

Installation Manual
Short Arm Lift Kit Instructions
2007-2011 Jeep Wrangler and Wrangler Unlimited
 Last Revision No.: 8/31/11
 PN – 2908030/2908050



Thank you for purchasing a Clayton Off Road suspension.

Please check to make sure you have all necessary parts before you start your install.

1308101	JK Front Stainless Steel Brakelines (pair)
1308102	JK Rear Stainless Steel Brakelines (pair)
1408100	JK Front Bumpstops (pair)
1408200	JK Rear Bumpstops (pair)
1508350	JK 3.5" Front coil springs (pair)
1508450	JK 4.5" Front coil springs (pair)
1508351	JK 3.5" Rear coil springs (pair)
1508451	JK 4.5" Rear coil springs (pair)
1808200	8 Fully Adjustable Control Arms
2308101	JK Rear Adjustable Swaybar Links
4508100	JK Front Adjustable Trackbar
4508110	JK Rear Adjustable Trackbar (Optional)
4508200	JK Rear Adjustable Trackbar Bracket



*Shocks can be added to any package deal for an additional charge.

*An optional adjustable rear trackbar (4508110) can be used with the rear trackbar bracket 4508200). This trackbar is necessary for 2dr models using a CV rear driveshaft or for fine tuning a 4 dr model.

If you are missing any of the above items, or are unclear about what parts you need, please call and ask before you begin your installation process.

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Note : The new 2007+ Jeep Wrangler JKs are equipped with an Electric Stability Program (ESP). Electronic Stability Program aids the driver in maintaining vehicle directional stability, providing oversteer and understeer control to maintain vehicle behavior on various road surfaces. This function is affected when lifting this vehicle and may not function properly. It is highly important to center the steering wheel. Please drive cautiously until you know how your vehicle will react.

Note : It maybe necessary that a front CV shaft be used with this lift on either 2 and 4 door models. 2 door models may also require a CV rear driveshaft.

Note: The 3.5 inch kit is intended to fit 35x12.5 tires, and the 4.5 37x12.5 tires. Stock rim backspacing will NOT work. We recommend a backspacing of 4.5 or using a 1.5 inch wheel spacer.

Tool requirements

1. Four large jack stands, ramps or a 4-post drive on lift works best.
2. Various wrenches and shop tools for removing and installing control arms.
3. Electric Drill and drill bits and 3/8-16 tap.
4. A 1 7/16 wrench is needed to tighten the upper control arm jam nuts, and a 46mm wrench is needed to tighten the lower control arm jam nuts.

Front Installation Procedure

1. Put the truck up on jack stands or lift.
2. Remove the OEM front transmission skid plate. The OEM skid plate will come in contact with the driveshaft and can NOT be reused. If you want to keep this skid plate, you will need to modify it accordingly so it does not come in contact with the front driveshaft during articulation.
3. Unclip the ABS lines in order to allow for additional length.
4. With a Rubicon model, unclip the locker lines to allow for additional length.
5. Remove the shocks, swaybar disconnects, and front trackbar. These items will NOT be reused, however some of their hardware may, so do not discard them.
6. Remove the OEM brakelines and install the new provided brakelines. There is a front and rear set so please pay

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attention to the label on the bag. Make sure the caliper end is facing away from the caliper. This routes the brakeline away from the tire. Front is labeled 1308101, and the rear is labeled 1308102. Use the provided frame brackets with the OEM screws in the OEM locations. **See Photo # 1.**

7. Also shown in Photo # 1 is the front axle breather. Lower the clip approximately 4 inches to allow for the added lift.

8. Set the lower arms to an initial setting of 23" center to center.

9. In order to allow clearance for your new arms you need to grind away the corners of the lower OEM frame brackets. We simply took a grinding disk and ground down the corner. **See Photo # 2.**

10. Install lower arms with rubber bushing at the axle, and the Currie forged Johnny joint at the frame end reusing the OEM bolts. Make sure the arms bends in to allow for tire clearance when turning. Installing the grease fitting facing up will be less likely to get hit by rocks. It can be installed facing down for easier greasing. Grease fittings are NOT covered under warrantee, so we recommend them facing up, unless your Jeep is strictly a street Jeep. **See Photo # 3.**

11. Set both upper arms to approximately 18.75" center to center. These arms will have to be readjusted at a later time so your measurement is not critical at this time.

12. Install the driver side upper arm reusing the OEM bolts. Installing the grease fitting facing down will make greasing easier. Installing the passenger side arm will require cutting the OEM bolt in half, removing it entirely, and then you will install a new provided bolt from the frame side. **See Photo # 4.**

13. With your extended brakelines installed, ABS lines unclipped, skid plate removed, shocks removed and our arms installed, you should be able to lower the front axle with minimal effort.

14. Once you remove the OEM coils, you will need to drill and tap a hole in the center of the lower perch in order to install the new bumpstop. Drill a 5/16 hole and use a 3/8-16 tap. Once the lower hole is drilled and tapped, hold the bumpstop in the coil and place it over the perch and tighten the center bolt.

15. Set the trackbar at an initial setting of 32 7/8" center to center reusing the OEM bolts. Install the bushing at the axle end. The heim joint goes at the frame end, and should be readjusted and tightened to factory specs once the vehicle is sitting under its own weight with the new springs front and rear.

16. Install shocks. Make sure you install the bolts from the inside out. The nut has to be on the outside, closer to the tire, in order to allow clearance for the lower control arm during articulation.

17. Install JKS swaybar disconnects following their instructions.

Rear Installation Procedure

1. We are assuming the vehicle is still on a lift or jack stands, and that the rear brakelines have already been swapped out.

2. Remove the OEM shocks, swaybar disconnects and rear trackbar. Once again some of these items and hardware will be reused so do NOT discard them at this time.

3. Install lower arms with rubber bushing at axle end, and Currie forged Johnny joint at frame end with the grease fitting facing up. Reuse OEM bolts. Initial lower control arm setting should be 20 inch, center to center. With a 35 inch tire this should allow adequate clearance from the rocker guard. With a 37 inch tire, this may need to be trimmed.

4. With only the lower arms installed, you can install the new rear springs. When lowering the axle make sure you do not over extend the brakelines or ABS lines and with a Rubicon model unclip the locker lines.

5. Install the upper arms with gold Johnny joint at the axle end. The measurement on these upper arms will depend on if this is a 3.5 or 4.5 inch kit, 2 door or 4 door model or if you are using the standard driveshaft or a CV driveshaft. **See Photo # 5** for proper driveshaft angle alignment.

6. Depending on your axle, year and model there maybe a 3-4 inch weld on the back side of the axle. You may need to grind away a small portion of this weld to allow the new trackbar bracket to sit smoothly against the axle. **See Photo # 6.**

7. Install the new rear trackbar bracket. It reuses the OEM hole for alignment, then clamps around the axle tube as a brace. Use the supplied bolts to bolt the clamp around the axle. Use the OEM bolt through the OEM bracket, and use the supplied bolt through the new trackbar bracket. Set the track and use the hole which closest aligns your vehicle track. **See Photo # 7.**

a. Optional Rear Trackbar

i. Trackbar is required for 2 dr models and optional on 4 dr models.

ii. Once the vehicle is sitting under its own weight, set your proper driveshaft angle.

iii. Now set the vehicle track using a ratchet strap.

iv. With pinion angle set, and track set, install new adjustable trackbar with bushing in the new bolt on bracket, and the heim joint in the OEM frame bracket.

8. Install the new rear swaybar adjustable links. For a 3.5 inch kit 12.5 inch center to center should work. For a 4.5 inch kit 13.5 should work. You can make final adjustments as needed. Max length is 13.75 center to center. Please make sure the jam nuts are tight once you have set your desired length. **See Photo # 7.**

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9. Install rear bumpstops after you adjust your rear pinion angle. Once the rear bumpstops are installed, you will NOT be able to remove the upper control arm bolt. They mount to the OEM flat plate welded to the top of the axle. The plate should already have 2 holes drilled in them which you will use to attach these bumpstops. Use the allen bolt with a nut on the bottom of the bracket.

Final Adjustments

1. Make sure all springs are properly seated and lower vehicle onto its own weight.
 2. Front trackbar alignment and caster angle procedure.
 - a. Make sure steering wheel is unlocked.
 - b. Remove trackbar at frame end.
 - c. Use bottle jack to hold axle from twisting forward or backwards and remove both upper arms at the axle end.
 - d. Use bottle jack to set 4.5-5 degrees of caster. (DO NOT install arms yet)
 - e. Set vehicle track.
 - f. Once track is set, double check caster angle and install both upper arms at the same time. Meaning do NOT install one upper arm, remove the jack and then install the other. This will cause unequal load on one arm, and cause the bushings to wear out faster. Upper arms do NOT have to be the same length.
 3. Rear pinion angle procedure.
 - a. Put jack under rear pinion.
 - b. Remove both upper arms at axle end.
 - c. Set pinion angle.
 - d. Install both upper arms at the same time for the same reason as the front uppers. Upper arms do NOT have to be the same length.
 4. Go through the entire Jeep and tighten all suspension bolts and any other items you may have unbolted or loosened.
 5. Tighten all suspension jam nuts. Loweres use a 46 mm wrench. Uppers use a 1 7/16 wrench.
 6. Properly bleed brakelines and check for any leaks and a firm pedal.
 7. Check tire clearance on rear body panel. Depending on tire size, lift height, rear arm length you may need to trim this lower piece accordingly. **See Photo # 8.**
 8. We recommend doing a test drive with the ESP manually disengaged. We highly recommend this system be updated to properly function with you new lift height and larger tires. A proper alignment is a critical part to having the ESP function properly.
- We hope your installation went smoothly. Please let us know if you have any questions, suggestions or comments. Here are some finished vehicle photos below.

Photo # 1.



Photo # 2.



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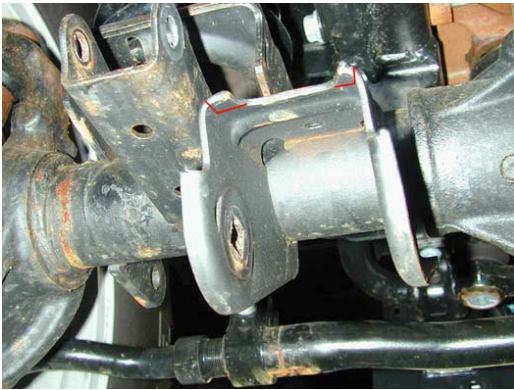


Photo # 3.

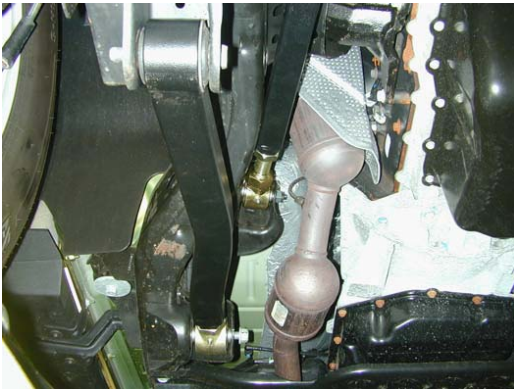


Photo # 4.

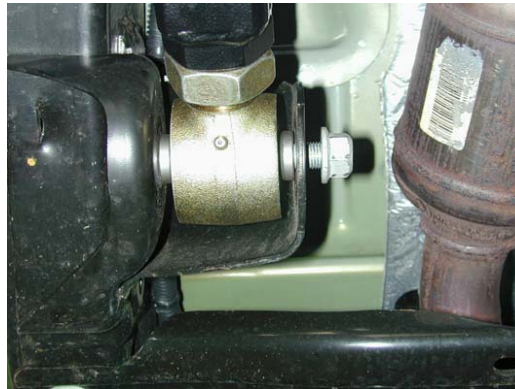


Photo # 5.

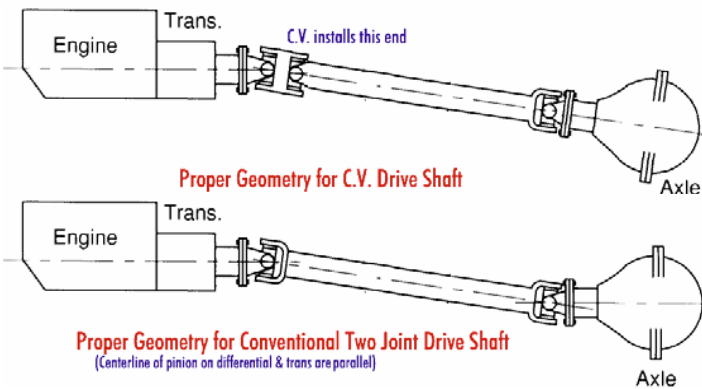


Photo # 6.

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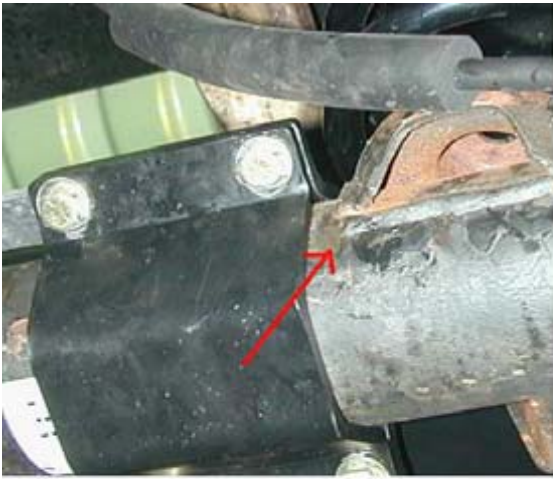
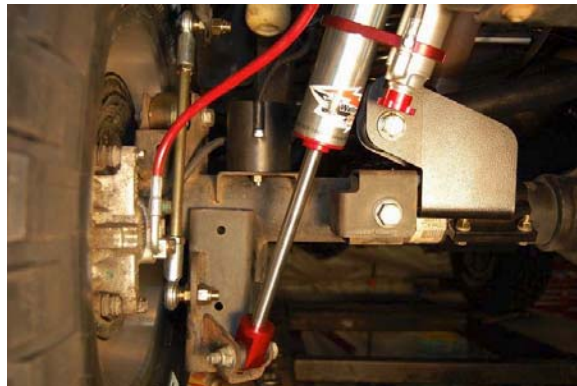


Photo # 7.



Photo # 8.



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Above – No cutting, vehicle fully flexed - 3.5 lift kit, 35x12.5 Toyo's Above – Fender trimmed, vehicle on level ground - 4.5 lift kit, 37x13.5 Toyo's

Damage or Missing Parts Policy: If you receive a product that is damaged or missing parts you must contact us within 14 days to arrange replacement. You maybe required to submit photos of damaged parts before new parts are sent. Damage parts maybe request to be returned for inspection.

Return Policy: You have 30 days to return a product in it original packaging. Parts cannot have been installed, painted and/or modified in any way. You must contact us to obtain a RGA # (Return Goods Authorization) before shipping your product back. All returns are subject to a 15% restocking fee. Your return must have the return authorization number clearly marked on the outside of the package and must be shipped prepaid.

Packages shipped COD will be refused. Return's are subject to inspection and maybe refused if they are damaged or used. You are responsible for proper shipping to ensure product is not damaged or lost. We recommend insuring your product for the full amount in the case it is damaged or lost during return shipment.

Warranty Policy: Clayton Off Road Mfg. comes with our abuse proof limited lifetime warrantee against bending or breaking our control arms only. This covers the original purchaser of our suspension lift. This warrantee cannot be transferred to a secondary purchaser and is void if the control arm is modified in any form or not used in its proper application. Original purchaser must obtain a RGA # and is responsible for shipping the product back and agrees to return shipment charges. This warrantee does not cover worn bushings, missing snap rings, or any kind of rust damage to the threads or inserts or actual arm.

What is not covered:

Clayton Off Road Mfg. components may have minor finish damage to powder coated or plated surfaces, which may occur during shipping and is not covered under warranty. Johnny Joint bushings, washers, snap rings, OEM rubber bushings, hardware, brake lines, shocks, springs, skid plates, trackbars, and any mounting brackets are not covered. These parts are subject to wear and are not considered defective when worn. They are warranted for 90 days from the date of purchase for defects in workmanship only. Products or components which have been subjected to abuse, accident, alteration, modification, improper installation, tampering, negligence, misuse, or products installed on a vehicle used in sanctioned racing events. A race is defined as any contest between two or more vehicles, or any contest of one or more vehicles against the clock, whether or not such contest is for a prize.

Clayton Off Road Mfg. is not responsible for any retail parts that maybe sold.

Clayton Off Road Mfg. shall not be liable for any loss, damage or injury, whether ordinary, direct, special, incidental or consequential damages, arising from the manufacture, sale, installation, resale, delivery, possession, handling or use of its products.

Clayton Off Road Mfg. is not responsible for typographical errors either in pricing or in content.

Warranties, policies and prices subject to change without notice.