

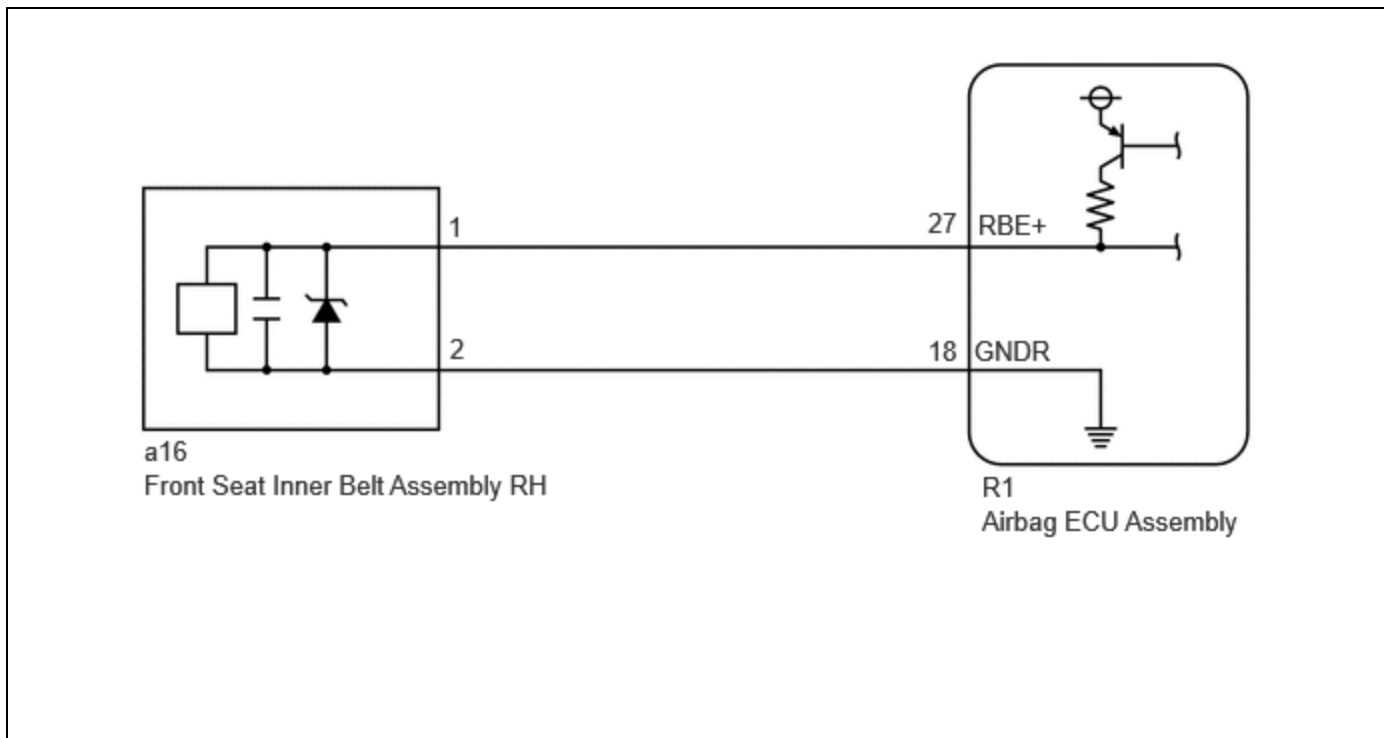
Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM1000000028UXW
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B005200; Passenger Seat Belt Sensor Circuit Undetermined Failure; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	B005200	Passenger Seat Belt Sensor Circuit Undetermined Failure
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DESCRIPTION

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	TEST MODE / CHECK MODE
B005200	Passenger Seat Belt Sensor Circuit Undetermined Failure	When it is determined that the specified number of times or more is not achieved after the ignition switch is turned to ON.	<ul style="list-style-type: none"> • Harness or connector • Passenger seat buckle switch (Front seat inner belt assembly RH) • Airbag ECU assembly 	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 

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 

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

Click here 

PROCEDURE

1.	CHECK CONNECTION OF CONNECTORS
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Pre-procedure1

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

Procedure1

- (c) Check that the connectors are properly connected to the airbag ECU assembly and front seat inner belt assembly RH.

OK:

The connectors are properly connected.

