# REKLUSE MOTOR SPORTS

The z-Start Pro Clutch

# INSTALLATION GUIDE

## KTM RFS 03-07
## Husaberg
## Polaris 450/525 Outlaw
## KTM 450/525 XC ATV

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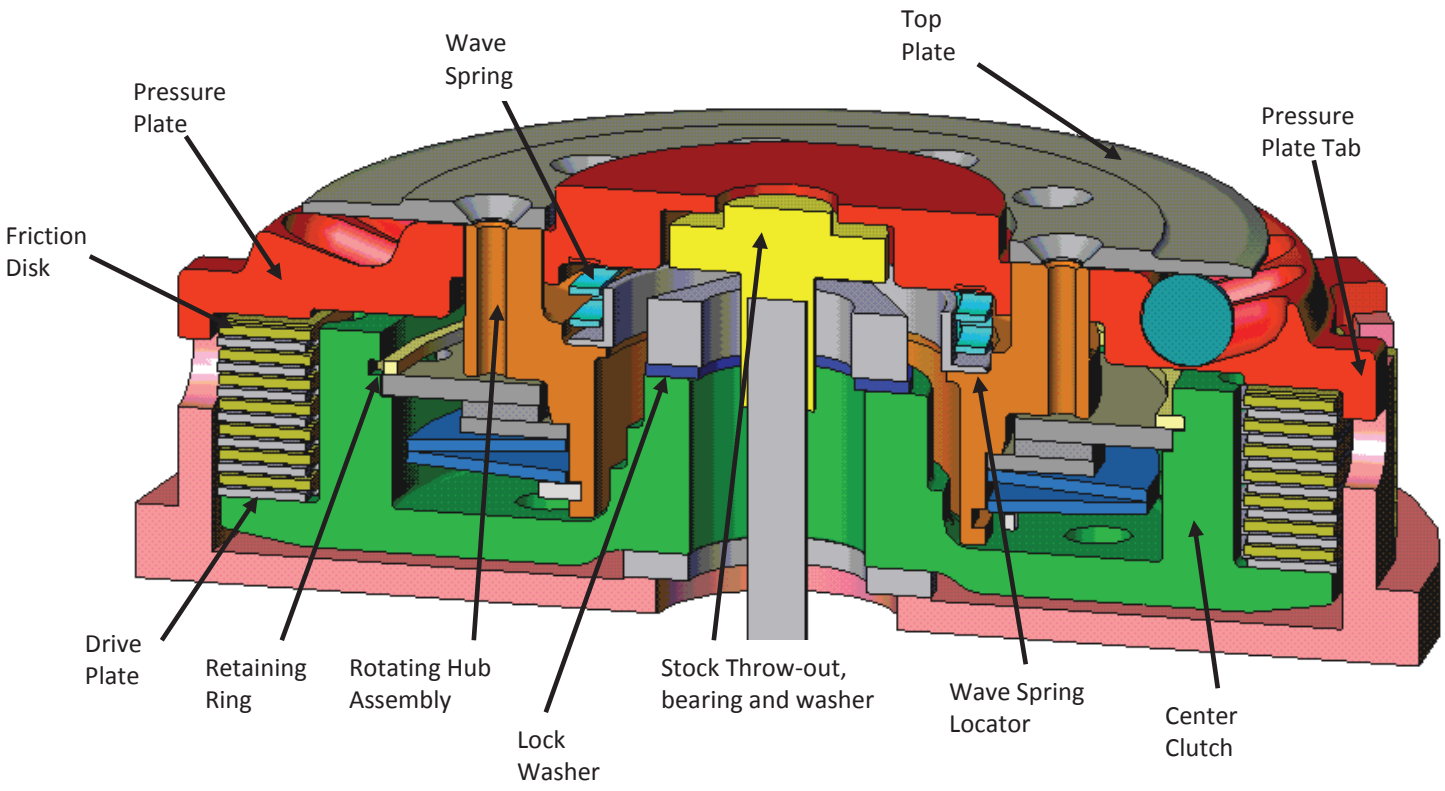
**Oil:** For optimal clutch performance Rekluse recommends using fresh, clean oil that **meets JASO-MA** oil rating requirements. Rekluse offers Factory Formulated Oil™ developed specifically for Rekluse products. Rekluse Factory Formulated Oil is a perfect complement to any OEM or aftermarket wet clutch. Visit www.rekluse.com to learn more.

## Z-START PRO CROSS-SECTION VIEW




## INCLUDED PARTS

### Item

- ☐ Top Plate
- ☐ Pressure Plate
- ☐ Rekluse Center Clutch
- ☐ Retaining Ring
- ☐ (7) RMS Measured Drive Plates
- ☐ (1) RMS 0.060” Drive Plate (Adjustment Plate)
- ☐ Rotating Hub Assembly
- ☐ External Tab Lock Washer
- ☐ Throw-out Spacer **(‘03-‘05 Models Only)**

### Item

- ☐ (27) 7/16” Chrome Steel Ball Bearings
- ☐ (10) M4x12 Torx Head Screws
- ☐ Wave Spring Locator
- ☐ Wave Springs (See Tuning Chart)
- ☐ T-20 Torx Bit
- ☐ Blue Loctite 243
- ☐ Rekluse Wire Gauges

## REQUIRED TOOLS

- 8mm socket
- 10mm socket
- 27mm or 30mm socket (for center clutch nut)
- T-20 Torx bit (supplied)
- Impact Wrench
- 2 Sets of Feeler Gauges (optional)

## BIKE PREPARATION AND DISASSEMBLY

**NOTE:** '02-'03 models come with .070" (1.8mm) friction plates stock. Owners of these models must verify thickness of their friction plates; if they **are** .070"(1.8mm) they will need to be replaced with .078" (2mm, '04 and newer) friction plates.
KTM Part # 59032011100

1. 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.

   **Outlaw/KTM ATV Owners:**
   Lean the quad against a fixed stationary object at a suitable angle so that the quad is stable—the further you lean it over the easier the install will go. Place blocks or stands under front and rear wheels to prevent the quad from falling. When Quad is tipped on its side be prepared to catch the excess gas and oil in a suitable container to prevent a fire hazard.

2. Remove clutch cover.
3. Remove bolts and springs from OEM pressure plate.

   **WARNING:** Once pressure plate and springs are removed, there will no longer be pressure against the hydraulic system. **DO NOT** pull in clutch lever until z-Start Pro is completely installed or slave cylinder housing will be damaged and will need to be replaced.

4. Remove OEM pressure plate.
5. Remove OEM clutch throw out and set aside.
6. Remove the clutch pack (7 friction disks and 8 drive plates) and set aside.
7. Remove the OEM center clutch hub following the steps outlined in the vehicle manufacturer's service manual.
8. Retain OEM thrust washer located between OEM clutch basket and OEM center clutch hub.

   **NOTE:** thrust washer may be adhered to bottom of OEM center clutch hub.

## INSTALLING THE Z-START PRO CENTER CLUTCH

9. Install the Rekluse Center Clutch with the OEM thrust washer behind it on top of the basket.
10. Install the included Rekluse external tab lock washer over the main-shaft on top of the Rekluse center clutch.
11. Bend middle tab down aligned with flat side of the Rekluse Center Clutch.
12. Torque the center clutch nut to **50 ft-lb (67.8 N-m)**.
13. Using a pair of adjustable pliers, bend remaining two tabs of external tab washer up against the nut securing it.

## INSTALLING THE CLUTCH PACK

**14.** The 7 Rekluse steel drive plates packaged with the Rekluse Center Clutch come pre-measured and are the 7 steel drive plates you will start with.

Install 1 Rekluse steel drive plate onto the Rekluse Center Clutch.

**Note:** A Rekluse steel drive plate must be the first clutch plate installed.

**15.** Install the stock friction disks with a Rekluse steel drive plate between each one. **See following chart:**

**Note:** With the z-Start Pro you use 7 Friction disks and 7 Rekluse Drive Plates.

**NOTE:** '03 ONLY, if you have .070" friction plates, we recommend upgrading to KTM OEM .078" friction plates. Alternatively, you can stack the .060" fine wear steel adjustment plate on top of the .040" steel plate (this stacks two steel plates together) to achieve installed gap.

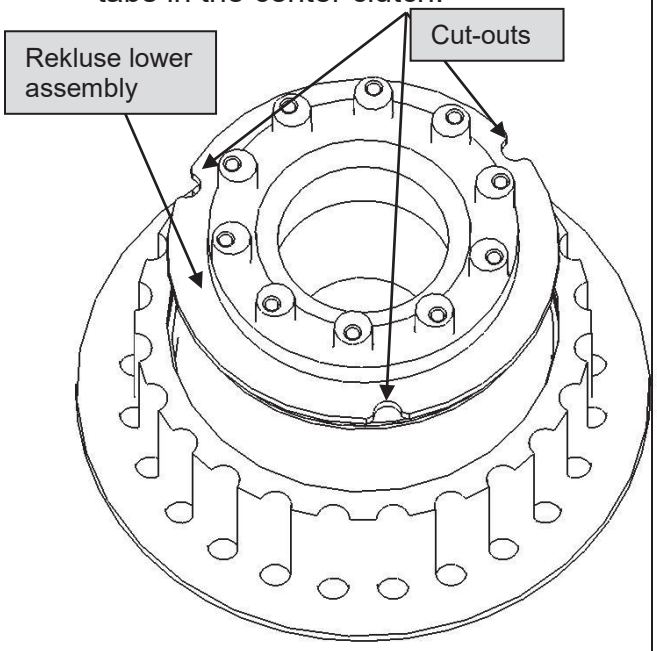
*Top of Pack*

**Stock Friction disk** — **Last Plate In**
Rekluse Steel Drive Plate
**Stock Friction disk**
Rekluse Steel Drive Plate
**Stock Friction disk**
Rekluse Steel Drive Plate
**Stock Friction disk**
Rekluse Steel Drive Plate
**Stock Friction disk**
Rekluse Steel Drive Plate
**Stock Friction disk**
Rekluse Steel Drive Plate
**Stock Friction disk**
Rekluse Steel Drive Plate — **First Plate In**

