

Triple Turbo Install Instructions

**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**

Oil Drain Lines Block Ports

Completely remove the stock turbo, manifold and oil drain line from the engine, and discard. You will place the long drain tube in the rear port (See Freeze Plug removal instructions below). Insert the provided drain line, by greasing the o-rings and firmly pushing them into the hole. Both o-rings should be within the hole. All oil drains should be installed prior to installing any triple turbo components. Later you will attach the flange end of the drain tube to the bottom of turbo with the provided 8mm bolts and gasket.



Next. Locate the front or rear freeze plug (same height as the other oil drain port). Take a punch or screwdriver and lightly tap on one edge of the freeze plug to get it to rotate or twist inside the hole. Then take a pair of needle nose pliers and remove the freeze plug (BE VERY CAREFUL NOT TO PUSH THE PLUG INTO THE OIL PAN, OR YOU WILL HAVE TO DROP THE OIL PAN TO RETRIEVE IT).



Next take the provided oil drain fitting, and push into the front oil hole.

Oil Drain Fitting Picture: The top two turbos oil drains will attach to the 'Y' oil drains in the front port.



Stock Wastegate Solenoid 2004.5-2007 Trucks

Also on 2004.5-2007 year of truck the stock turbo waste gate is electronically controlled. You have two options. The first, and easiest option is to simply unscrew the entire sensor from the stock turbo, and wire tie it onto the shock mount. This works very good. The second option is to purchase a boost-fooler and plug it into the sensor wire.

Installation Instructions for Triple Turbos.

Following these instructions is crucial to proper installation!

Prior to installation the engine oil and oil filter should be changed as required to qualify for the limited warranty. **Allow engine to idle until oil pressure rises. We strongly recommend head studs for boost pressure over 45 psi, and fire rings for boost pressure over 55 psi. Nearly every issue can be solved during installation by adjusting the clocking of the turbos slightly.**

1. Begin by removing air box, battery, battery box, and plastic inner wheel well cover (splash guard), where applicable. These items must be removed before attempting to install Triple turbos. Be careful when removing plastic wheel well cover, there are wires mounted on engine side. The passenger side battery must be relocated or removed permanently.

Next remove old turbo, old exhaust manifold, and old oil lines.

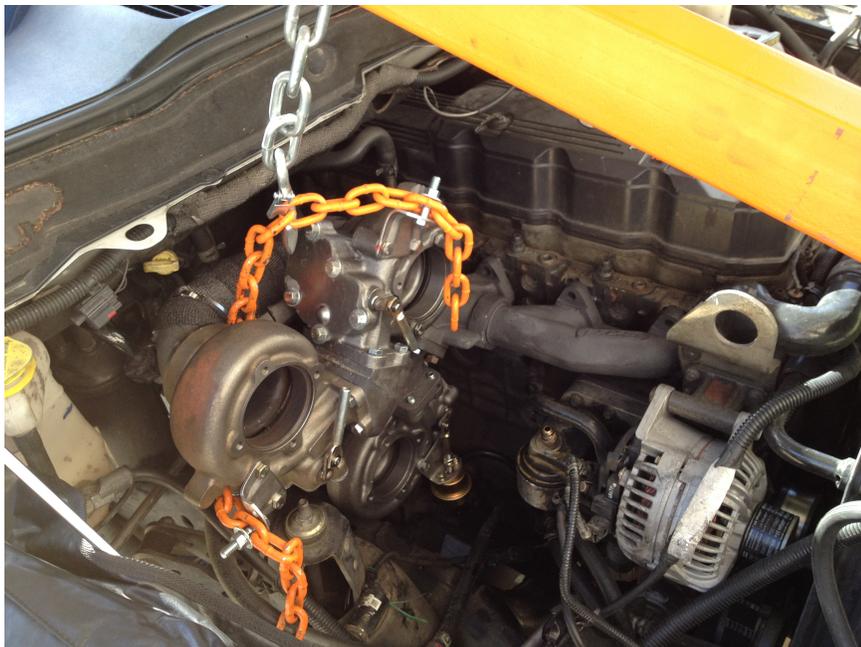
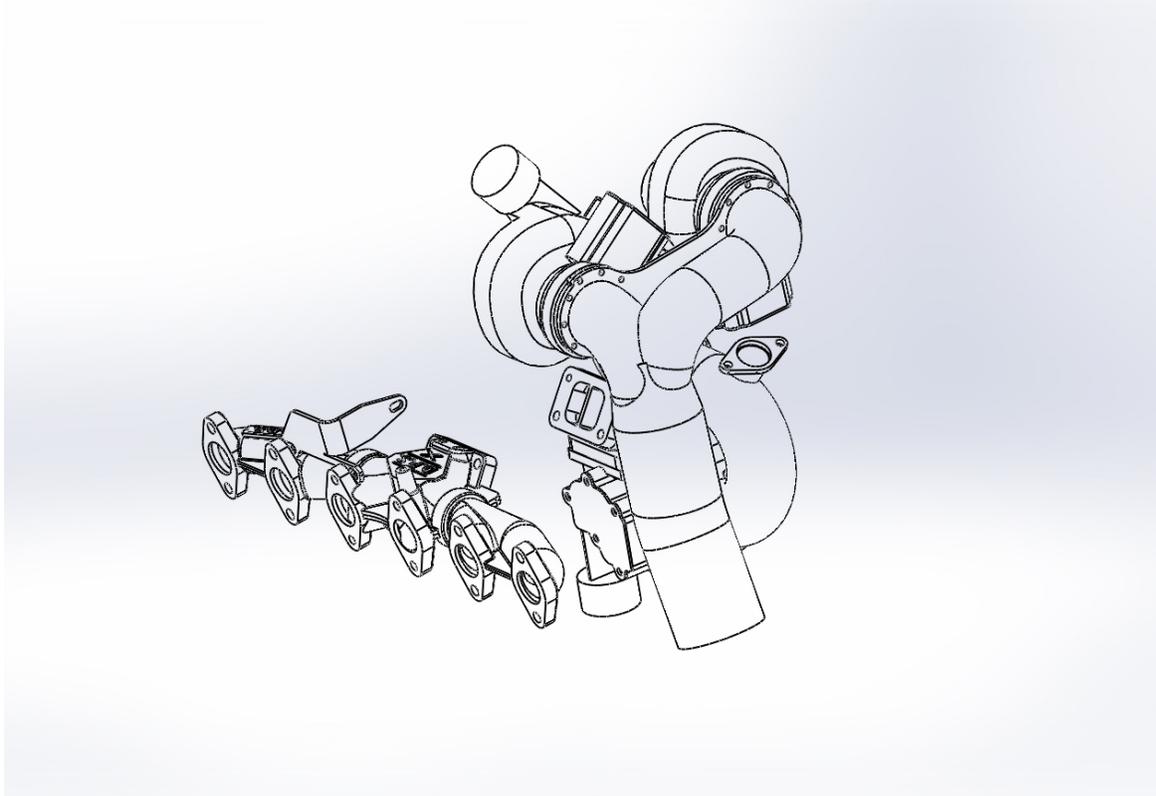
2. It will be helpful if you slightly loosen the bolts on all turbos which will allow you to “clock” the turbos (don’t remove the bolts or loosen too much as this can damage the turbo(s)). Later in the installation (NOT NOW) as you slide the turbo cartridges into the turbine housings slightly tighten (or leave slightly loose) the four bolts that attach the two halves together so you can rotate the housings. In this installation, if items don’t fit properly, it’s usually just a matter of “clocking” or turning slightly one of the turbos, or “clocking” the down elbow, to get the proper relationship with each other.

As you install this kit, makes sure that all air conditioning tubes, heater lines, electrical cords, wastegate tubes etc. are not in contact with any portion of the Triple Turbo Kit (especially with the cast iron (hot) sides of the turbos, as they will melt or wear into these items.

3. Install oil drains, as described in the "Oil Drain" instructions earlier. (In most cases all exhaust housing will come pre-assembled to the hot pipe and downpipe. If these are already assembled). If not then install the lower turbine housing outlet to the exhaust hot pipe, using the 10 provided 6mm bolts. There is only one way this housing can mount to the hot pipe.

