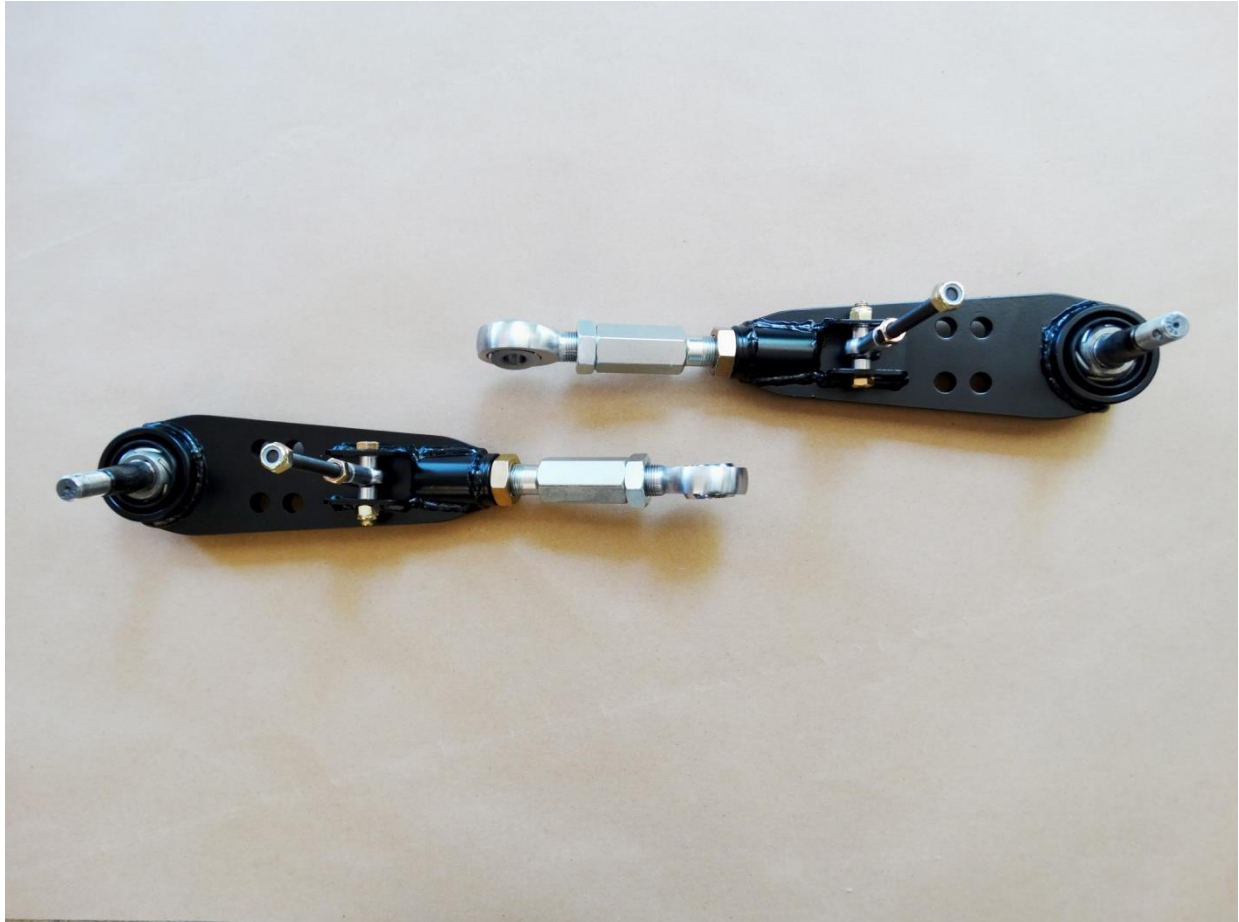


## **Installation Instructions for Pacific Thunder Performance Engineering 1968 and later Adjustable Lower Control Arms**



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**Important: Read the following instructions in their entirety before beginning Installation!**

Adjustable Lower Control Arm Hardware Included:

- (1) 1.0" OD x 0.5" ID x .625" aluminum spacer – quantity 4
- (2) 9/16" castle nut – quantity 2
- (3) 1.0" OD x .625 ID x 3/8" steel ball joint stud spacer – quantity 2
- (4) Cotter pin – quantity 2 (spare cotter pins may be provided)
- (5) Sway bar linkage assembly – quantity 2
- (6) ½" x 1 ¾" bolt – quantity 2
- (7) .748" OD x ½" ID x .875 aluminum reducer – quantity 2 (optional)
- (8) Grease fitting – quantity 2

Adjustable Lower Control Arm Installation Instructions:

**Note: Before installation, the front of the vehicle has to be raised with the front tires above the ground and the vehicle properly supported. Do not rely on only one lifting device or jack stand to support the vehicle. Always use a backup to ensure the vehicle is supported by multiple lifting devices or jack stands. Never work underneath a vehicle that is not supported properly. If only the front of the vehicle is raised, place blocks against the back of the rear tires to prevent the vehicle from rolling.**

1. After the front of the vehicle has been raised and properly supported, remove both front wheels.
2. Remove the lower engine cross member.
3. If your car is equipped with a front sway bar, remove the linkage hardware from the lower control arm.
4. Remove the two bolts and hardware that secure the strut rod to the lower control arm.
5. Remove the cotter pin that goes through the ball joint stud and loosen the castle nut, but leave the castle nut on the stud with the nut screwed into the stud about one turn.
6. Remove the mounting bolt and hardware on the inboard pivot point end of the lower control arm. Pull the lower control arm down out of its frame pivot point and let it hang loose.

**Note: If the mounting bolt is not at least a grade 8 bolt (6 radial lines on the bolt head), replace the bolt with a grade 8 ½" diameter bolt.**

7. Using a ball joint removal tool or other means, remove the ball joint from the spindle and remove the lower control arm.
8. Repeat the previous steps to remove the other lower control arm.
9. Install the provided grease fittings to the new lower control arms and use a grease gun to apply grease to the ball joint.
10. To pre-adjust camber, measure the length of the old lower control arm between the base center of the ball joint and the bushing hole center (should be about 15.75"). To add negative camber, adjust the LCA adjuster of the new lower control arm so that the length between the rod end hole center and the ball joint stud base center is more than the old control arm. While turning the LCA adjuster, hold the rod end and LCA stationary so that exposed threads on either side of the LCA adjuster remain equal. 3/16" or 1.5 full turns of the LCA adjuster is equivalent to approximately 1.0 degrees of camber. For example, to add 1 degree of negative camber, turn the LCA adjuster 1.5 turns to lengthen the LCA 3/16" longer than the length of the old control arm. Tighten the jam nuts to 60 ft-lbs. **Ensure the rod end head is vertical after tightening the jam nut. If it is not vertical, loosen the jam nut, adjust the head and re-tighten the jam nut.**

**To ensure adequate thread engagement, maximum exposed threads on either end of the LCA adjuster should never exceed 5/8 inches when adjusting the length of the lower control arm.**

11. Insert the new lower control arm ball joint stud into the spindle. Install the provided 3/8" stud spacer and screw on the new castle nut enough to hold the large end of the lower control arm in place.
12. If the rod ends supplied with your control arms have a ¾" bore, insert the ¾" to ½" aluminum reducer into the rod end bore.

13. Position one 1" OD x 0.625" aluminum spacer on both sides of the rod end and insert the assembly into the LCA frame pivot point and insert the ½" bolt through the LCA frame pivot point holes. If you have power steering, be sure to re-position the power steering hose bracket on the left side of the car before inserting the bolt. Attach the previously removed hardware to the bolt and tighten the nut to 60 ft-lbs.
14. On the outboard end of the lower control arm, tighten the ball joint castle nut to 70 ft-lbs, insert the cotter pin and bend the ends of the cotter pin back over the castle nut.
15. Re-attach the strut rod to the new lower control arm using the provided longer bolts and tighten the two bolts to 50 ft-lbs.
16. Repeat the procedure for the second LCA on the other side of the car.

Note: Two of your existing sway bar linkage rubber/polyurethane bushings and washers will be required to connect the sway bar linkage on each end of the sway bar (see Figure 2).

17. Remove the nylock nut from the sway bar linkage stud and slide a bushing washer and bushing over the stud and position the stud through the sway bar and then slide another bushing and bushing washer over the stud and replace the nylock nut. Turn the lower stud nut to change the linkage length as desired. Loosen the linkage heim joint bolt and move the heim joint in the elongated bracket holes to get the sway bar linkage to be as close to vertical as possible and retighten the heim joint bolt (you will probably have to place the car back on the ground to determine the best position of the linkage heim joint). Tighten the nylock nut as required to compress the rubber/polyurethane bushings.

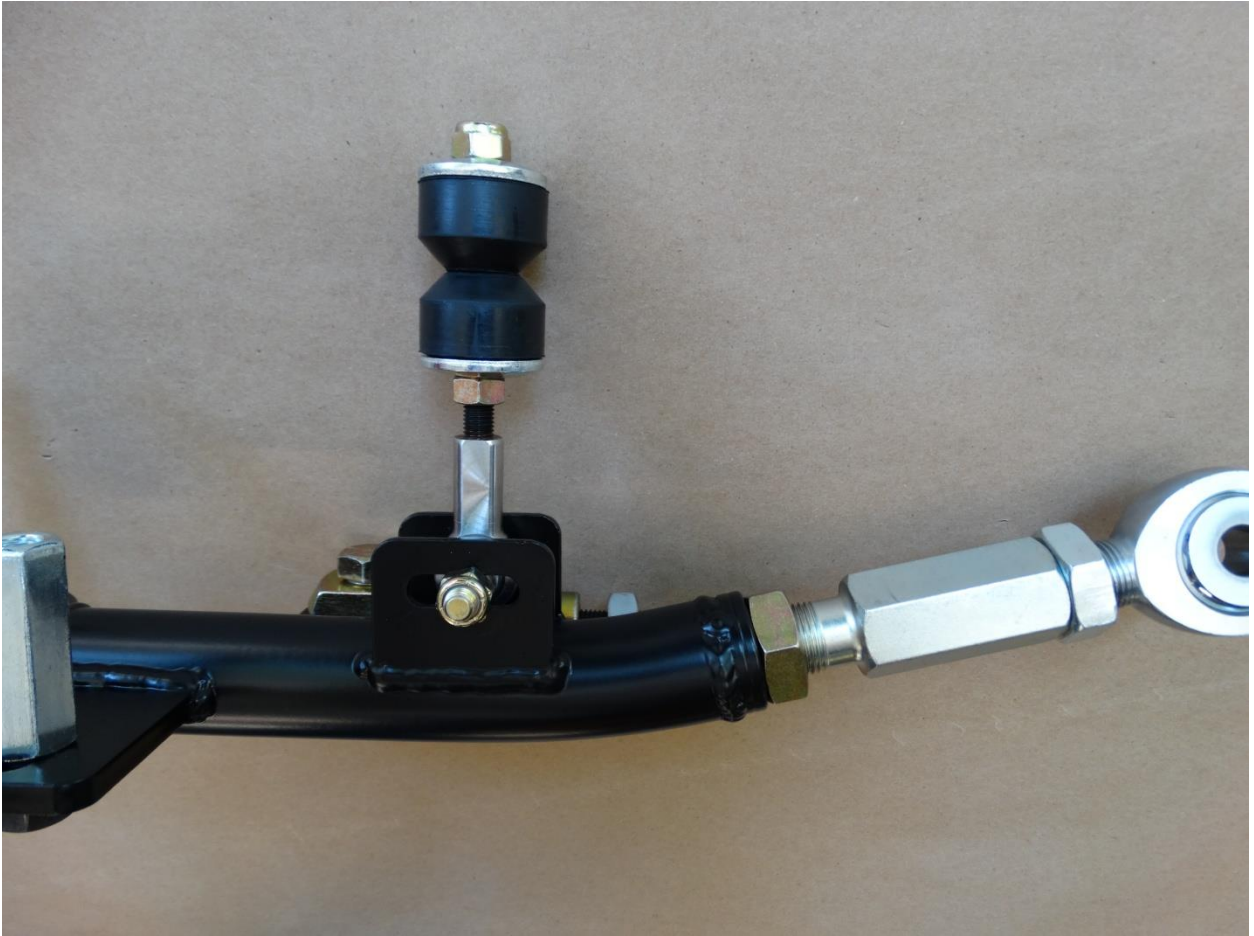


Figure 2. Sway bar Linkage Bushings (Bushings not included. Sway bar not shown)

### Adjusting Camber

1. Replace the front wheels and tighten the lug nuts to their proper torque. Lower the vehicle back down to the ground. Push down on the front end of the vehicle several times to restore normal driving height of the front end.
2. Measure camber on both sides and record the camber.
3. If camber adjustment is required, loosen the jam nuts and turn the LCA adjuster to lengthen or shorten the LCA. Shortening adds positive camber and lengthening add negative camber. 1.5 complete turns of the LCA adjuster provide about 1 degree of camber.

**Note: Adjusting the length of the LCA will require the same length adjustment on your steering linkage to restore toe.**

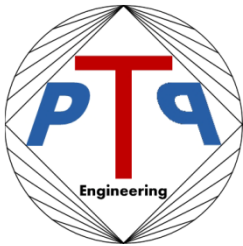
4. Tighten the jam nuts to 60 ft-lbs. **Ensure the rod end head is vertical after tightening the jam nut. If it is not vertical, loosen the jam nut, adjust the head and re-tighten the jam nut.**

**To ensure adequate thread engagement, maximum exposed threads either side of the LCA adjuster should never exceed 5/8 inches when adjusting the length of the lower control arm.**

5. Replace the front wheels and tighten the lug nuts to their proper torque. Lower the vehicle back down to the ground. Push down on the front end of the vehicle several times or drive the car a short distance to restore normal driving height of the front end.
6. Measure camber on both sides and record the camber.
7. Repeat the previous steps as necessary to obtain the desired camber setting.

For questions and comments, please contact PTP Engineering at (951) 532-8782 for further assistance.  
Thank You.

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