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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for M20A-FXS): VEHICLE CONTROL HISTORY (RoB); 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

## VEHICLE CONTROL HISTORY (RoB)

### CHECK VEHICLE CONTROL HISTORY (HYBRID CONTROL SYSTEM)

(a) Check the vehicle control history (RoB).

**Powertrain > Hybrid Control > Utility**

TESTER DISPLAY
Vehicle Control History (RoB)

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X0450	Hybrid/EV Battery Pack Sensor Module Mismatch	History of incorrect type of battery voltage sensor being installed	-
X0460	Hybrid/EV Battery Cooling Performance Decrement	<p>"Maintenance Required for Traction Battery Cooling Parts See Owner's Manual" is displayed on the multi-information display Countermeasures: If "Maintenance Required for Traction Battery Cooling Parts See Owner's Manual" is displayed on the multi-information display, check the following items:</p> <ul style="list-style-type: none"> <li>• Make sure the HV battery cooling system intake port is not blocked.</li> <li>• Make sure there are no gaps between the connecting parts of the ducts.</li> <li>• Clean the No. 1 HV battery intake filter Check for entry of foreign matter</li> <li>• Clear the DTCs to reset the learning values even if no DTCs are stored</li> </ul>	-
X0461	DC/DC Converter Cooling Performance Decrement	<p>History of the rotation command value necessary for the cooling being extremely high due to filter blockage Countermeasures: Check that there is no luggage blocking the cooling intake duct and the intake filter is not clogged with dust, and clean if required</p>	-
X0500	Shift P Operation during Running	<p>History of P position switch operation while driving Countermeasures:</p> <ul style="list-style-type: none"> <li>• Do not shift to the P range while the vehicle is in motion</li> <li>• Move the shift lever to an appropriate driving range to resolve the issue</li> </ul>	-
X0501	Shift Operation when Auxiliary Battery	History of shift position change attempted when battery voltage was low	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
	Voltage Low	Countermeasures: The auxiliary battery should be checked and maintained regularly to keep it in good working condition	
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, or history of attempting to change the shift state from P to another position with the ignition switch ON while the vehicle is on a hill Countermeasures: 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 Countermeasures: 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 S with ignition switch ON and READY indicator not illuminated Countermeasures: 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 while engine running and accelerator and brake pedals depressed Countermeasures: 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 M directly from R Countermeasures: Change to shift state D first, and then to S	-
X0507	Shift D Operation during Backward Movement	History of attempt to change shift state to D while reversing Countermeasures: 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 Countermeasures: Change the shift state to R after the vehicle has stopped	-
X0509	Shift R/D Operation during Ready OFF	History of shift state being changed to neutral (N) due to shift lever being held in R or D with ignition switch ON Countermeasures: Move the shift lever to the P range to resolve the issue	-
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 Countermeasures: <ul style="list-style-type: none"> <li>• Be careful not to unintentionally touch the shift lever</li> <li>• Do not hang objects on the shift lever</li> </ul>	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
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 Countermeasures: Remove hand from shift lever after performing a shift operation	-
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 Countermeasures: <ul style="list-style-type: none"> <li>Remove hand from shift lever after performing a shift operation</li> <li>Check for object hanging from shift lever, modifications to shift knob, foreign matter, etc.</li> </ul>	-
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 Countermeasures: 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 Countermeasures: Remove hand from shift lever after performing a shift operation	-
X050F	Shift P Auto Change by Cruise Control	History of shift state being changed to P when the vehicle was stopped for a certain period of time during cruise control operation Countermeasures: During cruise control operation, when the vehicle will be stopped for a long period of time, temporarily turn off the cruise control	-
X0510	Shift Operation without Depressing Brake from Shift Position P	History of attempt to change shift state from P with brake pedal not depressed Countermeasures: 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 Countermeasures: 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 (S) Countermeasures: Change to shift state D first, and then to B (S)	-
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 Countermeasures: <ul style="list-style-type: none"> <li>Be careful not to unintentionally touch the shift lever</li> <li>Do not hang objects on the shift lever</li> </ul>	-
X0514	Shift Operation to Except P Position during Hybrid/EV Battery	History of attempts to change shift state from park (P) to any other position when charging from external power source or supplying power to external power source	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
