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## **RZR 800 S/4 2" Lift Kit**

**Polaris RZR 800 S/4 | 2-Seat: 2009-2014, 4-Seat: 2010-2014**

**Part #: 5101214**

**Rev. 013017**

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### **SAFETY WARNING**

RT Pro UTV recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

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### **WHY BUY RT PRO UTV**

Great off-road driving and racing comes with having the most rugged and durable machine in the pack.

RT Pro UTV performance enhancing products will make your off-road machine stronger, tougher and safer so you can have more fun and less breakdowns.

For over a decade, RT Pro UTV staff have been taking brand new UTVs and driving them to their breaking point. When they bend, break or falter, we take them back to shop and create a fix that stops the problem from happening again.

There is no other company in the industry that puts more thought, engineering and design innovation into their products than we do. Our team is made up of off-road racers, mechanical engineers and talented fabricators who live and breathe all things motorsport. Above all, we share a passion for innovation, quality construction and getting things right.

All of our products are designed for assembly by weekend warriors with normal garage tools and the occasional spot-weld. Assembly directions are complete and thorough.

Remember, when you buy a RT Pro UTV product for your UTV, all of the parts have been designed and manufactured in the United States with U.S. steel and other high quality American components.



RTP5101214		
Part #	Description	QTY
04038	Front Shock Relocation	1
04039	Rear Shock Relocation	2
04037	Spacer Sleeve - 0.625 x 0.095 x 1.625	2
04024	Spacer Sleeve - 0.625 x 0.095 x 1.250	4

RTP5101214 - Bolt Pack		
Part #	Description	QTY
R105	Bolt Pack - 800 S/4 2in Kit	1
	M10-1.5 x 65mm hex bolt	8
	M10-1.5 x 55mm hex bolt	8
	M10-1.5 nylock nut clear zinc	16

## FITMENT NOTES

This kit will fit ALL YEARS and models RZR S and RZR 4 800

\*PLEASE PAY EXTRA ATTENTION TO THE CHANNEL NOTE AFTER STEP #7\*

## SPECIAL TOOLS

1/8", 25/64" and 13/32" Drill bits  
T25 Torx screwdriver

## INSTALLATION TIME

Approximately 2 hours  
Medium Difficulty

# INSTALLATION INSTRUCTIONS

## INSTALLING THE FRONT LIFT KIT

1. Lift the RZR and use two quality jack stands to secure.
2. Spin the front tires and check for binding.
3. Use 15mm socket and open-end (or box-end) to remove the front shocks.
4. Snip the zip-tie holding the wire harness to the upper frame cross member.

5. Pull the differential vent tube from the upper frame cross member and reroute away from shock mount channel.
6. Locate the 10mm hardware for the front channel. There should be (4) M10 x 55mm bolts and (4) M10 Nylock nuts.
7. From the left side of the RZR install the lift kit over the upper frame cross member using a rubber mallet to tap in place.

*Note: Make sure to only “tap” with the rubber mallet and not to “beat” the lift kit.*

## **NOTE!!! READ THIS TO MAKE SURE YOUR CHANNEL FITS ON THE FIRST TRY!!!**

*In an effort to reduce interference with the OEM sway bar mounting channel (which comes on all RZR model frames), We’ve designed our front RZR S/4 channel to “side step” the factory channel. The slots in our channel are designed to receive the rear tab of the factory shock mount channel. Please note this orientation as the channel will only install one way. Our channel DOES NOT fit over top OR inside of the OEM channel! It must be offset towards the rear.*

8. Line up one hole with the OEM shock mount hole and use a 55mm bolt to locate it.
9. Move to the other side and use a rubber mallet to again tap the kit in place. Insert the other 50mm bolt and nut.
10. Now install the shocks into the new position using the 55mm bolts. Install the Nylock nuts and tighten all four fasteners to as tight as possible.

**Figure 1**



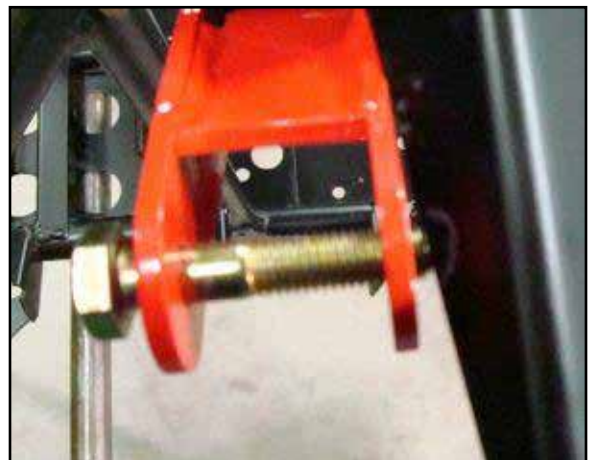
## **FRONT CHANNEL INTERFERENCE NOTE**

If you have problems getting the bolt and nut installed in the new upper shock hole location it is because the factory producing these chassis has very lazy tolerances when installing the front sway bar mounting channels in the weld fixtures. We tried offsetting the channel as much as possible but some machines still have a clearance issue. The easiest way to remedy this issue is to cut the affected area out of the factory bracket/channel. If you do not have the means to cut the metal, an easy alternative is noted below. By modifying this piece, there is absolutely no compromise in the strength or safety of the chassis. The interfering bracket is only used on the standard RZR and Polaris just uses the same frame for all models.

