



# INSTALLATION GUIDE

Harley-Davidson  
Milwaukee 8

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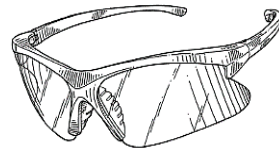
# OVERVIEW

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
- OE Pressure plate springs

# INSTALLATION TIPS

- Read the separate included Safety Information document before operating the vehicle with the product installed.
- This kit is compatible **ONLY** with the OE or Rekluse clutch components.
- 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 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.
- Different spring options may be available purchased from Rekluse (depending on the bike model) for:
  - Motorcycles with taller gearing or modified engines with increased horsepower
  - Customers looking for a lighter lever pull



- 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](http://www.rekluse.com) to learn more.

## **TOOLS**

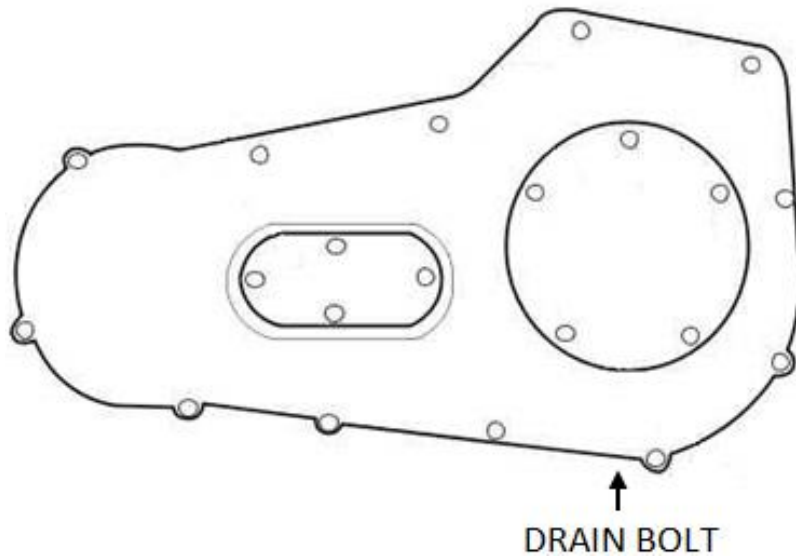
- Hex key set (Standard SAE)
- Torx bit set, including T27
- Torque wrench
- 10 mm socket
- End wrenches (Standard SAE)
- 2 dental picks

## **INCLUDED PARTS**

Refer to the included **Parts Fiche** for a detail of the components. Visit [www.rekluse.com/support](http://www.rekluse.com/support) for a full parts fiche illustration and part numbers.

# PREPARE BIKE FOR INSTALLATION

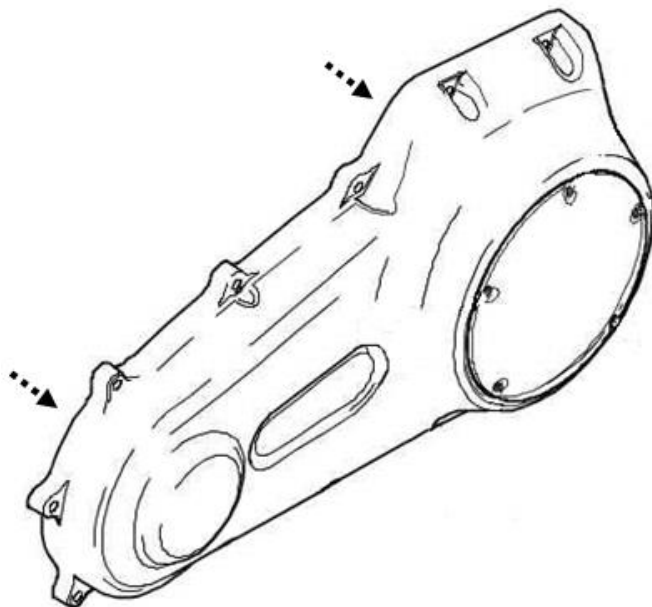
1. Stand the bike up on a lift or suitable bike stand.
2. On the primary chain case, use a wrench to remove the oil drain plug, then drain the oil into a suitable container.



3. Remove any parts that are attached or blocking the primary chaincase cover. These may include the left floorboard, foot peg(s), shift lever, and/or the side stand.

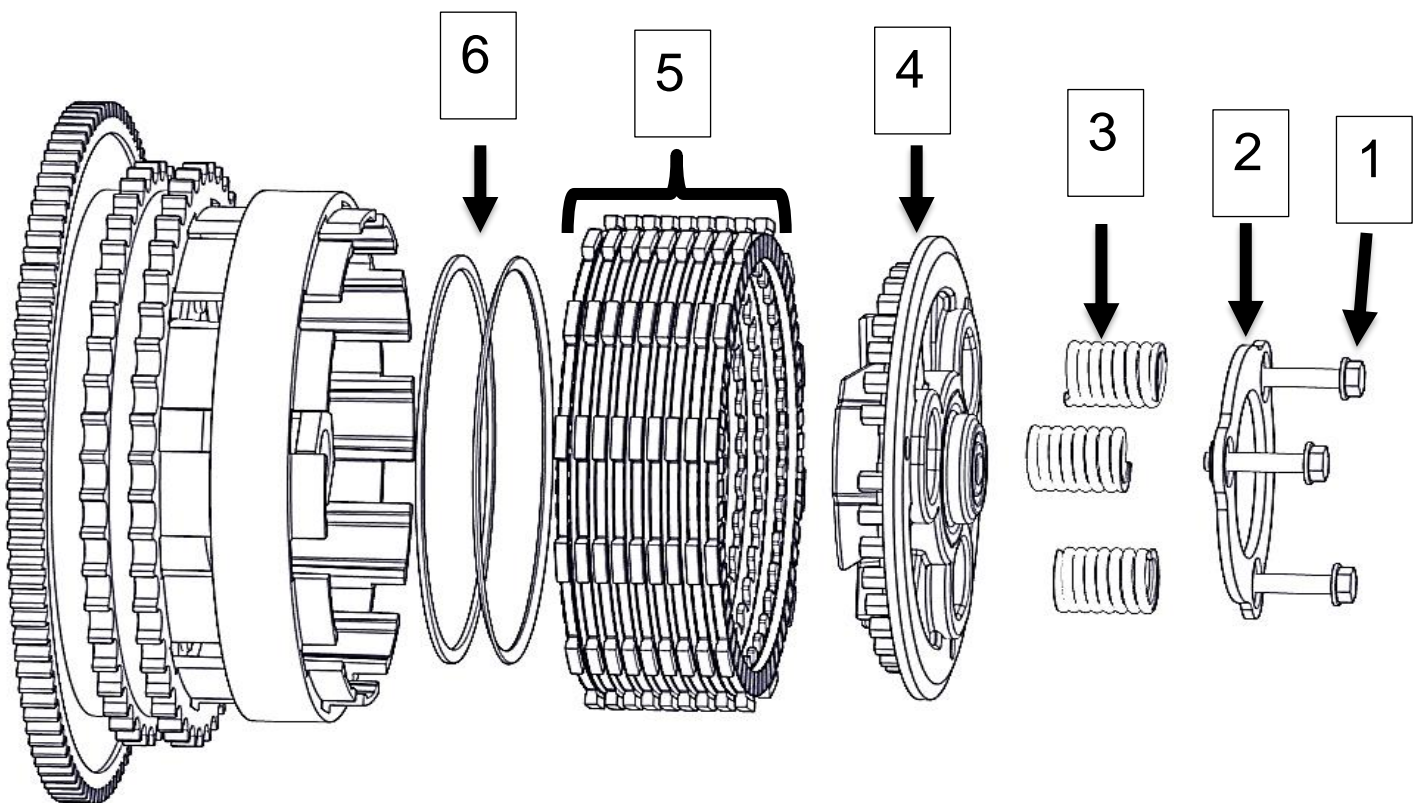
**Note:** Before removing the shift lever, shift the bike into 5th gear.

