

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>Emission Modification Notification – [[2020050019]] MY 09 ML320 BlueTec 4MATIC Update – Emission Modification Category (EMC) #5</b>	DATE: January 13, 2022

## IMPORTANT EMISSION MODIFICATION NOTIFICATION

### Attention Dealership Management

- Please ensure that every dealership associate is aware of this Emission Modification notification, and that customer-facing associates provide transparent information to Customers.
- Refer to VMI in NetStar to determine which units in your inventory are affected by this Emission Modification. This notification hereby instructs **Dealers not to sell or cause to be sold, or lease or cause to be leased, or introduce into commerce, or export** from the United States to another country, any vehicle covered by this notification, unless it has received the Approved Emission Modification described in this notification. **Failure to adhere to these instructions may result in possible penalties or fines.**
- Run a VMI check on all vehicles brought into your Service Department to determine if they are affected by any service campaign or recall and perform accordingly.
- Always act with the principles of Customer Experience in mind.
- Refer to the work instructions and ensure each step in the defined process is followed exactly as described. Steps such as affixing the vehicle label and correctly filling out the vehicle label must be adhered to. **Failure to adhere to these instructions may result in possible penalties or fines.**
- Ensure your warranty administrator submits warranty claims for this Emission Modification in a timely manner. Extended warranty applicability stated herein is automatically enabled once the Approved Emission Modification is completed and the warranty claim is processed.
- A proposed class action settlement has been filed that provides compensation to customers who receive the Emission Modification and meet certain other requirements. To receive such compensation, class members will need to submit (among other things) copies of their Repair Order showing proof that the Emission Modification was installed and (if any) proof of transportation expenses incurred to receive the Emission Modification—up to \$35—in the event that a loaner, shuttle, or alternative transportation cannot be arranged by your dealership. Please remind customers to save this documentation.
- Customers should **not** be given information about the Emission Modification or the class settlement that deviates from, or is in addition to, what is in authorized communications reflected in this NCU or the official websites: [www.mbbluetecsettlement.com](http://www.mbbluetecsettlement.com) and [www.BlueTecUpdate.mbusa.com](http://www.BlueTecUpdate.mbusa.com). **Failure to adhere to this instruction could threaten final implementation of the settlement and may result in possible penalties.**

Other than the benefits class members can claim through the class action settlement process, customers cannot be offered any compensation in exchange for receiving the Emission Modification. **Failure to adhere to this instruction may result in possible penalties.** (At their discretion and on a case-by-case basis, Dealers can continue to offer customers goodwill for other reasons consistent with normal business practices and policies, but additional compensation in exchange for receiving the Emissions Modification is prohibited.)



## Information for Customers:

- For information related to this specific Emission Modification, Customers can refer to: <https://BlueTecUpdate.mbusa.com>
- For information related to the proposed class action settlement, Customers can refer to: [www.mbbluetecsettlement.com](http://www.mbbluetecsettlement.com)
- Mercedes-Benz Customer Assistance Center: **1-833-841-9362**

Please note that all customer inquiries should be directed to the Customer Assistance Center at 1-833-841-9362.

Sincerely,

Gregory Gunther

Department Manager, Vehicle Compliance & Analysis



Emission Modification Notification			January 13, 2022
<b>Campaign No.:</b>	<b>EMC#</b>	<b>Campaign Desc. :</b>	BlueTEC Update – MY 09 ML (W164)
2020050019	5	19P4992010	
<p>This is to notify you of an <b>Emission Modification Notification</b> to update the emission control system on approximately 3277 Model Year (“MY”) 2009 ML320 BlueTEC 4MATIC (W164) diesel vehicles. Emission Modification information will be visible on the <a href="https://BlueTecUpdate.mbusa.com">https://BlueTecUpdate.mbusa.com</a> website and may generate questions from Owners and Lessees. <b>Affected VINs will be flagged in VMI as “OPEN” on January 13, 2022.</b></p>			
<b>Background</b>			
<b>Issue</b>	Mercedes-Benz USA, LLC (“MBUSA”) is modifying the emission control system on certain diesel vehicles. The Emission Modification for MY09 ML320BT BlueTEC 4MATIC (W164) vehicles has been approved by EPA and CARB, and is now ready for installation. An authorized Mercedes-Benz Dealer will install the Emission Modification at no cost to the Owner/Lessee.		
<b>What We’re Doing</b>	An authorized Mercedes-Benz Dealer will replace certain emission control system components and update certain software in eligible vehicles.		
<b>Parts</b>	Parts are available as of 1/13/2022		
<b>Vehicles Affected</b>			
<b>Vehicle Model Year(s)</b>	MY 2009		
<b>Vehicle Model</b>	ML320 BlueTEC 4MATIC (W164)		
<b>Vehicle Populations</b>			
<b>Total Campaign Population</b>	3277		
<b>Total Customer Vehicles in Campaign</b>	3277		
<b>Next Steps/Notes</b>			
<b>Customer Notification Timeline</b>	Customer letters will begin to be mailed on January 13, 2022.		
<b>AOMS/SOMS</b>	This Emission Modification Notification may initiate questions from customers and the media. Please ensure your Dealers have read and understand this notice.		
<b>Notes</b>	<ul style="list-style-type: none"> <li>• <b>IMPORTANT:</b> This notification hereby instructs Dealers not to sell or cause to be sold, or lease or cause to be leased, or introduce into commerce, or export from the United States to another country, any vehicle covered by this notification, unless it has received the Approved Emission Modification described in this notification. Failure to adhere to these instructions may result in possible penalties or fines.</li> <li>• Follow ALL steps of the work instructions.</li> <li>• More information about a class action settlement providing incentives to customers who receive the Emission Modification can be found at <a href="http://www.mbbbluetecsettlement.com">www.mbbbluetecsettlement.com</a></li> <li>• Emission Modification information: <ul style="list-style-type: none"> <li>• Mercedes-Benz specific emission modification related information: <a href="https://BlueTecUpdate.mbusa.com">https://BlueTecUpdate.mbusa.com</a></li> <li>• Mercedes-Benz Customer Assistance Center: 1-833-841-9362</li> </ul> </li> </ul>		
<p>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 1-833-841-9362.</p>			



## **DEALER FAQs**

### **What is the reason for this Emission Modification?**

On March 9, 2021, Daimler AG (“DAG”) and Mercedes-Benz USA, LLC (“MBUSA”) reached a settlement with the United States Department of Justice (“DOJ”), the Environmental Protection Agency (“EPA”), the California Air Resources Board (“CARB”), and the California Attorney General’s Office (“CA AG”) regarding the emission control system in MY09 to MY16 OM642 and OM651 BlueTEC II diesel vehicles sold or leased in the US. As part of this settlement, MBUSA is offering eligible Owners and Lessees a modification to the vehicles’ emission control system, referred to as an Emission Modification.

