



2010-2024 6.7L Cummins

EGR Delete Kit

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.

STEP 2

Drain engine coolant.

STEP 3

Remove the plastic engine cover that is held in place by four 8mm bolts.



Note: The dipstick must be removed in order to remove the plastic engine cover.

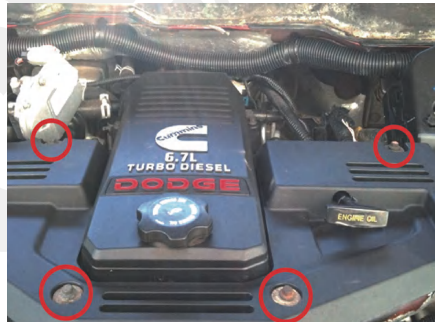


Image 1

STEP 4

Using an 11mm socket loosen the two V-band clamps. Remove the 10mm bolt in the center of the tube and disconnect the sensor plug. The EGR crossover tube can now be removed.

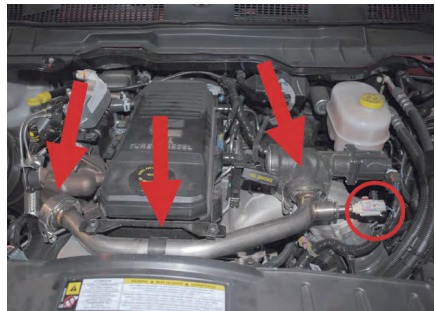


Image 2

STEP 5

Remove the electrical connector on the EGR valve. (Circled in image 3)



Image 3



Note: Some electrical connectors may have a locking tab. In order to remove these connectors the tab must be slid into the "unlock" position.

STEP 6

Remove the EGR valve that is held in place by four 10mm bolts.

STEP 7

Remove any existing gasket material from the mounting surface on the intake elbow.

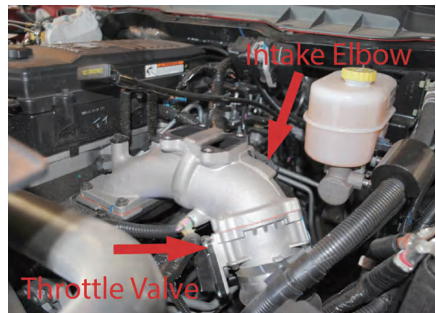


Image 4



Note: It is important to keep gasket debris from getting in the open intake ports. We recommend putting a clean rag in each port to keep any excess gasket material out of the intake.

STEP 8

Unplug the electrical connector (equipped with locking tab) on the back side of the throttle valve. The throttle valve is located on the driver side, just under the intake elbow. It is important to leave this unplugged in order to keep the throttle valve from permanently closing. (Image 4, Image 5)



Image 5



Note: An alternative to leaving the throttle valve unplugged is to install the Throttle Valve delete, which will also increase flow through the intake.

STEP 9

Install the blue intake block o with the supplied bolts. Ensure that both O-rings are fully seated.



Image 6

STEP 10

Remove the heat shield from the EGR bypass. The heat shield is held in place by three 10mm nuts and two 8mm bolts.



Image 7

STEP 11

With the heat shield out of the way remove the four 10mm bolts that secure the exhaust bypass in place. The exhaust bypass will get removed with the EGR servo.

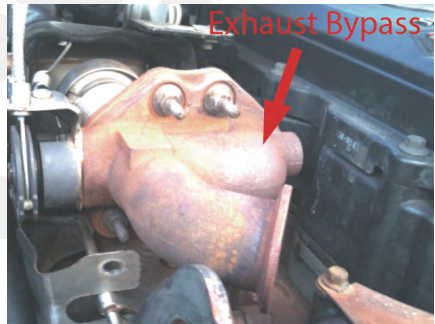


Image 8

STEP 12

Remove the five 10mm bolts securing the EGR servo mounting bracket in place.



Image 9

STEP 13

Simultaneously remove the EGR servo (still attached to the mounting bracket) and the exhaust bypass (bolts removed in step 11) from the vehicle.

STEP 14

Remove the crankcase breather tube that runs over the EGR cooler. Also, disconnect the two coolant lines running to the EGR cooler. Be sure to remove the O-ring from the fitting on the engine block.



