

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000028U16
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: CELLULAR COMMUNICATION: SAFETY CONNECT SYSTEM: B15C511,B15C513; Emergency Call Switch Circuit Short to Ground; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	B15C511	Emergency Call Switch Circuit Short to Ground
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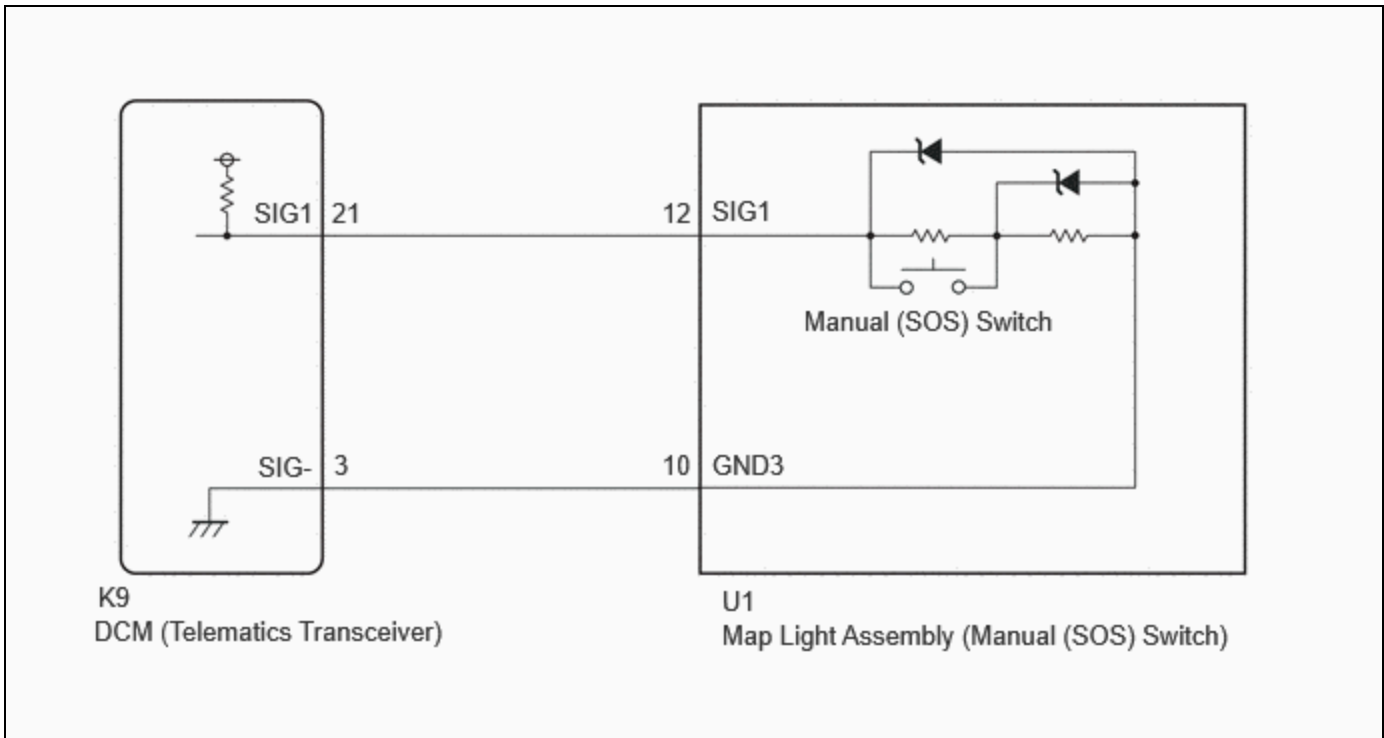
DTC	B15C513	Emergency Call Switch Circuit Open
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DESCRIPTION

If the DCM (telematics transceiver) detects an error in the communication between the DCM (telematics transceiver) and the map light assembly (manual (SOS) switch) as a result of the DCM (telematics transceiver) self check, this DTC will be stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B15C511	Emergency Call Switch Circuit Short to Ground	Manual (SOS) switch impedance (Ω) is lower than the malfunction threshold for 10 seconds or more when the ignition switch is ON	<ul style="list-style-type: none"> Map light assembly (manual (SOS) switch) Harness or connector DCM (telematics transceiver) 	Telematics	A
B15C513	Emergency Call Switch Circuit Open	Manual (SOS) switch impedance (Ω) is higher than the malfunction threshold for 10 seconds or more when the ignition switch is ON	<ul style="list-style-type: none"> Map light assembly (manual (SOS) switch) Harness or connector DCM (telematics transceiver) 	Telematics	A

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

Depending on the parts that are replaced during vehicle inspection or maintenance, performing initialization, registration or calibration may be needed. Refer to Precaution for Safety Connect System.

