Autel MS309

Autel OBD2 Scanner MS309 User Manual

Model: MS309 | Brand: Autel

Product Overview

The Autel MS309 OBD2 Scanner is a compact and user-friendly diagnostic scan tool designed for automotive enthusiasts and DIYers. It provides essential OBDII functions to help identify and resolve common vehicle issues, particularly those related to the Check Engine Light.



Figure 1: Autel MS309 OBD2 Scanner, showing its compact design and display.

This device is engineered for simplicity, offering a "plug and play" experience without the need for external batteries, as it draws power directly from the vehicle's Data Link Connector (DLC).



Figure 2: Dimensions and button layout of the Autel MS309, highlighting its compact size and simple two-button operation.



Figure 3: The 16-pin OBDII connector and a note indicating that no external battery is required for the Autel MS309.

Setup

1. **Locate the OBDII Port:** Identify the 16-pin Data Link Connector (DLC) in your vehicle. This port is typically located under the dashboard on the driver's side. Refer to your vehicle's owner's manual if you have difficulty locating it.
2. **Connect the Scanner:** Plug the Autel MS309's 16-pin connector firmly into your vehicle's DLC. The device will power on automatically, as it draws power directly from the vehicle.
3. **Turn On Ignition:** Turn your vehicle's ignition to the "ON" position (do not start the engine). The scanner's display will illuminate, and it will begin establishing communication with the vehicle's onboard computer.

Operating Instructions

The Autel MS309 features a simple two-button interface for navigation and operation: "ENTER/EXIT" and "SCROLL".



Figure 4: The Autel MS309 display showing various diagnostic functions such as Read Codes, Erase Codes, and I/M Readiness.

1. Reading Diagnostic Trouble Codes (DTCs)

1. Once connected and powered on, the scanner will display the main menu.
2. Use the **SCROLL** button to navigate to "Read Codes".
3. Press the **ENTER/EXIT** button to select. The scanner will then read the stored Diagnostic Trouble Codes (DTCs) from your vehicle's computer.
4. The display will show the code (e.g., P0303) and its definition, helping you understand the nature of the fault.



Figure 5: The Autel MS309 displaying a P0303 code with its definition, indicating a cylinder 3 misfire. This feature eliminates the need for online code lookups.

2. Erasing Diagnostic Trouble Codes (DTCs)

Note: Erasing codes will turn off the Check Engine Light but does not fix the underlying problem. Ensure the issue has been resolved before clearing codes.

1. From the main menu, use the **SCROLL** button to navigate to "Erase Codes".
2. Press the **ENTER/EXIT** button to select. Confirm your choice if prompted.
3. The scanner will clear the DTCs and turn off the Check Engine Light.

3. Viewing Freeze Frame Data

Freeze Frame Data captures a snapshot of the vehicle's operating conditions at the moment a Diagnostic Trouble Code (DTC) was set. This information can be crucial for diagnosing intermittent problems.

1. From the main menu, use the **SCROLL** button to navigate to "View Freeze Frame".

2. Press the **ENTER/EXIT** button to select. The scanner will display various parameters such as engine RPM, vehicle speed, coolant temperature, and fuel system status at the time of the fault.

4. I/M Readiness Status

I/M Readiness (Inspection/Maintenance Readiness) indicates whether the various emissions-related systems on the vehicle are functioning correctly and have completed their self-tests. This is important for emissions testing.

1. From the main menu, use the **SCROLL** button to navigate to "I/M Readiness".
2. Press the **ENTER/EXIT** button to select. The scanner will display the status of various monitors (e.g., O2 Sensor Monitor, EVAP System Monitor) as "OK", "INC" (Incomplete), or "N/A" (Not Applicable).

5. Vehicle Information (VIN, CALID, CVN)

This function allows you to retrieve important vehicle identification information.

1. From the main menu, use the **SCROLL** button to navigate to "Vehicle Info.".
2. Press the **ENTER/EXIT** button to select. The scanner will display the Vehicle Identification Number (VIN), Calibration ID (CALID), and Calibration Verification Number (CVN).



Figure 6: The Autel MS309 displaying vehicle information, demonstrating its wide compatibility with OBDII vehicles from various regions.

TROUBLESHOOTING

Common Issues and Solutions

Problem	Possible Cause	Solution
Scanner does not power on.	Loose connection to DLC; vehicle ignition not ON; faulty DLC.	Ensure the scanner is firmly plugged into the DLC. Turn the vehicle ignition to the "ON" position. Check the vehicle's fuse for the OBDII port.

Problem	Possible Cause	Solution
"Linking Error" or "Communication Error" message.	Vehicle not OBDII compliant; incorrect protocol; faulty connection.	Verify your vehicle is OBDII compliant (US after 1996, EU after 2006, Asian after 2009). Ensure the connection is secure. Try on another OBDII compliant vehicle if possible.
No codes found, but Check Engine Light is on.	Pending codes not yet confirmed; intermittent issue.	Check for "Pending Codes" in the diagnostic menu. Drive the vehicle under various conditions to allow monitors to complete.
Cannot erase codes.	Underlying fault still present; ignition not ON.	Ensure the vehicle's ignition is ON (engine off). The underlying fault must be repaired before codes can be permanently cleared.

For more complex issues or if troubleshooting steps do not resolve the problem, it is recommended to consult a qualified automotive technician.

Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the scanner. Avoid using abrasive cleaners or solvents.
- **Storage:** Store the device in a clean, dry environment away from extreme temperatures and direct sunlight.
- **Cable Care:** Do not pull on the cable to disconnect the scanner from the vehicle. Always grasp the connector itself. Avoid kinking or bending the cable excessively.
- **No User-Serviceable Parts:** The Autel MS309 contains no user-serviceable parts. Do not attempt to open or repair the device yourself.

Specifications

Feature	Detail
Model	MS309
Brand	Autel
Product Dimensions	2.74"L x 0.8"W x 4.34"H
Item Weight	8.8 ounces
Display Resolution	128x64
Operating System	Linux
Exterior Material	Plastic
Voltage	12 Volts

Feature	Detail
Wattage	2 watts
Special Features	Compatible with domestic, Asian and European vehicles (1996 and newer), Displays DTC definitions on screen, Displays monitor and I/M readiness status (emissions), Erases Codes and turns off Check Engine Lights, Retrieves generic (P0, P2, P3 and U0), manufacturer-specific (P1, P3 and U1), and pending codes, Retrieves vehicle identification information (VIN, CALID and CVN), Supports CAN (Controller Area Network) and all other current OBD II protocols, Turns off Check Engine Light, clears codes and resets monitors, Views freeze frame data.

Warranty and Support

The Autel MS309 OBD2 Scanner comes with a **12-month warranty** from the date of purchase. Autel also offers **lifetime free technical support** for this device.

Should you require any technical assistance or have questions regarding the operation of your scanner, please contact Autel support directly via email at: auteldirect@outlook.com.

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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.

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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.

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