



JAMES BARONE RACING
AFTERMARKET PARTS AND ACCESSORIES

JBR 2007 – 2013 MAZDASPEED 3
Under Mounted FMIC Hot Side Installation Instructions

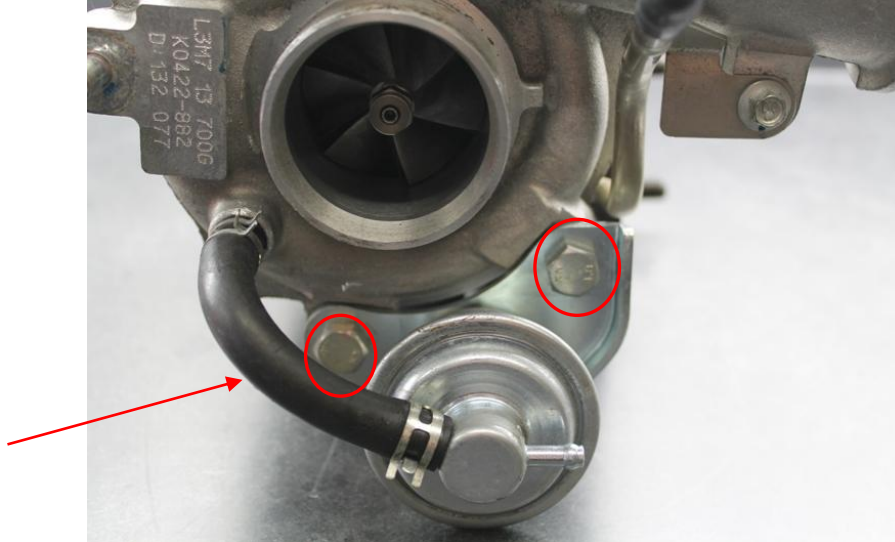
Tooling:

- Marker
- Ratchet wrench
- 6" socket extension
- 8mm, 12mm, 17mm socket
- 8mm, 10mm, 12mm wrench
- Needle nose pliers
- Tin snips (optional)
- ½ round file (optional)
- Razor knife w/ new razor blade (New Razor Blade – Not Optional)

Parts List:

- 2 – 6mm – 1.0 nylon insert hex nut stainless
- 1 – 2.25" (68mm – 60mm) T-bolt Clamp
- 5 – 2.5" (75mm – 67mm) T-bolt Clamps
- 1 – T-bolt clamp w/ mounting tab
- 1 – 2" OR 2.5" turbo coupler
- 1 – Off-set coupler
- 1 – Intercooler core hose
- 1 – Wrinkle black 90° pipe
- 1 – Wrinkle black 45° pipe
- 1 – 1' pc of vacuum hose
- 1 – 1' pc of Coolant hose
- 4 – 5/16" hose clamps
- 1 – 8mm – hex nut (OEM and BNR Turbo Kit)
- 1 – Actuator mounting bracket (OEM and BNR Turbo Kit)
- 1 – Coolant line mounting bracket (OEM and BNR Turbo Kit)
- 2 – ¼-20 x ½" bolts (OEM and BNR Turbo Kit)
- 2 – ¼-20 nylon insert hex nuts (OEM and BNR Turbo Kit)

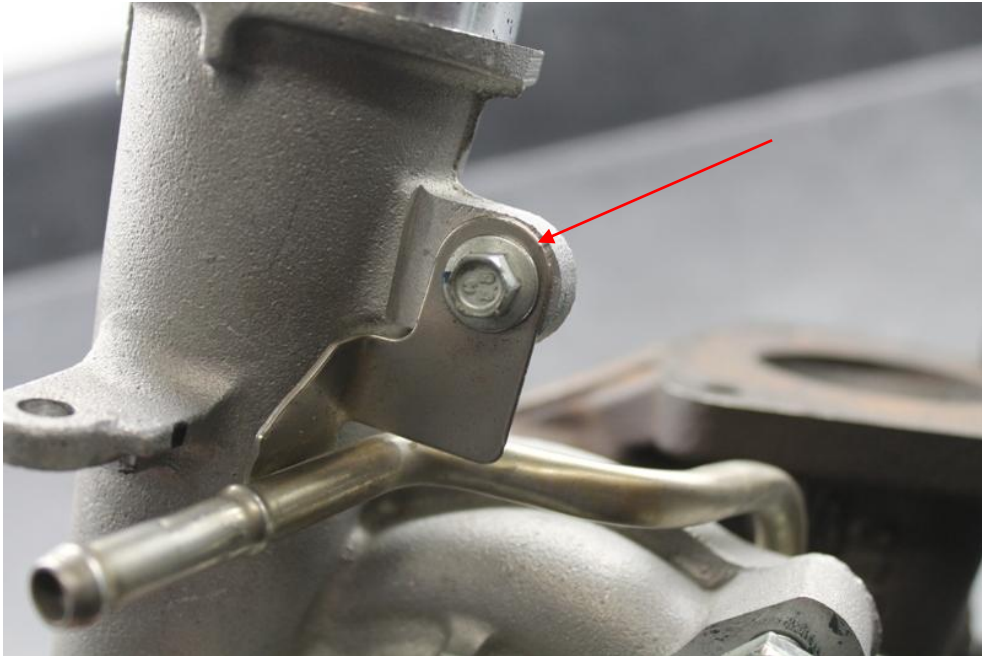
- These instructions are written assuming you have knowledge to remove the turbo from the car.
 - These instructions are to be used in conjunction with our complete front mount intercooler piping kit installation instructions for either [2007-2009](#) or [2010-2013](#) model years.
 - These instructions are written using an OEM turbo and should be similar for a BNR S1 turbo. The BNR S2 and S3 will reuse the waste gate actuator bracket supplied with the turbo.
 - Some improvising may be necessary for other big turbo applications.
1. Start by removing the vacuum line between the compressor housing and the waste gate actuator along with the two bolts that hold the actuator to the compressor housing.



