



TOPDON AL500 Code Reader User Manual

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TOPDON

TOPDON AL500 Code Reader



Welcome

Thank you for purchasing TOPDON OBD2 scan tool ArtiLink500. Please patiently read and understand this User Manual before operating this product.

About

As specially designed for the DIY users and small service workshop, TOPDON ArtiLink500 works with OBDII (CAN) compliant vehicles for a complete 10 modes of OBDII diagnostics, with built-in help menus, code definitions, LED for different DTC types, and print ability. Diagnosing and repairing is now easier than ever!

Package List

1. TOPDON ArtiLink500
2. Quick Start Guide
3. Use Manual 500
4. USB Cable

Compatibility

TOPDON ArtiLink500 is compatible with following protocols

- KWP2000
- ISO9141
- J1850 VPW
- JAN (Controller Area Network)

Notice

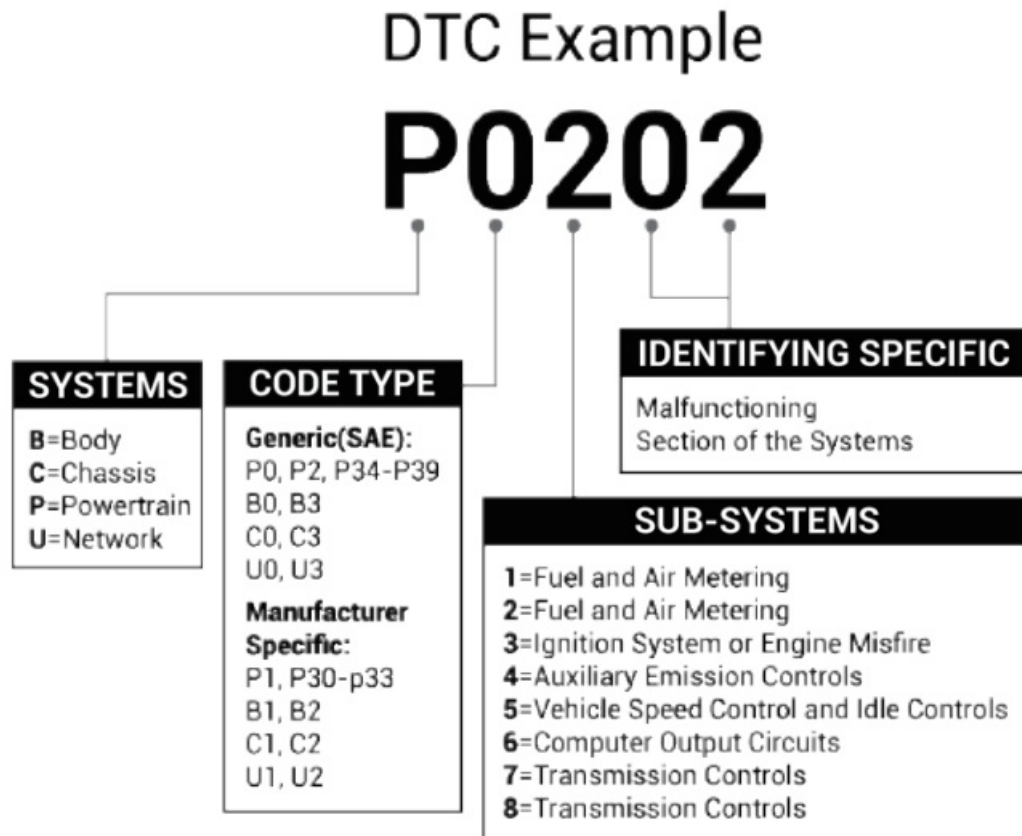
ArtiLink500 may automatically reset while being disturbed by strong static electricity. THIS IS A NORMAL REACTION.

General Information of OBDII (On-Board Diagnostics II)

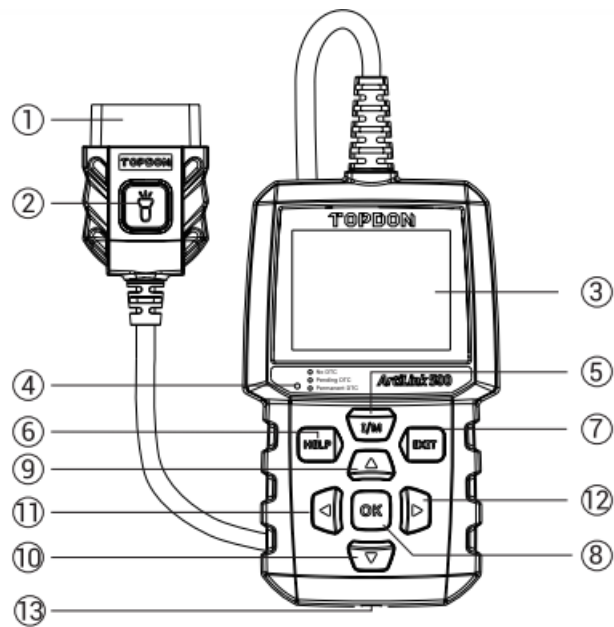
The OBDII system is designed to monitor emission control systems and key engine components by performing either continuous or periodic tests of specific components and vehicle conditions, which will offer three pieces of such valuable information

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.

Diagnostic Trouble Codes (DTCs)



Features



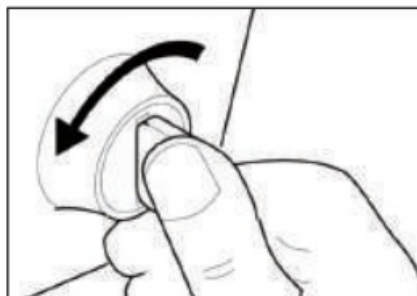
| NO. | Name | Descriptions |
|-----|---------------------------|--|
| 1 | OBD-16 connector with LED | To connect to the vehicle's DLC (Data Link Connector). |
| 2 | LED | LED illumination for the clear inspection in the dark area. |
| 3 | LCD | Show test results. |
| 4 | LED for different DTCs | <ul style="list-style-type: none"> • GREEN: No Fault Code. • YELLOW: Pending Fault Code. • RED: Permanent Fault Code. |
| 5 | I/M Key | <ul style="list-style-type: none"> • Quick access to I/M readiness function. • Delete the diagnostic record in the "Print" menu. |
| 6 | Help Key | Provides detailed descriptions/tips for diagnostics. |

| NO. | Name | Descriptions |
|-----|----------|---|
| 7 | EXIT Key | Back to the previous page. |
| 8 | OK Key | To confirm the current operation. |
| 9 | ▲ | Move up for selection. |
| 10 | ▼ | Move down for selection. |
| 11 | ◀ | Move left for selection. Or skip to the previous page when more than one page is displayed. |
| 12 | ▶ | Move right for selection. Or skip to the next page when more than one page is displayed. |
| 13 | USB Port | Connects the scanner to the computer via USB cable for upgrade, or printing. |

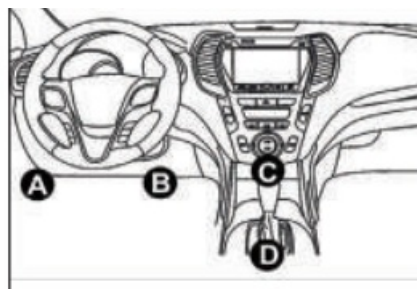
Operation Introduction

Preparation & Connection

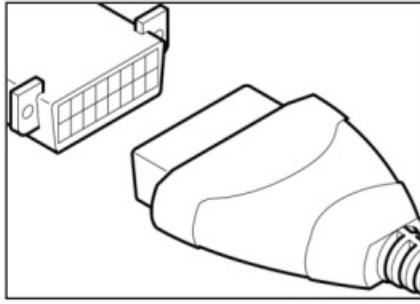
1. Turn the ignition off



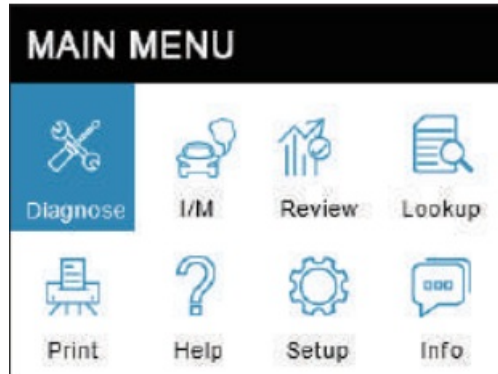
2. Locate the vehicle's DLC socket.



