INSTALLATION GUIDE

Harley-Davidson
Street 500/750

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Revision: 011922

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OVERVIEW

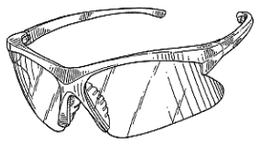
This kit replaces many of the OE (Original Equipment) or “stock” clutch parts. These parts are designed specifically for your motorcycle to ensure optimal performance. The following is a summary of what is replaced:

- OE friction disks
- OE drive plates

⚠CAUTION

Do not dyno test this product without reviewing the included dynamometer document.

INSTALLATION TIPS



- Read the separate included Safety Information document before operating the vehicle with the product installed.
- Installation requires the removal of the right foot control assembly and some of the exhaust system to access the clutch cover. Consult the OE service manual for these instructions.
- 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.
- Use the torque values listed in the instructions. Otherwise, use the torque specifications found in your OE service manual.
- Motorcycles with taller gearing or modified engines with increased horsepower may require heavier wedges and/or

stiffer pressure plate springs. These can be purchased separately from Rekluse.

- Inspect your OE cable for fraying and replace if needed.
- 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.

TOOLS

- 1 3/16” Socket
- 9/16” Socket
- ½” Socket
- 5/16” Socket
- 3/16” Socket
- 10 mm Socket
- 9/16” Wrench
- Torque Wrench
- Pick
- Channel-lock Pliers
- Socket Wrench

BEFORE YOU BEGIN

- Rekluse recommends replacing the chaincase cover gasket when installing this product.

⚠CAUTION

Be aware that installing the clutch requires the removal of the right foot control assembly and some of the exhaust system to access the clutch cover. Consult the OE service manual for these instructions.

INCLUDED PARTS

Refer to the included **Parts Fiche** for a detail of the components.

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

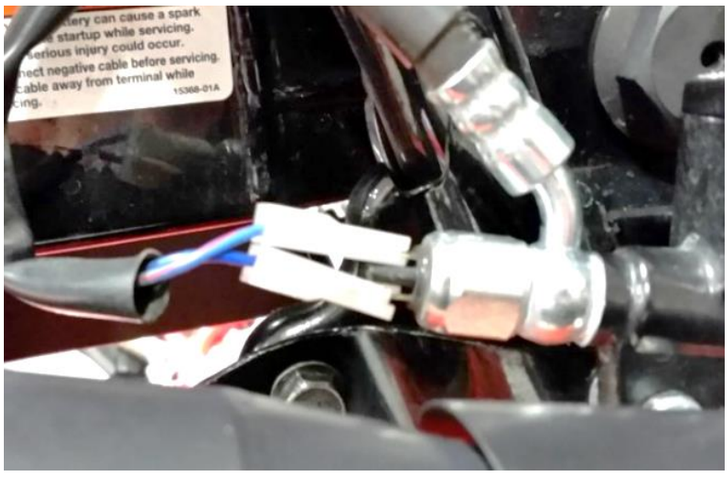
PREPARE BIKE FOR INSTALLATION

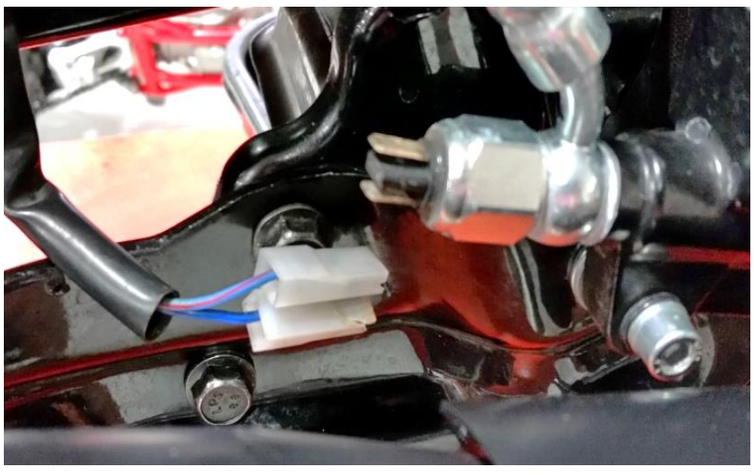
1. Stand the bike up on a suitable bike stand.

2. On the underside of the bike, use a ½” socket to remove the engine oil drain plug, then drain the oil into a suitable container.

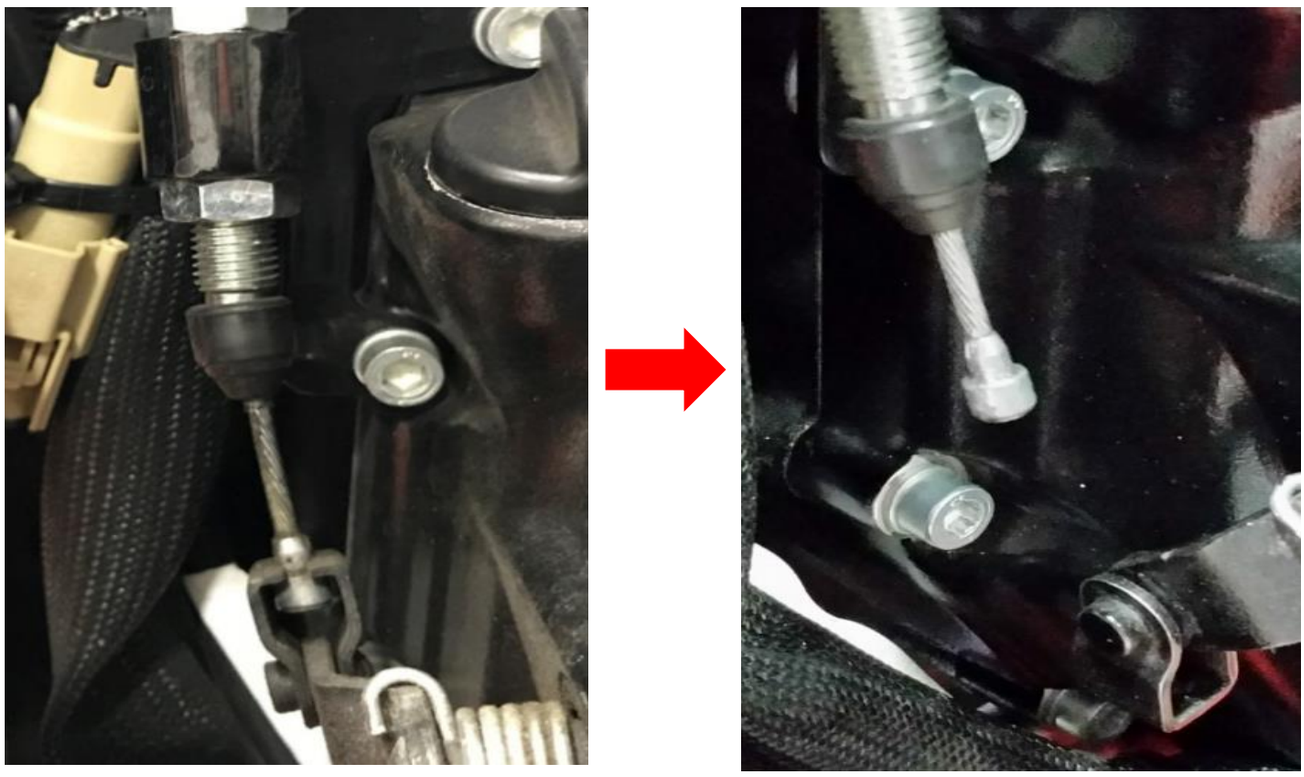
DISASSEMBLE THE CLUTCH

1. Unhook the brake lamp switch connector wires by gently pulling the connectors to release them, then move them out of the way of the exhaust system.



