

DTC	C1233 / 33, C1234 / 34	Yaw Rate Sensor Circuit
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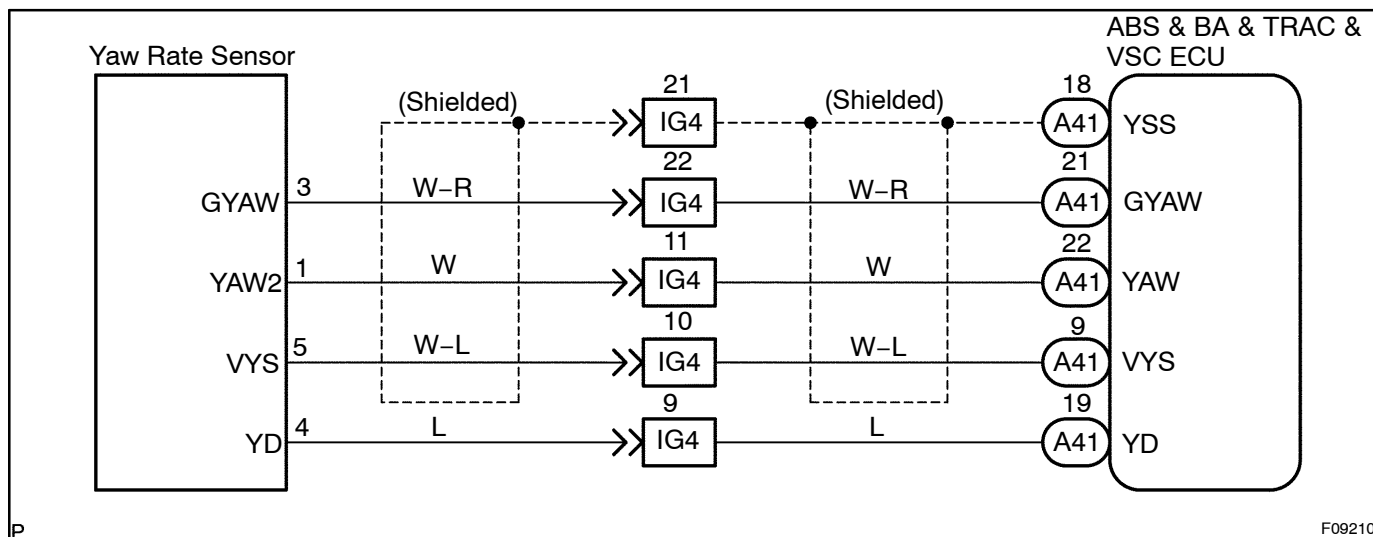
CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1233 / 33	When any of the following 1. through 4. is detected: 1. ECU terminal IG1 voltage is 9.5 V to 17.0 V, and the condition that yaw rate sensor voltage is out of the range from 0.25 V to 4.75 V continued for 1 sec. or more. 2. The conditions that yaw rate sensor open detect circuit signal is ON and the voltage of ECU terminal IG1 is 9.5 V to 17 V continued for 1 sec. or more. 3. The conditions that yaw rate sensor power source voltage is out of the range from 4.4 V to 5.6 V and the voltage of ECU terminal IG1 is 9.5 V to 17 V continued for 1 sec. or more. 4. When the condition that yaw rate sensor signal is momentarily open occurs 10 times or more and the voltage of ECU terminal IG1 is 9.5 V to 17 V.	• Yaw rate sensor • Yaw rate sensor circuit
C1234 / 34	Condition 1. or 2. is detected: 1. When the condition that yaw rate sensor VYS terminal voltage is 4.75 V to 5.25 V and YD malfunction signal of yaw rate sensor is ON continued for 5 sec. or more. 2. Shift lever position is in P position and output voltage of yaw rate sensor is out of the range from 2.4 V to 2.6 V or after the difference from zero point calibration voltage of yaw rate sensor has become 0.08 V or more and when the condition that the vehicle speed exceeds more than 15 km/h (9 mph) while output condition of yaw rate sensor has been repeated more than 3 times.	

