



INSTALLATION & USER'S GUIDE

For Kawasaki Versys 650, Ninja 650,
Z-650 and Vulcan

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OVERVIEW

This guide shows you how to replace your OE (Original Equipment) or “stock” clutch parts with your new clutch pack.

- This kit will replace all the OE frictions and drive plates with a Rekluse TorqDrive® clutch pack and EXP disk.

INSTALLATION TIPS

- Read the separate included Safety Information document before operating the vehicle with the product installed.
- Read this entire document before performing any steps.
- If you install this product for a customer or another person, instruct them to read the **Safety Information** document and the **Installation and User Guide** before operating the bike with the product.
- Protect eyes and skin – wear safety glasses and work gloves.
- Lay the motorcycle on its left side when replacing the clutch. This makes working on the clutch easier and eliminates the need to drain the oil. Catch any fuel that may drain from the bike.
- 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.
- Use the torque values listed in the instructions. Otherwise, use the torque specifications found in your OE service manual.



USE OF OTHER AFTERMARKET PRODUCTS

- If your bike is equipped with an aftermarket clutch cable, you may find that the adjustment range in your cable is different than depicted in this manual.
- Bar risers may limit the travel necessary for your cable adjustment to achieve the necessary installed gap.
- If you prefer the use of an aftermarket clutch lever and/or perch, especially the adjustable variety, note that:
 - Some aftermarket lever/perch combos claim “Lighter Lever Pull” which correlates to less lift of the pressure plate. This may produce more clutch drag or harder shifts. The lever may be lighter, but you will have to pull the lever in farther to disengage the clutch.
 - Some aftermarket lever/perch combos may provide lever “free play” if desirable.
- This product is not compatible with hydraulic conversion kits. These kits make it difficult to achieve the necessary adjustment for installed gap.

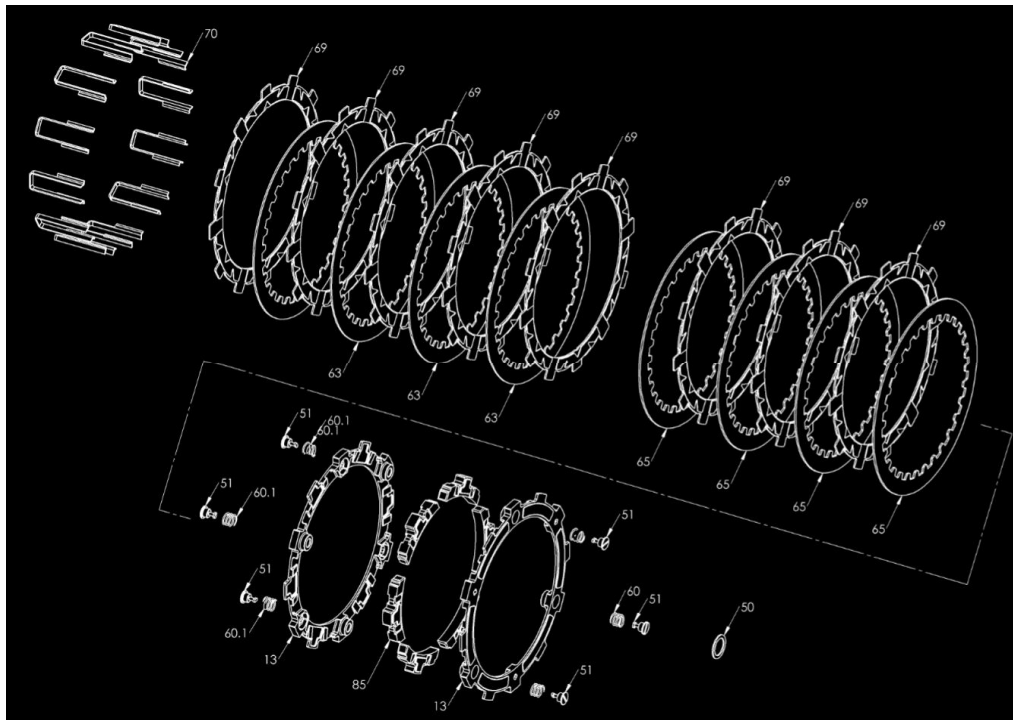
TOOLS NEEDED

- Fluid catch container
- 8 and 10 mm socket
- 30 mm socket
- Torque wrench
- Metric hex key set

RECOMMENDED PARTS

Rekluse recommends installing a new OE clutch cover gasket when reinstalling the clutch cover. This can be purchased from your local dealer.

INCLUDED PARTS

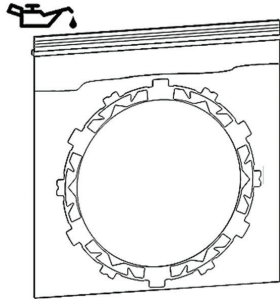


Item	Description	Qty.
13	EXP 3.0 Base	2
85	Wedge assembly	6
51	Quarter-turn pin (extra included)	6
60	EXP adjustment springs – Silver	6
60.1	EXP adjustment springs – Red	6
50	Throw-out washer	1
63	Steel drive plates - .040" (1 mm) thick	4
65	Steel drive plates - .048" (1.2 mm) thick	4
69	TorqDrive® friction disks	8
70	Basket sleeves	12
Not shown	Orange Free Play Gain rubber band	1
Not shown	Velcro strap	2
Not shown	Clutch lever warning label	1

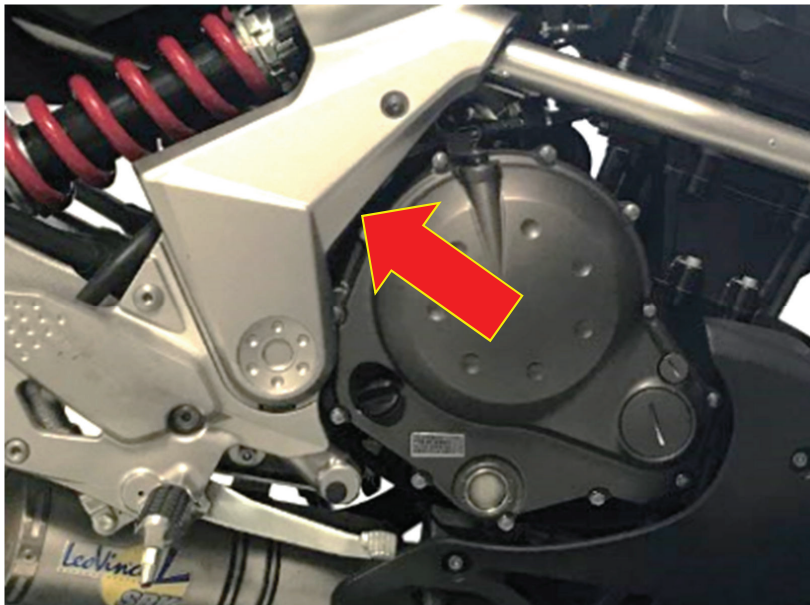
Visit www.rekluse.com/support for a full parts fiche illustration and part numbers.

DISASSEMBLE THE CLUTCH

1. Soak the EXP disk and Rekluse friction disks in new oil for at least 5 minutes. Make sure the friction disks are coated on both sides.

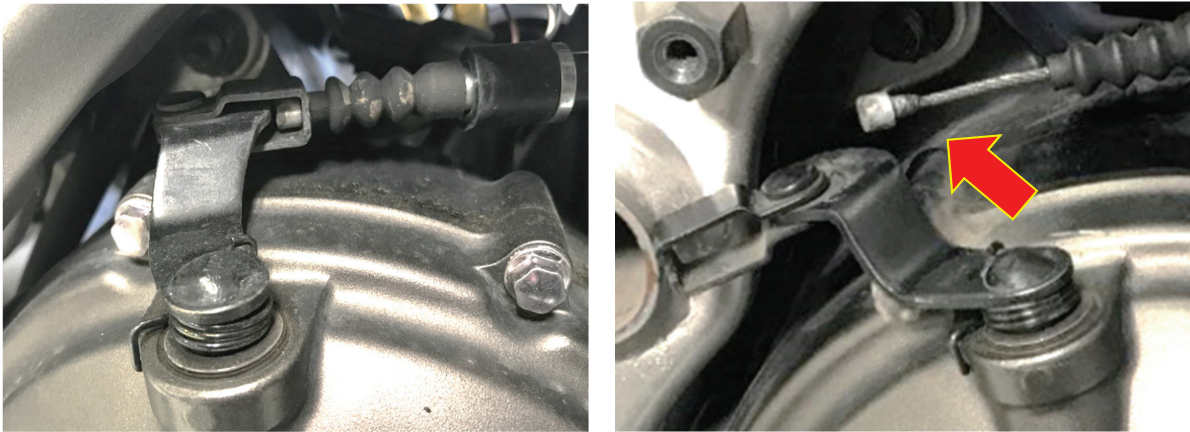


2. Stand the bike on a suitable bike stand, then drain the oil into a suitable container.
3. Use a hex key to remove the rear engine guard, and/or any other fairings or guards that restrict access to the clutch cover.

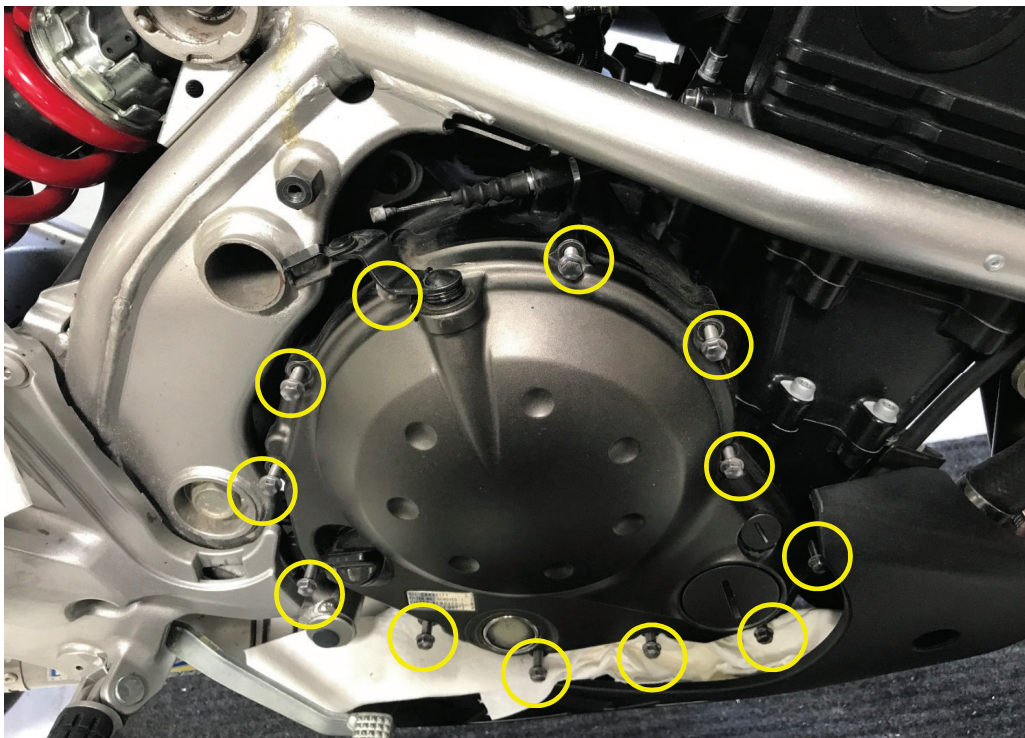


4. Using the in-line cable adjuster, loosen the tension in the clutch cable so that the lever becomes sloppy at the perch.

5. Unhook the clutch cable from the clutch actuator arm.



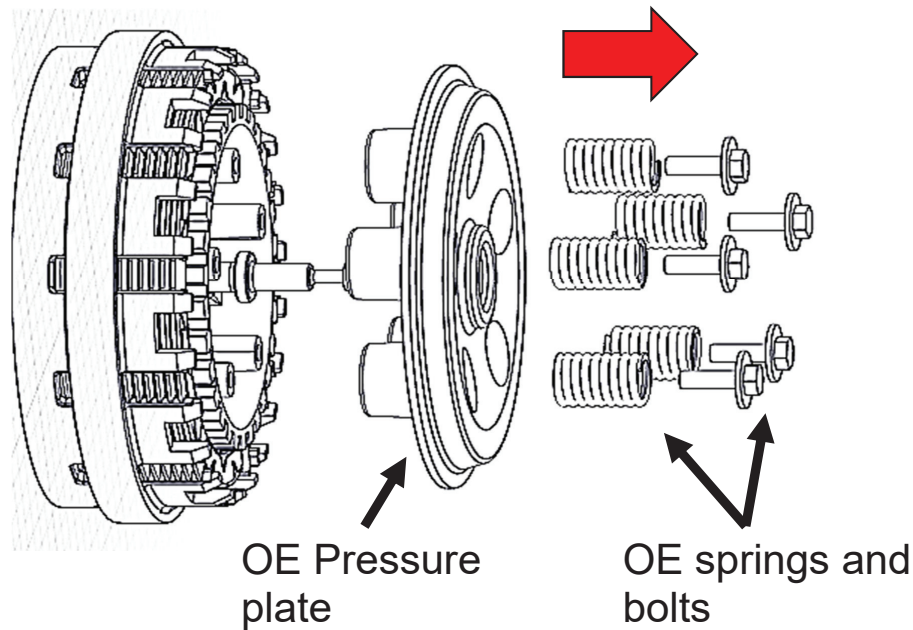
6. Use an 8 mm socket to remove the clutch cover bolts.



7. Remove the clutch cover and gasket. Set these aside. They will be reused. If the gasket is damaged when removed, you will need to purchase a new one.

Note: Rekluse recommends installing a new OE clutch cover gasket when reinstalling the clutch cover.

8. Remove the OE pressure plate bolts and springs, then remove the pressure plate.



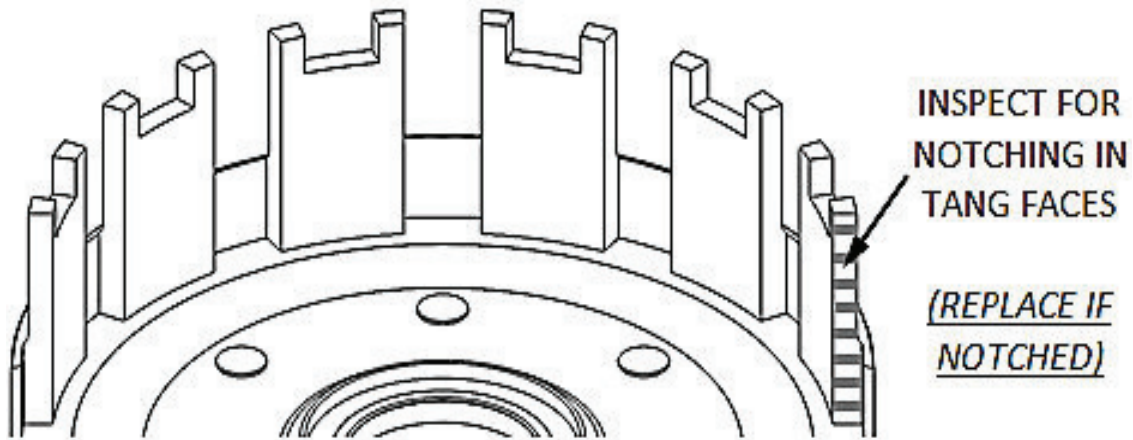
9. Remove the entire OE clutch pack.

CLUTCH PACK INSTALLATION

1. Inspect the clutch basket for spring damper play or notching. Do not install sleeves or use product with a notched basket. Notched basket tang faces or worn spring dampers can cause the sleeves to break.

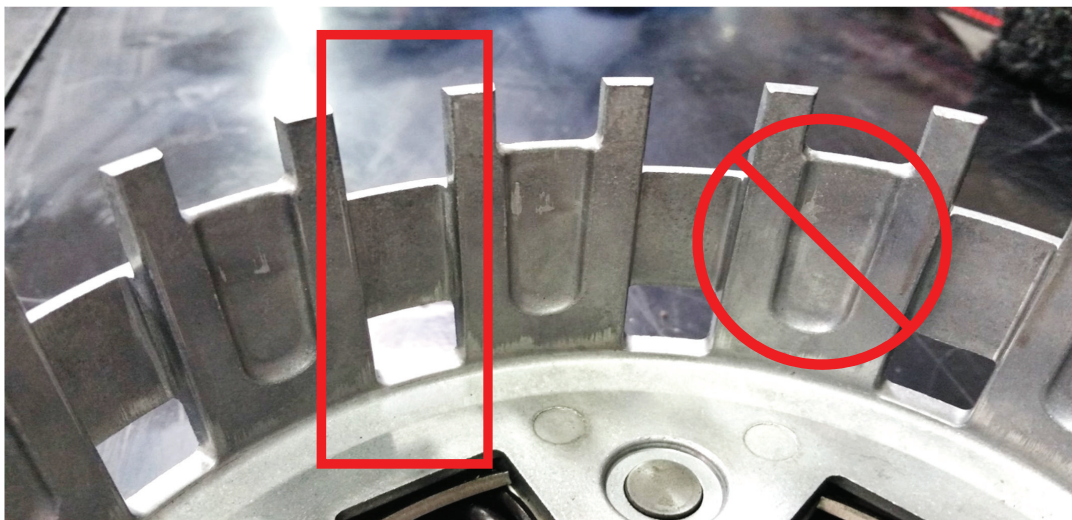
⚠ WARNING

Failure to inspect the basket and replace if necessary could result in death, serious injury, and/or property damage.



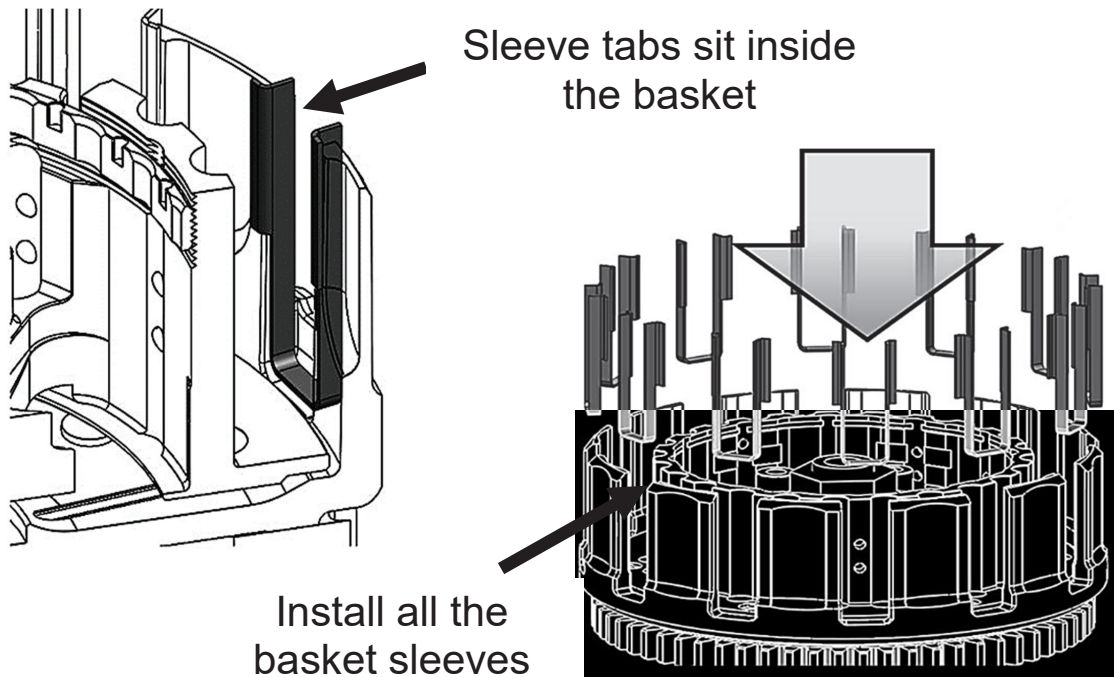
Notes for clutch pack installation

- Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.
- Some OE basket have “half slots” at the top of the basket tangs. Rekluse products require the entire clutch pack be installed into the MAIN (deeper) basket slots. Do not use the “half slots.” See the following picture for reference.



2. Install all the Rekluse basket sleeves into the basket slots. Make sure the bottom of the sleeve is facing down, and the sleeve tabs sit against the inside of the basket.

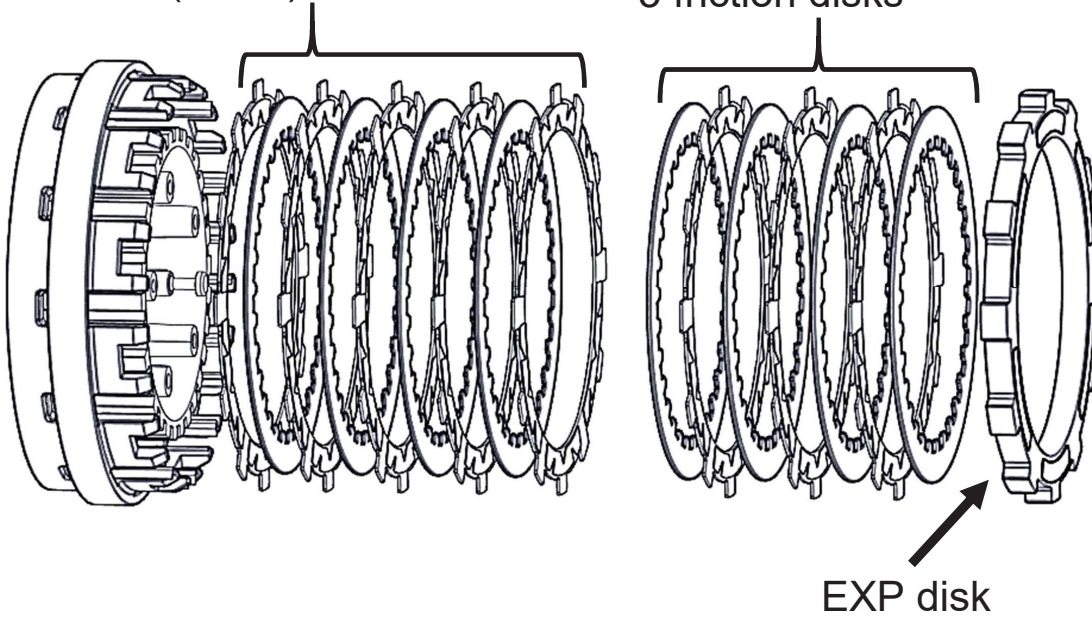
Note: *When seated in the basket, the sleeve tops will sit below flush with the top of the basket.*



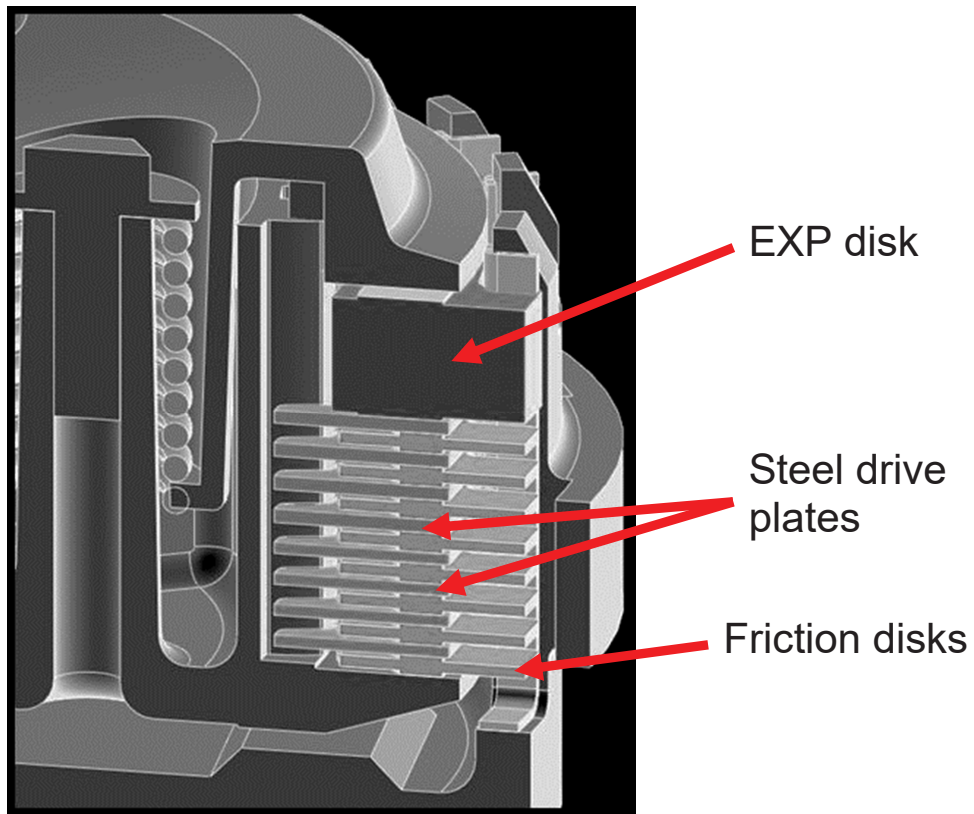
3. Install a friction disk first, then install a .040" (1 mm) steel drive plate.
4. Continue alternating friction disks with .040" steel drive plates for a **total** of 5 friction disks and 4 steel drive plates.
5. On top of last friction disk, install a .048" (1.2 mm) steel drive plate, then add a friction disk.
6. Continue alternating .048" steel drive plates and friction disks for a **total** of 4 steel drive plates and 3 friction disks.
7. On top of the last steel drive plate, add the EXP disk.

