



2020-2024 L5P Stage 3 High Flow Intake Bundle Kit

Covers Installation of PN: WCF100418



NOTE: BEFORE INITIAL START UP AND IDLE, THE AIR FILTER MONITORING SYSTEM NEEDS TO BE DISABLED. FAILURE TO DISABLE AIR FILTER MONITOR SYSTEM WILL RESULT IN A SERVICE AIR FILTER MESSAGE AND REQUIRE DEALERSHIP TO RESET THE SYSTEM. THE AIR FILTER LIFE WILL SHOW DISABLED MESSAGE WHEN SETTINGS ARE CORRECT. STEPS TO DISABLE THIS SETTING WILL BE LISTED AT THE END OF THIS INSTALL GUIDE.

1. First, locate the packing list included with the kit and double check you have all items on the list.
2. Leave bubble wrap on piping until install is complete to help protect finish from nicks and scratches.

Part 1: Driver Side Intercooler Pipe

1. Remove the driver side wheel/tire and inner fender liner.



2. Disconnect the ecm wiring harness and move out of the way with bungee cords to allow access during removal and install.



3. Remove the clamp at the turbo outlet.



4. Remove the clamp at the intercooler connection utilizing an 11mm socket and extensions as shown in the image above.



5. Remove the pipe from the truck by lifting and rotating it out from the top of the engine bay.



6. Make sure the lower intercooler pipe connection is clean and install the straight boot/clamps. Only tighten the clamp on the intercooler connection, the other will remain loose until the pipe is properly positioned.



7. Install the reducer boot and clamps at the turbo connection point. Only tighten the clamp at the turbo outlet.



8. Install the new driver side pipe up through the wheel well. Trans assembly lube can be used to ease assembly of the pipe into the silicone boot connections. We specifically use the green Dr Tranny's Assemblee Goo transmission assembly lube during install.



9. Install the pipe into the boot at the intercooler connection, making sure the clamp and boot are past the bead roll on the pipe to avoid blowing the boot off.



10. Install the upper part of the pipe into the boot connection at the turbo and tighten the clamps at the turbo and intercooler connections. Make sure the pipe is properly aligned and clamps are properly positioned on the boots to avoid blowing the boot off.



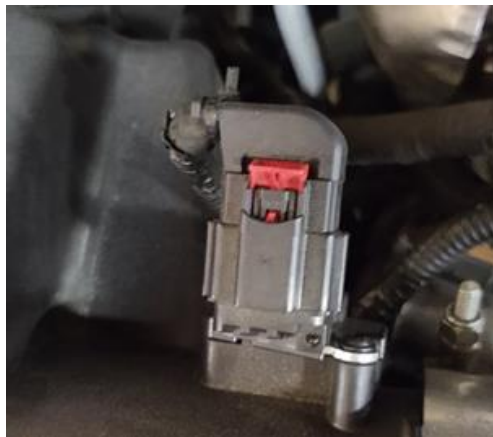
11. Reconnect the ECM and wiring harness.
12. Reinstall the fender liner and driver side wheel/tire.

Part 2: Passenger Side Intercooler Pipe

1. Remove the passenger side wheel/tire and inner fender liner.



2. Disconnect the MAF sensor from factory intake pipe. Remove the plastic tree clip holding the wiring to the intake box. Once this is disconnected, the intake pipe can be removed.