3. Plug the diagnostic cable into the vehicle's DLC socket.



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



5. ArtiLink500 will start initializing and enter the main menu interface.

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

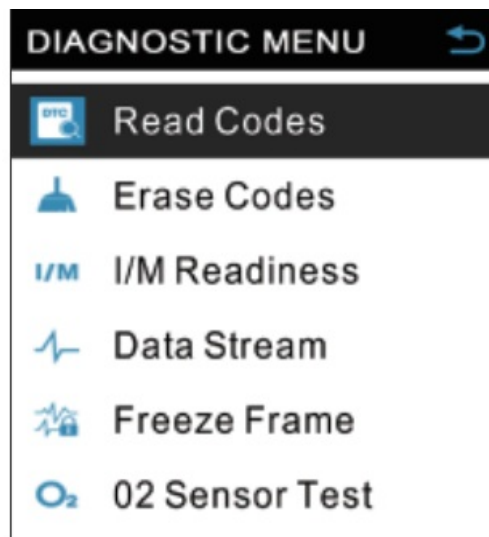
Diagnose

After the tool is properly connected to the vehicle's DLC port, select [Diagnose] in Main Menu and press [OK]. The tool will automatically start a check of the vehicle's computer.

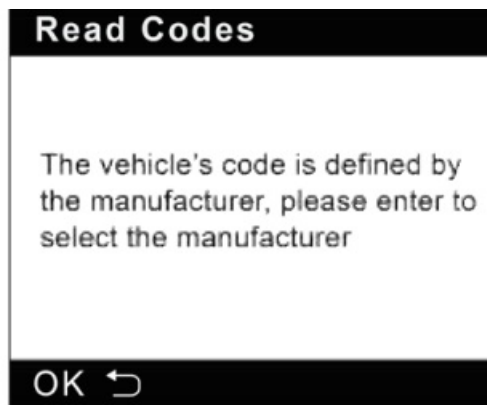
Read Codes

This option identifies which section of the emission control system has malfunctioned.

- Select [Read Codes] and press [OK].



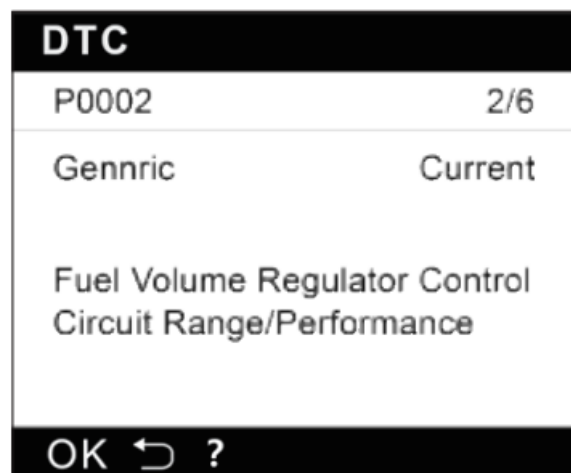
- Press [OK] to select the manufacturer.



- Select an option, and press [OK].



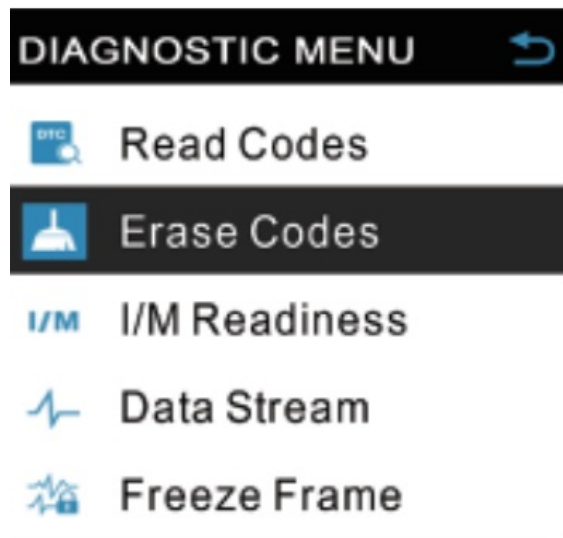
- The DTC with its definition will be displayed on screen.



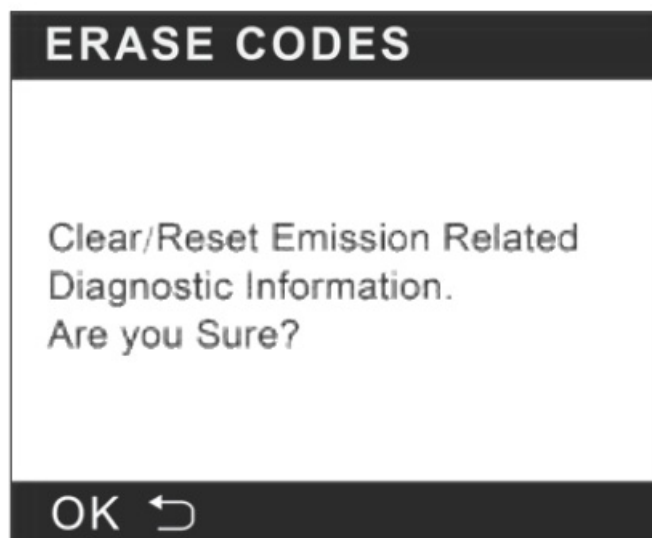
***Note:** Never replace a part based only on the DTC definition. Always refer to the vehicle's service manual for detailed testing instructions.

Erase Codes

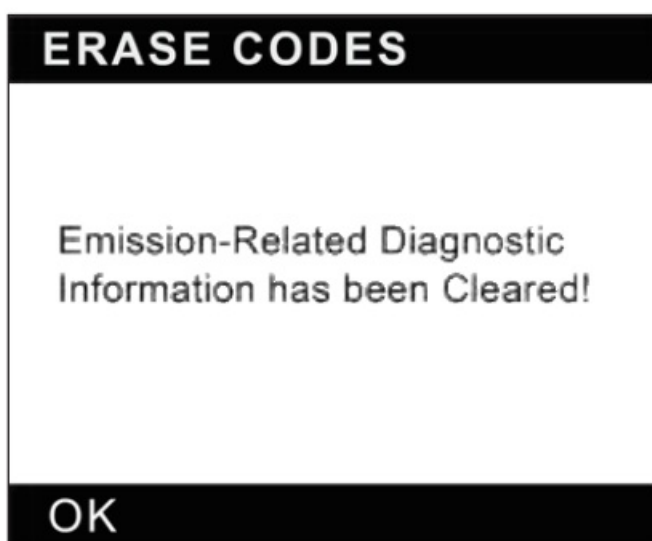
This option erases the codes from the vehicle, after retrieving codes from the vehicle and certain repairs have been carried out Select [Erase Codes] and press [OK].



- Press [OK] to confirm erasing.



- The result will be displayed on screen.

