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## EGR valve not closing properly

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Topic number	LI14.20-N-038941
Version	1
Design group	14.20 Exhaust gas recirculation
Date	06-28-2006
Validity	Sprinter MY04-06 with OM647
Reason for change	

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### Complaint:

- Check Engine lamp in instrument cluster lights up
- Engine intermittently in limp-home mode or engine has no power for a short time
- engine intermittently fails to respond to accelerator
- DTCs: P1403-004, P14003-008, 14003-016, 14003-032 or P2527-001, P2527-002, P2527-004, P2527-008

### Cause:

DTCs P1403-016 / P1403-032 and P2527-001 / P2527-002 may have been set due to short-term overvoltage or undervoltage in the on-board electrical system.

DTCs P1403-004 / 1403-008 and P2527-004 / P2527-008 may have been set due to short-term dirt particles in the EGR valve.

### Remedy:

Erase DTCs and warm up the vehicle for approx. 10 minutes. While stationary, engage drive position "D" with both the service and the parking brake applied (CAUTION: Risk of accident if the brakes are not applied!!). Run the engine for approx. 3 minutes in this condition. Finally engage "N" (neutral) and over a period of approx. 1 minute, periodically apply full throttle for approx. 0.5 seconds at approx. 1500 to 2000 rpm.

These test steps produce high pressure differentials at the EGR valve with simultaneous, rapid valve position changes from closed to the approx. 3/4 open state. If no DTCs are set, it can be assumed that the EGR valve is electrically and mechanically OK. It is not necessary to replace the EGR valve.

### NOTE:

Currently 80% of EGR valves submitted for inspection are found to be OK ("trouble not found"). The fault memories of half of these OK parts contained indications of temporary fault entries. These had been set prior to the repair work due to short-term circumstances arising during normal operation (on-board electrical system undervoltage, dirt, etc.). However, the faults themselves were certainly no longer present when the replacement was carried out! By following the test described above you can help to reduce the removal of non-defective components of this kind to a minimum in future!

Symptoms
Power generation / Engine management / Engine running / Cuts out intermittently
Power generation / Engine management / Engine running / Runs rough/shakes
Power generation / Engine management / Engine running / RPM reduces with delay
Power generation / Engine management / Engine management indicator lamp / Engine diagnosis / Lights up
Power generation / Engine management / Engine management indicator lamp / Electronic diesel control / Lights up

Power generation / Engine management / Engine performance / Goes into limp-home mode

Power generation / Engine management / Engine performance / Cuts off

Power generation / Engine management / Engine performance / Poor acceleration

## Control unit/fault code

Control unit	Fault code	Fault text
CR common rail (CR3_NAFTA)	2527 (001)	Component Y85 (Exhaust gas recirculation positioner) is faulty. Short circuit to positive
CR common rail (CR3_NAFTA)	2527 (002)	Component Y85 (Exhaust gas recirculation positioner) is faulty. Short circuit to ground
CR common rail (CR3_NAFTA)	2527 (004)	Component Y85 (Exhaust gas recirculation positioner) is faulty. Open circuit
CR common rail (CR3_NAFTA)	2527 (008)	Component Y85 (Exhaust gas recirculation positioner) is faulty. Thermal overload of control module A94 (CDI control module)