



2011-2016 6.6L Duramax LML

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 the negative battery cables from both batteries.

STEP 2

Drain the engine coolant by removing the metal retaining clip on the lower radiator line and pulling the line away from the radiator enough to allow the coolant to flow out. As the flow of the coolant slows down and the overflow bottle is empty, reconnect the lower radiator line.

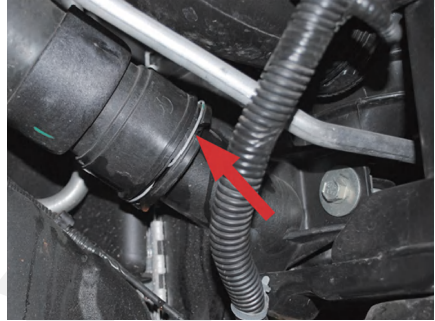


Image 1

STEP 3

Remove the intake resonator that is held in place by two bolts.



Image 2

STEP 4

Loosen the hose clamps on the intake, and disconnect the MAF sensor.

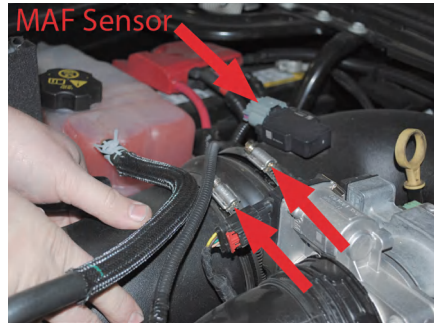


Image 3

STEP 5

Remove the intake tube, air box, and air filter from the vehicle.

STEP 6

Remove the electrical connectors on the plastic intercooler tubing and the electrical connector on the throttle valve.

STEP 7

Remove the plastic intercooler tube from the throttle valve. The intercooler tube has a twist lock connection at the throttle valve.



Image 4

STEP 8

Remove the green electrical connector from the back of the grid heater.

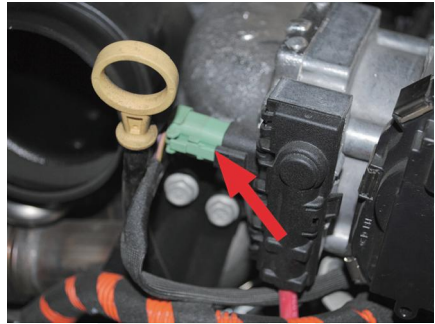


Image 5

STEP 9

Remove the plastic cover on the side of the grid heater, and remove the red power wire.



Image 6

STEP 10

Remove the throttle valve that is held in place by four bolts attaching it to the grid heater.

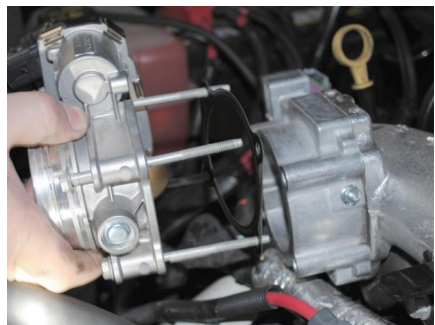


Image 7

STEP 11

Remove the one remaining bolt that holds the grid heater to the intake tube.

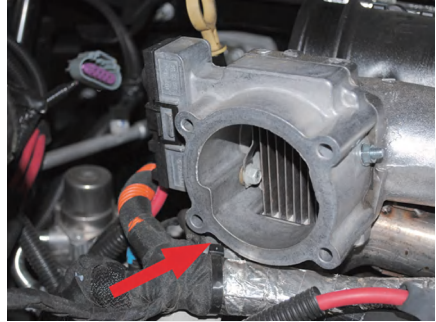


Image 8

STEP 12

Remove the two bolts securing the dipstick to the intake tube. Remove the plastic clip holding the wireway to the front of the intake tube.

STEP 13

Remove the two brackets secured to the intake tube, and remove the electrical connector on top of the intake tube.



Image 9

STEP 14

Remove the intake tube that is held in place by two bolts.

Note: It is important to plug the intake port with a clean rag to avoid any debris from getting into the intake system.

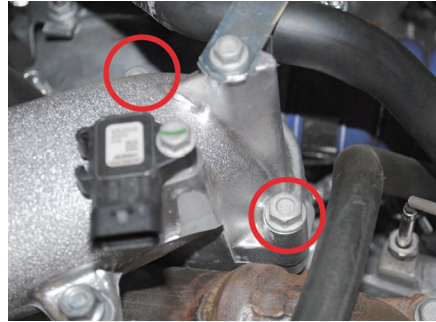


Image 10

STEP 15

Remove the two bolts holding the PCV valve in place on the back side of the plastic turbo mouthpiece. Move the PCV and mounting bracket safely out of the way.



