Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000028X2A
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: C14C9A2; Electronic Brake Booster Control Module "A" System Voltage Low; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	**C14C9A2**	**Electronic Brake Booster Control Module "A" System Voltage Low**

DESCRIPTION

Refer to DTC C117514.

Click here INFO

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
C14C9A2	Electronic Brake Booster Control Module "A" System Voltage Low	The voltage of terminal BM is less than 7.3 V and the pump motor is being driven, the output of the pump motor is excessively low for 1 second or more.	• Improperly connected connector, deformation or corrosion of terminals • Wire harness and connector • No. 1 skid control ECU (brake booster with master cylinder assembly)	Does not come on	Brake Booster	B	Output ECU: No. 1 skid control ECU (brake booster with master cylinder assembly)

WIRING DIAGRAM

Refer to DTC C117514.

Click here INFO

CAUTION / NOTICE / HINT

NOTICE:

- Inspect the fuses for circuits related to this system before performing the following procedure.
- Before performing troubleshooting, make sure to confirm that the auxiliary battery voltage is normal.

  Click here INFO
- Make sure to wait 5 minutes or more with the ignition switch turned off before removing the integration control supply or disconnecting any supply power circuit from the integration control supply, in order for the voltage to be discharged and self-diagnosis to run.

PROCEDURE

1.	**CHECK DTC**

(a) Check the DTCs that are output.

Chassis > Brake Booster > Trouble Codes

RESULT	PROCEED TO
Only C14C9A2 is output	A
C14C9A2 and other DTCs are output	B

B ▶ **REPAIR CIRCUITS INDICATED BY OUTPUT DTCS**

A ▼

2.	**CHECK DTC**

(a) Check the DTCs that are output.

Chassis > Brake/EPB > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
DTCs are output	B

B ▶ **REPAIR CIRCUITS INDICATED BY OUTPUT DTCS**

A ▼

3.	**READ VALUE USING GTS (BM VOLTAGE)**

Pre-procedure1

(a) Drive the pump motor by performing the Active Test.

HINT:

The pump motor can be driven by performing the Active Test for Brake Booster Motor.

Procedure1

(b) Monitor the value of Data List item BM Voltage when the pump motor is being driven.

Chassis > Brake Booster > Active Test

TESTER DISPLAY	MEASUREMENT ITEM	CONTROL RANGE	RESTRICT CONDITION	DIAGNOSTIC NOTE
Brake Booster Motor	Brake booster motor	OFF / ON	Vehicle condition: • Vehicle stopped • Shift position is in the P or N • Apply the parking brake **HINT:** To protect this Drive Circuit and Solenoid, this test will only last 10 seconds.	-

Chassis > Brake Booster > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
BM Voltage	BM voltage value	Min.: 0.0 V Max.: 25.5 V	-	Changes in proportion to auxiliary battery voltage

Chassis > Brake Booster > Active Test

ACTIVE TEST DISPLAY
Brake Booster Motor

DATA LIST DISPLAY
BM Voltage

RESULT	PROCEED TO
BM voltage is 11 to 14 V.	A
BM voltage is below 11 V.	B

Post-procedure1

(c) None

A ▶ USE SIMULATION METHOD TO CHECK

B

4.	**CHECK HARNESS AND CONNECTOR (BM TERMINAL)**

Pre-procedure1

(a) Turn the ignition switch off.

Procedure1

(b) Make sure that there is no looseness at the locking part and the connecting part of the connector.

OK:
The connector is securely connected.

Pre-procedure2

(c) Disconnect the A3 No. 1 skid control ECU (brake booster with master cylinder assembly) connector.

Procedure2

(d) Check both the connector case and the terminals for deformation and corrosion.

OK:
No deformation or corrosion.

Procedure3

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

Standard Voltage:

EWD INFO

Click Location & Routing(A3)
Click Connector(A3)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
A3-1 (BM) - Body ground	Always	11 to 14 V	V

Post-procedure1

(f) None

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

Click here INFO

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