#TL100175

INSTALLATION MANUAL

SUS00026

APR MQB Coilovers

APR

Notes:

These general instructions were written for a North American specification Mk8 GTI/R, but other models are similar.

When disassembling the car, be sure to keep all fasteners so they can be reused. It is recommend that you get some kind of compartmented tray to organize the fasteners, such as a fishing tackle box or several large ice cube trays. Fasteners that are not reused for reinstallation are noted in the instructions. All directions used in this manual (right, left, front, etc.) are based on if you were sitting in the drivers seat of the car.

These instructions assume that you have basic mechanical skills and several varieties of basic hand tools in order to install the kit. If you have any questions about the install, feel free to contact your APR representative.

INSTALLATION NOTES:

DO NOT WORK ON VEHICLES SUPPORTED BY A JACK ONLY. USE SECURE JACK STANDS!

DO NOT USE A PNEUMATIC IMPACT GUN TO TIGHTEN THE SHOCK SHAFT TOP NUT! DOING SO MAY DAMAGE THE SHAFT AND THE SHOCK'S INTERNAL COMPONENTS. WARRANTY WILL BE VOIDED IF THIS PRECAUTION IS NOT FOLLOWED!

All suspension related components must be inspected and in good working condition. You should inspect all bushings, tie rods, hubs, bearings, strut mounts, sway bar end links, wheels, tires, etc. and replace if necessary.

Tightening of components & fasteners:

- All rubber-mounted strut/shock attachments must not be fully tightened until after the suspension system is loaded (wheels on the ground).
- Other mounting fasteners (brackets, strut mounts, etc.) must be securely tightened before load is placed on the suspension system.

APR’s recommended starting ride height is 3/4" lower than stock. APR has determined that this is a safe starting value under most instances. However, the vehicle's specific configuration (wheel/tire selection, vehicle loadout, body options such as aerodynamic kits, etc.), as well as the local road conditions & speeds, and driving style, all have a huge influence over what is considered safe for your individual situation. Take care to assess all of these factors when determining ride height, and adjust as needed.

Additional lowering beyond APR's recommended starting point is certainly possible, but extra care must be taken to assess tire & chassis clearance as warned previously. Furthermore, additional lowering will result in more frequent bumpstop engagement, which has the effect of increasing spring rate and will alter the handling balance of the vehicle. Extreme care must be taken during the initial test drive to assess the vehicle's handling, and adjust as needed.

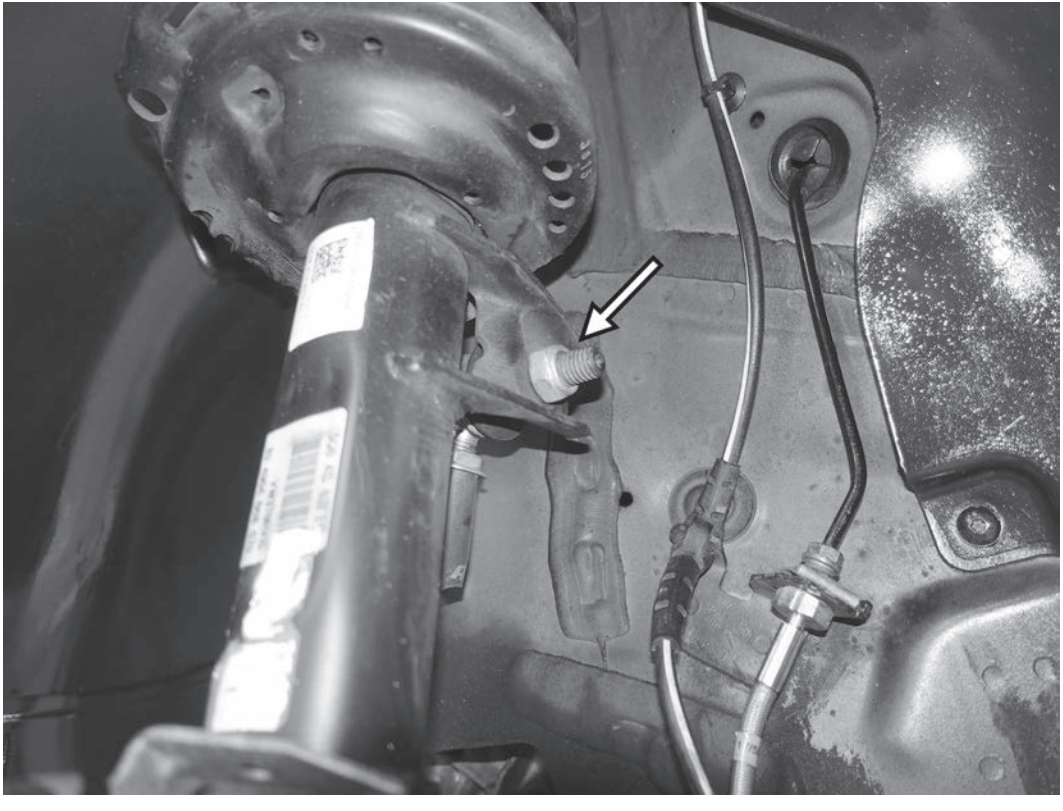
Springs will settle after a test drive. Please be sure to recheck and adjust ride height after a test drive, but before performing an alignment.

An alignment is required after installation of this kit.

After installing the suspension system, a four-wheel alignment must be performed according to manufacturer´s specifications. Also check and reset load-dependent brake compensator, ABS system and headlight aim according to manufacturer's specifications, if applicable.

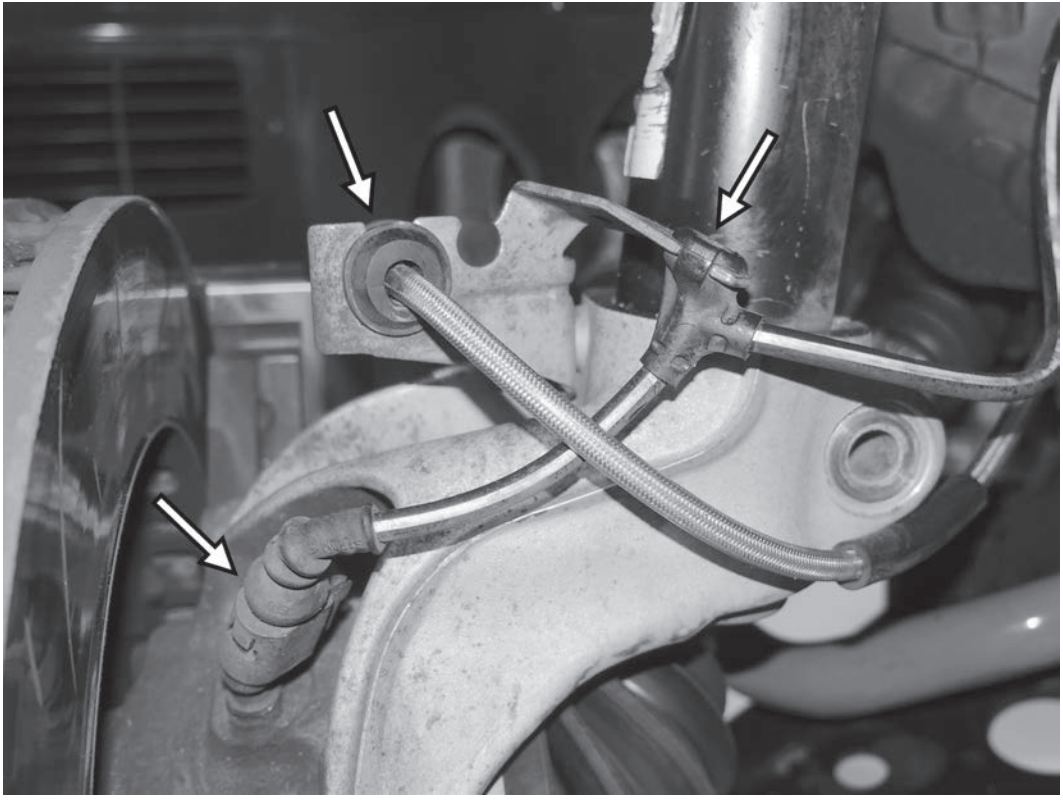
1) Place the vehicle on a lift or secure jackstands, and remove all four wheels.