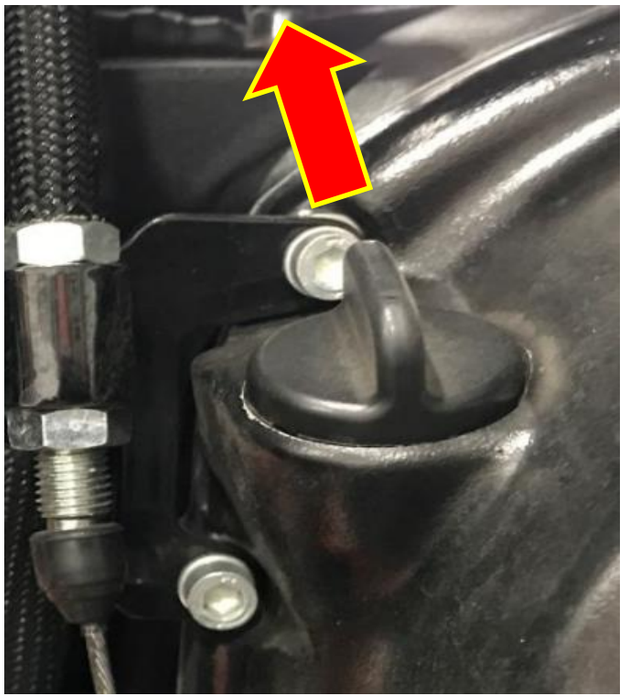


2. Remove the right foot control assembly according to the OE service manual.
3. Remove the exhaust assembly according to the OE service manual.
4. Using channel-lock pliers, unhook the clutch cable from the actuator arm.



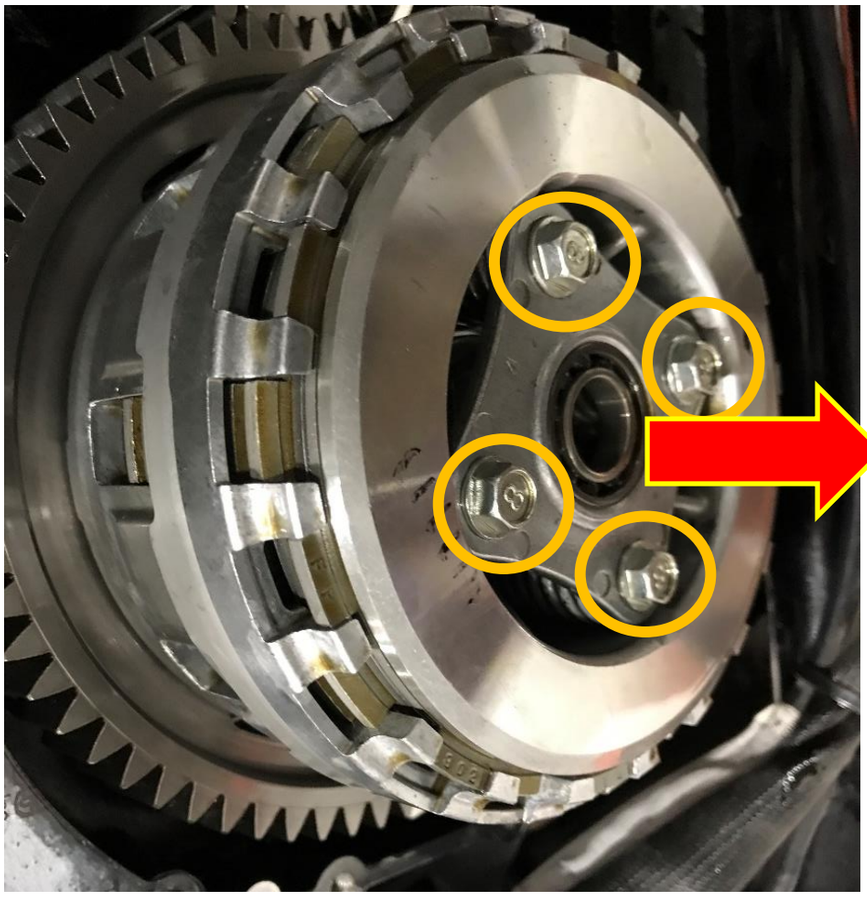
5. Move the wire harness aside to access the clutch cover bolts.

