

Chrysler EcoDiesel 3.0L

BG DIESEL EGR SYSTEM SERVICE INSTRUCTIONS



Wear safety goggles to protect your eyes.



Wear Nitrile,[®] Neoprene[®] or PVC gloves to protect your hands.



Wear a long-sleeved shirt to protect your arms.

IMPORTANT! Read product Safety Data Sheet before handling any BG product.

Adaptors required:



BG EF581 EGR intake adaptor
PN E101-1659



BG EF528 EGR flange 2.31" bolt center exhaust adaptor
PN E101-1654



EF399 EGR manifold
PN E101-1645

Tools required:

- BG 64 Diesel VIA[®] supply tool, PN E101-1642
- Scan tool (to operate intake swirl flaps)

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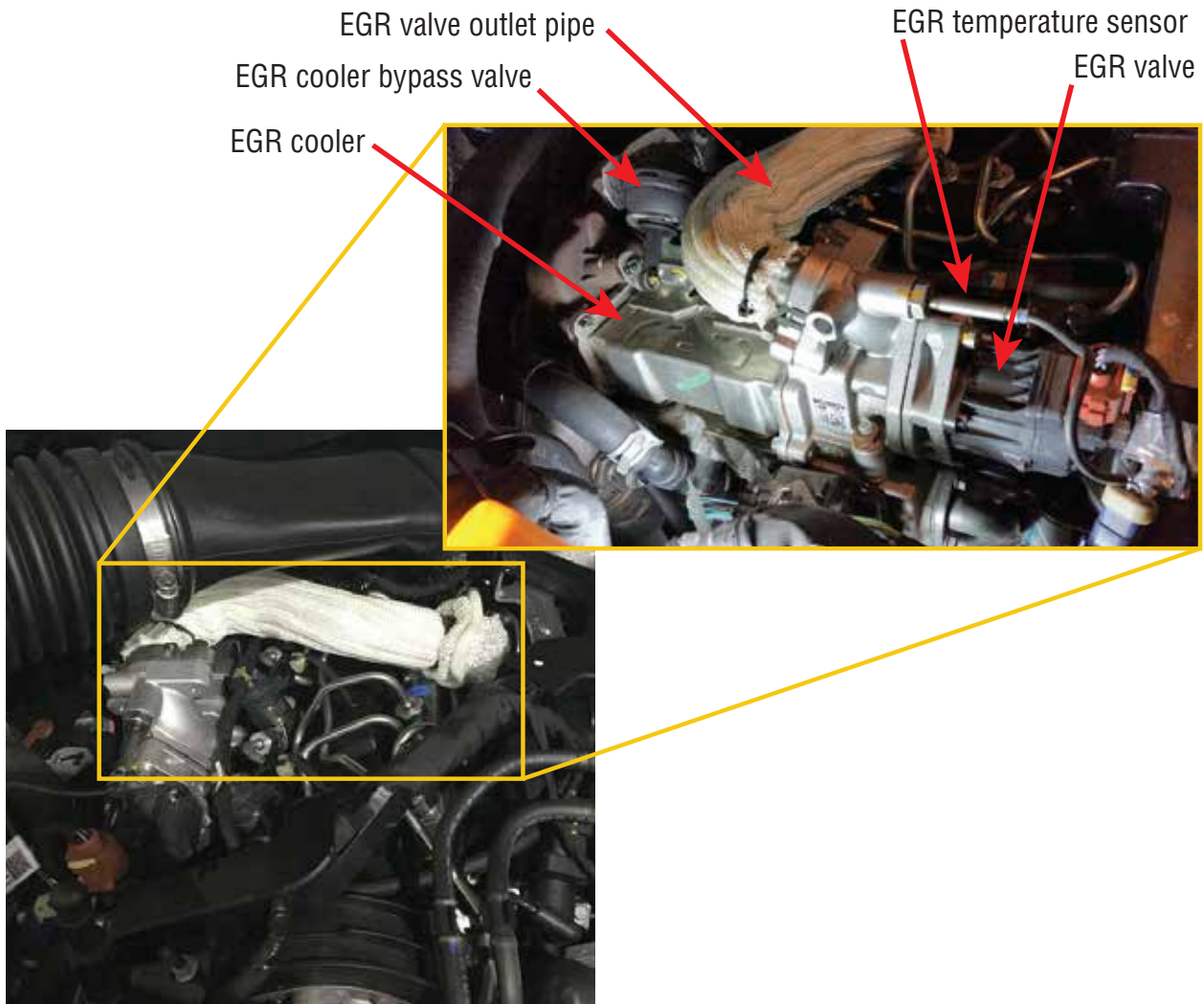
Chrysler EcoDiesel 3.0L *continued*

EGR system consists of:

- Cold side EGR valve (after EGR cooler) which allows for proper emissions control of NO_x gases
- EGR cooler (controls temperature of exhaust gases to the air Intake of the engine)
- EGR cooler bypass valve (controls exhaust flow temperature by directing exhaust flow either through or around the EGR Cooler)
- EGR temperature sensor (measures EGR cooler exhaust temperature and efficiency)

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

Location of EGR system components:



continued



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EGR inspection

Before starting the EGR cleaning service, inspect the EGR components for severe deposits or clogging. Manual cleaning may be required (by scraping, sucking, wiping, etc.) before performing the service.

Service procedure

1. Add BG 245 Premium Diesel Fuel System Cleaner, PN 245, to vehicle's fuel tank.
2. Remove plastic engine cover.
3. Remove the EGR valve outlet pipe to Intake plenum (four screws) (Figure 1).

Quick Tip: Place the EGR cooler outlet pipe into a container and fill the container with BG Diesel EGR System Cleaner, PN PD10, until submerged. This will aid in the dislodging of soot from the pipe while the EGR cleaning procedure is performed.

5. Install the BG EF581 intake and BG EF528 exhaust adaptors in place of the EGR valve outlet pipe using the existing four screws (Figure 2).



Figure 1

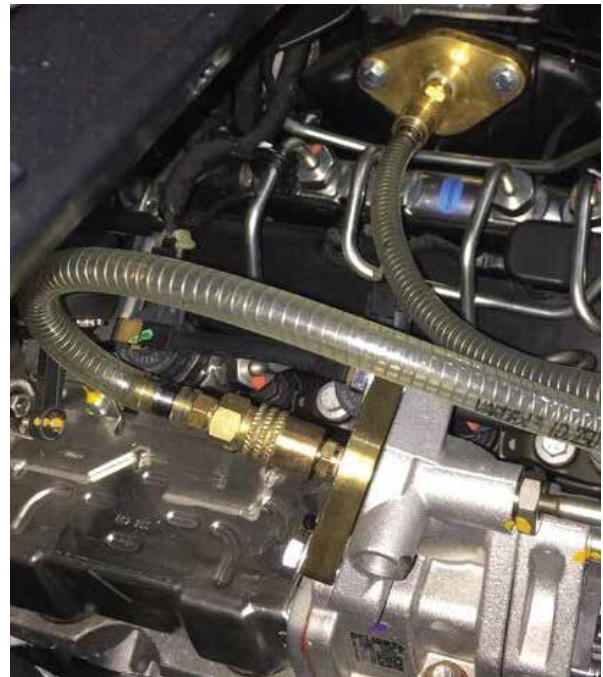


Figure 2

6. Attach the BG EF399 manifold to the BG EF581 intake and BG EF528 exhaust adaptors. Attach the BG 64 Diesel VIA® supply tool to the BG EF399 manifold. Ensure that the air valve and fluid valve on the supply tool are closed (see supply tool instructions).
7. If engine is hot, the EGR cooler must be cooled before treatment can start. Ignition must be off for the EGR to be closed. Open supply tool air valve, keeping fluid valve closed, and flush cooler with air for two minutes.

continued



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8. Unscrew fill cap and fill supply tool with 64 oz. (1.8 L) of BG Diesel EGR System Cleaner, PN PD10.
9. Reinstall the fill cap and hang supply tool from the hood latch. Connect shop air. Set air pressure on the supply tool to 40–50 psi.
10. Start vehicle engine. Disconnect the EGR cooler bypass valve vacuum hose (Figure 3). This will close the EGR bypass valve, allowing flow through the EGR Cooler.



Figure 3

11. Set the BG EF399 manifold to “EXHAUST.”
12. Open the air valve on the supply tool. Adjust the regulator to maintain the initial pressure of 40–50 psi. Then open the supply tool fluid valve.
NOTE: If no flow is observed, the EGR valve may be closed until the engine heats up. Rev engine to 1,000 rpm in order to heat up the engine or use scan tool to open the valve.
13. After ¼ of the fluid has been dispensed, close the fluid valve and let the air flow for an additional two minutes to flush deposits into the exhaust stream.
14. Dispense another ¼ of the fluid. During this step, cycle the EGR cooler bypass valve by disconnecting and reconnecting the EGR cooler bypass valve vacuum hose several times throughout this step (Figure 5). This will allow cleaning of the EGR cooler bypass port.
15. Turn the BG EF399 manifold to intake. Open supply tool fluid valve. Using the scan tool, command the intake swirl flaps to cycle several times throughout this step. Continue service until the tool is empty.
NOTE: If, at any time during the Intake service you hear a diesel knock sound, turn the BG EF399 manifold to “OFF” for two minutes. After two minutes, turn the BG EF399 manifold to “INTAKE” and continue service.
16. When supply tool is empty, let the vehicle operate for an additional five minutes and rev the engine several times to clear all residual fluid
17. Repeat steps 8–16 using 32 oz. (946 mL) of BG Diesel EGR System Rinse, PN PD11.

continued



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18. Turn the fluid and air valves on the supply tool to the closed position. Turn the vehicle off. Detach shop air line and depressurize the supply tool by rotating the regulator knob counter-clockwise.
19. After EGR cooler outlet pipe has soaked for at least 15 minutes, clean the pipe using BG Diesel EGR System Cleaner. The cleaner can be saved for use on other EGR components if required.
20. Remove adaptors and reassemble vehicle components in the reverse order of removal.
21. After service, reset any engine codes. The vehicle should then be set to run a manual regeneration cycle. If that is not possible, the vehicle should be driven at highway speeds (or in the case of non-highway equipment operated under a load) for approximately 30 minutes. This is necessary to remove all of the cleaning solution from the passages and cooler(s) and to combust any material that has reached the diesel oxidation catalyst (DOC) and diesel particulate filter (DPF). **This should be done as soon as possible after the service.**

