

Trademarks

 **ANCEL®** is a registered trademark of OBDSPACE TECHNOLOGY CO., LTD. (also called ANCEL for short) in China and other countries. All other marks are trademarks or registered trademarks of their respective holders.

Copyright Information

Copyright © ANCEL. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying and recording or otherwise, without the prior written permission.

Disclaimer of Warranties and Limitation of Liabilities

- All information, illustrations, and specifications in this manual are based on the latest information available at the time of publication.
- The right is reserved to make changes at any time without notice. ANCEL shall not be liable for any direct, special, incidental, indirect damages or any economic consequential damages (including the loss of profits) due to the use of the document.
- To take full advantage of the unit, you should be familiar with the engine.
- ANCEL shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original ANCEL Products or ANCEL Approved Products.

Safety Precautions and Warnings

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

- Never use this tool for any application other than for which it was designed.
- Never alter or modify this tool in any way. Improper operation and/or maintenance of the tool, or modification of the tool could result in serious injury or death.
- There are no user serviceable parts. Have the device serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the device is maintained. Disassembling the device will void the warranty right.

- Caution: This tool contains an internal Lithium Polymer battery. The battery can burst or explode, releasing hazardous chemicals. To reduce the risk of fire or burns, do not disassemble, crush, pierce or dispose of the battery in fire or water.
- This product is not a toy. Do not allow children to play with or near this item.
- Do not expose the device to rain or wet conditions.
- Do not place the device on any unstable surface.
- Never leave the device unattended during charging process. The device must be placed on a non-flammable surface during charging.
- Handle the device with care. If the device is dropped, check for breakage and any other conditions that may affect its operation.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.
- Keep the tool dry, clean, and free of oil, water or grease. Use a mild detergent on a clean cloth to clean the enclosure of the device when necessary.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- 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, and other objects away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area. Exhaust gases are poisonous.
- Chock 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 P (for A/T) or N (for M/T) and make sure the

parking brake is engaged.

- Keep a fire extinguisher suitable for gasoline, chemical, and electrical fires within the work area.
- Don't connect or disconnect any test equipment while the ignition is on or the engine is running.

Compliance Information

FCC ID: 2ASC7FX2000P

IC: 27610-FX2000P

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSSs and part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference; and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme aux RSSs exempts de licence d'Innovation, Sciences et Développement économique Canada et à la partie 15 des règles de la FCC. Le fonctionnement est soumis aux deux conditions suivantes:

- (1) Cet appareil ne doit pas causer d'interférences nuisibles; et
- (2) Cet appareil doit accepter toute interférence reçue, y compris les interférences susceptibles de provoquer un fonctionnement indésirable.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

The device for operation in the band 5150-5250MHz is only for indoor use.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Specific Absorption Rate (SAR) information

This product meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

RF Exposure Information and Statement

The SAR limit is 1.6 W/kg averaged over one gram of tissue. This device has also been tested against this SAR limit. This device was tested for typical body-worn operations 0mm from the body. To maintain compliance with RF exposure requirements, use accessories that maintain a 0mm separation distance between the user's body.

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 0mm must be maintained between the user's body, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

Cet appareil a été testé pour des opérations typiques portées sur le corps, pour satisfaire aux exigences relatives à l'exposition RF, une distance minimale de séparation de 0mm doit être maintenue entre le corps de l'utilisateur, y compris l'antenne. Les clips de ceinture, les étuis et les

accessoires similaires de tiers utilisés par cet appareil ne doivent pas contenir de composants métalliques. Les accessoires portés sur le corps qui ne répondent pas à ces exigences ne peuvent pas être conformes aux exigences relatives à l'exposition RF et doivent être évités. Utilisez uniquement l'antenne fournie ou une antenne approuvée.

This device is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive 2014/53/EU. The RF frequencies can be used in Europe without restriction.

Table of Contents

1 Overview	1
1.1 Vehicle Coverage.....	1
1.2 On-Board Diagnostics (OBD) II	1
1.3 OBD II Definitions	2
1.4 Diagnostic Trouble Codes (DTCs).....	4
1.5 Location of the Data Link Connector (DLC)	5
2 Product Descriptions	7
2.1 Components & Controls	7
2.2 Technical Specifications	8
2.3 Packing List	8
3 Initial Use	9
3.1 Charging the Tool	9
3.2 Getting Started.....	9
3.3 Main Menu.....	10
4 Vehicle Diagnostics	11
4.1 Connection	11
4.2 System Diagnostics	12
4.2.1 Smart Diagnostics (Auto-Detect)	12
4.2.2 Manual Diagnostics	13
4.3 OBDII Diagnostics.....	19
4.4 History	21
5 Reset	22
6 Update.....	23
7 Settings	24
7.1 Units of measurement.....	24
7.2 Automatic detection on connect	24
7.3 Brightness.....	24
7.4 Sound	24

