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Subject

Malfunctioning Indicator Lamp (MIL)

Application

1980 vehicles to present

Overview

The malfunctioning indicator lamp (MIL), also known as the check engine light (CEL), is a warning device that illuminates on the dash when a fault is detected. Some vehicles from the 1980's also had this light, but it was not mandated by the Environmental Protection Agency (EPA) until the 1996 model year. The check engine light illuminates when the vehicle emissions exceed 1.5 times the federal test procedure (FTP) standards for that model year of vehicle. When the engine control module (ECM/PCM) detects fault within the vehicles emissions system the computer will set a diagnostic trouble code (DTC) and illuminate the MIL to notify the driver of an issue. If the MIL is flashing, the catalytic convertor is being damaged. The vehicle should not be driven in this situation. Not all emissions related issues can be felt or noticed by the driver but if the light is on, a problem does exist in the system. After completing the proper repair, the MIL will stay illuminated until a predefined number of self-tests have been completed or the code has been cleared with a diagnostic tool.

Procedure

Sometimes repairing the fault can be a simple task, but in other cases the repair can be extensive and costly. To begin diagnosing the cause for the MIL, use a scan tool or code reader to retrieve the DTC (s) from the vehicle's computer. Many different brands and styles of scan tools can be used to retrieve the DTC information, from an inexpensive code reader to a sophisticated diagnostic computer costing thousands of dollars. The retrieved DTC information from the ECM/PCM offers a code number, for example P0171, which will lead down a path of diagnosis. Once properly diagnosed a repair can be made and the fault code cleared with a scan tool. To the end, A DTC never tells specifically which part needs to be changed, only proper diagnosis will lead to a successful conclusion.