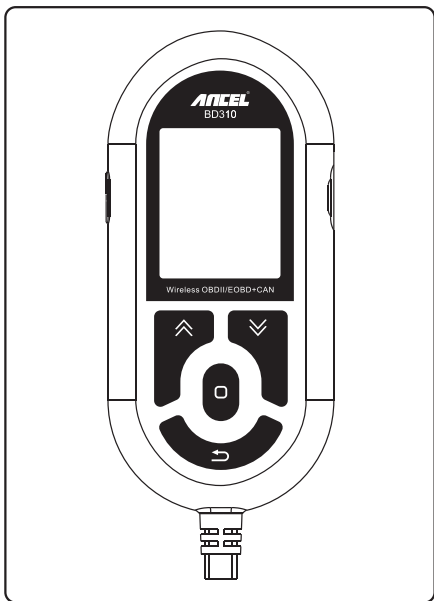




BD310

USER'S MANUAL

BD310 Display function inside the device

Safety Precautions and Warnings

To avoid injury or damage to the vehicle and/or scan tool, first read this manual and observe the following safety precautions when working on a vehicle:

- First, turn off the ignition. Connect the 16-pin connector, and then turn on the ignition.
- Always perform vehicle tests in a safe environment.
- Do not attempt to operate or observe the unit while driving a vehicle.
- Operating or observing the device is distracting to the driver and can result in a fatal accident.
- Wear safety glasses that meet the standards of ANSI.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated area: Exhaust fumes are toxic.
- Place blocks in front of the drive wheels and never leave the vehicle unattended while performing tests.
- Use extreme caution when working near the ignition coil, distributor cap, ignition wires and spark plugs. These components generate dangerous voltages when the engine is running.
- Have a fire extinguisher nearby that is suitable for gasoline, chemical, and electrical fires.
- Keep the scan tool dry, clean, and free of oil/water or grease. If necessary, use a mild detergent on a clean cloth to clean the outside of the scan tool.

How to connect

DOWNLOAD APP

1. Scan the QR code below to download the software for Android and iOS.



ANCEL
Official Website



for Android



for iOS

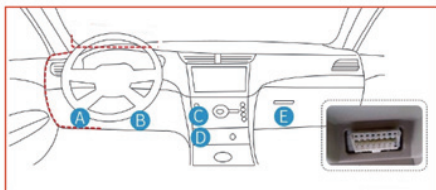
2. iOS can be downloaded from the Appstore by searching for the keyword "ANCEL".

3. Android can be downloaded from Google Play by searching for the keyword "ANCEL".

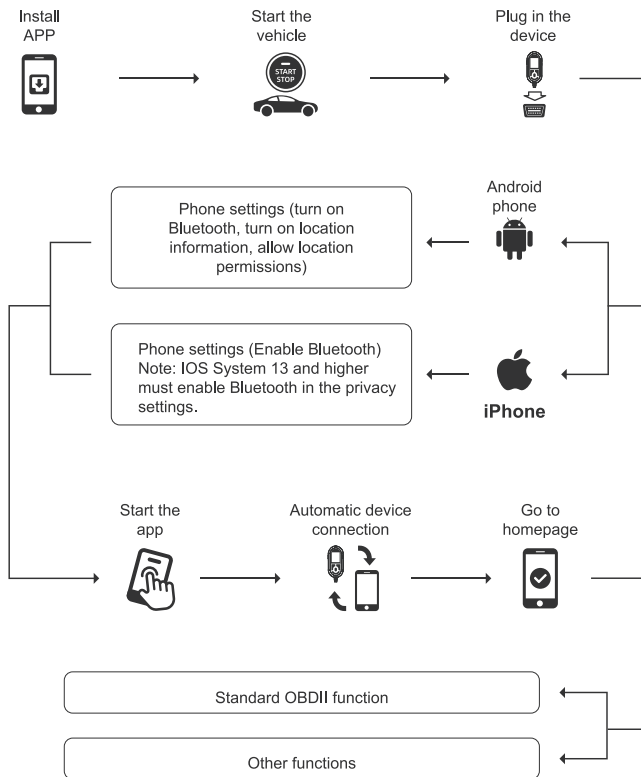
Note: This product only supports the ANCEL APP connection and is not compatible with any other apps.

