

SPL FRONT TIE ROD ENDS FRS



Insert shank into spindle.

Use 2 supplied 5/8" regular (non-locking) nuts, jam 2 nuts together to help hold the shank. **Torque nut on top of knuckle to 40 ft-lbs. DO NOT USE IMPACT GUN OR OVERTORQUE** otherwise strength of tie rod end will be severely compromised.



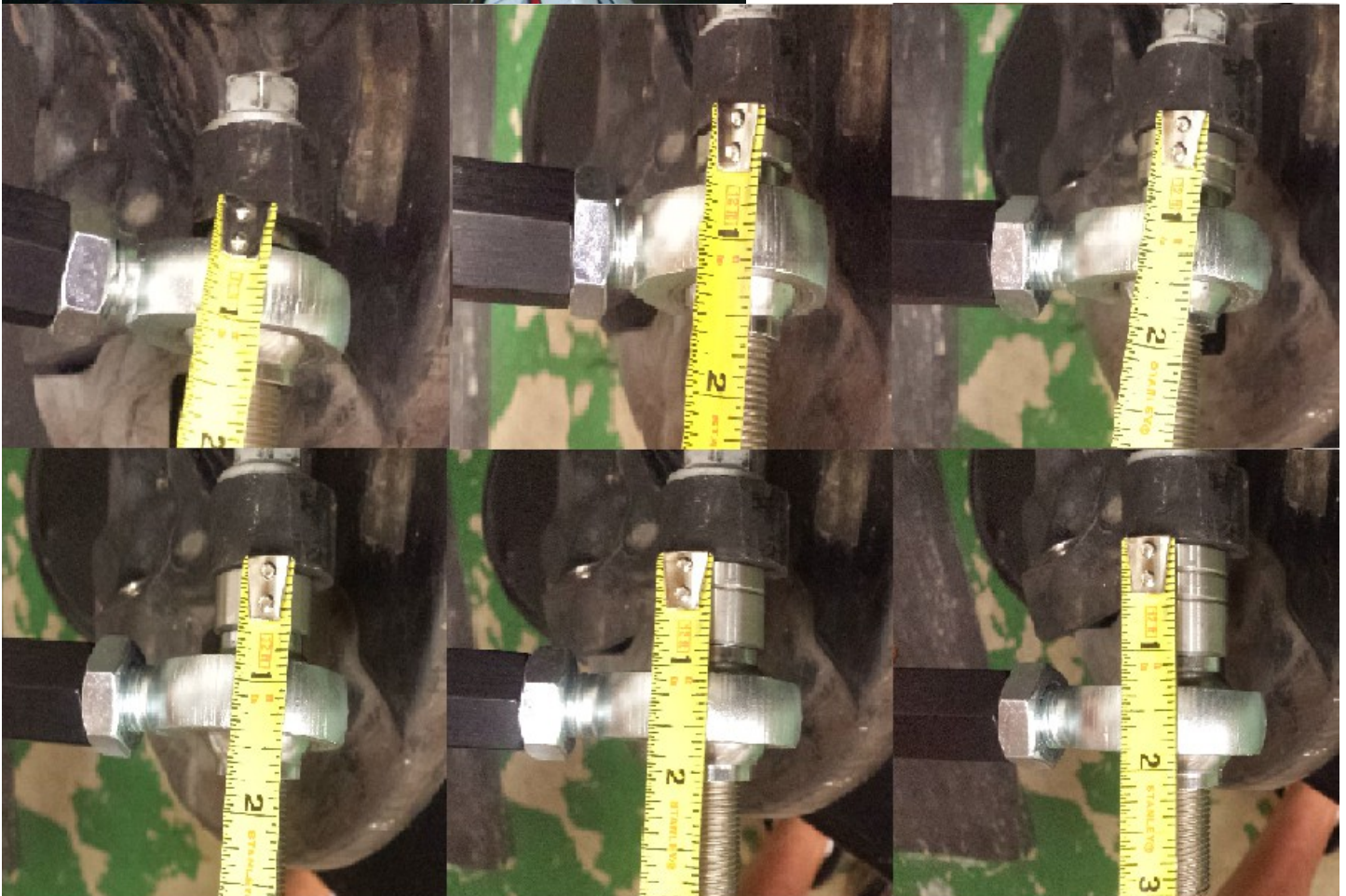
Remove the 2 nuts.





