

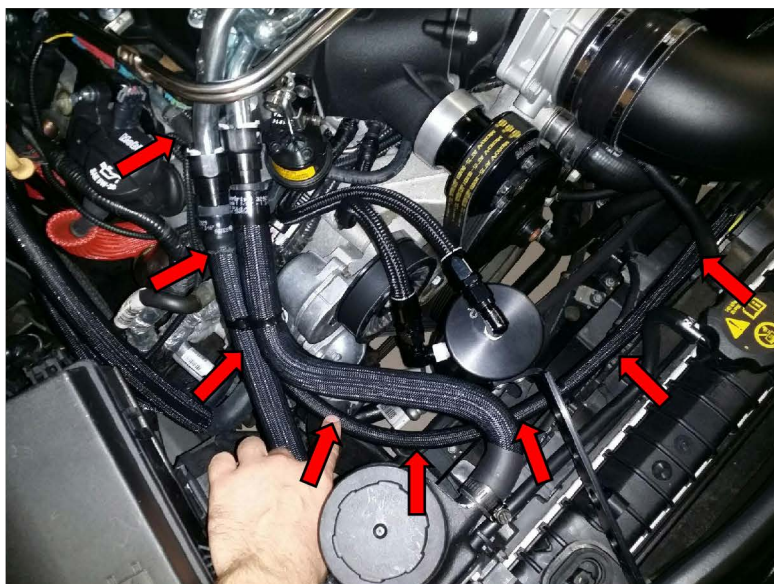
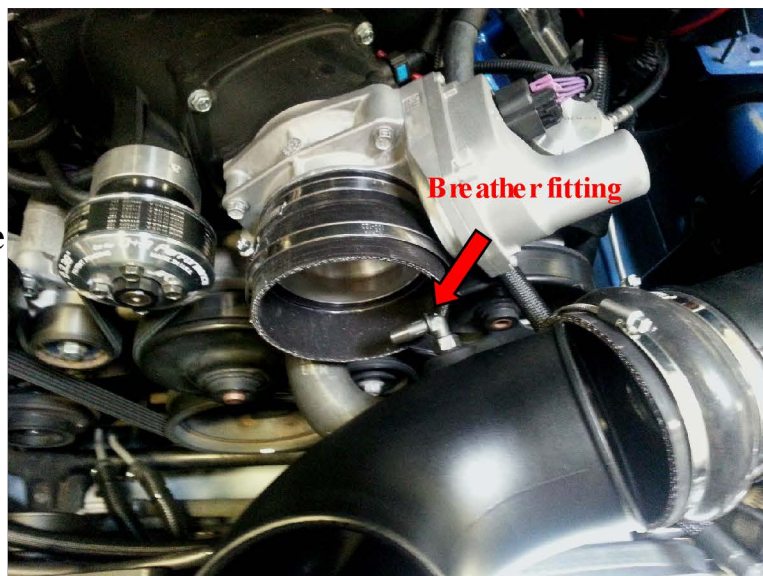
CAMARO COLD AIR INTAKE SYSTEM FOR MAGNUSON HEARTBEAT S/C

The Magnuson Heartbeat intake installs using the normal Roto-fab CAI system installation instructions until you reach the elbow installation. **Important! The breather fitting bung will locate to the MAF sensor side and will be on the underneath side once installed.**

Before installing the inlet elbow, install the small 90 degree fitting into the 1/4" NPT breather bung into the inlet elbow. Tighten so the small fitting will be pointing to the right side (passenger side) approximately parallel to the radiator. Note this fitting is not designed to "bottom out". One end of the supplied breather hose can be installed on the small fitting at this time. (see ill.)

With the throttle body step hose and the MAF sensor housing hump hose already installed and hose clamps in place, install the inlet elbow by engaging the MAF housing hump hose with the opposite end of the elbow facing straight up. **Be sure the breather fitting will end up on the bottom side.** Once fully engaged in the hump hose, roll the tube downward to engage the throttle body step hose. Position the tube for optimum alignment and tighten the hose clamps. (do not overtighten)

Route the breather hose to the valve cover breather nipple using the route shown. Use the supplied cable ties to secure the breather hose as necessary, but leave enough slack to allow the hose to move freely during motor rock. If you are doing a complete intake install, proceed to step 8 in the CAI instructions.





2010-15 CAMARO SS/1LE COLD AIR INTAKE SYSTEM INSTALLATION GUIDE

Tools/ items needed

- Ratchet
- 10 MM deep socket
- 8 MM socket
- 7 MM socket
- Phillips screwdriver
- Black electrical tape

2010-15 Camaro CAI System Parts List



#	Description	Qty
1)	Air box wall	1
2)	Air filter	1
3)	Inlet elbow	1
4)	MAF sensor housing	1
5)	4 1/4" ID hump hose	1
6)	4 1/4" x 4" transition hose	1
7)	4"-4 1/2" clamps	4
8)	10--32 Phillips screws	5
9)	3/8"x 1/4"NPT 90 degree fitting	1
10)	Edge seal 11 7/8" long	1
11)	Edge seal, 24 1/2" long	1
12)	M6 flange nut	1
13)	stud (installed on air box)	1
14)	M4 Phillips screws	2
15)	Foam seal (installed on air box)	2
16)	3/8" breather hose, 12 1/4" long	1
17)	Flange nut (installed on air box)	1
18)	1/4" split loom 11" long	1
19)	1/2" hose with split	1

ATTENTION If your intake system has a stainless steel elbow the #6 transition hose will be replaced with a 4" hump hose

Your components may vary in appearance and/or color depending upon the options you have chosen

Engine cover removal-

Remove the oil cap. Remove engine cover by lifting on the front of the cover. (ill 1) Replace oil cap

Stock air intake removal-

1) Unplug the MAF sensor connector by pushing the center tab and pulling outward. If your connector has a white retainer, pull the retainer outward prior to pushing the center tab. (ill 2)

2) Using an 8 mm socket, loosen the hose clamp holding the inlet tube to the throttle body. Using a deep 10 MM socket, remove the 2 nuts holding the air box in place. On the right valve cover, disconnect the breather tube routing from the inlet tube to the right valve cover. Do so by pushing downward on the retaining tab with your right index finger, then pulling the tube outward. (ill. 3) Tube has been removed for clarity.

3) Pull the inlet elbow off of the throttle body. Next, pull straight up on the air box to remove from the vehicle. You will feel resistance as the box frees from the lower grommet.

4) Using a 7MM socket, remove the 2 screws retaining the MAF sensor to the stock air inlet. (ill 4)

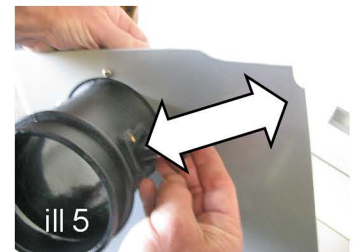
Air intake system pre-assembly-

1) Locate the #1 air box wall, the # 4 MAF sensor housing and the five #8 10-32 phillips screws . Insert the MAF housing through the back side of the air box wall as shown. The opening for the MAF sensor should point towards the small notch in the corner of the air box wall as shown (ill 5)

2) One at a time, insert the 5 screws through air box wall and hand start in the brass inserts. Working back and forth, tighten the screws a small amount each time to pull the pieces together uniformly. The screw in line with the MAF sensor mounting block should be the first to be seated. Make sure all 5 screws are tight.

3) Insert your original MAF sensor into the MAF housing as shown. The small black arrow on the sensor should be pointed towards the smaller opening of the housing. (ill 6)
Note: The screw holes line up only when installed correctly.

4) Start both of the #14 screws into the brass inserts. After starting both screws, tighten each screw until washers are touching the metal surface of the sensor. Now tighten both screws. DO NOT OVERTIGHTEN!



5) Locate #10 edge seal. It's the shorter piece with the 45 degree cut on one end. Place it over the edge of the air box wall as shown with the angle cut towards the bottom. Push firmly to seat the seal.

6) Locate the #11 edge seal. Starting from the front notch, align the edge seal and work it on the top edge of the box. Push down firmly to seat the seal.(ill. 8)

7) Locate #5 4 1/4" hump hose. It's the larger of the two hump hoses. Locate one of the #7 hose clamps. Place the clamp over one end of the hump hose and engage the MAF sensor housing with the clamp clocked as shown. (ill. 9) Fully seat the hose against the molded stop and tighten the clamp. DO NOT OVERTIGHTEN!

8) Locate the #3 inlet elbow and the #9 small 90 degree fitting. engage the fitting into the NPT bung on the inlet elbow. Tighten so the elbow is pointing as shown.(ill 10)

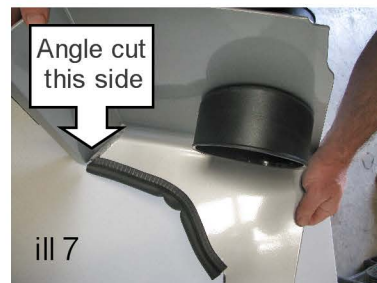
Installation-

1) Drop the airbox assembly into position as shown in illustration #11. **Make sure the lower stud engages the grommet and the outer ear of the AC clip is not under the air box.** (ill 12a &b) and the upper slot goes over the stud simultaneously. Push firmly on top of airbox to ensure the stud completely seats in the grommet. IMPORTANT-make sure the outer ear of the plastic A/C line clip on the frame rail near the lower stud isn't under the air box.

2) Locate #12 flange nut. Install on the airbox mounting stud. Tighten securely.

3) Locate #18 black plastic split loom, 10 inches long. Slide it onto the exposed wiring of the MAF sensor connector. Using electrical tape, fasten to the wiring as close as possible to the connector itself. Tape the other end to secure the split loom. Plug in the mass airflow sensor connector. You should hear a click as it reaches full engagement. (ill #13)

4) Locate # 6 step hose and one #7 clamp. Slide the hose clamp on one end of the step hose and engage the throttle body and tighten as shown. (ill. 14)



ill 7



ill 8



ill 9



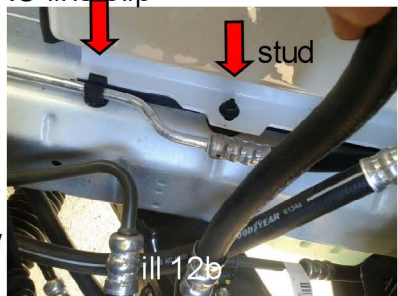
ill 10



ill 11



Close-up rear view of AC line clip



ill 12b



ill 13



ill 14

5) Locate the last two hose clamps. Slide one on each open hose end making sure orientation is the same as the clamps previously installed.

6) Install large end of inlet elbow into larger hump hose as shown. (ill. #15) Next, work the small end into the smaller hump hose. Align both ends and secure clamps--DO NOT OVERTIGHTEN.



7) Locate #16 3/8" ID pvc breather hose. Install #16 by routing under throttle body motor as shown. Yellow hose used for clarity only. (ill. 16)
First, engage the 3/8" nipple on the valve cover making sure the hose engages to the barb. Now fully engage the other end of the hose on the #9 elbow. If you have a 1LE and are using the optional PCV oil cap, you will need 3/8" ID fuel line 30" long to complete the connection. This is included if specified when ordered.



8) Unpack #2 air filter. Install the filter with the hose clamp position as shown. (ill. 17) Engage the filter onto the MAF sensor housing making sure the clamping surface goes over the barb. The filter flange should be parallel to the end of the MAF housing, not the air box wall. Tighten hose clamp--DO NOT OVERTIGHTEN.



9.) Locate the #19 1/2" ID hose. You will notice it has a slit along its length. Install it on the A/C line as pictured in ill. 18. It should butt up against the service port. This is optional, but may prevent the line from contacting the finish on the air box.



10) Remove the oil cap. Re-install engine cover by first seating rear mounting brackets as shown. (ill.19) Make sure to look under the cover to confirm proper alignment onto the rear mounts. Push rearward to engage the rear grommets, then press firmly on the top of the cover to seat the front. Re-install oil cap.



Congratulations! You have completed your installation!