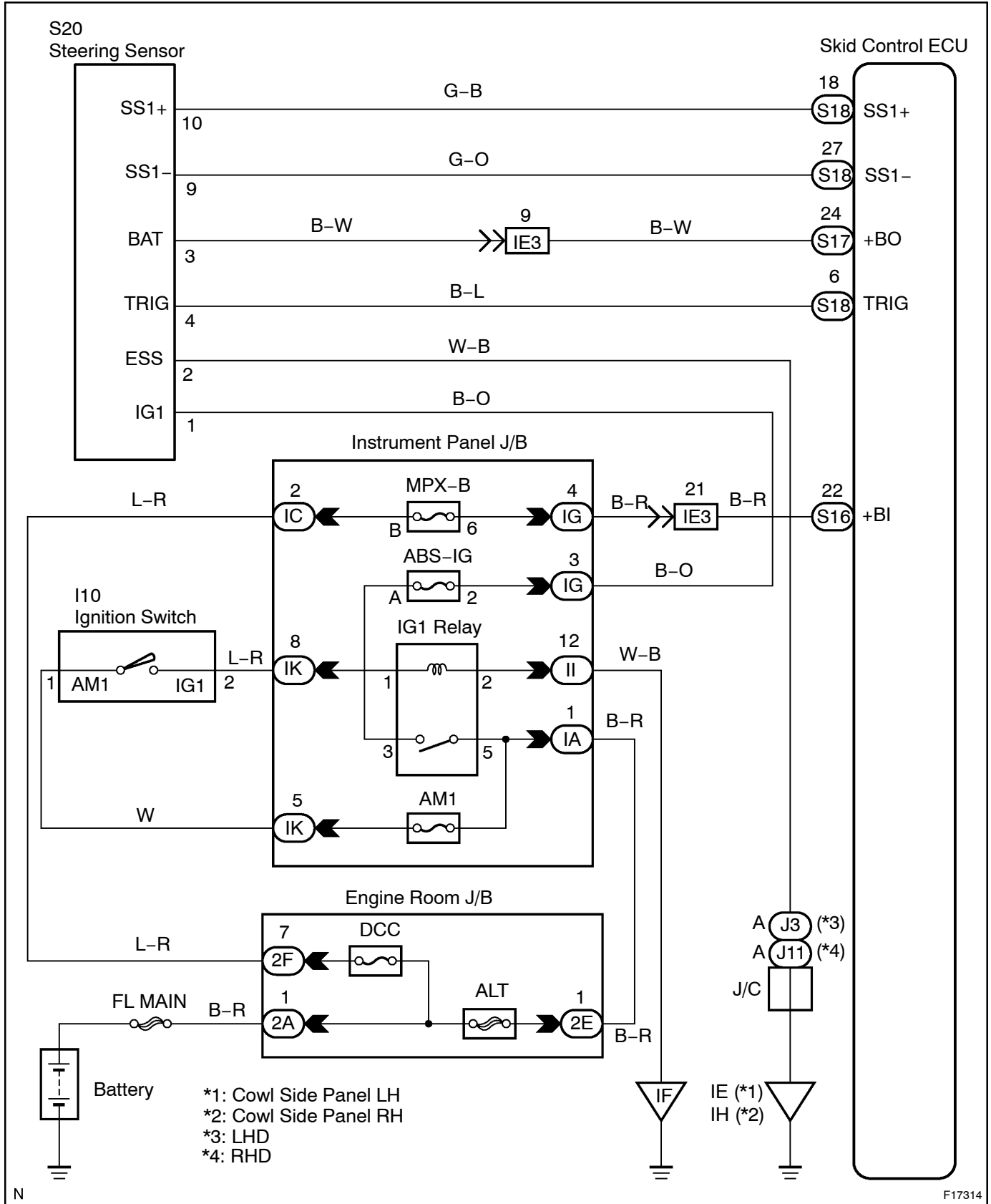


DTC	C1231 / 31, C1335 / 35	Steering Angle Sensor Circuit
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CIRCUIT DESCRIPTION

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.	•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.	

WIRING DIAGRAM



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 Check output value of the steering angle sensor.

PREPARATION:

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and turn the hand-held tester main switch ON.
- (c) Select the DATALIST mode on the hand-held tester.

CHECK:

Check that the steering wheel turning angle value of the steering angle sensor observed in the hand-held tester is changing as the steering wheel is turned.

