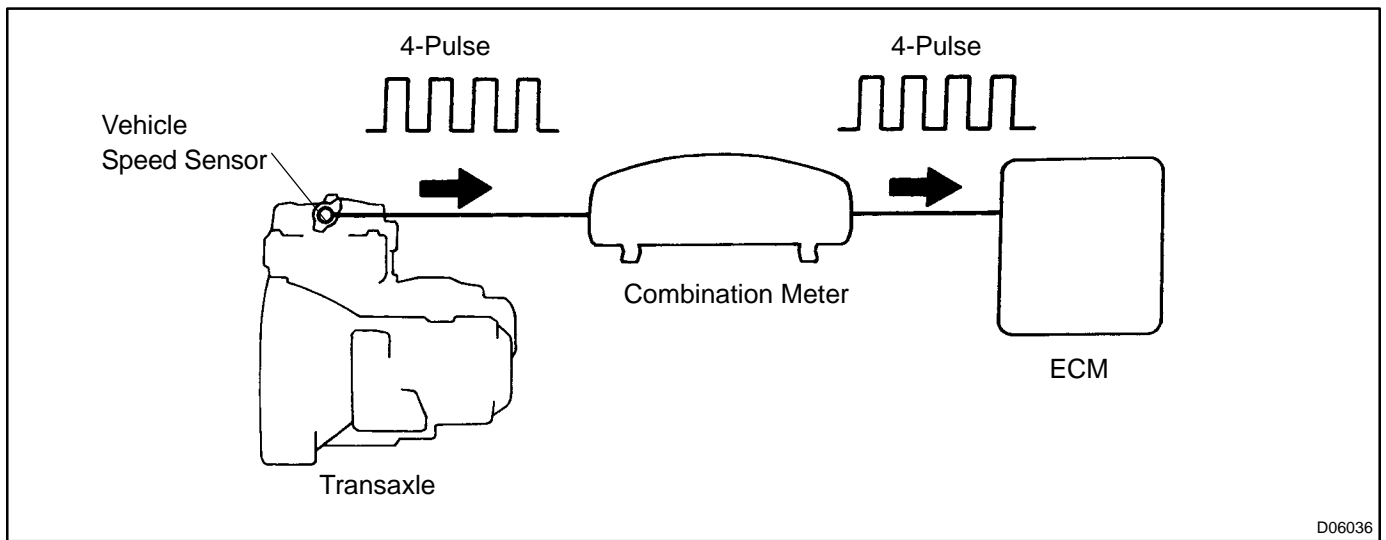


# CIRCUIT INSPECTION

<b>DTC</b>	<b>P0500</b>	<b>Vehicle Speed Sensor Malfunction</b>
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## CIRCUIT DESCRIPTION

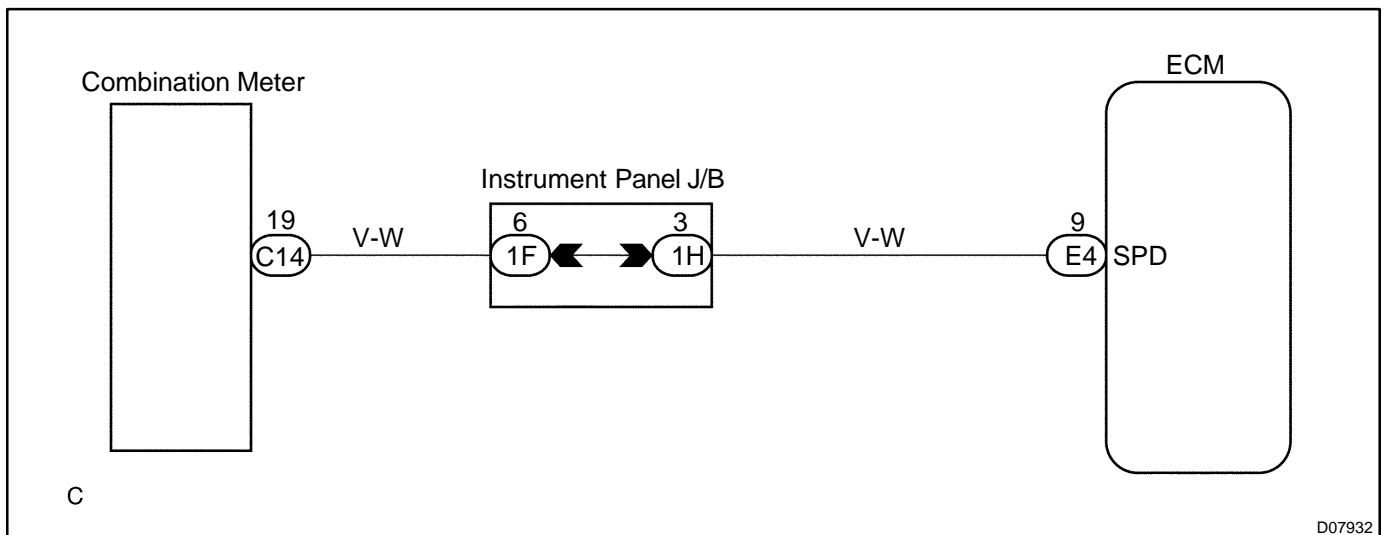
The vehicle speed sensor outputs a 4-pulse signal for every revolution of the transaxle output shaft. After this signal is converted into a more precise rectangular wave form by the wave form shaping circuit inside the combination meter, it is then transmitted to the ECM.



