EGR Adapter BMW/Isuzu 3.0L

Part No. 069-3387

CAUTION:
Always wear gloves and safety glasses when performing this service

EGR System Consists of:

- 2 Cold side EGR valves (after EGR coolers), high pressure loop and a low pressure loop which controls exhaust gases for proper emissions control of No_x gases
  OR
- One cold side EGR valve (after EGR cooler), high pressure loop which 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 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)
- Swirl flaps (control airflow under different engine speed and loads) – closed when engine is at idle and at low engine speeds or loads – below 2250rpm

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 the vehicle's fuel tank.
2. Remove plastic engine cover.
3. If engine is hot, the EGR cooler must be cooled – see step 8.

Tools and Adapters Required:

069-3387

500-0170

Locations of EGR components:

- EGR cooler bypass valve vacuum hose (figure 1)
- EGR temperature sensor (figure 1)
- Swirl flap actuator (figure 2)
- EGR valve (figure 1)

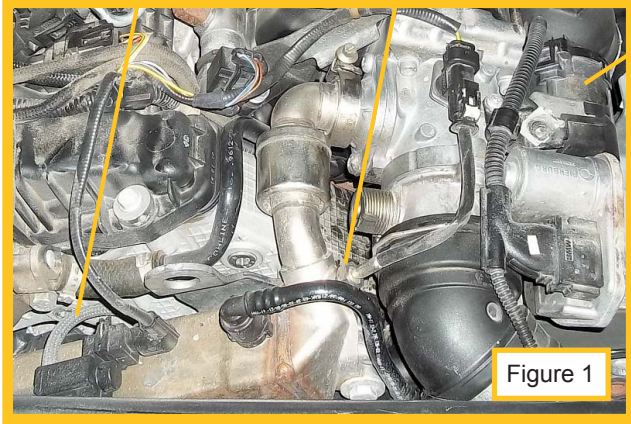

Figure 1

Figure 2

Figure 3

4. Remove EGR temperature sensor (see figure 4). Wire connector must be unplugged to remove EGR temperature sensor.

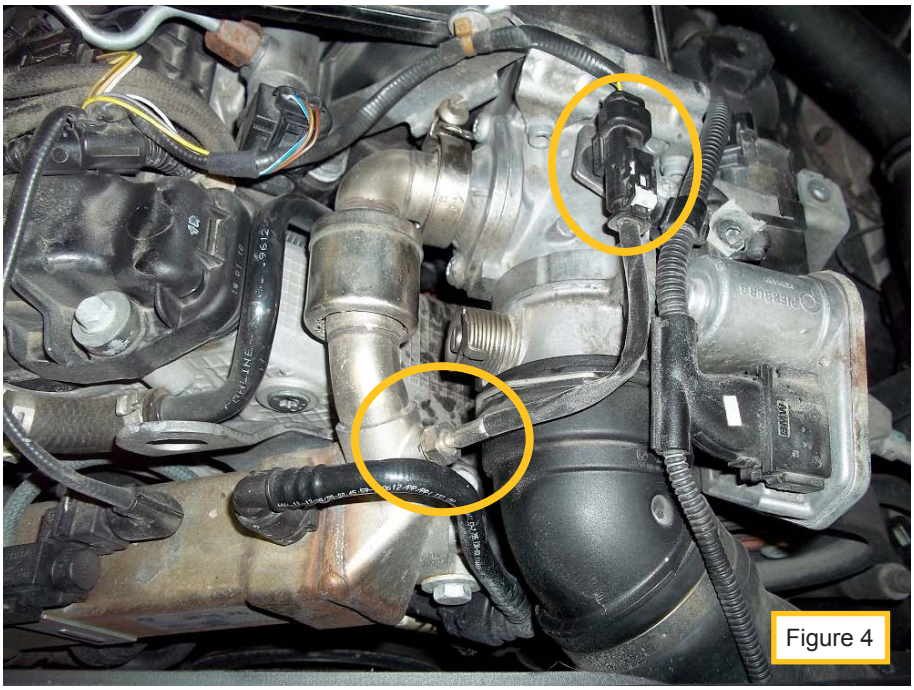

Figure 4

5. Install 069-3387 in its place (see figure 5) hand tight and reconnect EGR temperature sensor. Place EGR temperature sensor as shown.

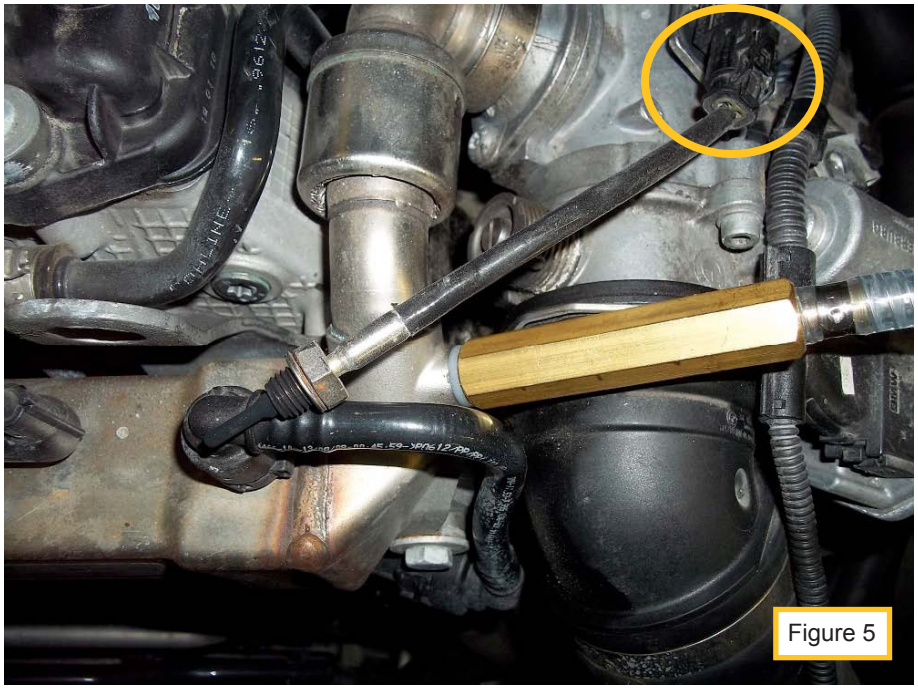

Figure 5

6. Attach EGR tool to EGR adapter 069-3387. Ensure air valve and fluid valve are closed – see EGR tool user guide.
7. Unscrew fill cap and fill with 32oz (946mL) of Part# 400-0280 EGR System Cleaner. For first application or severe coking, 64 oz. may be required.
8. 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 off for the EGR to be closed. Open canister air valve, close canister fluid valve and flush cooler with air for 2 minutes.

9. Start vehicle engine. Using the scan tool, command the EGR closed. Disconnect EGR cooler bypass valve vacuum hose (see figure 6) this will close the EGR bypass valve.

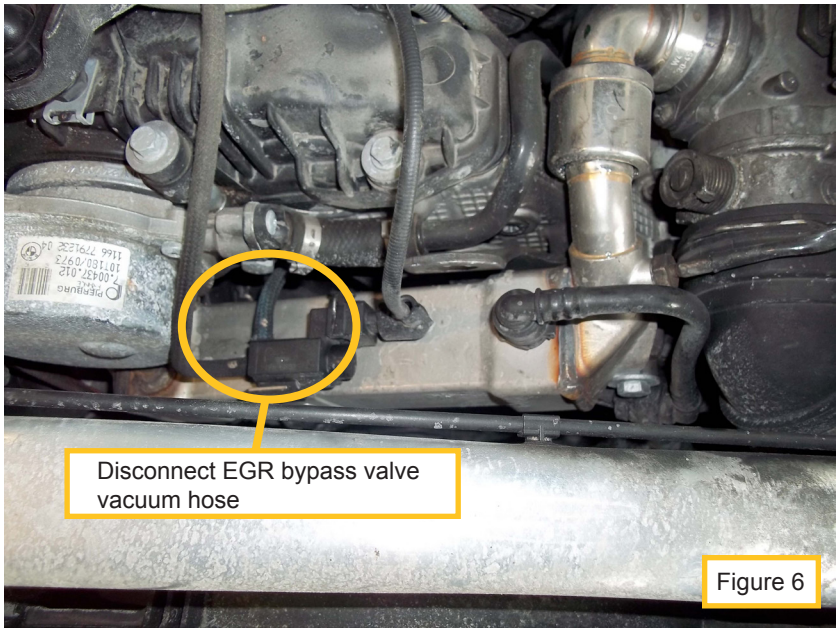

Figure 6

Note: If no scan tool is available disconnect the EGR wire connector (see figure 7) this will close the EGR valve.hose (see figure below) several times through out this step.

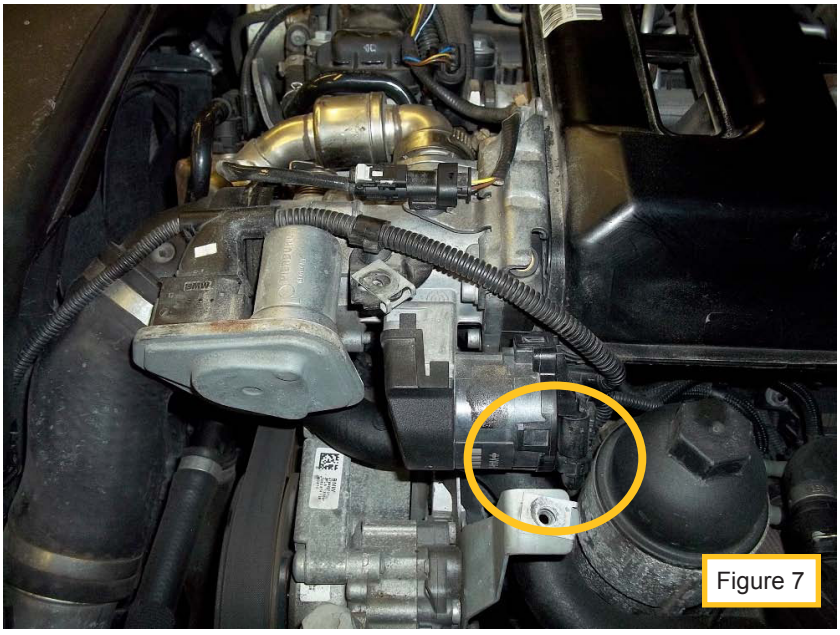

Figure 7

10. Open Air valve, adjust regulator to maintain initial pressure, then open the fluid valve on the tool.
11. 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.
12. Repeat step 9-11 allowing another ¼ of the fluid to be consumed. Raise the engine rpm to 1200-1500. Note: During this step cycle the EGR cooler bypass valve using the scan tool. This will allow cleaning of the EGR cooler bypass port.

Note: If no scan tool available unplug and reconnect the EGR bypass valve actuator vacuum hose (see figure 8) several times through out this step.

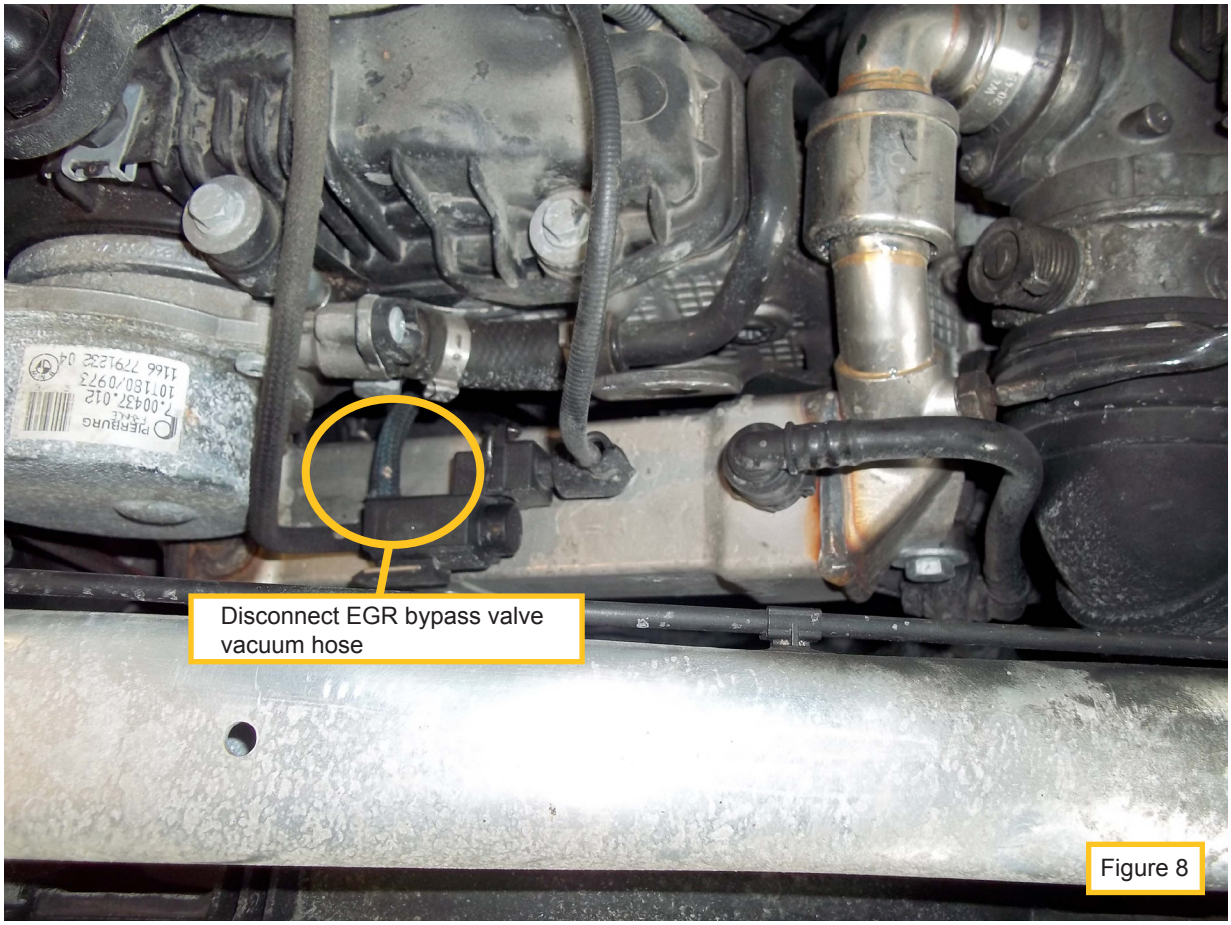

Figure 8

13. Start vehicle engine. Using the scan tool, command the intake swirl flap to cycle, raise engine rpm to 1500 this will allow the EGR valve to open. Make sure EGR valve wire connector is reconnected.

    Note: If no scan tool is available unplug the swirl flap actuator wire connector (see figures 9 and 10) and manually cycle the swirl flap actuator arm several times through out the next step.

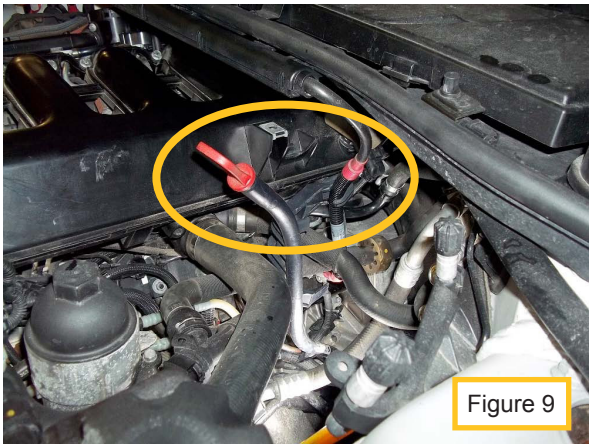
Figure 9

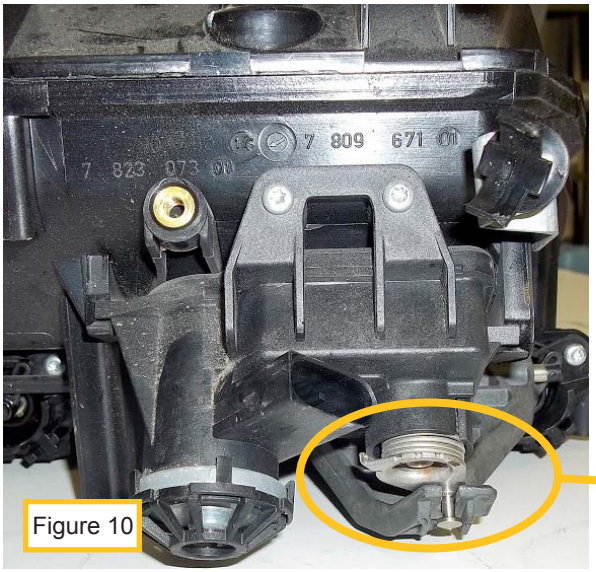

Figure 10

14. Open fluid valve. Continue service until EGR tool is empty.

    Note: At any time during the intake service (step 14) you hear a diesel knock sound, turn fluid valve to closed position for 2 minutes. After two minutes then turn fluid valve to open position 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 tool to the closed position. Turn Vehicle off. Detach shop air line and depressurize the tool by rotating the regulator knob counter clockwise.
16. Remove adaptor and reassemble vehicle components in the reverse order of removal. Wipe off EGR temperature sensor using the EGR cleaning fluid before installing.
17. Add one bottle of Part# 400-3022 DieselTune™ Complete Fuel Supplement to the vehicle's fuel tank.
18. 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.