

# **REKLUSE MOTOR SPORTS**

The Rekluse Core EXP Kit with Adjustable Slave Cylinder

# INSTALLATION & USER'S GUIDE

Doc ID: 191-7705A Doc Rev: 040919

## **OVERVIEW**

- This kit replaces the OEM core clutch components including the center clutch hub and pressure plate with high-quality billet components designed for optimal operation specific to your bike.
- Most of the OEM friction disks will be reused, but all OEM steel drive plates will be replaced with Rekluse drive plates.

## **INSIDE THIS DOCUMENT**

- INSTALLATION
- SETTING THE INSTALLED GAP
- CHECKING FREE PLAY GAIN
- o BREAK-IN
- MAINTENANCE
- EXP TUNING OPTIONS & ENGAGEMENT SETTINGS
- SLAVE CYLINDER APPENDIX (only some models)
- TROUBLESHOOTING GUIDE

## **INSTALLATION TIPS**



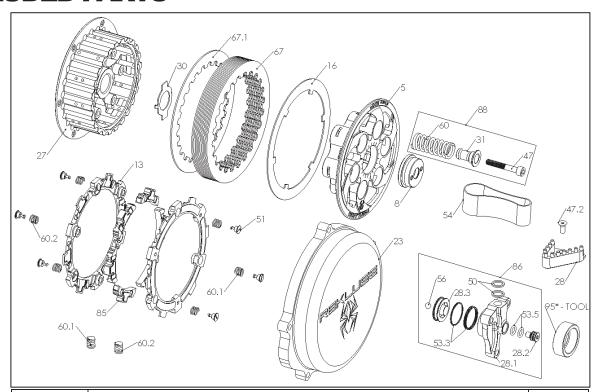
- Watch the "CORE EXP Auto-Clutch Installation Video" by following this QR code or visiting rekluse.com/videos.
- Read this entire document before performing any steps, so you will know what to expect.
- Be sure to use proper eye protection.
- Laying the bike on its left side makes clutch work easier and eliminates the need to drain the oil.
- An air or electric impact wrench works well to remove the center clutch nut, or you can place the bike in top gear and hold the rear brake while loosening the center clutch nut with a socket.
- Channel-lock pliers work best to bend the tabs of the washer up over the center clutch nut.
- 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.
- Bikes with taller gearing or modified engines with increased horsepower may require heavier wedges and/or stiffer pressure plate springs which can be purchased separately from Rekluse.

# **TOOLS NEEDED**

- 8mm socket
- 27mm socket (most models)
- 8mm & 12mm end wrenches
- 4mm & 5mm Allen keys

- Torque wrench (in-lb & ft-lb, or N-m)
- Channel-lock pliers
- Hydraulic clutch fluid

# **INCLUDED PARTS**



Item	Item Type	Qty	
5	Pressure Plate	1	
8	Pressure Plate Plug (except 85 class bikes)		
13	EXP Base *	2	
16	Steel Lining Plate	1	
23	Clutch Cover	1	
27	Center Clutch Hub	1	
28	Brake Tip (only some KTM & Husaberg models – see "Clutch Cover" section)	1	
30	Lock-Tab Washer	1	
31	Screw Sleeve ^^^	4/5/6	
47	Fastener – M6 Screw (requires 5mm Allen tool) ^^^	4/5/6	
47.1	Pipe Plug	2	
51	Fastener - 1/4-Turn Pin *	6	
54	Free Play Gain Rubber Band	1	
60	Pressure Plate Spring ^^^	4/5/6	
60.X	EXP Adjustment Spring * (extra included, see last page for tuning options)	6	
67	Steel Drive Plate ++	6-9	
67.1	Steel Drive Plate - Thin (.040" [1.0mm]) ++	0/1	
85	Wedge Assembly *	6	
86	Adjustable Slave Cylinder Assembly (bleed syringe included)	1	
87	Throw-out Assembly (only certain models)	1	
88	Core Clutch Spring Kit Assembly	1	

Picture above is representative. See the parts list included with the product or visit <a href="Rekluse.com/support">Rekluse.com/support</a> for a full parts fiche illustration and part numbers.

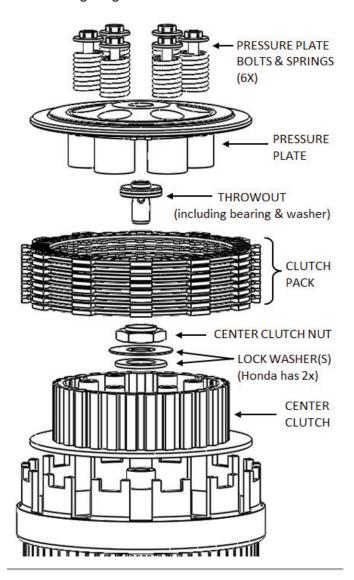
<sup>\*</sup> Denotes parts assembled as a component of the EXP disk assembly ++ Depends on model – see "Hub & Clutch Pack Installation" section ^^4 for 85 class bikes, 5 for 250F class bikes, 6 for 450F class bikes including 250 2-strokes

## **PREP & DISASSEMBLY**

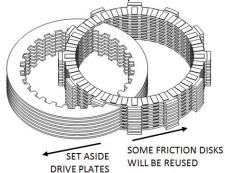
**1.** Lay the bike on its left side. Catch any fuel that might drain in a suitable container. Remove the clutch cover.



