015-50354

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# Power Pucks

## For 2016-20 Polaris RZR Turbo, Part# 50-354

**IMPORTANT NOTE: Read instructions completely before beginning installation.** Inspect clutch to ensure that it is in good working condition. This kit will not operate properly if installed on a worn out clutch. If you are unsure of clutch condition, contact SLP Tech department.

**Specialized Tools Required for Install**

- Clutch Cover Removal Tool (SLP# 20-303)
- Clutch Puller (#20-136)
- Clutch Press Tool (#20-222)
- Clutch Holding Fixture (#20-162)
- Spider Nut Tool (#20-214)
- Alignment Adapter (#20-223)

**Other Tools Required for installation:**

- Stock "L-Wrench" Belt Removal Tool
- 21mm Socket
- Breaker Bar
- 3/4" Socket
- Ratchet
- 10mm Socket
- Black Sharpie
- 3/8" Socket
- 1/8" T-handle
- 3/4" T-handle with cheater bars
- Permatex The Right Stuff Elastomeric Rubber
- 120 grit sandpaper
- Brake Cleaner
- Belt Sander or Flat File
- Loctite 7088 Primer
- Loctite 620 Retaining Compound
- Torque Wrench

**Drive Clutch Removal**

1. Remove clutch cover using SLP clutch cover removal tool (SLP # 20-303).

2 Remove belt using stock "L-wrench" belt removal tool.

3. Remove drive clutch retaining bolt using 21mm socket and breaker bar.

4. Thread the drive clutch puller (SLP #20-136) into the center of the drive clutch. Tighten the clutch puller with a breaker bar and 3/4" socket until the clutch pops loose from the tapered shaft. Remove clutch from RZR and remove clutch puller from clutch.

**Hint:** A small amount of grease on the clutch puller threads and end that pushes on the crankshaft will help in the primary clutch removal process.

**Drive Clutch Dissassembly / Assembly**

**Note:** Mark orientation of spider, cap, moveable sheave, and center shaft prior to disassembly with black magic marker to ensure proper re-assembly (see illustration #1).

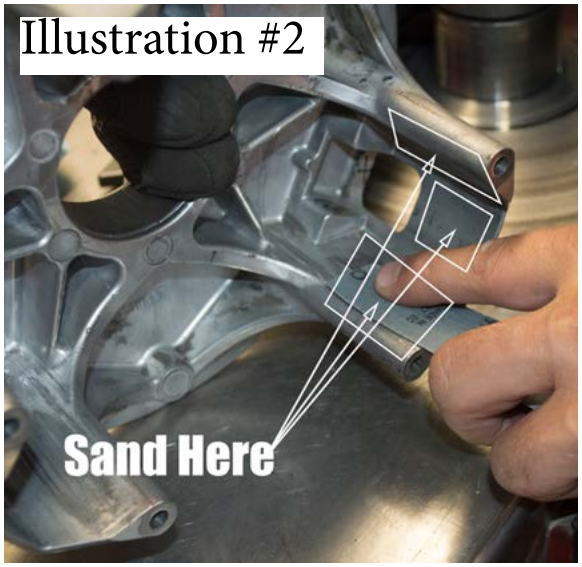
5. Compress the primary clutch with a clutch press tool (SLP #20-222) and loosen the six cap bolts with ratchet and 10mm socket until the cap can be removed from the clutch and set aside.

6. Remove black plastic limiter shim and spring and set aside.

7. Remove clutch weights using 3/8" socket and 1/8" allen wrench. Set aside nuts, bolts and weights.

Illustration #1

8. Set clutch into SLP Clutch Holding Fixtue (#20-162) making sure that the windage fins mate completely into the holding fixture slots and clutch sits down completely. Heat spider nut with hand-held propane torch to release locktite from center shaft. Insert SLP Alignment Adapter (#20-223) into center of clutch and then slide SLP Spider Nut Tool (SLP #20-214) over spider nut and alignment adapter..



