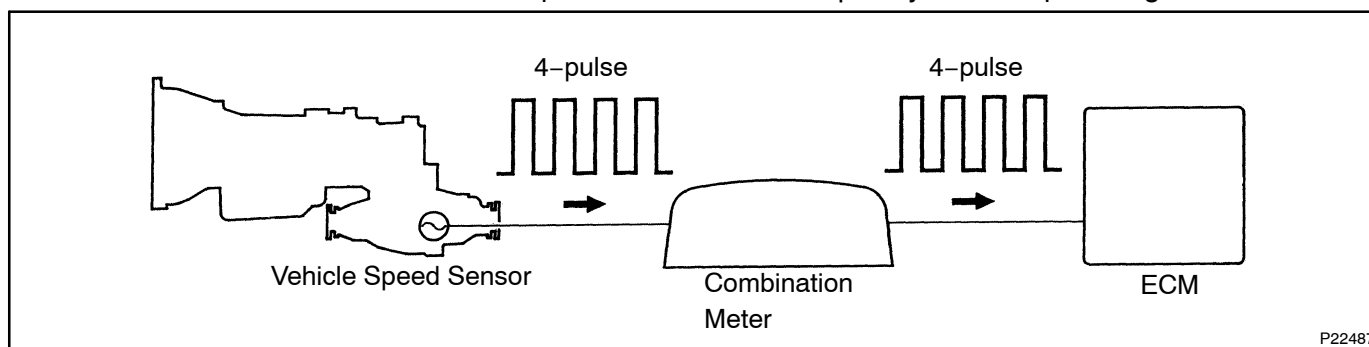


<b>DTC</b>	<b>42</b>	<b>VEHICLE SPEED SENSOR SIGNAL CIRCUIT MALFUNCTION</b>
------------	-----------	--

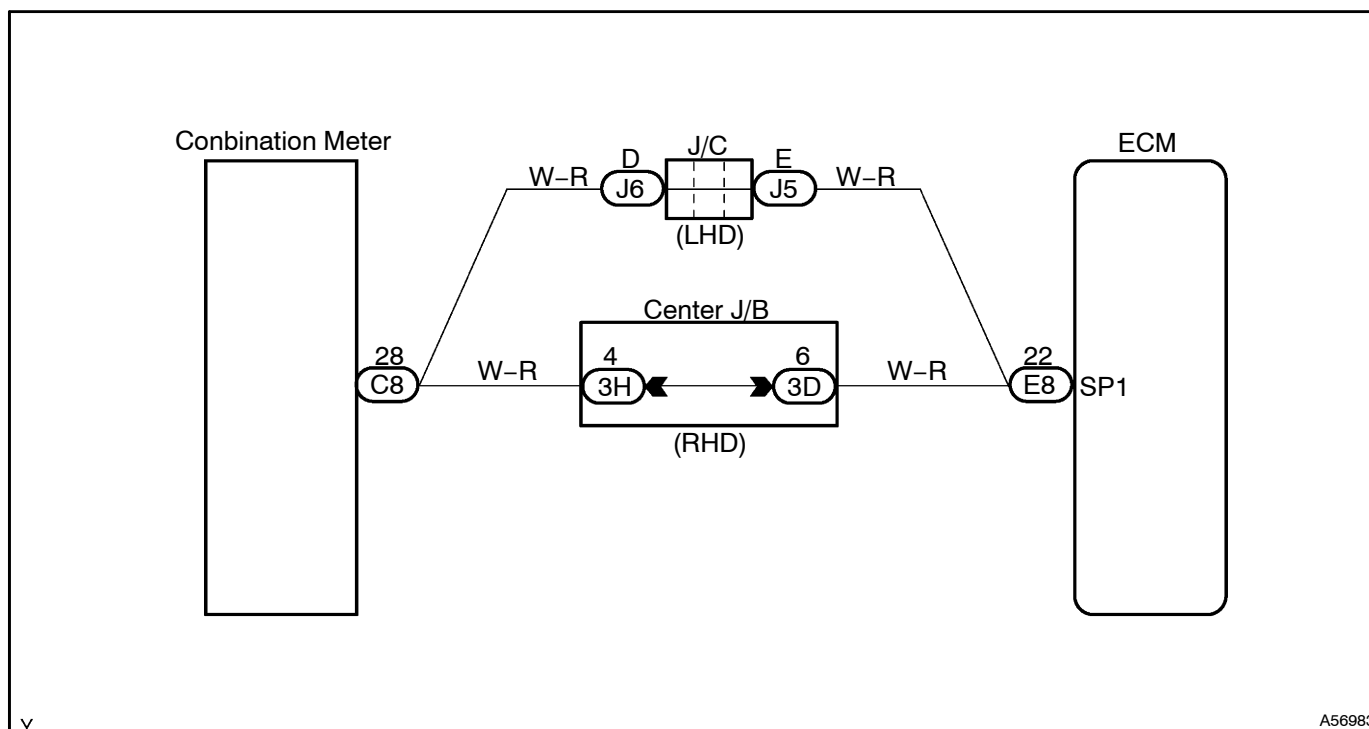
## CIRCUIT DESCRIPTION

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 ECM. The ECM determines the vehicle speed based on the frequency of these pulse signals.



DTC No.	DTC Detection Condition	Trouble Area
42	All conditions below are detected continuously for 8 sec. or more: (a) Vehicle speed signal: 0 km/h (0 mph) (b) Engine speed: 2,400 – 4,000 rpm (c) Engine coolant temp.: 60°C (176°F) or more (d) Accelerator pedal opening angle : 29 % or more	<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>• ECM</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 was warmed up or not, etc. at the time of the malfunction.

### 1 CHECK OPERATION OF SPEED METER

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

### HINT:

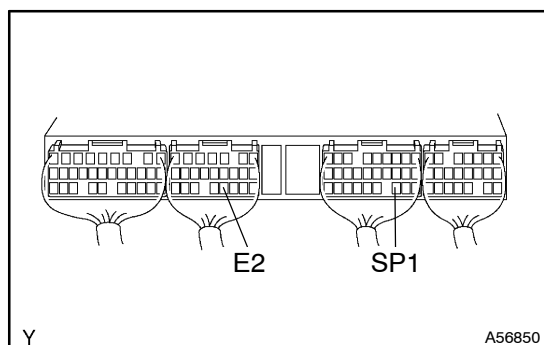
The vehicle speed sensor is operating normally if the speedometer display is normal.

