

REKLUSE



REKLUSE MOTOR SPORTS

The z-Start Clutch

INSTALLATION GUIDE

KTM65

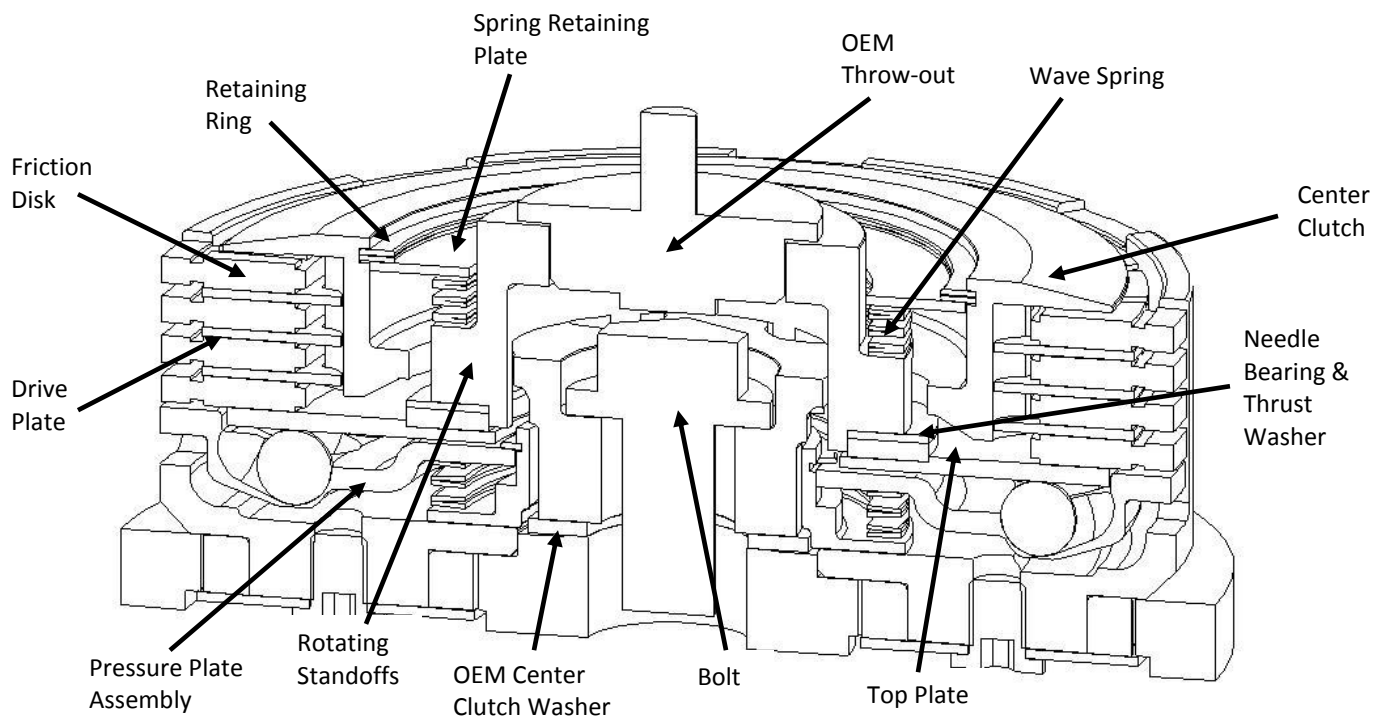
191-239
Manual Revision: 073009

©2007 Rekluse Motor Sports
Rekluse Motor Sports, Inc.
110 E. 43rd Street
Boise, Idaho 83714
208-426-0659
support@rekluse.com

TABLE OF CONTENTS

z-START CROSS-SECTION VIEW	3
INCLUDED PARTS	3
REQUIRED TOOLS	3
BIKE PREPARATION AND DISASSEMBLY	4
INSTALLING THE z-START CENTER CLUTCH	5
DETERMINE THE INSTALLED GAP OF THE z-START CLUTCH	8

Z-START CROSS-SECTION VIEW



INCLUDED PARTS

Item

- Top Plate
- Pressure Plate Assembly
- Rekluse Center Clutch
- (3) RMS 0.040" Drive Plates
- (3) RMS 0.048" Drive Plates (Adjustment Plates)
- (4) Rekluse Friction Plates
- (2) Rotating Standoffs – 1 for 2009 model, 1 for previous models
- Rekluse Needle Bearing

Item

- Rekluse Thrust Washer
- Retaining Ring
- Wave Spring Retaining Washer
- (30) 5/16" Chrome Steel Ball Bearings
- (5) 5/16" Tungsten Carbide Steel Ball Bearings
- Wave Spring(s) – See tuning Chart
- Rekluse Spring Install Tool

REQUIRED TOOLS

- 8mm socket
- 10mm socket
- 12mm socket

- 13mm socket
- 15mm socket (for center clutch nut)
- 2 Sets of Feeler Gauges

BIKE PREPARATION AND DISASSEMBLY

1. Drain coolant.
2. Shut off fuel at petcock. Lay bike on left side. **CAUTION:** fuel may drain from carburetor; place a suitable container beneath bike to catch fuel to prevent fire hazard.
3. Remove water pump cover.
4. Remove remaining radiator hose from side cover.
5. Remove kick starter and brake pedal.
6. Remove side cover.

CAUTION: Do not pump clutch lever while side cover is disconnected or damage to slave cylinder will result.

7. Remove 6 bolts and springs from pressure plate.
8. Remove OEM throwout and **retain** – it will be re-installed.
9. Remove bolt and OEM center clutch.
10. Remove OEM clutch plates.
11. Remove OEM pressure plate.

NOTE: retain thrust washer located between center clutch and clutch basket.

12. Remove OEM clutch basket per manufacturer's instructions.
13. Remove the rivets holding the primary ring gear to the OEM aluminum clutch basket. The rivets can be removed by milling, drilling, or grinding the ends off, and pressing them out.

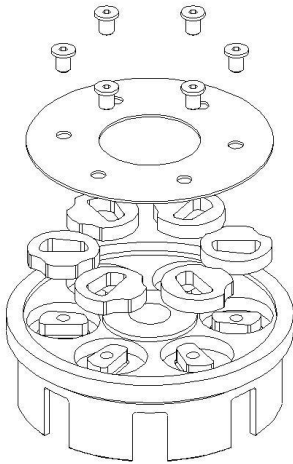
WARNING: When removing the OEM rivets, do not damage the steel ring gear as it will be used with your new Rekluse TCS Clutch Basket.



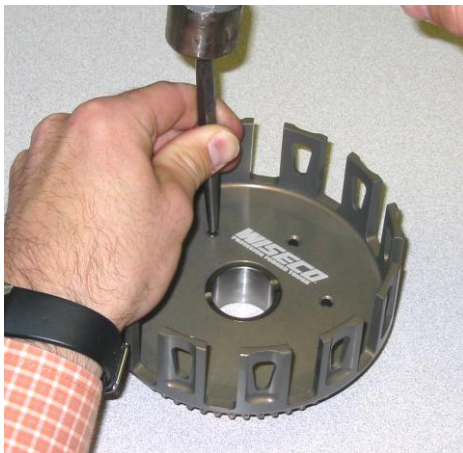
14. Remove all components from the OEM basket, taking note of how everything will be reassembled. The gear and rubber dampeners will be installed onto the Rekluse Clutch Basket.

INSTALLING THE Z-START CENTER CLUTCH

15. Install gear, dampeners, and Rekluse backing plate with the provided screws to Rekluse Clutch Basket. Use Loctite 243 on screws and torque to 10 ft-lbs.

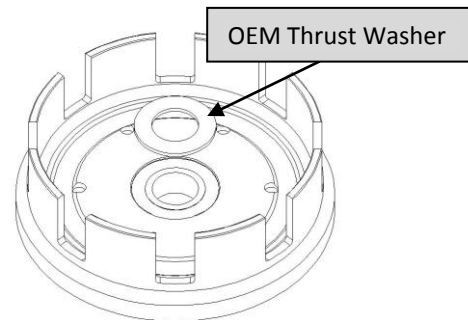


16. Using a hammer and punch, peen over the ends of the screws where they come through the bottom-inside of the clutch basket.

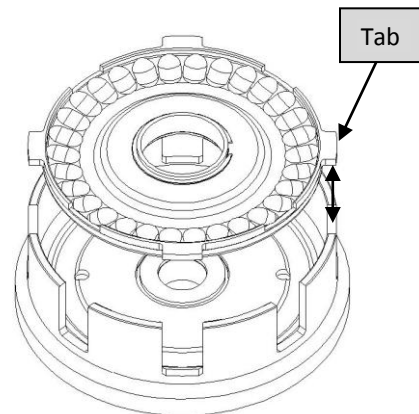


17. Install Rekluse Clutch Basket, ensuring all gears mesh properly and seat completely.

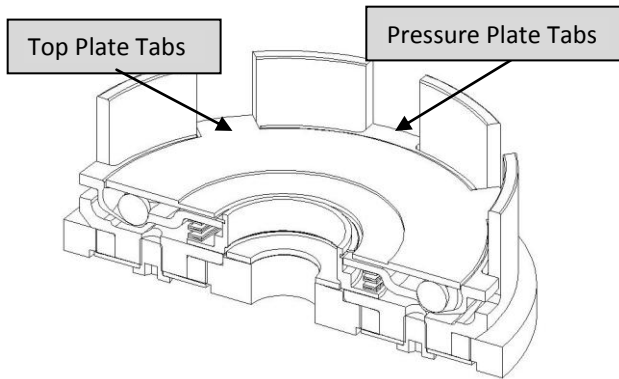
18. Install OEM thrust washer over main shaft.



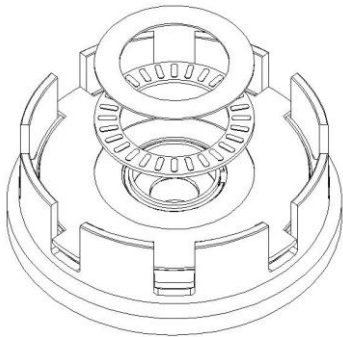
19. Place a small amount of oil into the ball grooves of the Rekluse Pressure Plate Assembly.
20. Away from the bike, install the 25 steel and 5 tungsten carbide balls into the ball grooves in the Rekluse Pressure Plate Assembly. Tungsten balls must be evenly spaced. See tuning chart.
21. Install Rekluse Pressure Plate Assembly, indexing tabs into slots in Rekluse Clutch Basket.



22. Install Rekluse Top Plate, indexing tabs into remaining 4 slots in Rekluse Clutch Basket.



23. Install needle bearing and thrust washer into top plate pocket.

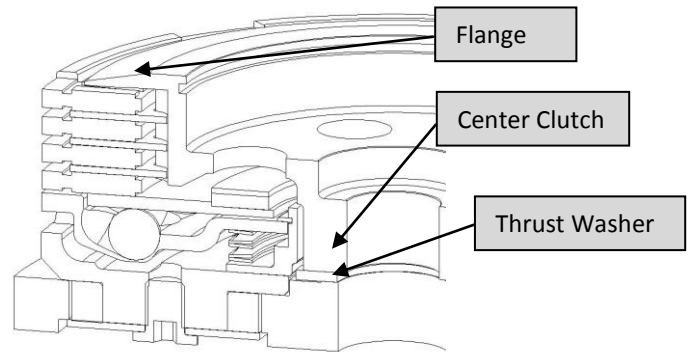


NOTE: Use grease when installing bearing and washer as they are prone to sliding out of place.

24. Install Rekluse clutch plates according to chart below.

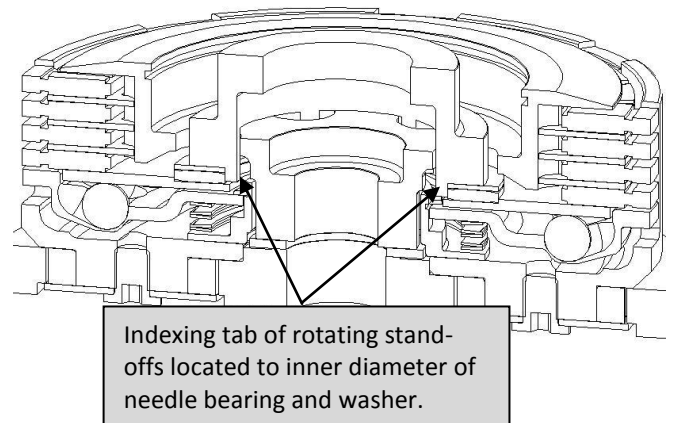
- Rekluse Friction Plate
 - Rekluse .040" Drive Plate
 - Rekluse Friction Plate
 - Rekluse .040" Drive Plate
 - Rekluse Friction Plate
 - Rekluse .040" Drive Plate
 - Rekluse Friction Plate
- Last Plate In
 ↑
 First Plate In

25. Install Rekluse Center Clutch. Make sure you get the drive plate teeth of each plate aligned with the corresponding grooves in the Rekluse center clutch and the mainshaft teeth aligned with the corresponding grooves in the center hole of the Rekluse center clutch. When the center clutch is in the proper position, there will be a small gap between its flange and the top friction disk.



