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Note: This user manual applies to the following CReader models: CReader 6011, CReader 7001, CReader 7001F, CReader 8001, CReader 8011, CReader 8021 and CReader 9081. All illustrations and descriptions herein are only for reference. We reserve the right to make changes due to software update without prior written notice.

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**Disclaimer**

To take full advantage of the unit, you should be familiar with the engine.

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**Safety Precautions and Warnings**

To prevent personal injury or damage to vehicles and/or the tool, please read this user's manual first carefully and observe the following safety precautions at a minimum whenever working on a vehicle:

- Always perform automotive testing in a safe environment.
- Do not attempt to operate or observe the tool while driving a vehicle. Operating or observing the tool will cause driver distraction and could cause a fatal accident.
- 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 P (for A/T) or N (for M/T) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
- Don't connect or disconnect any test equipment while the ignition is on or the

engine is running.

- Keep the tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the tool, when necessary.

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## 1. Introduction

Featuring a 4.0" color LCD and similar appearance, each of CReader 6011/7001/7001F/8001/8011/8021/9081 supports all 10 modes of OBD II test for a complete diagnosis.

### CReader 6011

In addition to the full OBDII/EOBD diagnostic functions, CReader 6011 also supports the diagnosis of the electronic control systems of vehicle, such as ABS and SRS.

### CReader 7001/7001F

In addition to the full OBDII/EOBD diagnostic functions, CReader 7001/7001F also provides the oil lamp reset function. Moreover, CReader 7001F also supports Engine Oil Lamp reset, EPB (Electronic Park Brake) reset, SAS (Steering Angle Sensor) reset, BMS (Battery Management System) reset, DPF (Diesel Particulate Filter) regeneration and ABS Bleeding.

### CReader 8001/8011/8021

In addition to the full OBDII/EOBD diagnostic functions, CReader 8001/8011/8021 also supports the system diagnosis of ABS and SRS and provides the following resetting functions:

- Oil lamp reset
- EPB (Electronic Park Brake) reset
- SAS (Steering Angle Sensor) reset (Only available on CReader 8021)
- BMS (Battery Management System) reset (Only available on CReader 8011/8021)

### CReader 9081

In addition to the full OBDII/EOBD diagnostic functions, CReader 9081 also provides 11 reset functions: Engine oil lamp reset, EPB (Electronic Parking Brake) reset, SAS (Steering Angle Sensor), BMS (Battery Management System) reset, DPF (Diesel Particulate Filter) regeneration, Tire Pressure Monitor System Reset, ABS Bleeding, Electronic Throttle Position Reset, Gear Learning, IMMO and Injector Coding.

There are two methods available to update the tool: via memory card or via USB

cable. The memory card is highly recommended to update your tool.

Note: CReader 6011/7001/7001F/8001/8011/8021/9081 may automatically reset while being disturbed by strong static electricity. THIS IS A NORMAL REACTION.

## **2. General Information**

### **2.1 On-Board Diagnostics (OBD) II**

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

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

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

### **2.2 Diagnostic Trouble Codes (DTCs)**

OBD II Diagnostic Trouble Codes are codes that are stored by the on-board computer diagnostic system in response to a problem found in the vehicle. These codes identify a particular problem area and are intended to provide you with a guide as to where a fault might be occurring within a vehicle. OBD II Diagnostic Trouble Codes consist of a five-digit alphanumeric code. The first character, a letter, identifies which control system sets the code. The second character, a number, 0-3; other three characters, a hex character, 0-9 or A-F provide additional information on where the DTC originated and the operating conditions that caused it to set. Here below is an example to illustrate the structure of the digits:



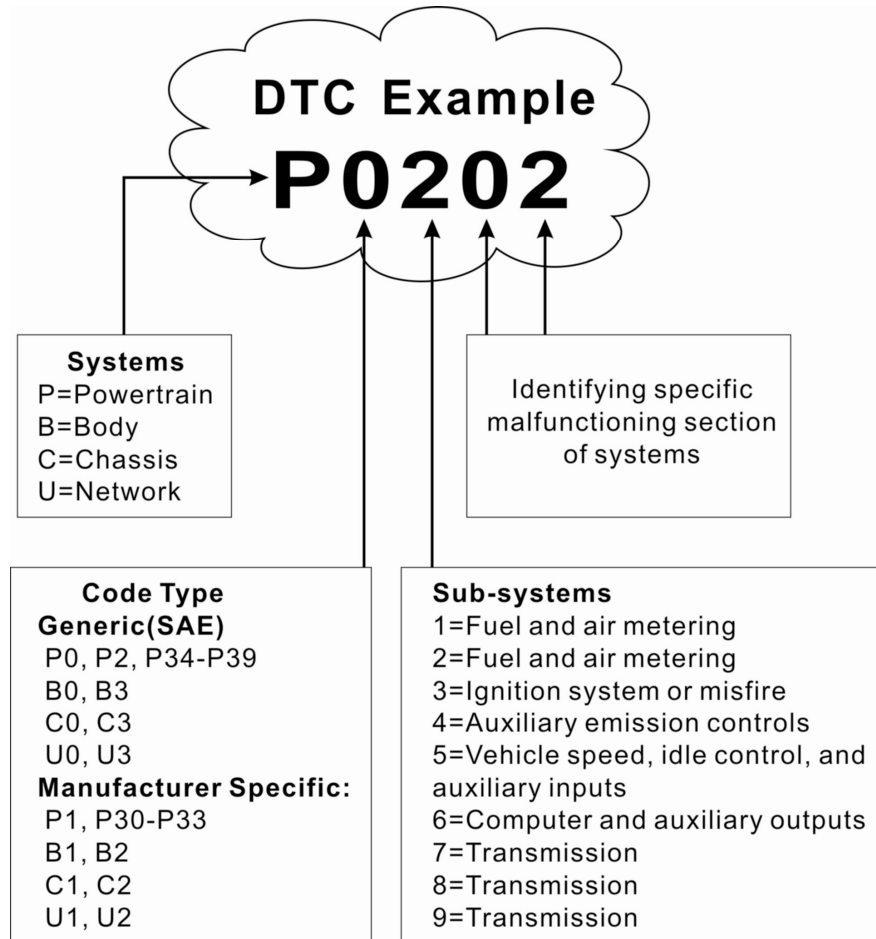


Figure 2-1

### 2.3 Location of the Data Link Connector (DLC)

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

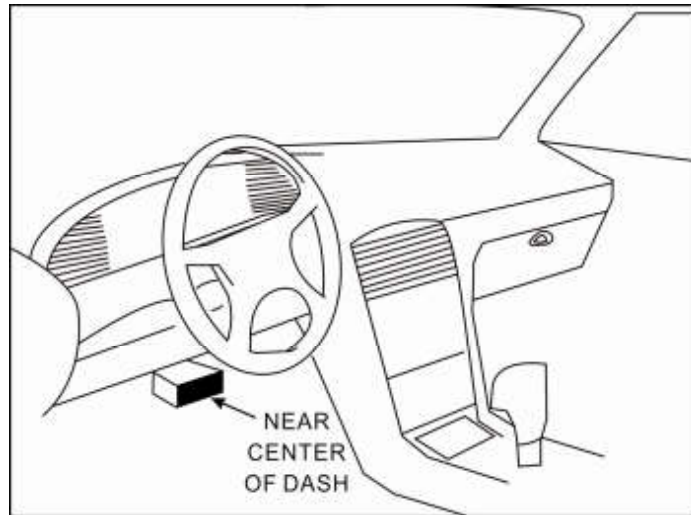


Figure 2-2

## 2.4 OBD II Readiness Monitors

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

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

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

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

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

Non-Continuous Monitors -- Unlike the continuous monitors, many emissions and

engine system components require the vehicle to be operated under specific conditions before the monitor is ready. These monitors are termed non-continuous monitors and are listed below:

- 1) EGR System
- 2) O<sub>2</sub> Sensors
- 3) Catalyst
- 4) Evaporative System
- 5) O<sub>2</sub> Sensor Heater
- 6) Secondary air Injection
- 7) Heated Catalyst
- 8) A/C system

## **2.5 OBD II Monitor Readiness Status**

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

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

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

## 2.6 OBD II Definitions

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

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

DTC -- Diagnostic Trouble Codes (DTC) that identifies which section of the emission control system has malfunctioned.

Enabling Criteria -- Also termed Enabling Conditions. They are the vehicle-specific events or conditions that must occur within the engine before the various monitors will set, or run. Some monitors require the vehicle to follow a prescribed "drive cycle" routine as part of the enabling criteria. Drive cycles vary among vehicles and for each monitor in any particular vehicle. Please refer to the vehicle's factory service manual for specific enabling procedures.

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

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

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

Fuel Trim (FT) -- Feedback adjustments to the base fuel schedule. Short-term fuel trim refers to dynamic or instantaneous adjustments. Long-term fuel trim refers to much more gradual adjustments to the fuel calibration schedule than short-term trim adjustments. These long-term adjustments compensate for vehicle differences and gradual changes that occur over time.

### 3. Product Descriptions

#### 3.1 Outline of CReader 6011/7001/7001F/8001/8011/8021/9081

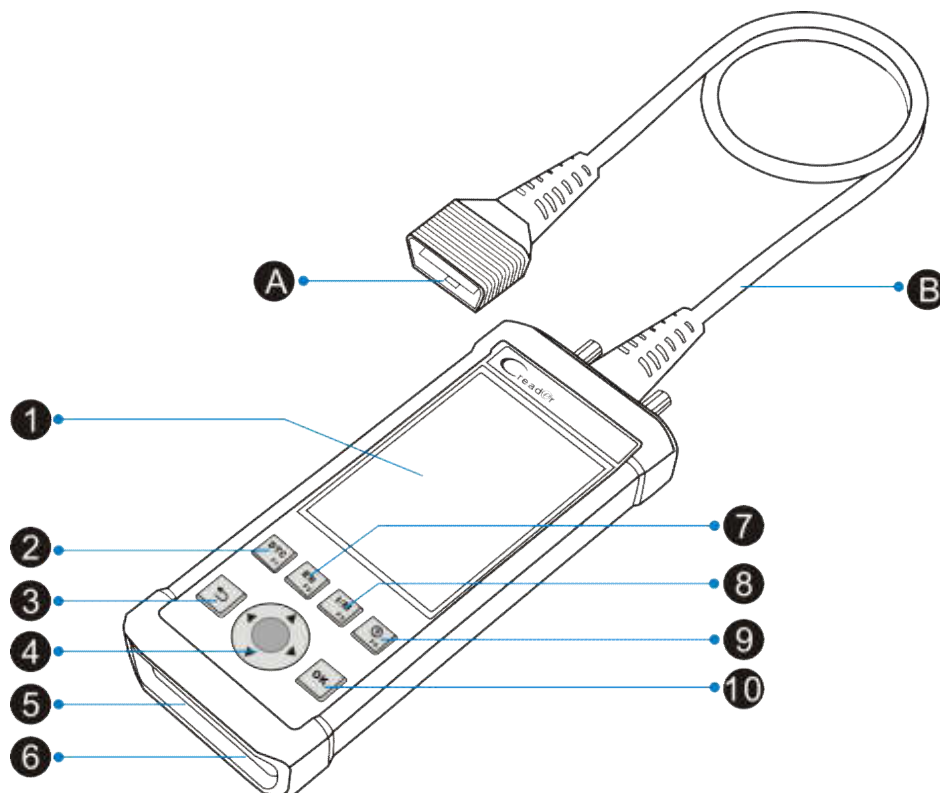


Figure 3-1 CReader 6011/7001/7001F/8001/8011/8021/9081 Front View

Note: CReader 6011/7001/7001F/8001/8011/8021/9081 feature same appearance.

No.	Name	Descriptions
A	<b>DB-15 connector</b>	To connect the tool to the vehicle's DLC (Data Link Connector) via the diagnostic cable.
B	<b>Diagnostic cable</b>	
1	<b>LCD</b>	Indicates test results.
2	<b>DTC(F1)</b>	To read the DTCs.
3	<b>↶ (ESC)</b>	Exit the current program or return to the previous screen.
4	<b>▲/▼</b>	Move cursor up and down for selection.

