

ESP, BAS, PRE-SAFE - Fault message in instrument cluster

Topic number	LI54.18-P-057974
Version	6
Design group	54.18 Cable harnesses
Date	07-19-2016
Validity	Model 117, 156, 176, 246 with engine 270, 607, 651
Reason for change	Notes adapted
Reason for block	

Complaint:

ESP®, BAS, PRE-SAFE®, HOLD function, Hill-Start Assist and ESP® trailer stabilization are unavailable due to a malfunction. Also the adaptive brake lights, Adaptive Brake Assist and/or ATTENTION ASSIST may have failed or be deactivated. The brake system continues to operate with normal effectiveness. The support functions listed may have failed, but are available again after an ignition off/on cycle.

One or more of the faults relating to the accelerator pedal (B37) listed under 'Control unit / Fault code' are stored in the engine control unit. Consequential faults may be stored in the ESP; see also under 'Control unit / Fault code'.

Cause:

The fault entry could have been caused by occasional transition resistance at contacts.

Remedy:

If all the test steps stored in Xentry Diagnostics have been performed and no component faults were found, the following work must be carried out:

- Check contacts of accelerator pedal plug connector (B37) for widening/damage! Make sure that testing is performed using the correct contact spring (here MLK1.2) from the electrics case, otherwise the contact could be damaged! If damage/widening is found, the female contacts must be replaced.
- Disconnect engine control unit "plug connector - F and M" once and reconnect.

Engine 651 only:

If the fault occurs again, or if this is a reoccurrence of the same problem, the relevant female contacts of the engine control unit connector "F" must be replaced. The repair may only be performed by specialist personnel and the instructions in the attachment must be followed!

Notes:

Contact spray must never be used on contacts on the engine wiring harness. The use of contact cleaners can cause consequential damage!

Please do not replace any components!

XENTRY TIPS

Attachments	
File	Description
651,270,274_Tausch Kontaktbuchse_german.pdf	Instructions: Replace female contact - German
651,270,274_Change female contact_english.pdf	Instructions: Replace female contact - English

Symptoms
Power generation / Engine management / Indicator lamp / Engine diagnosis / lit
Chassis/suspension / Brake system / Brakes/traction regulation system / Brake assist system BAS / Display message / Brake assist - not available
Chassis/suspension / Brake system / Brakes/traction regulation system / Starting-off aid / Nonfunctional
Chassis/suspension / Brake system / Brakes/traction regulation system / Brake assist system BAS / Indicator lamp / Goes on
Chassis/suspension / Brake system / Brakes/traction regulation system / Electronic Stability Program ESP / Indicator lamp / Goes on
Chassis/suspension / Brake system / Brakes/traction regulation system / Electronic Stability Program ESP / Display message / Display text, yellow/white / Unavailable - ESP - See Operator's Man.
Communication/information / Warning and control system / COLLISION PREVENTION ASSIST / Warning system nonfunctional

Control unit/fault code		
Control unit	Fault code	Fault text
N3/10 - Motor electronics 'MED40' for combustion engine 'M274' (ME)	P213800	The values from the position sensors of the accelerator pedal are implausible relative to each other. _
A90 - Control unit 'COLLISION PREVENTION ASSIST' (SG-AWF) (FCW246)	U0401FC	Chassis CAN bus : CAN signal 'Static engine torque' from control unit 'Motor electronics' is implausible.
N3/9 - Motor electronics 'CRR1' for combustion engine 'OM607' (CDI)	P022664	Fault of function monitoring of electronic accelerator There is an implausible signal.
N30/4 - Electronic stability program (ESP®) (ESP9MFA)	C03A400	The CAN message from control unit 'Engine' is faulty.
N3/9 - Motor electronics 'CDID3' for combustion engine 'OM651' (CDI) (CRD3)	P213862	The values from the position sensors of the accelerator pedal are implausible relative to each other. The signal comparison is faulty.
N128 - Electric parking brake (EFB) (EPKB166)	U010000	No CAN message was received from control unit 'Engine'.
N3/9 - Motor electronics 'CDID3' for combustion engine 'OM651' (CDI) (CRD3)	P212714	Position sensor 2 for the accelerator pedal has a short circuit to ground. There is a short circuit to ground or an open circuit.
A90 - Control unit 'COLLISION PREVENTION ASSIST' (SG-AWF) (FCW246)	U0401FF	Chassis CAN bus : CAN signal 'Position of accelerator pedal' from control unit 'Motor electronics' is implausible.
A90 - Control unit 'COLLISION PREVENTION ASSIST' (SG-AWF) (FCW246)	U0416FD	Chassis CAN bus : No CAN message was received from control unit 'Electronic stability program'.

XENTRY TIPS

A90 - Control unit 'COLLISION PREVENTION ASSIST' (SG-AWF) (FCW246)	U0401FE	Chassis CAN bus : CAN signal 'Accelerator pedal sensor (raw value)' from control unit 'Motor electronics' is implausible.
--	---------	---

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 002 982 58 26			Female contact MLK1.2S ----- 0.5mm ²		"B37 - Accelerator pedal"	X
A 000 982 30 26			Female contact MLK1.2S ----- 0.75mm ²		"B37 - Accelerator pedal"	X
A 001 545 50 80			Single-wire seal		"B37 - Accelerator pedal"	X
W00058913990 0			Wiring harness repair kit, basic		To be ordered as special tool!	
W22058904990 0			Wiring harness repair kit, supplement for passenger cars		To be ordered as special tool!	
W22058901994 0			Wire stripper		To be ordered as special tool!	
A 021 545 01 26			Female contact (Kostal connector) MCP1.2 (0.5-0.75mm ²)		For engine control unit connector M/F - See attachment	X
A 021 545 05 26			Female contact (Kostal connector) MCP1.2 (0.25-0.35 mm ²)		For engine control unit connector M/F - See attachment	X
A 007 989 07 85			Fabric tape		See attachment	X
A 004 997 98 90			Cable tie		For engine control unit connector M/F - See attachment	X
W22058901998 4			Crimping set MLK 1.2 ELA		Special tool "B37 - Accelerator pedal"	
A 020 545 93 26			Female contact (Tyco connector) MCP1.2 (0.25-0.35mm ²)		See attachment	X
A 020 545 49 26			Female contact (Tyco connector) MCP1.2 (0.5-0.75mm ²)		See attachment	X

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
			54581 73	Diesel engine control unit
			598BF 74	Connector/line F for gasoline engine control unit
			59202 74	Connector/line for accelerator pedal sensor
			598DF 74	Connector/line F for diesel engine control unit

WIS-References			
Document number	Title	Note	Allocation

XENTRY TIPS

AR00.19-P-0100A	Wiring harness general repair methods		Remedy
AR00.19-P-0120A	Remove contacts from connectors, couplings		Remedy
WS00.19-P-0002B	220 589 02 99 00 Wiring harness repair kit		Remedy
WS00.19-P-0006B	220 589 04 99 00 Wiring harness repair kit, supplement for passenger cars		Remedy