Engine does not start, or various fault messages in instrument cluster immediately after engine start

Topic number	LI46.35-P-055485
Version	1
Design group	46.35 Elec tric steering
Date	06-28-2013
Validity	Model 204.031/231/331 with code (211) Direct steering Model 212.055/059/073/098/255/259/273/298 with code (211) Direct steering Model 207.373/473 with code (211) Direct steering Model 231.457/473
Reason for change	

Reason for block

Complaint:

Engine does not start, or various fault messages in instrument cluster immediately after engine start and servo assistance is reduced.

The following display messages may appear:

- Red message "Power Steering Malfunction - See Operator's Manual" including acoustic warning

- Red or yellow message "ESP / ABS Currently Unavailable - See Owner's Manual", sometimes with acoustic warning

- White message about tire pressure monitor or run flat indicator: "Tire Pressure Loss Warning Defective" or "Tire Pressure Monitor Defective"

In addition, the indicator lamps of the following systems may light up:

- Brakes / ABS / ESP / ESP Off / engine diagnosis

Furthermore:

- The chassis CAN is partially or completely disrupted

- Several control units (e.g. the electric power steering, ESP, engine etc.) cannot be interrogated or are not listed in the quick test

- Various CAN communication errors from other control units may be logged (see list "Control unit / Fault code")

Cause:

Software of electric power steering.

Remedy:

The following procedure must be followed:

1.) Unplug power supply connector to steering, wait 5 seconds and reconnect

Note: Observe WIS document AH54.00-P-0001-01A

2.) Perform software update of electric power steering (ES) control unit via "Adaptations"

Model series 204/207/212:

The required software version is A212 902 90 06

- Xentry Diagnostics DVD version 11/2012 with add-on 2589

- Xentry Diagnostics DVD version 09/2012 with add-on 2588 Model series 231:

The required software version is A231 902 91 01

- Xentry Diagnostics DVD version 11/2012 with add-on 2582

- Xentry Diagnostics DVD version 09/2012 with add-on 2581

If communication with the electric power steering (ES) control unit is not possible after the voltage reset, or if the chassis CAN is disrupted, the cause is not attributable to the steering -> Establish and rectify the cause of the CAN fault in the usual way.

Symptoms
Chassis/suspension / Steering system / Steering System Function / Support
Chassis/suspension / Steering system / Steering System Function / Stiff movement
Chassis/suspension / Steering system / Steering System Display / Pow. steer. faulty Serviced Required

Control unit/fault code		
Control unit	Fault code	Fault text
EFB - Electric parking brake (N128) (EPKB166) (SL (231))	U102788	Chassis CAN bus OFF fault
IC - Instrument cluster (A1) (IC_204)	U010087	Communication with the control unit 'combustion engine' has a malfunction. The message is missing. (NOT(///ComDat/ Asam%203D%20Server.xml#data/IC_204/IC_204%20base/Guel- tigkeiten/nicht_fuer_197_ECELL))
IC - Instrument cluster (A1) (IC_204)	U010100	Communication with control unit "Transmission" has a malfuncti- on (NOT(#data/IC_204/IC_204_Mid_Line_AJ08_0/Gueltigkei- ten/U010100%20Getriebe))
IC - Instrument cluster (A1) (IC_204)	U103208	Chassis CAN communication has a malfunction. There is a signal fault or the message is faulty.
ME - Motor electronics 'ME1778' for combustion engi- ne 'M277' (N3/10) (SL (231))	U015587	Communication with the instrument cluster has a malfunction. The message is missing.
ME - Motor electronics 'ME1778' for combustion engi- ne 'M277' (N3/10) (SL (231))	U016887	Communication with the electronic ignition lock has a malfuncti- on. The message is missing.
ME - Motor electronics 'ME1778' for combustion engi- ne 'M277' (N3/10) (SL (231))	U014687	Communication with the central gateway has a malfunction. The message is missing.
ME - Motor electronics 'ME1778' for combustion engi- ne 'M277' (N3/10) (SL (231))	U01558F	Communication with the instrument cluster has a malfunction. The signal or message is erratic.
PTS - PARKTRONIC (N62) (PTS246) (C (204),SL (231))	U013100	Communication with control unit "Power steering" has a malfunc- tion
Driver-side SAM - Front signal acquisition and actuation mo- dule (N10/1) (SAMF_212)	U041500	Implausible data were received from control unit 'ESP®'
VGS - Fully integrated trans- mission control (Y3/8n4) (VGSNAG2) (C (204),E (212), E (207))	C426	The start enable signal was not issued by control unit 'Drive aut- horization system'.
EFB - Electric parking brake (N128) (EPKB166) (SL (231))	U040100	Implausible data were received from control unit 'combustion en- gine'.
VGS - Fully integrated trans- mission control (Y3/8n4)	C126	CAN communication with control unit 'N80 (Steering column tube module control unit)' has a malfunction.

