



These instructions can be found in color and expandable at QA1.net

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### INSTALLATION INSTRUCTIONS

QA1 Hx601S, Hx603S, Hx604s and Hx605S Models  
1979-2014 Mustang Struts

#### TOOLS AND SUPPLIES REQUIRED

- Floor Jack
- Jack Stands
- Spring Compressor (Optional)
- Metric Sockets (24mm)
- Lug Wrench
- 13/16" and 15/16" Sockets and Boxed End Wrenches

#### REMOVAL

1. Start your installation by inspecting your chassis. Look for worn/deteriorated bushings, ball joints, etc. If anything is worn, plan to replace during this installation.
2. Above the 24mm nut on the existing strut shafts, there are two flat spots to enable the use of an adjustable wrench to keep the piston rod from turning. Loosen the two 24mm nuts on the upper end of the piston rods where they come through the caster/camber plates. **Do not remove the 24mm nuts at this time.**
3. Jack the car up and ensure the frame is set in place securely on jack stands. See your owner's manual for proper jacking techniques. Remove the wheels.
4. Removing the brake caliper from the knuckle assembly and moving it out of the way is a good idea to ensure the brake line is protected and not over extended. If removed, it is a good idea to hang the caliper by something other than the brake line. Damage to the brake line can occur if caliper is hung by the brake line.
5. Position the floor jack under the ball joint cup. Jack the A-arm up just enough to take the load off of the strut and spindle, without raising the car off the jack stands. This will retain the factory spring in its location.

#### NOTE:

If a coil-over kit is being installed the factory spring will need to be removed from the vehicle. To do this, first complete the strut removal process and slowly lower the control arm to take the pressure off of the spring. **CAUTION: THE SPRING IS UNDER TREMENDOUS PRESSURE AND IT IS CRITICAL TO USE CAUTION WHEN REMOVING.**

6. On 2005-2014 models the brake line, ABS wire and sway bar end-links need to be disconnected from the strut housing.
7. Loosen and remove the two nuts and bolts that attach the strut to the spindle knuckle. Remove the 24mm nut at the top of the strut and remove the strut assembly.
8. Remove the factory dust cover and bump stop from the factory strut.

#### INSTALLATION

1. Start the installation of the QA1 strut by extending the strut shaft fully by hand. Slide the factory bump stop down on the strut shaft if applicable.

**If your struts are being used as coil over struts, please see the instructions included with the coil over hardware kits.**

2. Place the upper threaded end of the strut shaft up into the caster camber plate and loosely install the 24mm nut.
3. Position the spindle knuckle into the bracket on the strut.

4. Install the two spindle mounting bolts and nuts. Torque to factory specifications.
5. Reinstall the brake line, ABS wire and sway bar end-links to the strut housing if removed.
6. Reinstall the brake caliper and wheel. Torque all nuts and bolts to factory specification.
7. Torque the upper strut mount bolt to factory specifications.
8. Repeat the entire removal and installation procedures for the other side of the vehicle.
9. Take the car to a reputable alignment shop and have the car realigned.

### VALVING ADJUSTMENT

Your QA1 struts either have:

- 18 valving settings on one knob that simultaneously adjusts compression and rebound (Single adjustable).
- 18 valving settings on one knob that has a firm compression stroke that increases in firmness as you increase the rebound (drag race "R" series)
- 18 valving settings on two knobs that independently adjust compression and rebound (double adjustable).

QA1 shocks have 18 damping settings per knob. There are 6 clicks per revolution of each knob, and each knob has 3 complete revolutions. The knob set fully counter clockwise is the softest setting - start adjusting from that point. Recommended base settings to begin testing with are as follows:

***Shocks with one adjuster knob:***

Drag Racing: 0-6 clicks  
 Other Applications: 2-8 clicks for nice ride and handling;  
 8-12 clicks for firm ride and improved handling;  
 13+ clicks for more aggressive handling

***Shocks with two adjuster knobs:***

Drag Racing: 12-16 clicks compression and 0-4 clicks rebound  
 Other Applications: 2-8 clicks compression and rebound for nice ride and handling;  
 8-12 clicks for firm ride and improved handling;  
 13+ clicks for more aggressive handling

*Note: Do not force the adjuster knob. This could damage the adjuster and cause the strut to not adjust. This will void all warranties. Do not use the strut as a droop limiter during operation as this will damage the strut. Vehicles with front ends that leave the ground during operation should use limiting straps.*



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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