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# One-Year Limited Warranty

Subject to the conditions of this limited warranty, Shenzhen Foxwell Technology Co., Ltd ("FOXWELL") warrants its customer that this product is free of defects in material and workmanship at the time of its original purchase for a subsequent period of one (1) year.

In the event this product fails to operate under normal use, during the warranty period, due to defects in materials and workmanship, FOXWELL will, at its sole option, either repair or replace the product in accordance with the terms and conditions stipulated herein.

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1 If FOXWELL repairs or replaces the product, the repaired or replaced product shall be warranted for the remaining time of the original warranty period. No charge will be made to the customer for replacement parts or labor charges incurred by FOXWELL in repairing or replacing the defective parts.

2 The customer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

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b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, improper use of any electrical source, or the product was used in combination or connection with other product, attachments, supplies or consumables not manufactured or distributed by FOXWELL.

3 The customer shall bear the cost of shipping the product to FOXWELL. And FOXWELL shall bear the cost of shipping the product back to the customer after the completion of service under this limited warranty.

4 FOXWELL does not warrant uninterrupted or error-free operation of the product. If a problem develops during the limited warranty period, the consumer shall take the following step-by-step procedure:

a) The customer shall return the product to the place of purchase for repair or replacement processing, contact your local FOXWELL distributor or visit our website [www.foxwelltech.com](http://www.foxwelltech.com) to get further information.

b) The customer shall include a return address, daytime phone number and/or fax number, complete description of the problem and original invoice specifying date of purchase and serial number.

c) The customer will be billed for any parts or labor charges not covered by this limited warranty.

d) FOXWELL will repair the Product under the limited warranty within 30 days after receipt of the product. If FOXWELL cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, FOXWELL at its option, will provide a replacement product or refund the purchase price of the product less a reasonable amount for usage.

e) If the product is returned during the limited warranty period, but the problem with the product is not covered under the terms and conditions of this limited warranty, the customer will be notified and given an estimate of the charges the customer must pay to have the product repaired, with all shipping charges billed to the customer. If the estimate is refused, the product will be returned freight collect. If the product is returned after the expiration of the limited warranty period, FOXWELL' normal service policies shall apply and the customer will be responsible for all shipping charges.

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# Safety Information

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 service 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 Message Conventions Used

We provide safety messages to help prevent personal injury and equipment damage. Below are signal words we used to indicate the hazard level in a condition.

### DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

### WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

### CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

## Important Safety Instructions

And always use your service tool as described in the user's manual, and follow all safety messages.

### WARNING

- Do not route the test cable in a manner that would interfere with driving controls.
- Do not exceed voltage limits between inputs specified in this user's manual.
- Always wear ANSI approved goggles to protect your eyes from propelled objects as well as hot or caustic liquids.
- Fuel, oil vapors, hot steam, hot toxic exhaust gases, acid, refrigerant and other debris produced by a malfunction engine can cause serious injury or death. Do not use the service tool in areas where explosive vapor may collect, such as in below-ground pits, confined areas, or areas that are less than 18 inches (45 cm) above the floor.
- Do not smoke, strike a match, or cause a spark near the vehicle while testing and keep all sparks, heated items and open flames away from the battery and fuel / fuel vapors as they are highly flammable.
- Keep a dry chemical fire extinguisher suitable for gasoline, chemical and electrical fires in work area.
- Always be aware of rotating parts that move at high speed when an engine is running and keep a safe distance from these parts as well as other potentially moving objects to avoid serious injury.
- Do not touch engine components that get very hot when an engine is running to avoid severe burns.
- Block drive wheels before testing with engine running. Put the transmission in park (for automatic transmission) or neutral (for manual transmission). And never leave a running engine unattended.
- Do not wear jewelry or loose fitting clothing when working on engine.

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# 1 Using This Manual

We provide tool usage instructions in this manual. Below is the conventions we used in the manual.

## 1.1 Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

Example:

Press the **ENTER** button to select.

## 1.2 Symbols and Icons

### 1.2.1 Solid Spot

Operation tips and lists that apply to specific tool are introduced by a solid spot ●.

Example:

When System Setup is selected, a menu that lists all available options displays. Menu options include:

- Languages
- Unit
- Beep
- Keypad Test
- LCD Test
- About
- Shortcuts

### 1.2.2 Arrow Icon

▶ An arrow icon indicates a procedure.

Example:



To change menu language:

1. Scroll with the arrow keys to highlight **Language** on the menu.
2. Press the **ENTER** button to select.

### 1.2.3 Note and Important Message

#### Note

A NOTE provides helpful information such as additional explanations, tips, and comments.

Example:

---

#### NOTE

Test results do not necessarily indicate a faulty component or system.

---

#### Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

---

#### IMPORTANT

Do not soak keypad as water might find its way into the scanner.

---

## 2 Introduction

Oil changes are the #1 service your shop will perform each year. Enhance your service with the latest NT401 Oil Light Reset Tool from Foxwell and eliminate the need to take the vehicle to the dealer or use an OEM service tool to reset oil service lights.

With the tool properly connected to the vehicle's data link connector (DLC), you can use the service tool to reset oil service light, oil inspection light, service mileage, service intervals and more on 32 vehicles.

### 2.1 Scanner Descriptions

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



Figure 2-1 Front View

- 1 **Diagnostic Port** - provides connection between the service tool and vehicle.
- 2 **LCD Display** - shows menus, test results and operation tips.
- 3 **Function Keys / Shortcut keys** - three keys that correspond with “buttons” on some screens for executing special commands or provide quick access to most frequently used applications or functions.
- 4 **Direction Keys** - select an option or scroll through a screen of data or text.
- 5 **BACK Key** - exits a screen and generally returns to previous screen.
- 6 **ENTER Key** - executes a selected option and generally goes to the next screen.
- 7 **HELP Key** - displays helpful information.



8 **Power Switch** - turns on/off the service tool and press and hold for 5 seconds for emergency reboots.

9 **SD Card Port** - holds the SD memory card for data backup and software update.

10 **USB Port** - provides a USB connection between the Service tool and PC or laptop

---

**IMPORTANT**

Do not use solvents such as alcohol to clean keypad or display. Use a mild nonabrasive detergent and a soft cotton cloth.

---

## 2.2 Accessory Descriptions

This section lists the accessories that go with the service tool. If you find any of the following items missing from your package, contact your local dealer for assistance.

1 **User's Guide** - provides operation instructions for the usage of the service tool.

2 **USB Cable** - provides connection between the service tool and a computer to upgrade the tool.

3 **Memory Card** - contains the service tool's operating software and applications.

---

**IMPORTANT**

Do not remove the memory card unless performing updates to the card.

---

4 **Diagnostic Cable** - provides connection between the service tool and vehicle.

5 **Nylon Carry Pouch** - stores the service tool and its accessories.

## 2.3 Technical Specifications

**Display:** Backlit, 240\*320 TFT color display

**Working Temperature:** 0 to 60 °C (32 to 140°F)

**Storage Temperature:** -20 to 70°C (-4 to 158°F)

**Power Supply:** 8-18V powered by vehicle battery

**Dimensions (L\*W\*H):** 200\*100\*38mm

**Gross Weight:** 1.2Kg

**Protocols:** SAE J1850 (VPW and PWM), ISO 9141-2, ISO 14230-2 (KWP 2000), ISO 15765-4 (CAN)

## 3 Getting Started

This section describes how to provide power to the service tool, provides brief introductions of applications loaded on the service tool and display screen layout and illustrates how to input text and numbers with the service tool.

### 3.1 Providing Power to Scanner


Before using the service tool, make sure to provide power to the service tool.

The unit operates on any of the following sources:

- 12-volt vehicle power
- USB connection to personal computer

### 3.1.1 Connecting to Vehicle Power

The service tool normally powers on whenever it is connected to the data link connector (DLC).

-  To connect to vehicle power:
1. Locate the data link connector (DLC). The DLC is generally located under the dash on the driver side of the vehicle.
  2. Attached the diagnostic cable to the service tool and tighten the captive screws to ensure good connection.
  3. Connect a correct adapter to the data cable according to the vehicle being serviced and plug it into the vehicle DLC.
  4. Switch the ignition key to the ON position.
  5. The service tool automatically boots up.

---


#### IMPORTANT

Never try to provide power for the service tool from USB connection when the service tool is communicating with a vehicle.

---

### 3.1.2 Connecting to Personal Computer with USB Cable

The service tool also receives power through the USB port when it is connected to a PC for updating software and transferring saved files.

-  To connect to PC:
1. Insert the small end of the USB cable to the USB port at the right side of the scanner and the large end to a computer.
  2. Press the power switch of the service tool to power it on.

## 3.2 Application Overview

When the service tool boots up, the Home screen opens. This screen shows all applications loaded on the unit.

Following applications are preloaded into the service tool:

- **OBDDII/EOBD** - leads to OBDII screens for all 9 generic OBD system tests.
- **Oil Reset** - leads to screens for resetting oil service light, oil inspection light, service mileage, service intervals and more on 32 vehicle makes sold worldwide.
- **Setup** - leads to screens for adjusting default settings to meet your own preference and view information about the scanner.
- **Playback** - leads to screens for access saved data files.


## 3.3 Input Dialog Box

This section illustrates how to use the service tool to input letters and numbers, such as channel number, test values, service intervals, oil life values, service mileage, and DTC number. Typically, you may be required to input letters or numbers when you are doing any of the following operations.

- Input channel number
- look up DTCs
- service intervals
- oil life values
- service mileage

The service tool provides 3 different types of keyboard to meet your specific needs. Depending on the needs of text entry, it automatically shows the most suitable keypad.

- classic QWERTY keyboard for input of texts that contain both letters and numbers
- numeric keyboard for input of numbers
- alphabet keyboard for input of letters

-  To input text with the service tool:

1. When you are requested to input text, press the function key **Keyboard**, and the keyboard displays.

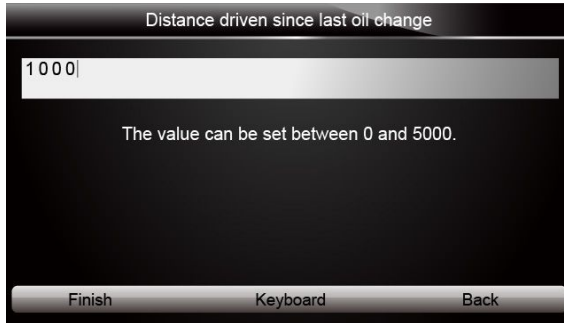


Figure 3-1 Sample Input Text Screen

2. Scroll with the arrow keys to highlight your desired letter or number and press the **ENTER** key to confirm.



Figure 3-2 Sample QWERTY Keyboard Screen

3. To delete a letter or number, use the function key **Previous** to move the cursor to it and then press the **Backspace** button.
4. When finished the entry, press **Finish** key to continue.

## 4 Instructions

This section illustrates how to use the service tool to reset oil service light, oil inspection light, service mileage, service intervals and more on 32 vehicle manufacturers.

---

### NOTE

All software screens shown in this manual are examples; actual test screens may vary by the year, model, and makes of the test vehicle. Observe the menu titles and onscreen instructions to make correct option selections.

---

## 4.1 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 service 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. Exact procedures may vary somewhat by vehicle.



