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- There is a possibility that this unit is inapplicable to some of the vehicle models or systems listed in the diagnosis section due to different countries, areas, and/or years. Do not hesitate to contact LAUNCH if you come across such questions. We are to help you solve the problem as soon as possible.

Disclaimer

- To take full advantage of the unit, you should be familiar with the engine.
- All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication. The right is

reserved to make change at any time without notice.

Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and/or the CreaderV, please read this instruction 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 CreaderV dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the CreaderV, when necessary.

Table of Contents

1. INTRODUCTION

CreaderV is newly developed by LAUNCH, specially designed for car owners or DIYs to diagnose any vehicle that is compliant to OBDII/EOBD. It not only can read/clear DTCs, but also can read live data in 2 modes, and perform many special tests. Tri-languages make it operation easily for a technician. The feature of upgrading online ensures it can test new model cars and/or functions in the future.

NOTICE: CREADERV MAY AUTOMATICALLY RESET WHILE BEING DISTURBED BY STRONG STATIC ELECTRICITY. IT IS NORMAL.

2. General Information-About OBDII/EOBD

2.1 On-Board Diagnostics (OBD) II

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

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

   1) Whether the Malfunction Indicator Light (MIL) is

commanded 'on' or 'off';
2) Which, if any, Diagnostic Trouble Codes (DTCs) are stored;
3) Readiness Monitor status.

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 other four characters, all numbers, provide additional information on where the DTC originated and the operating conditions that caused it to set. Here below is an example to illustrate the structure of the digits:

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DTC Example
P 0 2 0 2

Systems	Identifying specific
P=Powrtrain	malfunctioning section
B=Body	of the systems
C=Chassis	
U=Network	

Code Type	**Sub-systems**
Generic(SAE)	1=Fuel and air metering
P0,P2,P34-P39	2=Fuel and air metering
B0,B3	3=Ignition system or misfire
C0,C3	4=Auxiliary emission controls
U0,U3	5=Vehicle speed,idle control, and
Manufacturer Specific:	auxiliary inputs
P1,P30-P33	6=Computer and auxiliary outputs
B1,B2	7=Transmission
C1,C2	8=Transmission
U1,U2	9=Transmission

2.3 Location of the Data Link Connector (DLC)

The DLC (Data Link Connector or Diagnostic Link Connector) is the standardized 16-cavity 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

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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.
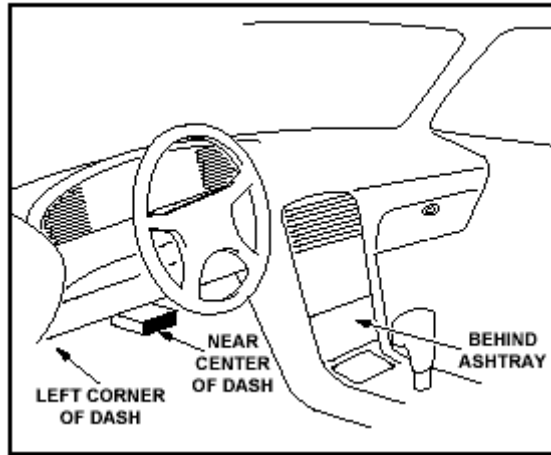
2.4 OBD II Readiness Monitors

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) O2 Sensors
3) Catalyst
4) Evaporative System
5) O2 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

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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) -- 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.

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

Freeze Frame Data -- When an 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 too 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.

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3. Product Descriptions

3.1 Outline of CReaderV

① **Cable with OBD II CONNECTOR** -- Connects the CReaderV to the vehicle's Data Link Connector (DLC).
② **LCD DISPLAY** -- Indicates test results.
③ **EXIT BUTTON** -- Returns to previous menu.
④ **UP/DOWN BUTTONs** – Move cursor up or down for selection; or turn page up or down when more one page displayed
⑤ **ENTER BUTTON**--Confirms a selection (or action) from a menu list
⑥ **USB PORT** -- Connects to computer to update the CReaderV online.

3.2 Specifications

1) Display: Backlit, 160 x 160 pixels
2) Operating Temperature: 0 to 60°C (32 to 140 F°)
3) Storage Temperature: -20 to 70°C (-4 to 158 F°)
4) Power: 8 to 18 Volts provided via DLC
5) Unit Dimensions: 126 mm $\times$ 88 mm $\times$ 22 mm (0.80") （Length×Width×Thickness）
6) Test Cable length: 0.9m

3.3 Accessories Included

1) User's Manual -- Instructions on tool operations
2) USB cable--Connect to a computer for upgrading online

3.4 Power supply

The power of the CreaderV is provided via the vehicle Data Link Connector (DLC). Follow the steps below to power it up:
1) Find DLC on vehicle
   A plastic DLC cover may be found for some vehicles and you need to remove it before plugging the OBDII cable.
2) Plug the connector at the end of OBD II cable to the vehicle's DLC.

3.5 Tool Setup and self test

Select [Tool Setup] in the Main Menu and press [↵], the screen will display the interface as shown below:

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```
┌─────────────────────────────────────┐
│ ▌System Setting                      │
│  ▶ Adjust Contrast                   │
│    Select Language                   │
│    Unit of Measure                   │
│    Self Test                         │
│                                      │
│                                      │
│  Press ▲ or ▼ to select item,        │
│  then press ↵ to confirm.            │
│  Press ◄◄ to exit.                   │
└─────────────────────────────────────┘
```
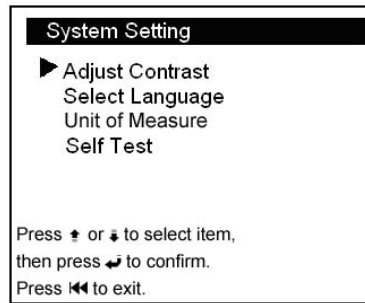
The CReaderV allows you to make the following adjustments, settings and self-test:

1) **Adjust Contrast:** Adjust the contrast of the LCD display
Choose [Adjust Contrast] and press [↵], the screen will display the interface as shown below:

```
┌─────────────────────────────────────┐
│ ▌Adjust Contrast                     │
│                                      │
│               35%                    │
│                                      │
│                                      │
│                                      │
│  Press ▲ to inc.                     │
│  Press ▼ to dec.                     │
│  Press ↵ to affirm.                  │
│  Press ◄◄ to exit.                   │
└─────────────────────────────────────┘
```
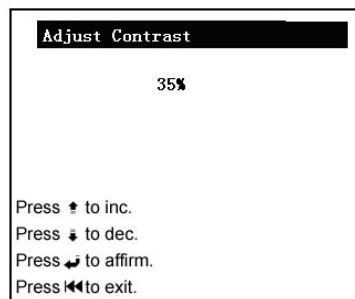
In the [Adjust Contrast] interface, you can adjust the contrast of screen. Press [▲] to increase contrast or press [▼] to decrease contrast according to you desired.

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2) **Select Language:** Selects desired language.
Choose [Select Language] and press [↵], the screen will display the interface as shown below:

```
┌─────────────────────────────────┐
│ ■Select Language                │
│  ▶ English                       │
│    French                        │
│    Spanish                       │
│                                  │
│                                  │
│ Press ↑ or ↓ to select item,     │
│ then press ↵ to confirm.         │
│ Press ◄◄ to exit.                │
└─────────────────────────────────┘
```

You can press [↑] [↓] key to choose English, French or Spanish. And then you press[↵] to confirm. The system will convert to the chosen language interface at once.

3）**Unit of Measure**: USA or metric
Choose [Unit of Measure] and press [↵], the screen will display the interface as shown below:

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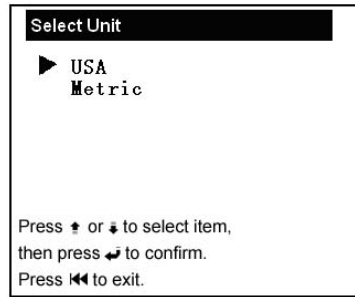
Press [↥] or [↧] to select unit and press [↵] to confirm.

4) **Self test:** Test buttons and LCD operation.
In the [Self Test] interface, you can do LCD Test and Buttons Test.
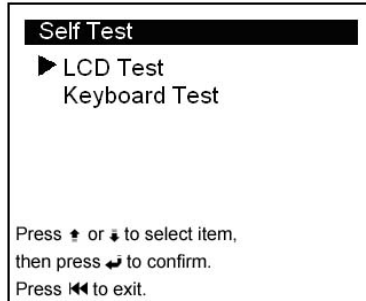
Select [LCD Test] and press [↵] to enter the LCD test interface as shown below:

```
LCD Test

Check LCD carefully.




Press |◀◀ to Exit
```
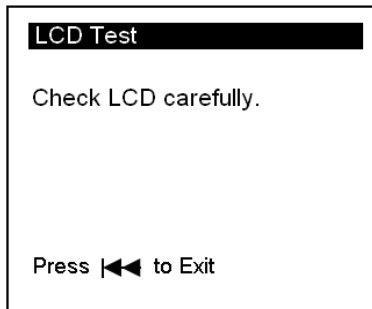
And then the screen will display with a dark background automatically. You can see if there is hot pixel against the dark background.

After check is complete, please press [|◀◀] to return to the previous interface. And choose [Keyboard Test], press [↵] to perform keyboard test.

```
Keyboard Test




Press a key. The icon will
display.

