

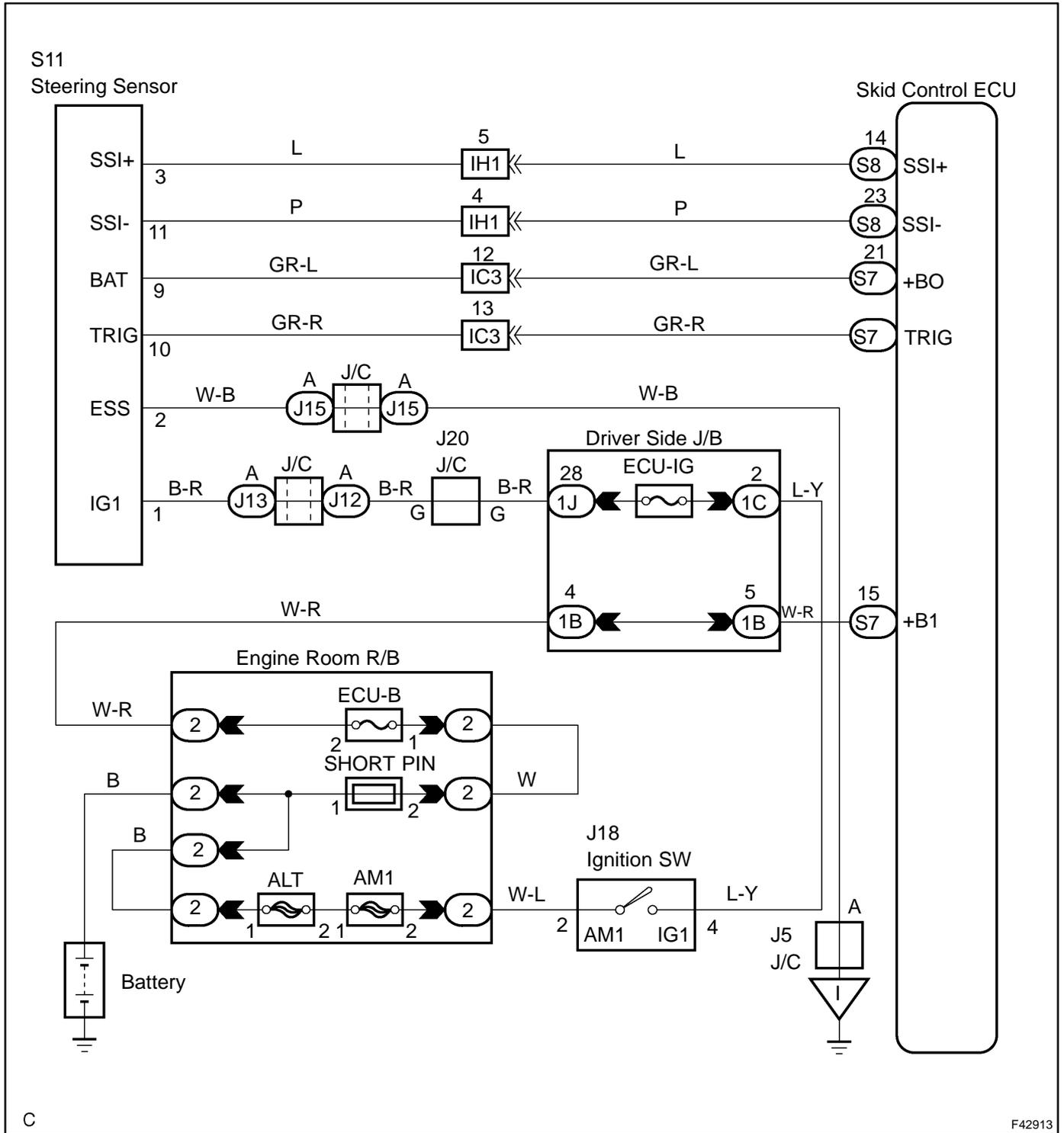
DTC	C1231/31	STEERING ANGLE SENSOR CIRCUIT
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DTC	C1335/35	STEERING ANGLE SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1231/31	When ECU IG1 terminal voltage is 9.5 V or more, ECU does not receive data from the steering angle sensor for 1 sec. or more.	<ul style="list-style-type: none"> • Steering angle sensor • Steering angle sensor circuit • +BI circuit
C1335/35	Detection of either condition 1. or 2.: 1. When the ECU IG1 terminal voltage is 9.5 V or more, data transmission from the steering angle sensor is impossible for 1 sec. or more. 2. Immediately after the terminal BAT is connected and when IG1 terminal voltage is 9.5 V or more, open circuit of terminal TRIG continues for 15 sec. or more.	<ul style="list-style-type: none"> • Steering angle sensor • Steering angle sensor circuit

WIRING DIAGRAM



C

F42913

INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the hand-held tester and start from step 2 in case of not using the hand-held tester.

