

## **Synergy 2-door 3in/4-door 2in Front Lift Springs JK Wrangler**

**Installation Time:** 2-3 Hours

### **Tools Required:**

- ✓ Sockets: 10mm, 18mm x2, 19mm
- ✓ Socket Wrench
- ✓ Lug Wrench
- ✓ Torque Wrench
- ✓ 18mm Wrench
- ✓ Jack x2 (Or Lift)
- ✓ Spring Compressor (recommended not required)
- ✓ Dremel (optional)
- ✓ Pliers (optional)
- ✓ Zip ties (optional)

### **Before Picture:**

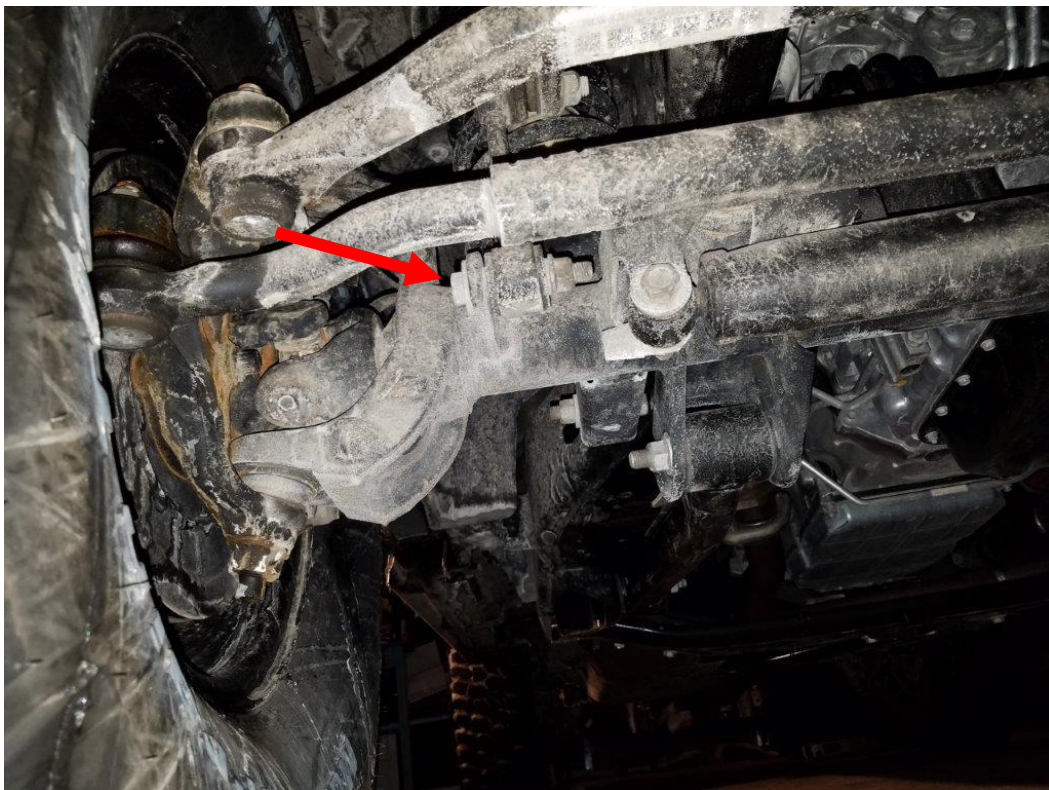


### Installation Instructions:

1. Using a 19mm lug wrench, loosen the lug nuts on both front wheels. To start out, only loosen them about a half a turn.

