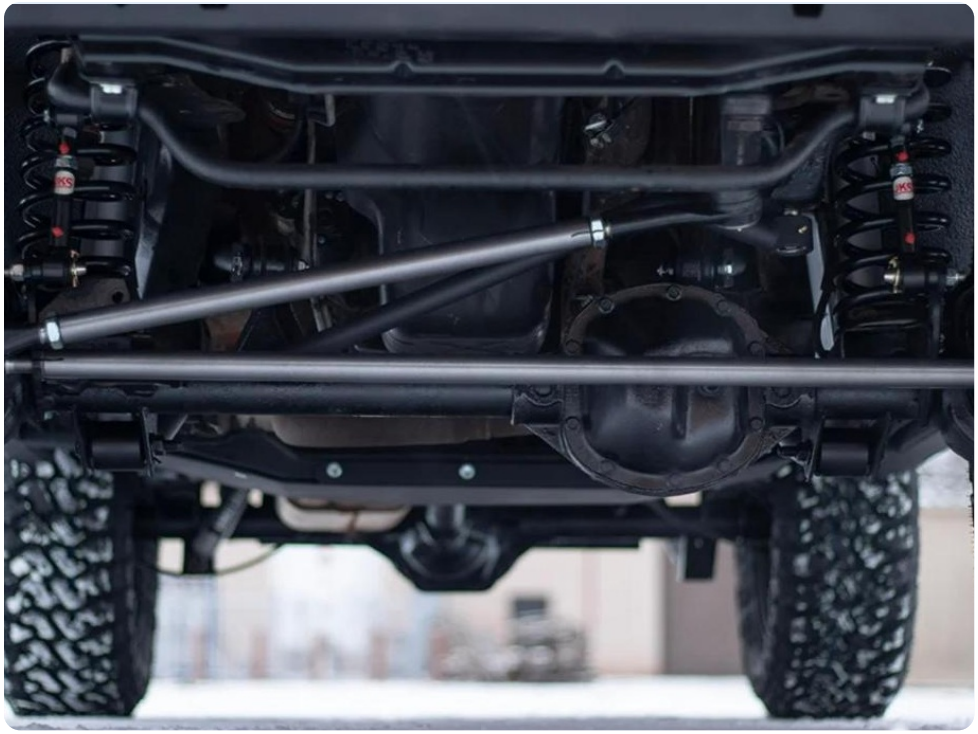
## Step 1 1-Ton Steering UTK Install Instructions

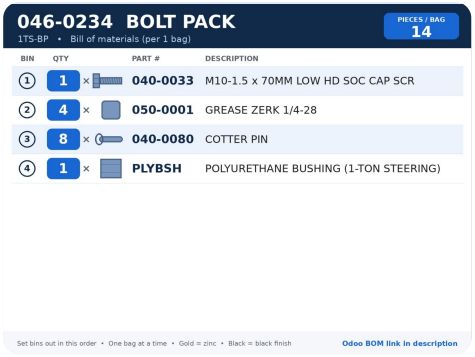


Step by step on how to install the Jeep 1-Ton Steering Upgrade, Under the Knuckle (UTK). Please read all steps carefully before starting. If any step seems difficult, have a trusted 4WD shop do the install.

Questions or Support:
Phone: 269-353-1184
Email: info@jcroffroad.com

## Step 2 Included Parts & Hardware






Check that you have all of the parts and hardware shown before starting. Hardware pack: 046-0234 (every bolt, nut and washer is listed in the bill of materials picture). Tools needed: 1/2 in. drill, 5/8 in. drill bit (11/16 in. optional), 7 degree reamer, cutting oil, penetrating oil, 1-5/16 in. wrench for the jam nuts, red Loctite 271 and a paint marker.

## Step 3 Paint Rods and Remove Stock Steering



Optional: paint the rods first, leaving the tie rod ends threaded in and taped so no paint gets on the threads or jam nuts. Put the front of the vehicle on jack stands and pull the front tires. Remove the stock steering from the knuckles and pitman arm (castle nuts use a 3/4 in. deep socket; if a worn tie rod end spins, jack up under it). Remove the steering stabilizer from its axle mount and take out the whole stock steering assembly.

## Step 4 Drill the Pitman Arm and Knuckles



Drill the pitman arm hole out to 11/16 in. (or 5/8 in.) and both knuckle tie rod end holes to 5/8 in., keeping the drill parallel to the original holes. The pitman arm can be done on the vehicle, or removed with a 1-5/16 in. socket and a puller and drilled in a drill press.

## Step 5 Ream the Tapers



Lube the 7 degree reamer with cutting oil and ream each hole from the bottom, holding the drill parallel the whole time. Check the pitman arm often with a drag link tie rod end and the knuckles with a tie rod tie rod end. Stop when the castle nut threads on far enough for the cotter pin. If you removed the pitman arm, reinstall it with the original lock washer and red Loctite and torque to factory spec.

## Step 6 Install the Tie Rod



Thread the tie rod ends in evenly so the same amount of thread shows on each side. Bolt the tie rod on with the longest end to the passenger side. Tighten the castle nuts until the cotter pin hole shows between the points of the nut, then install the cotter pins. Anti-seize on the threads makes later adjustment easier.

## Step 7 Set the Toe-In



Bolt the wheels back on and center the steering by eye. With a helper, measure between the same points on the front and rear of the front tires. Spin the tie rod to set 0 to 1/8 in. of toe-in, double check, then add red Loctite to the threads and tighten the jam nuts.

## Step 8 Install the Drag Link



Turn the steering wheel lock to lock, find the center and lock the wheel there. Remove the dust boot from the ES2233L (longest end) and replace it with the supplied poly spacer. Bolt the drag link on with the ES2233L to the passenger side, tighten the castle nuts and install the cotter pins. Spin the drag link until the front tires point straight ahead.

## Step 9 Center the Steering Wheel



Lower the vehicle, unlock the wheel and sight down both front tires to set them straight ahead. Twist the drag link to bring the steering wheel to top center by the shortest way. Double check, clean off any anti-seize under the jam nuts, add red Loctite and tighten the jam nuts.

## Step 10 Mark Jam Nuts and Grease



Draw a paint marker line across each jam nut and rod so you can spot loosening. The jam nuts must stay tight; always use red Loctite if you adjust them. Grease all of the tie rod ends now and often after.

## Step 11 Final Check and Alignment



Have the front end professionally aligned for proper tire wear. If the steering hits the diff cover or track bar bolt, check the toe-in first. If the wheel will not center, make sure the steering box was centered before the install.

## Step 12 Installation Complete



Congratulations, you have completed the install of your new 1-Ton Steering UTK! Enjoy your new product.

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