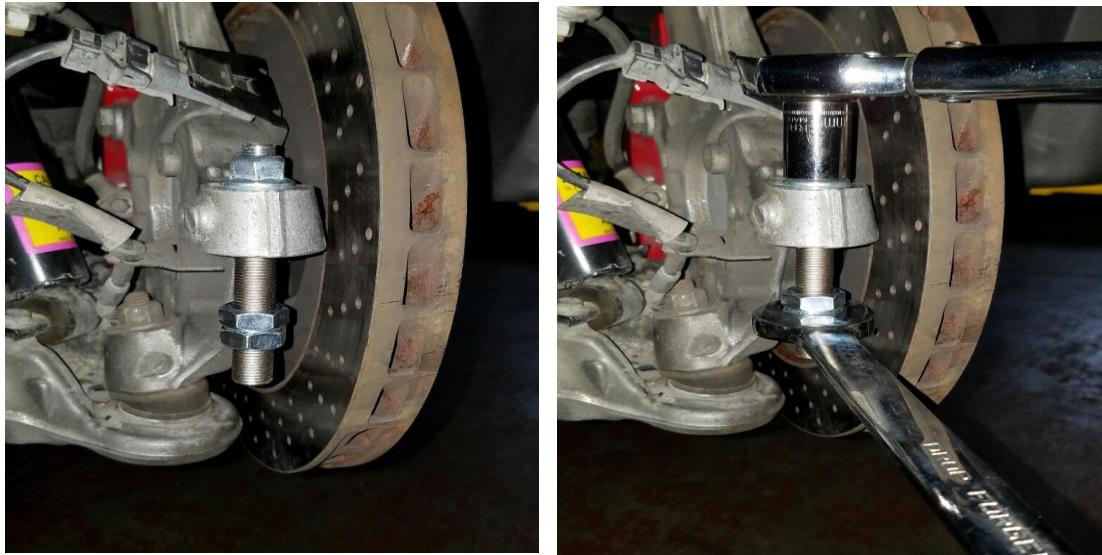


Front Tie Rod Ends Kit Installation Instructions SPL TRE S13

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10200	Tumbuckle	2
2	10250	Hardened Shank	2
3	90114	1/4" Spacer	4
4	90115	1/2" Spacer	2
5	HJM10T	FK Rod End	2
6	F110667	5/8-18 Jam Nut	4
7	F15035	1/2-20 Flange Locknut	2
8	62FNNEZ	5/8-18 Nylock	2