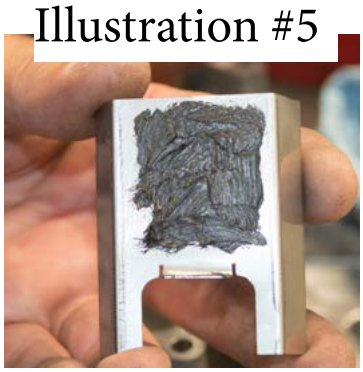

9. Using a 3/4” drive t-handle with cheater bars, remove spider nut and set aside

10. Remove spider by sliding upward until spider clears splines. Remove stock plastic slider inserts. On 2017 models and updated 2016 models, remove stock stainless steel insert.

11. Remove moveable sheave (top half of clutch face) from fixed sheave assembly (bottom half of clutch face and center shaft).

**Power Puck Install**
**Highly Recommended:** The use of nitrile gloves during the next 4 steps.
12. Scrub moveable sheave with hot soapy water and rinse with hot water. Pay close attention to the areas where the stock plastic sliders ride up and down and the area in between those two sections (directly above the weight pin boss where weights bolt in).


13. Rough up the areas where the stock plastic sliders ride up and down and the area in between those two sections (directly above the weight pin boss where weights bolt in) with 1**20 grit** sand paper. Blow off with compressed air and clean with brake cleaner. (see illustration #2)


14. Rough up back side of SLP stainless steel backer plate in the center with **120 grit** sandpaper. Blow off with compressed air and clean with brake cleaner (see illustration #3).

15. Rough up back side (smooth side) of SLP Power Puck inserts with **120 grit** sandpaper. Blow off with compressed air and clean with brake cleaner (see illustration #4).

**Note:** For proper installation use only Permatex brand “The Right Stuff” Elastomeric Rubber to glue kit components in place


16. Glue SLP stainless steel backer plate in place using “The Right Stuff” Permatex brand Elastomeric Rubber. One at a time, place one small dot of glue on the back side of the backer plate, smooth glue evenly and then press into place, making sure the small bent tab points out, resting against the top side of the hole above where the clutch weight would normally be visible, and the bottom of the backer plate settles against the bottom of the spider pocket in the outermost corner.

The top of the backer plate should also be flush with the top of the moveable sheave casting. Clamp each backer plate in place for 1 minute before moving to the next backer plate (see illustration #5 and #6)

**Note:** After all three backer plates are installed, wait three minutes before proceeding to step #17.

17. Separate the Power Pucks into 3 pucks for the right side and 3 for the left side. Before gluing pucks in place, carefully dry fit each puck in position to make sure the orientation will be proper. The ribbed side points inward and the smooth side rests against the aluminum roughed up in step #13. The triangle-shaped dog-ear points toward the center of the clutch.

18. Apply a thin layer of "The Right Stuff" Permatex brand Elastomeric Rubber to the back side of one Power Puck and a generous daub on the bottom corner (see illustration #7). Immediately press puck into place so that the ribbed side points inward towards where the spider would rest, the roughed up glued area rests against the roughed up aluminum of the moveable sheave and the the triangle-shaped dog ear points inward toward the center of the clutch (the edge of the stainless steel backer plate will mate into the groove on the Power Puck). Hold firmly in place for one minute.


Illustration #7


Illustration #8

**CAUTION:** Do not apply too much glue on back side of the puck, only a thin coating is required in that location.

19. Install opposite Power Puck on the facing side of the moveable sheave against the other end of the same backer plate using the same process. Make sure both Power Pucks are seated completely against moveable sheave and backer plate.

20. Repeat step 18 & 19 with the remaining four Power Pucks.

21. Ensure that all Power Pucks and backer plates are resting correctly in clutch (see illustration #8). Install clutch cap without spring. Install clutch cap bolts finger tight. After cap is installed, make sure all pieces are in proper position.

