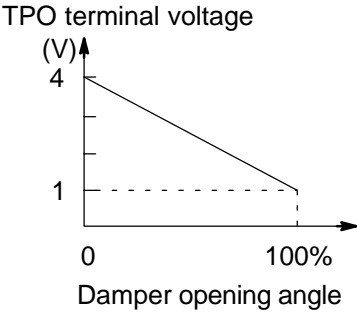


DTC	B1433/33	AIR OUTLET DAMPER POSITION SENSOR CIRCUIT
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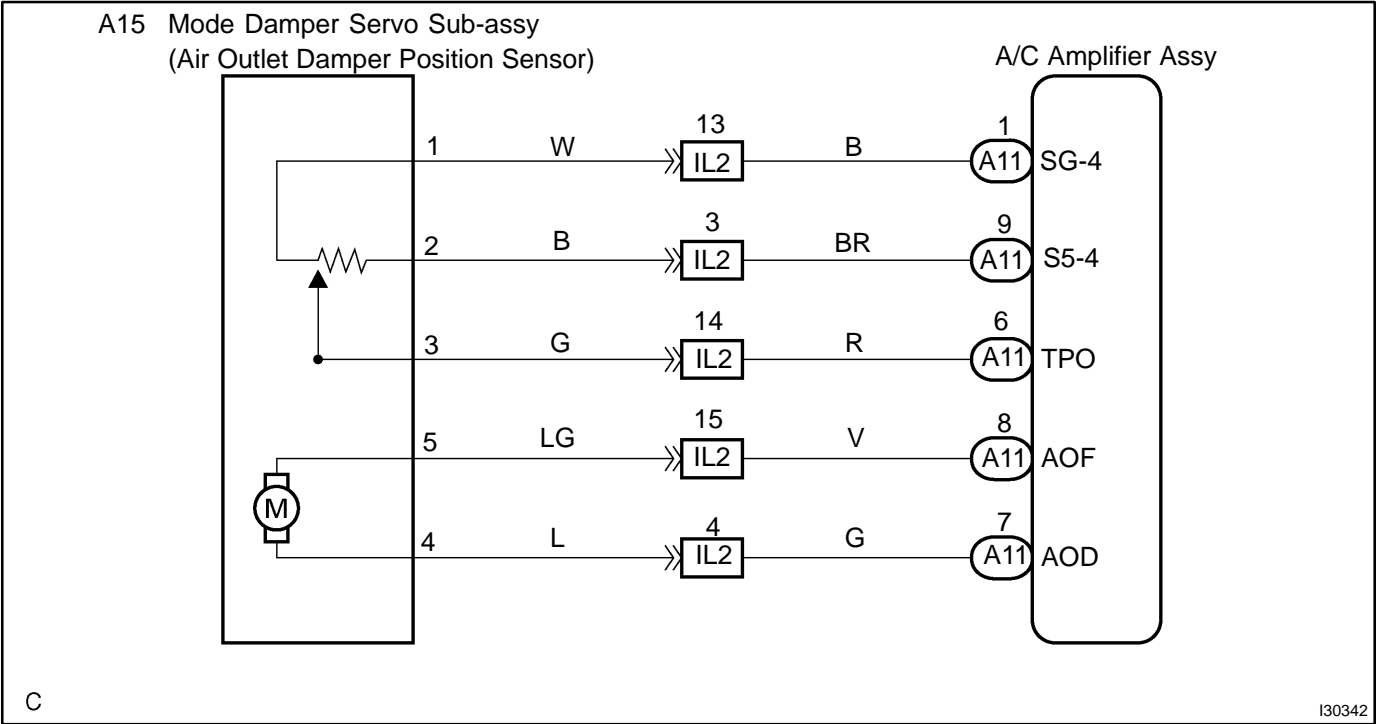
CIRCUIT DESCRIPTION



This sensor detects the position of the mode damper servo sub-assy and sends the appropriate signals to the A/C amplifier assy. The position sensor is built into the mode damper servo sub-assy .

DTC No.	Detection Item	Trouble Area
B1433/33	Short to ground or power source circuit in air outlet damper position sensor circuit.	<ul style="list-style-type: none"><li>• Mode damper position sensor (Air outlet damper position sensor)</li><li>• Harness or connector between mode damper servo sub-assy and A/C amplifier assy</li><li>• A/C amplifier assy</li></ul>

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 the 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
A/O DAMP POS	Air outlet damper position /min.: -14% max.: 113.5%	Changes depending on air outlet power position	-
A/O DAMP TARG	Air outlet damper target position /min.: -14% max.: 113.5%	Changes depending on air outlet power position	-

