

ANCEL[®]

AD410

USER'S MANUAL



1. Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and/or the scan tool, read this instruction manual first and observe the following safety precautions whenever working on a vehicle:

- Turn the ignition off first, connect 16-pin to plug, then turn the ignition on.
- Always perform automotive testing in a safe environment.
- Do not attempt to operate or observe the tool while driving a vehicle. Operating or observing the tool will cause driver distraction and could cause a fatal accident.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well ventilated place: Exhaust gases are Poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
- Keep the scan tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool, when needed.

2. General Information

2.1 On-Board Diagnostics (OBD) II

The first generation of On-Board Diagnostics (called OBD I) was developed by the California Air Resources Board (CARB) and implemented in 1988 to monitor some of the emission control components on vehicles. As technology evolved and the desire to improve the On-Board Diagnostic system increased, a new generation of On-Board Diagnostic system was developed. This second generation of On-Board Diagnostic regulations is called "OBD II".

The OBD II system is designed to monitor emission control systems and key engine components by performing either continuous or periodic tests of specific components and vehicle conditions. When a problem is detected, the OBD II system turns on a warning lamp (MIL) on the vehicle instrument panel to alert the driver typically by the phrase "Check Engine" or "Service Engine Soon". The system will also store important information about the detected malfunction so that a technician can accurately find and fix the problem. Here below follow three pieces of such valuable Information:

- 1) Whether the Malfunction Indicator Light (MIL) is commanded 'on' or 'Off';
- 2) Which, if any, Diagnostic Trouble Codes (DTCs) are stored;
- 3) Readiness Monitor status.

2.2 Diagnostic Trouble Codes (DTCs)

OBD II Diagnostic Trouble Codes are codes that are stored by on-board computer diagnostic system in response to a problem found in the vehicle. These codes identify a particular problem area and are intended to provide you with a guide as to where a fault might be occurring within a vehicle. OBD II Diagnostic Trouble Codes consist of a five-digit alphanumeric code. The first character, a letter, identifies which control system sets the code. The other four characters, all numbers, provide additional information on where the DTC originated and the operating conditions that caused it to be set. Below is an example to illustrate the structure of the digits:

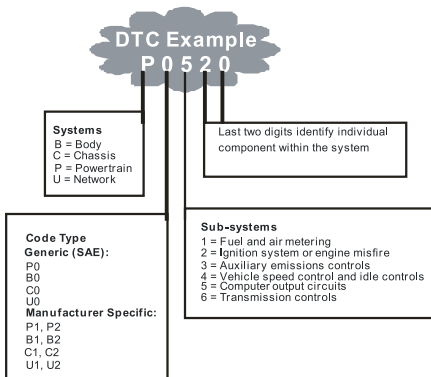
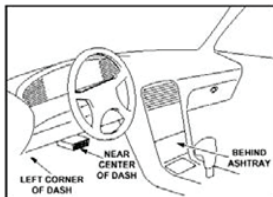


Figure 1-2: Explanation of a diagnostic trouble code.

2.3 Location of the Data Link Connector (DLC)

The DLC (Data Link Connector or Diagnostic Link Connector) is the standardized 16-pin connector where diagnostic scan tools interface with the vehicle's on-board computer. The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles. If the Data Link Connector is not located under the dashboard, a label should be there revealing its location. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. If the DLC cannot be found, refer to the vehicle's service manual for the location.

Figure 1-3: The DLC connector (left) can be found in the area of the car interior seen at right (black arrow).



2.4 OBD II Readiness Monitors

Readiness Monitors are indicators used to find out if all of the emissions components have been evaluated by the OBD II system. They are running periodic tests on specific systems and components to ensure that they are performing within allowable limits.

currently, there are eleven OBD II Readiness Monitors (or I/M Monitors) defined by the U.S. Environmental Protection Agency (EPA). Not all monitors are supported by all vehicles and the exact number of monitors in any vehicle depends on the motor vehicle manufacturer's emissions control strategy.

Continuous Monitors – Some of the vehicle components or systems are continuously tested by the vehicle's OBD II system, while others are tested only under specific vehicle operating conditions. The continuously monitored components listed below are always ready:

1. Misfire
2. Fuel System
3. Comprehensive Components (CCM)

Once the vehicle is running, the OBD II system is continuously checking the above components, monitoring key engine sensors, watching for engine misfire, and monitoring fuel demands.

Non-Continuous Monitors – Unlike the continuous monitors, many emissions and engine system components require the vehicle to be operated under specific conditions before the monitor is ready. These monitors are termed non-continuous monitors and are listed below:

1. EGR System - exhaust Gas Recirculation for reducing greenhouse gases.
2. O2 Sensors - monitor and adjust air/fuel mixture.
3. Catalyst - reduces exhaust emissions.
4. Evaporative System - monitors the integrity of the fuel tank system.
5. O2 Sensor Heater - brings O2 sensor to correct operating temperature.
6. Secondary air - reduces exhaust emissions.
7. Heated Catalyst - brings catalyst to correct operating temperature.
8. A/C system - monitors system for freon leaks.

2.5 OBD II Monitor Readiness Status

OBD II systems must indicate whether or not the vehicle's PCM's monitoring has completed testing on each emission component. Components that have been OBD II tested will be reported as "OK". The purpose of recording readiness status is to allow inspectors to determine if the vehicle's OBDII system has tested all the emissions systems. This is handy to know before bringing vehicle to a state emissions testing facility.

The powertrain control module (PCM) sets a monitor to "OK" after an appropriate drive cycle has been performed. The drive cycle that enables a Monitor and sets readiness codes to "OK" varies for each individual monitor. Once a monitor is set as "OK", it will remain in this state. A number of factors, including erasing of diagnostic trouble codes (DTCs) with a code reader or a disconnected battery, can result in Readiness Monitors being set to "INC" (incomplete). Since the three continuous monitors are constantly evaluating, they will be reported as "OK" all of the ime. As long as there are no DTCs stored in memory, the vehicle is running in accordance with the OBD II guidelines. If testing of a particular supportes non-continuous monitor has not been completed or not tested, the monitor status will be reported as "INC" (incomplete).

In order for the OBD monitor system to become ready, the vehicle should be driven under a variety of normal operating conditions. These operating conditions may include a mix of highway driving and stop and go, city type driving, and at least one overnight-off period. For specific information on getting your vehicle's OBD monitor system ready, please consult your vehicle owner's manual.

2.6 OBD II Definitions

Powertrain Control Module (PCM) – the OBD II terminology for the on-board computer that controls the engine and the drive train.

