DTC	C1232/32	MALFUNCTION IN DECELERATION SENSOR

DTC	C1243/43	MALFUNCTION IN DECELERATION SENSOR

DTC	C1244/44	OPEN OR SHORT IN DECELERATION SENSOR CIRCUIT

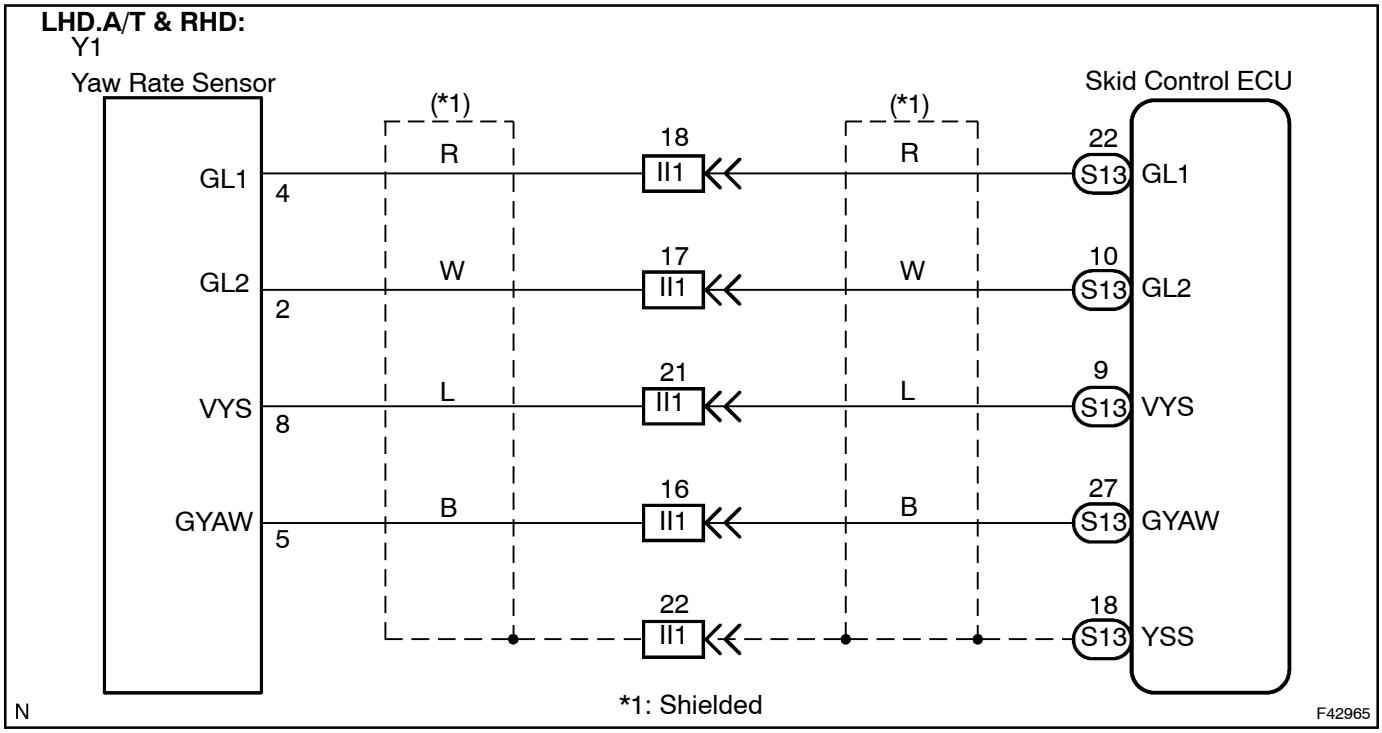
DTC	C1245/45	MALFUNCTION IN DECELERATION SENSOR

