



## CP Dual Chamber (V3) DIT Air/Oil Separator Kit 2015-Present WRX / 2014-2018 Forester XT with TMIC

### S0717 Parts List

Item #	Qty	Description
S0703	1	V3 Air/Oil Separator Unit for 15+ WRX / 14-18 FXT with TMIC (DIT)
H0479	52"	5/8" Ventilation Hose: from port #1 to turbo inlet
H0478	24"	1/2" Ventilation Hose: from port #3 to intake manifold
H0478	16"	1/2" Ventilation Hose: from port #2 to block vent
H0522	24"	3/8" PCV Hose: from port #4 to top of block
H0477	20"	5/16" Ventilation Hose: Replaces existing OEM Fuel Breather Line to fit around can
C0265	8	S/S Worm Clamps for 1/2" and 5/8" Hoses
Z0108	4	8" Zip Ties

**We recommend your AOS be installed by a professional.**



**\*\*Please Note: You may notice older installation videos or diagrams with 6 ports vs. the 4 on your canister. These 2 extra ports were coolant lines that have been removed from the canister after further R&D proved they were not necessary.**



**Estimated Install Time:** 1-2 hours

**Install Difficulty:** 3/10



**Tools Needed:**

- Pliers
- Flathead Screwdriver
- 10mm wrench
- Ratchet
- 8mm Long Socket
- 10mm Long Socket
- 12mm Long Socket
- 14mm Long and Short Socket
- Long and Short Socket Extenders

**Optional/Recommended:**

- Flush Cuts
- 7mm Socket
- Grease/Lubricant
- Magnet Wand

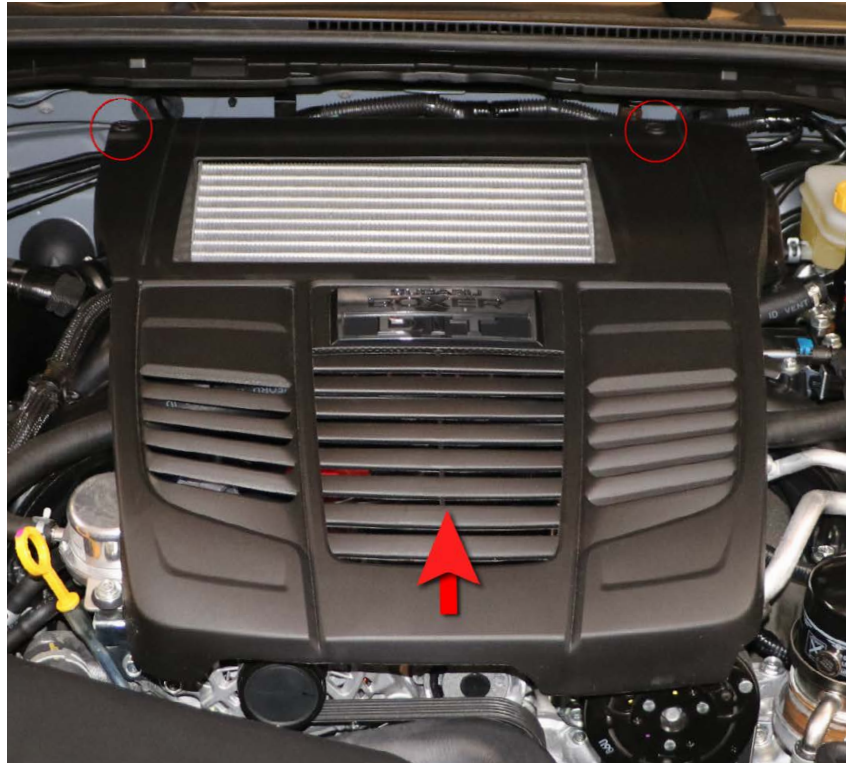
**Step by Step:**

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

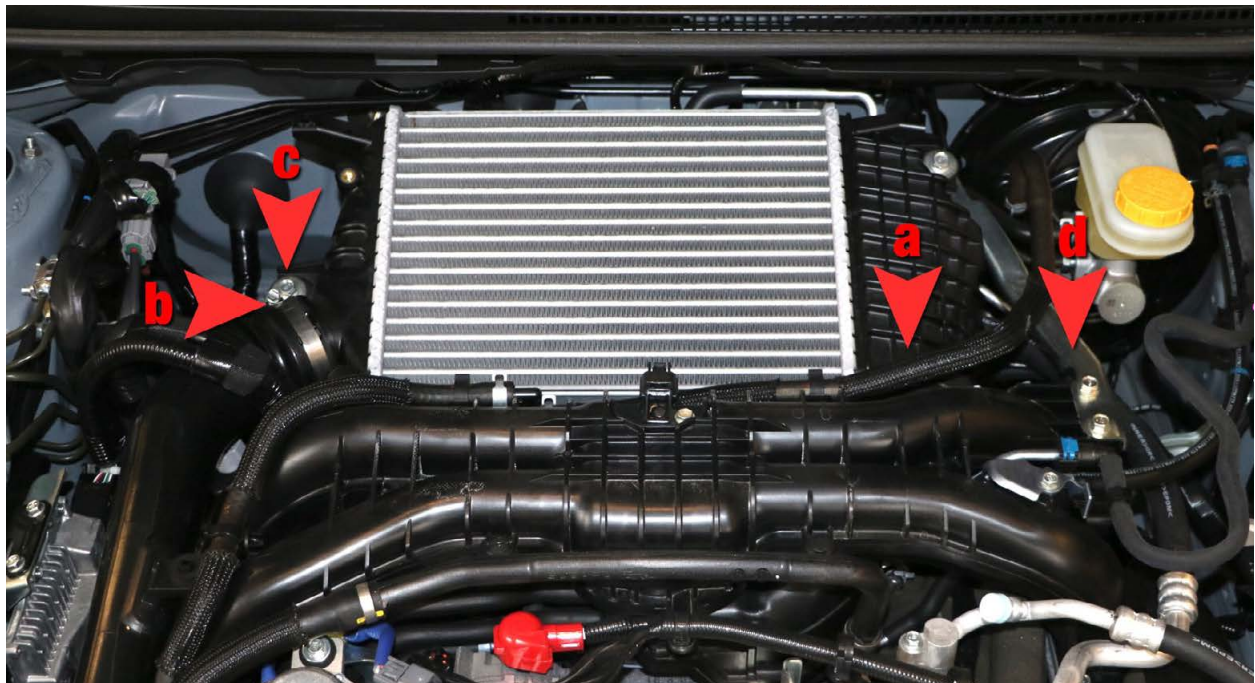


## 2. Remove Engine Cover

- a. Use a Flathead Screwdriver to remove 2 pins by the firewall.
- b. Pull off cover by pulling up on the front.



