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2009-2010 DODGE RAM 2500/3500 6.7L EGR COOLER DELETE



Installation Instructions

This is an EGR cooler delete kit for the 2009-2010 2500 & 3500 Dodge trucks with the 6.7L engine that have the rigid cooling lines. In this kit you will find everything you need to completely delete the EGR valve and the EGR cooler.

This is not really a difficult job. However the biggest problem you are going to face is getting access to several of the fasteners on the EGR cooler. That is just a function of Dodges design.

It is fairly straight forward, and designed so that you will have a NICE looking billet aluminum cover for your stock intake, two thick and tough exhaust cover plates for your manifold, and a brass plug and a threaded plug to seal off the cooling system. NO crossover coolant hose is required. This makes the final product look much cleaner, almost gives it a factory look.

MATERIAL LIST:

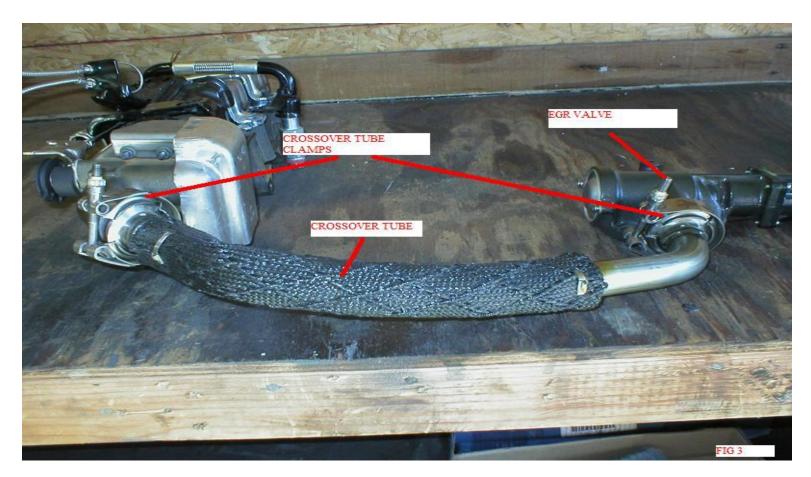
- EGR Valve block off plate (Qty 1)
- Exhaust block off plates (Qty 2)
- Engine block coolant plug (Qty 1)
- Coolant riser plug w/O-ring & Nylock nut (Qty 1)
- Coolant riser plug bracket (Qty 1)
- Coolant riser bracket bolt (Qty 1)
- Lower coolant riser bracket w/ mounting hardware (Qty 1)

TOOLS:

- 15mm craws-foot
- 8, 10, 11, 14, and 15mm Sockets
- 8, 10, 11, 14, and 15mm wrenches (prefer gear wrench)
- Time and patience

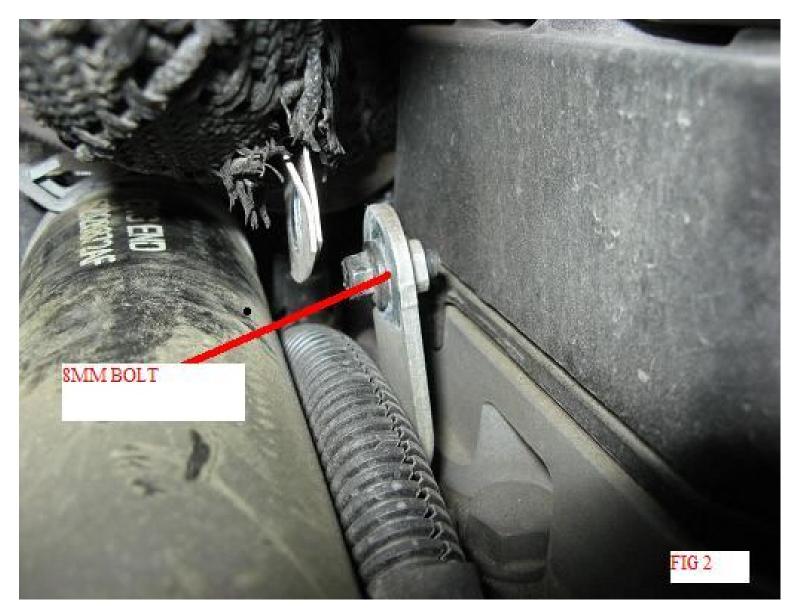


Before starting, locate all the necessary components that you will be removing from the truck (Fig. 1).

