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› TOPDON AL500B OBD2 Scanner & Battery Tester User Manual

TOPDON AL500B

TOPDON AL500B OBD2 Scanner & Battery Tester User Manual

Model: AL500B | Brand: TOPDON

INTRODUCTION

The TOPDON AL500B is a versatile 2-in-1 diagnostic tool designed for automotive enthusiasts and professionals. It combines the full functionalities of an OBD2 code reader with comprehensive 12V/24V battery testing capabilities, including battery health, cranking, and charging system tests. This manual provides detailed instructions for setting up, operating, and maintaining your AL500B device.

WHAT'S IN THE BOX

- TOPDON AL500B Main Unit
- OBD2 Diagnostic Cable
- Battery Test Cable with Clamps
- USB Cable (for updates)
- User Manual (this document)

SETUP

The AL500B is powered directly from the vehicle's OBD2 port or battery. No internal battery charging is required for operation.

Connecting for OBD2 Diagnosis:

1. Locate the vehicle's 16-pin OBD2 port, typically under the dashboard on the driver's side.
2. Connect the OBD2 diagnostic cable to the AL500B unit and then to the vehicle's OBD2 port.
3. The device will power on automatically.

Connecting for Battery Testing:

1. Ensure the vehicle is turned off.
2. Connect the battery test cable to the AL500B unit.
3. Attach the red clamp to the positive (+) terminal of the 12V battery.

4. Attach the black clamp to the negative (-) terminal of the 12V battery.
5. The device will power on automatically.



Image: The TOPDON AL500B unit with its OBD2 diagnostic cable and battery test clamps, ready for connection.

OPERATING INSTRUCTIONS

1. OBD2 Diagnostic Functions

The AL500B supports all 10 modes of OBD2 testing for comprehensive vehicle diagnosis.

- **Read DTCs:** Retrieves Diagnostic Trouble Codes (DTCs) from the vehicle's Engine Control Unit (ECU).
- **Clear DTCs:** Erases DTCs from the ECU. Ensure the underlying issue is resolved before clearing codes.
- **I/M Readiness:** Checks the readiness of the emission monitoring systems. Useful for smog checks.

- **Data Stream:** Displays live data parameters from the vehicle's sensors in real-time.
- **Freeze Frame:** Captures a snapshot of sensor data at the moment a fault code was set.
- **O2 Sensor Test:** Retrieves O2 sensor monitoring test results.
- **On-Board Monitor Test:** Retrieves results for emission-related powertrain components and systems.
- **EVAP System Test (Mode \$8):** Initiates a test of the evaporative emission control system.
- **Read Vehicle Information:** Displays the Vehicle Identification Number (VIN), Calibration ID (CID), and Calibration Verification Number (CVN).

Get All The OBDII Data You Need



Read DTCs	Clear DTCs	Live Data
DTC Look UP	O2 Sensor Test	Review Data
Evap Test (Mode 8)	I/M Readiness Monitor Status	View Freeze Frame Data
Read Vehicle Information	On-board Monitor Test	



DIYers



Auto mechanic



Repair Shops

Image: The AL500B displaying live data stream from a vehicle's engine, showing various parameters.

Your browser does not support the video tag.

Video: An overview of the TOPDON AL500B's OBD2 scanner and battery tester functions, demonstrating its ease of use and various diagnostic capabilities.

2. Battery Testing Functions

The AL500B provides professional-level battery testing for 12V and 24V batteries.

- **Battery Test (12V):** Assesses the overall health of the battery, including voltage, internal resistance, Cold Cranking Amps (CCA), and state of charge.

- **Cranking Test (12V/24V):** Evaluates the vehicle's starting system by measuring cranking voltage and time.
- **Charging Test (12V/24V):** Checks the charging system's output, including alternator voltage.



Image: The AL500B connected to a car battery, displaying the battery test menu with options for battery, cranking, and charging tests.

Your browser does not support the video tag.

Video: A demonstration of the TOPDON AL500B performing a battery test, showing the steps to select battery type and CCA, and displaying the test results including health, charge, internal resistance, and rated CCA.

MAINTENANCE

Software Updates:

The AL500B offers lifetime free software updates via a computer. Connect the device to your computer using the provided USB cable and follow the instructions on the TOPDON website for the update process.

Cleaning and Storage:

- Clean the device with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Ensure the cables and clamps are clean and free of corrosion before storage.
- Store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

TROUBLESHOOTING

Issue	Possible Cause	Solution
Device does not power on.	Incorrect connection; vehicle battery too low.	Ensure cables are securely connected. Check vehicle battery voltage.
Cannot read codes/data.	Ignition not on; incompatible vehicle; loose connection.	Turn ignition to ON position. Verify vehicle compatibility. Reconnect cable securely.
Battery test results are inconsistent.	Poor clamp connection; battery not fully charged.	Ensure clamps are clean and make good contact. Charge battery fully and retest.
Software update fails.	Incorrect software/drivers; unstable USB connection.	Download correct software from TOPDON website. Use a stable USB port and cable.

SPECIFICATIONS

Brand: TOPDON

Model: AL500B

Item Weight: 2.01 pounds

Product Dimensions: 7.32 x 3.74 x 1.34 inches

Display Resolution: 320x240

Special Features: Expanded battery testing capabilities (Battery Test, Cranking Test, Charging Test), Lifetime free software updates via computer, Supports all 10 modes of OBDII testing for over 10000 makes, Review data with ease.

Battery Compatibility: 12V (Battery Test), 12V/24V (Cranking Test, Charging Test)

Supported Languages: English, French, Spanish, German, Italian, Portuguese, Japanese

WARRANTY & SUPPORT

For any problems or support inquiries, please contact TOPDON customer service:

Email: support@topdon.com

US Phone Service: 833-956-8335 (Monday-Friday 9:00AM-6PM Eastern Time)

Software Update Portal: Refer to the official TOPDON website for the latest software and update instructions.

TOPDON provides lifetime free software updates for the AL500B to ensure optimal performance and compatibility with new vehicle models.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question