

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

## INSTALLATION INSTRUCTIONS

QA1 P/N RCK52386 thru RCK52394 Rear Coil-over Kit  
'65-'70 GM Impala / Full Size

## TOOLS AND SUPPLIES REQUIRED

- Floor Jack
- Jack Stands
- Tire Chocks
- T114W Spanner Wrenches
- Drill, 1/2" and 3/8" Drill Bits
- Common Hand Tools
- Torque Wrench
- Anti-Seize

## KIT CONTAINS

- 2-Proma Star® Shocks
- Two Springs
- Mounting Brackets
- All Necessary Hardware

## REMOVAL:

1. Chock the front tires and jack the rear of the car up.
2. Securely set the rear of the car on jack stands.
3. Support the weight of the axle using jack stands or a floor jack.
4. Remove the shocks using a 3/4" socket on the lower shock mount and a 1/2" on the upper mount.
5. Remove the rear sway bar (if equipped)
6. Remove the panhard bar.
7. Remove the lower coil spring retainer from the lower control arm. **(Figure 1)**
8. Slowly lower the axle just enough to remove the factory coil spring. Do not attempt to remove the spring until all spring pressure is relieved.



Figure 1



Figure 2

## INSTALLATION:

1. Drill the original upper shock mounting bolt holes out to 3/8". **(Figure 2)**
2. Remove the upper shock eyelet from the shock by loosening the jam nut and unscrewing the shock eyelet. **(Figure 3)** This step will be needed to install the spring onto the shock.
3. Thread the locking collar onto the shock (shoulder up), followed by the spring seat collar. **(Figure 4)** Thread both collars to the bottom of the shock threads.
4. Install the spring onto the shock and slide the notch of the upper spring cap around the shock rod and onto the top of the spring.
5. Re-install the upper shock eyelet and tighten the jam nut to the eyelet.



**Figure 3**



Locking collar with shoulder facing up.



**Figure 4**

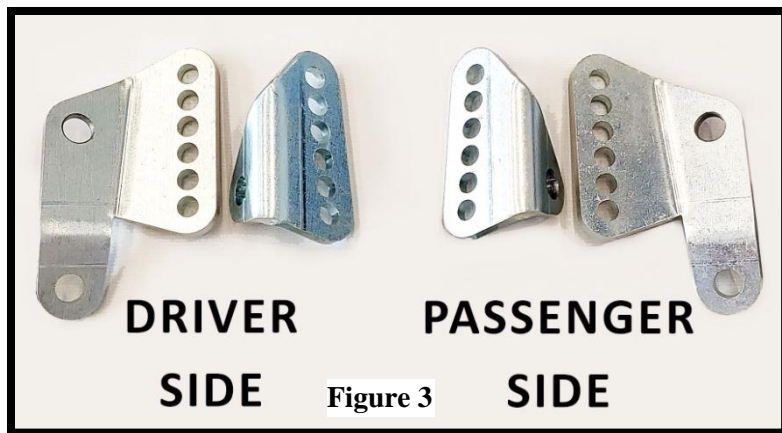
**NOTE:**

The lower coil-over brackets will consist of four brackets per side. Two brackets will be driver side specific and two brackets will be passenger side specific.

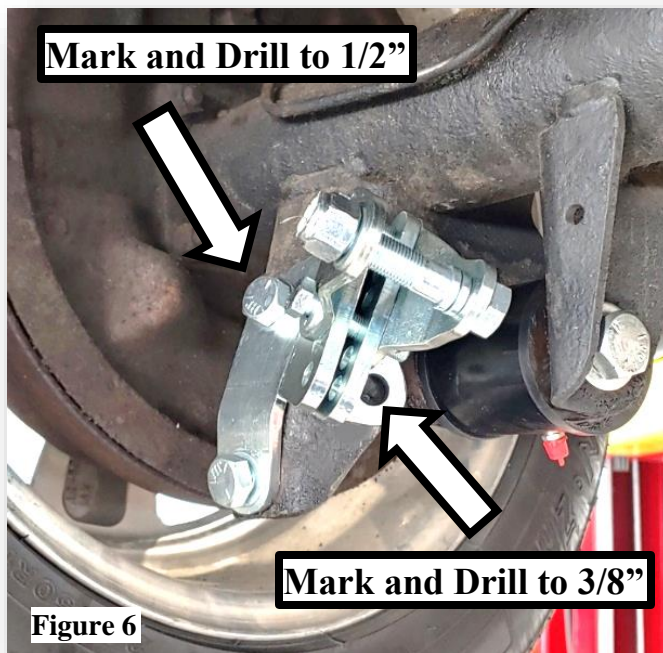
6. Identify the two driver and passenger side specific mounting brackets. The longer bracket is the base bracket. **(Figure 5)**

