

SUNCENT

2006-2007.5 Duramax LBZ

EGR Delete Kit

Installation Manual

 [suncentauto_official](#)

 [Suncentauto.com](#)

 [Suncentauto](#)

 support@suncentauto.com



www.suncentauto.com



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 by removing the passenger side inner wheel well and disconnecting the lower radiator line by removing the metal clip.



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

Once coolant flow has slowed down and the overflow bottle is empty, re-connect the lower radiator line.



Image 1

STEP 3

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

STEP 4

Remove the intake tube that is routed from the filter to the plastic turbo mouthpiece.



Image 2

STEP 5

Remove the air box and filter, by gently prying out the three rubber grommets.



Image 3

STEP 6

Remove the resonator box on top of the engine by loosening the hose clamp at the base of the resonator box and remove the long bolt on the front of the resonator box.



Image 4

STEP 7

Disconnect the charge-back wire on the alternator and remove the plastic clip that holds the wiring harness to the plastic wireway.



Image 5

STEP 8

Open the plastic housing on top of the intake heater grid and disconnect the power wire.

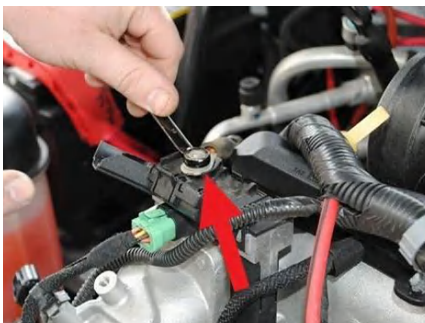


Image 6

STEP 9

Remove the two bolts and one nut that secure the plastic wire way in place.



Image 7

STEP 10

Disconnect the wire connector on the front of the intake heater grid and remove the bolt that secures the connector wires to the side of the intake.



Image 8

STEP 11

Remove the plastic clip that is also holding part of the wire in place.
(Image 8)

STEP 12

Pop out the metal retaining clip on the plastic intercooler piping and disconnect the plastic piece from the cast aluminum piece.



Image 9

STEP 13

Remove the wire connector and the four bolts that hold the forward most section of the cast intercooler piping on to the intermediate section. On the bottom of the forward most piece, there is a fifth bolt that secures it to a support bracket. (Circled in Image 9)

STEP 14

Carefully remove the forward most piece of the cast intercooler piping. Ensure that the gasket is not damaged, as it will be re-used during installation.



Image 10

STEP 15

Remove the small tube that is attached to the cast intake, next to the intake heater grid.



Image 11

STEP 16

Remove the four nuts and two bolts that hold the main section of the cast intake in place. It may be easier to remove the intake from the truck if you remove the two studs with a reversed torx socket.



Image 12



Note: Two bolts are located on the back side of the main section of the cast intake.

STEP 17

Remove the PCV tube from the driver and passenger side valve covers as well as the plastic turbo mouthpiece.



Image 13

STEP 18

Remove the plastic turbo mouthpiece by loosening the hose clamp that secures the mouthpiece to the turbo.

STEP 19

Remove the two temperature sensors from the EGR cooler on the passenger side.



Image 14



Image 15

STEP 20

Disconnect all of the coolant lines that are running to the EGR cooler.

STEP 21

Remove the EGR cooler that is secured by six bolts. Four at the back of the cooler (two bolts are facing forward and two are facing downward) and two rear facing bolts at the front of the cooler.

STEP 22

Once the cooler is out, disconnect the temperature sensors at the electrical connectors and remove them from the vehicle.

STEP 23

Remove the EGR valve that is held in place with two bolts, keep one of these bolts as it will be used during installation.



Image 16

STEP 24

Remove the coolant lines that previously ran to the EGR cooler.

STEP 25

Install the new exhaust block off plate using the factory gasket and the supplied hardware. Two 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 17

STEP 26

Using the supplied hose clamps install the supplied hose from the port on the firewall back to the port near the thermostat housing. Both of these ports previously had coolant lines that ran to the EGR cooler.

STEP 27

Install the support bracket where the EGR valve was using the supplied hardware. The support bracket washer goes underneath the bracket on the M10 × 20 hex head bolt. The other support bracket bolt is one of the bolts that was removed in step 23.



Image 18

STEP 28

Install the blue billet intake block off plates with O-rings onto the cast intake using the remaining supplied cap head bolts. Be sure that the longer bolts are on the side towards the front of the vehicle.

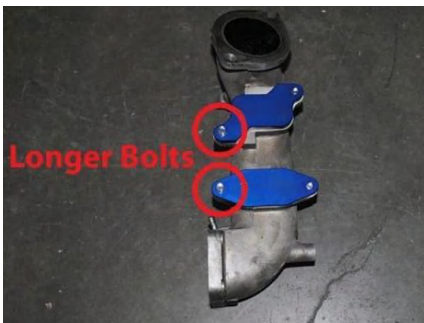


Image 19

If the kit you purchased comes with a high-flow intake pipe, please refer to the following steps to install it.

STEP 29

Install the high-flow intake pipe in the position shown in the figure, and remember to reinstall the MAP sensor.



Image 20

STEP 30

Re-install the plastic mouthpiece and the PCV tube.

STEP 31

Re-install the cast intake piece into the factory location, the two longer bolts that are now towards the front of the vehicle, should line up with and fit through the two remaining holes in the support bracket. Use the supplied flange nuts to secure the intake to the bracket.



Image 21

STEP 32

Re-install the forward most piece of the cast intake. Be careful to not damage the gasket during this process. Once installed, install the wire connector going to the throttle plate.



Image 22

STEP 33

Re-install the plastic intercooler piping.

STEP 34

Re-connect the heater grid wire and mount the wire support bracket back in place.



Image 23

STEP 35

Mount the wiring harness that is in the plastic liner back to the top of the cast intake piece. Be sure to mount the small metal bracket back onto the stud.



Image 24

STEP 36

Re-connect the small tube coming from the sensor back to the port on the cast intake next to the heater grid. (Image 24)

STEP 37

Re-connect the power wire that runs to the top of the heater grid under the plastic housing.



Image 25

STEP 38

Re-connect the charge-back wire to the top of the alternator and use plastic clip to hold wiring harness to the plastic wireway.



Image 26

STEP 39

Install the intake resonator box on top of the plastic turbo mouthpiece and secure it with the hose clamp on the bottom and the long bolt at the front of the resonator box.



Image 27

STEP 40

Re-install the air intake and plug in the mass air flow sensor.



Image 28

STEP 41

After everything is tight, refill the vehicle with coolant through the overflow bottle.

STEP 42

Re-connect batteries.

STEP 43

Start the engine and let it run for a few minutes. Check for any leaks and if needed top off the coolant.



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