

#### 2008-2010 Ford 6.4L Powerstroke

# **EGR Delete Kit**

with Intake Elbow - Installation Manual

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# **Warning Regarding Emissions Laws**

Not legal for sale or use on pollution-controlled motor vehicles anywhere in the United States. Legal ONLY for off-road competition racing vehicles and cannotbe used on vehicles that are operated on public streets, roads, or highways.



## **Disclaimer**

#### (1) Assumption of Responsibility

By installing this product on your vehicle, you assume all risks and legal liabilities associated with the use of this product.

#### (2) Regulatory Compliance Obligations

- You are responsible for ensuring that your vehicle fully complies with federal, state and local emission regulations. (Federal and certain local laws prohibit the removal, modification or disabling of any component that affects vehicle emissions or safety design.)
- Fine penalties or fines resulting from the removal of vehicle emission equipment shall be borne by the end user.
- Use on public roads or highways is prohibited. Violators may face fines.
- All civil penalties or fines resulting from the removal of vehicle emission equipment shall be borne by the end user.

#### (3) Impact of Factory Warranty

Due to the high performance characteristics of this product, the factory warranty provided by the vehicle manufacturer may be affected and invalidated.

#### (4) Product Misuse Disclaimer

SuncentAuto assumes no liability for improper use or installation of the product. By installing this product, you are deemed to have released SuncentAuto from any and all legal liability related to its use.



#### (5) Regional Legal Restrictions

The installation or use of this product may be restricted according to local regulations. Please check all applicable laws before operation.

#### (6) Legal Liability Exemption

The purchaser and end user agree to release SuncentAuto from any claims, damages, lawsuits, injuries or expenses caused by the following actions, including but not limited to:

- · Breaking the terms of this statement, product disclaimer or installation instructions;
- · Direct, indirect, incidental, punitive, statutory or special damages or penalties arising from the installation or use of this product.



# **Installation Precautions**

#### (1) Never Work on a Hot Vehicle

If the vehicle is in use, severe burns may occur. Allow the vehicle to cool before installation. Always wear goggles when working on or under any vehicle.

#### (2) Remove Rust/Lubricate Fully Before Disassembly

Older vehicles have more rust on the bolts. Before disassembly, spray rust remover (WD-40) and wait for 10 minutes. Remove rust/lubricate fully before disassembly to prevent damage to the screws. (We have received many cases of damage, so we would like to remind you of this.)

#### (3) Add Coolant After Installation

After the product is installed, please remember to add enough coolant to ensure that the water level scale of the auxiliary water tank is at the standard water level when the thermostat is open (large cycle).



Make sure the front wheels are straight.

Please be sure to confirm this step. It is very important. You need to disassemble the steering shaft later. Incorrect disassembly and assembly may cause unnecessary problems such as deviation in direction.

#### STEP 2

Disconnect both batteries.

Pay attention to the insulation protection of the "+" pole to prevent short circuit.

## STEP 3

Drain the coolant using the coolant drain plug located on the bottom of the radiator on the driver side.



Image 1



Remove the 3/8" hose that runs to the degas bottle (coolant overflow tank). Keep this hose as it will be re-used during installation.



Image 2

# STEP 5

Remove the upper radiator hose by popping the wire clip out and pulling the hose straight out.



Image 3

# STEP 6

Remove the driver side battery.

## STEP 7

Remove all coolant hoses going to the degas bottle. Also, remove the vent line going to the battery tray.



Remove the battery tray and degas bottle. This is held on by four bolts. Image four shows parts removed.



Image 4

# STEP 9

Loosen the clamp on driver side intercooler tube and separate the intercooler tube from the rubber boot. It is not necessary to remove the tube.



Image 5

# STEP 10

Disconnect the electrical connector at the top of the vertical EGR cooler and remove the tube.



Image 6



Disconnect the coolant lines on the vertical EGR cooler. Remove the nuts and bolts securing the coolers together. Release the mounting clamps and separate the two coolers by prying on the flanges.



Image 7

# **STEP 12**

Hold the intercooler tube back while pulling the vertical EGR cooler up and out. You may have to rotate the cooler to release it from its mount.



