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1 Getting Started

This Professional Four System Scan Tool does not only have extensive coverage of vehicles but also help you determine why the Malfunction Indicator Light (MIL) is on. Featuring with Engine/Transmission/ABS/SRS four system diagnosis, oil light/service reset, EPB, Battery configuration, the tool is truly ultimate in power and affordability.

1.1 Tool Descriptions

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

front and side view

1 **LCD Screen** －to display the software.

2 **Function Keys / Shortcut keys** - three keys that correspond with "buttons" on some screens for executing commands or provide quick access to most frequently used applications.

3 **Diagnostic Connector** – to connect to vehicle's DLC.

4 **OK Key** –to confirm the current operation.

5 **Selection Keys** – to select an option or scroll through a screen of data or text.

6 **ESC Key** – to returns to previous screen.

7 **HELP Key** – provide tips for diagnosis or for the tool itself.

8 **Reset Key** – Press and hold for 5 seconds for emergency reboots.

9 **TF Card Port –** holds the TF memory card for data backup and software update.

10 **USB port** －allow the USB cable to connec the scan tool with computer for software update

1.2 Accessory Included

1) **Scan tool with Diagnostic Cable**

2) **User's Guide** - instruction on tool operations.

3) **USB Cable** - provides connection between the scan tool and a computer to upgrade the tool and print data.

4) **Memory Card** - Used to store data and to upgrade the scan tool

5) **Leather Carrying Pouch** - stores the scan tool and its accessories

6) **Software CD** - contains update client and user manual.

1.3 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 vehicle power, 12V AC/DC power, 3.3V USB power

Tool Dimensions: 194*117*47mm (L*W*H)

Gross Weight: 0.9 Kg

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

1.4 Preparation &Connections
1.4.1 Preparation

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

1.4.2 Connecting to Vehicle

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

1.5 System Setup

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

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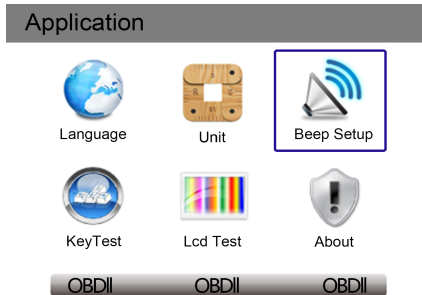
1.5.1 Select Language

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

Application/Setup/Language
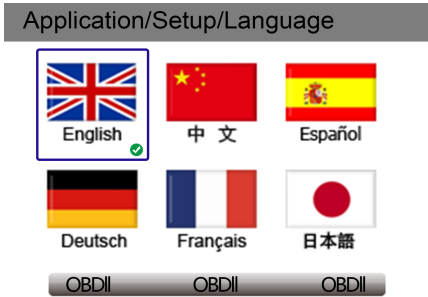
1.5.2 Unit of Measure

To change the unit setup:

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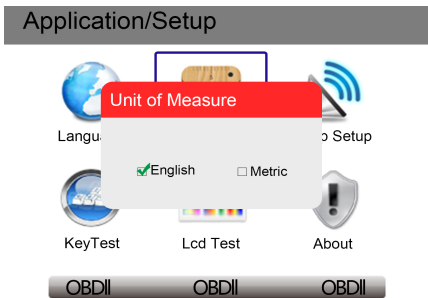
1.5.3 Beeper set

The default setting is Beep on.

1. Select **Beep Set** from Setup menu and press the **OK key**.

2. Press the **LEFT/RIGHT** arrow key to set the beep on or off and press the **OK key** to save.
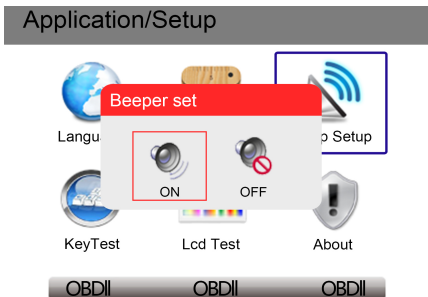
1.5.4 Key Test

This function checks if the keys are working properly.

1. Select **Key Test** from Setup menu and press the **OK key**.

2. Press any key to start test. The virtue key corresponding with the key you pressed will be highlighted on the screen if it works correctly. Otherwise, the key is not functioning properly.
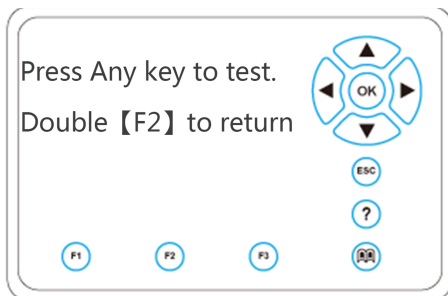
3. Click the F2 function key twice to exit.

1.5.5 LCD Test

LCD test checks if the LCD is working properly.

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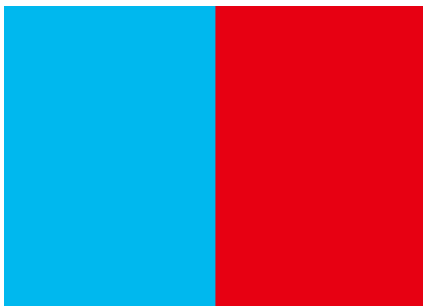
2. When completed, press the **ECS** key to exit.

1.5.6 About

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

Product Serial Number
7000315001361
Register password:0016b3
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Co., Ltd
All rights reserved

1.5.7 Configure Shortcut Keys

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

To assign a function to a shortcut button:

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

Shortcuts
Edit   ShortCuts F1 Function
Edit   ShortCuts F2 Function
Edit   ShortCuts F3 Function
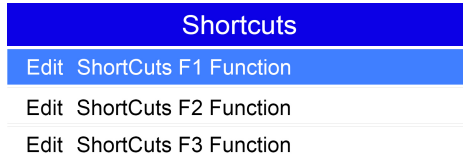
3. Scroll with the **UP/DOWN** arrow keys to highlight an application and press the **OK key** to assign the application to the shortcut key.

