

Display message "Coolant temperature too high" appears in multifunction display

Topic number	LI54.15-P-067157
Version	2
Function group	54.15 Fuse and relay box
Date	10-25-2017
Validity	Model 205, 213 and 253 with engine 274
Reason for change	Formulation adjusted
Reason for block	

Complaint:

Display message "Coolant temperature too high" appears in multifunction display.

The workshop diagnosis indicates that the coolant temperature is too high due to a malfunction of the circulation pump.

The following fault codes are stored in the engine control unit:

- P260000: The output for the circulation pump "Coolant" has an electrical fault or an open circuit
- P260200: The output for the circulation pump "Coolant" has a short circuit to ground

Attachments	
File	Description
Display message.jpg	Coolant temperature display message

Cause:

Under Analysis.

Remedy:

Results during troubleshooting:

The fuse (f107) at the engine fuse and relay module (K40/8) is overloaded.

Please examine the entire current path for contact faults:

1. Feed line from K40/8 connector S3 to X244/14
2. Feed line from X244/16 to M75/11
 - Check the circuit 30 line at the busbar X244 (see photos "X244_Photo1.jpg" and "X244_Photo2.jpg") for damage after carefully removing the heat-shrinkable tube (for example, the copper strands could be broken).
 - This point must then be closed again with fabric tape.
3. Feed line to ground point W46/1.
4. Check threaded connection of ground point W46/1 (see photo "W46.1.jpg").

If any damage is found at the following assembly parts/components, please create a PTSS case with the appropriate pictures (including but not limited to):

- Engine fuse and relay module K40/8
- Fuse f107
- Busbar X244
- Connector to electric coolant pump (electric water pump) M75/11
- Ground point of electric coolant pump (electric water pump) W46/1

XENTRY TIPS

All assembly parts/components can be replaced depending on the scope of the damage, see parts table (below).
Please do not dispose of any parts pending guidance given within PTSS.

Attachments	
File	Description
X244_Photo1.jpg	Busbar, photo 1
X244_Photo2.jpg	Busbar, photo 2
W46.1.jpg	Electric coolant pump ground point

Symptoms
Power generation / Engine cooling system / Function / Has a high coolant temperature
Power generation / Engine cooling system / Function / Coolant level too high
Power generation / Engine cooling system / Display message / Coolant - Serviced Required

Control unit/fault code		
Control unit	Fault code	Fault text
N3/10 - Motor electronics 'MED40' for combustion engine 'M274' (ME)	P260200	The output for the circulation pump 'Coolant' has a short circuit to ground. _
N3/10 - Motor electronics 'MED40' for combustion engine 'M274' (ME)	P260000	The output for the circulation pump 'Coolant' has an electrical fault or an open circuit. _

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
			Engine compartment relay unit (K40/8)	1	As required. Determine part number from EPC: Category 54 / Subcategory 054 / Item 100	
			Water pump electrical wiring harness	1	As required. Includes the affected line from K40/8 plug S3 to busbar X244. For model 205: Refer to EPC for relevant part number: Category 54 / Subcategory 121 / Item 70. For model 253: Parts are currently being stocked as replacement parts: - LHD vehicles: A 253 540 03 12 - RHD vehicles: A 253 540 12 12 If the parts are not available, the body-side engine wiring harness can be ordered for the time being; for this,	

XENTRY TIPS

					see EPC: Category 54 / Subcategory 121 / Item 20. For model 213: Parts are currently being stocked as replacement parts: - LHD vehicles: A 213 540 15 22 - RHD vehicles: A 213 540 27 22 If the parts are not available, the body-side engine wiring harness can be ordered for the time being; for this, see EPC: Category 54 / Subcategory 121 / Item 20.	
N 000000 007908			Fuse element (f107)	1	E-60A-N; MAXI	X
A 006 545 24 01			Fuse carrier	1	Plug S3	X
			Busbar (X244)	1	As required. EPC: Category 54 / Subcategory 030 / Item 330.	
			Engine wiring harness	1	As required. Includes the line from busbar X244 to electric coolant pump M75/11. EPC: Major Assembly M - Engine / Category 54 Engine wiring harnesses / Subcategory Engine wiring harness / Item 10.	
			Coolant pump (M75/11)	1	As required. EPC: Major Assembly M - Engine / Category 20 Engine cooling system / Subcategory 015 Water pump / Item 30.	
A 007 989 07 85			Fabric tape	1	G12 polyester fabric tape. Width 19 mm. Length 25 m roll.	X

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
			54157 74	General electrical fuse - Contact fault/open circuit
			5481Y 74	Engine compartment center partition busbar - Contact fault/open circuit
			540DR 73	Engine compartment fuse and relay module - Electrical fault
			5910R 74	K/Z engine compartment fuse and relay module - Contact fault/open circuit
			590C2 74	K/Z combustion engine electric coolant pump

XENTRY TIPS

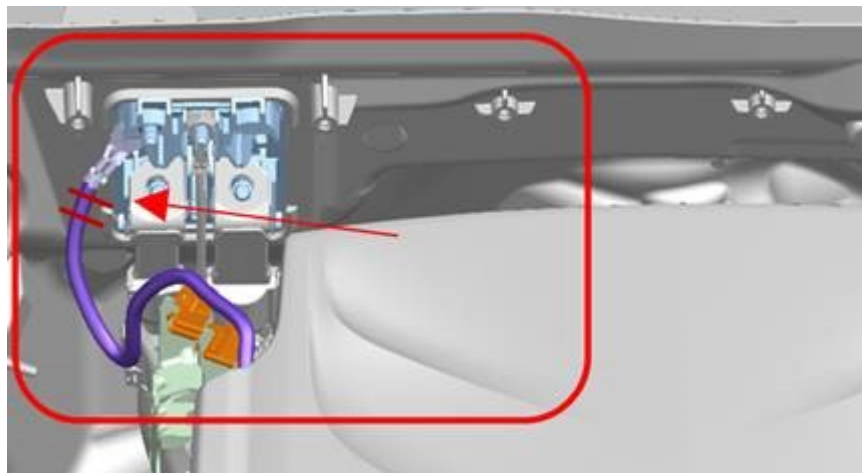
			2002V 73	Combustion engine electric coolant pump
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Attachments

Display message.jpg:



X244_Photo1.jpg:



XENTRY TIPS

X244_Photo2.jpg:



W46.1.jpg:

