## CKOFF ROAD WJ 4" Premium Lift Kit

☐ Front barpin 403827 (2)

Continued on next page...

1-877-919-JEEP www.ironrockoffroad.com Instruction			
Parts Checklist:	~Optional Front Track Bar~		
☐ 4" Front springs 96006 (2)	#122 - Track Bar Flex End Hardware - 12mm (2)		
☐ 4" Rear springs 96007 (2)	Inner race (plastic) 91113 (2)		
☐ Iron Rock Off Road logo decal (1)	☐ End cap (steel) 91112 (2)		
Rear sway bar link, 13.5" center to center 92148 (2)	Ball 91104 – M12 bolt (1)		
☐ WJ 4-hole transfer case drop spacers 92026 (2)	#5-40 x 1 1/4" Socket head cap screw (9) 3/32" Hex L key, high torque (hex plus) (1)		
☐ Adjustable upper control arm, bushing installed 99068 (2)	3/32" Hex L key, high torque (hex plus) (1) #305 – WJ Premium Track Bar Hardware (1)		
☐ UCA male end, 99067 (2)	☐ Track bar clamp 92303 (2)		
1"-14 Hex jam nut (2)	☐ M12-1.75 x 80 hex bolt (2)		
#2 - Rear Sway Bar Link Hardware – 10034 (1)	M12-1.75 x 60 flex bolt (2)  M12-1.75 hex nut (2)		
☐ 3/4" hourglass bushing 94025 (4)	7/16" USS flat washer (4)		
12mm sway bar bolt sleeve 92038 (2)	Standard: Front Rubber Bushing Lower Control Arms 13029 (1		
☐ 10mm sway bar bolt sleeve 92037 (2) ☐ M10 x 70 sway bar link bolt (2)			
M10 X 1.5 nylock flange nut (2)	Adjustable lower control arm, bushing installed 92347B (2)  LCA male end, bushing installed, straight 99070B (2)		
7/16 USS washer (4)	LCA male end, bushing installed, straight 99070B (2) #65 - Adjustable LCA Clamping Hardware (1)		
#3 – Shocks Hardware – 10041 (1)	☐ 1/4"-28 x 1-1/8" socket head cap screw (4)		
12mm shock bolt sleeve 404739 (2)	☐ 1/4"-28 hex nut, gr8 (4)		
7/16" washer (6)	#66 – LCA Spacers Hardware (1)		
☐ 5/16 x 1 hex bolt (4)	☐ Lower control arm bushing spacer 90194 (2)		
□ 5/16-18 hex nut (4)	#78 – LCA Spacers Hardware (1)		
☐ 5/16 washer (8)	Lower control arm bushing spacer 90194 (4)		
#5 - T-Case Drop Hardware – 10050 (1)	Optional: Front Flex Joint Lower Control Arms 13028 (1)		
☐ M10 x 150mm class 10.9 bolt (4)	Adjustable lower control arm, bushing installed 92347B (2)		
3/8" USS washer (4) Standard Front Sway Bar Links	LCA male end, flex joint, straight 92186 (2)		
Front Sway Bar Link, 11.25" center to center 92147 (2)			
#4 - Front Sway Bar Link Hardware – 10046 (1)			
☐ 3/4" hourglass bushing 94025 (4)			
12mm sway bar bolt sleeve 92038 (4)			
Optional Front Sway Bar Disconnect Upgrade			
Front Sway Bar Link, 11.25" center to center 92147 (2)	#127 - 2 5/8" 6 Bolt IRO Flex End Hardware (2)		
#268 – Sway Bar Disconnect Bushings (1)	☐ Inner race 91118 (2)		
□ Poly Bushing 94025 (4)	☐ Thrust washer 91119 (2)		
#267 – WJ Sway Bar Disconnect Hardware (1)	□ Ball 91117 (1) □ 10-32 x 1-3/4" Socket Head Cap Screw (6)		
Disconnect Pin 94028 (2)	☐ 10-32 x 1-3/4" Socket Head Cap Screw (6) ☐ 10-32 Nylock Nut (6)		
☐ Spacer Sleeve 94032 (2)	90 Degree 1/4"-28 Grease Zerk Fitting (1)		
☐ 1/2-20 x 2-1/2" Hex Bolt, gr8 (2)	#65 - Adjustable LCA Clamping Hardware (1)		
☐ 1/2 F436 Hard Washer (2)	1/4"-28 x 1-1/8" socket head cap screw (4)		
☐ 1/4" x 1-1/4" Spring Lynch Pin (2)	☐ 1/4"-28 hex nut, gr8 (4)		
#288 – WJ Sway Bar Disconnect Sleeves (1)	#66 – LCA Spacers Hardware (1)		
12mm bushing sleeve 92038 (2)	Lower control arm bushing spacer 90194 (2)		
☐ Double adjustable track bar 92305 (1)	#78 – LCA Spacers Hardware (1)		
☐ Double adjustable track bar male end 92297 (1)	Lower control arm bushing spacer 90194 (4)		
Double adjuster, track bar 91235 (1)	Chaolio		
	Shocks		
	☐ Trail Tamer HD Hydro (Standard) ☐ Front Shock 79001 (2)		
	☐ Front Shock 79001 (2) ☐ Rear Shock 79004 (2)		
~Standard Front Track Bar~	Doetsch Upgrade (Optional)		
#253 – WJ Double Adjustable Track Bar Hardware (1)	Front shock DT 8350 (2)		
☐ Track bar bushing half 80014 (4) ☐ 12mm track bar bushing sleeve 92035 (2)	Rear shock DT 8299 (2)		
☐ 12mm track bar bushing sleeve 92035 (2) ☐ Track bar clamp 92303 (2)	#9 – Shock Hardware – 10073 (1)		
☐ M12-1.75 x 80 hex bolt (2)	Front Shock barpin 403827 (2)		
☐ M12-1.75 x 60 flex bolt (2)	Bilstein Upgrade (Optional)		
7/16" USS flat washer (4)	Front shock 33-230351 (2)		
	☐ Rear shock 33-185552 (2)		
	#9 - Shock Hardware - 10073 (1)		





WJ adjustable a-arm axle mount bracket 92163 (1)
WJ Rear A-Arm Box (Rubber Bushings): 12556
Rear adjustable a-arm 92133B (1)
☐ WJ a-arm male end 92162 (1)
#67 - Adjustable A-Arm Hardware (1)
☐ 1 1/2-12 jam nut (1)
☐ M14 x 35 cl10.9 hex bolt (3)
☐ M14 x 100 cl10.9 hex bolt (1)
☐ M14 cl10.9 hex nut (1)
☐ 1/2" USS washer (5)
#127 - 2 5/8" 6 Bolt IRO Flex End (1)
☐ Inner race 91118 (2)
Thrust washer 91119 (2)
Ball 91117 (1)
☐ 10-32 x 1-3/4" Socket Head Cap Screw (6)
10-32 Nylock Nut (6)
90 Degree 1/4"-28 Grease Zerk Fitting (1)
~OR~
WJ Rear A-Arm Box (Flex Joints): 12555
Rear adjustable a-arm 92133 (1)
☐ WJ a-arm male end 92162 (1)
#67 - Adjustable A-Arm Hardware (1)
☐ 1 1/2-12 jam nut (1)
☐ M14 x 35 cl10.9 hex bolt (3)
☐ M14 x 100 cl10.9 hex bolt (1)
☐ M14 cl10.9 hex nut (1)
☐ 1/2" USS washer (5)
#127 - 2 5/8" 6 Bolt IRO Flex End Hardware (1)
☐ Inner race 91118 (2)
☐ Thrust washer 91119 (2)
☐ Ball 91117 (1)
☐ 10-32 x 1-3/4" Socket Head Cap Screw (6)
☐ 10-32 Nylock Nut (6)
90 Degree 1/4"-28 Grease Zerk Fitting (1)_
#176 – WJ A-Arm Chassis Flex Joint Hardware (2) Inner race 91160 (2)
☐ Top End Cap 91158 (1)
☐ Bottom End Cap 91159 (1)
☐ Ball 91161 (1)
☐ 10-32 x 1-1/2" Socket Head Cap Screw (6)
90 Degree 1/4"-28 Grease Zerk Fitting (1)



## Installation Instructions:

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

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 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:

Read all safet	y warnings.	123
Read and und	All Esta	
Check all stee	ering and suspension components for wear and replace as needed.	
Contact Iron F	Rock Off Road with any questions before, during, or after installation.	
Ensure that a	I parts are present and in good condition using the included shipping checklist.	952-210-7185
Be sure you h	ave the following tools and supplies:	877-919-JEEP
	Floor jack and jack stands.	311 715 (221
	Basic hand tools	
	Multi-purpose grease (all poly bushings should be greased before installation)	
	Anti-seize compound.	
	Angle finder	
	Cable ties	
With the Jeep	on the ground and weight on the suspension, measure and record the rear pinion	angle using an angle finder.

