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### **!** IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

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For details, please refer to the *Service and Support* section in this manual.

# Safety Precautions and Warnings

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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.
- Don't connect or disconnect any test equipment while the 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.

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# 1 General Information

## On-Board Diagnostics (OBD) II

---

The first generation of On-Board Diagnostics (called OBD I) was developed by the California Air Resources Board (ARB) and implemented in 1988 to monitor some of the emission control components on vehicles. As technology evolved and the desire to improve the On-Board Diagnostic system increased, a new generation of On-Board Diagnostic system was developed. This second generation of On-Board Diagnostic regulations is called "OBD II".

The OBD II system is designed to monitor emission control systems and key engine components by performing either continuous or periodic tests of specific components and vehicle conditions. When a problem is detected, the OBD II system turns on a warning lamp (MIL) on the vehicle instrument panel to alert the driver typically by the phrase of "Check Engine" or "Service Engine Soon". The system will also store important information about the detected malfunction so that a technician can accurately find and fix the problem. Here below follow 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)

---

OBD II Diagnostic Trouble Codes are codes that are stored by the on-board computer diagnostic system in response to a problem found in the vehicle. These codes identify a particular problem area and are intended to provide you with a guide as to where a fault might be occurring within a vehicle. OBD II Diagnostic Trouble Codes consists of a five-digit alphanumeric code. The first character, a letter, identifies which control system sets the code. The other four characters, all numbers, provide additional information on where the DTC originated and the operating conditions that caused it to set. Here below is an example to illustrate the structure of the digits:

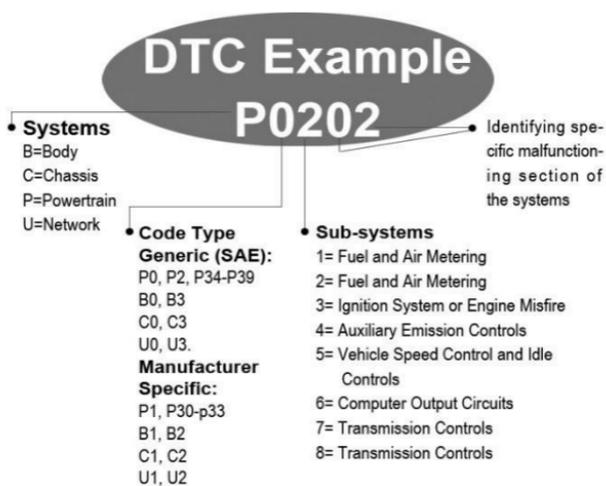


Figure 1-1

## Location of the Data Link Connector (DLC)

The DLC (Data Link Connector or Diagnostic Link Connector) is the standardized 16-cavity connector where diagnostic scan tools interface with the vehicle's on-board computer. The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles. If Data Link Connector is not located under dashboard, a label should be there telling location. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. If the DLC cannot be found, refer to the vehicle's service manual for the location.

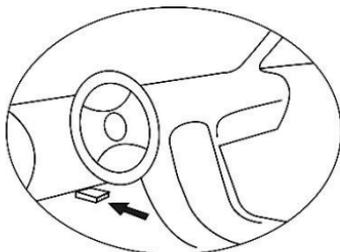


Figure 1-2

# OBD II Readiness Monitors

---

An important part of a vehicle's OBD II system is the Readiness Monitors, which are indicators used to find out if all of the emissions components have been evaluated by the OBD II system. They are running periodic tests on specific systems and components to ensure that they are performing within allowable limits.

Currently, there are eleven OBD II Readiness Monitors (or I/M Monitors) defined by the U.S. Environmental Protection Agency (EPA). Not all monitors are supported by all vehicles and the exact number of monitors in any vehicle depends on the motor vehicle manufacturer's emissions control strategy.

**Continuous Monitors** – some of the vehicle components or systems are continuously tested by the vehicle's OBD II system, while others are tested only under specific vehicle operating conditions. The continuously monitored components listed below are always ready:

- 1) Misfire
- 2) Fuel System
- 3) Comprehensive Components (CCM)

Once the vehicle is running, the OBD II system is continuously checking the above components, monitoring key engine sensors, watching for engine misfire, and monitoring fuel demands.

**Non-Continuous Monitors** – unlike the continuous monitors, many emissions and engine system components require the vehicle to be operated under specific conditions before the monitor is ready. These monitors are termed non-continuous monitors. For different ignition type engines, the available monitors are different too.

The following monitors are to be used for spark ignition engines only:

- 1) EGR System
- 2) O2 Sensors
- 3) Catalyst
- 4) Evaporative System
- 5) O2 Sensor Heater
- 6) Secondary Air
- 7) Heated Catalyst

The following monitors are to be used for compression ignition engines only:

- 1) EGR System
- 2) NMHC Catalyst
- 3) NOx Aftertreatment
- 4) Boost Pressure System
- 5) Exhaust Gas Sensor
- 6) PM Filter

## **OBD II Monitor Readiness Status**

---

OBD II systems must indicate whether or not the vehicle's PCM's monitor system has completed testing on each component. Components that have been tested will be reported as "Ready", or "Complete", meaning they have been tested by the OBD II system. The purpose of recording readiness status is to allow inspectors to determine if the vehicle's OBD II system has tested all the components and/or systems.

The power-train control module (PCM) sets a monitor to "Ready" or "Complete" after an appropriate drive cycle has been performed. The drive cycle that enables a monitor and sets readiness codes to "Ready" varies for each individual monitor. Once a monitor is set as "Ready" or "Complete", it will remain in this state. A number of factors, including erasing of diagnostic trouble codes (DTCs) with a scan tool or a disconnected battery, can result in Readiness Monitors being set to "Not Ready". Since the three continuous monitors are constantly evaluating, they will be reported as "Ready" all of the time. If testing of a particular supported non-continuous monitor has not been completed, the monitor status will be reported as "Not Complete" or "Not Ready."

In order for the OBD monitor system to become ready, the vehicle should be driven under a variety of normal operating conditions. These operating conditions may include a mix of highway driving and stop and go, city type driving, and at least one overnight-off period. For specific information on getting your vehicle's OBD monitor system ready, please consult your vehicle owner's manual.

# OBD II Definitions

---

**Powertrain Control Module (PCM)** – OBD II terminology for the on-board computer that controls engine and drive train.

**Malfunction Indicator Light (MIL)** – Malfunction Indicator Light (Service Engine Soon, Check Engine) is a term used for the light on the instrument panel. It is to alert the driver and/or the repair technician that there is a problem with one or more of vehicle's systems and may cause emissions to exceed federal standards. If the MIL illuminates with a steady light, it indicates that a problem has been detected and the vehicle should be serviced as soon as possible. Under certain conditions, the dashboard light will blink or flash. This indicates a severe problem and flashing is intended to discourage vehicle operation. The vehicle onboard diagnostic system cannot turn the MIL off until necessary repairs are completed or the condition no longer exists.

**DTC** – Diagnostic Trouble Code (DTC) that identifies which section of the emission control system has malfunctioned.

**Enabling Criteria** – also termed Enabling Conditions. They are the vehicle-specific events or conditions that must occur within the engine before the various monitors will set, or run. Some monitors require the vehicle to follow a prescribed “drive cycle” routine as part of the enabling criteria. Drive cycles vary among vehicles and for each monitor in any particular vehicle.

**OBD II Drive Cycle** – a specific mode of vehicle operation that provides conditions required to set all the readiness monitors applicable to the vehicle to the “Ready” condition. The purpose of completing an OBD II drive cycle is to force the vehicle to run its onboard diagnostics. Some form of a drive cycle needs to be performed after DTCs have been erased from the PCM's memory or after the battery has been disconnected. Running through a vehicle's complete drive cycle will “set” the readiness monitors so that future faults can be detected. Drive cycles vary depending on the vehicle and the monitor that needs to be reset. For vehicle specific drive cycle, consult the vehicle's Owner's Manual.

**Freeze Frame Data** – when an emission related fault occurs, the OBD II system not only sets a code but also records a snapshot of the vehicle operating parameters to help in identifying the problem. This set of values is referred to as Freeze Frame Data and may include important engine

parameters such as engine RPM, vehicle speed, air flow, engine load, fuel pressure, fuel trim value, engine coolant temperature, ignition timing advance, or closed loop status.

## OBD II Modes of Operation

---

Here is a basic introduction to the OBD II communication protocol.

