



# ***EGR Adapter Cummins 6.7L 2500/3500 Part No. 069-3386***



## **CAUTION:**

Always wear gloves and safety glasses when performing this service

### **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) – Model year 2008 - Present
- 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 Part# 400-3012 DieselTune™ Max Strength Fuel Injector Cleaner to vehicle's fuel tank.
2. Remove plastic engine cover.
3. If engine is hot, the EGR cooler must be cooled – see note in step 9.

## Tools and Adapters Required:



069-3386



069-3385



069-3399



500-0170

## Locations of EGR components:

- EGR cooler bypass valve and actuator
- EGR valve
- EGR cooler outlet pipe



Figure 1

- Loosen clamp on EGR cooler outlet pipe and fully loosen and remove clamp at inlet to EGR valve, remove gasket and set aside and rotate EGR outlet cooler pipe downward (see figure 2 and 3).



Figure 2



Figure 3

- Install EGR adapter 069-3386 and reinstall EGR outlet cooler pipe valve clamp and tighten at both ends (see figure 4 and 5).

**Note: Lubricate o-ring on EGR exhaust adapter before installing onto the EGR cooler outlet pipe, this will aid in the installation of EGR exhaust adapter**



Figure 4



Figure 5



6. Turn thumbscrew on 069-3385 fully counterclockwise but do not remove it from the adapter. Remove EGR valve solenoid (4 screws) and set aside, install 069-3385 in its place using only two screws. Disconnect EGR valve solenoid electrical connector. Rotate thumb screw fully clockwise, EGR valve is now open (see figure 6). Alternately, a scan tool can be used to command the solenoid valve open and removal of the solenoid is not required, however the EGR valve solenoid electrical connector must be connected.



7. Attach EGR manifold 069-3399 to EGR adapter 069-3386. Attach EGR tool to 069-3399. Ensure air valve and fluid valve are closed – see EGR tool user guide.
8. Unscrew fill cap and fill with 32 oz (950 mL) of Part# 400-0280 EGR Cleaner. For first application or severe coking, 64 oz. may be required.
9. Reinstall the fill cap and hang tool from the hood latch. Connect shop air. Set air pressure on 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, 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 adaptor 069-3399 to exhaust and flush cooler with air for 2 minutes.**

10. Start vehicle engine

11. Disconnect EGR cooler bypass valve actuator electrical connector 2008-present this will close the EGR bypass valve (see figure 7). If vehicle does not have the EGR cooler bypass valve then skip this step and note in step 15.



12. Set valve on adapter to exhaust.
13. Open Air valve, adjust regulator to maintain initial pressure, then open the fluid valve on the tool.
14. After 1/4 of the fluid has been consumed, turn the fluid valve closed and let the air flow for an additional 2 minutes to flush deposits into exhaust stream.
15. Repeat step 14-15 allowing another 1/4 of the fluid to be consumed.

**Note: During this step unplug and reconnect the EGR bypass valve actuator electrical connector several times through out this step. If the vehicle engine is too hot it may be necessary to manually cycle (counter clockwise) the EGR cooler bypass valve (see figure 8). The EGR cooler bypass valve actuator electrical connector must stay disconnected.**

**Alternately a scan tool can be used to cycle the EGR cooler bypass valve several times during this step. Reconnect the EGR cooler bypass valve actuators electrical connector. This will allow cleaning of the EGR cooler bypass port.**



16. Turn valve on adapter to intake, open fluid valve and continue service until EGR tool is empty (see figure 9).

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



Figure 9

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

17. Turn the fluid and air valve on tool to the closed position. Turn Vehicle off. Detach shop air line and depressurize the tool by rotating the regulator knob counter clockwise.
18. Remove adaptors and reassemble vehicle components in the reverse order of removal.
19. Add one bottle of Part# 400-3022 DieselTune™ Complete Fuel Supplement to vehicle's fuel tank.
20. After service, reset any engine codes and perform a road test to clear any residual fluid from the system. Vehicle may go through regeneration cycle during road test.

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