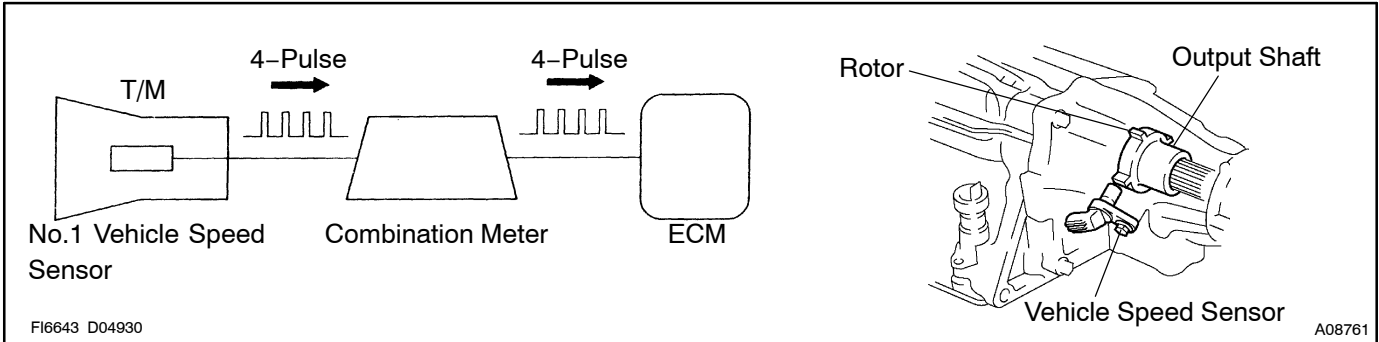


<b>DTC</b>	<b>P0500/42</b>	<b>Vehicle Speed Sensor Malfunction</b>
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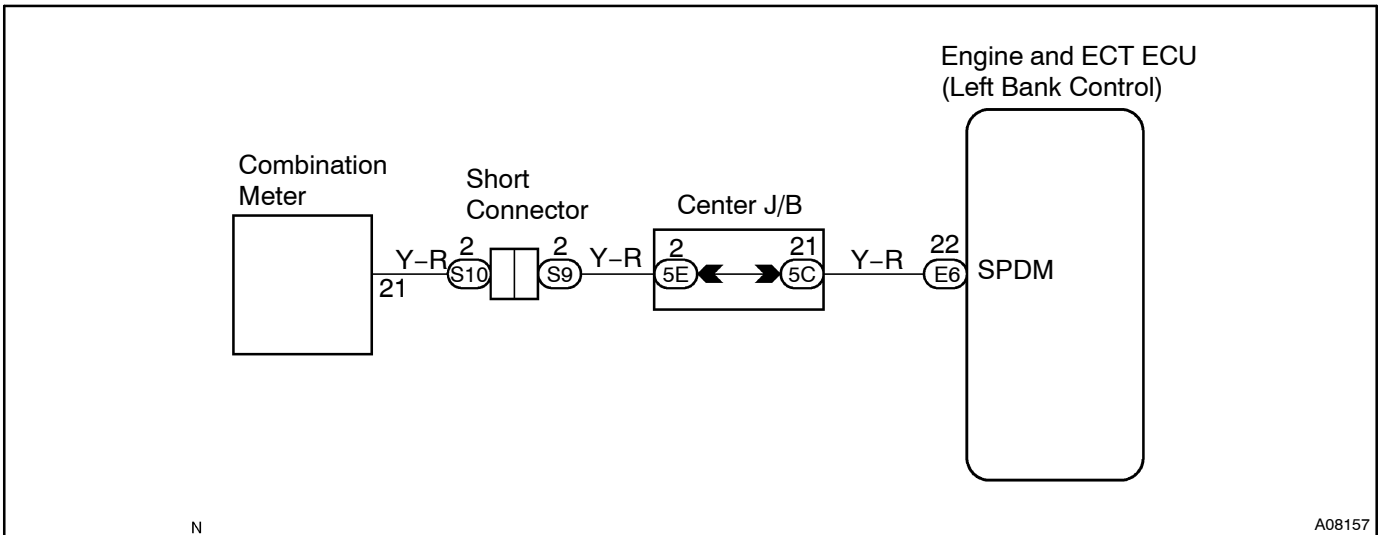
**CIRCUIT DESCRIPTION**