TRE S13

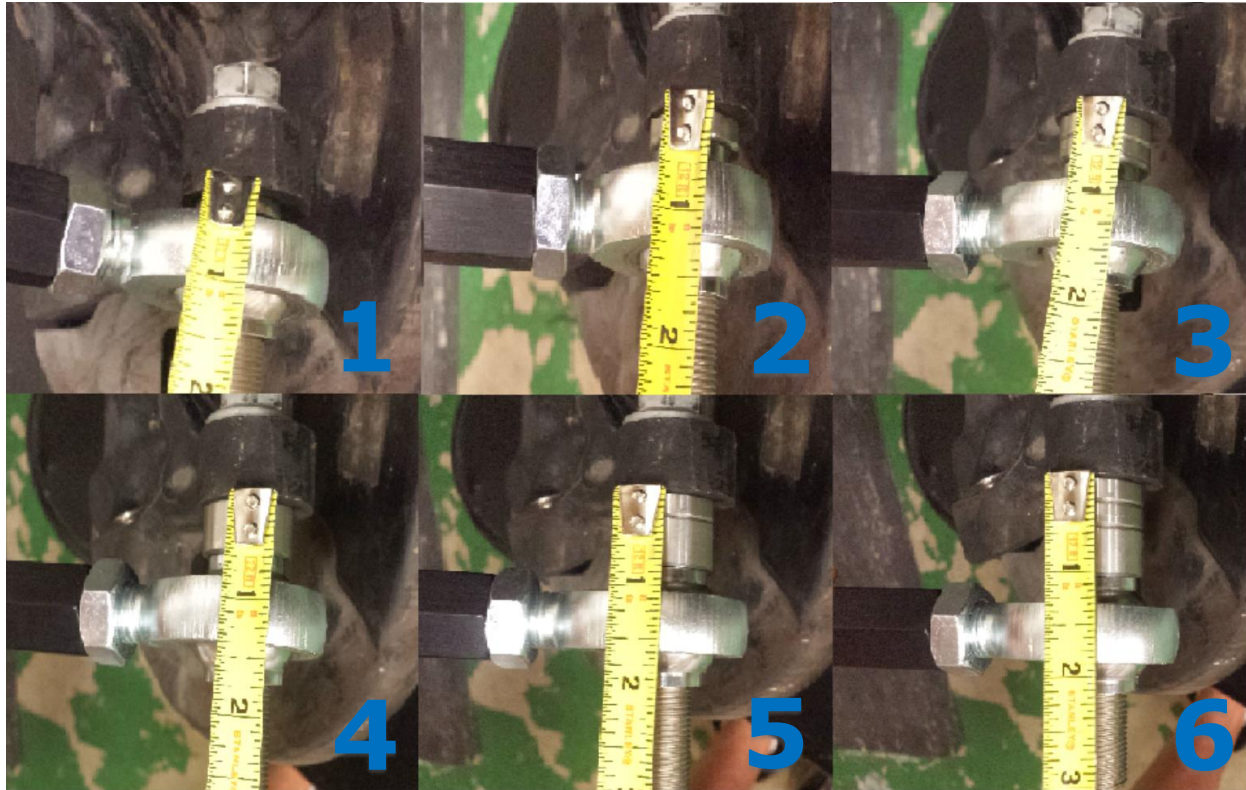
Insert the Hardened Shank (2) into the spindle. Use the two supplied 5/8"-18 Jam Nuts (6), and jam the nuts together to help hold the Hardened Shank. Torque the nut on top of knuckle to 75 **ft-lbs.** **DO NOT USE IMPACT GUN OR OVERTORQUE.** Otherwise, strength of tie rod end will be severely compromised. *SPL Parts is not liable for any issues due to overtorque.*



Remove the two 5/8"-18 Jam Nuts, and install the Spacers (3, 4). As pictured on left, the Tie Rod Ends are installed with one 1/4" spacer (3) and one 1/2" spacer (4). Install the locking nut on bottom (8). Torque to 80 **ft-lbs.**



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



For most installations on stock knuckles, we recommend using **4th setting (one 1/2" spacer, no 1/4" spacers)**.

Verify there are no clearance issues with the knuckle, subframe, or other suspension arms before putting the car back on the ground.

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. After installing, run the suspension and the steering rack from lock to lock through its travel to make sure there is no contact between the arms.



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. To do this, tighten down the two 5/8"-18 Jam Nuts (6) that go against the Turnbuckle (1) of the Outer Tie Rod End. Any excess thread below the bottom nut can be trimmed or cut off as needed (e.g. 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 Turnbuckle, as this will not adjust toe. Take these instructions with you to ensure that it is adjusted correctly.

Length adjustment of outer tie rod ends

SPL Parts 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:

1. Loosen the 5/8-18 Jam Nut (6) on both sides of the Turnbuckle.
2. Hold the inner tie rod fixed and turn the Turnbuckle so as to thread in/out the FK Rod End (5). Note that since both the FK Rod End and the inner tie rods are right hand thread, threading in/out the FK Rod End will in turn thread out/in the buckle on the inner tie rod side.
3. Once the outer Tie Rod End is long/short enough, tighten down the 5/8-18 Jam Nut on the FK Rod End side. Note that for safe thread engagement, the **maximum** amount of exposed thread on the rod end should not exceed 0.7".
4. Follow the normal procedure of turning the inner tie rod to adjust the toe.

Be safe and enjoy your new upgrade!

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.

SPL PARTS INC makes no other warranties, either expressed or implied, including limitation warranties as to merchantability or fitness for a particular purpose. SPL PARTS INC shall not be liable for, and buyer assumes all risk of, any advice or failure to provide advice by SPL PARTS INC to buyer regarding the product or use and installation of product. SPL PARTS INC shall not be liable for any special, incidental or consequential damages.

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.