

IRON ROCK OFF ROAD

TJ 4" Premium
Short Arm Lift Kit

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

Instructions

Parts Checklist:

- TJ 4" Front coil spring 96016 (2)
- TJ 4" Rear coil spring 96005 (2)
- Iron Rock logo decals (2)
- Ironrockoffroad.com decal (1)
- TJ 0-8" Adjustable front track bar 85096 (1)
- Track bar male threaded end 92004 (1)
- TJ 0-8" double shear TB bracket 85124 (1)
- Rear Sway Bar Link, 10.75" 92146 (2)
- Adjustable front upper control arm 99068 (2)
 - Front UCA Threaded Male End 99067 (2)
 - 1-14 Jam Nut (2)
 - Bushing installed (2)
- Adjustable rear upper control arm 99069 (2)
 - Rear UCA Threaded Male End 99063 (2)
 - 1-14 Jam Nut (2)
 - Bushing installed (4)

#11 - Brake Line Relocation Hardware (1)

- 1/4x1 Self drilling sheet metal screw (2)

#60 - Rear Sway Bar Link Hardware (1)

- 3/4" hourglass bushings 94025BK-01 (4)
- 10mm Sway bar bolt sleeves 92037 (4)
- M10 x 60 Sway bar link bolt (4)
- M10 X 1.5 Hex nut (4)
- 7/16 USS Washer (4)

#129 - Front Track Bar Hardware (1)

- Track bar bushing half M20919 (4)
- 7/16" TB bushing sleeve 92036 (1)
- 12mm TB bushing sleeve 92035 (1)
- 7/16 x 2 1/2" lg gr8 hex bolt (1)
- 7/16 gr8 hex nut (1)
- M12 x 65 hex bolt cl10.9 (1)
- M12 nylock nut cl10.9 (1)
- 5/16 x 2.0 carriage bolt gr5 (1)
- 5/16-18 flange nut (1)
- Clamping bracket 95044 (1)

#130 - TJ 0-8" Track Bar Bracket Hardware (1)

- 1/2-20 x 2 hex bolt, gr8 (1)
- 1/2 SAE hardened washer (2)
- 1/2-20 nylock nut, gr8 (1)
- 3/8-16 x 2 hex bolt, gr8 (1)
- 3/8-16 nylock nut, gr8 (1)
- 3/8 USS washer (2)
- 1/2" Tapered sleeve 95043 (1)

#146 TJ 0-4 SS Brake Line Set (1)

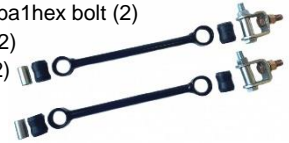
- Front brake hose 88144 (2)
- Rear brake hose 88145 (1)
- Brake hose mounting brkt 91114 (3)
- #10 x 1 self-drilling screw (6)
- Brake Hose clip BQ3052 (3)
- Copper washer BQ3858 (4)

~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)



Standard Rubber Bushing Lower Control Arms (Front or Rear)

- Adjustable bent lower control arm, bushing installed 99169B (2 or 4)
- LCA Threaded Male End, bushing installed 99070 (2 or 4)

#65 - Adjustable LCA Clamping Hardware (1 or 2)

- 1/4"-28 x 1-1/8" socket head cap screw (4)
- 1/4"-28 hex nut, gr8 (4)



Optional Flex Joint Lower Control Arms (Front or Rear)

- Adjustable bent lower control arm, bushing installed 99169B (2 or 4)
- LCA Threaded Male End 92186 (2 or 4)

#65 - Adjustable LCA Clamping Hardware (1 or 2)

- 1/4"-28 x 1-1/8" socket head cap screw (4)
- 1/4"-28 hex nut, gr8 (4)

#127 - 2 5/8" 6 Bolt IRO Flex End Hardware (2 or 4)

- Inner race 91118 (2)
- Thrust washer 91119 (2)
- 2-5/8" Flex End Ball 91117 (1)
- 10-32 x 1-3/4" Socket Head Cap Screw (6)
- 10-32 Nylock Nut (6)
- 1/4"-28 90° Grease zerker Fitting (1)



T-case Drop Kits

Optional: 1997 to 2002 (15201)