	Charging/Power Feeding	Countermeasures: Disconnect the charging plug before performing a shift operation	
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 Countermeasures: Operate the P position switch after the vehicle has stopped	-
X0516	Shift P Operation during Other than Shift P Operation	History of P position switch and shift lever being operated simultaneously Countermeasures: Check that the shift lever is in the home position and then operate the P position switch	-
X0517	Auto Change to Shift Position P Cancel	History of P position automatic change function not operating Countermeasures: 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	-
X0518	Voltage Low for Shift Control System	History of shift control system not operating due to drop in power source voltage Countermeasures: The auxiliary battery should be checked and maintained regularly to keep it in good working condition	-
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 Countermeasures: 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 Countermeasures: 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 Countermeasures: 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 Countermeasures: <ul style="list-style-type: none"> <li>• Make sure to change the shift state to P when exiting the vehicle</li> <li>• When intending to change to a shift state other than P when exiting the vehicle, operate the shift lever with the door opened</li> </ul>	-
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 Countermeasures: Operate the P position switch, then turn the ignition switch off after the shift state has changed to P	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X051F	Parking Lock Control Relearning	Stores a history that P lock position learning failed when the ignition switch was turned to ON, and then the vehicle switched to learning judgment again Countermeasures: Check for malfunction in the Plock actuator control system	-
X0520	HV/EV System Start Up Failure by Very Low Temperature	History of Hybrid Control System failing to start due to extremely cold environment Countermeasures: Raising the temperature enough that the engine can start will resolve the issue	-
X0521	HV/EV System Start Up Failure by Immobiliser Unmatch	History of Hybrid Control System failing to start due to Immobiliser System key verification failure Countermeasures: Use the correct vehicle key	-
X0522	Ready ON Failure by Shift Operation	History of the ignition switch not being turned to ON (READY) due to a shift operation Countermeasures: <ul style="list-style-type: none"> <li>• Keep the shift state in P until the startup process is complete</li> <li>• Move the shift lever to P and turn the ignition switch to ON (READY) again</li> </ul>	-
X0523	Auxiliary Battery Voltage Low (HV/EV)	History of drop in hybrid vehicle control ECU power source voltage (below 9.5 V) Countermeasures: Keep the ignition switch ON (READY) to charge the auxiliary battery	-
X0524	Auxiliary Battery Voltage Low (Inverter)	History of drop in motor generator control ECU (MG ECU) power source voltage (8.0 V or less) Countermeasures: Keep the ignition switch ON (READY) to charge the auxiliary battery	-
X0525	Auxiliary Battery Voltage Low (Hybrid/EV Battery)	History of a drop in battery ECU assembly power source voltage (below 8.0 V) Countermeasures: Keep the ignition switch ON (READY) to charge the auxiliary battery	-
X0526	HV/EV System Stop Operation during Running	History of Hybrid Control System being turned off by pressing ignition switch while vehicle being driven (when the vehicle speed is 3 km/h (2 mph) or more)	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X0527	Generator Temperature High	History of extremely high generator (MG1) temperature and hybrid system overheated warning message being displayed Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Stopping the vehicle and waiting for the generator temperature to decrease will resolve the issue</li> </ul>	-
X0528	Generator Inverter Temperature High	History of extremely high generator (MG1) inverter temperature and hybrid system overheated warning message being displayed Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Stopping the vehicle and waiting for the generator inverter temperature to decrease will resolve the issue</li> </ul>	-
X0529	Motor Temperature High	History of extremely high motor (MG2) temperature and hybrid system overheated warning message being displayed Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Stopping the vehicle and waiting for the motor temperature to decrease will resolve the issue</li> </ul>	-
X052A	Motor Inverter Temperature High	History of extremely high motor (MG2) inverter temperature and hybrid system overheated warning message being displayed Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Stopping the vehicle and waiting for the motor inverter temperature to decrease will resolve the issue</li> </ul>	-
X052B	Rear Motor Temperature High	History of extremely high rear motor (MGR) temperature and hybrid system overheated warning message being displayed Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Stopping the vehicle and waiting for the rear motor temperature to decrease will resolve the issue</li> </ul>	-
X052C	Rear Motor Inverter Temperature High	History of extremely high rear motor (MGR) inverter temperature and hybrid system overheated warning message being displayed Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Stopping the vehicle and waiting for the rear motor inverter temperature to decrease will resolve the issue</li> </ul>	-
