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EN

THINKOBD 500

EN

Safety Precautions and Warnings

To avoid personal injury, property loss, or accidental damage to the product, read all of the information in this section before using the product.

Data and Software Protection

Do not delete unknown files or change the names of files or directories created by others, otherwise the device software may not run.

Do not disassemble or modify the equipment

The device is a sealed device with no user-serviceable parts inside. All internal repairs must be performed by an authorized maintenance organization or qualified technician. Attempts to disassemble or modify the device will void the warranty.

Data and Software Protection

Do not delete unknown files or change the names of files or directories created by others, otherwise the device software may not run.

Note: Access to network resources makes the device vulnerable to computer viruses, hackers, spyware, and other malicious behaviors, and may damage the device, software, or data. To make ensure that you are using firewalls, anti-virus software and anti-spyware software to provide adequate protection for your computer and keep these software up to date.

IC Requirement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation,Science and Economic Development Canada' s licence-exempt RSS(s). Operation is subject to the following two conditions:
(1)This device may not cause interference.
(2)This device must accept any interference,including interference that may cause undesired operation of the device.
L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation,Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L 'exploitation est autorisée aux deux conditions suivantes :
1)L'appareil ne doit pas produire de brouillage;
2)L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC WARNING

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. L'utilisateur final doit suivre les instructions spécifiques pour satisfaire les normes. Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou transmetteur.
Le dispositif portatif est conçu pour répondre aux exigences d'exposition aux ondes radio établie par ledéveloppement énergétique DURABLE. Ces exigences un SAR limite de 1,6 W/kg en moyenne pour un gramme de tissu. La valeur SAR la 0.733W/kg plus élevée signalée en vertu de cette norme lors de la certification de produit à utiliser lorsqu'il est correctement porté sur le corps.

FCC Requirement

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 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.
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.

FCC WARNING

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
The mobile device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 0.733 W/kg.
For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions a minimum of 15mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

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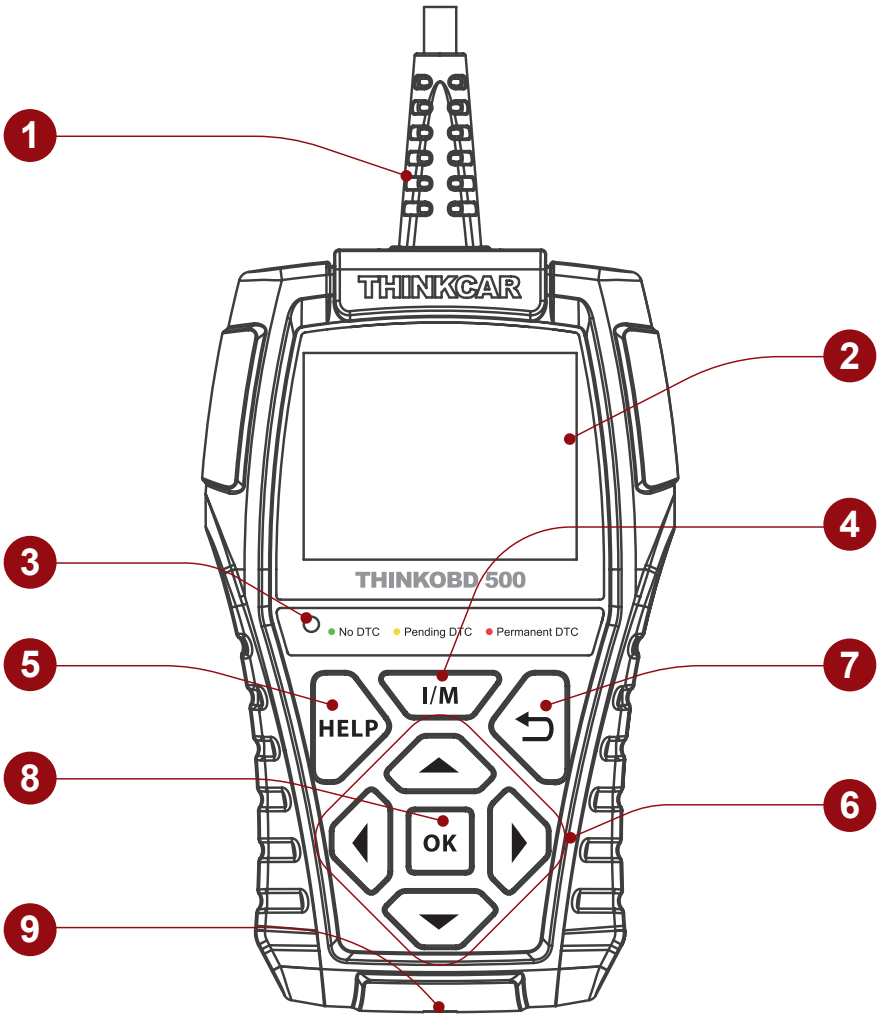
1. Product Descriptions



(1) Diagnostic Cable: Standard OBDII diagnostic cable
(2) LCD Display: 2.8 inch display (240*320)
(3) Code severity alert: Three status indicators
(4) I/M Button: Quickly enter "I/M READINESS" to view the data flow
(5) Help: About OBD instructions, about data flow instructions, about printing instructions, about exhaust ready instructions
(6) Up, down, left and right keys: used to select interactive functions
(7) Return key: Return to upper function
(8) OK Return: Confirm button
(9) Mini usb: Used to upgrade software and print functions

Code severity alert

Code severity reminder: By reading the code, you can quickly determine whether your vehicle needs to be repaired immediately, or whether you can wait for you to go home and repair it yourself.
LED indicator warning: There are three LED indicators on the barcode reader: NO DTC: Your vehicle is in good condition. Pending DTC: You need to solve the problem and clear the code. Permanent DTC: There is a serious problem with your vehicle. If these problems cannot be resolved, you may fail the emission test.

Technical Specifications

Display: 2.8 inch display
Working Environment: 0 to 50℃ (32 to 122°F)
Storage Environment: -20 to 60℃ (-4 to 140°F)
Power Supply: 9-18V vehicle power
Supported Protocols: ISO9141, KWP2000 (ISO 14230), J1850PWM,J1850VPM and CAN OBDII protocol

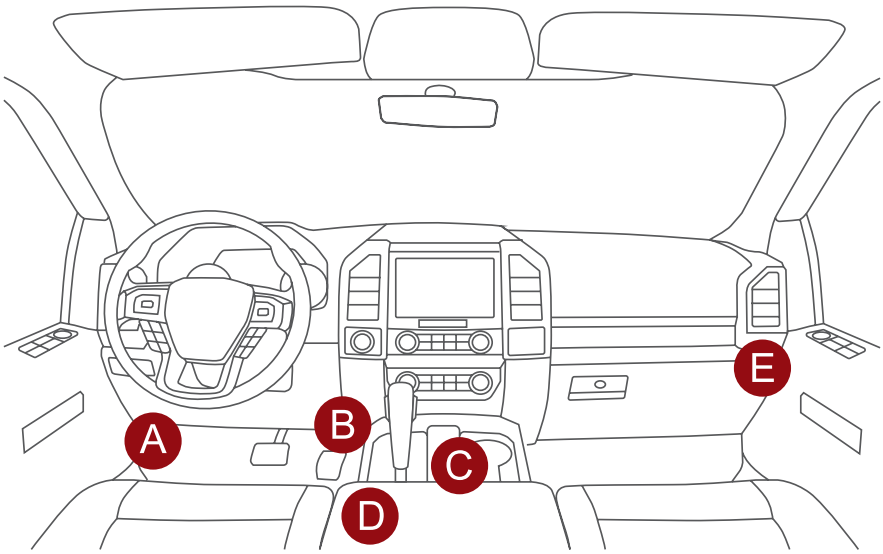
Function Description

1. Compatible with vehicles after 1966 and vehicles with updated OBDII protocol
2. Read & clear DTCS, check and turn off engine light
3. Live data stream in graph for an effective troubleshooting
4. O2 sensor, on-board monitor & EVAP system for emission inspection
5. Built-in DTC lookup library, no need to search for DTC definitions
6. View VIN, CID and CVN, quickly read vehicle identification
7. Supports 8 Languages including English, French, Spanish, German, Russian, Japanese, Italian and Portuguese
8. Prints diagnostic data report immediately for your inspection
9. Compatible with ISO9141, KWP2000, J1850PWM, J1850VWM, J1850VPW and can OBD II protocol

2. How To Use

2.1 Data Link Connector (DLC) Location

The DLC (Data Link Connector or Diagnostic Link Connector) is typically a 16pin connector where diagnostic code readers interface with the vehicle's onboard 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 Data Link Connector is not located under dashboard, a label should be there telling 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.



Note: Turn on the ignition of the vehicle, the voltage range of the device should be 9-18V, and the throttle should be in the closed position.