To identify a vehicle:

1. Scroll with the arrow keys to highlight **Oil Reset** from the Application menu and press the **ENTER** key to start. If you have the application assigned to one of the function keys at the bottom of the screen, you can alternatively press the function key to start the application.



Figure 4-1 Sample Application Menu Screen

2. A screen with a list of vehicles displays. Select the vehicle you wish to test and press the **ENTER** key.



Figure 4-2 Sample Vehicle Manufacturer Selection Screen

3. On each screen that appears, select the correct option and then press the **ENTER** key. Do this until the complete vehicle information is entered and the menu of controller selection displays.

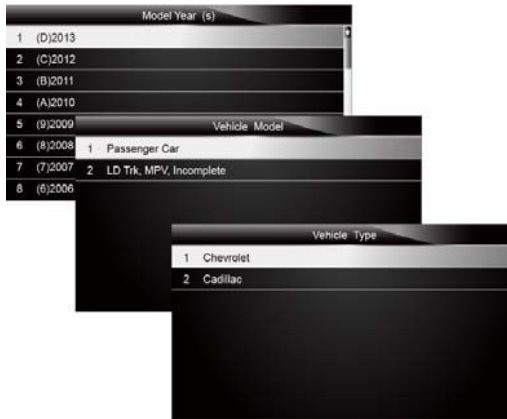


Figure 4-3 Sample Vehicle Selection Screens

## 4.2 Service Reset Operations

Oil service reset methods are determined by the vehicle being tested. Depending on the vehicle being tested, any of the following means displays:

- Oil Reset With One Button
- Manual Reset
- Auto Reset

### 4.2.1 Oil Reset With One Button

Oil Reset With One Button is applicable to GM models only. It offers quick and simple oil service reset with the click of one button.

- ▶ To do Oil Reset With One Button:
1. Scroll with up and down arrow keys to highlight **Oil Reset With One Button** from the Oil Reset menu. An Information screen displays. Press the function key **OK** to continue or **Cancel** key to return to the Oil Reset menu.

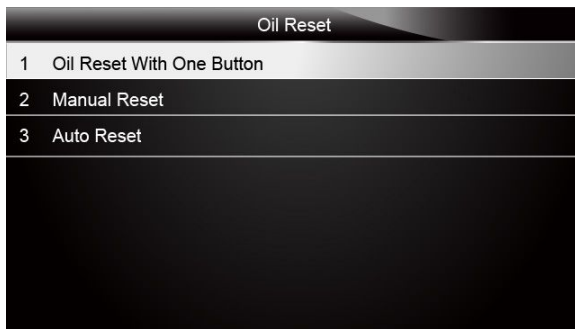


Figure 4-4 Sample Oil Reset Menu Screen

2. Follow on-screen instruction and send a command to reset oil service. A screen with “Success” message displays once the lamp has been reset. Press any key to return.



Figure 4-5 Sample Oil Reset With One Button Success Screen

3. If the oil service reset failed, the following screen displays. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

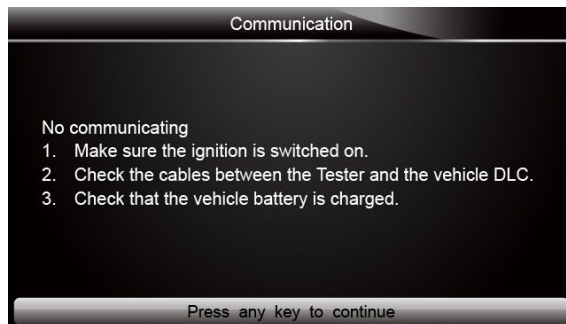


Figure 4-6 Sample Oil Reset With One Button Failed Screen

## 4.2.2 Manual Reset

Almost all Asian vehicles and most American and European vehicles have mechanical oil service indicator reset. The service tool does not have to communicate with the vehicle being tested, but guides you to complete the service manually by providing step-by-step on-screen instructions.

When Manual Reset is selected and the vehicle being tested identified, a procedure opens on the screen. Scroll with arrow keys to read the entire procedure and performing the necessary steps as directed by the on-screen instructions. The exact order of the test operation steps may vary depending on the test vehicle. Be sure to follow all on-screen instructions.

This manual reset procedure can be interrupted and aborted if the ignition key position is changed.



To do oil reset manually:

1. Scroll with up and down arrow keys to highlight **Manual Reset** from the **Oil Reset** menu and press **ENTER** to confirm.



Figure 4-7 Sample Oil Reset Menu Screen

2. Enter vehicle information by certain VIN characters, such as model, and year to identify the vehicle being tested and press **ENTER** key to confirm.



Figure 4-8 Sample Vehicle Identification Screens

3. When the vehicle is identified, a procedure screen displays.

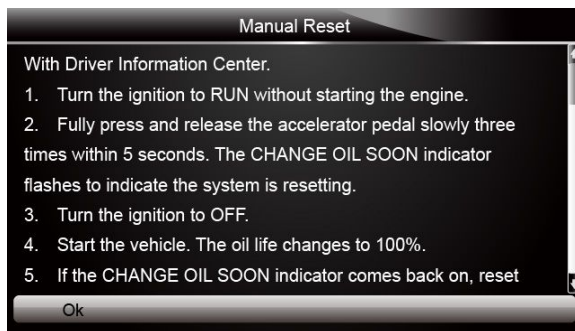


Figure 4-9 Sample Manual Reset Instructions Screen

4. Follow all on-screen instructions to perform the manual mechanical reset.
5. Press function key **OK** to return.

## 4.2.3 Auto Reset

Auto Reset is a bi-directional communication procedure directed by the service tool. The service tool displays guides for you through the process. A number of instructions that require a response to continue display, including an option to clear any stored codes once the interval has been reset. Follow the on-screen instructions.

### 4.2.3.1 AUDI/SEAT/SKODA/VW Operations

Oil Service menu allows to reset the Service Reminder in vehicles so equipped. This function will automatically access the Instrument Cluster and will retrieve SRI instructions as well as current values stored in the cluster. It will also specify the total length in kilometers and or days between the service intervals. In this case it only specifies the time or distance between intervals, it does not reset the interval. When an inspection has been carried out prematurely (before the service interval is required), it will read the kilometers or days since the last service set them to the required value.



To do oil service reset on AUDI/SEAT/SKODA/VW vehicles:

1. Scroll with up and down arrow keys to highlight **Auto Reset** from the **Oil Reset** menu and press **ENTER**. A screen with a list of available service displays.

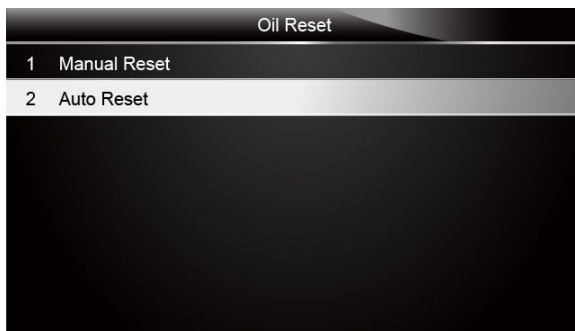


Figure 4-10 Sample Oil Reset Menu Screen

2. Scroll with the arrow keys to highlight a function you wish to test and press the **ENTER** key to confirm.

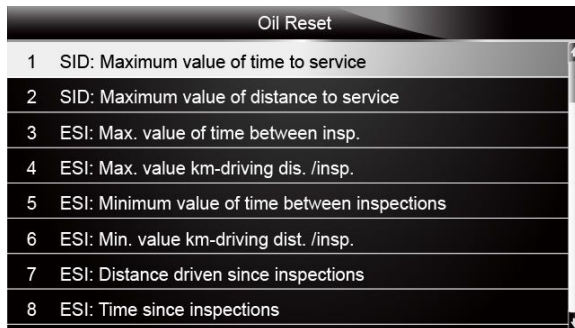


Figure 4-11 Sample Oil Reset Function Screen

3. The stored value on the vehicle being tested displays. Press the function key **OK** to set the service value you want or press the function key **Cancel** to quit service reset.



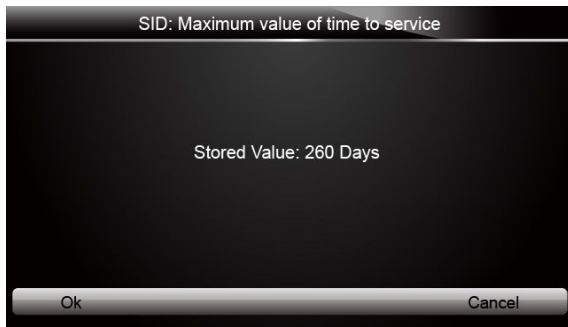


Figure 4-12 Sample Vehicle Stored Value Screen

4. Enter a valid value and press **Finish** to continue.

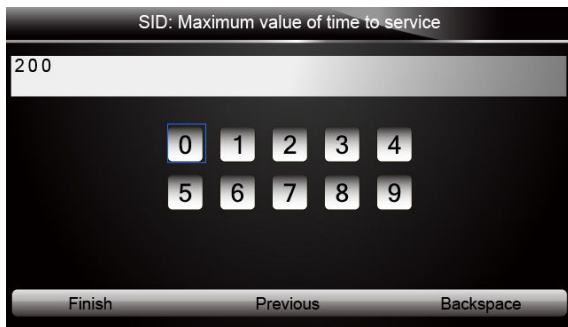


Figure 4-13 Sample Service Time Value Entry Screen

5. Press the function key **Yes** to save and continue, or press the function key **NO** to quit.

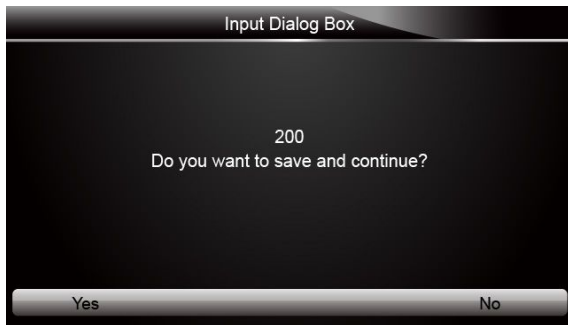


Figure 4-14 Sample Input Dialog Box Screen

6. If the service reset has been completed, a confirmation message comes up. Press any key to return.

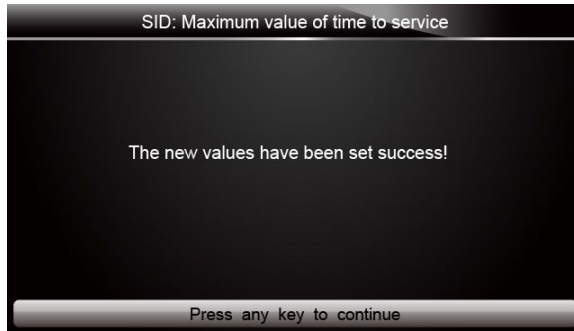


Figure 4-15 Sample Service Interval Reset Successful Screen

#### NOTE

- “Stored Value” is the value of the most recent setup retrieved by NT401. If you change your mind after making new setups, it can be used to reset all changed values to original ones. It is advised to write down this value before making any changes.
- If “No communicating” message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

#### 4.2.3.2 BMW Operations

This section illustrates how to reset the oil service lamps on the instrument cluster of BMW vehicles. The Service Indicator System (SIA) is designed to alert the driver when the vehicle is due for a service. The BMW Maintenance System includes the Engine Oil Service and Inspections I (minor service) and II (major service). Different years and models have display variations depending on the instrument cluster level type.

