



## Installation Instructions for 2018 Crosstrek 1" Lift Kit

Required Tools:

Wrenches/Socket-12mm, 14mm, 17mm, 19mm

Hammer, Pry Bar, Spring Compressor, Torque Wrench, Paint or Sharpie to mark positions of components

Here is what you received in this kit, ensure you have all parts before beginning any work!



Step 1: Begin by lifting the vehicle and placing jack stands securely underneath it. The pinch welds for the unibody work great for this and leave you plenty of room to work around.

Step 2: Remove the wheels and set aside. We'll begin with the rear installation, so if you only have room to lift one section of the car at a time start with the back. This is also a good time to check if you need a tire rotation since they'll be coming off during install.

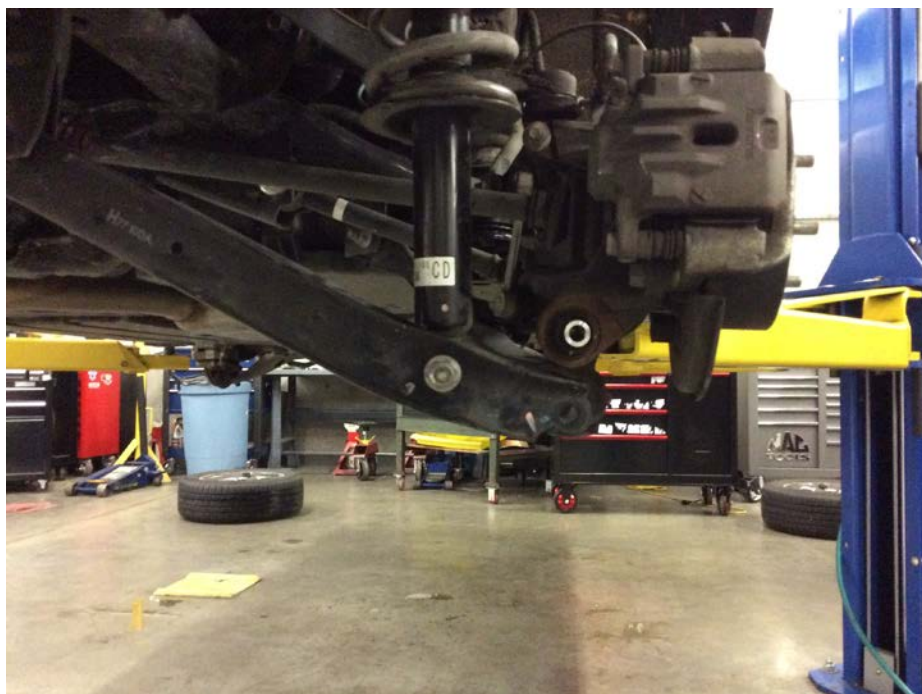
Step 3: Open rear hatch and set aside all carpet matting and foam for spare tire to get access to the rear cover for the strut studs. They'll be held in with the two 14mm nuts shown here on our passenger side. You can leave one nut on a couple of threads to hold it in up if working alone. Save these nuts as they'll be reused later.



Step 4: Place floor jack under rear suspension link for safety and then remove the lower bolt and nut for the strut and the outer link bolt and nut as well. It's a good idea to thread the nuts on their respective bolts to avoid losing any hardware as these will all be reused. It can be done from the inner link bolt but installation is much more difficult due to the angle of the link.



