

# IRON ROCK OFF ROAD

JL/JT Rubicon Front  
Box Truss Instructions

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

## Parts List:

- Instructions
- Optional: JL/JT Rubicon D44 Front Truss
  - JL/JT Rubicon D44 Box Truss, Left 88385 (1)
  - JL/JT Rubicon D44 Box Truss, Center 88384 (1)
  - JL/JT Rubicon D44 Box Truss, Right 88383 (1)
- Optional: JL/JT Rubicon D44 Front Upper C gussets
  - JL/JT Rubicon D44 Upper C gusset, Left 88386 (1)
  - JL/JT Rubicon D44 Upper C gusset, Right 88387 (1)



## Safety Warning:

**\*\*\*Important! Read Before Installation.\*\*\***

We recommend that this kit be installed by a qualified professional. Knowledge of suspension component function is necessary for safe installation and post installation inspections. We recommend that all welds be performed by a certified welder. A weld failure may result in serious injury or death, in addition to severe vehicle damage. 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:

- Works with all Iron Rock Off Road suspension components.
- If using products from other manufacturers verify fitment before installation.**
- This product has not been tested at OEM suspension height and likely will not work.
- It is recommended to replace axle seals after installation due to welding heat.
- Read all safety warnings.
- Read and understand installation instructions.
- Check all 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 shipping checklist before scheduling installation.
- Be sure you have the following tools and supplies:
  - Basic hand tools
  - Welder
  - Propane or MAP gas torch to preheat.
  - 4-½" Angle grinder with a wire wheel or sanding/flap wheels.
  - Torque wrench
  - Paint



## Prepare the axle housing:

1. Lift front of vehicle and support with jack stands under frame rails.
2. \*\*Tip: break lug nuts loose before lifting vehicle.
3. Remove front wheels/tires.
4. Disconnect front sway bar links from the axle and swing the sway bar up and secure it out of the way.
5. Support front axle with jack stands and disconnect the shocks from the axle.
6. Remove brake line brackets from frame rail.
7. Remove front track bar.
8. Loosen the upper and lower control arm bolts at the frame and the axle (do not remove).
9. Allow the axle to droop away from the frame as much as possible.
10. Remove coil springs.  
\*\*It is possible to install this truss with the axle still installed in the Jeep. To make welding easier, the axle can be completely removed from the Jeep.
11. Clean off any paint or rust from the axle tubes, spring mounts, and upper control arm mount. A 4-1/2" angle grinder with a flap wheel works well for this.
12. Clean off any paint or rust from the differential housing. A 4-1/2" angle grinder with a wire wheel works well for this.



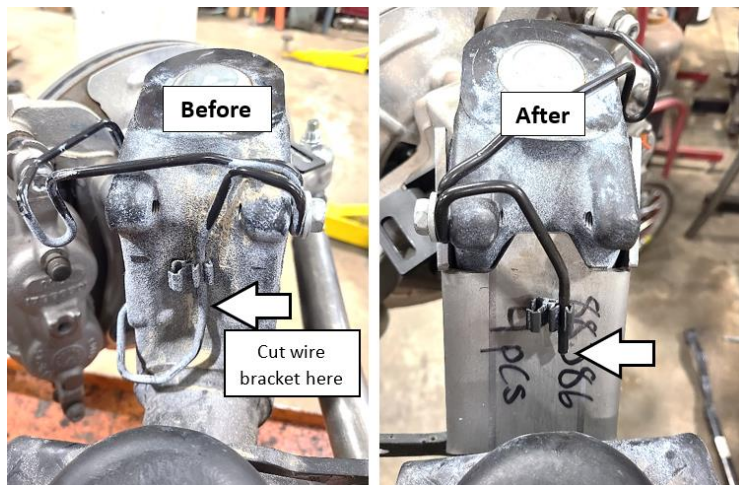
## Truss Installation:

13. Set each of the truss pieces onto the axle housing.
14. The truss should be touching or close to touching the spring mounts, upper control arm mount, and differential housing.
15. The front and rear faces of the truss should extend down to nearly the center of the axle tube at front and rear.
16. Double check each of the mating surfaces to be welded for paint, dirt, or rust.
17. Tack weld the truss to the axle assembly at several locations along the truss. Some minor clamping might be necessary to achieve a tight weld joint.
18. Fully weld the truss to the axle. Weld in short alternating 2" segments on opposite sides of the axle assembly. Allow a short cooling off period between welds. Ensure good weld penetration but try to minimize the amount of heat and heat affected zone.
19. When welding the truss to the cast differential and UCA mount be sure to preheat with a torch before welding. After welding cover with a welding blanket to ensure a slow, even cooling process and avoid cracking of the weld joint.
20. Use caution when welding around the differential breather tube and locker wiring.
21. Cover the axle assembly with welding blanket to ensure a slow, even cooling process.
22. **Final Check and Paint:** Recheck the truss and axle assembly for any section that may have been left unwelded during assembly. Weld any area that may have been missed and allow a short cooling off period between welds.
23. Remove any weld spatter and prepare axle assembly for paint.
24. Paint the truss and axle assembly.



## Optional: C Gusset Installation:

25. Remove the ABS bracket (wire) from the upper portion of the axle C.
26. Cut the ABS bracket (wire) just under the plastic clip on each upper C.
27. Set each of the upper C gusset pieces onto the axle housing.
28. The gussets should be touching or close to touching the upper axle Cs.
29. Mark the areas that need to be cleaned around the C gusset.
30. Remove the gussets and clean off any paint or rust from the axle Cs.
31. Reinstall the gussets and double check each of the mating surfaces to be welded for paint, dirt, or rust. Clean if necessary.
32. Tack weld the gussets to the axle assembly at several locations. Some minor clamping might be necessary to achieve a tight weld joint.
33. Fully weld the gussets to the axle Cs. Weld in short alternating 2" segments on opposite sides of the axle assembly. Allow a short cooling off period between welds. Ensure good weld penetration but try to minimize the amount of heat and the heat affected zone.
34. Remove any weld spatter and prepare axle assembly for paint.
35. Paint the gussets and axle assembly.



**Reinstall Axle:** Raise axle assembly up until your bump stops engage and check truss clearance. Adjust bump stop length if necessary.

36. Reinstall coil springs.
37. Reinstall shocks.
38. Reinstall brake hose bracket on the frame.
39. Reinstall front sway bar links.
40. Reinstall front track bar.
41. Reinstall front wheels/tires.
42. Lower vehicle onto ground.
43. Torque lug nuts to factory spec. (Typical specification is 85-115 ft-lbs., depending on your wheels)
44. With the vehicle weight on the suspension, tighten all lower control arm bolts to 130 lb-ft. Tighten front upper control arm bolts to 75 lb-ft.

