



INSTALLATION GUIDE

Harley-Davidson
Twin Cam

Table of Contents

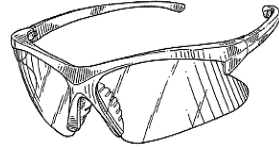
OVERVIEW	2
INSTALLATION TIPS	3
TOOLS.....	3
INCLUDED PARTS	4
BELLEVILLE SPRING OPTIONS.....	4
PREPARE BIKE FOR INSTALLATION.....	5
DISASSEMBLE CLUTCH.....	6
INSPECT THE BASKET	7
INSTALL THE BASKET SLEEVES	8
INSTALL THE CLUTCH PACK	9
Notes for Clutch Pack Installation:	9
Clutch Pack	9
INSTALL THE PRESSURE PLATE.....	10
SET FREEPLAY (CABLE BIKES ONLY)	11
PRIMARY COVER INSTALLATION.....	13
BREAK IN THE NEW CLUTCH.....	14
MAINTENANCE.....	15
Disk inspection examples.....	16
TROUBLESHOOTING	17
Clutch Drag	17
Clutch Slip	17
NEED ADDITIONAL HELP?.....	17

OVERVIEW

This kit replaces many of the OE (Original Equipment) clutch parts. These parts are designed specifically for your motorcycle for optimal performance. The following will be replaced:

- OE friction disks
- OE drive plates
- OE spring hold-down ring

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 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 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.

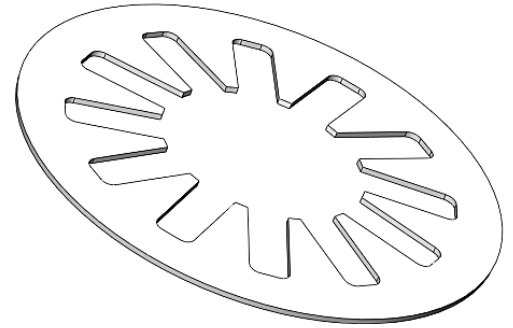
Visit www.rekluse.com/support for a full parts fiche illustration and part numbers.

BELLEVILLE SPRING OPTIONS

Typically, the OE Belleville spring is reused when installing a Rekluse TorqDrive clutch pack. However, if the bike has a highly modified engine, and the OE clutch does not provide enough torque capacity, alternate springs can be purchased to optimize the clutch setup.

The following numbers reflect the engine torque output that the clutch can comfortably withstand using the provided spring ring for each given clutch spring.

All Belleville spring adjustments can be performed through the derby cover without removing the primary cover.

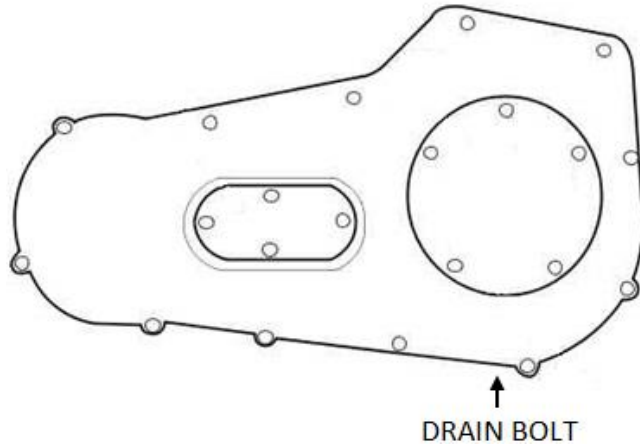


TorqDrive Clutch Torque Capacity

		Max Engine Output Torque (ft-lb)	
Spring Part Number	Spring Marking	'98-'06 Models (excluding '06 Dynas)	'07+ Models (including '06 Dynas)
37882-06	Blue	117	124
37871-04	Yellow	140	149
37807-03	Pink	170	181
37951-98 (Screamin' Eagle After-Market Only)	None	187	199

PREPARE BIKE FOR INSTALLATION

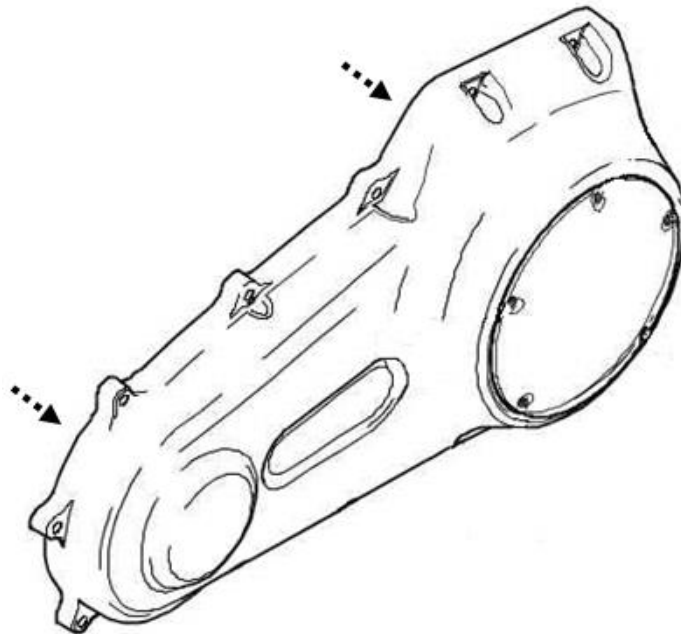
1. Stand the bike up on a lift or suitable bike stand.
2. On the primary chain case, use a wrench to remove the oil drain plug, then drain the oil into a suitable container.



