

# Installation Instructions

## 3" Foundation Series Lift Kit

### TJ Jeep Wrangler (1997-2006)



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#### Shipping Checklist

##### \*Box 1\*

- Instructions
- Invoice
- Iron Rock logo decals (2)
- Ironrockoffroad.com decal (1)
- Rear track bar relocation bracket (1)
- Front sway bar link 10.75" center to center (2)
- Standard shocks (without shock upgrade)**
  - Front shocks RC 8177 (2)
  - Rear shocks RC 8185 (2)
- With nitro shock upgrade only**
  - Front shocks RC 9177 (2)
  - Rear shocks RC 9185 (2)
- With DT8000 shock upgrade only**
  - Front shocks DT 8352 (2)
  - Rear shocks DT 8268 (2)
- Hardware kit 15 (DT shocks)**
  - 2.5" Front barpin BP7 (2)
  - 2.75" Rear barpin (2)
- With Bilstein shock upgrade only**
  - 33-185606 (4)
- Hardware kit 18 (Bilstein Shocks)**
  - Front Barpins 2.5" (2)
  - Rear Barpins 2.75" (2)
  - SBL U-Brackets (2)
  - 12mm Shock Sleeves (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)
  - M12x60 cl10.9 Hex Bolt (2)
  - M12 cl10.9 Hex Nut (2)

##### **Hardware kit 11 (brake line relocation)**

- 1/4 x 1" Self drilling sheet metal screw (2)

##### **Hardware kit 53 (Rear track bar bracket)**

- 12mm Track Bar Sleeve (1)
- 7/16 x 1 1/4 gr8 hex bolt (3)
- M12 x 70 cl10.9 hex bolt (2)
- 7/16 gr8 hex nut (3)
- M12 cl10.9 hex nut (2)
- 7/16 USS washer (7)

##### **Hardware kit 54 (Front track bar bolt)**

- M10 x 70 cl0.9 hex bolt (1)
- 3/8 USS flat washer (1)

##### **Hardware kit 58 (Front Sway Bar Links)**

- 3/4" I.D. hourglass shock bushings (4)
- 12mm I.D. sway bar bolt sleeves (4)
- 12mm x 60mm class 10.9 hex bolt (2)
- 12mm class 10.9 hex nut (2)
- M10 x 30 cl10.9 hex bolt (2)
- 3/8 USS washer (2)
- M10 cl10.9 hex nut (2)
- Sway bar link u-bracket (2)

##### **Hardware kit 85 (1" transfer case drop)**

- Transfer case drop spacer (6)
- 1/2 x 2 1/2 flat head cap screw (6)
- M12 x 60 cl10.9 hex bolt (6)
- 7/16 USS washer (6)

##### **\*Box 2 (22 x 22 x 6)\***

- TJ 3" Front springs (1 pair)
- TJ 3" Rear springs (1 pair)

## 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 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 professional. Knowledge of suspension component function is necessary for safe installation and post installation inspections. Be sure to re-suspension components after the first 100 miles of use, and inspect all safety critical suspension components frequently.

### Before you begin:

- o \*\*\*Ensure that all parts are present and in good condition using shipping checklist.\*\*\*
- o Read all safety warnings.
- o Read and understand installation instructions.
- o A coil spring compressor will make installation easier, but is not required. You may wish to borrow, rent, or buy one if you don't have one.
- o You will need a hand drill, 1/4", and 7/16" drill bit.
- o Check all steering and suspension components for wear and needed.
- o Contact Iron Rock Off Road with any questions before, during, or after installation.

### Front suspension:

1. Lift front of vehicle and support with tall jack stands under the 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 bolt at axle end only (do not loosen the "tie rod end" at the frame).
7. Loosen all upper and lower control arm bolts (do not remove).
8. Locate hardware kit 11.
9. On one side, remove the bolt that holds the brake hose to the frame.
10. Any rusted, worn, cracked, or damaged rubber or steel brake line should be replaced.
11. 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.
12. Using two adjustable wrenches bend brake line bracket mounting surface so brake line points out toward the brake caliper. See photo.
13. Mark location and drill a 1/4" hole for the brake line locating tab.
14. Fasten brake line to the frame using provided self drilling sheet metal screw.
15. Repeat for other side.
16. Drill a new hole for the track bar. On the axle side, with the track bar removed, measure from the center of the existing hole 3/4" straight over toward the drivers side, mark, center punch and drill with a 7/16" drill bit.
17. Install track bar in the new hole using new bolt and washer from hardware kit 54, do not tighten at this time.
18. Place a floor jack under the driver's side of front axle for support (do not lift vehicle).
19. If not using a coil spring compressor, unbolt the driver's side lower control arm at unibody.
20. Remove the coil spring clamps (at the axle).
21. Lower axle as far as needed to remove coil spring.
22. Install new spring in vehicle being careful to align the spring to the spring bucket on the axle.
23. Re-install lower control arm at unibody, do not tighten bolt at this time.
24. Repeat for passenger side of vehicle.
25. Install new front shocks. Tighten upper stud mount nuts just enough to slightly compress the bushings. Overcompressing these bushings will result in premature bushing failure.
26. Locate front sway bar links (10.75" center to center) and hardware kit 58.
27. Install sway bar link u-brackets to the sway bar using M10 x 30 hex bolts, washers, and nuts. Brackets mount to the bottom of the sway bar with the bolt facing up and washer and nut on top of the sway bar. Align brackets with offset holes pushing the brackets toward the outside of the vehicle. Torque nuts to 60 foot pounds.
28. Lubricate sway bar link bushings and bushing sleeves with multi-purpose grease and install into sway bar links.
29. Install sway bar links passenger side first using provided M12 x 70mm hex bolt and nut through the u-bracket with the nuts toward the outside of the vehicle, and the original bolt, nut, and washer at the axle. Torque all nuts to 78 foot pounds.
30. Raise vehicle from jack stands and place jack stands under the axle (front and rear).
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.



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above

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replace as

or after



35. Install front tires.
36. Torque lug nuts to spec.
37. Torque any other loose bolts to spec.

**Rear Suspension:**

38. Lift rear of vehicle and support with tall jack stands under the frame.  
\*Tip: break lug nuts loose before lifting vehicle.
39. Ensure that the vehicle is safely supported.
40. Remove rear tires.
41. Place a floor jack under the axle for support (do not lift vehicle).
42. Remove rear shocks.
43. Remove rear track bar.
44. Loosen upper and lower control arm bolts (do not remove).
45. Allow suspension to droop as much as possible.
46. Remove coil springs.
47. Locate track bar relocation bracket and hardware kit 53.
48. Install bracket with 12mm I.D. track bar sleeve in place of original track bar. Ensure proper alignment and tighten bolt.
49. Drill 3 additional bolt holes using a 7/16 drill bit (a close quarters drill is very helpful, or a drill bit can be shortened if needed).
50. Install 7/16 x 1 ¼ bolts, washers and nuts, and torque to 60 foot pounds.
51. Install rear coil springs.
52. Install original rear track bar.
53. Install new shocks.
54. Raise vehicle from jack stands and place jack stands under the axle.
55. With the vehicle's weight on the suspension, torque upper control nuts to 60 foot pounds.
56. Torque lower control arm nuts to 120 foot pounds.
57. Torque track bar bolts to 78 foot pounds.
58. Install rear tires.
59. Torque lug nuts to spec.
60. Torque any other loose bolts to spec.
61. Lower vehicle from jack stands.

**Transfer Case Drop Kit:**

62. Locate hardware kit 85.
63. Loosen four tranny mount nuts near the center of the belly skid plate (do not remove).
64. Place a floor jack under the center of the belly skid plate for support.
65. On one side of the Jeep, remove 3 bolts that hold the belly skid to the frame.
66. Lower the belly skid enough to insert a spacer between the frame and belly skid at each bolt.
67. Install new longer bolts (do not tighten at this time).
68. Repeat for other side.
69. Torque all bolts to spec. including tranny mount nuts near the center of the belly skid.

**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. Verify transfer case shifter will lock into each position. Adjust as needed.
72. A professional front end alignment is required after installation. Your toe-in will be affected and may cause unpredictable steering and accelerated tire wear.  
Recommended caster setting: +3.00 to +6.0 (+4.5 degrees is preferred)  
Recommended toe in setting: 0 degrees

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