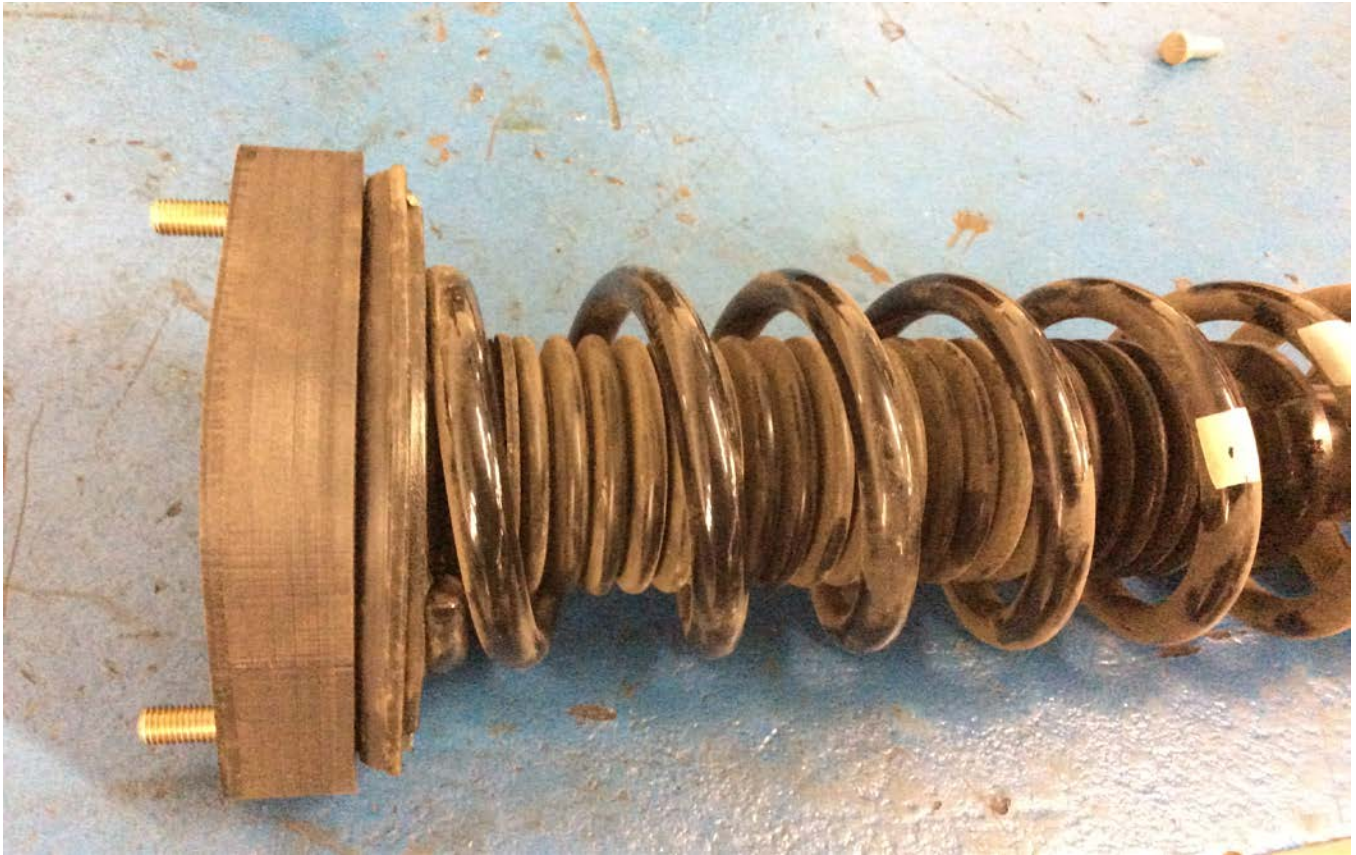
With this bolt removed the link will easily pivot down giving you lots of room to remove the rear strut.



Step 5: Now that the rear strut is out we need to remove the OEM studs. Subaru left enough room under the cap that you can place the strut against a bench edge as shown in the picture, and with a few swift hits from your hammer it will fall right out. Make sure not to damage the strut cap but the studs won't be reused so don't worry about them.



Step 6: Now take one of your spacers with 2 holes and a pair of bolts and washers and assemble as shown below. The washers go between the bolt head and strut cap, and I recommend putting the captured nut in the spacer on top, so that the spacer is held down onto the strut.



Our kits are computer designed and manufactured to exacting specifications, so if there is any damage or wear to the top of your strut it may take some trying of different angles to get the bolts threaded through the cap and seated. The kits are engineered with brand new strut measurements, but we know they will fit with any correct model year Crosstrek with some effort.