Post-procedure1

- (d) None

NG  **CONNECT CONNECTORS PROPERLY**

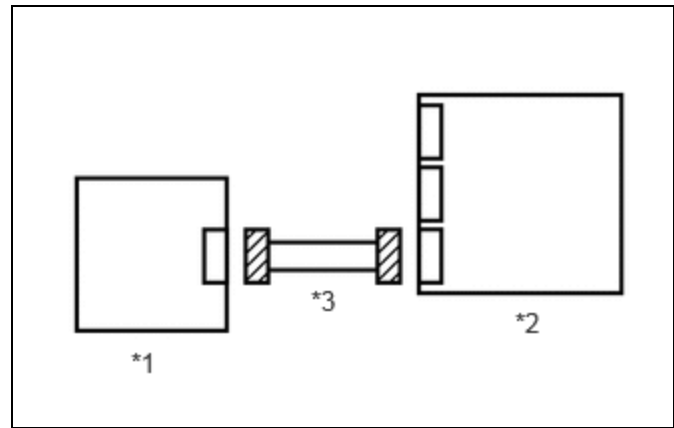
OK



2.	CHECK CONNECTORS
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Pre-procedure1

- (a) Disconnect the airbag ECU assembly connector.



*1	Front Seat Inner Belt Assembly RH
*2	Airbag ECU Assembly
*3	Wire Harness

(b) Disconnect the front seat inner belt assembly 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. INSPECT FRONT SEAT INNER BELT ASSEMBLY RH

Pre-procedure1

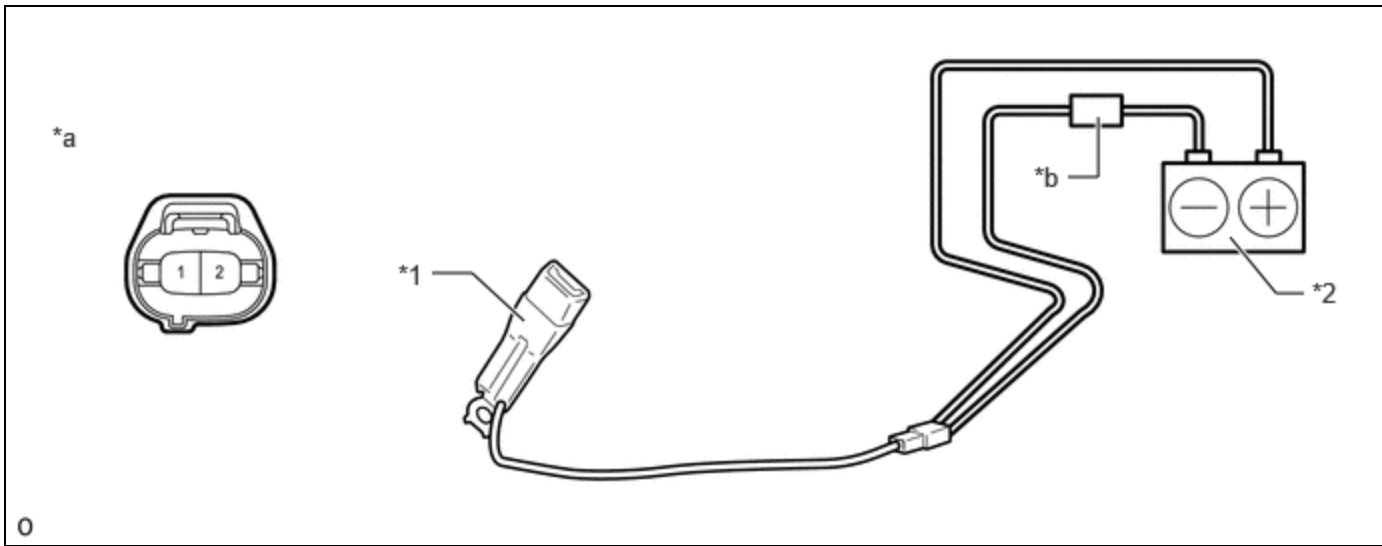
(a) Remove the front seat inner belt assembly RH.

HINT:

[Click here](#) **INFO**

Procedure1

(b) Inspect the front seat inner belt assembly RH.