X052D	Boosting Converter Temperature High	History of extremely high boost converter temperature and hybrid system overheated warning message being displayed Countermeasures: Stopping the vehicle and waiting for the boost converter temperature to decrease will resolve the Win/Wout restriction	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X0530	Staying Prevention Control	History of operation of retention prevention function	-
X0531	Hybrid/EV Battery Protection in Neutral Shift Position	History of HV battery discharge warning message being displayed when vehicle left with shift lever in N Countermeasures: <ul style="list-style-type: none"> <li>• Do not leave the vehicle with the shift state in N</li> <li>• Shift to a position other than N</li> </ul>	-
X0532	HV/EV Coolant Temperature High	History of extremely high coolant (for inverter) temperature (65°C (149°F) or more) Countermeasures: <ul style="list-style-type: none"> <li>• Avoid driving at high load</li> <li>• Wait for the HV coolant temperature to decrease</li> </ul>	-
X0536	Hybrid/EV Battery Voltage Low	History of Hybrid Control System starting failure due to low HV battery voltage Countermeasures: Charge the battery using the THS charger or plug-in charging (PHEV only)	-
X0537	HV/EV System Start Up Failure by Hybrid/EV Battery Unmatch	History of Hybrid Control System starting failure due to an inappropriate HV battery Countermeasures: <ul style="list-style-type: none"> <li>• Do not make modifications to the vehicle or battery</li> <li>• When the software reflects a genuine battery, the startup prohibition will be resolved</li> </ul>	-
X0539	Shift R Operation during Forward Movement or Shift D/B Operation during Backward Movement	History of shift lever being moved to R while vehicle moving forward or shift lever being moved to D or B while vehicle moving backward	-
X053A	Shift Position Uncertain	Shift position cannot be determined Countermeasures: <ul style="list-style-type: none"> <li>• Do not hold the shift lever at an intermediate position</li> <li>• Move the shift lever to an appropriate driving range</li> </ul>	-
X053B	Engine Malfunction (Poor Engine Power)	History of vehicle state during engine malfunction (poor engine power) (This information can be helpful for performing troubleshooting.) Countermeasures: Stored when the ECM stores an SFI System DTC. Make sure to clear Vehicle Control History after performing troubleshooting related to this item. As all Vehicle Control History should be cleared after performing troubleshooting related this item, make sure to check any other output Vehicle Control History items and perform any troubleshooting for them before clearing Vehicle Control History.	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X053C	Engine Malfunction (Engine does not Start)	History of vehicle state during engine malfunction (engine does not start) (This information can be helpful for performing troubleshooting.) Countermeasures: Stored when the ECM stores an SFI System DTC. Make sure to clear Vehicle Control History after performing troubleshooting related to this item. As all Vehicle Control History should be cleared after performing troubleshooting related this item, make sure to check any other output Vehicle Control History items and perform any troubleshooting for them before clearing Vehicle Control History.	-
X053D	Engine Malfunction (Crankshaft Position Sensor Signal)	History of vehicle state during engine malfunction (abnormal crankshaft position sensor signal) (This information can be helpful for performing troubleshooting.) Countermeasures: Stored when the ECM stores an SFI System DTC. Make sure to clear Vehicle Control History after performing troubleshooting related to this item. As all Vehicle Control History should be cleared after performing troubleshooting related to this item, make sure to check any other output Vehicle Control History items and perform any troubleshooting for them before clearing Vehicle Control History.	-
X053E	Engine Malfunction (GO Signal)	History of vehicle state during engine malfunction (GO signal) (This information can be helpful for performing troubleshooting.) Countermeasures: Stored when the ECM stores an SFI System DTC. Make sure to clear Vehicle Control History after performing troubleshooting related to this item. As all Vehicle Control History should be cleared after performing troubleshooting related to this item, make sure to check any other output Vehicle Control History items and perform any troubleshooting for them before clearing Vehicle Control History.	-
X053F	Engine Malfunction (Component Malfunction)	History of vehicle state during engine malfunction (engine component malfunction) (This information can be helpful for performing troubleshooting.) Countermeasures: Stored when the ECM stores an SFI System DTC. Make sure to clear Vehicle Control History after performing troubleshooting related to this item. As all Vehicle Control History should be cleared after performing troubleshooting related to this item, make sure to check any other output Vehicle Control History items and perform any troubleshooting for them before clearing Vehicle Control History.	-
X0541	Driver Exited Vehicle when Shift Position Wasn't P	History of vehicle speed exceeding threshold after driver left vehicle with shift lever in any position other than P Countermeasures: Make sure to change the shift state to P when exiting the vehicle	-



CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X054C	Accelerator Depress when Shift P Position during Ready ON	History of accelerator pedal depressed when shift lever in P and ignition switch ON (READY) Countermeasures: When driving the vehicle, be sure to shift to an appropriate driving range	-
X0554	Shift P Repeated Operation during Running	History of P position switch being operated repeatedly while driving Countermeasures: 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 Countermeasures: Be careful not to touch the P position switch unintentionally	-
X0558	Parking Lock Release by Manual Operation	Stores a history of the parking lock being released using the forced parking lock release mechanism during servicing Countermeasures: Operate the P position switch, check that the shift state temporarily switches to park (P) on the shift indicator and then move the shift lever once more	-
X0559	Shift P Operation when Auxiliary Battery Low Voltage	History of attempt to change shift state to P with auxiliary battery depleted Countermeasures: The auxiliary battery should be checked and maintained regularly to keep it in good working condition	-
X055A	Shift Operation NG by Parking Lock Control Relearning during Cranking	History of attempt to change shift state from park (P) to a position other than P during cranking Countermeasures: Be careful to perform shift operations after the engine has started	-
X055D	Limit to Charge / Discharge Control Value by Hybrid/EV Battery Temperature High	History of HV battery charge/discharge being restricted If the temperature of the HV battery becomes approximately 44°C (111.2°F) or higher due to high ambient temperature, high cabin temperature, continuous driving under high load (such as mountain driving or frequent acceleration/deceleration), clogged HV battery intake duct, etc., the HV battery current will be restricted Countermeasures: In this case the value of WIN/WOUT will decrease and the engine will stop and start less frequently <ul style="list-style-type: none"> <li>• Check the intake port of the HV battery cooling system for blockage, such as luggage, etc.</li> <li>• 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, cabin temperature was high or the vehicle was driven continuously under high load (such as mountain driving or frequent acceleration/deceleration)</li> </ul> Explain to the customer that this is not a malfunction	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
X055E	Limit to Charge / Discharge Control Value by Hybrid/EV Battery	<p>History of HV battery charge/discharge being restricted</p> <p>If the temperature of the HV battery becomes approximately 44°C (111.2°F) or higher due to high ambient temperature, high cabin temperature, continuous driving under high load (such as mountain driving or frequent acceleration/deceleration), clogged HV battery intake duct, etc., the HV battery current will be restricted</p> <p>Countermeasures:</p> <ul style="list-style-type: none"> <li>• Check the intake port of the HV battery cooling system for blockage, such as luggage, etc.</li> <li>• 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, cabin temperature was high or the vehicle was driven continuously under high load (such as mountain driving or frequent acceleration/deceleration)</li> </ul> <p>Explain to the customer that this is not a malfunction</p>	-
X055F	Charge Canceled (Hybrid/EV Battery WIN Low)	History of plug-in charge being canceled due to HV battery	-
X0561	Charge Canceled (Auxiliary Battery Voltage Low)	History of plug-in charge being canceled due to auxiliary battery	-
X0562	Charge Canceled (Charging System)	History of plug-in charge being canceled due to charging system	-
X0563	Charging Finished Early	History of plug-in charge being completed earlier than set time	-
X0564	Charge Canceled (Charging Time Overrun)	History of plug-in charge not being completed by set time	-
X0565	Ready ON Operation when Charging Connector Connected	History of power switch being turned on (READY) with charging connector connected	-
X0566	Driving Force Suppression when Charging Connector Connected	History of driving force being cut by connecting charging connector	-
X057A	Hybrid/EV Battery SOC Low	For electric vehicle, history of the HV battery capacity SOC becoming discharged, causing the system to stop	-
