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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: PLUG-IN CHARGE CONTROL SYSTEM (for PHEV Model): P0D3812,P0D3814; Hybrid/EV Battery Charger Input Current Sensor Circuit Circuit Short to Auxiliary Battery; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P0D3812**	**Hybrid/EV Battery Charger Input Current Sensor Circuit Circuit Short to Auxiliary Battery**

DTC	**P0D3814**	**Hybrid/EV Battery Charger Input Current Sensor Circuit Circuit Short to Ground or Open**

DESCRIPTION

The charge control ECU assembly built into the electric vehicle charger assembly uses several sensors to monitor the high voltage circuit inside the electric vehicle charger assembly to perform plug in charging and detect malfunctions.

The charge control ECU built into the electric vehicle charger assembly monitors the input alternating current using the IAC sensor. If it detects an IAC sensor malfunction, it stores a DTC. If this DTC is output, check the plug-in charge state using a known good external power source. If a malfunction occurs again, replace the electric vehicle charger assembly.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P0D3812	Hybrid/EV Battery Charger Input Current Sensor Circuit Circuit Short to Auxiliary Battery	IAC sensor output voltage is above the threshold. (1 trip detection logic)	Electric vehicle charger assembly	Comes on	Master Warning: Comes on	Plug-in Control	A	SAE Code: P0D3B
P0D3814	Hybrid/EV Battery Charger Input Current Sensor Circuit Circuit Short to Ground or Open	IAC sensor output voltage is below the threshold. (1 trip detection logic)	Electric vehicle charger assembly	Comes on	Master Warning: Comes on	Plug-in Control	A	SAE Code: P0D3A

MONITOR DESCRIPTION

The charge control ECU built into the electric vehicle charger assembly monitors the input alternating current by the IAC sensor. If it detects an IAC sensor malfunction, it illuminates the MIL and stores a DTC.

MONITOR STRATEGY

Related DTCs	P0D3B: On-Board Charger Input Current Sensor P0D3A: On-Board Charger Input Current Sensor
Required sensors/components	Electric vehicle charger assembly
Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	1 charging cycle 1 discharging cycle
Sequence of operation	None

TYPICAL ENABLING CONDITIONS

The monitor will run whenever the following DTCs are not stored	TMC's intellectual property
Other conditions belong to TMC's intellectual property	-

TYPICAL MALFUNCTION THRESHOLDS

TMC's intellectual property	-

COMPONENT OPERATING RANGE

Electric vehicle charger assembly	DTC P0D3812 is not detected DTC P0D3814 is not detected

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
- When clearing the permanent DTCs, refer to the "CLEAR PERMANENT DTC" procedure.

  Click here INFO

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Enter the following menus: Powertrain / Hybrid Control / Data List.
3. Check that "Hybrid/EV Battery SOC" shows 70% or less.
4. Turn the ignition switch off and wait for 2 minutes or more.
5. Connect the electric vehicle charger cable assembly, and plug-in charge the vehicle for 30 seconds or more. [*1]
6. Disconnect the electric vehicle charger cable assembly and wait for 10 seconds or more. [*2]

   HINT:

   [*1] to [*2] : Normal judgment procedure.

   The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.
7. Enter the following menus: Powertrain / Plug-in Control / Utility / All Readiness.
8. 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 the normal judgment procedure again.

PROCEDURE

1.	**CHECK PLUG-IN CHARGE STATE**

Click here INFO

RESULT	PROCEED TO
DTCs are not output and plug-in charge has been completed	A
DTCs are output or plug-in charge cannot be completed	B

A ▶ **END (NO MALFUNCTION IN VEHICLE)**

B ▶ **REPLACE ELECTRIC VEHICLE CHARGER ASSEMBLY**