

Here we go again! Time for more mods on "Howard" my faithful MINI! As many of you have already realized, the factory ride height is simply OUT OF BOUNDS! Way to high! This not only reduces handling ability, but just looks lame.

To solve this problem for a reasonable price and great ride quality I looked to H&R Sport Springs. They rate the drop on these springs at 1.4" front and rear. Just enough drop to remove that lifted stance. Again, thank the UPS driver for the box, grab your favorite set of metric hand tools and off we go!

For this project you will need the following:

Factory Service Manual for details not shown here (This is a general assembly guide and NOT a substitute for the Service Manual) This is also needed for torque specs. Check online for free resources!

5mm Allen wrench (I prefer those with a handle)

14mm Combination Wrench

13mm sockets (mid or deep)

16mm socket

17mm socket

18mm socket

rachets

Marking pen (I prefer silver)

Hydraulic Jack

Jack Stands (2)

Optional (but highly recommended):

Impact Wrench (air or electric)

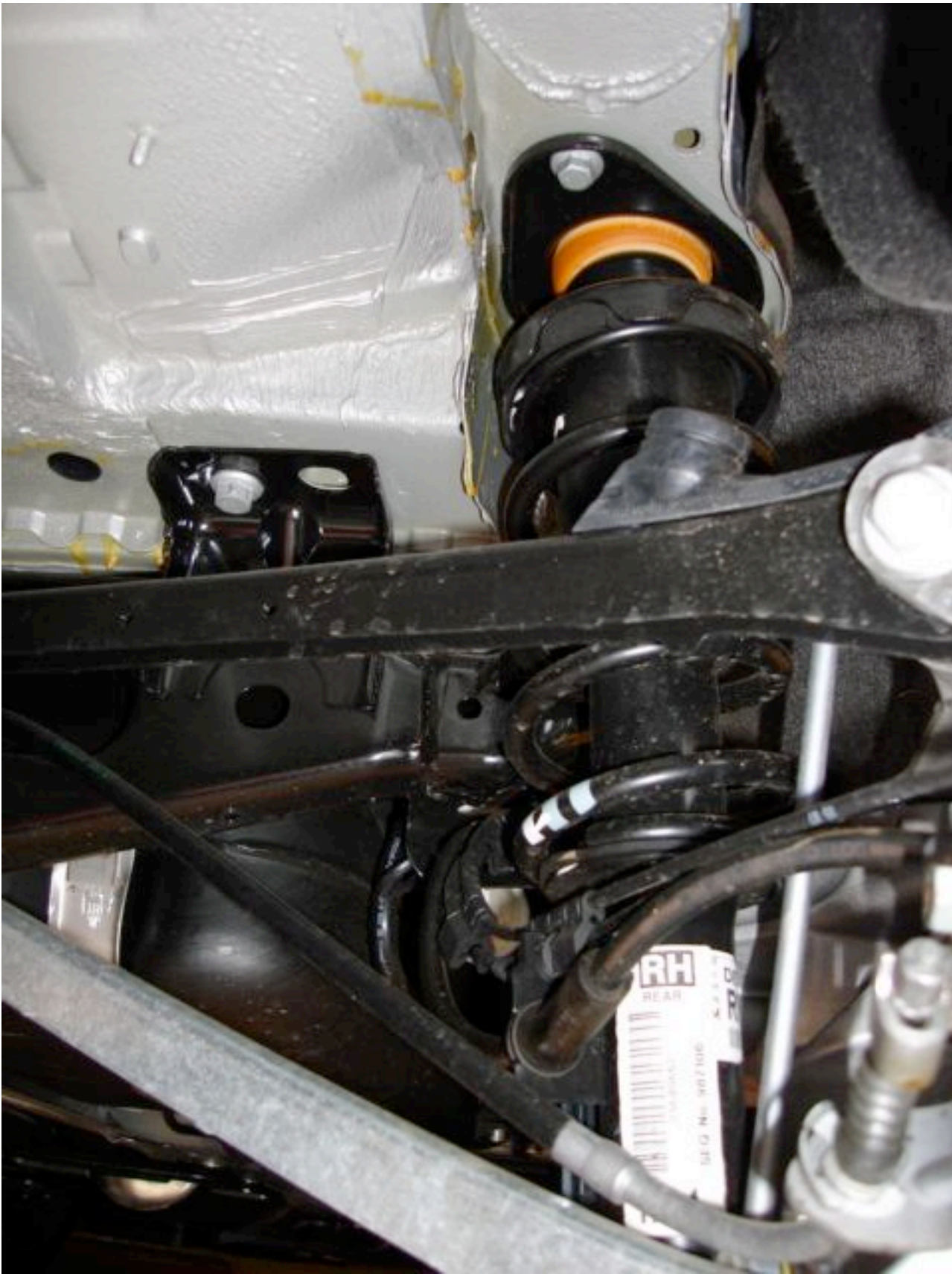
Spring Compressors

Starting with the rear:

Raise the car onto jack stands.



Then remove both rear wheels. (I place them under the car for additional protection). Now the fun part!



In the photo above you can see the upper two 13mm bolts and the ABS wheel sensor cables connected to the strut assembly. Simply pull the wires out of the strut (carefully.) Then loosen and remove the bolt at the bottom of the strut that connects it to the trailing arm (not shown.) Then simply remove the two bolts at the top of the strut securing it to the body. (NOTE: This will fall out! So hold it as you loosen the last bolt. BE CAREFUL not to let it hit the wires and

damage them! This will be EXPENSIVE to repair.) If you are adventurous repeat this on the other side before disassembling the strut assembly themselves.

Now mark each strut hat to a reference point top and bottom. This is crucial for alignment when re-assembling each strut. Failure to follow this step will drive you nuts! You will see below I used a straight edge to make a silver grease pen mark on the top hat that lined up with the bracket for the ABS lines.





Now using a spring compressor (not shown) secure the spring. Or if you are a risk taker like me simply remove the nut on top using the allen wrench and combination wrench.



Now you have this mess!



Note the order of washers, hats etc. The washer I am pointing too is CRUCIAL! Do not forget to get that in the right spot, the weight of the vehicle rests on it! Now simply slide off the OEM spring and exchange it for the H&R Spring. Now simply bolt back together. Be sure to align the top with the bottom using those marks you made previously. Now bolt each strut assembly back into the car and tighten the hardware removed during disassembly. Tighten each to OEM spec. Attach the wheels etc. That was easy right? Let the car off the jackstands and head to the front. Now lets head onto the front!

As with the back, raise the car onto jack stands, remove the wheels etc.

Now remove the 16mm nut that secures the endlink to the swaybar. This is FAR easier to access from the bottom of the link vs. the top. I used a 16mm ratchet wrench and an allen wrench to loosen this. Way easy!



Now moved the brake lines and ABS lines from the strut. They don't need to be disconnected, but just slid out of the retainers. Then remove the single bolt that secures the strut to the steering knuckle. Then rotate the steering knuckle down and away from the strut. Rotating the strut back and the knuckle forward will ease the removal. Then loosen and remove the three nuts on top and drop the strut out.



Then rinse and repeat! I recommend doing the other side at the same time to ease removal.

Now for the non-safety moment of the week. I don't have a spring compressor at home so I aimed away from face, used my trusty Snap-On Impact wrench and blasted away! (This actually sounds far worse than it is! But DO take care to prevent damage to your most important asset(s) you and any bystanders, pets, wildlife etc.!)



Get ready.....here she goes! Now the photo shows exactly how far things went. (You will see not far!)



Simply place the rubber half ring on the lower portion of the strut, place the H&R spring in place of the OEM, then place the rubber dust boot/bump stop combo on, the spring hat, strut bearing washer, and finally the upper strut bearing. Grab your impact wrench and put it back together!









Now for the hard part! The passenger side is kind of a bear to get the strut back in and the steering knuckle back onto it. Just grin and bear it! Also, the strut hats have alignment pins that reference into the body. Be sure to line those up on both sides.

Then simply reinstall all the hardware removed previously. Torque each to spec! Then reinstall the wheels and lower from the jack stands. It may be easier to place blocks under the tires to allow easier removal of the hydraulic jack.

On your test drive leave that radio off! Listen for any odd noises etc emanating from the car. If so immediately address those! (It will be a rare occasion!)

Then before putting any serious miles on your car, make an appointment with your local alignment shop. They will adjust the toe and camber settings to match the OEM. This will improve handling and SERIOUSLY lengthen tire life as well.

ENJOY! This is one of the best improvements to your MINI you will EVER make! Good luck! Happy Motoring!

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