Press |◀◀ to Exit
```
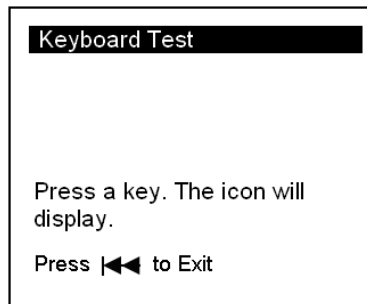
You can press [⬆], [⬇] or [↵]. If they appear on the screen, it indicates that the Button is normal and you can use them for testing.
If there isn't any icon appearing on the screen, please contact Launch for repair.

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After all the operation is complete, Press [⏮] to return to Main Menu and end the test.

3.6 Vehicle Coverage

The CReaderV is specially designed to work with all OBD II compliant vehicles, including Control Area Network (CAN). It is required by EPA that all 1996 and newer vehicles (cars and light trucks) sold in the United States must be OBD II compliant and this includes all American, Asian and European vehicles.

A small number of 1994 and 1995 model year gasoline vehicles are OBD II compliant. To verify if a 1994 or 1995 vehicle is OBD II compliant, check the Vehicle Emissions Control Information (VECI) Label, which is located under the hood or by the radiator of most vehicles. If the vehicle is OBD II compliant, the label will designate "OBD II Certified". Additionally, Government regulations mandate that all OBD II compliant vehicles must have a "common" sixteen-pin Data Link Connector (DLC).

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

4. OPERATION

4.1 Connection

1) Turn the ignition off.
2) Locate the vehicle's 16-pin Data Link Connector (DLC).
3) Plug the OBDII cable into the vehicle's DLC.
4) Turn the ignition on. Engine can be off or running.
5) When the unit displays start interface, press [⏮] button to enter **Main Menu** as following figure:

```
┌────────────────────────────────────┐
│ Main Menu                          │
│                                    │
│   ▶ Diagnostic Codes               │
│     Data Stream                    │
│     Special Tests                  │
│     Code Lookup                    │
│     Tool setup                     │
│                                    │
│                                    │
│                                    │
│ Press ↕ or ↕ to select item,       │
│ then press ↵ to confirm.           │
└────────────────────────────────────┘
```
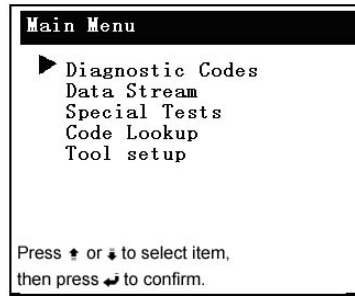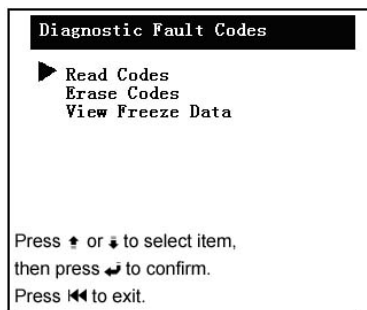
CAUTION: Don't connect or disconnect any test equipment with ignition on or engine running.

4.1 Diagnostic Codes

Select [Read Codes] in **Main Menu** and press [↵], the Screen will display as following figure:

```
┌────────────────────────────────────┐
│ Diagnostic Fault Codes             │
│                                    │
│   ▶ Read Codes                     │
│     Erase Codes                    │
│     View Freeze Data               │
│                                    │
│                                    │
│                                    │
│                                    │
│ Press ↕ or ↕ to select item,       │
│ then press ↵ to confirm.           │
│ Press ◄◄ to exit.                  │
└────────────────────────────────────┘
```

4.1.1 Read Codes

Select [Read Codes] and press [↵]. If there are some codes, the

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screen will display the codes as shown below:

```
┌──────────────────────────────────────┐
│ ████████████████████████████████     │
│ Diagnostic Codes                      │
│                                       │
│ P 0100               01/06            │
│                                       │
│ (MAF) Mass Air Flow or                │
│ (VAF) Volume Air Flow                 │
│ Sensor -Circuit                       │
│ Malfunction                           │
│                                       │
│ Press ↑ or ↓ to select item,          │
│ then press ↵ to confirm.              │
│ Press ◄◄ to exit.                     │
└──────────────────────────────────────┘
```
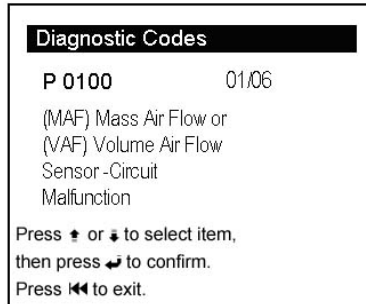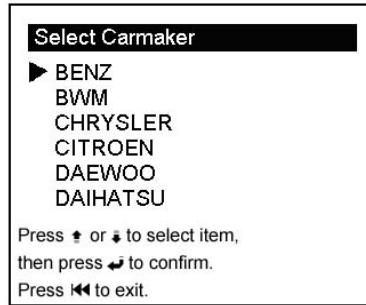
01/06 indicates that there are 6 codes totally, and now P0100 is the first code to display.
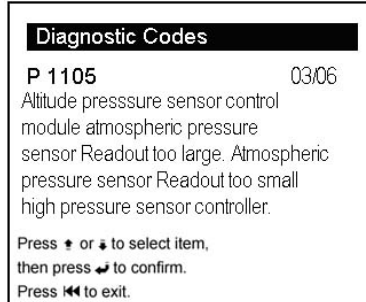The screen will also show the content of the code below the number of code.
You can use [↓] key to view the next code. When there is a manufacturer-defined code, it will display as below:

```
┌──────────────────────────────────────┐
│ ████████████████████████████████     │
│ Diagnostic Codes                      │
│                                       │
│ P 1105               03/06            │
│                                       │
│                                       │
│                                       │
│                                       │
│ This DTC defined by carmaker.         │
│ Please select carmaker.               │
│ Press ↵ to continue.                  │
└──────────────────────────────────────┘
```
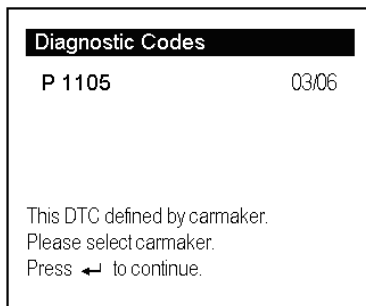
Press [↵] to enter the next interface as shown below:

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```
┌─────────────────────────────────────┐
│ ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ │
│ Select Carmaker                     │
│   ▶ BENZ                            │
│     BWM                             │
│     CHRYSLER                        │
│     CITROEN                         │
│     DAEWOO                          │
│     DAIHATSU                        │
│                                     │
│ Press ♦ or ♦ to select item,        │
│ then press ↵ to confirm.            │
│ Press ◄◄ to exit.                   │
└─────────────────────────────────────┘
```

Now you can use [⬆] [⬇] key to move the cursor (>) to select the carmaker to which the code belong. We choose [BENZ] to view the definition:

```
┌─────────────────────────────────────┐
│ ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ │
│ Diagnostic Codes                    │
│ P 1105                      03/06   │
│ Altitude presssure sensor control   │
│ module atmospheric pressure         │
│ sensor Readout too large. Atmospheric│
│ pressure sensor Readout too small   │
│ high pressure sensor controller.    │
│                                     │
│ Press ♦ or ♦ to select item,        │
│ then press ↵ to confirm.            │
│ Press ◄◄ to exit.                   │
└─────────────────────────────────────┘
```
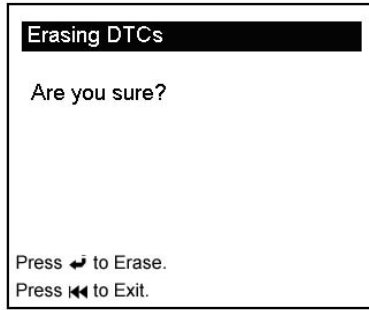
After viewing the manufacturer-defined codes, you can press [⬇] key to view the next codes.
After viewing all the codes, you can press [◄◄] to return to the Diagnostic Codes Menu.
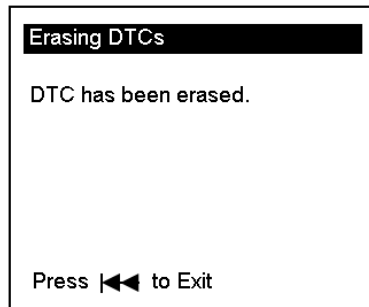
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4.1.2 Erase Codes

Select [Erase Codes], the screen will display the interface as shown below:

```
┌─────────────────────────────┐
│ Erasing DTCs                 │
│                             │
│  Are you sure?              │
│                             │
│                             │
│                             │
│                             │
│                             │
│ Press ↵ to Erase.           │
│ Press ⏮ to Exit.            │
└─────────────────────────────┘
```

Press [↵] to erase DTCs, and the screen will display the interface as shown below:

```
┌─────────────────────────────┐
│ Erasing DTCs                 │
│                             │
│ DTC has been erased.        │
│                             │
│                             │
│                             │
│                             │
│   Press ⏮  to Exit          │
└─────────────────────────────┘
```

Notes:
- *Before performing this function, make sure to retrieve and record the*

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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 for hard troubles, please find the reason caused the trouble code firstly, and then solve the problem. Now, the trouble codes can be erased.*

4.1.3 View Freeze Data

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. View Freeze Data is a snapshot of the operating conditions at the time of an emission-related fault.

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

Select [View Freeze Data], the screen will display the interface as shown below:

```
┌─────────────────────────────┐
│ Freeze Data                 │
│ Trouble Code                │
│             P0157           │
│ Calculated Load             │
│             13.1%           │
│ Coolant TEMP                │
│             85 ℃            │
│ Intake M.A.P                │
│             42Kpa           │
│ Engine Speed                │
│             850rpm          │
│ Vehicle Speed               │
│             68KM/H          │
└─────────────────────────────┘
```
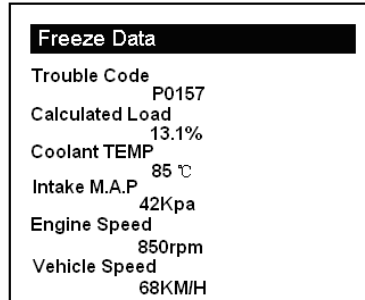
You can use [⬆] [⬇] button to view the data.
Press [◀◀] to return to Main Menu.