3. Remove the 10mm nut holding the factory intake box to the truck.



4. Remove the factory intake box by lifting it up. There are two rubber grommets at the back of the intake that pop out.



5. Unplug charge air temp sensor on the intercooler pipe.





6. Access and locate the clip ring at the lower intercooler pipe connection through wheel well.



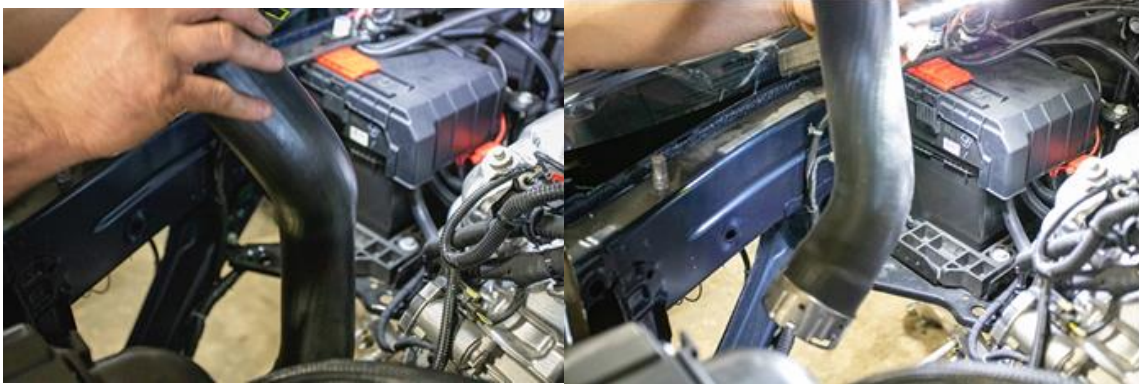
7. Using a pick or flat blade screwdriver, remove the clip at lower intercooler pipe connection and remove from the intercooler.



8. Remove clip at engine side of passenger intercooler pipe.



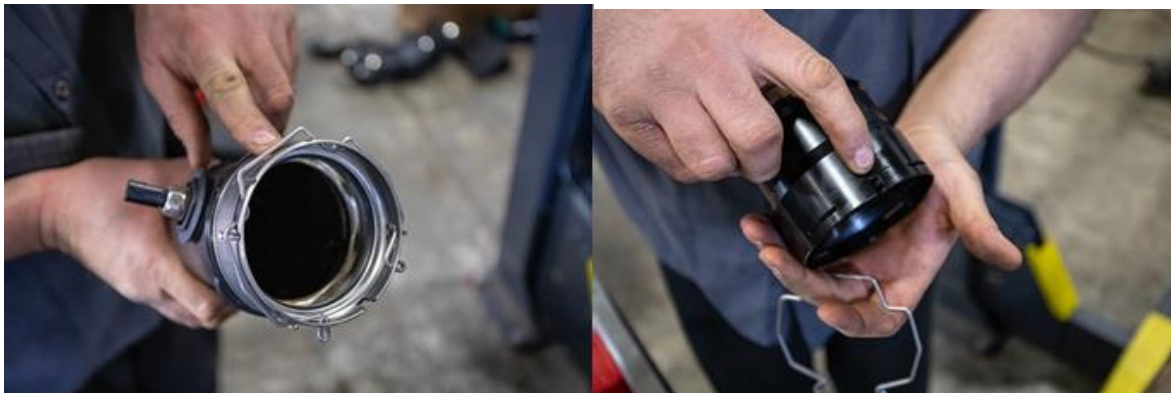
9. Remove pipe by passing it out carefully through passenger wheel well or through the engine bay.



10. Fully remove clip ring from lower OEM intercooler pipe connection using a pick or flat blade screwdriver if not already done.

