

Camaro Lowering Spring Installation



Part Name: Camaro Drop Springs 1.25" Drop

Part Number: 410-402001-V

Application: 2010 + Chevrolet Camaro V8 and V6

Level of Difficulty: Moderate

Expected Installation Time: 2.5 Hours

Packing List:

- 2 Front lowering springs
- 2 Rear lowering springs

Recommended Tools:

- 1/2 drive breaker-bar
- 1/2 drive torque wrench
- 1/4, 3/8, and 1/2 drive ratchets
- 7mm, 10mm, 15mm shallow sockets
- 18mm, 21mm, 24mm deep sockets
- 7mm, 21mm, 24mm wrenches
- 15mm, 18mm ratchet wrenches
- T40, T50 Torx bit sockets
- 5mm Allen wrench
- Razor box knife
- Coil spring compressor (can be rented from most auto parts stores)
- Floor jack & jackstands, or lift

Special Installation Note for MRC (Magnetic Ride Control) Vehicles

Before proceeding please be aware of the following.

When GM is supplied the Rear Strut Assemblies on these cars at production, it comes pre assembled and is installed in the vehicle as a complete assembly as shown below, with the wiring pigtails coming through the upper mount. In order to remove the upper mount from the OEM shock to change out the springs, you will need to de-pin the electrical connector, thus removing the wire from the connectors so you can pull the wire through the upper mount. If you are not comfortable doing this, do not proceed further, as you will not be able to complete the installation. This step would be required on any spring change as there is no other way to remove the upper mount with the connector in place. A quick search on youtube can net many different videos on how to perform this step. Try searching for "How To Depin An Automotive Connector"



Front Spring Replacement

Lift the car and support it properly. This installation can either be done on jack stands or on a lift.

Open the hood and remove the plastic cover from the upper strut nuts and the upper nut and plate on each side - See Figure 1 and Figure 2. This nut is 24 mm. This may allow the strut to lower from the tower, but most likely it will be stuck in place still.

!Caution! the second nut holds the spring tension, do not remove that yet. See Figure 1

Camaro Front Strut Assembly

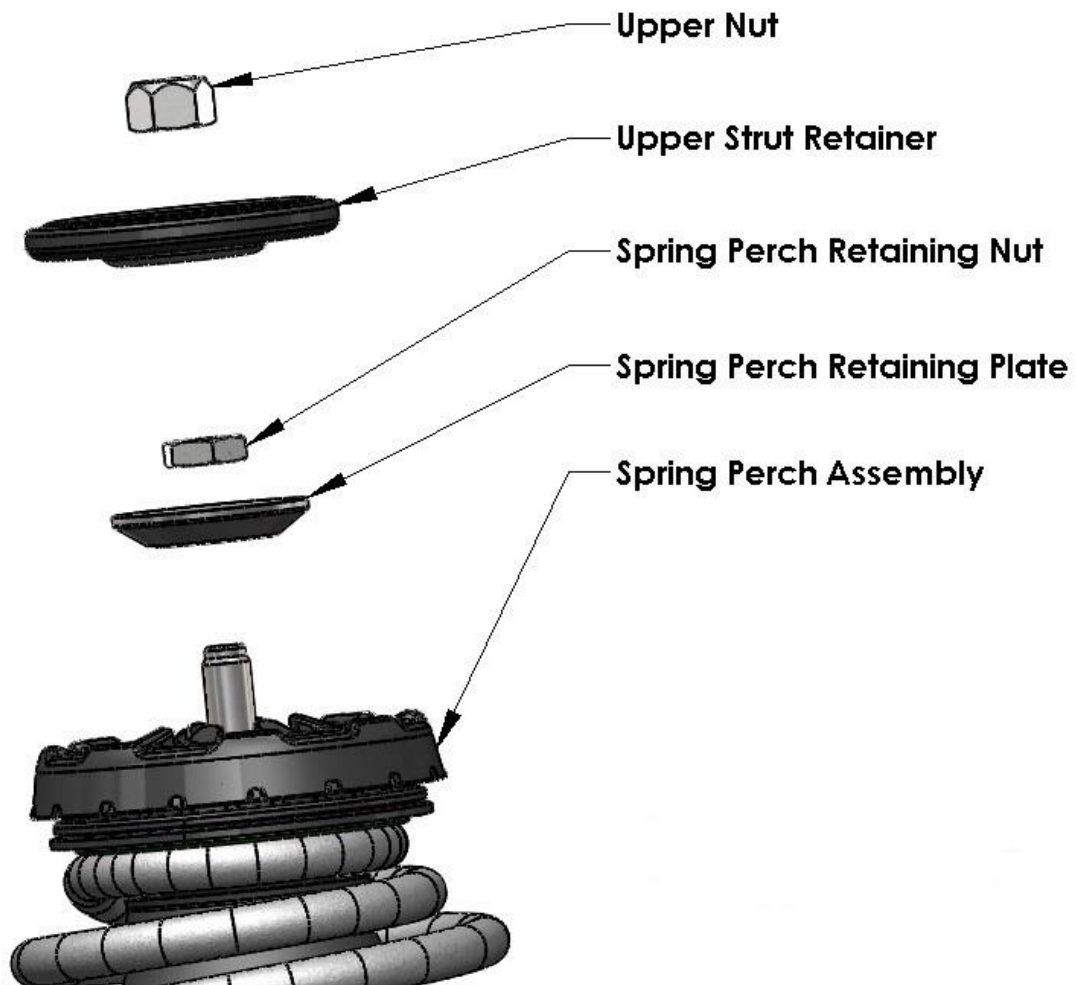


Figure 1 - Assembly Order



Figure 2 - Upper Nut and Strut Retaining Plate

Lift the vehicle and remove both front tires.

Remove the bolt (10mm hex) that holds the brake line to the strut housing and remove the wheel speed sensor wire from its bracket on the strut housing

Remove the 15mm nut that holds the swaybar endlink to the strut and move the endlink out of the way. You may have to use a 7mm box wrench to keep the stud from turning.

Mark the location - with a scribe or marker - of the upper strut to spindle bolt. This hole is slotted and is the adjustment for camber. Marking the location will give you a starting point when re-assembling.

Remove the two nuts on the spindle to strut bolts (24mm hex).

