DI90S–01

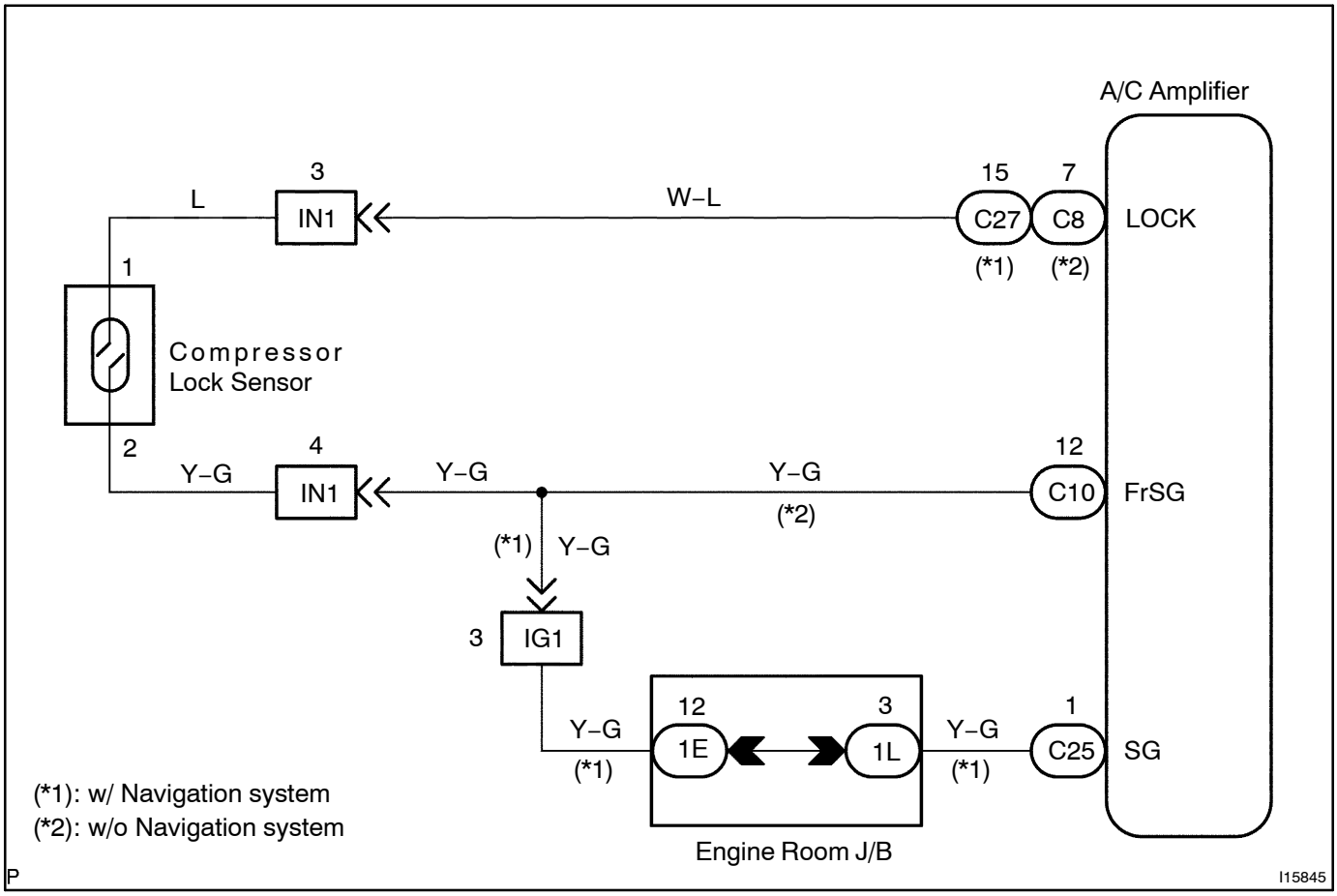
DTC	22	Compressor Lock Sensor Circuit

CIRCUIT DESCRIPTION

This sensor sends 4 pulses per engine revolution to the A/C amplifier.
If the number ratio of the compressor speed divided by the engine speed is smaller than a predetermined value, the A/C amplifier 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 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 lock sensor and A/C amplifier • A/C amplifier

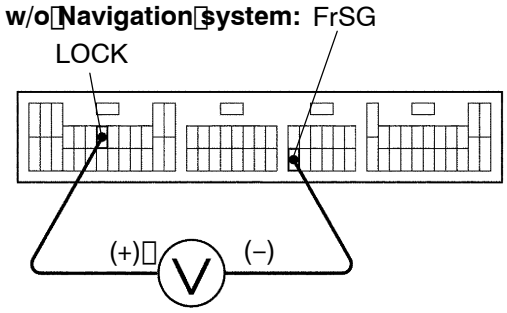
WIRING DIAGRAM



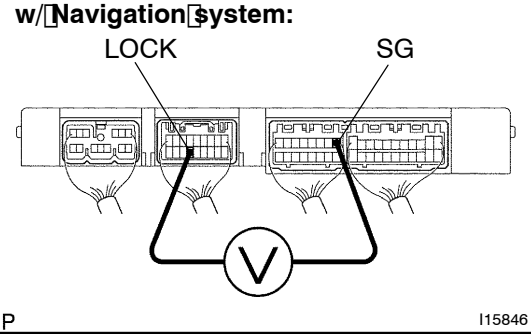
INSPECTION PROCEDURE

1	Check voltage between terminal LOCK and FrSG (or SG) of A/C amplifier.

w/o Navigation system:



w/ Navigation system:



CHECK:

(a) Start engine.
(b) Push AUTO SW.
(c) Measure voltage between terminal LOCK and FrSG (or SG) of A/C amplifier connector when A/C switch is ON.

OK:

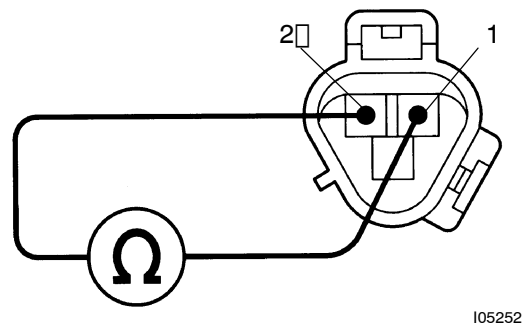
Voltage : 10 – 14 V

OK	Go to step 2.

NG

Proceed to next circuit inspection shown on problem symptoms table (See page DI–130). However, if DTC 22 is displayed, check and replace A/C amplifier.

2	Check compressor lock sensor.



PREPARATION:

(a) Jack up the vehicle.
(b) 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) : 990 – 1210 Ω
at 100°C (212°F) : 1280 – 1550 Ω

NG	Replace compressor.

OK

3	Check harness and connectors between A/C amplifier and compressor lock sensor (See page IN–34).

NG → Repair or replace harness or connector.

OK

Check and replace A/C amplifier and compressor lock sensor.