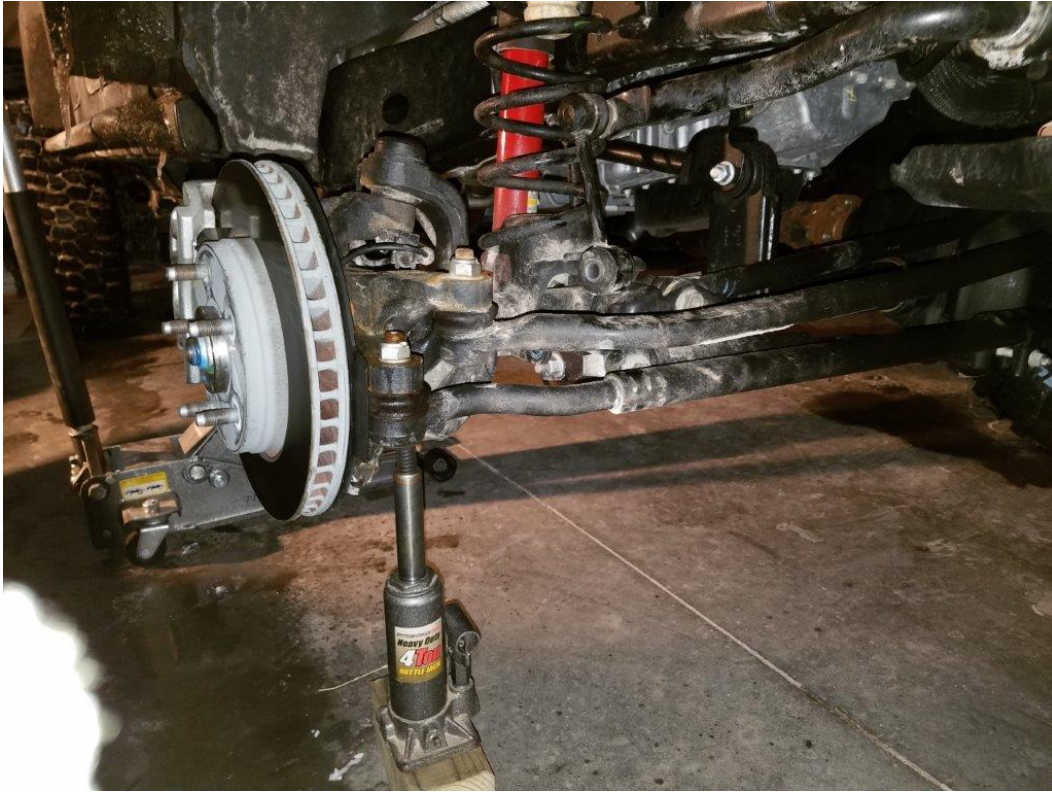


2. Remove the 18mm nut and bolt from the axle side of the sway bar link. Repeat this step on both driver and passenger sides.

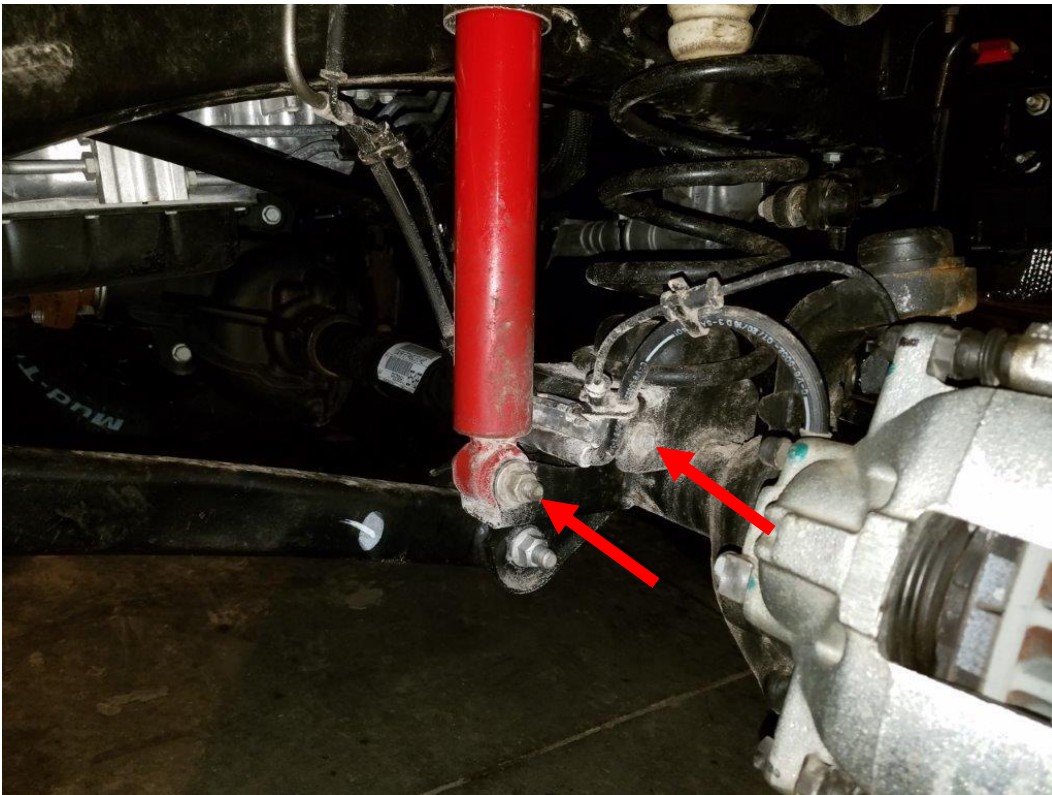




3. If you have a lift, now you will want to lift your Jeep. If not, use a jack to lift the passenger side by the frame. Then remove the wheel. *Note: Don't forget to check the condition of your brake pads while the wheel is off.*
4. Next use a second jack to lift the axle about ½" just to relieve pressure on the lower shock bolt. At this point you want this jack to be near its highest setting, this will help for lowering the axle later.



5. Remove the 18mm nut and bolt from the bottom of the shock. If the jack has relieved all the pressure the bolt will slide out easily. Also remove the 10mm bolt holding the brake line bracket.

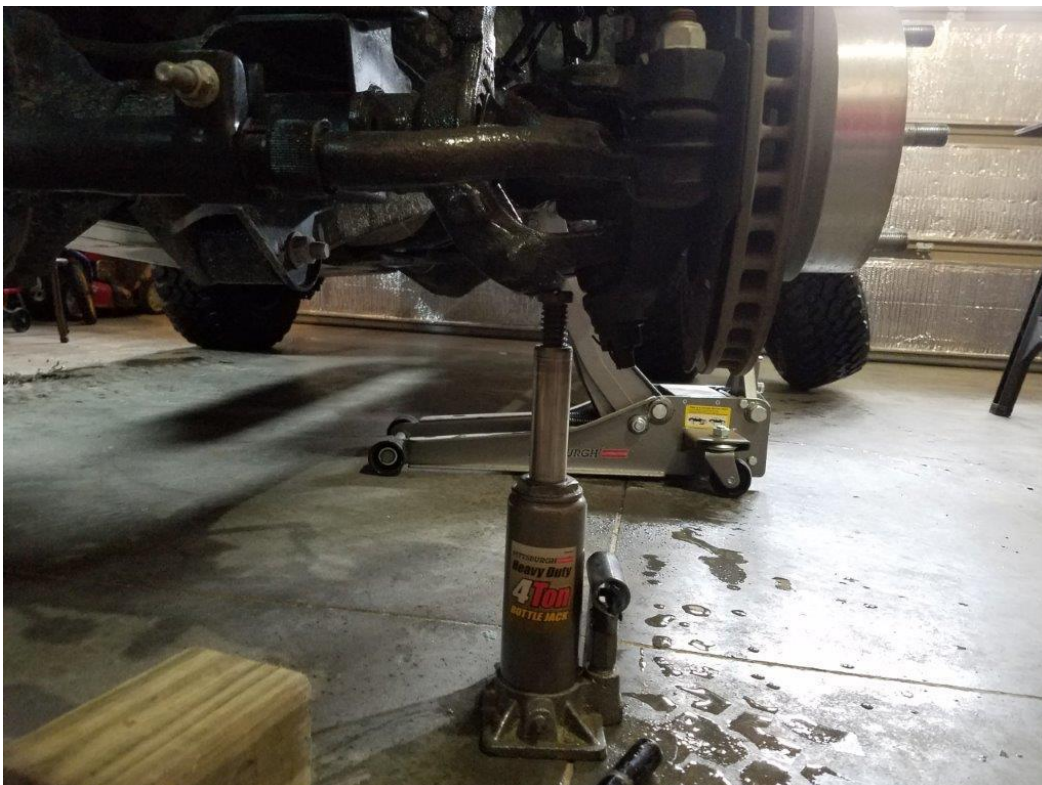




6. **Optional step:** I recommend removing this bracket from the brake line. Using a dremel with a cutoff wheel, cut a line lengthwise down the bracket as shown. Don't cut all the way through, just about halfway, and be careful not to damage the brake line. Then use pliers to bend it until the brake line slides out. Removing this bracket will eliminate the need for longer brake lines.

