Plug-in Charge Check

Introduction

To ensure the off-board charging functions and charging system are operating properly, inspect the charging functions during Pre-Delivery Service (PDS) following the procedures in this bulletin.

NOTICE
Be sure to carefully review, and understand, all applicable Repair Manual and Owner's Manual operational procedures and notes for charging before performing this inspection.

Warranty Information

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<th>OP CODE</th>
<th>DESCRIPTION</th>
<th>TIME</th>
<th>OPF</th>
<th>T1</th>
<th>T2</th>
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Plug-in Charge Check

Before Inspection

Figure 1.

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<th>chargel</th>
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<th>Charging Port</th>
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<tr>
<td>1</td>
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<td>2</td>
<td>Charging Inlet</td>
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<td>3</td>
<td>Charging Port Lid</td>
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<td>5</td>
<td>Charging Cable</td>
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<td>4</td>
<td>4</td>
<td>6</td>
<td>Charging Connector Cap</td>
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Before Inspection (Continued)

1. When using the Charging Cable with Charging Circuit Interrupting Device (CCID), observe the following precautions.

   A. Cables other than those intended for exclusive use with this vehicle cannot be used for charging.

   **CAUTION**
   - Do NOT attempt to disassemble or repair the charging cable, connector, plug, or CCID.
   - Do NOT subject the charging cable, connector, plug, or CCID to strong force or impact.
   - Do NOT forcefully fold the charging cable or damage the charging cable with sharp objects.
   - Do NOT fold the charging connector or plug or insert foreign objects into them.
   - Hold the body of the charging connector or plug when removing or inserting.
   - Remove the charging connector from the vehicle's charging inlet FIRST, before removing the plug from the outlet.
   - Do NOT pull the cable to remove the charging connector from the vehicle or the plug from the outlet.
   - Avoid exposing the plug to water or moisture.

2. Power Sources:

   **NOTE**
   Confirm power sources meet the following criteria before charging.

   A. External power source must be AC120V outlet (NEMA 5-15R) with a Ground-Fault Circuit-Interrupter (GFCI) and a circuit breaker. Use of a 15A individual circuit is strongly recommended to ensure the charging cable operates properly.

   **CAUTION**
   - Do NOT connect the charging cable to a multi-outlet adapter, multi-plugs, or conversion plug.
   - Do NOT connect the charging cable to an extension cord.
   - Do NOT connect the charging cable to a power strip.
Plug-in Charge Check

Before Inspection (Continued)

B. When charging outdoors, make sure to connect to a weather-proof outlet that is certified for outdoor use.

**CAUTION**

- Do not charge if the outside temperature is \(-22^\circ\text{F} \ (-30^\circ\text{C})\) or below as it is possible that charging will take longer and equipment related to charging will be damaged.
- Make sure to connect to a weatherproof outlet for outdoor use. If rain falls during charging, take care that rainwater does not run along the length of the cable and enter the outlet.

Inspection

1. Confirm the following before charging:
   - The parking brake is applied.
   - Vehicle is in the park position. The "P" position switch (transmission shift main switch) is on.
   - There is no electrical load being applied, such as lights, wipers, audio system, seat heaters, etc.
   - The "POWER" switch is OFF.

2. Check Charging Function:
   A. Check the condition of the charging cable provided with the vehicle.
   B. Insert the charging cable firmly into the outlet of the external power source.
   C. Check that the power indicator of the CCID is illuminated.

**HINT**

If the power indicator does not illuminate, ensure that the plug is firmly connected with the outlet.
Plug-in Charge Check

Inspection (Continued)

D. Press the test button on the CCID to check that the electrical leakage detection function operates properly.

- If the error warning indicator illuminates when the test button is pressed, the function is operating correctly.
- After the test has been completed, press the reset button to turn off the error warning indicator.

**HINT**

- Charging cannot be carried out while the error warning indicator is illuminated.
- If the error warning indicator does not come on even if the test button is pressed, it is likely that the function is not operating correctly. Stop charging immediately and refer to the Technical Information System (TIS), 2014 Prius PHV Repair Manual.

Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid/Battery Control: Plug-in Charge Control System: Problem Symptoms Table”

E. Press the vehicle’s charging port lid to open.

F. Remove the charging connector cap.

G. Insert the charging cable into the vehicle’s charging inlet.

**HINT**

- When inserting, make sure not to press the latch release button.
- Align with the guide position shown on the underside of the charging connector, and push in until a click is heard.
Plug-in Charge Check

Inspection (Continued)

**CAUTION**

- Check that the outlet, charging cable, and charging inlet are not damaged.
- Check that the tips of the plug have not been deformed.
- If the plug is dirty or dusty, clean it before inserting.
- **Do NOT** touch the electrical terminals of the charging connector or short them with foreign objects.
- **Do NOT** get water in the charging inlet.
- **Do NOT** wash the vehicle while the charging cable is connected to the vehicle.
- **Do NOT** charge with the charging cable coiled or bundled.
- After connecting the charging cable, confirm that it is not bent.
- **Do NOT** place heavy objects on the charging cable.
- **Do NOT** stand or walk on, or drive over the charging cable.
- If charging is interrupted, remove the charging connector from the vehicle before removing the plug.
- **Do NOT** insert the plug if the outlet is submerged in water or snow. If the plug has already been inserted and it is necessary to remove it, first switch the circuit breaker OFF, and then remove the plug.
- If charging while it is raining or snowing check that no snow, water, or ice have accumulated around the charging connector terminals and the vehicle charging inlet.
- **Do NOT** connect the plug if your hands are wet.
- **Do NOT** charge the vehicle during a lightning storm.
Plug-in Charge Check

Inspection (Continued)

H. Confirm that the charging indicator is illuminated.

**HINT**

- Charging cannot be started if the charging indicator does not illuminate when the charging cable is inserted.
- The charging indicator will turn off when charging is completed.
- For safety purposes, the hybrid system will not "READY" ON while the charging cable is connected to the vehicle, even if the "POWER" switch is operated.
- If the charging cable is connected while the "READY" indicator light is illuminated, the hybrid system will stop automatically, and driving will not be possible.
- When the charging cable is connected to the vehicle, the shift position cannot be changed from "P" to another position.
- If the latch release button is pressed, charging will not begin even if the charging cable is connected.

I. Check energy monitor.

If the "POWER" switch is cycled ON during charging, the current charging status and the amount of time needed until charging is complete will be displayed on the energy monitor.

After confirming, cycle the "POWER" switch to OFF to turn off the display. If the display is left on, charging will take longer.

**HINT**

The first time the "POWER" switch is cycled ON after charging is completed; a message detailing the results of the charging will be displayed. Also, if an operation which cannot be carried out is attempted during charging, a warning message will be displayed.

J. If the error warning indicator on the CCID stays on during charging, press the reset button on the CCID. If the error warning indicator does not turn off after the reset button is pressed, an electrical leakage may be occurring in the path to the power source, or there may be a problem with the charging cable or the charging system. In this event, stop charging immediately, remove the charging cable and refer to the Repair Manual.

3. After Charging:

A. Pull the charging connector towards you while pressing the latch release button.

B. Attach the charging connector cap and close the charging port lid.
Plug-in Charge Check

Inspection (Continued)

C. Remove the plug from the outlet.

**CAUTION**

- Hold the body of the plug when removing.
- Do NOT pull on the cable.

D. Place the charging cable in the cargo area of the vehicle.