

TOPDON

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ArtiDiag500
Professional Diagnostic Tool
USER MANUAL

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Welcome

Thank you for purchasing TOPDON automotive diagnostic tool ArtiDiag500. Please patiently read and understand this User Manual before operating this product.

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About

TOPDON ArtiDiag500, an Engine, Transmission, ABS, and SRS systems diagnostic Android tablet covering most worldwide modern vehicles, will easily prove to be a useful scan tool for diagnosing car problems thanks to its wide array of features coupled with the durable design and ease of use.

Package List

- ArtiDiag500
- OBD II Diagnostic Cable
- DC 5V Charging Cable
- User Manual
- Quick Guide
- Carrying Bag

Compatibility

TOPDON ArtiDiag500 is compatible with the following protocols:

- KWP2000
- ISO9141
- J1850 VPW
- J1850 PWM
- CAN (Controller Area Network)
- And more

Notice

ArtiDiag500 may automatically reset while being disturbed by strong static electricity. THIS IS A NORMAL REACTION.

This Product Manual is subject to change without written notice.

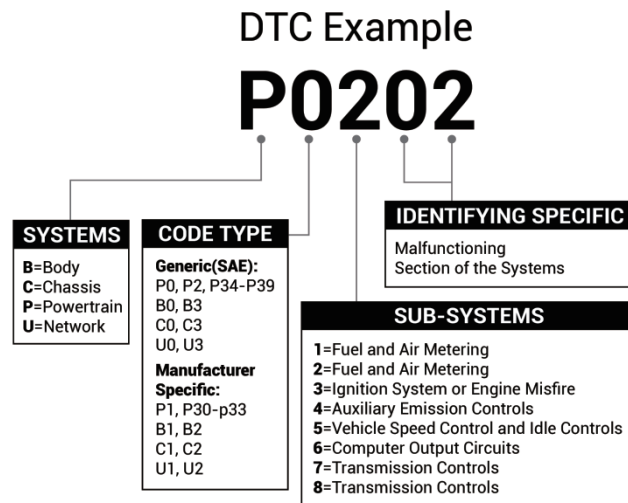
Read the instruction carefully and use the unit properly before operating. Fail to do so may cause damage and/or personal injury, which will void the product warranty.

General Information of OBDII (On-Board Diagnostics II)

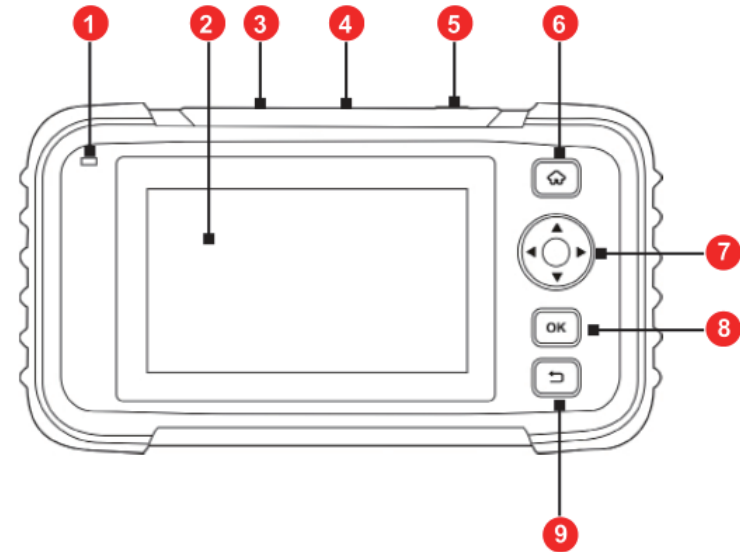
The OBDII system is designed to monitor emission control systems and key engine components by performing either continuous or periodic tests of specific components and vehicle conditions, which will offer three pieces of such valuable information:

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

Diagnostic Trouble Codes (DTCs)



Product Descriptions

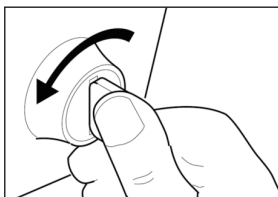


NO.	Name	Descriptions
1	Charging LED	<ul style="list-style-type: none"> • GREEN: Fully Charged. • RED: Charging.
2	LCD	Show test results.
3	5V Charging Port	To connect to external DC power for charging the tool.
4	DB-15 Diagnostic Connector	To connect to the diagnostic cable.
5	Power Button	<ul style="list-style-type: none"> • Hold it for 5 seconds to turn the tool on. • Hold it for 3 seconds to turn the tool off. • Press it to activate the LCD if the LCD is off. • Press it to turn off the LCD if the LCD is on.
6	HOME Button	Press it to enter the home menu.

