



REKLUSE[®]

EXP[™]

REKLUSE MOTOR SPORTS

EXP Kit for Harley-Davidson Big Twin 2013+ CVO, 2014+ Triglide, and 2015+ Touring Low Models

INSTALLATION GUIDE

Doc ID: 191-6205A

Doc Rev: 061815

OVERVIEW

- This kit replaces the OEM clutch pack (friction disks, drive plates and springs) to achieve the necessary performance.
- No modification of OEM parts is necessary.
- Replacement of the OEM primary chaincase cover gasket is recommended with this installation.
- This kit includes extra EXP springs which can be used to tune for your desired engagement. See the **User's Guide** document for specific tuning information.

RESOURCES

- Thoroughly read and understand the **Safety Information** and **User's Guide** documents for this product.
- Videos related to this product can be viewed online at rekluse.com
- A detailed parts fiche can be found online at rekluse.com/support

INSIDE THIS DOCUMENT

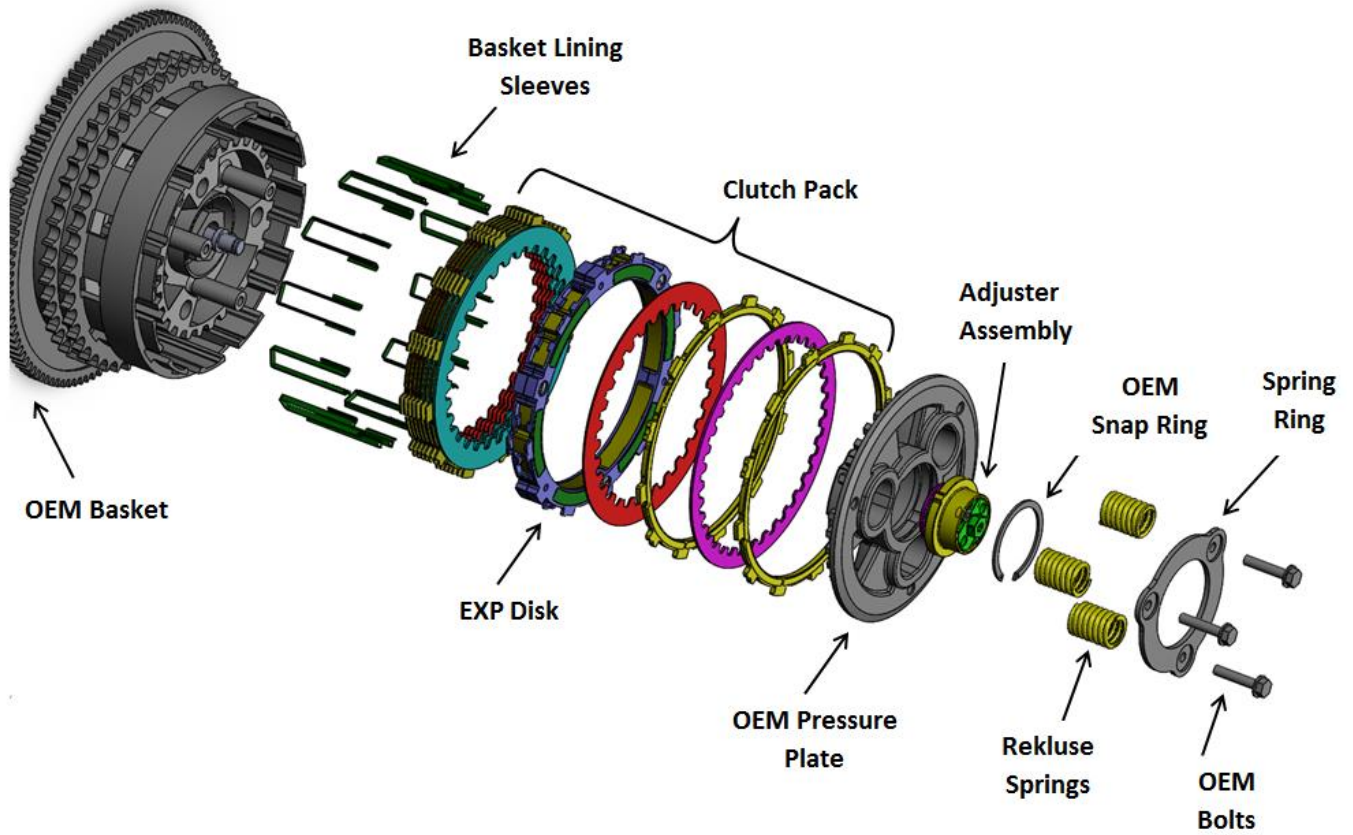
- INSTALLATION
- SETTING THE "INSTALLED GAP"
- CHECKING "FREE PLAY GAIN"
- BREAK-IN

TOOLS NEEDED

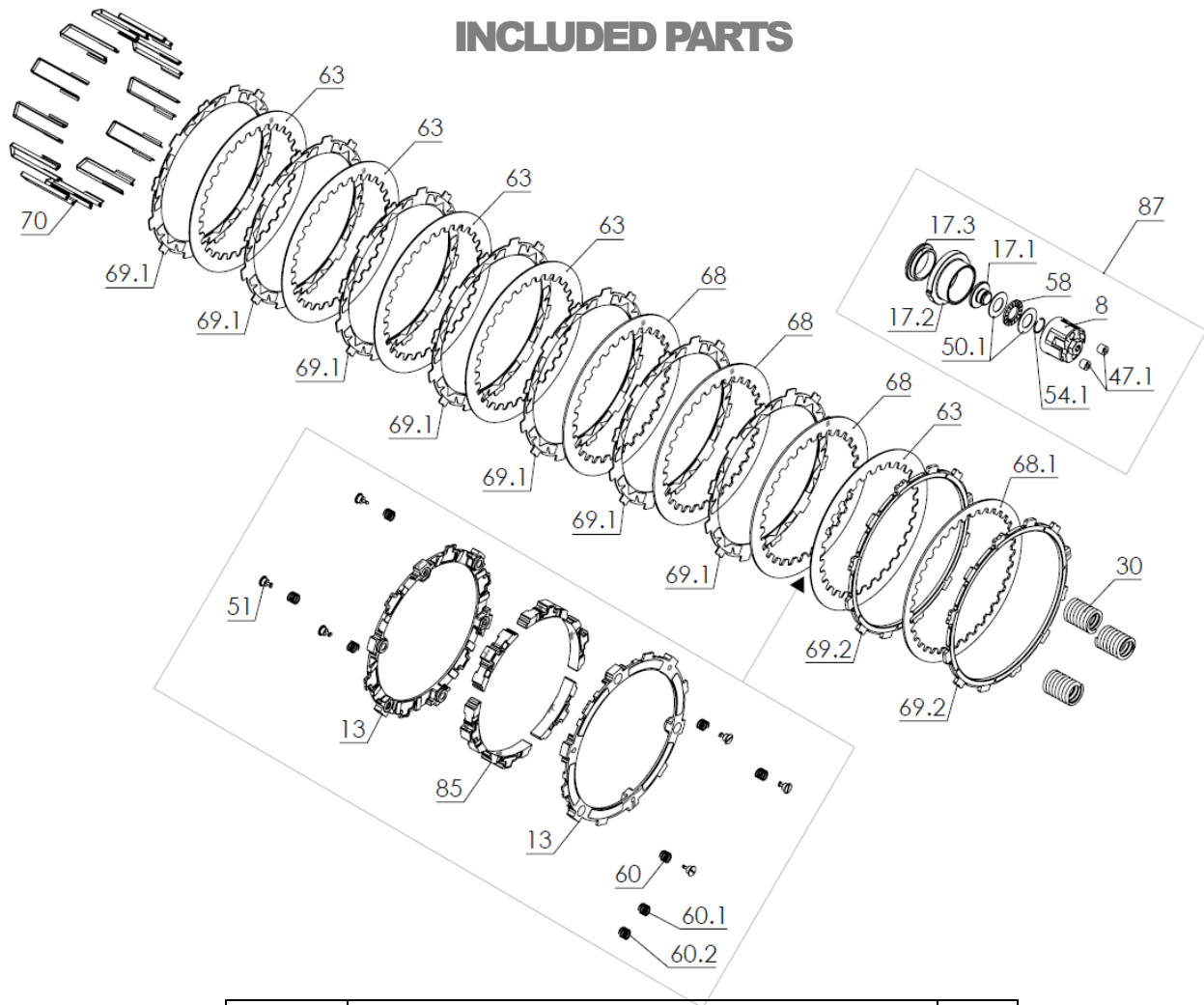
- Allen key set (Standard SAE)
- Torx bit set
- 10mm socket
- Snap Ring Pliers
- Phillips Screwdriver
- Torque wrench (in-lb & ft-lb, or N-m)
- End wrenches (Standard SAE)
- 2x dental pick tools