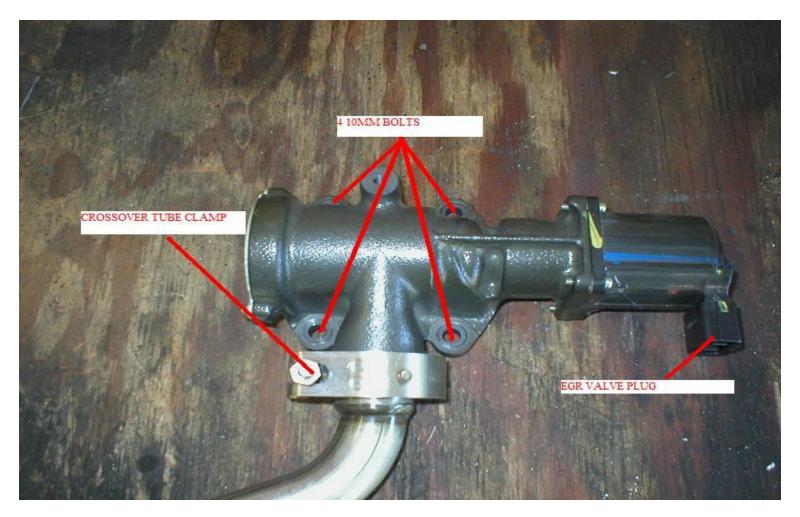


Locate all components and begin the removal of the stock parts. First remove the front engine cowl at the front top of the motor.

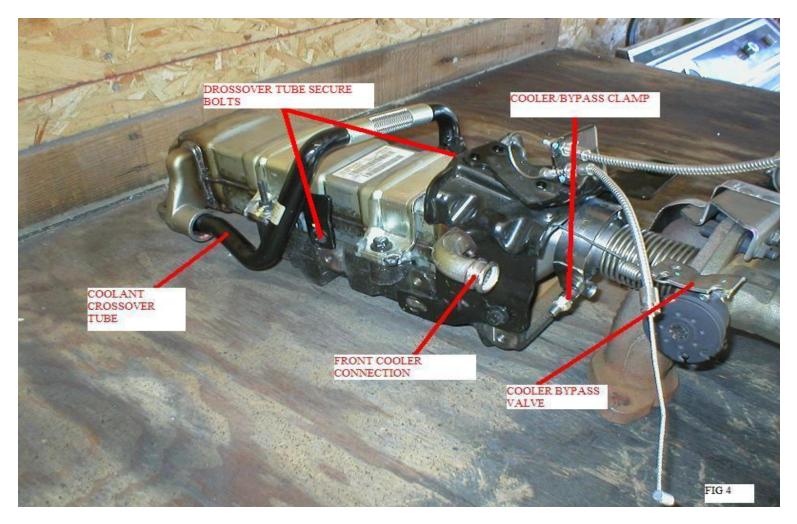
Set this aside you will not be putting this back on. Now locate the crossover tube



Remove the 4 - 10mm bolts that hold the EGR valve on top of the intake. Unplug the EGR valve and tie up the plug. Remove the gaskets too, they will be replaced.



Remove both of the clamps at each end with an 11mm socket. Remove the 8mm bolt in the center (you can't see this one, as its hidden underneath) (Fig. 2).



On the Cooler side of the motor, remove the servo motor and tie it up out of the way. It will have to remain plugged in and mounted in a secure location (Fig. 3).

Get a coolant catch to get the coolant that is going to spill in the steps to come.

Disconnect the breather tube that goes from the turbo intake to the PCV, to be reinstalled at a later time.

Undo the 2 bolts that secure the crossover tube and remove the rear coolant crossover tube that goes from the cooler to the engine block (Fig. 4).



