

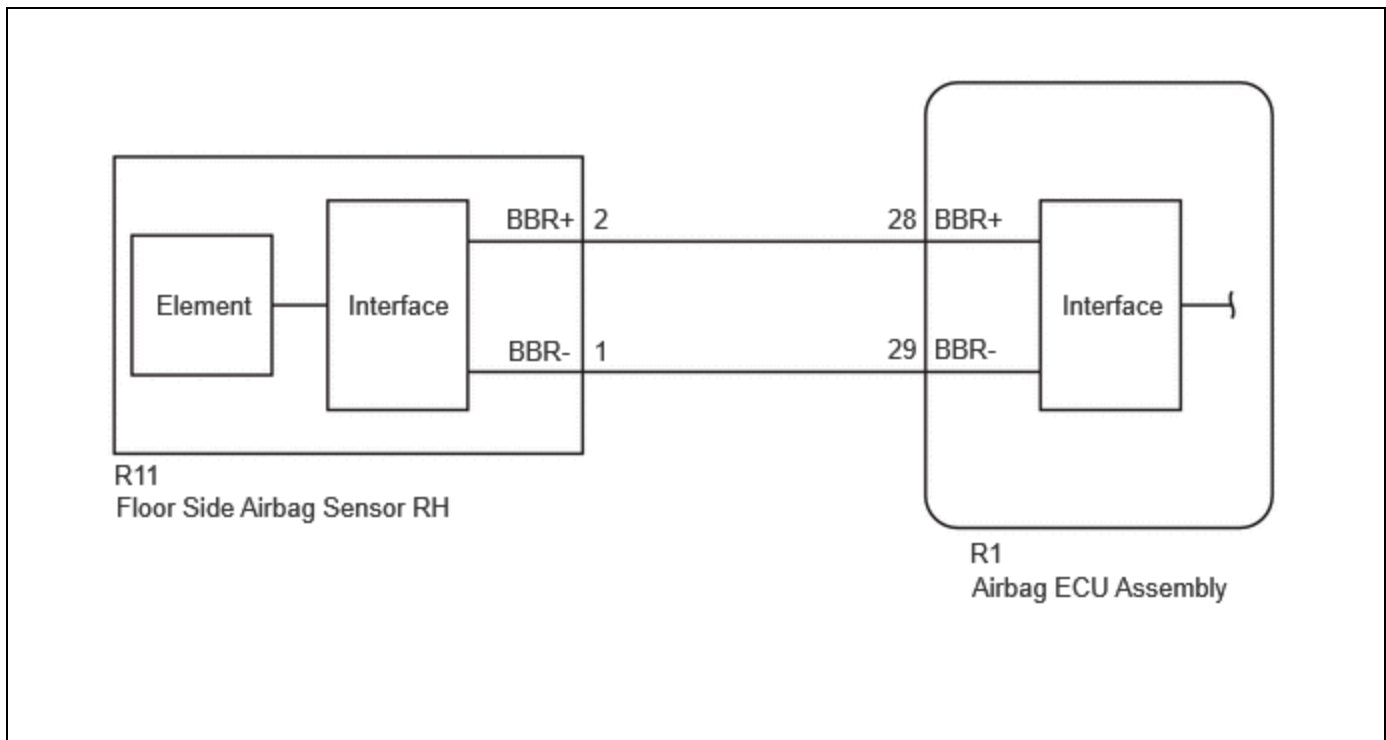
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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B009787; Right Side Restraints Sensor 2 Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

<b>DTC</b>	<b>B009787</b>	<b>Right Side Restraints Sensor 2 Missing Message</b>
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## DESCRIPTION

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	TEST MODE / CHECK MODE
B009787	Right Side Restraints Sensor 2 Missing Message	<ul style="list-style-type: none"> <li>The airbag ECU assembly detects a line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to +B signal in the side collision sensor RH circuit (bus 2) for 2 seconds.</li> <li>Floor side airbag sensor RH malfunction</li> <li>Airbag ECU assembly malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Harness or connector</li> <li>Floor side airbag sensor RH</li> <li>Airbag ECU assembly</li> </ul>	Comes on	SRS Airbag	A	Does not apply to test/check mode

## WIRING DIAGRAM



## CAUTION / NOTICE / HINT

### NOTICE:

- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

Click here [INFO](#)

### HINT:

When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

Click here [INFO](#)

- After replacing the airbag ECU assembly, refer to work procedure.

Click here [INFO](#)

## PROCEDURE

### 1. CHECK CONNECTION OF CONNECTORS

Pre-procedure1

- Turn the ignition switch off.
- Disconnect the cable from the negative (-) auxiliary battery terminal, and wait for at least 60 seconds.

Procedure1

- Check that the connectors are properly connected to the airbag ECU assembly and floor side airbag sensor RH.