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ASSEMBLY OVERVIEW



INCLUDED PARTS

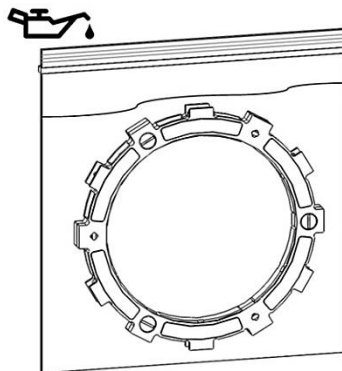


Item	Item Type	Qty
30	Springs	30
51	Fastener – ¼-Turn Pin *	6
60	EXP Adjustment Spring * (extra included)	6
63	Steel Drive Plate (.040" thick)	9
68	Steel Drive Plate (.065" thick)	1
68.1	Large Inner Diameter Steel Drive Plate (.065" thick)	1
69.1	TorqDrive Friction Disk	9
69.2	Judder Spring Friction Disk	2
70	Basket Lining Sleeve	12
85	Wedge Assembly *	6
87	Adjuster Assembly for Hydraulic Models	1
8	Threaded Adjuster	1
17.1	Throwout Bearing Seat (Steel)	1
17.2	Threaded Adjuster Housing (Steel)	1
17.3	Adjuster Base Collar (Steel)	1
47.1	Pipe Plug	2
50.1	Throwout Washer	2
54.1	Retaining Ring	1
58	Throwout Bearing	1

* Denotes parts in EXP disk assembly Visit Rekluse.com/support for a full parts fiche illustration and part numbers.

PREP & DISASSEMBLY

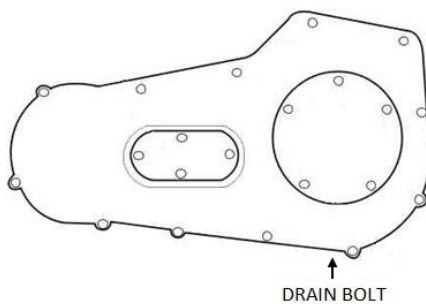
1. Soak the EXP disk and all friction disks [#69] in new primary chaincase oil for at least 5 min.



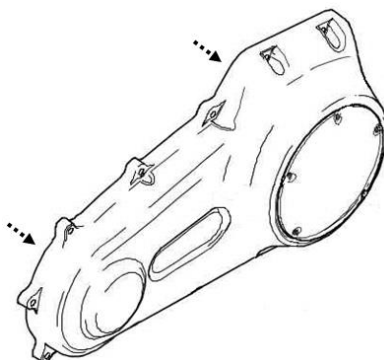
2. Place the bike upright in a lift or suitable stand.



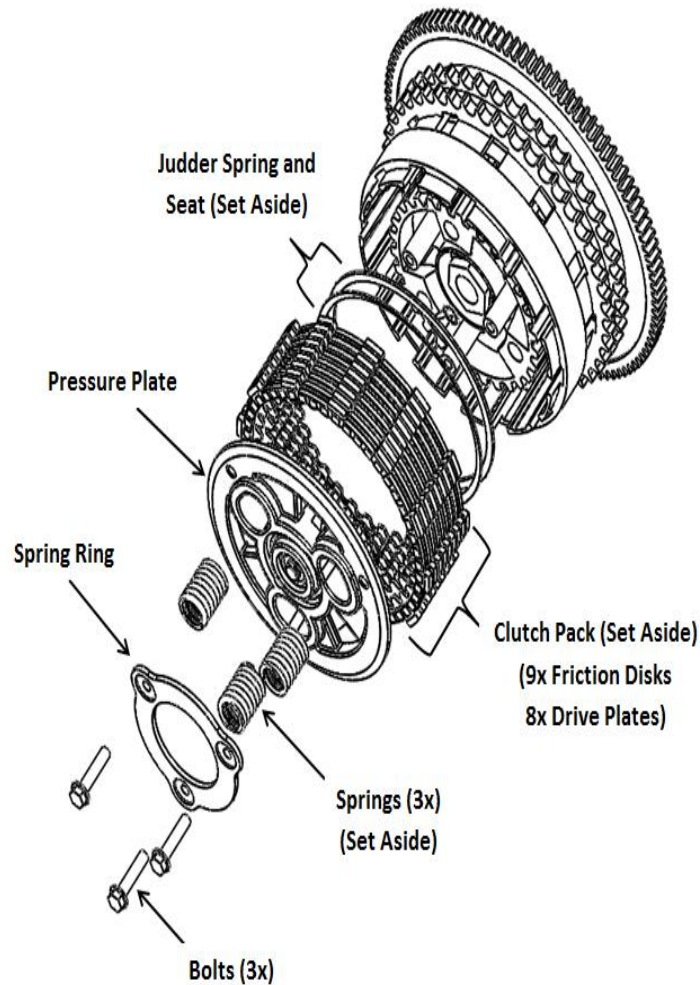
3. Drain the oil from the primary chaincase into a suitable container.



4. Remove the primary chaincase cover. This may require removing the left floorboard, foot peg(s), shift lever and/or side stand.



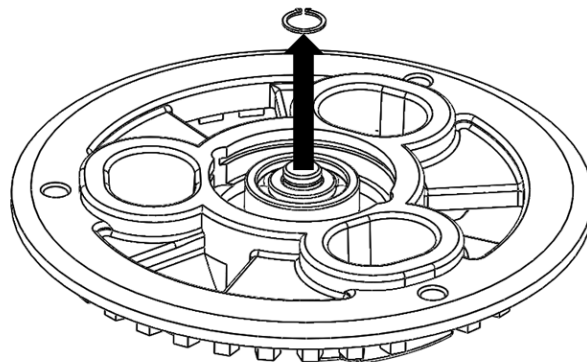
5. Remove the OEM parts named in this diagram.



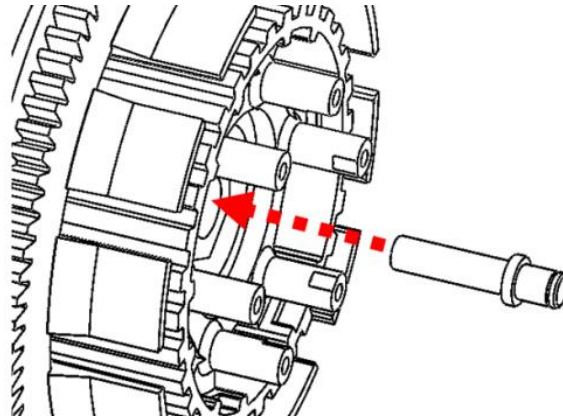
NOTE: The OEM clutch pack, judder spring and pressure plate springs will not be reused.

You may need to use dental pick tools to reach and remove the bottom plates and judder spring.

6. On a workbench, remove the small retaining ring that holds the throwout rod in the pressure plate bearing using snap ring pliers. This retaining ring will NOT be reused.

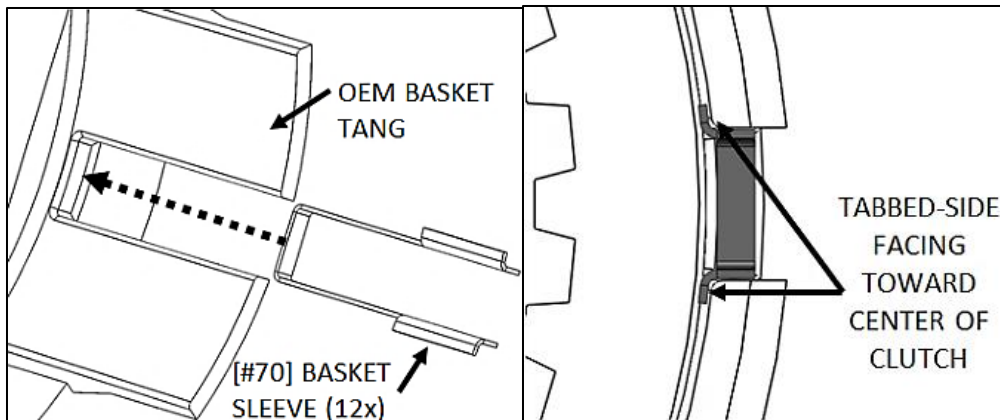


7. Reinstall the throwout.



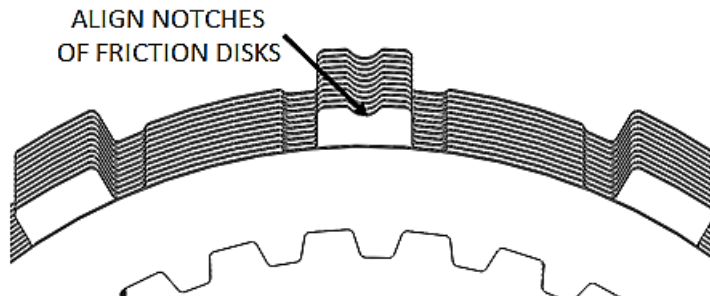
CLUTCH PACK INSTALLATION

1. Install the 12 Basket Sleeves [#70] into the tang slots of the OEM basket, pushing them in until they contact the bottom of the tang slots.