4. Remove the primary chaincase cover.



# DISASSEMBLE CLUTCH

1. Soak the TorqDrive® friction disks in new primary chaincase oil for 5 minutes. Make sure the friction disks are coated on both sides.
2. Remove the following OE parts. *You may need to use dental pick tools to reach and remove the bottom plates and damper (judder) spring.*



1	Pressure plate bolts
2	Spring hold-down ring
3	Pressure plate springs
4	Pressure plate
5	Clutch pack
6	Damper (judder) spring and seat

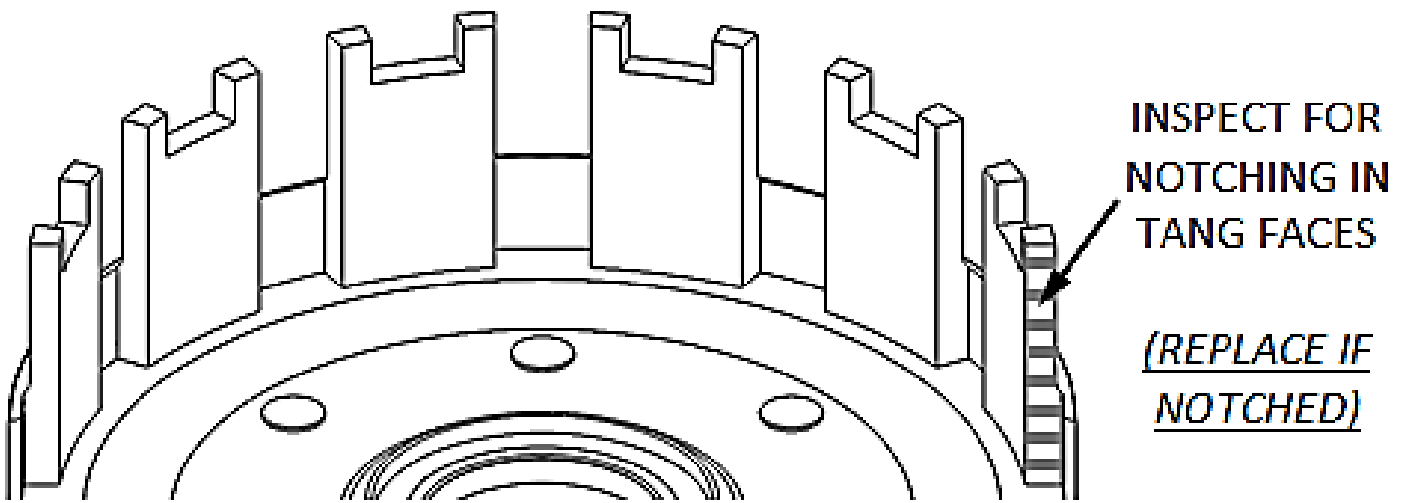
**Note:** Set the pressure plate bolts, spring ring, pressure plate, and damper spring seat and spring aside. They will be reused.

# INSPECT THE BASKET

## **⚠ WARNING**

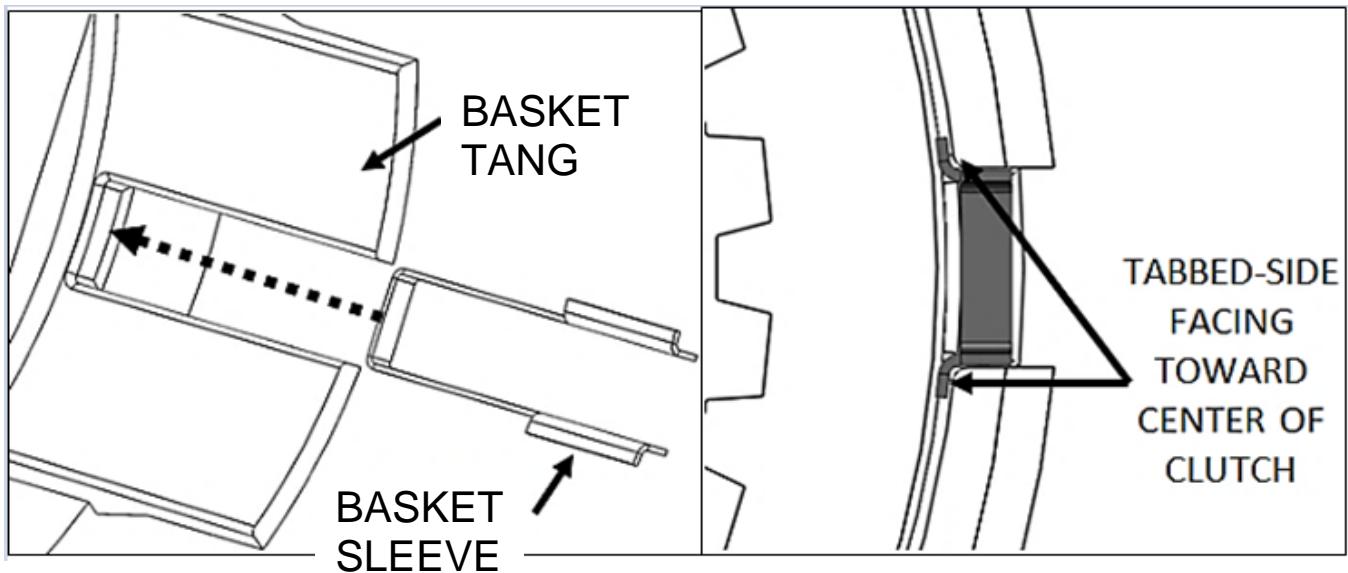
Failure to inspect the basket and replace it if necessary could result in death, serious injury, and/or property damage.