OBD INTERFACE POSITIONS

For different vehicles, the position of the DLC may be different, please refer to the following possible positions:



OPERATION DIAGRAM

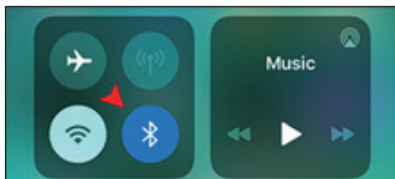


Bluetooth connection for iOS devices

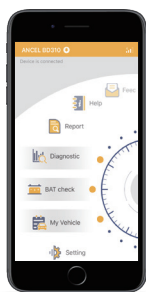
1) Turn on Bluetooth on your phone.

Drag from the bottom to the top or from the top right to the bottom of the screen to open the context menu. Tap the Bluetooth icon to turn it on.

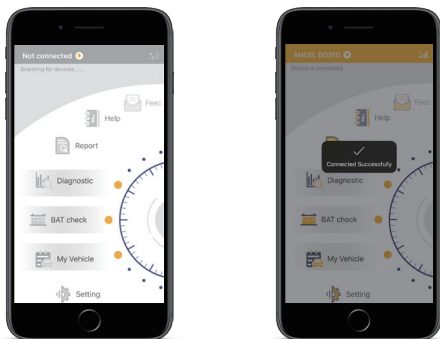
For cell phones with iOS version 13 and higher, you must also turn on Bluetooth in the system's privacy settings.



2) Open the "ANCEL" app , and make sure that the handheld device is in the Bluetooth mode when it connects to the app.

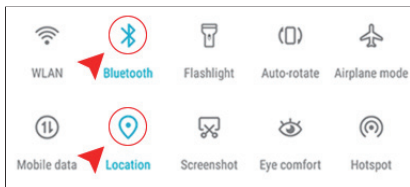


3) The APP will automatically connect to the device. During the connection process, make sure that no other phones have connected to the device. When the "Successfully connected" message is displayed, the product can be used normally.

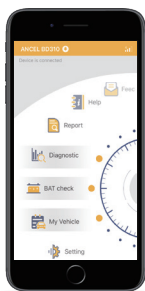


Bluetooth Connection for Android devices

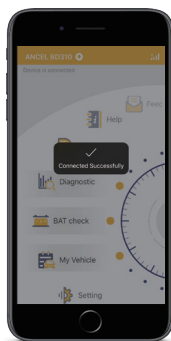
1) Turn on Bluetooth and the Location switch on the phone.



2) Open the app "ANCEL" , and make sure that the handheld device is in the Bluetooth mode when it connects to the app.

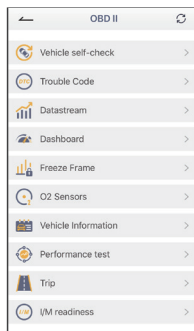
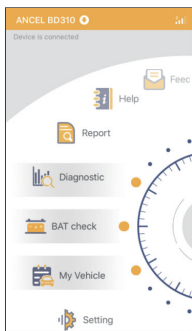


3) The APP will automatically connect to the device. During the connection process, make sure that no other phones have connected to the device. When the "Successfully connected" message is displayed, the product can be used normally.



START USING YOUR DEVICE

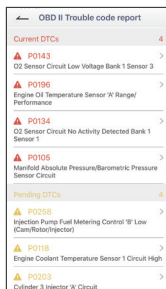
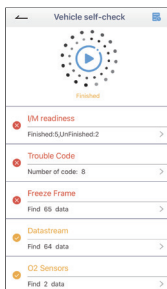
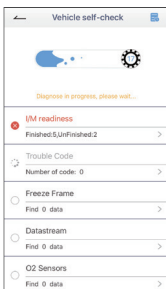
After Bluetooth connection, the diagnostic software will be launched if your vehicle supports it. You can use all functions of the device, e.g. the standard OBDII function and other functions.