Image 11

STEP 16

Loosen the V-band clamp that secures the plastic turbine nozzle to the turbine. Remove the nozzle from the turbine.

STEP 17

Remove the crossover tube, which is secured by five bolts. There are two bolts on each end of the tube, and one bolt (circled in the picture) that secures the crossover tube.

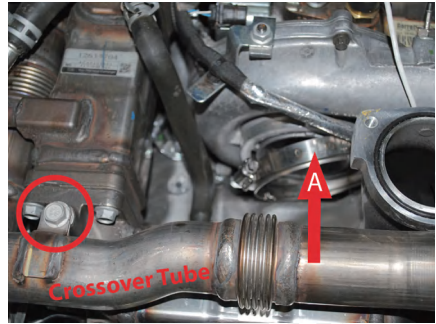


Image 12

STEP 18

Remove the four remaining bolts securing the EGR valve in place.

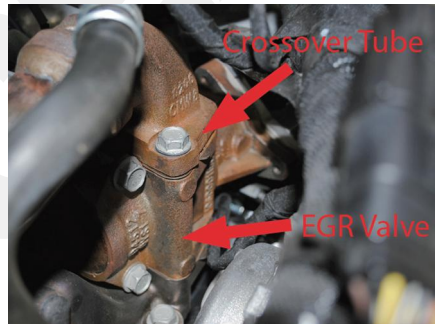


Image 13

STEP 19

Remove the electrical connector from the EGR valve and remove the EGR valve from the vehicle.

STEP 20

Remove all five of the coolant lines (four of which can be seen in Image) running to the EGR coolers. It is important to remove the coolant line running between the two coolers as well.



Image 14

STEP 21

Remove the four bolts connecting the two EGR coolers together. (Two of which are circled in Image)

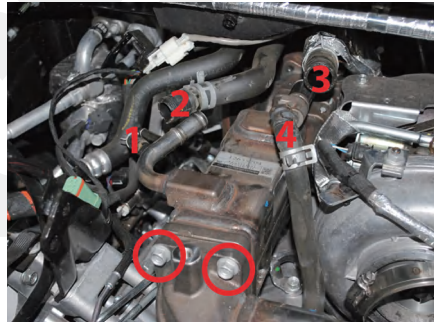


Image 15

STEP 22

Remove the front EGR cooler that is now held in place by two vertical bolts on the front side of the EGR cooler.

STEP 23

Remove the four bolts securing the second EGR cooler to the exhaust bypass valve.



Image 16

STEP 24

Remove the second EGR cooler that is now held in place by a single vertical bolt near the front of the cooler.



Image 17

STEP 25

Remove the two coolant lines that are running to the exhaust bypass valve. The line running to the EGR cooler will be completely removed from the vehicle. The second line will only be removed from the coolant port on the exhaust bypass valve.

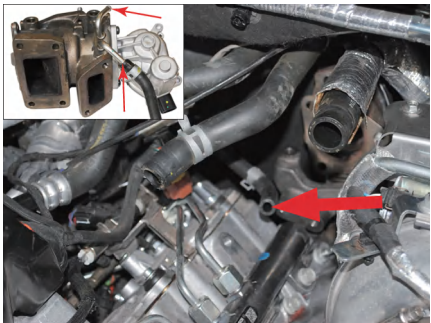


Image 18

STEP 26

Remove the three nuts that connect the up-pipe to the exhaust bypass valve. Remove the bolt on the backside of the exhaust bypass valve that is securing the coolant line.

STEP 27

Remove the exhaust bypass valve that is now held in place by two vertical bolts.

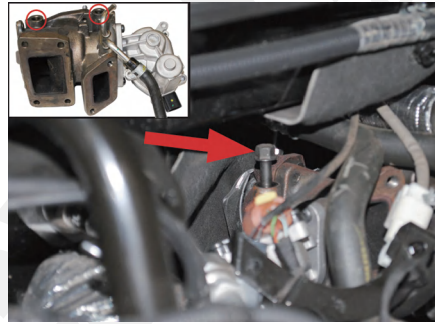


Image 19

STEP 28

With the exhaust bypass valve removed, install the new exhaust block off using the factory gasket and the supplied hardware. Four M8 × 25 hex head bolts will bolt in from the back, and one M10 × 20 hex head bolt will hold the bracket in place.