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 the 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**

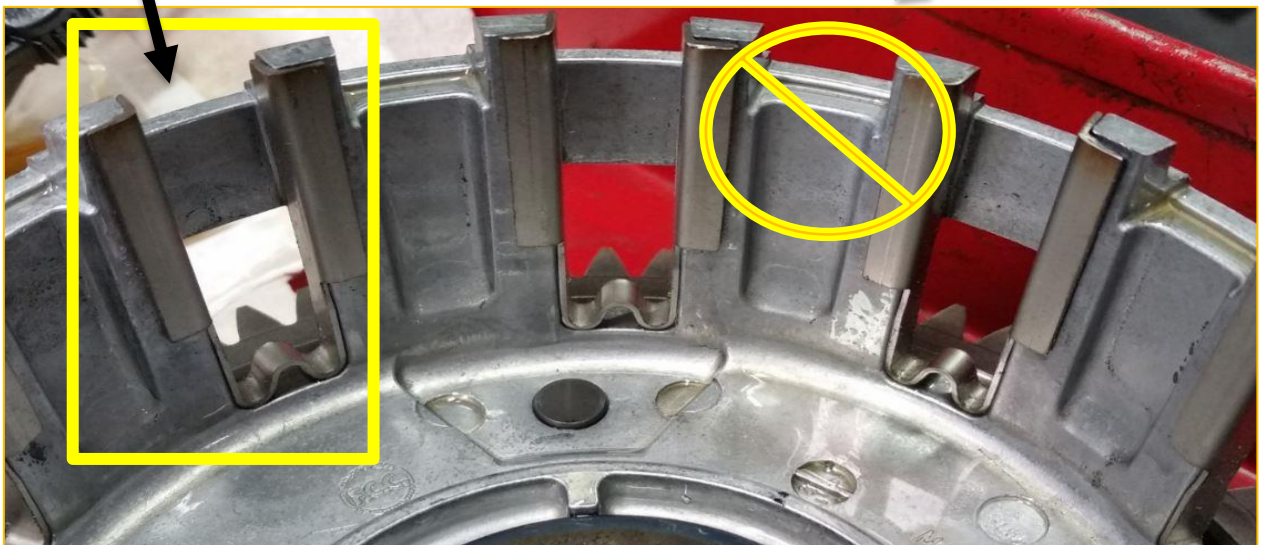
Refer to the included **Setup Sheet** for a breakdown of the clutch pack.

## **Notes for installation**

- Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.
- 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. Installing the pack in the “half slots” will cause performance issues.

Use only the deeper basket slots for installation

Do not use the “half-slots”

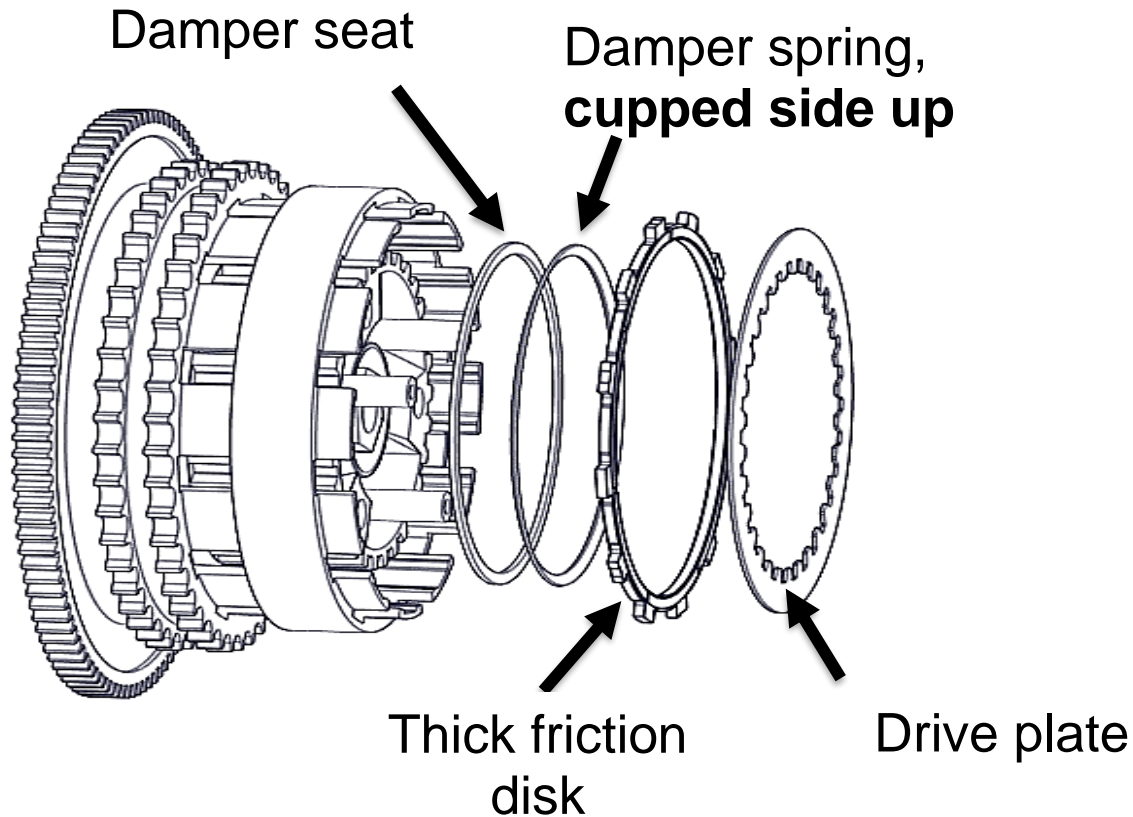


- When assembling the clutch pack, it is important to line up the alignment notches on the friction disk tabs. *Correct alignment is critical for optimal performance.*

# Clutch Pack

**Note:** Using dental picks can help control the basket sleeves during the installation of the clutch pack.

1. Reinstall the damper (judder) seat, then reinstall the damper spring, cupped side up, into the clutch basket.

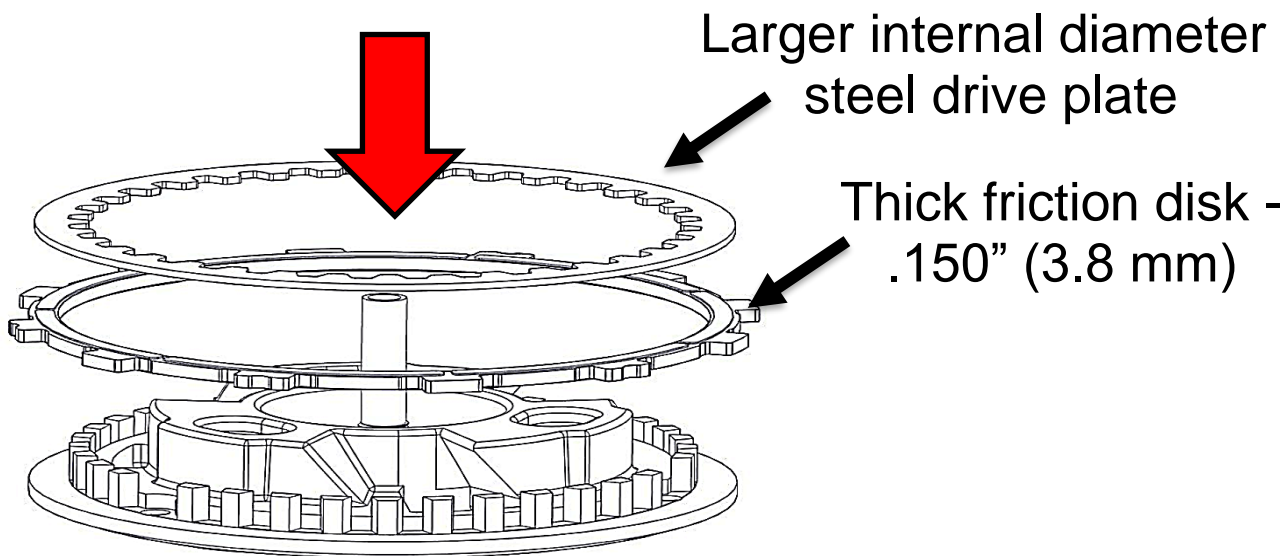


2. Install the rest of the clutch pack one plate at a time. Follow the **Setup Sheet** at the back of the manual for the order of clutch pack disk installation.
3. Do not install the last friction and the last drive plate. These will be placed on the pressure plate in the next step.

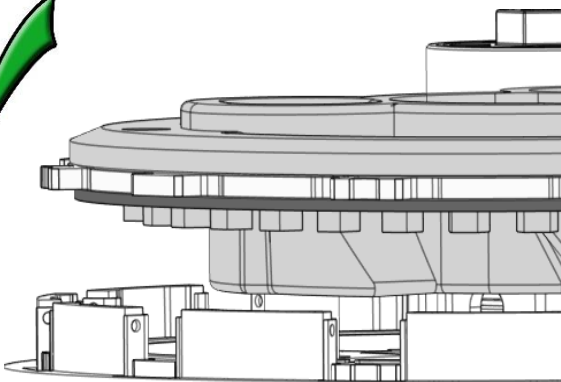
## **INSTALL THE PRESSURE PLATE**

1. Install the remaining .150" (3.8 mm) thick friction on top of the pressure plate.

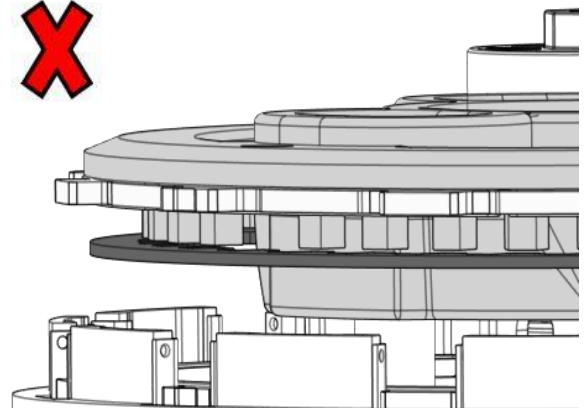
2. Install the narrow steel drive plate on top of the thick friction disk. Make sure the drive plate fits on the teeth of the pressure plate



3. Install the assembled pressure plate onto the clutch pack.



Correct: Steel is indexed to pressure plate



Incorrect: Steel has slipped off

4. Make sure the steel stays indexed on the pressure plate. If this plate slips off, damage can occur.

**Note:** Be sure that the adjuster assembly collar and throw-out stay in place and do not become unindexed when installing the pressure plate onto the clutch. An unindexed collar could cause damage to the clutch when setting the installed gap.

# INSTALL THE CLUTCH SPRINGS

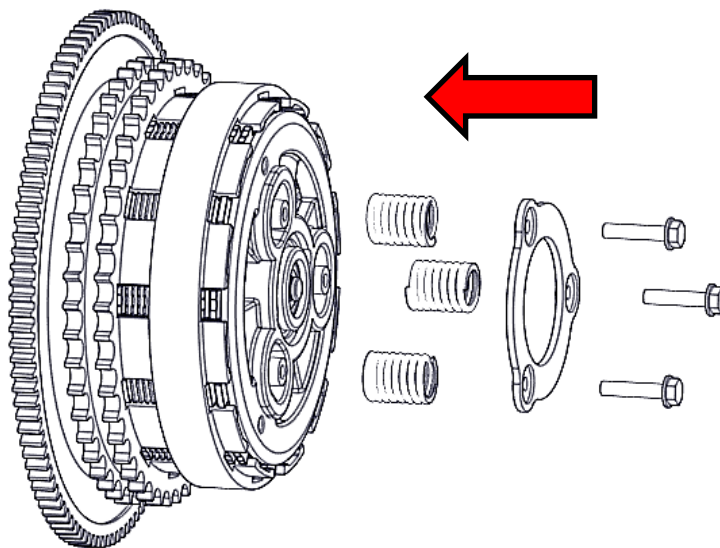
1. Select which pressure plate springs are best suited for your motorcycle and riding style using the table below. *For reference, the factory 3 spring clutch is rated to hold approximately 135 ft-lbs of engine torque.*

	Torque Capacity (ft-lb)	Change in Lever Pull	Spring Option	Spring Color
<b><u>RMS-285</u></b>	200.0	+4%	Standard Spring (744-126)	Black Stripe
	175.0	-10%	Light Spring (744-124)	Purple Stripe
	135.0	-30%	Extra Light Spring (744-125)	White Stripe

**Note:** If you own a Trike or plan to tow with your motorcycle, Rekluse recommends selecting the “Standard” spring option unless your engine exceeds the rated torque capacity for that spring configuration. If your engine produces more than 200 ft-lbs of torque, please contact our customer service team for higher torque capacity spring options.

