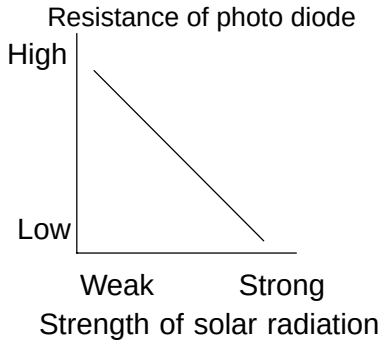
DTC	21	SOLAR SENSOR CIRCUIT(PASSENGER SIDE)

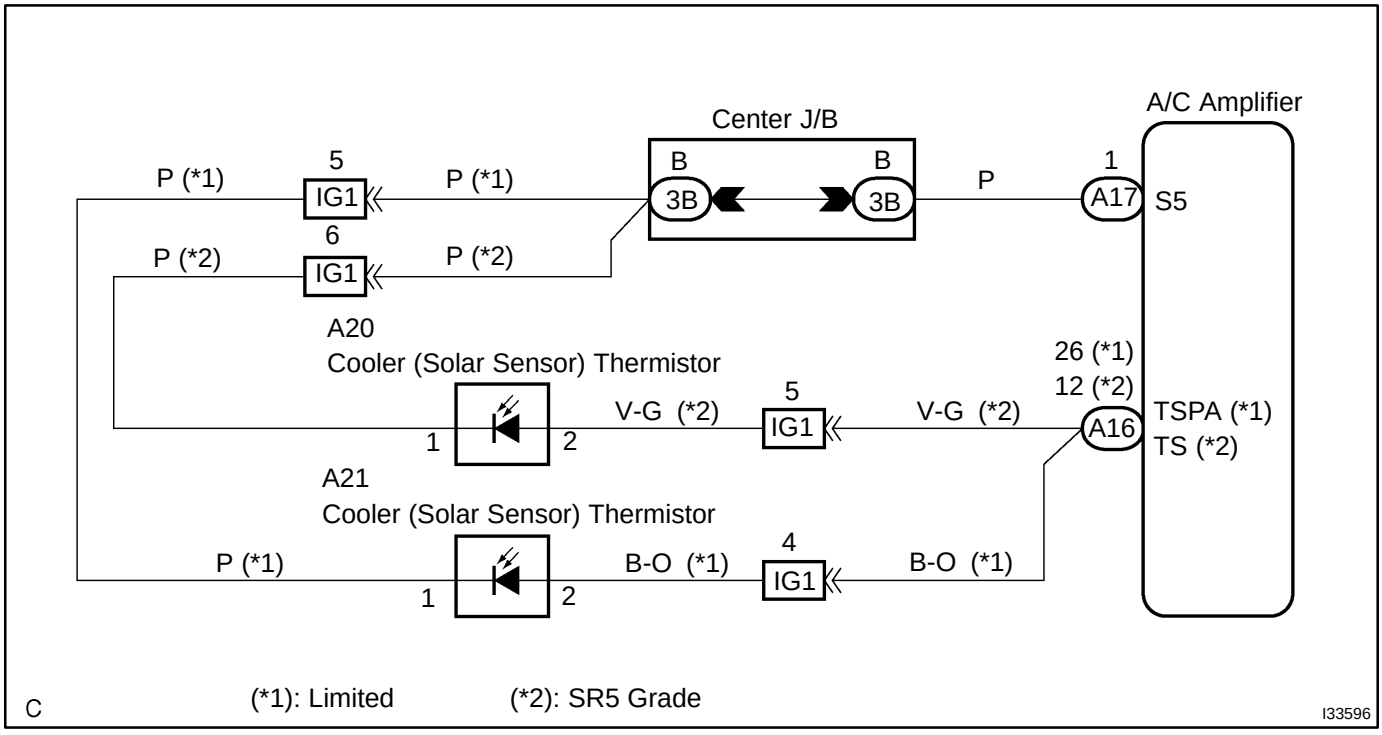
CIRCUIT DESCRIPTION



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

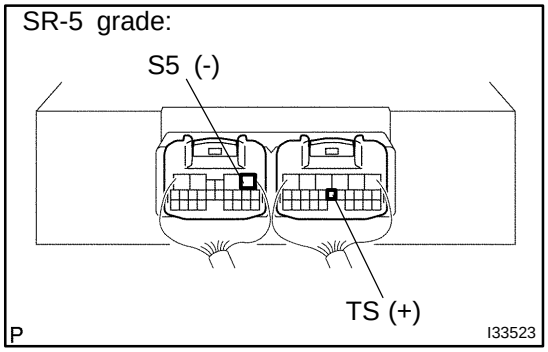
DTC No.	Detection Item	Trouble Area
21	Open or short in solar sensor circuit. (Please note that display of DTC 21 is not abnormal when the sensor is not receiving solar radiation.)	• Cooler (solar sensor) thermistor • Harness or connector between cooler (solar sensor) thermistor and A/C amplifier • A/C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

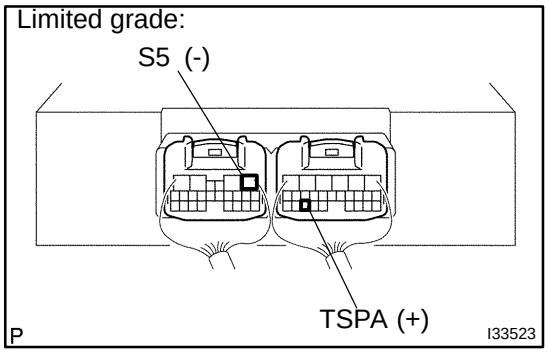
WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT AIR CONDITIONING AMPLIFIER(TS, TSP, S5)





(a) Remove the A/C amplifier assy with the connectors being connected.

(b) Turn the ignition switch to ON

(c) Check voltage.

(1) SR-5 grade:

Measure voltage between terminal TS and S5 of the A/C amplifier connector when the cooler (solar sensor) thermistor is subjected to an electric light and when the cooler (solar sensor) thermistor is covered by a cloth.

Voltage:

Sensor is subjected to electrical light: 0.8 - 3.3 V

Sensor is covered by a cloth: Below 0.8 V

(2) Limited grade:

Measure voltage between terminal TSPA and S5 of the A/C amplifier connector when the cooler (solar sensor) thermistor is subjected to an electric light and when the cooler (solar sensor) thermistor is covered by a cloth.

Voltage:

Sensor is subjected to electrical light: 0.8 - 3.3 V

