

## ALINCO DR-735D

# Alinco DR-735D Dual Band UHF/VHF Mobile Transceiver User Manual

Model: DR-735D

## 1. INTRODUCTION

The Alinco DR-735D is a dual-band mobile transceiver designed for reliable communication across VHF and UHF frequencies. It features a full-duplex system for simultaneous operation on VHF/UHF, and semi-duplex operation on UHF/UHF, including AM reception for the VHF airband. This manual provides essential information for the proper setup, operation, and maintenance of your transceiver.

### Key Features:

- Full duplex operation for simultaneous VHF/UHF communication.
- Up to 50W output power on both VHF and UHF bands.
- Dual band display with independent volume and squelch controls.
- Selectable LCD display color with 8 backlight options, including white.
- Detachable control panel for flexible installation.
- Alinco EMS-78 microphone with dual PTTs and programmable sub-PTT.
- Two microphone connectors (one on main unit, one on control panel).
- CTCSS and DCS tone encoding/decoding included.
- Frequency steps: 5, 6.25, 8.33, 10, 12.5, 15, 20, 25, 30, 50, and 100kHz.
- 1000 memory channels plus 100 dual channels.
- Two external speaker outputs for separate left/right audio.

## 2. PACKAGE CONTENTS

Verify that all items listed below are present in your package. If any items are missing or damaged, please contact your dealer.

- Alinco DR-735D UHF/VHF Mobile Transceiver
- Microphone (Alinco EMS-78)

- DC Power Cable
- Mounting Bracket
- User Manual (this document)

## 3. SETUP AND INSTALLATION

---

Proper installation is crucial for optimal performance and safety. Ensure the transceiver is installed in a well-ventilated area, away from direct sunlight and excessive heat.

### 3.1 Mounting the Transceiver

Use the provided mounting bracket to secure the main unit. The control panel can be attached directly to the main unit or separated for remote mounting using an optional separation cable (not included).

### 3.2 Power Connection

Connect the supplied DC power cable to a 13.8V DC power source. Ensure correct polarity: red to positive (+), black to negative (-). Incorrect polarity can damage the unit. The power source should be capable of supplying sufficient current (e.g., 15A or more) for 50W transmission.

### 3.3 Antenna Connection

Connect a 50 Ohm dual-band antenna to the antenna connector on the rear of the transceiver. Use a high-quality coaxial cable with appropriate connectors. A poorly matched antenna can result in reduced performance and potential damage to the transceiver's final amplifier.

### 3.4 Microphone Connection

Plug the EMS-78 microphone into either the main unit's microphone jack or the control panel's microphone jack.



Image: Alinco DR-735D Mobile Transceiver. This image shows the compact design of the transceiver, highlighting its main unit and the detachable control panel, along with the connected microphone. The display is visible, indicating its dual-band capability.

## 4. OPERATING INSTRUCTIONS

This section covers the basic operation of the Alinco DR-735D. Refer to the full user manual for detailed instructions on advanced features.

### 4.1 Power On/Off

Press and hold the power button (usually located on the control panel) to turn the transceiver on or off.

### 4.2 Frequency Selection

Use the main tuning knob to change frequencies. The DR-735D features dual VFOs (Variable Frequency Oscillators) allowing independent frequency selection for each band displayed.

### 4.3 Volume and Squelch Adjustment

Each band has independent volume and squelch controls. Adjust the volume knob for desired audio level.

Adjust the squelch knob to suppress background noise when no signal is present. Turn the squelch clockwise until the background noise disappears.

## 4.4 Transmitting

To transmit, select the desired frequency and press the PTT (Push-To-Talk) button on the microphone. Speak clearly into the microphone. Release the PTT button to receive. The EMS-78 microphone includes two PTT buttons for main and sub-band transmission.

## 4.5 LCD Display Color

The LCD display color can be customized. Access the menu settings to select from 8 available backlight colors. You can set different colors for transmit (TX), receive (RX), standby, and for the main and sub-bands.

# 5. MAINTENANCE

---

Regular maintenance ensures the longevity and optimal performance of your Alinco DR-735D.

## 5.1 Cleaning

Wipe the transceiver's exterior with a soft, dry cloth. For stubborn dirt, use a cloth lightly dampened with water. Do not use harsh chemicals, solvents, or abrasive cleaners, as these can damage the casing and display.

## 5.2 Connections

Periodically check all cable connections (power, antenna, microphone) to ensure they are secure and free from corrosion or damage.

## 5.3 Firmware Updates

Check the official Alinco website for any available firmware updates. Follow the instructions provided with the update carefully to avoid damaging the unit.

# 6. TROUBLESHOOTING

---

If you encounter issues with your DR-735D, refer to the following common problems and solutions before seeking professional service.

- **No Power:**

Check the power cable connection. Ensure the power supply is providing 13.8V DC and is capable of delivering sufficient current. Check the fuse in the power cable.

- **No Audio / Weak Audio:**

Check the volume level. Ensure the squelch is not set too high. Verify external speaker connections if used.

- **Cannot Transmit:**

Ensure the microphone is properly connected. Check if the PTT button is functioning. Verify the antenna connection and SWR. Ensure the frequency is within the allowed transmit range.

- **Poor Reception:**

Check antenna connection and condition. Ensure squelch is not set too high. Verify frequency and mode settings. Check for local interference sources.

- **Display Issues:**

If the display is blank or erratic, try cycling the power. If the issue persists, a factory reset (refer to the full manual) may be necessary.

If these steps do not resolve the issue, contact your authorized Alinco dealer or service center.

## 7. SPECIFICATIONS

Feature	Specification
Model Number	DR-735D
Brand	ALINCO
Product Dimensions	14 x 6 x 21 cm (Control Panel: 140mm W x 60mm H; Main Unit: 40mm H x 188mm D)
Product Weight	1.2 kg
Power Output	50W (High), 20W (Medium), 5W (Low) on VHF/UHF
Frequency Range	30 MHz - 300 MHz (General coverage, specific amateur bands apply for TX)
Number of Channels	1000 Memory Channels + 100 Dual Channels
Antenna Impedance	50 Ohm
Operating Voltage	13.8 V DC
Special Features	Dual band display, Detachable control panel, Selectable LCD color
Water Resistance Level	Water Resistant
Country of Origin	China

## 8. WARRANTY AND SUPPORT

Alinco products are manufactured to high-quality standards. For warranty information, please refer to the warranty card included with your product or contact your authorized Alinco dealer. Technical support can be obtained through your dealer or by visiting the official Alinco website for service contact details.