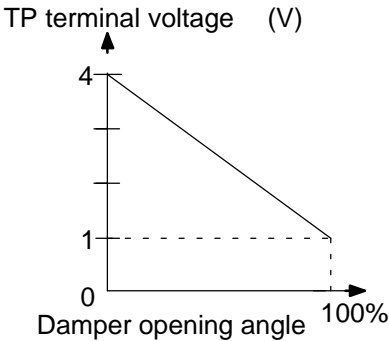


DTC	31	AIR MIX DAMPER POSITION SENSOR CIRCUIT(PASSENGER SIDE)
-----	----	---

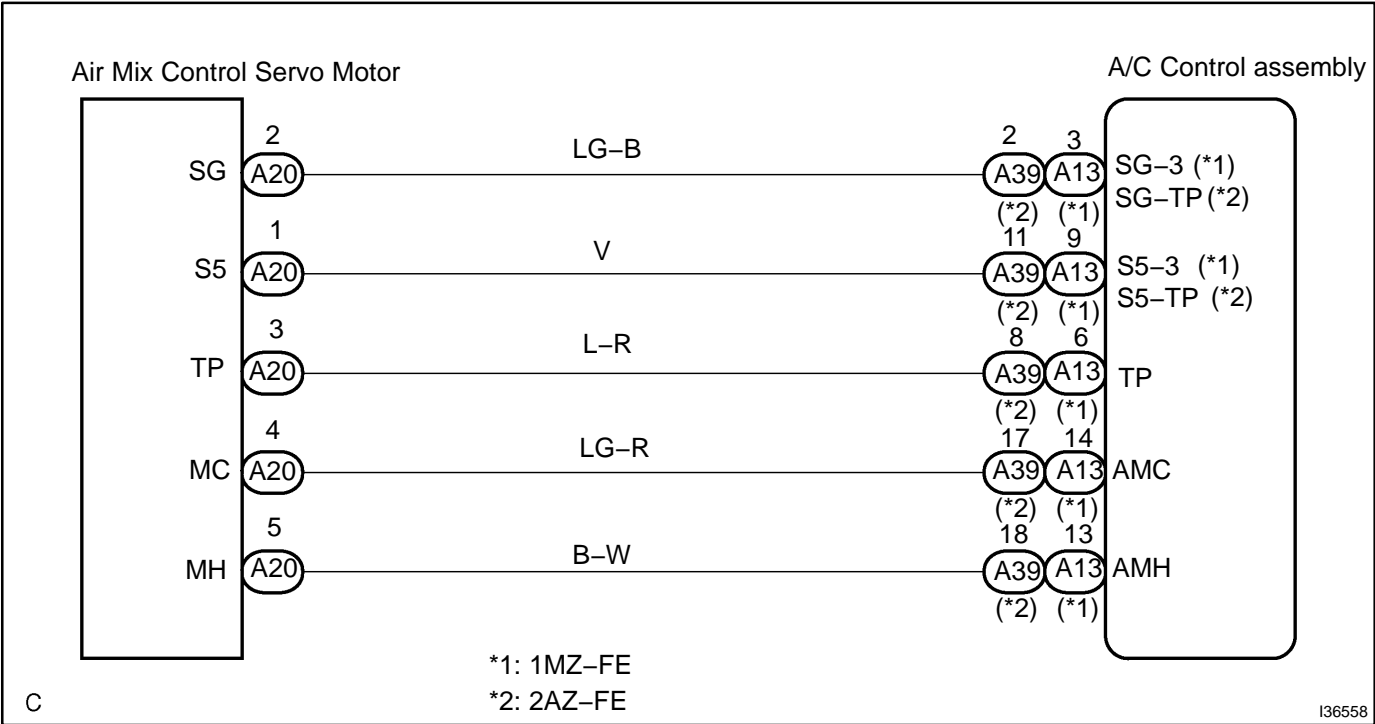
CIRCUIT DESCRIPTION



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.