- Transfer case drop spacer 85039, 23 5/8" long (1)
- Transfer case drop spacer 85040, 20 5/8" long (1)
- #74 '97-'02 T-case Drop Hardware (1)**
- Plastic end cap 1-1/2 x 2 RER1-1/2x2-10-14(4)
- 1/2 x 3" flat head cap screw (6)

Optional: 2003 to 2006 (15202)

- Transfer case drop spacer 85041, 23" long (2)
- #75 '03-'06 T-case Drop Hardware (1)**
- Plastic end cap 1 1/2 x 2 RER1-1/2x2-10-14 (4)
- 1 1/4" tall, round spacer block 88073 (2)
- M12 x 70 cl10.9 hex bolt (8)
- 7/16 USS washer (6)

- TJ 0-8" Adjustable front track bar 85096 (1)
- Track bar male threaded end 92004 (1)
- TJ 0-8" double shear TB bracket 85124 (1)



~Standard Front Track Bar~

#129 - Front Track Bar Hardware (1)

- Track bar bushing half M20919 (4)
- 7/16" TB bushing sleeve 92036 (1)
- 12mm TB bushing sleeve 92035 (1)
- 7/16 x 2 1/2" lg gr8 hex bolt (1)
- 7/16 gr8 hex nut (1)
- M12 x 65 hex bolt cl10.9 (1)
- M12 nylock nut cl10.9 (1)
- 5/16 x 2 carriage bolt gr5 (1)
- 5/16-18 serrated flange nut (1)
- Clamping bracket 95044 (1)

~Optional Premium Front Track Bar~

#122 - Track Bar Flex End Hardware - 12mm (2)

- Inner race (plastic) 91113 (2)
- End cap (steel) 91112 (2)
- Ball 91104 - M12 bolt (1)
- #5-40 x 1 1/4" Socket head cap screw (9)
- 3/32" Hex L key, high torque (hex plus) (1)

#129 - Front Track Bar Hardware (1)

- Track bar bushing half M20919 (4)
- 7/16" TB bushing sleeve 92036 (1)
- 12mm TB bushing sleeve 92035 (1)
- 7/16 x 2 1/2" lg gr8 hex bolt (1)
- 7/16 gr8 hex nut (1)
- M12 x 65 hex bolt cl10.9 (1)
- M12 nylock nut cl10.9 (1)
- 5/16 x 2 carriage bolt gr5 (1)
- 5/16-18 serrated flange nut (1)
- Clamping bracket 95044 (1)

- TJ Adjustable Rear Track Bar 85135 (1)
- Track bar male threaded end 92004 (1)



~Standard Rear Track Bar~

#13 - Rear Track Bar Hardware (1)

- Track bar bushing half 80014 (4)
- 12mm TB bushing sleeve 92035 (2)
- M12-1.75 x 70 hex bolt cl10.9 (1)
- M12-1.75 hex nut cl10.9 (1)
- 7/8-14 hex jam nut (1)

~Optional Premium Rear Track Bar~

#300 - TJ Premium Rear Track Bar Hardware (1)

- M12-1.75 x 70 hex bolt cl10.9 (1)
- M12-1.75 hex nut cl10.9 (1)
- 7/8-14 hex jam nut (1)

#122 - Track Bar Flex End Hardware - 12mm (2)

- Inner race (plastic) 91113 (2)
- End cap (steel) 91112 (2)
- Ball 91104 - M12 bolt (1)
- #5-40 x 1 1/4" Socket head cap screw (9)
- 3/32" Hex L key, high torque (hex plus) (1)

Shocks

Trail Tamer HD (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)

- Front barpins 2.5" 403872 (2)
- Rear barpins 2.75" 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 makes the vehicle's track width wider (wheels with less backsparing). 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.
- 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.
- Required tools and supplies:
 - Hand drill with 3/8" & 7/16" drill bits, preferably a close quarters drill or right-angle drill for drilling in small spaces.
 - Anti-seize compound.