2 Diagnostic Operations

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

Following applications are preloaded into the scanner:

- **OBDII/EOBD** – leads to OBDII screens for all 9 generic OBD system tests.
- **Scan** – leads to screens for diagnostic trouble code information, live data stream, ECU information on 49 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.
- **Oil Reset** –leads to screens for resetting oil service light, oil inspection light, service mileage, service intervals and more.
- **EPB** – leads to screens for diagnostic trouble code information, live data stream, ECU information, special functions of electric parking brake systems.
- **BRT** – Battery configuration
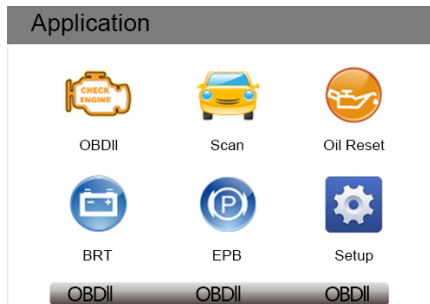
2.1 Vehicle Identification

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

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

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

2.1.1 Automatic VIN Acquisition

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

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

VIN Acquisition
VIN CODE automatic acquisition
VIN CODE manual acquisition
Vehicle type manual acquisition

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

Automatic Selection

The VIN code is 1FAHP2H81EG138476

Are you sure ?

YES	NO

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

INPUT DATA
LFPM5 ACP591 A76342

VIN

| Finish | Keyboard | Back |
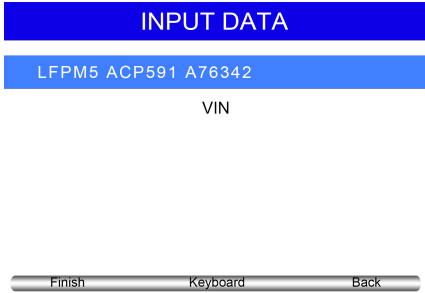
2.1.2 Manual VIN Entry

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

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

Acquire VIN information

Enter VIN manually or tap 'read' to
acquire VIN

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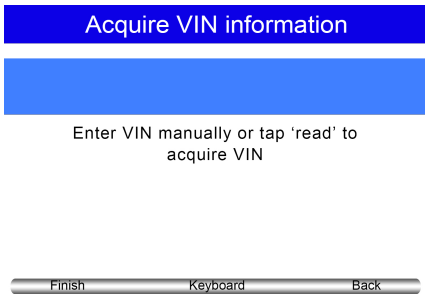
2. Input a valid VIN code and use the function key **Finish** to confirm. The scan tool starts to identify the vehicle.

2.1.3 Manual Vehicle Selection

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

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

Application/ABS&SRS/USA			Brand
CHRYSLER	FORD	GM	Ford
			Lincoln
Chrysler	Ford	GM	Mercury
OBDII	OBDII	OBDII	
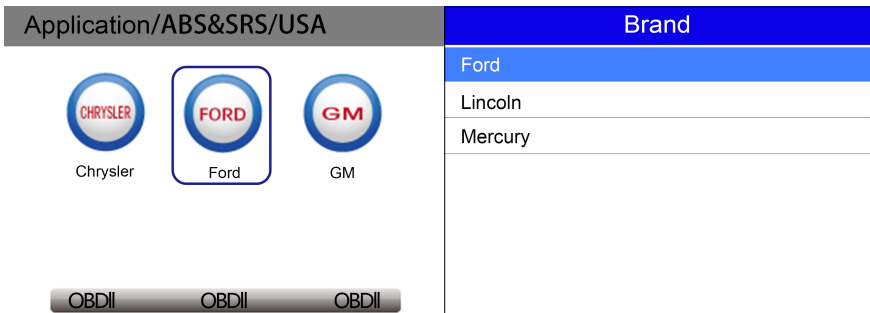
Model	Capacity
Aeprostar	3.0 L
Aspire	4.0 L
B-Max	
Bantam	
Blue Bird C-Class Vision	
Bronco	
C-MAX	
CF/LCF	

2.1.4 Save a Tested Vehicle Info.

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

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

Main Groups
Auto Scan
Control Unit
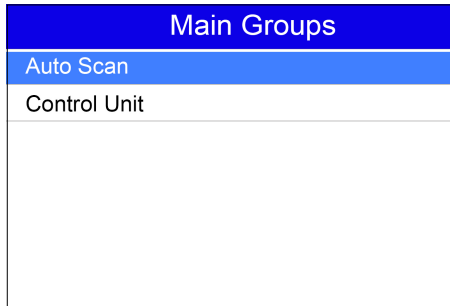
2. When the test finished, press the function key **Save** on the screen, and a screen with a virtual keyboard displays.

Save vehicle record
V W -

Q W E R T Y U I O P 7 8 9
A S D F G H J K L * 4 5 6
Z X C V B N M - / / 1 2 3
Caps Lock SPACE . 0 –

Finish   Previous   Backspace

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

Vehicle record
BMW E34
Fiat bravo（198）

YES	NO

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

Main Groups
Auto scan
Control unit
Vehicle record

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

2.2 System Selection

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

- Auto Scan
- Control Unit

2.2.1 Auto Scan

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

1. Select Auto Scan from the menu and press OKto start.

Main Groups
Auto Scan
Control Unit

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

100%	Auto Scan		
1	ABS Brakes	Fault	3
2	Airbags	Pass	No Fault

Quick Erase   Pause   Display DTC

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

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

Function menu
Read Codes
Erase Codes
ECU Information
Live Data
Special Functions

2.2.2 Control Unit

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

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

Main Groups
Auto scan
Control Unit

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

Common
01-Engine
02-Auto Trans
03-ABS Brakes
15-Aerbags

2.3 Diagnostic Function

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

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

Function menu
Read Codes
Erase Codes
Freeze Frame
ECU Information
Live Data

2.3.1 Read Codes

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

- Present/Permanent/Current Codes
- History Codes

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

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

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

Read Codes	2/3
Stored Codes	
Pending Codes	
Permanent Codes	

2.3.2 Erase Codes

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

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

Erase Codes

DTC and Freeze Data will be lose
Do you wish to continue?

YES	NO

2.3.3 Freeze Frame Data

Freeze Frame Data menu displays freeze frame data, a snapshot of critical vehicle operating conditions automatically recorded by the on-board computer at the time of the DTC set. It is a good function to help determine what caused the fault.

Freeze Frame Data	
00256	
Fault Status	01100000
Faule Priority	0
Fault Frequency	1
Mileage	2171 km
Time Indication	0
Date	2003:1422
Save	Back

2.3.4 ECU Information

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

1. Select **ECU Information** from the menu and press the **OK key**.

2. A screen with detailed information of the selected control module displays.

2.3.5 Live Data

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

Menu options typically include:

- Complete Data List
- Custom Data List

2.3.5.1 Complete Data List

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

Complete List		
ENGINE SPEED	0	rpm
VEHICLE SPEED SENSOR	11	mph
ABSOLUTE THROTTLE POS.	0.4	%
SHIFT LEVER SWITCH	PN	
BATTERY VOLTAGE	0.1	V
WHEEL SPD SENSOR-FL	1	mph

Pause	One Graphic	Save

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

001-1 Engine
Speed.(G28)   960   /min
                                          2480

                                          0

Pause	Two graphic	Save
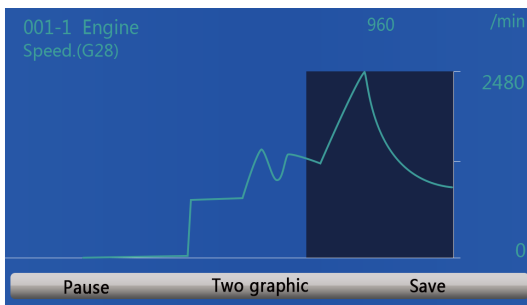
2. Press the function key **Two Graphics** to display two PID graphs in one screen.
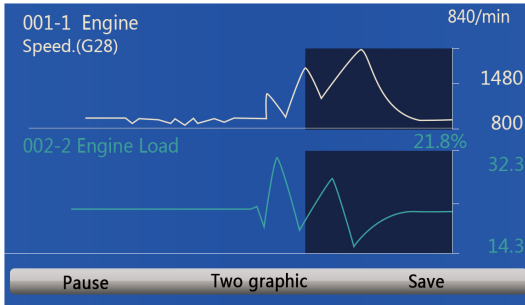
3. Press the function key **Merge Graph** to display two PID plots in one coordinate for easy and intuitive diagnosis.
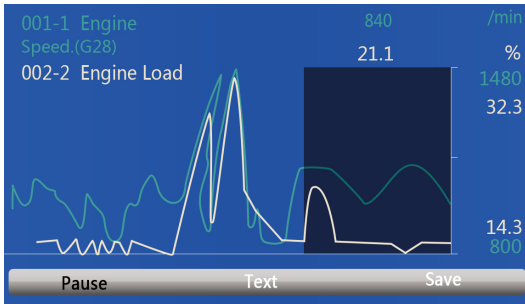
4. To record the data to memory of the scan tool, use the function key **SAVE**, and press **Stop Saving** to stop recording at any time.
5. Press **Text** to return to text viewing of PID data.
6. Select **Pause** to suspend collecting data from the scan tool and use the **Start** key to resume collecting data.
7. Press the **ECS key** to return to the previous menu.

2.3.5.2 Custom Data List

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

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

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

3 Oil Light/Service Reset

This section illustrates how to use the service tool to reset oil service light, oil inspection light, service mileage, service intervals and more on 49 vehicle manufacturers.

Depending on the vehicle being tested, usually there are three kinds of oil service reset methods.

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

All software screens shown in this manual are examples only. The actual procedure and available tests varies from vehicle to vehicle.

3.1 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.

Please follow the following steps to finish this procedure:
1. Select **Oil Reset With One Button** from the Oil Reset menu.

Oil Reset
Oil Reset With One Button
Manual Reset
Auto Scan(All)
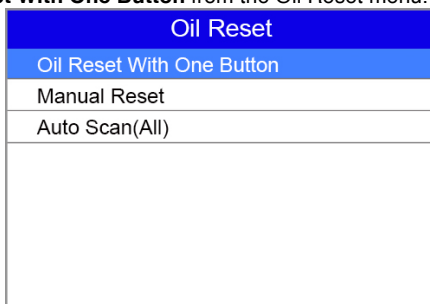
2. Follow on-screen instruction to send a command to reset oil service. "Success" would appear on screen when the lamp has been reset.

Oil Life Reset
Success
Press any key to continue

3. If the oil service reset failed, the following screen displays. Please follow on-screen instructions to troubleshoot it.

```
┌─────────────────────────────────────┐
│            Information              │
├─────────────────────────────────────┤
│                                     │
│ No Communicating                    │
│ 1.Make sure the ignition is switched ON. │
│ 2.Chech the cables between the Tester │
│  and the vehicle DLC.               │
│ 3.Check the vehicle battery is charged. │
│                                     │
│                                     │
│       Press any key to continue     │
└─────────────────────────────────────┘
```
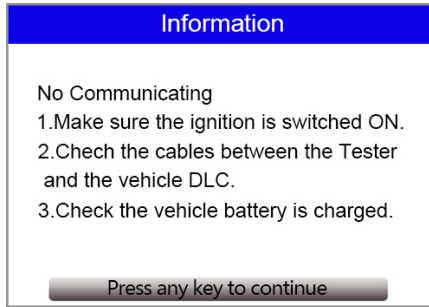
3.2 Manual Reset

Almost all Asian vehicles and most American and European vehicles support manual oil service reset. In this procedure, the scan tool won't communicate with the car.

1. Select **Manual Reset** from the **Oil Reset** menu and follow the onscreen prompts to select brand, model and year to identify the vehicle.

Vehicle Selection		Model
Fiat		500
Ford		Aviator
GM		E-150 Series
Holden		E-250 Series
Honda		E-350 Series
Hyundai		E-450 Series
Infiniti		Expedition
Isuzu		Explorer

Year
2007-2012

2. When the vehicle is identified, a procedure screen displays. Follow all on-screen instructions to finish manual oil service reset

Manual Reset

1. Get in the vehicle and ensure all doors are closed.
2. Then press both the accelerator and the brake pedal and hold them down.
3. Then switch the ignition ON. Do not start the engine. On the will show the message ServiceOil Reset.
4. Wait 15 seconds. Display will show: Oil Service complete.
5. Take feet off pedals and press OK to close.

OK
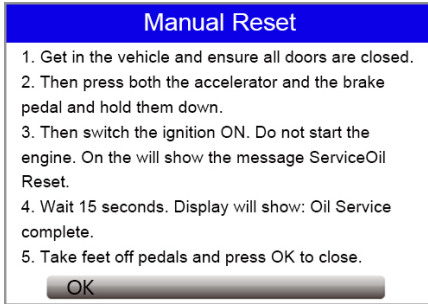
3.3 Auto Reset

Auto Reset is a bi-directional communication procedure directed by the service tool. Most American and European vehicles can be reset automatically with this scan tool. A number of instructions that require a response to continue would display on screen, including an option to clear any stored codes once the interval has been reset.

Here below is an example to finish the Auto Reset procedure.