**Mode byte:** The first byte in the stream is the mode number. There are 9 modes for diagnostic requests, so this first byte is from 1 to 9. The first byte in the response data bytes is this same number plus 64. For example, a mode 1 request would have the first data byte = 1, and the response would have the first data byte = 65. Here is a brief description of the modes:

**Mode \$01 – identifies the Powertrain information and shows current data available to the scan tool.** This data includes: DTCs set, status of on-board tests and vehicle data such as engine RPM, temperatures, ignition advance, speed, air flow rates, and closed loop status for fuel system.

**Mode \$02 – displays Freeze Frame data.** Same data as in mode 1, but it was captured and stored when a malfunction occurred and a DTC was set. Some of the PIDs for mode one are not implemented in this mode.

**Mode \$03 – displays the type of powertrain or emission related DTCs stored by a 5 digit code identifying the faults.** There may be more than one response message if there are more trouble codes than will fit in the data bytes of the response message, or if there are more than one ECU computer responding.

**Mode \$04 – used to clear DTCs and Freeze Frame data.** This clears all diagnostic trouble codes that may be set including freeze frame data and readiness monitors.

**Mode \$05 – displays oxygen sensor test results.** This mode displays the oxygen sensor monitor screen and the test results gathered about the oxygen sensor.

There are ten numbers available for diagnostics:

1. \$01 Rich-to-Lean O2 sensor threshold voltage
2. \$02 Lean-to-Rich O2 sensor threshold voltage
3. \$03 Low sensor voltage threshold for switch time measurement

4. \$04 High sensor voltage threshold for switch time measurement
5. \$05 Rich-to-Lean switch time in ms
6. \$06 Lean-to Rich switch time in ms
7. \$07 Minimum voltage for test
8. \$08 Maximum voltage for test
9. \$09 Time between voltage transitions in ms

**Mode \$06 – Non-Continuously Monitored Systems test results.** There are typically a minimum value, a maximum value, and a current value for each non-continuous monitor. This data is optional, and it is defined by a given vehicle make if it's used.

Mode \$07 – a request for DTCs (pending) from Continuously Monitored Systems after a single driving cycle has been performed to determine if repair has fixed a problem. This is used by service technicians to verify repair was performed properly and after clearing diagnostic trouble codes.

Mode \$08 – this Special Control Mode requests control of the on-board system, test, or component bi-directionally (where applicable). This mode is manufacturer specific.

# 2 Using the Scan Tool

## Tool Description

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Figure 2-1

- 1) **OBD II CONNECTOR** – connects the scan tool to the vehicle's Data Link Connector (DLC).
- 2) **LCD DISPLAY** – indicates test results.
- 3) **FUNCTION BUTTONS** – corresponds with "buttons" on screen for executing commands.

- 4)  **ESC BUTTON** – cancels a selection (or an action) from a menu or returns to the previous screen.
- 5)  **LEFT SCROLL BUTTON** – when looking up DTC definitions, press to review previous character and to display additional information on previous screens if present; press to view previous screen or previous frames of recorded data. It is also used to view previous trouble code when viewing DTCs.
- 6)  **HELP BUTTON** – displays help information and accesses DTC Guide function.
- 7)  **DOWN SCROLL BUTTON** – press to move down menu and submenu items in menu mode. When more than one screen of data is retrieved, press to move down to information on next screen. When looking up DTC, it is used to change value of selected character.
- 8)  **RIGHT SCROLL BUTTON** – when viewing DTC definitions, press to move to next character and to view additional information; press to view next screen or next frames of recorded data. It is also used to view next trouble code when viewing DTCs.
- 9)  **OK BUTTON** – confirms a selection (or action) from a menu.
- 10)  **UP SCROLL BUTTON** – press to move up menu and submenu items in menu mode. When more than one screen of data is retrieved, press to scroll to the previous screens. When looking up DTC, it is used to change value of selected character.
- 11) **USB CONNECTOR** – connects the scan tool to the Windows PC for printing.
- 12) **TF CARD SLOT** – holds the TF card.

## Specifications

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- 1) Display: TFT color display (320 x 240 dpi)
- 2) Operating Temperature: 0°C to 60°C (32°F to 140°F)
- 3) Storage Temperature: -20°C to 70°C (-4°F to 158°F)
- 4) External Power: 8.0 to 18.0 V power provided via vehicle battery
- 5) Dimensions:

Length	Width	Height
199 mm (7.83")	104.5 mm (4.11")	37.5 mm (1.48")
- 6) Weight: 280 g (without wire) 484 g (with wire)

## Accessories Included

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- 1) **Quick Guide** – instructions on registering tool and updating software.
- 2) **OBDII Cable** – used to connect tool to vehicle for communication and to power tool.
- 3) **USB Cable** – used to print retrieved data.
- 4) **Protective Nylon Case** – used to store the tool when not in use.
- 5) **TF Card** – used to store data and to upgrade the scan tool.

## Keyboard

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No solvents such as alcohol are allowed to clean the keypad or display. Use a mild nonabrasive detergent and a soft cotton cloth. Do not soak the keypad as the keypad is not waterproof.

## Power

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The scan tool is powered via the vehicle Data Link Connector (DLC). Just follow the steps below to turn on the scan tool:

- 1) Connect the OBD II Cable to scan tool.
- 2) Find DLC on vehicle.
  - *A plastic DLC cover may be found for some vehicles and you need to remove it before attaching the OBDII cable.*
- 3) Plug OBD II cable to the vehicle's DLC.
- 4) Power up the scan tool, and wait for the Main Screen to appear.

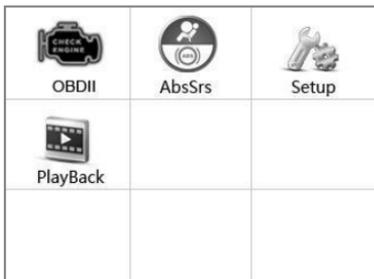


Figure 2-2

# System Setup

---

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

- 1) **Language:** Selects the desired language.
  - 2) **Unit of Measure:** Sets the unit of measure to English or Metric.
  - 3) **Beep Set:** Turns on/off beep.
  - 4) **Key Test:** Checks if the keyboard is working properly.
  - 5) **LCD Test:** Checks if the LCD display is working properly.
  - 6) **About:** Provides information of the scan tool.
- *Tool operates with default settings until changed.*

## To enter the Setup menu

From the **Main Screen:** Use **LEFT/RIGHT** scroll button to select **Setup**, and press the **OK** button. Following the instructions to do adjustments and settings could make your diagnosis more conveniently and easily.

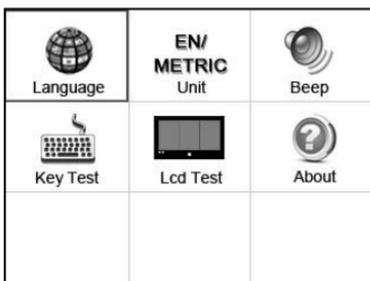


Figure 2-3

## Language Setup

- *English is the default language.*
- 1) From **System Setup** screen, use the **UP/DOWN** scroll button and **LEFT/RIGHT** scroll button to select **Language**, and press the **OK** button.
  - 2) Use the **UP/DOWN** scroll button to select the desired language and press the **OK** button to save your selection and return to previous screen.

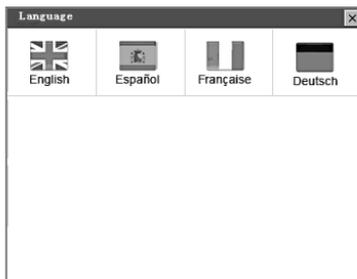


Figure 2-4

## Unit of Measure

- *Metric is the default measurement unit.*
- 1) From **System Setup** screen, use the **LEFT/RIGHT** scroll button to select **EN/METRIC** and press the **OK** button.
  - 2) From **Unit of Measure** screen, use the **LEFT/RIGHT** scroll button to select the desired unit of measurement.