2) Loosen both front axle bolts and unthread the screws most of the way.



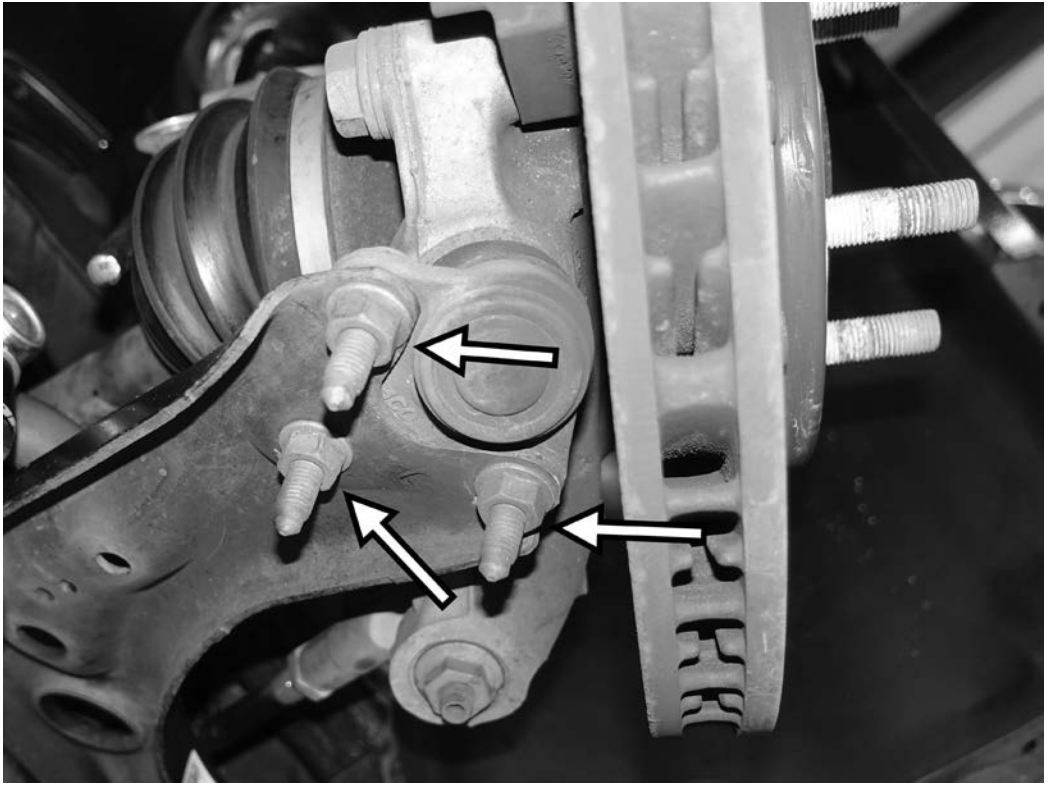
3) Disconnect the sway bar from the back of the strut body.

4) Remove the pinch bolt and nut that holds the strut in place to the back of the upright.



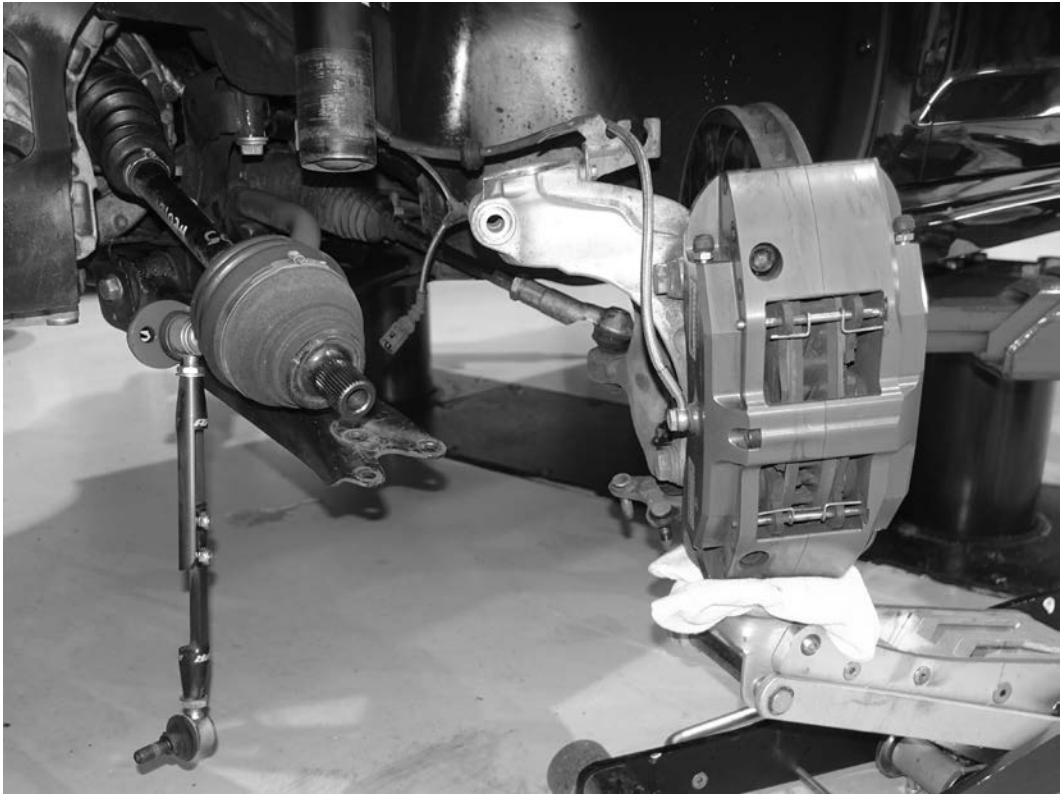
5) Disconnect the speed sensor harness from the speed sensor, and separate the harness from the bracket on the top of the upright. Separate the brake hose from the same bracket. If equipped, detach any ride height sensors to the upright, lower control arm, or the strut.