Alternate 5 friction disks
with 4 steel drive plates
-.040" (1 mm)

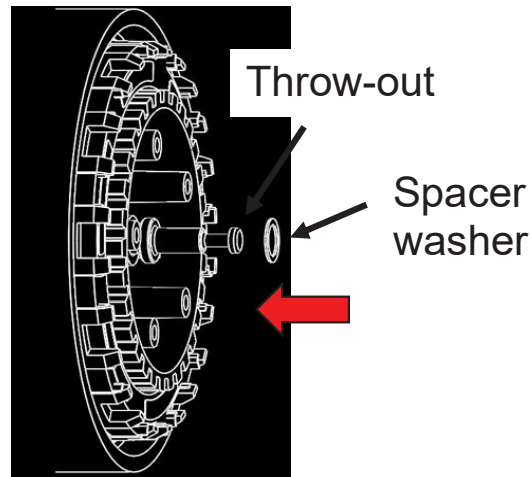
Alternate 4 steel drive
plates -.048" (1.2 mm) and
3 friction disks



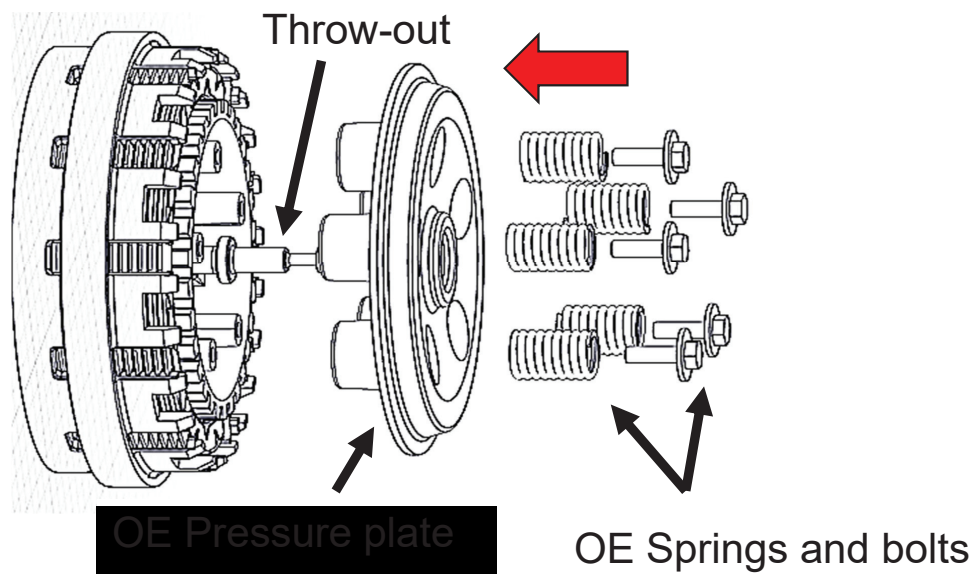
Clutch pack cross section



8. Install the Rekluse throw-out spacer washer on top of the throw-out. *If the throw-out was removed with the pressure plate, reinstall it then install the washer.*

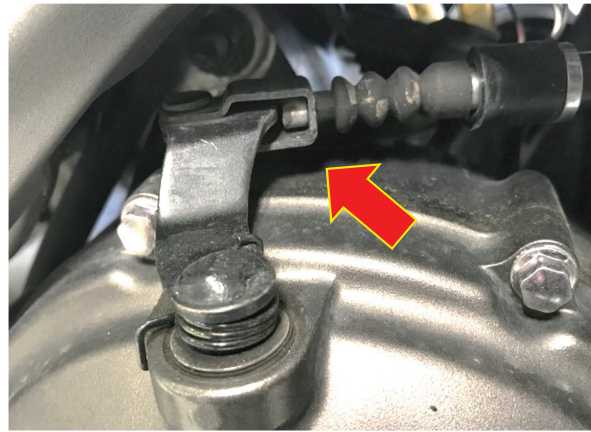
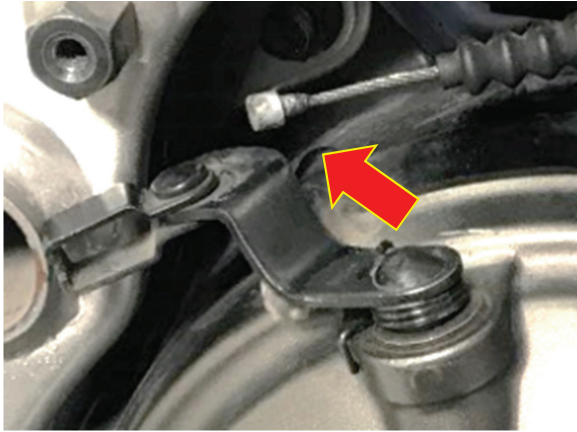


9. Reinstall the OE pressure plate, then reinstall the pressure plate springs and bolts.



10. Torque pressure plate bolts in small increments in a star pattern to OE specifications.
11. Reinstall the OE clutch cover gasket (or new OE gasket), then reinstall the clutch cover by lightly tightening the cover bolts in a star pattern.
12. Torque the clutch cover bolts in small increments to OE specifications.

13. Add oil according to the OE instructions.
14. Reinstall the clutch cable to the clutch actuator arm with the jam nuts loosely in place. Do not tighten the jam nuts.

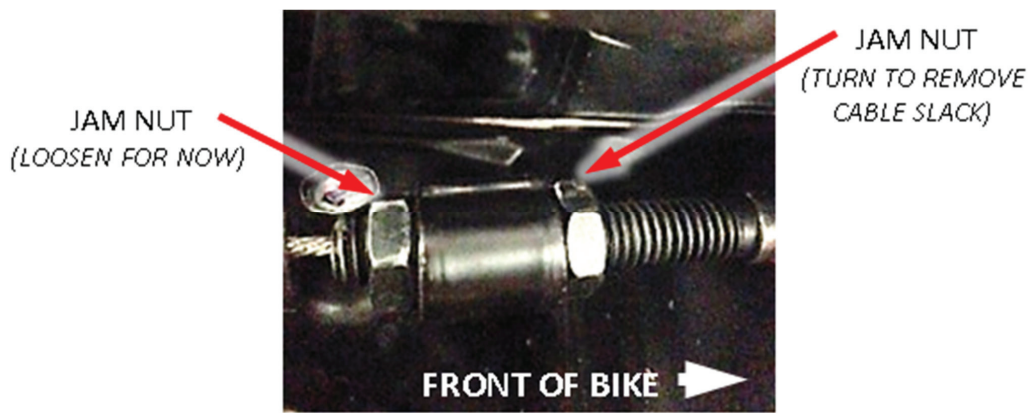


SET THE INSTALLED GAP

The “installed gap” is the separation in the clutch pack created by the tension adjusted into the clutch cable. This gap is what allows the clutch to spin freely until the desired RPM is reached for engagement. The installed gap must be set correctly for optimal performance.

