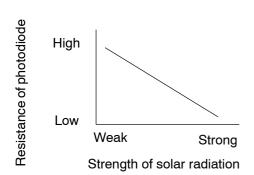
DIAR0-01

DTC	2 1	Solar Sensor Circuit
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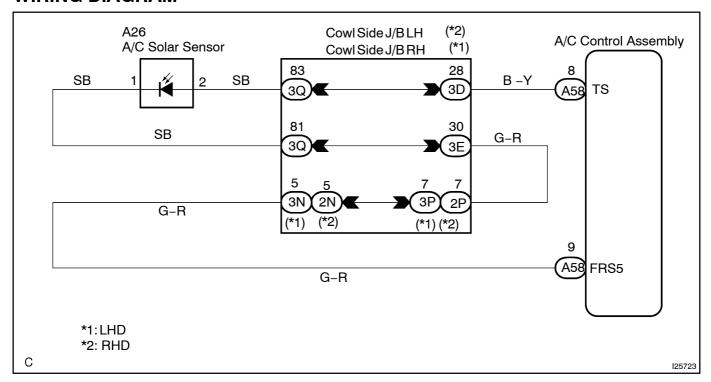
# **CIRCUIT DESCRIPTION**



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

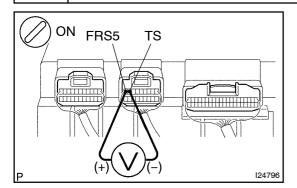
DTC No	Detection Item	Trouble Area
	Open or short in solar sensor circuit	Solar sensor
21	Please note that display of diagnostic trouble code 2 1 is not	<ul> <li>Harness or connector between solar sensor and A/C amplifier</li> </ul>
	abnormal when the sensor is not receiving solar radiation	• A/C amplifier

# **WIRING DIAGRAM**



## **INSPECTION PROCEDURE**

1 Check voltage between terminals TS and FRS5 of A/C amplifier.



## **PREPARATION:**

Remove A/C amplifier with connectors still connected.

#### CHECK:

- (a) Turn ignition switch to ON.
- (b) Measure voltage between terminals TS and FRS5 of A/C amplifier connector when the solar sensor is subjected to an electric light, and when the sensor is covered with a cloth.

### OK:

Condition	Voltage
Sensor subjected to electric light	0.8 – 4.3 V
Sensor covered with a cloth	Below 0.8 V

### HINT:

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

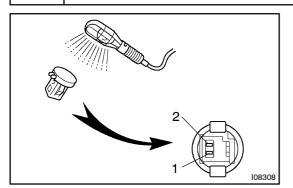
NG

Go to step 2.



Proceed to next circuit inspection shown on problem symptoms table (See page DI-1238). However, if DTC 2  $\,$  1 is displayed, check and replace A/C amplifier.

2 Check solar sensor.



### PREPARATION:

Remove solar sensor.

### **CHECK:**

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

#### HINT:

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

## OK:

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

### **PREPARATION:**

- (a) Remove the cloth from the solar sensor and subject the sensor to electric light.
- (b) Measure resistance.

#### OK:

Resistance : Approx. 4  $k\Omega$  (continuity)

HINT:

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

NG

Replace solar sensor.

OK

3

Check harness and connector between A/C amplifier and solar sensor (See page IN-38).

NG

Repair or replace harness or connector.

OK

Check and replace A/C amplifier.