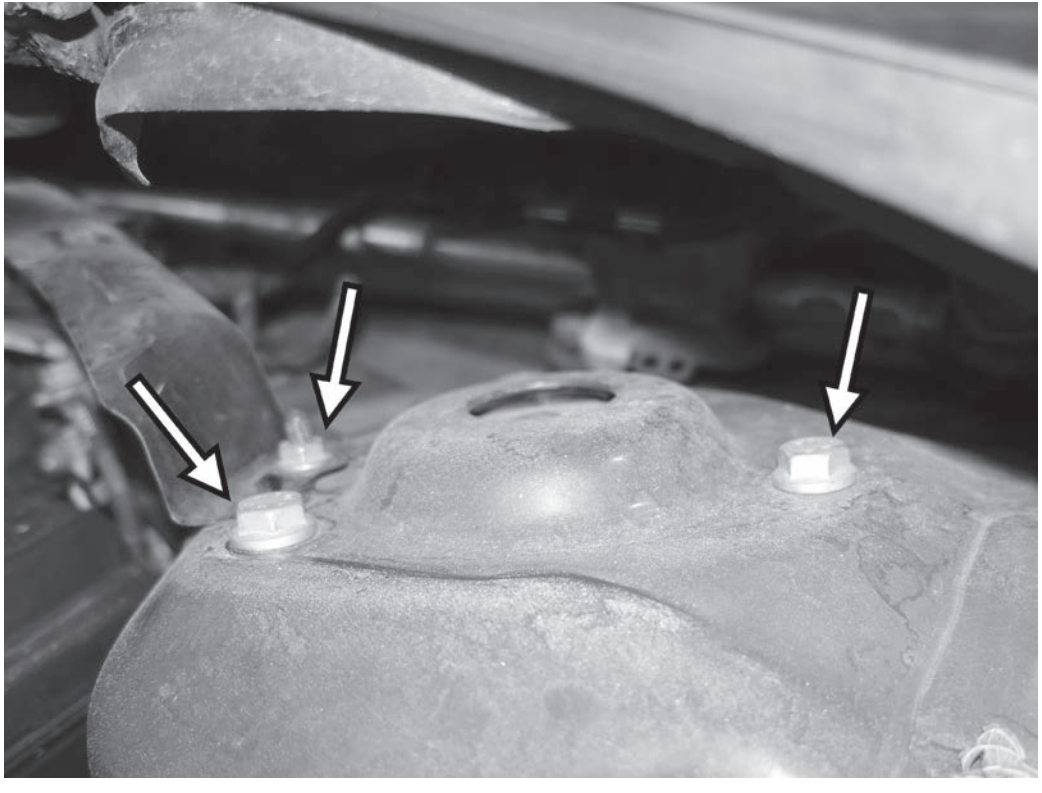
6) Remove the three nuts holding the lower control arm to the ball joint on the bottom of the upright.



7) Use a strut spreader tool to help separate the strut from the upright.

8) Using a jack under the upright/ brake assembly, separate the assembly from the lower control arm, the front axle, and the strut assembly.





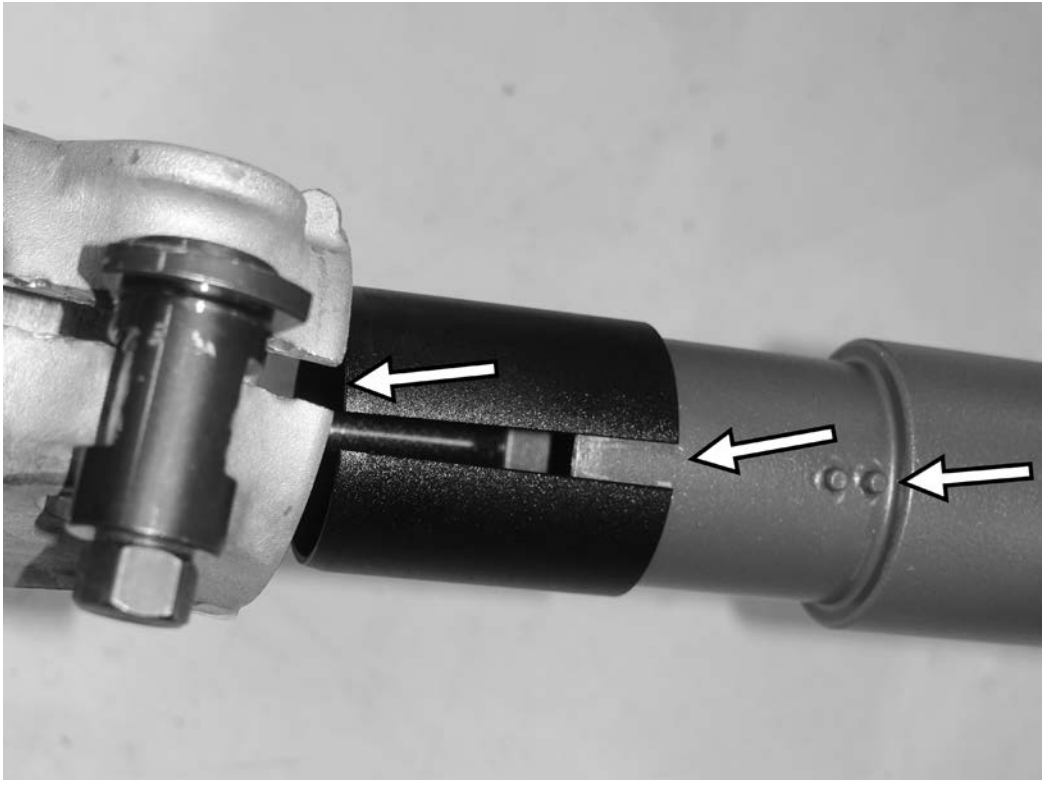
9) Lift up the rain tray under the hood. Then, holding the strut assembly from falling, remove the three nuts holding the strut assembly and remove it from the car.

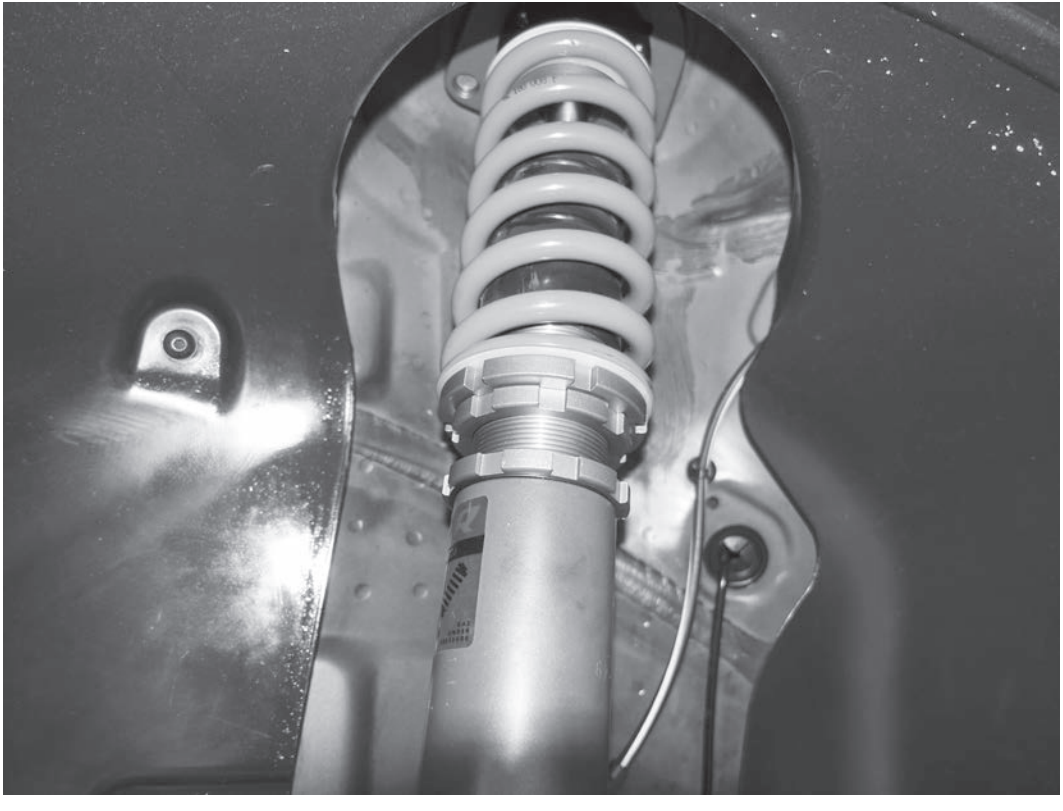
10) Prepare the new front coilovers for install. The setting shown on the camber plate should get the car close, if not in, the factory recommended settings for camber .