4.2 Data Stream

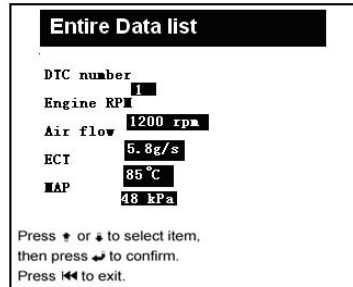Press [⬆] or [⬇] button to select **Data Stream** in **Main Menu**

interface and then press [⏎] button to confirm, the screen will display the interface as shown below:

```
┌────────────────────────────────┐
│ Live Data                      │
│                                │
│ ▶  Entire Data List            │
│    Custom Data List            │
│                                │
│                                │
│                                │
│ Press ↑ or ↓ to select item,   │
│ then press ↵ to confirm.       │
│ Press ◄◄ to exit.              │
└────────────────────────────────┘
```
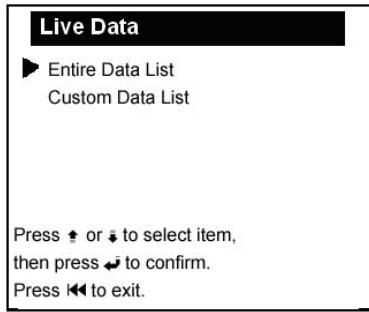
You can view all data stream items or select a certain item of live data with a graph.

4.2.1 Entire Data list

Select **Entire Data list** and press [⏎] button to confirm, the screen will display the interface as shown below:

```
┌────────────────────────────────┐
│ Entire Data list               │
│                                │
│ DTC number                     │
│              1                 │
│ Engine RPM                     │
│         1200 rpm               │
│ Air flow                       │
│        5.8g/s                  │
│ ECT                            │
│        85 °C                   │
│ MAP                            │
│        48 kPa                  │
│ Press ↑ or ↓ to select item,   │
│ then press ↵ to confirm.       │
│ Press ◄◄ to exit.              │
└────────────────────────────────┘
```
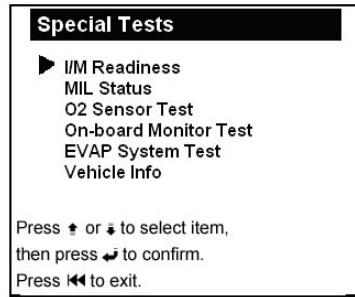
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4.2.2 Custom Data list

Select **Custom Data list** and press [⏎] button to confirm, a tips window will be displayed that tells you how to select, after you select one live data desired and press [⏎] button, the window will be like as shown below:
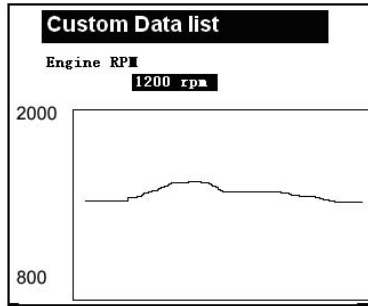
Upper is live data name/value, lower is a graph of engine speed variation.

4.3 Special Tests

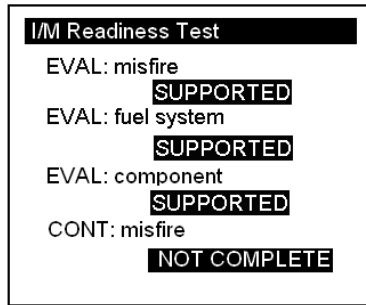Select **Special Tests** in **Main Menu** and press [⏎], then the screen will display the interface as shown below:

```
Special Tests

▶ I/M Readiness
  MIL Status
  O2 Sensor Test
  On-board Monitor Test
  EVAP System Test
  Vehicle Info


Press ↑ or ↓ to select item,
then press ↵ to confirm.
Press I◀◀ to exit.
```

4.3.1 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 2.5), and which ones have not yet run and completed testing and diagnosis of their designated sections of the vehicle's emissions system.

The 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.

Select [I/M Readiness Test] and click[↵], the screen will display the interface as shown below:

```
┌─────────────────────────────────────┐
│ I/M Readiness Test                   │
│   EVAL: misfire                      │
│              SUPPORTED               │
│   EVAL: fuel system                  │
│              SUPPORTED               │
│   EVAL: component                    │
│              SUPPORTED               │
│   CONT: misfire                      │
│              NOT COMPLETE            │
└─────────────────────────────────────┘
```

You can use [⬆] [⬇] key to view other data of vehicle.

4.3.2 MIL Status

MIL Status indicates the status of malfunction indicator lamp (MIL). The MIL on vehicle will be light only when there are DTCs.
Select [MIL Status] and press [⏎], the screen will display MIL status.

