Sportsman 570 2021+ P90x and P190x clutch kit installation instructions

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Thank You that you have chosen our clutch kit!

Our clutch kit helps to transfer the engine power better to the tires so you can use the engine potential more effectively and vehicle is smoother to use. We have gone through long testing period – including real life driving tests as well as the dynamometer tests - before we have chosen this specific setup combination.

CVT upgrade kits are fully tested and accepted by most POLARIS distributors. Correctly installed upgrade kit will not cause any damages to your vehicle. The manufacturer of the cvt upgrade kit is not responsible for any damage or failure of your vehicle or in case the warranty of your machine will be voided. To ensure correct installation and to avoid possible inconveniences we recommend ordering the installation from an authorized POLARIS dealer.

1. Remove the seat, left side plastics and footrest.
2. Remove cvt outlet pipe.

3. Remove cvt cover.

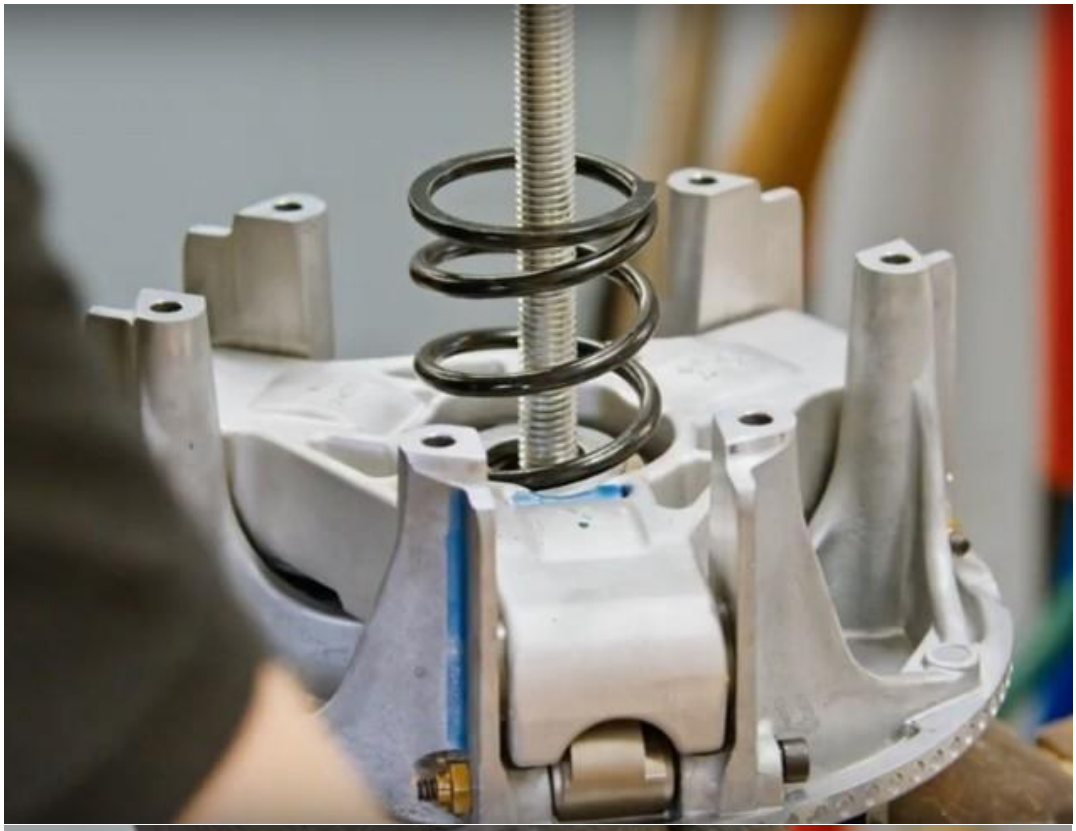
4. Remove secondary clutch cover.

5. Loosen cvt belt by screwing ¼” UNC 2,5” bolt into secondary clutch at the locations shown in the picture. Remove cvt belt and screw.

6. Open primary clutch bolt, use clutch tool to hold the primary clutch in place. Remove primary clutch movable sheave by pulling it out.