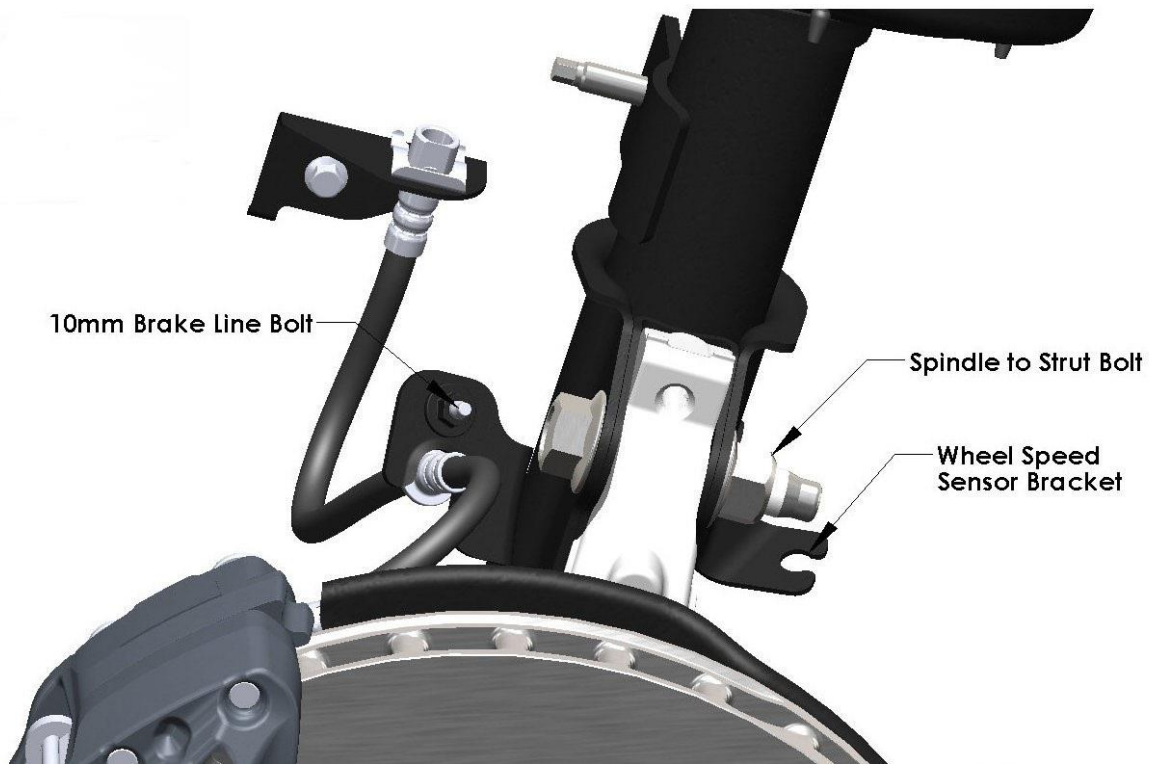


Figure 3 - Component Locations



Figure 4 - Removing Spindle to Strut Bolts

Support the strut by hand and remove the two bolts. The strut should be able to be removed from the vehicle now. The upper mount may stick in the tower, some amount of force and twisting might be required to remove the unit.

With the unit out of the car, use a spring compressor to compress the spring and remove the spring perch retaining nut (see Figure 1). The upper perch, and the spring can now be removed from your strut.

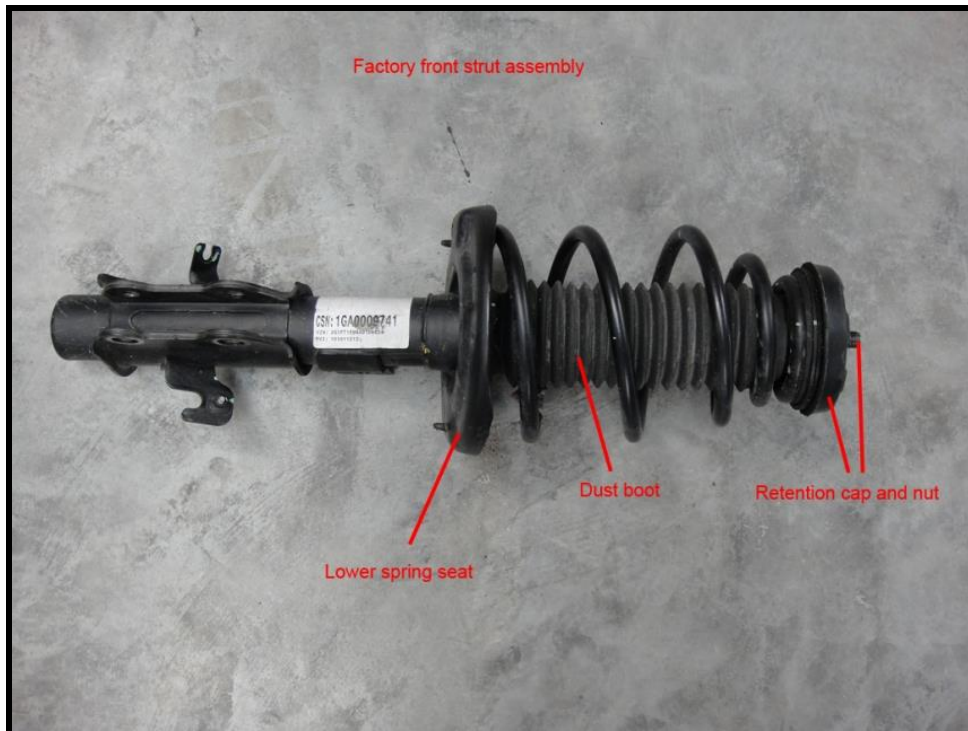


Figure 5 - Front Strut Removed from Vehicle



Figure 6 - Front Strut with Boot Removed Exposing Bump Stop

Remove the shaft cover boot and pull off the yellow bump stop. Cut the front bump stop as shown. You will be cutting 1.0" from the front bump stop.



Figure 7- Trimming Front Bump Stop

Install the upper half of the bump stop back on the shock shaft and replace the shaft boot. Place the new front spring on the perch taking care to align the end of the spring in the channel of the perch.

Replace upper spring perch and appropriate washers on the strut.