**2.** Remove the OEM clutch parts named in the following diagram. Leave the basket installed.

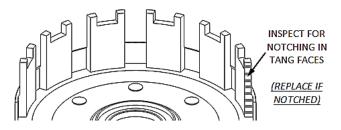


3. Separate the OEM clutch pack.



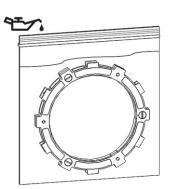
Inspect the friction disks for signs of heat or wear. Replace if they are burnt or worn. For most models, new friction disks can be purchased from Rekluse.

4. Inspect the basket for cushion slop or notching. If notched or worn, it is recommended to install a Rekluse Billet Clutch Basket (available for most models).



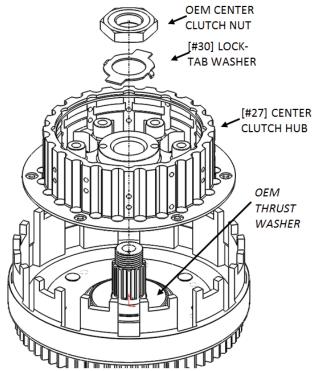


5. Soak the EXP disk in engine oil for 5 min.



# HUB & CLUTCH PACK INSTALLATION

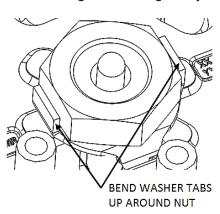
**6.** Install the new center clutch hub on top of the OEM thrust washer.



\*\*KTM/Husqvarna 85/105cc 2-strokes
Reuse the OEM lock tab washer.

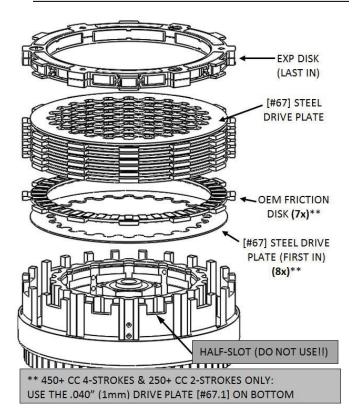
**NOTE**: If the OEM thrust washer is not in place, it is probably stuck to the backside of your OEM center clutch hub.

7. Torque the nut to 50 ft-lb (70 N-m) for 125/144/150/200, 250 and 450 class bikes; 40 ft-lb for 85/105 class bikes. Bend both tabs of the lock washer up. DO NOT OVER TORQUE, or the clutch will drag and damage may occur.



8. Install the new clutch pack.

**NOTE:** Some OEM Baskets have "half-slots" at the top of the basket tangs. Rekluse products require that *all friction disks, including EXP disk, are seated into the MAIN (deeper) basket slots.* 



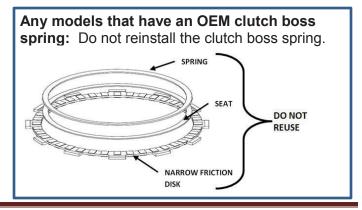
#### **Model-Specific Clutch Pack Notes:**

Beta (all models), &
KTM 125/144/150/200cc, &
KTM/Husqvarna 85/105cc, only:

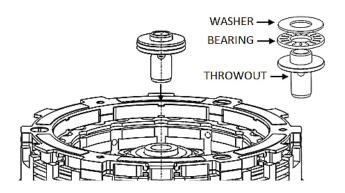
Your clutch pack will consist of only 6x OEM friction disks and 7x Rekluse Drive Plates.

#### Sherco (all models):

Your clutch pack will consist of 8x OEM friction disks and 9x Rekluse Drive Plates.

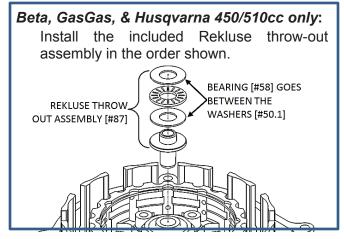


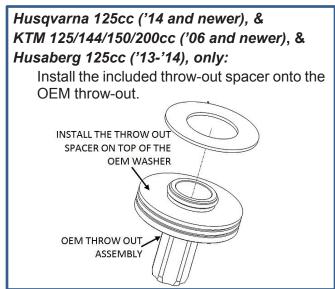
**9.** Beta, Sherco, GasGas, Husqvarna 450/510, and KTM 125-200 owners, skip to the next step. All other models, reinstall the OEM throw-out assembly.

