

<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM1000000291ZD
<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM: B228231; Vehicle Speed Signal Circuit Open; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

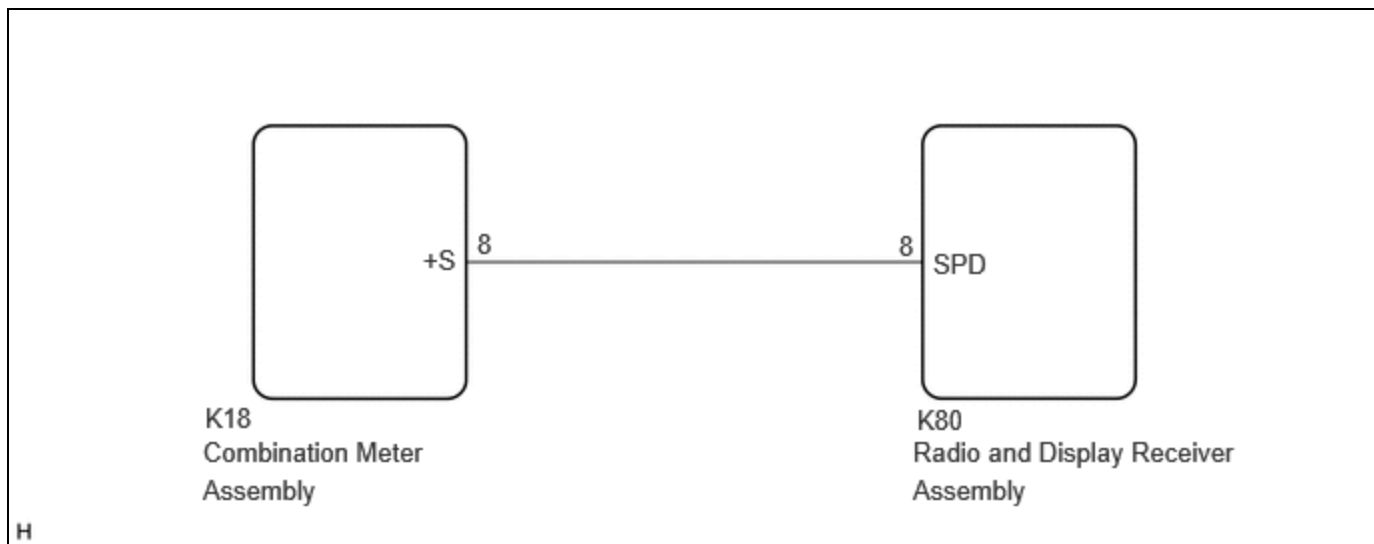
<b>DTC</b>	<b>B228231</b>	<b>Vehicle Speed Signal Circuit Open</b>
------------	----------------	--

## DESCRIPTION

This DTC is stored when the radio and display receiver assembly detect difference between the GNSS speed and SPD pulse.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B228231	Vehicle Speed Signal Circuit Open	When the GNSS position is stable and the vehicle speed is approximately 44 km/h or more, the vehicle speed pulse signal is not detected for 120 seconds or more.  (2 trip detection logic)	<ul style="list-style-type: none"> <li>Radio and display receiver assembly</li> <li>Meter/gauge system</li> <li>Harness or connector</li> </ul>	Navigation System	A

## WIRING DIAGRAM



## CAUTION / NOTICE / HINT

### NOTICE:

Depending on the parts that are replaced during vehicle inspection or maintenance, performing initialization, registration or calibration may be needed.

Click here [INFO](#)

# PROCEDURE

## 1. CHECK VEHICLE CONTROL HISTORY (RoB)

(a) Check vehicle control history (RoB)

(1) Using the GTS, check for vehicle control history (RoB).

**Body Electrical > Navigation System > Utility**

TESTER DISPLAY
Vehicle Control History (RoB)

RESULT	PROCEED TO
Vehicle control history (RoB) X8023 is output	A
Vehicle control history (RoB) is not output	B

**B**  **GO TO STEP 4**

**A**



## 2. CHECK OPTIONAL COMPONENTS

(a) Check that optional components are not installed.

RESULT	PROCEED TO
Optional components are installed	A
Optional components are not installed	B

**B**  **GO TO STEP 4**

**A**



**3. REMOVE OPTIONAL COMPONENTS**

- (a) Remove optional components.
- (b) Turn the ignition switch off and back to ON.

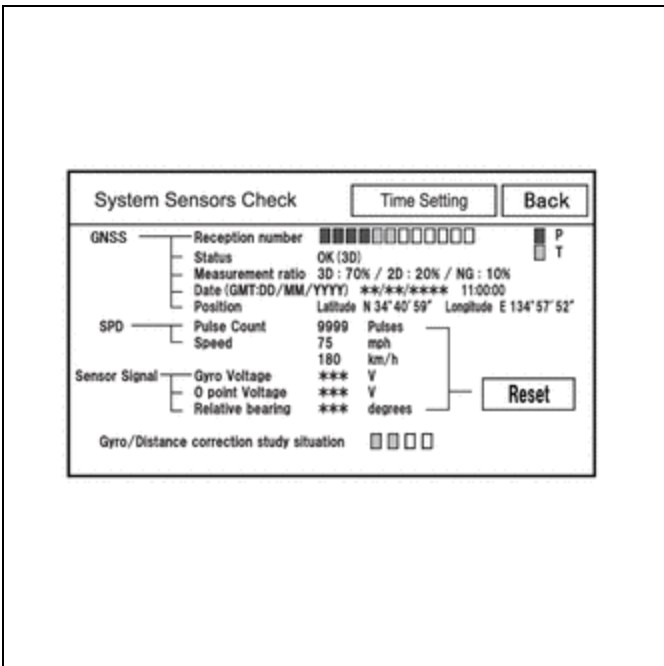
**NEXT** ► **GO TO STEP 4**

**4. CHECK VEHICLE SENSOR (SYSTEM SENSORS CHECK)**

**HINT:**

For enter diagnostic mode and screen transition, refer to [Click here](#) 

- (a) Enter diagnostic mode.
  - (1) Enter diagnostic mode.
  - (2) Select "Function Check/Setting" from the "Service Menu" screen.
  - (3) Select "System Sensors Check" from the "Function Check/Setting I" screen.



- (b) System sensors check
  - (1) Drive the vehicle and confirm that the displayed Speed changes in accordance with the vehicle driving condition.

RESULT	PROCEED TO
Speed changes	A
Speed does not change	B

**A** ► **REPLACE RADIO AND DISPLAY RECEIVER ASSEMBLY**

**B****5.****CHECK HARNESS AND CONNECTOR (COMBINATION METER ASSEMBLY - RADIO AND DISPLAY RECEIVER ASSEMBLY)**

Pre-procedure1

- (a) Disconnect the K18 combination meter assembly connector.
- (b) Disconnect the K50 radio and display receiver assembly connector.

Procedure1

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

Standard Resistance:

[Click Location & Routing\(K18,K50\).](#)[Click Connector\(K18\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K18-8 (+S) - K50-8 (SPD)	Always	Below 1 $\Omega$	$\Omega$
K18-8 (+S) or K50-8 (SPD) - Body ground	Always	10 k $\Omega$ or higher	k $\Omega$

Post-procedure1

- (d) None

**OK** **GO TO METER / GAUGE SYSTEM****NG** **REPAIR OR REPLACE HARNESS OR CONNECTOR**