Vehicle intermittently does not start - Fault codes P1A2129+ P1A2162 in battery management system (N82/2)

Topic number	LI54.10-P-062631		
Version	3		
Function group	54.10 Battery, power supply, voltage converter		
Date	08-16-2018		
Validity	451ev3 (smart electric drive 3rd generation) up to VIN # 816666		
Reason for change	Damage code revised		
Reason for block			

Complaint:

Vehicle intermittently does not start in combination with a HV fault message (Powerplant Engine Off) in instrument cluster. After several further start attempts, the vehicle can usually be restarted.

The fault profile does not occur while driving.

The fault codes P1A2129 + P1A2162 are logged as current and stored in the battery management system control unit (N82/2).

Cause:

Detached ceramic particles in the mechanism of the main contactor can cause it to jam or to switch with a delay.

Remedy:

In these cases, the high-voltage battery (N82/2) must be replaced.

Symptoms
Power generation / Engine management / Display message / Displays fault code
Power generation / Engine management / Indicator lamp / Engine diagnosis / lit
Power generation / Engine management / Function / Malfunction
Power generation / Engine management / Electric drive / Electric machine / Malfunction
Overall vehicle / Power supply / High-voltage on-board electrical system / High-voltage battery / Malfunction
Overall vehicle / Power supply / High-voltage on-board electrical system / High-voltage battery / Display message

Control unit/fault code		
Control unit	Fault code	Fault text
N82/2 (Battery management system control unit) (BMS)	P1A2129	The contactor for the high-voltage battery has a malfunction. There is an invalid signal.
N82/2 (Battery management system control unit) (BMS)	P1A2162	The contactor for the high-voltage battery has a malfunction. The signal comparison is faulty.

XENTRY TIPS

Operation numbers/damage codes						
Op. no.	Operation text	Time	Damage code	Note		
54-1152	REMOVE/INSTALL HIGH-VOLTAGE BATTERY	23	54719 73			