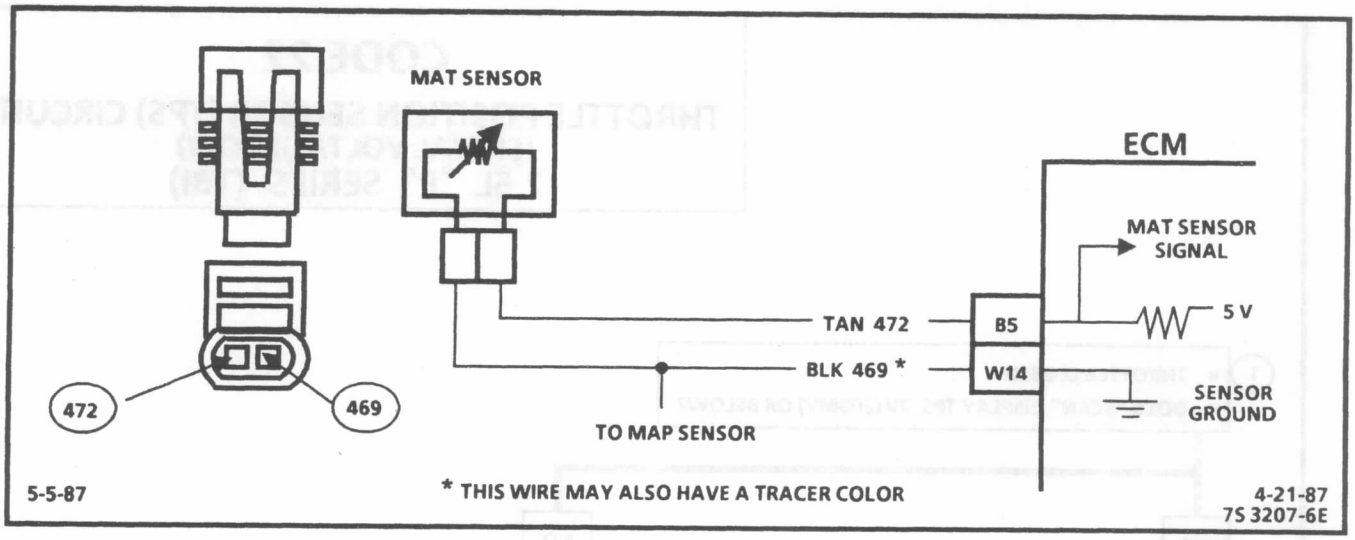


CODE 23

MANIFOLD AIR TEMPERATURE (MAT) SENSOR CIRCUIT (LOW TEMPERATURE INDICATED) 2.5L "P" SERIES (TBI)

Circuit Description:

The manifold air temperature sensor uses a thermistor to control the signal voltage to the ECM. The ECM applies a voltage (4-6 volts) on CKT 472 to the sensor. When manifold air is cold, the sensor (thermistor) resistance is high, therefore, the ECM will see a high signal voltage. As the air warms, the sensor resistance becomes less and the voltage drops.

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

1. This step checks to see if Code 23 is the result of a hard failure or, an intermittent condition.
   A Code 23 will set if:
   - Signal voltage indicates a MAT temperature less than -30°C.
   - Engine is running for longer than 58 seconds.
2. This test simulates conditions for a Code 25. If the "Scan" tool displays a high temperature, the ECM and wiring are OK.
3. This step checks continuity of CKTs 472 and 469. If CKT 469 is open, there may also be a Code 33.

Diagnostic Aids:

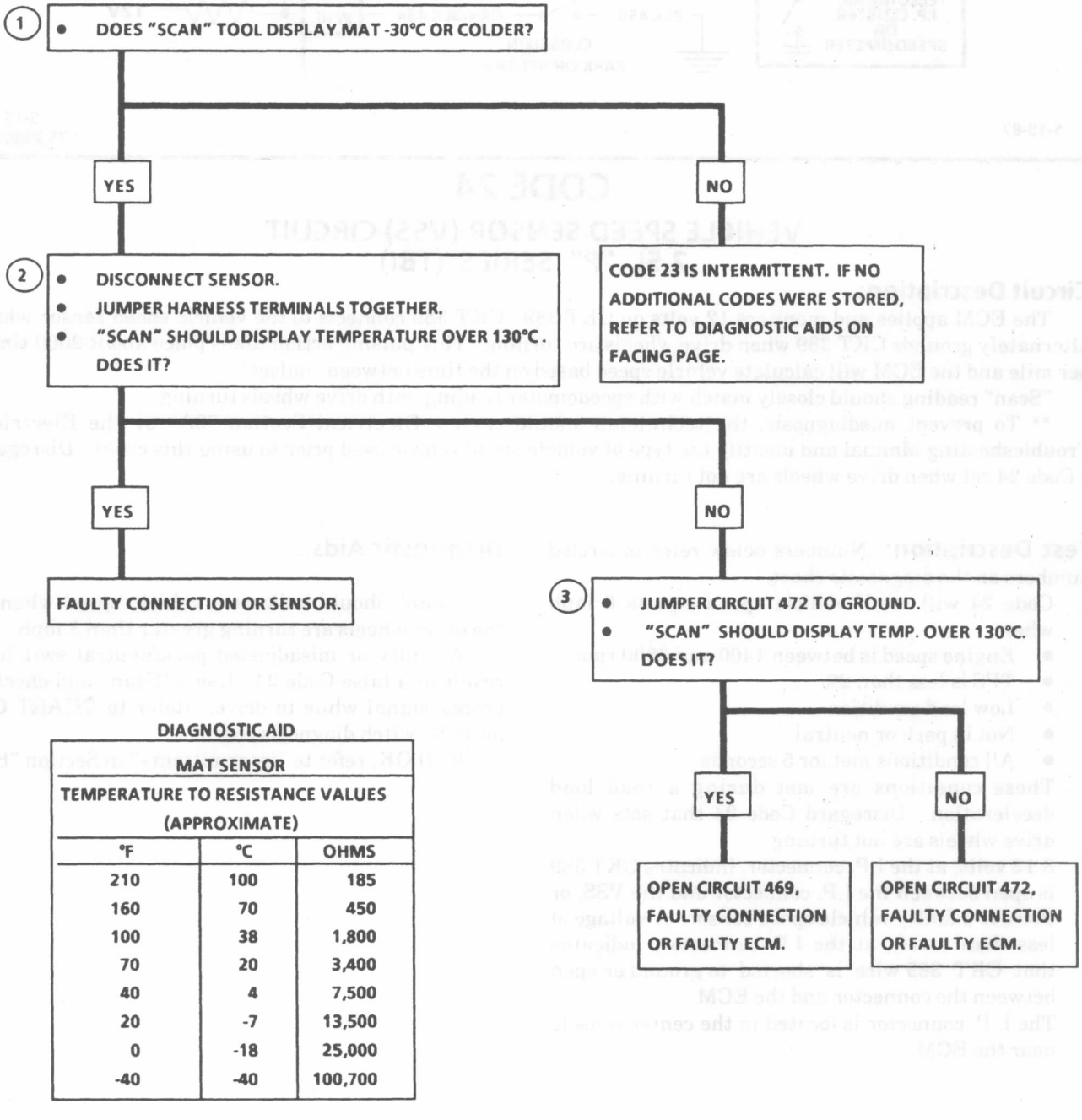
If the engine has been allowed to cool to an ambient temperature (overnight), coolant and MAT temperatures may be checked with a "Scan" tool and should read close to each other.

A Code 23 will result if CKTs 472 or 469 become open.

If Code 23 is intermittent, refer to Section "B".

CODE 23

MANIFOLD AIR TEMPERATURE (MAT) SENSOR CIRCUIT (LOW TEMPERATURE INDICATED) 2.5L "P" SERIES (TBI)



DIAGNOSTIC AID

MAT SENSOR TEMPERATURE TO RESISTANCE VALUES (APPROXIMATE)		
°F	°C	OHMS
210	100	185
160	70	450
100	38	1,800
70	20	3,400
40	4	7,500
20	-7	13,500
0	-18	25,000
-40	-40	100,700

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

3-19-86
*7S 3262