SECTION 2: Diagnostic Methods Procedure revision date: 08/22/2002

Scan Tool Hookup

The NGS Tester or generic scan tool must be connected to the Data Link Connector (DLC) for communication with the vehicle.



Data Link Connector

The DLC is located in the passenger compartment. It is attached under the dash-board and accessible from the driver's seat.

The DLC is rectangular in design and capable of accommodating up to 16 terminals. The connector has keying features to allow easy connection. The vehicle connector and the test equipment connector have latching features that ensure the test equipment connector will remain mated when properly connected.

The NGS Tester is capable of many functions. Some of these are as follows.

- Monitor, Record and Playback of PIDS
- Diagnostic Test Modes/Clear Diagnostic DTCs (PCM Reset)
- Digital Measurement System (DVOM, Duty Cycle and Pulse Width Meter)
- Diagnostic Monitoring Test Results (for OBD II On-Board Monitoring)
- On-Board System Readiness (OBD II Monitor Completion Status)
- Clear and Retrieve 4WABS Codes

Some of these functions are described in this section.

Refer to the NGS Tester Instruction Manual or scan tool manufacturer's manual for specific information on scan tool setup and operation. Contact Rotunda for the latest version of the NGS Tester Instruction Manual at 1-800-ROTUNDA.

Note: You must recycle the key between each self test.

New Generation Star (NGS) Tester

- Key off.
- Verify that the proper memory (EPROM) card is inserted in the NGS Tester.
- Connect DLC adapter cable to the NGS Tester.
- Connect NGS Tester DLC adapter cable securely into the vehicle DLC.
- Connect the NGS Tester power supply cable to vehicle battery power supply through cigarette lighter, at the vehicle battery with alligator clip adapter, at the dashboard power point or into the pigtail power connector attached to the DLC adapter cable.
- Turn ignition key to the on position or start vehicle if necessary. The NGS Tester is ready to communicate with vehicle computers.
- Follow instructions on the NGS Tester or in the diagnostic manual.
- To disconnect NGS Tester, turn ignition key to the off position and disconnect NGS Tester from DLC and power supply.

Generic Scan Tool

• Refer to scan tool manufacturer's manual for specific cables and/or adapters required for scan tool hookup.

Communication Error

It is possible to get a communication error from a scan tool when initiating a test or viewing PIDs. The communication error could be caused by operator error, the vehicle wiring or connectors, or the powertrain control module (PCM) and other control modules connected to the DLC wiring. The PCM will respond to a scan tool whenever the scan tool requests a test. Some are normal responses to valid requests. The others are communication error responses. If the scan tool displays any of the communication error responses reinitialize the scan tool. If the error is still present, refer to <u>Section 5</u>, GO to Pinpoint Test <u>QA</u>, after checking scan tool connections, cable/adapters and entry of vehicle information. Verify auxiliary powertrain control (rpm control) is off when trying to perform self tests.