

# 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<sup>th</sup> 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.