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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: C14C616; Electronic Brake Booster Control Module "A" Supply Voltage Circuit Voltage Below Threshold; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	**C14C616**	**Electronic Brake Booster Control Module "A" Supply Voltage Circuit Voltage Below Threshold**

DESCRIPTION

If a malfunction is detected in the power supply circuit, the No. 1 skid control ECU (brake booster with master cylinder assembly) power source voltage drops, or there is insufficient voltage to operate the main relay, the No. 1 skid control ECU (brake booster with master cylinder assembly) will store these DTCs.

If the auxiliary battery voltage is temporarily low, this DTC may be stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
C14C616	Electronic Brake Booster Control Module "A" Supply Voltage Circuit Voltage Below Threshold	Either of the following is detected: • At a vehicle speed of more than 3 km/h (2 mph), IGR voltage is between 3.8 V and 9.5 V for 10 seconds or more. • When the ignition switch is ON (Ready) and BS terminal voltage is 9.5 V or more, any of the following conditions are met: ◦ Stroke sensor 1 is invalid and ECU internal voltage is 7.4 V or less for 10.2 seconds or more. ◦ Servo pressure sensor	• 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)

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
		power supply voltage is less than the specified value and ECU internal voltage is 7.8 V or less for 10.1 seconds or more. ◦ Servo pressure sensor is invalid and ECU internal voltage is 7.8 V or less for 10.2 seconds or more. ◦ Stroke simulator pressure sensor power supply voltage is less than the specified value and ECU internal voltage is 7.8 V or less for 10.1 seconds or more. ◦ Stroke simulator pressure sensor is invalid					

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
		and ECU internal voltage is 7.8 V or less for 10.2 seconds or more. ◦ In response to a main relay ON command, relay contact point is 3.3 V or more, ECU internal voltage is 7.4 V or less and IGR voltage is 9.5 V or less for 10 seconds or more. • When the ignition switch is Ready-OFF and BS terminal voltage is 9.5 V or more, the following conditions are met: ◦ In response to a main relay ON command, relay contact point is 3.3 V or more and ECU internal voltage is 7.4 V or less for 10					

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
		seconds or more.					

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 C14C616 is output	A
C14C616 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.	CHECK HARNESS AND CONNECTOR (IGR 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.

Pre-procedure3

(e) Turn the ignition switch to ON.

Procedure3

(f) 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	SWITCH CONDITION	SPECIFIED CONDITION	RESULT
A3-30 (IGR) - Body ground	Ignition switch ON	11 to 14 V	V

Post-procedure1

(g) None

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

OK ▼

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

Pre-procedure1

(a) Turn the ignition switch off.

Procedure1

(b) 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	SWITCH CONDITION	SPECIFIED CONDITION	RESULT
A3-11 (BS) - Body ground	Always	11 to 14 V	V

Post-procedure1

(c) None

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

Click here INFO

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