Malfunction Indicator Light (MIL) – Malfunction Indicator Light (Service Engine Soon, Check Engine) is a term used for the light on the instrument panel. It is to alert the driver and/or the repair technician that there is a problem with one or more of vehicle's systems and may cause emissions to exceed federal standards. If the MIL illuminates with a steady light, it indicates that a problem has been detected and the vehicle should be serviced as soon as possible. Under certain conditions, the dashboard light will blink or flash. This indicates a severe problem and flashing is intended to discourage vehicle operation. The vehicle onboard diagnostic system can not turn the MIL off until necessary repairs are completed or the condition no longer exists.

DTC – Diagnostic Trouble Codes (DTC) these identify which section of the emission control system has malfunctioned.

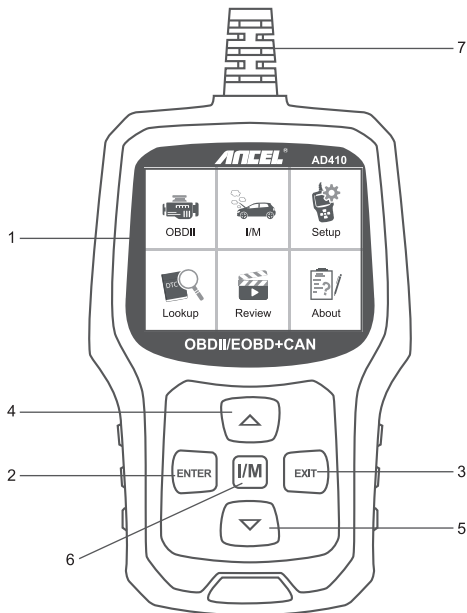
Enabling Criteria – Also termed Enabling Conditions. They are the vehicle-specific events or conditions that must occur within the engine before the various monitors will set, or run. Some monitors require the vehicle to follow a prescribed “drive cycle” routine as part of the enabling criteria. Drive cycles vary among vehicles and for each monitor in any particular vehicle.

OBD II Drive Cycle – A specific mode of vehicle operation that provides conditions required to set all the readiness monitors applicable to the vehicle to the “ready” condition. The purpose of completing an OBD II drive cycle is to force the vehicle to run its onboard diagnostics. Some form of a drive cycle needs to be performed after DTCs have been erased from the PCM’s memory or after the battery has been disconnected. Running through a vehicle’s complete drive cycle will “set” the readiness monitors so that future faults can be detected. Drive cycles vary depending on the vehicle and the monitor that needs to be reset. For vehicle specific drive cycle, consult the vehicle’s Owner’s Manual.

Freeze Frame Data – When an emissions related fault occurs, the OBD II system not only sets a code, but also records a snapshot of the vehicle operating parameters to help in identifying the problem. This set of values operating parameters to help in identifying the problem. This set of values is referred to as Freeze Frame Data and may include important engine parameters such as engine RPM, vehicle speed, air flow, engine load, fuel pressure, fuel trim value, engine coolant temperature, ignition timing advance, or closed loop status.

3. Using the Scan Tool

3.1 Tool Description - ANCEL AD410



1 . LCD DISPLAY – Indicates test results. 2.4" TFT 262K true color,320*240 QVGA LCD display.


2 . ENTER BUTTON – Confirm a selection (or action) from a menu.

3 . EXIT BUTTON – Cancel a selection (or action) from a menu or returns to the menu.

4 . UP SCROLL BUTTON - Uprroll item by item in a menu.

5 . **DOWN SCROLL BUTTON** - Down roll item by item in a menu .

6 . **“I/M” BUTTON** - Quick State Emissions readiness check and drive cycle verification.

I/M Readiness			
IGN	Spark	DTC	0
MIL		PdDTC	0
MIS	⊘	EVAP	⊘
FUE	✓	AIR	⊘
CCM	✓	O2S	✗
CAT	✓	HRT	✗
HCA	⊘	EGR	⊘

Remarks:

MIL Yellow- Dashboard MIL ON

MIL Gray-Dashboard MIL OFF

⊘ -not support

✓ -complete

✗ -not complete

7 . **OBD II CONNECTOR** - Connects the scan tool to the vehicle 's Data Link Connector (DLC).

3.2 Specifications

- 1) Display: 2.4" TFT 262K true color
- 2) Operating Temperature: 0 to 50 C (32 to 140 F°)
- 3) Storage Temperature: -20 to 70 C (-4 to 158 F°)
- 4) External Power: 8.0 to 18.0 V power provided via vehicle battery
- 5) Dimensions: 124x77.4x23.5mm
- 6) Weight: 0.35kg

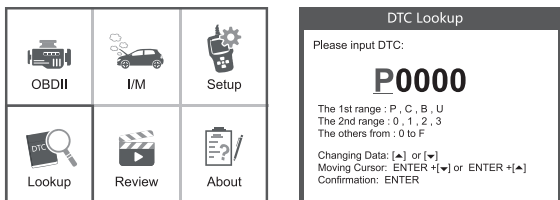
3.3 Accessories Included

- 1) User's Manual – Instructions on tool operations.
- 2) USB cable - Used to upgrade the scan tool.

3.4 DTC Lookup

The DTC Lookup function is used to search for definitions of Code stored in the built-in Code library.

- 1) From the Main Menu, use the UP/DOWN scroll button to select the Code Lookup and press the ENTER button.



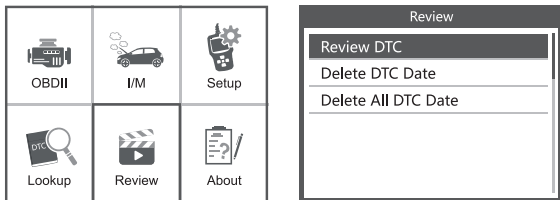
Query the fault code, press enter + up, the cursor to the left; press enter + down, the cursor to the right.

- For manufacturer specific codes , you'll need to select a vehicle make on an additional screen to look for DTC definitions.
- If definition could not be found (SAE or Manufacturer Specific), the scan tool displays "DTC definition not found! Please refer to vehicle service"manual !"

- 2) Press the EXIT button and return to the main menu.

3.5 Review

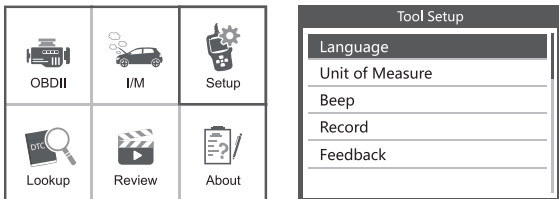
This function is used to review the recorded DTC. Select [Review] menu and press ENTER button. The screen displays as follow:



3.6 Tool Setup

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

- 1) Select Language: Select the desired language.
- 2) Unit of Measure: Set measure to English or Metric.
- 3) Beep Set: Turns ON/OFF beep.
- 4) Record: ON/OFF the Record.
- 5) Feedback.

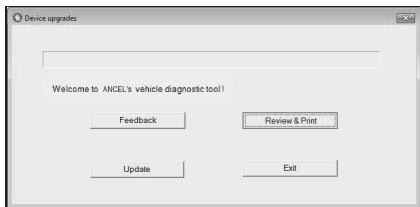


3.7 Review&Print diagnostic reports

1. Download upgrade file from ANCEL website.
2. The device is connected with computer through USB cable.
3. Open the "update" application.

bin	2019/3/7 12:50	File folder
driver	2019/5/20 10:59	File folder
README.txt	2019/5/24 15:52	BIN File
Update.exe	2019/5/21 11:49	Application

4. Click "Review&Print" and automatically generate diagnostic reports.



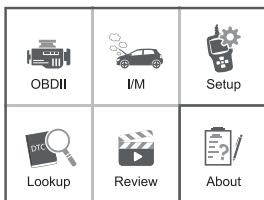
```

DTC Records - Notepad
File Edit Format View Help
P1 VIN: W0022115624155870
DTCNUMBER: 02
P0030 HO2S Heater Control Circuit Bank 1 Sensor 1
P0040 O2 Sensor Signals Swapped Bank 1 Sensor 1/Bank 2 Sensor 1
02 VIN: L5GHL52DX25148440
DTCNUMBER: 04
P0021 A Camshaft Position - Timing Over-Advanced or System Performance Bank 2
P0070 Ambient Air Temperature Sensor Circuit A
P0110 Intake Air Temperature Sensor 1 Circuit Bank 1
P0850 Park/Neutral Switch Input Circuit

```

3.8 About

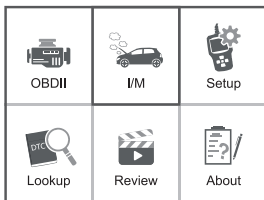
Choose [About] and it displays as follow :



Tool Information	
Software Version:	01.62.000
Hardware Version:	01.10.000
Serial Number:	ANCEL20170300000001
Supported:	OBD-II/EOBD

3.9 I/M

Choose [I/M] and it displays as follow :

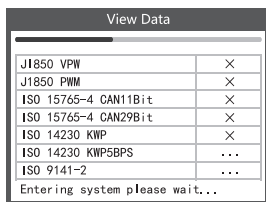
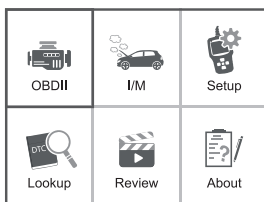


I/M Readiness			
IGN	Spark	DTC	0
MIL		PdDTC	0
MIS	<input type="checkbox"/>	EVAP	<input type="checkbox"/>
FUE	<input checked="" type="checkbox"/>	AIR	<input type="checkbox"/>
CCM	<input checked="" type="checkbox"/>	O2S	<input checked="" type="checkbox"/>
CAT	<input checked="" type="checkbox"/>	HRT	<input checked="" type="checkbox"/>
HCAT	<input type="checkbox"/>	EGR	<input type="checkbox"/>

4. OBD II Diagnostics

CAUTION: Don't connect or disconnect any test equipment with ignition on or engine running.

- 1) Turn the ignition off.
- 2) Locate the vehicle's 16-pin Data Link Connector (DLC).
- 3) Plug the scan tool cable connector into the vehicle's DLC.
- 4) Turn the ignition on. Engine can be off or running.
- 5) Press ENTER to enter Main Menu . UP /DOWN button to select Diagnostics from the menu.



- 6) Press ENTER to confirm.

If "LINKING ERROR!" message shows on the display.

- Verify that the ignition is ON;
- Check if the scan tool's OBD II connector is securely connected to the vehicle's DLC;
- Turn the ignition 'off' and wait for about 10 seconds. Turn the ignition back to 'on' and repeat the procedure from step 5.

4.1 Read codes

- stored emission-related codes is hard codes which illuminate malfunction indicator lamp(MIL).
- pending codes is current codes or historical codes which will not illuminate malfunction indicator(MIL).

1) Select OBDII in Main Menu and press ENTER , shown as follow :

Monitor Status	
MIL Status	ON
DTCs in this ECU	3
Readiness Supported	8
Readiness Completed	5
Readiness Not Supported	3
Datastream Supported	66
Ignition	Spark
Protocol Type	VPW

2) Press ENTER to the Diagnostic Menu, screen will display as follow :

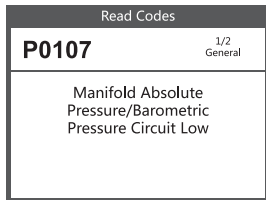
Diagnostic Menu	
Read Codes	
Erase Codes	
I/M Readiness	
Data Stream	
Freeze Frame	
O2 Sensor Test	

4.2.1 Read Codes

1) Select Read Codes and press ENTER in Diagnostic Menu. If there are some codes, the screen will display the codes as shown below:

Read Codes	
Current DTCs (\$03)	
Pending DTCs (\$07)	
Permanent DTCs (\$0A)	

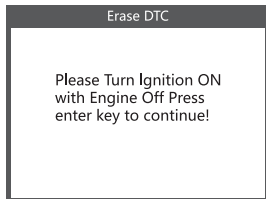
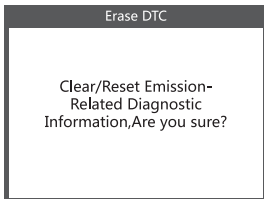
2) According to the above figure to select different item by pressing UP or DOWN and press ENTER to confirm.



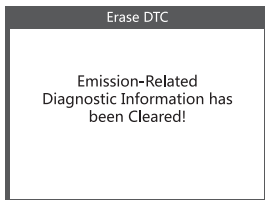
- 3) After viewing all the codes, you can press EXIT to return to the previous menu.

4.2.2 Erase Codes

- 1) Select Erase Codes, the screen will display the interface as shown below. Press ENTER to erase DTC's, and the screen will display the interface as shown below:



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

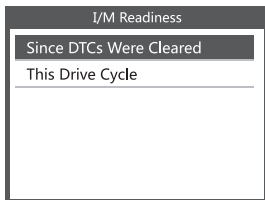


Notes:

- Before performing this function, make sure to retrieve and record the trouble codes.
- After clearing, you should retrieve trouble codes once more or turn ignition on and retrieve codes again. If there are still some trouble codes in the system, please troubleshoot the codes using a factory diagnosis guide, then clear the codes and recheck.

