



JAMES BARONE RACING AFTERMARKET PARTS AND ACCESSORIES

JBR 2010 – 2013 MAZDASPEED 3 Front Mount Intercooler Piping Kit and Crash Bar Installation Instructions

What you will need:

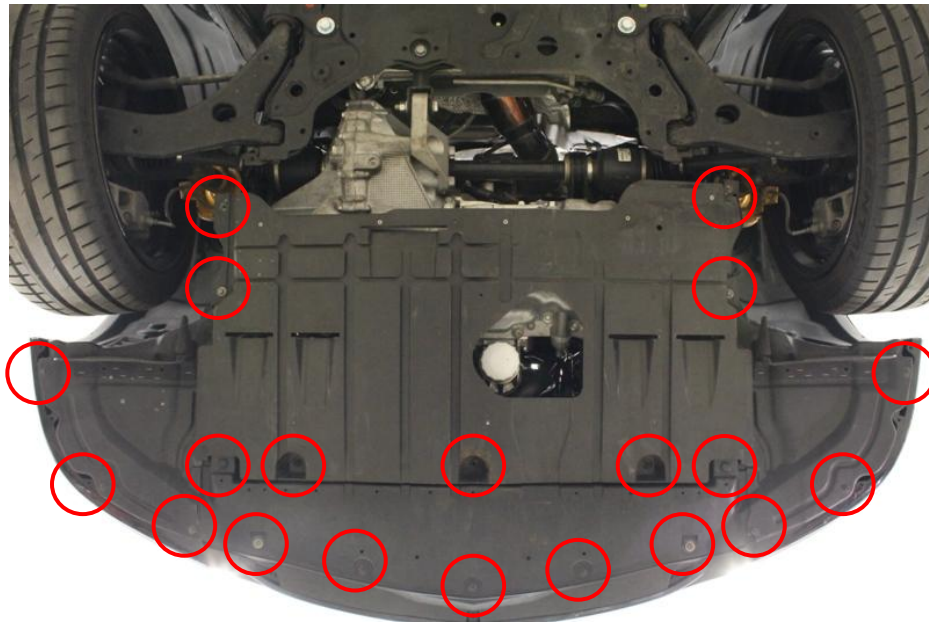
- Jack, Jack Stands, Ramps or a lift
- Ratchet wrench
- 6" socket extension
- 10mm, 12mm, 13mm, 14mm and 17mm socket
- 10mm, 12mm and 13mm wrench
- WD40 or grease
- Philips head screw driver

1. Begin by parking on a smooth level surface with the emergency brake engaged. Jack up the front of the vehicle and position jack stands underneath both sides.



**Refer to you vehicles owner's manual for proper jack placement and supporting procedures.
Never get under a vehicle without the proper support in place.**

2. Remove the belly pan and lower radiator cover using a 10mm socket and a philips head screw driver.



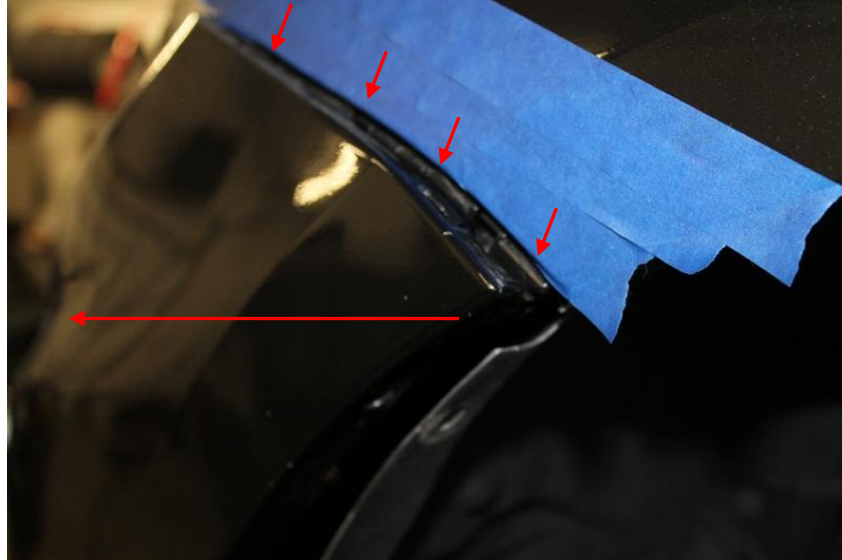
3. Remove the 3 push pins and 1 philips head screw on both the driver's side and passenger side fender liner.



