

# Spohn Performance, Inc.

## Part #644 – Adjustable Rear Upper Control Arm - Poly Bushings 1959-1964 Chevrolet B-Body

### **USE OF THIS PRODUCT IS ACCEPTANCE OF SELLER'S DISCLAIMER OF WARRANTY!**

By their very nature, competition components are constantly pushed to their limits. While our components are designed to withstand intense race conditions, it is impossible to control the quality of installation or the varying conditions in which they are used. It is for this reason that absolutely no warranty or guarantee is either written or implied. Neither the seller or the manufacturer will be liable for any loss, damage, or injury – direct or indirect – arising from the use of or inability to determine the use of any product. Before using, the user should determine the suitability of the product for its intended use, and the user shall assume all responsibility in connection therewith. Spohn Performance, Inc. makes no guarantee as to the legality for any specific class. Spohn Performance, Inc. makes no claims, nor does it intend its products to be used in street driven vehicles. Spohn Performance, Inc. reserves the right to make changes in design or add to or improve on their product without incurring any obligation to install the same on product previously manufactured. The Buyer agrees to indemnify and hold Spohn Performance, Inc. harmless from any claim, action or demand arising out of or incident to the Buyer's installation or use of products purchased from Spohn Performance, Inc.

### **INSTRUCTIONS**

1. With the front wheels securely blocked, raise the rear of the car to an adequate working height, then support the chassis securely with jack stands leaving the differential slightly supported with the jack. Place the jack under the rear axle to support but do not lift.
2. Loosen and remove the nuts and bolts securing the stock rear upper control arm. For vehicles with two rear upper control arms, remove and replace only one arm at a time as this will help keep the axle aligned properly and make it easier for removal and replacement.
3. Remove the stock rear upper control arm.
4. Install the Spohn adjustable rear upper control arm onto the car using the OEM bolts and make the nuts hand tight only at this time. The front grease fitting faces down and the rear grease fitting faces straight out the back. You'll note that the control arm ships to you jig set at stock length.
5. Fully tighten the mounting bolts and safely lower the vehicle to the ground.
6. One end of the adjuster is left hand threaded and the other end is right hand threaded. To adjust the length of your control arm to set your pinion angle (instructions below) loosen both jam nuts and put a wrench on the adjuster and turn it clockwise or counter-clockwise to lengthen or shorten the control arm. Once set, tighten the jam nuts. Jam nuts are known to work loose over time. To prevent this we recommend that after you have the control arm set to your desired length you apply some REMOVABLE strength (Blue) Loctite to the threads and then tighten up the jam nuts on each end of the adjuster.
7. The poly bushings come pre-lubed. DO NOT use petroleum-based grease on your poly bushings! Poly bushings must be lubricated with synthetic silicone based waterproof grease. These are the manufacturer's recommendations to prevent pre-mature bushing wear, and will keep things "squeak-free". You can order this grease from Spohn Performance using our Part #902. Do not over grease the bushings! You only need a couple pumps of grease. Over greasing will cause the bushings to balloon from the hydraulic pressure inside of the sleeve and they will fail.

## **Setting Pinion Angle**

There are two angles to deal with:

- 1) Driveshaft angle
- 2) Pinion angle

You subtract pinion angle from driveshaft angle to get TRUE pinion angle

Here's how you do it:

First, had you measured your stock drive shaft angle and pinion angle you would have calculated a 0 deg. TRUE pinion angle. This is how all cars come from the factory.

Using an angle finder place it on the underside of the driveshaft and record the angle indicated.

Next, place the angle finder under the flat surface of the pinion yoke (this surface is parallel with the pinion shaft) and record the angle indicated. Record both angles from the driver's side of the car. On the driveshaft anything to the left of 0 is positive, on the rear end anything to the right of 0 is negative.

**Subtract the pinion angle from the driveshaft angle. The result is "TRUE Pinion Angle".**

In order to apply pre-load you need negative TRUE pinion angle. Adjust so that the front of the pinion goes down; continue to check each angle until the pinion angle is more degrees down than the driveshaft angle.

We recommend -1 degrees on a mildly modified daily driven car. For high horsepower applications we have gotten the best results with -2 degrees. There is no reason to run more negative than that, it will actually hurt your performance because it will induce driveline bind.

Here's a tip. When adjusting for your TRUE pinion angle, count the number of flats (or the 1/6 of a turn) as you turn the adjusting hex, to know how many it takes to adjust 1 degree of negative TRUE pinion angle and in what direction (clockwise, or counter-clockwise). Once you know that, then adjusting the arm at the track or before a race will take almost no time, and no angle finder will be needed.

**Adjusting your Spohn Arm:** You adjust the pinion angle by turning the pinion angle adjuster either clockwise or counter-clockwise. As you turn the adjuster you will see the pinion nose of the rear housing moving up/down. Moving the rear housing's pinion nose down will give you more of a negative pinion angle degree, and up will give you more of a positive pinion angle degree.

You will quickly learn that it does not take many turns to adjust the angle by several degrees, so go slowly and check your angles often.