



Ford 6.7 Litre Diesel EGR System

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

EGR System Consists of:

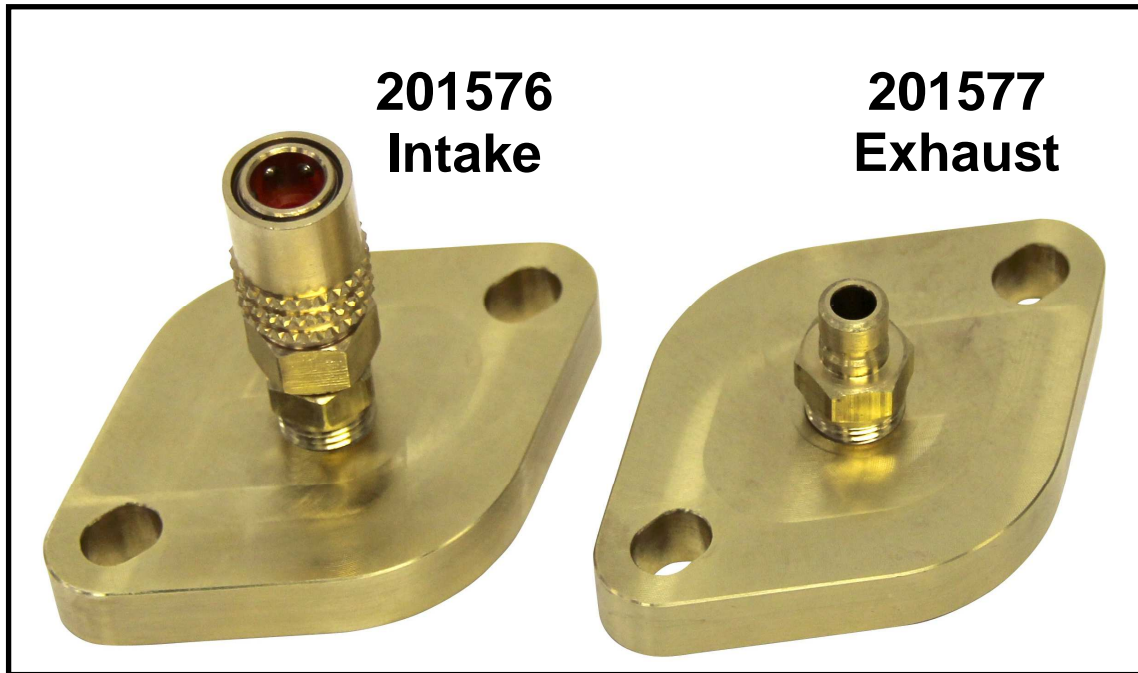
- **Hot side EGR valve (before EGR cooler) controls Exhaust gases for proper emissions control of No_x gases**
- **EGR cooler (controls temperature of Exhaust gases to the air Intake to the engine)**
- **EGR cooler bypass valve (controls Exhaust flow temperature to the air Intake from the Exhaust through 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.

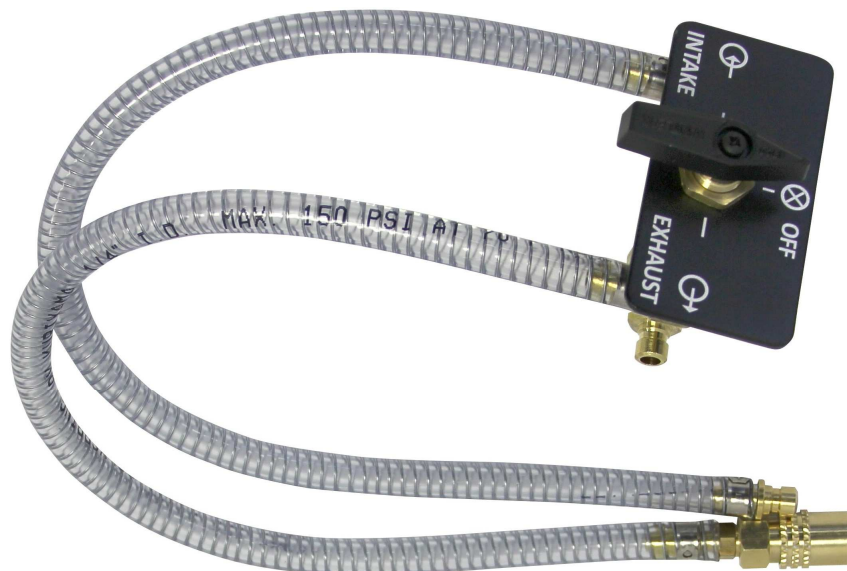
First steps before any service can be performed.

