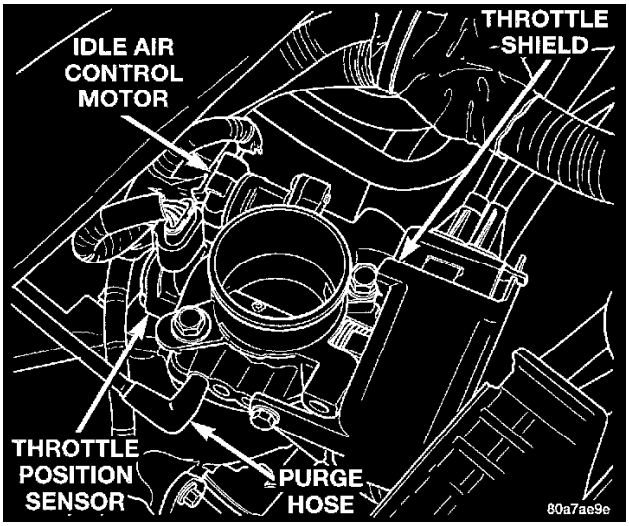
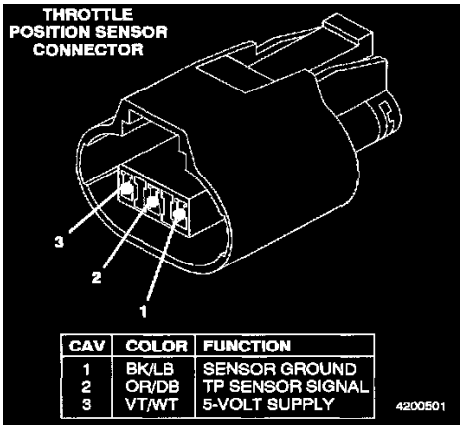


Throttle Position Sensor And Idle Air Control Motor



Throttle Positions Sensor Connector

Throttle Position Sensor: Testing and Inspection

Component Testing

To perform a complete test of the this sensor and its circuitry use a DRB or equivalent scan tool and follow the appropriate procedures. To test the throttle position sensor only, refer to the following:

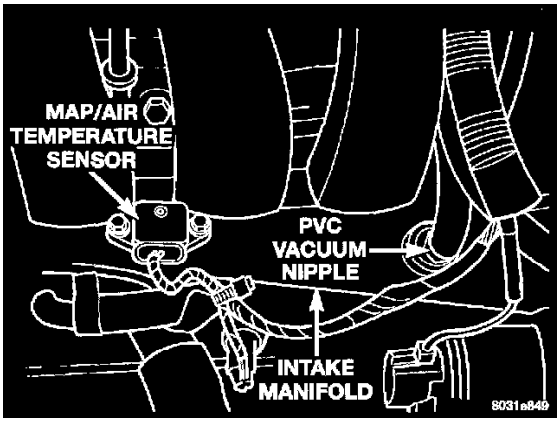
The Throttle Position Sensor (TPS) can be tested with a digital voltmeter (DVM). The center terminal of the sensor is the output terminal. One of the other terminals is a 5 volt supply and the remaining terminal is ground.

Connect the DVM between the center and sensor ground terminal. Refer to Diagrams/Electrical for correct pinout.

With the ignition switch in the ON position, check the output voltage at the center terminal wire of the connector. Check the output voltage at idle and at Wide-Open-Throttle (WOT).

- At idle, TPS output voltage should be **approximately O.38 volts- to 1.2 volts**.
- At wide open throttle, TPS output voltage should be **approximately 3.1 volts to 4.4 volts**.
- The output voltage should gradually increase as the throttle plate moves slowly from idle to WOT.

NOTE: Check for spread terminals at the sensor and PCM connections before replacing the TPS.



Map/Air TEMP Sensor, PVC Vacuum Nipple, Intake Manifold

Manifold Pressure/Vacuum Sensor: Testing and Inspection
Component Testing

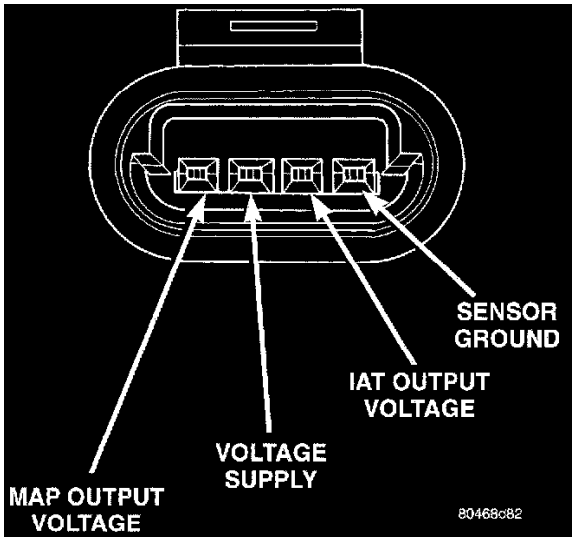


Fig. 82 MAP Sensor Connector

CAUTION: When testing the MAP sensor, be sure that the harness wires are not damaged by the test meter probes.

1. Test the MAP sensor output voltage at the MAP sensor connector between terminals 1 and 4 (Fig. 82). With the ignition switch ON and the engine not running, output voltage should be **4 to 5 volts**. The voltage should drop to **1.5 to 2.1 volts** with a hot, neutral idle speed condition.
   - If OK, go to next step.
   - If not OK, go to step 3.
2. Test PCM terminal 36 for the same voltage described in the previous step to verify wire harness condition. Repair as required.
3. Test the MAP sensor ground circuit at sensor connector terminal 1 and PCM terminal 43.
   - If OK, go to next step.
   - If not OK, repair as required.
4. Test MAP sensor supply voltage between sensor connector terminals 3 and 1 with the key ON. The voltage should be **approximately 5 volts ± 0.5V)**. **Five volts (± 0.5V)** should also be at terminal 61 of the PCM.
   - If OK, replace MAP sensor.
   - If not OK, repair or replace the wire harness as required.