

Stocker Compound Kit Instructions

2007.5 – 2009 Dodge Cummins 6.7L

Stainless 2-Piece Hot Pipe Configuration

IMPORTANT – 2007.5–2009 Models Only: These model years use the stainless 2-piece hot pipe configuration. The cast hot pipe cannot be used on 2007.5–2009 trucks due to interference with the A/C fittings at the firewall. This version requires cutting the factory exhaust pipe approximately 5.5" from the cross member. The factory coolant reservoir is retained — no coolant tank replacement is required.

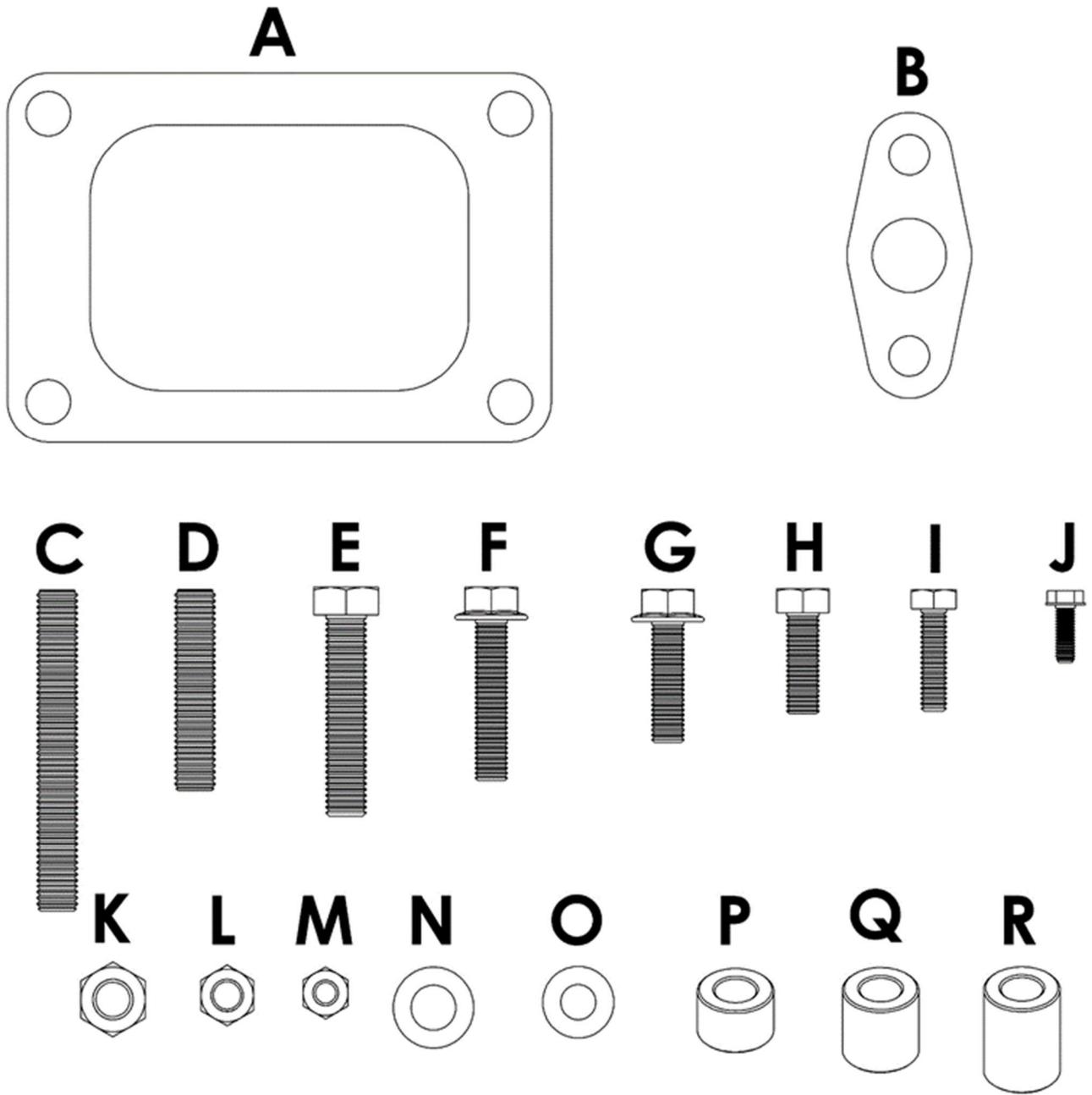
VERY IMPORTANT

Prior to installation, blow out all oil lines and air tubes to make sure debris is not inside any of the lines or tubes.