**NOTE:**

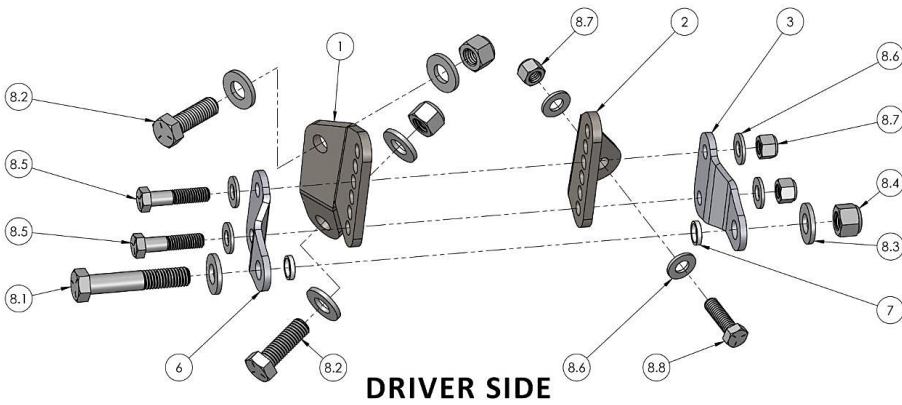
The brackets will mount onto the vehicle in place of the factory shock bolt using 1/2" x 1.5" bolts. The bracket will mount perpendicular to the axle tube. A second anchoring bolt is supplied for bracing. This 1/2" x 1.5" bolt will be installed in the top hole in the QA1 bracket.



7. The side support bracket will also need to have a hole marked/drilled. **(Figure 6)** Before marking any holes, assemble both brackets with coil-over mounting tabs using the six adjustment holes. Bolt both brackets and both coil-over mounting tabs together using the 3/8" x 1.75" hardware with two washers per bolt/nut. **(Figure 7, 8, 10)** This will ensure your new bolt hole marks are in the correct location.
8. With the bracket assembly bolted together, mount it to the existing factory shock mount hole.
9. Mark your new upper and side mounting bolt holes.
10. Drill the rear facing bracket top hole with a 1/2" drill bit.
11. Drill the side mounted hole using a 3/8" drill bit.
12. Loosely install the assembled bracket to the axle. Evenly draw the bracket to the axle and final torque the 1/2" rear facing bolts to 50 lb. ft. and the 3/8" side mounted bolt to 30 lb. ft.



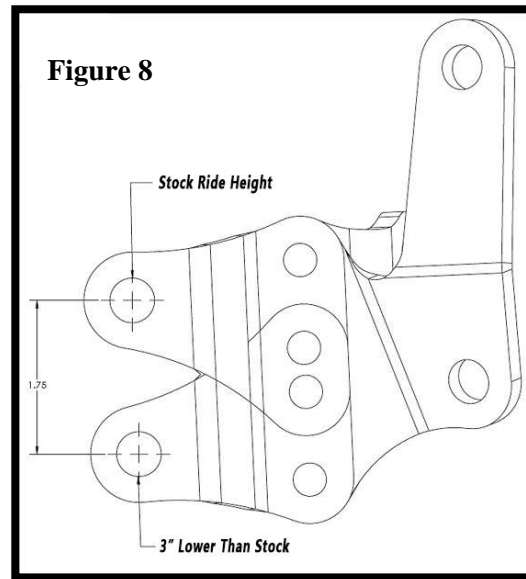
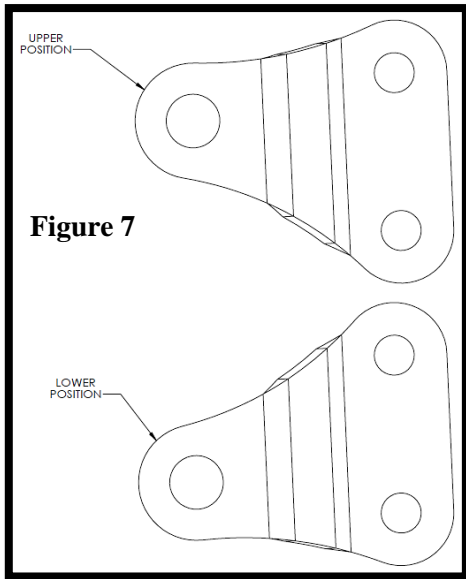
**Figure 6**