1. **Add 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 8.**

Adapters Required:



201399 EGR Manifold



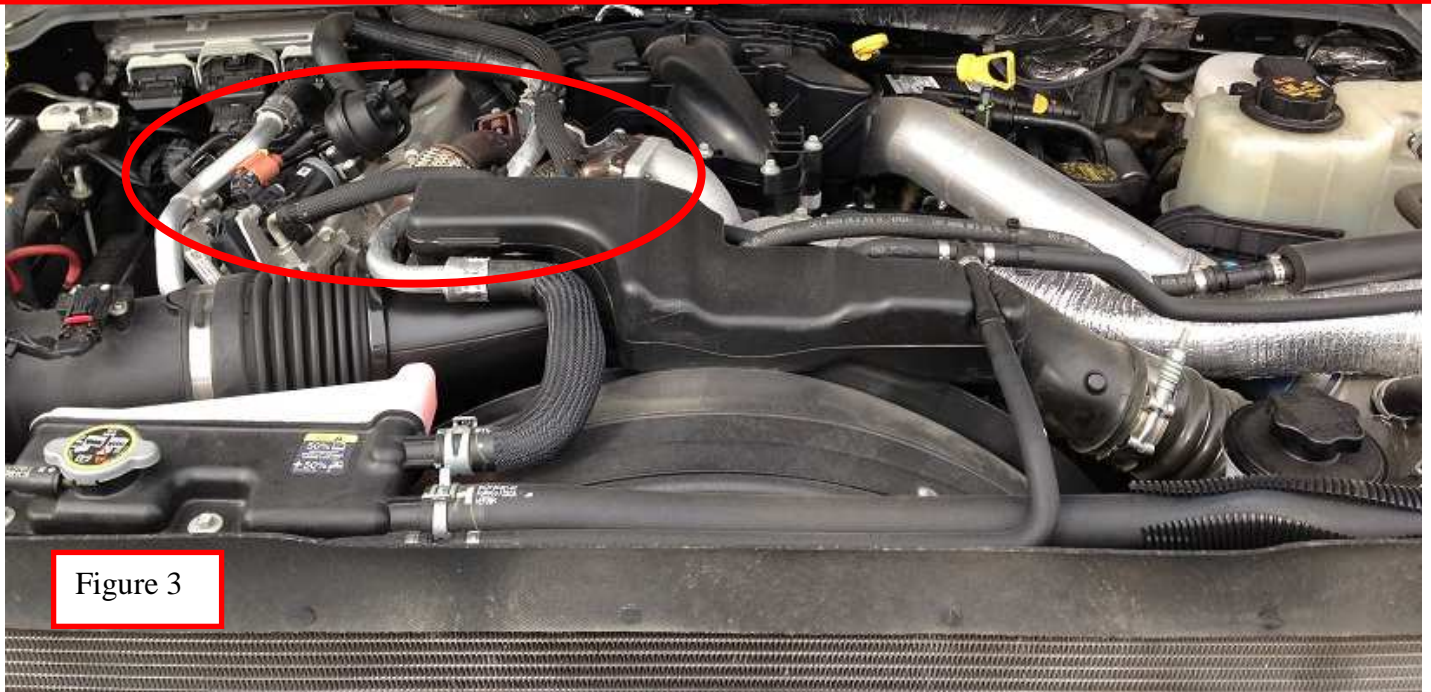
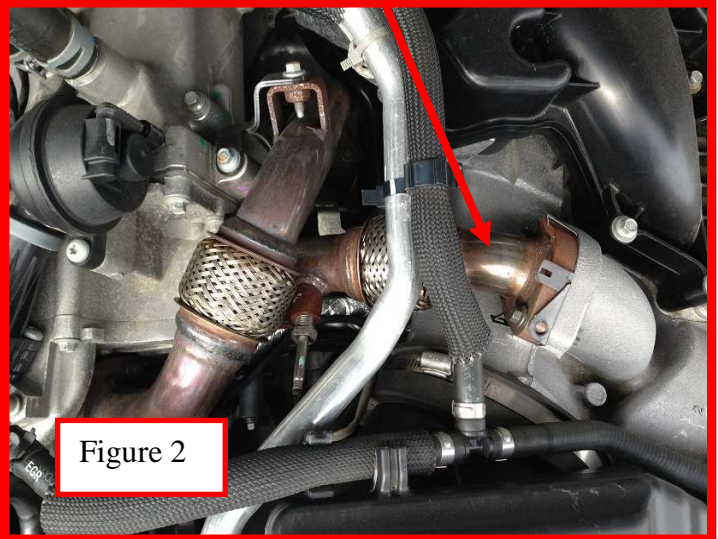
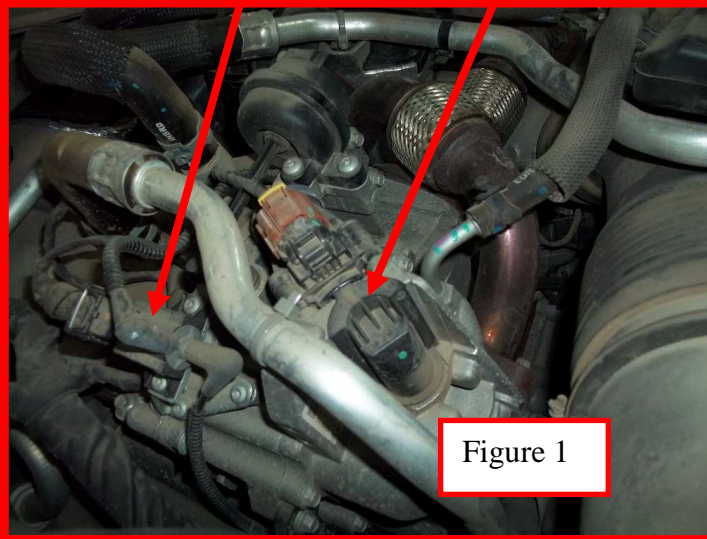
Tools Required:

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

Locations of EGR components:

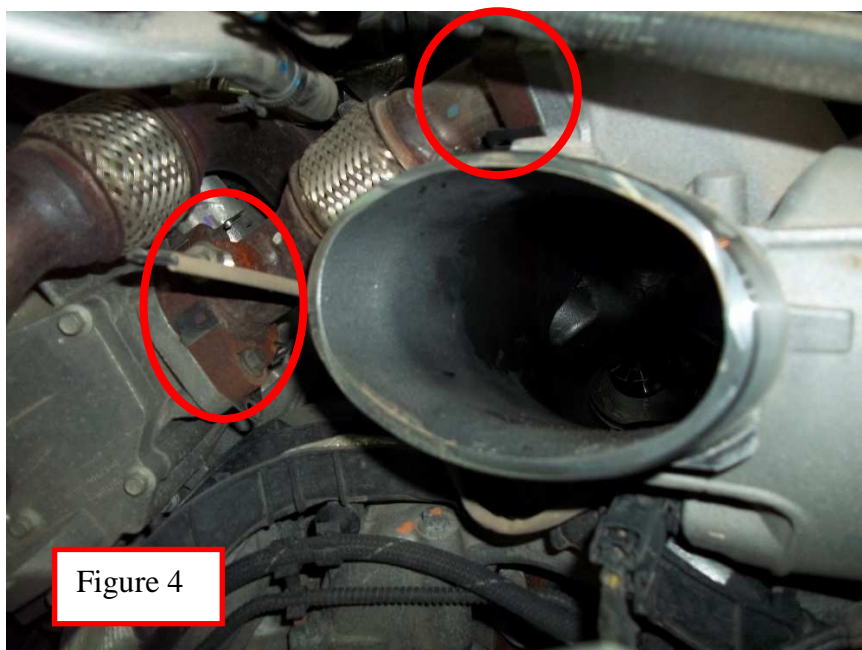
- EGR cooler bypass valve vacuum hose
- EGR valve