7.5 Network	24
7.6 Time Zone	24
7.7 Language.....	24
7.8 Workshop information	24
7.9 Recovery	25
7.10 Clear Cache.....	25
7.11 Screen Capture.....	25
7.12 Data.....	25
7.12.1 Diagnostic Record	25
7.12.2 Diagnostic Report	25
7.12.3 DTC Library	25
7.12.4 DLC	26
7.12.5 Feedback.....	26
7.12.6 Image.....	26
7.12.7 Firmware Fix	26
7.12.8 User Manual	26
7.13 About	26
Warranty.....	27

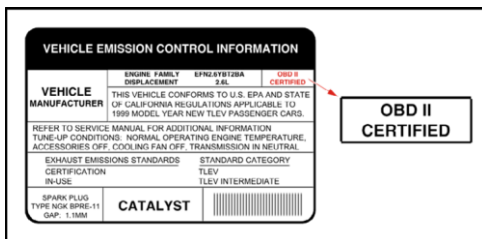
1 Overview

1.1 Vehicle Coverage

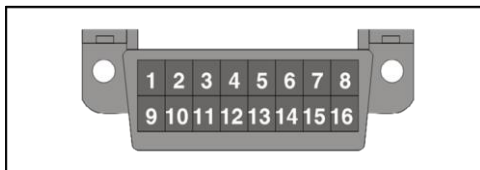
This diagnostic tool is specially designed to work with all OBD II compliant vehicles, including Controller Area Network (CAN).

A small number of 1994 and 1995 model year gasoline vehicles are OBD II compliant. To verify if a 1994 or 1995 vehicle is OBD II compliant, check the following:

1. **Vehicle Emissions Control Information (VECI) Label.** It is located under the hood or by the radiator of most vehicles. If the vehicle is OBD II compliant, the label will designate **OBD II Certified**.



2. Government regulations mandate that all OBD II compliant vehicles must have a "common" 16-pin Data Link Connector (DLC).



*Note: Some 1994 and 1995 vehicles have 16-pin connectors but are not OBD II compliant. Only those vehicles with a Vehicle Emissions Control Label stating **OBD II Certified** are OBD II compliant.

1.2 On-Board Diagnostics (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, which will offer three pieces of such valuable information:

- Whether the Malfunction Indicator Light (MIL) is commanded “on” or “off”;
- Which, if any, Diagnostic Trouble Codes (DTCs) are stored;
- Readiness Monitor status.

1.3 OBD II Definitions

The following terms and their definitions are related to OBD II systems. Read and reference this list as needed to aid in the understanding of OBD II systems.

EOBD - European On-Board Diagnostics. Essentially the same as OBD II, with the same Data Link Connector and Communication Protocols.

Communication Protocols - Allows different systems and sensors in a vehicle to communicate. There are currently five protocols:

- CAN Bus
- J1850 VPW
- ISO 9141-2
- J1850 PWM
- ISO 14230 KWP

PCM -- Powertrain Control Module. The PCM is the OBD II accepted term for the vehicle’s “on-board computer.” In addition to controlling the engine management and emissions systems, the PCM also participates in controlling the powertrain (transmission) operation. Most PCMs also have the ability to communicate with other computers on the vehicle (ABS, ride control, body, etc.).

DLC -- Data Link Connector. The 16-cavity connector on the vehicle that allows communication between the computer system and the diagnostic tool.

MIL -- Malfunction Indicator Light. The vehicle’s “Check Engine” warning light that activates when a DTC is stored.

DTC -- Diagnostic Trouble Code. A code stored in the computer system’s memory, which helps to identify the fault condition that is causing the MIL to activate.

Freeze Frame Data -- Operating conditions that are stored when a DTC is stored.

PID -- Parameter Identification Data. Data returned by the vehicle's control modules to the diagnostic tool.

Monitors -- Monitors are “diagnostic routines” programmed into the PCM. The PCM utilizes these programs to run diagnostic tests, and to monitor operation of the vehicle's emissions-related components or systems to ensure they are operating correctly and within the vehicle's manufacturer specifications.

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. Refer to the vehicle's factory service manual for specific enabling procedures.

Trip - A Trip for a particular Monitor requires that the vehicle is being driven in such a way that all the required “Enabling Criteria” for the Monitor to run and complete its diagnostic testing are met. The “Trip Drive Cycle” for a particular Monitor begins when the ignition key is turned “On.” It is successfully completed when all the “Enabling Criteria” for the Monitor to run and complete its diagnostic testing are met by the time the ignition key is turned “Off.”

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 service manual.

*Note: Do not confuse a “Trip” Drive Cycle with an OBD II Drive Cycle. A “Trip” Drive Cycle provides the “Enabling Criteria” for one specific Monitor to run and complete its diagnostic testing. An OBD II Drive Cycle must meet the “Enabling Criteria” for all Monitors on a particular vehicle to run and complete their diagnostic testing.