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

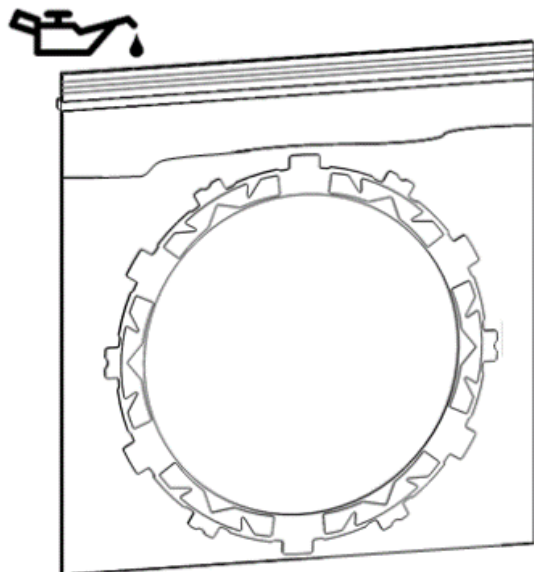
Note: Before removing the shift lever, shift the bike into 5th gear.

4. Remove the primary chaincase cover.

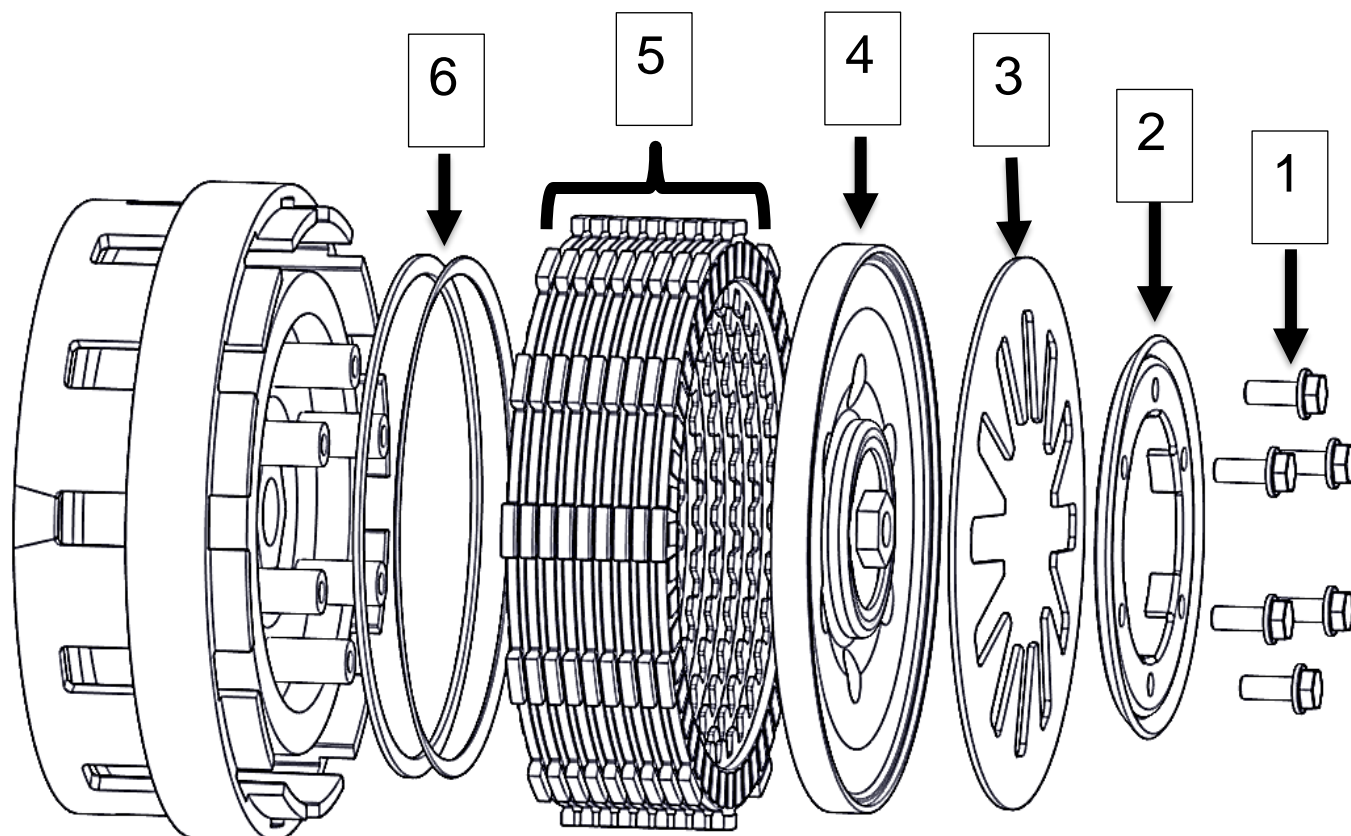


DISASSEMBLE CLUTCH

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	Belleville spring
4	Pressure plate
5	Clutch pack
6	Damper (judder) spring and seat