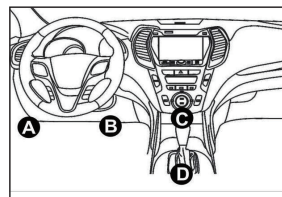
NO.	Name	Descriptions
7	▲ Key	Move up for selection.
	▼ Key	Move down for selection.
	◀ Key	Move left for selection. Or skip to the previous page when more than one page is displayed.
	▶ Key	Move right for selection. Or skip to the next page when more than one page is displayed.
8	OK Key	To confirm the current operation.
9	Return Button	Exit, or return to the previous menu.

Preparation & Connection

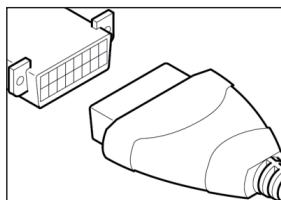
1. Turn the ignition off.



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.

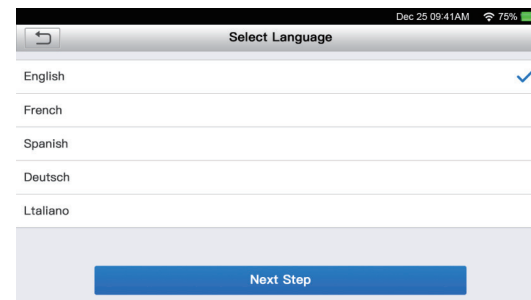
5. Hold the power button for 5 seconds. The ArtiDiag500 will start initializing and enter the welcome interface.



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

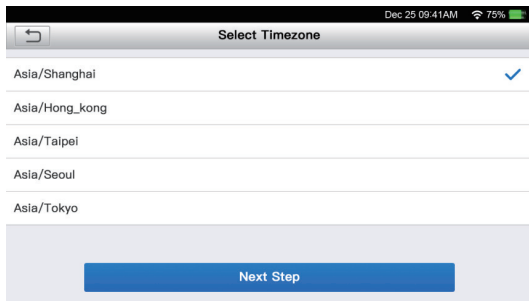
6. Language Setting

Select the tool language from the languages displayed on the interface. Tap "Next Step" to setup the time zone.



7. Setup Time Zone

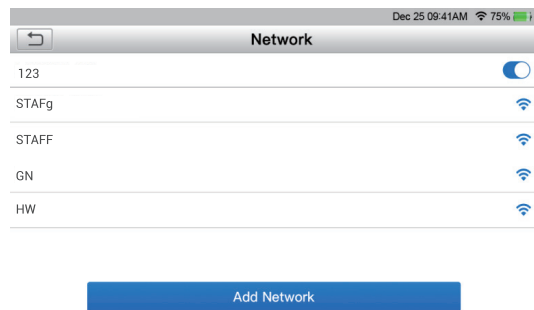
Choose the time zone of the current location. The system will automatically configure the time according to the time zone you chose. Tap "Next Step" to setup Wi-Fi connection.



8. Connect Wi-Fi

The system will automatically search all available Wi-Fi networks. Choose the network you need.

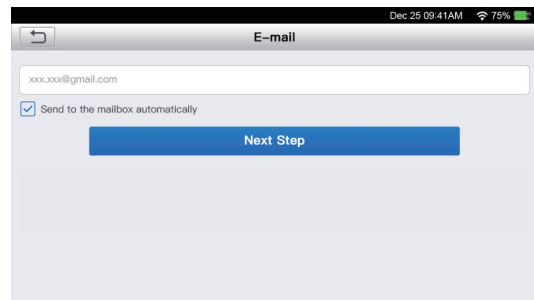
Tap "Next Step" to configure the email address.



9. Configure Email Address

Input the valid email address.

Tap "Next Step" to continue.