4.3.3 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. If the vehicle or a particular sensor does not support this feature, the screen list will be blank.
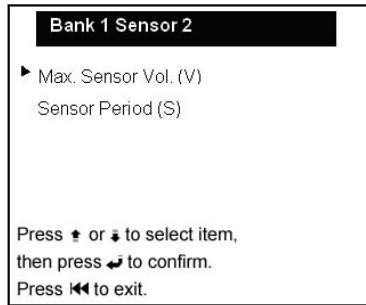For results of latest mandated on-board oxygen sensor monitoring test, see Figure below:

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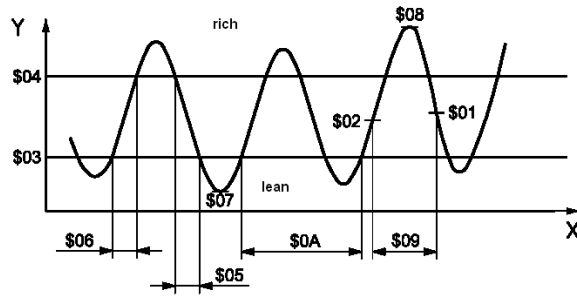
Select O2 **sensor test** in **Special Tests** menu and press [⏎] and the
screen will display as shown below:
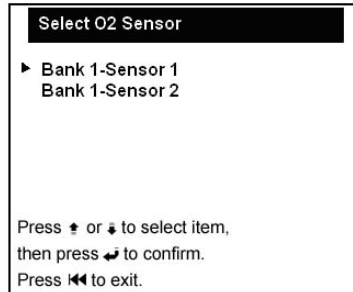
Press [⬆] [⬇] button to select a sensor and press   [⏎], the screen
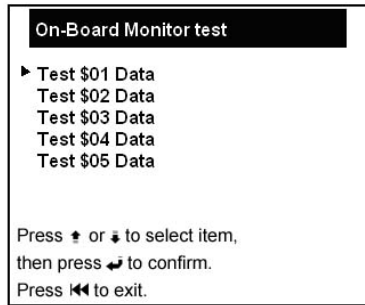will display as shown below:

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In this window, there are two items: Max sensor voltage (V) and Sensor Period (S), you can use[⬆] [⬇] button to select a item and press [↩],
the screen will display as shown below:
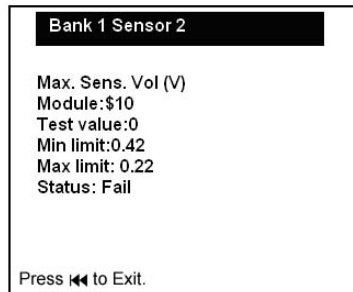
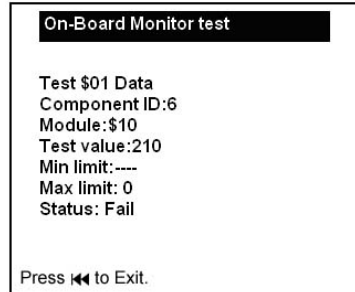## 4.3.4 On-board monitor test

This function can be utilized to read the results of on-board diagnostic monitoring tests for specific components/systems.
Select **On-board monitor test** in **Special Tests** menu and press [↩]
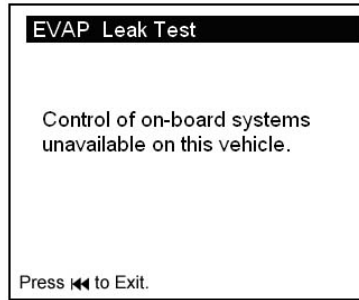and the screen will display as shown below:

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You can use [⬆] [⬇] button to select a item and press [↵], the screen will display as shown below:
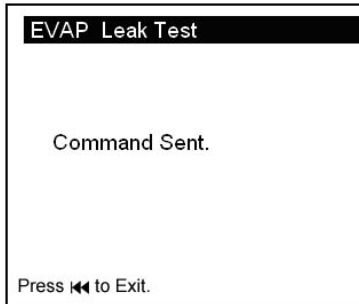

4.3.5 EVAP system test

The EVAP test function lets you initiate a leak test for the vehicle's EVAP system. The CreaderV does not perform the leak test, but signals to vehicle's on-board computer 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.

