



Factory Five Racing, Inc.

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By: J.Ingerslev

Document Type (indicate):

◦ Bill of Material

◦ Drawing (may be attached)

◦ Specification

• **Assembly Instructions**

◦ Operating Procedure

◦ Other

Koni Rear Coil-Over Shock Assembly

TOOLS: Snap ring pliers, 3/4" wrench, 3/4" socket, ratchet, ruler, marker, hack saw.

ATTENTION: The rear shocks are pre-valved at the factory in compression and rebound for good street use. The shocks can be adjusted in rebound as per Koni's instructions if so desired. The rear springs are 350lb. Other springs are available for different ride characteristics.

WARNING! Incorrect assembly and maintenance of this part can cause serious injury or death.



Note: If using a 1987-1993 width rear axle with disc brakes, the brake calipers must get mounted so that they are on the front side of the axle. This is done by swapping the calipers and mounting brackets to the opposite side of the car.

1. If retro fitting the Koni shocks, place the car on jack stands and remove the old shocks and springs. Save all of the fasteners and spacers, they will be reused.
2. Double check the jam nut under the rod end and bump stop to make sure that it is tight.
3. Screw the spring seat down on the sleeve so it is closer to the unthreaded end. The center high part of the set should be pointed away from the unthreaded end.
4. Slide the coil sleeve over the body of the damper beginning at the end which has the rubber bump stop. The unthreaded end of the sleeve goes first so that it will sit on the snap ring on the shock body.



5. The coil-over hats have a snap ring which holds it in place. Remove this snap ring to assemble the coil over shock.



6. Slide the rubber bumper about two inches down on the shaft.



7. Put the spring on the shock, then install the spring hat on the shaft end of the shock and push the rubber bumper up against it.
8. Rotate the spring seat back up the sleeve so that the spring pushes the hat tight against the end of the shock.

9. Install the snap ring on the spring hat so that it holds onto the shock end. Make sure that the slot in the snap ring and the slot in the spring hat are not aligned.



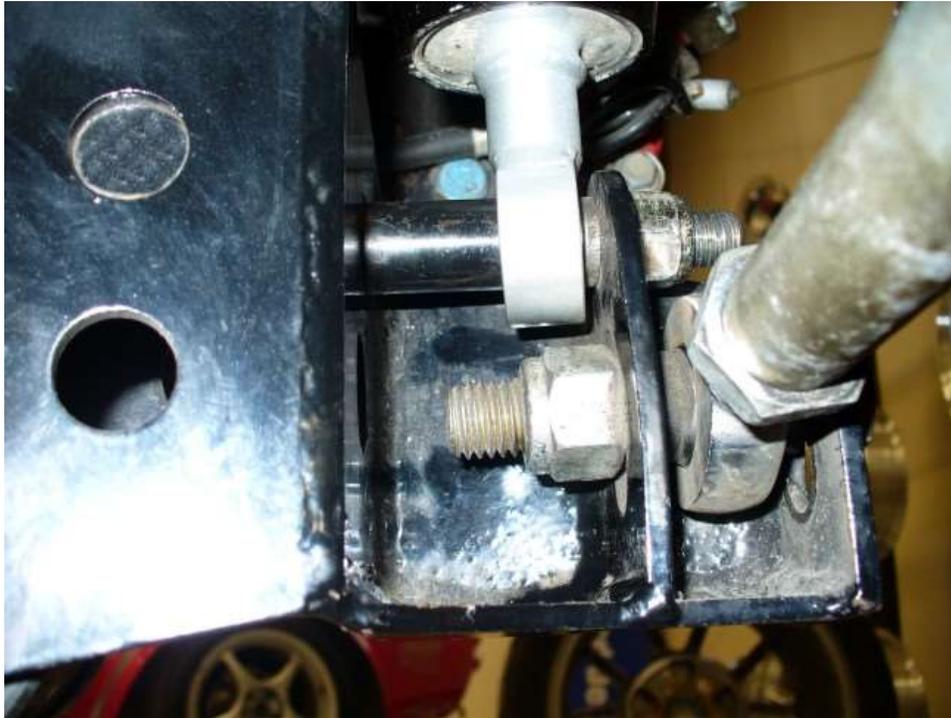
Assembled solid axle Koni coil-over shock.

Passenger Side

10. Attach the body end of the shock to the upper shock mount using the two equal length (1.09") spacers.



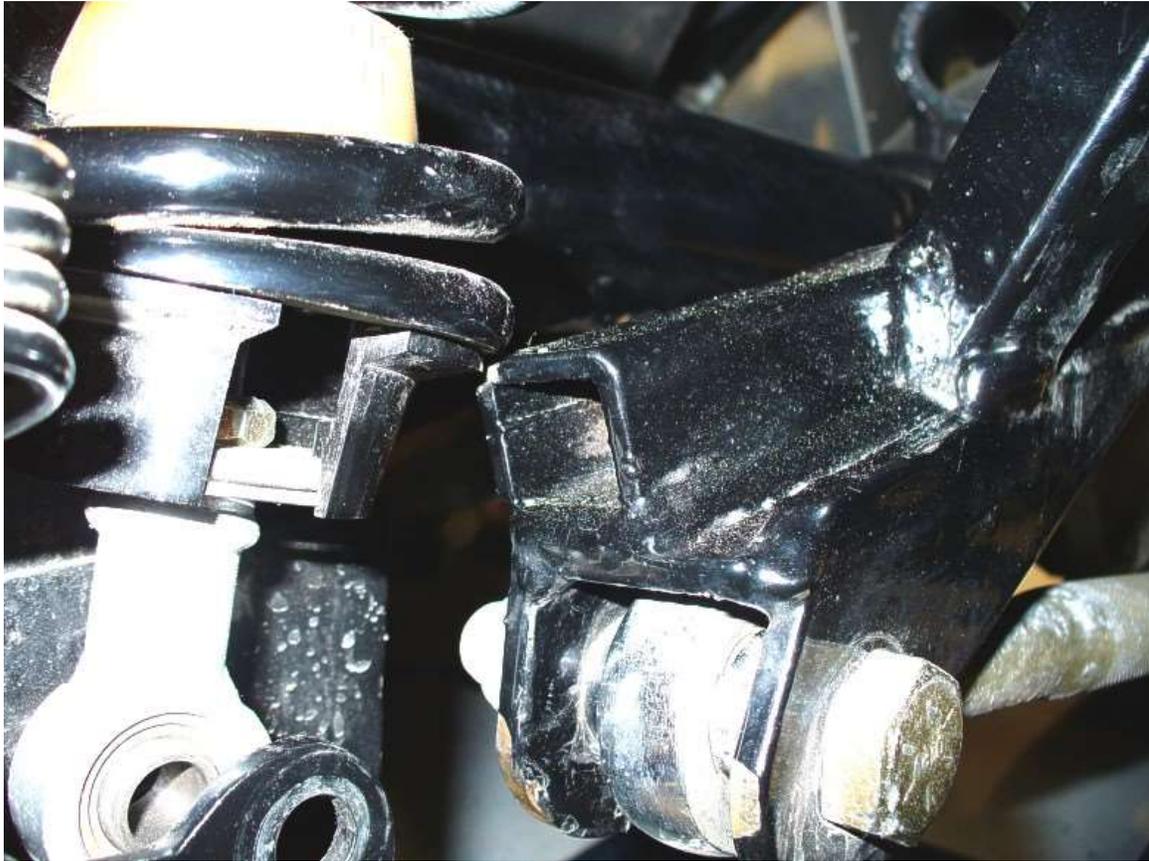
11. Jack the rear axle up so the rod end of the shocks can be mounted on the axle through the shock mount hole.
12. Install the kit $\frac{1}{2}$ "x 4" bolts are provided for each lower shock mount. The bolt should be installed from front to rear going through the axle and bracket then the long spacer (1.13") from the rear shock assembly, the shock, and the $\frac{1}{8}$ " shim toward the rear. Once the bolt is in place with the shock and shims tighten it and the two smaller bolts that clamp the bracket to the axle. Tighten with a $\frac{3}{4}$ " socket and wrench.