The APR coilovers are 32-way adjustable. Turning the coilover all the way clockwise is 0 (HARDEST) and all the way counterclockwise is 32 (SOFTEST). The coilovers should be set at 8, we recommend an initial setting of 16.

11) Adjust the preload on the spring. With the spring up against the bottom of the upper camber plate, hand thread the lower spring perch up to the bottom of the spring. Then, after measuring and with the supplied tools, tighten the lower spring collar an additional 10mm, preloading the spring on the strut assembly. Thread the upper locking collar against the lower spring perch, and then lock the two in place against each other.

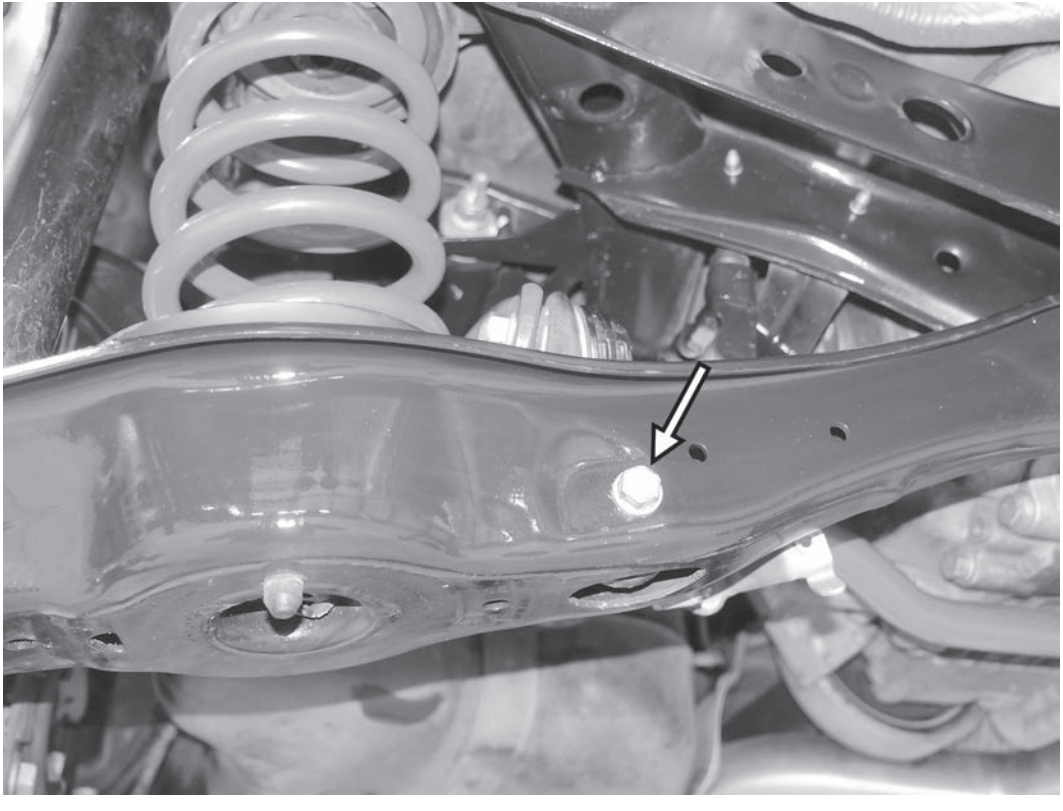
12) Depending on the upright of the car, the supplied metal sleeve may be needed to properly fit the coilover body into the front upright. The two raised pins align to the slot in the front upright, as well as the slot in the metal sleeve. Align the pins with the slots when assembling the coilover to the upright. Install and tighten the pinch bolt and nut to secure the coilover in the upright.





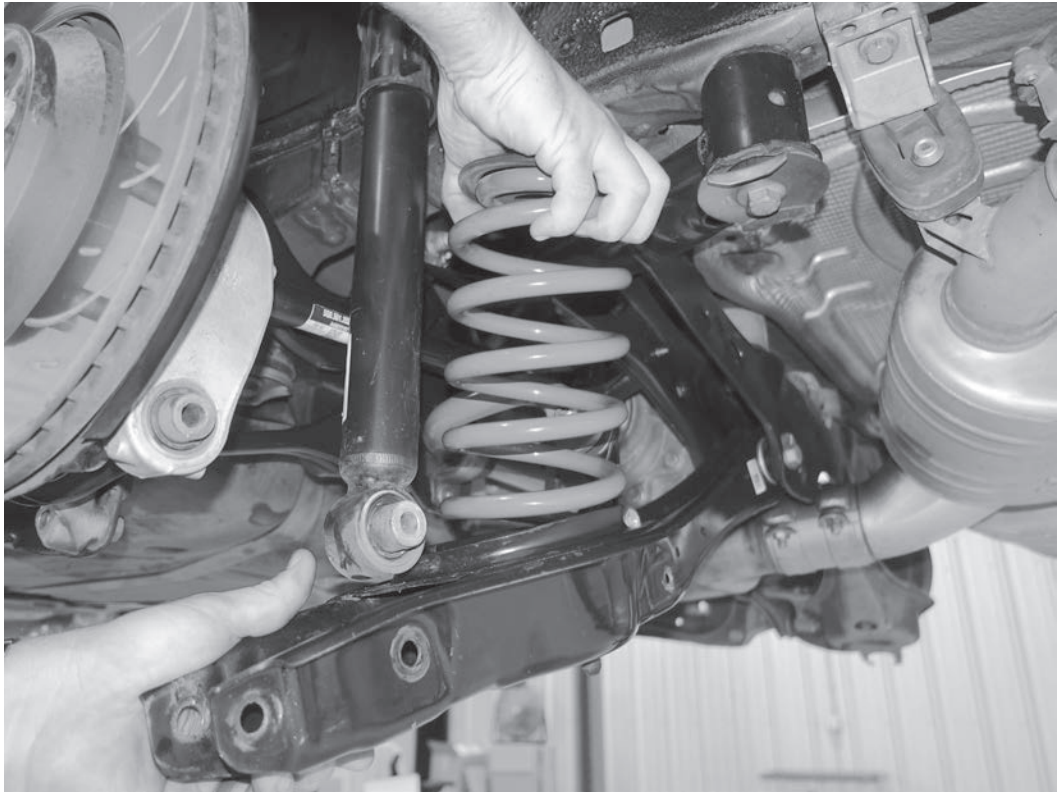
13) Reinstall the front coilover assembly in the car. The installation is the reverse of the removal, but all new factory bolts should be used. Tighten the the three upper strut mount screws to 15Nm (133in-lbs) and then tighten the screws an additional 90°. Install the pinch bolt from the back and install the nut, then tighten the nut to 70Nm (52ft-lbs) and then tighten an additional 180°. Install the three lower ball joint nuts and tighten to 40Nm (30ft-lbs) and then tighten an additional 45°. Tighten the sway bar endlink nut to 65Nm (48ft-lbs). Tighten the axle bolt to 200Nm (148ft-lbs) and then tighten an additional 90°.