The two jam nuts at the clutch cable support bracket are used to set the installed gap. The jam nut that is closer to the front of the bike will be used to tighten that cable slack and set the installed gap. The rear jam nut is used to lock in the optimal setting once it is determined.

1. Tighten the front jam nut so there is no slack in the clutch cable (the clutch lever will become tight against its perch).



2. Once all the cable slack is gone, tighten the front jam nut about 3 more turns, so that the clutch actuator arm starts to move. This is your starting point for finding the correct installed gap.



3. Make adjustments using the front jam nut and perch adjuster to set the installed gap based on the lever Free Play Gain. (Instructions in the following section.)
4. Once Free Play Gain is correct, you will tighten the rear jam nut to secure your cable adjustment setting.
5. Use a hex key to reinstall rear engine guard and/or any other fairings or guards that were removed during the install.

CHECK FREE PLAY GAIN

It is very important that you understand how to verify the correct installed gap by checking Free Play Gain.

Setup, break-in, and rechecking the installed gap is CRUCIAL. Failure to properly maintain your installed gap can result in premature wear or failure of your clutch.

The “installed gap” is the free space in the clutch pack when the EXP disk is disengaged (collapsed). This gap allows the clutch to spin freely until the engagement RPM is reached and the EXP disk expands to close the gap and apply pressure to the pressure plate, which in turn drives the motorcycle forward.

The installed gap is what allows the auto function of the product to perform properly. Use the following steps to verify the installed gap by checking Free Play Gain.

⚠ WARNING

Failure to check and verify Free Play Gain can cause failure or damage to this product. Setting the correct installed gap is critical for clutch performance.

Step 1: Learn how to check Free Play Gain

If you are familiar with checking Free Play Gain, check for Free Play Gain then skip to Step 2, “Step 2: Adjust Free Play Gain.”

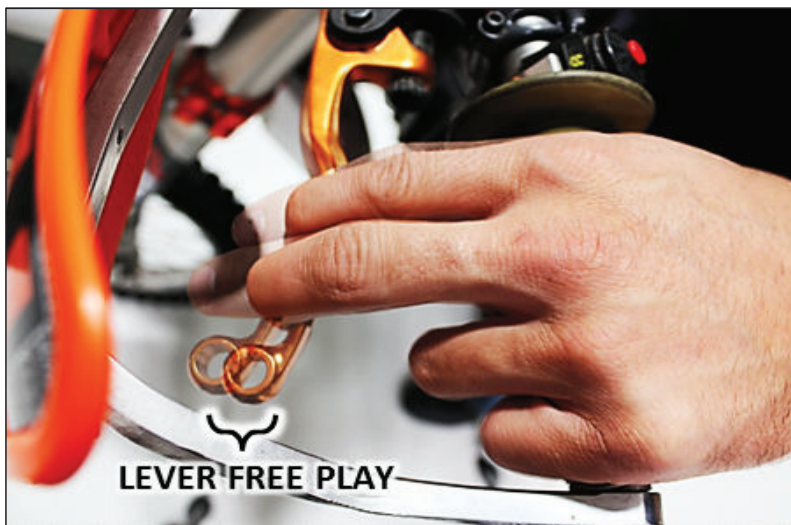
If Free Play Gain is new to you, follow the instructions below to help you learn this important step. You can also view the video entitled “How to Check Free Play Gain” on our website at www.rekluse.com/support/videos.

Free Play Gain is different from the “normal” free play (slack) you are used to with your stock clutch. With the Rekluse auto clutch, Free Play Gain is the result of the EXP disk

expanding and lifting the pressure plate to engage the clutch.

Free Play Gain happens when the engine's RPM increases from idle to above approximately 5,000 RPM and the EXP closes the installed gap. The amount of Free Play Gain you feel in the lever corresponds to the amount the pressure plate has been lifted by the EXP disk expansion.

Checking Free Play Gain allows you to externally monitor the installed gap so you can know when to make an adjustment if the installed gap is too large or too small. The correct installed gap is verified by observing and feeling the increased free play movement in the clutch lever. This extra movement is called "Free Play Gain."



If there is too much Free Play Gain, the installed gap is too small.

- The bike may drag and stall because it has difficulty disengaging the clutch.
- It may also be difficult to shift.
- Too much Free Play Gain will not hurt the clutch, but it will negatively affect clutch performance.

With too little or no Free Play Gain, the installed gap is too large.

- This means when the EXP is fully expanded it does not lift the pressure plate.

- The clutch may slip and make the bike seem like it is losing power.
- The bike may not move forward even though the engine RPM increases as if the clutch lever is slightly pulled.
- Too little Free Play Gain will cause the clutch system to burn up.

Optimal Free Play Gain yields 1/4" - 3/8" (6 mm-9.5 mm) of clutch lever movement, measured at the ball end of the lever. This measurement at the lever correlates to achieving the ideal installed gap.

Two Ways to Check for Free Play Gain

The following steps explain **2 ways** to check Free Play Gain. One way uses the rubber band Rekluse includes in the clutch kit, and one uses your hand. You can use either method to check for Free Play Gain.

Rekluse recommends that you begin with the rubber band method first to check for Free Play Gain and then learn the hand method. The rubber band will help you learn how to recognize Free Play Gain until you are comfortable with the hand method. Learning to check Free Play Gain by hand effectively and comfortably can make it easy to check Free Play Gain every time you ride.

The Rubber Band Method

Use the rubber band method for the initial set up. It can also be used before each ride until you feel comfortable checking the Free Play Gain using the hand method.

⚠ WARNING

BEFORE YOU BEGIN, verify 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.

A Rekluse auto-clutch can make your motorcycle appear to be in neutral when in gear, even when the engine is running and clutch lever released.

Motorcycles equipped with a Rekluse auto-clutch can move suddenly and unexpectedly and cause riders to lose control. To avoid death, serious injury, and/or property damage, always sit on the motorcycle to start it.

a) Before you begin, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm the engine oil.

b) Stretch the included rubber band between your thumbs, then place the top end of the rubber band on the outer end of the left handlebar grip.



c) While holding the top end of the rubber band against the handlebar, stretch the band downward, then loop it through itself.



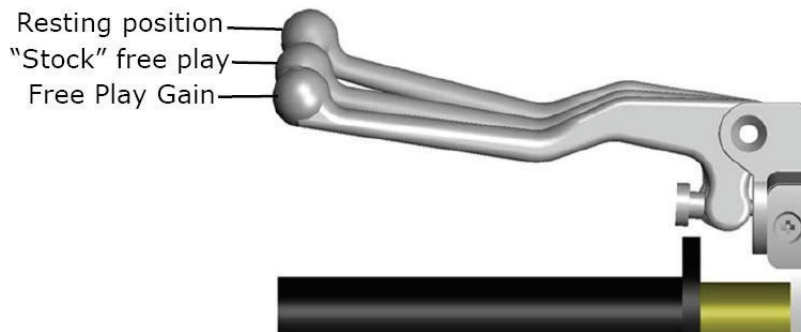
- d) Pull the band through the loop, then attach it to the outside end of the clutch lever. This will take up the initial free play (slack) and put the lever in a position to detect the Free Play Gain.



- e) While still in **NEUTRAL**, quickly rev the engine between 5,000-7,000 RPM (1/2 to 3/4 throttle), then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.

Note: *It is very important the motor returns to idle before revving the engine again or Free Play Gain will not be correct.*

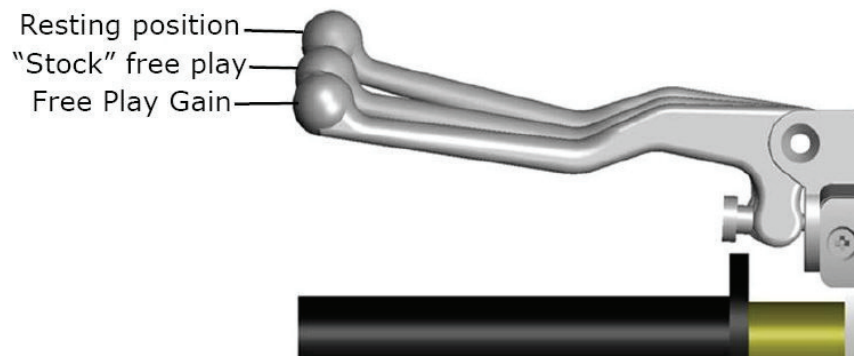
- f) When the bike returns to idle, rest your hand across the clutch lever. Rev the engine again to 5,000-7,000 RPM so you can observe the movement while feeling for Free Play Gain with your hand.



The Hand Method

Use the hand method to check Free Play Gain before the start of every ride for optimum performance and longevity of your new clutch.

- a) Before you begin, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm up the engine oil.
- b) With the bike at idle, apply enough pressure to the clutch lever to take up the initial free play (slack) in the clutch lever.
- c) While still in **NEUTRAL**, continue to apply light pressure and quickly rev the engine between 5,000-7,000 RPM (1/2 to 3/4 throttle), then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.
- d) When the bike returns to idle, rev the engine between 5,000-7,000 RPM a second time to verify the Free Play Gain again.



Step 2: Adjust Free Play Gain

After checking for Free Play Gain, you may need to adjust the installed gap. If Free Play Gain is optimal, continue to “**Notes:** *If you are unable to obtain the correct Free Play Gain or you are nearly out of cable adjustment after performing the adjustment, your cable may be worn or stretched from wear or use. If this is the case, purchasing a new cable should provide the necessary performance.*”

Step 3: Break in the new clutch.” If Free Play Gain is not optimal, the installed gap needs to be adjusted.

The installed gap should be fine-tuned in small increments and then recheck Free Play Gain. Refer to the table below to set the proper installed gap based on your Free Play Gain.

Adjust the Installed Gap

Symptom	Reason	Solution
<ul style="list-style-type: none"> • Clutch lever moves in too far (too much Free Play Gain) • Clutch has excessive drag or stalls • It is difficult to fully override the clutch with the lever 	<p>Installed gap is too small</p>	<p>Tighten the cable: increase the length of the in-line cable adjuster housing until the correct amount of Free Play Gain is achieved.</p> <p>Recheck Free Play Gain.</p>
<ul style="list-style-type: none"> • Clutch lever only moves slightly or does not move at all (too little Free Play Gain) • Clutch slips • Bike seems to lose power 	<p>Installed gap is too large</p>	<p>Loosen the cable: Reduce the length of the cable housing (collapse the adjusters) until the correct amount of Free Play Gain is achieved.</p> <p>Recheck Free Play Gain.</p>


Notes: *If you are unable to obtain the correct Free Play Gain or you are nearly out of cable adjustment after performing the adjustment, your cable may be worn or stretched from wear or use. If this is the case, purchasing a new cable should provide the necessary performance.*

Step 3: Break in the new clutch




Once you install your new clutch, it is important to break it in. A series of roll-on starts are used to break in the clutch. Follow these procedures for breaking in your clutch and any time new friction disks, EXP bases, Teflon pads, or wedges are installed.

⚠ WARNING

Failure to follow the break-in procedure and oil screen inspection process could cause motor oil delivery failure, which can result in motor failure, serious injury, or death.

Break-in Procedure	Number of times
1. Warm up the bike for 2-3 minutes. With the bike in NEUTRAL and your hand off the clutch lever, rev the engine 10 times, being sure to let it return to idle between each rev cycle.	
2. With the engine still running, pull in the clutch lever, then shift the bike into 1 st gear. Slowly release the clutch lever. The bike should stay running and in place, or have a slight amount of forward creep.	

**Continued on
next page** 

<p>3. With the bike idling in first gear, slowly apply throttle to begin moving.</p> <p>4. Without using the clutch lever, accelerate moderately to approximately 5,000 RPM to fully lock up the clutch and come to a complete stop. Repeat 10 times.</p> <p>Note: <i>If the engine wants to stall or the creep is excessive, the idle may be too high or the installed gap may be too small. Make necessary adjustments before proceeding.</i></p>	 <p>10 roll-on starts</p>
<p>5. Without using the clutch lever, start in 2nd gear, then accelerate moderately to approximately 5,000 RPM and come to a complete stop. Repeat 10 times.</p>	 <p>10 roll-on starts</p>
<p>6. Place the bike in NEUTRAL and recheck Free Play Gain and adjust the installed gap until the clutch lever is 1/8" (3 mm).</p>	 <p>Recheck Free Play Gain and adjust the installed gap</p>

Note: *Your clutch pack will expand with heat, so final adjustment to Free Play Gain should be made when the bike is warm. Remember not to ride without sufficient Free Play Gain.*

⚠ CAUTION

Do not perform 3rd gear starts with this product. Starting in 3rd gear will burn up the clutch and decrease the performance of this product in a short amount of time.

LEVER SAFETY STRAPS

Your kit includes 2 Velcro-type straps to be used to secure both the clutch and front brake levers when the bike is parked.

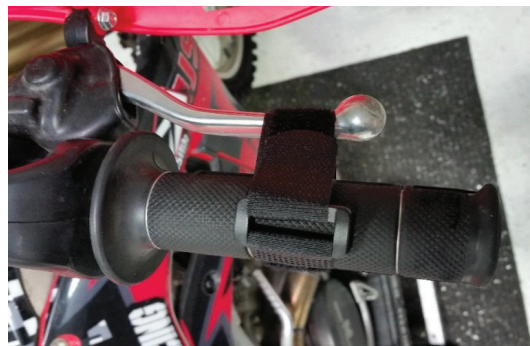
These straps are intended to reduce the risk of injury or damage that may occur from the bike rolling or launching unexpectedly with or without a rider. Use the lever safety straps every time you park or leave the bike. **Refer to the Safety Information sheet for more information.**

1. Pull the lever tight against the handlebar.
2. Wrap the Velcro safety strap around the lever and handlebar, pull it tight, then fasten it.

Clutch lever strap: Use to prevent unwanted launching.



Brake lever strap: Use as a parking brake.



CLUTCH LEVER STICKER

Install the provided warning label on the clutch lever so that the writing is visible to the rider as shown.



TROUBLESHOOTING

Clutch Drag:

- Cold Drag Only – If drag occurs only while the bike is cold, oil is the most likely cause. Be sure to warm up the bike before riding/racing. Use of new or lighter weight oil can help to minimize cold drag.
- Hot and Cold Drag –Check for any warped steel drive plates or frictions in the clutch pack, or other signs of wear caused by extreme heat.

Clutch Slip:

- If clutch slip occurs, inspect the clutch for signs of wear or heat.

MAINTENANCE

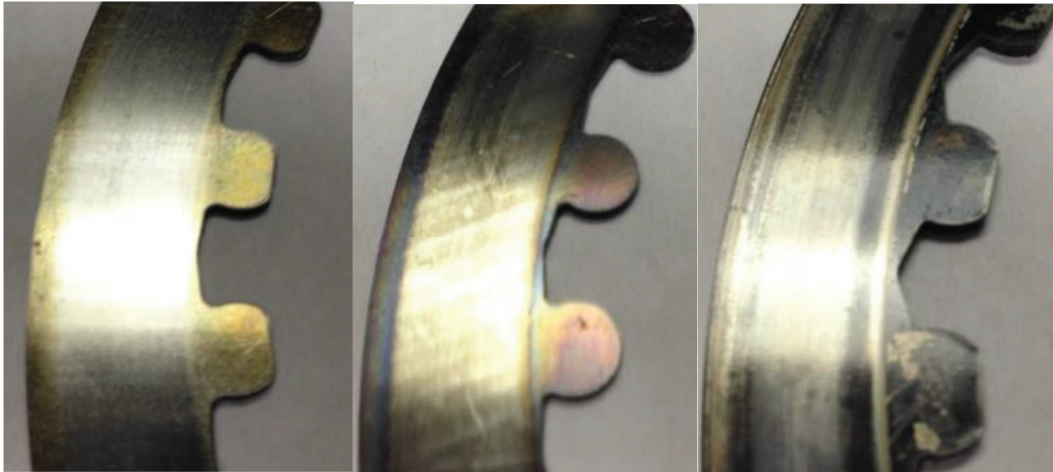
To keep your clutch performing at its best, perform regular maintenance on your bike and clutch. Clutch longevity and performance is greatly increased with oil quality and other bike factors that reduce engine heat.