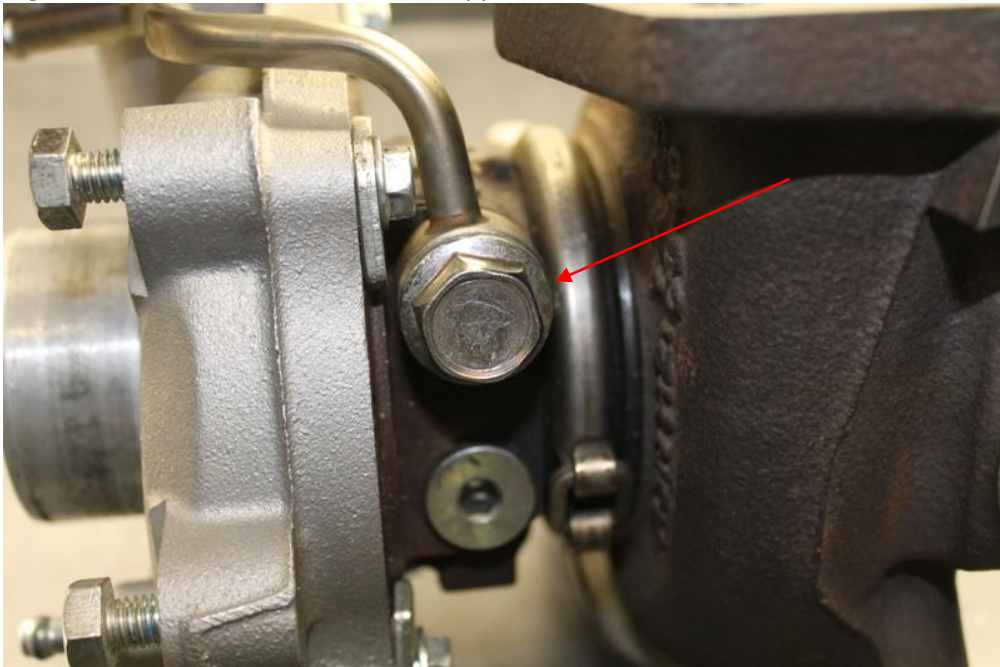
2. Using a pair of needle nose pliers remove the c-clip holding the actuator rod on to the waste gate pivot arm. Do not lose this clip.



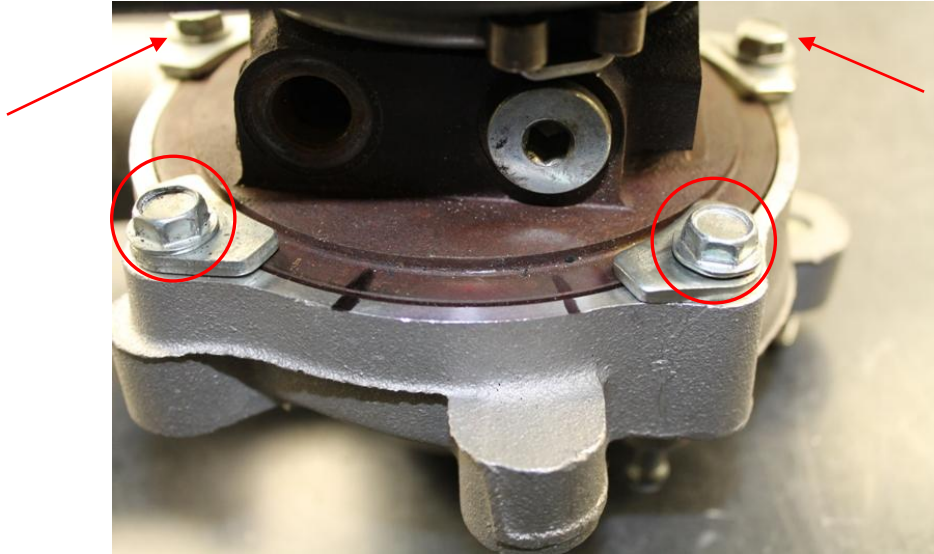
- Using an 8mm socket, remove the bolt securing the coolant hard line to the turbo outlet.



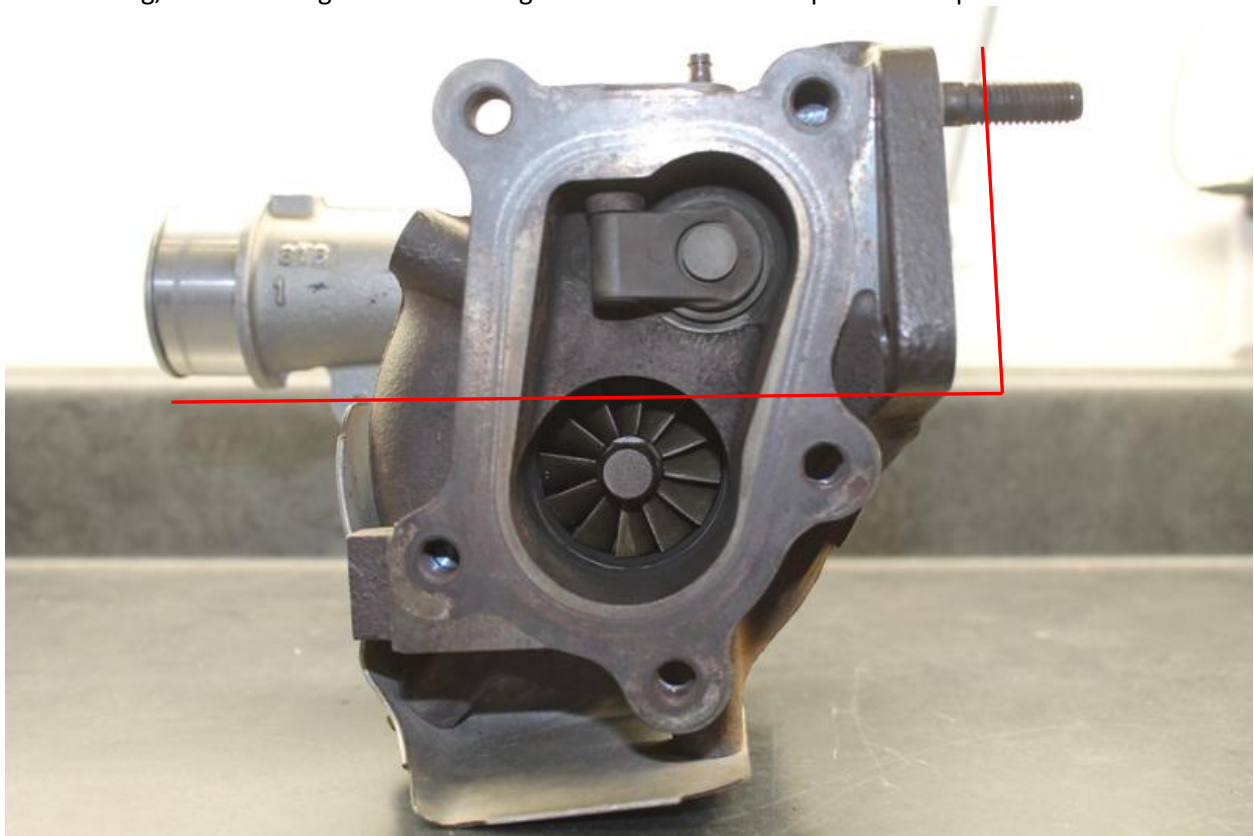
- Using a 17mm socket, remove both the upper and lower coolant hard lines from the turbo.



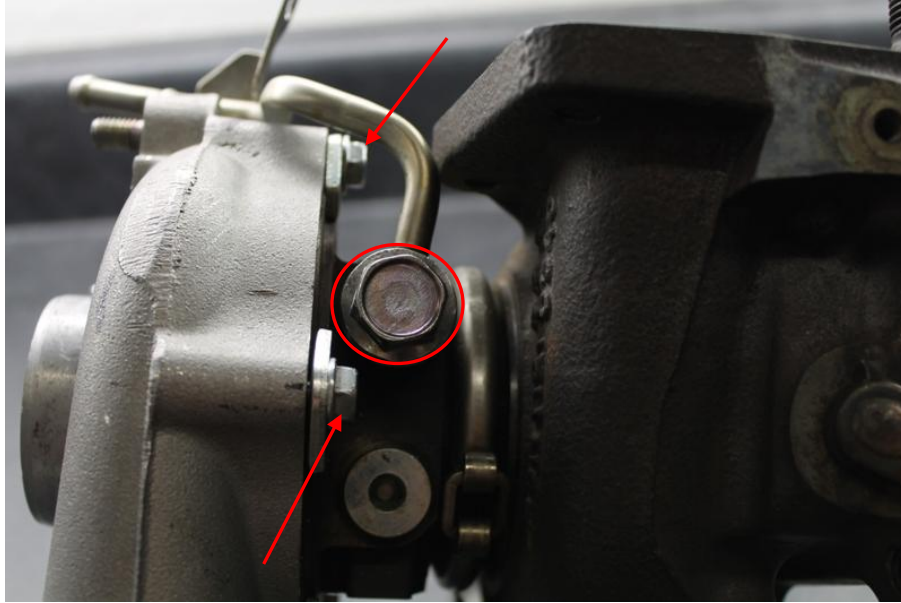
- Next, lay the turbo on its inlet and mark the two halves of the housing with a marker. Then, with a 10mm wrench, loosen all the bolts securing the two halves of the turbo.



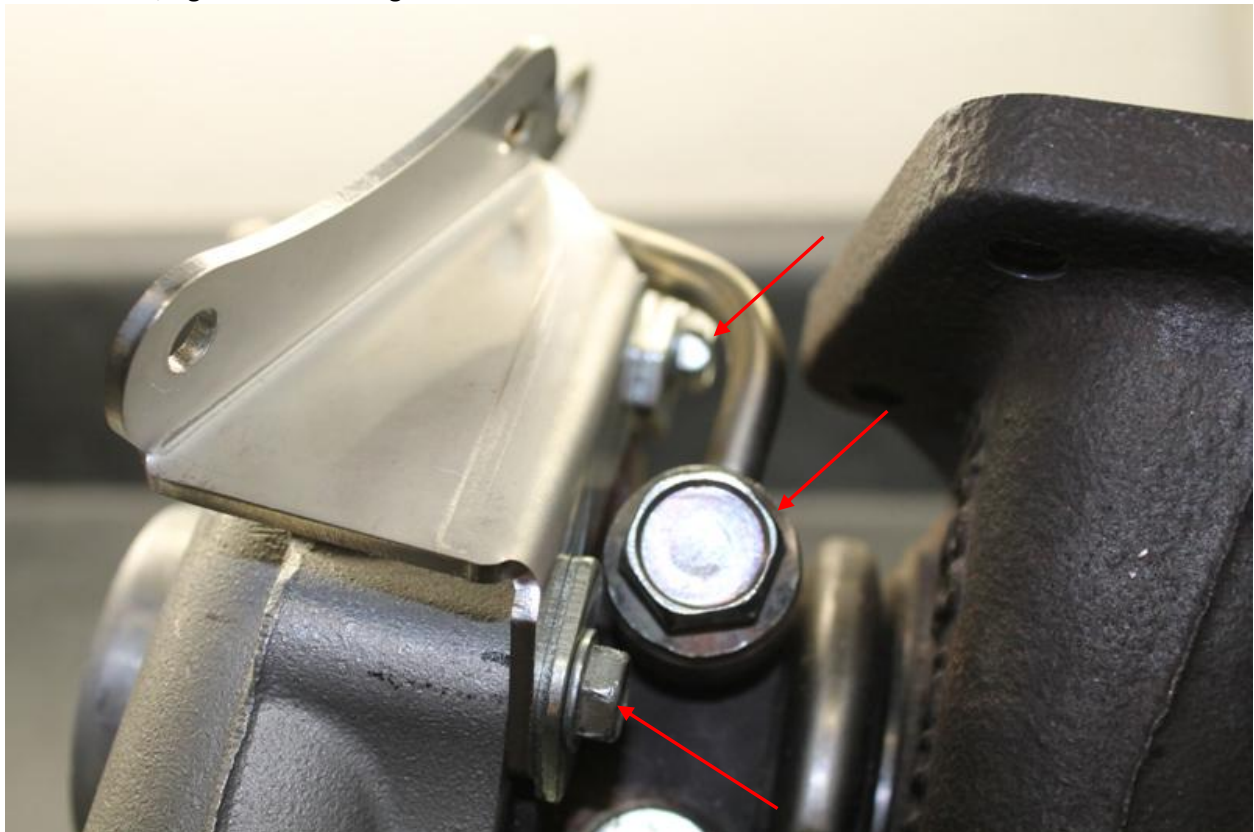
- Next, rotate the housing until the exhaust flange is just about 90° to the outlet of the turbo. Snug, but do not tighten all the flange bolts loosened in the previous step.



7. Loosely reinstall the coolant hard lines removed in step 4 and remove the 2 flange bolts shown below.



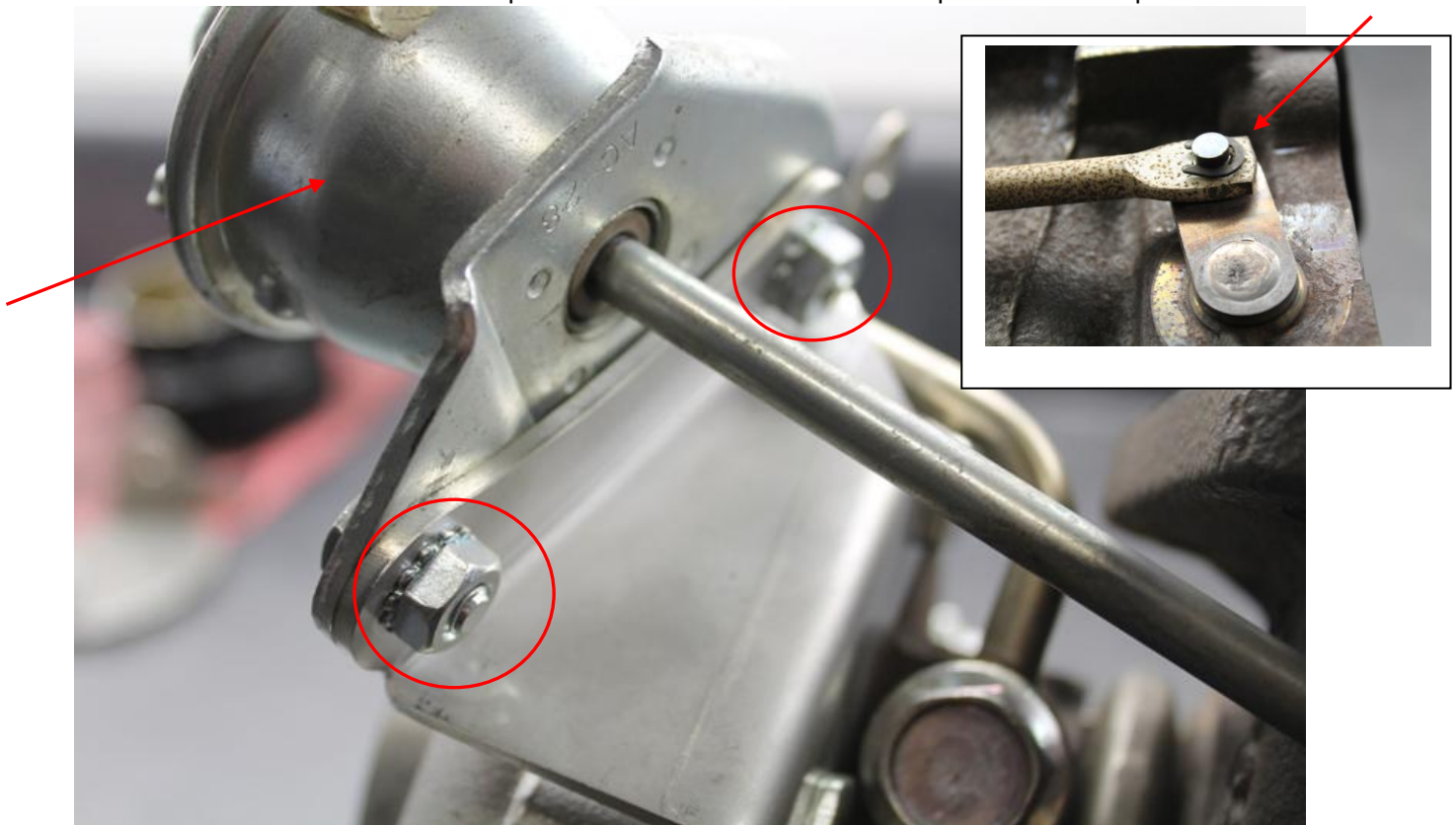
8. Install the waste gate actuator mounting bracket using the 2 bolts removed in the previous step. Then, tighten all the flange bolts as well as both coolant hard lines.



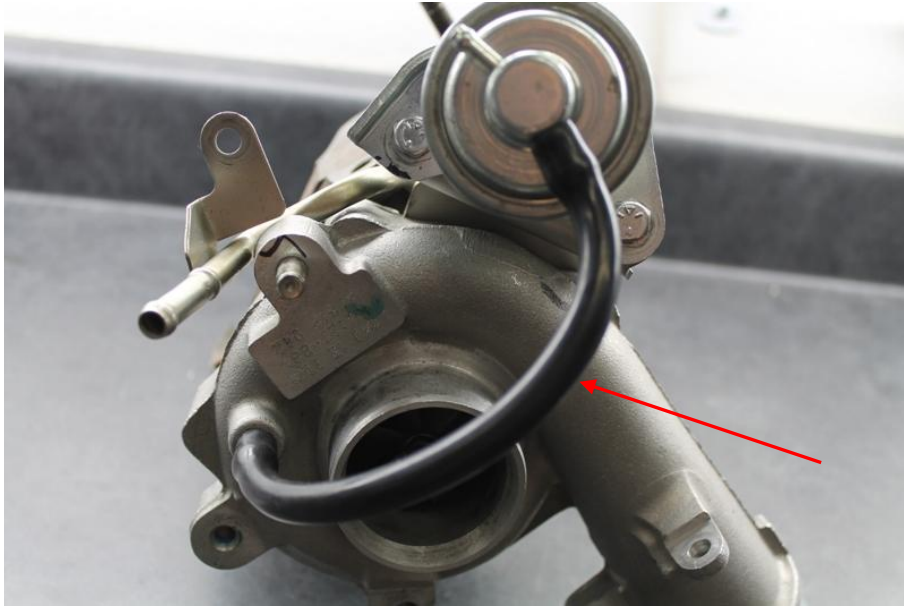
9. Place a very slight bend on the end of the actuator arm opposite the side that will attach to the waste gate.



