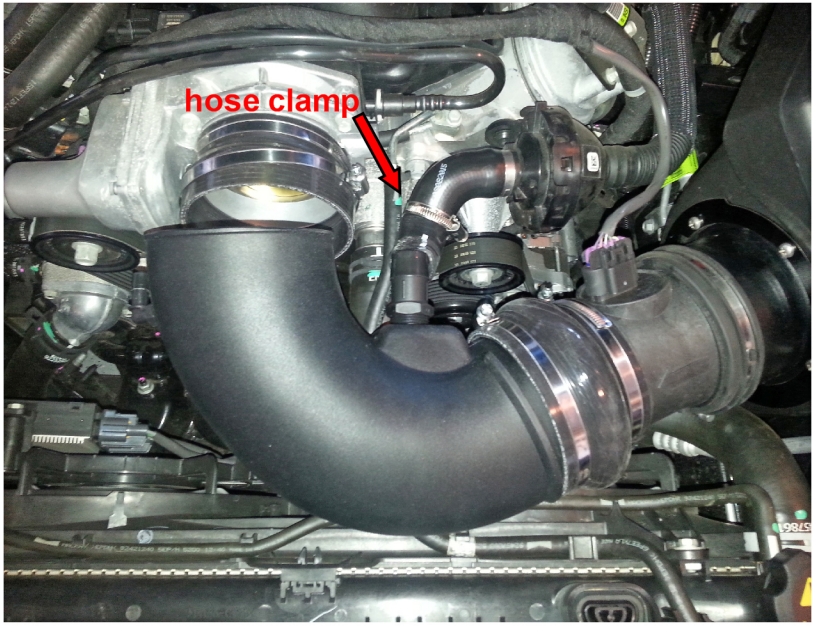
2016 install using sound tube

Using channel locks or pliers, squeeze the two ears together to remove stock hose clamp from the sound tube.
Slide the supplied 1 1/2” hose clamp over the sound tube prior to installing the inlet elbow. (see ill.)
Install the inlet elbow per instruction pack. During installation, fully engage the sound tube over the 1” hose fitting on the inlet elbow. Tighten the sound tube clamp *after* tightening the other hose clamps.



ROTO-FAB

A LIMITED LIABILITY COMPANY

2014 SS COLD AIR INTAKE SYSTEM INSTALLATION GUIDE

Tools/items needed
7, 8 & 10 mm sockets
wratchet/extension
10 mm wrench
T30 torx bit
pocket screwdriver
phillips screw driver
dish soap or lubricant

Roto-fab LLC PO BOX 3516 CAMP VERDE, AZ 86322 (260) 375-4480 ROTO-FAB.COM

2014 SS PARTS LIST

ITEM	*QTY*
1) Air filter	1
2) Air box assembly	1
3) Air box adapter	1
4) Inlet elbow	1
5) Hose clamps	4
6) Heat shield	1
7) Air box flange	1
8) Step hose coupler	1
9) Hump hose coupler	1
10) 90 degree PVC fitting	1
11) Stud spacer	1
12) M6x25 bolt	1
13) M6 flange nut	1
14) 10-32 screw	5
15) 12 1/4” breather hose	1

COMING SOON!

Be sure to check out other Roto-fab products for your SS!

Please take a moment to locate all of the components and verify quantities prior to removal of your stock intake system.

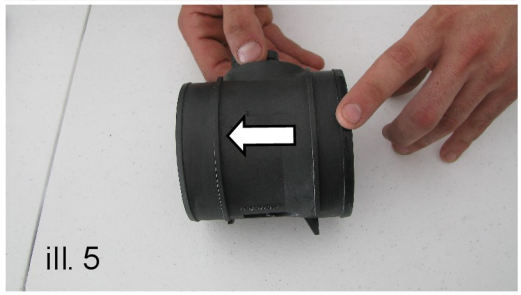
Stock intake removal- Remove the engine cover by first lifting on the front using both hands, then lifting the rear. (ill. 1) Set aside for later installation.
Disconnect the MAF sensor harness by pushing on the top release tab, then pulling outward. (ill. 2)
Disconnect the breather tube fitting on the right valve cover by using a pocket screwdriver to pull the release tab towards the front of the car. With the release lever pulled forward, gently slide the breather tube off of the barbed nipple.(ill. 3)
Using a 10 mm socket, remove the two nuts retaining the air box assembly. Use a 7mm socket to loosen the hose clamp at the throttle body. With both hands, pull straight upwards to dislodge the air box from the lower retaining stud. Remove the entire assembly from the vehicle and onto a flat work surface. Using a 7mm socket, loosen the hose clamps on either side of the MAF sensor. Remove the MAF sensor. **Important-**do not reach inside either end of the sensor housing as components are delicate and easily damaged. Next, remove the rubber coupler from the air box outlet. Both the MAF sensor and the rubber coupler will be re-used with the Roto-fab system.
Preassembly-you will need a flat and sturdy work surface for preassembly. Locate the #3 air box adapter duct and the stock air box coupler previously removed. On the air box adapter you will notice a small straight line on the flat circular surface about 3/4" from one of the brass inserts.(ill. 4) Install the stock rubber coupling onto the air box adapter while aligning the hex head of the hose clamp with the small mark on the adapter.(ill. 4) Fully seat the rubber coupler onto the air box adapter. Be sure it is fully seated. Loosen the hose clamp enough to create a gap between the clamp and the rubber. Notice the tab on the rubber coupler must be opposite the hose clamp and the small line on the air box adapter.
Locate your stock MAF sensor. Use your finger to apply a small amount of dishsoap or other lubricant around the inlet side, the side with screen. (ill. 5) Butt the tab of the MAF sensor against the rubber tab on the stock coupler. insert this side of the sensor into the rubber coupler at this time. (ill. 6) With the large end of the air box adapter duct on a flat surface, push downward on the top side of the MAF housing to seat it in the coupler. Once fully engaged, inspect to ensure parellelism between the sensor and the adapter duct. The electrical connector side of the MAF sensor will occasionally insert too far and must be pulled out slightly. When the sensor is parellel and fully engaged, tighten the hose clamp. Locate the # 2 air box assembly, the #7 air box flange and the (5) #14 10-32 screws. Lay the air box on a flat padded surface to prevent scratching. On the black air box mounting ring or flange, you will notice a "T" stamped on it.

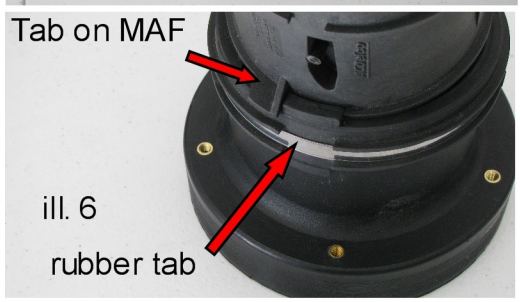

ill. 1


ill. 2


ill. 3

ill. 4


ill. 5

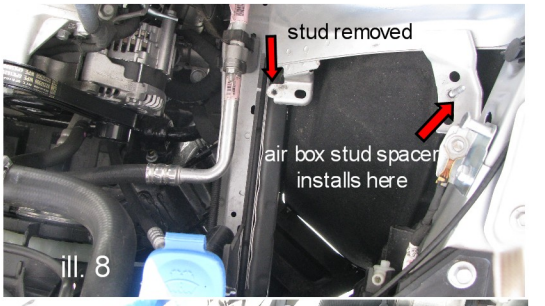


ill. 6

The “T” is the top and the side *against* the air box. **The “T” will not be visible after assembly.** On the air box, you will notice a “M” molded in black. We used white for clarity in ill. 7. Open the lid of the air box and install the MAF sensor assembly through the large round hole from the inside of the air box. You will feed the sensor connector/hose clamp through the relief cut, then rotate so the MAF sensor connector is slightly below the “M’ on the air box. Now with the “T” on the flange towards the air box, slide the mounting flange over the MAF sensor and butt it to the box. Again, you will use the relief cut to cross the clamp, then rotate as necessary to position the “T” to the top and *against the air box*. Insert a #14 screw through the flange and air box, then thread 1-2 revolutions into a brass fitting on the air box adapter. Install the other 4 screws 1-2 revolutions. Now alternate back and forth to securely tighten all 5 screws.

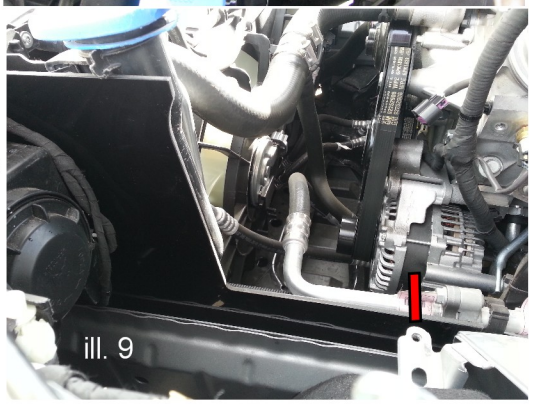
ill. 7

On the car, use a T30 torx bit or pliers to remove the stock air box stud. (ill. 8). In your hardware kit, locate the # 11 black plastic stud spacer. Drop it over the air box stud. (see ill. 8)



ill. 8

Locate your #6 black plastic heat shield. The heat shield will install as shown in ill. 9. Note the position of the top flange of the frame rail. The heat shield is on the inboard side. First, set the front side in position, then work the back side down so the shield is resting flat against the top of the frame rail. As you slide the shield forward, position the light wiring harness so it engages the long slot on the heat shield. DO NOT pinch any wiring with the heat shield.


ill. 9

When the heat shield is in the proper position the reference mark on the edge of the plastic should be approximately in line with the threaded hole in the air box tab. (see ill. 9) Locate the #4 inlet elbow and the #10 small 90 degree fitting. Start the # 10 fitting into the brass insert on the inlet elbow. tighten until snug. Go one more revolution and line up the neck of the small fitting with the small line molded into the top of the boss on the inlet elbow. *The threads are tapered and not designed to bottom out!*

Air intake installation-Double check to be sure the #11 stud spacer has been placed over the upper air box stud on the vehicle.(ill. 8) Working from the front of the car, drop the bottom of the air box down into position. As you are going down, rotate slightly from side to side to clear the light housing. As you approach the final position, align the upper air box stud with the upper mounting hole of the air box. Once the stud is engaged, the air box should go down against the air box spacer and the lower factory mounting tab. Helpful hint-we use 1 round of black electrical tape around the hood strut at the point of contact between the air box lid and the hood strut.

Locate the #12 bolt and the #13 nut. Start the bolt first as you can tilt the air box as necessary to achieve good alignment with the threaded hole to prevent cross threading. Next, start the #13 nut on the upper stud. Now using a 10 mm wrench, tighen both. MAF sensor connector should be connected at this time. With the release tab facing upwards, insert into the MAF sensor. You should hear and feel a “click” when it is fully engaged.

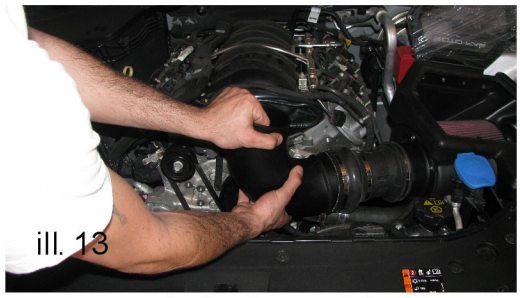
Locate the #1 air filter and remove the protective wrapping. Orient the clamp as shown in ill. 10. Install the filter as shown going straight in with the cap end. Once in the air box, rotate the filter to engage the *bottom* of the mounting flange first. with the bottom started, push the top into position. The filter should fully engage the mounting flange. Before tightening the filter, try moving it back and forth slightly to ensure it is fully engaged- including the botttom. If there is any doubt, simply pull it off the flange and repeat the process. Rotate the clamp as shown in ill. 11 and use a 8mm socket with extension to tighten securely


ill. 10

Locate the #9 hump hose and two of the #5 hose clamps. Orient one clamp on the small end of the hump hose as shown in ill. 12. Fully engage the hump hose onto the MAF sensor and tighten the clamp in the location shown. Do not overtighen. Next, locate the #8 step hose and the remaining two #5 hose clamps. With one hose clamp positioned as shown, fully engage the small end of the step hose onto the throttle body. Tighten hose clamp to throttle body. Locate the #4 inlet elbow. Be sure your hose clamps are positioned as shown in ill 12 before proceeding. The side opposite the small 90 degree fitting inserts into the hump hose on the MAF sensor. Install with elbow facing up as shown in ill. 13. Once fully engaged in the hump hose, rotate the elbow downward to engage the other end into the bottom of the step hose at the throttle body. Be sure the elbow is fully engaged in the step hose, then rotate as necessary for optimum alignment. Tighten the two remaining hose clamps.

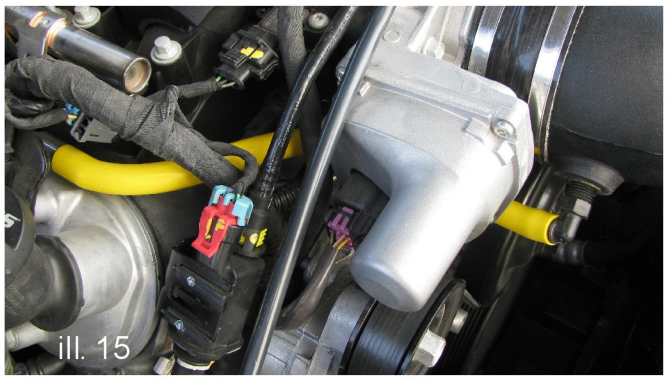

ill. 11


ill. 12


ill. 13

Locate the #13 breather hose. Routing is important, so please read carefully. Insert the breather hose from the top side behind the throttle body motor. (See Ill. 14) The hose will go over the convoluted loop and behind the harness wrapped with tape. With one hand on the top side holding the hose, reach from underneath the front of the throttle body with the other hand to guide the hose under the throttle body. Pull it through enough to fully engage it on the neck of the small 90 degree fitting. On the top side, route under the taped injector harness and fully engage it on the chrome breather nipple. **If routed correctly, the breather hose should be a safe distance from the serpentine belt. Adjust the hose as necessary to be sure there are no kinks or folds in it!**


ill. 14

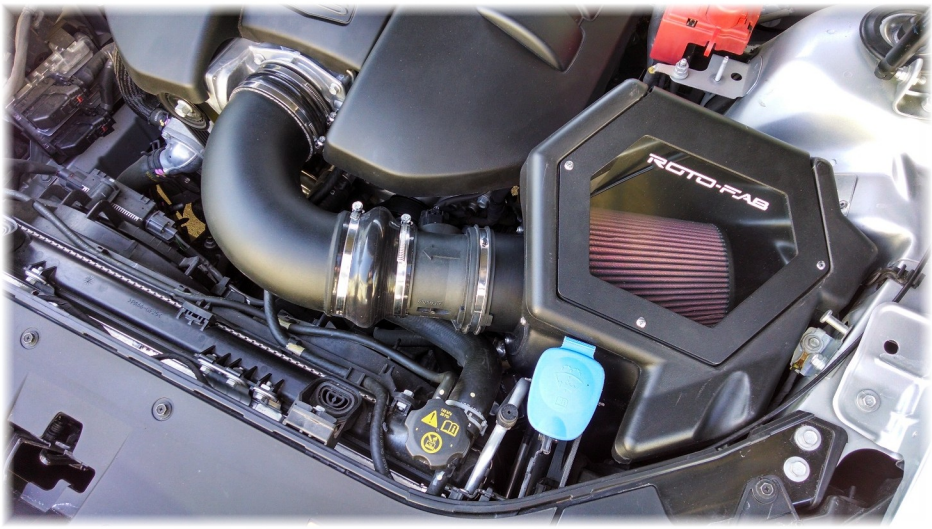

ill. 15

Remove the protective wrapping from the air box lid. *Please read the polycarbonate maintenence information below before attempting to clean the lid.*

IMPORTANT- When hinging lid is closed, the back 2 screws will make contact first. Look to see screw is aligned with the mounting hole and turn in 1 revolution. Next, do the same to the other side. Continue back and forth with the two rear screws tighening 1 revolution at a time until the front screw starts to lodge in it's mounting hole. Tighen it 1 revolution. Alternate with all 3 screws to draw the lid down evenly going 1 revolution at a time until the top of the lid is flush with the top of the air box. Screws are not designed to "bottom out". When opening the lid, the same "1 revolution rule" applies. Otherwise, the lid and screw work together just like a gear puller to press the retainer off of the screw. If this happens, the unit is still perfectly functional but the screws will no longer be retained to the lid.

Install the engine cover by first lining up the two rear mounts on the fuel rail. It helps to do this with the front appr. 8-12" off the motor. Lower the front of the cover while watching the clearance on the coolant hoses. It may be necessary to push them inward to allow the front mounts to reach the fuel rail. Once all four mounts are contacting the fuel rail, push downward to seat the mounts.

Congratulations, your install is now complete! Please be sure to check the hose clamps and tighten if necessary after your initial drive and periodically afterwards.



Polycarbonate cleaning instructions

- We recommend warm soapy water and a sponge to clean the surface. Rinse with warm water as well. A soft rag can be used to "pat dry". compressed air works well for drying.
- Do not attempt to clean when hot as the surface is easily scratched
- Polycarbonate cleaners, polishes and scratch removers are commercially available.