

## **What does it mean when your check engine light is on**

It means your vehicle's onboard computer system or (OBD system) has self-diagnosed some kind of problem. The "Check Engine" light, which is also called a "Malfunction Indicator Lamp" (MIL) or "Service Engine Soon" (SES) lamp, is there to signal you when a problem occurs that may require attention. This can include anything from a momentary hiccup that has little or no noticeable affect on engine performance or driving safety to a failure of a major electronic component. There's no way to know what the light means without running a diagnostic scan on the system to determine the nature of the fault.

As a rule, a continuous Check Engine light usually signals a "hard fault" or failure that has occurred. If the light comes on and off, or only blinks momentarily, the problem may be minor or intermittent in nature.

To help identify the problem, it helps to make a mental note of the conditions that occurred when the light came on. Where you driving at a certain speed? Accelerating or slowing down? Shifting gears?

Onboard diagnostic systems are very complex and require a fair amount of expertise as well as special tools to troubleshoot. To find out what's wrong, a technician has to "get into" your system through a diagnostic connector, which may be located under the dash, under the driver's seat or in the engine compartment. The diagnostic connector serves as a port of entry for accessing information and/or for putting your vehicle's computer system into a special diagnostic mode for further testing or displaying "fault codes".

Fault codes are numeric codes that are generated when a problem is detected. If a sensor circuit reads out of range or some electronic component fails to respond to a command from the computer, the computer recognizes it as a fault and records a number that corresponds to the nature of the problem. The technician must then retrieve the code and refer to specific diagnostic chart or "fault tree" that gives him the step-by-step checks he has to perform to isolate the failed component. It can be a very time-consuming process depending on the nature of the problem. Usually the process works but sometimes it doesn't. An intermittent fault can be very difficult to track down, and may require repeated attempts to repair it.