

Camaro ZL1 CAI System Parts List



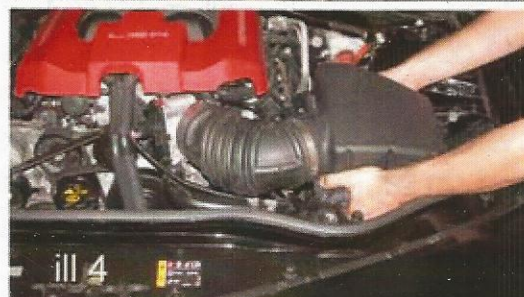
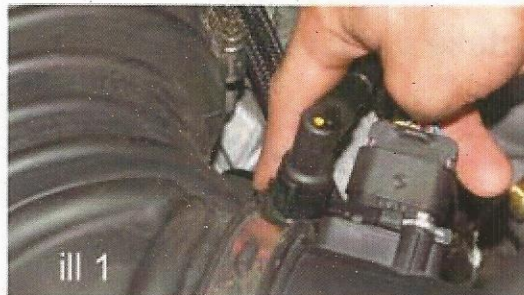
Description	Qty
1) Air box wall	1
2) Air filter	1
3) Inlet elbow	1
4) MAF sensor housing	1
5) 4 1/4" hump hose	1
6) 4" x 4 1/4" reducer hose	1
7) Edge seal, 24" long	1
8) Edge seal, 11 1/2" long	1
9) 3/8" x 1/4" NPT 90 fitting	1
10) M6 Flange nut	1
11) M4 Phillips screw	2
12) 10-32 x 1/2" Phillips screw	5
13) 1/2" hose, split	1
14) 1/2" hose, 2 5/8" long	1
15) 4-4 1/2" hose clamp	4

Attention If you have a stainless steel inlet elbow, the step hose will be used on the MAF sensor housing and the hump hose will be used on the throttle body

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

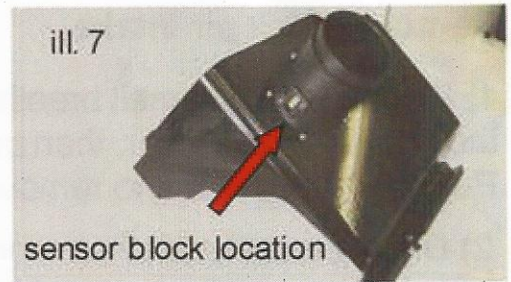
Remove stock air intake

- 1) Disconnect the small breather fitting-pull up slightly on the small release lever, then push it clockwise appr. 1/4" Pull straight upwards to remove the fitting. (ill. 1)
- 2) Disconnect the MAF sensor-grasp both sides of the gray retainer on the bottom side of the connector and pull it outwards appr. 3/16". Push on the bottom center of the connector, then pull straight outwards to remove. (ill 2)
- 3) Disconnect gray ground cable retainer-Remove the retainer by pulling straight upwards. It may be necessary to use a pry tool or equivalent. (ill. 3)
- 4) Use an 8 mm socket to loosen the hose clamp retaining the rubber inlet elbow to the throttle body. Disengage the rubber inlet from the throttle body.
- 5) Using a 10 mm socket, remove the 2 nuts retaining the air box. Grasp both sides of the air box as shown and pull straight up to remove the air box assembly. This often requires a firm, quick upward pull to disengage from the lower mounting grommet. (ill. 4)
- 6) Use a pry tool or equivalent to remove the loom holder retaining the black ground cable. This is located on the rear air box stud mounting pad. Re-route the cable under the bracket it was attached to. (ill. 5)
- 7) Using a 7mm socket, remove the 2 screws retaining the MAF sensor in the stock air box. Carefully remove the sensor and set aside for later use. **You will NOT re-use the stock MAF screws!** Re-install them in their original holes for storage.
- 8) Remove the breather fitting from the stock intake. First use side cuts to remove the clamp retaining the breather assembly to the stock rubber inlet. Next, work a small screwdriver fully into the rubber nipple along side of the plastic neck. Pry outwards while applying dish soap or other lubricant in the gap. Rotate the assembly back and forth to work the lubricant around the fitting. Remove the assembly from the rubber inlet. Set aside for later installation. (ill. 6)



Intake preassembly

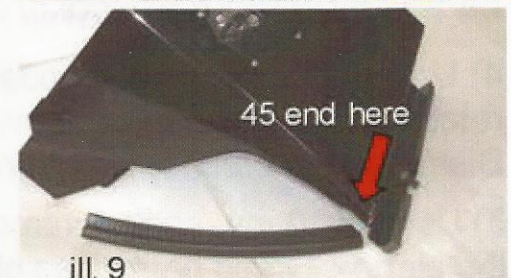
1) Locate the #1 air box wall, #4 MAF housing and the five #12 10-32 screws. Insert the MAF housing through the air box with the MAF sensor block clocked as shown. Start each of the five screws. Working back and forth, tighten the screws. (ill 7)



2) **Do Not use the stock MAF sensor screws!** Locate the two # 11 MAF sensor screws and the MAF sensor previously removed from the stock intake. With the arrow pointing in the direction of air flow, slide the sensor in the mounting block. Start both screws, then tighten both screws. (ill 8)



3) Locate the #8 edge seal-it is the shorter of the two seals and has a 45 degree cut on one end. Locate the 45 degree cut on the lower side as shown. Fully seat the edge seal onto the air box. (ill. 9)



4) Locate the # 7 hood seal. Install it on the top edge of the air box. It is not necessary to fully seat it at this time.

5) Locate the #5 hump hose. It is 4 1/4" ID on both sides. Locate one of the #15 hose clamps. Slide the hose clamp over the MAF housing clocked as shown. The hex head will end up facing upward and appr. in-line with the MAF sensor. Install the hump hose onto the MAF housing. Slide the clamp into position and tighten. *Do not overtighten.* (ill. 10)



6) Locate the # 2 air filter with clamp. Engage the filter onto the large end of the MAF housing with the clamp oriented in the same manner as the clamp on the hump hose.

Important-do not fully engage the filter onto the housing. The filter engages appr. 3/4" and remains parallel with the end of the MAF housing-not parallel with the air box wall. From this view, the filter should appear to be parallel with the small side of the MAF housing. Tighten the filter clamp. *Do not overtighten.* (ill 11)



7) Locate the #3 inlet elbow and the #9 small 90 degree fitting. The fitting is NPT (pipe thread) and is not intended to bottom out when tightening. Tighten by hand until snug. Continue to tighten until the barbed neck is in-line with the molded line on the elbow. Shown silver in picture for clarity. (ill. 12)



Locate # 14 1/2" IDx 2 5/8" long silicone hose and the stock, small breather assembly previously removed from the stock intake. Fully engage the hose onto the barbed nipple and set aside for later use. (ill 13)

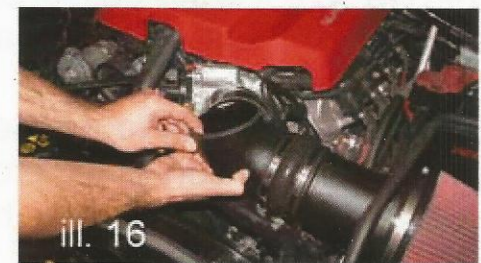
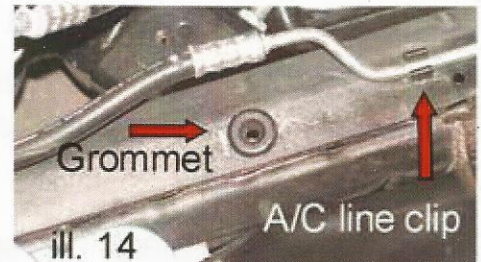
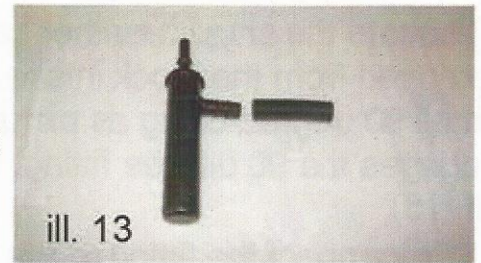
Installation

1) Before installing the air box assembly, examine the lower area where the air box locates. The air box flange must clear the ear of the A/C line clip and the lower air box stud must engage the lower grommet. (ill 14)

2) When installing air box, stand in front of the car to watch the lower stud enter the grommet as the box is lowered in position. Go straight down to avoid catching the ear of the A/C line. On the top side, be sure the stud is engaged by the upper mounting slot of the air box. The black ground wire needs to go around the edge of the air box. **Be sure the ground wire isn't pinched beneath the air box.** With the lower stud in line with the grommet, push the air box downward to fully engage the grommet. Locate the #10 M6 flange nut and install it on the upper mounting stud. Use a 10mm socket to tighten securely.

3) Locate the #6 4x4 1/4" step hose and one of the #15 hose clamps. Slide the hose clamp over the throttle body with the hex head located as shown. Fully engage the step hose onto the throttle body, center and tighten the hose clamp. *Do not overtighten.* (ill. 15)

4) Locate the #3 inlet elbow assembly and the remaining 2 #15 hose clamps. On the car, slide one hose clamp on each of the two hose ends with the hex heads oriented like the previously installed clamps. With the throttle body end facing upwards as pictured in ill. 16, fully insert the inlet elbow into the hump hose on the MAF side. Rotate the elbow downwards into the step hose making sure the bottom is engaged. If necessary, use a small screwdriver to help engage the elbow into the top side of the step hose. (ill. 17) After fully engaged in the step hose, grasp the elbow and push it towards the throttle body as much as possible. If necessary, rotate the elbow to achieve the best alignment. Tighten both hose clamps. Do not overtighten.



6) Locate the small breather canister assembly previously removed from the stock intake. This will couple to the small 90 degree fitting as pictured. Be sure the hose fully engages the 90 degree fitting. No clamps are required.

(ill. 18)

7) Re-connect the fitting to the top side of the breather by pushing it straight down until a "click" is heard.

8) Re-connect the MAF sensor harness connector to the MAF sensor. Again, you should hear and feel a "click" as it properly engages. Push the gray locking device inward.

9) Locate the #13 black 1/2" split hose. Install it on the A/C line as shown to avoid metal to metal contact between the line and the air box. Hose location is shown in red for clarity. Note: this is not required on all cars. (ill. 19)

10) Adjust the top seal. On the top of the air box, lift the edge seal upward appr. 1/8" to 1/4". Be sure it is still engaged on the top edge of the air box wall. Close the hood. The hood seal will seat as necessary.

11) Double check all four hose clamps as well as the filter clamp. Check to be sure the breather tube is connected properly and the MAF sensor connector is properly installed. Periodically inspect all of the hose clamps for tightness.

Congratulations! Your install is now complete!

Be sure to look at our other ZL1 products at Roto-fab.com. We are developing several performance appearance items unique to the ZL1!

Please keep this installation packet for future reference. To remove the air filter, it will be necessary to pull the air box unit. This is due to the ground stud prohibiting the removal of the filter on the car. Due to the high air demands of this vehicle we elected not to reduce filter size to allow the filter to be removed independently. **IMPORTANT:** We do *not* recommend removing the ground stud.

