



## LS Conversion Installation Guide 1965-70 B-Body Impala



### Hardware and Parts List

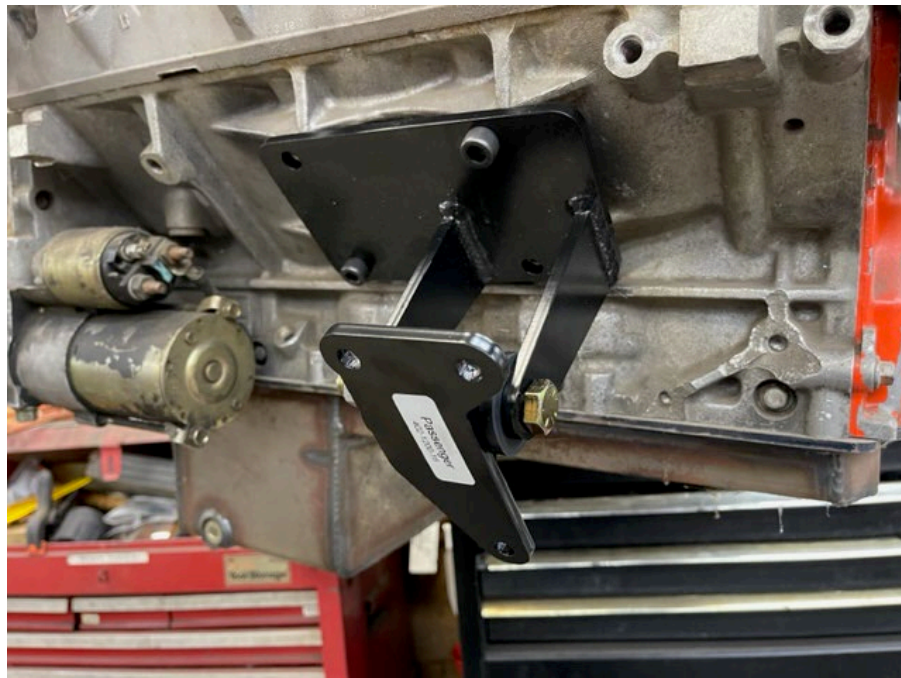
All engine mounts feature a lifetime warranty and free replacement upon return of any mount or bracket.

Quantity	Item
2	Frame brackets
2	Engine mounts
1	Transmission Crossmember
2	Outer Crossmember brackets
1	Polyurethane transmission mount and spacers
1	Hardware pack

Locate the Driver's Side (LEFT) and Passenger's Side (RIGHT) engine mounts and loosely bolt them to the engine using the supplied 10mm Allen head bolts. Next, loosely bolt the frame brackets to the engine mounts using the supplied 1/2"-13 x 4" long bolts and nylon lock nuts. The bolts will be tightened after the engine is in place and transmission Crossmember is installed.



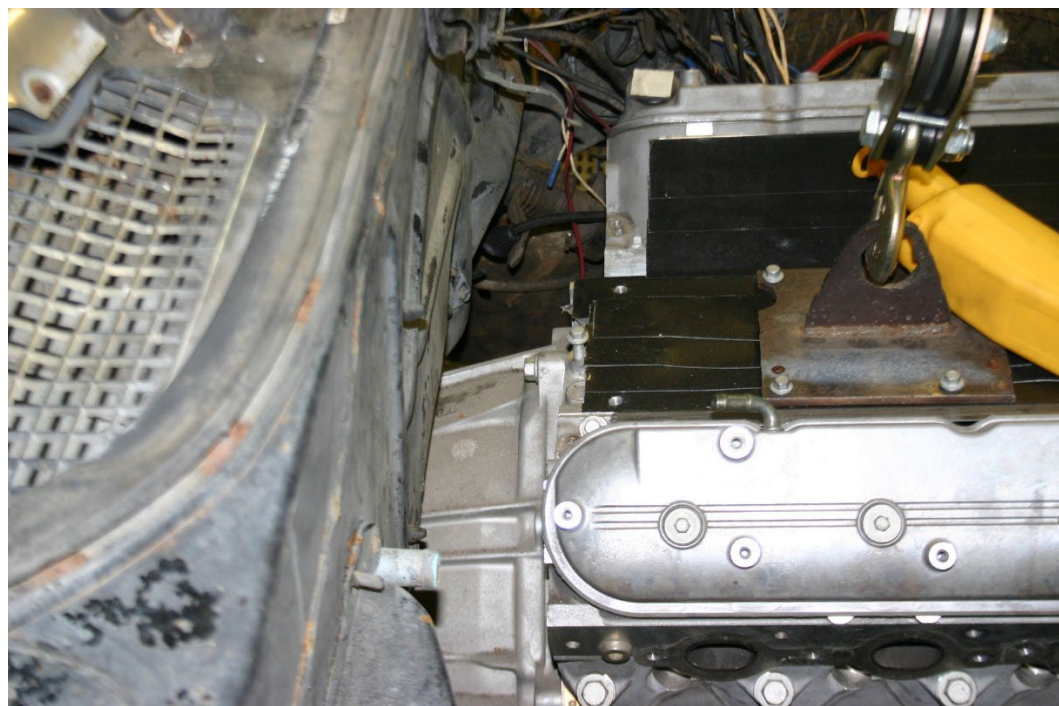
Detailed view of driver's side engine mount and frame bracket on engine.



Detailed view of passenger side engine and frame mount on engine

With the engine and frame mounts bolted to the block, you can now lower the engine and transmission into the chassis. You will need to support the rear of the transmission with a floor jack so that it's not hanging down too far. Line up the frame mount holes with the factory holes in your chassis and loosely

install the 3/8" bolts and nylon lock nuts. All bolts will be tightened after everything is installed in its final location.



Now that the engine is in place, you can now locate your transmission Crossmember position. This is dependent on what transmission you have chosen to use. The 4L60E, 4L65E, 4L70E, and 4L75E transmissions will position the Crossmember on the factory brackets on the frame. An additional hole will need to be added to the factory bracket to mount the Crossmember.

Looking at the photo below, bolt the Crossmember to the bottom of the factory brackets using a 3/8" bolt and locknut on both driver and passenger side. You will use the rear most hole in the factory bracket and Crossmember. Now you can use the front hole in the Crossmember as a guide to drill the new mounting hole on both driver and passenger side.

The Crossmember can now be unbolted and reinstalled on top of the brackets for final installation. The center mounting tab on the Crossmember that mates up to the polyurethane trans mount will point to the rear of the car for these 4 speed automatic transmissions.

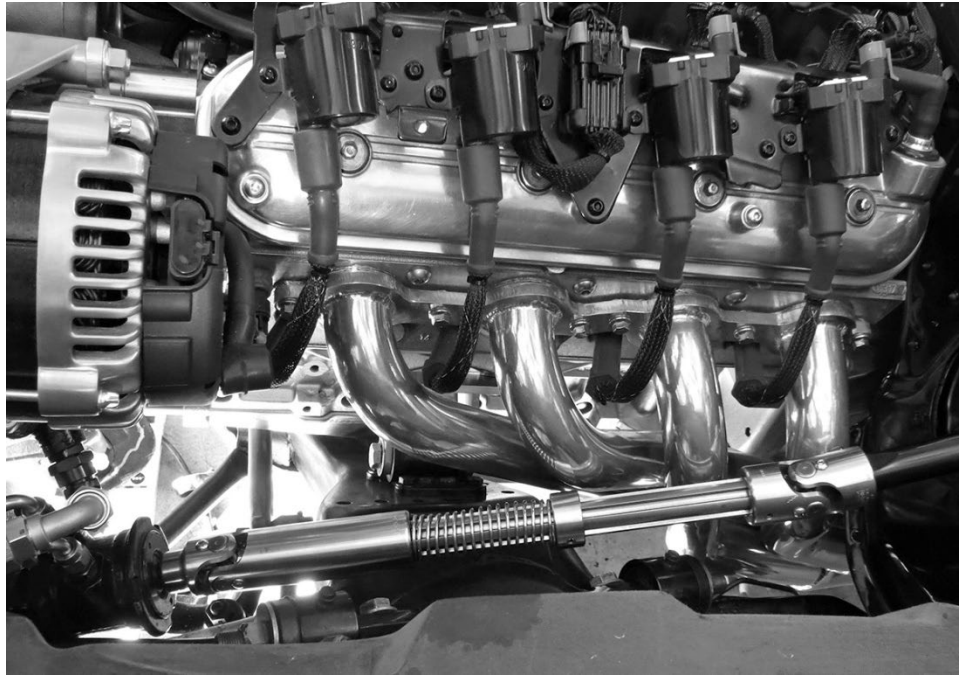


Longer transmissions such as the 4L80E, 6L80E, 6L90E, 8L90E or 6 speed manuals will position the Crossmember further rearward of the factory Crossmember brackets and you will need to add new brackets provided in the kit (photo of brackets below) to support the Crossmember in its new rearward location.



You can weld or bolt these brackets in place to the inside of your frame. To locate them front to rear, you will need to bolt the brackets to each end of the Crossmember and then bolt the whole assemble to the polyurethane trans mount on your tail shaft housing. They should be positioned as shown in the photo below with the slotted holes on the bottom and the brackets flush with the bottom of the frame. The Crossmember will sit on the top side of the slotted holes. If you are bolting the brackets to the frame, you will need to drill mounting holes for them on the inside of the frame and an access hole on the outside of the frame using a 1" diameter hole saw. This allows you to get a socket onto the bolt.





After making sure everything is properly aligned and installed correctly, tighten the engine mount to block bolts, engine mount to frame bracket bolts, frame bracket to chassis bolts, transmission mount to transmission bolts, transmission mount to Crossmember bolts, transmission Crossmember to bracket bolts and brackets to frame bolts.

**Finished -**

Road test your vehicle and familiarize yourself with the new LS power. After the first test drive recheck all bolts to make sure they are tight. Contact us if you have any questions or need assistance during the installation.

**Thank you for using MuscleRods products - proudly made in the USA!**

**770-751-0687**