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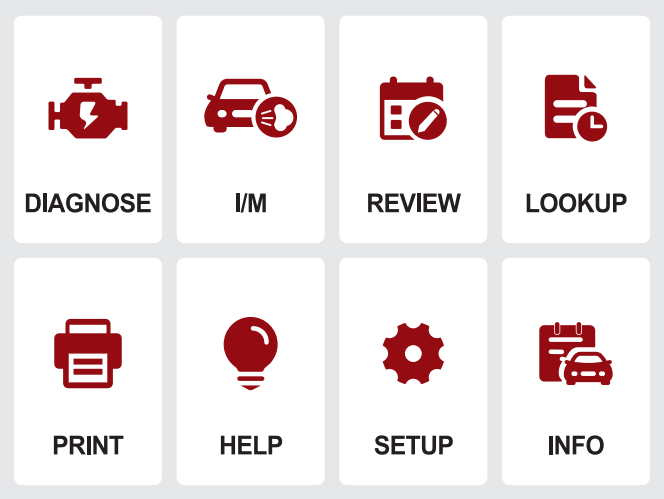
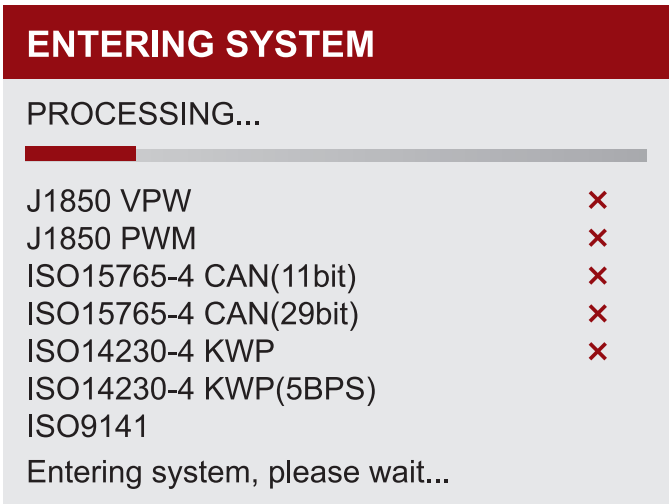
2.2 Application Overview

When the code reader boots up, the Home screen opens. This screen shows all applications loaded on the unit. Following applications are preloaded into the code reader:

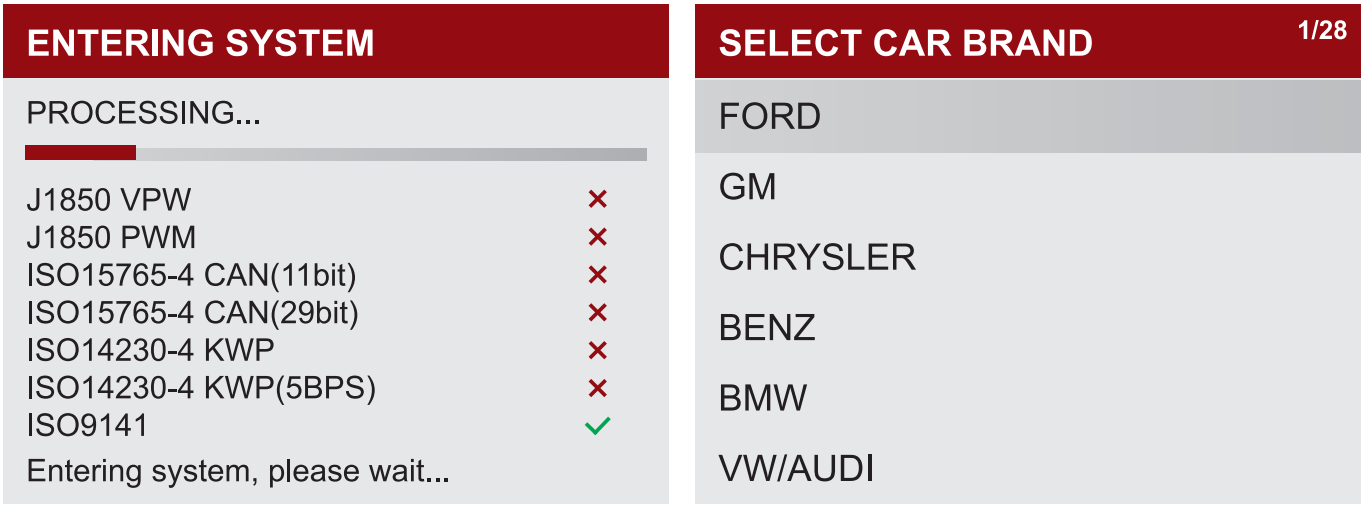
- Diagnostics : leads to OBDII screens for all 9 generic OBD system tests.
- IM Readiness:option allows to view a snapshot of the operations for the emission system on OBDII/EOBD vehicles.
- Lookup : leads to screens for diagnostic trouble code lookup.
- Review Data : leads to screens for access to tested data files.
- Print : leads to screens for access to printing function
- Help : You will find the device OBD function and system instructions
- Setup :leads to screens for adjusting default settings to meet your own preference when using the code reader.
- Info : leads to screen that shows information about the code reader.

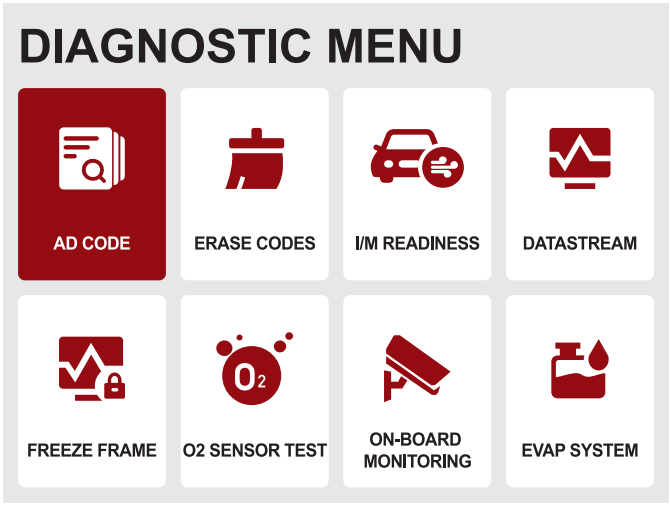


Note: Not all function options of the protocol listed in this device are applicable to all vehicles. The available options may vary depending on the year, model, and make of the vehicle tested. If this option is not applicable to the vehicle under test, "X" will be displayed. When the barcode reader is connected to the vehicle, it will automatically check the status of the I/M monitor and give a summary report on the display, as shown in the figure below.

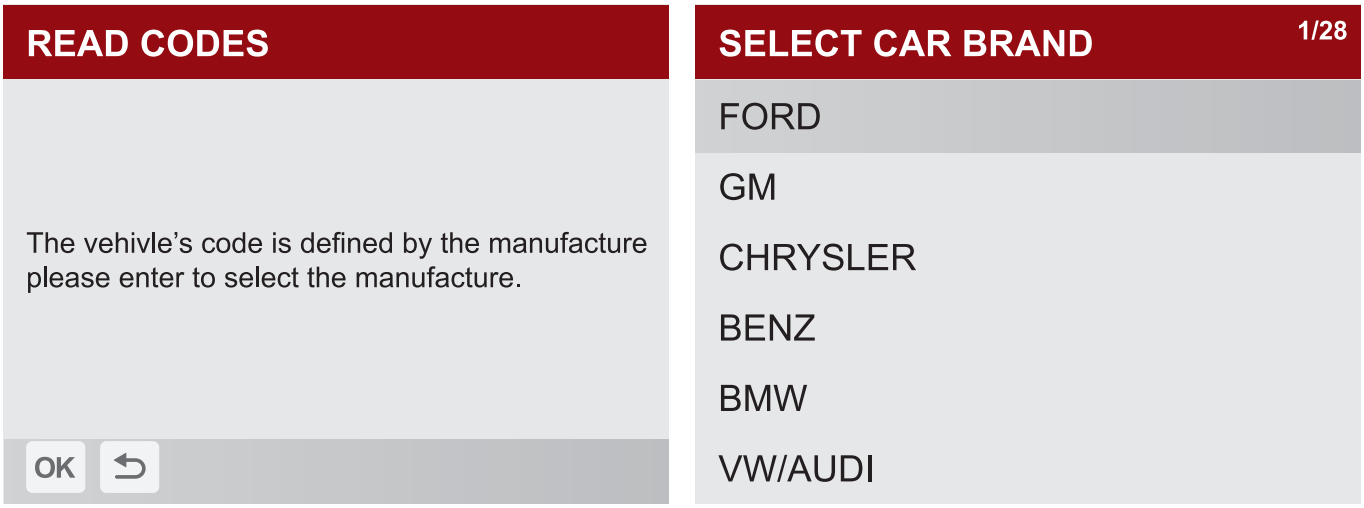


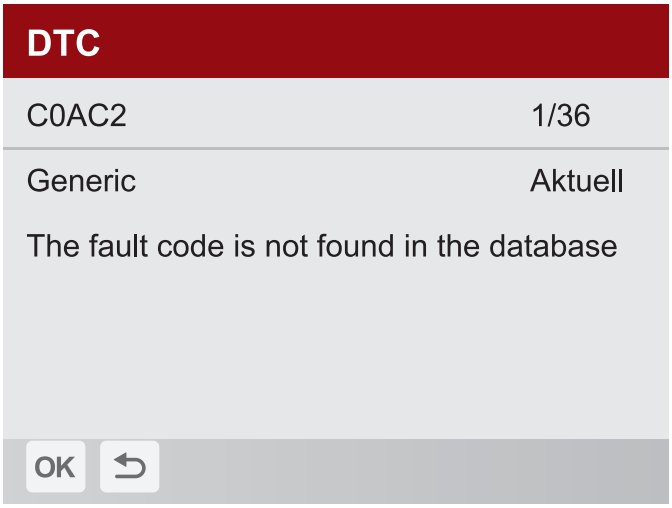
1.1.1 Select "Diagnosis", click "OK" to enter the system diagnosis, select the vehicle type, and enter the diagnosis function list.



