Power Output:** Four power levels, with a maximum of 50W on VHF and 45W on UHF.
- **Integrated GPS/APRS:** Supports APRS in FM (TX) for location reporting.
- **Bluetooth Connectivity:** Includes a Bluetooth option for enhanced functionality.
- **Independent Controls:** Each band has its own volume control and VFO for easy setup.

3. What's in the Box

Upon unboxing your Anytone AT-D578UV PLUS, please ensure all the following components are present:

- Anytone AT-D578UV PLUS Transceiver Unit

- Programming Lead (USB cable for PC connection)
- GPS Antenna
- Bluetooth PTT (Push-To-Talk) accessory
- Microphone with keypad
- Mounting Bracket and Hardware
- DC Power Cable



Image: The Anytone AT-D578UV PLUS mobile transceiver unit with its connected microphone. The display shows frequency information and menu options.

4. Setup Guide

Follow these steps to set up your AT-D578UV PLUS transceiver:

1. **Mounting:** Securely mount the transceiver unit using the provided mounting bracket in a suitable location within your vehicle or operating station. Ensure adequate ventilation around the unit.

2. **Power Connection:** Connect the DC power cable to the transceiver's power input. Connect the other end to a stable 12V DC power source capable of supplying sufficient current (e.g., vehicle battery or regulated power supply). Observe correct polarity.
3. **Antenna Connection:** Connect a suitable dual-band VHF/UHF antenna to the antenna connector on the rear of the transceiver. Ensure the antenna is properly tuned for the operating frequencies to prevent damage to the radio.
4. **Microphone Connection:** Plug the microphone cable into the designated microphone port on the front of the unit.
5. **GPS Antenna Connection:** Connect the GPS antenna to its dedicated port for APRS functionality.
6. **Initial Power On:** Press and hold the power button to turn on the transceiver. The display should illuminate.
7. **Software Programming (CPS):** While many parameters can be adjusted directly, a PC with the Anytone CPS (Customer Programming Software) and the provided programming lead is required for full configuration, including codeplugs, digital contacts, and advanced settings. Refer to the separate CPS guide for detailed programming instructions.

5. Operating Instructions

This section covers basic operation of your AT-D578UV PLUS.

5.1 Power On/Off and Volume

- **Power On:** Press and hold the red power button (usually on the left side of the front panel) until the display illuminates.
- **Power Off:** Press and hold the red power button again until the unit shuts down.
- **Volume Control:** Use the dedicated volume knobs for VFO A and VFO B (typically on the left and right sides of the front panel) to adjust audio output.

5.2 Mode Selection (VFO/Memory)

- **VFO Mode:** Allows direct frequency input and adjustment. Press the VFO button (often labeled "VFO" or "F") to switch to VFO mode. Use the main tuning knob or microphone keypad to enter frequencies.
- **Memory Mode:** Accesses pre-programmed channels. Press the MR (Memory Recall) button to switch to memory mode. Use the tuning knob or up/down buttons to scroll through stored channels.

5.3 Digital (DMR) and Analog Operation

- The radio automatically detects the mode (DMR or Analog) based on the channel's programming.
- In VFO mode, you can manually select the mode (FM, DMR) using the menu options.
- For DMR, ensure your codeplug is correctly programmed with talkgroups, color codes, and time slots.

5.4 APRS and Bluetooth

- **APRS:** Enable APRS in the menu settings to transmit your location data via FM. Ensure the GPS antenna is connected and receiving a signal.
- **Bluetooth:** Pair your Bluetooth PTT or other compatible Bluetooth devices via the radio's Bluetooth menu.

6. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the transceiver. For stubborn dirt, a slightly damp cloth with mild soap can be used, ensuring no liquid enters the unit. Do not use harsh chemicals or abrasive cleaners.
- **Software Updates:** Periodically check the Anytone website for firmware updates. Keeping your transceiver's firmware up-to-date ensures optimal performance, bug fixes, and new features. Follow the provided instructions carefully during

the update process.

- **Storage:** When not in use for extended periods, store the transceiver in a cool, dry place away from direct sunlight and extreme temperatures. Disconnect it from power and antenna.
- **Cable Inspection:** Regularly inspect all cables (power, antenna, microphone, programming) for signs of wear, damage, or corrosion. Replace damaged cables immediately.

7. Troubleshooting

Problem	Possible Cause	Solution
Radio does not power on.	No power, incorrect wiring, blown fuse.	Check power cable connection, ensure 12V DC supply, check inline fuse on power cable.
No audio output.	Volume too low, squelch set too high, external speaker disconnected.	Increase volume, lower squelch level, check external speaker connection if used.
Cannot transmit or receive.	Incorrect frequency/channel, antenna issue, power output setting.	Verify frequency/channel, check antenna connection and SWR, ensure power output is not set to low.
DMR communication issues.	Incorrect Color Code, Talkgroup, Time Slot, or Radio ID.	Verify all DMR parameters in the channel's programming match the network/repeater. Ensure correct Radio ID is set.
GPS/APRS not working.	GPS antenna not connected, no satellite signal, APRS not enabled.	Connect GPS antenna, ensure clear view of sky, enable APRS in menu.

8. Specifications

Feature	Detail
Model Number	AT-D578 UV PRO
Brand	Anytone
Frequency Range	VHF: 144-146 MHz (TX), UHF: 430-440 MHz
Number of Channels	4000 (Digital and Analog)
Digital Contacts	Up to 200,000
Power Output	VHF: Max 50W, UHF: Max 45W (4 adjustable levels)
Operating Voltage	12 Volts (DC)
Tuner Technology	UHF
Special Features	DMR Tier I & II, VFO, GPS/APRS, Bluetooth, Dual Band, Dual Receive
Water Resistance Level	Water Resistant
Item Weight	2 kg
Included Components	Programming lead, GPS antenna, Bluetooth PTT

9. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official Anytone website. Keep your proof of purchase for warranty claims.

Note: Specific warranty terms and support contact details are not provided in this general manual.

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Example: How do I reset this device or fix this error?

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