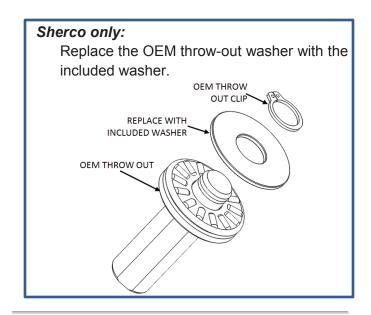


**NOTE**: If you are missing the top washer, it is probably stuck to the backside of your OEM pressure plate.

#### 10. Model-Specific Throw-out Assemblies:

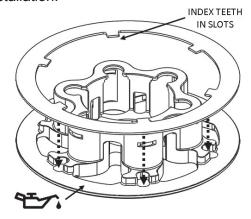




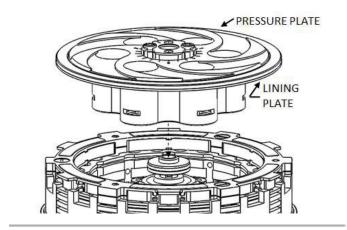


# PRESSURE PLATE INSTALLATION

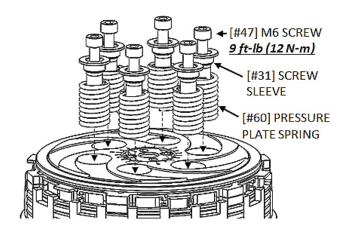
11. Place the Lining Plate [#16] onto the Rekluse Pressure Plate [#5]. Adding an oil film between them will help them stick together for ease of installation.



**12.** Install this pressure plate subassembly.



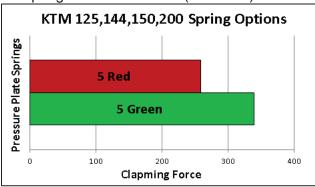
**13.** Install the pressure plate springs.



#### **Model-Specific Spring Notes:**

Husqvarna 125cc, & KTM 125/144/150/200cc, & Husaberg 125cc, only:

Your kit includes 2 types of pressure plate springs: Green and Red (5 of each).



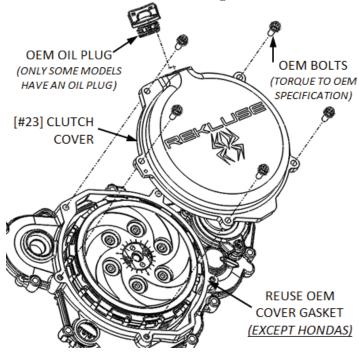
- 200cc bikes require the 5 GREEN springs for proper function and to avoid clutch slip.
- 125/144/150cc ('98-'15) bike owners can opt to use the lighter RED springs, as these engines produce less torque and thus require less clamping force.
- 125/150cc ('16 and newer) bikes produce more torque than the older engines of the same displacement. Therefore, it is recommended to use GREEN springs in the 150cc, and 125cc owners have the option to use red or green based on required performance and riding style.

#### Beta 250/300cc 2-strokes only:

Your product includes a bi-colored 6-spring kit, containing 3 of each color: Alternate spring colors clockwise when installing them to ensure even clamping force on the pressure plate.

## **CLUTCH COVER**

14. Your new Core EXP clutch is taller than the OEM clutch, so the Rekluse Clutch Cover has been designed for clearance with all moving parts. You must use the Rekluse Clutch Cover or interference and clutch damage will occur.



#### **Model-Specific Clutch Cover Notes:**

# Husaberg 390/450/570cc FE/FX ('09-'12), & KTM 400/450/505/530cc ('08-'11), only:

To provide clearance between the cover and brake pedal tip, remove the OEM tip and replace it with the included Rekluse tip using the provided hardware and Loctite. Your pedal position will need to be lowered about ¼-inch (6-mm), so the Rekluse tip is taller to compensate. Refer to your owner's manual for instructions about properly adjusting brake pedal height.

#### KTM/Husqvarna 85/105cc 2-strokes only:

Reuse the OEM crush washer for the oil check bolt. If the clutch cover gasket needs to be replaced, it is recommended to use KTM part number 47030027100.

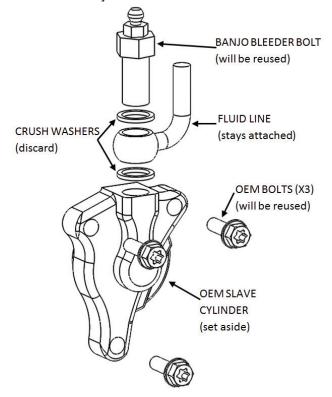
# **SLAVE CYLINDER** INSTALLATION

Handle with care! During assembly there is a small ball bearing [#56] installed in the slave piston [#28.3] with a small amount of grease. When installing the Rekluse slave cylinder, make sure the ball does not come loose.

