

SUNCENT

2003-2007 Ford 6.0L Powerstroke

EGR Delete Kit

with Up-Pipe – 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 cannot be 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).

STEP 1

Disconnect Batteries.



Image 1

STEP 2

Drain coolant.



Image 2

STEP 3

Remove clips for plastic wire way located above turbo. Fold to windshield of truck and retain with plastic zip tie.



Image 3

STEP 4

Remove upper fan shroud by prying away from radiator through slots.

(Note: The plastic can be very brittle)



Image 4

STEP 5

Loosen hose clamps and remove intake tube. Then unscrew bolts and remove turbo inlet tube and PCV Valve.



Image 5



Image 6



Reminder: Batteries must be disconnected!!

STEP 6

Unbolt alternator and disconnect wires. Tilt alternator towards front of vehicle. Note: it is not necessary to loosen belt tensioner.



Image 7



Image 8

STEP 7

Remove Turbo
Remove:

- Intercooler pipe
(Image 9, Image 10, Image 11)



Image 9



Image 10



Image 11

- Oil feed line from oil cooler to turbo. (3 Bolts) (*Image 12, Image 13*)



Image 12



Image 13

- VGT actuator harness plug
- Up -pipe v band clamp (*Image 14*)



Image 14

- Turbo v-band clamp (downpipe) (*Image 15*)



Image 15

- Turbo mounting bolts. (3 Bolts, See Step 9 for turbo mounting bolt locations)

STEP 8

Once these parts are removed the turbo will rotate toward the passenger side of the truck and out of the pedestal.



Image 16

STEP 9

Remove the oil drain tube from the High Pressure Oil Pump Housing then Remove the turbo mounting pedestal (4 Bolts).

*Early 03-04 (Pedestal will differ)



Image 17



Image 18

STEP 10

Remove EGR cooler v-band clamp from up-pipe.



Image 19

STEP 11

Loosen the intake manifold bolts on the driver's side. Completely remove the intake manifold bolts from the passenger side and note their location using a piece of cardboard. Remove the two bolts that go through the inner fan stator to the intake manifold (Located under the shroud).



Image 20



Image 21



Image 22

STEP 12

Remove the bolt that is used to stiffen the heater tube to the manifold (located below alternator).

Bend this tab upward.

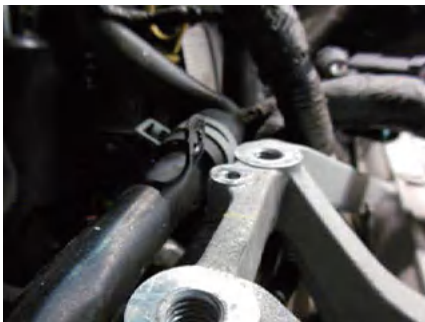


Image 23

STEP 13

Remove EGR cooler's (3) mounting bolts.



Image 24

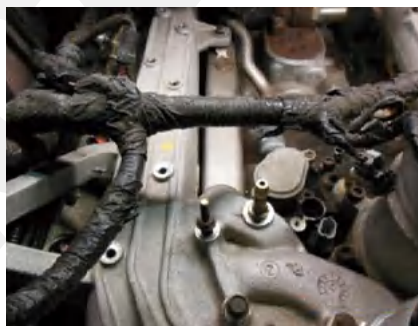


Image 25

STEP 14

Lightly push down on the EGR cooler while pulling up on the intake manifold to disengage from the manifold.



Image 26



Image 27

STEP 15

While holding the manifold up with a small pry bar move the cooler toward the back of the engine. Continuing to hold the manifold up, lift and remove the cooler through the front of the engine. Be sure that all gaskets and O-rings are removed with the cooler.

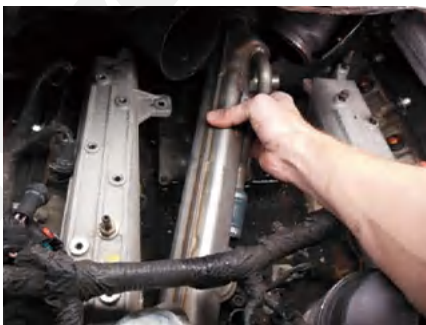


Image 28

STEP 16

Install the intake manifold and tighten the screws according to the torque specified by the manufacturer.



Image 29

If the kit you purchased does not include an up pipe, skip to step 19.



Reminder: Rust penetrant Location

STEP 17

Remove factory up-pipe: From underneath the passenger side of the truck remove the 2 bolts holding the up-pipe to the exhaust manifold. Once the bottom bolts have been removed, from the topside of the engine, loosen and remove bolts from factory up-pipe behind the heat shield.

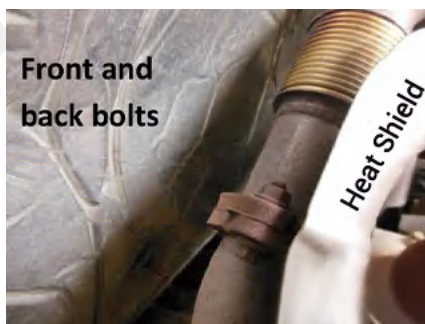


Image 30

Note: Some applications may require the heat shield to be removed or bent forward to access these bolts.



Image 31

STEP 18

Install EGR Delete Up-pipe with new gasket provided using the supplied hardware. (Gasket on top side)



Image 32

Note: This view is to be used ONLY as an out of vehicle reference. The removal of exhaust manifolds is not required for the up-pipe installation.



Image 33

STEP 19

Install the 3/4" silicone hose on the 1/2" 180 degree Stainless steel coolant tube provided. Loosely install hose clamps.

STEP 20

Grease the EGR Cooler adapter O-ring. Place into intake manifold. Finger tighten the two longer factory cooler mounting bolts. The third smaller bolt can be discarded.



Image 34



Image 35

STEP 21

Tighten billet adapter bolts to factory specified torque, while tightening make sure the O-ring stays in place and alignment is correct. Be sure not to over torque the bolts. Slide hose over the oil cooler nipple and tighten both hose clamps snugly.

STEP 22

Remove the factory EGR valve from the intake manifold and install the closing plate, using the existing bolts and tightening the bolts to the factory specified torque.

STEP 23

Reinstall turbo, all intake and exhaust tubes including down pipe, alternator, shroud, wires etc. in reverse order from steps 3 to 17.

STEP 24

Refill with new coolant, use manufacturer recommended and mix according to label.

STEP 25

You are now ready to test your EGR delete kit. Start engine and run till coolant circulates. Top off coolant system if needed. Make a close inspection for any coolant leaks or oil leaks.

Note: If vehicle throws a code or check engine light consider leaving factory EGR valve in place (05 models only). Alternatively, on 05-07 model years aftermarket tuning can be used to avoid any trouble codes.