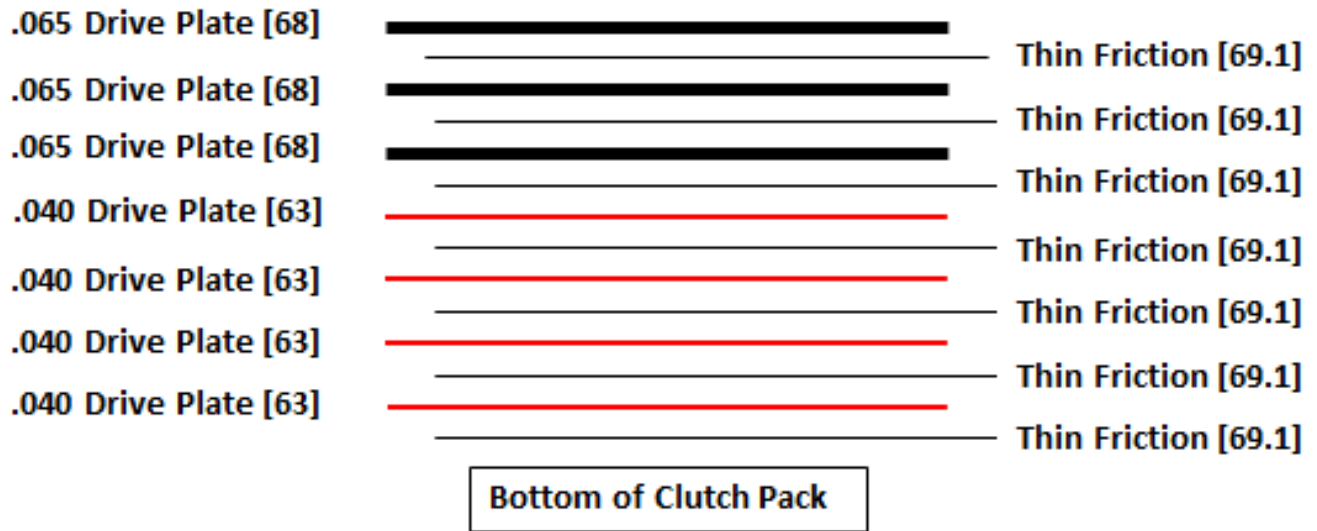
NOTE: In some models, the sleeves will fit deeper into the basket than others.

2. Taking care to align the notches on the friction disk tabs, begin installing the first half of the clutch pack. *Correct alignment is critical for optimal performance.*

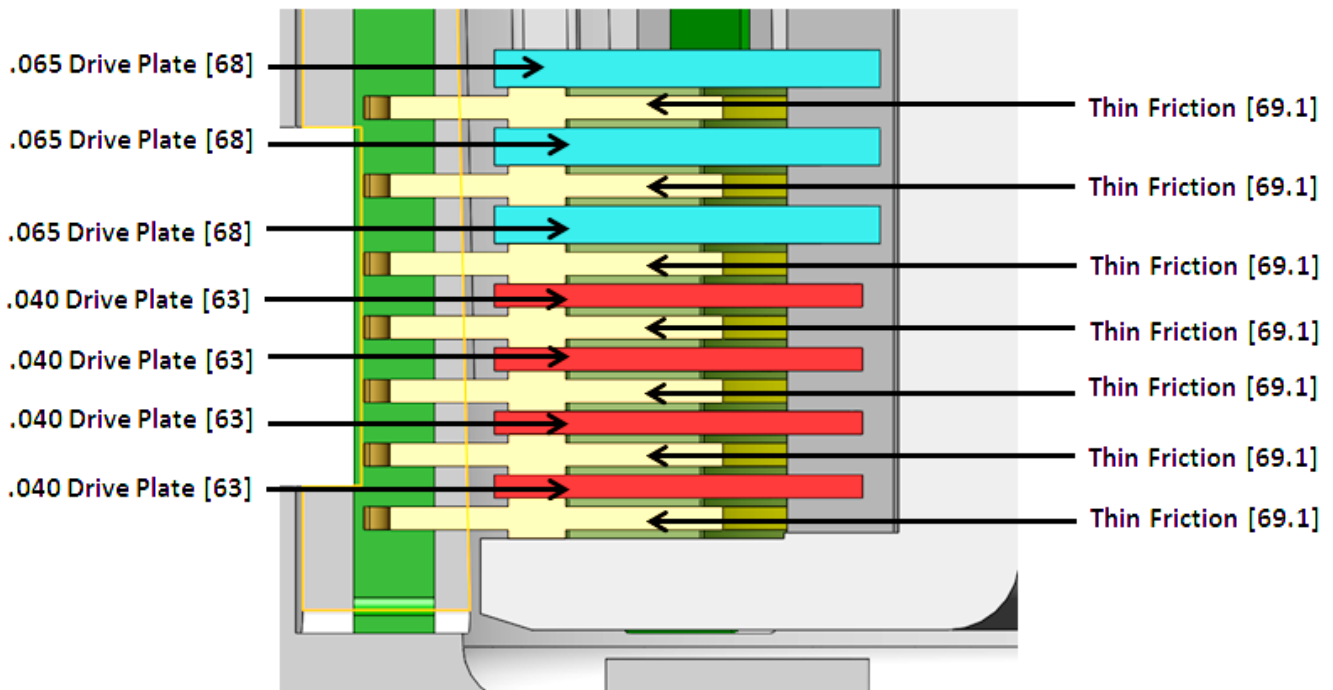


Start with a Rekluse thin friction disk [69.1] and, one item at a time, alternate drive plates and thin friction disk [69.1]. A detailed diagram showing which order to put the drive plates in can be seen on the following page.

NOTE: Because this kit includes different thickness drive plates see the diagram below for specific clutch pack stack orientation during this point of the installation.

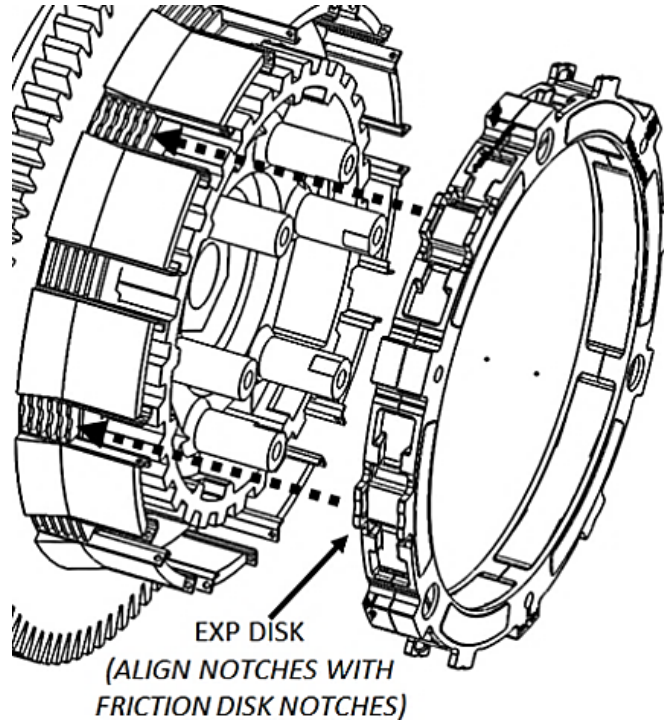


NOTE: See the image below for a rendering of the current clutch pack configuration.



3. Install the EXP disk next on top of the .065" drive plate. This disk is symmetrical and can be installed with either side facing out, but the tab notches must align with the notches on rest of the friction disks.