1. Scroll with up and down arrow keys to highlight **Auto Reset** from the Oil Reset menu and press **Ok key**.

Oil Reset

Manual Reset

Auto Reset
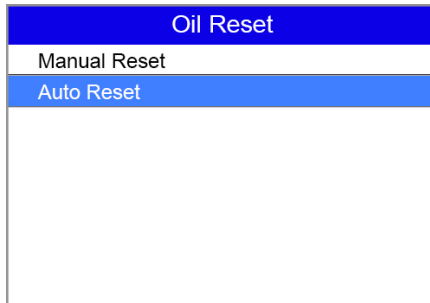
2. Follow the on screen prompts reset the service light.

Freelander 2[LR2]	Freelander 2[LR2]
Set the ignition switch to on(position 2)	Key on engine off
OK Cancel	OK Cancel

Freelander 2[LR2]	Freelander 2[LR2]
Set the ignition switch to off(position 0)	Set the ignition switch to on(position 2)
OK Cancel	OK Cancel
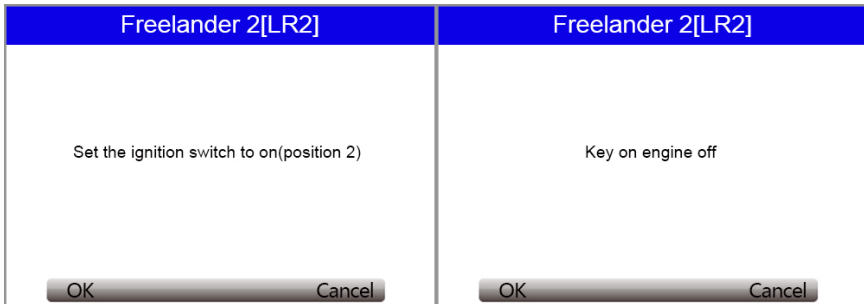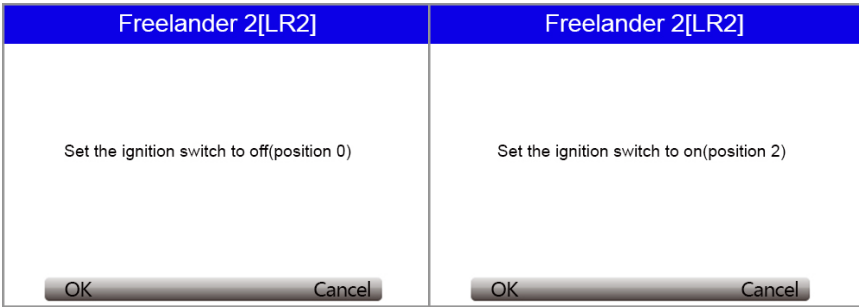
3. "Complete" would appear on screen when the oil light reset has been done successfully.

Freelander 2[LR2]
Complete
Press any key to continue

4 BRT Operations

The BRT function allows to display current battery info., configure new battery and clear faults   of the battery management system from the dashboard.

Take AUDI as an example.

1. Follow the on screen instruction step by step to make the device communicate with the ECU.

Vehicle	Information
AUDI	
BMW	
CITROEN	
FORD	Communicating with the vehicle
INFNITI	Please wait...
JAGUAR	
LANDROVR	
LEXUS	

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│                                 │
│        Switch Ignition ON       │
│                                 │
│                                 │
│                                 │
│      Press any key to continue  │
└─────────────────────────────────┘
```
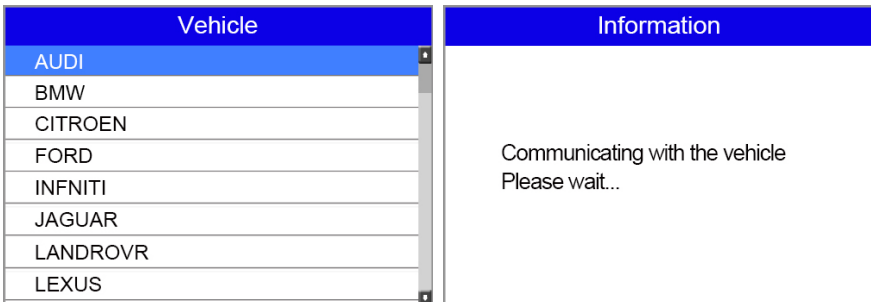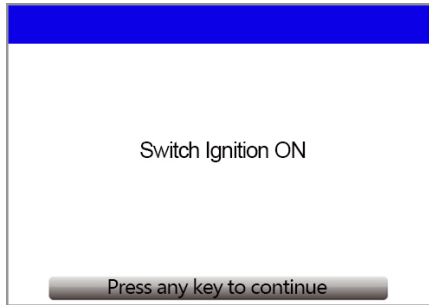
2. The following Replace Battery menu will display when the vehicle model is selected correctly.

```
┌─────────────────────────────────┐
│         Replace Battery         │
├─────────────────────────────────┤
│   Validate Battery              │
├─────────────────────────────────┤
│   Display Data                  │
├─────────────────────────────────┤
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```
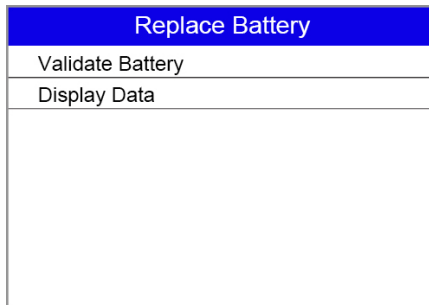
4.1 Validate Battery

Validate battery menu enables you to recode the new battery to the vehicle's ECU and to turn off dashboard warning lights.