	◀/▶	Move cursor left or right for selection; Or turn page up and down when more than one page is displayed.
5	<b>Memory card slot</b>	To insert the memory card to update your tool.
6	<b>Mini USB port</b>	To connect to PC via USB cable for upgrading.
7	<b>ER(F2)</b>	To erase the DTCs.
8	<b>I/M(F3)</b>	I/M refers to Inspection and Maintenance that is legislated by the Government to meet federal clean-air standards.
9	<b>Ⓢ (F4)</b>	Help key
10	<b>OK</b>	Confirms a selection (or action) from a menu list.

### 3.2 Specifications

- Screen: 4.0" color LCD
- Input voltage range: 9~18V
- Working temperature: -10 to 50°C (14 to 122 F°)
- Storage temperature: -20 to 70°C (-4 to 158 F°)
- External Dimension: 195mm(L) x 86mm(W) x 32mm(H)
- Weight: 460g

### 3.3 Accessories

1. CReader 6011/7001/7001F/8001/8011/8021/9081 handset
2. Diagnostic cable
3. User's Manual
4. Memory card (Built-in)
5. Memory card reader
6. USB cable

## 4. Connection & Settings

### 4.1 Connection

1. Turn the ignition off.
2. Locate vehicle's DLC socket: Refer to Fig. 2-2 for the location. In case no DLC is found, please refer to Automobile Repair Manual.
3. Plug one end of the diagnostic cable into the DB15 connector of the tool, and connect the other end of the diagnostic cable into the vehicle's DLC.
4. Turn the ignition on. Engine can be off or running.
5. The system starts initializing and then automatically enters the main menu interface.

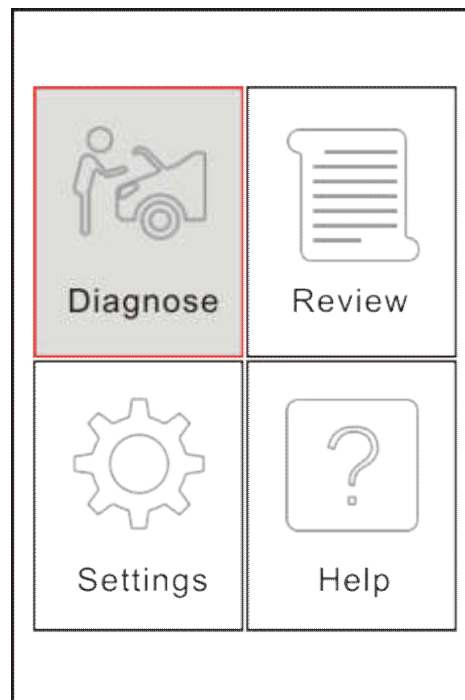


Figure 4-1

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

### 4.2 Settings

Select [Settings] in the main menu and press [OK], the system will enter the following screen:



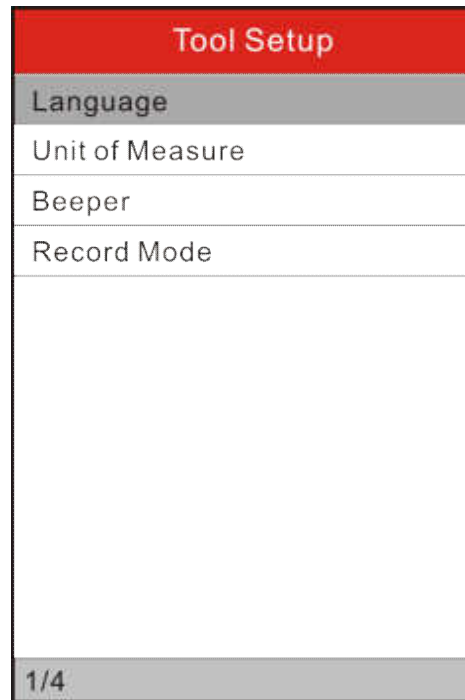


Figure 4-2

### **1) Language**

This option enables you to set the user interface language.

Note: Due to continuous software upgrade, language interface may differ from different software versions.

### **2) Unit of Measure**


This option allows you to set measurement unit.

### **3) Beeper**

It is used to set On/Off the buzzer.

### **4) Record Mode**

It is used to turn On/Off the data stream recording function.

Choose [Record Mode] and press [OK] to confirm. Press [OK] to switch between On and Off. When recording is On, the  icon appears, and the tool can record DTCs, data stream and freeze frames.

### 5. Diagnose

Select [Diagnose] in Main Menu and press [OK], the screen will display Monitor Status interface as following figure 5-1:

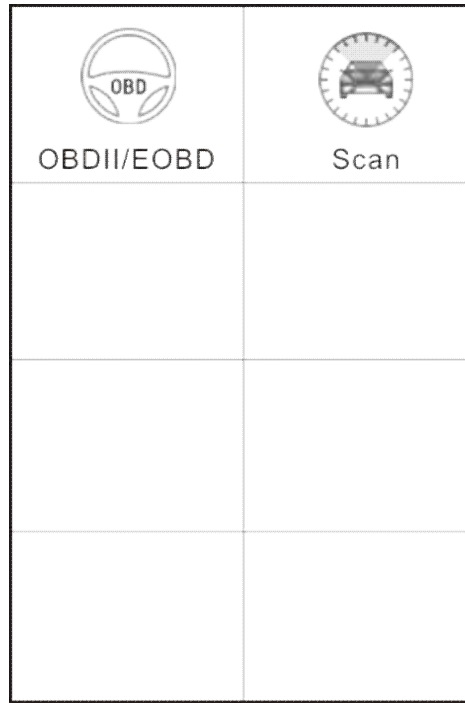


Figure 5-1 (Only applies to CReader 6011/8001/8011/8021)



Figure 5-1 (Only applies to CReader 7001/7001F/9081)

## 5.1 OBDII/EOBD Diagnosing

This option presents a quick way to check for DTCs, isolate the cause of the illuminated Malfunction Indicator Lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emission-related.