Eligible vehicles and vehicle model years have been separated into Emission Modification Categories (“EMCs”) to facilitate the Emission Modification Program. Each EMC will be launched in phases, and MBUSA will notify authorized Mercedes-Benz Dealers after agency approval of each Emission Modification. Please refer to our public website <https://BlueTecUpdate.mbusa.com> for more information on your particular vehicle.

### **Is this a recall?**

No, this is NOT a recall. As part of the settlement with the US authorities, DAG and MBUSA are offering eligible vehicle Owners/Lessees a modification to the vehicles’ emission control system, referred to as an Approved Emission Modification (AEM). This modification will be performed at no cost to the Owner/Lessee.

### **What is an “EMC”?**

To facilitate the Emission Modifications on the subject vehicle population, the vehicle models and model years have been separated into Emission Modification Categories.

### **What are the eligible vehicles that will receive an Emission Modification under this settlement?**

This settlement pertains specifically to MY09 to MY16 BlueTEC II diesel vehicles with OM642 and OM651 engines sold or leased in the US. For more information, please visit <https://BlueTecUpdate.mbusa.com>.

### **How will the Emission Modification be communicated to Owners and Lessees in the US?**

Owners/Lessees will first receive a letter in the mail indicating that the Emission Modification is available for their vehicle and inviting them to schedule an appointment with their preferred authorized Mercedes-Benz Dealer.

### **How do Owners and Lessees find out whether their vehicle is affected by the Emission Modification Campaign?**

Owners and Lessees with affected vehicles will be mailed a notification letter when the Emission Modification is available. Owners and Lessees can also check if their vehicle is affected by entering their VIN into the following site: <https://BlueTecUpdate.mbusa.com>.

All vehicles covered by the Emission Modification Program also are covered by the proposed class action settlement described herein.



**Owners and Lessees might complain about a Check Engine light; will the Dealer repair the vehicle as part of the emissions update?**

A Check Engine light can illuminate for a number of reasons. Authorized Mercedes-Benz Dealers can offer assistance diagnosing and repairing the issue.

**Can an Owner or Lessee get a loaner vehicle or alternate transportation while the Emission Modification is being performed?**

Where loaner vehicles are available, Dealers are requested to offer loaner vehicles to each Eligible Owner and Eligible Lessee at no cost where the implementation of the Approved Emission Modification will take 3 hours or longer to complete.

In an instance where the Approved Emission Modification takes 3 hours or longer to complete, and where the Dealer does not make available a loaner car or offer a shuttle service or alternative transportation, Class Members will be eligible to submit a claim for transportation costs of up to \$35 along with their claims for other settlement compensation. For more information on the transportation allowance, customers should visit the class action settlement website at [www.mbbluetecsettlement.com](http://www.mbbluetecsettlement.com), and should be reminded to save their receipts.

**What is Mercedes-Benz going to do for Owners and Lessees given this inconvenience?**

Dealers will attempt to minimize any inconvenience during the Emission Modification process. Should Owners or Lessees experience an excessive delay with the Emission Modification of their vehicle, they can contact our Customer Assistance Center at 1-833-841-9362.

As part of the proposed consumer class action resolution, current owners and lessees of eligible vehicles who go to authorized Mercedes-Benz Dealers, have an Approved Emission Modification installed, and meet certain other requirements will be eligible to claim a payment of up to \$3,590. For more information on eligibility and the process for filing a claim, customers should call the number above or visit the class action settlement website at [www.mbbluetecsettlement.com](http://www.mbbluetecsettlement.com).

Other than the benefits that class members can claim through the class action settlement process, customers cannot be offered any compensation in exchange for receiving the Emission Modification. **Failure to adhere to this instruction may result in possible penalties.** At their discretion and on a case-by-case basis, Dealers can continue to offer customers goodwill for other reasons consistent with normal business practices and policies, but additional compensation in exchange for receiving the Emission Modification is prohibited.

**Where can an Owner or Lessee have the Emission Modification work completed?**

Owners and Lessees will be asked to contact their local preferred authorized Mercedes-Benz Dealer to arrange for an appointment to complete the FREE Emission Modification.

**Can Owners and Lessees have the Emission Modification performed if they did not receive a Notification Letter in the mail but own a Mercedes-Benz BlueTEC diesel vehicle?**

Owners and Lessees should first check the eligibility and status of their vehicle by visiting <https://BlueTecUpdate.mbusa.com>. To be automatically alerted when the Emission Modification is available for their vehicle, Owners and Lessees are being asked to complete the "Keep me Updated" section of the website after entering their VIN to check the status.



**Do Owners and Lessees have to wait for the notification letter in the mail before their vehicle can receive the Emissions Modification?**

Owners and Lessees do not need to present a copy of the notification letter to receive the FREE Emission Modification, but they should wait to bring their vehicle in for the Emission Modification until they receive notice that the Emission Modification has been launched for their specific vehicle model. The Emission Modifications will be launched in phases, pending agency approval, so the Emission Modifications for all of the subject vehicle models (all MY09 to MY16 BlueTEC II diesel vehicles with OM642 and OM651 engines sold or leased in the US) will not be launched at the same time. Once the Emission Modification has been approved for a particular vehicle type, Owners and Lessees will be sent a letter asking them to schedule an appointment with their authorized Mercedes-Benz Dealer to perform the FREE Emission Modification.

**Do Owners or Lessees need the Owner/Lessee notification letter to have the Emission Modification performed?**

No, Owners and Lessees with eligible vehicles do not need the notification letter to have the FREE Emission Modification completed. Local authorized Mercedes-Benz Dealers can check the eligibility and status of vehicles without the letter.

**What about Owners or Lessees who request that the Emission Modification be performed without first receiving a letter?**

No Emission Modification can be performed until EPA and CARB approve the Emission Modification for the specific model. Similarly, the affected VIN must be flagged as "OPEN" in VMI with the respective Emission Modification campaign number for the modification to be performed.

**When will parts be available?**

Parts are currently available for the Emission Modifications which have been approved by EPA and CARB. We will provide updates as parts become available for other vehicle models.

Regarding all other future vehicle categories, MBUSA is working with EPA and CARB to obtain approvals for the Emission Modification. MBUSA will notify Dealers upon approval of each Emission Modification that the Emission Modification has become available.

For up-to-date parts availability information, please refer to the website <https://BlueTecUpdate.mbusa.com>.

**Are there any known vehicle symptoms associated with the Emission Modification that Owners or Lessees will notice that should lead them to stop driving or take their vehicle to a Dealer?**

No. There are no symptoms related to the Emission Modification.

**What is the expected impact on an Owner's or Lessee's vehicle after the Emission Modification has been performed?**

Details on the impact to vehicles are provided in the letter for each Emission Modification Category. A copy of the Owner/Lessee letter for the EMC subject to this FAQ is attached.

**What types of repairs or replacements are needed?**

Authorized Mercedes-Benz Dealers will replace specific emissions-related components. This varies by model and model year. For more information, please visit <https://BlueTecUpdate.mbusa.com>.



**How long does this Emission Modification take?**

Replacement time is dependent upon the model and model year. This time may range from 30 minutes to a maximum of 16.5 hours. Details are provided in the Owner/Lessee notification letter.

**What if vehicles have been modified using after-market parts and/or software? Can the Emission Modification still be performed?**

If, prior to receiving the Emission Modification, the vehicle has been modified in a manner that impedes the installation of the AEM or substantially affects the operation of the AEM after install (for example, removal of original emissions components not part of the AEM), dealers might not be able to perform the Emission Modification until the prior modifications are corrected. The Owners/Lessees would be responsible for such corrections. Once corrected, the vehicle may receive the Emission Modification.

**What if Owners or Lessees decline to have the Emission Modification performed?**

If Owners/Lessees decline the Emission Modification at this time, they will be advised by their authorized Mercedes-Benz Dealer that certain emissions-related replacement and repair parts (for their existing system) may no longer be available from Mercedes-Benz at some point in the future. Additionally, the current vehicle Owner/Lessee will not be able to make a compensation claim as part of the proposed class action settlement without first having the Emission Modification performed on their vehicle.

**Will eligible vehicles have any warranty on the Emission Modification?**

Yes. Once the Emission Modification is performed, certain components will have an extended warranty for the greater of 4 years/48,000 miles from the date of installation of the Emission Modification or 10 years/120,000 miles from the initial sale date of the vehicle. As described in the Customer Letter, some emission-related components have an additional extended warranty period, which is added to the applicable Extended Modification Warranty period above. This extended warranty remains with the vehicle and is fully transferable to subsequent owners until expiration. Where loaner vehicles are available, Dealers are requested to offer loaner vehicles to each Eligible Owner and Eligible Lessee at no cost where extended warranty repairs exceed three hours to complete.

**Can Owners or Lessees be denied coverage under the Extended Warranty for the Emission Modification?**

The Extended Warranty for the Emission Modification may be denied if an eligible vehicle has been altered with the use of any after-market emissions-related components, parts, and/or software, or with the removal of any original emissions-related components, parts, and/or software, and such alteration(s) are likely to substantially affect the operation of the vehicle with the Emission Modifications, until the owner of such vehicle, at his or her expense, has reversed the alteration(s) such that the Emission Modification will not be substantially affected.





Mercedes-Benz

Campaign No. 2020050019, January 2022

TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: **Model ML-Class diesel vehicles (W164 platform)**  
**Model Year 2009**  
**Modification to the emission control system**

Mercedes-Benz USA, LLC ("MBUSA") is performing an emission campaign on certain MY09 ML-Class (W164) diesel vehicles in order to modify the vehicles' emission control system. EPA and CARB have approved this emission modification. An authorized Mercedes-Benz dealer will replace certain emission control system components and update certain software in the affected vehicles at no cost to the owner of the vehicle.

Prior to performing this Emission Campaign:

- Please check VMI to determine if the vehicle is involved in the emission modification campaign and if it has been previously repaired. Always Check VMI for any open campaigns, and perform accordingly.
- Please review the entire Emission Campaign bulletin and follow the repair procedure exactly as described.

Approximately 3,277 vehicles are involved.

Order No. P-EC-2020050019

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



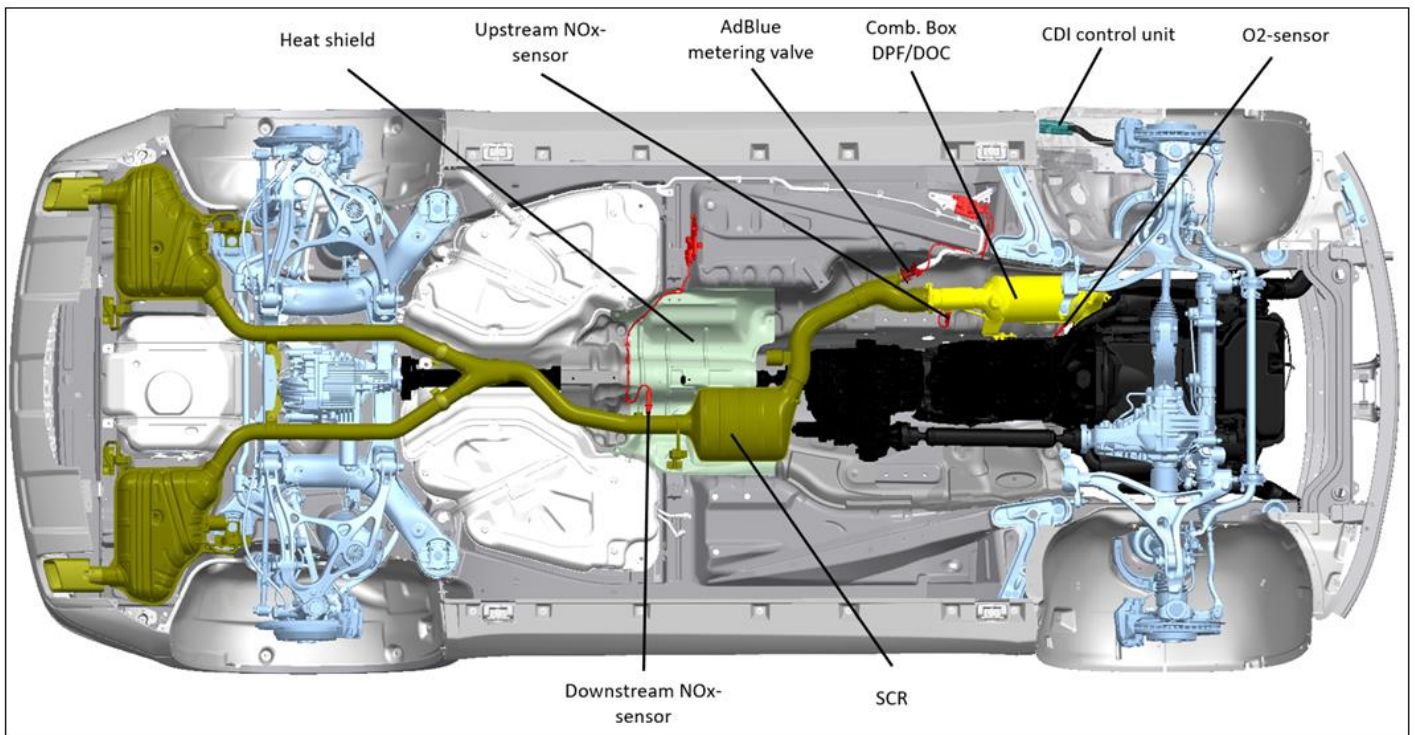
## Scope of Work:

**i** **Note:** Videos of exemplary modifications of a **GLK250 (MY13) BlueTec** and a **ML350 BlueTec (MY12)** can be found on WIS Service Media (WSM): GLK250 BlueTec: WSM ➔ Content by model series ➔ Passenger Cars ➔ GLK (Model 204.9) ➔ 49 – Exhaust system

### Work procedure

1. Connect XENTRY and perform Initial Short Test and Pre-Inspection
2. Disconnect Battery Ground
3. Replace charge air distribution line right and left, charge air cross pipe, clean air line, exhaust gas recirculation valve, exhaust gas recirculation cooler and exhaust pipe.
4. Replace components of the exhaust system (DPF/DOC and SCR catalyst).
5. Replace the exhaust heat shield
6. Replace O2 sensor
7. Replace both NOx sensors
8. Replace the DEF injection nozzle
9. Connect the battery ground
10. Check fuse **F119** for presence
11. Connect XENTRY Diagnosis.
12. Update and commission the engine control unit, update the software of the engine control unit, VGS and SCR.
13. Replace the control unit injection system.
14. Attach the adhesive label
15. Complete XENTRY Diagnosis.
16. Perform a final quick test

### Parts Overview




## Procedure






### 1. Initial Short Test and Initial pre-inspection

#### 1.2 Connect XENTRY diagnosis.

**i** **Note:**

- Use DAS/XENTRY 09/21-with all associated patches or higher.
- Follow the steps exactly as described in DAS/XENTRY.
- Connect battery charger (battery voltage  >12.5V).
- Ensure all electrical consumers are switched-off.
- In the event of software/SCN update issues, contact Star Diagnosis User Help Desk. Please refer to the “pre-call” check list before contacting UHD
- Refer to Star Diagnosis System (SDS) Best Practices Guide.

#### 1.3 Perform Pre-Inspection

**i** Follow the XENTRY procedure “Emission Modification Pre-Inspection”: “Main groups  Control units  Drive  CDI 6-Common Rail Diesel Injection  Special procedures  Pre-Inspection

#### Record findings on workorder and save to paperless

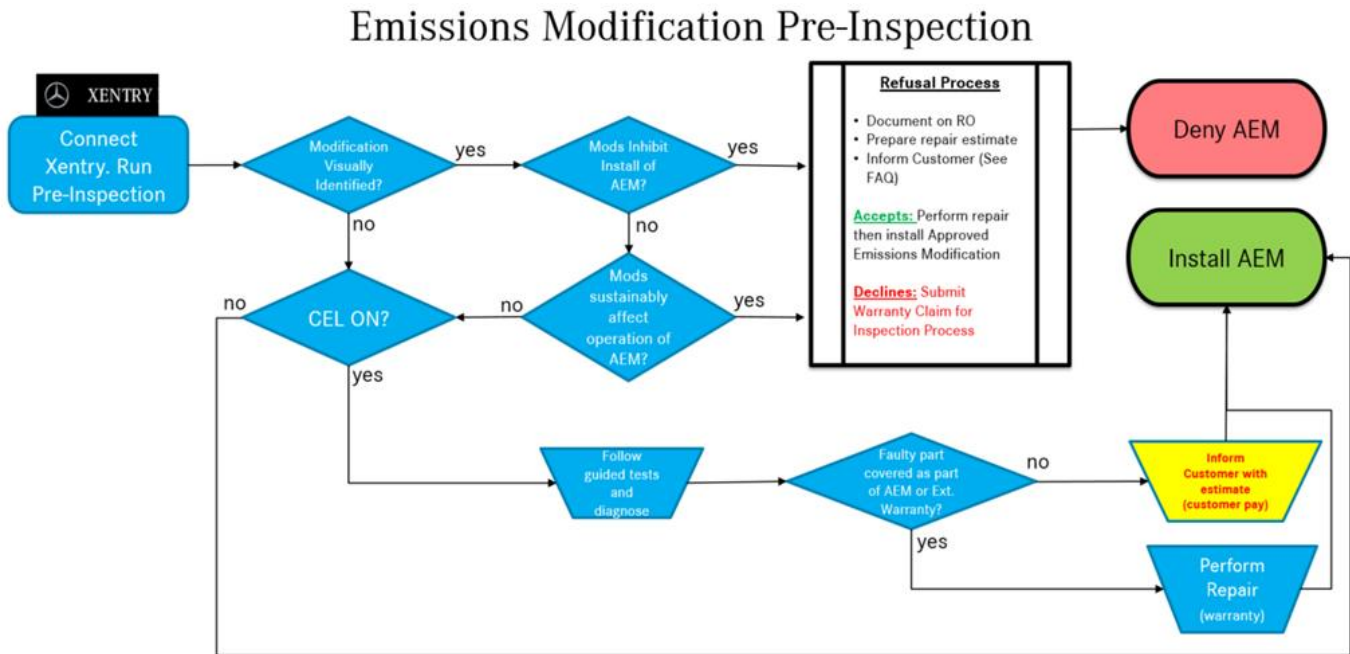
**i** **Note:** goal of the pre-inspection process is to perform an inspection of the emission system and ensure all components are present and functioning correctly (Check engine light “CEL” ON/OFF). The pre-inspection consists of the following procedures as displayed in the below flowchart:

1. **Visual inspection** of the emissions system to check for non-compliant alterations to the emission system that impedes the installation of the Approved Emission Modification (AEM) or substantially effects the operation of the AEM after installation. This consists of a brief visual inspection and does not require a technician to confirm if components are operating correctly. (Example: missing emission system components not replaced as part of the AEM)
  - a. If an alteration has been found during the visual inspection that meet the criteria mentioned in point 1, please advise the customer these alterations must be reversed at their expense before to proceed with the AEM. Please follow the below process to submit a warranty claim for the time associated to diagnosis and provide an estimate to the customer.
 

