



REKLUSE MOTOR SPORTS

The Rekluse EXP Clutch

INSTALLATION & USER'S GUIDE

Doc ID: 191-6000
Manual Revision: 050514

OVERVIEW

- This kit will replace some of the OEM frictions and drive plates with the EXP disk. The OEM pressure plate springs will also be replaced with high quality Rekluse springs.

©2014 Rekluse Motor Sports
Rekluse Motor Sports, Inc.
12000 W. Franklin Rd.
Boise, Idaho 83709
208-426-0659
support@rekluse.com

INSIDE THIS DOCUMENT

- INSTALLATION
- CHECKING FREE PLAY GAIN
- BREAK-IN
- MAINTENANCE
- EXP TUNING OPTIONS & ENGAGEMENT SETTINGS
- TROUBLESHOOTING GUIDE

INSTALLATION TIPS

- Be sure to use proper eye protection
- Laying the bike on its side makes it easier to work on the clutch and eliminates the need to drain the oil
 - Be sure to turn off the gas, work in a ventilated area and be prepared to catch any gas that may drain from vent tubes

TOOLS NEEDED

- 8mm, 10mm socket (for removing clutch cover and stock springs)
- 8mm, 10mm wrenches for cable adjustment

PARTS INCLUDED

- EXP Friction Disk Assembly (including adjustment springs)
- Some models may require Rekluse drive plates – See Setup Sheet
- Rekluse Pressure Plate Springs – See Setup Sheet
- Rekluse Rubber Band (for checking clutch “Free Play Gain”)

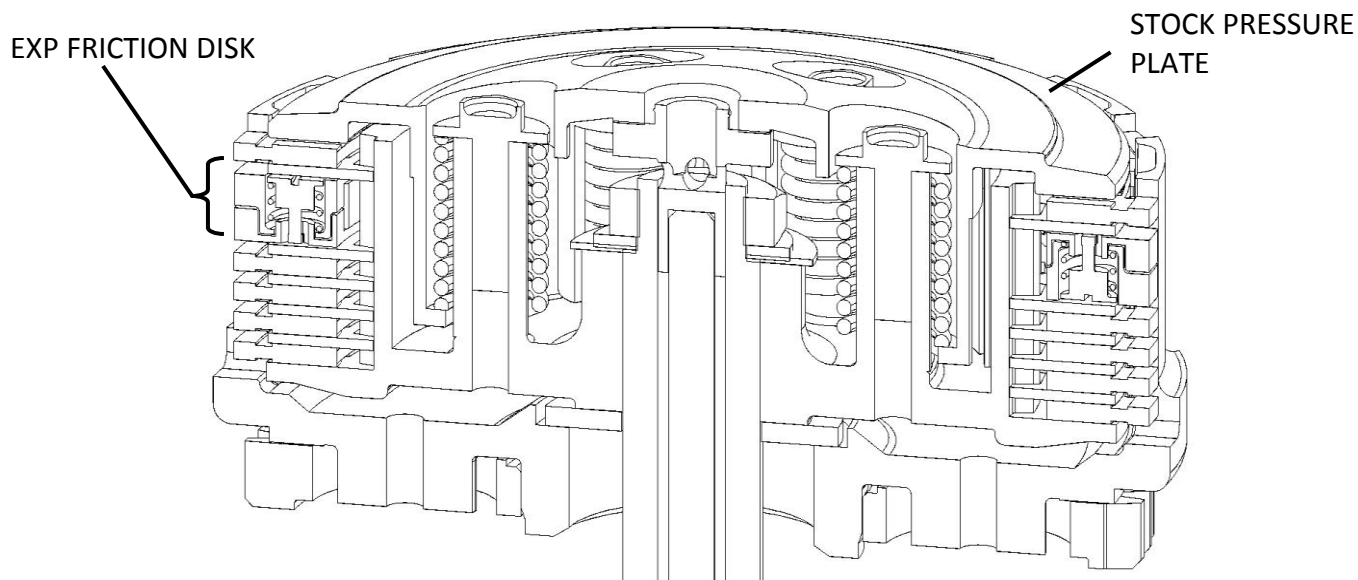


Diagram is representative. Not all models will be configured as above.