Please read all instructions before installation.

Note: This turbocharger system requires the installation of head studs.

6.7L Cummins Stocker Twin – Gaskets and Hardware



Images Are Not to Scale

Letter	Hardware Specification	Qty (2007.5–2009)
A	T6 Non-Divided Gasket	1
B	Oil Drain Gasket	1
C	M10-1.5 x 80mm Stud	1
D	M10-1.5 x 50mm Stud	2
E	M10-1.5 x 50mm Hex Bolt	4
F	M8-1.25 x 40mm Flange Head Bolt	2
G	M8-1.25 x 30mm Flange Head Bolt	1
H	M8-1.25 x 25mm Hex Bolt	4
K	M10-1.5 Nut	6
L	M8-1.25 Nut	2
N	M10 Narrow Washer	8
P	½" Spacer	1
Q	¾" Spacer	1
R	1" Spacer	3

Initial Disassembly

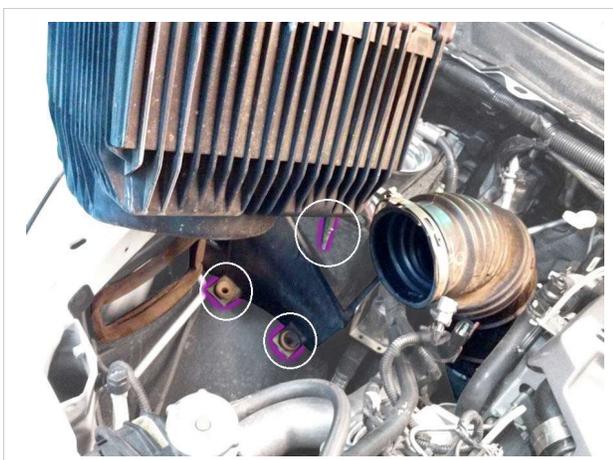
1. Make sure your vehicle is parked on level ground and the parking brake is applied.
2. Disconnect the negative battery terminals.
3. Loosen the hose clamp on the intake air box cover.



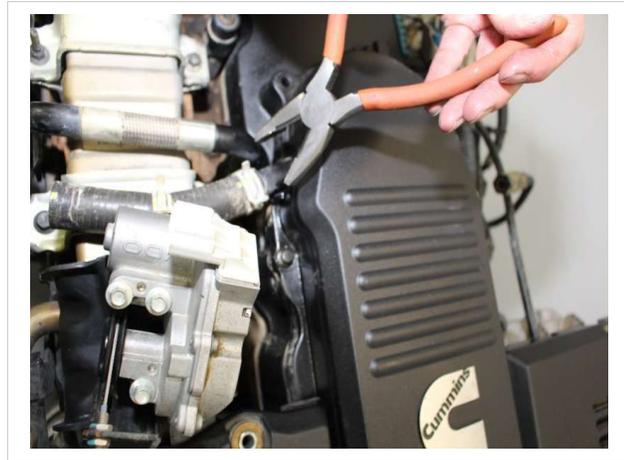
4. Unsnap the 2 retaining clips on the air box cover. Slide the cover out toward the passenger side and set it aside. The air box will be reinstalled later.



5. Unbolt the front of the intake air box. Remove the air box by pulling it upward until the two tapered pins come out of the grommets. The intake air box will be reinstalled later.