!NOTE! be sure that upper rubber insulator stays on the spring perch or gets transferred to the new spring.



Figure 8 - Front Strut with Pfadt Drop Spring

If required, use the spring compressor to compress the spring enough to start the spring retaining nut. Remove spring compressor and torque nut to 65 lb-ft.

Return strut to vehicle and place upper end back up into the strut tower. Put on upper Retaining washer and start upper nut by hand to hold strut in place (refer to Figure 1). Re-install two spindle to strut bolts. Align upper bolt to the mark you made upon removal and torque bolts to 95 lb-ft.

Re-attach brake line, wheel speed sensor wire and sway bar endlink to the strut. Torque the endlink nut to 33 lb-ft

Repeat procedure for the other front strut.

Install front wheels back on and lower the vehicle to the ground. Torque upper strut nuts on both sides to 65 lb-ft.

Rear Spring Replacement

Remove rear wheels.

Remove 4 bolts (15mm head) that hold the upper strut mount to the chassis.

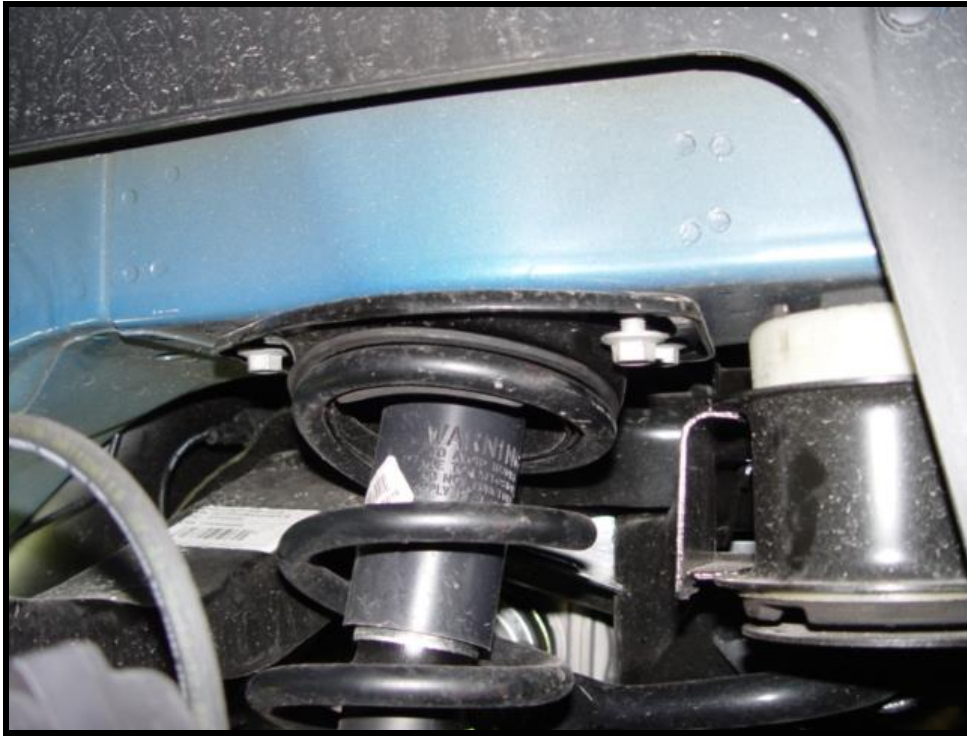


Figure 9 - Four upper strut mount bolts

Remove lower strut to control arm bolt (21mm socket and open-end wrench). Also, remove the 15mm nut from the rear swaybar endlink where it attaches to the lower control arm. You may need to hold the stud with a 6mm allen wrench.

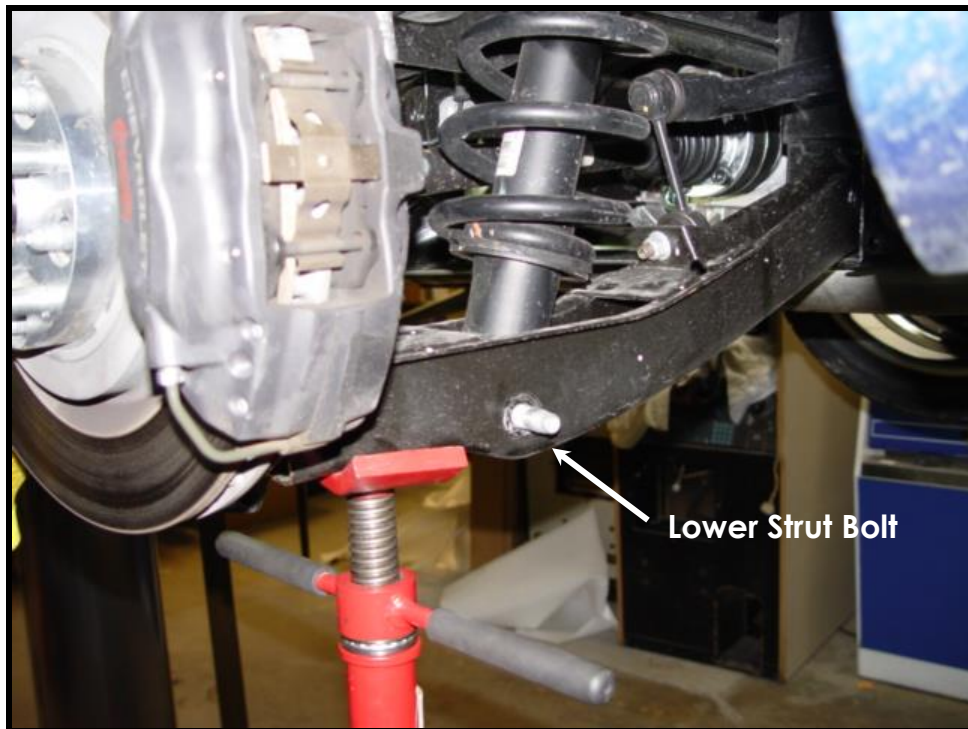


Figure 10 - Lower Strut Bolt

Remove the bolt (18mm hex) that holds the lower control arm to the spindle assembly.

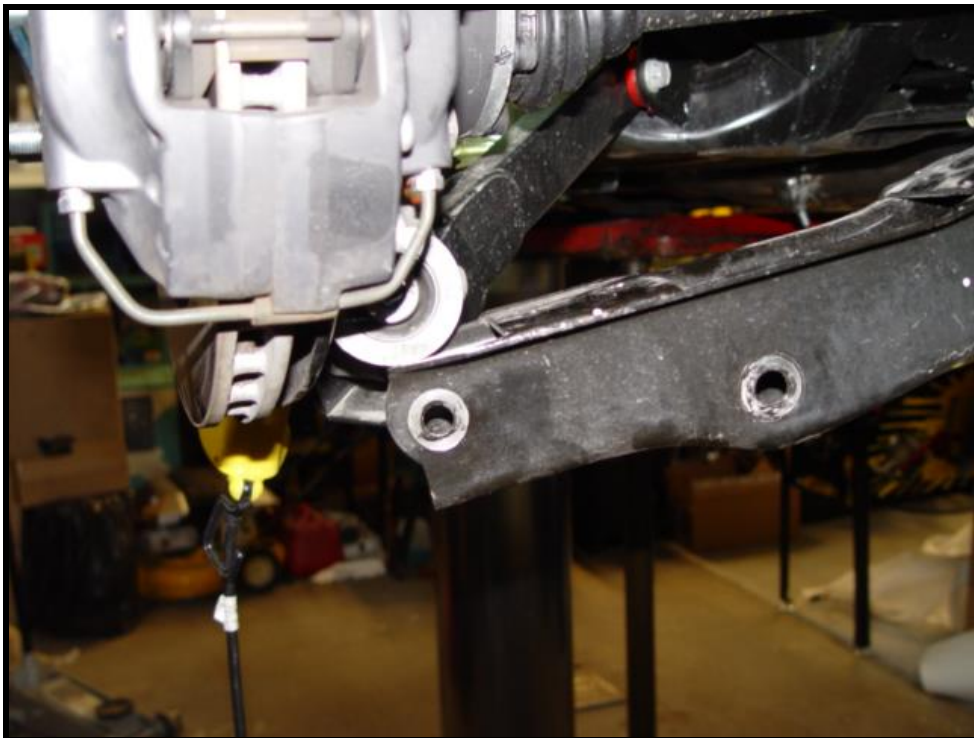


Figure 11 - Lower Control Arm to Spindle Bolt Location

With those bolts removed, pull down on the lower control arm and remove the strut assembly from the vehicle.

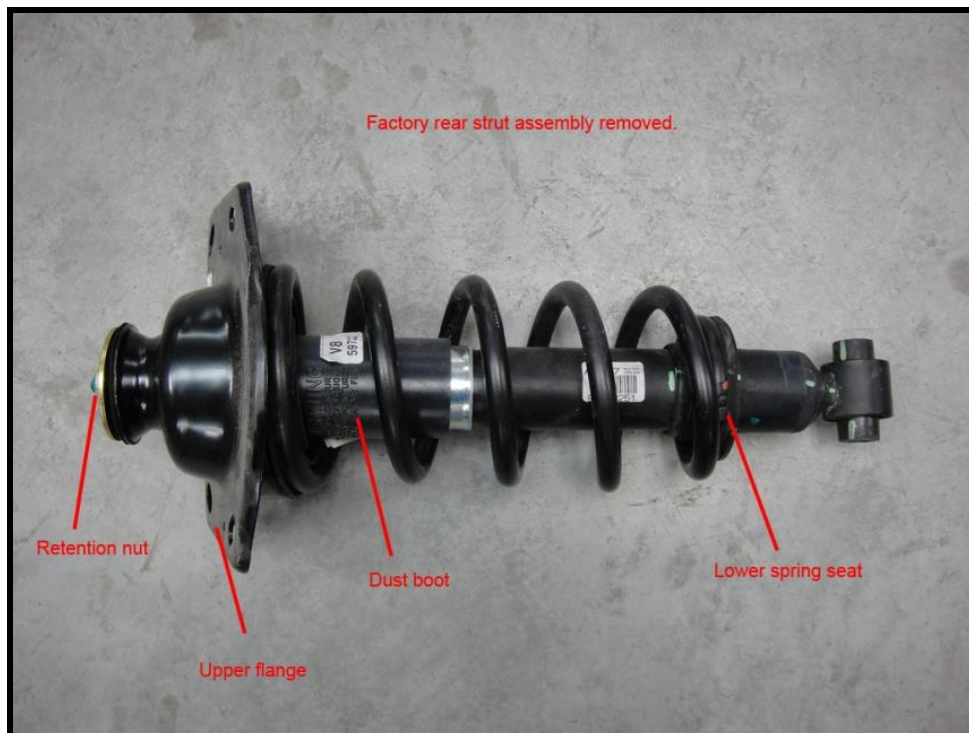


Figure 12 - Rear Strut

Using spring compressor, compress the spring to remove tension and then remove upper mount retaining nut (18mm hex). You may need to hold the shaft with a T40 Torx driver.

