

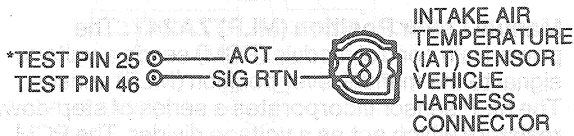
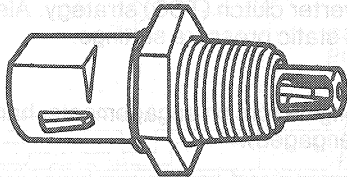
DESCRIPTION AND OPERATION (Continued)

Symptoms:

High/low EPC pressure, incorrect shift schedule, incorrect converter engagement scheduling and symptoms similar to a throttle position (TP) sensor malfunction.

DTC's: 157, 158, 159, 184 and 185

- **Intake Air Temperature (IAT) Sensor 12697:** Provides the Electronic Fuel Injection System with mixture (fuel and air) temperature information. The intake air temperature (IAT) sensor is used both to correct density for airflow calculation and to proportion the cold enrichment fuel flow. This sensor is similar in construction to the Engine Coolant Temperature (ECT) 12A648 sensor, except it is packaged to improve sensor response time. The sensor is threaded into a cylinder runner of the intake manifold or mounted in the air cleaner assembly.



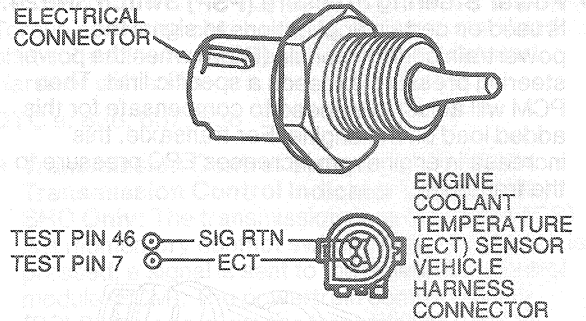
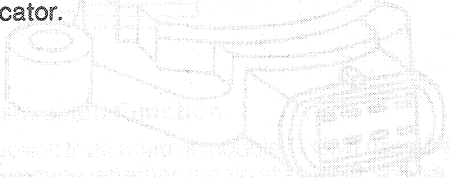
D10155-B

Transmission Function: IAT is used in determining EPC pressure.

Symptoms: Incorrect EPC pressure either high or low will result in either harsh or soft shifts.

DTC's: 114, 112 and 113

- **Engine Coolant Temperature (ECT) Sensor 12A648:** Detects the temperature of engine coolant and supplies the information to the powertrain control module (PCM). The ECT sensor is threaded into the heater outlet fitting or cooling passage on the engine. For engine control applications, the ECT signal is used to modify ignition timing, EGR flow, and air-to-fuel ratio as a function of engine coolant temperature. On electronic instrument cluster applications, the ECT output is used to control a coolant temperature indicator.



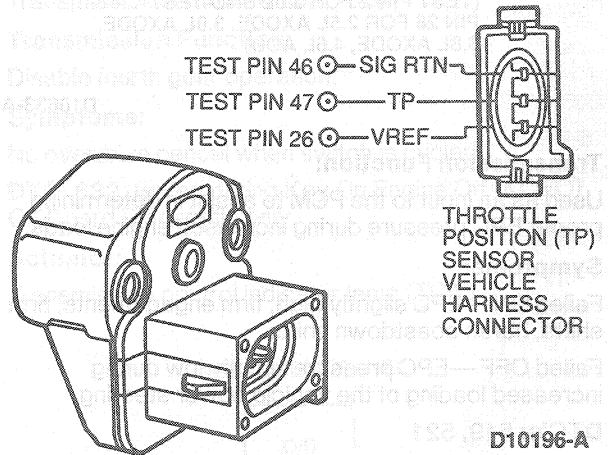
D10147-A

Transmission Function: ECT is used to control torque converter clutch operation.

Symptoms: Torque converter clutch will always be off, resulting in reduced fuel economy.

DTC's: 116, 117 and 118

- **Throttle Position (TP) Sensor 9B989:** Is a potentiometer mounted on the throttle body. The TP sensor detects the position of the throttle plate and sends this information to the PCM as a varying voltage signal. If a malfunction occurs in the TP sensor circuit, the PCM will recognize that the TP sensor signal is out of specification. The PCM will then operate the AXODE (AX4S) transaxle in a high capacity mode to prevent transaxle damage.



D10196-A

Transmission Function:

Shift scheduling, EPC pressure control, torque converter clutch control.

Symptoms:

Harsh engagements, firm shift feel, abnormal shift schedule, torque converter clutch does not engage, torque converter clutch cycling.

DTC's: 121, 122, 123, 124, 125 and 167