Parts Checklist:

- ❑ Iron Rock Off Road logo decal (Qty: 1)
- ❑ Rock-Link decal 13287 (2)
- ❑ ironrockoffroad.com Decal (1)

Rear 4-Link Parts

Box 1: Subframe 14720 (1)

- ❑ 4-Link Crossmember 99118 (1)
- ❑ 3/16" steel brake line tubing (5 feet)

#47 - Rear Coil Spring Retainer Hardware (1)

- ❑ 3" coil spring retainer MB03 (2)
- ❑ 3/8" x 4" carriage bolt (2)
- ❑ 3/8" USS washer (2)
- ❑ 3/8" hex nut, gr8 (2)
- ❑ ZJ rear coil spring retainer washer 99052 (2)
- ❑ ZJ rear coil spring retainer carriage bolt insert 99046 (2)

#65 - Adjustable LCA Clamping Hardware (2)

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

#127 – 2-5/8" IRO Flex End Hardware (2)

- ❑ 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)

#147 - Rear Brake Line hardware (1)

- ❑ 3/16" brake line flare nut (4)
- ❑ 7/16 x 1.25 grade 8 hex bolt (1)
- ❑ 7/16-14 grade 8 hex nut (1)

#168 - 2-3/8" Flex End Hardware (4)

- ❑ End cap 91138(2)
- ❑ Inner race 91139 (2)
- ❑ Flex end 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 (1)

#171 - Control Arm Hardware (1)

- ❑ M14 x 95 hex bolt class10.9 (4)
- ❑ M14 x 100 hex bolt class10.9 (4)
- ❑ M14 nylock flange nut class 10.9 (8)
- ❑ 9/16" USS hardened washer (8)

#174 - Subframe Hardware (1)

- ❑ 2-hole nut plate 92097 (4)
- ❑ 7/16-14 x 1-1/4" hex bolt, grade 8 (8)
- ❑ 7/16" F436 washer (8)

Box 2: 4-Link UCAs 14713 (1)

- ❑ Rear long UCA 91184 (2)
- ❑ 2-3/8" flex end male end 91191 (2)
- ❑ Long Arm Male End; Angled 91109 (2)

Box 3: 4-Link LCAs 15703 (1)

- ❑ Left rear long LCA 91185 (1)
- ❑ Right rear long LCA 91186 (1)

Rear axle truss customer specific:

- ❑ **Optional:** Dana 35 Truss 91222 (1)
  - ❑ Dana 35 Truss Gusset 91223 (1)
  - ❑ Axle mount UCA base 91169 (1)
  - ❑ Axle mount UCA plate inner 91170 (2)
  - ❑ Axle mount UCA plate outer 91171 (2)
  - ❑ #184 – T-Block Eliminator 88263 (1)
- ❑ **Optional:** Dana 44A Truss 99148 (1)
  - ❑ Dana 44A Truss Gusset 99151 (1)
  - ❑ Axle mount base 91169 (1)
  - ❑ Axle mount UCA plate inner 91170 (2)
  - ❑ Axle mount UCA plate outer 91171 (2)
  - ❑ #184 – T-Block Eliminator 88263 (1)
- ❑ **Optional:** Ford 8.8" Truss 85060 (1)
  - ❑ Gusset Bracket 91224 (1)
  - ❑ Axle mount base 91169 (1)
  - ❑ Axle mount UCA plate inner 91170 (2)
  - ❑ Axle mount UCA plate outer 91171 (2)
- ❑ **Optional:** Dana 60 Over Diff Cradle 88217 (1)
  - ❑ Front Truss Plate 88218 (1)
  - ❑ Rear Truss Plate 88219 (1)
  - ❑ UCA Inner Plate 91200 (2)
  - ❑ UCA Outer Plate 91201 (2)
- ❑ **Optional:** GM Corp. 14 Bolt Over Diff Cradle 91196 (1)
  - ❑ Front Truss Plate 91197 (1)
  - ❑ Rear Plate Left 91198 (1)
  - ❑ Rear Plate Right 91199 (1)
  - ❑ UCA Inner Plate 91200 (2)
  - ❑ UCA Outer Plate 91201 (2)
- ❑ **Optional:** JK Dana 44 Over Diff Cradle 88217 (1)
  - ❑ Front Truss Plate 88257 (1)
  - ❑ Rear Truss Plate 88256 (1)
  - ❑ UCA Inner Plate 91200 (2)
  - ❑ UCA Outer Plate 91201 (2)
- ❑ **Optional:** Ford 9" Semi-Universal Truss 88266(1)
  - ❑ Front Truss Plate 88269 (1)
  - ❑ Rear Truss Plate 88270 (1)
  - ❑ UCA Inner Plate 91200 (2)
  - ❑ UCA Outer Plate 91201 (2)
- ❑ **Optional:** Universal Truss 88266 (1)
  - ❑ Front/Rear Truss Plate 88268 (2)
  - ❑ UCA Inner Plate 91200 (2)
  - ❑ UCA Outer Plate 91201 (2)
- ❑ **Optional:** Sterling 10.5 Truss 88298 (1)
  - ❑ Front Truss Plate 88310 (1)
  - ❑ Rear Truss Plate 88311 (1)
  - ❑ UCA Inner Plate 91200 (2)
  - ❑ UCA Outer Plate 91201 (2)

Front 3-Link Box 1: 13321 (1)

- ❑ Front Subframe center 99110 (1)
- ❑ Front Subframe left outer 99099 (1)
- ❑ Front Subframe right outer 99106 (1)
- ❑ ZJ T-case drop spacer 99003 (2)
- ❑ 4 hole to 2 hole adapter bracket 99117 (1)

#180 3-Link Long Arm Subframe Hardware (1)

- ❑ M14 x 2.0 x 90 hex bolt class 10.9 (1)
- ❑ M14 x 2.0 x 110 hex bolt class 10.9 (2)
- ❑ 7/16-14 x 1 ¼ hex bolt grade 8 (8)
- ❑ M10 x 1.5 x 80 hex bolt class 10.9 (1)
- ❑ M10 x 1.5 X 25 carriage bolt (4)
- ❑ M10 x 1.5 x 50 carriage bolt (4)
- ❑ M10 x 1.5 x 30 flange bolt class 10.9 (8)
- ❑ M14 x 2.0 nylock flange nut class 10 (2)
- ❑ 7/16-14 flange nut, zinc (8)
- ❑ M10 x 1.5 hex nut class 10 (4)
- ❑ M10 x 1.5 nylock flange nut class 10 (1)
- ❑ 9/16 F436 hardened washer (5)
- ❑ 3/8 USS washer (9)
- ❑ 7/16 F436 hardened washer (8)

LCA Box: 15783 (1)

- ❑ ZJ Long LCA Left 85107B (1)
- ❑ ZJ Long LCA Right 85108B (1)
- ❑ Angled Long Arm Male End 91109 (2)

UCA Box: 13488 (1)

- ❑ ZJ 3-Link Front UCA 91205 (1)
- ❑ 2 3/8 UCA Male End 91191 (1)

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

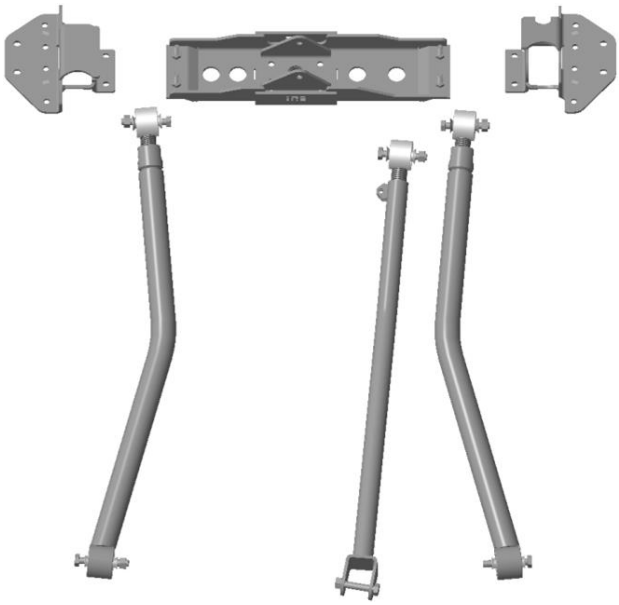
- ❑ Inner race 91118 (2)
- ❑ Thrust washer 91119 (2)
- ❑ 2-5/8" Flex End Ball 91117 (1)
- ❑ 10-32 x 1-3/4" Socket Head Cap Screw (6)
- ❑ 10-32 Nylock Nut (6)
- ❑ 90 Degree ¼"-28 Grease zerk Fitting (1)

#168 2-3/8" Flex End Hardware (1)

- ❑ End cap 91138 (2)
- ❑ Inner race 91139 (2)
- ❑ Flex end 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)

#181 3-Link Control Arm Clamping Hardware (1)

- ❑ 1/4"-28 x 1-1/8" socket head cap screw (4)
- ❑ 3/8-16 x 1 1/4" hex bolt grade 8 (1)
- ❑ 1/4"-28 hex nut, grade 8 (4)
- ❑ 3/8-16 nylock flange nut (1)
- ❑ 3/8 Mil Spec. washer 95229A480 (1)



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

This kit requires welding cutting and drilling IRO recommends 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 and lug nuts after the first 100 miles of use, and regularly inspect all safety critical suspension components.

Before you begin:

- ❑ Read all safety warnings.
- ❑ Read and understand installation instructions.
- ❑ A custom exhaust system will be required.
- ❑ This kit requires a 4.5" or higher suspension lift kit.
- ❑ Check all steering and suspension components for wear and replace as needed.
- ❑ Contact Iron Rock Off Road with any questions before, during, or after installation.
- ❑ **Ensure that all parts are present and in good condition using the included parts checklist.**
- ❑ Be sure you have the following tools and supplies:
  - ❑ Floor jack and jack stands
  - ❑ Basic hand tools (Sockets, ratchet, wrenches)
  - ❑ Paint (Spray paint, primer, etc.)
  - ❑ Multi-purpose grease.
  - ❑ Slope gauge or angle finder.
  - ❑ Hand drill with good quality 7/16" drill bit.
  - ❑ Anti-seize compound for bolts.
  - ❑ Torque wrench capable of 65 ft-lbs. and 125 ft-lbs.
  - ❑ Metal cutting tools (grinder, etc.)
  - ❑ Welder (for welding the truss to the axle).
  - ❑ 3/16 Double Flaring Tool for brake lines.
  - ❑ Tubing cutter for brake lines.
  - ❑ 3/8" flare nut wrench.
  - ❑ Carbide burr that fits inside a 7/16" hole
  - ❑ Hand Drill
  - ❑ 7/16" drill bit
  - ❑ String level or laser level

****NOTE****

To minimize downtime of your Jeep:

The front subframe can be installed without affecting the ability to drive your Jeep.

Rear Upper Control Arms

Rear Lower Control Arms

Installation Instructions:

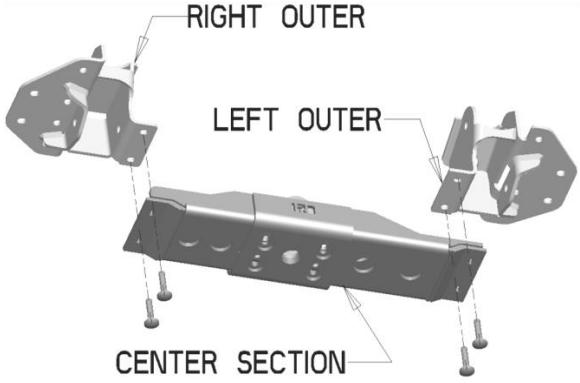
Prepare the parts for installation:

1. **Front Control Arms:** Locate the lower control arms (larger), male ends (larger, angled), hardware kit 127 and 181.
2. Assemble flex ends into male ends. Use hardware kit 127 and attached instructions (2-5/8").
3. Locate the upper control arm (smaller), male end (smaller, straight), and hardware kit 168.
4. Assemble flex end into upper control arm. Use hardware kit 168 and attached instructions (2 3/8"), install straight grease zerk.
5. Apply a light coat of anti-seize compound to the threads and thread the male ends into control arms.
6. Adjust control arm lengths per the chart.
7. Install clamping bolts from hardware kit #181. Do not tighten at this time.
8. **Rear Control Arms:** Locate four control arms, male ends, and hardware kits 65, 127, and 168.
9. Apply anti-seize to male threads and thread into the control arms. Larger male ends (angled) go into the larger (lower) control arms.
10. Assemble flex ends into lower control arms. Use hardware kit 127 and attached instructions (2-5/8").
11. Assemble flex ends into upper control arms. Use hardware kit 168 attached instructions (2-3/8").
12. Install clamping bolts. Do not tighten at this time.
13. With vehicle on level ground, measure pinion angle.
14. Record angle here _____.

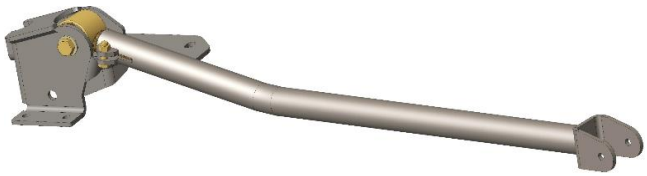
Control Arm Length (Starting Lengths - Center to Center)	
Front Lower Control Arms	36 ½" (Short Side)
Front Upper Control Arm	37 1/4"
Rear Lower Control Arms	44" (Short Side)
Rear Upper Control Arms	36-1/2"

Front Control arm mounting subframe:

15. Lift front and rear of vehicle and support with jack stands under the uniframe. Leave room to cut off the stock lower control arm mounts.
16. Raise transfer case very slightly and support with a jack stand.
17. Remove the four transmission mount nuts from the transmission crossmember or the single bolt for the 2 hole subframe.
18. Remove the factory transmission mounting crossmember.
19. Locate the three subframe parts and hardware kit 180.



20. Install left and right outers using the provided M10 flange bolts in the same holes that held the factory crossmember. Be sure that the control arm mounting pockets are facing forward.
21. Install center section using M10 x 25 carriage bolts and M10 nuts.
22. Tighten bolts firmly (bolts will be removed after drilling.)
23. Drill the 8 additional 7/16" mounting holes using the subframe as a guide.
24. Remove subframe center section then left and right outers. Remove any burrs and sharp edges around the holes. Clean, prime and paint any exposed metal.
25. **<u>To make installation easier</u> install upper control arm into left subframe outer**; use M14 x 90 bolt and torque to 135 ft-lbs. The threaded male end is installed at the subframe with the bend hanging down to clear the floor.