In figure 5-1, highlight [OBD II/EOBD] and then press [OK], the screen will automatically jump to figure 5-2:

Monitor Status	
MIL Status	OFF
DTCs in this ECU	108
Readiness Completed	5
Readiness Not Completed	2
Readiness Not Supported	3
Datastream Supported	119
Ignition	Spark

Figure 5-2

Press [OK], a screen similar to figure 5-3 will appear:

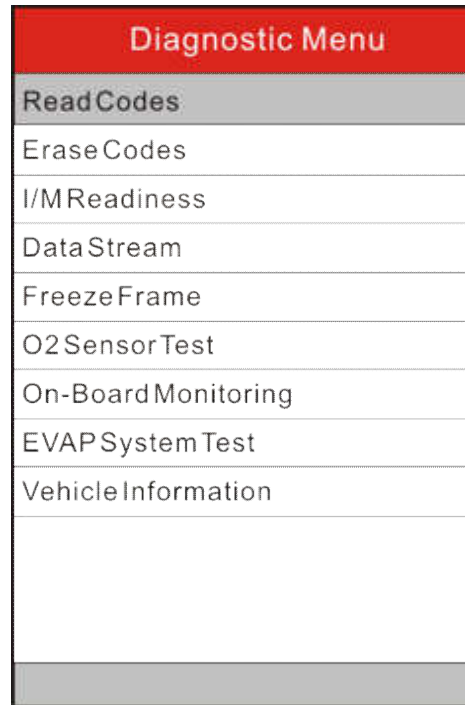


Figure 5-3

It mainly includes the following functions:

### **1. Read Codes**

This option is used to identify which section of the emission control system has malfunctioned.

### **2. Erase Codes**

After reading the retrieved codes from the vehicle and certain repairs have been carried out, you can use this function to erase the codes from the vehicle. Before performing this function, please be sure the vehicle's ignition key is in the ON position with the engine off.

#### **Notes:**

- Before performing this function, make sure to retrieve and record the trouble codes.
- After clearing, you should retrieve trouble codes once more or turn ignition on and retrieve codes again. If there are still some trouble codes in the system, please troubleshoot the code using a factory diagnosis guide, then clear the code and recheck.

### **3. I/M Readiness**

I/M refers to Inspection and Maintenance that is legislated by the Government to

meet federal clean-air standards. I/M Readiness indicates whether or not the various emissions-related systems on the vehicle are operating properly and are ready for Inspection and Maintenance testing.

The purpose of the I/M Readiness Monitor Status is to indicate which of the vehicle's Monitors have run and completed their diagnosis and testing (as described in Chapter 2.5), and which ones have not yet run and completed testing and diagnosis of their designated sections of the vehicle's emissions system.

I/M Readiness Monitor Status function also can be used (after repair of a fault has been performed) to confirm that the repair has been performed correctly, and/or to check for Monitor Run Status.

#### **4. Data Stream**

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

#### **5. View Freeze Frame**

When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data. Freeze Data is a snapshot of the operating conditions at the time of an emission-related fault.

Note: If DTCs were erased, Freeze Data may not be stored in vehicle memory depending on vehicle.

#### **6. O2 sensor test**

The results of O2 sensor test are not live values but instead the results of the ECU's last O2 sensor test. For live O2 sensor readings, refer to any of the live sensor screens such as Graph Screen.

Not all test values are applicable to all vehicles. Therefore, the list generated will vary depending on vehicle. In addition, not all vehicles support the Oxygen Sensors screen.

#### **7. On-board monitor test**

This function can be utilized to read the results of on-board diagnostic monitoring tests for specific components/systems.

#### **8. EVAP System Test**

The EVAP test function lets you initiate a leak test for the vehicle's EVAP system.

The tool does not perform the leak test, but signals to vehicle's on-board computer are to initiate the test. Before using the system test function, refer to the vehicle's service repair manual to determine the procedures necessary to stop the test.

**9. Vehicle Info**

This option displays the vehicle information, such as VIN (Vehicle identification Number), CID (Calibration ID) and CVN (Calibration Verification Number).

**5.2 System Diagnosing (Only for CReader 6011/8001/8011/8021)**

This function is specially designed to diagnose the two electronic control systems [ABS (Anti-lock Brake System) + SRS (Supplemental Restraint System)] of single vehicle model.

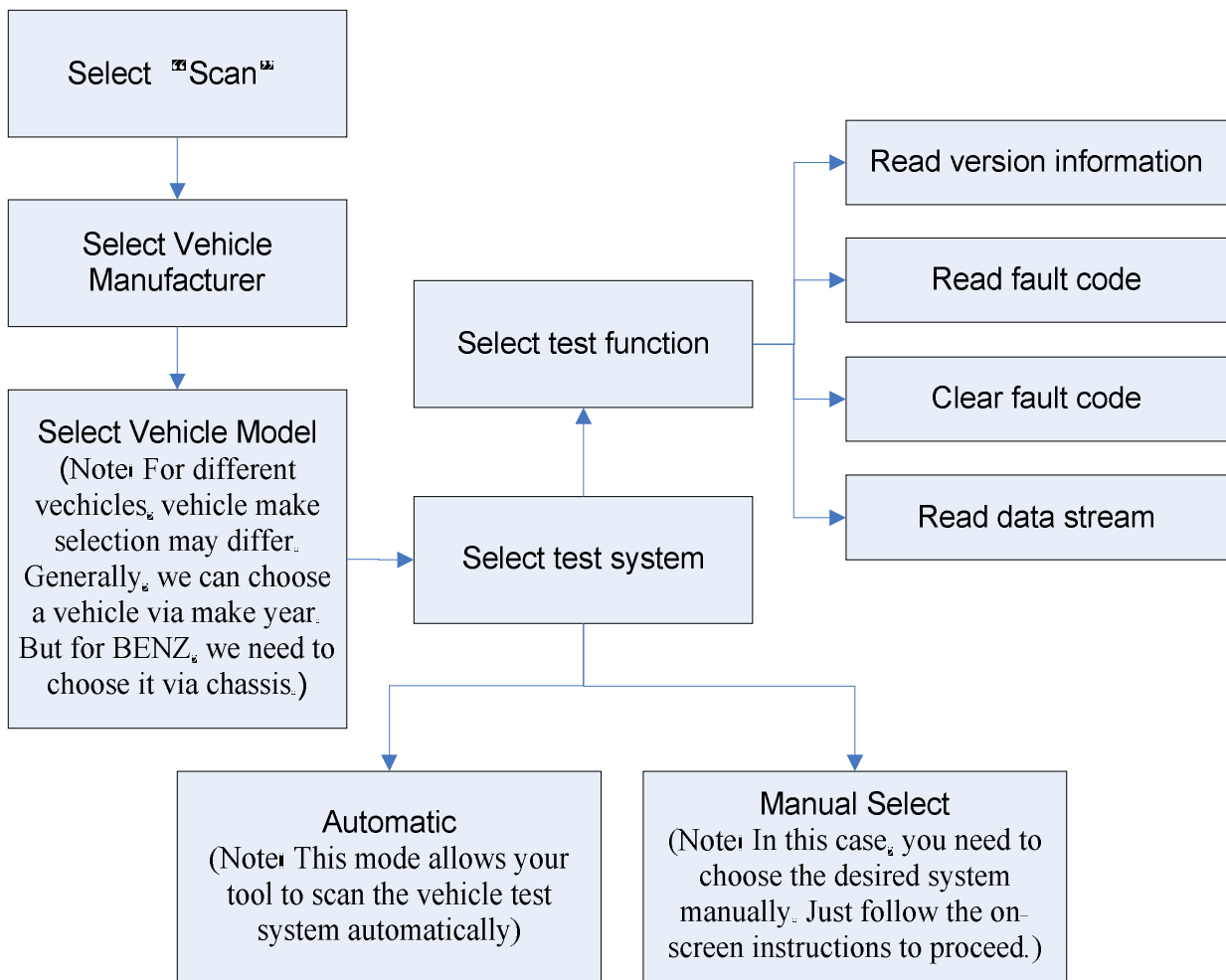


Figure 5-5

**Notes:**

- This function does not apply to CReader 7001, CReader 7001F and CReader 9081.
- Before diagnosing, please make sure the diagnostic program corresponding to certain vehicle model has been installed on your tool.
- For vehicles manufactured by different manufacturers, it is possible that it has different diagnostic menus.

**5.2.1 Read Vehicle Information**

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

**5.2.2 Read Fault Code**

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

**5.2.3 Clear Fault Code**

After reading the retrieved codes from the vehicle and certain repairs have been carried out, you can use this function to erase the codes from the vehicle. Before performing this function, please be sure the vehicle's ignition key is in the ON position with the engine off.

**5.2.4 Read Data Stream**

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

**5.3 Resetting (Only applies to CReader 7001/7011F/8001/8011/8021/9081)**

There are two methods to reset service lamp: Manual reset or Auto reset. Auto reset follows the principle of sending command from the tool to vehicle's ECU to do resetting. While using manual reset, users just follow the on-screen instructions to select appropriate execution options, enter correct data or values, and perform necessary actions, the system will guide you through the complete performance for various service operations.

Note: This function is not available on CReader 6011.

For CReader 7001/7001F/9081, just follow the flowchart below to perform resetting.

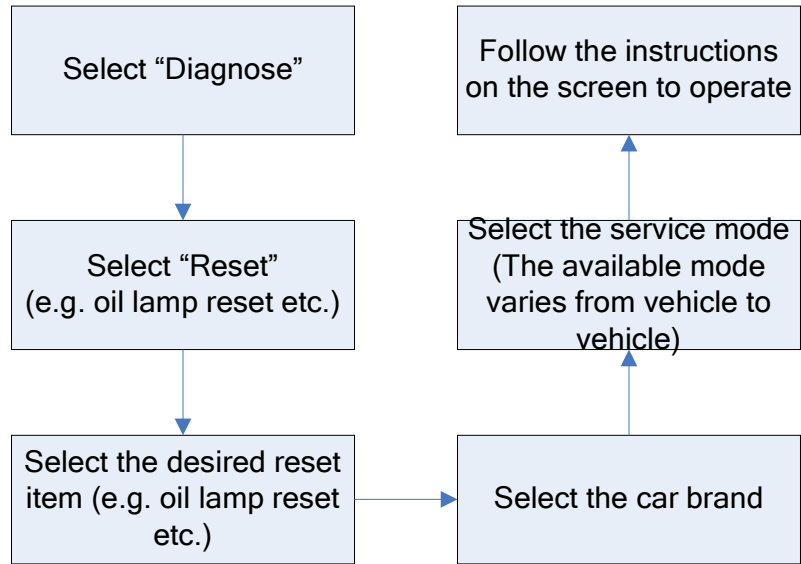


Figure 5-6 (For CReader 7001/7001F/9081)

For CReader 8001/8011/8021, the resetting function is loaded with each single vehicle model and can be done in process of the System Scanning operation. Refer to the following illustration to proceed.

