

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000029YI7
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: POWER DISTRIBUTION: SUB BATTERY SYSTEM: B22937E; Sub Battery System Output Power Relay "F" Actuator Stuck On; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	B22937E	Sub Battery System Output Power Relay "F" Actuator Stuck On
------------	----------------	--

DESCRIPTION

A malfunction check of the internal relay used to turn on/off the backup function is performed when an auxiliary battery power source malfunction occurs.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY
B22937E	Sub Battery System Output Power Relay "F" Actuator Stuck On	The monitored CACT output voltage is at the threshold or more for 10 seconds or more (1 trip detection logic)	<ul style="list-style-type: none"> Integrated capacitor (integration control supply) Brake booster with master cylinder assembly Harness or connector 	User informed: Yes	Sub Battery System	A

CHECK FOR DTCs

- Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
- Turn the ignition switch off and wait 6 minutes or more. (A)
- Turn the ignition switch to ON. (B)
- Turn the GTS on. (C)
- Wait for 10 seconds or more. (D)
- Read the DTCs. (E)

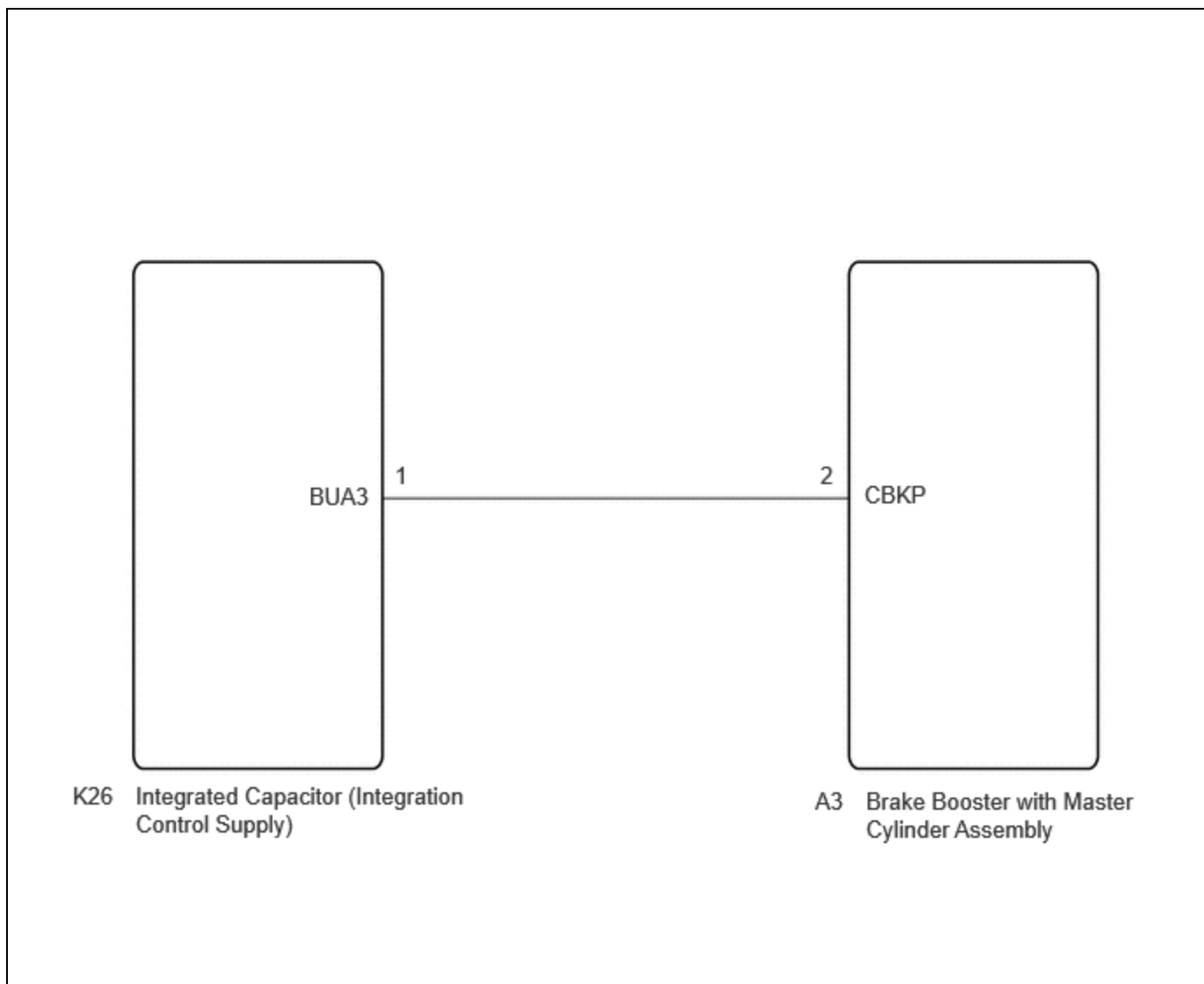
HINT:

- If a DTC is output, the system is malfunctioning.
 - If a DTC is not output, perform the following procedure.
- Enter the following menus: Body Electrical / Sub Battery System / Utility / All Readiness. (F)
 - Enter the DTC to be checked. (G)
 - Check the DTC judgment result. (H)

HINT:

- If the judgment result is NORMAL, the system is normal.
- If the judgment result is ABNORMAL, the system is malfunctioning.
- If the judgment result is INCOMPLETE, perform steps (A) through (H) again.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- When removing/installing the transmission floor shift assembly (shift control ECU)/shift control actuator assembly (shift actuator ECU) or disconnecting/connecting connectors, make sure there is no power* supplied.

*: Auxiliary battery, sub battery, integrated capacitor (integration control supply), etc.

- Before removing and installing the integrated capacitor (integration control supply), make sure the cable is disconnected from the negative (-) auxiliary battery terminal after 5 minutes or more has elapsed since the ignition switched was turned off.
- Before performing troubleshooting, check the state of fuses and connectors of this circuit, and contact voltage of respective terminals.

PROCEDURE

1. CHECK FOR DTC

(a) Check for DTCs.

Body Electrical > Sub Battery System > Trouble Codes

RESULT	PROCEED TO
B22937E is output	A
B22937E is not output	B

B ► **USE SIMULATION METHOD TO CHECK**

A
▼

2.	CHECK HARNESS AND CONNECTOR (INTEGRATED CAPACITOR (INTEGRATION CONTROL SUPPLY))
-----------	--

Pre-procedure1

(a) Disconnect the K26 integrated capacitor (integration control supply) connector.

Procedure1

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

Standard Voltage:



[Click Location & Routing\(K26\).](#)

[Click Connector\(K26\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K26-1 (BUA3) - Body ground	Ignition switch off	Below 5 V	V

Post-procedure1

(c) None

OK ► **REPLACE INTEGRATED CAPACITOR (INTEGRATION CONTROL SUPPLY)**

Click here

NG
▼

3.	CHECK HARNESS AND CONNECTOR (INTEGRATED CAPACITOR (INTEGRATION CONTROL SUPPLY) - BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY)
-----------	--

Pre-procedure1

(a) Disconnect the A3 brake booster with master cylinder assembly connector.

Procedure1

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

Standard Voltage:


[Click Location & Routing\(K26,A3\).](#)
[Click Connector\(K26\).](#)
[Click Connector\(A3\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K26-1 (BUA3) or A3-2 (CBKP) - Body ground	Ignition switch off	Below 1 V	V

Post-procedure1

(c) None

OK ► **REPLACE BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY**

Click here [INFO](#)

NG ► **REPAIR OR REPLACE HARNESS OR CONNECTOR**

