DIAR1–01

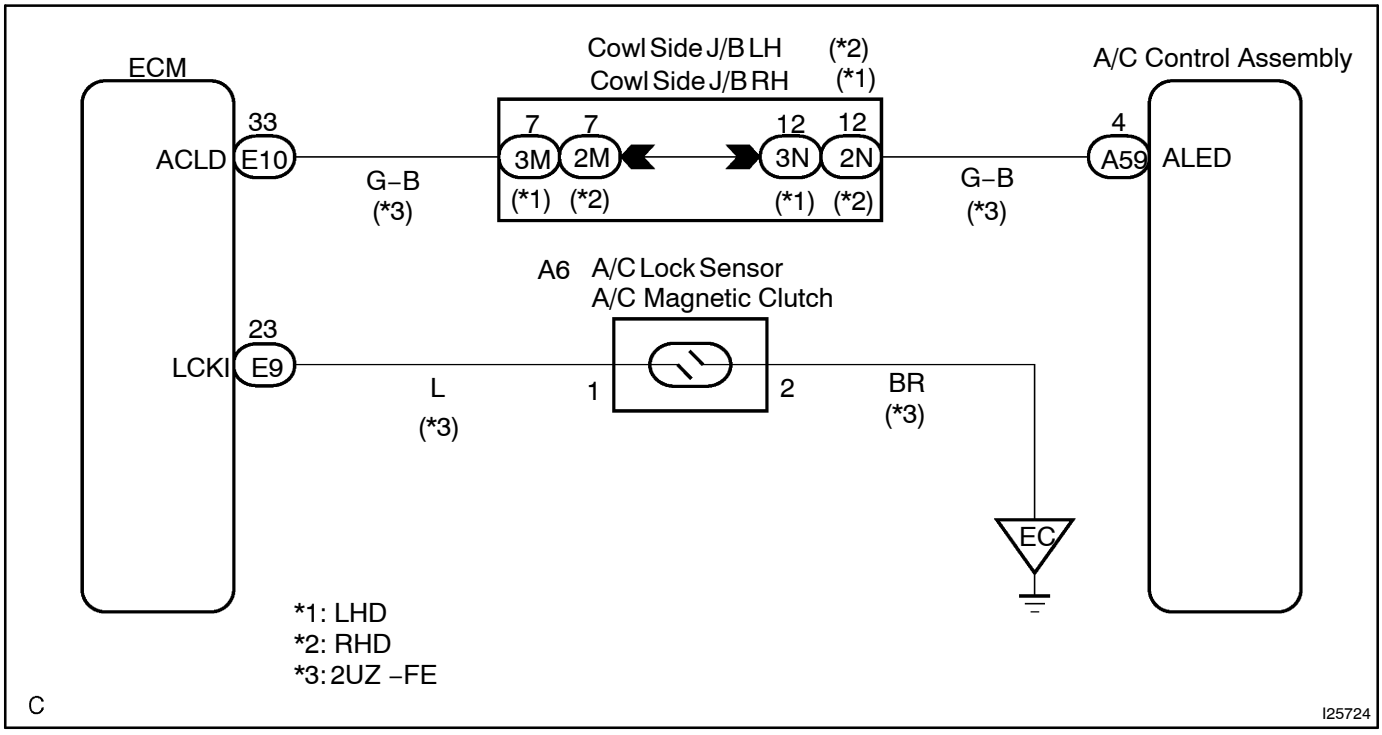
DTC	22	Compressor Lock Sensor Circuit

CIRCUIT DESCRIPTION

This sensor sends 1 pulse per engine revolution to the engine (and ECT) ECU.
If the number ratio of the compressor speed divided by the engine speed is smaller than a predetermined value, the engine (and ECT) ECU turns the compressor OFF. And, the indicator flashes at about 1 second intervals.

DTC No.	Detection Item	Trouble Area
22	All conditions below are detected for 3 sec. or more (a) Engine speed : 450 rpm or more (b) Ratio between engine and compressor speed deviates 20 % or more in comparison to normal operation.	• Compressor drive belt • Compressor lock sensor • Compressor • Engine (and ECT) ECU • Harness or connector between compressor lock sensor and engine (and ECT) ECU • Harness or connector between engine (and ECT) ECU and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check compressor.**

PREPARATION:

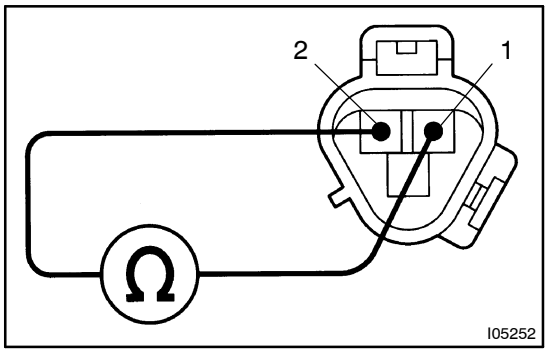
(a) Check compressor drive belt tension.

(b) Check if the compressor does not lock during operation with engine started and blower switch and A/C switch ON.

NG → **Adjust drive belt tension or repair compressor.**

OK

2	**Check compressor lock sensor.**



PREPARATION:

Disconnect compressor connector.

CHECK:

Measure resistance between terminals 1 and 2 of compressor lock sensor connector.

OK:

Resistance : 65 – 125 Ω at 20°C (68 °F)

NG → **Replace compressor.**

OK

3	**Check harness and connector between compressor lock sensor and engine (and ECT) ECU (See page IN–27).**

NG → **Repair or replace harness or connector.**

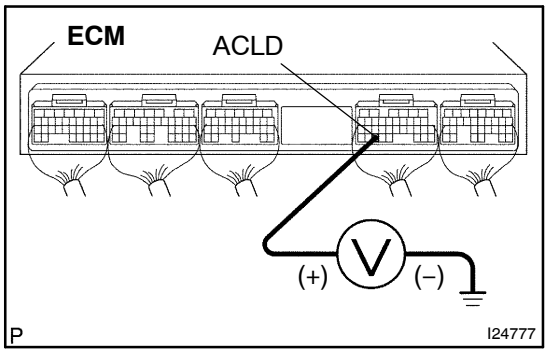
OK

4	**Check harness and connector between engine (and ECT) ECU and A/C amplifier (See page IN–27).**

NG → **Repair or replace harness or connector.**

OK

5	**Check voltage between terminals ACLD of engine (and ECT) ECU and body ground.**



PREPARATION:

Remove engine (and ECT) ECU with connectors still connected.

CHECK:

(a) Turn ignition switch to ON.
(b) A/C switch ON.
(c) Measure voltage between terminals ACLD of engine (and ECT) ECU and body ground.

OK:

Voltage: Below 1.0 V

NG → **Check and replace engine (and ECT) ECU.**

OK

Check and replace A/C amplifier.