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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> POWER ASSIST SYSTEMS: POWER STEERING SYSTEM: C151B17; Power Steering Torque Sensor "B" Supply Voltage Circuit Voltage Above Threshold; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

<b>DTC</b>	<b>C151B17</b>	<b>Power Steering Torque Sensor "B" Supply Voltage Circuit Voltage Above Threshold</b>
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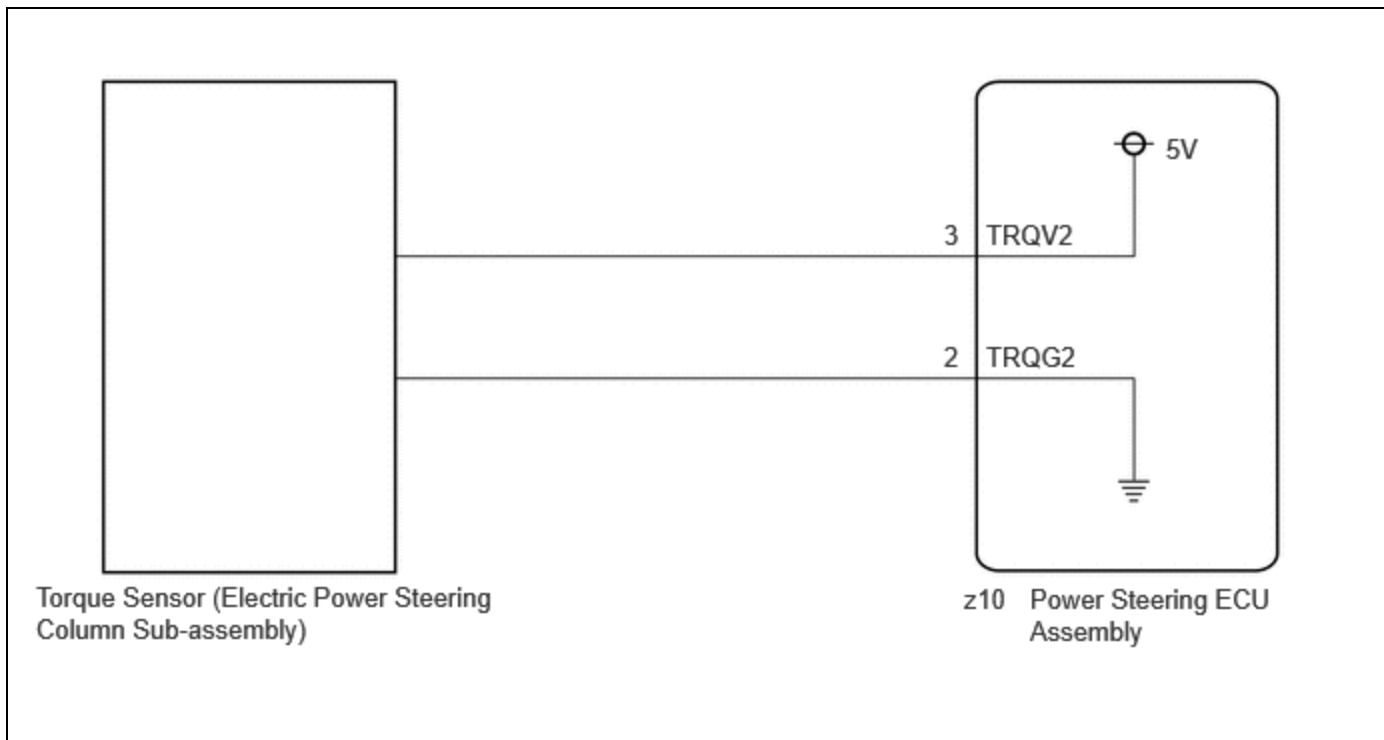
## DESCRIPTION

The power steering ECU assembly supplies a voltage of 5 V to the torque sensor (electric power steering column sub-assembly) and monitors the voltage value of the Hall IC inside the torque sensor (electric power steering column sub-assembly) which changes in response to changes in the magnetic flux density (steering torque) detected by the Hall IC, and calculates the assist torque.

While DTC C151B17 is detected, power assist is stopped due to fail-safe operation.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	RETURN-TO-NORMAL CONDITION
C151B17	Power Steering Torque Sensor "B" Supply Voltage Circuit Voltage Above Threshold	TRQV2 voltage is 5.6 V or more	<ul style="list-style-type: none"> <li>Torque sensor (Electric power steering column sub-assembly)</li> <li>Power steering ECU assembly</li> </ul>	EPS warning light: Comes on	EMPS	A	Ignition switch ON again

## WIRING DIAGRAM



## PROCEDURE

<b>1.</b>	<b>INSPECT TORQUE SENSOR (ELECTRIC POWER STEERING COLUMN SUB-ASSEMBLY) (CHECK FOR SHORT)</b>
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Pre-procedure1

- (a) Disconnect the z10 power steering ECU assembly connector.

Procedure1

- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(z10\)](#)

[Click Connector\(z10\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
z10-3 (TRQV2) - Body ground	Always	10 kΩ or higher	kΩ
z10-3 (TRQV2) - z10-2 (TRQG2)	Always	10 kΩ or higher	kΩ

Post-procedure1

- (c) None

**NG** **REPLACE ELECTRIC POWER STEERING COLUMN SUB-ASSEMBLY**

**OK**  
▼

**2. INSPECT POWER STEERING ECU ASSEMBLY (POWER SOURCE OF TORQUE SENSOR)**

Pre-procedure1

(a) Start the engine.

Procedure1

(b) Measure the voltage according to the value(s) in the table below.

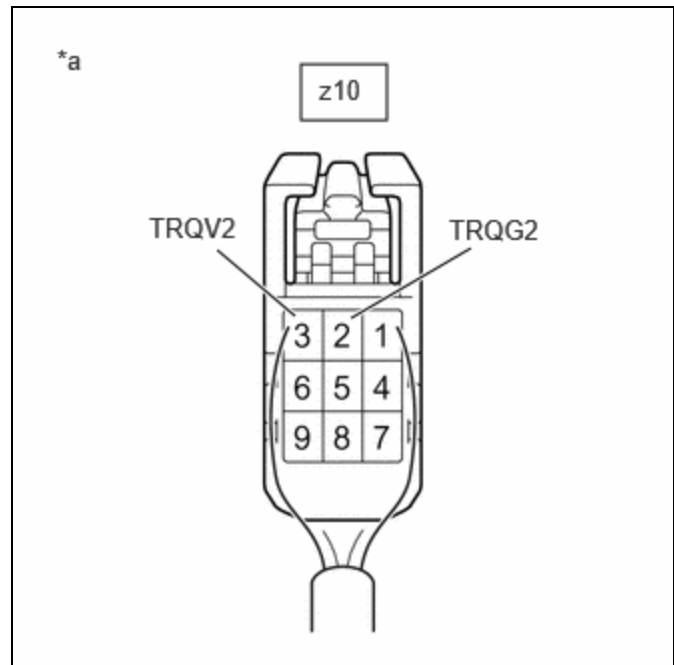
Standard Voltage:



[Click Location & Routing\(z10\)](#)

[Click Connector\(z10\)](#)

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION	RESULT
z10-3 (TRQV2) - z10-2 (TRQG2)	Ignition switch ON	4.5 to 5.5 V	V



\*a Component with harness connected (Power Steering ECU Assembly)

Post-procedure1

(c) None

**OK** ► REPLACE ELECTRIC POWER STEERING COLUMN SUB-ASSEMBLY INFO

**NG** ► REPLACE POWER STEERING ECU ASSEMBLY INFO

