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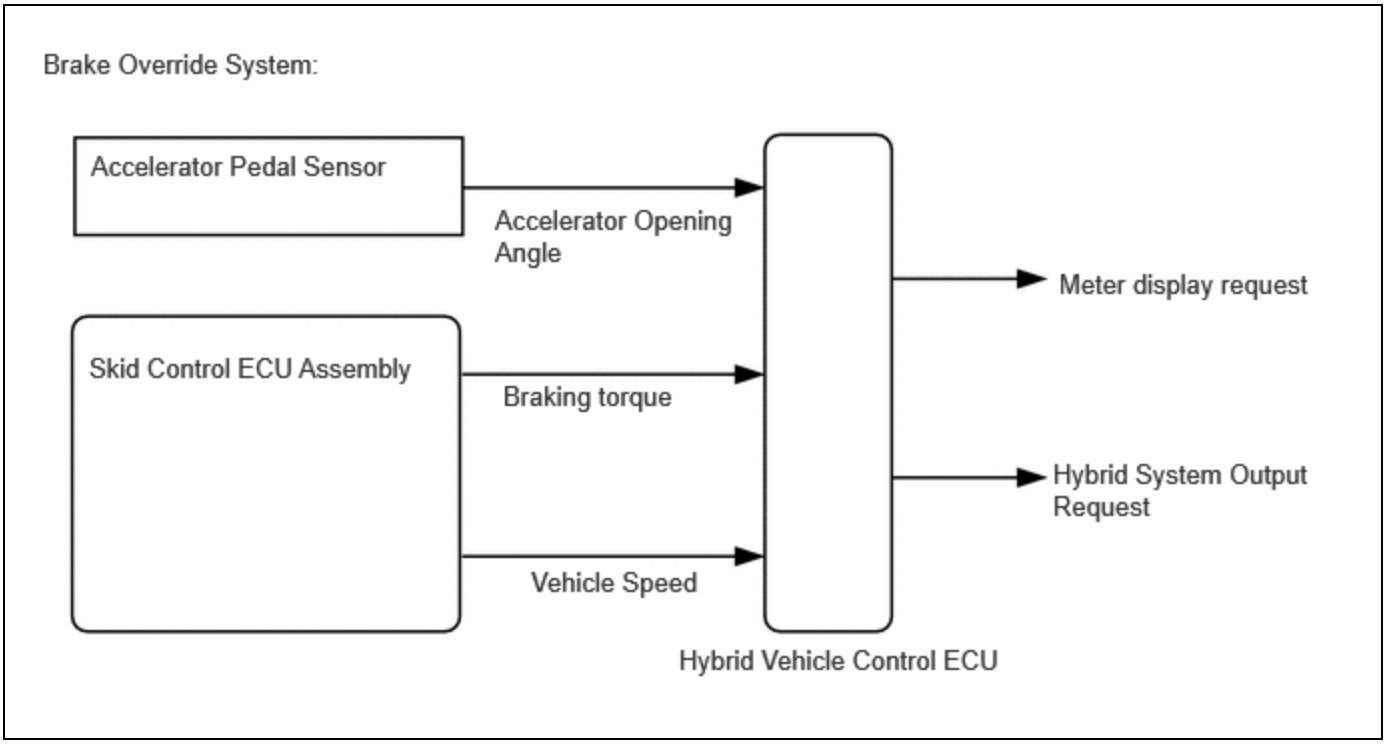
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): Brake Override System; 2023 - 2024 MY Prius Prime [03/2023 -]		

Brake Override System

DESCRIPTION

When the vehicle is being driven with the accelerator pedal depressed, depressing the brake pedal without releasing the accelerator pedal will activate the Brake Override System to restrict hybrid system output. The conditions for activating the Brake Override System as well as the items that are controlled are explained below.



Activation Conditions:

- The accelerator pedal and brake pedal are depressed at the same time.

  NOTICE:

  Brake override control may not be performed depending on the relationship between accelerator opening angle and vehicle speed.

Items Controlled:

- Controls hybrid system output

  HINT:

  - When the control is operating, hybrid system output is controlled in accordance with the brake pedal stroke.
  - When the hybrid system output is reduced because the accelerator pedal and brake pedal are depressed at the same time, an indicator is displayed on the meter. (Operation of the system can be confirmed when the indicator is displayed on the meter.)