D06036

DTC No.	DTC Detecting Condition	Trouble Area
P0500	No vehicle speed sensor signal to ECM under condition (1) and (2); (2-trip detection logic) 1. Park/neutral position switch is OFF 2. Vehicle is being driven	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Open or short in vehicle speed sensor circuit</li> <li>• Vehicle speed sensor</li> <li>• ECM</li> <li>• Automatic transaxle (clutch, brake or gear etc.)</li> </ul>
	Clutch or brake slips or gear is broken	

## WIRING DIAGRAM



D07932

## INSPECTION PROCEDURE

<b>1</b>	<b>Check operation of speedometer.</b>
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**HINT:**

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected. When troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.

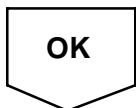
**CHECK:**

Drive the vehicle and check if the operation of the speedometer in the combination meter is normal.

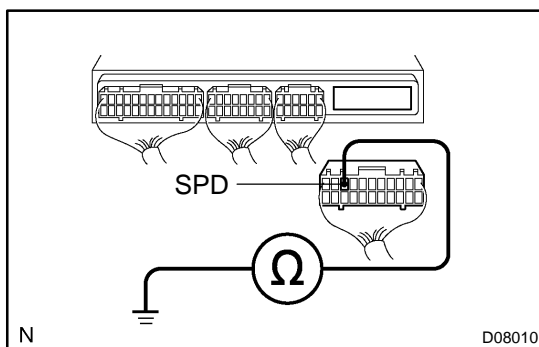
**HINT:**

The vehicle speed sensor is operating normally if the speedometer display is normal.

**NG** → **Check speedometer (See page BE-2 ).**



<b>2</b>	<b>Check for short in harness and connector between terminal SPD of ECM connector and body ground.</b>
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**PREPARATION:**

Disconnect the connector of the ECM.

**CHECK:**

Check continuity between terminal SPD of the ECM connector and body ground.

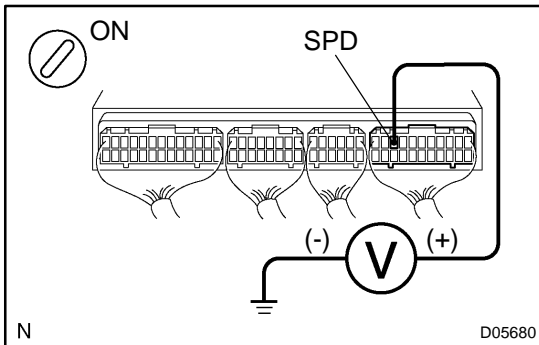
**OK:**

**No continuity (1M Ω or higher)**

**NG** → **Repair or replace harness or connector.**



**3 Check voltage between terminal SPD of ECM connector and body ground.**



**PREPARATION:**

Turn ignition switch ON.

**CHECK:**

Measure voltage between terminal SPD of ECM connector and body ground.

**OK:**

**Voltage: 10 - 14 V**

**NG**

**Check for open in harness and connector between instrument panel J/B and ECM (See page IN-29).**

**OK**

**4 Check for open in harness and connector between instrument panel J/B and combination meter (See page IN-29).**

**NG**

**Repair or replace harness or connector.**

**5 Check ECM (See page IN-29).**

**NG**

**Replace ECM.**

**OK**

**Check and repair transaxle (clutch, brake or gear etc.).**