#### Result:

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

**B**

**REPLACE AIRCONDITIONER AMPLIFIER ASSY**

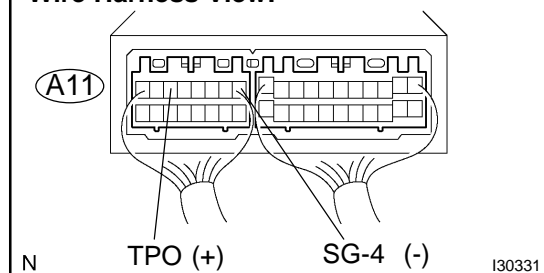
**C**

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

**A**

### 2 INSPECT AIRCONDITIONER AMPLIFIER ASSY(TPO, SG-4)

#### A/C Amplifier Connector Wire Harness View:



- (a) Remove the 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
A11-6 (TPO) - A11-1 (SG-4)	FACE	3.5 to 4.5 V
A11-6 (TPO) - A11-1 (SG-4)	DEF	0.5 to 1.5 V

#### HINT:

As the air outlet servomotor is moved from FACE side to DEF side, the voltage decreases gradually without interruption.

**OK**

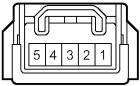
**REPLACE AIRCONDITIONER AMPLIFIER ASSY**

**NG**

3INSPECT MODE DAMPER SERVO SUB-ASSY

Mode Damper Servo Sub-assy  
Connector Wire Harness View:

A15



I30157

- (a) Remove the mode damper servo sub-assy.
- (b) Measure resistance between terminals 1 and 2 of mode damper servo sub-assy connector.

Standard:

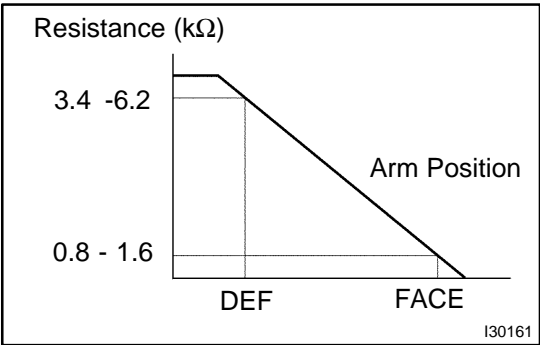
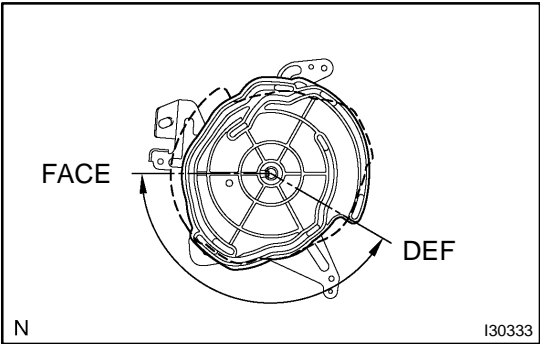
Tester connection	Condition	Specified condition
A15-1 - A15-2	Always	4.2 to 7.8 kΩ

- (c) While operating mode damper servo sub-assy as in the procedure on page 05-1 164, measure resistance between terminals 1 and 3 of mode damper servo sub-assy.

Standard:

Tester connection	Condition	Specified condition
A15-1 - A15-3	DEF	3.4 to 6.2 kΩ
A15-1 - A15-3	FACE	0.8 to 1.6 kΩ

HINT:  
As the mode damper servo sub-assy moves from DEF side to FACE side, the resistance decreases gradually without interruption.



OK

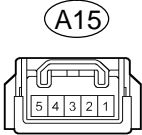
NG

REPLACE MODE DAMPER SERVO SUB-ASSY

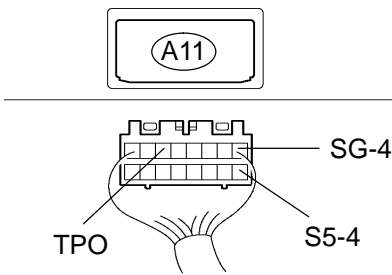
4

CHECK HARNESS AND CONNECTOR(MODE DAMPER SERVO SUB-ASSY - A/C AMPIFIER ASSY)

**Mode Damper Servo Sub-assy**  
**Wire Harness View:**



**A/C Amplifier Connector**  
**Wire Harness View:**



I41014

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

**Standard:**

Tester connection	Condition	Specified condition
A11-1 (SG-4) - A15-1	Always	Below 1 Ω
A11-9 (S5-4) - A15-2	Always	Below 1 Ω
A11-6 (TPO) - A15-3	Always	Below 1 Ω
A11-1 (SG-4) - Body ground	Always	10 kΩ or higher
A11-9 (S5-4) - Body ground	Always	10 kΩ or higher
A11-6 (TPO) - Body ground	Always	10 kΩ or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIRCONDITIONER AMPLIFIER ASSY