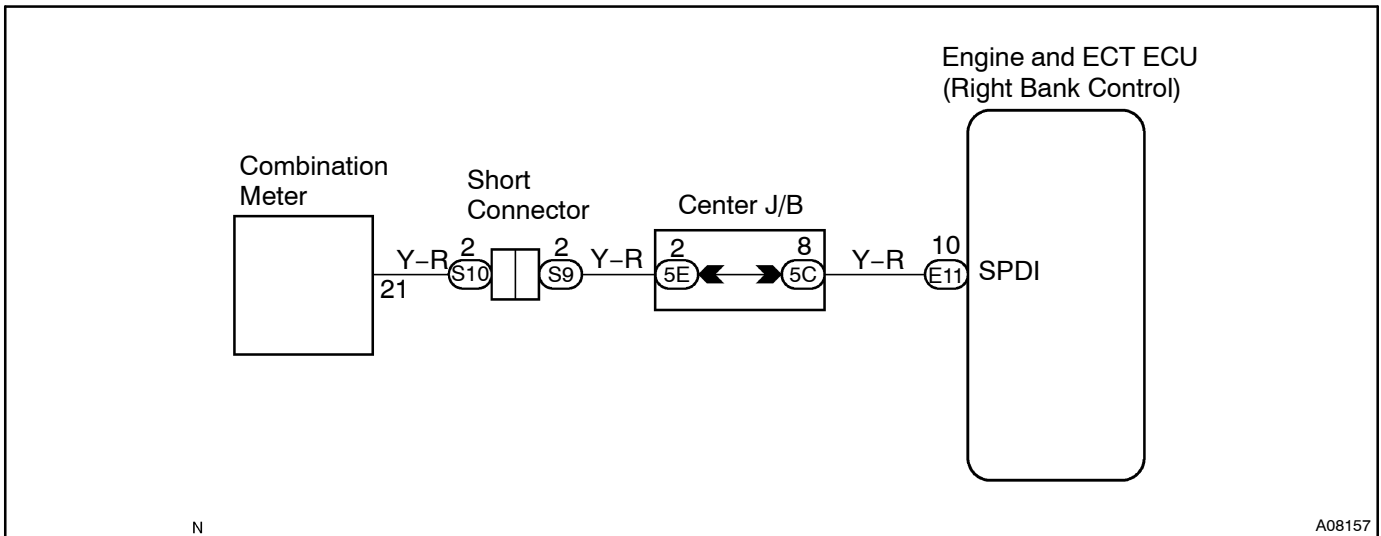
The vehicle speed sensor outputs a 4 – pulse signal for every revolution of the rotor shaft, which is rotated by the transmission output shaft via the driven gear. After this signal is converted into a more precise rectangular waveform by the waveform shaping circuit inside the combination meter, it is then transmitted to the engine ECU. The engine ECU determines the vehicle speed based on the frequency of these pulse signals.



DTC No.	DTC Detecting Condition	Trouble Area
P0500/42	No vehicle speed sensor signal to engine ECU under the following conditions: (2 trip detection logic) (a) Park/neutral position switch is OFF (b) Vehicle is being driven	<ul style="list-style-type: none"> <li>• Open or short in vehicle speed sensor circuit</li> <li>• Vehicle speed sensor</li> <li>• Combination meter</li> <li>• Engine ECU</li> </ul>

**WIRING DIAGRAM**





## INSPECTION PROCEDURE

### HINT:

Read freeze frame data using hand-held tester. 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 warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

<b>1</b>	<b>Check operation of speedometer.</b>
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### CHECK:

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

### HINT:

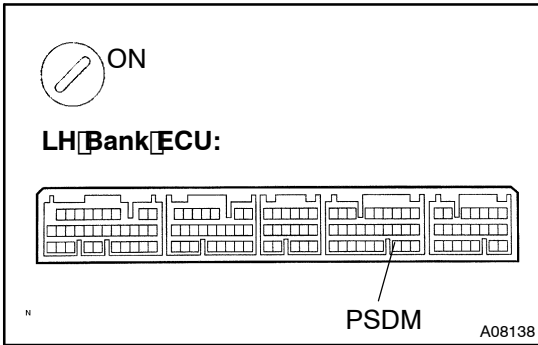
The No.1 vehicle speed sensor is operating normally if the speedometer display is normal.

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**Check speedometer circuit  
(See PUB. NO. RM 676E).**

OK

## 2 Check voltage between terminal SPDM of LH bank engine ECU and body ground.



### PREPARATION:

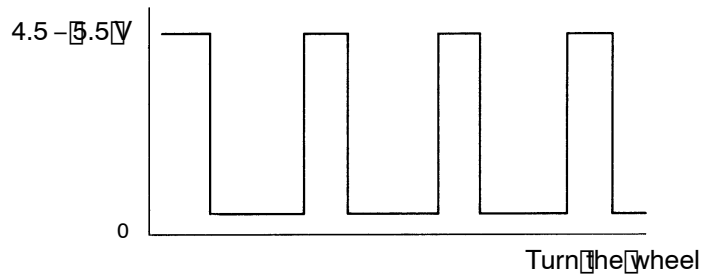
- Shift the shift lever to neutral position.
- Jack up one of rear wheels.
- Turn the ignition switch ON.

### CHECK:

Measure voltage between terminal SPDM of ECU 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 ECU.

OK

Check and replace ECU (See page IN-20).