

LG SUPER PRO LONG TUBE HEADERS GEN 5 CAMARO

“THE MOST POWERFUL HEADERS ON THE PLANET”

Brought to you by LG Motorsports
972-429-1963



Parts Inventory:

1. Driver side header
2. Passenger side header
3. Driver side S pipe with O2 bung
4. Passenger side S pipe with O2 bung
5. X- pipe
6. 2 high flow cats OR 2 cat delete pipes
7. Post X pipe to muffler assembly with rear hanger
8. 3" to 2.5" adapters for mufflers
9. 10 3" stainless steel band clamps
10. 1 pair of trap to trap O2 adapters
11. GM exhaust gaskets PN 12617944

Optional

1. Pair LS1 style exhaust gaskets
2. High flow 3" LG Polished Mufflers with 4.0" tips

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.

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 cover on top of the engine. This simply unclips and pulls off. Once that is done then set this aside. You will also have to unbolt and remove the oil dipstick from the passenger side of the engine, which you can do now. There is one bolt holding this down and it simply pulls out from the block. Note the o-ring seal at the bottom.

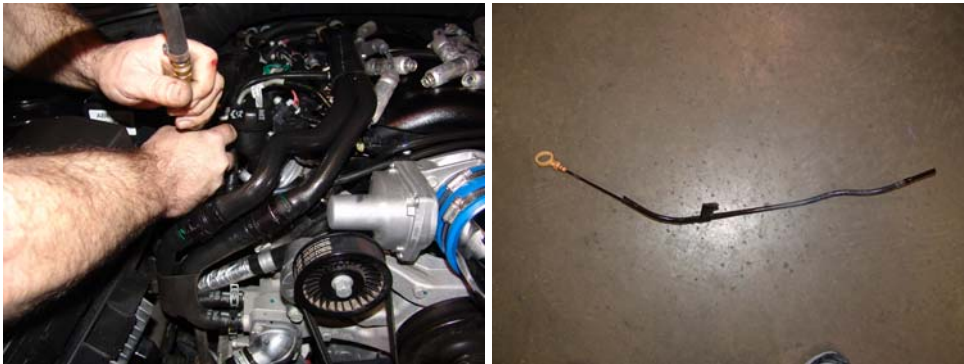


Figure 1: Removing factory dipstick

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. Also make sure to pull by the boot on the wires or they will separate. If your car has over 30,000 miles now is a good time to think about new wires. 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. Unclip the sensors from their wires and make note which sensors are used in the front and which are used in the rear. You may find this easier to do after the factory H pipe has been removed.

At this point it is time to start removing the factory exhaust system. You will start by spraying all hangers with WD40 to make removal easier. Then you will need to remove the center tunnel brace that spans the center tunnel. Set this and the bolts aside.



Figure 2: Center tunnel brace removal.

Now move to the front of the car and un-bolt the clamps at the cats at the front of the car and remove the mufflers from the hangers and the mid pipe hangers under the diff. You may need to have a friend help you as the mid-section and mufflers is welded together and removes as one piece. This is heavy so have help.



Figure 3a, 3b: Removal of stock mid section and mufflers

Drop at the front and pull the mufflers out of the rear bumper cut outs. Move to the front and now we can start removing the factory cats, O2 wires, and manifolds. Start by reaching up by the transmission and un-plugging the rear O2 sensors, then you can unscrew the sensors after the cats and set them aside to go in later. Before removing the exhaust manifolds you must remove the front O2 sensor plug from the car. These are located at the back of the cylinder head. See figure 5 for this location. There is a green safety catch as well.



Figure 4: Removing rear O2 sensor.



Figure 6: Passenger side front O2 sensor location

Once the rear O2 sensors have been removed, the front O2 sensors have been unplugged and the spark plug wires and plugs removed you can now start to un-bolt and remove the exhaust manifolds. These will hang in place until you can pull them out. These will come out from the bottom of the car with the cats. Once they have been removed you will need to remove and save the front O2 sensors for install into the headers.



Figure 7: Removing manifolds and cats.

Install:

Before install, take this time to install your front O2 sensor extensions onto the car harness where you unplugged the factory sensors. Now you can start by installing the driver side header from the bottom side of the car. The headers should slide into the engine compartment by pointing the collector towards the inside of the car and down, and rotate into place. You can 'hang' them from the head bolts until you can go back on the top side. I suggest installing only a front and rear bolt with the gasket first then only starting the rest of the bolts before installing the rest of the system. Once the headers are there you can install the sensors and plug into the extensions.



Figure 8: Front O2 sensor extension



Figure 9: Install of Driver side header

Now install the header on the passenger side to start the rest of the install. The header should install from the bottom up. We also only recommend using GM header gaskets for the 2000 LS1 Camaro/Corvette as these use the same port design as the headers and have proven the best seal.

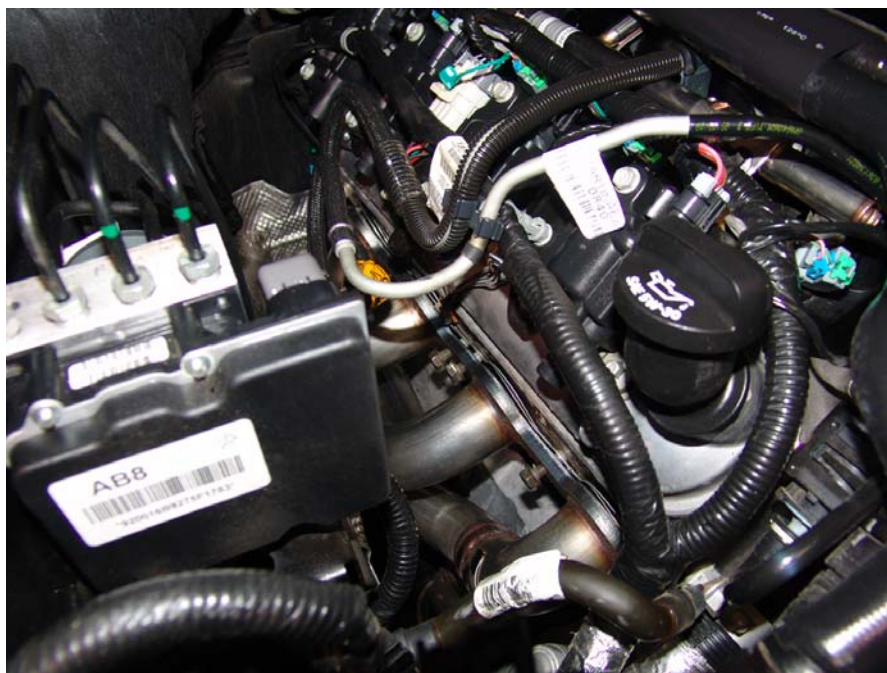


Figure 10: Passenger side header installed loosely with gasket

Once both headers have been installed and all bolts started. You can finalize by now tightening down all header bolts working your way from the middle out to the ends.

You can now install your spark plugs and plug wires. Make sure that they click once onto the plugs, and twice onto the coil packs. You can now also re-install the dipstick and dipstick tube.

*We do suggest one final tighten after the headers have went through one heat cycle. They should never have to be done again.

Now that the headers have been installed, slide one 3" clamp over each collector and install your high flow cats or your off-road pipes. Once these are on, slide over one more 3" clamp on each of these pieces. You can loosely tighten the clamps down, but do not tighten all the way until the entire system has been hung in place and adjusted. The remainder of the exhaust will look like the layout shown in figure 12.



Figure 12: Rear S pipes, X pipe, mid section and optional mufflers

Start by installing the rear O2 sensors into the post cat pipes. These 'S' pipes will slide over your high flow cats. Again, slide another 3" clamp onto each of these pipes and install your X pipe. Once the X pipe is on, again slide the 3" clamp over each side and now install your rear mid pipe and place it into the rear hanger just under the differential. You can also plug in your rear O2 sensors at this time and tie out of the way if needed. Follow along in the figures below for the mid section assembly.



Figure 13a and 13b: 3" clamp over collector and high flow cat onto collector



Figure 14: High flow cat installed with 3" clamp



Figure 15: S pipe being installed with rear O2 sensors.



Figure 16: install of X pipe onto S pipes.



Figure 17: Rear mid section installed into rear hangers.

Once you have the entire mid section installed and loosely tightened into place it is now time for a decision. If you have the LG high flow 3" mufflers then you can simply slide over your next pair of 3" clamps, install the mufflers, align and tighten all of your clamps working your way rear to front. If you want to re-use your stock mufflers you need to measure and cut the factory mufflers from your stock system and use the supplied adapters to install. If you have an aftermarket system that is 2.5" then use the adapters, and install just like you did on your stock system. Align your mufflers first and work your way forward on tightening the clamps.



Figure 18: Install of Mufflers

Once installed, make sure all clamps are tight and wires plugged in. We suggest checking header bolts after the first heat cycle. Now you are ready for the tune and first drive!

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

Sergio De La Torre
President LG Motorsports



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