6. Loosen or remove the oil cap from the clutch cover.

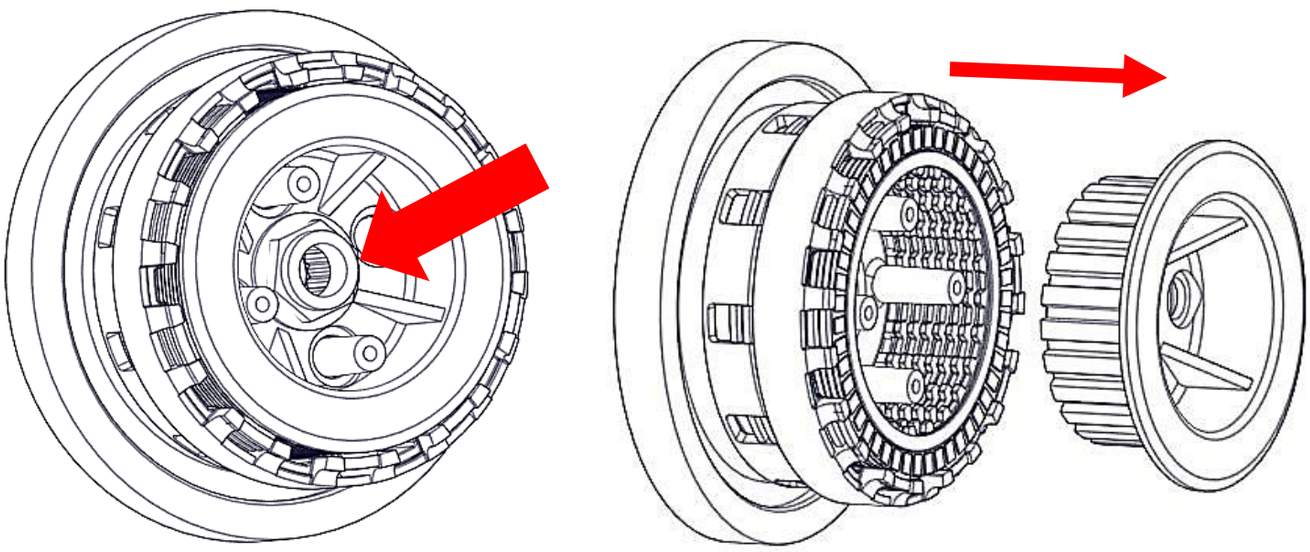


7. Use a 3/16” Hex head socket to remove the clutch cover bolts.

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



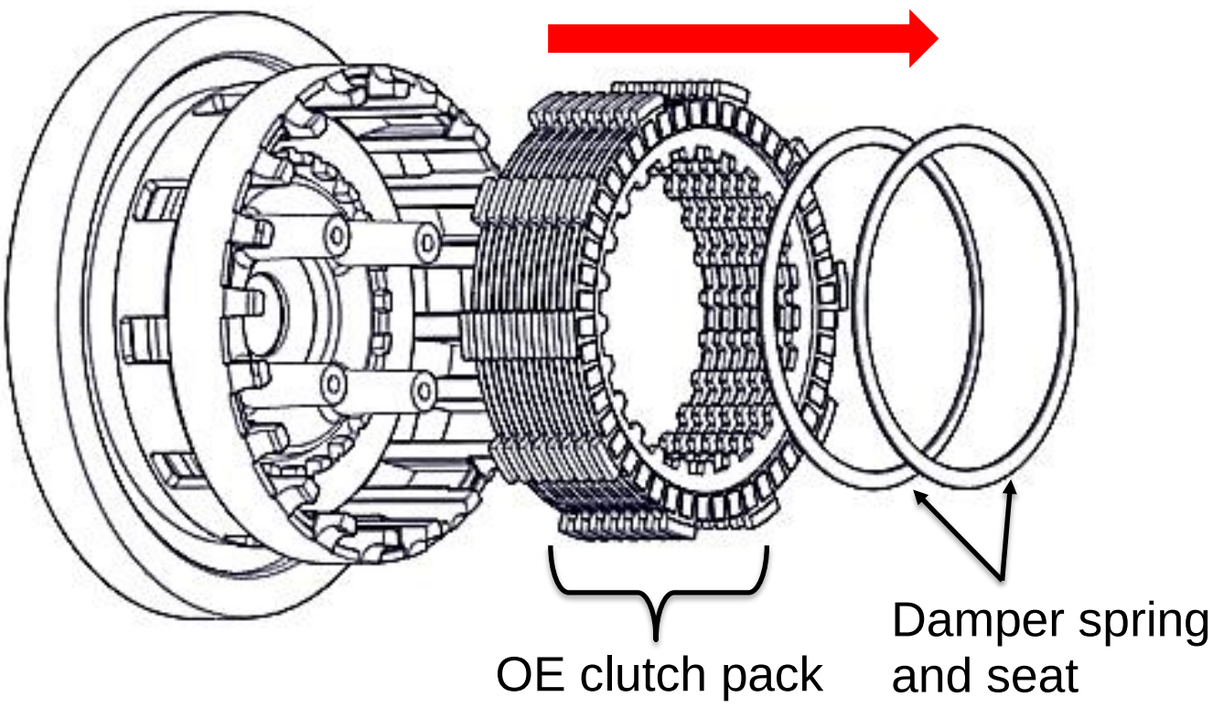
9. Use 1 3/16” socket to remove the clutch assembly nut, remove the cupped washer, then remove the inner hub.



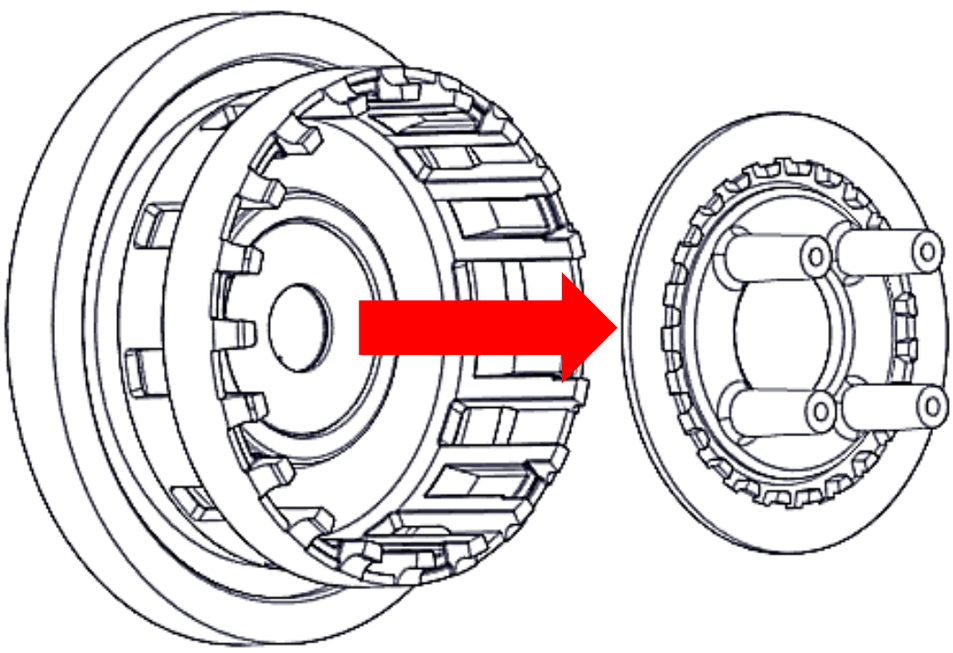
Note: *Set the cupped washer and nut aside. It will be reused.*

10. Remove the damper spring seat and the damper spring, then remove the OE clutch pack. *Set the damper spring seat and damper spring aside. They will be reused.*

Note: *It may be necessary to use picks to reach and remove the bottom of the clutch pack.*



11. Remove the pressure plate.



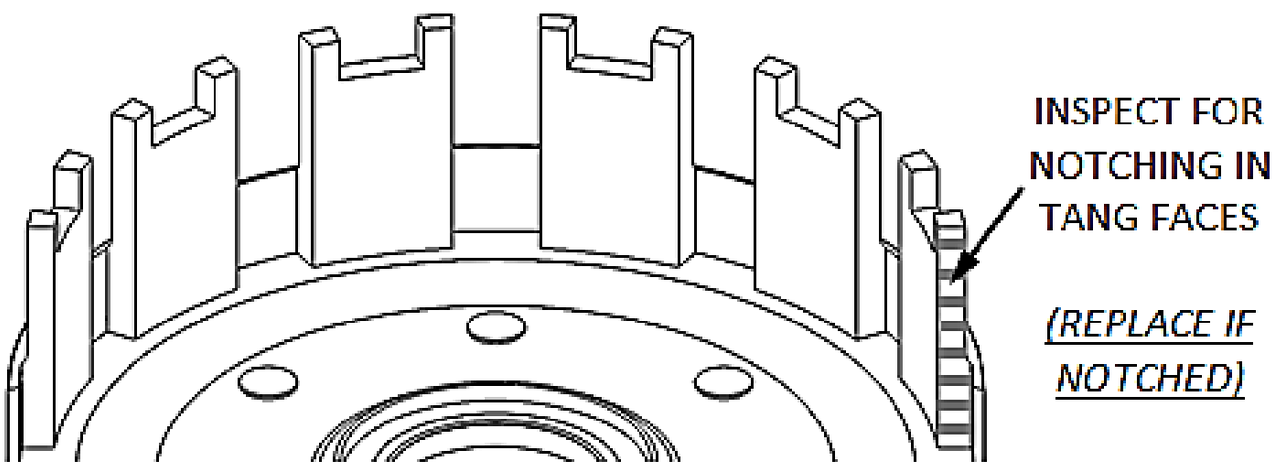
12. Remove the flat washer and the clutch basket from the main shaft.

INSPECT THE BASKET

⚠WARNING

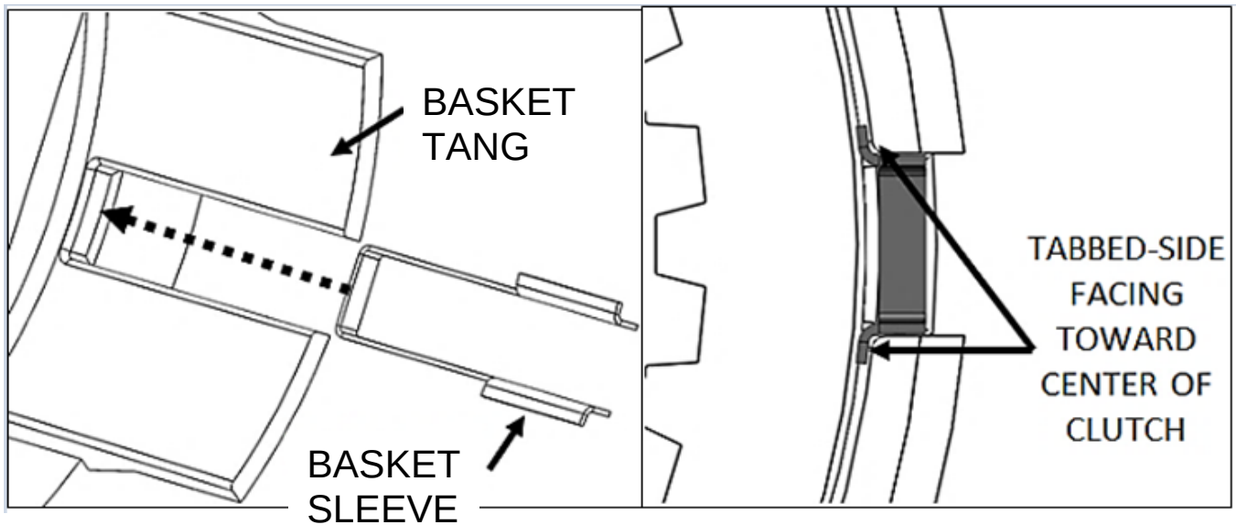
Failure to inspect the basket and replace it if necessary could result in death, serious injury, and/or property damage.