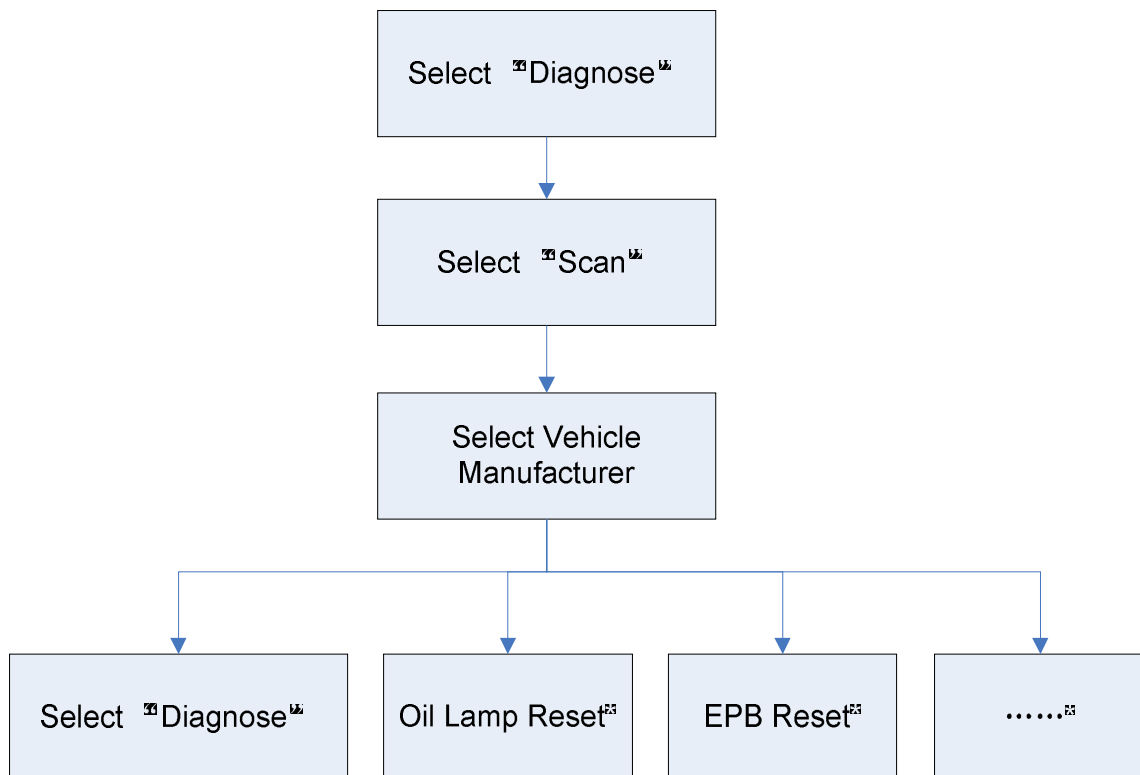


Figure 5-6 (For CReader 8001/8011/8021)



### **5.3.1 Oil Reset Service (Only applies to CReader 7001/7011F/8001/8011/8021/9081)**

This function allows you to perform reset for the engine oil life system, which calculates an optimal oil life change interval depending on the vehicle driving conditions and climate.

This function can be performed in the following cases:

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

### **5.3.2 Electronic Parking Brake Reset (Only applies to CReader 7011F/8001/8011/8021/9081)**

1. If the brake pad wears the brake pad sense line, the brake pad sense line sends a signal sense line to the on-board computer to replace the brake pad. After replacing the brake pad, you must reset the brake pad. Otherwise, the car alarms.
2. Reset must be performed in the following cases:
  - a) The brake pad and brake pad wear sensor are replaced.
  - b) The brake pad indicator lamp is on.
  - c) The brake pad sensor circuit is short, which is recovered.
  - d) The servo motor is replaced.

### **5.3.3 Steering Angle Sensor (Only applies to CReader 7011F/8021/9081)**

To reset the steering angle, first find the relative zero point position for the car to drive in straight line. Taking this position as reference, the ECU can calculate the accurate angle for left and right steering.

After replacing the steering angle position sensor, replacing steering mechanical parts (such as steering gearbox, steering column, end tie rod, steering knuckle), performing four-wheel alignment, or recovering car body, you must reset the steering angle.

### **5.3.4 Battery Maintenance System Reset (Only applies to CReader 7011F/8011/8021/ 9081)**

This function enables you to perform a resetting operation on the monitoring unit of vehicle battery, in which the original low battery fault information will be cleared

and battery matching will be done.

Battery matching must be performed in the following cases:

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

### **5.3.5 Diesel Particulate Filter (DPF) Regeneration (Only applies to CReader 7011F/9081)**

DPF regeneration is used to clear PM (Particulate Matter) from the DPF filter through continuous combustion oxidation mode (such as high temperature heating combustion, fuel additive or catalyst reduce PM ignition combustion) to stabilize the filter performance.

DPF regeneration may be performed in the following cases:

- a) The exhaust back pressure sensor is replaced.
- b) The PM trap is removed or replaced.
- c) The fuel additive nozzle is removed or replaced.
- d) The catalytic oxidizer is removed or replaced.
- e) The DPF regeneration MIL is on and maintenance is performed.
- f) The DPF regeneration control module is replaced.

### **5.3.6 Tire Pressure Monitor System Reset (Only applies to CReader 9081)**

This function allows you to quickly look up the tire sensor IDs from the vehicle's ECU, as well as to perform TPMS replacement and sensor test.

1. After the tire pressure MIL turns on and maintenance is performed, the tire pressure resetting function must be performed to reset tire pressure and turn off the tire pressure MIL.
2. Tire pressure resetting must be performed after maintenance is performed in the following cases: tire pressure is too low, tire leaks, tire pressure monitoring device is replaced or installed, tire is replaced, tire pressure sensor is damaged, and tire is replaced for the car with tire pressure monitoring function.

### **5.3.7 ABS Bleeding (Only applies to CReader 7011F/9081)**

This function allows you to perform various bi-directional tests to check the operating conditions of Anti-lock Braking System (ABS).

1. When the ABS contains air, the ABS bleeding function must be performed to bleed the brake system to restore ABS brake sensitivity.
2. If the ABS computer, ABS pump, brake master cylinder, brake cylinder, brake line, or brake fluid is replaced, the ABS bleeding function must be performed to bleed the ABS.

### **5.3.8 Gear Learning (Only applies to CReader 9081)**

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

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

### **5.3.9 IMMO Service (Only applies to CReader 9081)**

An immobilizer is an anti-theft mechanism that prevents a vehicle's engine from starting unless the correct ignition key or other device is present. Most new vehicles have an immobilizer as standard equipment. An important advantage of this system is that it doesn't require the car owner to activate it since it operates automatically. An immobilizer is considered as providing much more effective anti-theft protection than an audible alarm alone.

As an anti-theft device, an immobilizer disables one of the systems needed to start a car's engine, usually the ignition or the fuel supply. This is accomplished by radio frequency identification between a transponder in the ignition key and a device called a radio frequency reader in the steering column. When the key is placed in the ignition, the transponder sends a signal with a unique identification code to the reader, which relays it to a receiver in the vehicle's computer control module. If the code is correct, the computer allows the fuel supply and ignition systems to operate and start the car. If the code is incorrect or absent, the computer disables the system, and the car will be unable to start until the correct key is placed in the ignition.

