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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for PHEV Model): P300000; Hybrid/EV Battery Discharge Control Malfunction; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P300000**	**Hybrid/EV Battery Discharge Control Malfunction**

DESCRIPTION

The battery ECU assembly alerts the driver and performs fail-safe control based on malfunction signals. If the SOC drops due to running out of fuel, the vehicle being left with neutral (N) selected for a long time or a hybrid control system malfunction, this DTC will be stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P300000	Hybrid/EV Battery Discharge Control Malfunction	Discharging of the HV battery continues even after discharging is prohibited when the "SOC" has reached the lower limit. (1 trip detection logic)	• SFI system • Fuel level • HV battery state of charge	Does not come on	Master Warning: Does not come on	HV Battery	A	SAE Code: P3000

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.

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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) with park (P) selected and make the "Hybrid/EV Battery SOC" to decrease. Check that the engine is started to charge the HV battery, and the value of Data List item "Hybrid/EV Battery SOC" increases and then remains within an appropriate range.
4. Enter the following menus: Powertrain / HV Battery / Utility / All Readiness.
5. 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 or N/A, perform driving pattern again.

CAUTION / NOTICE / HINT

HINT:

- Thoroughly interview the customer as DTC P300000 may be stored if the SOC drops due to the vehicle running out of fuel, or the use of incorrect or low-quality fuel.
- If the vehicle is left with neutral (N) selected (parked or stopped) for a long time, the battery cannot be charged. In this case, the SOC may drop below the lower limit and DTC P300000 may be stored. (This is not a system malfunction.)
- When the engine cannot be started, DTC P300000 may be stored because the HV battery cannot be charged.
- Repeatedly performing engine start checks may cause the SOC of the HV battery to drop, resulting in DTC P300000 being stored. In this case, charge the HV battery using plug-in charging.
- Cranking the engine once causes the SOC to drop approximately 0.5%.
- When plug-in charging the vehicle for 10 minutes using AC 100 V, the SOC of connecting pack will increase by approximately 3.5 %. If AC 200 V is used, the SOC will increase by approximately 7 %.
- If the engine cannot be started after performing repairs, clear the DTCs and then charge the HV battery using plug-in charging.

PROCEDURE

1.	**CHECK DTC OUTPUT (HV BATTERY, HYBRID CONTROL)**

Pre-procedure1

(a) None

Procedure1

(b) Check for DTCs.

Powertrain > HV Battery > Trouble Codes

Powertrain > Hybrid Control > Trouble Codes

RESULT	PROCEED TO
"P300000 or P300016" only is output.	A
DTCs except "P300000 or P300016" of hybrid battery system are output.	B
DTCs except "P300000 or P300016" of hybrid control system are output.	C

Post-procedure1

(c) Turn the ignition switch off.

B ▶ **GO TO DTC CHART (HYBRID BATTERY SYSTEM)**

C ▶ **GO TO DTC CHART (HYBRID CONTROL SYSTEM)**

A

▼

2.	**CHECK DTC OUTPUT (ENGINE)**

Pre-procedure1

(a) None

Procedure1

(b) Check for DTCs.

Powertrain > Engine > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
DTCs are output	B

Post-procedure1

(c) Turn the ignition switch off.

B ▶ **GO TO DTC CHART (SFI SYSTEM)**

A ▼

3.	**CHECK AMOUNT OF FUEL**

Pre-procedure1

(a) Turn the ignition switch to ON.

Procedure1

(b) Check the amount of fuel by referring to the fuel gauge in the meter.

HINT:

Add fuel until the low fuel level warning light turns off.

Post-procedure1

(c) Turn the ignition switch off.

There is no fuel in the tank. ▶ **REFUEL VEHICLE**

Proper amount of fuel is in the tank.

4.	CHECK FREEZE FRAME DATA

Pre-procedure1

(a) None

Procedure1

(b) Read the freeze frame data item "Shift Position" of DTC P300000.

Powertrain > Hybrid Control > Trouble Codes
Powertrain > Hybrid Control

TESTER DISPLAY
Shift Position

NOTICE:

- When the freeze frame data "Shift Position" was N, DTC P300000 may be stored due to the vehicle was left with neutral (N) selected and the HV battery could not be charged.
- If DTC "P300000" only is output, charge the HV battery without replacing the HV battery

Post-procedure1

(c) Turn the ignition switch off.

NEXT

5.	CHECK ENGINE START

Pre-procedure1

(a) Turn the ignition switch to ON (READY).

Procedure1

(b) Check if the engine starts.

HINT:

- Depressing the accelerator pedal with park (P) selected will cause the engine to start.
- Turning the ignition switch to ON (READY) and off repeatedly while the SOC of the HV battery is low may cause the SOC to drop further and DTC P300016 to be stored. Charge the HV battery using plug-in charging as necessary.
- Cranking the engine once causes the SOC to drop approximately 0.5 %.
- When plug-in charging the vehicle for 10 minutes using AC 100 V, the SOC of connecting pack will increase by approximately 3.5 %. If AC 200 V is used, the SOC will increase by approximately 7 %.

Post-procedure1

(c) Turn the ignition switch off.

The engine starts. ▶ **LEAVE VEHICLE WITH PARK (P) SELECTED, AND CHARGE HV BATTERY BY IDLING UNTIL IDLING STOPS**

The engine does not start. ▼

6.	**CLEAR DTC (HV BATTERY)**

Click here INFO

NEXT ▶ **CHARGE HV BATTERY**

(a) Charge the HV battery, then check that engine starts.