



# Installation Instructions Dual Chamber (V3) Air/Oil Separator

13+ Subaru BRZ / 13-16 Scion FR-S / 13+ Toyota GT86 / 17+ Toyota 86

## S0711 Parts List

Item #	Qty	Description
S0704	1	V3 Air/Oil Separator Unit (FA)
H0478	19"	1/2" Ventilation Hose: from port #2 to Crankcase
H0478	19"	1/2" Ventilation Hose: from port #1 to Intake
H0478	5"	1/2" Ventilation Hose: from port #3 to Intake Manifold
C0265	6	S/S Worm Clamps for Hoses
Z0108	2	8" Zip Ties



**We recommend that you have your Air/Oil Separator installed by a professional.**

For video instructions, visit the product page on our website, our install instruction page, or our YouTube Channel.



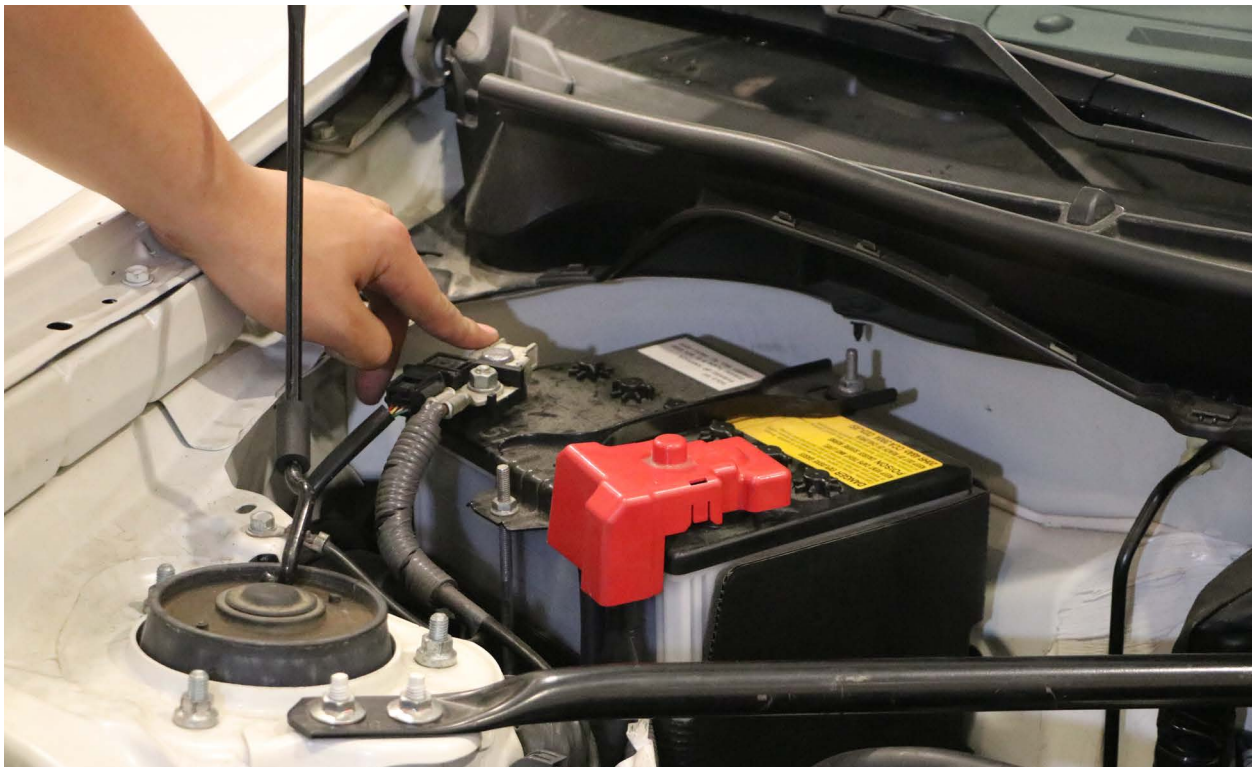
## Tools Needed



- 10mm, 12mm, and 14mm Sockets
- Ratchet with 3/8 Drive
- Ratchet with 1/4 Drive
- Socket Extenders
- Pliers
- Flathead Screwdriver

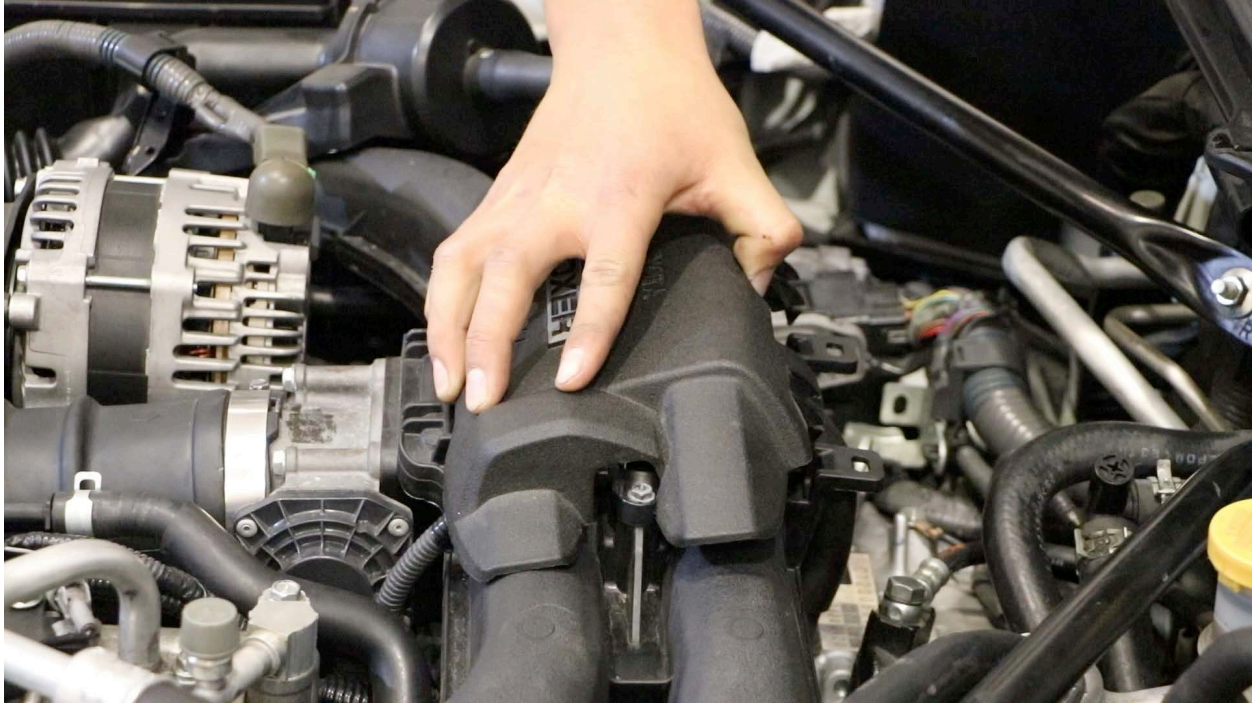
## Step by Step

1. Disconnect Ground (-) on Battery using a 10mm Wrench or Socket





2. Remove Intake Manifold Cover by pinching the front and back while pulling up. Set aside; this will be reinstalled.

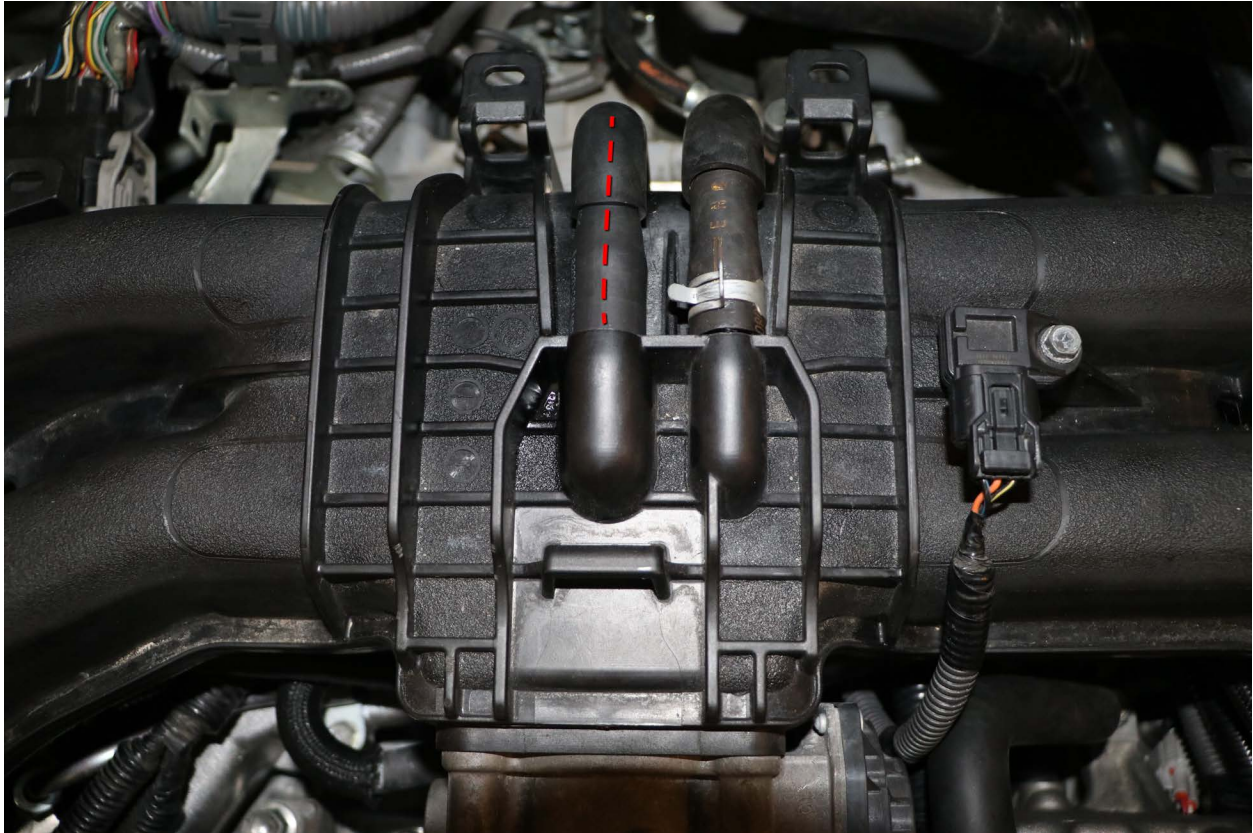


3. Remove inside bolts from the strut brace where it connects to the firewall, using a 12mm socket and ratchet. Set aside; these will be reinstalled.





4. Disconnect driver's right hand PCV hose from the top of the intake manifold. Picture below is from the POV of facing the engine bay.



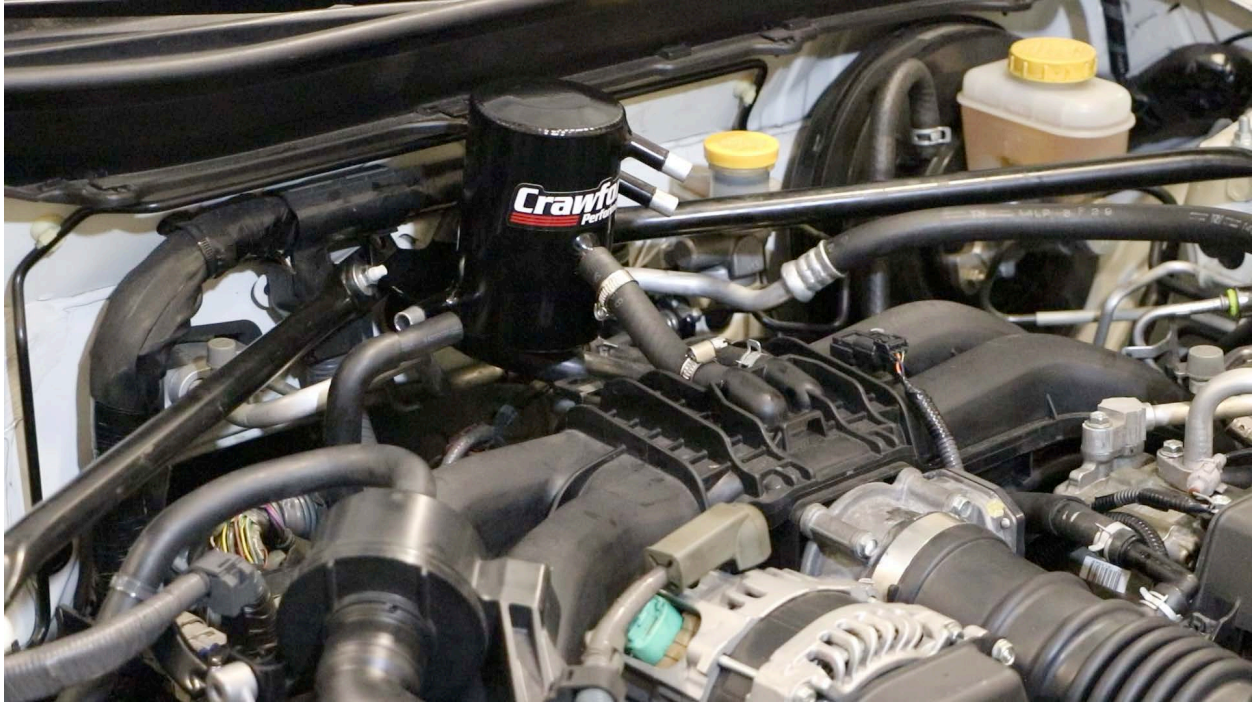
5. Connect supplied 5" hose to Port #3 on the AOS (See diagram on Page 1).
  - a. Slip 2 supplied worm clamps over the 5" Hose



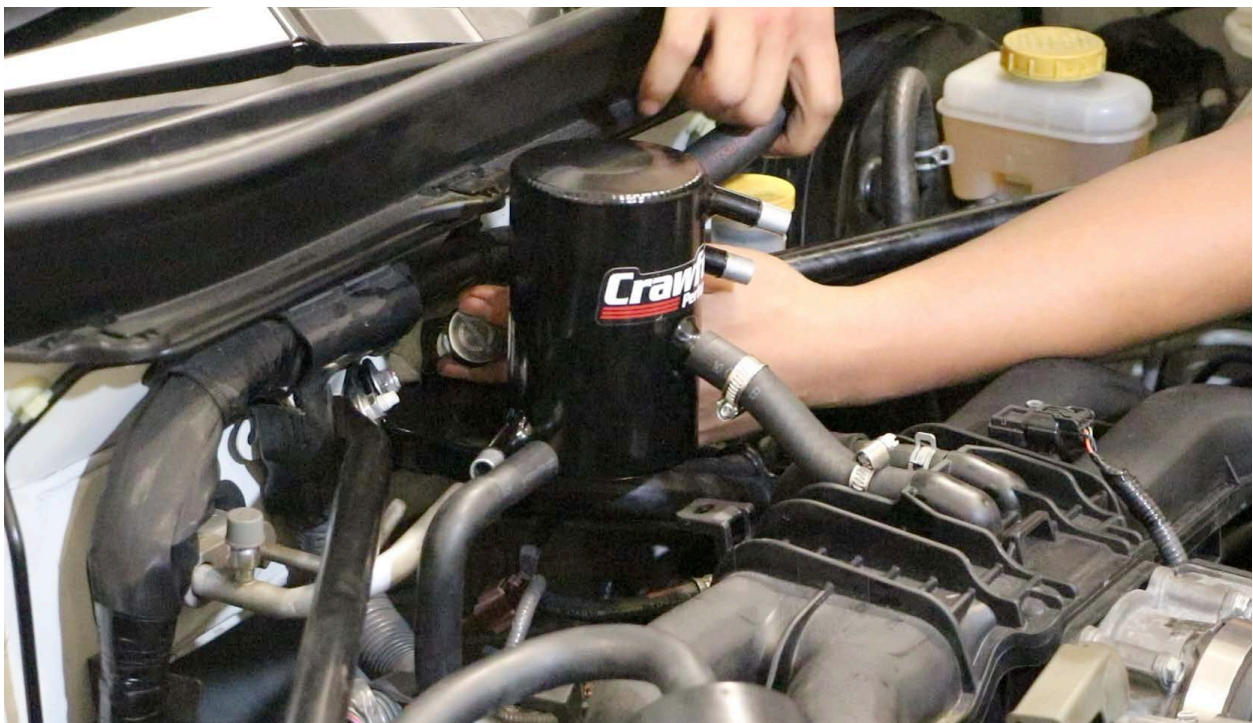


b. Attach the other end of the 5" Hose to the open port on top of the intake manifold\*, so that the AOS canister bracket bolt holes line up and rest where the bolts were removed on the strut braces.

*\*If you have difficulty getting the hose on to the ribbed manifold port, use a hair dryer or heat gun to warm up the hose. This allows it to stretch just enough to slide over the rib. Lubrication also helps.*

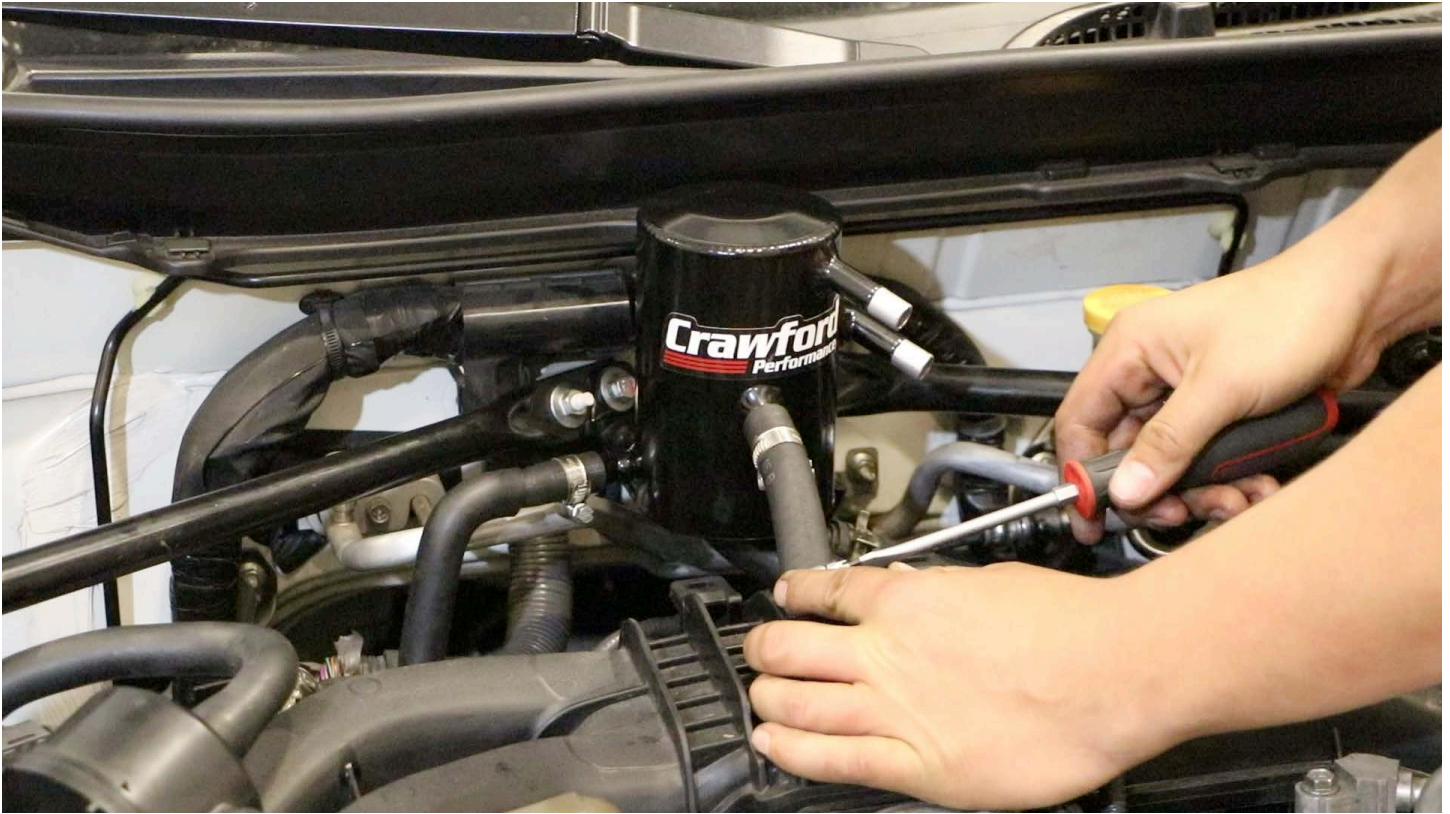


6. Replace the 2 strut brace bolts with the AOS bracket lined up with the bolt holes. Tighten to OEM torque spec, using a 12mm socket and ratchet.



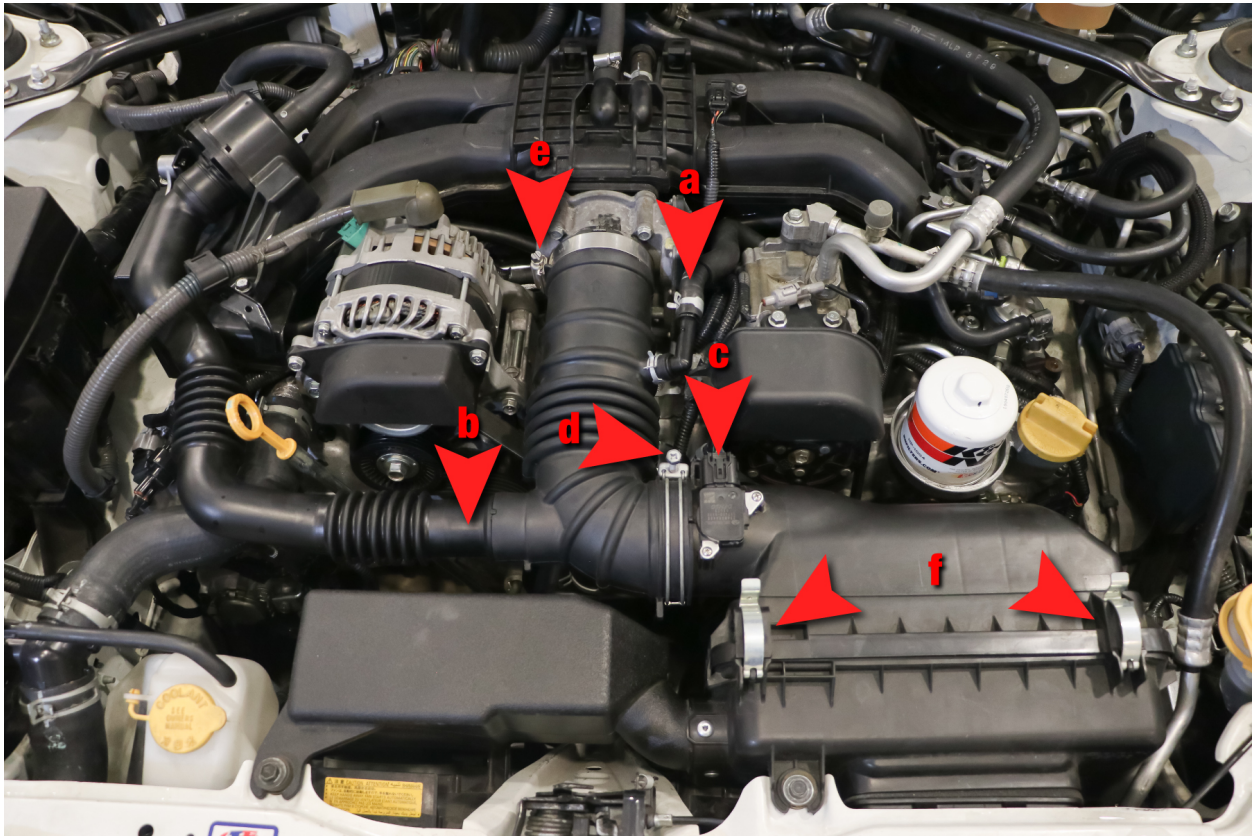


7. Slide 2 worm clamps to each end of the 5" hose, and tighten using a flathead screwdriver. It is tight enough once you cannot pull the hose off by hand.
8. Slide a supplied worm clamp over the disconnected PCV hose, then connect the hose to Port #4 on the AOS (See diagram on Page 1).
  - a. Slide the worm clam to the end of the hose, and secure it to Port #4 on the AOS using a flathead screwdriver. Tighten so that the hoses cannot be pulled off the port by hand.

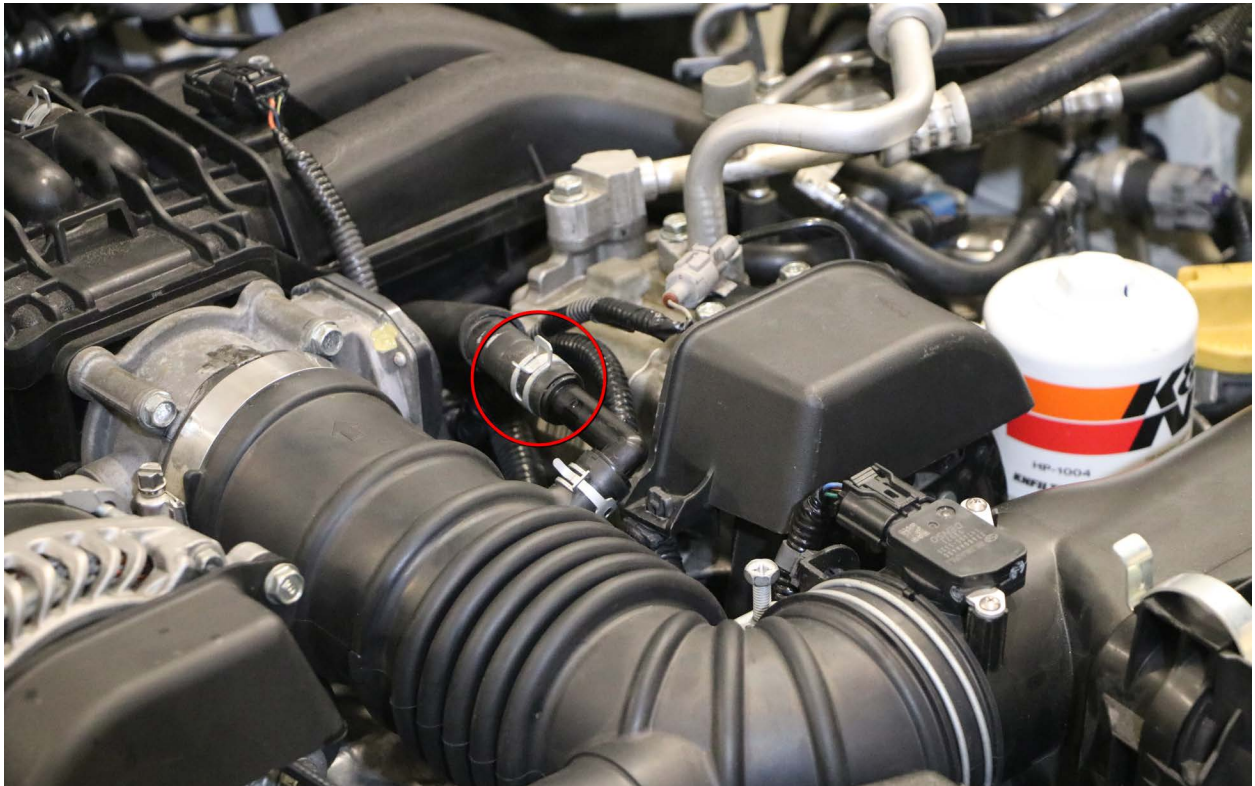




9. Remove Intake at the points shown below.

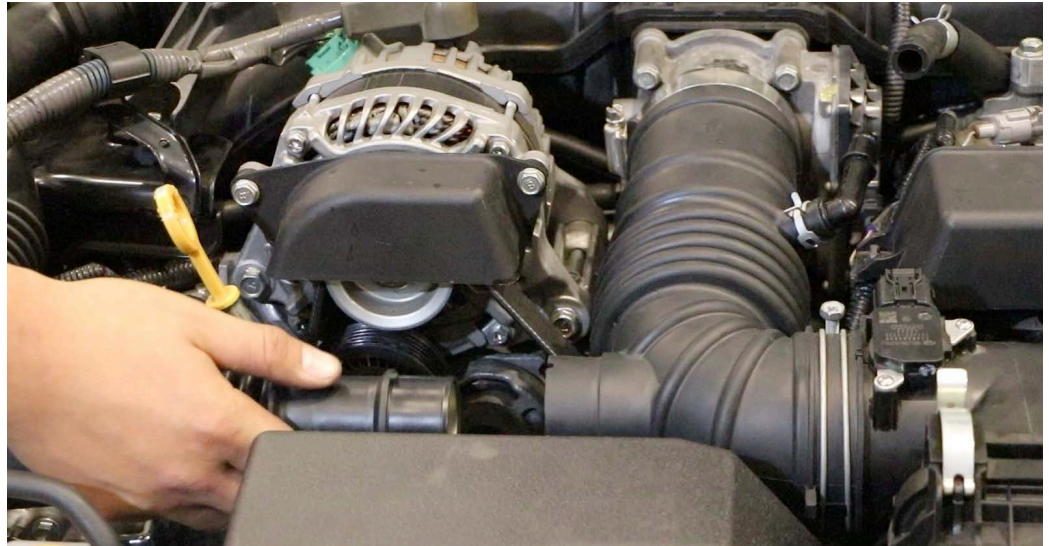


a. Using pliers, open the clamp on the intake hose before the throttle body, and slide it away from the end of the hose. Pull hose off, leaving clamp on the hose.

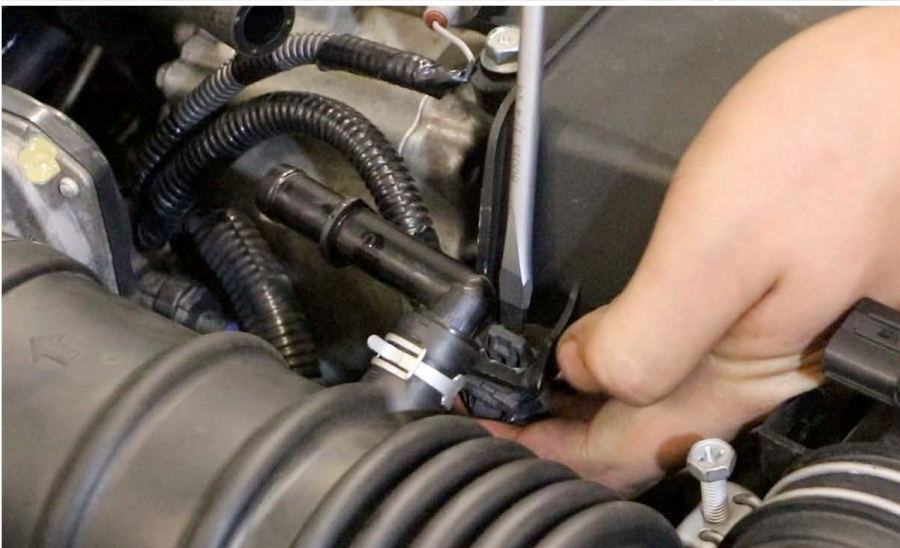




**b.** Pull smaller tube out of the larger intake tube.

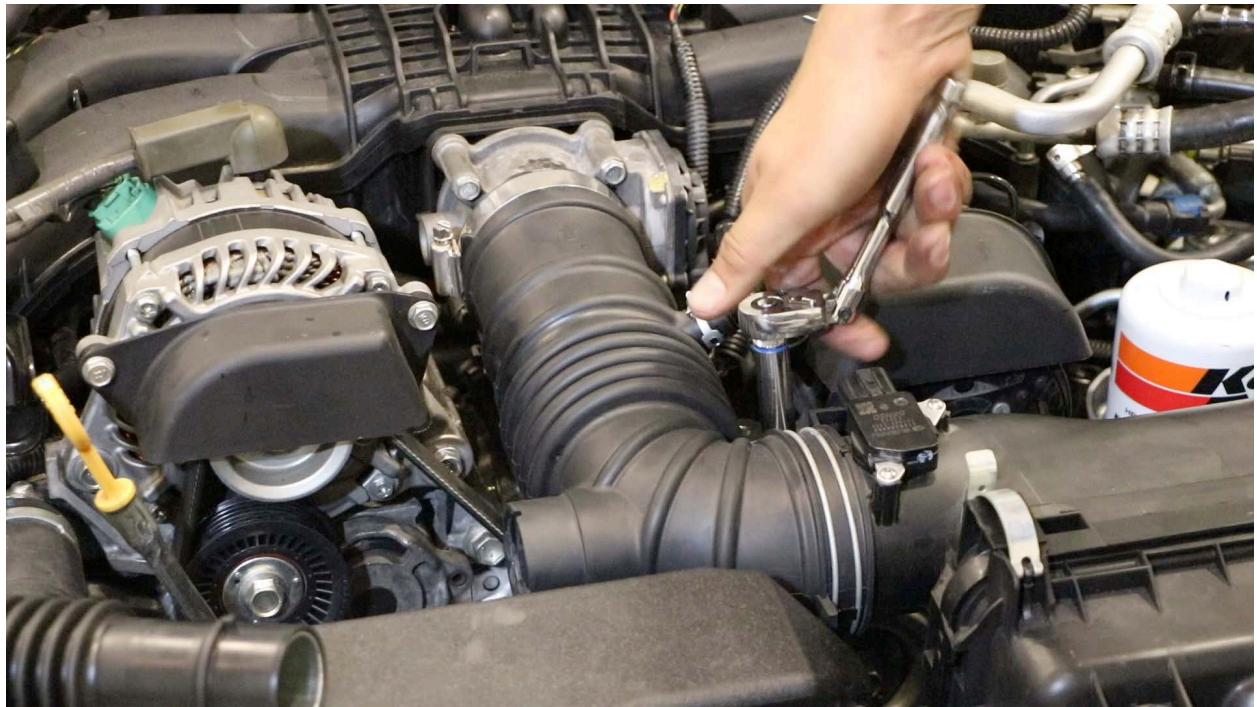


**c.** Detach MAF Sensor plug by pushing down the top tab, then push the plastic cap out of the 2 tabs: one behind the sensor and the other on the AC Compressor Cover.

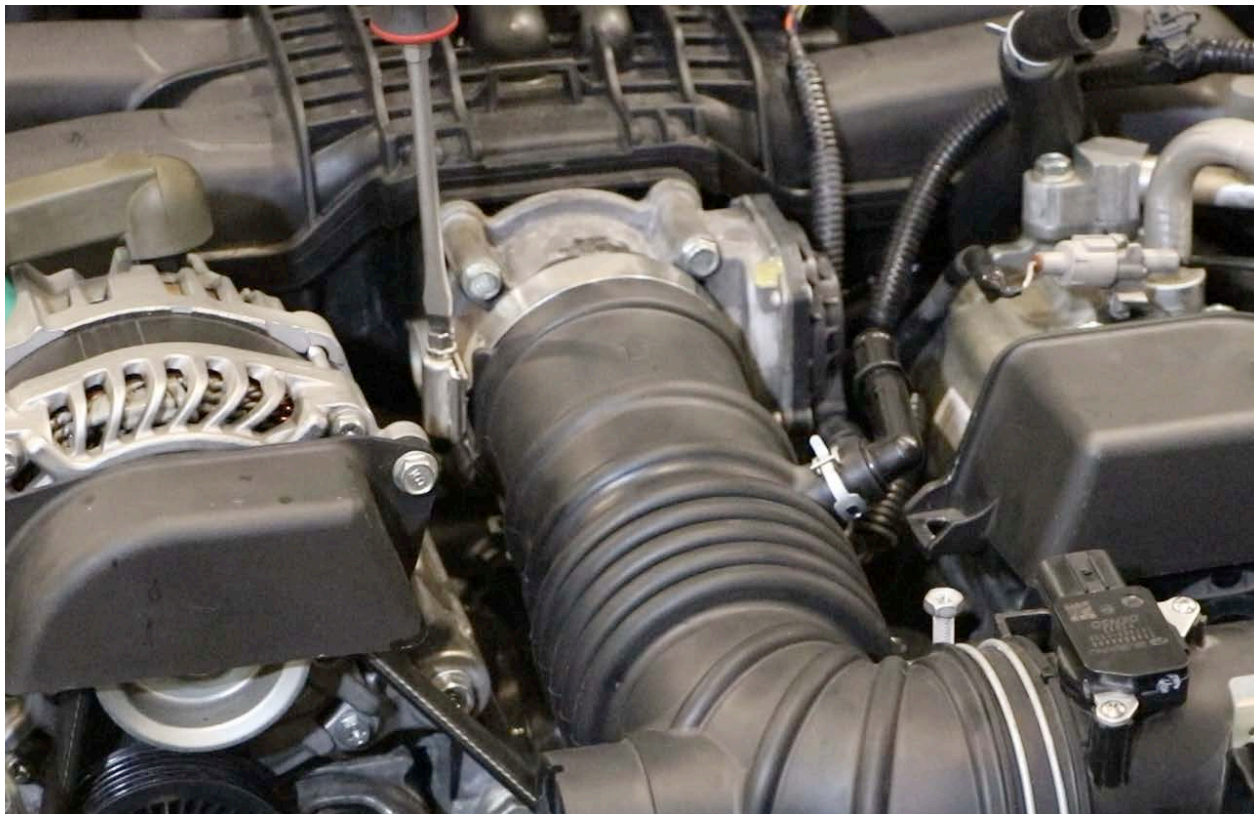




d. Loosen stud with a 10mm socket and ratchet, or a phillips screwdriver.



e. Loosen clamp using a flathead screwdriver. You can now remove the intake assembly by pulling it off the throttle body, then pulling it off the air box. Set aside.

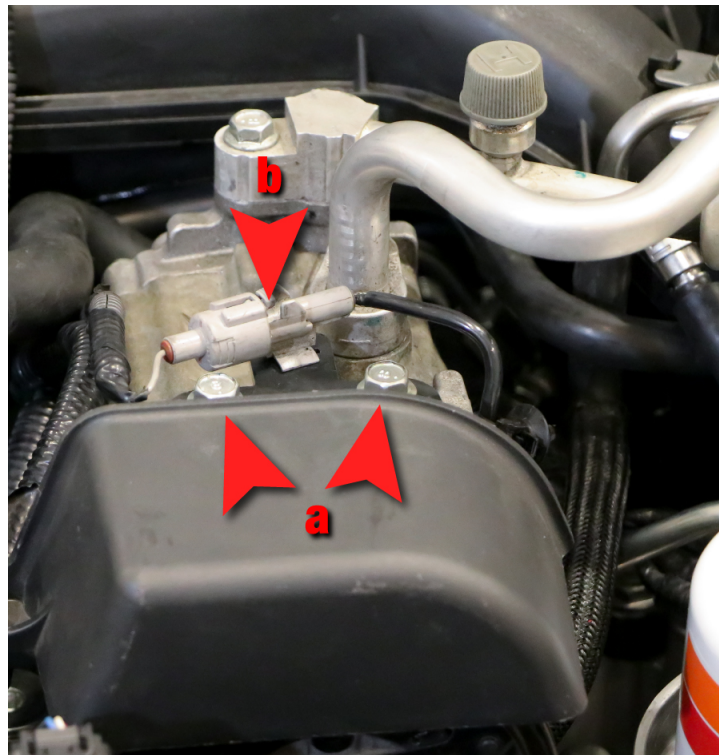




f. Unclip both sides of the air box, remove, and set aside.

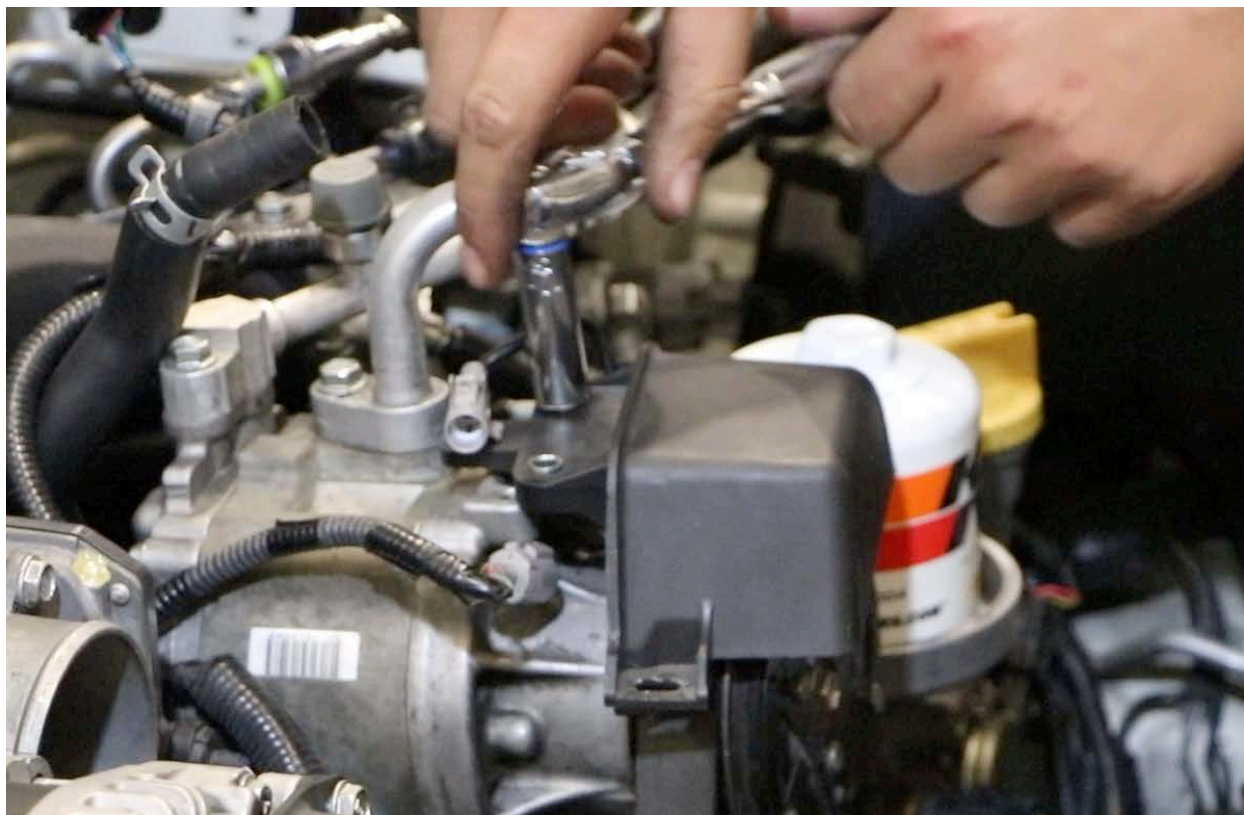


10. Disconnect AC Compressor cover at the points shown below.





a. Remove 2 bolts using a 10mm socket and ratchet.



b. Unclip connector by pushing on the top tab to release. Disconnect connector from cover by twisting it out. Set cover aside.

