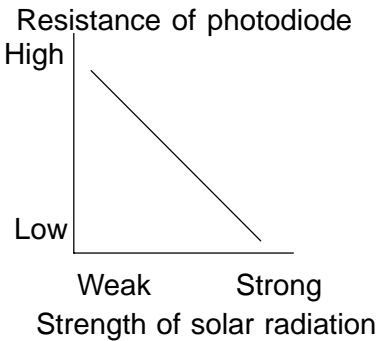


DTC	B1421/21	SOLAR SENSOR CIRCUIT (PASSENGER SIDE)
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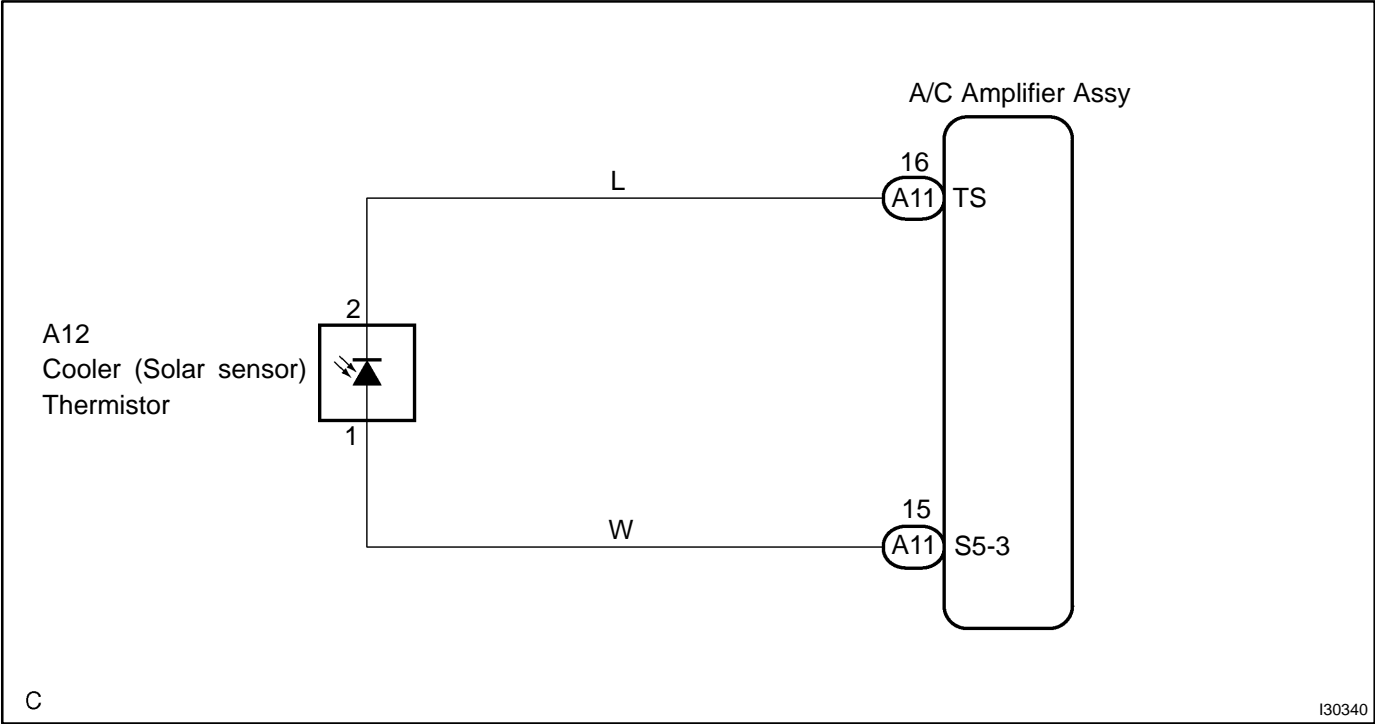
CIRCUIT DESCRIPTION



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

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">• Cooler (solar sensor) thermistor• Harness or connector between Cooler (solar sensor) Thermistor and A/C amplifier assy• A/C amplifier assy

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 READ VALUE OF HAND-HELD TESTER

- (a) Connect the hand-held tester to DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main switch ON.
- (c) Select the items below in the DATA LIST, and read the displays on the hand-held tester.

