

Turbo Kit:

REVISION: PRELIMINARY ATP-AA

**GT / GTX Bolt-on Stock Location Turbo,
Model Year 2013+ Ford Focus ST 2.0L Ecoboost**

Parts Checklist:

- GT or GTX Turbo assembly
 - o with built-in wastegate
 - o Polished compressor housing (optional)
 - o Attached to Cast/Machined V-band turbo manifold adapter
 - o Attached V-band clamp for turbine entry
 - o Attached GT28 Turbine outlet 5 bolt gasket
 - o Turbine outlet adapter (5 bolt to Focus ST wide female V-band flange)
 - o V-band clamp (Not supplied - USE ORIGINAL CLAMP – same as stock)
 - o MVS Block-off flange and clamp (if turbo is internally wastegated)

- Internal Wastegate Info
 - o -6 Actuator with 12-14 base pressure calibration (DO NOT run with stock tune due to overboost!). Lower Pressure and Higher actuator options are available upon ordering.
 - o Aluminum Adjustable Actuator Bracket
 - o Adjustable Rod End. Minor adjustments in base pressure OK
 - o Heatshroud (for wastegate canister – radiant heat protection for internal diaphragm)

- Turbine inlet joint (Turbo adapter to Manifold)
 - o (4) 10mm lock nuts
 - o (4) 10mm washers
 - o (1) Fire Ring Gasket for Turbine entry (taped to the adapter with reminder to install note)

- Oil Feed Assembly
 - o Oil feed adapter fitting at block
 - o Extra fitting, -4 AN male/female swivel 90 degree
 - o 18” -4 AN oil feed line, straight and 90 degree
 - o -4 restricted oil feed fitting at turbo

- Oil Return Assembly
 - o (2) step-down studs 8mm to 6mm
 - o (2) 6mm nuts
 - o (1) GT/GTX oil drain gasket used at the turbo (mates with stock oil drain tube)

Parts Checklist (continued):

- Coolant Feed Assembly
 - o (2) Special 14mm to -6 male/male, fittings with crusher washers
 - o (1) 12" -6 AN steel braided line with straight and 90 degree ends
 - o (1) Extra -6 AN male/female swivel 45 (use at engine block)

- Coolant Return Assembly
 - o (1) -6 AN Banjo Fitting kit with -6 AN male flare exit (used at turbo)
 - o (1) 24" -6 AN steel braided line with straight and straight ends
 - o (1) Fitting: 3/8 male push-lock barb to -6 male flare, straight, barb terminator fitting
 - o (1) 3/8" internal diameter multi-layer silicone hose, 6" long
 - o (2) hose clamps for 3/8" silicone hose (connects to water neck on side of head)

- Simple Intake elbow
 - o (1) 3" 90 degree silicone hose tight radius
 - o (2) Hose clamps for 3" 90 degree silicone hose

Condensed Installation Procedure:

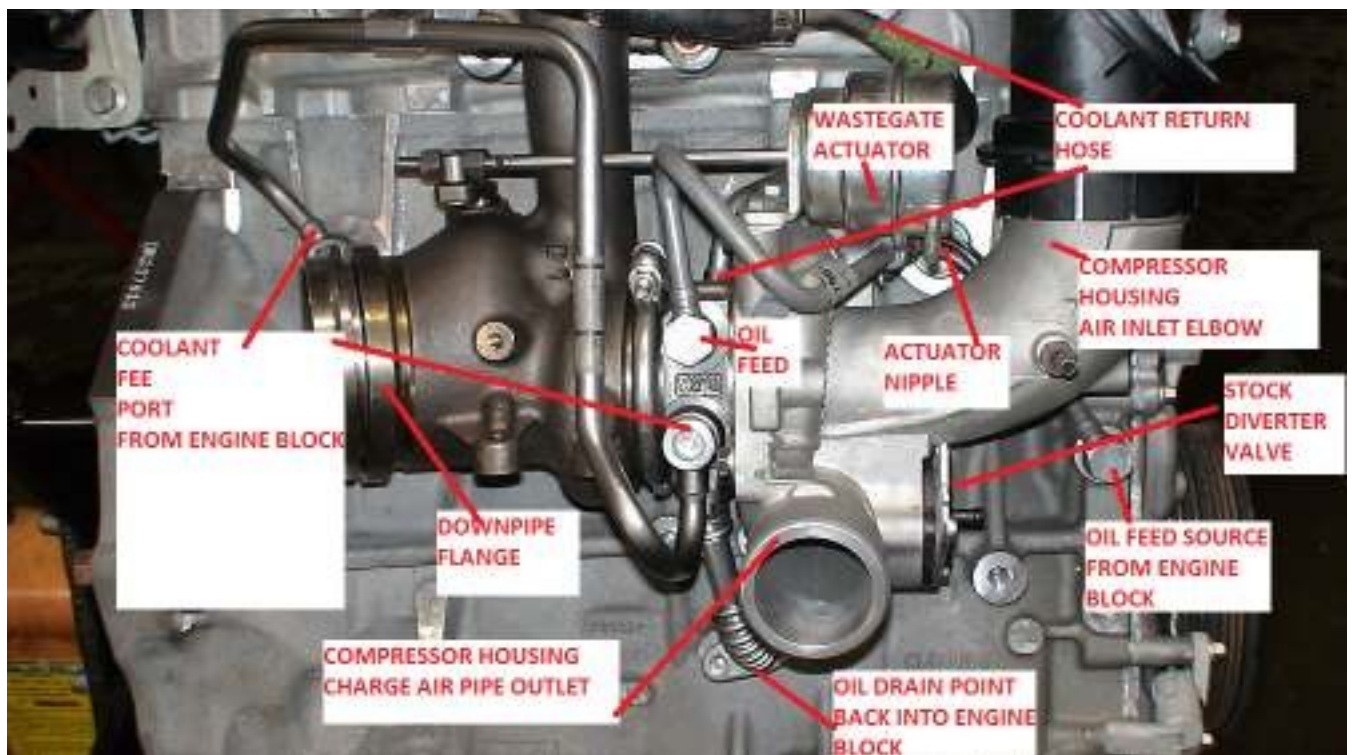
GT / GTX Bolt-on Stock Location Turbo, Model Year 2013+ Ford Focus ST 2.0L Ecoboost