7. Use clutch compression tool to hold the cover and open cover bolts.

8. Remove primary clutch spring and washers.

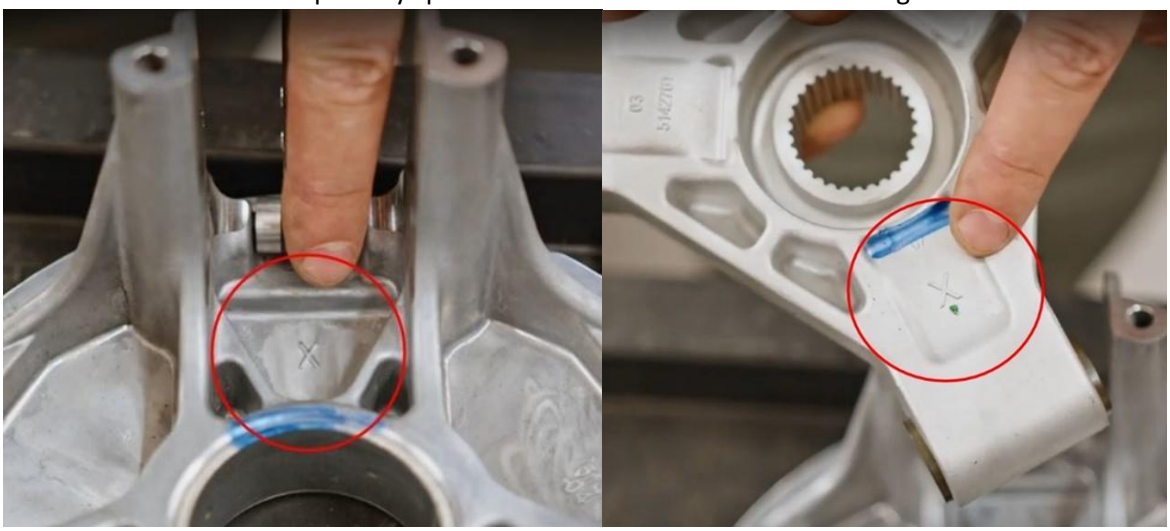


9. Remove primary clutch spider.

10. Remove weight arms.

11. Assemble new adjustable weight arms and washers on both side on the weight arm, place them into the primary clutch. Tighten pins with 15-25 in-lbs (2-3Nm) torque.

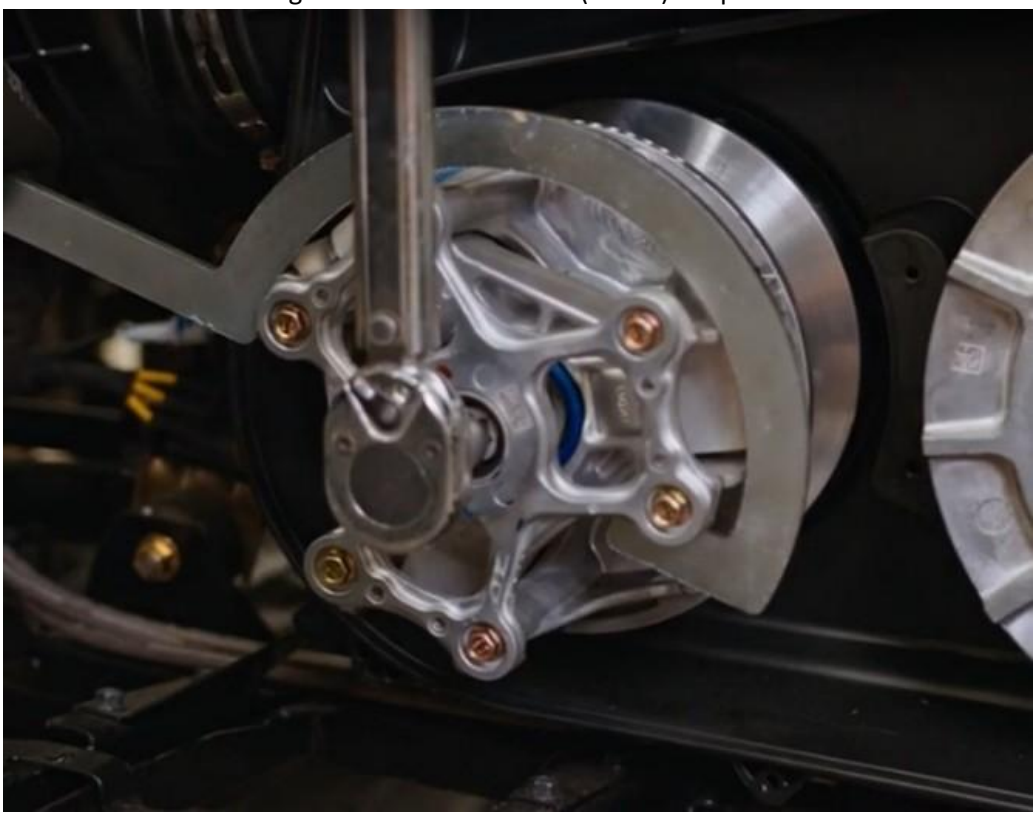
12. Reinstall primary spider. NOTE! Be sure the X marks are aligned.



13. Replace original clutch spring washers and then install new primary spring and (engagement) washer if needed. One washer increases the clutch engagement 150-200 rpm.

14. Reassemble the primary clutch, use compression tool to hold cover and tighten cover bolts with 100 in-lbs (11Nm) torque. NOTE! Be sure the X marks are aligned!

15. Insert primary clutch back on the shaft. use clutch tool to hold the primary clutch in place and tighten bolt with 47 ft-lbs (64Nm) torque.



16. Open secondary clutch bolt, use clutch tool to hold clutch in place. Remove secondary clutch from the shaft.

17. Remove secondary clutch front plate from the rear plate.

18. Use clutch compression tool and compress clutch rear plate.

19. Open helix bolts.

20. Remove clutch sheeve and spring from the helix.

21. Install new secondary clutch spring.

22. Use clutch compression tool and reinstall the helix.

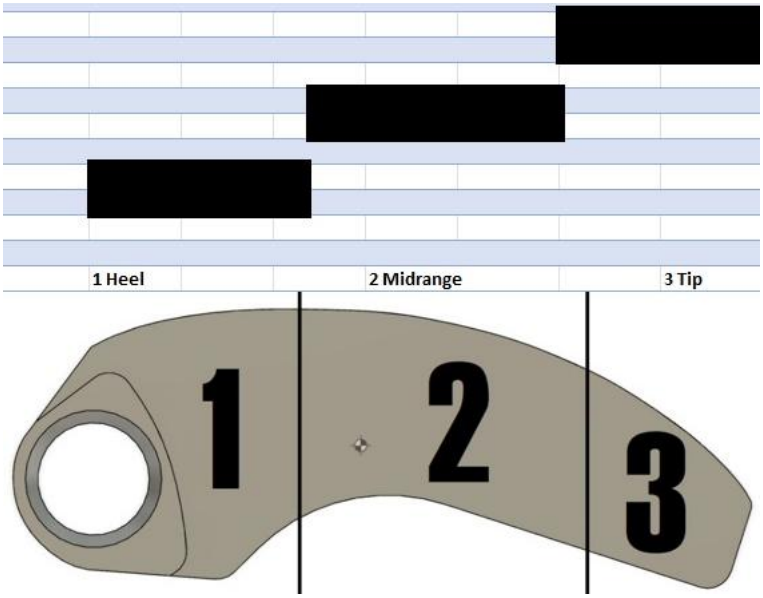
23. Reassemble front and back plate back together.

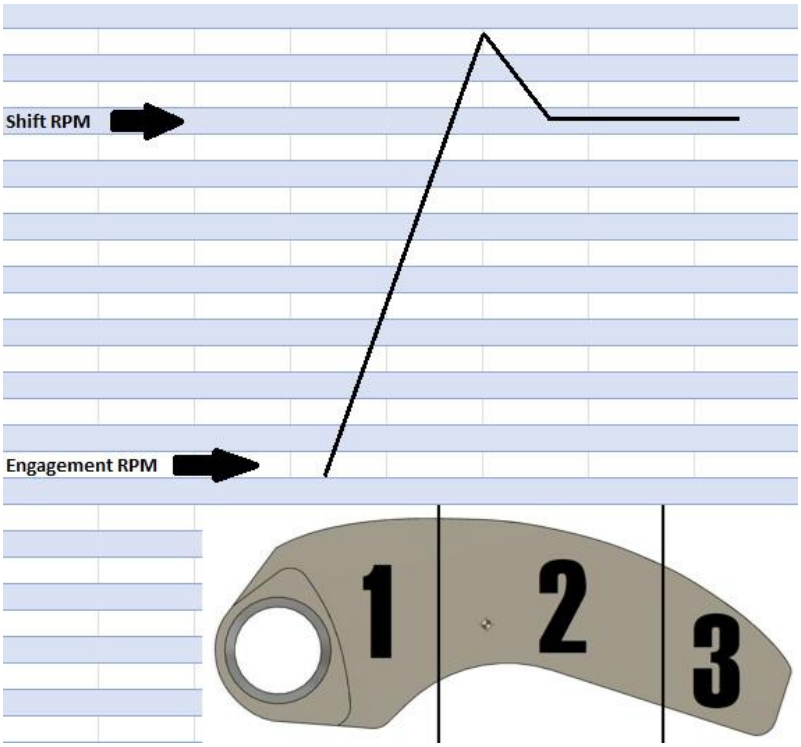
24. Reinstall secondary clutch back to shaft. Use clutch tool and tighten bolt with 37 ft-lbs (50Nm) torque. NOTE! Use thread-lock glue!

25. Reinstall belt, secondary clutch cover, cvt cover, left side footrest, plastics, seat and you are ready to go!

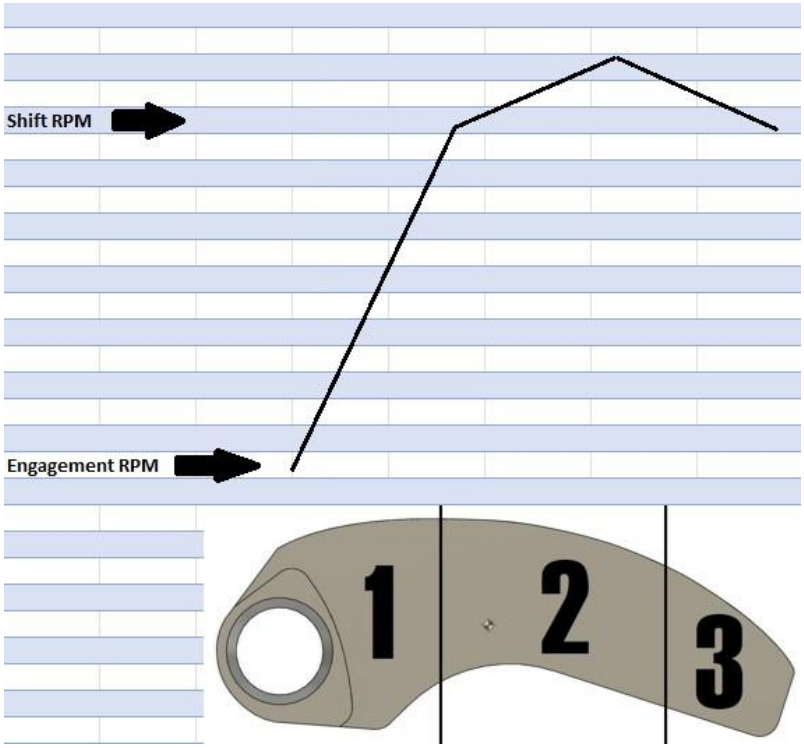
Weight arm adjustment tips

First adjustment tips, these will get you started with adjusting the clutch.
More TIP weights increase the shift rpm, more HEEL weight lowers the engagement rpm and gives better acceleration. More weight usually lowers peak rpm, less weight increases peak rpm.
Weight arms are adjustable, allowing you to adjust the weight arm mass and get the machine in best peak rpm. Use the set screws (Pos.4 and Pos.5) to add weight to weight arm.
The following images will help you adjust your clutch.
For example: top end on your machine is meant to be 130kmh (80mph). Simply divide your weight into imaginary thirds. The first third controls the RPMs for 0-44kmh (0-27mph), second third controls RPMs for 44-88kmh (27-54mph) and the final third controls RPMs for 88-130kmh (54-80mph).
You add or subtract weight to each section to make sure the engine RPMs are consistently at peak RPM for each 1/3 range.
For example, if your stock arm weight is 62 gram and your Trail arm weight is 55 gram, then add 4 grams to your Trail weight. Don´t be overly concerned about exact weight placement at this time, it´s only starting point. Your machine should run in most cases 7200-7400rpm.
Look at the charts, they will help you understand how to move the weight around to achieve the desired results.