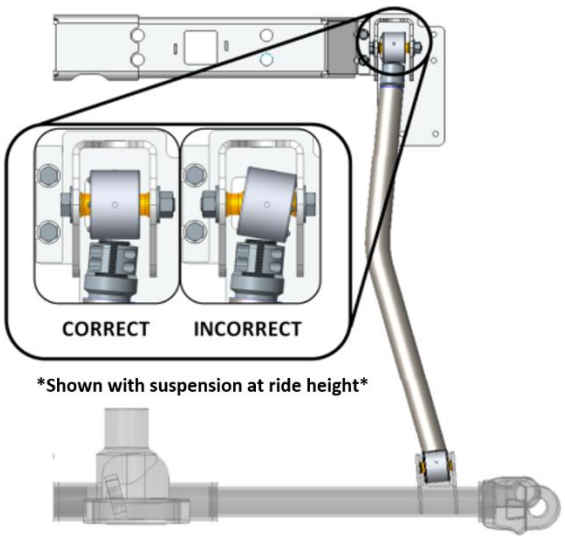
26. Install left and right outers using M10 flange and 7/16" bolts, flange nuts, and washers from hardware kit 180.
27. If you have only one bolt mounting the transmission to the crossmember (2 hole) install provided 2 hole adapter bracket (large u-shaped bracket) inside the subframe center section. Use provided M10 flange bolts, washers, and nuts. Torque bolts to 50 ft-lbs.
28. Using M10 x 25 carriage bolts, 3/8" washers, and M10 nuts, assemble subframe center section to the outers (center section underneath the outers). *****The long side of the center section attaches to the left outer subframe. *****
29. If your transfer case will be dropped, then install provided transfer case drop spacers between the subframe outers and center section using the longer 50mm carriage bolts.
30. Torque 7/16 bolts to 65 ft-lbs. Torque M10 bolts to 31 ft-lbs.
31. Torque subframe center section bolts to 45 ft-lbs.
32. Lower the transfer case on to subframe.
33. For 4 bolt transmission mounts, install the four existing transmission mount nuts and torque to 24-36 ft-lbs.
34. For 1 bolt transmission mounts, install the factory bolt and nut and torque to 78 ft-lbs.

<u>Front Suspension:</u>

35. Remove upper and lower factory control arms.
36. Disconnect the driveshaft on the axle side and tape the u-joint so the caps do not fall off. Tie the driveshaft out of the way (use tape, zip tie, mechanic's wire, etc…) for easier access to the lower control arm mount.
37. Tie the upper control arm out of the way.
38. Cut off factory lower control arm mounts from the uniframe on the driver's and passenger's side.

    *****Tip: Our favorite tool for this is a 4 ½" angle grinder with a thin cutting wheel. Remove in pieces for ease of access. *****

39. Remove anything on the driver's side that extends inward (toward the transmission) beyond the uniframe. Do not remove any of the uniframe, just make it one continuous edge from front to rear.
40. Clean up any burrs or sharp edges and grind smooth for an attractive appearance.
41. Clean, prime, and paint any exposed metal.
42. Connect the upper control arm to the axle using M10 x 80 bolt with washer and nylock flange nut. Do not tighten at this time.
43. Install Lower control arms with threaded adjusting end at the uniframe, and bends facing inward to clear the tires, thread clamping bolts facing down. At the subframe, use provided M14 x 110 bolts, 9/16" washers, and nylock nuts. At the axle, re-use factory cam bolts and nuts. Do not tighten at this time.
44. Raise vehicle and reposition jack stands under the front and rear axles.
45. Temporarily install tire on one side.
46. Verify that the axle is centered as desired front to rear. Check caster before adjusting.

