

6.6L Duramax
EGR Delete Kit
Installation Manual

Caution!

Never work on a hot vehicle as serious injury in the form of burning can result if the vehicle has been in use. Allow the vehicle to cool prior to installation. Always Wear eye protection when working on or under any vehicle.

Note: The use of penetrating spray can (and should) be applied liberally as soon as possible to all exhaust fasteners to aid in removal.

Step 1: Disconnect the negative terminal on both batteries.

Step 2: Remove the passenger side inner fender liner.

Step 3: Drain the engine coolant from the bottom passenger side of the radiator. Rotate the radiator drain cock counterclockwise to open.

Step 4: Remove the air intake piping and intake air box.



Step 5: Remove the heat shielding on the EGR cooler outlet pipe that connects to the Y-Bridge/double rainbow, and then remove the (6) 13MM head bolts that hold it on.



Step 6: Remove the AC compressor. To be able to do this without undoing your AC lines, there is one stud/bolt you will have to remove in conjunction with raising the compressor out. It takes some time, but is entirely doable with an open end wrench. When finished, set it to the side out of the way. Also remove and set the alternator to the side. It will make the rest of this procedure much easier.

Step 7: Remove the intake horn. This requires patience, and a 13mm swivel socket. If you're going to be using an aftermarket intake horn then the PCV hose in the top right can be removed from the OEM intake horn, otherwise leave it attached and just swing it out of the way.

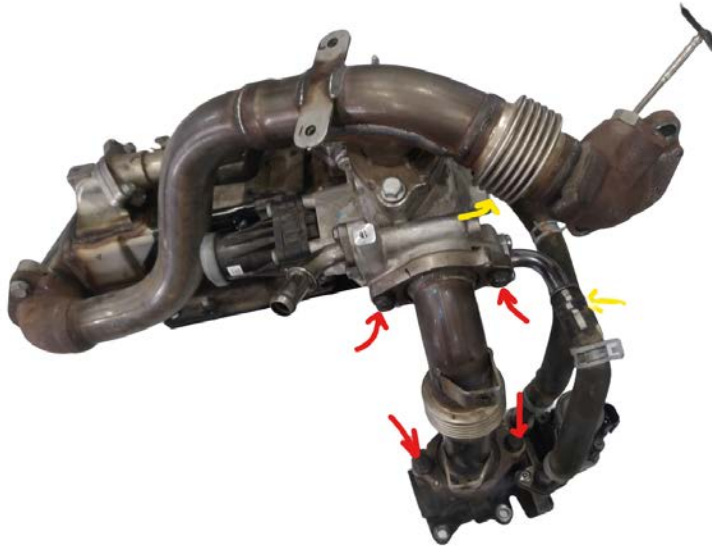


Step 8: Undo all the plugs and wiring keeping the y-bridge/double rainbow in the engine bay. Also undo the hose connected to the coolant hardline, as well as the intercooler pipe fitted to the end of the throttle body. This is removed by twisting the connector on the hose end. The double rainbow is removed with (8) 10mm head bolts. As soon as this comes off, cover off the ports to prevent foreign material ingress.



Step 9: Remove the hot side EGR pipe on the passenger side of the vehicle.

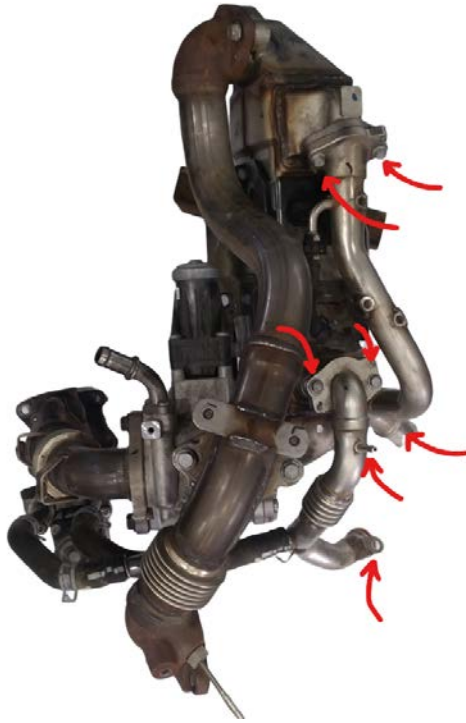
You can also undo the spring clamps and take the black hoses off just to the right in the below photo. They can also stay attached, but undoing them makes continued removal a bit easier.