- ▶ To perform oil service on BMW:
1. Scroll with up and down arrow keys to highlight **Auto Reset** from the **Oil Reset** menu and press **ENTER** to start.



Figure 4-16 Sample Oil Reset Menu Screen

2. The connector type selection screen displays. Scroll with arrow keys to select the connector type for the vehicle being tested.

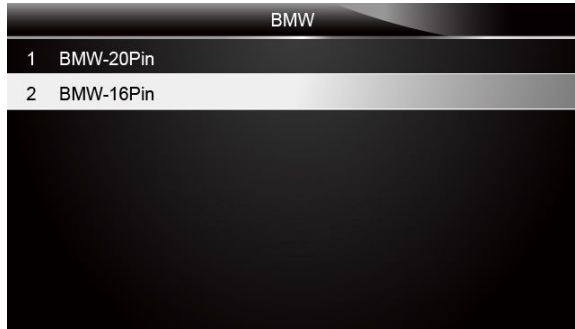


Figure 4-17 Sample BMW Vehicle Connector Screen

### OBDII 16PIN Connector

BMW vehicles with OBDII connector have more service functions than those with 20-PIN connector.

There are two ways to complete oil reset on 16 PIN Connector vehicles.

- CBS reset
- CBS correction

### CBS reset


-  To perform oil service functions on BMW with OBDII connector:
1. To complete the service functions automatically, scroll with up and down arrow keys to select **CBS Reset** from the **Oil Reset** menu and press **ENTER** key to confirm.



Figure 4-18 Sample Oil Reset Menu Screen

---

### NOTE

Not all functions listed are applicable to all vehicles. Available options may vary by the model year of the vehicle being tested.

---

2. A screen with available services displays.

CBS reset	
1	Engine Oil
2	Spark plugs
3	Front brakes
4	Rear brakes
5	Coolant
6	Diesel particle filter
7	Brake fluid
8	Microfilter

Figure 4-19 Sample CBS Reset Menu Screen

3. Scroll with up and down arrow keys to highlight service you want to perform and press **ENTER** key to confirm. Press **Modify** to perform the service.

Engine oil		
Availability		30
Service counter		8
Modify		

Figure 4-20 Sample Engine Oil Reset Screen

4. A command to reset the engine oil is sent. A screen with ECU default value displays when the lamp has been reset successfully. Press any key to return to the function menu.

Engine oil		
Availability		100
Service counter		8
Modify		

Figure 4-21 Sample Engine Oil Reset Successful Screen

5. If it fails to reset engine oil, the following screen displays. Please follow the on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

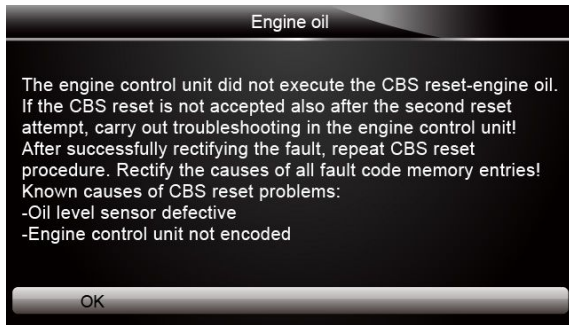


Figure 4-22 Sample Engine Oil Reset Failed Screen

**NOTE**

Not all failure screens are the same. The message may vary by the service being performed.

**CBS Correction**

- ▶ To perform oil service functions on BMW with OBDII connector:
  1. Scroll with up and down arrow keys to select the **CBS Correction** function and press **ENTER** key to confirm.



Figure 4-23 Sample Oil Reset Menu Screen

2. A screen with a list of available tests displays as below.

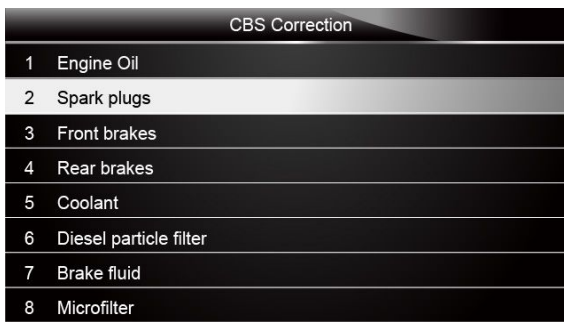


Figure 4-24 Sample CBS Correction Menu Screen

**NOTE**

Not all functions listed above are applicable to all vehicles. Available options may vary by the year and model of the test vehicle.

3. Scroll with up and down arrow keys to highlight a function from the menu and press the **ENTER** key to confirm.

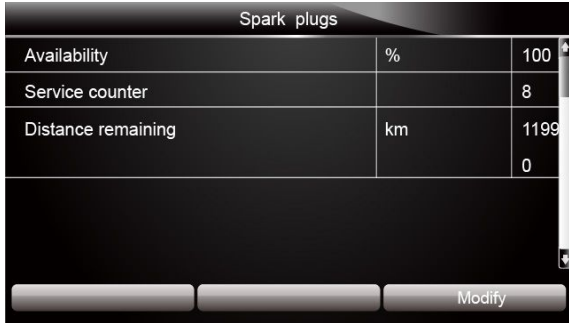


Figure 4-25 Sample Spark Plugs Test Screen

4. If the value needs to be changed, press the function key **Modify**. The screen for new value entry displays as below.



Figure 4-26 Sample New Spark Plug Value Entry Screen

5. Input a valid value and use the function key **Finish** to confirm.

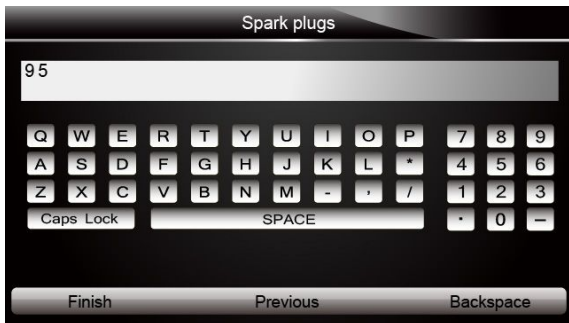


Figure 4-27 Sample Spark Plugs Enter Screen

6. Press the function key **Yes** if the new value is to be saved, or press the function key **NO** to quit.

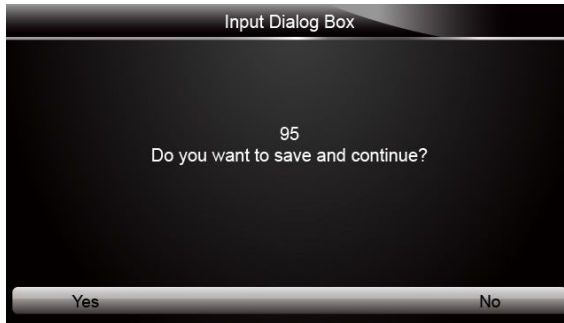


Figure 4-28 Sample Input Dialog Box Screen

7. A screen with "success" message displays and the new value is set.



Figure 4-29 Sample Spark Plugs Reset Successful Screen

---

#### **NOTE**

If "No communicating" message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

---

#### **20PIN Connector**

- ▶ To perform oil service functions on vehicles with a 20PIN connector:
  1. Scroll with up and down arrow keys to select the function from the menu and press **ENTER** key to confirm.

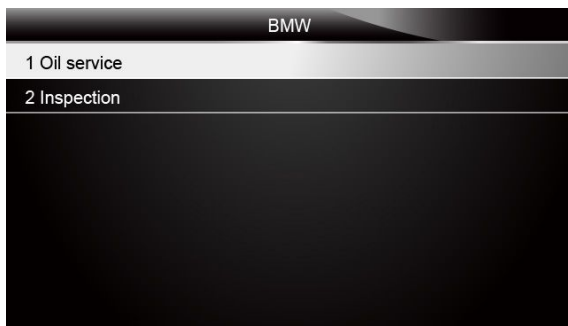


Figure 4-30 Sample Oil Reset Function Menu Screen

2. A screen with “Reset Implemented” message displays once the oil service reset has been done successfully.

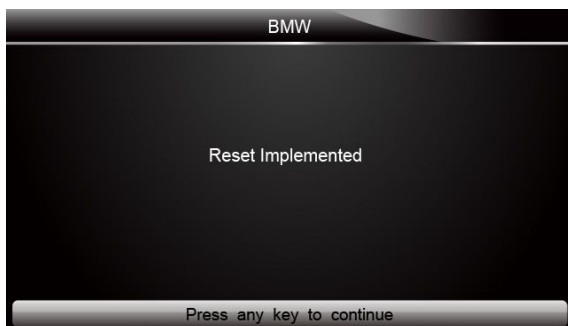


Figure 4-31 Sample Oil Service Reset Successful Screen

---

#### **NOTE**

If “No communicating” message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

---

#### **4.2.3.3 Fiat Operations**

This section illustrates how to do oil service reset automatically on Fiat vehicles.

- ▶ To perform the oil service on Fiat:
  1. Scroll with up and down arrow keys to highlight an option and press **ENTER** key to confirm.



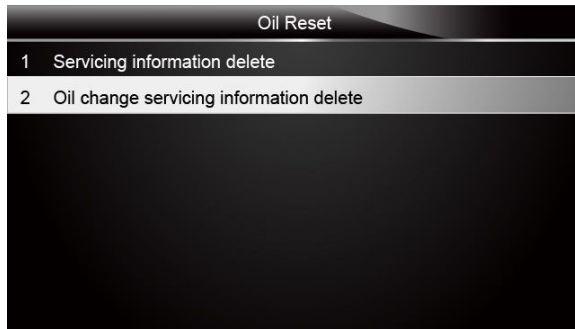
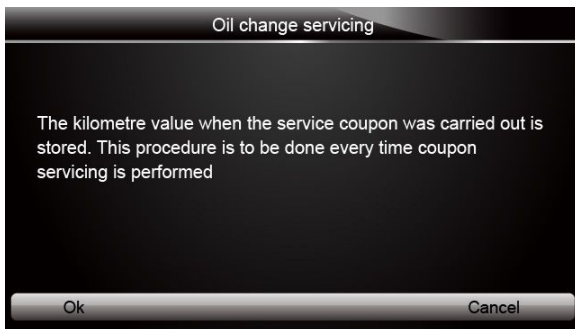


Figure 4-32 Sample Oil Reset Menu Screen

2. Press the function key **OK** to perform the service, or press **Cancel** to quit.



3. Follow on-screen instructions and send a command to reset oil service. A screen with a "Test Performed" message comes up once the oil change has been done successfully. Press any key to return.

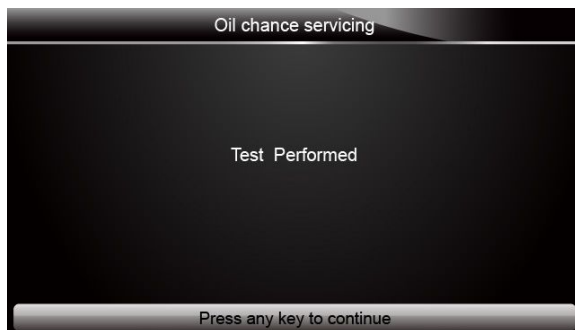


Figure 4-34 Sample Test Performed Screen

---

**NOTE**

If a "No communicating" message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

---

#### 4.2.3.4 GM Operations

This section illustrates how to do oil reset by auto reset on GM.