X057B	Shift Operation during Release Shift P Prohibition Request	<p>Stores a history of attempts to change the shift state from park (P) to a state other than park (P) during release shift P restriction request (during power supply/charging/refueling)</p> <p>Countermeasures:</p> <p>Make sure not to unintentionally touch the shift lever</p>	-
X057C	AC Interior Power Feeding End History	History of AC power supply to the vehicle interior being ended	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
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 Countermeasures: Perform the shift operation while depressing only the brake pedal and not the accelerator pedal	-
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 Countermeasures: Perform the shift operation while depressing only the brake pedal and not the accelerator pedal	-
X0581	FCDC Control Module Malfunction History	History of a DTC occurred in the FCDC converter control ECU and a fail-safe performed	-
X0582	Hybrid/EV Battery Control Module Malfunction History	History of a DTC occurred in the battery ECU assembly and a fail-safe performed	-
X0583	Fuel Cell Control Module Malfunction History	History of a DTC occurred in the FC control ECU and a fail-safe performed	-
X0584	Hydrogen Filling Control Module Malfunction History	History of a DTC occurred in the hydrogen control ECU assembly and a fail-safe performed	-
X0590	Shift Change to Other than Shift Position N Request	History of a request being displayed on the multi-information display to shift to a position other than N	-
X0591	Redoing Ready ON Request	History of the READY state being turned off and a request being displayed on the multi-information display to shift to P and turn the ignition switch to ON (READY) again	-
X0597	N Lock Activation	Indicates that shift lock operated when the vehicle was stopped and the shift lever was in N for a certain amount of time	-
X05A1	Target Driving Force Not Reached	Stored when extremely low temperature has caused charge/discharge power to be temporarily restricted, or FC stack generation amount has been restricted	-
X0600	Auxiliary Battery Voltage Low at Start	History of low auxiliary battery voltage at Hybrid Control System start Countermeasures: <ul style="list-style-type: none"> <li>• Disconnect the battery terminal during long-term parking</li> <li>• Remove aftermarket devices which operate while the vehicle is parked and consume electrical power</li> <li>• Avoid short trips</li> <li>• Turn off unneeded electrical equipment when driving</li> </ul>	-
X0601	Auxiliary Battery Voltage Low at IG OFF	History of low auxiliary battery voltage when ignition switch off Countermeasures: <ul style="list-style-type: none"> <li>• Disconnect the battery terminal during long-term parking</li> </ul>	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
		<ul style="list-style-type: none"> <li>Remove aftermarket devices which operate while the vehicle is parked and consume electrical power</li> <li>Avoid short trips</li> <li>Turn off unneeded electrical equipment when driving</li> </ul>	
X0602	Auxiliary Battery Discharge at IG OFF	History of auxiliary battery becoming discharged when ignition switch off Countermeasures: Remove aftermarket devices which operate while the vehicle is parked and consume electrical power	-
X0603	Auxiliary Battery Discharge at Running	History of auxiliary battery becoming discharged while vehicle being driven Countermeasures: Turn off unneeded electrical equipment when driving	-
X0606	Auxiliary Battery Voltage Low during Running	Auxiliary battery voltage drop that causes charging warning light to illuminate while driving vehicle is detected Countermeasures: <ul style="list-style-type: none"> <li>Turn off unneeded electrical equipment when driving</li> <li>Equivalent to work procedures when charging light illuminated</li> </ul>	-
X0607	Auxiliary Battery Voltage High during Running	Auxiliary voltage boost that causes charging warning light to illuminate while driving vehicle is detected Countermeasures: Equivalent to work procedures when charging light illuminated	-
X0608	Auxiliary Battery Charging Control after Shipping	Charging control from HV battery to auxiliary battery is detected after shipping Countermeasures: While the vehicle is parked after shipping, after 12 hours elapse from the time the certification ECU (smart key ECU assembly) detects that shipping is complete, the system detects that charging control is performed from the HV battery to the auxiliary battery and charging control has been completed.	-