Tip #1 – Always saturate exhaust fasteners with penetrating oil (liquid wrench) prior to removal to prevent breakage during removal.

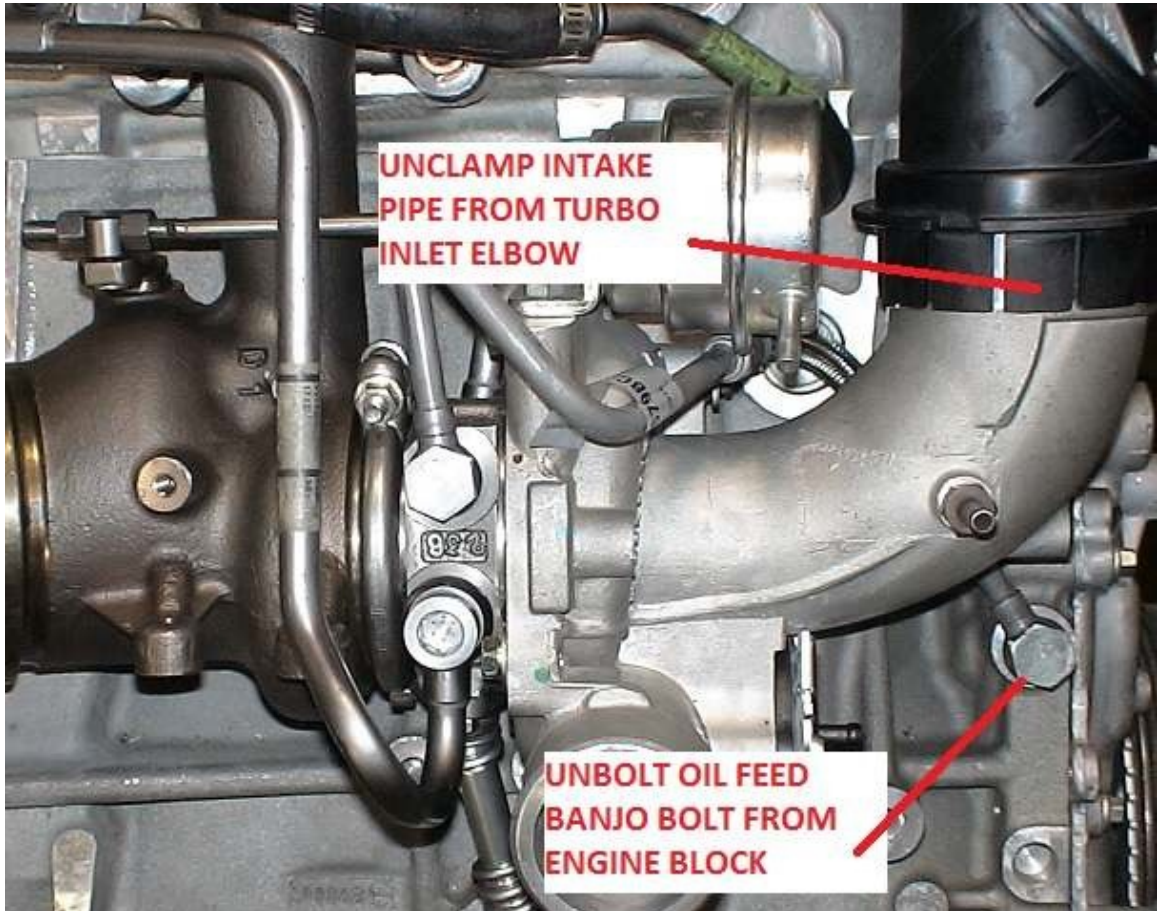
Tip #2 – Always coat exhaust fasteners with anti-seize to allow for easier future removal of parts and to prevent parts breakage during removal.

Tip #3 – Do not use thread sealant where it's not NPT (pipe) thread. To our knowledge, ALL the fittings supplied in this kit are “flare” (AN) or compression type fittings and adding Teflon tape or liquid sealant unnecessarily will only introduce sealing issues as well as possible turbo damage from clogged pores.