**Figure 2**



**Figure 3**



**Figure 4**



**Figure 5**



11. Use the bolts to mark affected areas
12. Use a medium sized adjustable wrench to roll the metal out of the way. If needed, reposition the wrench and twist until there is enough clearance. You may also use a Channel Loc wrench.
13. Check for clearance and move the metal until the needed room is gained.

*Note: Modifying the metal is the easiest with the channel removed.*

## **INSTALLING THE REAR LIFT KIT**

14. Lift the RZR and use two quality jack stands to secure.
15. With the RZR in neutral spin the rear tires and check for binding.
16. Remove the rear valance. \*If you've never done this we'll explain the process on the last page.
17. Use 15mm wrench to remove the upper shock bolts. Swing shock out of your way.
18. Use a 13mm wrench to remove the rear valance mount bracket.
19. Position the front and back halves of the lift kit and temporarily hold them in place with two 10mm bolts place through the frames upper shock mount. – the other two will be used in the new upper shock location.

*Note: We have found that SOME 2012+ RZR's have been having issues with the shock holes lining up with the RT plates. This is a Polaris QC issue and these particular chassis are made in Mexico. This issue is very intermittent even within these builds. If you have one of these chassis you will need to modify the holes on our plates to align with the chassis. Or, call us and we can exchange your plates for some custom designed ones which will fit these "out of spec" chassis. This is extremely rare and RT is not responsible for costs. CHECK IT FIRST: The normal RT plates are made to fit 12 9/16" hole spacing. If your holes measure 12 5/8-12 3/4" you have the freak chassis.*

20. Mark the position of four holes that you must drill through the frame.
21. Remove the kit and drill holes. Start with a pilot hole and work your way up to 25/64 (.390").
22. Reinstall the lift kit brackets. And use the diagram on the next page to properly place the supplied spacers and hardware.

*Note: If the four thru-frame bolts won't quite line up through the drilled holes; Tighten all other bolts, then chase out the holes with a 13/32 (.406") drill bit.*

23. Install the shocks – At this time, tighten all the fasteners as tight as possible starting from the inside and working your way out.
24. With the RZR in neutral spin the rear tires and check for binding.

25. Reinstall the rear valance mount bracket.

26. Reinstall rear valance.

**Figure 6**



**REAR LIFT KIT HARDWARE DIAGRAM**



**\* ON RARE OCCASIONS FRAME TOLERANCES VARY BETWEEN MACHINES, THIS MAY REQUIRE SLOTTING THESE STOCK HOLES TO GET THEM TO ALIGN WITH THE FRAME**

**KEY**

- A-8- M10-1.5 X 65MM HEX BOLT**
- B-4- M10-1.5 X 55MM HEX BOLT**
- C-12- M10-1.5 NYLOC NUT**
- D-2- 1 5/8" SPACERS**
- E-4- 1 1/4" SPACERS**

## **\*REMOVING THE REAR VALANCE**

27. Unplug and set aside the taillight wiring harness. (Bulbs twist out with a quarter turn)
28. Remove the 2 Phillips head screws on each side from the inside of the box. (You will have to look under the bed towards the rear to see these.)
29. Remove the two upper Torx head bolts from the valance using an 11mm boxed end wrench to hold the nut from spinning on the backside.
30. Finish detaching the valance by removing the four remaining Torx head screws. (These are threaded into the chassis)

Now you are ready to enjoy your new RZR. With this kit you will have increased ride height because by design, we relocate the factory shock geometry which makes less work for the OEM springs which in turn raises the vehicle. Not only is this a better way to lift the machine than a lower shock relocation; it is also a safer way because with our design we are able to control how far down the shock allows the suspension to drop down. Our design will not allow your CV's to bind because the angle remains the same as stock. You will however have a slightly higher operating angle at ride height due to the lift, (as with any lift) but the affects will takes years to wear out the CV's depending on your milage.

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## **THANK YOU FOR YOUR BUSINESS!**

For questions or additional information feel free to call and ask for tech support or email us through our website at: [rtproutv.com/contact](http://rtproutv.com/contact)



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