Image 8

# **STEP 13**

Remove the plastic coolant tube. Be careful to not break the coolant tube as it will be re-used during installation.



Image 9



Remove the upper radiator hose from the thermostat housing. If your radiator hose only has one o-ring, it is recommended that you replace it with a new dual o-ring version.



Image 10

## **STEP 15**

Remove the upper EGR cooler mount. Use a 10mm wrench to remove the three bolts. Use a 13mm wrench to remove the stud. Keep the stud for securing the power steering line during the install.



Image 11

# STEP 16

Remove the steering shaft bolt and slide the stem up and out of the steering box shaft. Note: Be sure to not turn the steering wheel or tires.

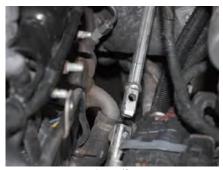


Image 12



Remove the nut that secures the dipstick tube in place.

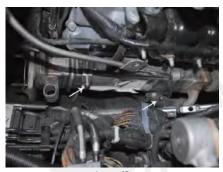


Image 13

# **STEP 18**

Release the mounting clamps on the lower EGR cooler. It may be easier to access the clamps though the wheel well. (*Image 13*)

# **STEP 19**

Remove the coolant line from the EGR cooler. It may be easier to cut the line.

Note: This line is not reusable.



Image 14



Remove the bolts on the rear flange of the EGR cooler. It is easier to access the bottom bolt from underneath the truck and the top bolt from above. (*Image 14*)

## STEP 21

With the dipstick moved out of the way, remove the EGR cooler by pulling forward and rotating it out of its mount.

# **STEP 22**

Remove the bolt securing the coolant line to the timing cover. This line is attached to the lower EGR cooler mount and will be removed as one piece.



Image 15

## **STEP 23**

Use a 10mm wrench to remove the four bolts on the lower EGR cooler mount. (*Image 15*)



Install the four replacement bolts (M10-1.25  $\times$  40) in the exhaust manifold and torque to factory specifications.



Image 16

# **STEP 25**

Install the exhaust block off using M10-1.125  $\times$  20 bolts and gasket.



Image 17

# **STEP 26**

Remount the dipstick tube with the factory bolt.



Remove the coolant tube that was connected from the vertical EGR cooler to the engine. Replace it with the coolant plug supplied in the kit to block off the hole.





Image 18

Image 19

# **STEP 28**

Install the coolant plug included in the SuncentAuto EGR Delete Kit. Use the factory bolts that secure the lines.



Image 20



Using a 13 mm wrench and the spacers provided in the SuncentAuto EGR Delete Kit, reinstall the studs. Then secure the power steering line to the studs.



Image 21

## **STEP 30**

Re-install the plastic coolant tube. Be careful not to crack or break it. (*Image 9*)

#### **STEP 31**

Re-connect the steering shaft and torque to the factory specifications.

#### **STEP 32**

Re-install the battery box and degas bottle.

#### STEP 33

Re-connect the coolant lines to the degas bottle. Also re-connect the vent line to the battery box.

#### STEP 34

Clean the end of the silicone boot and intercooler tube with glass cleaner. Reconnect the intercooler tube.



Re-connect the upper radiator hose and make sure the metal clips are securely in place.

# **STEP 36**

Disconnect the wire connectors to the EGR valve.



Image 22

# **STEP 37**

Install the air inlet baffle in the position shown.



Image 23



Image 24



# If you purchased the kit with an air inlet elbow, please refer to the installation steps below.

#### **STEP 38**

Install the intake elbow by sliding the tube into the boot. Using supplied M6-1.25  $\times$  25 bolts secure the flange to the intake manifold.



Image 25

#### **STEP 39**

Using the 3/8" hoses removed in Step 4 and the barbed hose fittings from the kit, reconnect the coolant lines to the radiator and degas bottle.

The lines must be cut to the proper length. Re-use the factory hose clamps at the connections.



Image 26



Secure the coolant line over the radiator with the plastic hose routing clips.



Image 27

# **STEP 41**

Refill the coolant according to factory specifications.

# **STEP 42**

Run engine and check for leaks.