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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: CELLULAR COMMUNICATION: SAFETY CONNECT SYSTEM: B15C111,B15C113; GNSS Antenna Circuit Short to Ground; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	B15C111	GNSS Antenna Circuit Short to Ground
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DTC	B15C113	GNSS Antenna Circuit Open
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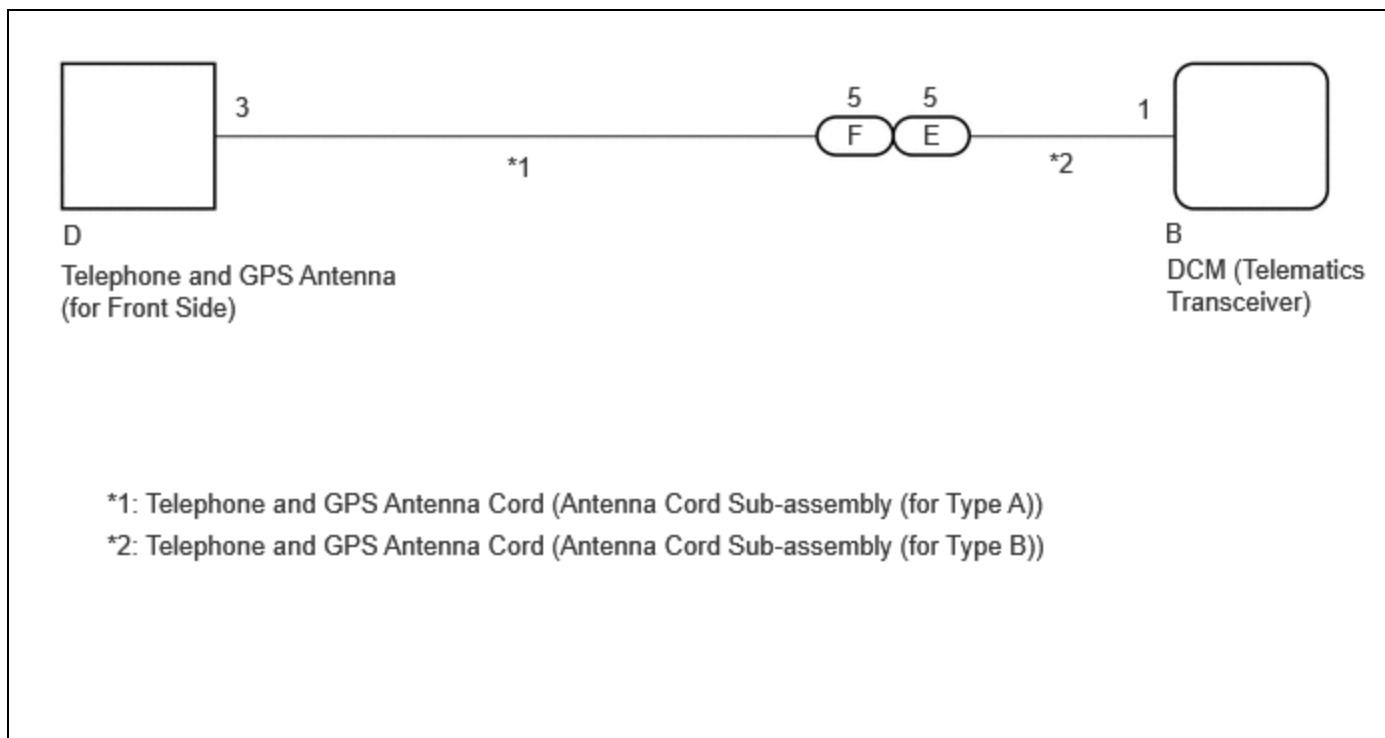
DESCRIPTION

These DTCs are stored when a malfunction occurs in the telephone and GPS antenna assembly (for Front Side) circuit.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B15C111	GNSS Antenna Circuit Short to Ground	Current to the GNSS antenna is lower than the malfunction threshold for 10 seconds or more when the ignition switch is ON (Short circuit)	<ul style="list-style-type: none"> • DCM (telematics transceiver) • Telephone and GPS antenna assembly (for Front Side) • Telephone and GPS antenna cord (Antenna cord sub-assembly (for Type A)) • Telephone and GPS antenna cord (Antenna cord sub-assembly (for Type B)) 	Telematics	A

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B15C113	GNSS Antenna Circuit Open	Current to the GNSS antenna is higher than the malfunction threshold for 10 seconds or more when the ignition switch is ON (Open circuit)	<ul style="list-style-type: none"> • DCM (telematics transceiver) • Telephone and GPS antenna assembly (for Front Side) • Telephone and GPS antenna cord (Antenna cord sub-assembly (for Type A)) • Telephone and GPS antenna cord (Antenna cord sub-assembly (for Type B)) 	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](#)

HINT:

Refer to "PARTS LOCATION" for the installation location of telephone and GPS antenna cord.