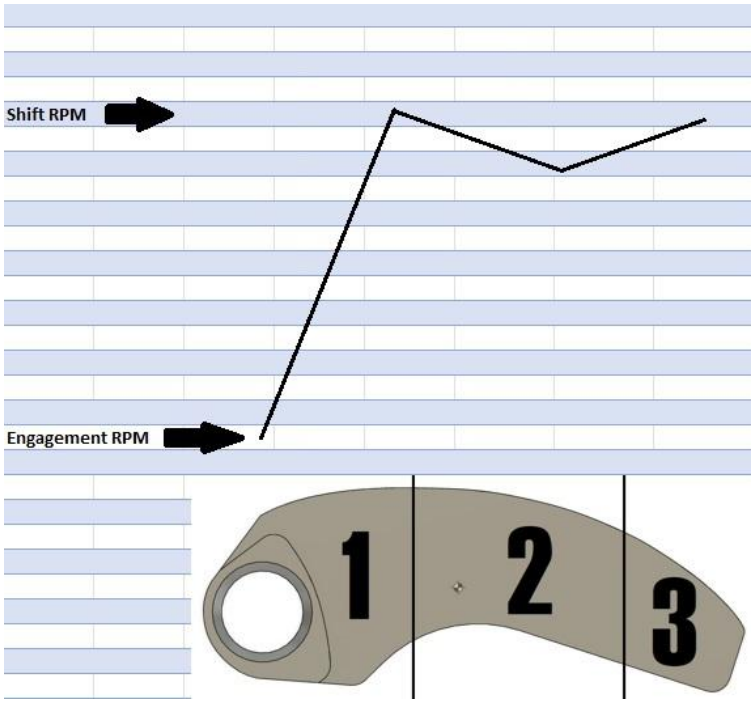




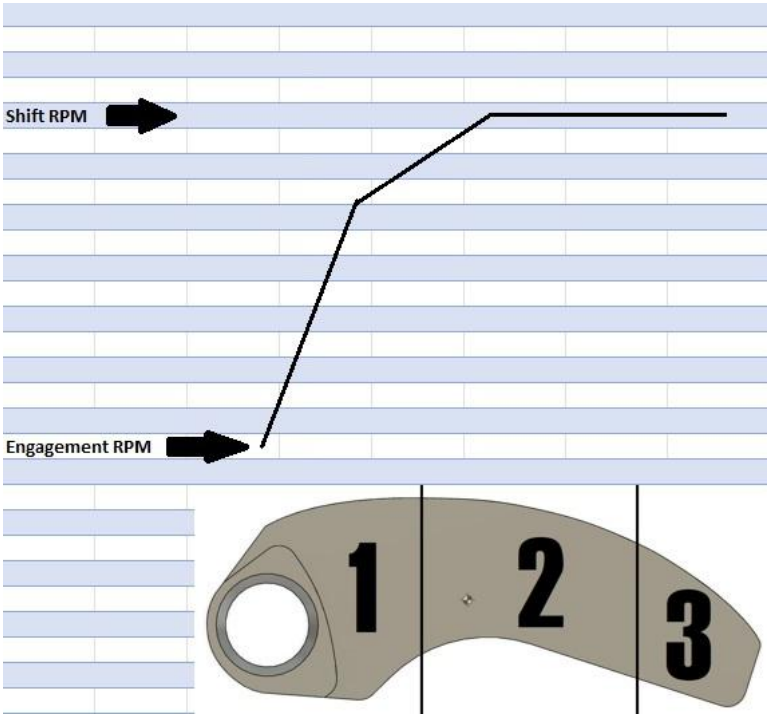
Too light heel, add more weight to pos. 1.



Too light midrange, add more weight pos. 2.



Too heavy midrange, reduce weight pos. 2.



Too heavy heel, reduce weight on pos. 1.

There is no warranty stated or implied, due the unusual stresses placed on racing/performance parts and because we have no control over how they are used. This warranty is in lieu of all other warranties expressed or implied, including the warranty of merchantability and fitness for use and all other obligations or liabilities on the company's part. The obligation of Routa Powerline under this warranty shall be limited to the part or parts shown to be defective and the company will not be responsible for any damage or loss caused by delays, failures or any consequential damage arising from any cause whatsoever, nor for labor, transportation or any other charges incurred in the replacement or repair of said defective part or parts. Off-Road use only. May affect the device's warranty.