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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: MOTOR GENERATOR CONTROL SYSTEM (for PHEV Model): P0EA011,P0EA015; DC/DC Converter Current Sensor "C" Circuit Low Circuit Short to Ground; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P0EA011**	**DC/DC Converter Current Sensor "C" Circuit Low Circuit Short to Ground**

DTC	**P0EA015**	**DC/DC Converter Current Sensor "C" Circuit High Circuit Short to Battery or Open**

DESCRIPTION

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P0EA011	DC/DC Converter Current Sensor "C" Circuit Low Circuit Short to Ground	Short to ground detected in reactor current sensor circuit (1 trip detection logic)	Inverter with converter assembly	Comes on	Master Warning: Comes on	Motor Generator	A	SAE Code: P0EA2
P0EA015	DC/DC Converter Current Sensor "C" Circuit High Circuit Short to Battery or Open	Open or short to +B detected in reactor current sensor circuit (1 trip detection logic)	Inverter with converter assembly	Comes on	Master Warning: Comes on	Motor Generator	A	SAE Code: P0EA3

MONITOR DESCRIPTION

If the motor generator control ECU detects an open or short in the DC/DC converter current sensor circuit, it will illuminate the MIL and store a DTC.

MONITOR STRATEGY

Related DTCs	P0EA2 (INF P0EA011): DC/DC Converter Current Sensor "C" Range check (Low voltage) P0EA3 (INF P0EA015): DC/DC Converter Current Sensor "C" Range check (High voltage)
Required sensors/components	DC/DC converter current sensor
Frequency of operation	Continuous
Duration	TMC's intellectual property

MIL operation	Immediately
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

Motor generator control ECU	DTC P0EA2 (INF P0EA011) is not detected DTC P0EA3 (INF P0EA015) 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. Turn the ignition switch off and wait for 2 minutes or more.
3. Turn the ignition switch to ON and wait for 5 seconds or more. [*1]

   HINT:

   [*1]: Normal judgment procedure.

   The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.
4. Enter the following menus: Powertrain / Motor Generator / 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, perform the normal judgment procedure again.

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 auxiliary negative (-) 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

PROCEDURE

1.	**REPLACE INVERTER WITH CONVERTER ASSEMBLY**

Click here INFO

NEXT **COMPLETED**