Prepare the parts for installation:

1. Locate all upper and lower control arms. Perform these steps to each control arm:
 - Remove male threaded end and apply anti-seize to threads.
 - Adjust to these lengths:
 - Install clamping bolts **HK #65** or tighten jam nut. Jam nut will be tightened again after installation in the Jeep.
2. If you upgraded to Flex Joints in your control arms or track bar, refer to the instructions at the end of this document.
3. Locate the front track bar and **HK #129**. *Optional Flex Joint at the frame.*
4. Install the clamp onto the threaded end of the track bar. Apply anti-seize compound to male threads. Thread male end into track bar. Install carriage bolt and nut into clamp finger tight. Nut must face forward when installed.

Front lower control arm (front and rear are same part)	16-1/4" center to center
Rear lower control arm (front and rear are same part)	16-1/2" center to center
Front upper control arm (rubber bushing & u-bracket)	15-1/4" center to center using inner hole
Rear upper control arm (two rubber bushings)	13-5/8" center to center



5. Adjust the length to 32-5/8" center to center as a starting point. This may need to be adjusted after a short test drive.

*****Safety Warning: Maximum track bar length is approx. 33-1/4" center to center. If you are near this maximum length, you MUST verify that you have at least 1" of thread engagement. Failure to perform this simple double check can cause track bar failure, which may result in serious injury or death.**
6. Lubricate track bar bushings and bushing sleeves with multi-purpose grease and install into track bar. The smaller I.D. bushing sleeve is installed at axle end (with adjusting threads), and the larger I.D. sleeve at frame end (without adjusting thread).
7. Leave the rest of the hardware in the bag for future use.
8. Locate front sway bar links and **HK #58**. Front and rear sway bar links are identical until hardware is installed. If you upgraded to IRO Sway Bar Disconnect system, refer to the instructions at the end of this document.
9. Grease hourglass bushing inside and out and insert into each end of each link. Grease outside of inner bushing sleeve and insert one into each bushing. Leave remaining hardware in the bag for future use.
10. Locate rear sway bar links and **HK #60**. Grease hourglass bushing inside and out and insert into each end of each link. Grease outside of inner bushing sleeve and insert one into each bushing. Leave remaining hardware in the bag for future use.
11. Locate shocks and install barpins if they are not pre-installed. Rear shocks are loop-loop mount and require the long barpins on the top side. Front shocks are stem-loop mount and require the short barpins on the bottom side. Barpins may be found pre-installed or in a hardware kit in the shock box or in the lift kit box. Some front shock boxes will contain rear barpins, verify that the barpin you install will fit properly on the Jeep (long rear, short front). Place the barpin vertically in a bench vise. Grease the barpin and the poly shock bushing. Lower the shock onto the barpin using steady pressure and rotating the shock back and forth.
12. Grease and install 12mm inside diameter x 1-1/4" long shock bushing inner sleeve into the bottom of each rear shock. Shock sleeves may be found pre-installed, or in a hardware kit in the shock box or lift kit box. Ensure the shock sleeve properly fits the Jeep.



Barpin Installation

Front suspension:

13. Lift front of vehicle and support with tall jack stands under the frame.
 - a. *Tip: break lug nuts loose before lifting vehicle.
14. Ensure that vehicle is safely supported.
15. Remove front tires.
16. Place a floor jack under front axle housing for support (do not lift vehicle).
17. Remove front shocks.
18. Remove front sway bar links.
19. Remove front track bar.
20. Remove front upper and lower control arms on one side.
21. Loosen remaining upper and lower control arm bolts. Remove nuts but do not remove control arms at this time.
22. Locate **HK #11**.
23. On one side, remove the bolt that holds the brake hose to the frame.
24. Any rusted, worn, cracked, or damaged rubber or steel brake line should be replaced.



25. 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.
26. Using two adjustable wrenches bend brake line bracket mounting surface so brake line points out toward the brake caliper. See photo.
27. Mark location and drill a 1/4" hole for the brake line locating tab.
28. Fasten brake line to the frame using provided self-drilling sheet metal screw.
29. Repeat for other side.
30. Remove the coil spring clamps (at the axle).
31. Remove coil springs.
32. Install new springs in vehicle being careful to align the spring to the spring bucket on the axle.
33. Install new upper and lower control arms on one side, do not tighten bolt at this time. Bend hangs down on axle side. Use shorter hole in upper control arm.
34. Ensure male ends are parallel with control arm mounts then torque lower control arm clamping bolts to **140 in-lb**. Be sure to go back and forth between both bolts several times to ensure even clamping.
35. Remove remaining stock upper and lower control arms and replace with new ones.
36. Install new front shocks using original axle side hardware. Tighten upper stud mount nuts just enough to slightly compress the bushings. Over compressing these bushings will result in damage to the bushings and premature bushing failure.
37. Locate front sway bar links and **HK #58**.
38. 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 (see photo). Align brackets with offset holes pushing the brackets toward the outside of the vehicle. Torque nuts to 60 ft.-lbs.
39. 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 (washer goes outside bushing). Torque all nuts to 78 ft.-lbs.
40. Install track bar bracket. Locate **HK #130**. Use tapered sleeve. Install 1/2" bolt facing up (nut on top) with an SAE washer under the bolt and nut. Ensure the bracket sits flush, grind down any high spots as needed. Tighten 1/2" bolt before drilling the 3/8" hole. Drill the upper hole through the bracket using a 3/8" drill bit. Peck drill and use plenty of oil. Install 3/8 bolt with nut on the inside (toward engine). Torque 1/2" bolt to 85 ft.-lbs.
41. Install new track bar. If necessary, use the steering wheel and/or a floor jack to align the track bar to the bolt holes. Do not use washers on the bolts. For clearance purposes, frame side nut must face rearward and bolt head forward. Use M12 x 65mm bolt and nylock nut at frame, and 7/16 x 2-1/2 bolt and nut at axle.
42. Torque track bar to 74 ft/lbs. at axle end and 80 ft/lbs. at bracket.
43. Raise vehicle from jack stands and place jack stands under the axle.
44. Install coil spring clamps.
45. With the vehicle's weight on the suspension, torque upper control arm nuts to 60 ft.-lbs.
46. Torque lower control arm nuts to 120 ft.-lbs.
47. Lower vehicle from jack stands.
48. Install front tires.
49. Torque lug nuts to spec.
50. Torque any other loose bolts to spec.



Rear Suspension:

51. Lift rear of vehicle and support with tall jack stands under the frame.
*Tip: break lug nuts loose before lifting vehicle.
52. Ensure that the vehicle is safely supported.
53. Remove rear tires.
54. Remove rear shocks.
55. Remove rear sway bar links.
56. Allow suspension to droop as much as possible.
57. Remove upper and lower control arms on one side.
58. Loosen remaining upper and lower control arm bolts. Remove nuts but do not remove control arms at this time.
59. Remove coil spring clamps and coil springs.
60. Install new springs.
61. Install new upper and lower control arm on one side. Do not tighten bolts at this time. Bend hangs down at axle side. Male adjusting threads go on frame side for both upper and lower control arms.
62. Ensure male ends are parallel with control arm mounts then torque lower control arm clamping bolts to **140 in-lb**. Be sure to go back and forth between both bolts several times to ensure even clamping.
63. Remove remaining stock control arms and replace with new.
64. Remove unused center brake hose mounting bracket from brake hose using 2 pliers.
65. Install new shocks using existing hardware.
66. Torque lower shock bolts to 70 ft.-lbs.
67. Tighten upper shock bolts.
68. Locate rear sway bar links and **HK #60**.
69. Install sway bar links with new bolts and a washer on the outside of each bushing (the washer keeps the sway bar link from falling off).
70. Torque all four sway bar link nuts to 60 ft.-lbs.
71. Raise vehicle from jack stands and place jack stands under the axle.
72. Unbolt rear track bar from axle and frame-side brackets.
73. Center the rear axle and bolt the new track bar into place with new M12 x 70 bolt, nut, and washers. Torque track bar hardware to 78 ft.-lbs.
74. With weight on the suspension, torque upper control arm nuts to 60 ft.-lbs.
75. Torque lower control arm nuts to 120 ft.-lbs.
76. Install rear tires and lower vehicle from jack stands.
77. Torque any remaining loose bolts to spec.

Adjust Front & Rear Track Bar Length:

78. With the weight of the Jeep resting on the tires (on the ground), bounce the Jeep up and down to set springs into place.
79. Check the length of the track bars by measuring from tire to frame on each side. Adjust track bar lengths as needed.

Transfer Case Drop Kit:

80. Place a floor jack under the driver's side of transfer case skid plate for support.
81. Remove transfer case skid plate bolts on driver's side.
82. Lower t-case skid plate away from frame enough to fit the spacer in place. Loosen passenger side bolts if needed.
83. Install spacer using new bolts and washers. Do not tighten at this time.
84. Repeat for passenger side.
85. Torque bolts to 70 ft.-lbs.

Adjustments and Safety Inspection:

86. 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.
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: +3.75 to +6.0 (+5 degrees is recommended)
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

**2-5/8" IRO Flex End (6 bolt)
Assembly Instructions**

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Fits All Iron Rock Off Road Long Arm Systems, WJ A-Arms, and Build Your Own Flex End Assemblies.

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!**
- Have these tools handy:
 - 5/32" Allen head socket
 - 3/8" open end wrench
 - Inch-lb. torque wrench
 - Multipurpose grease/grease gun

Parts Checklist:

- Outer housing, weld on (may already be attached to your existing control arm)

#127 - 2-5/8" IRO Flex End (6 bolt)

- 2-5/8" flex end race 91118 (2)
- Thrust washer 91119 (2)
- 2-5/8" flex end ball 91117 (1)
- #10-32 nylock nut (7)
- #10-32 x 1-3/4" socket head cap screw (6)
- 90° 1/4"-28 grease zerk fitting (1)

Assembly:

1. Insert two #10-32 socket head cap screws into one thrust washer and one plastic race. Spherical bore of race facing away from thrust washer. (Figure 1)
2. Install this small assembly into the flex end housing. The races are a light press fit, use a wide punch and hammer to assist you if needed.
3. Apply a thin coating of multi-purpose grease to the mating surfaces of the ball and both races.
4. Place the ball in the race (inside the flex end). The ball should perfectly fit the contour of the race. (Figure 2)
5. Insert the other race onto the ball so that the spherical bore is contacting the ball. Once again, the races are a light press fit, use a hammer and wide punch if needed. (The two screws should be through one washer and both races at this point)
6. Insert the second thrust washer on top of the flex end housing, sliding the bolts through the holes. (Figure 3)
7. Start nylock nuts on the two bolts that are in the flex end assembly. Hold the nut and turn the bolt.
8. Insert the remaining four cap screws through the remaining holes and install nuts. (Figure 4)
9. Snug up all of the bolts fairly tight.
10. Torque bolts evenly, starting at one bolt and continuing using a crisscross pattern. Torque all six bolts to 70 in-lbs., then to 85 in-lbs.
11. Install 90° grease zerk fitting so that it is easily accessed in the vehicle.
12. Grease flex end until grease comes out of the races around the ball.
13. Re-torque bolts to 85 in-lbs. after 5 minutes.

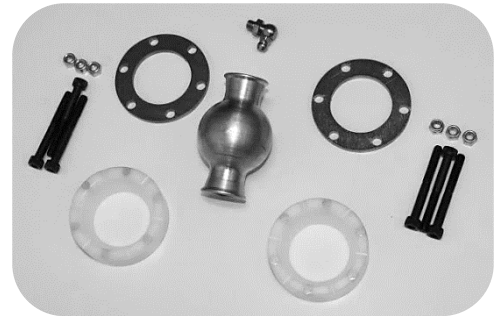


Figure 1

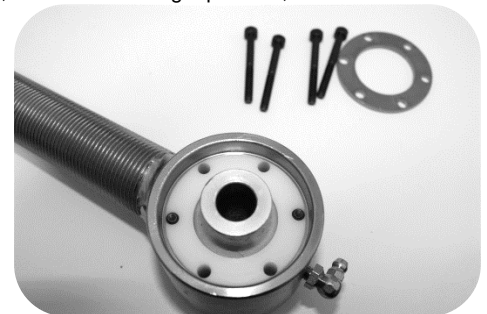


Figure 2



**Reference Only* Complete joint shown fully assembled without housing*



Figure 3

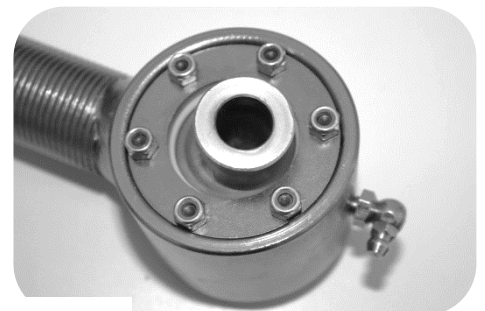


Figure 4

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Sway Bar Disconnect
Links Instructions

Parts List:

#268 – Sway Bar Disconnect Bushings (1)

- Poly Bushing 94025 (4)

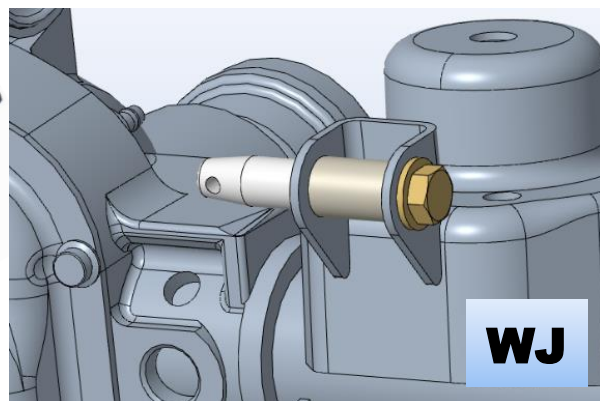
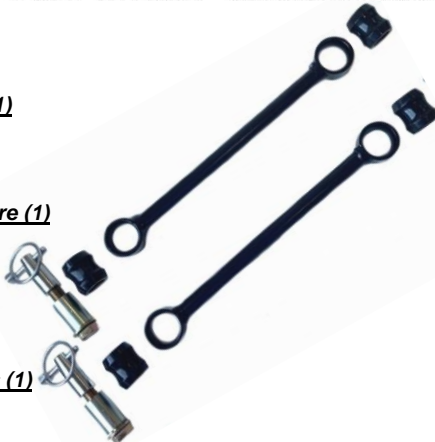
WJ ~Optional~

#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)

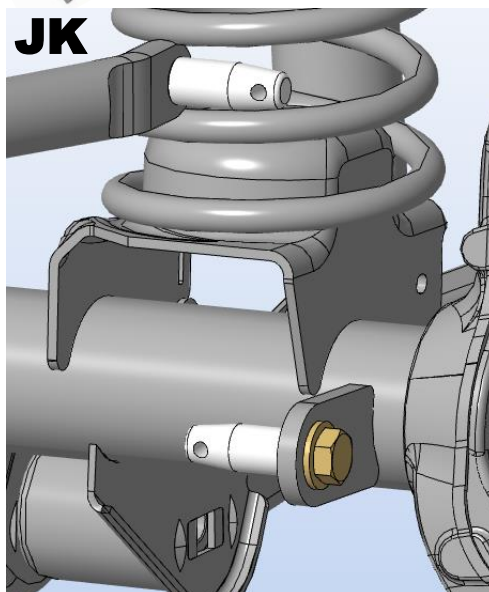
- 12mm bushing sleeve 92038 (2)



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)

