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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: Zero Point Calibration of Steering Angle Sensor Not Acquired (X20D8); 2023 - 2024 MY Prius Prius Prime [12/2022 -]

Zero Point Calibration of Steering Angle Sensor Not Acquired (X20D8)

DESCRIPTION

CODE	TESTER DISPLAY	MEASUREMENT ITEM	TROUBLE AREA	OUTPUT ECU
X20D8	Zero Point Calibration of Steering Angle Sensor Not Acquired	History of being unable to obtain the steering angle zero point	• Sensor installation • Yaw rate and acceleration sensor (airbag ECU assembly)	No. 2 skid control ECU (brake actuator assembly)

CAUTION / NOTICE / HINT

NOTICE:

This Vehicle Control History (RoB) may be output during situations when the steering angle sensor zero point calibration temporarily cannot be acquired, such as when the stop light is stuck ON.

PROCEDURE

1.	CHECK DTC (HEALTH CHECK)

(a) Perform the Health Check using the GTS.

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

B ▶ **GO TO DIAGNOSTIC TROUBLE CODE CHART**

A
▼

2.	CHECK AIRBAG ECU ASSEMBLY INSTALLATION

(a) Turn the ignition switch off.

(b) Check that the yaw rate and acceleration sensor (airbag ECU assembly) has been installed properly.

Click here **INFO**

    OK:
    The yaw rate and acceleration sensor (airbag ECU assembly) is tightened to the specified torque.
    The yaw rate and acceleration sensor (airbag ECU assembly) is not installed in a tilted position.

<div align="center">

NG ▶ **GO TO STEP 6**

</div>

OK
▼

3.	PERFORM ZERO POINT CALIBRATION OF STEERING ANGLE SENSOR

(a) Drive the vehicle straight ahead at 35 km/h (22 mph) or more for at least 5 seconds.

    HINT:
      When driving at a speed of 15 km/h or more for 1 second or more, the slip indicator light turns off.

NEXT
▼

4.	CLEAR VEHICLE CONTROL HISTORY (RoB)

(a) Using the GTS, clear the Vehicle Control History (RoB).

Chassis > Brake/EPB > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

NEXT
▼

5.	CHECK VEHICLE CONTROL HISTORY (RoB)

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

(b) Using the GTS, check for Vehicle Control History (RoB).

Chassis > Brake/EPB > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

RESULT	PROCEED TO
X20D8 is not output.	A
X20D8 is output.	B

A ▶ END

B ▶ REPLACE AIRBAG ECU ASSEMBLY `INFO`

6.	INSTALL AIRBAG ECU ASSEMBLY CORRECTLY

Click here `INFO`

NEXT ▶ **GO TO STEP 4**