- ▶ To perform Auto Reset on GM:
1. Scroll with up and down arrow keys to highlight **Auto Reset** from the **Oil Reset** menu and press **ENTER** to confirm.



Figure 4-35 Sample Oil Reset Menu Screen

2. Enter vehicle information by certain VIN characters, such as model and year to identify the vehicle being tested and press **ENTER** key to confirm.



Figure 4-36 Sample Vehicle Identification Screens

3. Select the control module and press **ENTER** key to communicate with the vehicle



Figure 4-37 Sample Control Module Selection Screen

4. Once the tool established communication with the vehicle, the **Oil Reset** screen comes up. Press the **ENTER** key to confirm.



Figure 4-38 Sample Oil Reset Menu Screen

5. Press the function key **OK** to continue, or press the function key **Cancel** to quit.



Figure 4-39 Sample Oil Life Reset Screen

6. If the value needs to be changed, press the function key **Keyboard**. The screen for new value entry displays

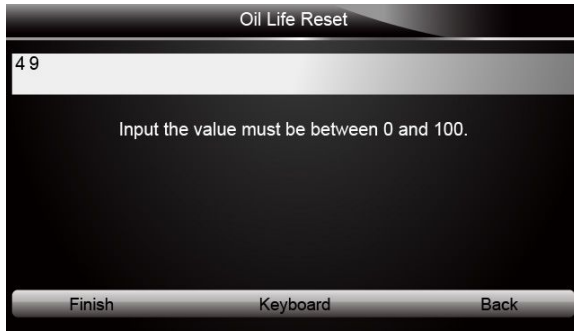


Figure 4-40 Sample Oil Life Reset Entry Screen

7. Input a valid value and use the function key **Finish** to confirm.

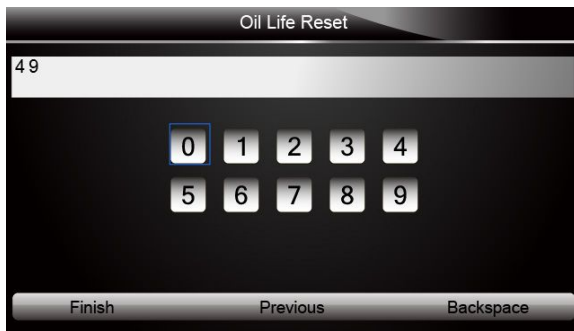


Figure 4-41 Sample Oil Life Reset Entry Screen

8. Press the function key **Yes** if the entered value are to be saved, or press the function key **NO** to quit.

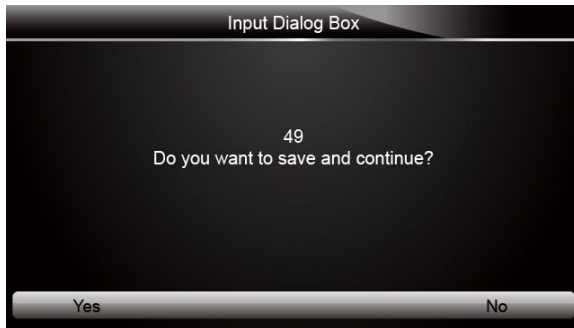


Figure 4-42 Sample Input Dialog Box Screen

9. Wait for a few seconds, and a screen with "Success" message comes up once the oil life reset has been done successfully. Press any key to continue.



Figure 4-43 Sample Oil Life Reset Successful Screen

---

#### NOTE

If “No communicating” message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

---

#### 4.2.3.5 Mercedes Benz Operations

This section illustrates how to do oil reset on Mercedes Benz.



To do oil reset on Mercedes Benz:

1. Scroll up and down arrow keys to select a control unit and press **ENTER** key to continue.



Figure 4-44 Sample Control Unit Adaptations Screen

2. Scroll up and down arrow keys to highlight the settings item and press **ENTER** key to reset the value.

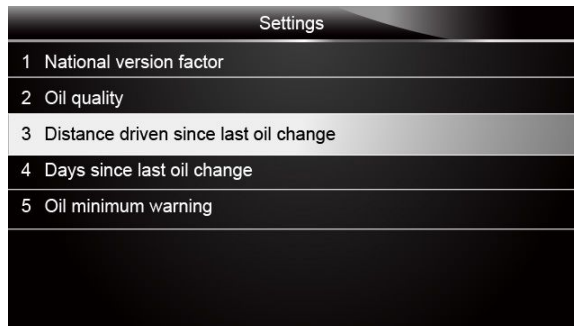


Figure 4-45 Sample Oil Reset Setting Menu Screen

3. Press the function key **Modify** to enter the new value

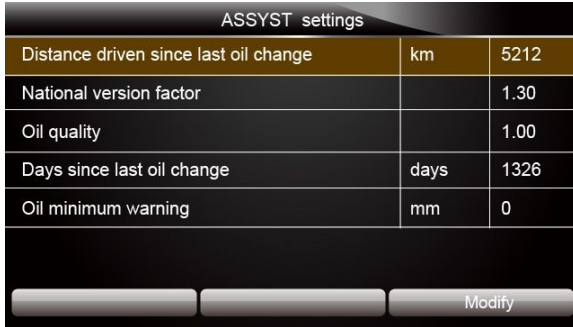


Figure 4-46 Sample ASSYST Setting Screen

4. Follow on-screen instruction and then you can enter a new value by pressing the function key **Keyboard**



Figure 4-47 Sample Service Mileage Entry Screen

5. Scroll with the arrow keys to highlight your desired letter or number and press the **ENTER** key to confirm. To delete a letter or number, use the function key **Previous** to move the cursor to it and then press the **Backspace** button. When finished the entry, press **Finish** key to continue



Figure 4-48 Sample Service Mileage Entry Keyboard Screen

6. Press the function key **YES** to save and continue the oil light reset, or press the function key **NO** to quit the oil light reset.

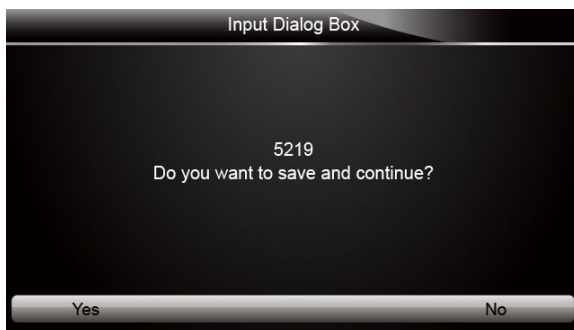


Figure 4-49 Sample Service Mileage Reset Confirmation Dialog Box Screen

7. A screen with "Success" message comes up once the oil light reset has been done successfully.

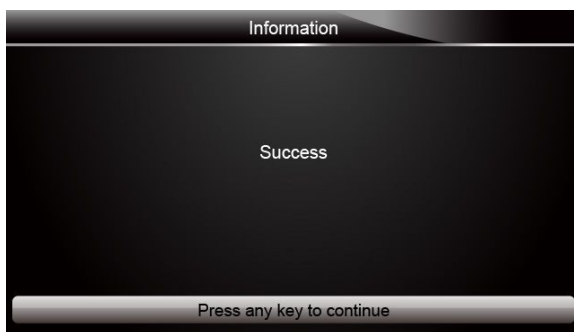


Figure 4-50 Sample Service Mileage Reset Successful Screen

---

#### NOTE

If "No communicating" message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

---

#### 4.2.3.6 Land Rover Operations

This section illustrates how to do oil reset on Land Rover.

- ▶ To do oil reset on Land Rover:
  1. Scroll with up and down arrow keys to highlight **Auto Reset** from the Oil Reset menu and press **ENTER** key.

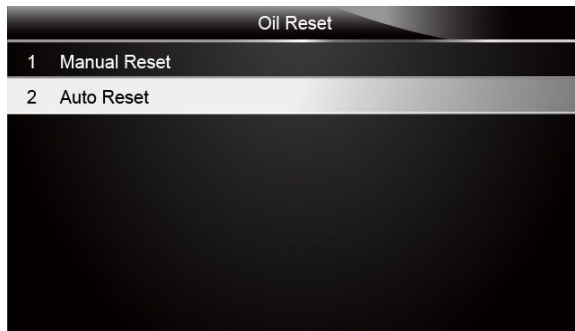


Figure 4-51 Sample Oil Reset Menu Screen

2. Select the vehicle being tested and press the **ENTER** key to confirm.

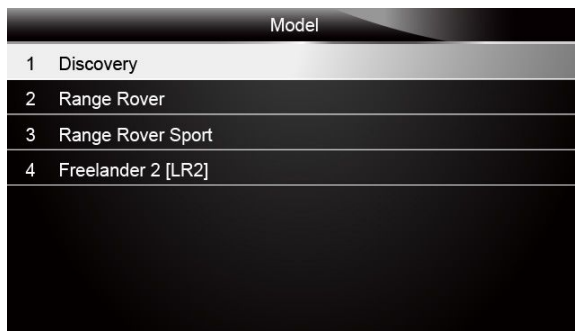


Figure 4-52 Sample Vehicle Selection Screen

3. Set the ignition switch to on and press the function key **OK** to continue or press **Cancel** to quit.



Figure 4-53 Sample Oil Reset Instruction Screen

4. Turn key on with engine off and press the function key **OK** to continue or press **Cancel** key to quit oil light reset.





Figure 4-54 Sample Oil Reset Instruction Screen

5. Set the ignition switch to off and press the function key **OK** to continue or press **Cancel** key to quit the oil light reset.

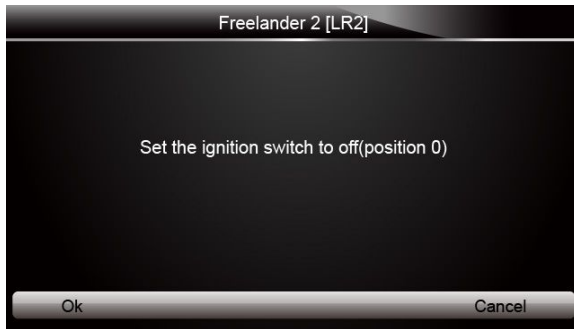


Figure 4-55 Sample Oil Reset Instruction Screen

6. Set the ignition switch to on again and press the function key **OK** to continue or press **Cancel** to quit the oil light reset.

