

DTC**B1422****COMPRESSOR LOCK SENSOR CIRCUIT****CIRCUIT DESCRIPTION**

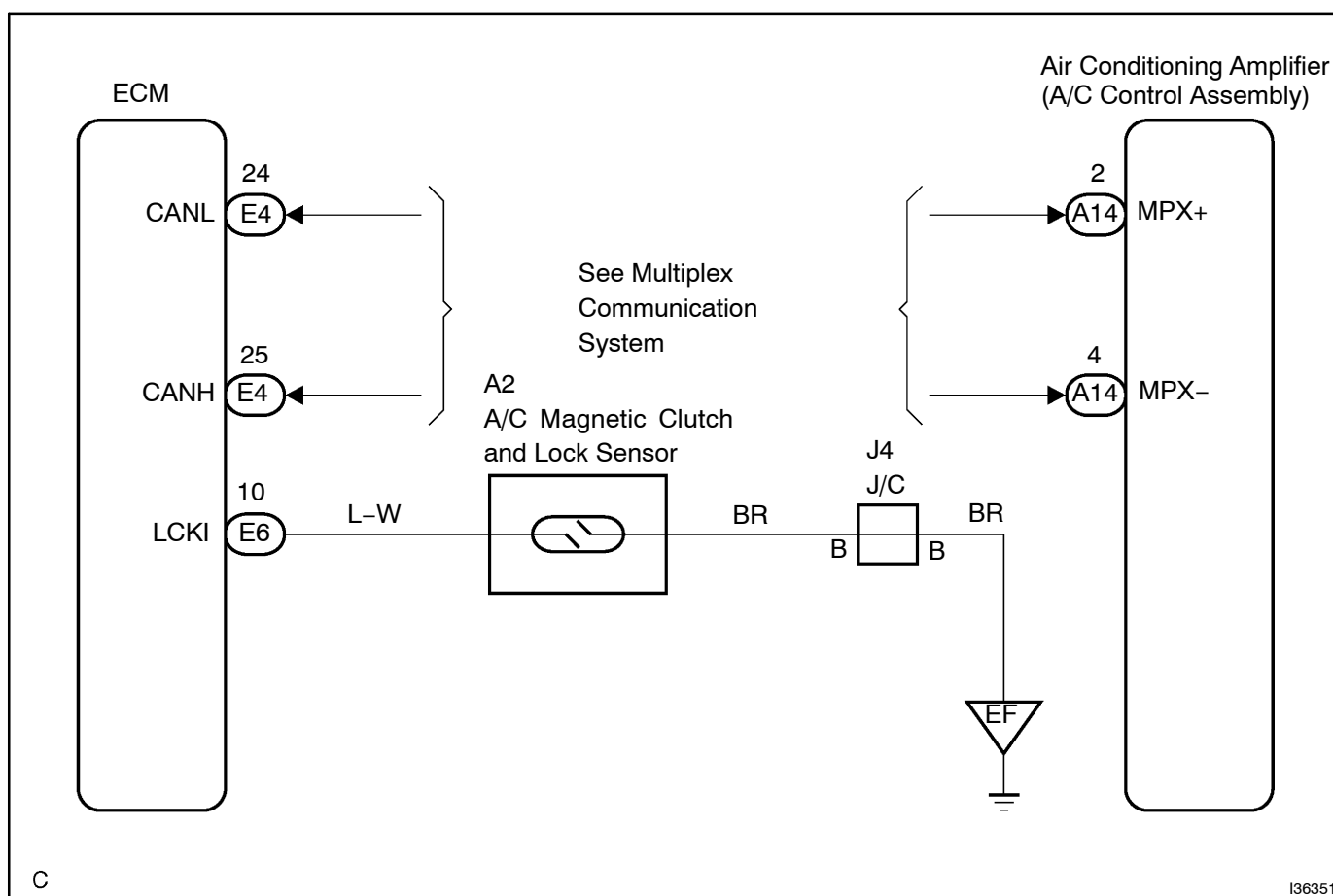
This sensor sends 1 pulse per engine revolution to the ECM.

If the ratio between engine and compressor speed deviates 20 % or more in compression to normal operation, the ECM turns the cooler compressor off and the indicator blinks at approximately 1 second intervals. The ECM informs the A/C amplifier of the operation condition of the cooler compressor through the multiplex communication (CAN and BEAN).

HINT:

This DTC is output only for G.C.C country models.

