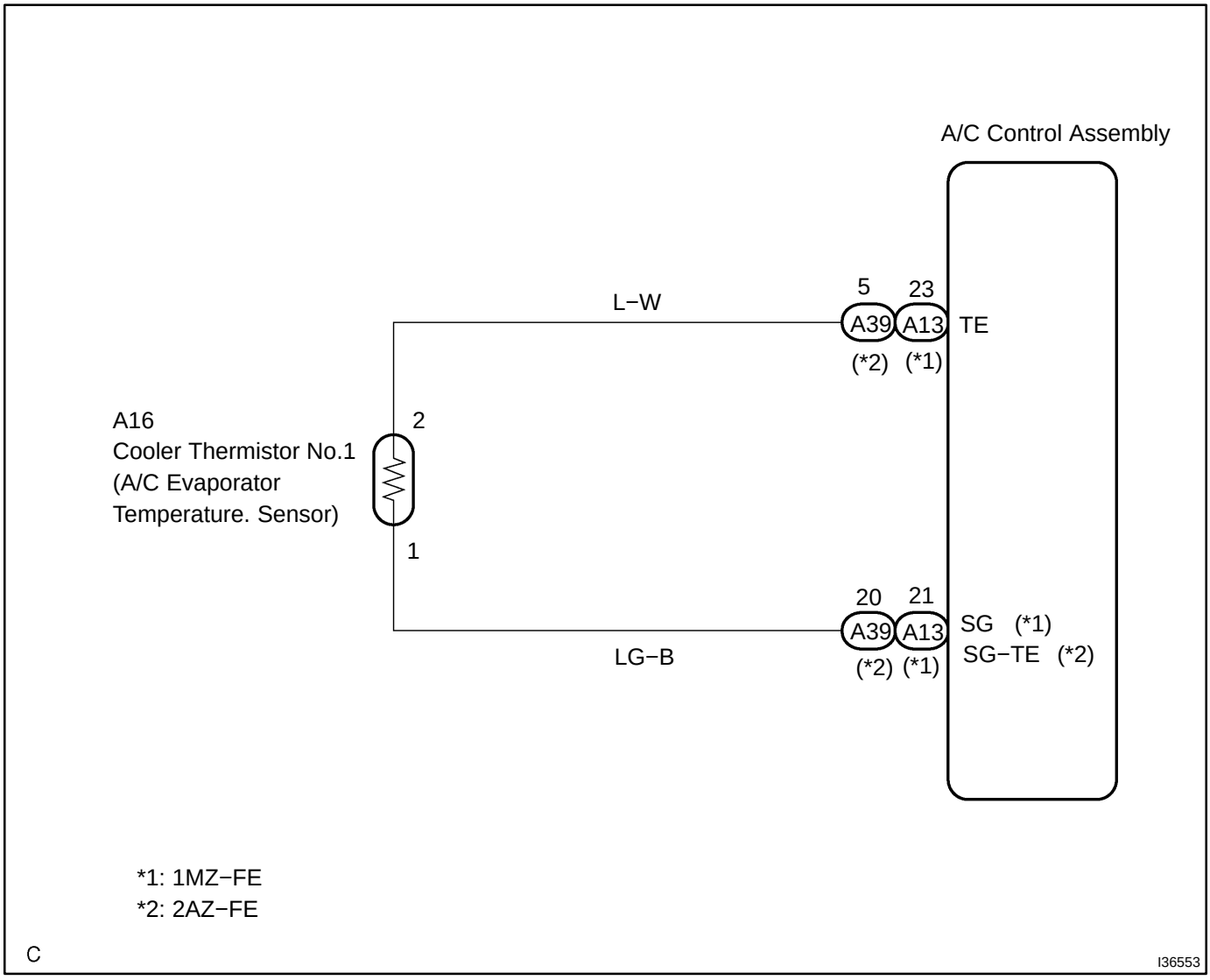
DTC	13	EVAPORATOR TEMPERATURE SENSOR CIRCUIT

CIRCUIT DESCRIPTION

This sensor detects the temperature inside the cooling unit and sends the appropriate signals to the A/C amplifier.