*1	Front Seat Inner Belt Assembly RH	*2	Auxiliary Battery
*a	Component without harness connected (Front Seat Inner Belt Assembly RH)	*b	Tester

Standard Current:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
Tester positive (+) - 2 Tester negative (-) - Auxiliary battery negative (-)	Seat belt fastened	12.0 to 18.0 mA	mA
Tester positive (+) - 2 Tester negative (-) - Auxiliary battery negative (-)	Seat belt not fastened	4.0 to 7.0 mA	mA

Post-procedure1

(c) None

NG ▶ **REPLACE FRONT SEAT INNER BELT ASSEMBLY RH**
INFO

OK
▼

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

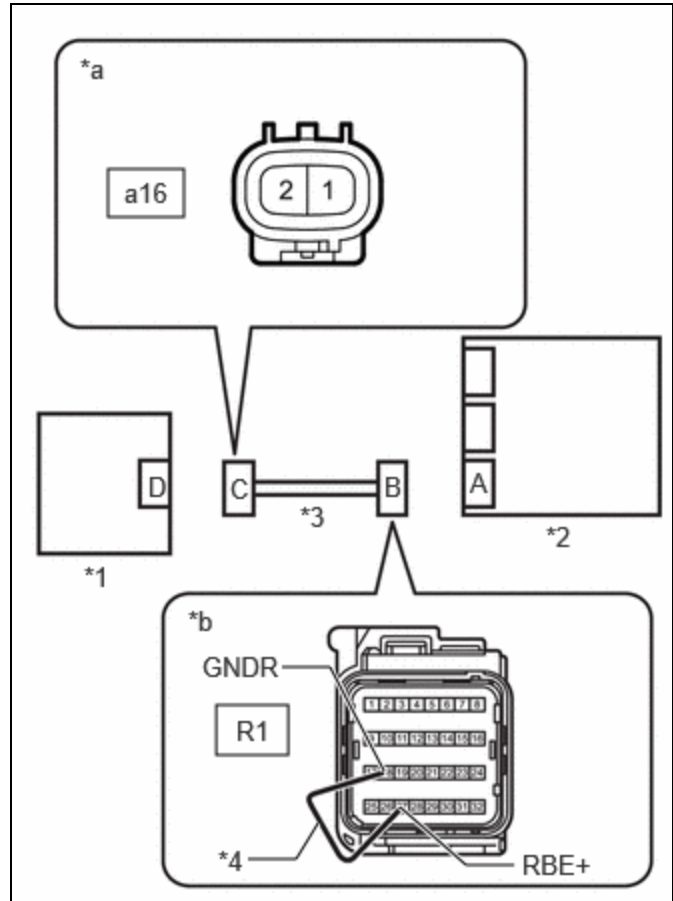
Pre-procedure1

(a) Using a service wire, connect terminals 27 (RBE+) and 18 (GNDR) of connector B.

NOTICE:

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

service wire.



*1	Front Seat Inner Belt Assembly RH
*2	Airbag ECU Assembly
*3	Wire Harness
*4	Service Wire
*a	Front view of wire harness connector (to Front Seat Inner Belt Assembly 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\(a16\)](#)

[Click Connector\(a16\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
a16-1 - a16-2	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)

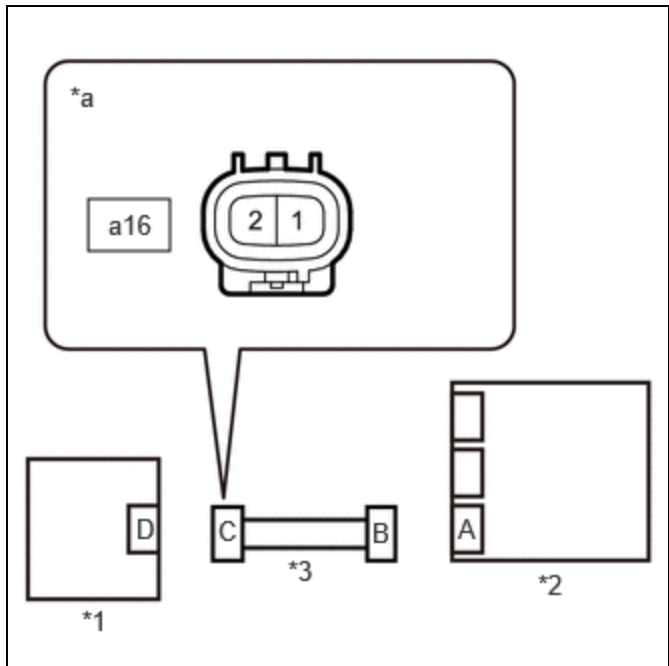
(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