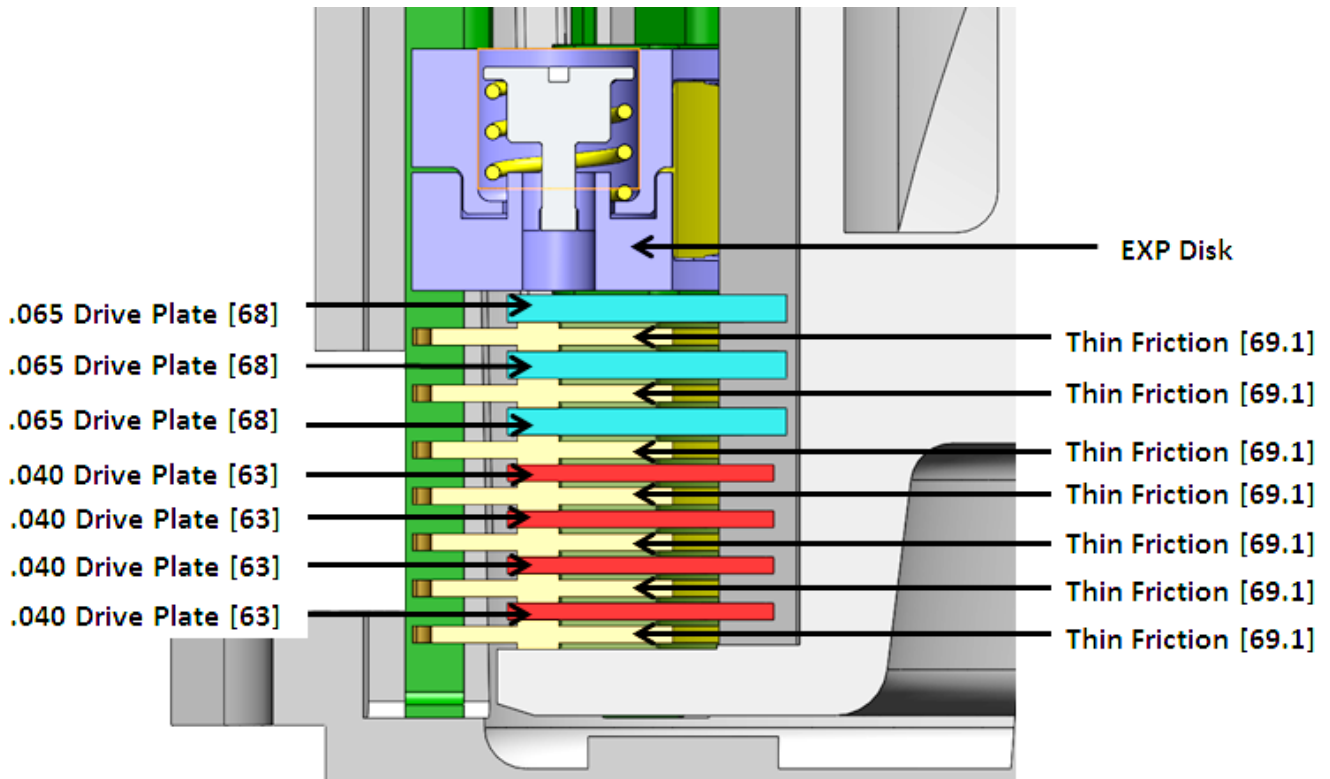
NOTE: If your bike's idle RPM has been changed from stock – meaning that it idles either higher or lower than the stock (around 1050 RPM) setting – see the **EXP Tuning Options** section of the **User's Guide** document to determine the best EXP spring setting before installing the EXP disk.



NOTE: See the image below for a rendering of the current clutch pack configuration.

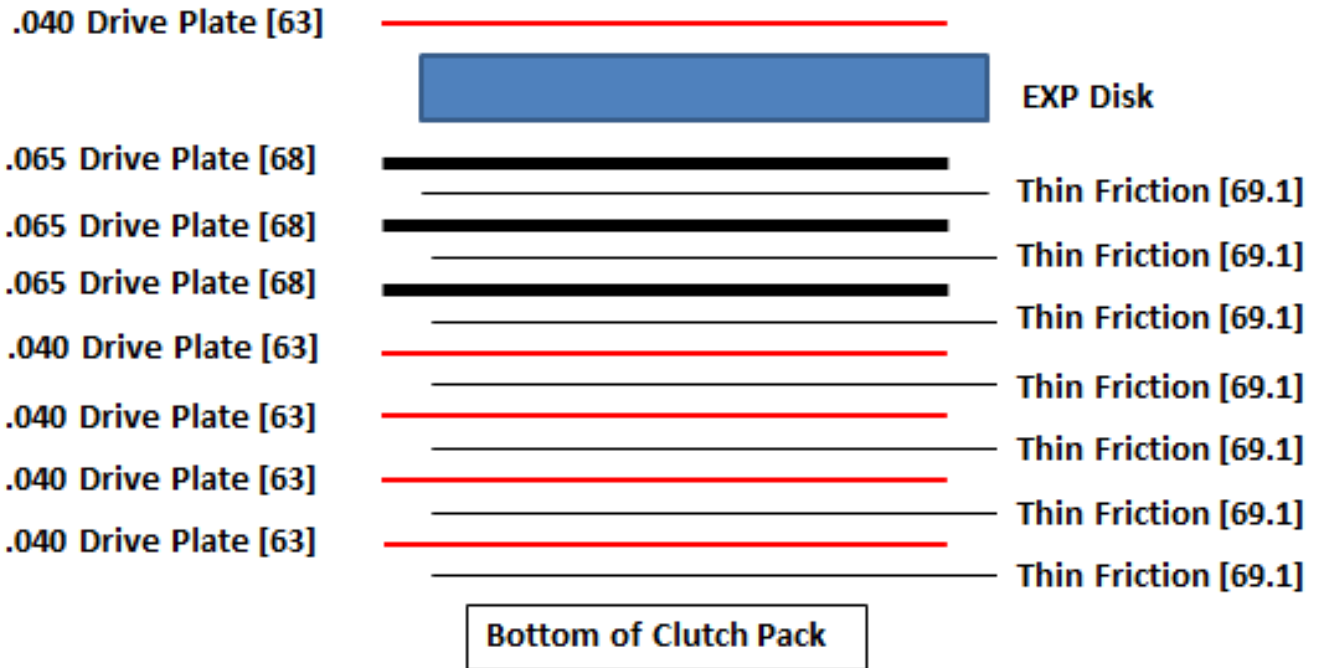


NOTE: See the image below for a rendering of the current clutch pack configuration.

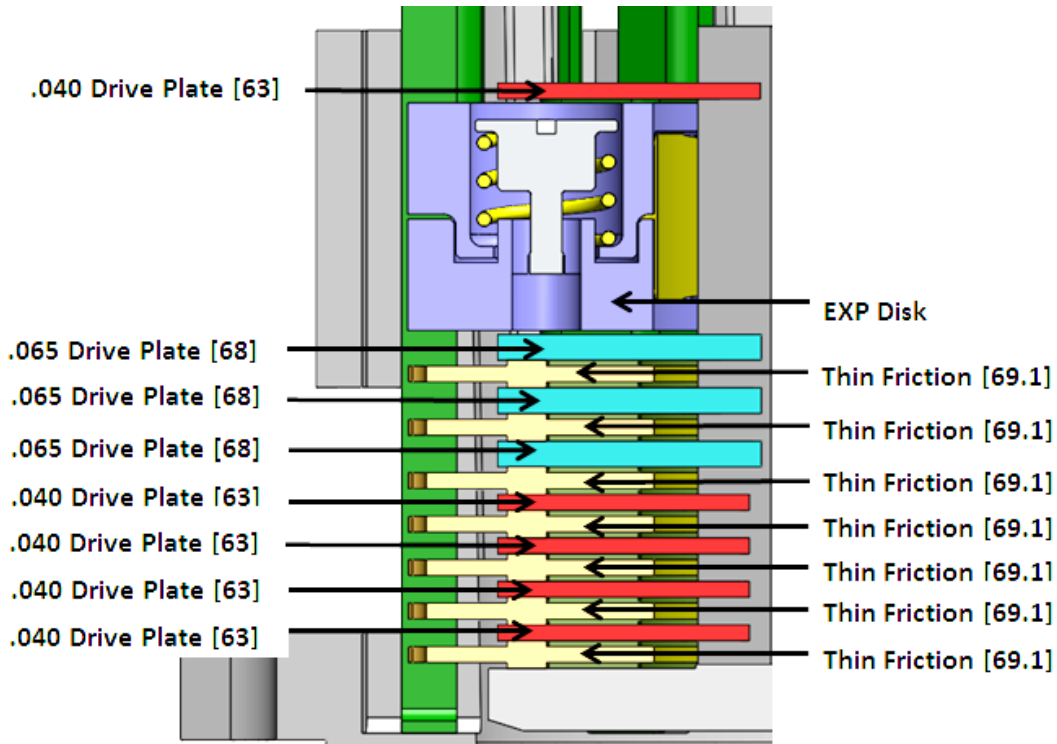


4. Install the final center hub mating .040" drive plate on top of the EXP disk.

NOTE: Because this kit includes different thickness drive plates see the diagram below for specific clutch pack stack orientation during this point of the installation.

