

# LG PRO LONG TUBE HEADERS 2006 CORVETTE Z06

“THE MOST POWERFUL HEADERS ON THE PLANET”

Brought to you by LG Motorsports  
972-429-1963



Thank you for purchasing LG headers for your C6 Z06 Corvette.

## **Parts Inventory:**

1. Driver side header
2. Passenger side header
3. X- pipe with 02 sensor bungs
4. 2 high flow cats OR 2 cat delete pipes
5. Driver side rear flow tube
6. Passenger side rear flow tube
7. 8 3” stainless steel band clamps
8. 1 pair of LGM metal layer gaskets
9. 1 pair of black front 02 sensor extension wires
10. 1 pair of white rear 02 sensor extension wires

## **Instructions:**

### **Removal:**

Start by supporting the car on a lift, or 4 jack stands on a level surface about two or more feet off of the ground. Disconnect negative battery cable before any work begins. You will need to make note of the rear over the axle pipes and the spacing they have between the frame because you will need to keep this same spacing after the installation of the header system as to not have any rattles at the rear of the car as the factory has placed 3” exhaust tubes here and the space is limited.

Once noting the placement of the stock exhaust parts you will need to start by removing the old exhaust components. Start by removing the fuel rail covers on top of the engine. These simply unclip and pull off. The driver side is a little trickier as you need to route the fuel line through the cut out in the cover. Once that is done then set them aside. You will also have to unbolt and remove the oil dipstick from the passenger side of the engine.

Move on to removing the spark plug wires and spark plugs from the engine. Be careful not to drop any of the spark plugs as this will damage the plug and cause a misfire

condition. Once this is done, the next electrical part that needs to be completed is removal of the factory O2 sensors. There are 4 sensors in the stock exhaust and all 4 will be reused. Unclip the sensors from their wires and make note which sensors are used in the front and which are used in the rear, they will install the in the same locations on the LG Pro Long Tube header system.

At this point it is time to start removing the factory exhaust system. Start by unbolting all of the clamps on the under side of the car and all of the factory hanger bolts. Remove the exhaust manifold to H pipe bolts and remove the factory H pipe to the mufflers. At this point you can move back up top and remove the bolts that hold the manifolds onto the engine. The manifolds should drop out from the top down. Now you have removed all components of the factory exhaust system and are ready to start the install of the header system.

### **Install:**

There are a few items that need to be relocated and/or moved before the install process can begin. First off you will need to drain the oil from the motor at the 2 drain locations in the pan of the motor because we need to move the oil lines for header clearance. The bracket holding the oil lines out of harms way needs to be bent slightly to give about 1/2" clearance after the header is installed on this side. This can be done by removing the oil lines at the oil pan and bracket and bending slightly in a vise and reinstalling. Leave these lines off until the passenger side header is in place as this will allow more clearance for install of the header. The system can be had with an optional small piece of titanium to be used as a heat shield against the oil lines but testing as shown that there is enough clearance with out using a shield. Clearance should be as shown in the picture below



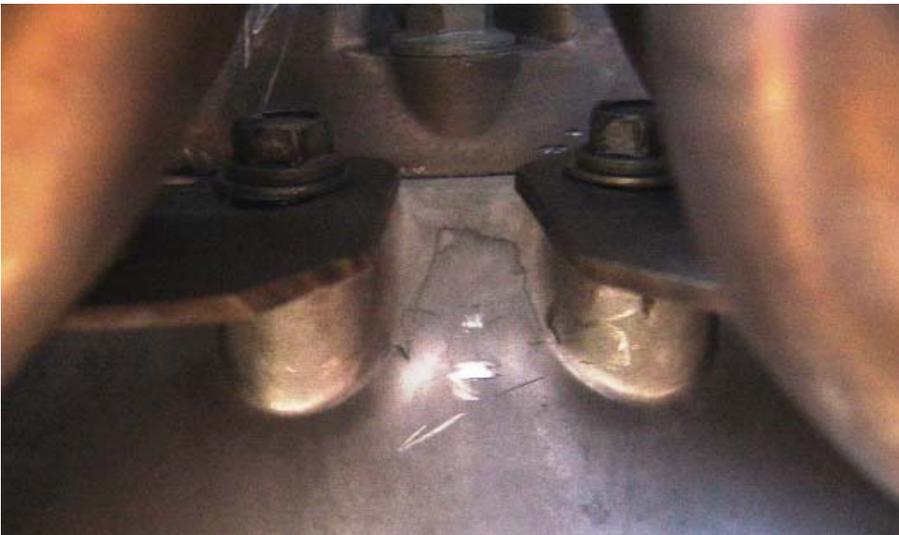
**Figure 1: Oil line clearance after bracket has been bent.**

While still on the passenger side of the car there is a wiring harness that is above the starter that is clipped into the frame. This will need to be unclipped and re-routed clear of the header and zip tied out of the way so the header does not burn these wires.



**Figure 2: Passenger side wiring harness after being relocated**

Before installation of this header it is necessary to also open up the hole on the vertical bracket on the rear of the header that bolts to the bell housing. Please note these bolts are not in your car from the factory and you should use a pair of the manifold studs and nuts for ease of install. The header on this side of the car is extremely close to the frame rail and needs all of the room that it can get to move to the center of the car to prevent any noise or rattles once install is completed.



**Figure 3: Vertical bell housing mounting bolts (factory manifold studs can also be used)**

Now install the header on the passenger side to start the rest of the install. The header should install from the bottom up. The driver side header can also be installed from the bottom at this time. When both headers have been placed in the car please start all bolts finger tight as to just 'hang' the headers in place. We also only recommend using GM header gaskets for the 2000 LS1 Camaro as these use the same port design as the headers and have proven the best seal (there should be a set of ported units with your kit).

Once under the car it is now time to start installing the rest of the pipes. The front O2 sensors should be installed into the headers and tightened down. You will need to drill two ¼" holes at the front of the center plate to hold each O2 sensor wire with a zip tie to keep them from burning on the headers. Please note, it may be necessary to unclip part of the factory harness to give enough slack and free play in the wires. Install the bell housing bolts hand tight at this time, as shown in Figure 3. Then the catalytic converters slip into place just after the headers. Please slide the clamps onto the pipes as you work your way back so that you can come back later and tighten everything down as you go once everything is aligned. The X pipe is next in the install. Before installing the X pipe please transfer the rear stock O2 sensors and place them into the X pipe. Note the location of the O2 sensor holes and place them closest to the catalytic converters. At this time it is also necessary to drill a hole in the plate just above the exhaust. This hole will allow the O2 sensor wires from the rear to feed up above the exhaust and not become burned on the exhaust. We drill a 1 to 1 ½" hole in the plate to allow the wires to feed above the plate as shown in the picture below. Please run the wires through this hole and above the exhaust while installing the X pipe for easiest install. Also make note of the angle of the O2 sensors themselves. They should lay very close to the X pipe as to give the most clearance, if not the bungs may have to be 'tweaked' a bit to lay them over.



**Figure 4: X-pipe location with hole drilled for O2 sensor wires (front is to the right).**

At this point the rest of the system can be loosely hung into place and should look like the picture in figure 5 once completed.



**Figure 5: Fully installed LG Long Tube header system on 2006 Z06.**

Before final tighten of all of the clamps care must be taken to insure that all pipes are located correctly taking special care to note placement of the rear pipes as they go over the rear end of the car. You have to raise the rear pipes up as far as they can before tightening the rear clamps. This plus rotating the muffler tail pipes to keep the 3" muffler pipes away from the frame will solve this. The left muffler has to be rotated "clockwise" and the right muffler has to be rotated "Counter Clockwise" to clear the frame. It won't take much but it has to be done. The stock mufflers are also rotated in this manner to some degree. While tightening the exhaust clamps down make sure that each clamp is clear of the frame rails, and each other. Special care must be taken on the clamps around the X pipe as they can rotate too far and the bolt will rattle on the center plate support. Once the install is complete please give the exhaust a once over and make sure no pipes are touching, clamps are free of each other and that the bolts are not making contact with any part of the car. Once the car is complete please drive the car to check for leaks and any rattles that might pop up after install. The header and pipe fitment is more critical since the pipes are so much larger so time must be taken to make sure all pipes are in their right place.

I thank you for choosing LG Motorsports and know that you will enjoy years of trouble free horsepower and torque from your new Corvette Z06 equipped with the most POWERFUL HEADERS ON THE PLANET, LG Motorsports Pro Long Tubes!

Lou Gigliotti  
President LG Motorsports



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