

DIAGNOSIS AND TESTING (Continued)

**PINPOINT TEST SB:
SPEEDOMETER READS 0 MPH (km/h) AT ALL SPEEDS WHEN VEHICLE IN MOTION**

TEST STEP	RESULT	ACTION TO TAKE
SB1 VERIFY CONDITION		GO to SB2.
SB2 VERIFY DISPLAY PROVE OUT		
<ul style="list-style-type: none"> Turn ignition switch to RUN. Observe display (all segments ON, then OFF, and then normal display). Does display prove out properly? 	Yes No	GO to SB3. REPLACE cluster. ¹
SB3 CHECK ODOMETER		
<ul style="list-style-type: none"> Verify that odometer advances when vehicle is driven forward. Does odometer advance? 	No Yes	GO to SB4. REPLACE cluster. ¹
SB4 CHECK FUEL COMPUTER		
<ul style="list-style-type: none"> Test drive vehicle. Select TRIP DISTANCE on fuel computer. Distance should advance as vehicle is driven. Does distance advance? 	Yes No	REPLACE cluster. ¹ GO to SB5.
SB5 CHECK SPEED CONTROL		
<ul style="list-style-type: none"> Test drive vehicle and check operation of speed (control, if so equipped). Does speed control operate properly? 	Yes No	GO to SB10. GO to SB6.
SB6 CHECK WIRING TO SPEED SENSOR		
<ul style="list-style-type: none"> Disconnect connector to vehicle speed sensor. Using Rotunda Digital Volt-Ohmmeter 014-00407 or equivalent, measure the resistance between the two wires in the harness to the vehicle speed sensor. Resistance should be greater than 500 ohms. Is resistance greater than 500 ohms? 	Yes No	GO to SB7. SERVICE wiring Circuit 150, speed control, cluster for shorts.
SB7 CHECK VEHICLE SPEED SENSOR RESISTANCE		
<ul style="list-style-type: none"> Using Rotunda Digital Volt-Ohmmeter 014-00407 or equivalent, measure the resistance between the two wires in the harness to the vehicle speed sensor. Resistance should be 200 - 230 ohms. Is resistance within range? 	Yes No	GO to SB8. REPLACE vehicle speed sensor. CHECK speedometer operation.
SB8 CHECK DRIVEN GEAR AND RETAINER CLIP		
<ul style="list-style-type: none"> Disconnect vehicle speed sensor from transmission. Verify presence of driven gear with all teeth in good condition and the presence of retainer clip. Are driven gear and retainer clip OK? 	Drive gear / clip OK Drive gear / clip not OK	GO to SB9. REPLACE with proper gear and / or clip.
SB9 CHECK DRIVE GEAR ON TRANSMISSION		
<ul style="list-style-type: none"> Verify presence of drive gear on transaxle output shaft. Is drive gear OK? 	Drive gear present Drive gear not present	GO to SB10. SERVICE gear.
SB10 CHECK WIRING TO CLUSTER		
<ul style="list-style-type: none"> Reconnect vehicle speed sensor wiring. Disconnect battery ground cable. Remove cluster as outlined. Using Rotunda Digital Volt-Ohmmeter 014-00407 or equivalent, measure the resistance between Pins 12 and 8 (ground) of Connector A. Resistance should be 160 - 230 ohms. Is resistance within range? 	Resistance between 160 and 230 ohms Resistance not as specified	REPLACE cluster. ¹ SERVICE connectors / wiring from cluster to vehicle speed sensor Circuit 150. CHECK speedometer operation.

¹ Affix odometer sticker to door pillar.