

# Launch Creader 319 Manual

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- z Other product names used herein are for identification purposes only and may be trademarks of their respective owners. LAUNCH disclaims any and all rights in those marks.
- z 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

- z To take full advantage of the unit, you should be familiar with the engine.
- z 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.
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## Safety Precautions and Warnings

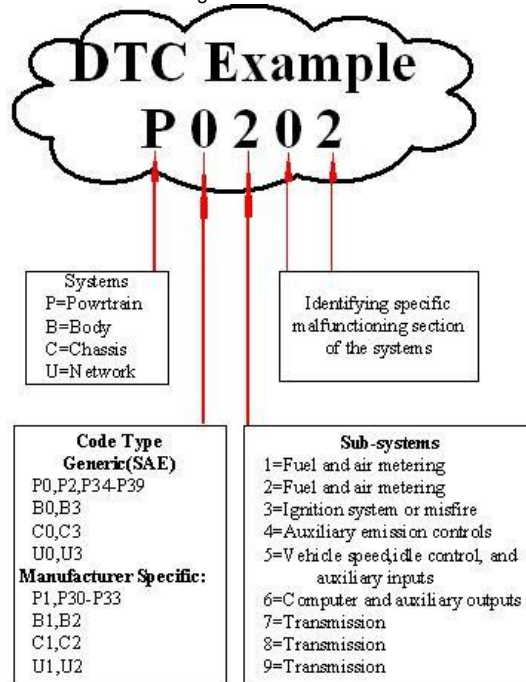
**To prevent personal injury or damage to vehicles and/or the Creader 319, please read this user's manual first carefully and observe the following safety precautions at a minimum whenever working on a vehicle:**

- z Always perform automotive testing in a safe environment.
- z 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.
- Z Wear safety eye protection that meets ANSI standards.
- Z Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Z Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.
- Z Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Z 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.
- Z Put the transmission in P (for A/T) or N (for M/T) and make sure the parking brake is engaged.
- Z Keep a fire extinguisher suitable for gasoline/chemical/ electrical fires nearby.
- Z Don't connect or disconnect any test equipment while the ignition is on or the engine is running.
- Z Keep the Creader 319 dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the Creader 319, when necessary.

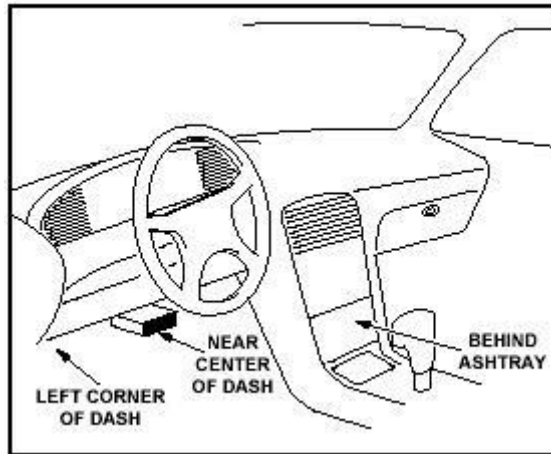
### 2.2 Diagnostic Trouble Codes (DTCs)

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:



### 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 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 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. 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



### 3.2 Specifications

- 1) Screen: 2.8" TFT 262K true color, 320\*240 QVGA LCD display
- 2) Input voltage range: 8~32V
- 3) Operating current: <100mA@12V (Typical)
- 4) Power consumption: <1.2W (Typical)
- 5) Operating temperature: 32°F~122°F / 0°C~50°C
- 6) Storage temperature: -4°F~158°F / -20°C ~70°C @ RH60%
- 7) Outline dimension: 4.7\*3.2\*1.0' / 121\*82\*26 mm LWH
- 8) Weight : <17.6 oz (500g)

### 3.3 Power supply

The power of the Creader 319 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.

