

<b>DTC</b>	<b>AUTO,A/C</b>	<b>COMPRESSOR LOCK SENSOR CIRCUIT</b>
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## CIRCUIT DESCRIPTION

This sensor sends 1 pulse per engine revolution to the A/C amplifier.

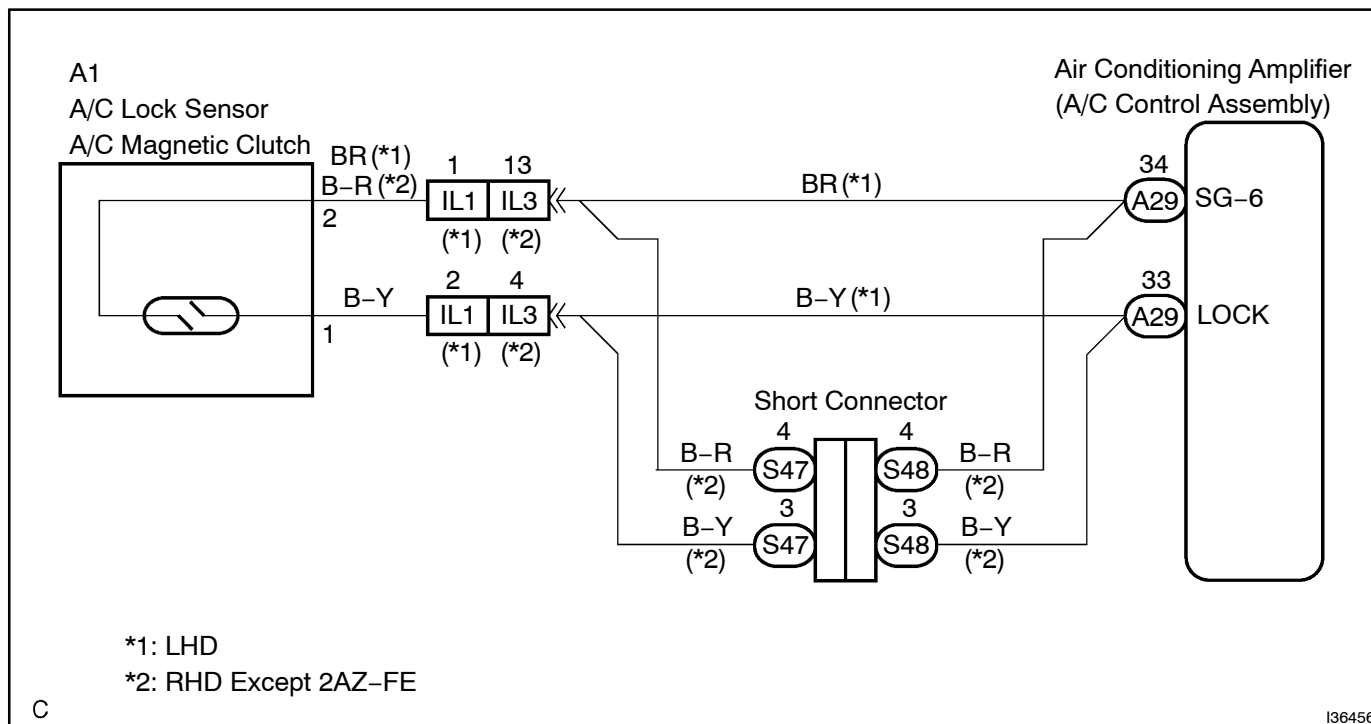
If the ratio of compressor speed to engine speed is less than a predetermined value, the A/C amplifier turns the cooler compressor off and the indicator blinks at approximately 1 second intervals.

HINT:

This DTC is output only for models except 2AZ-FE.

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

## WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK COOLER COMPRESSOR ASSY

- (a) Check and adjust compressor drive belt tension (see Pub. No. RM864E on page 14-5 or 55-35).
- (b) Check if the cooler compressor does not lock when starting the engine and turning the A/C switch on.

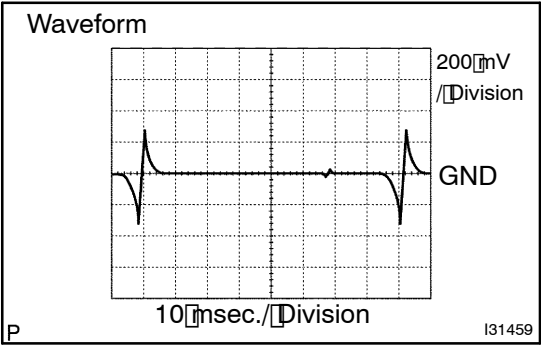
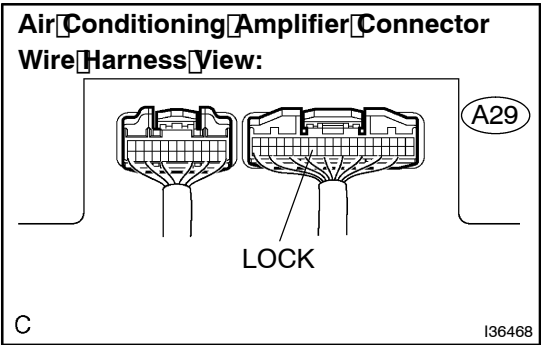
OK: Cooler compressor assy does not lock during operation

If the compressor drive belt slips when the 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 AIR CONDITIONING AMPLIFIER (LOCK)



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

Standard:

Tester connection	Condition	Specified condition
A29-33 (LOCK) - 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 05-862)

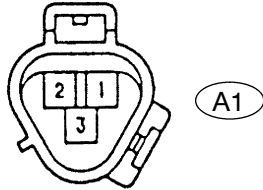
C REPLACE AIR CONDITIONING AMPLIFIER (SEE PUB. NO. RM864E ON PAGE 55-96)

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

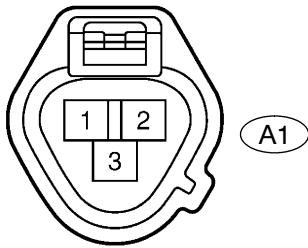
REPLACE COOLER COMPRESSOR ASSY (A/C LOCK SENSOR)

OK

4 CHECK HARNESS AND CONNECTOR (COOLER COMPRESSOR ASSY - AIR CONDITIONING AMPLIFIER) (SEE PAGE 01-32)

Cooler Compressor Assy Connector

Front View:



P

E51630

- (a) Disconnect the connectors from the cooler compressor assy and A/C amplifier.  
(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester terminals	Condition	Specified condition
A29-34 (SG-6) - A1-2	Always	Below 1 Ω
A1-2 - Body ground	Always	10 kΩ or higher
A29-33 (LOCK) - A1-1	Always	Below 1 Ω
A1-1 - Body ground	Always	10 kΩ or higher

NG

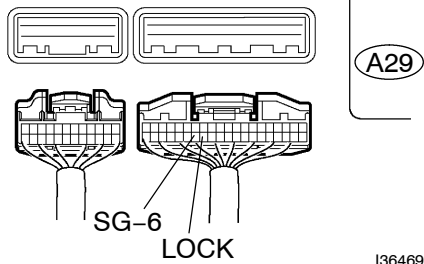
REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIR CONDITIONING AMPLIFIER (SEE PUB. NO. RM864E ON PAGE 55-96)

Air Conditioning Amplifier Connector

Wire Harness View:



C

I36469