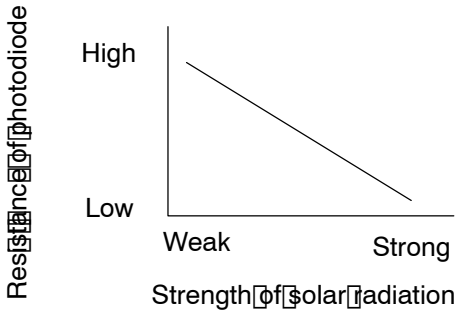
DI2QV–01

DTC	B1424/24	Solar sensor circuit (Driver side)

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
B1424/24	Open or short in solar sensor circuit. Please note that display of diagnostic trouble code 21 is not abnormal when the sensor is not receiving solar radiation.	• Solar sensor. • Harness or connector between solar sensor and A/C control assembly. • A/C control assembly.

WIRING DIAGRAM

See page DI–926

INSPECTION PROCEDURE

HINT:
In case of using the LEXUS hand–held tester, start the inspection step 1 and in case of not using the LEXUS hand–held tester, start from step 2.

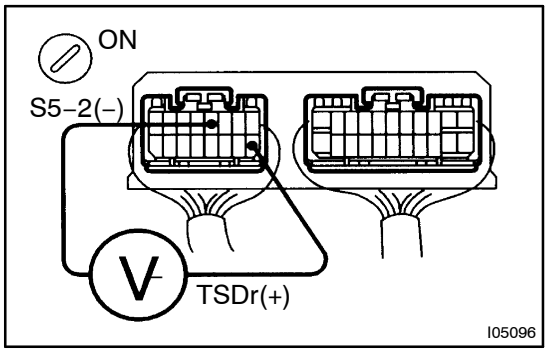
1	Check solar sensor (Driver Side) using LEXUS hand–held tester.

PREPARATION:
Connect the LEXUS hand–held tester to the DLC3.
CHECK:
Check the Solar Sensor (Driver Side) using DATA LIST.

OK	Check and replace A/C control assembly.

NG

2	**Check voltage between terminals S5–2 and TSDr of A/C control assembly connector.**



PREPARATION:

Remove A/C control assembly with connectors still connected.

CHECK:

(a) Turn ignition switch ON.

(b) Measure voltage between terminals S5–2 and TSDr 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	0.8 – 4.3 V
Sensor covered by a cloth	Below 0.8 V

HINT:

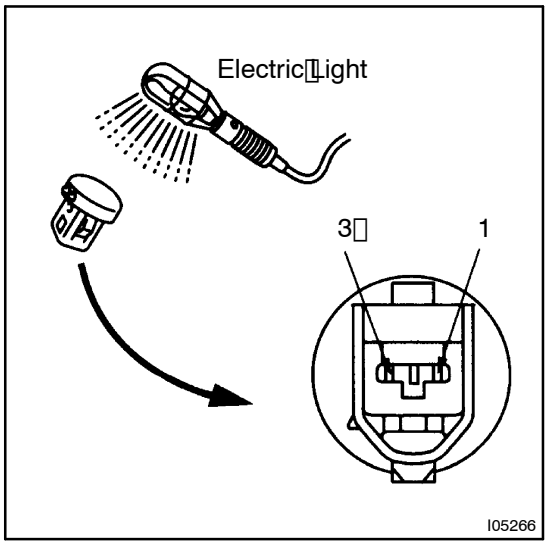
As the inspection light is moved away from the sensor, the voltage increases.

NG → **Go to step 3.**

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–912). However, if DTC B1424/24 is displayed, check and replace A/C control assembly.

3	Check solar sensor.



PREPARATION:

(a) Remove glove compartment assembly.

(b) Remove solar sensor.

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 1 and negative (–) lead to terminal 2 of the solar sensor.

OK:

Resistance: ∞ Ω (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 kΩ (continuity)

HINT:

As the electric light is moved 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–29).

NG	Repair or replace harness or connector.

OK

Check and replace A/C control assembly.