### 3.4 Tool Setup

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



The Creader 319 allows you to make the following adjustments, settings:

1) **Select language:** Selects desired language.  
Choose [Language] and press[ok] he screen will display the interface as shown below:



Figure 3-3

You can press [↑] key to select any language and press [ok] confirm. The system will convert to the chosen language interface at once.

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 the 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.



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

#### 4.2 Diagnostic

Select [Diagnostic] in **Main Menu** and press [OK] when screen will display Monitor Status interface as following



figure 4-3

Press [ ← ] to back to the Main Menu of Diagnostic, the screen will display as following figure 4-4:

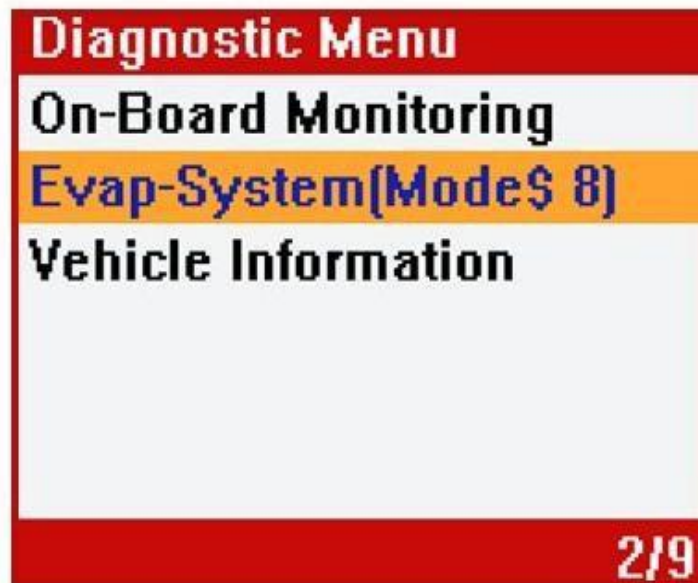


Figure 4-4

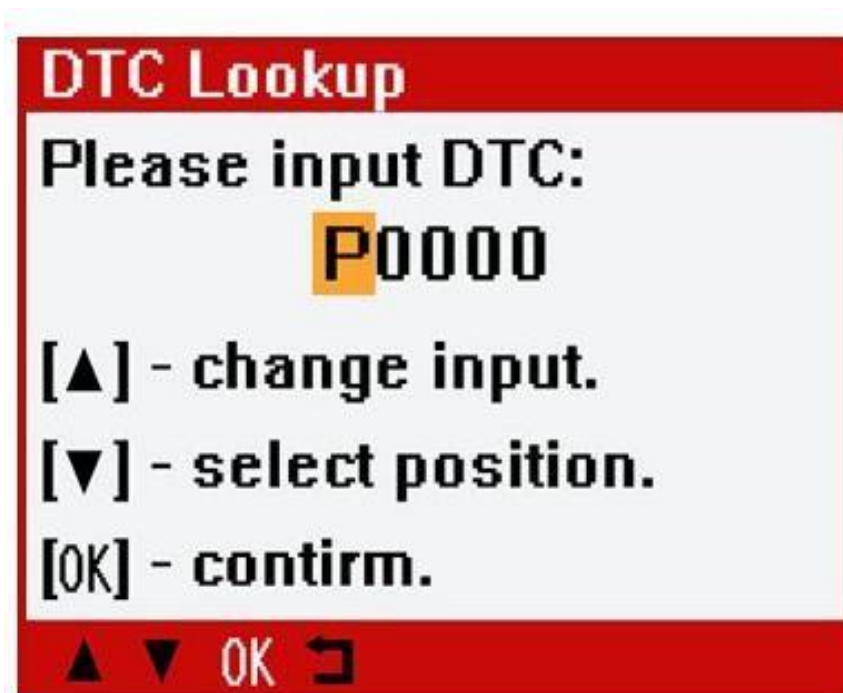


Figure 4-5

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 [↩] return to the Main Menu.

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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:

1. Quantity
2. Part number
3. 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:

Email: sales-launchx431@outlook.com