



Campaign No. 2020050029 March 2021

TO: ALL MERCEDES-BENZ CENTERS

SUBJECT: **Model E-Class diesel vehicles (212 platform)**
Model Year 2014-2015 with OM651
Modification to the emission control system

Mercedes-Benz USA, LLC ("MBUSA") is performing an emission campaign on certain E-Class diesel vehicles in order to modify to the vehicles' emission control system. EPA and CARB have approved this emission modification for the MY14 - 15 E-Class (212) diesel vehicles. 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 2,554 vehicles are involved.

Order No. P-EC-2020050029

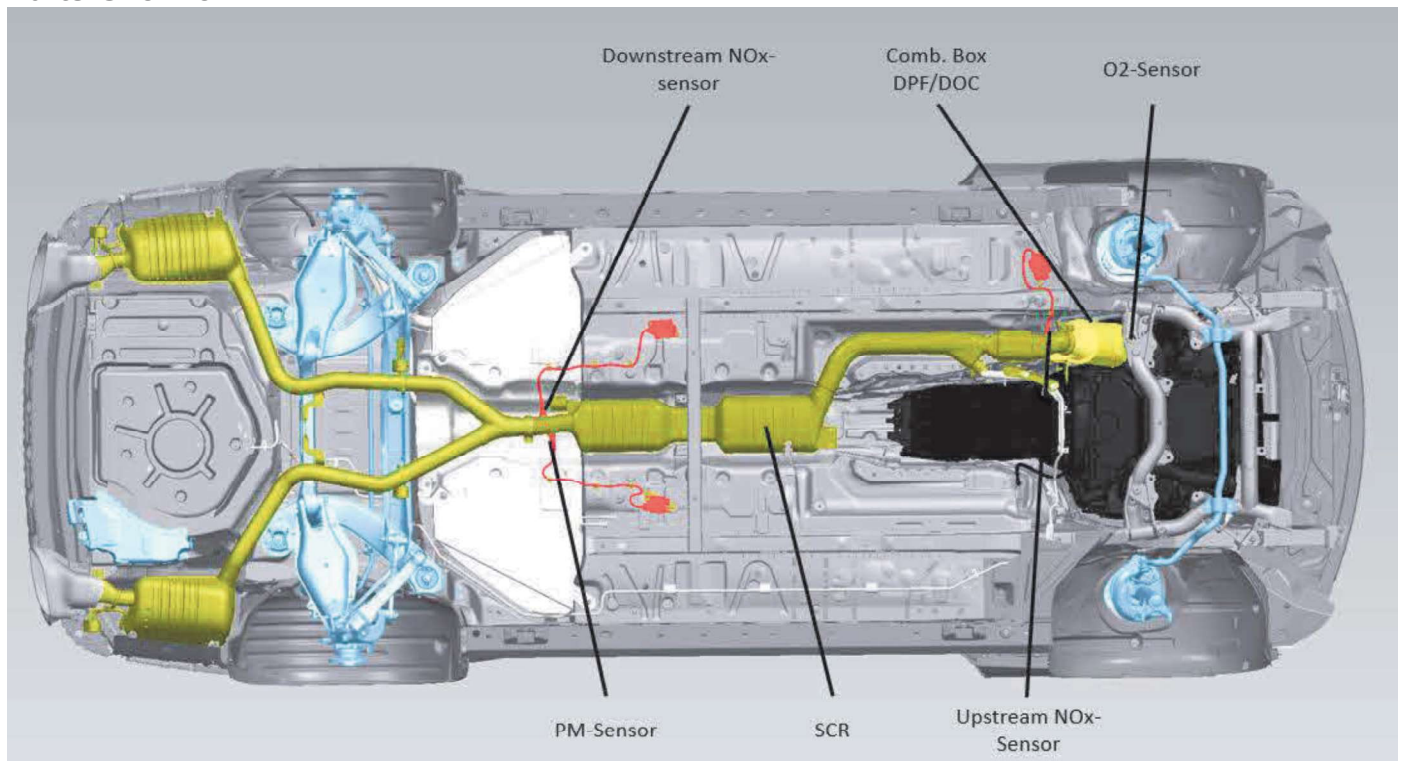
This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Records.