Select [EVAP System Test] and press [⏎], the screen will display the relative information about EVAP system. Some vehicle manufacturers do not allow external devices to control vehicle system. If the car doesn't support this function, it may display as below:

```
┌────────────────────────────┐
│ ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓       │
│ EVAP Leak Test             │
│                            │
│                            │
│  Control of on-board systems│
│  unavailable on this vehicle.│
│                            │
│                            │
│                            │
│                            │
│ Press ◄◄ to Exit.          │
└────────────────────────────┘
```

If the vehicle's supports this function, it may display as below:

```
┌────────────────────────────┐
│ ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓       │
│ EVAP Leak Test             │
│                            │
│                            │
│    Command Sent.           │
│                            │
│                            │
│                            │
│                            │
│ Press ◄◄ to Exit.          │
└────────────────────────────┘
```
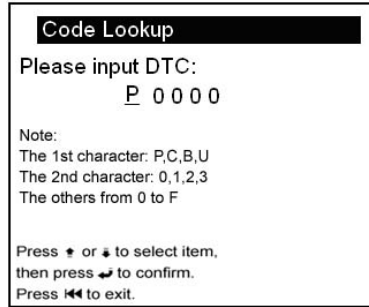
4.3.6 Vehicle Info

Select [Vehicle Info] and press [⏎], the screen will display the formation such as VIN (Vehicle identification Number), CID (Calibration

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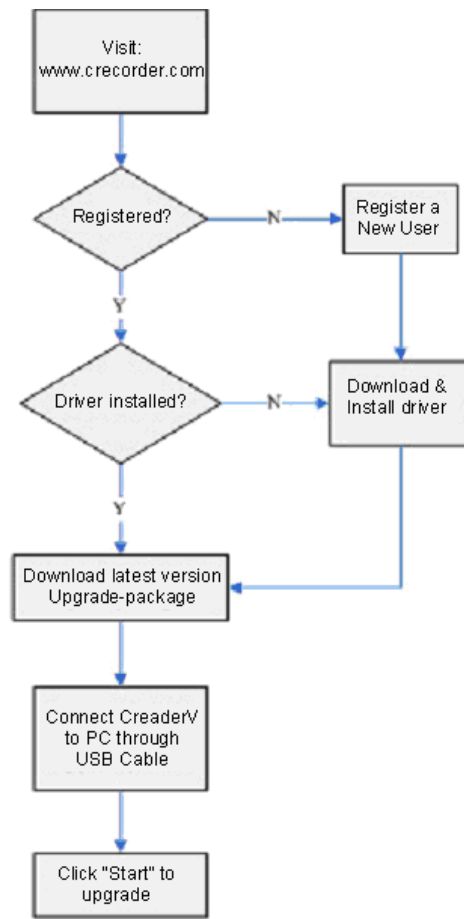ID) and CVN (Calibration verify number).

4.4 Code Lookup

Select [Code Lookup] in the Main Menu and press [⏎] and the screen will display the interface as shown below:

```
┌─────────────────────────────────────────┐
│ Code Lookup                              │
│ Please input DTC:                        │
│              P 0 0 0 0                    │
│                                          │
│ Note:                                    │
│ The 1st character: P,C,B,U               │
│ The 2nd character: 0,1,2,3               │
│ The others from 0 to F                   │
│                                          │
│                                          │
│ Press ♦ or ♦ to select item,            │
│ then press ↵ to confirm.                 │
│ Press ◄◄ to exit.                        │
└─────────────────────────────────────────┘
```

You can use [⬆] [⬇] key to change the first letter. It can be switched among "P", "B", "C" and "U". And press [⏎] moves the cursor to next. And then press [⬆] [⬇] key to input number. After you input the code number, press [⏎] to view the definition of the code.
After viewing the definition, press [◄◄] to return to the Main Menu.

5. Upgrading

5.1 CreaderV upgrading flow

Visit:
www.crecorder.com

Registered? — N → Register a New User

Y

Driver installed? — N → Download & Install driver

Y

Download latest version Upgrade-package

Connect CreaderV to PC through USB Cable

Click "Start" to upgrade

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5.2 User registration

As you buy a CreaderV, please visit www.crecorder.com to register, only after successfully registered, you can logon at the site and can download the CreaderV driver & latest version program of CreaderV.

5.3 Driver download & installation

5.3.1 Driver download

Log on www.crecorder.com，download CreaderV driver, and then unzip it to local disk.

5.3.2 Install driver

When you connect CreaderV with PC first time, the following window will appear:

After a while, then the following window will appear:

Please click "Next", enter the following window:
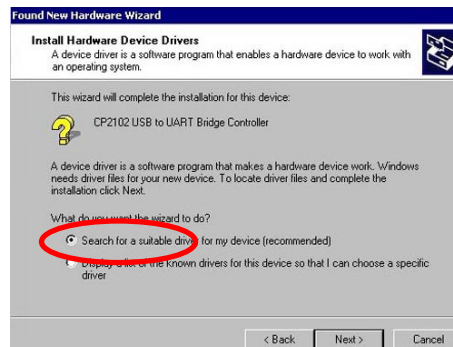
Select "Search for a suitable driver for my device (recommended)" and click "Next→"
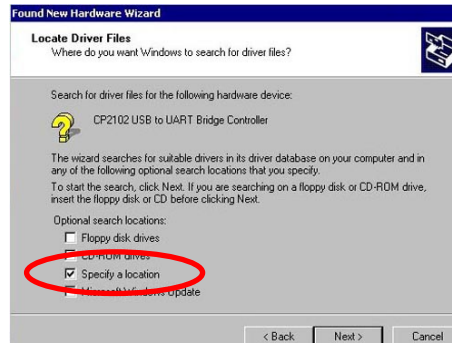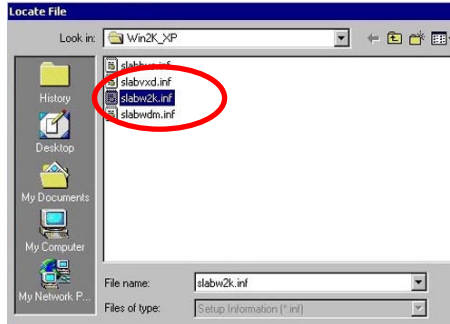
Select "Specify a location", and click "Next➔",

