1989 Dodge or Ram Truck Dakota 2WD V6-239 3.9L VIN X FI

Vehicle > ALL Diagnostic Trouble Codes (DTC) > Testing and Inspection > Manufacturer Code Charts > Driveability (DR) Tests

DR-36 EGR VALVE OPERATION

Perform Driveability Test 34 & 35, before proceeding.

This test must be performed with a WARM engine.

1. Disconnect vacuum supply line from EGR back pressure valve, then connect a vacuum gauge to that line and start engine.

2. With engine at normal operating temperature, disconnect idle speed motor, then raise engine speed to 1500 RPM and watch vacuum gauge.

3. If vacuum gauge did not read manifold vacuum, proceed to step 15.

4. If vacuum gauge did not read manifold vacuum, then quickly return to 0, test vacuum lines, bleed filters and solenoid for restrictions, repair or replace as necessary.

5. If vacuum gauge read manifold vacuum and returned quickly to 0, disconnect vacuum gauge and reconnect line to EGR assembly.

- 6. Disconnect vacuum line from EGR valve and connect vacuum gauge to line.
- 7. Raise engine speed to 1500 RPM and watch vacuum gauge.
- 8. If vacuum gauge does not read manifold vacuum, replace EGR/Backpressure assembly, then proceed to Test 44.
- 9. If vacuum gauge reads manifold vacuum, connect an auxiliary vacuum supply to EGR valve.
- 10. Slowly apply vacuum to valve while noting engine speed.
- 11. If engine speed did not drop after 2.5---3.5 inches of vacuum was applied, proceed as follows:

a. Turn engine Off and remove EGR/backpressure assembly. Inspect manifold passages to see if they are pluggec and repair as necessary, then reinstall valve with new gasket and proceed to 45.

b. If passages were not plugged, replace EGR/backpressure assembly, then proceed to Test 45.

12. If engine speed dropped after 2.5---3.5 inches of vacuum was applied, turn engine Off and apply 10 inches of vacuum to EGR and hold.

- 13. If vacuum held for two minutes without leaking down, proceed to Test 37.
- 14. If vacuum would not hold for two minutes, replace EGR/backpressure assembly, then proceed to 45.
- 15. Turn engine Off and disconnect vacuum connector to EGR solenoid.

16. Connect vacuum gauge to top port on connector, then start engine and check reading on vacuum gauge.

17. If vacuum gauge does not read manifold vacuum, repair pinched or restricted vacuum hose from solenoid to manifold tree, then proceed to Test 45.

- 18. If vacuum reads manifold vacuum, connect extra hose to center port of solenoid connector.
- 19. With EGR valve end still disconnected, blow on extra hose.
- 20. If vacuum hose was open, replace plugged solenoid, then proceed to Test 45.
- 21. If hose was closed, repair restricted hose from EGR solenoid to valve, then proceed to Test 45.