

JacFab

"The Extendolator" Intake Spacer (2012+ LFX)

Installation instructions, & disclaimer

• Installation

-Tools needed

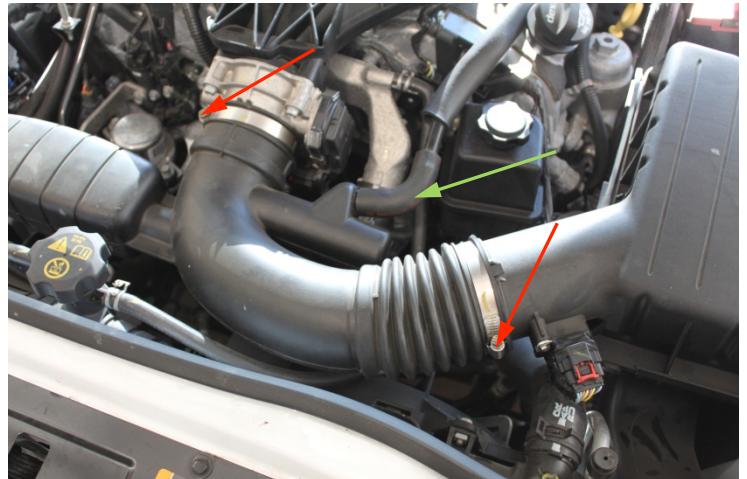
-10mm Wrench	-Flat-blade Screwdriver
-13mm Wrench	-3 or 6" Socket Extension (optional)
-Ratchet	-T-25 Torx bit
-13mm Socket	-Pliers or Channel Locks
-Torque Wrench	-Anti Seize

Installation of "The Extendolator" is fairly straight forward.

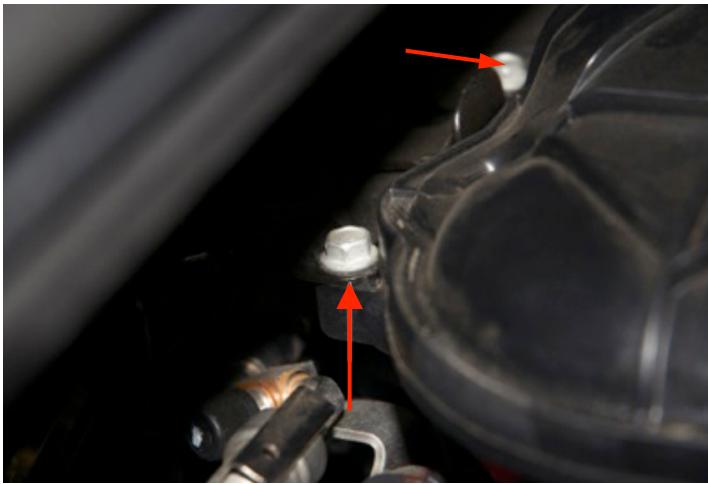
Start by using the flat blade screw driver and loosening the hose clamps (red arrows). Remove the clean side vacuum tube by pulling it off of the elbow (green arrow). Remove the intake elbow.

NOTE

Your intake elbow may not match this

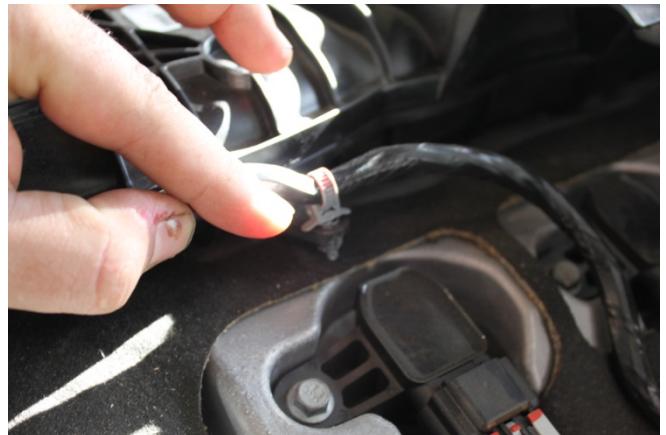
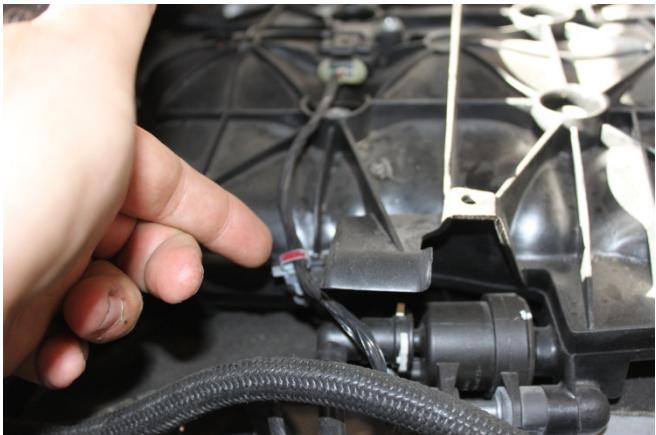


picture exactly, but removal instructions should be fairly similar, requiring similar tools. In some cases you may have to remove the MAF sensor connector which can be done by pulling the red connector lock out, and remove the connector by wiggling gently until it comes off. You may refer your particular Cold Air Intake installation instructions for intake tube removal.



After removing the intake elbow, the next step is to remove the two (2) 10mm bolts at the rear of the intake that hold on the fuel line shield (red arrows). There may not be room to utilize a socket wrench in most cases, so the 10mm wrench should be used to remove these bolts. Save them somewhere where they will not be lost so they can be reused a later date if you should choose

to remove the intake spacers.



Shown above are two (2) wiring harness tie wrap securing devices, one on either side of the intake manifold at the shown locations. Replacements can easily be procured at any parts house if they should be broken during removal. Use of a set of pliers, channel locks, or the flat blade screw driver can aid in the removal of these. Use any of the above listed tools and apply pressure to the bottom of the securing strap while gently rocking it back and forth. Eventually it should come free of the hole in the manifold. Do not rush this, as they can break easily.

Use the channel locks, or pliers to squeeze the clamp on the brake booster vacuum line on the driver's side rear of the intake manifold. Squeeze the clamp, and pull the hose off of the manifold.





Remove the MAP sensor connector on the top of the intake manifold. Depress the release on the connector and gently working it back and forth until the connector is released from the sensor.

Next remove the hardline hose from the Purge Solenoid. This is done by pressing the white clip from the backside of the hose, and pushing it toward the passenger's side of the car. Once the clip is depressed, gently work the hose back and forth while pulling rearward, the hose should pull off of the Purge Solenoid.



Once the hose is out of the way, remove the electrical connector on the bottom of the Purge Solenoid. Much like the MAP sensor connector, the release, which is located on the bottom side of the connector, is depressed, and gently work the connector back and forth until it comes free.



The dirty side PCV line should be removed next. This will be much easier if you have a catch can installed, as the hardline would have been mostly replaced with flexible hose.

The fitting must be rotated approximately 90 degrees counter clockwise, and then pulled up once released being held.

In many cases if you have installed a catch can already, there should be enough flexible hose that has replaced the hardline that will allow the fitting to be rotated without disconnecting anything else.

If you have not installed a catch can yet, you will have to release the dirty side PCV hardline hose from the rear of the passenger's side valve cover. Press the release clip and pull the hose connector up off the nipple on the rear of the valve cover. Snake the end of the hose toward the front of the car and rotate the whole hose counter clock wise approximately 90 degrees and pull the fitting in the center of the manifold upward to release it.



Once everything else is free, now you can remove the six (6) bolts that secure the intake manifold, shown left. Use the 13mm socket and ratchet to remove the front-most five (5) bolts. Due to height limitations, the driver's side rear bolt may, or may not be able to be removed using the ratchet, so the 13mm wrench should be utilized.

Remove the 5 front-most bolts from the intake manifold, and put them in a safe place. Pull the driver's side rear bolt up approximately $\frac{1}{2}$ " out of its hole and hold it there while tipping the front of the manifold up, and pulling the manifold toward the front of the vehicle.



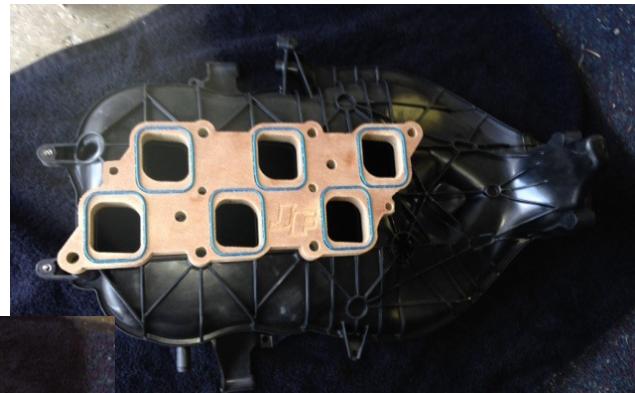
Once the intake intake manifold is removed, turn it upside down. Remove the 4 screws as noted by the red arrows to the right.

These will either be a T25 Torx head screw, or a triangular security bit screw.

If you do not have the triangle bit, the triangular security bit screws and be unscrewed with a flat head screwdriver by sticking one side of the screwdriver head into one corner of the triangle, and the other into the slot, maintain constant downward pressure and turn counter clockwise.

Note the green arrows above. Remember the orientation of the aluminum piece, at one arrow there will be a rounded area at the flange on the screw hole, the other end will have a squared off area on the flange at the screw hole.

Put the spacer onto the intake manifold, note orientation of the round/square areas at the front and rear as mentioned above.



Reinstall the aluminum piece, and align the port holes with the spacer holes. Insert the blue screws included with the spacer hardware, and tighten them with a flat head screw driver.

The 3/4" spacer will come with 6 bolts, and the 1/2" spacer will come with 5 bolts. On the 1/2" spacers, one of the original long bolts removed from the intake manifold will be reused as the new "shortest" bolt in the driver's side rear hole of the intake manifold, and the 5 supplied bolts will replace the original long bolts.

Regardless of 1/2" spacer or 1" spacer the shortest bolt must always go in the driver's side rear hole of the intake manifold.

Apply Anti Seize compound to the new bolt threads before inserting.

Note that the driver's side rear bolt must be pre-inserted into the manifold as it cannot be inserted later because the cowl is in the way.

Once the manifold is seated, insert the remaining 5 long bolts into their prospective holes, and tighten them hand tight.

Set your torque wrench to 18 ft lbs and begin to tighten the intake manifold bolts in the following order:

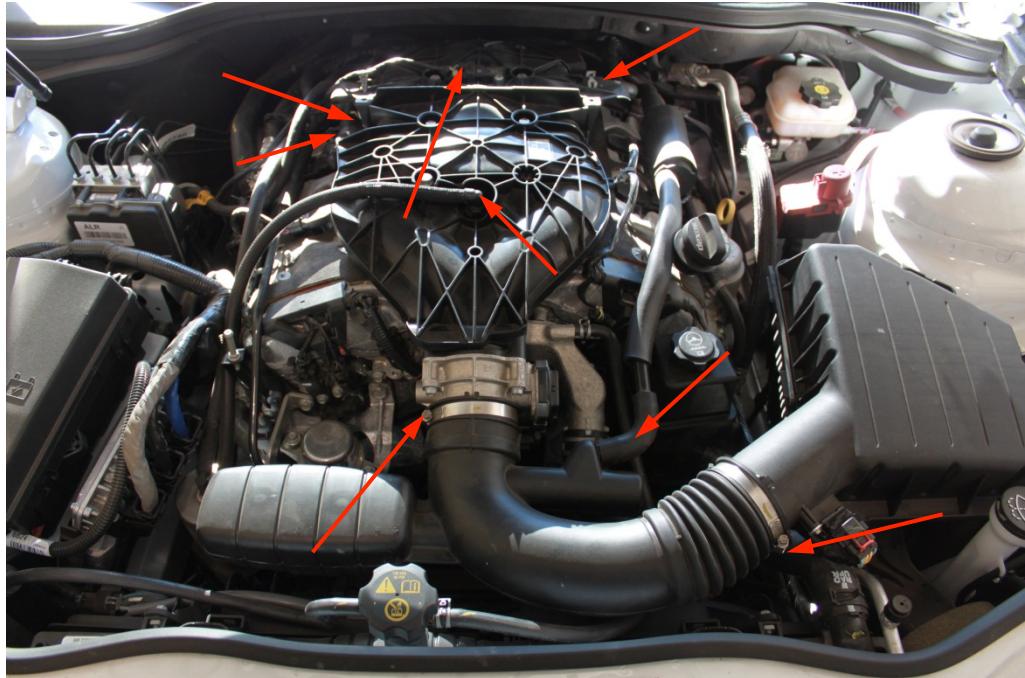


Rear of manifold

	5
3	2
1	4
	6

Front of manifold

Once the bolts are tightened on the first pass, make a second pass over the bolts to ensure they are correctly tightened. DO NOT over tighten the bolts or you may end up stripping the threads in the heads, or cracking the composite intake manifold.



Once the intake manifold has been tightened, reattach everything that was removed from the engine (red arrows pictured above) in reverse of what the instructions above say

Congratulations, you are now finished with the install. Double check that you have reconnected everything and go for a drive.

Disclaimer: You are installing this piece at your own risk. JacFab LLC. Or its associates cannot be held liable for any damages to the vehicle, any other property, personal injury, or injury to any other person caused by/from the installation of this piece on the end users vehicle.