1. Scroll with the arrow keys to highlight Validate Battery and press OK to start.
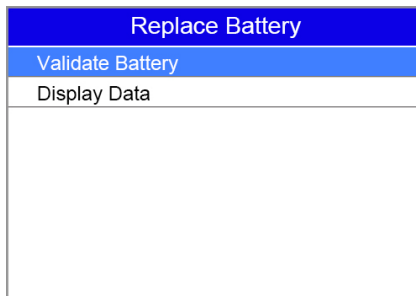
```
┌─────────────────────────────────┐
│         Replace Battery         │
├─────────────────────────────────┤
│   Validate Battery              │
├─────────────────────────────────┤
│   Display Data                  │
├─────────────────────────────────┤
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

2. Follow the on screen instructions to answer the question and continue the procedure.

Display Data

Is new battery equivalent to the old one
in both technology and performances?

Yes   NO
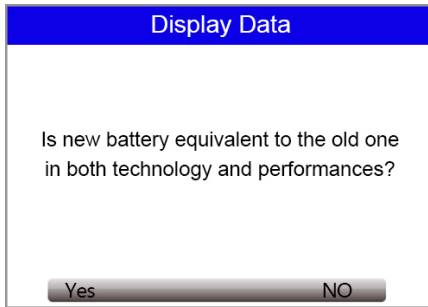
3. The device communicates with the vehicle and clear the current stored DTCs from the battery system.

Communication

Clear fault code,pease wait.
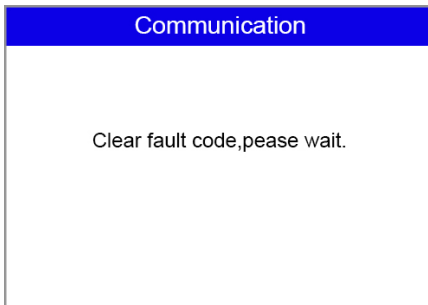
4. When the codes are cleared, the following battery manufacturer list displays. Use the up and down arrow keys to highlight the new battery manufacturer and press OK to confirm.

Battery Manufacturer

EXIDE
BANNER
MOLL
VARTA
JCB.JCI
YUASA
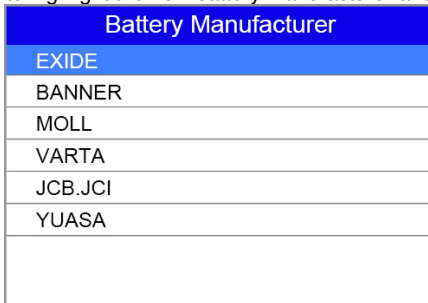
5. You are required to enter the current date and time, at which the battery is changed. Please press F2 key to bring up the keyboard. Scroll with the arrow keys to highlight your desired number and press OK to confirm.
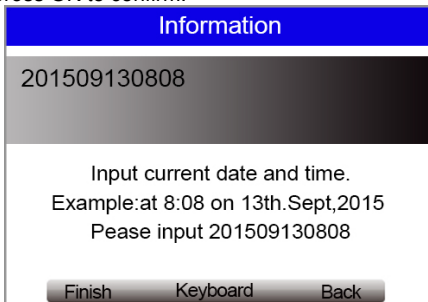
Information

201509130808

Input current date and time.
Example:at 8:08 on 13th.Sept,2015
Pease input 201509130808

Finish   Keyboard   Back

6. Follow the on screen instructions to answer the question and continue the procedure.

```
┌─────────────────────────────────────┐
│          Input Dialog Box           │
├─────────────────────────────────────┤
│                                     │
│                                     │
│           201509130808              │
│      Do you want to save and        │
│            continue?                │
│                                     │
│                                     │
│                                     │
│   Yes                      No       │
└─────────────────────────────────────┘
```
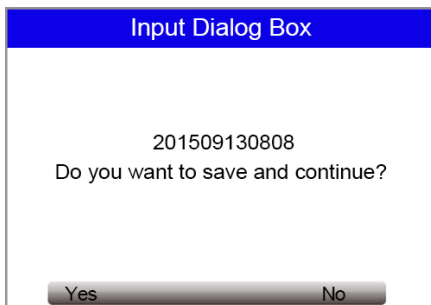
7. When the whole battery validation procedure is completed, the following screen displays. Please press F1 to confirm.

```
┌─────────────────────────────────────┐
│          Validate Battery           │
├─────────────────────────────────────┤
│                                     │
│                                     │
│  Battery validation concluded       │
│  successfully.                      │
│                                     │
│                                     │
│                                     │
│   OK                                │
└─────────────────────────────────────┘
```
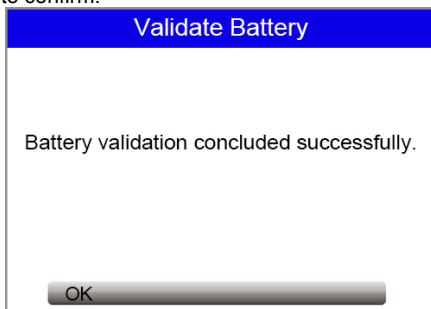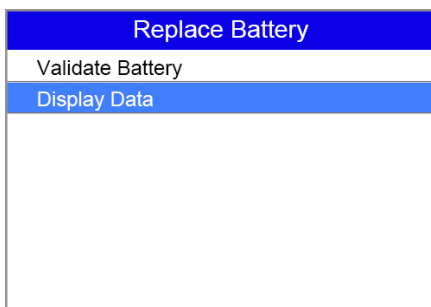
4.2 Display Data

Display Data menu enables you to check the battery information or battery replacement record of the vehicle.

1. Use the up and down arrow keys to highlight Display Data of the main menu and press OK to start.