Driver Side

Note: If using a 3-link rear suspension, follow these steps for the driver side. If using a 4-link suspension, copy the directions used for the passenger side then go to step 22

13. Temporarily attach the body end of the shock to the upper shock mount putting the rod end of the shock into the axle bracket.
14. Check to see if the spring hat hits the Pan hard bar frame mount.

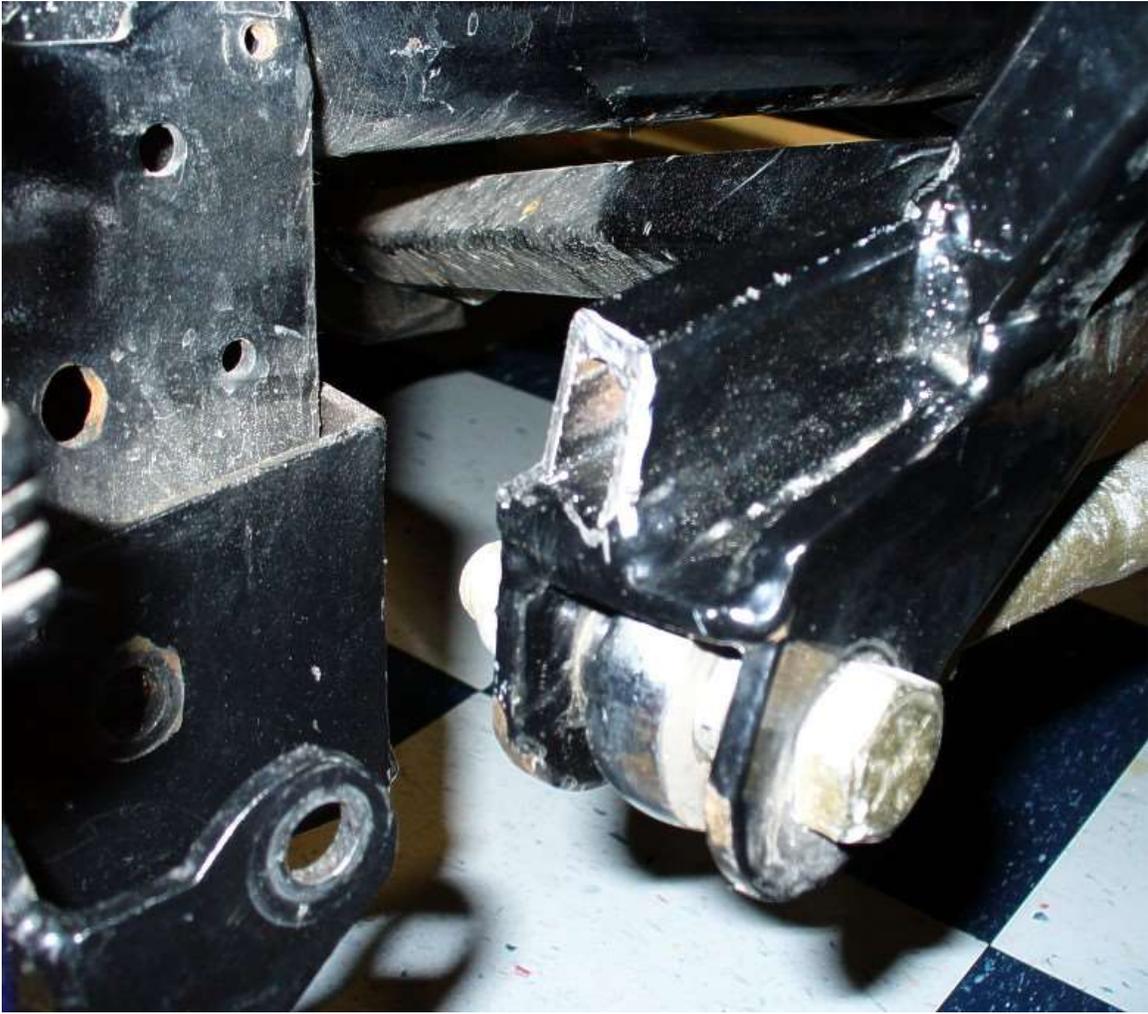


Spring hat hitting Panhard Bar mount.

