



Notes:

This installation will require some specialised tools. We suggest that this kit be installed at a professional tuner shop by a licensed professional with experience installing performance upgrades. If your friend is in school for mechanics he may not be up to the task.

Before attempting this installation please ensure that you have access to a good set of sockets, ratchets and wrenches. In addition you will require some specialised tools such as tripple squares, torx bits, allen sockets, drill and a 9/32" drill bit.

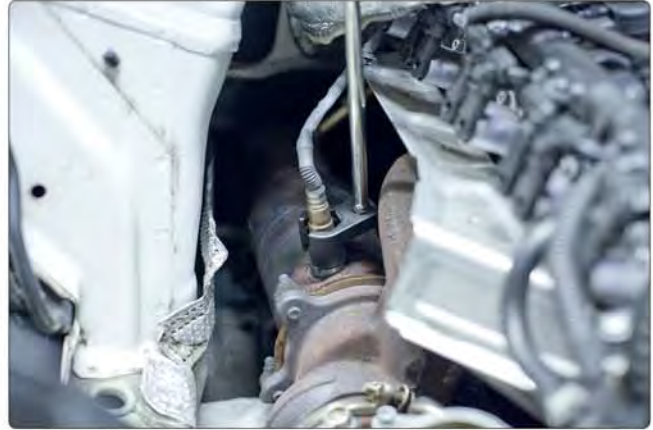
1) Support the car on jack stands or a lift. Drain oil and coolant. Remove upper and lower engine covers.



2) Remove airbox assembly and turbo inlet hose.



3) Remove both oxygen sensors from catalytic covnverter.



4) Remove downpipe from catalytic converter. Remove connectors from diverter valve, N75 valve, and oil sensor from oil pan.



5) *Remove oil feed line from turbo.*



6) *Remove vacuum connections on turbo.*



7) **Remove oil feed line from block.**



8) *Remove oil dreturn line from block and turbo.*



9) *Pro Tip: Ensure no contaminants enter the engine cooling and oil systems.*



10) *Remove coolant fitting from turbo.*



11) *Remove rubber turbo coolant line from front of engine.*



12) *Once rubber turbo coolant line from front of engine is removed the line should look as follows.*



13a) *Remove upper bolt for turbo support bracket. Note it is hidden under exhaust housing.*



13b) *Remove lower support bracket bolt and proceed to remove bracket.*



14) *Remove the 5 upper exhaust manifold nuts. You do not need to remove the lower turbo bars or nuts along the lower portion of the exhaust manifold flange.*



15) *Remove turbo heat shield.*



Pro Tip: turbo may need to be tapped upward to unseat from lower attachment bars.



16) Remove turbo from car and place on work bench. Remove remaining water line and rear PCV connection from turbo.



17a) Waterline modification requires bracket removal. This is the coolant line pre-modification.



17b) This is the coolant line post-modification with bracket removed.



18a) *Modify coolant line. This is the coolant line prior to modification.*



18b) *This is the coolant line post modification. The bracket requires trimming as pictured.*



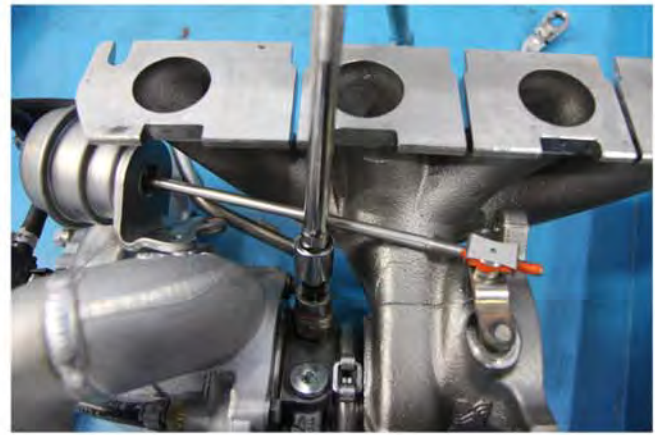
19a) *This is the oil feed line, which requires modification.*



19b) *This is the oil feed line, post modification. The bracket requires trimming as pictured.*



20a) *Install modified coolant line onto new turbo with new crush washers supplied in kit.*



20b) *Position coolant line as pictured.*



21) *Install modified coolant line onto engine block with supplied new crush washers.*



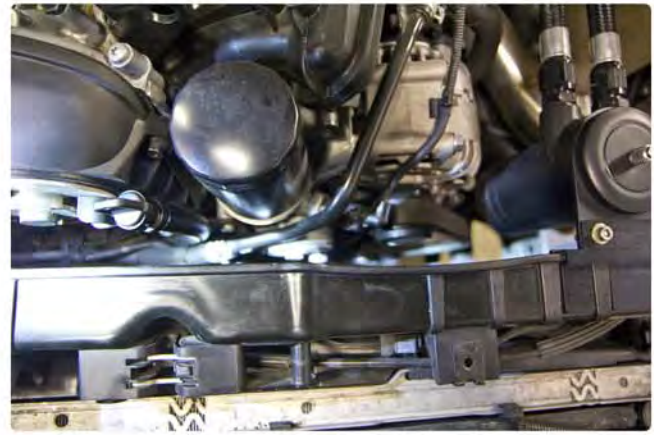
22) *Install turbo onto head using new supplied gasket and copper nuts. Re-install turbo support bracket from underside of vehicle.*

Install coolant line pictured in step 21, the connection to turbo is on the passenger side of the car between the frame rail and turbo. Install oil feed line on the top of the turbo.