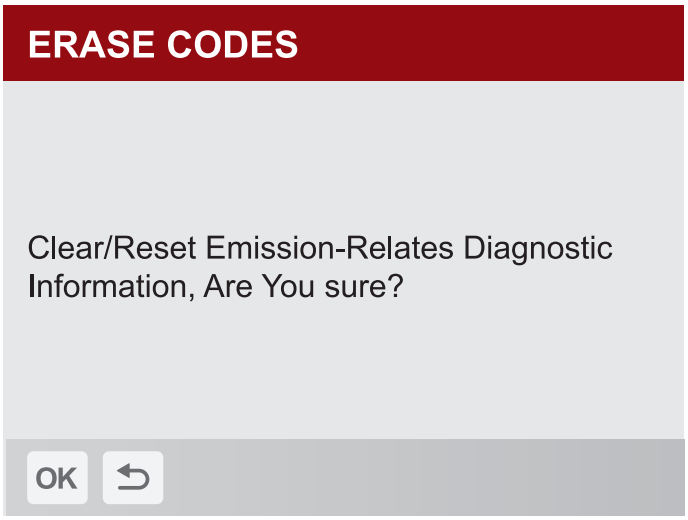


1.1.2 Select "READ CODE" and click "OK" to select vehicle type to view DTC diagnostic data.



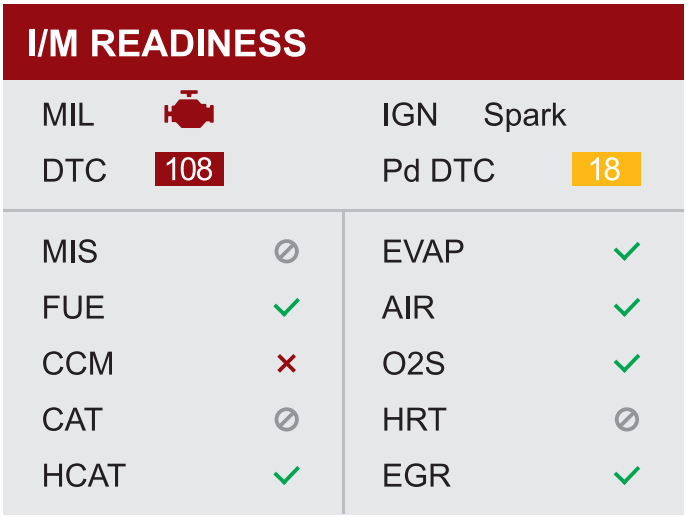


1.2 Select "ERASE CODES" to clear the fault code



Note: Erase Codes menu lets you to clear all current and stored DTCs from the control module. Also it erases all temporary ECU information, including freeze frame. So make sure that the selected system are completely checked and serviced by technicians and no vital information will be lost before clearing codes.

1.3 Select" I/M READINESS" and click "OK" to view the I/M data flow.



NOTE :
- To review I/M Readiness status, make sure that the ignition key is switched to ON with the engine off.
- Not all monitors are supported by all vehicles.

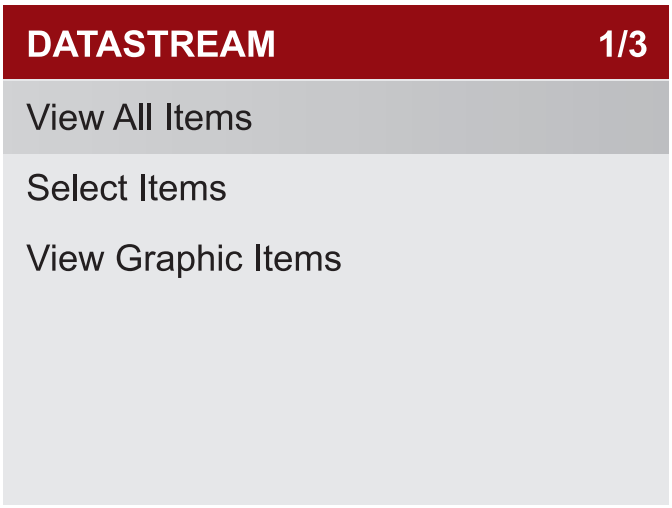
I/M Readiness is a useful function used to check if all monitors are OK or N/A. The vehicle's computer performs tests on the emission system during normal driving conditions. After a specific amount of drive time (each monitor has specific driving conditions and time required), the computer's monitors decide if the vehicles emission system is working correctly. When the monitor's status is:

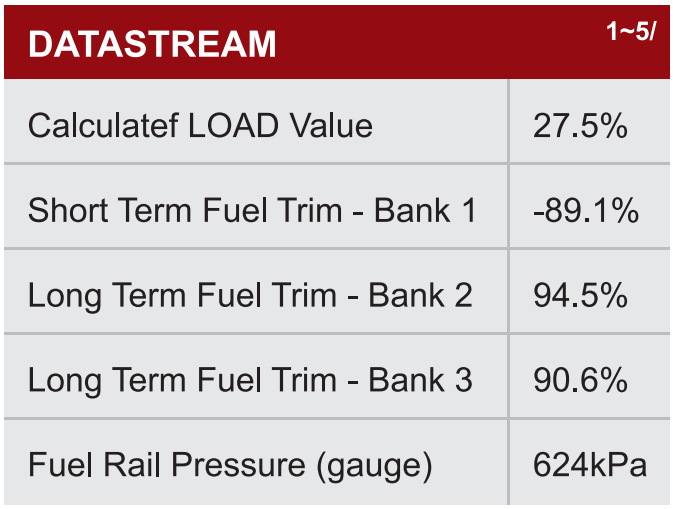
- OK - vehicle was driven enough to complete the monitor.
- INC (Incomplete) - vehicle was not driven enough to complete the monitor.
- N/A (Not Applicable) - vehicle does not support that monitor. There are two types of I/M Readiness tests:
- Since DTCs Cleared - shows status of the monitors since the DTCs were last cleared.
- This Drive Cycle - shows status of monitors since the start of the current drive cycle. Below is a list of abbreviations and names of OBD II monitors supported by the code reader.

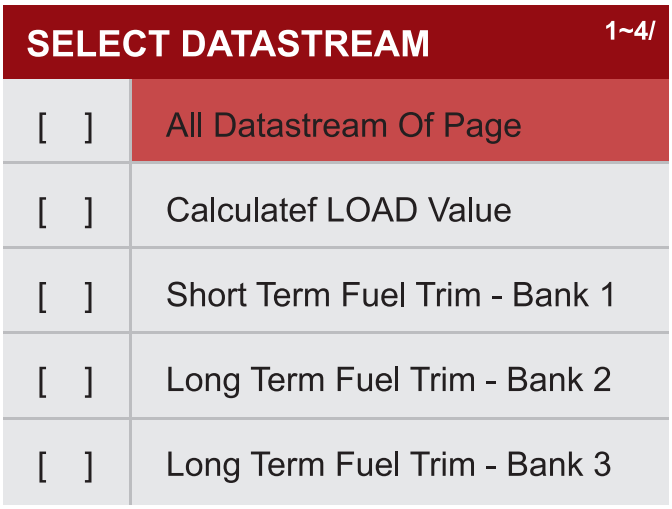
There are two ways to retrieve I/M Readiness Status data:

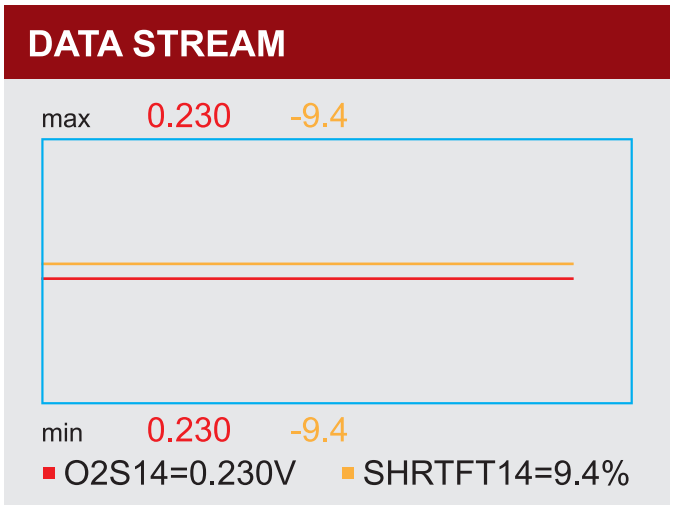
- One-click I/M readiness key
- Typical way: select I/M Readiness from Diagnostic Menu

1.4 Select "DATA STREAM" View all data streams,Next click "OK", and finally you can view the graphics data flow.









Tips: Use the BACK key to return to diagnostic menu.

