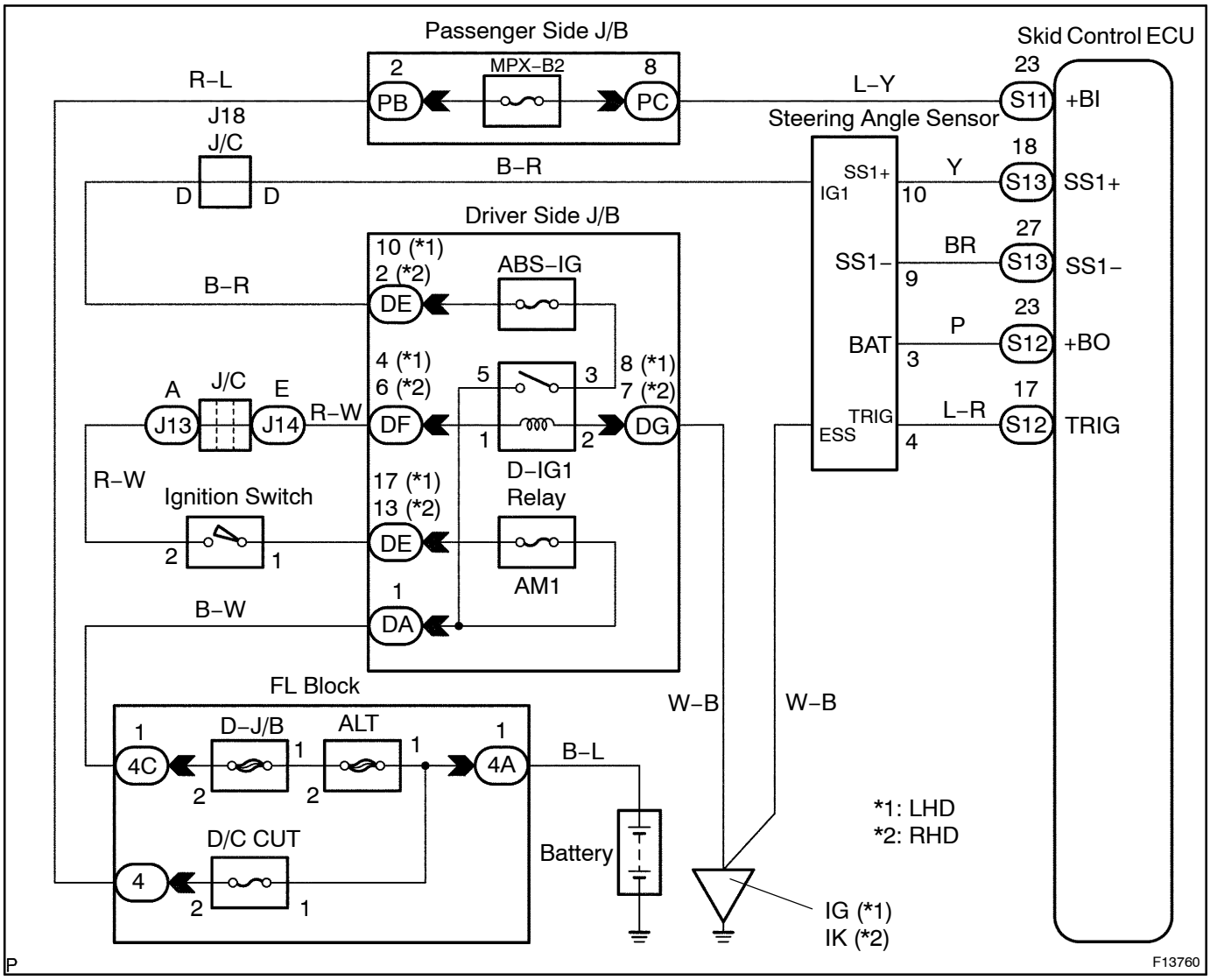
DI1H5–08

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

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.