2.OBDII Diagnostic

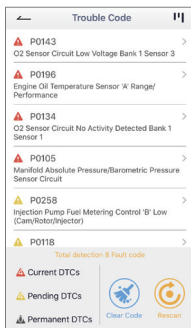
Vehicle self-check

Read I/M readiness, error codes, datastreams and other information with one click.

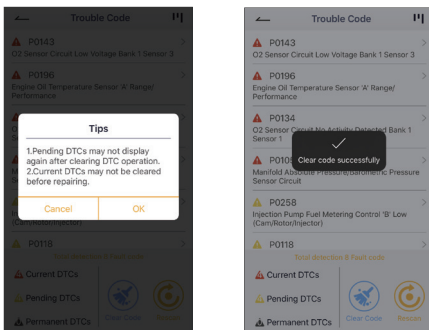


Trouble Code & Clear Code

Excellent DTC explanations provide you with accurate and detailed trouble code definitions.

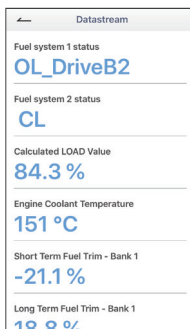


Use the Delete Code button to delete all current and saved DTCs from the control module.



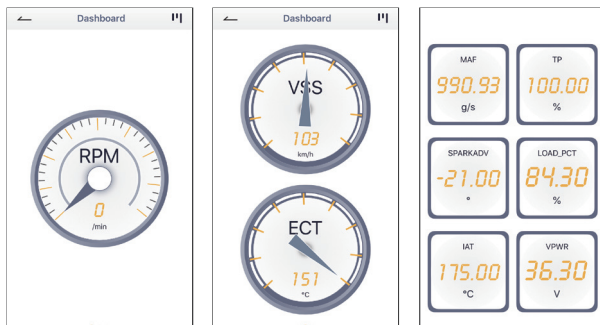
Datastream

The View Datastream function allows you to view the PID data of the vehicle's electronic control unit in real time.



Dashboard

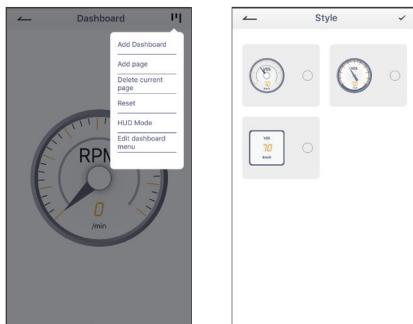
Intuitive graphical display with three different styles.



To customize your data stream:

"Add page" - "Select the graphic styles you like" - "PID" - "Select the data stream you need".

Long press on the graphic to drag it to the desired position or delete it.



Freeze Frame

The Freeze Frame menu displays freeze frame data, a snapshot of critical vehicle operating conditions automatically recorded by the on-board computer at the time of the DTC record. This is a good function to determine the cause of the fault.

Freeze Frame	
DTC that caused required freeze frame data storage	P0103
Fuel system 1 status	OL_DriveB2
Fuel system 2 status	CL
Calculated LOAD Value	25.1 %
Engine Coolant Temperature	90 °C
Short Term Fuel Trim - Bank 1	-21.1 %
Long Term Fuel Trim - Bank 1	18.8 %
Short Term Fuel Trim - Bank 2	68.8 %
Long Term Fuel Trim - Bank 2	-68.0 %
Fuel Rail Pressure	600 kPa

O2 Sensors

Regulations from OBD II require certain vehicles to monitor and test oxygen (O2) sensors to isolate fuel and emissions related faults. The O2 Monitor Test function allows you to view the results of the O2 sensor monitoring tests.

