



## LOWERING SPRINGS FOR 2010-PRESENT CAMARO

Part #'s SP019, SP020, SP021, SP022, SP023, SP024, SP025, SP052, SP053, SP054, SP077, SP078, SP079

### Required Tools:

Hydraulic jack and jack stands

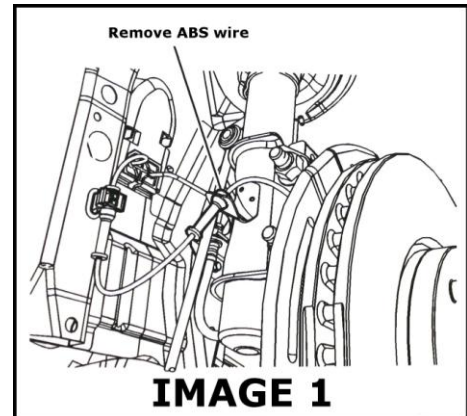
Spring compressor (optional)

Wrenches: 7mm, 10mm, 15mm, 18mm, 24mm

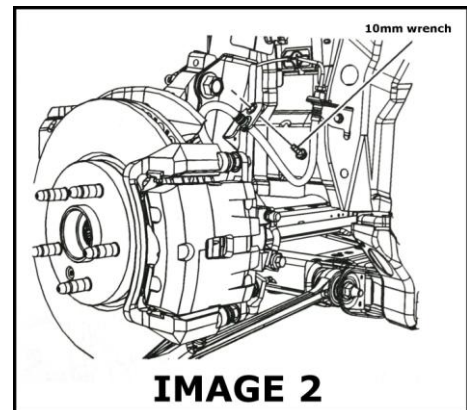
Sockets: 15mm, 18mm, 24mm

### Front Installation:

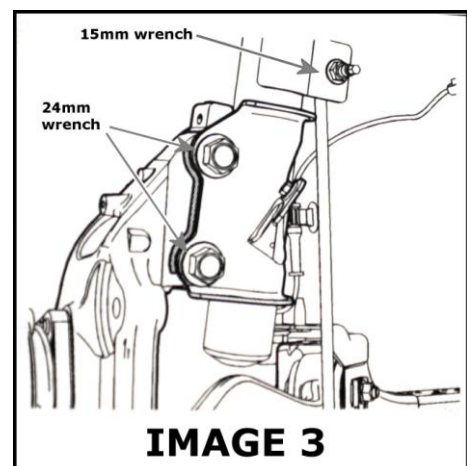
1. Lift vehicle and safely support it on stands. Remove the wheel and tire assemblies.
2. Locate the ABS line where it attaches to the strut. Slide the line out of the bracket as illustrated in **IMAGE 1**.



3. Using a 10mm wrench or socket, remove the brake line retainer bolt where it attaches to the strut. See **IMAGE 2** for reference.

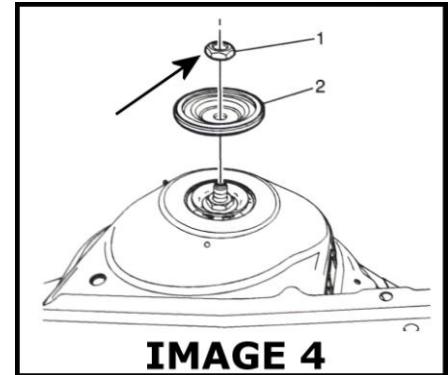


4. Un-bolt the sway bar end link from the strut using a 15mm wrench on the nut with a 7mm wrench in the center to hold the shaft. See **IMAGE 3** for reference.
5. Using a permanent marker, grease pencil, or paint pen mark the strut and spindle along their mating surface. This mark will be used later during reassembly.
6. Using a 24mm wrench and socket, remove the (2) large bolts that retain the strut to the spindle. See **IMAGE 3** for reference.

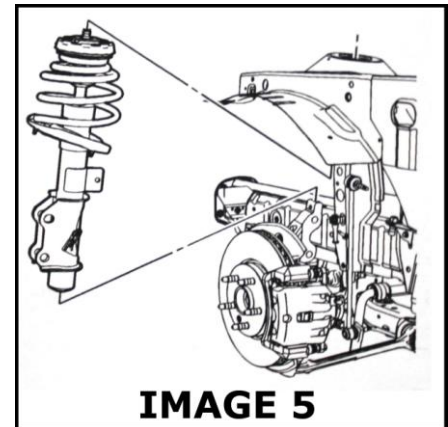


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7. Open the hood and unscrew the plastic caps on top of the strut retainer nuts.
8. Remove the upper strut nuts (*item 1 in Image 4*) and strut retainers (*item 2 in Image 4*) using a 24mm socket. See **IMAGE 4** for reference. **NOTE:** Do not remove the nut located under the strut retainer.



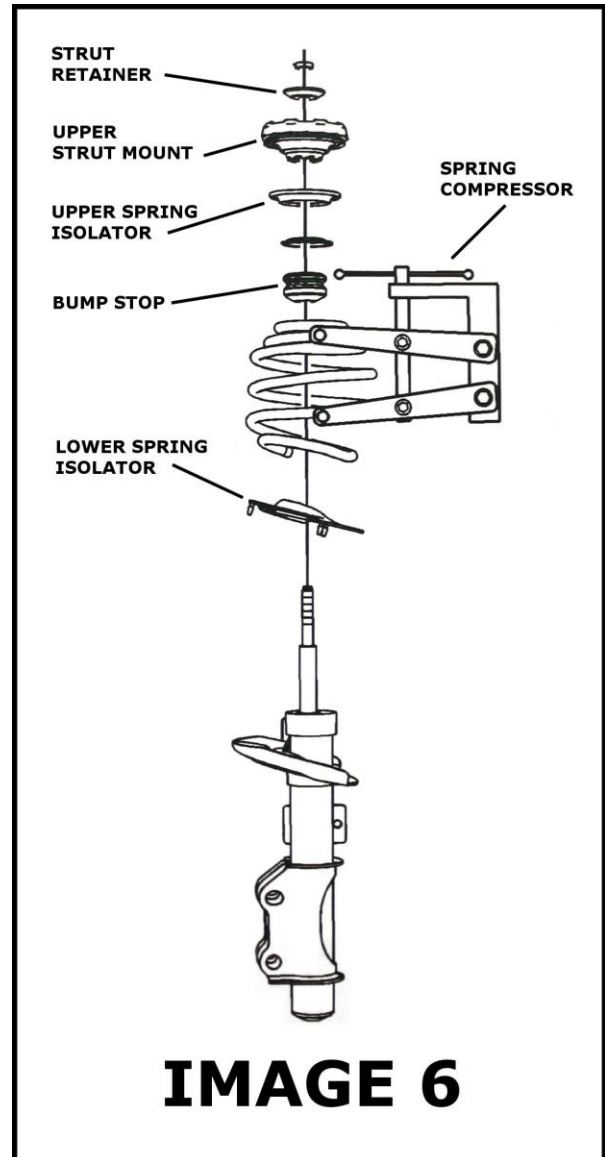
9. The strut should easily come out of the strut tower at this point. If it does not, it may require a rubber mallet to knock it loose from the tower. Remove the entire strut/spring assembly as shown in **IMAGE 5** on the following page.



10. The next step is removing the spring from the strut. Using a spring compressor, compress the spring to relieve tension from the upper mount. See **IMAGE 6** on the next page for reference. With the spring compressed, remove the upper strut nut using a 24mm socket.
11. Remove the individual assembly components and the OE spring as illustrated in **IMAGE 6** on the following page. Place the BMR spring onto the strut and then replace each component in the proper order as shown in **IMAGE 6** on the following page. (*NOTE: it does not require a spring compressor to re-install the springs*).
12. Index the spring to fit the upper and lower spring seats then tighten the upper strut nut to 52 ft/lbs.
13. Re-install the strut/spring assembly into the strut tower, placing the upper strut retainer and nut onto the shaft to hold the assembly in place.

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14. Bolt the strut assembly to the spindle and snug the bolts. Line up the strut and spindle to the mark made in step 5 then tighten the bolts to 60 ft/lbs. *NOTE: the alignment marks made previously will only get the alignment close. Your newly lowered vehicle will still need an alignment to reach the desired specifications.*
15. Re-install the brake line retainer and tighten the 10mm.
16. Re-install the ABS wire to the strut tab.
17. Re-install the sway bar end link to the strut and tighten the nut to 36 ft/lbs.
18. Duplicate these steps for the other side then re-install the wheels and tires.
19. The next step is re-indexing the front suspension bushings to work with your new ride height. This procedure is easiest performed on the alignment rack while the vehicle is being aligned. With the vehicle at static ride height, loosen the front radius rod bushing bolt and front control arm bushing bolt. Bounce the vehicle a few times to re-index the bushings then re-tighten the bolts. The radius rod bolt gets torqued to 32 ft/lbs. while the lower control arm bolt is torqued to 39 ft/lbs.