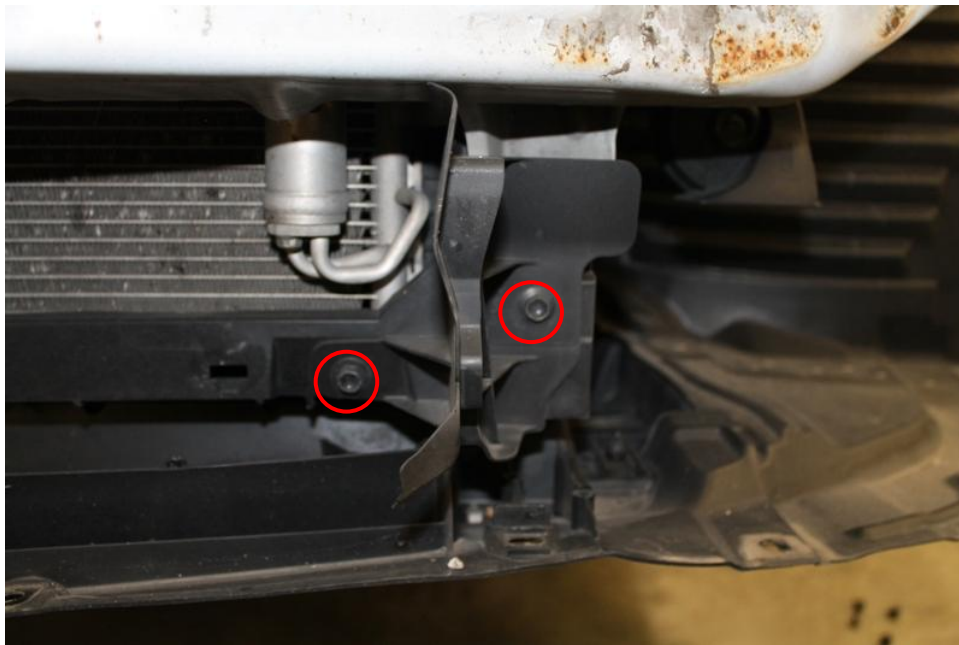
4. Remove two philips head bolts and all push pins securing the top portion of the bumper cover.



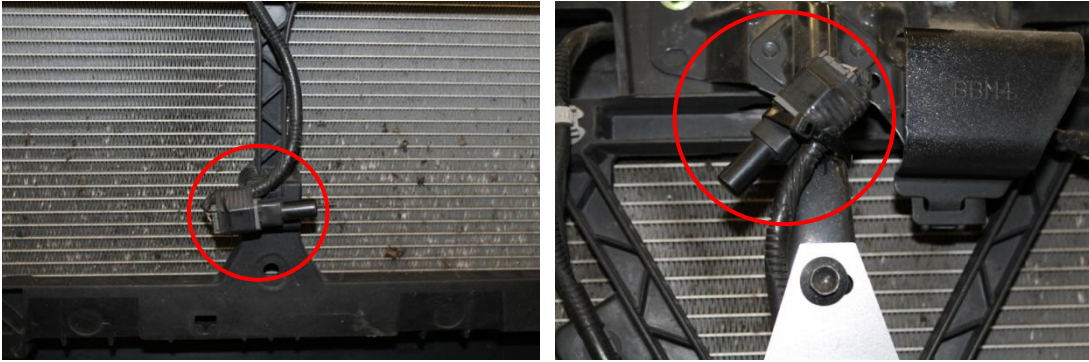
5. Unsnap the bumper cover out from under the fender on each side of the car. Once each side of the bumper is detached from the fender, remove the bumper slowly by pulling forward. Rotate the bumper cover towards the passenger side of the car and carefully lay it out of the way on a blanket.
 - Removing the wiring harness that runs along the front of the bumper cover to the fog lights makes storing the cover while working much easier. Painters tape will protect the fender during removal and reinstallation.



6. Using a 10mm socket remove the 2 bolts securing the radiator ducting on both sides of the radiator.

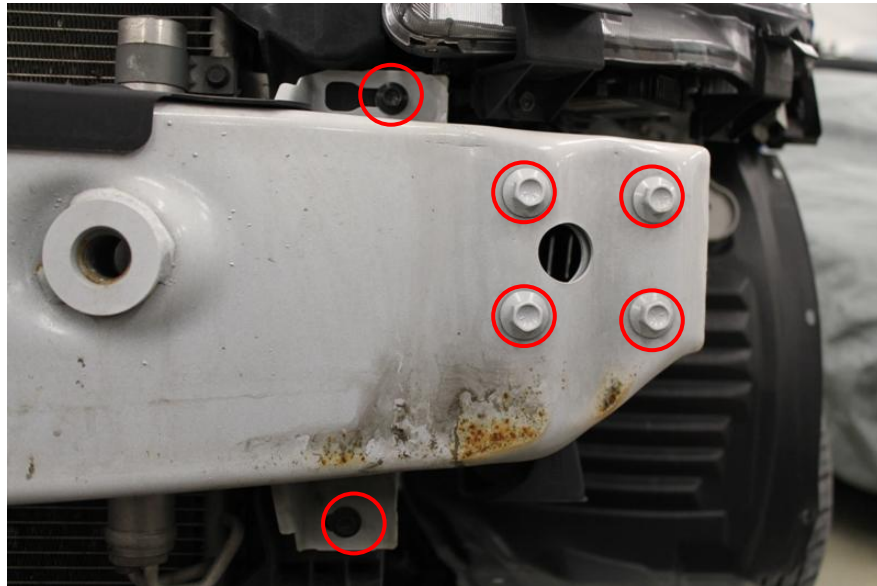


7. Remove the OEM Ambient temperature sensor from the lower portion of the radiator support and relocate it to the hood latch. Re-secure it with a zip tie or electrical tape.

