# KWI

# **INSTALLATION AND TUNING GUIDE**

## **POLARIS RZR X300T CLUTCH KIT**

## PART NUMBER(s): RZRX300T

WE ARE NOT RESPONSIBLE FOR ANY DAMAGES. BE VERY CAREFUL TO NOT DAMAGE YOUR CLUTCH DURING THIS PROCESS.

#### **TOOLS NEEDED**

- 8mm Socket
- 3/8" 1/4 Drive Socket
- 1/4" Drive Ratchet
- 3/8" Drive Ratchet
- 15mm 3/8 drive Socket
- 1/8" Allen wrench
- Torque Wrench
- · Polaris Clutch Belt removal tool
- Blue Locktite



NOTE: No component marking is required before disassembly. This drive pulley features factory index marks as references if needed.

## **ESTIMATED INSTALL TIME**

P/Ns: RZRX300 or RZRX300T

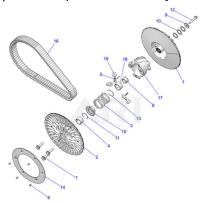
**45 MINUTES** 

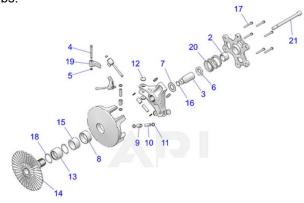
## Primary clutch disassembly and reassembly

- 1) Remove belt box cover. (8mm socket)
- 2) Remove CVT belt. (Polaris Clutch Belt Removal Tool)
- 3) \*\*No need to remove the primary clutch from the crankshaft\*\* Remove the 6 bolts securing the cover and replace factory weights with KWI weights and magnets as outlined in the appropriate chart below. Install MAROON primary spring and primary clutch cover- torque bolts to 12 Ft lbs.

## Secondary clutch disassembly and reassembly

- 1) Remove secondary clutch bolt. (15mm socket)
- 2) Remove the secondary from the splined shaft by removing the bolt and c-clip (if applicable) and sliding the clutch off the shaft.
- 3) Separate secondary clutch halves by sliding them apart and put a threaded rod thru inner half with helix and clamp carefully with 2 washers and 2 nuts. There is substantial spring pressure, so ensure you use the correct tools.
- 4) Remove 3 bolts attaching helix to moveable sheave. Relieve spring tension by unscrewing threaded rod nuts. Note position and orientation of components.
- 5) Remove secondary spring and install KWI secondary spring. Reassemble secondary components in order removed and carefully compress using threaded rod or KWI tool kit.
- 6) Reinstall 3 screws thru sheave and into helix using blue Locktite. Torque to 35 ft lbs.
- 7) When the secondary is assembled, install it back on the shaft with the c-clip( If applicable) and bolt in place. Torque the secondary bolt to 35-40 ft-lbs.





## MAGNET RPM ADJUSTMENT

This requires the cam arms be removed from the clutch. The weight of the added magnets affects RPM. The more magnets that are installed the lower the RPMS will be. 1 thick magnet from each weights will change Full Throttle RPM approx 100 RPM

- 1) Remove the cam arms from the clutch. (SEE "Primary clutch disassembly and reassembly" ABOVE)
- 2) There are 3 holes in the arms to place magnets- you can place magnets in holes as required. Magnets in the hole closest to the cam arm pin will affect RPM's from 0-20 MPH. Magnets in the center hole will affect RPM's from 20-50 MPH.. Magnets in the hole farthest to the cam arm pin will affect RPM's at 50+ MPH..
- 3) Magnets MUST be distributed so that the clutch is balanced. Make sure arms have identical magnets installed. Do not overfill magnet slots!
- 4) For sand dunes or tires larger than 33" remove 2 total thick magnets from the recommended low altitude trail settings then test full throttle RPM at 55mph and adjust if necessary.
- 5) For high riding elevations above 5000' remove 4 total thick magnets from the recommended low altitude trail settings then test full throttle RPM at 55mph and adjust as necessary.
- 6) Reinstall the cam arms and tighten to spec.

X300T Recommended settings (PRO T HEAVY CAM ARM) (choose the Crankshaft horsepower/Wheel horsepower that best matches your RZR)										
Crankshaft horsepower (CHP) / Wheel horsepower (WHP)	Hole #1 (Closest to pin) Magnets	Hole #2 Magnets	Hole #3 (Tip of arm)Magnets	Sprgs	Full throttle RPM at 55mph					
260CHP/240WHP Stock	5	1	0		8700 RPM	+/- 100 RPM or				
280CHP/260WHP 20 PSI	5	3	1	KWI Red primary spring, KWI White secondary spring	RPM SPECIFIED BY YOUR					
300CHP/280WHP 22 PSI	5	4	3		AFTERMARKET ENGINE TUNING SPECIALIST					

## RZRX300 PARTS INCLUDED

PART DESCRIPTION	QTY	OEM PART#	OUR PART #	
PRO T ADJUSTABLE CAM ARM		_		
WHITE SECONDARY SPRING	1	_	WHITE	
MAGNET PACK	1	_	MAGNETS	
MAROON PRIMARY SPRING	1	_	MAGNETS	

#### LIABILITY STATEMENT

As defined by the Magnuson-Moss warranty Act. Do not install any performance parts or services unless you have the technical ability to properly set-up the entire machine to compensate for the installation of those parts. The necessary work and expertise needed to install different product varies. Instructions, where provided, are given to assist in installation only; they are not a substitute for mechanical experience in setting up racing vehicles. References to performance gains, reliability, ease of installation, etc. are based on our and outside customer's experiences. This is not a guarantee of similar performance in every installation. While we sell proven products, in the end it's up to the individual to make the most of the product. Kris Werth Inc. d.b.a. KWI Clutching or its associated corporations are not responsible for any personal or property damages caused by this product. Kris Werth Inc. d.b.a. kWI Clutching or its associated corporations are not responsible for any personal or property damages caused by this product. Kris Werth Inc. d.b.a. kWI Clutching or its associated corporations assumes no responsibility for damage or injury of any kind because of misuse, improper installation or improper application of any parts in anyway, by any person. Contact your local dealer to schedule installation of this kit if you are not a qualified ATV or UTV mechanic. USE OF PRODUCTS. BUYER SHALL USE, AND REQUIRE ITS EMPLOYEES, CONTRACTORS, AND AGENTS TO USE, ALL AVAILABLE SAFETY PRECAUTIONS, IN ADDITION TO ANY SPECIFICALLY SET FORTH IN ANY MANUALS, MATERIAL SAFETY DATA SHEETS, ITECHNICAL DATA SHEETS, INSTRUCTION SHEETS, IF ANY, FURNISHED BY SELLER (OR AVAILABLE FROM RAW MATERIAL SUPPLIERS) RELATING TO SELLER'S PRODUCTS. IF BUYER DOES NOT RECEIVE ANY REQUIRED MATERIAL SAFETY DATA SHEETS, FORTH IN THIS SECTION 22 OR IF BUYER'S USE OF ANY OF SELLER'S PRODUCTS IS IN VIOLATION OF ANY STANDARD OR RULE GOES NOT ARECIVE ANY REQUIRED MATERIAL SAFETY DATA SHEETS, IF ANY SELLER'S PRODUCTS SET ORTH IN THIS SECTION AS AFFE

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