Autel AL539

Autel AL539 OBD2 Scanner Code Reader Electrical Test Tool User Manual

Model: AL539 | Brand: Autel

Introduction

The Autel AL539 is a versatile OBD2 scanner and electrical test tool designed for automotive diagnostics. It combines comprehensive OBD2 functions with AVOmeter capabilities, making it an essential tool for both professional technicians and DIY enthusiasts. This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your AL539 device.





Figure 1: Front view of the Autel AL539 OBD2 Scanner, showing its display and control buttons.

Setup and Initial Use

Before using your Autel AL539, please ensure all components are present and follow these steps for initial setup.

1. Unpacking and Component Check

Carefully unpack the AL539 device and verify that all items listed in the product packaging are included. The standard package contains the AL539 unit, OBDII cable, test leads for the AVOmeter, a USB cable, and a user manual.

2. Connecting to Vehicle

Locate the vehicle's 16-pin Data Link Connector (DLC), typically found under the dashboard on the driver's side. Connect the AL539's OBDII cable to the vehicle's DLC. Ensure a secure connection. The device will power on automatically once connected to the vehicle's OBDII port.



Figure 2: The Autel AL539 connected to a vehicle's OBD2 port, demonstrating the ease of connection for diagnostics.

3. Initial Power-On and Navigation

Upon successful connection, the AL539 will power on and display the main menu. Use the directional buttons and the OK button to navigate through the menu options. The ESC button allows you to return to the previous screen.

4. Software Updates

It is recommended to regularly update the device software to ensure optimal performance and access to the latest vehicle data. Connect the AL539 to a computer using the provided USB cable and visit the official Autel website for update instructions and software downloads.

Operating Instructions

The Autel AL539 offers a range of diagnostic and electrical testing functions. Below are instructions for common operations.

1. OBD2 Diagnostic Functions

From the main menu, select "OBDII/EOBD" to access the diagnostic functions. The AL539 supports all 10 OBD2 test modes.

- **Read Codes:** Retrieves Diagnostic Trouble Codes (DTCs), including pending, permanent, and current codes.
- **Erase Codes:** Clears DTCs from the vehicle's computer and turns off the Malfunction Indicator Lamp (MIL).
- **Live Data:** Displays real-time data stream from the vehicle's sensors in text or graph format.
- **View Freeze Frame:** Shows a snapshot of the vehicle's operating conditions at the time an emission-related fault occurred.
- **I/M Readiness:** Checks the readiness of the emission monitoring systems. Use the dedicated I/M hot key for quick access.
- **O2 Sensor Test:** Retrieves O2 sensor monitor test results for the most recently completed tests from the vehicle's on-board computer.
- **On-Board Monitor Test:** Retrieves results for emission-related powertrain components and systems that are not continuously monitored.
- **Component Test:** Allows initiation of a leak test for the vehicle's EVAP system.
- **Vehicle Information:** Displays the vehicle identification number (VIN), calibration ID (CALID), and calibration verification number (CVN).

Your browser does not support the video tag.

Video 1: An overview of the Autel AL539's features, including its diagnostic capabilities and electrical testing functions. This video demonstrates the user interface and key functionalities.

2. AVOmeter (Multimeter) Function

The AL539 includes an integrated AVOmeter for electrical testing. Connect the provided test leads to the appropriate ports on the device (20A Max for current, 30V Max for voltage/resistance) and to the circuit you wish to test.

- **Voltage Test:** Measures DC or AC voltage.
- **Continuity Test:** Checks for electrical continuity in a circuit.
- **Current Test:** Measures electrical current (up to 20A).



Figure 3: The Autel AL539 demonstrating its AVOmeter functionality, showing how to measure voltage and check continuity using the included test leads.

3. Starting/Charging System Test

This function allows you to diagnose the vehicle's 12V charging and starting systems. Follow the on-screen prompts to perform tests on the starter and alternator.



Figure 4: The Autel AL539 displaying results from a starter and charge system test, providing insights into the vehicle's electrical health.

4. DTC Lookup and Printing

The AL539 includes a built-in DTC lookup library. When a code is displayed, you can select it to view its definition. For detailed reports, connect the device to a PC via USB and use the MaxiLink software (available on the Autel website) to print diagnostic data.

Maintenance

Proper maintenance ensures the longevity and accuracy of your Autel AL539.

- **Cleaning:** Use a soft, damp cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Storage:** Store the AL539 in its protective case in a dry, cool environment when not in use. Avoid extreme temperatures.
- **Cable Care:** Handle the OBDII cable and test leads with care. Avoid bending the connector pins, as this can lead to connection issues.

- **Software Updates:** Regularly check the Autel official website for software updates to ensure your device has the latest vehicle data and functionalities.

Troubleshooting

If you encounter issues with your AL539, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
Device does not power on.	Loose connection to DLC; vehicle battery low.	Ensure the OBDII cable is securely connected. Check vehicle battery voltage.
"Link Error" or "Communication Error" message.	Faulty DLC connection; incorrect protocol; vehicle ignition off.	Verify DLC connection. Ensure vehicle ignition is ON. Try on another vehicle to rule out vehicle-specific issues.
Cannot read codes or data.	Vehicle not OBD2 compliant; software outdated; specific vehicle compatibility.	Confirm vehicle is OBD2 compliant (1996 and newer for US). Update device software. Note: Some older or specific foreign models may have limited compatibility.
Software update issues.	Incorrect update procedure; internet connectivity.	Refer to the detailed update instructions on the Autel website. Ensure stable internet connection.

Specifications

Feature	Detail
Model	AL539
Item Weight	2.3 pounds
Product Dimensions	74.8 x 31.5 x 102.36 inches
Batteries	Lithium Metal batteries required (internal)
Voltage	12 Volts
Wattage	5 watts
OBD2 Protocols	Supports all 10 OBD2 test modes
AVOmeter Functions	Voltage, Current (20A Max), Resistance/Continuity (50 Ohm Max for continuity)
Additional Tests	12V Charging System Test, Starting System Test, Battery Condition Test

Warranty and Support

For information regarding product warranty, please refer to the warranty card included with your product or contact Autel customer support directly. Autel is committed to providing high-quality products and support.

Customer Support

If you have any questions, encounter issues, or require technical assistance, please contact Autel support:

- **Email Support:** support-amazon@autelonline.com

- **Official Website:** For more information, software downloads, and FAQs, visitwww.autel.us

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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.

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