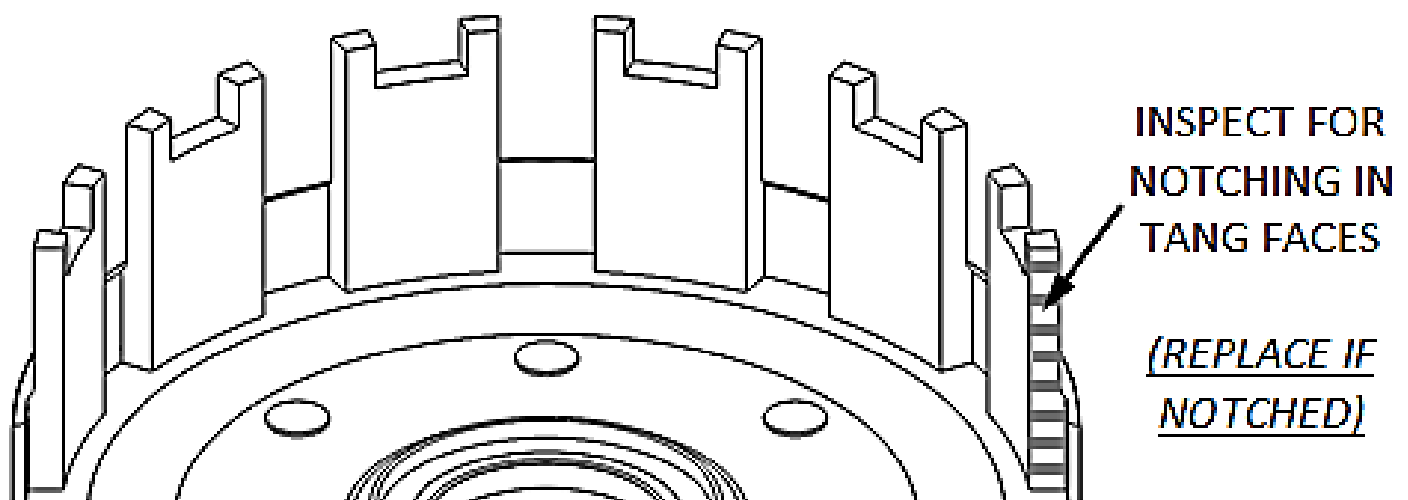
Note: Set aside the pressure plate bolts, Belleville spring, and pressure plate. They will be reused.

INSPECT THE BASKET

⚠ WARNING

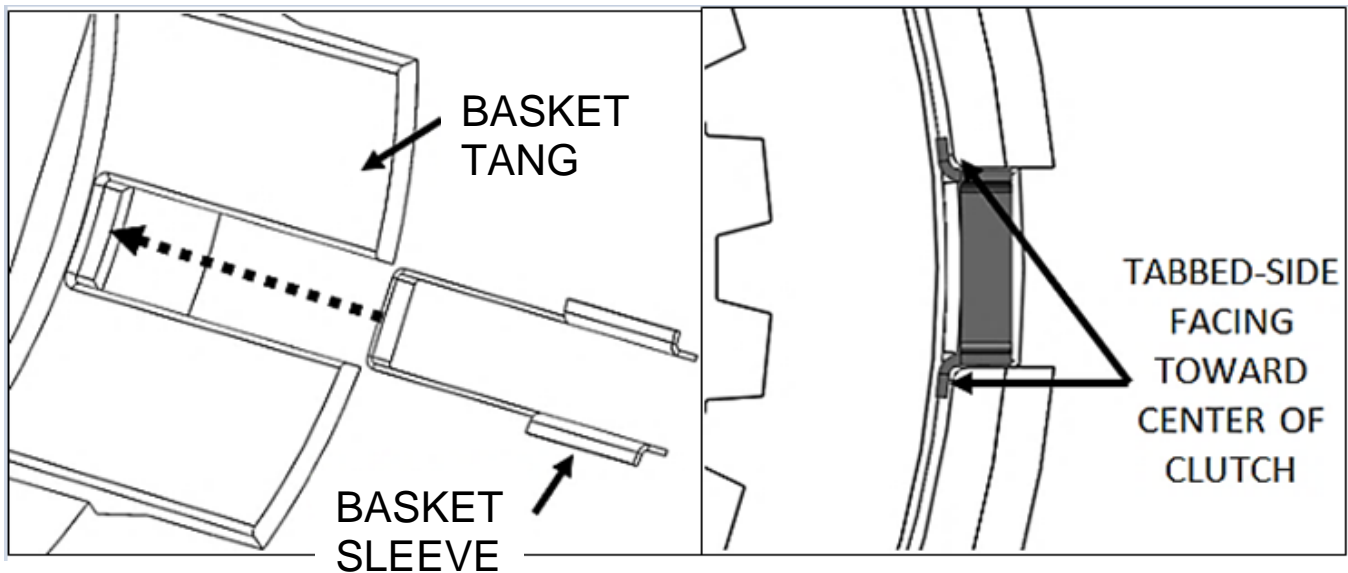
Failure to inspect the basket and replace it if necessary could result in death, serious injury, and/or property damage.

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.