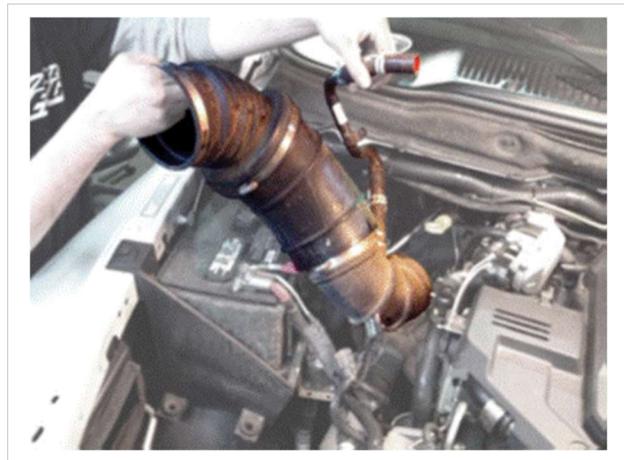
6. Remove the spring clamp from the barb on the valve cover to disconnect the crankcase vent tube. Keep the spring clamp to reuse later.



7. Remove the bolt holding the crankcase breather tube.



8. Loosen the hose clamp on the turbo where the intake tube connects. Remove the intake tube along with the crankcase breather tube.



9. Remove the bolt and plastic clamp to remove the passenger side battery. This provides more space for easier installation. The battery will be reinstalled later.

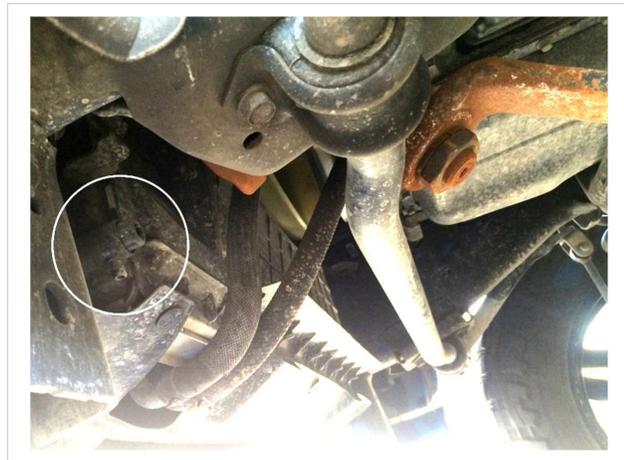


10. Drain the coolant from the radiator. Locate the petcock on the bottom of the radiator on the driver side. Turn the petcock counterclockwise just over one full turn. Do not remove it completely — it is difficult to reinstall.



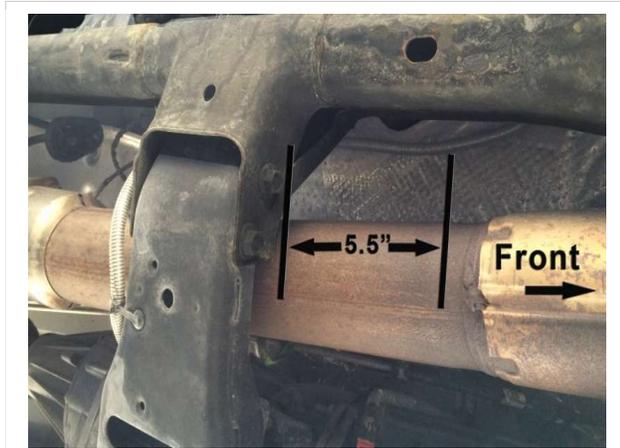
11. Remove the passenger side inner fender for easier access. There are 8 hex-head screws and 1 push pin holding the inner fender in place.

12. Remove the coolant supply line to the turbo. Remove the upper banjo bolt first. Have a rag below the line to absorb coolant that drains out. Keep the banjo bolt and washers — they will be reused later.



Downpipe Removal

13. Cut the downpipe approximately 5.5" from the cross member as shown.



NOTE: This exhaust cut is required for the stainless 2-piece pipe configuration. The new stainless downpipe will connect to the factory exhaust at this cut point.

14. Remove the downpipe by disconnecting the v-band clamp. The clamp will be reused later. There is a downpipe mount attached to the bell housing of the transmission. Rather than fighting with the grommet, remove the bolts holding the bracket and replace the bolts without the bracket.



15. (2007.5–2009 Trucks Only) Remove the two bolts holding the AC receiver dryer to the metal bracket. Carefully bend the lines to create enough space for two R spacers from the kit. Use the two F bolts to install the spacers between the receiver dryer and the mounting bracket. Bend the front receiver dryer mount toward the receiver dryer to avoid contact with the downpipe.



