

Thank you for purchasing a Clayton Off Road Mfg Long arm suspension.



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

Front half

- 2 lower long arms
- 2 shorter upper arms
 - o driver side uses bent arm to clear housing
- (2) 9/16's gold bolts
- (2) 7/16's gold greaseable bolts
- (2) 10mm silver upper control arm bolts
- 3 piece cross member
- (8) 3/8s bolts, (8) washers (8) nuts
- (4) 10 mm socket head cap screws and (4) lock washers
- (4) D shaped spacer plates (used as lower control arm spacers)

Rear Half

- (2) rear frame brackets
- (2) lower long arms
- (2) upper long arms
- (6) gold 9/16's bolts
- (4) D shaped spacer plates (used as lower control arm spacers)
- (1) 4 link rear axle mounting plate
 - o 4 link axle truss is optional if aftermarket axle is used
- (3) 14mm rear mounting plate bolts and (3) lock washers
- (2) uni-body frame rail protectors

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Package deal

- above items PLUS
- (2) front coils
- (2) rear coils
- (1) JKS sway bar disconnects
- (1) JKS adjustable trackbar

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

WARNING: Suspension systems and their components are designed to enhance your vehicles offroad performance. This may cause your vehicle to handle differently then it did from the factory. These systems and any components should be installed by certified technicians. Attempts to install these products without proper knowledge can lead to poor performance, or possible failure, which may jeopardize the safety of the vehicle and its passengers. Take extra care when operating a modified vehicle and thoroughly inspect your vehicle before and after every offroad use.

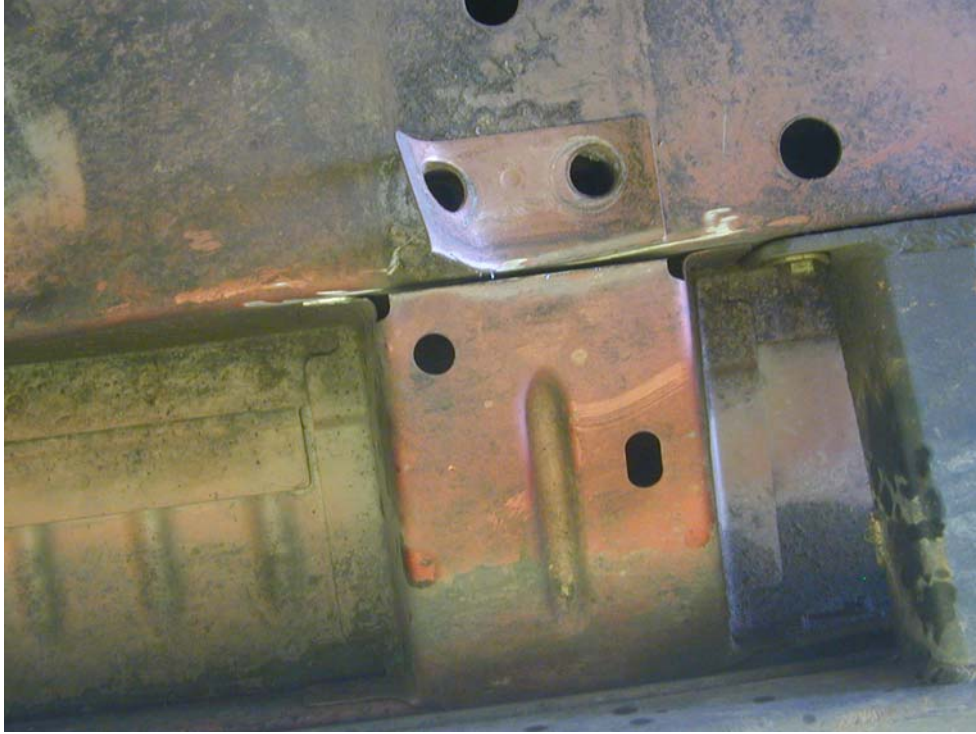
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Tool requirements

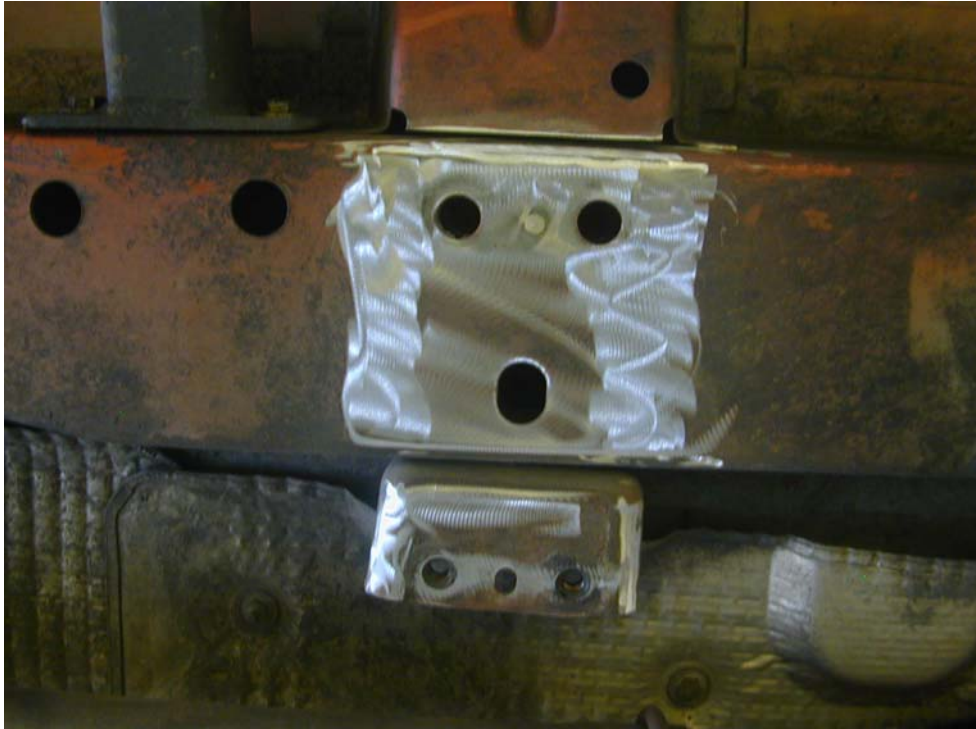
1. 175A or greater mig welder
2. Plasma cutter and or a good 4.5" grinder with cut off wheels.
3. Four large jack stands, ramps or a 4-post drive on lift works best.
4. Various wrenches and shop tools for removing and installing control arms.
5. A 1 7/16 wrench is needed to tighten the upper control arm jam nuts, and a 46mm wrench is needed to tighten the lower control arm jam nuts.

Front Arms Installation Procedures

1. Raise truck up on jack stands, ramps or lift.
2. Remove transfer case skid plate.
3. Put a floor or bottle jack under the transfer case to support it.
4. Remove cross member by removing the four bolts on each side and the four transmission mount bolts.
5. Cut, and remove this thin piece of metal shown below. Remove it from both sides of the frame.



6. Grind paint and any dirt away ready to weld in cross member on both sides.



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7. Bolt new cross member together. Transmission mount holes are offset to one side. Please use your OEM cross member as a reference point. **The mounting plates do NOT have to line up.** The 45 degree angled plates are opposite to properly position the transmission.



8. Center the new cross member and secure it using the two mounting holes on each side.
9. Install four transmission mount bolts.
10. Make four welds on each side where the cross member contacts the uni body frame rail and old cross member mount. One on the end, one down each side and cross the inside. Make sure these are good welds!



Welding technique is to run two passes. First one is done using short welds of 3/8" to 1/2" at a time. This insures that you don't burn through the uni-body. If the weld gets too hot stop and wait for it to cool then start again. Once you have this first bead laid in run a second pass over it. You will be able to make this a continuous bead weaving the bead a little to get a nice penetrated bead. Again if you see the welds getting too hot stop and wait.

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- 11.
12. Remove jack from transfer case.
13. Set both lower control arms to about 36" This will center the axle in the wheel well pretty much with a six-inch lift. Make sure they are set to the same length.
14. Remove one upper and lower control arm on one side.
15. Cut the control arm mount off of the uni-body as close as possible using a cut off wheel. Upper mount does not need to be removed.
16. Grind any extra off to make it look as neat as possible.
17. Spray paint bare metal to prevent rusting.



- 18.
19. Clean up lower mounts because you will need to insert the ¼ D shaped spacers for proper fit. Once they are aligned and the arm is installed, a few good tack welds will hold them in space.

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- 20.
21. Install lower control arm. By attaching it to the axle first. Upper control arm mount should be angled in. You will have to pull or roll the tire forward to get the control arm in.



- 22.
23. Measure from the axle side upper control arm mount to the new mount on the lower control arm.
24. Adjust new upper control arms to this measurement. Your caster angle should be around 4 degrees. If you set a proper pinion angle your springs will bow forward, which may also cause interference with your swaybars.
25. Install new upper arm.
26. Repeat steps 12 to 19 for the other side.

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27. Tighten all mounting bolts and adjustment locking nuts. Make sure articulating joint is centered when you lock the adjuster. Put a pry bar in between the mount and the joint if you don't have two wrenches.
28. Grease all articulating joints.
29. Adjust pinion angle and caster to suit your lift height.

Rear Arms Installation Procedures

1. Remove muffler. It will have to be rotated or replaced later with a smaller unit to clear control arms.
2. Locate the control arm mounts on each frame rail, as shown in the drawing. Be sure the angle and positioning is the same on both sides.
3. Wire wheel or grind paint away for welding.
4. Push them up tight against the frame rail with a piece of pipe on a floor jack.



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5. Tack weld the mount in place. Use the unibody rail to check proper location of this bracket. Unibody rails have a left and right side according to the bracket angle. Once you are sure they will fit, make four welds on each side and the front and back of each mount.



6. Place the 2x2 square piece of channel between the cross member and the rear control arm bracket. Hold it in place with a jack.