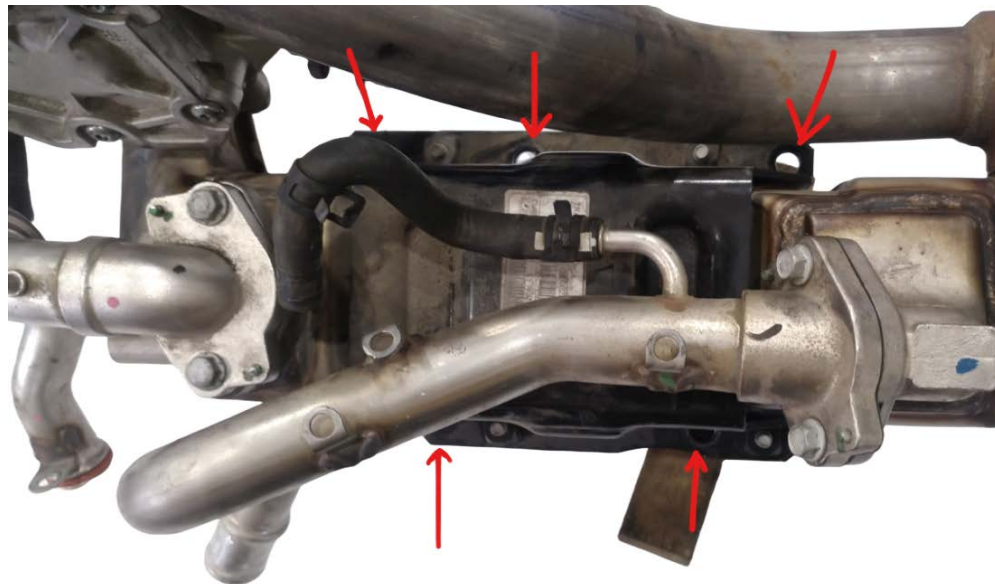
Step 10: Remove the lower EGR valve, just below the hot pipe you just removed, and install the stainless steel blocker plate with the supplied replacement gasket, and hardware. You can wait until the EGR cooler is out to do this, for a bit more clearance, just make sure you don't forget this step.



Step 11: Remove the coolant hoses indicated below. (4) 10mm head bolts attach the pipes to the EGR cooler, and a 13mm head bolt attaches one pipe to the block. Where this pipe goes into the block, you will use the supplied blocker plug (slightly grease the o-ring) and the stock bolt to cover off the now empty port.



Step 12: Disconnect any remaining hoses marrying the EGR cooler to the engine. Remove the (5) 13mm head bolts and remove the EGR cooler.



Step 13: Trace the right hose below at the heater core coolant bungs on the firewall.



The right side will be replaced with the supplied hose, with the quick connect on one end and a red hose adapter on the other. The quick connect goes onto the firewall bung, and the adapter end connects to the OEM hose near the previously installed blocker plug.



2019+ trucks

Step 14: Trace the left hose below at the heater core coolant bungs on the firewall. 2017-2019 truck are slightly different from 2020+ trucks, so skip to your model year.