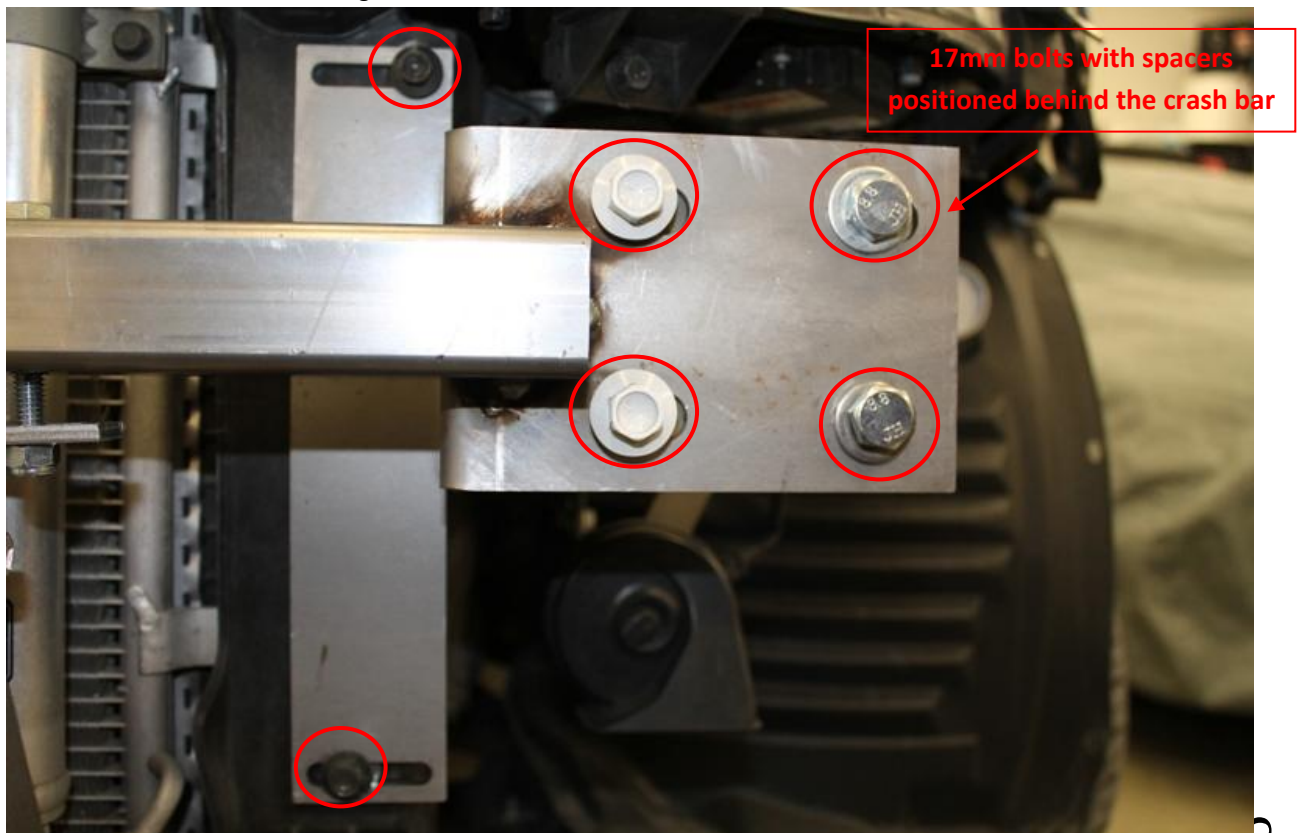


If you are installing your JBR FMIC Piping Kit using a Treadstone TR6 Core, click [HERE](#) for additional instructions.

8. Using a 14mm socket remove the 8 bolts securing the OEM crash bar; 4 on each side. Using a 10mm socket remove the 4 bolts attaching the crash bar to the radiator support; two on each side. Also, using a 10mm socket remove the bolt holding the crash bar to the hood latch bracket.

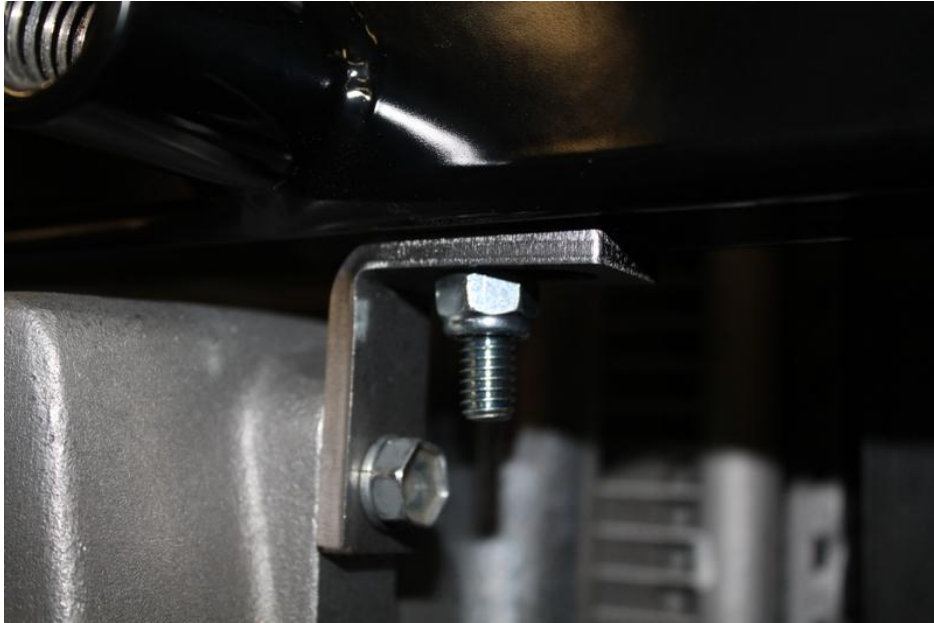


9. Next, install you new JBR Crash Bar and secure it with four of the 14mm bolts removed in step 8 and the four 10mm bolts also removed in step 8. Also use the four spacers and four 17mm bolts included with the kit to secure the crash bar. Tighten the 10mm bolts to 12ft/lbs and the 14m and 17mm to 45ft/lbs.

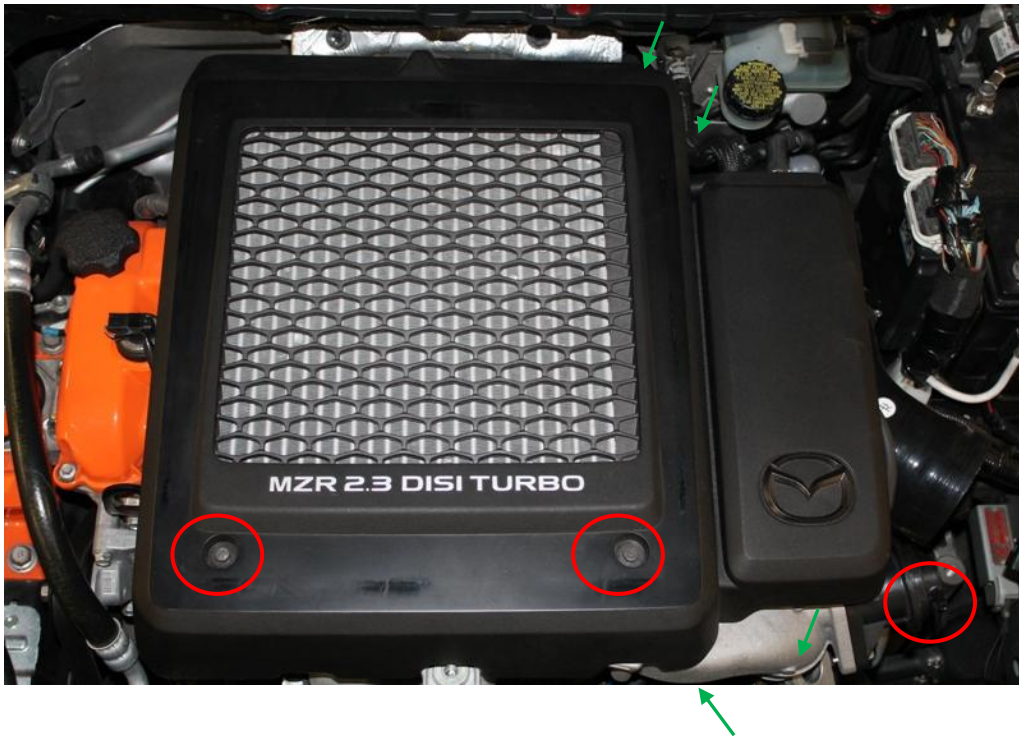


10. Next, install your intercooler using a 12mm and 13mm wrench, 13mm socket and the bolts and angle brackets provided.

- The TR8L will require new 3/8" holes to be drilled approximately 1" outboard of the existing holes.



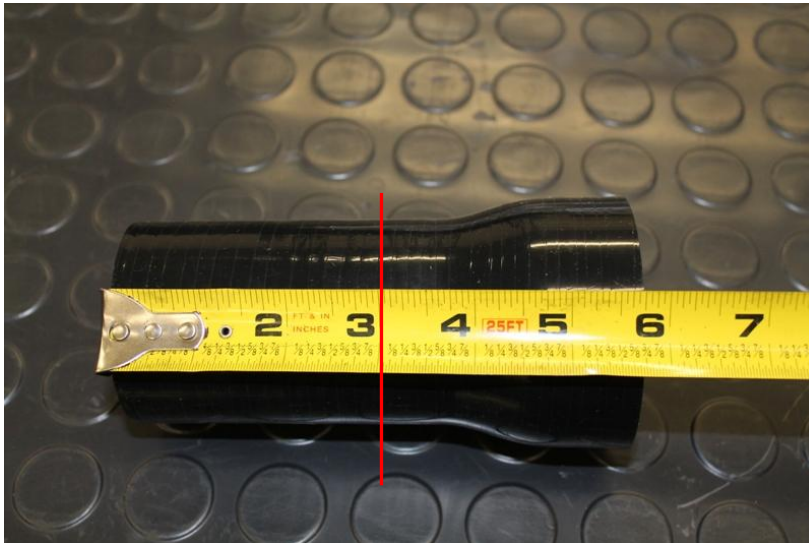
11. Remove the OEM top mounted **intercooler cover** using a 10mm socket. Use a 10mm socket to remove the **4 clamps** securing the hot side and cold side boost tubes. Use a pair of pliers and remove the clamp securing the bypass hose to the bypass valve. Use a pair of pliers to remove the clamp and the vacuum hose from the bypass valve. Use a 12mm socket to remove the intercooler.



12. Use a 10 mm socket to remove the bypass valve.



13. You will need to cut 3" off the 2" end of the turbo coupler using a razor knife with a new sharp blade. Mark the coupler all the way around before cutting.



14. Install the hot side reducer coupler on to the turbo using one 68/60mm T-bolt clamp and the 75/67mm T-bolt clamp. Tighten only the clamp on the turbo.
- The size of the clamps is stamped on the band of the clamp itself.