[Click Location & Routing\(a16\)](#)

[Click Connector\(a16\)](#)



TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
a16-1 - Body ground	Always	1 MΩ or higher	MΩ
a16-2 - Body ground	Always	1 MΩ or higher	MΩ

*1	Front Seat Inner Belt Assembly RH
*2	Airbag ECU Assembly
*3	Wire Harness
*a	Front view of wire harness connector (to Front Seat Inner Belt Assembly 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:



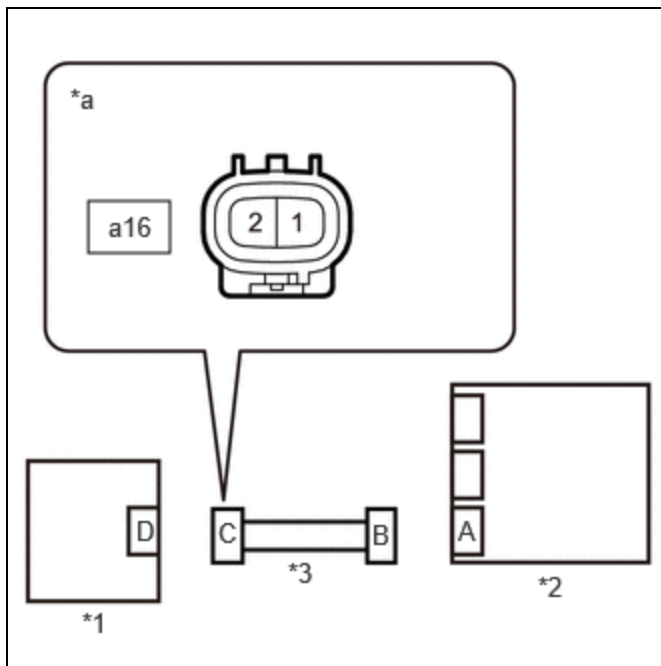
[Click Location & Routing\(a16\)](#)

[Click Connector\(a16\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
a16-1 - Body ground	Ignition switch ON	Below 1 V	V
a16-2 - Body ground	Ignition switch ON	Below 1 V	V

Result:

PROCEED TO
OK
NG



*1	Front Seat Inner Belt Assembly RH
*2	Airbag ECU Assembly
*3	Wire Harness
*a	Front view of wire harness connector (to Front Seat Inner Belt Assembly 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.

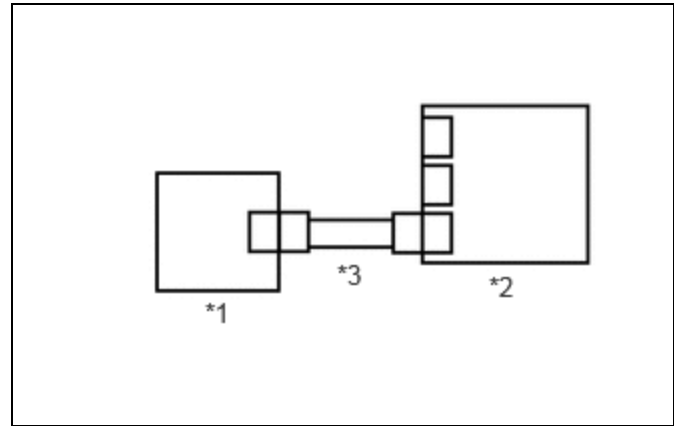
NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR

OK
▼

7.	CLEAR DTC
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Pre-procedure1

(a) Connect the airbag ECU assembly connector.



*1	Front Seat Inner Belt Assembly RH
*2	Airbag ECU Assembly
*3	Wire Harness

(b) Connect the front seat inner belt assembly RH connector.

(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 DTC
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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
B005200 is output	A
B005200 is not output	B

HINT:

Codes other than DTC B005200 may be output at this time, but they are not related to this check.

Post-procedure1

(c) None

A ► REPLACE AIRBAG ECU ASSEMBLY INFO

B ► USE SIMULATION METHOD TO CHECK