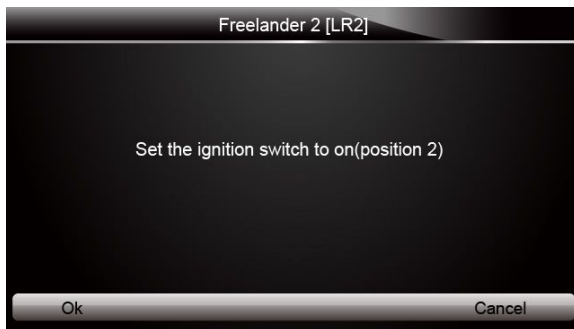


Figure 4-56 Sample Oil Reset Instruction Screen

7. A screen with "Complete" message comes up once the oil light reset has been done successfully.

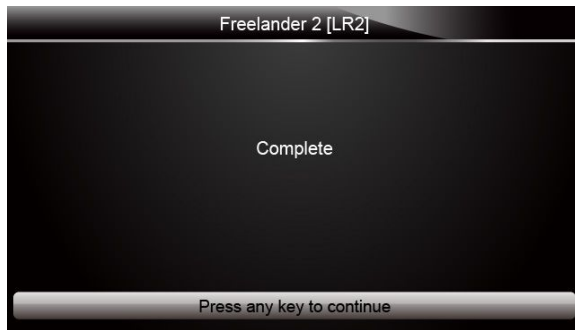


Figure 4-57 Sample Oil Reset Successful Screen

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#### NOTE

If “No communicating” message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistance.

---

#### 4.2.3.7 Saab Operations

This section illustrates how to do oil reset on Saab.

- ▶ To do oil reset on Saab:
  1. Scroll with up and down arrow keys to highlight **Auto Reset** from the oil reset menu and press **ENTER** key.



Figure 4-58 Sample Oil Reset Menu Screen

2. Select the function you wish to test and press the **ENTER** key to confirm.



Figure 4-59 Sample Service Reset Menu Screen

3. The Oil Reset menu displays. Press **ENTER** key to send a command to the ECU.

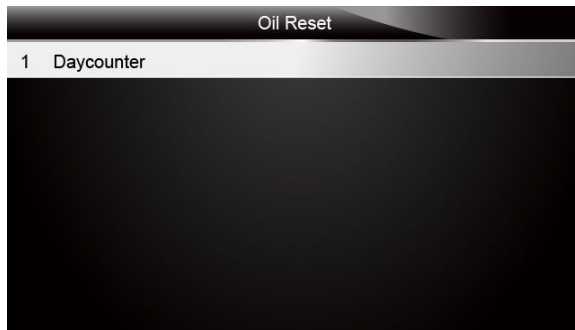


Figure 4-60 Sample Oil Reset Menu Screen

4. A screen with "Success" message comes up once the oil light reset has been done successfully.



Figure 4-61 Sample Service Reset Successful Screen

---

**NOTE**

If "No communicating" message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

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### 4.2.3.8 Vauxhall Operations

This section illustrates how to do oil reset automatically on Vauxhall.

- ▶ To perform oil reset on Vauxhall:
1. Scroll with up and down arrow keys to highlight a function and press **ENTER** key to confirm.

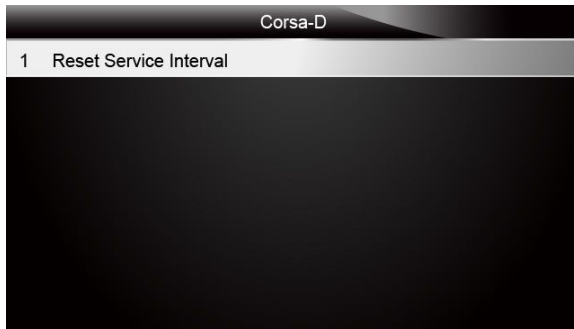


Figure 4-62 Sample Service Interval Resetting Menu Screen

2. Follow on-screen instruction and press any key to continue.

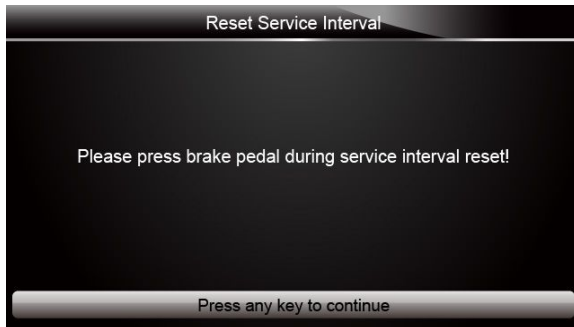


Figure 4-63 Sample Service Interval Resetting Instruction Screen

3. Wait for a few seconds, and a screen with "Reset Successfully" message displays once the service interval reset has been done successfully.

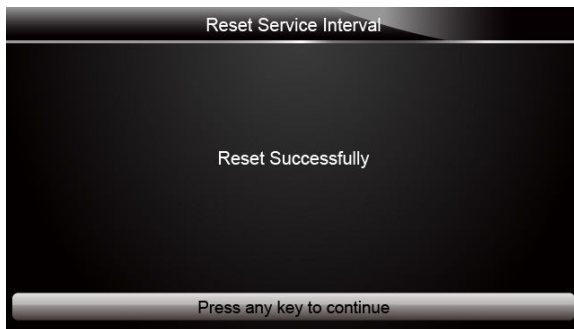


Figure 4-64 Sample Service Interval Reset Successful Screen

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#### NOTE

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If “No communicating” message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

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#### 4.2.3.9 Volvo Operations

This section illustrates how to do oil reset on Volvo.

- ▶ To do oil reset on Volvo:
1. Scroll with up and down arrow keys to highlight **Auto Reset** from the oil reset menu and press **ENTER** key to confirm.

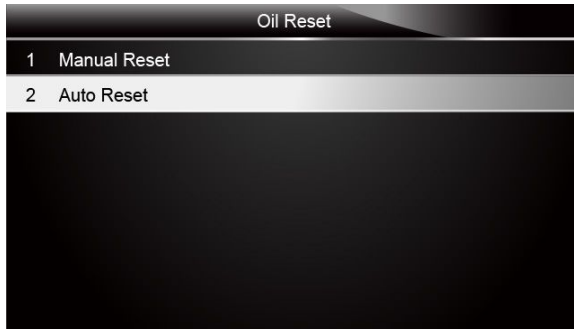


Figure 4-65 Sample Oil Reset Menu Screen

2. A list of vehicle models displays. Scroll with up and down arrow keys to highlight the vehicle being tested and press the **ENTER** key to continue.

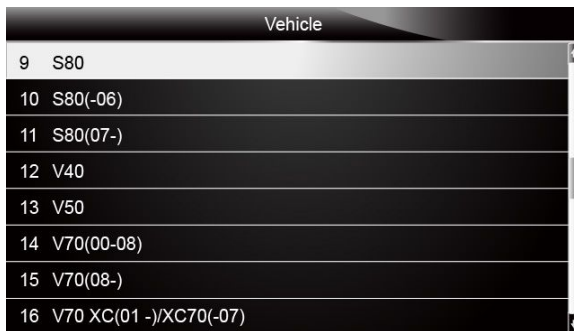


Figure 4-66 Sample Vehicle Model Selection Screen

3. Select the year of the vehicle being tested and press the **ENTER** key to confirm.



Figure 4-67 Sample Vehicle Year Selection Screen

4. Select a service function from the Oil Reset menu and press **ENTER** key to send a command to the vehicle ECU.

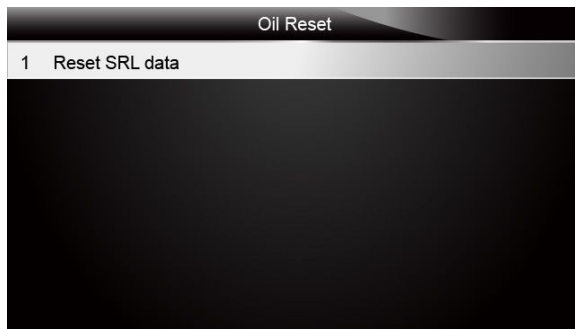


Figure 4-68 Sample Oil Reset Menu Screen

5. Wait for a few seconds, and the "Success" message screen comes up once the oil reset has been done successfully.



Figure 4-69 Oil Reset Successful Screen

---

**NOTE**

If "No communicating" message comes up, it indicates the oil reset failed. Please follow on-screen instructions to troubleshoot it. If the problem still exists, please contact your local dealer for assistant.

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# 5 OBDII/EOBD Operations

OBD-II/EOBD menu lets you access all OBD service modes. According to ISO 9141-2, ISO 14230-4, and SAE J1850 standards, the OBD application is divided into several sub programs, called 'Service \$xx'. Below is a list of OBD diagnostic services:

- **Service \$01** - request current powertrain diagnostic data
- **Service \$02** - request powertrain freeze frame data
- **Service \$03** - request emission-related diagnostic trouble codes
- **Service \$04** - clear/reset emission-related diagnostic information
- **Service \$05** - request oxygen sensor monitoring test results
- **Service \$06** - request on-board monitoring test results for specific monitored systems
- **Service \$07** - request emission-related diagnostic trouble codes detected during current or last completed driving cycle
- **Service \$08** - request control of on-board system, test or component
- **Service \$09** - request Vehicle Information

When OBDII/EOBD application is selected from Home screen, the service tool 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:

- System Status
- 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
- Code Lookup

---

## NOTE

Not all function options listed above are applicable to all vehicles. Available options may vary by the year, model, and make of the test vehicle. A "The selected mode is not supported!" message displays if the option is not applicable to the vehicle under test.

---

## 5.1 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.

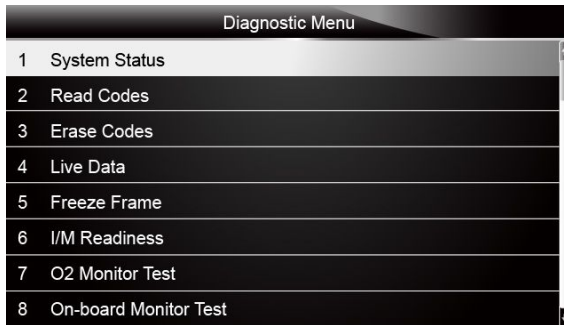


Figure 5-1 Sample Diagnostic Menu Screen

2. A screen with detailed information displays.

System Status		
MIL Status	OFF	
Code Found	0	
Monitors N/A	OFF	
Monitors OK	3	
Monitors INC	3	

Figure 5-2 Sample System Status Screen

## 5.2 Read Codes

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

- Stored Codes
- Pending Codes

Diagnostic trouble 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.

Pending codes are also referred to as maturing codes that indicate intermittent faults. If the fault does not occur within a certain number of drive cycles (depending on vehicle), the code clears from memory. If a fault occur a specific number of times, the code matures into a DTC and the MIL illuminates or blinks.



To read codes/pending codes from a vehicle:

1. Scroll with the arrow keys to highlight **Read Codes** from Diagnostic Menu and press the **ENTER** key.



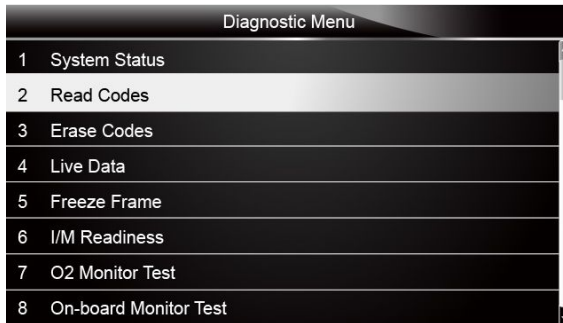


Figure 5-3 Sample Diagnostic Menu Screen

2. Select **Stored Codes/Pending Codes** and press the **ENTER** key to confirm. A code list including code number and its description displays.

