

Installation Instructions

Torque Specs

- 1-5/8" jam nuts: 250 ft-lbs
- Drag Link castle nuts: 75-82 ft-lbs
- Tie Rod castle nuts: 63-67 ft-lbs

Installation Notes:

- Over-the-knuckle swaps are recommended for 3.5" or 4" lifts and higher.
- If you are installing an over-the-knuckle drag link, you might want to consider installing a front track bar relocation bracket. This will help get the front track bar and drag link parallel to minimize bump steer when driving.
- Make sure the steering wheel is straight when installing the new drag link. Once you take the drag link off, the steering wheel will free spin. If you spin the steering wheel, you risk damaging the clock spring in the steering column or having your steering box in a different position after the drag link is installed and damaging other components when turning to full lock.
- If your steering wheel is not straight, or close to straight, after installing the new drag link, your vehicle might trigger the traction control. If the steering wheel is not straight while driving down the road, the vehicle might think it is sliding. The traction control will turn on to prevent the vehicle from "sliding" and will turn off once you go below a certain speed. To fix this, adjust the drag link to straighten the steering wheel.
- When tightening the jam nuts on the tie rod and drag link, you need to torque them in a sequence. Trying to torque one jam nut to 250 ft-lbs will turn the body of the drag link or tie rod. If you torque them in a sequence, it will keep the body from turning and changing your alignment angles. For example: snug up both jam nuts, then torque one to 50 ft-lbs, the other side to 50 ft-lbs, then increase the torque and that sequence until you get to 250 ft-lbs.

Recommended Lengths:

- The tie rod sets your toe alignment angle. This length needs to be set while performing an alignment or matched to the same length as the tie rod previously installed on the vehicle.
- The drag link is used to straighten the steering wheel after the alignment has been performed.

JL/JLU Drag Link

Support the front axle with jack stands so you can remove the front tires to make the installation easier. If you don't have access to a jack and jack stands, you can do this on the ground without raising the vehicle. Make sure to use wheel chocks to prevent the vehicle from rolling when the front end is jacked up in the air.

Removal:

1. Turn the steering wheel so that the tires are pointed straight forward and the steering wheel is parallel with the ground.
2. Take the nuts off of the pitman arm end and the knuckle end.
3. You might need to use a pickle fork or hammer to get the old drag link ends out of the pitman arm and knuckle. Be careful not to damage the tapers on either of those components when removing the old drag link.

Installation:

4. Ensure that the pitman arm and knuckle tapers are free from debris and other damage.
5. Insert the drag link into the knuckle and install the castle nut finger tight. This end has the rod end with the bend in it. Ensure the bend is pointed towards the front of the vehicle to prevent the drag link from hitting other components on the axle when the vehicle turns.
6. Insert the short rod end of the drag link into the pitman arm and install the castle nut finger tight.
7. Once both ends of the drag link are installed, torque the castle nut to 75-82 ft-lbs and install the cotter pin.
8. After the drag link has been adjusted to make the steering wheel parallel with the ground, torque the jam nuts to 250 ft-lbs. Inspect the jam nuts regularly after the installation to make sure they have not backed off. Loose jam nuts will wear out the threads and stripped-out threads are not directly covered under the lifetime warranty.
9. The drag link ends come pre-greased. Be careful not to over-grease them and blow out the boots or the ball joint on the rod ends. Grease them every 4-6 months after installation.

Over-the-knuckle Swap

Installation:

1. After the old drag link has been removed, you need to drill out the taper on the passenger side steering knuckle to insert the new tapered sleeve.
2. Using the supplied $\frac{7}{8}$ " drill bit, drill out the taper and insert the new tapered sleeve in from the top of the knuckle.
 - a. It is a really good idea to use cutting fluid or something similar to that to prevent heat buildup in the knuckle or damage to the drill bit.
 - b. There is no need to weld the new tapered sleeve into the knuckle due to the slit in the sleeve. When the drag link is torqued down on the knuckle, that slit will dig into the knuckle and prevent it from turning.
3. Once the tapered sleeve is installed, follow the Installation instructions on page 2 to finish installing your new drag link.

JL/JLU Tie Rod Installation Instructions

Support the front axle with jack stands so you can remove the front tires to make the installation easier. If you don't have access to a jack and jack stands, you can do this on the ground without raising the vehicle. Make sure to use wheel chocks to prevent the vehicle from rolling when the front end is jacked up in the air.

Removal:

1. Turn the steering wheel so that the tires are pointed straight forward and the steering wheel is parallel with the ground.
2. Take the nuts off of the tie rod ends on both steering knuckles.
3. You might need to use a pickle fork or hammer to get the old tie rod ends out of the steering knuckles. Be careful not to damage the tapers on either of those components when removing the old tie rod.

Installation:

4. Ensure that the steering knuckle tapers are free from debris and other damage.
5. Insert the passenger-side tie rod end into the steering knuckle and install the castle nut finger tight.
6. Insert the driver-side tie rod end into the steering knuckle and install the castle nut finger tight.
7. Torque down the castle nuts to 63-67 ft-lbs and install the cotter pins.
8. After the tie rod is adjusted to set your toe alignment angle, torque the jam nuts to 250 ft-lbs. Inspect the jam nuts regularly after the installation to make sure they have not backed off. Loose jam nuts will wear out the threads and stripped-out threads are not directly covered under the lifetime warranty.
9. The tie rod ends come pre-greased. Be careful not to over-grease them and blow out the boots or the ball joint on the rod ends. Grease them every 4-6 months after installation.
10. Install your steering stabilizer clamp and stabilizer.