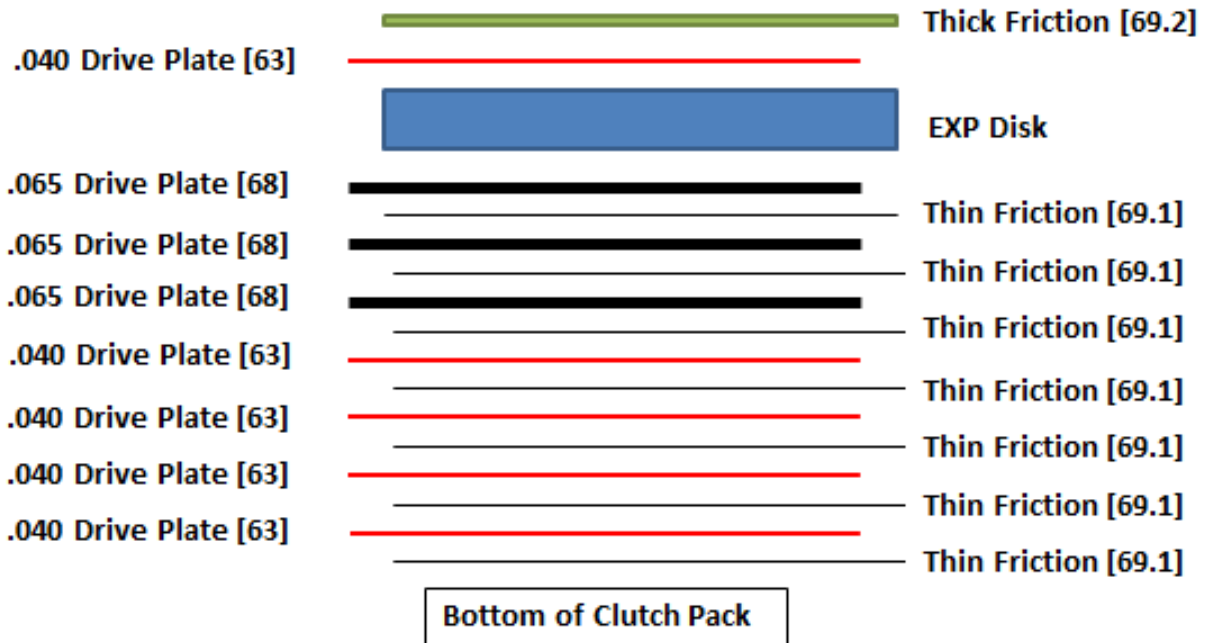


NOTE: See the image below for a rendering of the current clutch pack configuration.

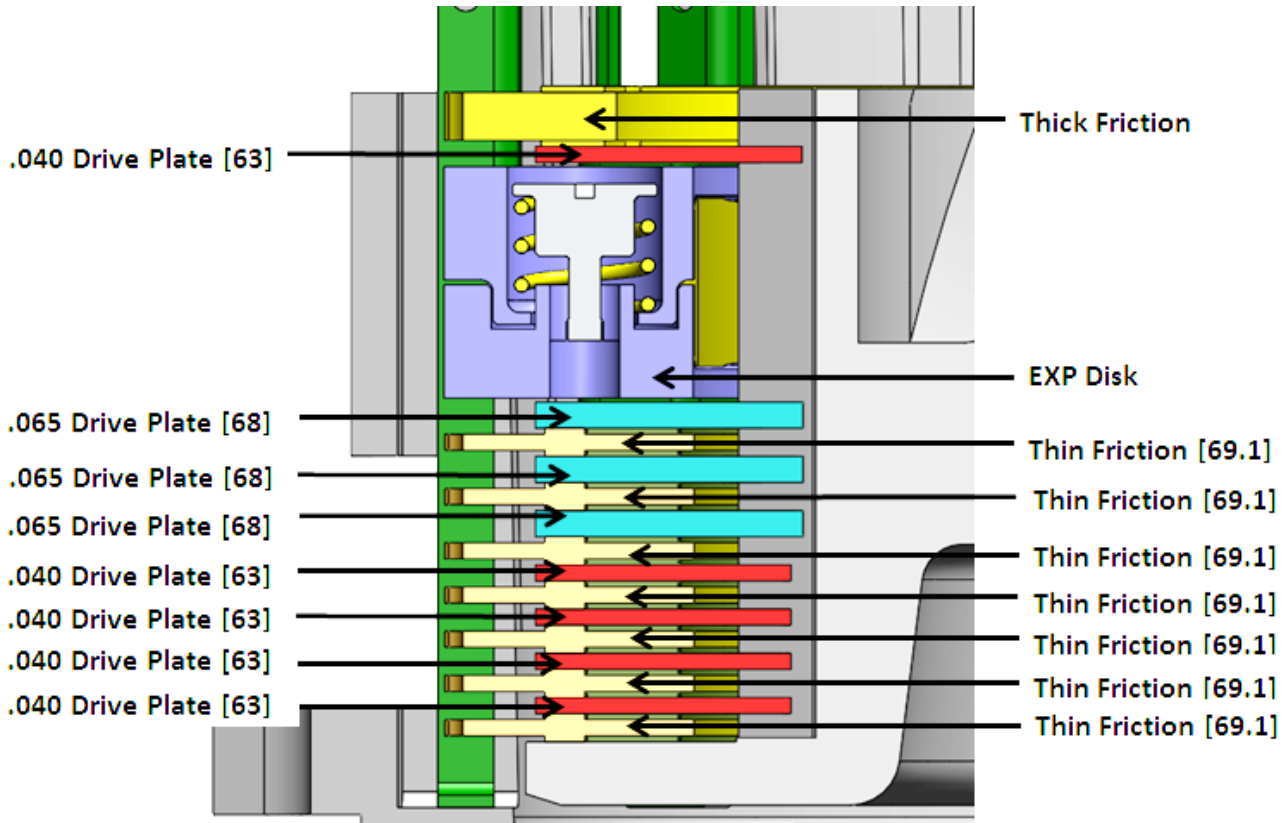


5. Install the first Rekluse thick friction disk on top of the previously placed .040" drive plate. This concludes this portion of the clutch pack install. The remaining Rekluse thick friction and drive plate will be placed on the backside of the pressure plate later in the installation process.

NOTE: See the diagram below for specific clutch pack orientation during this point of the installation.

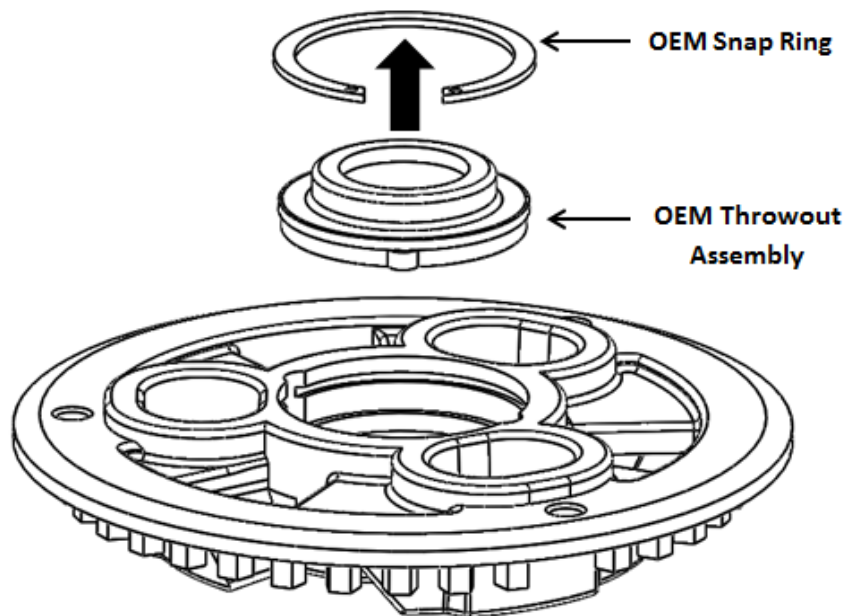


NOTE: See the image below for a rendering of the current clutch pack configuration.

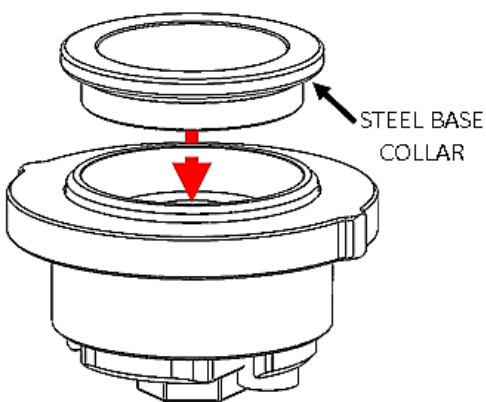


PRESSURE PLATE INSTALLATION

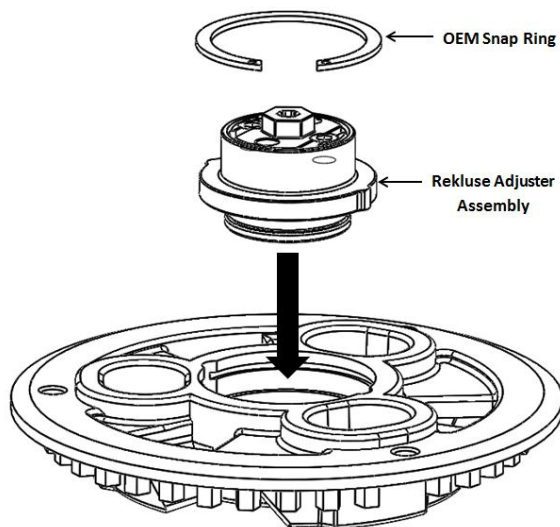
1. Using snap-ring pliers, remove the OEM retaining ring and throwout assembly from the pressure plate.



