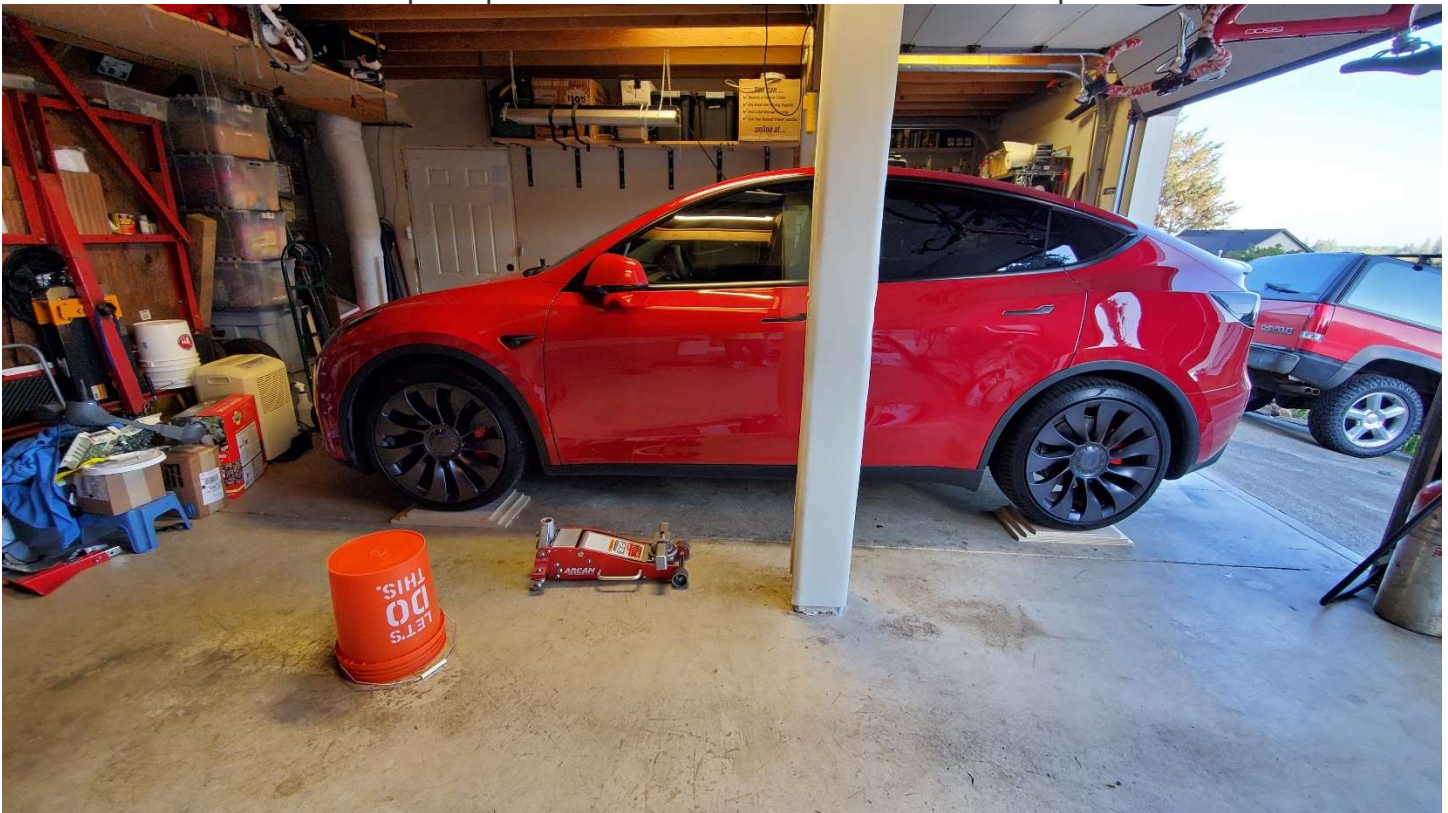


First off, let me start out with a disclaimer. I am not a professional mechanic or an engineer. I do not recommend that you follow these instructions. This is merely an account of how I installed this lift kit in my car and it is only for entertainment purposes. If you install this kit, you should hire a professional licensed mechanic. This procedure is dangerous and you could be severely injured or killed. I wrote this in the manner of instructions ONLY to entertain and give you the feel of installing a lift kit in your own head, a fantasy if you will. Nothing in this story should be construed as actual instructions on performing this task. It is merely a story and I recommend that you only rely on the advice of professional mechanics if you decide to perform mechanical work of any kind.

My story:

Preparation: The first thing you have to do the morning of your install is get your Y lifted up and the wheels off. I used a low profile jack from Costco and four SafeJack jack stands. You could get by with as few as two, but it's a lot easier to get all four wheels in the air at once. The thing here is, even with the low profile floor jack, there wasn't room to get the jack with the safe jack crossbar under the Y's frame. So I had to make ramps to pre-lift the car. You can see them in this picture:



Here's where I ran into another issue: The Y would not climb the ramps. I nosed up to them added gas—and nothing. The car sensed something wrong and would not apply power to the motors. Crap. After some head scratching I switched to "Off Road" mode. That did the trick; the car climbed the

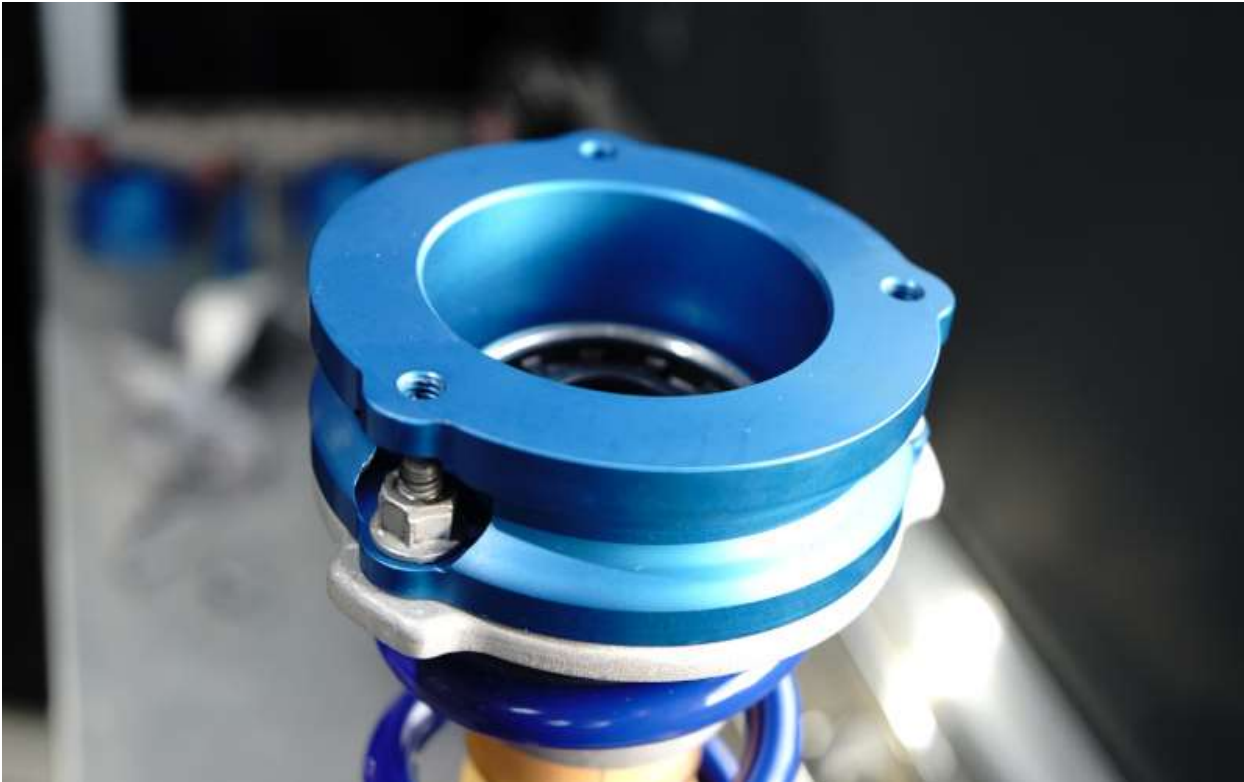
ramps fine. The ramps themselves are three pieces of $\frac{3}{4}$ " plywood glued together. 12" wide, 15", 18", and 21" long

Anywhere in here remove the cowl cover. It's the piece under the hood behind the frunk. I'll tell you right now you'll never get it installed again correctly. Quite simply this piece is horribly engineered. You'll see. I removed the Frunk, but that step is NOT required. It's a leftover from the 3 instructions. Then it's a simple matter of jacking the car up and removing the wheels.



Now I'll switch to the instructions from the Mountain Pass Performance website. These may change over time. Please check their website for the latest version before you attempt to install their kit. Changes I make will be in red bold italics. I also added a number of pictures for clarity.

MPP 1.75" Lift Kit Installation Instructions



Thank you for purchasing our MPP 1.75" Suspension Lift Kit! This is a short instructional guide on installing the kit properly. You'll love the increased ride height, it will help you clear steep driveways and make entry and exit of the car a breeze.

Difficulty Level: 3/5, Time Required: RWD – 2.0 Hours/ AWD – 3.0 Hours

NOTE: For safety, only licensed mechanics should be allowed to work on braking and suspension systems.

Tools & Equipment Required:

- Impact Gun or Breaker Bar to remove wheels
- 1/2" Torque Wrench **AND a 3/8" torque wrench.**
- Socket + Wrench Set
- **12mm, 18mm open end wrench.**
- **Metric allen wrench set.**
- **Torx key wrenches or sockets. You'll need a couple of sizes so get a set.**
- Floor Jack or Transmission Jack
- Jack Stands
- Grinding Tools **Not needed for the Y.**
- **Optional: Ground down 13mm socket for front damper hardware Not needed for the Y. A regular 13mm socket works just fine. NOTE: A 12mm socket will be used for re-install. (New bolts.)**

Kit Contents

Inspect your kit to ensure you have all pieces before taking the car apart. The kit includes:

- (2) Front Spacers

- (2) Rear Spacers
- (4) Rear Damper Spacers
- (6) M8 Bolts
- (6) M8 Nuts
- (4) M10 Bolts
- (2) Rear Spacer Gaskets

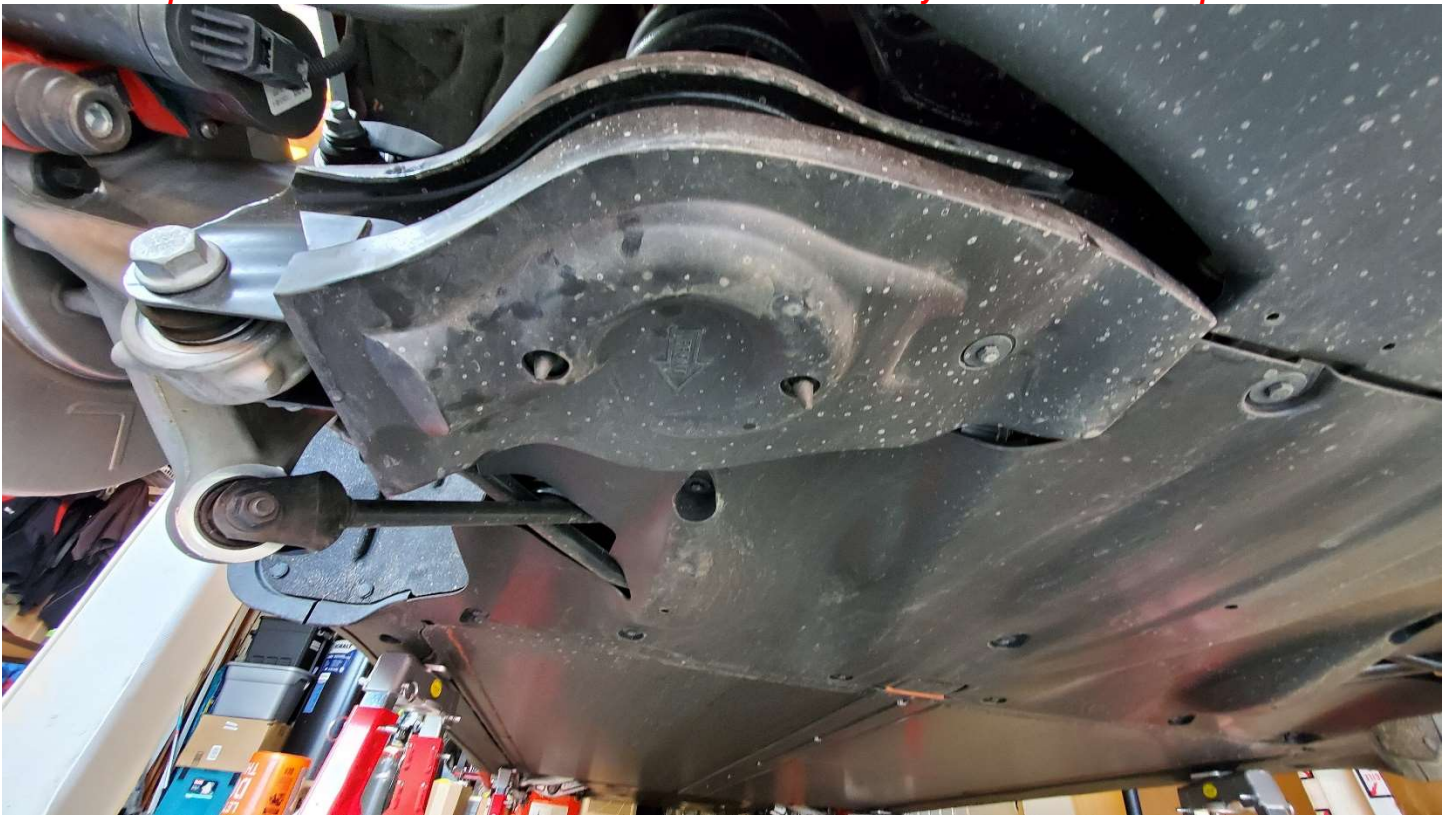
Installation Instructions:

REAR:

The rear is very straightforward, the most important step is retorquing the bushings at ride height, not at full droop!

The rear set is the easiest.

- Lift car, remove rear wheels.
- ***Remove the plastic aero cover mounted to the lower control arm. Only one bolt holds it in place.***



- Support the bottom of the lower control arm/spring arm with a jack.
- Loosen and remove the 21mm bolt holding the lower control arm to the knuckle.
- Loosen and remove the 21mm bolt holding the damper to the lower control arm.
- Loosen and remove the 2 M10 bolts attaching the top of the damper to the body.
- Remove the rear damper.
- Remove the clips from the rear damper bolts and remove the bolts. Label and save them in case you need to revert back to stock as these will be replaced during the lift kit install.
- Slowly lower the jack, allowing the lower control arm to pivot downwards and release the spring. Be careful!

- Tilt the top of the spring out, and insert the rear spacer into the top of the spring, keeping the stock rubber spring isolator on the spring. ***The stock isolator is white plastic on the Y. See the pics I added below.***



This next step is tricky. It's tough to get the spring back in place with the spacer. As you're jockeying it in, slide the rubber isolator from MPP into place first; you don't want to tear it as there are no spares in the kit. In my picture above you can see the rubber gasket between the blue MPP spacer and the red spring perch above it.

- Place the rubber gasket on top of the spacer, and reinstall the spring/spacer assembly.



Rear spacer installed in combination with our coilovers. The stack-up order from bottom to top will be: stock rubber isolator, spring, stock rubber isolator, spacer, spacer gasket.

*This next part isn't as hard as it looks. You kind of do it blind on the Y because the Y's sound dampener blocks more of your vision than on the 3. **WARNING:** Pay special heed to the torque rating on these bolts for the Y. Older instructions listed 55Lb-ft. I called Jesse at MPP and queried them about this as the bolts are threaded into the rear aluminum casting on the Y. 33Lb-ft (45nm) is correct I believe, but I have no verification from Tesla. I'm going by what I found on the internet and talking to Jesse at MPP. **WARNING!!!** I'm not sure how bad it would be, but I think it's possible to total your Y if you strip these threads out by over-torquing them. Maybe not, but it sure scares me. I have no idea how stripped threads in this spot could be repaired. **DO NOT CROSS THREAD THESE BOLTS OR OVER-TORQUE THEM!!!***

- Install the rear damper with the 2 rear damper spacers on top of the upper mount. Use the provided M10 bolts from the kit to secure the damper to the body. **Torque to 55lb-ft. (33lb-ft for Model Y)**



Rear damper spacers installed on top of rear damper mount using longer M10 bolts.



Rear damper installed in car with provided spacers and bolts.