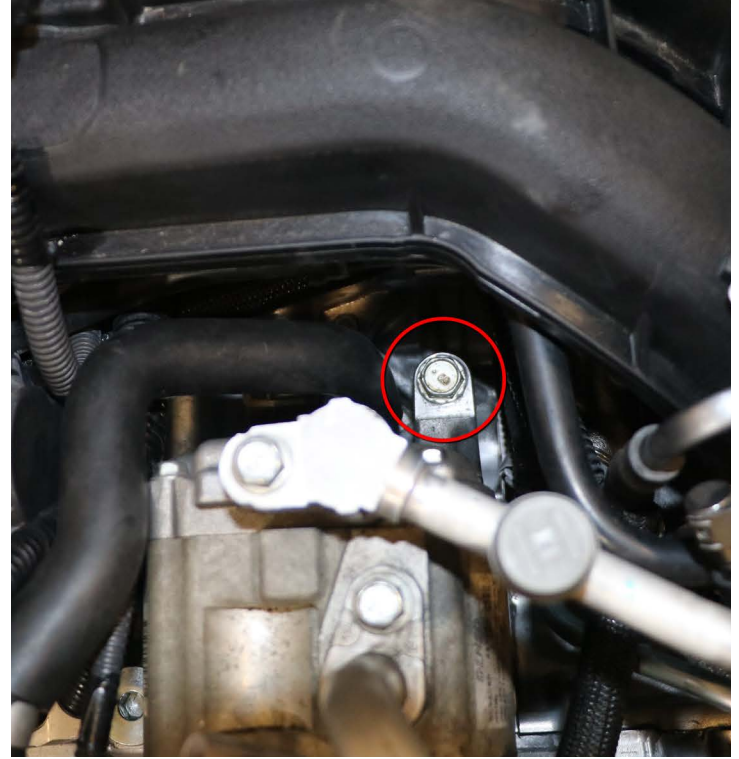
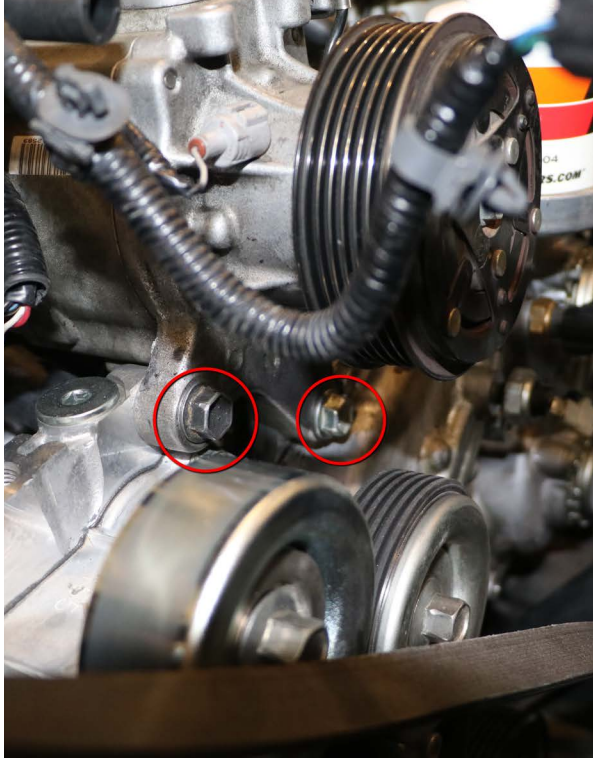
## 11. Remove AC Compressor

a. Using a 14mm socket / ratchet, push down (clockwise) on the pulley shown to release the belt. While holding the pulley down, use your other hand to pull the belt off the silver pulley.

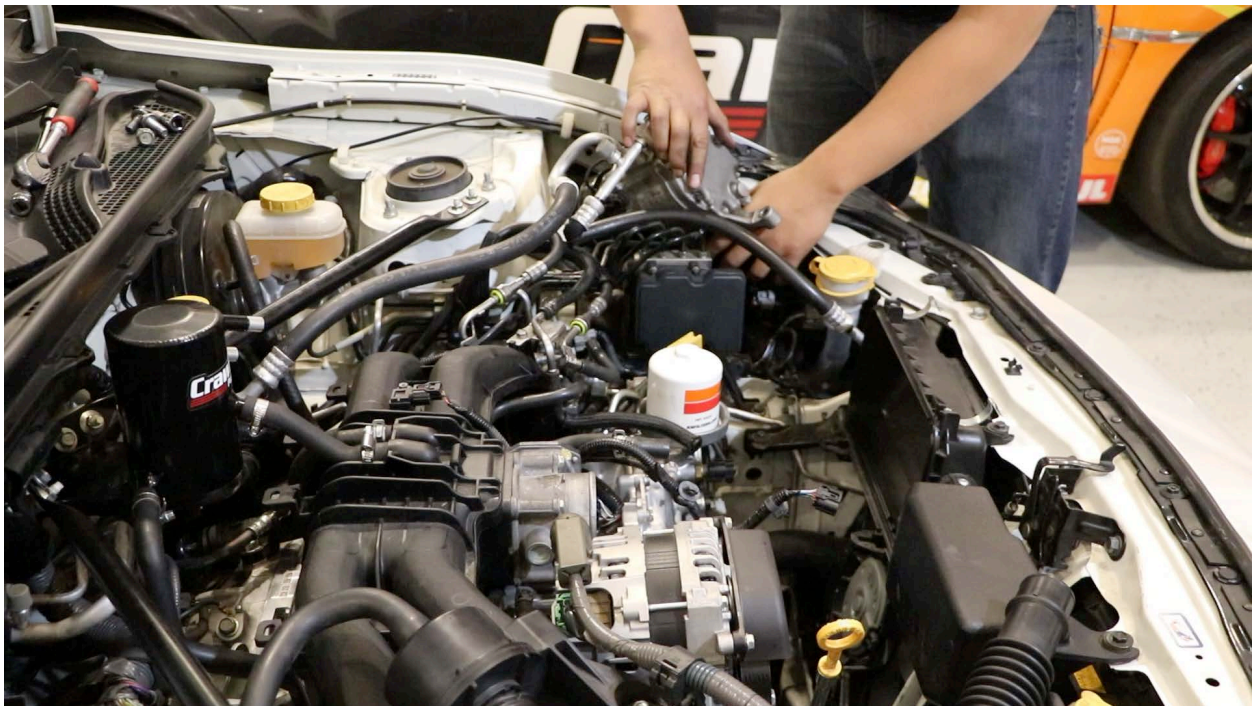




b. Remove 2 bolts underneath the AC compressor, and 1 on the backside, using the same 14mm socket and ratchet.

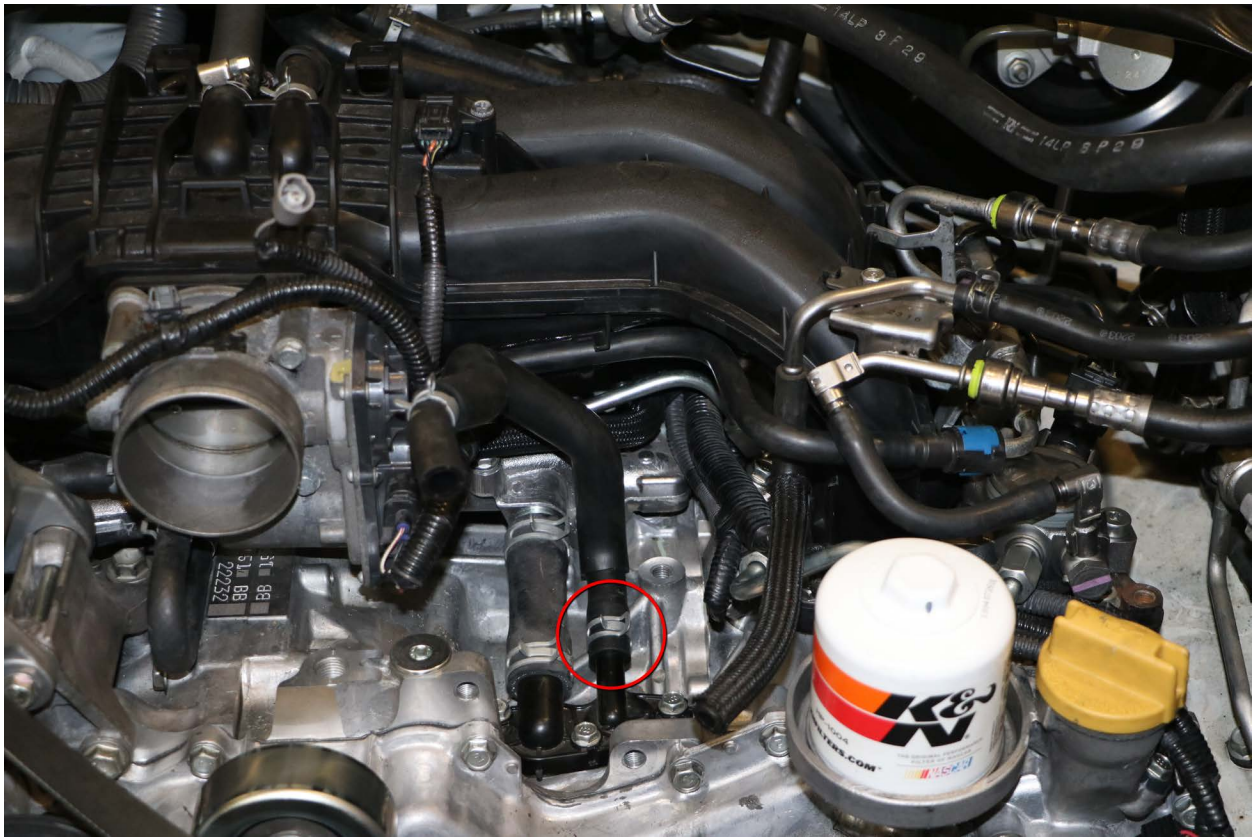


c. Lift AC compressor up and rotate it clockwise to rest on the driver's left hand side of the engine bay. **Be sure not to keep the compressor in this position for a prolonged period of time to avoid kinking the hoses attached.**