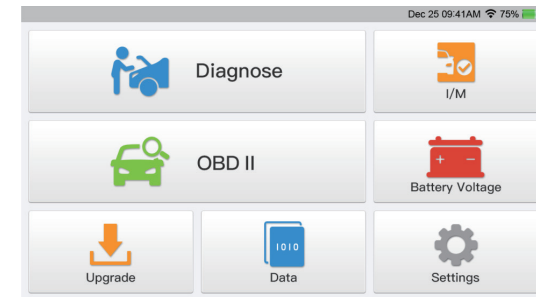


10. User Agreement

Please read all the terms and conditions of the user agreement carefully. Choose "Agree to all the above terms", and tap the "Next Step" to finish the sign-up process and then navigate to Home Menu.

Operation Introduction

TOPDON ArtiDiag500 has 7 major modules, including Diagnose, I/M, OBD II, Battery Voltage, Update, Data and Settings.



1. System Diagnostics

TOPDON ArtiDiag500 supports Smart Diagnosis and Manual Diagnosis for Engine, Transmission, ABS, and SRS systems of most modern vehicles across the global.

A diagnostic report will be automatically generated after the diagnosis.

1.1 Smart Diagnosis (Auto-Detect)

Power on the ArtiDiag500. Tap "Settings", and make sure the "Automatic detection on connect" is on.

Connect to the DLC's port, and then turn the ignition key on. The ArtiDiag500 will enter the Smart Diagnosis mode automatically.

1.1.1 Once the system successfully obtains the VIN (Vehicle Identification Number) information of the vehicle, it will continue scanning the vehicle systems. A diagnostic report will be automatically generated after the scanning is completed.

1.1.2 If the tool failed to access the VIN information, the screen will display as follows:



Input the VIN, and tap "OK", the system will decode the VIN data automatically, and continue the Smart Diagnosis procedure if success. Otherwise the system will enter the Manual Diagnosis mode.

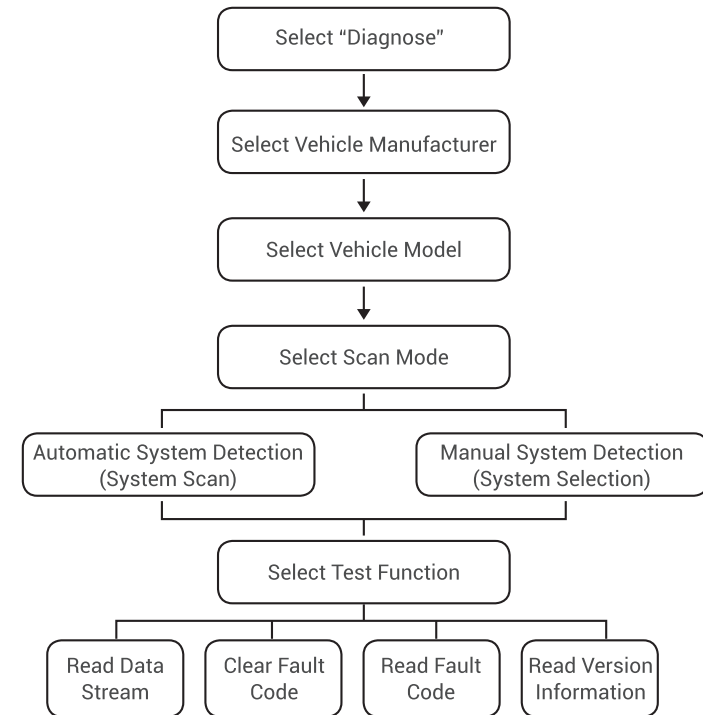
*Note:

- A highly stable and solid network connection is recommended for successful VIN access.
- VIN characters may be capital letters A through Z and numbers 1 through 0; however, the letters I, O and Q would never be used in order to avoid misreading. No signs or spaces are allowed in the VIN.

1.2 Manual Diagnosis

If the tool cannot obtain or analyze the VIN information, you can also perform Manual Diagnosis. In this mode, you need to execute the menu-driven command and follow the on-screen instruction to proceed.