*Bottom of pack*

# INSTALLING THE Z-START PRO CLUTCH

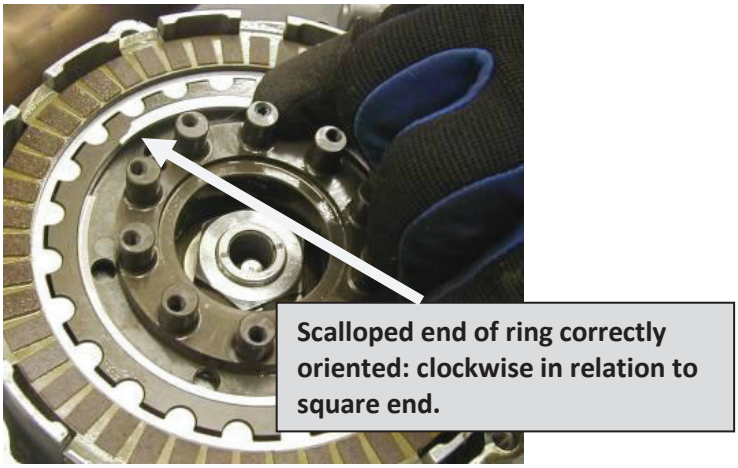
**16.** Place lower assembly into Rekluse center clutch hub. You must align the three cut-outs in the lower assembly with the corresponding tabs in the center clutch.




**17.** Using a pair of mechanics gloves (the edges of the ring can be sharp and may cut you), install the retaining ring into the Rekluse Center Clutch ring groove.

You must ensure the retaining ring is snapped into the groove. Start the square end of the ring and thread the ring into the groove as shown, ensuring that the scalloped end of the ring is clockwise in relation to the square end.

**WARNING: Scalloped end of ring MUST be oriented as shown above-right.**

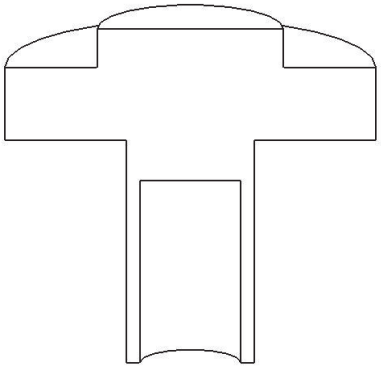



**Threading retaining ring into groove**

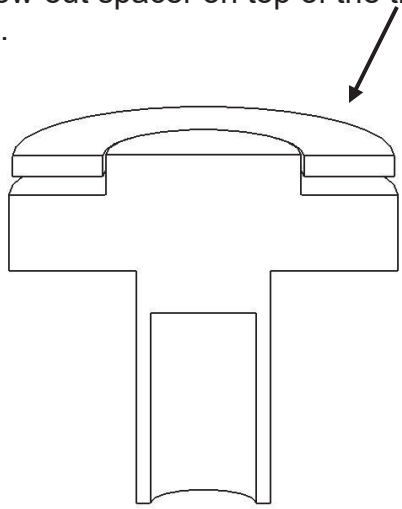
**Use a screwdriver to ensure the ring is seated by sliding along the ring's inner diameter.**

**WARNING: It is *CRITICAL* that the retaining ring is fully seated using a screwdriver, or clutch damage WILL occur.**

**18.** Install OEM clutch throw out.



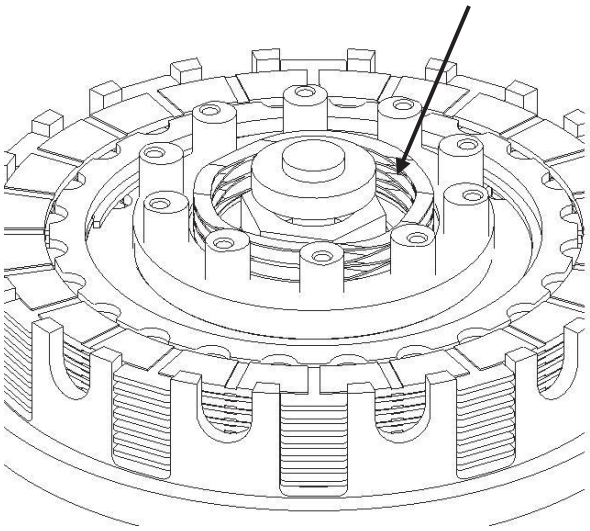
**19. '03-'05 RFS and All Husaberg Owners Only:** Install the Rekluse throw-out spacer on top of the throw-out.