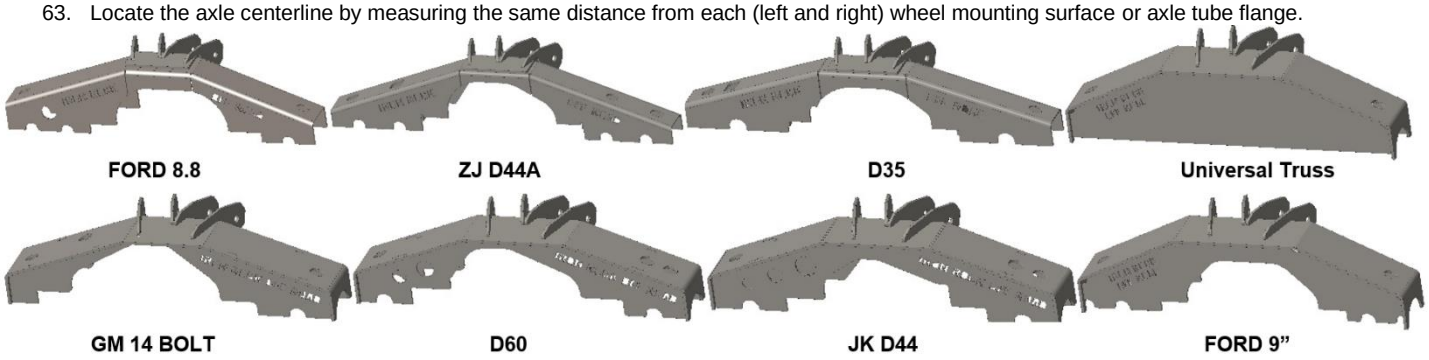


<u>Rear Disassembly:</u>

47. Lift rear of vehicle and support with tall jack stands under the unibody frame.
    *****Tip: break lug nuts loose before lifting vehicle.**
48. Ensure that the vehicle is safely supported.
49. Remove the rear tires.
50. Remove catalytic converter, O2 sensor, muffler and tailpipe. Cut just in front of the catalytic converter.
51. Remove rear track bar.
52. Remove rear driveshaft.
53. Disconnect rear shocks at axle.
54. Remove Upper Control Arms.
55. Remove Lower Control Arms.
56. Disconnect rear brake hose from frame rail hard line.
57. Disconnect rear sway bar at axle.
58. Remove coil springs.
59. Remove rear axle assembly.

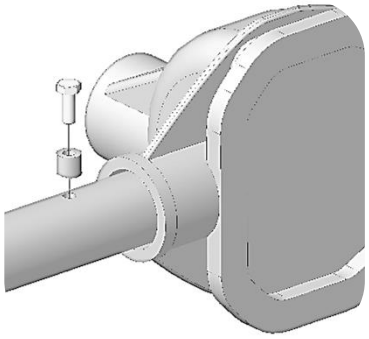
Prepare the Rear Axle Assembly:

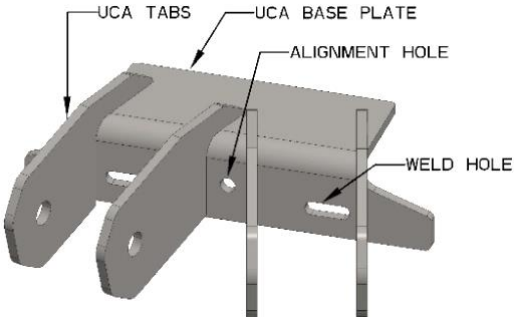
60. Remove brake (hard) lines from rear brakes to T-block and remove T-block.
61. Cut off upper control arm and track bar brackets attached to the axle tubes. A plasma cutter, oxy/acetylene torch, or angle grinder with a cut off wheel can be used. Be careful not to cut into the axle tubes.
62. Using an angle grinder, remove any remaining bracketry. Be careful not to grind away any axle tube material.
63. Locate the axle centerline by measuring the same distance from each (left and right) wheel mounting surface or axle tube flange.

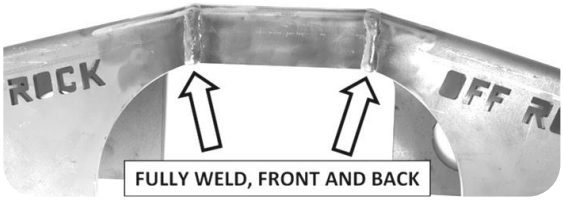


D35, D44A and Ford 8.8 Axle Trusses:

64. ***If your axle is equipped with a brake line T-Block attached to the axle tube** Apply medium strength threadlocker to original brake line T-Block bolt and install T-Block Eliminator (#184) where the original brake line T-block was located on the axle.
65. Slide the internal gusset into the truss and test fit truss assembly to axle. The alignment hole should match the axle centerline and the internal gusset should rest on the axle tubes outside of the cast center section. Stich weld the gusset into the truss.
66. Fully weld the vertical slots in the truss (near the center). Tack weld the ends of the slots first to avoid warpage. Grind the front sides flush as needed to clear the Upper Control Arm (UCA) base plate.
67. With the truss cool, paint the inside of the truss including above and below the gusset to prevent rust.
68. Tack weld truss to the axle with the face of the truss parallel to rear diff cover mounting surface and the gusset resting on the axle tubes.
    *****When tack welding, ensure your tack welds are strong enough for a test fit, but easy to cut apart if necessary.**
69. Tack weld upper control arm mount to truss with front hole aligned with hole in truss.
70. Tack weld upper control arm mount tabs to base plate with shorter tabs in the center.
71. Weld truss to axle and weld upper control arm mounts to truss.
    *****To avoid warping, avoid excessive heat buildup. Weld in short time increments in one area then move to another part of the axle. Allow time to cool between welds in the same spot.**
72. Weld all the way around UCA mounting tabs and UCA base plate.

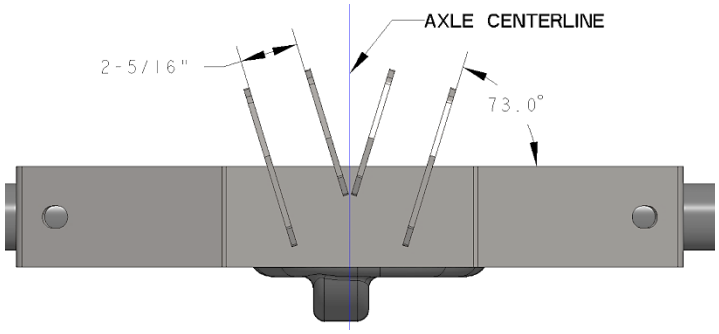






D60, GM14 Bolt, JK D44, Ford 9" and Universal Blank Trusses:

73. Tack weld vertical truss plates to truss top plate. Vertical plates are inset 3/8" from outer edge of top plate. Test fit truss assembly to the axle. Ensure vertical plates contact axle tubes.
74. Tack weld truss to the axle with the face of the truss parallel to rear diff cover mounting surface and the top plate resting on the axle tubes.
    *****When tack welding, ensure your tack welds are strong enough for a test fit, but easy to cut apart if necessary.**
75. Tack weld upper control arm mount tabs to truss with shorter tabs in the center. See diagram for dimensions.
76. Fully weld truss assembly, weld truss to axle and weld upper control arm mounts to truss.
    *****To avoid warping, avoid excessive heat buildup. Weld in short time increments in one area then move to another part of the axle. Allow time to cool between welds in the same spot.**
77. Weld all the way around UCA mounting tabs.



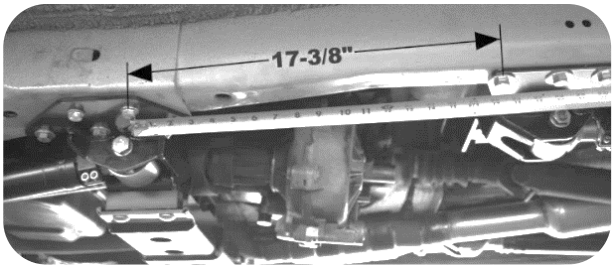
All Truss Options

78. Prep and paint the axle assembly.
79. Mount rear brake hose T-block to the axle truss with the flat side against the truss. Use 7/16" bolt and nut from hardware kit #147.
80. Route provided brake lines from the T-block to rear brakes. Route in a location safe from hazards such as moving suspension components and trail obstacles such as rocks. Insert flare nuts before flaring and double flare per the instructions provided with your flaring tool.
81. Install flare nuts into brake hoses/brakes. Fully tighten.
82. Secure brake lines with cable ties or clamps as needed.

Rear Crossmember:

83. Locate subframe and hardware kit 179.
84. With the control arm mounts facing the rear, position the subframe so that the front bolt hole is 17 3/8" back from the rear bolt for the factory front subframe.

85. Center subframe side to side.
86. Using the subframe as a template, drill all eight 7/16" holes. 2 of the holes may require use of a carbide burr to elongate an existing hole in the uniframe.
87. Remove subframe, deburr holes, prep and paint exposed metal.
88. Insert nut plates into frame. Be sure the offset in the rear nut plates clear the raised holes in the uniframe. Use mechanic's wire if needed to position the nut plates directly over the holes.
89. Raise subframe into position and secure with 7/16" bolts (4 holes per side).
90. Torque all bolts to 65 ft-lbs.

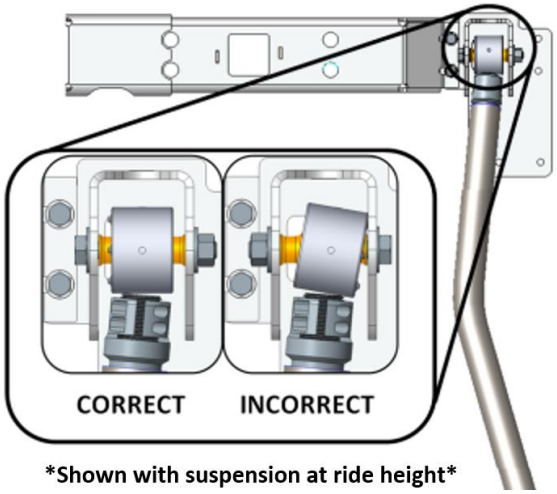


Rear Suspension:

91. Either cut off or bend the factory lower control arm mounts on the frame out of the way to make room for the new LCAs.
92. Install upper control arms with bend hanging down to clear the floor pan (adjustable threaded end at frame). Use M14 x 95 bolts, nylock flange nuts, and washers (from hardware kit 171).
93. Install lower control arms. Adjustable threaded end at frame. Use M14 x 100 bolts, nylock flange nuts, and washers (from hardware kit 171).

