



# **Core Front Spacer Lift**

**For Jeep Cherokee (KL)**

(CORE-KL-Fxx)

## **Installation and Owners Guide**

Revision B

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## Welcome to the Gleaming Alloy Family!

We'd like to sincerely thank you for purchasing this Core Front Spacer Lift for Jeep Cherokee (KL)! This spacer lift system is the result of our desire to offer customizable lift options in a high strength, easy to produce and low cost package. We're very confident that this lift system will enhance your off-road experience. We hope you enjoy them as much as we enjoyed developing them and bringing them to market!



# Get to Know Your Core Front Spacer Lift...

**Strut Clamps**



**ABS Sensor Line  
Relocation  
Brackets**



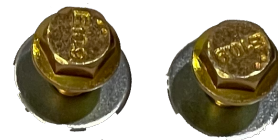
**Brake Line  
Relocation  
Brackets**



**ABS Sensor  
Line Relocation  
Nuts & Bolts**



**Brake Line  
Relocation  
Nuts, Washers  
& Bolts**



**Knuckle Bolts &  
Locknuts**





## 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 front spacer lift.

### Parts List

2 Strut clamps (ranging from 24mm - 42mm height) w/Class 12.9 socket-head bolts & nuts.  
2 M12 x 80mm class 10.9 bolts w/serrated nuts (for knuckle bolt replacement)  
2 Brake line relocation brackets  
2 ABS sensor line relocation brackets  
4 M8 x 20mm class 10.9 bolts w/serrated nuts (for relocation brackets)  
2 M8 oversize washers (for brake line relocation brackets)

### Required Tools

6mm Allen wrench or hex head socket  
11mm 12 point socket  
13mm socket & wrench  
16mm socket  
18mm socket  
Torque wrench 40-100 ft-lb range (55-135 Nm)  
Vice-grip pliers  
Long (flat head) screwdriver and/or small pry-bar  
Floor jack  
Jack Stands

For 36mm and 42mm spacer lifts:

Rotary tool for grinding in small spaces, such as a Dremel or die grinder  
Spray paint (preferably black)

### Recommended Tools/Supplies

WD-40 (or similar penetrating lubricant)  
Steering knuckle spreader  
AT-205 Re-seal loaded in a spray bottle

## 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](mailto: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 (which will be the right front tire for starters).



### Step 2: Raise Vehicle

Use a floor jack to raise the left front of your vehicle. Place a jack stand under the pinch-weld and/or sub-frame and lower the vehicle onto the jack stand. Use of multiple jack stands is encouraged.



### Step 3. Remove Left Front Wheel

### Step 4. Grind Sub-Frame Bracket Beneath CV Axle (2019 or later model years only)

**If you are installing the 36mm or 42mm spacers, or are combining the smaller spacers with a longer strut (such as Dobinsons), you MUST grind away a portion of the sub-frame to give your CV axles proper clearance. This step is required for ANY brand lift that is raising the strut by 36mm or more. Failure to do so will damage your CV axles when off-roading or hitting large bumps on pavement! This is only necessary on 2019 (or later) model years.**

Place a floor jack beneath the steering knuckle and raise the suspension as high as you can without lifting the vehicle off of the jack stands. Use a block of wood between the jack and knuckle to prevent knuckle damage. Raising the suspension will provide the most room between the CV axle and the sub-frame bracket.

Locate the steel bracket right below the CV axle. Use a die-grinder or Dremel tool (with appropriate attachment) to grind away the metal directly beneath the CV axle. Be **VERY CAREFUL** not to touch the axle boot at any time with the grinder. If raising the strut by 36mm, you only need to grind away about 2mm of metal. If raising it 42mm, you should grind away about 4mm of metal. If you're combining the spacer lift with a longer strut (such as Dobinsons), you may need to grind away as much as 6mm of metal. Be sure to clear away any metal shavings with compressed air or a vacuum.





### **Step 5. Remove the Brake Line From Strut Bracket**

If you will be using the brake line relocation brackets, you must remove the brake line from your struts. Relocating the brake line is NOT necessary for the 24mm and 30mm spacer lifts unless you are combining them with a longer strut (such as Dobinsons).

The brake line is the rubber hose on the side of the strut that faces the front of the vehicle. Carefully wiggle it out of the mounting bracket while sliding it towards the front of the vehicle.



### **Step 6. Remove the ABS Sensor Line From Strut Bracket**

If you will be using the ABS sensor line relocation brackets, you must remove the sensor line from your struts. Relocating the sensor line is NOT necessary for the 24mm and 30mm spacer lifts unless you are combining them with a longer strut (such as Dobinsons).

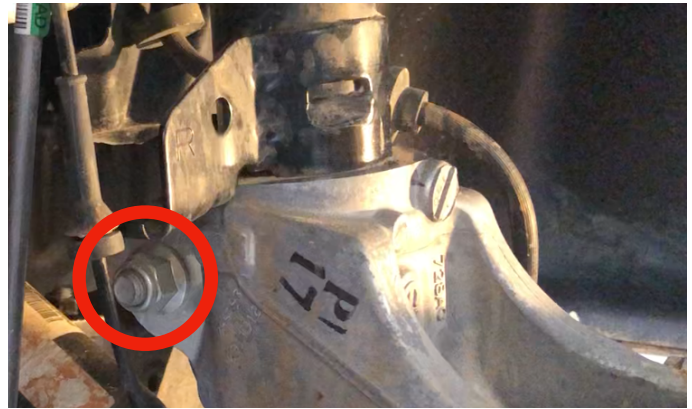
The ABS sensor line is the small plastic line on the side of the strut that faces the rear of the vehicle. Carefully wiggle it out of the mounting bracket while sliding it back towards the engine bay.



### Step 7. Remove the Knuckle Bolt

Locate the knuckle bolt on the back side of the knuckle. It is right at the base of the strut where it slides into the knuckle.

Use a 12-point 11mm socket to hold the star-shaped head while removing the nut on the other end with an 18mm socket. You may need to use a breaker-bar or long handled wrench to break it free since it is torqued very tightly. Once removed, discard the nut and bolt since it is a torque-to-yield bolt and should only be used once.



### Step 8. Move (or Remove) the Guide Fin

Look behind the steering knuckle at the base where the strut shaft inserts into the knuckle. You will see a guide-fin protruding from a slot in the back of the knuckle. This fin will need to be moved out of place to allow the knuckle bolt to be re-inserted and tightened after the strut clamp is installed. This can be easily done by grabbing a portion of the guide fin that protrudes through the slot with some vice grip pliers. Once grabbed, pull the fin towards the engine bay. It should bend with a moderate amount of force. If its being stubborn, use a screwdriver to pry between the knuckle and the vice-grips. You can either bend it back far enough to allow the knuckle bolt to be inserted or you can wiggle it back and forth until it finally snaps off.

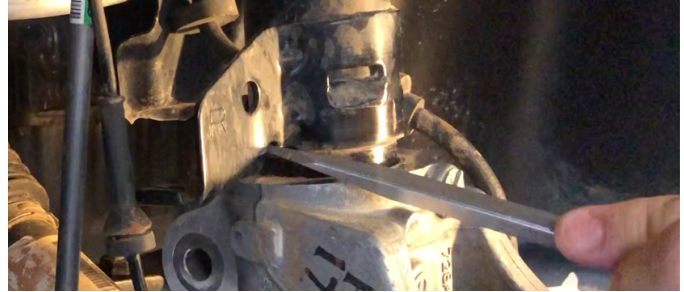




## Step 9. Slide the Knuckle Down the Strut

*Note: This step can be a little tricky depending on the age and/or condition of your vehicle, as well as how tall of a spacer lift your are installing. See the tips later in this step if your steering knuckle is being difficult.*

Push down on the steering knuckle so it begins to slide down the strut shaft. It helps to use a long screwdriver to create leverage between the brake like mounting bracket on the strut and the top of the knuckle. Once loose, if you're lucky, it should be relatively easy to push down on it to make it slide down the strut shaft some more.



**Tip #1:** If the steering knuckle is not sliding down the strut easily, spray some penetrating lubricant at the base of the strut where it inserts into the knuckle. Let it soak in for a few minutes and re-apply, if necessary.

**Tip #2:** If the steering knuckle is still being stubborn, we highly recommend the use of a steering knuckle spreader inserted behind the knuckle bolt. The knuckle only needs to be spread a very small amount to free its grip on the strut.



**Tip #3:** To expose enough of the strut shaft to accommodate the 36mm or 42mm spacer lifts, use a small piece of hardwood or steel tube as a fulcrum for a long screwdriver. This will also provide more leverage when sliding the knuckle down the strut shaft.





**Tip #4:** If you are replacing another brand spacer lift with the 42mm variant of the Core Spacer, you can use the old spacers as the fulcrum for raising the strut an additional 6mm (approximately 1/4").



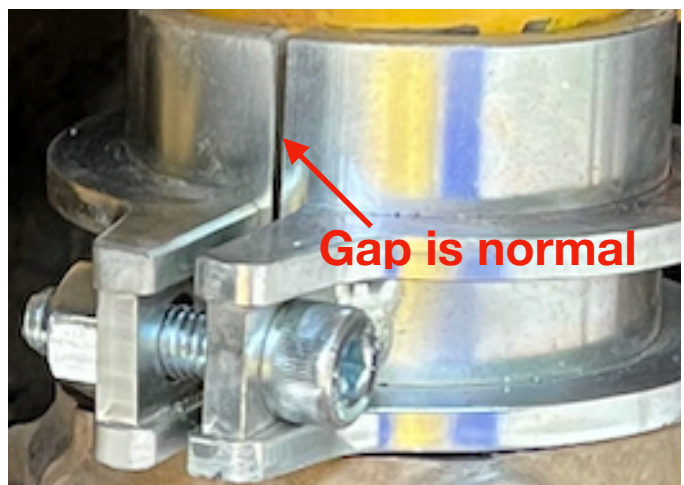
### Step 10. Install the Strut Clamp

Separate the two halves of the strut clamp. Take one half of the strut clamp and position it on one side of the strut shaft. While pushing down on the steering knuckle, slide the clamp onto the shaft so that it completely encircles the shaft. If the strut clamp doesn't sit completely flush against the shaft, tap it lightly. Once in position, take the other half of the clamp and bolt it onto the half you just inserted. Hand tighten the bolts, but not so tight that you can't rotate the two halves of the clamp around the strut shaft.



While you can orient the strut clamp any way you'd like, we recommend placing them at a 45° angle relative to the brake rotor, as shown in the picture. This will guarantee the most wheel clearance in case you have aftermarket rims and/or oversized wheel weights on the back of your rims (or if you ever add them in the future). It will also not interfere with the brake line and ABS line brackets.

**Note: the two clamp halves will NOT make contact with each other. There will be a small gap where the two halves are bolted together.**



With the strut clamp in its final orientation, place a floor jack beneath the knuckle. Carefully raise the knuckle so it slides back up the strut as far as it will go. It's a good idea to place a block of wood between the floor jack and knuckle to prevent damage to the knuckle. Once the knuckle has been raised up the strut shaft as far as the strut clamp will let it go, **tighten the clamp bolts evenly** so that the gap is the same (or very similar) on each side. Torque them to 25 ft-lbs (34 Nm). If using an Allen wrench, tighten them as much as you can without exerting extreme force.



### Step 11. Tighten Steering Knuckle

With the floor jack still applying upward pressure on the steering knuckle, you will now tighten the knuckle back onto the strut. Insert the supplied M12 bolt through the knuckle bolt hole and thread the serrated nut onto the other end. Tighten the bolt with an 18mm socket on the nut and a 16mm socket on the bolt head. Torque the nut & bolt to 100 ft-lbs (135 Nm).

**DO NOT FUDGE THIS! This torque value is extremely important, so double check it after tightening.**

### Step 12. Install Brake Line Relocation Bracket

If you are installing the 36mm or 42mm spacer lift, or are combining the smaller variants with a longer strut (such as Dobinsons), you'll need to install the brake line relocation bracket.

On the strut bracket that normally holds the brake line, install the brake line relocation bracket as shown here, using the supplied M8 bolt that is passed through the stock brake line location. Place the oversized washer and serrated nut behind the strut mounting bracket. Tighten the bolt to 21 ft-lbs (29 Nm).

Now slide the mounting grommet on the brake hose onto the relocation bracket.





### Step 13. Install ABS Sensor Line Relocation Bracket

If you are installing the 36mm or 42mm spacer lift, or are combining the smaller variants with a longer strut (such as Dobinsons), you'll need to install the ABS sensor line relocation bracket.

On the strut bracket that normally holds the ABS sensor line, install the ABS sensor line relocation bracket as shown here. Make sure the bottom of the bracket is angled inward towards the engine bay. Pass the supplied M8 bolt through the hole on the bracket where the stock ABS sensor line is usually mounted. Thread the serrated nut onto the backside of the bracket. Tighten the bolt to 21 ft-lbs (29 Nm).

Now slide the mounting grommet on the ABS sensor line onto the bracket.

The final assembly should look as pictured to the right.



### 14. Check Brake Line and ABS Line Clearances

With everything installed, start the vehicle and slowly turn the wheel to the full left position.

**Note: be sure the vehicle is firmly resting on the jack stand(s) when doing this since turning the wheel can make the vehicle move slightly.** Check to make sure the brake line is not being stretched unnaturally. Repeat the test by turning the wheel to the right and checking the ABS sensor line. If either line is being pulled excessively when at full wheel turn, adjust the mounting grommet location on either the brake line or ABS sensor line to relieve any tension. This grommet can be carefully slid along the the hose or sensor line to produce more slack. You can also flip the ABS sensor line upside down at its mounting location on the frame to get more slack, as shown in this picture.



## 15. Replace Front Wheel

**Note: with the wheel still off, we recommend spraying the inner and outer CV boots with AT-205 Re-seal. The AT-205 acts as a dressing that will soften the rubber boots and make them more pliable. We have used this technique for years and can attest it greatly extends the life of CV boots (credit goes to Scotty Kilmer for recommending this trick).**

Re-install the front wheel and hand tighten all the lug bolts. Remove the jack stand(s) and lower the vehicle to the ground. Torque the lug bolts to 100 ft-lbs (135 Nm).

## Step 16. Check the CV Axle Clearance (2019 or later model years only)

If you have a 2019 or later Cherokee, you should have ground away part of the sub-frame bracket in Step 4. Now you have to check your clearance with the spacer lift installed and the wheel mounted. To do this, use the floor jack to raise the vehicle so that the tire is not touching the ground. Examine the CV axle to see if it is making contact with the frame bracket where you ground metal away in Step 4. If it is making contact, you will need to repeat the procedure performed in Step 4 and re-check your clearance until there is no contact being made. When that is achieved, use some spray paint on the area where you ground the metal in order to prevent corrosion.



**Step 17. Repeat Above Steps for Front Right Side.**

**You have successfully completed installation of your Core Front Spacer Lift!  
Go have a beer!**

## Care and Use

Now that you've installed your Core Front Spacer Lift, 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.

### Vehicle Settling

When you finish installation and lower the Jeep, it will appear to have an excessive amount of lift. This is because the struts 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 front spacer lift, 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

The Jeep Cherokee KL has no adjustments for front camber or caster that can be modified by an alignment tech. Only the toe value can be adjusted. If you followed the instructions presented here, you did not make any direct change to the toe value. However, by introducing lift and adjusting the resting position of the knuckles, you have indirectly introduced changes to the toe angles without realizing it.

This said, we highly recommend taking your vehicle in to be aligned, especially since you probably installed a rear lift (hopefully Stiletto!) at the same time as your front spacer lift. A four-wheel alignment is definitely a good idea. Just understand that the front camber gradually becomes positive the more you lift the vehicle. Somewhere between a 2" and 3" lift is where it usually goes out of spec. It's usually minor and you shouldn't notice much difference in handling or tire wear. The best way to combat the latter is regular tire rotations.

### 300 Mile Inspection

After you have been driving your Core Front Spacer Lift for 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 action to perform is to **re-torque the steering knuckle bolt**. Don't overlook that step because a loose knuckle bolt can be a safety issue.

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 Core Front Spacer Lift is maintenance-free and thus you need not worry about adding them to your maintenance routine. Regular inspections are highly encouraged, however.

However, since your CV boots are now experiencing more stress because the vehicle is lifted, we recommend regularly spraying them with AT-205 Re-seal. Doing so every 4-5 months will keep them softer, more pliable and resistant to stress tears. We have done this on our 42mm lifted test vehicle and have gone in excess of 80,000 miles before ever experiencing a tear (and it was a very minor tear, at that).

## **Spare Parts**

Every component of the Core Front Spacer Lift for Jeep Cherokee (KL) 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. The most likely scenario in which you would purchase components is to change the lift height (either to increase or decrease). In that scenario, you can purchase just the strut clamps for a little less than all the components of the lift.