15. Assemble the hot side piping and 90 degree elbow as shown using two 75/67mm T-bolt clamps. Don't worry about getting the clamps too tight at this time. Adjustments will need to be made later.



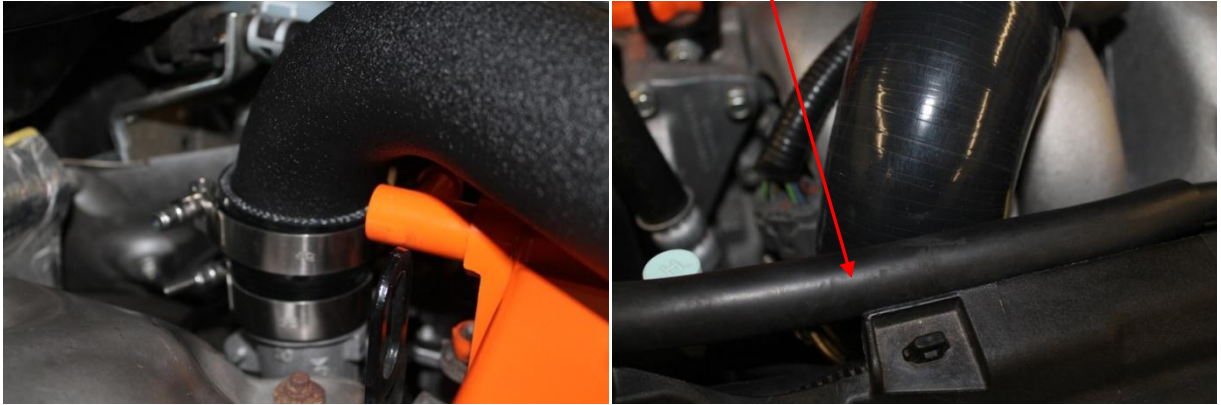
16. Disconnect the wiring harness from the intake manifold. Raise it up and over the stud that was used to secure the OEM top mount intercooler. It should now be located to the passenger side of the #1 intake runner.



17. Next, slightly bend the AC line towards the rear of the car. Bend it approximately $\frac{3}{4}$ ".

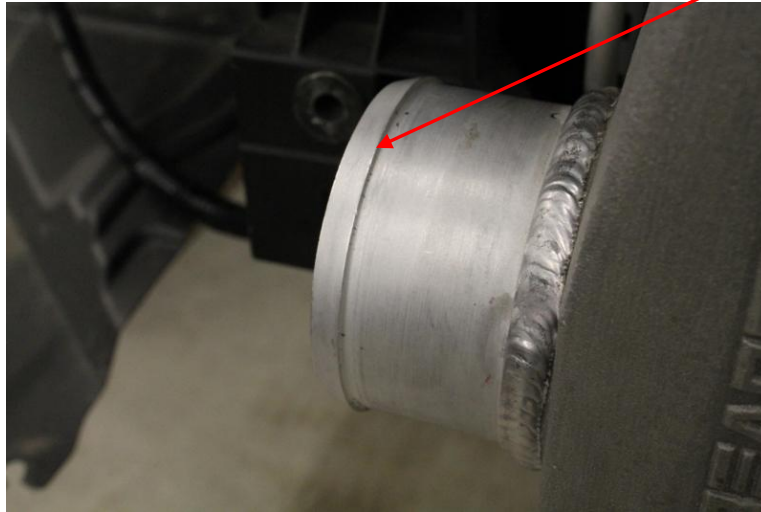


18. Install the hot side piping by dropping the polished pipe down in front of the radiator to the driver's side of the stud that secured the OEM intercooler. Slip the cross over pipe in to the coupler on the turbo. Do not tighten the clamp at the turbo yet. Raise the upper coolant hose running from the coolant reservoir to make room for the 90 degree elbow.



WARNING

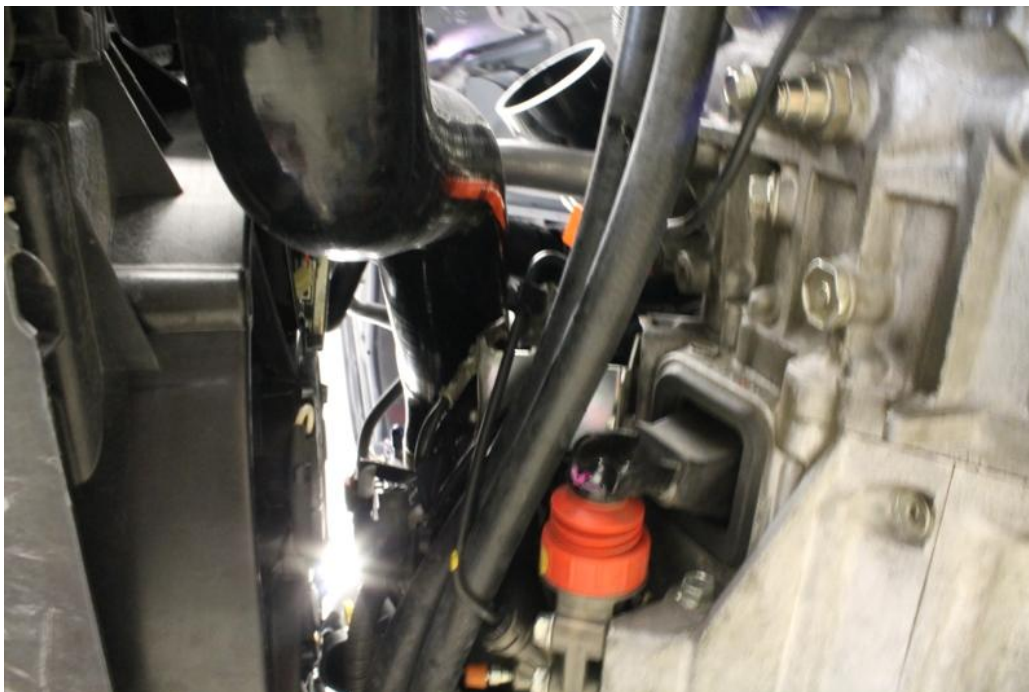
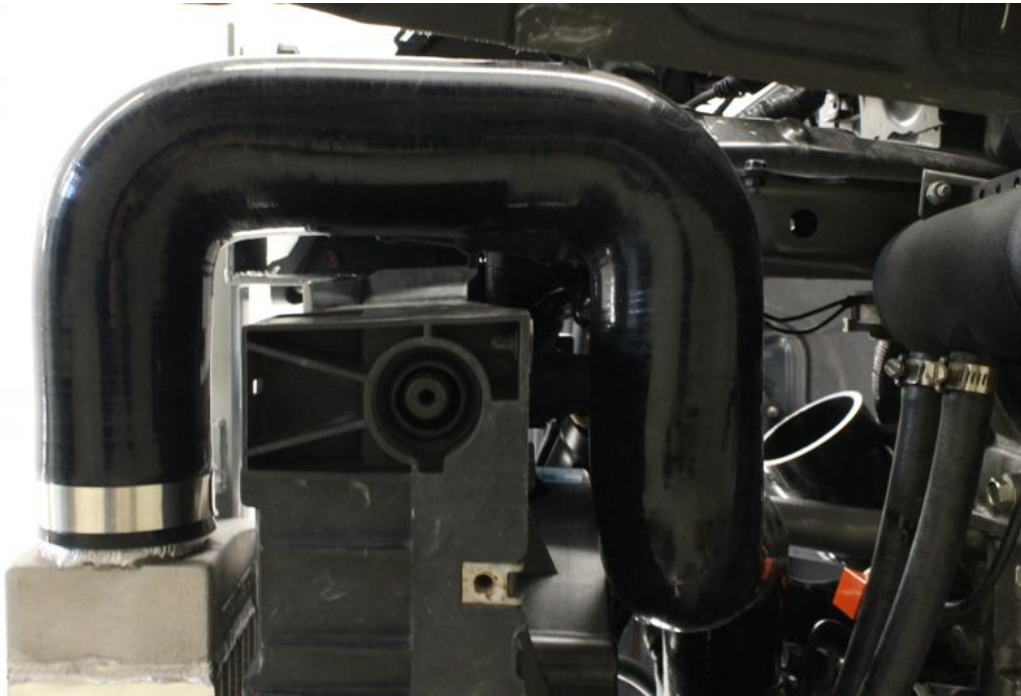
The inlet and outlet of the TR8 Cores we installed had very, very sharp bead rolls machined in to them. These will cut the inner layers of the silicone hoses if this is not addressed. Use a file to soften the inner edge of the bead roll.



19. Install the U-shaped silicone hose on to the intercooler and on to the polished hot pipe using two 75/67mm T-bolt clamps on each end. Do not tighten them yet.



20. Next, put a 75/67mm T-bolt clamp on the intercooler end of the cold side silicone hose and an 81/73mm T-bolt clamp on the throttle body end. Now, feed the cold side silicone hose up from below the car, under the upper radiator hose and on to the throttle body. Tighten the clamp on the throttle body and leave the clamp on the intercooler loose for now.

