



INSTALLATION INSTRUCTIONS

QA1 p/n HS701S & HD701S
2010-2015 Camaro Front Struts

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!

TOOLS AND SUPPLIES REQUIRED

- Floor Jack
- Jack Stands
- Metric Socket Set (24 mm)
- Spanner Wrench Set (QA1 P/N T114W)
- Permatex® Anti-Seize Lubricant
- Spring Compressor (Optional)
- Metric Wrench Set

DISASSEMBLY

1. Measure the vehicle ride height from the ground to the center of the wheel wells and record these measurements.
2. Start the installation by inspecting the chassis. Look for worn/deteriorated bushings, ball joints, etc. If any part is worn, replace before continuing.
3. Raise the car and ensure the frame is set securely on jack stands. Consult the owner's manual for proper jacking techniques. Remove the front wheels.
4. Remove the ABS wire, brake hose and sway bar end link from the factory strut.
5. Position the floor jack under the ball joint. Jack the control arm up just enough to take the load off the strut and spindle without raising the car off the jack stands.
6. Remove the lower strut mounting bolts and support the spindle so that it is not hanging by the brake hose. Damage to the brake hose can occur if the spindle is allowed to hang from it.
7. Remove the upper strut retainer and nut from the top of the strut tower under the hood. See Figure 1.

8. With the factory strut out of the car, remove the strut bearing nut, cup washer, strut bearing assembly and factory bump stop. See Figure 2.

CAUTION: THE SPRING IS UNDER TREMENDOUS PRESSURE AND IT IS CRITICAL TO USE CAUTION WHEN REMOVING.

9. Remove the factory rubber spring isolator from the strut bearing. See Figure 3.

Installation

1. Fully extend the strut and install the coil-over sleeve over the strut body. The taper on the sleeve will fit into the seat on the strut. Screw the aluminum lock nut (shoulder up) and the spring seat adjuster nut (shoulder up) down to the last thread. Now is a good time to lubricate the threads of the threaded sleeve with Permatex® Anti-Seize lubricant.
2. QA1 highly recommends using the QA1 thrust bearing kit (P/N 7888-110) for ease of adjustment. If the thrust bearing kit is used, coat both sides of the washers with Permatex® Anti-Seize lubricant. Install the stainless steel spring seat washer, then the bearing, then the second washer.
3. If the thrust bearing kit is not used, coat one side of the stainless steel spring seat washer with Permatex® Anti-Seize lubricant. Place the lubricated side of the washer down on the spring seat.
4. Install the factory bump stop on the QA1 strut followed by the 2" washer that is included with the strut. See Figure 4.
5. Install the coil spring on the strut. Next, install the QA1 spring isolator on the strut bearing and install on the strut. The step on the spring isolator will seat inside the coil spring. See Figure 5.
6. Loosely install the cup washer and strut bearing nut. This nut will need to be torqued later with the weight of the car on the suspension.
7. Install the assembled strut (See Figure 6) in the car using the strut retainer to hold the strut while installing the lower strut mounting bolts.
8. Attach the sway bar link, brake hose and ABS wire to the new strut.
9. Repeat the entire removal and installation procedures for the other side of the vehicle.
10. Reinstall the front wheels and set the car down.
11. With the car supporting its own weight, remove the upper strut retainer. Torque the strut bearing retainer nut to 52 ft.-lbs. This assures the strut mount is properly re-seated and prevents clunking from the strut mounts. Now re-install the upper strut retainer and nut, torque to 52 ft.-lbs.

Note: There are two separate retainers on each strut, one for the strut bearing and one to retain the struts in the car at full suspension droop.

12. Check the vehicle ride height measurement and adjust as necessary. Raise the car so the suspension is unloaded to make ride height changes.
13. A front end alignment is recommended and should be performed by a qualified alignment shop after any changes to the suspension system.



Figure 1



Figure 2

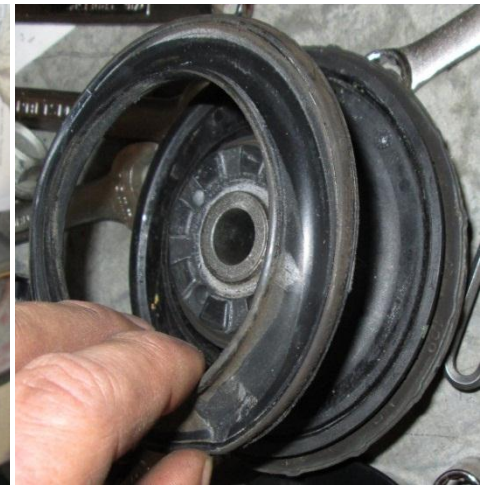


Figure 3



Figure 4



Figure 5

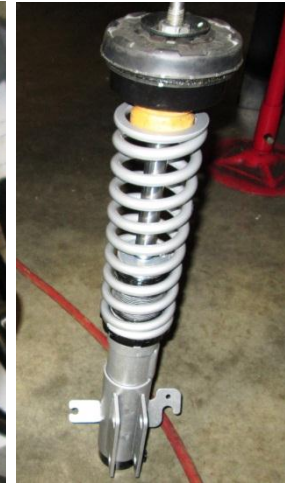


Figure 6



Figure 7

VALVING ADJUSTMENT

QA1 struts either have:

- 18 valving settings on one knob that simultaneously adjusts compression and rebound (Single adjustable).
- 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 adjustments 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. Do not use pliers or any other tools on the piston rod or the adjuster knob. Do not exceed 18 clicks under any circumstances. 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. Severe damage to the strut could occur and this will void all warranties.