**Warranty Documentation Process:**

    1. Claim against damage code 4910N 01 – Approved Emission Modification Denial
    2. Up to 2 hours of diagnostic time permitted
    3. Ensure diagnostic time is properly punched on the RO
    4. Ensure RO is documented properly including a detailed explanation as to why the modification was denied
    5. Attach the RO to the warranty claim
2. **Initial Short Test** to check for CEL ON/OFF: Pre-existing issues (CEL ON) may be addressed at the time of AEM install if the components diagnosed are part of the AEM or extended warranty. For all other components, please provide the customer with a repair estimate and document if the customer approves/declines the additional repair(s). It is essential the AEM is installed regardless if the customer approved/declines additional repairs to address a pre-existing issue. A list of applicable extended warranty parts is available in XENTRY for the technician to refer to.

## 1.4 Pre-Inspection Overview (Figure 1)



**Figure 1**

## 1.5 Disconnect XENTRY diagnosis and remove battery charger

2. Disconnect battery ground.

**i** For basic data, see (AR54.10-P-0003GZ).

3. Replace charge air distribution line on the right (A 642 090 06 37) and left (A 642 090 47 37), charge air cross pipe (A 642 090 16 37), clean air line (A 642 090 82 37), exhaust gas recirculation valve (A 642 140 18 60), exhaust gas recirculation cooler (A 642 140 02 75) and exhaust pipe (A 642 140 24 08).

**i** For basic data see (AR14.20-P-7665GZB).

**i** (SI01.10-P-0004A).

The coolant is to be used again! The coolant must be drained, collected in a clean container and reused.

**i** Do not remove the oil dipstick guide tube (AR18.40-P-3510GZB).

**i** If possible, do **not** loosen the oil leak line, as it is quickly damaged.

It is better to disconnect the lines on the fuel filter.

**i** If the oil leak line needs to be loosened, absolute caution should be exercised.

**i** The corresponding spare parts are listed in the parts table under the respective spare part!

**i** Tighten the screw of the adjusting motor (A 642 450 05 94), which is included in the scope of delivery of the charge air distribution line on the right (A 642 090 06 37), only after the charge air distribution line has been attached to the cylinder heads on the left and right with the corresponding torque. Then attach the deflection lever and only then the screw of the actuator (A 642 450 05 94), with torque (Nm) 5 (Figure 2).

**i** Replace the O-rings (A 000 078 05 80) of the oil leak line at the injectors (Figure 3).



Figure 2



Figure 3

- i** The line from the left fuel distributor to the right fuel distributor is replaced by a new version (A 642 070 09 00) (**Figure 4**). A new clamp (1, **Figure 4**, (N 000000 006288)) with new bolt (2, **Figure 4**, (N 000000 001116 M6x19mm)). The old bracket on position (2, **Figure 4**) is reused and with a new bolt (N 000000 001114 M6x15mm) fastened. The old bracket must be reinstated as shown. Chafe-free routing must be ensured.

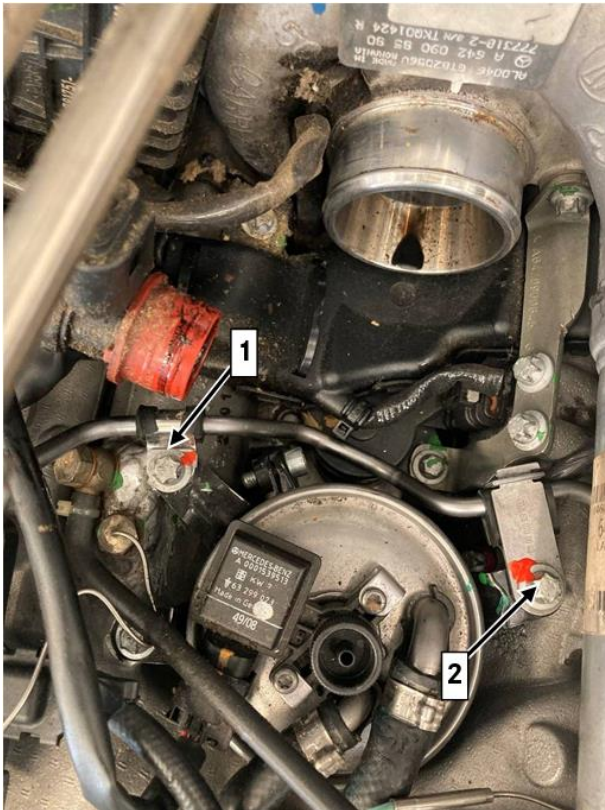


Figure 4

4. Replace components of the exhaust system DPF/DOC A 164 490 17 00 80 and SCR catalyst A 164 490 08 00 80.

**i** For basic data see **AR49.10-P-7100GZB, AR49.10-P-5501GZB, AR49.10-P-7000GZB, AR49.10-P-5500GZQ, AR49.10-P-5510GZB.**

**i** DPF/DOC with connected differential pressure lines **(Figure 5)**. Rebuild the differential pressure lines only in the removed state.

**i** Secure the rear muffler against falling.

**i** Remove all labels on the new DFP/DOC and SCR catalyst.



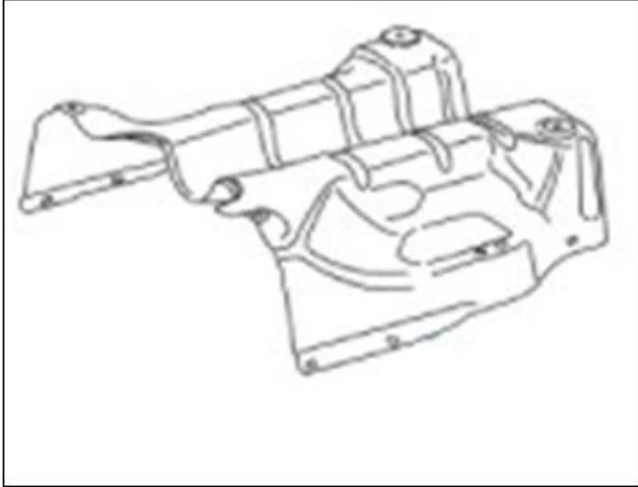
**Figure 5**

**i** The position of the temperature sensor has changed. When installed, lay the cable of the temperature sensor stress-free. The orientation of the temperature sensor **(A, Figure 6)** must point to the holder **(B, Figure 6)**. Use maximum cable length. If necessary, move the temperature sensor cable with a slight pull in the direction of the arrow to the temperature sensor **(Figure 6)**.



**Figure 6**

5. Replace the exhaust heat shield (A 164 682 47 71) (**Figure 7**).



**Figure 7**

6. Replace the O2 sensor (A 000 542 81 11).

**i** For basic data see **(AR07.04-P-0080GZC)**.

**i** The new O2 sensor is already equipped with hot lubricating paste.

7. Replace both NOx sensors (A 642 905 10 00 85).

**i** For basic data, see **(AR14.40-P-2038GZB)**.

**i** NOx sensor in front of SCR catalyst (A 000 905 57 12 80)  
 NOx sensor according to SCR catalyst (A 000 905 58 12 80).

**i** It is not necessary to perform the reset routine with XENTRY Diagnosis.

**i** The new sensors are already equipped with hot lubricating paste.

**i** The wires on the **old** NOx sensors should be cut off to facilitate removal and to ensure they are not reused (**Figure 8**).



**Figure 8**

8. Replace the DEF injection nozzle (A 164 490 26 00 80).

**i** For basic data see **(AR14.40-P-2000GZB)**.

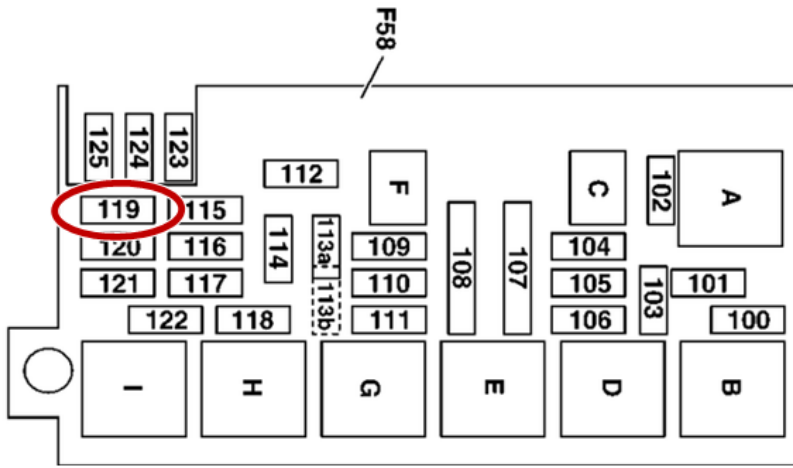
**i** The DTC memory does not have to be read out and deleted.

9. Connect the ground line of the battery.

**i** For basic data, see **(AR54.10-P-0003GZ)**.

10. Check fuse **F119** for presence in the fuse and relay box (F58) in the engine compartment on the right and remove if necessary.

**i** If this fuse is plugged in, it must be removed before the software update. The fuse must not be plugged in again and has to be disposed.



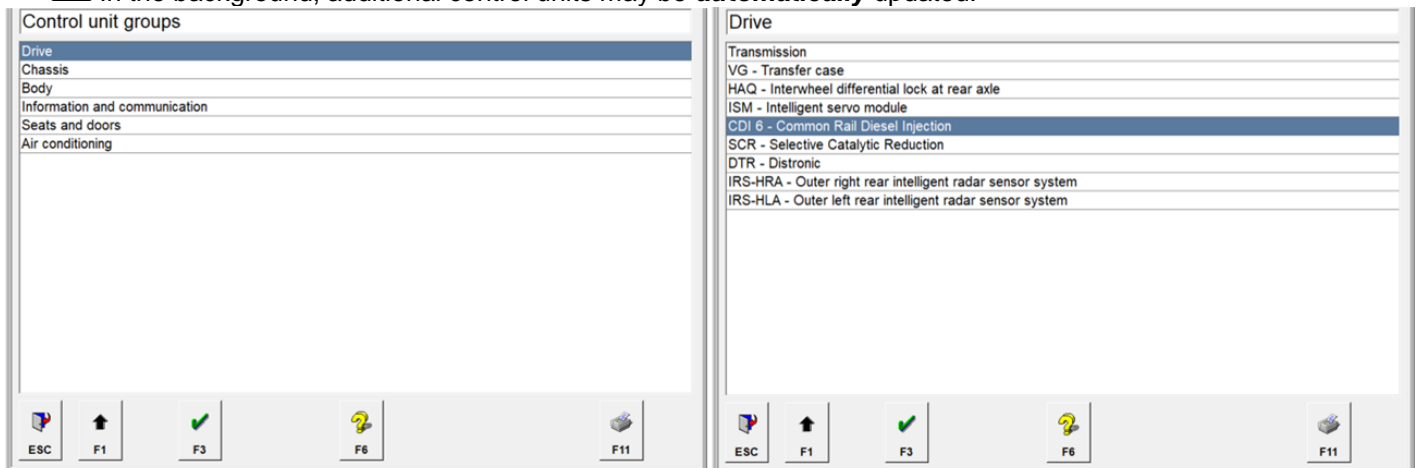
11. Connect XENTRY Diagnosis.

12. Update and commission the engine control unit, update the software of the engine control unit, VGS and SCR.

**i** Select menu item "Main groups ➔ Control units ➔ Drive ➔ CDI 6-Common Rail Diesel Injection ➔ Special procedures ➔ Perform Service Measure "Exhaust aftertreatment system".