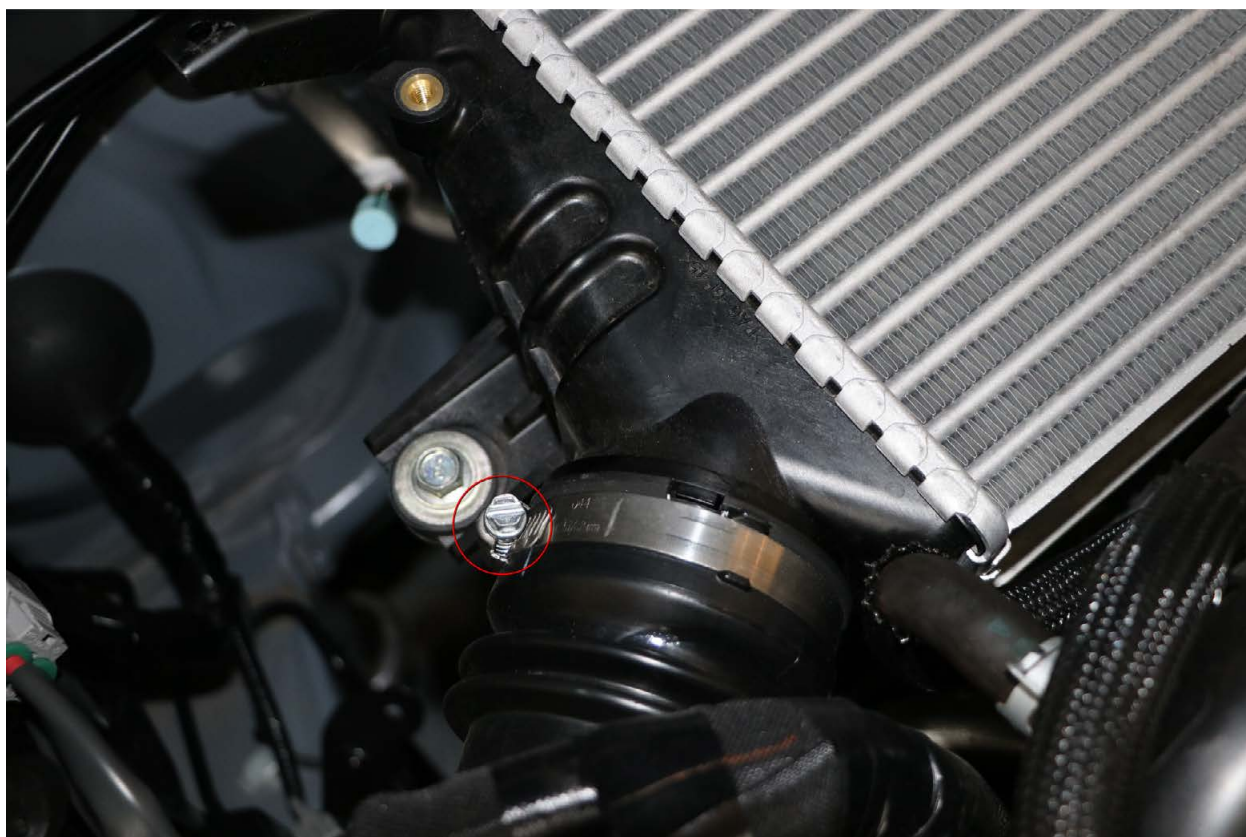
## 3. Remove Intercooler



a. Loosen the throttle body clamp using a flathead screwdriver or 8mm socket and ratchet.



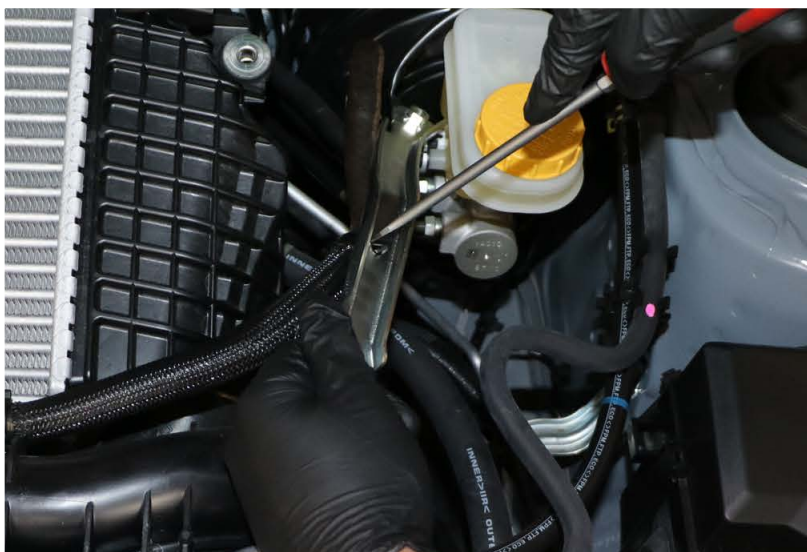
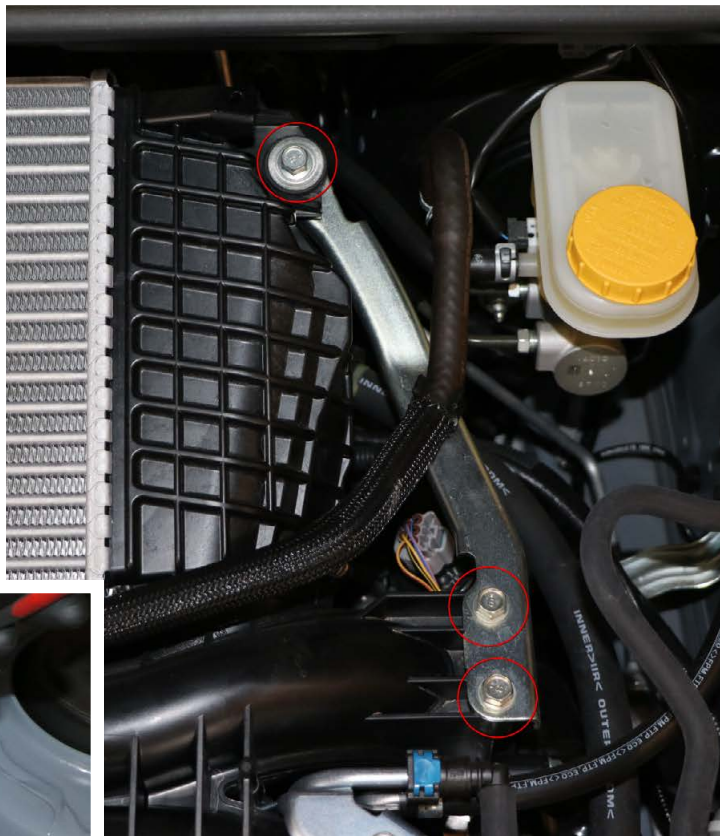
b. Loosen the turbo inlet clamp using a flathead screwdriver or 8mm socket and ratchet.