Warm-up Cycle - Vehicle operation after an engine off period where

engine temperature rises at least 40°F (22°C) from its temperature before starting, and reaches at least 160°F (70°C). The PCM uses warm-up cycles as a counter to automatically erase a specific code and related data from its memory. When no faults related to the original problem are detected within a specified number of warm-up cycles, the code is erased automatically.

Fuel Trim (FT) - Feedback adjustments to the base fuel schedule. Short-term fuel trim refers to dynamic or instantaneous adjustments. Long-term fuel trim refers to much more gradual adjustments to the fuel calibration schedule than short-term trim adjustments. These long-term adjustments compensate for vehicle differences and gradual changes that occur over time.

1.4 Diagnostic Trouble Codes (DTCs)

OBD II Diagnostic Trouble Codes are codes that are stored by the 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. DO NOT replace parts based only on DTCs without first consulting the vehicle's service manual for proper testing procedures for that particular system, circuit or component.

OBD II Diagnostic Trouble Codes consist of a five-digit alphanumeric code.

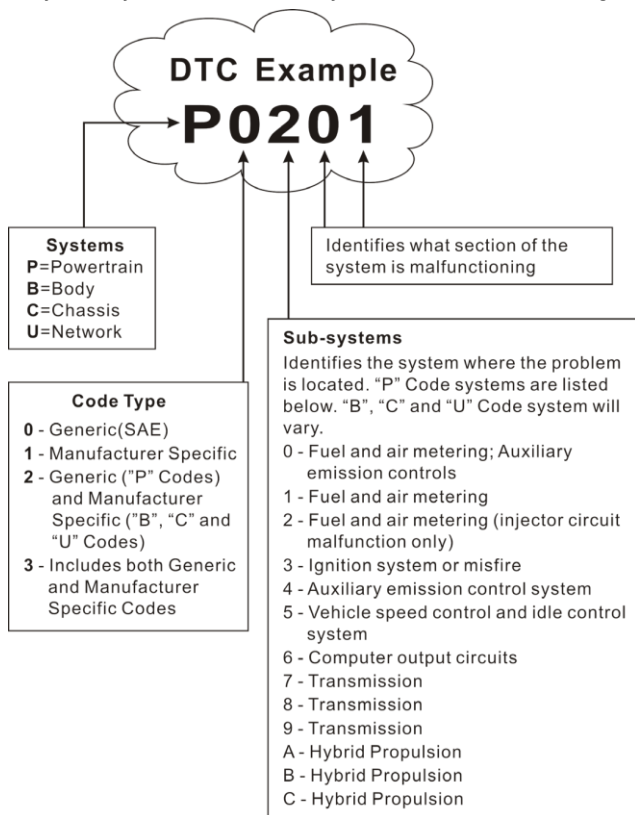
- The 1st character is a **letter** (B, C, P or U). It identifies the **main system** where the fault occurred (Body, Chassis, Powertrain, or Network).
- The 2nd character is a **numeric digit** (0 thru 3). It identifies the **type** of code (Generic or Manufacturer-Specific).

*Note: Generic DTCs are codes that are used by all vehicle manufacturers. The standards for generic DTCs, as well as their definitions, are set by the Society of Automotive Engineers (SAE).

Manufacturer-Specific DTCs are codes that are controlled by the vehicle manufacturers. The Federal Government does not require vehicle manufacturers to go beyond the standardized generic DTCs in order to comply with the new OBD II emissions standards. However, manufacturers are free to expand beyond the standardized codes to make their systems easier to diagnose.

- The 3rd character is a letter or a **numeric digit** (0 thru 9, A thru F). It identifies the specific system or sub-system where the problem is located.

- The 4th and 5th characters are **letters** or **numeric digits** (0 thru 9, A thru F). They identify the section of the system that is malfunctioning.



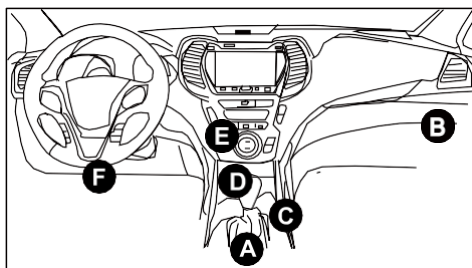
P0201 - Injector circuit malfunction, Cylinder 1

1.5 Location of the Data Link Connector (DLC)

The DLC is typically a 16-pin connector where diagnostic code readers interface with the vehicle's on-board computer. It is usually located 12 inches from the center of the instrument panel, under or around the driver's side for most vehicles. For some vehicles with special designs, the DLC location may

vary.

Refer to the following figure for location.



