

## M254 Check engine light on - Limp-home mode - P008700 Low fuel rail pressure

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Topic number	LI07.70-P-078520
Version	1
Function group	07.70 - Gasoline injection and ignition system direct injection
Date	11/1/24
Validity	Passenger car with engine M254 Without code ME10 plug-in hybrid vehicle
Reason for change	

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### Complaint

Check engine light on. Engine in limp-home mode. Rough running.

Low fuel rail pressure fault code P008700 stored in MRG2 control unit.

Additional faults below may be stored in MRG2 control unit:

Misfire- P030000, P030100, P030200, P030300, P030400, P030084, P030004

Mixture adaptation- P217800 P218762, P017100, P017200, P217700

Injector malfunction- P02EE00, P02EF00, P02F000, P02F100, P214601, P214901

### Cause

Gas bubbles forming in low pressure fuel system due to fuel boiling.

### Remedy

Check if symptom can be reproduced during normal drive cycle.

-If reproducible, diagnose the cause of low pressure in fuel system.

-If not reproducible, drain and refill fuel tank with top tier premium gasoline. Clear faults and check vehicle operation.

Software solution is in development to prevent fuel boiling in low pressure system. SW release ETA in Q1 2025.

**\*\*Do not replace parts unless clear part malfunction is determined\*\***

## 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 generation > Engine management > Engine running > Surges	
Power generation > Engine management > Engine running > Runs rough/shakes	
Power generation > Engine management > Indicator lamp > Engine diagnosis > lit	
Power generation > Engine management > Engine performance > No/poor output	
Control unit/fault code	
Control unit	Fault text
N3/10 - Motor electronics 'MRG2' for combustion engine 'M254' (ME) (MRG2)	P008700 - The fuel pressure in the system is too low. _
	P030400 - Combustion misfiring of cylinder 4 has been detected. _
	P030300 - Combustion misfiring of cylinder 3 has been detected. _
	P030200 - Combustion misfiring of cylinder 2 has been detected. _
	P030100 - Combustion misfiring of cylinder 1 has been detected. _
	P030084 - Combustion misfiring has been detected. There is a signal below the permissible limit value.
	P030004 - Combustion misfiring has been detected. There is an internal fault.
	P030000 - Combustion misfiring has been detected. _
	P218762 - The mixture (cylinder bank 1) is too lean at idle speed. The signal comparison is faulty.
	P017200 - The mixture (cylinder bank 1) is too rich. _
	P017100 - The mixture (cylinder bank 1) is too lean. _
	P217700 - The mixture (cylinder bank 1) is too lean in partial load operation. _
	P217800 - The mixture (cylinder bank 1) is too rich in partial load operation. _

	<p>P02F100 - The fuel injector (cylinder 4) has a malfunction. –</p> <p>P02F000 - The fuel injector (cylinder 3) has a malfunction. –</p> <p>P02EF00 - The fuel injector (cylinder 2) has a malfunction. _</p> <p>P02EE00 - The fuel injector (cylinder 1) has a malfunction. _</p> <p>P214601 - The power supply of injector group 'A' has an electrical fault or an open circuit. There is a general electrical fault.</p> <p>P214901 - The power supply of injector group 'B' has an electrical fault or an open circuit. There is a general electrical fault.</p>
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## Operation numbers/damage codes

Op. no.	Operation text	Time	Damage code	Note