	Men Dack
ľ	952-210-7185 877-919-JEEP

## Prepare the parts for installation:

Pinion angle:

- Locate hardware kit #3 and the rear shocks.
- 2. Grease and install the 5/8" I.D. shock bushings included with the shocks.
- Grease and install the four 12mm shock bolt sleeves (two from hardware kit #3, two included with the shocks). The rear shocks use 12mm sleeves at the top and bottom.
- Grease and install barpins into the lower end of the front shocks as shown in figure 1.
- Leave the rest of the hardware in the bag for future use.
- Locate track bar, track bar male end, double adjuster, and HK #253. Install clamps onto the double adjuster.

\*\*If you upgraded to the Premium Track Bar refer to the instructions at the end of this document.

- Apply anti-seize to all the threads then thread the track bar and male end into the double adjuster. Ensure the ends are equally threaded into the double adjuster then adjust the length to 32-3/4" center to center.
- Lubricate track bar bushings and steel bushing sleeves with multi-purpose grease and install into track bar.
- Locate the rear sway bar links (13.5" center to center) and **HK #2**.
- 10. Grease and install the hourglass bushings.
- 11. Grease and install the sway bar link bolt sleeves. Each link gets one 12mm I.D. sleeve and one 10mm I.D. sleeve.
- 12. Leave the rest of the hardware in the bag for future use.
- 13. If you upgraded to IRO Front Sway Bar Disconnect system, refer to the instructions at the end of this document.
- 14. Locate the front sway bar links (11.25" center to center) and HK #4.
- 15. Grease and install the hourglass bushings.
- 16. Grease and install the sway bar link bolt sleeves. All sleeves are the same (12mm I.D.).
- 17. Locate the A-Arm threaded male end and HK #127. Assemble flex end using the attached flex end instructions.
- 18. Thread 1-1/2" jam nut all the way onto the male threads. Apply anti-seize compound to the male threads and thread male end all the way into the A-Arm as a starting point.
- 19. Locate front upper control arms, adjust length to 15" as a starting point. If you upgraded to flex joints, refer to the instructions at the end of this document.
- 20. Locate front lower control arms and HK #65, adjust length to 15-7/8" as a starting point. Install clamping bolts loosely.
- 21. Locate rear lower control arms and HK #65, adjust length to 18-3/8" as a starting point. Install clamping bolts loosely.
  - \*\*Note: The lower control arms are the same part front and rear. After adjusting their length, be careful to install them in the correct location.

## Front suspension:

- 22. Lift front of vehicle and support with tall jack stands under the unibody frame.
  - \*\*Tip: break lug nuts loose before lifting vehicle.
- 23. Ensure that vehicle is safely supported.
- 24. Remove front tires.
- 25. Place a floor jack under the center of the front axle for support (do no lift vehicle).
- 26. Remove front shocks.
- 27. Remove the track bar.
- 28. Remove front sway bar links.
- Remove lower control arms.
- 30. Install lower control arms with adjusting threads at uniframe side.
- 31. Install new lower control arms with spacers on the outboard side of the bushings, to push the control arms away from the tires. 2 at each axle bushing, 1 at each unibody bushing. Do not tighten bolts at this time.
- 32. 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.
- 33. Remove upper control arms.
- 34. Install upper control arms with adjusting threads at the axle side. Do not tighten bolts at this time.



- \*\*Upper control arm length may need to be adjusted based on front driveshaft type and desired caster angle. \*\*
- 35. With the axle hanging as low as possible, remove coil springs and lower spring isolators.
- 36. Snap the spring isolators into the new springs.
- 37. Install new springs in vehicle being careful to align isolator pin with the hole in the spring bucket.
- 38. Install new front shocks using provided bolts, washers, and nuts. 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.
- 39. Install new sway bar links. Re-use the existing bolts and nuts. Torque all four nuts to 78 ft-lbs.
- 40. Install track bar. Torque both bolts to 105 ft-lbs. Do not tighten clamps at this time.
- 41. Any remaining loose bolts will be tightened after installing the rear suspension.

## Rear Suspension:

- 42. Lift rear of vehicle and support with tall jack stands under the unibody frame.
  - \*\*Tip: break lug nuts loose before lifting vehicle.
- 43. Ensure that the vehicle is safely supported.
- 44. Remove rear tires.
- 45. Place a floor jack under the center of rear axle for support (do not lift vehicle).
- 46. Remove rear shocks.
- 47. Remove sway bar links.
- 48. Remove lower control arms.
- 49. Install lower control arms with adjusting threads at uniframe side.
- 50. Install new lower control arms with spacers on the outboard side of the bushings, to push the control arms away from the tires. 2 at each axle bushing, 1 at each unibody bushing. Do not tighten bolts at this time.
- 51. 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.
- 52. Lower the axle and allow the suspension to droop as much as possible.
- 53. Remove coil springs.
- 54. Disconnect all brake lines and ABS wires from the a-arm.
- 55. Place a jack stand under the pinion to keep the axle from rotating.
- 56. Remove the a-arm and a-arm ball joint from the vehicle (no need to separate them)
- 57. Locate a-arm mounting bracket and **HK #64**. Install the bracket on top of the axle with provided hardware. Use high strength threadlocker and a washer on each bolt. Torque bolts to 100-ft-lbs.
- 58. Install the a-arm, with the text facing up (legible from top side), into the factory mounts on the unibody side.
- 59. Torque the two front M12 bolts to 80-ft-lbs, and rear flex end mounting bolt to 120 ft-lbs.
- 60. Grease flex end grease zerk.
- 61. Attach brake lines, ABS lines, etc... to new A-Arm using cable ties.
- 62. Install new coil springs being careful to align the spring to the isolator.
- 63. Raise rear axle and install new shocks.
- 64. Install sway bar links using existing upper bolt and the new lower bolt, washer, and nut. Torque upper to 78 ft-lbs. and lower to 50 ft-lbs.

## Transfer case drop kit:

- 65. Locate the transfer case drop spacers and HK #5.
- 66. Place a floor jack under the center of the transmission/transfer case crossmember for support.
- 67. On one side remove the 4 bolts that hold the crossmember to the unibody.
- 68. Lower the crossmember away from the unibody enough to install the spacer.
- 69. Install the spacer using the 2 long existing bolts and the 2 new bolts and washers.
- 70. Repeat for the other side.
- 71. Torque bolts to 50 ft-lbs.

## Final Adjustments and Final Torque:

- Lower vehicle from jack stands.
- 73. Measure the rear pinion angle and verify it is the same as the number recorded previously.
- 74. Adjust the length of the a-arm as needed to achieve desired pinion angle. If a shorter A-Arm length is needed, move the jam nut to the opposite side of the female threads (inside A-Arm instead of outside).
- 75. Tighten jam nut very tight.
- 76. With the weight of the vehicle on the springs, torque any loose bolts to spec.
- 77. Torque all front lower control arm nuts to 135 ft-lbs.
- 78. Torque upper control arm hardware to 60 ft-lbs.
- 79. Tighten control arm jam nuts very tight.
- 80. Torque any remaining loose bolts to spec.
- 81. Install tires and place the vehicle on the ground.
- 82. Torque lug nuts to spec. (85-115 ft-lbs. depending on your wheels)

## Final Inspection:

- 83. With full vehicle weight on the suspension, check if the front axle is centered. Adjust the track bar if necessary, by turning the double adjuster.
- 84. When the axle is centered, tighten the track bar clamps to 60 ft-lbs.
  - \*\*Be sure the position of the clamps does not interfere with any of the other suspension components.
- 85. 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.
- 86. Re-center steering wheel by adjusting the drag link (longer) until the steering wheel is centered.
- \* A professional front end alignment is recommended after installation.

We recommend the following alignment settings:

Caster: +3.75 to +5.75 (+4.5 is preferred if possible)

**Toe-in**: .20 degrees (1/16" to 1/8" at the tire)

Re-torque all fasteners after 100 miles, and frequently inspect all safety critical suspension components.

## Steering Shimmy Elimination Checklist

**Note:** Steering Shimmy is also known as "death wobble" or speed wobble. It is a violent shaking of the vehicle caused by the front tires turning side to side repeatedly until you slow down. It usually occurs after hitting a bump or pothole a various speeds above 30MPH. If you experience this steering shimmy just **remain calm, you still have steering and braking control**. Just gently apply the brakes and slow down until the shimmy disappears.

Safety Warning: Some of these adjustments will reduce steering shimmy, but also reduce steering stability and steering responsiveness. Test drive carefully after every modification if you feel any modification is unsafe do not proceed. Keeping your vehicle safe to drive is the responsibility of the person making the adjustments and the driver. The driver must notice any unsafe actions of the vehicle and correct the problem immediately (wandering or unresponsive steering). Iron Rock Off Road promotes these modifications for low speed off road use only, some of these modifications may not be safe for use on public or private roads, especially at highway speeds. We recommend working with an experienced alignment shop that has the ability, knowledge, and experience to keep your vehicle safe to drive at highway speeds.