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

**i** In the background, additional control units may be **automatically** updated.



CDI 6BIN5EU6 Common Rail Diesel Injection

- Control unit version
- Fault codes
- Event memory
- Actual values
- OBD I/M check ( Valid for USA )
- Emissions inspection ( Not valid for USA )
- Actuations
- Initial startup
- Control unit adaptations
- Complete list of guided tests
- Full list of fault codes and events
- Troubleshooting by means of complaints or symptoms
- Special procedures**
- Control unit log
- Recording of performance data
- Development data
- Finding performance tuning kits
- Order form for control unit replacement (event log 'Engine control unit')

ESC F1 F3 F6 F11

Service measure 'Exhaust aftertreatment system'

- Pre-Inspection
- Parts with extended warranty
- Perform service measure 'Exhaust aftertreatment system'.**
- Learning processes
- Check of software release
- Test

ESC F1 F3 F11

Perform service measure 'Exhaust aftertreatment system'.

Step 1 + 2

- Read out data from old control unit.
- Replace control module.

ESC F1 F3 F11

Step 1 Read out data from old control unit.

**Preconditions :**

- Component Exhaust system was exchanged.
- Component NOx sensor upstream of SCR catalytic converter was exchanged.
- Component NOx sensor downstream of SCR catalytic converter was exchanged.
- The old control unit is still installed.

**Question :**

- Are all requirements met?

ESC F1 YES NO F3 F4 F11

Step 2 Replace control module.

**Further procedure :**

- Back to menu item 'Control unit groups'


**Perform the following steps one after the other :**

- Drive
- CDI 6 - Common Rail Diesel Injection ( CDI 60LS - Common Rail Diesel Injection )
- Special procedures
- Perform service measure 'Exhaust aftertreatment system'.
- Step 3 Initial startup of new control unit CDI60LS

ESC F2 F11



13. Replace the engine control unit (A 642 900 10 02).

 For basic data see (AR07.08-P-7008GZB).

<p>Drive</p> <p>Transmission</p> <p>VG - Transfer case</p> <p>HAG - Interwheel differential lock at rear axle</p> <p>ISM - Intelligent servo module</p> <p><b>CDI 6 - Common Rail Diesel Injection</b></p> <p>SCR - Selective Catalytic Reduction</p> <p>DTR - Distronic</p> <p>IRS-HRA - Outer right rear intelligent radar sensor system</p> <p>IRS-HLA - Outer left rear intelligent radar sensor system</p> <p>ESC F1 F3 F6 F11</p>	<p>Service measure 'Exhaust aftertreatment system'</p> <p>Pre-Inspection</p> <p>Parts with extended warranty</p> <p><b>Perform service measure 'Exhaust aftertreatment system'.</b></p> <p>Learning processes</p> <p>Check of software release</p> <p>Test</p> <p>ESC F1 F3 F11</p>
<p>Perform service measure 'Exhaust aftertreatment system'.</p> <p><b>Step 3 Initial startup of new control unit CDI60LS</b></p> <p>Step 4 Programming Control unit SCR , Check of software release</p> <p>ESC F1 F3 F11</p>	<p>Step 3 Initial startup of new control unit CDI60LS</p> <p>The following steps are performed: :</p> <ul style="list-style-type: none"> <li>- Start-up control unit CDI60LS.</li> <li>- Control unit ETC is being reprogrammed.</li> </ul> <p>Continue with button F2</p> <p>ESC F1 F2 F11</p>
<p>Perform service measure 'Exhaust aftertreatment system'.</p> <p>Step 3 Initial startup of new control unit CDI60LS</p> <p><b>Step 4 Programming Control unit SCR , Check of software release</b></p> <p>ESC F1 F3 F11</p>	<p>Step 4 Programming Control unit SCR , Check of software release</p> <p>All preconditions are satisfied.</p> <p>The following steps are performed: :</p> <ul style="list-style-type: none"> <li>- Control unit SCR is being reprogrammed.</li> <li>- Concluding measures</li> </ul> <p>Continue with button F2</p> <p>ESC F1 F2 F11</p>

Perform service measure 'Exhaust aftertreatment system'.

**Instruction :**


- Fill out adhesive label correctly.
- Part number : A 000 584 63 15
- The picture shows how to fill out the fields correctly.

**1. Fill out fields on adhesive label. :**

- See work instructions
- EMISSION MODIFICATION PROGRAM NO: 2020050019
- DEALER CODE:
- DATE:

**2. Cross off the following fields for this vehicle. :**

- Crankcase ventilation valve
- Charge air distribution line & transverse tube
- Intake port shut-off actuator
- Clean air duct with MAF sensors
- EGR valve, cooler & line
- DEF dosing valve
- DPF + DOC



Navigation buttons: ESC, F1, F2, F8, F11

Check of software release

**Service measure "Exhaust gas aftertreatment"**

The procedure was completed successfully.

**Overview**

Components	Status
CDI60LS Common Rail Diesel Injection	CURRENT
Electronic transmission control (722.9 7G-Tronic)	CURRENT
SCR - Selective Catalytic Reduction	CURRENT
NOx sensor upstream of SCR catalytic converter	OK
NOx sensor downstream of SCR catalytic converter	OK
Equipment code 030	PRESENT
Equipment code 130	PRESENT
Equipment code 012	PRESENT
Equipment code 040 or 060	NOT PRESENT   PRESENT
Learning processes	SUCCESSFULLY ENDED

**Detailed view**

Navigation buttons: F2, F11

14. Clean the bonding surface of the hood and attach the adhesive label (A 000 584 63 15) **(Figure 9)**.

- i** The fields on the adhesive label must be filled out correctly. Please use black permanent marker. Refer to **(Figure 9)** within the XENTRY procedure.
- i** The adhesive label can be applied to the hood **while** updating the software for the engine control unit.
- i** Failure to comply may result in dealer debit and/or possible fines.