```
┌─────────────────────────────────────┐
│          Replace Battery            │
├─────────────────────────────────────┤
│  Validate Battery                   │
│  Display Data                       │
│                                     │
│                                     │
│                                     │
│                                     │
│                                     │
└─────────────────────────────────────┘
```

2. The following screen displays the battery manufacturer, serial number, and part number.

Display Data	
Serial Number	90000 111111
Battey Manufacturer	TU3
Part Number	101010 9A3
	Save

5 Electronic Parking Brake (EPB) Service

This electric parking brake (EPB) function has a multitude of uses to maintain the electronic braking systems safely and effectively. The applications include deactivating/activating the brake control system, assisting with brake fluid control, brake diagnostics, opening and closing brake pads, setting brakes after disc or pad replacement and also reading and clearing EPB/SBC trouble codes. you can use the EPB service tool to read diagnostic trouble codes and view "live" data readings from EPB control systems.

5.1 Electronic Parking Brake (EPB) Diagnosis

Before performing EPB diagnosis:
1. Release the park brake and make sure the car is properly blocked.
2. Ensure that you are fully familiar with the braking system and its operation before commencing any work.
3. Ensure that the EPB control system is reactivated after the maintenance work has been completed.

NOTE: Vident accepts no responsibility for any accident or injury arising from the maintenance of the Electric Parking Brake system.

1. Select EPB application from the main screen and follow the on screen menu to find the vehicle make, model and year you want to test. You can either locate the car by manually vehicle selection or automatic VIN identification.

Application	Vehicle Type
EPB Setup Playback	Discovery
	Range rover
	Range rover sport
	Range rover evoque
	Freelander
	Discovery sport
OBDII OBDII OBDII	

Vehicle Year	Vehicle Selection
2005-2009	Acura
2010-2011	Audi
2012-	Bentley
	Benz
	Bmw
	Bugatti
	Citroen
	Ford

2. After you have selected the right model, the scan tool establishes communication with the car and the following diagnostic menu displays

Diag.Menu
Read Codes
Erase Codes
Live Data
ECU Information
Special Function

Read Codes: allows to read all trouble codes from the EPB module.

Erase Codes: allows to clear all current and stored DTCs from the control module.

Live Data: allows to view and record real time PID data from EPB system. You can either choose to view all the data simultaneously or customize the data list to minimize the number of PIDs on the data list and focus on any suspicious or symptom-specific data parameters.

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

Special Functions: performs bi-directional tests on electronic parking brake systems of multiple vehicle brands. The tests let you to deactivate and re-activate brake control system, set new brake pad thickness after AUDI A8 service, bleed the brake systems and more.

5.2 Special EPB Functions

Below are typical special tests

- **Deactivate/Activate SBC/EPB systems** –to deactivate brakes for further service or maintenance or activate brakes when brake service or maintenance has been completed.
- **Adaptation on Audi A8** – allows to set new pad thickness of rear brakes calipers after changing brake discs & pads on Audi A8 models.
- **Replace hydraulic brake systems fluid/bleed brake system on Mercedes SBC vehicles** – allows to change brake fluid/bleed brake system.
- **Service reset and service position on BMW EPB vehicles** – allows to do the CBS reset and CBS correction for front brake and rear brake.
- **Activation/service work on Volvo PBM vehicles** –perform installation check, applying parking brake, releasing parking brake, activating service mode and exiting service mode.
- **Reset memory on Toyota EPB vehicles** – to clear the learned memory of the EPB ECU.
- **Perform brake cable replacement and electric parking brake replacement** – allows to fit in or remove the brake cable safely, adjust brake cable's tension and calibrate the electric parking brake replacement.

- **Save and write clutch pedal programming on Renault EPB vehicles** – to save clutch pedal programming on Renault vehicles fitted with manual gearbox. After this command is activated, the tool allows to "flash" the electric parking brake unit with the saved clutch data.
- **Electric Parking Brake Calibration** －This function is to check if the EPB is working correctly, which should be performed after work has been completed on the EPB or vehicle braking system. It will remove any air gap from the brake pads and check the EPB pressure.
- **Active Test**－ This test determines the integrity of the system or parts by monitoring the operation of the actuators or by reading the EPB ECU data.
- **Perform control function and reset function on Opel EPB vehicles** – allows to apply/release park brake cable service, provide park brake cable service replacement procedures and calibrate the parking brake systems after brake service.
- **Sensor calibration on Honda EPB vehicles** – allows to program the current output value of each sensor into the electric parking brake unit.
- **Provides parking brake unjam procedure and perform longitudinal accelerometer calibration on Land Rover EPB vehicles** – allows to drive the electronic park brake so it is unjammed in the releasing direction and then drive it into mounting position or the latching

1. Select **Special Function** from the Diag. Menu and press the **OK** key.

Diag.Menu
Read Codes
Erase Codes
Live Data
ECU Information
Special Function

2. Select the test you want to perform from the special function list. Follow the on-screen prompts to finish the procedure.

EPB
Deactivate system 'SBC'
Activate system 'SBC'
Customer complaints(without fault codes)
Replace hydraulic brake system fluid./ Bleed brake system

3. When completed, press the **ECS** key to return to the previous menu.

6 OBDII/EOBD Diagnostics

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

- Read Codes
- Freeze Frame Data
- Erase Codes
- Live Data
- I/M Readiness