XENTRY

(VGSNAG2) (C (204),E (212), E (207))		
VGS - Fully integrated trans- mission control (Y3/8n4) (VGSNAG2) (C (204),E (212), E (207))	C155	CAN communication with control unit 'A1 (Instrument cluster)' has a malfunction.
VGS - Fully integrated trans- mission control (Y3/8n4) (VGSNAG2) (C (204),E (212), E (207))	C121	CAN communication with the traction system has a malfunction.
VGS - Fully integrated trans- mission control (Y3/8n4) (VGSNAG2) (C (204),E (212), E (207))	C141	CAN communication with control unit 'N73 (Electronic ignition lock control unit)' has a malfunction.
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW231)	U103288	Chassis CAN communication has a malfunction. Bus OFF
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW231)	U118200	The chassis CAN network management is unstable
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW231)	U103788	Communication with the chassis CAN bus 2 has a malfunction. Bus OFF
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW_204)	U118200	The chassis CAN network management is unstable
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW_204)	U102700	Chassis CAN bus OFF fault _
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW_212)	U103788	Communication with the chassis CAN bus 2 has a malfunction. Bus OFF
EFB - Electric parking brake (N128) (EPKB166) (SL (231))	U041500	Implausible data were received from control unit 'ESP®'.
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW_212)	U118200	The chassis CAN network management is unstable
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW_212)	U102700	Chassis CAN bus OFF fault _
CGW [ZGW] - Central gateway (CGW [ZGW]) (CGW_212)	U103288	Chassis CAN communication has a malfunction. Bus OFF
EFB - Electric parking brake (N128) (EPKB166) (SL (231))	U102700	Chassis CAN bus OFF fault
EFB - Electric parking brake (N128) (EPKB166) (SL (231))	U103200	Chassis CAN communication has a malfunction.
EFB - Electric parking brake (N128) (EPKB166) (SL (231))	U040200	Implausible data were received from control unit 'Transmission'.
ES - Electrical power steering (N68) (EPS212)	U000100	Drive train CAN communication has a malfunction.
ES - Electrical power steering (N68) (EPS218) (C (204),E (212),E (207))	U000100	Drive train CAN communication has a malfunction.
IC - Instrument cluster (A1) (IC_204)	U013187	Communication with control unit "Power steering" has a malfunc- tion. The message is missing.

XENTRY

Work unit	S			
Op. no.	Operation text	Time	Damage code	Note
54-0991	CONTROL UNIT: INSTALL SOFT- WARE (AFTER QUICK TEST)		46494 90	

WIS-References			
Document number	Title	Note	Allocation
AH54.00-P-0001-01A	Note on avoidance of dama- ge to electronic components due to electrostatic dischar- ge		Remedy

dity		
Vehicle	Engine	Transmission
204.031	*	*
204.231	*	*
204.331	*	*
207.373	*	*
207.473	*	*
212.055	*	*
212.059	*	*
212.073	*	*
212.098	*	*
212.255	*	*
212.259	*	*
212.273	*	*
212.298	*	*
231.457	*	*
231.473	*	*