iMax Series Scan Tool
USER MANUAL

SHENZHEN VIDENT TECHNOLOGY CO., LTD

General Notice

For your own safety and the safety of others, and to prevent damage to the equipment and vehicles, read this manual thoroughly before operating your scan tool. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise extreme care when using this device. Always refer to and follow safety messages and test procedures provided by vehicle manufacturer. Read, understand and follow all safety messages and instructions in this manual.

Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and/or the scan tool, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:
Always perform automotive testing in a safe environment. Wear safety eye protection that meets ANSI standards. Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.
Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
Keep a fire extinguisher suitable for gasoline/chemical/ electrical fires nearby. Ignition is on or the engine is running.
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.

Warranty and Service

Limited One Year Warranty

We warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:
1) The sole responsibility of our company under the Warranty is limited to either the repair or, at the option of our company, replacement of the scan tool at no charge with Proof of Purchase. The sales receipt may be used for this purpose.
2) This warranty does not apply to damages caused by improper use, accident, flood, lightning, or if the product was altered or repaired.
3) We shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the scan tool. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

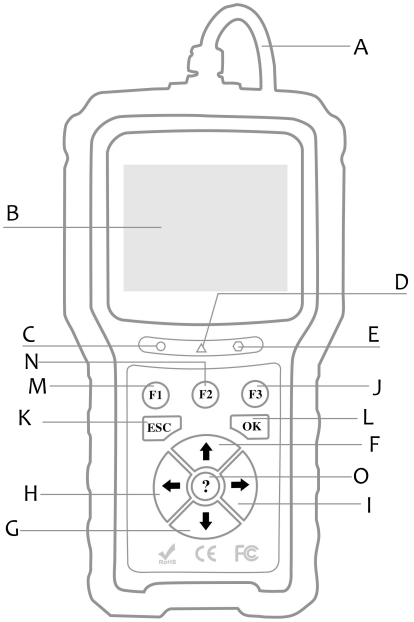
Table of Contents

1 Getting Started

iMax series is professional level diagnostic handheld tool, offering fundamental and basic diagnosis of full systems for certain car manufacturer. Featured with all supported system diagnosis including engine, transmission, ABS, Airbag, instrument, steering wheel, etc., and more than 10 commonly required services, iMax series tool is a poweful must-have for each car owner.

1.1 Tool Descriptions

This section illustrates external features, ports and connectors of the scan tool.



A OBDII Cable- provides communication for vehicle DLC.
B LCD Display - shows menus, test results and operation tips.
C Green LED Display- indicates electronic control module (ECM) is working normally (all monitors on the vehicles are active and performing their diagnostic testing), and no DTCs are found.
D Yellow LED Display- shows the tool finds a possible problem.
E Red LED Display -indicates there are some problems in electronic control module (ECM) tested. In this case, the MIL lamp on the instrument panel is on.
F UP Key - quick access to the Read Codes function before going to diagnostic menu and moves selection up. When looking up DTC, it is used to change value of selected character.
G DOWN Key - Quick access to the Clear Codes function before going to diagnostic menu and moves selection down. When looking up DTC, it is used to change value of selected character.
H LEFT SCROLL Key-goes to previous character when looking up DTCs. Scrolls back and forth through codes found and through different screens of data. Also it is used to make selection of PIDs when viewing custom PID list, and to view PID graphs.

I RIGHT SCROLL Key-goes to next character when looking up DTCs. Scrolls back and forth through codes found and through different screens of data. Also it is used to cancel all selections of PIDs when viewing custom PID list.

J,M, N Shortcut Key -configure user's usual and favorite choices.Whenever there is choices at bottom of diagnostic menu, they can also be used as confirmation button.

K ESC Key - cancels an action and returns to previous screen or level.

L OK Key - confirms an action or movement and moves to next level.

O ? Key - accesses to the Help function

1.2 Accessory Included

1) **Scan tool**

2) **Diagnostic Cable**

3) **USB cable** - connect to computer to update software

4) **User's Manual** - instruction on tool operations.

5) **Blow molding case** - stores the scan tool and its accessories

1.3 Specifications

Display: Backlit, 2.8" TFT color display

Working Temperature: 0 to 60 ℃ (32 to 140℉)

Storage Temperature: -20 to 70℃ (-4 to 158℉)

Power Supply: 8-18V vehicle power, 12V AC/DC power

Tool Dimensions: 190*100*35 mm (L*W*H)

1.4 Preparation &Connections

1.4.1 Preparation

--Turn the vehicle ignition to ON position.
--Vehicle battery voltage should be 9~14 volts
--Throttle should be on a closed position.

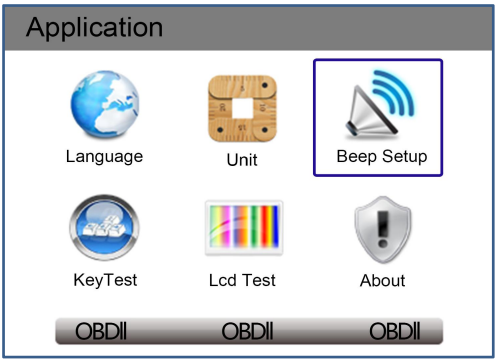
1.4.2 Connecting to Vehicle

1. Locate the data link connector (DLC). The DLC is generally a standard 16 -pin connector located 12 inches from the center of the steering wheel, under or around the driver's side.
2. Plug the diagnostic cable into the vehicle DLC socket.
3. The scan tool automatically boots up.

1.5 System Setup

The System Setup functions allow you to adjust default settings and view information about the scan tool. Options are :

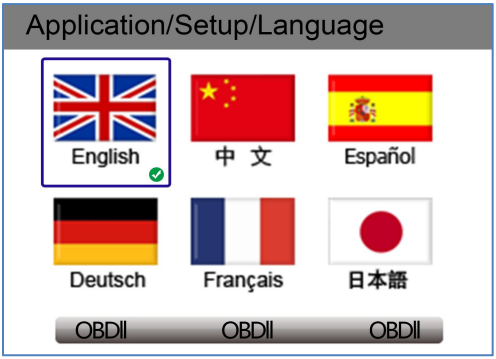
- Language
- Unit
- Beep Set
- Key Test
- LCD Test
- About
- Shortcuts



1.5.1 Select Language

English is the default language.

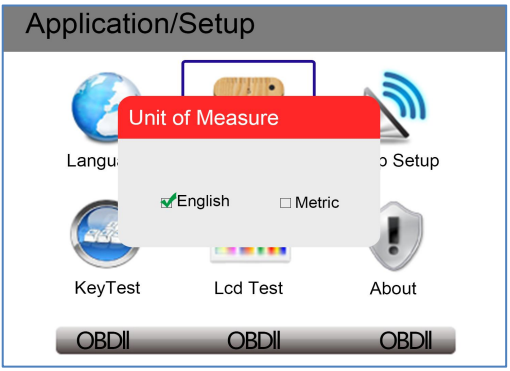
1. Select **Language** from Setup menu and press the **OK key**.
2. Press the **LEFT/RIGHT** arrow key select a language and press the **OK key** to confirm.



1.5.2 Unit of Measure

To change the unit setup:

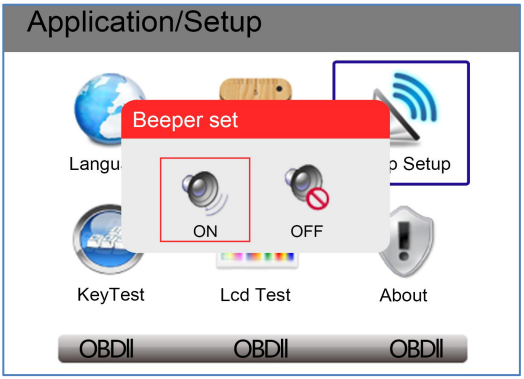
1. Select **Units** from Setup menu and press the **OK key**.
2. Press the **LEFT/RIGHT** arrow key select an item and press the **OK key** to save and return.



1.5.3 Beeper set

The default setting is Beep on.

1. Select **Beep Set** from Setup menu and press the **OK key**.
2. Press the **LEFT/RIGHT** arrow key to set the beep on or off and press the **OK key** to save.



1.5.4 Key Test

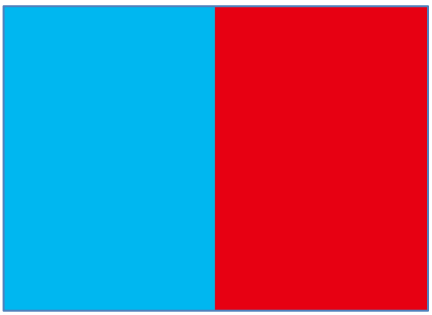
This function checks if the keys are working properly.

1. Select **Key Test** from Setup menu and press the **OK key**.
2. Press any key to start test. The virtue key corresponding with the key you pressed will be highlighted on the screen if it works correctly. Otherwise, the key is not functioning properly.
3. Click the F2 function key twice to exit.

1.5.5 LCD Test

LCD test checks if the LCD is working properly.

1. Select **LCD Test** from Setup menu and press the **OK key** to start test. Check if there are any missing spots in the LCD screen.



2. When completed, press the **ECS** key to exit.

1.5.6 About

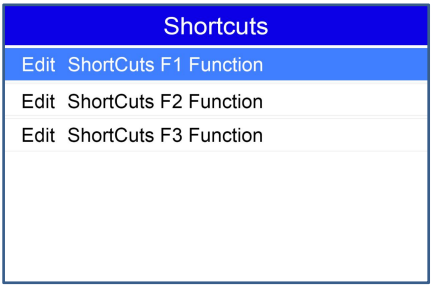
Selecting Setup>About option opens a screen that show information about your scan tool, such as serial number and register password which may be required for product registration.

1.5.7 Configure Shortcut Keys

Selecting Shortcuts option lets you to change the functionality of the shortcut buttons.

To assign a function to a shortcut button:

1. Select **Shortcuts** from Setup menu and press the **OK key**. A screen with available shortcut keys displays.
2. Press the **UP/DOWN** arrow key select an shortcut key and press the **OK key**.



3. Scroll with the **UP/DOWN** arrow keys to highlight an application and press the **OK key** to assign the application to the shortcut key.

2 Diagnostic Operations

This section illustrates how to use the scanner to read and clear diagnostic trouble codes, and view “live” data readings and ECU information on controllers installed on the vehicles and also save “recordings” of the data readings.

Following applications are preloaded into the scanner:

- **OBDII/EOBD** – OBDII/EOBD diagnosis for all 10 generic OBD modes.
- **I/M Readiness** – quick test and display the result of I/M.

- **Scan** – Marked with certain car make providing diagnosis of full systerm supported of this car make.
- **Service** –commonly required maintenance.

  NOTE:

  Depending on car make, this service may vary.
- **Setup** – Basic tool setting.
- **Playback** – To access saved diagnostic data.

2.1 Vehicle Identification

The vehicle identification information presented is provided by the ECM of the vehicle being tested. Therefore, certain attributes of the test vehicle must be entered into the scan tool to ensure the data displays correctly. The vehicle identification sequence is menu driven, you simply follow the screen prompts and make a series of choices. Each selection you make advances you to the next screen.

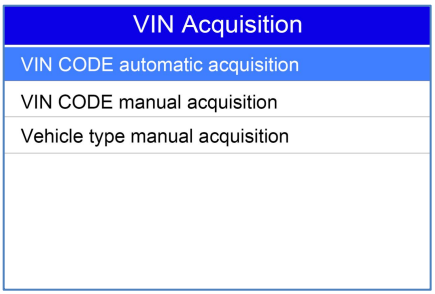
It typically identifies a vehicle by any of the following means, The options available vary by vehicle manufacturer, not all the following options are available for all vehicles.

- Automatic VIN acquisition
- Manual VIN entry
- Manual vehicle selection
- Vehicle data recorder

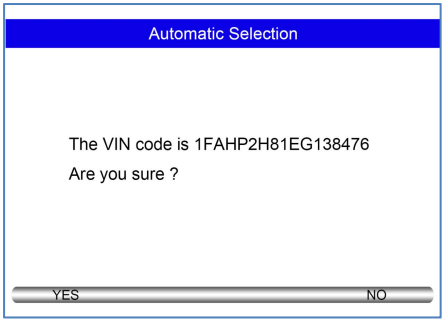
2.1.1 Automatic VIN Acquisition

Automatic VIN Acquisition only available on some manufacturers. It allows to identifying a vehicle by automatically requesting the vehicle identification number (VIN).

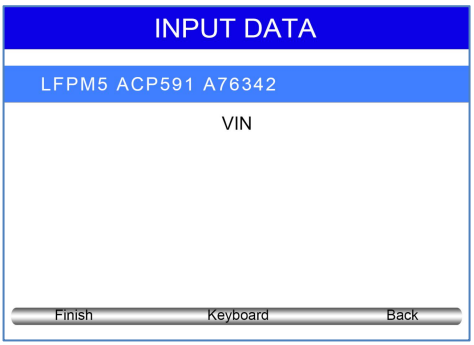
1. When a vehicle make has been selected, the following screen displays. Select VIN acquisition from the menu, and press the OK key.



2. The scan tool starts to communicate with the vehicle and read the Vehicle Specification or VIN Code automatically.



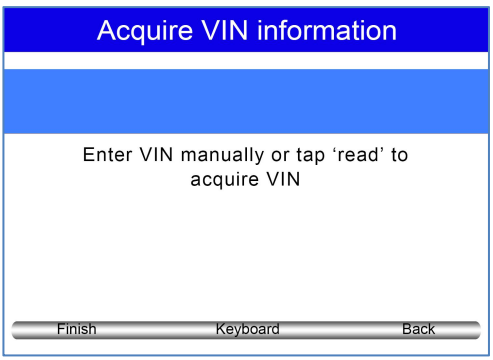
3. Answer **YES** if the Vehicle Specification or VIN code is correct and a menu of controller selection displays. Answer **NO** if it is incorrect, and you are required to enter the correct VIN number manually.



