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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: C055695; Right Front Wheel Speed Sensor Incorrect Component Installed; 2023 - 2024 MY Prius Prius Prime [12/2022 -] | | |

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|------------|----------------|---|
| DTC | C055695 | Right Front Wheel Speed Sensor Incorrect Component Installed |
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DESCRIPTION

| DTC NO. | DETECTION ITEM | DTC DETECTION CONDITION | TROUBLE AREA | MIL | DTC OUTPUT FROM | PRIORITY | NOTE |
|---------|--|--|-----------------------|----------|-----------------|----------|---|
| C055695 | Right Front Wheel Speed Sensor Incorrect Component Installed | History of front speed sensor RH being installed incorrectly | Front speed sensor RH | Comes on | Brake/EPB | A | <ul style="list-style-type: none"> SAE Code: C0556 Output ECU: No. 2 skid control ECU (brake actuator assembly) |

MONITOR DESCRIPTION

The No. 2 skid control ECU (brake actuator assembly) monitors the output of the speed sensor. When the wrong installation of the speed sensor is detected, the MIL is illuminated and a DTC is stored.

MONITOR STRATEGY

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| Related DTCs | C0556: Wheel speed sensor (FR) range/performance |
| Required Sensors/Components(Main) | Speed sensor Speed sensor rotor |
| Required Sensors/Components(Related) | No. 2 skid control ECU (brake actuator assembly) |
| Frequency of Operation | Continuous |
| Duration | 5 times |
| MIL Operation | Immediately |
| Sequence of Operation | None |

TYPICAL ENABLING CONDITIONS

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| Monitor runs whenever the following DTCs are not stored | C0501 (Case 4): Wheel speed sensor (FL) range/performance (pulse output high) C0502: Wheel speed sensor (FL) voltage circuit open C0503: Wheel speed sensor (FL) voltage circuit high C0507 (Case 4): Wheel speed sensor (FR) range/performance (pulse output high) |
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|---|---|
| | <p>C0508: Wheel speed sensor (FR) voltage circuit open C0509: Wheel speed sensor (FR) voltage circuit high C050D (Case 4): Wheel speed sensor (RL) range/performance (pulse output high) C050E: Wheel speed sensor (RL) voltage circuit open C050F: Wheel speed sensor (RL) voltage circuit high C0513 (Case 4): Wheel speed sensor (RR) range/performance (pulse output high) C0514: Wheel speed sensor (RR) voltage circuit open C0515: Wheel speed sensor (RR) voltage circuit high C137D: Brake system voltage circuit high C14E1 (Case 1): Wheel speed sensor (FL) voltage circuit low C14E1 (Case 2): Wheel speed sensor (FL) voltage circuit low (continuation) C14E4 (Case 1): Wheel speed sensor (FR) voltage circuit low C14E4 (Case 2): Wheel speed sensor (FR) voltage circuit low (continuation) C14E7 (Case 1): Wheel speed sensor (RL) voltage circuit low C14E7 (Case 2): Wheel speed sensor (RL) voltage circuit low (continuation) C14EA (Case 1): Wheel speed sensor (RR) voltage circuit low C14EA (Case 2): Wheel speed sensor (RR) voltage circuit low (continuation)</p> |
| All of the following conditions are met | A, B, C, D, E, F and G |
| A. Wheel speed sensor open circuit signal (IC Data) | Off |
| B. Wheel speed sensor power supply voltage low signal (IC Data) | Off |
| C. Following condition is met | More than 0.22 seconds |
| +BS voltage | 9.5 V or higher |
| D. Following condition is met | More than 0.22 seconds |
| +BS voltage | 17.4 V or less |
| E. Wheel speed sensor pulse | Exist |
| F. IGR voltage | Higher than 10 V |
| G. IGP voltage | Higher than 10 V |

TYPICAL MALFUNCTION THRESHOLDS

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| Wheel speed sensor overcurrent state (IC Data) | On |
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COMPONENT OPERATING RANGE

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|---|------------------------------|
| All of the following conditions are met | A, B, C, D, E, F, G, H and I |
| A. Wheel speed sensor open circuit signal (IC Data) | Off |
| B. Wheel speed sensor power supply voltage low signal (IC Data) | Off |

| | |
|---|----------------------------|
| C. Following condition is met | More than 0.22 seconds |
| +BS voltage | 9.5 V or higher |
| D. Following condition is met | More than 0.22 seconds |
| +BS voltage | 17.4 V or less |
| E. Wheel speed sensor pulse | Exist |
| F. Wheel speed sensor fail (C0502, C0503, C0508, C0509, C050E, C050F, C0514, C0515, C14E1, C14E4, C14E7, C14EA) | Not detected |
| G. Wheel speed sensor range/performance (pulse output high) fail (C0501, C0507, C050D, C0513) | Not detected |
| H. Speed sensor output value | 10 km/h (6.21 mph) or more |
| I. Wheel speed sensor overcurrent state (IC Data) | Off |

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. Drive the vehicle straight at a speed of 20 km/h (12 mph) or more for 10 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:

- 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. CHECK PART NUMBER (FRONT SPEED SENSOR RH)

(a) Check that the front speed sensor RH is installed.

OK:

Proper front speed sensor RH is installed.

NOTICE:

If it is necessary to remove components in order to check the front speed sensor RH, follow the relevant installation and removal procedures and precautions for those components.

NG  **REPLACE FRONT SPEED SENSOR RH**

OK



| | |
|-----------|------------------|
| 2. | CLEAR DTC |
|-----------|------------------|

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 |
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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 |
|-----------------------|------------|
| C055695 is not output | A |

| RESULT | PROCEED TO |
|-------------------|------------|
| C055695 is output | B |

Post-procedure1

(c) None

A ► **USE SIMULATION METHOD TO CHECK**

B ► **REPLACE FRONT SPEED SENSOR RH**

