Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM10000000290A6
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: SMART KEY SYSTEM (for Start Function): Power Source Mode does not Change to ON (ACC); 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

Power Source Mode does not Change to ON (ACC)

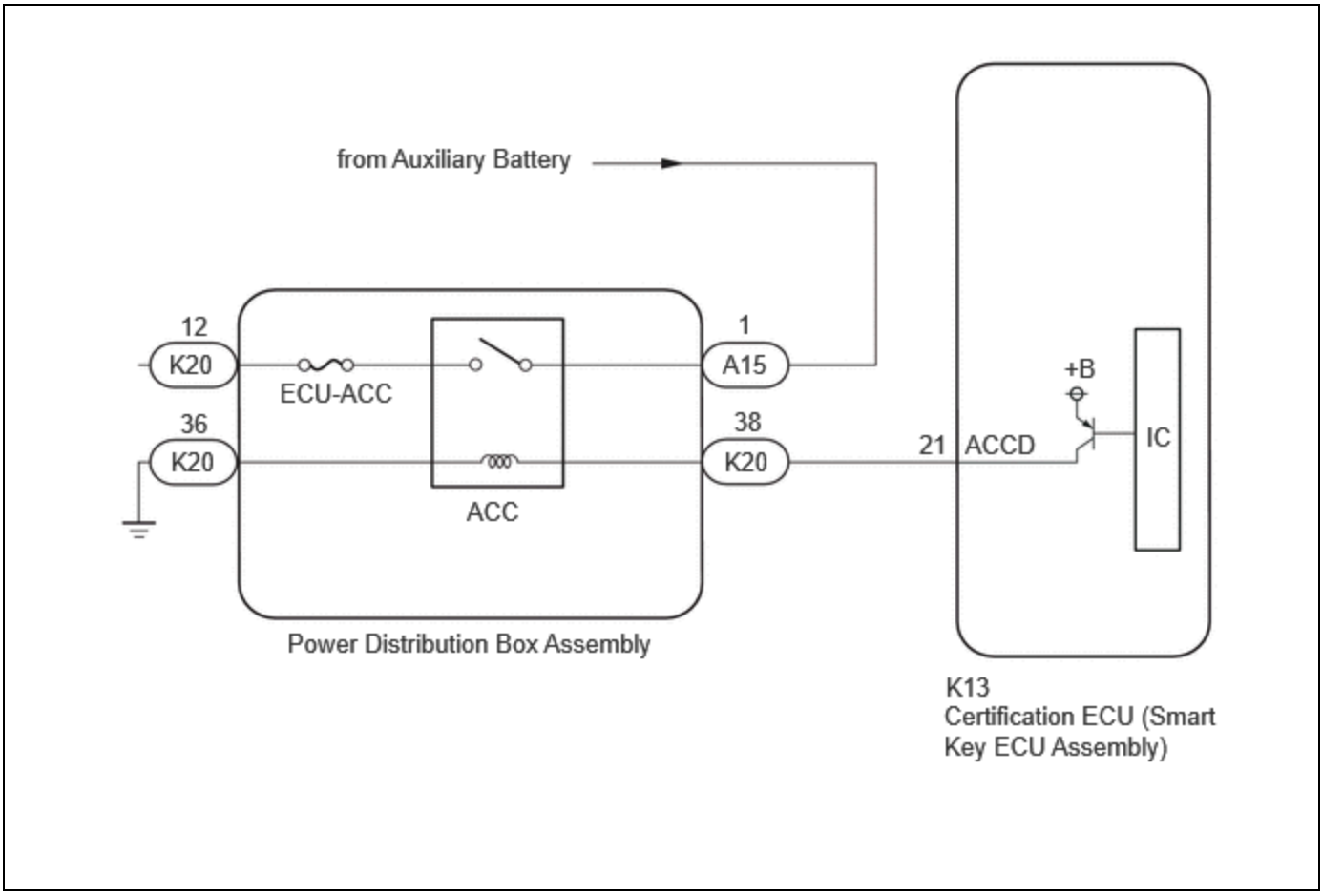
DESCRIPTION

If the power switch is pressed with the electrical key transmitter sub-assembly in the cabin, the certification ECU (smart key ECU assembly) receives a signal and changes the power source mode.

Related Data List and Active Test Items

PROBLEM SYMPTOM	DATA LIST AND ACTIVE TEST
Power source mode does not change to ACC but does change to ON	**Power Source Control** • Power Supply Condition • ACC Relay Monitor

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- When using the GTS with the ignition switch off, perform lock and unlock operations using the door control switch of the multiplex network master switch assembly at intervals of 1.5 seconds or less until communication between the GTS and the vehicle begins, and then select the vehicle model manually.

