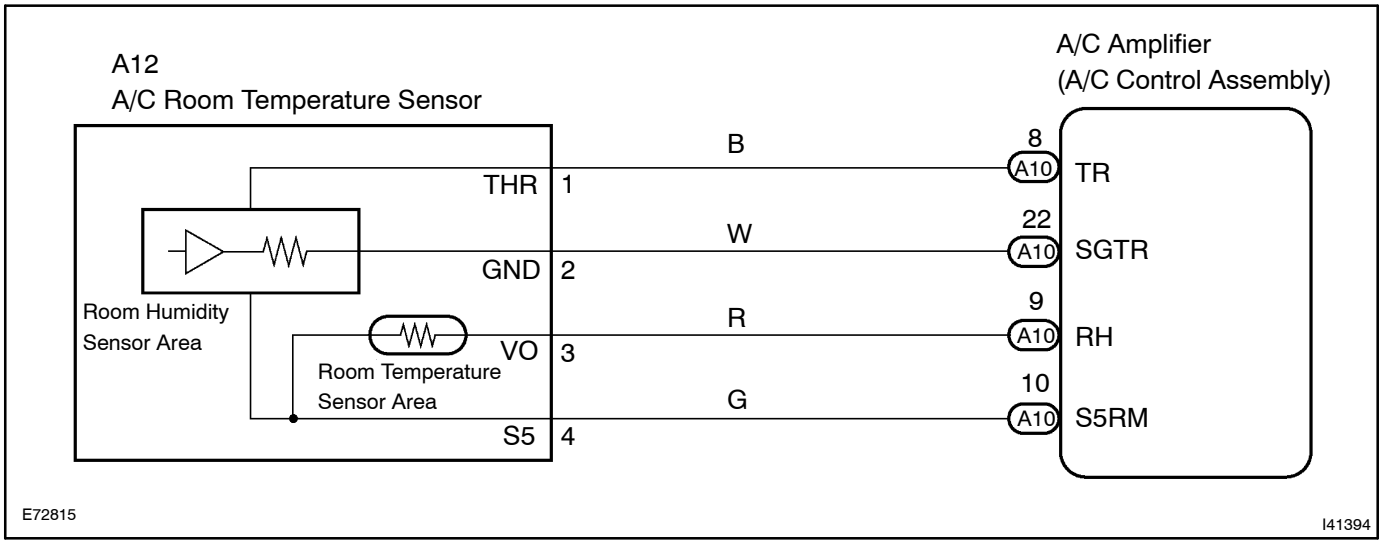
DTC B1462 ROOM HUMIDITY SENSOR CIRCUIT

CIRCUIT DESCRIPTION

The A/C room humidity sensor detects room humidity. The voltage of the A/C room humidity sensor changes in accordance with room humidity. The A/C amplifier reads changes in the A/C room humidity sensor. The A/C room humidity sensor is integrated with A/C room temperature sensor.

DTC No.	Detection item	Trouble Area
B1462	Open or short in room humidity sensor circuit	• A/C room humidity sensor (A/C room temperature sensor) • Harness or connector between A/C room humidity sensor (A/C room temperature sensor) and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE ON INTELLIGENT TESTER II

(a) Connect the intelligent tester II to DLC3.
(b) Turn the power switch ON and push the intelligent tester II main switch ON.
(c) Select the item below in the DATA LIST, and read the display on the intelligent tester II.

DATA LIST / AIR CONDITIONER:

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
Humidity sensor (Humidity Sens)	Humidity sensor / min.: 0% max.: 100%	Actual room humidity is displayed	–

OK:

The displayed is as specified in the normal condition.

