| DTC | C0210/33 | RIGHT REAR SPEED SENSOR CIRCUIT |
|---|---|---|

| DTC | C0215/34 | LEFT REAR SPEED SENSOR CIRCUIT |
|---|---|---|

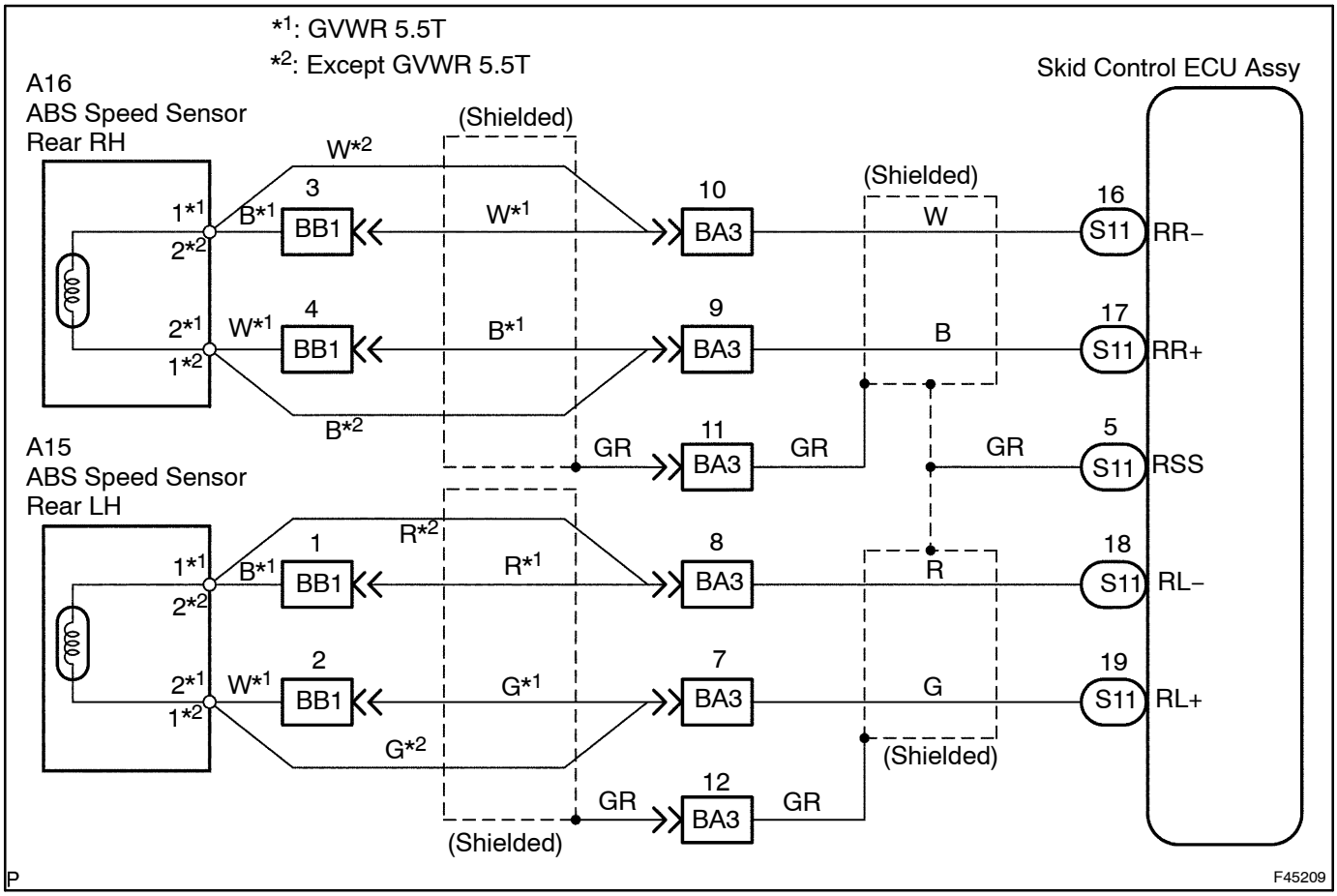
## CIRCUIT DESCRIPTION

Refer to DTC C0200/31, C0205/32 on page 05–214.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| C0210/33<br>C0215/34 | Detection of any of conditions 1. through 4:<br>1. Vehicle speed is 10km/h (6 mph) or more and open or short circuit in the signal circuit of each vehicle speed sensor has continued for 15 sec. or more<br>2. Momentary interruption of each vehicle speed sensor signal has occurred more than 7 times<br>3. Vehicle speed is higher than 20 km/h (12 mph) and noise on the abnormal wheel sensor signal continues for 5 sec. or more<br>4. Open circuit condition of the vehicle speed sensor signal circuit has continued for more than 0.5 sec. | • Right rear and left rear speed sensors<br>• Each speed sensor circuit<br>• Speed sensor rotor<br>• Sensor installation |

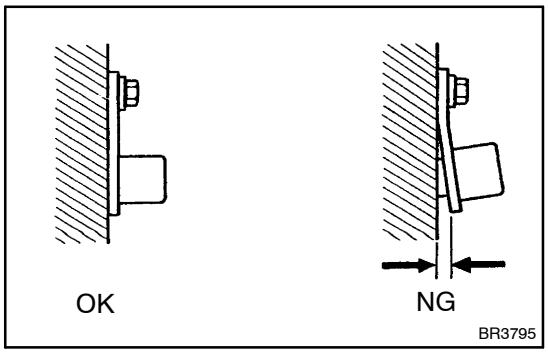
HINT:
DTC No. C0210/33 is for the right rear speed sensor.
DTC No. C0215/34 is for the left rear speed sensor.

