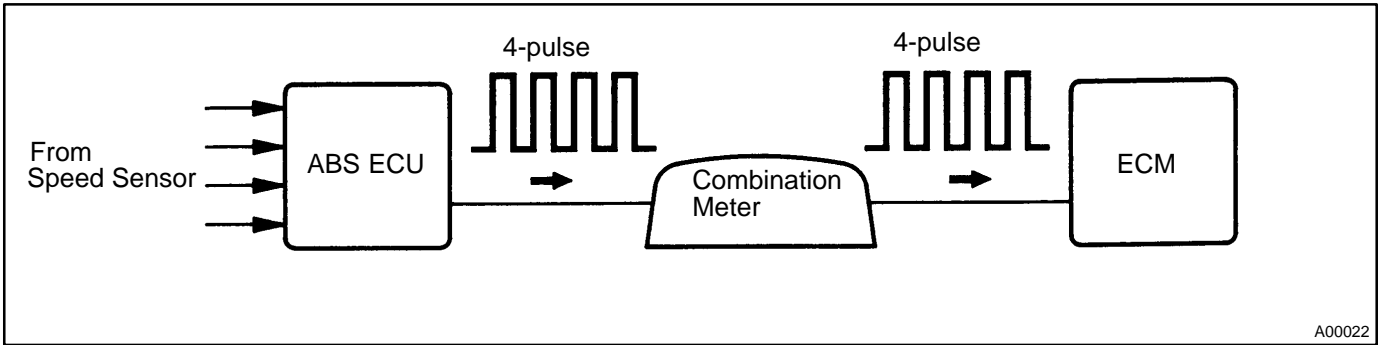


# CIRCUIT INSPECTION

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

The speed sensor for ABS detects the wheel speed and sends the appropriate signals to the ABS ECU. The ECU converts these signals into a 4-pulse signal and outputs it to the combination meter. After this signal is converted into a more precise rectangular waveform by the waveform shaping circuit inside the combination meter, it is then transmitted to the ECM. The ECM determines the vehicle speed based on the frequency of these pulse signals.

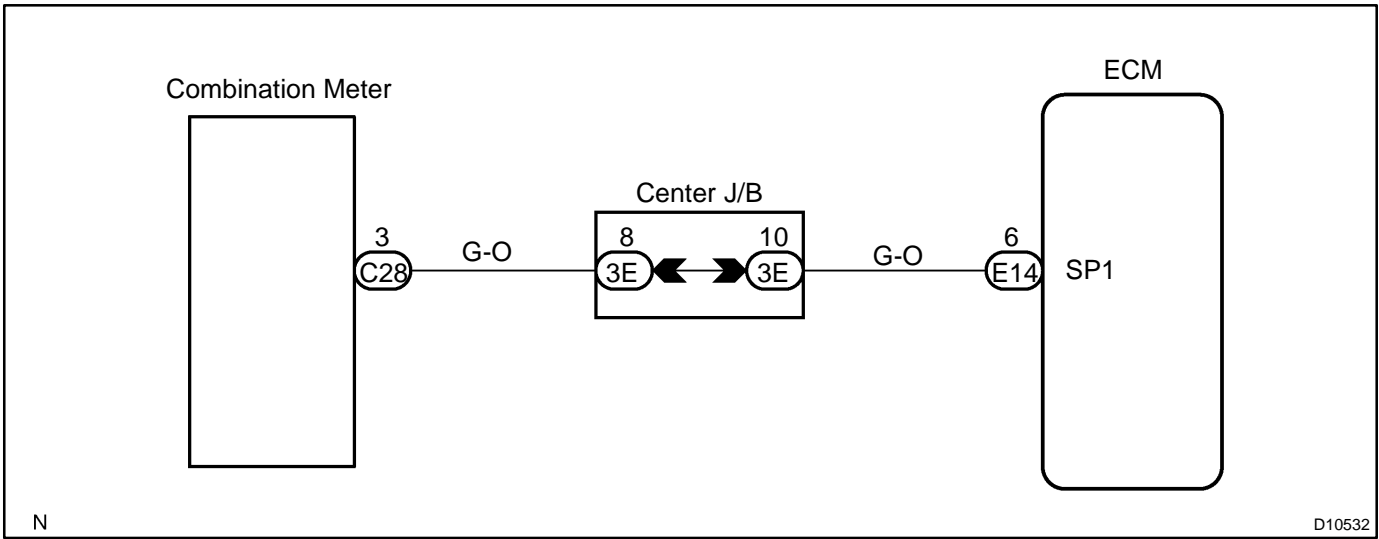


DTC No.	DTC Detecting Condition	Trouble Area
P0500	No vehicle speed sensor signal to ECM under conditions 1. and 2. (2-trip detection logic). 1. Park/neutral position switch is OFF. 2. Vehicle is being driven.	<ul style="list-style-type: none"> <li>• Open or short in No. 1 vehicle speed sensor circuit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

### HINT:

Check the No. 1 vehicle speed sensor when DTC P0500 (Vehicle Speed Sensor Malfunction) is output.

## WIRING DIAGRAM



## INSPECTION PROCEDURE

## 1 Check operation of speedometer.

**CHECK:**

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

**HINT:**

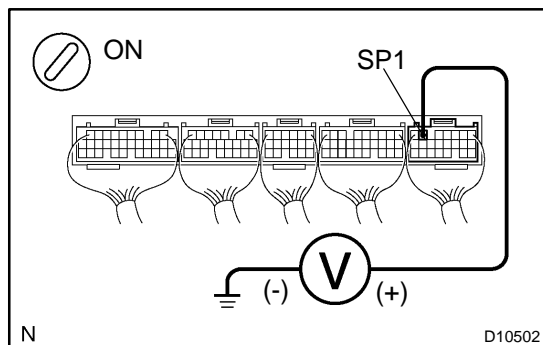
The vehicle speed sensor is operating normally if the speedometer display is normal.

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Check speedometer circuit (See page [BE-40](#) ).

OK

## 2 Check voltage between terminal SP1 of ECM connector and body ground.

**PREPARATION:**

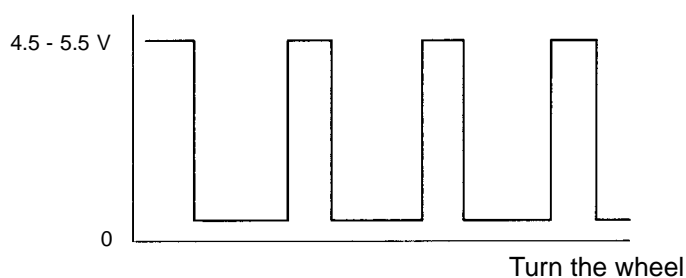
- Shift the shift lever to neutral.
- Jack up a rear wheels on one side.
- Turn the ignition switch ON.

**CHECK:**

Measure voltage between terminal SP1 of ECM connector and body ground when the wheel is turned slowly.

**OK:**

Voltage is generated intermittently.



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Check and repair harness and connector between combination meter and ECM (See page [IN-28](#) ).

OK

3	Check ECM (See page <a href="#">IN-28</a> ).
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Replace the ECM.

OK

Check and repair the transmission (clutch, brake or gear etc.).