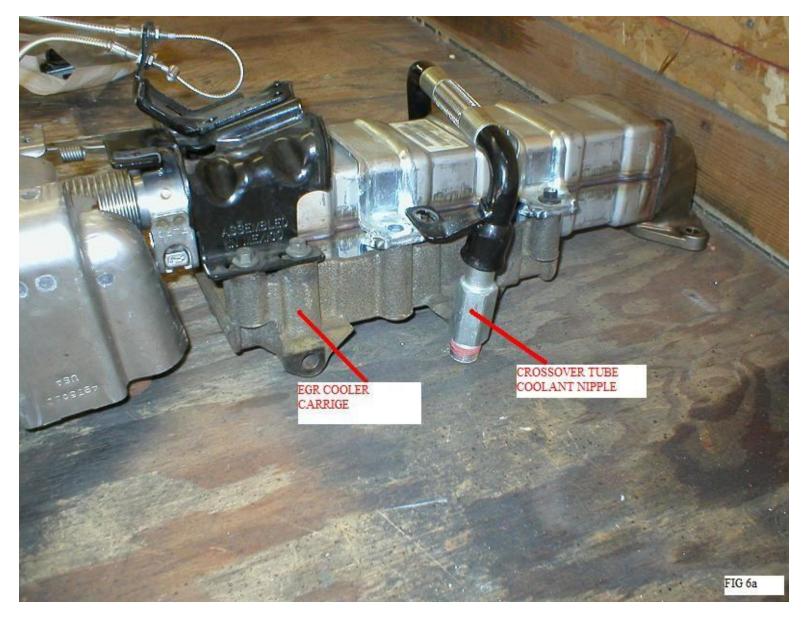
Coolant will spill out. Near the center of the cooler there is a clamp that holds the cooler valve to the actual cooler itself. This is an 11mm socket as well. Remove that so the cooler can be removed in two parts (Fig. 4a).

Now, loosen the 4 - 15mm bolts that hold the cooler to the exhaust manifold and the two bolts under the cooler that hold the cooler carriage on (Fig. 6).



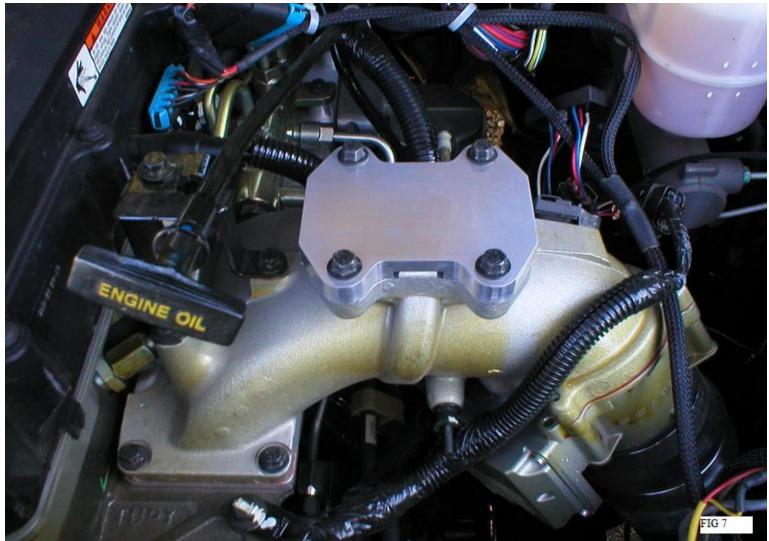
Now, loosen the 4 - 15mm bolts that hold the cooler to the exhaust manifold and the two bolts under the cooler that hold the cooler carriage on (Fig. 6).

The front right nut is under the cooler valve and is hard to remove. You will need a crows-foot to make it easier (Fig. 6). Now the cooler has been separated into 2 parts. You can now remove the back half of the cooler. Lift the rear half off the exhaust manifold bolts and push the cooler to the rear of the truck.

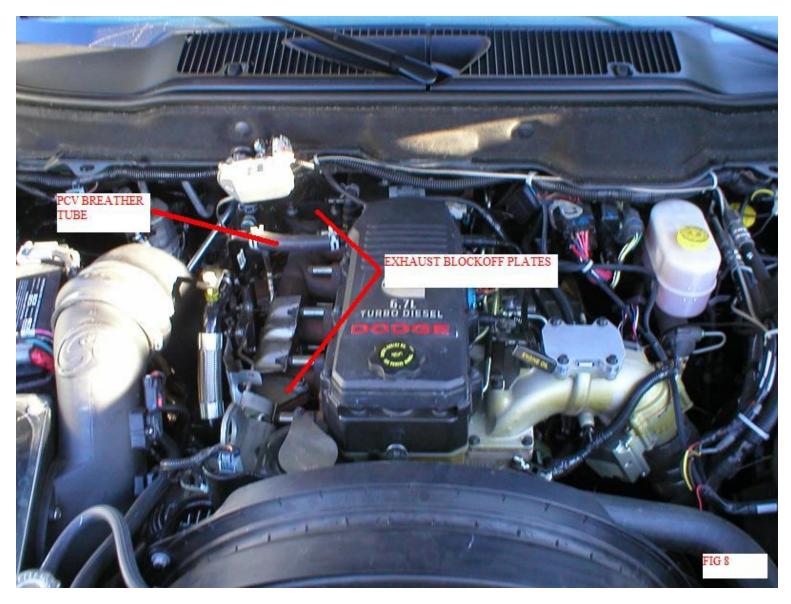


There is a cooling line at the top of the coolant riser that is connected to the back half and it is held in with an o-ring. The factory has a tight fit, but if you wiggle it back and forth towards the rear of the truck it will come out (Fig. 6).

