

XENTRY

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Engine may be in limp-home mode and/or engine indicator lamp lights up, various fault codes present in area of exhaust gas recirculation (EGR system) or in charge air system

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Topic number	LI14.20-N-058842
Version	1
Design group	14.20 Exhaust gas recirculation
Date	04-03-2014
Validity	MODEL 906 with ENGINE 642
Reason for change	Content of cause and remedy revised.
Reason for block	

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**Complaint:**

Engine may be in limp-home mode and/or engine indicator lamp lights up, various fault codes present in area of exhaust gas recirculation (EGR system) or in charge air system.

**Cause:**

The exhaust gas recirculation cooling solenoid valve (Y27/13) sticks in the valve seat and fails to admit the vacuum for the vacuum unit of the bypass flap.

This can cause sooting in the EGR or charge air tract.

**Remedy:**Important:

- Important: Only replace components which do not function correctly due to sooting.
  - In cases where the vehicle is under warranty please replace the affected parts.
  - In cases where the vehicle is no longer covered by warranty the components could be cleaned with a mild aqueous cleaning solution.
1. Check vacuum unit for bypass flap at EGR cooler for leaks (see 01.jpg).

Note: To do this, a vacuum of 600 mbar must be built up at the EGR cooler bypass flap vacuum unit using the vacuum pump (W 001 589 73 21 00).

Specified values:

- The vacuum must be held for a period of 5 s and may drop by no more than max. 5 mbar.

Measurement results:

- If the results deviate from the specified values, the bypass flap vacuum unit must be replaced (see AR14.20-D-7661SG).
- If the specified values are met/achieved, continue with the next step.

2. Perform test of exhaust gas recirculation cooling solenoid valve (Y27/13) using diagnostic system.

Note: Use the diagnostic system for this.

Important: When the exhaust gas recirculation cooling solenoid valve (Y27/13) is actuated, the bypass flap vacuum unit and the linkage should move.

3. If the linkage of the bypass flap vacuum unit does not move, replace the exhaust gas recirculation cooling solenoid valve (Y27/13).
4. Connect diagnostic system and read out and erase fault memory (see AD00.00-D-2000-04SD).
5. If the linkage of the bypass flap vacuum unit moves, check charge air system and exhaust gas recirculation system for leaks.
6. If there are no leaks, please submit a PTSS case.

Note: The following information must be included with the PTSS case:

Diagnostic data:

- Quick test & Control unit log
- Fault freeze frame data
- Development data diagnosis sheet (DAS) or performance data acquisition (Xentry Diagnostics)
- Test logs: Dynamic EGR test, hot film MAF sensor, intake port shutoff (if present)

Vehicle data:

- Repair history
- Vehicle operating conditions: miles/day, freeway/urban/start-stop etc., customer's name

Attachments	
File	Designation
01.jpg	Exhaust gas recirculation system (EGR), charge air system

Symptoms
Power generation / Engine management / Engine management indicator lamp / Engine diagnosis / lit
Power generation / Engine management / Engine performance / Goes into limp-home mode

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other make part
					Refer to EPC for required replacement parts.		X

WIS-References			
Document number	Title	Note	Allocation

# XENTRY

AR14.20-D-7661SG	Remove/install exhaust gas recirculation bypass flap		Remedy
AD00.00-D-2000-04SD	Connect STAR DIAGNOSIS, read out fault memory		Remedy

Validity		
Vehicle	Engine	Transmission
Sprinter III	642	*