**15.** Stand the bike up and lean it on its kickstand or place it on a suitable bike stand.

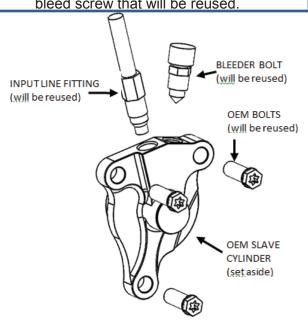


**16.** Starting at the slave cylinder, remove the OEM parts named in the following diagram beginning with the banjo bolt.

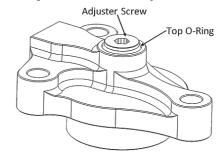


Husaberg 390/450/570cc, & KTM/Husqvarna 85/105cc 2-strokes, only: Your slave cylinder will have a separate

bleed screw that will be reused.



- 17. On a workbench (still away from the engine), bleed the Rekluse slave cylinder by this procedure:
  - a. Use a 4mm Allen key to make the top O-Ring [#53.1] visible on the adjuster screw [#28.2].



b. Compress the piston [#28.3] until it bottoms.



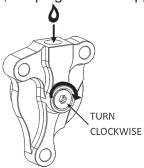
c. Pour clutch fluid into the slave cylinder port.

### **WARNING**

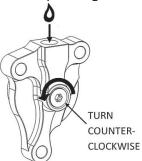
Be sure to use the correct clutch fluid! Check the cap of the clutch master cylinder to determine which clutch fluid to use. Failure to use the correct fluid will result in seal damage and/or failure.



d. Turn the adjuster screw clockwise until it bottoms, keeping the fluid topped off.



e. Turn the adjuster screw back to the initial position with the top O-ring visible.



f. Compress the piston until it bottoms out. Repeat the process until there is no longer air escaping from the top port when the piston is compressed.

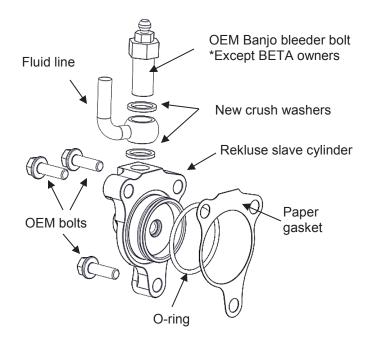


**NOTE:** When compressing the piston, fluid can shoot out from the slave cylinder port. Be sure to wear eye protection.

18. Check that the ball bearing [#56] is still in place.



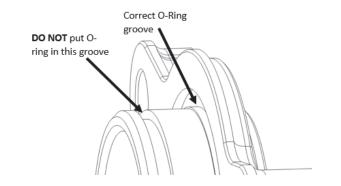
**19.** Install the Rekluse slave cylinder on the bike using these parts, ending with the banjo bolt.



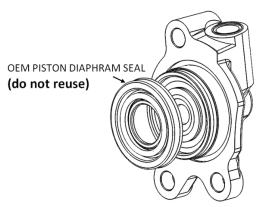
**NOTE:** Only some models have a paper gasket and/or O-ring seal. Reuse the OEM gasket and seal if not supplied.

\*BETA OWNERS: Use the supplied banjo bleeder bolt in place of the OEM banjo bolt.

**NOTE:** When installing case sealing O-ring seal (OEM or Rekluse supplied) ensure it is seated against slave cylinder flange.

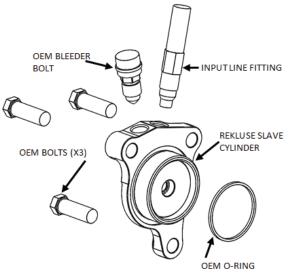


**NOTE:** Some models have a piston diaphragm seal. **DO NOT REUSE** it if OEM equipped.



# Husaberg 390/450/570cc, & KTM/Husqvarna 85/105cc 2-strokes, only:

Your slave cylinder will have a separate bleed screw that will be reused.

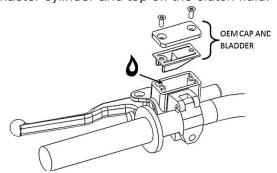


If you are installing one of the following products, see the Slave Cylinder Appendix sheet for chain guard fitment instructions:

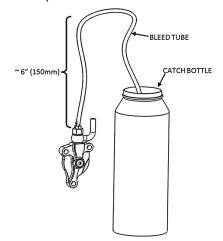
- RMS-7700 GasGas
- RMS-7724 Sherco
- RMS-7727 Husaberg
- RMS-7755 Husqvarna
- **20.** Optional: If you purchased the Rekluse Slave Guard accessory (available for most models), install it now using the instructions in the kit.



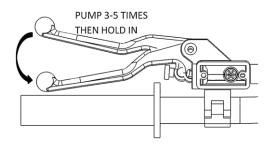
**21.** Remove the cap and bladder from the clutch master cylinder and top off the clutch fluid.



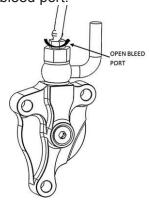
**22.** Attach the supplied bleed tube to the bleeder bolt port and loop it into a suitable catch bottle.



**23.** Pump the clutch lever 3-5 times then hold it against the bar/grip.



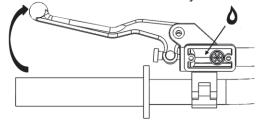
**24.** Using an 8mm wrench, open the bleed port. Air and fluid should come out of the bleed tube. Tighten the bleed port.



#### KTM/Husqvarna 85/105cc 2-stroks:

Use a socket and torque the separate bleed screw to 180 in-lbs. (20 N-m) to seat and seal the bleed screw once bleeding is complete.

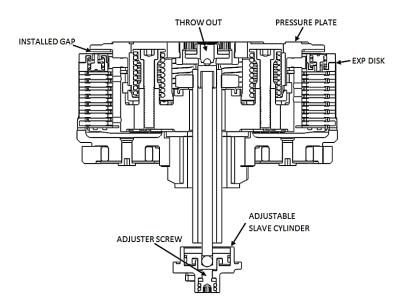
**25.** Slowly release the clutch lever and check the fluid level in the clutch master cylinder.



- **26.** Repeat the previous 3 bleeding steps until air no longer comes out of the bleed port. Then, check that the clutch lever functions properly. Repeat the bleeding procedure if necessary.
- 27. Finally, remove the bleed tube.

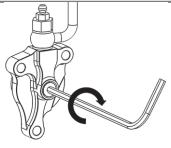
# **INSTALLED GAP SETTING**

**DEFINITION: "Installed Gap"** is the separation in the clutch pack created by the adjustment of the Adjuster Screw in the Slave Cylinder. This gap is what allows the clutch to spin freely until the desired RPM is reached for engagement; it must be set correctly for optimal performance.



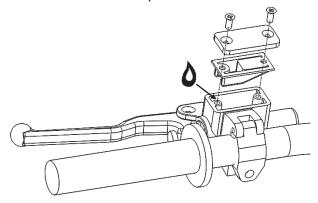
28. Using the long end of a 4mm Allen key, turn the adjuster screw clockwise until it stops under moderate pressure. You are trying to feel for the point at which the throw-out will start to lift the pressure plate. This is the "starting point".

**NOTE:** It may take a few tries to find the point at which the system is bottomed out. You should feel a distinguishable change in turning effort at this point.



29. Once you have found the starting point, turn the adjuster clockwise 1 full turn plus 5 marks (or "1+5"). This is NOT your final setting, but it is a good reference point for using Free Play Gain to find the correct setting.

**30.** Top off the master cylinder with clutch fluid and reinstall the OEM cap and bladder.



# CHECKING LEVER FREE PLAY GAIN

#### WARNING

Always make sure that the bike is in NEUTRAL before checking Free Play Gain. Failure to do so may result in the bike lurching forward, and loss of control and/or injury may result.

NOTE: Before performing this step, please visit our website at rekluse.com/support to view the TECH VIDEO entitled "How to Check Free Play Gain".

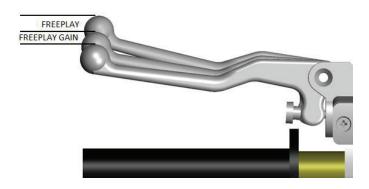


"Lever free play" is essentially the "slack" in the clutch lever before it starts actuating the clutch. Applying a light finger pressure will take up this slack.



"Free Play Gain" is the increase of lever free play as the auto-clutch engages. This happens when the

RPM increase from idle through around 5,000 RPM. Free Play Gain is caused by the expansion of the EXP disk which lifts the pressure plate away from the throw-out assembly.



Optimal Free Play Gain yields **1/8" (3mm)** of clutch lever movement, measured at the end of the lever. This measurement at the lever correlates to achieving the ideal installed gap.



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, which you will perform before every ride.

Place the bike in neutral, start the engine and let it warm up for 2-3 minutes.

#### **Rubber Band Method:**

It is recommended that you use this method first to find your Free Play Gain so you can see what it is. Then, check it by hand as well so that you can effectively and comfortably check Free Play Gain every time you ride.

Wrap the included rubber band around the outer end of the handlebar grip and attach it to the ball end of the clutch lever.







With the bike at idle in neutral, quickly blip (rev) the engine to at least 5,000 RPM and let it return to idle. The clutch lever should move in about 1/8" (3mm) toward the handlebar as you rev the engine.

**Note:** If you are not getting the correct lever movement, see the "Free Play Gain Troubleshooting Guide" on the next page.