**Warning:** The Rekluse Throw-out Spacer is not used on '06-'07 KTM Models. **DO NOT INSTALL IT ON THOSE MODELS**.

**20.** Read the Setup and Tuning Guide to determine the desired spring setting.

**21.** Install the C200 wave spring (chosen based on your desired setup from the tuning sheet for your bike) on top of rotating hub into the locating pocket.



**22.** Place a small amount of oil into the ball grooves of the Rekluse Pressure Plate.

**23.** Away from the bike, install the 7/16" steel balls into the pressure plate ball grooves. There are 27 slots, if you chose a 24 ball configuration, leave an empty slot after every 8th ball—empty ball grooves must be evenly spaced.

**Husaberg Owners:** See Tuning Chart for special ball configuration instructions.

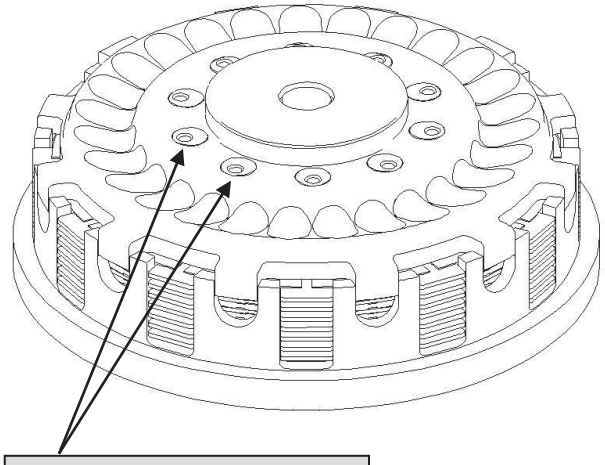
**Outlaw/KTM ATV Owners:** See Tuning Chart for special ball configuration instructions.

**24.** Place the Rekluse pressure plate, with balls, over the lower assembly.

- Line the 10 holes in the pressure plate up with the 10 rotating hub posts.
- Line the outer tabs of the pressure plate up with the **half-moon basket slots**.

**NOTE:** The half-moon slots are the basket slots that do not contain the friction disk tabs. The half-moon slots are where the Rekluse pressure plate tabs must index.

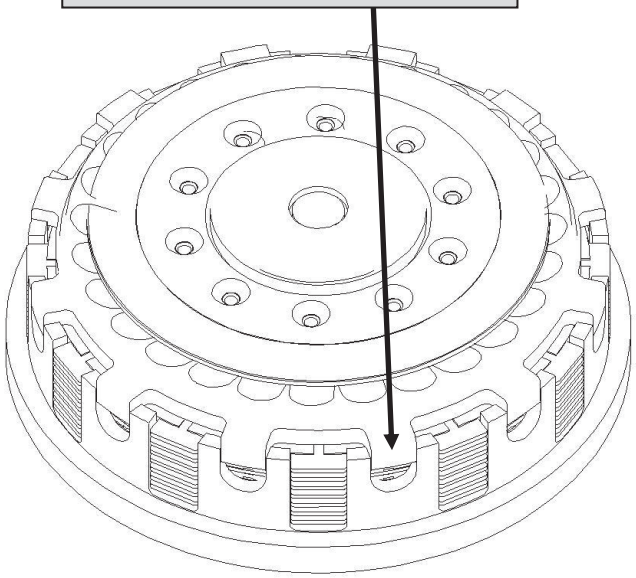
**25.** Push and hold the pressure plate down, overcoming the wave spring and hydraulic clutch pressure, so the 10 rotating hub posts index into the 10 pressure plate holes.



Rotating hub posts indexed into pressure plate holes.

**26.** While holding down the pressure plate so it is indexed with the basket and 10 rotating hub posts properly, place the Rekluse top plate over the Rekluse pressure plate and thread in 2 of the torx head screws 180° across from one another. Lightly tighten the 2 screws.

Tabs of Pressure Plate indexed into proper basket slots.



# DETERMINE THE INSTALLED GAP OF THE Z-START PRO CLUTCH

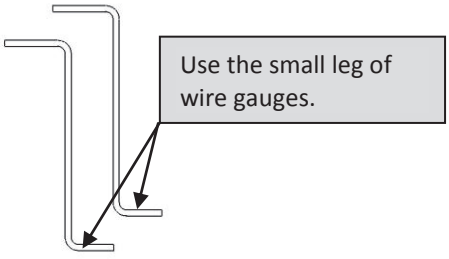
**27.** Verify that top-most friction disk moves up and down freely between the Pressure Plate and top-most steel drive plate by pulling up and down on top-most friction disk. If no "float" exists, top-most ***steel drive plate*** has become disoriented during previous step and needs to be re-installed.