EGR System – Coolant Line Relocation

NOTE: 2007.5–2012 vehicles are equipped with two different EGR systems. Identify yours before proceeding. Early style (2007.5–2008): solid tube. Late style (2009–2012): braided section.



Early EGR System (2007.5–2008)
Solid Tube



Late EGR System (2009–2012)
With Braided Section

If equipped with the early style EGR system, continue at Step 16.
If equipped with the late style EGR system, skip to Step 19.

Early EGR System Only – Steps 16–18

16. (Early EGR Only) Remove the solid coolant supply line running from the front of the engine, below the factory turbo and to the firewall:

- Using pliers, squeeze the clamp and slide it above the barb. Remove the hose from the hard line.
- Remove the mounting tab by removing the lower nut on the #6 exhaust manifold stud.
- Remove the bolt securing the lower portion of the coolant line, just below the turbocharger.
- Front portion is above the oil filter. Remove the clamp on the hose and bolt on the engine block.



(Early EGR Only) Squeeze the clamp above the barb and remove the hose from the hard line.



(Early EGR Only) Remove the mounting tab — lower nut on the #6 exhaust manifold stud.



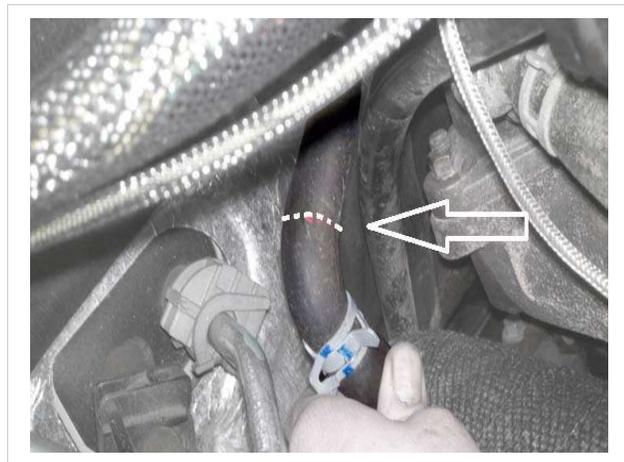
(Early EGR Only) Remove the bolt securing the lower portion of the coolant line, just below the turbocharger.



(Early EGR Only) Front portion is above the oil filter. Remove clamp on hose and bolt on engine block.



17. (Early EGR Only) Cut the coolant line coming off the firewall, just above the bend. Keep the clamp.



18. (Early EGR Only) Install the new coolant transfer line. Use the provided G bolt and P spacer between the mounting tab and mounting hole on the EGR bracket. Reuse factory clamps to connect the hoses. When complete, skip to Step 20.



Late EGR System Only – Step 19

19. (Late EGR Only) Remove the factory bolt and spacer on the lower #6 exhaust manifold. Replace it with the C stud, two K hex nuts, and the R spacer included in the kit.