4.2.3 I/M Readiness

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 UP or DOWN button to select and press ENTER, shown as follow :

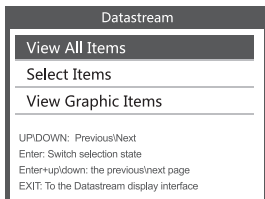
The screenshot shows a dark grey header with the text 'I/M Readiness'. Below the header is a table with two columns: the monitor name and its status.

I/M Readiness	
Misfire monitor	N/A
Fuel system monitor	N/A
Comprehensive component monitor	OK
Catalyst monitor	N/A
Heated catalyst monitor	N/A
Evaporative system monitor	N/A
Secondary air system monitor	N/A
Oxygen sensor monitor	INC
Oxygen sensor heater monitor	INC
EGR and/or VVT syetem monitor	INC

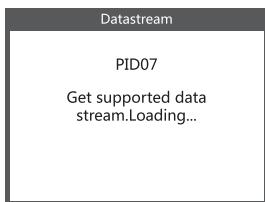
N/A means not available on this vehicle, INC means incomplete or not ready, OK means Completed or Monitor Ok.

4.2.4 Data Stream

Press UP or DOWN button to select Data Stream in Main Menu interface and then press ENTER button to confirm, the screen will display the interface as shown below:



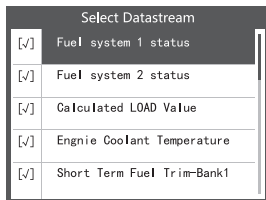
Select [View All Items] and press ENTER button, the screen will display the interface as shown below:



All Datastream	
FUELSYSA	0L
FUELSYSB	N/A
LOAD_PCT	0.0%
ECT	53°C
SHRTFT1	32.8%
LONGFT1	0.0%

Scroll page, press up to last page, or press down to next page. Select one, press [ENTER] to display the details.

Choose [select items] and press enter button. After that, press enter button again, shown as follow:



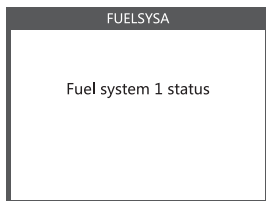
Scroll page, press enter + up, to previous page, press enter + down, the next page.

After selected items and press exit, the screen will display as follow:

Selected Datastream	
FUELSYSA	0L
FUELSYSB	N/A
LOAD_PCT	0.0%
ECT	53°C
SHRTFT1	32.8%

Scroll page, press up to last page,or press down to next page.

If you want to know means of the abbreviation data,you can press the ENTER Button,the screen will display the interface as shown below.

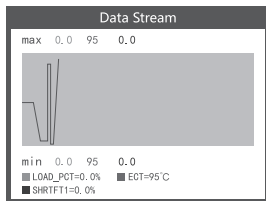


Select [View Graphic Items] in Data stream menu and press ENTER, the screen Will display the interface as shown below:

Select Datastream	
[]	Engine Coolant Temperature
[]	Short Term Fuel Trim-Bank2
[]	Short Term Fuel Trim-Bank4
[✓]	Intake Manifold Absolute Pressure
[]	Intake Air Temperature

Scroll page, press enter + up, to previous page, press enter + down, the next page. Press enter button again to choose.

Press EXIT to return to display :



Max lines is 3.

Press EXIT to return to previous menu.

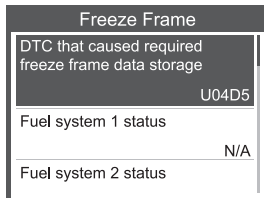
You can view all data stream items or select a certain item of live data with a graph.

4.2.5 View Freeze Frame

When an emission-related fault occurs, a snapshot of current vehicle parameter are recorded by the ECU.

Note: if DTCs were erased, Freeze Data may not be stored in vehicle.

Select Freeze Frame in main menu interface, the screen will display the interface as shown below:



You can use UP/ DOWN button to view the data. Press EXIT to return to Diagnostic Menu.

4.2.6 O2 sensor test

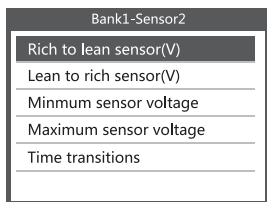
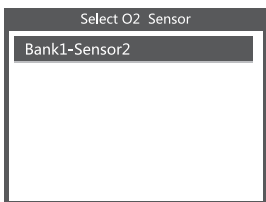
OBD II regulations set by the SAE require that relevant vehicles monitor and test the oxygen (O₂) sensors to identify problems related to fuel efficiency and vehicle emissions. These tests are not on-demand tests and they are done automatically when engine operating conditions are within specified limits. These test results are saved in the on-board computer's memory.

The O2 Sensor Test function allows retrieval and viewing of O2 sensor monitor test results for the most recently performed tests from the vehicle's on-board computer.

The O2 Sensor Test function is not supported by vehicles which communicate using a controller area network (CAN). For O2 Sensor Test results of CAN-equipped vehicles, see chapter "On-Board Mon. Test".

Select O2 Sensor Test in Diagnostic menu and press ENTER and the Screen will display as shown below:

Press ENTER button, the screen will display as shown below (Data will be different everytime) :



4.2.7 On-board monitor test

This function can be utilized to read the results of on-board diagnostic monitoring . Tests for specific components/systems.

Select On-board Monitoring in Diagnostic Menu and press ENTER and the screen will display as shown below (Data will be different everytime):

On-Board Monitoring	
Test \$02 Data	
Test \$03 Data	
Test \$05 Data	
Test \$08 Data	
Test \$0B Data	

You can use UP or DOWN button to select an item and press ENTER, the screen will display as shown below (Data will be different everytime):

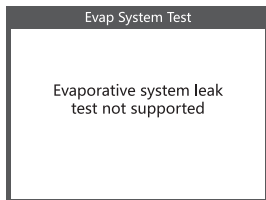
On-Board Monitoring	
Component ID	\$5e
Limit Type	Max
Test Value	33733
Minimum Limit	-----
Status	Pass

Press EXIT to return to Diagnostic Menu.