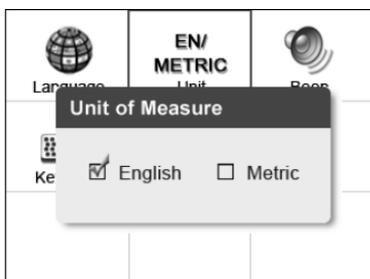
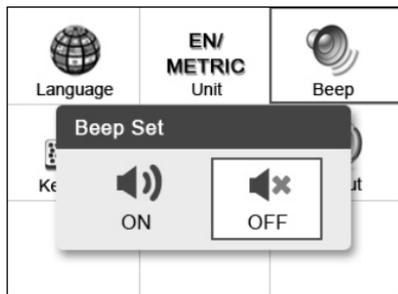


Figure 2-5

- 3) Press the **OK** button to save your selection and return to previous menu. Or, press the **ESC** button to exit without saving.

## Beep Set

- *The default setting is Beep On.*
- 1) From **System Setup** screen, use the **UP/DOWN** scroll button and **LEFT/RIGHT** scroll button to select **Beep** and press the **OK** button.
  - 2) From **Beep Set** menu, use the **LEFT/RIGHT** scroll button to select ON or OFF to turn on/off the beep.



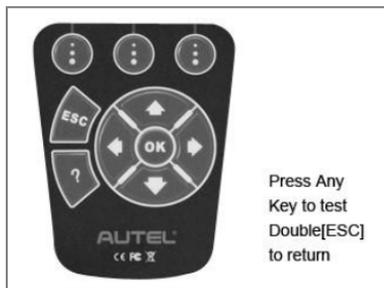
**Figure 2-6**

- 3) Press the **OK** button to save your selection and return to previous menu. Or, press the **ESC** button to exit without saving.

## Key Test

The **Key Test** function checks if the keyboard is working properly.

- 1) From **System Setup** screen, use the **UP/DOWN** scroll button and **LEFT/RIGHT** scroll button to select **Key Test**, and press the **OK** button.
- 2) Press any key to start test. When you press a key, the edge around corresponding key on the screen should turn to red. Otherwise, the key is not functioning properly.



**Figure 2-7**

- 3) Double press **ESC** to return to previous menu.

## LCD Test

The **LCD Test** function checks if the LCD display is working normally.

- 1) From **System Setup** screen, use the **UP/DOWN** scroll button and **LEFT/RIGHT** scroll button to select **LCD Test**, and press the **OK** button.
- 2) Look for missing spots in the red, green, blue, black and white LCD display.
- 3) When completed, press the **ESC** button to exit.

## About

The **About** function displays important tool information including serial number and software version number.

- 1) From **System Setup** screen, use the **UP/DOWN** scroll button and **LEFT/RIGHT** scroll button to select **About** and press the **OK** button, wait for the **About** screen to display.
- 2) View tool information on screen. Press the **ESC** button to exit without saving.

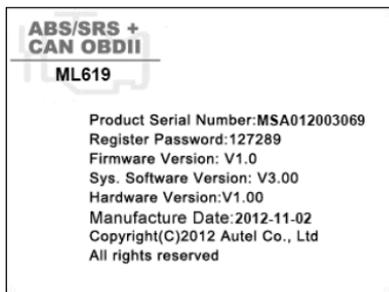


Figure 2-8

## Vehicle Coverage

---

The MaxiLink ML619 OBDII/EOBD Scanner is specially designed to work with all OBD II compliant vehicles, including those equipped with the Control Area Network (CAN) protocol. The EPA requires all domestic, Asian and European vehicles, 1996 and newer (including light trucks), sold in the United States must be OBD II compliant.

A small number of 1994 and 1995 model year gasoline vehicles are OBD II compliant. To verify if a 1994 or 1995 vehicle is OBD II compliant, check the Vehicle Emissions Control Information (VECI) Label which is located under the hood or by the radiator of most vehicles. If the vehicle is OBD II compliant, the label will designate "OBD II Certified". Additionally,

Government regulations mandate that all OBD II compliant vehicles must have a “common” sixteen-pin Data Link Connector (DLC).

For your vehicle to be OBD II compliant it must have a 16-pin DLC (Data Link Connector) under the dash and the Vehicle Emission Control Information Label must state that the vehicle is OBD II compliant.

In addition to OBD II diagnosis, the ML619 scan tool also supports the ABS and airbag diagnostic functions, dealing with more than 50 US, Asian and European vehicles, including Acura, Audi, Bentley, Benz, BMW, Bugatti, Chrysler, Ford, EU Ford, GM, Honda, Hyundai, Infiniti, Isuzu, Jaguar, Kia, Land Rover, Lexus, Maybach, Mazda, Mini, Mitsubishi, Nissan, Opel, Porsche, Saab, Scion, Seat, Skoda, Smart, Sprinter, Suzuki, Toyota, Vauxhall, Volvo, Volkswagen, Renault, Peugeot, Lancia, Fiat, Dacia, Citroen, Alfa, Abarth.

More vehicle supports will come out with new updates released.

## Product Troubleshooting

---

This section describes problems that may be encountered while using the scan tool.

### Vehicle Linking Error

A communication error occurs if the scan tool fails to communicate with the vehicle's ECU (Engine Control Unit). Perform the following steps to resolve error:

- ✓ Verify that the ignition is ON.
- ✓ Ensure the scan tool's OBD II connector is securely connected to the vehicle's DLC.
- ✓ Verify that the vehicle is OBDII compliant.
- ✓ Turn the ignition off and wait for about 10 seconds. Turn the ignition back to on and continue the testing.
- ✓ Verify the control module is not defective.

### Operating Error

If the scan tool freezes, then an exception occurs or the vehicle's ECU (Engine Control Unit) is too slow to respond to requests. You need to do the following to reset the tool:

- ✓ Reset the scan tool.
- ✓ Turn the ignition off and wait for about 10 seconds. Turn the ignition back to on and continue the testing.

## **Scan tool doesn't power up**

If the scan tool won't power up or operates incorrectly, do the following:

- ✓ Check if the scan tool's OBD II connector is securely connected to the vehicle's DLC;
- ✓ Check if the DLC pins are bent or broken. Clean the DLC pins if necessary.
- ✓ Check vehicle battery to make sure it is still good with at least 8.0 volts.

# 3 Playback Data

The **Playback Data** function allows viewing and printing data from last recorded test.

## Review Data

---

- 1) Use the **LEFT/RIGHT** scroll button to select **Playback** from **Main Screen**, and press the **OK** button. Wait for the **Review Data** screen to appear.
- 2) To review data saved in the scan function, select **Scan** in the **Replay** menu. To review data saved in the **AbsSrs** function, select **AbsSrs** in the **Replay** menu. Then press **OK** button to continue.
- 3) Use the **UP/DOWN** scroll button to select the desired DTC entries from **Scan** menu or **AbsSrs** menu, and press the **OK** button.
  - If no data from previously tested vehicle is recorded, a message **"No data available!"** shows on the screen.
  - Review selected data on screen.

## Delete Data

---

By selecting **Delete** on the **AbsSrs** screen, you are allowed to erase the selected data on the scan tool. Review the recordings thoroughly before erasing. You could also erase all recordings by select **Delete All**.

### NOTE

Don't use **Delete All** unless you are definitely sure what you are going to proceed.

---

## Print Data

---

**Print** option allows you to print the recorded files to your computer and then to the printer.

For more details, please refer to section *Print* on page 44.

# 4 OBDII Diagnostics

The OBD II Diagnostics function is a fast-access option that allows you to carry out a quick test on the engine system of OBD II vehicles.

When more than one vehicle control module is detected by the scan tool, you will be prompted to select the module with retrievable data. The Power train Control Module [PCM] and Transmission Control Module [TCM] are the most commonly scanned modules.

**CAUTION:** *Don't connect or disconnect the scan tool while the ignition is on or the engine running.*

- 1) Turn the ignition off.
- 2) Locate the vehicle's 16-pin Data Link Connector (DLC).
- 3) Plug the tool into the vehicle's DLC.
- 4) Turn the ignition on. Engine can be off or running.
- 5) Turn on the scan tool. Select **OBDII** from the **Main Screen**.
- 6) Press the **OK** button to wait for the Menu to display. The tool will display OBDII protocols until it has detected the vehicle's communication protocol.
  - *If the scan tool fails to communicate with the vehicle's ECU (Engine Control Unit) more than three times, a "LINKING ERROR!" message displays on the tool.*
  - ✓ Verify the ignition is ON.
  - ✓ Check if the scan tool's OBD II cable is securely connected to the vehicle's DLC.
  - ✓ Verify that the vehicle is OBD2 compliant.
  - ✓ Turn the ignition off and wait for about 10 seconds. Turn the ignition back on and repeat step 5.
  - *If the "LINKING ERROR" message continues to display, contact your local distributor or customer service for assistance.*
- 7) View a summary of system status (MIL status, DTC counts, Monitor status) on screen. Press **ESC** button for **Diagnostic Menu** to display.

