

# IRON ROCK OFF ROAD

ZJ D44A Truss  
Instructions

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

## Parts Checklist:

- Iron Rock Off Road Decal 10001 (Qty: 1)
- ZJ D44A Axle Truss 99152 (1)
- ZJ D44A Axle Truss Gusset 99151 (1)
- 3/16" steel brake line tubing (5 feet)

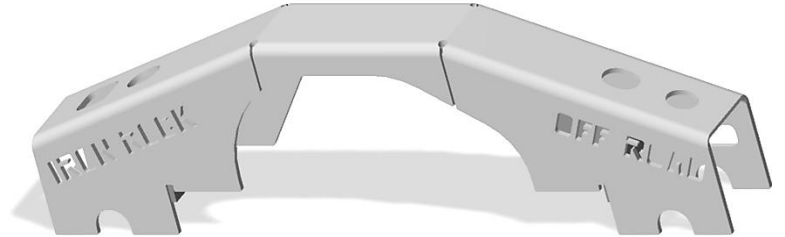
### #184 T-Block Eliminator (1)

### #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)

## Before you begin:

- Read all safety warnings and notes.
- Contact Iron Rock Off Road with any questions before, during, or after installation.
- Read and understand installation instructions.
- Ensure that all parts are present and in good condition using the included parts checklist.**
- Be sure you have the following tools and supplies:
  - Paint (Spray paint, primer, etc.)
  - Metal cutting tools (grinder, etc.)
  - Welder
  - 3/16 double flaring tool for brake lines
  - Tubing cutter for brake lines
  - 3/8" flare nut wrench
  - Medium strength thread locker (Ex: Loctite Blue)
  - Electrical tape or brake line plugs for 3/8 flare fittings
  - Basic hand tools (sockets, ratchet, wrenches)



## Safety Warning:

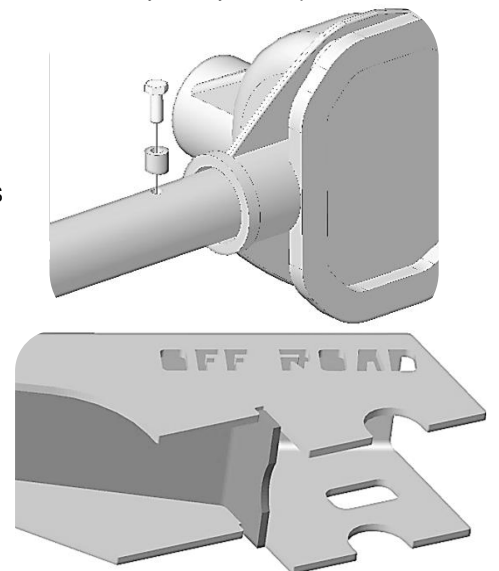
\*\*\*Ensure vehicle is safely supported with jack stands prior to working underneath it.\*\*\*

## Notes:

- We recommend that this truss be installed by a qualified professional and that all welds be performed by a certified welder. Be sure to re-torque all suspension components after the first 100 miles of use, and frequently inspect all safety critical suspension components.
- The rear axle **does not** have to be removed from the Jeep to install this truss. Be sure that the axle assembly will droop far enough away from the vehicle to safely weld around it. It might be helpful to disconnect the rear shocks and rear sway bar if your Jeep has less than 3 inches of suspension lift.

## Truss Installation:

1. Lift the rear of vehicle and support with jack stands under the unibody frame.
2. Ensure that vehicle is safely supported.
3. Disconnect the track bar from the axle and tie it up out of the way.
4. Remove and discard the small bracket from the left upper control arm mount holding the ABS wires. It will not be reused.
5. Disconnect the axle breather hose from the body and axle tube.
6. Disconnect and remove hard brake line from T-Block to both rear brakes. Plug T-Block with plugs or electrical tape.
7. Unbolt T-block from axle and hang it out of the way (forward of the axle, over driveshaft).
8. Apply medium strength thread locker to original T-Block bolt and install T-Block Eliminator (#184) where the original T-block was located on the axle.
9. Remove the upper control arm mounting bolts at the axle.
10. Reroute the right wheel hard brake line and ABS wires to the front side of the upper control arm mount.



11. Prepare the axle for welding by removing paint or surface rust with a wire wheel, flap disk or grinder.  
**\*\*\*Be sure to clean the sides of the factory upper control arm mounts as the truss will be welded to them\*\*\***
12. Prepare the truss for welding by cleaning the edges and the inside with a wire wheel, flap disk or grinder.
13. Slide the gusset into the truss. Match the notches in the truss to the tabs on the gusset. The truss gusset is slightly different from left to right. It is keyed so that it can only be installed one way.
14. Tack weld the gusset into the truss and test fit it to the axle with the face of the truss parallel to the diff cover mounting surface.  
**\*\*\*The truss is designed to be a tight fit to the upper control arm mounts so that there is only a small gap to weld across\*\*\***  
**\*\*\*The gusset is designed to rest against the axle tubes outboard of the differential\*\*\***
15. Remove the truss and stitch weld the gusset into the truss; about 2" of weld per flat surface is recommended. Fully weld the vertical slots at the top of the truss.
16. With the truss cool, paint the inside of the truss including above and below the gusset to prevent rust.
17. Install the truss onto the axle with the face of the truss parallel to the diff cover mounting surface and the gusset resting on the axle tubes.
18. Tack weld the truss to the axle assembly and upper control arm mounts at several locations along the truss.
19. Weld the truss to the axle tubes and upper control arm mounts by alternating 1-2" welds 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.
20. Remove any weld spatter and prepare axle assembly for paint.
21. With the axle assembly cool, fully paint the truss and all welded areas.
22. Reattach the axle breather hose and route the right wheel brake line, breather and ABS wire across the front of the truss.
23. Attach the T-block to the mounting hole on the front of the truss using the 7/16 nut and bolt from hardware kit #147.
24. Orient the T-block with the flat side against the truss and with the brake lines in the most convenient angle for assembly.
25. Route provided brake line in front of the left control arm mount from the T-block to the left rear brake.
26. Insert flare nuts before flaring and double flare per the instructions provided with your flaring tool.
27. Reinstall the upper control arms and track bar on to the axle.
28. Check that all hoses, brake lines, and wiring are routed to avoid the driveshaft and any moving suspension components and are tied securely.
29. Bleed the brake system.
30. Tighten any loose bolts to factory spec.
31. Lower vehicle.