Check all tie rod ends for wear and replace as needed.
Adjust toe-in to exactly zero. Note: a slight toe-in is preferred for stability, toe out will reduce steering shimmy. See safety warning at the top of this sheet.
Adjust caster to 3.0 to 5.5 degrees (more caster will improve stability; less caster will <u>reduce</u> steering shimmy). See safety warning at the top of this sheet.
Check steering stabilizer including bushings, replace if condition is less than perfect. We have researched extensively and found the best steering stabilizers available with the least amount of free play.
Balance tires and put the best-balanced tires in front. The front tires MUST be dynamically balanced, meaning they must have wheel weights on both the inner and outer rim flanges as directed by the balancing machine. If you don't like hammer-on weights on the outer flange either for appearance reasons or because of frequent rock damage, then use stick-on weights for the outer weights – in this case function must precede formdon't balance 'statically' with weights just on the inner rim edge. If a tire/wheel requires more than 6 ounces of total balance weights (inner and outer combined), do not use it on the front axle.
Check all suspension bushings for wear and loose fasteners including control arms and track bar. Any rubber bushing with cracks, or where the rubber is separating from the steel should be replaced.
Check steering gearbox for wear and adjust or replace as needed.
Check wheel bearings for wear.
Check ball joints for wear.
Install dual steering stabilizer kit.
Reduce tire air pressure (try 29psi for OEM size tires, less for larger tires). Note: Reducing air pressure too far can cause tires to overheat and blowout at highway speeds. See safety warning at the top of this page.
Check vehicle stance. Hub to fender measurements should be minimum ¼" higher in the rear (like OEM stance) for maximum stability (this transfers weight to the front tires). Measure on a level surface with normal cargo and ½ tank of gas for maximum accuracy.



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

Assembly Instructions

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

## Parts Checklist:

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

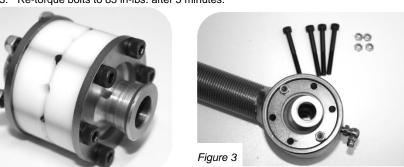
## #127 - 2-5/8" IRO Flex End (6 bolt)

- 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)



## 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)
- 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)
- Insert the second thrust washer on top of the flex end housing, sliding the bolts through the holes. (Figure 3)
- Start nylock nuts on the two bolts that are in the flex end assembly. Hold the nut and turn the holt
- 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.
- 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.





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



## RONROCKOFFROAD

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

Track Bar Flex End
Assembly Instructions

## Parts Checklist:

#122 - Track Bar Flex End - 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, hi torque (hex plus) (1)

## #254 - Track Bar Flex End - 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, hi 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.
- Insert four socket head cap screws into one end cap and one race. (Race should have spherical bore facing away from end cap.)
- 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.
- 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.







# RONROCKOFFRORD

www.ironrockoffroad.com

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)



## #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~

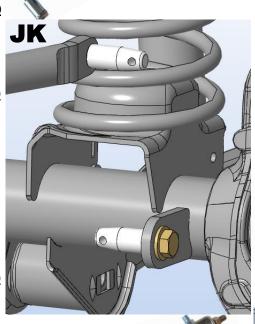
## #287 – XJ Sway Bar Disconnect Hardware (1)

- ☐ 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)

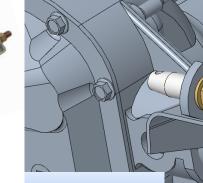
## TJ & ZJ ~Optional~

## #286 - 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 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)







XJ/ZJ/TJ

## A MAC **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.

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:

Locate the front sway bar links, bushings, and bolt sleeves.

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:

Locate front sway bar links, two u-brackets, and HK #287.

- 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.
- 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 9. 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:

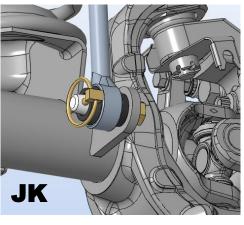
- 21. Locate front sway bar links, two u-brackets, and HK #286.
- 22. Install sway bar link u-brackets to the sway bar using M10 x 30 hex bolts nuts and washers.

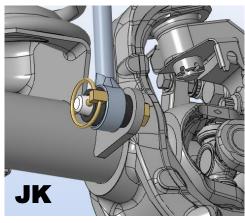
Brackets mount to the bottom of the sway bar with the bolt facing up and the washer and nut on top of the sway bar. Align brackets with offset holes pushing the brackets toward the outside of the vehicle. Torque to 60 ft-lb.

- 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.

- 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.
- Swing the sway bar links up to the sway bar then swing the sway bar up to its highest position.
- Flex the suspension and steer fully left and right. Check for possible interference between the tires and sway bar. 32.
- 33. Reconnect the sway bar links to the axle.
- 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.
  - <u>Tip:</u> 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.

