Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BHVP
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for PHEV Model): VEHICLE CONTROL HISTORY (RoB); 2023 - 2024 MY Prius Prime [03/2023 -]		

VEHICLE CONTROL HISTORY (RoB)

VEHICLE CONTROL HISTORY (HYBRID BATTERY SYSTEM)

(a) Enter the following menus: Powertrain / HV battery / Utility / Vehicle Control History (RoB).

Powertrain > HV Battery > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

HINT:

- If any of the conditions in the "Cause" column are met, data related to the Vehicle Control History item "Engine Power Down Request (Parts Over Temperature)", "Ready ON Prevention" or "Limit to Charge / Discharge Control Value by Hybrid/EV Battery" will be stored in the battery ECU assembly.
- When the Vehicle Control History item "Engine Power Down Request (Parts Over Temperature)", "Ready ON Prevention" or "Limit to Charge / Discharge Control Value by Hybrid/EV Battery" is stored, the vehicle condition will be as shown in the Symptom column.
- There are unimplemented function codes depending on vehicle specification.

Vehicle Control History

CODE	TESTER DISPLAY	VEHICLE CONTROL HISTORY DATA	DIAGNOSTIC NOTE
X0540	Ready ON Prevention	Incorrect HV battery is installed (Ignition switch does not turn to ON (READY).) Countermeasures: Replace the HV supply stack sub-assembly with a correct one.	-
		Incorrect ECM is installed (Ignition switch does not turn to ON (READY).) Vehicle Control History Data: Number of Hybrid Battery Mismatch Judgment with Engine ECU "0" is displayed for this item when it is normal. If a value of "3" or higher is displayed for this item, the ignition switch cannot be turned to ON (READY) due to an incorrect ECM having been installed. Countermeasures: Check the part number and replace the ECM with a correct one.	-
		Battery diagnosis request was ignored (Ignition switch does not turn to ON (READY).) Vehicle Control History Data: Hybrid/EV Battery Check Status Light Request If a value of "6" or higher is displayed for this item and no other conditions are preventing the ignition switch from being turned to ON (READY), the ignition switch cannot be turned to ON (READY) due to Battery Diagnosis not being performed and the vehicle being driven for a certain amount of	-

CODE	TESTER DISPLAY	VEHICLE CONTROL HISTORY DATA	DIAGNOSTIC NOTE
		time after "Maintenance Required for Traction Battery at Your Dealer" was displayed on the multi-information display. Countermeasures: Perform Battery Diagnosis using the GTS.	
		High voltage wire harness between HV supply stack sub-assemblies is disconnected (Ignition switch does not turn to ON (READY).) Vehicle Control History Data: High Voltage Line between Stack Engaged If "ON" is displayed for this item, the ignition switch cannot be turned to ON (READY) as the high voltage wire harness connecting 2 or more HV supply stack sub-assemblies is disconnected. Countermeasures: Inspect the high voltage wire harnesses connecting the HV supply stack sub-assemblies.	-
		Excessive engine cranking requests when HV battery cannot be used (Ignition switch does not turn to ON (READY).) Vehicle Control History Data: Number of Cranking when No Hybrid/EV Battery If a value higher than "15" is displayed for this item, the ignition switch cannot be turned to ON (READY) as engine cranking operation requests have exceeded a threshold when the HV battery could not be used. Countermeasures: Repair the malfunctions indicated by the output DTCs and clear the DTCs.	-
		Extremely low HV battery temperature judgment (Ignition switch does not turn to ON (READY).) Vehicle Control History Data: Hybrid/EV Battery Extremely Low Temperature Judgement If "ON" is displayed for this item, the ignition switch cannot be turned to ON (READY) as the temperature of the HV battery is extremely low. The values of "HV/EV Battery Temperature 1 to 15" can be used as a reference. Countermeasures: Wait for the HV battery temperature to increase.	-
		High HV battery cell voltage (The ignition switch is slow to turn to ON (READY).) Vehicle Control History Data: • Hybrid/EV Battery Stack 1 Cell Maximum Voltage • Hybrid/EV Battery Stack 2 Cell Maximum Voltage • Hybrid/EV Battery Stack 3 Cell Maximum Voltage Countermeasures: Perform troubleshooting for any DTCs that are output.	-
		Low HV battery cell voltage (The ignition switch is slow to turn to ON (READY).) Vehicle Control History Data:	-

CODE	TESTER DISPLAY	VEHICLE CONTROL HISTORY DATA	DIAGNOSTIC NOTE
		• Hybrid/EV Battery Stack 1 Cell Minimum Voltage • Hybrid/EV Battery Stack 2 Cell Minimum Voltage • Hybrid/EV Battery Stack 3 Cell Minimum Voltage Countermeasures: Perform troubleshooting for any DTCs that are output.	
X0570	Limit to Charge / Discharge Control Value by Hybrid/EV Battery	History of limited charging and discharging control power with the HV battery temperature high Battery current is limited when the HV battery temperature rises for some reason, such as high ambient temperature or continued driving under high loads (driving up or down slopes, driving while accelerating or decelerating) In this case the value of WIN/WOUT will decrease and the engine will stop and start less frequently. Vehicle Control History Data: • WIN Control Limit Power • WOUT Control Limit Power • Hybrid/EV Battery Temperature 1 to 15 (The HV battery temperature may rise due to the high ambient temperature) Countermeasures: 1. If this Vehicle Control History item is stored, perform the following inspections. ◦ Check the Vehicle Control History freeze frame data. 2. This Vehicle Control History item may be stored if the temperature of the HV battery became high due to certain conditions, such as if the ambient temperature was high or the vehicle was driven continuously under high load (such as mountain driving or frequent acceleration/deceleration). Explain to the customer that this is not a malfunction.	-

CHECK VEHICLE CONTROL HISTORY (SRS AIRBAG)

HINT:

A part of the control history can be confirmed using the vehicle control history.

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