A- Opel, Volkswagen, Audi

B- Honda

C- Volkswagen

D- Opel, Volkswagen, Citroen

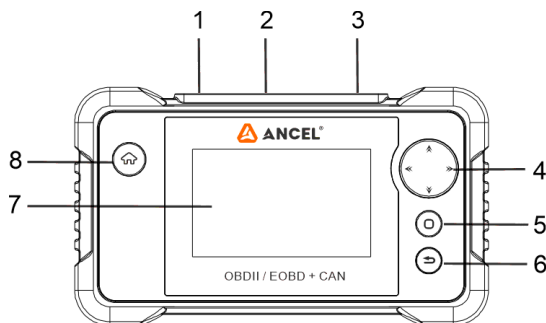
E- Changan

F- Hyundai, Daewoo, Kia, Honda, Toyota, Nissan, Mitsubishi, Renault, Opel, BMW, Mercedes-Benz, Mazda, Volkswagen, Audi, GM, Chrysler, Peugeot, Regal, Beijing Jeep, Citroen and other most popular models

If the DLC cannot be found, refer to the vehicle's service manual for the location.

2 Product Descriptions

2.1 Components & Controls



1. USB Type-C Charging Port

Connect the charging cable to charge the tool.

2. DB-15 Diagnostic Connector

Connect to the vehicle's Data Link Connector (DLC) by using the diagnostic cable.

3. Power Button

Press and hold it to turn on or off the tool; Press it to wake up or lock the screen.

4. Selection Buttons

Move the cursor up/down or turn pages up/down.

5. OK Button

Confirm a selection (or an action) from a menu list.

6. ↶ Back Button

Exit the current screen or return to the previous screen.

7. Touch Screen

Indicate the test results.

8. 🏠 HOME Button

Navigate to the Main Menu screen.

2.2 Technical Specifications

- Screen: 4-inch touch screen with a resolution of 480 x 800 pixels
- CPU: 4-core 1.5GHz processor
- RAM: 2 GB
- Storage: 32 GB
- OBDII input voltage range: 9~18V
- Charging via:
 - DC 5V 1.2A charging cable, or
 - Diagnostic cable through connection to vehicle's DLC
- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Storage temperature: -20°C to 70°C (-4°F to 158°F)

*Note: The operating temperature refers to the temperature at which the scan tool works normally in non-charging status.

2.3 Packing List

The following packing list is for reference only. For different destinations, the accessories may vary. For details, consult your local dealer or check the packing list supplied with the tool.

1. Diagnostic tool x 1
2. OBD II diagnostic cable x 1
3. Charging cable x 1
4. User manual x 1
5. Quick start guide x 1
6. GPSR safety warning x 1
7. Carrying bag x 1

3 Initial Use

3.1 Charging the Tool

There are two charging methods available:

Via Charging Cable: Plug one end of the included charging cable into the Type-C charging port of the tool, and the other end to the external power supply device.

Via Diagnostic Cable: Insert one end of the diagnostic cable into the DB-15 connector of the tool, and the other end to the vehicle's DLC.

Once the charging LED illuminates solid green, it indicates that the battery is fully charged.

3.2 Getting Started

If it is the first time you have used this tool, you need to make some system settings.

1. Press the power button to power it on.
2. The screen displays a welcome page. Tap **Start** to go to next step.
3. Choose the desired system language, and tap **Next step**.
4. Choose the desired time zone, and tap **Next step** to enter the WLAN setup screen.
5. Slide the switch to ON, the system starts searching for all available wireless LANs. Choose the desired WLAN access point / network,
 - If the selected network is open, the tool will connect to the network directly.
 - If the selected network is encrypted, you have to enter the right security password.
6. After the network connection is done, tap **Next step** to configure workshop information. Input the required information, and tap **Next step** to go to next step.

*Note: Once the workshop information has been configured, it will automatically be added to the report every time you generate a report successfully.

7. Carefully read all terms and conditions of the user agreement, check the box before the **Agree to all the above terms**, and tap **OK** to finish the sign-up process and navigate to Main Menu.

3.3 Main Menu

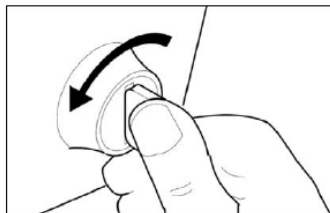
The main menu screen includes the following function modules:

Diagnostics	Configure the tool to operate as a professional diagnostic tool.
OBD II	This option presents a quick way to check for DTCs, isolate the cause of the illuminated Malfunction Indicator Lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emission-related.
Reset	Offer coding, reset, relearn and more service functions, to help vehicles get back to functional status after repair or replacement.
Update	Update vehicle diagnostic software and APK. *Note: This function requires a stable network connection.
Settings	Allow to manage data and make some system settings, including network setup, workshop information, brightness, etc.

4 Vehicle Diagnostics

4.1 Connection

- 1). Turn the ignition off.