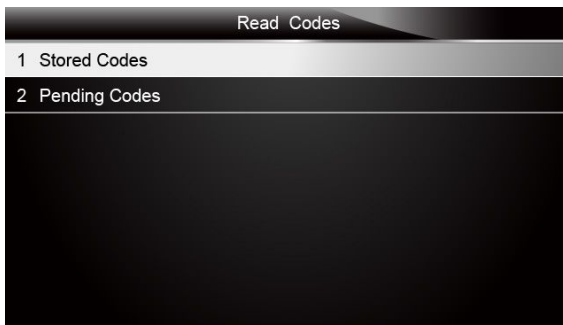


Figure 5-4 Sample Read Codes Screen

If no DTCs are present the message "No (Pending) Codes Found!" is displayed. If any manufacturer specific or enhanced codes detected, select vehicle a make before viewing DTC information.



Figure 5-5 Sample No Codes Screen

3. 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.

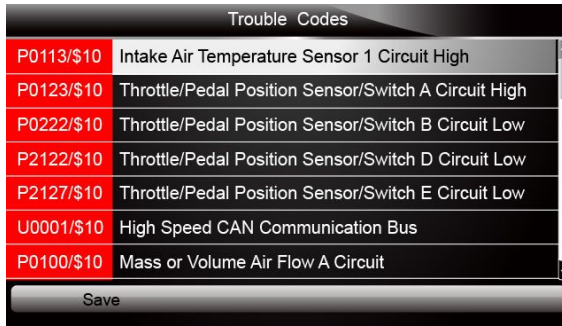


Figure 5-6 Sample Code screen

4. Press function key **Save** to store DTC information. Or use the **BACK** key to exit.

## 5.3 Erase Codes

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

### NOTE

- To clear codes, make sure that the ignition key is switched to ON with the engine off.
- Erase Codes does not fix the problem that caused the fault! DTCs should only be erased after correcting the condition(s) that caused them.



To clear codes:

1. Scroll with the arrow keys to highlight **Erase Codes** from Diagnostic Menu and press the **ENTER** key.

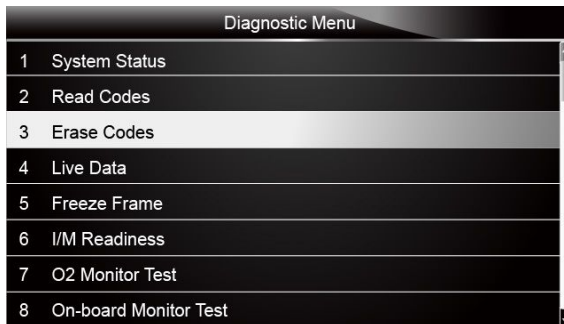


Figure 5-7 Sample Diagnostic Menu Screen

2. Follow the on-screen instructions and answer questions about the vehicle being tested to complete the procedure.

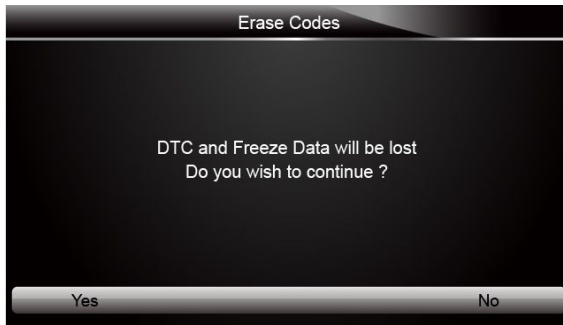


Figure 5-8 Sample Erase Codes Screen

3. Check the codes again. If any codes remain, repeat the Erase Codes steps.

## 5.4 Live Data

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

Menu options typically include:

- Complete Data List
- Custom Data List

### 5.4.1 Complete Data List

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

- ▶ To view all live PID data:
1. Scroll with the arrow keys to highlight **Live Data** from Diagnostic Menu and press the **ENTER** key.

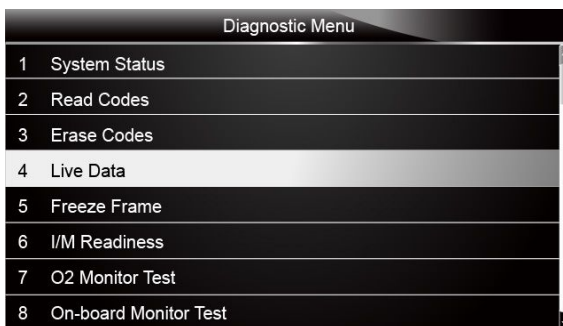


Figure 5-9 Sample Diagnostic Menu Screen

2. Select **Complete List** from the menu and press the **ENTER** key to display the datastream screen

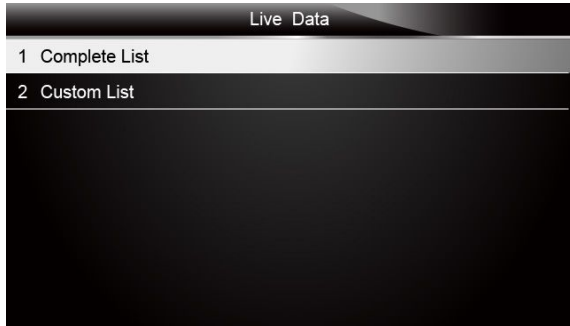


Figure 5-10 Sample Live Data Menu Screen

- 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.

Complete List		
Number of DTCs	0	
Fuel Systems 1 Status	OL	
Fuel Systems2 Status	--	
Calculate load value	0.0	%
Engine Coolant Temperature	57	°F
Short Term Fuel Trim-Bank 1	0.0	%

Figure 5-11 Sample Complete List Screen

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

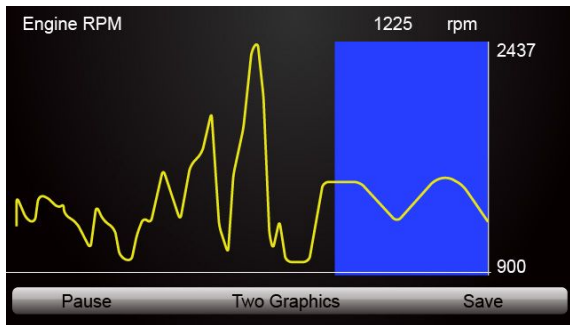


Figure 5-12 Sample PID Graph Screen

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

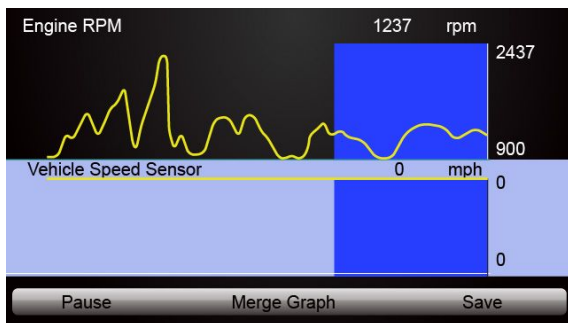


Figure 5-13 Sample Two PID Graph Screen

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

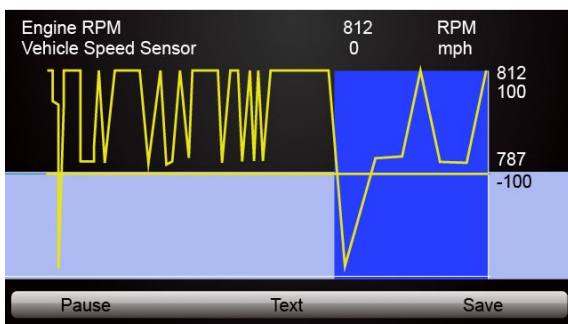


Figure 5-14 Sample Merge Graph Screen

7. To record the data to memory of the service tool, use the function key **SAVE**, and press **Stop Saving** to stop recording at any time.
8. Select **Text** to return to text viewing of PID data.
9. Press **Pause** to suspend collecting data and use the **Start** key to resume collecting data.
10. Use the **Back** key to return to diagnostic menu.

## 5.4.2 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.



To create a custom data list:

1. Select **Custom List** from the menu and press the **ENTER** key.

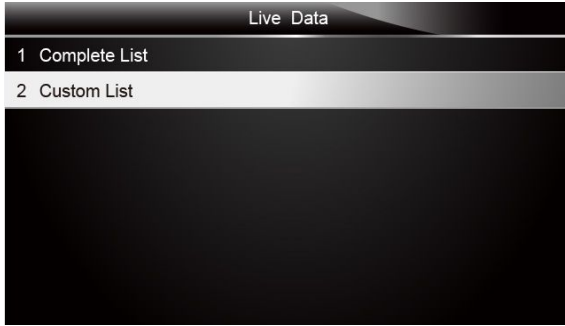


Figure 5-15 Sample Live Data Menu Screen

2. The custom datastream selection screen displays. Scroll with the up and down arrow keys to highlight a line, press the **ENTER** key and then repeat the action to make more selections.

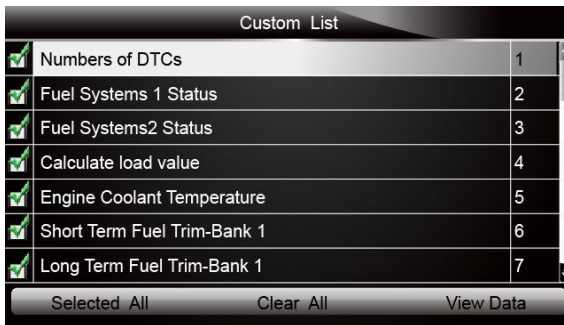


Figure 5-16 Sample Custom Datastream Selection Screen

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**NOTE**

To deselect an item, select it again and then press the **ENTER** key. Alternatively, use the function keys **SELECT ALL** and **CLEAR ALL** to select or deselect all items at once.

---

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

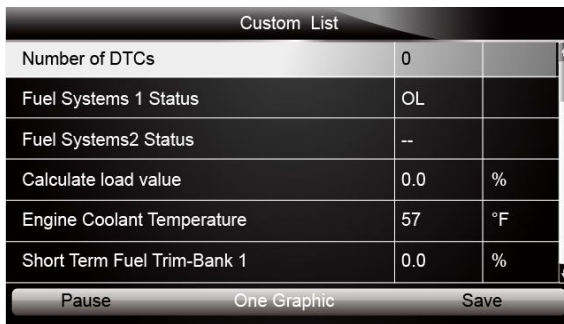


Figure 5-17 Sample Datastream Screen

## 5.5 Freeze Frame

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.



To view freeze frame data:

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

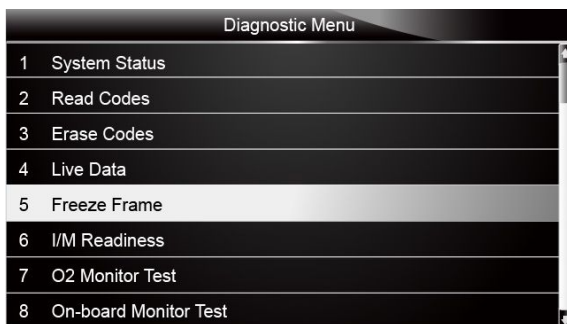


Figure 5-18 Sample Diagnostic Menu Screen

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.