INSTALLATION

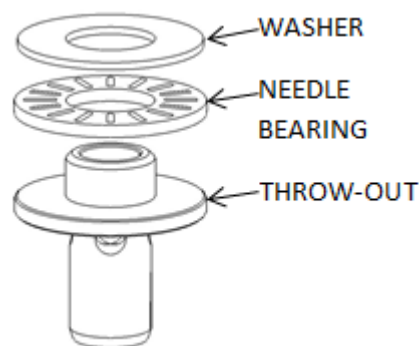
1. Soak the friction pads of the EXP friction disk in oil for at least 5 minutes.
2. Place the bike in 4th or 5th gear. If your bike is carbureted turn the fuel off.
3. Lay the motorcycle on its left side. If your bike is carbureted catch any gas that drains from the overflow in a suitable container.
4. Remove the stock springs, pressure plate, and clutch pack.

NOTE: Some of the friction plates and steel drive plates will be re-installed. See setup sheet for the proper clutch pack configuration.

5. Install clutch pack. See setup sheet for proper configuration.
6. If removed, re-install OEM throw-out, needle bearing, and flat washer onto throw-out rod. **See next diagram.**

NOTE: If your bike has an OEM spacer ball between the throw-out and throw-out rod, it needs to be re-installed.

NOTE: If you are missing the flat washer, it is probably stuck to the backside of your stock pressure plate.



7. See setup sheet as some models also require a spacer.
8. Install OEM pressure plate.
9. Install pressure plate springs (see setup sheet for proper configuration), and OEM bolts.
10. Install clutch cover and torque cover bolts to value recommended in your bike's owner's manual.
11. Stand the bike up, supporting it on its kickstand or a center stand.

Remove Cable Slack

12. Adjust the clutch cable so there is no free play between clutch lever and clutch perch; this means the clutch lever should be held in place against the perch and not move freely. If the clutch lever still moves freely, remove all of the clutch cable slack until the clutch lever does not move freely. Use the adjuster at the clutch perch or the in-line cable adjuster to remove all cable slack.

CHECK FREE PLAY GAIN

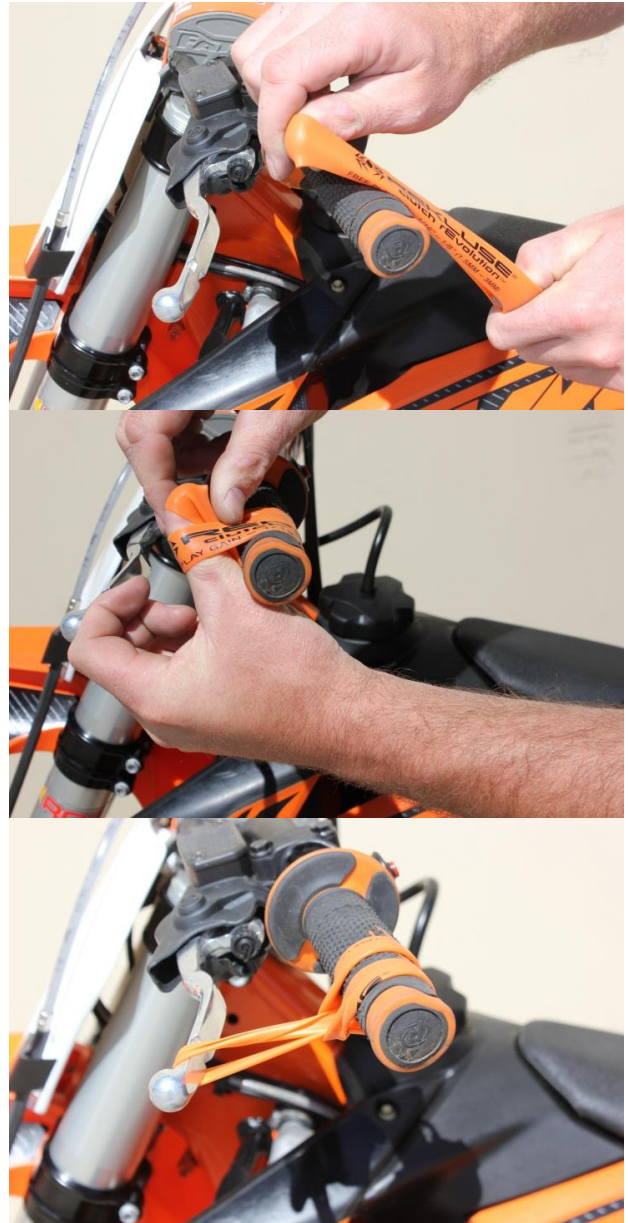
13. “Free Play Gain” is the increase of lever free play as the RPMs increase. This movement is caused by the EXP disk expanding and lifting the pressure plate. For cable EXP products there will be no free play in the lever when the bike is off or at low RPM. As the RPMs increase Free Play Gain will add free play at the lever.

The following steps explain two ways to check “Free Play Gain”. One will use the rubber band that has been included in the clutch kit and one explains using your hand. Place the bike in neutral, start the engine and let it warm up for 2-3 minutes.

14. Rubber Band Method:

We recommend that you use this method to find your initial “Free Play Gain” so you can see what it is. We recommend also checking it by hand as explained in the next step so you can check free play gain both ways.

Wrap the included rubber band around the outer end of the handlebar grip and attach to the ball end of the clutch lever. See the following three photos for an example.



15. Hand Method:

Free play gain can also be checked by using your hand and holding light pressure on the lever. With the bike at idle, pull on the clutch lever lightly with a single finger so the lever free play is taken up, but the clutch is not disengaged. While continuing to apply light pressure, rev the engine to at least 5000 RPM. **The clutch lever should move in 1/16 - 1/8” (1.5 – 3mm) under your finger pressure as you rev the engine.**

Note: If you are not getting the correct lever movement, see the “Free Play Gain Troubleshooting” step below.

Free Play Gain Troubleshooting

16. If the lever comes in too far it will be difficult to fully override the clutch and the bike may have excessive drag. This means the cable adjustment needs to be tightened further using the perch adjuster and in-line adjustment.

If you cannot feel and/or see enough free play gain the clutch could be slipping and may burn up. the cable adjustment needs to be loosened using the perch adjuster and in-line adjustment.

CLUTCH BREAK IN

17. Rev cycles: Warm up the bike for 2-3 minutes. With the bike in neutral and your hand **off** of the clutch lever, rev the engine 20 times to at least 5000 RPM, letting the engine return to idle between each cycle. This allows the EXP to break in.

18. With the engine running, pull in the clutch lever and click the bike into gear. Slowly release the clutch lever. The bike should stay in place, perhaps with some forward creep. If the bike creeps too much, to the point of taking off or stalling, the idle may be too high or the installed gap may be too small (too much free play gain).

19. Once you have the bike idling with first gear engaged, slowly apply throttle to begin moving. To break in the clutch components

it is best to perform some roll-on starts, without using the clutch lever, in 1st and 2nd gear. In 1st gear, accelerate moderately to approximately 5000 RPMs and come to a stop—repeat this 20 times. Next, starting in 2nd gear, accelerate moderately to approximately 5000 RPMs then come to a stop—repeat this step 10 times.

20. Re-check free play gain at your clutch lever and adjust if necessary at this point. **Your clutch pack will expand as it gets hot** during normal riding, so it is a good idea to check your freeplay gain after your bike is warmed up before each ride.

NOTE: Checking free play gain is simple and takes less than a minute to perform. For maximum clutch life, take a moment to check for free play gain at the start of every ride or if you ever feel the clutch slipping.

WARNING: DO NOT RIDE WITHOUT SUFFICIENT FREE PLAY GAIN. Your clutch may seem to operate properly but it is not getting full clamping force and may slip imperceptibly. This can lead to premature failure of the clutch and EXP friction disk.

Bump-starting

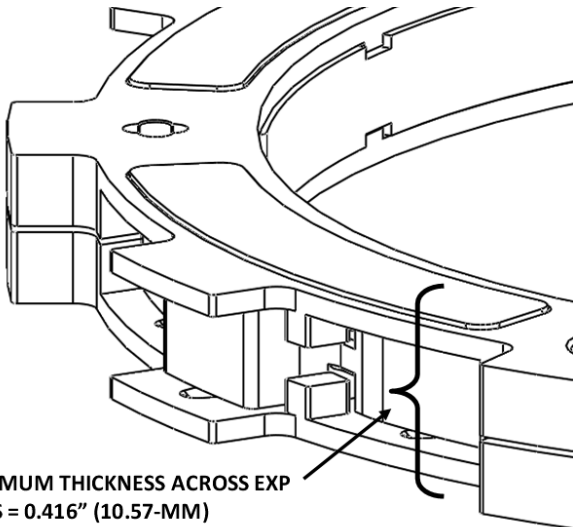
The Rekluse EXP clutch can be bump-started by adjusting the cable adjuster in until there is a small amount of free play between the clutch lever and perch. This essentially turns the clutch back into a manual clutch; although at higher RPMs, the clutch lever will move in toward the handlebar.

With a small amount of free play between the clutch lever and perch, bump-start the bike as you normally would. Once the bike

is started, pull in the clutch lever and put the bike in neutral. With the bike in neutral and the engine running, adjust the cable adjuster out until the proper free play gain is found.

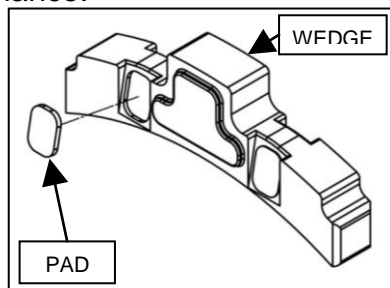
MAINTENANCE

- Maintain adequate free play gain, checking before every ride and adjusting if necessary.
- Inspect your clutch parts **every 40 hours** for signs of wear or excessive heat, and replace components as necessary.



MINIMUM THICKNESS ACROSS EXP
PADS = 0.416" (10.57-MM)

- During EXP disassembly, oil tension may cause wedge pads to stick to the bases and dislodge from the wedge. If the base ramps appear to be in good shape, these pads can be carefully re-inserted into the wedge pockets without affecting EXP performance.



Clutch Squeal and Chatter

Although it is harmless, some bike models may have "squeal" or "chatter" coming from the clutch at low RPM as it engages. Clutch squeal is caused by the clutch components vibrating as the clutch engages and can become more audible as the clutch gets hot. For bike models that tend to have clutch squeal or chatter here are some recommendations to reduce or eliminate it:

- **Oil:** Rekluse recommends that you have fresh, clean JASO-MA rated oil for best clutch performance. Dirty or old oil can make the clutch more likely to squeal or chatter.
- **Clutch Basket:** Available for some models, a Rekluse clutch basket will eliminate clutch squeal and chatter in most cases because it is precision machined from high quality material and includes long-life clutch dampers. A clutch basket that is damaged or has worn-out dampers tends to increase squeal or chatter.
- **Core EXP:** Upgrading to Core EXP gives you the option to run anti-squeal x-rings that will reduce or eliminate clutch chatter and squeal. Core EXP also has other benefits including increased oil flow and torque capacity, longer life billet parts and stock-like lever feel.

Changing the Installed Gap will **NOT** affect clutch squeal or chatter.