DI6S7–01

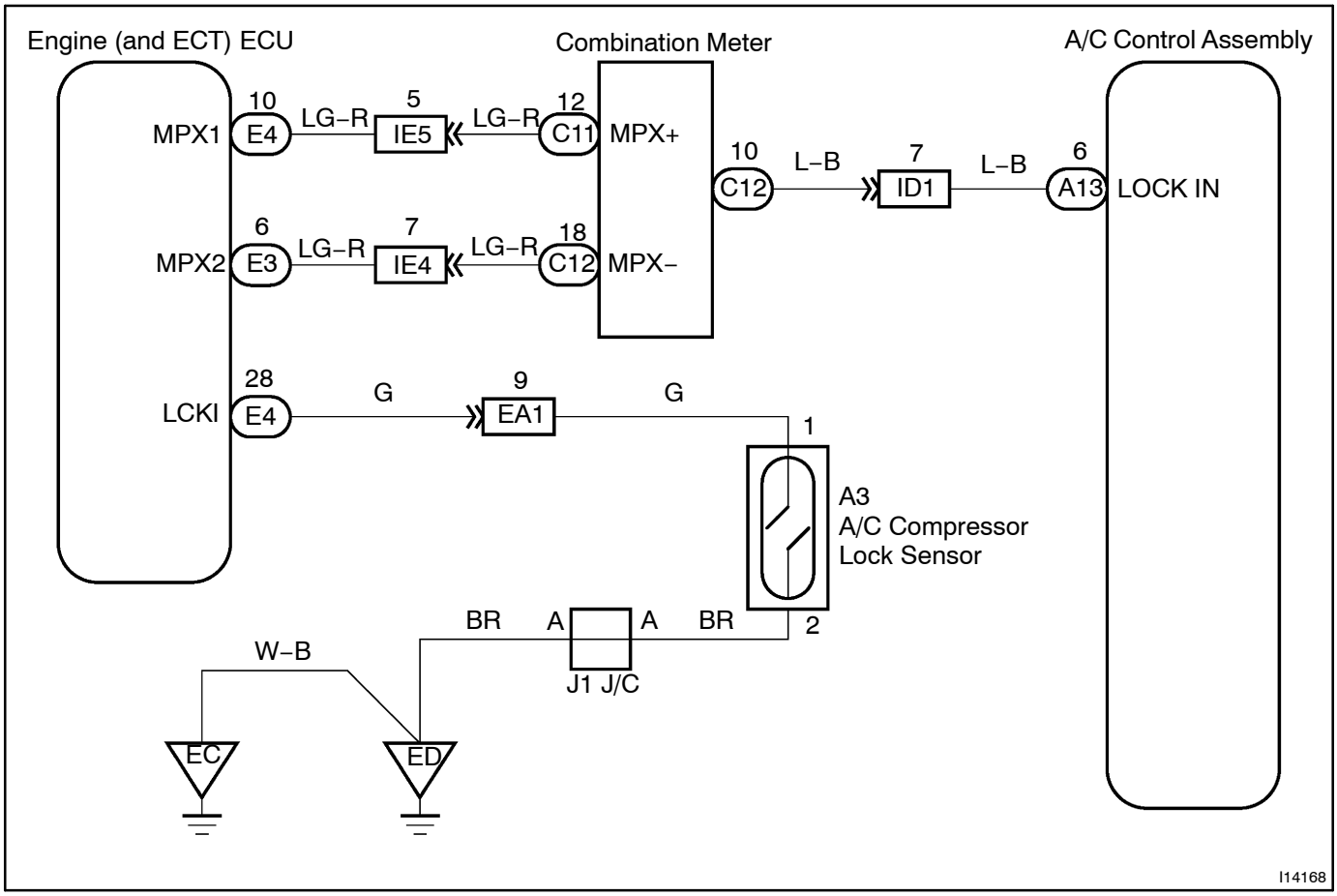
DTC	22	Compressor Lock Sensor Circuit

CIRCUIT DESCRIPTION

This sensor sends 4 pulses par 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 sec. intervals.

DTC No.	Detection Item	Trouble Area
22	All conditions below are detected for 3 secs. 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. • Compressor drive belt. • Compressor lock sensor. • Harness and connector between compressor and engine (and ECT) ECU. • Harness and connector between combination meter and Engine (and ECT) ECU. • Harness and connector between combination meter and A/C control assembly. • A/C control assembly.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check compressor.**

PREPARATION:

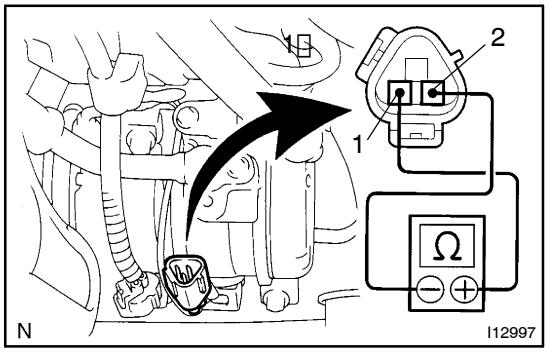
(a) Check compressor drive belt tension (See page AC–16).

(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 check compressor.**

OK

2	**Check compressor lock sensor.**



PREPARATION:

Disconnect compressor lock sensor connector.

CHECK:

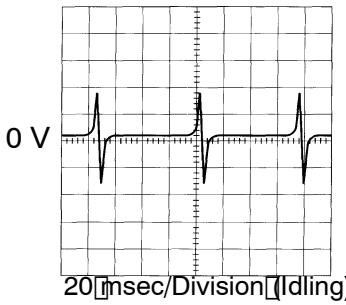
Measure resistance between terminals 1 and 2 of compressor lock sensor connector.

OK:

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

Reference : Inspection using oscilloscope

LOCK IN signal waveform



During cranking or idling, measure voltage between terminals LCKI and body ground of engine (and ECT) ECU.

HINT:

The correct waveform appears as shown in the illustration on the left.

NG → **Replace compressor.**

OK

3	Check harness and connector between engine (and ECT) ECU and compressor lock sensor, compressor lock sensor and body ground (See page IN–20).

NG → Repair or replace harness or connector.

OK

4	Check harness and connector between engine (and ECT) ECU and combination meter, combination meter and A/C control assembly (See page IN–20).

NG → Repair or replace harness and connector.

OK

Check and replace engine (and ECT) ECU, combination meter and A/C control assembly.