IRON ROCK OFF ROAD

1-877-919-JEEP www.ironrockoffroad.com

WJ 4-Link Rear Long Arm Instructions

Parts Checklist:

Box 1 13506 (1):

- ❑ Instructions
- ❑ Iron Rock Off Road Decal (1)
- ❑ Rock-Link Decal 13287 (2)
- ❑ Coil spring retainer 92040 (2)
- ❑ WJ rear 4-Link crossmember 92244 (1)
- ❑ WJ rear 4-Link axle bracket 90234 (1)

#23 Coil Spring Retainer Hardware (1)

- ❑ 7/16-14 x 5" Socket head cap screw (2)

#160 WJ 4-Link Crossmember Hardware (1)

- ❑ 7/16-14 x 1-1/4" gr8 hex bolt (10)
- ❑ 7/16 USS washer (10)
- ❑ 7/16-14 Serrated flange nut (2)
- ❑ M14 x 100 cl10.9 hex bolt (4)
- ❑ 9/16" USS washer (8)
- ❑ M14 cl10.9 hex nut (4)
- ❑ 2 hole nut plate 92097 (4)

#161 WJ 4-Link Axle Bracket Hardware (1)

- ❑ M14 x 35 cl10.9 hex bolt (3)
- ❑ M14 x 110 cl10.9 hex bolt (2)
- ❑ M14 x 120 cl10.9 hex bolt (2)
- ❑ 9/16 USS washer (4)
- ❑ M14 cl10 nylock flange nut (4)
- ❑ 1/4" control arm spacer 90194 (4)

Box 2 (42x15x7) 13507 (1):

- ❑ WJ rear long uca 92214B (2)
- ❑ WJ left rear long lca 85109B (1)
- ❑ WJ right rear long lca 85110B (1)
- ❑ WJ Long Arm Male End 92186 (4)

#65 Adjustable LCA Clamping Hardware (2)

- ❑ 1/4-28 x 1-1/8" Socket head cap screw (4)
- ❑ 1/4-28 gr8 Hex nut (4)

#127 2-5/8" 6 Bolt IRO Flex End Hardware (4)

- ❑ Inner race 91118 (2)
- ❑ Thrust washer 91119 (2)
- ❑ Ball 91117 (1)
- ❑ 10-32 x 1-3/4" Socket Head Cap Screw (6)
- ❑ 10-32 Nylock Nut (6)
- ❑ 90 Degree ¼"-28 Grease Zerk Fitting (1)

Install video on YouTube

IronRockOffRoad

Installation Instructions:

*Safety Warning: ***Important! Read before installation. ****

We recommend that this system be installed by a qualified professional. Knowledge of suspension component function is necessary for safe installation and post installation inspections. Be sure to re-torque all suspension components and lug nuts after the first 100 miles of use, and frequently inspect all safety critical suspension components.

Before you begin:

- ❑ NOTE: If your transfer case is an NP242WJH (32 spline) and your rear drive shaft is equipped with a harmonic balancer (see picture) the crossmember will need to be moved forward 3/4" and the control arms lengthened to match. Alternatively, a new driveshaft without a harmonic balancer can be used.
- ❑ Read all safety warnings.
- ❑ Read and understand installation instructions.
- ❑ A custom exhaust or IRO 4-link exhaust kit (13509) will be required.
- ❑ This kit requires a 3" or higher suspension lift kit.
- ❑ Check all steering and suspension components for wear and replace as needed.
- ❑ Contact Iron Rock Off Road with any questions before, during, or after installation.
- ❑ **Ensure that all parts are present and in good condition using the included parts checklist.**
- ❑ Be sure you have the following tools and supplies:
  - ❑ Floor jack and jack stands

- ❑ Basic hand tools
- ❑ Multi-purpose grease
- ❑ Slope gauge or angle finder.
- ❑ Hand drill with good quality 7/16” drill bit
- ❑ Anti-seize compound for bolts.
- ❑ If installing coil spring retainers (4.5” lift or taller) you will need: 23/64” Drill bit and 7/16-14 hand tap.