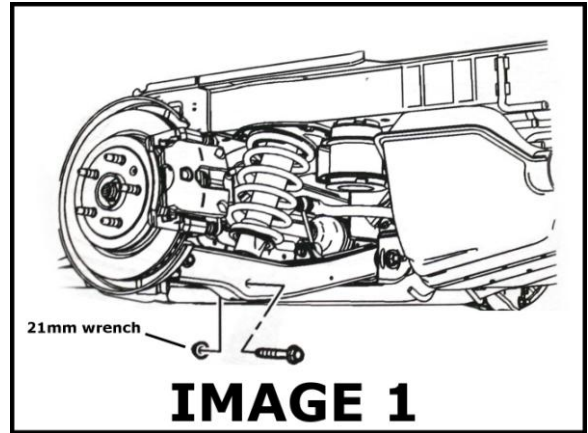


### Rear Installation:

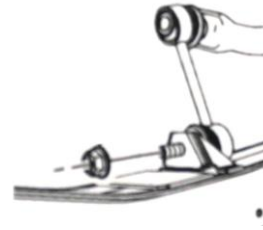
1. Lift vehicle and support with jack stands.
2. Remove both rear wheel and tire assemblies.

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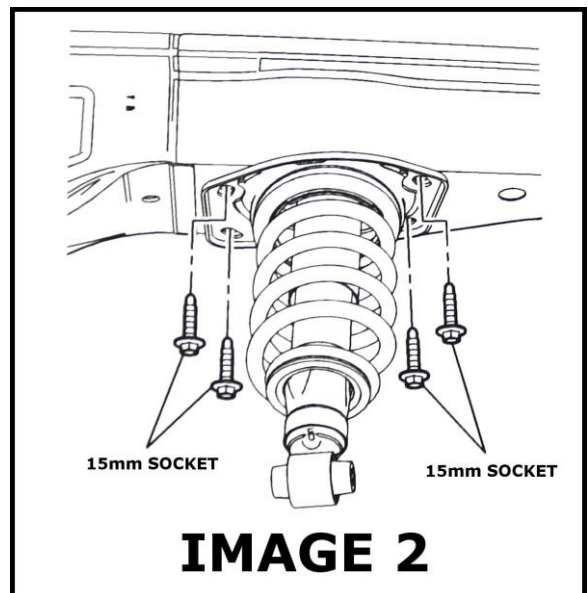
- Using a 21mm socket and 21mm wrench, remove the lower shock bolt located on the lower control arm. See **IMAGE 1** for reference.
- Using a 18mm socket and 18mm wrench, remove the outer control arm bolt.



- Using a 15mm wrench and a 7mm Allen wrench, remove the nut from the sway bar end link at the control arm side of the link. See illustration to right.

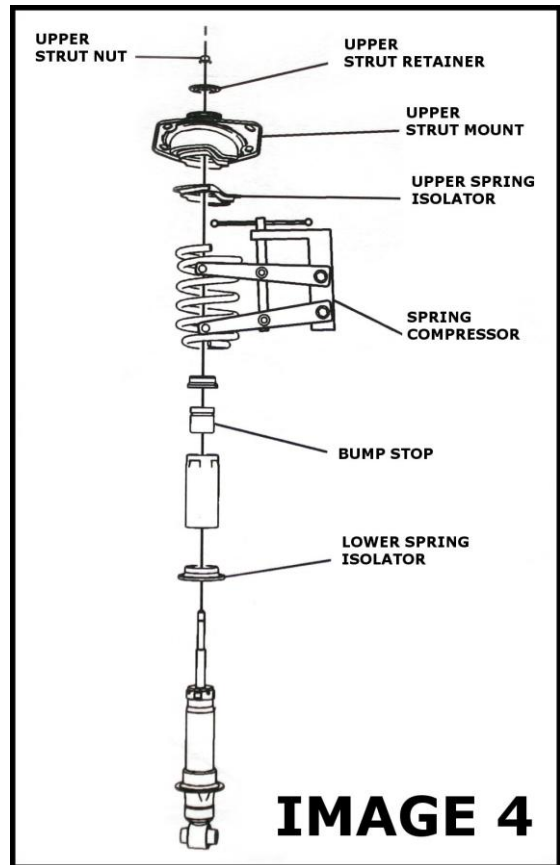
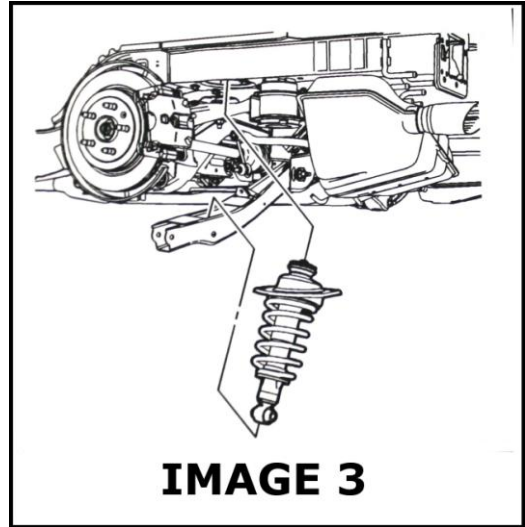


- Using a 15mm socket, remove the (4) bolts on the upper shock mount. See **IMAGE 2** for reference.



