

## Intro to Car Computer – OBD

Computers are now on almost every car and are developing more and more functions every year. If a problem arises the computer will record and illuminate a light on the dashboard which alerts the operator that something is or maybe wrong. This alert provides the operator an early warning of problems which protects the environment but also the operator from costly repair bills.

On Board Diagnostic (OBD) refers to a vehicles computer that deals with self diagnostics. OBD is the set of data codes that records engine functions and diagnose engine problems. Someone working on the vehicle can access the data codes that arise through a link to the OBD and a hand held scanner that read the code into words.

The data provided by the OBD can often pinpoint the specific component that has malfunctioned, saving substantial time and cost compared to guess and replace repairs. The data codes show you things like knock sensor operations, ignition voltage, individual cylinder misfires, ABS brake condition, and many other sensors. There can be over 300 readings available depending on the vehicle manufacturer and model. Software is needed to interpret those codes and convert them into meaningful information that can be used to figure out what is wrong with a car, how to fix it and more.

The Clean Air Act was passed by Congress in 1970 and that established the Environmental Protection Agency (EPA). This agency made a quality of emission standards and requirements. The OBD was invented for the purpose of discovering potential failures, reduce emissions, and provide quick diagnostic help. There are two types of OBD:

1. OBD
2. OBD II

In the early 1970s, OBD was the first set of diagnostic data that dealt with emissions, but they had troubles in that the problem would occur, than the light would illuminate; which would make it sometimes too late to address the problem.

So OBD II was the newer improved version that had more data as well as connectors to suit the diversity of computers in different makes of cars. Now every car that is produced since 1996 has the standard OBD II. The Data Link Connector (DLC) is the connector that a scanner would hook up to read the data the computer compiled. The DLC is usually located on the left hand of the steering wheel under the dash.