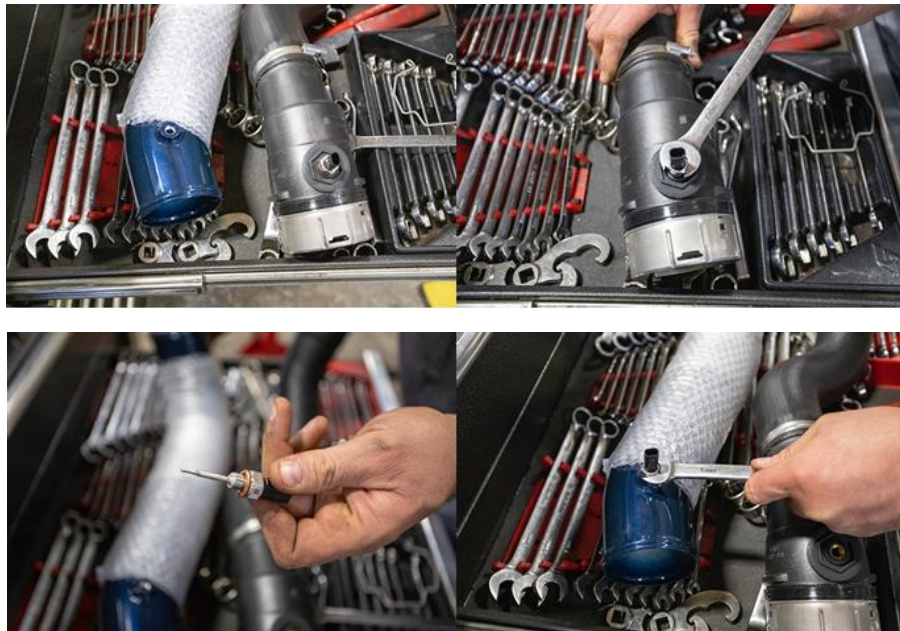


11. Install new supplied clip ring to the new intercooler pipe assembly and adapter at engine side connection. NOTE: Pay close attention to orientation of clip ring on the new pipe as it will only properly engage the pipe and intercooler assembly one way. OEM intercooler pipe shown (top left) to display proper orientation of clip ring. It will be the same on the new pipe.





12. Swap charge air temp sensor from OEM intercooler pipe to your new 3.5" intercooler pipe using a 14 mm wrench. A very small amount of liquid Teflon thread sealant is recommended on the sensor during re-installation for a leak free seal.



13. Install o rings into the connection points for the passenger intercooler pipe: two at the engine and two at the intercooler. It is best to install them dry. ***** DO NOT USE ANY LUBRICANT AT THIS TIME ***** Install the two larger o rings into the adapter that goes onto the engine side connection. Install the two smaller o rings into the lower end of the intercooler pipe where it attaches on to the intercooler. When installed correctly, the o rings should be uniform and even.





14. Install the adapter onto the engine side connection. You may now use a small amount of assembly lube such as Trans-Jel or Dr. Tranny's assembly goo. You may use a small amount of dielectric grease if you are not able to locate suggested items. Avoid using petroleum or other synthetic that may damage the o ring seals.

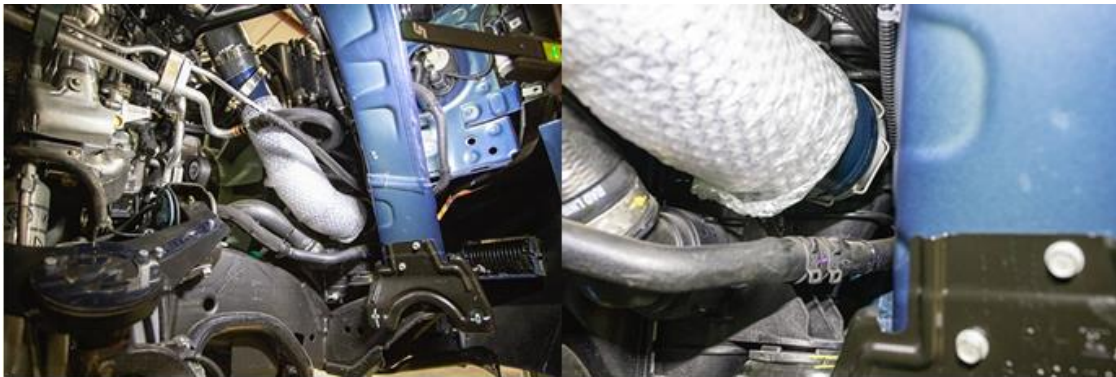


15. Apply a thin layer of Assembly Goo to the o rings at the lower connection where you previously installed the two o rings into the pipe and a very thin layer onto the intercooler where the pipe will be installed.

16. Install the new intercooler pipe upwards carefully through the passenger side wheel opening paying attention not to damage charge air temp sensor.



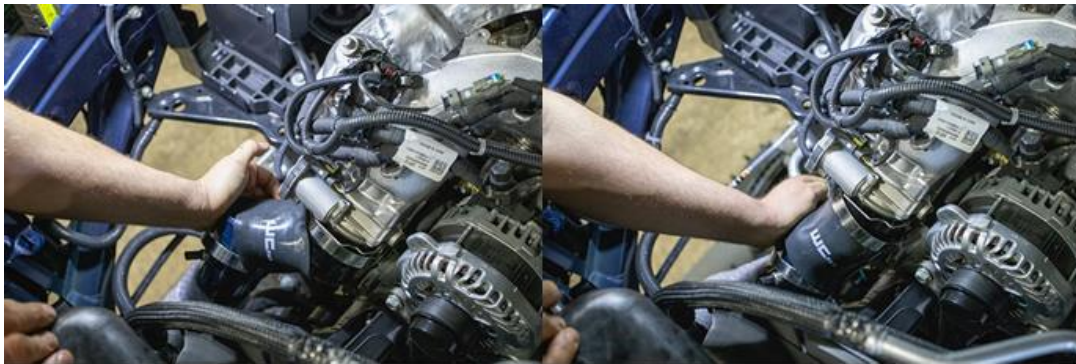
17. Install the lower end of the pipe onto the intercooler. You must keep the pipe aligned properly with the intercooler and gently rotate the pipe while pushing in with firm pressure. As the pipe is rotating, you will feel it bottom out and the clip will be fully seated. If the clip is not fully seated, you need to try and rotate with pressure until seated. If you can't get it fully seated, remove and inspect the clip for proper orientation and make sure you haven't damaged the o rings during install. When finished, the intercooler pipe will be as pictured.



18. Using the supplied boot and clamps, apply a thin layer of assembly goo into both ends of the boot. You may hold it in between the intercooler pipe and adapter at the engine as pictured.



19. Rotate the intercooler pipe to the engine as seen and it will slide right into place.



20. Now loosely install the clamps and align boot with pipe for proper placement. This should be even on both ends and allow enough room to clamp properly.



21. Tighten both clamps.
22. Remove bubble wrap from piping and clean any fingerprints with damp microfiber cloth.
23. Reconnect charge air temp sensor and reinstall air box assembly by reversing removal steps outlined above.

24. Reinstall passenger fender liner and wheel/tire.

Part 3: Turbo Intake Horn

1. Remove the factory intake tube and resonator box.



2. Remove valve cover breather hose from intake horn by twisting and pulling up at the same time. Usually, the metal clamp can stay in place and you can slide directly on to the new intake horn.



3. Remove wiring from A/C switch to avoid damage.



4. Remove two 13 mm head bolts holding the turbo inlet horn to turbo using a long extension and swivel socket (1/4" drive).



5. Remove factory intake horn.



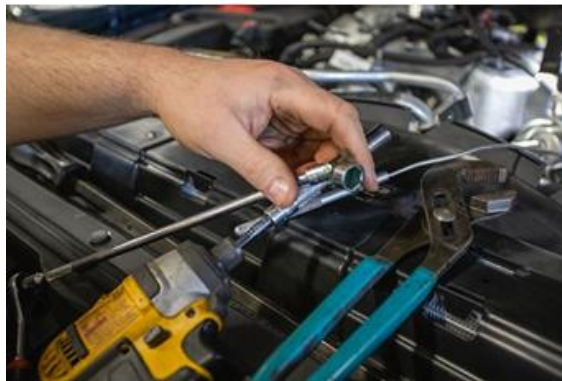
Note: While the intake horn is removed, boost testing is recommended after installation and service of the intercooler piping. Boost testing (Boost Tester Kit Sold Separately Part# 13U7H001) is always recommended whenever intercooler pipes have been serviced or boots and clamps have been moved.



6. Install studs into the turbo housing by hand until they bottom out.



7. Now, install the intake horn onto the studs. A small amount of grease or assembly gel can be used to keep the o-ring in place.



8. A small amount of grease is used to hold nut in socket during assembly.



9. Torque to factory spec (25 nm/18 ft. lbs). There are two nuts holding the intake horn to the turbo housing.



10. Reconnect PCV line to port on your new intake horn.
11. Clean fingerprints with damp microfiber cloth.

Part 4: Intake with Air Box

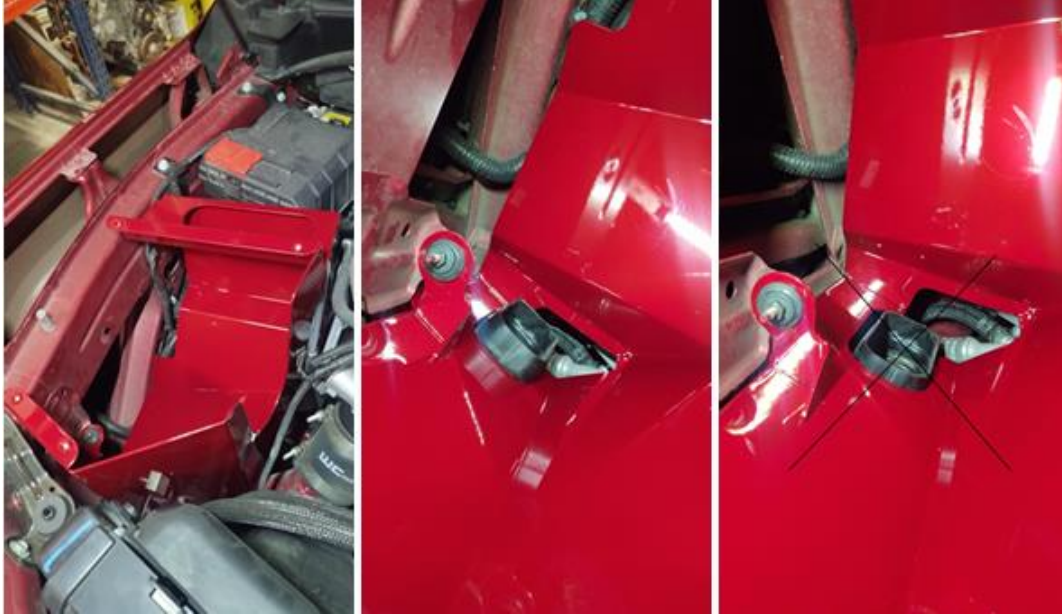
1. Remove the 3 rubber grommets from the factory box that was removed while installing passenger side pipe. There are 2 towards the back and 1 where the nut was in the previous step.



2. Transfer the grommets to the proper locations. The two pictured should go into the holes in the truck.



3. Install the lower half of the new intake box into the truck. If needed, apply a small amount of grease to the grommets to allow them to seat easier. Make sure to pull the plastic ram air tube into the box and the rib on tube will hold itself into the new box. Ram air tube is towards the front of the truck and runs up to the left of the hood latch.



4. Reinstall the 10mm nut to hold the new intake box in.



5. Install the large weather stripping into the top hole that provides a seal between the hood and the intake box.



6. You will need to cut the smaller weather stripping evenly in half. Take one half and install it onto the lower half of the box. Push firmly over the edge of the box and trim any excess once you reach the end of the cut out gasket area. Do the same on the other half of the intake box.



7. Remove the MAF sensor from the factory box. Install it into the new intake pipe with supplied bolts



8. Install the intake tube to the horn with the 4" boot and clamps.



9. Take brake clean on a rag and clean the air filter element where the clamp will contact the filter and the filter contacts the pipe only. This will remove the silicone slippery coating allowing it to hold to the intake pipe better.
10. Install the new air filter and pre filter onto the intake tube.



11. Tighten the clamps holding the pipe to the horn after clocking to the correct position.



12. Install the upper half of the intake box using the 4 supplied bolts.



Part 5: Down Pipe Install

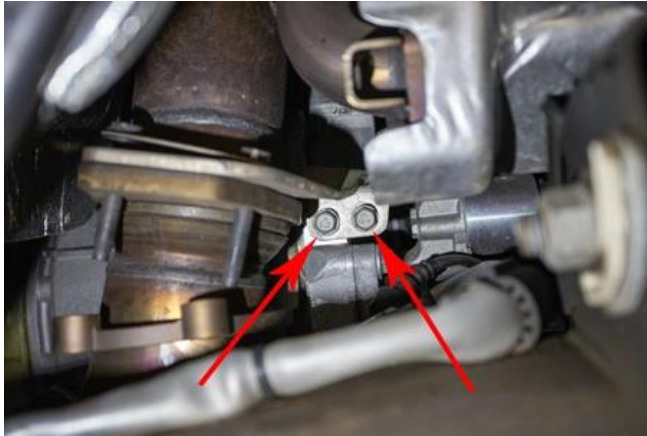
1. **IMPORTANT!** This product features a fiberglass heat wrap. Wear gloves and eye protection when handling and during installation.
2. Remove rear heat shield on passenger side exhaust manifold (3x 10mm bolts)