O2 Sensors				
TID#B4				
Bank1-Sensor1				
48	4096	14112		
Min	Value	Max	Units	
TID#B4				
Bank2-Sensor2				
48	4096	14112		
Min	Value	Max	Units	

Vehicle information

Vehicle information allows retrieval of the vehicle number VIN, calibration number ID (s) which identifies the software version of the vehicle control module(s), calibration check numbers (CVN(s)), and in-service performance tracking for OBD II compliant vehicles model year 2000 and later. CVNs are calculated values mandated by OBD II. They are reported to verify that emissions-related calibrations have been changed. Multiple CVNs can be reported for a control module. It can take several minutes to calculate the CVN. Performance tracking in operation tracks the performance of the key standby monitors.

Vehicle information

Basic Information More information

Vehicle Identification Number

VIN: 1A1UC5444R7252367

ECU calibration ID

CID1: JMB*36761500

Calibration verification number

CVN1: 4A4D422A

CVN2: 33363798

Vehicle information

Basic information More information

Vehicle Identification Number(VIN): >

Calibration Identifications(CID): >

Calibration Verification Numbers(CVN): >

In-use Performance Tracking >

ECU NAME >

In-use Performance Tracking >

Engine Serial Number >

Exhaust Regulation Or Type Approval Number >

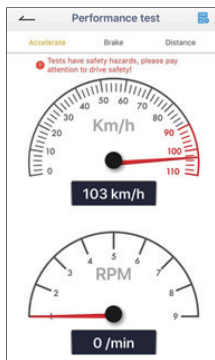
Protocol Identification >

WWH-OBID GTR Number >

Fueled Engine Operation Ignition Cycle >

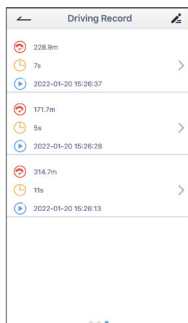
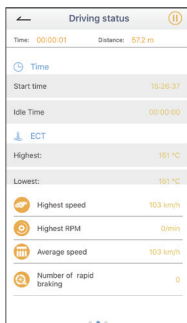
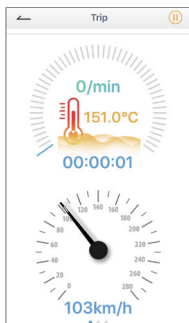
Performance Test

To check health condition for acceleration, brake, and distance of your vehicle.



Trip

To check the health of acceleration, braking and distance of your vehicle. Exclusive trip analysis with time, distance, start time, travel time, maximum speed, maximum speed RPM, average speed, highest and lowest coolant temperature, number of overspeeds and number of quick braking. You can also record, save, print and share the trips for your own analysis or with your mechanic.



I/M Readiness

The I/M Readiness option allows you to view a snapshot of the operations for the exhaust system on OBDII/EOBD vehicles.

I/M readiness		
DTC:6 MIL-On		
Test Items	Since DTCs Cleared	This Driving Cycle
Misfire monitoring	Don't support	Don't support
Fuel system monitoring	Don't support	UnFinished
Comprehensive component monitoring	Don't support	Finished
non-methane hydrocarbon (NMHC) catalyst monitoring	Finished	Don't support
NOx aftertreatment	Don't support	Don't support

Note: Regarding the On-Board Monitor Test and Component Test functions, these two functions are subject to the current test. Some vehicles support these two functions and the product software displays these two functions, while other vehicles do not support them and the product software does not display them.

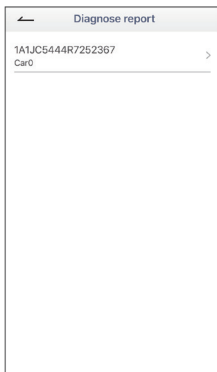
Battery Check

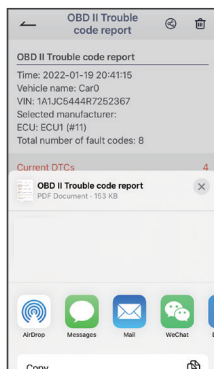
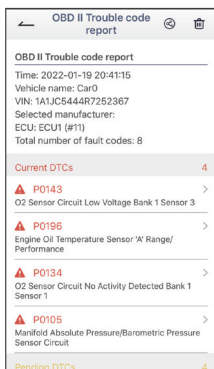
Graphically display battery voltage in real time to retrieve and analyze a more accurate battery life trend and monitor health status.



