12/16/24, 5:05 PM

BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: C14CE51; Brake ...

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000028X2B		
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]	
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM:				
C14CE51; Brake Fluid Air Bleeding Not Programmed; 2023 - 2024 MY Prius Prius Prime [12/2022 -]				

DTC

C14CE51 Br

Brake Fluid Air Bleeding Not Programmed

DESCRIPTION

If air bleeding has not been performed or incomplete, the No. 1 skid control ECU (brake booster with master cylinder assembly) stores DTC C14CE51 to prevent the entry of air due to pump motor operation.

DTC C14CE51 is stored when Motor Deactivate is selected, the system will not return to normal until the air bleeding procedure is performed.

DTC NO.	DETECTION ITEM	DTC DETECTION	TROUBLE AREA	MIL	DTC OUTPUT	PRIORITY	NOTE
		CONDITION			FROM		
C14CE51	Brake Fluid Air Bleeding Not Programmed	Brake fluid air bleeding not yet performed (When proper brake fluid air bleeding has not been performed)	 Proper brake fluid air bleeding not done (Air bleeding not yet performed or incomplete) No. 1 skid control ECU (brake booster with master cylinder assembly) 	Comes on	Brake/EPB	A	 SAE Code: C14CE Output ECU: Both skid control ECUs

MONITOR DESCRIPTION

After replacing the brake booster with master cylinder assembly, if air bleeding is not performed and the vehicle is driven at a certain speed or more, the No. 1 skid control ECU (brake booster with master cylinder assembly) judges that air bleeding has not been completed and illuminates the MIL and stores this DTC. Furthermore, this DTC is not cleared until air bleeding has been completed.

MONITOR STRATEGY

Related DTCs	C14CE: Brake fluid air bleeding not complete		
Required Sensors/Components(Main)	No. 2 skid control ECU (brake actuator assembly) Brake actuator (brake booster with master cylinder assembly)		
Required Sensors/Components(Related)	No. 2 skid control ECU (brake actuator assembly) Brake actuator (brake booster with master cylinder assembly)		

12/16/24, 5:05 PM

BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: C14CE51; Brake ...

	Speed sensor
Frequency of Operation	Continuous
Duration	-
MIL Operation	Immediately
Sequence of Operation	None

TYPICAL ENABLING CONDITIONS

Monitor runs whenever the following DTCs are not stored	U0129: Lost communication with BSCM (CH1) U025E: Lost communication with BSCM2 (CH1)
Vehicle speed	40 km/h (24.85 mph) or more

TYPICAL MALFUNCTION THRESHOLDS

Brake fluid air bleeding	Not completed

COMPONENT OPERATING RANGE

All of the following conditions are met	-
CAN communication fail (U0129,U025E)	Not detected
Brake fluid air bleeding	Completed

CONFIRMATION DRIVING PATTERN

NOTICE:

When performing the normal judgment procedure, make sure that the driver door is closed and is not opened at any time during the procedure.

HINT:

- After repair has been completed, clear the DTC and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.
- When clearing the permanent DTCs, refer to the "CLEAR PERMANENT DTC" procedure.
 - 1. Connect the GTS to the DLC3.
 - 2. Turn the ignition switch to ON and turn the GTS on.
 - 3. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
 - 4. Turn the ignition switch off.
 - 5. Turn the ignition switch to ON (READY) and turn the GTS on.
 - 6. Wait for 2 seconds or more. [*]

HINT:

[*]: Normal judgment procedure.

The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.

- 7. Enter the following menus: Chassis / Brake/EPB* / Utility / All Readiness.
 - *: Electric Parking Brake System
- 8. Check the DTC judgment result.

HINT:

BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: C14CE51; Brake ...

- If the judgment result shows NORMAL, the system is normal.
- If the judgment result shows ABNORMAL, the system has a malfunction.
- If the judgment result shows INCOMPLETE, perform driving pattern again.

PROCEDURE

1. CLEAR DTC

Pre-procedure1

(a) None

Procedure1

(b) Clear the DTCs.

Chassis > Brake Booster > Clear DTCs Chassis > Brake/EPB > Clear DTCs

Post-procedure1

(c) Turn the ignition switch off.



```
2. PERFORM AIR BLEEDING
HINT:
Click here
```

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 Booster > Trouble Codes
```

12/16/24, 5:05 PM

RESULT	PROCEED TO
Only C14CE51 is output	A
DTCs are not output	В
C14CE51 and other DTCs are output	С

Post-procedure1

(c) None







4. RECONFIRM DTC

(a) Check the DTCs that are output.

Chassis > Brake/EPB > Trouble Codes

RESULT	PROCEED TO	
DTCs are not output	А	
DTCs are output	В	



Click here

B REPAIR CIRCUITS INDICATED BY OUTPUT DTCS

9