

Engine Control (EC) System

Overview

The PCM contains the engine microprocessor.

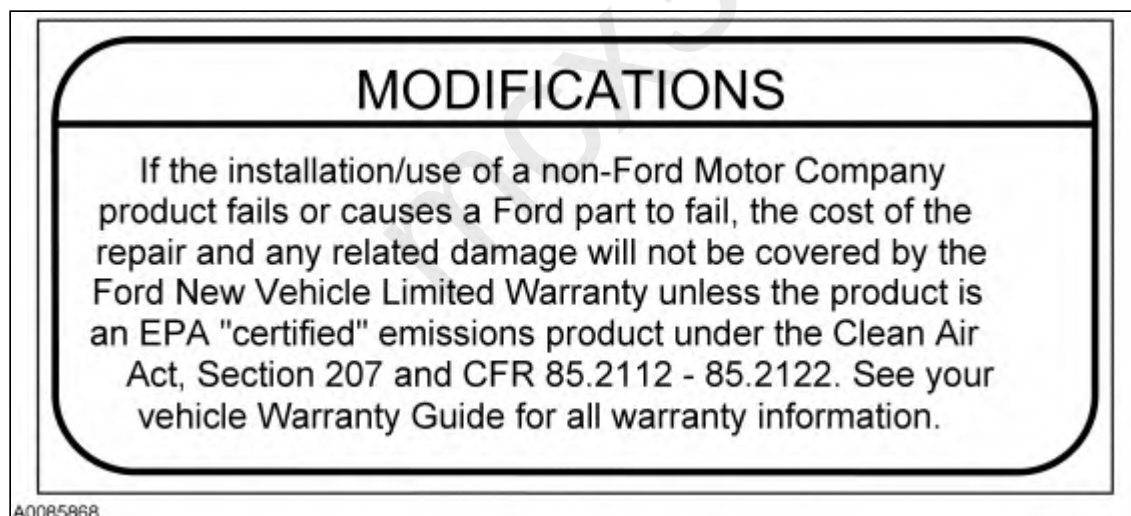
The EC system provides optimum control of the engine through the enhanced capability of the PCM. The EC system also has an on board diagnostics (OBD) monitoring system with features and functions meeting federal regulations on exhaust emissions.

The EC system has 2 major divisions: hardware and software. The hardware includes the PCM, sensors, switches, actuators, solenoids, and interconnecting terminals. The software in the PCM provides the strategy control for outputs (engine hardware) based on the values of the inputs to the PCM. The EC system hardware and software are discussed in this section.

The PCM receives information from a variety of sensor and switch inputs. Based on the strategy and calibration stored within the memory chip, the PCM generates the appropriate output. The system is designed to minimize emissions and optimize fuel economy and driveability. The software strategy controls the basic operation of the engine, provides the OBD strategy, controls the malfunction indicator lamp (MIL), communicates to the scan tool through the data link connector (DLC), allows for flash electronically erasable programmable read only memory (EEPROM), and controls failure mode effects management (FMEP).

Modifications to OBD Vehicles

Modifications or additions to the vehicle may cause incorrect operation of the OBD system. Performance modifications that cause a Ford part to fail may not be covered by the Ford New Vehicle Limited Warranty. Carefully install burglar alarms, cellular telephones, and CB radios. Do not install these devices by tapping into or running wires close to the powertrain control system wires or components.



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Modifications Label

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