

Check engine light with possible Adblue
warning with fault code P20F409 or P202E84

Topic number	LI49.20-N-079157
Version	6
Function group	49.20 - Exhaust gas aftertreatment
Date	6/24/25
Validity	Model 907, equipped with OM654 and a Gen4 SCR system.
Reason for change	Update Remedy for MY25

Complaint

The check engine light is activated, accompanied by one or more of the following fault codes related to the Adblue System:

- P20F409: The Adblue consumption is too low. There is a component fault.
- P202E84: The Adblue metering valve 1 (Motor side) has a malfunction. There is a signal below the permissible limit value.

Cause

The potential causes for these fault codes are:

- A. A leak in the Adblue System
- B. An internal fault with the Adblue Injection Valve #1 (Motor side)
- C. An air pocket forming in the Adblue Injection Valve #1 (Motor side) Adblue Injector Line

Remedy

Vehicles Produced Before August 1, 2024 (Code XY4 = MY24)

A. Leak in the AdBlue System

1. Complete the Guided Tests for DTC P20F409 or P202E84:

- Inspect the AdBlue tank, pump, line, and both injectors for leaks.
- Ensure the AdBlue line is properly routed, securely fastened, and not in contact with the exhaust system.
- Remove both AdBlue injection valves, perform 2–3 pressure build-ups, and check for AdBlue leaks.
- If a leak is detected, repair it and retest.

B. Internal Fault with AdBlue Injection Valve #1 (Motor Side)

1. Process All Other Related DTCs First:

- Address any other fault codes relating to AdBlue injection valves before proceeding.
- If AdBlue Injection Valve #1 (engine side) fails the guided tests, replace it and retest.

C. Air Pocket Forming in the AdBlue Line (Motor Side)

1. If Guided Tests Pass and No Leaks are Found:

--Do not replace any components.--

- The MY23-24 (Code XY4 = MY24, OM654) AdBlue line (A907 470 01 01) has a known design issue that can cause air pockets and DTC P20F409. This may also result in DTC P202E84, depending on the air pocket size.
- The guided tests for P20F409 now include resetting the learned values for the AdBlue delivery pump (A103m1). After this, the vehicle can be released to the customer.

NOTE: Replacing the AdBlue tank or line will NOT resolve this air pocket issue. TIPS cases are no longer required for MY23–24 vehicles.

Steps to Perform (MY23–24, Code XY4):

1. Complete the guided tests for DTC P20F409 and/or P202E84.
2. Perform an initial start-up of:
 - The SCR control unit
 - AdBlue tank components
 - Both AdBlue injectors
3. Conduct a 20-mile test drive. If no faults occur, the vehicle can be released.
4. Inform the customer that frequent starting/stopping increases the likelihood of this fault due to repeated cycling of AdBlue in/out of the line each ignition cycle.

Vehicles Produced After August 1, 2024 (Code XY5 = MY25)

A. Leak in the AdBlue System

1. Complete the Guided Tests for DTC P20F409 or P202E84:

- Inspect the AdBlue tank, pump, line, and both injectors for leaks.
- Ensure the AdBlue line is properly routed, securely fastened, and not in contact with the exhaust system.
- Remove both AdBlue injection valves, perform 2–3 pressure build-ups, and check for AdBlue leaks.
- If a leak is detected, repair it and retest.

B. Internal Fault with AdBlue Injection Valve #1 (Motor Side)

1. Process All Other Related DTCs First:

- Address any other fault codes relating to AdBlue injection valves before proceeding.
- If AdBlue Injection Valve #1 (engine side) fails the guided tests, replace it and retest.

C. Incorrect AdBlue Injection Line Installed

1. Verify the Updated Line is Installed:

- Confirm that part number A907 470 33 02 is present.
- If the AdBlue line is incorrect (e.g., A907 470 01 01), replace it with the updated line.

TIPS Case Instructions for All MY25 and Newer Vehicles

If you encounter any of the issues above on any MY25 or newer vehicle, including finding an incorrect AdBlue line installed:

- Open a TIPS case addressed to the Powertrain inbox.
- Reference this LI document.
- Include the following information:
 - Description of the issue encountered (e.g., fault code, check engine light, or incorrect AdBlue injection line)
 - Current Quick Test, SCR N118/5 Control Unit Log, and Guided Test results.
 - Photo of AdBlue line part number label.
 - Photos documenting any issues, leaks, or melting observed

NOTE:

From August 1, 2024 (Charleston) and April 20, 2025 (Dusseldorf), all MY25 vans (code XY5) are equipped with the updated AdBlue line (A907 470 33 02).

If a MY25 vehicle has an incorrect line, open a TIPS case as described above.

IMPORTANT:

The updated AdBlue line (A907 470 33 02) is not backward compatible and must not be installed on vehicles earlier than MY25, Code XY5.

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
Communication/information > Information display > Indicator lamp > lit

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A907 470 01 01					MY23-24 Part	X
A907 470 33 02					MY25 as of August 1, 2024	X

Control unit/fault code	
Control unit	Fault text
N118/5 N141 - Selective catalytic reduction (SCR GEN4) (UDCM2)	P202E84 - The AdBlue® metering valve 1 (Motor side) has a malfunction. There is a signal below the permissible limit value. P20F409 - The AdBlue® consumption is too low. There is a component fault.

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