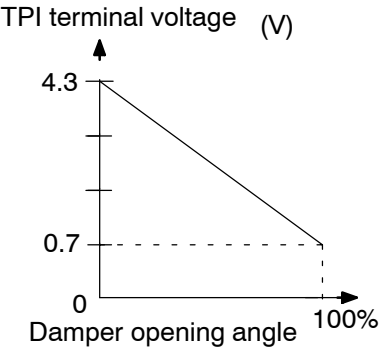


DTC	AUTO,M2	AIR INLET DAMPER POSITION SENSOR CIRCUIT
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CIRCUIT DESCRIPTION



This sensor detects the position of the air inlet control servomotor and sends the appropriate signals to the A/C amplifier. The position sensor is built into the air inlet control servomotor. The position sensor's resistance changes as the air inlet control servomotor arm moves.

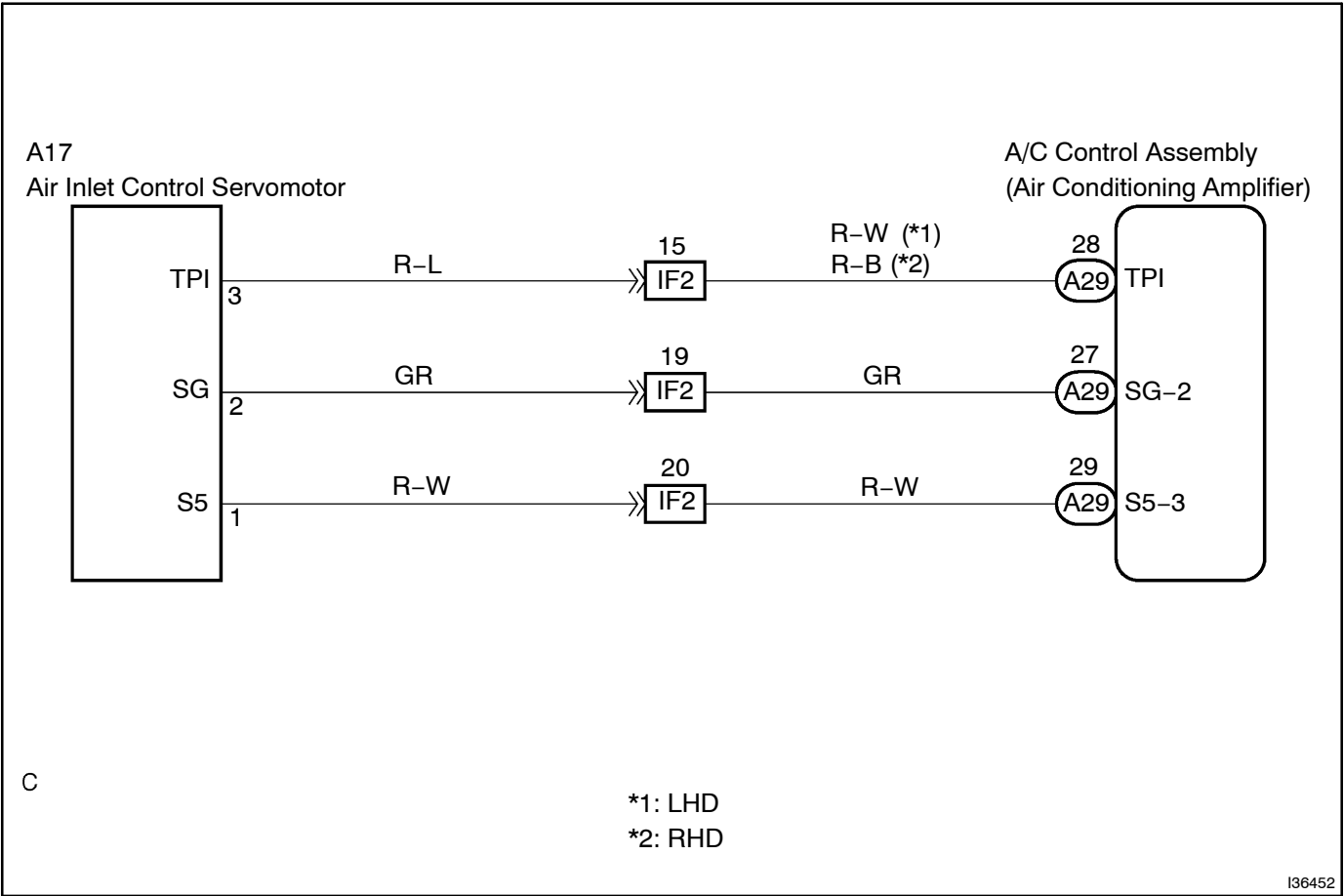
The A/C amplifier reads the arm position with the input voltage from the position sensor.