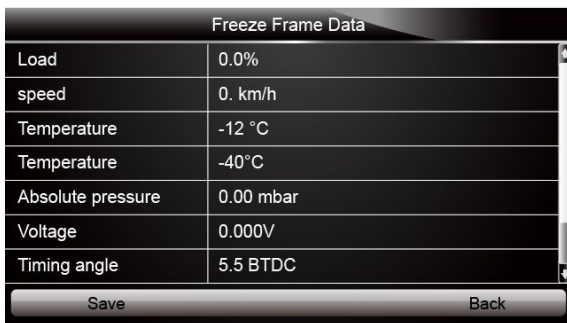


Figure 5-19 Sample Freeze Data Screen

3. Press function key **Save** to store freeze frame information. Or use the **BACK** key to exit.

## 5.6 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 service tool.

No.	Abbreviation	Name
1	Misfire Monitor	Misfire Monitor
2	Fuel System Mon	Fuel System Monitor
3	Comp. Component	Comprehensive Components Monitor
4	Catalyst Mon	Catalyst Monitor
5	Htd Catalyst	Heated Catalyst Monitor
6	Evap System Mon	Evaporative System Monitor
7	Sec Air System	Secondary Air System Monitor
8	A/C Refrig Mon	Air Conditioning Refrigerant Monitor
9	Oxygen Sens Mon	Oxygen Sensor Monitor
10	Oxygen Sens Htr	Oxygen Sensor Heater Monitor
11	EGR System Mon	Exhaust Gas Recirculation System Monitor

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#### 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:

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

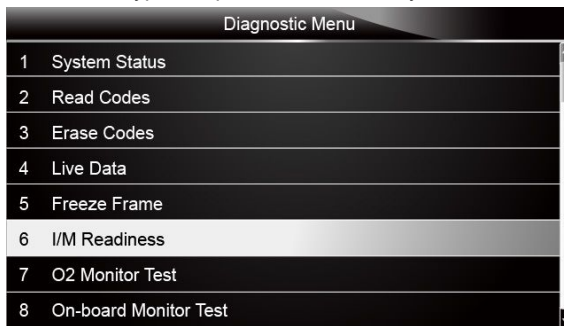


Figure 5-20 Sample Diagnostic Menu Screen

2. Depending on readiness test, one of these 2 screens will be present. 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.



Since DTCs cleared		
Malfunction Indicator lamp(MIL) Status	OFF	
Misfire Monitoring	OK	
Fuel system Monitoring	OK	
Comprehensive component Monitoring	OK	
Catalyst Monitoring	INC	
Heated Catalyst Monitoring	N/A	
Evaporative system Monitoring	INC	
Secondary air system Monitoring	N/A	

Figure 5-21 Sample IM Readiness Screen 1

Or

This Drive Cycle		
Malfunction Indicator lamp(MIL) Status	OFF	
Misfire Monitoring	OK	
Fuel system Monitoring	OK	
Comprehensive component Monitoring	OK	
Catalyst Monitoring	INC	
Heated Catalyst Monitoring	N/A	
Evaporative system Monitoring	INC	
Secondary air system Monitoring	N/A	

Figure 5-22 Sample IM readiness screen 2

3. Press the **BACK** key to exit.

## 5.7 O2 Monitor Test

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

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

If the vehicle uses a controller area network (CAN) protocol to communicate, this function is not supported by vehicle. Refer to "On-Board Monitor Tests" on page 38-39 for O2 monitor data of CAN-equipped vehicles.



To retrieve O2 monitor data:

1. Scroll with the arrow keys to highlight **O2 Monitor Test** from Diagnostic Menu and press the **ENTER** key. A screen with a list of available sensors displays.

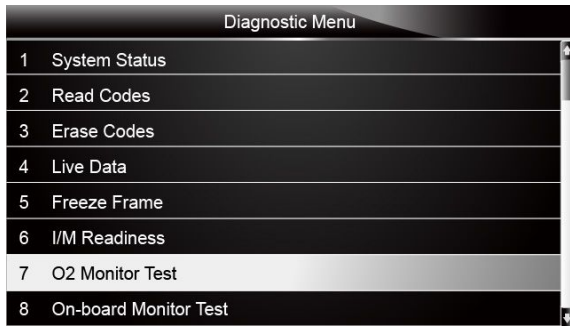


Figure 5-23 Sample Diagnostic Menu Screen

2. Scroll with the arrow keys to highlight an O2 sensor and press the **ENTER** key to confirm. A screen with details of the selected sensor displays.

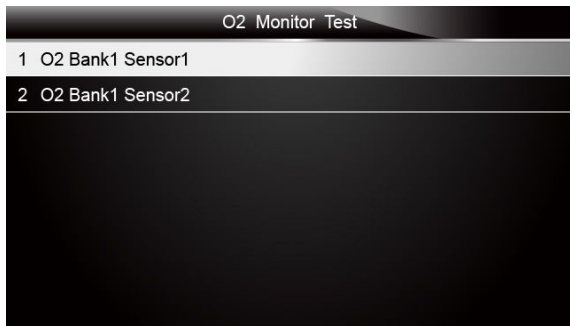


Figure 5-24 Sample O2 Monitor Test screen

3. 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.



Figure 5-25 Sample O2 Bank1 Sensor 1 Screen

4. Press **Enter** key to view data of selection.

\$81		
Module	\$10	
Test Value	15	
Min Limit	0	
Max Limit	255	
<div style="text-align: center;"> <span>Save</span> </div>		

Figure 5-26 Sample data of \$81 screen

5. Press the **BACK** key to exit and return.

## 5.8 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.

### NOTE

Test results do not necessarily indicate a faulty component or system.

- ▶ To request on-board monitor test results:
1. Scroll with the arrow keys to highlight **On-Board Monitor Test** from Diagnostic Menu and press the **ENTER** key.

Diagnostic Menu	
1	System Status
2	Read Codes
3	Erase Codes
4	Live Data
5	Freeze Frame
6	I/M Readiness
7	O2 Monitor Test
8	On-board Monitor Test

Figure 5-27 Sample Diagnostic Menu Screen

2. Depending on the protocol the vehicle used, one of these 2 screens shows.

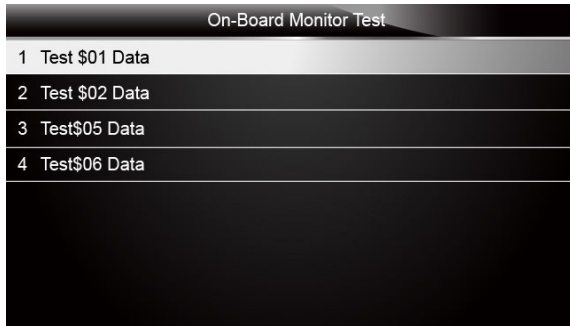


Figure 5-28 Sample Non-CAN Vehicle Test Screen

Or

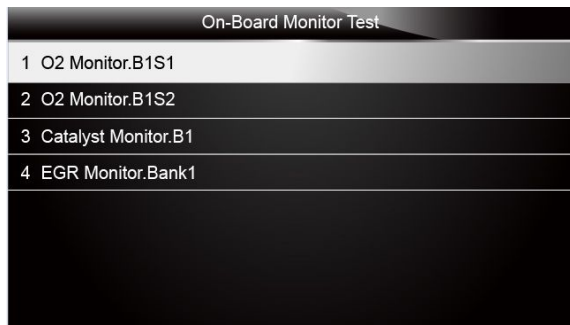


Figure 5-29 Sample CAN vehicle test screen

3. Scroll with the arrow keys to highlight a test group and press the **ENTER** 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.

For non-CAN vehicles, test screen is illustrated as below:

Test \$01 Data		
ID	00	
Module	\$10	
Test Value	0000	
Min Limit	----	
Max Limit	0000	
Status	OK	

Figure 5-30 Sample Non-CAN vehicle test screen

For CAN vehicles, test screen is illustrated as below:

Test \$01 Data		
MEAS	0.450	
MIN	0.312	
MAX	0.630	
STS	OK	

Figure 5-31 Sample Can vehicle test screen

4. Press the **BACK** key to exit and return.

## 5.9 Component Test

Component Test allows the service tool to control operation of vehicle components, tests or systems.

### NOTE

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

- ▶ To perform a component test:
1. Scroll with the arrow keys to highlight **Component Test** from Diagnostic Menu and press the **ENTER** key. A screen with a list of available tests displays.

Diagnostic Menu	
6	I/M Readiness
7	O2 Monitor Test
8	On-board Monitor Test
9	Component Test
10	Vehicle Info.
11	Modules Present
12	DTC Lookup
1	System Status

Figure 5-32 Sample Diagnostic Menu Screen

2. Scroll with the arrow keys to highlight a system or component, press the **ENTER** key to start test and the service tool displays the message "Command Sent!".

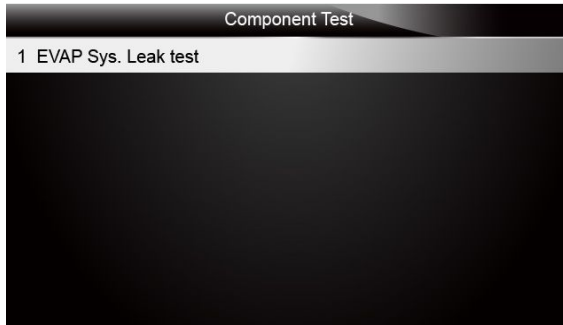


Figure 5-33 Sample Component test screen

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

## 5.10 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 OBD II 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. In-use performance tracking tracks performance of key readiness monitors.

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### NOTE

Available options will vary depending on the vehicle under test.

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To request vehicle information:

1. Scroll with the arrow keys to highlight **Vehicle Info.** from Diagnostic Menu and press the **ENTER** key.

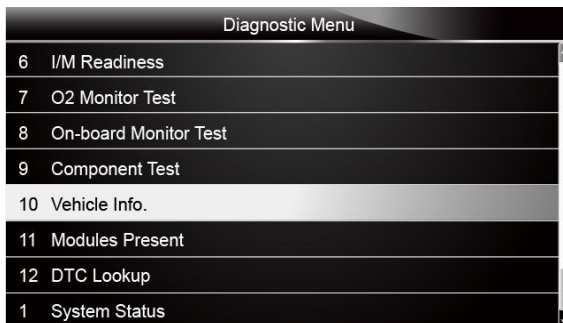


Figure 5-34 Sample Diagnostic Menu Screen

2. Follow on-screen instruction and send the command to read vehicle information. A screen with a list of available options displays.

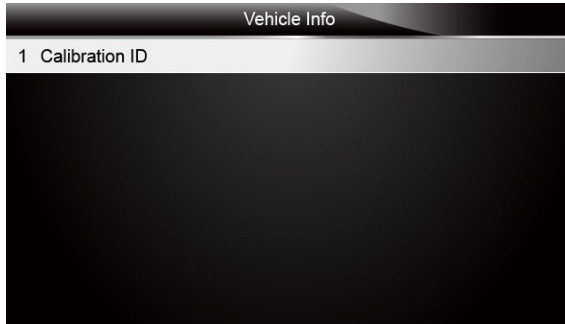


Figure 5-35 Sample Vehicle Info Screen

3. Scroll with the arrow keys to highlight an available option and press the **ENTER** key. A screen with details of the selected option displays.