- O2 Sensor Test
- On-board Monitor Test
- Component Test
- Vehicle Information
- Modules Present
- Unit of measure

6.1 Read Codes

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

- Stored Codes
- Pending Codes
- Permanent Codes

To read codes from a vehicle:

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

6.2 Erase Codes

There are two ways to erase codes:

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

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

6.3 Live Data

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

Menu options typically include:

- View Data
- Record Data
- Playback Data

6.3.1 View Data

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

Menu options typically include:

- Complete Data
- Custom Data
- Unit of measure (Please refer to Chapter 7**System Setup**)

6.3.1.1 Complete Data Set

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

1. Use the **UP/DOWN** key to highlight **Live Data** from Diagnostic Menu and press the **OK** key.

2. Select **View Data** or **Complete Data Set** from the list and press **OK** key to confirm.

3. Press the **OK** key to view PID graph if the PID gives a numeric reading.

6.3.1.2 Custom Data List

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

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

6.3.2 Record Data

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

Menu options typically include:

- Complete Data
- Custom Data
- Unit of measure (Please refer to Chapter 7 **Set Up**)

NOTE

There are two types of trigger methods used.

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

To record data:
1. Select Record data from the menu and press the **OK** key.
2. Refer to **View Data** to set up **Complete Data Set** or **Customer Data Set** to record.

3. If the recording is to be overwritten, selected **Yes**; if data is not to be overwritten, pick **No** to return to Select Memory screen and choose another one.
4. If **Manual Trigger** is selected, following screen displays:
5. If **DTC Trigger** is picked, following screen displays:
6. Press the **OK** key to start recording or wait codes to trigger.

NOTE

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

---

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

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

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

6.3.3 Playback Data

The **Playback Data** is used to playback recorded PID data.
1. Scroll with the up and down arrow key to select **Playback Data** from the Menu.

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

6.4 View 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.

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

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

6.5 Read I/M Readiness Status Data

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

I/M Readiness is a useful function used to check if all monitors are OK or N/A. The vehicle's computer performs tests on the emission system during normal driving conditions. After a specific amount of drive time (each monitor has specific driving conditions and time required), the computer's monitors decide if the vehicles emission system is working correctly.

When the monitor's status is:

- OK - vehicle was driven enough to complete the monitor.
- INC (Incomplete) - vehicle was not driven enough to complete the monitor.
- N/A (Not Applicable) - vehicle does not support that monitor.

There are two types of I/M Readiness tests:

- Since DTCs Cleared - shows status of the monitors since the DTCs were last cleared.
- This Drive Cycle - shows status of monitors since the start of the current drive cycle.

Below is a list of abbreviations and names of OBD II monitors supported by the code reader.

No.	Abbreviation	Name
1	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 SensHtr	Oxygen Sensor Heater Monitor
11	EGR System Mon	Exhaust Gas Recirculation System Monitor

There are two ways to retrieve I/M Readiness Status data:

- ● One-click I/M readiness key
- ● Typical way: select I/M Readiness from Diagnostic Menu

To retrieve I/M Readiness Status data by one-click I/M readiness key:
1. Press the **One-Click I/M Readiness Key** on the keypad and the following screen displays.

I/M Readiness

MIL		IGN	Spark
DTC		Pd DTC	

MIS	✔	EVAP	✔
FUE	✔	AIR	🚫
CCM	✔	02S	✔
CAT	✔	HRT	✔
HCAT	🚫	EGR	✔
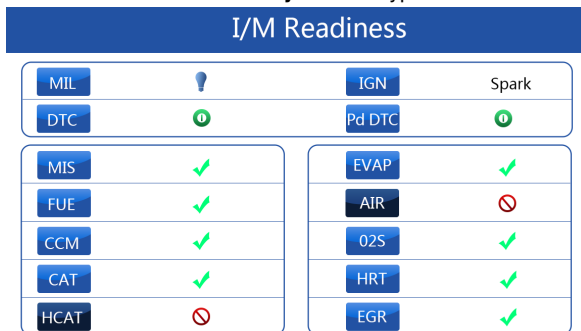
2. Colored LED and build-in beeper provide both visual and audible reminders for emission check and DTCs. Below is the interpretation of the LED and build-in beeper.

When the LED is :

- ● Green - Indicates that engine systems are "OK" and working properly (the number of Monitors equipped with the vehicle which have run and performed their self-diagnostic testing is in the allowed range. MIL is off.).No stored and pending DTCs exist. The vehicle is ready for an Emissions Test.
- ● Yellow - The tool finds a possible problem. It indicates the following two conditions:
    - (1) Pending DTCs exist. Please check the I/M Readiness test result screen and use the Read Codes function to view detailed codes information.
    - (2) Some of the vehicle's emission monitors have not working properly. If the I/M Readiness screen shows no DTC (including pending DTC), but the Yellow LED is still illuminated, it indicate a "Monitor Has Not Run" status.
- ●Red- Indicates some problems exist with one or more of the vehicle's system- and the vehicle is not ready for an Emissions Test. As well there are DTCs found. The MIL lamp on the vehicle's instrument panel will light steady. The problem that is causing the illumination of Red LED should be fixed before an Emissions Test or driving the vehicle further.

The built-in beeper works with the colored LED simultaneous, as an assistance to reflect the I/M Readiness test results:

- ●Green - two long beeps.
- ●Yellow - short, long, short beeps.
- ●Red - four short beeps.

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

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

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

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

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

Or

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

