



CP Dual Chamber (V3) Air/Oil Separator Kit
2008 - 2014 WRX / 2007 - 2013 Forester XT with TMIC

S0699 Install Instructions

Item #	Qty	Description
S0701	1	Air/Oil Separator Unit for 08-14 WRX / 08+ STi with TMIC
H0470	40"	3/8" PCV Hose: from port #1 to PCV Nipple on back of Intake Manifold
H0470	20"	3/8" PCV Hose: from port #2 to PCV Nipple on Top of Block
H0478	43"	1/2" Ventilation Hose: from port #3 to White & Grey Intake Plug before Turbo
H0478	14"	1/2" Ventilation Hose: from Black Elbow / Grey & White Connector to Port #4 *WRX/FXT only
H0478	5"	1/2" Ventilation Hose: from port #4 to 1/2" Straight Fitting (STI only)
H0478	7"	1/2" Ventilation Hose: Intercooler Crossover Pipe Hose Extension (17+ STI only; Opt. 15-16)
F0343	1	1/2" Straight Fitting
C0265	13	S/S Worm Clamps for Hoses
O0613	2	O-Rings for AOS bracket bolts
B2034	1	AOS Mounting Bolt *WRX/FXT only
W0921	3	Bolt spacing washers *WRX/FXT only
P0201	1	Firewall Plug for Sound Generator (STI Only)
P0202	1	Intake Plug for Sound Generator (STI Only)
Z0108	4	8" Zip Ties

[Click here for Install Video](#)





Estimated Install Time: 2 hours

Install Difficulty: 4/10

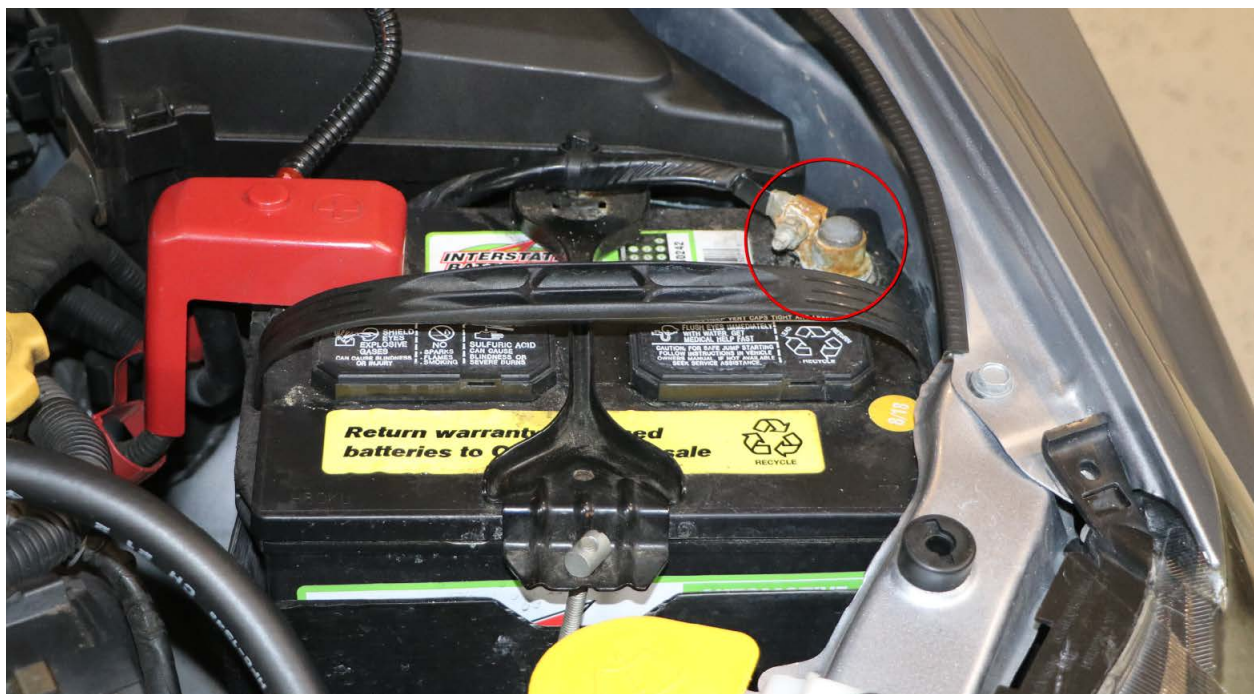
Tools Needed:



- 10mm Wrench
- 12mm Wrench (Ratcheting Recommended)
- Flathead Screwdriver
- Ratchet
- Socket Extender
- 8mm & 12mm Sockets
- Pliers
- Flush Cuts

Step by Step:

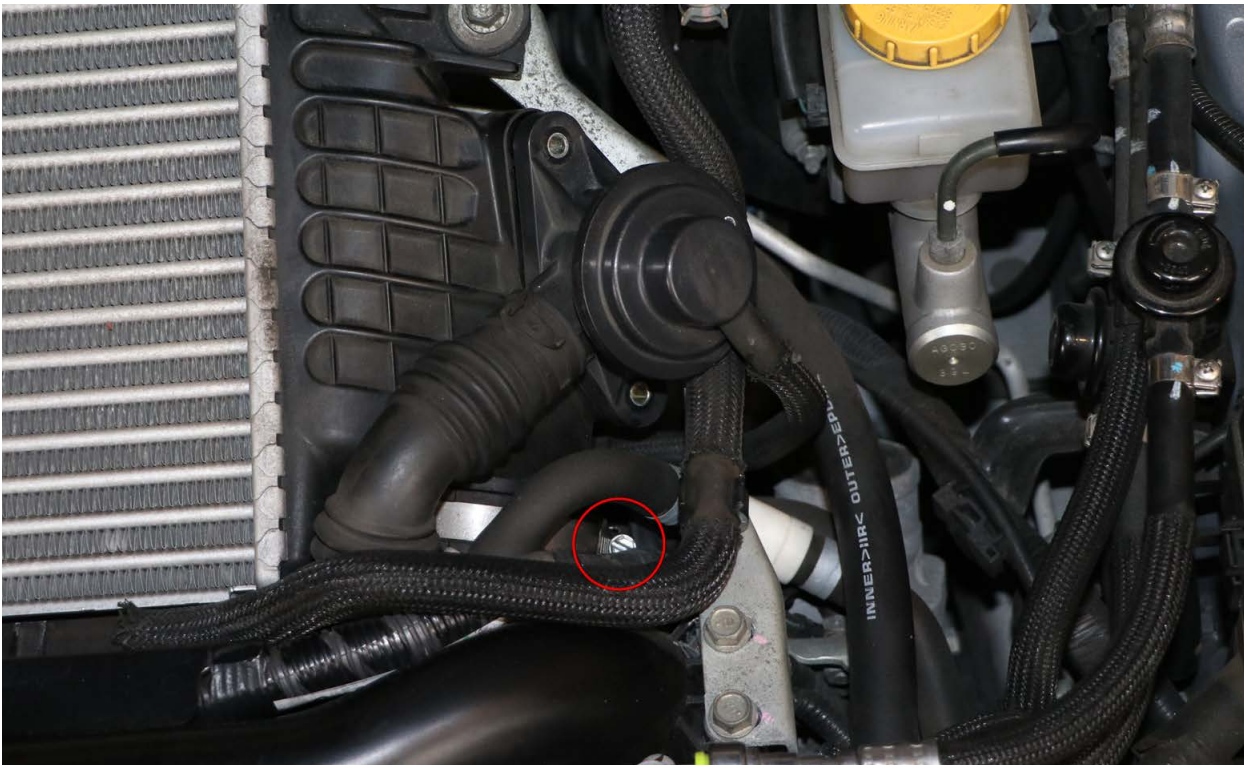
1. Disconnect Ground (-) on Battery using a 10mm wrench.



