

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000029241
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: DOOR / HATCH: POWER BACK DOOR SYSTEM: B225101; Back Door Closer Switch General Electrical Failure; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	B225101	Back Door Closer Switch General Electrical Failure
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DESCRIPTION

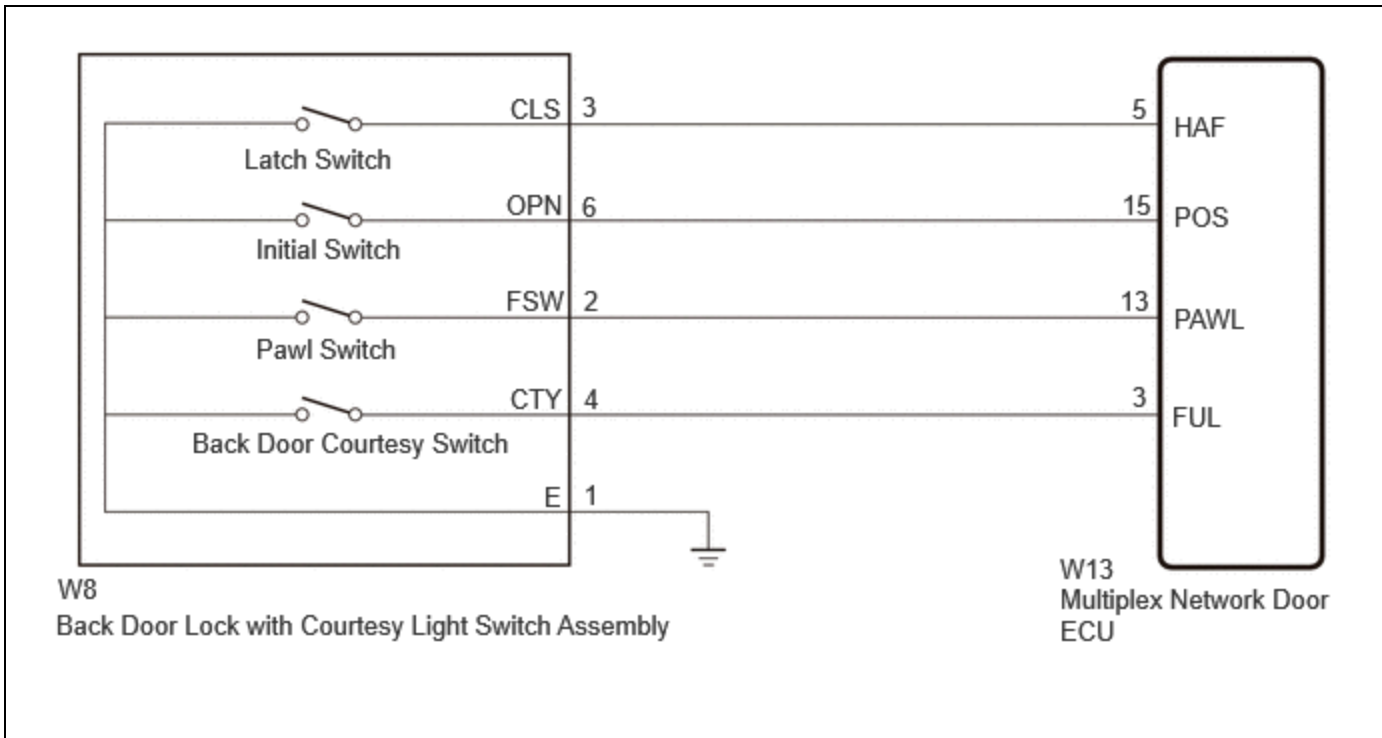
The back door closer is controlled by the multiplex network door ECU.

The multiplex network door ECU determines the latch position of the back door lock assembly with courtesy switch based on the combination of signals from the latch switch built into the back door lock assembly with courtesy switch, back door courtesy switch, initial switch and pawl switch.

This DTC is stored when the back door closer control is being performed and it stops due to the pawl switch or door courtesy switch signal being stuck ON.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B225101	Back Door Closer Switch General Electrical Failure	During a back door closer close operation, it is detected that the pawl switch or back door courtesy switch is stuck ON.	<ul style="list-style-type: none"> Back door lock with courtesy light switch assembly Harness or connector Multiplex network door ECU 	Back Door	A

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

If the multiplex network door ECU has been replaced, or if any of the connectors has been disconnected, initialize the power back door system.