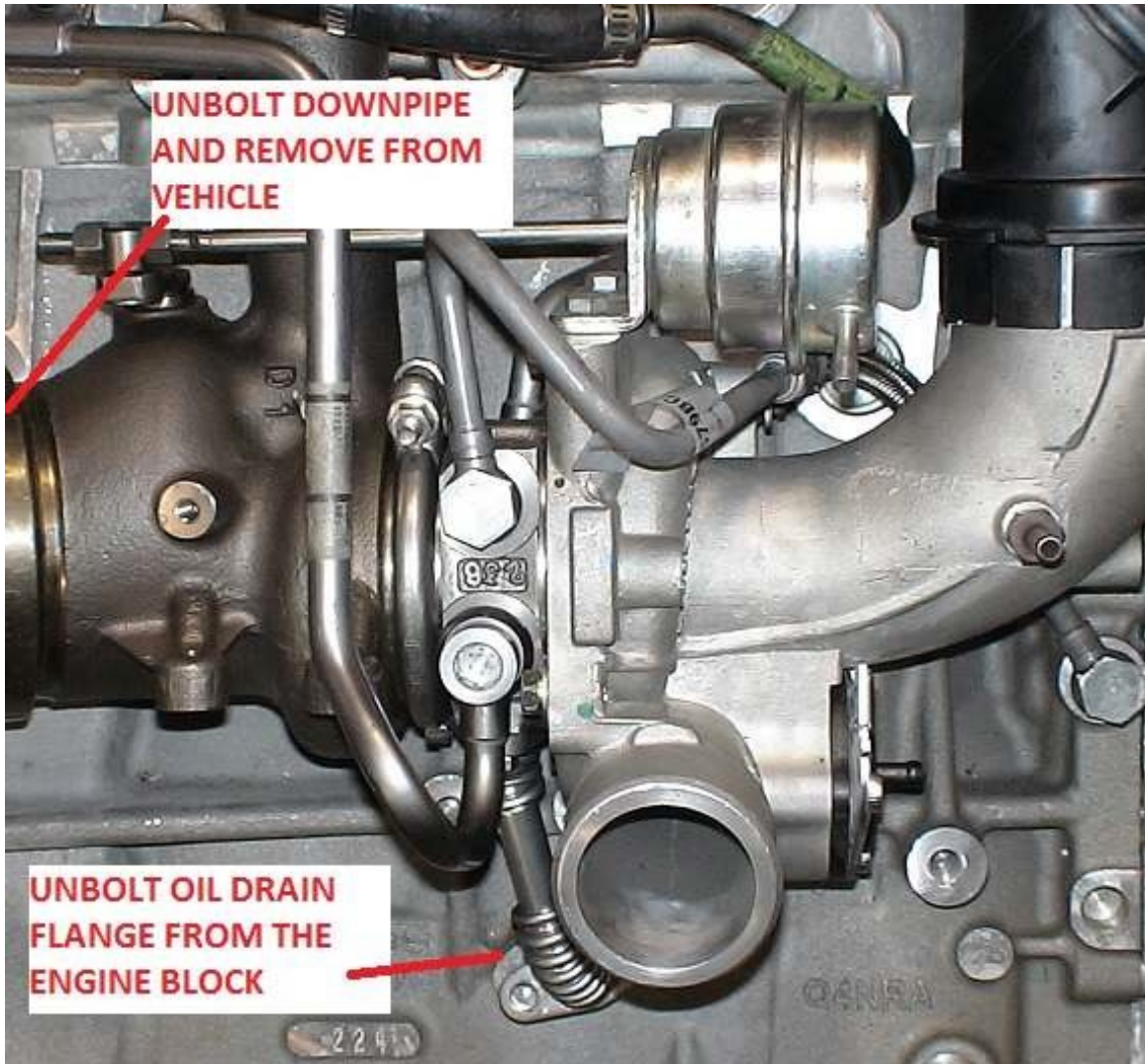
FOCUS ST STOCK TURBO DIAGRAM



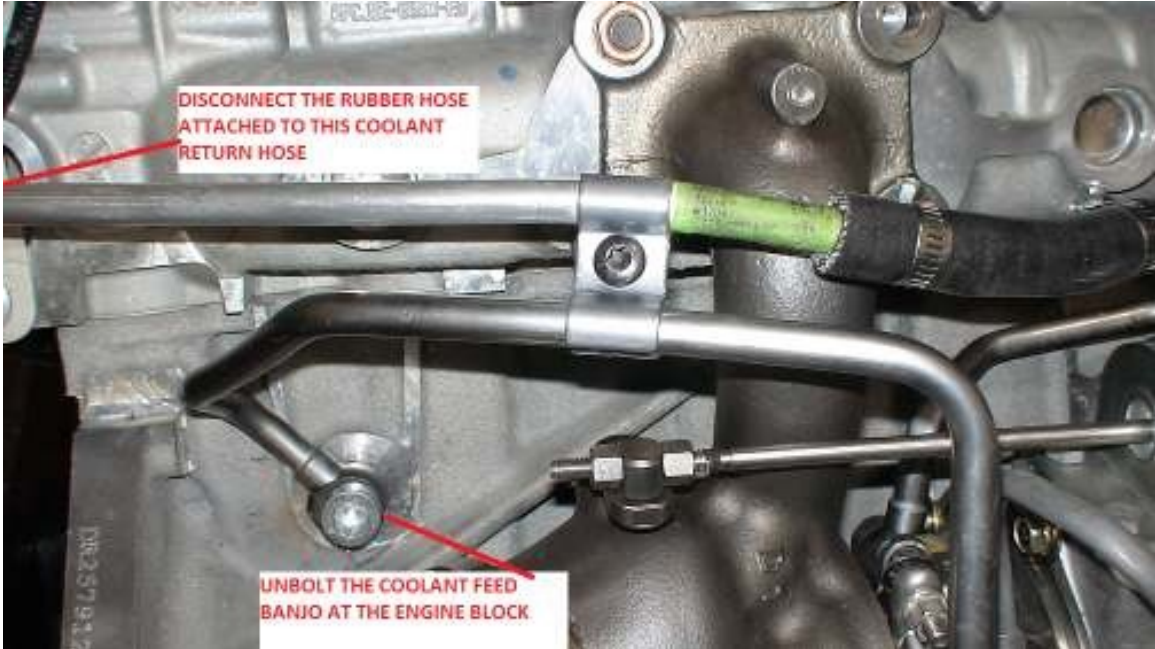
1. Unbolt Factory Turbocharger
 - a. Loosen clamp at intake pipe to turbo compressor inlet elbow
 - b. Unbolt the oil feed line banjo bolt at the engine block



