



Ford 05-16 and 17-25 Tie Rod Pro-Lock

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 your OEM, tie rod assemblies, measure from the center of the ball studs on each side, and write these measurements down to refer to later. Note – the passenger side tie rod end is an eye, not a ball stud, so measure from the inner edge of the eye to the opposite ball stud.
2. Thread the jam nuts all the way down the tie rod ends. Then, install the **Pro-Lock Key Washer** onto the Tie Rod End keyway with the bent side facing toward the adjusting sleeve.
3. Locate the tie rod ends and adjusting sleeve on both the passenger and driver sides. The passenger side tie rod ends will have notches in the jam nuts, indicating a left-hand thread. The adjusting sleeve will feature a ring machined into one end, near the flats, which also indicates left-hand threads on that side of the adjusting sleeve.
4. Please, coat the inside threads of the adjusting sleeve with a small amount of anti-seize, DO NOT apply anti-seize to the tie rod end threads. Getting any anti-seize in the area of the jam nuts can decrease the effectiveness of the jam nuts and possibly prevent the jam nuts from holding torque. If anti-seize is mistakenly applied to the rod end threads, use Brake-Kleen or other solvent to clean the threads completely.
5. Thread the tie rod ends into the adjusting sleeve, ensuring the correct thread direction. Thread until it reaches the jam nut. Wipe off any visible anti-seize.
6. Continue with the driver's side of the tie rod and repeat the above instructions.
7. Now adjust the ends equally to set the distance between the ball studs to the same as the OE measurements you took earlier. Note – the passenger side tie rod end is an eye, not a ball stud, so measure from the inner edge of the eye to the opposite ball stud.

- CONTINUED ON REVERSE SIDE

8. 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.
9. Install the tie rod assembly. The passenger side tie rod attaches to the long ball stud on the drag link under the knuckle. **Torque castle nuts to 75-82 ft/lbs.** Leave jam nuts loose and use tape measure to set toe to factory specs.
10. Once the toe is set, slide key washers on to the adjusting rod. You may need to rotate the rod slightly to install the washers on adjusting sleeve. Tighten tie rod/adjusting sleeve to the closest wrench flat to make washer seat completely against adjusting sleeve.
11. Tighten all the jam nuts on the tie rods, **torque to 200 ft/lbs.**
12. Be sure to test the steering lock-to-lock to check for any interference with wheels or other vehicle parts.
13. At this point we highly recommend engaging a professional to get the alignment set.
14. Once alignment is complete we recommend using a medium strength thread locker (blue Loctite 243 or blue Permatex 24206 or other preferred brand) under the jam nuts.
15. Then torque the set screws on the tie rod jam nuts to **8-10 ft/lbs. Only after alignment is done.**
16. Using a paint marker across the jam nut and adjusting sleeve provides an easy visual indicator if the jam nuts have loosened.
17. Check jam nuts for tightness at 500 miles and monitor jam nuts regularly every 5000 miles or after oil changes for tightness.

Wrenches needed:

KIT512

WR108 – 50mm/52mm

WR110 – 55mm/57mm

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

Thank you,
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