

DIAGNOSIS AND TESTING (Continued)

Transmission Tester Instructions

Using the Transmission Tester

The Rotunda Transmission Tester 007-00085 or equivalent allows a technician to operate the electrical portion of the transaxle independent of the vehicle electronics which allows the technician to determine specific transaxle concerns. The Transmission Tester usage is divided into five steps:

1. Preliminary Testing and Diagnosis
2. Installing the Transmission Tester
3. Static Testing - Engine OFF
4. Dynamic Testing - Engine Running
5. Removing the Transmission Tester and Clearing Diagnostic Trouble Codes (DTCs)

Preliminary Testing and Diagnosis

Before any diagnostic testing is done on a vehicle, some preliminary checks must be performed, as follows. Be sure to note findings, especially any DTC's found, for future reference.

- Check transaxle fluid level and condition.
- Check for add-on items (phones, computers, CB radio, etc).
- Visually inspect wiring harness and connectors.
- Check for vehicle modifications.
- Verify the shift linkage is properly adjusted.
- Verify customer concern.
 - Upshift, Downshift, Coasting, Engagement, Noise / Vibration
- Vehicle must be at normal operating temperature.
- Perform vehicle On-Board Diagnostic.
- Record all DTC's.
- Service all non-transaxle codes.

Installing the Transmission Tester (Set-Up Procedures)

Installing the transmission tester at the transaxle connector allows separation of the vehicle electronics from transaxle electronics. Disconnecting normal vehicle electronics will set additional DTC's and cause firm shifts. (Disconnecting the transaxle connector defaults transaxle to maximum line pressure).

NOTE: During tester usage, additional DTC's may be set. Therefore, it is important that all codes are erased after servicing the codes. To verify elimination of all codes rerun On-Board Diagnostic.

NOTE: The following manuals should be available to assist in diagnosis of electronically controlled transaxles:

- Powertrain Control / Emissions Diagnosis Manual²⁴.
- Transmission Tester Manual (provided with tester).

CAUTION: Do not attempt to pry off transaxle connector with a screwdriver. This will damage the connector and could result in transaxle concerns. If you have transmission heat shields, remove them first. Always install heat shields after servicing transaxle.

1. Disconnect vehicle wiring harness at transaxle connector.
2. Turn tester solenoid select switch to the OHMS CHECK position.

CAUTION: Route interface cables away from any heat sources.

3. Install appropriate overlay onto tester. Connect appropriate interface cable to transmission tester and then to appropriate transaxle connectors.

CAUTION: Route gauge line away from any heat sources.

4. Install line pressure gauge into line pressure tap on transaxle. Refer to Diagnostic Pressure Chart (Routine 401).
5. Plug transmission tester power supply plug into cigar lighter. At this time, all LEDs should illuminate for a short period and then turn off. This is the tester internal circuit check.
6. Set Bench / Drive switch to BENCH mode.

Static Testing - Engine Off

Static testing procedures allow for shop testing of the transaxle in vehicle or on the bench. Completion of these tests prove out transaxle electronics.

CAUTION: For resistance checks, ensure the tester solenoid select switch is set to the OHMS CHECK position or damage to ohmmeter may result.

Resistance / Continuity Tests

- Refer to the proper Pinpoint Test to be performed based on the DTC's displayed.
- Using Rotunda Digital Volt / Ohmmeter 014-00407 or equivalent and the transmission tester, perform the Pinpoint Tests as indicated based on the DTC's which were displayed.
- Service as indicated by the Pinpoint Tests. Always retest and road test vehicle after any service.

²⁴ Can be purchased as a separate item.