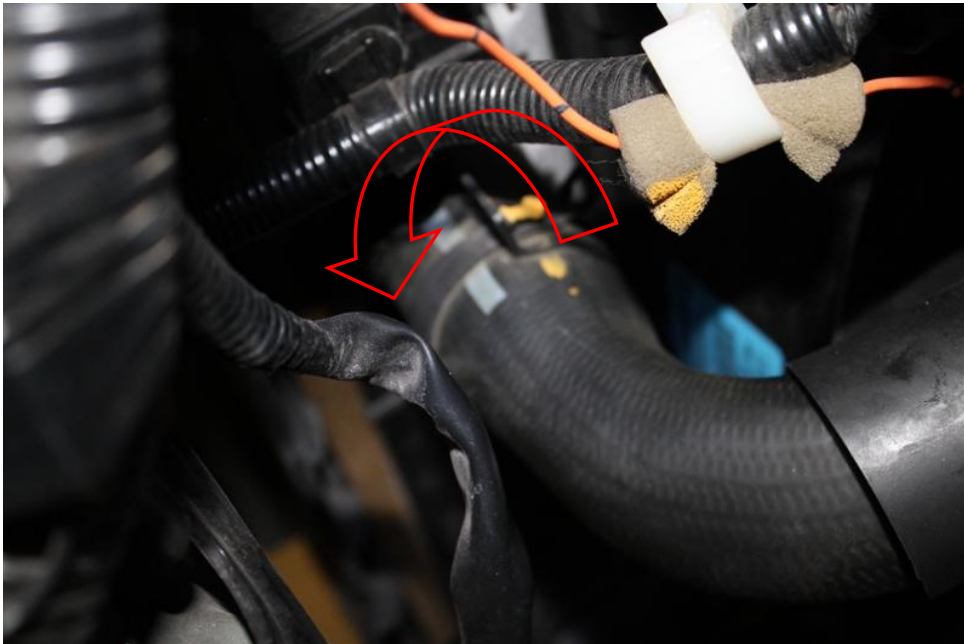


21. Now it's time to install the bypass flange adaptor. Put the shielded worm clamp over the BPV port. Lubricate the inside of the port along with the pipe on adaptor with some WD40, light motor oil, or grease. Insert the flange adaptor in to the port. Install your bypass valve on to the flange using the included 10mm bolts. Tighten the bypass valve to the flange with a 10mm wrench and 10mm socket. Twist the flange to align the valve with the bypass hose. Reattach the vacuum hose on to the bypass valve. Reattach the bypass hose and tighten the clamp securing the flange adaptor.

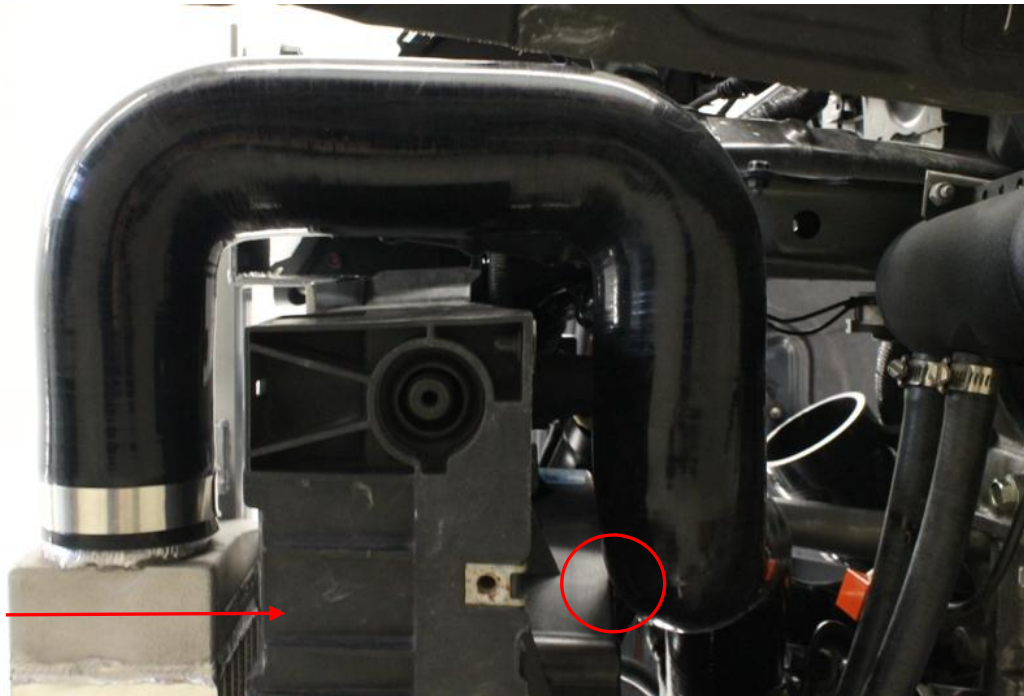


Now let's make some adjustments to ensure there is no rubbing of the silicone hoses.
Failure due to rubbing is NOT covered under warranty.

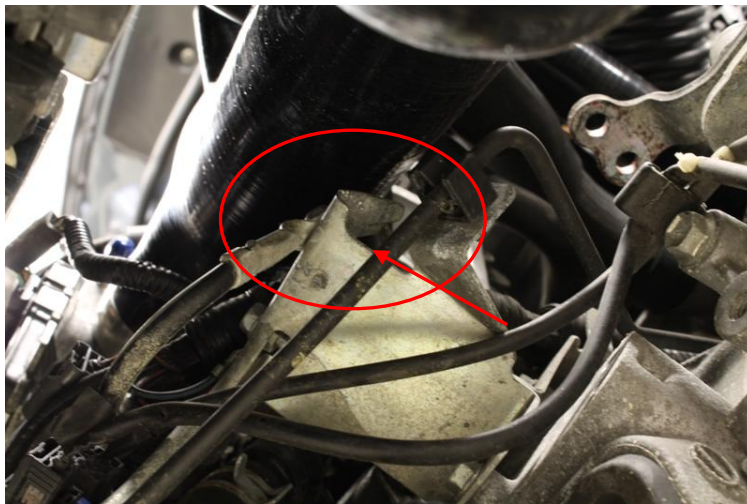
- If the upper radiator hose is pushing down on the cold side intercooler hose, loosen the clamp and rotate the engine side of the radiator hose counter clockwise. The radiator end can also be rotated counter clockwise so it no longer pushes down on the cold side hose.



