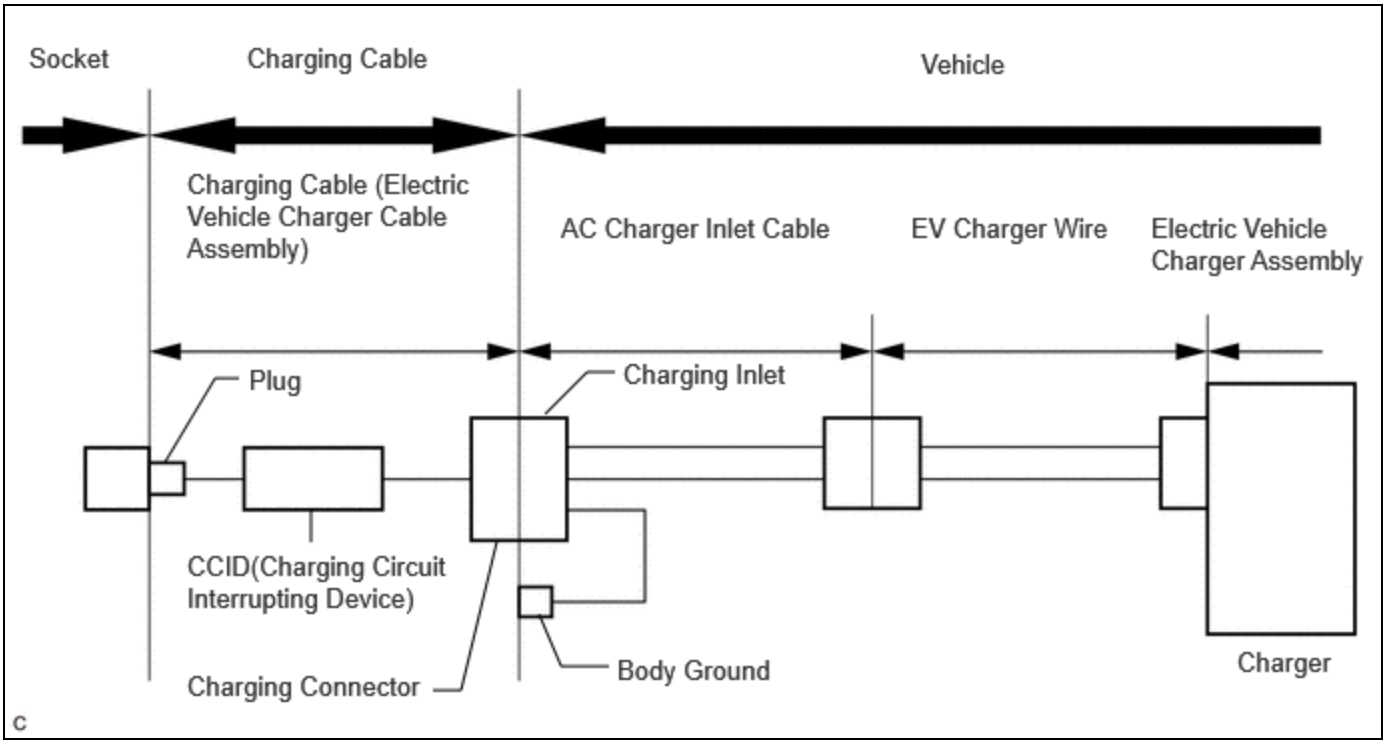
Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BEI8
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: PLUG-IN CHARGE CONTROL SYSTEM (for PHEV Model): AC Line Insulation Malfunction; 2023 - 2024 MY Prius Prime [03/2023 -]		

AC Line Insulation Malfunction

DESCRIPTION

The CCID (Charging Circuit Interrupting Device) built into the electric vehicle charger cable assembly detects insulation malfunctions in the AC line between the CCID and electric vehicle charger assembly.



WIRING DIAGRAM

Refer to the wiring diagram for Open in AC Line.

Click here INFO

CAUTION / NOTICE / HINT

CAUTION:

Refer to the precautions before inspecting high voltage circuit.

