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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: PA10/PB10/PB12 (HYBRID TRANSMISSION / TRANSAXLE): ELECTRONIC SHIFT LEVER SYSTEM: VEHICLE CONTROL HISTORY (RoB); 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

VEHICLE CONTROL HISTORY (RoB)

CHECK THE VEHICLE CONTROL HISTORY (HYBRID CONTROL)

HINT:

- The vehicle control history data (Hybrid control) stores the history of the reject function and system protection operations.
- The number of occurrences, date and distance are stored in batches for each item.

(a) Vehicle Control History:

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

NOTICE:

When several vehicle control histories are stored, prioritize performing the required actions for "Voltage Low for Shift Control System".

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X0500	Shift P Operation during Running	History of P position switch operation while driving	Operate the P position switch after the vehicle has stopped
X0501	Shift Operation when Auxiliary Battery Voltage Low	History of shift position change attempted when auxiliary battery voltage was low	Replace or recharge the auxiliary battery
X0502	Consecutive Shift Change between Shift P and Other than Shift P in Short Times	History of shift state being attempted to be changed to and from P within a short period of time	Wait for a while and then attempt to change the shift state again, or try again after turning the ignition switch to ON (READY)
X0503	Shift Operation during Ready Indicator Blinking	History of attempt to change shift state from P with READY indicator light flashing	Perform a shift operation after the READY indicator light illuminates
X0504	Shift R/D/B(S) Operation during Ready OFF	History of attempt to change shift state to R, D or B with ignition switch ON and READY indicator not illuminated	Perform a shift operation with the READY indicator light illuminated
X0505	Shift Operation during Accelerator & Brake Depress	History of attempts to change shift state from P with READY indicator light illuminated and accelerator and brake pedals depressed	Perform the shift operation while depressing only the brake pedal and not the accelerator pedal
X0506	Shift B(S) Operation from Shift Position R	History of shift state being changed to N when attempting to change to B directly from R	Change to shift state D first, and then to B

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X0507	Shift D Operation during Backward Movement	History of attempt to change shift state to D while reversing	Change the shift state to D after the vehicle has stopped
X0508	Shift R Operation during Forward Movement	History of attempt to change shift state to R while driving forward	Change the shift state to R after the vehicle has stopped
X050A	Quick Shift Operation to Shift Position N during Running	History of shift state being changed to N while driving, without shift lever being held in N for a long enough time	-
X050B	Shift N Change by Busy Shift	History of shift state being changed to N due to shift lever being repeatedly moved to R, D and/or N within a short period of time	Wait for a while and then attempt to change the shift state again
X050C	Shift N Operation on The Way Back to Home Position after Shift D/R Operation	History of shift state being changed to N when shift lever was returning from R or D	<ul style="list-style-type: none"> Remove hand from shift lever after performing a shift operation Check for object hanging from shift lever, modifications to shift knob, foreign matter, etc.
X050D	Shift R Operation on The Way Back to Home Position after Shift D Operation	History of shift state being changed to R when shift lever was returning from D	Remove hand from shift lever after performing a shift operation
X050E	Shift D Operation on The Way Back to Home Position after Shift R Operation	History of shift state being changed to D when shift lever was returning from R	Remove hand from shift lever after performing a shift operation
X0510	Shift Operation without Depressing Brake from Shift Position P	<ul style="list-style-type: none"> History of attempt to change shift state from P with brake pedal not depressed With the vehicle stopped, the ignition switch ON (IG) and the meter display off, a shift operation was attempted without the brake pedal depressed 	Perform a shift operation while firmly depressing the brake pedal
X0511	Shift N Operation at Short Times during Low Speed/Stopping	History of attempt to change shift state to N by not holding shift lever in N for a long enough time while stopped or driving at a low speed	Hold the shift lever in N for a certain amount of time
X0512	Shift B(S) Operation from Shift Position P/N	History of attempt to change shift state from P or N to B	Change to shift state D first, and then to B
X0513	Shift N Operation during Running	History of shift state being changed to N by holding shift lever in N for a certain amount of time while driving	<ul style="list-style-type: none"> Be careful not to unintentionally touch the shift lever