15. This is only happens when the car is off the ground and for installing the shock bolt.
16. Remove the shock.
17. Using a ruler and a marker mar the front top side of the Panhard bar mount $\frac{3}{4}$ " from the end going diagonally to the rear lower corner as shown in the picture on the next page.



18. Cut this area off using a hack saw to allow clearance for the spring hat.



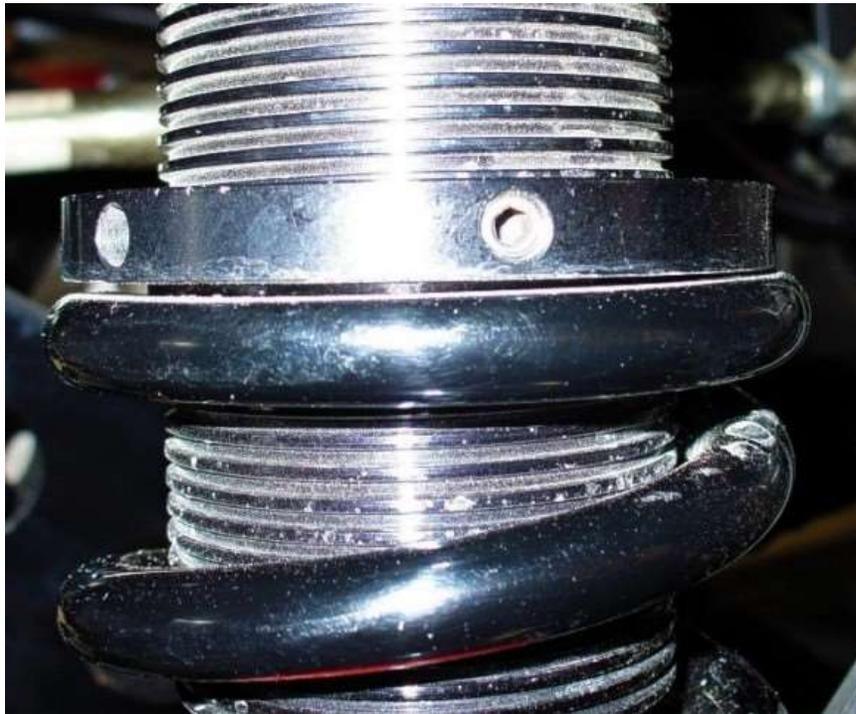
19. Test fit the shock again to make sure that the bolt will go through. Below is a picture showing the clearance at ride height.



20. Install the shock by first attaching the body end of the shock to the upper shock mount using the two equal length (1.09") spacers.



21. Install the kit $\frac{1}{2}$ "x 4" bolt provided for the lower shock mount as was done on the passenger side. The bolt should be installed from front to rear going through the axle and bracket then the long spacer (1.13"), the shock, and the $\frac{1}{8}$ " shim toward the rear. Once the bolt is in place with the shock and shims tighten it and the two smaller bolts that clamp the bracket to the axle. Tighten with a $\frac{3}{4}$ " socket and wrench.
22. Mount the wheels on the car.
23. Lower the car off the jack stands.
24. Bounce the back of the car up and down to settle the new rear suspension.
25. Set the rear ride height of the car to 4.75" from the bottom of the 4" round tube to the ground with no one in the car or 4.50" with a person sitting in the car or two people in the car if that is normally the case.
26. Once the ride height is set, tighten the small set screw in the spring seat just until you feel it contact. The end of the set screw is plastic so that the threads are not destroyed. Not a lot of pressure is needed to prevent the seat from turning.



27. Check for shock clearance on brake lines, emergency brake cables, Brake Calipers, frame and axle parts.
28. Check to make sure that the spring is seated correctly on the shock
29. Run zip ties through the holes in the spring hat and around the spring to prevent the spring from becoming unseated.