**28.** Attempt to slide the shorter legs of the 2 included 0.050" *no-go* wire gauges under the Rekluse Pressure Plate and the top-most friction plate, 180° apart.

- Or, you can measure your installed gap with blade style feeler gauges The gap should be between .028in. and .045in.

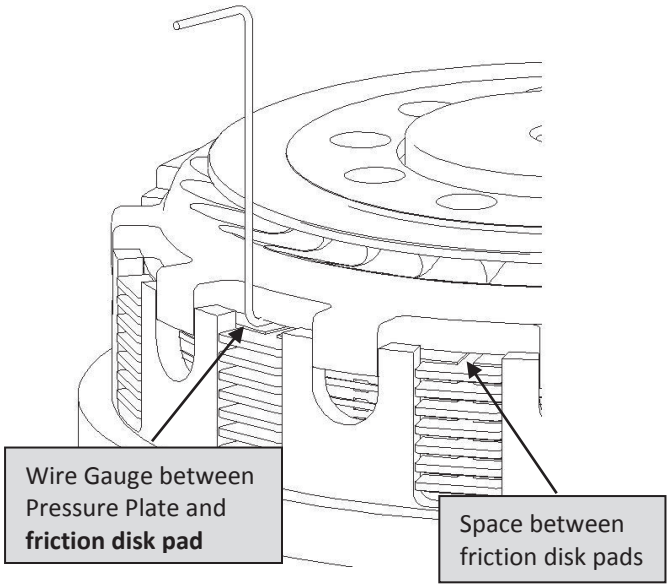
If clutch pack wear exists, gauges will slide in with slight resistance. Do not force the gauges in, if the gauges ***do not*** slide in smoothly then the Installed Gap is good and you can move on to Step 30.

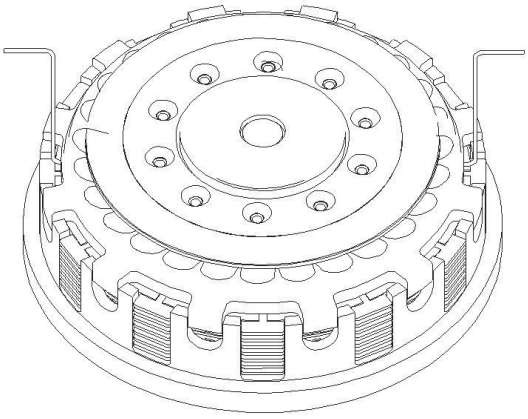
**Note:** no-go wire gauges will only slide in if the friction disks have wear.




**29.** If the wire gauges can be slid up and over the pads smoothly, the clutch pack needs adjustment. Swap the thick .060" Rekluse drive plate for the top drive plate. Repeat step 28.

**Note:** It is easiest to insert the wires in the space between friction disk pads, and then slide them ***over the top of the pads and up in between the pads and the Rekluse Pressure Plate.***



**Note:** A .060" drive plate is included with z-Start Pro Clutch Kit to tighten the Installed Gap. Once the .060" drive plate has been used, and the clutch wears enough so the wire gauges slide in again, the friction disks need to be replaced.

30. Install the remaining 8 torx head screws using blue Loctite 243 and torque to 25 in-lbs.

31. Remove the 2 screws originally installed without Loctite, apply Loctite and torque.

32. Re-install the clutch cover with the OEM Gasket.

**Note:** Be sure to review the included Break-in and Maintenance Guide for clutch pack wear adjustments.

**WARNING:** After a 20 minute break-in period, the clutch plates will seat in and you must re-measure the Installed Gap to guarantee the Installed Gap is within the prescribed range—make drive plate adjustments if necessary. Clutch break-in re-measurement of the Installed Gap is necessary whenever new clutch plates are installed.

Refer to the “Safety Warnings” and “Break-in Tuning and Maintenance Guide” before operating the z-Start Pro clutch.

# APPENDIX A – CENTER CLUTCH REMOVAL TIP SHEET

The following covers 3 methods for removing the OEM center clutch from your machine. **At no time should you ever pry against the standoffs of the OEM center clutch because they are easily broken.**

**Note:** If your bike has an external tab lock washer, use a flat blade screwdriver to pry the tabs away from the nut. Next use a hammer and punch to lightly tap the tabs flat.

1. **Pneumatic or electric impact gun:**
   Place the bike in gear and remove the nut

2. **Clutch Holding Tool:**
   Example: Motion Pro # 08-0008
   Use the clutch holding tool to hold the center clutch while using a wrench to remove the center clutch nut.