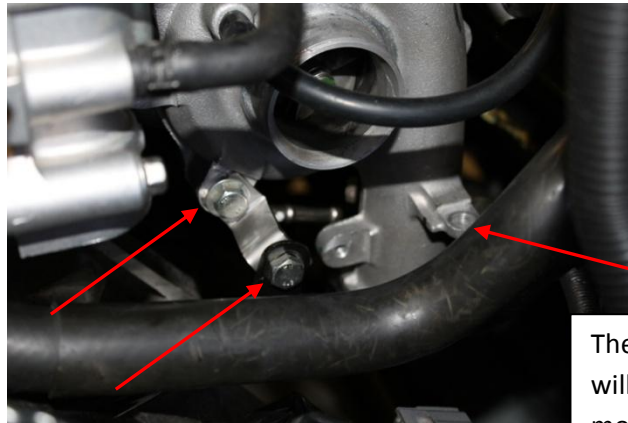
10. Using the two ¼-20 bolts and lock nuts supplied with your kit, install the waste gate actuator on to the bracket installed in step 8 and secure the arm with the c-clip removed in step 2.



11. Install a piece of the included vacuum line from the compressor housing to the actuator.



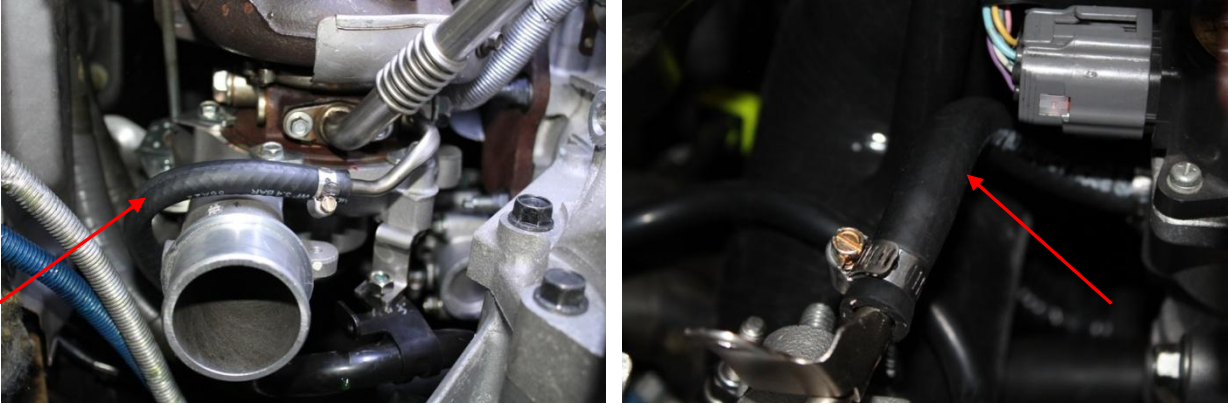
12. Now with the turbo installed back in the car, install the coolant pipe bracket on to the turbo using one of the actuator bolts removed in step 1.
13. Using the other actuator bolt removed in step 1 and the 8mm nut provided secure the factory coolant pipe bracket to the new bracket on the turbo and tighten both bolts with a 12mm socket and 12mm wrench.



The coolant return port from the turbo will now be located under this mounting tab on the OEM compressor and BNR S1 outlet.



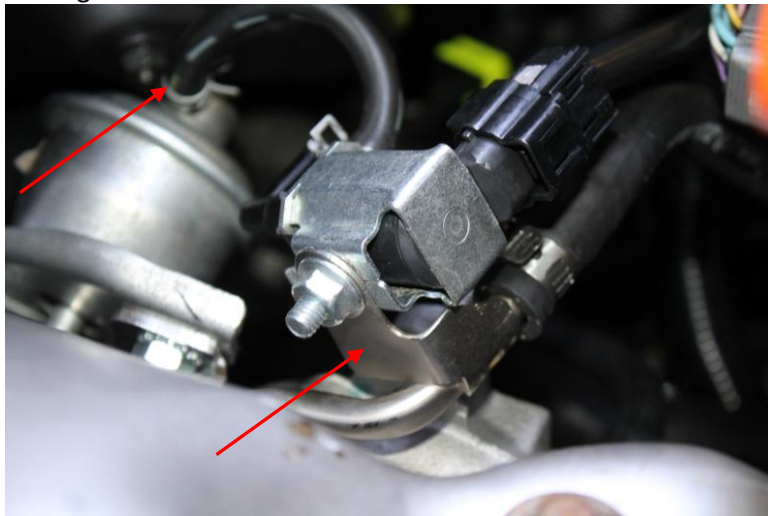
14. Using the provided coolant hose and hose clamps, extend the supply and return coolant hoses.



15. The heat shield that covers the actuator arm will need to be modified. (Optional) This can be done with a pair of tin snips and a half round file. Re-install heat shield, which is preferred or leave it off.

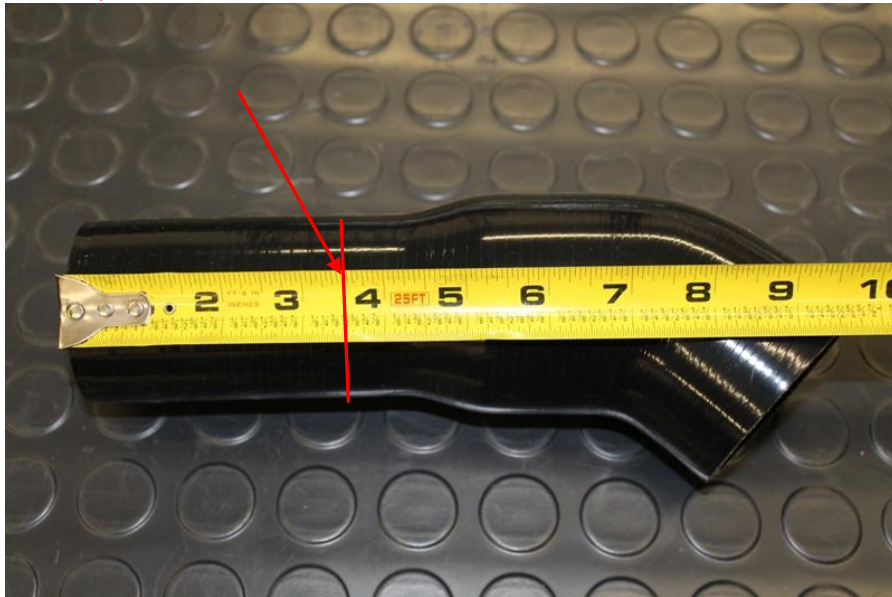


16. The OEM boost controller or any other boost controller can be attached to the upper coolant hard line mounting tab and the vacuum line re-attached to the actuator.



17. If you are performing this installation using the OEM turbo, you will need to cut the 3.5" off the 2" end of the turbo coupler using a razor knife with a NEW blade. Mark the coupler all the way around before cutting.

- For other turbo applications, you will need to begin the fit up by following the next several steps to determine how much should be cut off.



18. Install the turbo coupler on to the turbo using a 2.25" T-bolt clamp (68-60mm). Snug the clamp but do not tighten it.

- Spraying some WD-40 in to the couplers and on to the ends of the pipes will make fit up and adjusting the piping much easier for the subsequent steps.



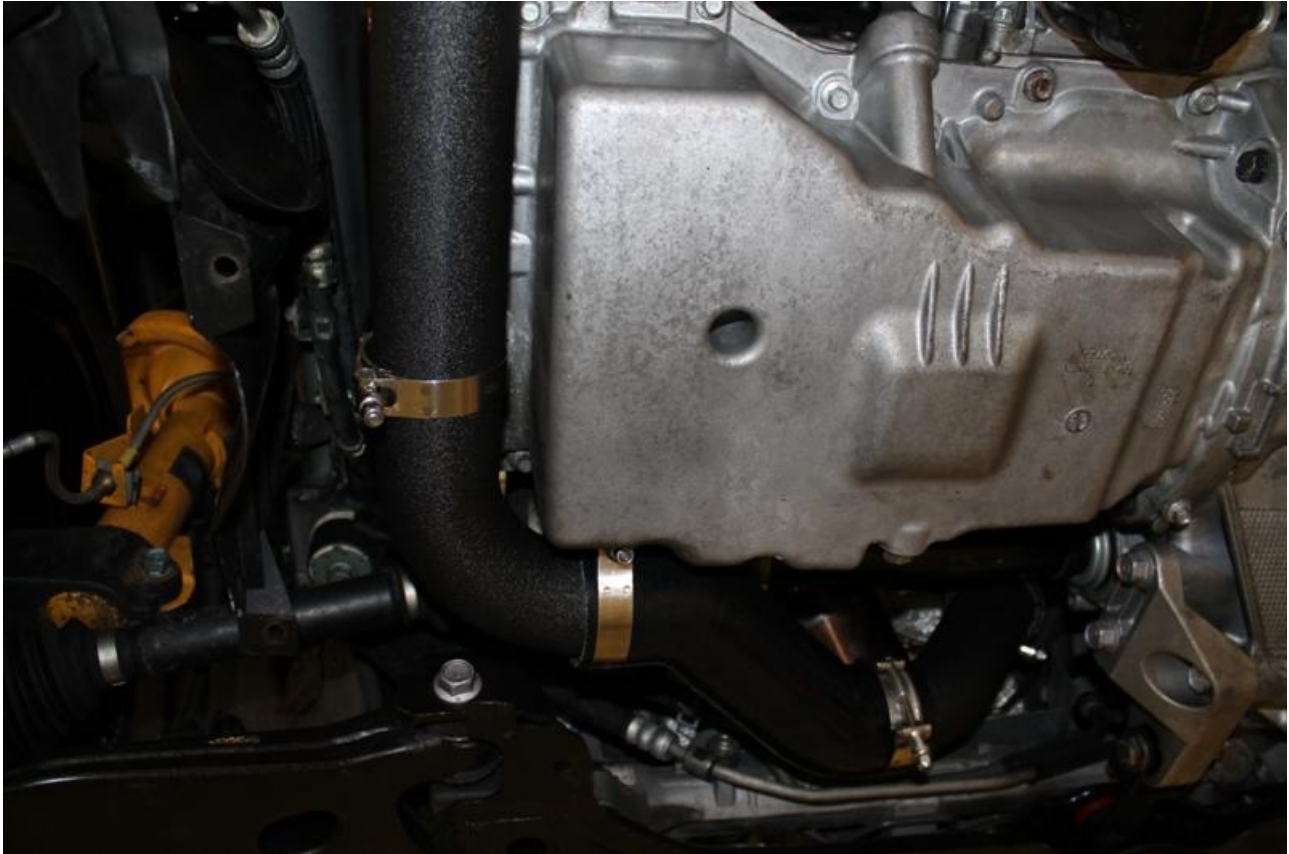
19. Install the long end of the aluminum 45° pipe using a 2.25" T-bolt clamp (75-67mm) in to the coupler installed in the previous step. Snug the clamp but do not tighten it.



