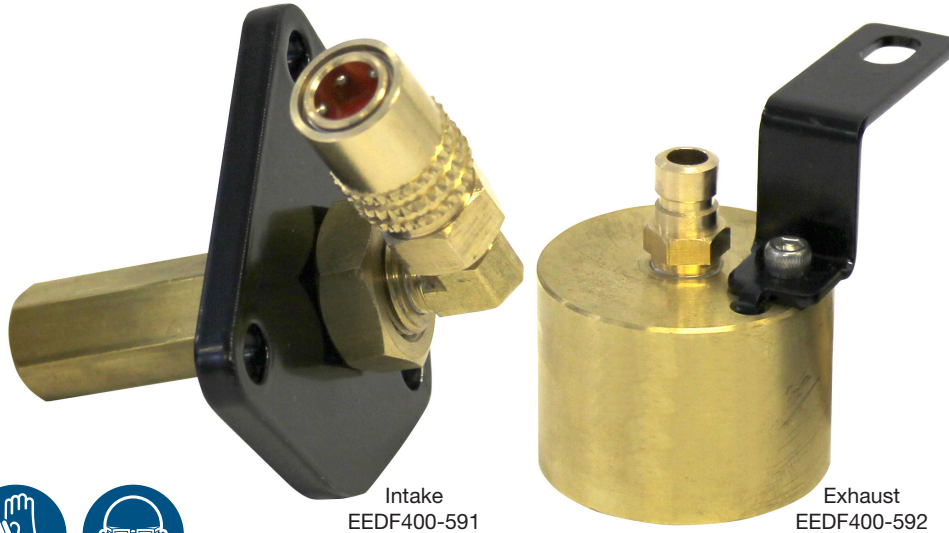




EEDF400-591 & EEDF400-592

Mercedes 3L 6-Cyl BlueTEC diesel engine (2007-2011) EGR Cleaning Instructions



WARNING: Wear gloves and safety goggles (User and bystanders) when performing this service

IMPORTANT: Immediately after a service, a forced regen must be completed. If a regen cannot be commanded via a scan tool (see OEM recommendations), the vehicle must be road tested at highway speeds for approximately 20-30 minutes. This is necessary to remove any remaining cleaning solution from the passages and cooler(s), and to combust any material that has reached the diesel particulate filters (DPF).

This must be completed immediately after the service.

EGR System Consists of:

- Hot side EGR valve (before EGR cooler) controls exhaust gases for proper emissions control of NOx gases
- EGR cooler (controls temperature of exhaust gases to the air intake to the engine)
- EGR temperature sensor (measures EGR cooler exhaust temperature and efficiency)
- Swirl flaps (control airflow under different engine speed and loads) located inside intake plenum

These items are critical for proper emissions management control and must be cleaned on a regular basis for optimum efficiency.

First steps before any service can be performed.

1. Add Blue-Point® Diesel Fuel Injector Cleaner (EEDF400-INJ) to the vehicle's fuel tank.
2. Remove the plastic engine cover.
3. If the engine is hot, the EGR cooler must be cooled – see Note in step 10

Locations of EGR components:

- EGR temperature sensor – EGR cooler outlet pipe
- EGR valve (figure 2)



Tool & Manifold Required:

- EGR Tool (EEDF400)
- EGR Manifold (EEDF400M)



4. Remove turbo charger air outlet pipe to provide access for removal of EGR cooler outlet pipe (see figure 3). Be careful not to lose the o-ring at the turbo charger outlet

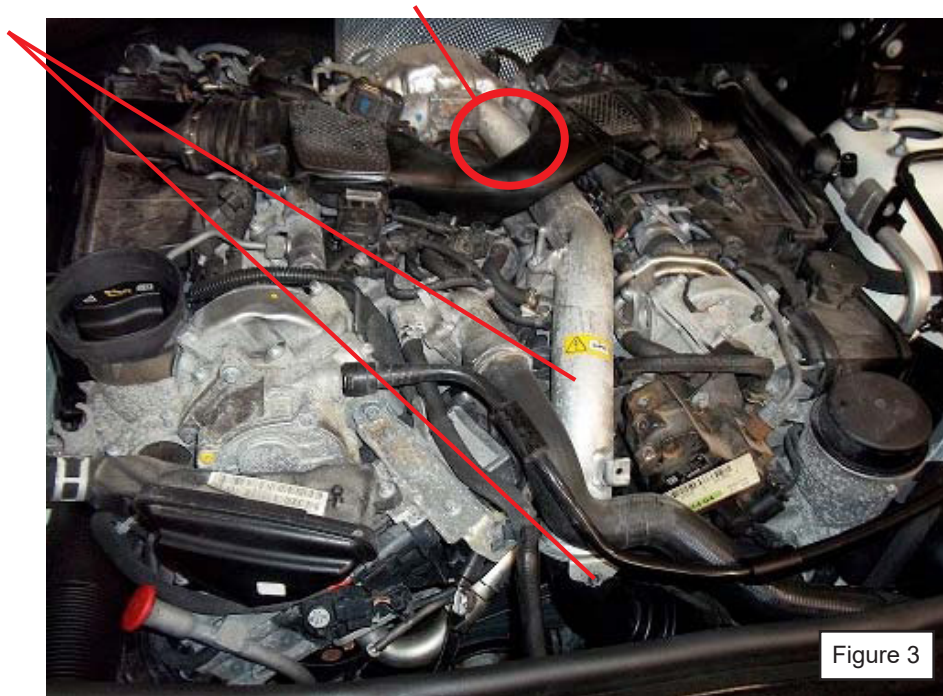


Figure 3

5. Remove EGR valve and set on top of engine with the electrical connector attached. Install the EGR Intake (EEDF400-591) and Exhaust (EEDF400-592) adapters in its place (see figure 4), install only 2 of the 3 bolts hand tight.

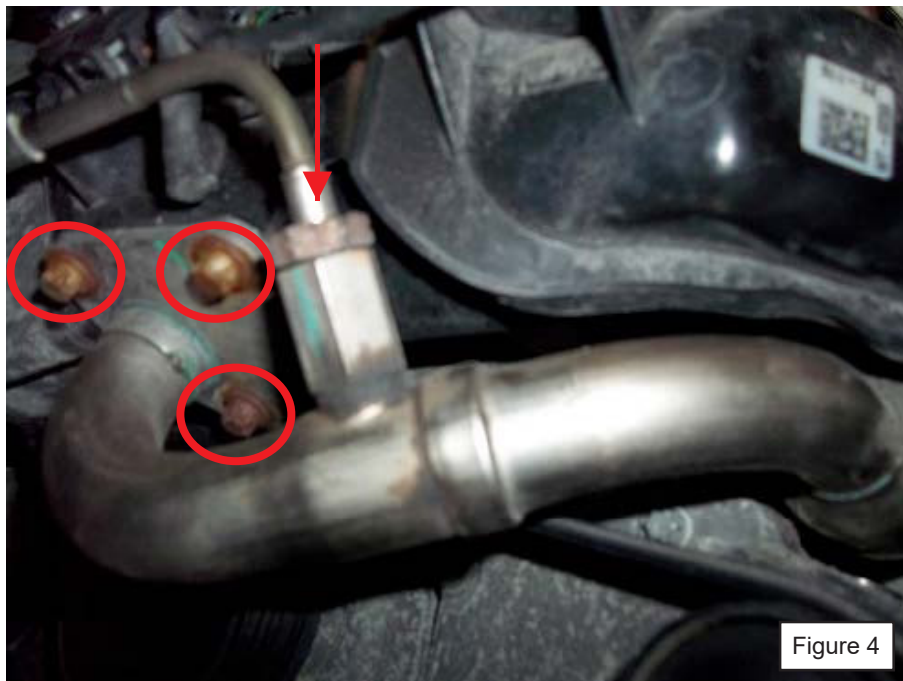


Figure 4

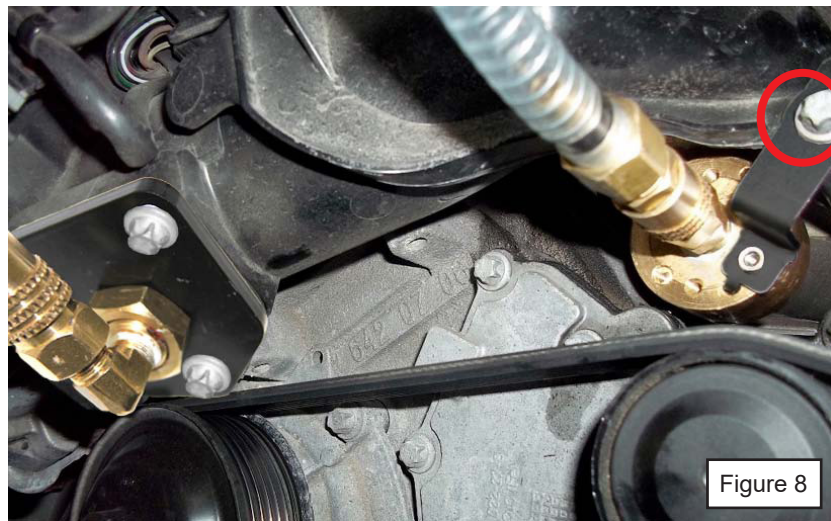
Quick Tip: Place the EGR cooler outlet pipe into a bucket/container and fill container with EGR fluid until submerged, this will aid in the dislodging of soot from the pipe while the EGR cleaning procedure is performed, see step 19.

6. Install EGR Intake and Exhaust Adapters (see figure 6&7) in place of above EGR cooler outlet pipe.

Note: Lubricate o-ring on EGR cooler outlet (see figure 5) and adapter before installation, this will aid in not pinching the o-ring when installing exhaust side adapter. Remove one bolt from air intake pipe to secure the exhaust side adapter bracket to the intake pipe (see figure 6).



7. Reinstall bolt from air intake pipe and tighten as per manufacture specification (see figure 8). Reinstall the turbo charger air outlet pipe removed in step 4.



8. Attach EGR manifold (EEDF400M) to EGR Intake and Exhaust Adapters. Attach EGR tool to EGR Manifold. Ensure air valve and fluid valve are closed – see EGR tool user guide.
9. Unscrew fill cap and fill with 32oz (946mL) of EGR and Induction System Cleaner (EEDF400-EGR). For first application or severe coking, 64 oz. may be required.
10. Reinstall the fill cap and hang tool from the hood latch. Connect shop air. Set air pressure on EGR tool to 40-45 psi.

NOTE: If engine is hot, the EGR cooler must be cooled before treatment can start. Before step 11 can proceed, ignition must be on and, using a scan tool, command the EGR open. Open EGR tool air valve, keeping the fluid valve closed, turn valve on the EGR manifold to exhaust and flush cooler with air for 2 minutes.

11. Start vehicle engine. Using the scan tool, command the EGR open.
12. Set valve on the EGR Manifold to exhaust (see figure 9).



Figure 9

13. Open air valve on EGR tool, adjust regulator to maintain initial pressure, and then open the fluid valve on the EGR tool.
14. After 1/4 of the fluid has been consumed, turn the fluid valve off and let the air flow for an additional 2 minutes to flush deposits into exhaust stream.
15. Repeat step 12-14 allowing another 1/4 of the fluid to be consumed.
16. Set valve on the EGR Manifold to intake (see figure 10). Using a scan tool, command the swirl flaps open and close several times throughout this step.



Figure 10

17. Continue service until EGR tool is empty.

Note: Let the vehicle operate for an additional 5 minutes and rev the engine several times to clear all residual fluid.

18. Turn the fluid and air valve on tool to the closed position. Detach shop air line and depressurize the tool by rotating the regulator knob counter clockwise.

19. After EGR cooler outlet pipe has soaked for 15 minutes, clean the pipe using EGR cleaning fluid and a flexible 1" round brush (see figure 11) inside a bucket or waste container. Fluid can be saved to be used on other EGR components if required.



20. Remove EGR Adapters and reassemble vehicle components in the reverse order of removal. Wipe off EGR temperature sensor using the EGR cleaning fluid before installing.

Note: When installing the turbo charger outlet pipe remember to place the o-ring on the turbo charger side first in order not to pinch the o-ring, lubricating the o-ring will aid in the assembly

21. Immediately after a service, a forced regen must be completed. If a regen cannot be commanded via a scan tool (see OEM recommendations), the vehicle must be road tested at highway speeds for approximately 20-30 minutes. This is necessary to remove any remaining cleaning solution from the passages and cooler(s), and to combust any material that has reached the diesel particulate filters (DPF).

This must be completed immediately after the service.

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