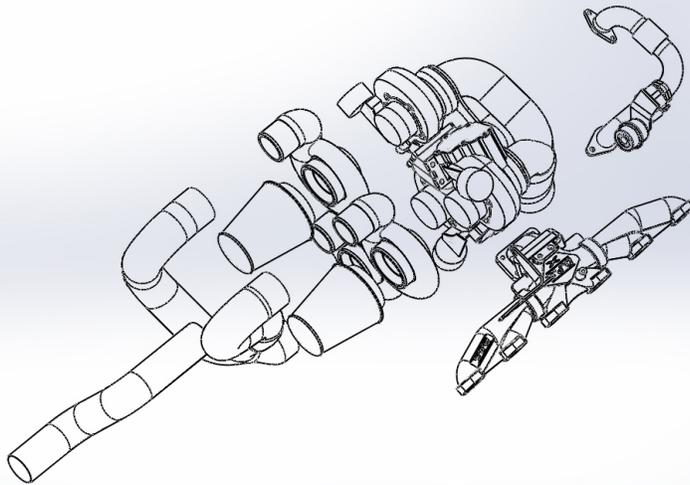
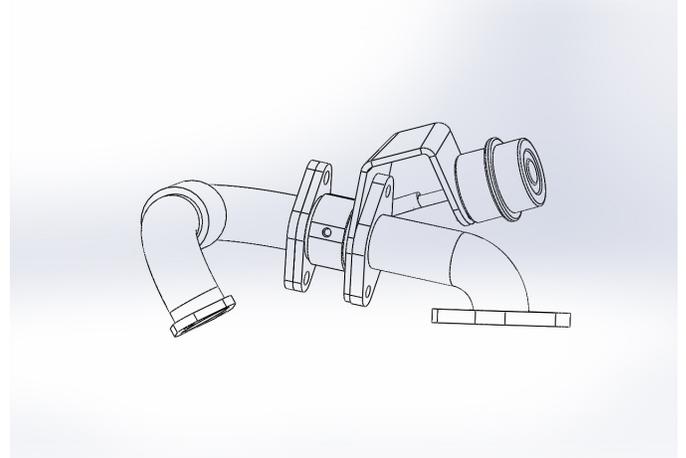
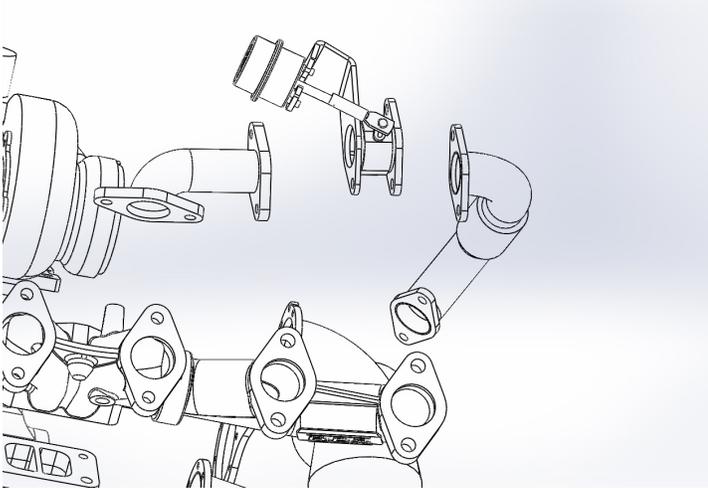
Pause here: Using gloves, wrap the exhaust side pipes with the provided heat wrap. Use the worm gear clamps to hold the heat wrap in place. Wrap as much as possible to protect nearby items from the exhaust heat.

4. Attach the manifold T-3 flange to the three turbine housing assembly, as shown, don't forget the flange gasket. This must be done prior to installing. Then, use an engine hoist to lower the entire assembly into the engine compartment, and attach the manifold to the head using the supplied bolts and gaskets. Torque manifold bolts to 37-40ft/lbs. **Note: The multiple 6mm bolts that attach the hot pipe and down pipe to the turbine housings, and the twin pedestal, have been pre-tightened. DO NOT LOOSEN THESE BOLTS, it will break the seal, and may cause the exhaust leaks.** At this time also install the support bracket to the driver side turbine housing and to the manifold (cylinders 2 & 3).



EXTERNAL WASTEGATE (ONLY IF INCLUDED many kits do not include the external wastegates). We highly recommend using the block off plate between the manifold and the external wastegate pipe for street driving, as spool up will be much better because the split scroll stays in use. Adjust wastegating with the bottom turbo first, then adjust the external wastegate.

5. Attach the external wastegate pipes as shown here using the supplied nuts and bolts. Place the supplied "sealant" in between the flanges. This sealant will cure with 10 minutes of running heat, when you first fire up the truck allow it to idle for 10 minutes to heat up and create a good seal. Then attach the wastegate pipe assembly to the hot pipe.



