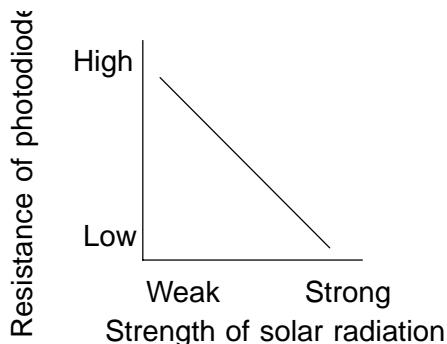


DTC	B1421/21	Solar Sensor Circuit
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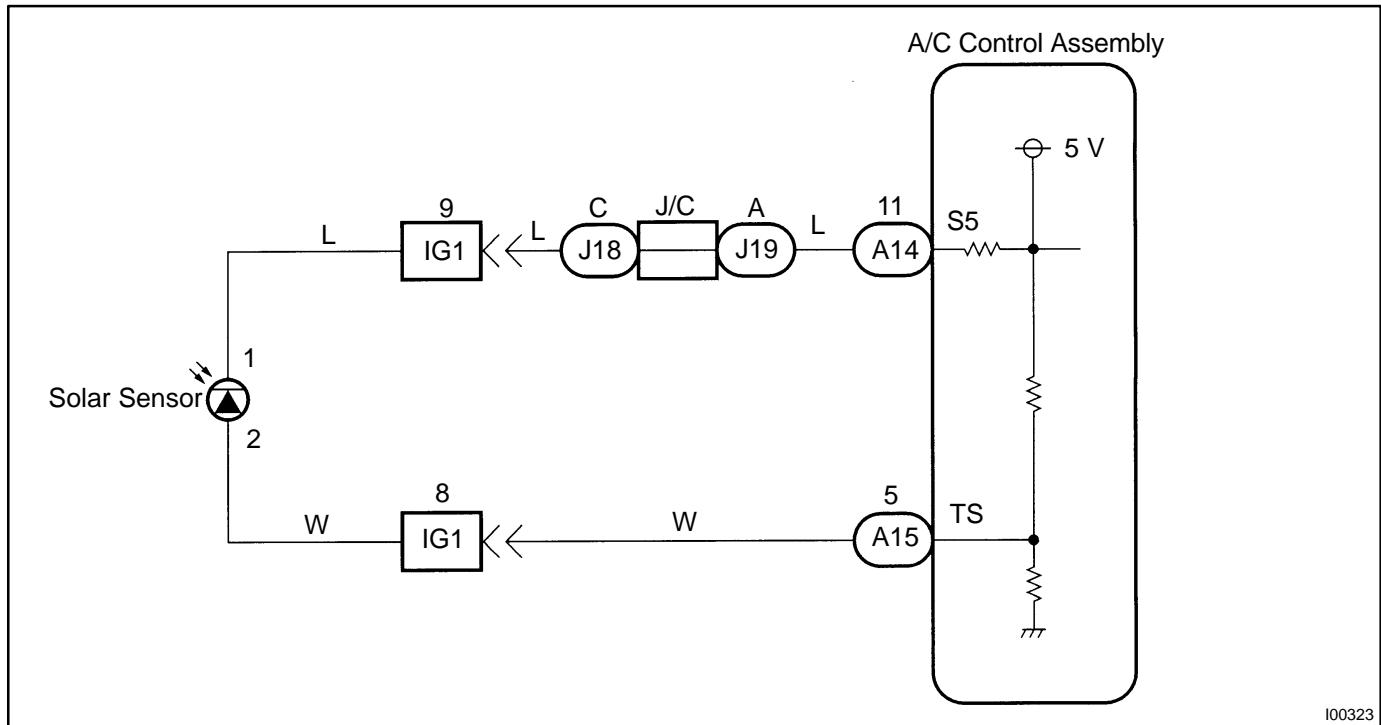
CIRCUIT DESCRIPTION



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

DTC No.	Detection Item	Trouble Area
B1421/21	Open or short in solar sensor circuit. (Please note that display of DTC B1421/21 is not abnormal when the sensor is not receiving solar radiation.)	<ul style="list-style-type: none"> • Solar sensor • Harness or connector between solar sensor and A/C control assembly. • A/C control assembly.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

In case of using the hand-held tester, start the inspection step 1 and in case of not using the hand-held tester, start from step 2.