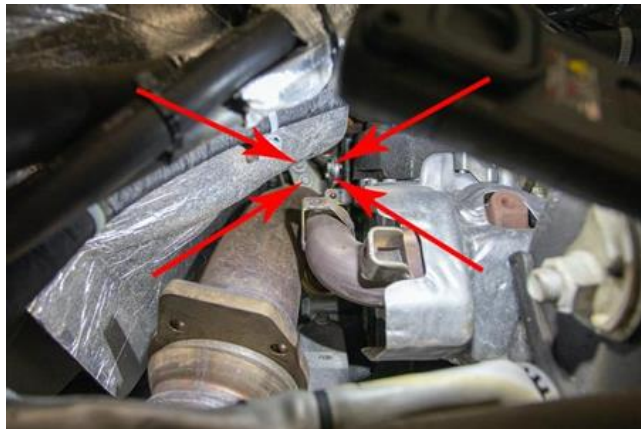
3. Remove front pipe of exhaust from down pipe (4x 15mm bolts)
4. Remove lower down pipe support bracket near where down pipe connects to exhaust system.



5. Remove lower down pipe support bracket which connects to engine block.



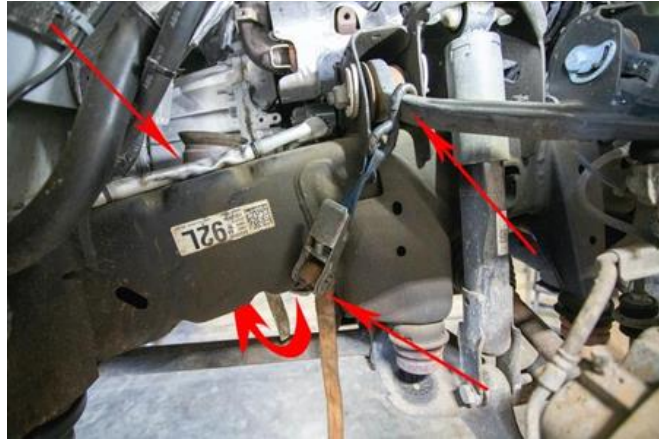
6. Remove upper down pipe support bracket which connects to the back of the cylinder head.



7. Remove front rubber exhaust hanger from exhaust system near transmission. This step allows the exhaust to drop to allow room for down pipe removal.



8. Ratchet strap placed around front of exhaust pipe near joint and wrapped under frame rail, and clipped at upper control arm may help provide leverage if needed to draw exhaust down and out of the way. Note: This image is for illustration purposes and was taken after the downpipe had already been removed.



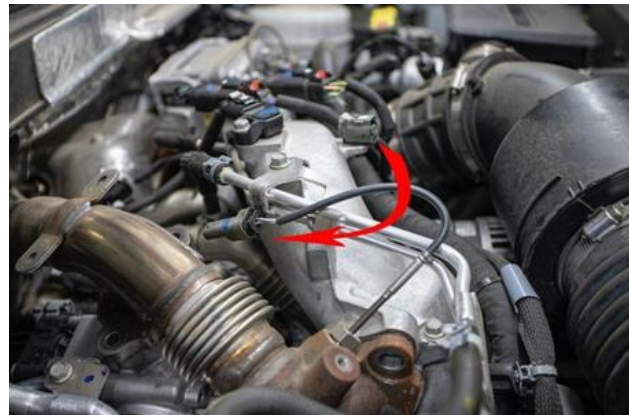
9. Remove, inspect for damage, and keep the exhaust 'donut' style gasket used between the OEM down pipe and the exhaust. This will be re-used later on when you install your new down pipe. If your gasket has been damaged, contact your dealership to purchase a new part before continuing with your installation.
10. The following steps detail temporary removal of the EGR pipe to allow access to the V-band clamp at the top of the down pipe where it mates to the SCR.
11. Remove EGR Heat Shield



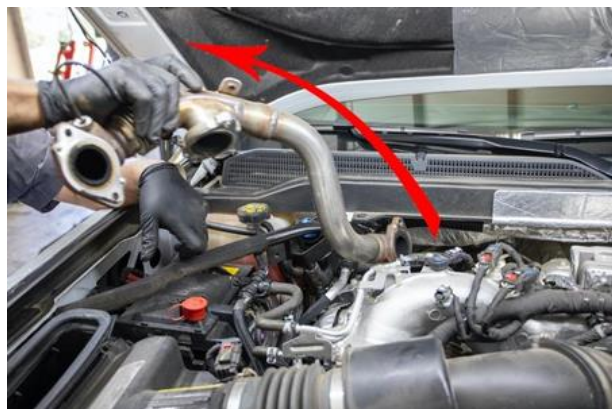
12. Remove EGR upper mounting bolts. There are two more bolts not visible in this picture where this pipe connects to the SCR under the cowl which also need to be taken out in order for the pipe to be completely free of the engine.



