



S3 Powersports Gen 3 Outlander 2" Rear Stretch Kit Installation Guide



Parts List

- Upper Control Arm x 2
- Lower Control Arm x 2
- Sway Bar Riser Plate x1
- Double Shear Bracket x1
- Bolt Kit x 1
- Bushing Kit x 1

Tool List

- 13mm, 15mm, 17mm, 18mm sockets and wrenches
- 1/4" drill bit or similar size
- Plastic/soft hammer
- Loctite

Instructions

Removing the Stock suspension

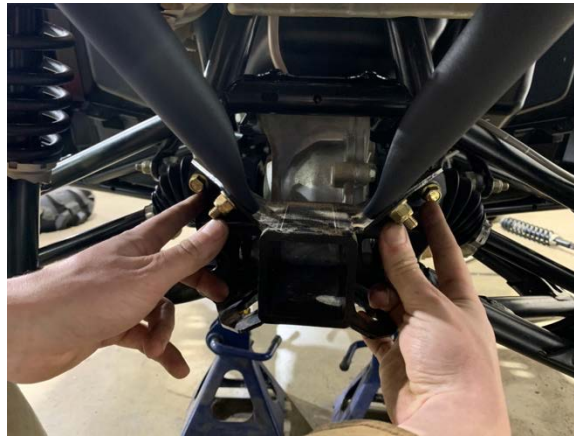
1. Place the vehicle on flat ground, with the vehicle in the Park (P) position and set the parking brake. Then lift the machine and support it with properly rated jack stands.
2. Remove the rear wheels.
3. On the Passenger side of the vehicle there are riveted brake lines on the upper control arm, using a drill and a $\frac{1}{4}$ " drill bit, remove these rivets and separate the brake line from the upper control arm.



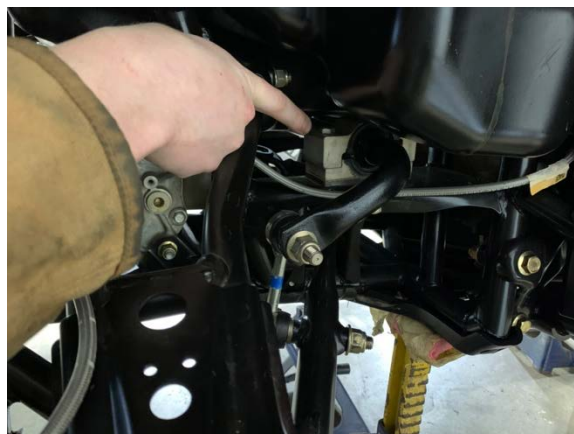
4. Remove the upper control arms from each side of the vehicle. As a habit, install and remove things from both sides of the vehicle at the same time in order to make the installation easier.
5. To remove the upper control arms, loosen and remove the three bolts holding the upper control arm using a 15mm socket and wrench. There are two at the frame and one at the knuckle.
6. Loosen and remove the two shock bolts using a 15mm socket and wrench, then remove the shock.
7. Loosen and remove the two nuts holding the sway bar link onto the lower control arm using a 18mm socket and wrench. Hold the back side of the sway bar link with the wrench. Remove the sway bar link. Keep the links separated as they are different between the driver and passenger side.



8. Loosen and remove the four bolts holding in the lower control arm and remove it from the vehicle using a 15mm socket and wrench.
9. Loosen but do not remove the four 13mm bolts holding on the hitch receiver and fastening the rear bumper to the hitch receiver.



10. Loosen and remove the bolts holding the sway bar assembly onto the frame of the vehicle, there is a bolt coming in from the bottom which may be difficult to spot. Then install the riser plate on both sides and reinstall the sway bar assembly using a 13mm socket and wrench.



Installing the Rear stretch kit.

11. Install the sway bar links upside down from their original position with the longer threaded side of the link attached to the sway bar. For the install, leave the link loose until installed in the lower control arm.



12. Slide the lower control arm into the frame and slide the factory bolt into the forwardmost bushing tube. A 1/16" washer is needed on the rearmost bushing tube. There is a small tube on the frame that juts out, this washer must go between the tube and the bushing. Slide the factory bolt from the rear into the rearmost bushing tube leaving all bolts loose until both sides are installed. To make room to get the washer in place it may be necessary to loosen/slide the rear bumper out of the way to install this bolt. (Once you get the rear bolt started, it is easiest to go ahead and put the frontmost bolt in to line things up better)



13. Tighten the bolts holding the lower control arm in. Leave the bolts attaching the arm to the knuckle loose as well as the bolts for the bumper and hitch receiver. It may be necessary to gently tap on the knuckle with a plastic hammer to get it to go into the arm.

14. Bolt the sway bar link to the lower control arm using 18mm wrenches.



15. The order of the following instructions is very important, or it will be very difficult to get everything installed. Starting on the passengers side of the vehicle, place the double shear bracket between the frame and gas tank where it goes. Slide the supplied 130mm bolt into the frontmost frame hole, the bolt has three total washers, one under the head of the bolt, and one on each side of the bushing tube. Slide the bolt through the frame until it is just flush with the exit hole. Then position the upper control arm, take care to ensure that the brake line is in the correct position on top of the arm, and slide the bolt through the arm with the appropriate washers between it. Hand tighten a nut on the backside to keep the assembly together. Keep the double shear bracket where it is supposed to be, the bolt will clear the arm and bracket but it will be snug.

16. Position a washer between the rearmost surface of the rearmost bushing tube and the frame, there is no need for a washer between the double shear bracket and the bushing tube. Slide in the 130mm bolt from the rear of the vehicle, and through the double shear bracket, it may be necessary to slide the rear bumper in for this, which is why we have left it loose, feel free to fully unbolt the two bolts on the bumper tubing in order to make this easier. Hand tighten all bolts.



17. Repeat the above steps on the drivers side, starting with the rearmost bolt getting it into the double shear bracket, then move to the forwardmost bolt. Slide the forwardmost bolt in from the front of the frame rather than the rear, which will make it much easier. Again, leave both sides completely loose until all bolts are installed, then go back and tighten using 17mm socket and 15mm wrench.



18. Slide the upper control arms onto the knuckle, this may take some tapping with a plastic dead blow hammer. Install the factory bolts into the knuckle and tighten by hand.



19. Tighten all the bolts holding the control arms to the frame as well as the sway bar link, leaving the bolts to the knuckle hand tight.
20. Zip tie the brake lines making sure to leave enough room at the knuckle for the knuckle to travel up and down without pulling on the brake line.



21. Reinstall the shocks, making sure to use the shortest factory bolts on the lower control arm tab to prevent the bolt from rubbing against the axle, again leaving the shock bolts hand tight.



22. Put the wheels back on the vehicle

23. Set the vehicle back on the ground with the upper and lower shock bolts, as well as the knuckles loose on both sides, slowly roll the vehicle forward and back and attempt to settle the suspension. Then with the suspension holding the vehicles weight, tighten

all bolts to factory specifications. This will prevent unnecessary wear on the rubber bushings and prevent binding.

24. Perform a short test drive on the vehicle and recheck all hardware once again to ensure nothing has come loose.