

IRON ROCK OFF ROAD

**KK 2.5" Premium
Lift Kit Instructions**

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

Parts Checklist:

- Iron Rock Off Road Logo Decal 10001 (1)
- Ironrockoffroad.com decal (1)
- 2.5" Front Driver Spacer 76025 (1)
- 2.5" Front Passenger Spacer 76026 (1)
- 2.5" Rear Spacer 76000 (2)
- Rear Sway Bar Link 11.25" 92147 (2)
- Shock Spacer Plate 88001 (4)
- Rear Adjustable Track Bar 76022 (1)
- Track Bar Threaded Male End 92004 (1)
- Rear Lower Adjustable Control Arm 76024 (2)
- Lower Control Arm Threaded Male End 92186 (2)
- Rear Upper Adjustable Control Arm 76028 (2)
- Upper Control Arm Threaded Male End 80023 (2)
- Upper Control Arm Spacer Tube 76030 (4)

#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)

#166 - 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)

#186 - UCA Clamping Hardware 13312 (2)

- 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)

#201 - Sway Bar Link Hardware (1)

- 3/4" hourglass bushing M00393 (4)
- 12mm sway bar bolt sleeve 92038 (4)
- M12 x 65 Hex bolt cl 10.9 (2)
- M12 Nylock nut (2)
- 7/16 USS washer (4)

#264 - KJ/KK Front Spacer Hardware (1)

- M12 Hex Nut (2)
- M12 Nylock Nut (8)

Shocks

- Trail Tamer HD Hydro
 - Rear Shock 79004 (2)
- Doetsch Upgrade (Optional)
 - Rear shock DT 8299 (2)
- Bilstein Upgrade (Optional)
 - Rear shock 33-185552 (2)

~Optional~

#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)
- 1/4"-28 90° Grease zerk Fitting (1)

#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)



Note:

A professional alignment is required after installation of this lift kit.

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
 - Multi-purpose grease
 - Angle grinder with a cut-off wheel or Sawzall

Prepare the parts:

1. **Shocks:** Locate rear shocks and hardware kits.
2. Grease and install the sleeves into the bushings.
3. **Track Bar:** Locate the track bar, hardware kit #166 and track bar threaded male end.
4. Lubricate track bar bushings and bushing sleeves with multi-purpose grease and install into track bar and track bar threaded male end.
5. Slip clamping bracket onto adjusting end of track bar with the opening up and insert the 5/16 carriage bolt from rear and nut facing forward.
6. 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.
7. Tighten the clamping bracket.
8. **Adjustable Control Arms:** Using the instructions on the last page assemble the flex ends into the threaded male ends.
9. 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.
10. Install the clamping hardware into the control arms, do not fully tighten at this time.

Track Bar & Control Arm Length (Center to Center)	
Rear UCA	16-1/4"
Rear LCA	17-3/8"
Rear Track Bar	37-1/8"

Front installation:

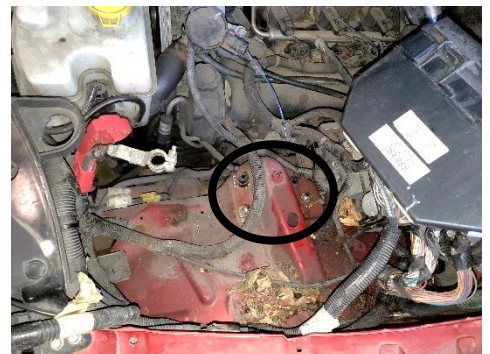
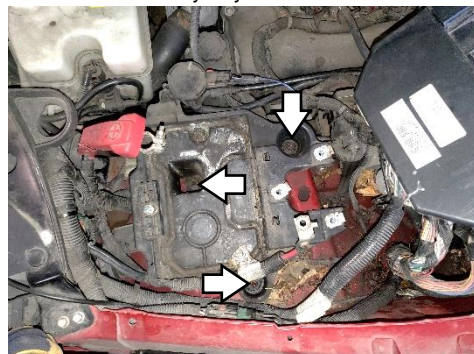
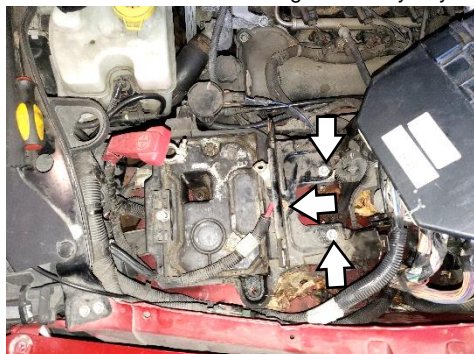
11. **Under the hood:** Disconnect the air box clamps and the hose connected to the air box lid.
12. Remove the lower portion of the air box by pulling up and popping it out of its rubber mounts.



13. This will give you access to the nuts securing the strut assembly to the body. Do not loosen at this time.
14. Disconnect the battery terminals and remove the battery.
15. Open the fuse box and disconnect the positive cable.
16. Release the retaining clips holding the fuse box and position the fuse box out of the way.