To prevent the car being used by unauthorized keys, the anti-theft key matching

function must be performed so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car.

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

### **5.3.10 Injector Coding (Only applies to CReader 9081)**

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

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

### **5.3.11 Electronic Throttle Position Reset (Only applies to CReader 9081)**

This function enables you to make initial settings to throttle actuators and returns the “learned” values stored on ECU to the default state. Doing so can accurately control the actions of regulating throttle (or idle engine) to adjust the amount of air intake.

## **5.4 Review**

This function is used to review or delete the recorded DTC, Data Streams and Freeze Frame.

## 6. Help

This menu enables you to view tool information and OBD introduction.

In main menu, select [Help] and press [OK] to enter figure 6-1.

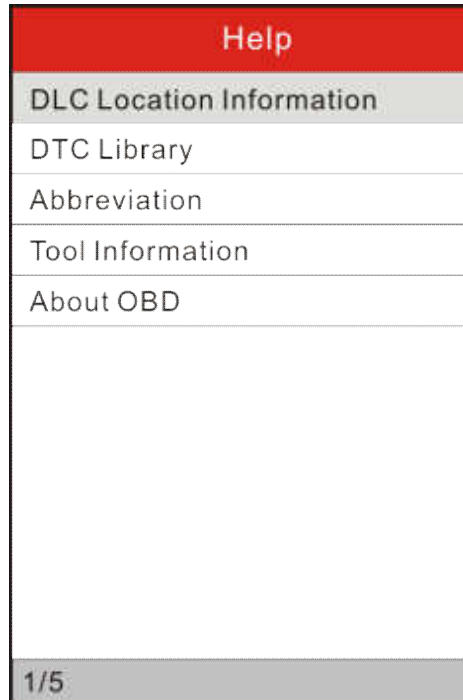


Figure 6-1

### 6.1 DLC Location Information

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

### 6.2 DTC Library

In Figure 6-1, select [DTC Library] and press [OK] to enter the following screen.

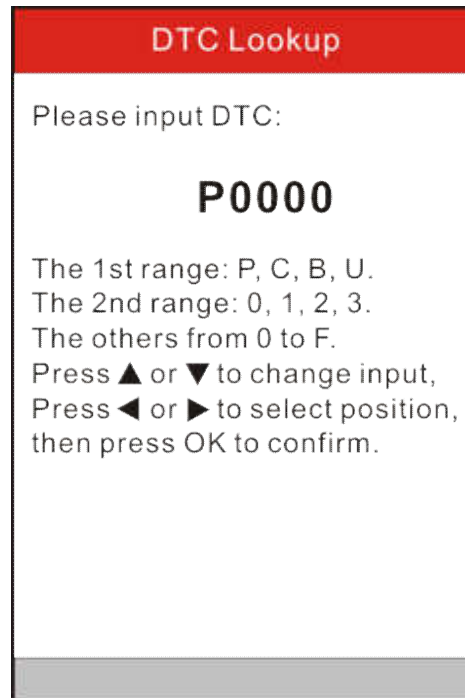


Figure 6-2

Press [▶]/[◀] button to move the highlight bar to different position. Press [▲]/[▼] button to alter the value, then press [OK] button, the screen will display definition of the DTC.

### 6.3 Abbreviation

This option allows you to view the full name and detailed explanation of the automotive glossary abbreviations.

### 6.4 Tool Information

This option displays the related information of your tool.

In figure 6-1, select [Tool Information] and then press [OK].

Tool Information	
Boot version:	V02.01
Display program version:	V02.00
Diagnostic program version:	V10.50
Diagnostic library version:	V02.24
Serial Number:	97xx90000012
Register Code:	270025000247

Figure 6-3

**Note:** You are strongly recommended to note down the Serial Number and Register Code in figure 6-3 since these 2 pieces of information are required while registering your tool.

## 6.5 About OBD

This option allows you to have a general knowledge of OBD.

## 7. Register & Update

Prerequisite conditions:

1. System requirements: Windows XP, 7, 8 or Windows 10.
2. Go to <http://mycar.x431.com>, click "Products" -> "Creader Online" -> "CReader 6011/7001/8001/8011/8021/9081" to download the update tool and install it on the computer.



Figure 7-1 (For CReader 6011)



Figure 7-1 (For CReader 7001&CReader 7001F)





Figure 7-1 (For CReader 8001)



Figure 7-1 (For CReader 8011)



Figure 7-1 (For CReader 8021)



Figure 7-1 (For CReader 9081)

There are 2 methods available to update your tool. You may choose one of the following to proceed.

**Method 1: Via Memory Card (recommended)**

1. Launch the update tool, a screen similar to figure 7-2 will appear:



Figure 7-2

2. In figure 7-2, type in the Product Serial Number (located at the back of the tool).

Note: Once the S/N is entered, “Restore System” becomes activated, which is used to restore system if a new memory card is replaced.

3. Click [Device Upgrade] to enter the sign-up page. Enter the information and click [Submit] (refer to figure 7-3).

Figure 7-3

(If you need the Register Code, please refer to steps 4~7.)

(If you have the Register Code, directly proceed to step 8.)

4. The Register Code can be found in your tool. Connect one end of the USB cable to your tool, and the other end on the computer.

- 5. After the tool has powered up and entered the main menu screen, move the highlight bar on the "Help" icon and press [OK].

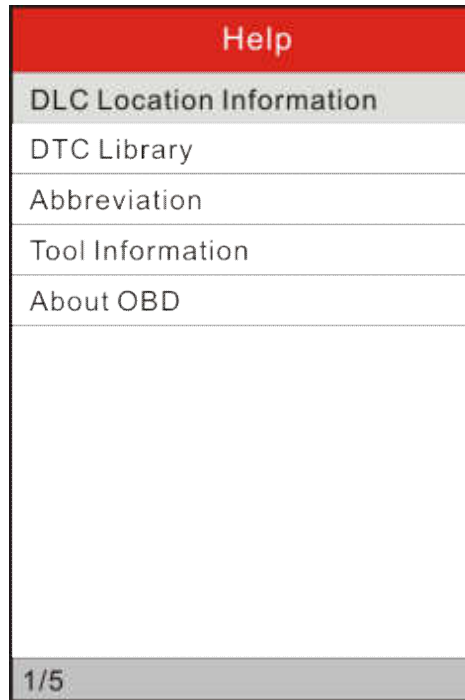


Figure 7-4

- 6. Highlight the "Tool Information" in figure 7-4 and press [OK].