Inspect the clutch basket for notching. Do not install sleeves or use products with a notched basket. Notched basket tang faces can cause the sleeves to break. Do not use baskets that have been filed, machined, or modified on the tangs. Replace basket if necessary.



INSTALL THE BASKET SLEEVES

Install **ALL** the Rekluse basket sleeves into the OE basket slots. Make sure the sleeve tabs sit against the inside of the basket, then push the sleeves down until they contact the bottom of the tang slot. See pictures for reference.



⚠WARNING

Rekluse basket sleeves are designed to be installed into an OE or Rekluse clutch basket ONLY. The use of non-Rekluse aftermarket clutch baskets may cause clutch damage or failure.

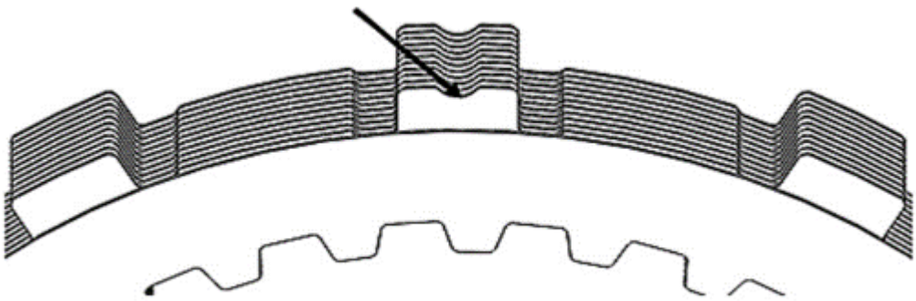
Note: *In some models, the sleeves will stick slightly above the top of the basket. This is normal.*

INSTALL THE CLUTCH PACK

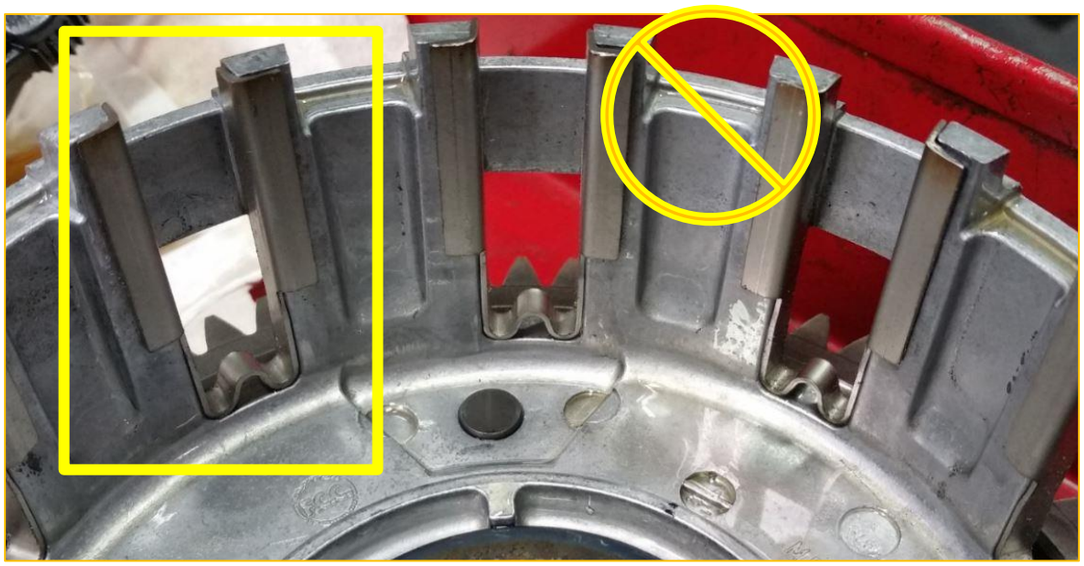
Notes for Clutch Pack Installation:

- *The clutch pack is assembled onto the hub outside the bike, and then the whole assembly is placed into the bike.*
- *Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.*
- When assembling the clutch pack, it is important to line up the alignment notches on the friction disk tabs. *Correct alignment is critical for optimal performance.*

Align notches of friction disks

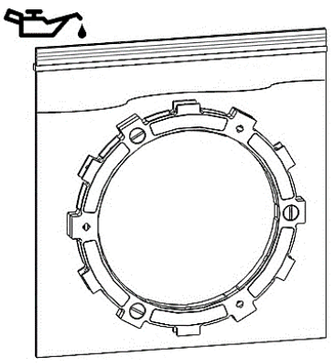


- *Some OE baskets have “half slots” at the top of the basket tangs. Rekluse products require the entire clutch pack to be installed into the MAIN (deeper) basket slots. Do not use the “half slots.” Installing the pack in the “half slots” will cause performance issues.*



Clutch Pack

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



2. Turn the inner hub upside down on a workbench.

Install the frictions and drive plates onto the hub one at a time according to the **Setup Sheet:**

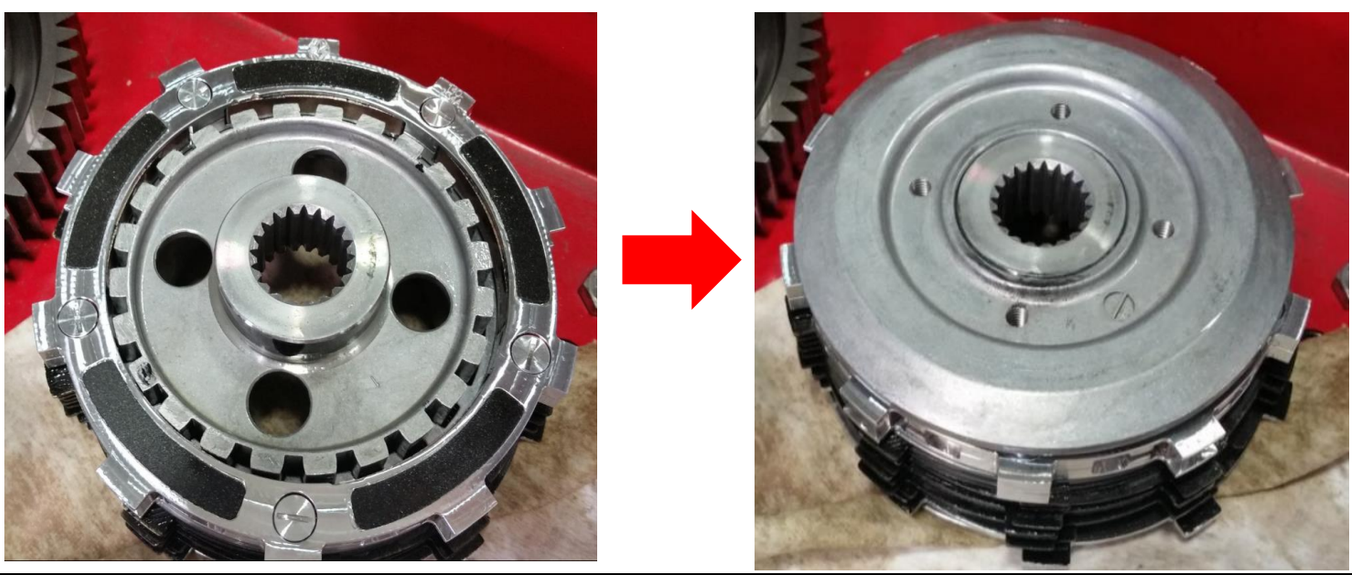
3. Install the thick friction disk first