1.5 Select "FREEZE FRAME" and click "OK" to view the freeze frame data stream.

FREEZE FRAME	1~5/
DTC that caused required freeze frame data storage	U2E8C
Fuel system 1 status	--
Fuel system 1 status	--
Engine Coolant Temperature	202°C
Long Term Fuel Trim - Bank 1	15.6%

Freeze Frame menu displays freeze frame data, a snapshot of critical vehicle operating conditions automatically recorded by the on-board computer at the time of the DTC set. It is a good function to help determine what caused the fault.

1.6 Select "O2 SENSOR TEST" and click "OK" to view O2 Sensor data Stream.

SELECT O2 SENSOR	1/5
Bank1-Sensor1	
Bank1-Sensor2	
Bank2-Sensor1	
Bank2-Sensor3	
Bank2-Sensor4	

Bank1-Sensor1	1/10
Rich to lean sensor(V)	
Low sensor voltage	
High sensor voltage	
Rich to lean sensor time	
Minmum sensor voltage	
Maximum sensor voltage	

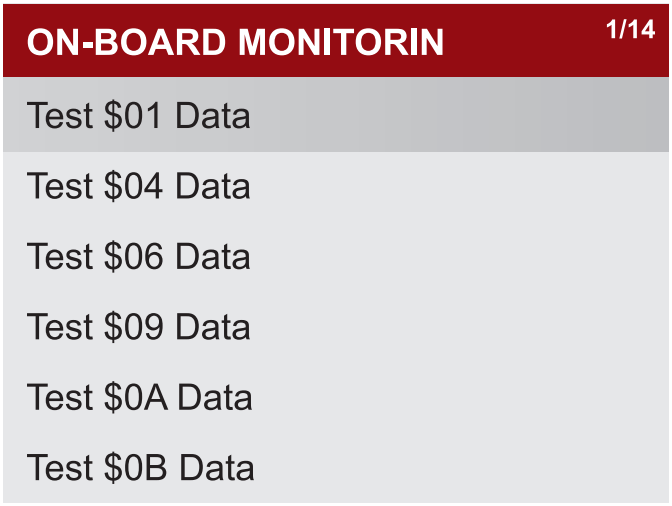
Test $01 Data	
Test ID	$ 01
Test Value	0.895
Minimum Limit	0.000
Maximum Limit	1.275
Status	Pass

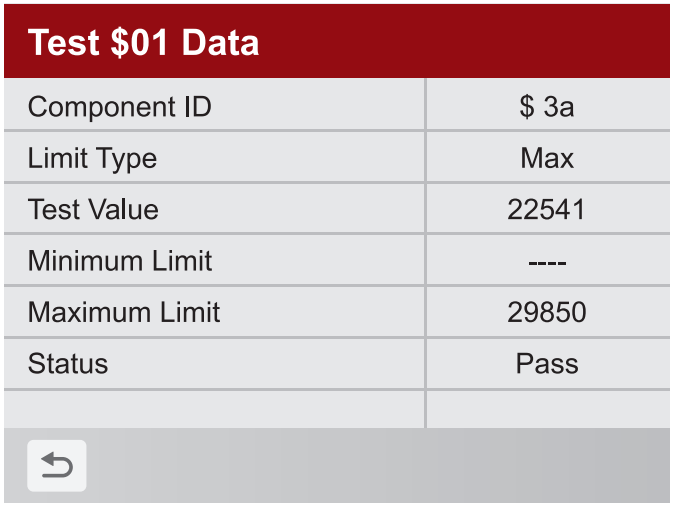
OBD II regulations require certain vehicles monitor and test oxygen (O2) sensors to isolate fuel and emissions related faults. The O2 Monitor Test function is used to retrieve completed O2 sensors monitor test results.

The O2 Monitor Test is not an on-demand test. O2 sensors are not tested when selected via the menu but tested when engine operating conditions are within specified limits.

Tips: Different car models have detected different numbers of oxygen sensors, please check according to the required sensors.

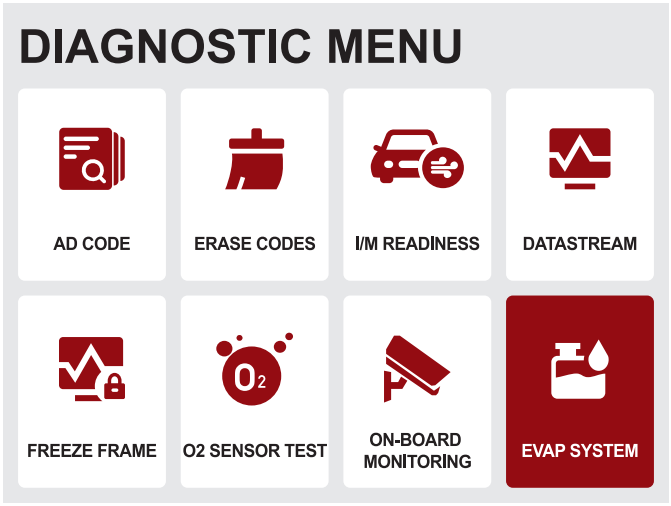
1.7 Select "ON-BOARD MONITORING" and click "OK" to view On-Board Monitor data streams.

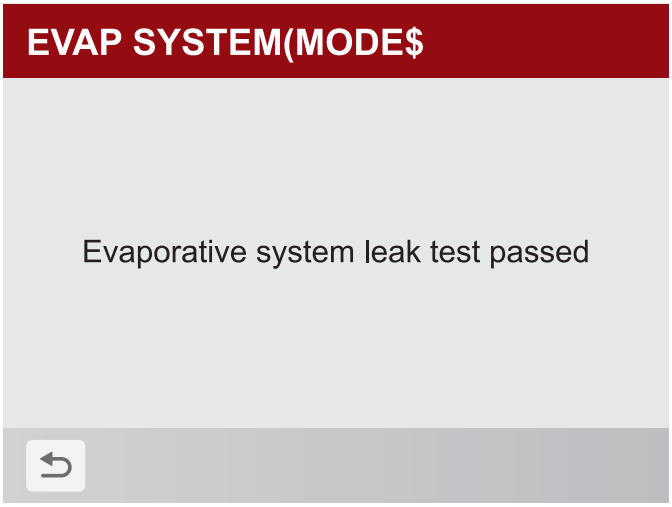


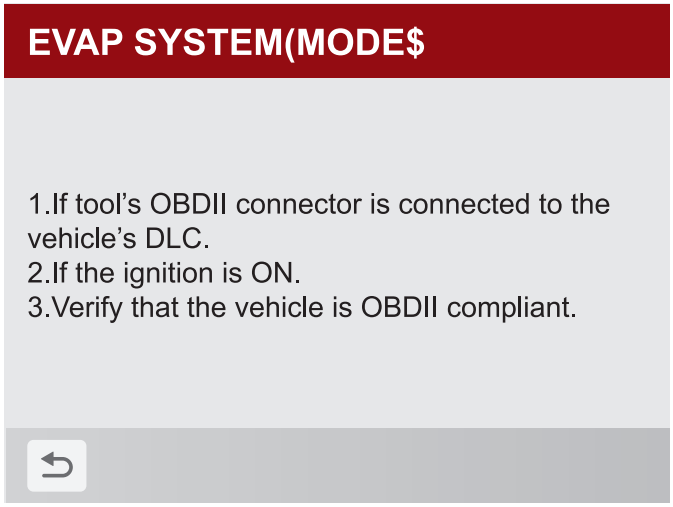


The On-Board Monitor Test function is useful after servicing or after clearing a vehicle ECU's memory. It receives test results for emission-related powertrain components and systems that are not continuously monitored for Non-CAN vehicles. And for CAN vehicles, it receives test data for emission-related powertrain components and systems that are and are not continuously monitored. It is vehicle manufacturer who is responsible for assigning test and component IDs.

1.8 Select "EVAP SYSTEM" and click "OK" to view EVAP data streams.



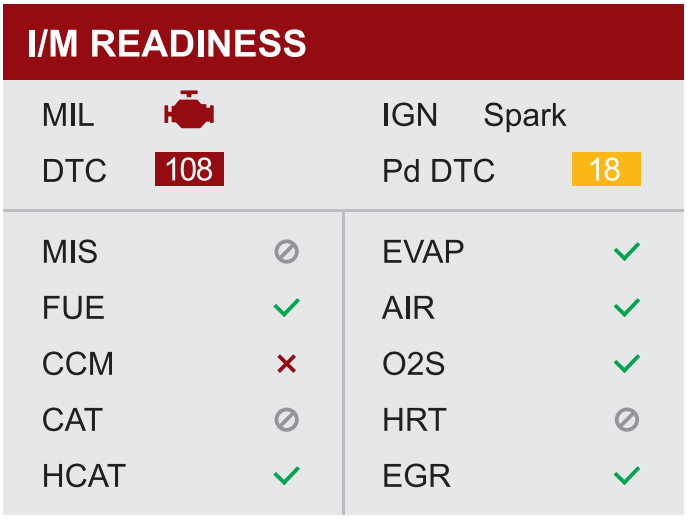




NOTE :

- Some manufacturers do not allow tools to control vehicle systems.
- The manufacturer sets the criteria to automatically stop test. Refer to appropriate vehicle service manual before using this function.