A C:

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
SOLAR SENS-P	Solar sensor (Passenger side) /min.: 0 max.: 255	Changes depending on brightness (Passenger side)	-

Result:

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

B

REPLACE AIRCONDITIONER AMPLIFIER ASSY

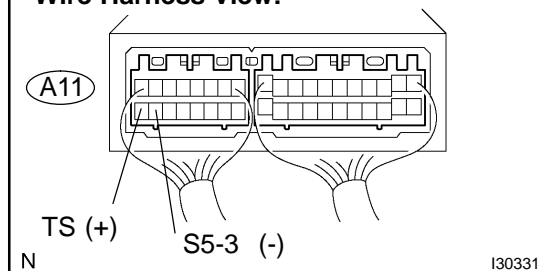
C

**PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN IN PROBLEM SYMPTOMS TABLE(SEE
PAGE 05-1 129)**

A

2 INSPECT AIRCONDITIONER AMPLIFIER ASSY(TS, S5-3)

A/C Amplifier Connector Wire Harness View:



- (a) Remove A/C amplifier assy with connectors still connected.
- (b) Turn the ignition switch to the ON position.
- (c) Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A11-16 (TS) - A11-15 (S5-3)	Sensor subject to electric light	Below 4.0 V
A11-16 (TS) - A11-15 (S5-3)	Sensor is covered by a cloth	4.0 to 4.5 V

HINT:

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

Use an incandescent lamp for inspection. Bring it within 30 cm (11.8 in.) of the solar sensor.

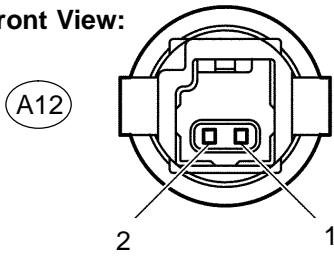
OK

**PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN IN PROBLEM SYMPTOMS TABLE(SEE
PAGE 05-1 129)**

NG

3

INSPECT COOLER (SOLAR SENSOR) THERMISTOR

**Solar Sensor Connector
Front View:**

- Remove the cooler (solar sensor) thermistor.
- Measure the resistance according to the value(s) in the table below.
- Connect the negative (-) lead from the ohmmeter to terminal 1 and positive (+) lead to terminal 2 of the A/C solar sensor.

Standard:

Tester connection	Condition	Specified condition
A12-1 - A12-2	Sensor is subject to electric light	Except $\infty \Omega$
A12-1 - A12-2	Sensor is covered with a cloth	$\infty \Omega$ (No continuity)

NOTICE:

The connection procedure for using a digital tester such as an electrical tester is shown above. When using an analog tester, connect the negative (-) lead to terminal 2 and positive (+) lead to terminal 1 of the A/C solar sensor.

HINT:

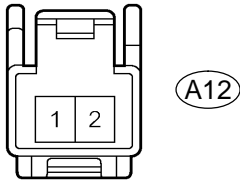
- As the inspection light is moved away from the sensor, the resistance increases.
- Use an incandescent lamp for inspection. Bring it within 30 cm (11.8 in.) of the cooler (solar sensor) thermistor.

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

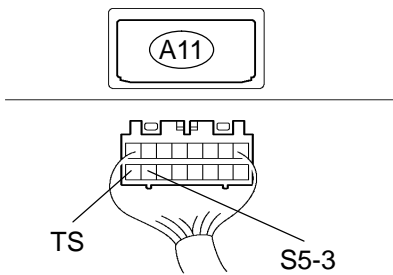
4

CHECK HARNESS AND CONNECTOR(COOLER (SOLAR SENSOR) THERMISTOR - A/C AMPLIFIER ASSY)

Cooler (Solar Sensor) Thermistor
Connector Wire Harness View:



A/C Amplifier Connector
Wire Harness View:



I41013

(a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A11-15 (S5-3) - A12-1	Always	Below 1 Ω
A11-16 (TS) - A12-2	Always	Below 1 Ω
A11-15 (S5-3) - Body ground	Always	10 k Ω or higher
A11-16 (TS) - Body ground	Always	10 k Ω or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIRCONDITIONER AMPLIFIER ASSY