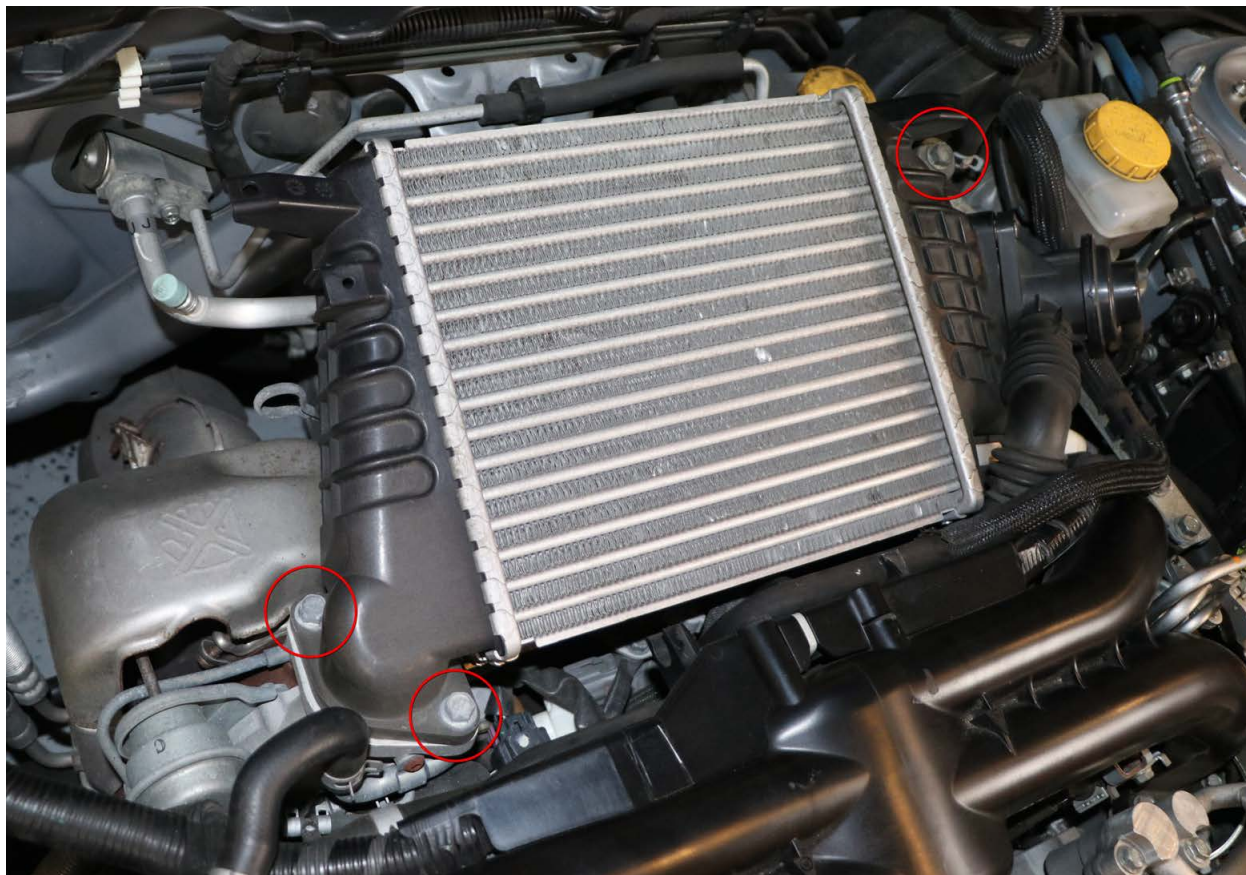
2. Remove 2 Recirculation Valve (BOV) Bolts using a 10mm Socket and Ratchet. Start with tool and finish with fingers, that way you do not drop the bolts.



3. Loosen Throttle Body Clamp with Flathead Screwdriver.



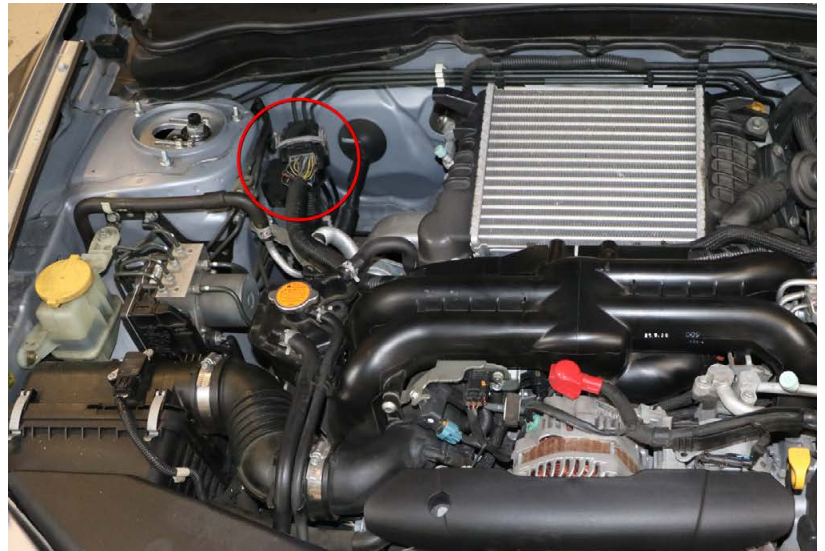
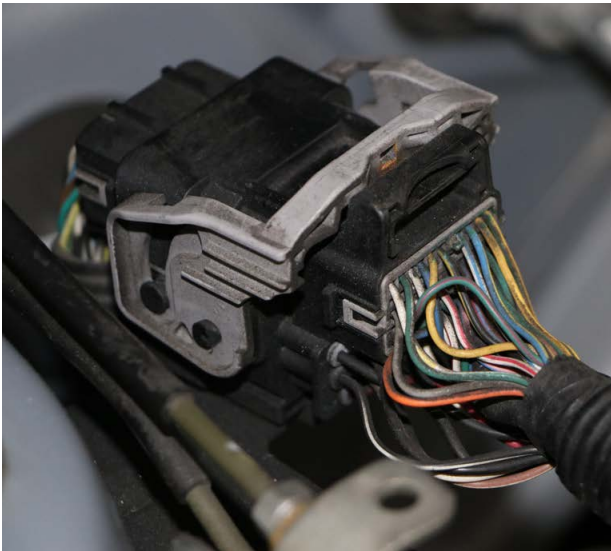
4. Remove 3 Intercooler Mounting Bolts from Intercooler Bracket and Turbo Inlet, using a 12mm Socket and Ratchet.



5. Grab the Intercooler with your hands on either side, and rock out of throttle body.



6. Disconnect Main Harness



a. Release Main Harness Connector from Bracket by pulling down on tab underneath, and sliding connector off of its mount.



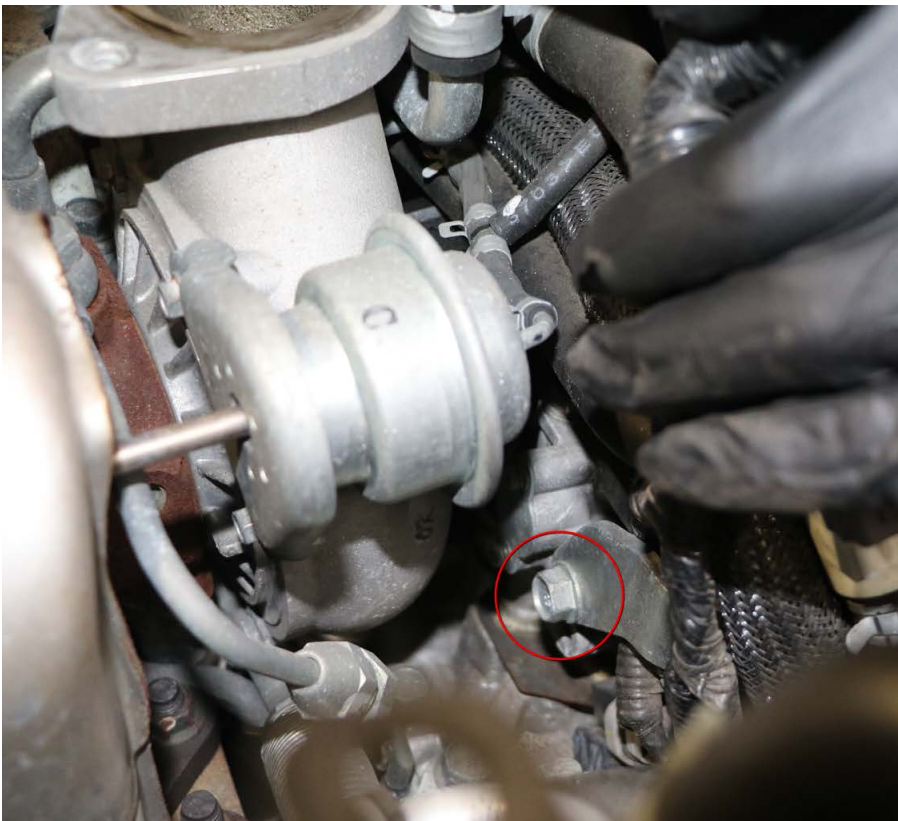
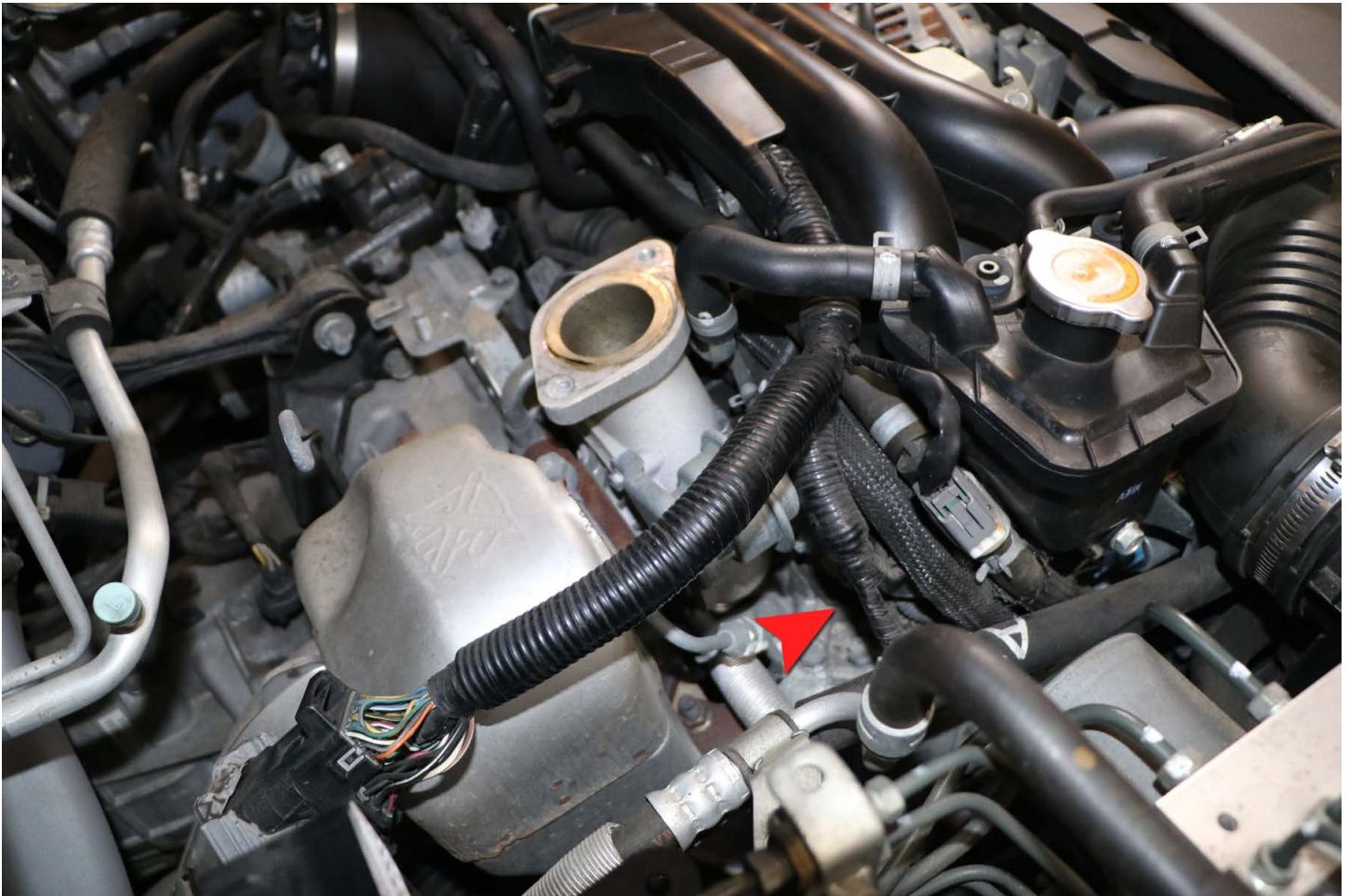
b. Push down on black tab and flip up grey lock.



c. Pull Connector apart.



7. Locate Bolt behind Intake Manifold. First, break the bolt loose with a 12mm Socket and Ratchet.



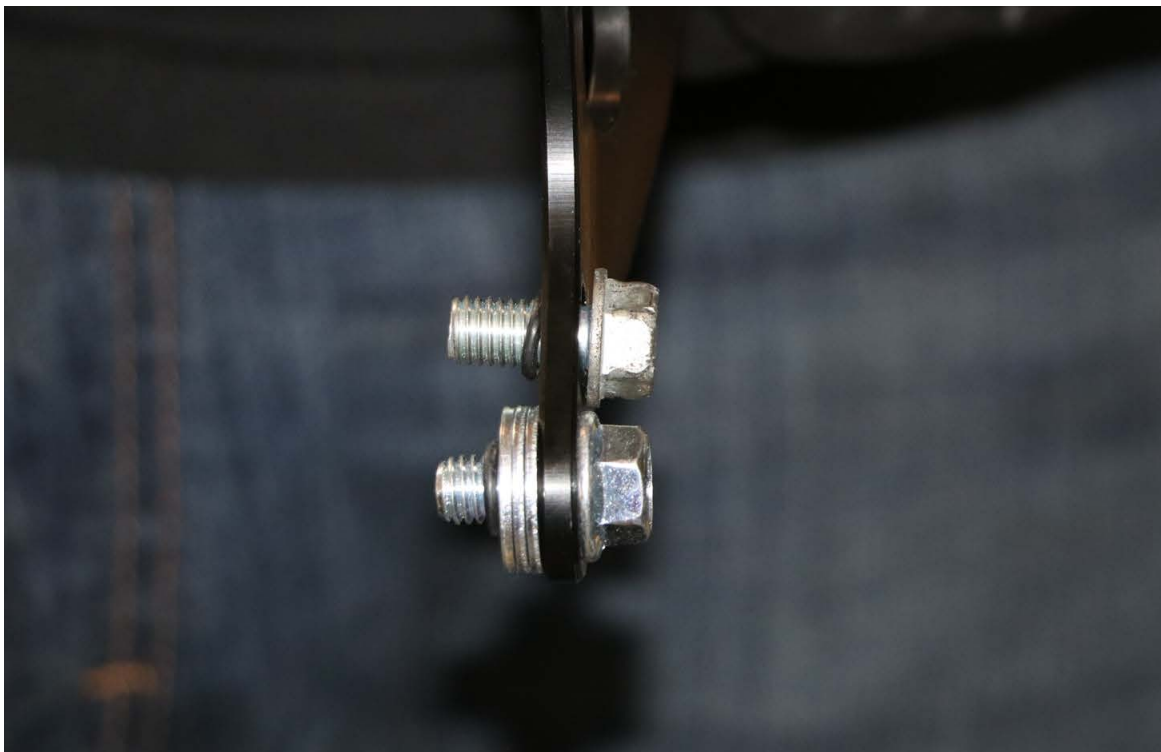
Then, remove Bolt with a 12mm Ratcheting Wrench. You can use the Socket/Ratchet, but it may bind against the oil line.

You will be reusing this bolt in the next step.

8. Place the bolt removed in the last step in the top hole shown, and the supplied bolt in your kit into the bottom hole. Threads should be facing the Crawford logo.



Place the 3 supplied washers on the bottom bolt, then secure both bolts with the supplied o-rings to keep them in place while mounting the canister.



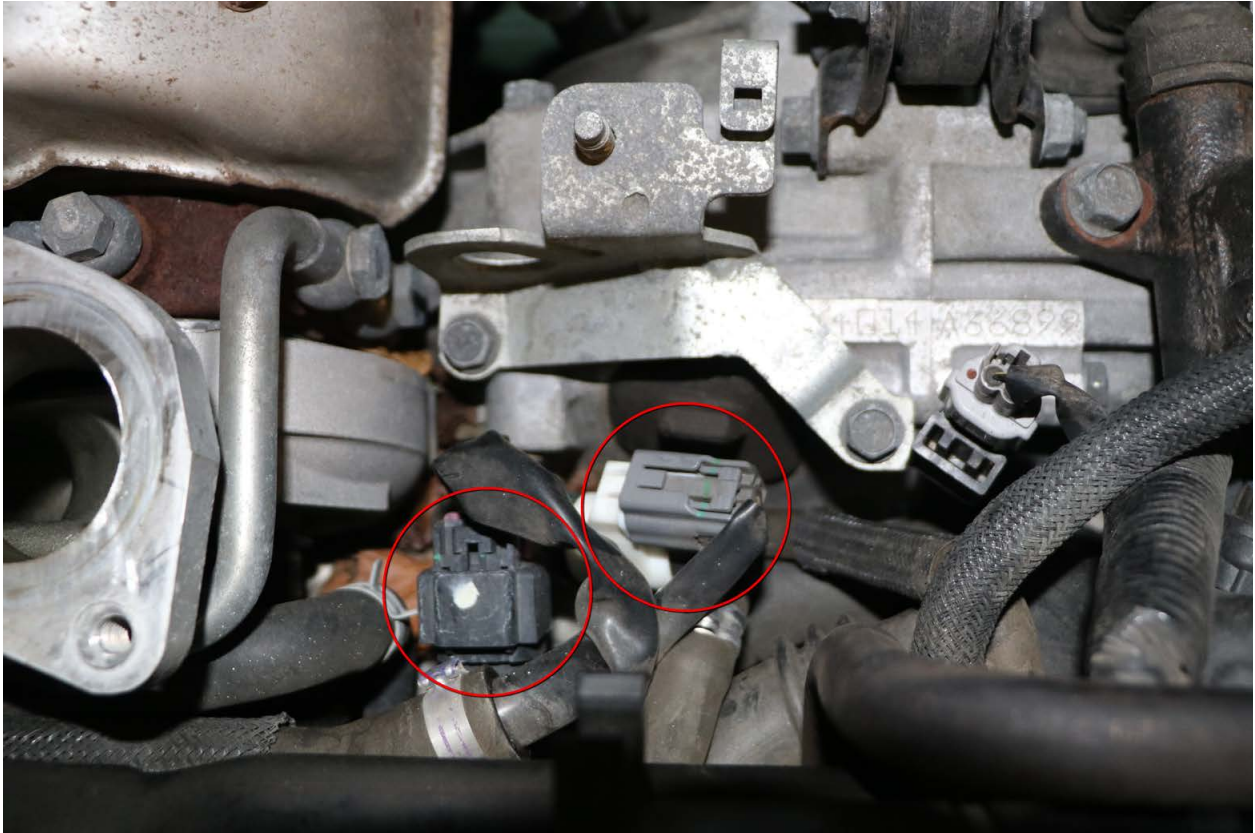
9. Using pliers, open up and turn clip away from the engine. This will avoid scratching your AOS during mounting.



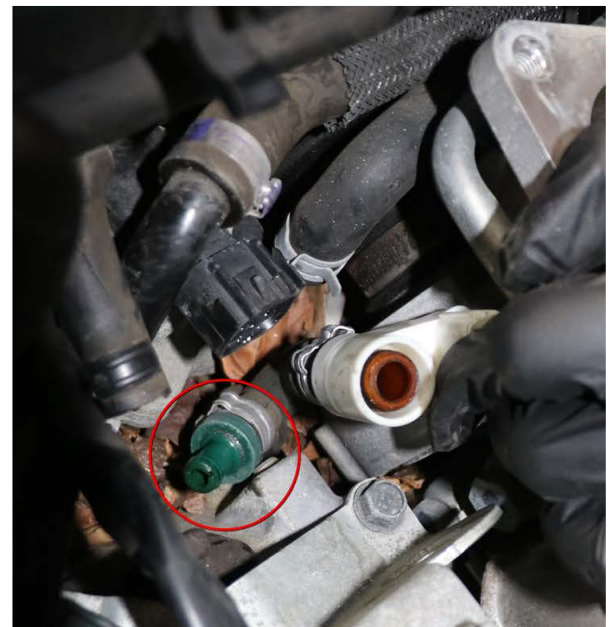
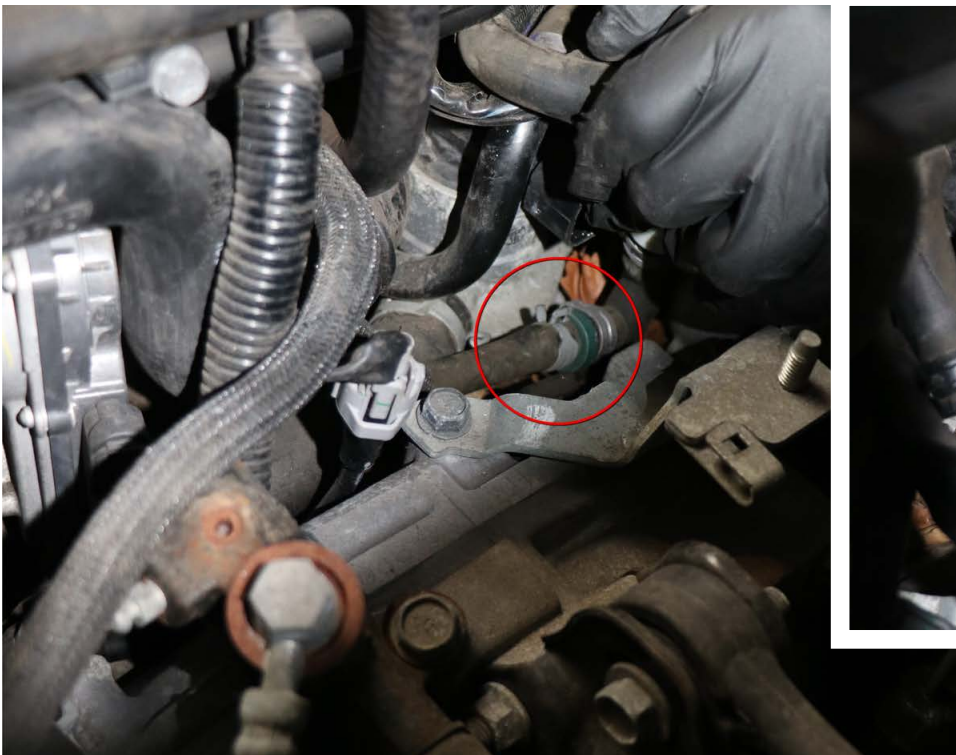
10. Mount the AOS behind the coolant reservoir, and line up the removed bolt to its original location. Finger tighten each bolt to get the threads started, then tighten using a 12mm ratcheting wrench.



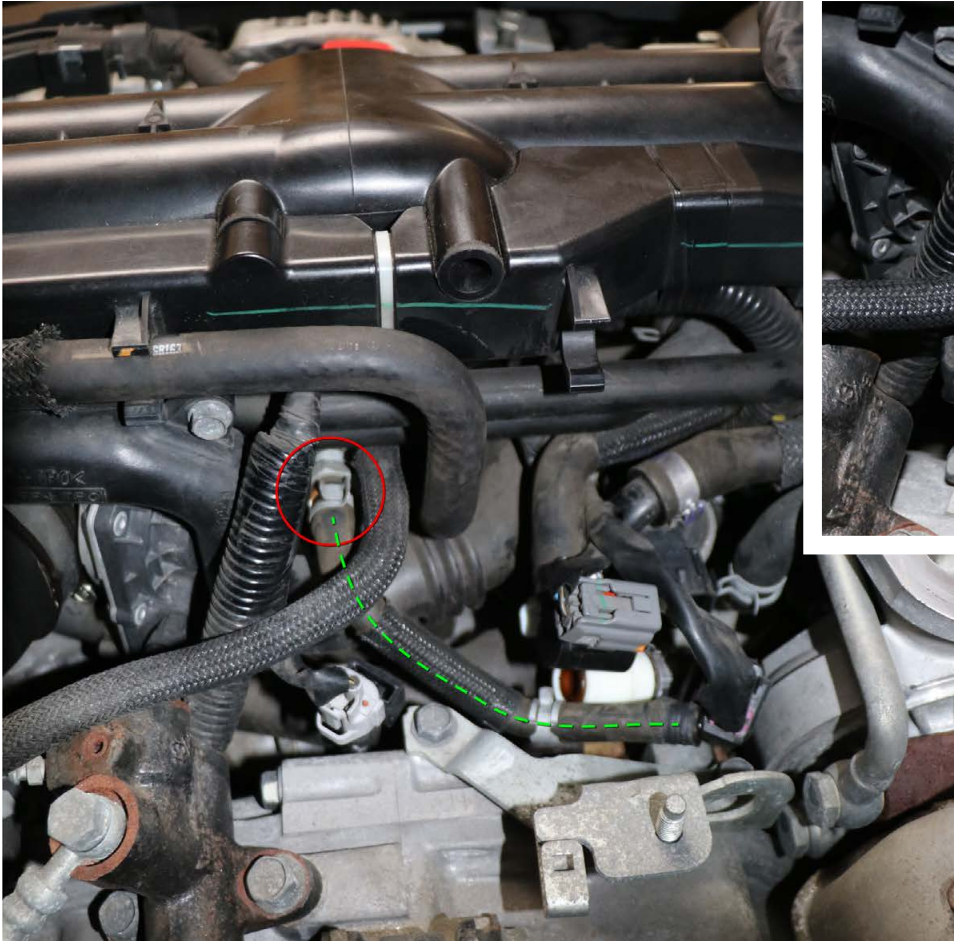
11. Behind the Intake Manifold on top of the block, locate and disconnect the 2 plugs circled below. Push down tabs and pull apart.