2.1.2 Manual VIN Entry

Manual VIN Entry identifies a vehicle by manually inputting a 17-digit VIN code.

1. Select manual VIN entry. A virtual keyboard opens for VIN entry.



2. Input a valid VIN code and use the function key **Finish** to confirm. The scan tool starts to identify the vehicle.

2.1.3 Manual Vehicle Selection

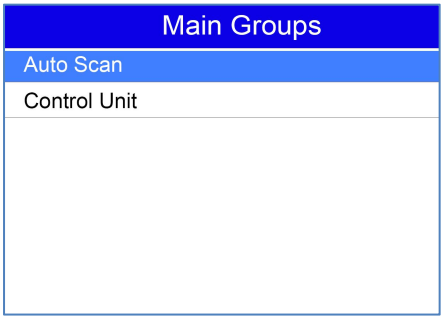
Manual Vehicle Selection identifies a vehicle by making several selections according to certain VIN characters, such as sub-brand, model year, and engine size.

1. On each screen that appears, select the correct option and then press the OK key. Follow the on-screen prompts until the menu of controller selection displays.

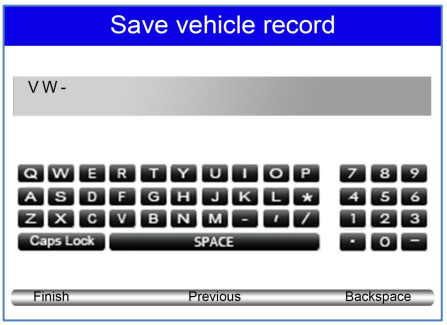
2.1.4 Save a Tested Vehicle Info.

The scan tool is able to save a tested vehicle by creating a Vehicle Record. It provides quick identification of previously tested vehicle(s).

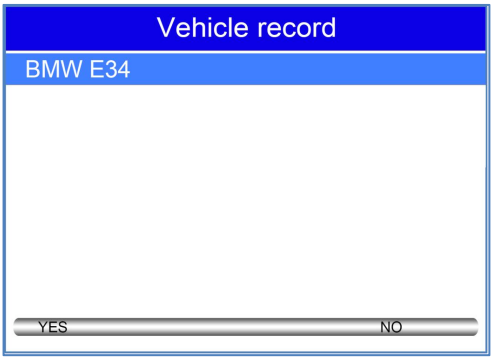
1. Identify the vehicle by any of the means above, and run an automatic system test by selecting **Auto Scan**.



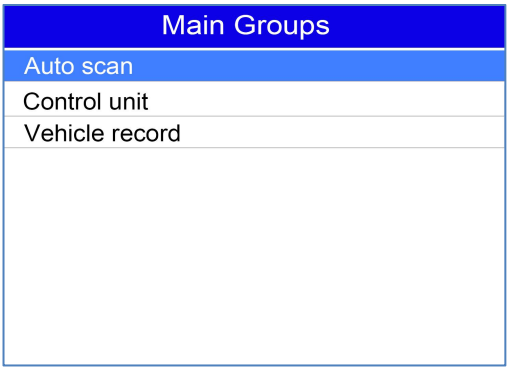
2. When the test finished, press the function key **Save** on the screen, and a screen with a virtual keyboard displays.



3. Enter a unique name for this vehicle and save it, and you will see this new vehicle in Vehicle Data Recorder menu.



To identify a previously tested vehicle:
1. Select **Vehicle record** and press the **OK key** to start.



2. Select the vehicle under test and press the **OK key**.

2.2 System Selection

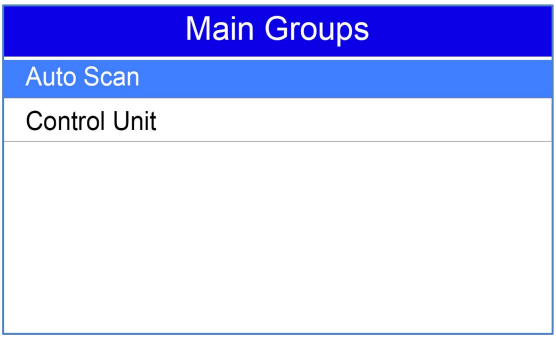
When you have completed the identification of vehicle, a menu for selecting systems to test displays. Menu options typically are

- Auto Scan
- Control Unit

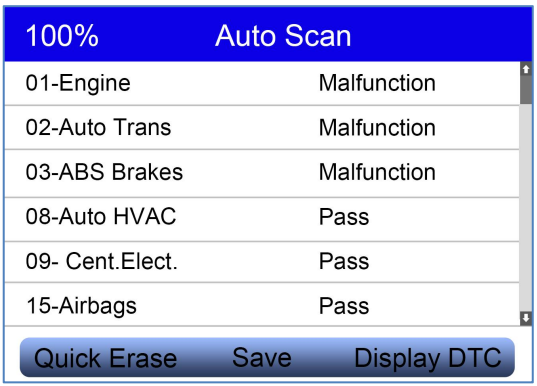
2.2.1 Auto Scan

Auto Scan performs an automatic system test to determine which control modules are installed on the vehicle and obtain diagnostic trouble codes (DTCs) overview.

1. Select Auto Scan from the menu and press OK to start.

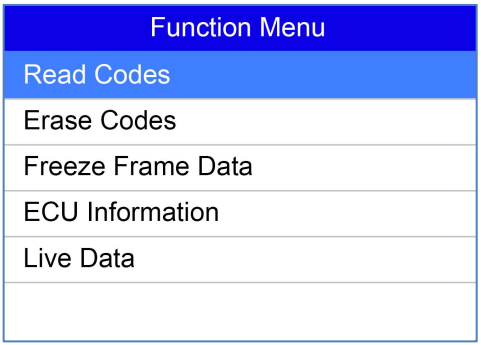


2. When auto scan finishes, a menu with a list of installed controllers together with their DTC overview displays.



3. If there is diagnostic trouble code(s) detected in a control unit, press the function key corresponding with **Display DTC** on the screen to view details of code information, and press the function key **Quick Erase** to clear them.

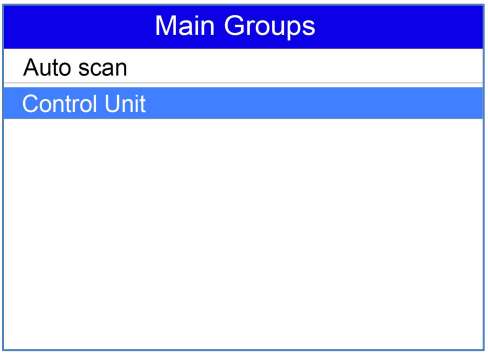
4. Select the system you would like to test, and press the **OK key**. When the scan tool has established connection with the vehicle, the Function Menu displays.



