

## DIAGNOSIS AND TESTING (Continued)

**Transaxle Solenoids and Sensors Resistance Tests**

- EPC Solenoid
  - Set ohmmeter to 100-200 ohm range.
  - Connect positive lead of ohmmeter to the VPWR jack.
  - Connect negative lead of ohmmeter to the EPC jack.
  - Record resistance.
  - Refer to the following charts for values.
  - If out of specification, perform Pinpoint Test E.

Solenoid	Solenoid Resistance (Ohms)
SS-1	15-25
SS-2	15-25
SS-3	15-25
TCC	0.98-1.6
EPC	3.23-5.5

- Solenoids (SS-1, SS-2, SS-3, TCC)
  - Set ohmmeter to 100-200 ohm range.
  - Connect positive lead of ohmmeter to the appropriate VPWR jack for solenoid being tested.
  - Connect negative lead of ohmmeter to the appropriate solenoid (SS-1, SS-2, SS-3, TCC) jack.
  - Record resistance.
  - Refer to the following chart for values.
  - If out of specification, perform Pinpoint Test A (SS-1, SS-2, SS-3); Perform Pinpoint Test C (TCC).

Solenoid	Solenoid Resistance (Ohms)
SS-1	15-25
SS-2	15-25
SS-3	15-25
TCC	0.98-1.6
EPC	3.23-5.5

- Transmission Oil Temperature (TOT)
  - Set ohmmeter to 1000 ohm range.
  - Connect ohmmeter positive lead to +TOT jack.
  - Connect ohmmeter negative lead to -TOT jack.
  - Record resistance. Resistance will vary with temperature.
  - Refer to the following chart for values.
  - If out of specification, perform Pinpoint Test B.

Temperature		Resistance
°C	°F	Ohms (K)
0-20	32-68	100K-37K
21-40	69-104	37K-16K
41-70	105-158	16K-5K
71-90	159-194	5K-2.7K
91-110	195-230	2.7K-1.5K
110-130	231-266	1.5K-0.8K

- Transmission Speed Sensor (TSS) - AXODE (AX4S)
  - Set ohmmeter to 1000 ohm range.
  - Connect positive lead of ohmmeter to +TSS jack.
  - Connect negative lead of ohmmeter to -TSS jack.
  - Record resistance.
  - TSS should be between 100-200 ohms.
  - If out of specification, perform Pinpoint Test F.

**Short to Ground and Solenoid Voltage Tests**

NOTE: LED will turn GREEN when solenoid activates and turn OFF when deactivated. LED will turn RED if an activated solenoid / harness is shorted to B+. LED will turn OFF if an activated solenoid / harness is shorted to ground or no continuity (open circuit).

1. Set tester Bench/Drive switch to BENCH mode.
2. Set voltmeter to 20 volt DC range.  
NOTE: TCC solenoid click may or may not be heard.
3. Connect voltmeter positive lead to solenoid signal+(VPWR). Connect voltmeter negative lead to solenoid negative. Depress the appropriate switch.
4. The LED should illuminate, voltage should change and an audible click may be heard. If LED does not illuminate, a short to ground condition exists.
5. Observe and record values.

**Dynamic Testing - Engine ON**

Dynamic testing is the final step in the transmission tester usage. It allows the transaxle to be proven out electronically and hydraulically.

**Transaxle Solenoid Cycling and Drive Test****Preliminary Set Up:**

1. Set Bench/Drive switch to DRIVE mode.
2. Rotate tester gear select switch to first gear position.
3. Place vehicle in PARK.
4. Start vehicle.