

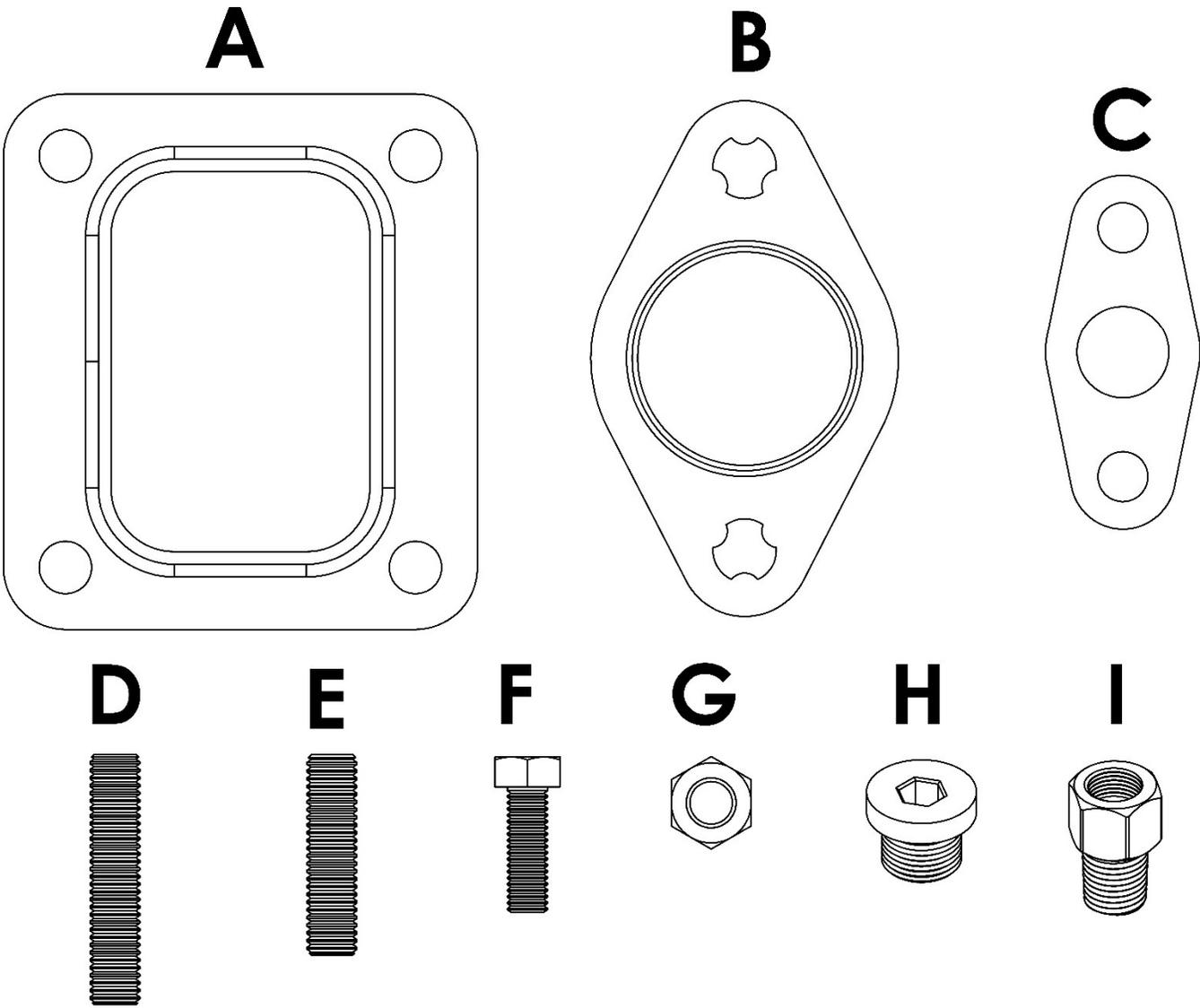
# **Instructions for S400 3<sup>rd</sup> Gen Swap Kit for Dodge Cummins 6.7L**

**Diesel Power Source, PMA (DPS) is a Private Membership Association, for members only. All purchases, installation and usage are subject to the PMA agreement, available on our website, and/or included with this kit.**

**Because, this is a private membership association. We Declare that we are exercising our right of “freedom of association” as guaranteed by the US Constitution and its amendments. This means our association activities are restricted to the private domain only and is protected under the 1<sup>st</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 14<sup>th</sup> Amendments. Additionally, this means this association is outside the jurisdiction and authority of all Federal, State, and Local agencies and law enforcement authorities.**

**DPS does NOT provide any emissions delete components or electronics. This kit can only be installed on vehicles that have already had these items previously removed. Because we do not provide any delete components, some trucks may still have some remnants left. If these items are present it is the customer’s responsibility to reroute or remove these items. DPS does not and will not provide advice regarding these items.**

# S400 Swap Kit Gaskets and Hardware



Images Are Not to Scale

<b>Hardware Letter</b>	<b>Hardware Specification</b>	<b>Hardware Quantities</b>
A	T4 Non-Divided Gasket	1
B	24V Gasket	6
C	Oil Drain Gasket	1
D	M10-1.5x50mm Stud	19
E	M10-1.5x40mm Stud	1
F	M8-1.25x25mm Hex Bolt	2
G	M10 Nut	20
H	Coolant Block off Plug	2
I	Pressure Sensor Adapter Fitting	1

# Installation Instructions for S400 3G Swap Turbo Kit

Please read all instructions before installation.

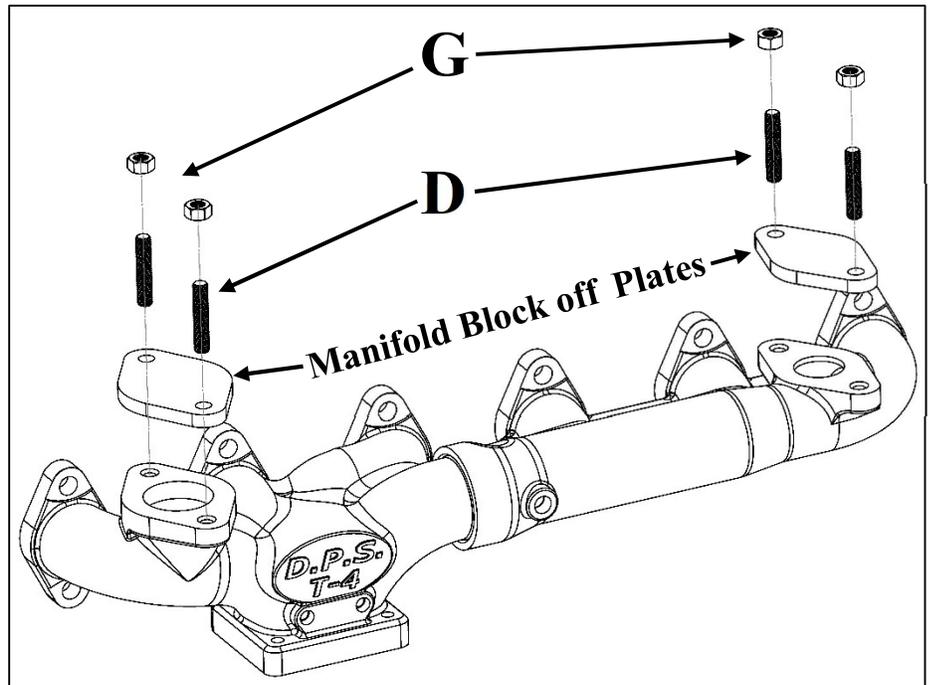
Note: We strongly recommend head studs and/or fire rings.

1. Prior to installation, change the engine oil and oil filter.
2. Make sure your vehicle is parked on level ground and parking brake is applied.
3. Remove air intake box and air intake tubing.
4. Drain engine coolant.
5. Remove passenger battery box. This allows more space for installation. The battery will be reinstalled later. Disconnect both negative (black) battery cables.
6. Remove the plastic inner wheel well cover (splash guard) on the passenger side. Be careful when removing plastic wheel well cover, there are wires mounted on engine side. Inner wheel well cover will be reinstalled later.
7. Disconnect the factory turbo's oil and coolant lines. Leave the oil supply line attached to the truck and move it out of the way.
8. Remove the factory exhaust v-band clamp by removing the nut and slide the clamp over the cast exhaust elbow. Leave the clamp here until the new turbo is installed. Do not lose the nut.
9. Using pliers, pull out the small roll pin from the front of the cast exhaust elbow.
10. Disconnect oil drain line from the factory turbo and remove it from the block. Discard factory oil drain line.
11. Remove the factory turbo coolant lines, at the banjo fittings on the engine block.
12. Use the provided **H** plugs where you removed the coolant lines.
13. Remove the EGR "if it's not deleted", factory turbo, and exhaust manifold.
14. Install the new provided oil drain tube. Grease the hole in the block and grease the O-rings on the tube. Leave it straight while using both hands to carefully push the tube into the drain hole. Make sure both O-rings are inside the hole.

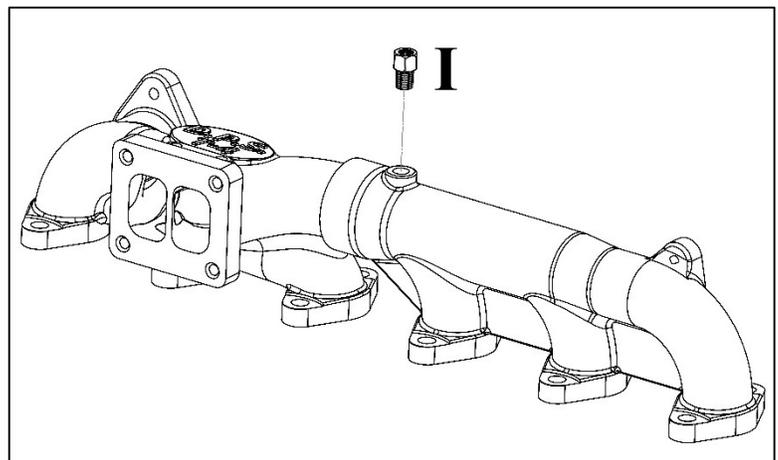


15. Slide back the exhaust approximately  $\frac{3}{4}$  inch.

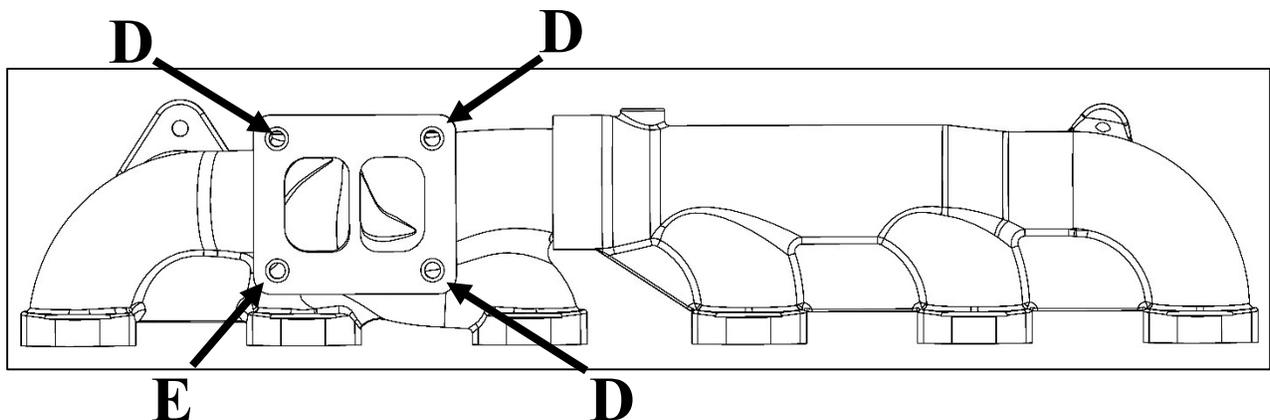
16. If your EGR is deleted.  
Attach the provided EGR  
block off manifold plates  
to the manifold using four  
**D** studs and four **G** nuts.  
If your EGR is not  
deleted it will be  
reconnected at the end of  
the instructions.



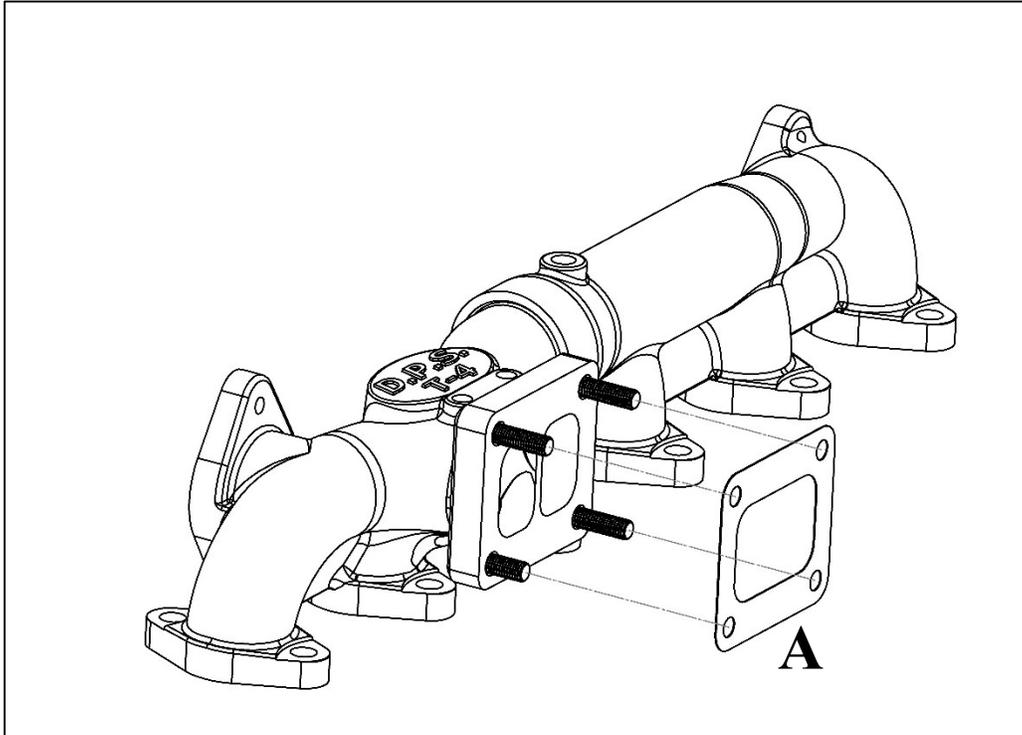
17. Thread in the provided **I** fitting  
to the top of the manifold. This  
fitting is an adapter for the  
pressure sensor.



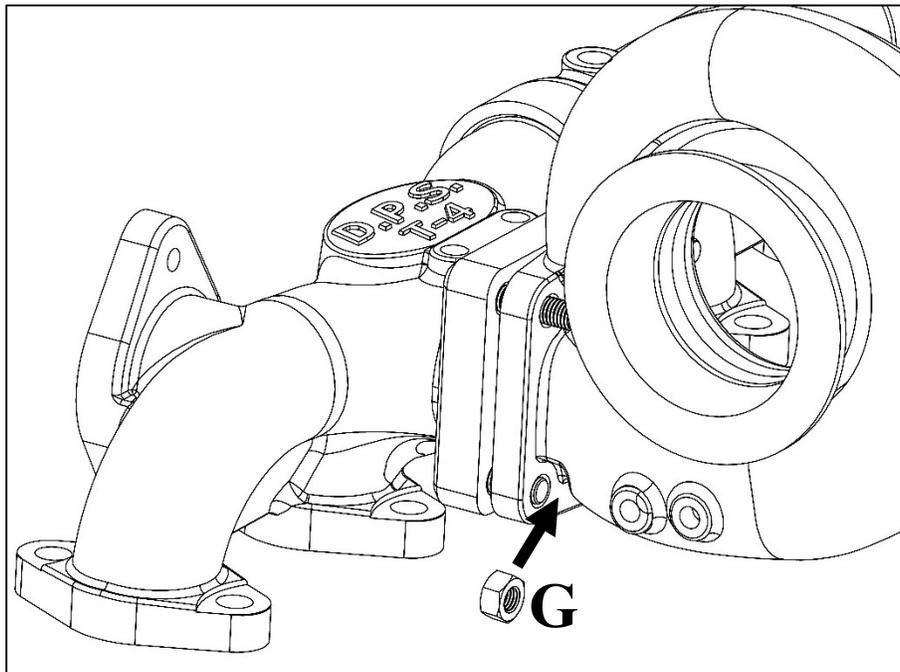
18. Attach the new turbo to the manifold, by first threading three **D** studs and one **E** stud into the T4 manifold flange. **Be sure to place the correct studs in the correct threaded holes as shown below.**



19. Position the provided **A** gasket through the studs and against the T4 manifold flange.



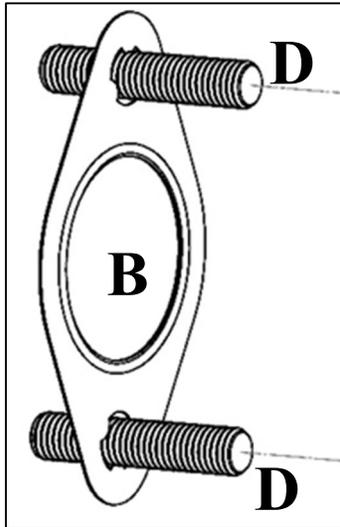
20. Now attach the S400 turbo assembly to the manifold. As the bolts pass through the T4 turbo flange have one **G** nut ready to thread onto the end of the previously installed **E** stud.



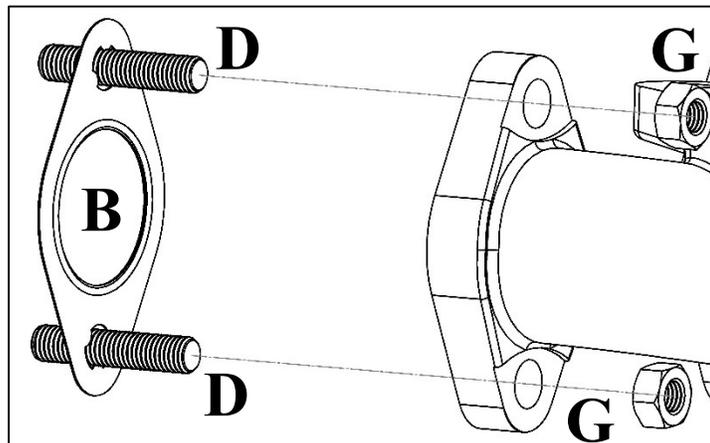
21. Now thread three more **G** nuts onto the remaining studs passing through the backside of the T4 turbo flange. Torque the four nuts to 35 ft/lbs.

22.If you have a pneumatic VGT bend and connect the steel tubing to the turbo. Make sure the tube has a downward slope from the actuator to the fitting on the turbine housing. If you have an electronic VGT thread the boost sensor into the compressor housing, and then connect the exhaust sensor to the turbine housing using the provided bracket and bolts.