NG

CHECK SPEED METER CIRCUIT

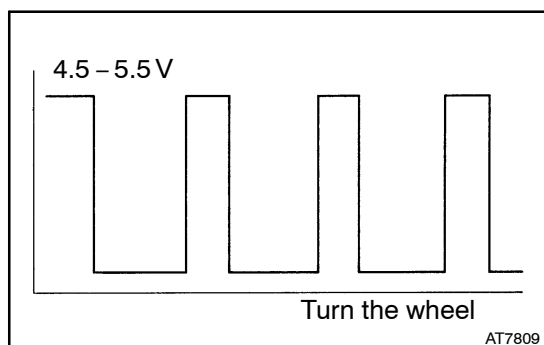
OK

### 2 INSPECT ECM



- Shift the shift lever to the neutral.
- Jack up one of the front wheels.
- Turn the ignition switch ON.
- Measure the voltage between terminal SP1 and E2 of the ECM connector when the wheel is turned slowly.

**Result: Voltage is generated intermittently.**

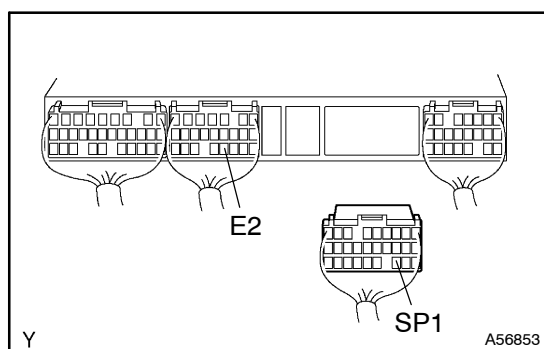


OK

CHECK AND REPLACE ECM

NG

### 3 CHECK HARNESS AND CONNECTOR (COMBINATION METER-ECM)



- (a) Disconnect the combination meter C8 connector. (See [page 71-19](#))
- (b) Disconnect the ECM E8 connector.
- (c) Check for open between the terminals SP1 of the ECM E8 connector and C8 of the combination meter connector. (Terminal arrangement on [05-656](#))  
**Resistance: 1  $\Omega$  or less**
- (d) Check for short between the terminals SP1 of the ECM E10 connector and E2 of the ECM E10 connector.  
**Resistance: 1 M $\Omega$  or more**

OK

CHECK AND REPLACE ECM

NG

REPAIR OR REPLACE HARNESS AND CONNECTOR