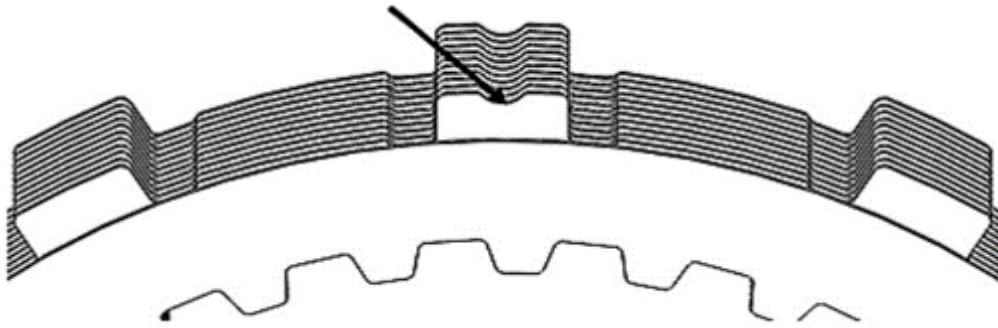
Note: *In some models, the sleeves will stick slightly above the top of the basket. This is normal.*

INSTALL THE CLUTCH PACK

Notes for Clutch Pack Installation:

- 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

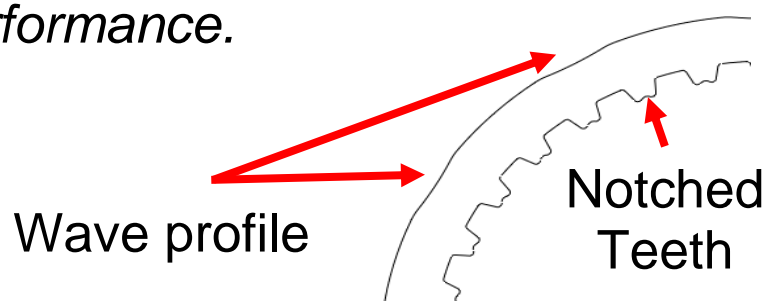


- *Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.*

Clutch Pack

Follow the **Setup Sheet** at the back of the manual for the order of clutch pack disk installation. *Remember to align the notches on the friction disks when installing the clutch pack.*

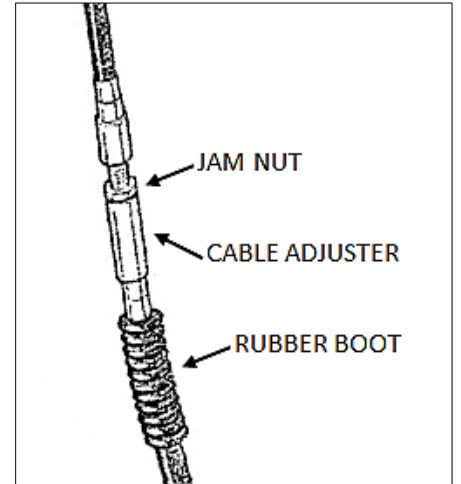
Note: *One of the drive plates has a different outer profile and notched teeth. Take care to place this drive plate in the correct position to ensure optimum performance.*



INSTALL THE PRESSURE PLATE

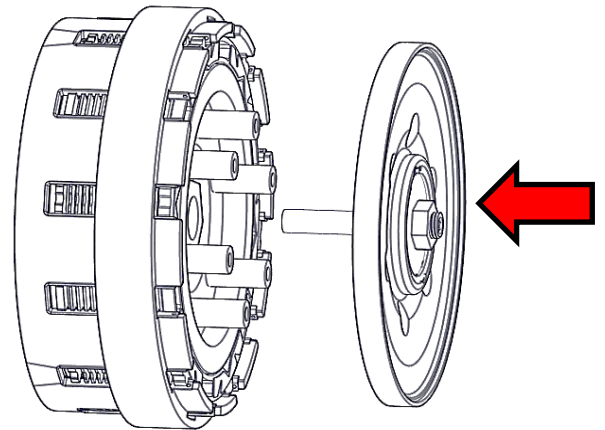
For cable-actuated bikes only:

Fully collapse the in-line cable adjuster so that the cable slack makes the clutch lever very sloppy at the perch.



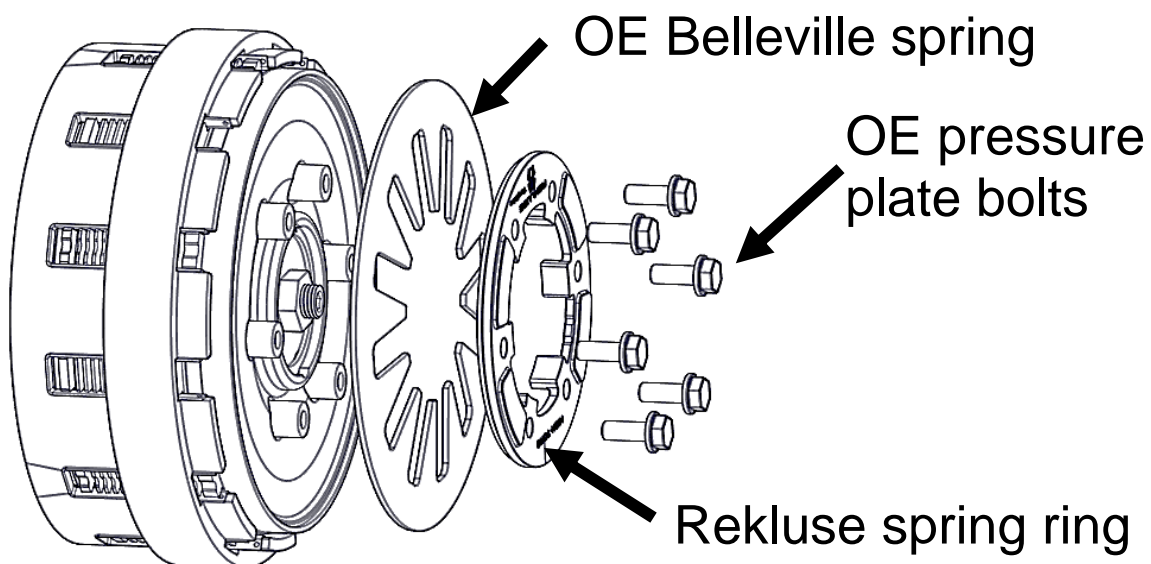
Note: Adding cable slack ensures that the cable will not have excessive stress during the pressure plate adjustment.