Click here [INFO](#)

PROCEDURE

1.	READ VALUE USING GTS
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(a) Read the Data List according to the display on the GTS.

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Half Latch Switch	Latch switch signal	ON or OFF	OFF: Half latch position → full latch position	-

Body Electrical > Back Door > Data List

TESTER DISPLAY
Half Latch Switch

RESULT	PROCEED TO
The value of Half Latch Switch is OFF	A
None of the above conditions are met	B

B  **GO TO STEP 7**

A


2.	READ VALUE USING GTS
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(a) Read the Data List according to the display on the GTS.

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Half Latch Switch	Latch switch signal	ON or OFF	ON: When in the open latch or overstroke position	-

Body Electrical > Back Door > Data List

TESTER DISPLAY
Half Latch Switch

RESULT	PROCEED TO
The value of Half Latch Switch is ON	A
None of the above conditions are met	B

B  **GO TO STEP 7**

A


3. READ VALUE USING GTS

(a) Read the Data List according to the display on the GTS.

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Pawl Switch	Pawl switch signal	ON or OFF	OFF: Back door lock motor except open latched	-

Body Electrical > Back Door > Data List

TESTER DISPLAY

Pawl Switch

RESULT	PROCEED TO
The value of Pawl Switch is OFF	A
None of the above conditions are met	B

B  **GO TO STEP 7**

A

**4. READ VALUE USING GTS**

(a) Read the Data List according to the display on the GTS.

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Pawl Switch	Pawl switch signal	ON or OFF	ON: Back door lock motor open-latched	-

Body Electrical > Back Door > Data List

TESTER DISPLAY
Pawl Switch

RESULT	PROCEED TO
The value of Pawl Switch is ON	A
None of the above conditions are met	B

B  **GO TO STEP 7**

A


5. READ VALUE USING GTS

(a) Read the Data List according to the display on the GTS.

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Courtesy Switch	Back door courtesy switch signal	ON or OFF	OFF: Full latch position → overstroke position	-

Body Electrical > Back Door > Data List

TESTER DISPLAY
Courtesy Switch

RESULT	PROCEED TO
The value of Courtesy Switch is OFF	A
None of the above conditions are met	B

B  **GO TO STEP 7**

A



6.	READ VALUE USING GTS
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(a) Read the Data List according to the display on the GTS.

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Courtesy Switch	Back door courtesy switch signal	ON or OFF	ON: Open latch position → half latch position	-

Body Electrical > Back Door > Data List

TESTER DISPLAY
Courtesy Switch

RESULT	PROCEED TO
The value of Courtesy Switch is ON	A
None of the above conditions are met	B

A **REPLACE MULTIPLEX NETWORK DOOR ECU**

B



7.	INSPECT BACK DOOR LOCK WITH COURTESY LIGHT SWITCH ASSEMBLY
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HINT:

Click here [INFO](#)

NG **REPLACE BACK DOOR LOCK WITH COURTESY LIGHT SWITCH ASSEMBLY**

OK



8.**CHECK HARNESS AND CONNECTOR (BACK DOOR LOCK WITH COURTESY LIGHT SWITCH ASSEMBLY - MULTIPLEX NETWORK DOOR ECU AND BODY GROUND)**

Pre-procedure1

- (a) Disconnect the W8 back door lock with courtesy light switch assembly connector.
- (b) Disconnect the W13 multiplex network door ECU connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(W8,W13\)](#)

[Click Connector\(W8\)](#)

[Click Connector\(W13\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
W8-3 (CLS) - W13-5 (HAF)	Always	Below 1 Ω	Ω
W8-2(FSW) - W13-13(PAWL)	Always	Below 1 Ω	Ω
W8-4 (CTY) - W13-3 (FUL)	Always	Below 1 Ω	Ω
W8-1 (E) - Body ground	Always	Below 1 Ω	Ω
W8-3 (CLS) or W13-5 (HAF) - Body ground	Always	10 k Ω or higher	k Ω
W8-2(FSW) or W13-13(PAWL) - Body ground	Always	10 k Ω or higher	k Ω
W8-4 (CTY) or W13-3 (FUL) - Body ground	Always	10 k Ω or higher	k Ω

Post-procedure1

- (d) None

OK ► **REPLACE MULTIPLEX NETWORK DOOR ECU**

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