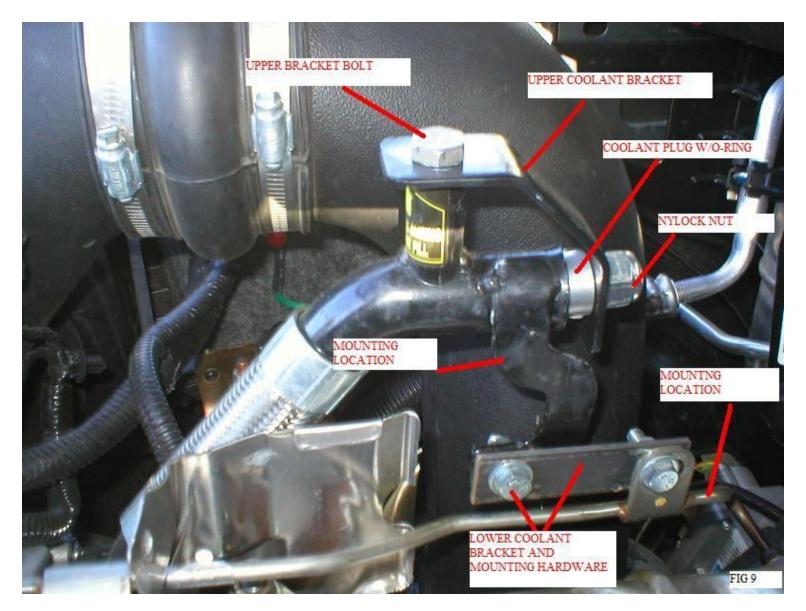
Once the rear half has been removed, the Bypass valve section (front half) can be removed. After the cooler assembly has been removed, you can unscrew the coolant crossover tube nipple that goes into the engine block (Fig. 6a).



Install the supplied intake block off plate and factory gaskets using the original 4 - 10mm bolts (Fig7) and secure the EGR valve block off plate.



Install the 2 exhaust block off plates with the supplied gaskets. Use the original 15mm bolts and the existing washers. There are two washers per stud (Fig. 8). Re-install the PCV breather tube.



Remove the ¼" NPT plug at the top of the coolant riser tube. Assemble the upper riser bracket and the new supplied plug with o-ring with the supplied Nylock nut prior to installing them. Rub the new o-ring with some coolant it will make for easy installation. Install the plug into the end of the coolant riser until the top holes of the riser line up and secure the bracket with the supplied bolt.

(THIS BOLT WILL NEED THREAD SEALENT)

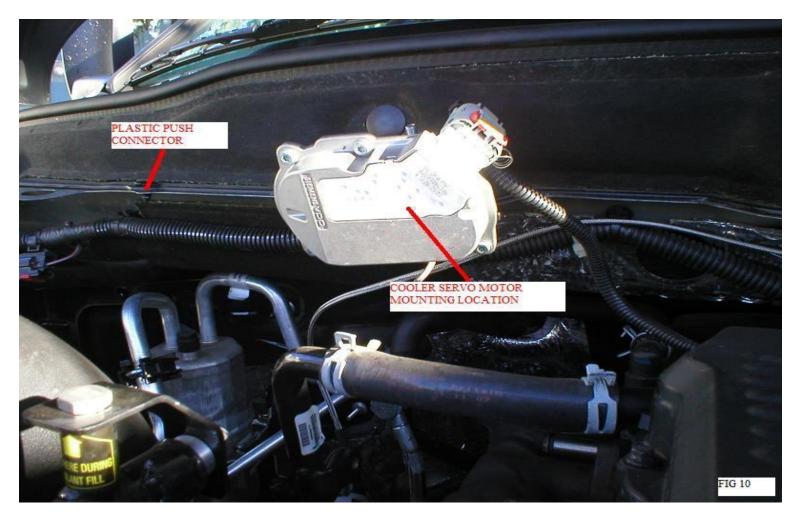
Make sure that the bracket and plug stay inline with the coolant riser.

NOTE: The top of the bracket has rounded edges and the bottom has angled edges..

Install the lower bracket using the supplied nuts and bolts. The bracket should connect to the lower riser bracket and the exhaust pressure line bracket as shown in figure 9.



Next, install the 3/8 Allen head plug into the engine block.



