DR-35 CHECKING SENSOR CALIBRATIONS

Perform Driveability Test 33, before proceeding.
This test must be performed with a WARM engine.
1. Put diagnostic readout box into ``Read Sensor Values" mode, then start engine and select ``Coolant Temperature. If display does not read 180---250°F, replace coolant sensor, then proceed to Test 45. If display reads 180---250°F, turn engine Off and check throttle control cables for improper adjustment or damage and repair as necessary.
2. Put diagnostic readout box into ``Read Sensor Voltage" and select ``Throttle Position." If voltage is not 1.5 volts o less, replace throttle position sensor, then proceed to Test 45. If voltage is 1.5 volts or less, move throttle to wide open and observe display.
3. If voltage change was not smooth, replace throttle position sensor, then proceed to Test 45. If voltage change was smooth, check voltage at wide open throttle.
4. If voltage at wide open throttle is not at least 3.5 volts, replace throttle position sensor, then proceed to Test 45. If voltage was at least 3.5 volts, slowly increase engine speed to 2000 RPM while observing display. If voltage did not increase with engine speed, replace throttle position sensor, then proceed to Test 45. If voltage did increase with engine speed, let engine return to idle and select ``Minimum Throttle" on diagnostic readout box.
5. If more than 1.5 volts is indicated, replace throttle position sensor, then proceed to Test 45. If less than 1.5 volts is indicated, turn the ignition Off.
6. Tee a vacuum gauge into the MAP sensor vacuum line. Start engine and put diagnostic readout box into ``Read Sensor Values" mode and select ``MAP Gauge Reading" and compare the display reading with the gauge reading.
7. If vacuum readings are within one inch of each other, proceed to step 8. If vacuum readings are not within one inch of each other, proceed as follows:
   a. Turn ignition Off and remove vacuum gauge from MAP sensor line. Disconnect vacuum hose from MAP sensor and connect and auxiliary vacuum source to MAP sensor.
   b. Turn ignition to the Run position, select ``MAP Sensor Voltage" and apply 5 inches of vacuum to MAP sensor. Record voltage displayed, then slowly increase vacuum to 20 inches and observe voltage.
   c. If voltage decrease is erratic, replace MAP sensor, then proceed to Test 45. If voltage decrease was not erratic, record displayed at 20 inches of vacuum.
   d. Subtract voltage at 20 inches from voltage at 5 inches. If difference is 2.3---2.9 volts, repair vacuum line to MAP sensor for restriction, then proceed to Test 45. If difference is not 2.3---2.9 volts, replace MAP sensor, then proceed to Test 45.
8. On V6-238/3.9L engines, proceed to step 9. On V8-318/5.2L and V8-360/5.9L engines, proceed as follows:
   a. Start engine and warm to normal operating temperature. Put diagnostic readout box into ``Read Sensor Voltages" mode and select ``Throttle Body Temperature Sensor."
   b. If display shows 3.5---4.5 volts, proceed to step 9. If voltage is not 3.5---4.5 volts, replace throttle body temperature sensor, then proceed to Test 45.
9. Disconnect fresh air duct from air cleaner snorkel, then disconnect vacuum supply hose from heated air intake temperature sensor. Connect an auxiliary vacuum supply to air temperature sensor and try to apply vacuum.
10. If vacuum holds, replace air temperature sensor, then proceed to Test 45. If vacuum does not hold, remove vacuum hose from air cleaner snorkel heated air door diaphragm.
11. Connect auxiliary vacuum supply to heated air door diaphragm and apply 20 inches of vacuum while observing the snorkel air door. If door does not move, repair or replace heated air door as required, then proceed to Test 45. If air door moves and vehicle has California emissions, proceed to Test 37. If air door moves and vehicle does not have California emissions, proceed to Test 36.