LEFT HOSE (Right hand when sitting in truck)

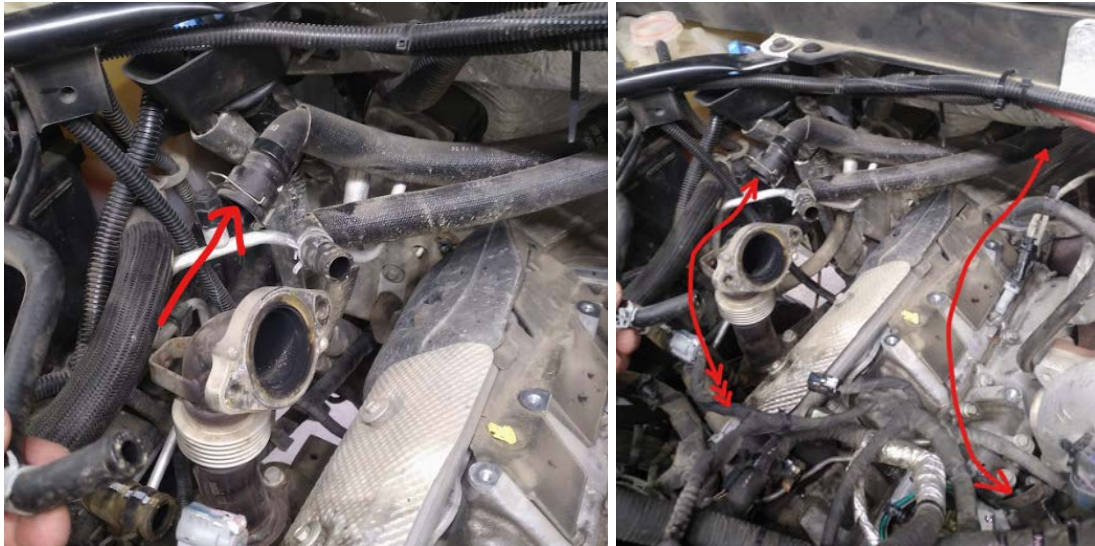
2020+

The left hose should be removed from the OEM quick connect fitting. The included hose will be installed onto this OEM fitting. Remove the hose and the attached aluminum hardline. The supplied hose (which may come with a red quick connect fitting already installed) should be clamped on this OEM quick connect. The other end of the supplied hose, with the brass barbed connector, goes into the flexible hose at the other end of the aluminum hardline you are removing.



2017-2019 trucks

Replace the hardline by connecting the smaller quick connect fitting at the point shown below. Attach the other end in the same place as the just removed line.



Step 15:

The turbo coolant outlet is routed differently on 2017-2019 and 2020+ trucks. Skip to your model year.

2017-2019

On 2017-2019 trucks, the turbo return line is re-routed as shown below using the supplied small diameter hose.



2020+

The turbo coolant outlet is routed to the coolant overflow tank. Use the supplied 6' hose and reroute it up on the firewall, or however you choose. This just allows cleaner routing.



Step 16: 2017-2019 only:

Plug the now-unused port on the turbo line using one of the supplied aluminum hose barb plugs, and a short section of the OEM hose.



Step 17: If you've purchased an aftermarket downpipe, now is the time to install it.

- Remove the heat shielding and SCR NOX sensor
- Remove the V-Band clamps on the SCR and break the SCR free from the OEM downpipe and turbo
 - Remove the turbo oil drain line
- Remove the turbo coolant hard lines on the passenger side of the turbo.
 - Remove the turbo and and the SCR
 - Remove the OEM downpipe
 - Install the downpipe
- Reinstall the turbo and associated lines

Step 18: Install either your aftermarket double rainbow, or the OEM version with the included block off plate installed (25ft-lbs) onto the OEM intake in place of the egr tube with the supplied gasket. The (8) 10mm hex head bolts should be torqued to 90in-lbs



Step 19: Install your 9th injector block off plug into the quick connect and plug the coolant lines with ¼" plugs. The 2017-2019 model only requires one plug.



Step 20: Reinstall the radiator drain plug, ensure all components have been properly reinstalled, tightened, and routed correctly, and refill the coolant.

Step 21: Start your engine and check for leaks after idling for a while and getting temperatures up. Check your coolant for the next few heat cycles, as any air pockets will take some time to work their way up and out.