20. Install one 6mm lock nut on to the stud located on the bottom of the timing cover.



21. Using one 2.5" T-bolt clamp, install the off-set coupler on to the aluminum 45° pipe installed in step 19. Snug the clamp but do not tighten it.
22. Carefully slip the T-bolt mounting clamp over the long aluminum 90° pipe.
23. Using another 2.5" T-bolt clamp, assemble the piping and slip the T-bolt mounting bracket over the stud as shown below. Snug only the clamps securing the couplers but do not tighten them.
24. Using the remaining 6mm lock nut, secure the mounting clamp on the stud of the timing cover.



25. Install the hot side core hose using two 2.5" T-bolt clamps. Snug but do not tighten the clamps.



26. Next, adjust the piping so that all the piping is tucked up neatly and fairly level. Then tighten all the T-bolt clamps.
27. Tighten the T-bolt mounting clamp to secure the 90° aluminum pipe.
28. Look over all the piping and couplers to ensure nothing is touching that can cause wear on the aluminum pipe or on the couplers and hoses.

Failure due to rubbing IS NOT covered under warranty

Follow these links for the cold side piping kit installation instructions for either [2007-2009](#) or [2010-2013](#).

Congratulations!!
You've just completed the installation of your new JBR Hot Side Under mounted Piping Kit!!

SHIPPING

All orders are carefully inspected and packaged prior to shipment. The recipient must inspect all shipments for damage and report any damage to the carrier and JAMES BARONE RACING immediately. JAMES BARONE RACING is not responsible for damage that occurs during shipping.

RETURNS:

All sales are final. JAMES BARONE RACING will only accept returns in the event of a manufacturer's defect. Defective items will be exchanged for the identical item or repaired at our discretion. Return shipping costs are the responsibility of the purchaser. An RMA # (Return to Manufacturer Authorization Number) must accompany all returns. In rare cases when a return is accepted, a 20% restocking fee will be deducted from the refund or credit. Shipping charges are non-refundable. No returns or exchanges will be accepted after 30 days.

DISCLAIMERS:

Failure to carefully follow the installation instructions for your JAMES BARONE RACING product could result in significant property damage, personal injury, injury to others or even death. Please take the time to read and thoroughly understand the instructions prior to installation. The instructions are as accurate as possible and may vary slightly from model year to model year. Professional installation is recommended.

Neither JAMES BARONE RACING nor any of its employees, officers, directors, or shareholders will accept responsibility for improper use or installation of our products. JAMES BARONE RACING is not responsible for the misuse, incorrect installation, or failure of any product we sell. Under no circumstances, including but not limited to negligence, will JAMES BARONE RACING be liable for special or consequential damages that result from the use or inability to use our products. JAMES BARONE RACING does not assume responsibility for any damage to the user, driver, passenger or vehicle resulting from the operation of a JAMES BARONE RACING product. PLEASE DRIVE RESPONSIBLY.

WARRANTY:

All JAMES BARONE RACING products carry a lifetime warranty to the original purchaser. Warranty is non-transferable. Supporting components, manufactured by companies other than James Barone Racing, carry the manufacturer's warranty. Warranty does not cover damage to coatings caused by exposure to the elements. Warranty does not cover damage or failure caused by abuse, misuse, faulty installation or repairs not conducted by JAMES BARONE RACING. JAMES BARONE RACING is not liable for consequential damages arising from the use of our products or any indirect damages resulting in the loss of property, revenue or costs for towing, removal, installation, or re-installation. To receive warranty service you must contact JAMES BARONE RACING to receive an RMA # (Return to Manufacturer Authorization Number) at which time you will be provided with instructions for returning the faulty product

CONTACT:

If you have questions or problems, e-mail us at jamesbaroneracing@gmail.com. Posting questions or problems in the forums or other social media outlets will only delay you from getting the correct answer or personalized attention from us.