- 2). Locate the vehicle's 16-pin Data Link Connector (DLC). Refer to Chapter 1.5.
- 3). Plug one end of the diagnostic cable into the vehicle's DLC, and the other end to the DB-15 diagnostic connector of the tool, and then tighten the captive screws.



***Notes:**

- A plastic DLC cover may be found for some vehicles and you need to remove it before plugging the diagnostic cable.
- The cable connector is keyed and will only fit one way. If you have problems connecting the cable connector to the DLC, rotate the connector 180° and try again.

- 4). Turn the ignition on. The engine can be off or running.

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

- 5). Press the power button for several seconds to turn the tool on and enter the Main Menu.

4.2 System Diagnostics

This function is specifically designed to diagnose electronic control systems of a single vehicle model. Four vehicle systems with basic diagnostic functions are supported.

*Notes:

- All software is updated periodically. It is recommended to update and install the latest software for the best service, functions and experience.
- The pre-installed diagnostic software on the tool is free to use and update.

4.2.1 Smart Diagnostics (Auto-Detect)

This function allows you to quickly access the electronic control systems of the vehicle via decoding the Vehicle Identification Number (VIN), without manual step-by-step menu selection.

After connection, turn the ignition key on and the system enters auto-detect mode.

*Notes:

- Ensure that the **Automatic detection on connect** in **Settings** is set to ON. Alternatively, you can also tap **Diagnostics -> AutoDetect** to start the smart diagnostics manually if the **Automatic detection on connect** is OFF.
 - A highly stable and solid network connection is recommended for successful VIN access.
- A. Once the system successfully obtains the VIN information of the currently identified vehicle, confirm the VIN information and tap **OK** to start diagnosing all available systems. After the diagnosis is completed, a diagnostic report will be automatically generated.
 - B. If the tool failed to access the VIN information, the following screen will appear:



Input the VIN, and tap **OK**, the system will decode the VIN information automatically, and then proceed to the smart diagnostic procedure if the VIN is obtained. Otherwise, you can perform manual diagnostics. Refer to Chapter 4.2.2 for details.

*Notes:

- The most recognizable location for this number is in the top left corner on the vehicle's dashboard. Other locations include the driver's door or post, and the firewall under the hood.
- In general, the VIN is a 17-character string of uppercase letters and numbers without intervening spaces or the letters Q, I, and O; these are omitted to avoid confusion with the numerals 0 and 1.

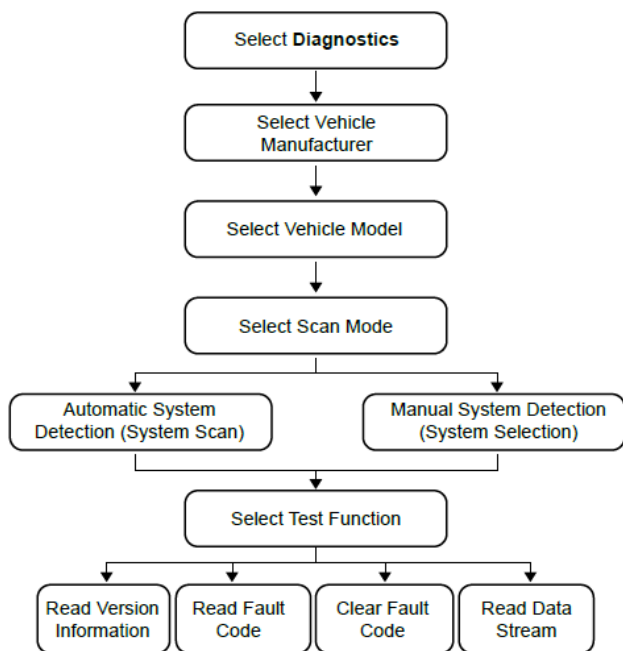
4.2.2 Manual Diagnostics

If the tool cannot obtain or analyze the VIN information, you can also perform vehicle diagnosis manually. In this mode, you need to execute the menu-driven command and then follow the on-screen instructions to proceed.

*Notes:

- Before vehicle diagnostics, make sure the corresponding vehicle manufacturer software has been installed in your tool.
- The diagnostic menu may vary by the vehicle's make, model and year.

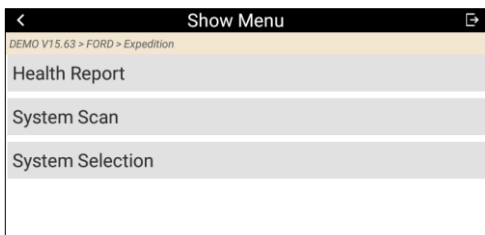
Refer to the flowchart illustrated as below to diagnose a vehicle manually:



The following diagnostic process takes DEMO as an example to demonstrate how to diagnose a vehicle. All screens in this section are for reference only. The actual testing screen may vary for each vehicle being tested.

