

DTC	C0210/33	Right Rear Wheel Speed Sensor Signal Malfunction
DTC	C0215/34	Left Rear Wheel Speed Sensor Signal Malfunction
DTC	C1238/38	Foreign Object is Attached on Tip of Rear Speed Sensor RH
DTC	C1239/39	Foreign Object is Attached on Tip of Rear Speed Sensor LH

DESCRIPTION

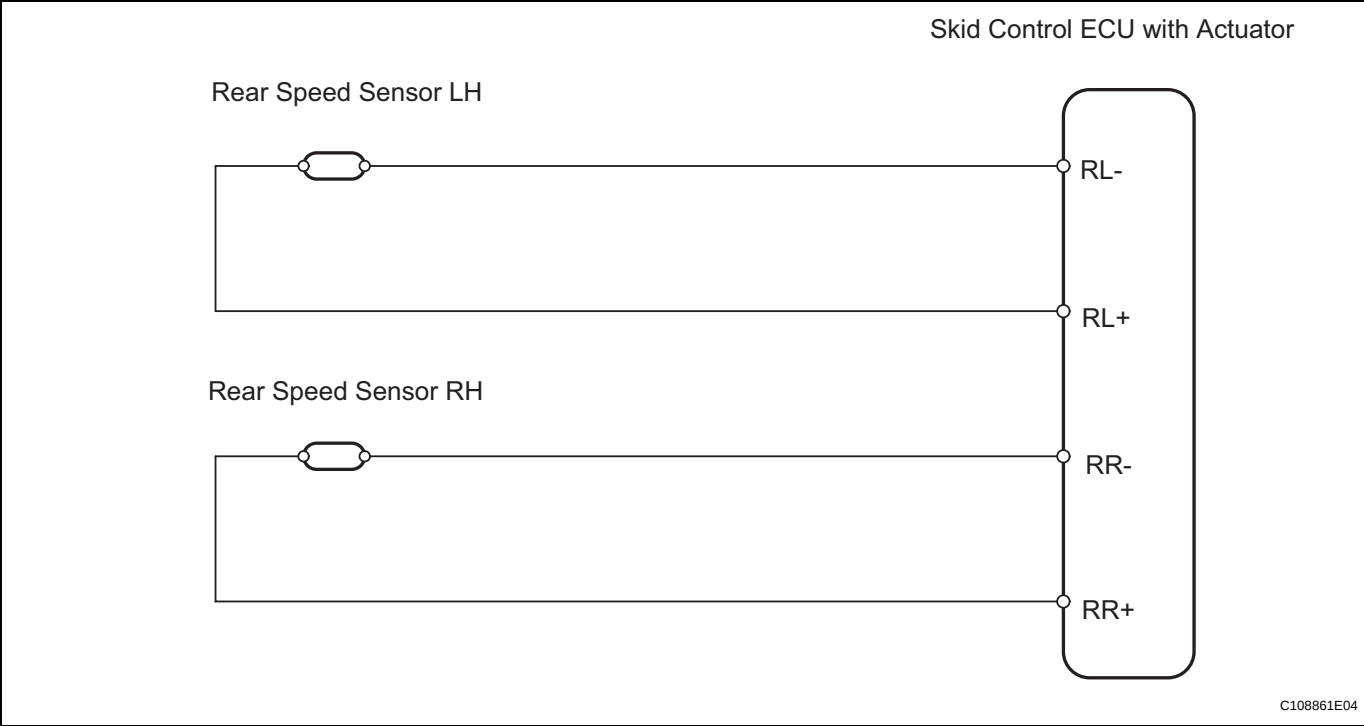
Refer to DTCs C0200/31, C0205/32, C1235/35 and C1236/36.

DTC No.	DTC Detection Condition	Trouble Area
C0210/33 C0215/34	When one of following occurs • With vehicle speed at 10 km/h (6 mph) or more, sensor signal circuit of faulty wheel is open or short for 1 second or more • Momentary interruption of sensor signal of faulty wheel has occurred 7 times or more • Sensor signal circuit is open for 0.5 seconds or more	• Rear speed sensor • Rear speed sensor circuit • Speed sensor rotor
C1238/38 C1239/39	At vehicle speed of 20 km/h (12 mph) or more, condition that noise is included in speed sensor signal continues for 5 seconds or more	• Rear speed sensor • Rear speed sensor circuit

HINT:

- DTCs C0210/33 and C1233/38 are for the rear speed sensor RH.
- DTCs C0215/34 and C1239/39 are for the rear speed sensor LH.

