



JK 1 Ton Flip Kit (Over the Knuckle ONLY) Tie Rod and Drag Link

At Apex, customer safety is our top priority, and steering is a **CRITICAL** safety component.

****Be sure the installer has read and follows these instructions****

Failure to follow these instructions may result in loss of control of the vehicle, accident, and injury.

Failure to follow install instructions and use correct install tools may also void the warranty.

Install instructions should follow vehicle through entire install process, including alignment, which requires safety-critical torque and process to complete.

Installation Instructions:

1. Before removing the OEM, tie rod and drag link assemblies, measure center to center of the grease fittings or ball studs and write these measurements down for later.
2. Tie rod assembly requires TR117 and TR119 rod ends. Set these parts aside with the long adjusting sleeve from the KIT (TR205, TR206, or TR207).
3. Thread jam nuts all the way down the tie rod ends toward the ball studs. Install the bent Ninja Washers onto the adjusting sleeve with the bent side facing toward the adjusting sleeve. **(You can use the Belleville washers in place of the bent Ninja washers.)**
4. Starting with the Tie Rod adjusting sleeve, locate the left-hand side of the tie rod tube, it will have a machined cut line toward the end of the rod on one side (this is the left-hand thread indicator), find the left-hand thread tie rod end, this will have notches in the jam nut. Please, coat the inside threads of the adjusting sleeve with anti-seize, **NOT the tie rod end threads**. Getting anti-seize in the area of the jam nuts can decrease the effectiveness of the jam nuts.
5. Thread the tie rod ends into the adjusting rod, ensuring the correct thread direction. Thread until it reaches the jam nut. Wipe off any excess anti-seize.
6. Continue with the right-hand side of the tie rod and repeat the above instructions.
7. Drag link assembly, locate adjusting sleeve (the shorter rod) and ends and follow the instructions as you did with the tie rod end assembly. This will require TR119 (right-hand threads) and TR118 (left-hand threads), you will need to flip the tube so that the right-hand threads are on the passenger side of the tube.
8. Remove OEM tie rod and drag link assemblies.
 - CONTINUED ON REVERSE SIDE

9. Before installing the ends, apply a light layer of grease to the top of the boot. This will create a lubricated surface between the boot and the joint, helping to reduce friction.
10. Drill Knuckle in the drag link attachment hole with a straight 7/8" drill bit and make sure to make the hole straight, then insert taper sleeve from the top of the knuckle.
11. Install drag link first with the drag link end on the knuckle side then the pitman arm side. **Torque the castle nuts 75-82 ft/lbs.**, leave the jam nuts loose and center the steering wheel before turning the tube until lined up. This will install over the knuckle on the passenger side.
12. Install the tie rod assembly, **torque castle nuts to 63-67 ft/lbs.** rotate the tube to achieve the previous length measurements you wrote down. Be sure to measure at the same point on the new tie rod. Leave jam nuts loose and use tape measure to set toe to factory specs.
13. Tighten all jam nuts on tie rod and drag link, **torque to 150 ft/lbs.** At this point, we recommend a professional do the wheel alignment. Once the alignment is complete, bend the rounded tabs over the jam nut.
14. Set and adjust steering stabilizer following manufacturer's instructions, be sure that it has equal travel at full lock both directions, and is not contacting any other parts, such as differential covers.
15. Check jam nuts for tightness at 500 miles and monitor jam nuts regularly every 5000 miles or after oil changes for tightness.

Wrenches needed:

KIT520 – WR111 - 33mm/34mm

WR101 – 33mm/35mm

If you have any questions or concerns, please don't hesitate to give us a call or email.

Thank you,

Team Apex

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****Use either bent Ninja washers or Belleville washers to secure jam nuts (Not both)**