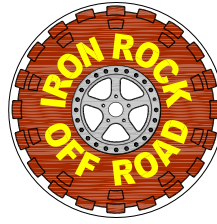


4" Lift Kit Installation Instructions Jeep WJ Grand Cherokee 1999-2004



Iron Rock Off Road, Inc.

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Shipping Checklist:

Box 1

- 4" Front springs (2)
- 4" Rear springs (2)

Box 2

- Instructions
- Steering Shimmy Elimination Checklist
- Invoice
- Iron Rock Off Road logo decal (1)
- WJ Adjustable Front Track Bar (1)
- Rear sway bar links, 13.5" center to center (2)
- Front Sway Bar Links, 11.25" center to center (2)
- WJ 4 Hole Transfer Case Drop Spacers (2)

Hardware kit 1 (Front Track Bar)

- Track bar bushing (4)
- 12mm track bar bushing sleeve (2)

Hardware kit 2 (Rear Sway Bar Links)

- 3/4" hourglass bushings (4)
- 12mm sway bar bolt sleeves (2)
- 10mm sway bar bolt sleeves (2)
- M10 x 60 sway bar link bolt (2)
- M10 X 1.5 hex nut (2)
- M10 large O.D. sway bar link washers (2)

Hardware kit 3 (Shocks)

- 12mm shock bolt sleeves (4)
- 7/16" washer (6)
- 5/16 x 1 hex bolts (4)
- 5/16-18 hex nuts (4)
- 5/16 washers (8)

Hardware kit 4 (Front Sway Bar Links)

- 3/4" hourglass bushings (4)
- 12mm sway bar bolt sleeves (4)

Hardware kit 5 (T-Case Drop)

- M10 x 150mm class 8.8 bolt (4)
- 3/8" washer (4)

Hardware kit 29

- 7/8-14 Jam Nut (1)

Standard shocks (without shock upgrade)

- Front shocks RC 8177 (2)
- Rear shocks RC 8114 (2)

With nitro shock upgrade only

- Front shocks RC 9177 (2)
- Rear shocks RC 9114 (2)

With DT8000 shock upgrade only

- Front shocks DT 8352 (2)
- Rear shocks DT 8336 (2)

Hardware kit 9 (shocks)

- Front shock barpin BP7 (2)

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 make 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.

- 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 shipping checklist.
- Be sure you have the following tools and supplies:
 - Floor jack and jack stands
 - Basic hand tools
 - Multi-purpose grease (all poly bushings should be greased before installation)
 - A coil spring compressor makes installation easier but is not required.

Prepare the parts for installation:

1. Locate hardware kit 3 and the rear shocks.
2. Grease and install the 5/8" I.D. shock bushings included with the shocks.
3. Grease and install the four 12mm shock bolt sleeves (two from hardware kit 3, two included with the shocks). The rear shocks use 12mm sleeves at the top and bottom.
4. Leave the rest of the hardware in the bag for future use.
5. Locate the front track bar, hardware kit 1, and hardware kit 29.
6. Install the jam nut onto the threaded end of the track bar.
7. Grease and install the track bar bushings.
8. Grease and install the track bar bolt sleeves.
9. Pre-adjust the track bar to a length of 32.75" center to center as a starting point. Do not tighten jam nut at this time.
10. Locate the rear sway bar links (13.5" center to center) and hardware kit 2.
11. Grease and install the hourglass bushings.
12. Grease and install the sway bar link bolt sleeves. Each link gets one 12mm I.D. sleeve and one 10mm I.D. sleeve.
13. Leave the rest of the hardware in the bag for future use.
14. Locate the front sway bar links (10.75" center to center) and hardware kit 4.
15. Grease and install the hourglass bushings.
16. Grease and install the sway bar link bolt sleeves. All sleeves are the same (12mm I.D.).

Front suspension:

17. Lift front of vehicle and support with tall jack stands under the unibody frame.
 - **Tip: break lug nuts loose before lifting vehicle.
18. Ensure that vehicle is safely supported.
19. Remove front tires.
20. Place a floor jack under the center of the front axle for support (do not lift vehicle).
21. Remove front shocks.
22. Remove the track bar.
23. Remove front sway bar links.
24. Loosen all upper and lower control arm bolts (do not remove). *Note: Bushing damage will occur if you skip this step.
25. With the axle hanging as low as possible, using a coil spring compressor, remove one coil spring and lower spring isolator. If you do not have a coil spring compressor, you may unbolt the lower control arm to allow enough droop to remove the spring.
26. Snap the spring isolator into the new spring.
27. Install new spring in vehicle being careful to align isolator pin with the hole in the spring bucket.
28. If needed, re-install lower control arm at unibody, do not tighten at this time.
29. Repeat for other front coil spring.
30. 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.
31. Install new sway bar links. Re-use the existing bolts and nuts. Torque all four nuts to 78 foot pounds.
32. Install track bar. Torque both bolts to 80 foot pounds.
 - *Note: The steep bend in the track bar is for clearance of the bracket on the axle. The steeply bent end of the track bar attaches to the axle with the bend on the bottom. The slightly bent end attaches to the unibody. (It should look somewhat like a "J").
33. Tighten track bar jam nut very tight.
34. Any remaining loose bolts will be tightened after installing the rear suspension.

Rear Suspension:

35. Lift rear of vehicle and support with tall jack stands under the unibody frame.
 - **Tip: break lug nuts loose before lifting vehicle.
36. Ensure that the vehicle is safely supported.
37. Remove rear tires.
38. Place a floor jack under the center of rear axle for support (do not lift vehicle).
39. Remove rear shocks.
40. Remove Sway bar links.
41. Loosen lower control arm bolts (do not remove). *Note: Bushing damage will occur if you skip this step.
42. Allow suspension to droop as much as possible.
43. Remove coil springs.
44. Install new coil springs being careful to align the spring to the isolator.
45. Raise rear axle and install new shocks. Use provided 7/16" washers on the upper shock mounts, place one washer behind the shock bushing, and two washers in front of it (toward the outside of the vehicle).
46. Install sway bar links using the existing upper bolt and the new lower bolt, washer, and nut.
47. Torque upper bolts to 78 foot pounds.
48. Torque lower bolts to 50 foot pounds.
49. Install rear tires.
50. Raise vehicle and support with jack stands under the front and rear axles. Rubber bushing bolts should be torqued to spec. with weight on the suspension.
51. Torque front upper control arm nuts to 60 foot pounds.
52. Torque front and rear lower control arm nuts to 120 foot pounds.
53. Torque any remaining loose bolts to spec.
54. Install front and rear tires.
55. Lower vehicle from jack stands.
56. Torque lug nuts to spec. (usually 85-115 foot pounds, verify using factory service manual)
57. With the vehicle on the ground, torque any loose bolts to spec. including Lower control arm bolts and lug nuts.

Transfer case drop kit:

58. Locate the transfer case drop spacers and hardware kit 5.
59. Place a floor jack under the center of the transmission/transfer case crossmember for support.
60. On one side remove the 4 bolts that hold the crossmember to the unibody.
61. Lower the crossmember away from the unibody enough to install the spacer.
62. Install the spacer using the 2 long existing bolts and the 2 new bolts and washers.
63. Repeat for the other side.
64. Torque bolts to 50 foot pounds.

Final Inspection:

65. 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 lines axle vent hoses, and ABS wires. Reposition as needed by bending the brackets.
66. Re-center steering wheel by adjusting the drag link (longer) until the steering wheel is centered.
67. Check if front tires are centered side to side under the vehicle. Adjust the length of the front track bar as needed.

* A professional front end alignment is recommended after installation.

We recommend the following alignment settings:

Caster: +3.75 to +5.75 (+4.5 is preferred if possible)

Toe-in: .20 degrees (1/16" to 1/8" at the tire)

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