OK:

The connectors are properly connected.

Post-procedure1

(d) None

**NG**  **CONNECT CONNECTORS PROPERLY**

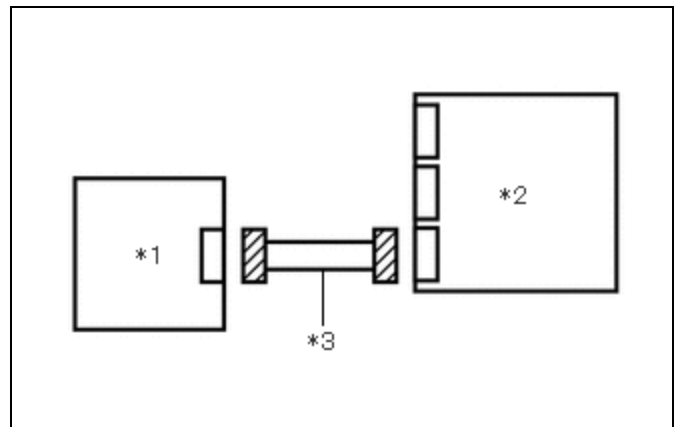
**OK**



<b>2.</b>	<b>CHECK CONNECTORS</b>
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Pre-procedure1

(a) Disconnect the airbag ECU assembly connector.



*1	Floor Side Airbag Sensor RH
*2	Airbag ECU Assembly
*3	Wire Harness

(b) Disconnect the floor side airbag sensor RH connector.

Procedure1

(c) Check that the terminals of the connectors are not deformed or damaged.

OK:

The terminals are not deformed or damaged.

Post-procedure1

(d) None

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

**OK**



**3. CHECK HARNESS AND CONNECTOR (CHECK FOR SHORT IN THE CIRCUIT)**

(a) Measure the resistance according to the value(s) in the table below.

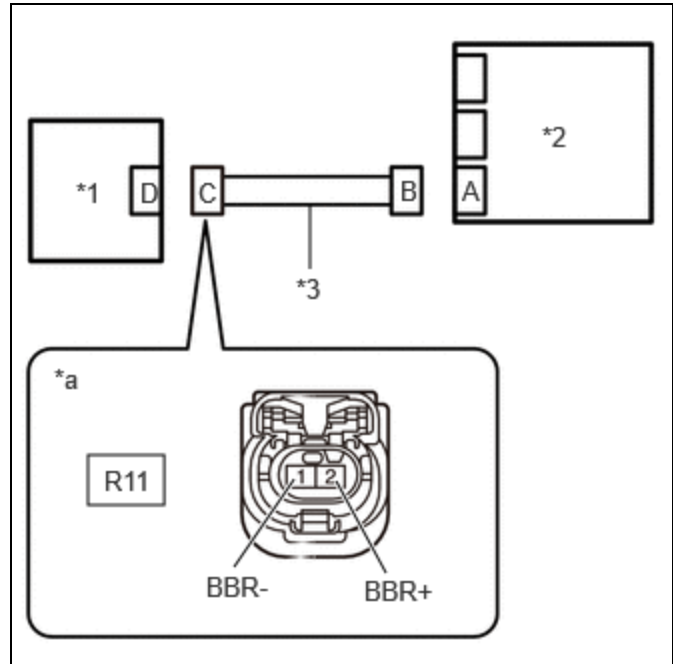
Standard Resistance:



[Click Location & Routing\(R11\)](#)

[Click Connector\(R11\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
R11-2 (BBR+) - R11-1 (BBR-)	Always	1 MΩ or higher	MΩ



*1	Floor Side Airbag Sensor RH
*2	Airbag ECU Assembly
*3	Wire Harness
*a	Front view of wire harness connector (to Floor Side Airbag Sensor RH)