1	Check solar sensor using hand-held tester.
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PREPARATION:

Connect the hand-held tester to the DLC3.

CHECK:

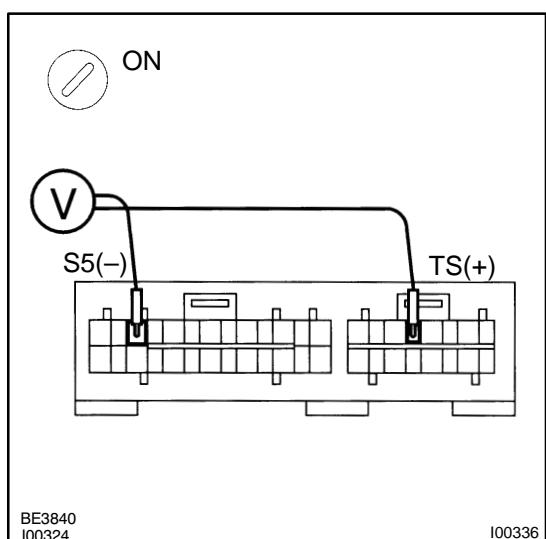
Check the solar sensor using DATA LIST.



Check and replace A/C control assembly.

NG

2	Check voltage between terminals S5 and TS of A/C control assembly connector.
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PREPARATION:

- Remove A/C control assembly with connectors still connected (See page [BO-79](#)).
- Turn ignition switch to ON.

CHECK:

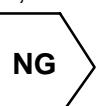
Measure voltage between terminals S5 and TS of A/C control assembly connector when the solar sensor is subjected to an electric light, and when the sensor is covered by a cloth.

OK:

Condition	Voltage
Sensor subjected to electric light	Below 4.0 V
Sensor covered by a cloth	4.0 – 4.5 V

HINT:

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

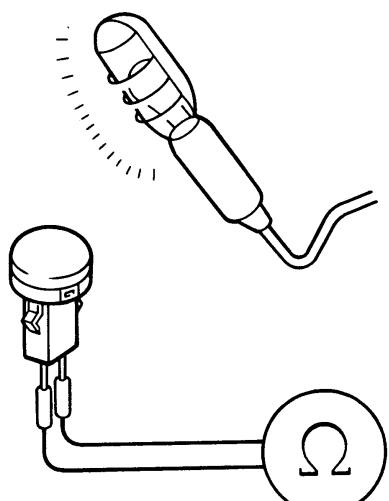


Go to step 3.

NG

Proceed to next circuit inspection shown on matrix chart (See page [DI-711](#)). However, if DTC B1421/21 is displayed, check and replace A/C control assembly.

3 Check solar sensor.

**PREPARATION:**

- (a) Remove instrument panel (See page [BO-79](#)).
- (b) Disconnect solar sensor connector.

CHECK:

- (a) Cover the sensor by a cloth.
- (b) Measure resistance between terminals 1 and 2 of solar sensor connector.

HINT:

Connect positive (+) lead of ohmmeter to terminal 2 and negative (-) lead to terminal 1 of the solar sensor.

OK:

Resistance : $\infty \Omega$ (No continuity)

PREPARATION:

Remove the cloth from the solar sensor and subject the sensor to electric light.

CHECK:

Measure resistance.

OK:

Resistance : Below $10 \text{ k}\Omega$ (Continuity)

HINT:

As the electric light is moved gradually away from the sensor, the resistance increases.

NG

Replace solar sensor.

OK

4 Check harness and connector between A/C control assembly and solar sensor (See page [IN-31](#)).

NG

Repair or replace harness or connector.

OK

Check and replace A/C control assembly.