Click here [INFO](#)

PROCEDURE

1.	CLEAR DTC
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- (a) Turn the ignition switch to ON and wait for 10 seconds or more.
- (b) Clear the DTCs.

Body Electrical > Telematics > Clear DTCs

NEXT



2.	CHECK DTC
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Pre-procedure1

- (a) Turn the ignition switch to ON and wait for 10 seconds or more.

Procedure1

(b) Check for DTCs and check that no DTCs are output.

Body Electrical > Telematics > Trouble Codes

OK:

No DTCs are output.

RESULT	PROCEED TO
B15C511 or B15C513 is not output	A
B15C511 or B15C513 is output	B

Post-procedure1

(c) None

A ▶ USE SIMULATION METHOD TO CHECK

B

3. INSPECT MAP LIGHT ASSEMBLY (MANUAL (SOS) SWITCH)

Pre-procedure1

(a) Remove the map light assembly (manual (SOS) switch).

HINT:

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

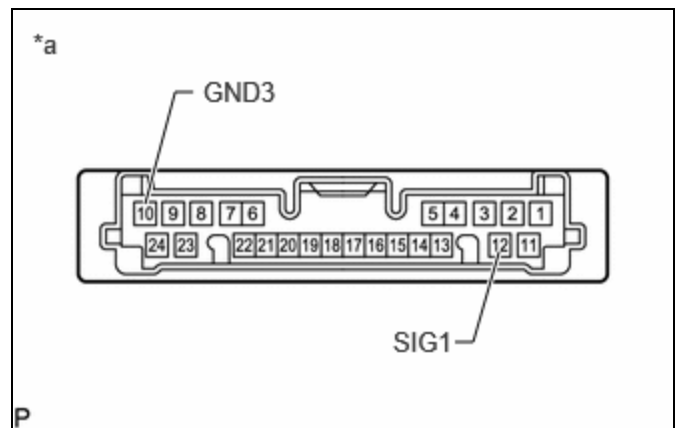
Procedure1

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
12 (SIG1) - 10 (GND3)	Manual (SOS) switch not operated	410 to 414 Ω	Ω
12 (SIG1) - 10 (GND3)	Manual (SOS) switch operated	81 to 83 Ω	Ω

Result:



*a Component without harness connected (Map Light Assembly (Manual (SOS) Switch))

PROCEED TO
OK
NG

Post-procedure1

(c) None

NG ▶ **REPLACE MAP LIGHT ASSEMBLY (MANUAL (SOS) SWITCH)**

OK
▼

4.	CHECK HARNESS AND CONNECTOR (DCM (TELEMATICS TRANSCEIVER) - MAP LIGHT ASSEMBLY (MANUAL (SOS) SWITCH))
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Pre-procedure1

- (a) Disconnect the K9 DCM (telematics transceiver) connector.
- (b) Disconnect the U1 map light assembly (manual (SOS) switch) connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(K9,U1\).](#)

[Click Connector\(K9\).](#)

[Click Connector\(U1\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K9-21 (SIG1) - U1-12 (SIG1)	Always	Below 1 Ω	Ω
K9-3 (SIG-) - U1-10 (GND3)	Always	Below 1 Ω	Ω
K9-21 (SIG1) or U1-12 (SIG1) - Body ground	Always	10 kΩ or higher	kΩ
K9-3 (SIG-) or U1-10 (GND3) - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) None

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****5. REPLACE DCM (TELEMATICS TRANSCEIVER)**

(a) Replace the DCM (telematics transceiver) with a new one.

HINT:

Click here 

NOTICE:

- The ignition switch must be off.
- Do not exchange the DCM (telematics transceiver) with one from another vehicle.

NEXT ▶ **PERFORM DCM ACTIVATION**