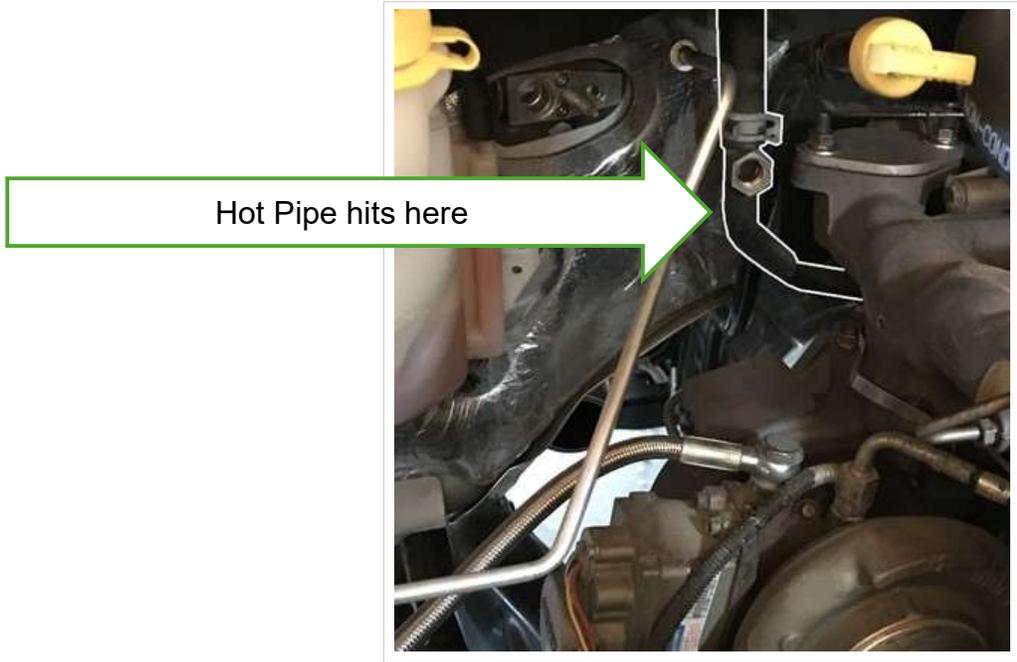
IMPORTANT: The factory bolt may bottom out and not tighten fully. After the R spacer is installed, bend the metal coolant line up toward the engine approximately $\frac{1}{2}$ to 1 inch. This line will contact the hot pipe if not moved in slightly.

Coolant Lines & Dipstick Spacer

20. Install the new turbo coolant supply line to the turbo using one of the factory banjo bolts and washers. The other end of the line will be connected later.

21. Install the dipstick spacer Q between the stud and the mounting tab of the dipstick tube.





Stainless Hot Pipe Installation

NOTE – STAINLESS 2-PIECE CONFIGURATION: This kit uses a 2-piece stainless steel pipe system. The hot pipe (Piece 1) connects the OEM turbo exhaust outlet to the S400 exhaust inlet. A separate stainless downpipe (Piece 2) connects the S400 exhaust outlet to the factory exhaust at the cut made in Step 13. The hot pipe requires heat wrap before installation.

22. Wrap the hot pipe in the insulating heat wrap provided with the kit. Use the clamp to hold the wrap in place.



IMPORTANT: Leave the gap in the wrap around the dent in the pipe. This dent clears the banjo bolt on top of the stock turbo — the wrap cannot cover this dent or the pipe will not fit.

23. Attach the provided turbo support bracket onto the T6 turbo flange of the hot pipe using the two provided E hex bolts as shown.

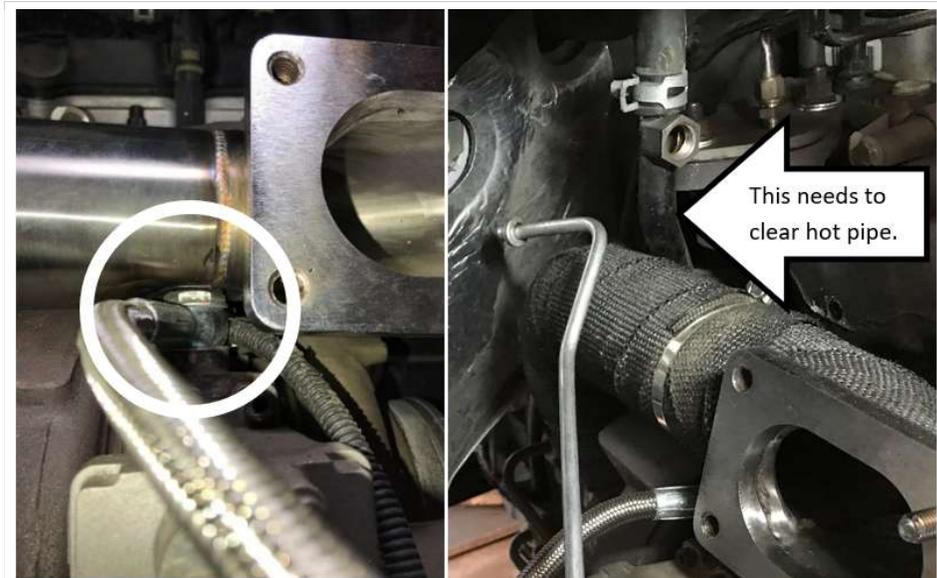


24. Install the wrapped hot pipe to the exhaust outlet of the stock turbo using the factory v-band clamp. Leave the clamp loose for adjustment.