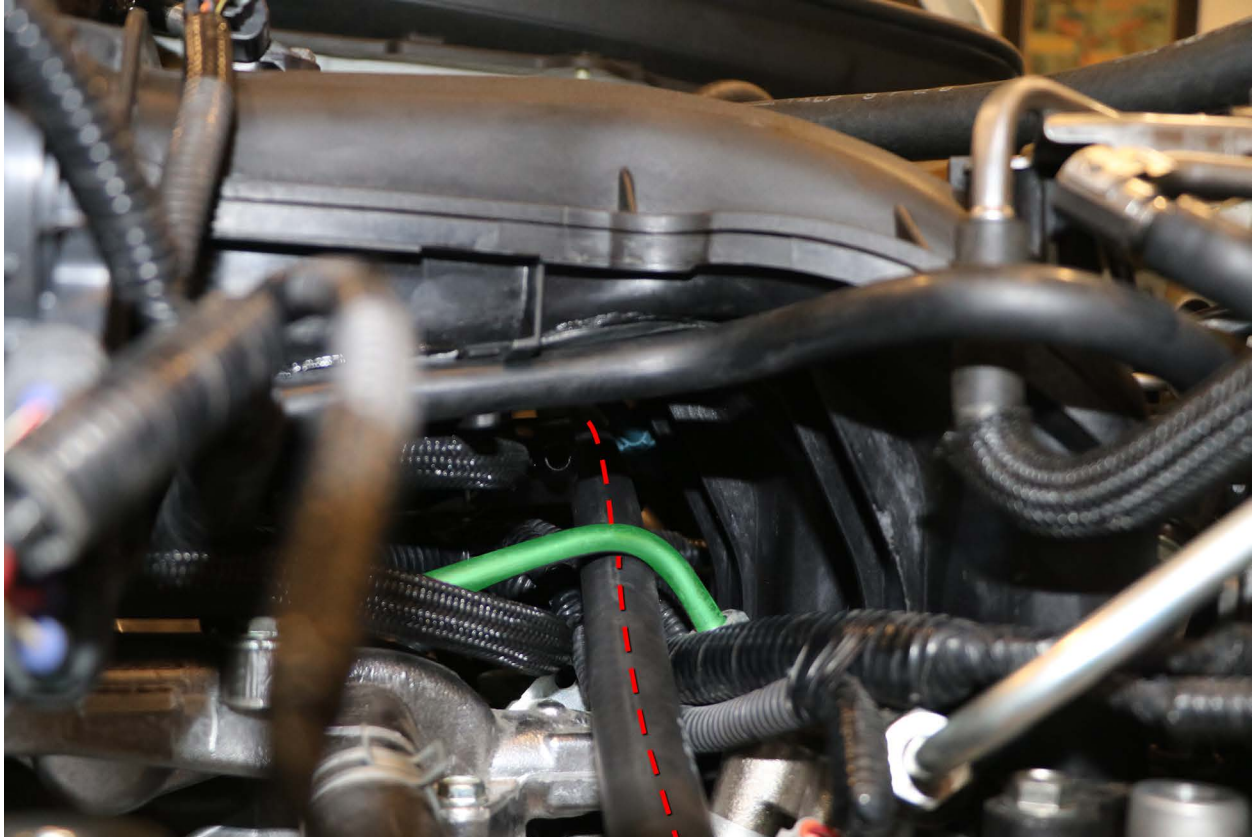
12. Remove the other end of the intake hose, by opening and sliding the clamp with pliers.



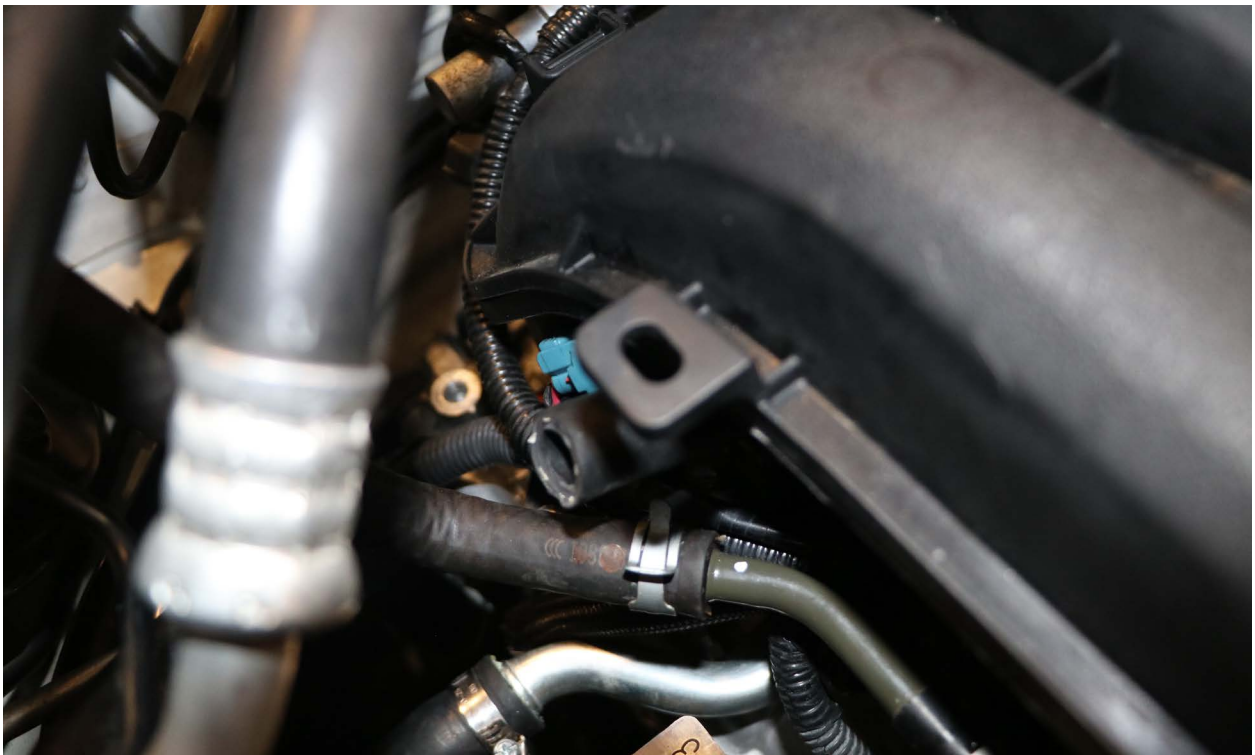
**Pull off hose. This component will not be reinstalled, but we recommend storing it in case you need to later revert your vehicle back to stock.**



13. Route supplied 19" hose (marked with a red dashed line) underneath the plenums of the intake manifold on the driver's left hand side, and underneath the metal tube (marked in green).



See where hose comes out on the back side (towards firewall) of the intake manifold.





14. Slip a supplied worm clamp over hose end by the AOS canister, and push hose on to Port #2 (see diagram on page 1). Use a flathead screwdriver to tighten clamp so that you cannot pull the hose off the port by hand.