Report

You can export diagnostic reports and share them on social media.

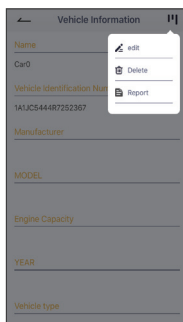
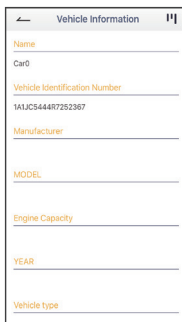
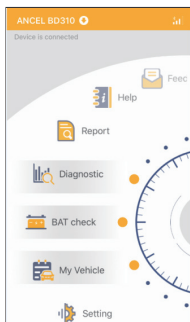




My Vehicle

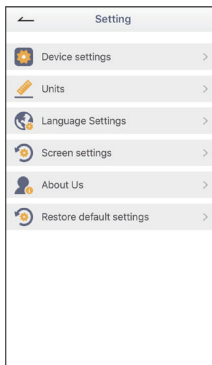
You can select or delete the information about your vehicle. Conditions for newly added vehicles:

1. if the VIN code of the newly added vehicle can be read, the vehicle can be added.
2. if the VIN code of the newly added vehicle cannot be read, an input box will appear when the device communicates with the vehicle, and you need to add the newly added vehicle information manually.
3. if the user has only one vehicle and wants to add multiple vehicles: app is not allowed.



Setting

Device settings\Units\Language Settings\Screen settings\About Us\Restore default settings.



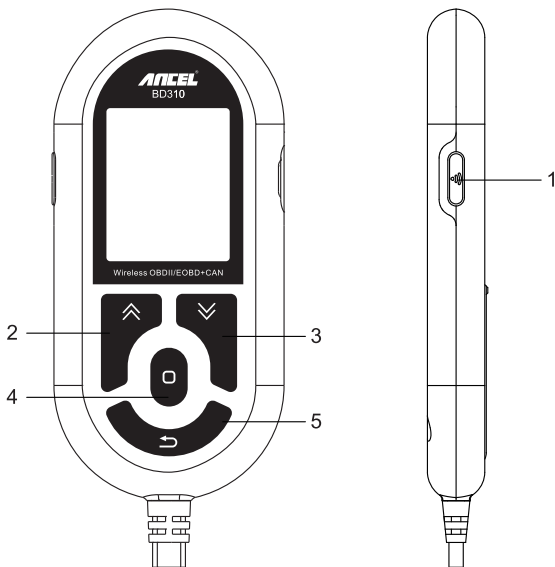
FEEDBACK

You can send us feedback if you have problems using it. To do so, fill out and submit the feedback form.

The screenshot shows a mobile application interface for a feedback form. At the top, there is a header bar with a back arrow on the left, the title "Feedback" in the center, and a "Submit" button on the right. Below the header, the form is organized into sections. The first section is titled "(Require)Email" in orange text, followed by a text input field labeled "Email". The second section is titled "phone number" in orange text, followed by a text input field with a dropdown menu showing "+86" and a label "phone number". The third section is titled "(Require)Problem" in orange text, followed by three text input fields with the labels "Can't connect to device", "Communication error between equipment and vehicle ECU", and "Other problems". The fourth section is titled "Problem Description" in orange text, followed by a large text input field with the placeholder text "Please fill in the problem description" and a character count "0/1000" at the bottom right. At the very bottom of the form, there is a square button with a plus sign inside.

Handheld scanner description- ANCEL BD310

Tool Description- ANCEL BD310



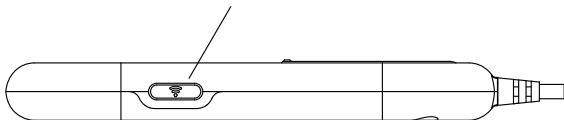
- 1) Wireless Bluetooth terminal and handheld device switching button, Bluetooth wake button.
- 2) UP BUTTON - Up scroll item by item in a menu.
- 3) DOWN BUTTON- Down scroll item by item in a menu .
- 4) ENTER BUT TON - Confirm a selection (or action) from a menu.
- 5) EXIT BUTTON. Cancel a selection (or action) from a menu or return to the previous menu.

