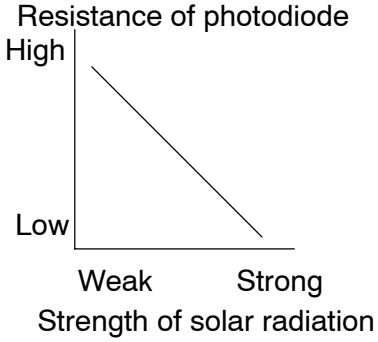
DTC	21	SOLAR SENSOR CIRCUIT(PASSENGER SIDE)

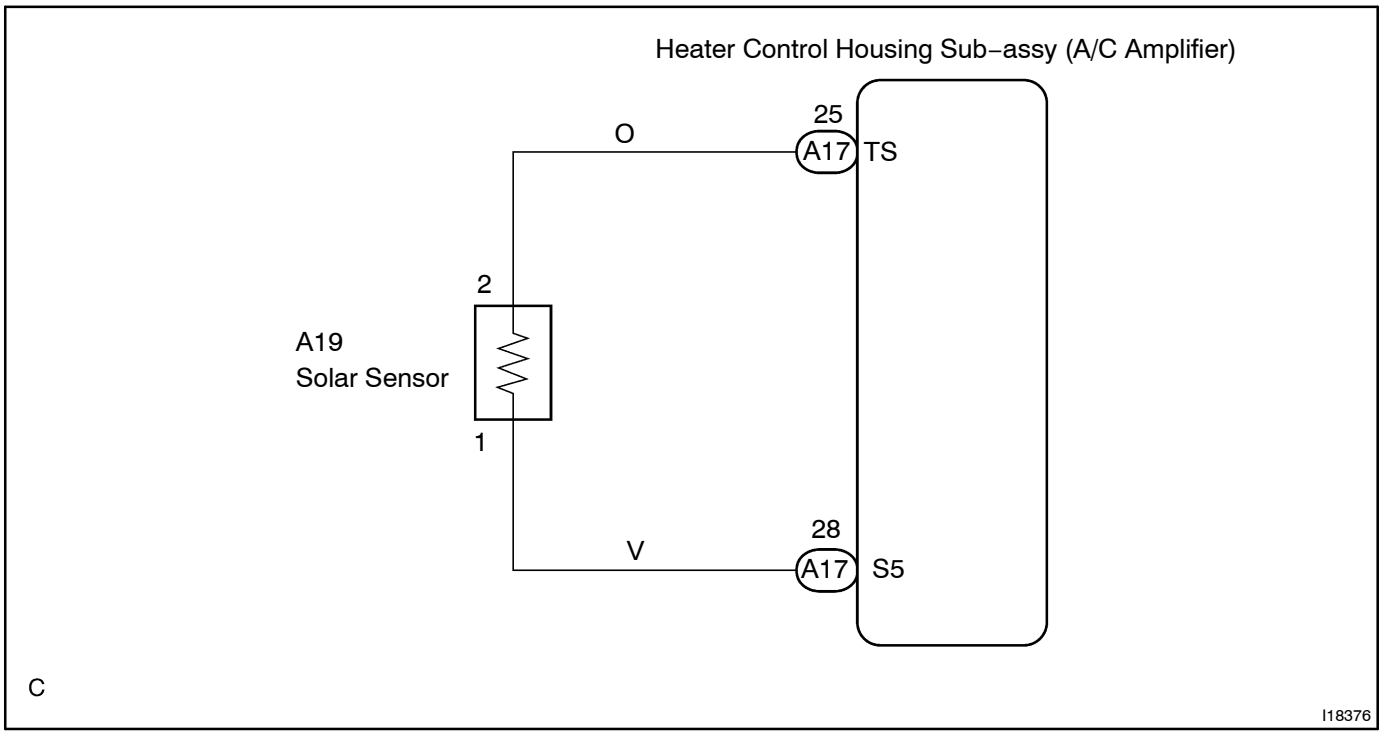
CIRCUIT DESCRIPTION



A photo diode in the solar sensor detects solar radiation and sends signals to the A/C amplifier.

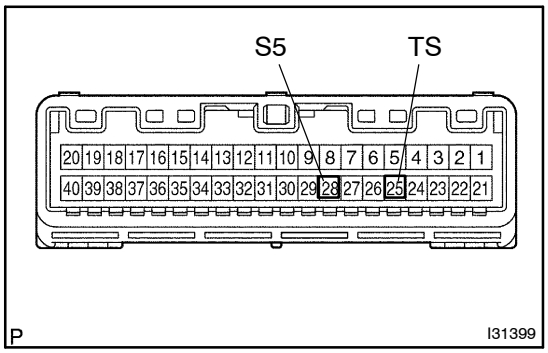
DTC No.	Detection Item	Trouble Area
21	Open or short in solar sensor circuit. (Please note that display of DTC 21 is not abnormal when the sensor is not receiving solar radiation.)	• Solar sensor • Harness or connector between solar sensor and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT HEATER CONTROL HOUSING SUB–ASSY(TS, S5)



(a) Remove A/C amplifier with connectors still connected.
(b) Turn ignition switch ON.
(c) Measure voltage between terminals S5 and TS of A/C amplifier connector when the solar sensor is subject to an electric light, and when the sensor is covered by a cloth.
Voltage:
Sensor subject to electric light: 0.8 – 3.3 V
Sensor is covered by a cloth: Below 0.8 V

HINT:
As the inspection light is moved away from the sensor, the voltage increases.

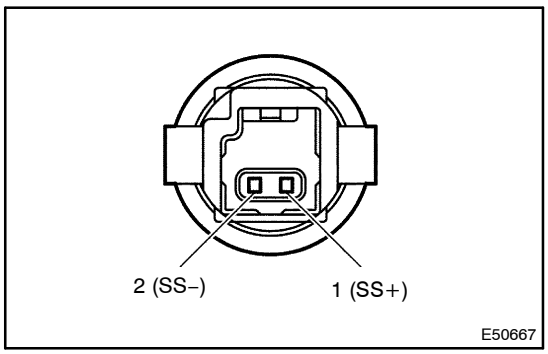
A	NG
B	OK (when checking from the PROBLEM SYMPTOM TABLE)
C	OK (Checking from the DTC)

B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE**

C → **CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY**

A

2	INSPECT COOLER (SOLAR SENSOR) THERMISTOR



(a) Remove cooler (solar sensor) thermistor.
(b) Cover sensor with a cloth.
(c) Measure resistance between terminals 1 and 2 of solar sensor connector.
Resistance: ∞ Ω (No continuity)

HINT:
Connect the positive (+) lead from ohmmeter to terminal 1 and negative (–) lead to terminal 2 of the solar sensor.

(d) Remove the cloth from the cooler (solar sensor) thermistor and subject the sensor to electric light.
(e) Measure resistance between terminals 1 and 2 of solar sensor.
Resistance: Approx. 10 kΩ (Continuity)

HINT:
Connect the positive (+) lead from ohmmeter to terminal 1and negative (–) lead to terminal 2 of the solar sensor.

NG → **REPLACE COOLER (SOLAR SENSOR) THERMISTOR**

OK

3	CHECK HARNESS AND CONNECTOR(BETWEEN COOLER (SOLAR SENSOR) THERMISTOR AND HEATER CONTROL HOUSING SUB–ASSY)

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY