

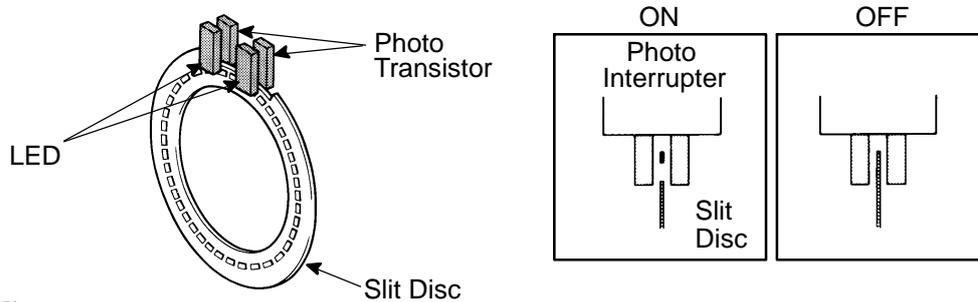
<b>DTC</b>	<b>81</b>	<b>Steering Sensor Circuit</b>
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**CIRCUIT DESCRIPTION**

The steering sensor is fitted to the turn signal switch assembly and detects the steering rotating direction and angle.

The sensor consists of a slit disc that rotates with the steering wheel as a unit, and a pair of photo interrupters. Each photo interrupter consists of an LED (Light Emitting Diode) and a photo transistor, located facing each other. It converts the change in the light irradiation between the two elements to the on/off signals. The slit disc rotates between the LED and the photo transistor of the pair of photo interrupters. As the steering wheel is operated, the slit disc rotates with the wheel as a unit and shuts and makes the light transmission between the two elements. The pair of photo interrupters have phases and the suspension ECU detects the steering direction and angle based on the changes of the each output.

And when it is judged that the steering wheel's turning angle is large and the speed is greater than a set value, the ECU causes the damping force to increase.

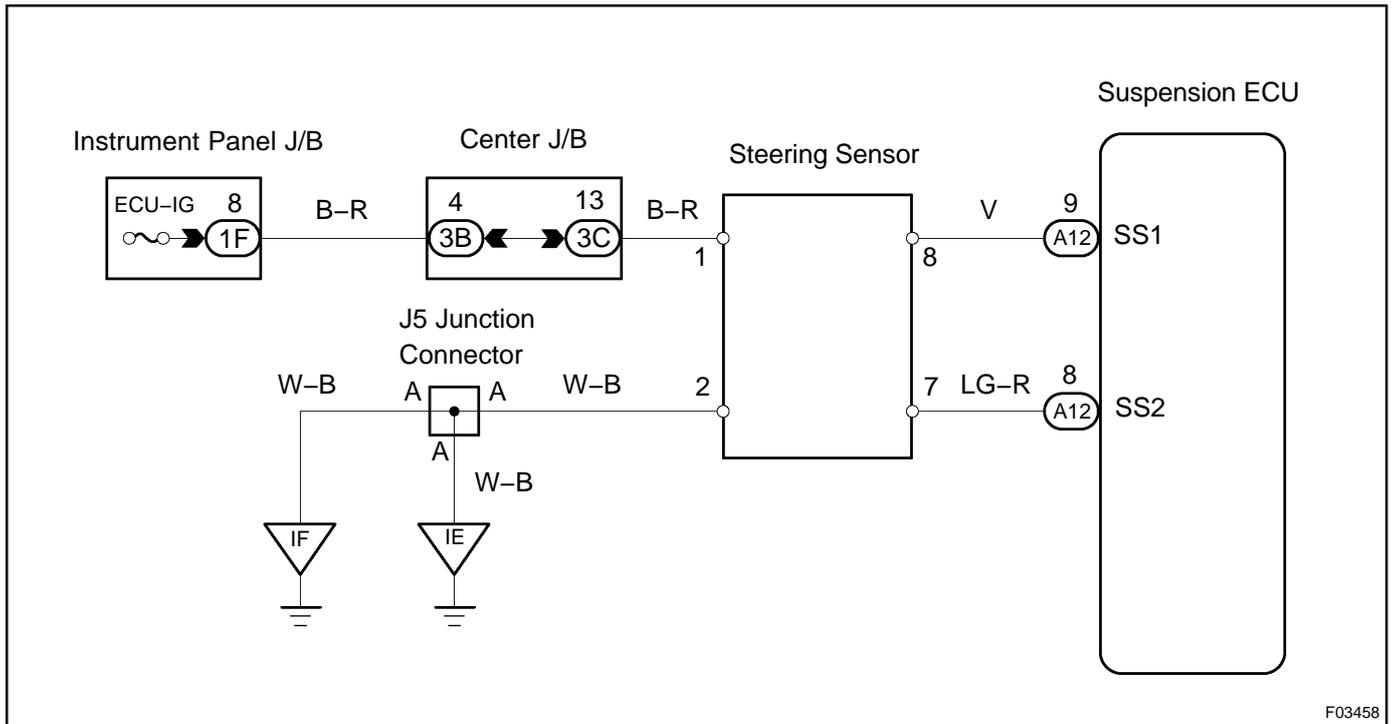


R05437 SA0851

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DTC No.	DTC Detecting Condition	Trouble Area
81	Steering angle 36° or larger signal does not input	<ul style="list-style-type: none"> <li>• Harness or connectors between ECU, steering sensor and body ground</li> <li>• Steering sensor</li> <li>• ECU</li> </ul>

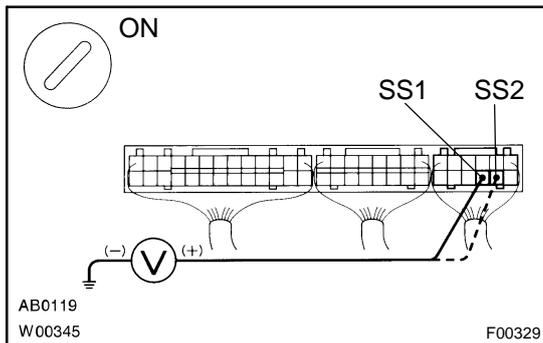
**WIRING DIAGRAM**



F03458

**INSPECTION PROCEDURE**

- |          |   |
|----------|---|
| <b>1</b> | <b>Check voltage between terminals SS1 and SS2 of suspension ECU connector and body ground.</b> |
|----------|---|



**PREPARATION:**

- (a) Remove the instrument panel box assembly (See page [BO-83](#)).
- (b) Turn the ignition switch ON.

**CHECK:**

Measure the voltage between terminal SS1 and SS2 of the suspension ECU connector and body ground when steering wheel is being turned slowly.

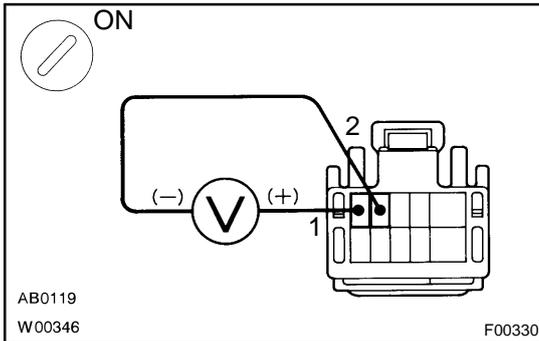
**OK:**

**Changes between 0 V and approx. 5 V.**

<b>OK</b>	<b>Proceed to next circuit inspection shown on problem symptoms table (See page <a href="#">DI-247</a>).</b>
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**NG**

## 2 Check voltage between terminal 1 and 2 of steering sensor connector.



### PREPARATION:

- Remove the steering wheel.
- Disconnect the steering sensor connector.
- Turn the ignition switch ON.

### CHECK:

Measure the voltage between terminals 1 and 2 of steering sensor connector.

### OK:

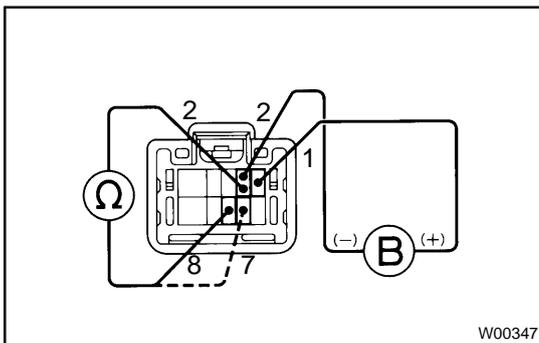
**Voltage: 9 – 14 V**

**NG**

Check and repair harness and connectors between battery and steering sensor, steering sensor and body ground.

**OK**

## 3 Check steering sensor.



### PREPARATION:

Apply battery positive between terminals 1 and 2.

### CHECK:

Measure the resistance between terminal 7, 8 and 2 of steering sensor connector when the rotating part of steering sensor is turned slowly.

### OK:

**Changes between 0 Ω and ∞ Ω**

**NG**

Replace steering sensor.

**OK**

4	<b>Check harness and connectors between suspension ECU and steering sensor (See page <a href="#">IN-30</a>).</b>
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**NG****Repair or replace harness or connector.****OK****Check and replace suspension ECU.**