System Status	
MIL Status	OFF
Codes Foud	0
Monitors N/A	2
Monitors OK	3
Monitors INC	5

**Figure 4-1**

- If more than one module is detected, you will be prompted to select a module to test.
- Use the **UP/DOWN** scroll button to select a module and press the **OK** button.

## Read Codes

---

- ◆ *The Read Codes function can be performed with the key on, engine off (KOEO) or with the key on, engine running (KOER).*
  - ◆ *Stored Codes are also known as “hard codes”, which are fault codes, or trouble codes that have been stored in the vehicle computer memory because the faults have reoccurred for more than a specified amount of key-cycles. These codes will cause the control module to illuminate the malfunction indicator light (MIL) when emission-related faults occur.*
  - ◆ *Pending Codes are also referred to as “maturing codes” or “continuous monitor codes”. They indicate problems that the control module has detected during the current or last driving cycle but are not as yet considered serious. Pending Codes will not cause a malfunction indicator light (MIL). If the fault does not occur within a certain number of warm-up cycles, the code clears from memory.*
  - ◆ *Permanent Codes are DTCs that are “confirmed” and are retained in the non-volatile memory of the vehicle’s computer until the appropriate monitor for each DTC has determined that the malfunction is no longer present and is not causing the MIL. Permanent DTCs are stored in non-volatile memory and can not be erased by any diagnostics service or by disconnecting power to ECU.*
- 1) Use **UP/DOWN** scroll button to select **Read Codes** from **Diagnostic Menu** and press **OK** button.

Diagnostic Menu	1/11
Read Codes	
Erase Codes	
Live Data	
View Freeze Frame	
I/M Readiness	
O2 Monitor Test	
On-Board Mon. Test	

**Figure 4-2**

- 2) Use the **UP/DOWN** scroll button to select **Stored Codes**, **Pending Codes** or **Permanent Codes** from the **Read Codes** menu and press the OK button.
  - If no codes are found, a message will display **“No (pending) codes are stored in the module!”** Wait a moment or press any key to return to previous screen.

**NOTE**

Permanent Codes function is available only for vehicles supporting the CAN protocols.

- 3) View DTCs and their definitions on screen.
- 4) If more than one DTC is found, use the UP/DOWN scroll button to review each code.
  - If retrieved DTCs contain any manufacturer specific or enhanced codes, a “Manufacturer specific codes are found! Press any key to select vehicle make!” message comes up prompting you to select vehicle manufacturer to view DTC definitions. Use **UP/DOWN** scroll button to select manufacturer and then press **OK** button to confirm.

Vehicle Manufacturer	1/28
BUICK	
BMW	
CADILLAC	
CHEVROLET	
CHRYSLER	
FORD	
GM	

**Figure 4-3**

- If the manufacturer of your vehicle is not listed, use the **UP/DOWN** scroll button to select **Other** and press the **OK** button.

## Erase Codes

---

### NOTE

- 1) Erasing the Diagnostic Trouble Codes may allow the scan tool to delete not only the codes from the vehicle's on-board computer, but also "Freeze Frame" data and manufacturer-specific enhanced data. Further, the I/M Readiness Monitor Status for all vehicle monitors is reset to Not Ready or Not Complete status. Do not erase the codes before repairs or services have been performed.
- 2) Even if deleted, codes will again display if the underlining fault causing the code is not addressed.

◆ *This function is performed with key on, engine off (KOEO). Do not start the engine.*

- 1) Use the **UP/DOWN** scroll buttons to select **Erase Codes** from **Diagnostics Menu** and press the **OK** button.
- 2) After you have pressed **OK** button, a message will display asking you to check the ignition and engine status.
  - If you do not want to proceed with erasing codes, press **ESC** button or select **NO** to exit and return to previous screen.
  - If you press **Yes** function key or **OK** button, a warning message will come up asking your confirmation.
- 3) Press the **OK** button to confirm.
  - If the codes are cleared successfully, an "Erase Done!" confirmation message displays.
  - If the codes are not cleared, then an "Erase Failure. Turn Key on with Engine off!" message displays.
- 4) Press any button to return to **Diagnostic Menu**.

## Live Data

---

In this function, you can not only read the live data but also record data for later review.

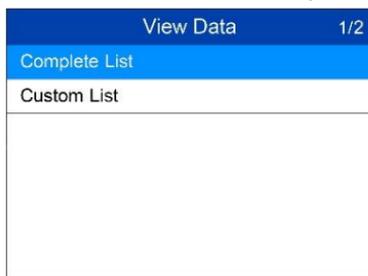
## View Data

The **View Data** function allows viewing of live or real time PID data of vehicle's computer module(s).

- 1) To view live data, use the **UP/DOWN** scroll button to select **Live Data** from **Diagnostic Menu** and press the **OK** button.
- 2) Wait a few seconds while the scan tool validates the PID MAP.

### *View Complete List*

- 1) To view complete set of data, use **UP/DOWN** scroll button to select **Complete List** from **Live Data** menu and press the **OK** button.



**Figure 4-4**

- 2) View live PIDs on the screen. Use the **UP/DOWN** scroll button for more PIDs if additional information is available on more than one page.

Complete List		
Number of DTCs	0	
Fuel system 1 status	OL	
Fuel system 2 status	--	
Calculated load value	0.0	%
Engine Coolant Temp.	-40	°C
Pause	Graphics	Save

**Figure 4-5**

- If the **Graphics** on the bottom displays when a PID is highlighted, graphic information is available. Select **Graphics** to view graph. PID name, current value, maximum and minimum values are displayed on the screen.

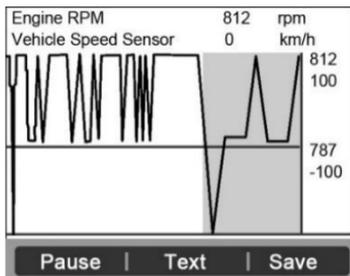


Figure 4-6

- If the **Merge Graph** on the bottom displays when a PID is selected to view, merged graph information is available.

NOTE

**Merge Graph** can be used to compare two related parameters in graphic mode, which is especially convenient in the **Custom List** option where you could select two interacted parameter to merge and see their relationship.

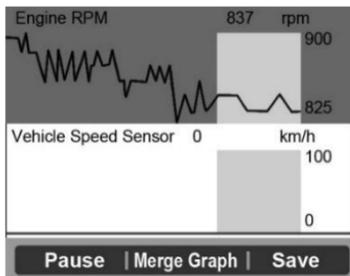


Figure 4-7

- Select **Text** to return to text viewing of PID data.
  - Select **Save** to record retrieved live data and PID graphs.
  - Select **Pause** to suspend viewing. You could resume the viewing process again by selecting **Start**.
- 3) Press the **ESC** button to return to previous menu.

*View Custom List*

- 1) To view customized PID data, use the **UP/DOWN** scroll button to select **Custom List** from **Live Data** menu and press the **OK** button.
- 2) Use the **UP/DOWN** scroll button to move up and down to the desired items and click **Select** button to confirm. The selected parameters are marked with solid squares.

Complete List		
<input checked="" type="checkbox"/>	Number of DTCs	1
<input checked="" type="checkbox"/>	Fuel system 1 status	2
<input type="checkbox"/>	Fuel system 2 status	
<input type="checkbox"/>	Calculated load value	
<input type="checkbox"/>	Engine Coolant Temp.	
Select All	Clear	Clear All

**Figure 4-8**

- The number to the right of selected item indicates sequence of this item.
  - If you want to deselect the item, press **Clear** button.
  - To select all the items on the screen, press **Select All** button. To clear all the selected items on the screen, press **Clear All** button.
- 3) Press the **OK** button to view selected PIDs on screen.
  - 4) Use the **ESC** button to return to previous menu.

## Record Data

The **Record Data** function allows recording vehicle modules' Parameter Identification (PID) data to help diagnose intermittent vehicle problems. You could save data files to the SD card and then use the Playback function to view the saved files.