HINT:

This DTC is output only for two way flow heater models.

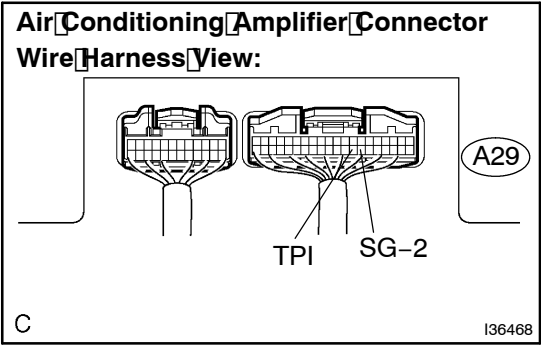
DTC No.	Detection Item	Trouble Area
AUTO, M2	Open or short in power source circuit in air inlet control servomotor	<ul style="list-style-type: none"><li>• Air inlet control servomotor</li><li>• Harness or connector between air inlet control servomotor and A/C amplifier</li><li>• A/C amplifier</li></ul>

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT AIR CONDITIONING AMPLIFIER (TPI - SG-2)



- (a) Remove the A/C amplifier with the connectors still connected.
- (b) Change the REC/FRS to activate the air inlet servomotor.
- (c) Measure the voltage according to the value(s) in the table below.

Standard:

Tester Connection	Condition	Specified Condition
A29-28 (TPI) - A29-27 (SG-2)	Ignition switch ON RECIRC position	3.5 to 4.5 V
A29-28 (TPI) - A29-27 (SG-2)	Ignition switch ON FRESH position	0.5 to 1.8 V

HINT:  
As the air inlet servomotor is moved from REC side to FRS side, the voltage decreases gradually without interruption.

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 05-862)

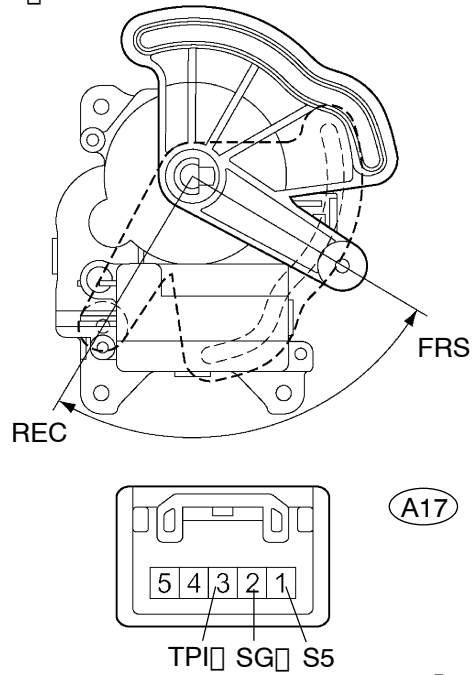
C

REPLACE AIR CONDITIONING AMPLIFIER  
(SEE PUB. NO. RM864E ON PAGE 55-96)

A

2 INSPECT AIR INLET CONTROL SERVOMOTOR

LHD Models:



- (a) Remove the air inlet control servomotor.
- (b) Disconnect the connector from the air inlet control servomotor.
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A17-1 (S5) - A17-2 (SG)	Always	4.2 to 7.8 kΩ