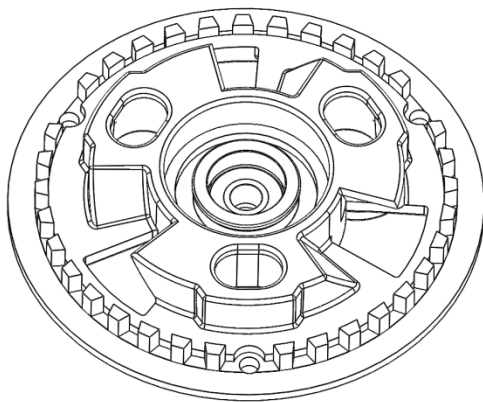
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2. Verify that the Steel Base Collar [#17.3] is securely in place inside the new Rekluse Adjuster Assembly [#87]. If necessary, engine assembly grease can be applied to hold it in place until it is installed.



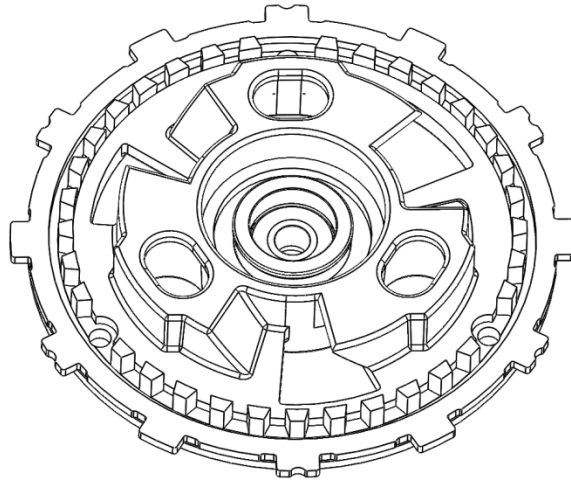
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3. Reusing the OEM snap ring, install the Rekluse Hydraulic Adjuster Assembly [#87].



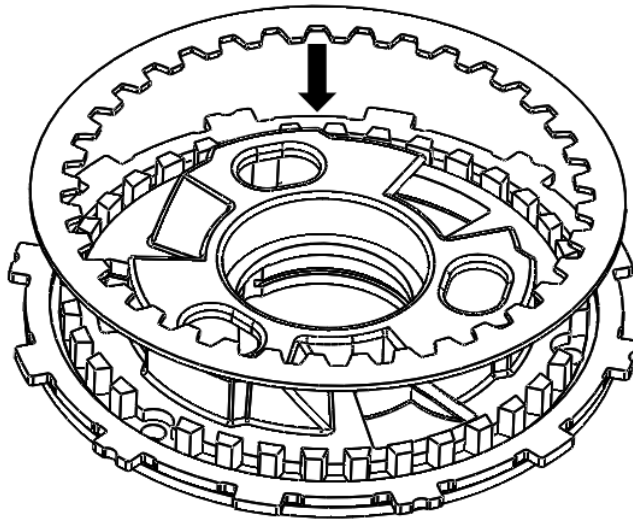
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4. Orient the pressure plate such that the backside teeth are facing you.



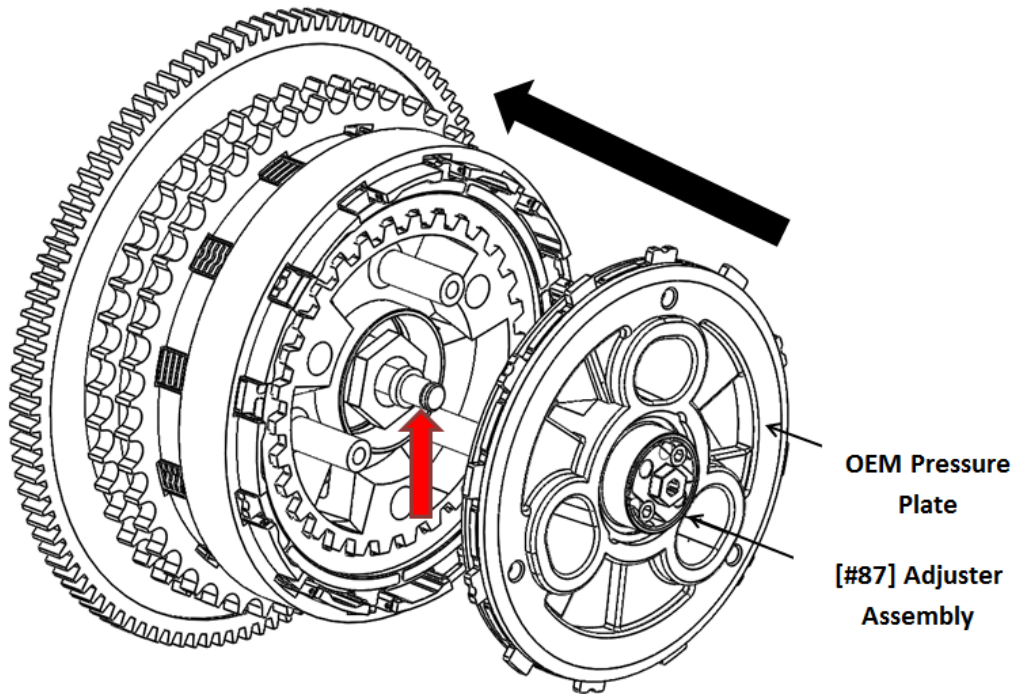
5. Install the remaining Rekluse thick friction [#69.2] on top of the pressure plate flange.



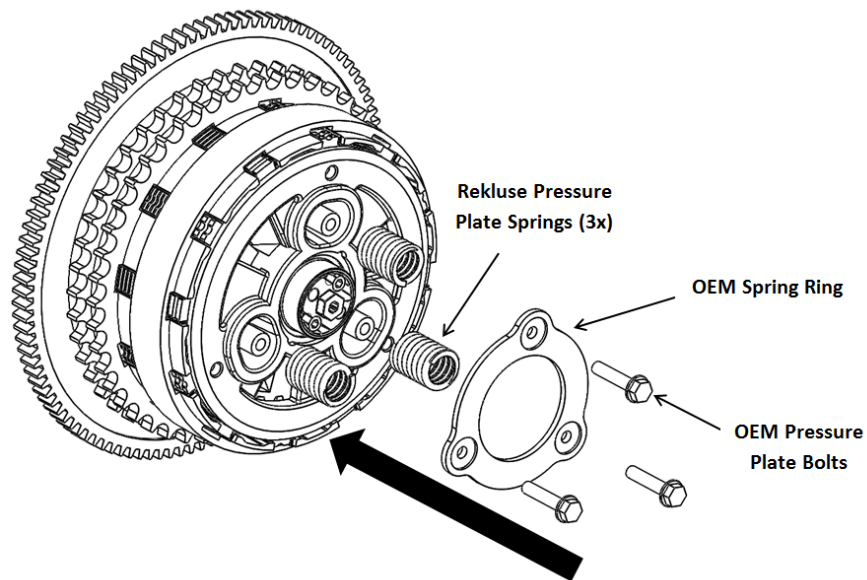
6. Install the remaining Rekluse .065 drive plate [#68.1] on top of the previously place Rekluse thick friction.



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7. Install this new pressure plate assembly, ensuring that the OEM push-rod is in place.