Image 10

STEP 15

Remove the four 10mm EGR cooler mounting bolts. (One of which is circled in image 10)

STEP 16

Remove the two 15mm nuts connecting the EGR cooler to the exhaust manifold near the fire wall.

STEP 17

Remove the V-band clamp that is connecting the EGR cooler and the exhaust crossover elbow.



Image 11



Note: Image shown with the V-band clamp removed.

STEP 18

Remove exhaust crossover elbow that is held in place by two 15mm nuts. Install the small exhaust block off plate.



Image 12



Note: The block off that is not pre-drilled will be installed in place of the exhaust crossover elbow.

STEP 19

Remove the EGR cooler, this can be done by pulling the cooler up and out towards the front of the vehicle.

STEP 20

Remove EGR cooler mounting bracket by unbolting the two 14mm bolts that bolt directly to the engine.

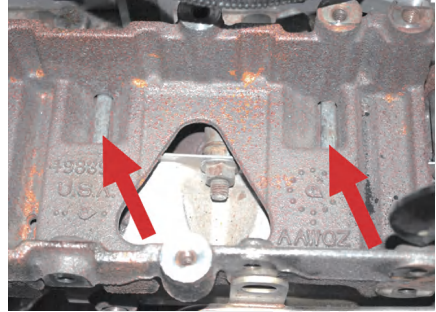


Image 13



Note: The bolt heads are not visible in the image, however the arrows give a general idea of where the bolts are through the mounting bracket.

STEP 21

Install the other exhaust block off plate, reusing the factory hardware. The block off with the pre-drilled port will be installed on the back side of the exhaust manifold.

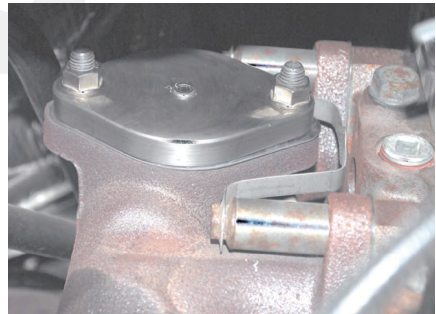


Image 14

STEP 22

Re-install the crankcase breather tube.

STEP 23

Using the new supplied coolant hose and hose adapter, connect the two coolant ports that previously went to the EGR cooler. Secure the hose with the supplied hose clamps.



Image 15



Image 16

STEP 24

Replace the manifold bolt with the supplied stand off bolt. The bolt will be the third one in from the back of the motor. The nut on the stand off bolt should be used as a jam nut to secure it in place. Do not tighten the stand off bolt by the hex bar.



Image 17

STEP 25

Install the provided bracket as shown. (See page 12 for bracket installation.) Screw an M10 bolt into the support bolt. Secure the transmission oil dipstick to the bracket using a 1/4-20 bolt, nut, and washer.



Image 18



Note: The bracket will hold the coolant hose connector in place.

STEP 26

Refill the coolant to factory specifications.

STEP 27

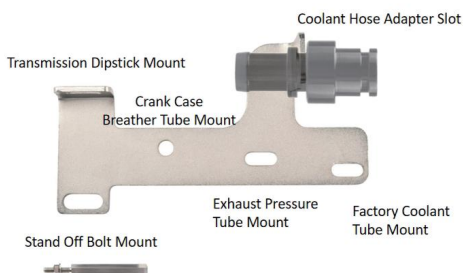
The installation of the SuncentAuto EGR delete kit is complete and ready for testing. Start the engine and run until coolant circulates. Top off the coolant system as necessary and do a close inspection of any leaks.

STEP 28

Re-install plastic engine cover.

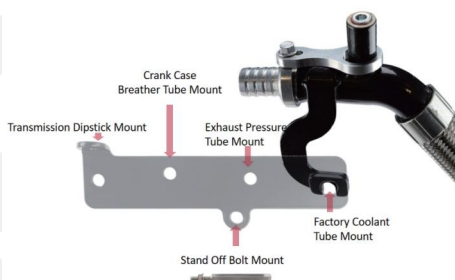
A-TYPE

bracket installation diagram



B-TYPE

bracket installation diagram



C-TYPE

bracket installation diagram

