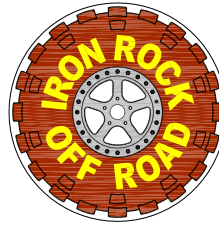


WJ 6.5" Premium Long Arm Lift Kit Shipping Checklist



Iron Rock Off Road, Inc.

952-210-7185

Website: www.ironrockoffroad.com

E-mail: Contactus@ironrockoffroad.com

Box 1 (22x22x6)

- 6.5" Front coil spring (2)
- 6.5" Rear coil spring (2)

Box 2 (24x14x6)

- Literature (instructions, steering shimmy checklist)
- Invoice
- Iron Rock Off Road logo decal (2)
- Ironrockoffroad.com decal (1)
- JKS Sway bar quicker disconnect set 3104 (1)
- Rear sway bar links 14.625" center to center (2)
- WJ 4 hole transfer case drop spacer (2)
- Front control arm mounting bracket (1 left, 1 right)
- Coil spring retainer (4)

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 bushing (4)
- 12mm sway bar bolt sleeve (2)
- 10mm sway bar bolt sleeve (2)
- M10 x 60 sway bar link bolt (2)
- M10 x 1.5 hex nut (2)
- 7/16 USS washer (2)

Hardware kit 3 (Shocks)

- 12mm shock bolt sleeve (2)
- 7/16" USS washer (6)
- 5/16 x 1 gr8 bolts (4)
- 5/16-18 gr8 hex nut (4)
- 5/16 USS washer (8)

Hardware kit 5 (T-case drop)

- M10 x 150mm class 10.9 bolt (4)
- 3/8" USS washer (4)

Hardware kit 6 (Front brake line spacers, front coil spring retainers)

- Front brake line spacer (10mm SBL sleeve) (2)
- M6 x 45 front brake line bolt (2)
- 1/4" washer (2)
- 1/2 x 5" socket head cap screw (2)

Hardware kit 7 (Front control arm brackets)

- WJ front control arm bracket nut plate 2.75" center to center (4)
- 7/16 x 1 1/4" gr8 hex bolt (8)
- 7/16" washer (8)

Hardware kit 9 (Shocks)

- Front shock barpin BP7 (2)

Hardware kit 21 (Rear control arm brackets)

- 7/16 x 1 1/4" gr8 hex bolt (24)
- 7/16-14 x 1 1/4" flat head cap screw (2)
- 7/16" USS washer (38)
- 7/16" gr8 hex nut (10)
- Rear long arm nut plate (2 hole, 6" center to center) (8)
- M12 x 100mm cl10.9 hex bolt (2)
- M12 hex nut (2)

Hardware kit 22 (Lower control arm spacers)

- Lower control arm bushing spacer (8)

Hardware kit 23 (Rear coil spring retainers)

- 7/16" x 5" socket head cap screw (2)

Hardware kit 29 (Track bar jam nut)

- 7/8-14 jam nut (1)

Hardware kit 64 (Adjustable a-arm)

- 1 1/2-12 jam nut (1)
- M14 x 35 cl10.9 hex bolt (3)
- M14 x 100 cl10.9 hex bolt (1)
- M14 cl10.9 hex nut (1)
- 1/2" USS washer (5)

Hardware kit 65 (Adjustable LCA clamping bolts)

- 1/4-28 x 1 1/4 socket head cap screw (4)
- 1/4-28 hex nut (4)

Box 3 (36x12x12)

- Front shock DT 8421 (2)
- Rear shock DT 8403 (2)
- Rear control arm mounting bracket (1 left, 1 right)

Box 4 (36x12x12)

- Front Iron Y
 - Bushing installed
 - Super flex joint assembled, adjusted, and set screw installed
 - Caster adjuster assembled including 5/16 x 1 gr5 carriage bolts, gr8 nuts, and 1/4" USS washers (2)
 - M10 x 90 cl10.9 hex bolt, 3/8" USS washers (2), and m10 cl10.9 nylock nut
- Front Lower control arm with bushing installed and super flex joint assembled & adjusted, set screw & grease zerk installed (1)
- WJ Adjustable Track bar (1)
- Track bar male threaded end (1)

Box 5 (36x8x8)

- WJ rear adj. lower control arm (superflex joint assembled, set screw & grease zerk installed) (1 left, 1 right)
- LCA male end with bushing installed (2)

Box 6

- Rear adjustable a-arm with bushings installed (1)
- WJ a-arm male end (1)
- WJ adjustable a-arm axle mount bracket (1)

Installation Instructions:

Safety Warning:

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 and lug nuts after the first 100 miles of use, and frequently inspect all safety critical suspension components.

Before you begin:

- o ****Ensure that all parts are present and in good condition using the included shipping checklist.****
- o Read all safety warnings.
- o Read and understand installation instructions.
- o Check all steering and suspension components for wear and replace as needed.
- o Contact Iron Rock Off Road with any questions before, during, or after installation.
- o Be sure you have the following tools and supplies:
 - o Floor jack and jack stands
 - o Basic hand tools
 - o Torque wrench
 - o Multi-purpose grease (all polyurethane bushings should be greased before installation)
 - o Hand drill with one or more good quality 7/16" drill bit (s)
 - o Letter "T" drill bit.
 - o 1/2 -20 fine thread hand tap with tap handle and cutting oil.
 - o 7/16-14 course thread hand tap with tap handle and cutting oil.
 - o Touch up paint to match the color of your unibody frame.
 - o Rubberized undercoating.
 - o High strength threadlocker adhesive such as Loctite red.
 - o Anti-sieze compound for bolts.

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 (if needed).
3. Grease and install the 12mm four shock bolt sleeves, two from hardware kit 3, two from shock box. 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, track bar male threaded end, and hardware kits 1 and 29.
6. Install the jam nut onto the male end, apply anti-seize compound to the threads and install male end.
7. Grease and install the track bar bushings.
8. Grease and install the track bar bolt sleeves.
9. Adjust track bar to 33 9/16" center to center. Tighten jam nut finger tight.
10. Locate the rear sway bar links (14.625" 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 JKS sway bar quick disconnects. Prepare them per JKS instructions.
15. Locate the rear a-arm, male threaded end, and hardware kit 64.
16. Thread the jam nut onto the male end. Apply anti-seize to threads and install male end.
17. Leave about 1" of threads exposed (on the flex end side) as a starting point. Tighten jam nut finger tight.
18. Locate the rear lower control arms, male threaded ends, and hardware kit 65.
19. Apply anti-seize compound to male threads and thread into lower control arms.
20. Install clamping bolts and nuts from hardware kit 65.

21. Adjust to 36 3/8" center to center

Transfer Case Drop Kit and Front Lower Control Arm Mounting Brackets:

22. Locate the front lower control arm mounting brackets (approx 7" x 11"), 4 hole transfer case drop spacers, hardware kit 5, and hardware kit 7.
23. Lift front of vehicle and support with jack stands under the front axle.
**Tip: break lug nuts loose before lifting vehicle.
24. Ensure that vehicle is safely supported.
25. Place a floor jack under the center of the transmission/transfer case crossmember for support.
26. On one side remove the 4 bolts that hold the crossmember to the unibody.
27. Lower the crossmember away from the unibody enough to install the spacer and the correct left or right side lower control arm mounting bracket. It may be necessary to loosen the bolts on the other side of the crossmember.
28. Install the spacer and bracket using the 2 long existing bolts and the 2 new bolts and washers.
29. Align the lower control arm mounting bracket to the vehicle.
30. Tighten bolts
31. Using the bracket as a guide, drill the four 7/16" mounting holes at the front of the bracket.
32. Take the bracket out and remove any burrs from the drilled holes and paint any exposed metal.
33. Insert the nut plates through the hole in the unibody frame and move them into position above the drilled holes.
34. Spray the area where the control arm mounting bracket meets the unibody frame with rubberized undercoating to seal out any moisture between the bracket and the unibody.
35. While the undercoating is still wet, re-install the mounting bracket and transfer case spacer. Use washers under all bolts.
36. Torque all 8 bolts to 65 ft. lbs.
37. Repeat for the other side.
38. Re-torque all 16 bolts.

Rear Lower Control Arm Mounting Brackets

39. Locate the rear lower control arm mounting brackets (approx. 7" x 31"), and hardware kit 21.
40. Lift front and rear of vehicle and support with jack stands under the front and rear axles.
**Tip: break lug nuts loose before lifting vehicle.
41. Ensure that vehicle is safely supported.
42. Place a lower control arm mounting bracket up against the unibody and slide it rearward against the existing lower control arm mount on the unibody. Hold bracket in place using a floor jack. Ensure that bracket is properly aligned to the unibody and mounting surfaces are tight against one another.
43. Install one bolt up through the new bracket into the existing lower control arm mount and tighten firmly to help hold bracket in place.
44. Using the bracket as a guide, drill the ten 7/16" mounting holes into the unibody, eight from the bottom, and two from the inside.
45. Take the bracket out and remove any burrs from the drilled holes and paint any exposed metal.
46. Insert the nut plates through the hole in the unibody frame and move them into position above the drilled holes. The nuts should face up, and the plate should face down.
47. Spray the area where the control arm mounting bracket meets the unibody frame with rubberized undercoating to seal out any moisture between the bracket and the unibody.
48. While the undercoating is still wet, re-install the mounting bracket. Use washers under all bolts (except the flat head).
49. Install flat head cap screws into the countersunk holes (one on each side)
50. Torque all 13 bolts to 65 ft. lbs.
51. Repeat for the other side.
52. Re-torque all 26 bolts

Front Suspension:

53. Lift front of vehicle support with tall jack stands under the unibody frame or transfer case crossmember.
54. Ensure the vehicle is safely supported.
55. Place a floor jack under the front axle for support, do not lift vehicle.
56. Remove front tires.
57. Remove the front shocks.
58. Remove the track bar.
59. Remove front sway bar links.
60. Locate hardware kit 6.
61. Install front brake line spacers between front brake line and axle where the brake line meets the shock mount. Use new M6 bolts and washers.
62. Remove driver's side upper and lower control arms. Loosen passenger side upper and lower control arms. Remove nuts but do not remove bolts.
63. With the axle hanging as low as possible, remove coil springs and lower coil spring isolators.
64. Locate Iron Y control arm and 2 control arm bushing spacers (large 1/4" thick washers).
65. Install Iron Y control arm on the drivers side. First install the axle end lower bushing into the axle with 2 spacers on the outboard side, then rotate up to install the arm onto the upper control arm bushing on the axle. Use existing lower control arm bolts, and new m10 x 90 bolt washers, and locknut for the upper control arm. Finally install the back side into the new lower control arm mounting bracket. Do not tighten bolts at this time.
66. Remove passenger side upper and lower control arms.
67. Install passenger side lower control arm using 2 control arm bushing spacers on the outboard side of the axle end. Do not tighten bolts at this time.
68. Locate the coil spring retainers (approx 2" diameter x 5" long aluminum cylinders) and the remainder of hardware kit 6. The coil spring retainers bolt onto the front upper coil spring perch to keep the coil springs from falling out under extreme droop.
69. Using your 1/2-20 fine thread hand tap, tap the existing hole in the center of each front upper coil spring perch.
70. Apply a liberal coating of high strength threadlocker adhesive (such as Loctite red) to the threads of both 1/2" x 5" socket head cap screws. Apply anti-seize compound to the unthreaded shaft of the bolt (not the threads).
71. Position the coil spring retainer onto the upper coil spring pad and install the bolt. Torque to 60 **inch pounds**. Repeat for opposite side.
72. Snap the coil spring isolator onto the new spring.
73. Install new spring in vehicle being careful to align isolator pin with the hole in the spring bucket.
74. Repeat for other front coil spring.

75. 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.
76. Install new JKS sway bar quick disconnect links per JKS instructions.
77. Install track bar. Torque to 80 ft. lbs.
 *Note: The bend in the track bar is for clearance of the bracket on the axle. The bent end of the track bar attaches to the axle with the bend on the bottom. The straight end attaches to the unibody. (It should look somewhat like a "J").
78. Install front tires.
79. Lower vehicle from jack stands.
80. With the vehicle on the ground, torque any loose bolts to spec. including upper and lower control arm bolts, caster adjuster bolts, lug nuts, etc...

Rear Suspension:

81. Lift rear of vehicle and support with tall jack stands under the unibody frame.
 **Tip: break lug nuts loose before lifting vehicle.
82. Ensure that the vehicle is safely supported.
83. Remove rear tires.
84. Place a floor jack under the center of rear axle for support (do not lift vehicle).
85. Remove rear shocks.
86. Remove sway bar links.
87. Loosen lower control arm bolts. Remove nuts but do not remove bolts.
88. Allow suspension to droop as much as possible.
89. Remove coil springs.
90. Disconnect all brake lines and ABS wires from upper a-arm.
91. Place a jack stand under the pinion to keep the axle from rotating.
92. Remove the a-arm and a-arm ball joint from the vehicle (no need to separate them)
93. Locate a-arm mounting bracket and hardware kit 65. Install the bracket on top of the axle with provided hardware. Use high strength threadlocker and a washer on each bolt. Torque bolts to 100 foot pounds.
94. Install the a-arm using the front holes on the unibody side.
95. Torque the two front M12 bolts to 80 ft. lbs, and rear flex end bolt to 120 foot pounds.
96. Locate lower control arms and hardware kit 22.
97. Install new lower control arms with rubber bushings at the unibody end and bend upward and toward the outside of the vehicle. Note left and right arms both bend slightly upward for improved ground clearance. Install 2 control arm spacers (large 1/4" thick washers) on the inboard side of each flex end (at the axle end only). Do not tighten bolts at this time.
98. Install coil spring retainers (2" diameter x 5" long black aluminum cylinders). Then install in the center of the unibody side coil spring pad. Using plenty of oil, drill the center hole with letter "T" drill bit, again with plenty of oil, tap with 7/16-14 hand tap. Apply high strength threadlocker to the bolts from hardware kit 23. Install coil spring retainers and torque to **60 inch pounds**.
99. Install new coil springs being careful to align the spring to the isolator.
100. 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 2 washers in front of it (toward the outside of the vehicle).
101. Install sway bar links using the existing upper bolt and the new lower bolt, washer, and nut. Torque to 78 ft. lbs. (upper bolt) and 50 ft.lbs. (lower bolt).
102. Install rear tires.
103. Lower vehicle from jack stands.
104. With the vehicle on the ground (or jack stands under the axles), torque any loose bolts to spec. including lower control arm bolts (120 foot pounds) and lug nuts.
105. Grease all flex ends front and rear.

Adjustments and Final Inspection:

106. 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, relocating, or extending hoses and wiring.
107. Re-center steering wheel by adjusting the drag link (longer) until the steering wheel is centered.

* A professional front end alignment is required after installation.
 We recommend the following alignment settings:
Caster: +3.75 to +6.0 (+4.5 is preferred)
Toe-in: +.20 degrees (+1/16" to +1/8" measured at the tire)

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.