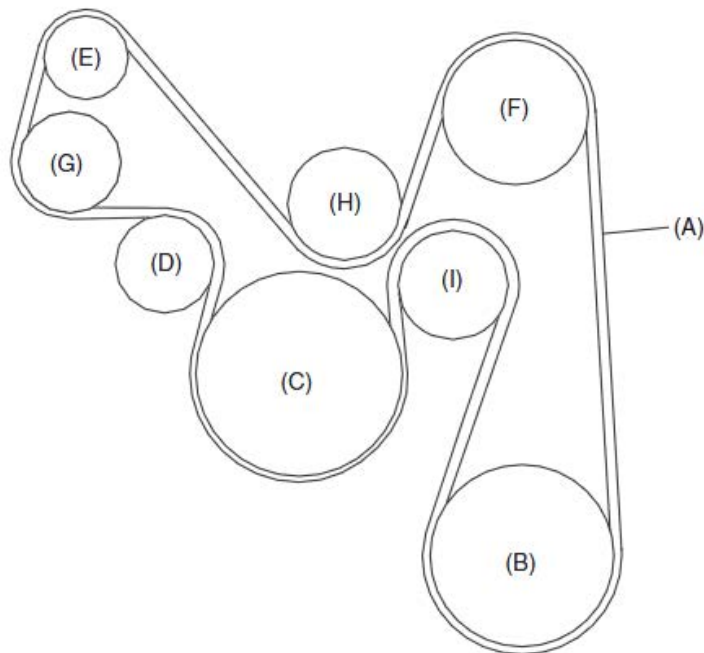
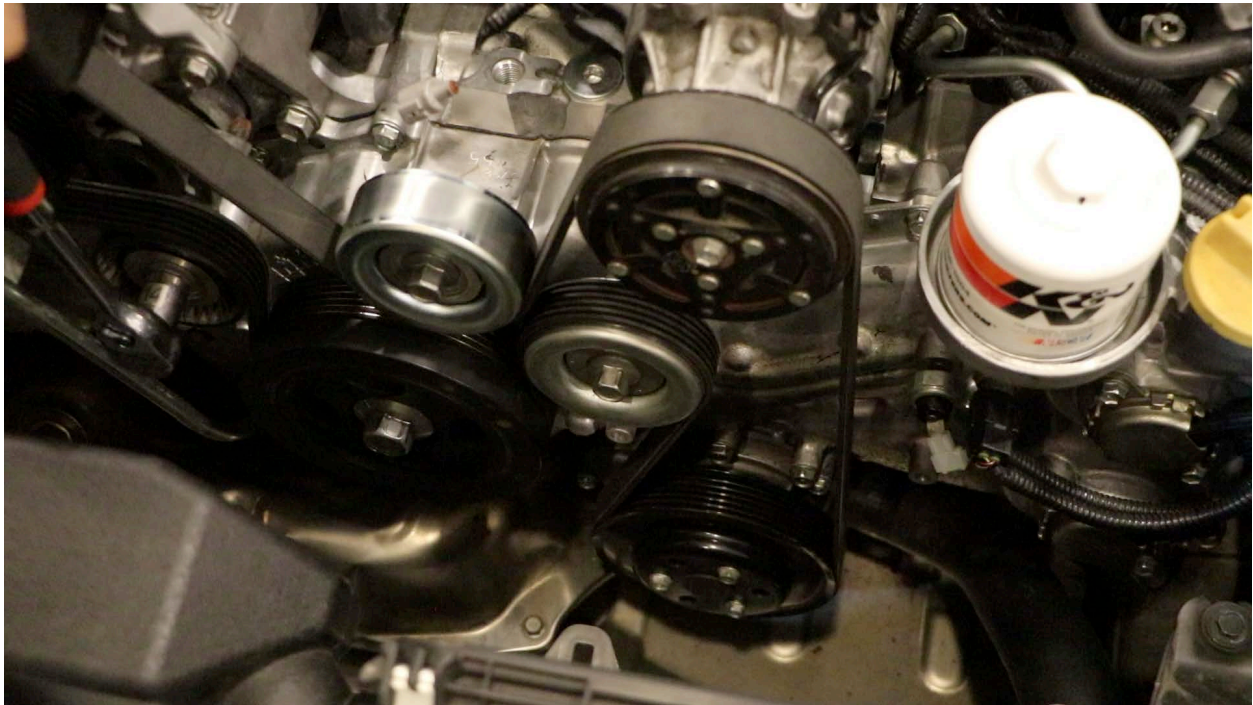
15. Slip a supplied worm clamp over the other end of the hose on top of the crankcase. Push hose on to plastic port\*, slide clamp in to place, and tighten using a flathead screwdriver so that you cannot pull the hose off by hand.

*\*If you have difficulty getting the hose on to the ribbed manifold port, use a hair dryer or heat gun to warm up the hose. This allows it to stretch just enough to slide over the rib. Lubrication also helps.*



16. Replace AC Compressor in to position, and replace all 3 bolts to OEM torque spec.

17. Using your 14mm socket and ratchet, hold the pulley down and replace the belt as shown. It is easiest to start from the bottom pulleys and work your way back up. Make sure the belt is routed as shown below.



18. Replace AC Compressor cover by replacing both bolts with a 10mm socket and ratchet, clipping the caps back in to the brackets, and plugging back in the grey connector.



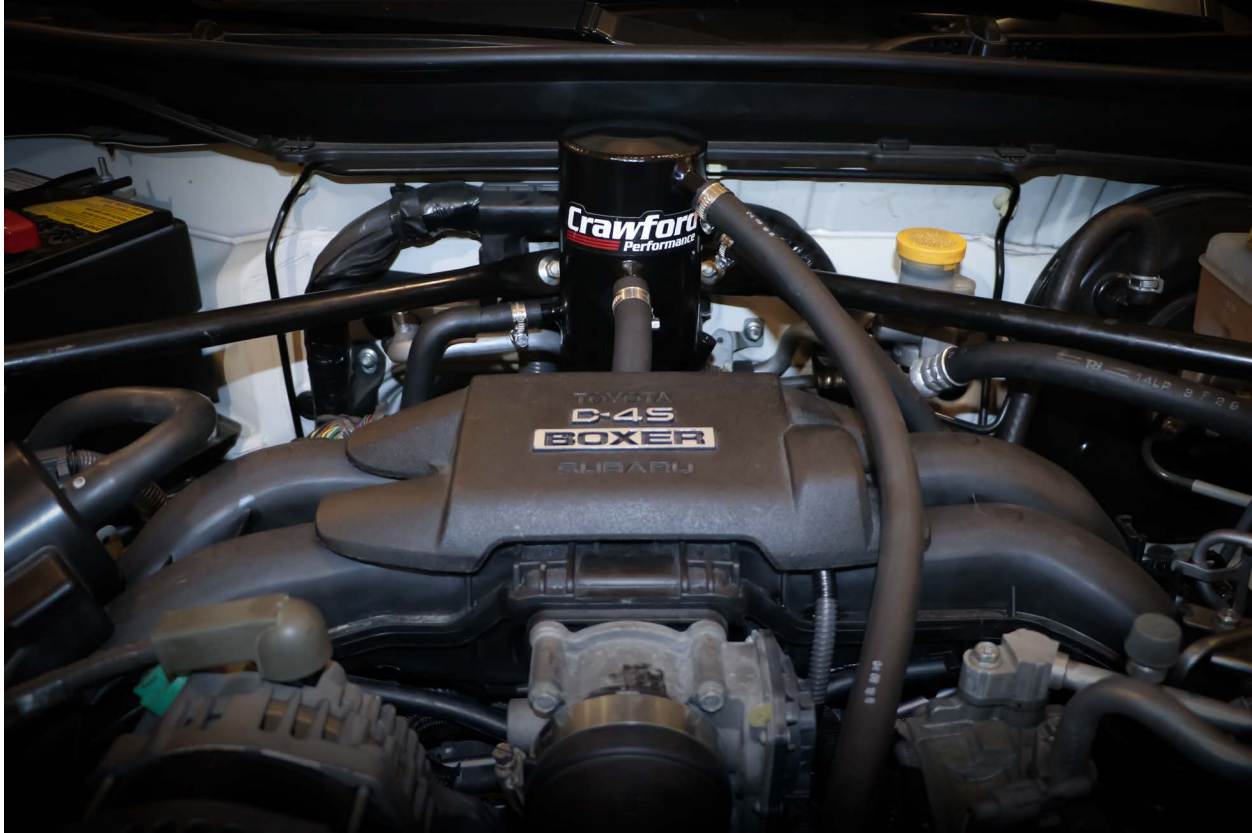
19. Replace the air box by placing the bottom tabs in to place, then rocking the top back in to position. Secure both metal clips.
20. Replace the main intake tube in to place, first on to the throttle body, then on to the air box. Use a flathead screwdriver to tighten throttle body clamp, and a 10mm socket or Phillips screwdriver for the air box clamp stud.
21. Push the small intake tube back on to the main tube.
22. Re-clip the MAF sensor wire to the AC compressor cover, then reconnect the sensor on top of the air box opening until it clicks securely.
23. Secure the last supplied 17" hose to the open port on the intake. This connection does not require a clamp, as this line sees vacuum and is a snug fit.



24. Slide a worm clamp over the other end of the hose, and push the hose on to Port #1 on the AOS (see diagram on page 1). Slide clamp in to position, and use a flathead screwdriver to tighten the clamp so that the hose cannot be pulled off the port by hand.
25. Reconnect the Ground (-) on your battery using a 10mm wrench or socket.
26. Double-check that all your hose connections are secure.



Enjoy the benefits of your new Air Oil Separator,  
and Thank you for choosing Crawford Performance!



If you have any questions, feel free to email us at [technical@crawfordperformance.com](mailto:technical@crawfordperformance.com) or give us a call at 855-67-SUBIE (78243) Ext. 1.