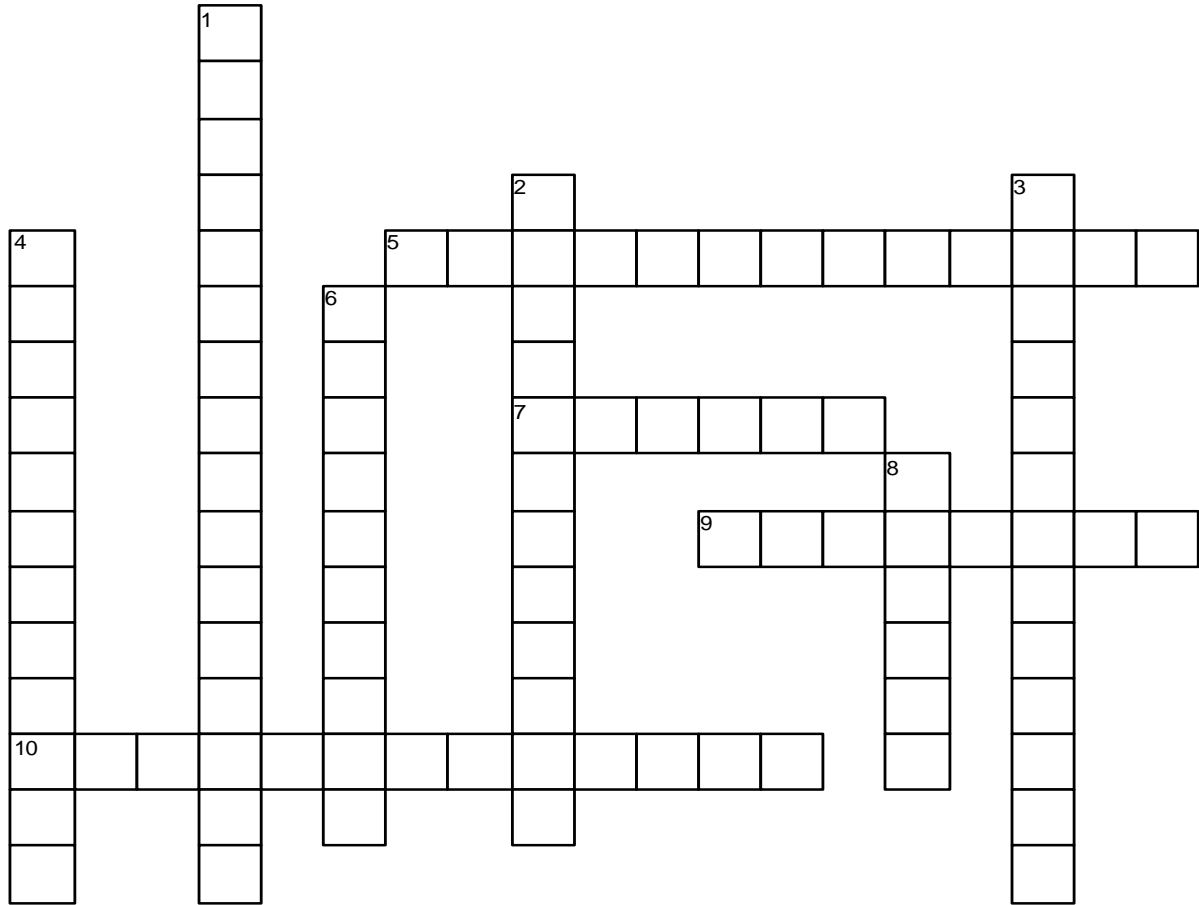


Temperature And Throttle Position Sensors

Chapter 71



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ACROSS

- 5 Some engines use a _____-_____ temperature (TBT) sensor to sense the temperature of the air entering the engine, instead of an intake air temperature sensor.
- 7 Most engine sensors use a 5-volt reference and a ground. If the 5 volts to the sensor is too high (shorted to voltage) or too low (high resistance), the sensor output will be _____ or out of range.
- 9 Coolant sensors have very high resistance when the coolant is cold and low resistance when the coolant is hot. This is referred to as having a _____ temperature coefficient (NTC), which is opposite to the situation with most other electrical components.
- 10 Computer-equipped vehicles use an _____ temperature (ECT) sensor.

DOWN

- 1 Before the introduction of electronic throttle control (ECT) systems (throttle-by-wire), engines used a single _____ (TP) sensor to signal to the powertrain control module (PCM) the position of the throttle.
- 2 The _____ fluid temperature (TFT), also called _____ oil temperature (TOT), sensor is an important sensor for the proper operation of the automatic transmission.
- 3 A _____ is a variable- resistance sensor with three terminals.
- 4 Some engines are equipped with a _____ temperature (CHT) sensor, which is used by the PCM along with the ECT to determine the temperature of the engine.
- 6 Some vehicles, such as many Ford vehicles that are equipped with an electronic returnless type of fuel injection, use an _____ temperature (EFT) sensor to give the pCm information regarding the temperature and, therefore, the density of the fuel.
- 8 The TP sensor is used as a _____ to the MAP sensor and/or MAF in the event the PCM detects that one or both are not functioning correctly.