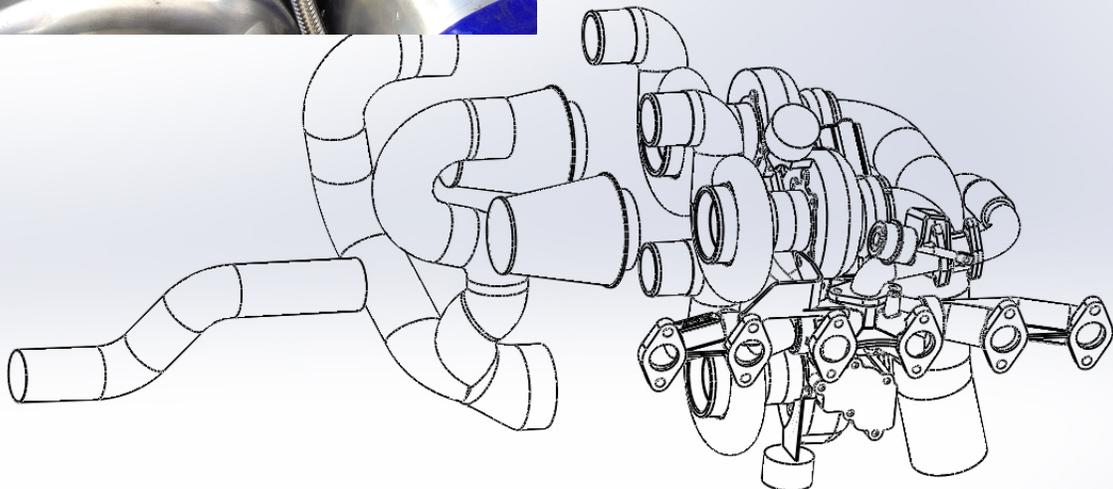
6. Insert the turbo cartridges into the exhaust housings, starting with the lower turbo. Attach the oil drain and oil supply lines to the turbos. Tighten the four turbine bolts with the little brackets to secure. Then attach the wastegate hose to the fitting on the compressor housing. The lower turbo wastegates off exhaust pressure. The spring gate has been pre-set, but can be adjusted later (shorter=more boost). We recommend driving it first before adjusting it.

7. Attach the intercooler charge pipe, and both couplers.

8. Next insert the **upper driver-side** turbo cartridge into its turbine housing. Attach the oil drain and oil supply lines. The 'T' oil supply line goes between the top two turbos. Tighten the four turbine bolts to secure. The cartridge may need clocked to accommodate the oil supply lines and connection to the charge pipe. You will attach the support bracket to the exhaust housing of this turbo. Notice there is one bolt left out of the housing, to accept the support bracket bolt.

9. Next insert the **upper passenger-side** turbo cartridge into its turbine housing. Attach the oil drain and oil supply lines. The oil drain tubes of the top two turbos go into the 'Y' piece. Tighten the four turbine bolts to secure. Both cartridge should be as close to vertical as possible, there may be a slight angle required but oil inlet to outlet should be vertical. It should be clocked so that the oil drain fitting clears the any brackets.

10. Attach the external wastegate hose to the driver-side top turbo. This will wastegate with the low pressure. **DO NOT OVERTIGHTEN THE EXTERNAL WASTEGATE ACTUATOR. It can damage the valve inside.** It can hold exhaust pressure with very little spring pressure. To adjust the external wastegate do so by adjusting 1/4 turn at a time. The wastegate block-off plate can be used to block off the wastegate exhaust by being inserted between the manifold and external wastegate pipe.



11. Attach the oil drain lines of the two upper turbos to the 'Y' where the oil drain lines come together. Make sure all oil drain tubes are on a constant downward slope to the engine.

Note: Every set of air conditioning, and transmission dipstick tubes are slightly different. While there should be clearance, if by chance they do touch the Triple Turbo Kit, they may require some slight bending to get them to fit properly. The transmission dipstick tube can touch the hot pipes, but the air conditioning lines CAN NOT touch any part of the Triple Turbo Kit, as they will have holes worn in them.

12. Attach the oil supply lines. They attach to the oil filter mount, remove one of the oil plugs from the top of the oil filter mount, and screw in the provided fitting (should be at the end of the steel braided oil line from the large turbo), then couple the oil line to that fitting. The other one goes to the factory oil supply fitting.

13. Put on the low pressure silicone charge pipes, attach required couplers and clamps. Tighten securely. (Helpful Hint: use a small amount of soapy water to help the tube slide into the couplers. DO NOT USE OIL TO DO THIS as oil will not dry and tube may slip out under pressure.)

14. **VERY IMPORTANT!** Be sure that when truck is started that oil pressure rises to the correct pressure, and check for oil leaks.

We highly recommend oiling the filter with K&N filter oil, especially if being used in dusty environments. Also the K&N filter cleaning and oiling kit can be used to wash the air filter when it gets dirty.

On 2004.5-2007 trucks, remove the rubber cover to on the front, passenger side of the radiator. This needs to be left off, because if it is on it restricts cool air from entering the filter, and makes a substantial difference in EGT's and overall performance.



Completed Pictures