  Then select Model Code "KEY REGIST" under manual mode and enter the following menus: Body Electrical / Smart Key(CAN). While using the GTS, periodically perform lock and unlock operations using the door control switch of the multiplex network master switch assembly at intervals of 1.5 seconds or less to maintain communication between the GTS and the vehicle.
- The smart key system (for Start Function) uses the LIN communication system and CAN communication system. Inspect the communication function by following How to Proceed with Troubleshooting. Troubleshoot the smart key system (for Start Function) after confirming that the communication systems are functioning properly.

  Click here INFO
- Make sure that no DTCs are output. If any DTCs are output, proceed to Diagnostic Trouble Code Chart.
- If the smart key system (for Start Function) has been disabled, enable the system before performing troubleshooting.

  Click here INFO
- Inspect the fuses for circuits related to this system before performing the following procedure.
- Before replacing the certification ECU (smart key ECU assembly), refer to Registration.

  Click here INFO
- After completing repairs, confirm that the problem does not recur.
- After performing repairs, confirm that no DTCs are output by performing "DTC Output Confirmation Operation."

PROCEDURE

1.	**CHECK FOR DTC**

(a) Using the GTS, check for certification ECU (smart key ECU assembly) DTCs.

Body Electrical > Power Source Control > Trouble Codes
Body Electrical > Smart Key > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
Smart key system (for Start Function) DTCs are output	B

B ▶ **GO TO DIAGNOSTIC TROUBLE CODE CHART** INFO

A ▼

2.	**CHECK HARNESS AND CONNECTOR (POWER DISTRIBUTION BOX ASSEMBLY - POWER SOURCE)**

(a) Disconnect the A15 power distribution box assembly connector.

(b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:

EWD INFO

Click Location & Routing(A15)
Click Connector(A15)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A15-1 - Body ground	Ignition switch off	11 to 14 V

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK ▼

3.	**CHECK POWER DISTRIBUTION BOX ASSEMBLY (ACC RELAY)**

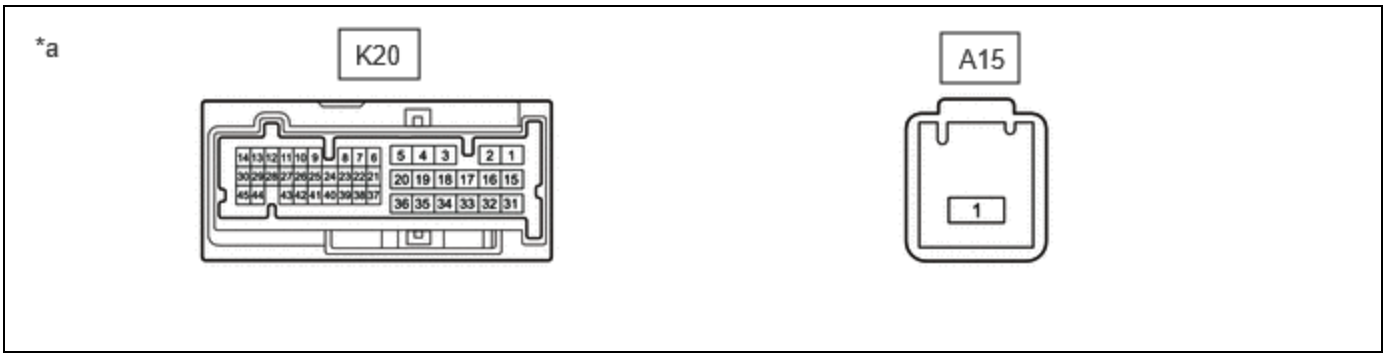
(a) Remove the power distribution box assembly.

Click here INFO

(b) Remove the main body ECU (multiplex network body ECU) from the power distribution box assembly.

(c) Connect the auxiliary battery terminal (+) to the K20-38 terminal.

(d) Connect the auxiliary battery terminal (-) to the K20-36 terminal.



*a	Component without harness connected (Power Distribution Box Assembly)	-	-

(e) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(A15,K20)

Click Connector(A15)
Click Connector(K20)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A15-1 - K20-12	Auxiliary battery voltage applied between terminals K20-38 and K20-36	Below 1 Ω

OK ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

NG ▶ **REPLACE POWER DISTRIBUTION BOX ASSEMBLY**

INFO