

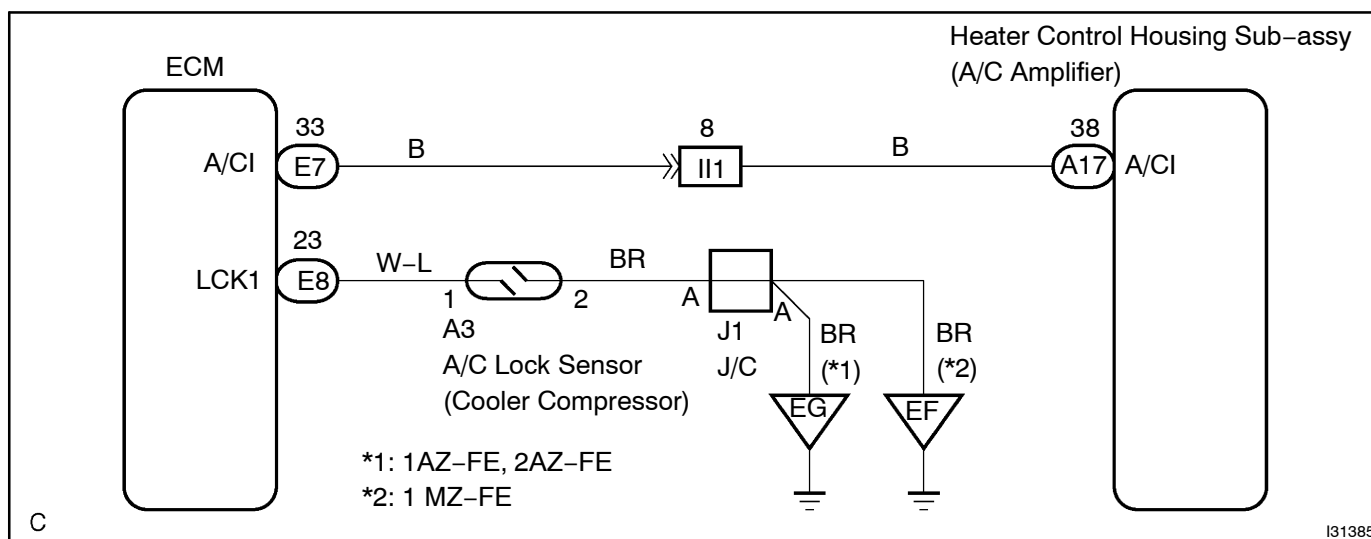
DTC	22	COMPRESSOR LOCK SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

This sensor sends 4 pulses per engine revolution to the A/C amplifier. If the number ratio of the compressor speed divided by the engine speed is smaller than a predetermined value, the A/C amplifier turns the compressor off. And, the indicator flashes at about 1 sec. intervals.

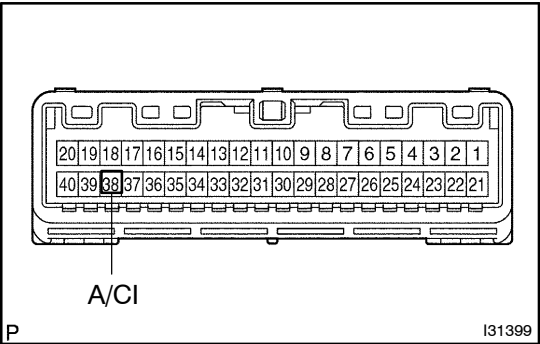
DTC No.	Detection Item	Trouble Area
22	<p>All conditions below are detected for 3 sec. or more.</p> <p>(a) Engine speed : 450 rpm or more.</p> <p>(b) Ratio between engine and compressor speed deviates 20 % or more in comparison to normal operation.</p>	<ul style="list-style-type: none"> • Compressor • Compressor drive belt • Compressor lock sensor • Harness or connector between compressor and ECM, between ECM and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT HEATER CONTROL HOUSING SUB-ASSY(A/CI)



- (a) Remove A/C amplifier with connectors still connected.
- (b) Turn ignition switch ON.
- (c) A/C switch ON.
- (d) Measure voltage between terminal A/CI of A/C amplifier and body ground.

Voltage: Below 1 V

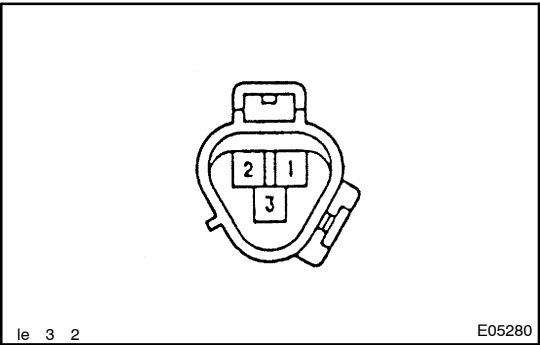
A	NG
B	OK (when checking from the PROBLEM SYMPTOM TABLE)
C	OK (Checking from the DTC)

B PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE

C CHECK AND REPLACE HEATER CONTROL HOUSING SUB-ASSY

A

2 INSPECT COOLER COMPRESSOR ASSY



- (a) Disconnect compressor connector.
- (b) Measure resistance between terminals 1 and 2 of compressor lock sensor connector.

Resistance: at 20 °C (68 °F): 165 – 205 Ω

NG REPLACE COOLER COMPRESSOR ASSY

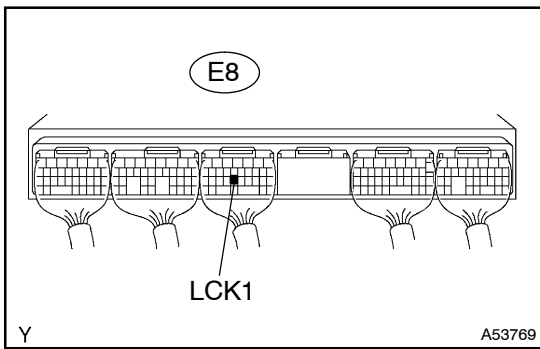
OK

3 CHECK HARNESS AND CONNECTOR(BETWEEN COOLER COMPRESSOR ASSY AND ECM)

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4 INSPECT ECM(LCK1)

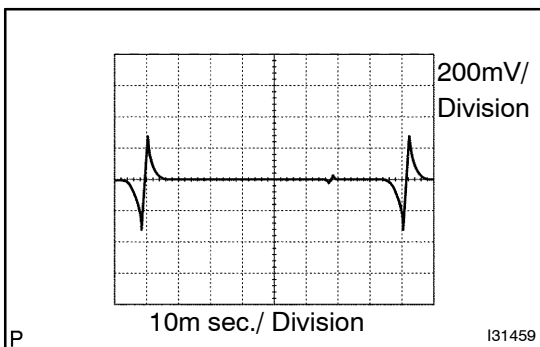


- (a) Remove ECM with connectors still connected.
- (b) Turn ignition switch ON.
- (c) A/C switch ON.
- (d) Measure waveform between terminal LCK1 of ECM and body ground.

OK : Pulse generation

HINT:

- The correct waveform is as shown.



NG

CHECK AND REPLACE ECM

OK

5 CHECK HARNESS AND CONNECTOR(BETWEEN ECM AND HEATER CONTROL HOUSING SUB-ASSY)

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB-ASSY