Figure 5-36 Sample Calibration ID Screen

4. Press function key **Save** to store the readiness data. Or use the **BACK** key to exit and return.

## 5.11 Modules Present

The service tool identifies module IDs and communication protocols for OBD2 modules in the vehicle.

- ▶ To view module IDs and communication types:
  1. Scroll with the arrow keys to highlight **Modules Present** from Diagnostic Menu and press the **ENTER** key.

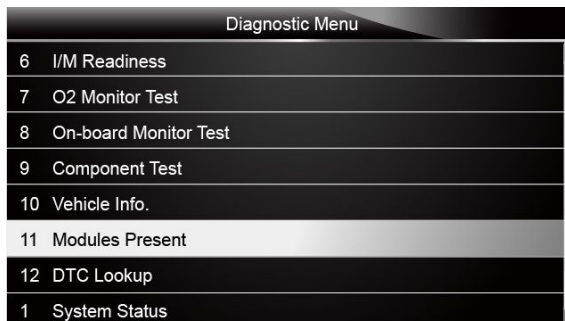


Figure 5-37 Sample Diagnostic Menu Screen

2. A screen with the module IDs and protocols displays.

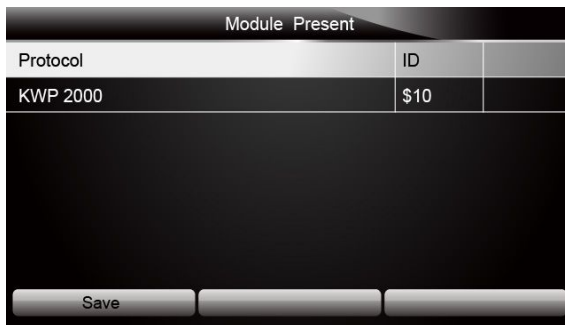


Figure 5-38 Sample Module Present Screen

3. Press function key **Save** to store the readiness data. Or use the BACK key to exit and return.

## 5.12 DTC Lookup

DTC Lookup menus allows to request DTC definitions stored in the service tool.



To Look up DTCs:

1. Scroll with the arrow keys to highlight **DTC Lookup.** from Diagnostic Menu and press the **ENTER** key.

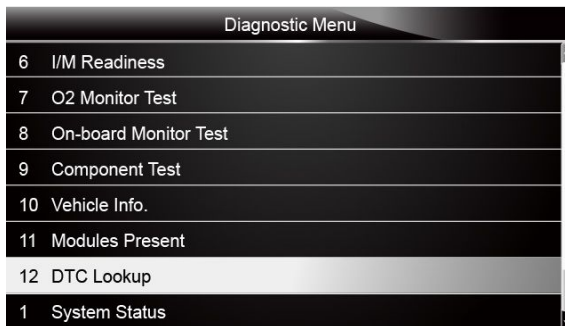


Figure 5-39 Sample Diagnostic Menu Screen

2. Enter a valid code number and press the function key **Finish**.





Figure 5-40 Sample DTC Lookup Screen

3. A screen with code number and its definition displays. If definition could not be found (SAE or Manufacturer Specific), the service tool 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.

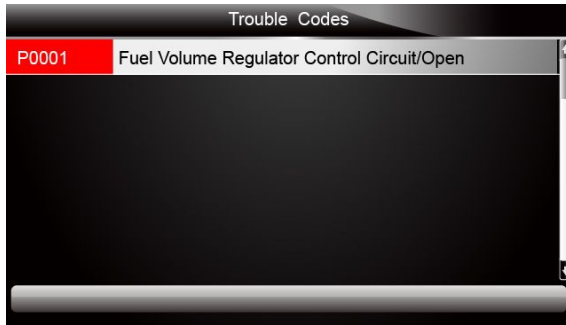


Figure 5-41 Sample Trouble Codes Screen

## 6 Playback Data

The PlayBack option leads to screens for review of recorded test results.

- ▶ To review recorded data:
  1. Scroll with the arrow keys to highlight **PlayBack** from home screen and press the **ENTER** key.



Figure 6-1 Sample Home Screen

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

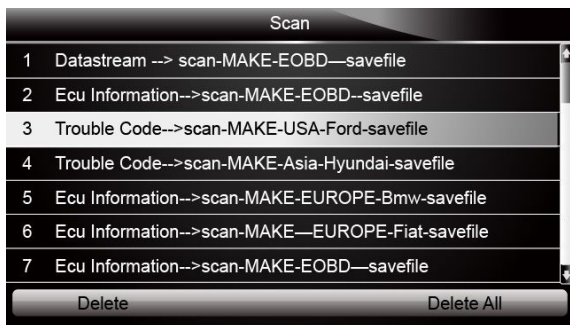


Figure 6-2 Sample Playback Screen

3. Scroll with the arrow keys to highlight a vehicle record and press the **ENTER** key. Details of the test record displays. Use the up and down arrow keys to scroll through data to select lines.

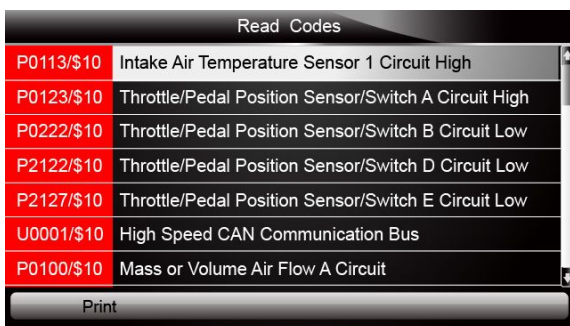


Figure 6-3 Sample Test Data Details Screen

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.

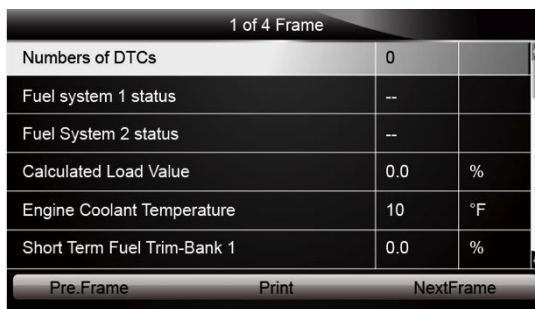


Figure 6-4 Sample Test Data Details Screen

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.

# 7 System Setup

This section illustrates how to program the service tool to meet your specific needs. When Setup application is selected, a menu with available service options displays. Menu options typically include:

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

## 7.1 Select Language

Selecting Language opens a screen that allows you to choose system language. The service tool is set to display English menus by default.

- ▶ To configure system language:
1. Scroll with the arrow keys to highlight **Language** from Setup menu and press the **ENTER** key.



Figure 7-1 Sample Setup Screen

2. Press the **LEFT/RIGHT** arrow key select a language and press the **ENTER** key to confirm. Press the **Back** key to exit and return.



Figure 7-2 Sample Language Selection Screen

## 7.2 Change Units

Selecting Unit opens a dialog box that allows you to choose between US customary or metric units of measure.



To change the unit setup:

1. Scroll with the arrow keys to highlight **Units** from Setup menu and press the **ENTER** key.



Figure 7-3 Sample Setup Screen

2. Press the **LEFT/RIGHT** arrow key select an item and press the **ENTER** key to save and return.

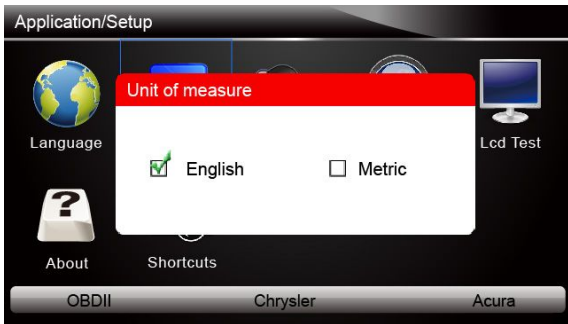


Figure 7-4 Sample Language Selection Screen

## 7.3 Configure Beeper

Selecting Beep Set opens a dialog box that allows you to turn on/off the beeper.



To turn on/off the beeper:

1. Scroll with the arrow keys to highlight **Beep Set** from Setup menu and press the **ENTER** key.



Figure 7-5 Sample Setup Screen

2. Press the **LEFT/RIGHT** arrow key select an item and press the **ENTER** key to save and return.



Figure 7-6 Sample Beeper On/Off Selection Screen

## 7.4 Test Keypad

Selecting Key Test option opens a screen that allows you to check the functionality of the keypad.

- ▶ To test the keypad:
1. Scroll with the arrow keys to highlight **Key Test** from Setup menu and press the **ENTER** key.



Figure7-7 Sample Setup Screen

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.



Figure 7-8 Sample Key Test Screen

1. To quit the test, click the F2 function key twice.

## 7.5 LCD Keypad

Selecting LCD Test option opens a screen that allows you to check the functionality of the display.

- ▶ To test the display:
1. Scroll with the arrow keys to highlight **LCD Test** from Setup menu and press the **ENTER** key to start test. Check if there are any missing spots in the LCD screen.

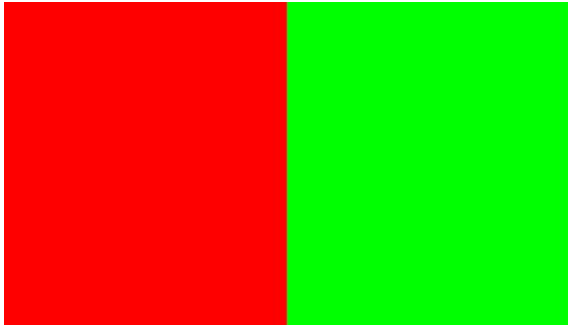


Figure 7-9 Sample LCD Test Screen

2. To quit the test, press the **Back** key.

## 7.6 Tool Information

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

- ▶ To view information of your service tool:
1. Scroll with the arrow keys to highlight **About** from Setup menu and press the **ENTER** key.



Figure 7-10 Sample Setup screen

2. A screen with detailed information of the service tool displays.



Figure 7-11 Sample Tool Information Screen

3. Press the **Back** key to exit and return to the Setup menu.

## 7.7 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. Scroll with the arrow keys to highlight **Shortcuts** from Setup menu and press the **ENTER** key. A screen with available shortcut keys displays.



Figure 7-12 Sample Setup screen

2. Press the **UP/DOWN** arrow key select an shortcut key and press the **ENTER** key. A screen with a list of loaded applications displays.

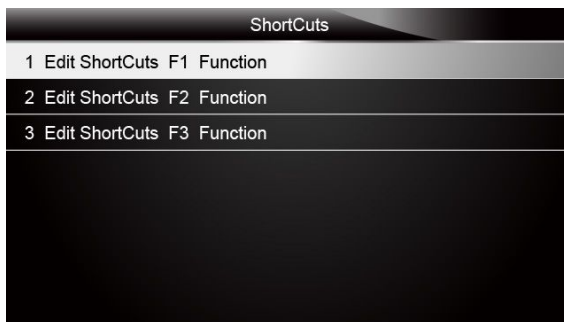


Figure 7-13 Sample Shortcuts Screen

3. Scroll with the **UP/DOWN** arrow keys to highlight an application and press the **ENTER** key to assign the application to the shortcut key.
4. Press any key to exit and return.