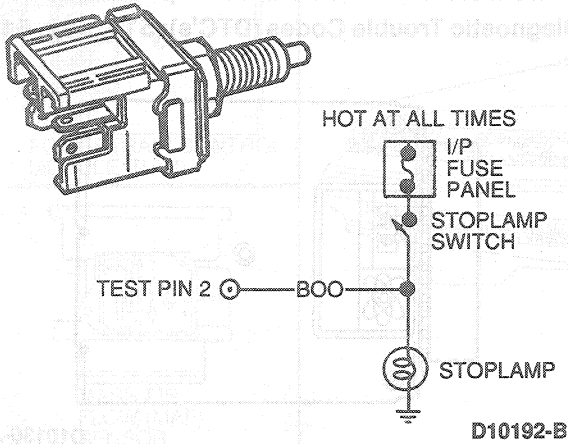


DESCRIPTION AND OPERATION (Continued)

- **Brake On/Off (BOO) Switch 13480:** Tells the PCM when the brakes are applied. The switch is closed when the brakes are applied and open when they are released.



Transmission Function:

Disengage torque converter clutch when brake is applied.

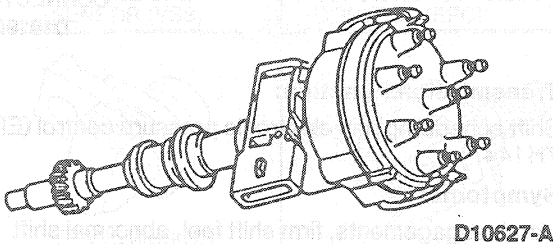
Symptoms:

Failed "ON"—torque converter clutch will not engage at less than one-third throttle.

Failed "OFF" or not connected—torque converter clutch will not disengage when brake is applied.

DTC: 536

- **Profile Ignition Pulse (PIP):** Tells the powertrain control module (PCM) the engine rpm and the crankshaft position. On gasoline engines, the Profile Ignition Pulse (PIP) signal is produced by a Hall-effect device in the distributor.



Transmission Function:

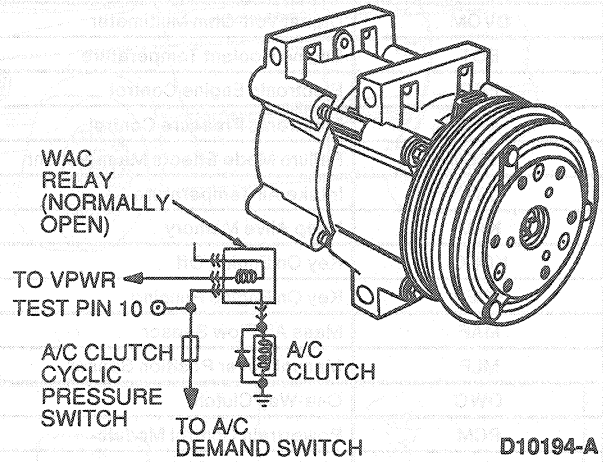
Uses rpm signal in the transmission strategy for torque converter clutch control.

Symptoms:

Engine malfunction, no torque converter clutch engagement.

DTC's: 211, 212, 213

- **Air Conditioning Clutch (ACC) 2884:** The electro-magnetic clutch is energized when the clutch cycling pressure switch closes. The switch is located on the suction accumulator / drier. The closing of the switch completes the circuit to the clutch and draws it into engagement with the compressor driveshaft.



Transmission Function:

Adjust EPC pressure when A/C compressor clutch is engaged to compensate for additional load on the engine.

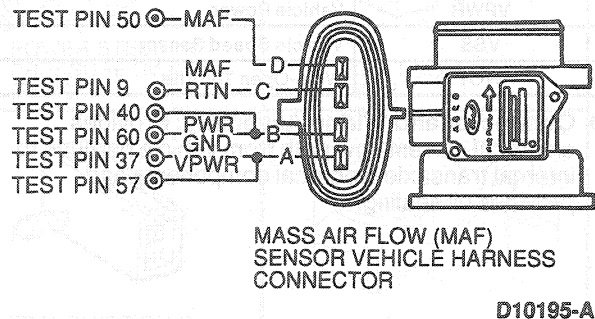
Symptoms:

Failed "ON"—EPC pressure slightly low with A/C OFF.

Failed "OFF"—EPC pressure slightly high with A/C ON.

DTC: 539

- **Mass Air Flow Sensor (MAF) 12B579:** Directly measures the mass of the air flowing into the engine. The sensor output is a DC (analog) signal ranging from about 0.5 volt to 5.0 volts used by the PCM to calculate the injector pulse width for stoichiometry.



Transmission Function:

EPC pressure control, shift and torque converter clutch scheduling.