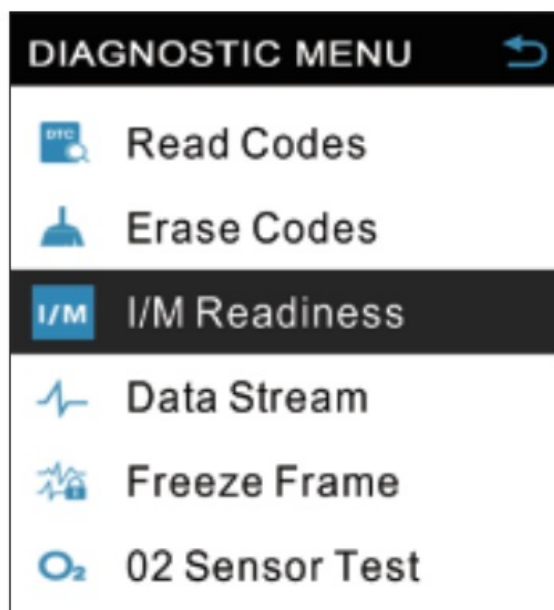


***Note:** Be sure the vehicle's ignition key is in the ON position with the engine off.

I/M Readiness

This option checks whether or not the various emissions- related systems on the vehicle are operating properly, and are ready for Inspection and Maintenance testing. It also can be used to confirm that the repair has been

performed correctly, and/or to check for Monitor Run Status, after the repair of a fault has been performed. Select [I/M Readiness] and press [OK].



The result will be displayed on screen.

| I/M READINESS | | | |
|---------------|----|--------|-------------|
| MIL | | IGN | compression |
| DTC | 33 | PD DTC | 18 |
| MIS | | EVAP | |
| FUE | | AIR | |
| CCM | | O2S | |
| CAT | | HTR | |
| HCAT | | EGR | |

*Explanation of terms

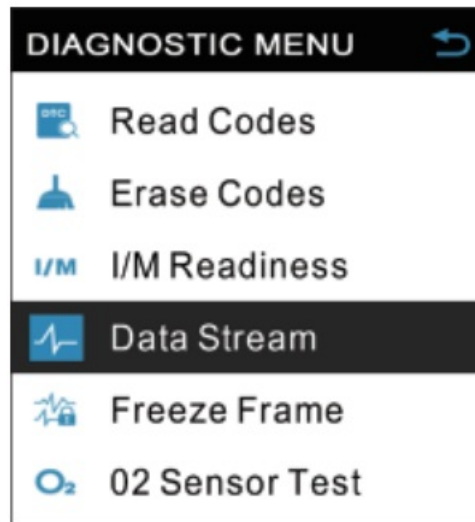
- MIL – Malfunction Indicator Light
- IGN – The Ignition Method of the Vehicle
- DTC – Diagnostic Trouble Code
- PdDTC -Pending Diagnostic Trouble Code
- MIS – Misfire Monitor
- FUE – Fuel System Monitor
- CCM – Comprehensive Components Monitor
- CAT – Catalyst Monitor
- HCAT – Heated Catalyst Monitor
- EVAP – Evaporative System Monitor
- AIR -Secondary Air Monitor
- O2S – O2 Sensors Monitor
- HTR – O2 Sensor Heater Monitor

- EGR – Exhaust Gas Recirculation System Monitor

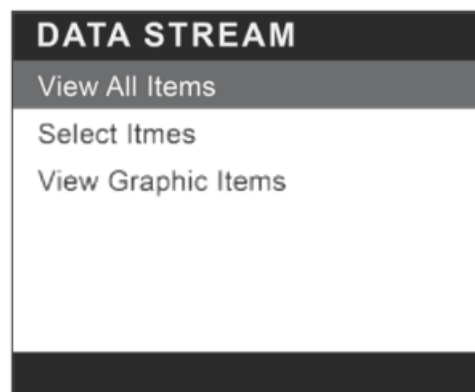
Data Stream

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

- Select [Data Stream] and press [OK].



- Select an option, and press [OK].



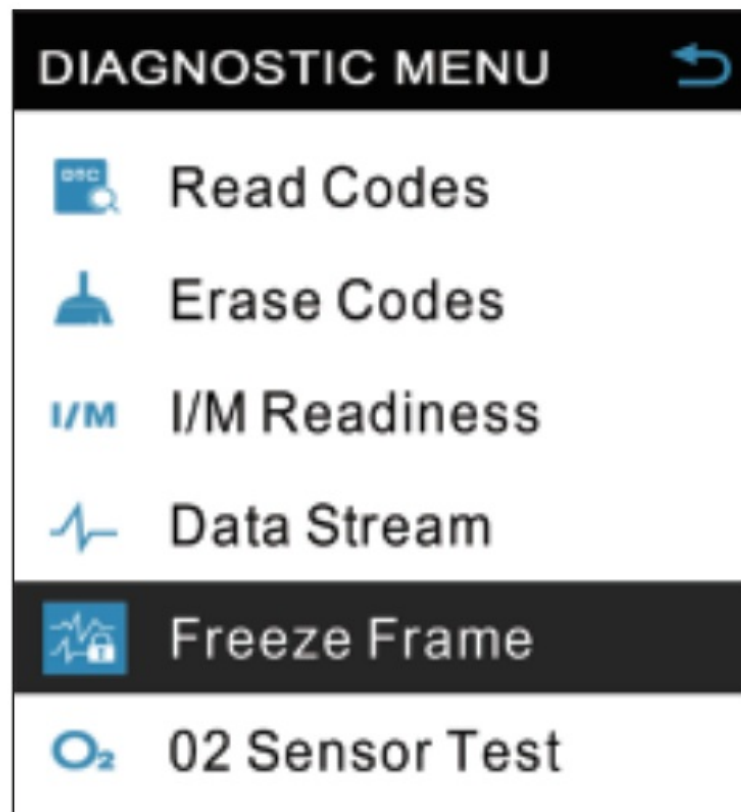
The result will be displayed on screen.

| Datastream | |
|----------------------------|---------|
| Fuel system 1 status | — |
| Fuel system 2 status | --- |
| Calculated LOAD Value | 52.9% |
| Engine Coolant Temperature | 54°C |
| Short Term Fuel Trim-Bank1 | -44.5°C |

View Freeze Frame

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

- Select [Freeze Frame] and press [OK].



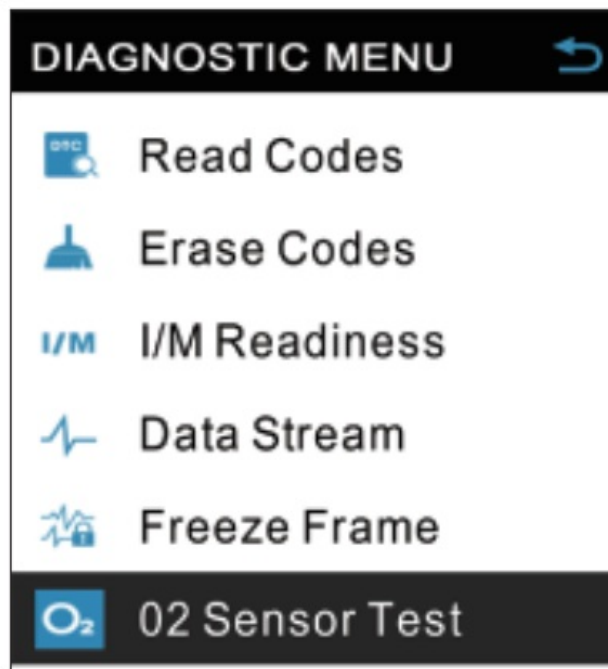
The result will be displayed on screen.

| FREEZE FRAME | |
|--------------|----------|
| DTCFRZF | U0004 |
| FUELSYS1 | OL-Drive |
| FUELSYS2 | OL-Drive |
| LOAD_PCT | 1.6% |

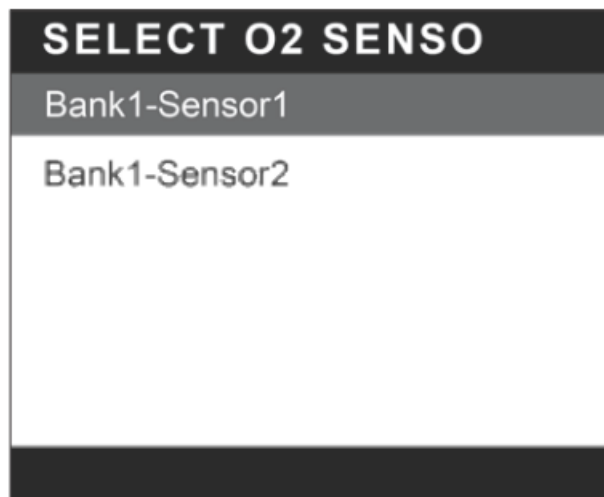
Note: if DTCs were erased, Freeze Data may not be stored in vehicle memory depending on vehicle.