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
			<ul style="list-style-type: none"> Do not hang objects on the shift lever
X0515	Shift P Operation before Vehicle Stop	History of shift state not being changed to P when P position switch was operated before vehicle was stopped	Operate the P position switch after the vehicle has stopped
X0517	Auto Change to Shift Position P Cancel	History of P position automatic change function not operating	Operate the P position switch, confirm that the shift indicator has changed to P, then turn the ignition switch from ON (IG) to off again
X051A	Shift Operation on Gradient during Ready OFF	History of attempt to change shift state from P with ignition switch ON (IG) and READY indicator light off while on an incline	Perform a shift operation from the READY ON state
X051B	Shift Operation during Advanced Drive/Park	History of shift lever operation while advanced park was operating	Be careful not to unintentionally touch the shift lever
X051C	Shift P Operation during Advanced Drive/Park	History of P position switch operation while advanced park was operating	Be careful not to unintentionally touch the P position switch
X051D	Auto Change to Shift Position P when Driver Get Out	History of door opened with the driver seatbelt unfastened and brake pedal not depressed while shift state is other than P	<ul style="list-style-type: none"> Make sure to change the shift state to P when exiting the vehicle. When intending to change to a shift state other than P when exiting the vehicle, operate the shift lever with the door opened
X051E	Shift Position N Hold Mode ON during IG OFF/ACC ON	History of ignition switch being turned off with the shift state N after a shift operation was performed	Operate the P position switch, then turn the ignition switch off after the shift state has changed to P
X0554	Shift P Repeated Operation during Running	History of P position switch being operated repeatedly while driving	Be careful not to touch the P position switch unintentionally
X0555	Shift P Hold Down during Running	History of P position switch being pressed and held while driving	Be careful not to touch the P position switch unintentionally
X0559	Shift P Operation when Auxiliary Battery Low Voltage	History of attempt to change shift state to P with auxiliary battery depleted	Recharge or replace the auxiliary battery
X057B	Shift Operation during Release Shift P Prohibition Request	History of attempt to change shift state from park P to other shift state with vehicle not in a driving mode	Be careful not to unintentionally touch the shift lever
X057D	Shift D/R Operation Rejection from Shift Position N without Depressing Brake Pedal	History of attempt to change shift state from N to D or R with brake pedal not depressed	Perform the shift operation while depressing only the brake pedal and not the accelerator pedal

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X057E	Shift D/R Operation Rejection from Shift Position N during Accelerator Pedal Depress	History of attempt to change shift state from N to D or R with accelerator pedal depressed	Perform the shift operation while depressing only the brake pedal and not the accelerator pedal
XF01E	ECU Security Key Not Registered (Gear Shift Control Module)	Update of the ECU security key stored in the shift control ECU has not been performed	Make sure to perform Update ECU Security Key after replacing the shift control ECU (transmission floor shift assembly) INFO

CLEAR THE VEHICLE CONTROL HISTORY (ELECTRONIC SHIFT LEVER SYSTEM)

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

NOTICE:

By performing this procedure, all stored Vehicle Control History items will be cleared.

VEHICLE CONTROL HISTORY FREEZE FRAME DATA (ELECTRONIC SHIFT LEVER SYSTEM)

- (a) Select a vehicle control history item to access the applicable freeze frame data.
- (b) Check the freeze frame Data recorded with the Vehicle Control History.

VEHICLE CONTROL HISTORY FREEZE FRAME DATA

GTS DISPLAY	DESCRIPTION
Total Distance Traveled	Drive total distance
Total Distance Traveled - Unit	Drive total distance unit

VEHICLE CONTROL HISTORY (AIRBAG SYSTEM)

HINT:

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

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