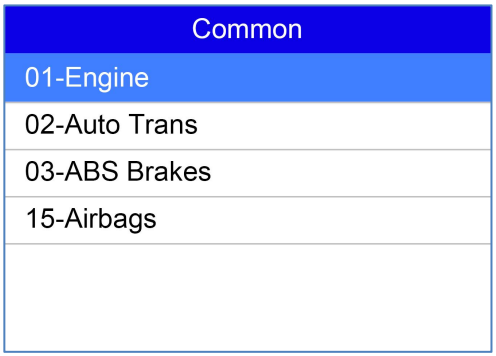
2.2.2 Control Unit

Control Unit screen displays all controllers available to this specific vehicle manufacturer.

1. Select **Control Unit** from the menu and press the **OK key**. A controller menu displays.



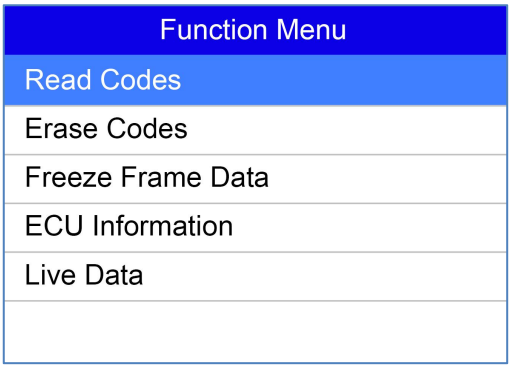
2. Select the system you would like to test. When the scan tool has established connection with the vehicle, the Function Menu displays.



2.3 Diagnostic Function

After a system is selected and the scan tool establishes communication with the vehicle, the Function Menu displays. Typically the menu options are

- Read Codes
- Erase Codes
- Freeze Frame
- ECU Information
- Live Data



2.3.1 Read Codes

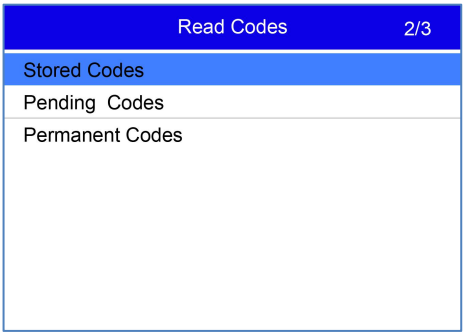
Read Codes menu lets you read trouble codes found in the control unit. Typical menu options include:

- Present/Permanent/Current Codes
- History Codes

Present/Permanent/Current codes stored in a control module are used to help identify the cause of a trouble or troubles with a vehicle. These codes have occurred a specific number of times and indicate a problem that requires repair.

History codes are also referred to as past codes that indicate intermittent DTCs that are not currently active.

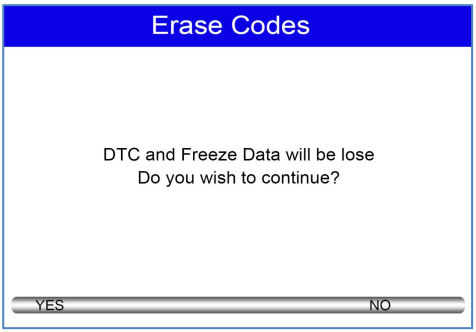
1. Select **Read Codes** from Function Menu and press the **OK key**. A code list including code number and its description displays.
2. Use the up and down arrow keys to scroll through data to select lines, and left and right arrow keys to scroll back and forth through different screens of data.



2.3.2 Erase Codes

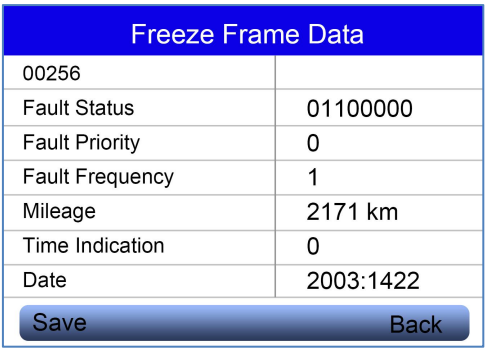
Erase Codes menu lets you to clear all current and stored DTCs from a selected control module. Also it erases all temporary ECU information, including freeze frame. Erase Codes does not fix the problem that caused the fault! DTCs should only be erased after correcting the condition(s) that caused them.

1. Select **Erase Codes** from Function Menu and press the **OK key**. Follow the on-screen instructions to complete the procedure.



2.3.3 Freeze Frame Data

Freeze Frame Data 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.



2.3.4 ECU Information

ECU Information screen displays the identification data of the control module under test, such as the control module identification string and the control module coding.

1. Select **ECU Information** from the menu and press the **OK key**.
2. A screen with detailed information of the selected control module displays.

2.3.5 Live Data

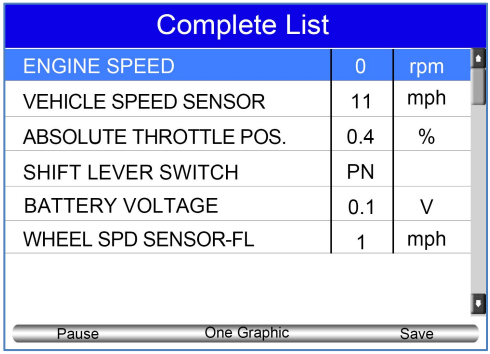
Live Data menu lets you view and record real time PID data from a selected vehicle electronic control module.

Menu options typically include:

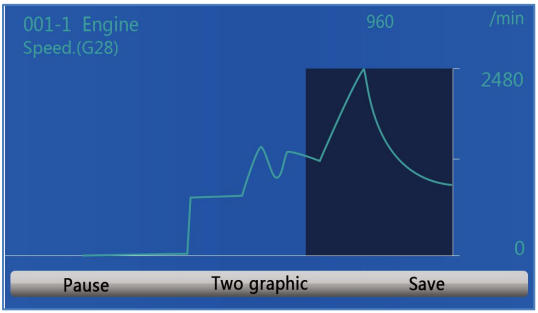
- Complete Data List
- Custom Data List

2.3.5.1 Complete Data List

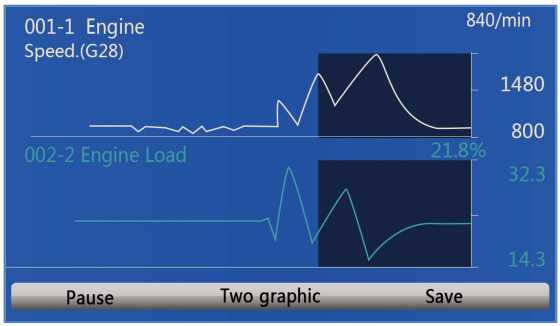
Complete Data List menu lets you view all live PID data from a selected system.



