



## Coolant Temperature Sensor

Self-diagnosis indicator light D comes on: Indicates a problem in the coolant temperature sensor circuit. Use a digital multimeter (KS – AHM – 32 – 003) to check it.

The coolant temperature sensor is a temperature dependent resistor (thermistor). The resistance of the thermistor decreases as the coolant temperature increases.

**Problem in the coolant temperature sensor circuit.**

Disconnect the 8-P connector from the coolant temperature sensor.

Measure resistance between the 2 terminals in the temperature sensor side of the connector.

Is there approx. 2–30 k  $\Omega$ ?

NO

Replace coolant temperature sensor.

YES

Turn the ignition switch ON.

Measure voltage between LT BLU wire (+) terminal in the harness side of the connector and body ground.

Is there approx. 5 V?

NO

Repair open circuit or short circuit to body ground in LT BLU wire between climate control unit and coolant temperature sensor. If wire is OK, substitute a known good climate control unit and retest.

YES

Measure voltage between LT BLU wire (+) terminal and BLK wire (–) terminal.

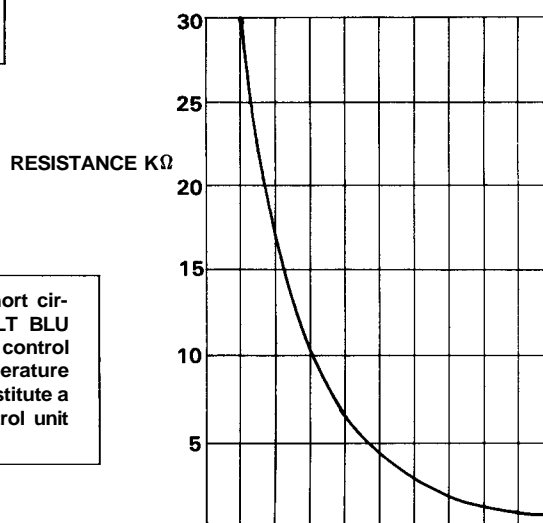
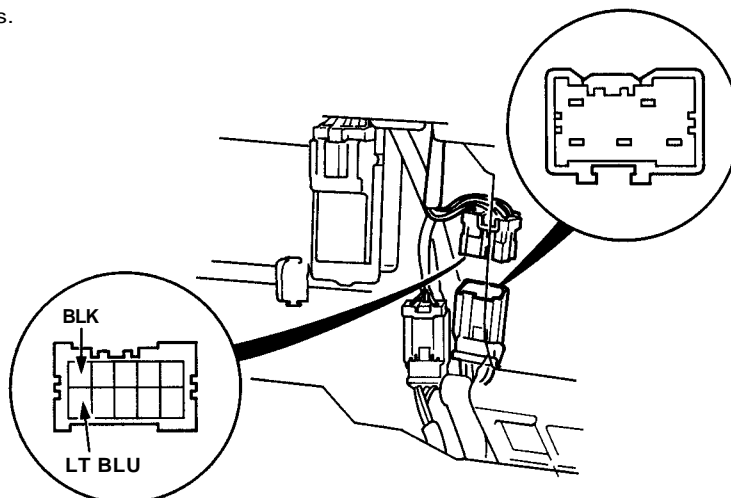
Is there approx. 5 V?

NO

Repair open in BLK (–) wire between climate control unit and coolant temperature sensor.

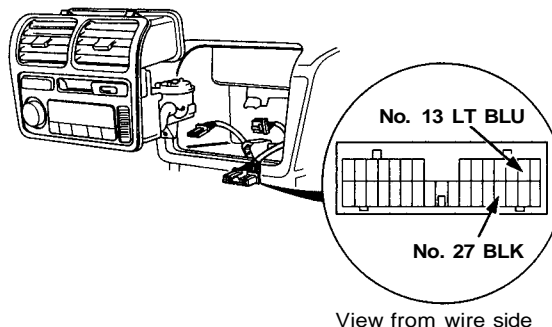
YES

Remove the climate control unit (page 22-6). Substitute a known-good control unit and recheck. If symptom/indication goes away, replace the original climate control unit.



F° 32 50 68 86 104 122 140 158 176  
C° 0 10 20 30 40 50 60 70 80

CAUTION: The sensor uses a thermistor which can be damaged if high current is applied to it during testing. Therefore, use a circuit tester that puts out a measuring current of 1 mA or less. (At 20 k $\Omega$  range)



View from wire side