22. Set clutch aside.Before moving to step #25 **allow glue to dry for 1 hour**.

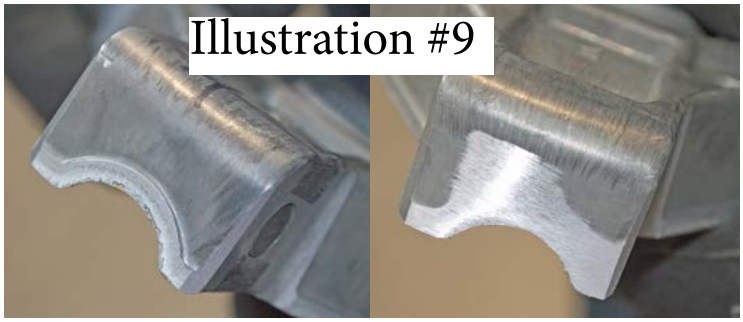


Illustration #9

Before After

**Clean Spider**
**Note:** The manufacturing process of the spider leaves a parting mark from the seam of the mold along the edge of the spider. It is particularly noticable on the ends of the spider and causes interferance with the moveable sheave (see illustration #9).


Illustration #10

23. Remove parting mark (seam edge from casting) at the end of each corner of the spider using a belt sander or flat file (see illustration #10).

**Final Glue Application**

24. Remove clutch cap.

25. Apply a bead of glue vertically on joint between Power Puck and moveable sheave. Smooth bead with finger. (see illustration #11 and #12)


Illustration #11

**CAUTION:** Allow glue 12 hours to completely dry before installing clutch on vehicle.

**Drive Clutch Reassembly**

26. Set clutch into SLP Clutch Holding Fixtue (SLP #20-162) making sure that the windage fins mate completely into the holding fixture slots and clutch sits down completely. Reinstall spider, making sure splines integrate properly and black sharpie marks line up on moveable sheave, spider and center shaft. Apply loctite 7088 primer and 620 retaining compound to center shaft and spin spider nut into place. Insert SLP Alignment Adapter (SLP #20-223) into center of clutch and then slide SLP Spider Nut Tool (SLP #20-214) over spider nut and alignment adapter.

27. Using a 3/4” drive t-handle with cheater bars, tighten spider nut and torque to manufacturer specification.

28. Reinstall weights, weight pins and nuts using 3/8” socket and 1/8” allen wrench. Torque to manufacturer specification.

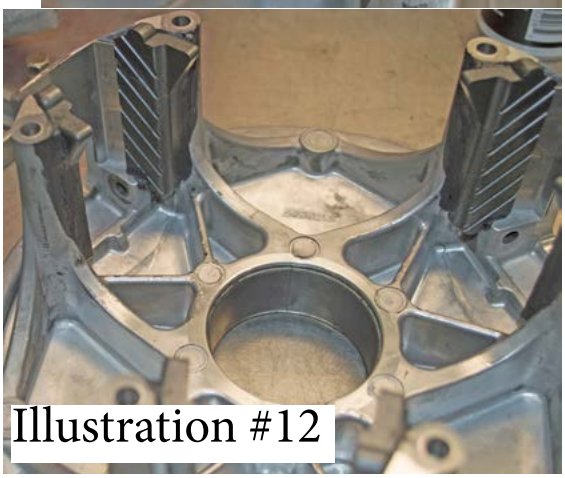


Illustration #12

29. Reinstall spring and stock black plastic limiter. Make sure recessed portion of limiter faces down against spring on top side of spring.

30. Using SLP Clutch Press (SLP #20-222) Reinstall clutch cap and bolts using 10mm socket and ratchet. Torque to manufacturer specification.

**Drive Clutch Installation**

31. Use brake clean and a clean rag to clean the tapered shaft on the crankshaft and the tapered mating surface of the primary clutch.

32. Install drive clutch onto the tapered shaft on the crankshaft. Using 21mm socket, torque the drive clutch retaining bolt to manufacturer recommendation.

33. Re-install drive belt using stock “L-wrench” belt removal tool.

34. Re-install clutch cover using SLP Clutch Cover Removal Tool (SLP# 20-303)

**Note:** For the first 10 miles of use, only run vehicle in low load conditions to allow pucks to break in properly.

**Maintinence:** CVT drive systems like the RZR Turbo uses are a limited life component that require a regular maintenance schedule. SLP recommends removing clutch cover every 500 miles for a visual inspection. At 1000 miles clutches should be removed for a full inspection. Inspect Power Pucks and backer plates to make sure they are secure. Clean and re-apply elasomeric rubber to any loose pucks as needed.