

IRON ROCK OFF ROAD

TJ 3" Foundation
Series Lift Kit

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

Instructions

Parts Checklist:

- Iron Rock logo decals (2)
- Ironrockoffroad.com decal (1)
- TJ 3" Front springs 96017 (2)
- TJ 3" Rear springs 96019 (2)
- Rear track bar relocation bracket 85031 (1)

#11 - Brake Line Relocation (1)

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

#53 - Rear Track Bar Bracket (1)

- 12mm Track Bar Sleeve 92035 (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)

#54 - Front Track Bar Bolt (1)

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

#85 - 1" Transfer Case Drop (1)

- Transfer case drop spacer 88117 (6)
- 1/2 x 2 1/2 flat head cap screw (6)
- M12 x 60 cl10.9 hex bolt (6)

~Standard Front Sway Bar Links~

- Front Sway Bar Link, 10.75" center to center 92146 (2)

#58 - TJ Sway Bar Link Hardware (1)

- 3/4" I.D. hourglass shock bushings 94025 (4)
- 12mm I.D. sway bar bolt sleeves 92038 (4)
- 12mm x 60mm class 10.9 ba1hex 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 99000 (2)

~Optional Front Sway Bar Disconnect Upgrade~

- Front Sway Bar Link, 10.75" center to center 92146 (2)

#268 - Sway Bar Disconnect Bushings (1)

- Poly Bushing 94025 (4)

#286 - TJ Sway Bar Disconnect Hardware (1)

- Disconnect Pin 94028 (2)
- 1/2-20 x 1" Hex Bolt, gr8 (2)
- 1/2 F436 Hard Washer (2)
- 1/4" x 1-1/4" Spring Lynch Pin (2)
- 12mm bolt sleeve 92038 (2)
- M12 x 60 hex bolt, cl10.9 (2)
- M12 hex nut, cl10.9 (2)
- M10 x 30 hex bolt, cl10.9 (2)
- 3/8" USS washer (2)
- M10 hex nut, cl10.9 (2)
- U-Bracket 99000 (2)

Shocks

Trail Tamer HD Hydro (Standard)

- Front Shocks 79001 (2)
- Rear Shocks 79004 (2)

Doetsch Tech Upgrade (Optional)

- Front shocks DT 8350 (2)
- Rear shocks DT 8299 (2)

#15 - Shock Hardware (1)

- 2.5" Front barpin 403872 (2)
- 3.12" Rear barpin 404127 (2)

Bilstein Upgrade (Optional)

- Front Shocks 33-230351 (2)
- Rear Shocks 33-186542 (2)

#15 - Shock Hardware (1)

- 2.5" Front barpin 403872 (2)
- 3.12" Rear barpin 404127 (2)



Installation Instructions

Safety Warning:

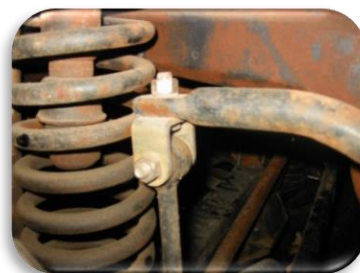
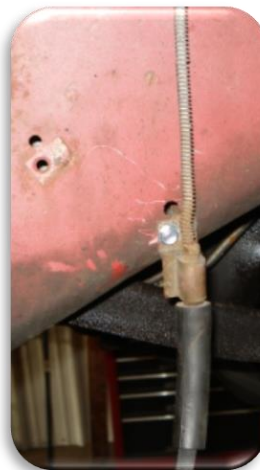
Installing a suspension lift kit raises the center of gravity of the vehicle. This increases the possibility of a rollover accident. Avoid sudden maneuvers at high speed and avoid all situations where a side rollover may occur. In addition, larger tires decrease braking performance, please drive accordingly. 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 after the first 100 miles of use, and frequently inspect all safety critical suspension components.

Before you begin:

- ***Ensure that all parts are present and in good condition using above shipping checklist.***
- Read all safety warnings.
- Read and understand installation instructions.
- 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.
- You will need a hand drill with 1/4", and 7/16" drill bit.
- Check all steering and suspension components for wear and replace as needed.
- Contact Iron Rock Off Road or authorized dealer 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. Place a floor jack under front axle housing for support (do not lift vehicle).
5. Remove front shocks.
6. Remove front sway bar links.
7. Remove track bar bolt at axle end only (do not loosen the "tie rod end" at the frame).
8. Loosen all upper and lower control arm bolts (do not remove).
9. Locate **HK #11**.
10. On one side, remove the bolt that holds the brake hose to the frame.
11. Any rusted, worn, cracked, or damaged rubber or steel brake line should be replaced.
12. 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.
13. Using two adjustable wrenches bend brake line bracket mounting surface so brake line points out toward the brake caliper. See photo.
14. Mark location and drill a 1/4" hole for the brake line locating tab.
15. Fasten brake line to the frame using provided self-drilling sheet metal screw.
16. Repeat for other side.
17. 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 driver's side, mark, center punch and drill with a 7/16" drill bit.
18. Install track bar in the new hole using new bolt and washer from **HK #54**, do not tighten at this time.
19. If you are not using a coil spring compressor, unbolt the driver's side lower control arm at frame.
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. Over compressing these bushings will result in premature bushing failure.
26. Locate front sway bar links and **HK #58**. If you upgraded to IRO Sway Bar Disconnect system, refer to the instructions at the end of this document.
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 ft-lbs.
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 ft-lbs.
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 ft-lbs.
33. Torque lower control arm nuts to 120 ft-lbs.
34. Torque track bar bolt to 60 ft-lbs.
35. Install front tires and 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 frame.
*Tip: break lug nuts loose before lifting vehicle.
38. Ensure that the vehicle is safely supported.
39. Remove rear tires.
40. Place a floor jack under the axle for support (do not lift vehicle).
41. Remove rear shocks.
42. Remove rear track bar.
43. Loosen upper and lower control arm bolts (do not remove).
44. Allow suspension to droop as much as possible.
45. Remove coil springs.
46. Locate track bar relocation bracket and **HK #53**.
47. Install bracket with 12mm I.D. track bar sleeve in place of original track bar. Ensure proper alignment and tighten bolt.
48. 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).
49. Install 7/16 x 1 ¼ bolts, washers and nuts, and torque to 60 ft-lbs.
50. Install rear coil springs.
51. Install original rear track bar but do not tighten bolts at this time.
52. Install new shocks.
53. Raise vehicle from jack stands and place jack stands under the axle.
54. With the vehicle's weight on the suspension, torque upper control nuts to 60 ft-lbs.
55. Torque lower control arm nuts to 120 ft-lbs.
56. Torque track bar bolts to 78 ft-lbs.
57. Install rear tires.
58. Torque lug nuts to spec.
59. Torque any other loose bolts to spec.
60. Lower vehicle from jack stands.



Transfer Case Drop Kit:

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

Adjustments and Safety Inspection:

69. 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.
70. Verify transfer case shifter will lock into each position. Adjust 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.

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.



IRON ROCK OFF ROAD

Sway Bar Disconnect Links Instructions

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Parts List:

#268 – Sway Bar Disconnect Bushings (1)

- Poly Bushing 94025 (4)

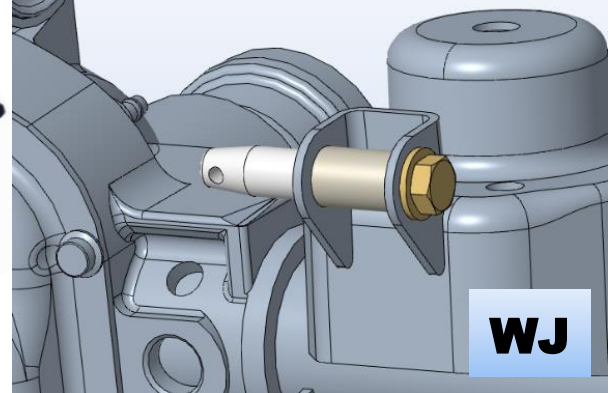
WJ ~Optional~

#267 – WJ Sway Bar Disconnect Hardware (1)

- Disconnect Pin 94028 (2)
- Spacer Sleeve 94032 (2)
- 1/2-20 x 2-1/2" Hex Bolt, gr8 (2)
- 1/2 F436 Hard Washer (2)
- 1/4" x 1-1/4" Spring Lynch Pin (2)

#288 – WJ Sway Bar Disconnect Sleeves (1)

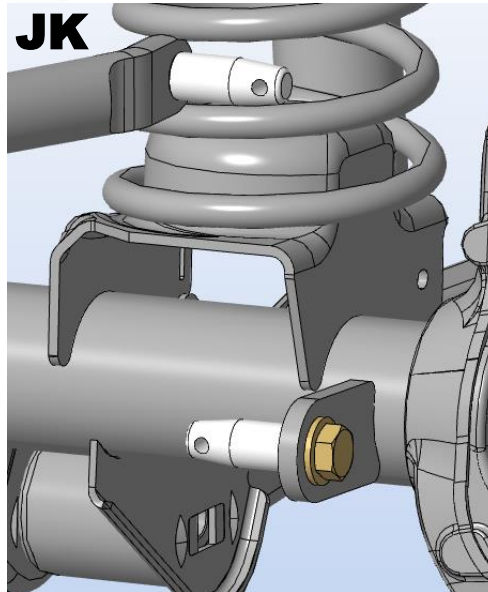
- 12mm bushing sleeve 92038 (2)



JK ~Optional~

#266 – JK Sway Bar Disconnect Hardware (2)

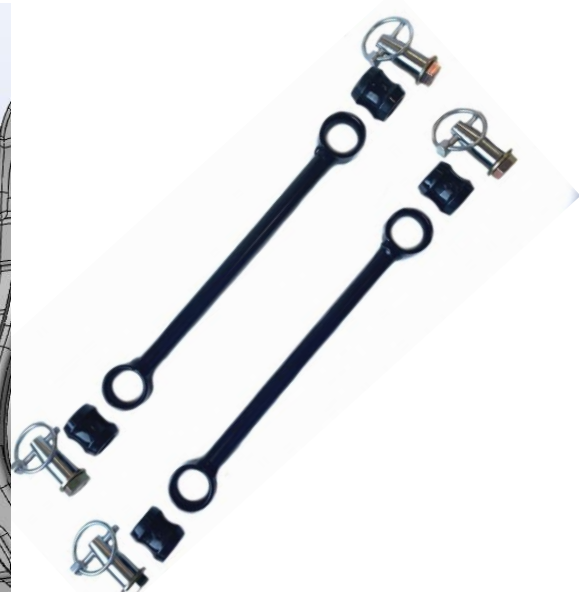
- Disconnect Pin 94028 (2)
- 1/2-20 x 1" Hex Bolt, gr8 (2)
- 1/2 F436 Hard Washer (2)
- 1/4" x 1-1/4" Spring Lynch Pin (2)



XJ ~Optional~

#287 – XJ Sway Bar Disconnect Hardware (1)

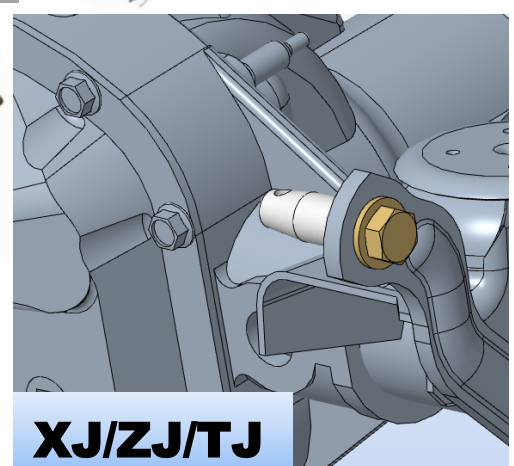
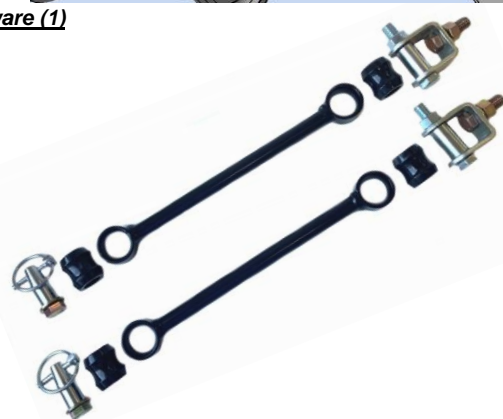
- Disconnect Pin 94028 (2)
- 1/2-20 x 1" Hex Bolt, gr8 (2)
- 1/2 F436 Hard Washer (2)
- 1/4" x 1-1/4" Spring Lynch Pin (2)
- 12mm bolt sleeve 92038 (2)
- M12 x 70 cl10.9 hex bolt (2)
- M12 cl10.9 hex nut (2)
- 1/2 x 1 1/2" gr8 hex bolt (2)
- 1/2 gr8 lock washer (2)
- 1/2 gr8 hex nut (2)
- U-Bracket 99000 (2)



TJ & ZJ ~Optional~

#286 – TJ & ZJ Sway Bar Disconnect Hardware (1)

- Disconnect Pin 94028 (2)
- 1/2-20 x 1" Hex Bolt, gr8 (2)
- 1/2 F436 Hard Washer (2)
- 1/4" x 1-1/4" Spring Lynch Pin (2)
- 12mm bolt sleeve 92038 (2)
- M12 x 60 hex bolt, cl10.9 (2)
- M12 hex nut, cl10.9 (2)
- M10 x 30 hex bolt, cl10.9 (2)
- 3/8" USS washer (2)
- M10 hex nut, cl10.9 (2)
- U-Bracket 99000 (2)



Installation Instructions:

Safety Warning: *Important! Read before installation. *

We recommend 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 frequently.

Notes:

- Do not operate vehicle with only one side of the sway bar connected. Both sides of the sway bar must either be disconnected or both sides must be connected.

Before you begin:

- Read all safety warnings.
- Read and understand installation instructions.
- Contact Iron Rock Off Road with any questions before, during, or after installation. 952-210-7185
- 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 (wrenches, sockets, etc.).
 - Multi-purpose grease

Prepare for installation:

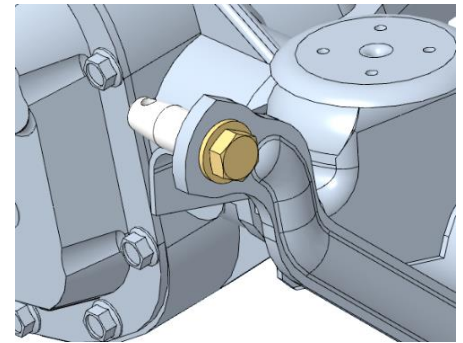
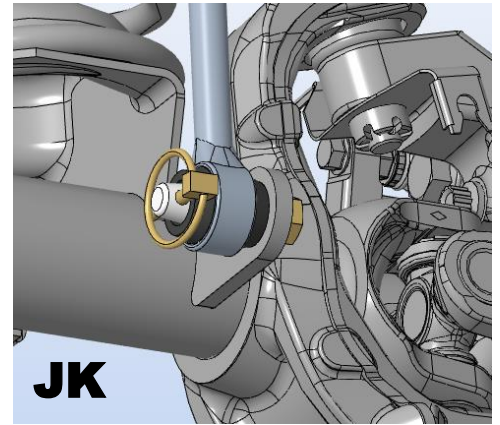
1. Locate the front sway bar links, bushings, and bolt sleeves.
2. Grease and install the hourglass bushings.
3. Grease and install the sway bar link inner sleeves in only one end of each link.
4. Raise the vehicle and secure on jack stands under the frame.
5. Remove the front tires.
6. Disconnect the original front sway bar links from the axle and sway bar.

XJ Installation:

7. Locate front sway bar links, two u-brackets, and **HK #287**.
8. Install sway bar link u-brackets to the sway bar using 1/2 x 1-1/2" grade 8 hex bolts, lock washers, and nuts. Brackets mount to the bottom of the sway bar with the bolt facing up and the lock washer and nut on top of the sway bar. Rotate the bracket so it is offset away from the center of the vehicle. Align brackets, torque bolts to 80 ft-lbs.
9. Install sway bar links driver's side first using provided M12 x 60mm class 10.9 hex bolt and nut through the u-bracket with the nuts toward the outside of the vehicle. Tighten all bolts to 78 ft-lbs.
10. Install the disconnect pin on the axle, pin pointing in-board. Use the 1/2" x 1" bolt with a washer.
Tip: Before tightening determine your desired orientation for the retaining pin.
11. Hold the disconnect pin in your desired orientation and torque the bolt to 70lb-ft.
12. Apply grease to the disconnect pin and slide the sway bar link onto the disconnect pin.
13. Secure the sway bar link in place using the spring lynch pin.
***NOTE:** The spring lynch pin should take some effort to install. This is done on purpose to keep the link secure and noise free.
14. Reinstall tires and torque lug nuts to spec.
15. Lower vehicle to the ground.
16. With the vehicle back on the ground, pull the spring pins and slip the sway bar links off the disconnect pins.
17. Swing the sway bar links up to the sway bar then swing the sway bar up to its highest position.
18. Flex the suspension and steer fully left and right. Check for possible interference between the tires and sway bar.
19. Reconnect the sway bar links to the axle.
20. For ease of installation and best performance, re-grease the sway bar bushings periodically.

ZJ and TJ Installation:

21. Locate front sway bar links, two u-brackets, and **HK #286**.
22. Install sway bar link u-brackets to the sway bar using M10 x 30 hex bolts nuts and washers. Brackets mount to the bottom of the sway bar with the bolt facing up and the washer and nut on top of the sway bar. Align brackets with offset holes pushing the brackets toward the outside of the vehicle. Torque to 60 ft-lb.
23. Install sway bar links driver's side first using provided M12 x 60mm class 10.9 hex bolt and nut through the u-bracket with the nuts toward the outside of the vehicle. Tighten all bolts to 78 ft-lb.
24. Install the disconnect pin on the axle, pin pointing in-board. Use the 1/2" x 1" bolt with a washer.
Tip: Before tightening determine your desired orientation for the retaining pin.
25. Hold the disconnect pin in your desired orientation and torque the bolt to 70lb-ft.
26. Apply grease to the disconnect pin and slide the sway bar link onto the disconnect pin.
27. Secure the sway bar link in place using the spring lynch pin.
***NOTE:** The spring lynch pin should take some effort to install. This is done on purpose to keep the link secure and noise free.
28. Reinstall tires and torque lug nuts to spec.
29. Lower vehicle to the ground.
30. With the vehicle back on the ground, pull the spring pins and slip the sway bar links off the disconnect pins.
31. Swing the sway bar links up to the sway bar then swing the sway bar up to its highest position.
32. Flex the suspension and steer fully left and right. Check for possible interference between the tires and sway bar.
33. Reconnect the sway bar links to the axle.
34. For ease of installation and best performance, re-grease the sway bar bushings periodically.



WJ Installation:

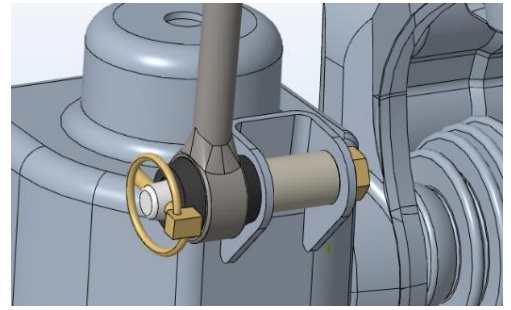
35. Install the sway bar links onto the sway bar using the original hardware.
36. Install the disconnect pin on the axle, pin pointing in-board, spacer sleeve inside the mount. Use the 1/2" x 2-1/2" bolt with a washer.

Tip: Before tightening determine your desired orientation for the retaining pin.

37. Hold the disconnect pin in your desired orientation and torque the bolt to 70lb-ft.
38. Install the new bushings into your sway bar links using plenty of multi-purpose grease.
39. Reinstall your sleeves into the top of the sway bar link bushing using multi-purpose grease.
40. Reinstall your sway bar link onto the sway bar and torque the bolts to 70lb-ft.
41. Apply grease to the disconnect pin and slide the sway bar link onto the disconnect pin.
42. Secure the sway bar link in place using the spring pin.

***NOTE:** The spring pin should take some effort to install. This is done on purpose to keep the link secure and noise free.

43. Reinstall tires and torque lug nuts to spec.
44. Lower vehicle to the ground.
45. With the vehicle back on the ground, pull the spring pins and slip the sway bar links off the disconnect pins.
46. Swing the sway bar links up to the sway bar then swing the sway bar up to its highest position.
47. Flex the suspension and steer fully left and right. Check for possible interference between the tires and sway bar.
48. Reconnect the sway bar links to the axle.
49. For ease of installation and best performance, re-grease the sway bar bushings periodically.



JK Installation:

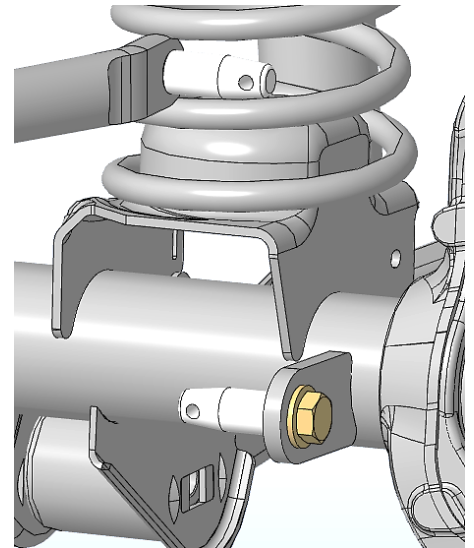
50. Use a 1/2" drill bit to slightly enlarge the bolt hole in the sway bar. Only a very minor amount of material will be removed.
51. Install the disconnect pin on the axle, pin pointing in-board. Use the 1/2" x 1" bolt with a washer.
52. Install the disconnect pin on the sway bar, pin pointing out-board. Use the 1/2" x 1" bolt with a washer.

Tip: Before tightening determine your desired orientation for the retaining pin.

53. Hold the disconnect pin in your desired orientation and torque the bolts to 70lb-ft.
54. Install the bushings into the sway bar links using plenty of multi-purpose grease.
55. Apply grease to the disconnect pins and slide the sway bar link onto the disconnect pins.

***NOTE:** Twist the passenger side link onto the lower pin first, then slide it onto the upper pin. It is a snug fit with the factory track bar bracket, but it is achievable.

56. Secure the sway bar link in place using the spring pins.
***NOTE:** The spring pin should take some effort to install. This is done on purpose to keep the link secure and noise free.
57. Reinstall tires and torque lug nuts to spec.
58. Lower vehicle to the ground.
59. With the vehicle back on the ground, pull the spring pins and slip the sway bar links off the disconnect pins.
60. Swing the sway bar up to its highest position.
61. Flex the suspension and steer fully left and right. Check for possible interference between the tires and sway bar.
62. Reconnect the sway bar links to the axle.
63. For ease of installation and best performance, re-grease the sway bar bushings periodically.



Final Safety Warning:

***Both sides of the sway bar must be disconnected. Do not operate vehicle with only one side of the sway bar connected.**

Re-torque all fasteners after 100 miles, and frequently inspect all safety critical suspension components. It is the responsibility of the installer to ensure 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.

