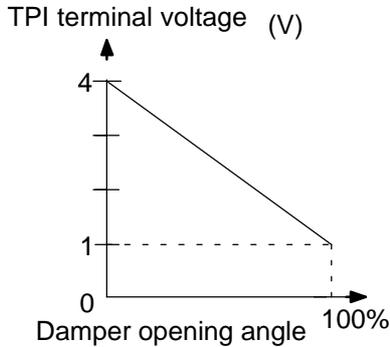


DTC	31	AIR MIX DAMPER POSITION SENSOR CIRCUIT(PASSENGER SIDE)
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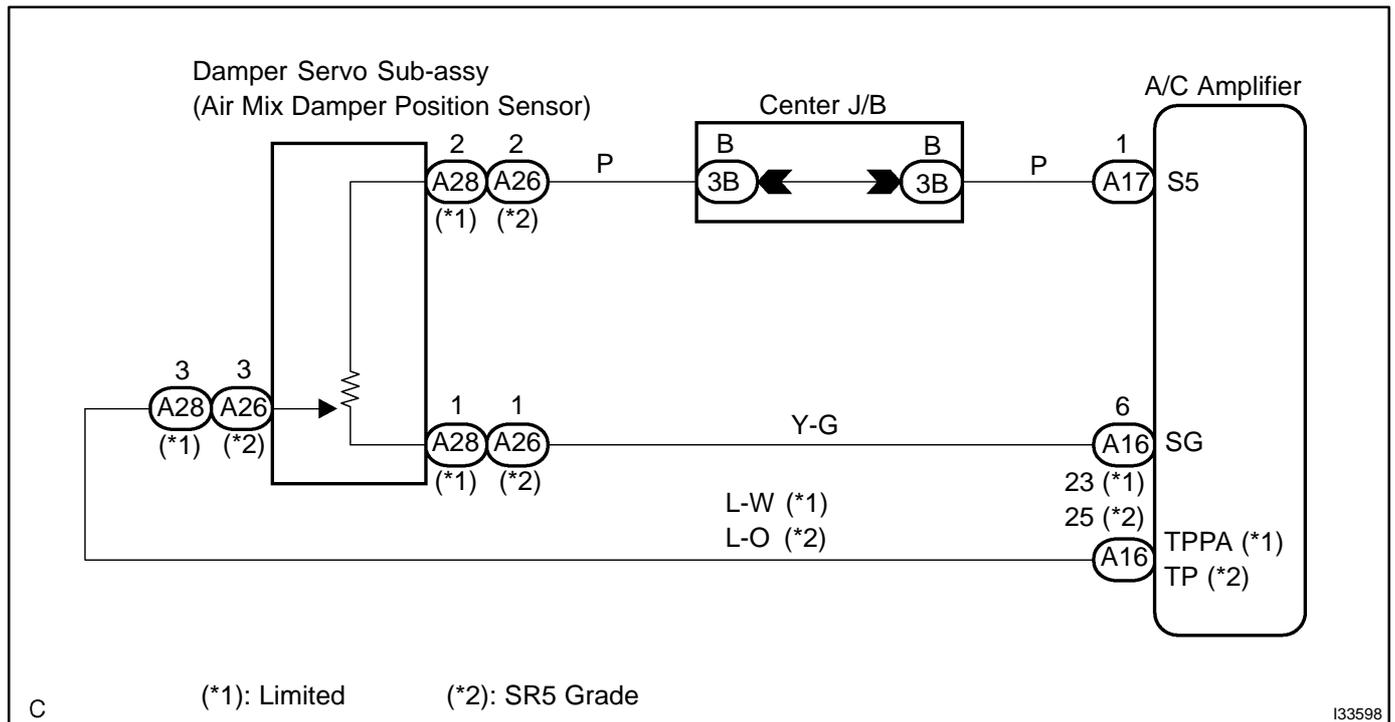
CIRCUIT DESCRIPTION



This sensor detects the position of the air mix damper and sends the appropriate signals to the A/C amplifier. The position sensor is built into the damper servo sub-assy (air mix control servomotor).