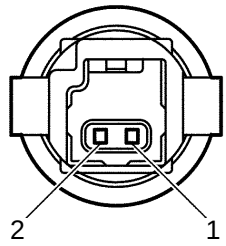
Sensor is covered by a cloth: Below 0.8 V

NG → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE**

OK

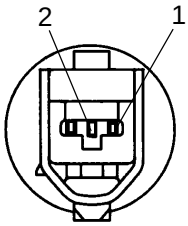
2	INSPECT COOLER (SOLAR SENSOR) THERMISTOR

SR-5 grade:



I33907

Limited grade:



I33908

(a) Remove the cooler (solar sensor) thermistor.
(b) Cover sensor with a cloth, and check and measure resistance between terminal 1 and 2 of the cooler (solar sensor) thermistor.
Resistance: ∞ Ω (No continuity)

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

(c) Remove the cloth from the cooler (solar sensor) thermistor and subject the sensor to the electric light and measure resistance between terminal 1 and 2 of the cooler (solar sensor) thermistor.
Resistance: Approx. 10 kΩ (Continuity)

HINT:
Connect the ohmmeter positive (+) lead to terminal 2 and the ohmmerter negative (-) lead to terminal 1 of the cooler (solar sensor) thermistor.

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

OK

3	CHECK HARNESS AND CONNECTOR(BETWEEN COOLER (SOLAR SENSOR) THERMISTOR AND AIR CONDITONING AMPLIFIER)

(a) Check for open and short circuit in the harness and the connector between the cooler (solar sensor) thermistor and the A/C amplifier (See page 01-35).

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

OK

4	CHECK DIAGNOSTIC TROUBLE CODE

(a) Start up the DTC check mode.
(b) Check that DTC 21 is not output again.
Standard: DTC 21 is not output.

NG → **SYSTEM OK**

OK

CHECK AND REPLACE AIR CONDITIONING AMPLIFIER