Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BHRO
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: MOTOR GENERATOR CONTROL SYSTEM (for PHEV Model): P0A0011,P0A0015; Motor Electronics Coolant Temperature Sensor Circuit Short to Ground; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P0A0011**	**Motor Electronics Coolant Temperature Sensor Circuit Short to Ground**

DTC	**P0A0015**	**Motor Electronics Coolant Temperature Sensor Circuit Short to Battery or Open**

DESCRIPTION

Refer to the description for DTC P0A001C.

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DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P0A0011	Motor Electronics Coolant Temperature Sensor Circuit Short to Ground	Short to ground detected in HV coolant temperature sensor circuit (1 trip detection logic)	Inverter with converter assembly	Comes on	Master Warning: Comes on	Motor Generator	A	SAE Code: P0A02
P0A0015	Motor Electronics Coolant Temperature Sensor Circuit Short to Battery or Open	Open or short to +B detected in HV coolant temperature sensor circuit (1 trip detection logic)	Inverter with converter assembly	Comes on	Master Warning: Comes on	Motor Generator	A	SAE Code: P0A03

MONITOR DESCRIPTION

If the motor generator control ECU detects a malfunction in the HV coolant temperature sensor it will illuminate the MIL and store a DTC.

MONITOR STRATEGY

Related DTCs	P0A02 (INF P0A0011): Motor Electronics Coolant Temperature Sensor Range check (Low voltage) P0A03 (INF P0A0015): Motor Electronics Coolant Temperature Sensor Range check (High voltage)

Required sensors/components	HV coolant temperature 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 P0A02 (INF P0A0011) is not detected DTC P0A03 (INF P0A0015) 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.

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

HINT:

After the repair, clear the DTCs. If the value of Data List item "Inverter Coolant Temperature" is not abnormal (110°C (230°F) or -40°C (-40°F)) when the ignition switch is turned to ON, the condition is judged as normal.

(If DTC P0A0011 is output, 110°C (230°F) will be displayed and if DTC P0A0015 is output, -40°C (-40°F) will be displayed.)

PROCEDURE

1.	**REPLACE INVERTER WITH CONVERTER ASSEMBLY**

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NEXT COMPLETED