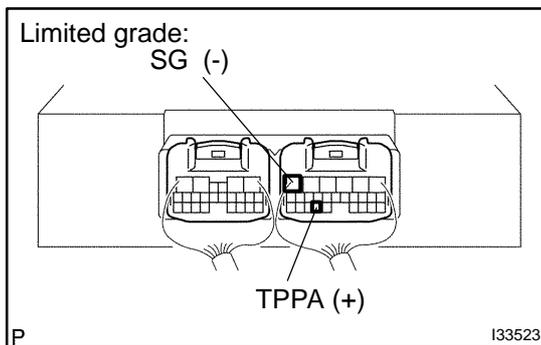
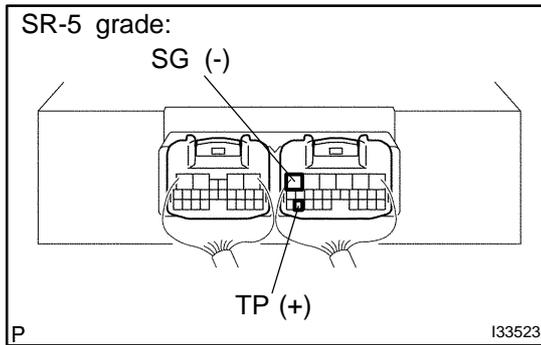
DTC No.	Detection Item	Trouble Area
31	Open or short in air mix damper position sensor circuit.	<ul style="list-style-type: none"> • Damper servo sub-assy (air mix damper position sensor) • Harness of connector between air mix control servomotor and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT AIR CONDITIONING AMPLIFIER(TP, TPPA, SG)



- (a) Remove the A/C amplifier with the connectors being connected.
- (b) Turn ignition switch to ON.
- (c) Check voltage.
 - (1) SR-5 grade:
Change the set temperature to activate the air mix damper, and measure the voltage between terminal TP and SG of the A/C amplifier.

Voltage:**MAX. COLD: 3.5 - 4.5 V****MAX. HOT: 0.5 - 1.8 V**

- (2) Limited grade:

Change the set temperature to activate the air mix damper, and measure the voltage between terminal TPPA and SG of the A/C amplifier.

Voltage:**MAX. COLD: 3.5 - 4.5 V****MAX. HOT: 0.5 - 1.8 V****HINT:**

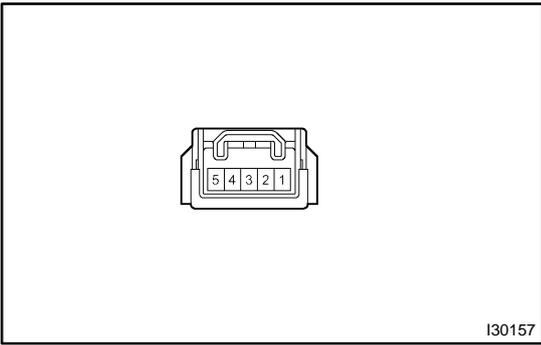
As the set temperature increases, the voltage decreases gradually without interruption.

OK

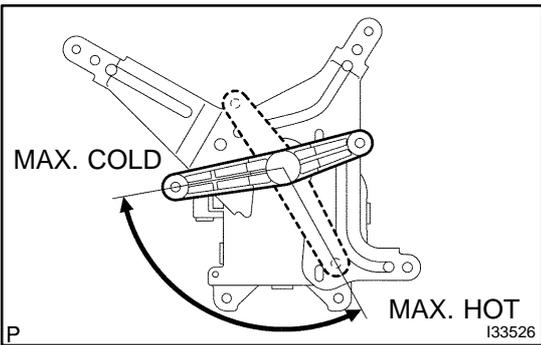
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE

NG

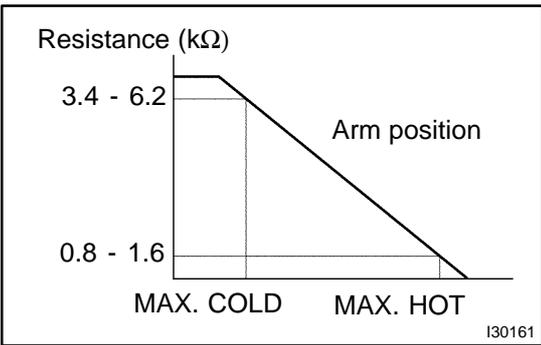
2 INSPECT DAMPER SERVO SUB-ASSY



- (a) Remove the damper servo sub-assy.
- (b) Measure resistance between terminal 1 and 2 of damper servo sub-assy connector.
Resistance: 4.2 - 7.8 kΩ
- (c) While operating the damper servo sub-assy as shown in the procedure on page 05-574 , measure resistance between terminal 1 and 3 of the damper servo sub-assy.
Resistance:
MAX. COLD: 3.4 - 6.2 kΩ
MAX. HOT: 0.8 - 1.6 kΩ



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



NG → **REPLACE DAMPER SERVO SUB-ASSY**

OK

3 CHECK HARNESS AND CONNECTOR(BETWEEN AIR MIX DAMPER POSITION SENSOR AND AIR CONDITIONING AMPLIFIER)

- (a) Check for open and short in the harness and the connector between the damper servo sub-assy (air mix damper position sensor) and the A/C amplifier (See page 01-35).

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

OK

4 CHECK DIAGNOSTIC TROUBLE CODE

- (a) Start up the DTC check mode.
- (b) Check that DTC 11 is not output again.

Standard: DTC 11 is not output.

OK**SYSTEM OK****NG****CHECK AND REPLACE AIR CONDITIONING AMPLIFIER**