

Handling of Fault Codes for 'Position sensor of cranks-haft' in combination with Fault Codes for 'Output stage fu-el injector' in the CDI control unit on certain Sprinter Vans

Topic number	LI07.10-N-075862
Version	1
Function group	07.10 - Electronic engine control
Date	2/23/23
Validity	Model 906 (MY14-16) with engine OM651 Model 907 (MY21) with engine OM642 or engine OM651
Reason for change	

Complaint

MIL illuminated.

Fault codes for 'position sensor of crankshaft' in combination with fault codes for 'Output stage fuel injectors' are set in the CDI control unit (N3/33, N3/47, or N3/28).

N3/33 (Model 906), N3/47 (Model 907) - Motor electronics 'CDI43' for combustion engine 'OM651' (CDI):

- P033600 - Component 'Position sensor of crankshaft' has a malfunction.
- P0335FA - Component 'Position sensor of crankshaft' has an electrical fault.
- P0611E9 - Component 'Output stage fuel injectors' has a malfunction.
- P0611E3 - Component 'Output stage fuel injectors' has a malfunction.
- P0611E2 - Component 'Output stage fuel injectors' has a malfunction.
- P0611E1 - Component 'Output stage fuel injectors' has a malfunction.
- P0611E0 - Component 'Output stage fuel injectors' has a malfunction.

N3/28 (Model 907) - Motor electronics 'CDI61NFZ' for combustion engine 'OM642' (CDI)

- P30021F - Component 'Position sensor of crankshaft' has a malfunction.
- P300225 - Component 'Position sensor of crankshaft' has an electrical fault.
- P300EE8 - Component 'Output stage fuel injectors' has a malfunction.
- P300EE4 - Component 'Output stage fuel injectors' has a malfunction.
- P300EE6 - Component 'Output stage fuel injectors' has a malfunction.
- P300EE5 - Component 'Output stage fuel injectors' has a malfunction.
- P300EE3 - Component 'Output stage fuel injectors' has a malfunction.
- P300EE2 - Component 'Output stage fuel injectors' has a malfunction.
- P300EE1 - Component 'Output stage fuel injectors' has a malfunction.

XENTRY TIPS

NOTE: Customers may come to dealer indicating their vehicle was recently worked on by an ISP (Independent Service Provider) and mention that a TSB

(Technical Service Bulletin) was used by the ISP to help diagnose their complaint. The Mercedes-Benz and Freightliner mentioned TSBs are attached to this LI, or can be accessed via

the OBD Clearinghouse at <https://www.obdclearinghouse.com/>.

Attachments	
File	Description
TSB_Freightliner Sprinter_Crankshaft Sensor Plausibility Check_Fuel Injection Monitoring.pdf	Freightliner Sprinter TSB as posted to OBD Clearinghouse
TSB_Mercedes-Benz Sprinter_Crankshaft Sensor Plausibility Check_Fuel Injection Monitoring.pdf	Mercedes-Benz Sprinter TSB as posted to OBD Clearinghouse

Cause

The fault codes for 'Output stage of fuel injectors' are set by mistake when the following fault codes set in the mentioned engine control unit:

N3/33 (Model 906), N3/47 (Model 907) - Motor electronics 'CDI43' for combustion engine 'OM651' (CDI):

- P033600 - Component 'Position sensor of crankshaft' has a malfunction.
- P0335FA - Component 'Position sensor of crankshaft' has an electrical fault.

N3/28 (Model 907) - Motor electronics 'CDI61NFZ' for combustion engine 'OM642' (CDI)

- P30021F - Component 'Position sensor of crankshaft' has a malfunction.
- P300225 - Component 'Position sensor of crankshaft' has an electrical fault.

Remedy

Note: Ignore the fault codes for the 'output stage fuel injectors' if fault codes are present for 'position sensor of crankshaft'.

Information: Fault codes referring to 'position sensor of crankshaft' need to be evaluated and diagnosed using XENTRY Diagnosis (see AD00.00-D-2000-04SD).

Strict compliance with the Guided Test steps provided in XENTRY Diagnosis is absolutely essential.

WIS-References		
Document number	Title	Note
AD00.00-D-2000-04SD	Connect STAR DIAGNOSIS and read out fault memory	

Symptoms

Power generation > Engine management > Indicator lamp > Engine diagnosis > lit

XENTRY TIPS

Control unit/fault code	
Control unit	Fault text
N3/28 - Motor electronics 'CDI61NFZ' for combustion engine 'OM642' (CDI) (CR61NFZ)	<p>P30021F - Component 'Position sensor of crankshaft' has a malfunction.</p> <p>P300225 - Component 'Position sensor of crankshaft' has an electrical fault.</p> <p>P300EE8 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P300EE4 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P300EE6 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P300EE5 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P300EE3 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P300EE2 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P300EE1 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p>
N3/33 - Motor electronics 'CDI43' for combustion engine 'OM651' (CDI) (CR43)	<p>P033600 - Component 'Position sensor of crankshaft' has a malfunction.</p> <p>P0335FA - Component 'Position sensor of crankshaft' has an electrical fault.</p> <p>P0611E9 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P0611E3 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P0611E2 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P0611E1 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p> <p>P0611E0 - Component 'Endstufe Kraftstoffinjektoren' has a malfunction.</p>

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note