4. Install the damper spring seat, then add the damper spring, cupped side down.

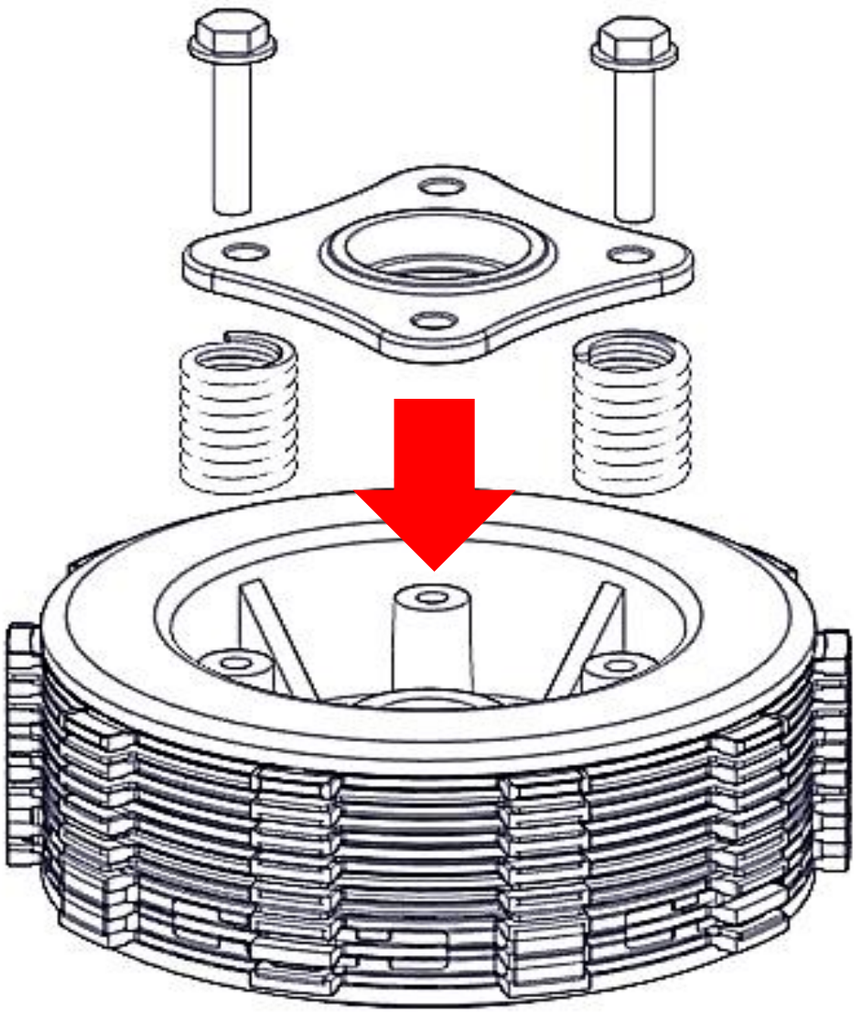
5. Install the remaining frictions and drive plates according to the **Setup Sheet**

6. Install the EXP disk on top of the last steel drive plate. See the following picture for reference.

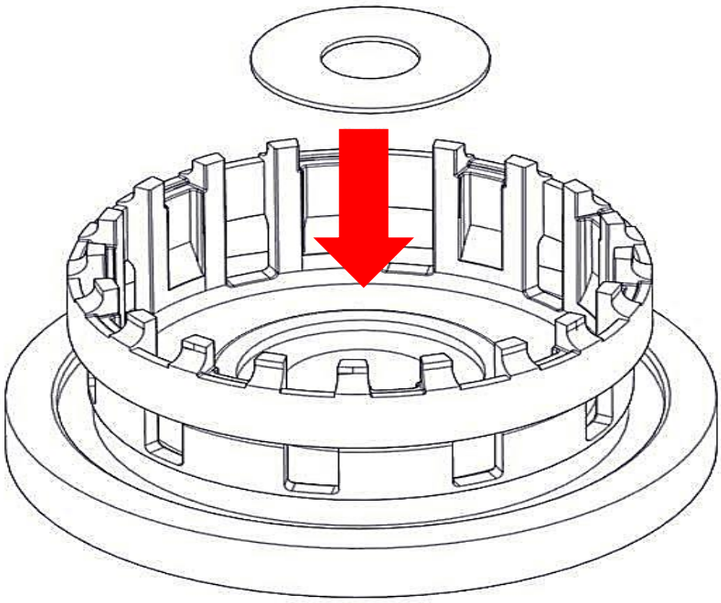
7. Install the pressure plate onto the inner hub.



8. Flip the assembled inner hub over on the workbench.
9. Install 2 Rekluse pressure plate springs, then install the lifter plate with 2 pressure plate bolts. *All 4 bolts are installed in Step 21.*

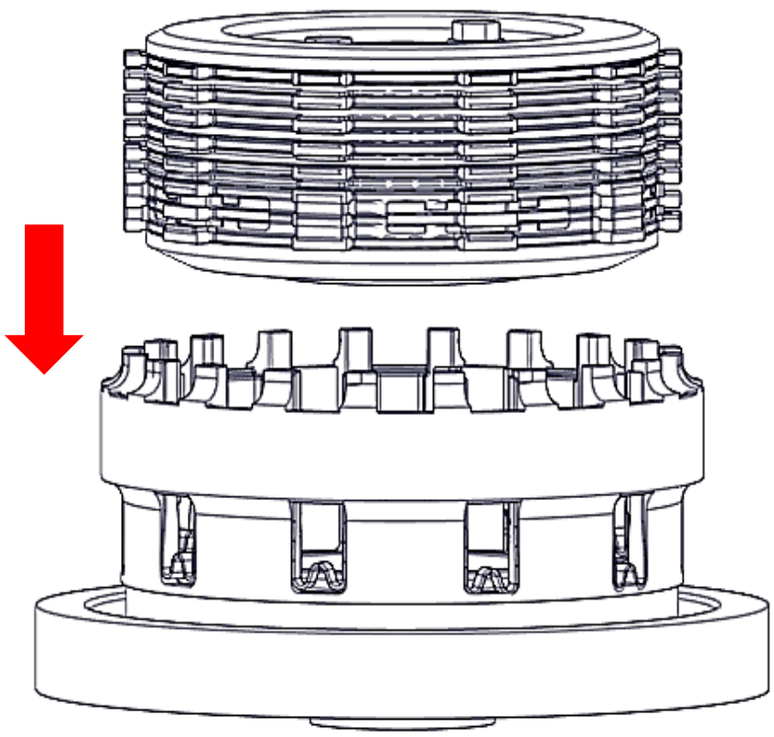


10. Reinstall the flat thrust washer into the clutch basket.



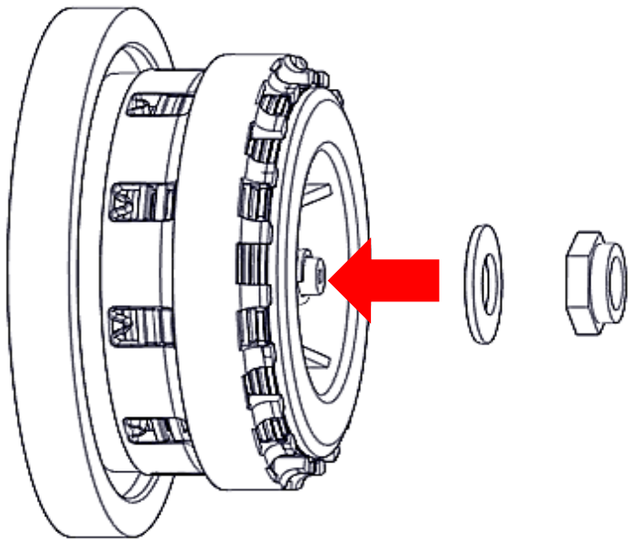
11. Insert the inner hub assembly into the clutch basket with the pressure plate toward the bottom of the basket.