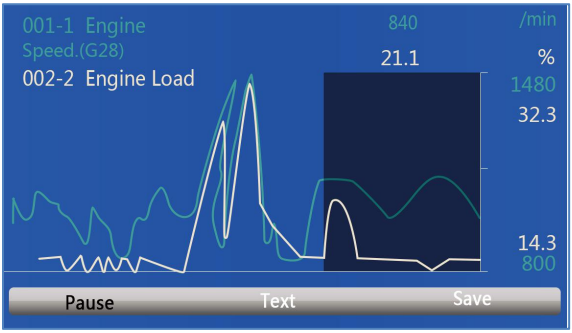
1. Scroll with the up and down arrow keys to highlight a line, if the **One Graphic** on the bottom is highlighted, it indicates graphing is available for the selected line. Press the function key **One Graphic** to display the PID graph.



2. Press the function key **Two Graphics** to display two PID graphs in one screen.



3. Press the function key **Merge Graph** to display two PID plots in one coordinate for easy and intuitive diagnosis.

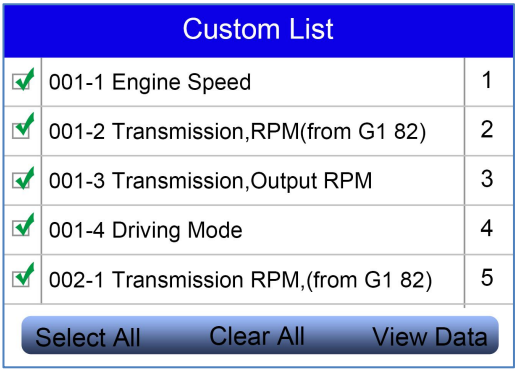


4. To record the data to memory of the scan tool, use the function key **SAVE**, and press **Stop Saving** to stop recording at any time.
5. Press **Text** to return to text viewing of PID data.
6. Select **Pause** to suspend collecting data from the scan tool and use the **Start** key to resume collecting data.
7. Press the **ECS key** to return to the previous menu.

2.3.5.2 Custom Data List

Custom Data List menu lets you to minimize the number of PIDs on the data list and focus on any suspicious or symptom-specific data parameters.

1. Select **Custom List** from the menu and press the **OK key**. The custom data stream selection screen displays. Scroll with the up and down arrow keys to highlight a line, press the **OK key** and then repeat the action to make more selections.



2. When finished selection, use the function key **VIEW DATA** to display selected items.

3 Services/Maintenance

This section gives brief instructions of the most commonly required service and maintenance operations. Typical service operation screens are a series of menu driven executive commands. Follow on-screen instructions to complete the operation.

(Following services are applied to iMax series depending on specific car makes.)

3.1 Oil Light Service/Reset

a)If the service lamp is on, you must provide service for the car. After service, you need to reset the driving mileage or driving time so that the service lamp turns off and the system enables the new service cycle. b)After changing engine oil or electric appliances that monitor oil life, you need to reset the service lamp.

3.2 ABS bleeding

When the ABS contains air, the ABS bleeding function must be performed to bleed the brake system to restore ABS brake sensitivity.

If the ABS computer, ABS pump, brake master cylinder, brake cylinder, brake line, or brake fluid is replaced, the ABS bleeding function must be performed to bleed the ABS.

3.3 Battery matching

Use the car diagnostic device to reset the car battery monitoring unit to clear original fault information about insufficient battery electric quantity, and match the battery again and monitor battery based on current battery information.

Battery matching must be performed in the following cases: a) Main battery is replaced. Battery matching must be performed to clear original electric quantity insufficiency information and prevent the related control module from detecting false information. If the related control module detects false information, it will invalidate some electric auxiliary functions, such as automatic start&stop function, sunroof without one-key trigger function, power window without automatic function. b) Battery monitoring sensor. Battery matching is performed to re-match the control module and motoring sensor to detect battery electric quantity use information more accurately, which can avoid the instrument panel displaying false information.

3.4 Electronic Parking Brake (EPB) Service

EPB Service menu allows you to perform the service and maintenance of brake systems, including deactivation and activation of the brake control system, bleeding brake fluid, opening

and closing brake pads, and setting brakes after disc or pad replacement, on multiple brands of vehicles where electronic brake systems are fitted.

3.5 Diesel Particulate Filter (DPF) Regeneration

DPF Regeneration menu let you perform the DPF cleaning to clear the blockage through continuous burning of the particulates captured in the DPF filter. When a DPF regeneration cycle is completed, the DPF light automatically goes off.

3.6 TPS(Throttle Body Alignment)

Use the car decoder to initialize the throttle actuation element so that the ECU learning value is returned to the initial status to more accurately regulate throttle (or idle motor) operations to control intake air quantity.

Throttle matching must be performed in the following cases: a) The ECU is replaced and the ECU does not yet store throttle working features. b) The ECU is disconnected and the ECU memory is lost. c) The throttle assembly is replaced. d) The intake passage is replaced or removed, which affects idle speed control by ECU and throttle body. e) The throttle is cleaned. Although the idle throttle potentiometer features are not changed, with the same throttle opening, the intake quantity has changed and idle speed control features have changed.

3.7 Steering Angle Sensor (SAS) Calibration

SAS Calibration menu let you perform calibration of the Steering Angle Sensor, which permanently stores the current steering wheel position as straight-ahead in the sensor EEPROM. On successful calibration of the sensor, its fault memory is automatically cleared.

3.8 TPMS Adaptation

TPMS Service menu allows you to check the tire sensor IDs from the vehicle ECU and to perform TPMS programming and reset after tires and/or TPM sensors are replaced and/or tires are rotated.

3.9 Immobilizer

To prevent the car being used by unauthorized keys, the anti-theft key matching function must be performed so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car.

When the ignition switch key, ignition switch, combined instrument panel, ECU, BCM, or remote control battery is replaced, anti-theft key matching must be performed.

3.10 Injector Coding

Write injector actual code or rewrite code in the ECU to the injector code of the corresponding cylinder so as to more accurately control or correct cylinder injection quantity.

After the ECU or injector is replaced, injector code of each cylinder must be confirmed or re-coded so that the cylinder can better identify injectors to accurately control fuel injection.

3.11 Gear Learning

Crankshaft position sensor adaptive learning. The crankshaft position sensor learns crankshaft tooth machining tolerance and save to the computer to more accurately diagnose engine misfires. If tooth learning is not performed for a car equipped with Delphi engine, the MIL turns on after the engine is started. The diagnostic device detects the DTC P1336 'tooth not learned'. In this case, you must use the diagnostic device to perform tooth learning for the car. After tooth learning is successful, the MIL turns off.

After the engine ECU, crankshaft position sensor, or crankshaft flywheel is replaced, or the DTC 'tooth not learned' is present, tooth learning must be performed.

3.12 Suspension Match

This function is used to adjust car body height.

When the car body height sensor and control module in the air suspension system are replaced or the car level is incorrect, perform this function to adjust the car body height sensor for horizontal calibration.