For hydraulic clutch owners looking to reduce their clutch lever pull without affecting the clutch’s torque capacity, please see Rekluse’s 30% lighter pull Manual Slave Cylinder, product number RMS-2415050 (M8 Models) or RMS-2415051 (’13 -’16 HD Models), at <https://rekluse.com/>

2. Install the Rekluse pressure plate springs, OE spring ring, and OE pressure plate bolts.



3. Using a 10 mm socket, torque the pressure plate bolts to **90-110 in-lb (10-12 N-m)**.

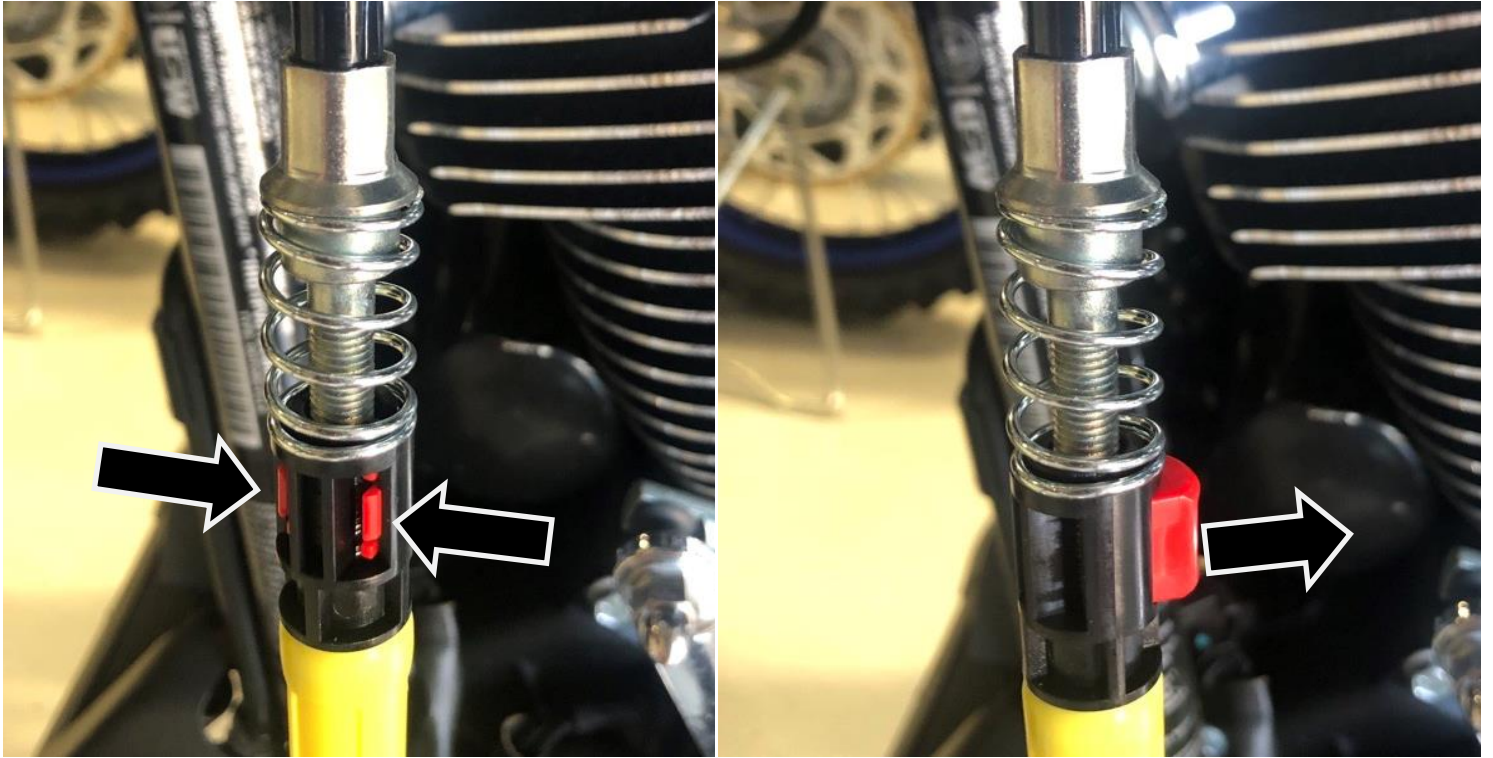


# **SET FREEPLAY (CABLE BIKES ONLY)**

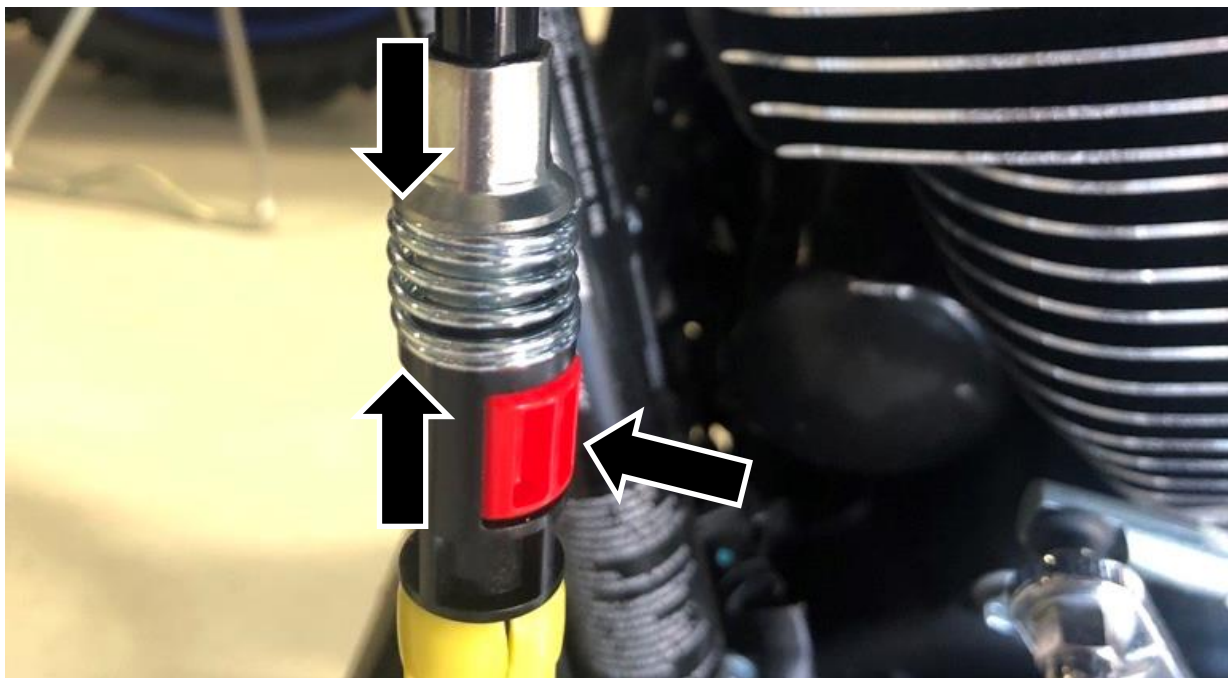
Cable-actuated bikes must set the proper lever freeplay. Hydraulic-actuated bikes skip to the next section.