Deactivation Conditions:

- The accelerator pedal or brake pedal is released.

Example:

- Drive at 10 km/h (6 mph), depress the accelerator pedal by 1/2 to 3/4 and keep it in that position.
- Under these conditions, if hybrid system output is controlled when the brake pedal is depressed by the left foot of the driver, it can be confirmed that the brake override system has operated.

CAUTION / NOTICE / HINT

CAUTION:

Perform this road test only in an appropriate safe location, in accordance with all local laws.

Pay careful attention to the surroundings when performing the road test.

HINT:

The brake override system restricts hybrid system output if the brake pedal is depressed when driving with the accelerator pedal depressed. If a customer reports experiencing a loss of power (requested accelerator torque) after the accelerator and brake pedals have both been intentionally depressed, explain that this is not a malfunction, and depressing both the accelerator and brake pedals at the same time should be avoided.

PROCEDURE

1.	**CHECK DTC OUTPUT (HEALTH CHECK)**

(a) Enter the following menus: System Select / Health Check.

(b) Check for DTCs.

RESULT	PROCEED TO
No DTCs are output.	A
DTCs are output.	B

(c) Turn the ignition switch off.

B ▶ **GO TO DTC CHART**

A ▼

2.	**READ VALUE USING GTS (MASTER CYLINDER CONTROL TORQUE)**

(a) Turn the ignition switch to ON (READY).

(b) Read the value displayed on the GTS.

Powertrain > Hybrid Control > Data List

TESTER DISPLAY
Master Cylinder Control Torque

Standard:

INSPECTION CONDITION	SPECIFIED CONDITION
Brake pedal depressed	Display changes according to brake pedal depression force

(c) Turn the ignition switch off.

NG ▶ **CHECK BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY**

OK ▼

3.	**READ VALUE USING GTS (ACCELERATOR POSITION SENSOR NO. 1 VOLTAGE %, ACCELERATOR POSITION SENSOR NO. 2 VOLTAGE %)**

(a) Turn the ignition switch on (IG).

(b) Read the values displayed on the GTS.

Powertrain > Hybrid Control > Data List

TESTER DISPLAY
Accelerator Position Sensor No.1 Voltage %
Accelerator Position Sensor No.2 Voltage %

Standard:

INSPECTION CONDITION	SPECIFIED CONDITION
Accelerator pedal released → Depressed	Changes continuously

(c) Turn the ignition switch off.

NG ▶ **REPLACE ACCELERATOR PEDAL (WITH SENSOR) ROD ASSEMBLY**

OK

4.	READ VALUE USING GTS (VEHICLE SPEED)

(a) Turn the ignition switch to ON (READY).

(b) Read the value displayed on the GTS.

Powertrain > Hybrid Control > Data List

TESTER DISPLAY
Vehicle Speed

Standard:

INSPECTION CONDITION	SPECIFIED CONDITION
Vehicle stopped	0 km/h (0 mph)
Vehicle being driven at a constant speed (16 to 64 km/h (10 to 40 mph))	No large fluctuations in displayed speed

CAUTION:

Perform this road test only in an appropriate safe location, in accordance with all local laws.

HINT:

Data can be captured relatively easily by using the snapshot function in the Data List. Confirm the data after performing the drive test.

(c) Turn the ignition switch off.

NG ▶ **GO TO METER / GAUGE SYSTEM (SPEED SIGNAL CIRCUIT)**

OK

5.	READ VALUE USING GTS (FR, FL, RR, RL WHEEL SPEED)

(a) Turn the ignition switch on (READY).

(b) Read the values displayed on the GTS.

Chassis > Brake/EPB > Data List

TESTER DISPLAY
FR Wheel Speed
FL Wheel Speed
RR Wheel Speed
RL Wheel Speed

Standard:

INSPECTION CONDITION	SPECIFIED CONDITION
Vehicle stopped	0 km/h (0 mph)
Vehicle being driven at a constant speed (16 to 64 km/h (10 to 40 mph))	No large fluctuations in displayed speed

CAUTION:

Perform this road test only in an appropriate safe location, in accordance with all local laws.

HINT:

Data can be captured relatively easily by using the snapshot function in the Data List. Confirm the data after performing the drive test.

(c) Turn the ignition switch off.

OK ▶ **END**

NG ▶ **INSPECT FRONT OR REAR SPEED SENSOR**