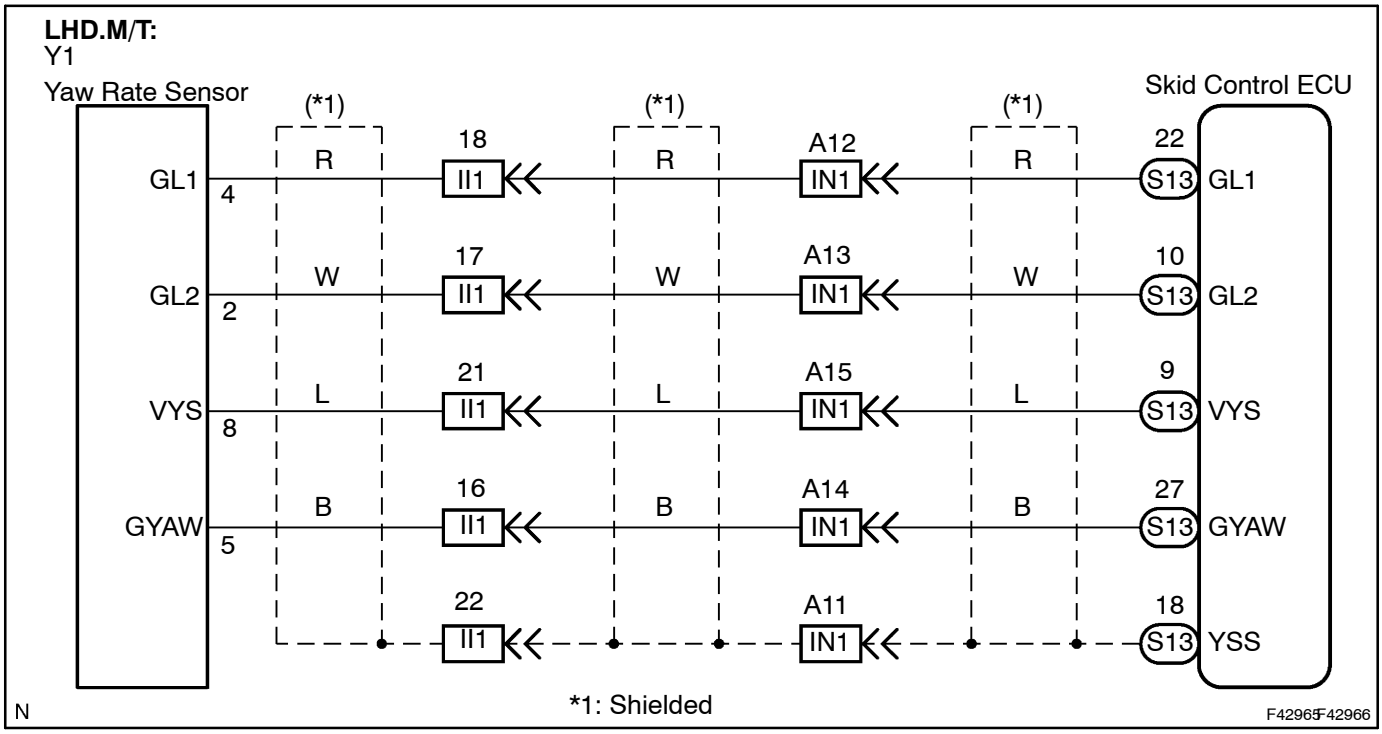
CIRCUIT DESCRIPTION

This sensor detects deceleration on the vehicle. The sensor signal is used in ABS & BA & TRC & VSC control. If the sensor functions abnormally, the ABS warning light comes on.

