

|            |           |                                       |
|------------|-----------|---------------------------------------|
| <b>DTC</b> | <b>22</b> | <b>Compressor Lock Sensor Circuit</b> |
|------------|-----------|---------------------------------------|

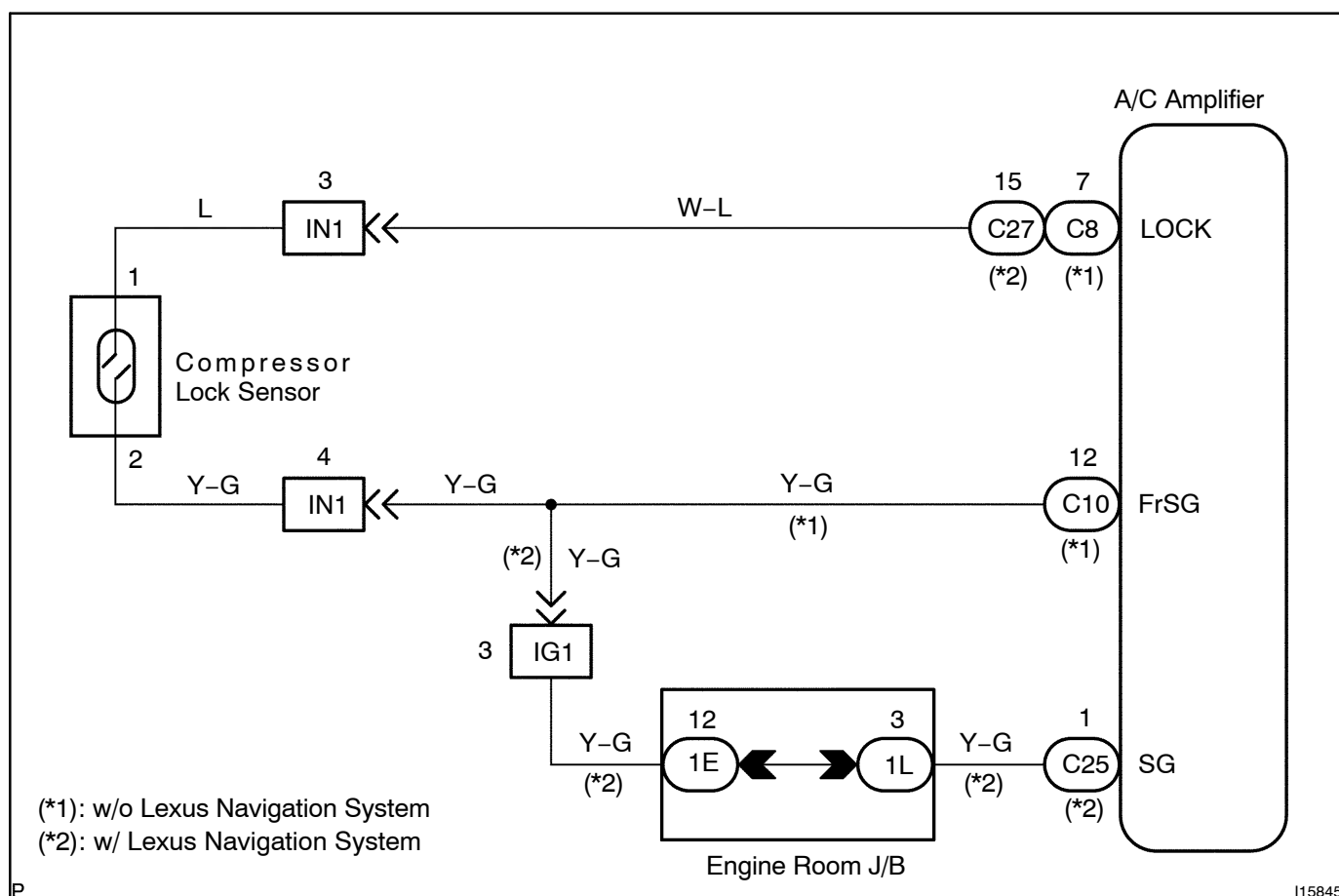
## CIRCUIT DESCRIPTION

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.

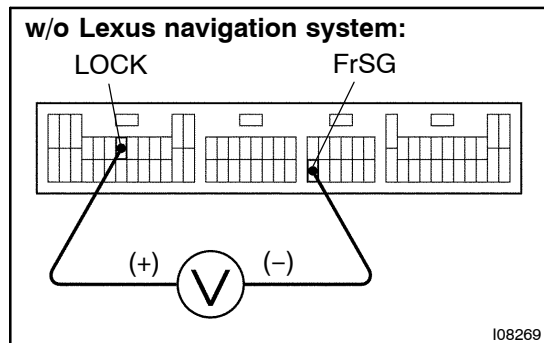
| DTC No. | Detection Item                                                                                                                                                                                                       | Trouble Area                                                                                                                                                                                                                                    |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22      | <p>All conditions below are detected for 3 secs. or more</p> <p>(a) Engine speed : 450 rpm or more</p> <p>(b) Ratio between engine and compressor speed deviates 20 % or more in comparison to normal operation.</p> | <ul style="list-style-type: none"> <li>• Compressor.</li> <li>• Compressor drive belt.</li> <li>• Compressor lock sensor.</li> <li>• Harness and connector between compressor lock sensor and A/C amplifier</li> <li>• A/C amplifier</li> </ul> |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

|          |                                                                       |
|----------|-----------------------------------------------------------------------|
| <b>1</b> | <b>Check voltage between terminal LOCK and FrSG of A/C amplifier.</b> |
|----------|-----------------------------------------------------------------------|

**CHECK:**

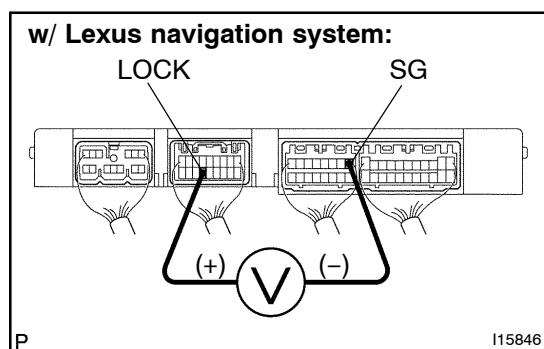
- (a) Start engine.
- (b) Push AUTO SW.
- (c) Measure voltage between terminal LOCK and FrSG (or SG) of A/C amplifier connector when A/C switch is ON.

**OK:**

**Voltage : 10 – 14 V**

**OK**

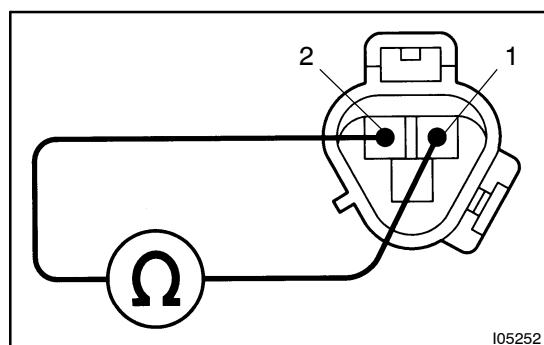
**Go to step 2.**



**NG**

**Proceed to next circuit inspection shown on problem symptoms table (See page [DI-937](#)). However, if DTC 22 is displayed, check and replace A/C amplifier.**

|          |                                      |
|----------|--------------------------------------|
| <b>2</b> | <b>Check compressor lock sensor.</b> |
|----------|--------------------------------------|

**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.