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› [Ancel AD310 OBD2 Car Diagnostic Scanner User Manual](#)

ANCEL AD310

Ancel AD310 OBD2 Car Diagnostic Scanner User Manual

Model: AD310 | Brand: ANCEL

1. INTRODUCTION

The Ancel AD310 is a universal OBD2 car diagnostic scanner designed to help you quickly read and clear engine fault codes. This device provides comprehensive OBD-II/EOBD functions, allowing users to diagnose engine system issues efficiently. It is a plug-and-play tool, making it accessible for both beginners and experienced users to identify and resolve common vehicle problems related to the engine.

Key Features:

- Full OBD-II/EOBD Diagnostic Functions
- Reads and Clears Engine Fault Codes (DTCs)
- Turns off Malfunction Indicator Light (MIL)
- Views Live Data Stream and Freeze Frame Data
- I/M Readiness Status Check
- O2 Sensor Test and On-Board Monitor Test
- Retrieves Vehicle Information (VIN, CIN, CVN)
- Built-in DTC Lookup Library
- Multi-language Support

2. PRODUCT OVERVIEW AND COMPONENTS

The Ancel AD310 features a compact design with an LCD display and intuitive button controls for easy navigation.



Figure 2.1: Ancel AD310 device showing its dimensions and labeled components including the LCD display, scroll up/down buttons, Enter button, Exit button, and OBD II connector.

Components:

- **LCD Display:** Shows diagnostic menus and results.
- **Scroll Up Button:** Navigates upwards through menus or increases values.
- **Scroll Down Button:** Navigates downwards through menus or decreases values.
- **Enter Button:** Confirms selections or enters a menu.
- **Exit Button:** Returns to the previous menu or exits a function.
- **OBD II Connector:** Connects the scanner to the vehicle's OBD II port.

3. SETUP AND CONNECTION

The Ancel AD310 is designed for plug-and-play operation, requiring no batteries or external power source as it draws power directly from the vehicle's OBD II port.

3.1 Locating the OBD II Port

The OBD II (On-Board Diagnostics II) port is typically located under the dashboard on the driver's side, or sometimes under a panel in the center console.



Figure 3.1: Illustration of the common location for the OBD II diagnostic link connector (DLC) in a vehicle.

3.2 Connecting the Scanner

1. Ensure the vehicle's ignition is turned off.
2. Locate the 16-pin OBD II Data Link Connector (DLC) in your vehicle.
3. Firmly plug the Ancel AD310's OBD II connector into the vehicle's DLC.
4. Turn the vehicle's ignition to the 'ON' position (engine can be off or running, depending on the test). The scanner will power on automatically.

EASY TO USE

Sturdy and durable, a good helper for your life!



Figure 3.2: The Ancel AD310 connected to a vehicle's OBD II port, demonstrating its simple plug-and-play setup.

4. OPERATING INSTRUCTIONS

Once connected, the Ancel AD310 will display the main diagnostic menu. Use the UP/DOWN buttons to navigate and the ENTER button to select options.

4.1 Main Menu Navigation



ANCEL has been developing and innovating automotive diagnostic equipment for the industry for many years. Our research and development team has not only collected more than 30 million questionnaires about cars around the world, but also problems commonly mentioned by car owners in major car forums. Our goal is to help car owners find out what is wrong with their car so they can get the right remedy.

Figure 4.1: The main menu of the Ancel AD310, showing options like 'Diagnosis' and 'Language'. The device supports multiple languages including English, French, German, Spanish, Russian, Portuguese, Finnish, and Dutch.

4.2 8-Step Guide to Using the Code Reader

HOW TO USE AN OBDII CODE READER: 8-STEP GUIDE

1



Find the Diagnostic Link Connector (DLC) on your vehicle

2



Plug in the OBDII diagnostic tool into the DLC

3



Turn on ignition of your car

4



Wait for the scan to identify the vehicle model

5



Read the fault codes

6



Figure out what the codes mean

7



Fix the issues

8



Clear the fault codes



Note: Please send the VIN code to customer service before purchase to confirm compatibility

Figure 4.2: A visual 8-step guide detailing the process of using the Ancel AD310 OBD II code reader, from initial connection to clearing fault codes.

1. **Find the Diagnostic Link Connector (DLC):** Locate the 16-pin OBD II port in your vehicle.
2. **Plug in the OBDII diagnostic tool:** Connect the AD310 to the vehicle's DLC.
3. **Turn on Ignition:** Turn your car's ignition to the 'ON' position.
4. **Wait for the scan:** The device will automatically scan and identify the vehicle model.
5. **Read the fault codes:** Select 'Read Codes' from the menu to view diagnostic trouble codes.
6. **Figure out what the codes mean:** Use the built-in DTC lookup or external resources to understand the codes.
7. **Fix the issues:** Address the underlying problems indicated by the codes.

8. **Clear the fault codes:** After repairs, select 'Erase Codes' to turn off the MIL.

