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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: HYBRID / BATTERY CONTROL: PLUG-IN CHARGE CONTROL SYSTEM (for PHEV Model): Charging Continues despite Reaching Scheduled Stop Time; 2023 - 2024 MY Prius Prime [03/2023 -]		

Charging Continues despite Reaching Scheduled Stop Time

PROCEDURE

1. CHECK DTC OUTPUT (HEALTH CHECK)

(a) Enter the following menus: Health Check.

(b) Check DTCs.

RESULT	PROCEED TO
No DTCs are output	A
DTCs are output	B

(c) Turn the ignition switch off.

B  **GO TO DTC CHART**

A


2. CHECK FOR VEHICLE CONTROL HISTORY

(a) Enter the following menus.

Powertrain > Plug-in Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

(b) Check for Vehicle Control History (RoB) except AC Charging History (X10F0).

HINT:

Vehicle Control History (RoB) items AC Charging History (X10F0) is stored each time plug-in charging is performed, and is also stored when plug-in charging completes without error from start to finish.

For this reason, the fact that they are output does not directly indicate any malfunction or problem.

(c) Enter the following menus.

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

(d) Check for Vehicle Control History (RoB).

RESULT	PROCEED TO
Vehicle Control History not stored	A
Vehicle Control History stored	B

(e) Turn the ignition switch off.

B ▶ GO TO VEHICLE CONTROL HISTORY

- PLUG-IN CHARGE CONTROL SYSTEM

Click here [INFO](#)

- HYBRID CONTROL SYSTEM

Click here [INFO](#)

A



3.	SIMULATION TEST (SETTING CHARGE SCHEDULE)
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NOTICE:

- Make sure to use a known good AC power source.
- Use the same voltage that the customer used to plug-in charge the vehicle.

HINT:

- When registering the timer charging schedule, set the timer within a sufficiently short start/stop time range so that the battery does not become fully charged.
- As timer charging is performed based on the time, year, month and day of the Multimedia Display.

HINT:

Calendar settings:

The current date and time is automatically set using GPS. However, if the automatic setting of the clock is turned off on the Multimedia Display, it is necessary to turn it on.

Then move the vehicle to a location where it can receive a GPS signal.

(a) Enter the following menus: Health Check.

(b) Clear DTCs.

(c) Enter the following menus.

Powertrain > Plug-in Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

(d) Clear all Vehicle Control History items.

(e) Enter the following menus.

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

(f) Clear all Vehicle Control History items.

(g) Check that the date and time displayed on the Multimedia Display are correct and adjust them if necessary.

HINT:

As timer charging is performed based on the time, year, month and day of the Multimedia Display, make sure that they are set correctly.

(h) Using the Multimedia Display, select the charging mode "Start-Stop" or "Start and stop at set times".

(i) Turn the ignition switch off.

(j) Connect the charging cable (electric vehicle charger cable assembly) to the vehicle and charge the HV battery using the timer charging.

(k) Enter the following menus: Health Check.

(l) Check DTCs.

(m) Enter the following menus.

Powertrain > Plug-in Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

(n) Check for Vehicle Control History (RoB) except AC Charging History (X10F0).

HINT:

Vehicle Control History (RoB) items AC Charging History (X10F0) is stored each time plug-in charging is performed, and is also stored when plug-in charging completes without error from start to finish.

For this reason, the fact that they are output does not directly indicate any malfunction or problem.

(o) Enter the following menus.

Powertrain > Hybrid Control > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

- (p) Check for Vehicle Control History (RoB).
- (q) Turn the ignition switch off.
- (r) Disconnect the charging cable (electric vehicle charger cable assembly).

RESULT	PROCEED TO
DTCs output	A
No DTCs output, Vehicle Control History stored	B
Other than above	C

A ► **GO TO DTC CHART**

B ► **GO TO VEHICLE CONTROL HISTORY**

- PLUG-IN CHARGE CONTROL SYSTEM

Click here [INFO](#)

- HYBRID CONTROL SYSTEM

Click here [INFO](#)

C ► (a) Perform cause analysis in the order of "User" and "Environment" categories as specified in the following tables.

User Related Cause

POSSIBLE CAUSE	ACTION TO BE TAKEN
Incorrect time, year, month or day set on multi-information display	<p>Explain to the customer that the charge schedule operates according to the time and date (day of week) set in the vehicle.</p> <p>Explain to the customer that as the time and date are set using the GPS function of the Multimedia Display. Therefore, turn the GPS ON.</p>

*: w/ HV battery heater

POSSIBLE CAUSE	ACTION TO BE TAKEN
Charge schedule setting was wrong	<p>Interview customer and provide instruction on usage.</p> <p>CAUSE ANALYSIS (USER RELATED CAUSE)</p> <p>Refer to Owner's Manual. Explain to the customer that when "Start" or "Start at set time" is set, charging is continued from the start time to full charge</p>
Another charge schedule is registered near the set end time	<p>Explain to the customer that timer charging is performed in accordance with the registered charge schedule when the set end time is reached, a charge schedule with a different "Start-Stop" time is registered, and a full charge has not been reached.</p> <p>Example:</p> <p>HINT:</p> <p>(1) Start/Stop Settings: 14:00 - 16:00</p> <p>(2) Start/Stop Settings: 15:00 - 17:00</p> <p>In this case, when the battery is not fully charged at the set end time (16:00) of (1), timer charging continues until the set end time (17:00) of (2).</p>
Charge Now was set to ON	Explain to the customer that the Charge Now should be set to OFF when setting the charge schedule.
Charge schedule was set to OFF	Explain to the customer that the charge schedule should be set to ON.
Charging connector was disconnected and reconnected while charging indicator (EV charger lid indicator) was blinking (normal: 1 second interval)	Explain to the customer that if the charging connector is disconnected and then connected while the charging indicator (EV charger lid indicator) is blinking (normal: 1 second interval), the charge schedule will be canceled.
"My Room Mode" or Remote air	Explain to the customer that if the "My Room Mode" or remote air conditioning system is operated,
*: w/ HV battery heater	

POSSIBLE CAUSE	ACTION TO BE TAKEN
conditioning system was operated	<p>the charge schedule will be canceled and charging will start immediately.</p> <p>Explain to the customer that to activate the charge schedule after the "My Room Mode" or remote air conditioning system is operated, stop the remote air conditioning system and disconnect and connect the charging connector.</p>
Ambient temperature or HV battery temperature was low*	<p>Explain to the customer that when the charging cable is connected and the outside air temperature is low, the HV battery temperature heating function operates (when the HV battery temperature heating function is ON)</p> <p>Explain to the customer that when the HV battery temperature heating function is operating, normal charging starts immediately after the charge schedule is canceled and the charge indicator illuminates.</p>
*: w/ HV battery heater	

(b) Take appropriate action in accordance with the result of the cause analysis.