14) If equipped, detach any ride height sensors from the lower control arm.



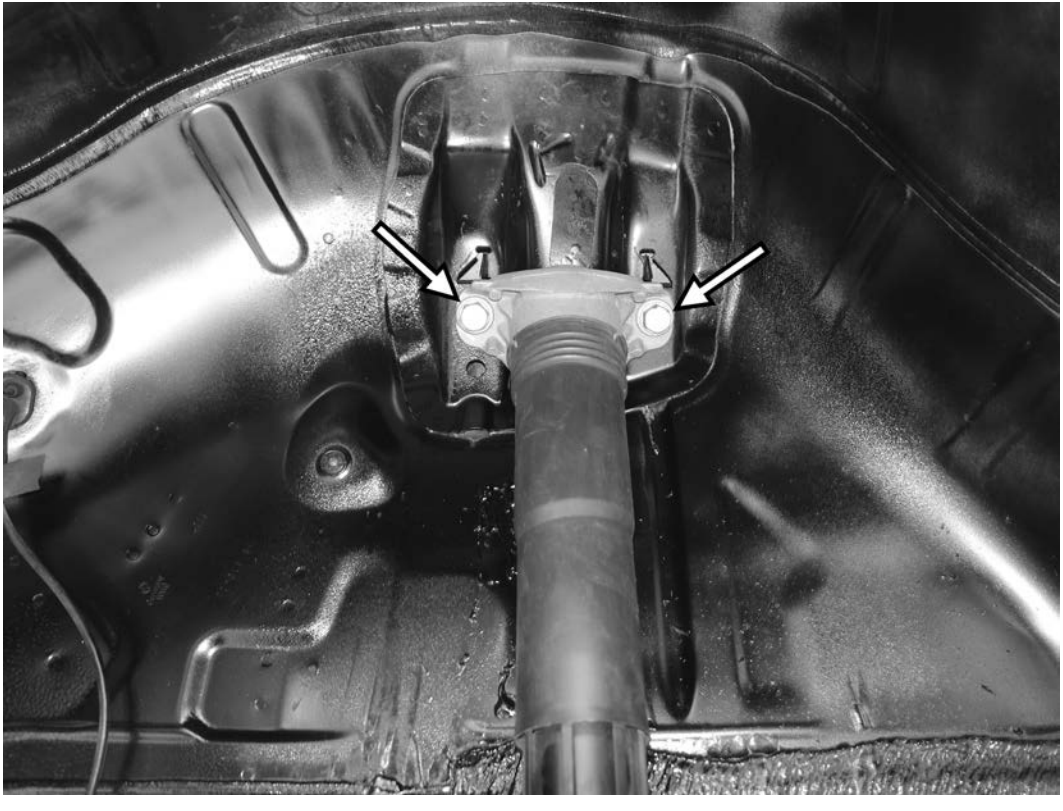
15) Disconnect the rear sway bar from the lower control arm on both sides of the car.

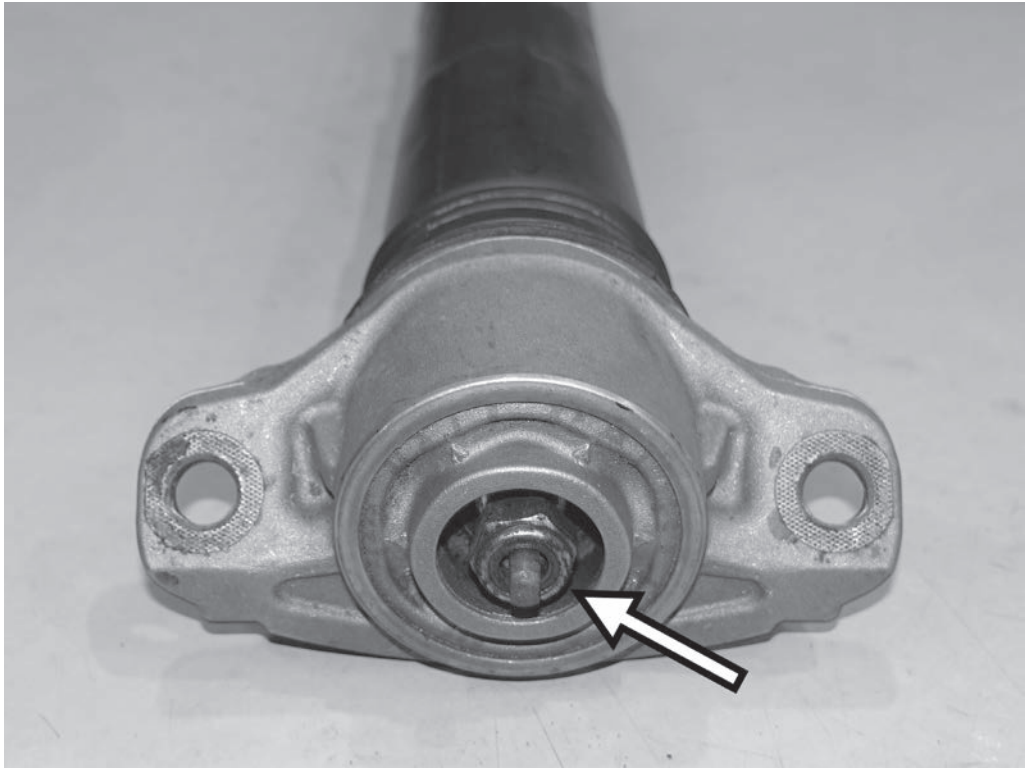
16) Disconnect the shock from the lower control arm, and then disconnect the lower control arm from the rear upright. Use a jack to support the control arm when removing the last bolt



17) Pushing down on the lower control arm, remove the rear spring and the top factory rubber perches from the car. The lower rubber perch should stay attached to the lower control arm.

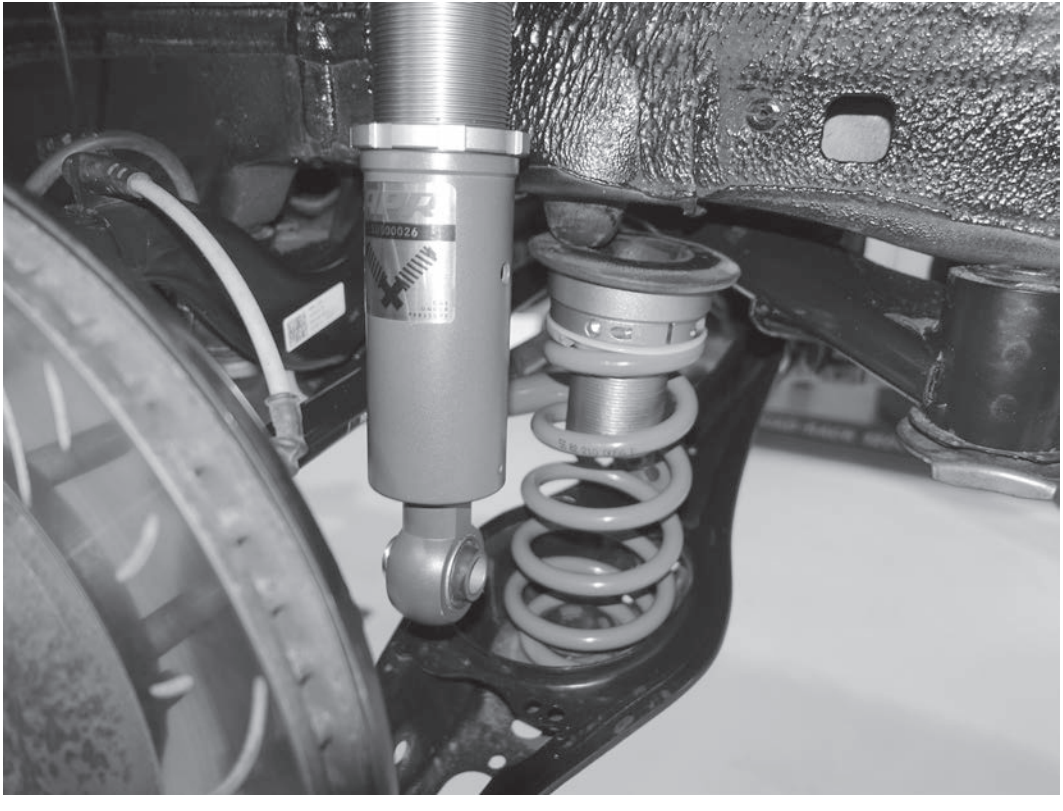
18) Remove the screws holding the upper shock mount to the inside of the wheel well, and remove the shock assembly from the car.





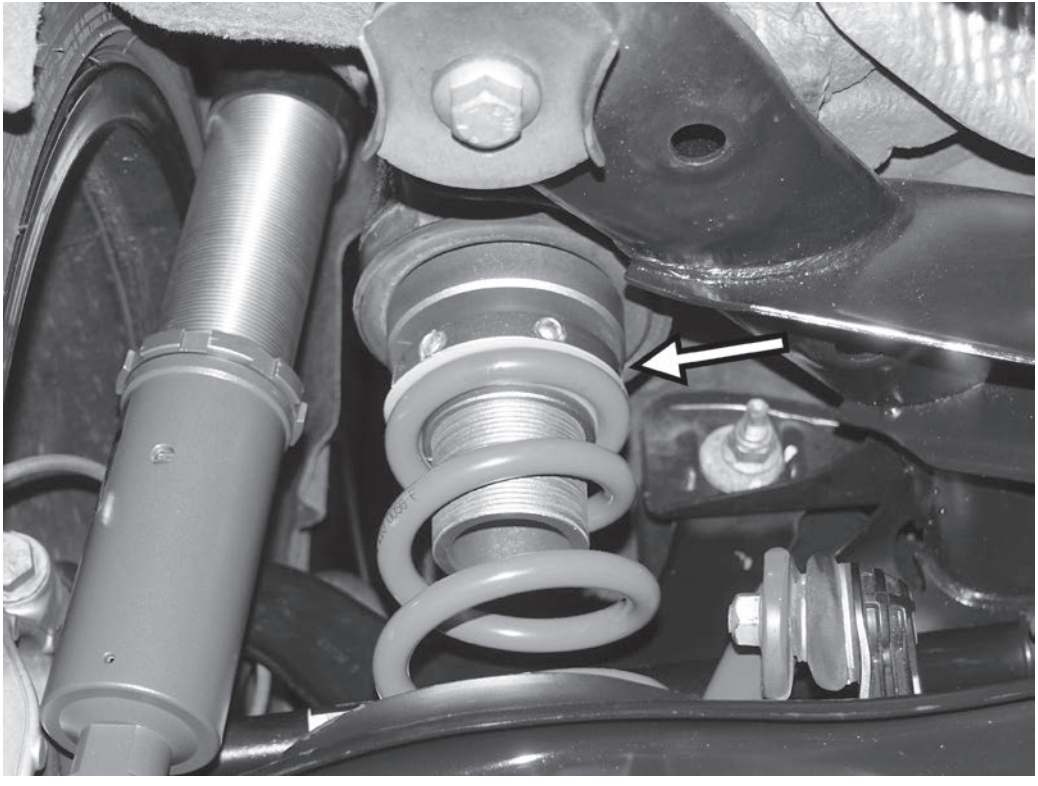
19) Remove the nut holding the rear shock to the upper shock mount, and remove the mount from the shock.

20) Install the stock upper shock mount to the rear APR shock assembly with the supplied nut, and then reinstall the shock assembly in the car, securing with new factory bolts. Tighten these two upper mount bolts to 50Nm (37ft-lbs) and then tighten them and additional 45°.



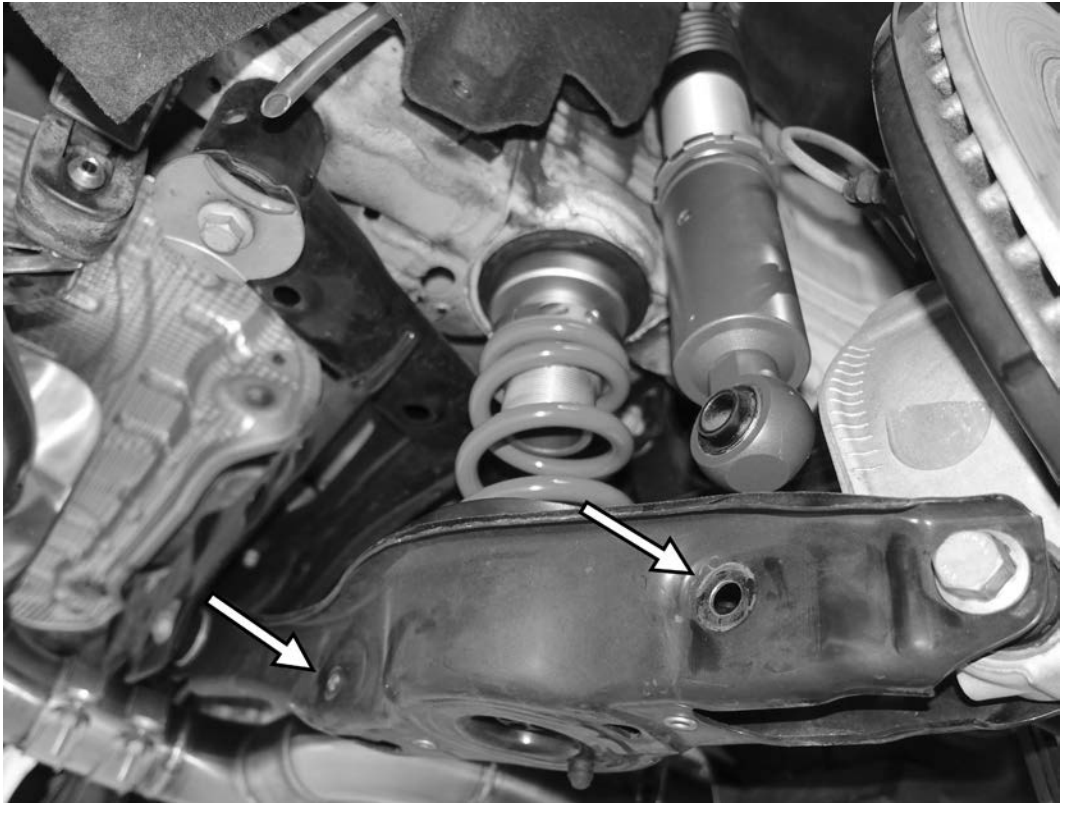
21) Install the rear spring assembly with the factory top rubber perch. The factory lower rubber perch should still be in the lower control arm. Note that the upper APR spring perch is threaded all the way up on the threaded body of the upper spring mount. This represents the lowest the car can go on the rear coilover.