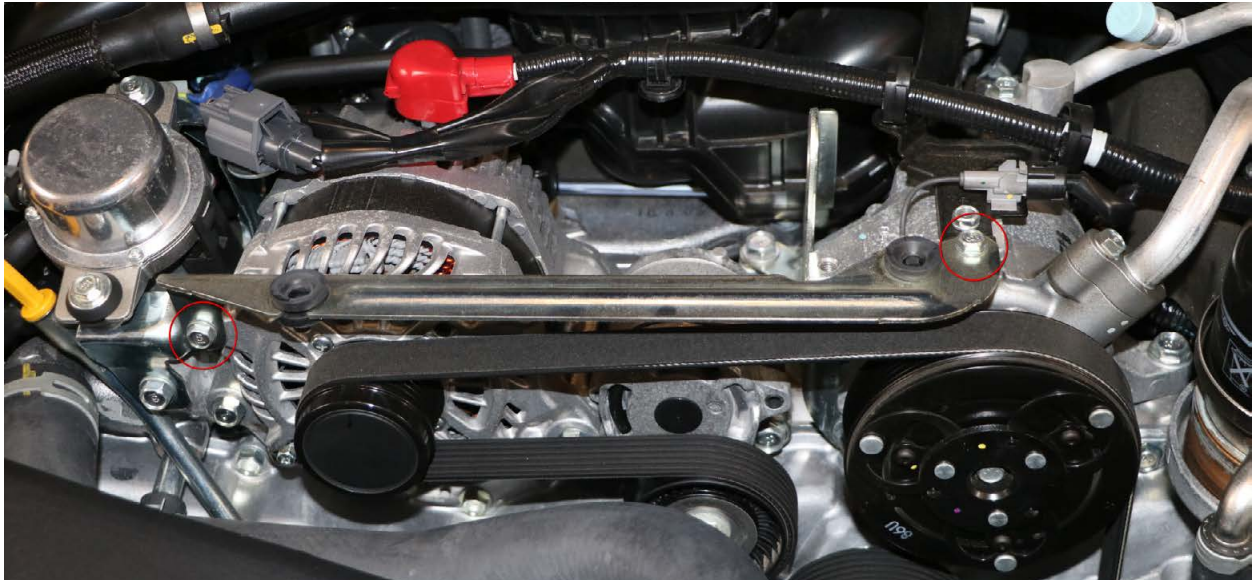
c. Remove mounting bolt on the driver's RH side of the intercooler using a 12mm socket and ratchet.

d. Remove three 12mm bolts from the intercooler mounting bracket on the driver's LH side of the intercooler. Then, push the harness clip out of the bracket using a flathead screwdriver. Set the bracket and bolts aside.

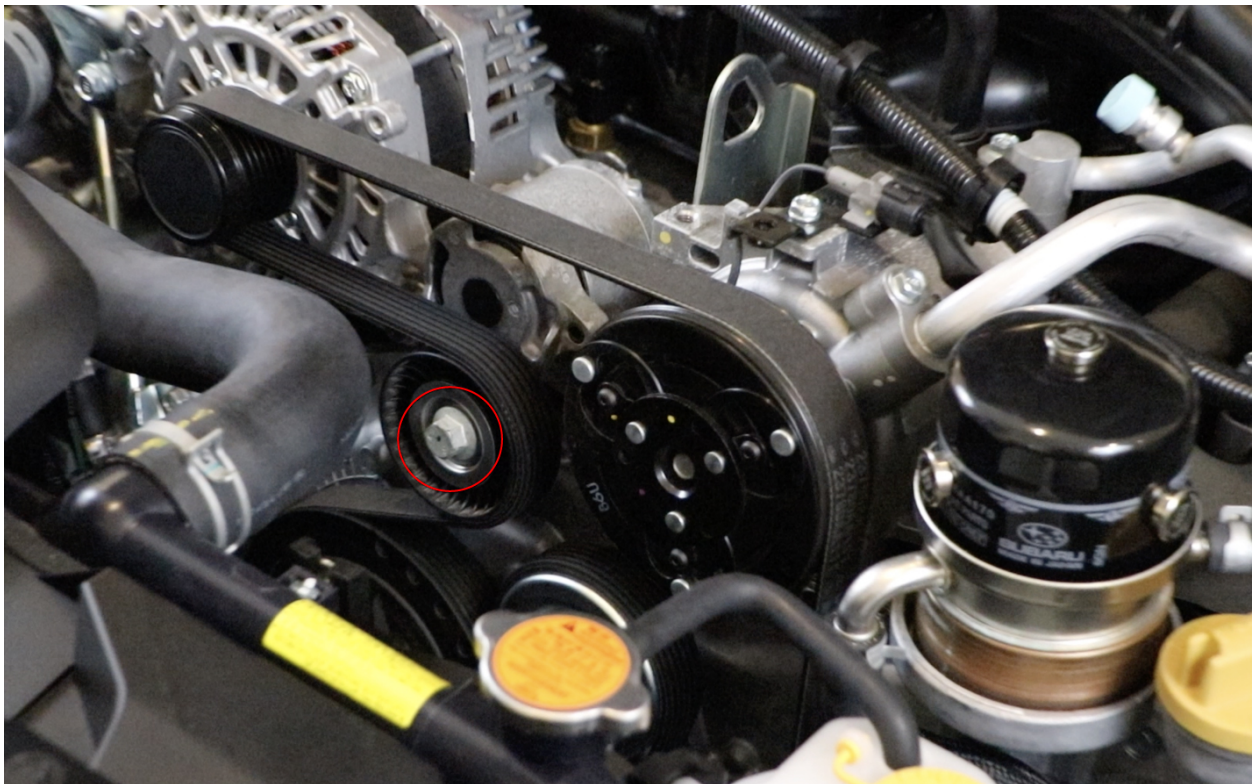


e. Pull off intercooler by wiggling/rocking it away from you out of the throttle body. Then hold the turbo inlet pipe with one hand as you pull the intercooler off. Set aside intercooler.

4. Remove the engine cover bracket by removing its two 10mm bolts with a socket and ratchet.

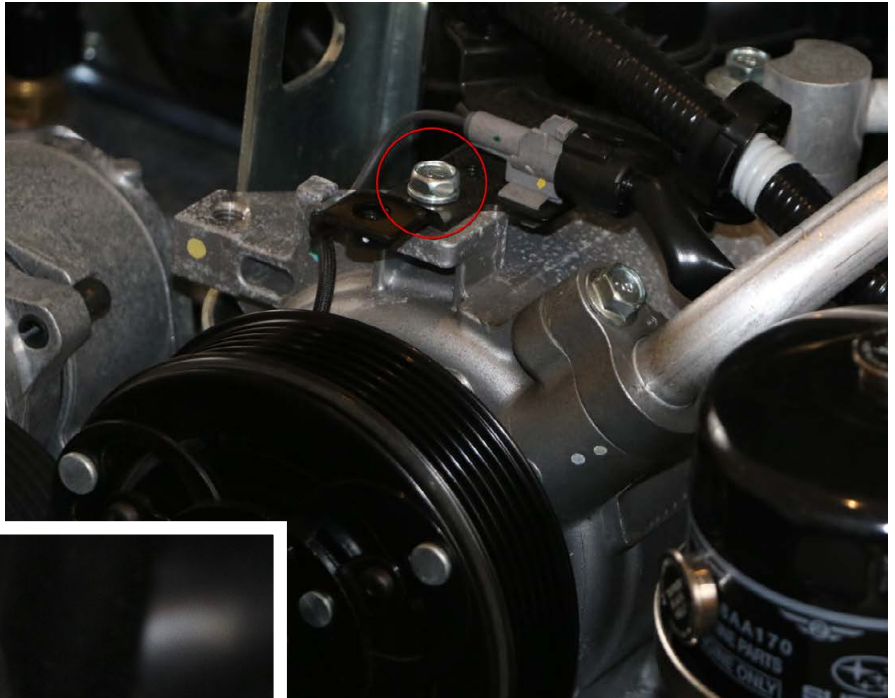


5. Release AC Compressor Belt by using a 14mm short socket and ratchet to turn the pulley circled clockwise. Hold the pulley while you pull the belt off of the AC compressor pulley.



**6. Remove AC Compressor**

**a. Remove 10mm bolt**



**b. Disconnect connector by pushing in grey tab to pull apart.**

**c. Lift bracket off compressor, and pinch the bottom of the grey connector to release it from the bracket. Push plugs and bracket clear of compressor.**

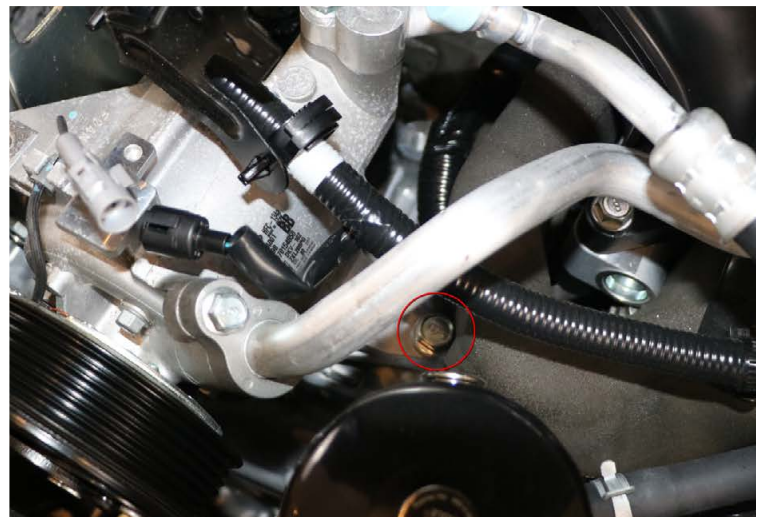


**d.** On top of the alternator, flip up the red terminal cover to expose it's nut. Using a 12mm socket and ratchet, remove the nut and the washer underneath. Pull off the terminal and the 2nd nut underneath. Disconnect the grey and black plugs by pushing in the tabs on top and pulling apart.



**e.** Disconnect Harness from clip by using pliers to squeeze in the tabs underneath, then pull up and out.

**f.** Remove the four 14mm mounting bolts from AC compressor using a socket/ratchet. After removing the first 2 below, set bracket aside.



**g.** Lift up AC compressor and set on battery with some rags laid down for protection.



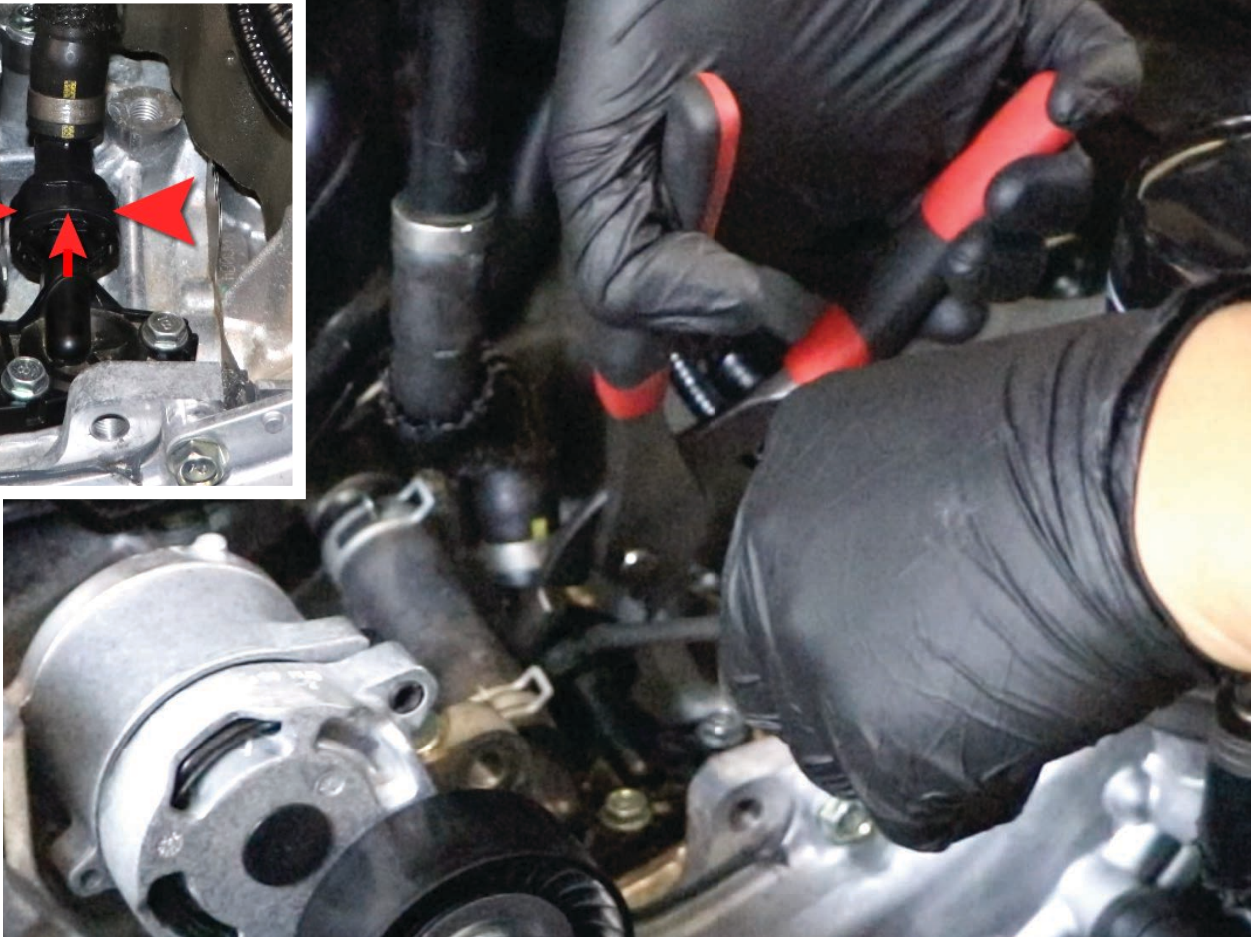
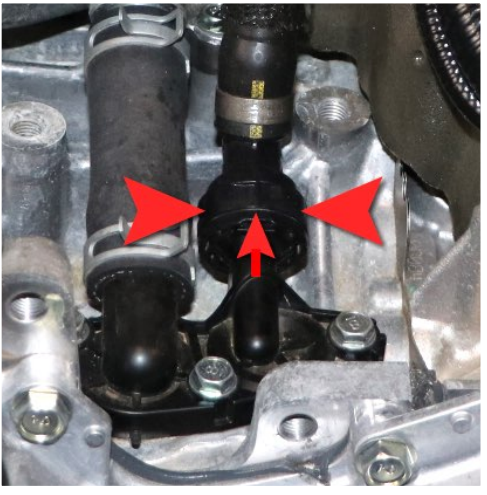


7. Remove Breather Hose.

a. Use a flathead screwdriver to remove two manifold pins.



b. Disconnect plastic fitting on PCV hose connector. This can be done without breaking the fitting. Use slip joint pliers to squeeze the round fitting at it's largest diameter, just above the joint, until you hear an audible click, then use a flathead to pry open the fitting at it's joint.

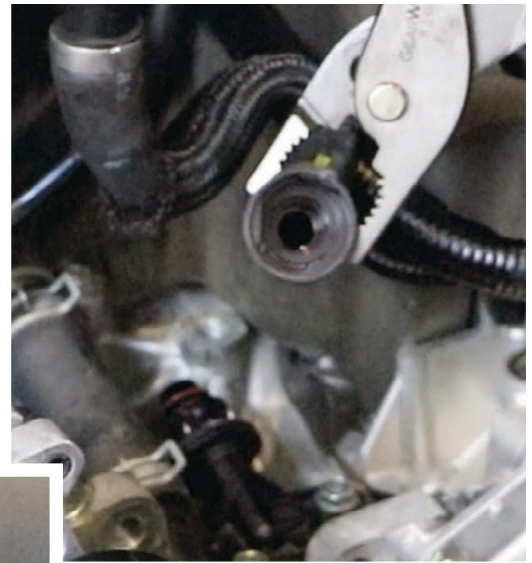


**DO NOT** remove the bolts on this vent. There is a single use gasket underneath.

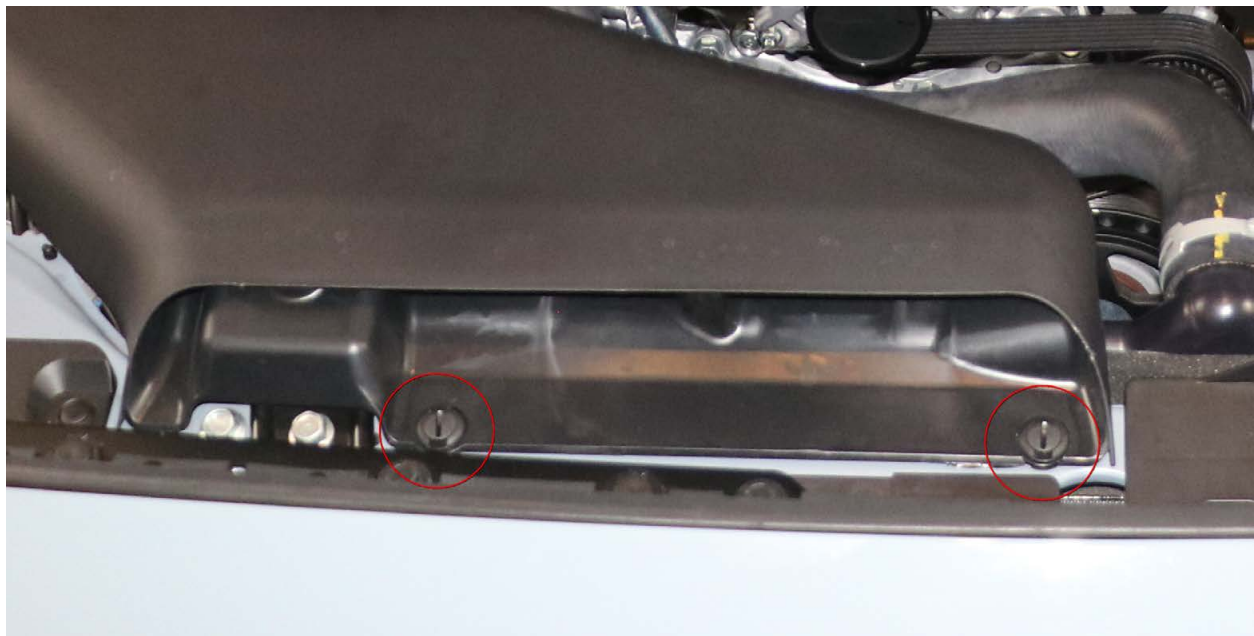
*On 2015-2016 WRX models, there is a normal hose clamp instead of this fitting.*

The fitting will pop apart.

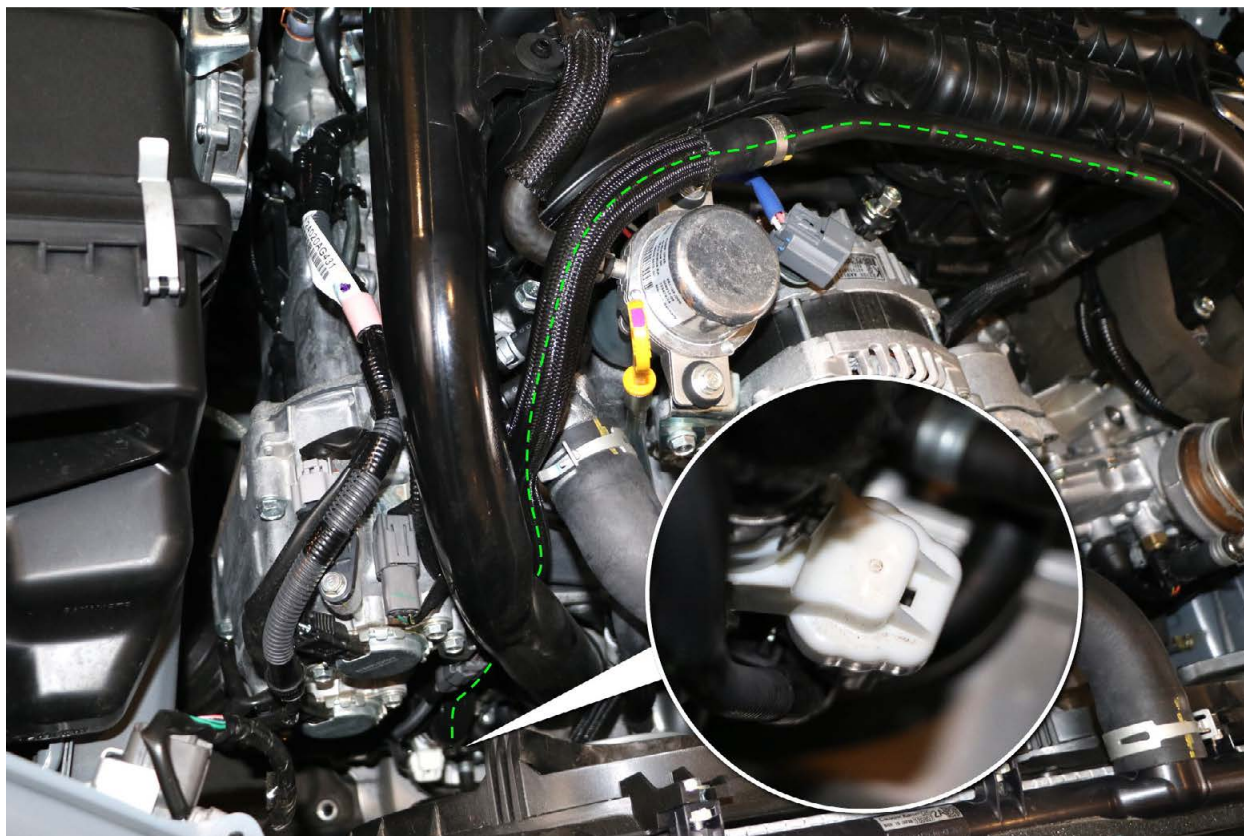
Remove the silver clip from the piece of the connector still attached to the port, then pull off the washer and connector.



**c.** Remove air box duct using a flathead screwdriver to remove the two pins. Pull towards you to remove. This gives you better access to the front of the engine, where the other end of the PCV Hose is connected.



d. Follow the path of the PCV hose across the manifold, down beneath the turbo inlet pipe, and down to the connector on the other end, magnified below. Disconnect the white connector by pushing in tab underneath the connector while pulling up on the hose to release.



This hose will not be reinstalled. We recommend storing it in case you return the vehicle back to stock.



This image shows the other side of the white connector just removed.

**8. Mount the AOS canister.**

- a.** Grab the removed intercooler mounting bracket, and line up the two holes in the AOS bracket to the two holes together on the bracket. Replace two of the three original bolts through the 2 brackets, and place bracket back into position.



- b.** Tighten 2 bolts using a 12mm socket and ratchet.



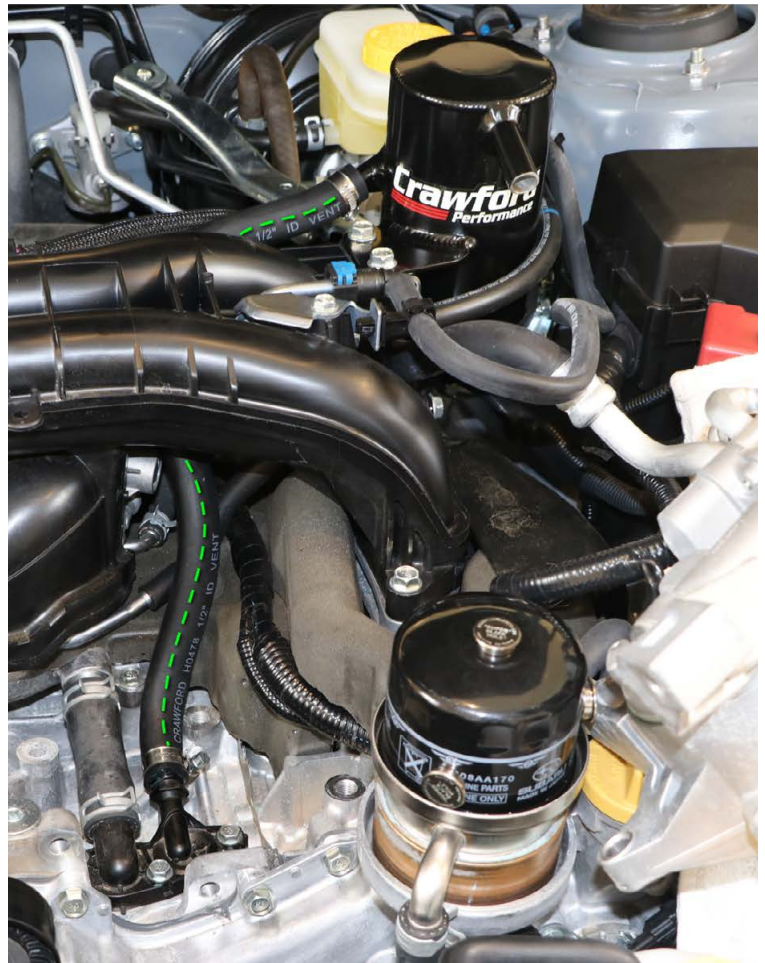
- c.** If the fuel line marked in green is too tight around the canister, use the longer 20" replacement hose included in the kit.

**9.** Grab 2 supplied worm clamps and the 16" 1/2" Vent Hose.

Route the hose underneath the intake manifold as shown.

Slip a supplied worm clamp over the end of the hose, and push on to Port #2 on the AOS. A thin layer of grease/lube rubbed inside the hose will help make this easier. Move clamp into position.

Slip over the other worm clamp on the other end of the hose, and push the hose on to the open crankcase vent. A thin layer of grease/lube rubbed inside the hose will help make this easier. Move clamp into position, then tighten both clamps using a flathead screwdriver or 7mm socket and ratchet.



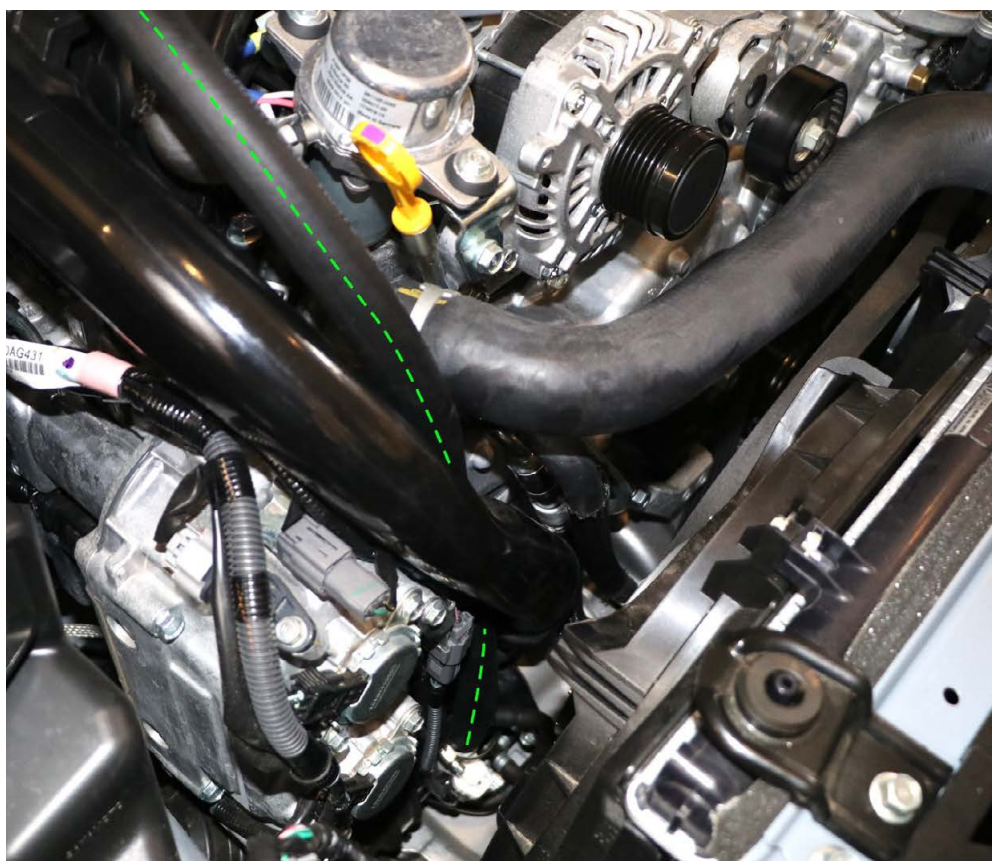
**10.** Grab the removed PCV hose from step 7, and pull the white connector out of the end of the hose.



11. Slip a supplied worm clamp over one end of the supplied 52" 5/8" Vent Hose, then push hose onto the white connector. A thin layer of grease/lube will make this easier. Tighten clamp using a flathead screwdriver or 7mm socket and ratchet.



12. Feed the other end of the hose behind the turbo inlet pipe, and pull it through. Connect the white connector back together with the grey connector by pushing down.



**13.** Run the hose along the same path as the OEM hose; along the front of the intake manifold. Use zip ties to secure the hose to the pin brackets.

Slip over a supplied worm clamp on the open end of the hose, then push hose on to Port #1 on the AOS. A thin layer of grease/lube rubbed inside the hose will help make this easier. Tighten clamp using a flathead screwdriver or 7mm socket and ratchet.



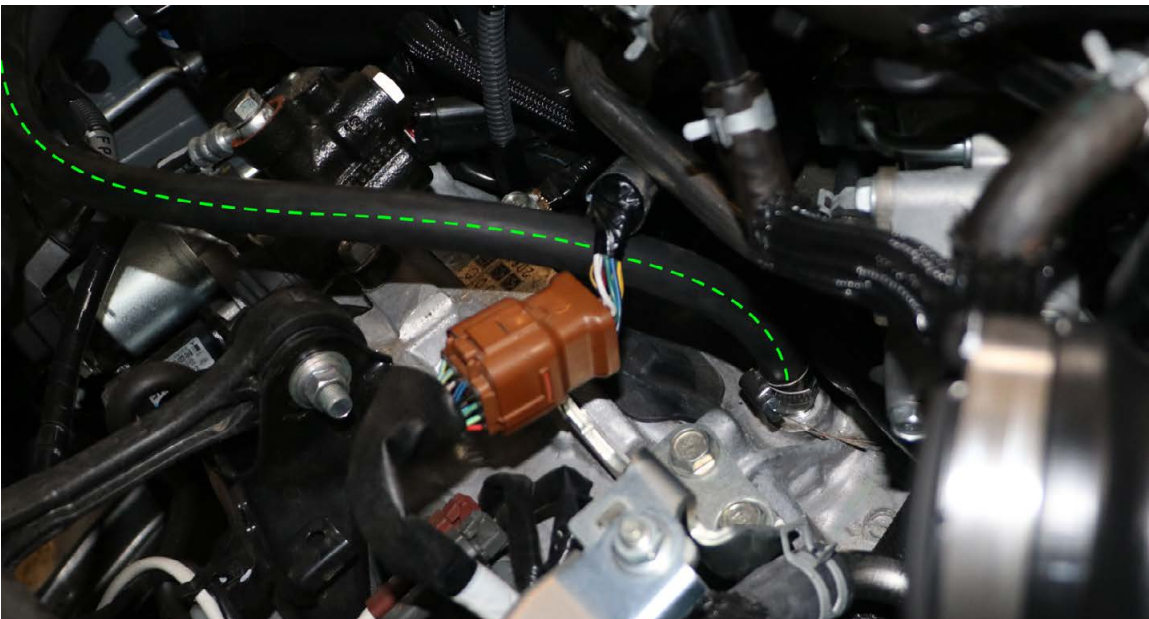
**14.** Remove PCV Hose behind the intake manifold. Using pliers, open the clamps while moving them away from the ends of the hose. Pull off.