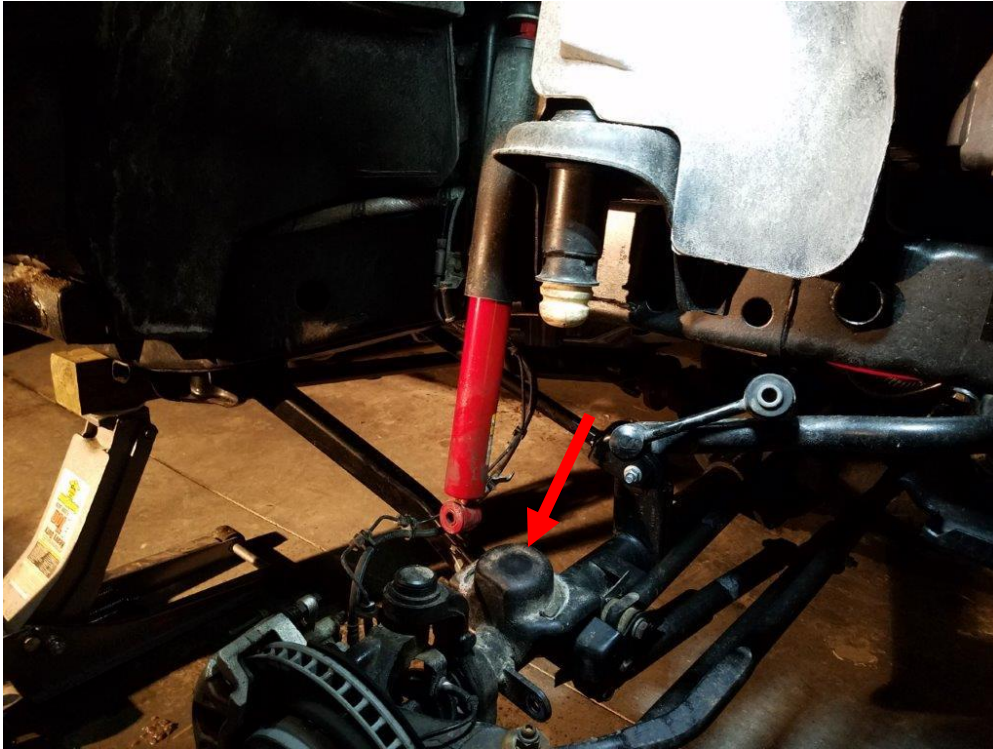


7. Now, using the jack under the axle, slowly lower it until the coil spring is loose. Then remove the spring. This will require the jack under the frame to be as high as possible. Keep an eye on the brake line and ABS wire, be careful not to overstretch them.

