Coolant Temperature Sensor/Switch (For Computer): Testing and Inspection

ENGINE COOLANT TEMPERATURE SENSOR

To perform a complete test of the engine coolant temperature sensor and its circuitry, refer to **Powertrain Management / Computers and Control Systems / Testing and Inspection**.

See: Computers and Control Systems/Testing and Inspection

To test the sensor only, refer to the following:

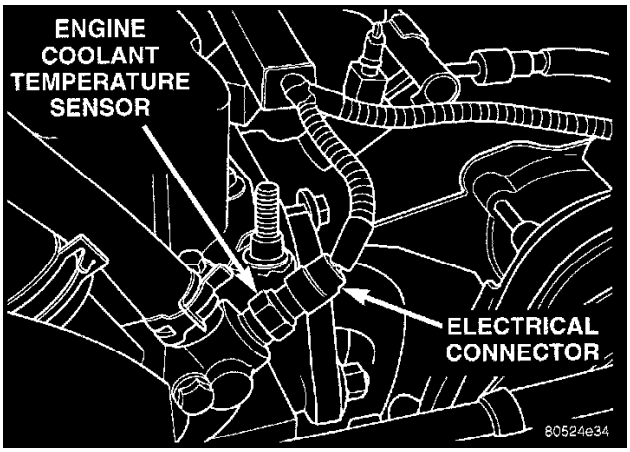

Fig. 29 Engine Coolant Temperature Sensor-Typical

1. Disconnect wire harness connector from coolant temperature sensor **(Fig. 29)**.

TEMPERATURE		RESISTANCE (OHMS)	
C	F	MIN	MAX
-40	-40	291,490	381,710
-20	-4	85,850	108,390
-10	14	49,250	61,430
0	32	29,330	35,390
10	50	17,990	21,810
20	68	11,370	13,610
25	77	9,120	10,880
30	86	7,370	8,750
40	104	4,900	5,750
50	122	3,330	3,880
60	140	2,310	2,670
70	158	1,630	1,870
80	176	1,170	1,340
90	194	860	970
100	212	640	720
110	230	480	540
120	248	370	410

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Sensor Resistance (Ohms)-Coolant Temperature Sensor/Intake Air Temperature Sensor

2. Test the resistance of the sensor with a high input impedance (digital) volt-ohmmeter. The resistance (as measured across the sensor terminals) should be **less than 1340 ohms** with the engine warm. Refer to the Coolant Temperature sensor/Intake Air Temperature sensor resistance chart. Replace the sensor if it is not within the range of resistance specified in the chart.

3. Test continuity of the wire harness between the PCM wire harness connector and the coolant sensor connector terminals. Repair the wire harness if an open circuit is indicated.