OK:

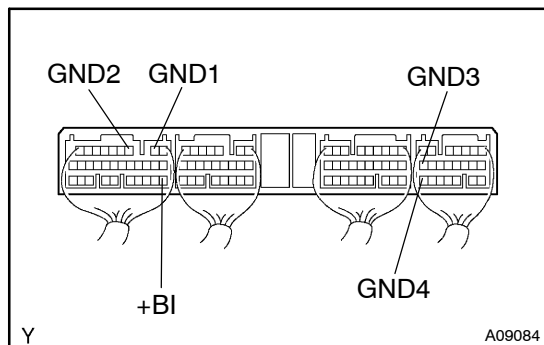
Steering wheel turning angle value must be changing.

OK

Go to step 5.

NG

2 Check voltage between terminals +BI and GND of skid control ECU.



PREPARATION:

- (a) Remove the skid control ECU with the connector still connected.
- (b) Turn the ignition switch ON.
- (c) Measure voltage between terminal +BI and GND of skid control ECU.

OK:

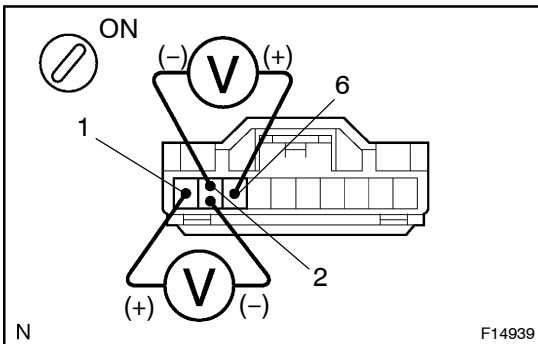
Voltage: 10 – 14 V

NG

Check and replace harness and connector.

OK

3 Check input voltage of the steering angle sensor.



PREPARATION:

- Remove the steering wheel and column lower cover.
- Disconnect the steering angle sensor connector.

CHECK:

- Turn the ignition switch ON.
- Measure voltage between terminals 1 and 2, 2 and 3 of the steering angle sensor harness side connector.

OK:

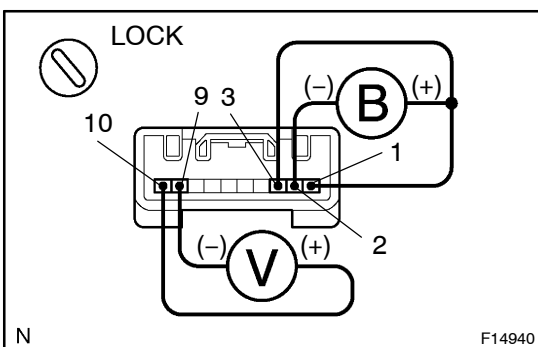
Voltage: 10 – 14 V

NG

Check and replace harness and connector.

OK

4 Check steering angle sensor.



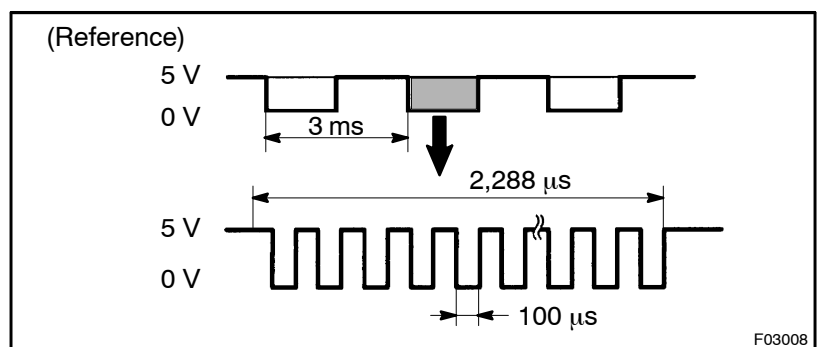
PREPARATION:

- Apply battery voltage between terminals 1 and 2, 2 and 3 of the steering angle sensor.
- Connect the oscilloscope to the terminals 9 and 10 of the steering angle sensor.

CHECK:

Turn the steering wheel slowly and check the signal waveform.

OK:



HINT:

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

NG

Replace steering angle sensor.

OK

Check and replace skid control ECU.

5	Check DTC for ABS.
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NG

Check and replace skid control ECU.

OK

No problem.