4.2.8 EVAP System Test

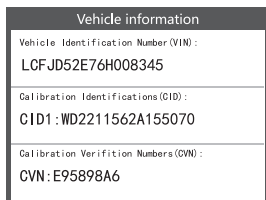
The EVAP test function lets you initiate a leak test for the vehicle's EVAP system. The scanner does not perform the leak test, but signals to vehicle's on-board Computer to initiate the test. Before using the system test function, refer to the vehicle's service repair manual to determine the procedures necessary to stop the test.

Select EVAP System Test and press ENTER, the screen will display the relative information about EVAP system. Some vehicle manufacturers do not allow External devices to control vehicle system. If the car supports this function, it will display as below:



4.2.9 Vehicle Info

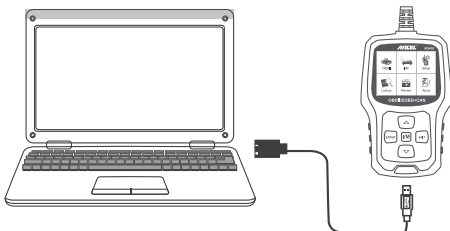
Select [Vehicle Info] and press ENTER, the screen will display the information, such as VIN (Vehicle identification Number), CID (Calibration ID) and CVN (Calibration verification number), as shown below (different cars will shown different data) :



Press EXIT to return to Diagnostic Menu.

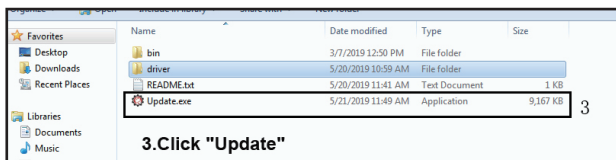
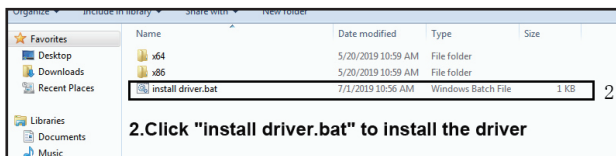
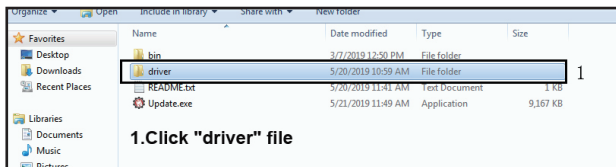
5. Update

1. Download update software
2. Connect the devise with computer through USB cable.

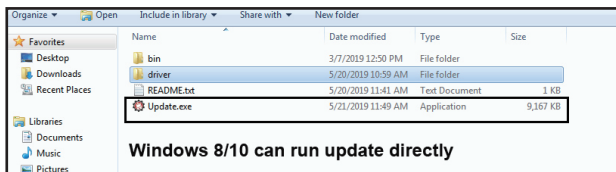


3. The update software is only supported by 7/8/10.

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



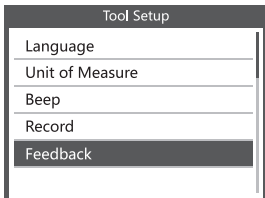
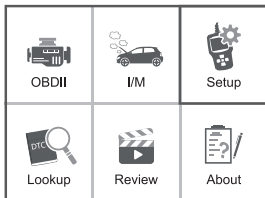
* Windows 8/10 can run update software directly.



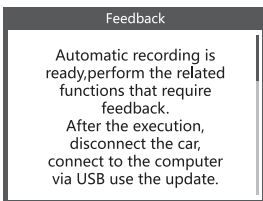
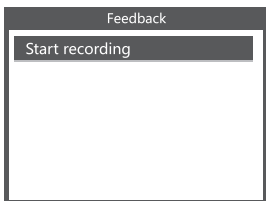
6. Feedback

1. When the [OBDII] function shows connected error with vehicle, please using the feedback function.

Choose [Feedback] and it displays as follow:



Choose [Start recording] to open record function and it displays as follow:



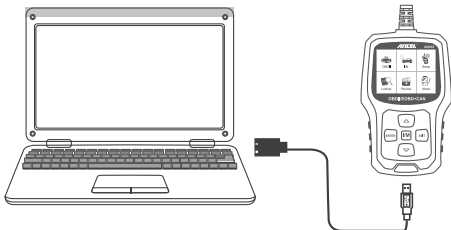
Next : Press EXIT Button and return to the main menu.

Choose [OBDII] menu to detecting again and it will record the data.

2. Transfer data to your computer and generate feedback file.

Download upgrade file on the computer from ANCEL website.

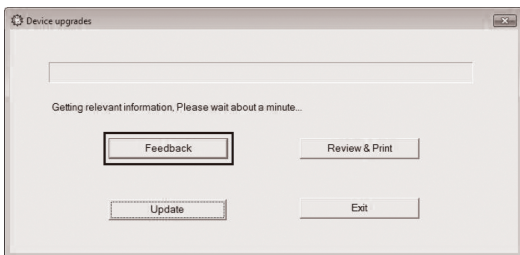
The device is connected with computer through USB cable.



Choose "Update" file and it displays as follow:

bin	2019/3/7 12:50	File folder
driver	2019/5/20 10:59	File folder
README.txt	2019/5/24 15:52	BIN File
Update.exe	2019/5/21 11:49	Application

Click "Feedback" and it displays as follow:



Name	Date modified	Type	Size
Unspecified (6)			
bin	2017/4/11 21:32	File folder	
driver	2017/4/11 21:32	File folder	
feedback.bin	2017/6/20 13:40	BIN File	0 KB
Help.avi	2017/1/9 15:33	Video Clip	56,189 KB
README.txt	2017/1/9 14:57	Text Document	1 KB
Update.exe	2017/5/12 14:47	Application	9,166 KB

Please send the feedback.bin file to support@anceltech.com.

7. Warranty and Service

7.1 Limited One Year Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE ANCEL AD410 PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

ANCEL AD410 code reader is warranted against defects in materials and workmanship for one year (12 months) from the date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and ANCEL AD410 shall not be liable for any consequential or incidental damages.

7.2 Service Procedures

If you have any questions, please contact your local store distributor.

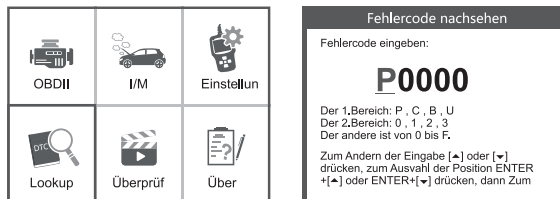
If it becomes necessary to return the scan tool for repair, contact your local distributor for more information.

AD410 German Manual

1 DTC-Suche

Die DTC-Suchfunktion wird verwendet, um nach Definitionen von Code zu suchen, der in gespeichert ist die eingebaute Codebibliothek.