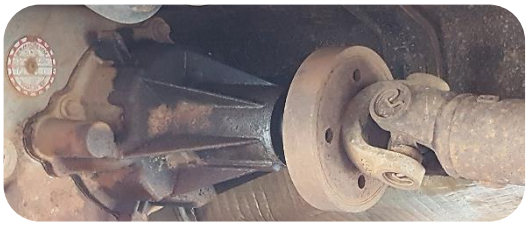
Lower Control Arms

Prepare the parts for installation:

1. Locate four control arms, male ends, and hardware kits 127 & 65.
2. Build control arms: Assemble flex ends per attached instructions (last page).
3. Apply anti-seize to male threads and thread into the control arms. All male ends are the same.
4. Adjust upper arms to 30” center to center as a starting point.
5. Adjust lower arms to 39” center to center on the short side as a starting point.
6. Install clamping bolts. Do not tighten at this time.
7. With vehicle on level ground, measure pinion angle.
   Record angle here _____.

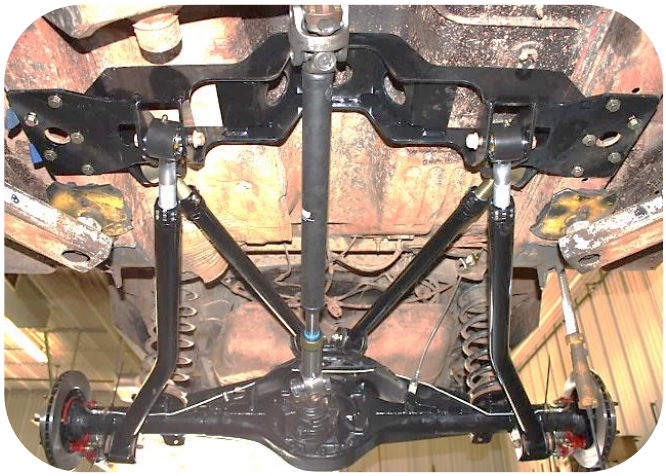
Rear crossmember:

8. Lift rear of vehicle and support with tall jack stands under the unibody frame.
   **Tip: break lug nuts loose before lifting vehicle.
9. Ensure that the vehicle is safely supported.
10. Remove rear tires.
11. Cut exhaust between catalytic converter and muffler. Remove tailpipe and muffler.
12. Removal of catalytic converter may be necessary depending on intended routing of new custom exhaust.
    Recommended custom exhaust routing at the end of instructions
13. Locate crossmember and hardware kit 160.
14. Position crossmember with control arm brackets facing rear of vehicle.
    NOTE: : If your transfer case is an NP242WJH (32 spline) and your rear drive shaft is equipped with a harmonic balancer (see picture) the crossmember will need to be moved forward 3/4" and the control arms lengthened to match. Alternatively, a new driveshaft without a harmonic balancer can be used.
15. Line up crossmember with large holes in frame.
16. Using the crossmember as a template, drill all ten 7/16 holes.
17. Remove crossmember, deburr holes, and paint exposed metal.
18. Insert nut plates into frame and position over 4 outer holes per side.
19. Install crossmember with 7/16 bolts and washers.
20. Install 7/16 bolt, washer, and serrated nut into center hole on each side.
21. Torque all bolts to 65 ft-lbs.



Rear Suspension:

22. Place a floor jack under the center of rear axle for support (do not lift vehicle).
23. Loosen lower control arm bolts. Remove nuts but do not remove bolts.
24. Allow suspension to droop as much as possible.
25. Locate 4-link axle bracket and hardware kit 161.
26. Raise rear axle up to a comfortable position to access the 3 a-arm retaining bolts on top of the differential.
27. Place a jack stand under the pinion to keep the axle from rotating.
28. Remove the 3 a-arm bolts on top of the differential.
29. Remove rear a-arm.
30. Install the 4-link axle bracket on the top of the differential using supplied M14x35 bolts.
31. Torque to 100 ft. lbs.
32. Install new upper control arms with the threaded male end located at the axle side. Do not tighten bolts at this time. Bend hangs down to clear the floor.
33. Locate lower control arms and 4 control arm spacers (1/4” thick washers).
34. Install new lower control arms with spacers on the outboard side of the bushings (pushing control arm towards center of vehicle), 2 at each axle bushing. Use the M14 x 120 bolts at axle and M14 x 110 at the frame. Do not tighten bolts at this time. Threaded male ends at the unibody. Bends face up for increased ground clearance, and inward to clear the uniframe.
35. If you have 4.5” lift height or taller, install coil spring retainers (2” diameter x 5” long black aluminum cylinders). Shorter lift heights will not require coil spring retainers unless you are running unusually long shocks. They install in the center of the unibody side coil spring pad. Using plenty of oil, drill the center hole with 23/64 drill bit, again with plenty of oil, tap with 7/16-14 hand tap. Clean the new threads with brake cleaner. Apply high strength threadlocker to the bolts from