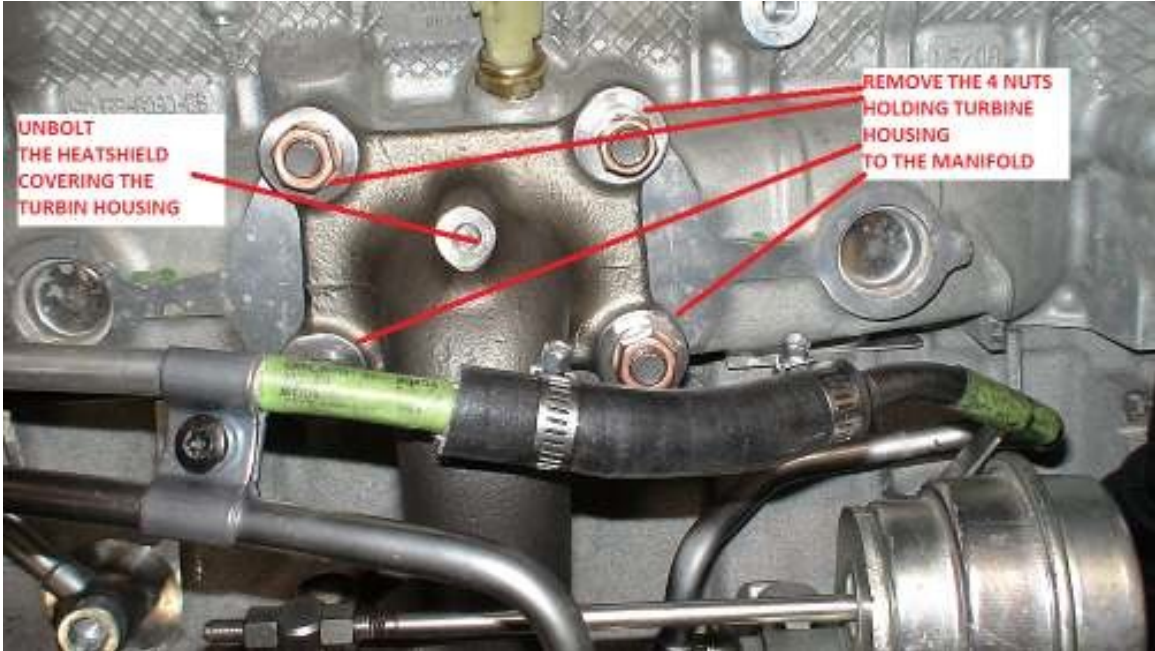
- c. Unbolt the lower oil drain tube flange from the engine block.
- d. Unbolt the downpipe and remove from vehicle.



- e. Disconnect the coolant feed banjo at the engine block.
- f. Disconnect the coolant return hose (rubber hose) attached to the metal coolant pipe.

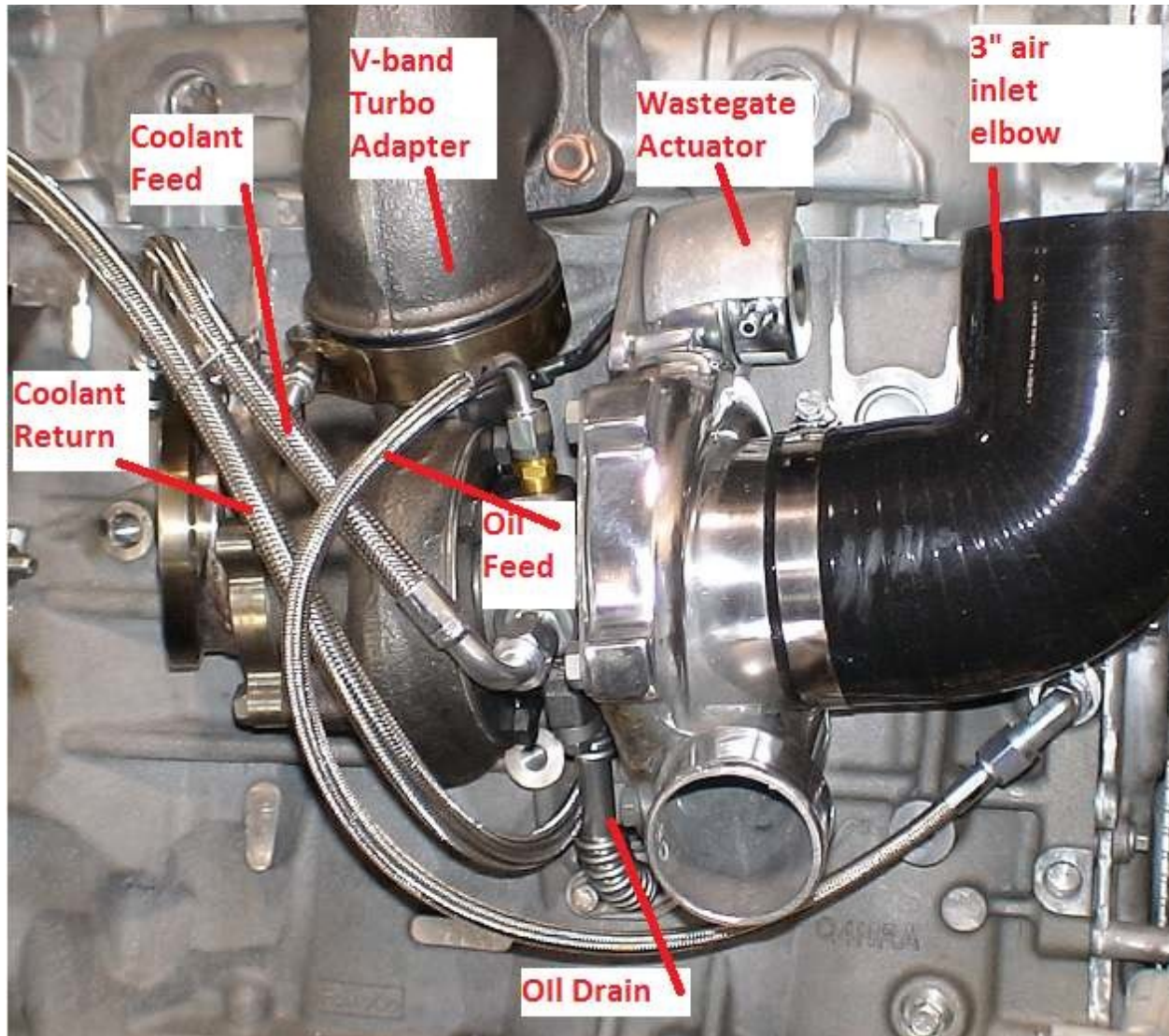


- g. Unbolt the heat shield covering the turbine housing.
- h. Remove the 4 nuts holding the turbine housing to manifold.
** Spray (saturate) with liquid wrench first to prevent seized bolts/nuts breaking



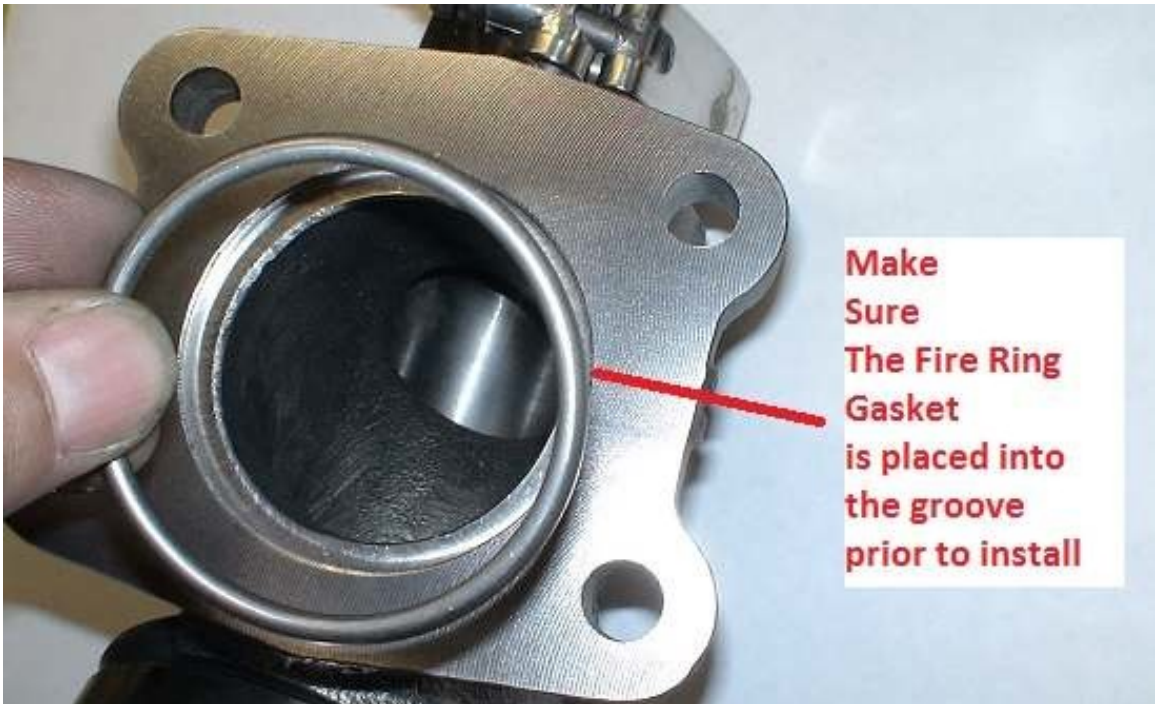
- i. Remove the disconnected turbo assembly from the vehicle.

