



**EPIperformance.com**

8273 Industrial Park Road • Baxter, MN 56425 • (218) 829-6036 • Fax (218) 829-1685

## **POLARIS CLUTCH KIT INSTRUCTIONS**

**Model:** 700 RANGER XP 4x4 2008-2009 (STOCK TIRES) **Part #:** WE436653

**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
- Torque wrench
- Snap ring pliers
- Phillips screwdriver
- Side cutters
- 1/8 Allen wrench
- Primary Clutch Puller (EPI part # PCP-1)
- Clutch Compression Tool (EPI part #CCT510)

### **ENGAGEMENT**

- 2-2,000 RPMs

1. Remove the key from the ignition. Remove the seat bottom cushion. Remove the plastic storage compartment from under the driver side seat by removing the bolts around the storage compartment door and sliding the compartment out of the frame. This will expose the clutch cover for easy access.
2. Using a screwdriver, loosen the clamp that holds the vent hose on the top of the clutch cover. Remove the clutch cover bolts; note the length of the bolts and their location. Some models might have a little metal clamp at the rear of the cover that needs to be removed, simply take a flat tipped screw driver and pry the clamp off. Save the clamp because you will need to reuse it. Remove cover slowly being careful not to damage the gasket.
3. EPI found it easiest to remove both clutches and the belt at the same time but it is not required to install kit. If you plan on removing both clutches remove the secondary (rear) clutch bolt (1/2" wrench or socket) and temporarily leave clutch and belt on the machine. If you are NOT removing both clutches remove the belt. You can remove belt by squeezing the belt together between the two clutches, this will allow enough slack in the belt to remove the belt. The primary (front) clutch is pressed onto the crankshaft of the motor. Removal of the clutch is not required but does make the job much easier. To remove the clutch a special clutch puller is needed, this tool is available through EPI (part # PCP-1). Notice the "X" marked on the outside cover of the clutch, on the spider, and on the moveable sheave. These are alignment marks from the factory and must line up when you reassemble the clutch. If you are not removing the clutch see next step. To remove the clutch using a clutch puller, remove the large center clutch bolt (5/8 socket). You 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. Remove the center bolt, washers, and any spacers that are there. Thread the clutch puller in by hand and tighten until the clutch pops off the shaft, you will need to hold the clutch from rotating. Remove both clutches and the belt from the machine. Go to step eight for complete secondary clutch removal instructions. Place clutch on a clean work surface and remove clutch puller.
4. If you are not pulling the primary clutch off the machine OR if you already have the clutch off the machine, remove the six outside bolts from the cover. Next remove the center bolt allowing the cover and spring to be removed (this bolt is already removed if clutch is off the machine).

5. 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.
6. It's 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.
7. 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 and the center retaining bolt removed, slip the white spacer (included in the kit) over the retaining bolt and reinstall. The white spacer needs to be sandwiched between the large "flat washer" and the face of the clutch. As you tighten the retaining bolt the white spacer will center itself and actually slide onto the clutch shaft, pushing the face of the clutch in slightly. This action will close the gap or "belt-to-sheave" clearance. The retaining bolt flat washer needs to tighten up against the clutch shaft as usual so be careful that the white spacer centers itself and doesn't get pinched. Torque the retaining bolt to 45-47 ft/lbs. The photo below shows a properly installed white spacer.



8. Remove the secondary (rear) 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.
9. **CAUTION: The spring retainer will have spring tension on it and can pop up and out of the clutch when snap ring is removed.** Using a compression tool or a press, carefully compress the spring enough to take the pressure off the spring retainer. Remove the snap ring, spring retainer and spring.
10. Place the EPI secondary spring and spring retainer in the clutch. Using the compression tool or a press, slowly and carefully compress the spring until you can install the snap ring.
11. If you removed both clutches from the machine it is easiest to install both clutches and the belt at the same time. To install both clutches and the belt; place the belt in the secondary clutch so the numbers on the belt read from left to right. Squeeze the belt at the opposite end of the clutch to force the belt to open the secondary clutch and slide the belt down into the clutch OR you can LIGHTLY tap on the belt with a plastic or rubber hammer to force the belt into the clutch. Place the primary clutch through the belt and slide both clutches onto the machine. If you did not pull the primary clutch off, you will need to place the belt in the primary clutch and install the secondary clutch onto machine. Place the belt as much as you can into the secondary clutch, starting at the top of the secondary. If you can't get the belt completely on rotate the clutch so the belt rotates on. Torque secondary clutch bolt to 15 ft/lb. Torque primary clutch bolt to 45-47 ft/lb.
12. Install the plastic clutch cover making sure it seals properly. Install the small metal clamp back onto the rear of the clutch cover. Tighten the clamps or zip ties to seal the vent tube on top of the clutch cover. Install the plastic storage compartment under the driver side seat. Install the seat bottom cushion and prepare to ride.
13. If after riding the machine something doesn't seem right, double check that the secondary clutch has been assembled correctly.
14. **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.