

# Spohn Performance, Inc.

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## **Part# 6164FSO-604 – Adjustable Rear Upper Control Arms – Poly Bushed 1961-1964 Oldsmobile Jetstar 88, Dynamic 88 & Super 88**

### **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 nor 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**

**Note:** Control arms ship jig set at stock length.

1. Lift rear of vehicle and support by frame rails. DO NOT SUPPORT BY REAR END!
2. Use a floor jack and place under rear axle to support the rear end.
3. Remove the rear and the front rear upper control arm bolts and nuts and remove the stock rear upper control arm. The axle will shift slightly rearward (only swap one UCA at a time, do each side separately).
4. Install the Spohn rear upper control arm using the jack to help position the rear axle properly. Make the bolts hand tight only at this time. Do one side then do the other side.
5. Lower vehicle to ride height (suspension loaded) and tighten all bolts to 100 ft./lbs.
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 loosen both jam nuts and put a wrench on the adjuster's hex and turn it clockwise or counter-clockwise to lengthen or shorten the control arm. Once set, tighten all of the jam nuts.
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 premature 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 before you removed your stock torque arm, 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 pinion yoke 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 the upper control arms 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 to -3 degrees. There is no reason to run more negative than that, it will actually hurt your performance because it will induce driveline bind.

You don't want to drive around with your suspension preloaded all the time, it's a lot of unnecessary binding on the u-joints and suspension. It should only be used when racing.

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 adjuster, 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 arms at the track or before a race will take almost no time, and no angle finder will be needed.

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.