Switchability of transfer case

Topic number LI28.19-N-071366

Version 1

Function group 28.19 Transfer case - electrical system

Date 06-19-2020

Validity Model 907 with code ZG3 (4x4 - High Range Transfer ca-

se with Low Range)

Reason for change Content updated

Reason for block

Complaint:

At times, all-wheel drive and/or gear reduction cannot be switched on or off.

Engagement is sporadic or erroneous

The following fault codes may be present in the transfer case control unit (N45):

P127364 The signal from the sensor rotor has a malfunction. There is an implausible signal.

P127419 The control lines for the actuator of the all-wheel drive have a malfunction. The limit value for current is exceeded.

P127414 The control lines for the actuator of the all-wheel drive have a malfunction. There is a short circuit to ground or an open circuit.

P127911 The "all-wheel drive" indicator lamp has a malfunction. There is a short circuit to ground.

Cause:

Unfavorable position of transfer case absolute sensor (turning angle sensor) (B57).

Remedy:

Update software of transfer case control unit (N45).

If the problem occurs repeatedly or the software A907 902 90 03 is already present in the transfer case control unit (N45), please create a TIPS case.

NOTE:

Do not replace any parts!

Symptoms

Power transmission / Transfer case / Function / No power flow

Power transmission / Transfer case / Function / Does not shift (low range)

Power transmission / Transfer case / Function / Electrical fault/Fault code

Power transmission / Transfer case / Function / Off-road gear cannot be engaged

Control unit/fault code		
Control unit	Fault code	Fault text
N45 - All-wheel drive (VG) (VG907)	P127419	The control lines for the actuator of the all-wheel drive have a malfunction. The limit value for current has been exceeded.
N45 - All-wheel drive (VG) (VG907)	P127364	The signal of the sensor rotor has a malfunction. There is an implausible signal.
N45 - All-wheel drive (VG) (VG907)	P127414	The control lines for the actuator of the all-wheel drive have a malfunction. There is a short circuit to ground or an open circuit.
N45 - All-wheel drive (VG) (VG907)	P127911	The indicator lamp 'All-wheel drive' has a malfunction. There is a short circuit to ground.

Operation numbers/damage codes						
Op. no.	Operation text	Time	Damage code	Note		
54-0650	ON-BOARD POWER SUPPLY VOLTA- GE MAINTAIN (WHEN CHECKING/TE- STING AND TROUBLESHOOTING)	0.1				
54-1011	PERFORM QUICKTEST	0.2				
54-0990	PROGRAM, CODE TRANSFER CASE CONTROL UNIT (AFTER QUICKTEST)	0.3	53142 90			

Validity		
Vehicle	Engine	Transmission
Sprinter 907	*	*