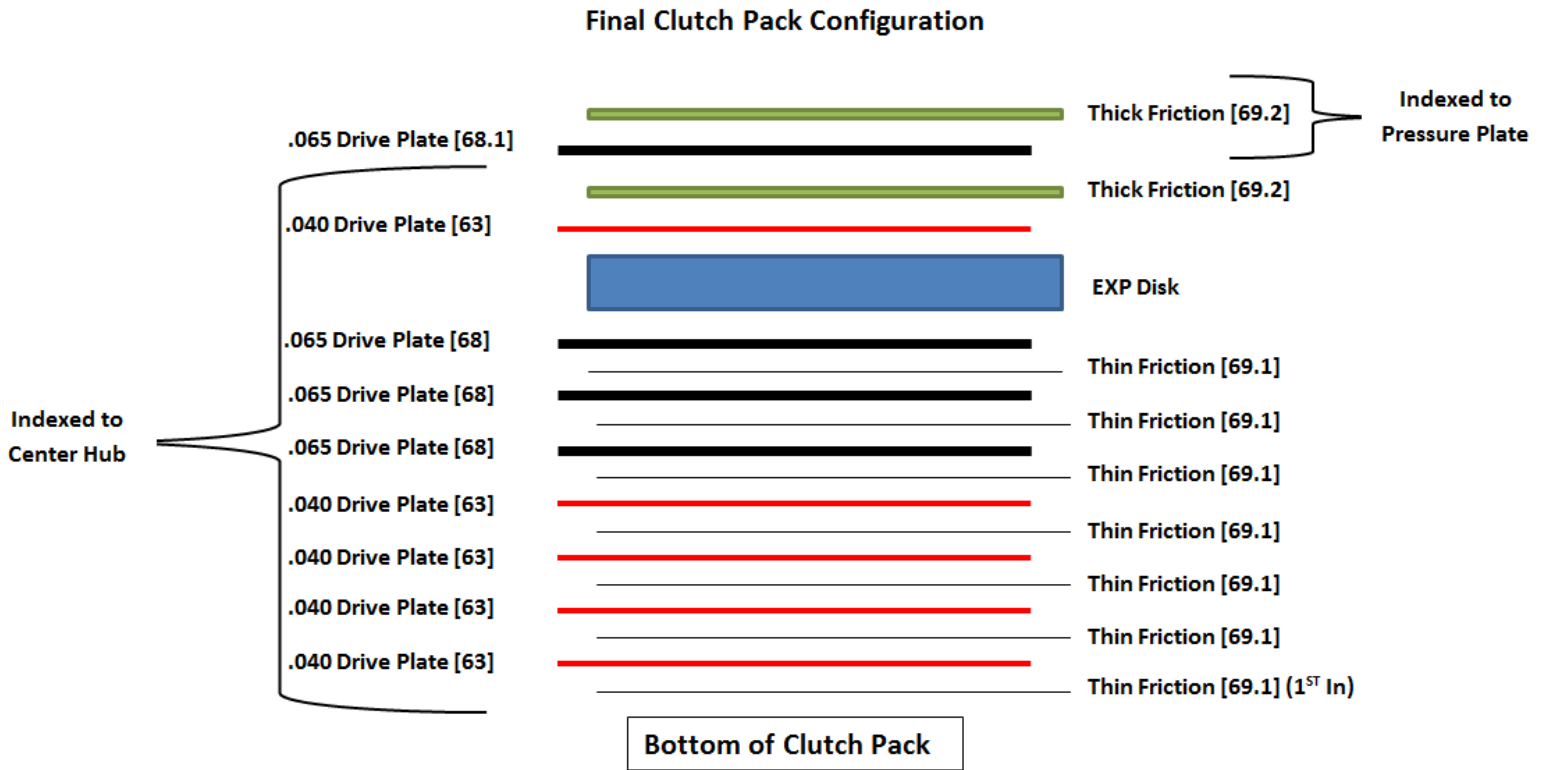


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8. Install the provided Rekluse springs, OEM spring ring, and OEM pressure plate bolts. Use a 10mm socket and torque the pressure plate bolts to OEM specification.



Using a 10mm socket, torque the pressure plate bolts to OEM specification of **80 in-lb**.

NOTE: Because this kit includes different thickness drive plates see the diagram below for specific clutch pack stack orientation during this point of the installation.



SET THE INSTALL GAP

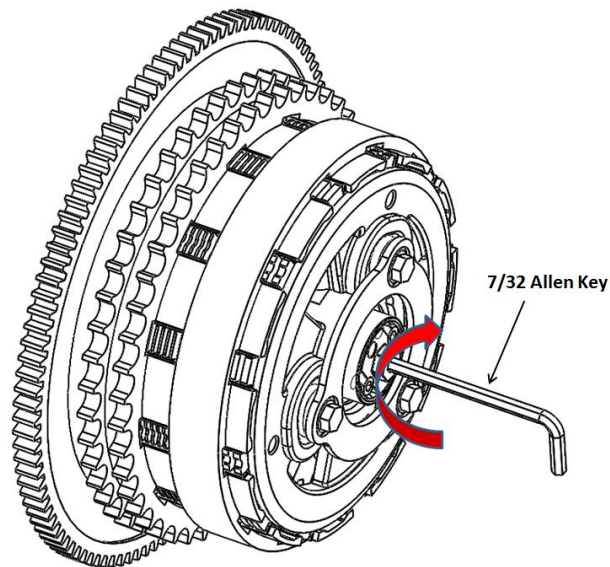
NOTE: The “Installed Gap” is the space in the clutch pack created by the adjustment at the Rekluse Adjuster Assembly. This gap is what allows the clutch to spin freely until the desired RPM is reached for engagement.

NOTICE

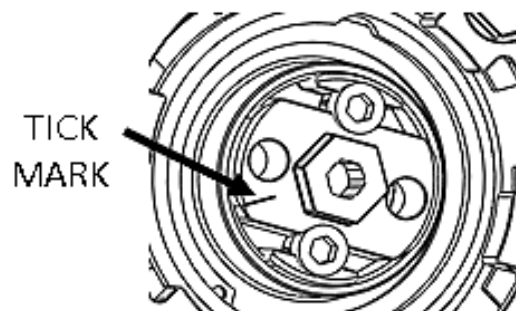
Failure to check and verify Free Play Gain can cause failure or damage to this product. Setting the correct gap is critical for clutch performance.

1. Using the long end of the 7/32” Allen key, gently turn the adjuster screw **CLOCKWISE** until it stops under moderate pressure. You are trying to feel for the point at which it bottoms out and starts to lift the pressure plate (you will feel an abrupt increase in turning effort).

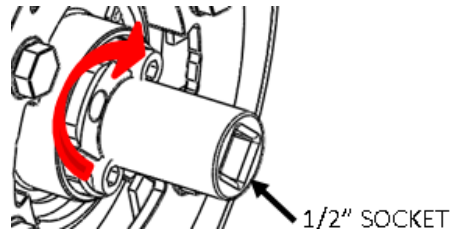
This position is called your **starting point**.



2. At this starting point, note the location of the tick mark on the aluminum adjuster.

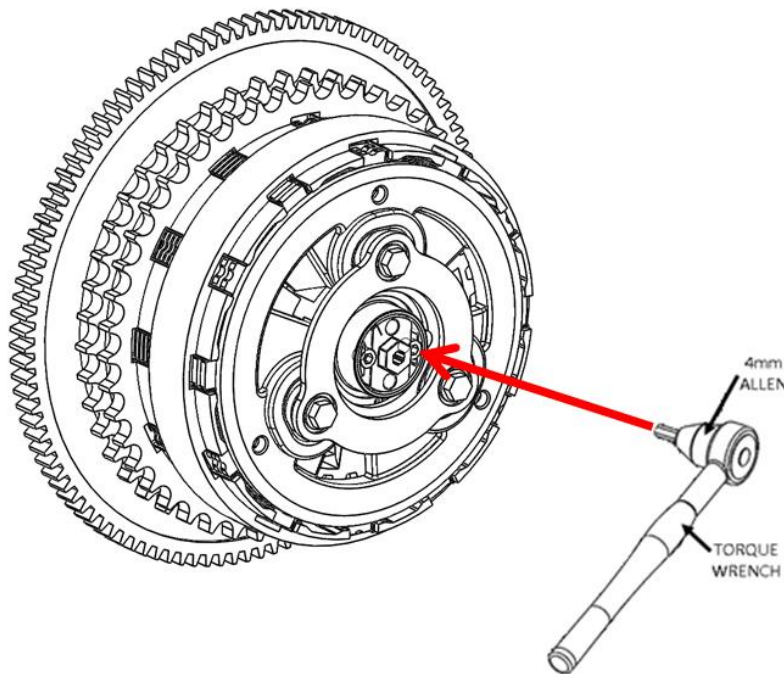


3. Using either a 7/32" Allen key or a 1/2" socket, turn the adjuster **CLOCKWISE** 1 + 3/8 turns from the starting point.



4. With the installed gap established, use a 4mm Allen socket and torque wrench to tighten the two pipe plugs, locking the adjuster in place.

Tighten the plugs evenly in 3-4 steps to **40 in-lb (4.5 N-m)**. When torqued correctly, the tops of the plugs should be nearly flush with the top of the aluminum adjuster piece.



DO NOT apply thread locking compound to the pipe plugs.

NOTE: When the bike is fully reassembled, the "Installed Gap" can be tuned or reset by removing only the derby cover instead of removing the primary cover.

-
5. Check the hydraulic fluid level at the master cylinder reservoir, and add fluid if required. The system may need to be bled if the fluid level is below the intake port in the reservoir.