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

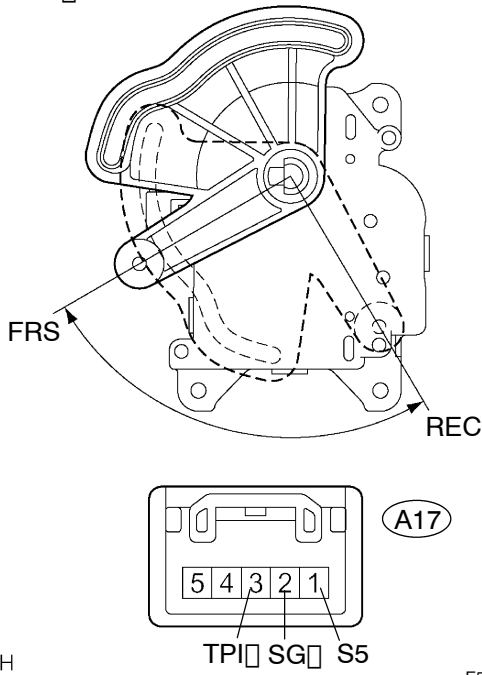
HINT:

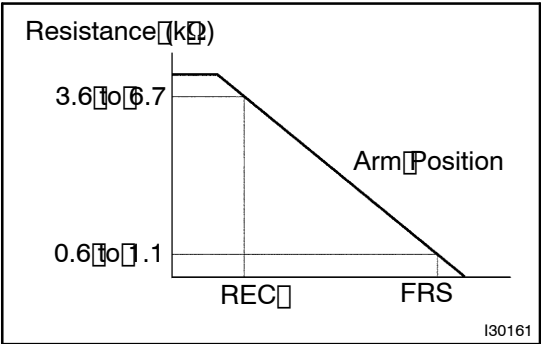
See page 05-913 for the operation procedure of the air inlet control servomotor.

Standard:

Tester connection	Condition	Specified condition
A17-3 (TPI) - A17-2 (SG)	RECIRCULATION position	3.6 to 6.7 kΩ
A17-3 (TPI) - A17-2 (SG)	FRESH position	0.6 to 1.1 kΩ

RHD Models:



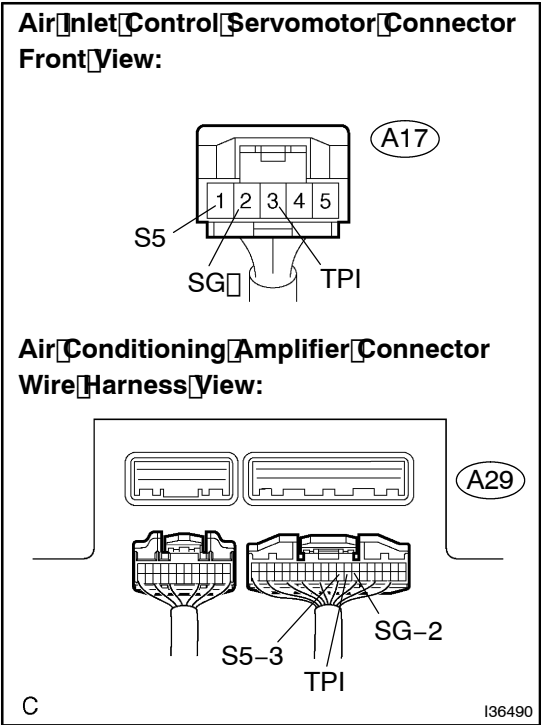


(e) As the air inlet control servomotor moves from FRESH to RECIRCULATION, the resistance decreases gradually without interruption.

**NG** REPLACE AIR INLET CONTROL SERVOMOTOR

**OK**

**3 CHECK HARNESS AND CONNECTOR (AIR INLET CONTROL SERVOMOTOR – AIR CONDITIONING AMPLIFIER) (SEE PAGE 01-32)**



- (a) Disconnect the connectors from the air inlet control servomotor and A/C amplifier.
- (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester connection	Condition	Specified condition
A29-28 (TPI) – A17-3 (TPI)	Always	Below 1 Ω
A29-27 (SG2) – A17-2 (SG)	Always	Below 1 Ω
A29-29 (S5-3) – A17-1 (S5)	Always	Below 1 Ω
A29-28 (TPI) – Body ground	Always	10 kΩ or higher
A29-27 (SG2) – Body ground	Always	10 kΩ or higher
A29-29 (S5-3) – Body ground	Always	10 kΩ or higher

**NG** REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**

**REPLACE AIR CONDITIONING AMPLIFIER (SEE PUB. NO. RM864E ON PAGE 55-96)**