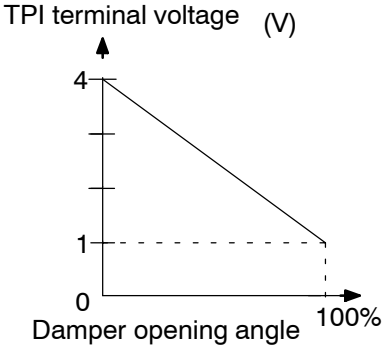
DTC	31	AIR MIX DAMPER POSITION SENSOR CIRCUIT(PASSENGER SIDE)

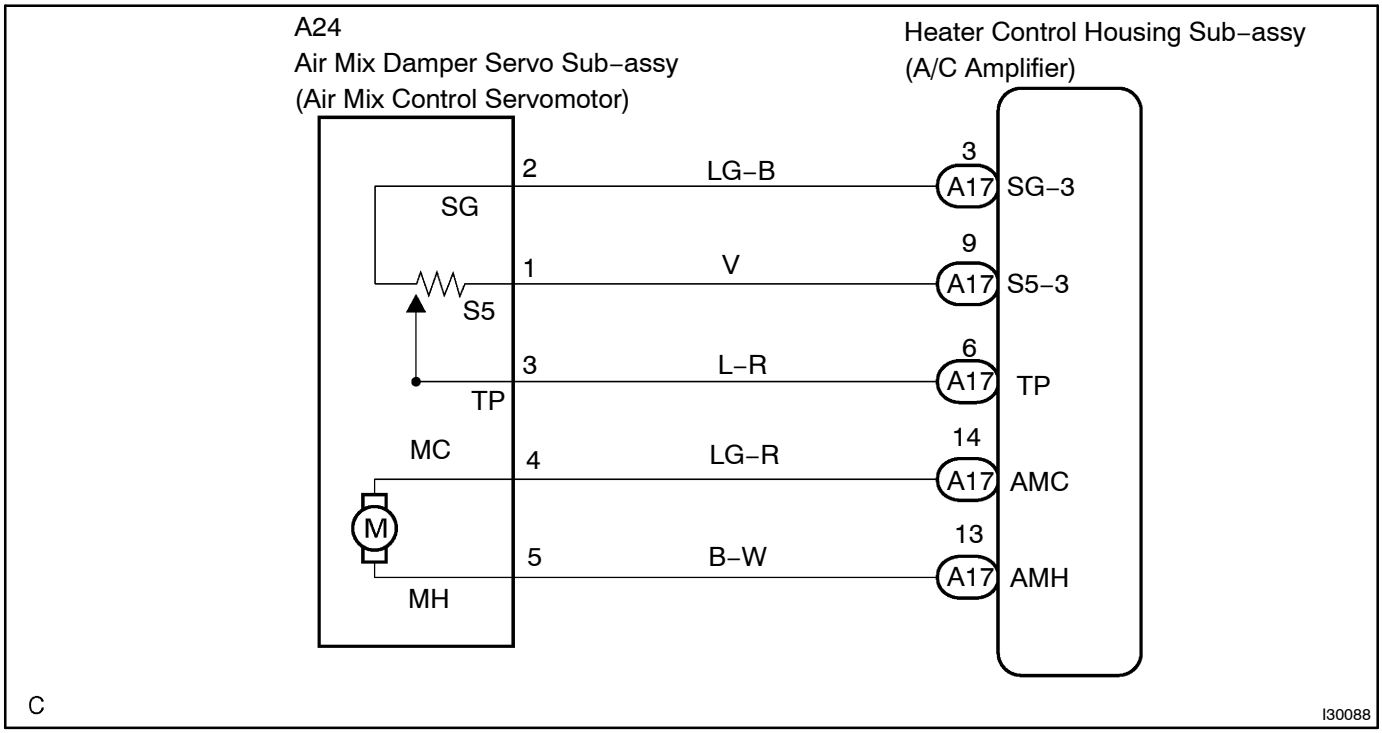
CIRCUIT DESCRIPTION



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 air mix control servomotor.

