

TO: Mercedes-Benz Dealer Principals, General Managers, Sales Managers, Service Managers, Parts Managers	FROM: Gregory Gunther, Department Manager, Vehicle Compliance and Analysis, Engineering Services
RE: <b>Updated Recall Campaign Launch Notification – STOP DRIVE</b> <b>Inspect Brake Booster without Pedal Rework MY06-12 GL-Class, ML-Class, R-Class (X164, W164, V251 platform)</b>	UPDATE: March 10, 2023

## **IMPORTANT RECALL CAMPAIGN UPDATE**

### **STOP DRIVE NOTIFICATION!**

Please see the attached documents related to the campaign listed above

<u>Topic</u>	<u>Page</u>
Launch NCU	2
Process Flow	3
Frequently Asked Questions (FAQ)	4
Work Instructions	10

### **SUMMARY OF PHASE 1 NCU UPDATES**

1. “Certificate of Passed Initial Diagnostic Brake Test” language and certificate **has been removed**. Certificate must no longer be provided to the customer since work instructions and final remedy parts (if applicable) are available for all category vehicles.
2. Removed Category 2 & 3 language. If vehicles fail the visual inspection, perform Xentry tests, order and replace the brake booster.
3. FAQ #5a.2 updated.
4. Warranty code update. FAQ #35b.iii-iv. Vehicle storage and Active vehicle care damage codes have 30 days remaining. After such time, claims will no longer be accepted.

Please note that all customer inquiries should be directed to the Customer Assistance Center at 1-888-548-8514.

Sincerely,

Gregory Gunther

Department Manager, Vehicle Compliance & Analysis



<b>Recall Campaign Launch Notification</b>			<b>March 10, 2023</b>
<b>Campaign No. :</b>	<b>NHTSA ID</b>	<b>Campaign Desc. :</b>	<b>Inspect Brake Booster Without Pedal Rework</b>
2022050015	22V315	22P4290005	
<p>This is to notify you of an update to the Recall Campaign Launch to inspect the brake booster on <b>278,173</b> Model Year (“MY”) 2006-2012 GL-Class, ML-Class, and R-Class (X164, W164 and V251 platform) vehicles. The recall campaign will be visible on the <a href="http://www.safercar.gov">www.safercar.gov</a> website and may generate questions from customers. Affected VINs were flagged in VMI as “OPEN” on <b>May 28, 2022</b>.</p>			
<b>Background</b>			
<b>Issue</b>	<p>Mercedes-Benz AG (“MBAG”), the manufacturer of Mercedes-Benz vehicles, has determined that on certain Model Year (“MY”) 2006-2012 ML-Class, GL-Class (W164/X164 platform) and R-Class (V251 platform) vehicles, the function of the brake booster might be affected due to advanced corrosion in the joint area of its housing. After extended time in the field and in conjunction with prolonged water exposure, this corrosion might lead to a vacuum leak at the brake booster. If this were to occur, the brake force support might be reduced, leading to an increase in the brake pedal forces required to decelerate the vehicle, and/or increased stopping distances. Additionally, in rare cases of very severe corrosion, it might be possible for a particularly strong or hard brake application to cause mechanical damage in the brake booster, whereby the connection between brake pedal and brake system would fail. In such a very rare case, it would not be possible to decelerate the vehicle via the brake pedal. The risk of a crash or injury would be increased. The function of the parking brake is not affected by this issue. Before the issue occurs, the driver might notice a change in the brake pedal feel and/or hissing/airflow noises when applying the brake pedal.</p>		
<b>What We’re Doing</b>	<p>MBUSA will conduct a voluntary recall. An authorized Mercedes-Benz dealer will remove the rubber sleeve from the brake booster housing, inspect the brake booster on the affected vehicles and, depending on the result of this inspection, replace as necessary.</p>		
<b>Parts</b>	<p><b>The remedy is available and can be performed.</b></p>		
<b>Vehicles Affected</b>			
<b>Vehicle Model Year(s)</b>	2006-2012		
<b>Vehicle Model</b>	GL-Class, ML-Class, R-Class		
<b>Vehicle Populations</b>			
<b>Total Recall Population</b>	278,173		
<b>Total Vehicles in Dealer Inventory</b>	0		
<p><b>Vehicles are flagged as “OPEN” and Work Instructions are available in Star TekInfo. Customers are advised not to drive their vehicle until an inspection is performed. Based on the results, vehicles may continue to be driven if the inspection is passed, or must be grounded if the inspection is not passed. A follow-up campaign will be issued for any vehicle that requires a brake booster replacement.</b></p> <p><b>Additionally, given this notice, it is a violation of Federal Law for car rental companies to rent MY 06-12 GL-Class, ML-Class, and R-Class vehicles covered by this notification until the vehicle has been inspected and passed, or grounded until parts become available and the remedy performed.</b></p>			



Next Steps/Notes	
<b>Customer Notification Timeline</b>	Owner notification letters were originally mailed June 30, 2022. Owner reminder notification letters were mailed August 31, 2022. Category 3 notification letters were mailed on October 31 & November 3, 2022. Category 2 notification letters will be mailed on or before March 24, 2023.
<b>AOMS/SOMS</b>	AOMs – This recall may generate questions from your dealers. Please forward this notice to your dealers ASAP.
<b>Rental Fleet Partners</b>	Affected vehicles in your fleet should not be driven until the inspection has been performed and passed. Please contact your respective MBUSA fleet representative for further information and next steps. For repairs, please contact your preferred Mercedes-Benz dealer.
While we regret any inconvenience this may cause, MBUSA is determined to maintain a high level of vehicle quality and customer satisfaction. Please refer all customer inquiries to the Customer Assistance Center at 1-888-548-8514. Longer than usual wait times to reach an agent may be experienced for recall-related questions involving larger vehicle populations.	

**Process Flow**

**Category 3 Launch Process Flow (October 2022-February 9<sup>th</sup>, 2023)**

At the time of the Category 3 launch in October 2022, two processes occurred in tandem:

- 1) The dealer was required to close out campaign 2022050014 or 2022050015 for the inspection.
  - a. This triggered a new campaign based on the warranty claim operation codes. If operation codes were claimed that matched Category 2, those vehicles would be moved into a new “PENDING” campaign on a weekly basis due to insufficient parts availability. If the operation codes claimed matched Category 3, vehicles would be moved to a new “OPEN” campaign, also on a weekly basis.
  - b. This process only affected the opening of new campaigns in VMI and was irrespective of parts’ shipments.
- 2) The dealer was required to claim the correct warranty operation codes for Category 3.
  - a. Once the operation codes were submitted and paid, if they matched the Category 3 warranty operation codes, a booster and, if necessary, a pedal kit were released automatically. This was done to prevent dealers from over-ordering critical parts quantities.

**Category 2 & 3 Launch Process Flow (February 10<sup>th</sup>, 2023-Current)**

- 1) Dealers are still required to close the inspection campaigns for a new campaign to be opened. This process will remain the same as point 1 from the “Category 3 Launch Process Flow” above until further notice. An update to the NCU will be issued when this process is also revoked.
- 2) With parts for Category 2 vehicles now available, point 2 from the above “Category 3 Launch Process Flow” above have been revised. **Warranty operation codes must still be claimed correctly, however, parts will no longer be released automatically.** The dealer must now order parts by VIN via the parts ordering system. There will be no initial parts allocation since Category 2 vehicles could be driven up to 2 years prior to replacement. Further details below in the FAQ’s, including the quantity limit of parts dealers may order.
- 3) Important! Inspection claims still need to be submitted correctly with the proper warranty operation codes.



## FAQs

### SUMMARY OF RECALL

1. **What is the recall about?**
  - a. The recall campaign is related to the brake booster housing. Specifically, advanced corrosion may have formed on the housing, which could lead to a vacuum leak and impairment to brake effectiveness.
2. **What's the difference between Campaign 2022050014 and 2022050015.**
  - a. The inspection is the same, however, different damage codes apply based on the vehicle population. One population requires a pedal rework, the other does not.
3. **Can I continue to drive the car?**
  - a. Your safety is our highest priority. MBUSA advises customers to stop driving the vehicle until the first inspection is performed. Customers were notified by first class mail to schedule an appointment to have the inspection performed by an authorized dealer.
4. **Why are other models not included?**
  - a. Only ML- (MY2006 – 2011), GL- (MY2007 – 2012), and R- (MY2006 – 2012) Class vehicles are fitted with the affected brake booster utilizing a rubber sleeve. Other models are not fitted with this rubber sleeve. Affected vehicles have been identified within this recall.
5. **What types of repairs or replacements part(s) are needed?**
  - a. Affected vehicles will be inspected as a first step. After this inspection, the vehicle will be given 1 of 2 statuses.
    1. Inspected with no advanced corrosion: The rubber sleeve will be removed. The vehicle can be driven with no further action or customer follow-up required.
    2. Inspected with advanced corrosion found: **XENTRY tests must still be completed according to the work instructions below. The dealer will order a brake booster and replace.** The dealer will hold the vehicle until the part arrives and subsequently replace the brake booster. See FAQ 22b for guidance on driving the vehicles. **DEALER SHOULD NO LONGER PROVIDE THE “Certificates of Passed Initial Diagnostic Brake Test” TO CUSTOMERS.** If the customer requests mobility, details are available in the “Mobility” and “Reimbursement/Owner Pay” FAQ below via loaners or rental options.
6. **Will the dealer repair the vehicle with the same part(s)?**
  - a. No. Based on the initial inspection, if a replacement of the brake booster is necessary, the part will be removed and replaced with a new part that does not utilize a rubber sleeve.
7. **Will the replacement part(s) fail again?**
  - a. No. Provided the recall timelines are followed, the inspections and remedial measures performed by your Mercedes-Benz dealership assure you that the recall condition is remedied.
8. **How long will the vehicle need to be in the workshop?**
  - a. For your convenience, an authorized Mercedes-Benz dealer will offer mobile inspection at your location of choice. Should you request the vehicle be towed to a workshop, the time for the



recall will vary and is dependent on towing availability and dealership schedules. The inspection itself will require 1 hour to complete. Additional time may be needed based on the results of the inspection. Your authorized Mercedes-Benz dealer can provide you with a better estimate of the overall time for this inspection.

**9. A vehicle came in with no serial code on the brake booster unit and/or the brake booster is not the same color as in the work instruction pictures. What inspection procedure do I follow?**

- a. Please open a PTSS case for verification of aftermarket booster and further processing.

**10. Is there additional guidance other than the Work Instructions?**

- a. There is an AKUBIS video on the intranet Learning Link titled “Brake Booster Inspection and Test” (X0027E-US.TTA). This should be used as a GENERAL PROCESS GUIDELINE ONLY. The work instructions attached to this NCU are the main technical resource for performing the recall inspection.

### **Parts**

**11. Are parts available to replace brake boosters?**

- a. Yes.

**12. How will I receive the parts necessary to complete the campaign?**

- a. The prior Category 3 parts release procedures are being revised. Brake boosters will no longer automatically be released. The parts system block for boosters and the pedal retrofit kits have been lifted. Dealers must enter a unique VIN and order parts specific to that vehicle. A single VIN may not be used to order multiple parts. **Note:** Additional pedal retrofit kits are not available and are unnecessary to be stocked at dealerships. Order ONLY after it is determined that a vehicle needs the retrofit kit based on the campaign number.

**13. Will parts be pushed for vehicles?**

- a. No. Parts need to be ordered by the dealerships for any existing or newly inspected vehicles that failed the visual inspection as of February 10, 2023. Parts will no longer automatically be pushed to dealerships.

**14. After vehicle inspection, will another campaign open to replace the booster?**

- a. Yes, once the inspection campaign has been closed, a new campaign will open. These new campaigns are opened on a weekly basis. If the dealer has determined a vehicle fails visual inspection (formerly Category 2 or 3), repair parts need to be ordered by the dealer and can be replaced even if the campaign isn't open in VMI yet. The RO can be closed once the new campaign is activated.

### **MOBILITY**

**15. Will the dealer provide a loaner vehicle?**

- a. The dealer may offer to provide a loaner based on loaner vehicle availability. If available, the loaner will be provided free of charge. If no loaner vehicles are available, other solutions will be offered such as taxi/rideshare, public transportation cost reimbursement, and rental reimbursement. See the “Reimbursements/Owner Pay” section below for additional information.



**16. Are rental vehicles still allowed?**

- a. Rental vehicles are only applicable to two groups of vehicles:
  - i. Vehicles awaiting the initial inspection campaign. Once the vehicle inspection has been completed, the owner of any vehicle with a Category 1 should promptly turn in the rental vehicle.
  - ii. Vehicles that did not pass visual inspection. With the launch of the booster replacement campaign for Category 3 vehicles in October 2022 and Category 2 vehicles in February 2023, no such owner should be in, or require a long-term rental. The only allowable rental is for vehicles that did not pass the visual inspection and is only for the time between inspection and parts arrival/booster replacement, which will only be a few days at maximum. Dealers are required to promptly order parts.

**17. How does the dealer handle rental reimbursements?**

- a. The dealer should reimburse the customer at the dealership. The dealership should then claim via the warranty process as set forth below in the “Warranty Information” section below. The warranty information sections detail steps for acquiring rentals.

**18. If I am advised not to drive my vehicle will towing be offered?**

- a. Customers were notified by first class mail that the inspection can be performed at an authorized dealer. A tow can be completed by the local dealer or by calling 1-888-548-8514. Full details are available in the owner notification letter. In some locations, a mobile inspection can be performed at a location of the customer’s convenience and towing will not be necessary. All towing will be provided free of charge to complete this recall.

**19. Is mobile repair offered for this recall?**

- a. Yes, for your convenience, an authorized Mercedes-Benz dealer will offer mobile inspection at a location of your choice.

**20. I read a media article that states I should stop driving my vehicle if I own one of the affected vehicles, what should I do?**

- a. A VIN-based recall lookup tool on our MBUSA.com website offers a search feature that will indicate whether a vehicle has been subject to a safety recall. See <https://www.mbusa.com/en/recall> for more details. If your vehicle status is listed as “Open,” the vehicle **MUST NOT** be driven until the inspection process is performed. Further instructions will be provided based on the results of that inspection.

**21. What is Mercedes-Benz going to do for Owners given this inconvenience?**

- a. Mercedes-Benz is committed to the highest level of customer service and while we regret the inconvenience, the safety of our customers is paramount. Mobility solutions and/or reimbursement for mobility will be offered for the duration the customer’s vehicle is affected under this “stop drive” recall. See the “Warranty Information” section below for further information.

**22. For cars currently at the dealers, should dealers inform their customers and ensure dealer staff do not drive the vehicle?**

**a. For customers**

Yes, dealers should inform their customers that the vehicle is under a stop drive recall. The vehicle can be stored at the dealership, or towed to the customer's residence free of charge. Please contact the CAC at 1-888-548-8514 to schedule a tow. If the customer needs alternative transportation, a mobility solution will be offered to you by the dealer (See FAQ 4). Reimbursements will be provided up to a maximum of \$80 per day.

**b. For dealer staff**

Dealer staff must **NOT** drive the vehicle on public roads. Within the confines of the dealership, the vehicle can be driven up to 20 mph. To claim any expenses related to towing and/or storage, see the "Reimbursement/Owner Pay" section below.

**STORAGE****23. Where will the vehicle be stored?**

- a. Customers may store the vehicle at their residence and are encouraged to request their dealer perform a mobile inspection. Should the vehicle not pass the inspection, the vehicle may be continued to be stored at their residence or at their preferred dealer. Dealers need to order and perform the booster replacement now that parts are available.

**REIMBURSEMENTS/OWNER PAY****24. I may have paid for repairs related to this recall. Will I receive reimbursement?**

- a. Current and previous owners may be eligible to receive reimbursement if they have had a brake booster replacement due to the conditions specified in this recall. Requests for reimbursement may include parts, labor, fees and taxes. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Mercedes-Benz dealer. Details were provided in the recall owner notification letter, which can be viewed on <https://www.mbusa.com/en/recall>.

**25. What happens if the dealer determines repairs aren't necessary now but Owners experience concerns related to the recall in the future? Are Owners responsible for diagnostic fees/repair costs?**

- a. Any future owner concerns will be evaluated on an individual basis. Extensive analyses were conducted by Mercedes-Benz AG. Based on these analyses, a test method was developed for the workshops which, among other aspects, ensures the functionality of the brake booster by usage of diagnostic-supported test routines.

**26. I inspected the vehicle and found other brake components to be in need of repair.**

- a. This recall relates to potential advanced corrosion on the brake booster housing. If other brake system component(s) are in need of repair/replacement such that they would impair or hinder performing the inspection for the recall condition, the parts/system must be rectified prior so the initial inspection may be completed. These parts and labor are not covered under this recall.

**27. I received a letter but I no longer own the vehicle. How can I update my ownership information?**

- a. Customers should be directed to the MBUSA recall website at <https://www.mbusa.com/en/recall>, enter their VIN, and update their contact information.



**28. I lost faith in the vehicle and demand MBUSA provide a replacement.**

- a. Such customer inquiries will be evaluated on a case-by-case basis. Direct the customer to 1-888-548-8514.

**29. Can/should dealers wholesale/sell affected used car vehicles?**

- a. No. MBUSA advises dealers not to sell used vehicles subject to this recall until the inspection and, if necessary, brake booster replacement is completed.

**30. While performing the Xentry diagnostic test the technician finds a brake fluid leak, can this be covered under warranty?**

- a. Yes. If while performing the inspection procedure other components fail then this would be claimable on the same line as the recall and considered primary loss.

**31. While performing the Xentry diagnostic test, the brake line needed to be repaired. How do I address this?**

- a. Follow AR42.10-P-0020A and utilize flaring kit A000 589 20 99 00 to construct brake lines from bulk stock.

**32. If the vehicle fails the Xentry diagnostic pressure test, does the RO need to stay open?**

- a. No, close the RO and submit the claim based on the warranty codes provided below in the work instructions section. The dealership may choose to open another RO until the parts replacement is complete.

**33. The customer wishes to keep driving the vehicle and refuses the repair. How do I handle this situation?**

- a. Customer safety is our top priority at Mercedes-Benz. If the customer insists on driving the vehicle despite the warnings associated with a “stop drive” recall, the following language **MUST** be added to the Repair Order and initialed by the customer:

\_\_\_\_\_ (Initial Here) **ASSUMPTION OF RISK FOR REMOVAL OF VEHICLE.** I understand that my vehicle is subject to a “Stop Drive” recall and that continuing to drive my vehicle involves inherent risks and dangers of accidents, property loss or damage, and serious personal injury to me and others, as well as potential financial losses. I have carefully considered the extent of the risks involved, and I voluntarily and freely choose to assume these risks.

**34. The customer wishes to keep driving the vehicle and is refusing to initial the “Assumption of Risk” on the Repair Order. How do I handle this situation?**

- a. Follow the same protocol used at your dealership when a customer refuses services offered. Also, make a notation on the RO that “customer refuses to initial the Assumption of Risk.” A customer signature must be recorded on the RO.

**35. Now that the vehicle has been repaired, do I need to close out any pending costs attributable to storage, maintenance, etc?**

- a. There should not be any Category 3 customers utilizing rental vehicles, storage, etc... as sufficient parts inventory for Category 3 vehicles has been available since October 2022.
- b. In the event a dealer cannot perform the brake booster replacement immediately, see below damage codes.
  - i. Damage code 99803 01 – Mobile inspection incentive
    1. \$150 per vehicle
    2. Claimed separately and on top of the recall inspection
  - ii. Damage code 99039 01 - Towing
    1. Up to \$125 per tow if arranged by customer or dealer outside of normal process
    2. Invoice must be attached to claim
    3. Please use normal CAC tow process whenever possible to alleviate reimbursement
  - iii. Damage code 99046 01 - Vehicle storage

**\*VALID FOR 30 DAYS AFTER MARCH 10, 2023.  
After this period, claims will no longer be accepted.\***

    1. \$15 per vehicle, per day for dealership onsite storage
    2. Up to \$56.25 per vehicle, per day for offsite storage
    3. Invoice must be attached to claim
    4. Submit every 30 days and then a final claim to reconcile
  - iv. Damage code 99047 01 - Active vehicle care during vehicle storage

**\*VALID FOR 30 DAYS AFTER MARCH 10, 2023.  
After this period, claims will no longer be accepted.\***

    1. \$300 per vehicle, one-time, for the entire period claimed at the end of the storage period (i.e. wash, maintain battery, move to avoid flat spots and brake corrosion, etc.)
  - v. Damage code 99304 01 - Mobility solutions
    1. Up to \$2,400 for rental vehicle (up to \$80/day), loaner (\$80/day flat fee), taxi /rideshare services or use of public transportation.
    2. Dealers are encouraged to use loaner vehicles for customer requests. See sales NCU on changes to the CVP program and alternate mobility options.
    3. Rental agreement, loaner agreement and/or invoice(s) must be attached to claim.