### NOTE

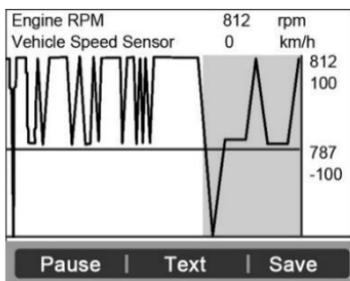
The length of time for each frame varies per vehicle. Generally, one frame of data is about 1/4 second, or 4 frames per second.

- 1) To record live data, with the live data screen displaying, select **Save** on the bottom. The scan tool will start timing to record retrieved live data and PID graphs.
  - If you record live data under text mode, following screen displays.

Complete List		
Number of DTCs	0	
Fuel system 1 status	OL	
Fuel system 2 status	--	
Calculated load value	0.0	%
Engine Coolant Temp.	-40	°C
Pause	Graphics	Save

**Figure 4-9**

- If you record live data under graph mode, following screen displays.



**Figure 4-10**

**NOTE**

The scan tool can only playback text data even though the data is saved in graphic mode.

- 2) When there is not enough memory space, a warning message prompting to delete previously recorded data.

Save Failed

Memory full, please clean up.

OK

**Figure 4-11**

- Select **OK** to return to the previous menu.

- 3) Select **Pause** to suspend recording. You could resume the recording process again by selecting **Start**.
- 4) You may review the saved data in Playback function.
- 5) Press **ESC** button to exit.

## Freeze Frame Data

---

**Freeze Frame Data** allows the technician to view the vehicle's operating parameters at the moment a DTC (Diagnostic Trouble Code) is detected. For example, the parameters may include engine speed (RPM), engine coolant temperature (ECT), or vehicle speed sensor (VSS). This information will aid the technician by allowing the parameters to be duplicated for diagnostic and repair purposes.

- 1) To view freeze frame data, use the **UP/DOWN** scroll button to select **Freeze Frame** from **Diagnostic Menu** and press the **OK** button.
- 2) Wait while the scan tool validates the PID MAP.
- 3) If retrieved information displays on more than one screen, use the **DOWN** scroll button, as necessary, until all the data have been shown up.

Freeze Frame		
DTC that caused required freeze frame data storage	P0193	
Fuel system 1 status	OL	
Fuel system 2 status	--	
Calculated load value	0.0	%
Engine Coolant Temperature	-40	°C
<b>Save</b>		

**Figure 4-12**

- If no freeze frame data is available, the message "**No freeze frame data stored!**" displays.
- 4) Select **Save** to record freeze frame. The message "**Save success!**" displays and scan tool return to previous menu.
  - 5) If you don't want to save the freeze frame data, press **ESC** button to return to previous screen.

## Retrieve I/M Readiness Status

---

**I/M Readiness** function is used to check the operations of the Emission System on OBD2 compliant vehicles. It is an excellent function to use prior to having a vehicle inspected for state emissions compliance.

*CAUTION: By clearing trouble codes you also clear the readiness status for the individual emission system readiness tests. In order to reset these monitors, the vehicle must be driven through a complete drive cycle with no trouble codes in memory. Amount of time needed for reset vary by vehicle.*

Some latest vehicle models may support two types of **I/M Readiness** tests:

- A. **Since DTCs Cleared** – indicates status of the monitors since the DTCs are erased.
- B. **This Drive Cycle** – indicates status of monitors since the beginning of the current drive cycle.

An I/M Readiness Status result of “NO” does not necessarily indicate that the vehicle being tested will fail the state I/M inspection. For some states, one or more such monitors may be allowed to be “Not Ready” to pass the emissions inspection.

Press the **One-Click I/M Readiness Key**, to retrieve I/M readiness status. The screen will show as below. According to different readiness status, the color LEDs will illuminate and different audio tones will be heard.

- ✓ **OK** – indicates that a particular monitor being checked has completed its diagnostic testing.
  - ✗ **INC** – indicates that a particular monitor being checked has not completed its diagnostic testing.
  - ⊘ **N/A** – the monitor is not supported on the vehicle.
- 1) Use the **UP/DOWN** scroll button to select **I/M Readiness** from **Diagnostic Menu** and press **OK** button.
  - 2) Wait a few seconds while the scan tool validates the PID MAP.
  - 3) If the vehicle supports both types of tests, then both types will be shown on the screen for selection.

I/M Readiness	
1	Since DTCs cleared
2	This Drive Cycle

**Figure 4-13**

- 4) Use the **UP/DOWN** scroll button to view the status of the MIL light (**ON** or **OFF**) and the following monitors.

For spark ignition engines:

- **MIS** – Misfire Monitor
- **FUEL** – Fuel System Monitor
- **CCM** – Comprehensive Component Monitor
- **EGR** – EGR System Monitor
- **O2S** – O2 Sensors Monitor
- **CAT** – Catalyst Monitor
- **EVAP** – Evaporative System Monitor
- **HTR** – O2 Sensor Heater Monitor
- **AIR** – Secondary Air Monitor
- **HCAT** – Heated Catalyst Monitor

For compression ignition engines:

- **MIS** – Misfire Monitor
- **FUEL** – Fuel System Monitor
- **CCM** – Comprehensive Component Monitor
- **EGR** – EGR System Monitor
- **HCCAT** – NMHC Catalyst Monitor
- **NCAT** – NOx Aftertreatment Monitor
- **BP** – Boost Pressure System Monitor
- **EGS** – Exhaust Gas Sensor Monitor
- **PM** – PM Filter Monitor

Since DTCs Cleared	1/11
MIL	OFF
MIS	OK
FUEL	OK
CCM	OK
CAT	INC
HCAT	N/A
EVAP	INC

**Figure 4-14**

- 5) If the vehicle supports readiness test of “**This Drive Cycle**”, a screen of the following displays.

This Drive Cycle	1/11
MIL	OFF
MIS	OK
FUEL	OK
CCM	OK
CAT	INC
HCAT	N/A
EVAP	INC

**Figure 4-15**

- 6) Use the **UP/DOWN** scroll button for more PIDs if additional information is available on more than one page. Or use the **LEFT/RIGHT** scroll button to view PIDs in the previous/next page.
- 7) Press the **ESC** button to return to Diagnostic Menu.

## O2 Monitor Test

---

OBID II regulations set by the (Society of Automotive Engineers) SAE require vehicles monitors and tests on the oxygen (O2) sensors to identify problems related to fuel efficiency and vehicle emissions. These tests are done automatically when engine operating conditions are within specified limits. These test results are saved in the vehicle's on-board computer's memory.

The **O2 Monitor Test** function allows retrieval and viewing of O2 sensor monitor test results for the most recently performed tests from the vehicle's on-board computer.

The O2 Monitor Test function is not supported by vehicles that communicate using a controller area network (CAN). For O2 Monitor Test results of CAN-equipped vehicles, see [On-Board Monitor Test](#) on page 30.

- 1) Use the **UP/DOWN** scroll button to select **O2 Monitor Test** from **Diagnostic Menu** and press **OK** button.
- 2) Wait while the scan tool validates the PID MAP.
- 3) Use the **UP/DOWN** scroll button to select O2 sensor from **O2 Monitor Test** menu and press **OK** button.

O2 Monitor Test	1/2
O2 Bank 1 Sensor 1	
O2 Bank 1 Sensor 2	

**Figure 4-16**

- If the vehicle does not support the mode, a message displays on the screen.
- 4) View test results of selected O2 sensor.

O2 Monitor Test	1/9
Rich-Lean Threshold(V)	
Lean-Rich Threshold(V)	
Low for Switch(V)	
High for Switch(V)	
Rich-Lean Threshold(s)	
Lean-Rich Threshold(s)	
\$70(counts)	

**Figure 4-17**

- 5) Use the **UP/DOWN** scroll button to view additional data if available.
- 6) Press the **ESC** button to return to the previous menu.

## On-Board Monitor Test

---

The **On-Board Monitor Test** is useful after servicing or after erasing a vehicle's control module memory. The On-Board Monitor Test for non-CAN-equipped vehicles retrieves and displays test results for

emission-related power train components and systems that are not continuously monitored. The On-Board Monitor Test for CAN-equipped vehicles retrieves and displays test results for emission-related power train components and systems that are and are not continuously monitored.

The scan tool allows access to the results of on-board diagnostic monitoring tests for specific components/systems. The vehicle manufacturer is responsible for assigning "Manufacturer Defined Test IDs" and Component IDs for tests of different systems and components. The advanced feature of this scan tool enables you to read the definition of an On-Board Diagnostic Monitor ID.

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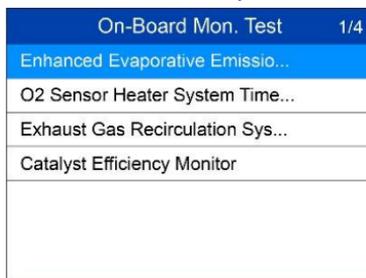
**NOTE**

The scan tool will display a test definition if this definition is present in the vehicle's computer memory. If no such definition is present, the scan tool will only display the Test IDs.

---

In this test, there are typically a minimum value, a maximum value, and a current value for each monitor. By comparing the current value with the minimum and maximum value, the scan tool determines if the components and monitors are OK.

- 1) Use the **UP/DOWN** scroll button to select **On-Board Mon. Test** from **Diagnostic Menu** and press the **OK** button.
- 2) Wait while the scan tool validates the PID MAP.
- 3) The scan tool will prompt you to select the vehicle make.
- 4) After you select the vehicle manufacturer, the scan tool displays the On-Board Monitors test results for specific monitored systems.



On-Board Mon. Test	1/4
Enhanced Evaporative Emissio...	
O2 Sensor Heater System Time...	
Exhaust Gas Recirculation Sys...	
Catalyst Efficiency Monitor	

**Figure 4-18**

- 5) From **On-Board Mon. Test** menu, use the **UP/DOWN** scroll button to select a test to view and press the **OK** button. Or, use the **LEFT/RIGHT** scroll button to view previous/next screen of test items.

- If the vehicle being tested does not support the mode, an advisory message will display on the screen.
- For CAN-equipped vehicles, test selections can be as depicted below.

Enhanced Eaporative Emission	1/12
EVAP canister loading test	
EVAP excess vacuum test 1	
EVAP excess vacuum fail test 2	
EVAP excess vacuum pass tes...	
EVAP weak vacuum pass test 1	
EVAP weak vacuum fail test 1	
EVAP weak vacuum test 2 vac...	

**Figure 4-19**

- 6) Use the **UP/DOWN** scroll button to select the desired monitor from On-Board Mon. Test menu and press the **OK** button.
- 7) View test data on screen.

EVAP canister loading test	1/6
ID	04
Module	\$10
Test Value	0000
Min Limit	0000
Max Limit	----
Status	OK

**Figure 4-20**

**NOTE**

If the On-Board Monitor Test fails, this monitor item will be listed in red.

EVAP canister loading test	1/6
ID	04
Module	\$10
Test Value	0000
Min Limit	0000
Max Limit	----
Status	Fail

**Figure 4-21**

- 8) Press **ESC** button to return to the previous menu.

## Component Test

---

The **Component Test** function initiates a leak test for the vehicle's EVAP system. The scan tool itself does not perform the leak test, but commands the vehicle's on-board computer to start the test. Different vehicle manufacturers might use different criteria and methods for stopping the test once it has been started. Before starting the Component Test, refer to the vehicle service manual for instructions to stop the test.

- 1) Use the **UP/DOWN** scroll button to select **Component Test** from **Diagnostic Menu** and press the **OK** button.
- 2) Wait for the scan tool to display the **Component Test** menu.



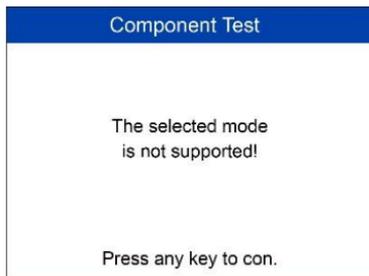
**Figure 4-22**

- 3) If the test has been initiated by the vehicle, a confirmation message will be displayed on the screen.



**Figure 4-23**

- Some vehicles do not allow scan tools to control vehicle systems or components. If the vehicle under test does not support the EVAP Leak Test, the message, "The select mode is not supported" will display.



**Figure 4-24**

- 4) Wait a few seconds or press any key to return to previous screen.

## View Vehicle Information

---

The **Vehicle Info.** function enables retrieval of Vehicle Identification No. (VIN), Calibration ID Nos. (CINs), Calibration Verification Nos. (CVNs) and In-use Performance Tracking on 2000 and newer vehicles that support Mode 9.

- 1) Use **UP/DOWN** scroll button to select **Vehicle Info.** from the **Diagnostic Menu** and press **OK** button.
- 2) A message displays to remind you to "Turn key on with engine off!" Wait a moment or press any key to continue.



**Figure 4-25**

- 3) Wait while the scan tool reads vehicle information.
  - If the vehicle does not support this mode, a message displays that the mode is not supported.
- 4) From **Vehicle Info.** Menu, use the **UP/DOWN** scroll button to select an available item to view and press the **OK** button.

Vehicle Info.	
1	Vehicle ID Number
2	Calibration ID
3	Cal. Verf. Number

**Figure 4-26**

- 5) View retrieved vehicle information on screen.

Cal. Verf. Number	
Calibration Verification Numbers 1	6E BA 9D 00
Save	Esc

**Figure 4-27**

- 6) Press the **ESC** button to return to previous menu.

## Modules Present

---

The **Modules Present** function displays the module IDs and communication protocols for OBD II modules in the vehicle.

- 1) Use the **UP/DOWN** scroll button to select **Modules Present** from **Diagnostic Menu** and press **OK** button.
- 2) View modules present with their IDs and communication protocols.

Modules Present	
ID	Protocol
\$10	ISO 9141-2

**Figure 4-28**

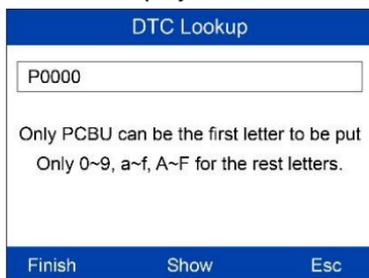
- 3) Press the **ESC** button to return to previous menu.

## DTC Lookup

---

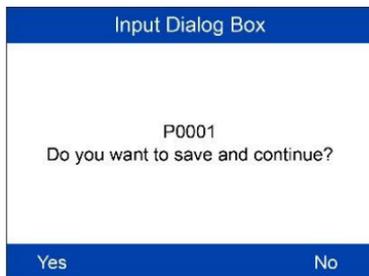
The **DTC Lookup** function provides descriptions of DTCs and helpful tips to resolve DTCs. It is useful for technicians to find the root cause of trouble code faster resulting in reduced diagnosis and repair time.

- 1) Use the **UP/DOWN** scroll button to select **DTC Lookup** from **Diagnostic Menu** and press **OK** button.
- 2) Wait for the scan tool to display the **DTC Lookup** screen.



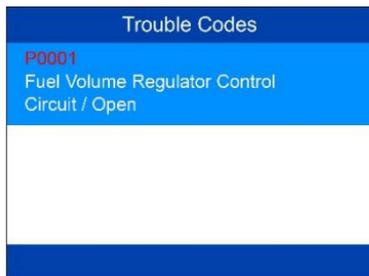
**Figure 4-29**

- 3) Select **Show** and a soft keyboard will pop up. Use **LEFT/RIGHT** button and **UP/DOWN** button to move to the desired character, then press **OK** button to confirm.
- 4) After you input the DTC code, select **Finish** and the scan tool will display this code's definition on screen.



**Figure 4-30**

- 5) Press **Yes** or **OK** button to proceed. The scan tool will display DTC definition as below.



**Figure 4-31**

- Use the **LEFT/RIGHT** scroll button to view the previous / next DTC.
  - Select **Save** to record code definition.
  - For manufacturer specific codes, you need to select a vehicle make on an additional screen to look for DTC definitions.
  - If definition could not be found (SAE or Manufacturer Specific), the scan tool displays "**Please refer to vehicle service manual!**"
  - For **DTC Guide** information, press **? Help** button.
- 6) Press **No** or **ESC** button to return to previous menu.

# 5 AbsSrs Testing

**ABS – Anti-lock Braking System** in most vehicles is made up of an electronic hydraulic pump of two, three or most commonly four Wheel Speed Sensors (WSS), a G-force sensor, a Vehicle Speed Sensor and an ABS Control Module (EBCM). The EBCM is constantly monitoring the WSS, the Vehicle Speed Sensor, and the G-sensor.

Diagnosing an ABS problem should always start with a visual inspection of all brake components, then you will need to retrieve ABS DTCs to tell you where the problem is.

**SRS – Supplemental Restraint System** is made up of Impact Sensors, a Control Module, and Airbags. When the impact sensors detect a collision they send an extremely fast signal to the control module, which relays that signal to the airbags, deploying them to help prevent vehicle occupants from hitting interior objects such as steering wheels, dashboards, and the like. When the control module detects a problem with the airbags or sensors the Malfunction Indicator Light (MIL) will turn on.

The ABS/SRS diagnostic function is used to retrieve and clear codes from the vehicle's ABS/SRS systems. It also provides the definition of each code to help diagnose problem areas within the systems that may cause the Malfunction Indicator Light (MIL) to turn on.

---

## NOTE

1. Autel accepts no responsibility for any accident or injury arising from servicing the ABS/SRS systems. When interpreting DTCs retrieved from the vehicle, always follow the manufacturer's recommendation for repair.
  2. All software screens shown in this manual are examples, actual test screens may vary for each vehicle being tested. Observe the menu titles and onscreen instructions to make correct option selections.
- 

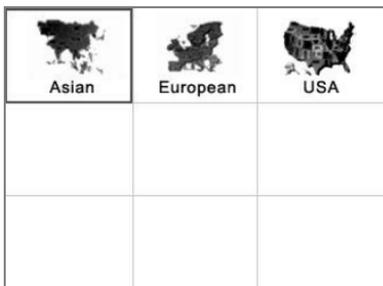
## AbsSrs Diagnostic Testing

---

Please follow these steps to finish ABS/SRS system diagnostic testing procedure:

- 1) Turn the ignition on but do not start the engine.

- 2) Turn on the scan tool and wait for the **Main Screen** to appear.
- 3) Select **AbsSrs** icon in the **Main Screen**.
- 4) Select a specific vehicle manufacture's regional coverage.



**Figure 5-1**

- 5) From the vehicle make screen, select a specific vehicle manufacture and press **OK** button.



**Figure 5-2**

There are two ways for users to perform diagnostic testing system either automatically or manually:

## **Auto Start New Session**

To finish this procedure, please follow these steps (Taking GM as an example):

- 1) Select the **GM Logo** from the car make screen.
- 2) Use the **UP/DOWN** scroll button to select the correct **Model Year(s)**.
- 3) From **Vehicle Model** menu choose the specific vehicle type.
- 4) Select the specific vehicle brand from the **Vehicle Type** menu.
- 5) Follow screen entries to select the correct engine model.

---

🔍 **NOTE**

You may not need to make all the selections, or have to select other features. For some vehicles, the tool will not ask for any information before turning to the Function menu.

---

- 6) Use the **UP/DOWN** scroll button to select the desired control module from the retrieved engine data menu (in GM's case, the selected engine model: 3.6 L (LFX)), and press the OK button.
- 7) To review the **Diagnostic Trouble Codes (DTC)** or **Module ID Information** saved in the **Supplemental Inflatable Restraint** or **Electronic Brake Control Module** system, use the **UP/DOWN** scroll button to select the desired item. Then press **OK** button to continue.
- 8) Wait a few seconds while the Scan Tool establishes communication with the vehicle to retrieve the selected **DTCs** or **Module ID Information**.

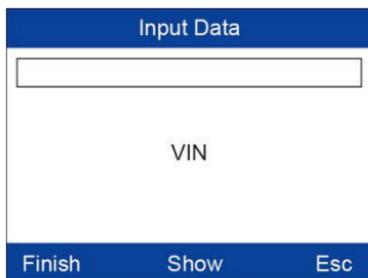
## Manual Vehicle Entry

Manual Vehicle Entry allows users to input and save specific vehicle information (i.e. **Vehicle Calibration Number**, **Tear Tag**, or **PCM Part Number**) manually. This function enables direct access to the vehicle's ABS/SRS system and makes the diagnostic testing more convenient, saving time doing step-by-step entry selections.

To finish this procedure, please follow these steps (Take **Ford** as an example):

- 1) Select the **Ford Logo** from the car make screen.
- 2) Use the **UP/DOWN** scroll button to select the **Manual Vehicle Entry** option from the DAS menu.
- 3) To enable scan tool to identify the vehicle specifications, follow the onscreen instructions to the **Option** menu, and select one of the three entries: **PCM Part Number**, **Calibration Number** or **Tear Tag** to fill up the vehicle information.
- 4) Taking the **Tear Tag** option for example, you will need to fill up accurate vehicle information in the input entry on the menu screen.
- 5) Follow the onscreen instruction to save the information and continue on the procedure, or select the **No** option or press **ESC** button to exit without saving.
- 6) Choose a specific car series from the **Vehicle Specification** menu

- 7) A screen message will prompt up to inquire the accuracy of the **Vehicle Specification**, if the information is correct select the **Yes** option to continue, otherwise select the **No** option on the screen to exit without saving.
- 8) Enter correct Vehicle Identification Number (VIN) in the **INPUT DATA** menu.

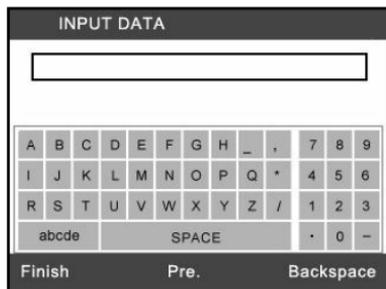


**Figure 5-3**

**[Finish]:** After entering a new value, use this key to save the value to the VIN.

**[Show]:** Press this key to pop up a soft keyboard to facilitate your input.

**[Esc]:** Press this key to exit.



**Figure 5-4**

The three keyboard function keys work as below.

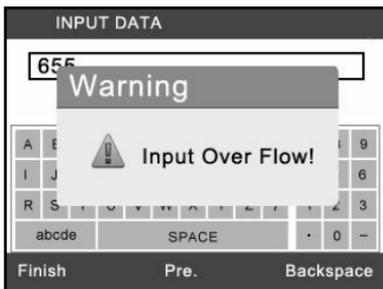
**[Finish]:** When you finished the input, select this key to confirm your input and exit.

**[Pre.]:** Moves a space to the left.

**[Backspace]:** Uses this key to erase the previous digit or character when typing.

**NOTE**

The data you input must be in the reasonable range, which is defined by the preset values in VIN. If you enter a data out of range, the tool will display a warning message.



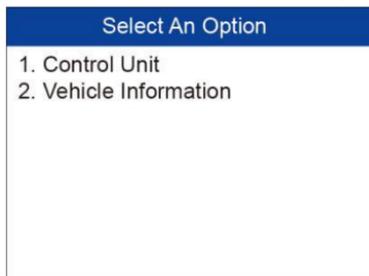
**Figure 5-5**

- 9) Follow screen instruction to save vehicle information in the Input Dialog Box and Vehicle Specification sections by selecting Yes option, or No option to exit without saving.



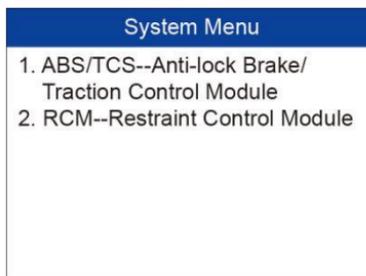
**Figure 5-6**

- 10) Select a desired item for information on the option menu screen.



**Figure 5-7**

- 11) Select the **Control Unit** entry to enter the **System Menu** option screen, and choose the desired **Control Module** entry for DTC information stored in the vehicle's on-board computer.



**Figure 5-8**

- If there is not any Diagnostic Trouble Code, the display indicates **"No (pending) codes are stored in the module!"** Wait a few seconds or press any key to return to previous screen.

---

**NOTE**

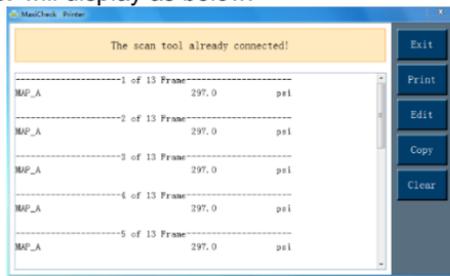
1. In this manner, the scan tool will communicate with the vehicle being tested. If there is a linking error, please refer to 3.8 Product Troubleshooting.
  2. If the vehicle does not support ABS/SRS communication, an advisory message shows on the Scan Tool's display. Follow the screen instruction to exit the system.
-

# 6 Print and Update

## Print

The **Print Data** function allows printing DTC data recorded by the tool by connecting the tool to a Windows-based PC with the supplied USB cable.