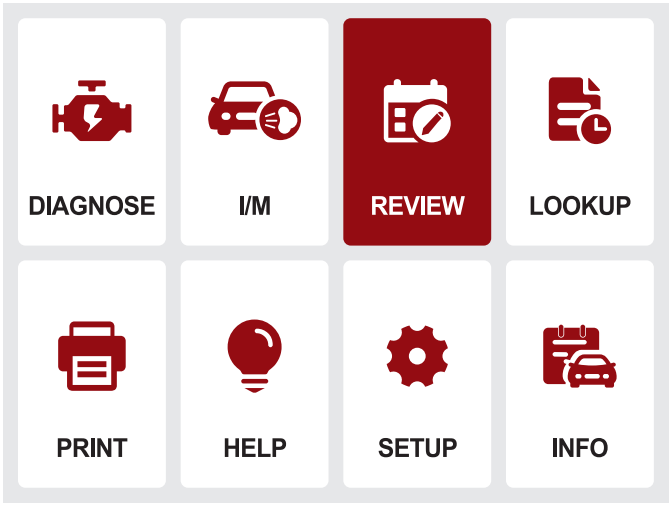
2. Select" I/M READINESS" and click "OK" to view the I/M data flow.

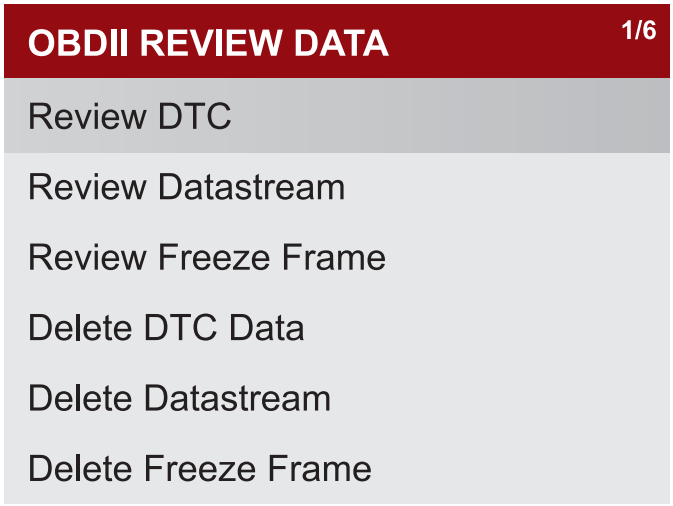


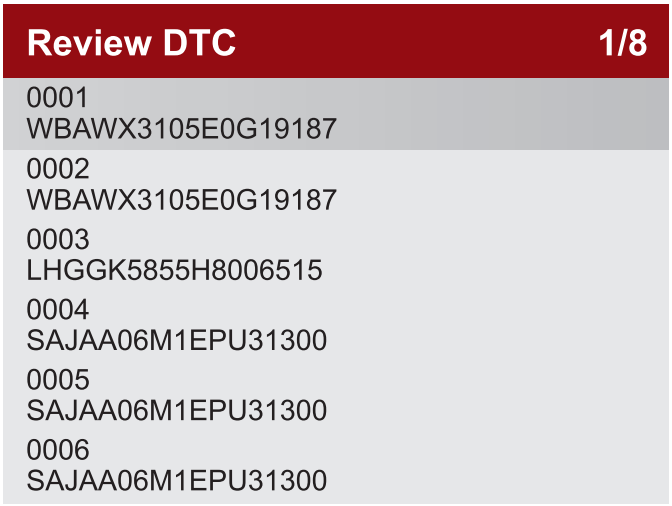
To retrieve I/M Readiness Status data by one-click I/M readiness key: 1. Press the One-Click I/M Readiness Key on the keypad and the following screen displays. Figure 4-30 Sample Diagnostic Menu Screen 2. Colored LED and build-in beeper provide both visual and audible reminders for emission check and DTCs. Below is the intepretation of the LED and build-in beeper. When the LED is :

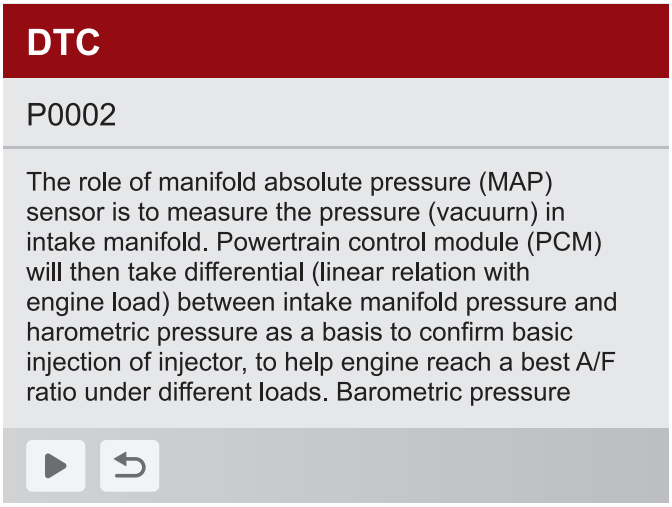
- Green - Indicates that engine systems are “OK” and working properply (the number of Monitors equipped with the vehicle which have run and performed their self-diagnostic testing is in the allowed range. MIL is off.).No stored and pending DTCs exist. The vehicle is ready for an Emissions Test.
- Yellow - The tool finds a possible problem. It indicates the following two conditions: (1) Pending DTCs exist. Please check the I/M Readiness test result screen and use the Read Codes function to view detailed codes information. (2) Some of the vehicle’s emission monitors have not working properly. If the I/M Readiness screen shows no DTC (including pending DTC), but the Yellow LED is still illuminated, it indicate a “Monitor Has Not Run” status.
- Red - Indicates some problems exist with one or more of the vehicle’s system, and the vehicle is not ready for an Emissions Test. As well there are DTCs found. The MIL lamp on the vehicle’s instrument panel will light steady. The problem that is causing the illumination of Red LED should be fixed before an Emissions Test or driving the vehicle further. The built-in beeper works with the colored LED simultaneous, as an assistance to reflect the I/M Readiness test results:
- Green - two long beeps.
- Yellow - short, long, short beeps

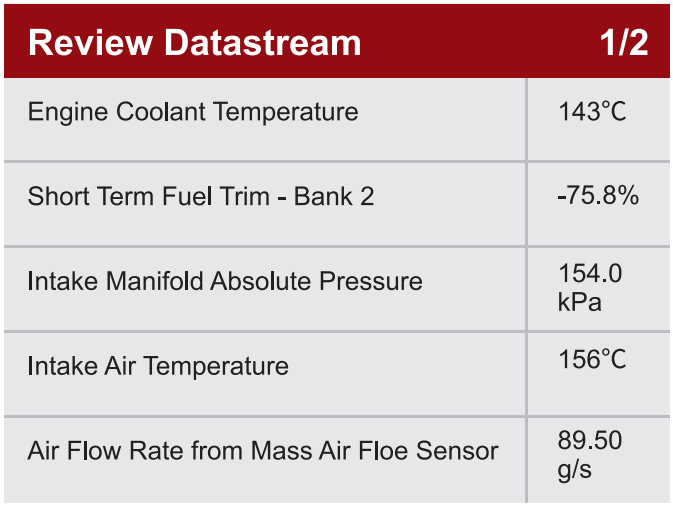
3. Select "REVIEW" and click "OK" to enter the REVIEW DATA list. Select "Review DTC" and Next "OK" to View diagnostic records and delete records.



