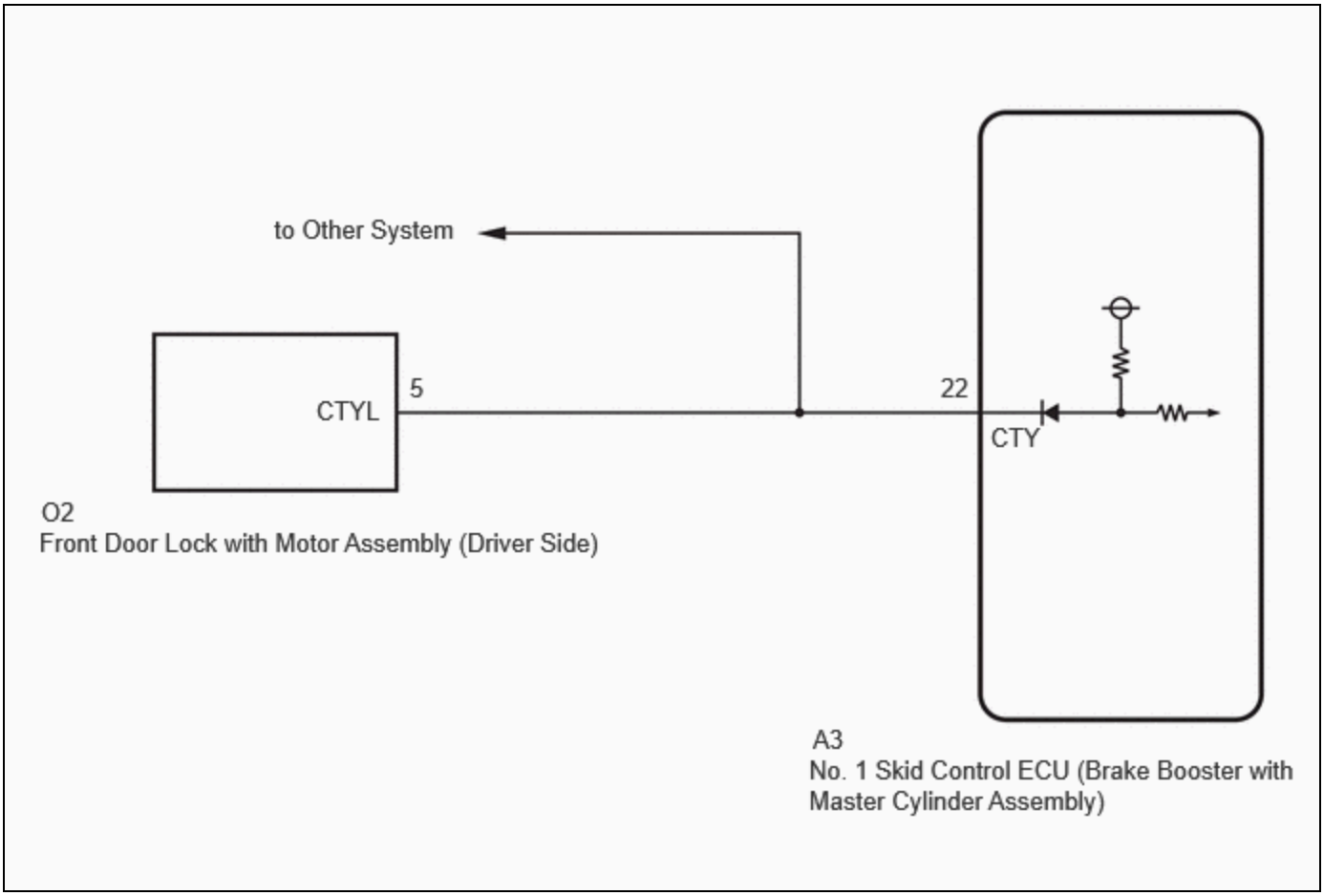
Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000028X2S
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: ELECTRONICALLY CONTROLLED BRAKE SYSTEM: Abnormal Brake Pedal Response on First Depression; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

Abnormal Brake Pedal Response on First Depression

DESCRIPTION

If the vehicle has been stopped without opening or closing the driver door for a long period of time, the electronically controlled brake system will not be ready and sufficient fluid pressure may not be stored. In this case, the brake pedal response may not be the same as usual the first time the brake pedal is depressed. This is not a malfunction.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

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.	**BRAKE PROBLEM CHECK**

(a) Check the conditions at the time the problem occurred.

(1) Whether a warning light illuminated or the buzzer sounded.

(2) The number of times the ignition switch was turned to ON since the latest symptom occurred.

(3) Frequency of the symptom.

NEXT

2.	**CHECK DTC**

(a) Check the DTCs (electronically controlled brake system) that are output.

Chassis > Brake Booster > Trouble Codes

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

B **REPAIR CIRCUITS INDICATED BY OUTPUT DTCS**

A

3.	**CHECK VEHICLE**

(a) Turn the ignition switch off.

(b) Depress the brake pedal within 4 minutes of opening the driver door and check the response of the brake pedal.

(c) Release the brake pedal and wait for 4 minutes without depressing the brake pedal, opening or closing the driver door or operating the ignition switch.

(d) After 4 minutes or more have elapsed, depress the brake pedal and check that the first depression response is different to successive depression responses.

HINT:

Compare the response of the brake pedal when the system is in sleep mode and when the stroke simulator is operating.

RESULT	PROCEED TO
The response of the brake pedal does not change.	A
The response of the brake pedal changed.	B

B ▶ **END**

A ▼

4.	CHECK HARNESS AND CONNECTOR (CTY TERMINAL)

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

OK:

The connector is securely connected.

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

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

OK:

No deformation or corrosion.

(d) 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
A3-22 (CTY) - Body ground	Driver door open	Below 1 V
A3-22 (CTY) - Body ground	Driver door closed	11 to 14 V or pulse output (maximum 14 V)*
*: Differs depending on the vehicle model		

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

Click here INFO

NG

5.	**CHECK HARNESS AND CONNECTOR (BRAKE BOOSTER WITH MASTER CYLINDER ASSEMBLY - FRONT DOOR LOCK WITH MOTOR ASSEMBLY (DRIVER SIDE))**

(a) Check that there is no open or short in the wire harnesses and connectors between terminal CTY of the No. 1 skid control ECU (brake booster with master cylinder assembly) and front door lock with motor assembly (driver side).

OK:

No open/short.

OK ▶ **INSPECT LIGHTING SYSTEM (COURTESY LIGHT SWITCH CIRCUIT)**

Click here INFO

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