## **Collapse The Cable**

1. Slide the black cover off the cable adjuster.
2. Unlock the red tab with a screwdriver.



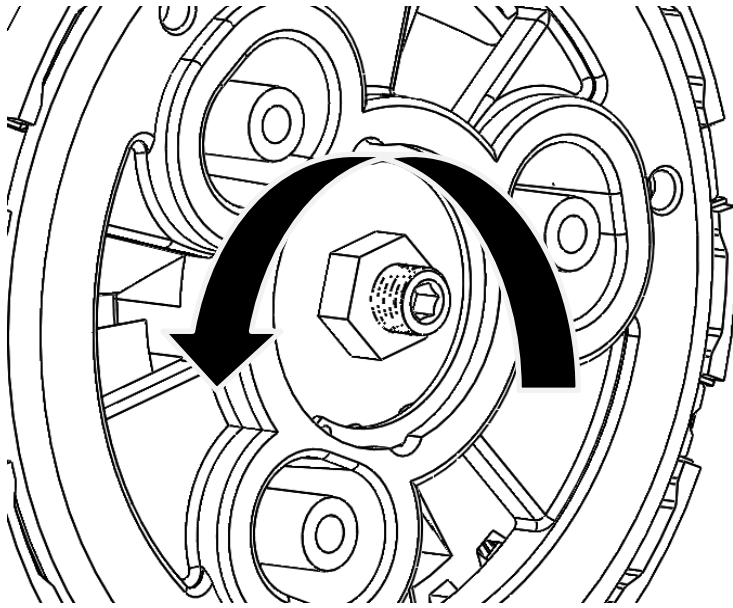
3. Compress the spring and relock the red tab to hold it.



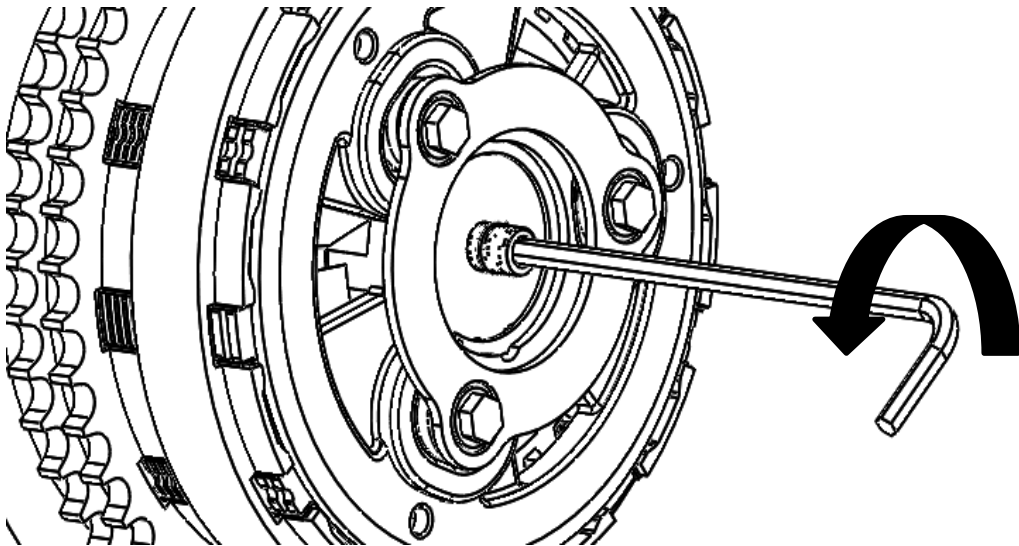
4. Check that the lever has a large amount of freeplay.