02 Sensor

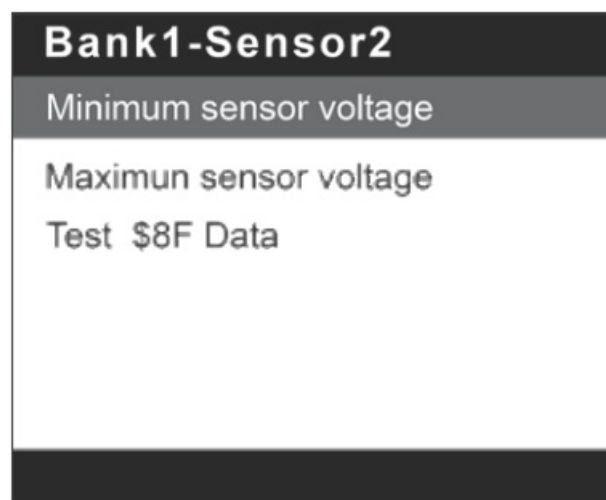
Test This option retrieves 02 sensor monitor test results of the most recently completed tests from your vehicle's on-board computer. Select 102 Sensor Test and press [OK].



- Select an option, and press [OK].



- Select an option, and press [OK].

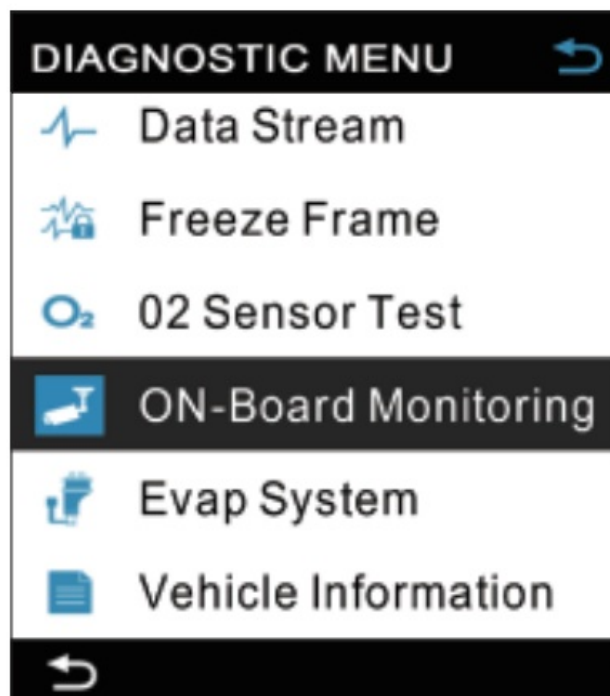


The result will be displayed on screen.

| Minimum sensor voltage | |
|------------------------|--------|
| Test ID | \$07 |
| Test Value | 0.175V |
| Minimum Limit | 0.000V |
| Maximum Limit | 0.214V |
| Status | Pass |

On-Board Monitor

Test This option retrieves test results for emission-related powertrain components and systems that are not continuously monitored. The tests available are determined by the vehicle manufacturer. Select [On-Board Monitoring] and press [OK].



- Select an option, and press [OK].

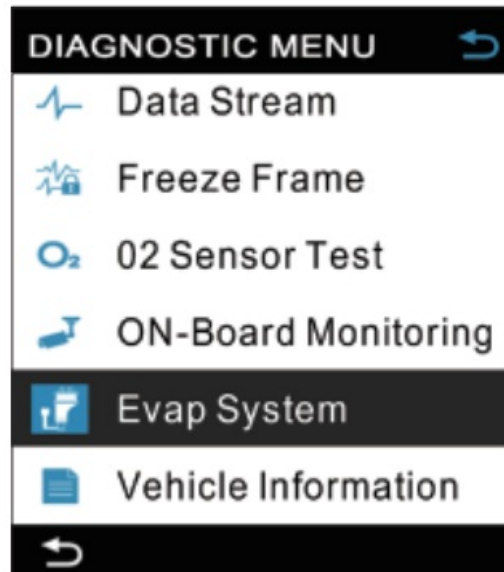
| ON-BOARD MONITOR |
|------------------|
| Test \$01 Data |
| Test \$03 Data |
| Test \$04 Data |
| Test \$10 Data |

The result will be displayed on screen.

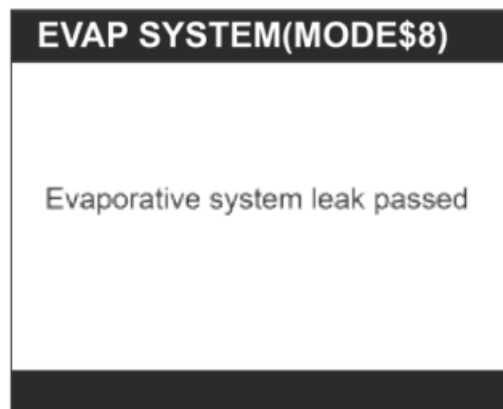
| Test \$03 Data | |
|----------------|------|
| Component ID | \$01 |
| Limit Type | Min |
| Test Value | 461 |
| Minimum Limit | 0 |
| Maximum Limit | --- |
| Status | Pass |

EVAP System Test

This option initiates a leak test for the vehicle's EVAP system. Select [EVAP System (mode\$8)] and press [OK].



If the vehicle supports mode\$8, the following result will be displayed on screen



Note: Before using the system test function, refer to the vehicle's service repair manual to determine the necessary procedure.

Vehicle Information

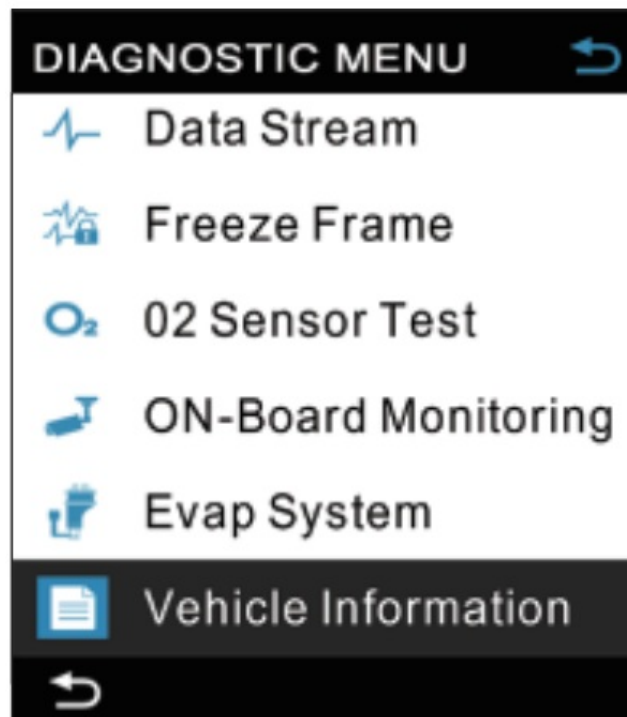
This option retrieves a list of information (provided by the vehicle manufacturer) from the vehicle's on-board computer.