3.13 Sunroof Initialization

This function is used to set sunroof lockup close, close on rainy days, slide/tilt sunroof memory function, outside temperature threshold, etc.

3.14 Gearbox Match

This function is used to learn the gearbox to improve shift quality.

After the gearbox is dismounted or repaired (after battery powered off for some car series), shift delay or impact is caused. In this case, perform this function to make the gearbox compensate automatically according to driving conditions so as to reach more comfortable and ideal shift quality.

3.15 Ajuste Fuel

Adjust fuel gauge if fuel type is changed.

3.16 Odometer Calibration

Instrument panel mileage calibration is used to copy, write, or rewrite mileages. That is, use the car diagnostic computer and data line to copy, write, or rewrite chip data on the instrument panel to make the instrument panel display actual mileages.

Usually, when the vehicle speed sensor is damaged or the mileage is incorrect due to instrument panel faults, you must perform mileage calibration after maintenance.

3.17 AFS (Adaptive Front Lighting System)

This function is used to initialize the adaptive headlight system. The adaptive headlight system determines whether to automatically turn on the headlight according to ambient light intensity, monitors driving speed and body posture, and adjusts the headlight lighting angle.

3.18 PFP (Prime an Electric Fuel Pump)

An electric fuel pump is an essential component that can be found in your car. The fuel pump is used to make sure the gas travels from the fuel tank to the engine. The fuel must travel through a hose, also called the fuel line, and it is the job of the fuel pump to make sure the gas reaches the proper location. The fuel pump is used in any car where gravity cannot be used to pump the fuel into the system. There are two types of engines. The first is known as a carbureted engine and the other is known as a fuel injected engine. The fuel injected engine in most cases will use an electric fuel pump. You may need to prime it to boost the gas flowing through the system. Below are instructions on how to prime the electric fuel pump.

The program can detect the Prime Fuel Pump function. Air often gets into the fuel line when a diesel vehicle change fuel or assembly fuel system. This causes a vehicle to have problems starting, forcing you to 'prime' the fuel system to remove the air.

3.19 Turbo Match

This routine is required if the secondary turbo charger is replaced. This will learn the offset values for the turbine shut-off valve.

3.20 Door Window Calibration

When replacing door glass and after battery replacement on certain year, make, model vehicles special steps need to be taken in order to properly replace and reprogram the vehicle so the electric windows work properly, the door window glass position can be learned by executing this routine, which enables pinch protection and one touch up function.

3.21 Seat Match

A memory seat is essentially an electrically-adjustable car seat which can be moved into pre-set positions at the push of a button. As a result of the removal of the DCC fuse, the 'driving position memory' function of the driver and passenger side seat will be inoperative due to the loss of seat

position memory stored in the seat ECU. The seat (position control) ECU may need to be initialized if the seat memory settings cannot be recorded.

3.22 Dashborad Language Change

This routine is to change language displayed in the instrument.

3.23 Clutch Adaptation

Importance of clutch pedal free-play. Anything less than the correct amount of free play (or clearance) will result in clutch slip, because the pressure plate will be unable to exert its full pressure on the friction plate, clutch linkage adjustment to compensate for clutch wear.

4.OBDII Diagnostics

When **Diagnostics** application is selected from Home screen, the code reader starts to detect the communication protocol automatically. Once the connection has been established, a menu that lists all of the tests available on the identified vehicle displays. Menu options typically include:

- Read Codes
- Freeze Frame Data
- Erase Codes
- Live Data
- I/M Readiness
- O2 Sensor Test
- On-board Monitor Test
- Component Test
- Vehicle Information
- Modules Present
- DTC Lookup
- System Status

4.1 Read Codes

Read Codes menu lets you read stored codes, pending codes and permanent does found in the control unit. Typical menu options include:

- Stored Codes
- Pending Codes
- Permanent Codes

To read codes from a vehicle:

1. Press the **Read** hot key to directly read the codes from home screen. Or scroll with the **UP/DOWN** key to highlight **Read Codes** from Diagnostic Menu and press the **OK** key.
2. Select **Stored Codes**/**Pending Codes/ Permanent Codes** and press the **OK** key to confirm.
3. A code list including code number and its description displays.

4.2 Erase Codes

There are two ways to erase codes:

- Press the **Erase** hot key to erase codes from home screen.
- Traditional way: select Erase Codes from the diagnostic menu.

1. Press the **Erase** hot key to directly erase the codes from the home menu. Or use the **UP/DOWN** key to highlight **Erase Codes** from Diagnostic Menu and press the **OK** key.
2. Follow the on-screen instructions and answer questions about the vehicle being tested to complete the procedure.
3. Check the codes again. If any codes remain, repeat the Erase Codes steps.

4.3 Live Data

Live Data menu lets you view, record and playback real time PID data from the electronic control module.

Menu options typically include:

- View Data
- Record Data
- Playback Data

4.3.1 View Data

The **View Data** function allows real time viewing of the vehicle's electronic control unit's PID data, including sensor data, operation of switches, solenoids and relays.

Menu options typically include:

- Complete Data
- Custom Data
- Unit of measure (Please refer to Chapter 1.5.2)

4.3.1.1 Complete Data Set

Complete Data Set displays all supported PIDs of the vehicle being tested.

1. Use the **UP/DOWN** key to highlight **Live Data** from Diagnostic Menu and press the **OK** key.
2. Select **View Data** or **Complete Data Set** from the list and press **OK** key to confirm.
3. Press the **OK** key to view PID graph if the PID gives a numeric reading.

4.3.1.2 Custom Data List

Custom Data List menu lets you to minimize the number of PIDs on the data list and focus on any suspicious or symptom-specific data parameters.

1. Select **Custom List** from the menu and press the **OK** key.
2. Use the **RIGHT** key to select or deselect a line or press **LEFT** key to deselect all if needed. Press the **OK** key to confirm and **ESC** key to cancel.

4.3.2 Record Data

The **Record Data** function is used to record PIDs to help diagnose intermittent drivability problems that can't be determined by any other method.

Menu options typically include:

- Complete Data
- Custom Data
- Unit of measure (Please refer to Chapter 1.5.2)

NOTE

There are two types of trigger methods used.

- Manual Trigger---triggers recording whenever operators press the **OK** key.
- DTC trigger--- automatically triggers recording when a code is detected by vehicle. DTC Trigger is not available on all vehicles. Some vehicles need to be driven for a long period of time to store a code after a drivability fault occurs. If **DTC trigger** is selected to make a recording, there might not be drastic change in the data before and after trigger.

To record data:

1. Select Record data from the menu and press the **OK** key.
2. Refer to **View Data** to set up **Complete Data Set** or **Customer Data Set** to record.
3. If the recording is to be overwritten, selected **Yes**; if data is not to be overwritten, pick **No** to return to Select Memory screen and choose another one.
4. If **Manual Trigger** is selected, following screen displays:
5. If **DTC Trigger** is picked, following screen displays:

6. Press the **OK** key to start recording or wait codes to trigger.

NOTE
Different vehicles communicate at different speeds and support a different number of PIDs. Therefore, the maximum number of frames that can be recorded varies.The code reader keeps recording data until

- ●the memory is full.
- ● the operator presses the **ESC** key.