#### **Hand Method:**

Free Play Gain should also be checked using your hand, as you will check it by hand before every ride. With the bike at idle, apply enough pressure to the lever to take up the initial free play (slack) shown in the photos on the previous page. While continuing to apply light pressure, rev the engine to at least 5,000 RPM. The clutch lever should move in 1/8" (3mm) under your finger pressure as you rev the engine and the auto-clutch engages.



# **BREAK-IN**

Follow these procedures for a new installation and any time new friction disks or EXP bases or wedges are installed.

- 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 10 times, being sure to let it return to idle between each rev cycle.
- 2. 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 a slight amount of forward creep.
- 3. Now that the bike is idling in first gear, slowly apply throttle to begin moving. To break in the clutch components, perform the following roll-on starts in 1st and 2nd gear without using the clutch lever: In 1st gear, accelerate moderately to approximately 5,000 RPMs and come to a stop—repeat this 5 times. Next, starting in 2nd gear, accelerate moderately to approximately 5,000 RPMs then come to a stop—repeat this 5 times.

4. Now that the EXP is broken-in and the clutch is warm, re-check Free Play Gain at your clutch lever and adjust if necessary. Your clutch pack will expand with heat, so final adjustments should be made when the bike is warm. Now you are ready to ride!

# WARNING: DO NOT RIDE WITHOUT SUFFICIENT FREE PLAY GAIN!

Checking Free Play Gain is easy and takes less than a minute to perform. For optimum performance and longevity, check Free Play Gain when the bike is warm at the start of every ride.

# FREE PLAY GAIN TROUBLESHOOTING

Each adjustment should be done in small increments - one tick mark at a time. After each adjustment, repeat the rev-cycle until optimal Free Play Gain is achieved.

#### Symptom:

- Clutch lever moves in too far (too much Free Play Gain)
- Clutch has excessive drag
- It is difficult to fully override the clutch with the lever

Answer: Installed Gap is too small

**Solution:** Turn the Adjuster Screw inwardly (clockwise) to increase the Installed Gap.

#### Symptom:

- Clutch lever does not move enough or does not move at all (too little Free Play Gain)
- Clutch is slipping

**Answer:** Installed Gap is too large

**Solution:** Turn the Adjuster Screw outwardly (counter-clockwise) to reduce the Installed Gap. It may be helpful to re-find the starting point.

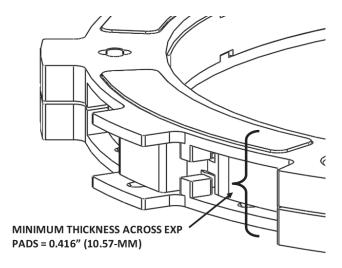
# **CLUTCH NOISE**

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: 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.
- 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 clutch noise.
- Installed Gap: Adjusting the Installed Gap will NOT affect clutch squeal or chatter

### **MAINTENANCE**

- Maintain adequate Free Play Gain, checking before every ride and adjusting if necessary.
- Keep up with regular oil changes as per the bike manufacturer's recommendations. Clutch function and longevity depends on oil quality.
- Inspect all of your clutch parts every 40 hours for signs of wear or excessive heat, and replace components as necessary.



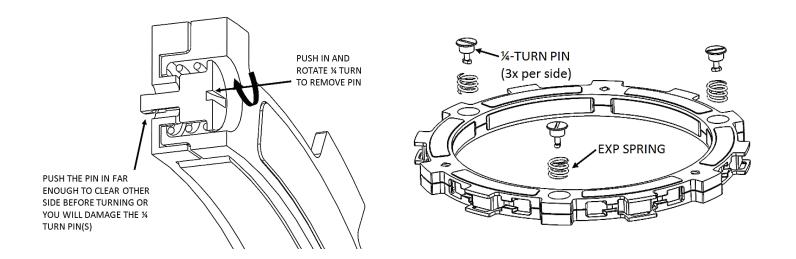
 Repeat the break-in procedure anytime the friction disks or EXP bases or wedges are replaced. Always soak friction disks or EXP bases in oil for at least 5 minutes before installing.

## **EXP TUNING OPTIONS**

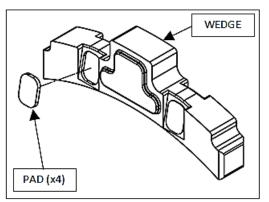
Included are spring options to tune the engagement RPM of the EXP disk. The EXP disk comes set with the recommended "Medium" setting from Rekluse. See chart on next page for setting options.

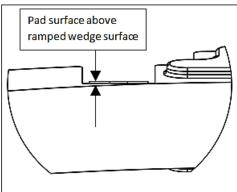
Adjusting the engine idle speed to match your engagement setting is important and greatly affects the overall feel of how the EXP disk engages. To prevent freewheeling and maximize engine braking, set the idle so there is a slight amount of drag while the bike is idling in gear and warmed up. The idle should not be so high as to move the bike forward in gear with the throttle closed. However, with a small opening of the throttle the bike should move forward.

It is **NOT necessary** to disassemble the EXP halves to change springs! To change springs, remove 3 of the  $\frac{1}{4}$ -turn pins from one side of the EXP, replace springs, and re-install  $\frac{1}{4}$ -turn pins. Next, flip the EXP disk over and repeat on the other side if necessary. To maintain even pressure when using two different color spring sets, install one color set of 3 on one side of the EXP and the remaining color set of 3 on the other side.



**CAUTION:** If you disassemble the EXP, bearing pads may fall out or be stuck to the ramp surfaces of the EXP bases. Take care to ensure all pads are correctly placed into wedge pockets using gentle pressure to avoid damage to the pad surfaces before reassembling the EXP. Properly seated pads will be secured in place once the EXP is reassembled. Operating the clutch without the pads in place will cause part damage or failure.





# **EXP ENGAGEMENT SETTINGS BY PRODUCT**

				Medium	
Product	Make	Bike Model	Low Springs	Springs	High Springs
RMS-7700	GasGas	250/300	6 Red	3 Red 3 Blue	6 Blue
RMS-7710	Honda	CRF450R	6 Red	3 Red 3 Blue	6 Blue
RMS-7711	Honda	CR250R	6 Red	3 Red 3 Blue	6 Blue
RMS-7712	Honda	CRF250R	3 Silver 3 Red	6 Red	3 Red 3 Blue
RMS-7712	Honda	CRF250X	6 Silver	3 Silver 3 Red	6 Red
RMS-7713	Honda	CRF450R	6 Red	3 Red 3 Blue	6 Blue
RMS-7714	Honda	CRF450R	6 Red	3 Red 3 Blue	6 Blue
RMS-7716	Honda	CRF250R	3 Silver 3 Red	6 Red	3 Red 3 Blue
RMS-7719	Honda	CRF450X	6 Red	3 Red 3 Blue	6 Blue
RMS-7721	Beta	250/300	6 Red	3 Red 3 Blue	6 Blue
RMS-7723	Beta	350/400/450/498/520	6 Red	3 Red 3 Blue	6 Blue
RMS-7724	Sherco	250/300	6 Silver	3 Silver 3 Red	6 Red
RMS-7727	Husaberg	FE 390/450/570	6 Red	3 Red 3 Blue	6 Blue
RMS-7730	KTM	450/505 SXF/XCF	6 Blue	3 Blue 3 Gold	6 Gold
RMS-7731	KTM	85/105 SX/XC	6 Steel	3 Silver 3 Steel	6 Silver
RMS-7732	KTM	400/450/530 EXC/XCR	3 Red 3 Blue	6 Blue	3 Blue 3 Gold
RMS-7734	KTM	85/105 SX/XC	6 Steel	3 Silver 3 Steel	6 Silver
RMS-7734	Husqvarna	TC 85	6 Steel	3 Silver 3 Steel	6 Silver
RMS-7736	KTM	250/300 SX/XC/XCW	6 Red	3 Red 3 Blue	6 Blue
RMS-7737	KTM / Husaberg	125/144/150/200	6 Silver	3 Silver 3 Red	6 Red
RMS-7738	KTM	250 SXF/XC-F/XCFW	3 Silver 3 Red	6 Red	3 Red 3 Blue
RMS-7740	Kawasaki	KX250F	3 Silver 3 Red	6 Red	3 Red 3 Blue
RMS-7745	Kawasaki	KX450F / KLX450F	6 Red	3 Red 3 Blue	6 Blue
RMS-7755	Husqvarna	TC/TE 310	6 Silver	3 Silver 3 Red	6 Red
RMS-7755	Husqvarna	TC/TXC/TE 250	6 Silver	3 Silver 3 Red	6 Red
RMS-7756	Husqvarna	TC/TE 450/510	6 Red	3 Red 3 Blue	6 Blue
RMS-7764	Suzuki	RMZ450	3 Red 3 Blue	6 Blue	3 Blue 3 Gold
RMS-7767	Suzuki	RMZ250	6 Red	3 Red 3 Blue	6 Blue
RMS-7770	Yamaha	YZ250	6 Red	3 Red 3 Blue	6 Blue
RMS-7771	Yamaha	YZ250F / WR250F	3 Silver 3 Red	6 Red	3 Red 3 Blue
RMS-7773	Yamaha	YZ450F / WR450F	6 Blue	3 Blue 3 Gold	6 Gold
RMS-7776	Yamaha	YZ450F	6 Blue	3 Blue 3 Gold	6 Gold
RMS-7778	Yamaha	YZ250F	3 Silver 3 Red	6 Red	3 Red 3 Blue
RMS-7791	KTM / Husqvarna	125/150	6 Silver	3 Silver 3 Red	6 Red