[Click here](#) 

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
B15C111 or B15C113 is not output	A
B15C111 or B15C113 is output	B

Post-procedure1

- (c) None

A  **USE SIMULATION METHOD TO CHECK**

B



3.	INSPECT TELEPHONE AND GPS ANTENNA (for Front Side)
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Pre-procedure1

(a) Remove the telephone and GPS antenna (for Front Side).

HINT:

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

Procedure1

(b) Current consumption check:

(1) Measure the current consumption according to the value(s) in the table below.

Standard Current:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
3 (core) - 3a (shield)	4.2 to 5.0 V applied between terminals 3 and 3a	10 to 30 mA	mA

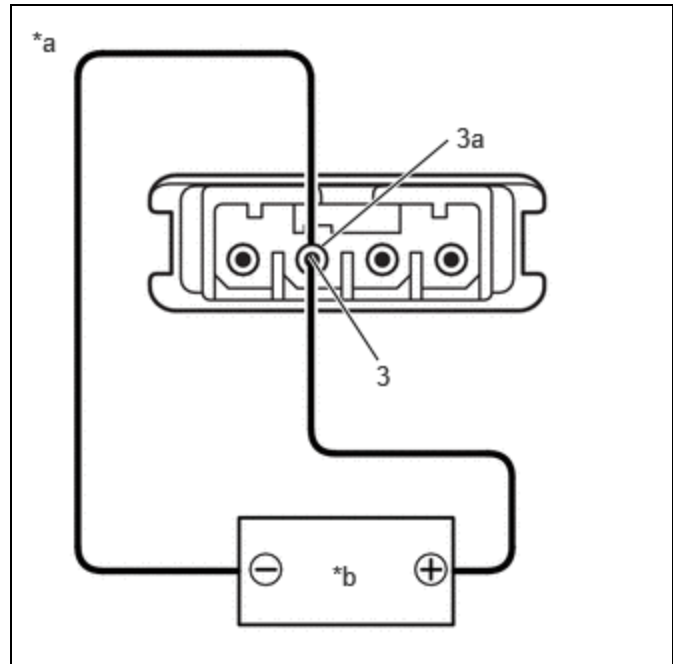
NOTICE:

Do not apply 6 V or more between terminals 3 and 3a.

HINT:

If a stable power supply is not available, connect 4 nickel-metal hydride batteries (1.2 V each) or equivalent in series.

Result:



PROCEED TO
OK
NG

*a	Component without harness connected (Telephone and GPS Antenna Assembly (for Front Side))
*b	Voltage Applied between Terminals

Post-procedure1

(c) None

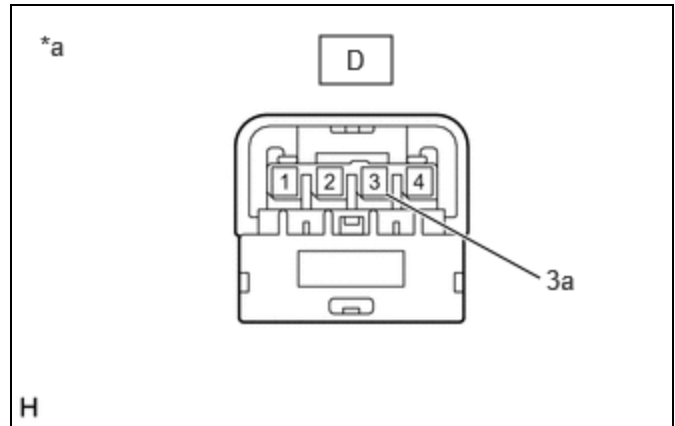
NG **▶ REPLACE TELEPHONE AND GPS ANTENNA (for Front Side)** **INFO**

OK
▼

4. INSPECT TELEPHONE AND GPS ANTENNA CORD (ANTENNA CORD SUB-ASSEMBLY (for Type A))

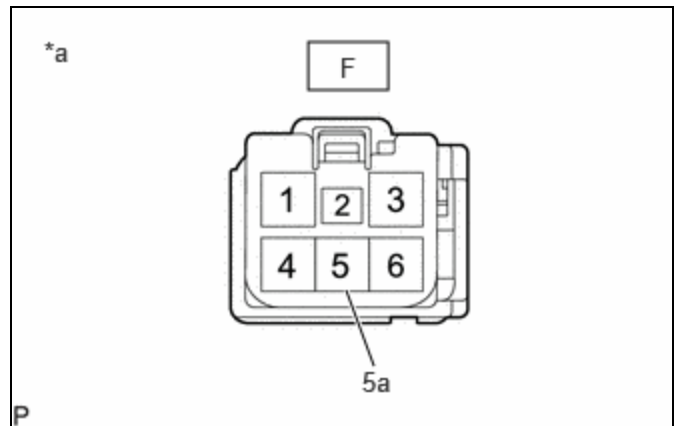
Pre-procedure1

(a) Disconnect the D telephone and GPS antenna cord (antenna cord sub-assembly (for Type A)) connector.



*a Component without harness connected (Telephone and GPS Antenna Cord (Antenna Cord Sub-assembly (for Type A)))

(b) Disconnect the F telephone and GPS antenna cord (antenna cord sub-assembly (for Type A)) connector.



*a Component without harness connected (Telephone and GPS Antenna Cord (Antenna Cord Sub-assembly (for Type A)))

Procedure1

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
D-3 - F-5	Always	Below 1 Ω	Ω
D-3 or F-5 - Body ground	Always	10 kΩ or higher	kΩ

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
D-3a - F-5a	Always	Below 1 Ω	Ω
D-3a or F-5a - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) None

NG ▶ **REPLACE TELEPHONE AND GPS ANTENNA CORD
(ANTENNA CORD SUB-ASSEMBLY (for Type A))** INFO

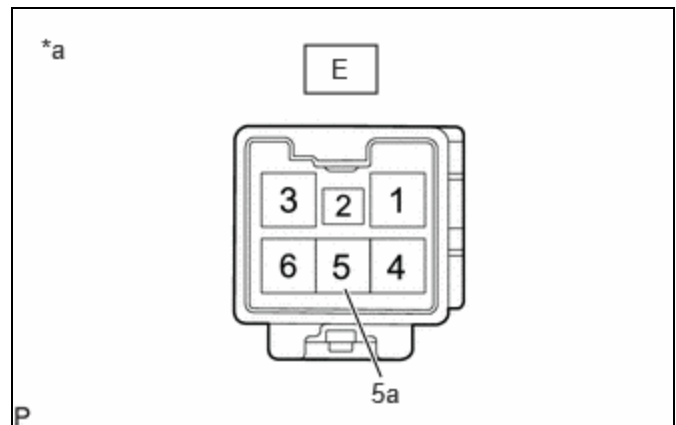
OK



5. INSPECT TELEPHONE AND GPS ANTENNA CORD (ANTENNA CORD SUB-ASSEMBLY (for Type B))

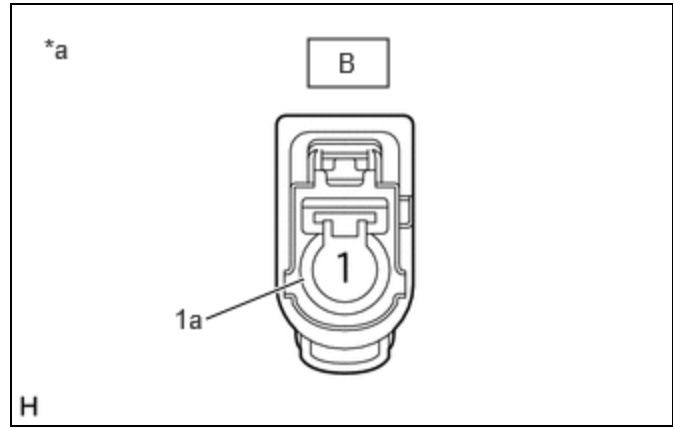
Pre-procedure1

(a) Disconnect the E telephone and GPS antenna cord (antenna cord sub-assembly (for Type B)) connector.



*a	Component without harness connected (Telephone and GPS Antenna Cord (Antenna Cord Sub-assembly (for Type B)))
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(b) Disconnect the B telephone and GPS antenna cord (antenna cord sub-assembly (for Type B)) connector.



*a	Component without harness connected (Telephone and GPS Antenna Cord (Antenna Cord Sub-assembly (for Type B)))
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Procedure1

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
E-5 - B-1	Always	Below 1 Ω	Ω
E-5 or B-1 - Body ground	Always	10 kΩ or higher	kΩ
E-5a - B-1a	Always	Below 1 Ω	Ω
E-5a or B-1a - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) None

NG **REPLACE TELEPHONE AND GPS ANTENNA CORD
(ANTENNA CORD SUB-ASSEMBLY (for Type B))**

OK



6.	REPLACE DCM (TELEMATICS TRANSCEIVER)
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(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**

