

## Technical Support Line: (952) 985-5675 Email: sales@QA1.net

### **INSTALLATION INSTRUCTIONS**

QA1 P/N GD601, GS601 2010-2015 Chevrolet Camaro Rear Shocks

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
- Socket Set (SAE and Metric)
- Snap Ring Pliers

- Spanner Wrench Set (QA1 P/N T114W)
- Permatex<sup>®</sup> Anti-Seize Lubricant
- Wrenches (SAE and Metric)
- Coil Spring Compressor

- Jack Stands
- **DISASSEMBLY INSTRUCTIONS**
- 1. Measure and record the vehicle ride height at the center of the rear wheel opening.
- 2. Raise vehicle and support with jack stands on a stable surface.
- 3. Remove rear wheels from vehicle.
- 4. With the rear suspension at full droop, remove the sway bar end links and lower shock bolts from the control arms.
- 5. Remove the lower control arm outer pivot bolt from the spindle.
- Figure 1
- 6. Place an alignment mark on the inner control arm pivot eccentric washer and cradle. Loosen the inner pivot bolts and swing the lower control arm down. See **Figure 1**
- 7. With a 15 mm socket, remove the four upper spring mount bolts and remove spring and shock assembly from the car.

8. Use a coil spring compressor to compress the spring. Remove the upper shock mounting nut, washers, spring mount and spring isolator noting the order of the components.

#### **INSTALLATION INSTRUCTIONS**

- Using a snap ring pliers, install a snap ring into one of the grooves in the lower shock eye followed by the spherical bearing and the other snap ring.
- Screw the aluminum lock nut (shoulder up) and the spring seat adjuster nut (shoulder up) down to the last thread - NO FURTHER. Now is a good time to lubricate the threads of the shock body with Permatex<sup>®</sup> Anti-Seize lubricant.
- 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<sup>®</sup> Anti-Seize lubricant.



Install the stainless steel spring seat washer, then the bearing, then the second washer.

- 4. If the thrust bearing kit is not used, coat one side of the stainless steel spring seat washer with Permatex<sup>®</sup> Anti-Seize lubricant. Place the lubricated side of the washer down on the spring seat.
- 5. Install the factory washer, coil spring, spring isolator, upper spring mount, and washer followed by the new shock nut supplied with the QA1 shock. Rotate the spring and isolator so they are correctly indexed on the upper spring mount. See **Figure 2**.
- 6. Reinstall the spring and shock assembly back into the car using the factory upper spring mount bolts. Torque to the factory specification.
- If you are using a factory lower control arm, insert the shouldered washers (Figure 3) into the shock bolt holes in the lower control arm. The step on the washer will fit inside the shock bolt hole. If you are using a QA1 Rear Lower Control Arm Kit (P/N 52363), the spacers are not used.
- Install the ¾" diameter spacers with the grooved side over the spherical bearing and insert the shock into the lower control arm. Install the supplied bolt and lock nut leaving the nut loose at this time.
- 9. Reinstall the lower control arm pivot bolt and sway bar end links loosely. Leave the bolts loose until ride height is set and the vehicle weight is on the wheels.
- 10. Reinstall the rear wheels.



- 11. Lower the car to the ground and check the vehicle ride height referring to your notes from step 1 of disassembly. Raise the car off the ground and adjust the ride height as necessary using a spanner wrench. Once you have the ride height set, tighten the lock nut against the spring seat adjuster.
- 12. With the car sitting on the ground or on wheel stands, line up the alignment marks on the inner control arm pivot eccentric washers and tighten the inner and outer control arm bolts and sway bar link to the factory specification. Tighten the lower shock bolt to 60 lb. ft. Verify the spring and isolator are still aligned with the upper spring mount.

## Note: A four wheel alignment should be performed by a qualified alignment shop after any changes to the suspension system.

#### **Rear Shock Valving Adjustments**

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 your adjustments from that point. Recommended base settings to begin testing with are as follows:

Shocks with one adjuster knob:	
Drag Racing:	8-12 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:	6-10 clicks compression, 2-8 clicks rebound
Other Applications:	0-6 clicks compression, 2-8 rebound for nice ride and handling
8-12 clicks compression, 8-12 rebound firm ride & improved handling	
	12-16 clicks compression, 12-18 clicks rebound more aggressive handling

# Dedicated Technical Support Team

QA1 is dedicated to providing quality support and instructions. We employ passionate racers and car enthusiasts that know our products and the industry to better serve you.

Check out our tech videos at www.YouTube.com/QA1Tech for:

- Frequently Asked Questions
- Quick Tips
- Install Information
- Tuning and Repair Guides
- Other technical information

Or call to speak with one of our experts: 1.800.721.7761 \*Our technical support and order lines are open Monday - Friday. 8 am to 5 pm CST.



Facebook.com/QA1 Motorsports

Twitter.com/QA1 Motorsports



Instagram.com/QA1 Motorsports



www.QA1.net/Tech