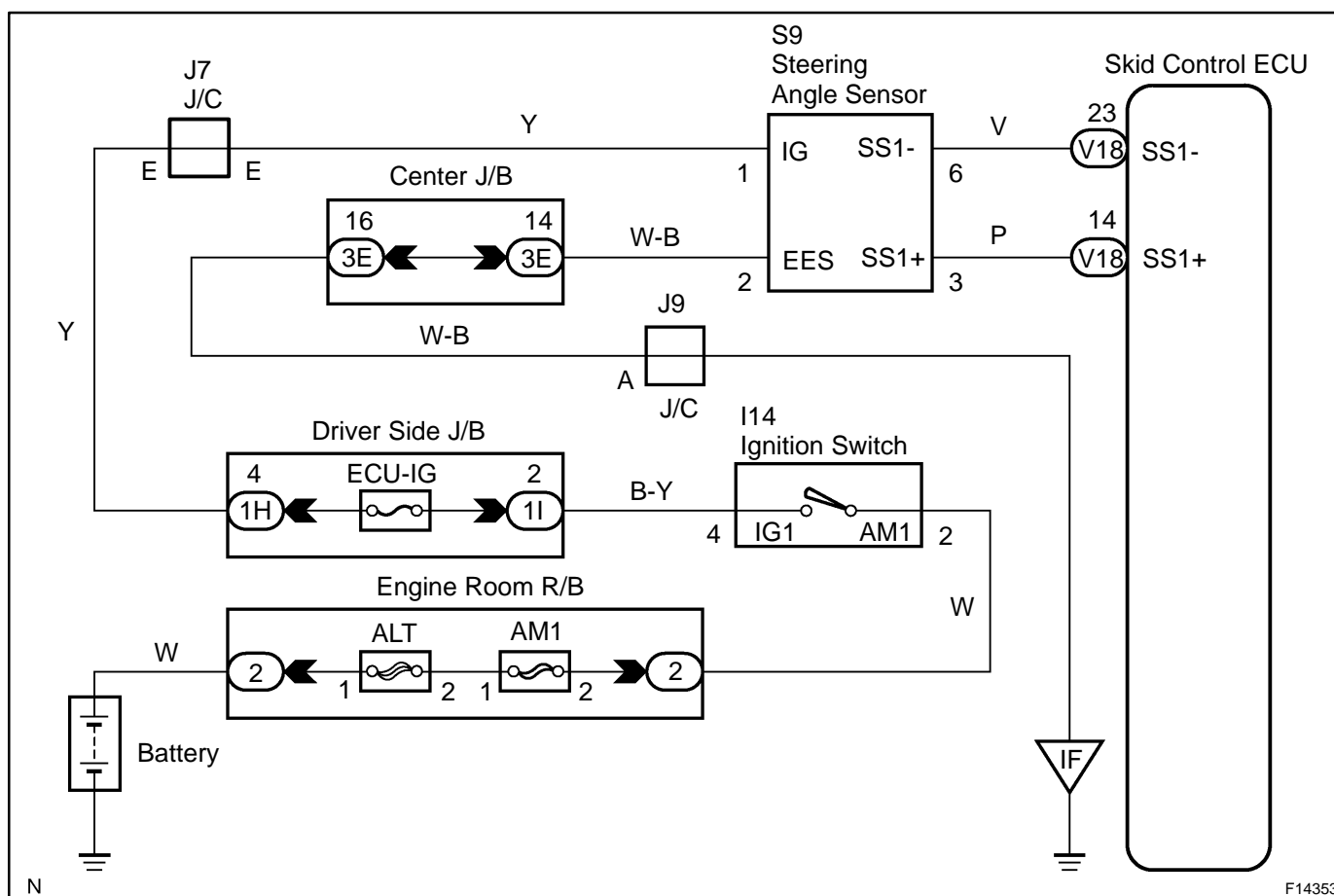


DTC	C1231 / 31	Steering Angle Sensor Circuit
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CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1231 / 31	<p>Detection of any of conditions 1. through 3.:</p> <ol style="list-style-type: none"> When the condition that ECU terminal IG1 voltage is 9.5 V or more, and ECU does not receive a data from steering angle sensor continues for 1 sec. or more. When the steering angle sensor value changes by 360° or more with SSC signal from steering angle sensor remaining ON or OFF. When the condition that difference between the steering angle valve output by SSC when the steering wheel is positioned straight-forward, and the one when the steering wheel is turned for 360° is out of the range from 355.5° - 364.5° occurs 10 times or more. 	<ul style="list-style-type: none"> Steering angle sensor Steering angle sensor circuit

WIRING DIAGRAM



F14353

INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the hand-held tester and start from step 3 in case of not using the hand-held tester.

1	Check output value of steering angle sensor.
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PREPARATION:

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

CHECK:

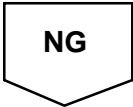
Check that the steering wheel turning angle value of the steering angle position sensor displayed on the hand-held tester is changing when the steering wheel is turned.

