
# Parts Checklist:*

## *BOX 1* 42x15x6.5

- ❑ Instructions
- ❑ Invoice
- ❑ Iron Rock Off Road logo decal (2)
- ❑ Ironrockoffroad.com decal (1)
- ❑ ZJ rear long arm subframe 99082 (1)
- ❑ 3" rear coil spring retainer MB03 (2)

***#35 - Rear Long Arm Subframe Hardware***

- ❑ 7/16" x 1-1/4" hex bolt, gr8 (12)
- ❑ 3/8" x 4" carriage bolt (2)
- ❑ 3/8" USS washer (14)
- ❑ 3/8" hex nut, gr8 (2)
- ❑ 2 hole nut plate (2.75" center to center) 92097 (6)
- ❑ M10x90 hex bolt, cl10.9 (2)
- ❑ M10 hex nut, cl10.9 (2)
- ❑ ZJ rear coil spring retainer washer 99052 (2)
- ❑ ZJ rear coil spring retainer carriage bolt insert 99046 (2)

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

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

## *BOX 2* 42x15x6.5

- ❑ Adjustable rear LCA left 99090 (1)
- ❑ Adjustable rear LCA right 99091 (1)
  - ❑ Long arm male end 99070 (2)
    - ❑ ***#65 – Adjustable LCA Clamping Hardware***
      - ❑ 1/4" – 28 x 1.125" socket head cap screw (4)
      - ❑ 1/4" – 28 hex nut, gr8 (4)
- ❑ Rear UCA left (~30-1/4" center to center) 99092 (1)
- ❑ Rear UCA right (~30-1/4" center to center) 99093 (1)

# Installation Instructions:

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

Installing a suspension lift kit raises the center of gravity of the vehicle. This increases the possibility of a rollover accident. Avoid sudden maneuvers at high speed and avoid all situations where a side rollover may occur. In addition larger tires decrease braking performance, please drive accordingly. We recommend a tire and wheel combination that makes the vehicle's track width wider (wheels with less backspacing). This will lower the center of gravity and add stability. We also 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 after the first 100 miles of use, and frequently inspect all safety critical suspension components.

## Before you begin:

- ❑ Read all safety warnings.
- ❑ Read and understand installation instructions.
- ❑ Check all steering and suspension components for wear and replace as needed.
- ❑ Custom exhaust will be required.
- ❑ You will need a hand drill and good quality 7/16" drill bit.
- ❑ You will need undercoating and anti-seize compound.
- ❑ Ensure that all parts are present and in good condition per attached shipping checklist.
- ❑ Contact Iron Rock Off Road with any questions before, during, or after installation.

## ***Prepare the parts for installation:***

1. Locate the long arm male ends and hardware kits #127.
2. Refer to attached flex end assembly instructions.

## ***Subframe Installation:***

3. Lift front of vehicle and support with tall jack stands under the axle.
4. Lift rear of vehicle and support with tall jack stands under the axle.
5. Ensure the vehicle is safely supported.
6. Locate the rear subframe and hardware kit 35. Hold the rear subframe up to the unibody using a floor jack. Place the subframe just in front of the factory rear lower control arms mounts as far back as possible (28 3/8" from rear bolt hole of factory transmission crossmember, to front hole of new subframe). Control arm openings face rear, Iron Rock Off Road text faces forward.
7. Center the subframe left to right.
8. Using the subframe as a guide, drill the 12 mounting holes. Peck drill and use plenty of oil.
9. Lower the subframe, remove burrs from inside of the holes, clean surface for undercoating.
10. While undercoating is still wet, install the subframe and hold in position using a floor jack.
11. Insert one nut plate into the uni-frame and put it in position above the rearmost holes. Use a piece of bailing wire and a small screwdriver to help line it up and get it into position. This can be frustrating so be patient and take your time – the rest of the nut plates are easier.
12. Add a washer and thread each bolt into the nut plate. Repeat for remaining mounting holes.
13. Torque all 12 bolts to 65 foot pounds.

## ***Rear Suspension:***

14. Lift rear of vehicle and support with tall jack stands under the unibody frame.

Tip: break lug nuts loose before lifting vehicle if necessary.

15. Ensure that the vehicle is safely supported.
16. Remove rear tires.
17. Support rear axle with floor jack (do not lift vehicle).
18. Remove upper and lower control arms.
19. Remove coil spring clamps.
20. Remove coil springs.
21. Locate rear coil spring retainers (3" long black plastic cylinders) and hardware kit 35.
22. Place carriage bolt inserts (small not round washer with square hole) onto 3/8 x 4" carriage bolts.
23. Insert this assembly into coil spring post on unibody.
24. Place a coil spring retainer over carriage bolt.
25. Place the large coil spring retainer washer, a 3/8" USS (standard) washer, and a 3/8 hex nut onto the carriage bolt and tighten nut.
26. Install coil springs.
27. Install lower control arms. Flex joint at axle side, bend faces up and in toward center of Jeep. Use front hole in subframe.
28. Install upper control arms. Bend faces in toward center of Jeep. Use provided M10 x 90mm bolts and nuts. The rearmost hole in the subframe is hole 1. Install in hole 4 as a starting point.
29. Torque rear upper control arm nuts to 60 foot pounds.
30. Torque rear lower control arm nuts to 120 foot pounds.
31. Torque any remaining loose bolts to spec.
32. Install tires.
33. Remove vehicle from jack stands.
34. Torque wheel lug nuts to spec. (usually 85-115 foot-pounds, verify using factory service manual)

## ***Adjustments and Safety Inspection:***

35. Check all components for clearance for suspension to fully cycle up and down and wheels to turn lock to lock. Pay special attention to brake line length and location of all brake lines, axle vent hoses, and ABS wires. Reposition as needed.
36. Check rear driveshaft for proper running length and pinion angle. Adjustments can be made by adjusting control arm length and pinion angle, otherwise a custom driveshaft may be required.
37. Go for a short test drive.

* Re-torque all fasteners, including lug nuts, after 100 miles, and frequently inspect all safety critical suspension components.

# IRON ROCK OFF ROAD

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

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

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

### Parts Checklist:

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

***#127 - 2 5/8" 6 Bolt IRO Flex End Hardware***

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

## 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

## 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.
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.
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.
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.
9. Snug up all of the bolts fairly tight.
10. Torque bolts evenly starting at one bolt using a crisscross pattern, like torqueing lug nuts. Torque all six bolts to 70 in/lbs., then to 85 in/lbs.
11. Install 90 Degree 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.