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## **INSTALLATION INSTRUCTIONS**

Heavy-Duty Tie Rod Sleeves QA1 P/N 5250, 5251, 5252, 52324, 52325

READ ALL INSTRUCTIONS CAREFULLY AND THOROUGHLY PRIOR TO STARTING INSTALLATION. PRODUCTS THAT HAVE BEEN INSTALLED ARE NOT ELIGIBLE FOR RETURN. USE THE PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED. A GOOD CHASSIS MANUAL, AVAILABLE AT YOUR LOCAL PARTS STORE, MAY ALSO AID IN YOUR INSTALLATION.

## • DISCLAIMER / WARRANTY •

QA1 WARRANTS THAT THE PRODUCTS WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM DATE OF SALE TO THE ORIGINAL PURCHASER. QA1 MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. QA1 SHALL HAVE NO OBLIGATION UNDER THE FOREGOING WARRANTY WHERE THE DEFECT IS THE RESULT OF IMPROPER OR ABNORMAL USE, YOUR NEGLIGENCE, VEHICLE ACCIDENT, IMPROPER OR INCORRECT INSTALLATION OR MAINTENANCE, NOR WHEN THE PRODUCT HAS BEEN REPAIRED OR ALTERED IN ANY WAY. QA1'S LIABILITY IN THE CASE OF DEFECTIVE PRODUCTS SUBJECT TO THE FOREGOING WARRANTY SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT, AT QA1'S OPTION, OF THE DEFECTIVE PRODUCTS.

THE USER UNDERSTANDS AND RECOGNIZES THAT RACING PARTS, SPECIALIZED STREET ROD EQUIPMENT, AND ALL PARTS AND SERVICES SOLD BY QA1 ARE EXPOSED TO MANY AND VARIED CONDITIONS DUE TO THE MANNER IN WHICH THEY ARE INSTALLED AND USED. QA1 SHALL BEAR NO LIABILITY FOR ANY LOSS, DAMAGE OR INJURY, EITHER TO A PERSON OR TO PROPERTY, RESULTING FROM THE INSTALLATION, DIRECT OR INDIRECT USE OF ANY QA1 PRODUCTS OR INABILITY BY THE BUYER TO DETERMINE PROPER USE OR APPLICATION OF QA1 PRODUCTS. WITH THE EXCEPTION OF THE LIMITED LIABILITY WARRANTY SET FORTH ABOVE, QA1 SHALL NOT BE LIABLE FOR ANY CLAIMS, DEMANDS, INJURIES, DAMAGES, ACTIONS, OR CAUSES OF ACTION WHATSOEVER TO BUYER ARISING OUT OF OR CONNECTED WITH THE USE OF ANY QA1 PRODUCTS. MOTORSPORTS ARE DANGEROUS; AS SUCH, NO WARRANTY OR REPRESENTATION IS MADE AS TO THE PRODUCT'S ABILITY TO PROTECT THE USER FROM INJURY OR DEATH. THE USER ASSUMES THAT RISK!

## **REMOVAL**

- Place a floor jack under the frame of the vehicle. Jack the vehicle up so that a jack stand can be placed under the frame. Let the jack down so that the frame sets securely on the stand. SEE YOUR OWNER'S MANUAL FOR PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED.
- 2. It is recommended to begin by measuring the length of the factory tie rod assembly to refer to after installation of the QA1 Heavy-Duty Tie Rod Sleeves. Measure the center to center distance between the ball stud of the outer tie rod in the steering knuckle to the drag link ball stud on the inner tie rod. (See Figure 1)
- 3. Remove the cotter pins and castle nuts from both the inner and outer tie rod ends.
- 4. Use an appropriate tool such as a puller or a pickle fork to properly disconnect the inner and outer tie rods.
- 5. Unthread factory adjuster sleeve from tie rod ends.

Now is a good time to inspect and replace excessively worn components.



Figure 1

## **INSTALLATION**

- 1. Begin by threading the supplied jam nuts on both the inner and outer tie rod ends.
- 2. Thread both the inner and outer tie rod end onto the QA1 Heavy Duty Tie Rod Sleeves.
- 3. Refer to the measurement taken before the removal of the factory assembly and adjust the sleeve to match the length. This provides a baseline starting point for your alignment shop. (See Figure 1)

Note: QA1 recommends having the front end aligned by a professional after the disassembly of any front end suspension component.

- 4. Once the length has been adjusted, re-install the assembly back in the vehicle.
- 5. Tighten the jam nuts to secure the tie rod sleeve.
- 6. Repeat the same process for the opposite side of the vehicle.

Note: QA1 heavy Duty Adjuster Sleeves may vary in length from the factory style adjuster sleeves.

To further upgrade your suspension, use other QA1 suspension products such as coil-overs, shocks, struts, springs, K-members, torque arms, panhard bars, sub-frame connectors, strut tower braces, rod ends, sway bars, tubular control arms, spherical bearings, and more. For more information, please visit www.QA1.net.