Result

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

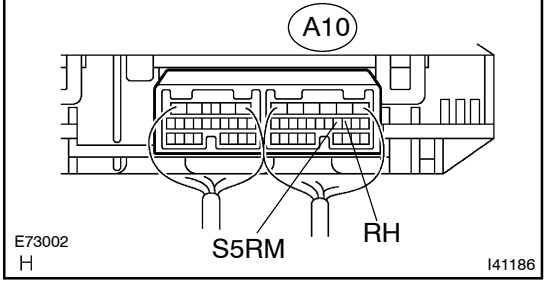
B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–1035)**

C → **REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55–52)**

A

2 INSPECT AIR CONDITIONING AMPLIFIER(RH–S5RM)

Air Conditioning Amplifier Connector Wire Harness View:



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

(b) Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A10–9 (RH) – A10–10 (S5RM)	Power switch ON at 25 °C (77 °F)	1.8 to 2.2 V
A10–9 (RH) – A10–10 (S5RM)	Power switch ON at 40 °C (104 °F)	1.2 to 1.6 V

HINT:

As the temperature increases, the voltage decreases.

Result:

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

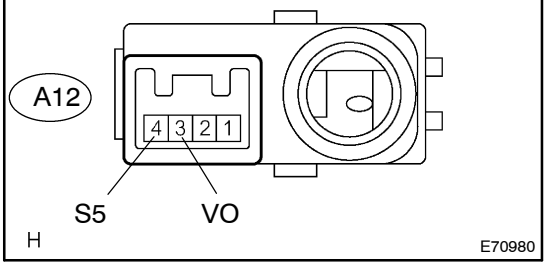
B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–1035)**

C → **REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55–52)**

A

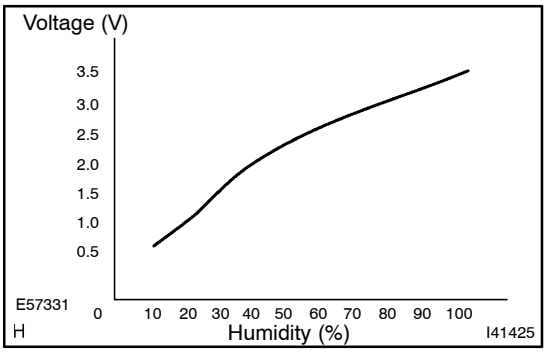
3 INSPECT A/C ROOM TEMPERATURE SENSOR (HUMIDITY SENSOR)

A/C Room Temperature Sensor Connector Front View:



(a) Remove the A/C room temperature sensor.
(b) Disconnect the connector from A/C room temperature sensor.
(c) Measure the resistance according to the value(s) in the table below.
Standard:
at 25°C (77°F) Humidity 40%: 1.61 to 2.24 V
at 25°C (77°F) Humidity 60%: 2.26 to 2.66 V

HINT:
As the humidity increases, the resistance decreases (see the graph below).

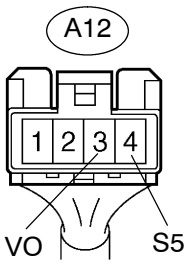


NG → **REPLACE A/C ROOM TEMPERATURE SENSOR**

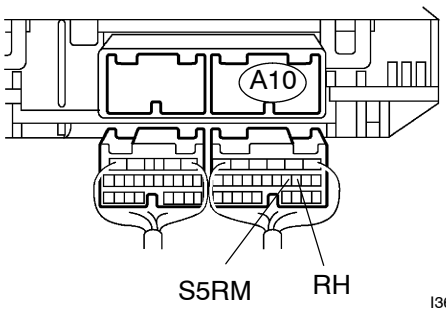
OK

4 CHECK HARNESS AND CONNECTOR(A/C ROOM HUMIDITY SENSOR – AIR CONDITIONING AMPLIFIER) (SEE PAGE 01–46)

A/C Room Temperature Sensor Front View:



Air Conditioning Amplifier Wire Harness View:



(a) Disconnect the connector from A/C room temperature sensor and air conditioning amplifier.
(b) Measure the resistance according to the value(s) in the table below.
Standard:

Tester connection	Condition	Specified condition
A10–9 (RH) – A12–3 (VO)	Always	Below 1 Ω
A10–10 (S5RM) – A12–4 (S5)	Always	Below 1 Ω
A10–9 (RH) – Body ground	Always	10 kΩ or higher
A10–10 (S5RM) – Body ground	Always	10 kΩ or higher

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

OK

REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55–52)