Perform the following steps:

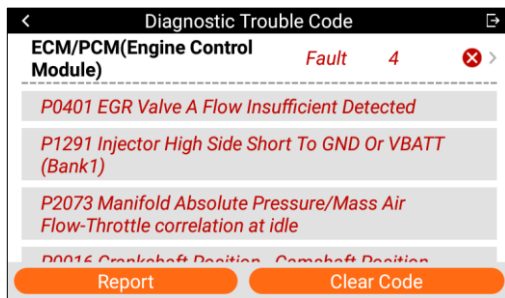
- 1). Tap the diagnostic software **DEMO**, and the vehicle version information screen appears.
- 2). Tap **OK** to select the vehicle model. Take **FORD** example.
- 3). Select the desired test item to proceed.



4.2.2.1 Health Report (Quick Test)

This function varies from vehicle to vehicle. It enables you to quickly access all the electronic control units of the vehicle and generate a detailed report about vehicle health.

Tap **Health Report** on the test item selection screen, the system starts scanning the ECUs. Once the scanning is complete, the following screen will appear:



In above figure, the tested systems with fault codes are marked with a cross in red circle and the normally working systems are marked with a tick in green circle.

On-Screen Buttons:

Report: Tap it to save the diagnostic result as a diagnostic report. All diagnostic reports can be accessed from **Settings -> Data -> Diagnostic Report**.

Clear Code: Tap it to clear the existing diagnostic trouble codes.

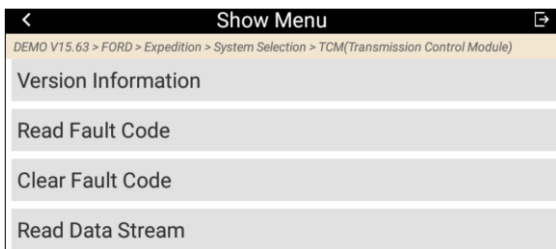
4.2.2.2 System Scan

This option allows you to quickly scan which systems are installed on the vehicle. After the scanning is completed, tap the system to be tested, and the test function screen is displayed. For details of the test functions, refer to Chapter 4.2.2.3 System Selection.

4.2.2.3 System Selection

This option allows you to manually select the test system and function step by step.

Tap **System Selection** on the test item selection screen, and tap the desired system (take **TCM** for example) to enter the test function selection screen.



*Note: Different vehicle and system may have different diagnostic menus.

A. Version Information

This function is used to read the version information of the system, such as the module information, ECU software number, ECU hardware number, etc.

B. Read Fault Code

This function displays the detailed information of DTC records retrieved from the vehicle's control system.

Tap **Read Fault Code** on the test function selection screen; the screen will display the diagnostic result.

*Note: Retrieving and using DTCs for troubleshooting vehicle operation is only one part of an overall diagnostic strategy. Never replace a part based only on the DTC definition. Each DTC has a set of testing procedures, instructions and flow charts

that must be followed to confirm the location of the problem. This information can be found in the vehicle's service manual.

On-Screen Buttons:

Help: Tap it to view the DTC help information.

Repair Info: Tap it to search for more information about the current DTC online.

Report: To save the current data in text format. All diagnostic reports can be accessed from **Settings -> Data -> Diagnostic Report**.

C. Clear Fault Code

After reading the retrieved codes from the vehicle and certain repairs have been carried out, you can use this function to erase the codes from the vehicle. Before performing this function, make sure the vehicle's ignition key is in the ON position with the engine off.

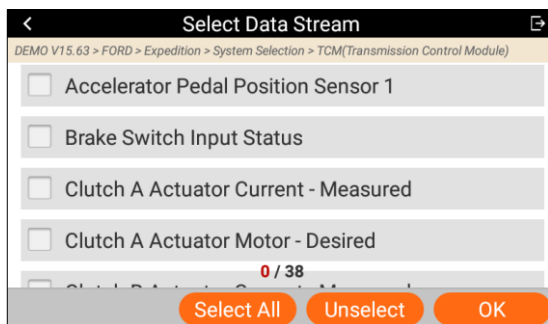
*Notes:

- If you plan to take the vehicle to a Service Center for repair, DO NOT erase the codes from the vehicle's computer. If data is erased, valuable information that might help the technician troubleshoot the problem will also be erased.
- Clearing DTCs does not solve the underlying problems that triggered the codes. If appropriate repairs are not made to fix the problems, the codes will reappear, triggering the check engine light as soon as the problems causing the DTCs manifest themselves.

D. Read Data Stream

This option retrieves and displays live data and parameters from the vehicle's ECU.

Tap **Read Data Stream** on the test function selection screen; the system will display data stream items.



On-Screen Buttons:

Select All: Tap it to select all items of the current page. To select certain data stream item, just check the box before the item name.

Unselect: Tap it to deselect all data stream items.

OK: Tap it to confirm and jump to the next step.

After selecting the desired items, tap **OK** to enter the data stream reading page.