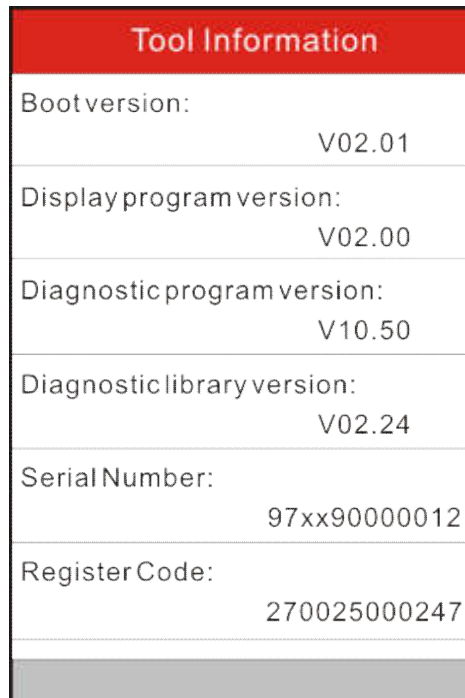


Figure 7-5

7. The Register Code shown in figure 7-5 is the Register Code needed in step 3. (Return to step 3 and input the Register Code and then proceed)
8. Install the memory card from the tool into the supplied memory card adaptor and insert into the USB port of the computer.
9. Reopen the update tool, select the updates you would like to perform or click "Select All", and then click [Download] to start downloading.
10. Once all steps are complete, reinsert the memory card into the tool and power the tool via USB cable or via OBD II cable. A dialog box (Note: If only diagnostic software is updated and no firmware package is downloaded, this box will not appear) prompting you to update will pop up on the screen (See figure 7-6), select [OK].

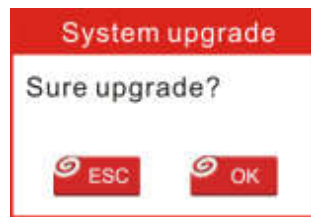


Figure 7-6

11. The registration process is complete, your tool is now ready for use.

### **Method 2: Via USB Cable**

Note: Make sure the computer has an Internet connection.

1. Connect one end of the USB cable to the USB port of computer, and the other end to the tool.
2. If a newer version is found, a screen similar to figure 7-7 appears.

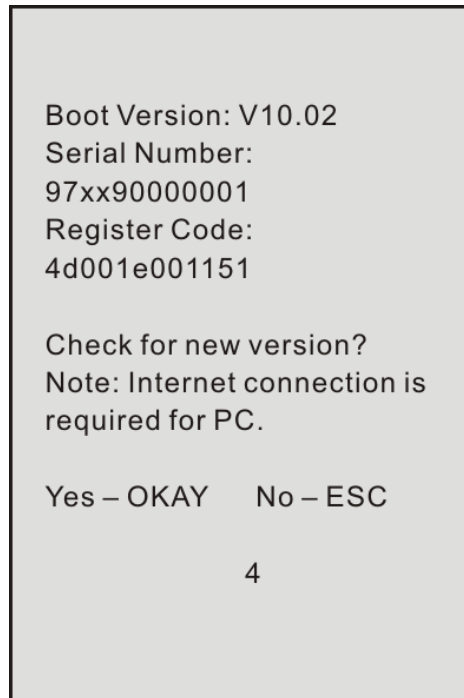


Figure 7-7

- 3. Press [OK] to configure this tool as a USB device. See figure 7-8.

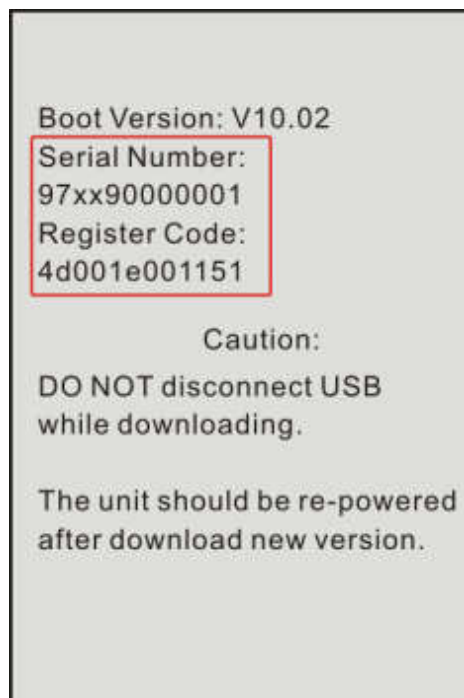


Figure 7-8

Note: The Serial Number and Register Code shown in this figure are needed for inputting in Steps 4-6.

4. Launch the update tool, a screen similar to figure 7-9 will appear.



Figure 7-9

5. Type in the Serial Number. Click [Device Upgrade] to input the information and click [Submit] to enter the update page.

Figure 7-10

6. Select the updates you would like to perform or click "Select All", and then click [Download] to start downloading.
7. Once all steps are complete, restart your tool. It will prompt you to upgrade, click [OK] to start updating. It may take several minutes to finish the update.
8. The update process is complete, your tool is now ready for use.

## 8. FAQ

Here we list some frequently asked questions and answers relating to the tool.

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

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

Question: Screen of main unit flashes at engine ignition start.

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

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

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

Question: Why are there so many fault codes?

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



**Warranty**

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

**Order Information**

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

Quantity

Part number

Item description

**Customer Service**

If you have any questions on the operation of the unit, please contact local dealer, or contact LAUNCH TECH. CO., LTD:

Tel: 86-755-84528767

E-mail: X431@cnlaunch.com

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