3. **Holding the Rear Brake:**
   Place the bike in 4$^{th}$ or 5$^{th}$ gear (a higher gear gives you more mechanical advantage). Apply the rear brake firmly and hold firmly while using a wrench to remove the center clutch nut. A second set of hands is helpful.

# Rekluse Motor Sports
# z-Start Pro Tuning Chart
# KTM-RFS

198-833

Manual Revision: 051707

**z-Start Pro**

| Engagement RPM | Engagement Rate | 2 Inch Shorter Black Spring (C200-L6) | 2 Inch Taller Black Spring (C200-L7) | 2 Inch Red Spring (C200-M3) | # of Balls |
|---|---|---|---|---|---|
| Low | Harder | X | | | 27 |
| **Medium*** | **Harder** | | **X** | | **27** |
| High | Harder | | | X | 27 |
| Low | Softer | X | | | 24 |
| **Medium*** | **Softer** | | **X** | | **24** |
| High | Softer | | | X | 24 |

*** Recommend initial settings**

**Note:** Empty ball slots must be evenly spaced around the pressure plate.

The pattern for the **24 ball setup is 8 balls followed by 1 empty slot**.

# Rekluse Motor Sports
# Break-in and Maintenance Guide
# z-Start Pro

*193-292*
*Manual Revision: 062507*

## Initial Break-in

Before starting the initial break-in procedure, the z-Start Pro must be installed according to the instructions and the clutch cable slack must be set correctly. See the z-Start Pro Installation guide for instructions on how to set the cable slack.

The z-Start Pro requires a small amount of break-in time before it will operate smoothly. The break-in time allows the balls to “wear” into their grooves, reducing friction. Place the bike in neutral and start your bike, allowing it to warm up for 2-3 minutes or until you can begin to feel some warmth from the clutch cover. Shut off the bike and place it in second gear. Roll the bike back and forth to work some warm oil between the clutch plates. Place the bike back into neutral and start it again. Make sure the bike comes down to a reasonable idle speed (1500 to 2000 RPM’s). Pull in the clutch lever and click the bike into gear. Slowly release the clutch lever. The bike should stay in place with little or no forward creep (depending on configuration and idle).

Once you have the bike idling with first gear engaged, slowly apply the throttle to begin moving. To break-in the z-Start Pro, in first gear, slowly accelerate to 4000 RPM and slowly come to a stop—repeat this 10 times. Next, in first gear, slowly accelerate to 6000 RPM and slowly come to a stop—repeat this 10 times. These 20 acceleration/deceleration cycles will help with the initial break-in process of the z-Start.

If you continue to have problems with stalling, make sure your idle speed is set correctly (1800-2000 RPM’s) and your fuel screw is set correctly. If you continually have problems with stalling, re-check your installed gap to make sure the measurement is correct.

To ensure peak clutch operation, change oil after initial break-in period.

## Kickstarter Bolt

If you lose your kickstarter with an automatic clutch you will not be able to bump-start your bike. It is a good idea to Loctite your kickstarter bolt to make sure it does not fall off on a long ride.

## Clutch Abuse

An automatic clutch does not turn your motorcycle into a Continuously Variable Transmission. Although it is possible to put your bike in 4$^{th}$ gear and ride around smoothly at almost any speed between 1 MPH and 50 MPH, this type of riding is very hard on your clutch and could cause your engine to overheat. In the lower gears, load on the clutch is lower and full engagement of the clutch comes at relatively low engine speeds on flat, hard ground. In the higher gears, load on the clutch is much higher and full engagement of the clutch does not come until much higher speeds. Riding conditions also play a significant role in load on the clutch and the potential for excessive slipping. Riding in sand, mud or snow will increase load on the clutch significantly. Riding uphill will also increase load on the clutch. Higher engagements speeds and softer engagement rates will cause your clutch to slip more.

## Checking for Full Clutch Engagement

If you suspect the z-Start Pro is not engaging your clutch fully, it is important to check your installed gap measurement to make sure the z-Start Pro is able to apply full pressure into the clutch. Checking the installed gap is described in the Installation Guide.

**Note: the following test should only be performed by experienced riders that are familiar with the motorcycle and the z-Start Pro clutch.**

Acceleration testing is a quick way to check for full clutch engagement. Find a safe, open area that you are familiar with and that has good traction. Put your bike into 3rd gear. At a speed of 5 to 10 MPH, slowly apply full throttle while applying the rear brake. The clutch should engage positively by 4000 RPM's causing the engine to "lug". The engine RPM’s should not rise rapidly into the RPM’s without corresponding acceleration. If the engine RPM’s rise rapidly without a corresponding rise in acceleration, the clutch is slipping too much and the installed gap needs to be re-measured or the friction disks may need to be replaced.

## Maintenance

During normal operation, the z-Start Pro components should last hundreds of hours of use without replacement. However, improper setup or very aggressive riding can increase wear. A worn clutch basket will also significantly increase wear on the z-Start Pro components. The installed gap measurement described in the installation manual should be checked once every 25 hours of use for aggressive riding and once every 50 hours of use for moderate riding. If you notice any excessive slipping of the clutch, especially at medium to higher engine speeds, re-measure your installed gap.

Every 100 hours of aggressive riding or every 200 hours of moderate riding, the z-Start should be disassembled and inspected for wear and deterioration of all parts. Remove the z-Start from the bike and carefully check each component for excessive wear and cracks

The *Top Plate* will have wear marks where the *Balls* travel. The wear marks should be smooth lines. If you notice any dimples forming, the Top Plate should be replaced.

**Important Note:** whenever you replace clutch plates, be sure to recheck your z-Start Pro installed gap after a short clutch break-in period. Some clutch plates will “seat-in” initially, increasing the installed gap between the z-Start Pro and the rest of your clutch plates. After riding with the new clutch plates for 20 minutes, recheck your installed gap as outlined in your Installation Guide.

# Rekluse Motor Sports
# z-Start Pro Tuning Guide

193-293

Manual Revision: 100812

The z-Start Pro can be tuned to suit a wide range of riders, terrain and bikes. The engagement RPM and engagement rate settings will have a dramatic effect on how the z-Start Pro performs. A low engagement RPM with a harder engagement rate will have very little slip as the clutch engages. A high engagement RPM with a softer engagement rate will slip the clutch more as the clutch engages. Choosing the right setting depends on many factors.

## *The Short Answer*

If you don't want to read four pages of technical information on how to set up your z-Start Pro clutch, then here's all you need to know… Go to the **Tuning Chart** included with your z-Start Pro and choose the ***Medium Engagement RPM*** and the ***Harder Engagement Rate***.

## *The Long Answer*

There are three primary tuning options for the z-Start Pro:

Engagement RPM - RPM at which the clutch first begins to engage (adjusted with different springs)
Engagement rate - how quickly the clutch fully engages once it begins to engage (adjusted with number of balls used)
Engine idle speed - engine's steady idle RPM (revolutions per minute) when then engine is warm.

### Engagement RPM

The engagement RPM is set using wave springs within the z-Start Pro clutch. There are three engagement RPM settings: low, medium and high. The low engagement RPM setting begins to engage the clutch at or just below a normal engine idle speed. The medium engagement RPM begins to engage the clutch just above a normal engine idle speed. The high engagement RPM begins to engage the clutch several hundred RPMs above a normal idle speed.

### Engagement Rate

There are two engagement rate settings included with your z-Start Pro: softer and harder. The softer engagement rate provides more slip as the clutch engages at low RPMs. The harder engagement rate provides less slip as the clutch engages at low RPMs. If you are looking for even harder engagement rates, contact your authorized Rekluse dealer to purchase a tungsten carbide ball kit.

### Engine Idle Speed

Engine idle speed is another very important tuning factor for the z-Start Pro clutch. If your idle speed is below your engagement RPM and you lock and then release the rear brake, the z-Start Pro clutch may not automatically re-engage and the bike may "free-wheel". By "blipping" the throttle to raise the RPMs, the clutch will re-engage and provide normal compression braking.

Most riders prefer consistent compression braking when the rear tire is locked and then released. To get consistent compression braking after the rear brake is released, the ***engagement speed must be below the idle speed***. In other words, the clutch should have some engagement drag at idle. Ideally with the bike in first gear on flat ground with no rider aboard, the bike should just be creeping forward.

If you prefer your bike to free-wheel after the rear tire is locked, make sure your idle speed is well below your engagement speed. Higher engagement speeds work better to get your bike to free-wheel after the rear tire is locked.

## Choosing a Setup

There are three primary factors to consider when selecting an engagement set-up for the z-Start Pro: the motorcycle, the terrain and the riding style. There is no perfect setup for any particular rider, motorcycle or type of terrain. Try to understand the characteristics that are important to you in making a decision about setup. Remember, the set-up can always be changed.

## The Motorcycle

Some motorcycles are more prone to engine stalls with certain setups than others. In general, two-stroke motorcycles will work well with almost any setup. Off-road oriented motorcycles are less prone to engine stalls. Four stroke motocross bikes, especially 450-class motorcycles, are more prone to engine stalls. Four-stroke motocross bikes are more likely to get engine stalls from the low engagement speed and hard engagement rate.

Motorcycles with lots of flywheel effect (most off-road oriented motorcycles) will generally perform better with the hard engagement rate and low or medium engagement speed. Motorcycles with less flywheel effect (motocross) will generally perform better with the soft engagement rate and medium or high engagement speed.

## The Terrain

In general, if traction is low, the softer engagement rate will provide better traction. If traction is high, the harder engagement rate will perform well. Rocky, technical terrain is generally better suited to the softer engagement rate and the low or medium engagement speed. Most riders prefer the harder engagement rate in sand.

