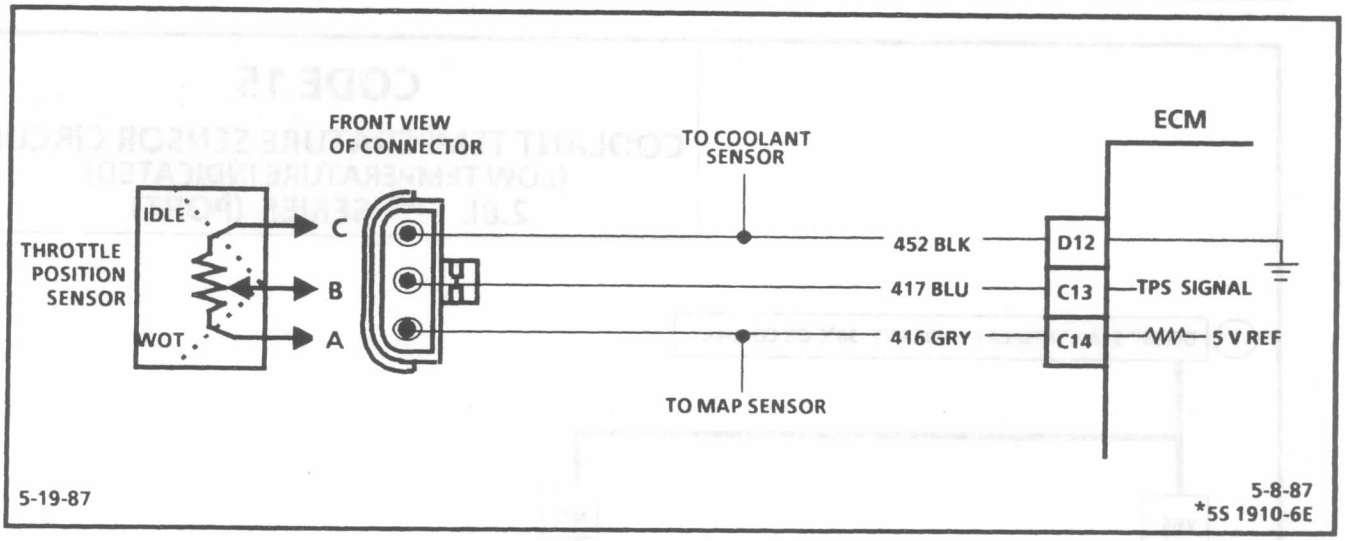


CODE 21

THROTTLE POSITION SENSOR (TPS) CIRCUIT (SIGNAL VOLTAGE HIGH) 2.8L "P" SERIES (PORT)

Circuit Description:

The throttle position sensor (TPS) provides a voltage signal that changes relative to the throttle blade. Signal voltage will vary from about .5 at idle to about 5 volts at wide open throttle.

The TPS signal is one of the most important inputs used by the ECM for fuel control and for most of the ECM control outputs.

Test Description: Numbers below refer to circled numbers on the diagnostic chart.

1. Code 21 will set if:
   - Engine running less than 1600
   - TPS signal voltage is greater than 2.5 volts.
   - All conditions met for 2 seconds.
   - MAP less than 70 kPa

   With throttle closed the TPS should read less than 1.25 volts. If it does not replace TPS.
2. With the TPS sensor disconnected, the TPS voltage should go low if the ECM and wiring are OK.
3. Probing CKT 452 with a test light checks the 5V return CKT, because a faulty 5V return will cause a Code 21.

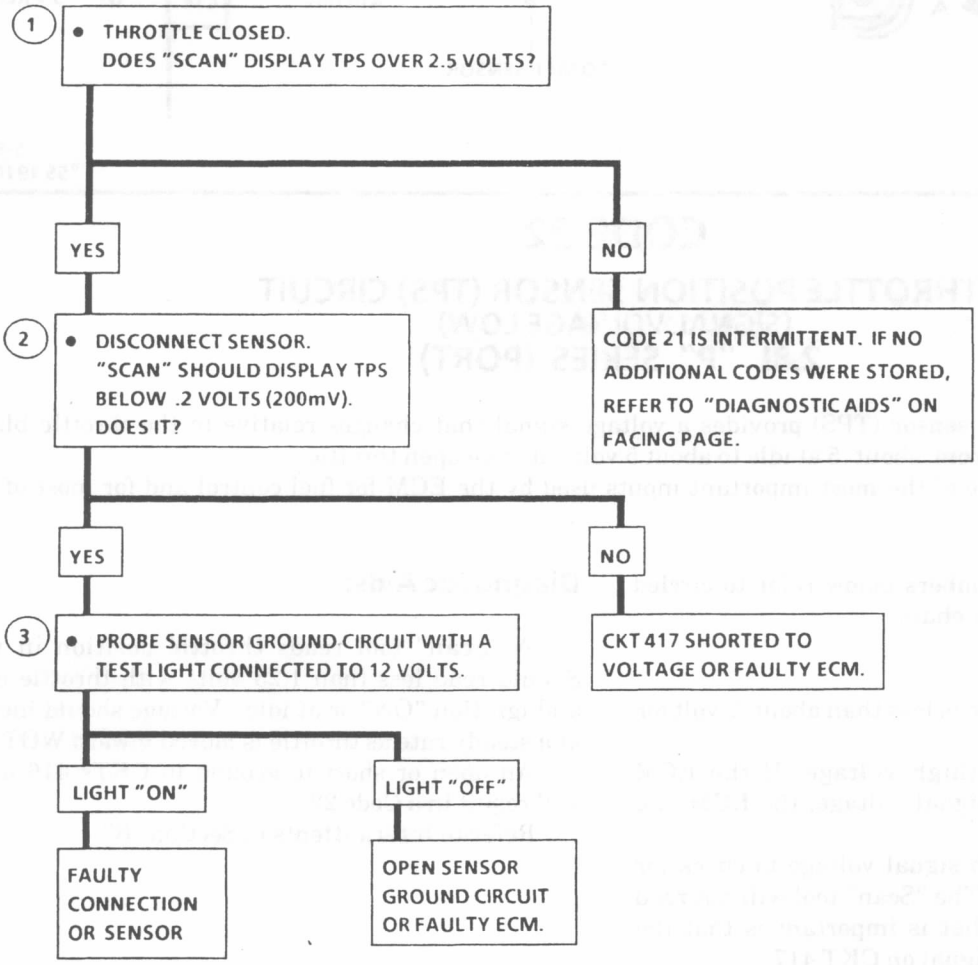
Diagnostic Aids:

A "Scan" tool reads throttle position in volts. Should read less than 1.25 volts with throttle closed and ignition "ON" or at idle. Voltage should increase at a steady rate as throttle is moved toward WOT.

An open in CKT 452 will result in a Code 21. Refer to Intermittents in Section "B".

CODE 21

THROTTLE POSITION SENSOR (TPS) CIRCUIT
(SIGNAL VOLTAGE HIGH)
2.8L "P" SERIES (PORT)



CLEAR CODES AND CONFIRM "CLOSED LOOP" OPERATION AND NO "SERVICE ENGINE SOON" LIGHT.

2-24-87
• 7S 3057-6E