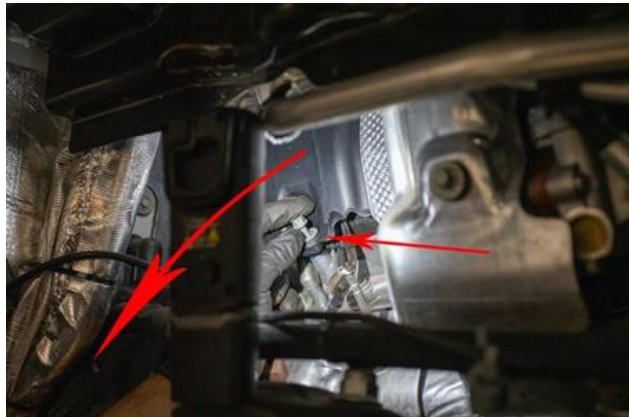
13. Unplug EGR Temp sensor.



14. Remove EGR Pipe and set aside being careful not to damage riveted on gaskets which will be needed for reinstallation later.



15. Remove sound insulator from passenger side rear valve cover.



16. Now you have access to remove the temp sensor from the down pipe.

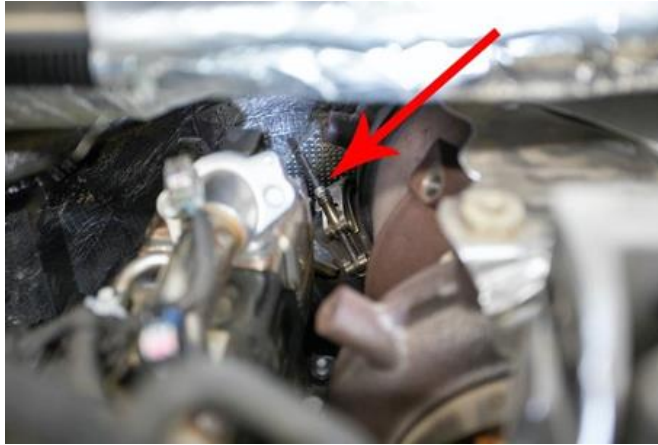


17. Remove top bracket from down pipe. There are no good sight lines to the bolts holding this part in but the items removed in the steps above will allow enough room for you to access this bracket through the passenger wheel opening and from the engine bay above.

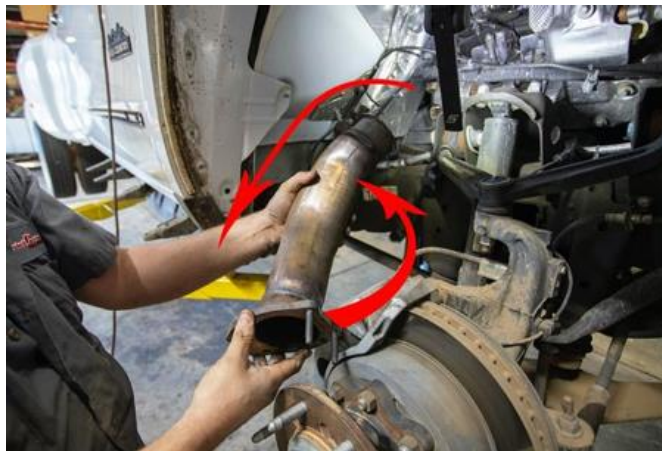


18. Remove heat shield on SCR and temp sensor.

19. Loosen V-band clamp at inlet for downpipe. At this point your down pipe should be completely loose.



20. Rotate downpipe counter clockwise for removal out the passenger side.



21. Reinstall downpipe temperature sensor taken from stock part.



22. Install new pipe back through the passenger side fender well in reverse order of removal.
23. Transfer saved exhaust 'donut' gasket from step 12 to allow your new down pipe to properly seal up to the rest of the exhaust system on re-assembly.
24. Tighten V-band clamp to hold pipe in place but do not fully tighten.