DTC No.	DTC Detecting Condition	Trouble Area
C1232/32	While vehicle speed becomes 0 km/h (0 mph) from 30 km/h (18 mph), and the condition that GL1 and GL2 signals of ECU terminals did not change 40 mV or less continued in a sequence 16 times.	• Deceleration sensor • Deceleration sensor circuit
C1243/43		
C1244/44	Either of the following 1., 2., 3. or 4. is detected: 1. The condition that ECU terminals GL1 and GL2 values are 1.5G or less or 1.5G or more continues for 1.2 sec. or more. 2. The condition that the deceleration sensor terminal VGS voltage is 4.4 V or less or 5.6 G or more continues for 1.2 sec. or more. 3. At the vehicle speed of 0 km (0 mph), after the difference of output value between deceleration sensor terminals GL1 and GL2 becomes 0.6 G or more, and the condition that does not become 0.4 G or less continues for 60 sec. or more. 4. Deceleration sensor signal momentary open occurs for 7 times or more.	
C1245/45	At the vehicle speed of 30 km/h (18 mph) or more, and the condition that the difference between acceleration and deceleration values of computation from deceleration sensor and vehicle speed becomes more than 0.35 G continues for 60 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.

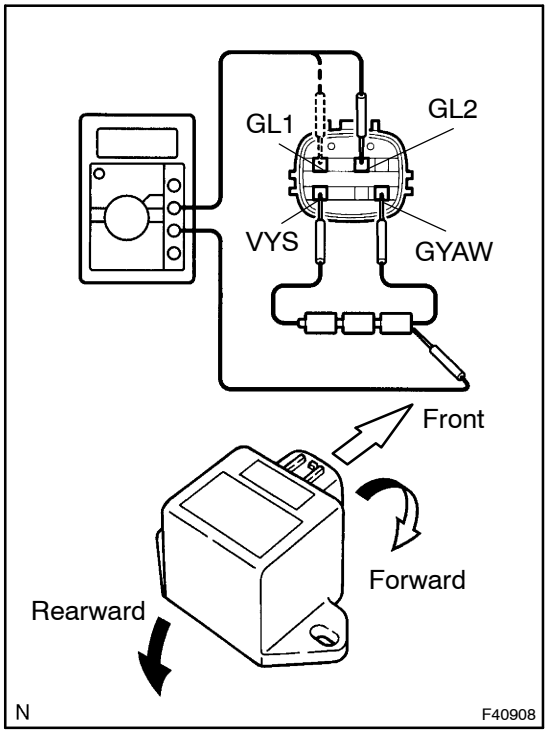
1	READ VALUE OF YAWRATE SENSOR(INCLUDE DECELERATION SENSOR)

(a) Connect the hand–held tester to the 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.
(d) Check that the deceleration value of the deceleration sensor displayed on the hand–held tester is changing when tilting the vehicle.
OK:
Deceleration value must be changing.

OK → **CHECK AND REPLACE SKID CONTROL ECU ASSY**

NG

2	INSPECT YAWRATE SENSOR(INCLUDE DECELERATION SENSOR)



(a) Remove the console box and yaw rate sensor.
(b) Connect 3 dry batteries of 1.5 V in series.
(c) Connect VYS terminal to the batteries' positive (+) terminal and GYAW terminal to the batteries' negative (–) terminal. Apply about 4.5 V between VYS and GYAW terminals.

NOTICE:
Do not apply voltage of 6 V or more to terminals VYS and GYAW.

(d) Check the output voltage of GL1 and GL2 terminals when the sensor is tilted forward and rearward.

OK:

Symbols	Condition	Standard Value
GL1	Horizontal	About 2.3 V
GL1	Lean forward	0.4–about 2.3 V
GL1	Lean rearward	About 2.3 V –4.1V
GL2	Horizontal	About 2.3 V
GL2	Lean forward	About 2.3 V –4.1 V
GL2	Lean rearward	0.4 –about 2.3 V

HINT:
- If the sensor is tilted too much it may show the wrong value.
- If dropped, the sensor should be replaced with a new one.
- The sensor removed from the vehicle should not be placed upside down.

NG → **REPLACE YAWRATE SENSOR**

OK

3	CHECK HARNESS AND CONNECTOR(YAW RATE SENSOR – SKID CONTROL ECU)

(a) Check for open and short circuit in harness and connector between yaw rate sensor and skid control ECU (See page 01–36).

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK AND REPLACE SKID CONTROL ECU ASSY