



2021+ Polaris Ranger XP 1000 4" Lift Kit # S3219



INSTALLATION INSTRUCTIONS 2021+ Polaris Ranger XP 1000 4" Lift Kit



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PARTS LIST

PART #	DESCRIPTION	QTY
	Front Upper Driver Side A-Arm	1
	Front Upper Passenger Side A-Arm	1
	Front Lower Driver Side A-Arm	1
	Front Lower Passenger Side A-Arm	1
	Rear Lower Driver Side A-Arm	1
	Rear Lower Passenger Side A-Arm	1
11266	Rear Sway Bar Link	2
11162	Spring Spacer (Premium, Ride Command, and Northstar Edition only)	2
S3BK-PRAN-9005LK	Bolt Kit	1
J0014950	7/16" Heim Joint – Fine Thread	2

FRONT DISASSEMBLY:

- 1.) Place Ranger in park (P) on a flat level surface. Elevate machine and support with suitable jack stands.
- 2.) Remove front tires.
- 3.) Remove front bumper using 15mm socket and end wrench. The bumper is attached by 4 bolts.
- 4.) Remove cotter pins from front axles. These can be reused if undamaged during removal. If damaged, replace with new cotter pins. (*Pro Tip : Needle nose pliers or diagonal cutters work well.*)
- 5.) With a 27mm socket (or 1 1/16"), remove front axle castle nuts. (*Pro Tip : 1/2" impact works great. If you don't have one, a 1/2" breaker bar can be used. You will need an assistant to hold the brakes, taking care that the Ranger is on jack stands.*)
- 6.) Remove brake line brackets on stock upper a-arms, using a 10mm and 8mm end wrench or socket.



2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

- 7.) Remove the two brake caliper bolts with a 15mm socket. Remove caliper from rotor and secure the caliper so that there is no tension on the brake line. Repeat on opposite side.
- 8.) Next, slide rotor and hub assembly off axle splines and set aside. Repeat on opposite side.
- 9.) Remove sway bar bolt from upper a-arm, using 15mm socket and end wrench. Repeat on opposite side.
- 10.) Remove the 4 bolts holding the sway bar to the frame, using a 15mm socket. Front sway bar will not be reused. A T40 bolt will need to be removed from the plastics to remove sway bar assembly.
- 11.) Remove bottom shock bolts, using 15mm socket and wrench. Repeat on opposite side. *(Pro Tip : Use a strap or bungee to hold the shock out of the way OR you can remove the shock altogether.)*
- 12.) Remove upper ball joint bolt, using 15mm socket and wrench. Repeat on opposite side.
- 13.) Remove outer tie rod nut, using 18mm socket. Repeat on opposite side. Impact works well.
- 14.) Remove lower ball joint bolt, using 18mm socket and wrench. Repeat on opposite side. Impact works well.
- 15.) Remove inner a-arm bolts from upper and lower a-arm, upper first then lower, using 18mm socket and wrench.
- 16.) Remove OEM bushing assemblies from OEM a-arms, if reusing. *(Pro Tip : Use blunt ended object and a hammer to knock out inner most bushing, taking care to not damage the bushing. An 18mm socket and extension can be used to knock out the outer bushing.)*
- 17.) IMPORTANT – Note direction of removal/install of ball joints!!
If reusing OEM ball joints, remove them from OEM a-arms using a bearing press. Be sure to remove ball joint retaining rings first, taking care to not damage them as they will be reused. *(Pro Tip : Using a small flat blade screwdriver, remove the (4) ball joint rubber boots to not damage them during removal/install and set aside. Use caution to not puncture the ball joint boots. Extra grease may be added to ball joints before reinstalling them.)*

FRONT ASSEMBLY:

- 18.) Carefully press ball joints into S3 a-arms the same direction as OEM arms. *(See Images 1-2) (Pro Tip : An arbor press or bearing press works well for this step.)*
- 19.) Reinstall snap rings, taking care that they are seated properly.
- 20.) Reinstall ball joint boots, taking care they are seated properly.
- 21.) Reinstall a-arm bushings into S3 a-arms. *(See Images 3-4) (Pro Tip : A 13mm deep socket, 6" extension and dead blow hammer works well.) (Note : If installing S3 HD Bushing Kit, fitment will be tighter than OEM. This is normal.)*
- 22.) Press pivot tube and brass cap into S3 a-arms *(See Image 5.) (Pro Tip : A vise works well for this step.)*