Install spacers. As pictured on left, the tie rod ends are installed with 1 adjustment spacer (flat ring spacer) and 1 misalignment spacer (large spacer).

The following pictures show possible bumpsteer adjustment settings, using various combinations of spacers. The stock tie rod end corresponds to the 3rd setting (with 2 adjustment spacers and no misalignment spacer).



For most installations on stock knuckles, we recommend using **4th setting (1 misalignment spacer, no adjustment spacers)**.

Install locking nut on bottom. This nut will take some effort to thread (about 20 ft-lbs of torque) as it is a metal crimping/locking nut. **TORQUE TO 30 ft-lbs.**

Check for binding or any problems by rotating steering wheel lock to lock. Check that the spherical bearing does not bind (the edge of the ball bearing hitting or close to hitting the housing) under any situation as shown in the picture below.



Note that the inner tie rod end can rotate freely, so the picture on left is not binding even though the edge of the ball is touching the housing. If uncertain, try rotating the inner tie rod by using a wrench on the hex part of the inner tie rod:

Tighten down the 2 jam nuts that go against the hex buckle of the outer tie rod end.
Any excess thread below the bottom nut can be trimmed or cut off as needed (eg. for wheel or steering bump stop clearance).

When getting the car aligned, please adjust toe by turning the inner tie rod. Do not turn the tie rod end buckle, this will not adjust toe.

Length adjustment of outer tie rod ends

Our tie rod ends are preset to a specific length, but in certain cases it may be necessary to make the outer tie rod ends longer or shorter. The outer tie rod ends can be lengthened or shortened on the car using the following procedure:

Loosen the jam nuts on both sides of the hex buckle. Hold the inner tie rod fixed and turn the hex buckle so as to thread in/out the rod end (spherical bearing side). Note that since both the rod end and the inner tie rods are right hand thread, threading in/out the rod end will in turn thread out/in the buckle on the inner tie rod side.

Once the outer tie rod end is long/short enough, tighten down jam nut on the rod end side. Note that for safe thread engagement, the maximum amount of exposed thread on the rod end should not exceed 0.7". Now follow the normal procedure of turning the inner tie rod to adjust the toe.

ONE-YEAR LIMITED WARRANTY AND DISCLAIMER

*All SPL brand products are intended for **Off Road Use Only** and carry a one year limited warranty. See below for details. All other branded products carry their respective manufacturer warranty.*

SPL PRO suspension products warranted to be free of defects in material and workmanship for one (1) year from the date of purchase.

If a product fails to meet specifications, SPL PARTS INC will, at its election, repair, replace, or make appropriate adjustment, if SPL PARTS INC determines to its satisfaction that the product is defective in material or workmanship, i.e. contains a defect arising out of the manufacture of the product and not a defect caused by other circumstances, including, but not limited to accident, misuse, abuse, unforeseeable use, neglect, alteration, improper installation, improper adjustment, improper repair, or failure caused by other equipment or interaction with other equipment. SPL PARTS INC is not responsible for labor charges, removal charges, installation, or other incidental or consequential costs. In no event shall the liability of SPL PARTS INC exceed the purchase price of the product.

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If the purchaser of the product shall fail to pay when due any portion of the purchase price, or fail to meet any terms required under contract agreed on at time of purchase, all warranties and remedies granted may be terminated.

Using any SPL arm as a tie/strap down point for a dyno session or transport will void the warranty.