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## **INSTALLATION INSTRUCTIONS**

*QA1 P/N 52311 & 52312*

Dynamic Strut Bars for Mopar

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.

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## **TOOLS AND SUPPLIES REQUIRED**

- Floor Jack
- Jack Stands
- Ratchet & Socket Set
- SAE Wrench Set
- Ball Joint Separator

## **PRE-INSTALLATION NOTE**

The factory strut rods can be removed by either removing the lower control arms or by cutting the strut rods.

**Measure and record the length of the factory strut rods before removing.**

## **DISASSEMBLY INSTRUCTIONS**

1. Measure and record the vehicle ride height at the center of the wheel opening. This will help in setting the ride height after installation of the QA1 Dynamic Strut Bars.
2. Lift and support the vehicle on a solid surface. Support the vehicle by the frame rails allowing the suspension to droop. A vehicle lift is best, but careful use of jack stands work as well.
3. Remove the front wheels and tires.
4. Remove the lower shock bolts and sway bar end links from the lower control arms.
5. Remove the nut and cup washer from the front of the strut rod. Measure and record the length of the strut rod.
6. Remove the tension on the torsion bars by loosening the adjuster bolt in the lower control arms counting the number of turns required to remove the preload. It is not necessary to completely remove the torsion bar adjuster bolt and block. **Count and record the number of turns required to remove the tension on the adjuster bolt. This will be helpful later when re-setting ride height. Note the position of the torsion bar key.**

7. Remove the snap ring at the rear of the torsion bar (**Figure 1**) and slide the torsion bar back. It is not necessary to completely remove the torsion bar from the car (**Figure 2**). Loosening the lower control arm pivot shaft and gently prying back on the control arm will help to remove the torsion bar.



**Figure 1**

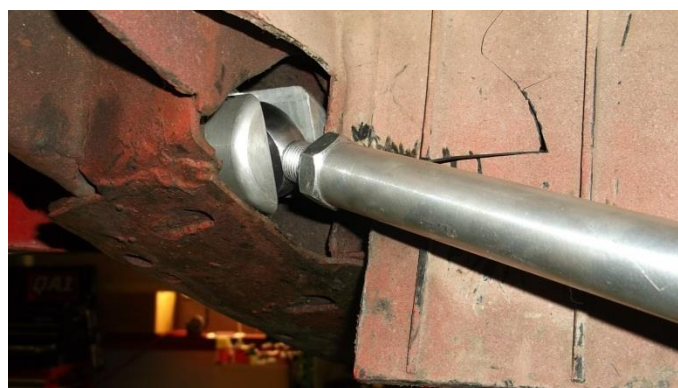


**Figure 2**

8. Remove the cotter pin from the lower ball joint. Loosen the castle nut, but do not remove. Separate the lower control arm from the ball joint and then remove the nut. Leave the upper control arms and spindle hanging with all the steering attached. The steering system does not need to be dismantled.
9. Remove the factory strut rod from the control arm.

### **INSTALLATION INSTRUCTIONS**

1. Attach the front mount of the strut rod to the K-member with the machined slot mounted vertically. **See Figure 3.**
2. Install the rear of the QA1 Dynamic Strut rod into the control arm and loosely install the nut.
3. Re-install the lower control arm into the K-member leaving the pivot shaft nut loose.
4. Cycle the control arm through its full motion to insure there is not any binding in the front mount or the rod end and adjust the front mount as necessary. Once the front mount is indexed and there is no binding the front mount can be tightened.



**Figure 3**

5. The lower control arm can be re-attached to the ball joint. Tighten the ball joint nut to factory specification and install a new cotter pin in the ball joint.
6. Clock the torsion bar keys and re-install the torsion bars and snap rings.
7. Tighten the torsion bar adjusters the same number of turns required to remove.
8. Attach the shocks and sway bar end links to the lower control arms.
9. Reinstall the wheels and tires.
10. Set the car on the ground and check the ride height measurement. Raise and support the vehicle if adjustments are necessary and repeat.

11. Tighten the control arm pivot nuts and strut rods to the factory specification with the car sitting at ride height.

**Note: The lower control arm pivot nuts should be tightened with the car sitting at ride height to prevent binding in the suspension.**

12. Re-check all fasteners to ensure they are tight and new cotter pins have been placed into the lower ball joints.

**Caution: A front end alignment should be performed by a qualified alignment shop after any changes to the suspension system.**

### Torque Specifications

Lower control arm pivot nut:	145 ft.-lbs.
QA1 Dynamic Strut front bolt:	42 ft.-lbs.
QA1 Dynamic Strut rear nut:	75 ft.-lbs.

To further upgrade your suspension, use other QA1 suspension products such as coil-overs, shocks, struts, springs, K-members, torque arms, pan hard 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](http://www.QA1.net).

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