

## MANIFOLD AIR TEMPERATURE(MAT) SENSOR (SIGNAL VOLTAGE LOW)

5.7L "Y" SERIES

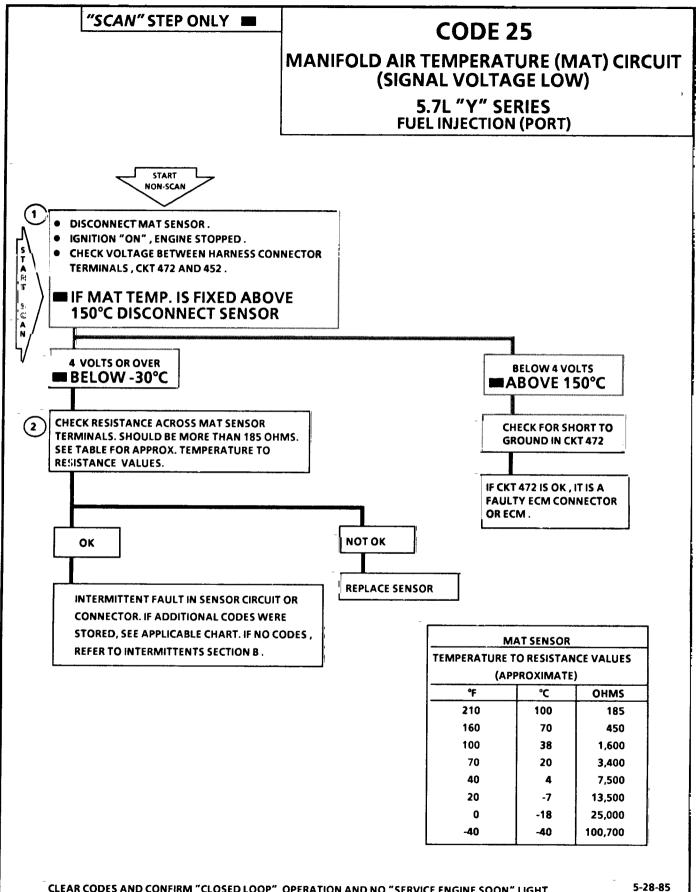
## **FUEL INJECTION (PORT)**

The MAT 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 the air is cold the sensor (thermistor) resistance is high, therefore the ECM will see a high signal voltage. If the air is warm the sensor resistance is low therefore the ECM will see a low voltage.

A "SCAN" tool reads temperature of the air entering the engine. Should read close to ambient air temperature when engine is cold, and rises as underhood temperature increases.

Code 25 will set if:

- •A signal voltage indicates a manifold air temperature greater than 150°C.
- •Time since engine start is 1 minute or longer.
- •Vehicle speed indicating the car is moving.
- •All conditions met for about 12 seconds.
- 1. If voltage is above 4 volts, the ECM and wiring are OK. This test and the following test can be made at the MAT jumper connector.
- 2. If resistance is less than 185 ohms, the jumper harness should be checked before replacing the sensor.



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

\*55 1377-6E