# Recall Campaign Bulletin



Mercedes-Benz

Campaign No. 2022050015, May 2022

Revision G 03/10/2023

TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: **Model GL-Class, ML-Class, and R-Class (X164, W164 and 251 platform)  
Model Year 2006-2012**

## **Inspect Brake Booster – without Pedal Rework**

Mercedes-Benz AG (“MBAG”), the manufacturer of Mercedes-Benz vehicles, has determined that on certain Model Year (“MY”) 2006-2012 ML, GL (W164/X164 platform) and R-Class (251 platform) vehicles, the function of the brake booster might be affected due to advanced corrosion in the joint area of its housing. After extended time in the field and in conjunction with prolonged water exposure, this corrosion might lead to a vacuum leak at the brake booster. If this were to occur, the brake force support might be reduced, leading to an increase in the brake pedal forces required to decelerate the vehicle, and/or increased stopping distances. Additionally, in rare cases of very severe corrosion, it might be possible for a particularly strong or hard brake application to cause mechanical damage in the brake booster, whereby the connection between brake pedal and brake system would fail. In such a very rare case, it would not be possible to decelerate the vehicle via the brake pedal. The risk of a crash or injury would be increased. The function of the parking brake is not affected by this issue. Before the issue occurs, the driver might notice a change in the brake pedal feel and/or hissing/airflow noises when applying the brake pedal. MBUSA will conduct a voluntary recall. An authorized Mercedes-Benz dealer will remove the rubber sleeve from the brake booster housing, check the brake booster on the affected vehicles and, depending on the result of this inspection, replace as necessary. **Affected customers were mailed a recall owner notification letter and instructed to stop driving their vehicles until the inspection process is completed.**

Prior to performing this Campaign:

- **VMI must be checked before performing campaigns to verify that the campaign is required on a specific vehicle. Always check for any other open campaigns, and perform accordingly.**
- Please review the entire Campaign bulletin and follow the repair procedure exactly as described.

Approximately 278,173 vehicles are affected.

Order No. P-RC-2022050015

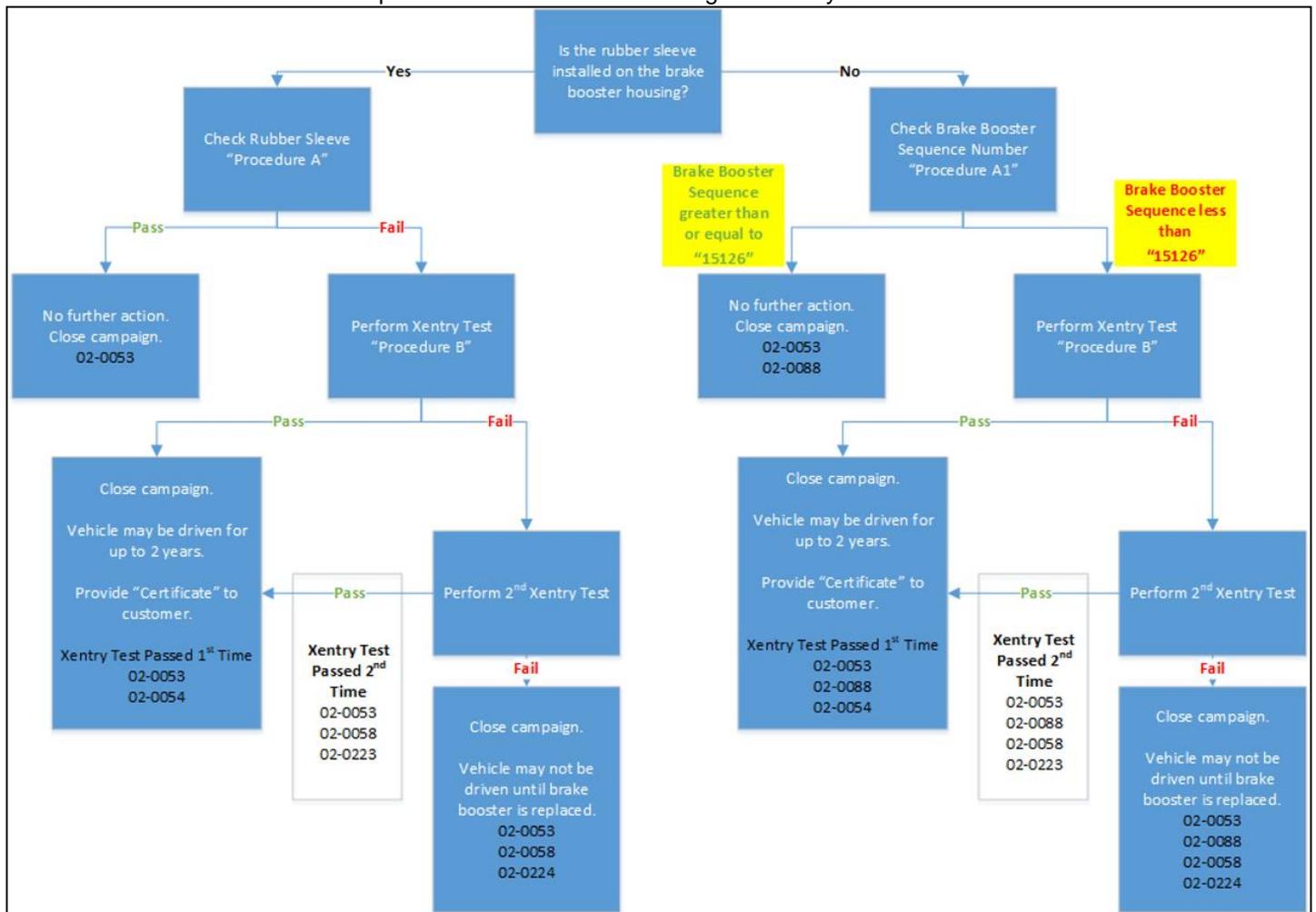
This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Record

