



# **Manual Transaxle System**

General Information



## DIAGNOSTIC ITEM

DTC	Diagnostic item
P0500	Vehicle Speed Sensor Malfunction

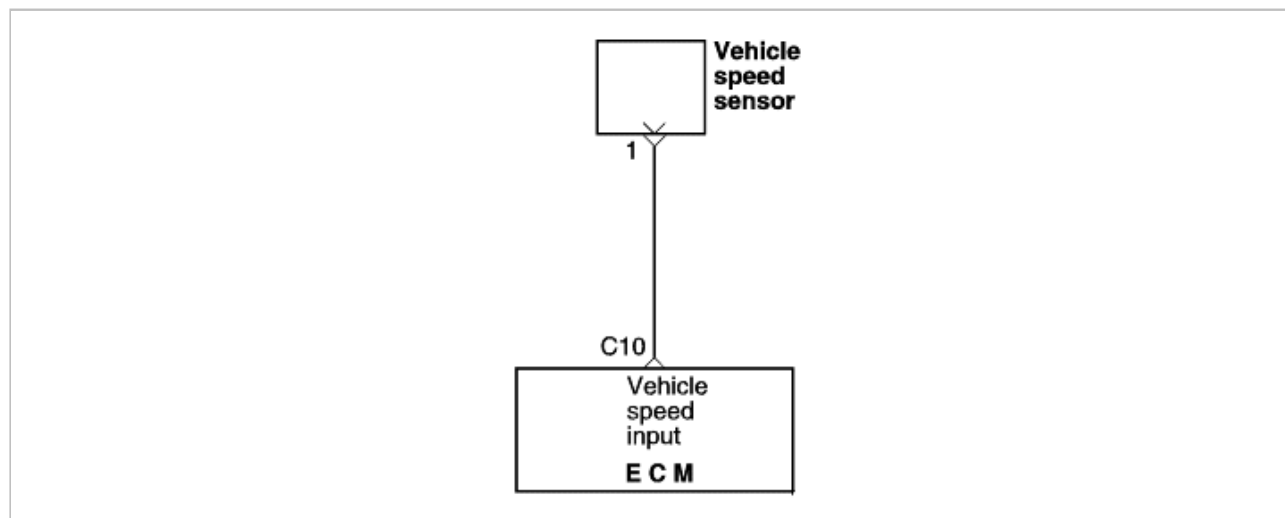
### DESCRIPTION

The vehicle speed sensor outputs a pulse signal while the vehicle is driven.  
The ECM checks whether the pulse signal is present.

### TROUBLESHOOTING GUIDE

DTC detection condition	Probable cause
<p>Normal Operation</p> <ul style="list-style-type: none"> <li>The vehicle speed sensor outputs a pulse signal while the vehicle is driven.</li> <li>The ECM checks whether the pulse signal is present.</li> </ul> <p>Normal Operation</p> <ul style="list-style-type: none"> <li>Closed throttle position switch: OFF</li> <li>Engine speed is 3,000 rpm or more.</li> <li>Engine load is 70% or more.</li> </ul> <p>Malfunction</p> <ul style="list-style-type: none"> <li>Sensor output voltage has not changed (no pulse signal is input) for 4 sec.</li> </ul>	<ul style="list-style-type: none"> <li>Failed vehicle speed sensor</li> <li>Open or shorted vehicle-speed sensor circuit, or loose connector</li> <li>Failed ECM</li> </ul>

### CIRCUIT DIAGRAM



### TEST PROCEDURE

- Turn the ignition switch on.
- Connect scan tool to data link connector.
- Verify DTC P0500 is set.

- Drive vehicle.
- Does speedometer operate OK?

**YES**

- Turn the ignition off.
  - Inspect between VSS and transaxle gear.
- Is the VSS/transaxle gear interface OK?

**NO**

Repair defective speedometer cable and/or drive gear parts. Clear code and verify VSS signal is within normal parameters.

**YES**

- Ignition off.
  - Disconnect the VSS.
  - Disconnect ECM connector.
  - Ground VSS connector harness terminal 1.
  - Measure resistance between ground and ECM harness connector terminal C10.
- Resistance measure should be approximately 1 ohm or less. Is it ?

**NO**

Repair interface between VSS and transaxle gear. Clear code and verify VSS signal is within normal parameters.



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YES

- Turn the ignition off.
- Disconnect the VSS.
- Disconnect the ECM.
- Measure resistance between VSS harness connector terminal 1 and ground. Resistance should indicate an open circuit. Does it?

YES

Verify ECM connector is secure. If OK, replace VSS with a known component of good quality. Clear code and verify VSS signal is within normal parameters. If problem persists, replace ECM.

NO

Repair wire between VSS harness connector terminal 1 and ECM harness connector terminal C10. Clear code and verify VSS signal is within normal parameters.

NO

Repair short to ground or another circuit in wire between VSS harness connector terminal 1 and ECM harness connector terminal C10. Clear code and verify VSS signal is within normal parameters.