1) Verwenden Sie im Hauptmenü die Navigationstasten AUF / AB, um den Code auszuwählen



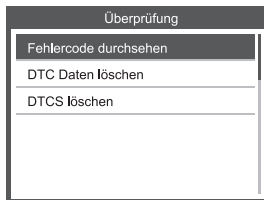
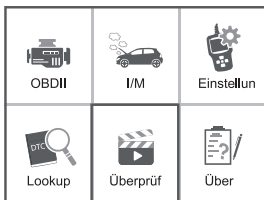
Nachschlagen und die ENTER-Taste drücken. Fragen Sie den Fehlercode ab, drücken Sie die Eingabetaste und den Cursor nach links. Drücken Sie die Eingabetaste + nach unten, der Cursor nach rechts.

- Für herstellerspezifische Codes müssen Sie eine zusätzliche Fahrzeugmarke auswählen Bildschirm, um nach DTC-Definitionen zu suchen.
- Wenn die Definition nicht gefunden werden konnte (SAE oder herstellerspezifisch), zeigt der Diagnose-Tester "DTC" an Definition nicht gefunden! Bitte Fahrzeugservice "Handbuch beachten!"

2) Um zum Hauptmenü zurückzukehren, drücken Sie die EXIT-Taste.

1.1 Überprüfung

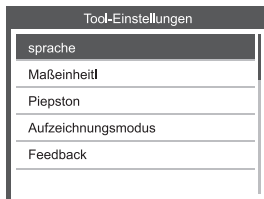
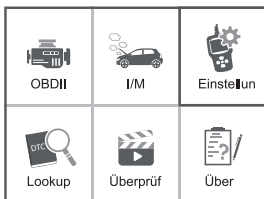
Diese Funktion wird verwendet, um den aufgezeichneten DTC zu überprüfen. Wählen Sie im Hauptmenü die Option "Überprüfen" und drücken Sie die Eingabetaste. Auf dem Bildschirm wird die folgende Benutzeroberfläche angezeigt:



1.2 Tool / Setup


Mit dem Diagnose-Tester können Sie die folgenden Anpassungen und Einstellungen vornehmen:

- 1) Sprache auswählen: Wählt die gewünschte Sprache aus.
- 2) Maßeinheit: Stellen Sie das Maß auf Englisch oder Metrisch ein.
- 3) Beep Set: Schaltet den Beep ein / aus.
- 4) Aufnahme: Aufnahme ein- / ausschalten.
- 5) Rückmeldung.

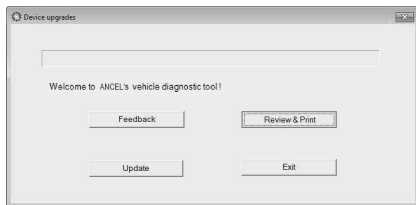


1.3 Überprüfen und Drucken von Diagnoseberichten

1. Verbinden Sie sich über USB mit einem Computer.
2. Laden Sie die Upgrade-Dateien von der ANCEL-Website herunter.
3. Installieren Sie den Upgrade-Treiber gemäß der Datei mit den Upgrade-Anweisungen.
4. Öffnen Sie die Anwendung "Update".

 bin	2019/3/7 12:50	File folder
 driver	2019/5/20 10:59	File folder
 README.txt	2019/5/24 15:52	BIN File
 Update.exe	2019/5/21 11:49	Application

5. Klicken Sie auf die Option „Prüfen & Drucken“. Dann könnte man den Diagnosebericht speichern oder ausdrucken wie benötigt.



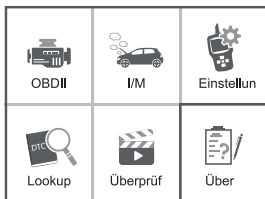
```

DTCs Records - Notepad
File Edit Format View Help
01 VIN: W002211562A155670
DTCNUMBER: 02
P0030 HO2S Heater Control Circuit Bank 1 Sensor 1
P0040 O2 Sensor Signals Swapped Bank 1 Sensor 1/Bank 2 Sensor 1
02 VIN: L59GL520X25140448
DTCNUMBER: 04
P0021 A Camshaft Position - Timing Over-Advanced or System Performance Bank 2
P0070 Ambient Air Temperature Sensor Circuit A
P0110 Intake Air Temperature Sensor 1 Circuit Bank 1
P0850 Park/Neutral Switch Input Circuit

```

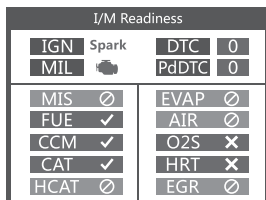
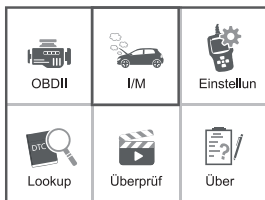
1.4 Über

Wählen Sie [About] und es wird wie folgt angezeigt:



1.5 I / M

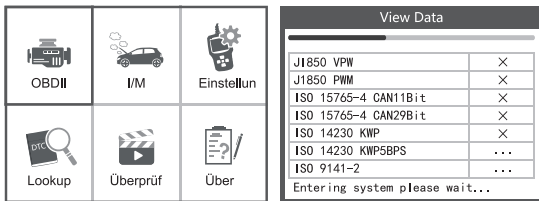
Wählen Sie [I / M] und es wird wie folgt angezeigt:



2. OBD II-Diagnose

VORSICHT: Keine Testausrüstung bei eingeschalteter Zündung oder laufendem Motor anschließen oder trennen.

- 1) Schalten Sie die Zündung aus.
- 2) Suchen Sie den 16-poligen Data Link Connector (DLC) des Fahrzeugs.
- 3) Stecken Sie den Stecker des Diagnose-Tester-Kabels in den DLC des Fahrzeugs.
- 4) Zündung einschalten. Der Motor kann ausgeschaltet sein oder laufen.
- 5) Drücken Sie ENTER, um das Hauptmenü aufzurufen. UP / DOWN-Taste zur Auswahl Diagnose aus dem Menü.



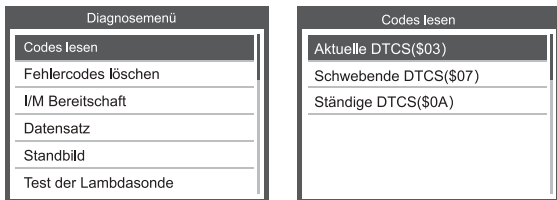
6) Bestätigen Sie mit ENTER.

