EPIperformance.com

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POLARIS CLUTCH KIT INSTRUCTIONS

Model: 800 RZR S 4x4 2009 (26" TIRES) Part #: WE436700

Kits designed for Stock motor and stock exhaust at 0-3000 feet elevation.

ATV's can be dangerous. EPI has no control over the use of any part. EPI expects the customer to exercise good judgment as to the proper selection, installation, use and maintenance of any part. EPI assumes no responsibility for damage or injury of any kind because of misuse, improper installation and improper application of any parts in any way by any person. Contact your local dealer to schedule installation of this clutch kit if you are not a qualified ATV mechanic.

This product is NOT to be installed on any ATV that will be used by any person under the age of 16.

TOOLS NEEDED TO INSTALL CLUTCH KIT
- 3/8, 7/16, 1/2 socket and wrench
- 5/8 socket and wrench
- 10mm, 11mm socket
- #25 Torx
- Torque wrench
- Phillips and flat tip screwdrivers
- 1/8 Allen wrench
- 1/2 impact wrench
- Clutch Compression Tool (EPI part #CCT510)
- Primary Clutch Puller (EPI part #PCP-12)

ENGAGEMENT
22-2,300 RPMs

1. Remove the key from the ignition. Remove the driver and passenger seats. Remove the two torx screws from the rear of the center console, watch for the plastic spacers under the console. Remove the two bolts holding the seat cross bar and remove the cross bar. Remove the rear service panel to access the clutches. Remove the clamps on the vent hose coming from the top of the clutch cover. Be careful not to damage the rubber boot. Save the clamps because you will need to reuse them. Remove the eight clutch cover bolts. Note the location of the bolts. Remove the clutch cover and set aside.

2. Remove the belt. You can remove belt by pulling up on the belt to open the driven clutch, this will allow enough slack in the belt to remove it.

3. Next remove the primary clutch (clutch on passenger side). Remove the center bolt (5/8 socket), washers, and any spacers that are there. You will need to use a small bar or large screwdriver and stick it through the clutch to stop the clutch from rotating while you loosen the center bolt. Thread the clutch puller (EPI part #PCP-12) in by hand and tighten until the clutch pops off the shaft. You will need to hold the clutch from rotating. Remove the primary clutch and place on a flat clean work surface and remove the clutch puller. Notice the part numbers and/or "X" on the outside cover of the clutch and the "X" marked on the spider. These are alignment marks from the factory and must line up when you reassemble the clutch. Next remove the six outside bolts from the primary clutch cover. Remove the cover and spring.

4. With the spring removed you can change the weights. Using a 1/8" Allen wrench and a 3/8" wrench or socket remove the bolt holding the weight in the clutch. Replace the stock weight with the weight included in the clutch kit and install the bolt and nut. Repeat the same process for the other two weights.

5. It is a good idea to clean your clutches. Using a clean rag and a contact/brake cleaner that **DOES NOT** leave an oily film or residue clean all areas of the clutch except on the bushings. Cleaning the clutch bushings with a cleaning solvent can cause premature wear. This applies to both clutches.

6. Install the **EPI** primary spring. Make sure the spring fits flat into the clutch at both ends. Install cover onto clutch being sure to align the "X" marks as noted when you disassembled it. Make sure the cover lines up properly on the clutch towers so the two raised areas on the cover seat properly. Damage can result if this is not done properly. Tighten the six outside cover bolts evenly so the cover aligns and seats properly into the clutch towers to prevent damage. With the primary clutch installed on the crankshaft install the center retaining bolt and torque to 45-47 ft/lbs. **NOTE:** Due to small variances in the clutches on some machines, some machines require final adjustments for smooth shifter operation. EPI includes a white plastic spacer that may need to be installed between the drive clutch retaining bolt large washer and the face of the drive clutch – see the photo below for placement. Some machines require this spacer and others do not. If you experience difficult shifting when you move the gear selector, try installing this spacer. Even further adjustment may be needed on a few machines – if this is the case, try removing one of the two metal shims behind the driven clutch.

7. Remove the secondary (clutch on driver's side) clutch by removing the center clutch bolt and pulling towards you. The clutch should slide off the splined shaft. If the clutch sticks on the shaft spray some penetrating fluid on the shaft to help free it. If it still doesn't come off, you will need to order a secondary clutch puller (EPI part #SCP-1). When the clutch does come off pay attention to the shims behind the clutch on the shaft. These shims effect the clutch alignment, if they slide off the shaft be sure to put them back on.
8. Place the clutch face down so the four torx bolts / helix are facing up. Remove the four torx bolts. Pull up on the helix. **Note the position of the two rollers**. Using the compression tool (EPI part # CCT510) carefully compress the spring until there is slight pressure on the spring retainer allowing you to remove snap ring. Slowly loosen the top nut on threaded rod allowing the spring to slowly expand. Remove the spring retainer and spring.
9. Install the EPI secondary spring in clutch. Place the spring retainer and snap ring on top of spring. Using the clutch compression tool, slowly compress the spring retainer down far enough to install the snap ring. Install the snap ring and remove clutch from tool. Install the helix into clutch and push down. Make sure that when you push the helix into the clutch you do not damage the two plastic rollers. Install the four torx bolts. If needed, you can rotate the clutch either direction to align the torx bolts. Push the helix down. Tighten the four torx bolts to 42 to 52 inch pounds. Do not under or over tighten torx bolts.
10. Install the belt in the secondary clutch so the numbers on the belt read from left to right. You need to get the clutch sheaves to open so the belt can drop down into the clutch. This will give you enough slack in the belt to feed it around the primary clutch and then slide the secondary clutch onto its shaft and reinstall the bolt that holds it in place. Our trick for this is to loop the belt around the clutch, slide the clutch onto its shaft on the machine, then while stepping into the machine, grab the belt and pull straight up. This will pull the belt down into the sheaves fairly easily. Then slide the clutch back off the shaft, loop the belt around the primary clutch and then reinstall the secondary and tighten the bolt that holds it on the shaft. With the machine in neutral, spin the clutches by hand until the secondary has shifted back to its closed position and the belt is riding at the top of the sheaves. If you fail to do this it will be like starting out in high gear when you try to drive it for the first time and you will possibly burn the belt. Torque the secondary clutch bolt to 15 ft/lbs.
11. Install the plastic clutch cover, making sure it seals properly. Tighten the clamps to seal the vent tube on top of the clutch cover. Install the rear service panel. Install the seat cross bar and install both seats.
12. Go out and ride your machine. If after riding the machine something doesn't seem right, double check that the secondary clutch has been assembled correctly.
13. **EPI** is constantly testing our products. Sometimes there is a need to contact the user with new technical information. To ensure that you are receiving this information visit our web site **EPIperformance.com** to register your clutch kit.

NOTICE: Even with this clutch kit, you should be advised that using substantial throttle when the tires are not able to spin can cause the belt to slip and ***damage may occur***. **EPI** recommends that the transmission be shifted into low range when high load, slower speed situations are encountered. **EPI** is ***not responsible*** for any damage to the drive belt or any other original equipment component.