# Set The Adjuster Screw

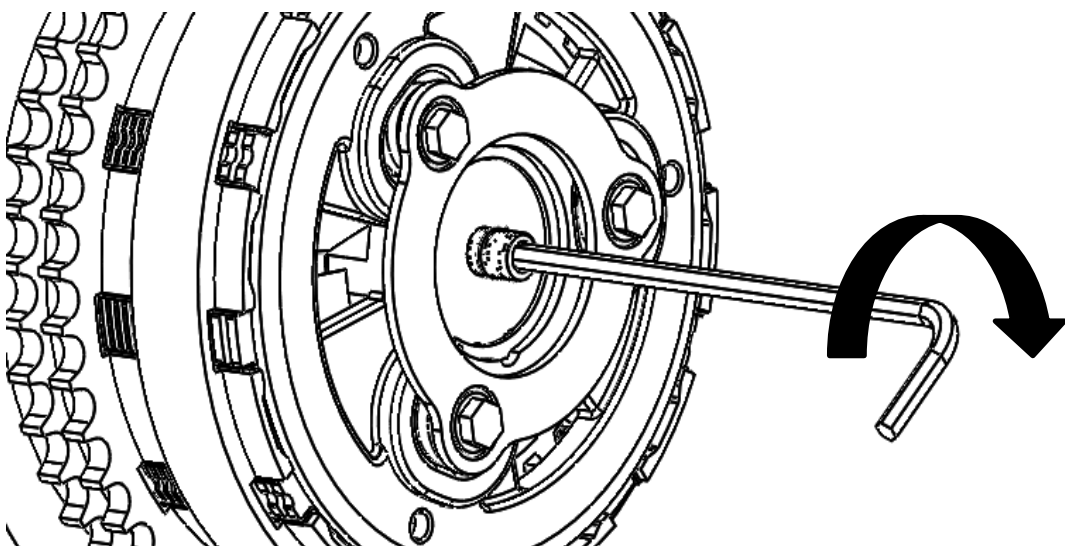
1. Loosen the jam nut



2. Turn the adjuster screw **COUNTERCLOCKWISE** until it spins freely



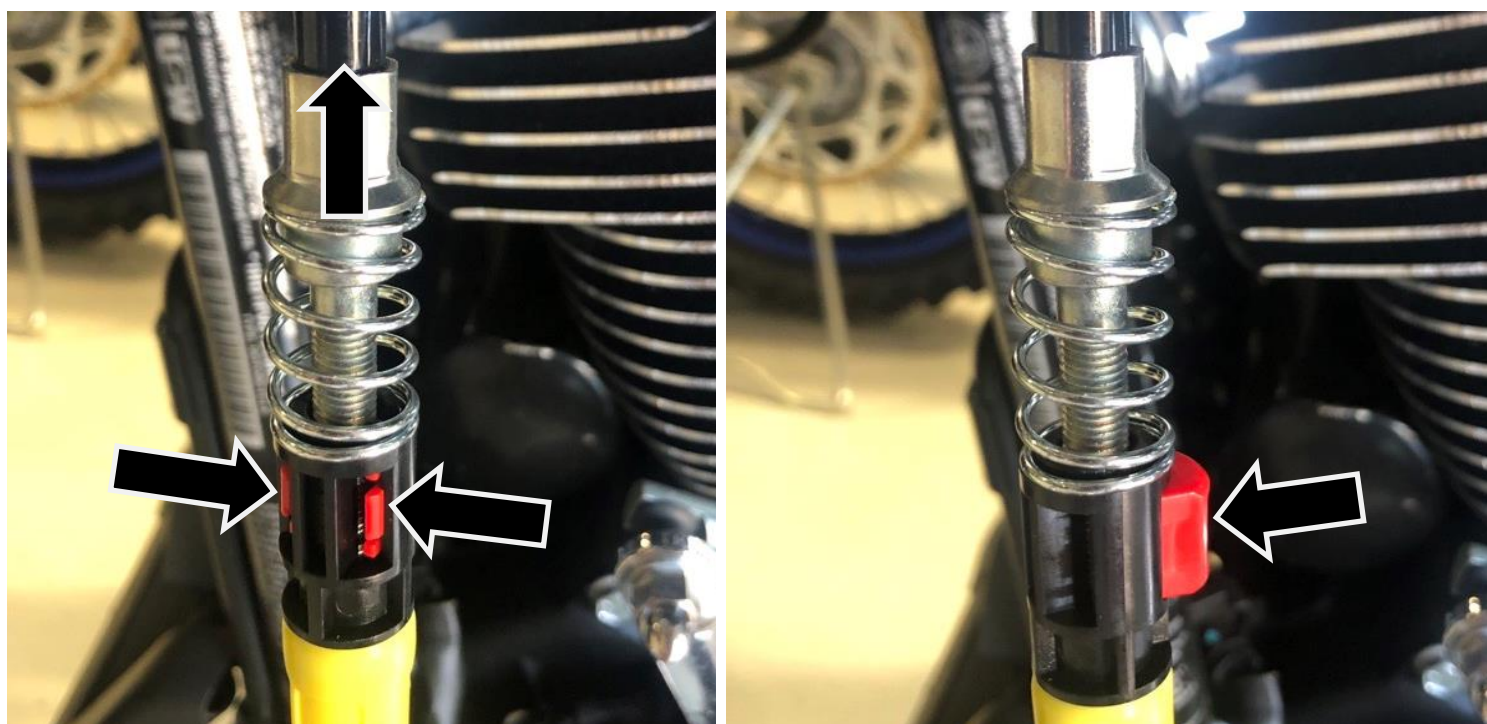
3. Next, gently turn the adjuster screw **CLOCKWISE** until it stops under moderate pressure.



- You are feeling for the point at which the screw bottoms out and starts to lift the pressure plate. This position is called your **starting point**.
4. Once you have found the starting point, back off the adjuster screw  $\frac{1}{2}$  turn **COUNTERCLOCKWISE** to set the freeplay.
  5. While holding the adjuster screw from rotating, tighten the jam nut to lock it in place.

## Reset the Cable Freeplay

1. Release the red tab on the cable adjuster so that the spring expands, then press the red tab to lock the adjuster in place.

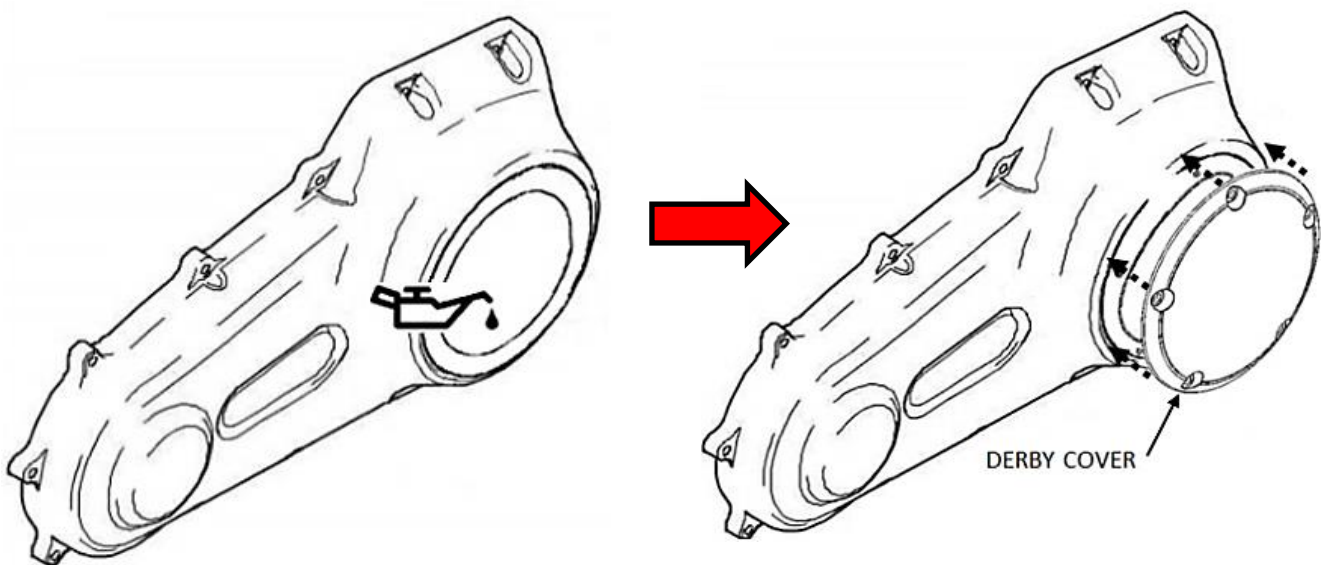
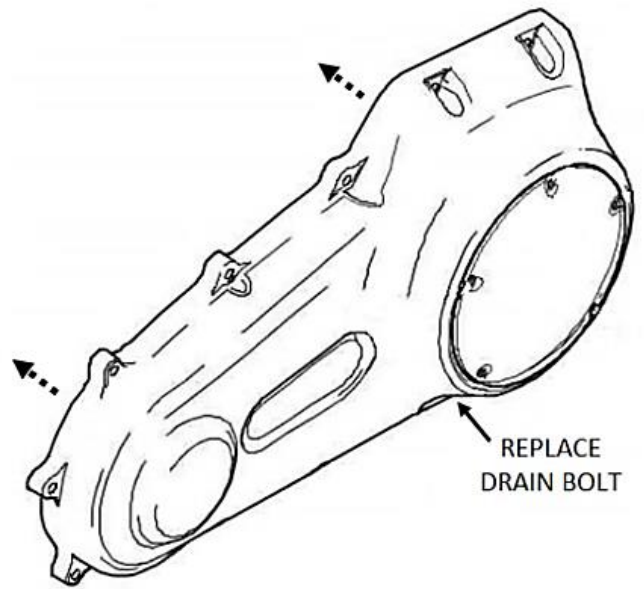


2. Check that the lever has the proper  $\frac{1}{16}$ - $\frac{1}{8}$ " of freeplay



# INSTALL THE PRIMARY COVER

1. Thoroughly clean the mating surfaces of the primary cover and the engine case.
2. Reinstall the primary gasket (or new gasket).
3. Reinstall the primary cover, then torque the cover bolts to **84-108 in-lb (9.5-12.2 N-m)**.
4. Reinstall the drain bolt, then torque the drain bolt to **36-60 in-lb (4-6.8 N-m)**.
5. With the primary cover installed, use a T-27 Torx bit to remove the derby cover.
6. Using a funnel, add 1.25 quarts of oil to the primary case through the derby cover cavity. Use the OE-recommended oil or any quality primary oil.
7. Reinstall the derby cover and torque bolts to **84-108 in-lbs. (9.5-12.2 N-m)**.





