

DTC 14

ENGINE COOLANT TEMPERATURE (ECT) SENSOR CIRCUIT (SIGNAL VOLTAGE LOW, HIGH TEMPERATURE INDICATED) 5.7L (VIN P) "F" CARLINE (SFI)

Circuit Description:

The Engine Coolant Temperature (ECT) sensor uses a thermistor to control a signal voltage to the PCM. The PCM applies a voltage on CKT 410 to the sensor. When the engine coolant is cold, the sensor (thermistor) resistance is high, therefore, the PCM signal voltage will be high. As the engine coolant warms, the sensor resistance becomes less, and the PCM voltage drops. At normal engine operating temperature (85°C-95°C or 185°F-203°F) the voltage should measure about 1.5 to 2.0 volts.

DTC 14 Will Set When: The PCM indicates engine coolant temperature signal voltage above 140°C (284°F).

Action Taken (PCM will default to): The Malfunction Indicator Lamp (MIL) will illuminate, and transmission TCC will apply early.

DTC Chart Test Description: Number(s) below refer to circled number(s) on the diagnostic chart.

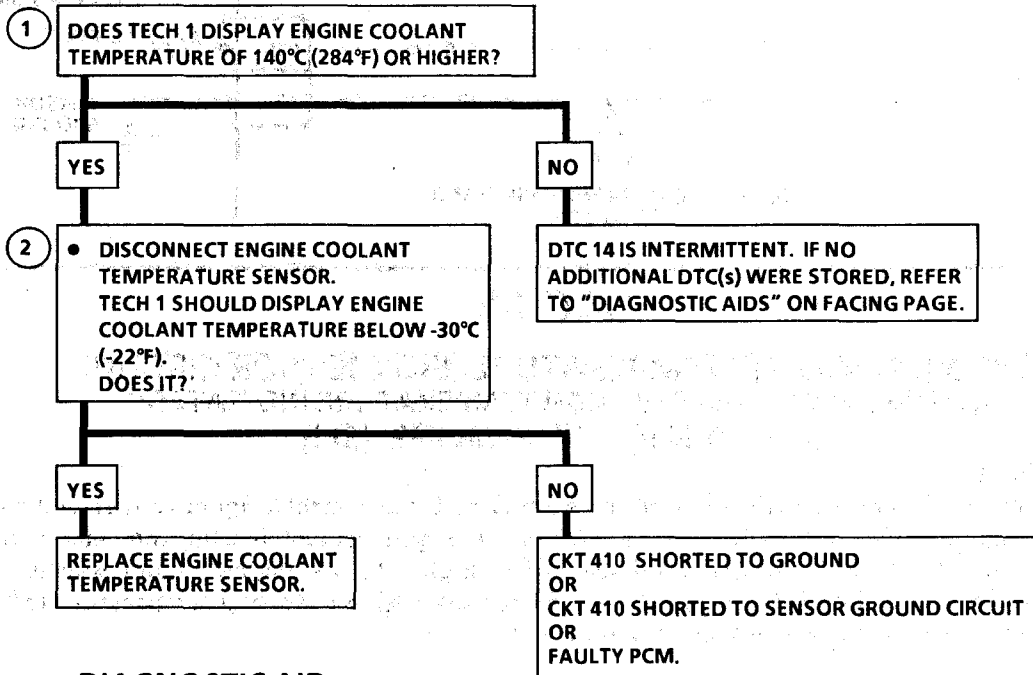
1. Monitoring ECT will determine if the fault is a hard failure or an intermittent condition.
2. This test will determine if CKT 410 is shorted to ground, which will cause the condition for DTC 14.

Diagnostic Aids: Tech 1 displays engine temperature in degrees celsius and fahrenheit. After engine is started, the temperature should rise steadily, reach normal operating temperature, and then stabilize when thermostat opens.

Refer to "Intermittents" in "Symptoms," Section "6E3-B".

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DIAGNOSTIC AID

ENGINE COOLANT TEMPERATURE SENSOR		
TEMPERATURE VS. RESISTANCE VALUES (APPROXIMATE)		
°C	°F	OHMS
100	212	177
90	194	241
80	176	332
70	158	467
60	140	667
50	122	973
45	113	1188
40	104	1459
35	95	1802
30	86	2238
25	77	2796
20	68	3520
15	59	4450
10	50	5670
5	41	7280
0	32	9420
-5	23	12300
-10	14	16180
-15	5	21450
-20	-4	28680
-30	-22	52700
-40	-40	100700

"AFTER REPAIRS," REFER TO DTC CRITERIA ON FACING PAGE AND CONFIRM DTC DOES NOT RESET.