## Riding Style

If you are new to riding with an automatic clutch, most riders feel more comfortable with the harder engagement rate. This is not necessarily the best setup for new automatic clutch riders though. If you are a “momentum” rider (ride in low RPMs, a gear or two high), choose the harder engagement rate and low or medium engagement speed. For most motocross riders, the softer engagement rate and medium or high engagement RPM will generally give the best lap times.

If you are just out to enjoy trail riding, the medium engagement RPM and the softer or harder engagement rate should work well.

## *Other Considerations*

### Compression Braking

The amount of compression braking the bike gives can be changed slightly with the idle speed and engagement speed. Higher engagement and idle speeds will slightly reduce the level of compression braking. Lower engagement speeds and idle speeds will keep the level of compression breaking very close to stock.

**Regardless of engagement speed, the key to consistent re-engagement of compression braking after the rear tire is locked is clutch engagement drag at idle. If you are finding that your bike sometimes freewheels after the rear tire is locked, turn up your idle and/or lower your engagement speed.**

### Engine Stalling

There are two types of engine stalls associated with the use of an automatic clutch: acceleration stalls and braking stalls. Acceleration stalls are caused by the sudden loading of the engine at low RPMs with an open throttle. Braking stalls are caused by a sudden deceleration of the motor. The deceleration can come from the rear brake or from the rear tire hitting a steep object (like a large rock or a downed tree).

Acceleration stalls are most common on 4-stroke motocross bikes and are almost non-existent with 2-strokes. Twisting the throttle too quickly from low RPMs in taller gears can cause a “pop-stall”. There are several things you can do to minimize acceleration stalls. On a modern 4-stroke, getting the pilot jet adjusted correctly with the fuel screw is very important. Remember that temperature and elevation have a significant effect on your pilot jet setting. A heavier flywheel weight can also reduce acceleration stalls. Higher engagement speeds and softer engagement rates with the z-Start Pro will tend to reduce the incidence of acceleration stalls. Finally, good throttle control, rolling on the throttle instead of whacking it open, will reduce acceleration stalls.

Braking stalls are caused by the engine being decelerated very quickly to the idle point and/or the clutch not releasing quickly enough. Again, good low-speed carburetion is key to prevent braking stalls. Higher engagement RPMs and idle speeds will also reduce braking stalls. Often times, just slightly raising the bikes idle speed will eliminate braking stalls.

## *Detail Setting Descriptions*

The following descriptions are for the internal spring and ball configurations found on the **z-Start Pro Tuning Chart**.

### Low Engagement RPM, Softer Engagement Rate

On most bikes, this setting will give some clutch engagement drag at a normal idle. This setting will give good control in technical riding situations but may require more manual "clutching" to maximize acceleration out of corners in higher gears. This setting is better for high traction terrain.

### Medium Engagement RPM, Softer Engagement Rate

On most bikes, this setting will require a normal to slightly higher idle to get enough engagement drag to maintain consistent compression braking. This setting gives good balance between control in technical riding situations and providing enough slip to maximize traction and acceleration in terrain with poor traction.

### High Engagement RPM, Softer Engagement Rate

On most bikes, this setting will require a very high idle to get enough engagement drag to maintain consistent compression braking. This setting is geared towards maximizing acceleration, especially in low traction situations. This setting may cause the clutch to overheat in high-load, low RPM situations. This is a good setting for someone looking for a setup that will freewheel after the rear brake is locked and released (with a lower idle speed).

### Low Engagement RPM, Harder Engagement Rate

On most bikes, this setting will give some clutch engagement drag at a normal idle. This setting is most susceptible to acceleration and braking stalls and provides very little slip. Control in rocky, technical situations is more difficult and the bike has a tendency to be "jumpy". This setting will require manual "clutching" to maximize acceleration out of corners and to be smooth in slower, rocky technical situations. This setting is best for well carbureted large displacement 4-strokes with lots of flywheel effect and 2-strokes where the rider is looking to do most of their clutching manually.

### Medium Engagement RPM, Harder Engagement Rate

On most bikes, this setting will require a slightly higher than normal idle to get enough engagement drag to maintain consistent compression braking. This setting is much less susceptible to stalls than the Low Engagement Speed, Hard Engagement Rate. This setting still offers good control in technical riding situations and allows the motor to be lugged down low in the RPM range with very little slip. ***This is a recommended setting.***

### High Engagement RPM, Harder Engagement Rate

On most bikes, this setting will require a high idle to get enough engagement drag to maintain consistent compression braking. This setting tends to have a bit of a "hit" to it. This setting is geared towards maximizing acceleration, especially in high traction situations, especially for motors that have lots of torque. This setting is not as well suited to technical riding situations. This is a good setting for someone looking for a setup that will freewheel after the rear brake is locked and released (with a lower idle speed).