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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for M20A-FXS): P33BF9F; Motor/Generator Shutdown Signal (MG Side) Stuck Off; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	P33BF9F	Motor/Generator Shutdown Signal (MG Side) Stuck Off
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DTC SUMMARY

MALFUNCTION DESCRIPTION

The hybrid vehicle control ECU detects malfunctions which prevent the inverter with converter assembly emergency shutdown circuit (HSDN) from shutting down the hybrid control system. Detection is performed when the ignition switch is turned to ON and during the shutdown sequence when the ignition switch is turned off. If the following condition is detected, this DTC will be stored. If the following condition is not detected, DTC P321E9F will be stored.

- Inverter with converter assembly malfunction

DESCRIPTION

Refer to the description for DTC P321E9F.

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DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P33BF9F	Motor/Generator Shutdown Signal (MG Side) Stuck Off	When the HV gate block function check is performed (when the ignition switch is turned from ON (READY) to off), the HSDN (MG shutdown) signal sent from the hybrid vehicle control ECU is received by the motor generator control ECU (MG ECU) but the 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: P33BF

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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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 (READY) and wait for 30 seconds or more.
4. Turn the ignition switch off and wait for 2 minutes or more.
5. Turn the ignition switch to ON (READY) and wait for 30 seconds or more.
6. Turn the ignition switch off and wait for 2 minutes or more.
7. Enter the following menus: Powertrain / Hybrid 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**, perform driving pattern again.

PROCEDURE

1.	REPLACE INVERTER WITH CONVERTER ASSEMBLY
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HINT:

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NEXT  **END**