1. Reinstall the OE pressure plate with the throw-out and adjuster still installed.



2. Install the OE Belleville spring and the Rekluse spring ring, then reinstall the OE pressure plate bolts.

Note: For high-output engines, refer to the Belleville spring options section to determine the best Belleville spring choice for your particular engine's output.



3. Using a 10 mm socket, torque the pressure plate bolts in a star pattern to OE specification.

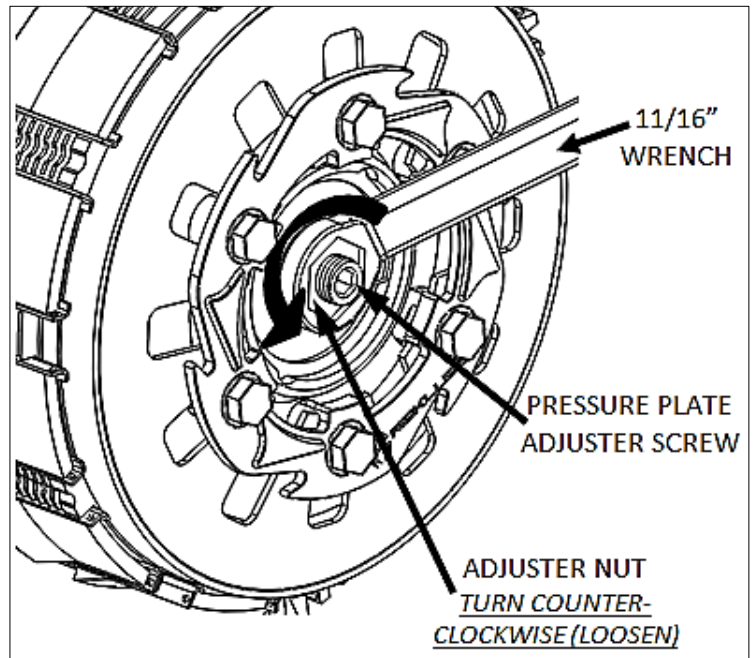
SET FREEPLAY (CABLE BIKES ONLY)

Hydraulic models self-adjust, so these owners may skip to the primary cover installation section.

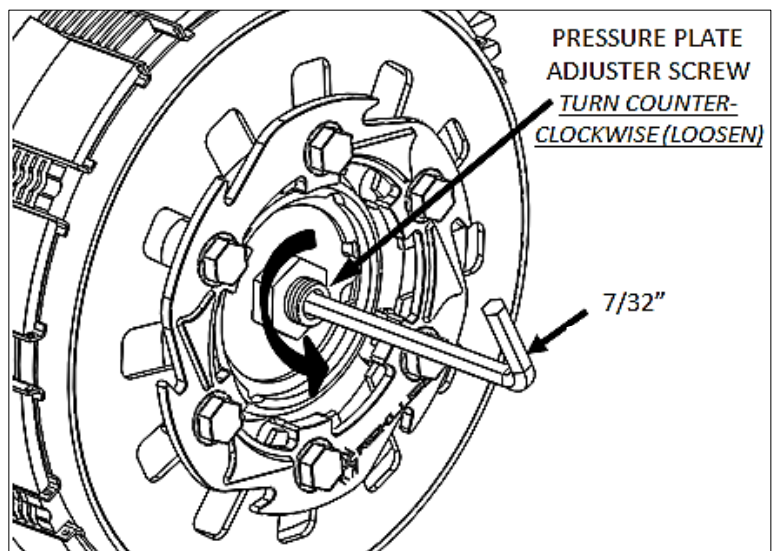
1. Ensure that the inline cable adjuster is fully collapsed. *The clutch lever should be floppy and will move freely to the handlebar.*

Note: Failure to check and verify free play can cause failure or damage to this product.

2. Loosen the adjuster nut using an 11/16" wrench or socket, so that the adjuster screw can be turned freely in the next step.



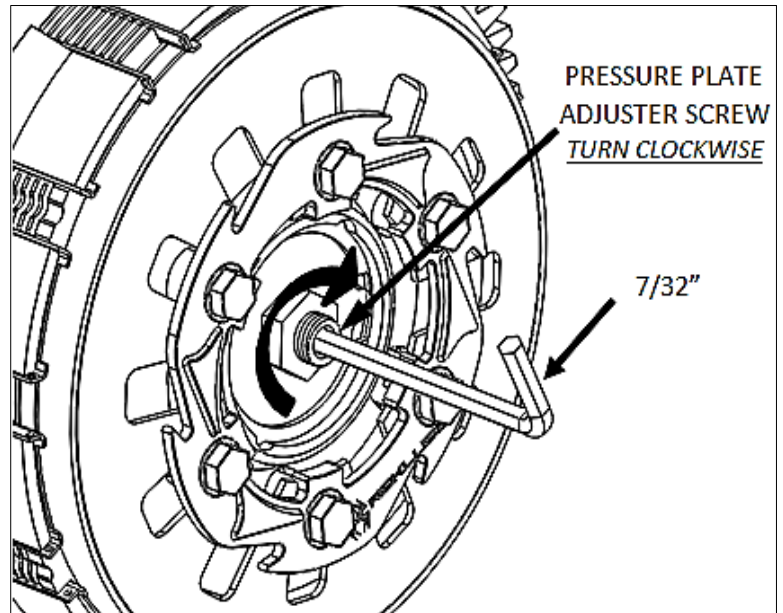
3. Using the long end of a 7/32" hex key, turn the adjuster screw **counterclockwise** (out) until it spins freely with little effort.



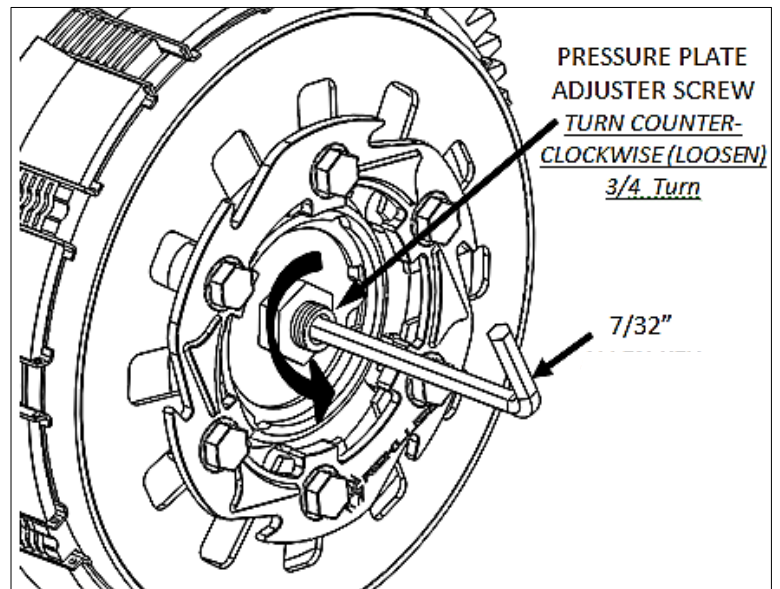
5. Using the hex key, gently turn the adjuster screw **clockwise** until it stops under moderate pressure. You are trying to feel for

the point at which it bottoms out and starts to lift the pressure plate (you will feel an abrupt increase in turning effort).

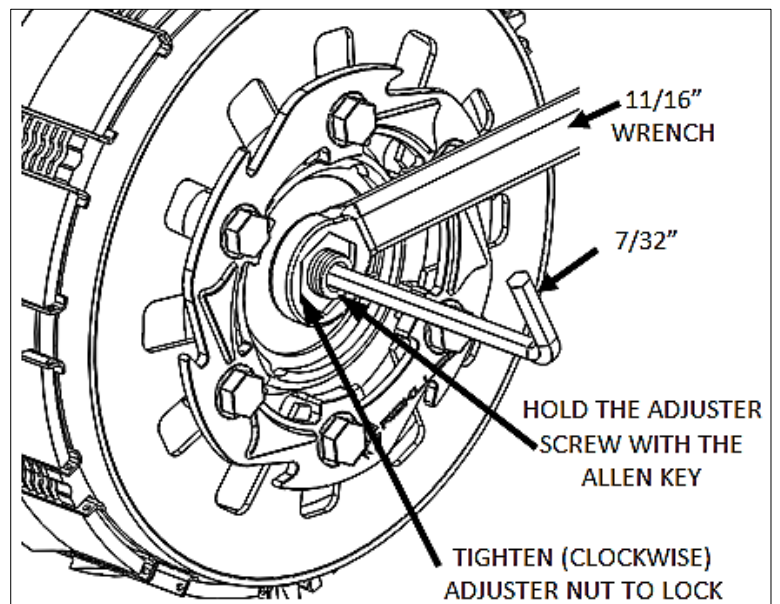
- This position is called your starting point.