Scope of Work:

Work procedure

1. Initial Short Test and Pre-Inspection
2. Disconnect Battery Ground
3. Release air filter housing together with control unit
4. Replace Combination Box DOC+DPF
5. Install end-cap to O2 sensor electrical harness
6. Install Plug for O2 sensor port on the DOC
7. Replace SCR
8. Replace NOx sensor control unit after the Diesel Particulate Filter (DPF)
9. Replace NOx sensor and Particulate sensor control unit downstream of the Selective Catalytic Reduction (SCR) catalyst
10. Reconnect Battery Ground
11. Connect XENTRY diagnosis
12. Perform Xentry Procedure: Service Measure "Exhaust Aftertreatment System" (includes update of CDI, VGS, and SCR software)
13. Perform Final Short Test
14. Attach the adhesive label

Parts Overview




Procedure


1. Initial Short Test and Initial pre-inspection

1.2 Connect XENTRY diagnosis.


Note:

- Use DAS/Xentry 09/20-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

 Follow the Xentry procedure “Emission Modification Pre-Inspection”: “Control units view ➡ N3/9 – Motor electronics ‘CR43’ for combustion engine ‘OM651 (CDI) ➡ Special procedures ➡ Service Measure ‘Exhaust aftertreatment system’ ➡ Pre-Inspection

Record findings on workorder and save to paperless

 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 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 a customer 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)

