Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BMEV
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: M20A-FXS (BATTERY / CHARGING): SOLAR CHARGING SYSTEM: P195717; Solar Charger Battery Output Voltage Circuit Voltage Above Threshold; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

DTC	**P195717**	**Solar Charger Battery Output Voltage Circuit Voltage Above Threshold**

DESCRIPTION

Inside the solar energy control ECU assembly there is a traction battery voltage overvoltage detection circuit (OV_DC4) located between the traction battery and the booster DC/DC converter which detects overvoltage of the traction battery voltage.

The solar energy control ECU assembly monitors the OV_DC4 signal and when the OV_DC4 signal detects overvoltage when the traction battery voltage is normal, malfunction detection is performed.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY
P195717	Solar Charger Battery Output Voltage Circuit Voltage Above Threshold	The traction battery is a certain value or less and the OV_DC4 signal is in the overvoltage detected state for 2 seconds or more. (1 trip detection logic)	Solar energy control ECU assembly	Solar Charging Warning Light: Comes on	Solar Charging Control	A

CONFIRMATION DRIVING PATTERN

HINT:

After completing repairs, clear the DTCs and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

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1. Park the vehicle in an area where the solar radiation will be steady.

Weather	Clear or mostly clear and sunny
Time	Between 11:00 and 14:00
Place	An area where sunlight strikes the solar roof directly

HINT:

- Make sure no part of the solar roof is shaded.
- If the solar roof is dirty, clean it.

2. Turn the ignition switch off and then disconnect the cable from the negative (-) auxiliary battery terminal.
3. Wait for 5 seconds or more, then disconnect the power source connector and then all other low voltage connectors the solar energy control ECU assembly.
4. Wait for 30 seconds or more, then connect the low voltage connectors of the solar energy control ECU assembly except the power source connector and then connect the power source connector.

5. Connect the cable to the negative (-) auxiliary battery terminal.
6. Turn the ignition switch to ON, wait for 5 to 10 seconds, and then turn the ignition switch off.

HINT:

Make sure to turn the ignition switch off within 10 seconds.

7. Wait for 20 minutes and then check for DTCs to check that no DTCs have been stored.

HINT:

- While waiting, the HV battery will be charged by the solar charging system. However, depending on certain conditions, charging may not be performed.
- When the HV battery is fully charged, high voltage charging to the HV battery is not performed.
- If any of the following conditions is met, the HV battery will not be charged by the solar charging system:
  - The HV battery is charged via an external power source.
  - The ignition switch is turned to ACC.
  - The ignition switch is turned to ON.
  - The ignition switch is turned to ON (READY).
  - The HV battery heating system is operating.
  - The remote air conditioning system is operating.

8. Check that solar charging is being performed.

HINT:

Be sure to check that high voltage battery charging is being performed by the solar roof.

CAUTION / NOTICE / HINT

CAUTION:

Refer to the precautions before inspecting high voltage circuit.

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NOTICE:

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

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- 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.

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PROCEDURE

1.	**REPLACE SOLAR ENERGY CONTROL ECU ASSEMBLY**

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NEXT END