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Axys/Matryx RMK/Khaos 850

■ Clutch Kit Install and Calibration ■

■ Tools & Supplies Needed

- Metric socket set and ratchet
- Torque wrench (inch-pound and foot-pound capable)
- Impact wrench (optional)
- Polaris clutch puller tool
- Spring compressor or screwdriver
- Blue Loctite
- Shop rags and safety gloves

■ Safety Precautions

- ❄ ■ Always work on a cool engine.
- Disconnect the negative battery cable if equipped with electric start.
- Use proper eye protection when handling clutch springs.
- Ensure the sled is on a stable lift or stand.

Step 1: Access the Clutches

Remove the side panel on the clutch side of the sled.

Remove the belt guard and drive belt.

Inspect belt condition—replace if worn before reassembly.

Step 2: Remove the Primary Clutch

Use an impact or ratchet to loosen the center bolt on the primary clutch.

Insert the Polaris clutch puller tool and tighten until the clutch pops free from the crankshaft.

■ **Tip:** Apply a dab of grease to the puller threads for smoother operation.

Carefully remove the clutch and set it on a clean bench.

Step 3: Disassemble the Primary Clutch

Use a clutch spring compressor (or press down carefully with bolts and washers) to relieve spring tension.

Remove the cover bolts evenly in a crisscross pattern.

Lift the cover, spring, and note the orientation of the factory weights.

Step 4: Install New Kit Components

Replace the stock weights with the adjustable weights provided in the clutch kit.

■■ **Set baseline weight** according to the instructions provided with the kit.

Install the new primary spring in place of the stock one.

Reassemble the clutch cover, tightening bolts evenly to the specified torque.

Step 5: Secondary Clutch Updates

■ **Heat the Torx T-27 helix retaining screws** with a small torch for about one minute per screw.

■ **Seat the Torx socket** with a hammer, then loosen with firm downward pressure using a ratchet or impact.

✓■ **Prevents stripping & saves time.**

Remove the secondary clutch center bolt and slide the clutch off the jackshaft.

Install the new spring and helix included in the kit.

Reassemble and torque to spec.

Step 6: Reinstall Clutches

Slide the secondary clutch back onto the jackshaft and torque the retaining bolt.

Install the primary clutch back onto the crankshaft, using blue Loctite on the retaining bolt.

■ Torque to Polaris specification (typically 95–100 ft-lbs, verify for your model year).

Reinstall the drive belt and set belt deflection.

Reinstall belt guard and side panel.

■ Final Checks & Calibration

Rotate clutches by hand to ensure smooth movement.

Verify belt alignment and deflection.

Start the sled, let it idle, and cycle the throttle gently to check engagement.

Re-torque clutch bolts after the first ride.

■ Proper calibration should result in smooth engagement at 4000–4200 RPM.

■ WOT in deep snow: 8300 RPM \pm 100 RPM.

■ If RPM is low by more than 150, remove one weight screw per weight.

■ If RPM is over 8400, or bog occurs at WOT, add one screw per weight.

Elevation setup:

■ 0–3500 ft → 3 screws + 1 lock screw per weight

■ 3500–5000 ft → 2 screws + 1 lock screw per weight

■ 5000–7500 ft → 1 screw + 1 lock screw per weight