# **BREAK IN THE NEW CLUTCH**

The clutch will break in within 100-200 miles of normal riding. Until the break-in is complete, you may experience more clutch drag than normal.

- It is recommended to do an oil change after the first 1,000 miles to drain any excess clutch debris that occurred from the break-in.

## **MAINTENANCE**

To keep your clutch performing at its best, perform regular maintenance on your bike and clutch.

- Keep up with regular oil changes according to the bike manufacturer's recommendations. Clutch performance and longevity depend on oil quality. Tired, dirty, or worn oil may cause excessive clutch drag or noise.
- Use oil recommended by the manufacturer of your bike.
- For optimal clutch performance, Rekluse recommends using fresh, clean oil that **meets JASO-MA** oil rating requirements.
- Inspect all of your clutch parts for signs of wear or excessive heat, and replace components as necessary. This includes your basket sleeves. Clutch wear is dependent on the rider's use.
- Replace friction disks if they measure below specifications or if the disks are glazed and/or burnt.
- Repeat the break-in procedure anytime you replace the friction disks. Always soak friction disks in oil for at least 5 minutes before installing.
- Replace the drive plates if they show signs of excessive heat.

# 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 on [www.rekluse.com/support](http://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 the 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 the inspection, look for glazing of the friction material. Glazing will appear shiny and feel like glass, even after the oil is cleaned from the friction disk. Not all friction disks look the same and may look different than pictured.



Normal Friction



Glazed Friction

# **TROUBLESHOOTING**

## **Clutch Drag:**

- Make sure the bike has reached operating temperature. Drag may occur when the engine is cold
- For cable bikes: Check that the cable freeplay is set properly. Excessive freeplay may cause drag
- Put in new Rekluse recommended oil. Old or improper oil can cause performance issues.
- Check the clutch pack for signs of excessive heat or warpage.

## **Clutch Slip:**

- Inspect the clutch for signs of excessive heat.
- For cable bikes: Readjust the lever freeplay as described in this manual.
- If clutch slip persists, heavier clutch springs are recommended.

# **NEED ADDITIONAL HELP?**

## **Website**

[www.rekluse.com/support](http://www.rekluse.com/support)

## **Phone**

(208) 426-0659

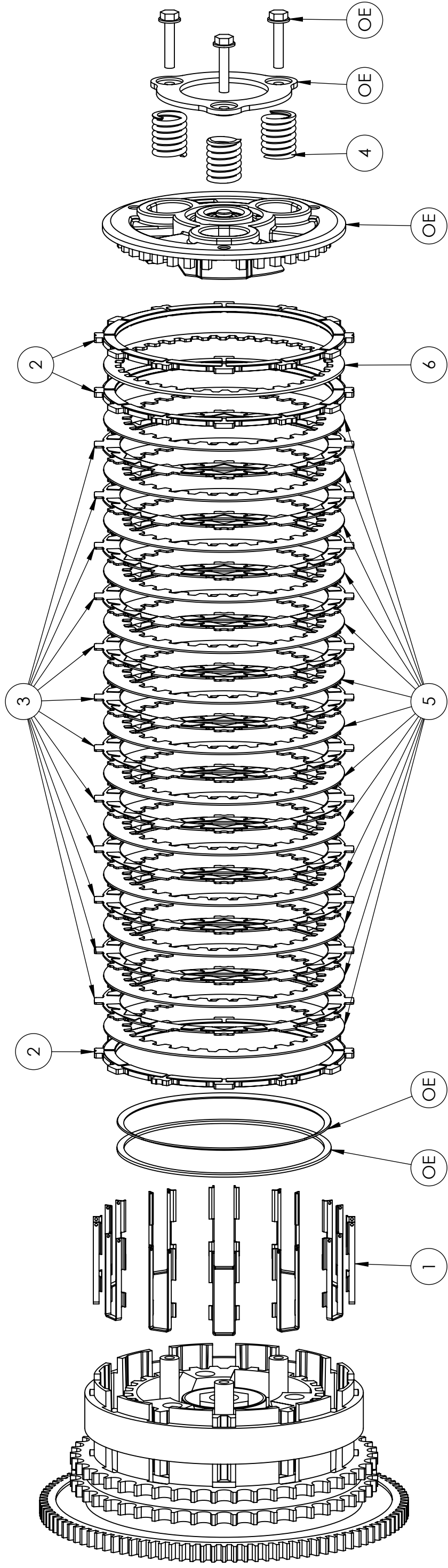
Monday thru Friday: 8 am – 5 pm Mountain Time

## **Email**

[tech@rekluse.com](mailto:tech@rekluse.com)



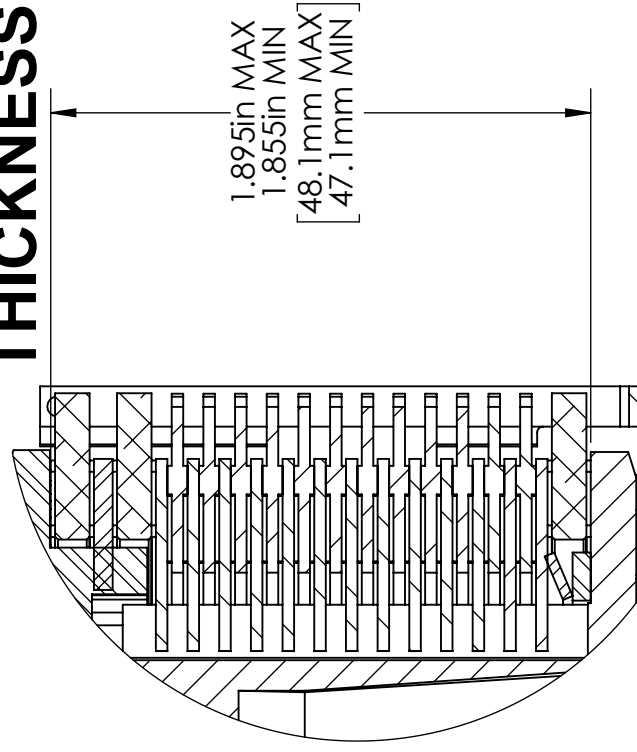
# SETUP SHEET 198-285



## SERVICE LIMITS

COMPONENT	STANDARD	SERVICE LIMIT
TORQDRIVE FRICTION	.068-.072in 1.73-1.83mm	.065in 1.65mm

## CLUTCH PACK THICKNESS



## COMPONENTS

ITEM NO.	DESCRIPTION	QTY.
1	BASKET SLEEVES	12
2	THICK FRICTION DISC	3
3	TORQDRIVE FRICTION	12
4	CLUTCH SPRING	3
5	DRIVE PLATE - NARROW	13
6	DRIVE PLATE - NARROW	1
OE	OE COMPONENTS	VAR.