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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: C140000,C140A00; Brake Pressure Leak Malfunction; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	C140000	Brake Pressure Leak Malfunction
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DTC	C140A00	Pressure Control Reservoir Leak Malfunction
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DESCRIPTION

The No. 2 skid control ECU (brake actuator assembly) controls the brake fluid pressure of each wheel cylinder based on the brake fluid pressure sensor.

DTCs may be stored if one of the following occurs:

- Brake fluid leaks.
- Foreign matter enters a solenoid valve.
- Brake pads are replaced.
- Rotors are replaced.

HINT:

When replacing the brake pads, retracting the brake caliper pistons and installing new brake pads will greatly increase the clearance between the brake pads and brake discs. This will result in a significant possibility of this DTC being stored the next time the brake pedal is depressed. As this is not a malfunction, clear the DTC if it is stored for this reason.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
C140000	Brake Pressure Leak Malfunction	When all of the following conditions are met, a malfunction such as a leak in an ABS decrease pressure valve of the brake actuator assembly is detected: <ul style="list-style-type: none"> • The vehicle was driven before the ignition switch was turned off. • 90 seconds have elapsed since the ignition switch was turned off. 	<ul style="list-style-type: none"> • No. 1 skid control ECU (brake booster with master cylinder assembly) • No. 2 skid control ECU (brake actuator assembly) 	Does not come on	Brake/EPB	A	Output ECU: No. 2 skid control ECU (brake actuator assembly)

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	DTC OUTPUT FROM	PRIORITY	NOTE
		<ul style="list-style-type: none"> The vehicle is stopped and the shift state is park (P). 					
C140A00	Pressure Control Reservoir Leak Malfunction	<p>When all of the following conditions are met, a malfunction is detected by the No. 2 skid control ECU (brake actuator assembly) during self-diagnosis.</p> <ul style="list-style-type: none"> The vehicle was driven before the ignition switch was turned off. 90 seconds have elapsed since the ignition switch was turned off. The vehicle is stopped and the shift state is park (P). 	<ul style="list-style-type: none"> No. 1 skid control ECU (brake booster with master cylinder assembly) No. 2 skid control ECU (brake actuator assembly) 	Does not come on	Brake/EPB	A	Output ECU: No. 2 skid control ECU (brake actuator assembly)

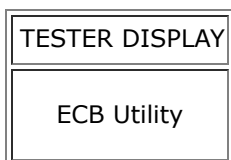
PROCEDURE

1.	INSPECT WHEEL CYLINDER PRESSURE
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Pre-procedure1

- (a) Mount a pedal effort gauge.
- (b) Select "Motor Deactivate" on the "ECB Utility" screen.

Chassis > Brake/EPB > Utility



- (c) Perform "Motor Deactivate" according to the display on the GTS.
- (d) Depress the brake pedal 10 times or more.
- (e) Check that the brake pedal is firm.
- (f) Connect an LSPV gauge set.

Procedure1

- (g) Slowly depress the brake pedal and check the wheel cylinder pressure with respect to brake pedal depression force.

Standard Pressure:

for Front Right Wheel

PEDAL EFFORT [N (KGF, LBF)]	SPECIFIED CONDITION	RESULT
200 (20, 45.0)	0.00 to 3.44 MPa 0.00 to 35.10 kgf/cm ² 0 to 499 psi	MPa kgf/cm2 psi
500 (51, 112.4)	3.12 to 7.17 MPa 31.84 to 73.16 kgf/cm ² 452 to 1040 psi	MPa kgf/cm2 psi

Post-procedure1

- (h) None

NG  **GO TO STEP 4**

OK


2.	CLEAR DTC
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Pre-procedure1

- (a) None

Procedure1

- (b) Clear the DTCs.

Chassis > Brake/EPB > Clear DTCs

Post-procedure1

- (c) Turn the ignition switch off.

NEXT

**3. RECONFIRM DTC**

Pre-procedure1

- (a) Based on the Freeze Frame Data and interview with the customer, attempt to reproduce the conditions when the malfunction occurred.

Procedure1

- (b) Check if the same DTC is output.

Chassis > Brake/EPB > Trouble Codes

RESULT	PROCEED TO
C140000 and C140A00 are not output	A
C140000 or C140A00 is output	B

Post-procedure1

- (c) None

A **USE SIMULATION METHOD TO CHECK****B** **REPLACE BRAKE ACTUATOR ASSEMBLY** **4. INSPECT BRAKE FLUID LEAKS**

- (a) Brake fluid leaks and air in brake line inspection

- (1) Check and take a note of the fluid level in the brake master cylinder reservoir assembly.
- (2) Repeatedly depress the brake pedal and confirm that the brake pedal feels normal (no air in the system, etc.).
- (3) Check if the brake fluid level in the brake master cylinder reservoir assembly has changed.
- (4) If the brake fluid level has decreased, check for leaks due to damaged brake lines or hoses, loose union nuts, damaged brake master cylinder sub-assembly seals, etc.

OK:

There are no brake fluid leaks and no air in the system.

OK **REPLACE BRAKE ACTUATOR ASSEMBLY** **NG** **REPAIR BRAKE FLUID LEAKS AND ADD FLUID**