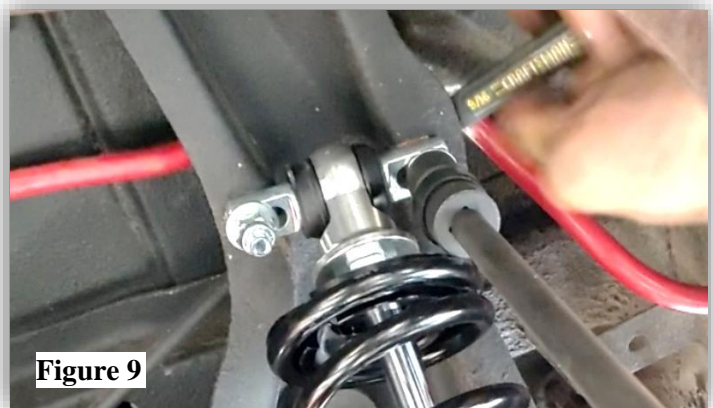
BALLOON #	ITEM #	DESCRIPTION	QTY.
1	9637-389	PLATE, RCK MAIN, LH	1
2	9637-390	PLATE, RCK BRACE, LH	1
3	9037-649	BRACKET, STEPPED TAB, LH	2
4	9637-391	PLATE, RCK MAIN, RH	1
5	9637-392	PLATE, RCK BRACE, RH	1
6	9037-648	BRACKET, STEPPED TAB, RH	2
7	9033-430	SLEEVE, .500" ID X .625" OD X .125"	4
8	9637-393	HARDWARE KIT, COILOVER MOUNT	1
8.1	-	BOLT, 1/2-13 X 2.75"	2
8.2	-	BOLT, 1/2-13 X 1.50"	4
8.3	-	WASHER, 1/2, SAE	12
8.4	-	NUT, NYLOCK, 1/2-13	6
8.5	-	BOLT, 3/8-16 X 1.625"	4
8.6	-	WASHER, 3/8 SAE	12
8.7	-	NUT, NYLOCK, 3/8-16	6
8.8	-	BOLT, 3/8-16 X 1.25"	2

### SHOCK MOUNTING TAB ADJUSTMENT

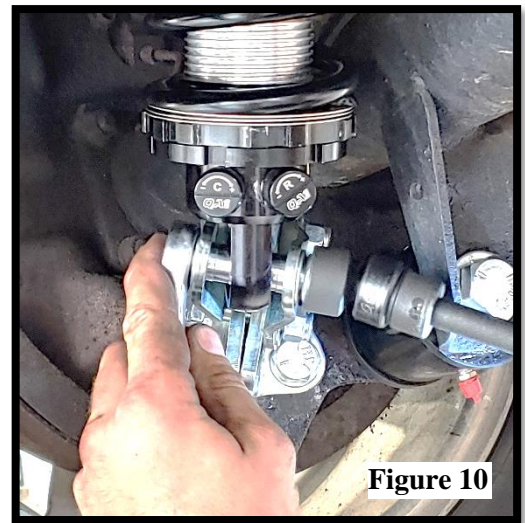
The shock mounting tabs on the rear bracket can be adjusted to expand the ride height adjustability further than just the shock by itself. The tabs can be flipped (**Figure 7**) and raised or lowered (**Figure 8**) to achieve a ride height 1/2" higher than stock down to 2.25" lower than stock. Choose your mounting location based on your desired ride height.



13. Install shock mounting tabs using 3/8" x 1-5/8" hardware with two washers per bolt. Torque to 30 lb.-ft.
14. Install the shock onto the upper mount using 3/8" x 1.25" hardware with two washers per bolt and nylock nut. (**Figure 9**)



15. Install the lower shock connection to the axle bracket using 1/2" x 2.5" hardware with two washers per connection. **(Figure 10)**  
Torque to 50 lb.-ft.
16. Place the vehicle on the ground and check vehicle ride height. Adjust the spring seat adjuster nut up or down the threaded shock body to gain your desired ride height. These shocks have a recommended center to center length at ride height of 14"-15". Further ride height adjustment should be achieved by moving the mounting tabs up or down the bracket. All shock valving should be on the softest setting for this step.
17. After ride height is set, snug the locking collar into the spring adjusting collar and check to ensure you have proper shock travel.



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

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

Drag Racing:	0-6 clicks
Nice ride and handling:	0-6 clicks
Firm ride & improved handling:	6-12 clicks
Aggressive handling:	13-18 clicks

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

Drag Racing:	0-6 clicks compression,	4-10 clicks rebound
Nice ride and handling:	0-6 clicks compression,	2-8 clicks rebound
Firm ride & improved handling:	6-12 clicks compression,	8-14 clicks rebound
Aggressive handling:	13+ clicks compression,	14-18 clicks rebound

(For MOD Series shocks refer to the MOD Tuning Guide that came with the shocks)



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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** •

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