    ****Angled male ends to be angled towards the outside of the vehicle when installed (parallel to their mounting bracket). ****

    ****The control arm bends are to be angled upward for ground clearance, and inward to clear the frame. ****
94. Locate the 3" plastic cylinders and hardware kit 47.
95. Install coil spring retainers onto rear upper coil spring perches. Place the washer with the square hole onto the 3/8 x 4 carriage bolt. At an angle, insert this assembly into the upper coil spring perch with the bolt hanging down.
96. Slide the coil retainer cylinder onto the bolt, followed by the oversized washer, next the standard washer, then the nut. Tighten nut.
97. Install coil springs, shocks, and sway bar links.
98. Raise the vehicle and support with jack stands under the rear axle.
99. With full vehicle weight on the suspension, check if the rear axle is centered as desired in the wheel opening (front to rear). Adjust lower control arms to desired axle position. Adjust upper control arms to desired pinion angle **(see step 14)**. Verify axle is centered left to right and adjust upper control arms as needed.
100. Torque all control arm nuts to 125ft-lbs.
101. 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.
102. Tighten all control arm adjusting thread clamping bolts.
103. Bleed brakes and check for leaks.
104. Install tires and place the vehicle on the ground.
105. Torque lug nuts to spec. (Typical specification is 85-115 ft-lbs., depending on your wheels)



Shown with suspension at ride height

Adjustments and Final Inspection:

106. Check all components for clearance for suspension to fully cycle up and down. 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.
14. Check front caster angle. Using a laser level or string level, set the front axle level to the rear axle (left side and right) Bounce the Jeep up and down to ensure the suspension is in resting position (at exact ride height). Place the angle finder under the axle "C" (or on top of the upper ball joint). Ensure the angle finder is parallel to the Jeep front to rear. This is your caster angle. See chart for desired setting.
15. Adjust control arms to the desired position.
    - To adjust axle front to rear, adjust upper and lower control arms by the same amount. 12 turns equal one inch.
    - To adjust only caster, adjust only the upper control arm (3 turns equals roughly 2 degrees).
    - To adjust both, adjust both at the same time.
    - ****Caster angle may need to be adjusted after a test drive to eliminate driveline vibrations. ****
16. Check axle position left to right. Adjust track bar length as needed.
17. Torque Lower control arm bolts to 135-foot pounds.
18. Torque Upper control arm nut at axle to 60-foot pounds.
19. 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.
20. Install tires and wheels. Torque lug nuts to spec. (Typical specification is 85-115 ft-lbs., depending on your wheels)
21. Recheck all fasteners and torque any remaining loose nuts or bolts to spec.

Caster Angle (Starting point)	
Lift Height	Caster
3.5	7 degrees
4.5	5.5 degrees
5.5	4.5 degrees
7	3.5 degrees

22. 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.

*** A professional front end alignment is required after installation. *** Recommended alignment settings:

Caster: +3.75 to +7.5 See chart **Toe-in**: +1/16" to +1/8"

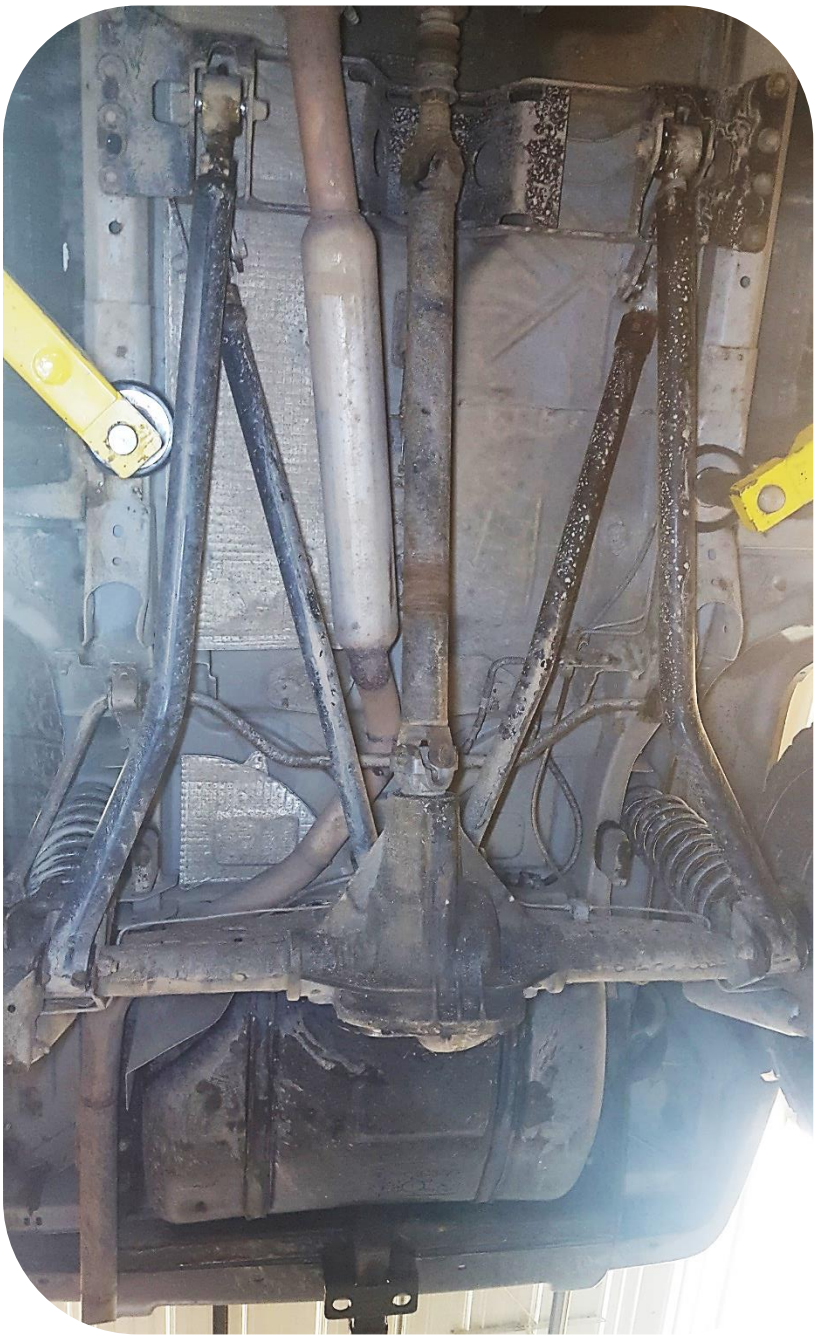
Final Safety Warning:

* Re-torque all fasteners including lug nuts 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

ROCK-LINK

Recommended custom exhaust routing

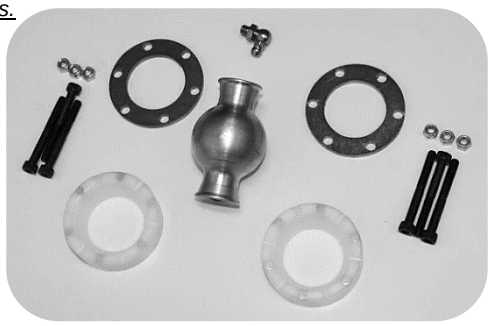


IRON ROCK OFF ROAD

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.

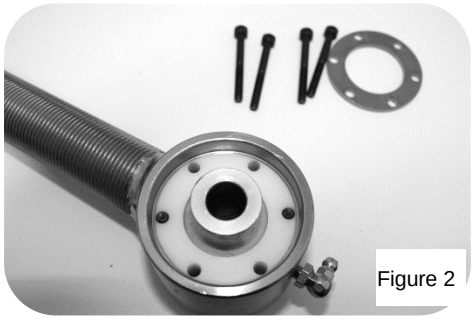


Figure 2

Reference Only Complete joint shown fully assembled without housing

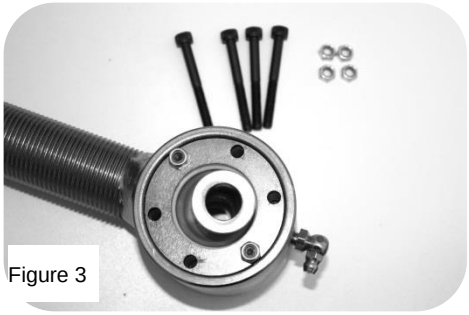


Figure 3

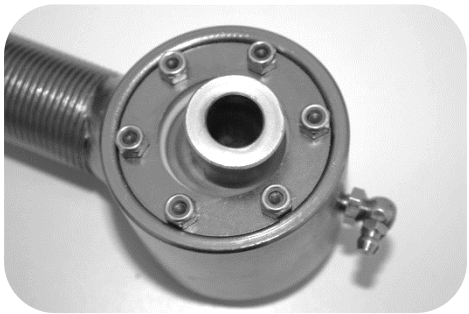


Figure 4

IRON ROCK OFF ROAD

2-3/8" IRO Flex End (8 bolt) Assembly Instructions

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

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

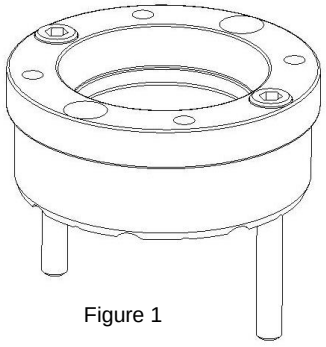


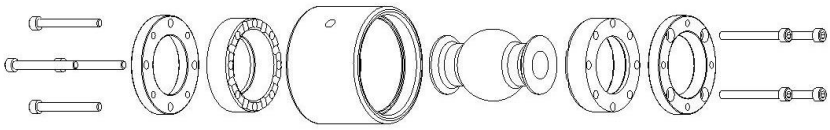
Figure 1

Parts Checklist:

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

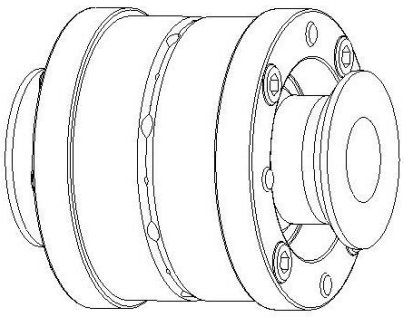
#168 - 2-3/8" IRO Flex End (8 bolt)

- ❑ 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 torqueing 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