HINT:

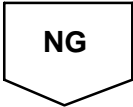
It is necessary to drive the vehicle straight-forward at 35 km/h (22 mph) or more for 1 sec. or more so that the hand-held tester can measure and output the data.

OK:

Steering wheel turning angle value must be changing.

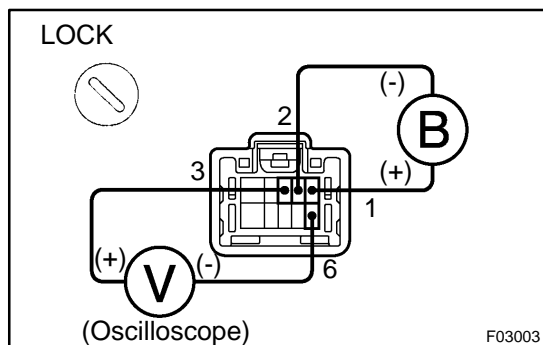


2	Replace ECU and check whether or not the trouble occurs again.
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END

3 Check steering angle sensor.



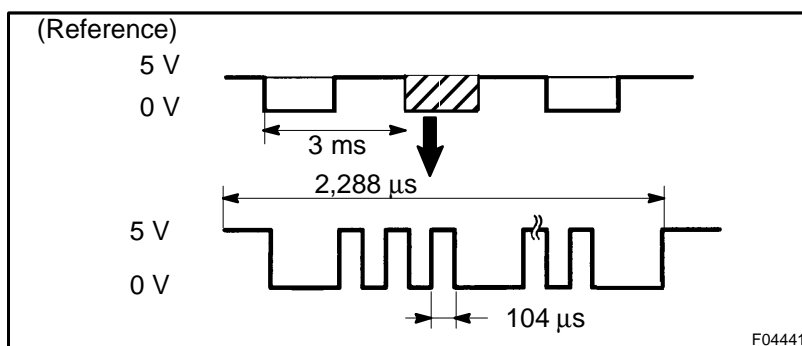
PREPARATION:

- Remove the steering wheel lower covers, steering wheel pad, steering wheel column upper and lower covers (See page [SR-22](#)).
- Disconnect the combination switch connector (for the steering angle sensor).
- Connect the oscilloscope to terminals 3 and 6 of the combination switch connector (for the steering angle sensor).
- Apply battery positive voltage between terminals 1 and 2.

CHECK:

Turns the steering wheel slowly and check the signal waveform.

OK:



HINT:

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

NG

Replace steering angle sensor.

OK

4 Check that slits of the steering sensor disc are clogged up.

NG

Repair or replace steering sensor disc.

OK

5	Check for open and short circuit in harness and connector between steering angle sensor and skid control ECU (See page IN-28).
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NG

Repair or replace harness or connector.

OK

Check and replace skid control ECU.