

# MuscleRods

## LS Conversion Installation Guide

### 1955-1957 Chevy



### Hardware and Parts List

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

Quantity	Item
2	Frame Brackets
8	3/8"-16 x 1" Frame Bracket to Frame Bolts
8	3/8" Flat Washers
8	3/8"-16 Nylon Lock Nuts
2	Engine Mounts
8	10mm-1.5 x 25mm (Allen Head) Engine Mount to Block Bolts
2	1/2"-13 x 4" Engine Mount to Frame Bracket Bolts
2	1/2"-13 Nylon Lock Nuts
1	Transmission Crossmember
2	Crossmember brackets
1	Polyurethane Transmission Mount
4	3/8"-16 x 1" Trans Crossmember to Bracket Bolts
4	3/8"-16 x 1" Trans Crossmember Bracket to Frame Bolts
8	3/8" Flat Washers
8	3/8"-16 Nylon Lock Nuts
1	7/16"-13 x 1" Transmission Mount Bolt
1	7/16" Flat Washer

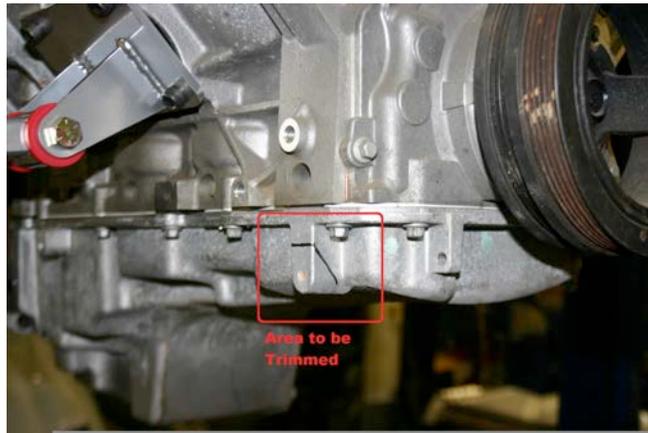
## Installation Notes:

1. Mid-length headers have ball and socket type collectors and O2 bungs.
2. All headers clear the Tri-5 factory OEM A/C box, power steering box, and power brakes.
3. Notching of the frame is required when using the 98-02 Camaro/Firebird F-body A/C compressor.
4. May need to bend transmission tunnel seam lip over to clear the T-56 transmission.
5. Due to variations in body, body mounts & frames it may be necessary to clearance the transmission tunnel or firewall.
6. Headers work with the following transmissions: T-56, 4L60E, 4L65E, 6L80, 6L90
7. LS kits and headers are designed to be used with the MuscleRods High Clearance oil pan or GM LH-8 oil pan.
8. In some cases the starter, valve cover, and/or spark plugs may need to be removed for installation of the MuscleRod headers.
9. This kit requires drilling of new mounting holes for the engine/frame mounts and transmission cross member.
10. Headers are designed around a floor shifter linkage, column shift linkage will require modifications.
11. Kits will not work with factory clutch z-bar and driveshaft length will change from original.
12. All of our kits are designed around factory suspension and steering components

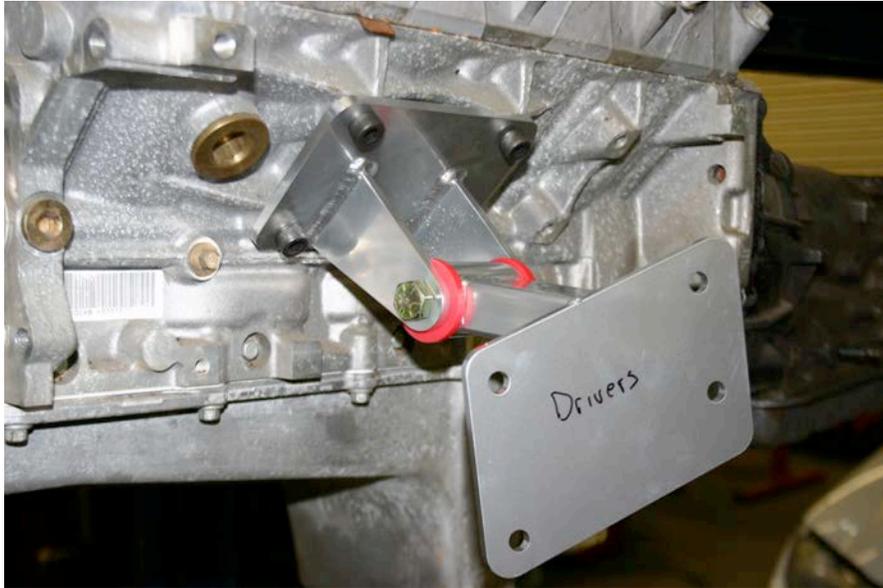
**Step 1:** If using a T56 transmission you will need to flatten the body seam in the transmission tunnel. Start by making relief cuts in the seam so that it will be easier to bend. Next using a hammer and dolly flatten the body seam.



**Step 2:** The GM LH8 oil pan will require slight trimming to clear the 1955-1957 frames. The part that needs to be trimmed is highlighted in the first photograph. The second photo details how much needs to be trimmed.



**Step 3:** Locate the motor mounts and loosely bolt them to the engine using the supplied 10mm allen head bolts. Now loosely bolt the Driver's Side (LEFT) and Passenger's Side (RIGHT) 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 set in place and everything is lined-up)



(Detailed view of driver's side motor mount and frame bracket on engine)



(Detailed view of passenger's side motor mount and frame bracket on engine)

**Step 4:** Lower the engine into the chassis and align the frame bracket to frame. The frame brackets should butt-up against the frame rivets. Clamp the frame bracket to the frame and mark the mounting holes on the frame. Remove the engine and drill the holes through the frame.



(Detailed view of driver's side frame bracket on the frame)



(Detailed view of driver's side frame bracket on the frame)

**Step 5:** Reinstall the engine and loosely install the 3/8-16 x 1" frame bracket to frame bolts, flat washers and nylon lock nuts.



**Step 6:** Lift the rear of the transmission using a floor jack. Install the polyurethane transmission mount on the transmission, making sure that you install the provided plate between the mount and the transmission (this preloads the polyurethane mount). Slide the transmission crossmember into the chassis and bolt the mount loosely to the crossmember using the 7/16"-13 x 1" bolt and the 7/16" flat washer. Loosely bolt the crossmember brackets to the crossmember using the 3/8"-16 x 1" bolts, flat washers and nylon lock nuts. Position the crossmember brackets so that they are (1 3/4" for a T-56 or 2 1/2" for a 4L60E) from the bottom of the frame and mark the mounting holes on the frame. Remove the crossmember brackets and drill the holes out with a 1/4" drill bit through both sides of the frame. Drill out the holes on the inner side of the frame to 25/64". Using the 1/4" holes on the outside of the frame as a guide, drill access holes on the outside of the frame using a 1" holesaw. Loosely install the crossmember & brackets to the frame (3/8"-16 x 1" bolts, flat washers and the 3/8"-16 nylon lock nuts).



**Step 7:** Once you have snugged-up all of the bolts, check the clearance between the drag-link and the front of the oil pan. With the steering centered you should have approximately 2" of clearance, with the steering turned all the way to the left you should have approximately 3/8" of clearance.



Road test your vehicle to familiarize yourself with it's new handling characteristics. BRP cannot supervise your installation of these parts and systems cannot be held responsible more than the cost of the kit and/or parts. The vehicle should be operated normally. Contact BRP if you need anything or if we can be of assistance. (Check the BRP web site for additional help).

**Thank you for purchasing MuscleRods conversion components - proudly made in the USA!**

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**[www.BRPHotRods.com](http://www.BRPHotRods.com)**