WIRING DIAGRAM

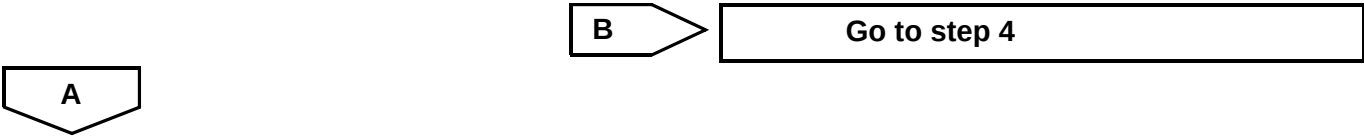


1

CHOOSE DIAGNOSIS METHOD

- (a) Choose the diagnosis method.
- Method**

Method	Proceed to
Using intelligent tester	A
Not using intelligent tester	B



2

READ VALUE OF INTELLIGENT TESTER (REAR SPEED SENSOR)

- (a) Check the DATA LIST for proper functioning of the rear speed sensor.

BC

Skid control ECU with actuator

Item	Measurement Item / Range (Display)	Normal Condition	Diagnostic Note
WHEEL SPD RR	Wheel speed sensor (RR) reading / min.: 0 km/h (0 mph), max.: 326 km/h (202 mph)	Actual wheel speed	Speed similar to that of speedometer
WHEEL SPD RL	Wheel speed sensor (RL) reading / min.: 0 km/h (0 mph), max.: 326 km/h (202 mph)	Actual wheel speed	Speed similar to that of speedometer

OK:

There is almost no difference between actual wheel speed and displayed speed value.

NG

Go to step 4

OK

3

CHECK IF DTC OUTPUT RECURS

- (a) Clear the DTCs (see page [BC-16](#)).
- (b) Drive the vehicle at approximately 32 km/h (20 mph) or more for 60 seconds or more.
- (c) Check for DTCs (see page [BC-16](#)).

Result

Result	Proceed to
DTC is output	A
DTC is not output	B

HINT:

When replacing the skid control ECU with actuator, perform the zero point calibration (see page [BC-11](#)).

B

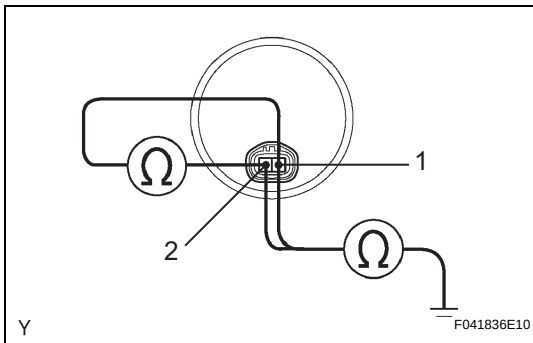
END

A

REPLACE BRAKE ACTUATOR ASSEMBLY

4

INSPECT REAR SPEED SENSOR



- (a) Disconnect the A15 and A16 sensor connectors.
- (b) Measure the resistance of the speed sensors.

Standard resistance:

LH

Tester Connection	Specified Condition
1 (RL-) - 2 (FL+)	1.0 to 1.4 kΩ at 20°C
1 (RL-) - Body ground	10 kΩ or higher
2 (RL+) - Body ground	

RH

Tester Connection	Specified Condition
1 (RR-) - 2 (RR+)	1.0 to 1.4 kΩ at 20°C
1 (RR-) - Body ground	10 kΩ or higher
2 (RR+) - Body ground	

HINT:

Check the speed sensor signal after the speed sensor replacement (see page [BC-7](#)).