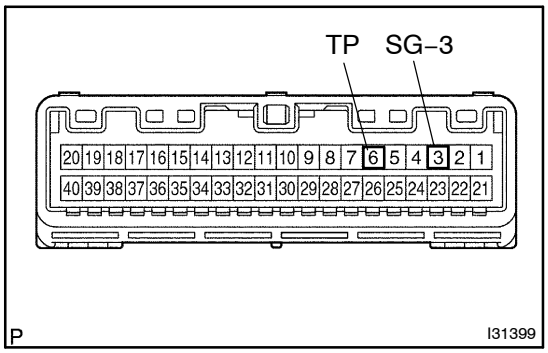
DTC No.	Detection Item	Trouble Area
31	Short to ground or power source circuit in air mix damper position sensor circuit.	• Air mix damper position sensor • Harness of connector between air mix control servomotor and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT HEATER CONTROL HOUSING SUB–ASSY(TP, SG–3)



(a) Remove the A/C amplifier with connectors still connected.
(b) Turn ignition switch ON.
(c) Change the set temperature to activate the air mix damper and measure the voltage between terminals TP and SG–3 of 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.

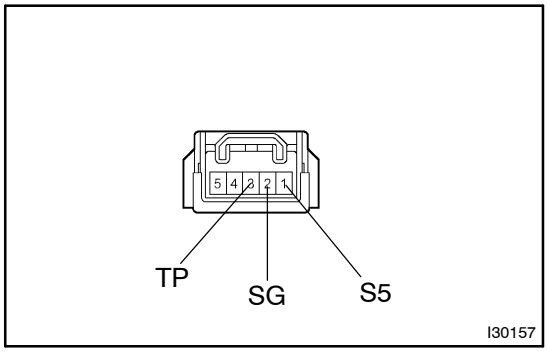
A	NG
B	OK (when checking from the PROBLEM SYMPTOM TABLE)
C	OK (Checking from the DTC)

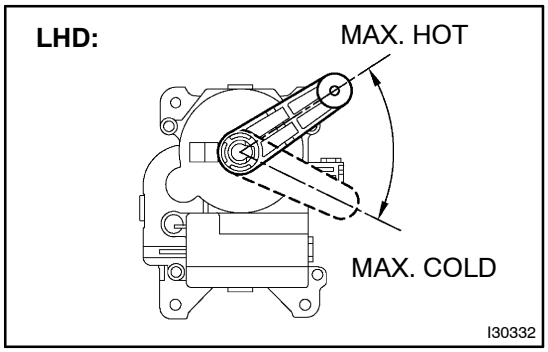
B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE**

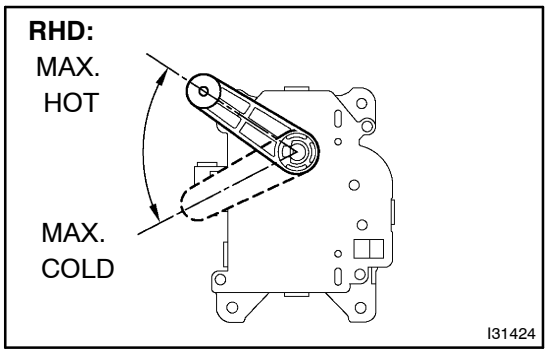
C → **CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY**

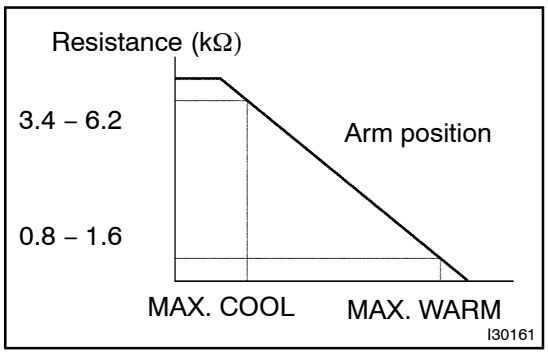
A

2 INSPECT AIRMIX DAMPER SERVO SUB–ASSY









(a) Remove the air mix damper servo sub–assy.
(b) Measure resistance between terminals 1 and 2 of air mix damper servo sub–assy connector.
Resistance: 4.2 – 7.8 kΩ
(c) While operating air mix damper servo sub–assy as shown in the procedure on page 05–726, measure resistance between terminals 1 and 3 of air mix damper servo sub–assy.
Resistance:
MAX. COLD: 3.4 – 6.2 kΩ
MAX. HOT: 0.8 – 1.6 kΩ

HINT:
As the air mix damper servo sub–assy moves from cool side to warm side, the resistance decreases gradually without interruption.

NG → **REPLACE AIRMIX DAMPER SERVO SUB–ASSY**

OK

3	**CHECK HARNESS AND CONNECTOR(BETWEEN AIR MIX DAMPER POSITION SENSOR AND HEATER CONTROL HOUSING SUB–ASSY)**

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

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY