

### Replacing Springs in '65-'69 Cars

After 50 years most springs start to settle with convertibles being the most prone to settlement. I have changed several front springs that were broken but have not found a broken rear spring. Since tire and wheel combinations can affect riding height all I can attest to is that with 185/80R13 tires the height of the wheel well mounding will be 24-25 inches front and rear with new springs installed

All springs are available in both standard and heavy duty. Be aware that the HD springs are quite stiff and are shorter (slightly easier to install), but I would suggest they only be used for racing applications. For installation of front or rear springs you will need quality hand tools, a floor jack and stands, a method of separating ball joints, and a torque wrench for critical nuts and bolts.

### Rear Springs

This would be the time to check bushings in the front and rear trailing arm struts, the trailing arm bushings and the shocks. Plan on checking the rear alignment depending on what you change; camber and toe-in are both adjustable.

With the car firmly supported on stands high enough to lower the trailing arm, remove the two lower rear struts from the differential only, do not loosen the outer bolts, simply pull the struts down from the differential. Remove the 4 nuts and bolts from the two forward struts at the transmission mount. Remove the clip from the brake hose and push the hose/line connection through the hole. Place a floor jack under the end of the trailing arm but leave access to the lower shock mount. Raise the trailing arm slightly. Loosen the upper shock mount nut about halfway up the threaded area and then remove the lower bolt from the shock mount. Gently let the jack down and watch the axle – you may need to rotate it slightly so the U-joints will let the axle drop fully. At this point you can use a pry bar to push down on the hub assembly and remove the spring. It may look like the brake line will limit the travel but there is just enough slack to permit spring removal if you removed the clip as mentioned above.

Use chalk to line up the spring, seat and tower. Transfer the upper spring seat to the new spring and insert it into the upper tower making sure the indexing lines up. Raise the floor jack and re-attach the shock absorber. Raise the hub assembly to riding height and install the rear struts to the differential (see tech article 103) and then the two front struts to the transmission mount. **It is important that the front struts are attached while the wheel is at riding height.** Raising the trailing arm also helps with the rear strut attachment to the differential.

### Front Springs

As with changing rear springs, while the fronts are off, check the other parts you will have access to: ball joints, shocks, sway bar bushings, caster strut bushings and A-arm bushings.

With the front end up on jack stands high enough for dropping the lower A-arm, lift the lower A arm to riding height, remove the outer sway bar bushing retainer, and free the

caster strut rod from the A arm (two nuts). Next lower the A arm halfway and separate both upper and lower ball joints (best to separate the lower one first). Swing the backing plate assembly out of the way and suspend it with wire so it is not hanging on the brake hose. Raise the A arm slightly with a floor jack and then completely remove the shock absorber. Let the floor jack down all the way and **being careful of the spring**, remove it with a pry bar. Note the indexing of the ends of the spring and install the new spring first into the tower and then **being careful** with a pry bar install the lower end onto the A arm. It may look impossible at first but the spring will fit with patience and with being attentive to the indexing of the ends of the spring. Jack up the A arm a little at a time as you use a pry bar to pop the spring into the lower seat. Once the lower end is seated jack the A arm up about 25% of the distance and using a pry bar, pry down on the coil just under the top end and the end will pop in.

Years ago I made a pair of external spring compressors to aid installation but have always been able to coax the springs onto their seat without the compressors. All of the available compressors are clumsy to use on a Corvair.

Jack the lower A arm back up until you just start to lift the car off the jack stand and re-install all the parts. Be sure to torque the lower shock mount to 70 ft lbs. You may want to add another flat washer to ensure the lower shock mount is tight.