Fail safe function:

If trouble occurs in the yaw rate sensor circuit, the ECU prohibits TRAC & VSC controls.

WIRING DIAGRAM

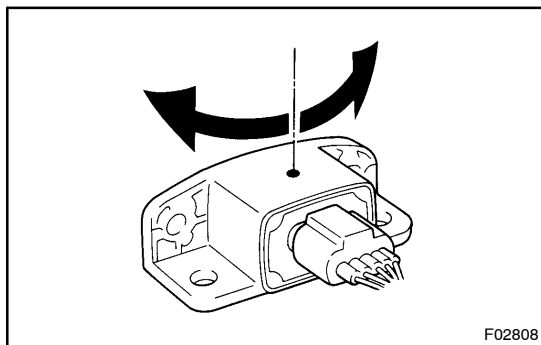


INSPECTION PROCEDURE

HINT:

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

1	Check output value of the yaw rate sensor.
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**PREPARATION:**

- Remove the 2 bolts and yaw rate sensor with connector still connected.
- Connect the LEXUS hand-held tester to the DLC3.
- Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.
- Select the DATALIST mode on the LEXUS hand-held tester.

CHECK:

Check that the yaw rate value of the yaw rate sensor displayed on the LEXUS hand-held tester is changing: Place the yaw rate sensor vertically to the ground and turn the sensor pivoted on its center.

OK:

Yaw rate value must be changing.

OK

Go to step 5.

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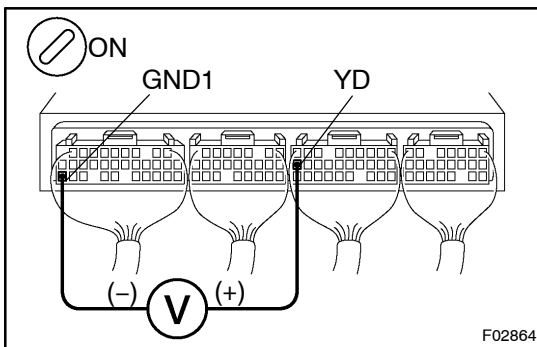
2 Check whether continuity exists between terminal YD of yaw rate sensor and terminal YD of ABS & BA & TRAC & VSC ECU (See page IN-34).

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Repair or replace harness or connector.

OK

3 Check voltage between terminals YD and GND of ABS & BA & TRAC & VSC ECU.



PREPARATION:

Remove ABS & BA & TRAC & VSC ECU with connector still connected.

CHECK:

- (a) Turn the ignition switch ON.
- (b) Measure voltage between terminals YD and GND of ABS & BA & TRAC & VSC ECU.

OK:

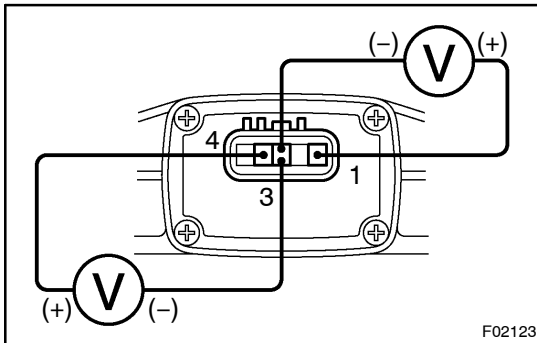
Voltage: 4.5 – 5.3 V

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Replace yaw rate sensor.

OK

Check and replace ABS & BA & TRAC & VSC ECU.

4 Check yaw rate sensor.**CHECK:**

- (a) Turn the ignition switch ON.
- (b) Measure voltage between terminals 1 and 3, 3 and 4 of the yaw rate sensor with connector still connected.

OK:

Terminals 1 and 3 (YAW – GYAW)	Approx. 2.5 V
Terminals 3 and 4 (GYAW – YD)	Approx. 4.5 V – 5.3 V

NG**Replace yaw rate sensor.****OK****5 Check for open and short circuit in harness and connector between yaw rate sensor and ABS & BA & TRAC & VSC ECU (See page [IN-34](#)).****NG****Repair or replace harness or connector.****OK****Check and replace ABS & BA & TRAC & VSC ECU.**