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





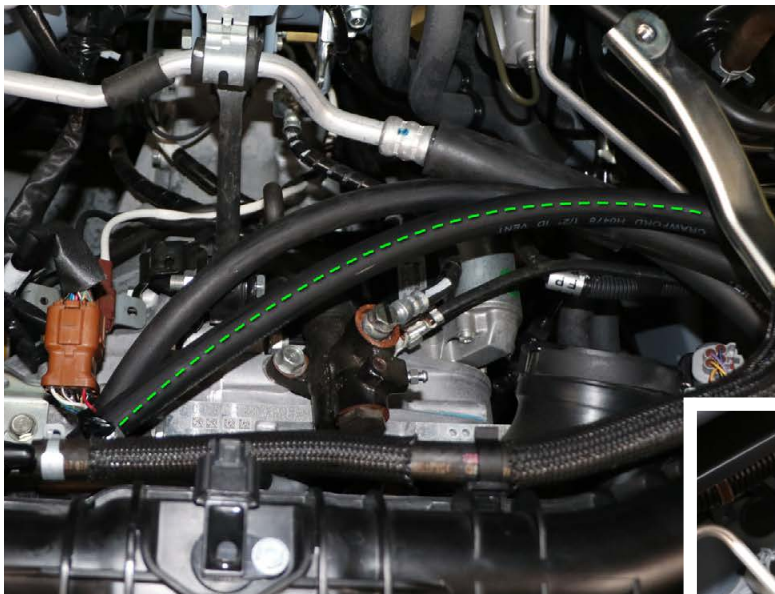
15. Slip over a supplied worm clamp on to the end of the 24" 3/8 PCV Hose, then push the hose on to the open port on top of the block. A thin layer of grease/lube rubbed inside the hose will help make this easier. Tighten clamp with a flathead screwdriver or 7mm socket and ratchet. Route hose underneath brown connector as shown.



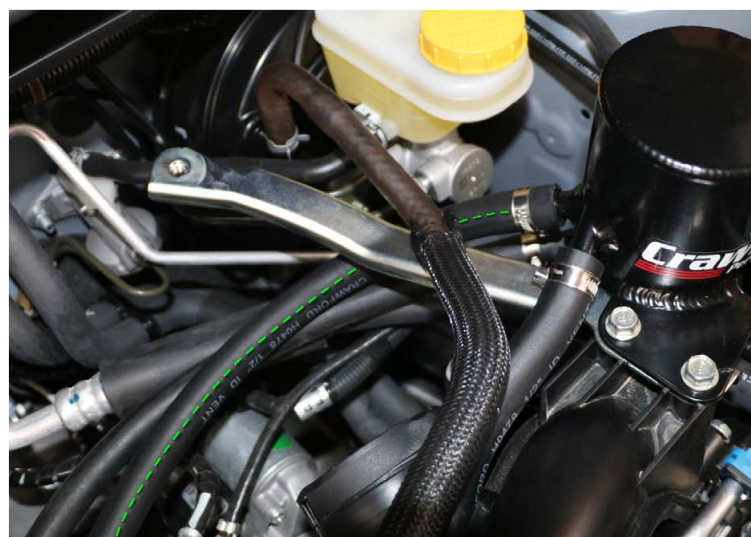
Connect the other end of the hose to port #4 on the AOS. Slip over a supplied worm clamp, push the hose on to the port, then position and tighten the worm clamp with a flathead screwdriver or 7mm ratchet and socket.



**16.** Slip over a supplied worm clamp on to the end of the 24" 1/2" PCV Hose, then push the hose on to the open intake manifold port. A thin layer of grease/lube rubbed inside the hose will help make this easier. Tighten clamp with a flathead screwdriver or 7mm socket and ratchet.



Connect the other end of the hose to Port #3 on the AOS. Slip over a supplied worm clamp, push the hose on to the port, then position and tighten the worm clamp with a flathead screwdriver or 7mm ratchet and socket.



**17.** Reattach AC compressor. Refer to step 6.

Grab the silver bracket removed, place it and the AC compressor, then replace all 4 mounting bolts. Finger tighten each bolt first, then go back and tighten all to the OEM TQ spec.

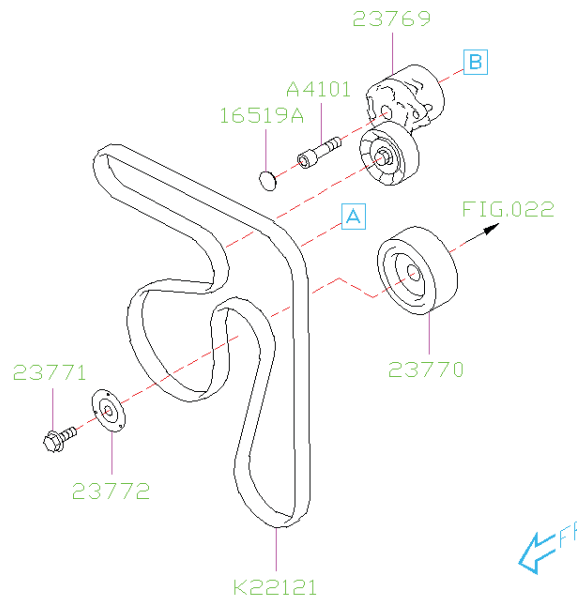
Reconnect the connector on top of the AC compressor, then push pin back into the black bracket's opening. Lay the bracket down, and replace/tighten its 10mm bolt.



Replace harness in its clip on the intake manifold, and reattach both the red terminal and grey connector. Replace the terminal's washer and 12mm nut, then tighten.

**18. Replace V-Belt onto pulleys. Refer to step 5.**

Use 14mm short socket and ratchet to rotate and hold the tensioner pulley clockwise while you replace the belt in the following pattern:



**19. Replace engine cover bracket by replacing its two 10mm bolts with a socket and ratchet. Refer to step 4.**

**20. Replace the air box duct by replacing its two push pins. Refer to step 7c.**

**21. Replace Intercooler. Refer to step 3.**

Tighten the throttle body and turbo inlet clamps using a flathead screwdriver or 8mm socket and ratchet.

Replace the two 12mm mounting bolts and tighten using a socket and ratchet.

**22. Replace engine cover.**

Press down on the front of the cover to click it on to the bracket.

Replace pins on the back of the cover.

**23. Reconnect the ground (-) on your battery using a 10mm wrench.**

**24. 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.

It is common for the passenger side window not to roll down from the drivers door after disconnecting the battery. Go to the passenger door, roll the window half way down, then back up. Hold the up position on the button for 3 seconds once it closes, then release. This should reset the driver's door button.

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