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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): HOW TO PROCEED WITH TROUBLESHOOTING; 2023 - 2024 MY Prius Prime [03/2023 -]		

HOW TO PROCEED WITH TROUBLESHOOTING

CAUTION / NOTICE / HINT

HINT:

- *: Use the GTS
- Use the following procedure to troubleshoot the hybrid control system.

PROCEDURE

1. VEHICLE BROUGHT TO WORKSHOP

NEXT



2. CUSTOMER PROBLEM ANALYSIS

Click here [INFO](#)

NEXT



3. CONNECT GTS TO THE DLC3*

HINT:

If the display on the tester indicates a communication error, inspect the DLC3.

NEXT



4. CHECK DTC AND FREEZE FRAME DATA*

Click here [INFO](#)

HINT:

If the Freeze Frame Data item "AC Input Voltage for Monitoring" shows 270 V or more, there is a possibility that the charging voltage was higher than standard voltage, causing a DTC to be output. When performing a reproduction test, normal charge the vehicle at the standard voltage, then check for DTCs.

RESULT	PROCEED TO
No DTCs are output	A
CAN communication system DTCs are output	B
Other than above	C

B ▶ **PROCEED TO CAN COMMUNICATION SYSTEM**

C ▶ **GO TO STEP 12**

A



5.	CHECK FOR VEHICLE CONTROL HISTORY (RoB)
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(a) Check for Vehicle Control History (RoB).

Click here [INFO](#)

RESULT	PROCEED TO
Vehicle Control History (RoB) stored	A
Vehicle Control History (RoB) not stored	B

B ▶ **GO TO STEP 9**

A



6.	CHECK FOR VEHICLE CONTROL HISTORY (RoB) (VEHICLE RELATED CAUSE)
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(a) On the customer's vehicle, perform charging using a known good charging cable and a known good power source.

RESULT	PROCEED TO
Charging is possible	A
Charging is not possible	B

B  **GO TO STEP 18**

A



7.	CHECK FOR VEHICLE CONTROL HISTORY (RoB) (CHARGING CABLE RELATED CAUSE)
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(a) On a known good vehicle, perform charging using the customer's charging cable and a known good power source.

RESULT	PROCEED TO
Charging is possible	A
Charging is not possible	B

B  **GO TO STEP 18**

A



8.	CHECK FOR VEHICLE CONTROL HISTORY (RoB) (USER, ENVIRONMENT, EXTERNAL POWER SOURCE/CHARGING STAND RELATED CAUSE)
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(a) Based on the output vehicle control history and the results of the customer interview, narrow down the suspected cause according to the contributing factors.

RESULT	PROCEED TO
Applicable for user	A
Applicable for environment	B

RESULT	PROCEED TO
Applicable for external power source/charging stand	C

A ► GO TO STEP 18

B ► GO TO STEP 18

C ► GO TO STEP 18

9. PERFORM MALFUNCTION SIMULATION TEST

(a) Based on the results of the customer problem analysis, try to reproduce the problem.

RESULT	PROCEED TO
Problem can be reproduced	A
Problem cannot be reproduced	B

B ► GO TO STEP 11

A
▼

10. PROBLEM SYMPTOMS TABLE

Click here [INFO](#)

NEXT ► GO TO STEP 18

11. CHECK FOR INTERMITTENT PROBLEMS

Click here [INFO](#)

NEXT ► GO TO STEP 18

12. CHECK DTC AND FREEZE FRAME DATA*

Click here [INFO](#)**HINT:**

- Make sure to save freeze frame data because the data is necessary for performing simulation tests.
- For the hybrid control system, there are many DTCs, many of which can be stored due to a single malfunction. As a result, in some of the diagnosis procedures an instruction is provided to check for other DTCs. By following the diagnosis path based on the combination of output DTCs, it is possible to narrow down the problem early and avoid unnecessary diagnosis.

NEXT

13.	PERFORM MALFUNCTION SIMULATION TEST
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(a) Based on the results of the customer problem analysis, try to reproduce the problem.

RESULT	PROCEED TO
Problem can be reproduced	A
Problem cannot be reproduced	B

B **GO TO STEP 17**

A

14.	REFER TO DTC CHART OR PERFORM CODE-SPECIFIC TROUBLESHOOTING
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(a) Refer to the DTC chart or conduct code-specific troubleshooting.

Click here [INFO](#)**NEXT**

15.	REPAIR OR REPLACE MALFUNCTIONING PARTS, COMPONENT AND AREA
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NEXT

16. CHECK FOR DTCS*Click here [INFO](#)**NEXT**  **END****17. CHECK FOR INTERMITTENT PROBLEMS**Click here [INFO](#)**NEXT****18. REPAIR OR REPLACE MALFUNCTIONING PARTS, COMPONENT AND AREA****NEXT****19. CONFIRMATION TEST**

(a) Conduct plug-in charging, and referring to the results of the customer problem analysis, check to see if the malfunction reoccurs.

NEXT  **END**