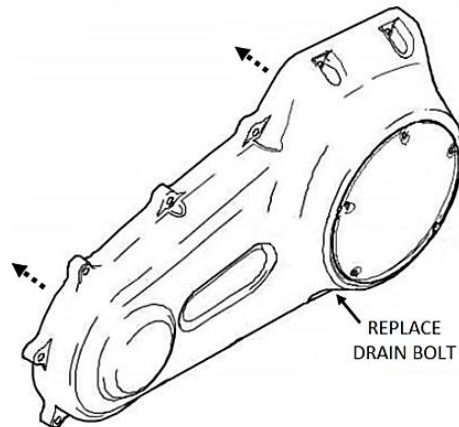


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6. Install the provided warning sticker on the backside of the clutch lever, such that it is visible to the rider.

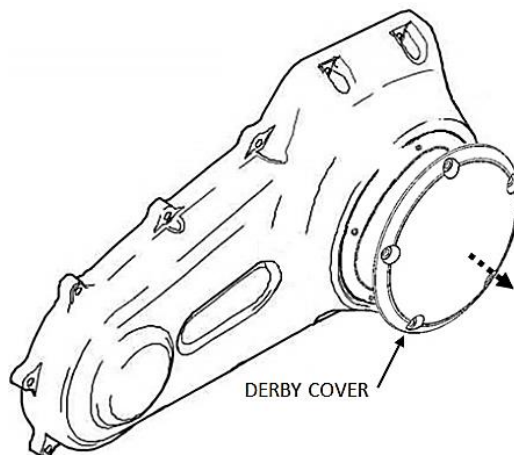


PRIMARY COVER INSTALLATION

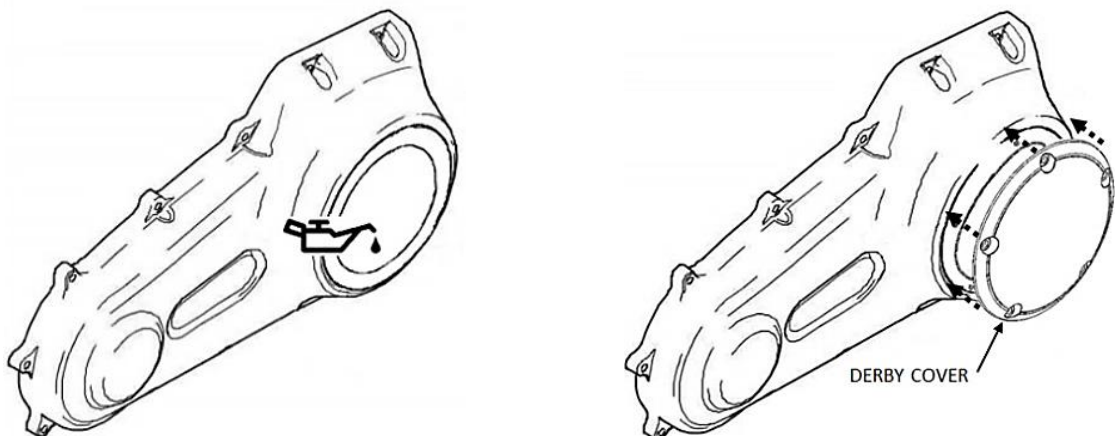
1. To avoid leaks, thoroughly clean both mating surfaces on the primary cover and the engine case.
2. Reinstall the primary gasket, drain bolt and the primary cover.



3. With the primary cover installed, remove the derby cover using a T-27 Torx bit.



4. Using a funnel, add 1.25 quarts of oil to the primary case through the derby cover cavity. **See oil recommendations in the User's Guide document.** Then, reinstall the derby cover.

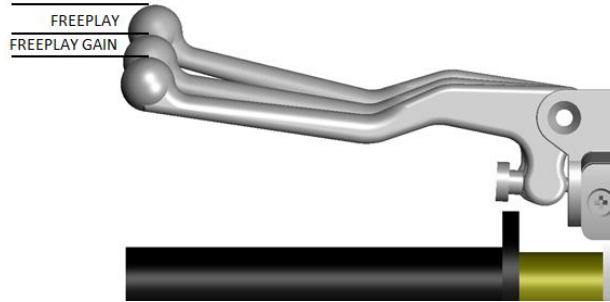


CHECKING LEVER FREE PLAY GAIN



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”

“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 2500 RPM. Free Play Gain is caused by the expansion of the EXP disk which lifts the pressure plate and removes tension from the clutch cable.



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 to idle down.

NOTICE

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



WARNING

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.

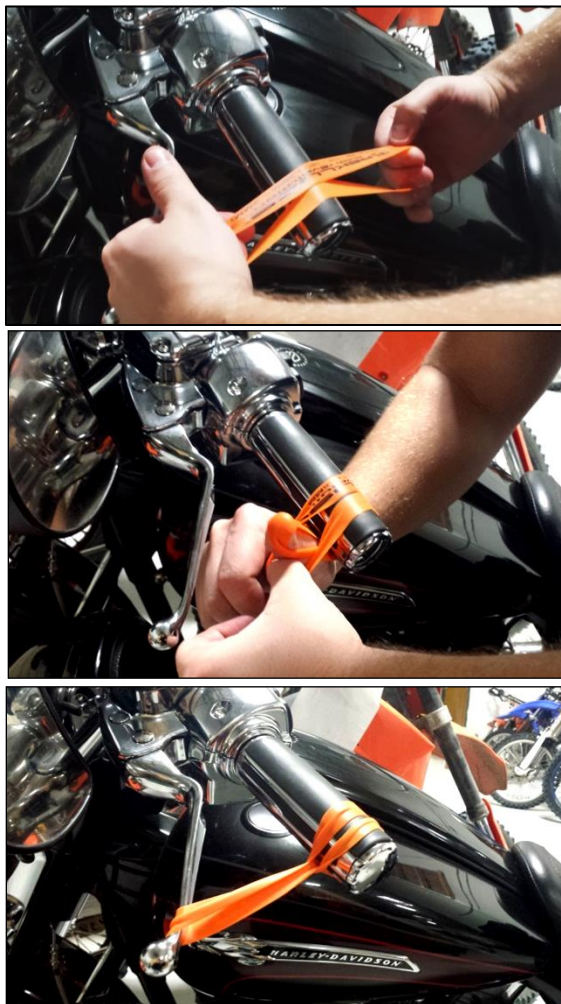
Motorcycles equipped with a Rekluse auto-clutch can move suddenly and unexpectedly and cause riders to lose control.

To avoid death, serious injury, and/or property damage, always sit on the motorcycle to start it.

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 left handlebar grip and loop it through itself, attaching it to the ball end of the lever.



With the bike at idle in neutral, quickly blip (rev) the engine to at least 3500 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 freeplay (slack) shown in the photos on the previous page. While continuing to apply light pressure, rev the engine to at least 3500 RPM. **The clutch lever should move in 1/8" (3mm) under your finger pressure as you rev the engine and the auto-clutch engages.**



FREE PLAY GAIN

BREAK – IN

1. 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 without using the clutch lever, in 1st gear: In 1st gear, accelerate moderately to approximately 3500 RPM and come to a stop—repeat this 10 times.
4. Re-check free play gain at your clutch lever and adjust if necessary at this point. **Your clutch pack will expand slightly 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.

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 freeplay gain at the start of every ride.

WARNING: DO NOT PREFORM SECOND AND THIRD GEAR STARTS!

Always keep the motorcycle in first gear when taking off from a stop. Taking off from a higher gear can cause premature clutch wear and damage the product.

FREE PLAY GAIN TROUBLESHOOTING

Each adjustment can be performed just by removing the derby cover, and should be done in small increments. After each adjustment, repeat the rev-test 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

Reason: Installed Gap is too small

Solution: Turn the Adjuster 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

Reason: Installed Gap is too large

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

LEVER SAFETY STRAPS

This kit includes 2 Velcro-type straps to be used to secure both the clutch and front brake levers when the bike is parked. These 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 on it. Use the straps to pull both levers as tight to the bar as possible as shown in the photos every time you park or leave the motorcycle. Refer to the Safety Information document for more information.

Brake Lever Strap: for use as a parking brake.



Clutch Lever Strap: to prevent unwanted launching.



Rekluse auto-clutch-equipped motorcycles may roll back or move suddenly and unexpectedly and cause riders to lose control.

An auto-clutch-equipped motorcycle will move in gear with the engine off because the clutch is only engaged when engine RPM is greater than the engagement threshold of the auto-clutch. Engine compression will not prevent motorcycles from moving while in gear.

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.

To avoid death, serious injury, and/or property damage:

- Use the included brake lever strap to secure the front brake lever to the handlebar as a parking brake.
- Use the included clutch lever strap when the motorcycle is parked to secure the clutch lever to the handle bar, thereby completely disengaging the clutch.

REKLUSE®



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