

DTC	B1422/22	COMPRESSOR LOCK SENSOR CIRCUIT
-----	----------	--------------------------------

CIRCUIT DESCRIPTION

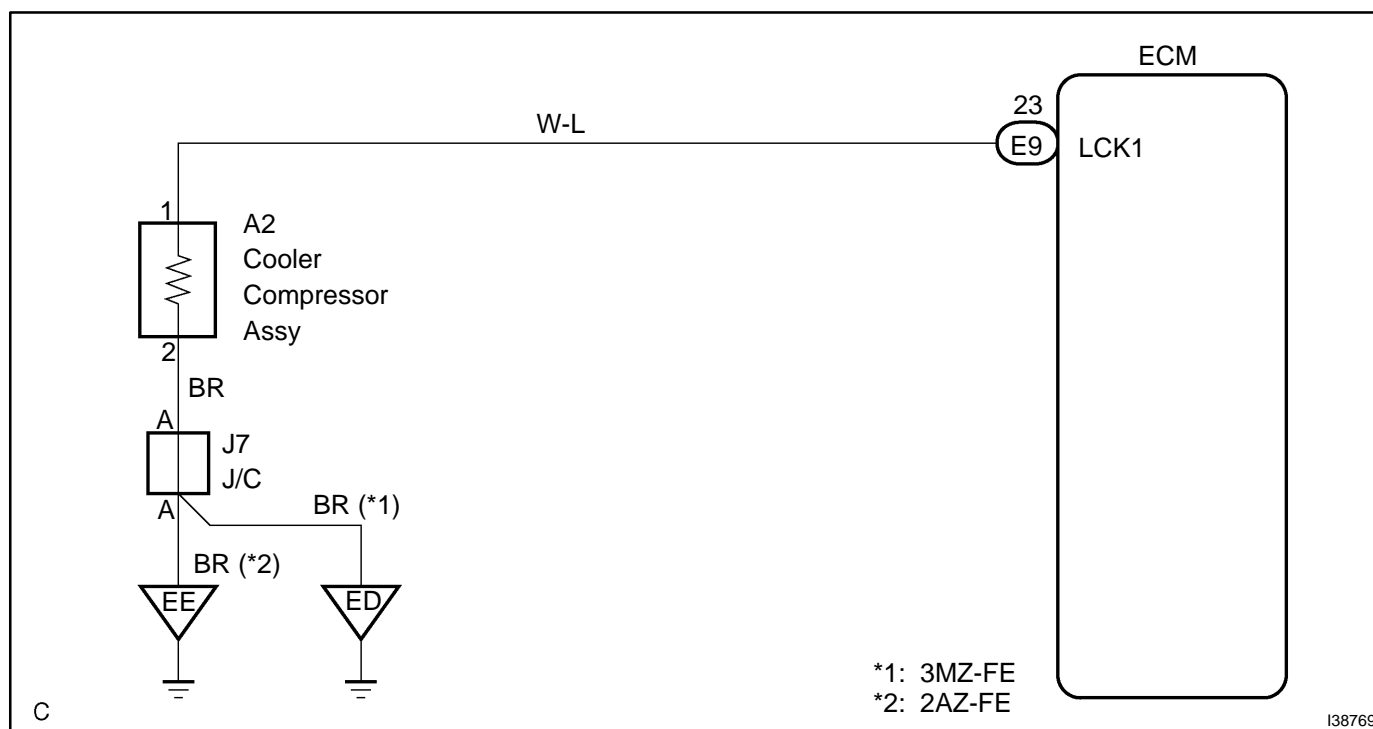
The ECM and A/C amplifier communicate via BEAN.

This sensor sends 4 pulses per engine revolution to the ECM.

If the number ratio of the compressor speed divided by the engine speed is smaller than a predetermined value, the ECM turns the compressor OFF. And the indicator flashes at about 1 second intervals.

