

Performance Limited Message - P0A9300 in power electronics N147 PiH GEN 4

Topic number	LI20.20-P-079938
Version	1
Function group	20.20 - Radiator, coolant hoses
Date	12/19/25
Validity	167.146
	254.656
Reason for change	

Complaint

Warning message "Performance limited" in the instrument cluster and vehicle has lack of acceleration.

Cause

- A too high Temp difference between M43/1 Pump Temp Sensor and Temp Sensor in Power Electronics.

DTC P0A9300 is detected by too low flow rate in the low temperature circuit of the power electronics N147.

- Possible Restriction in the low Temp coolant circuit NT1.

The difference between the temperature sensors in the pump from low temperature circuit and in the power electronics are too big.

If the difference is too big, DTC P0A9300 will be set in the power electronics.

Remedy

If DTC P0A9300 is present in N147:

- Follow the guided test step for DTC P0A9300 in power electronics N147
- Ensure that all HV safety guidelines are being followed as per WIS and that the vehicle is powered down.
- Replace Cooler low temperature LT1 (from cooling circuit of power electronics)
- Replace oil cooler (which is mounted on the drive unit)
- Replace the complete cooling fluid (G40) from all cooling circuits

If DTC P0A9300 is not present in N147:

- upload HV CUL (N147 CUL) to paperless
- Open TIPS case and attach QT, HV CUL to the case

Disclaimer

NOTE: The information contained in this document is intended for use by trained, professional technicians with the knowledge to properly and safely perform diagnosis and repairs on Mercedes-Benz vehicles, using Mercedes-Benz approved tools and equipment. It informs service technicians about conditions that could occur in certain vehicles and provides information that could assist in proper vehicle diagnosis, service, or repair. It does not indicate that a defect is present in any vehicle referenced in this document nor does it imply warranty coverage. DO NOT assume that a symptom or condition, or a described cause of a symptom or condition, affects any particular vehicle or groups of vehicles, or that a described repair applies to any particular vehicle or groups of vehicles. There can be multiple causes resulting in the same or similar symptoms or conditions described in this document, and trained professional service technicians must use their diagnostic skills to make evaluations on a case-by-case basis. The information contained in this document does not guarantee warranty coverage nor does it extend the vehicle's warranty in any way.

Symptoms
Power transmission > Automatic transmission > Function > Limp-home mode
Power generation > Engine cooling system > Indicator lamp > Illuminates yellow
Power generation > Engine management > Engine performance > No/poor output

Control unit/fault code	
Control unit	Fault text
N147 - Power electronics (SG-LE) (INV1G40)	P0A9300 - The cooling system for the low temperature circuit has a malfunction. _

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note