MID AMERICA MOTORWORKS™

INSTRUCTION SHEET

Part Number
627-082

Application: 2006-2007 Corvette

Part Includes
1 - Component

Lingenfelter High Flow Air Intake System with LPE Power Programmer

SKILL LEVEL 1

Tools Needed

Search: ***Air Intake***
www.mamotorworks.com

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

STEP 1.
Disconnect battery ground.

STEP 2.
Remove gray retaining clip on the bottom side of the MAF sensor, then disconnect MAF sensor connector.

STEP 3.
Disconnect breather tube from bellows.

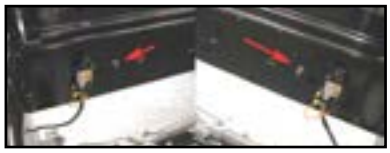
STEP 4.
Loosen hose clamp at throttle body, pull bellows from the throttle body.

STEP 5.
Work entire assembly free from push pins & remove assembly from car.

STEP 6.
Remove four screws holding top mount radiator shroud & unclip hose from top mount radiator shroud.

STEP 7.
Remove top mount radiator shroud.

STEP 8.
Disconnect electrical connector for under hood light & unclip electrical connector for under hood light from the radiator shroud.



STEP 9.
Disconnect the electrical connector from the outside air temperature sensor located low on the right side of the shroud.

STEP 10.
Remove the two "Christmas tree" push fasteners holding the radiator shroud to the condenser (save the fasteners for reuse). They are located approximately midway up along each side.

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Description (cont.)

STEP 11.
Disconnect battery ground.

STEP 12.
Remove gray retaining clip on the bottom side of the MAF sensor, then disconnect MAF sensor connector.

STEP 13.
Disconnect breather tube from bellows.

STEP 14.
Loosen hose clamp at throttle body, pull bellows from the throttle body.

STEP 15.
Remove the two T-30 Torx studs in the bumper beam (see picture). You will not be reusing these parts.

STEP 16.
Raise front of vehicle, follow manufacturer instructions. Use jack stands to support vehicle.

THE FOLLOWING STEPS NEED TO BE PERFORMED FROM UNDERNEATH THE VEHICLE:

STEP 1.
Remove the three 7 mm screws holding the front fascia inside the radiator opening.

STEP 2.
Next, remove the 7 mm screws on either side (one on each side). These are the screws holding the bottom of the bumper cover – see picture.

STEP 3.
Remove the two plastic push lock plastic fasteners holding the radiator shroud to the bumper beam. Remove the two plastic Christmas tree fasteners from each side of the radiator shroud.

STEP 4.
Guide the side wings of the radiator shroud around the lower brackets. Remove the shroud from the top side, pushing condenser rearward as necessary for clearance. If the shroud does not clear the bumper during removal, it may be easier to free it from the under side of the vehicle.

NOTE: If you do not feel comfortable with performing the modifications to your shroud that are listed in the following steps or you would prefer to keep the existing shroud in stock form, LPE offers an already modified production GM shroud. Contact LPE or your LPE distributor.

STEP 5.
Cut out the template, cutting along the outer short dashed line only. Thoroughly clean the shroud to ensure adhesion of tape for the next step. Place the cut template on the shroud as shown, ensuring the line on the template matches up with the crease on the shroud.

STEP 6.
Secure the template in several places with tape. Use a center punch to mark the centers of the holes to be drilled. You should have 19 center punch marks. It is important to make sure you do not remove the template until all 19 holes are marked.

STEP 7.
Remove template.

STEP 8.
Drill four 5/16" holes first as shown on template.

Description (cont.)

STEP 9.
Drill seven 11/32" holes as shown on template.

STEP 10.
Drill eight 1/2" holes as shown on template.

STEP 11.
Using a ruler & marking tool, connect outer edges of 1/2" holes to form cut line as shown by "dashed lines" on template.

STEP 12.
Using saw or other suitable cutting tool cut on line drawn, making sure to NOT CUT OUTSIDE OF LINE.

STEP 13.
Reinstall modified radiator shroud.

STEP 14.
From underneath, reinstall the two push lock fasteners that secure the shroud to the bumper beam.

STEP 15.
From the top side, install the two factory "Christmas tree" fasteners holding the radiator shroud to the condenser.

STEP 16.
Remove two plastic pins from the top mount radiator shroud by prying up center nail, then pulling out (as shown in image).

STEP 17.
Install the two supplied "Christmas tree" fasteners into same holes that held the two plastic pins.

INSTALL TOP RADIATOR SHROUD ENSURING IT ENGAGES FAN SHROUD IN THE CENTER AS SHOWN.

STEP 1.
Tuck water hose back into holders on shroud, secure with four bolts previously removed.

THE FOLLOWING STEPS NEED TO BE DONE FROM UNDERNEATH THE VEHICLE:

STEP 2.
Replace the previously removed four factory Christmas tree fasteners retaining the shroud to the plastic side panels
(two per side).

STEP 3.
Replace the five 7 mm head screws previously removed.

STEP 4.
Remove the 3/8" barbed plastic quick couple from the accordion section of your stock air intake system (see picture).

Description (cont.)

STEP 5.
Install the quick coupler into the silicone hump hose by pushing the barbed side into the 3/8" nipple on the hump hose. Do not use lubricant.

STEP 6.
Install 90-110 mm clamp over the notched side of the hump hose and install the black plastic side of the MAF sensor into the hump hose. Be sure to align the cut out notch on the hump hose with the protrusion on the MAF sensor.

STEP 7.
The clamp must be in the position shown and tightened at this time.

STEP 8.
Install the 3.9" straight hose on the other side of the MAF sensor.

STEP 9.
Slide a 90-110 mm clamp over the straight hose section and position the clamp as shown.

STEP 10.
Slide another 90-110 mm clamp over the straight hose section and attach the supplied plastic air-bridge to the other end of the 3.9" hose with the nipple on the hump hose in the 10 o'clock position as shown.

Do not tighten the 90-110 mm clamp at this time.

STEP 11.
Note position of logo on the air-bridge. As shown in the image, the side of the plastic air-bridge that is closest to the LPE logo (and not the Lingenfelter text) is the side that gets inserted into the 3.9" hose.

STEP 12.
Remove the protective cover from the LPE supplied air filter.

NOTE: Inspect inside of filter for any debris prior to installing in the vehicle. Be very careful during the remainder of the installation process to not let any dirt or objects fall into the filter.

STEP 13.
Install the 100-120 mm clamp on the rubber neck of the air filter.

STEP 14.
Supporting the bottom of the air filter with one hand, insert the end of the air tube assembly ("air-bridge") into the rubber neck of the air filter.

STEP 15.
Snug (not tighten) clamp.

STEP 16.
Thoroughly clean edge of airbox with supplied alcohol pad.

STEP 17.
Cut the supplied foam seal to fit airbox as shown in image. Install rubber seal to three edges of airbox as shown. Make sure the foam seal does not interfere with the mounting holes.

STEP 18.
Slide airbox and filter assembly in place as shown.

Description (cont.)

STEP 19.
Place the remaining 90-110 mm clamp on the hump hose and connect the 4.0" hump hose to the throttle body. Push the hose firmly as shown to seat the hump hose onto the throttle body. Make sure the bottom is butted up to the throttle body flange. Tighten the clamp securely.

STEP 20.
Attach the breather hose to the plastic nipple in the hump hose at this time.

STEP 21.
For hood clearance reasons, the breather hose should be clocked as close to the throttle body motor as possible.

STEP 22.
Use four of the supplied push lock plastic rivet fasteners to secure the airbox flange to the shroud. Pinch pieces together as tight as possible while securing the fasteners.

STEP 23.
From underneath the vehicle, starting with the bottom, center fastener, install the remaining seven supplied push lock plastic fasteners, pinching pieces tight together while fastening.

STEP 24.
Look at the air filter from underneath at this time, if it is not parallel with the cut in the shroud, it may be straightened now.

STEP 25.
Tighten the clamp retaining the air-bridge to the air filter.

NOTE: This clamps best when the hose clamp is positioned as pictured.

Tighten clamp on opposite end of air duct.

NOTE: PUSH DOWN FIRMLY ON AIR DUCT WHILE TIGHTENING THIS CLAMP. This is necessary to achieve proper alignment. Double check all hose clamps for tightness.

STEP 26.
Reattach MAF sensor connector and the gray retaining clip.

STEP 27.
Reconnect the outside air temperature connector and the hood light connector.

STEP 28.
Reconnect the battery ground cable.

STEP 29.
Lower vehicle down from jack stands.

STEP 30.
Reprogram your engine control module (ECM) using the supplied Lingenfelter Power Programmer (LN30203). The programming instructions are included with the Power Programmer and are also on the included CD-ROM.

STEP 31.
Start vehicle and confirm proper vehicle operation.

Description (cont.)

Congratulations – you have completed the installation.

WARNING: CAUTION SHOULD BE USED WHEN DRIVING IN HEAVY RAIN.

DO NOT DRIVE THROUGH DEEP STANDING WATER.

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 39 grams (1.4 ounces) of oil. Replacement filters are also available from LPE (filter part number L660070105). 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 C6 Corvette including shift lights, low temperature thermostats, camshafts, ported throttle bodies, port matched intake manifolds, ported cylinder heads, intake manifolds, crate engines, supercharged and turbocharged engine packages and much more.