Step 7: Now just reinstall the struts, beginning with the nuts in the rear hatch area. This will hold the strut in place for you while you deal with the lower link and strut mount bolts. Torque for these upper nuts is 15 ft/lbs from the factory. With the floor jack in the same position as Step 4, raise the link up and line up the strut and link bolts and then install nuts. If you're having trouble lining the holes up with the spindle, you can use a screwdriver to guide the bushings into place. These nuts get torqued to 75 ft/lbs for the strut and 66 ft/lbs for the link. Now you can reinstall the rear wheels if needed and move to the front. Lugnut torque is 89 ft/lbs

Step 8: Begin preparing for removing the front struts by marking your camber bolts for installation. This will put it in a close (but not perfect) position for front end alignment. The camber bolt will be the one with the washer behind the nut and markings for adjustment. Here you can see the sway bar end link already removed also. It will be the nut on the back of the strut body.



Now remove the 12mm bolt for the brake fluid line on the left and the plastic ABS sensor bracket on the right.





These will be the strut top nuts. Before removing, place a floor jack under the front suspension and take care to make sure the front axle doesn't stretch outwards and pull the CV Joints apart. This may damage the axle and make it unusable, so be prepared in advance even if you hold it towards the car with your knee, etc.



Here again, you can leave one nut on a couple threads to support the weight of the strut to help during removal.

Step 9: Now that it's out, the strut needs to be dismantled to install the new studs and spacer. There is not enough clearance to just smack them out like the rears, and if you do it will contact and break the upper strut bearing. Our pictures show using a Strut Tamer tool, smaller hand held spring compressors can be affordably purchased or sometimes rented/borrowed from local parts stores.

**USE CAUTION WHEN WORKING AROUND ANY COMPRESSED SPRING!**



As you can see in the picture, we've marked white reference points on the spring, strut, bearing and upper cap to make reassembly easier. It's not required but helps. Once the spring is partially compressed you can remove the rubber cap on the top to access the strut rod nut.





With some tension on the nut it can usually be removed, some may require the rod to be held separately. Once the nut is out, the strut body can be removed through the bottom of the spring and placed aside. The upper portion is where the new studs will be installed. Separate the lower bearing portion and you'll be left with just the upper cap like this:



Now you can use the same technique as the rear and with the hammer just remove the 3 studs, install the bolts with washers into the spacer and you're left with a final assembly that should look like this:



Now you can reassemble the strut, using the alignment marks you placed on the components and spring. The upper nut gets torqued to 41 ft/lbs, then the spring slowly released from the compressor assembly. Once it's completely together and ready to install, make sure the upper portion still rotates smoothly on the upper bearing. To install it's easier to slip the lower portion in next to the axle and then swing the upper portion like this:



Upper strut nuts get torqued to 15 ft/lbs, and the lower strut bolts are set to 114 ft/lbs after setting the camber bolt position back to your original markings. The alignment will be close, but not exact. Now the wheels can be installed and torqued to the 89 ft/lbs. Before lowering off the jacks and test driving it's a good idea to go back and double check all your nuts/bolts. Better to find an issue parked in a driveway than on the trails or freeway!



Here's what you can expect as a finished appearance with stock wheels and tires. Our wheel arch height went up the expected 1", to a final 32" from the ground.



As you can see here, an alignment is definitely in order after the install to avoid tire wear:

Front		Left	Right
Camber		0.1°	0.6°
Cross Camber		-0.4°	5.1°
Caster		4.9°	-0.2°
Cross Caster		10.5°	11.9°
SAI		-1.4°	
Cross SAI			
Toe		0.2mm	3.1mm
Total Toe		3.3mm	
Rear		Left	Right
Camber		0.5°	-0.1°
Cross Camber		1.4mm	0.6°
Toe			-0.8mm
Total Toe		0.5mm	
Thrust Angle		0.09°	

Measure caster.

Show VirtualView®    Show Secondary Measurements    Measure Caster