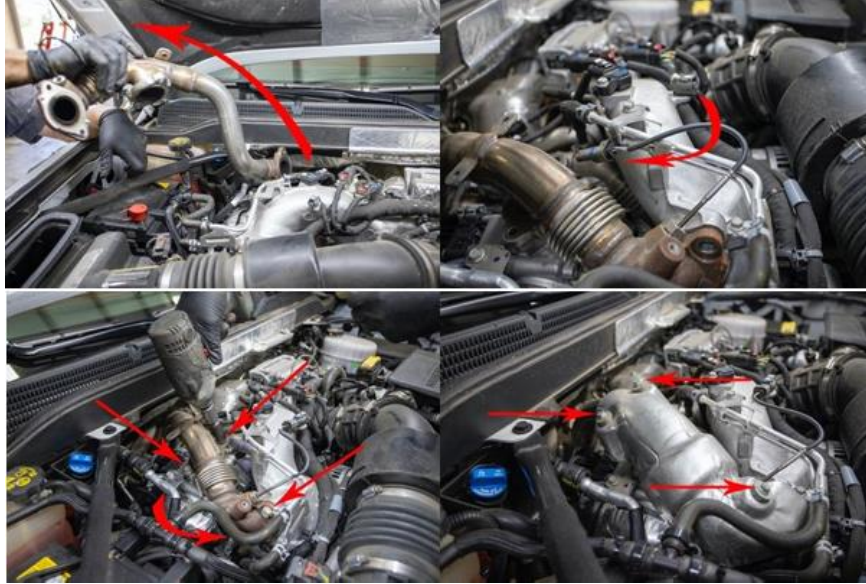
25. Reinstall upper downpipe bracket.



26. Reinstall lower downpipe bracket.



27. Fully tighten v-band clamp at the top of the down pipe and ensure that the connection is properly seated.
28. Reinstall temp sensor and heat shield onto SCR reversing removal steps outlined above.
29. Reinstall EGR pipe reversing removal steps outlined above.



30. Reinstall sound shield on valve cover reversing step outlined above.



31. Lift exhaust system back into place and reinstall exhaust hangar.



32. Reinstall lower v-band clamp to connect exhaust system to bottom of downpipe.



33. Reinstall rear heat shield on passenger side exhaust manifold (3x 10mm bolts)



34. Reinstall Fender Liner, wheel and tire on passenger side.

Note: This part has been ceramic coated and may burn off oils during the first few drive cycles, especially during a regen which may result in unusual smoke / odors from the installation area on the truck. This is completely normal and will go away after the first few heat cycles of the part.

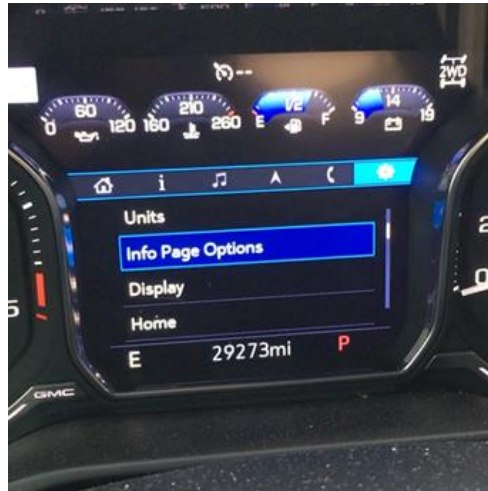
Part 6: Last Steps Before Start Up

1. Reconnect the batteries.



2. Now that the batteries are connected, turn the ignition on but **DO NOT START THE TRUCK**. You will need to disable your air filter monitoring system from your truck using driver info system and steering wheel controls.

A. Go to Info Page Options.



B. Make sure air filter life has a check mark.



C. Go back to the info tab.



D. Scroll to the right to Air Filter Life is shown and hit OK.



E. Scroll down to disable and select disable.



F. After making the selection, verify air filter life shows disabled.



3. Start the truck and let it idle/check for leaks throughout the system.

Any Questions, Comments, or Feedback?

Reach us by Email- Sales@wcfab.com

Or the shop phone- 630-277-8239

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