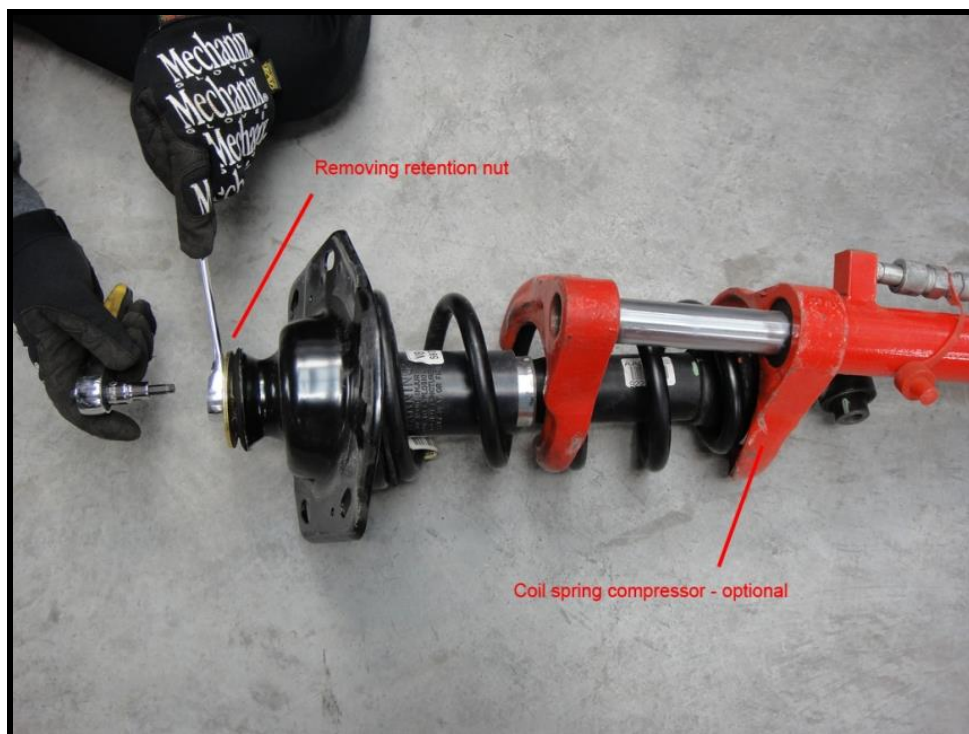


Figure 13- Rear Strut Disassembly

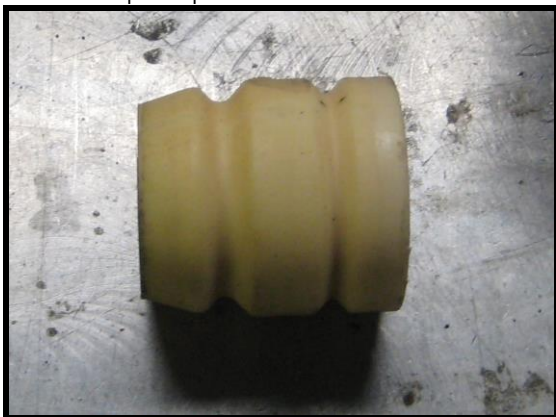
Remove dust cover exposing the bump stop.



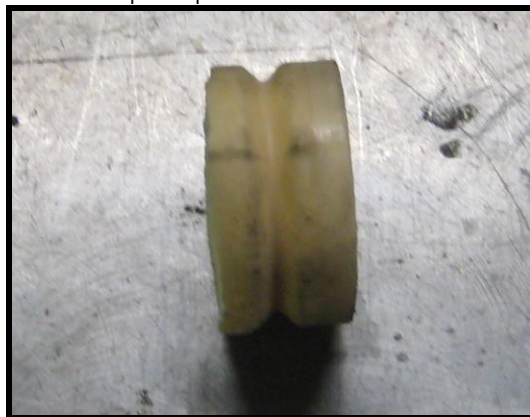
Figure 14 - Strut with un-cut Bump Stop

Remove the bump stop and trim 1 inch from it. Replace the bump stop on the shaft.

Rear Bump Stop: Before



Rear Bump Stop: After



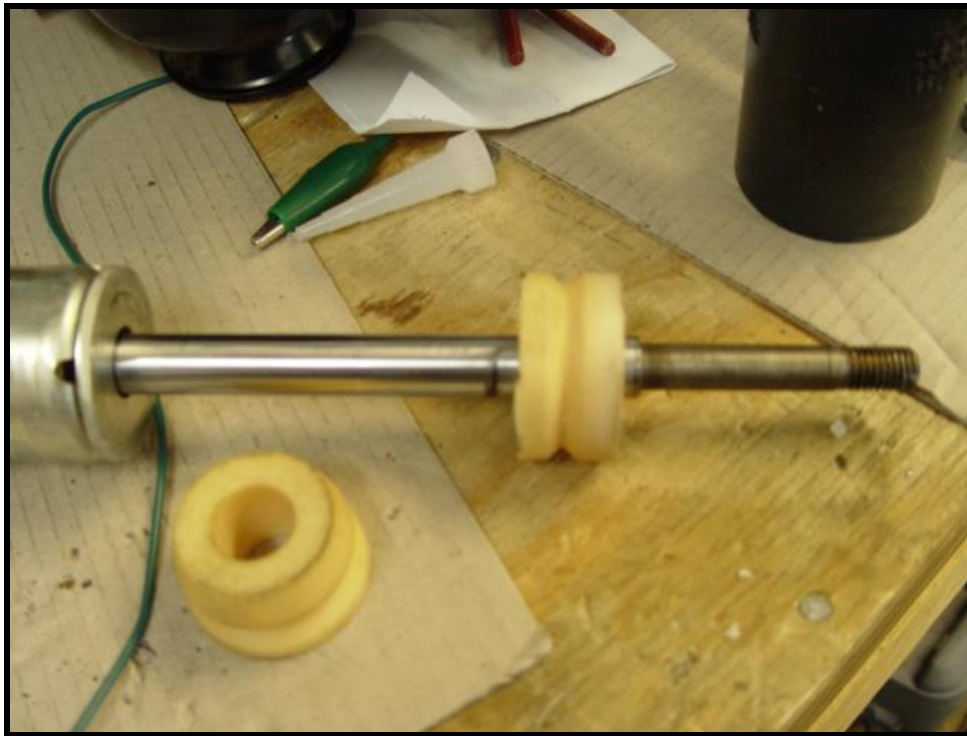


Figure 15 - Strut with cut Bump Stop

Re-install dust cover, new spring and upper spring perch on strut and tighten upper nut to 35 lb-ft. Use care to align spring end with cutout in upper perch. There is a rubber isolator on the factory spring that must be retained with the drop spring.

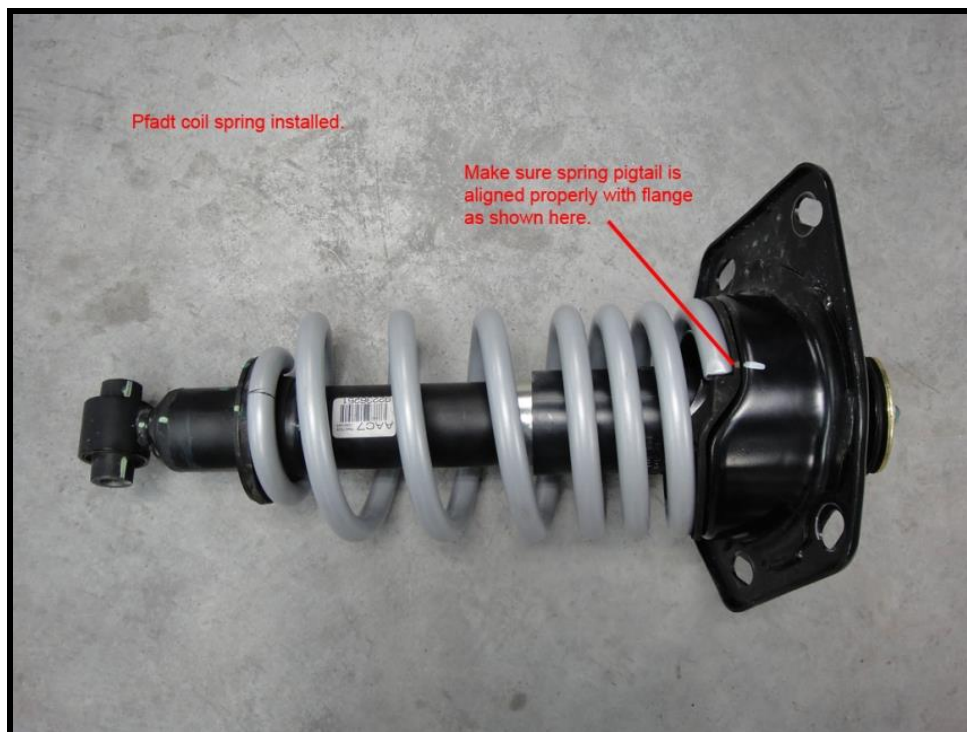


Figure 16 - Assembled Rear Strut

Re-install strut into vehicle and start 4 upper bolts to hold it in place. Install lower strut to control arm bolt. Install lower control arm to spindle bolt. Insert swaybar endlink into lower control arm hole. Torque all bolts appropriately.

Lower control arm to spindle	35 ft-lb
Lower control arm to strut	65 ft-lb
Upper strut mount to chassis	35 ft-lb
Endlink nut	33 ft-lb

Repeat procedure for other side.

Re-install wheels and take vehicle to alignment shop for a proper alignment.



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