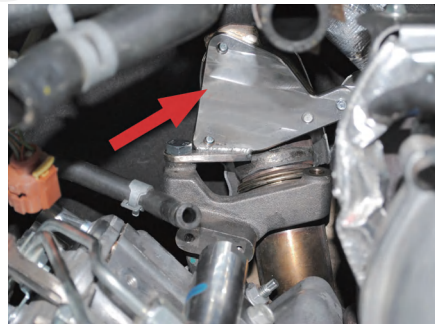


Image 20

STEP 29

Using one of the larger hose clamps, install the new 5/8" coolant line into the existing return line. The existing return line runs down behind the turbo. The free end of the larger blue tee will be installed directly into the return line.



Image 21

STEP 30

With the 5/8" coolant line in place, route the 3/8" coolant line with the brass barbed fitting to the front coolant line near the thermostat. Using one of the larger hose clamps, install the barbed fitting into the front coolant line, which was previously attached to the front EGR cooler.



Image 22

STEP 31

Using the last large hose clamp, install the loose end of the 3/8" coolant line into the heater hose running into the firewall.



Image 23

STEP 32

Using the smaller hose clamp, install the coolant line that previously ran to the exhaust bypass valve on the last open port on the new coolant line.

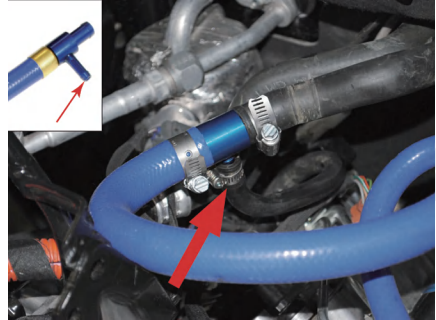


Image 24

STEP 33

Reinstall the plastic turbo mouthpiece to the turbo using the factory V-band clamp.



Image 25

STEP 34

Install the new blue billet aluminum intake block off plate. This will be installed where the EGR valve was removed (see steps 18 and 19).



Image 26

STEP 35

Reinstall the intake tube, securing it in place with the two original bolts.

STEP 36

With the original hardware, install the two brackets and the electrical connector to the intake tube.

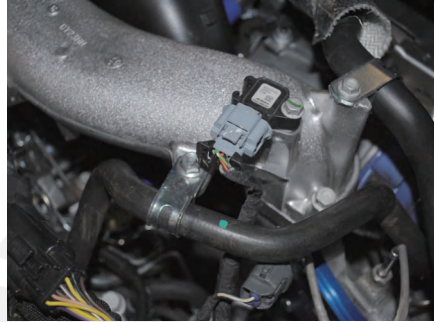


Image 27

STEP 37

With the original hardware, secure the dipstick to the intake tube.

STEP 38

Reinstall the grid heater and the throttle valve. This can be done simultaneously.

(Note: There should be a total of five bolts to secure the grid heater and throttle valve in place)



Image 28

STEP 39

Connect the red power wire under the plastic cover on the side of the grid heater, and reconnect the green electrical connector on the back of the grid heater.

STEP 40

Install the plastic intercooler tubing. Remember that the intercooler tube has a twist lock connection at the throttle valve.



Image 29

STEP 41

Reconnect the electrical plug into the throttle valve, and attach all the electrical connectors to the plastic intercooler tube.

STEP 42

Reinstall the PCV valve on the back side of the plastic turbo mouthpiece.

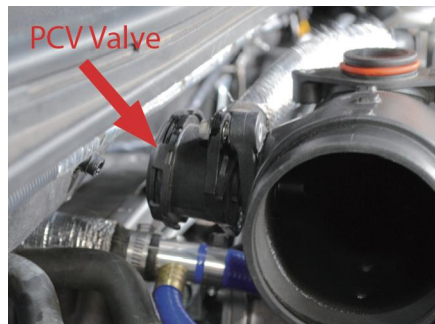


Image 30

STEP 43

Reinstall the intake tube, air box and air filter, and reconnect the MAF sensor.



Image 31

STEP 44

Reinstall the intake resonator on top of the plastic turbo mouthpiece.

STEP 45

Reconnect the batteries and refill the coolant per factory specifications.

STEP 46

Start the engine, and let it run for a few minutes. Check for any leaks, and add coolant if necessary.

STEP 47

Reconnect the electrical plug into the throttle valve, and attach all the electrical connectors to the plastic intercooler tube.

Note: Check coolant after driving, add coolant as necessary.