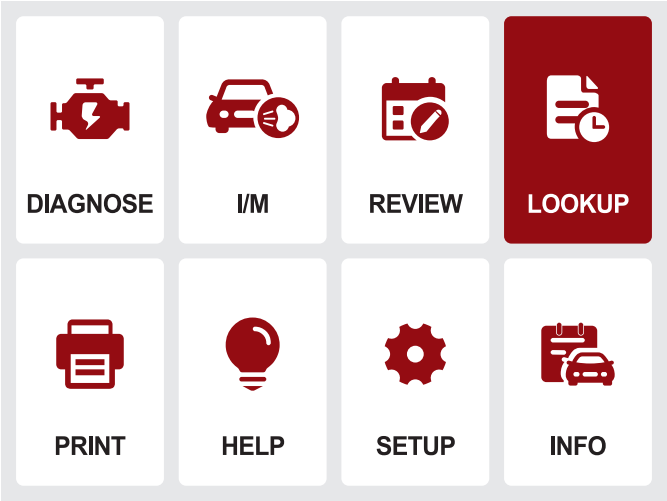






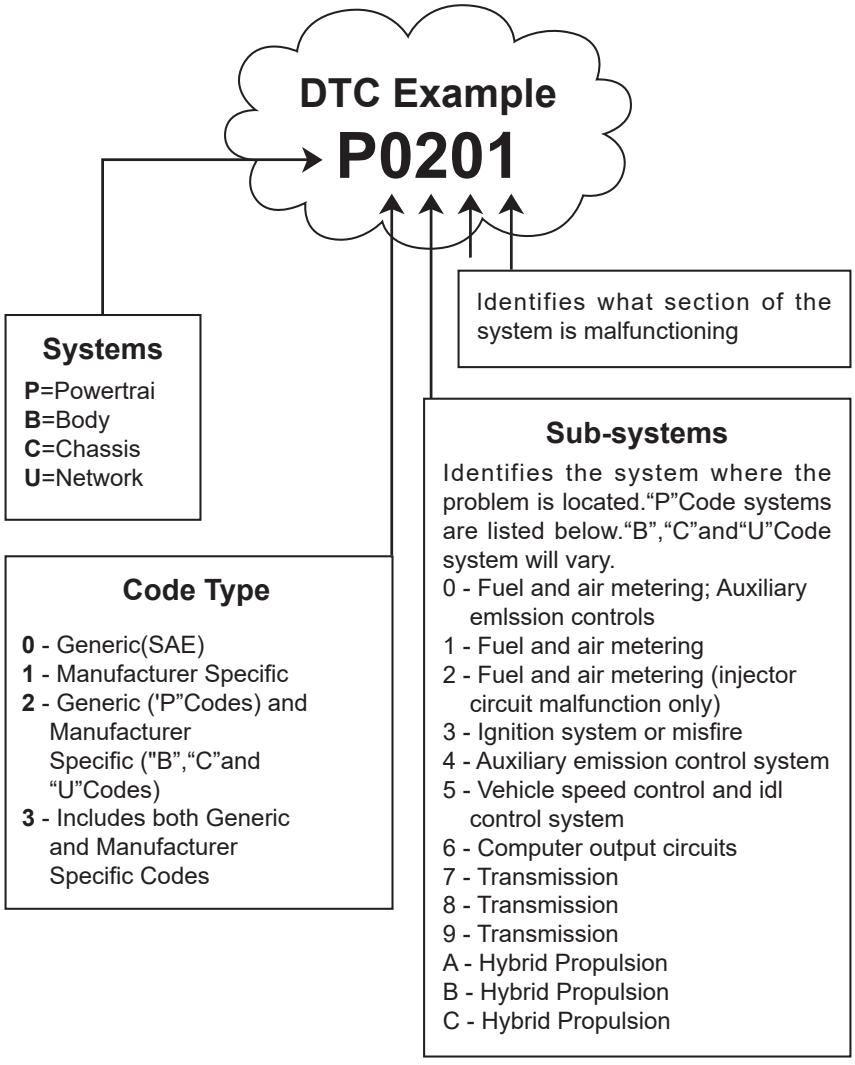


4. Select "DTC LOOKUP" and click "OK" to query fault code analysis

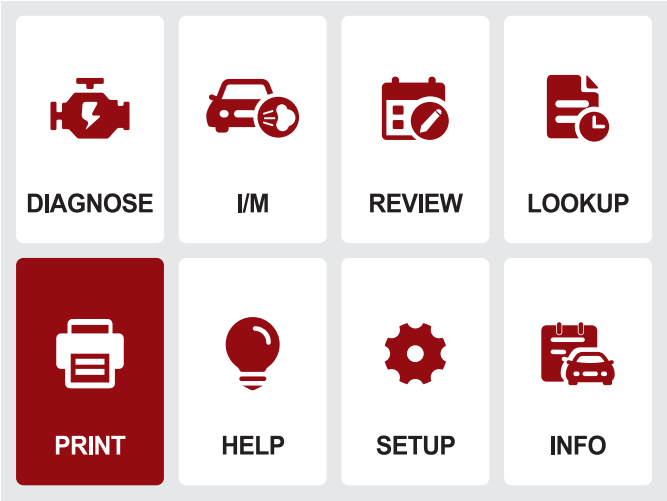


3. Diagnostic Trouble Codes (DTCs)

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 is intended to provide you with a guide as to where a fault might be occurring within a vehicle. OBDII Diagnostic Trouble Codes consist of a fi vedigit alphanumeric code. The first character, a letter, identifi es which control system sets the code. The second character, a number, 0-3; other three characters, a hex character, 0-9 or A-F provide additional information on where the DTC originated and the operating conditions that caused it to set. Here below is an example to illustrate the structure of the digits:

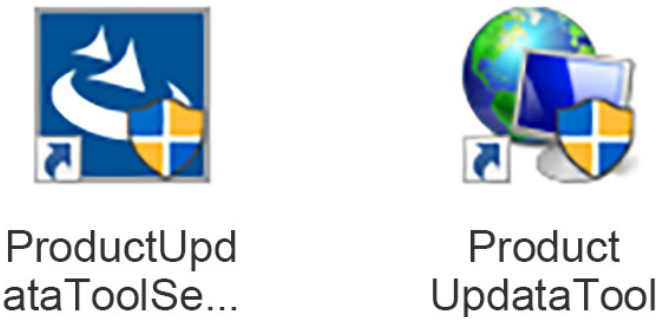


5. Select "Print" and click "OK" to enter the "UPLOAD RECORD" interface to view the prompts, click "Help and I/M" to view the prompts and operate whether to delete the information.

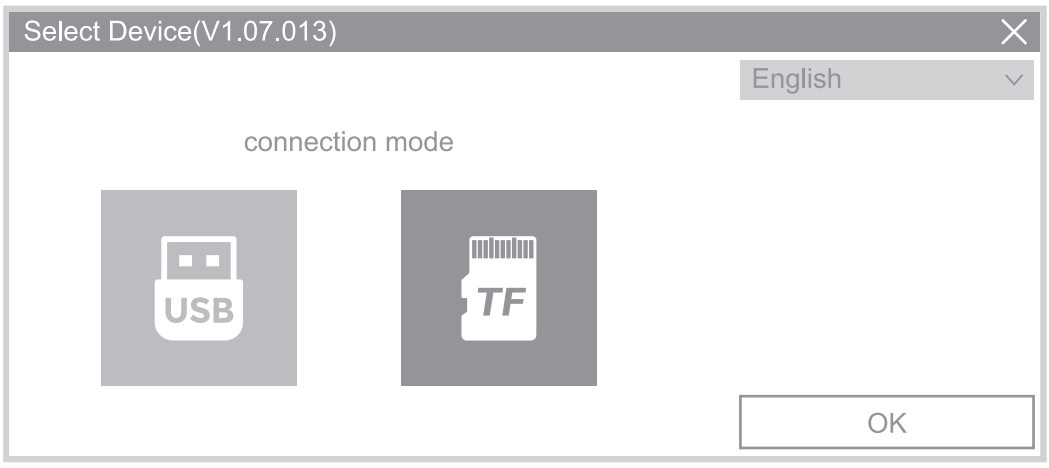


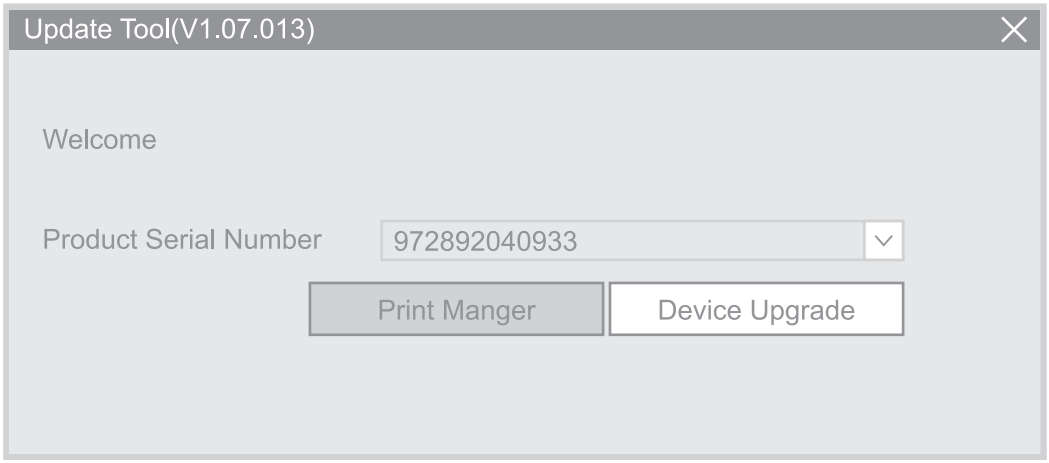
The first step is to open the browser and enter the URL: https://mythinkcar.com/ to enter the official website, click Download. A drop-down box will appear and select THINKOBD Update tool of THINKOBD, and download the installation tool.