Note: *Make sure the alignment notches on all the friction disks are lined up. Install the clutch pack and EXP disk into the slots with the basket sleeves.*



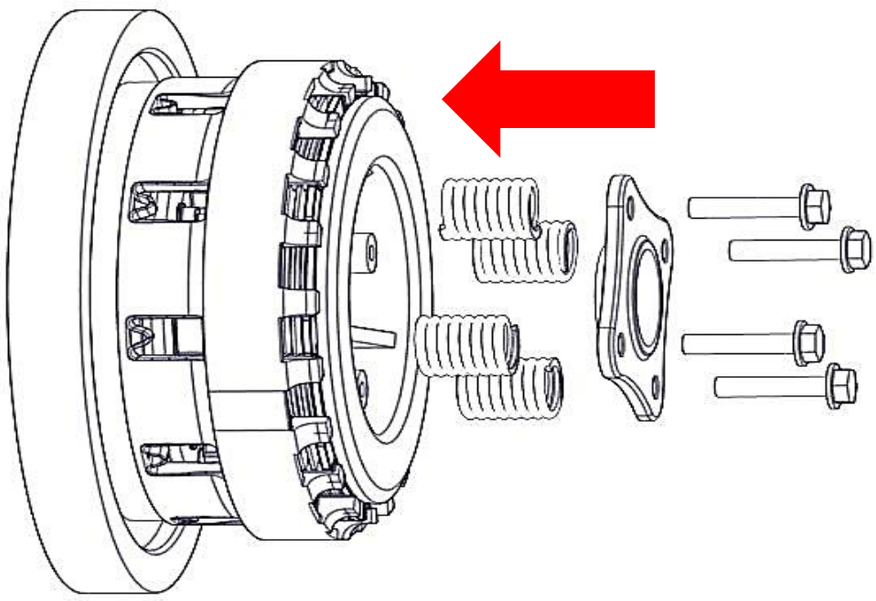
12. Install the assembled clutch basket onto the main shaft in the bike, being sure to line up the ring gear with the crankshaft gear before seating the basket.

13. Remove the 2 pressure plate bolts, the lifter plate, and the 2 springs.
14. Reinstall the cupped washer (cupped side toward the bike) on the main shaft, then reinstall the clutch assembly nut.



15. Torque the clutch assembly nut to **130-136 ft-lb (175-185 Nm)** per OE specifications.

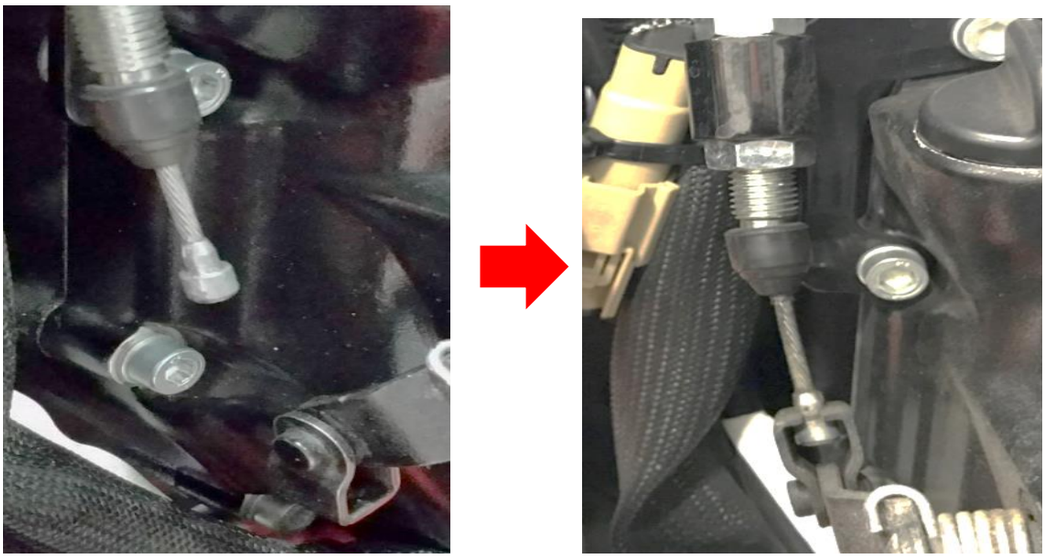
16. Reinstall the 4 pressure plate springs, the lifter plate, and the 4 pressure plate bolts.



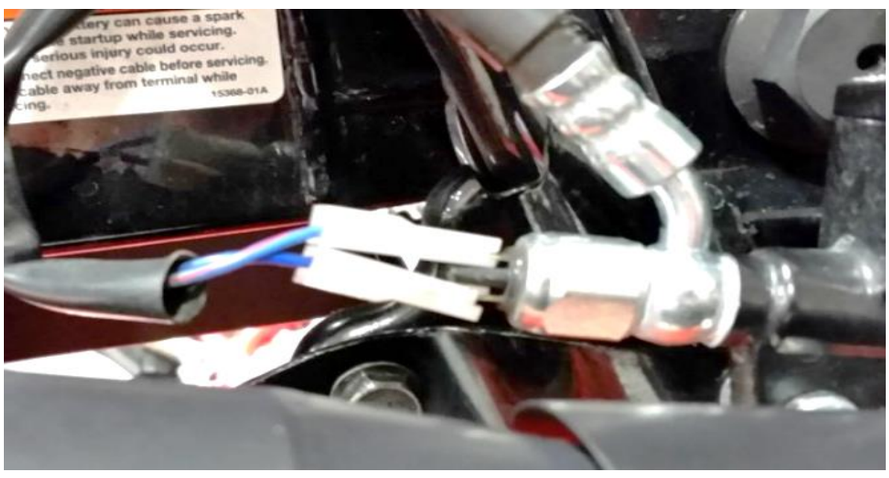
17. Torque the pressure plate bolts to **71-106 in-lbs (8-12 N-m)** per OE specifications.

INSTALL THE CLUTCH COVER

1. Reinstall the OE clutch cover gasket, then reinstall the clutch cover.
2. Reinstall the clutch cover bolts and torque to **89-106 in-lbs (10-12 N-m)** per OE specifications.
3. Tighten or reinstall the clutch cover oil plug.
4. Reinstall the clutch cable to the actuator arm.



5. Reinstall the exhaust assembly according to the OE service manual.
6. Reinstall the brake pedal assembly according to the OE service manual.
7. Reattach the brake lamp switch connector wires.
8. Replace the oil plug, then fill it with oil according to the OE service manual.



9. Torque the engine oil drain plug to **15-18 ft-lb (20-25 N-m)** per OE specifications.
10. Install the provided warning sticker on the backside of the clutch lever, such that it is visible to the rider.

SET THE INSTALLED GAP

The installed gap is set by lifting the pressure plate a preset amount using cable tension.

1. Move the perch adjuster halfway between the clutch cable and the perch.
2. Check Free Play Gain (next section) to adjust the cable tension to its final setting.

⚠CAUTION

Do not ride your bike without adjusting the installed gap. You will not be able to disengage the clutch until you set the installed gap.

CHECK FREE PLAY GAIN

It is very important that you understand how to verify the correct installed gap by checking Free Play Gain. The installed gap is what allows the auto function of the product to perform properly.