4.3 Full OBD2 Functions

The AD310 supports all 10 modes of OBD II testing, providing comprehensive diagnostic capabilities for engine systems.



Figure 4.3: The Ancel AD310's display showing various full OBD2 functions available, such as Live Data Stream, View Freeze Frame, Retrieve Vehicle Information, Read Codes, Erase Codes, I/M Readiness, DTC Lookup, EVAP Leak Test, On-Board Monitor, and O2 Sensor Test.

4.3.1 Reading and Clearing Codes

The primary function of the AD310 is to read and clear Diagnostic Trouble Codes (DTCs) that cause the Check Engine Light

(MIL) to illuminate.



Figure 4.4: Visual representation of turning off the Malfunction Indicator Light (MIL) and clearing fault codes using the Ancel AD310, restoring the dashboard to a clear state.

4.3.2 Viewing Live Data Stream

The Live Data Stream function allows you to view real-time operational parameters of the vehicle's engine, such as engine RPM, vehicle speed, oxygen sensor readings, and more. This data can be displayed numerically or graphically.

FULL OBD2 FUNCTIONS AT YOUR FINGERTIPS



Read Codes



VIN Info Retrieve



I/M Readiness



On-Board Monitoring Test



Clear Codes



DTC Lookup



EVAP Monitor Test



Live Data Stream



Freeze Frame



O2 Sensor Test



Important notice: ESP, EPB, ABS, SRS, Airbag fault **CANNOT** read out, **CANNOT** reset the electric handbrake, AD310 just supports the engine system diagnosis. Due to differences in protocols and unique systems/ECUs across vehicle models, please contact us to confirm compatibility with your vehicle model before purchasing.

Figure 4.5: A graphical representation of live data stream items, such as LOADPCT (Load Percentage), ECT (Engine Coolant Temperature), SHRFT1 (Short Term Fuel Trim), and LONGFT1 (Long Term Fuel Trim), providing real-time insights into engine performance.

4.3.3 DTC Lookup

The built-in DTC Lookup library provides definitions for generic and manufacturer-specific diagnostic trouble codes, helping you understand the meaning of the codes retrieved from your vehicle.



Figure 4.6: An illustration depicting the DTC Lookup feature, where fault codes and their definitions can be accessed directly from the device's library.

5. VEHICLE COMPATIBILITY

The Ancel AD310 is compatible with most OBD-II compliant vehicles. This includes:

- Most US-based vehicles manufactured after 1996.
- Most European vehicles manufactured after 2000.
- Most Asian vehicles manufactured after 2008.

Supported Protocols: KWP2000, ISO9141, J1850 VPW, J1850 PWM, and CAN.

EXTENSIVE VEHICLE COVERAGE

Works on all 1996 & Newer vehicles sold in European
(CARS, LIGHT TRUCKS, MINIVANS and SUVs-FOREIGN AND DOMESTIC).



Supported protocols:

ISO 15765-4

CAN

ISO 9141-2

ISO

ISO 14230-4

KWP2000

SAEJ 1850

VPW&PWM



AMERICAN VEHICLES:

Compatible with Chrysler, US Ford, USA GM, Jeep, Dodge



AUSTRALIA VEHICLES:

Compatible with Holden, AU Ford



ASIA VEHICLES:

Compatible with Acura, ASLA GM, Daewoo, Daihatsu, Honda, Hyundai, Infiniti, Isuzu, Kia, Lexus, Para Mazda, Mitsubishi, Nissan, Perodua, Proton Ssangyong, Subaru, Suzuki, Toyota



OBDII FUNCTION:

Compatible with Chrysler, Ford, USA GM, Jeep, Toyota, Lexus, Honda, Hyundai, Kia, Mazda, Mitsubishi, Nissan, Subaru, Suzuki Abarth, Aston Martin, Bugatti, Ferrari Lamborghini, Maserati, Benz, BMW, VW, Audi, Seat, Skoda, Porsche, Jaguar, Land Rover, Volvo, Saab, Alfa, etc.



EUROPEAN VEHICLES:

Compatible with Abath, Alfa Aston Martin, Audi, Bentley, Mercedes Benz, BMW, Bugatti, Citroen, Dacia, Ferrari, Fiat, EU Ford, Jaguar, Lamborghini Lancia, Land Rover, Maserati, MINI Opel, Peugeot, Porsche, Renault, Saab, Seat, Skoda, Elegante Vauxhall, Volvo VW. Sprinter

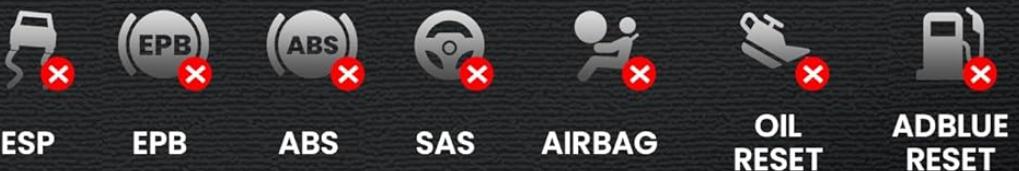
Note: Please send the VIN code to customer service before purchase to confirm compatibility

Figure 5.1: Overview of the Ancel AD310's extensive vehicle coverage, including American, Australian, Asian, and European vehicles, along with the supported OBD-II protocols.