1. Download the **Maxi PC Suite** from [www.autel.com](http://www.autel.com) > *Support* > *Downloads* > *Autel Update Tools*, and install to your Windows-based computer.
2. Connect the tool to the computer using the supplied USB cable.
3. Run **Autel Printer** software on the computer.
4. Select **Playback** on the Main Screen of the tool. On the data menu screen, select **Print Data** and then select the data you want to print. Wait for the review window to display, and then select **Print** function. The selected file will upload to your computer.
5. The **Printer** will display as below.



**Figure 6-1 Sample Printer Screen**

6. The selected data will display on the textbox. Select the appropriate function key on the right to execute one of the following operations:
  - **Print** – print all data in the textbox to a printer connected to your computer.
  - **Edit** – display an editable NOTEPAD window with recorded data.
  - **Copy** – copy data in the textbox to the clipboard.
  - **Clear** – delete data in the textbox.
  - **Exit** – quit the operation.

# Update

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## Register the Tool

The tool must be registered prior to updating it. Register the tool on our website: [www.autel.com](http://www.autel.com). Visit the site to download software update programs, research tools and retrieve warranty information.

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### NOTE

Prior to registration, please confirm your network is working properly.

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1. Visit the website <http://pro.autel.com>.
2. If you already have an Autel account, Sign In with your account ID and password.
3. If you are a new member to Autel, click on the **Create Autel ID** button on the left side of the screen to create an ID.
4. Enter the required information in the input fields, and click the **Get Verification Code** button to get a verification code for email validation.
5. The online system will automatically send a verification code to the registered email address. Input the code in the Verification code field and complete other required fields. Read through Autel's Terms and Conditions and click on Agree, and then click **Create Autel ID** at the bottom. A product registration screen will display.
6. The device's serial number and password is located in the [About](#) section of the Settings application on the tool.
7. Select your product model, enter the product serial number and password on the Product Registration screen, and click **Submit** to complete the registration procedure.

## Update Procedure

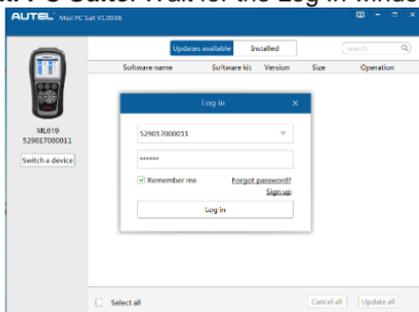
Autel frequently releases software updates to download.

Remove the TF card from the tool and connect the card to the computer with a card reader.

Follow the update procedure to finish updating.

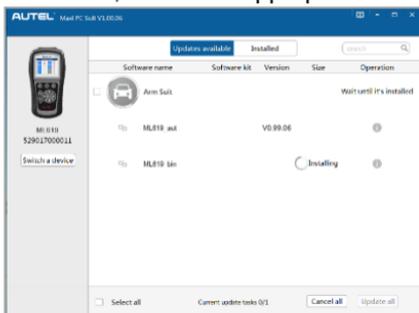
1. Download the **Maxi PC Suite** from [www.autel.com](http://www.autel.com) > *Support & Updates* > *Firmware & Downloads* > *Update Client*, and install to your Windows-based computer.

2. Run the **Maxi PC Suite**. Wait for the Log In window to display.



**Figure 6-2 Sample Log In Window**

3. Enter your Autel ID and password and wait for the Update window to display. If you forget your password, click the [**Forget Password?**] link to our website and retrieve your password. Or click **Sign up** to create an Autel ID to continue.
4. Select tool and serial number, click **OK** to continue.
5. In the **Update** window, select the appropriate files to install.



**Figure 6-3 Sample Update Window**

Generally, there are two ways to update programs:

### *Batch Update*

1. Select the programs to update by checking the boxes next to those items. Then click the **Update All** button on the bottom right of screen. Click the **Clear All** button to deselect files.
2. Or, click on the **Select All** checkbox on the bottom left of screen and all updatable items will be selected. Click the **Update All** button on the right of the screen.

- When the download is completed, the programs will be automatically installed. The new version will replace the old version.

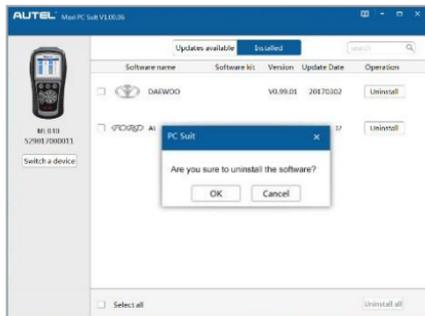
### Single Update

- Locate the desired update and click the **Update** button in the same line.
- The downloaded programs will automatically install. The update will replace the existing version of the software.

### View or Delete Programs

To view the list of installed programs or to delete an installed program, please follow these steps:

- Click on the **Installed** tag and the list of installed programs will display.
- Select the program(s) that you would delete.
  - ✧ **Batch delete:** Check the boxes to the left of the program you want to uninstall. Then click the **Uninstall All** button on the bottom right of screen.
  - ✧ **Single delete:** Click the **Uninstall** button adjacent to the program to delete.
- A window will display for confirmation of the selected software to uninstall.



**Figure 6-4 Sample Delete Window**

- Click **OK** to delete the program(s) selected, or click **Cancel** to quit the action.
- The deleted program(s) will be added to the end of the program list on the Update page to install again if you wish.

In the search box on the top right corner of the screen, you can search the listed. This function works for both Update Available column and Installed column.

# 7 Compliance Information

## FCC COMPLIANCE

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme aux CNR exempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:

1. Ce dispositif ne peut causer des interférences; et
2. Ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

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### **WARNING**

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

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### **NOTE**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

### **RF WARNING STATEMENT**

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

The term "IC" before the radio certification number only signifies that IC technical specifications were met.

### **RoHS COMPLIANCE**

This device is declared to be in compliance with the European RoHS Directive 2011/65/EU.

### **CE COMPLIANCE**

This product is declared to conform to the essential requirements of the following Directives and carries the CE mark accordingly:

EMC Directive 2014/30/EU

R&TTE Directive 1999/5/EC

Low Voltage Directive 2014/35/EU

# 8 Warranty and Service

## Limited One Year Warranty

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Autel Intelligent Technology Corp., Ltd. (the Company) warrants to the original retail purchaser of this Autel device that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship that results in product failure within 1 year period from the date of purchase, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.

### **This warranty does not apply to:**

- 1) Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;
- 2) Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;
- 3) Damage from exposure to excessive temperatures or extreme environmental conditions;
- 4) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;
- 5) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts.
- 6) Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft or improper usage of any electrical source.

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**! IMPORTANT**

All contents of the product may be deleted during the process of repair. You should create a back-up copy of any contents of your product before delivering the product for warranty service.

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## Service and Support

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If you have any questions regarding the product, please contact one of our offices in your region.

### AUTEL NORTH AMERICA

- **Phone:** 855-AUTEL-US (855-288-3587) Mon.-Fri.9am-6pm EST
- **Website:** [www.autel.com](http://www.autel.com)
- **Email:** [ussupport@autel.com](mailto:ussupport@autel.com)
- **Address:** 175 Central Avenue, Suite 200, Farmingdale, New York, USA. 11735

### AUTEL EUROPE

- **Phone:** 0049 (0) 61032000522
- **Website:** [www.autel.eu](http://www.autel.eu)
- **Email:** [sales.eu@autel.com](mailto:sales.eu@autel.com), [support.eu@autel.com](mailto:support.eu@autel.com)
- **Address:** Robert-Bosch-Strasse 25, 63225, Langen, Germany

### AUTEL CHINA HQ

- **Phone:** 0086-755-8614 7779
- **Website:** [www.autel.com](http://www.autel.com)
- **Email:** [support@autel.com](mailto:support@autel.com)
- **Address:** 6th-10th floor, Building B1, Zhiyuan, Xueyuan Road, Xili, Nanshan, Shenzhen, 518055, China.

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- **Address:** 155 Islington Street, Melbourne, Collingwood, VIC

For technical assistance in other markets, please contact your local tool distributor.