Correct Free Play Gain = Correct installed gap

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

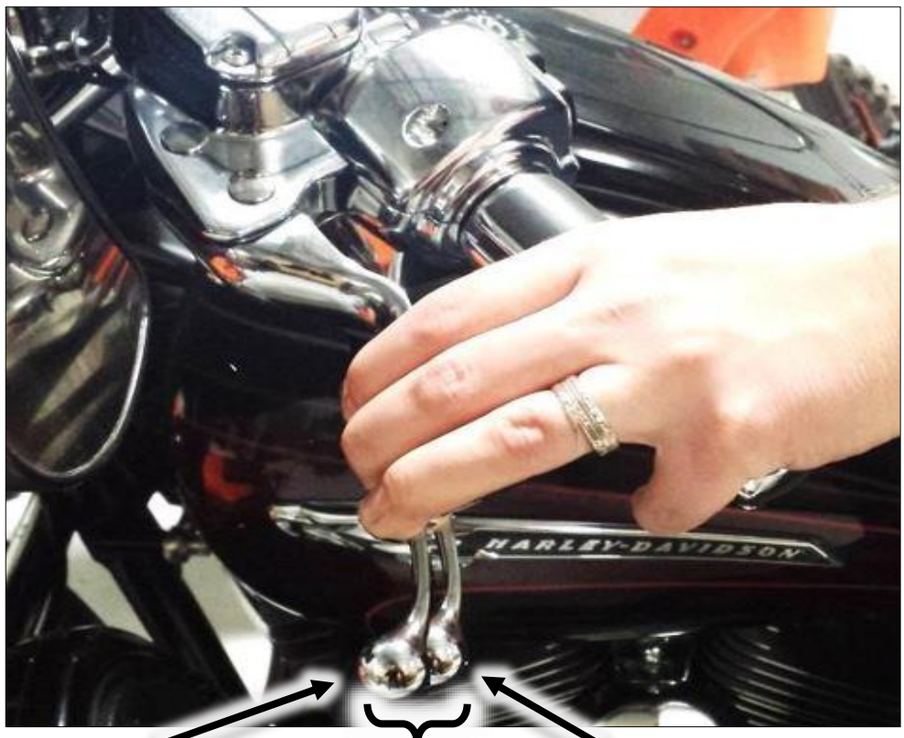
Learn how to check Free Play Gain

If you are familiar with checking Free Play Gain, check for Free Play Gain then skip to the “Adjust the Installed Gap” section.

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 https://rekluse.com/support/videos.

Checking Free Play Gain allows you to externally monitor the installed gap so you can know when to adjust 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.”



Lever with “slack” removed

Lever position around 4,000 RPM

Free Play Gain
1/8”-1/4” (3 mm-6 mm) lever movement

- **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 1/8”-1/4” (3 mm-6 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 setup. It can also be used before each ride until you feel comfortable checking the Free Play Gain using the hand method.

⚠WARNING

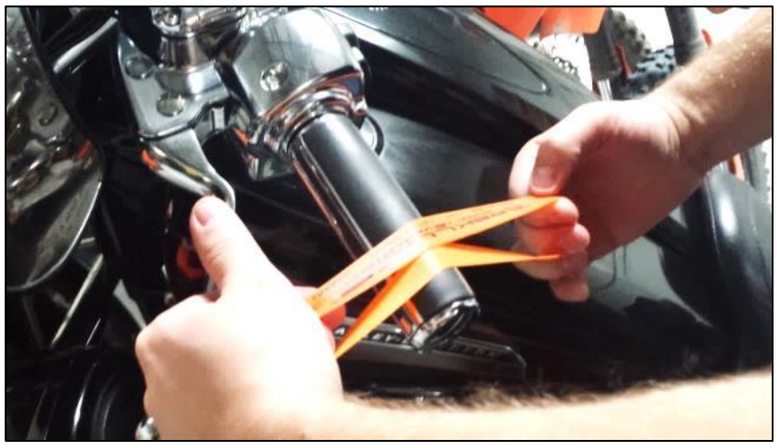
BEFORE YOU BEGIN, verify that the bike is in NEUTRAL before checking Free Play Gain. Failure to do so may result in the bike lurching forward, and loss of control and/or injury may result.

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

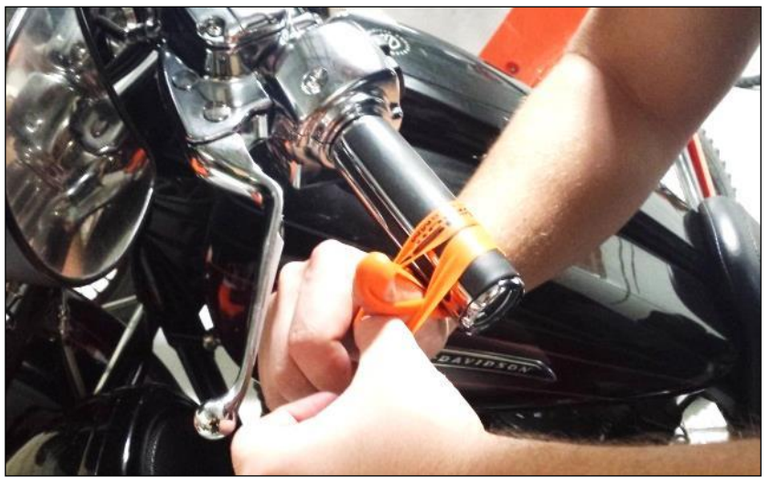
Motorcycles equipped with a Rekluse auto-clutch can move suddenly and unexpectedly and cause riders to lose control. To avoid death, serious injury, and/or property damage, always sit on the motorcycle to start it.

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.

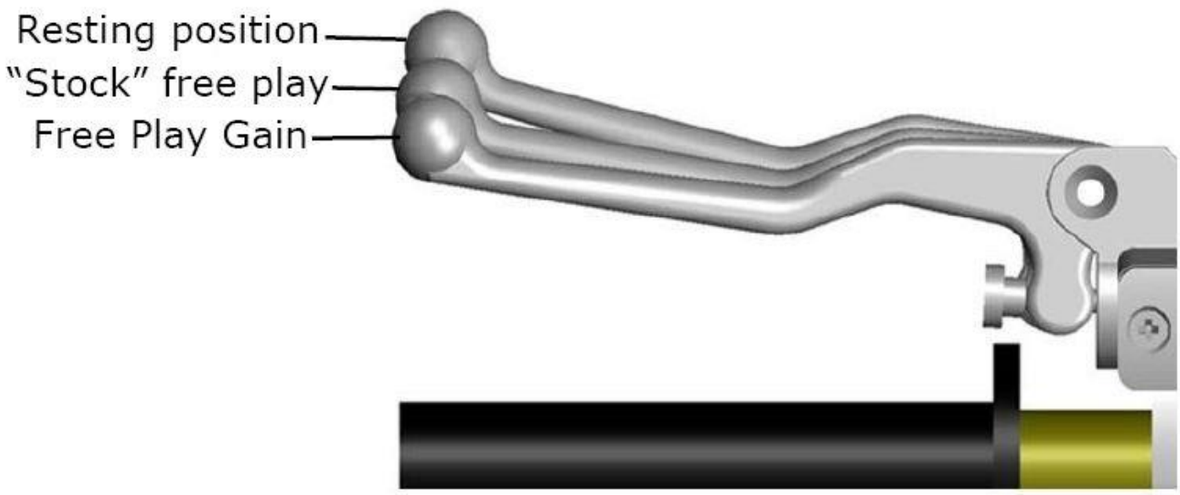


d) Pull the band through the loop, then attach it to the outside end of the clutch lever. This will take up the initial free play (slack) and put the lever in a position to detect the Free Play Gain.

e) While still in **NEUTRAL**, quickly rev the engine between 3,000-5,000 RPM (1/4 to 1/2 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 3,000-5,000 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 3,000-5,000 RPM (1/4 to 1/2 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 3,000-5,000 RPM a second time to verify the Free Play Gain again.

ADJUST THE INSTALLED GAP

After checking for Free Play Gain, you may need to adjust the installed gap. If Free Play Gain is optimal, continue to “Break in the new clutch**Error! No bookmark name given.**.” 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 properly installed gap based on your Free Play Gain.