EGR cooler outlet pipe with EGR temperature sensor

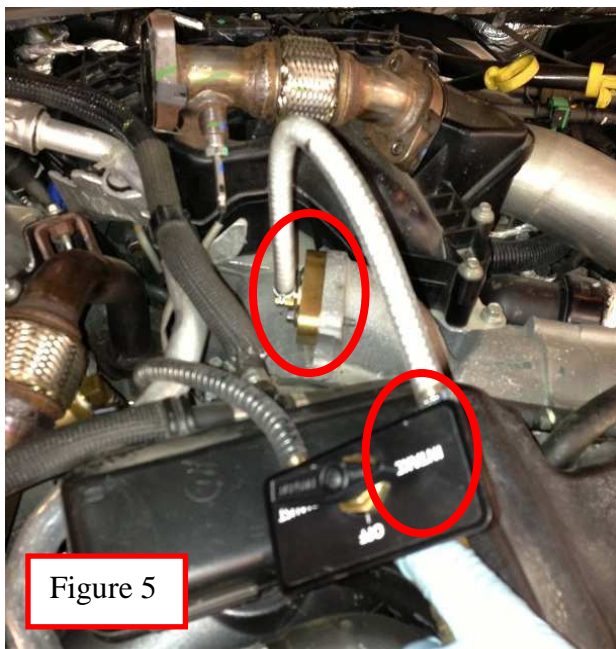


Ford 6.7 Litre Engine EGR Adapter Instructions

4. Remove the EGR cooler outlet pipe to Intake plenum (4 screws), leaving the EGR cooler temperature sensor connected. The air filter plenum may be required to be removed for easier access (see Figure 4).



5. Install the EGR Intake Adapter (201576) and Exhaust Adapter (201577) (see Figures 5 & 6) in place of the above EGR cooler pipe and reinstall the air filter plenum and all its sensors. Ensure the exhaust side of the adapter is installed on the EGR side and the intake side of the adapter is connected to the intake side.



6. 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 on the EGR Cleaning Tool are closed – see the EGR Cleaning Tool user guide.
7. Unscrew the fill cap and fill with 32 oz (946 mL) of EGR System Cleaner (201279 or 201280). For the first application or severe coking, 64 oz. may be required.
8. Reinstall the fill cap and hang the EGR Cleaning Tool from the hood latch. Connect shop air. Set air pressure on the EGR Cleaning 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 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.

9. Start the vehicle engine. Using the scan Tool, command the EGR open. Disconnect EGR cooler bypass valve vacuum hose (see Figure 7) this will close the EGR bypass valve.



10. Set the EGR Manifold to exhaust.
11. Open the Air valve, adjust the regulator to maintain the initial pressure, and then open the fluid valve on the 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 8) several times through out this step. This will allow cleaning of the EGR cooler bypass port.



14. Turn the EGR Manifold to intake, open fluid valve and continue service until the EGR Cleaning 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 Cleaning Tool to the closed position. Turn the vehicle off. Detach shop air line and depressurize the EGR Cleaning Tool by rotating the regulator knob counter clockwise.
16. Remove the adapters and reassemble the vehicle's components in the reverse order of removal.

17. Add one bottle of TerraDiesel™ Multi-function Fuel Treatment (201251) 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 Regen cycle during road test.