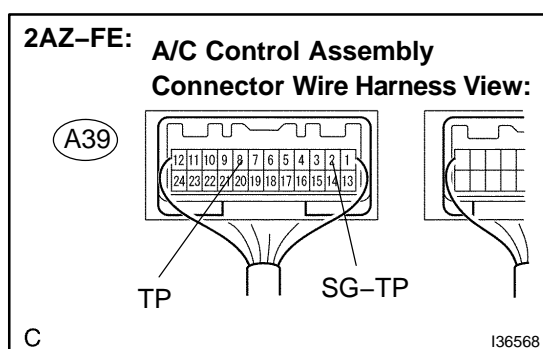
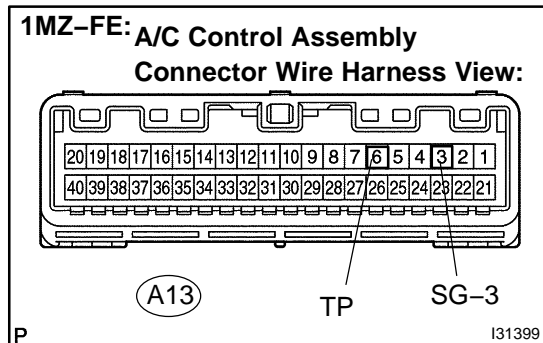
DTC No.	Detection Item	Trouble Area
31	Open or short in air mix damper position sensor circuit.	<ul style="list-style-type: none">• Air mix damper position sensor• Harness of connector between air mix control servomotor and A/C amplifier• A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

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



- (a) Remove the A/C amplifier assy with connectors still connected.
- (b) Turn the ignition switch to the ON position.
- (c) 1MZ-FE:
Measure voltage according to the value(s) in the table below.

Standard:

Terminal No.	Condition	Specified Condition
A13-6 (TP) – A13-3 (SG-3)	MAX. COOL	3.5 to 4.5 V
A13-6 (TP) – A13-3 (SG-3)	MAX HOT	0.5 to 1.8 V

HINT:

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

- (d) 2AZ-FE:
Measure voltage according to the value(s) in the table below.

Standard:

Terminal No.	Condition	Specified Condition
A39-8 (TP) – A39-2 (SG-TP)	MAX. COOL	3.5 to 4.5 V
A39-8 (TP) – A39-2 (SG-TP)	MAX HOT	0.5 to 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 IN PROBLEM SYMPTOMS TABLE**

C

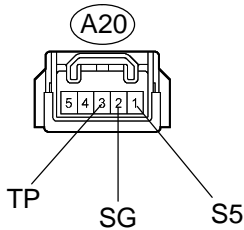
**CHECK AND REPLACE HEATER CONTROL
HOUSING SUB-ASSY**

A

2

INSPECT AIRMIX DAMPER SERVO SUB-ASSY

Air Mix Control Servo Motor Connector Wire Harness View:



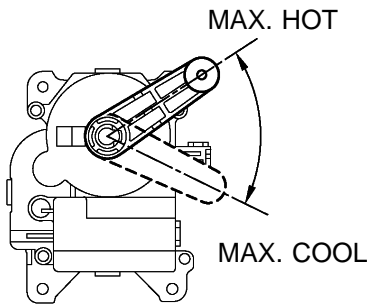
I30157

- (a) Remove the air mix damper servo sub-assy.
- (b) Measure the resistance according to the value(s) in the table below.

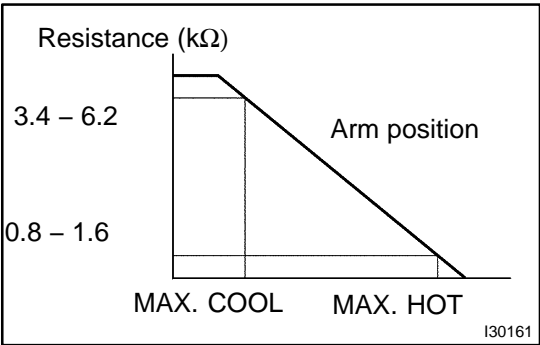
Standard:

Terminal No.	Condition	Specified Condition
A20-1 (S5) – A20-2 (SG)	Always	4.2 to 7.8 kΩ
A20-1 (S5) – A20-3 (TP)	MAX. COOL	3.4 to 6.2 kΩ
A20-1 (S5) – A20-3 (TP)	MAX. HOT	0.8 to 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.



I30332



I30161

NG

REPLACE AIRMIX DAMPER SERVO SUB-ASSY

OK

3

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

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB-ASSY