hardware kit 23. Install coil spring retainers and torque to 60 **inch pounds**.

36. Raise the vehicle and support with jack stands under the rear axle.
37. With full vehicle weight on the suspension, check if the rear axle is centered as desired in the wheel opening. Adjust lower control arms to desired axle position. Adjust upper control arms to desired pinion angle (see step 7).
38. Torque all control arm nuts to 120 foot pounds.
39. Torque lower control arm clamping bolts to 140 in-lb. Be sure to go back and forth between both bolts several times to ensure even clamping.
40. Install tires and place the vehicle on the ground.
41. Torque lug nuts to spec. (85-115 foot pounds depending on your wheels)

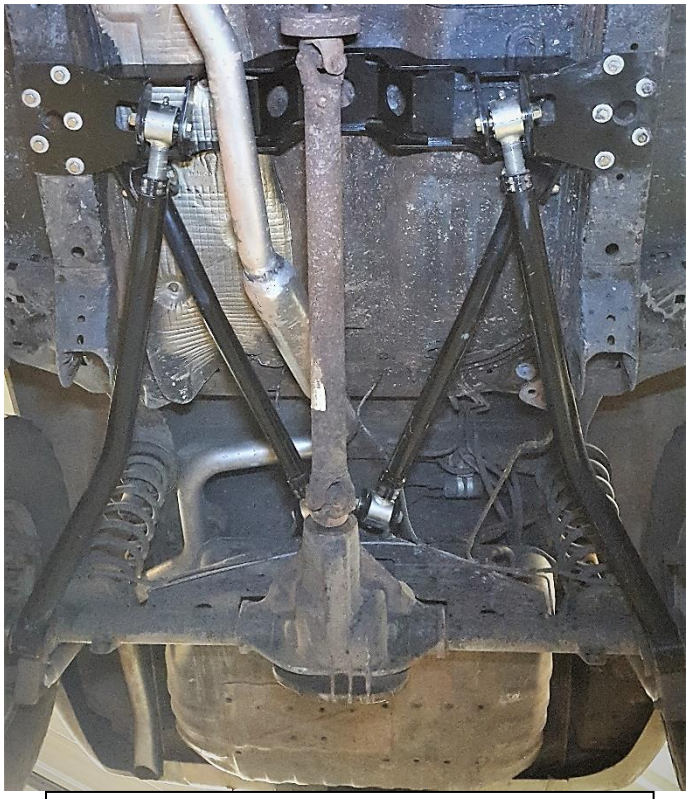
Adjustments and Final Inspection:

42. Check all components for clearance for suspension to fully cycle up and down. Pay special attention to brake lines, axle vent hoses, and ABS wires. Reposition as needed by bending the brackets, relocating, or extending hoses and wiring.

Final Safety Warning:

* Re-torque all fasteners including lug nuts after 100 miles, and frequently inspect all safety critical suspension components. It is the responsibility of the installer to be sure all fasteners are properly tightened after installation and to ensure the owner knows his/her ongoing responsibility. It is the responsibility of the owner of the vehicle to be sure all safety critical components are inspected frequently, especially after off road or other demanding use.

Recommended custom exhaust routing



Iron Rock WJ 4-Link Exhaust Kit: 13509

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2-5/8" IRO Flex End (6 bolt) Assembly Instructions

Fits All Iron Rock Off Road Long Arm Systems, WJ A-Arms, and Build Your Own Flex End Assemblies.

Before you begin:

- Read and understand installation instructions.
- Contact Iron Rock Off Road with any questions before, during, or after installation.
- ***Ensure that all parts are present and in good condition per attached shipping checklist!***
- Have these tools handy:
  - 5/32" allen head socket
  - 3/8" open end wrench
  - Inch-lb. torque wrench
  - Multipurpose grease/grease gun

Parts Checklist:

- ❑ Outer housing, weld on (may already be attached to your existing control arm)

#127 - 2-5/8" IRO Flex End (6 bolt)

- ❑ 2-5/8" flex end race 91118 (2)
- ❑ Thrust washer 91119 (2)
- ❑ 2-5/8" flex end ball 91117 (1)
- ❑ #10-32 nylock nut (7)
- ❑ #10-32 x 1-3/4" socket head cap screw (6)
- ❑ 90° ¼"-28 grease zerk fitting (1)

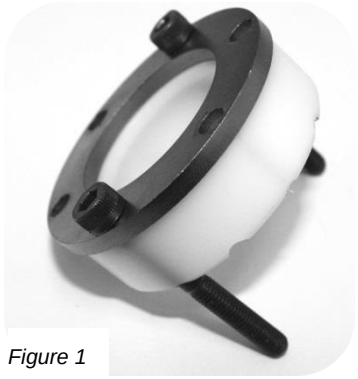


Figure 1

Assembly:

1. Insert two #10-32 socket head cap screws into one thrust washer and one plastic race. Spherical bore of race facing away from thrust washer. (Figure 1)
2. Install this small assembly into the flex end housing. The races are a light press fit, use a wide punch and hammer to assist you if needed.
3. Apply a thin coating of multi-purpose grease to the mating surfaces of the ball and both races.
4. Place the ball in the race (inside the flex end). The ball should perfectly fit the contour of the race. (Figure 2)
5. Insert the other race onto the ball so that the spherical bore is contacting the ball. Once again, the races are a light press fit, use a hammer and wide punch if needed. (The two screws should be through one washer and both races at this point)
6. Insert the second thrust washer on top of the flex end housing, sliding the bolts through the holes. (Figure 3)
7. Start nylock nuts on the two bolts that are in the flex end assembly. Hold the nut and turn the bolt.
8. Insert the remaining four cap screws through the remaining holes and install nuts. (Figure 4)
9. Snug up all of the bolts fairly tight.
10. Torque bolts evenly, starting at one bolt and continuing using a crisscross pattern. Torque all six bolts to 70 in-lbs., then to 85 in-lbs.
11. Install 90°grease zerk fitting so that it is easily accessed in the vehicle.
12. Grease flex end until grease comes out of the races around the ball.
13. Re-torque bolts to 85 in-lbs. after 5 minutes.

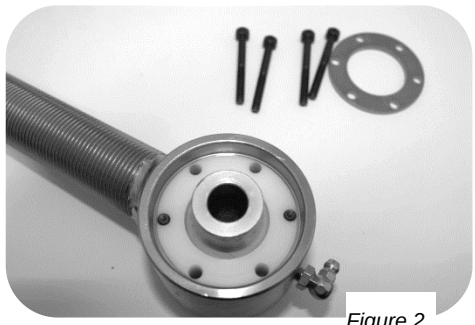


Figure 2

**Reference Only* Complete joint shown fully assembled without housing*

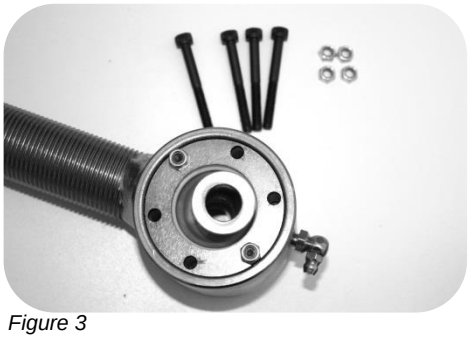
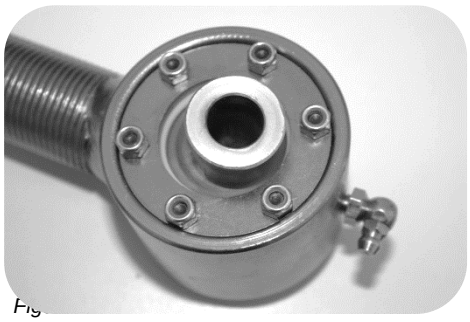


Figure 3



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