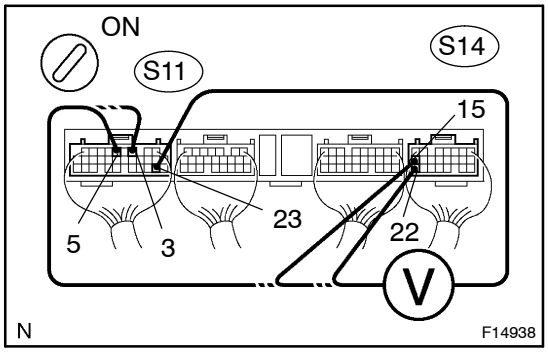
OK:

Steering wheel turning angle value must be changing.

OK → **Go to step 4.**

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 (S11 – 23) and GND (S14 – 15, 22, S11 – 3, 5) of skid control ECU.

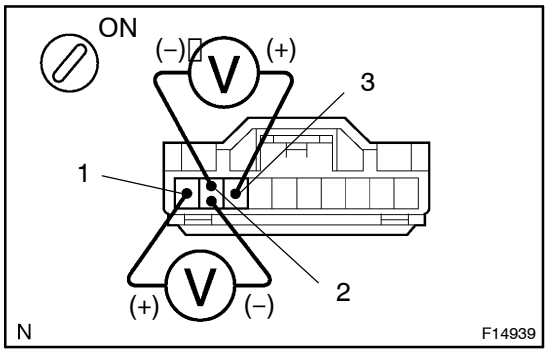
OK:

Voltage: 10 – 14 V

NG → **Check and replace harness and connector.**

OK

3	Check input voltage of the steering angle sensor.



PREPARATION:

(a) Remove the steering wheel and column power cover (See page RS–15).

(b) Disconnect the steering angle sensor connector.

CHECK:

(a) Turn the ignition switch ON.

(b) Measure voltage between terminals 1 and 2, 2 and 3 of the steering angle sensor harness side connector.

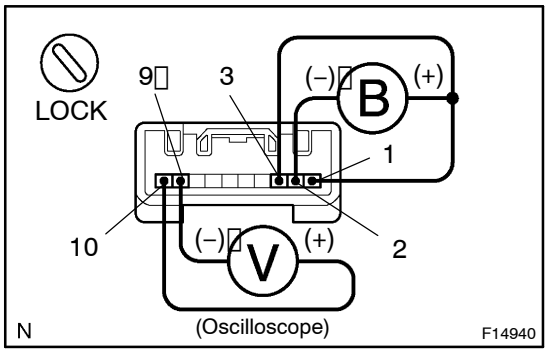
OK:

Voltage: 10 – 14 V

NG	Check and replace harness and connector.

OK

4	Check steering angle sensor.



PREPARATION:

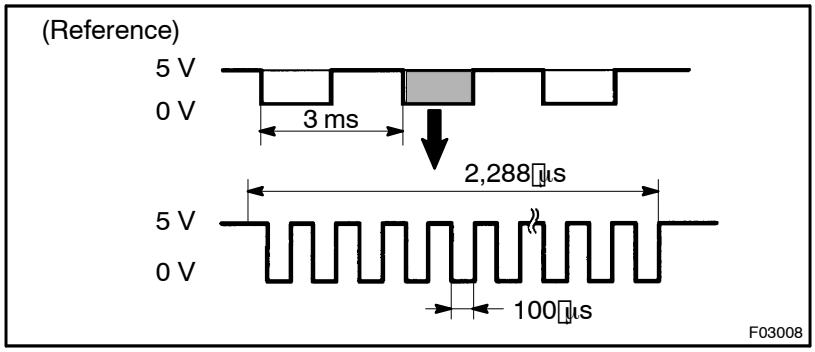
(a) Apply battery voltage between terminals 1 and 2, 2 and 3 of the steering angle sensor.

(b) 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.