22) Reconnect the rear lower control arm to the upright of the car. Install the bolt from the front side of the lower control arm, and install the nut loosely, but do not fully tighten them. Reinstall the wheel and tire assembly onto the rear upright.



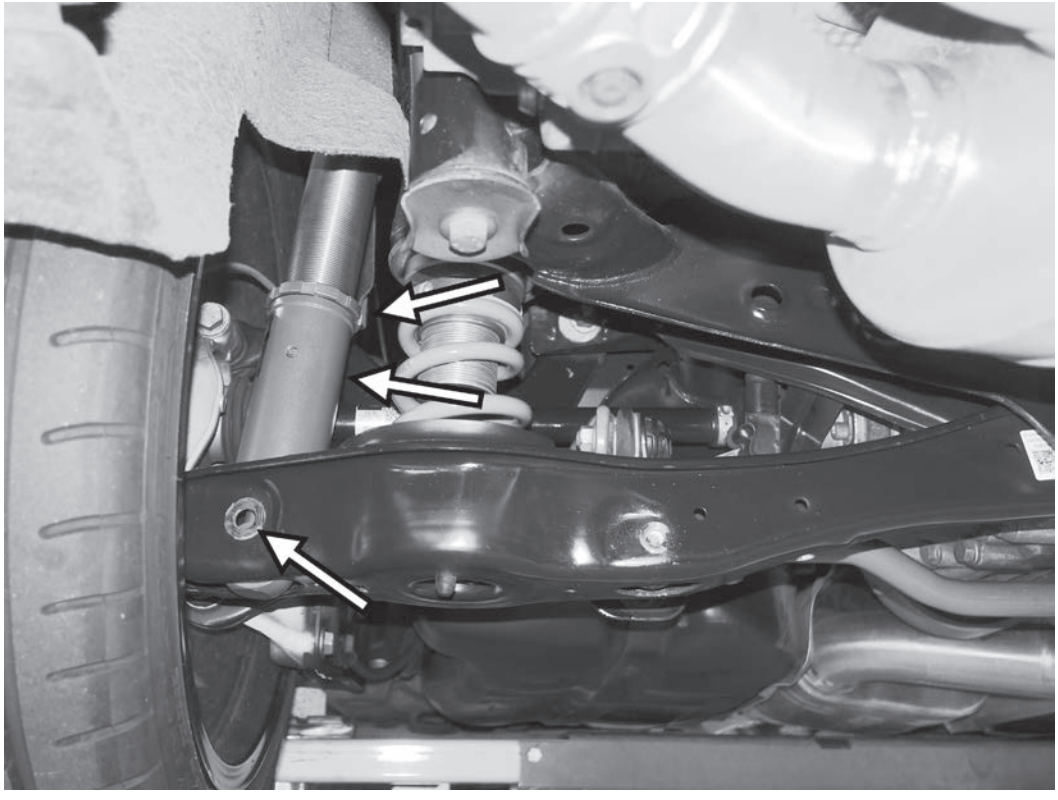
23) Lower the car to the ground. Roll the car forward or backwards one to two tire revolutions so the tire tread is not binding, which will keep the car from sitting down correctly. Set the desired ride height on the car by threading the upper spring perch down on the threaded body of the upper spring mount. In this case, the car was raised to approimately 10mm from the lowest ride height. While the car can go higher, it is not recommended to go more than 50mm higher than the lowest possible setting.

24) Now that ride height has been set, the length of the rear shocks needs to be adjusted. With the lower shock bolt still removed and the sway bars disconnected (on both sides), raise the chassis of the car to let the suspension fully droop and hang down.



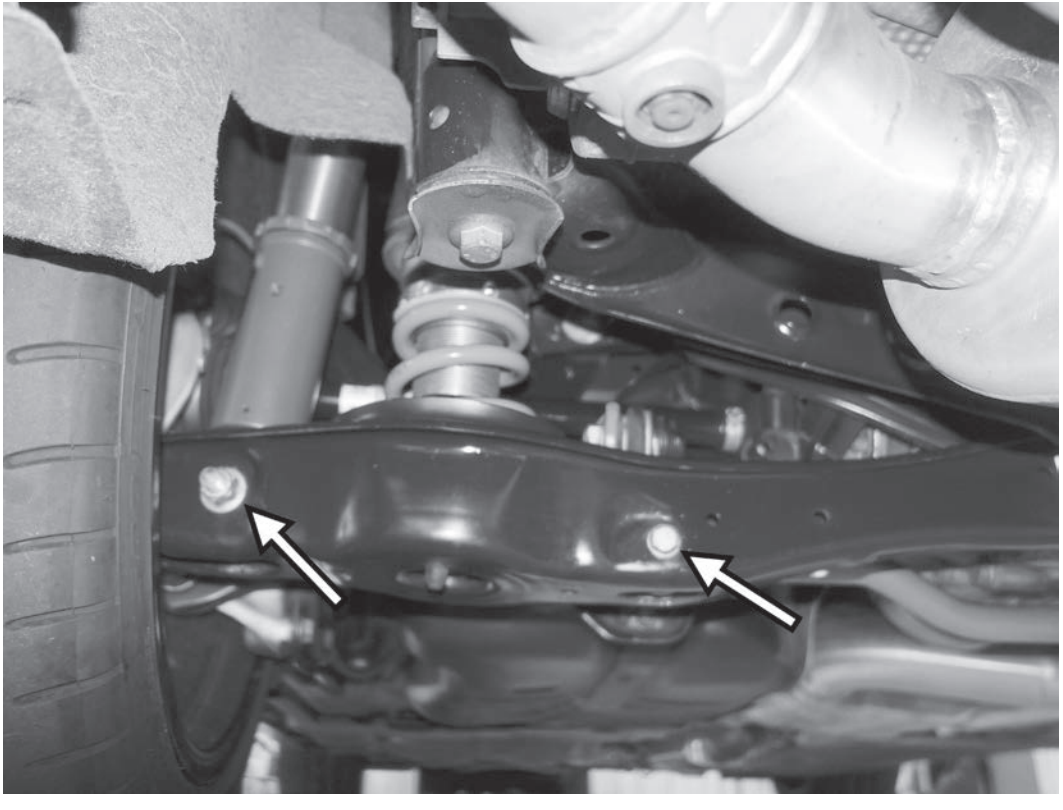
25) Measure the distance from the bottom of the rear fender to any vertical point down the center of the wheel, either to the top of the wheel, the middle of the wheel, or the bottom of the wheel. It only matters that you are consistent in what spot that you measure to on the wheel.