Recall Campaign Bulletin

## Inspect Brake Booster

- i** Return information for rubber sleeve and quick test has been removed.
- i** Existing problems that would hinder the inspection procedure or any subsequent repairs must first be rectified and are the responsibility of the customer. Any associated costs are not claimable and should not be included with the campaign claim.
- i** Any primary loss which is a direct result of performing the XENTRY test should be submitted on the same claim as the campaign reimbursement.
- i** Before starting work, there must be **no** fault message present in the instrument cluster for the brake system. If a fault message is present before starting work, it must be rectified and is the responsibility of the customer. Any associated costs are not claimable and should not be included with the campaign claim.

### 1. Flow chart with allowable labor operation codes when submitting a warranty claim.



**Check/test procedure A–visual inspection only**

1. Open the hood and check the water drains (**marking, figure 1**) for correct installation and ability to drain.

**i** Only for model 251

**i** Clean and correctly install water drains if necessary.



**Figure 1**

2. Remove the rubber sleeve wrapped around the brake booster (A, figure 2) with a suitable tool (hook and side cutting pliers). If the rubber sleeve is not present, please proceed to check/test procedure A1.  
**i** The rubber sleeve should be separated above the barcode label on the brake booster as seen in (A, figure 2 and B, figure 4.1).

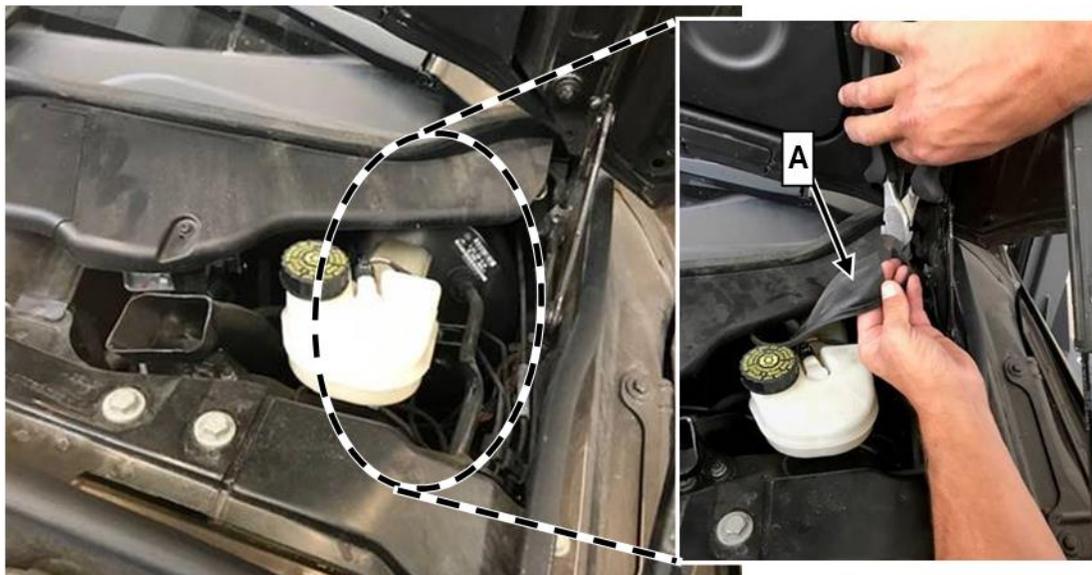


Figure 2

3. Take a photo of the rubber sleeve with the VIN label of the B-pillar (A, figures 3 and 4) and store to a local HDD/computer storage location with the vehicle service file and attach it to the warranty claim in EVA.  
**i** These pictures serve as documentation of the current condition of the brake booster.



Figure 3

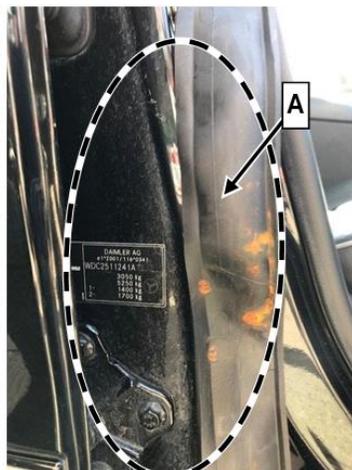


Figure 4

4. Check corrosion of the brake booster using the removed rubber sleeve.

**i** Use figures 5, 6 and 7 to assess corrosion.

**i** **Brake booster OK:**

Multiple point-shaped corrosion marks (**figure 5**) are permissible.

A maximum of **one point-shaped corrosion mark** with a diameter **greater than 15 mm** (**figures 6 and 7**) is permitted.



Figure 5 OK



Figure 6 OK

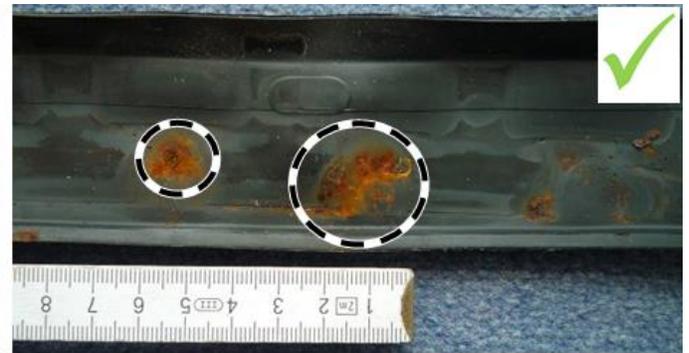


Figure 7 OK

**i** **Brake booster not OK:**

Widespread corrosion marks spanning the rubber sleeve are not permissible.

**More than one corrosion mark with a diameter greater than 15 mm is not permissible.**

- Corrosion measurements **Exceeds thresholds-NOK**: Carry out **check/test procedure B - XENTRY/DAS**.
- Corrosion measurements **Does not exceed threshold-OK** (figure 5, 6 or 7): **End measure**.

**i** If the measure is ended, **do not** re-install a new rubber sleeve. Apply marking with **white touch-up paint pen (1, figure 8)** to the brake booster checked.

**i** **Under no circumstances should you treat the brake booster with anti-corrosion agent.**

**i** The **findings** from the check/test procedure must be **documented on the Repair Order and included in the dealer text in the warranty claim** in EVA.

**Check/test procedure A1 - visual inspection only if no rubber sleeve is present**

1. Take a photo of the barcode label (B, figure 8) on the brake booster and store to a local HDD/computer storage location with the vehicle service file and attach to the warranty claim in EVA.

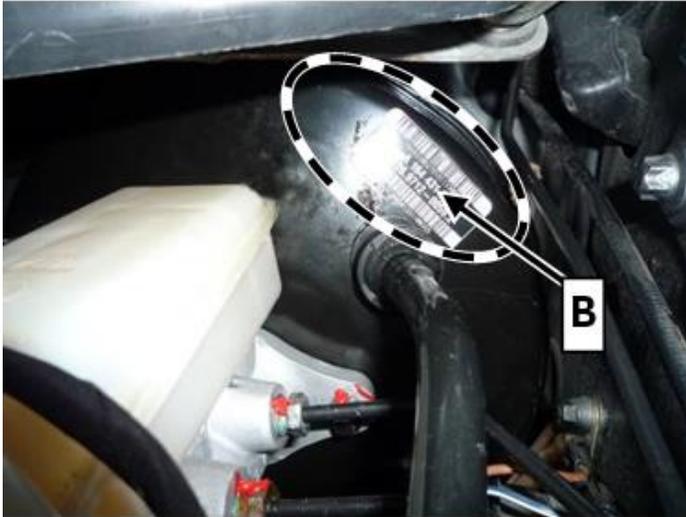


Figure 8

1. Check sequence of numbers on the barcode label (C, figure 9).
  - a. If the numeric sequence between numbers 13 and 17 is **less than** "15126": Carry out **scope of testing B - XENTRY/DAS**.
  - b. If the numeric sequence between numbers 13 and 17 is **greater than or equal to** "15126": **End measure**.

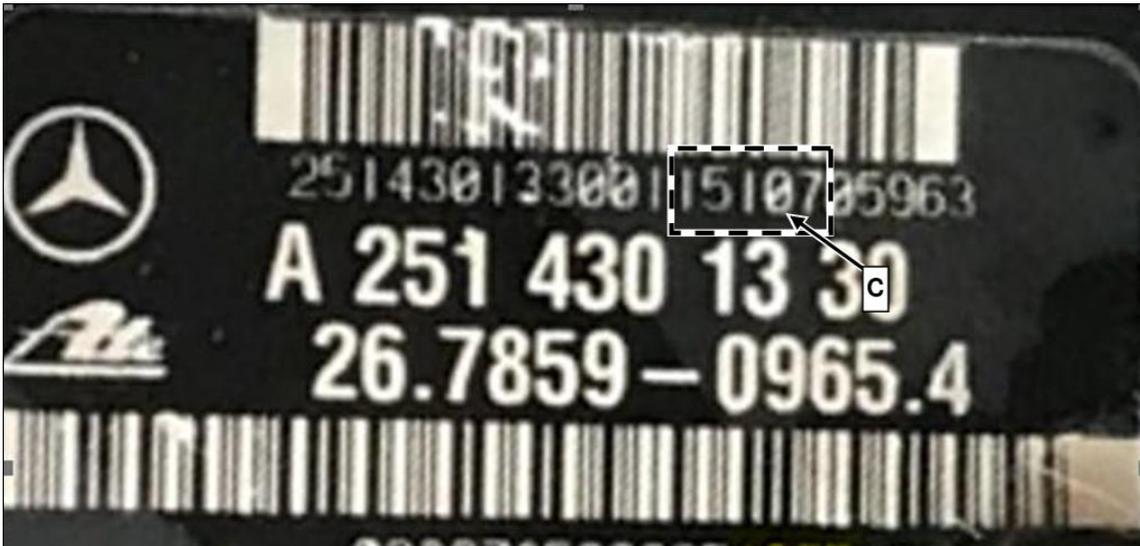


Figure 9

**Check/test procedure B - XENTRY/DAS This step is only to be used if step A or A1 has failed**

- i** Ensure use of **XENTRY Diagnosis version 03/2022** or higher.
- i** The current version of all add-ons must be installed.
- i** Make sure to follow the operation steps exactly as described in XENTRY Diagnosis.

**1.** Connect XENTRY Diagnosis.

- i** XENTRY **must** be connected via the cable with VCI/SD Connect.

**i** Note regarding vehicles with KeylessGo: Remove KeylessGo start button and perform test with ignition key.

**i** Do not perform any unnecessary braking procedures (maximum full-stop braking) before the test. As a rule, the test should be performed nonstop **without interruption**.

In certain conditions, the XENTRY scope of testing can be interrupted while the test is ongoing (e.g. hydraulic system is leaky) (cancellation). In this case, please follow the user guidance in XENTRY/DAS Diagnosis, because notes on the causes will be displayed for you.

**IMPORTANT:** If XENTRY/DAS Diagnosis requests that the brake pedal be withdrawn into the starting position toward the driver, this **must** be done by means of a powerful foot motion.

Check brake booster with XENTRY/DAS.

**i** To do this, select the menu item "Main groups – Control units - Chassis – ESP-Electronic Stability Program – Complete list of guided tests – Braking power".

**i** Then follow the user guidance in XENTRY/DAS Diagnosis.

**i** Print out the brake force "event log" after the test and store to a local HDD/computer storage location.

- a. XENTRY/DAS test **not** passed: Please **perform this test again**.

- i** **Only perform this test twice.**

- b. XENTRY/DAS test **passed**: **Continue with operation step 2.**

**i** If the XENTRY/DAS test was **not** passed the first time, you **must** perform a second XENTRY/DAS test. If this second test is now **passed**, continue with the operation step 2 of scope of testing B.

**IMPORTANT:** Only perform the **second** test if the **first** XENTRY/DAS test was **not** passed.

The **second** test must be invoiced using operation number 02-0245 or 02-0246.

- a. XENTRY/DAS test of the **second test not** passed: **Close campaign with claim**. See Launch NCU FAQ for mobility solution options to offer to the customer until parts can be exchanged.
- b. XENTRY/DAS test of the **second test passed**: Continue with **operation step 2**.

2. Apply marking with **white touch-up paint pen (1, figure 10)** to the inspected brake booster.
- i** Under no circumstances should you treat the brake booster with anti-corrosion agent/paint.



Figure 10

3. Dealer must order brake booster via parts ordering system.
4. Disconnect XENTRY Diagnosis.

**Warranty Information**

**i** **Note:** The following allowable labor operation should be used when submitting a warranty claim for this repair:

Damage Code	Operation Number	Description	Labor Time (hrs.)	
42 900 05	02-0053	<b>Check/test procedure A</b> Check brake unit <b>Includes:</b> Remove rubber sleeve from brake unit and document test result This operation number can be used even if <b>no rubber sleeve</b> is present on the brake unit	0.2	
	02-0088	<b>Check/test procedure A1</b> Check barcode on brake unit Only if <b>no rubber sleeve</b> is present on the brake unit End of test: Do not perform any further work.	0.1	
	<b>End Here If Vehicle Passed Visual Inspection</b>			
	02-0054*	<b>Check/test procedure B</b> Check brake unit using XENTRY Diagnosis Findings: OK <b>Includes:</b> Connect/disconnect XENTRY	0.4	
	<b>End Here If Vehicle Failed Visual Inspection &amp; Passed 1<sup>st</sup> XENTRY Check</b>			
	02-0058*	<b>Check/test procedure B</b> Check brake unit using XENTRY Diagnosis Findings: <b>not</b> OK <b>Includes:</b> Connect/disconnect XENTRY Repeat scope of testing with the result of test item 02-0223 or 02-0224.	0.4	
	02-0223**	<b>Check/test procedure B - 2<sup>nd</sup> XENTRY/DAS test</b> Extra work for: G 02 0058: Check brake unit with XENTRY Diagnosis – findings OK <b>i</b> The <b>second time</b> the vehicle was tested, it was found to be <b>OK</b> .	0.2	
	<b>End Here If Vehicle Failed Visual Inspection &amp; Failed 1st XENTRY Check but Passed 2nd XENTRY Check</b>			
	02-0224**	<b>Check/test procedure B - 2<sup>nd</sup> XENTRY/DAS test</b> Extra work for: G 02 0058: Check brake unit with XENTRY Diagnosis – findings <b>not</b> OK <b>i</b> The <b>second time</b> the vehicle was tested, it was found to be <b>not OK</b>	0.2	
	* Invoice only operation item 02-0054 or 02-0058. Invoicing both operation items is not permissible. ** Invoice operation item 02-0223 or 02-0224. Invoicing both operation items is not permissible.			

**i** **Note:** Always check ASRA for the current OP-Code times. Labor times are subject to change and updates may not be reflected in this document.