17. Remove the bolts holding the fuse box bracket, then remove the fuse box bracket.
18. Remove the nuts securing the battery tray then remove the battery tray.



19. This will give you access to the nuts securing the strut assembly to the body. Do not loosen at this time.

20. **Under the Jeep:** Lift front of vehicle and support with jack stands under frame rails.

****Tip:** loosen lug nuts before lifting vehicle.

21. Remove front wheels

22. Disconnect the sway bar links from the lower control arms.

23. Disconnect the tie rod ends at the knuckle.

24. Disconnect the upper ball joint from the knuckle.

25. Loosen the bolt holding the strut clevis to the lower control arm.

26. Remove the clamping bolt from the strut clevis.

27. Support the lower control arm with a jack and remove the nuts securing the strut assembly to the body.

28. Lower the jack and allow the suspension to droop as much as possible.

29. Remove the bolt holding the strut clevis to the lower control arm.

30. Using a pry bar, remove the strut clevis from the strut and remove the strut from the vehicle.

31. **Prepare the struts:** With the strut on a workbench, thread the supplied M12 nut (not a lock nut) onto a mounting stud.

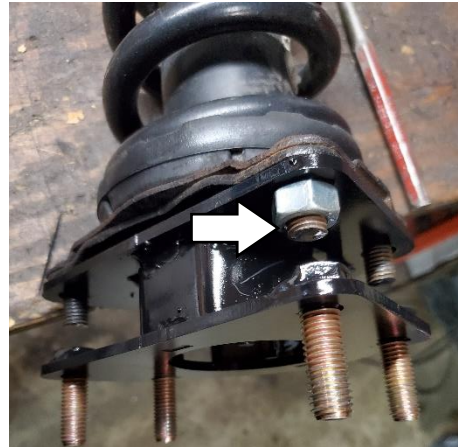
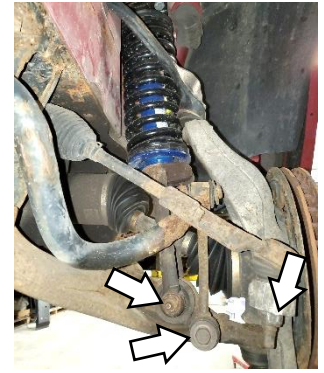
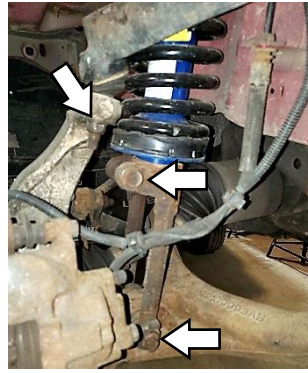
32. Measure from the bottom of the nut 3/4" and mark the stud for cutting.

33. With the nut threaded onto the stud, cut the stud at your mark.

34. Remove the nut and check the cut length with the spacer.

35. There should be a couple threads sticking out beyond the nut.

36. Repeat the steps to cut all the mounting studs.



37. **Spacer Installation and Reassembly:** With all the studs cut to length, install the spacer onto the strut using the M12 lock nuts.

38. Reinstall the strut into the Jeep using the original nuts.

39. Reinstall the clevis onto the bottom of the strut. Be careful to align the clevis with the mounting boss on the strut. Ensure the clevis is clamped onto the strut in the same location as it was before.

40. Reinstall the lower clevis bolt through the control arm.

41. Use a jack to raise the knuckle and reinstall the upper ball joint in the knuckle.

42. Reinstall the tie rod onto the knuckle.

43. Reinstall the sway bar links onto the lower control arms.

44. Reinstall the air box, battery tray, fuse box, and battery. Reconnect the battery terminals.

45. Reinstall front wheels.

46. Lower vehicle onto ground.

47. Torque lug nuts to factory spec.

Typical specification is 85-115 ft-lbs., depending on your wheels

**Please note that the vehicle lift height may appear taller than advertised until the vehicle is driven.



Rear installation:

48. Lift rear of vehicle and support with jack stands under frame rails.

****Tip:** loosen lug nuts before lifting vehicle.

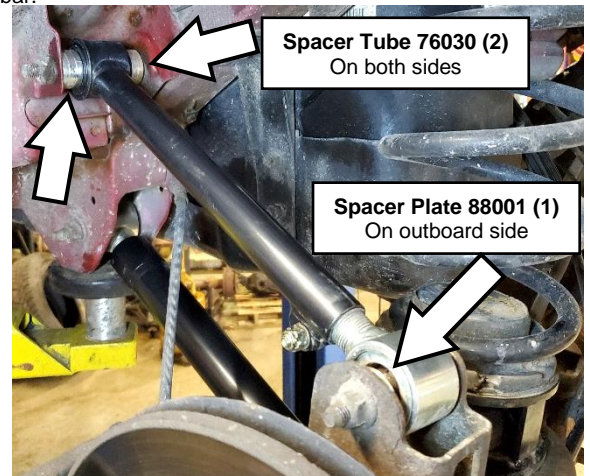
49. Remove rear wheels.