26) Raise the rear suspension on the car by either raising the rear wheel/ tire with a jack, or by lowering the car down on the floor or lift. Close the gap in the wheel well exactly 50mm, as measured from the bottom of the fender to the same point on the wheel you previously measured to. This should be the lowest point the suspension should droop to when unloaded.



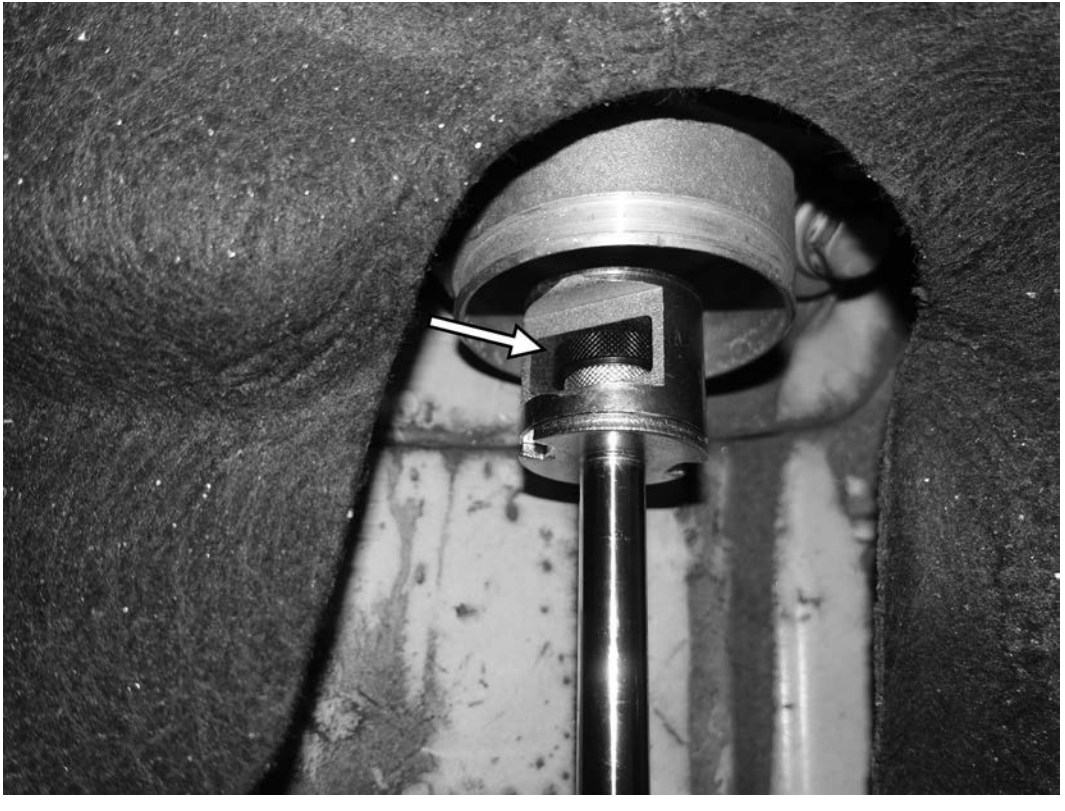
27) With the suspension still in this position, adjust the overall length of the shock. Turn both the lower body of the shock and the lock collar up on the threaded body until the bottom shock bolt hole lines up with the hole for the shock in the lower control arm. The shock bolt should be able to easily be installed or uninstalled through the lower control arm and the shock hole.

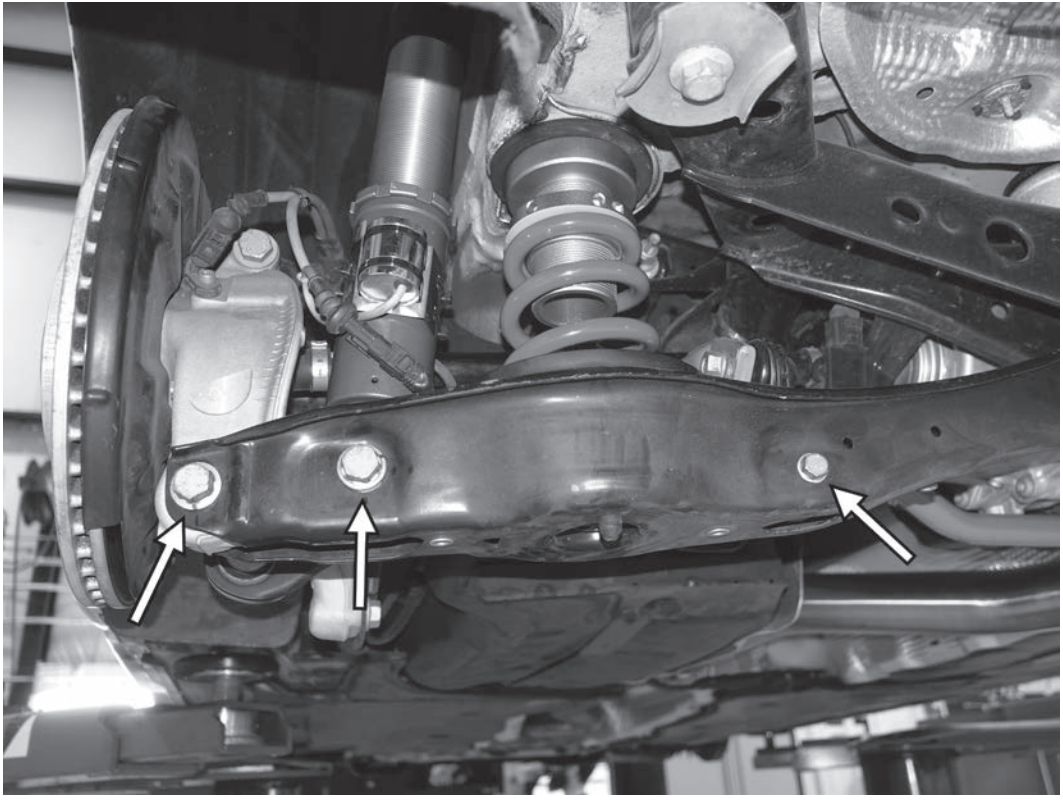
28) Compress the shock so you can access the bottom shock bolt hole. Install the correct width spacers in both sides of the bottom shock hole. Choose the correct width spacers that will allow the bottom of the shock to fit without slop inside the lower control arm.



29) Loosely reinstall the lower shock bolt from the back of the control arm, and install the nut on the front side of the control arm. Once the other side has been done, reconnect the sway bar bolt from the back of the lower control arm. Leave all suspension bolts loose for now.

30) Adjust the rear shocks by turning the knob on the top of the shock. Like the front, the knob has 32 ways of adjustment. Turning the knob all the way clockwise is 0 (HARDEST) and all the way counterclockwise is 32 (SOFTEST). The coilovers should be set at 8, we recommend an initial setting of 16.





31) All suspension bolts should be tightened while the car is sitting at the set ride height. Tighten the bolt and nuts to the stabilizer bar lower link to control arm to 20Nm (15ft-lbs), and then tighten an additonal 90°. Tighten the bolt and nut holding the lower control arm to the rear upright to 70Nm (52ft-lbs), and then tighten an additional 180°. Tighten the bolt and nut holding the bottom of the shock to the lower control arm to 70Nm (52ft-lbs), and then tighten an additional 180°.

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