



Adjustable Upper Camber Arms

For Jeep Cherokee (KL)

(KL-AUCA)

Installation and Owners Guide

Revision A

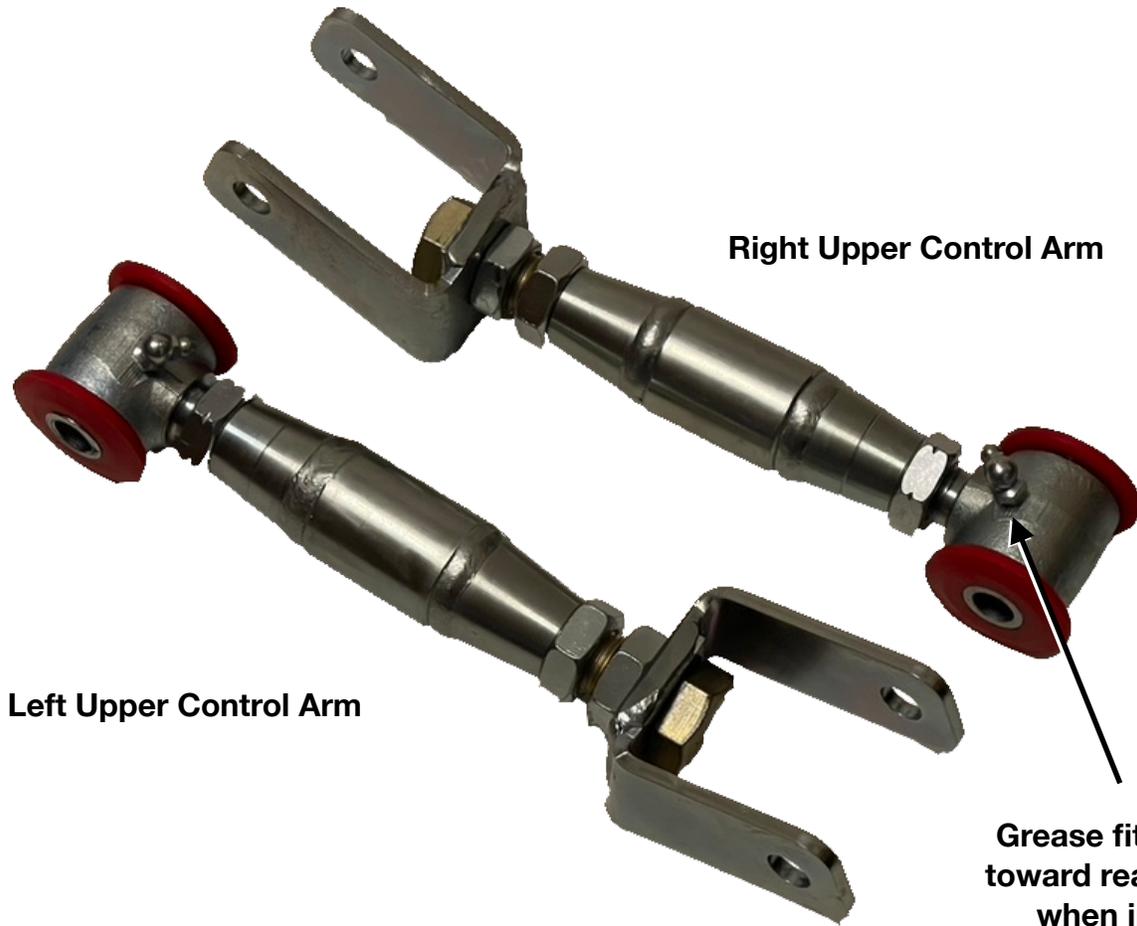
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Welcome to the Gleaming Alloy Family!

We'd like to sincerely thank you for purchasing this set of Adjustable Upper Camber Arms (AUCAs) for the Jeep Cherokee (KL)! Keeping the rear camber of your Jeep Cherokee within specifications can be challenging once you lift your Jeep 2" or more. These AUCAs are the result of several years of development and testing. They are the only truly adjustable (and high strength) option to keep your alignment where it needs to be. We hope you enjoy them as much as we did bringing them to market!



Get to Know Your Adjustable Upper Camber Arms...



Installation Instructions

Please read completely through the following guide before attempting the installation. It will give you a good feel for what is involved to install the Adjustable Upper Camber Arms.

Parts List

2 Adjustable Upper Camber Arms (Left & Right)
1 Small tube of thread locking compound

Required Tools

Floor Jack
Jack Stand
Two 18mm box wrenches or one 18mm box wrench and one 18mm socket & socket wrench
Grease gun for final bushing greasing after install
Torque wrench

For adjusting alignment:

One 1-1/8" box wrenches or a good crescent wrench.
A long, heavy-duty screwdriver.

Where To Get Help

Should you have any questions about installation, or problems during the installation process, feel free to reach out to us for assistance. You can send email to info@gleaming-alloy.com or use Facebook Messenger to message “Gleaming Alloy” directly. You can also message us on Instagram at @gleaming_alloy. If you have a particular issue, please accompany it with photographs showing the nature of the problem.

The following resources are also available on the internet.
Just scan the QR code to take you there:



[Gleaming Alloy
Owners Group](#)



[Gleaming Alloy
Support Documents](#)



[Gleaming Alloy
YouTube Channel](#)

Step 1: Secure the vehicle

Park your Jeep on a relatively flat, hard surface. Engage the parking break and place wheel chocks under the opposite wheel you are working on.



Step 2: Raise Vehicle

Properly jack rear of vehicle up high enough to remove the wheel



Step 3: Place Jack Stand

Use a jack stand to support the vehicle while you are working on it. Lower the floor jack since you will need to use it to raise your suspension while changing the AUCAs.



Step 4: Remove Wheel

This exposes the factory upper camber arm above the knuckle.



Step 5. Raise the knuckle

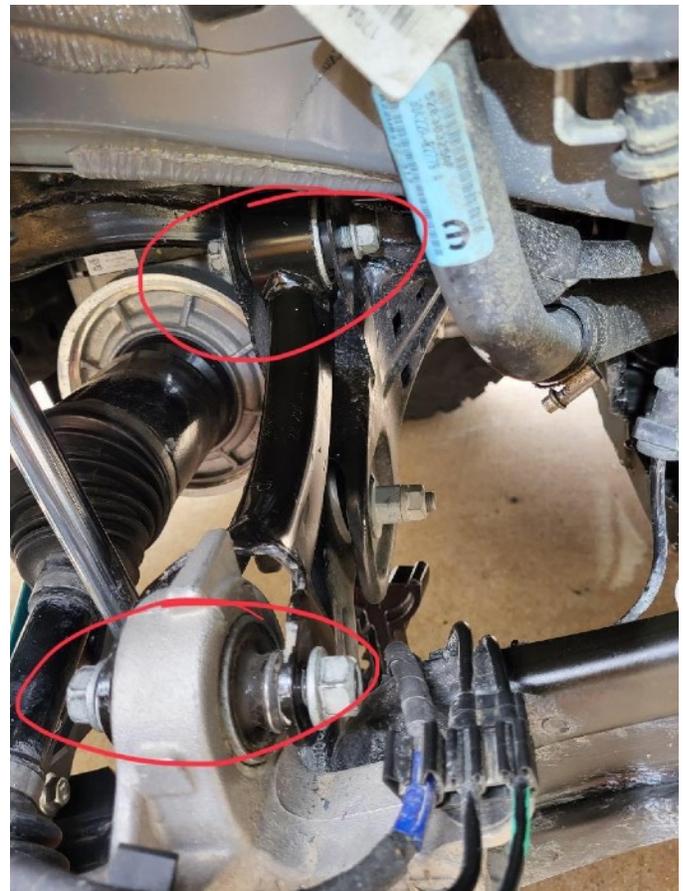
Place the floor jack cup under rear knuckle and raise the suspension up approximately 4" (10 cm) to a near neutral angle.



Step 6. Remove the factory upper camber arm

Using the two 18mm wrenches/sockets of your choice, remove both the front and rear nuts and bolts holding the factory camber arm in place and then remove the arm.

Tip: You can push on the top of the brake rotor with your hand to relieve tension on the upper camber arm. This makes it easier to remove the bolts. You can do this when installing your AUCAs, too.



Important! Before proceeding to Step 7, we recommend you read the 'Wheel Alignment Tips' section at the end of this manual. You may want to follow some of those procedures before installing the AUCA.

Step 7. Install the AUCA

Install the new Adjustable Upper Camber Arms and factory bolts using the same 18mm tools. The arm is to be installed with the fork facing up. Each arm is labeled according to which side of the vehicle it should be installed on. The only difference between left and right is the orientation of the grease fitting. It should be pointing towards the rear of the vehicle to make re-greasing easier.

At this point, dress each of the 2 bolts with the supplied thread locker before replacing each of the nuts. One or two drops per thread are all that is necessary. Immediately torque the bolts to 92 ft-lbs (124 Nm) before the thread locking compound dries.

You should now use a grease gun to lubricate the inner bushing. We recommend using Amsoil Synthetic Water-Resistant Grease (GWRCR-EA). About two pumps of the grease gun are all that is needed.



Step 8. Replace & Repeat

Replace your wheel and torque each lug bolt to 100 ft-lbs (135 Nm).

Now repeat steps 2-8 on the other side of the vehicle.

You have successfully completed installation of your Adjustable Upper Camber Arms! Go have a beer!

Care and Use

Now that you've installed your Adjustable Upper Camber Arms, you're probably anxious to get out and hit the trails with them. Before you do that, read this section. There's a few preliminary steps you should take to ensure they are properly installed, not to mention you'll need to have an alignment performed to get your camber in spec!

Vehicle Settling

When you finish installation and lower the Jeep, it will appear to have an excessive amount of lift. This is because the shocks are charged from being extended fully. A short drive will take care of this and your Jeep will settle to its normal ride height.

First Test Drive

After installing the AUCAs, you should take it on a test drive. Before hitting the road, run through a mental checklist of all bolt torquing actions i.e. make sure you've properly torqued all bolts, especially the wheel lug bolts! Only then are you ready take your Jeep for a spin.

If possible, begin with a low speed route through neighborhoods and secondary roads. Listen for anything out of the ordinary such as creaking or thumps. Try to stress the suspension by taking turns a little faster than normal. If you can find a particularly bumpy road to drive on, all the better!

After low speed testing is complete, it's time to take it on the highway. Begin with speeds in the 45-50 MPH (72-80 KPH) range and then eventually bring it all the way up to 70 MPH (112 KPH). Again, listen for creaks, thumps and vibrations. Try not to wander too far from home in case you need to return to investigate anything.

If your test drive DOES reveal an anomaly, make sure all components are seated properly and re-check all torques. Feel free to contact us if you are perplexed by an issue.

Wheel Alignment Tips

To adjust the camber on the rear suspension using the AUCAs, you must loosen the jam nuts at both ends of the AUCA. The inner jam nut is a left hand thread. Thus when facing the AUCA from outside the wheel well, turning BOTH jam nuts counter-clockwise will loosen them.

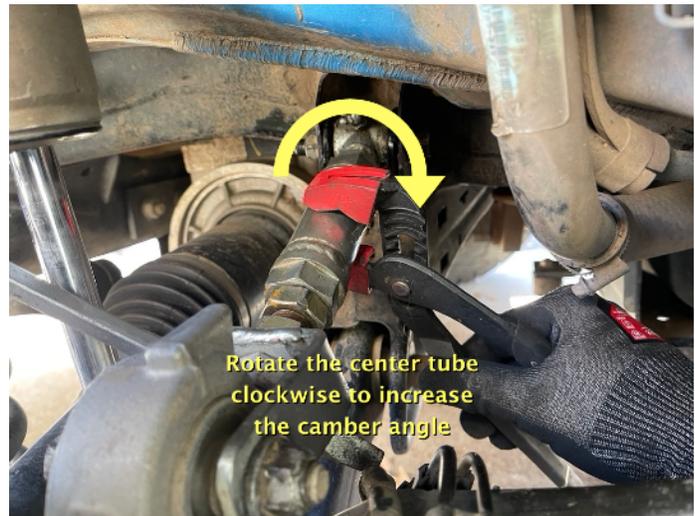
Once the jam nuts are loose, continue loosening them by two or three complete turns.

Tip: The jam nuts are tightened during assembly so that they are safe to use out of the box. You may find it easier to loosen the jam nuts before installing the AUCAs, since space is kind of tight under the Jeep.



With the jam nuts loose and backed off a little, you can then rotate the entire center tube. Rotating the tube clockwise will make it longer, and thus will increase your camber angle. Conversely, rotating the tube counter-clockwise will make it shorter, and thus will decrease the camber angle.

Tip: You may find it necessary to grab the tube with a pair of channel lock pliers to help with rotation. If you do this, we recommend using pliers with rubber protective tips to prevent gouges in the AUCAs zinc plated finish. If you don't have any such pliers, you can wrap the tube with masking or duct tape before grabbing it with pliers.



One full rotation of the center tube will adjust your camber angle by approximately three degrees. Thus 1/3 of a turn will result in approximately one degree of adjustment. These are ballpark figures and the exact amount of adjustment realized will vary slightly from vehicle to vehicle. The point is, you do not need to rotate the tube significantly to achieve the desired results.

After installing a lift, the most typical problem with rear camber is that it is too negative. If you know your camber is off, you may want to pre-adjust the AUCA before taking it to an alignment shop. For example, suppose your alignment tech could not get your camber angle any better than -2.0° . Jeep suggests a camber angle in the range of -0.6° to -1.4° . We suggest a range of -0.5° to -1.0° . In either case, your camber angle is at least 1 full degree too negative. With the AUCAs installed, and the jam nuts loose, you can rotate the center tube 1/3 of a turn clockwise. This will increase your camber angle and should get it very close to correct (remember, going from -2.0° to -1.0° is an increase of one degree, even though both angles are negative).

Tip: Adjusting the camber angle with the AUCA will also have an effect on toe angle. Increasing the camber angle will also decrease the toe angle slightly, though not as much as making adjustments to toe control arm. Keep this in mind when performing the alignment.

Once proper alignment has been achieved, you'll need to tighten the jam nuts. This is accomplished by turning both nuts clockwise, from the perspective of the open wheel well.

Since the entire control arm will want to twist when you are tightening the jam nuts, we suggest you wedge a long screwdriver (or similar tool) in the control arm fork that connects to the knuckle, as shown in this picture. Having an assistant hold this screwdriver and prevent rotation of the control arm will make things much easier.



Start with the outer jam nut and tighten it as much as possible, taking care not to rotate the control arm relative to the knuckle. Technically, you only need about 30 ft-lbs (40 Nm) of torque to be safe. If using a 12" wrench, tightening the jam nut as much as you can will yield approximately 30 ft-lbs.

Next, move on to the inner jam nut and tighten it as much as possible. Be sure to keep the entire control arm from twisting by using the long screwdriver wedged into the fork.



Tip: There is more room in front of the control arm (towards the front of the vehicle). You may want to come up from under the vehicle to tighten the jam nuts. You can also wedge the long screwdriver from under the vehicle, as shown in this photo. This will provide you as much leverage as possible to get those jam nuts tight!



When all is said and done, your AUCA should look similar to the photo to the right. The fork should be reasonably perpendicular to the knuckle and should not appear overly twisted. A slight amount of twisting is acceptable (also shown in this picture).

Important: the fork of the AUCA should be reasonably perpendicular to the knuckle at normal ride height, not when the suspension is at full drop!



300 Mile Inspection

After you have been driving your Adjustable Upper Camber Arm for about 300 miles (or 500 Km), you should inspect your installation to make sure everything is still seated properly and nothing is coming loose. The main things to look for are the jam nuts coming loose, but making sure the knuckle and frame bolts aren't coming loose is also a good idea. You may want to mark the bolts with a paint pen so you can easily tell if they are coming loose by visually inspecting them.

Note: if you take your Jeep off-road within the first 300 miles, you should perform this inspection immediately after you get home from your off-road excursion.



Regular Maintenance

The inner bushing of the AUCA requires lubrication. You should hit it with one pump of a grease gun approximately every other oil-change, more frequently if you do some heavy-duty off-roading. We recommend using Amsoil Synthetic Water-Resistant Grease (GWRCCR-EA).

Spare Parts

Every component of the Adjustable Upper Camber Arms is available for purchase from Gleaming Alloy. It's not likely you'll ever need to replace any component as a result of wear-and-tear other than the inner bushing. The bushing should last at least 25,000 miles (40,000 Km) and much longer than that if they are properly cared for. Replacement bushings can be purchased from our website. They are very easy to install and do not require getting another alignment afterwards, unless there are other issues with your Jeep.