This information may include

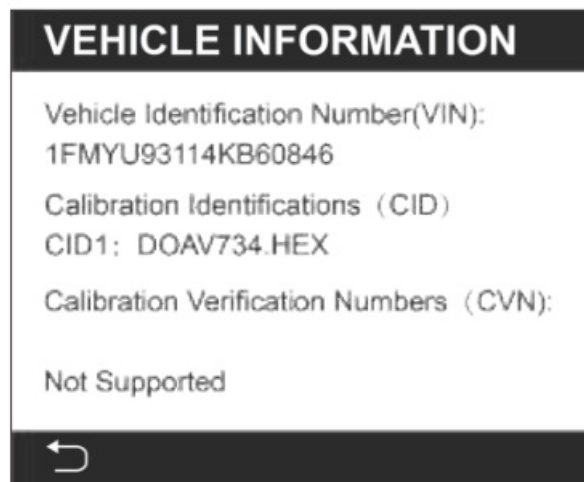
- VIN (Vehicle identification Number).
- CID (Calibration ID).

- CVN (Calibration Verification Number).

Select [Vehicle Information] and press [OK].



The result will be displayed on screen.

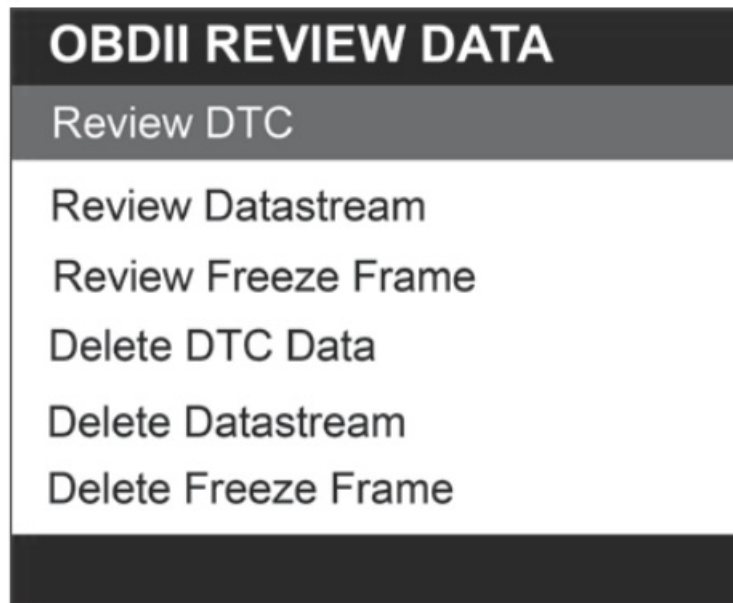


I/M

A quick access to the I/M Readiness of the Diagnostics. Refer to Chapter 2.3 for details.

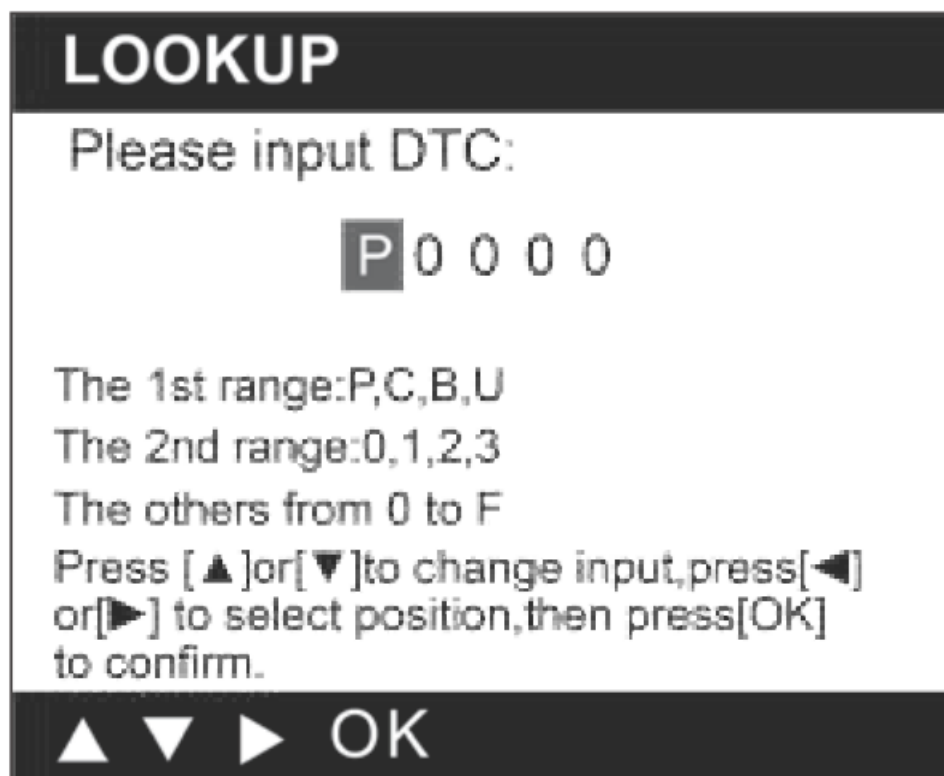
Review

This option is designed to review or delete the recorded DTC, Data Streams and Freeze Frame, as following