1 READ VALUE OF STEERING SENSOR

- Connect the hand-held tester to the DLC3.
- Turn the ignition switch ON and push the hand-held tester main switch ON.
- Select the DATALIST mode on the hand-held tester.
- Check that the steering wheel turning angle value of the steering angle position sensor displayed on the hand-held tester is changing when turning the steering wheel.

NOTICE:

The value changes after the steering sensor rechecks 0 point. (Driving the vehicle straight for 10 sec. or more at the speed 35 km/h (22 mph) or more).

OK:

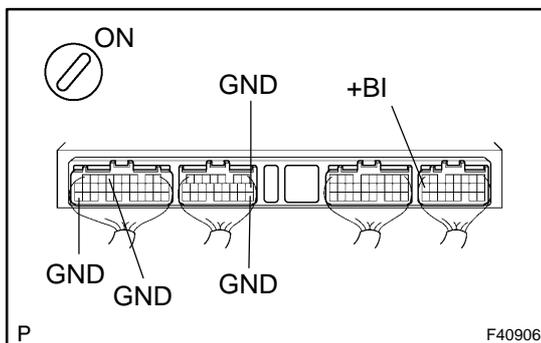
Steering wheel turning angle value must be changing.

OK

Go to step 4

NG

2 INSPECT SKID CONTROL ECU TERMINAL VOLTAGE(+BI TERMINAL)



- Remove the skid control ECU with the connector still connected.
- Turn the ignition switch ON.
- Measure voltage between terminal +BI and GND of skid control ECU and body ground.

OK:

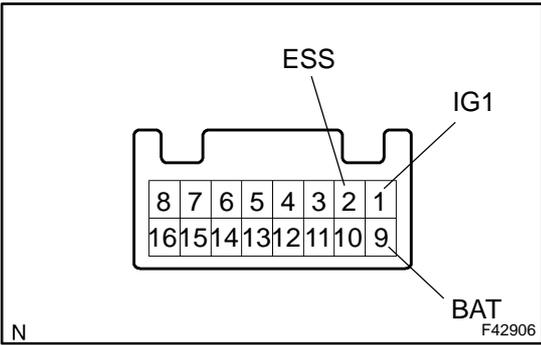
10 - 14 V

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

3 CHECK HARNESS AND CONNECTOR(STEERING SENSOR)



- (a) Remove the steering wheel and column lower cover (See page 50-8).
- (b) Disconnect the steering sensor connector.
- (c) Turn the ignition switch ON.
- (d) Measure voltage between terminal IG1 and ESS, BAT and ESS of the steering sensor harness side connector.

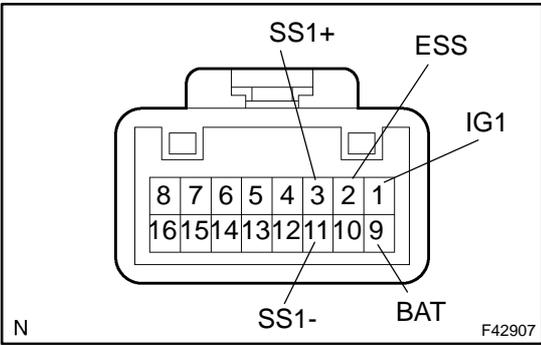
OK:

Voltage 10 - 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

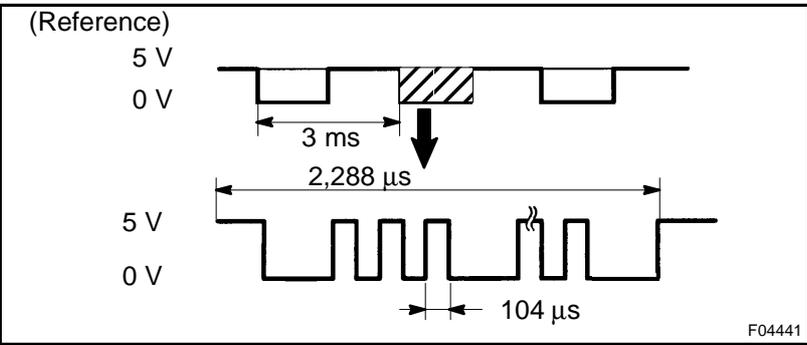
OK

4 INSPECT STEERING SENSOR



- (a) Remove the steering wheel and column lower cover (See page 50-8).
- (b) Disconnect the steering angle sensor connector.
- (c) Apply battery positive voltage between terminals IG1 and ESS, BAT and ESS.
- (d) Connect the oscilloscope to the terminals SS1+ and SS1- of the steering angle sensor.
- (e) Turn the steering column shaft slowly and check the signal waveform.

OK:



HINT:

The above signal waveform does not repeat ON and OFF regularly and this ON-OFF interval changes case by case according to the data.

NG → **REPLACE STEERING SENSOR**

OK

5 INSPECT SENSOR STEERING DISC**NG****REPAIR OR REPLACE DISC, SENSOR
STEERING****OK****CHECK AND REPLACE SKID CONTROL ECU ASSY**