Click here INFO

NOTICE:

- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

  Click here INFO
- When disconnecting and reconnecting the auxiliary battery.

HINT:

When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

Click here INFO

PROCEDURE

1.	**SIMULATION TEST**

CAUTION:

Be sure to wear insulated gloves.

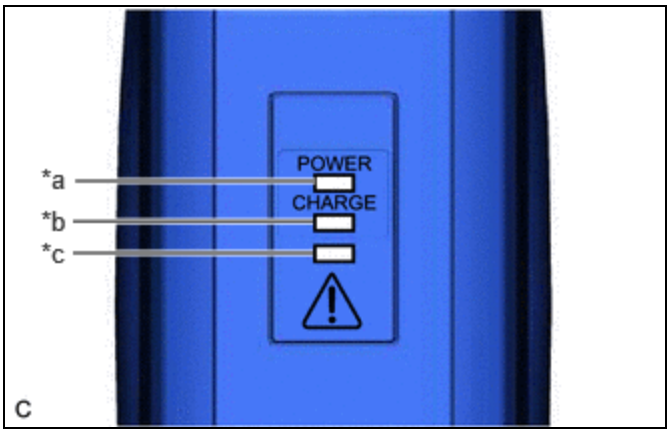
(a) Perform plug-in charging using the charging cable (electric vehicle charger cable assembly) that the customer used.

(b) Check the condition of the power and error warning indicators on the charging cable (electric vehicle charger cable assembly).

HINT:

For details on the status of the power and error warning indicators, refer to Charge Cable On-vehicle Inspection.

Click here INFO



*a	Power Indicator
*b	Charge Status Indicator
*c	Error Warning Indicator

POWER INDICATOR	ERROR WARNING INDICATOR	PLUG-IN CHARGE STATUS	PROCEED TO
Illuminated	Flashes (3 times)	Not charging	A
Illuminated	Off	Charging	B
Other		-	C

B ▶ **COMPLETED (EXPLAIN TO CUSTOMER THAT OPERATION IS NORMAL)**

C ▶ **GO TO ELECTRIC VEHICLE CHARGER CABLE ASSEMBLY INSPECTION**

A

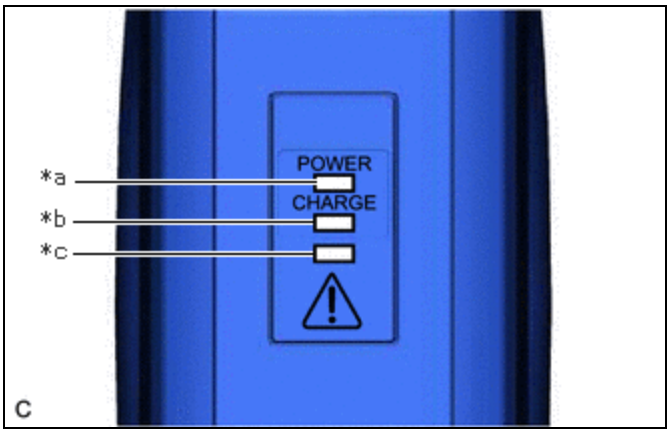
2.	**CHECK CHARGING CABLE (ELECTRIC VEHICLE CHARGER CABLE ASSEMBLY) (USING A KNOWN GOOD CHARGING CABLE)**

CAUTION:

Be sure to wear insulated gloves.

(a) Perform plug-in charging using a known good charging cable (electric vehicle charger cable assembly) that the customer used.

(b) Check the condition of the power and error warning indicators on the charging cable (electric vehicle charger cable assembly).



*a	Power Indicator
*b	Charge Status Indicator
*c	Error Warning Indicator

POWER INDICATOR	ERROR WARNING INDICATOR	PLUG-IN CHARGE STATUS	PROCEED TO
Illuminated	Flashes (3 times)	Not charging	A
Illuminated	Off	Charging	B

B **REPLACE CHARGING CABLE (ELECTRIC VEHICLE CHARGER CABLE ASSEMBLY)**

A

3.	**CHECK HARNESS AND CONNECTOR (ELECTRIC VEHICLE CHARGER ASSEMBLY - CHARGING INLET)**

CAUTION:

Be sure to wear insulated gloves.

