DI28K–02

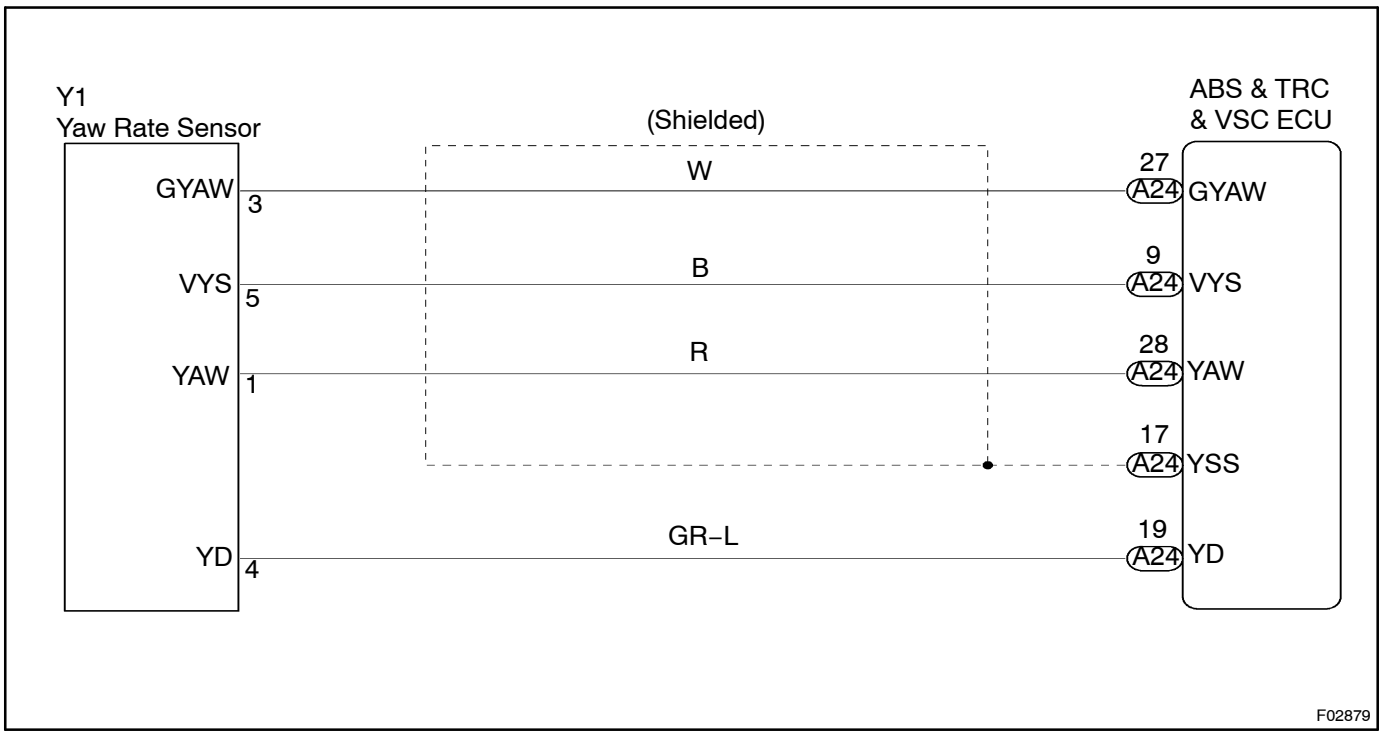
DTC	C1233 / 33, C1234 / 34	Yaw Rate Sensor Circuit

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 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 to 17 V continued for 1 sec. or more. (4) When the condition that yaw rate sensor signal is momentarily open circuit occurs 10 times or more and the voltage of ECU terminal IG1 is 9.5 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 secs. or more. (2) Shift lever position is in P range 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.	

Fail safe function:
If trouble occurs in the yaw rate sensor circuit, the ECU prohibits TRC & VSC controls.

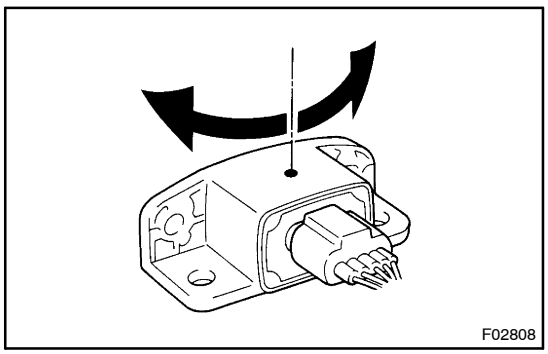
WIRING DIAGRAM



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 the yaw rate sensor.**



PREPARATION:

(a) Remove the 2 bolts and yaw rate sensor with connector still connected.
(b) Connect the hand–held tester to the DLC3.
(c) Turn the ignition switch ON and push the hand–held tester main switch ON.
(d) Select the DATALIST mode on the hand–held tester.

CHECK:

Check that the yaw rate value of the yaw rate sensor displayed on the 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 4.**

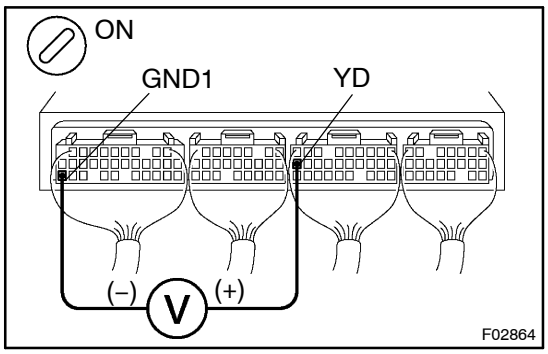
NG

2	**Check whether continuity exists between terminal YD of yaw rate sensor and terminal YD of ABS & TRC & VSC ECU.**

NO → **Repair or replace harness or connector.**

YES

3	**Check voltage between terminals YD and GND of ABS & TRC & VSC ECU.**



PREPARATION:

Remove ABS & TRC & VSC ECU with connector still connected.

CHECK:

(a) Turn the IG switch ON.

(b) Measure voltage between terminals YD and GND of ABS & TRC & VSC ECU.

OK:

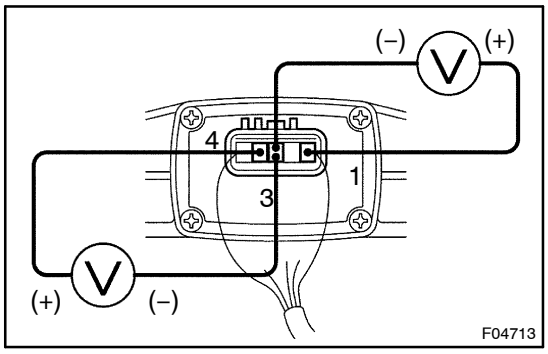
Voltage: 4.5 – 5.3 V

NG → **Replace yaw rate sensor.**

OK

Check and replace ABS & TRC & VSC ECU.

4	Check yaw rate sensor.



CHECK:

(a) Turn the IG 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 & TRC & VSC ECU (See page IN–29).

NG → **Repair or replace harness or connector.**

OK

Check and replace ABS & TRC & VSC ECU.