

# INSTALLATION INSTRUCTIONS

**Polaris Calibration Kit** 

## Fits: 2021 Polaris RZR XP Turbo S 33-35" Tires – Sand Dune 0-3000ft Elevation

### **ITEMS INCLUDED:**

Drive Spring - Maroon Driven Spring - Blue Driven Spring - Purple Drive Belt - 1202 Series Weights - WPRO102(3) FIX2 Shims Instructions

### **TOOLS NEEDED:**

Floor jack & safety stands Drive clutch puller Driven clutch compression tool 3/8" metric socket set 7/8" socket ½" 15mm Torx #60 Allen Wrench set Polaris Belt removal Tool Misc. normal shop tools

Make sure that you compare year/model on instruction sheet to the unit you have. Do Not attempt this install w/o proper tools or damage to clutches & injury could occur. Do Not attempt this install if you are not qualified. Injury could occur. Inspect Drive/Driven clutch faces before you install kit. Repair/Replace, as necessary.



Read instructions and view illustrations before beginning.



(3/23/2023)

Remove left rear shock guard – (3) Torx #25 screws.

Loosen clamp with slotted screw driver holding air intake tube on clutch cover and remove tube.

Remove clutch cover screws with 8mm socket.

Remove clutch cover. (it may be easier to remove the left rear shock to remove clutch cover and access clutches, but is not required.)

Remove drive clutch retaining bolt using long extension and Torx T60 socket.

Once drive clutch retaining bolt is removed, the outer (moveable) sheave can be removed as an assembly by rocking sheave and pulling outward. Be careful not to drop clutch spacers if the primary shaft is removed.

If outer drive sheave assembly will not come off clutch shaft, then remove entire drive clutch using clutch puller and 7/8" socket after removing the primary shaft.

Hand thread puller to start after removing outer drive clutch post. Watch for two washers that may fall when removing post (O-ring holds two washers to the removable shaft. OEM Clutch retaining bolt torque spec is 140ft-lbs. so clutch is on there tight.

Remove driven clutch retaining bolt(10mm). Count Washers and shims for reassembly ours had 3 thin shims under thick washer. Adding or removing the thin shims with affect clutch/belt alignment and shifting.

Remove clutches and belt from machine.

Mark X's on drive clutch cover, and sheaves to match spider X for reassembly.

Install drive clutch on compression tool and tighten cage to clutch outer cover.

Remove drive clutch cover bolts (6) 10mm.

Slowly release spring pressure.

Clean/wipe/blow dust from drive clutch assembly.

Install supplied weights in drive clutch.

Install supplied **Maroon** spring in drive clutch.

Install cover aligning X on cover to X on clutch spider.

Compress cover/spring and install bolts and torque to 9ft-lbs (Apply small amount of blue Loctite to bolts).

Reinstall removable drive clutch post with washers.

Scuff sheaves with scotch-brite pad and wipe with contact cleaner on a rag.

Mark x's on the two driven sheaves prior to separating to aid in reassembly.

Secondary clutch can now be separated by twisting and spreading sheaves.

Clean/wipe/blow dust from driven clutch assembly.

Scuff sheaves with scotch brite pad and wipe with contact cleaner on a rag.

Install driven clutch sheave with helix attached (helix down) on compression tool.

Tighten large  $\frac{1}{2}$ " drive socket (1 1/8" Socket) onto clutch.

Remove 3 16mm headed bolt Bolts.

Release pressure on spring and remove spring.

Install **Blue** driven spring in stock helix (don't forget to reuse aluminum washer from old spring).

Install Purple Driven spring for severe applications.

Tighten large socket against rear of sheave. Align holes and reinstall 16mm Hex bolts torque to 32ft-lbs.

Install driven clutch assembly on unit.

Install retainer bolt and finger tighten to hold clutch assembly on shaft.

Install Polaris belt tool & tighten so that belt slides down into driven clutch.

Install drive belt on driven clutch with part numbers so that you can read them.

Install drive clutch through belt and onto engine stub shaft, or simply slide outer sheave onto shaft if separated.

Tighten driven clutch bolt to 26ft-lbs. factory spec. (Do not over tighten as this is a small bolt now.)

Install drive clutch bolt and torque to 140ft-lbs.

#### Verify that all items have been properly installed & properly torqued.

**POSSIBLE ISSUE: Checking Transmission Alignment:** Start unit without cover on. Shift between gears. If it is hard to shift, you may need to add FIX2 Shims in secondary behind thick driven bolt washer to move drive belt inward in drive clutch so it is centered or not touching either sheave face. If touching inner sheave contact Polaris Dealer for Alignment. Engagement should be 2000-2200rpm after initial engagement.

Top rpm should be 8200-8500 under full throttle, normal operating conditions.

#### Re-torque drive clutch/driven clutch bolts to proper Polaris specs after 100 miles of operation.

Failure to do so could cause future damage to clutches or injury to operator.

If you have any problems/questions on this kit **contact us by email** at SUPERATV.COM

## TECH TIPS:

- 1. Contact SuperATV if you add larger/heavier tires as this changes the clutch calibration.
- 2. Drain water out of clutch cover after washing unit or driving thru deep water before operating. as this could cause a flat spot/damage belt and wear the drive clutch causing a clutch face Groove/damage.
- 3. Clean clutches at least once a season for normal maintenance.
- 4. Under Severe conditions such as MUD BOG riding/racing, clean clutches daily.
- 5. Do not install partial kit as kit was designed to work correctly using all enclosed items.
- 6. Do not mix other company's parts with kit as this could cause damage/improper operation.

**Torque Specs:** Companies change specs so verify any/all bolt tightening specs by checking with your BRP dealer, service manual, owners manual, or Polaris Industries