(a) Check that the service plug grip is not installed.

NOTICE:

After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Disconnect the s3 electric vehicle charger assembly connector.

(c) Using a megohmmeter set to 500 V, measure the resistance according to the value(s) in the table below.

NOTICE:

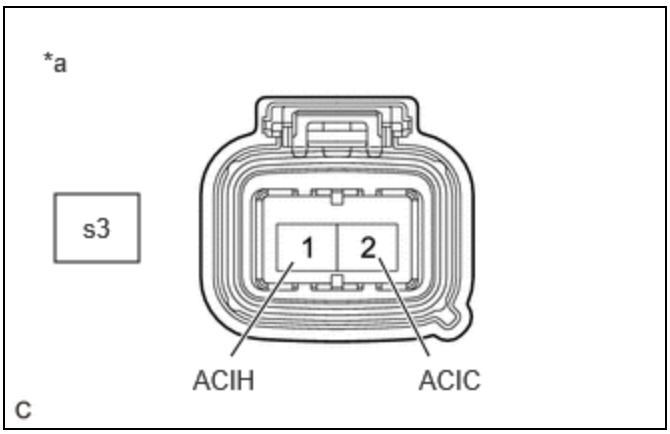
Be sure to set the megohmmeter to 500 V when performing this test. Using a setting higher than 500 V can result in damage to the component being inspected.

Standard Resistance:

EWD INFO

Click Location & Routing(s3)
Click Connector(s3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
s3-1 (ACIH) - Body ground	Ignition switch off	10 MΩ or higher
s3-2 (ACIC) - Body ground	Ignition switch off	10 MΩ or higher



*a	Front view of wire harness connector (to Electric Vehicle Charger Assembly)

(d) Reconnect the electric vehicle charger assembly connector.

OK ▶ **REPLACE ELECTRIC VEHICLE CHARGER ASSEMBLY**

NG ▼

4.	**CHECK AC CHARGER INLET CABLE (CHARGING INLET - EV CHARGER WIRE CONNECTOR)**

CAUTION:

Be sure to wear insulated gloves.

(a) Check that the service plug grip is not installed.

NOTICE:

After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Disconnect the ss1 AC charger inlet cable connector.

(c) Using a megohmmeter set to 500 V, measure the resistance according to the value(s) in the table below.

NOTICE:

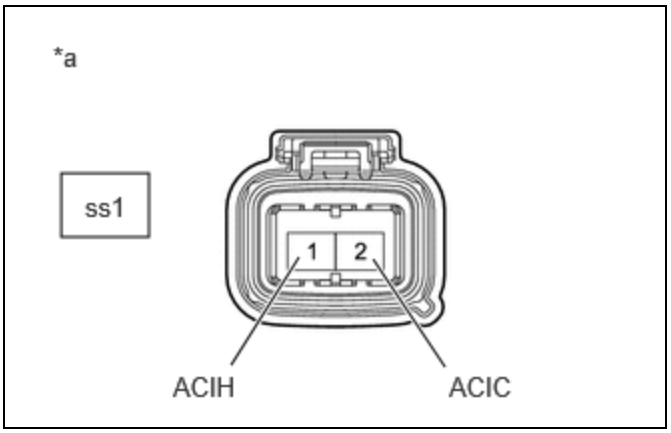
Be sure to set the megohmmeter to 500 V when performing this test. Using a setting higher than 500V can result in damage to the component being inspected.

Standard Resistance:

EWD INFO

Click Location & Routing(ss1)
Click Connector(ss1)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
ss1-1 (ACIH) - Body ground	Ignition switch off	10 MΩ or higher
ss1-2 (ACIC) - Body ground	Ignition switch off	10 MΩ or higher



*a	Front view of wire harness connector (to AC Charger Inlet Cable)

(d) Reconnect the AC charger inlet cable connector.

OK ▶ **REPLACE EV CHARGER WIRE**

NG ▶ **REPLACE AC CHARGER INLET CABLE**