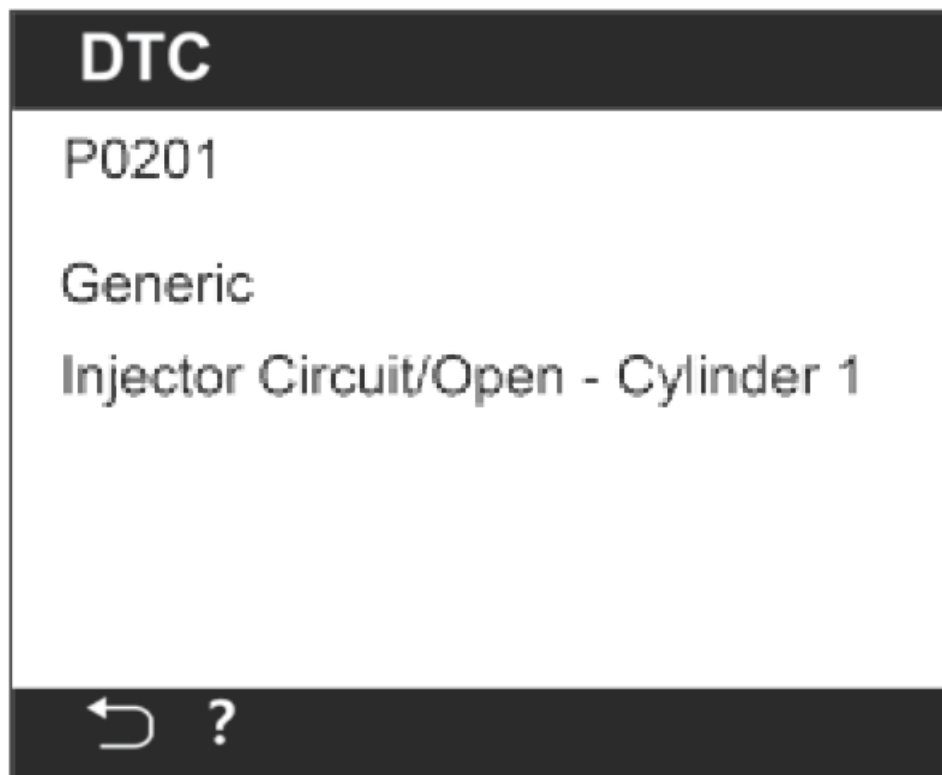


DTC Lookup

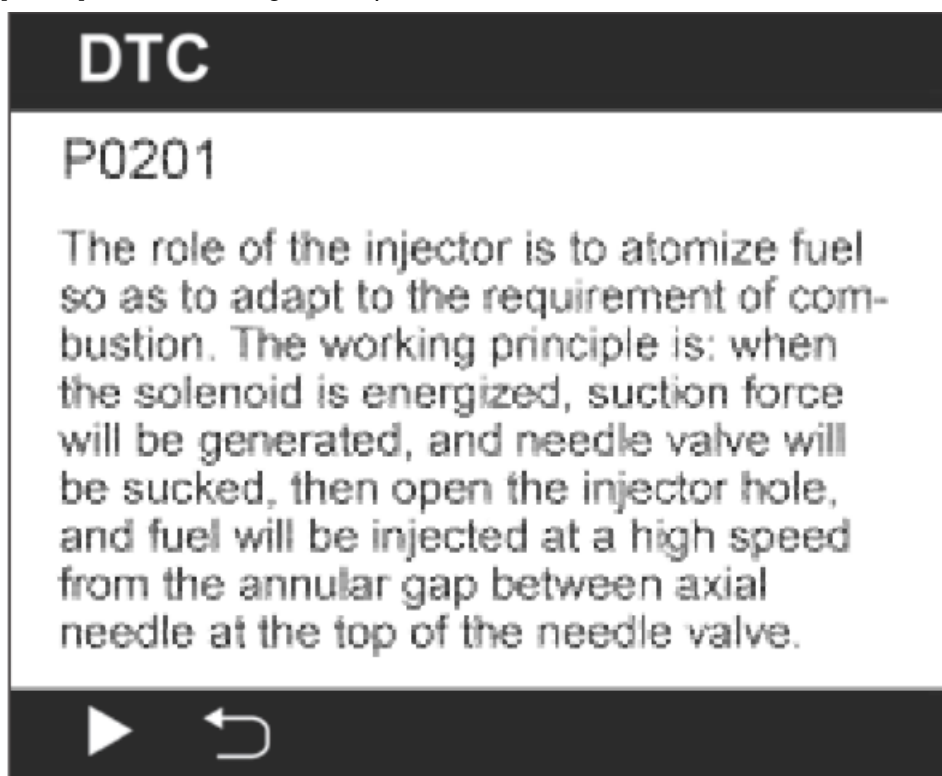
This function enables you to view the detailed definition of the retrieved DTC. Select [Lookup] in the Main Menu and press [OK]. The following screen will appear:



- After you input the DTC, press [OK] to view its detailed definition.

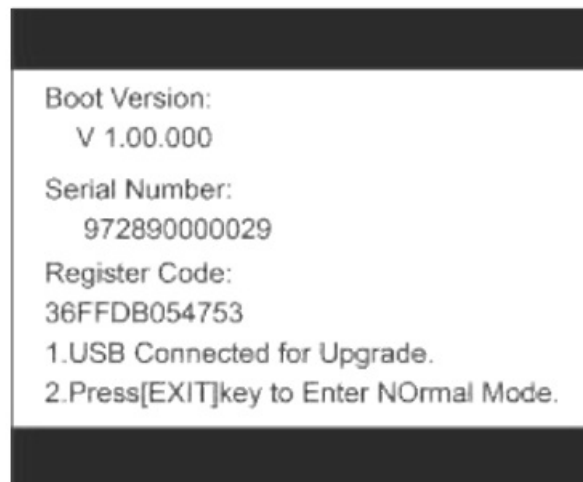


- You can press [HELP] to view the diagnostic tips/solution related with the DTC.

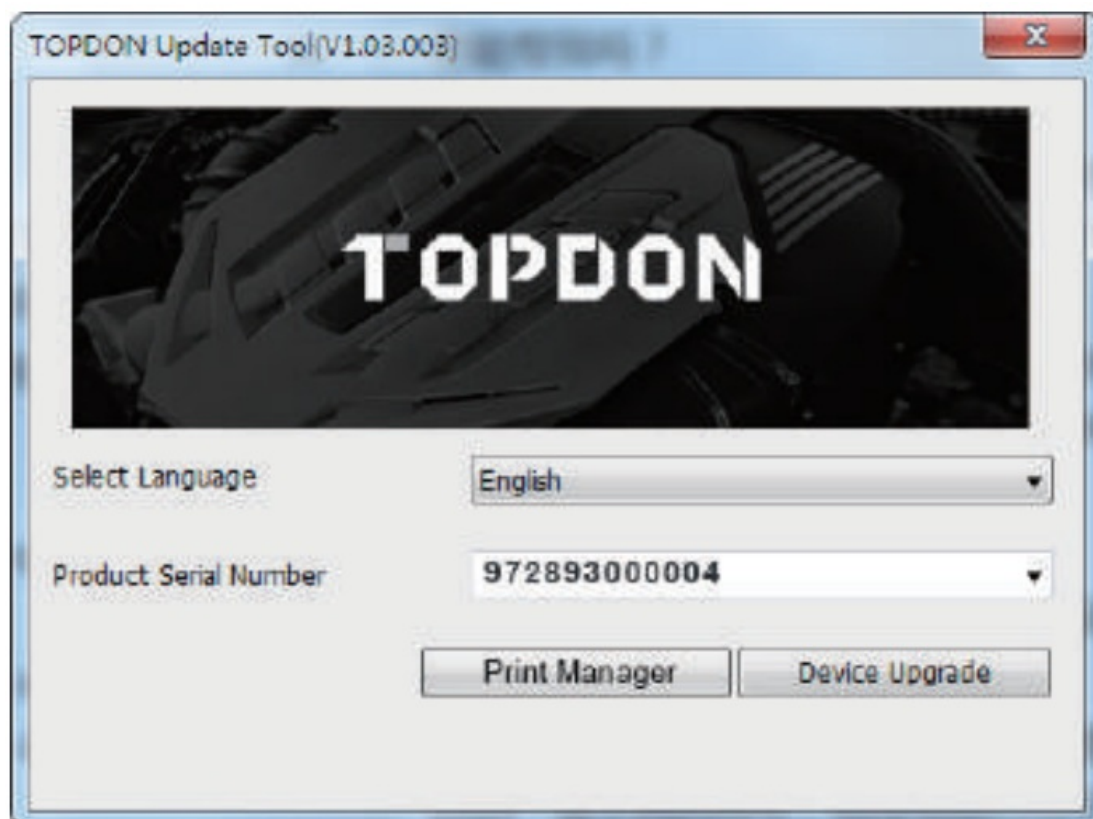


Print

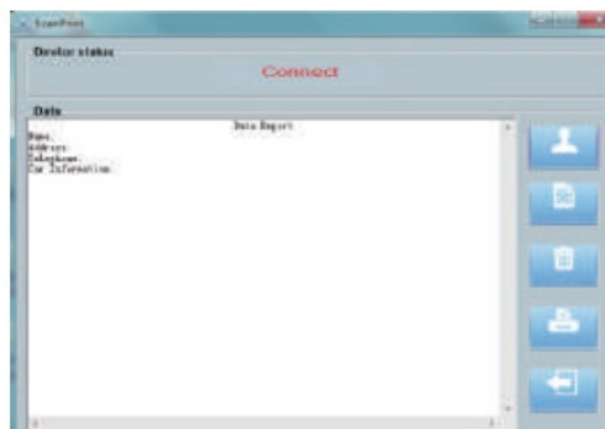
This function is used to print the records saved in Read Codes or DataStream. Connect the scanner to the computer via USB cable. The following screen will appear:



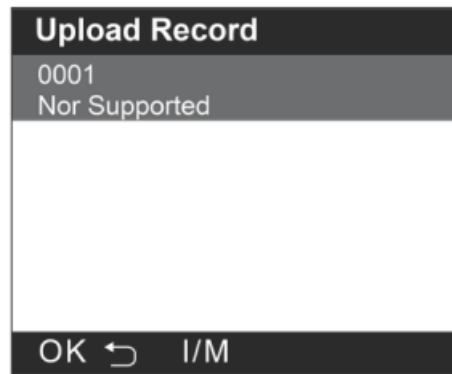
- Press [EXIT], and enter the main menu. Run the Update Tool in your computer. The system will automatically detect the Serial Number of the scanner. Select [Print Manager].



