



WORKSHEET 12 (On Car) *Speed Sensors*

Vehicle	Year/Prod. Date	Engine	Transmission
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Technician Objectives

With this worksheet, you will learn to test speed sensors using the required tools and equipment, retrieve and apply the needed service information, retrieve and interpret service data information.

Tools and Equipment

- Vehicle Repair Manual
- Vehicle EWD
- Diagnostic Tester
- DVOM
- Hand Tool Set

Section 1

The ECM needs to know the speed of many components such as the engine speed, vehicle speed, transmission component speed, etc.

Vehicle Speed Sensor

1. Connect the Diagnostic Tester Autoprobe and DVOM to the Vehicle speed sensor circuit at the ECM.

Connector no. _____ Pin no. _____ Wire Color _____

2. Set the Diagnostic Tester to the oscilloscope/autoprobe function, refer to Repair Manual for settings. Connect DVOM and set to AC volts, Hz.

3. Start the engine and drive the vehicle at 15 and 37 mph; draw or print the waveform for both vehicle speeds.

15 mph _____ Hz

37 mph _____ Hz

Input Turbine or Counter Gear Speed Sensor

1. The ECM compares the input turbine speed sensor with the No. 2 speed sensor to detect shift timing and control engine torque and hydraulic pressure.

2. Connect the Diagnostic Tester Autoprobe and DVOM to the Input Turbine speed sensor signal.

Connector no. _____ Pin no. _____ Wire Color _____

3. Set the diagnostic tester to the oscilloscope/autoprobe function. Set the DVOM to AC volts, Hz.

4. Start the engine with the transmission in P or N and observe the DT and DVOM.

5. With the transmission in P or N, does the DT display a waveform? Why?.

6. With the gear selector in Drive and the brakes applied, what happens to the waveform?

7. Drive the vehicle at 15 and 37 mph in 3rd gear and draw or print the waveform at the two speeds.

15 mph _____ Hz

37 mph _____ Hz