Important Note: The ANCEL AD310 only supports engine system diagnosis. It **cannot** read or clear codes for ABS (Anti-lock Braking System), Airbag (SRS), Oil Service Light, or other non-OBDII systems. Please contact customer service with your vehicle's VIN if you are unsure about compatibility before purchase.

IMPORTANT NOTICE:

ESP , EPB , ABS , SRS , Airbag fault CANNOT read out, CANNOT reset the electric handbrake, **AD310** just supports the engine system diagnosis.



Due to differences in protocols and unique systems / ECUs across vehicle models, please contact us to confirm compatibility with your vehicle model before purchasing.



Figure 5.2: A critical notice highlighting that the Ancel AD310 is limited to engine system diagnosis and does not support ABS, Airbag, ESP, EPB, SAS, Oil Reset, or AdBlue Reset functions.

6. SPECIFICATIONS

| Feature | Specification |
|---------|---------------|
|---------|---------------|

| Feature | Specification |
|---------------------|--|
| Brand | ANCEL |
| Model | AD310 |
| Item Weight | 220 g |
| Package Dimensions | 16.2 x 7.9 x 5.2 cm |
| Operating Voltage | 12 Volts (Vehicle Power) |
| Screen Size | 1.4 Inches |
| UPC | 602938440288 |
| Supported Protocols | KWP2000, ISO9141, J1850 VPW, J1850 PWM, CAN |
| Specific Features | Engine system diagnosis only; cannot diagnose ABS/Airbag |

7. TROUBLESHOOTING

If you encounter issues while using your Ancel AD310, refer to the following common troubleshooting steps:

7.1 Why Can't the AD310 Read the Fault Code?



Figure 7.1: Common reasons and solutions for the AD310 failing to read fault codes, including checking Ignition status and ensuring all ECUs are scanned.

- Vehicle Status:** Ensure the vehicle's engine emission fault indicator light is on. If the code was previously cleared, switch off the engine for more than 10 seconds, then reignite and reconnect to read the code.
- Multiple ECUs:** If your vehicle has more than one Engine Control Unit (ECU), ensure you read all of them.

7.2 Why Can't the AD310 Clear the Error Code?

DO YOU WANT TO KNOW THE SPECIFIC PROBLEMS OF YOUR CAR BEFORE YOU TAKE IT TO THE WORKSHOP?

Quick and comprehensive to check engine light



If the MIL light is on, AD310 will tell you what area to begin looking at; If no MIL is on and the vehicle isn't operating correctly, just view the live data to determine what area is out of normal range.

Figure 7.2: Solutions for when the AD310 cannot clear error codes, emphasizing the need to fix underlying hard faults and understanding permanent codes.

- 1. Ignition and Mode:** Try clearing the code with the ignition on and in diagnostic mode.
- 2. Eliminate Hard Faults:** The AD310 can only clear codes if the underlying issue causing the fault has been resolved. Fix the problem first, then attempt to clear the codes.
- 3. Permanent Codes:** Some codes are permanent and cannot be cleared manually. They will disappear on their own after the car has been driven for a few complete drive cycles without the fault recurring.

7.3 Why Is the AD310 Not Connecting to My Vehicle?

THE ISSUE SOLVED, BUT THE WARNING LIGHT STILL CANNOT BE RESET?

Turn off Annoying Warning Light Within Seconds

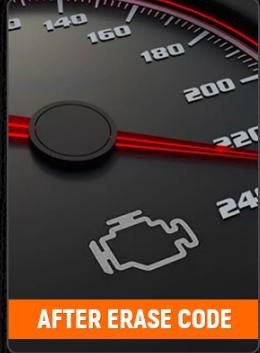


Figure 7.3: Steps to troubleshoot connection issues with the AD310, including checking the diagnostic interface and vehicle's starting state.

- 1. Diagnostic Interface:** Ensure the diagnostic interface is a 16-pin OBD II port.
- 2. Vehicle State:** The vehicle engine should be in a starting state (ignition ON or engine running) before attempting to connect. The vehicle instrument panel should show RPM to represent the vehicle starting state.
- 3. USB Connection:** Do not connect the diagnostic interface and a USB cable at the same time, as this can interfere with communication.

8. WARRANTY AND SUPPORT

ANCEL is committed to providing excellent customer service and support for the AD310 diagnostic scanner.

8.1 Customer Service

We offer comprehensive pre-sales and after-sales support. Professional technicians are available 24 hours a day to assist you with any questions or issues you may encounter, ensuring your satisfaction and peace of mind.

8.2 Returns Policy

If you are not satisfied with your AD310 code reader, you may be eligible for a return within 30 days of purchase. Please refer to the retailer's return policy for specific instructions.