2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

- 23.) Review Images 6-7 for fully assembled S3 a-arms.
- 24.) Install bearing carrier onto S3 lower a-arm. Thread ball joint nut onto ball joint but do not tighten. (*Pro Tip : Manipulate ball joint stud forward for ease of install. See Images 8-9*)
- 25.) Install bearing carrier/S3 lower a-arm onto Ranger, reusing stock bolts and nuts. Hand tighten only. (*See Image 10*) (*Note : Fitment should be tight and may require use of dead blow hammer.*)
- 26.) Install S3 upper a-arm onto Ranger, using stock bolts and nuts. Hand tighten only. (*Note : Fitment should be tight and may require use of dead blow hammer.*)
- 27.) Slide upper ball joint stud into bearing carrier, using stock pinch bolt and nut. (*See Image 11*) (*Pro Tip : Cycle the suspension manually until pinch bolt installs freely, without binding.*)
- 28.) Reinstall hub/rotor assembly.
- 29.) Install axle washer and castle nut. Hand tighten only. (*See Image 12*)
- 30.) Install tie rod into bearing carrier, using stock nut. Hand tighten only. (*See Image 13*)
- 31.) Install spring spacer onto shock (if applicable), with spacer on top of spring. (*See Image 14*) (*Pro Tip : Use S3 Spring Compressor, p/n S3205, to simplify this process.*)
- 32.) Install shock, using stock hardware, and ensuring upper shock mounts to outer most frame hole. Hand tighten only. (*See Image 15.*)
- 33.) Tighten all hardware to OEM torque specifications, using red thread locker. (*Pro Tip : Refer to service manual for OEM torque specifications.*)
- 34.) Reinstall brake caliper, using stock bolts and red thread locker. (*See Image 16 for brake line routing.*)
- 35.) Reinstall cotter pin into axles. Use new cotter pins if OEM were damaged during removal.
- 35.) Using small zip tie, fasten brake line to brake line tab on S3 upper a-arm. (*See Image 17*)
- 36.) Reinstall OEM bumper, reusing stock bolts.
- 37.) Install desired wheels/tires and place Ranger back onto flat ground.
- 38.) Repeat on opposite side.

REAR DISASSEMBLY:

- 1.) Place Ranger in park (P) on a flat level surface. Elevate machine and support with suitable jack stands.
- 2.) Remove rear tires.
- 3.) Remove sway bar link using 15mm socket and impact. (*Pro Tip : If sway bar link shaft rotates, use 8mm open end wrench on shaft wrench flats to stabilize. Remove both sides so sway bar can be rotated out of the way.*)
- 4.) With this kit, rear sway bar is optional. If using rear sway bar with this kit, skip step 5. If not using rear sway bar, perform step 5.
- 5.) Remove 13mm nuts from sway bar bolts on both sides, allowing removal of sway bar.
- 6.) Remove upper and lower shock bolts with 15mm socket and wrench. Set aside safely.
- 7.) Remove lower outer a-arm bolt from bearing carrier, using 18mm socket and wrench.
- 8.) Remove lower inner a-arm bolts from frame, using 19mm socket and wrench, allowing removal of lower a-arm.
- 9.) Remove a-arm bushing assembly from a-arm, referencing step 16 from Front Disassembly.



2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

REAR ASSEMBLY:

- 10.) If installing S3 HD Springs, install spring and retainer. Provided spring retainer installs on top of HD spring. (See Image 18) *(Pro Tip : Use S3 Spring Compressor, p/n S3205, to simplify this process.)*
- 11.) Install bushings, pivot tubes and brass caps into S3 a-arms, referencing step 13 from Front Assembly. (See Images 19-21)
- 12.) Install S3 lower a-arms onto Ranger, using stock hardware. Hand tighten only. (See Image 22)
- 13.) Reinstall shock, using stock hardware. (See Images 23-24)
- 14.) Remove rubber bushings from stock sway bar link. Remove washers from rubber bushings and discard.
- 15.) Install provided 7/16" Heim Joint and Jam Nut into HD Rear Sway Bar Link. Leave Jam Nut loose at this time.
- 16.) Install provided HD Rear Sway Bar Link (if reusing rear sway bar), using supplied hardware and stock sway bar link rubber bushings and provided washers. (See Images 25-27)
- 17.) Tighten all hardware to OEM torque specifications, using red thread locker. *(Pro Tip : Refer to service manual for OEM torque specifications.)*
- 18.) Install desired wheels/tires and place Ranger back onto flat ground.
- 19.) Repeat on opposite side.
- 20.) Test drive and recheck all fasteners/hardware.
- 21.) It may be necessary to realign front end after test drive.
- 22.) It may be necessary to adjust Heim Joints on HD Rear Sway Bar Links. Loosen lower HD Rear Sway Bar Link Bolts and Heim Joint Jam Nuts. Adjust Heim Joints (evenly on both sides) until sway bar is parallel to ground at ride height. Once complete, retighten hardware.

