EEDF400-581 & EEDF400-528

Chrysler 3.0L Eco Diesel EGR Cleaning Instructions

Intake
EEDF400-581

Exhaust
EEDF400-528

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).
<u>This must be completed immediately after the service.</u>

EGR System Consists of:

- Cold side EGR valve (After 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 cooler bypass valve (controls Exhaust flow temperature to the air Intake from the Exhaust through the EGR cooler)
- EGR temperature sensor (measures EGR cooler Exhaust temperature and efficiency)

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 8.

Locations of EGR components:

- EGR cooler bypass valve
- EGR valve outlet pipe
- EGR temperature sensor
- EGR valve

Tool & Manifold Required:

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

EEDF400M

EEDF400

4. Remove the EGR valve outlet pipe to Intake plenum (4 screws) as shown (see Figure 2).

Figure 2

Quick Tip: Place the EGR valve outlet pipe into a bucket/container and pour EGR fluid into the outlet pipe, this will aid in the dislodging of soot from the pipe while the EGR cleaning procedure is performed see step 14.

5. Install the EGR Intake Adapter (EEDF400-581) and Exhaust Adapter (EEDF400-528) (see Figure 3) in place of the above EGR valve outlet pipe using the existing 4 screws.

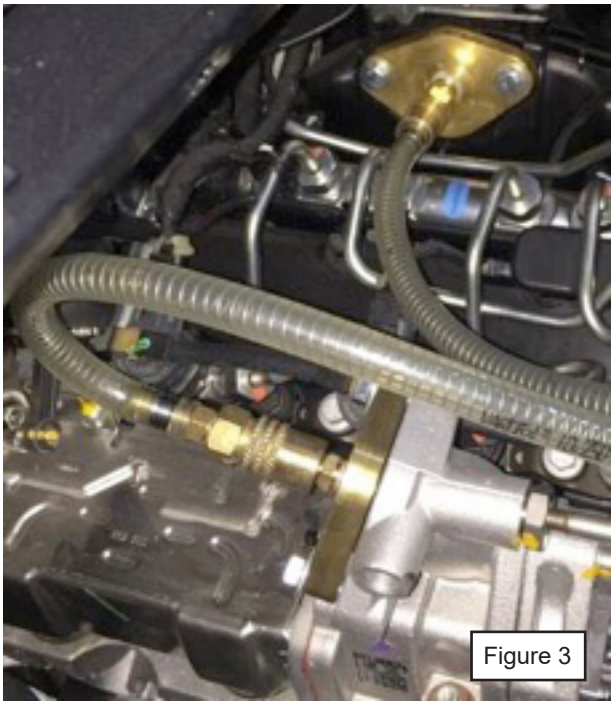

Figure 3

6. Attach the EGR Manifold (EEDF400M) to the EGR Intake and Exhaust adapters. Attach the EGR Tool (EEDF400) to the EGR Manifold. Ensure that the air valve and fluid valve on the EGR Tool are closed – see the EGR Tool user guide.
7. Unscrew the fill cap and fill with 32 oz (946 mL) with EGR and Induction System Cleaner (EEDF400-EGR). For the first application or severe coking, 64 oz. may be required.
8. Reinstall the fill cap and hang the EGR Tool from the hood latch. Connect shop air. Set air pressure on the EGR Tool to 40-50 psi.

   NOTE: If engine is hot, the EGR cooler must be cooled before treatment can start. Before step 9 can proceed, start engine, open EGR tool air valve, keeping the fluid valve closed, turn valve on the EGR manifold 201399 to intake and flush cooler with air for 2 minute

   NOTE: If no flow is observed then increase engine RPM to 1000 in order to open the EGR valve as engine may be cold or use scan tool.

9. Start the vehicle engine. Disconnect EGR cooler bypass valve vacuum hose (see Figure 4) this will close the EGR bypass valve.

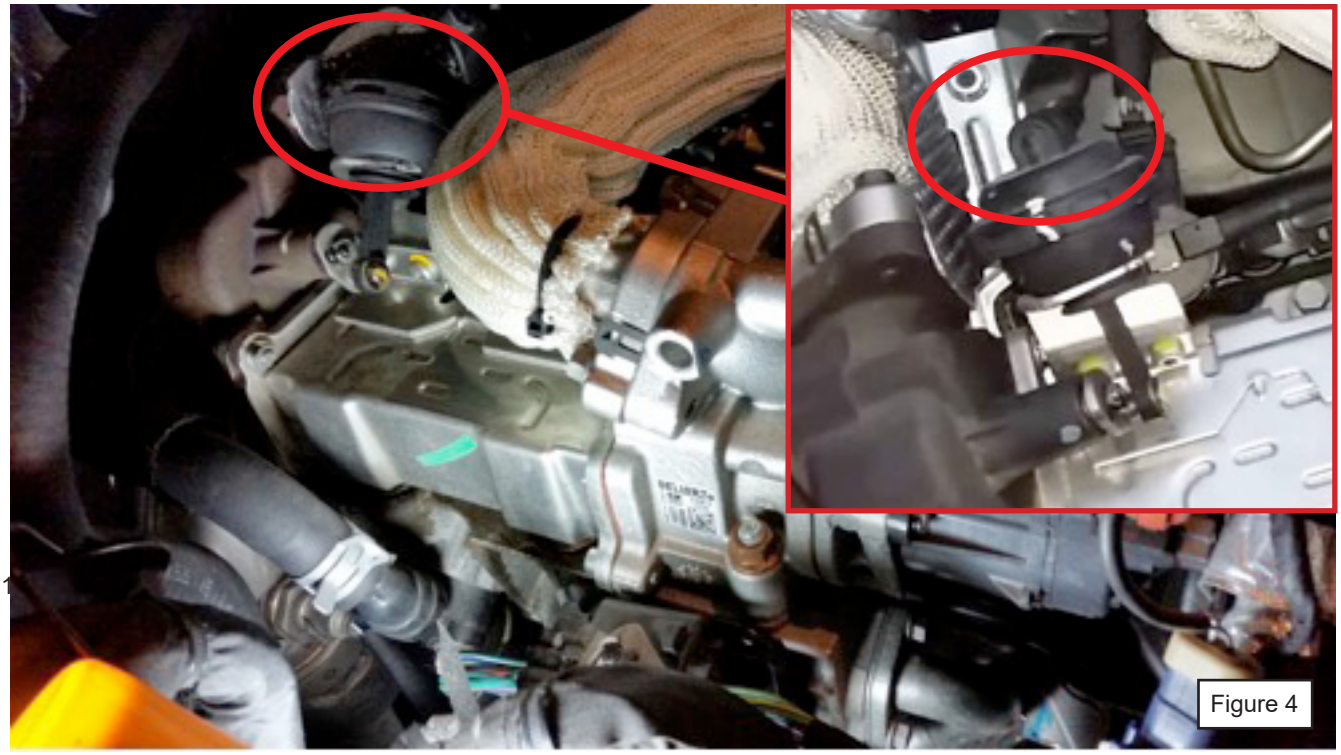

Figure 4

11. Open the Air valve, adjust the regulator to maintain the initial pressure, and then open the fluid valve on the EGR tool.

    NOTE: If no flow is observed then increase engine RPM to 1000 in order to open the EGR valve as engine may be cold or use scan tool.

12. 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.
13. Repeat step 11-13 allowing another ¼ of the fluid to be consumed. **Note**: During this step cycle the EGR cooler bypass valve several times by unplugging and reconnecting the EGR bypass valve actuator vacuum hose (see Figure 5) several times throughout this step. This will allow cleaning of the EGR cooler bypass port.

