



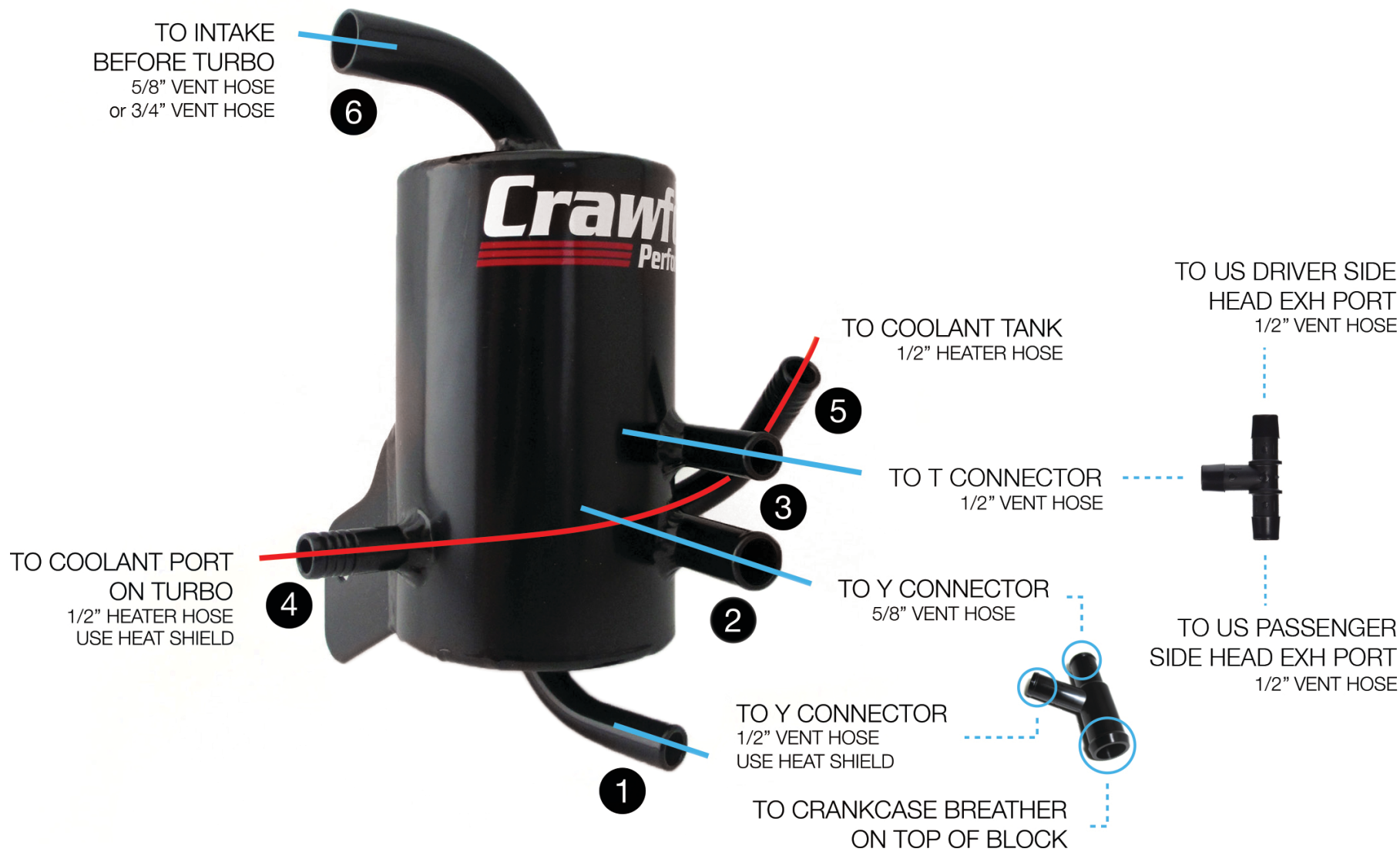
## CP Single Chamber (V2) Air/Oil Separator Kit 2008 - Present STI with Front Mount Intercooler / OEM Turbo Location

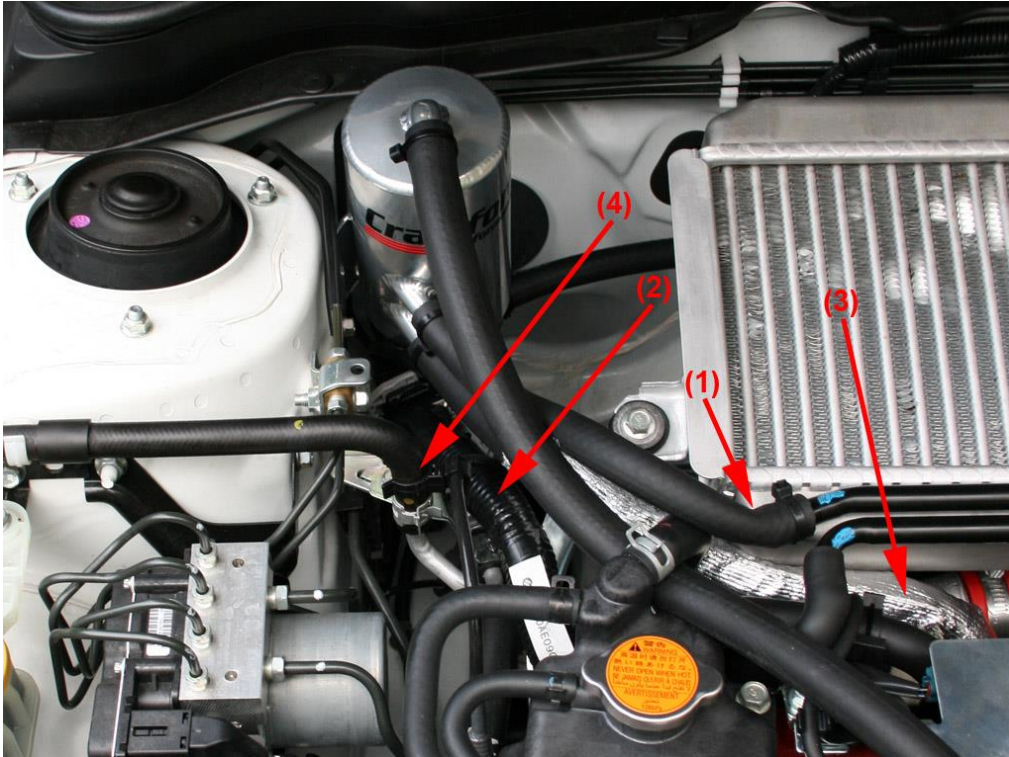
### S0716-1 Parts List

Item #	Qty	Description
S0709-1	1	V2 Air/Oil Separator Unit for 08+ STi with TMIC/FMIC OEM Turbo Loc.
F0416	1	1/2" PVC "T" Fitting
F0365	1	Crank Case Breather Connector "Y"
H0478	29"	1/2" Ventilation Hose: from side of T fitting to LH (Drivers Side) Head
H0478	10"	1/2" Ventilation Hose: from side of T fitting to RH (Passengers Side) Head
H0478	14"	1/2" Ventilation Hose: from port #3 to bottom of T fitting
H0478	29"	1/2" Ventilation Hose: from port #1 to side of Y fitting
H0479	25"	5/8" Ventilation Hose: to port #6 to Intake
H0479	18"	5/8" Ventilation Hose: to port #2 to top of Y fitting
H0480	16"	1/2" Heater Hose: to port #4
H0480	15"	1/2" Heater Hose: to port #5
C1049	1	1/2" Rubber Cap
P0659	1	1/4" Steel Pipe Plug
C0265	16	S/S Worm Clamps for Hoses
S0777-5	20"	Fire Sleeve for 27" Ventilation Hose
S0777-4	16"	Fire Sleeve for 18" Ventilation Hose
S0777-3	14"	Fire Sleeve for Heater Hose to Turbo
B2035	2	AOS Mounting Bolts
Z0108	2	8" Zip Ties



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





Over view picture of the top mount intercooler air / oil separator location, hoses and mounting point.



The top mount intercooler needs to be removed to easily install the Air/Oil Separator.



2. Unscrew and remove the mounting bolts to the left side of the intercooler.



3. Unscrew and remove the mounting bolts to the right side of the intercooler.



4. Unscrew and remove the bolts that hold the recirculation valve (blow off valve) to the top mount intercooler



5. Unscrew the clamp that holds the red intercooler hose to the turbo. This will need to be loose enough to pull the intercooler hose off the turbo.



6. Unscrew the clamp that holds the black hose to the intercooler. This will need to be loose enough to pull the intercooler hose off the throttle body.



7. Twist and disconnect the rubber engine breathers (2 in total) from the left side of the black metal crossover pipe.



**8.** Twist and disconnect the rubber engine breathers (1 in total) from the right side of the black metal crossover pipe.



**9.** Carefully pull the intercooler up and out of the engine bay. Watch out the aluminum air conditioning line above and behind the intercooler.



\* Note the oil in the intercooler from the OEM engine breather system







**10.** Locate the Electronic Check Valve and disconnect it from the electronic plug as shown in the picture.



**11.** Unplug the plastic “Y” from the crank case breather. It is OK if the rubber connector to the crank case comes off with the plastic “Y” connector as you will need it later.



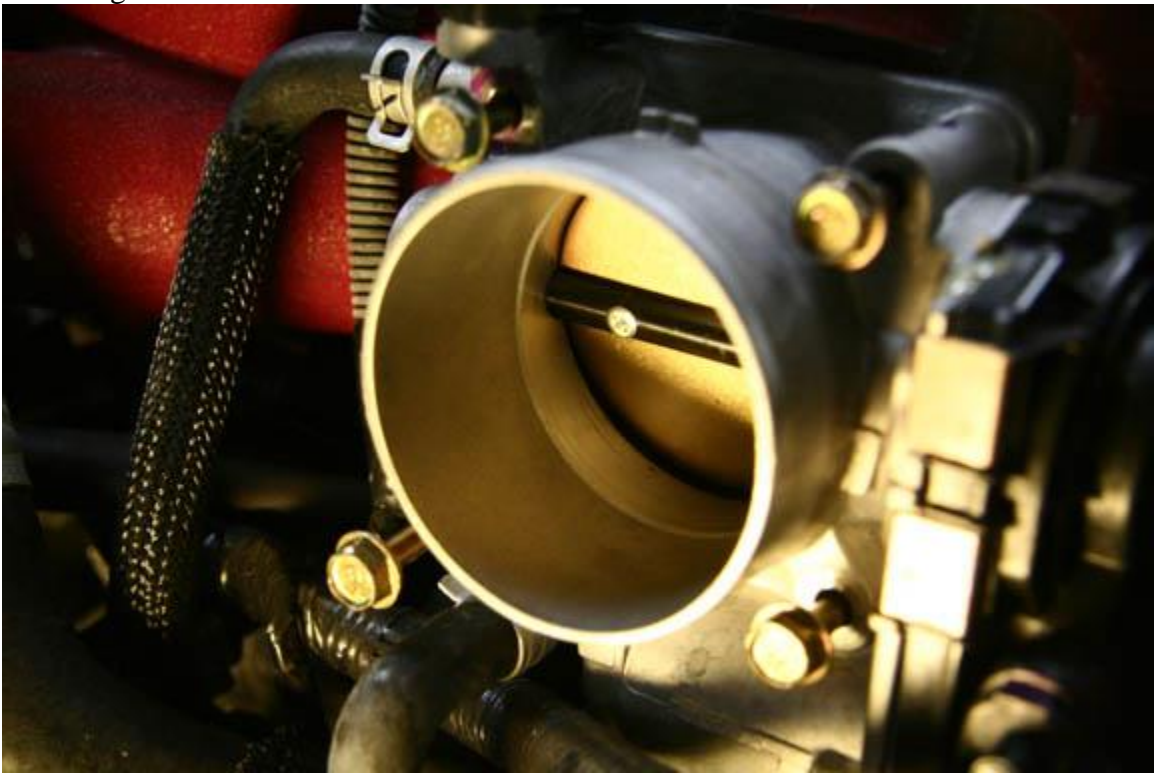
**12.** Located on the plastic “Y” connector, unplug the metal barb fitting from the rubber hose that leads to the PCV Valve.



**13.** This is what should have been removed at this point. Next, unplug the white electronic check valve from the rubber hose.



**14.** Install rubber cap over the open end of the white electronic check valve and zip tie to seal. Plug the white electronic check valve into the electronic connector.



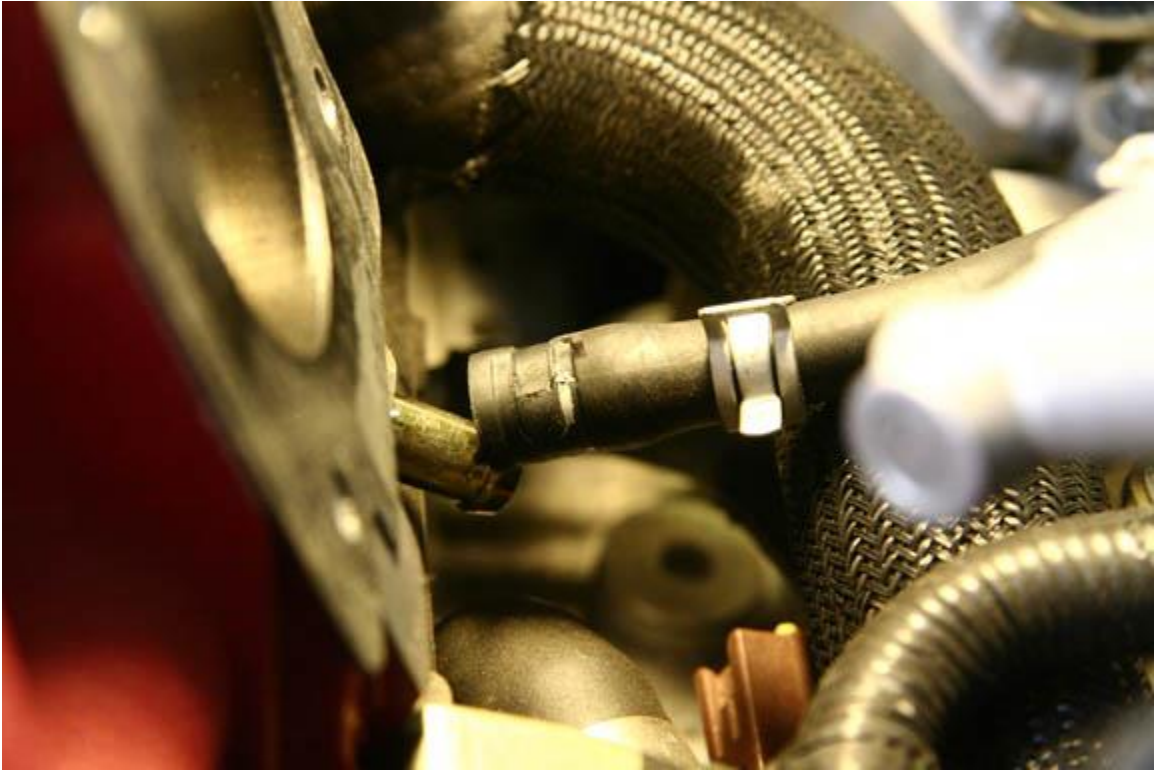
**15.** Unscrew and remove the 4 bolts holding the throttle body in place.



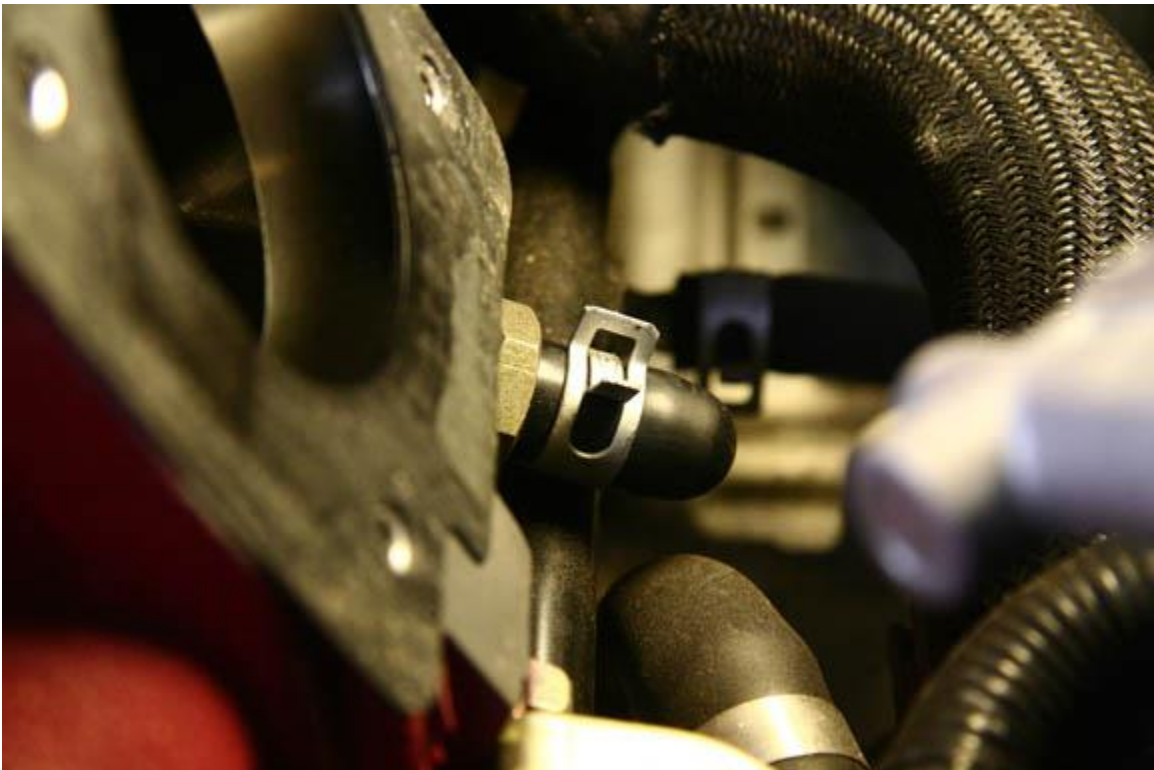
**16.** Tap the top of the throttle body to break it free from the gasket and intake manifold. Use either a rubber hammer or piece of wood.



**17.** Notice the oil at the bottom intake manifold from the OEM engine breather system



**18.** Disconnect the rubber hose from the PCV Valve underneath the throttle body.



**19.** Remove the PCV valve and replace with the 1/4" pipe plug.



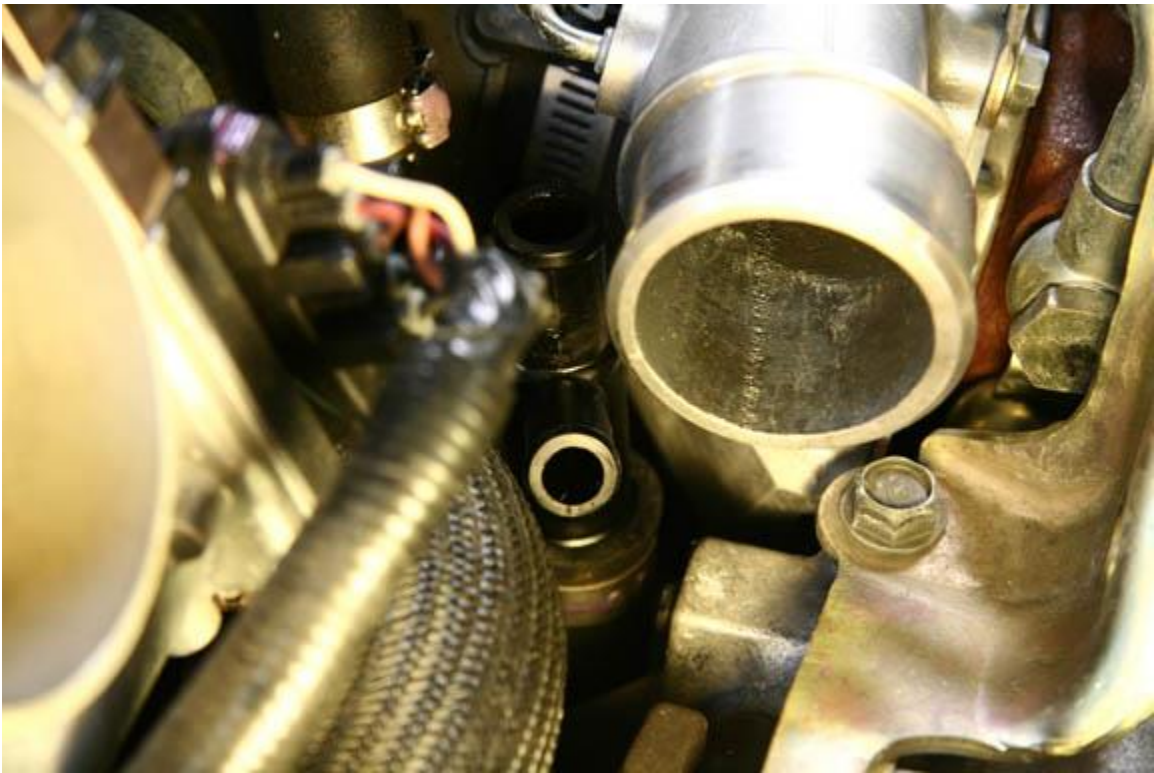
**20.** Place the throttle body back on the intake manifold (be careful not to harm the throttle body gasket). Screw the four bolts back into the intake manifold and hand tighten.



**21.** Insert the plastic “Y” connector into the rubber crank case hose. This was pulled off in step 12.



**22.** Locate the engine crank case breather on the engine block.



**23.** Place the crank case hose and supplied "Y" connector onto the metal crank case hose located in the same place it was removed from in step 12



**24.** Place all the hoses on the Air Oil Separator as seen in the picture above. This will make it easier to install once you have bolted into the engine bay.



**25.** Locate the two bolts that came with the Air/Oil Separator installation package.

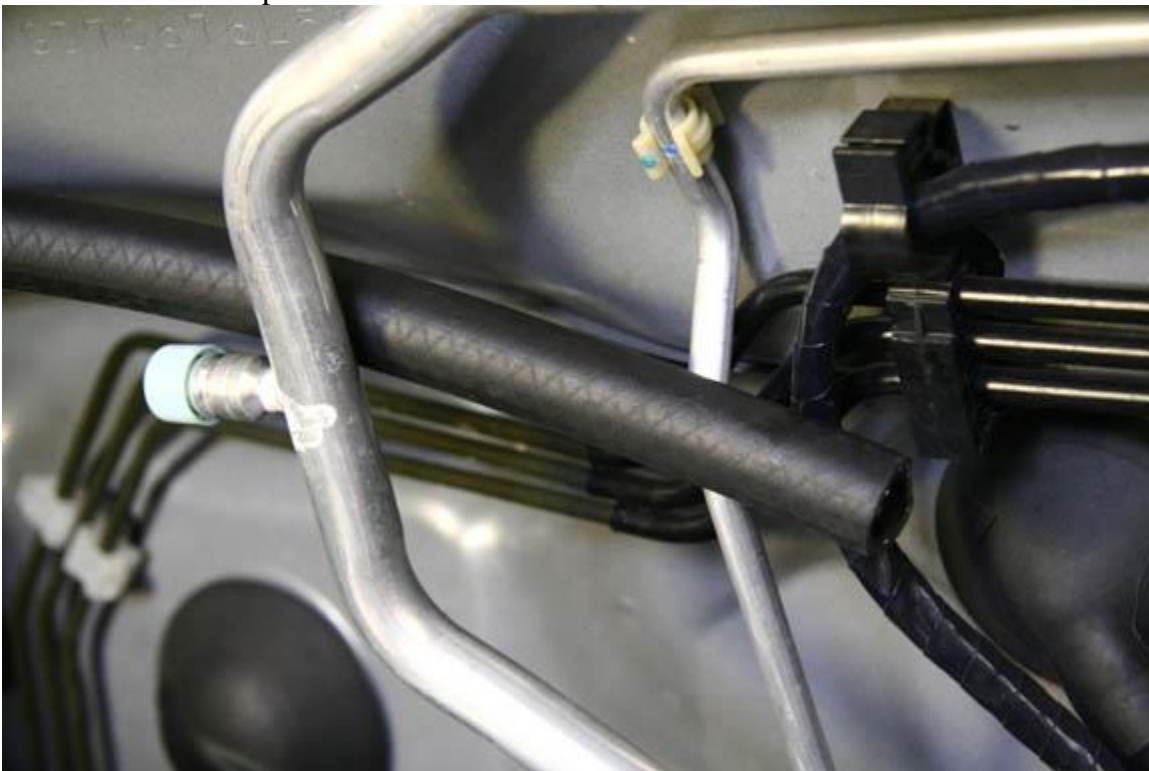




**26a.** There is a metal bracket that must be removed and the whole wiring unit must be rerouted along w/ the smaller wire to avoid getting in the separator's way.



**26b.** Place the Air/Oil Separator on the strut tower and screw the two bolts into the strut tower as seen in the picture above..



**27.** Run the longest hose on the Air/Oil Separator around the back of the Air Conditioning line.



**28.** Run the bottom hose on the Air/Oil Separator around and back to the crank case breather plastic “Y” connector



**29.** Connect the bottom hose to the side of the plastic “Y” crank case breather.



**30.** Once the hose is connected to the plastic “Y” then zip tie it to the hose to make it safe and secure.



**31.** Loosely zip tie the bottom hose of the Air/Oil Separator to the pitch stop to hold it in place.



**32.** Run the second hose from the bottom over the turbo and down to the plastic crank case “Y” connector. Make sure to install the fire sleeve on the hose to protect the hose from burning.



**33.** Slide the hose over the plastic “Y” connector.



**34.** Once it is over the plastic “Y connector then zip tie the hose to secure it to the connector. It does not need to be too tight.



**35.** Reinstall the top mount intercooler. Be careful not to damage the Air Conditioning line behind the intercooler.



**36.** Screw in the right side bolt to the intercooler mounting bracket and reconnect the engine breather to the black cross pipe.



**37.** Screw in the right side bolt to the intercooler mounting bracket. Note the “standard” location of the OEM engine breather.



**38.** Place the left hand side OEM engine breather on the black cross that faces the front of the vehicle.





**39.** Locate the OEM engine breather return hose located in front of the intake manifold on the turbo inlet hose.



**40.** Remove OEM engine breather return hose from the turbo inlet hose. This other end of the black OEM hose was disconnected in step 7.



**41.** Run the hose on the top of the Air Oil Separator underneath the turbo water line and OEM engine breather and towards the turbo inlet hose.



**42.** Locate the plastic breather inlet on the turbo inlet hose and maneuver the Air Oil Separator hose to the inlet.



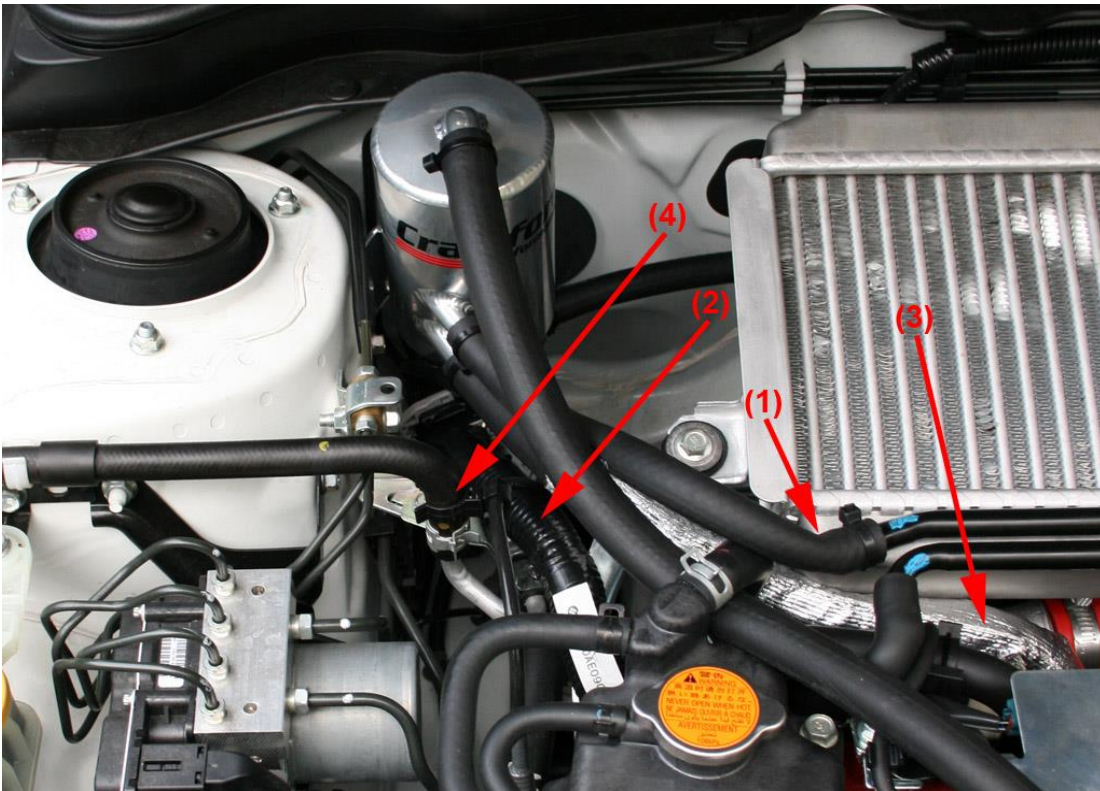
**43.** Slide the hose from the Air Oil Separator over the breather inlet and zip tie to hold it in place.



**44.** The remaining hose on the Air Oil Separator will then connect to the remaining cross over pipe.



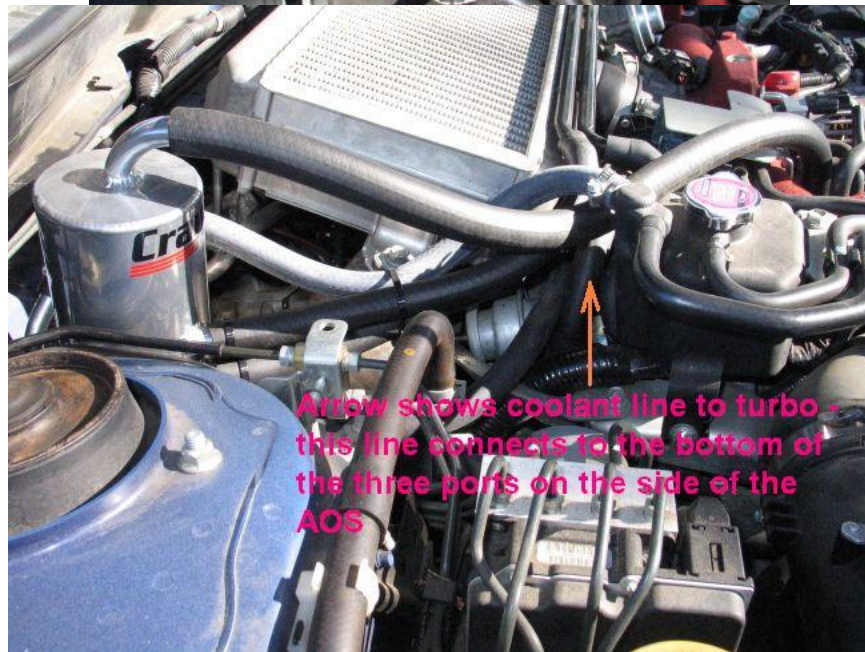
45. After connecting the hose to the cross over pipe, zip tie it to the pipe to make sure it is secure.



46. Reinstall the bolts into the recirculation valve (blow off valve) and tighten down the clamps to the turbo and throttle body.



Orange line shows coolant line from expansion tank to back port of AOS



Arrow shows coolant line to turbo - this line connects to the bottom of the three ports on the side of the AOS

**47.** Take the 16” heater hose, cover it with the 14” fire sleeve, and run it from the turbo coolant line to the right side (US passenger side) of the AOS (third port with ridges). Use the supplied clamps to secure in place,

**48.** Take the other 15” heater hose, and run it from the expansion tank to the bent pipe on the back of the AOS. Use the supplied clamps to secure in place.

Check everything over and that is it.