**NG** ► REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**  
▼

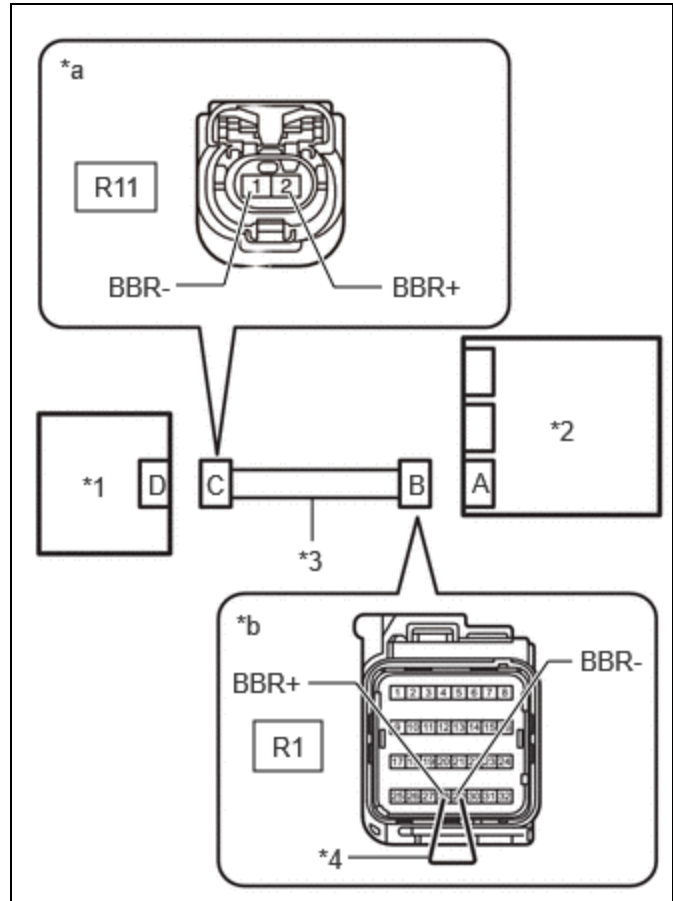
**4. CHECK HARNESS AND CONNECTOR (CHECK FOR OPEN IN THE CIRCUIT)**

Pre-procedure1

(a) Using a service wire, connect terminals 28 (BBR+) and 29 (BBR-) of connector B.

**NOTICE:**

Do not forcibly insert the service wire into the terminals of the connector when connecting a service wire.



*1	Floor Side Airbag Sensor RH
*2	Airbag ECU Assembly
*3	Wire Harness
*4	Service Wire
*a	Front view of wire harness connector (to Floor Side Airbag Sensor RH)
*b	Front view of wire harness connector (to Airbag ECU Assembly)

Procedure1

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(R11\)](#)

[Click Connector\(R11\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
R11-2 (BBR+) - R11-1 (BBR-)	Always	Below 1 Ω	Ω

Post-procedure1

(c) Disconnect the service wire from connector B.

**NG** ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**



**5. CHECK HARNESS AND CONNECTOR (CHECK FOR SHORT TO GROUND IN THE CIRCUIT)**

(a) Measure the resistance according to the value(s) in the table below.

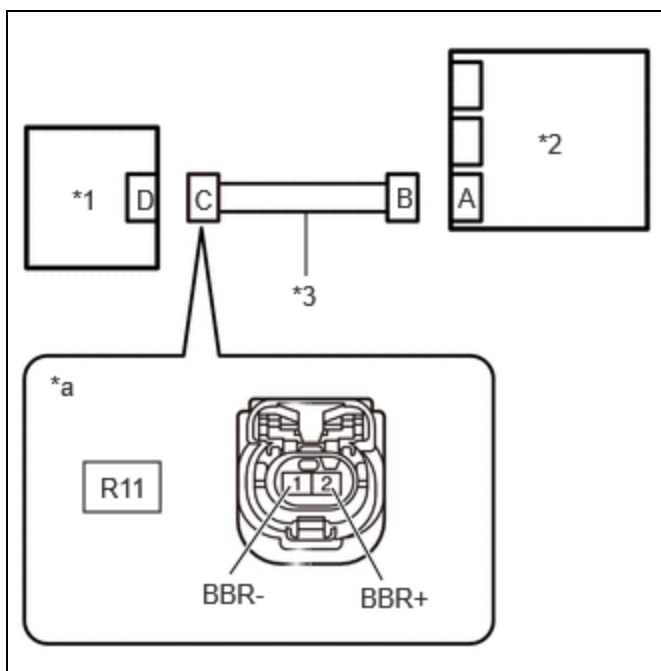
Standard Resistance:



[Click Location & Routing\(R11\)](#)

[Click Connector\(R11\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
R11-2 (BBR+) - Body ground	Always	1 MΩ or higher	MΩ
R11-1 (BBR-) - Body ground	Always	1 MΩ or higher	MΩ



*1	Floor Side Airbag Sensor RH
*2	Airbag ECU Assembly
*3	Wire Harness
*a	Front view of wire harness connector (to Floor Side Airbag Sensor RH)

**NG** ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**



**6. CHECK HARNESS AND CONNECTOR (CHECK FOR SHORT TO +B IN THE CIRCUIT)**

Pre-procedure1

(a) Connect the cable to the negative (-) auxiliary battery terminal, and wait for at least 2 seconds.

(b) Turn the ignition switch to ON.