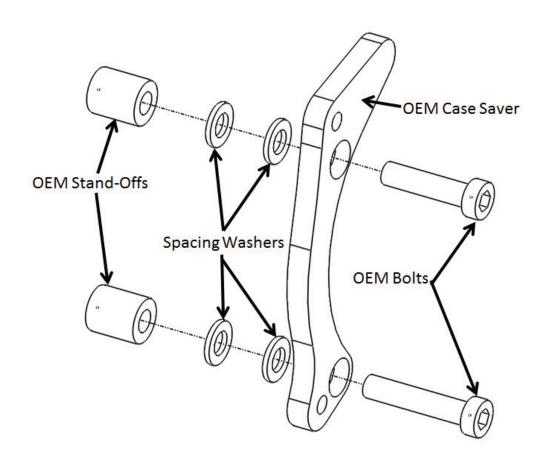


# **SLAVE CYLINDER APPENDIX**

Doc ID: 195-7724 Doc Rev: 030413

## **CHAIN GUARD**

When installing the chain guard use the included spacing washers between the OEM case saver and case saver stand-offs. Use 2 washers on each bolt.





### **Auto Clutch TROUBLESHOOTING GUIDE**

#### **Rekluse Troubleshooting Guide Terms**

**Free Play Gain –** The additional movement of the clutch lever under slight pressure as the RPMs are raised from idle to approximately 5000 RPM. Free Play Gain should only be checked in neutral as per the instructions.

Worn Friction Plates – Will be thinner than the factory spec

**Overheated Friction Plates** – Sometimes referred to as glazed. Most of the time measure within spec, but the surface will look darker than new and the friction surface will be smooth like glass. The steel drive plates will also show signs of bluing or darkness

Squeal - Chirping noise under acceleration, or take off

Chatter/Shutter – Vibration or surge under acceleration as the clutch engages

**Drag** – When stopped or idling in gear, the bike will try pulling, or on a stand the wheel will spin

Chain Slap – Drag at idle, in gear, causing the chain to slap noisily against the swing arm

**Low RPM Slip** – Considered engagement slip and will make the initial clutch engagement soft

**High RPM Slip** – Occurs above half throttle while accelerating, as the engine RPMs raise little or no power is transmitted to the rear wheel resulting in a loss of forward drive causing excessive clutch heat

\*Rekluse troubleshooting chart located on back of this page\*

Doc ID: 193-707A Rev: 031417 **Note:** The "possible fixes" contained in the chart below are listed in the order of things to try first for each "symptom"

Core EXP 3.0 & EXP 3.0 Troubleshooting Chart					
Symptom	Possible Cause	Possible Fix			
	Clutch break-in	Complete the recommended clutch break-in			
	Transmission oil	Change the oil if it's not a clean high quality JASO MA certified oil			
	Excessive "Free Play Gain"	Re-adjust the installed gap and re-check "Free Play Gain"			
Drag or Stalling	Center clutch nut too tight	Re-torque the center clutch nut if it is binding when spun in neutral			
	EXP engagement adjustment	Change the EXP setting to a higher engagement setting			
	Worn or glazed friction disks	Replace friction disks (Rekluse or OEM disks recommended)			
	No "Free Play Gain"	Re-adjust the installed gap and re-check "Free Play Gain"			
		Replace wedges with a heavier set if slightly modified			
Low RPM slip	Modified motor	If running Core EXP - Replace the pressure plate springs with a heavier set if highly modified			
LOW IXI WI SIIP		If running EXP – upgrading to Core EXP is recommended			
	Worn or glazed friction disks	Replace friction disks (Rekluse or OEM disks recommended)			
	Tall Bike gearing	Replace wedges with a heavier set if the gearing is taller than stock			
	No "Free Play Gain"	Re-adjust the installed gap and re-check "Free Play Gain"			
	Modified motor	If running Core EXP - Replace the pressure plate springs with a heavier set if highly modified			
High RPM slip		If running EXP – upgrading to Core EXP is recommended			
	Draggura plata apringa	Be sure the Rekluse springs are being used			
	Pressure plate springs	Inspect the springs, if they are out of spec replace			
	Worn or glazed friction disks	Replace frictions disks (Rekluse or OEM disks recommended)			
	Transmission oil	Change the oil if it's not clean high quality JASO MA certified oil. Over-used oil may cause squeal or chatter			
Squeal or Chatter	Clutch basket	Replace the basket and/or cushions if they are worn (Rekluse basket recommended if available for your model)			
	Ciuton basket	The Rekluse basket is known to eliminate most squeal or chatter, even if no wear is present (Not available for all models)			
No clutch override	Excessive "Free Play Gain"	e "Free Play Gain" Re-adjust the installed gap and re-check "Free Play Gain"			
	Adjust idle	Adjust idle closer to the engagement point of the clutch so there is less delay in clutch engagement			
Chain Slap	EXP engagement setting	Raise the EXP engagement setting and adjust the idle accordingly			