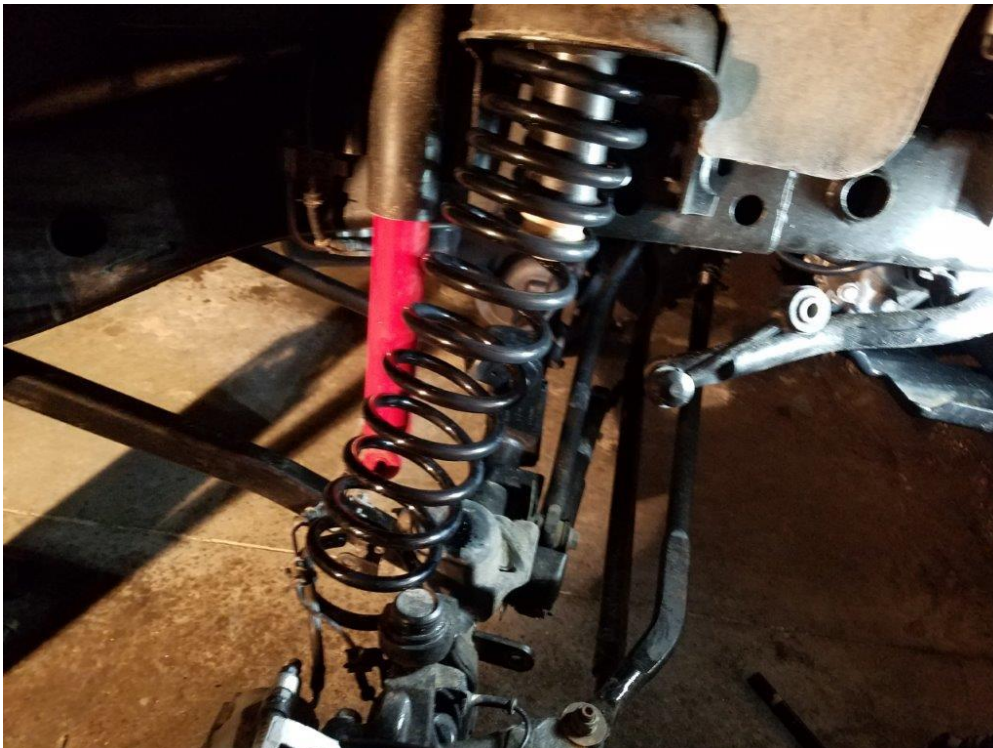




8. If you will be installing bump stops that attach to the lower spring perch, now is the time to drill a hole in the center of the spring perch. Then use some black paint in the newly drilled hole to keep it from rusting. You may also need to install the bump stops now. However, if you are using hockey pucks, you can install them after the springs.

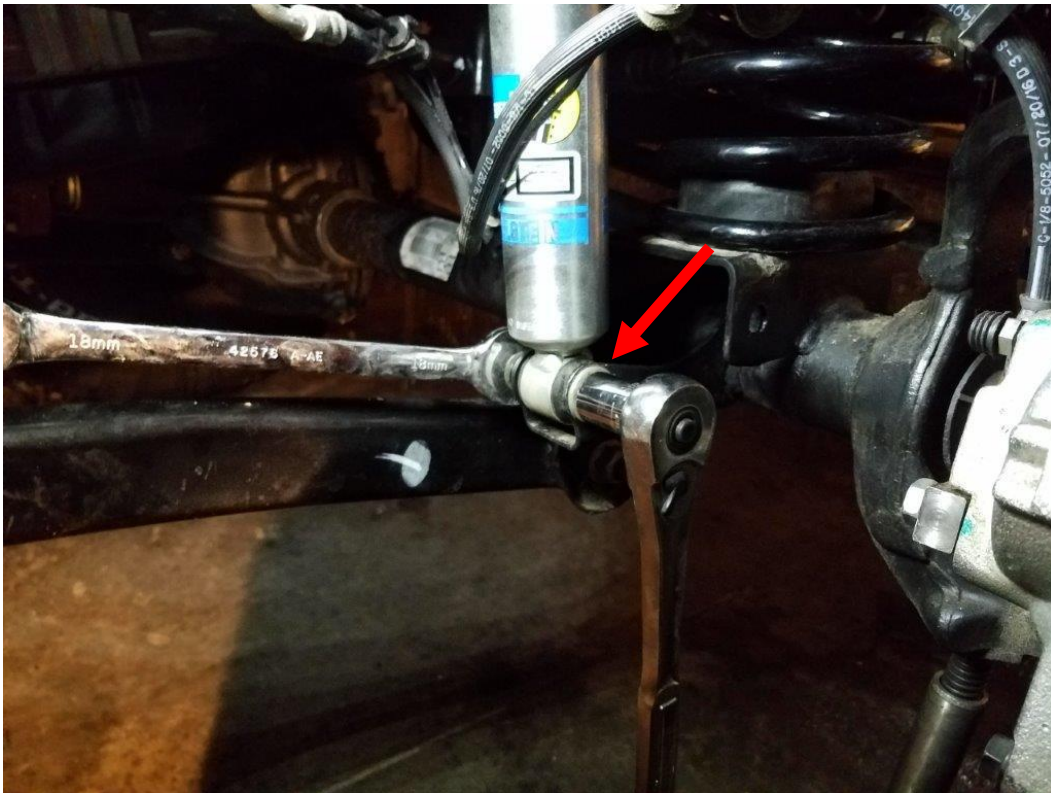


9. Using the jack under the axle, lower the axle as low as possible. If you have spring compressors use them to compress the new spring. If not you should still be able to fit in the new spring with some elbow grease and possibly a pry bar. Install the spring starting with the smaller opening at the top, then the bottom. To squeeze the spring into place, pull up on the lower coils while pushing down on the axle. Make sure the end of the spring fits in the notch on the bottom spring perch. Then remove the spring compressors if they were used.