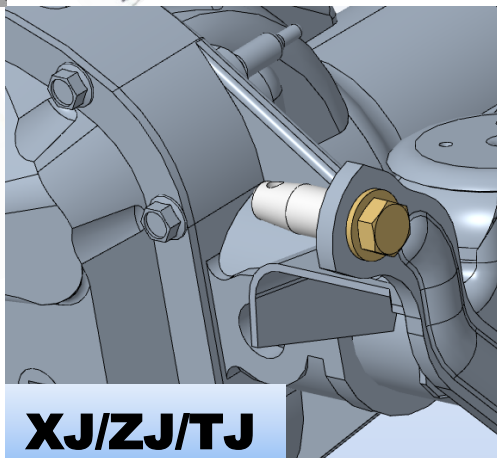
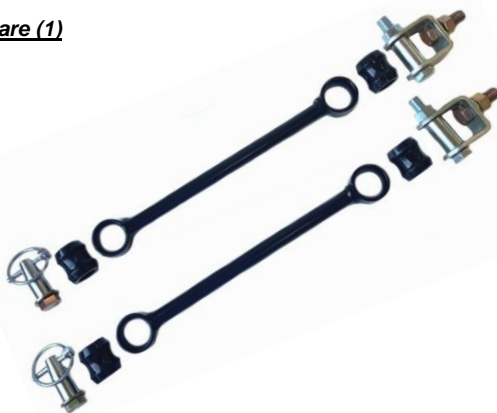
- Disconnect Pin 94028 (2)
- 1/2-20 x 1" Hex Bolt, gr8 (2)
- 1/2 F436 Hard Washer (2)
- 1/4" x 1-1/4" Spring Lynch Pin (2)
- 12mm bolt sleeve 92038 (2)
- M12 x 70 cl10.9 hex bolt (2)
- M12 cl10.9 hex nut (2)
- 1/2 x 1 1/2" gr8 hex bolt (2)
- 1/2 gr8 lock washer (2)
- 1/2 gr8 hex nut (2)
- U-Bracket 99000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

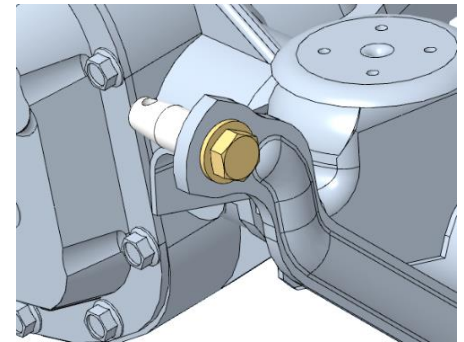
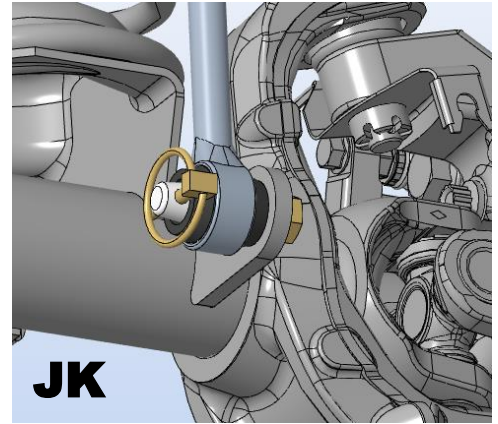
1. Locate the front sway bar links, bushings, and bolt sleeves.
2. Grease and install the hourglass bushings.
3. Grease and install the sway bar link inner sleeves in only one end of each link.
4. Raise the vehicle and secure on jack stands under the frame.
5. Remove the front tires.
6. Disconnect the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

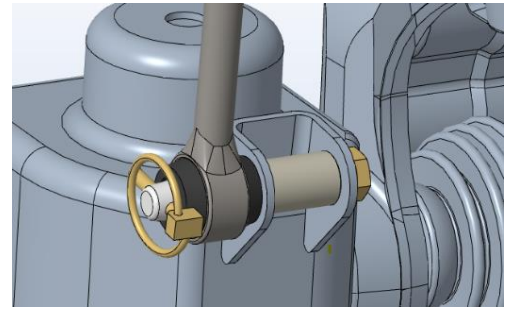
ZJ and TJ Installation:

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.



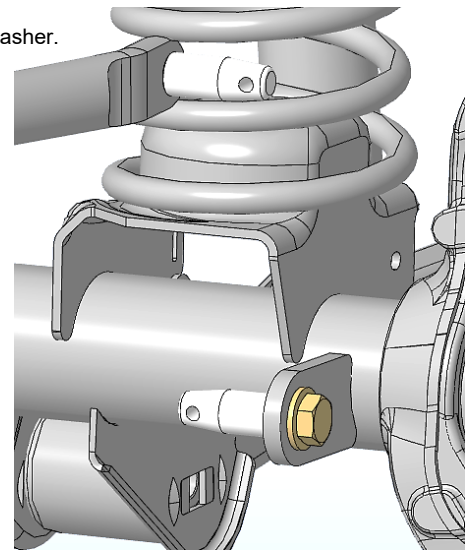
WJ Installation:

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.



