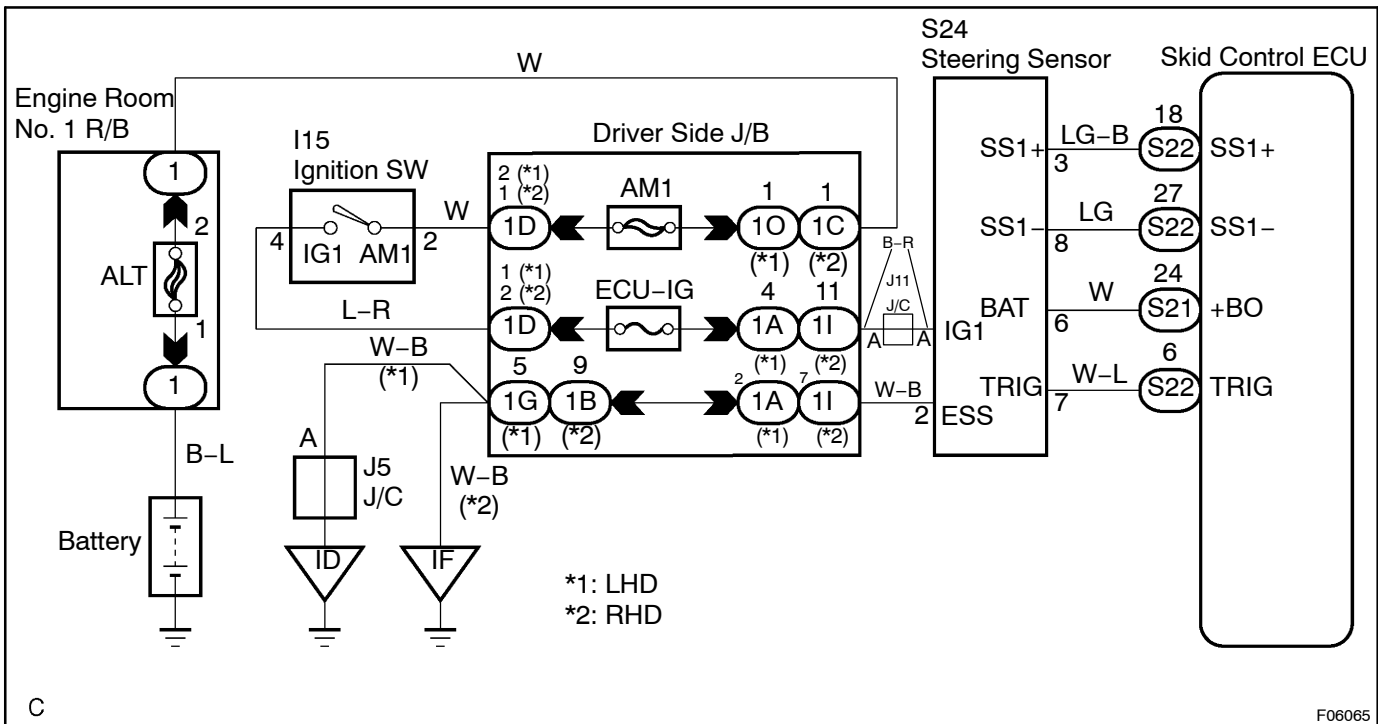


DTC	C1231 / 31, C1335 / 35	Steering Angle Sensor Circuit
------------	-------------------------------	--------------------------------------

CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1231 / 31	When detecting the abnormality.	
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 +BI circuit

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:

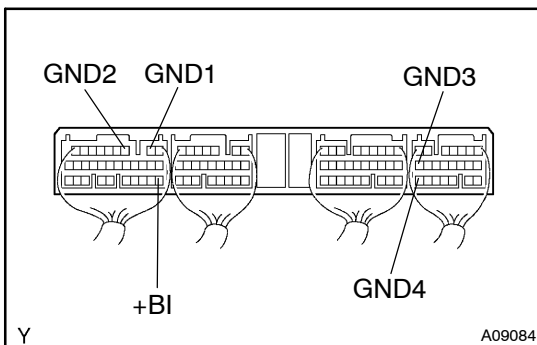
Steering wheel turning angle value must be changing.

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:

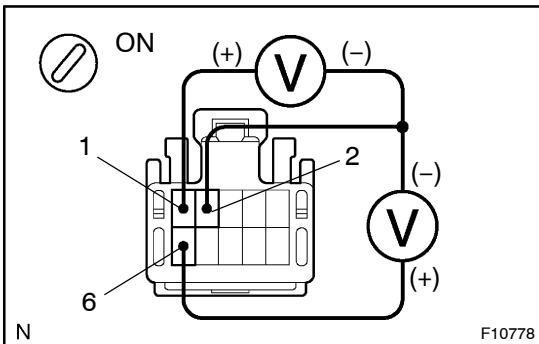
Voltage: 10 - 14 V

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 6 of the steering angle sensor harness side connector.

OK:

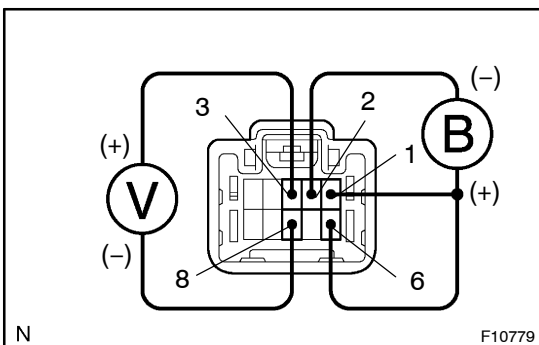
Voltage: 10 - 14 V

NG

Check and replace harness and connector.

OK

4 Check steering angle sensor.



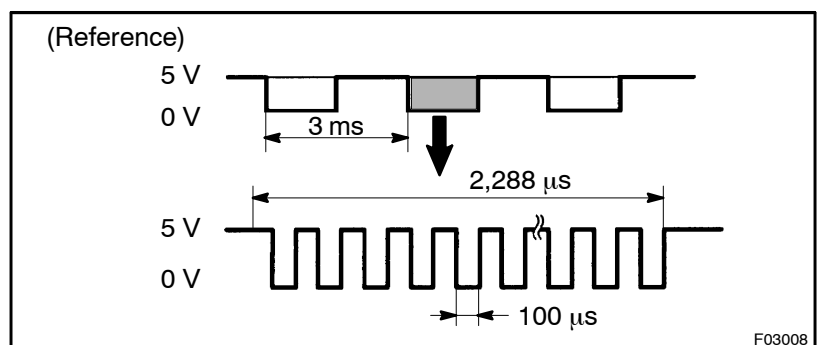
PREPARATION:

- Apply battery voltage between terminals 1 and 2, 2 and 6 of the steering angle sensor.
- Connect the oscilloscope to the terminals 3 and 8 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.

NG

Check and replace skid control ECU.

OK

No problem.