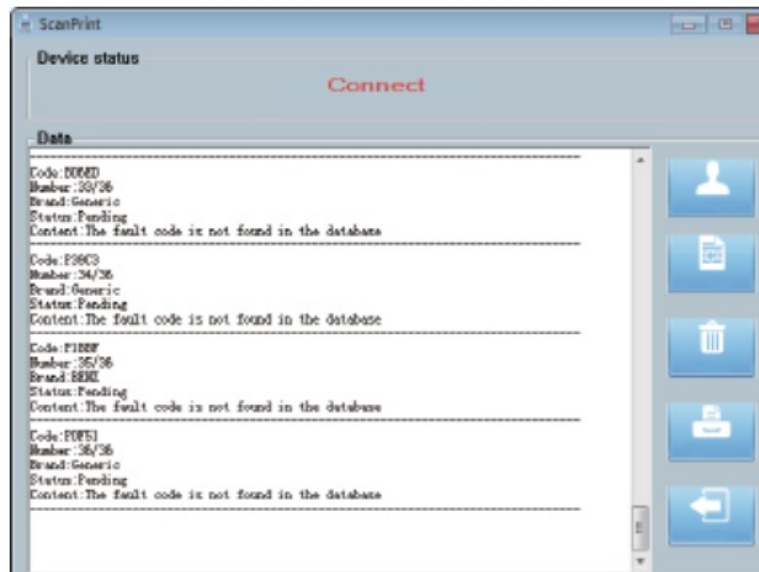
The following screen will appear








- Select [Print] on the OBDII scanner. Select the data you want to print and press [OK].



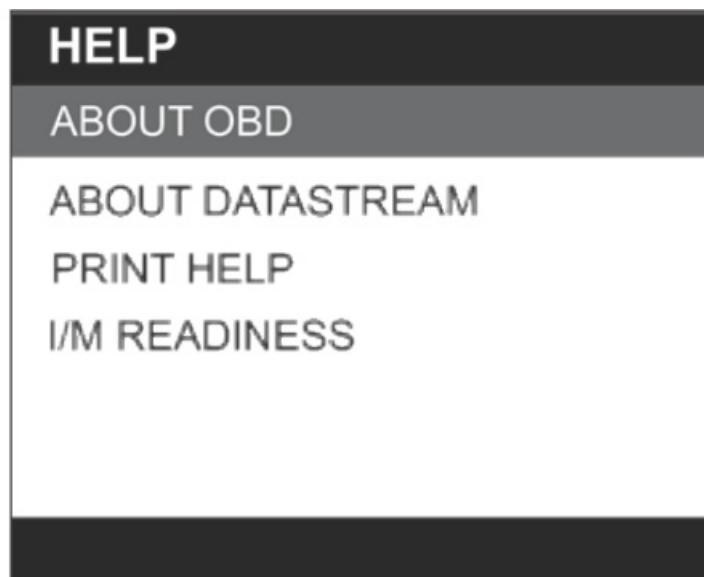
The selected file will be uploaded to your computer, and displayed on the print manager.



-  Modify the personal information.
-  Export the data, and save them into a txt file in your computer.
-  Delete all the data in the text box.
-  Print all the data in the text box via a printer connected to your computer.
-  Quit the operation.

Help

This function enables you to view the tool information and the OBD introduction. Select [Help] in the Main menu and then press [OK]. The following screen will appear

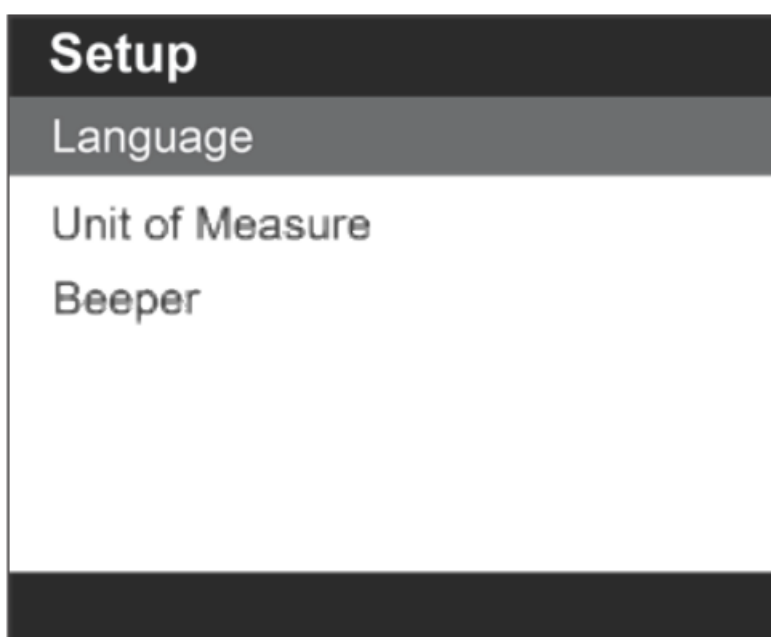


Explanation of terms

- **About OBD** – Relevant introduction information about OBD
- **About DataStream** – Relevant introduction information about Data Stream.
- **Print Help** – Provides an operation tips on Printing the diagnostic record or DTCs.
- **I/M Readiness** – Introduces the full name and detailed definition of each I/M monitor.