Product parameters

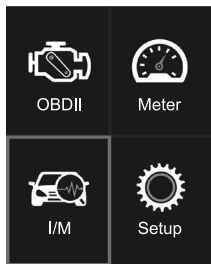
- 1) Display: FULL 65k Color 2.0 inch TFT LCD size for main LCD;
- 2) Operating voltage: DC8~18V;
- 3) Operating current: 88mA@12V (standby sleep:16mA) ;
- 4) Working temperature: -30°C~70°C (-22°F~158°F) ;
- 5) Storage temperature: -40°C~85°C (-40°F~185°F) ;
- 6) Dimensions: 130*61.5*15.6mm.

How to use the Handheld scanner (BD310)?

Mode switch button



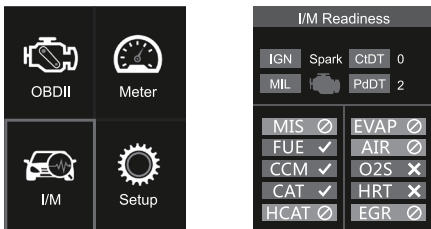
Click to switch to handheld mode.
As shown below:



I/M

A snapshot of emission system operations for all OBDII vehicles - i.e. misfire monitoring, emission system monitoring and more.

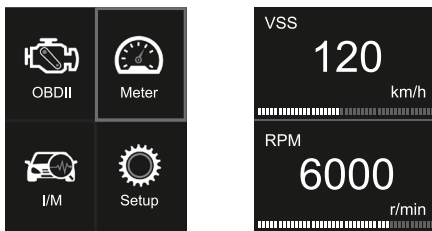
Select [I/M] and it will be displayed as follows:



Meter

With this function you can read real data streams. You can quickly check the most important data such as VSS, RPM.

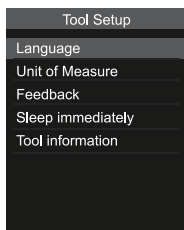
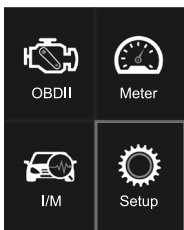
From the main menu, use the navigation keys UP / DOWN to select the Gages menu and press ENTER. The interface shown below will appear on the screen:



Setup

The scan tool allows you to make the following adjustments and settings:

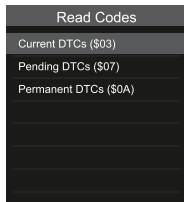
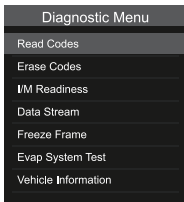
- 1) Select language: Selects the desired language.
- 2) Unit of Measure: Sets the unit of measure to English or Metric.
- 3) Feedback.
- 4) Instant sleep mode.
- 5) Tool information.



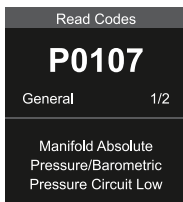
OBDII

1. Read Codes

Press the UP / DOWN key to select Read codes and press ENTER in the diagnostic menu. If there are some codes, the screen will display the codes as shown below:



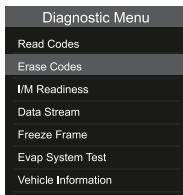
According to the figure above, select another item by pressing UP or DOWN and press ENTER to confirm.



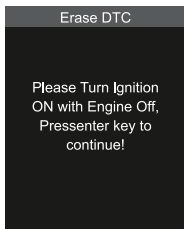
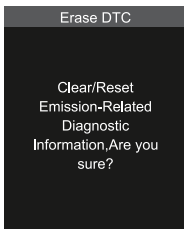
After viewing all codes, you can press EXIT to return to the previous menu.