FOCUS ST GT / GTX TURBO UPGRADE DIAGRAM

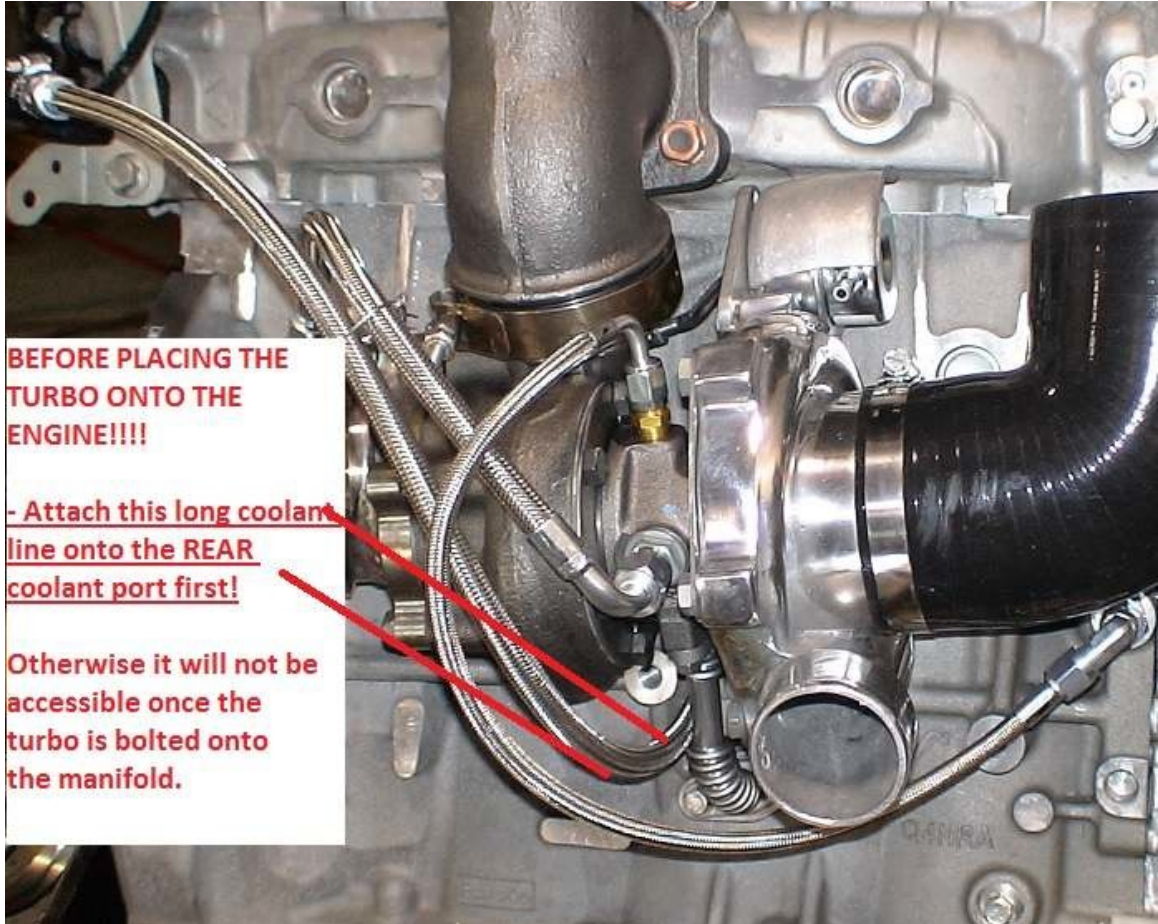


2. Bolting on the GT/GTX Turbocharger!
 - a. REMOVE THE FACTORY 4-BOLT TURBO TO MANIFOLD GASKET! IT WILL NOT BE USED!

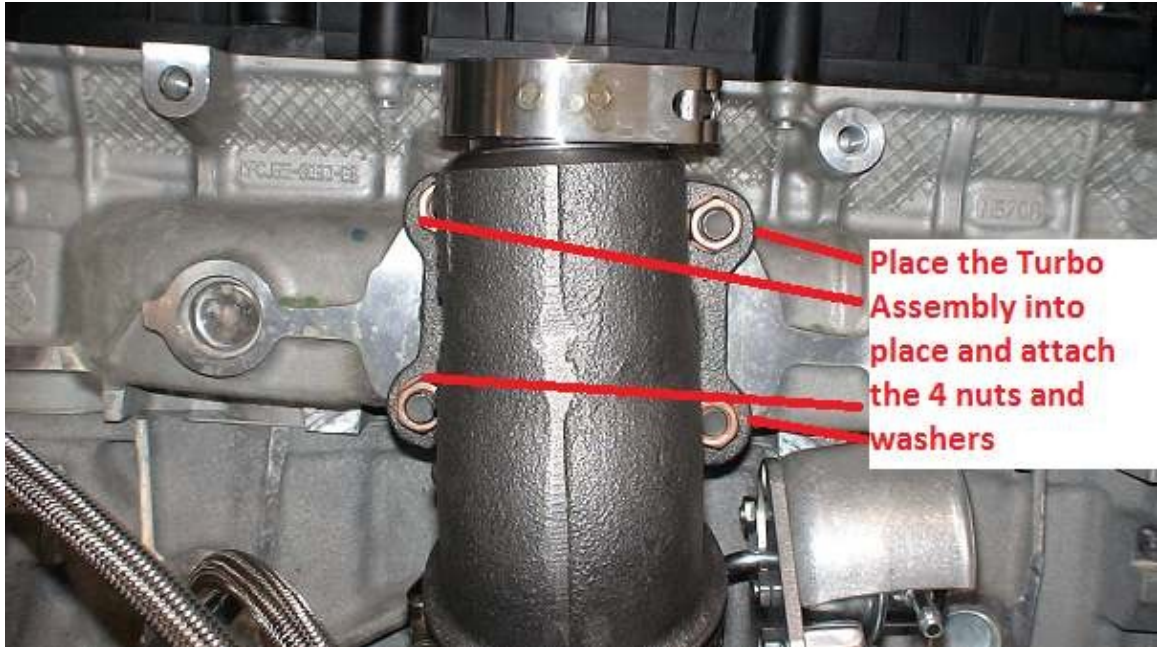
- b. Make sure the round “fire ring” gasket is in place at the 4 bolt flange (turbo to manifold connection) on ATP Turbo adapter.



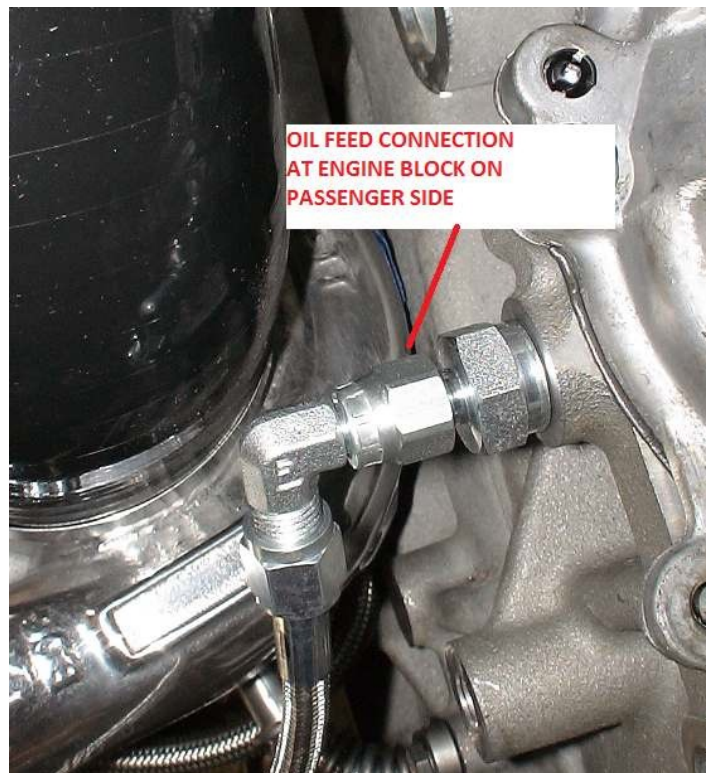
- c. BEFORE placing the turbo onto the manifold, please attach the coolant return line onto the turbo via the -6 AN banjo first. Otherwise, that rear coolant port will not be accessible once the turbo is bolted to the manifold.