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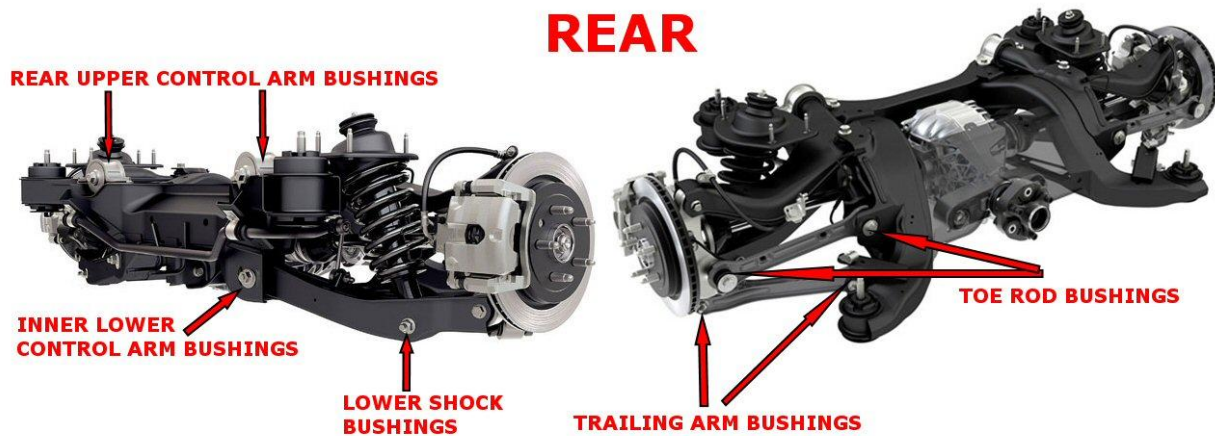
7. Pivot the lower control arm down out of the way and remove the shock and spring assembly as a unit. See **IMAGE 3** for reference.
8. The next step is removing the spring from the shock. Using a spring compressor, compress the spring to relieve tension from the upper mount. See **IMAGE 4** on the next page for reference. With the spring compressed, remove the upper shock nut using a 24mm socket.
9. Remove the individual assembly components and the OE spring as illustrated in **IMAGE 4**. Place the BMR spring onto the shock and then replace each component in the proper order as shown in **IMAGE 4**. (*NOTE: it does not require a spring compressor to re-install the springs*).
10. Index the spring to fit the upper and lower spring seats then tighten the upper shock nut to 32 ft/lbs.
11. Re-install the shock/spring assembly and insert the (4) bolts. Tighten to 43 ft/lbs.
12. Lift the control arm up, aligning the lower shock mount and spindle bushing in the control arm. Insert the outer control arm bolt but do not tighten.
13. Insert the lower shock bolt but do not tighten.
14. Re-attach the sway bar end link and tighten to 36 ft/lbs.
15. Re-install the wheel and tire assemblies.
16. Before tightening the suspension bolts it is important to place the vehicles weight on the suspension to simulate static ride height.  
***Failure to do so can create bind in the suspension leading to irregular ride heights and premature bushing wear.***





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17. Re-indexing the rear suspension bushings – with the suspension loaded and vehicle at ride height, loosen the trailing arm bushing bolts (front and rear), toe rod bushing bolts (inner and outer), and the upper control arm inner bushing bolt. See Image below for reference.



18. Once all the bushings are loose, bounce the car a few times to re-index the bushings then tighten using the following chart:

<b>Upper Control Arm Bushings</b>	39 ft/lbs.	<b>Lower Control Arm Bushings</b>	32 ft/lbs.
<b>Lower Shock Bushings</b>	60 ft/lbs.	<b>Trailing Arm Bushings - inner</b>	74 ft/lbs.
<b>Toe Rod bushings - inner</b>	85 ft/lbs.	<b>Trailing Arm Bushings – outer</b>	32 ft/lbs.
<b>Toe Rod bushings - outer</b>	103 ft/lbs.		

BMR recommends the following alignment specs:

<b>STREET PERFORMANCE</b>	<b>PRO PERFORMANCE</b>
Front camber: -0.8min to -1.1 max	Front camber: -1.3min to -1.6max
Rear camber: -0.7min to -1.0max	Rear camber: -0.9min to -1.2max
Front toe: -1/16"	Front toe: -1/16"
Rear toe: -1/16"	Rear toe: -1/16"
Front caster: 7 to 8.5 (OE not adjustable)	Front caster: 7 to 8.5 (OE not adjustable)