Parts Checklist:

- ❑ Iron Rock Off Road Logo Decal 10001 (1)
- ❑ Ironrockoffroad.com decal (1)
- ❑ 3.5" Front coil spring 96027 (2)
- ❑ 3.5" Rear coil spring 96028 (2)
- ❑ Rear Track Bar Bracket 80064 (1)
- ❑ JK Rear Bump Stop Spacer 2.5" 80058 (2)
- ❑ JK Front Bump Stop Spacer 2.75" 80049 (2)
- ❑ JK Rear Coil Spring Retainer 80061 (2)
- ❑ Rear sway bar link 10" center to center 80138 (2)
- ❑ JK Rear Sway Bar Spacer 99077 (2)
- ❑ JK Rear Sway Bar Relocation Plate 80137 (2)
- ❑ ***#12 - Rear Sway Bar Spacer Hardware (1)***
  - ❑ 3/8 USS Flat Washer (4)
  - ❑ M10 x 60 hex bolt cl10.9 (4)
- ❑ ***#21 - JK Front Coil Retainer Hardware (1)***
  - ❑ Top plate, thin, no notch 80162 (2)
  - ❑ 1/4" thick spacer, one notch 80163 (2)
  - ❑ Thin spacer, two notches 80164 (2)
  - ❑ 1/4" USS washer (2)
  - ❑ 5/16 x 1" Hex head bolt, gr8 (2)
  - ❑ 5/16-18 Serrated flange nut (2)
- ❑ ***#195 - JK Rear Coil Retainer Hardware (1)***
  - ❑ Coil Spring Retainer Plate 85029 (2)
  - ❑ Upper Retainer Nut Plate 80146 (2)
  - ❑ 7/16 Flag nut with bend 80063 (2)
  - ❑ 7/16-14 x 2" Hex head bolt, gr8 (2)
  - ❑ 7/16-14 x 1" Hex head bolt, gr8 (2)
  - ❑ 7/16 SAE washer (2)
- ❑ ***#196 - JK Rear Track Bar Bracket Hardware (1)***
  - ❑ M14 x 80 hex bolt, cl10.9 (1)
  - ❑ M14 nylock flange nut (1)
  - ❑ Spacer sleeve 80003 (1)
  - ❑ 3" U-bolt 80071 (2)
  - ❑ 3/8" serrated flange nut (4)
- ❑ ***#197 - JK 0-3.5" SS Rear Brake Line Set 13838 (1)***
  - ❑ Rear brake hose LEFT 88160 (1)
  - ❑ Rear brake hose RIGHT 88161 (1)
  - ❑ Brake hose mounting brkt 88275 (2)
  - ❑ #10 x 1 self-drilling screw (2)
  - ❑ Brake Hose clip BQ3052 (2)
  - ❑ Copper washer BQ1016 (4)
- ❑ ***#198 - JK 0-3.5" SS Front Brake Line Set 13839 (1)***
  - ❑ Front brake hose LEFT 88158 (1)
  - ❑ Front brake hose RIGHT 88159 (1)
  - ❑ Brake hose mounting brkt 88275 (2)
  - ❑ #10 x 1 self-drilling screw (4)
  - ❑ Brake Hose clip BQ3052 (2)
  - ❑ Copper washer BQ1016 (4)
- ❑ ***#199 - JK Rear Bump Stop Spacer Hardware (1)***
  - ❑ 5/16-18 x 3/4 Serrated flange bolt, gr8 (4)
  - ❑ 5/16-18 Serrated flange nut (4)
- ❑ ***#200 - JK Front Bump Stop Spacer Hardware (1)***
  - ❑ 1/2-13 x 2-1/2 Hex head bolt, gr8 (2)
  - ❑ 1/2 USS flat washer (2)
- ❑ ***#220 - Rear Sway Bar Link/Relocation Hardware (1)***
  - ❑ 3/4" hourglass bushing 94025 (4)
  - ❑ 12mm sway bar bolt sleeve 92038 (2)
  - ❑ 1/2" short sway bar bolt sleeve 80140 (2)
  - ❑ 7/16 USS flat washer (12)
  - ❑ 1/2-13 x 1-1/2 hex bolt, gr8 (2)
  - ❑ 1/2-13 x 2-1/2 button head bolt (2)
  - ❑ M12 x 60 hex head bolt cl10.9 (2)
  - ❑ M12 nylock nut (2)
  - ❑ 1/2-13 Nylock flange nut, gr8 (4)

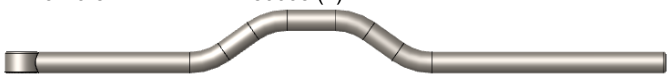
- ❑ JK 0-8" front track bar 80000 (1)
  - ❑ ***~Standard Track Bar~***
    - ❑ Front Track bar threaded male end, 92004 (1)

      #166 - Front Track Bar Hardware (1)
      - ❑ Track bar bushing half 80014 (4)
      - ❑ Track bar bushing sleeve 80003 (2)
      - ❑ Track Bar clamp 95044 (1)
      - ❑ 5/16-18 x 2 carriage bolt gr5 (1)
      - ❑ 5/16-18 hex flange nut (1)
  - ❑ ***~Optional Premium Track Bar Upgrade~***
    - ❑ Track bar threaded male end, joint installed 77013 (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)

      #281 - Track Bar Clamp Hardware (1)
      - ❑ Track Bar clamp 95044 (1)
      - ❑ 5/16-18 x 2 carriage bolt gr5 (1)
      - ❑ 5/16-18 hex flange nut (1)

- ❑ JK 0-8" rear track bar 80005 (1)



  - ❑ ***~Standard Track Bar~***
    - ❑ Track bar threaded male end 92004 (1)

      #107 - Rear Track Bar Hardware (1)
      - ❑ Track bar bushing sleeve 80003 (2)
      - ❑ Track bar bushing 80014 (4)
      - ❑ 7/8-14 Hex jam nut (1)
  - ❑ ***~Optional Premium Track Bar Upgrade~***
    - ❑ Track bar threaded male end, joint installed 77013 (1)
    - ❑ 7/8-14 Hex jam nut (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)

~Standard Front Sway Bar Links~

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

  #201 - Sway Bar Link Hardware (1)
  - ❑ 12mm sway bar bolt sleeve 92038 (4)
  - ❑ 3/4" hourglass bushing 94025 (4)
  - ❑ M12 x 65 Hex bolt cl 10.9 (2)
  - ❑ M12 Nylock nut (2)
  - ❑ 7/16 USS washer (4)

~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)

Continued on next page…

#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)

~Standard Front Lower Control Arms~

- ❑ JK LCA Front Right, bushing installed 80011B (1)
- ❑ JK LCA Front Left, bushing installed 80012B (1)
- ❑ LCA Rubber Bushing Male End, Straight 91243B (2)
  - ❑ ***#65 – Adjustable LCA Clamping Hardware (1)***
    - ❑ 1/4"-28 x 1-1/8" socket head cap screw (4)
    - ❑ 1/4"-28 hex nut, gr8 (4)

~Optional Flex Joint Front Lower Control Arms~

- ❑ JK LCA Front Right, bushing installed 80011B (1)
- ❑ JK LCA Front Left, bushing installed 80012B (1)
- ❑ LCA Flex Joint Male End, Angled 91109 (2)
  - ❑ ***#65 – Adjustable LCA Clamping Hardware (1)***
    - ❑ 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)***
    - ❑ 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)
    - ❑ ¼"-28 90° Grease zerk Fitting (1)

- ❑ JK LCA Rear, Bushing Installed 80010B (2)
  - ❑ ***#65 – Adjustable LCA Clamping Hardware (1)***
    - ❑ 1/4"-28 x 1-1/8" socket head cap screw (4)
    - ❑ 1/4"-28 hex nut, gr8 (4)

- ❑ Standard - LCA Rubber Bushing Male End, Straight 99070B (2)
- ❑ Optional - LCA Flex Joint Male End, Straight 92186 (2)
  - ❑ ***#127 - 2 5/8" 6 Bolt IRO Flex End Hardware (2)***
    - ❑ 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)
    - ❑ ¼"-28 90° Grease zerk Fitting (1)

Standard - JK Rear UCA w/ Rubber Bushing 80196B (2)

- ❑ UCA Rear Male End 80023B (2)

  - ❑ ***#186 - UCA Clamping Hardware 13312 (1)***
    - ❑ 3/8-16 X 1-1/4 Hex bolt gr8 (2)
    - ❑ 3/8-16 Nylock flange nut gr8 (2)
    - ❑ 3/8 Mil spec washer (2)

~Optional Flex Joint Upgrade~

- ❑ Optional – JK Rear UCA w/ Flex Joint 80022 (2)
- ❑ UCA Rear Male End 80023B (2)

  - ❑ ***#186 - UCA Clamping Hardware 13312 (1)***
    - ❑ 3/8-16 X 1-1/4 Hex bolt gr8 (2)
    - ❑ 3/8-16 Nylock flange nut gr8 (2)
    - ❑ 3/8 Mil spec washer (2)
  - ❑ ***#168 - 2 3/8" 8 Bolt IRO Flex End Hardware (2)***
    - ❑ Inner race 91139 (2)
    - ❑ Thrust washer 91138 (2)
    - ❑ 2-3/8" Flex End Ball 91140 (1)
    - ❑ 8-32 x 1-1/2" Socket Head Cap Screw (8)
    - ❑ 90 Degree ¼"-28 Grease Zerk Fitting (1)

Standard - JK Front UCA w/ Rubber Bushing 80194B (2)

- ❑ UCA Front Male End 80025 (2)
  - ❑ ***#186 - UCA Clamping Hardware 13312 (1)***

    - ❑ 3/8-16 X 1-1/4 Hex bolt gr8 (2)
    - ❑ 3/8-16 Nylock flange nut gr8 (2)
    - ❑ 3/8 Mil spec washer (2)

~Optional Flex Joint Upgrade~

- ❑ Optional - JK Front UCA w/ Flex Joint 80027 (2)
- ❑ UCA Front Male End 80025 (2)

  - ❑ ***#186 - UCA Clamping Hardware 13312 (1)***
    - ❑ 3/8-16 X 1-1/4 Hex bolt gr8 (2)
    - ❑ 3/8-16 Nylock flange nut gr8 (2)
    - ❑ 3/8 Mil spec washer (2)
  - ❑ ***#185 - UCA Front 2" Flex End Hardware 13311 (2)***
    - ❑ End Cap 91124 (2)
    - ❑ Race 91123 (2)
    - ❑ 12mm Ball 91122 (1)
    - ❑ 5-40 X 1-1/4 SHCS (9)
    - ❑ 3/32 Hex L-key (hex plus) (1)
    - ❑ 1/4-28 Straight grease zerk (1)

Shocks

- ❑ ***Trail Tamer HD Hydro (Standard)***
  - ❑ Front shock 79002 (2)
  - ❑ Rear shock 79005 (2)
- ❑ ***Doetsch Upgrade (Optional)***
  - ❑ Front shock DT 8386 (2)
  - ❑ Rear shock DT 8371 (2)

  #165 – JK Shock Hardware (1)
  - ❑ Rear barpin GS-403261 (2)
- ❑ ***Bilstein Upgrade (Optional)***
  - ❑ Front shock 33-230375 (2)
  - ❑ Rear shock 33-104652 (2)

  #164 – JK Bilstein Shock Hardware (1)
  - ❑ Rear barpin GS-403261 (2)
  - ❑ 12mm shock sleeve 404739 (4)

IRON ROCK OFF ROAD

IRON ROCK OFF ROAD

Before you begin:

- ❑ ***Ensure that all parts are present and in good condition using above shipping checklist. ***
- ❑ Read and understand all installation instructions.
- ❑ Tools required:
  - ❑ Floor jack and jack stands.
  - ❑ Basic hand tools
  - ❑ Torque wrench
  - ❑ File or angle grinder
  - ❑ Anti-seize compound.
  - ❑ Multipurpose grease


Barpin Installation

Prepare the parts for installation:

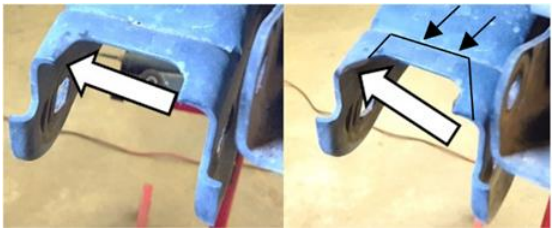
1. **Shocks:** Locate rear shocks and hardware kits.
2. Grind the outer corners on one end of the barpins to ease installation.
3. Grease and install the barpins into the top side of the rear shocks. Clamp the barpin vertically in a bench vise and lower the shock onto the barpin while rotating the shock back and forth. Be sure to grease the barpin and the shock bushing.
4. **Front Track Bar:** Locate front track bar, **HK #166** and track bar threaded male end. If you upgraded to the Premium Track Bar, refer to the instructions at the end of this document.

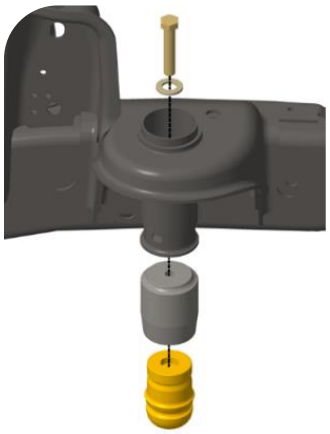
5. Lubricate track bar bushings and bushing sleeves with multi-purpose grease and install into track bar and track bar threaded male end.
6. Slip clamping bracket onto adjusting end of track bar with the opening down and insert the 5/16 carriage bolt from rear and nut facing forward.
7. Use a light coat of anti-seize then thread the track bar male end into the track bar. Adjust to the length in the chart as a starting point. Length may need adjustment after a test drive.
8. Tighten the clamping bracket. Make sure the bracket opens rearward, and nut faces down.
9. **Adjustable Control Arms:** Using the instructions on the last page assemble the flex ends into the threaded male ends for LCAs and into the arms for UCAs.
10. Use a light coat of anti-seize then thread the male ends into the control arms and adjust to the lengths in the chart as a starting point.
11. Install the clamping hardware into the control arms, do not fully tighten at this time.

Track Bar & Control Arm Length (Center to Center)	
Front UCA (Upper Control Arm)	18-13/16”
Front LCA (Lower Control Arm)	23-1/2”
Rear UCA	18”
Rear LCA	20”
Front Track Bar	32-3/4“
Rear Track Bar	40-1/4“

Front installation:

12. Lift front of vehicle and support with jack stands under frame rails.
    **Tip: break lug nuts loose before lifting vehicle.
13. Remove front wheels
14. Remove front sway bar links.
15. Support the axle with jack stands and remove shocks.
16. Disconnect brake line from bracket on frame rail and cap the line.
17. Remove the front brake lines and brake hose brackets.
18. Remove front track bar.
19. Remove coil springs.
20. Remove the factory lower control arms.
21. Grind both of the sharp corners inside the lower control arm mounts. See photo. Jeeps with long shocks can gain flex by grinding up to the crease in the LCA bracket.





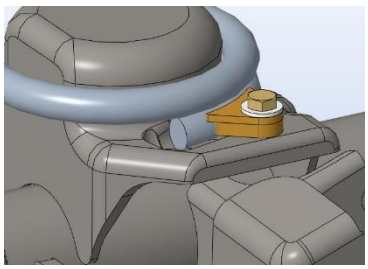
22. Install new lower control arms using the factory hardware. Do not tighten bolts at this time.
    The bend goes up for ground clearance and in for tire clearance. The rubber bushing goes to the axle and the flex end at the frame.
23. Remove factory upper control arms and install new upper contol arms using the factory hardware. Clamping bolt facing down. Do not tighten bolts at this time.
24. Install front upper bump stop extension using **HK #200**. See picture.
25. Install new coil springs.
26. **Front lower coil retainers:** place the 1/4" thick spacer (one notch) against the spring on the lower spring mount near the end of the coil spring.

The driver’s side retainer mounts behind the spring, the passenger’s side retainer mounts in front of the spring.

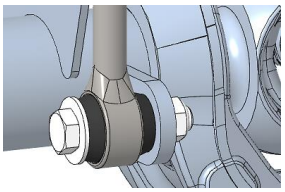
27. Using the spacer as a guide, mark the location of the bolt hole with a permanent marker.
28. Remove the spacer and drill an 11/32” hole.
29. Install the spacer and top plate with the provided 5/16 x 1” bolt, washer and nut.
    The top plate *should not* sit flat on the spacer.
30. Repeat steps 4-8 for the opposite side spring mount.

The driver’s side retainer mounts behind the spring, the passenger’s side retainer mounts in front of the spring.

31. Install new brake hose bracket on frame in factory location using factory bolt and a self drilling screw.

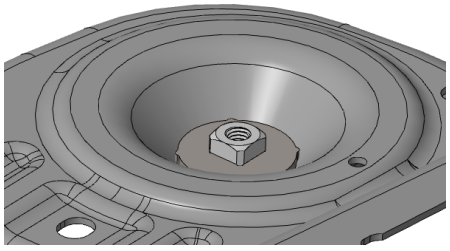


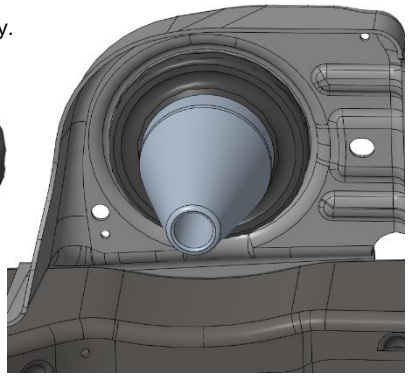
32. Install new brake hose on new bracket using **HK #198**.
    Before tightening flare nut, be sure to twist brake hose into the best orientation to keep the hose away from the tire, spring, and shock.
33. **Re-route ABS wires as needed to allow full suspension droop.**
34. Install new shocks.
35. Assemble and install new front sway bar links using **HK #201**. Grease and install the hourglass bushings into the links then grease and install the sway bar link bolt sleeves into the bushings.
36. All front sway bar sleeves are the same (12mm I.D.). Use bolts from **HK #201** for the top bolt and reuse the original bolt for the lower.
37. If you upgraded to IRO Sway Bar Disconnect system, refer to the instructions at the end of this document.
38. Install new front track bar with threaded end to axle side. The clamp hangs down, bolt facing front.
39. Reinstall front wheels.
40. Lower vehicle onto ground.



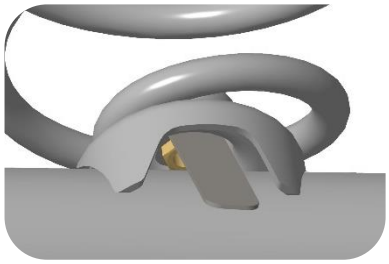
Rear installation:

41. Lift rear of vehicle and support with jack stands under frame rails.
    **Tip: break lug nuts loose before lifting vehicle.
42. Remove rear wheels.
43. Remove sway bar links.
44. Support the axle with jack stands and remove shocks.
45. Remove coil springs.
46. Remove the rear track bar.
47. **Retainer Cone:** Position the nut plate on top of the coil spring mount with the nut facing up.
48. Place the upper isolator on top of the retainer cone then place it up onto the coil spring mount. Secure with 7/16 x 2" bolt and washer.
49. Tighten until the isolator starts to deform and tightening effort increases sharply.

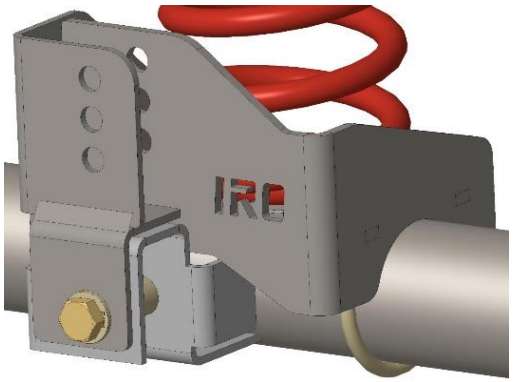




50. Install the springs into the Jeep by positioning them over the retainer cones and lower spring mounts on the axle.
51. Insert the 7/16 flag nut into the lower spring mount from the bottom side and align it with the hole in the lower spring mount.
52. Insert the retainer plate into the spring. Add a small amount of anti-seize to the 7/16 x 1" bolt and torque to 54 lb-ft.

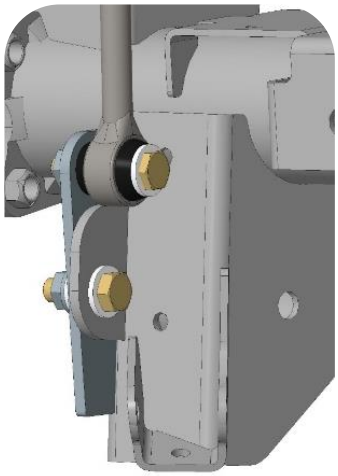


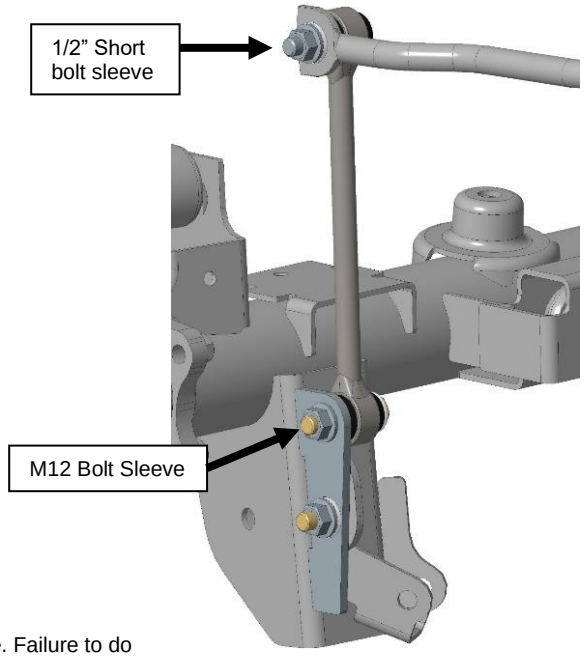
53. Install new rear track bar bracket over factory track bar bracket. Secure with U-bolts, 3/8" serrated flange nuts, M14 x 80 bolt, nylock nut and spacer sleeve from **HK #199**.
54. Install new track bar into rear track bar bracket (middle hole) using the factory track bar bolt and flag nut. Tighten jam nut very tight.



55. Install new brake hose bracket on frame in the original hole using factory bolt as shown.
56. Remove rear brake hose from the frame and caliper then remove the brake hose bracket.

57. Install new brake hose bracket on the frame in the original hole using the factory hardware. Angle the braket to line up with the brake line and use the self tapping screw to secure it.
58. Attach the new braided brake hose to the caliper with the factory bolt and new copper washers.
59. Tighten the brake line into the braided hose. Orient the new braided brake hose inward to avoid moving suspension parts and the tire, secure it to the bracket with the clip provided.
    Re-route ABS wires as needed to allow full suspension droop.
60. Remove factory lower control arms and install new lower contol arms using the factory hardware. Clamping bolts facing down, flex end at the frame, grease zerk pointed down.
61. Remove factory upper control arms and install new upper contol arms using the factory hardware. Clamping bolt facing in, flex end at the frame. *For ease of installation: it is recommended that the rear axle be set at ride height and the upper control arm bolts be torqued before install of the rear bump stop spacers.
62. Install rear bump stop spacers using **HK #199**. The slant should point forward.
63. Install rear sway bar drop spacers on the frame: Loosen one side of the sway bar, do not remove the bolts, then remove bolts from the opposite side and install the spacer using **HK #12**.
64. Install rear sway bar relocation brackets on the outside of the original sway bar mount using 1/2 x 1-1/2 bolts from **HK #220**.
65. Assemble new rear sway bar links using **HK #220**. Grease and install the hourglass bushings into the links then grease and install one 1/2" short bolt sleeve and one M12 long bolt sleeve into each rear sway bar link. The short bolt sleeve is for the top of the sway bar link.
66. Use the M12 x 60 hex head bolts for the bottom of the sway bar links. Use the 1/2 x 2-1/2 button head bolts for the top of the sway bar link. See photos.

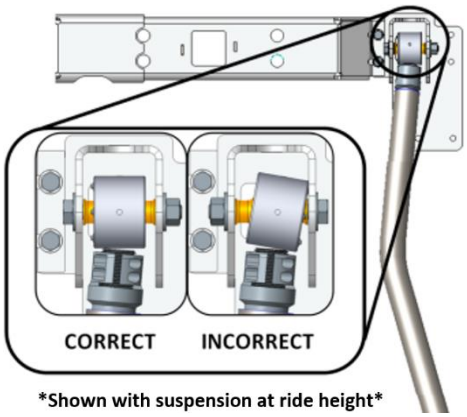




67. Install new shocks.
68. Reinstall rear wheels.
69. Lower vehicle onto ground.

Final Torque and Adjustments:

70. The draglink **must** be adjusted to center the steering wheel before driving the vehicle. Failure to do so will cause an error with the factory traction control system and will result in odd handling and decreased performance.
71. Check that axles are centered side to side and adjust track bars as needed.
72. With the vehicle weight on the suspension, tighten front lower control arm bolts to 130 lb-ft. Tighten front upper control arm bolts to 75 lb-ft.
73. Tighten rear upper and lower control arm bolts to 130 lb-ft.
74. Torque lug nuts to factory spec. (85 to 115 ft-lbs)
75. Ensure flex 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.
76. 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.



Shown with suspension at ride height

Final Safety Warning:

77. * Re-torque all fasteners 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.

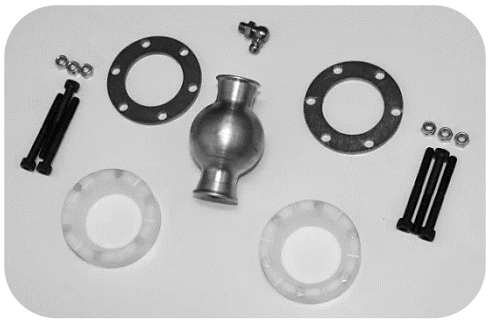
IRON ROCK OFF ROAD

IRON ROCK OFF ROAD

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

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

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° ¼"-28 grease zerk fitting (1)

Figure 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.

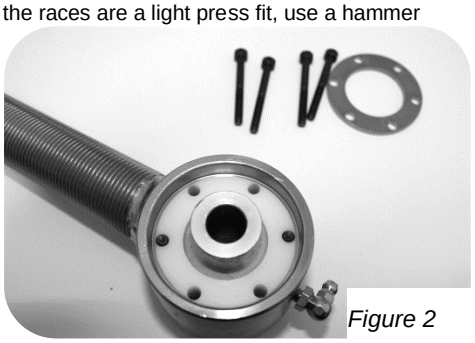
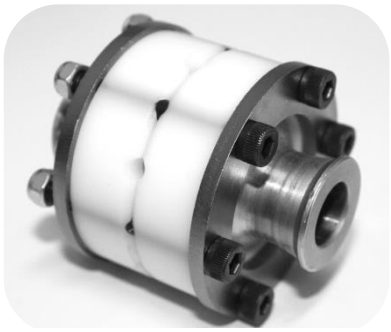


Figure 2



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

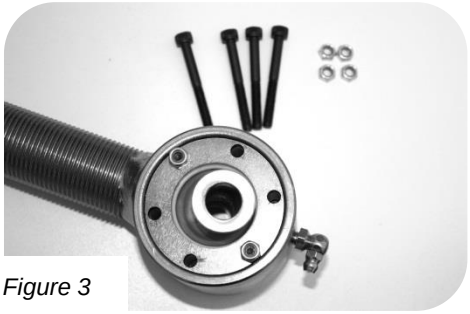


Figure 3

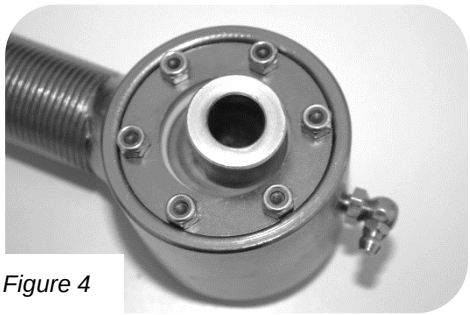


Figure 4

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:
  - 9/64" Allen head socket
  - 3/8" open end wrench
  - Inch-lb. torque wrench
  - Multipurpose grease/grease gun

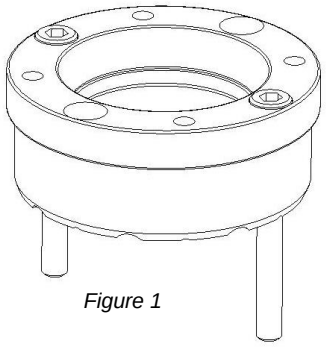


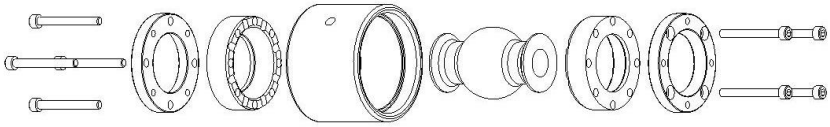
Figure 1

Parts Checklist:

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

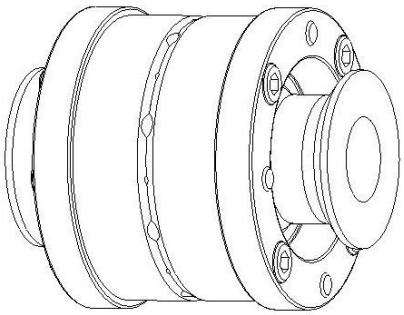
#168 - 2-3/8" IRO Flex End (8 bolt)

- ❑ Inner race 91139 (2)
- ❑ Thrust washer 91138 (2)
- ❑ Ball 91140 (1)
- ❑ #8-32 x 1-1/2" socket head cap screw (8)
- ❑ ¼"-28 90° grease zerk fitting (1)
- ❑ ¼-28 straight grease zerk fitting (1)

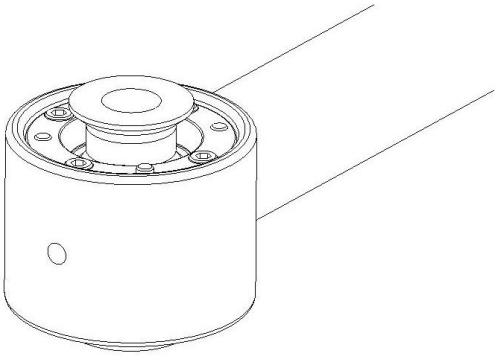


Assembly:

1. Insert two #8-32 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.
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, aligning the bolts with the threaded holes.
7. Start threading the two bolts into the threaded holes of the thrust washer. Do not fully tighten at this time.
8. Insert the remaining cap screws through the remaining holes and get them started in the threaded washer.
9. Snug up all of the bolts fairly tight. Go back and forth, rechecking each bolt several times to ensure even clamping
10. Torque bolts evenly starting at one bolt using a crisscross pattern, like torquing lug nuts. Torque all eight bolts to 50 in-lbs., then to 55 in-lbs.
11. Install 90°grease zerk fitting so that it is easily accessed in the vehicle.
12. Use a grease gun to grease the flex end through the zerk fitting. This will be difficult due to the tight tolerances in the flex joint assembly.
13. Re-torque bolts to 55 in-lbs.



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

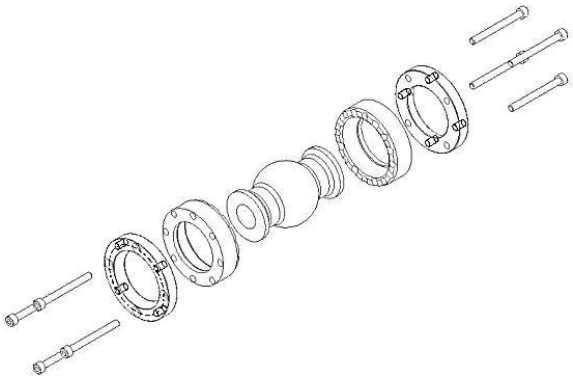


Fits All Iron Rock Off Road Long Arm Systems and Build Your Own Flex End Assemblies.

Parts Checklist:

- ❑ **Optional**: 10676 **#140 – 2" Flex Joint 8-Bolt 10mm Weld-on (1)**
  - ❑ End cap 91124 (2)
  - ❑ Race 91123 (2)
  - ❑ 5-40 x 1-1/4" socket head cap screw (9)
  - ❑ 3/32" Hex L key, high torque (hex plus) (1)
  - ❑ 2" flex end ball 10mm, 8 bolt, 91121 (1)
  - ❑ Outer housing, weld on (may already be attached to your existing control arm)

- ❑ **Optional**: 10677 **#141 – 2" Flex Joint 8-Bolt 10mm Press In (1)**
  - ❑ End cap 91124 (2)
  - ❑ Race 91123 (2)
  - ❑ 5-40 x 1-1/4" socket head cap screw (9)
  - ❑ 3/32" Hex L key, high torque (hex plus) (1)
  - ❑ 2" flex end ball 10mm, 8 bolt, 91121(1)
  - ❑ Outer housing, press in 91078 (1)



- ❑ **Optional**: 10678 **#142 – 2" Flex Joint 8-Bolt 12mm Weld-on (1)**
  - ❑ End cap 91124 (2)
  - ❑ Race 91123 (2)
  - ❑ 5-40 x 1-1/4" socket head cap screw (9)
  - ❑ 3/32" Hex L key, high torque (hex plus) (1)
  - ❑ 2" flex end ball 12mm, 8 bolt, 91122 (1)
  - ❑ Outer housing, weld on (may already be attached to your existing control arm)

- ❑ **Optional**: 10679 **#143 – 2" Flex Joint 8-Bolt 12mm Press In (1)**
  - ❑ End cap 91124 (2)
  - ❑ Race 91123 (2)
  - ❑ 5-40 x 1-1/4" socket head cap screw (9)
  - ❑ 3/32" Hex L key, high torque (hex plus) (1)
  - ❑ 2" flex end ball 12mm, 8 bolt, 91122 (1)
  - ❑ Outer housing, press in 91078 (1)

- ❑ **Optional**: 10680 **#144 – 2" Flex Joint 8-Bolt 1/2" Weld-on (1)**
  - ❑ End cap 91124 (2)
  - ❑ Race 91123 (2)
  - ❑ 5-40 x 1-1/4" socket head cap screw (9)
  - ❑ 3/32" Hex L key, high torque (hex plus) (1)
  - ❑ 2" flex end ball 1/2", 8 bolt, 91126 (1)
  - ❑ Outer housing, weld on (may already be attached to your existing control arm

- ❑ **Optional**: 10681 **#145 – 2" Flex Joint 8-Bolt 1/2" Press In (1)**
  - ❑ End cap 91124 (2)
  - ❑ Race 91123 (2)
  - ❑ 5-40 x 1-1/4" socket head cap screw (9)
  - ❑ 3/32" Hex L key, high torque (hex plus) (1)
  - ❑ 2" flex end ball 1/2", 8 bolt, 91126 (1)
  - ❑ Outer housing, press in 91078 (1)

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!***

Assembly:

1. Install outer tube (weld on or press in).
2. If using the press-in replacement for OEM rubber bushings:
   a. Remove the existing bushing using a hammer and punch. If necessary, punch the inner sleeve out first, then the rubber, then cut through the metal outer sleeve with a metal cutting blade on a Sawzall, then remove the metal outer shell.
   b. To install the new press-in outer tube, our installation tool (sold separately) is highly recommended. See installation tool instructions for proper tool use.
   c. If not using the Iron Rock installation tool, precaution must be taken to avoid damaging the precision machined inner surfaces. Using a bearing race and seal driver press the outer tube into the axle housing or control arm. In order to avoid damage to the precision parts, use the minimum amount of force needed to complete the job. Ensure the tube is fully seated in place. Using a hammer and punch (3/8" diameter punch works well), bend the thin edge on the flex end tube outward to lock it in place. (Use roughly 3/8" wide bends in two places.)
3. Insert two 5-40 socket head cap screws into one end cap and one race. Spherical bore of race facing away from end cap.
4. Install this small assembly into the flex end housing. The races are a tight fit, use a hammer and a wide punch to assist you if needed.
5. Apply a thin coating of multi-purpose grease to the mating surfaces of the ball and both races.
6. Place the ball in the race (inside the flex end). The ball should perfectly fit the contour of the race.
7. Insert the other race onto the ball so that the spherical bore is contacting the ball. Once again, the races are a tight fit, use a hammer and wide punch if needed. (The two screws should be through one washer and both races at this point).
8. Insert the second end cap in the flex end housing, sliding the bolts through the holes.
9. Start threading the two bolts that are in the flex end assembly.
10. Insert the remaining six cap screws through the remaining holes.
11. Snug up all of the bolts fairly tight.
12. Torque bolts evenly starting at one bolt using a crisscross pattern, like torquing lug nuts. Torque all eight bolts to 20 in/lbs.

IRON ROCK OFF ROAD

Track Bar Flex End Assembly Instructions

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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:

- 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!***
- 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 "wiggle 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.

IRON ROCK OFF ROAD

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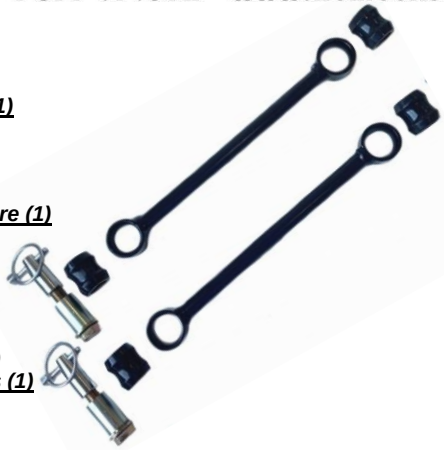
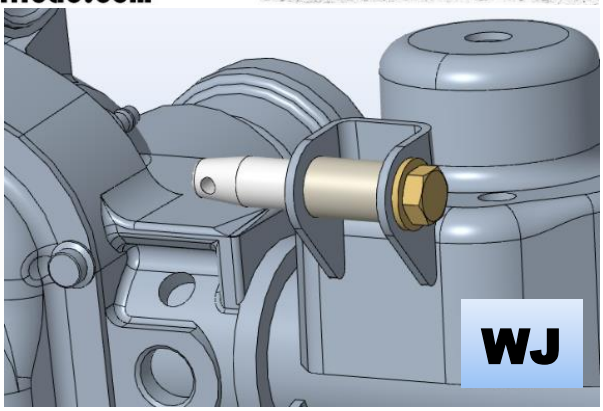
Sway Bar Disconnect Links Instructions





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)

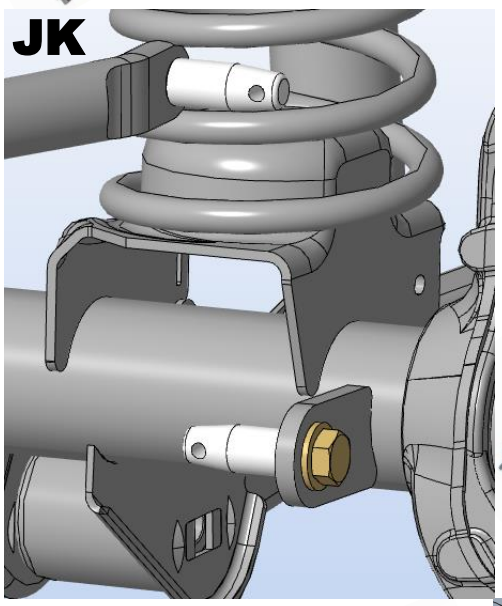
#288 – WJ Sway Bar Disconnect Sleeves (1)

- ❑ 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~

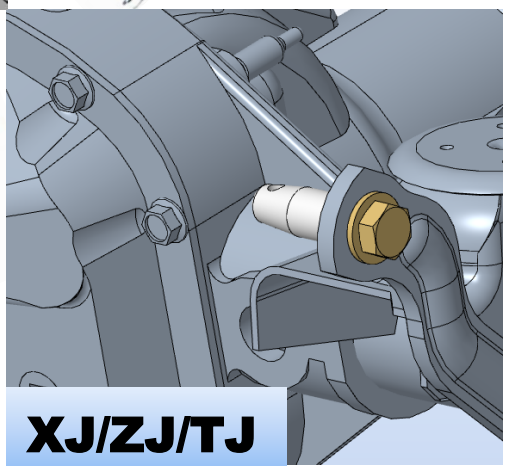
#287 – XJ Sway Bar Disconnect Hardware (1)

- ❑ 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:

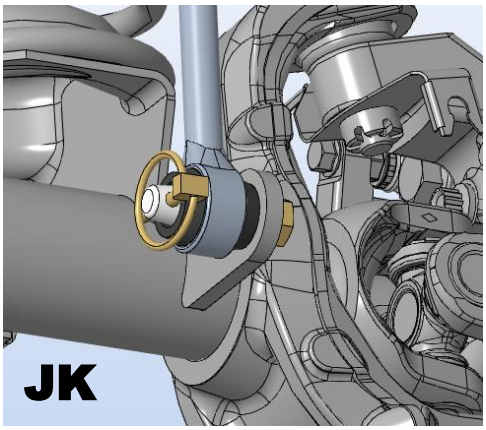
*Safety Warning: *Important! Read before installation. **

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:



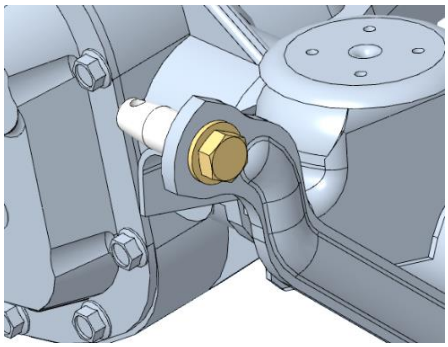
- ❑ Read all safety warnings.
- ❑ Read and understand installation instructions.
- ❑ Contact Iron Rock Off Road with any questions before, during, or after installation. 952-210-7185
- ❑ **Ensure that all parts are present and in good condition using the included shipping checklist.**
- ❑ Be sure you 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:

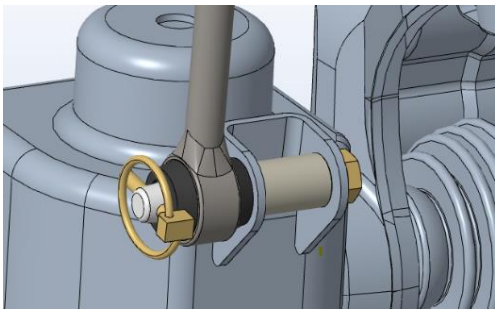
7. Locate front sway bar links, two u-brackets, and **HK #287**.
8. Install sway bar link u-brackets to the sway bar using 1/2 x 1-1/2" grade 8 hex bolts, lock washers, and nuts. Brackets mount to the bottom of the sway bar with the bolt facing up and the lock washer and nut on top of the sway bar. Rotate 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.

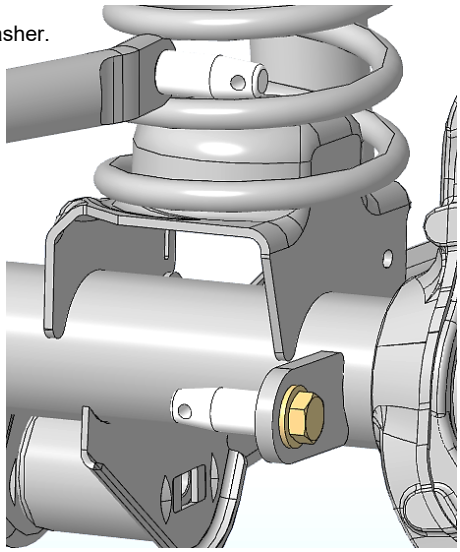
WJ Installation:



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