2. Erase Codes

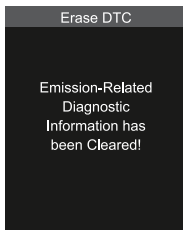
Press UP /DOWN button to select Erase Codes, the screen will display the interface as shown below.



Press ENTER to clear the DTCs and the screen will display the interface shown below:



According to the above figure to press ENTER and the screen will display the interface as shown on the next page:



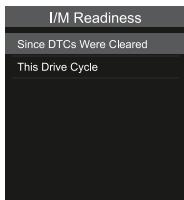
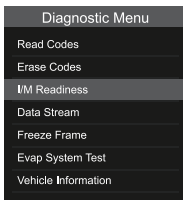
Annotations:

Before performing this function, be sure to retrieve and record the error codes.

After clearing, you should retrieve the fault codes again or turn on the ignition and retrieve the codes again. If there are still error codes in the system, please troubleshoot the codes by using factory diagnostic manual, then clear the codes and check them again.

3. I/M Readiness

Press the UP / DOWN button to select I/M Readiness and press ENTER. The screen will display the interface as shown below:



I/M readiness is to test misfire/fuel system/ comprehensive component. You can use the UP or DOWN key to select and press ENTER, shown as follows:

Diagnostic Menu	
Misfire monitor	OK
Fuel system monitor	OK
Comprehensive component monitor	OK
Catalyst monitor	INC
Heated catalyst monitor	N/A

N/A means this vehicle is not available, INC means it is incomplete or not yet ready, and OK means it is completed or monitor OK.

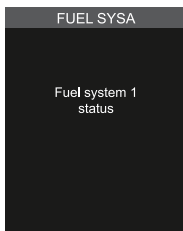
4. Data Stream

Press UP or DOWN to select Data Stream from the main menu, then press ENTER to confirm. The screen will display the interface shown below:

Diagnostic Menu
Read Codes
Erase Codes
I/M Readiness
Data Stream
Freeze Frame
Evap System Test
Vehicle Information

All Datastream	
FUELSYSA	N/A
FUELSYSB	N/A
LOAD_PCT	0.0%
ECT	37 °C
SHRTFT1	0.0%

If you want to know the meaning of the abbreviation data, you can press ENTER. The screen will display the interface shown below:

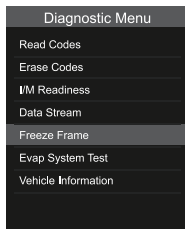


5. View Freeze Frame

When an emissions-related fault occurs, a snapshot of the current vehicle parameters is recorded by the ECU.

Note: If DTCs have been deleted, the Freeze data may not be stored in the vehicle.

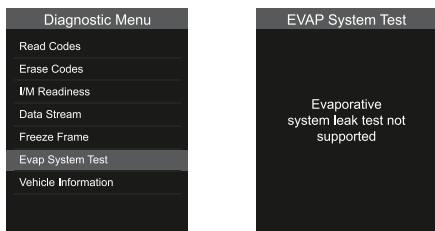
Select Freeze Frame from the main menu interface. The screen will display the interface shown below:



You can use the UP / DOWN button to view the data. Press EXIT to return to the diagnostic menu.

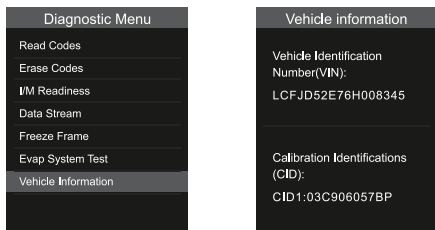
6. EVAP System Test

Select the EVAP System Test and press ENTER. The screen displays the relevant information about the EVAP system.