DTC No.	Detection Item	Trouble Area
13	Open or short in evaporator temperature sensor circuit.	• Evaporator temperature sensor • Harness or connector between evaporator temperature sensor and A/C amplifier • A/C amplifier

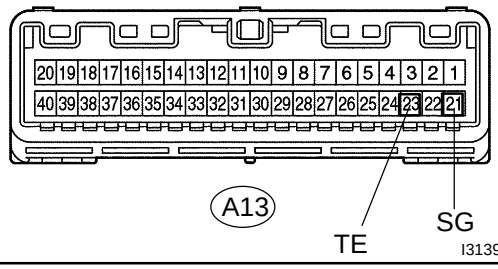
WIRING DIAGRAM



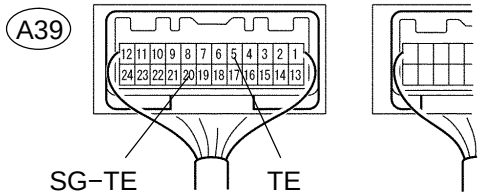
INSPECTION PROCEDURE

1	INSPECT HEATER CONTROL HOUSING SUB−ASSY(TE, SG)

1MZ−FE: A/C Control Assembly Connector Wire Harness View:



2AZ−FE: A/C Control Assembly Connector Wire Harness View:



(a) Remove A/C amplifier with connector.

(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
A13−23 (TE) − A13−21 (SG)	at 25°C (77°F)	2.0 to 2.4 V
A13−23 (TE) − A13−21 (SG)	at 40°C (104°F)	1.4 to 1.8 V

HINT:

As the temperature increases,the voltage decreases.

(d) 2AZ−FE:

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

Standard

Terminal No.	Condition	Specified Condition
A39−5 (TE) − A39−20 (SG−TE)	at 25°C (77°F)	2.0 to 2.4 V
A39−5 (TE) − A39−20 (SG−TE)	at 40°C (104°F)	1.4 to 1.8 V

HINT:

As the temperature increases,the voltage decreases.

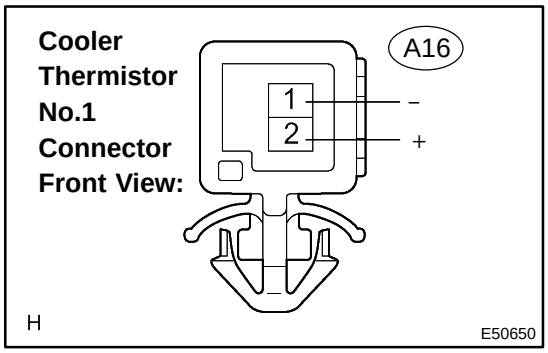
A	NG
B	OK (when checking from the PROBLEM SYMPTOM TABLE)
C	OK (Checking from the DTC)

B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

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

A

2 INSPECT COOLER THERMISTOR NO.1



(a) Remove cooler thermistor No.1.

(b) Check resistance between terminals 1 and 2 of cooler thermistor No.1 at each temperature, as shown in the chart.

Standard:

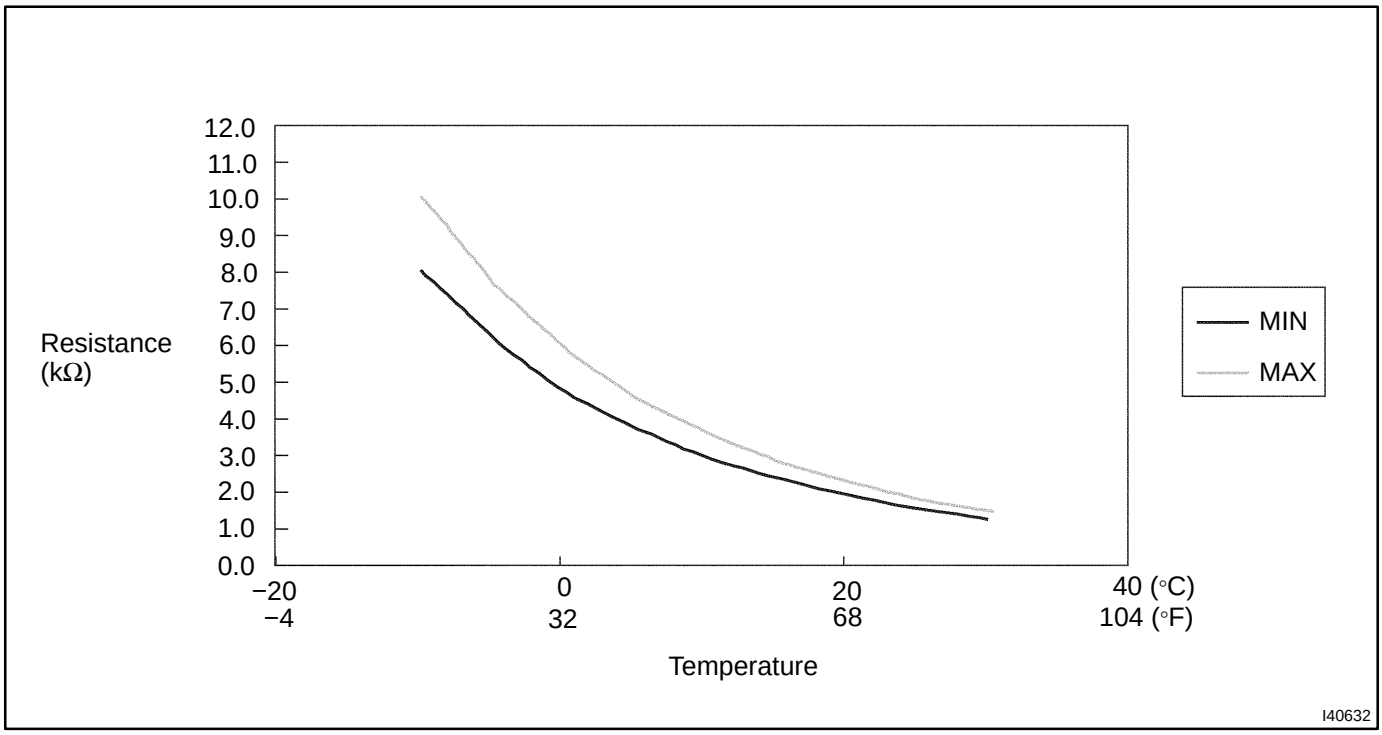
Tester connection	Condition	Specified condition
A16−1 − A16−2	−10°C (14°F)	8.00 to 10.00 kΩ
A16−1 − A16−2	−5°C (23°F)	6.15 to 7.65 kΩ
A16−1 − A16−2	0°C (32°F)	4.75 to 5.85 kΩ
A16−1 − A16−2	5°C (41°F)	3.70 to 4.55 kΩ
A16−1 − A16−2	10°C (50°F)	2.91 to 3.55 kΩ
A16−1 − A16−2	15°C (59°F)	2.32 to 2.80 kΩ
A16−1 − A16−2	20°C (68°F)	1.85 to 2.22 kΩ
A16−1 − A16−2	25°C (77°F)	1.48 to 1.77 kΩ
A16−1 − A16−2	30°C (86°F)	1.20 to 1.43 kΩ

NOTICE:

Even slightly touching the sensor may change the resistance value.Be sure to hold the connector of the sensor.

HINT:

As the temperature increases, the resistance decreases (see the chart below).



NG → **REPLACE COOLER THERMISTOR NO.1**

OK

3	CHECK HARNESS AND CONNECTOR(COOLER THERMISTOR NO.1 − HEATER CONTROL HOUSING SUB−ASSY)

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB−ASSY