6. From this starting point, loosen (turn **counterclockwise**) the adjuster screw $\frac{3}{4}$ of a turn.

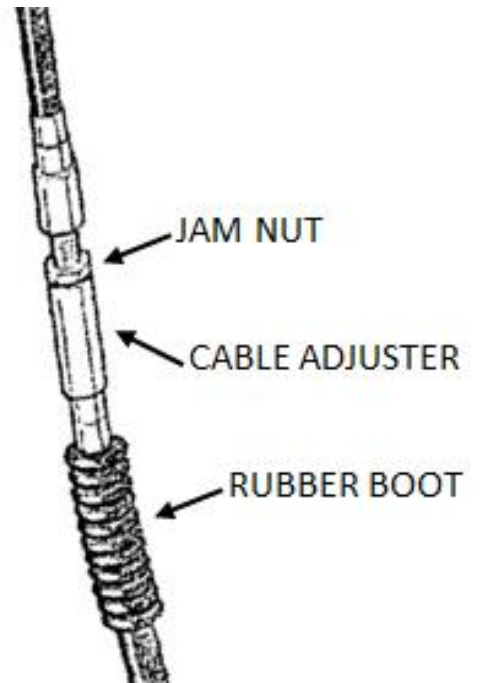


7. Holding the adjuster screw with the hex key, tighten the jam nut **clockwise** on the adjuster with an 11/16" wrench.



- Expand the in-line adjuster until the cable slack is between 1/16" and 1/8" at the lever perch to set the lever free play.

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



PRIMARY COVER INSTALLATION

1. Thoroughly clean the mating surfaces of the primary cover and the engine case.

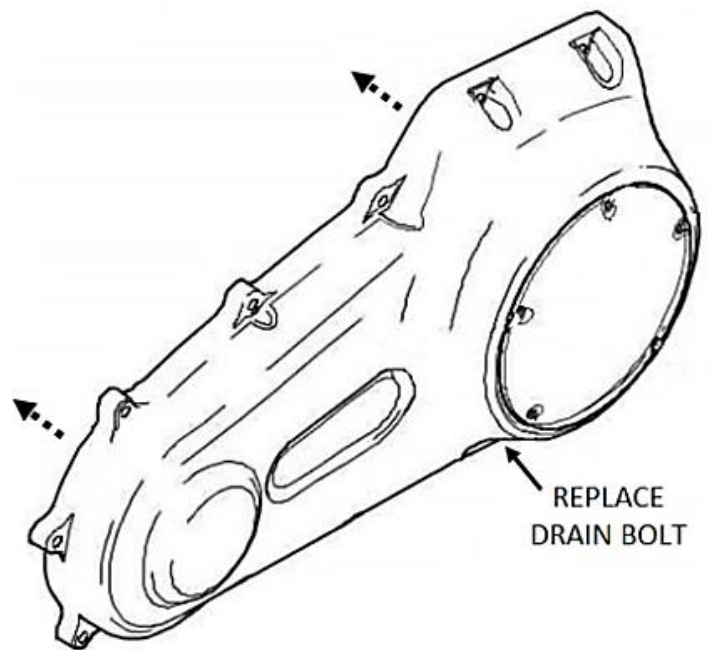
2. Reinstall the primary gasket (or new gasket).

3. Reinstall the primary cover, then torque the cover bolts to OE specifications.

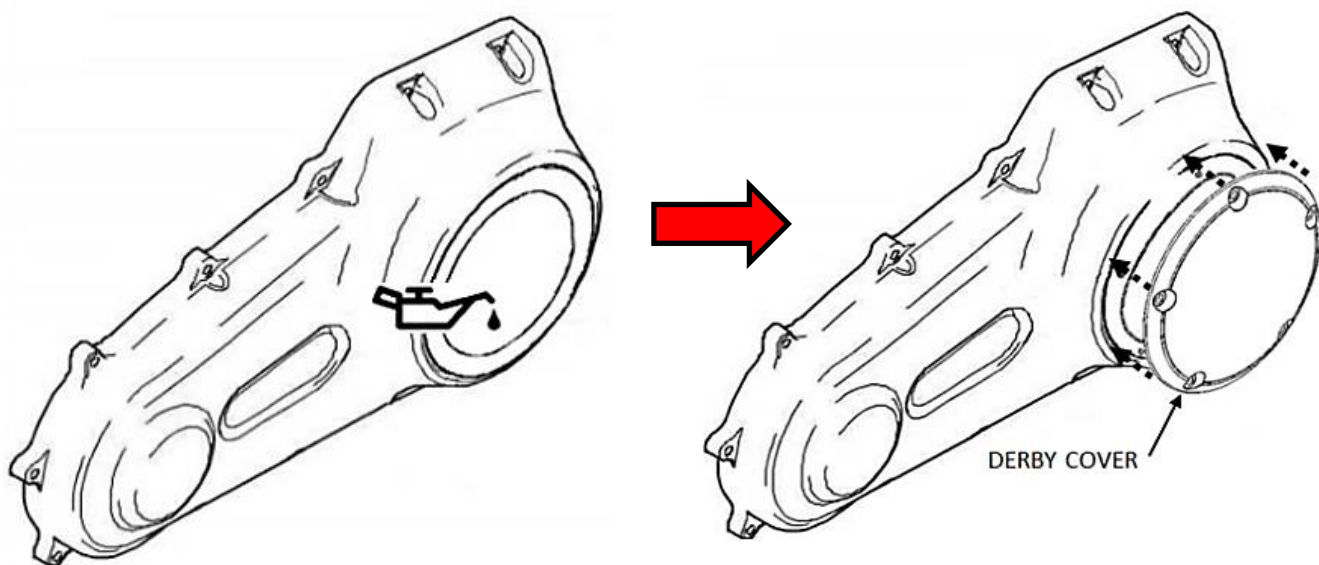
4. Reinstall the drain bolt, then torque the drain bolt to OE specifications.

