

LG G5 CHASSIS BRACE GEN 5 CAMARO

“THE MOST POWERFUL HEADERS ON THE PLANET”

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Thank you for purchasing LG Motorsports products for your Gen 5 Camaro.

Parts Inventory:

1. Driver side rear subframe brace
2. Passenger side rear subframe brace
3. Driver side mid bar
4. Passenger side mid bar
5. Front X brace
6. two small single, nut plates
7. two double, nut plates
8. (4) 12 x 1.75mm ny-lock nuts
9. (6) 12 x 1.75 mm x 60mm long bolts
10. (7) 12 x 1.75 mm x 45mm long bolts
11. (2) 16 x 2.0 mm x 80mm long bolts
12. (12) 10 x 1.5mm x 45mm long bolts
13. (2) tube frame nut inserts
14. (2) 16mm Washers
15. (17) 12mm Washers
16. (12) 10mm Washers

Instructions:

Support

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. Try to support the car from the suspension arms as we will need access to the chassis.

You will need to remove the center tunnel brace that spans the center tunnel. Set this and the bolts aside. You will reuse the brace but not the bolts for the install.



Figure 1: Center tunnel brace removal.

Install:

To begin the install start at the rear of the car mocking up one side of your chassis brace to familiarize yourself with the bolt locations that you will be using. We will be using all factory hole and nut locations on the car so no drilling is required into your car for this install.



Figure 2: Rear subframe mockup

First we will need to install the four supplied nut plates into the chassis. The two small single nut plate pieces will go on the outside part of the frame and hold in the one single bolt location outside of the fuel tanks.



Figure 3: Install of outer nut plate.

Install the plate by twisting the plate through the larger open slot to align with the middle hole. The bent down tab will hold the plate while you tighten the bolts.

Next we will install the two front nut plates by sliding into the open section of the factory car chassis rails. Notice that there is one open hole in the plate. This hole will go over the factory nut shown in the picture below with the green tape. This plate will serve to hold the front of the rear bars as well as the start of the mid plate bars in place.

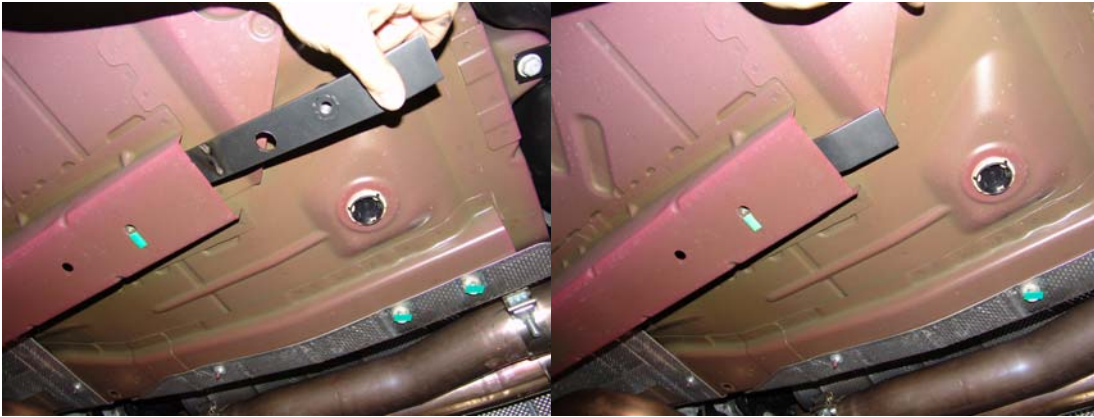


Figure 3: Front nut plates install.

Now that the plates are installed you can start to begin the install of your rear brace. Support the brace using a floor jack, transmission stand (shown in figure 2), or friend. At the rear of the brace install the 12mm x 1.75 x 60mm bolts, washers, and ny lock nuts. There will be two per side that go through the brace and into the rear subframe. Loosely screw on the nuts, we will tighten when everything is installed.



Figure 4: Rear brace to subframe connection.



Figure 5: Rear bolts installed

Moving forward, install the 12mm x 1.7 x 60mm bolts into both outer supports into the nut plates that we installed first into the frame. Again start this by hand, and leave loose until all bolts are installed.



Figure 6: Outer brace bolt installed

Moving forward yet again we are going to start the install of the front bolt locations, see figure #7. In these holes we will be using the 10mm supplied bolts and a combination of factory nut locations as well as the installed nut plate that we installed in figure 3 above. Remember use a correct washer at each location. The factory cross brace will also be used at this time (removed for picture). Leave the furthest forward bolt out as the mid bars will connect at this location. If you only purchased the rear braces, at this time install the front bolt, and tighten all bolts working from the middle out. For those that purchased the entire kit, please proceed, again leaving all bolts at this time only hand tight.



Figure 7: Front location hold down (Stock cross brace removed for picture)

Moving onto the middle supports we must first remove two bolts from the front subframe as we will be tying the system into it as well. See this bolt in figure 8.



Figure 8: Front subframe rear bolt to be removed

With the front bolt removed you can now start to install the middle bracing to your car.

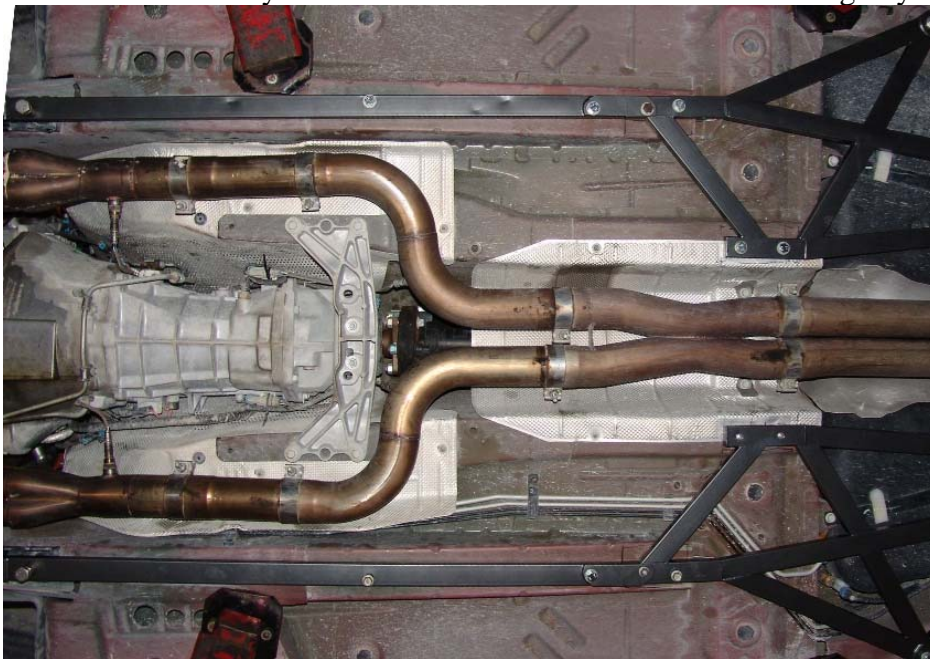


Figure 9: Camaro brace mid section

Using the supplied 16mm x 2.0 bolts attach the middle braces to the front subframe loosely. Install the remaining 10mm x 1.5 bolts and washers to the open holes to the Camaro factory chassis rails and through the last open bolts in the rear subframe brace.

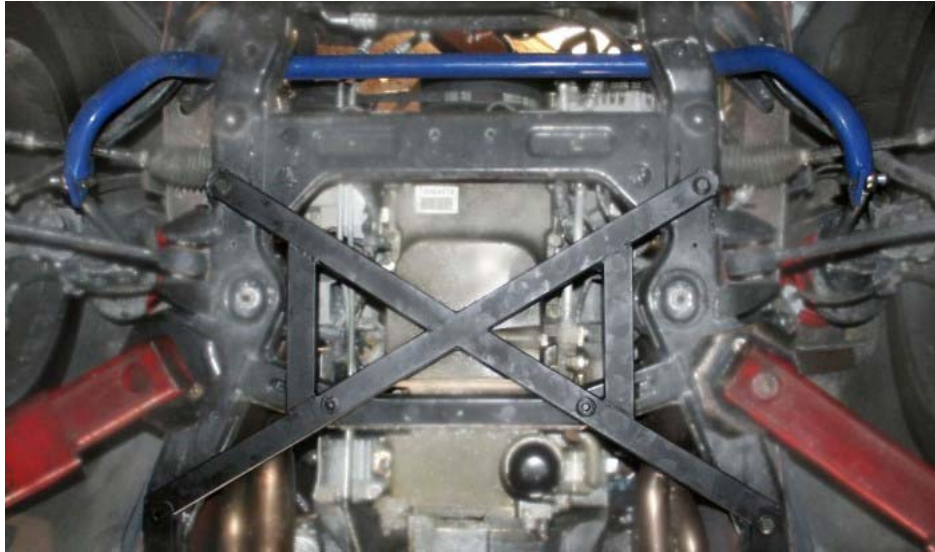


Figure 10: Front X brace installed.

Slide the X brace into place at the open gap provided by the middle chassis braces. You will need to insert the two supplied tube nuts are shown in figure 11 below. These will install from the top and drop into place above the rear mount locations shown in figure 12.



Figure 11: Frame tube nut inserts



Figure 12: Rear X location mount for tube nuts.

Once the nuts are dropped in line up the holes and install 2 of the supplied 12 x 1.75 x 45mm bolts and washers to hold the X in location. You will be using the remaining 12mm bolts and washers to attach the X to the front subframe through existing threaded and non threaded holes into the front subframe. Moving forward on the X you will drop in two more 12mm bolts and washers just under the oil pan and thread into the X from the top down. At the front driver side location you will bolt up yet one more bolt. On the passenger side you will need to remove the rear power steering rack bolt from the top side and replace it with one of the shorter supplied bolts and then finish with the last bolt up from the bottom at the front of the X.

Now that all of the bolts have been started on the entire assembly, move to the rear brace and start by tighten all of the bolts from the middle outwards towards the ends of the braces. Once the rear has been tightened down move to the middle brace and finally the front X brace. The two center bolts do not require a lot of torque, and are only able to be accessed using a open end hand wrench or ratchet wrench. All 12mm bolts torque to 30-38 ft-lbs, 10mm bolts 25-30 ft-lbs and the two 16mm bolts to 45-55 ft-lbs.

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Lou Gigliotti
President LG Motorsports



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