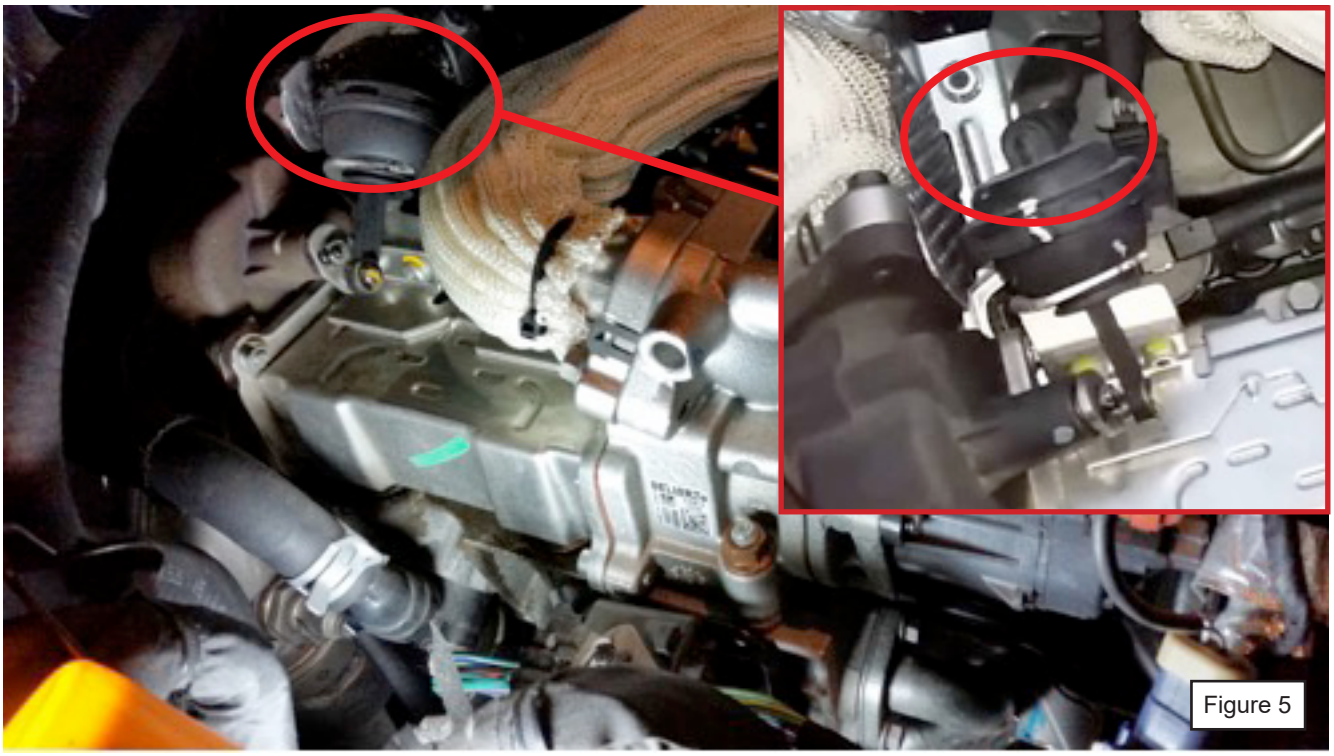

Figure 5

14. Turn the EGR Manifold to intake, open fluid valve and using a scan tool, command the swirl flaps open and close throughout this step. Continue service until the EGR Tool is empty.

    Note: At any time during the Intake service you hear a diesel knock sound, turn the EGR Manifold to off for 2 minutes. After two minutes then turn the EGR Manifold to intake and continue service.

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

15. Turn the fluid and air valve on the EGR Tool to the closed position. Turn the vehicle off. Detach shop air line and depressurize the EGR Tool by rotating the regulator knob counter clockwise.
16. After EGR cooler outlet pipe has soaked for at least 15 minutes, clean the pipe using EGR cleaning fluid and a flexible 1" round brush inside a bucket or waste container. Fluid can be saved to be used on other EGR components if required.
17. Remove the adapters and reassemble the vehicle's components in the reverse order of removal.

18. 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).
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