- Inspect all of your clutch parts at regular maintenance intervals for signs wear or excessive heat, and replace components as necessary. Clutch wear is dependent on the riders use.
- Inspect and replace basket sleeves if they appear to be notched from friction disks.
- Keep up with regular oil changes as per the bike manufacturer's recommendations. Clutch performance and longevity depend on oil quality.
- For optimal clutch performance Rekluse recommends using fresh, clean oil that **meets JASO-MA** oil rating requirements.
- Repeat the break-in procedure anytime you replace the friction disks. Always soak friction disks in new oil for at least 5 minutes before installing.
- Oil recommendations can be viewed under Tech Tips on our website at www.rekluse.com/support/videos/atv-mc-support-videos.

Disk inspection examples

When inspecting the clutch pack, the following pictures can be used as a reference. **These are best viewed in color by viewing this install document at www.rekluse.com/support.**

Drive Plates – If the clutch pack is getting high amounts of heat, purple, blue, or black color can be seen on the drive plate teeth. See pictures below. Not all drive plates look the same and may look different than pictured.



Normal Heat

High Heat
(Blue)

Excessive Heat
(Black)

Friction Disks – Due to the dark color of the friction material, the friction disks will appear almost black as soon as they are put in oil. During inspection, look for glazing of the friction material. Glazing will appear shiny and feel like glass, even after oil is cleaned from the friction disk. Not all friction disks look the same and may look different than pictured.



Normal
Friction



Glazed
Friction

EXP TUNING 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.

You can tune the engagement RPM of the EXP disk by changing the spring configuration. The EXP disk comes set with the recommended “**Medium**” setting from Rekluse.

Engagement settings	Spring configuration
Low	6 Silver springs
Medium	3 Silver springs / 3 Red springs
High	6 Red springs

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.

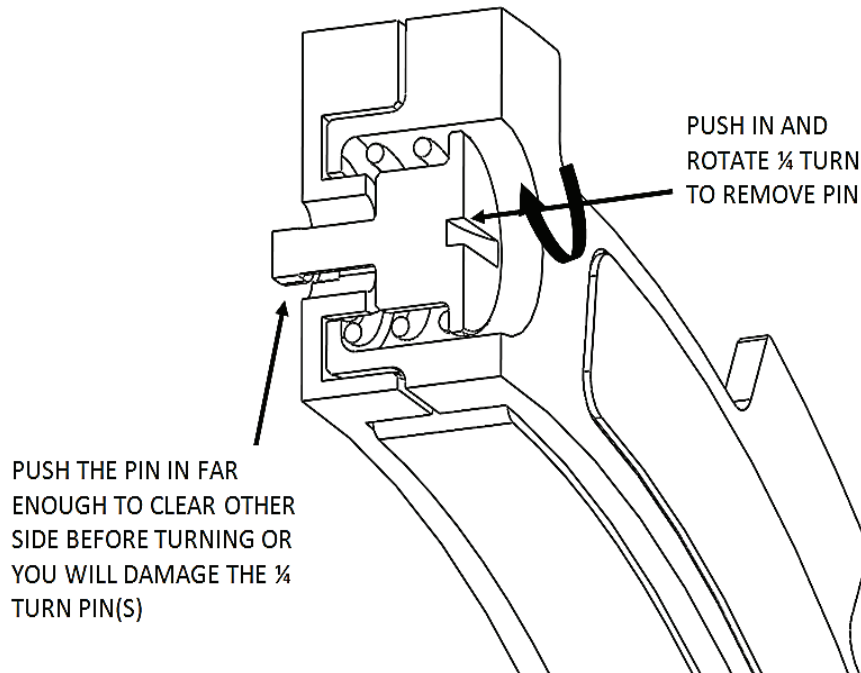
With correct Free Play Gain and the bike in gear, the bike should move forward under slight opening of the throttle. If not, one of the following symptoms is likely:

- **HIGH IDLE:** The bike moves forward with the throttle fully closed. Solution: reduce idle RPM.
- **LOW IDLE:** The bike moves forward after engine RPM becomes noticeably higher than idle RPM. Solution: increase idle RPM.

Changing the EXP springs

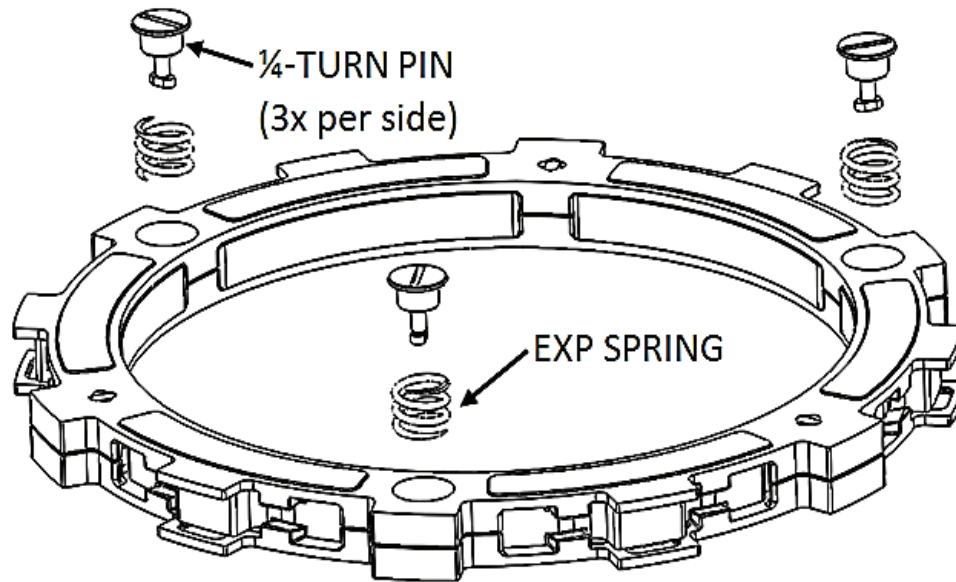
Use the following steps to change the EXP spring configuration. It is **NOT necessary** to disassemble the EXP halves to change springs!

1. Using a flat-blade screwdriver, push the $\frac{1}{4}$ turn pin in far enough to clear the opposite side of the EXP to unlock the pin.
2. With the pin still pushed past the base, turn 90° to remove the pin and spring.



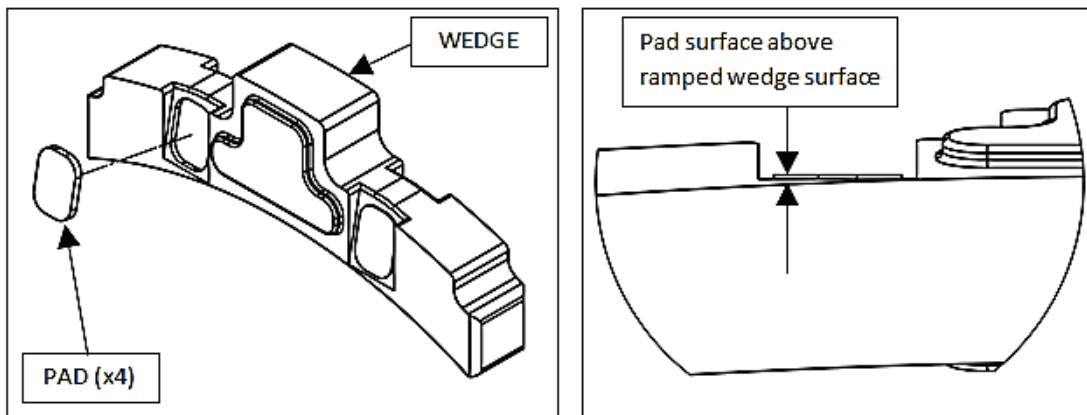
3. Remove the remaining 2 pins and springs from the same side of the EXP base.
4. Drop a new spring into the spring slot on the base, then add the $\frac{1}{4}$ turn pin.
5. Push the turn pin in far enough to clear the base, then turn 90° and release the pin. The pin should sit almost flush with the EXP base.
6. Flip the EXP friction disk over, and repeat on the other side depending on engagement preference.
7. If you need to disassemble the EXP disk, you can watch the video on our website under Tech Tips at www.rekluse.com/support/videos/atv-mc-support-videos.