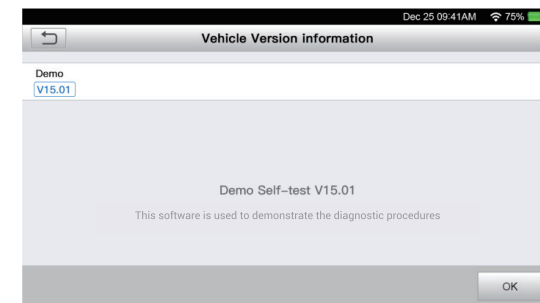
Refer to the flowchart illustrated as below to run the manual system diagnostics.



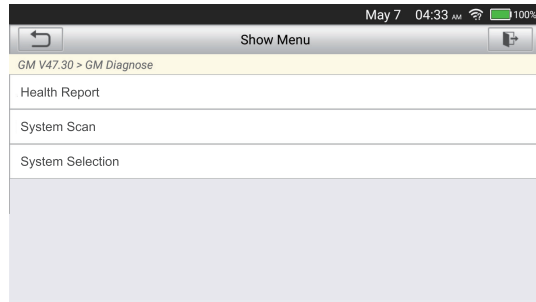
*Note:

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

Take "Demo" as an example to demonstrate how to manually diagnose a vehicle. Tap "OK" to continue.



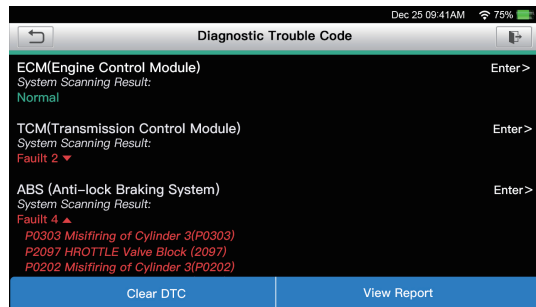
The following screen will appear:



1.2.1 Health Report (Quick Test)

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

Tap "Health Report", the system starts scanning the ECUs. Once the scanning is complete, the following screen will appear:

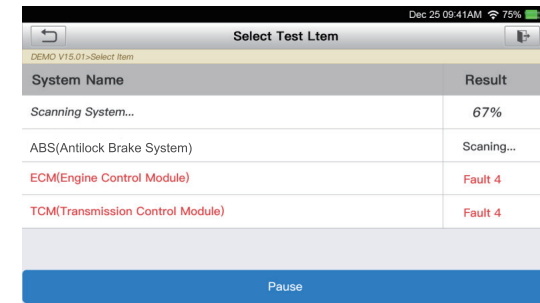


*Explanation of terms:

- Tap ▼ to display the details of DTCs existing in the current system. Tap ▲ to hide it.
- Enter: To select other test functions.
- Report: To save the diagnostic result as a report.
- Clear DTC: To clear the existing diagnostic trouble codes.

1.2.2 System Scan (Automatic System Detection)

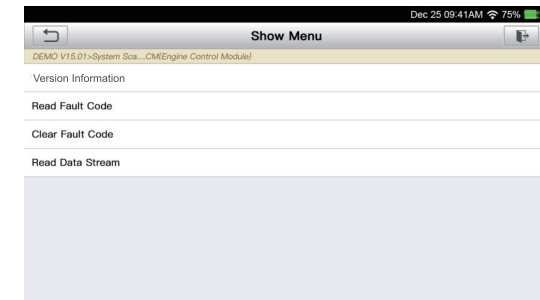
This function will scan the vehicle test system automatically. Tap "System Scan". The following screen will appear:



1.2.3 System Selection (Manual System Detection)

This function allows you manually select the system and preform the related diagnostic functions.

Tap "System Selection", and then select the desired system (take "ECM" for example). The following screen will appear:



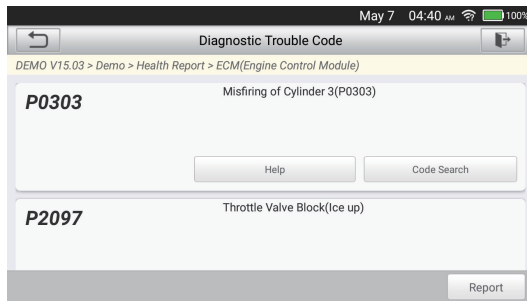
a. Version Information

This function can read the version information of system mode, vehicle VIN, software and ECU.

b. Read Fault Code

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

The following screen will appear:



*Explanation of terms:

- Freeze Frame: A snapshot of critical parameter values at the time the DTC occurs.
- Help: To view the help information.
- Code Search: 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 "Data" -> "Diagnostic Report".