Adjust the Installed Gap

Symptom	Reason	Solution
• Too much Free Play Gain: Clutch lever moves in too far • Clutch has excessive drag or stalls • It is difficult to fully override the clutch with the lever	The installed gap is too small	Tighten the cable: increase the length of the in-line cable adjuster housing until the correct amount of Free Play Gain is achieved. Recheck Free Play Gain.
• Too little Free Play Gain: Clutch lever only moves slightly or does not move at all • Clutch slips • The bike seems to lose power	The installed gap is too large	Loosen the cable: Reduce the length of the cable housing (collapse the adjusters) until the correct amount of Free Play Gain is achieved. Recheck Free Play Gain.

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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** 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 still running, pull in the clutch lever, then shift the bike into 1st gear. Slowly release the clutch lever. The bike should stay running and in place, or have a slight amount of forward creep. 3. With the bike idling in first gear, slowly apply throttle to begin moving. 4. Without using the clutch lever, accelerate moderately to approximately 3,500 RPM to fully lock up the clutch and come to a complete stop. Repeat 15 times.	 15 roll-on starts

Note: *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.*

5. Place the bike in **NEUTRAL** and recheck Free Play Gain. Continue to adjust the installed gap until the clutch lever is 1/8”-1/4” (3 mm-6 mm).	 Recheck Free Play Gain and adjust the installed gap

Note: *Your clutch pack will expand with heat, so the 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 2nd and 3rd gear starts with this product. 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.

DO NOT DYNO TEST YOUR MOTORCYCLE BEFORE BREAK-IN! Always break in the product before performing dyno testing. Read the included dynamometer sheet for more information.

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: to prevent unwanted launching.

Brake Lever Strap: for use as a parking brake.

NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Phone

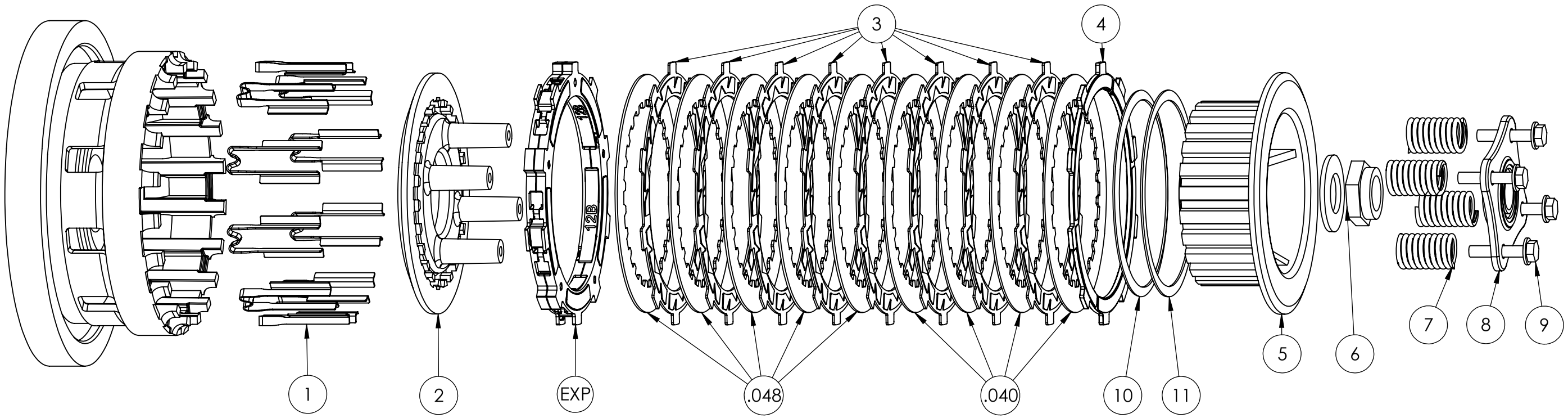
(208) 426-0659

Monday thru Friday: 8 am – 5 pm Mountian Time

Email

tech@rekluse.com

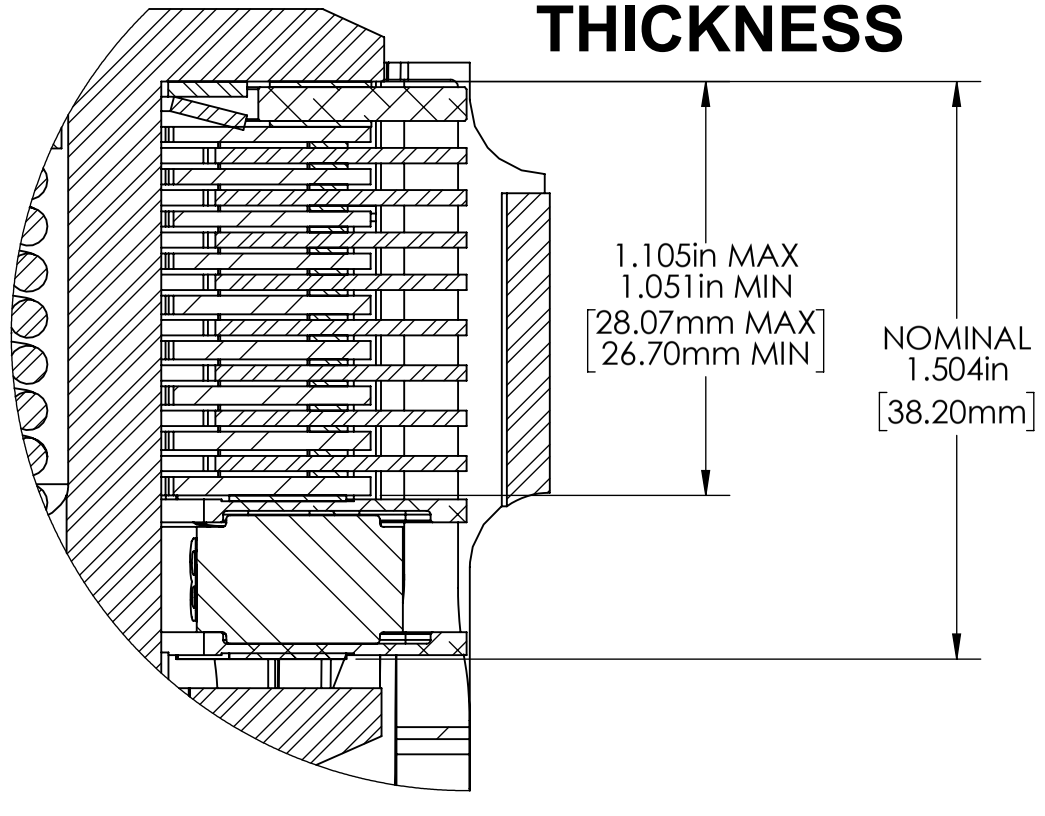
SETUP SHEET 198-6215007



SERVICE LIMITS

COMPONENT	STANDARD	SERVICE LIMIT
TORQDRIVE FRICTION	.068-.072in 1.73-1.83mm	.065in 1.65mm
EXP	.426-.446in 10.8-11.3mm	.416in 10.6mm

CLUTCH PACK THICKNESS



COMPONENTS

ITEM NO.	DESCRIPTION	QTY.
.040	DRIVE PLATE .040"	4
.048	DRIVE PLATE .048"	5
1	BASKET SLEEVE	10
2	OE PRESSURE PLATE	1
3	TORQ DRIVE FRICTION	8
4	THICK FRICTION	1
5	OE HUB	1
6	OE HUB NUT & WASHER	1
7	CLUTCH SPRING	4
8	HOLD-DOWN PLATE	1
9	SPRING SCREW	4
10	OE JUDDER SPRING	1
11	OE JUDDER SPRING SEAT	1
EXP	EXP	1

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