Finally, secure the EGR cooler servo motor to a secure location. We recommend using a bolt and nut. Remove the plastic push connector in (Fig 10) and install the bolt through the factory hole on the firewall and through the servo motor mounting hole and secure it with a lock and washer.

Butterfly Valve Gear Removal



This is what you are looking for. The Butterfly Valve is just below the EGR.

This is a better view of the controller cover. 4 T-20 torx screws hold the cover in place. Be sure to unplug the connector from the underside first.



The cover off shows the 4 screws & T-20 and T-10 drivers. Those are the only tools required for this mod. As you can see the electronics is part of the cover including the jack.



These are the three main components. On the right, the motor unit, center the White idler gear (to be removed) and on the left the spring loaded butterfly valve shaft.



Here is the motor unit removed. NOTE the wave washer that is behind the motor. It goes back in the hole before installation of the motor again. The motor screws are T-10.



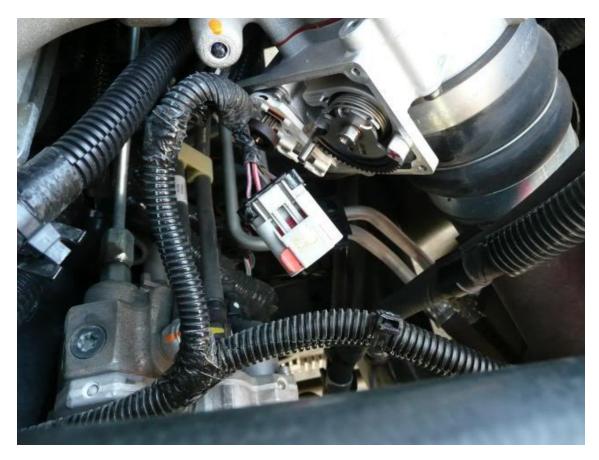
Here you can see the screw positions. The back motor one isn't visible installed, unless you use a mirror.



Here is the unit just before cover replacement.



Picture of the Cable connector showing the red safety clip similar to the ones on the Pyro-Probes. Page 18 $\,$



Word of caution is to watch the screws to not lose any. I even suggest a magnet tipped driver for this.

Note:

The best way for EGR is to use block plates. The motor needs to come off the end of the EGR by removing the EGR from its housing. Once off you need to plug back in, and go turn the key to on. Do not start. Go back to the EGR motor and pull the plunger that is now sticking out of the motor out. Turn the ignition key off. Leave EGR motor plugged in, and use zip ties to secure it to something out of the way. There is not a specific place to mount it as long as it is not moving around in the engine bay.

Unplug the plug on the throttle body valve.

If you have your cooler deleted, you can unplug that servo motor, cut the zip ties and remove the servo, and plug back in into the factory harness. There is not a specific place to mount it as long as it is not moving around in the engine bay.

Most trucks will take a few days for the PCM to learn the new conditions. Truck will start running better and better the more it is driven. Some trucks may still through an Engine code when the EGR/Cooler has been removed. In most cases it has no impact on drive-ability of the vehicle.

A proper DFP/EGR delete programmer can eliminate any codes from showing up.

Questions: Send email to <u>Support@dfuser.com</u> dfuser.com 108 Evergreen Road Georgetown, TX 78628-9500

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Many of our customers ask, "Will your product void my vehicle manufacturer's warranty?" While the answer is straightforward from a legal standpoint, we also want to educate our customers (and aftermarket Consumers) on some industry realities and offer some common sense precautions to minimize your risk.

Consumers of aftermarket products are protected by The Federal Magnusson-Moss Warranty Act. The Act states that if something breaks on your car and you take it in for warranty repair, the dealer must honor your warranty unless they can prove that whatever modifications you have added to your car actually caused the problem.

While as a consumer, you have strong legal protection with regards to your vehicle's warranty, there is also a practical reality that different automotive manufacturers and dealers have greatly varying views on aftermarket products, in particular those that produce horsepower, such as performance enhancement chips, modified intake manifolds, or aftermarket exhaust systems. There are dealers and manufacturers out there that will use the presence of a horsepower upgrade to void your vehicle's warranty. They will do this regardless of whose product you are using. Any aftermarket company that does not acknowledge this is misleading you.

The bottom line is that while the law protects the consumer and provides for enforcement of the warranty, it is very difficult for most people to hire an attorney and fight a voided warranty. Dfuser.com recommends that you always disconnect and remove your module and monitor when you take your vehicle to a dealer for warranty work in order not to interfere with Diagnostic equipment.