7. After recording, the code reader displays a prompt to **Playback.**

8. Select **YES** to view recorded data; pick **NO** or press the **ESC** key to return to **Record Data**.

4.3.3 Playback Data

The **Playback Data** is used to playback recorded PID data.

1. Scroll with the up and down arrow key to select **Playback Data** from the Menu.

2. Use the **UP/DOWN** key to select a memory area that is marked with an asterisk (*) and press the **OK** to confirm.

4.4 View Freeze Frame Data

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. Select **View Freeze Frame** from the Diagnostic Menu. Details of freeze frame data displays.

2. Use the up and down arrow keys to scroll through data to select lines, and left and right arrow keys to scroll back and forth through different screens of data. If no freeze frame detected, the message “No freeze frame data stored!” is displayed.
3. Use the **ESC** key to return to Diagnostic Menu.

4.5 Read I/M Readiness Status Data

I/M Readiness option allows to view a snapshot of the operations for the emission system on OBDII/EOBD 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.

No.	Abbreviation	Name
1	MIS	Misfire Monitor
2	FUE	Fuel System Monitor
3	CCM	Comprehensive Components Monitor
4	CAT	Catalyst Monitor
5	HCAT	Heated Catalyst Monitor
6	EVAP	Evaporative System Monitor
7	AIR	Air Conditioning Refrigerant Monitor
8	O2S	Oxygen Sensor Monitor

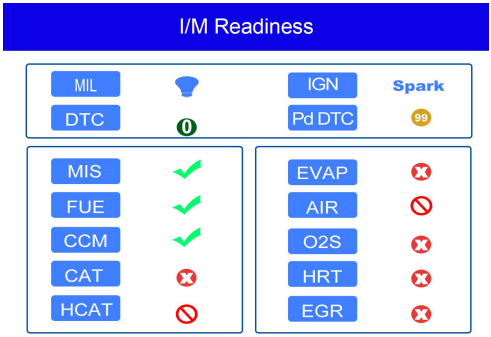
9	HRT	Oxygen Sensor Heater Monitor
10	EGR	Exhaust Gas Recirculation System Monitor

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.

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.



2. Colored LED and build-in beeper provide both visual and audible reminders for emission check and DTCs. Below is the interpretation of the LED and build-in beeper.

   When the LED is :

   - Green - Indicates that engine systems are “OK” and working properly (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.
   - Red - four short beeps.

NOTE

The built-in beeper which makes different tones corresponding to different LED indicators is invaluable when the test is performed while driving or in bright areas where LED illumination may not be visible.

To retrieve I/M Readiness Status data :

1. Scroll with **UP/DOWN** key to highlight **I/M Readiness** from Diagnostic Menu and press the **OK** key. If vehicle supports both types of monitors, a screen for monitor type selection displays. Select a monitor type and press the **OK** key.

2. If the vehicle is tested supports both types of monitors, following screen displays.

I/M Readiness	1/2
Since DTCS cleared	
This driving cycle	

3. Depending on readiness test, one of these 2 screens will be present. Use the up and down arrow keys to scroll through data. Press the **ESC** key to exit.

This driving cycle	1
MIS	OK
FUEL	OK
CCM	OK
CAT	INC
HCAT	N/A
EVAP	OK
AIR	N/A

Or

Since DTCs cleared	1
MIL	ON
MIS	OK
FUEL	OK
CCM	OK
CAT	INC
HCAT	N/A
EVAP	INC

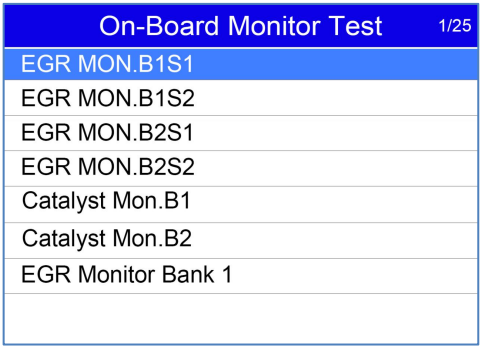
4.6 O2 Monitor Test

1. Use the **UP/DOWN** key to highlight **O2 Monitor Test** from Diagnostic Menu and press the **OK** key. Use the **UP/DOWN** key to highlight an O2 sensor and press the **OK** key to confirm.
2. Use the up and down arrow keys to scroll through data to select lines, and left and right arrow keys to scroll back and forth through different screens of data.
3. Press **OK** key to view data of selection.
4. Press the **ESC** key to exit and return.

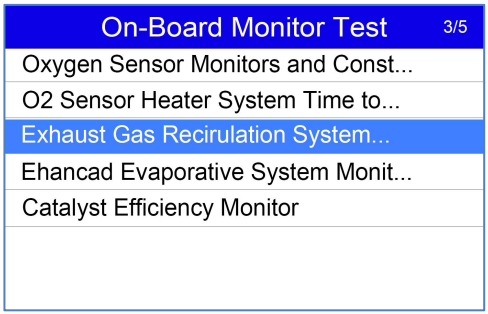
4.7 On-Board Monitor Test

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. Use the **UP/DOWN** key to highlight **On-Board Monitor Test** from Diagnostic Menu and press the **OK** key.
2. Depending on the protocol the vehicle used, one of these 2 screens shows.



Or



3. Use the **UP/DOWN** key to highlight a test group and press the **OK** key to confirm. A screen with details of the selected sensor displays. Use the up and down arrow keys to scroll through data to select lines, and left and right arrow keys to scroll back and forth through different screens of data.
4. Press the **ESC** key to exit and return.

4.8 Component Test

Component Test allows the code reader to control operation of vehicle components, tests or systems.

1. Use the UP/DOWN key to highlight Component Test from Diagnostic Menu and press the OK key.
2. Use the **UP/DOWN** key to highlight a system or component, press the **OK** key to start test and the code reader displays the message “Command Sent!”
3. Press the **ESC** key to exit and return.

4.9 Request Vehicle Information

Vehicle Information allows to request the vehicle’s VIN number, calibration ID(s) which identifies software version in vehicle control module(s), calibration verification numbers (CVN(s)) and in-use performance tracking on model year 2000 and newer OBDII compliant vehicles.

CVNs are calculated values required by OBD II regulations. They are reported to check if emission-related calibrations have been changed. Multiple CVNs may be reported for a control module. It may take several minutes to do the CVN calculation.

To request vehicle information:

1. Use the **UP/DOWN** key to highlight **Vehicle Info.** from Diagnostic Menu and press the **OK** key. Follow on-screen instruction and send the command to read vehicle information.

2. Use the **UP/DOWN** key to highlight an available option and press the **OK** key. A screen with details of the selected option displays.

3. Press the **ESC** key to exit and return.

4.10 Modules Present

The code reader identifies module IDs and communication protocols for OBD2 modules in the vehicle.