Wenn "LINKING ERROR!" Meldung erscheint auf dem Display.

- Vergewissern Sie sich, dass die Zündung eingeschaltet ist.
- Überprüfen Sie, ob der OBD II-Stecker des Diagnose-Testgeräts fest mit dem DLC des Fahrzeugs verbunden ist.
- Schalten Sie die Zündung aus und warten Sie ca. 10 Sekunden. Schalten Sie die Zündung wieder ein und wiederholen Sie den Vorgang ab Schritt 5.

2.1 Codes lesen

1) Wählen Sie Codes lesen und drücken Sie ENTER im Diagnosemenü. Wenn einige Codes vorhanden sind, werden auf dem Bildschirm die folgenden Codes angezeigt:



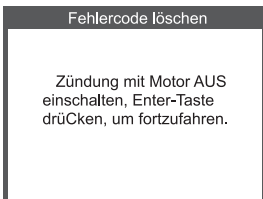
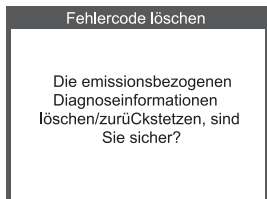
2) Wählen Sie gemäß der obigen Abbildung einen anderen Menüpunkt durch Drücken von UP oder DOWN und drücken Sie ENTER zur Bestätigung.



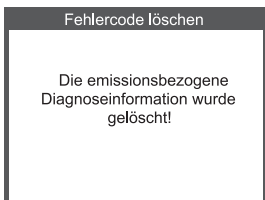
3) Nachdem Sie alle Codes angezeigt haben, können Sie EXIT drücken, um zum vorherigen Menü zurückzukehren.

2.2 Codes löschen

1) Wählen Sie Erase Codes (Codes löschen). Auf dem Bildschirm wird die folgende Benutzeroberfläche angezeigt. Drücken Sie die EINGABETASTE, um die DTCs zu löschen. Auf dem Bildschirm wird die folgende Benutzeroberfläche angezeigt:



2) Nach der obigen Abbildung drücken Sie ENTER und der Bildschirm zeigt die auf der nächsten Seite gezeigte Oberfläche an:



Anmerkungen:

- Stellen Sie vor dem Ausführen dieser Funktion sicher, dass Sie die Fehlercodes abrufen und aufzeichnen.
- Nach dem Löschen sollten Sie die Fehlercodes erneut abrufen oder die Zündung einschalten ein und rufen Sie die Codes erneut ab. Wenn das System immer noch einige Fehlercodes enthält, beheben Sie die Fehler anhand einer werkseitigen Diagnoseanleitung, löschen Sie die Codes und überprüfen Sie sie erneut.

2.3 I / M-Bereitschaft

Wählen Sie I / M Readiness (I / M-Bereitschaft) und drücken Sie ENTER. Auf dem Bildschirm wird die folgende Benutzeroberfläche angezeigt:



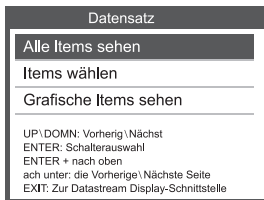
I / M-Bereitschaft ist es, Fehlzündung / Kraftstoffsystem / umfassende Komponente zu testen. Sie können die Tasten UP oder DOWN verwenden, um Folgendes auszuwählen und ENTER zu drücken:

I/M Readiness	
Überwachung Fehlzündung	N/A
Überwachung Kraftstoffversorgung	N/A
Überwachung Bauteile	N/A
Überwachung NMHC- Katalysator	In Ordnung
Überwachung NOx-Nachbehandlung	INC
Überwachung Ladedrucksystem	N/A
Überwachung Abgassensor	In Ordnung
Überwachung PM-Filter	N/A
Überwachung AGR und/oder VVT	N/A

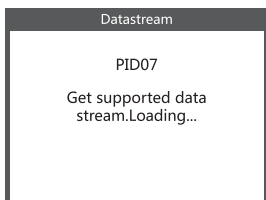
N / A bedeutet für dieses Fahrzeug nicht verfügbar, INC bedeutet unvollständig oder nicht bereit, OK bedeutet abgeschlossen oder Monitor OK.

2.4 Datenstrom

Drücken Sie die UP- oder DOWN-Taste, um Datenstrom in der Hauptmenü-Oberfläche auszuwählen, und drücken Sie anschließend die ENTER-Taste, um zu bestätigen. Auf dem Bildschirm wird die Oberfläche wie folgt angezeigt:



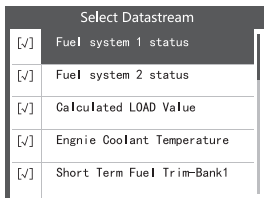
Wählen Sie [View All Items] und drücken Sie die ENTER-Taste. Auf dem Bildschirm wird die folgende Benutzeroberfläche angezeigt:



All Datastream	
FUELSYSA	0L
FUELSYSB	N/A
LOAD_PCT	0. 0%
ECT	53°C
SHRTFT1	32. 8%
LONGFT1	0. 0%

Blättern Sie durch die Seite, drücken Sie bis zur letzten Seite oder drücken Sie bis zur nächsten Seite. Wählen Sie eine aus und drücken Sie [ENTER], um die Details anzuzeigen.

Wählen Sie [Elemente auswählen] und drücken Sie die Eingabetaste. Drücken Sie danach erneut die Eingabetaste, wie folgt:



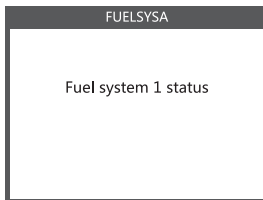
Blättern Sie durch die Seite, drücken Sie die Eingabetaste + nach oben, um zur vorherigen Seite zu gelangen, drücken Sie die Eingabetaste + nach unten, um zur nächsten Seite zu gelangen.

Nach Auswahl der Elemente und Drücken von Beenden wird der Bildschirm wie folgt angezeigt:

Selected Datastream	
FUELSYSA	0L
FUELSYSB	N/A
LOAD_PCT	0.0%
ECT	53°C
SHRTFT1	32.8%

Blättern Sie durch die Seite, drücken Sie bis zur letzten Seite oder drücken Sie bis zur nächsten Seite.

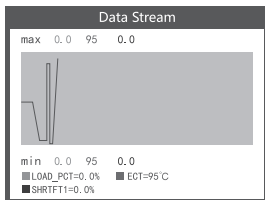
Wenn Sie die Abkürzungsdaten kennen möchten, drücken Sie die ENTER-Taste. Auf dem Bildschirm wird die unten gezeigte Oberfläche angezeigt.