- Use the jack to raise the lower control arm back into place, making sure the spring and spacer assembly locates properly on the body. **OK, you have to jockey the lower shock (damper) bolt and knuckle bolt into place. You have to play with the jack to get the lower control arm at just the right level to get the bolts into place. DANGER Will Robinson! You're compressing the spring so be damned carefull!!!!**
- Loosely install the lower damper bolt, and the lower control arm to knuckle bolt. **NOTE: Take care not to pinch or damage the balljoint on the outer knuckle as you're jacking up the control arm!**
- Use the jack to raise the rear knuckle to ride height, and **torque the two 21mm bolts to 80ft-lb. There are two ways to do this. The hard way is to measure distance from the center of the hub to the top lip of the**

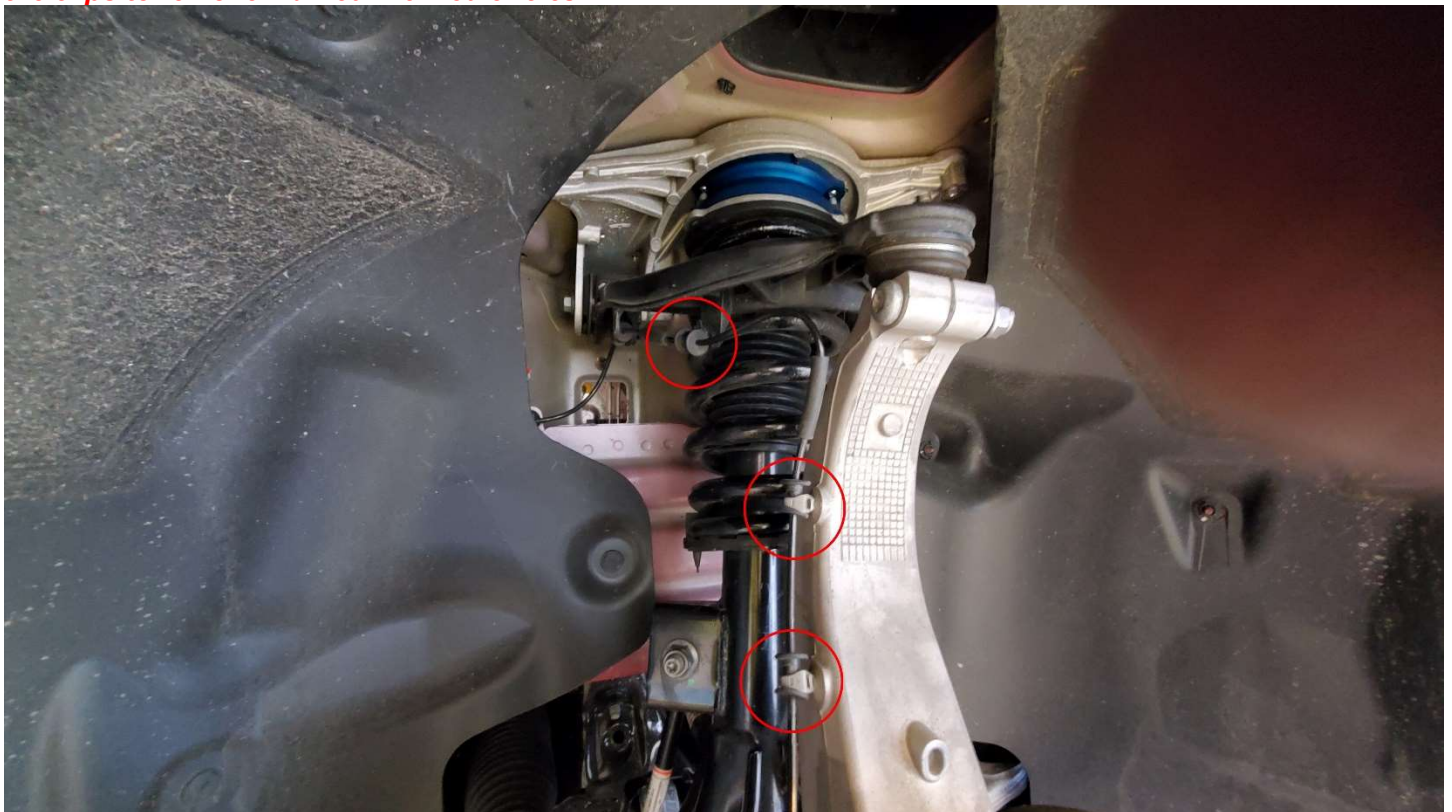
fenderwell stock, and then add 1.75" to get where to lift the knuckle to. The easy way is—if you have all four corners of the car on jackstands—lift the knuckle until the weight is just barely removed from the corresponding jack stand. Now the knuckle is at ride height as it is supporting the weight of the car at that corner. If you are only on two jack stands the balance may be off and this technique may not work. Plus, it would be more dangerous to use this technique.

- Repeat on the other side!
- Install and **torque wheels to 130ft-lb.**

FRONT:

The front spacer install is very straight forward as well. We are just bolting the spacer onto the top of the front damper assembly and reinstalling.

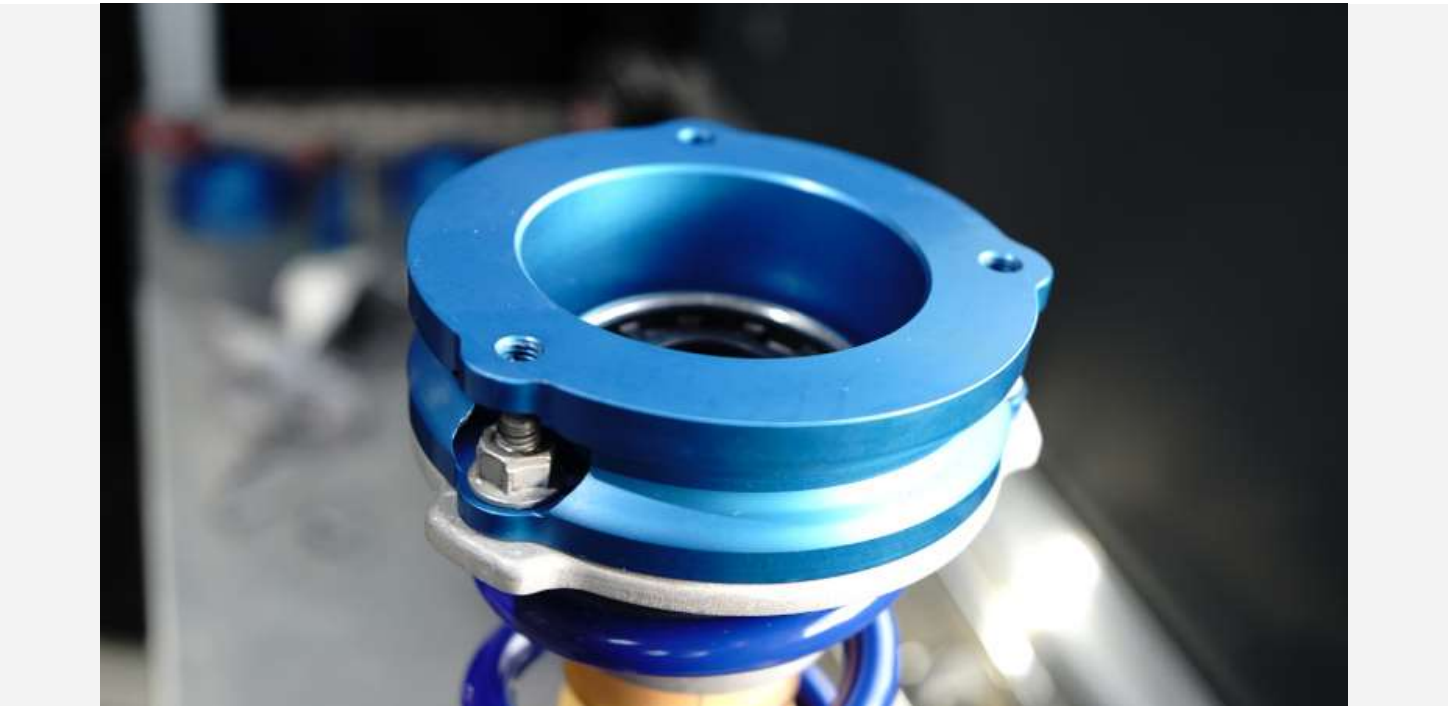
- Jack up or raise the car on a hoist and remove the wheels.
- Remove frunk – see the video on how to do this here. *Nope, just the cowl cover on the Y. Also, you'll need to remove the filler neck for the washer fluid. Easy peasy. Remove the one bolt near the mouth of the filler neck, then pull the neck out of the tank with a twisting motion. When you re-install at the end, use a bit of washer fluid to lubricate the O-ring on the base of the filler neck.*
- **With optional socket**– Using ground down 13mm socket remove top nuts on OEM damper. *Optional socket not needed on the Y. The holes are plenty big enough for any socket.*
- *Before you go on to the next step you MUST remove the clips holding the ABS sensor wire to the knuckle and upper control arm. Just pry the clips out, and remember to re-install at the end. Here's a picture with the clips to remove marked with red circles.*



