



870 INDUSTRIAL WAY, SAN LUIS OBISPO, CA (805) 783-2060

## PPI-5003 – TJ/LJ REAR COILOVER BRACKET KIT

### **GENERAL NOTES:**

- These instructions are also available on our website; [www.polyperformance.com](http://www.polyperformance.com). Check the website before you begin for any updated instructions and additional photos for your reference.
- This kit is designed for a TJ / LJ platform but can be easily adapted to a YJ or used in a universal shock mount application.
- The installation of this kit requires significant cutting, grinding and welding of the frame. It should be installed by an experienced fabricator.
- These brackets are designed around a Fox 2.0 Coilover with a 1.50" mounting width and ½" bolt. Other mfg's coilover shocks and air shocks are compatible. Confirm mounting dimensions when ordering.
- A 2.0" Coilover requires a minimum of 4" of clearance between the tire and frame. This can be achieved with a maximum wheel backspacing of 3.25"
- Reservoir mounts are not included with this kit. Most shocks will include some form of resi mount or [www.polyperformance.com](http://www.polyperformance.com) carries several options.
- NOTE – TJs equipped with rear disc brakes will have interference issues with coil over springs when the suspension articulates. To fix this issue, swap the caliper brackets from side to side. This will locate the calipers in front of the axle. Remove the axle shafts, swap caliper brackets and reinstall the axle shafts. Longer emergency brake cables may be needed.

### **PARTS LIST:**

#### **• 5003 – JEEP TJ / LJ REAR COILOVER BRACKET KIT**

- (2) 500301 TJ Rear Outboard Upper Shock Mount, Long
- (2) 500102 TJ Rear Lower Shock Mount
- (4) ½-13 UNC x 2.75" long hex head bolt
- (4) ½-13 UNC Stover nut
- (8) ½" Flat washer

### **Parts / Tools Needed to complete installation:**

- Basic simple hand tools.
- Quality Jack and Jack stands
- 4-1/2" angle grinder with cutoff wheel, grinding disc and sanding disc
- Oxy acetylene torch or plasma cutter is helpful but not necessary.
- Measuring tape
- Angle finder

APPROXIMATE INSTALL TIME: 12-16 HOURS

## **INSTALLATION:**

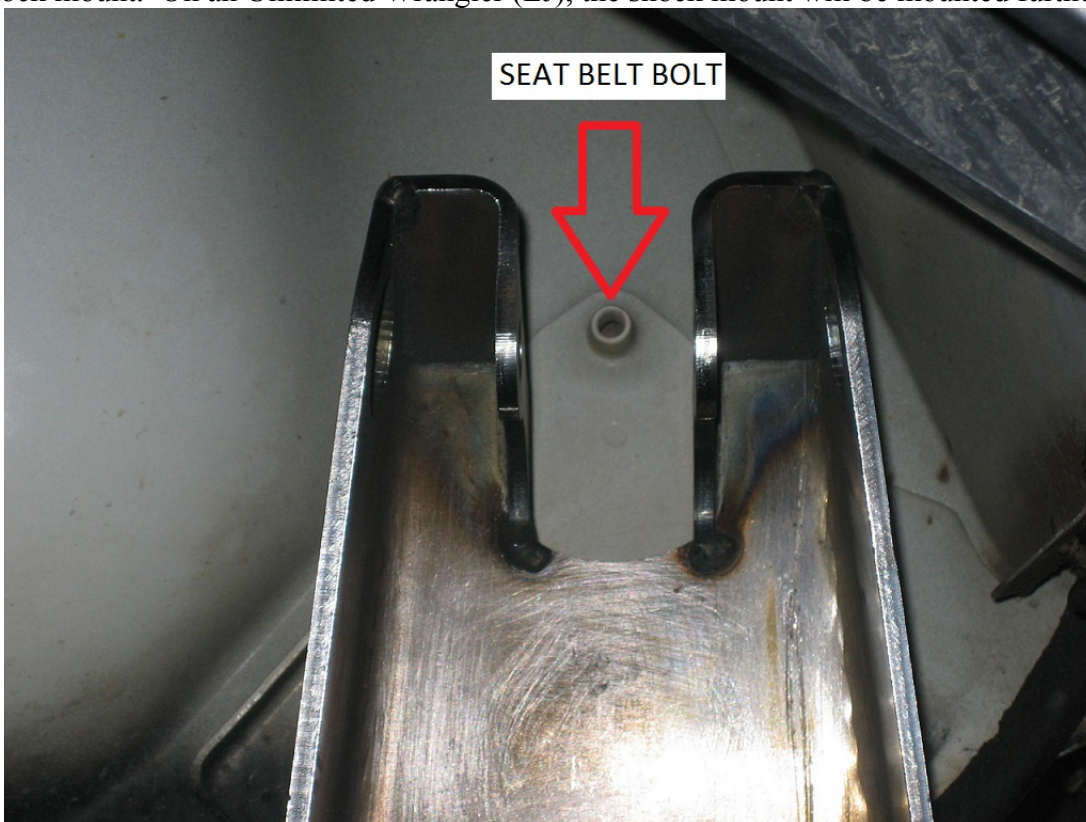
- 1) Note - these instructions cover installation of 2.0 x 12" stroke Fox coilover on a 1999 TJ. Installation of an air shock, or just as a shock mount will be the same. Installation should be performed on a flat surface. Begin by measuring and recording the rear suspension ride height.
- 2) Lift the vehicle and support the frame to allow the suspension to fully droop out. Make sure you can fully cycle the suspension. Remove the plastic inner fender, shocks and springs.
- 3) Remove paint from the rear axle between the lower control arm brackets. A grinder with an abrasive disc works well. You may need to remove the rear brake hard lines.



- 4) Position the rear axle at the desired ride height.
- 5) Position the 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 with the ground. Use a level or angle finder to measure. Tack weld the lower shock mount in place. The lower shock mount can be fine tuned by rotating it up or down depending on the placement of the upper mount.



- 6) Typically the upper shock mount is mounted perpendicular to the frame and fits into the pocket towards the rear of the fender. As a reference, the seat belt bolt should be aligned with the opening in the top of the shock mount. On an Unlimited Wrangler (LJ), the shock mount will be mounted further back.



- 7) Jack the rear axle up to full bump. Take your specified collapsed shock length; measure upwards from the lower shock mount. This determines how much material will need to be cut off the bottom of the upper shock mount. Add  $\frac{1}{4}$ " –  $\frac{3}{8}$ " 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  $\frac{1}{2}$ " 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 edge back to clearance the track bar mount.



Depth of cut viewed from below the frame



Side view of frame cut.



Side view of shock mount modification for track bar bracket.

- 9) Cut a slot in the upper shock mount along the top 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 (LJ) have enough room behind the shock mount that this step may not be required.
  - Note, if cutting the slot is not done, more material should be removed from the upper frame notch. This will allow upper shock mount to sit vertical.



- 10) Tack weld the upper shock mounts to the frame
- 11) Install both rear shocks. Fully articulate the suspension to check for shock clearance.
- 12) Once satisfied with fitment. Fully weld shock mounts in place.
- 13) Lower mounts should be welded across the top of the axle tube and down each side of the lower control arm mounts as shown.



- 14) Cut off the OEM lower shock mounts and grind smooth.
- 15) Clean and paint the new shock brackets
- 16) Install shocks using the supplied ½" bolts, washers and nuts.

Installation is Complete