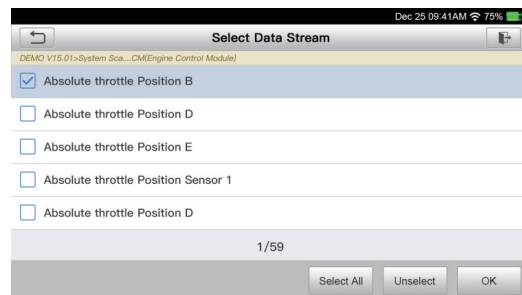
c. Clear Fault Code

This function can erase the codes from the vehicle. Please make sure the vehicle's ignition key is in the ON position with the engine off before the operation.

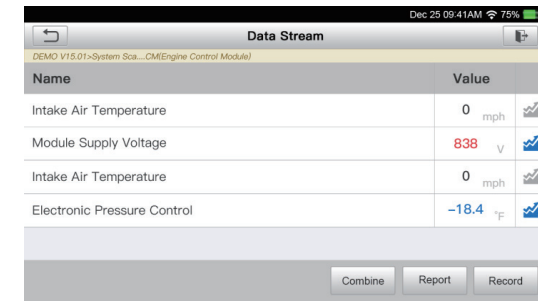
d. Read Data Stream

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

The following screen will appear:



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



The system will display the dynamic data of selected data streams in 3 modes available:

- 1)Value (default): Shows parameters with numbers and lists.
- 2)Figure: Displays parameters with wave patterns.
- 3)Combine: The graphs can be merged for easier comparisons.

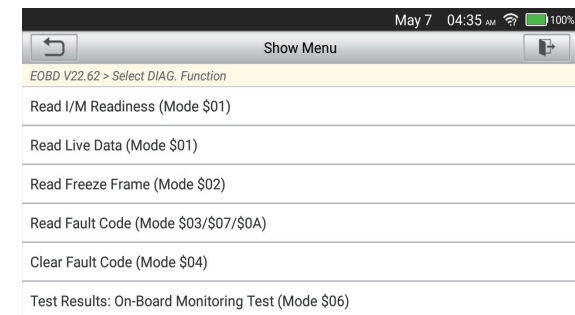
*Explanation of terms:

- : To view the parameters with wave patterns.
- Combine: To merge the values in waveform for easier comparisons.
- Report: To save the current data as a diagnostic report. All diagnostic reports can be accessed from "Data" -> "Diagnostic Report".
- Record: To record and save the Live Data as valuable information to help troubleshooting and diagnosing. All diagnostic records can be accessed from "Data" -> "Diagnostic Record".

2. OBDII/EOBD Diagnostics

This function 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 other services that are emission-related.

Tap "OBD II" in the home menu, the following screen will appear:



2.1 Read Codes

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

2.2 Erase Codes

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.

2.3 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 car fault has been performed correctly.

2.4 Data Stream

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

2.5 View Freeze Frame

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

2.6 O2 Sensor Test

This function retrieves O2 sensor monitor test results of the most recently completed tests from the vehicle's on-board computer.

2.7 On-Board Monitor 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.

2.8 EVAP System Test

This function initiates a leak test for the vehicle's EVAP system. Refer to the vehicle's service repair manual to determine the procedures necessary to stop the test.

2.9 Vehicle Info

This function 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).

3. Battery Voltage

This function can measure the current voltage of the vehicle's battery.

4. Upgrade

A number will be displayed upon the "Upgrade" module in the Home Menu indicating a new version of software is available.

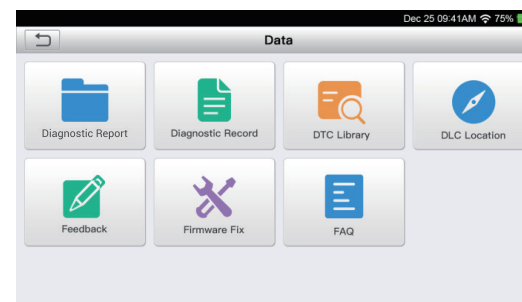
It is strongly suggested that update the software on regular basis for more functions and better service.

