

Coolant temperature warning in IC DTCs P0A9300, P26CE22, U011564, U019F00 in various control modules

Topic number	LI20.00-P-071399
Version	1
Function group	20.00 General
Date	07-13-2020
Validity	All vehicles with M256 engine produced as of 07/2019 and up to 02/2020
Reason for change	
Reason for block	

Complaint:

Engine temperature warning displays in the Instrument Cluster. Workshops find fault codes triggered in various control modules

Cause:

Low Temperature Cooling (LTC) circuits temperature sensors B11/6 and B11/7 might have swapped electrical connector connections

Remedy:

In related cases, proceed with the following:

1. Check both high and low temperature cooling circuits for any leaks, line kinks, air packets and operation of the cooling system including LTC M43/6 and M43/7 pumps and other components
2. Check all related electrical connections, wiring and grounds such as W2, W2/2, W6, W11 (/2, /3), W16/3 (/4), W30/11, W104 (/1) W106(/1) and 48V system grounds
3. Process the fault codes (update any related control module software if available)
4. if above do not reveal any potential issues, check connections of the Low Temperature Cooling (LTC) circuits temperature sensors B11/6 (NT1) and B11/7 (NT2). Both LTC temperature sensors are located behind the right front bumper area (refer to illustrations in the attachments) of the vehicle.

Checked connections as follows:

- a) locate temperature sensor B11/6 (NT1) - sensor close to the LTC coolant pump M43/6 refer to attachments for illustration. The NT1 sensor connector should have two wires attached (Red/Black + Brown/Yellow).
- b) disconnect the B11/6 (NT1) connector from the temperature sensor
- c) if the disconnection results in triggering the fault code P00E112 in the engine control module - ME (MRG1), the connection to the NT1 temperature sensor is correct. If disconnecting NT1 sensor results in DTC P0C4500 in the CP-C_NG control module the connection to the NT1 temperature sensor is incorrect.
5. if connections to NT1 and NT2 are found to be incorrect, ensure correct connections by swapping connectors and try to duplicate the original symptom. If no problem found, release the vehicle. Otherwise if symptom still exists or original symptom occurs with correct NT1 and NT2 connections, open a PTSS and all information, findings and illustrations.

Attachments	
File	Description
M256 LTC M43_6 coolant pump.JPG	Location of the LTC coolant pump M43/6

XENTRY TIPS

M256 LTC B11_6 temperature sensor NT1.JPG	Location of the LTC coolant temperature sensor B11/6 (NT1)
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Symptoms

Power generation / Engine cooling system / Indicator lamp / Illuminates yellow

Control unit/fault code

Control unit	Fault code	Fault text
N127 - Control unit 'Powertrain' (PTCU) (CPC3) (GLS (167),E (213),X 290 AMG,GLE (167),E (238))	P0A9300	The cooling system for the low temperature circuit has a malfunction. _
N3/10 - Motor electronics 'MRG1' for combustion engine 'M256' (ME) (GLS (167),E (213),X 290 AMG,GLE (167),S (222),CLS (257),E (238))	P26CE22	The rpm of the coolant pump is too high. The signal amplitude is greater than the maximum amplitude.
N3/10 - Motor electronics 'MRG1' for combustion engine 'M256' (ME) (GLS (167),E (213),X 290 AMG,GLE (167),S (222),CLS (257),E (238))	U019F00	Communication with the coolant pump has a malfunction. _
N3/10 - Motor electronics 'MRG1' for combustion engine 'M256' (ME) (GLS (167),E (213),X 290 AMG,GLE (167),S (222),CLS (257),E (238))	U019F87	Communication with the coolant pump has a malfunction. The message is missing.
N22/1 - Air conditioning (AAC) (HVAC222) (GLS (167),E (213),X 290 AMG,GLE (167),S (222),CLS (257),E (238))	U011564	Communication with control unit 'Drivetrain' has a malfunction. There is an implausible signal.

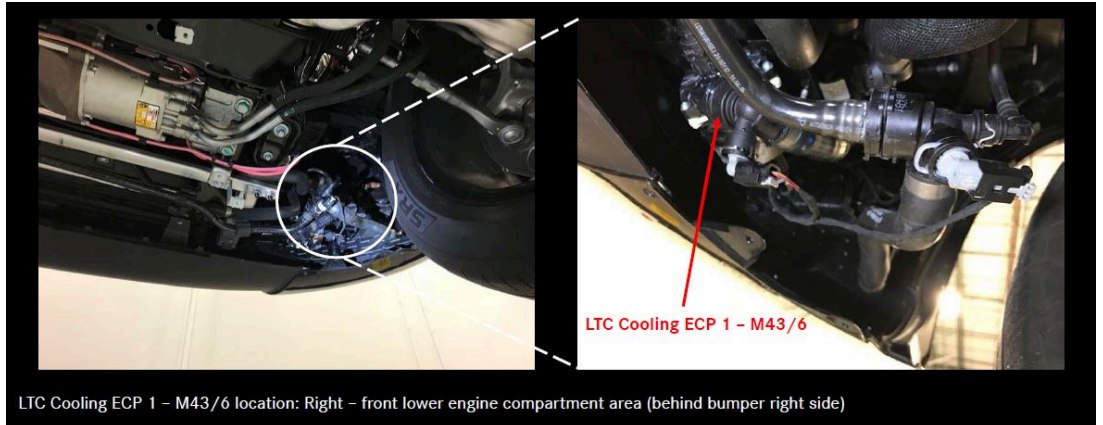
Validity

Vehicle	Engine	Transmission
*	256.930	*

Attachments

XENTRY TIPS

M256 LTC M43_6 coolant pump.JPG:



M256 LTC B11_6 temperature sensor NT1.JPG:

