

6.4 Odawg Diesel Installation Instructions.

*Disclaimer- Installation of this Manifold may require additional steps to complete. These additional steps will be determined based on your own personal setup. If you are not confident under the hood of your truck, or do not think you can perform the installation tasks we suggest you seek a professional to install for you. These Manifolds can be installed with Cab on or off. This installation requires removal of turbos stock or aftermarket. Please be sure you have all the correct items and pieces necessary before attempting installation. Also, be sure to replace any seals/gaskets with new when installing your new manifold

Pre-Installation instructions. **Please read all instructions prior to starting installation**

- Place truck on a level surface and apply emergency brake
- Disconnect battery
- recommended to pre-soak turbo bolts and up pipe bolts with penetrating oil.
- Be sure to properly protect any opening to engine while truck is apart and work carefully to not knock debris inside engine.

Installation:

- 1) Remove Cold air intake from truck
- 2) Remove factory CCV vent. (use caution removing breather tube as it is brittle.)
- 3) Remove driver side battery
- 4) Drain Coolant
- 5) Remove Coolant reservoir
- 6) Remove 6 bolts from turbo to up pipe connection (if EGR pipe is still in place remove bracket first to gain more access) These bolts can be tricky it will take an assortment of sockets, swivels and extensions be cautious not to strip the heads
- 7) Unplug VGT controller and any associated turbo plugs
- 8) Remove boot from cold side intercooler pipe @ turbo
- 9) Remove boot from hot side intercooler pipe @ turbo
- 10) Remove coolant lines and fuel lines from fuel cooler on driver side valve cover
- 11) Loosen and remove the turbo crossover pipe from the driver side valve cover (U-shape pipe, fuel cooler, and bracket can be removed as one unit once coolant lines and fuel lines are disconnected)
- 12) Remove the 2 turbo hold down bolts
OPTIONAL* remove the VGT actuator from the turbo this will provide some extra room to work with the cab still installed. If cab is removed, you can remove the turbos as 1 unit.
- 13) Wiggle and remove the turbos from the truck. They DO NOT need to be separated, however it will make lifting them out much easier.
- 14) Unbolt the (4) 8mm hold downs for the fuel lines bolted to the manifold. (2 front 2 rear of manifold)
- 15) Remove the turbo drain bolted to the driver side of the manifold
- 16) Remove the factory fuel bowl (undo lines and sensor plugs to remove out of vehicle)
- 17) Remove fan shroud mount bolts that go into the manifold (13mm)
- 18) Unplug the glow plug module, Exhaust temp sensor plug, and the HFCM plug on the passenger side and remove the glow plug module and bracket off the valve cover (be sure to unbolt the 8mm bolt holding the plastic coolant line. This line will be brittle)
- 19) Loosen 8mm bolt for the black plastic coolant line at front cover. Loosen line from front cover use caution this line is brittle
- 20) Remove factory oil filter housing from oil cooler (remove stem as well to give extra room)
- 21) Remove all 10mm manifold bolts.
- 22) Once manifold is loose carefully work manifold out around the wiring, coolant lines, and fuel return line
- 23) Once manifold is removed, clean top of head where factory gasket was. Be cautious not to drop anything into the head.

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- 24) Install new factory intake manifold gaskets
- 25) Slide Odwag manifold in place and align properly with gaskets
- 26) Install coolant line, back into location (DO NOT BOLT IN PLACE YET) be sure the fuel return line is in place as well prior to bolting manifold down.
- 27) Install supplied Allen bolts into each hole working from the center of each runner outward until all hardware is tight. (recommend using a small magnet to install bolts into holes then tighten with appropriate Allen wrench. Be careful not to drop an Allen down the head)
- 28) Install supplied o-ring plugs into manifold and tighten until all plugs are installed and manifold is sealed.
- 29) Re-install fuel line isolators with 8mm bolts that were removed in front and rear of manifold (2 front 2 rear)
- 30) Install coolant line back into front cover (8mm bolt) (you will notice the fuel line bracket and the coolant line bracket will no longer mount to manifold bolt studs like they did in the factory application.)
- 31) Re-install the fan shroud back into the front of the manifold
- 32) Re-install oil filter housing and filter (also install Stem if you removed)
- 33) Re-install factory fuel bowl using the supplied spacers. Spacers will put the factory line in the appropriate space. **NOTE**-if using a fuel bowl delete you will not need spacers.
- 34) Re-install glow plug module bracket, and be sure to plug all electrical connectors back in to appropriate locations
- 35) Install 8mm Bolt back into coolant line/glow plug module bracket
- 36) Re-install drain previously removed, turbo, turbo U pipe, and fuel cooler back into stock locations (note be sure to replace all gaskets/orings on these items)
- 37) Reconnect up pipes to turbo using new gaskets
- 38) Reconnect intercooler piping boots on hot and cold side
- 39) Re-install CCV on pass side valve cover, and re-install air intake
- 40) Re-install coolant bottle and fill with new coolant
- 41) Make sure fuel cooler is filled with coolant
- 42) Connect batteries back