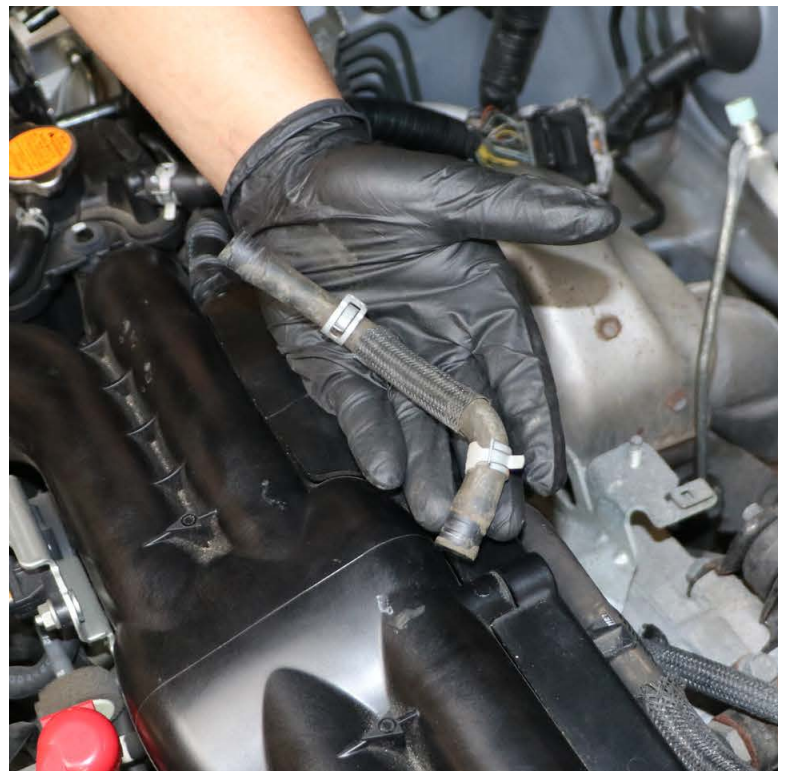
12. Locate the PCV Hose Port on top of the block beneath the plugs. Use pliers to open the clamp and pull away from the port. Pull hose off port.



13. Follow the hose to the other end, and repeat moving the clamp and pulling off the hose from the port on the back of the intake manifold.



This hose will not be reinstalled. We recommend storing it in case you ever need to revert your vehicle back to stock.



14. Locate the grey plug disconnected in step 11. Use a flathead screwdriver underneath the grey plug to disconnect it from the attached black elbow fitting.



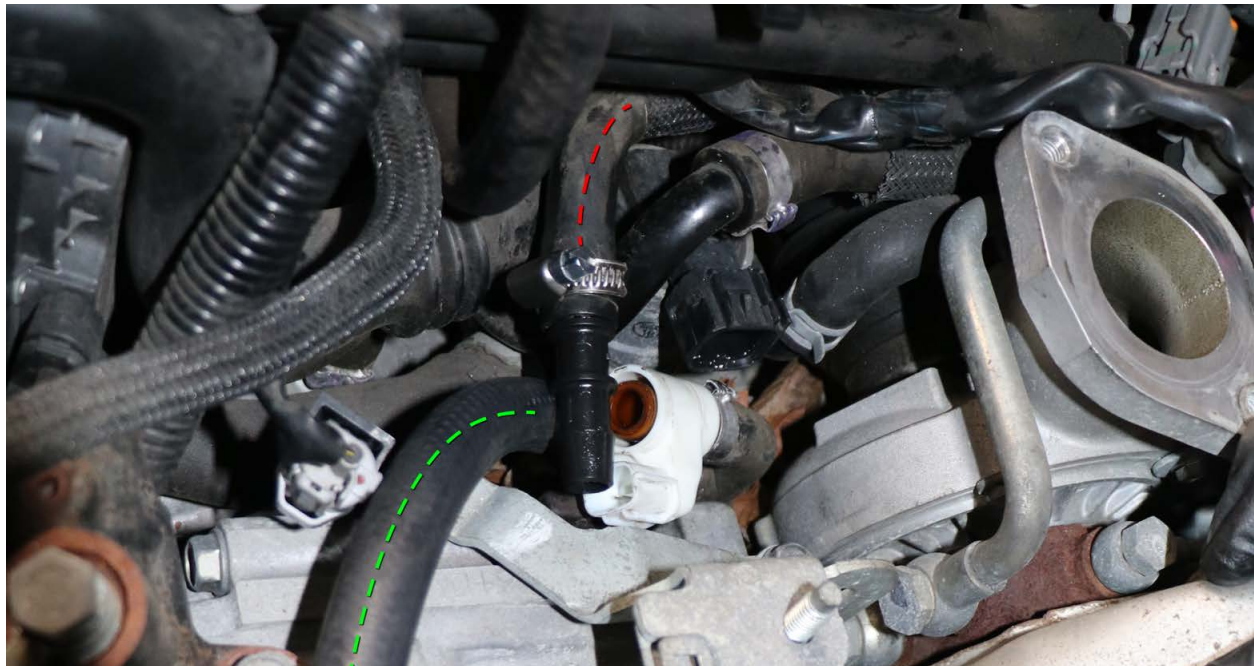
15. Remove the black side of the connector from the hose by releasing the locking clamp on the hose with a flathead screwdriver, and pulling out the connector.



- 16.** Locate the open green PCV port on top of the block.
Grab the supplied 20" 3/8 PCV hose and a worm clamp from your kit.
Place the clamp over the end of the hose, and push hose onto the port. Use grease to aid if necessary.
Slide clamp to the end of the hose, and tighten using a flathead screwdriver. Check that it is tight enough that you cannot pull the hose off the port by hand.

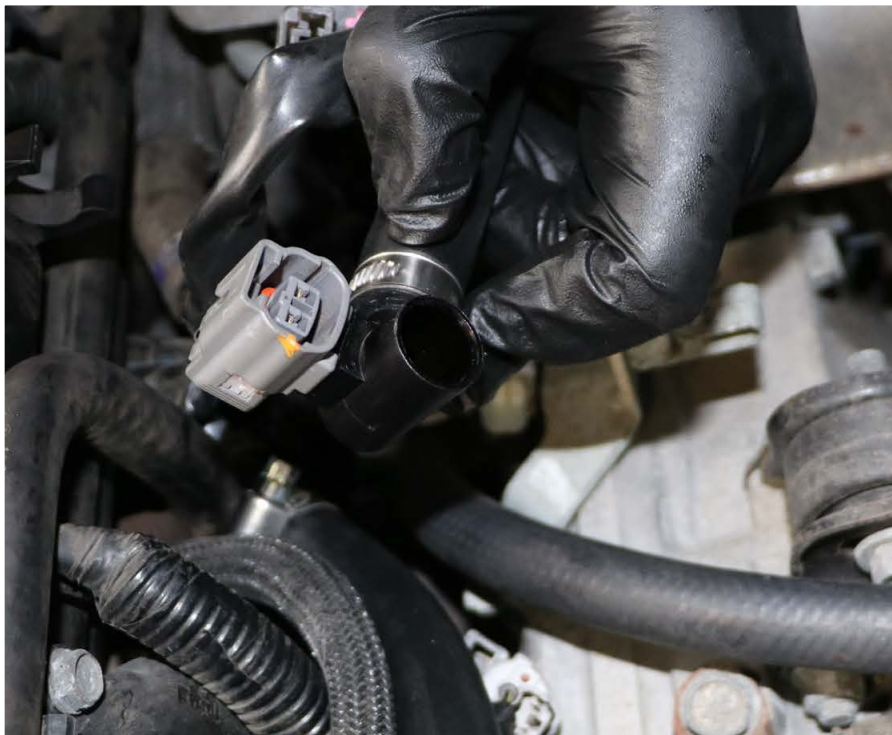
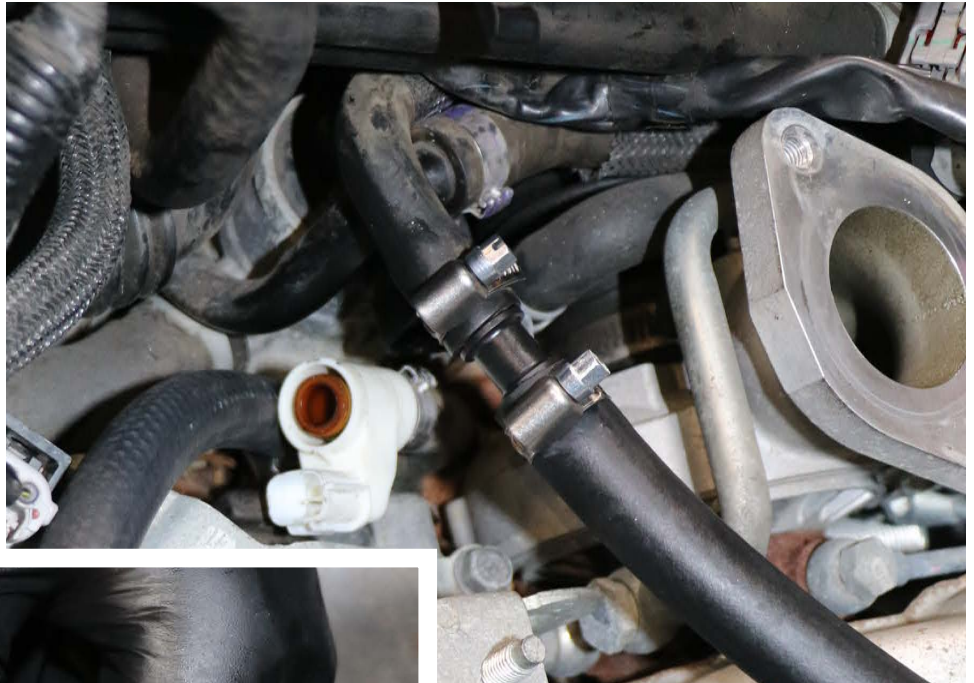