Wählen Sie im Menü Datenstrom die Option [Grafikelemente anzeigen] und drücken Sie die EINGABETASTE. Auf dem Bildschirm wird die folgende Oberfläche angezeigt:

Select Datastream	
<input type="checkbox"/>	Engine Coolant Temperature
<input type="checkbox"/>	Short Term Fuel Trim-Bank2
<input type="checkbox"/>	Short Term Fuel Trim-Bank4
<input checked="" type="checkbox"/>	Intake Manifold Absolute Pressure
<input type="checkbox"/>	Intake Air Temperature

Blättern Sie durch die Seite, drücken Sie die Eingabetaste + nach oben, um zur vorherigen Seite zu gelangen, drücken Sie die Eingabetaste + nach unten, um zur nächsten Seite zu gelangen. Drücken Sie die Eingabetaste erneut, um auszuwählen. Drücken Sie EXIT, um zur Anzeige zurückzukehren:



Max Zeilen ist 3.

Drücken Sie EXIT, um zum vorherigen Menü zurückzukehren.

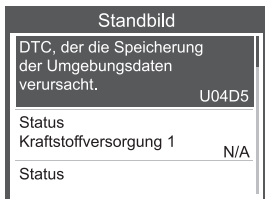
Sie können alle Datenstromelemente anzeigen oder ein bestimmtes Element der Live-Daten mit einem Diagramm auswählen.

2.5 Standbild anzeigen

Wenn ein emissionsbezogener Fehler auftritt, wird eine Momentaufnahme des aktuellen Fahrzeugs erstellt. Parameter werden von der ECU erfasst.

Hinweis: Wenn die DTCs gelöscht wurden, werden möglicherweise keine Einfrierdaten im Fahrzeug gespeichert.

Wählen Sie im Hauptmenü die Option „Standbild“. Auf dem Bildschirm wird die folgende Benutzeroberfläche angezeigt:



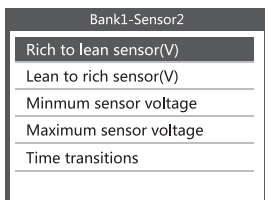
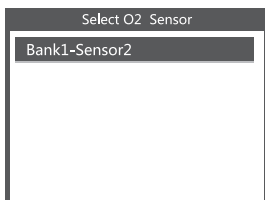
Mit den Tasten AUF / AB können Sie die Daten anzeigen. Drücken Sie BEENDEN, um zum Diagnosemenü zurückzukehren.

2.6 Nach den von der SAE festgelegten OBD II-Vorschriften müssen die entsprechenden Fahrzeuge die Sauerstoffsensoren (O₂-Sensoren) überwachen und testen, um Probleme im Zusammenhang mit Kraftstoff zu erkennen Effizienz und Fahrzeugemissionen. Diese Tests sind keine On-Demand-Tests und werden automatisch durchgeführt, wenn die Motorbetriebsbedingungen innerhalb der festgelegten Grenzen liegen. Diese Testergebnisse werden im Speicher des Bordcomputers gespeichert.

Die Funktion O₂-Sensortest ermöglicht das Abrufen und Anzeigen des O₂-Sensors Überwachen Sie die Testergebnisse für die zuletzt ausgeführten Tests aus dem Bordcomputer des Fahrzeugs. Die Funktion O₂-Sensortest wird von Fahrzeugen mit nicht unterstützter Kommunikation über ein Controller Area Network (CAN). Die Testergebnisse für O₂-Sensoren von CAN-Fahrzeugen finden Sie im Kapitel "On-Board-Mon.-Test".

Wählen Sie O₂-Sensortest im Diagnosemenü und drücken Sie ENTER. Der Bildschirm wird wie folgt angezeigt:

Drücken Sie die ENTER-Taste. Der Bildschirm wird wie folgt angezeigt (die Daten ändern sich jedes Mal):



2.6 Bordmonitortest

Mit dieser Funktion können die Ergebnisse der On-Board-Diagnose gelesen werden Überwachung. Tests für bestimmte Komponenten / Systeme.

Wählen Sie im Diagnosemenü die Option On-Board-Überwachung und drücken Sie die EINGABETASTE. Daraufhin wird der folgende Bildschirm angezeigt (die Daten ändern sich jedes Mal):

On-Board Monitoring	
Test \$02 Data	
Test \$03 Data	
Test \$05 Data	
Test \$08 Data	
Test \$0B Data	

Sie können die UP- oder DOWN-Taste verwenden, um ein Element auszuwählen, und ENTER drücken. Der Bildschirm wird wie folgt angezeigt (die Daten ändern sich jedes Mal):

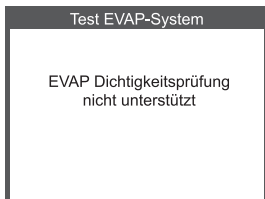
On-Board Monitoring	
Component ID	\$5e
Limit Type	Max
Test Value	33733
Minimum Limit	-----
Status	Pass

Drücken Sie EXIT, um zum Diagnosemenü zurückzukehren.

2.7 EVAP-Systemtest

Mit der EVAP-Testfunktion können Sie eine Dichtheitsprüfung für das EVAP-System des Fahrzeugs einleiten. Der CReaderVI führt keine Dichtheitsprüfung durch, signalisiert jedoch dem Bordcomputer des Fahrzeugs, die Prüfung zu starten. Bevor Sie die Systemtestfunktion verwenden, lesen Sie das Wartungshandbuch des Fahrzeugs, um die zum Stoppen des Tests erforderlichen Verfahren zu ermitteln.

Wählen Sie EVAP-Systemtest und drücken Sie ENTER. Auf dem Bildschirm wird angezeigt relative Informationen zum EVAP-System. Einige Fahrzeughersteller erlauben externen Geräten nicht, das Fahrzeugsystem zu steuern. Wenn das Auto diese Funktion unterstützt, wird Folgendes angezeigt:



2.8 Fahrzeuginfo

Wählen Sie [Fahrzeuginfo] und drücken Sie ENTER. Auf dem Bildschirm werden die Informationen angezeigt, wie VIN (Fahrzeugidentifikationsnummer), CID (Kalibrierungs-ID) und CVN (Kalibrierungsüberprüfungsnummer), wie unten gezeigt (verschiedene Fahrzeuge zeigen unterschiedliche Daten an):



Drücken Sie EXIT, um zum Diagnosemenü zurückzukehren.

OBDSpace TECHNOLOGY CO., LTD

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MADE IN CHINA