Data Stream		
DEMO V15.63 > FORD > Expedition > System Selection > TCM(Transmission Control Module)		
Name	Value	
Accelerator Pedal Position Sensor 1	25.88 %	
Brake Switch Input Status	OFF	
Clutch A Actuator Current - Measured	7.09 A	
Combine Report Record		

*Note: If the value of the data stream item is out of the range of the standard (reference) value, the value will display in red. If it complies with the reference value, it displays in blue (normal mode).

There are 3 types of display modes available for data viewing, allowing you to view various types of parameters in the most suitable way.

- Value – This is the default mode which displays the parameters in texts and shows in list format.
- Graph – Displays the parameters in waveform graphs.
- Combine – This option is mostly used in graph merging for data comparison. In this case, different items are marked in different colors.

On-Screen Buttons:



: Tap it to view the waveform graph of the current data stream item.

Combine: Tap it to merge values in waveforms for easier comparisons.

Report: Tap it to save the current data as a diagnostic report. All diagnostic reports can be accessed from **Settings -> Data -> Diagnostic Report**.

Record: Tap it to start recording diagnostic data. Recorded live data can serve as valuable information to help you in troubleshooting of vehicle problems. All diagnostic records can be accessed from **Settings -> Data -> Diagnostic Record**.

4.3 OBDII Diagnostics

This option presents a quick way to check for DTCs, isolate the cause of the illuminated Malfunction Indicator Lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emission-related.

After the tool is properly connected to the vehicle's DLC, tap **OBD II** on the Main Menu. The tool will automatically start a check of the vehicle's computer to determine which type of communication protocol it is using. When the tool identifies the computer's communication protocol, a communication link is established and then the screen will display the Monitor Status.

Tap **OK**, and the following function list appears.

1. Read I/M Readiness

This function checks whether or not the various emissions-related systems on the vehicle are operating properly, and are ready for Inspection and Maintenance testing.

It can also be used to check the Monitor Run Status, and to confirm if the

repair of a vehicle fault has been performed correctly.

2. Read Live Data

This function retrieves and displays live data and parameters from the vehicle's ECU.

3. Read Freeze Frame

This function takes the snapshot of the operating conditions when an emission-related fault occurs.

4. Read Fault Code

This function can identify which section of the emission control system has malfunctioned.

5. Clear Fault Code

This function erases the codes from the vehicle, after retrieving codes from the vehicle and certain repairs have been carried out.

Make sure the vehicle's ignition key is in the ON position with the engine off before the operation.

6. Test Results: On-Board Monitoring Test

This function retrieves test results for emission-related powertrain components and systems that are not continuously monitored. The test's availability is determined by the vehicle manufacturer.

7. Control Operation of On-Board Component/System

This function is used to access vehicle-specific subsystem and component tests. Available tests vary by vehicle manufacturer, year, and model.

8. Read Vehicle Information

This function retrieves a list of information (provided by the vehicle manufacturer) from the vehicle's on-board computer.

This information may include: Vehicle Identification Number (VIN), Calibration ID (CID) and Calibration Verification Number (CVN).

9. EU OBFCM

The On-Board Fuel Consumption Monitoring (OBFCM) data, which collects fuel and energy consumption data of the vehicle to check whether the CO₂

emissions and fuel or energy consumption comply with EU regulations.

4.4 History

Generally, once a vehicle diagnosis is performed, the tool will record every detail of the diagnostic session. The **History** function provides direct access to the previously tested vehicles. You can resume from the last operation rather than starting a new test.

Tap **History** on **Diagnostics** screen, and all diagnostic records will be listed on the screen in date sequence.

- Tap certain vehicle model to view the details of the last diagnostic report.
- To delete certain diagnostic history, select it and then tap **Delete**. To delete all historical records, tap **Select All** and then tap **Delete**.

Tap **Quick access** to directly navigate to the function selection page of last diagnostic operation. Choose the desire option to proceed.

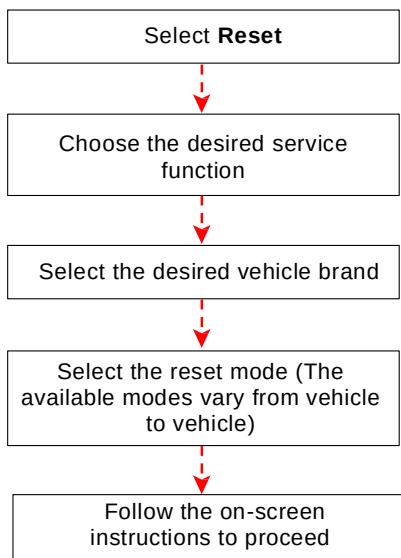
5 Reset

It offers coding, reset, relearn and more service functions, to help vehicles get back to functional status after repair or replacement. Available tests vary by vehicle manufacturer, year, and model.

Due to continuing improvements, available service functions are subject to change without prior written notice. To enjoy more service functions, it is recommended to check for updates on a regular basis.