- 17.** Grab the supplied black straight fitting and a worm clamp from your kit.
Slip the clamp over the OEM hose that you pulled the elbow fitting out of in step 15.
Insert the straight fitting into this hose (use grease if needed), slide clamp into place, and tighten using a flathead screwdriver. Check the the fitting cannot be pulled out by hand.



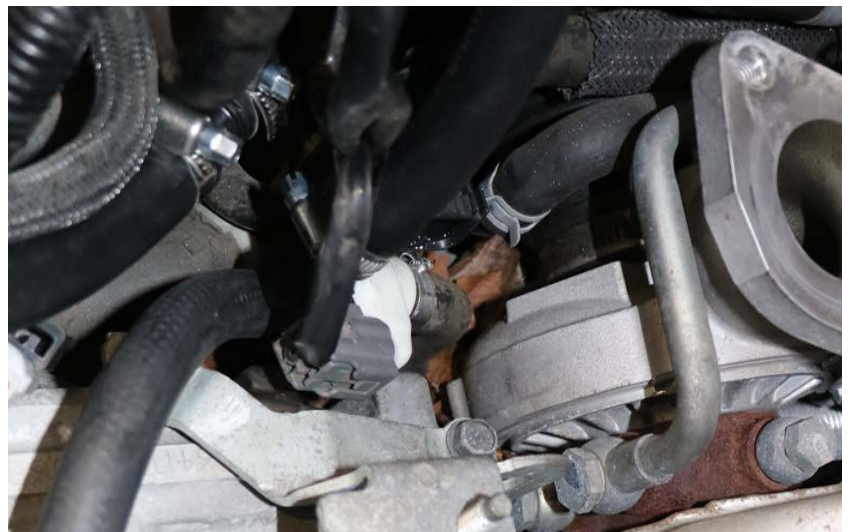
20" PCV Hose is marked in green, and the OEM hose with attached straight fitting is in red.

18. Grab the supplied 43" 1/2" Vent Hose and a worm clamp from your kit. Slide the clamp over one end of the hose, and push hose onto the other end of the straight fitting. Use grease to add if necessary.



19. Grab the supplied 13" 1/2" Vent Hose and a worm clamp from your kit. Slide the clamp over the end of the hose, and push hose onto the black elbow fitting from step 15. Slide clamp to the end of the hose and tighten using a flathead screwdriver. Reattach the black elbow to the grey connector.

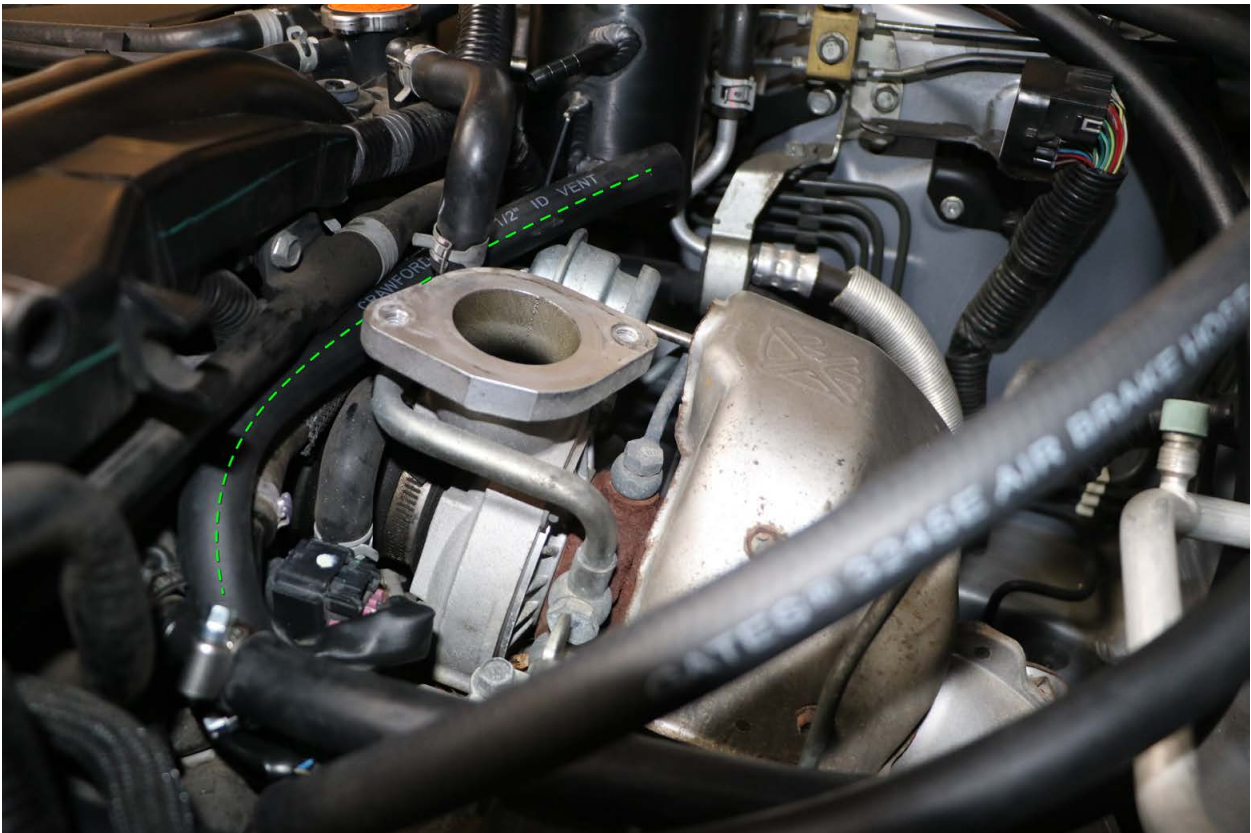
20. Reattach the black elbow/grey connector to the white connector.