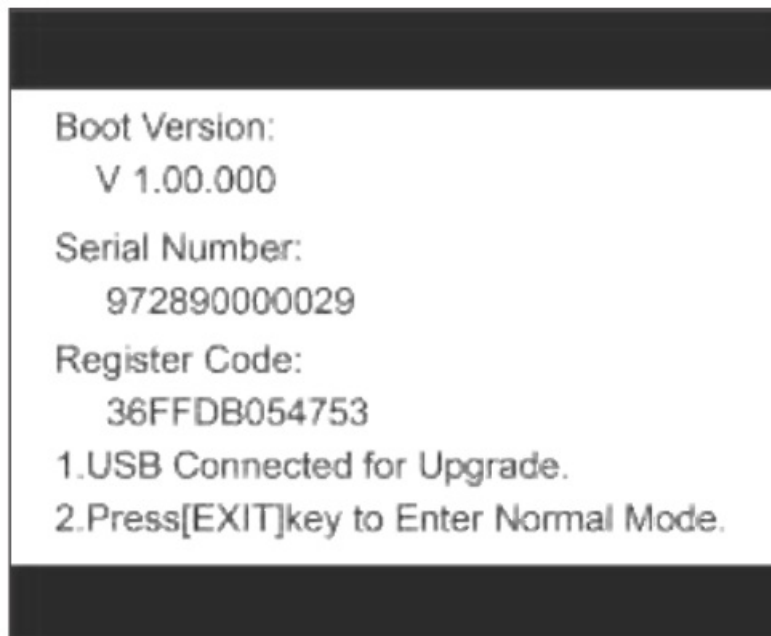
Settings

Select [Setup] in the Main menu and press [OK]. The following screen will appear



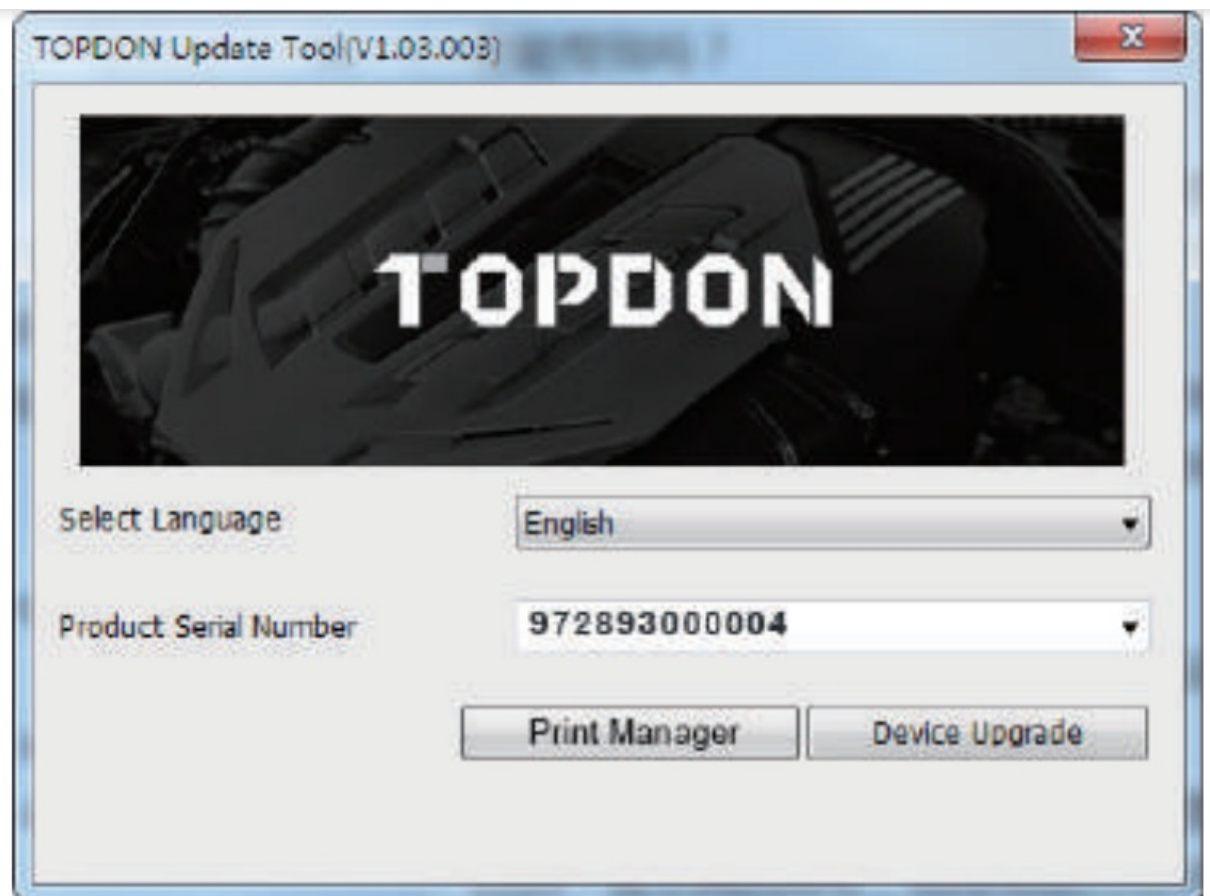
Explanation of terms

- **Language** – to set the user interface language.
- **Unit of Measure** – to set measurement unit
- **Beeper** – to set the buzzer On/Off.



Update A computer that can access the Internet is required.

- Go to [http: www.topdondiagnositics.com](http://www.topdondiagnositics.com), click "SUPPORT" of the page, and select "Rom Update".
- Download decompress and install the Update Tool software package in your computer (compatible with Windows XP/7/8&10).
- After the installation, connect ArtiLink500 to the computer via the USB cable. If a newer version is found, the following screen will appear
- Run the Update Tool in your computer, the system will automatically detect the Serial Number of the scanner.
- Select Language, and click [Device Upgrade].



The following screen will appear

The image shows a software window titled "Register your product". It contains three input fields. The first is labeled "Your E-Mail address:" and is empty. The second is labeled "Confirm E-mail:" and is empty. The third is labeled "Register Code:" and contains the text "5411384A3230". At the bottom of the window, there are three buttons: "Cancel", "Submit", and "Exit".

- Input the information required. Click [Submit].
- Choose the software version and start updating.

Technical Specification

- **Display:** 2.8" color LCD
- **Input Voltage Range:** 9~18V
- **Working Temperature:** 0 to 50°C (32°F to 122°F)
- **Storage Temperature:** -20 to 70°C (-4°F to 158°F)
- **Dimensions:** 165.1 * 97.3 * 29.8 mm (6.50 * 3.83 * 1.17 inch)
- **Weight:** 285g (10.05 oz)

Warranty

TOPDON One Year Limited Warranty

- The TOPDON Company warrants to its original purchaser that TOPDON products will be free from defects in material and workmanship for 12 months from the date of purchase (Warranty Period). For the defects reported
- during the Warranty Period, TOPDON will, according to the technical support analysis and confirmation, either repair or replace the defective part or product.

This limited warranty is void under the following conditions

- Misused, disassembled, altered or repaired by a non-TOPDON technical repair specialist.
- Careless handling and violation of operation.

Warnings

- Always perform automotive testing in a safe environment.
- DO NOT smoke near the vehicle during testing.
- DO NOT place the code reader near the engine or exhaust pipe to avoid damage from high temperatures.
- DO NOT wear loose clothing or jewelry when working on an engine.
- DO NOT connect or disconnect any test equipment while the ignition is on or the engine is running.
- When an engine is running, it produces carbon monoxide, a toxic and poisonous gas. Operate the vehicle ONLY in a well-ventilated area.
- Wear safety eye protection that meets ANSI standards.
- Engine parts become very hot when the engine is running. To prevent severe burns, avoid contact with hot engine parts.
- DO NOT disassemble the code reader.

Cautions

- Please ensure that the vehicle battery is fully charged and the tools are closely connected to the vehicle DLC to avoid erroneous data generated by tools and diagnostic systems.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Please do not use the code reader during driving.
- 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 Necessary.
- Keep the code reader out of the reach of children.

FAQ

1. Q: System halts when reading data stream. What is the reason?

A: It may be caused by a slackened connector. Please turn off the tool, firmly connect the connector, and switch it on again.

2. Q: Screen of main unit flashes at engine ignition start.

A: Caused by electromagnetic disturbing, and this is normal phenomenon.

3. Q: There is no response when communicating with on-board computer.

A: Please confirm the proper voltage of power supply and check if the throttle has been closed, the transmission is in the neutral position, and the water is in proper temperature.

4. Q: Why are there so many fault codes?

A: Usually, it's caused by poor connection or fault circuit grounding.

5. Q: Why the DTCs cannot be erased?

A:

1. Please confirm the malfunction related to DTCs has been properly fixed.
2. Please switch the ignition OFF. Wait for 1~3 minutes, then start the vehicle. After that, try to run "Read Codes" again. (Some DTCs can only be erased in this way.)

FCC Statement


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.

For Services and Support

- 86-755-21612590
- 1-833-629-4832 (North America)
- support@topdon.com
- ® www.topdon.com
- @TopdonOfficial
- @TopdonOfficial

Documents / Resources

| | |
|---|--|
|  <p>For Service and Support 1. Call 86-755-21612590 2. Call 1-833-629-4832 (North America) 3. Email support@topdon.com 4. Visit www.topdon.com 5. Follow @TopdonOfficial</p> | <p>TOPDON AL500 Code Reader [pdf] User Manual AL500, AL500 Code Reader, Code Reader, Reader</p> |
|---|--|

References

- [User Manual](#)

Manuals+.