Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM10000000299K3
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: DOOR LOCK: POWER DOOR LOCK CONTROL SYSTEM: B124300; Impact Detection Sensor Circuit Malfunction; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	**B124300**	**Impact Detection Sensor Circuit Malfunction**

DESCRIPTION

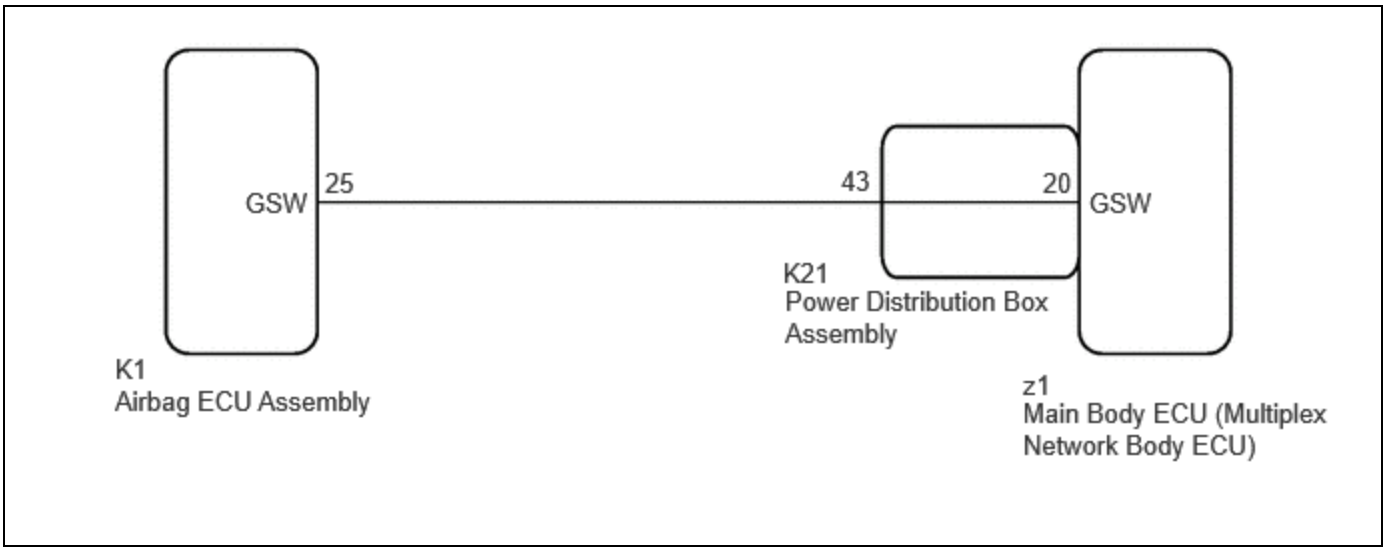
If the collision door lock release function does not operate normally, or an open or short in the GSW input circuit of the main body ECU (multiplex network body ECU) is detected, DTC B124300 will be stored.

HINT:

If DTC B124300 is stored, the automatic door lock function, and collision door lock release function will be prohibited.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B124300	Impact Detection Sensor Circuit Malfunction	A malfunction occurs in the GSW input circuit of the main body ECU (multiplex network body ECU).	• Main body ECU (multiplex network body ECU) • Power distribution box assembly • Airbag ECU assembly • Wire harness or connector	Main Body	A

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- When DTC B124300 is stored, operation of the speed-sensitive automatic door lock function*1, shift linked automatic door lock function*2 and collision door lock release is prohibited.
- After turning the ignition switch off, waiting time may be required before disconnecting the cable from the negative (-) auxiliary battery terminal. Therefore, make sure to read the disconnecting the cable from the negative (-) auxiliary battery terminal notices before proceeding with work.

  Click here INFO
- Before replacing the main body ECU (multiplex network body ECU), refer to Registration.

  Click here INFO

*1: w/ Speed-sensitive Automatic Door Lock Function

*2: w/ Shift Linked Automatic Door Lock Function

PROCEDURE

1.	**CLEAR DTC**

(a) Clear the DTCs.

Body Electrical > Main Body > Clear DTCs

NEXT

2.	**CHECK DTC OUTPUT**

(a) Recheck for DTCs.

Body Electrical > Main Body > Trouble Codes

Result	PROCEED TO
B124300 is not output	A
B124300 is output	B

A ▶ **USE SIMULATION METHOD TO CHECK**

B

3.	**CHECK MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) (GSW VOLTAGE)**

Pre-procedure1

(a) Disconnect the cable from the negative (-) auxiliary battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) auxiliary battery terminal to disable the SRS system.

NOTICE:

Turning the ignition switch to ON with the airbag ECU assembly connector disconnected causes other DTCs to be stored. Clear the DTCs after performing this inspection.

(b) Disconnect the K1 airbag ECU assembly connector.

(c) Connect the cable to the negative (-) auxiliary battery terminal.

Post-procedure1

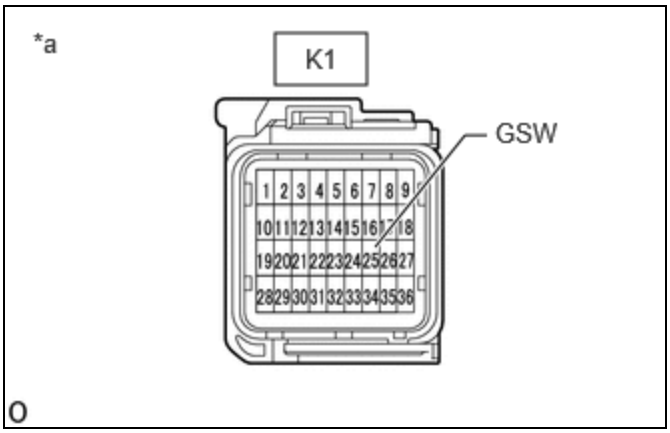
(d) Measure the voltage according to the value(s) in the table below.

Standard Voltage:

EWD INFO

Click Location & Routing(K1)
Click Connector(K1)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K1-25 (GSW) - Body ground	Ignition switch ON	4.3 to 5.5 V	V



*a	Front view of wire harness connector (to Airbag ECU Assembly)

Result:

PROCEED TO
OK
NG

Procedure1

(e) None

NG ▶ **GO TO STEP 7**

OK ▼

4.	**REPLACE AIR BAG ECU ASSEMBLY**

Pre-procedure1

(a) Disconnect the cable from the negative (-) auxiliary battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) auxiliary battery terminal to disable the SRS system.

Procedure1

(b) Replace the airbag ECU assembly.

HINT:

Click here INFO

Post-procedure1

(c) None

NEXT

5.	**CLEAR DTC**

(a) Clear the DTCs.

Body Electrical > Main Body > Clear DTCs

NEXT

6.	**CHECK DTC OUTPUT**

(a) Recheck for DTCs.

Body Electrical > Main Body > Trouble Codes

Result	PROCEED TO
B124300 is not output	A
B124300 is output	B

A ▶ **END (AIRBAG ECU ASSEMBLY WAS DEFECTIVE)**

B ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

7.	**CHECK HARNESS AND CONNECTOR (AIRBAG ECU ASSEMBLY - POWER DISTRIBUTION BOX ASSEMBLY)**

Pre-procedure1

(a) Disconnect the cable from the negative (-) auxiliary battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) auxiliary battery terminal to disable the SRS system.

(b) Disconnect the K21 power distribution box assembly connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(K1,K21)
Click Connector(K1)
Click Connector(K21)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K1-25 (GSW) - K21-43	Always	Below 1 Ω
K1-25 (GSW) or K21-43 - Other terminals and body ground	Always	10 kΩ or higher

Post-procedure1

(d) None

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

OK ▼

8.	**INSPECT POWER DISTRIBUTION BOX ASSEMBLY**

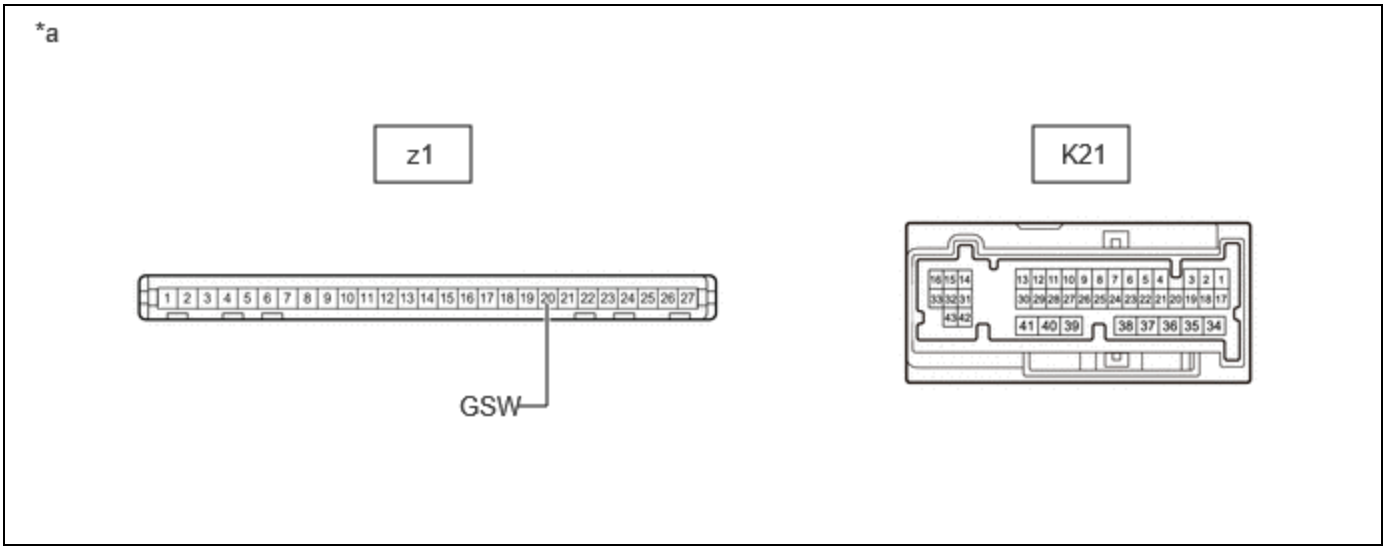
Pre-procedure1

(a) Remove the power distribution box assembly.

HINT:

Click here INFO

(b) Remove the main body ECU (multiplex network body ECU).



*a	Component without harness connected (Power Distribution Box Assembly)	-	-

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(z1,K21)
Click Connector(z1)
Click Connector(K21)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
z1-20 (GSW) - K21-43	Always	Below 1 Ω

Post-procedure1

(d) None

OK ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

NG ▶ **REPLACE POWER DISTRIBUTION BOX ASSEMBLY** INFO