Thank you for choosing S3 Power Sports! Let us know if you have any questions! 855-221-7097



2021+ Polaris Ranger XP 1000

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Image 1





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Image 2





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Image 3





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 4





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 5





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 6





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 7





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 8





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

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Image 11





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Image 12





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Image 13





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 14

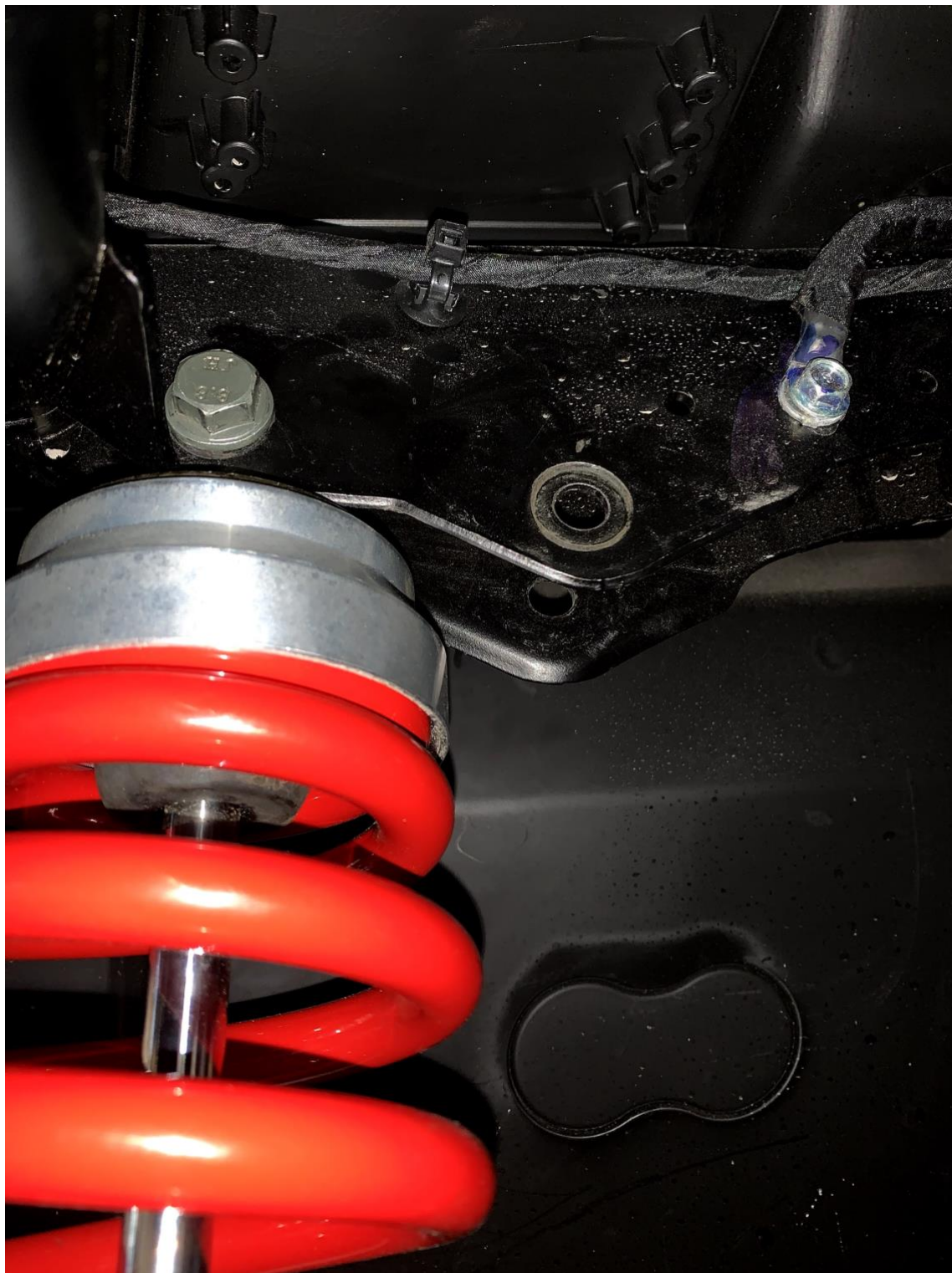




2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 15

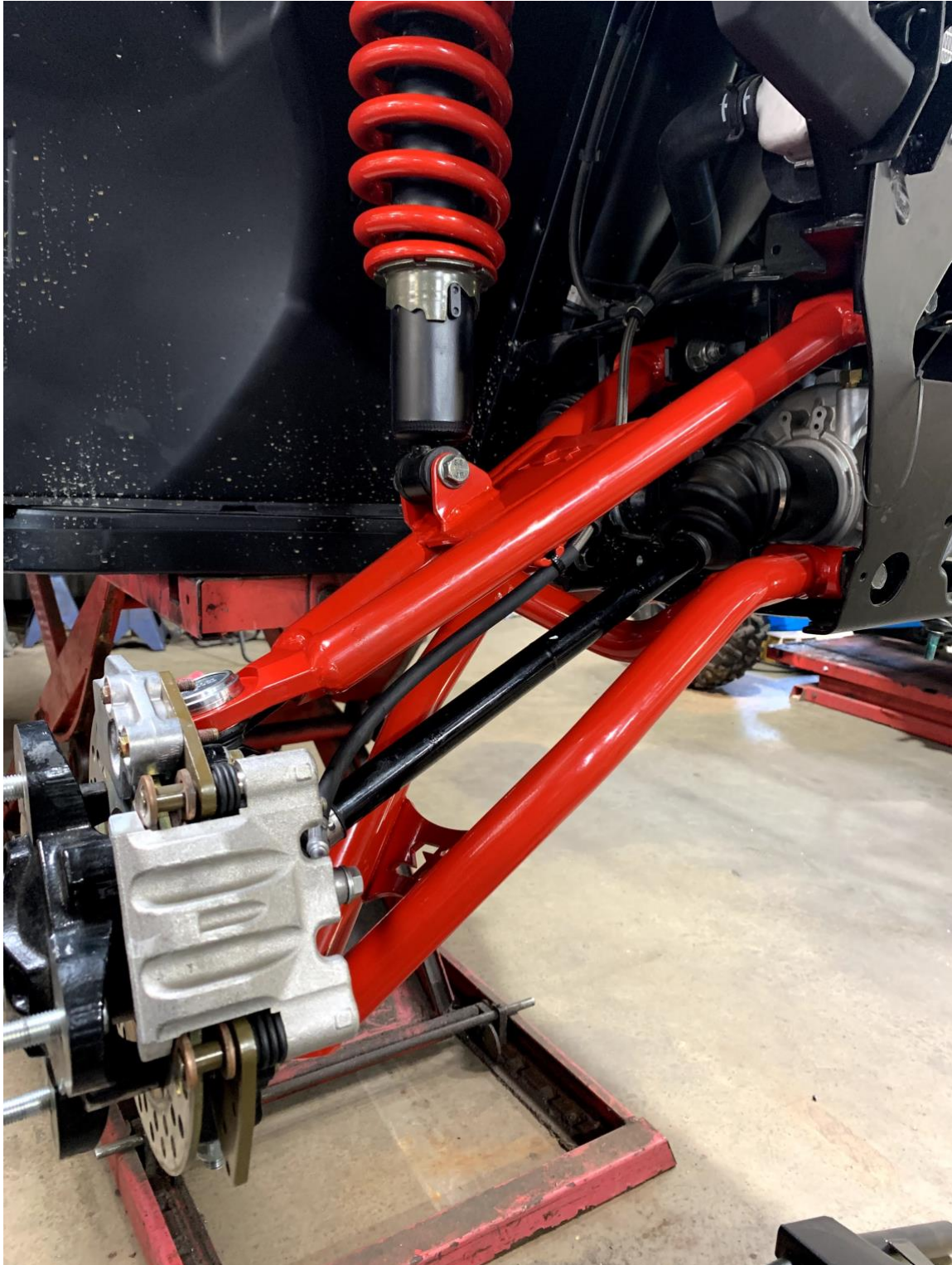




2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 16





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4" Lift Kit # S3219

Image 17





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Image 18





2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

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2021+ Polaris Ranger XP 1000

4" Lift Kit # S3219

Image 20





2021+ Polaris Ranger XP 1000

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Image 25





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4" Lift Kit # S3219

Image 26





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4" Lift Kit # S3219

Image 27