Note: To maintain even pressure, when using two different color spring sets, install one set of 3 on one side of the EXP and the remaining set of 3 on the other side.



CAUTION

If you disassemble the EXP, the Teflon 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.



NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Frequently asked questions

www.rekluse.com/faq

Support Videos

www.rekluse.com/support/videos

Phone

(208) 426-0659

Technical Support

Contact Technical Support for questions related to product installation, tuning, and performance.

Hours:

Monday thru Friday: 8:00 a.m. - 5:00 p.m.

Mountain Time zone

Email: tech@rekluse.com

Customer Service

Contact Customer Service for additional product information, orders, and returns.

Hours:

Monday thru Friday: 8:00 a.m. - 5:00 p.m.

Mountain Time zone

Email: customerservice@rekluse.com



RIDER'S GUIDE

How to get the most out of your new clutch

LET'S RIDE

This guide is to help get the best experience riding with your new Rekluse RadiusX centrifugal auto clutch.

It doesn't matter if you, a mechanic, or a dealer installed your new clutch, take a moment to read this Rider's Guide. It will help you understand some important points about how to shift with the new clutch, how the auto clutch functions, some important safety information, and how to check Free Play Gain.

What it does

The Rekluse auto clutch is designed to eliminate the need for clutching when starting and stopping. The auto clutch provides smooth acceleration without loss of power. It also prevents stalling when riding at slower speeds or maneuvering through traffic. You retain full control of shifting and can continue to use the clutch lever if you like.

What it doesn't do

The Rekluse auto clutch is not an automatic transmission. You still need to shift to maintain the proper gear selection when accelerating, cruising, and decelerating.

Items to Note

- Thoroughly read and understand the **Safety Information** before operating any vehicle with this product.
- Videos related to this product can be viewed online at <https://rekluse.com/support/videos>.
- **Do not "rev" the throttle while in gear and not moving.** Revving the engine without the clutch lever pulled in will lurch the bike forward or move it unexpectedly.
- Check your Free Play Gain before the 1st ride of the day. Instructions for checking Free Play Gain are included in the guide.
 - If Free Play Gain is not correct, adjust the installed gap and recheck Free Play Gain before continuing. Continuing to ride when the clutch is not adjusted properly may cause damage to the clutch.
 - If Free Play Gain cannot be corrected (too much or too little), stop riding the bike until the issue can be resolved.

GETTING STARTED

There are a few basic steps you need to know when shifting with your new auto clutch. Learning these steps will keep your ride smooth and prevent damage to the clutch.

- Always start your bike in **Neutral** and let the engine warm up. If the bike is cold, there may be clutch drag. Clutch the bike manually until it is warm.

- **Always shift your bike from Neutral to 1st gear with the clutch lever pulled in.**
- To move or start, let the clutch lever out and slowly roll on the throttle.
- Upshift gears as you normally would, using the clutch lever as you shift.
- Your Rekluse auto clutch engages during normal riding from idle to 4,500 RPM. See section 3 below for suggestions regarding optimal RPM for riding conditions.

SHIFTING

1. Upshifting:

- For normal riding situations, upshift as you normally would.

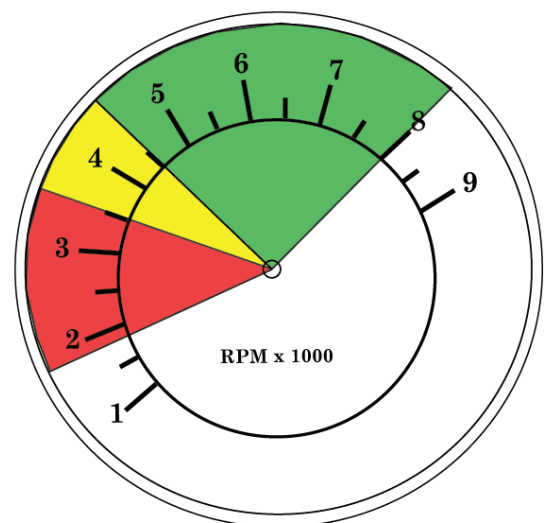
2. Downshifting:

- For normal riding situations—including slowing down from a tall gear—**downshift as you normally would.** Downshift if the engine is jerking or “lugging.”
- Downshift one gear at a time and allow the engine braking to engage like normal.
- When downshifting, apply a small amount of throttle then slowly release the clutch lever to reactivate the clutch.
- If you are traveling at a high rate of speed in a tall gear, you **MUST** apply a small amount of throttle to reactivate the clutch. If you pull the clutch lever in or allow the RPM to drop to idle without reactivating the clutch, free-wheeling occurs.
- Do not ride in a gear higher than you need. Adjust your gear selection to match your ground speed, engine RPM, and terrain.
- When you slow down to stop, you do not need to touch or modulate the lever. The EXP disk will release the clutch automatically when the RPM drops below the engagement point.
- **Once you are stopped, shift into 1st gear using your clutch lever before accelerating again.**

3. Maintaining proper RPM for best performance :

Shift points will vary by bike and your riding style. However, these are some general guidelines to help you get the most out of your clutch and reduce slipping.

- Red Zone: This zone is from idle to around 3,500 RPM. This is a caution zone where the clutch is in a transitional state. Cruising below 3,500 RPM should only be done in 1st gear or below ¼ throttle. Cruising in a tall gear without downshifting is hard on your clutch as well as your engine.
- Yellow Zone: This zone is from about 3,500-4,500 RPM. This is a healthy zone for easy trail riding and cruising situations. It is acceptable to cruise in this range unless you are carrying a heavy load, riding uphill, riding into the wind, or riding well above 1/3-1/2 throttle.
- Green Zone: For best clutch performance and longevity, it is best if most riding is done above



4,500 RPM. The clutch is fully clamped at this point. Any technical trail riding or ascending a grade should be done in this range. Upshift and downshift as you normally would using the clutch lever.

PARKING WITH YOUR AUTO CLUTCH

Your kit includes 2 Velcro-type straps to be used to secure both the clutch lever and front brake lever when the bike is parked.

To keep your bike from rolling away without you, use the 2 Velcro lever safety straps every time you park or leave your bike. Using these straps will reduce your risk of injury and/or damage. Refer to the Safety Information sheet for more information.

1. Pull the brake lever tight against the right grip.
2. Wrap the Velcro safety strap around the front brake lever and grip, pull it tight, then fasten it to use as a parking brake.
3. Wrap the other strap around the clutch lever and the grip in the same way to prevent unwanted launching.

LONG LIVE YOUR CLUTCH

In order to keep your clutch functioning properly and prevent damage, you need to check your Free Play Gain before the 1st ride of the day.

Don't know how to check your Free Play Gain?

- **Watch the video:**
<https://rekluse.com/support/videos>
- **Read about it:**
Read the following instructions in this guide and/or the Information Guide that came with your kit.

⚠ WARNING

BEFORE YOU BEGIN, verify 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.

CHECK FREE PLAY GAIN

Optimal Free Play Gain yields **1/4 - 3/8" (6 mm - 9 mm)** of clutch lever movement, measured at the end of the lever. This measurement at the lever correlates to achieving the ideal installed gap.

- a) Before you begin checking Free Play Gain, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm the engine oil.
- b) Stretch the included rubber band between your thumbs, then place the top end of the rubber band on the outer end of the left handlebar grip.
- c) While holding the top end of the rubber band against the handlebar, stretch the band downward, then loop it through itself.

- d) Pull the band through the loop, then attach it to the outside end of the clutch lever. This will take up the initial free play (slack) and put the lever in a position to detect the Free Play Gain.



- e) While still in **NEUTRAL**, quickly rev the engine to about 5,000 RPM, then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.

Note: It is very important the motor returns to idle before revving the engine again or Free Play Gain will not be correct.



When the bike returns to idle, rest your hand across the clutch lever. Rev the engine again to 3,000-5,000 RPM so you can observe the movement while feeling for Free Play Gain with your hand.

- f) If your Free Play Gain is correct, then enjoy the ride. If you have too little or too much Free Play Gain, adjust the installed gap and recheck Free Play Gain. Instructions for adjusting the gap are found in the Information Guide that came with your kit or on our website.

NEED ADDITIONAL HELP?

Visit our website at www.rekluse.com/support or call us at (208) 426-0659.