To view module IDs and communication types:

1. Use the UP/DOWN key to highlight Modules Present from Diagnostic Menu and press the OK key.
2. A screen with the module IDs and protocols displays.
3. Press the ESC key to exit and return.

4.11 DTC Lookup

DTC Lookup menus allows to request DTC definitions stored in the code reader.

To Look up DTCs:

1. Use the **LEFT/RIGHT** key to highlight **DTC Lookup** from Home Screen and press the **OK** key.

2. Use the LEFT/RIGHT key to select the desired character, then press the UP/DOWN key to change the digit you want to enter a valid code number. Press the OK key to confirm.

3. A screen with code number and its definition displays. If definition could not be found (SAE or Manufacturer Specific), the code reader displays “DTC definition not found! Please refer to vehicle service manual!” If a P1xxx, C1xxx, B1xxx or U1xxx code is entered, select a vehicle make to look for DTC definitions. Press the BACK key to exit.

4.12 System Status

System Status option open a screen with a summary of system status of the vehicle under test.

To view summary system status of a vehicle:

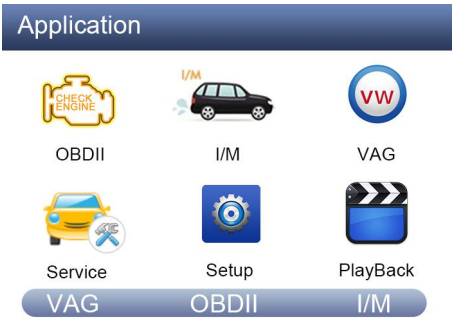
1. Scroll with the arrow keys to highlight System Status from Diagnostic Menu and press the

ENTER key.
2. A screen with detailed information displays.

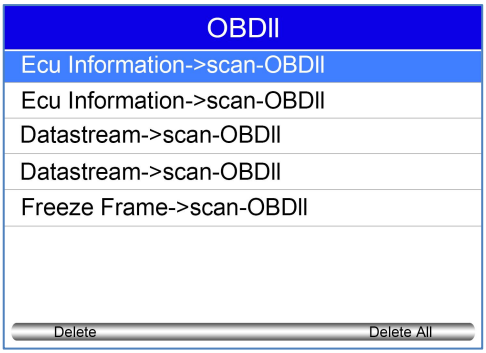
5 Playback Data

The PlayBack data function allows viewing test results recorded by the scan tool.

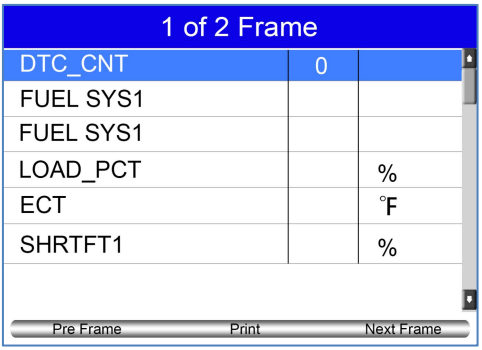
1. Select **PlayBack** from home screen and press the **OK key**.



2. A screen with a list of test records displays. If no data is recorded, the message “No Data available!” is displayed.



3. Scroll with the arrow keys to select desired testing entries and press the **OK key**. Details of the test record displays.



4. If you are reviewing live data or freeze frame data, use the function key **Next Frame** or **Pre. Frame** to scroll through all possible frames when necessary.
5. To erase a record, scroll with the arrow keys to highlight it and press the function key **Delete**. To delete all records, press the function key **Delete All**. Answer **Yes** to delete and **No** to quit.

6. Software Update and Printing

6.1 Update Your Tool

To apply software updates to the tool you will need a Windows PC/Laptop.

1. Vistit our website (http://www.videnttech.com/support/update/) and choose iMax Updater to you computer.

2. The file downloaded will be a compressed zip file. Open that file and run the installer inside it.

3. Once installed, open the iMax Updater and follow up the instructions to download lanugages and new software to your tool.

Note: there is maxium 3 Languages to choose and install.

4. Click update button  to download and install available updates.

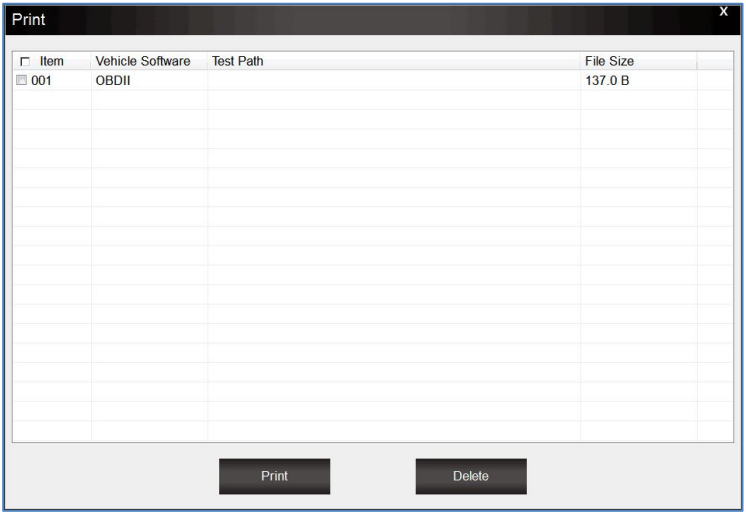
Please note: keep the connection of your scan tool to computer until update is 100% finished.

6.2 Printing Data

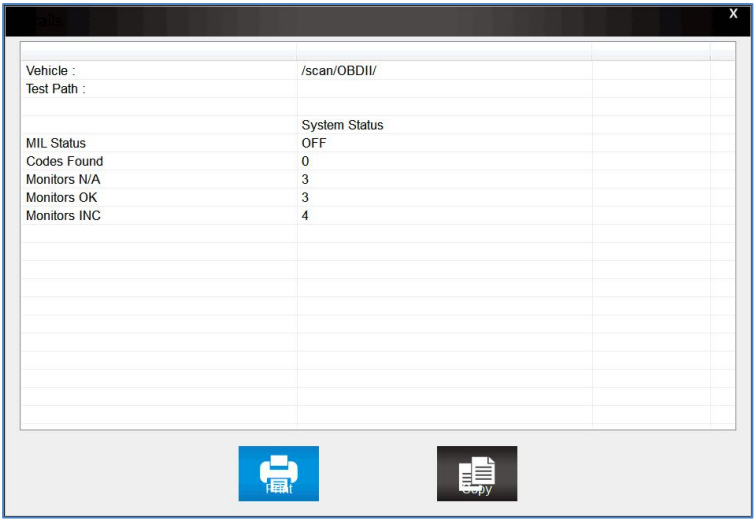
It's very easy to print out the test result through iMax Updater.

1.Click the  Button located on the upper side of iMax Updater.You can enter the print screen without logging in iMax Updater.

2. All data saved/stored in the sacn tool would appear on screen.



3.Tick a piece of data to either review it or print it out.



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