

Installation Manual
Hard-Arm™ Suspension: Package Deal Instructions
1984 - 2001 Jeep Cherokee
 Last Revision No.: 2/1/08



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.

UK-XJ	CA-LFCAK	Long Front Control Arm Kit (4 adjustable control arms)
	Sub-XJ?	XJ Cross member (A=Automatic, M=AX-15, P=Peugeot)
	Hardware	(2) 9/16s Bolts, washer + nuts, (2) 7/16s bolts, washer + nuts, (2) 10mm bolts, washer and nuts



PD-XJ45	UK-XJ	Clayton Long Arm Front
	JKS-2001	JKS Sway Bar Disco's
	B-BL3	Corm brakelines
	C-F-XJ45	Front coils
	XJ-4.5Leaf	Rear springs
	XJ-U-Bolt	XJ rear U-bolt (set of 4)
	TB-Standard	Trackbar
	XJ-S7D	XJ rear 7 degree skim (pair)



PD-XJ65	UK-XJ	Clayton Long Arm Front
	JKS-2001	JKS Sway Bar Disco's
	B-BL3	Corm brakelines
	C-F-XJ65	Front coils
	XJ-6.5Leaf	Rear leaf spring (pair)
	XJ-U-Bolt	XJ rear U-bolt (set of 4)
	XJ-S7D	XJ rear 7 degree shim (pair)
	DP-XJ	Drop pitman arm
	TB-DB-XJ	Trackbar and drop bracket



PD-XJ80	UK-XJ	Clayton Long Arm Front
	JKS-2001	JKS Sway Bar Disco's
	B-BL3	Corm brakelines
	C-F-XJ80	Front coils
	XJ-6.5Leaf	Rear leaf spring (pair)
	XJ-RS	Rear shackle (pair)
	XJ-U-Bolt	XJ rear U-bolt (set of 4)
	XJ-S7D	XJ rear 7 degree shim (pair)
	DP-XJ	Drop pitman arm
	TB-DB-XJ	Trackbar and drop bracket



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

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 if equipped.
3. Put a floor or bottle jack under the transfer case to support it.
4. Remove cross-member by removing the two bolts on each side and the four center bolts.
5. Wire wheel or grind paint away for welding.
6. Find the front of the new cross member. Reference your old cross member for proper transmission mount location. The plates where the new control arms mount should angle the control arms out. **Openings should face forward.** Put the eight-flange plate bolts in, the nuts and lock washers go on the inside and tighten.
7. On automatic cross members the 45 degree angle plates will align. On manual transmission do NOT align the 45 degree plates. A 1 inch drop is needed for clearance issues. The 45 degree plates are opposite.
8. Center the new cross member and secure it using the two mounting holes on each side.
9. Make three welds on each side where the cross member contacts the uni-body frame rail, one on the end and one down each side. **Make sure these are good welds!**



10. Remove jack from transfer case.
11. Remove upper and lower short arms on one side only.
12. Cut the lower control arm mount off of the uni-body as close as possible using a plasma cutter or cut off wheel. Upper mount does not need to be removed.
13. Grind any extra off to make it look as neat as possible.
14. Spray paint bare metal to prevent rusting.

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15. Install control arm. Upper control arm mount should be angled in with gold Johnny Joint at frame side. Adjust the arm to an initial length of 36 inches. Reuse the stock OEM bolt at axle side with rubber bushing. The gold Johnny Joint should be installed at the frame side with the new gold 9/16s bolt.
16. Install one upper arm temporarily to hold axle from rotating. This is a temporary install and does not matter what length. Do not tighten the arm as it will need to be changed in the final setup.
17. Drive side upper control arm is bent to clear hi-pinion housings. Use the gold 7/16s bolt at the adjuster side where it connects to the lower long arm. The supplied silver 10mm bolts are used at the axle upper bushing end.
18. Repeat steps 15 to 17 for the other side.
19. The upper arms should not be set until the vehicle is lifted front and rear, with the track set. This will be done in the final installation procedure.
20. Remove the OEM brakelines, trackbar, disconnects, shocks and springs.
21. If you purchased the PD-XJ45 you will need to drill out the OEM trackbar mount to 9/16s and install the new trackbar using the supplied bolt.



22. If you purchased PD-XJ65 or PD-XJ80 please follow the Drop Trackbar instructions below.

Drop Track Bar Installation.

1. Remove factory trackbar and OEM frame bracket.
2. Removing the spring maybe necessary to remove and install OEM bolts, and weld in bracket.
3. Hold bracket in OEM location and mark where you will need to weld.

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4. Grind paint away from both sides of frame, top and bottom and where it makes contact with our new trackbar drop bracket.



5. Bolt into OEM location reusing the OEM bolts and tighten all bolts to factory specs.
6. Weld in trackbar drop bracket. A 1-2 inch stitch weld on both sides and bottom is adequate.

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7. Let bracket cool, and paint.
 8. Install axle side of your new adjustable trackbar reusing your factory bolt.
 9. Temporarily set vehicle track until springs are installed front and rear.
 10. Adjust Johnny Joint so that the supplied 9/16s bolt easily slides through the new trackbar drop bracket.
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23. Install springs with new OEM style spring retainers using supplied self tapping bolts.
 24. Install shocks.
 25. Install brakelines.
 26. Install JKS swaybar disconnects.
 27. PD-XJ65 and PD-XJ80 install extreme drop pitman arm.
 28. Front install should be complete, however keep everything loose at this time until rear is lifted, then final adjustments can be made and everything can be tightened.

Rear Suspension Installation Procedures

1. Remove shocks.
2. Remove OEM leaf springs.
3. PD-XJ45 and PD-XJ65 install new leaf spring packs reusing OEM hardware and new U-bolts and shims.
4. PD-XJ80 install new 3 way adjustable shackle with new leaf spring pack reusing OEM hardware and new U-bolts and shims.
5. NOTE – If you would like a softer ride with the 6.5 kit, you can use the 3 way shackle with the 6.5 leaf and remove one of the leaf spring leaves. Please call for details. (203) 757-0339
6. Tighten OEM bolts to factory specs, and tighten U-bolts to 125ft/lbs. These bolts should be retorqued after 50 miles, again after 250 miles and periodically after that.
7. Install shocks.
8. Install brakeline.
9. Make any adjustments with the 3 way adjustable shackle and tighten everything to factory specs.

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.

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- 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. Go through the entire Jeep and tighten all suspension bolts and any other items you may have unbolted or loosened.
 4. Tighten all suspension jam nuts. Lower use a 46 mm wrench. Uppers use a 1 7/16 wrench.
 5. Properly bleed brakelines and check for any leaks and a firm pedal.

We hope your installation went smoothly. Please let us know if you have any questions, suggestions or comments.

Clayton Off Road Mfg. – 1261 Meriden Road – Waterbury – CT – 06705 – (203) 757-0339 sales@claytonoffroad.com

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.

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