IRON ROCK OFF ROAD

Track Bar Flex End Assembly Instructions

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

Parts Checklist:

#122 - Track Bar Flex End Hardware - 12mm (1)

- Inner race (plastic) 91113 (2)
- End cap (steel) 91112 (2)
- Ball 91104 – M12 bolt (1)
- #5-40 x 1 1/4" Socket head cap screw (9)
- 3/32" Hex L key, high torque (hex plus) (1)

#254 - Track Bar Flex End Hardware - 14mm (1)

- Inner race (plastic) 91113 (2)
- End cap (steel) 91112 (2)
- Ball 91142 – M14 bolt (1)
- #5-40 x 1 1/4" Socket head cap screw (9)
- 3/32" Hex L key, high torque (hex plus) (1)



Safety Warning:

Installation and assembly of this part requires knowledge of steering and suspension systems. Failure to precisely adhere to installation procedure may cause a part failure resulting in vehicle damage and serious injury or death. This part only fits Iron Rock Off Road track bars in good condition. Iron Rock Off Road makes no claims that this part will fit track bars from other manufacturers. Improper fitment may cause a part failure resulting in vehicle damage, serious injury, or death.

Before you begin:

- o Read and understand installation instructions.
- o Contact Iron Rock Off Road with any questions before, during, or after installation.
- o **Ensure that all parts are present and in good condition per attached shipping checklist!**
- o Ensure that you have high strength threadlocker (such as red Loctite) and multi-purpose grease.

Fitment:

This kit replaces the poly bushings and inner sleeve in your Iron Rock Off Road track bar. This part only fits track bars manufactured by Iron Rock Off Road after 2009 with an inside diameter of 1.510", a width of 1.250", and a radiused inside corner.

*****To verify fitment: Remove the track bar from your vehicle, remove the poly bushings, clean the parts, and verify the following is true: *****

- The plastic races fit tight inside the inside bore.
- Both end caps fit the inside bore with just a bit of "wobble room".
- Both end caps slide in freely until the flat shoulder rests firmly against the end of the outer tube.
- The overall width of the outer tube is 1.250". This can be measured with a caliper or verified after flex end is fully assembled. Once fully assembled (bolts torqued to spec.) the shoulders of the end caps should rest firmly against the ends of the outer tube. At the same time, the ball should fit tight inside the assembly. It should require a tool (such as a screwdriver) to pivot or rotate the ball. The ball should pivot smoothly with even resistance in any position.



If any of those steps cannot be verified, please contact us to order a new track bar.

Bolt size: This bushing replacement assembly is only available to fit a 12mm & 14mm bolt at this time. Those with a 10mm fastener may wish to upgrade to 12mm hardware for more strength (drill your bracket and install a 12mm bolt).

Assembly:

1. Verify fitment per the "Fitment" section above.
2. Insert four socket head cap screws into one end cap and one race. (Race should have spherical bore facing away from end cap.)
3. Install this small assembly into the track bar outer bushing tube. The races are a light press fit, use a wide punch and hammer to assist you if needed.
4. Apply a thin coat of multi-purpose grease to the ball and the spherical mating surface of the races. Coat both mating surfaces but leave no excess grease that would interfere with the threadlocker adhesive on the bolts.
5. Place the ball into the race inside the housing. The ball should fit the contour of the race perfectly.
6. Insert the other race on top of the ball so that the spherical bore is contacting the ball. Once again, the races are a light press fit, use a hammer and wide punch if needed. (The four screws should be through one end cap and both races at this point.)
7. Apply a generous coating of high strength threadlocker (such as red Loctite) to all 8 screws (including the ones already installed).
8. Install the second end cap, aligning the screws with the tapped holes. When completed 4 screws will be inserted from each side.
9. Insert the last four screws and tighten them all snug.
10. Torque screws in sequence using a crisscross pattern, like torquing lug nuts. Tighten all 8 screws evenly in small steps. Take your time and do not rush. Tighten all 8 screws to 20 in/lbs.