DTC No.	Detection Item	Trouble Area
B1422	Compressor lock sensor circuit (Open or short)	<ul style="list-style-type: none"> • Cooler compressor assy • Cooler compressor assy drive belt • Cooler compressor assy and magnetic clutch lock sensor • Harness and connector between ECM and cooler compressor assy • ECM • A/C amplifier

WIRING DIAGRAM

INSPECTION PROCEDURE

1 CHECK COOLER COMPRESSOR ASSY

- (a) Check and adjust compressor drive belt tension (see page 4-6)
- (b) Check if the cooler compressor does not lock when starting the engine and turning the A/C switch on.

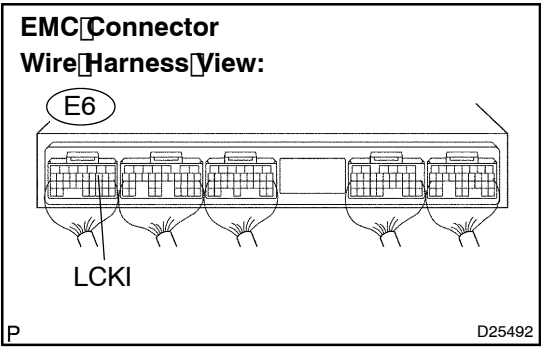
OK: Cooler compressor assy does not lock during operation

If the compressor drive belt slips when A/C switch is turned on, the magnet clutch seems to be locked. If the condition continues for more than 3 seconds, the A/C amplifier turns off the magnet clutch for compressor drive belt protection.

NG REPLACE COOLER COMPRESSOR ASSY

OK

2 INSPECT ECM (LCKI - BODY GROUND)



- (a) Remove the ECM with connectors still connected.
- (b) Start the engine and push the AUTO switch.
- (c) Measure the waveform according to the condition in the table below.

Standard:

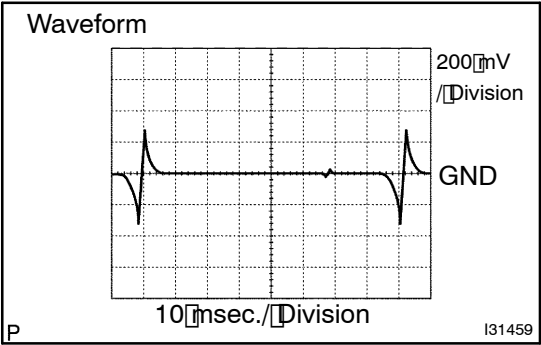
Tester connection	Condition	Specified condition
E6-10 (LCKI) - Body ground	Ignition switch ON AUTO switch ON A/C switch ON Magnet clutch ON	Pulse generation

Result:

NG	A
OK (Checking from the PROBLEM SYMPTOMS TABLE)	B
OK (Checking from the DTC)	C

B PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05-778)

C REPLACE ECM (SEE PAGE 10-21)

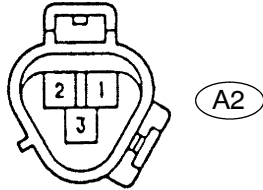


A

3 INSPECT COOLER COMPRESSOR ASSY(A/C LOCK SENSOR)

Cooler Compressor Assy(A/C Lock Sensor) Connector

Front View:



le-3-2

E05280

- (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
1 - 2	at 20°C (68°F)	160 to 320 Ω

NG

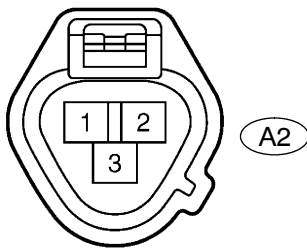
REPLACE COOLER COMPRESSOR ASSY(A/C LOCK SENSOR)

OK

4 CHECK HARNESS AND CONNECTOR(ECM - COOLER COMPRESSOR ASSY)
(SEE PAGE 01-14)

Cooler Compressor Assy Connector

Front View:



P

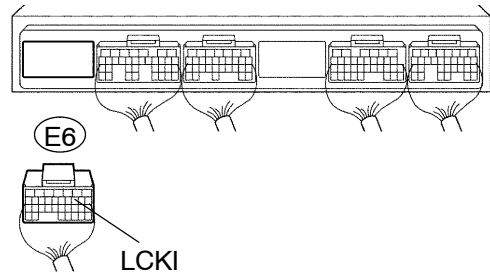
E51630

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

Standard:

Tester Terminals	Condition	Specified Condition
E6-10(LCKI) - A2-1	Always	Below 1 Ω
A2-2 - Body Ground	Always	Below 1 Ω
E6-10(LCKI) - Body Ground	Always	10 kΩ or higher

ECM Connector Wire Harness View:



P

I36399

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE ECM(SEE PAGE 10-21)