

ROTO-FAB



2016-19 Cadillac CTS-V Cold Air Intake System Installation Instructions

For part #
10161061

2016-19 Cadillac CTS-V Cold Air Intake System Parts List

IMPORTANT- The air straightener is precisely located in the MAF housing and is not servicable. Never tamper with the four buttonhead screws retaining it. Tampering will result in poor performance and void the warranty.



Component	qty
1) Air box assembly	1
2) MAF sensor housing	1
3) Inlet elbow	1
4) Air filter	1
5) 4 5/8" hump hose	1
6) 4-4 1/4" step hose	1
7) small hose clamp	2
8) 3/8" ID hose	1
9) 1/4" NPTx3/8" hose 90	1
10) Breather adapter fitting	1
11) M4x.7x8mm philips MAF screws	2
12) 10-32 x 1/2" long philips screws	5
13) 100-120 mm hose clamps	2
14) 110-130 mm hose clamps	2
15) Cable ties	6
16) Lower bulb seal with angle cut	1
17) Hood seal	1

Tools/items needed

7 MM socket
 8 MM socket
 10 MM socket
 1/4" socket
 T15 torx bit
 Pliers or sidecuts
 Small screwdriver
 Philips screwdriver
 Lubricant

*Some components will be pre-assembled
 This product has not been CARB tested*

Position a supplied #15 cable tie just above the existing retainer going around the two hoses and the A/C line as shown in ill. 6. DO NOT PULL THE TIE TIGHTLY! The cable tie should tighten enough to secure the lines away from the pulley while retaining a gap between the hoses as shown. These hoses must be able to move for motor rock. If overtightened, carefully cut the tie and use another.



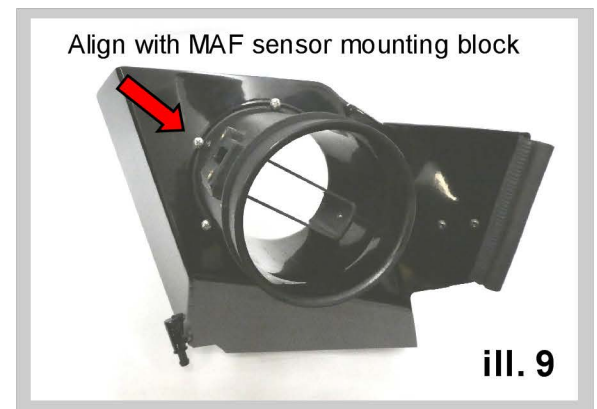
Use a #15 cable tie in the barbed area to secure the two lines together as shown in ill. 7. Tighten the cable tie while being sure to seat it in the low area of barbs so it doesn't walk forward. Snip the end once secured.



Use a pry tool to disengage the hood latch cable retainer exposed on the vertical portion of the inner fender during stock air box removal. See ill. 8



Locate the #1 air box, the #2 MAF sensor housing and the five #12 10-32x1/2" philips screws. Insert the MAF housing through the large hole in the air box with the 6" end (larger diameter end) of the housing on the inside of the air box. When viewing the air box as shown in ill. 9, the MAF sensor mounting block should be aligned with the bolt hole in approximately the 10 o'clock position. BE SURE THE MAF BLOCK IS IN THIS POSITION. Insert the screws through the air box starting all five screws in the threaded inserts of the MAF housing. Once all are started, work back and forth to draw the MAF housing tight to the air box. Tighten all five screws securely.



Locate the #4 filter with clamp. Orient the clamp so the hex head is upward and located as shown in ill. 10. Install the filter onto the 6" end of the MAF housing as shown and tighten the clamp just enough to keep the filter in location.

In the engine bay, apply a small amount of dish soap or similar lubricant to each of the three air box mounting grommets.

To install the air box assembly in the car, position the air box exactly as shown in ill. 11. The back wall of the air box should be horizontal with the MAF housing outlet pointing downward and towards the center of the car as shown. As a reference, your right thumb should be on or near the "Roto-fab" logo.

Rotate the assembly down and in as shown in ill. 12.

Once rotated into position as shown in ill. 13, align each of the three studs with their respective mounting grommets before engaging any of them. With all three studs properly aligned, press down on the top of the air box to seat the studs in the grommets.



ill. 10



ill. 11



ill. 12

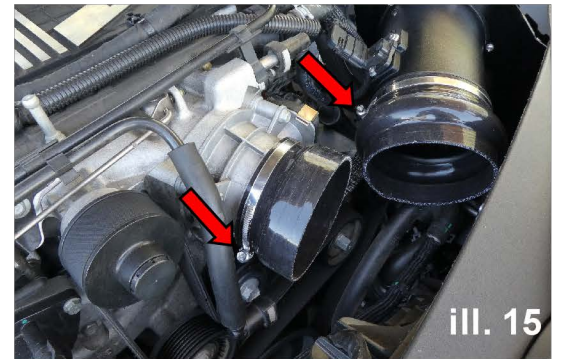


ill. 13

Carefully slide the MAF sensor into the MAF block. Locate the two #11M4x.7x8mm philips MAF screws. **DO NOT ATTEMPT TO USE THE STOCK SCREWS TO MOUNT THE MAF SENSOR. ATTEMPTING TO DO SO WILL DESTROY THE BRASS BUSHINGS IN THE MAF SENSOR HOUSING.** Using a finger to hold the screw inline with the threaded insert as shown in ill. 14, start one screw then the other. Once both are started, tighten both securely.



Locate one of the #13 100-120mm (smaller) hose clamps and the #6 silicone step coupler. Orient the clamp head as shown in ill. 15. With the clamp over the small end of the hump hose, fully engage the hump hose onto the throttle body. Locate the clamp within the clamping surface of the throttle body making sure some coupler material is still revealed outside the hose clamp band as shown. Be sure the clamp is located in this manner on the bottom as well. Tighten the clamp securely. Do not overtighten.

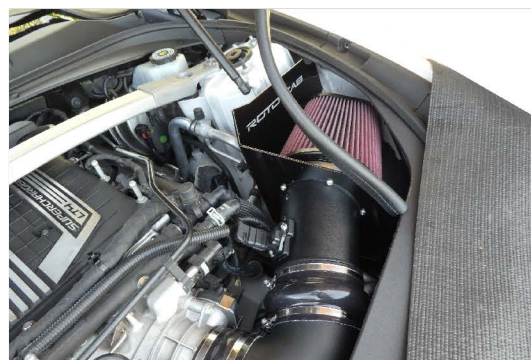


Locate the #5 silicone hump hose coupler and one of the #14 110-130mm (larger) hose clamps. With the clamp head oriented as shown in ill. 15, slide the clamp and coupler over the end of the MAF housing. Locate the clamp as shown in ill. 15 and tighten in position. Again, be sure some hose material is exposed beyond the clamp all of the way around. Do not overtighten.



Locate the remaining #13 (smaller) clamp. Slide it over the end of the step hose on the throttle body with the hex head oriented the same as the existing clamp. Locate the remaining #14 clamp and slide it over the end of the hump hose coupler. Locate the #3 inlet elbow assembly. With the breather fitting located towards the throttle body side and the tube opening pointing straight upwards, engage the hump hose coupler as shown in ill. 16. Align with the throttle body, then rotate tube downward to engage the step hose. Once engaged in the step hose, use both hands on the inlet elbow to push inward while using a slight rocking motion to ensure full engagement of the step hose. Locate and tighten both remaining clamps. Be sure the hose clamps are located between the end of the hose and the barb on the tubes. Inspect the bottom of both joints to ensure proper engagement all the way around. On the throttle body side, **connect the breather fitting** by engaging inward until you feel it “click” into position. Pull outward on the connection to be sure it is locked in position.

Locate the #17 hood seal. **Important-the hood seal must fully seat on the air box. If the hood seal contacts the filter flange during installation, loosen the filter and slide it back just enough to allow the hood seal to seat properly. Be sure to re-tighten the filter clamp.** Starting at the front edge and butting up to the radiator shroud, install the seal onto the top edge of the air box. Push downward firmly to seat the seal as you go. Once installed, double check the entire hood seal to be sure it is fully seated.



Check all the way around each hose clamp to ensure proper seating and be sure the clamps are tightened properly. Double check the breather connection. Re-connect the negative terminal on the battery and re-install the battery access panel.

Congratulations. Your installation is now complete! All clamps should be checked for tightness after a few drive cycles and periodically thereafter. Inspect all clamps for tightness at each oil change. Inspect the filter approximately every third oil change-more often in dusty climates.



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