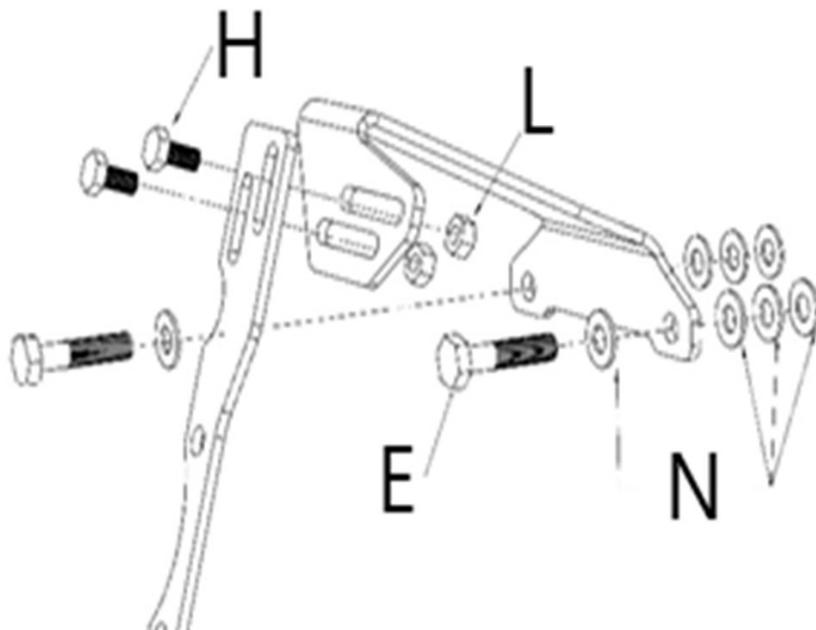


25. Install the turbo support bracket using the factory M8-1.25 x 20mm bolt. Rotate the hot pipe as close to the engine block as the support bracket allows. Tighten the two H bolts and L nuts on the bracket, then tighten the v-band clamp to secure the hot pipe in place.





FITMENT NOTE: If the hot pipe does not clear the banjo bolt from the factory turbo, bend the metal coolant transfer line near the #6 exhaust manifold stud approximately ½ inch toward the engine so the hot pipe can rotate higher.



If your EGR is deleted: Install the EGR delete bracket before Step 25. Attach the bracket to the two upper center bolt holes on the manifold (cylinders 3 & 4) using E bolts and N washers. The turbo support bracket should be attached to the EGR bracket using two H bolts and L nuts.

Complete Coolant Line Connection

26. Install the loose end of the turbo coolant supply line. For early EGR trucks, connect it to the new coolant transfer line. For late EGR trucks, install using the factory banjo bolt and washer near the #6 exhaust manifold stud.



New Turbocharger Assembly

27. Separate the exhaust housing from the new turbocharger assembly by removing the v-band clamp. Be careful not to damage the turbine wheel during separation.



28. Slide the A gasket over the threaded E bolts on the hot pipe flange. Install the new exhaust housing using the two previously installed E bolts, two D studs, and then four K nuts. **Hand-tighten only — do not use a wrench at this point.**



Downpipe & AC Line Clearance

29. Install heat wrap on the upper downpipe. Use the provided hose clamp to secure the wrap. Install the upper downpipe to check AC line clearance around the exhaust housing.

- Large AC line under battery tray: minimum 3/4" gap between plastic clamp and exhaust housing. Bend carefully if needed.
- Smaller AC lines must be bent to route between the exhaust housing and downpipe. The downpipe must pass between the firewall and the AC line. This may require removing and reinstalling several times.



AC RELOCATION LINES: If you purchased the AC relocation lines, empty the refrigerant first, then install the new line.

30. Once the AC lines are properly adjusted, reinstall the exhaust housing on the hot pipe and torque the nuts to 32 ft-lbs.