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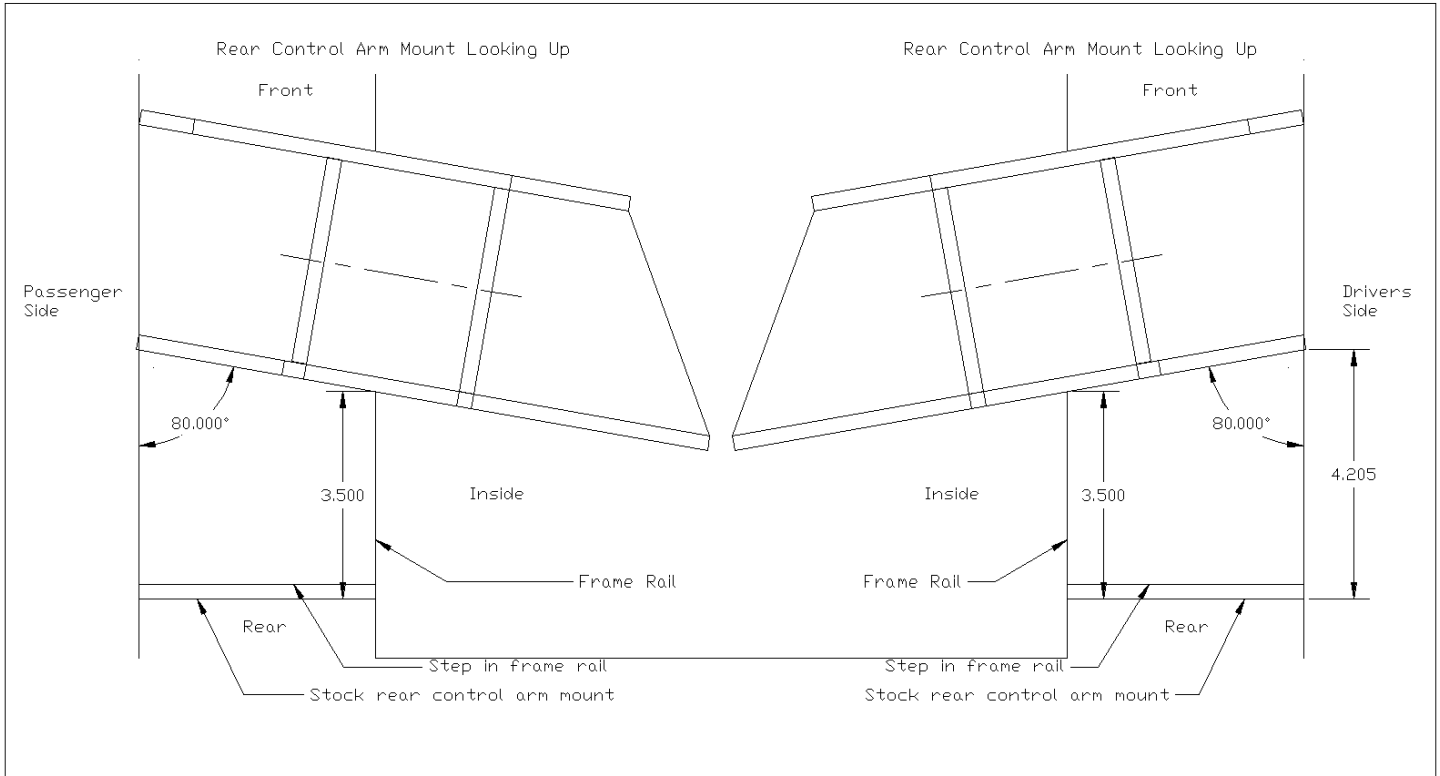


7. Center it on the frame rail in the rear and align it in the front so it matches up with the angle on the cross member.
8. Weld it in place on three sides and make four evenly spaced welds inside and out along the frame rail.



9. Set both lower control arms to 31". This will center the axle in the wheel well pretty much with a six-inch lift. Make sure they are set to the same length.
10. Remove one lower control arm.
11. Cut the control arm mount off of the uni body as close as possible using a cut off wheel. Upper mount does not need to be removed.
12. Grind any extra off to make it look as neat as possible.
13. Spray paint bare metal to prevent rusting.
14. Install control arm.
15. Repeat steps 10 to 14 for the other side.
16. Remove all the brackets for the fuel lines, ABS cables and e-brake cables that attach to the upper control arm.
17. Cut a piece of wood to put between the top of the pinion and the floor.
18. Remove the rear A-arm and bracket on the pumpkin.
19. Bolt on the new mount to the pumpkin.
20. Center the axle using a ratchet strap or come along.
21. Set proper pinion angle depending on lift height and driveshaft type.
22. Measure the distance from each bolt hole for the upper arms and adjust them to these lengths.
23. Install the new upper arms. Upper arms do NOT have to be the same length.
24. Make adjustments as needed to center the rear end and have the proper pinion angle for your lift.
25. Tighten all mounting bolts and adjustment locking nuts. Make sure articulating joint is centered.
26. Grease all articulating joints.
27. Modify transfer case skid plate to mount to the new frame rail tube.
28. Install new exhaust to clear control arm mount.
29. Reattach drive shaft. A CV style driveshaft is highly recommended to eliminate any driveshaft vibrations.

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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.

Warrantee 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.