Pro tip: Do not re-use crush washers, use new supplied crush washers on all connections.

23) Reattach rubber end of coolant line to engine, this connection is pictured near the dipstick in the picture.



24) Install oil drain line on turbo and block. Install oil feed line onto the engine block.

Pro tip: Ensure o-ring is lubricated oil feed fitting for your pleasure and hers.



25) Install test pipe or optional high flow cat using the gaskets and hardware supplied in the kit.



26) Re-install both oxygen sensors into test pipe or optional high flow cat.

Re-install factory turbo heat shield.



27) Install DV onto billet DV relocation flange. Attach 1" 90 degree silicon to 1" bung on compressor outlet and onto bottom of DV relocation flange and tighten clamps.



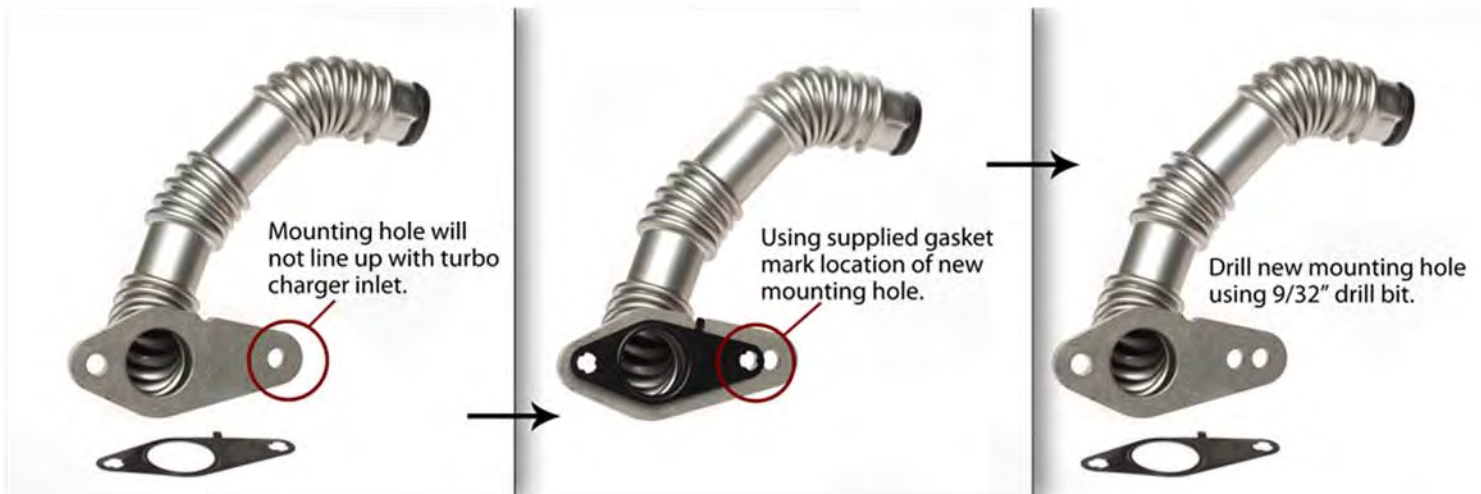
28) Install supplied 1" 90 degree elbow from compressor housing inlet and connect to side port on DV, then tighten clamps.



Re-attach turbo to intercooler piping (Picture shown with optional CTS B8 FMIC Kit).

Re-attach electrical connections to DV, N75 valve and oil level sensor on oil pan.

29) Re-install rear PCV between compressor housing and valve cover after completing modifications pictured below:



30) Re-install factory turbo inlet pipe and airbox.



31) Re-install factory engine cover, replace engine oil and engine coolant. Ensure oil and coolant are topped up prior to starting vehicle. Bleed cooling system as per manufacturers specifications.

A re-flash software is recommended to take full advantage of newly installed Borg Warner K04 turbo-charger. We do not recommend using this kit in conjunction with K03 software.



Disclaimer:

CTS Turbo shall not be liable for special, indirect, incidental or consequential damages including but not limited to lost profits, downtime or loss.

CTS recommends that this kit be installed at a professional tuner shop by a licensed professional with experience installing performance upgrades.