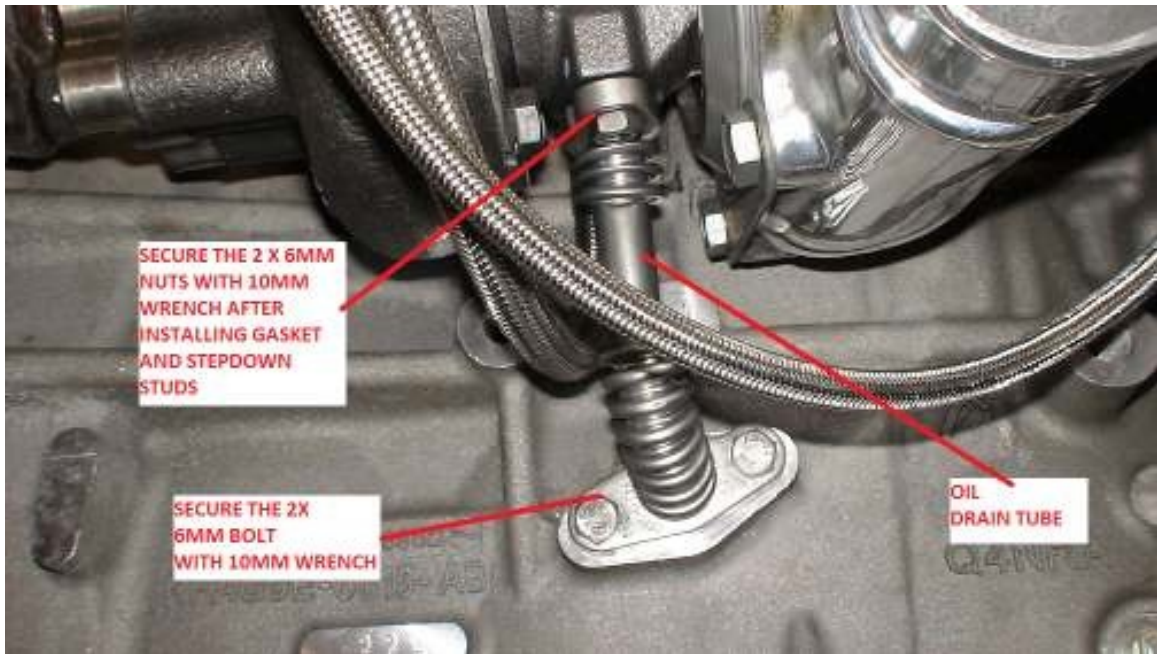
- d. Take the pre-assembled turbo assembly and slide it in place and attach the 4 bolt flange on turbo adapter to the manifold outlet. **MAKE SURE THE FIRE RING IS STILL IN PLACE!**
- e. Attach the 4 washers and lock nuts and torque down into place.



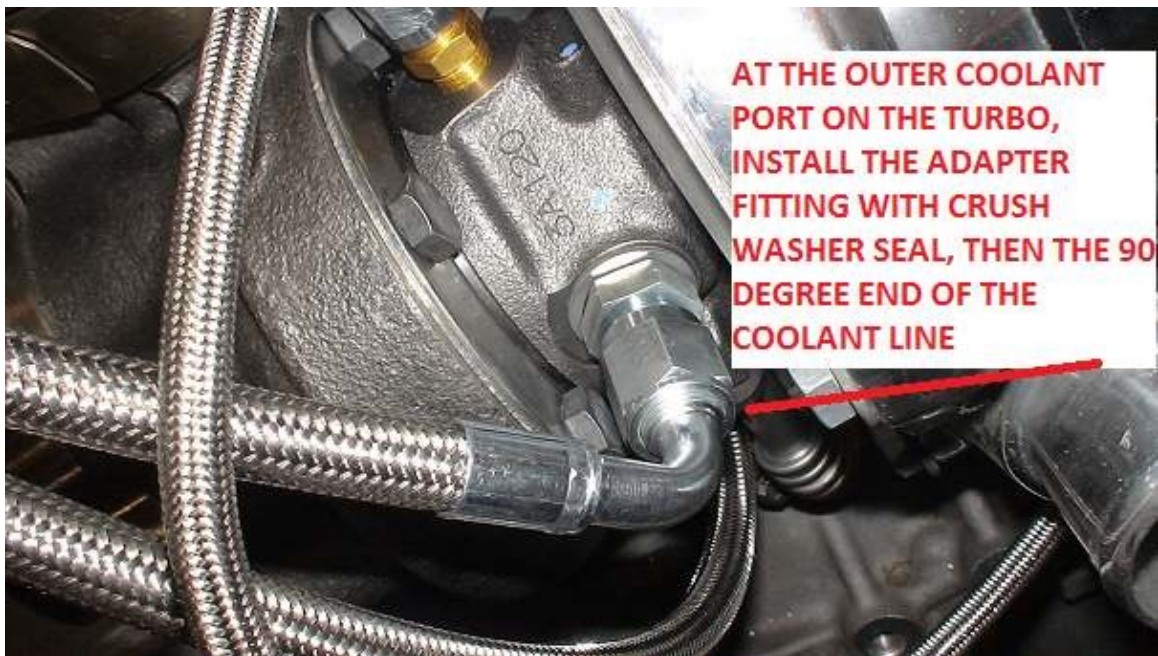
- f. Attach oil feed line to turbo, then to passenger side engine block with adapter fitting as shown. Once done, do not allow oil feed line to make contact with hot parts during turbo operation, especially turbine housing, exhaust manifold, or manifold adapter.



- g. Install Oil Drain Tube. Lower Flange is as is from the factory. Check the two 6mm bolts to ensure they are tight. At the turbo, install the 2X step down studs and slide the oil drain flange in place with an oil drain gasket. Install the 2 6mm nuts and tighten down with 10mm socket/wrench.



- h. Attach the coolant feed line assembly as shown (it's the shorter of the two -6 lines). Install fitting to the block with a crush washer, then install end of -6 line. Install the same fitting with crush washer on the outside coolant port, then install the end with the 90 degree at the turbo.



- i. Install the remaining end of the long (coolant return) hose onto the side of head at the water neck and tighten down the two hose clamps