- 21.** Grab the supplied 40" 3/8" PCV Hose and a worm clamp from your kit.
Push hose onto open PCV Nipple on the back of the intake manifold. Use grease if necessary.
Slide the clamp to the end of the hose, and tighten using a flathead screwdriver.
Check that the clamp is tight enough that you cannot pull the hose off the port by hand.



- 22.** Route 13" 1/2" Vent Hose in front of turbo / under coolant line as shown below marked in green.



23. Slip over a supplied clamp onto the end of the 13" 1/2" Vent Hose, and push hose onto Port #4 on the AOS. Slide clamp to end of hose, and tighten using a flathead screwdriver. Check that the hose cannot be pulled off the port by hand.



24. Route 20" 3/8" PCV Hose underneath the 2 longer hoses, and then along the same path as the 13" hose just attached, under the coolant line but above the wire harness.

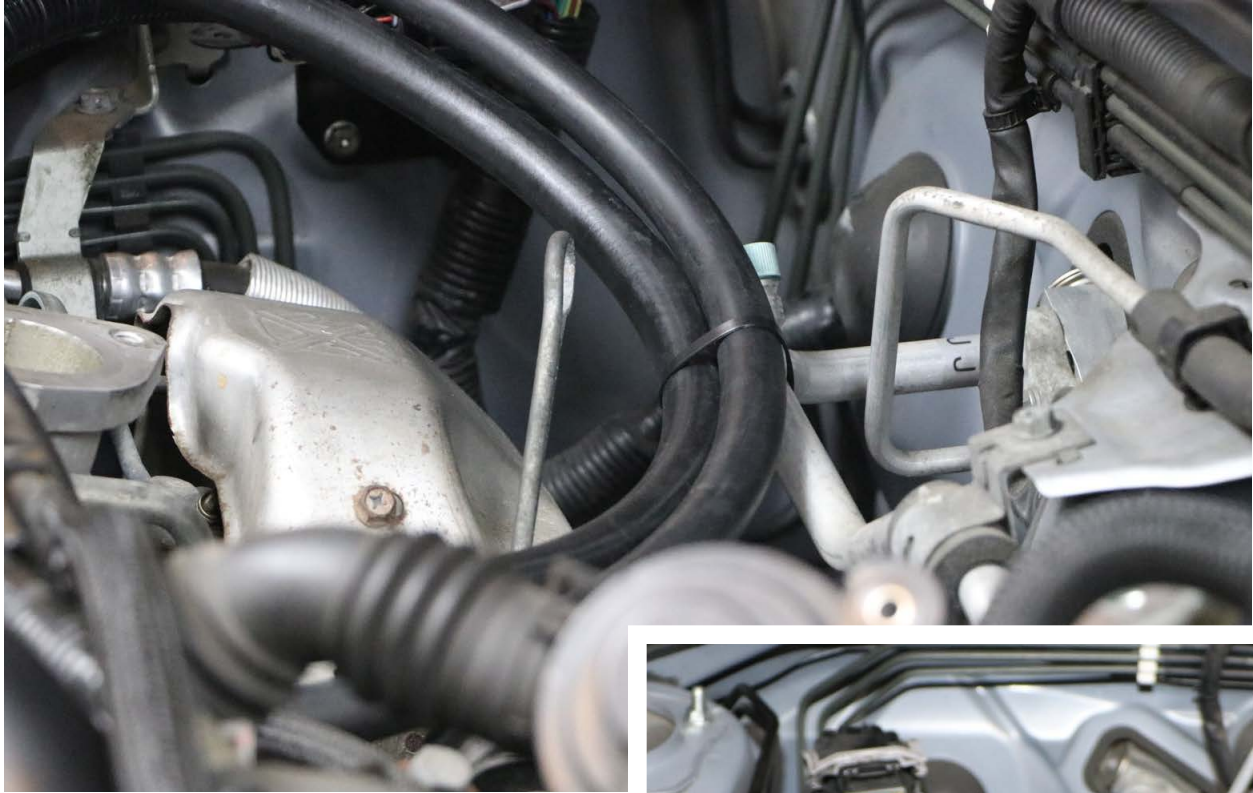


Trim hose if necessary.

Grab a supplied worm clamp, slip it over the end of the hose, then push hose onto Port #2 on the AOS.

Slide clamp to end of hose, and tighten using a flathead screwdriver. Check that the hose cannot be pulled off the port by hand.

25. Reconnect Main Harness by strut tower. Push together, flip grey lock back down, then slide connector onto bracket until it clicks securely.
26. Route longer 40" and 43" hoses together along the firewall toward the AOS canister. Place the larger 1/2" hose on the bottom. Zip tie them together and to the hard line pictured (loosely as not to pinch the hoses).



27. Grab a supplied worm clamp from your kit, and place it over the end of the 1/2" Hose. Push hose onto Port #3 on the AOS. Use grease if necessary. Slide clamp to end of hose, and tighten using a flathead screwdriver. Check that the hose cannot be pulled off the port by hand.
28. Grab a supplied worm clamp from your kit, and place it over the end of the 3/8" Hose. Push hose onto Port #1 on the AOS. Use grease if necessary. Slide clamp to end of hose, and tighten using a flathead screwdriver. Check that the hose cannot be pulled off the port by hand.
29. Use a zip tied to fix the hoses to the coolant line to keep secure. Do not tighten the zip tie too much to avoid pinching the hoses.



30. Replace Intercooler back into throttle body. Use grease if necessary. Refer to step 5.
31. Replace 2 turbo inlet bolts and 1 Intercooler Mounting Bracket Bolt. Use a 12mm ratchet and socket to tighten **only 90% of the way**. Refer to step 4.
32. Tighten throttle body clamp using a flathead screwdriver. Refer to step 3.
33. Replace 2 recirculation valve (BOV) bolts. Tighten using a 10mm socket and ratchet. Refer to step 2.
34. Go back and tighten the 3 Intercooler mounting brackets the rest of the way.
35. Reconnect Ground (-) on battery using a 10mm wrench.
36. Clean up hose routing as desired. If preferred, you can also run the 2 longer hoses to the left and underneath the AOS as shown.



37. Start your car and check for any leaks. Your car may change RPM's to adjust to the new setup, but should level out and run smoothly soon after. If you have a rough idle, it is possible you have a vacuum leak.

Possible causes are as follows:

- A hose connection is not tight enough or installed incorrectly.
- A hose is pinched or kinked.

Thank you for choosing Crawford Performance



Please feel free to contact us for any questions or comments! We are here to help. Celebrate by cracking a beer and pouring one out for your chewed up arms.

Enjoy your new AOS and your healthier, more efficient engine!

Please tag us in any posts related to the part and the install **@crawfordperformance** for a possible feature on our page.

