

IRON ROCK OFF ROAD

**XJ 5.5" Short Arm Lift Kit
Installation Instructions**

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

XJ 84-01 Jeep Cherokee

Shipping Checklist:

Box 1 33x17x8

- Literature (instructions, steering shimmy checklist)
- Invoice
- Iron Rock Decal (2)
- XJ/ZJ Adjustable double shear track bar (1)
 - Track bar male threaded end (1)
- XJ/ZJ double shear track bar bracket (1)
- Front sway bar links 10.75" center to center (2)
- XJ 1.75" transfer case drop spacer (2)
- IRO boomerang shackle (1 pair)
- U-Bolt set - specific to customer vehicle:
 - #93 for Chrysler 8.25 (4 U-bolts)
 - 1/2-20 high nut (8)
 - 1/2 hardened flat washer (8)
 - #94 for Dana 35/44 (4 U-bolts)
 - 1/2-20 high nut (8)
 - 1/2 hardened flat washer (8)
 - #95 for 8.8 (4 U-bolts)
 - 9/16-20 high nut (8)
 - 9/16 hardened flat washer (8)
- #10 - Front Sway Bar Link Hardware (1)**
 - 3/4" hourglass bushing (4)
 - 12mm sway bar bolt sleeve (4)
 - M12 x 70 cl10.9 hex bolt (2)
 - M12 cl10.9 hex nut (2)
 - 1/2 x 1 1/2" gr8 hex bolt (2)
 - 1/2 gr8 lock washer (2)
 - 1/2 gr8 hex nut (2)
 - Sway bar link u-bracket (2)
- #11 - Front Brake Line Relocation Hardware (1)**
 - 1/4 x 1" self drilling sheet metal screw (2)
- #14 - T-Case Drop, Rear Brake Line Bracket Hardware (1)**
 - M10 X 60mm hex bolt (4)
 - 3/8" washer (4)
 - 5/16 x 1" hex bolt (1)
 - 5/16 washer (2)
 - 5/16 hex nut (1)
 - XJ rear brake line drop bracket (1)
- #20 - Front Track Bar Hardware (1)**
 - Track bar bushing half (4)
 - 7/16" I.D. track bar bushing sleeve (1)
 - 7/16 x 2 1/2"lg gr8 hex bolt (1)
 - 7/16 gr8 hex nut (1)
 - 12mm track bar bushing sleeve (1)
 - 7/16 flat washers (2)
 - 12mm x 80 hex bolt, class 10.9 (1)
 - 12mm hex nut, class 10.9 (1)
 - 7/8-14 jam nut
- #72 - Leaf Spring Bushing Hardware (1)**
 - Main eye bushing M20774 (4)
 - Shackle bushing M20775(4)
 - Main eye bushing sleeve (2)
 - Shackle bushing sleeve (2)
- #134 - IRO Shackle Hardware (1)**
 - IRO shackle bushing (4)
 - IRO bushing sleeve (2)
 - 1/4" Straight grease zerck (2)

Shocks

- IRO Hydro**
 - Front Shock SL2900F (2)
 - Rear Shock LL2676F (2)
 - #15 - Shock Hardware (1)**
 - 2.5" long front barpin (2)
 - 2.75" long rear barpin (2)
- Doetsch Upgrade (Optional)**
 - Front shock DT 8386 (2)
 - Rear shock DT 8368 (2)
 - #15 - Shock Hardware (1)**
 - 2.5" long front barpin (2)
 - 2.75" long rear barpin (2)
- Bilstein Upgrade (Optional)**
 - Front Shock 33-104645 (2)
 - Rear Shock 33-186559 (2)
 - #18 - Bilstein Shocks Hardware (1)**
 - Front barpin 2.5" (2)
 - Rear barpin 2.75" (2)
 - SBL U-bracket (2)
 - 12mm shock sleeve (2)
 - 1/2 x 1 1/2 gr8 hex bolt (2)
 - 1/2 gr8 hex nut (2)
 - 1/2 USS washer (2)
 - 1/2 gr8 lock washer (2)
 - 7/16 USS washer (6)
 - M12x60 cl10.9 hex bolt (2)
 - M12 cl10.9 hex nut (2)

Box 2 24x12x12

- Front spring (9269) (1 pair)
- Front lower control arm
 - Bent fixed length 16.25" center to center with bushings (2)
 - Bent adjustable length short arm:
 - Short arm threaded male end with bushings (2)
 - 1 1/4-12 jam nut (2)
- Front upper control arm
 - Fixed length 15.25/15.5" with bushings installed (2)
 - Adjustable length short arm:
 - Short arm threaded male end (2)
 - 1-14 jam nut (2)

Unboxed

- XJ 3.5" leaf spring 90149 (2)

Installation Instructions:

*****Safety Warning: Read before installing product***:**

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 backsacing). 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 and lug nuts 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.
- Contact Iron Rock Off Road customer service with any questions before, during, or after installation.
- Ensure that all parts are present and in good condition:

Front suspension:

1. Lift front of vehicle and support with tall jack stands under the unibody frame.
*Tip: break lug nuts loose before lifting vehicle.
2. Ensure that vehicle is safely supported.
3. Remove front tires.
4. Remove front shocks.
5. Remove front sway bar links.
6. Remove track bar and uniframe mounting bracket. No need to separate them.
7. Loosen all upper control arm bolts (do not remove).
8. Place a floor jack under the driver's side of front axle for support (do not lift vehicle).
9. Remove one lower control arm.
10. Remove the coil spring clamp (at the axle).
11. Lower axle as far as needed to remove coil spring.
12. Install new spring in vehicle being careful to align the spring to the spring bucket on the axle.
13. Install new lower control arm, do not tighten bolts at this time. If needed, remove other side lower control arm to allow enough movement to install the new longer control arm. Be sure to have a jack under the axle and beware that the axle can shift or move with both control arms removed. Use a floor jack and ratcheting straps as needed to position axle.
14. Install second coil spring being careful to align the spring to the spring bucket on the axle.
15. Remove upper control arms and install new upper control arms. Do this one at a time if possible. Do not tighten bolts at this time. For fixed length control arms with 2 mounting holes on the axle end, use the hole that provides a shorter control arm length. Orientation of the control arm does not matter.
16. Locate track bar, track bar male end, and hardware kit 20. Put jam nut on male end and install into track bar. Adjust the track bar length to 33-1/2" center to center as a starting point. This may need to be adjusted after a test drive.
17. Grease and install the polyurethane track bar bushings.
18. Install the replacement track bar bracket using the original hardware.
19. Install the track bar and using the provided 7/16" x 2-1/2 bolt and nut for the axle end and provided hardware for the uni-frame end. Use the Jeep's steering system or a floor jack and ratcheting straps as needed to position axle.
20. Install new front shocks using provided bolts, washers, and nuts. Tighten upper stud mount nuts just enough to slightly compress the bushings. Overcompressing these bushings will result in damage to the bushings and premature bushing failure.
21. Locate hardware kit 11.
22. On one side, remove the bolt that holds the brake hose to the unibody.
23. Any rusted, worn, cracked, or damaged rubber or steel brake line should be replaced.
24. Pull brake line down as far as possible without over-stressing or causing a kink in the line. *Note: Your brake line may appear different from the photo. Do not pull too far and damage the brake line.
25. Using two adjustable wrenches bend brake line bracket mounting surface so brake line points out toward the brake caliper. See photo.
26. Mark location and drill a 1/4" hole for the brake line locating tab.
27. Fasten brake line to unibody using provided self drilling sheet metal screw.
28. Repeat for other side.
29. Install front tires.
30. Raise vehicle from jack stands and place jack stands under the axle.
31. Install coil spring clamps.
32. With the vehicle's weight on the suspension, torque upper control nuts to 60 foot pounds.
33. Torque lower control arm nuts to 120 foot pounds.
34. Torque track bar bolt to 60 foot pounds.
35. Torque lug nuts to spec.
36. Torque any other loose bolts to spec.

Rear Suspension:

37. Lift rear of vehicle and support with tall jack stands under the unibody frame.
*Tip: break lug nuts loose before lifting vehicle.
38. Ensure that the vehicle is safely supported.
39. Remove rear tires.
40. Remove rear shocks.
41. Allow suspension to droop as much as possible.
42. Remove retaining clip from rear brake line at the unibody.
43. Push the brake line forward until it can be pulled down out of the bracket.
44. Install rear brake line bracket using 5/16 x 1" bolt, nut, and 2 washers. Bracket should be oriented to extend the brake line down and back.



45. Gently bend the steel brake line into its new location in the bracket. Be very careful to not create a crack or a kink. Any rusted, worn, cracked, or damaged rubber or steel brake line should be replaced at this time.
46. Install brake line retaining clip.
47. Place a floor jack under one side of the rear axle for support (do not lift vehicle).
48. Remove front leaf spring bolt at unibody.
49. Remove rear leaf spring bolt at shackle.
50. Remove rear shackle bolt at unibody.
51. Remove the u-bolts.
52. Allow axle to droop and remove leaf spring and shackle.
53. Grease and install leaf spring shackle bushings into the shackle.
54. Install leaf spring shackle into unibody. Do not tighten bolt at this time.
55. Install new leaf spring.
56. Install front bolt and rear bolts but do not tighten yet.
57. Clean any debris from axle seating surfaces.
58. Raise the axle up to the leaf spring, make sure the center pin drops into the axle and the axle seats flat against the leaf spring. Install u-bolts.
59. Repeat for passenger side.
60. Torque u-bolts to 90 ft-lbs.
61. Install new shocks.
62. Install rear tires.
63. Lower vehicle from jack stands.
64. With the vehicle on the ground, torque any loose bolts to spec. including leaf spring/shackle bolts, and lug nuts.

Transfer Case Drop Kit:

65. Place a floor jack under the driver's side of transfer case crossmember for support.
66. Remove bolt and nut that hold the t-case crossmember to the unibody.
67. Lower t-case crossmember away from unibody and remove threaded stud from unibody. If you do not have a stud puller, you can install 2 nuts and tighten one against the other then remove using a box end wrench on the inner nut.
68. Install spacer using new bolts and washers. Torque to spec.
69. Repeat for passenger side.

Adjustments and Safety Inspection:

70. 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.
71. A professional front end alignment is required after installation. Your toe-in will be affected and may cause unpredictable steering and accelerated tire wear. We recommend 1/8" toe-in and 5 to 7.5 degrees positive caster.
 - *Re-torque u-bolts to 90-100 ft/lbs after 100 miles and again after 500 miles.
 - *Re-torque all fasteners after 100 miles, and frequently inspect all safety critical suspension components.
 - *Re-torque lug nuts after 100 miles.

IRON ROCK OFF ROAD

XJ Polyurethane Leaf Spring Bushing Installation
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Shipping Checklist:

Hardware Kit # 72

- Instructions
- Main Eye Leaf Spring Bushings (4) – M20774
- Leaf Spring Shackle Bushings (4) – M20775
- Main Eye Bushing Sleeve (2)
- Shackle Bushing Sleeve (2)



Installation Instructions:

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.**
- You will need basic wheel bearing multi-purpose grease and a brush.

Bushing Installation:

1. Locate main eye bushings (M20774) and main eye bushing sleeves (M20775) and separate from other parts.
2. Liberally apply grease to the inside of the leaf spring main eye bushing opening.
3. Apply grease to bushing halves on mating surface and sleeves.
4. Press one bushing half into main eye bushing opening.
5. Press the other bushing half into the main eye bushing opening on the opposite side of the first half.
6. Apply grease to the bushing sleeve and slide it into the two bushing halves.
7. Mimic the main eye installation for the shackle bushings using shortest sleeves and thinner flange bushing halves.