- ~~Without optional socket~~ — Remove 13mm and 15mm bolts holding upper damper and upper control arm assembly to body.
- ~~Without optional socket~~ — Remove upper ball joint bolt holding knuckle to the upper control arm and release arm from knuckle. **You need to do this. After you remove the nut, you need to compress the ball joint and the knuckle to get the bolt out. I've added red lines to the picture below so you can see what to compress together. You can just use your hand or Use a wood clamp if you need to, I needed to on the right side and didn't need to on the left side.**



- Remove 18mm anti-roll bar end links on both sides, using an Allen key to thread out the anti-roll bar end link while holding the 18mm nut. **An impact wrench will spin this bolt right off. You will need the key to re-install though.**
- Remove 21mm lower damper bolt.
- Push down on lower control arm/knuckle assembly and slide the damper out of the car. **You don't need to remove the damper (shock) from the car. It's easier just to bolt on the spacer in place. You'll have to pull out the top of the damper to get room to do this. The nuts and bolts provided here are 12mm, not 13mm!!! This is correct; they need to be. But don't get sucked in to using a 13mm wrench.**
- ~~Without optional socket~~ — Separate the damper from the upper control arm assembly by removing the three 13mm nuts on the top. **Ignore this step.**
- Install the front spacer on the top hat of your damper using the provided M8 nuts. Install and thread all 3 nuts at the same time, if you install and tighten one first you won't be able to fit the other nuts in!



Front spacer installed on damper top hat.

- **Without optional socket-** Install damper/spacer assembly into upper control arm assembly using the three provided M8 Bolts, **torque to 22ft-lb.** *Ignore this step. BUT, do note the torque setting for when you mount the top damper bolts.*
- **With optional socket-** *Optional socket not needed on the Y* Install damper/spacer assembly into the car and use the provided M8 bolts to secure the spacer to upper control arm assembly/strut tower using ~~the ground down 13mm socket.~~ **A 12mm socket. 22ft-lb**
- **OK, this is where it gets fun. Referencing the above step, first you need to gently lift the damper into place using a floor jack. Getting the three sets of holes lined up is NOT fun or easy. DO NOT cross thread the bolts into the spacer. This would be VERY easy to do and would ruin your whole day. Take your time. Take breaks. It would be easier--probably--if you had someone underneath positioning the damper. I found it best to lift the damper with a floor jack so it was BARELY touching the upper control arm. Get one bolt hand started first, it makes it all easier. Odds are only one hole will initially line up both in angle and position. This is the second hardest part of the install and it's a bitch. Once you get this part done, now comes the hardest part of the install and a helper is absolutely required. I struggled for a long time before I gave up and waited for my wife to come home. What you have to do is get the lower damper bolt in place. To do this you have to push down on the knuckle or brake rotor, line up the damper, and install the bolt. Hah! I called MPP and Jesse was a great help. (All day long as a matter of fact.) What he recommended was having a helper put their foot on top of the brake rotor hat and push down. A heavy helper would be good. My wife is slender, and she didn't quite have enough weight to make this step easy, so we still struggled a bit. It did work though after a lot of work. Use the floor jack to raise the lower control arm until you can easily install the sway bar end link bolt. Set ride height and torque these two bolts.**
- Assemble in reverse order.

- **IMPORTANT NOTE FOR AWD:** Check front driveshaft clearance to subframe/lower control arm hardware. If it is touching you may need to remove a small amount of material from the lower control arm nut/bolt so the driveshaft has no chance of touching. It would only touch at full droop (if the car is airborne) but it is recommended to make sure it can't. ***This was not an issue with my car.***



Front damper installed with lift kit spacer. Pretty isn't it?

- **Torque lower damper bolt to 80lb-ft** at ride height using a jack to raise the lower control arm. ***Same technique as earlier to set ride height.***
 - **Torque upper control arm to knuckle bolt to 40lb-ft.** ***Again, compress this joint to install the bolt.***
 - **Torque sway bar end link to 55lb-ft.**
 - **Torque wheels to 130lb-ft.**
- You're done! An alignment is required now that you have installed this kit. If you have any questions about the install, please [email us](#). Thank you!