6.6 O2 Monitor Test

1. Use the **UP/DOWN** key to highlight **O2 Monitor Test** from Diagnostic Menu and press the **OK** key. Use the **UP/DOWN** key to highlight an O2 sensor and press the **OK** key to confirm.

2. Use the up and down arrow keys to scroll through data to select lines, and left and right arrow keys to scroll back and forth through different screens of data.

3. Press **OK** key to view data of selection.

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

6.7 On-Board Monitor Test

The On-Board Monitor Test function is useful after servicing or after clearing a vehicle ECU's memory. It receives test results for emission-related powertrain components and systems that are not continuously monitored for Non-CAN vehicles. And for CAN vehicles, it receives test data for emission-related powertrain components and systems that are and are not continuously monitored. It is vehicle manufacturer who is responsible for assigning test and component IDs.

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

On-Board Monitor Test	1/25
EGR MON.B1S1	
EGR MON.B1S2	
EGR MON.B2S1	
EGR MON.B2S2	
Catalyst Mon.B1	
Catalyst Mon.B2	
EGR Monitor Bank 1	

Or

On-Board Monitor Test	3/5
Oxygen Sensor Monitors and Const...	
O2 Sensor Heater System Time to...	
Exhaust Gas Recirulation System...	
Ehancad Evaporative System Monit...	
Catalyst Efficiency Monitor	

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

6.8 Component Test

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

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

6.9 Request Vehicle Information

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

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

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

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

6.10 Modules Present

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

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

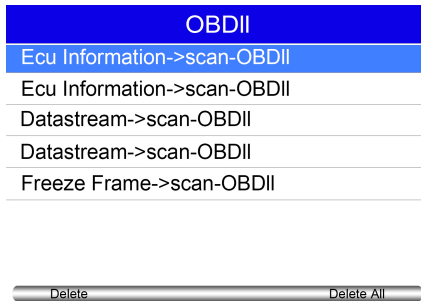| Modules Present	
ID	Protocol
$07E9	CAN STD FAST
$07E8	CAN STD FAST

7 Playback Data

The PlayBack data function allows viewing test results recorded by the scan tool.
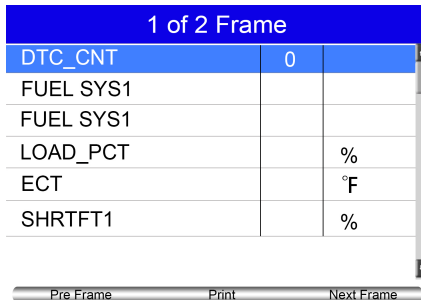
1. Select **PlayBack** from home screen and press the **OK key**.

Application		
OBDII	ABS&SRS	TPS
Setup	Playback	
OBDII	OBDII	OBDII
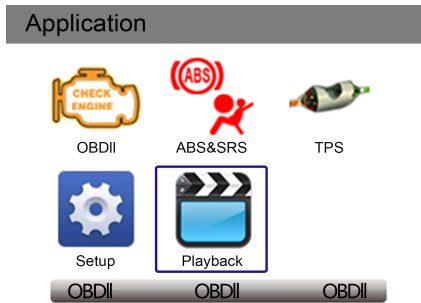
2. A screen with a list of test records displays. If no data is recorded, the message "No Data available!" is displayed.

OBDII
Ecu Information->scan-OBDII
Ecu Information->scan-OBDII
Datastream->scan-OBDII
Datastream->scan-OBDII
Freeze Frame->scan-OBDII

Delete   Delete All

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

1 of 2 Frame		
DTC_CNT	0	
FUEL SYS1		
FUEL SYS1		
LOAD_PCT		%
ECT		$°F$
SHRTFT1		%

Pre Frame   Print   Next Frame

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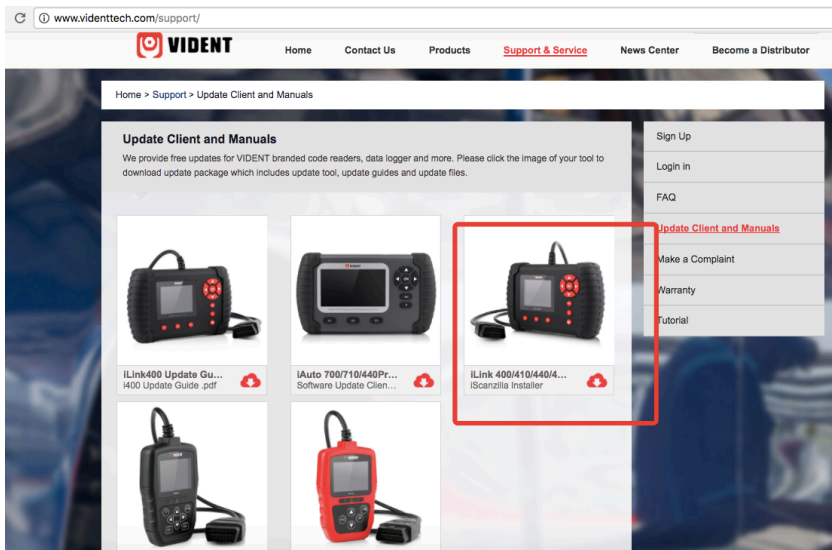
8 Software Update and Printing

To apply software updates to the tool you will need a Windows PC/Laptop and an TF Card Reader.

8.1 Software Update

8.1.1 Step One- Install the Update Client

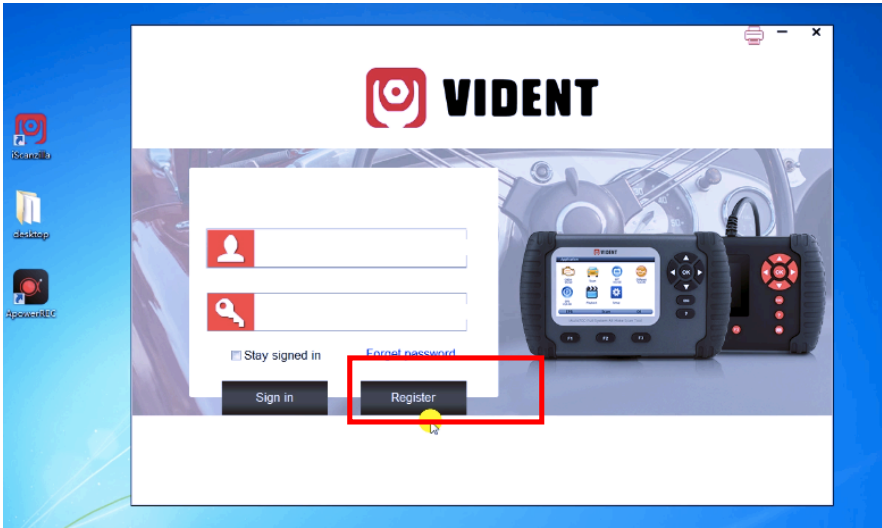1. Visit www.videnttech.com to download the update client from http://www.videnttech.com/support/

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

Alternatively, you can install the update client from the CD that comes in the product package.

8.1.2 Step Two - Create Your Vident Account.

Firstly you need to create an account with Vident.
1. Once installed, boots up the iScanzilla software, click the Register button.

2. Fill out the registration form and submit.

Alternatively, you can click the Sign Up button on the right upper side of our website to create an user account.

8.1.3 Step Three – Register Your product

1. When logged in iScanzilla, click the 'Register Products' icon.

2. On the 'S/N Registration' tab, put a tick in the box marked '001' then enter the product's serial number & password, and click Submit.

Please connect the scan tool with computer through the USB cable, select Setup > About to check the Serial Number and 'Register Password".

Product Serial Number
7000315001361
Register password:0016b3
Copyright(C)2016 Vident Technology
Co., Ltd
All rights reserved

3. A confirmation box should be shown confirming successful registration.

Alternatively, you can register the product in the member center when logged in on our website.

8.1. 4 Step Four – Update the Software

1. Now close the iScanzilla software, remove the TF card from your tool (making sure the tool is turned off first!) and connect it to the PC via an TF card reader.
2. Once Windows has detected the TF card, run the iScanzilla software and login again. click the 'My Updates' button. After a few seconds, a list of the available software updates will appear.
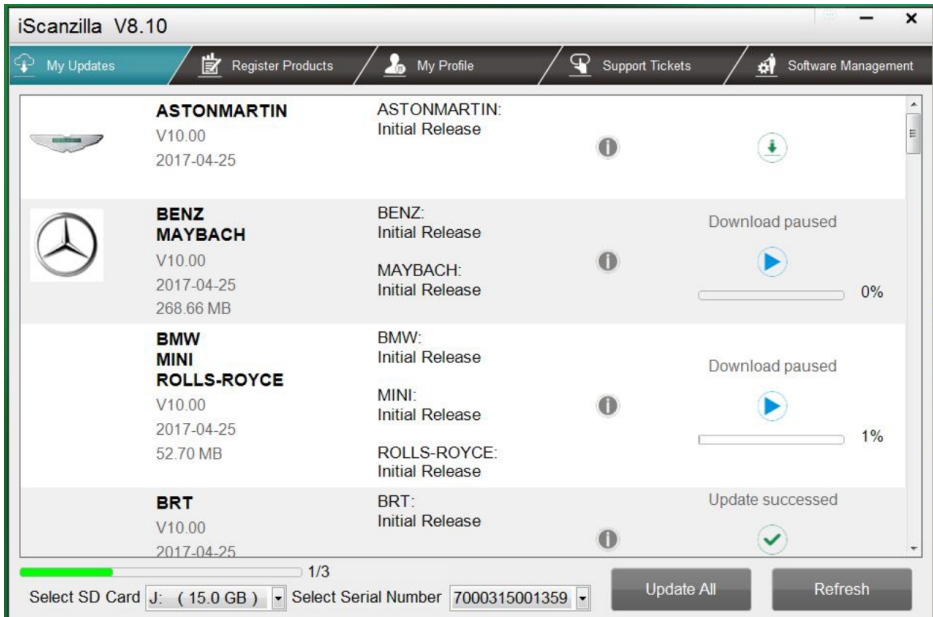
Ensure that the correct serial number is displayed in the drop-down list.

3. Click the Update button to download and install available updates.

Please note: the update process can take a long time. If your tool has not been updated recently, it may take a few hours for the update process to complete. Once the update has completed, don't forget to 'safely remove' the SD card in Windows before unplugging it, to avoid the possibility of data corruption.

8.2 Renewals

If your free updates ran out, your tool will continue to function - it will not 'time out' - but you will no longer be able to access the update servers. Should you wish to continue updating your tool, you will need to purchase an update package. Please go to our website and log in to process the purchasing.

8.3 Printing Data

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

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

2. All data saved/stored in the TF card would appear on screen.

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

General Notice

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

Safety Precautions and Warnings

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

Warranty and Service

Limited One Year Warranty

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

Aftersales Service
If you have any questions, please contact your local reseller or contact us at
http://www.videnttech.com/support/support/