31. Reinstall the upper portion of the new stainless downpipe. Leave the clamp loose enough to allow for adjustment.

Upper stainless downpipe installed – clamp left loose

Oil Supply & Drain Lines

32. Remove the plug from the oil filter housing. Connect the oil supply line to the oil filter housing using the provided fitting. Leave the other end of the line unattached for now.



33. Locate the freeze plug underneath the oil filter. The oil filter may be removed for better access. Gently tap the outer rim with a flat-blade screwdriver and hammer to rotate it in the block. Once rotated, use needle-nose pliers to retrieve it.



NOTE: Clean around the freeze plug and remove all debris from the cup before proceeding. Make sure nothing drops into the oil pan.

34. Install the silicone charge elbow onto the factory compressor housing using the provided clamp. Leave the clamp loose. Rotate until it nearly touches the coolant transfer line. Ensure the oil supply line runs above the silicone charge elbow. Tighten the clamp on the other end to secure the steel flange.



35. Insert the new turbo oil drain line into the block. Ensure the O-rings are fully seated in the freeze plug bore. Bend the line so it runs above the intercooler charge pipe and in front of the silicone charge elbow.



36. Reinstall the oil filter if you removed it earlier.



Bearing Housing & Compressor Housing

37. Disconnect the bearing housing from the compressor housing by removing the v-band clamp.



38. Install the bearing housing into the exhaust housing. Orient so the oil supply port faces up and the oil drain port faces down. Once aligned, tighten the v-band clamp.



39. Connect the oil drain line to the bearing housing using the provided B gasket and two H bolts.



40. Connect the oil supply line to the fitting on the bearing housing. Adjust so it points away from the exhaust housing.

41. Install the compressor housing on the bearing housing and lightly tighten the clamp so it can rotate but not rattle. Clock the compressor housing so the silicone charge elbow aligns with the compressor outlet. Use the provided v-band clamp to connect the charge pipe elbow and compressor outlet. Tighten all three clamps on the silicone charge elbow and the clamp between the compressor and bearing housing.

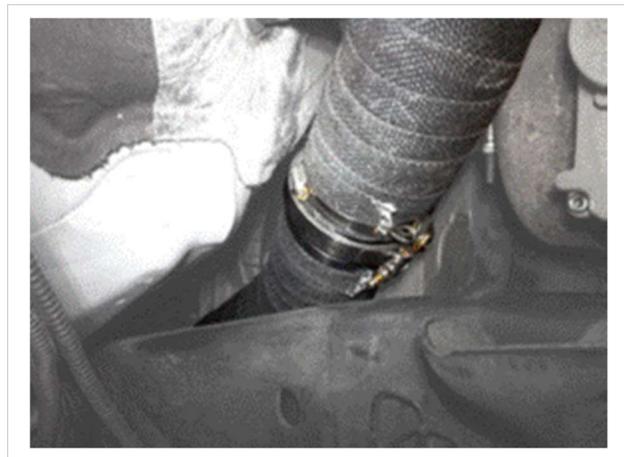


Lower Downpipe & Exhaust Connection

42. Install the lower portion of the new stainless downpipe between the upper portion and the factory exhaust at the cut made in Step 13, using a 4.4" v-band clamp. Adjust to ensure clearance around the frame rail. Once adjusted, tighten all clamps.



