



# LAUNCH OCP-349702A Creader Professional Diagnostic Tool User Manual

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## LAUNCH OCP-349702A Creader Professional Diagnostic Tool User Manual

### WARNING

Read this material before using this product.

Failure to do so can result in serious injury.

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## Disclaimer of Warranties and Limitation of Liabilities

- All information, illustrations, and specifications in this manual are based on the latest information available at the time of publication.
- The right is reserved to make changes at any time without notice. We shall not be liable for any direct, special, incidental, indirect damages or any economic consequential damages (including the loss of profits) due to the use of the document.
- To take full advantage of the unit, you should be familiar with the engine.
- LAUNCH shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original LAUNCH Products or LAUNCH Approved Products by LAUNCH.

## 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:**

- There are no user serviceable parts. Have the device serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the device is maintained. Disassembling the device will void the warranty right.
- **Caution:** This tool contains an internal Lithium Polymer battery. The battery can burst or explode, releasing hazardous chemicals. To reduce the risk of fire or burns, do not disassemble, crush, pierce or dispose of the battery in fire or water.
- This product is not a toy. Do not allow children to play with or near this item.
- Do not expose the device to rain or wet conditions.
- Do not place the device on any unstable surface.
- Never leave the device unattended during charging process. The device must be placed on a non-flammable surface during charging.
- Handle the device with care. If the device is dropped, check for breakage and any other conditions that may affect its operation.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.
- 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 device when necessary.
- People with pacemakers should consult their physician(s) before use.  
Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- 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.

## Compliance Information

### FCC ID: XUJOC349702

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement.

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with an accessory designated for this product or when used with an accessory that Contains no metal.

This device was tested for typical operations 0mm from the body. To maintain compliance with FCC RF exposure requirements, 0mm separation distance should be maintained to the user's bodies. This device is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive 2014/53/EU. The RF frequencies can be used in Europe without restriction.

## Overview

### Vehicle Coverage

This diagnostic tool is specially designed to work with all OBD II compliant vehicles, including Controller Area Network (CAN).

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 following:

1. Vehicle Emissions Control Information (VECI) Label. It 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.
2. Government regulations mandate that all OBD II compliant vehicles must have a "common" 16-pin Data Link Connector (DLC).

**Note:** Some 1994 and 1995 vehicles have 16-pin connectors but are not OBD II compliant. Only those vehicles with a Vehicle Emissions Control Label stating OBD II Certified are OBD II compliant.

## **On-Board Diagnostics (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, which will offer three pieces of such valuable information:

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

## **OBD II Definitions**

The following terms and their definitions are related to OBD II systems. Read and reference this list as needed to aid in the understanding of OBDII systems.

**EOBD** – European On-Board Diagnostics. Essentially the same as OBD II, with the same Data Link Connector and Communication Protocols.

**Communication Protocols** – Allows different systems and sensors in a vehicle to communicate. There are currently five protocols:

CAN Bus

J1850 VPW

ISO 9141-2

J1850 PWM

ISO 14230 KWP

**Powertrain Control Module (PCM)** – The PCM is the OBD II accepted term for the vehicle’s “on-board computer.” In addition to controlling the engine management and emissions systems, the PCM also participates in controlling the powertrain (transmission) operation. Most PCMs also have the ability to communicate with other computers on the vehicle (ABS, ride control, body, etc.).

**DLC** – Data Link Connector. The 16-cavity connector on the vehicle that allows communication between the computer system and the diagnostic tool.

**MIL** – Malfunction Indicator Light. The vehicle’s “Check Engine” warning light that activates when a DTC is stored.

**DTC** – Diagnostic Trouble Code. A code stored in the computer system’s memory, which helps to identify the fault condition that is causing the MIL to activate.

**Freeze Frame Data** – Operating conditions that are stored when a DTC is stored.

**PID** – Parameter Identification Data. Data returned by the vehicle’s control modules to the diagnostic tool.

**Monitors** – Monitors are “diagnostic routines” programmed into the PCM. The PCM utilizes these programs to run diagnostic tests, and to monitor operation of the vehicle’s emissions-related components or systems to ensure they are operating correctly and within the vehicle’s manufacturer specifications.

**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.

**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.

**Note:** Do not confuse a “Trip” Drive Cycle with an OBD II Drive Cycle. A “Trip” Drive Cycle provides the “Enabling Criteria” for one specific Monitor to run and complete its diagnostic testing. An OBD II Drive Cycle must meet the “Enabling Criteria” for all Monitors on a particular vehicle to run and complete their diagnostic testing.


**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.

## Diagnostic Trouble Codes (DTCs)

A DTC is a five digit alphanumeric identifier for a fault condition identified by the OBD II system. There are three types of DTCs:

1. **Pending** – when a fault condition is identified during a Drive Cycle, but does not meet enough criteria to activate the MIL.
2. **Stored** – A DTC is stored when a fault condition has occurred that meets enough criteria to activate the MIL.
3. **Permanent** – A stored DTC that can only be cleared by the OBD II system, after repairs are made, and a set number of Driving Cycles have been completed.

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:

	<a href="#">LAUNCH OCP-349702A Creader Professional Diagnostic Tool</a> [pdf] User Manual OCP349702, XUJOCP349702, OCP-349702A Creader Professional Diagnostic Tool, OCP-349702A, Creader Professional Diagnostic Tool, Professional Diagnostic Tool, Diagnostic Tool, Tool
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## References

- [User Manual](#)

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