## WIRING DIAGRAM



# INSPECTION PROCEDURE

## 1 INSPECT REAR SPEED SENSOR INSTALLATION




(a) Check the speed sensor installation.
**Standard:**
**The installation bolt is tightened properly and there is no clearance between the sensor and rear axle carrier.**
**Torque: 19.1 N·m (195 kgf·cm, 14 ft·lbf)**

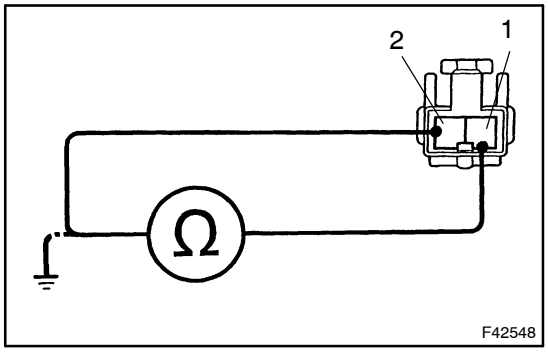
**NOTICE:**
**Check the speed sensor signal last (See page 05–205).**

**NG** → **REPLACE SPEED SENSOR REAR RH**

**NG** → **REPLACE SPEED SENSOR REAR LH**

**OK**

## 2 INSPECT REAR SPEED SENSOR




(a) Make sure that there is no looseness at the connector lock part and connecting part of the connector.
(b) Disconnect the A15 and A16 sensor connectors.
(c) Measure the resistance between terminals 1 and 2 of the sensor.
**Standard: 0.85 – 1.30 kΩ at 25 °C (77°F)**
(d) Measure the resistance between each of terminals 1 and 2 of the sensor and the body ground.
**Standard: 1 MΩ or higher**

**NG** → **REPLACE SPEED SENSOR FRONT RH**

**NG** → **REPLACE SPEED SENSOR FRONT LH**

**OK**

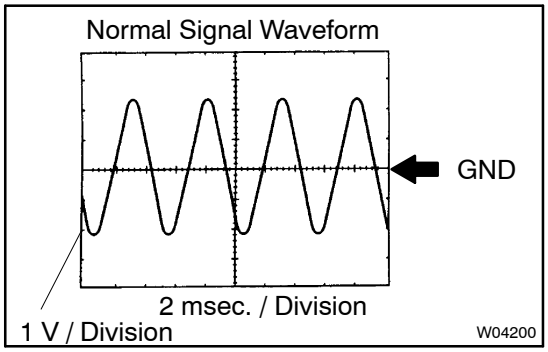
## 3 CHECK WIRE HARNESS (REAR SPEED SENSOR ⇔ SKID CONTROL ECU ASSY)

(a) Check for open and short circuit in harness and connector between the A15/16 speed sensors and S11 ECU connector (See page 01–27).

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

**OK**

## 4 CHECK SPEED SENSOR AND SENSOR ROTOR SERRATIONS




**REFERENCE: INSPECTION USING OSCILLOSCOPE**

(a) Connect an oscilloscope to terminals RR+, RL+ and GND of the S11 ECU.

(b) Drive the vehicle at about 30 km/h (19 mph) and check the signal waveform.

HINT:

- As the vehicle speed (wheel revolution speed) increases, a cycle of the waveform becomes shorter and the fluctuation in the output voltage becomes higher.
- When noise is identified in the waveform on the oscilloscope, error signals are generated due to the speed sensor rotor's scratches, looseness or foreign objects deposited on the rotor.

**OK** → **CHECK AND REPLACE SKID CONTROL ECU ASSY (See page 01–27)**

**NG**

## 5 INSPECT SPEED SENSOR TIP

(a) Remove the speed sensor (See page 32–90).

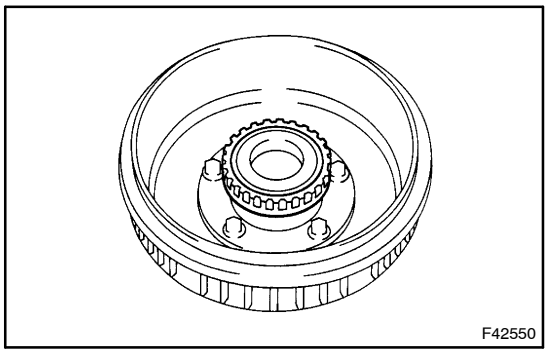
(b) Check the sensor tip.

**Standard: No scratches or no foreign objects on the sensor tip.**

**NG** → **CLEAN OR REPLACE SPEED SENSOR**

**OK**

## 6 INSPECT SPEED SENSOR ROTOR




(a) Remove the rear axle hub (See page 30–62).

(b) Check the sensor rotor serrations.

**Standard:**

**No scratches, no missing teeth or no foreign objects.**

HINT:

If a foreign object is attached, remove it and check the output waveform after reassembling.

**NG** → **CLEAN OR REPLACE SENSOR ROTOR**

**OK**

**CHECK AND REPLACE SKID CONTROL ECU ASSY (See page 01–27)**