SECTION 2C: Diagnostic Methods

Freeze Frame Data

Description

Freeze Frame Data allows access to emission related values from specific generic PIDs. These values are stored the instant an emission related DTC is stored in Continuous Memory. This provides a snapshot of the conditions that were present when the DTC was stored. Once one set of freeze frame data is stored, this data will remain in memory even if another emission related DTC is stored. There are no fuel system DTCs for the 7.3L diesel. When a DTC associated with the freeze frame is erased or a PCM memory reset is performed, new freeze frame data can be stored again. In the event of multiple emission related DTCs in memory, always note the DTC for the freeze frame data. Load, RPM and VSS are the only parameters used for the 7.3L Diesel; all other parameters are to be ignored.

FREEZE FRAME DATA TABLE

PID#	Acronym	Description	Measurement Units
0004	LOAD	Calculated Load Value	PERCENT
000C	RPM	Engine RPM	R/MIN
000D	VSS	Vehicle Speed	MPH-KMH

Accessing Freeze Frame PID Data

New Generation Star

- Perform the necessary vehicle preparation and visual inspection.
- · Connect scan tool to DLC.
- Select NEW VEHICLE, YEAR & MODEL.
- Select VEHICLE & ENGINE SELECTION menu (optional).
- Select year, engine, model with the appropriate qualifier, if needed (i.e., transmission, 49 States, California).
- Follow operating instructions from the menu.
- Select GENERIC OBD II FUNCTIONS.
 - Press CONT button if all OBD II monitors are not complete.
- Turn key on.
- Select FREEZE FRAME PID REQUEST.

Generic Scan Tool

Refer to the manufacturer's manual for specific instructions.

OBD II PID Data Monitor

The PID monitor for OBD II offers real time evaluation of several emissions-related parameters. Most of these are related to the HO2S and EGR, for which the diesel has no equivalent. The only parameters which apply to 7.3L diesel applications are CCNT, IAT, LOAD, MAP, MIL, RPM and VSS.

Accessing the PID Data Monitor

New Generation Star

- Perform the necessary vehicle preparation and visual inspection.
- Connect scan tool to DLC.
- Select VEHICLE & ENGINE SELECTION menu (optional).
- Select NEW VEHICLE, YEAR & MODEL.

- Select year, engine, model with the appropriate qualifier, if needed (for example, transmission, 49 States, California).
- Follow operating instructions from the menu.
- Select GENERIC OBD II FUNCTIONS.
- Select PID DATA MONITOR, choose only diesel-related PIDs.

Generic Scan Tool

• Refer to the manufacturer's manual for specific instructions.

OBD II Pending Codes

Pending codes are codes that have only set during one drive cycle and may not have set the MIL yet. While some codes can set the MIL during one drive cycle, they are not recorded as OBD II DTCs until failing during a second drive cycle. These DTCs may be identified using the Retrieve Pending Codes Feature. Additionally, they will be found in the vehicle-specific mode RETRIEVE/CLEAR CONTINUOUS CODES from the instant that the code is set.

This function will only report pending failures that have occurred during the present drive cycle, but not indicate single failures that happened on any previous drive cycle.

Accessing the PID Data Monitor

New Generation Star

- Perform the necessary vehicle preparation and visual inspection.
- Connect scan tool to DLC.
- Select VEHICLE & ENGINE SELECTION menu (optional).
- Select NEW VEHICLE, YEAR & MODEL.
- Select year, engine, model with the appropriate qualifier, if needed (for example, transmission, 49 States, California).
- Follow operating instructions from the menu.
- Select GENERIC OBD II FUNCTIONS.
- Select RETRIEVE PENDING CODES.

Generic Scan Tool

• Refer to the manufacturer's manual for specific instructions.