

Spohn Performance, Inc.

Part #614 - Adjustable Rear Upper Control Arms 1978-1987 GM G-Body

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INSTRUCTIONS

1. Lift rear of vehicle and support by frame rails. DO NOT SUPPORT BY REAREND!
2. Use a floor jack and place under rear axle to support the rear.
3. Remove the front and rear upper control arm bolts and nuts and remove control arm. The axle may shift slightly rearward. Do one control arm at a time.
4. Install the Spohn 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 72 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 and turn it clockwise or counter-clockwise to lengthen or shorten the control arm. Once set, tighten the jam nuts.

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 preload 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.