

Mercedes 3.0 Litre (2007-2011) Diesel EGR Cleaning Instructions

**Always wear gloves and safety glasses
when performing this service**

EGR System Consists of:

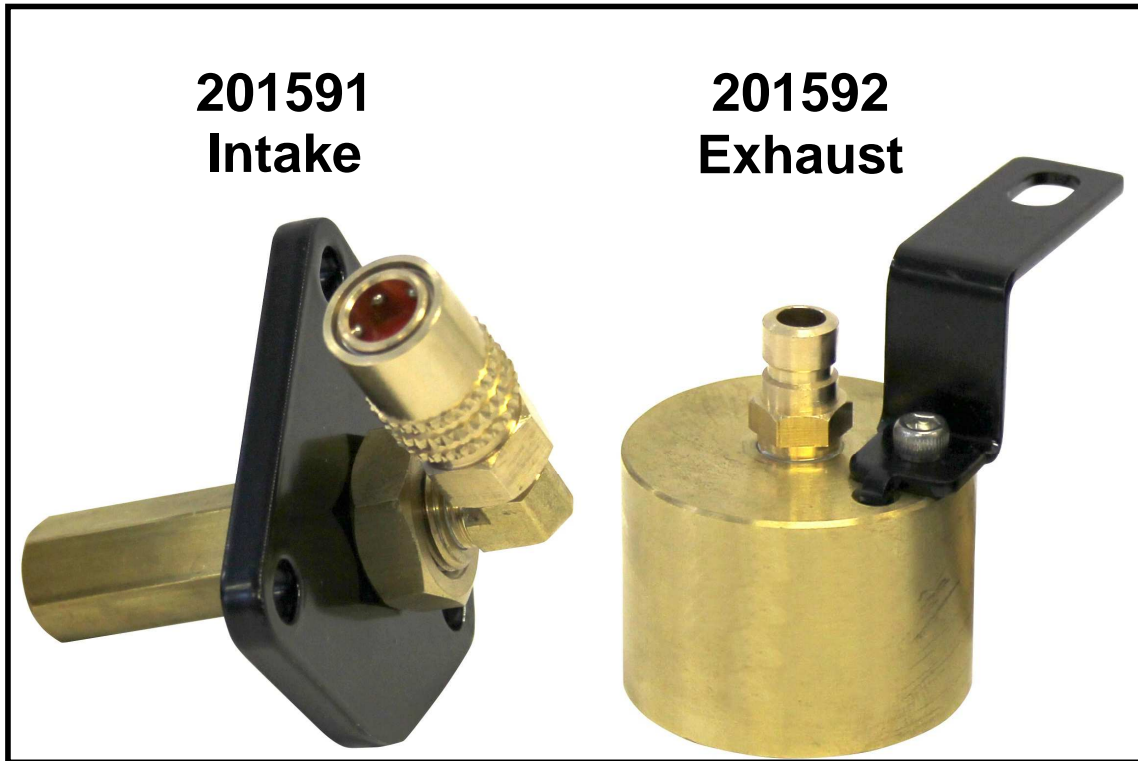
- **Hot side EGR valve (before EGR cooler) controls exhaust gases for proper emissions control of No_x gases**
- **EGR cooler (controls temperature of exhaust gases to the air intake to the engine)**
- **EGR temperature sensor (measures EGR cooler exhaust temperature and efficiency)**
- **Swirl flaps (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.

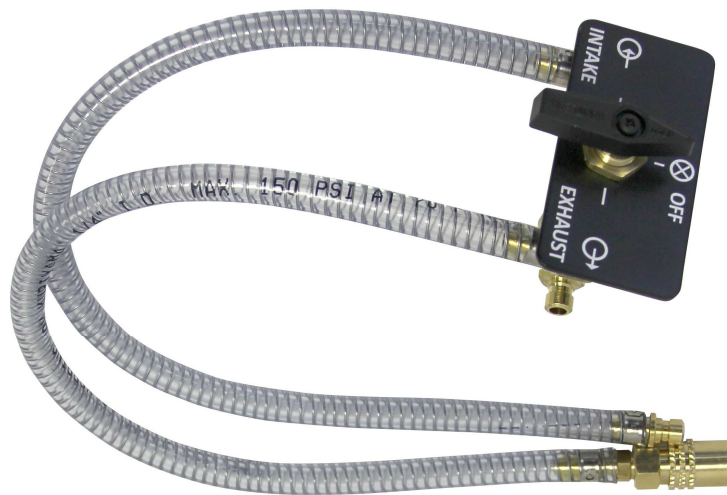
First steps before any service can be performed.

- 1. Add TerraDiesel™ Fuel Injector Cleaner (201255) to the vehicle's fuel tank.**
- 2. Remove the plastic engine cover.**
- 3. If engine is hot, the EGR cooler must be cooled – see Note in step 10**

Adapters Required:



201399 EGR Manifold

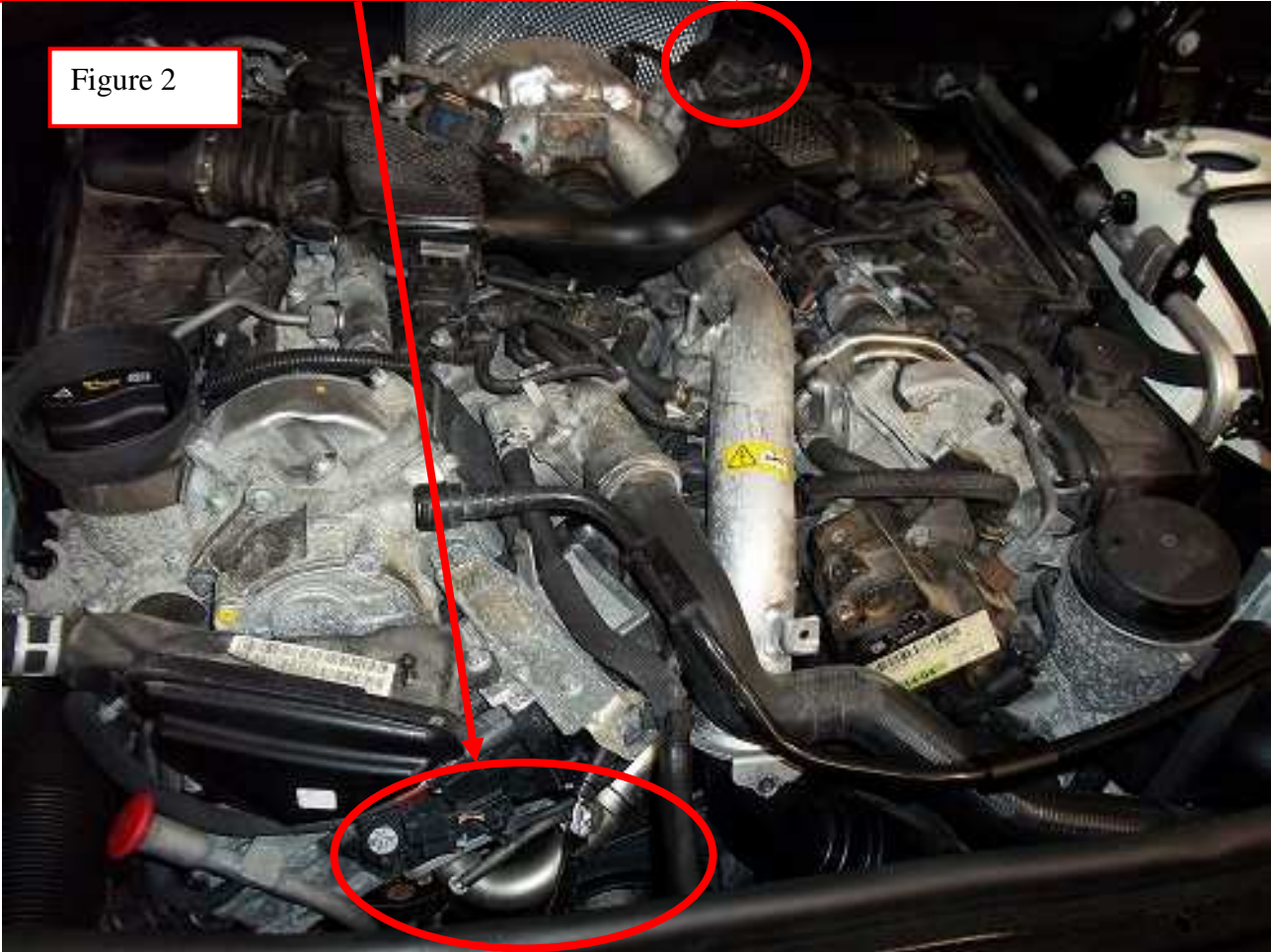
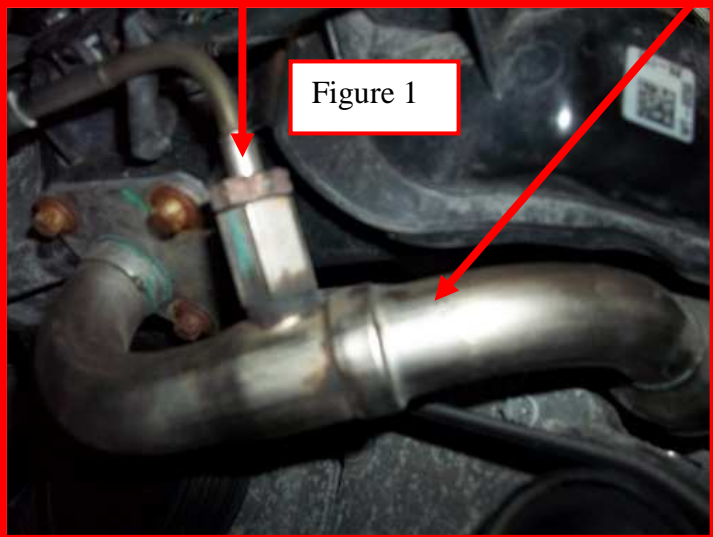


Tools Required:

- Scanner to operate the EGR valve and intake swirl flaps
- 201170 – TerraDiesel™ EGR Cleaning Tool

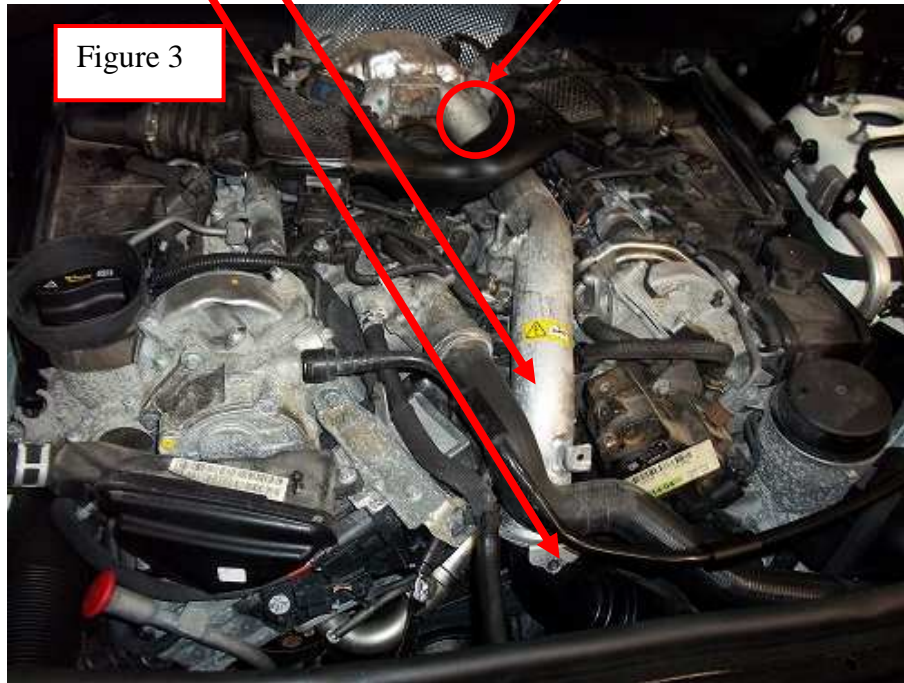
Locations of EGR components:

- EGR temperature sensor – EGR cooler outlet pipe (Figure 1)
 - EGR valve (Figure 2)

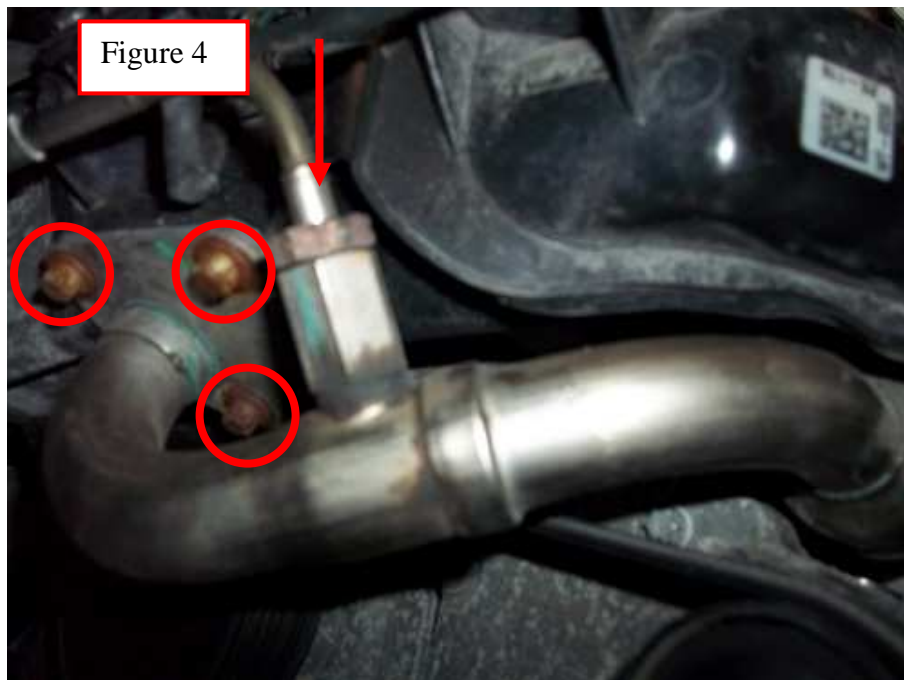


Mercedes 3.0 L Engine EGR Adapter Instructions

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



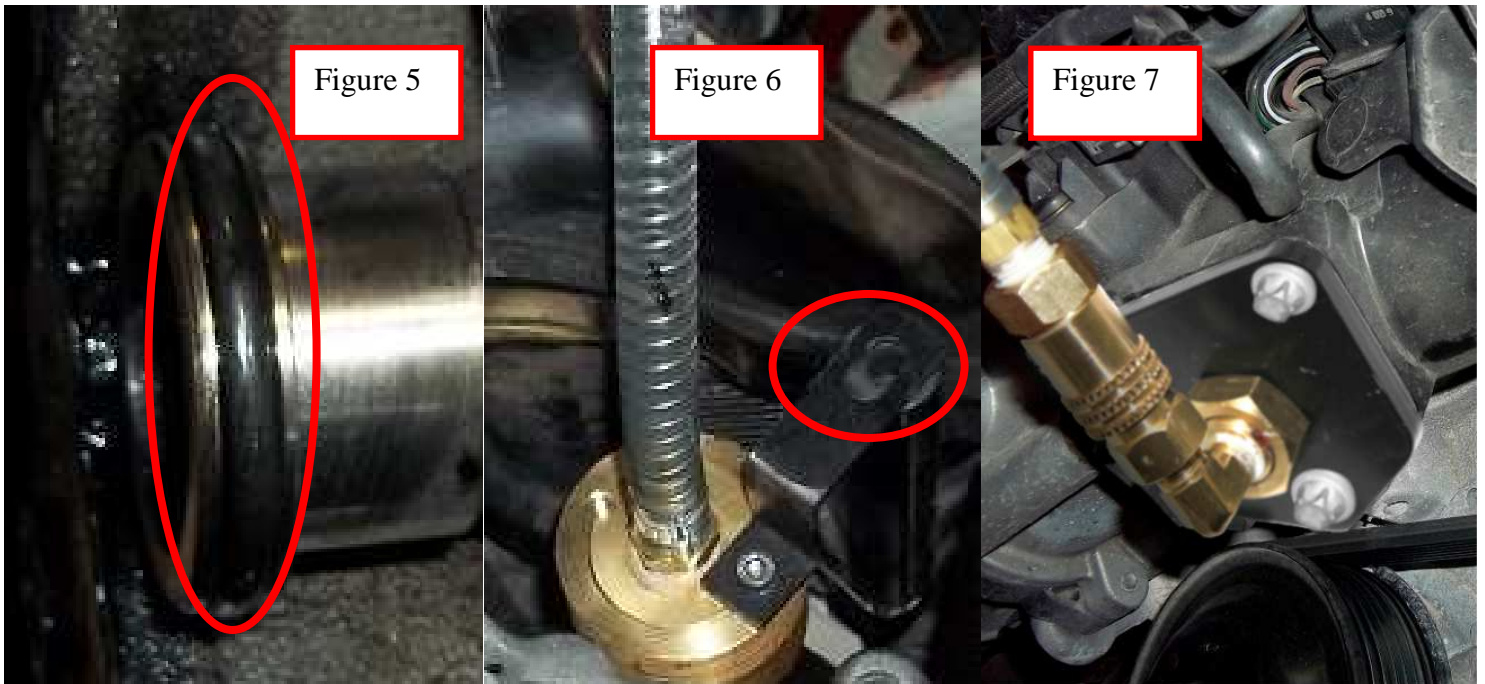
5. Remove the EGR cooler temperature sensor and place on top of the engine (see Figure 4). Do not disconnect the EGR temperature wire connector. Remove the EGR cooler outlet pipe - 3 bolts.