WARNING: If Center Clutch is not flush against OEM thrust washer, damage to clutch plates will result.

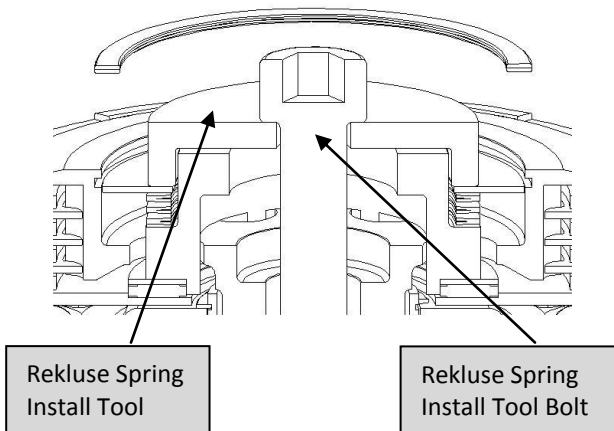
26. Install rotating stand-offs, ensuring they are flush and square and that the indexing tabs locate to the inner diameter of the needle bearing and washer. **(2009 customers use shorter standoff with part # 184-143 engraved on it)**



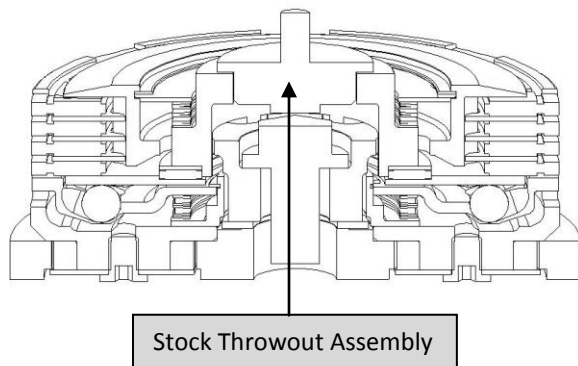
27. Select desired spring from tuning chart.

28. Install spring over rotating standoff.

- 29. Place spring retaining plate on top of spring.
- 30. Use Rekluse Spring Install Tool and Bolt to compress spring and retaining plate so you can install the retaining ring.

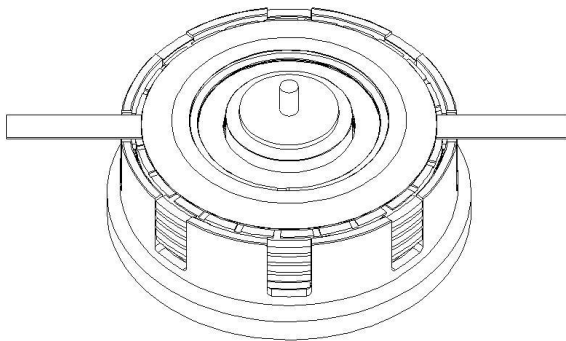


- 31. Remove Rekluse Spring Install Tool and Bolt, install the OEM Clutch Bolt and torque to manufacturer's suggested value.
- 32. Install stock throwout assembly into top of standoff.



DETERMINE THE INSTALLED GAP OF THE Z-START CLUTCH

- 33.** Measure the installed gap of the z-Start. Two sets of feeler gauges are required to measure the Installed Gap. The feeler gauges must be placed **between the top most friction disk and the top-most steel drive plate** in the clutch pack 180° apart. See illustration below. Insert the 2 sets of feeler gauges directly across from one another (180° apart) to avoid the clutch pack from rocking resulting in an inaccurate measurement. Find the thickest feeler gauge that still slides back and forth with slight resistance.



Recommended Installed Gap Range: .025"-.038"

Note: Gap should initially be set toward lower end of range to allow for break-in and clutch plate wear.

- 34.** If the installed gap measurement is off, then the installed gap needs to be adjusted. If the measurement is greater than .038" replace one Rekluse .040" (1mm) drive plate with a Rekluse .048" (1.2mm) drive plate.
- 35.** Install side cover.
- 36.** Install kick starter and brake pedal.
- 37.** Install radiator hose.
- 38.** Install water pump cover.
- 39.** Fill radiator with coolant.
- 40.** Refer to Break-in and Maintenance Guide for break-in and maintenance procedures.
- 41.** Retain the Rekluse Spring Compression Tool and extra .048" drive plates for future tuning/adjustment.