X263E	Suspension Specification Information Learning Incomplete	Learning has not been performed to change the vehicle specification information stored in the hybrid vehicle control ECU Countermeasures: <ul style="list-style-type: none"> <li>After replacing the hybrid vehicle control ECU, perform vehicle specification information procedure</li> <li>If not performed, a warning message is displayed on the combination meter assembly, vehicle control history (RoB) is simultaneously stored, and "Incomplete" is displayed for Data List item "Suspension Control Module Specification Information"</li> </ul>	-
X265A	Clearance Warning Specification Information Learning Incomplete	Learning has not been performed to change the vehicle specification information stored in the shift control ECU Countermeasures:	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
		<ul style="list-style-type: none"> <li>After replacing the shift control ECU, perform vehicle specification information procedur</li> <li>If not performed, a warning message is displayed on the combination meter assembly, vehicle control history (RoB) is simultaneously stored, and "Incomplete" is displayed for Data List item "Advanced Park Available Specification Information"</li> </ul>	
X2900	Remote Air Conditioner Inactive	History of the pre-air conditioning unable to start, pre-air conditioning stopped while running, idling retention stopped after pre-air conditioning, and the SMR connection unable to be performed due to no DCR diagnosis	-
X3000	Hydrogen Filling Abort	While filling at a hydrogen station, the hydrogen tank internal temperature or internal pressure increased, or the amount of filled hydrogen gas exceeded the specified tank capacity	-
X3100	FC Output Limit	History stored in the following conditions: <ol style="list-style-type: none"> <li>FC stack outlet coolant temperature increased (continuous uphill climb, etc. under high ambient temperature)</li> <li>Hydrogen system pressure decreased</li> <li>Vehicle continued traveling after the low fuel level warning light has come on</li> </ol>	-
X3101	FC System Start/Stop Failure	High voltage system/FC system start/stop process exceeds the specified time	-
X3102	FC System Start Up at Very Low Temperature	History stored in the following conditions: <ol style="list-style-type: none"> <li>FC system was unable to start at an ambient temperature of below 0°C, due to frozen components</li> <li>Extended time delay after performing READY ON operation (turn the ignition switch to ON while stepping on the brake pedal) until the READY light changes from blinking to illuminated when at ambient temperature of below 0°C, due to frozen components</li> </ol>	-
X3103	FC System Lack of Scavenging	Scavenging process terminated abnormally	-
X3104	Gap in FC System Power Input/Output	History stored in the following conditions: <ol style="list-style-type: none"> <li>The EV supply battery assembly level is low or is fully charged</li> <li>EV supply battery assembly output is high or charge amount is large</li> </ol>	-
X3106	Vibration Detection during IG OFF	History of the vehicle stopped due to vibration caused by a collision when the ignition switch is off	-
X3110	Hydrogen Empty Low Level	Vehicle continued traveling until the FC system stopped even after the low fuel level warning light has come on	-
XF01B	ECU Security Key Not Registered	ECU security key not updated Countermeasures:	-

CODE	TESTER DISPLAY	MEASUREMENT ITEM	DIAGNOSTIC NOTE
		Make sure to perform Update ECU Security Key after replacing the transmission floor shift assembly (shift control ECU)	
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 Countermeasures: Make sure to perform Update ECU Security Key after replacing the shift control ECU	-

### CLEAR VEHICLE CONTROL HISTORY (HYBRID CONTROL SYSTEM)

(a) Enter the following menus: Powertrain / Hybrid Control / Utility / Vehicle Control History (Clear).

#### NOTICE:

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

### CHECK VEHICLE CONTROL HISTORY (SRS AIRBAG)

#### HINT:

A part of the control history can be confirmed using the Vehicle Control History.

Click here [INFO](#)

