

# **LINGENFELTER**

**P E R F O R M A N C E   E N G I N E E R I N G**

## Lingenfelter Camaro ZL1 Air Intake Kit



PN: L650162012

## Parts List

### 2012 Camaro ZL1 Air Intake Kit (PN: L650162012)

#	Description	Part number
1	duct, ZL1 Camaro	XX05312-0003
1	Rotofab Camaro air intake kit, partial	10151019
1	ground bolt	11588712
1	4" hump hose	XX05312-0002
1	45 deg nipple connector	25862741
1	Lingenfelter vinyl decal for airbox	LPE_7"SIL DECAL
1	Lingenfelter decal	L920010000
8	Instructions	N/A

#### Tools & Materials Required

- Ratchet
- 7mm socket
- 8mm socket
- 10mm socket
- 10mm deep socket
- Phillips head screwdriver

#### Optional Items

#	Description	Part number
1	Polished duct	SPP-9769
1	4" hump hose	TF01-476-BK

Read the entire instruction manual before beginning installation. Many of the stock parts will be used in reassembly.

When referencing the side of the vehicle, the driver side of the vehicle is considered the left side and the passenger side of the vehicle is considered the right side of the vehicle.

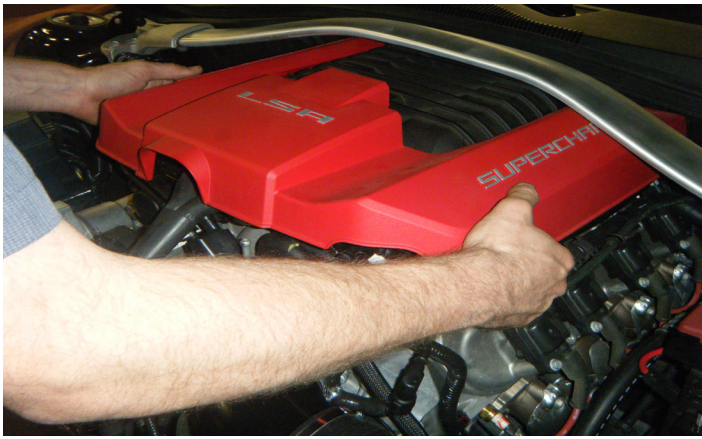
Torque value warning - the torque values for the fasteners are provided in metric (Nm) and then imperial units. For the imperial units some are referenced in lb-ft and others in lb-in. Make sure you notice the difference and set your torque wrench correctly.

**WARNING: Installation of this kit requires the power steering ground stud to be removed and replaced with a ground bolt in order to create enough clearance for the installation of the air filter. Make sure that the power steering ground wire is securely fastened to the vehicle by the ground bolt. The power steering system, which is grounded through this wire, is capable of pulling enough current to disable the entire vehicle if the ground path gets interrupted.**



1. Open the hood. If you have been driving your vehicle, allow a couple hours for the engine to cool down before beginning installation.





2. Remove the engine cover by pulling the front of of the cover up and away from the engine.



3. Unplug the Mass Air Flow (MAF) connector, which is located on the side of the airbox inlet, by first sliding the grey tab to unlock the connector. Then, press on the center tab and pull the connector away from the airbox inlet.



4. Loosen the hose clamps holding the air intake tube to the throttle body and airbox using an 8mm socket.

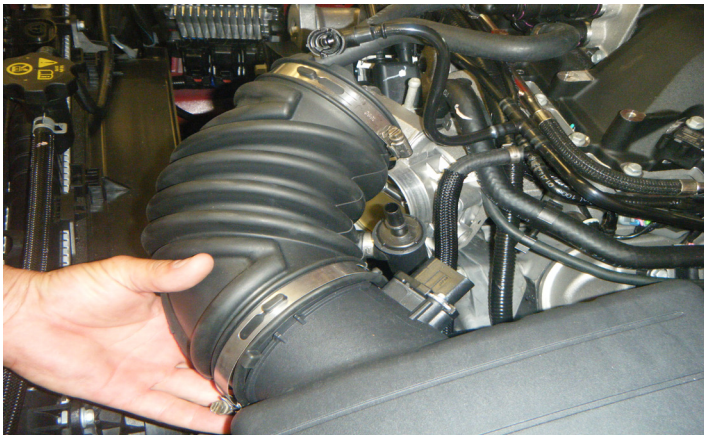


5. Remove the two (2) nuts that hold the airbox in place using a 10mm deep socket.





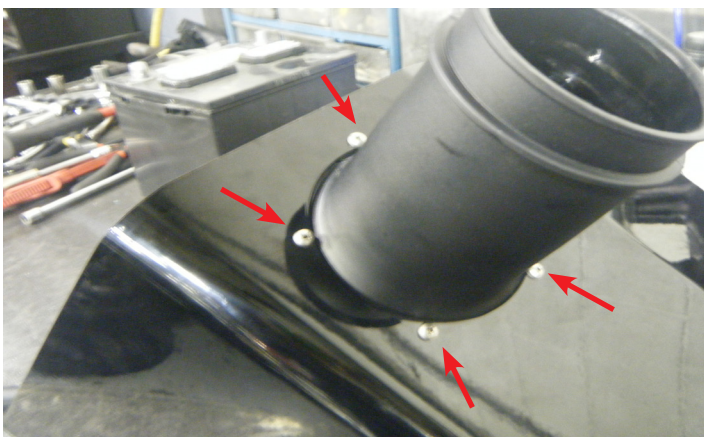
6. By pressing the retaining tab, disconnect the breather tube that connects the air intake tube to the driver-side valve cover.



7. Remove the air inlet tube from the throttle body and pull up on the airbox to remove the air inlet tube and airbox.

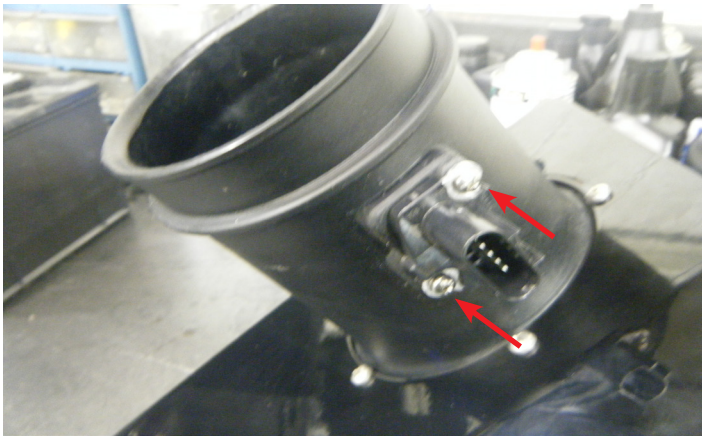


8. Using a 7mm socket, remove the two (2) screws that secure the MAF sensor to the airbox. Make sure to keep the stock MAF sensor as it will be re-used for the new air intake installation.



9. Using a phillips head screwdriver, insert the supplied MAF housing through the hole in the supplied airbox. Using the five (5) 10-32 screws, secure the MAF housing to the airbox. The screws should be tightened in a star pattern with the screw behind the MAF sensor being the first to be tightened.

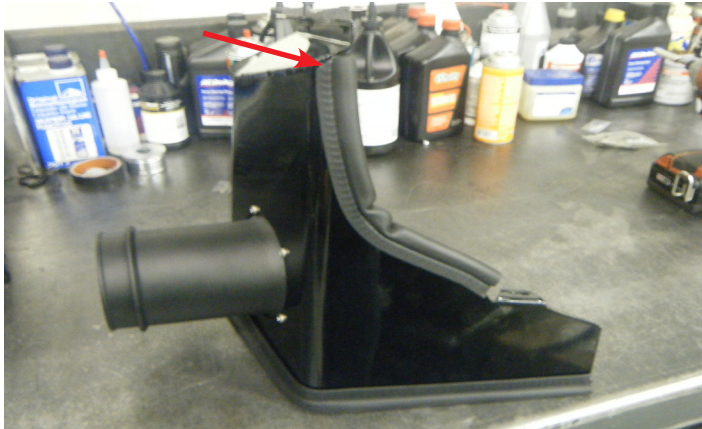




10. Using the two (2) supplied #14 screws and a phillips head screwdriver, secure the stock MAF sensor to the MAF housing. The screws should be tightened until the washers touch the metal surface on the MAF sensor.



11. Firmly push the supplied longer edge seal onto the top of the airbox.

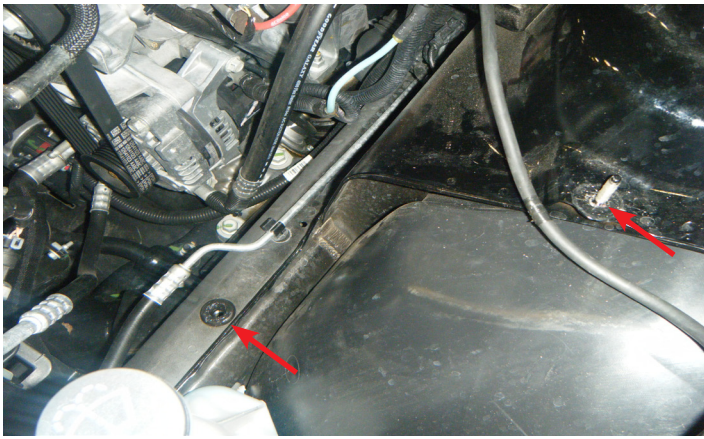


12. Firmly push the supplied shorter edge seal with the angle cut on one end onto the bottom of the airbox. The angle cut in the edge seal should be pointed down when the airbox gets installed into the vehicle, as shown by the arrow.



13. Lower the airbox assembly into lowering the airbox onto the bottom grommet and the upper stud as shown the illustration. Firmly push down on the airbox to verify that the airbox is fully seated onto the grommet.

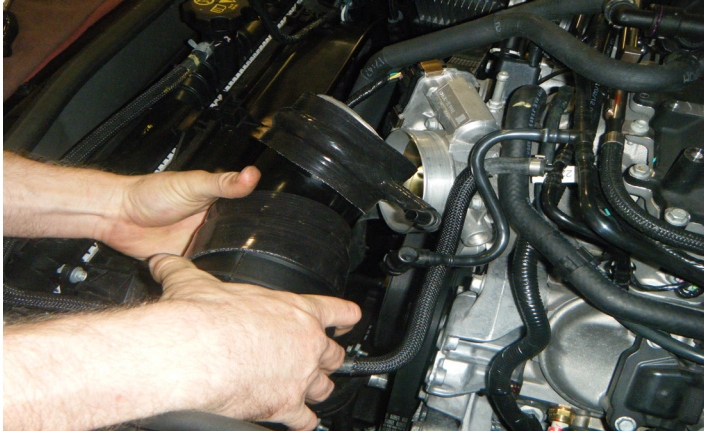




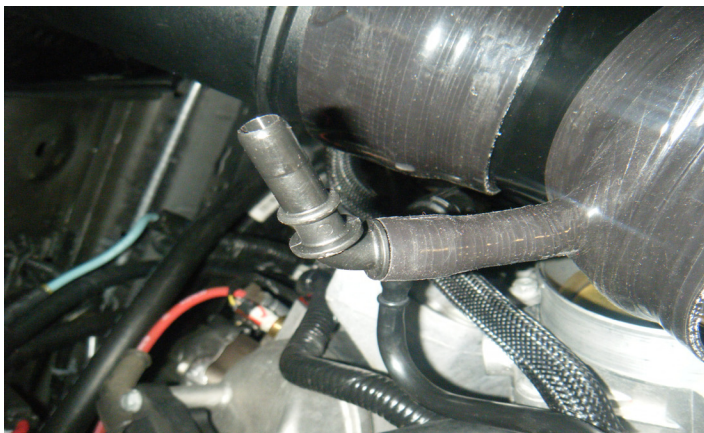
14. The arrows in the adjacent illustration show the two (2) mounting locations for the airbox.



15. Install the airbox flange nut onto the stud, but do not tighten until after the air filter is installed.

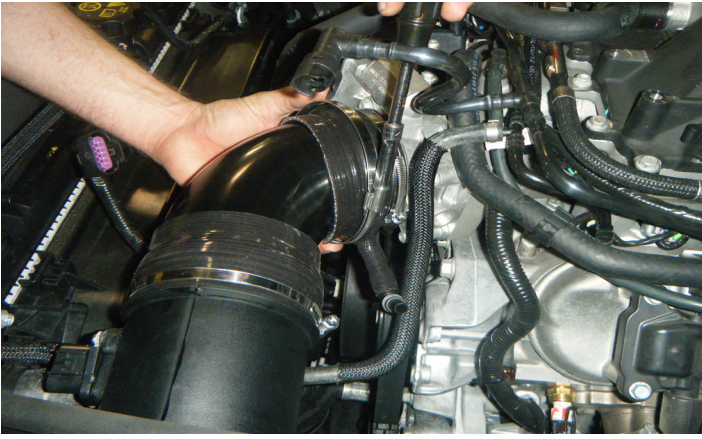


16. Work both hump hoses onto the inlet elbow. The hump hose with the built-in breather will connect the inlet elbow to the throttle body while the other hump hose will connect the inlet elbow to the MAF sensor housing. To make installation easier, connect the inlet elbow to the MAF sensor housing and point the other end of the elbow upward, as shown in the picture. If necessary, silicon lubricant can be applied to the inside of the hump hoses to make the assembly easier to adjust.



17. Insert the supplied 45 degree breather hose adapter into the supplied hump hose with built-in breather. Clock the adapter so that it points straight up, as shown in the picture.





18. Rotate the inlet elbow clockwise until it can be connected to the throttle body. Connect the hump hose to the throttle body. Disengage all four (4) of the worm clamps and place the clamps over the narrow parts of the hump hoses. Using an 8mm socket, secure the hump hoses. Do not overtighten.



19. Connect the stock breather hose to the 45 degree breather adapter.



20. Connect the MAF sensor harness connector to the MAF sensor housing. You should hear a click when the connector is fully engaged. Slide the grey tab to lock the MAF sensor connector in place.



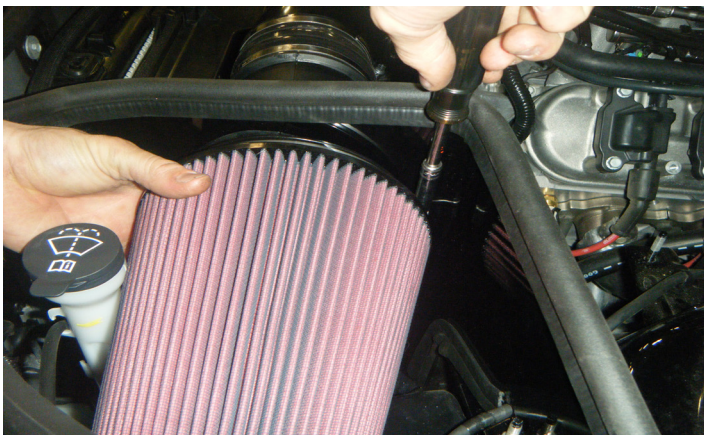
21. Using a 10mm socket, remove the ground stud located on the front driver-side corner of the engine compartment.





22. Using a 10mm socket, install the supplied ground bolt allowing additional clearance for the air filter. Torque the bolt to 89 in-lbs.

**WARNING: Make sure that the power steering ground wire is securely fastened to the vehicle by the ground bolt. The power steering system, which is grounded through this wire, is capable of pulling enough current to disable the entire vehicle if the ground path gets interrupted.**



23. Carefully install the supplied air filter onto the MAF housing inside the airbox. If the airbox flange nut was left loosened, you can move the airbox slightly towards the passenger side of the vehicle to make installation of the air filter easier. Secure the air filter to the MAF housing using the large supplied worm clamp and an 8mm socket. Do not overtighten.

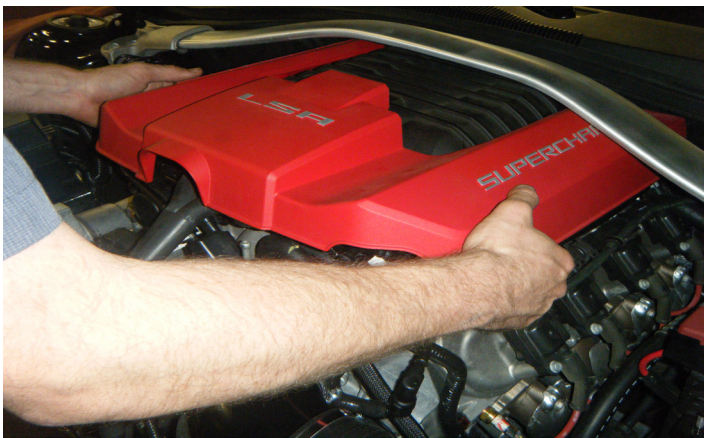


24. Tighten the airbox flange nut and then attach the ground wire guide back onto the upper stud as well.

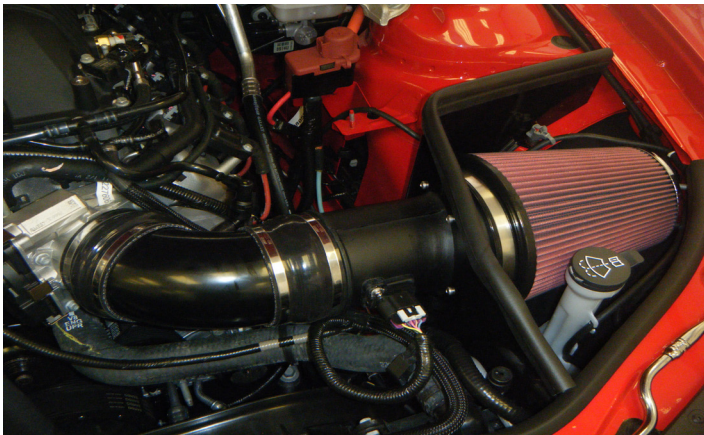


25. If desired, install the Lingenfelter decal onto the interior of the airbox by peeling the backer paper off of the decal, pressing the decal onto the airbox, and finally peeling the front piece of paper off of the decal.





26. Re-install the engine cover.



Installation of the Lingenfelter Camaro ZL1 air intake kit is now complete.

**For additional product installation information and technical support, contact LPE or your LPE products distributor. You can also find technical support and usage discussions regarding this product and many other LPE products in our Internet forums:**

**<http://www.lingenfelter.com/LPEforumfiles>**

Lingenfelter Performance Engineering  
1557 Winchester Road  
Decatur, IN 46733  
(260) 724-2552  
(260) 724-8761 fax  
[www.lingenfelter.com](http://www.lingenfelter.com)