Once the download is finished, the software packages will be installed automatically.

*Note: It requires a stable and solid network connection.

5. Data

Tap "Data" in the home menu. The following screen will appear:



5.1 Diagnostic Report

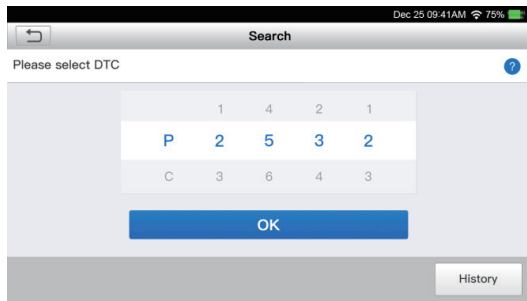
This module stores all diagnostic reports generated in the process of vehicle diagnosis.

5.2 Diagnostic Record

This module stores the running parameters or waveform graphs the user records.

5.3 DTC Library

This function helps you to get the details of the DTC, which will help greatly to simplify the diagnostic process.



5.4 DLC (Data Link Connector) Location

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

5.5 Feedback

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

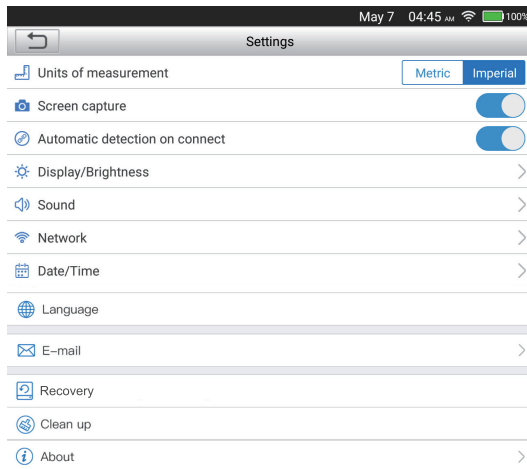
5.6 Firmware Fix

Use this module to upgrade and fix diagnostic firmware. Do not cut power or switch to other interfaces in the upgrading process.

5.7 FAQ

This module lists some frequently asked questions and answers related to this tool.

6. Settings



6.1 Units of measurement

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

6.2 Screen Capture

This option can set the Screen Capture icon to be shown or not on the screen.

6.3 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.

6.4 Display/Brightness

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

6.5 Sound

This option lets you adjust the volume and other sound settings.

6.6 Network

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

6.7 Date/Time

This option allows you to set the system date & time.

6.8 Language

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

6.9 E-mail

This option can set up the default email address for receiving the diagnostic reports.

6.10 Recovery

This option can reset the tool to the default factory setting.

6.11 Clean Up

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

6.12 About

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



Technical Specification

Display: 5-inch 1280*720 Touchable Screen
RAM: 2G
ROM: 16GB
Input Voltage Range: 9~18V
Working Temperature: 14 °F to 122 °F (-10 to 50°C)
Storage Temperature: -4 °F to 158 °F (-20 to 70°C)
Dimensions: 9.13*4.96*1.34 inches (232*126*34 mm)
Weight: 21.86 oz (620 g)

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.
- ✔ DO NOT disassemble the code reader.
- ✔ Engine parts will become hot when the engine is running. To prevent severe burns, avoid contact with hot engine parts.
- ✔ 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.

Cautions

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

FAQ

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

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

Q: Screen flashes at engine ignition start.

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

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

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

Q: What to do if the system fails to start auto VIN detection?

A: Please check the following possible causes:

- Whether the tool is properly connected to the vehicle's DLC.
- Whether the "Automatic detection on Connect" switch is OFF. If yes, slide it to ON.

Q: Why are there so many fault codes?

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

Q: How to upgrade the system software?

A:

- 1.Power the tool on and ensure a stable internet connection.
- 2.Tap "Setting" on the Home Menu, select "About" -> "Version", and tap "Detect the System Version" to enter the system upgrading page.
- 3.Follow the on-screen instructions step by step to finish the process. It may take a while to finish the upgrade depending on the internet speed. The tool will automatically restart and enters the Home Menu when the upgrade is successful.

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.