You can input the direction of driver saved or click "Browse…" to search it, as following figure:
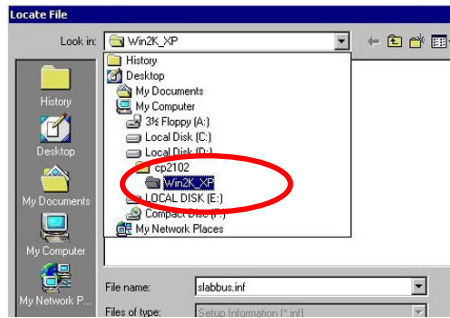
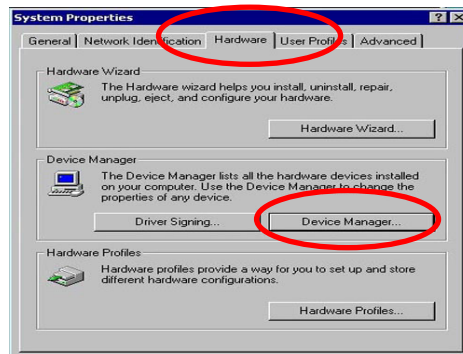Click "OK",

Select "slabw2k.inf"，click "OK"，

Click "Next→",

Click "Finish", CreaderV driver installation is finished.
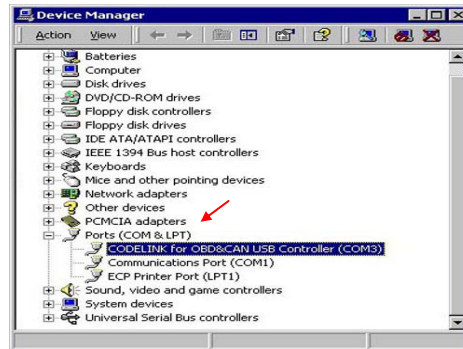
5.4 COM PORT

Connect CreaderV to locate which COM Port no. in computer that belong to CreaderV, please perform the followings:

Back to window desktop, right click 'My computer' and select 'Properties' in the pop-up menu, a dialog box will appear:

Click 'Hardware', and then 'Device Manager', another dialog box will pop-up shown below:

Click 'Port (COM & LPT)' you will see **'CODELINK for OBD&CAN USB Controller (COM3)'** the CreaderV has been connected at COM3.

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5.4.1 Upgrading

Log on www.crecorder.com，download latest version CreaderV program upgrade-package and unzip it to local disk.

Connect the CreaderV to computer through USB cable and Open the CreaderV Upgrade.exe, The following box will appear:
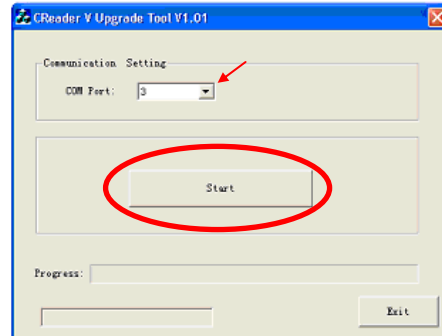
Select the COM Port no. using the pull-down menu, which belong to CreaderV (see 5.4 COM PORT).

Click "Start", when a message of upgrading succeed pops out, unplug USB cable. Upgrading ends.

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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.

Disclaimer

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Order Information

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:
1.   Quantity
2.   Part number
3.   Item description

Customer Service

If you have any questions on the operation of the unit, please contact us:
Tel: 86-755-84528431/84528822
E-mail: X431@cnlaunch.com

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is determined to be in warranty, it will be repaired or replaced at no charge. If the unit is determined to be out of warranty, it will be repaired for a nominal service charge plus return freight. Send the unit pre-paid to:

   Attn: Customer Service Department
LAUNCH TECH. CO., LTD.
Launch Industrial Park,
North of Wuhe Avenue,
Banxuegang, Bantian,
Longgang, Shenzhen, Guangdong
P.R. China, 518112

Statement

LAUNCH reserves the rights to make any change to product designs and specifications without notice. The actual object may differ a little from the descriptions in the manual in physical appearance, color and configuration. We have tried our best to make the descriptions and illustrations in the manual as accurate as possible, and defects are inevitable, if you have any question, please contact local dealer or after-sale service center of LAUNCH, LAUNCH does not bear any responsibility arising from misunderstandings.