Procedure1

(c) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



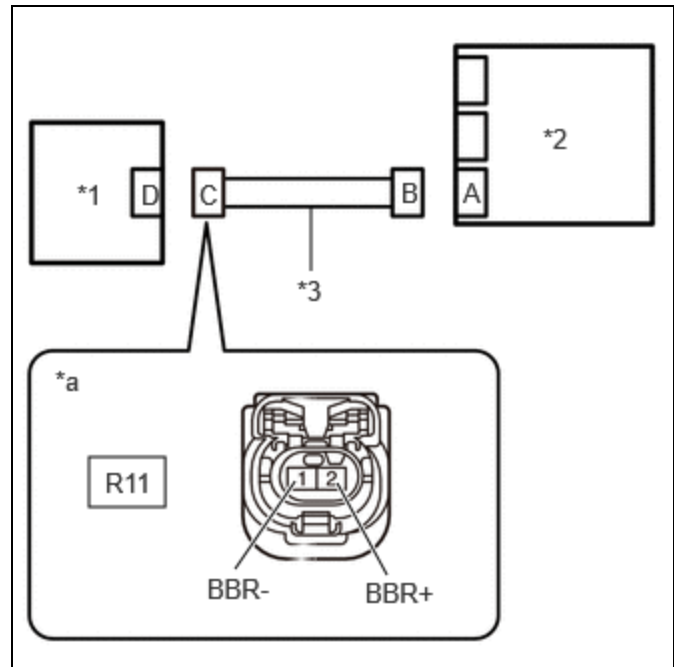
[Click Location & Routing\(R11\)](#)

[Click Connector\(R11\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
R11-2 (BBR+) - Body ground	Ignition switch ON	Below 1 V	V
R11-1 (BBR-) - Body ground	Ignition switch ON	Below 1 V	V

Result:

PROCEED TO
OK
NG



*1	Floor Side Airbag Sensor RH
*2	Airbag ECU Assembly
*3	Wire Harness
*a	Front view of wire harness connector (to Floor Side Airbag Sensor RH)

Post-procedure1

(d) Turn the ignition switch off.

(e) Disconnect the cable from the negative (-) auxiliary battery terminal, and wait for at least 60 seconds.

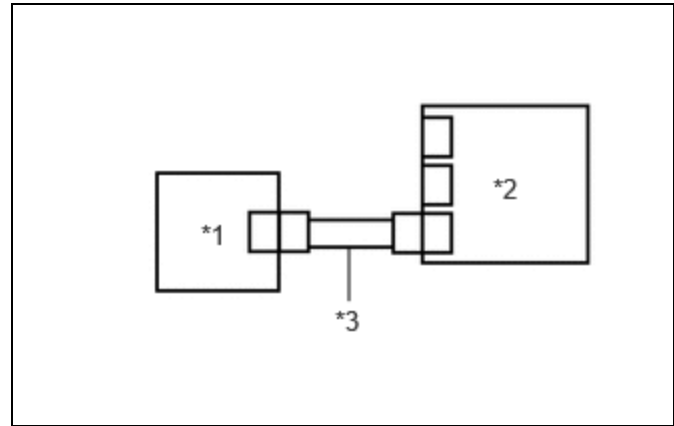
**NG** ► REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**



<b>7.</b>	<b>CLEAR DTC</b>
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Pre-procedure1



*1	Floor Side Airbag Sensor LH
*2	Airbag ECU Assembly
*3	Wire Harness

(a) Connect the airbag ECU assembly connector.

- (b) Interchange the floor side airbag sensor RH with LH and connect the connectors to them.  
 (c) Connect the cable to the negative (-) auxiliary battery terminal, and wait for at least 2 seconds.  
 (d) Turn the ignition switch to ON, and wait for at least 60 seconds.

Procedure1

(e) Clear the DTCs stored in memory.

**Body Electrical > SRS Airbag > Clear DTCs**

Post-procedure1

(f) Turn the ignition switch off.

**NEXT**



## 8. CHECK FLOOR SIDE AIRBAG SENSOR RH

Pre-procedure1

(a) Turn the ignition switch to ON, and wait for at least 60 seconds.

Procedure1

(b) Check for DTCs.

**Body Electrical > SRS Airbag > Trouble Codes**



RESULT	PROCEED TO
B009787 is output	A
B009287 is output	B
B009287 and B009787 are not output	C

**HINT:**

Codes other than DTCs B009287 and B009787 may be output at this time, but they are not related to this check.

Post-procedure1

- (c) Turn the ignition switch off.
- (d) Disconnect the cable from the negative (-) auxiliary battery terminal, and wait for at least 60 seconds.
- (e) Return the floor side airbag sensor LH and RH to their original positions and connect the connectors to them.

**A** ► REPLACE AIRBAG ECU ASSEMBLY INFO

**B** ► REPLACE FLOOR SIDE AIRBAG SENSOR RH INFO

**C** ► USE SIMULATION METHOD TO CHECK