5. With the primary cover installed, use a T-27 Torx bit to remove the derby cover.

6. Using a funnel, add 1 quart 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 OE specifications.



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.

- Re-adjust the clutch and lever free play every 5,000 miles.
- 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.**

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

Phone

(208) 426-0659

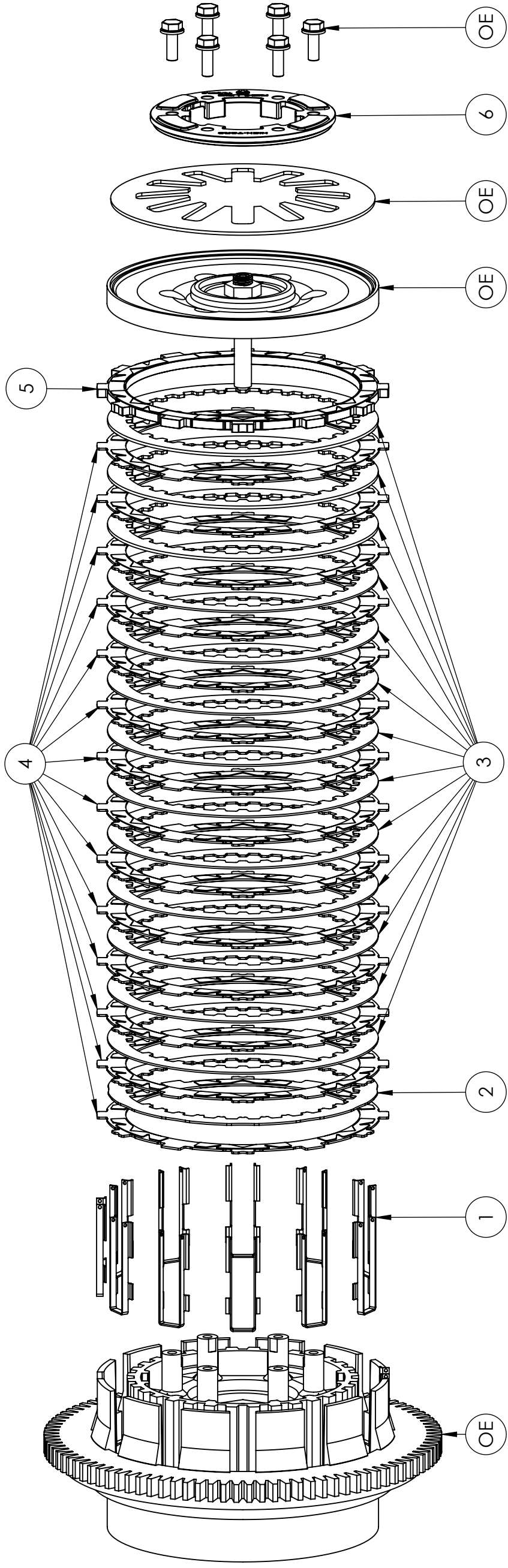
Monday thru Friday: 8 am – 5 pm Mountain Time

Email

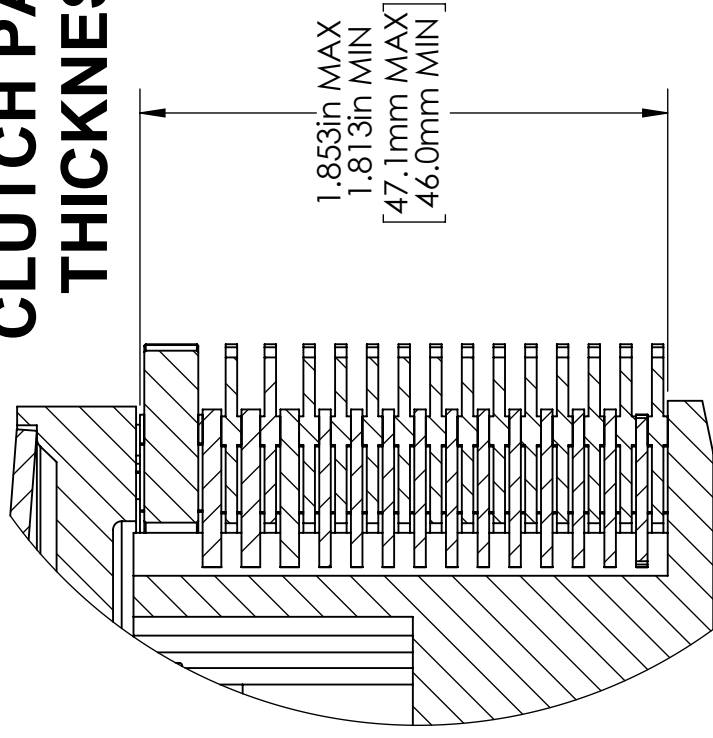
tech@rekluse.com



SETUP SHEET 198-284



CLUTCH PACK THICKNESS



SERVICE LIMITS

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

COMPONENTS

ITEM NO.	DESCRIPTION	QTY.
1	BASKET SLEEVE	12
2	JUDDER DRIVE PLATE (WAVY EDGE)	1
3	DRIVE PLATES	13
4	TORQDRIVE FRICTION	14
5	THICK FRICTION	1
6	REKLUSE SPRING HOLD DOWN PLATE	1
OE	OE COMPONENTS	VAR.