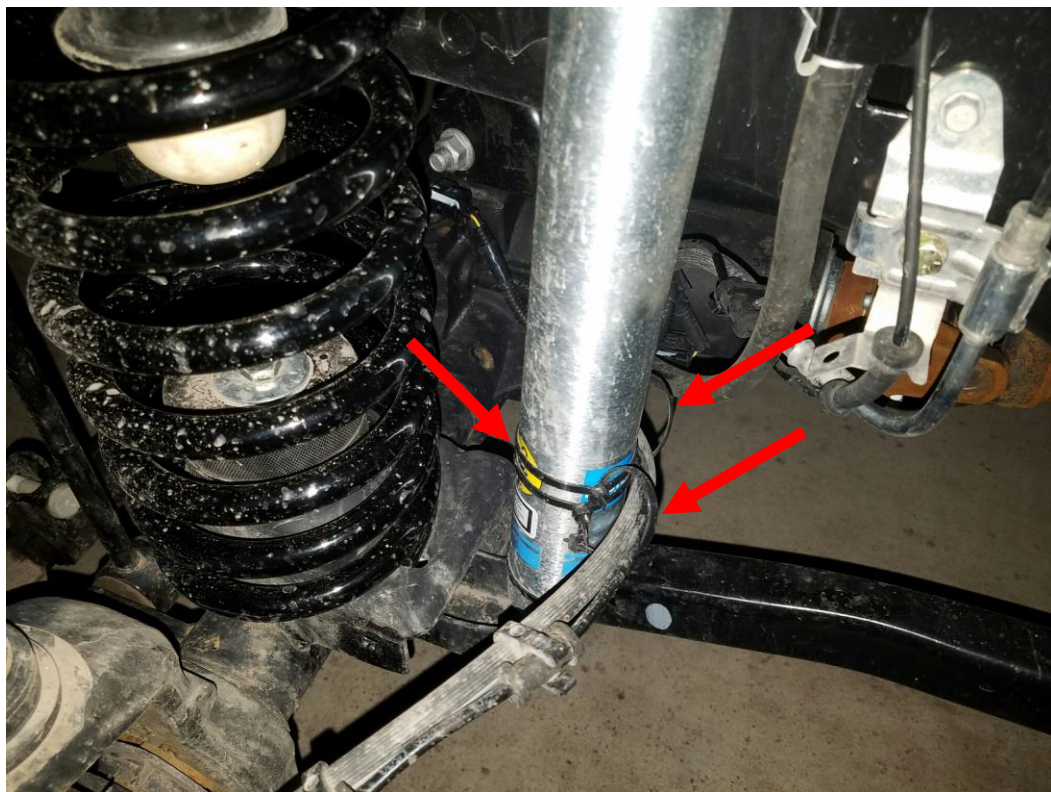




- 10.** Now jack up the axle until the lower shock mount lines up with the bolt holes and reinstall the shock bolt. If you removed the brake line bracket you will want the brake line on the rear side of the shock as shown below. Using an 18mm socket and wrench torque to 72ft/lbs.



- 11.** If you removed the brake line bracket, use zip ties to attach it to the shock. This will help keep them out of harm's way. I recommend using 4 zip ties. 2 are loosely placed around the brake line and abs wire (they are loose to allow the line to move side to side), 2 go around the shock and hold the 2 loose zip ties to the shock.



12. You can now reinstall the wheel. Start by hand tightening the lug nuts in a star pattern. Then lower the wheel to the ground and torque the lugs to 100ft/lbs.
13. Repeat steps 3-11 on the driver side.
14. With both wheels on flat level ground reinstall both 18mm sway bar bolts. Torque to 63ft/lbs.

**After Picture:** *Note: This after photo was taken with both front and rear lift springs installed.*



Installation Instructions Written by ExtremeTerrain Customer John Parker 2/12/2017