43. Using the exhaust coupler, connect the lower portion of the downpipe to the stock exhaust.



Turbo Blanket & Reassembly

44. Install the turbo blanket on the new turbo using the two springs provided.



45. Reinstall the factory battery box. It is easier to install from the wheel-well side.

46. Reinstall the battery in the battery tray but do not connect the terminals yet.

47. Reinstall the bottom portion of the factory intake air box.

48. Install the new air filter.

49. Reinstall the top cover of the factory intake air box.

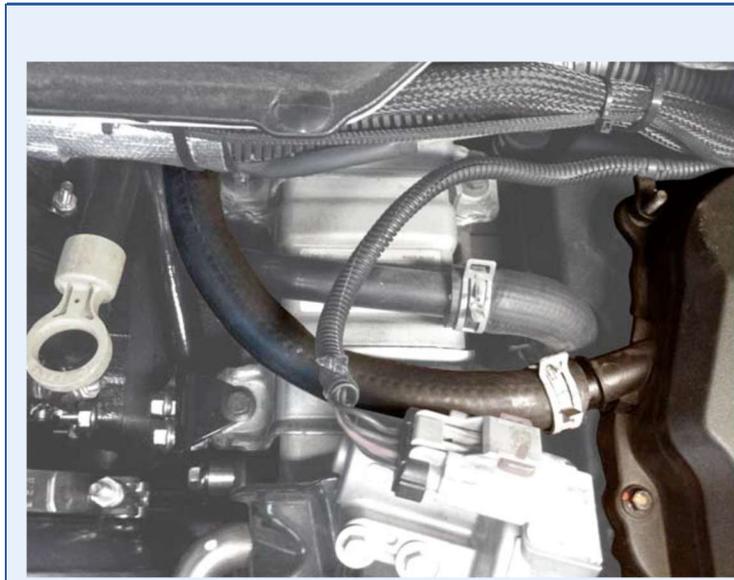
50. Install the rubber intake tube from the compressor housing inlet to the outlet of the top cover of the intake air box using the provided clamps.



Final Reassembly & Startup

51. Reinstall the overflow tube onto the barb of the radiator.

52. Using the factory clamp, attach the $\frac{3}{4}$ " hose to the breather barb on the valve cover. Route the hose along the transmission dipstick tube using the provided zip ties.



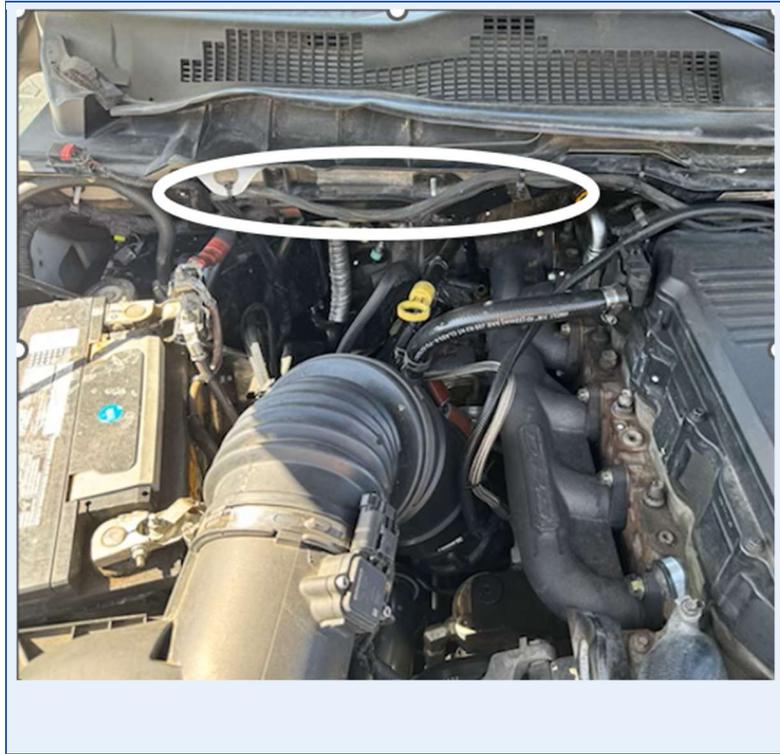
53. Refill the cooling system with approved coolant.

54. Refill the refrigerant if needed.

55. Reconnect the positive battery terminal.

56. Reconnect the negative battery cables.

57. Wrap any wires or hoses that pass between the hood of your truck and the top turbo with the provided heat wrap. Use the provided metal zip ties to secure the heat wrap.



Step 58 – Startup Check

Start the truck and check for coolant or oil leaks and vibrations. Allow the engine to idle for approximately 5 minutes without revving. This allows oil to reach the bearings of the new turbocharger. If leaks are found, make sure all clamps, bolts, and fittings are tight.

59. If no leaks are present, reinstall the passenger side inner fender.

Step 60 – Break-In Period

Drive conservatively for approximately 100 miles to allow proper break-in time on the turbocharger. Avoid heavy boost or sustained high RPM during this period.