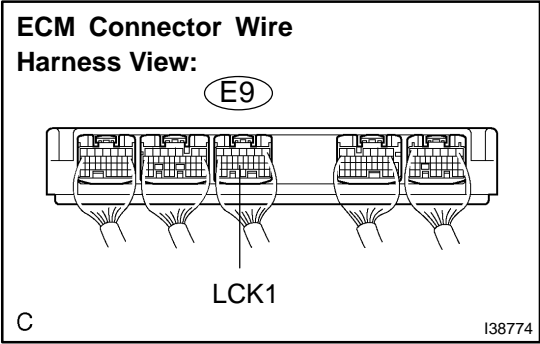
DTC No.	Detection Item	Trouble Area
B1422/22	<p>All conditions below are detected for 3 secs. or more</p> <p>(c) Engine speed: 450 rpm or more</p> <p>(d) Ratio between engine and compressor speed deviates 20 % or more in comparison to normal operation.</p>	<ul style="list-style-type: none"> • Cooler compressor assy (A/C magnetic clutch and lock sensor) • Cooler compressor assy drive belt • Cooler compressor assy lock sensor • Harness and connector between cooler compressor assy and ECM • Multiplex communication circuit • ECM • A/C amplifier assy

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT ECM(LCK1)



- (a) Remove the ECM with connectors still connected.
- (b) Measure the voltage according to the value(s) in the table below.

Standard:

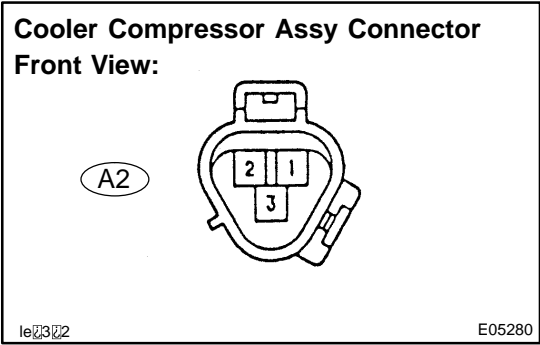
Tester connection	Condition	Specified condition
E9-23 (LCK1) - Body ground	Start engine A/C, switch AUTO	Pulse generation

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE(SEE PAGE 05-1 129)

NG

2 INSPECT COOLER COMPRESSOR ASSY



- (a) Disconnect the cooler compressor assy connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A2-1 - A2-2	at 20°C (68°F)	165 to 205 Ω

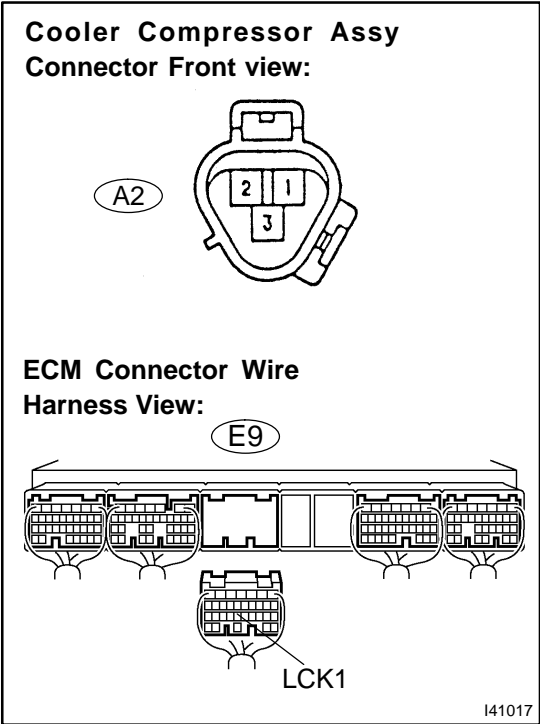
NG

REPLACE COOLER COMPRESSOR ASSY

OK

3

CHECK HARNESS AND CONNECTOR(ECM - COOLER COMPRESSOR ASSY)



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

Standard:

Tester connection	Condition	Specified condition
E9-23(LCK1) - A2-1	Always	Below 1 Ω
E9-23 (LCK1) - Body ground	Always	10 kΩ or higher
A2-2 - Body ground	Always	Below 1 Ω

NG

REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

REPLACE ECM