

# Jeep TJ - Rear Coilover Kit Instructions





## **General Notes**

#### **Requirements:**

Fabrication and welding skills, grinder with cut off wheel, and a welder. A plasma cutter (or cutting torch) and other fabrication tools will make the install easier. This kit requires cutting and welding of the frame.



This kit is designed to use most twin tube or monotube shock absorbers. Shocks we recommend are: Fox 2.0 coilovers, air shocks, or smooth body shocks; Sway-a-Way 2.0 coilovers or air shocks; Edelbrock Xtreme IAS shocks, or our Poly Performance BBCS shocks.

A 2.0" Coilover will fit with this kit, but a minimum of 4" of clearance between the tire and frame is required. This is usually achieved with a 3.25" maximum wheel backspacing. Air shocks will also work, but be aware of the maximum load capacity of the shock. A typical TJ will have 750 lbs. of sprung weight in the rear.

The shock mounting width of the upper shock mounts are 1.5" wide with a 1/2" bolt hole. This fits most shocks with polyurethane bushings and sleeves. Fox 2.0 shocks require special spacers (1.25" wide) which are available from Poly Performance.Race Runner shocks will require special bushings or you can use a 1/2" x 1/8" thick washer on each side.

Remote Reservoir mounts are not included with this kit. Some shocks will come with the mount, or you can purchase mounting clamps from Poly Performance

## **Instructions**

- 1. Measure and record rear suspension ride height
- 2. Support the frame of the vehicle on jack stands. Make sure you can cycle full range of suspension travel. Remove the plastic inner fender, shocks, and springs.
- 3. Remove the paint from the rear of the axle between the lower control arm brackets. A grinder with an abrasive disc works well. You may have to remove the rear brake hard lines.



4. Position the rear axle at your desired ride height



#### **Instructions**

5. Position the new lower shock mount between the lower control arm brackets on the rear of the axle housing. The bottom edge of the shock mount should be parallel to the ground; use a level or a protractor to measure. Tack weld the lower shock mount in place. The lower shock



mount can be rotated up or down depending on the placement of the upper mount and shock alignment.

6. Typically, the upper shock mount is mounted perpendcular to the frame, and it fits into the pocket in the rear of the fender. The seat belt bolt should be aligned with the opening in the top of the shock mount. On an Unlimited wrangler, the shock mount will be mounted further back.





## **Instructions**

- 7. Jack the rear axle up to the bump stops (or wherever you would like the shock to bottom out). Take your specified collapsed shock length; measure upwards from the collapsed shock mount. This determines how much material you will need to cut off of the bottom of the upper shock mount. Add 1/4"-3/8" to your measurement; this will hang below the frame.
- 8. On the frame, mark where it will be cut. The bottom of the frame should be cut to about 1/2" from the inside edge. The top edge of the frame should be cut about 1" from the inside edge. For vehicles that retain the track bar frame mount, you will have to cut a pie section out of the front of the upper shock mount. Bend the front edge back to clearance the track bar mount.



Depth of cut viewed from below the frame

Please see next page for additional pictures



## **Instructions**



Frame Notch as viewed from the side

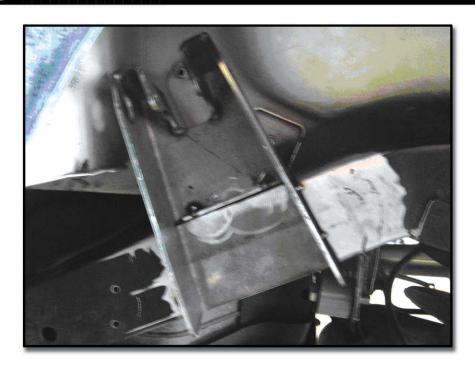


Modification required to keep rear Track Bar Bracket



## **Instructions**

9. Cut a slot in the upper shock mount along the top of the of the frame so that the cut edge of the frame sticks through the upper shock mount. This will provide an edge to weld the upper shock mount to the top of the frame. The Wrangler Unlimiteds have enough room behind the



shock mount that this step may not be required. If you do not cut the slot, more material should be removed from the upper frame notch. This will allow the upper shock mount to sit more vertical.

- 10. Tack weld the upper shock mounts to the frame.
- 11. Install both rear shocks. Cycle the suspension up and down with one side up and the other down to check shock clearance.
- 12. Once you are satisfied with the position of the shock mounts, finish welding them in place.

The lower mounts should be welded across the top to the axle tube and down each side of the lower control arm mounts as shown.

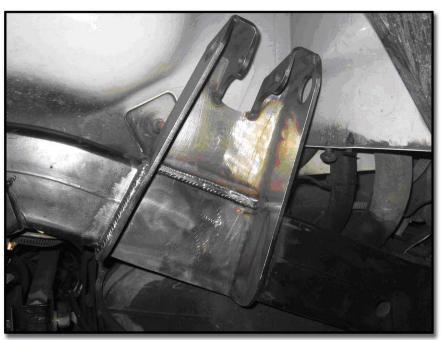
Please see next page for additional pictures



## **Instructions**



**Completed Shock Mount** 



Weld completely around the upper shock mount



## **Instructions**

- 13. Cut off the OEM lower shock mounts and grind them smooth.
- 14. Clean and paint the new shock brackets.
- 15. Install your shocks using the supplied 1/2" bolts, washers, and nuts.