There are two methods to perform reset operations: Manual Reset or Auto Reset. Auto Reset follows the principle of sending command from the tool to vehicle's ECU to do resetting. While using Manual Reset, just follow the on-screen instructions to select appropriate execution options, enter correct data or values, and perform necessary actions, the system will guide you through the complete performance for various service operations.

Follow the flowchart shown as below to perform resetting.



6 Update

This function allows you to update the diagnostic software and APK. All the software is updated periodically. It is recommended to update and install the latest software version for the best service, functions and experience.

The pre-installed diagnostic software is free to use and update.

Tap **Update** on the Main Menu to enter the update center.

*Note: Software update requires a stable network connection.

Select the target software, and tap **Update** to start downloading. It may take several minutes to finish it. Once downloading is finished, the software packages will be installed automatically.

7 Settings

This module allows you manage data and make some system settings to your preference.

7.1 Units of measurement

This option can set the measurement unit. Both Metric System and Imperial System are available.

7.2 Automatic detection on connect

This option enables you to determine whether to start an automatic VIN detection once the tool is properly connected to the vehicle's DLC.

7.3 Brightness

This option allows you to set the standby time and screen brightness.

7.4 Sound

This option allows you to turn on or off the touch sound.

7.5 Network

The built-in WLAN module allows you to register the tool, update diagnostic software & APK, and send emails on a wireless network.

7.6 Time Zone

This option allows you to set the time zone.

7.7 Language

The tool supports multiple languages. You can use this option to set the preferred language.

7.8 Workshop information

This option allows you to configure the workshop information.

***Note:** Once the workshop information has been configured, it will automatically be added to the report every time you generate a report successfully.

7.9 Recovery

This option can reset this tool to the default factory settings.

Warning: Resetting may cause data loss. Be careful to perform this operation.

7.10 Clear Cache

This option allows you to clear some cache files and free up the storage space.

7.11 Screen Capture

This option can set the Screen Capture icon to be shown or not on the screen. When set as ON, a screenshot icon will float on upper right corner of the screen. Tap it to capture the screen. All screenshots are saved under **Settings -> Data -> Image**.

7.12 Data

7.12.1 Diagnostic Record

This module allows you to view the running parameters or waveform graphs that are recorded during diagnostics.

Tap **Diagnostic Record** to enter and select the desired data stream items and tap **OK** to jump to the playback page.

On-screen Buttons:

Graph – Display the parameters in waveform graphs.

Combine – Merge graphs for data comparison. Items are marked in different colors.

Value (default) – Display the parameters as texts in a list format.

Auto Playback – Automatic playback of the selected data stream items.

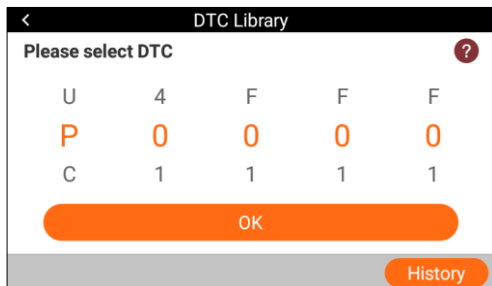
7.12.2 Diagnostic Report

This item allows you to delete the diagnostic software that is not frequently used.

7.12.3 DTC Library

This option allows you to retrieve the detailed descriptions of certain DTC

from the DTC database.



Swipe upwards/downwards to alter the value, then press the **OK** button, and the screen will display the definition of the DTC.

7.12.4 DLC

This option helps you to find the location of the vehicle's DLC.

7.12.5 Feedback

This module allows you to send the feedback of your diagnostic problems to us for further analysis and troubleshooting.

7.12.6 Image

This module allows you to manage or share the screenshots.

7.12.7 Firmware Fix

Use this module to upgrade and fix diagnostic firmware. During fixing, do not cut power or switch to other screens.

7.12.8 User Manual

A detailed operation manual is integrated in the tool for quick reference.

7.13 About

This option displays the hardware configuration information of the tool and license agreement.

Warranty

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

ANCEL electronic product is warranted against defects in materials and workmanship for one year (12 months) from 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 shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by ANCEL in accordance with procedures established by ANCEL. No agent, employee, or representative of ANCEL has any authority to bind ANCEL to any affirmation, representation, or warranty concerning ANCEL automotive meters, except as stated herein.

Order Information

Replaceable and optional parts can be ordered directly from your ANCEL authorized tool supplier. Your order should include the following information:

1. Quantity
2. Part number
3. Item description

Customer Service

If you have any questions on the operation of the unit, contact your local dealer, or contact OBDSPACE TECHNOLOGY CO., LTD.:

Phone: +86 755 8175 1202

Email: sales@anceltech.com

To resolve your problems quickly and efficiently, clearly indicate the **Serial Number** of your product when giving issue feedback.