7. Vehicle Information

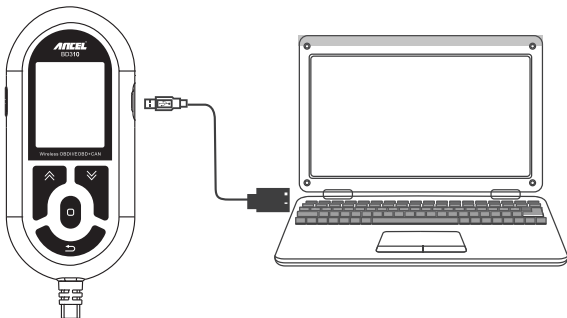
Press UP / DOWN to select [Vehicle Information] and press ENTER. The screen displays information such as VIN (vehicle identification number), CID (calibration number ID) and CVN (calibration check number) as shown below (different vehicles display different data):



Press EXIT to return to the diagnostic menu.

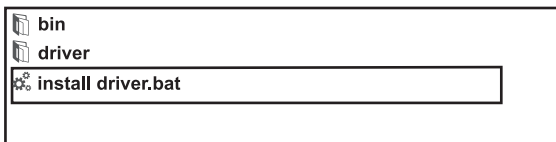
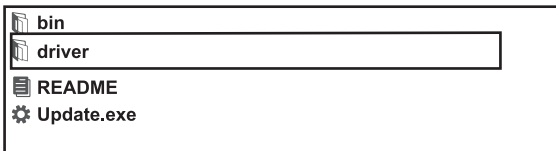
Update

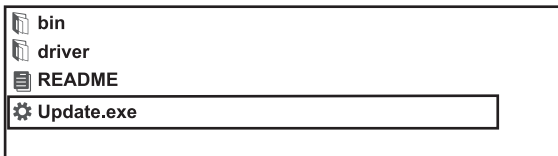
- 1) Download the update software.
- 2) Connect the device to the computer via USB cable.



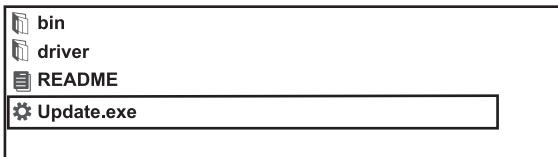
- 3) The update software is only supported by 7/8/10/11.

Click "install driver.bat" in the driver files to install the driver if the computer is a Windows 7 system.





Windows 8/10/11 can run update software directly.



Windows XP and macOS computers do not support upgrades.

Note:

The update software is only supported by windows 7/8/10/11, but not supported by windows XP and macOS. If you do not understand the upgrade steps in the instructions, please contact us.

FAQs

1. why is there a vehicle linking error?

A communication error occurs when the scan tool cannot communicate with the vehicle's ECU (Electronic Control Unit).

Make sure the ignition is on ON.

Make sure the scan tool connector is firmly connected to the vehicle's DLC.

Turn the ignition off, wait about 10 seconds, and turn the ignition back on.

Then proceed with the test. Make sure that the control module is not defective.

2. Why can not the scan tool be turned on?

If the scan tool cannot be switched on or otherwise works incorrectly.
Check that the scan tool connector is firmly connected to the vehicle's DLC.
Check if the DLC pins are bent or broken. Clean the DLC pins if necessary.
Check the vehicle battery to make sure it still has at least 8.0 volts.

3. Why is there an operating error?

In rare cases, the scanner may suddenly crash. If the scan tool freezes, an exception occurs, or the ECU vehicle responds too slowly to requests.

First reset the scan tool, then turn off the ignition and wait for 10 seconds.
Turn the ignition back on and continue the test.

4. Why can not I connect the BD310 code reader?

For iOS users: do not connect the Bluetooth device in the phone's system settings, or it will not be able to connect to the app.
For Android users: Turn on Bluetooth and the location switch on the phone.

5. what do i need to pay attention to?

- a. The BD310 code reader works on 12-volt vehicles and some light trucks. It is not suitable for 24-volt trucks.
- b. The update software only supports Windows 7/8/10/11.
- c. Windows XP and macOS computers do not support upgrades.

Warranty

- 1) This warranty is limited to the person purchasing ANCEL products.
- 2) ANCEL products are warranted against defects in materials and workmanship for a period of one year (12 months) from the date of shipment to the user.

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