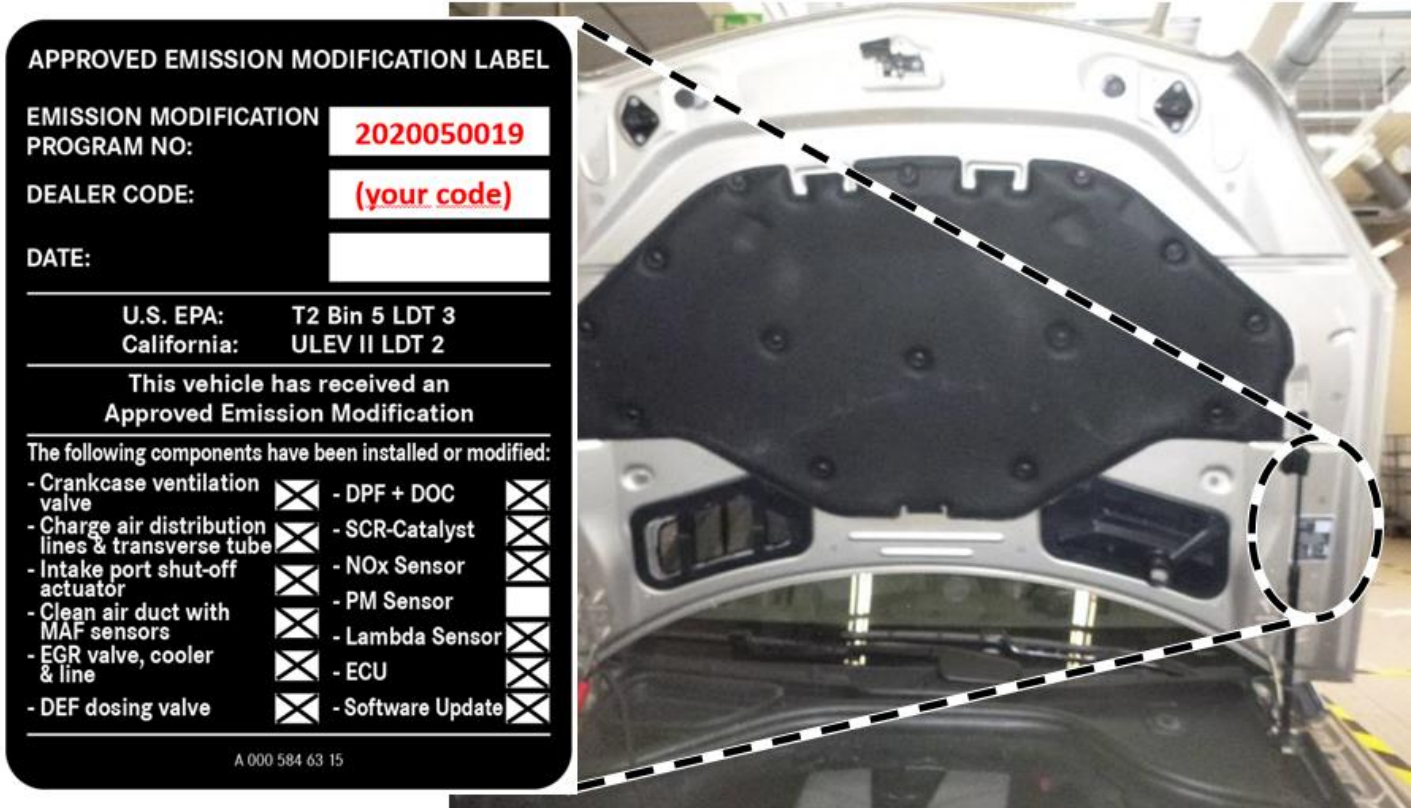


Figure 9

15. Complete XENTRY Diagnosis.

16. Perform a final quick test and transmit to paperless SDS.

- i** Faults stored in the memory, caused by disconnected lines during the inspections, must be deleted from the fault memory after completing the work.
- i** If faults are present they need to be addressed. Create a PTSS case if technical support is needed.

### Primary Parts Information

Qty.	Part Name	Part Number
1	Part Kit (2 x NOX sensors)	A 642 905 10 00 85
1	Small parts Kit	A 164 490 23 00 05
1	Combination box (DOC+DPF)	A 164 490 17 00 80
1	SCR catalyst	A 164 490 08 00 80
1	O2 sensor	A 000 542 81 11
1	Shielding plate	A 164 682 47 71
1	ECU	A 642 900 10 02
1	Dosing module	A 164 490 26 00 80
1	Adhesive Label	A 000 584 63 15
1	<b>Part Kit Charge Air Pipe Left</b>	A 642 090 20 00
1	<b>Part Kit Charge Air Pipe Right</b>	A 642 090 21 00
1	Hexalobular bolt Fuel filter on right charge air distribution line right; M6X19	N 000000 001116
1	<b>Part Kit Charge Air Pipe</b>	A 642 090 23 00
1	Hexagon nut	A 000 990 43 37
1	<b>Clean Air Duct</b>	A 642 090 82 37
1	<b>Parts Kit venting tube</b>	A 642 010 75 15
1	<b>Exhaust gas heat exchangers</b>	A 642 140 02 75
1	O-ring	A 020 997 47 45
2	Screw	N 000000 001114
1	Sealing insert heat exchanger on charge air distributor line	A 642 142 05 80
4	Hexagon bolt heat exchanger on charge air distributor line; M6x23	N 000000 001117
1	<b>Exhaust gas recirculation valve</b>	A 642 140 18 60
2	Screw	N 000000 001117
2	Band clamp	A 140 995 01 05
1	<b>Exhaust pipe</b>	A 642 140 24 08
3	Hexagon bolt M6x16	N 910143 006001
1	<b>Parts Kit exhaust gas turbochargers</b>	A 642 090 24 00
1	<b>Parts Kit fuel line</b>	A 642 070 15 00
1	Clamp	N 000000 006288
1	Hexalobular bolt Fuel filter on right charge air distribution line left; M6X19	N 000000 001116
1	Hexalobular bolt M6X15	N 000000 001114

**i** Small parts such as screws, stop nuts, sealing rings, cable ties, liquids, sealants, etc. are not listed in the parts listing. The required small parts are within budget taken into account.

**i** Parts listed below bolded parts are included in the same repair step.

**i** Parts list may not include all screws and gaskets due to model variations. Additional parts must be ordered separately and are VIN specific.

**Warranty Information****Operation: (02-1062)** Replace NOx sensors and exhaust system components

Includes: Pre-inspection, replace DPF/DOC and SCR catalyst, DEF injection nozzle, charge air distribution line right and left, charge air cross pipe, clean air line, exhaust gas recirculation valve, exhaust has recirculation cooler, exhaust pipe, O2 sensor, remove and connect the ground line of the battery, connect, connect/disconnect XENTRY Diagnosis, connect/disconnect starter battery charger, engine control unit and software for the engine control unit, VGS and SCR, as well as attach under hood label.

<b>Damage Code</b>	<b>Operation Number</b>	<b>Labor Time (hrs.)</b>
49 920 10	02-1062	16.5

** Note**

Operation labor times are subject to change