

Troubleshooting

Flowchart — Evaporator Temperature Sensor

The evaporator temperature sensor is a temperature dependent resistor (thermistor). The resistance of the thermistor decreases as the evaporator outlet air temperature increases. Use a digital multimeter (KS-AHM-32-003) to check it.

Self-diagnosis circuit check indicates a problem in the evaporator temperature sensor.

Disconnect the 2P connector from the evaporator temperature sensor.

Measure resistance between the No. ① and No. ② wire terminals.

*Is the resistance within the range shown on the chart?

NO

Replace the evaporator temperature sensor.

YES

Turn the ignition switch ON.

Measure voltage between the BRN wire terminal (+) and body ground (-).

*:Dip the sensor in ice water and measure the resistance. Then pour hot water on the sensor and check for change in resistance.

Is there 4-6 V?

NO

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YES

Measure voltage between the BRN wire terminal (+) and BLK wire terminal (-).

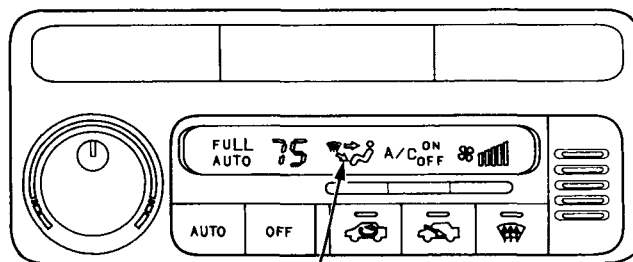
Is there 4-6 V?

NO

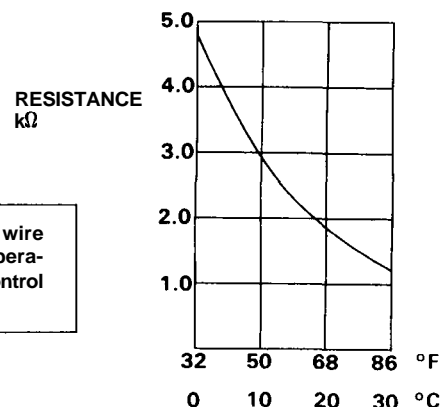
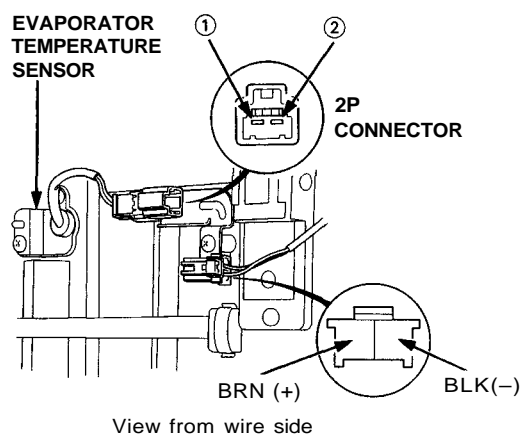
Repair open in the BLK wire between the evaporator temperature sensor and the climate control unit.

YES

Substitute a known-good climate control unit and recheck. If symptom/indication goes away, replace the original climate control unit.



EVAPORATOR TEMPERATURE SENSOR INDICATOR



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 the 20 kΩ range)



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Turn the ignition switch OFF.

Remove the climate control unit
(see page 22-6).

Disconnect the 30P connector from
the climate control unit.

Check the BRN wire for continuity
to body ground.

Is there continuity?

YES

Repair short in the BRN wire
between the evaporator tempera-
ture sensor and the climate control
unit.

NO

Check for continuity in the BRN
wire between the evaporator tem-
perature sensor and the climate
control unit.

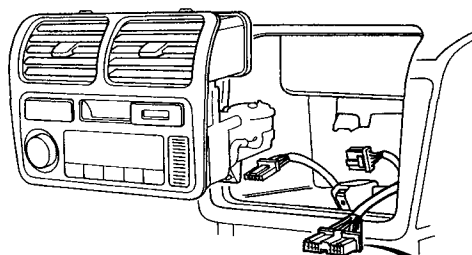
Is there continuity?

NO

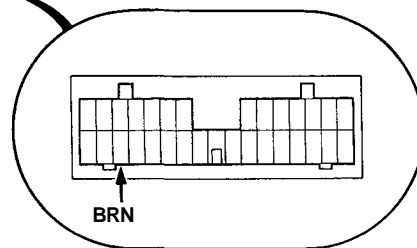
Repair open in the BRN wire
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YES

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30P CONNECTOR



BRN

View from wire side