Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BI2G
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P0ADD11; Hybrid/EV Battery Negative Contactor Circuit Short to Ground; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P0ADD11**	**Hybrid/EV Battery Negative Contactor Circuit Short to Ground**

DESCRIPTION

Refer to the description for DTC P0AD911.

Click here INFO

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P0ADD11	Hybrid/EV Battery Negative Contactor Circuit Short to Ground	Short to ground in the SMRG circuit: Primary circuit of SMR (-) is malfunctioning. (2 trip detection logic)	• Wire harness or connector • No. 1 traction battery device box assembly • Hybrid vehicle control ECU	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P0ADF

CONFIRMATION DRIVING PATTERN

HINT:

After repair has been completed, clear the DTC and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

Click here INFO

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for 2 minutes or more.
3. Turn the ignition switch to ON (READY) and wait for 30 seconds or more.
4. Turn the ignition switch off and wait for 2 minutes or more.
5. Enter the following menus: Powertrain / Hybrid Control / Utility / All Readiness.
6. Check the DTC judgment result.

HINT:

- If the judgment result shows NORMAL, the system is normal.
- If the judgment result shows ABNORMAL, the system has a malfunction.
- If the judgment result shows INCOMPLETE, perform driving pattern again.

WIRING DIAGRAM

Refer to the wiring diagram for the HV Battery High-voltage Line Circuit.

Click here INFO

CAUTION / NOTICE / HINT

CAUTION:

Refer to the precautions before inspecting high voltage circuit.

Click here INFO

NOTICE:

- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

  Click here INFO
- When disconnecting and reconnecting the auxiliary battery

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 INFO

HINT:

If DTC P0ADD11 is output, the ignition switch cannot be turned to ON (READY).

PROCEDURE

1.	**CHECK HARNESS AND CONNECTOR (HYBRID VEHICLE CONTROL ECU - BODY GROUND)**

Pre-procedure1

(a) Disconnect the hybrid vehicle control ECU connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K11-27 (SMRG) - Body ground	Ignition switch off	20.6 to 40.8 Ω	Ω

Post-procedure1

(c) Reconnect the hybrid vehicle control ECU connector.

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

NG

2.	**CHECK CONNECTOR CONNECTION CONDITION (FLOOR WIRE CONNECTOR)**

Click here INFO

RESULT	PROCEED TO
OK	A
NG (The connector is not connected securely.)	B
NG (The terminals are not making secure contact or are deformed, or water or foreign matter exists in the connector.)	C

B ▶ **CONNECT SECURELY**

C ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

A

3.	**CHECK CONNECTOR CONNECTION CONDITION (FLOOR UNDER WIRE CONNECTOR)**

Click here INFO

RESULT	PROCEED TO
OK	A
NG (The connector is not connected securely.)	B
NG (The terminals are not making secure contact or are deformed, or water or foreign matter exists in the connector.)	C

B ▶ **CONNECT SECURELY**

C ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

A

4.	**CHECK HARNESS AND CONNECTOR (HYBRID VEHICLE CONTROL ECU - NO. 1 TRACTION BATTERY DEVICE BOX ASSEMBLY)**

CAUTION:

Be sure to wear insulated gloves.

Pre-procedure1

(a) Check that the service plug grip is not installed.

NOTICE:

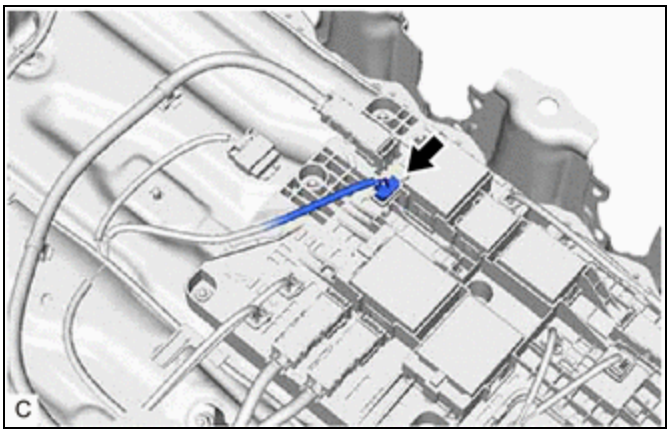
After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Connect the SST.

HINT:

Click here INFO

(c) Disconnect the No.1 traction battery device box assembly connector.



(d) Disconnect the hybrid vehicle control ECU connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(K11,x13)
Click Connector(K11)
Click Connector(x13)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K11-27 (SMRG) or x13-4 (SMRG) - Body ground and other terminals	Ignition switch off	10 kΩ or higher	kΩ

Post-procedure1

(f) Disconnect the SST.

(g) Reconnect the hybrid vehicle control ECU connector.

(h) Reconnect the No.1 traction battery device box assembly connector.

OK ▶ **REPLACE NO. 1 TRACTION BATTERY DEVICE BOX ASSEMBLY**

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