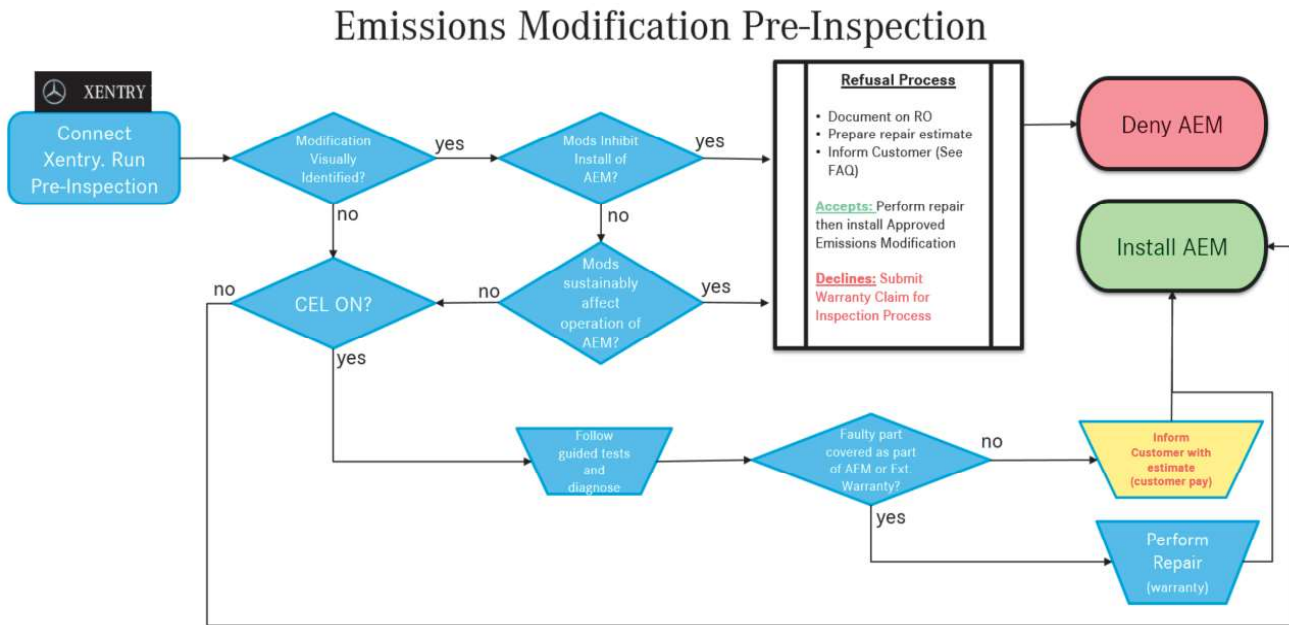


Figure 1

2. Disconnect battery ground (AR54.10-P-0003EW).
3. Remove the air filter housing (AR09.10-P-1150CD).
4. Connect the plug (A 000 545 40 39) (Figure 2) to the engine harness for the oxygen sensor
 - i** The electrical connection of the oxygen sensor *is no longer required!*
5. Plug the oxygen sensor on the **new** Catalyst (DOC) with plug (N 007 604 018 109) and seal (A 021 997 62 45) (Nm 50, Figure 3).
 - i** Oxygen sensor is *no* longer required!



Figure 2




Figure 3

6. Remove the engine compartment trim at the bottom (middle and rear).
 - i** Basic data see **AR61.20-P-1105EW**
 - i** Only loosen the rear underbody panelling (**right and left**).
7. Replace DOC+DPF.
 - i** Basic data see **AR49.10-P-5501CD; AR49.10-P-5500OMD**.
8. Replace components of the exhaust system (SCR catalytic converter).
 - i** Basic data, see **AR49.10-P-7100EWI**.
 - i** Remove all adhesive labels on the diesel particulate filter and SCR catalytic converter.
9. Replace both NOx sensors and Particulate sensor (**AR14.40-P-2038OGE**).
 - i** It is not necessary to carry out the reset routine using XENTRY Diagnosis.
 - i** The new sensors are already equipped with paste, hot lubrication.
 - i** The pigtail wire at NOx sensor should be cut for ease of removal and to ensure it is not reused (**Figure 4**).



Figure 4

10. Reconnect battery ground (**AR54.10-P-0003EW**).
11. Connect XENTRY diagnosis. Update characteristics of the control unit
 - i** **Note:**
 - Use DAS/Xentry 6/20 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.

12. Perform Xentry procedure “Service Measure Exhaust Aftertreatment System”

- i** **i** To do so, select menu item “Control units view ➡ N3/9 – Motor electronics ‘CR43’ for combustion engine ‘OM651 (CDI) ➡ Special procedures ➡ Perform Service Measure “Exhaust aftertreatment system”

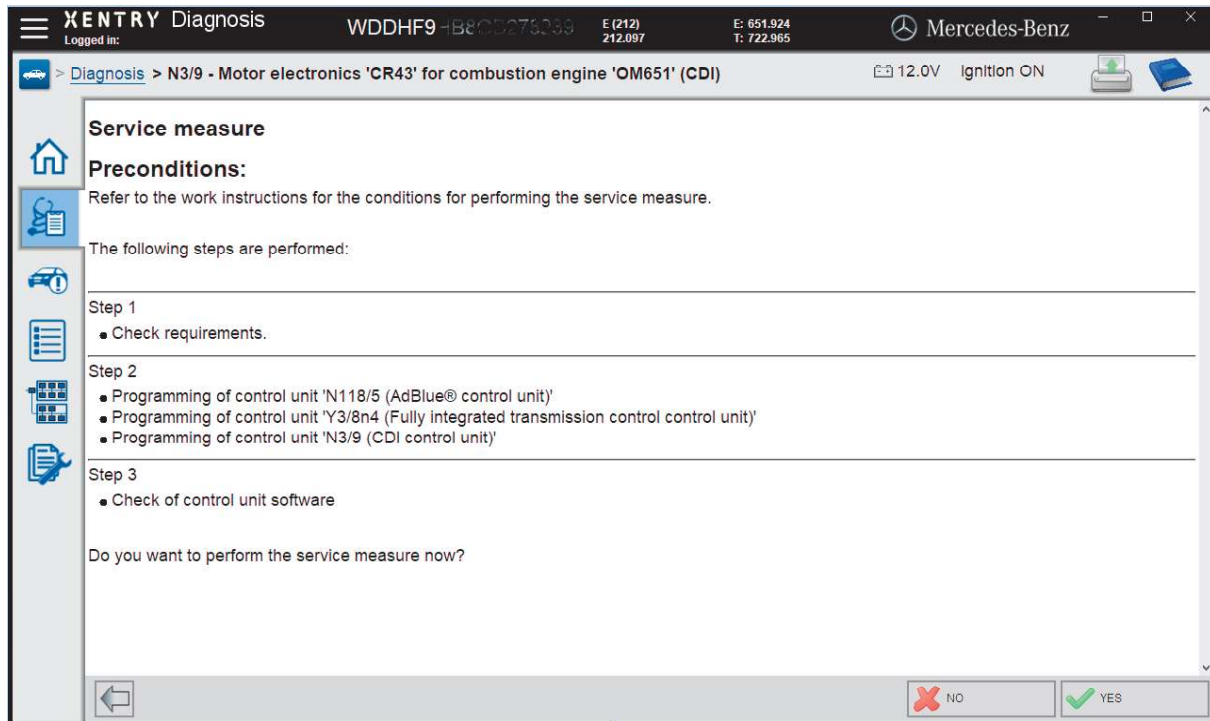


Figure 5

- i** Subsequently, follow the user guide in XENTRY diagnosis.
- i** Additional control units will be updated **automatically** in the background.
- i** Fill out emission label according to Xentry instructions

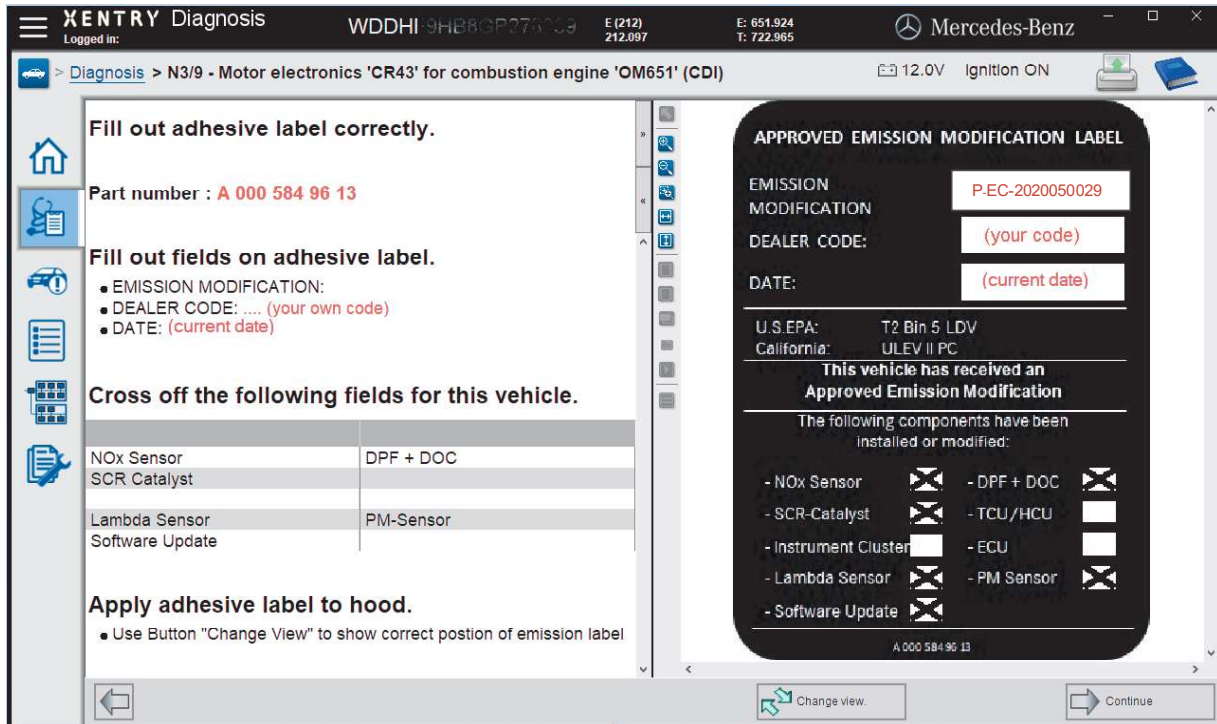


Figure 6

i Check screen will be shown at end of procedure.

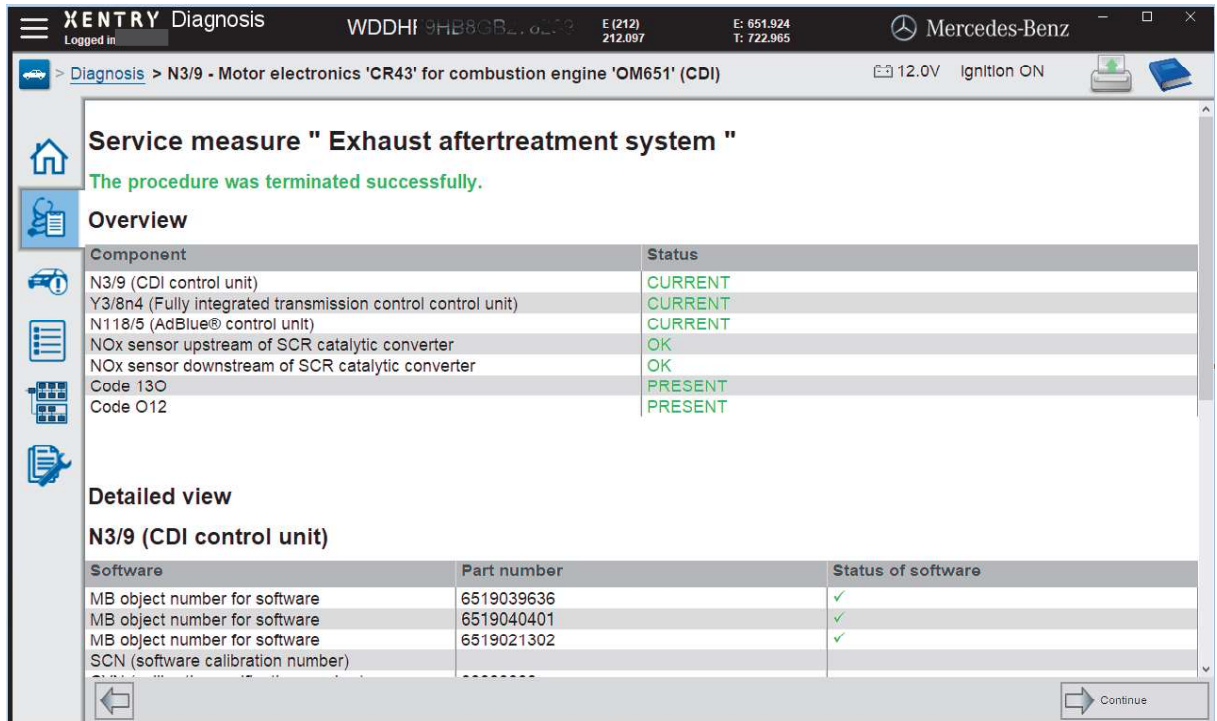


Figure 7

13. 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 The procedure via the diagnostic system is shown on the following pages.

i If faults are present and stored they need to be addressed. Create a PTSS case

14. Clean the bonding surface of the hood and attach the AEM-label (**Figure 8**).

i The fields on the adhesive label must be filled out correctly. Please use black permanent marker.

i Refer to (**Figure 6**) 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.**

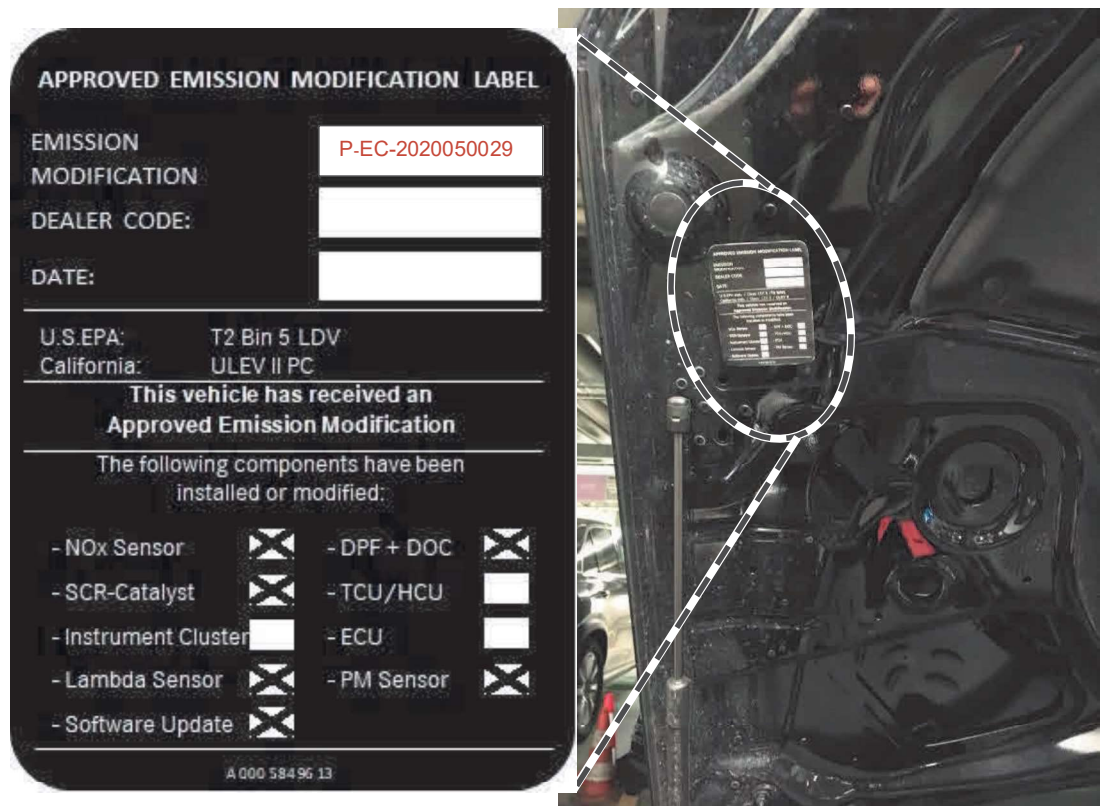


Figure 8

Primary Parts Information

Qty.	Part Name	Part Number
1	Parts kit (2x NOx sensors)	A 642 905 11 00 85
1	PM sensor	A 000 905 05 08
1	SCR catalytic converter	A 212 490 45 00 80
1	Part kit Combination box (DOC+DPF)	A 212 490 74 00 85
1	AEM-Label	A 000 584 96 13
1	Screw plug	N 007 604 01 81 09
1	Sectional sealing ring	A 021 997 62 45
1	Plug housing	A 000 545 40 39
1	Exhaust clamp	A 000 490 14 41
1	Bracket	A 221 492 03 18
3	Nut	A 120 142 00 72
1	Bracket	A 212 490 00 44
2	Nut	N 000000003175

i Small parts such as screws, stop nuts, sealing rings, cable ties, liquids, sealants, etc. that are not listed in the parts list. The small parts required (per WIS instruction) are included in the cost and can be claimed.

Warranty Information

Operation: Replace components of the exhaust system

Includes: Carry out commissioning the Control units (CDI, VGS, SCR) with XENTRY and affix AEM Label.

Damage Code	Operation Number	Labor Time (hrs.)
49 920 20 7	02-1744	3.4

i **Note** Operation labor times are subject to change