

## Lingenfelter 2005-2006 Pontiac GTO High Flow Air Intake Installation Instructions



L650060505

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### Parts List

#	Part Number	Description
1	LN-GTO-AB-05	Airbox wall piece
1	L660060505	Air filter with hose clamp
1	AV15330	M6 x 1 flange nut
3	12335 A143	Airbox seal, 15-1/2"
1	23-923X	Cable tie, black
8	KP82440	M5 X 0.8 X 16, stainless button head
4	47392	M5 stainless steel flat washers
8	47213	M5 stainless steel Nylock nuts
1	XX09112-0001	Airbox bracket #1
1	XX09531-0005	Airbox bracket #2
1	XX09531-0002A	Airbox flange
1	XX09531-0001	Tube assembly, 4.0"
1	1402	Screw type push lock plastic fastener
1		LPE decal
1		Installation instructions

### Recommended Tools

- Small flathead screwdriver
- Fork type pry tool or equivalent (if unavailable a screwdriver may be used)
- T-30 Torx head screwdriver
- 3 mm Allen wrench
- Ratchet
- 10 mm socket / wrench
- 8 mm socket / wrench
- Side cutters
- Pliers (not needed for all installations)



### Optional Items

- LPE air filter service kit (SB-88-0005)
- Replacement air filter (L660060505)

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## PERFORMANCE ENGINEERING

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

Installation should take less than one hour with the proper tools. Before installation, set the parking brake and open the hood of the car. If car has been used recently, make sure engine has had time to cool before beginning to disassemble stock air intake.

Please note that the hood was removed from the vehicle used for taking some of these pictures of the installation process. Some pictures show the hood supports disconnected from the hood. The hood does NOT need to be removed to install the LPE air intake and the hood support rods do NOT need to be removed either.

**Step 1** - First remove the plastic radiator cover on the front of the engine compartment. To do so you will need to remove the five push lock style plastic fasteners that secure the cover to the vehicle. Use a screwdriver to pry the center nail of the push lock plastic fastener upward about half an inch.



**Step 2** - Then use the pry tool to fully remove the five panel pins and free the plastic panel from the body.



**Step 3** - Loosen the metal hose clamp that attaches the air tube to the throttle body and remove the stock air tube from the throttle body.

**CAUTION:** Be very careful when handling the Mass Air Flow (MAF) sensor. Do not dent, puncture or otherwise damage the Honeycell located at the air inlet end of the MAF. Do not touch the sensing elements or allow anything (including cleaning solvents and lubricants) to come in contact with them. Do not drop or roughly handle the MAF.



**Step 4** - Remove valve cover breather tube from the air tube. Using a small screwdriver, remove the grey retaining clip from the Mass Air Flow (MAF) sensor connector. Press tab and disconnect the MAF harness from the sensor. Loosen the hose clamp closest to the airbox, remove the air tube from the engine compartment. Place the factory air tube and MAF assembly aside, it will be reinstalled later.



**Step 5** - Pull the coolant overflow tube from the retainer on the air box and free the MAF wire loom from the airbox. Pull straight upward “firmly” to remove airbox. You will feel resistance, however the airbox should pull out without removing any fasteners.

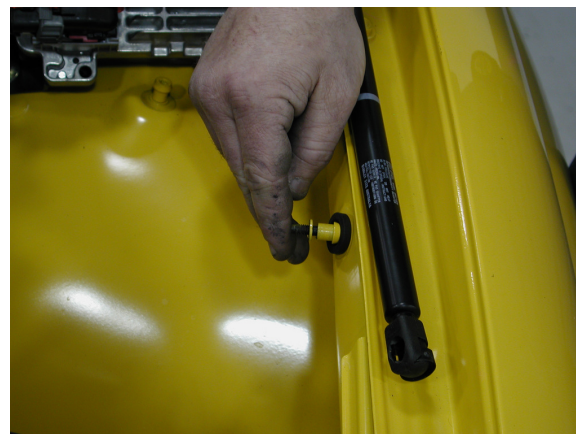


**Step 6** - In the void where the airbox was, you will see a fastener with a T-30 Torx head, remove this fastener. This will serve as a mounting stud for the air box in a later step.



**Step 7** - Remove one of the black rubber grommets from the bottom of the stock airbox. Insert this grommet into the hole on the inner fenderwell as shown, with flat side out.

This image shows the grommet installed in the new location and the Torx head stud (removed in the previous step) that will be inserted into the grommet in a later step.



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## PERFORMANCE ENGINEERING

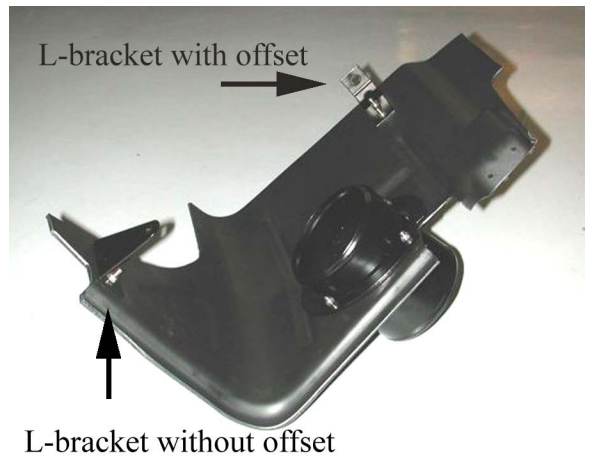
**Step 8** - The smooth rounded side of the new air box piece will be referred to as the backside. The front side is the side that faces the engine.



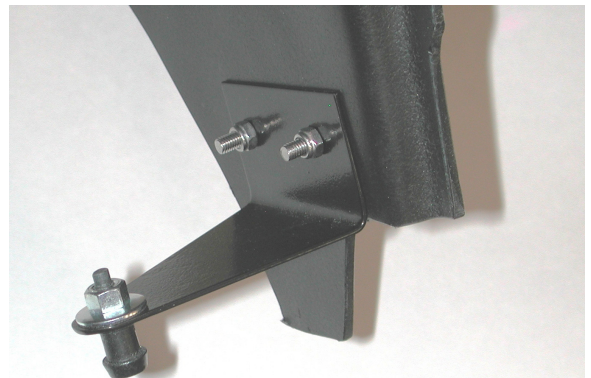
**Step 9** - Locate the 4.0" tube assembly with the flange welded to it. Push it through from the outside of the airbox. The weld should be towards the outside of the box (engine side). Align the cutout in the flange with the "U" shaped cutout of the airbox. Insert the four button head screws from the front side. Locate the large flange with the 4-1/8" Inch hole as shown. Slide it over the tube from the backside of the air box. This flange should also be aligned with the cutout in the flange with the U shaped cutout of the airbox. Secure with four Nylock nuts as shown.



**Step 10** - Install the black "L" bracket as shown. The M5 button head screws with washers should be installed from the outside of the box, using the predrilled holes and the Nylock nuts without washers on the inside. The "L" bracket with the offset also mounts on the inside of the box, fasten in the manner explained above.



**Step 11** - Using the supplied M6 flange nut, install the factory Torx head stud (removed in an earlier step) onto the "L" bracket as shown.



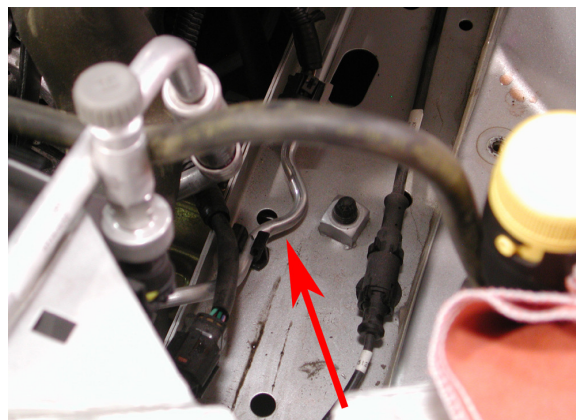
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## PERFORMANCE ENGINEERING

**Step 12** - If the vehicle is a 2005 model, skip to STEP 15. On 2006 model year vehicles, inspect the aluminum AC line that travels on top of the frame rail in the airbox area. If the line is straight, as shown in the image to the right, skip to STEP 15.



**Step 13** - If the line is shaped as shown (see image), you must remove the small perforated section of the air box (STEP 14).



**Step 14** - Using pliers, grasp a corner of the perforated section. Use a twisting motion to remove the section, twist in the same direction until free from the airbox.



**Step 15** - Install the rubber seal pieces on the large radius section and on the bottom section of the box. Be sure that the pieces are pushed on as far as possible.

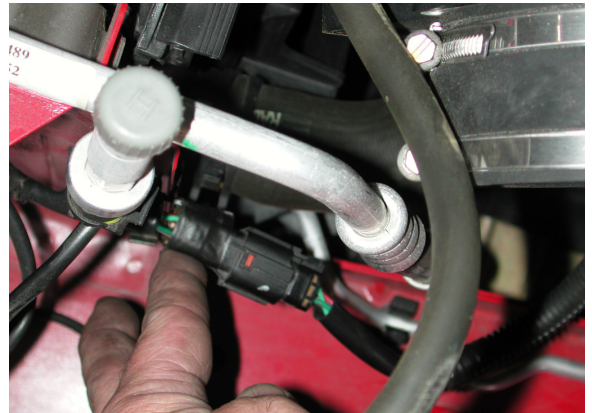
This image shows all of seals installed on the airbox wall. The top seal will actually be installed in a later step.



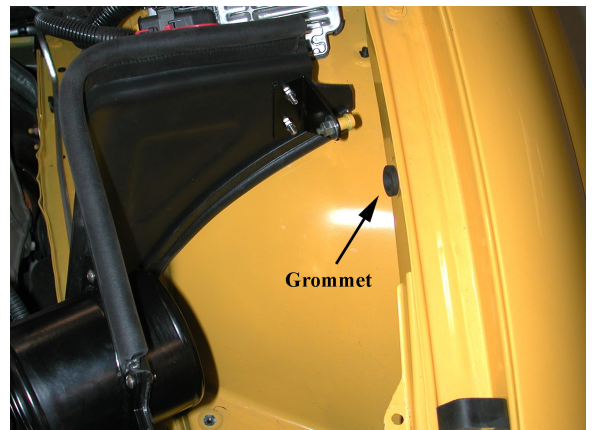
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## PERFORMANCE ENGINEERING

**Step 16** - If your vehicle has a wiring harness as shown in the image, use a fork type pry tool or equivalent to free the wiring harness from the vertical radiator support beam. The airbox will rest against the support beam at this location.



**Step 17** - Now install the box by tilting the front downward while moving it towards the front of the car.



**Step 18** - Make sure this harness routes to the inside of the airbox as shown.



**Step 19** - The Torx head will push into the grommet on the inside of the fenderwell.

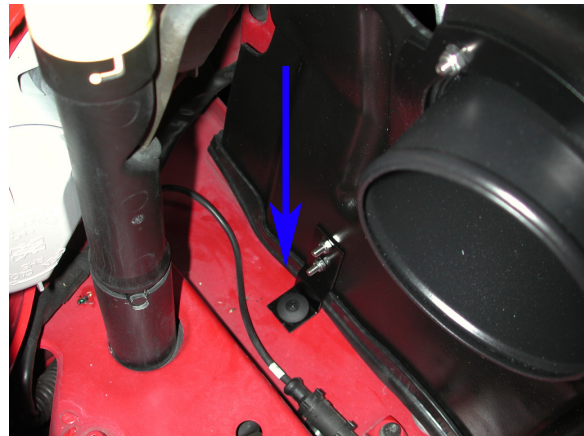
After the front section is in position, work the rear down onto the fenderwell and push the Torx stud firmly into the grommet on the inner fender wall.



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**Step 20** - Now, install the supplied black plastic push-in fastener to secure the bottom. This should line up with an existing hole in the body. Install the fastener in the hole with the center locking pin not pressed in and then once the fasteners is in place, press down on the center locking pin to secure the fastener. On this type of threaded locking fastener, the screw is only used when removing the locking pin (not when installing).



**Step 21** - Using the holes in the top of the air box, zip-tie to the aluminum AC tube, around the bottom side of the service port (see picture). The tie should go through one hole, around the AC tube, just above the sensor, and through the 2nd hole. Tighten securely and trim the end of the zip-tie.



**Step 22** - If there is a gap between the airbox seal and the body of the car, push the seal towards the body.



**Step 23** - If you had to remove the perforated section of the airbox, make sure the AC line is on the engine side of the airbox except for the small 180 degree section that rests under the seal.





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**Step 24** - Remove the air filter from its packaging. This filter comes pre-oiled and is ready to be installed. Filter maintenance kits are available through LPE.

**NOTE:** Inspect inside of filter for any debris prior to installing in the vehicle.



**Step 25** - Install the filter as shown. Make sure the filter is sealed on the air tube with the metal tube fully inserted into the rubber air filter neck. Tighten the clamp.



**Step 26** - Reinstall the stock airtube by first plugging in the MAF connector. Reinstall the grey retaining clip at this time.

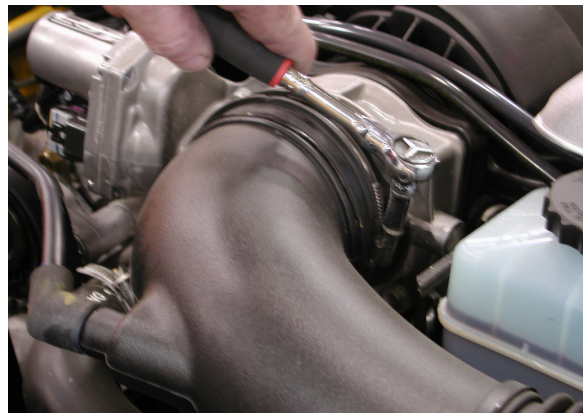
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**Step 27** - Push the airtube coupler firmly onto the 4.0" tube assembly. Push the airtube onto the throttle body. On the airbox side, position the tube assembly to maximize the clearance between the tube assembly and the power steering pulley. Now tighten both clamps.



**Step 28** - Reinstall the valve cover breather tube to the airtube.



**Step 29** - Install the plastic radiator cover, making sure the coolant overflow hose is positioned as pictured, running through the U-shaped edge of the airbox wall.



**Step 30** - Double check the coolant overflow hose, making sure that it moves freely and is not crimped.

Install the five factory push lock style fasteners to the radiator cover.



**Step 31** - Install the airbox seal on the top edge of the airbox as shown.



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## PERFORMANCE ENGINEERING

**Step 32** - Start the vehicle and check to make sure everything is running properly. Close the hood and release the parking brake.

**Congratulations** - you have completed the installation of your LPE air intake.



**Filter service** - A filter service kit is available from LPE for cleaning and re-oiling the air filter (part number SB-88-0005). The correct amount of oil for this filter element is 21 grams (0.74 ounces) of oil. Replacement filters are also available from LPE (filter part number L660060505). How frequently you should clean your filter will depend on your driving conditions. LPE recommends checking your filter at every oil change or 3,000 miles. If there is a build up of dirt as thick as the wire mesh, then LPE recommends you clean your filter. As dirt builds up on your filter, the restriction of the airflow also increases.

Many other items are available from LPE for your vehicle, including low temperature thermostats, camshafts, supercharger kits, CNC ported cylinder heads, engine packages, ported throttle bodies, and port matched intake manifolds. Contact LPE, visit our web site, or contact your LPE distributor for information about our many other products.

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