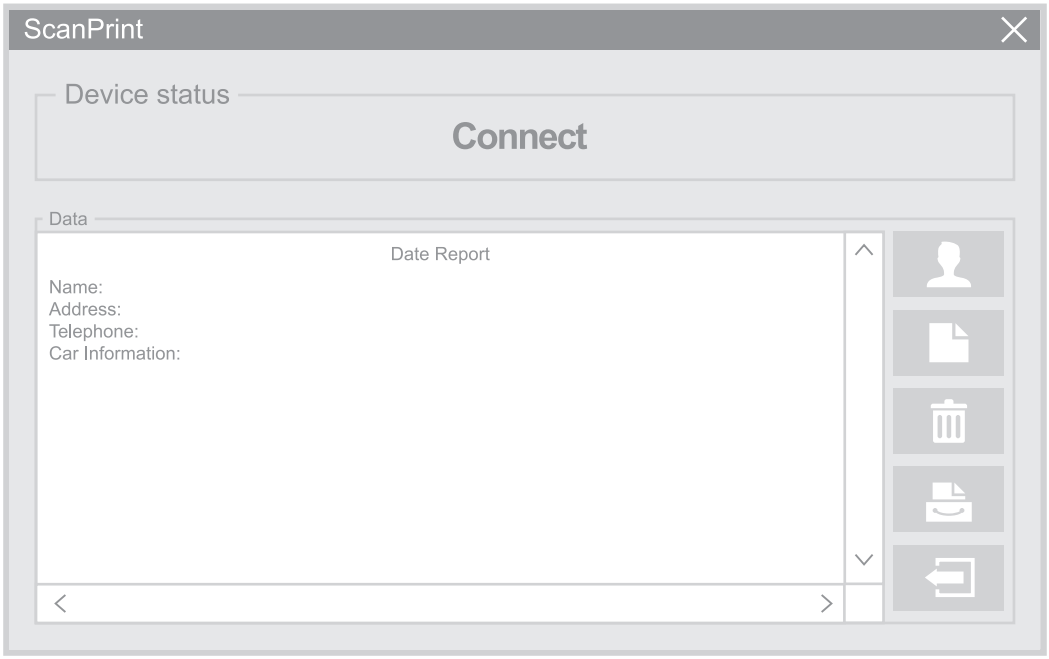
5.1When THINKOBD Update tool downloads the installation package successfully, the following program will appear (as shown in the figure below):



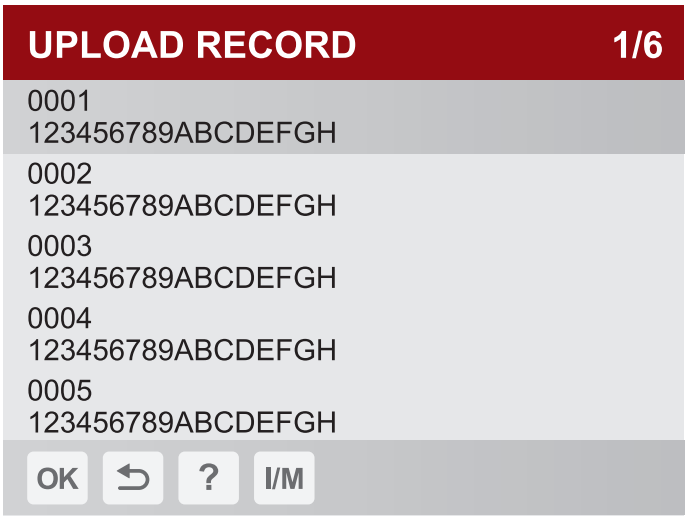
5.2 The second step is to connect the computer and the OBD500 device via the MINI USB identification port, open the Product Update Tool program, select the USB mode, and click the OK button. After the automatic connection is successful, select Print Manager to enter the print page;

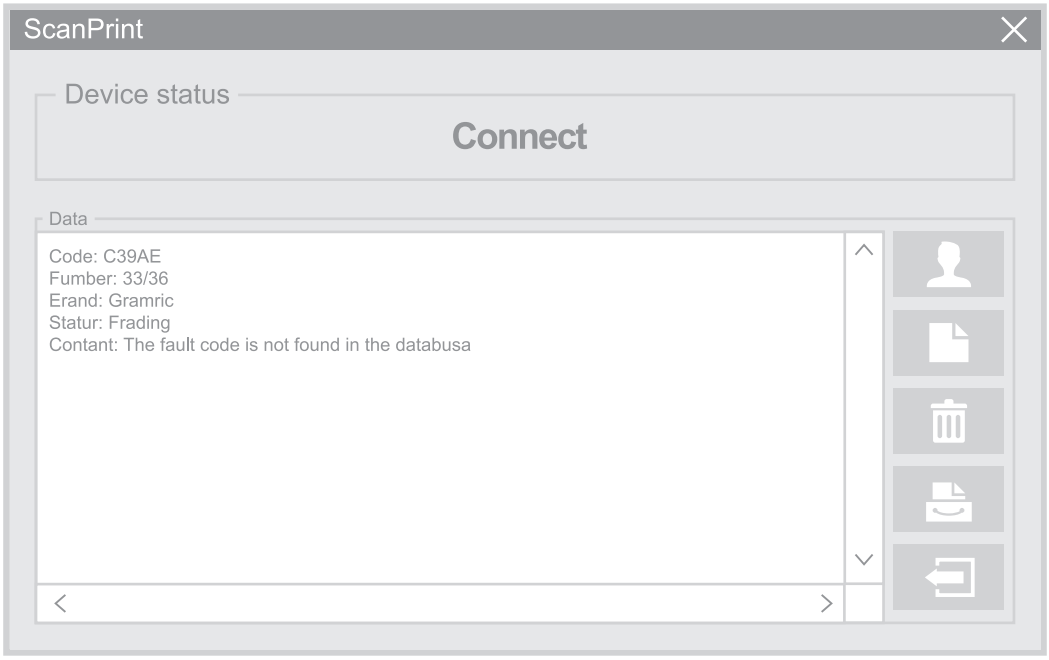




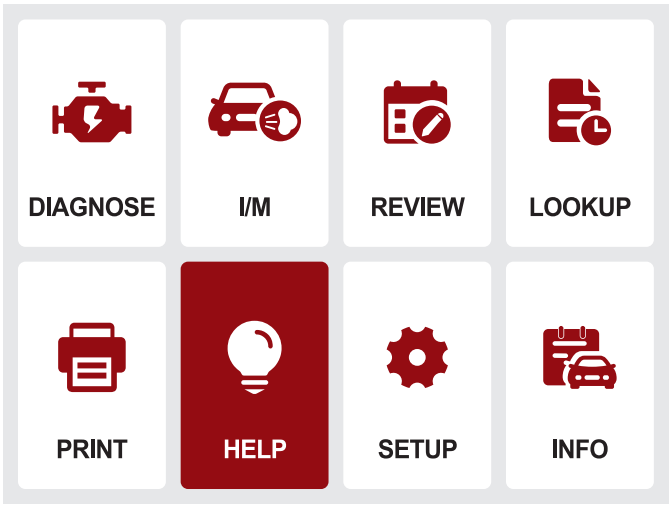


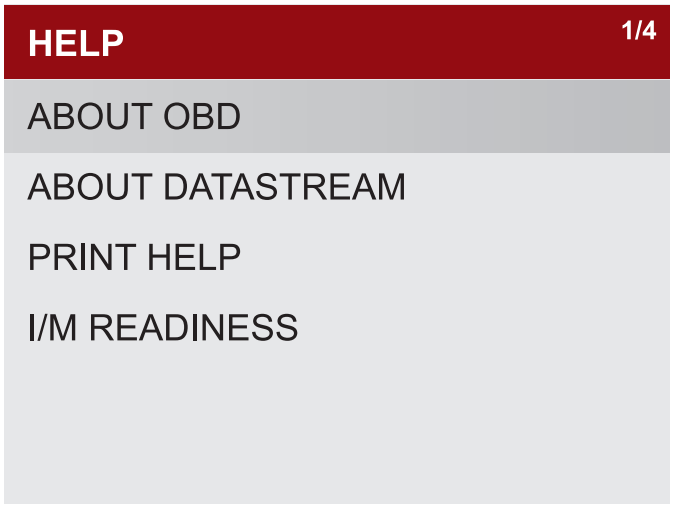
5.3 Click the OK button on the OBD500 device to enter the APP homepage, click PRINT to select the report you want to print, and select the print button to complete.

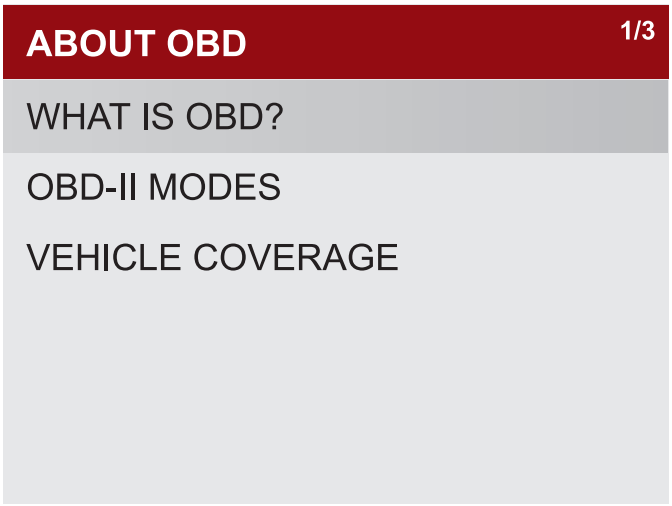


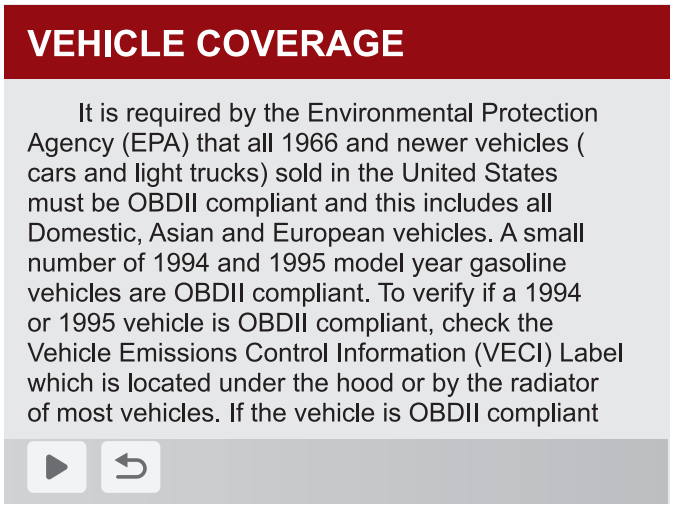


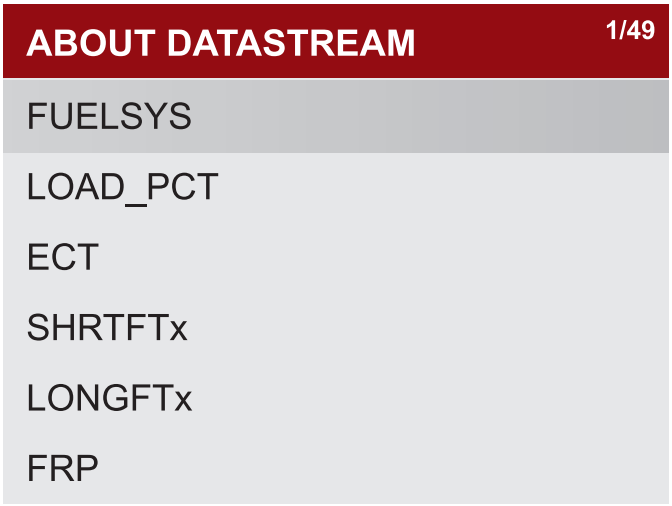
6. Select "Help" and click "OK". You will find the device OBD function and system instructions.



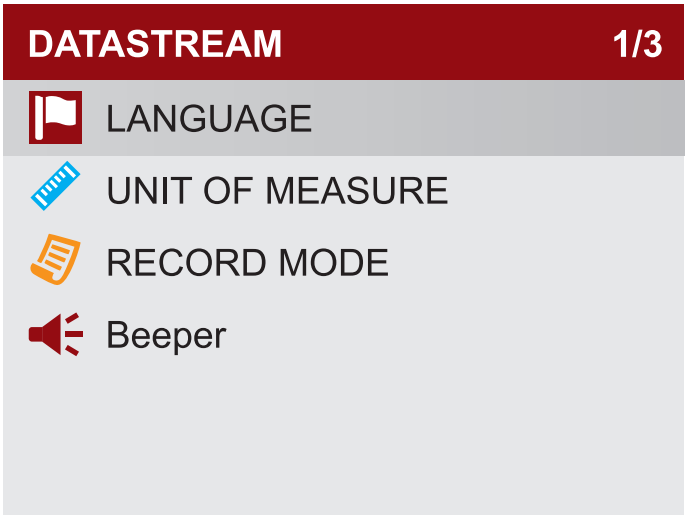




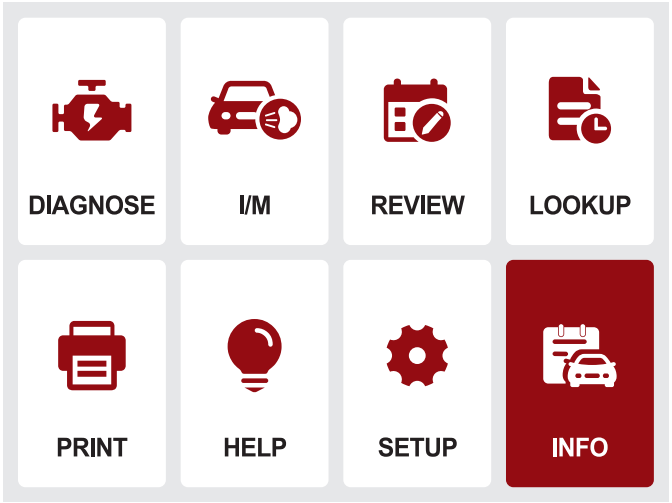


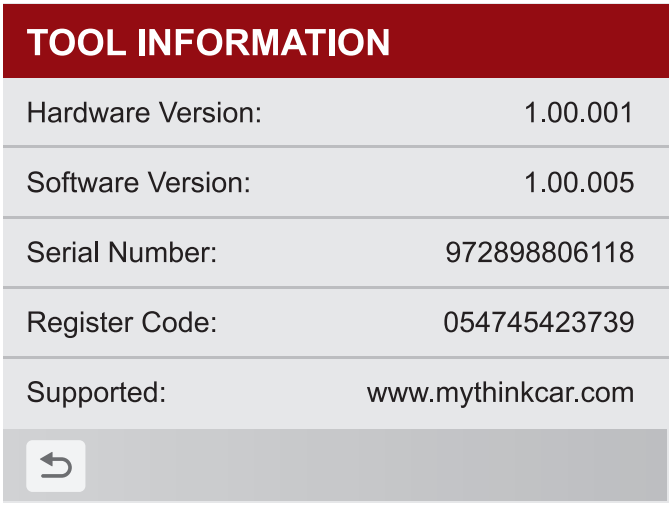


7. Select "Settings" and click "OK" to set the native language, unit of measure, record mode and sound.



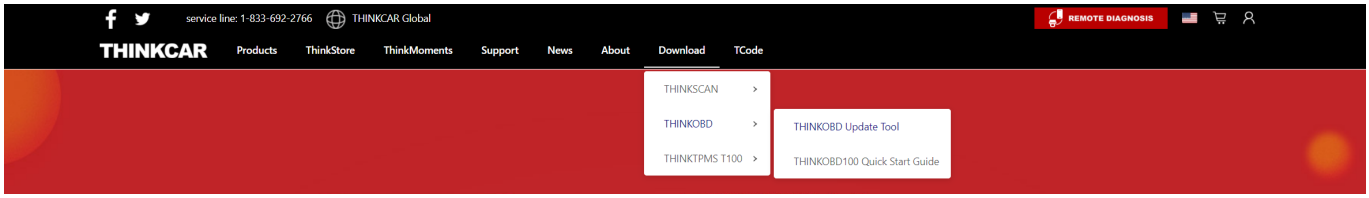
8.Select "info" and click "OK" to view local information





9. Update
The tool can be updated via a USB cable.
Note: Make sure that your computer has Internet connection.
1.1 Please log in to http://www.mythinkcar.com official website and find the "THINKOBD

Updata TOOL", download tool "Product Updata Tool Setup.exe" on your computer. Unzip and install it on your computer (compatible with Windows XP, 7, 8, and 10).



When the installation is complete, connect one end of the USB data cable to the USB port of the computer, Type-c port on the other end of the tool.

1.3 First insert the device into the computer identification port, then open the OBD500 upgrade tool. Find the "COMFLG.INI" file and open, and change the "Serial Name" in the file as same as the computer and device port "USB-COM name"

1.4 Finally, open the "CReaderV Plus Upgrade Tool.exe" of the OBD500 installation package file, and click "Start Upgrade" to complete the upgrade.

Warranty Terms

This warranty applies only to users and distributors who purchase THINKCAR INC www. thinkcar.com THINKCAR OBD500 products through normal procedures. Provide free warranty within one year. THINKCAR warranty including electronic products for damages caused by defects in materials or workmanship. Damages to the equipment or components caused by abusing, unauthorized modification, using for non-designed purposes, operation in a manner not specified in the instructions, etc.are not covered by this warranty. The compensation for dashboard damage caused by the defect of this equipment is limited to repair or replacement. THINKCAR does not bear any indirect and incidental losses. THINKCAR will judge the nature of the equipment damage according to its prescribed inspection methods. No agents, employees or business representatives of THINKCAR are authorized to make any confirmation, notice or promise related to THINKCAR products.

Service Line: 1-833-692-2766

Customer Service Email: support@thinkcarus.com

Official Website: www.thinkcar.com

Products tutorial, videos, FAQ and coverage list are available on THINKCAR official website.