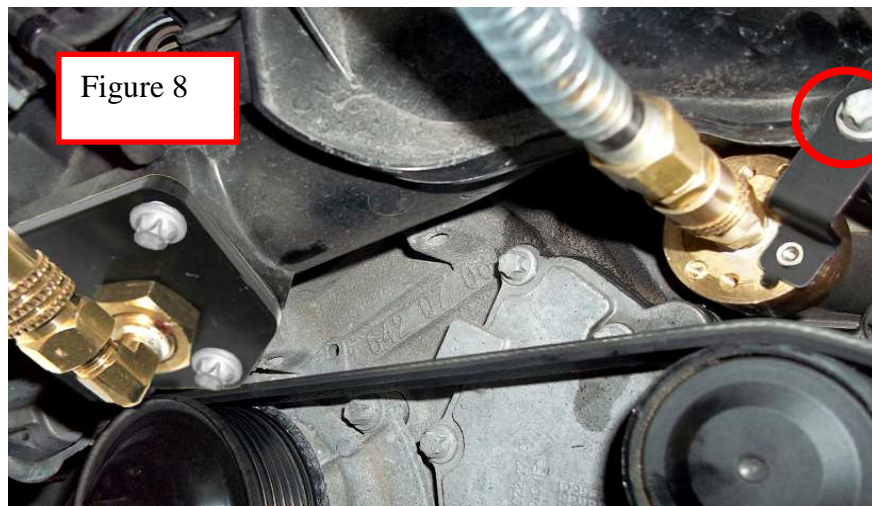
Quick Tip: Place the EGR cooler outlet pipe into a bucket/container and fill the container with EGR fluid until submerged, this will aid in the dislodging of soot from the pipe while the EGR cleaning procedure is performed, see step 19.

6. Install EGR Intake Adapter (201591) and EGR Exhaust Adapter (201592) (see Figure 6&7) in place of above EGR cooler outlet pipe.

Note: Lubricate o-ring on the 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 the bolt from the 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 the EGR Manifold (201399) to the EGR Intake and Exhaust Adapters. Attach the EGR Cleaning Tool (201170) to the EGR Manifold. Ensure that the air valve and fluid valve are closed – see the EGR Cleaning Tool user guide.
9. Unscrew the fill cap and fill with 32oz (946mL) of EGR System Cleaner (201279 or 201280). For first application or severe coking, 64 oz. may be required.
10. Reinstall the fill cap and hang EGR Cleaning Tool from the hood latch. Connect shop air. Set air pressure on the EGR Cleaning 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 the EGR Cleaning Tool air valve, keeping the fluid valve closed, turn the EGR Manifold to exhaust and flush cooler with air for 2 minutes.

11. Start the vehicle engine. Using the scan Tool, command the EGR open.
12. Set EGR Manifold to exhaust (see Figure 9).



13. Open the air valve on the EGR Cleaning Tool, adjust the regulator to maintain initial pressure, and then open the fluid valve on the EGR Cleaning 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 steps 12-14 allowing another 1/4 of the fluid to be consumed.

16. Set the EGR Manifold to intake (see Figure 10). Using a scan Tool, command the swirl flaps open and close several times throughout this step.



17. Continue service until the EGR Cleaning 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 the EGR cooler outlet pipe has soaked for 15 minutes, clean the pipe using the 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 the EGR Manifold and reassemble the vehicle's components in the reverse order of removal. Wipe off the 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. Add one bottle of TerraDiesel™ Multi-function Fuel Treatment (201251) to the vehicle's fuel tank.
22. After service, reset any engine codes and perform a road test to clear any residual fluid from the system. Vehicle may go through Regen cycle during road test.