Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BI12
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P1C6A9F; Motor Shutdown Stuck Off; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P1C6A9F**	**Motor Shutdown Stuck Off**

DTC SUMMARY

MALFUNCTION DESCRIPTION

The hybrid vehicle control ECU detects malfunctions which prevent the motor (MG2) inverter shutdown circuit shutting down the hybrid vehicle control system. Detection is performed during the shutdown sequence when the ignition switch is turned off. If motor (MG2) inverter operation is detected after a shutdown signal was sent to the motor (MG2) inverter, the hybrid vehicle control ECU will determine that there is a malfunction and store this DTC.

The cause of this malfunction may be the following:

Inverter with converter assembly SDWN (MG2) internal circuit malfunction

- Inverter with converter assembly malfunction

DESCRIPTION

The motor generator control ECU (MG ECU) sends shutdown signals to the inverter to cut the power supply to the generator (MG1) and motor (MG2). If the ignition switch is turned off, the motor generator control ECU (MG ECU) will send a GSDN (MG1 Shutdown Signal) signal and MSDN (MG2 shutdown signal) signal to check the function of the HV gate block. If a shutdown malfunction is detected, this DTC will be stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P1C6A9F	Motor Shutdown Stuck Off	When the HV gate block function check is performed (when the ignition switch is turned from ON (READY) to off), the MSDN (MG2 shutdown) signal is sent but the motor (MG2) inverter current and voltage (VH) do not decrease. (1 trip detection logic)	Inverter with converter assembly	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P1C6A

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

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch to ON (READY) and wait for 30 seconds or more.
3. Turn the ignition switch off and wait for 30 seconds or more.
4. Enter the following menus: Powertrain / Hybrid Control / 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 driving pattern again.

PROCEDURE

1.	**REPLACE INVERTER WITH CONVERTER ASSEMBLY**

HINT:

Click here INFO

NEXT END