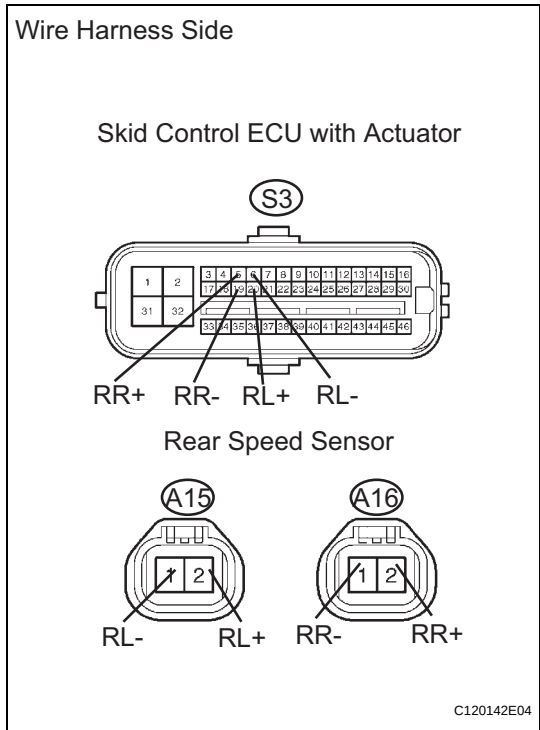
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REPLACE REAR SPEED SENSOR

OK

5

CHECK WIRE HARNESS (SKID CONTROL ECU - REAR SPEED SENSOR)



- (a) Disconnect the S3 ECU connector.
- (b) Disconnect the A15 and A16 speed sensor connectors.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance:
LH

Tester Connection	Specified Condition
S3-20 (RL+) - A15-2	Below 1 Ω
S3-6 (RL-) - A15-1	
A15-2 - Body ground	10 kΩ or higher
A15-1 - Body ground	

RH

Tester Connection	Specified Condition
S3-5 (RR+) - A16-2	Below 1 Ω
S3-19 (RR-) - A16-1	
A16-2 - Body ground	10 kΩ or higher
A16-1 - Body ground	

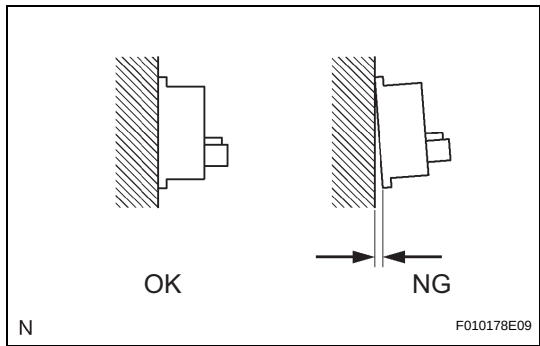
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REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

6

CHECK REAR SPEED SENSOR (INSTALLATION)



- (a) Check the sensor installation.
- OK:**
There is no clearance between the sensor and rear axle carrier.

HINT:
Check the speed sensor signal after replacement (see page [BC-7](#))

NG

REPLACE REAR SPEED SENSOR

BC

OK

7

INSPECT SPEED SENSOR (TIP)

- (a) Remove the rear speed sensor.
- (b) Check the sensor tip.

OK:
No scratches or foreign objects on the sensor tip.

HINT:
Check the speed sensor signal after replacement (see page [BC-7](#))

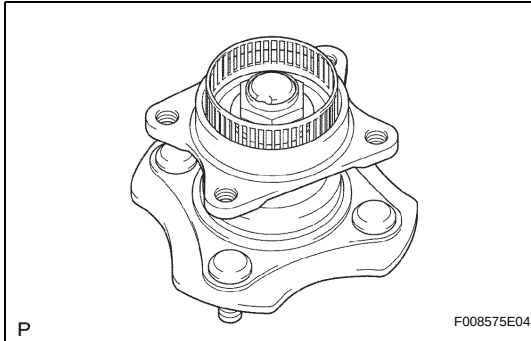
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CLEAR OR REPAIR SPEED SENSOR

OK

8

INSPECT REAR AXLE HUB AND BEARING ASSEMBLY (SENSOR ROTOR)



- (a) Remove the axle hub and disconnect the rear speed sensor.

OK:**No scratches, missing teeth or foreign objects.****HINT:**

Check the speed sensor signal after replacement (see page [BC-7](#))

NG

REPLACE REAR AXLE HUB AND BEARING ASSEMBLY

OK

9

CHECK IF DTC OUTPUT RECURS

- (a) Clear the DTCs (see page [BC-16](#)).
(b) Drive the vehicle at approximately 30 km/h (19 mph) or more for 60 seconds or more.
(c) Check for DTCs (see page [BC-16](#)).

Result

Result	Proceed to
DTC is output	A
DTC is not output	B

HINT:

When replacing the skid control ECU with actuator, perform the zero point calibration (see page [BC-11](#)).

B

END

A

REPLACE BRAKE ACTUATOR ASSEMBLY