

INSTALLATION GUIDE:



EGR Cooler

2004–2007 Ford 6.0L Powerstroke





DISCLAIMER

- 1) By installing this product onto your vehicle, you assume all risk and liability associated with its use.
 - 2) It is your responsibility to make sure your vehicle complies with all federal, state, and local emissions laws. Federal and many state and local laws prohibit the removal, modification or rendering inoperative of any part of the design affecting emissions or safety on motor vehicles used on a public street or highway. Violation may result in a fine of up to \$32,500 per vehicle (or possibly higher depending on changes in the law). All civil penalties and fines for removing your vehicle's emissions equipment are the sole responsibility of the end user.
 - 3) Due to its high performance nature, this product may void vehicle manufacturer's warranty.
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 - 5) Depending on where you live, restrictions may apply. Check all applicable laws before installing or using!
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Sinister Diesel EGR Cooler



PACKING LIST:

<u>QTY.</u>	<u>Description</u>
1	EGR Cooler
1	EGR to Manifold Gasket
1	EGR to Up-Pipe Gasket
1	Intake O-ring (installed on EGR cooler)
1	EO Sticker

Core Return Form On Page 8

Read all instructions prior to install.

Note: Prior to installation, please compare the parts that you have received with the bill of materials provided on this page to assure that you have all the parts necessary for the installation.



CAUTION!!! Never work on a hot vehicle. Serious injury in the form of burns can result if the vehicle has been in use. Allow vehicle to cool prior to installation. Always wear eye protection when working on or under any vehicle.

Note: With a used vehicle, we suggest using a penetrating spray lubricant to be applied liberally to all exhaust fasteners. When doing so allow a significant amount of time for the chemical to lubricate the threads before attempting to disassemble.

Removing the Original EGR Cooler

Step 1: Disconnect Batteries

Step 2: Drain Coolant

Step 3: Remove clips for plastic wireway located above the turbo. Fold to windshield of truck. (Image 1)



Image 1

Step 4: Remove upper fan shroud by prying away from radiator through slots. (Image 2 & 3)



Image 2



Image 3

Step 5: Loosen hose clamps and remove intake tube. (Image 4)

Step 6: Unscrew bolts and remove turbo inlet tube and PCV Valve. (Image 5)



Image 4



Image 5

Step 7: Loosen clamps and remove charge pipe. (Image 6)

Step 8: Remove the alternator by removing bolts and disconnecting wires, then tilt towards front of vehicle. (Image 7) **Note:** It is not necessary to loosen belt tensioner.



Image 6



Image 7

Step 9: Disconnect down pipe by removing v-clamp from back of turbo. (Image 8)

Step 10: Remove the 2 bolts from the catalytic converter. (Image 9)

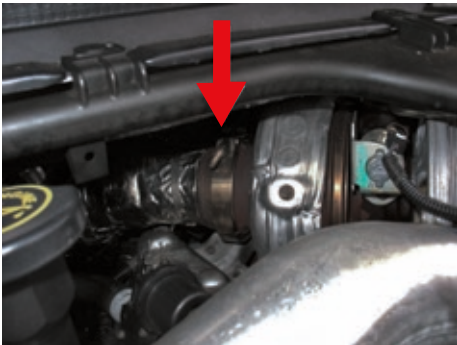


Image 8



Image 9

Step 11: Remove the turbo charger. This is done by removing the two oil feed line bolts, VGT actuator wire, Up-pipe, V-band clamp, and the three turbo mounting bolts. It is strongly recommended to use penetrating oil on all turbo bolts, exhaust up-pipe bolts and pedestal bolts. Once these parts are removed the turbo will roll toward the passenger side of the truck and out of the pedestal. *(Image 10)*

Step 12: Remove the turbo mounting pedestal and the oil drain tube from the high pressure oil pump (H.P.O.P.) cover. *(Image 11)*



Image 10



Image 11

Step 13: Loosen, but, do not remove the intake manifold bolts on the driver side. Completely remove the intake manifold bolts from the passenger side and note the location of each bolt using a piece of cardboard. *(Image 12)*

Step 14: Remove the two bolts that go through the inner fan stator (located under the shroud). *(Image 13)*



Image 12



Image 13

Step 15: Remove the bolt that is used to secure the heater tube to the manifold (located below the alternator). Bend this tab upward. *(Image 14)*

Step 16: Remove the (3) EGR cooler mounting bolts. *(Image 15)*



Image 14



Image 15

Step 17: Lightly push down on the EGR cooler while pulling up on the intake manifold to disengage the cooler from the manifold. *(Image 16)*

Step 18: While holding the manifold up use 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 17)*



Image 16



Image 17

Step 19: Replace existing hose with new blue silicon hose (*recommended*), lubricate the O-ring on the new cooler and place into intake manifold bore. Finger tighten factory cooler mounting bolts. Then replace existing v-clamp and tighten. Next torque cooler bolts to factory specs, while tightening make sure the O-ring stays in place and alignment is correct. Be sure not to over torque the bolts.

Step 20: Replace intake manifold bolts and torque to 120 inlbs.

Step 21: Re-install turbo, all intake and exhaust tubes including down pipe, alternator, shroud, wires, etc. in reverse order from steps 3 to 15.
(Image 18)

Step 22: Re-connect batteries and refill with new coolant, use manufacturer recommended and mix according to label.

Step 23: The Sinister EGR Cooler can now be tested. Start engine and run until coolant circulates. Top off coolant system if needed. Make a close inspection for any coolant leaks or oil leaks.



Image 18

**After completion of installation
place the EO sticker onto the radiator support
in plain view. (Image 19)**

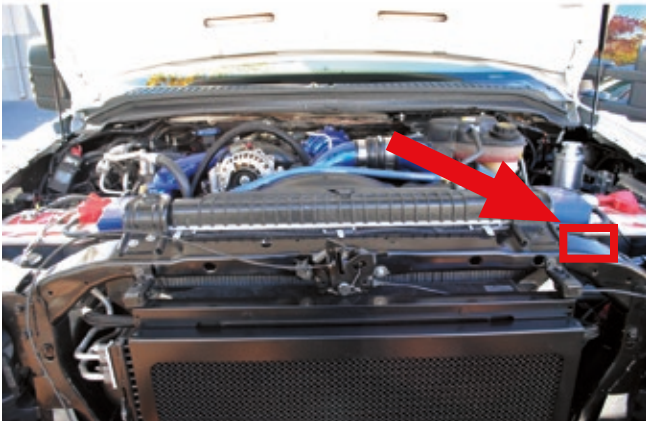


Image 19



Please Remove Page From Booklet

CORE RETURN FORM

Company Purchased From:	Phone Number:
Customer Name (Your Name):	Date Shipped:
Company Name:	Shipping Method:
Order Number:	Quantity:
Customer ID (Dealers Only):	Type of Core: Yr: Make:
Tracking # of this Core Return:	
Shipped From (Name & Address):	

IMPORTANT: Please provide all of the above information as it is required to receive your credit. Send this form with your package. Credit will be issued once this information is verified. We will send a check for the amount determined by the manufacturer. Keep this information in your own record as it may be needed at a later date. Process could take about 2 weeks once core has been received.

Please note: If this form is not included a core credit will not be issued.

2025 Opportunity Dr.
Roseville CA, 95678
SinisterDiesel.com

TEL: 877-692-4110 - FAX: 916-772-9254



#1 IN PERFORMANCE PARTS & KITS

2025 OPPORTUNITY DR. ROSEVILLE, CA 95678 SINISTERDIESEL.COM 877.692.4110