50. Disconnect rear sway bar from the axle and disconnect the sway bar links from the sway bar.

51. Lower the spare tire and disconnect the sway bar links from the chassis.

52. Support the rear axle with jack stands and disconnect shocks.

53. Remove the track bar and install the new track bar with the adjustable end at the axle.



54. Allow the axle to droop as much as possible and remove coil springs and lower isolators.

55. Bend the rear lower brake hose brackets slightly to allow more droop.

56. Remove the upper and lower control arms on the passenger side.

57. Install the new UCA with spacer tubes on each side of the bushing on the chassis side and one thin spacer on the outboard side at the axle.

58. Install the LCA with the threaded male end at the chassis using the original hardware.
59. Disconnect the fuel filler hose and breather hose from the fuel tank.
60. Place a jack under the fuel tank and unbolting the brackets holding the fuel tank in place.
61. Carefully lower the fuel tank enough to remove the control arm hardware.
62. Install the control arms on the driver's side using the same steps as the passenger side.
63. Install isolators onto the spacers, place the spacers on the axle, then reinstall the springs.
64. Install the new sway bar links onto the sway bar with the included hardware **HK# 201**.
65. Install the new shocks with the spacer at the top, on the outboard side (shocks closer to the frame).
66. Reconnect the sway bar to the chassis and axle with original hardware.
67. Raise the spare tire back up to its highest position.
68. Reinstall rear wheels.
69. Lower vehicle onto ground.
70. Torque lug nuts to factory spec.
Typical specification is 85-115 ft-lbs., depending on your wheels
71. With the vehicle weight on the suspension, tighten all upper and lower control arm bolts to 130 lb-ft.



Final Safety Warning:

72. * 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

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° 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.

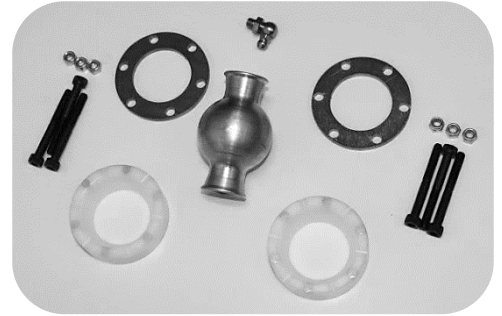


Figure 1

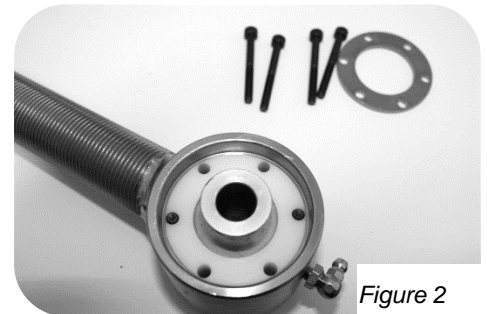


Figure 2



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

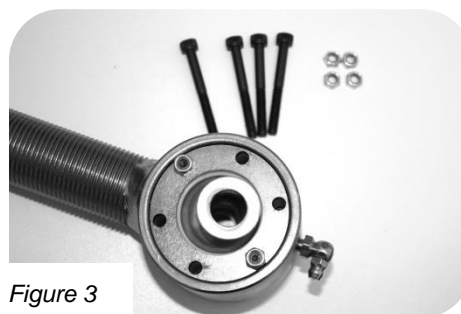


Figure 3

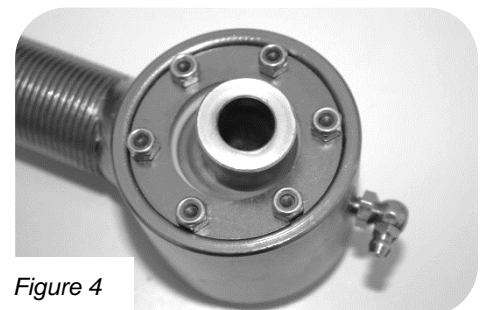


Figure 4

IRON ROCK OFF ROAD

2" IRO Flex End (8 bolt)

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Assembly Instructions

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)

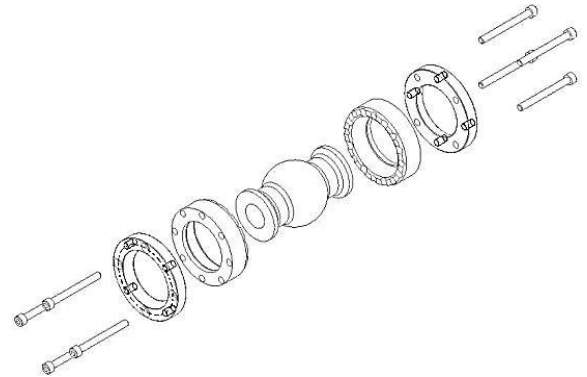
- Optional: 10677** **#141 – 2" Flex Joint 8-Bolt 10mm Press In (1)**
 - End cap 91124 (2)
 - Race 91123 (2)
 - 5-40 x 1-1/4" socket head cap screw (9)
 - 3/32" Hex L key, high torque (hex plus) (1)
 - 2" flex end ball 10mm, 8 bolt, 91121(1)
 - Outer housing, press in 91078 (1)

- 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.