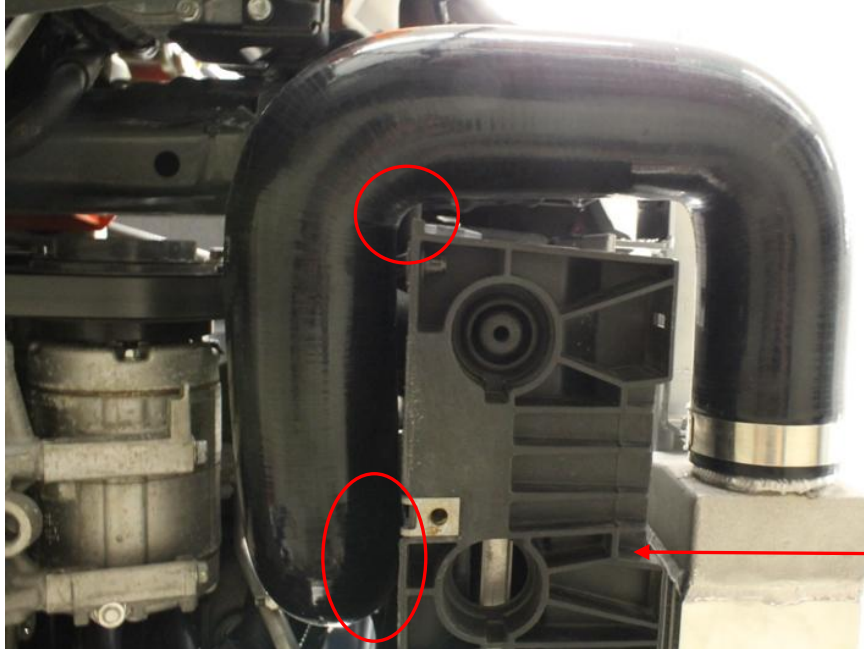
- The intercooler core can also be pivoted back a bit if necessary to make sure there is no contact. See the areas circled below for spots to check on the cold side.



- Bend the ground strap tab down if clearance here is an issue



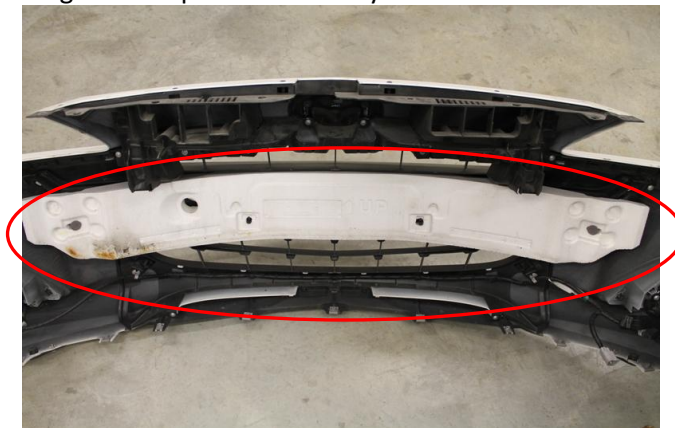
- . See the areas circled below for spots to check on the hot side.



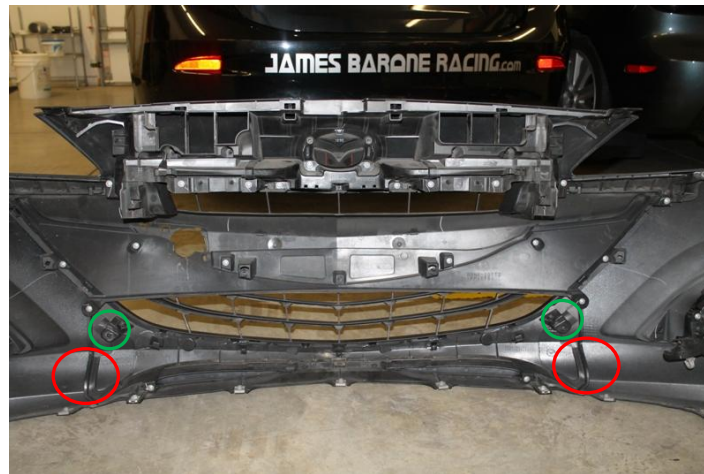
- The silicone core hoses can also be “Clocked” and then the clamps tightened to help with eliminating any points of contact.
- The polished down pipe can be slid further in to the silicone core hose and the 90 degree elbow to take up play.
- The crossover pipe can also be slid further in to the 90 degree elbow if needed.

It's very important to check the full length of all silicone hoses to make sure there is no contact.

Now that all the contact points have been mitigated, tighten all the T-bolt clamps.
Before reinstalling the bumper cover the styrofoam inner liner must be removed.



Dry fit the bumper cover and check the two areas circle in **red** below for clearance. If they are close or there is contact with the silicone hoses, the rib of the bracing must be removed. A razor knife or Dremel tool is perfect for this. There may also be some interference with the wiring harness in the areas circled in **green**. Unclip and remove the harness straps if this is an issue.



- Now that the bumper has been reinstalled it's again important to follow the entire route of the hot and cold piping with your hands to ensure there are no points of contact. It is the responsibility of the installer to ensure there is no rubbing of the silicone piping. If there is, it the responsibility of the installer to remedy any rubbing.

Failure due to rubbing IS NOT covered under warranty

- Reinstall the lower radiator cover and belly pan.

**Congratulations!! You've now completed the installation of
your new JBR Front Mount Intercooler**

Piping Kit and Crash Bar!!

Copyright © 2015 James Barone Racing LLC. Any unauthorized reproduction or publication of this document is a strictly prohibited without the written consent from James Barone Racing.

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 15% 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.