23.Now prepare the engine block for the turbo/manifold assembly by threading twelve **D** studs into the block. Position the six **B** gaskets in place so that you thread the studs into the gasket and the block at the same time.



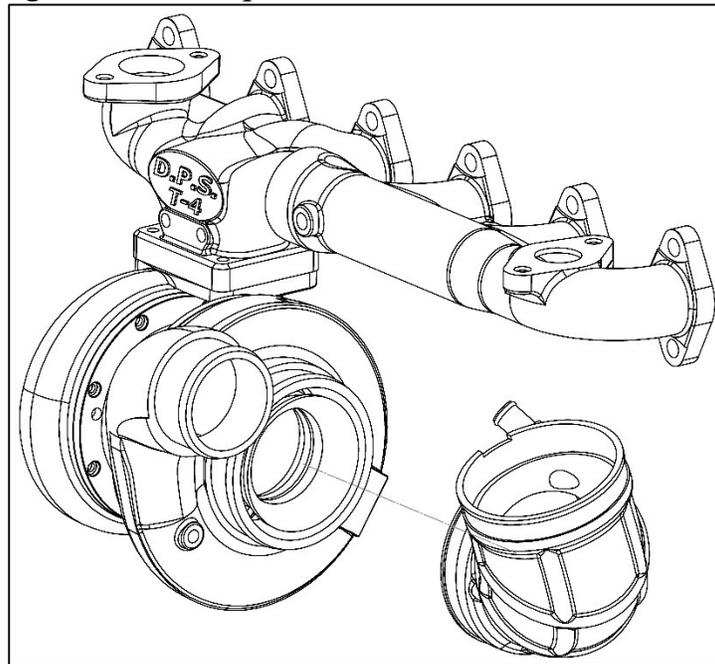
24.Take the turbo/manifold assembly and position it onto the block and through the studs installed in the last step. The assembly should be supported by the studs. Once supported thread on twelve **G** nuts to the studs passing through the manifold and torque to 35 ft/lbs.



25.Attach the turbo to the exhaust, sliding the v-band clamp back in place. Torque v-band clamp to 60 inch/lbs (5 ft/lbs).

26.Attach the oil drain to the turbo, using the provided **F** bolts and **C** gasket. Torque bolts to 6-8 ft/lbs.

27. Pour one tablespoon of new oil into the turbo, oil inlet, while spinning the turbo with your fingers.
28. Attach the oil supply line.
29. Connect the exhaust pressure sensor to the previously installed I fitting located on the manifold.
30. Reassemble and connect the EGR to the manifold if not deleted.
31. Attach the included air intake elbow to the turbo inlet. Also, connect the rubber hose to the breather then tighten the clamps.



32. Re-install air box, intake tubing, and plug in sensors.
33. Attach the included silicone couple to the compressor housing then attach the intercooler charge pipe (torque clamp to 60 inch/lbs 5 ft/lbs).
34. Reinstall battery and reconnect the battery cables.
35. Fill truck with coolant.

36. Start the truck and check for any oil leaks, air leaks, or vibration. If leaks are found, make sure all the clamps, bolts, or fittings are tight. Be sure that the oil pressure rises to the correct pressure. Allow it to idle for about 2-3 minutes without revving the engine. This allows the oil to reach the bearings of the new turbo. Do not allow truck to idle for long periods of time, especially on new turbos because it can cause turbo leaks.
37. If no leaks are found, reinstall the plastic inner wheel well cover (splash guard) on the passenger side.
38. The engine ECM will look for the factory turbo, so use whatever programmer you have to change turbo settings to aftermarket.
39. Drive conservatively for about 100 miles to allow some break-in time on the turbocharger. After driving about 100 miles, while engine is hot from running, put on gloves and re-torque all exhaust bolts and all clamps. This will ensure they do not loosen in the future.