



INSTALLATION & USER'S GUIDE

Core Manual TorqDrive
For Yamaha DDS Clutch

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OVERVIEW

This kit replaces many of the OE (Original Equipment) clutch parts while reusing some of the OE clutch parts. Some of the components replaced in this kit include:

- The OE center clutch hub and OE pressure plate will be replaced with high-quality billet components.
- All OE steel drive plates will be replaced with Rekluse drive plates
- All OE friction disks will be replaced with Rekluse TorqDrive® disks

INCLUDED PARTS

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

INSTALLATION TIPS



- Read the safety information sheet included with your kit.
- Watch the installation video by visiting www.rekluse.com/support/videos.
- Protect eyes and skin – wear safety glasses and thin disposable work gloves.
- Read this entire document before performing any steps.
- Lay the motorcycle on its left side when replacing the clutch. This makes the clutch work easier and eliminates the need to drain the oil.

NOTICE

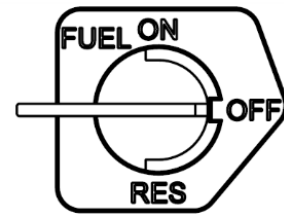
It is recommended that a new OE hub nut (Yamaha part # 90179-18015-00) is used.

- Use an air or electric impact wrench to remove the center clutch nut. If one is not available, you can place the bike in top gear and hold the rear brake while loosening the center clutch nut with a socket and breaker bar.
- For optimal clutch performance, Rekluse recommends using fresh, clean oil that **meets JASO-MA or MA2** 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 NEEDED

- 8 mm Socket
- 10 mm Socket
- 27 mm Socket
- T-30 Torx Bit
- Torque Wrench (lb-ft or N-m)
- Fluid Catch Container
- Oil

DISASSEMBLE THE CLUTCH



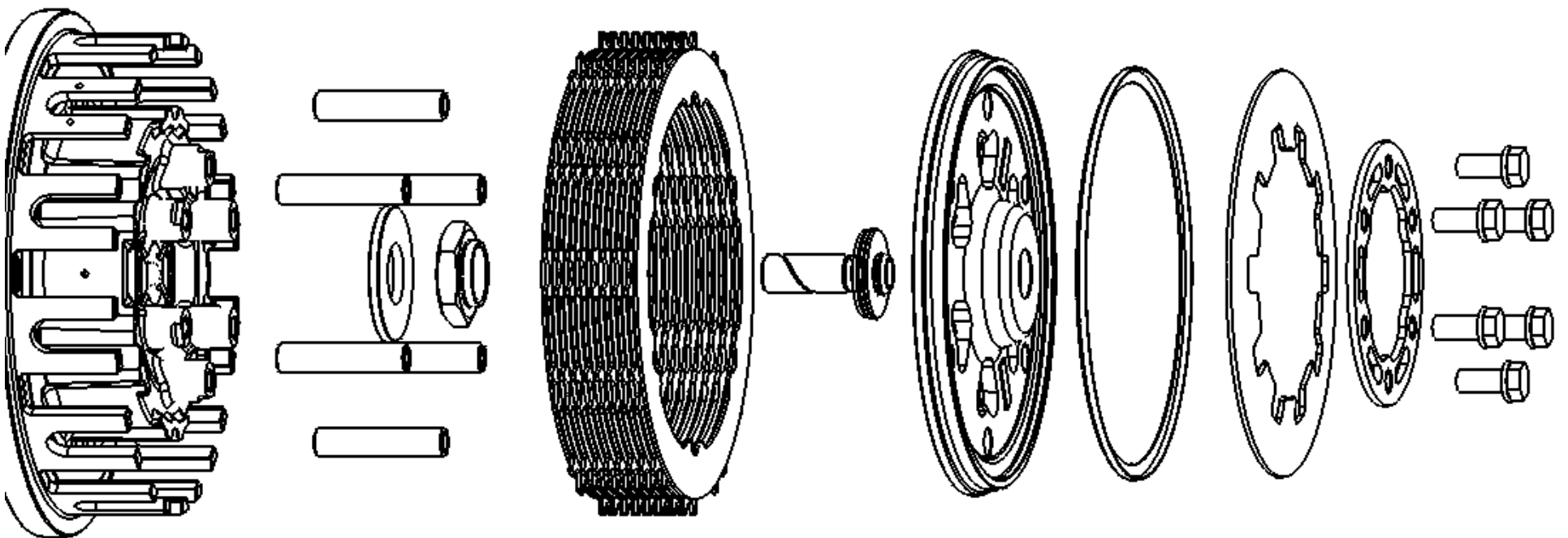
1. Turn the fuel petcock to “OFF” if applicable.

2. Lay the bike on its left side. Catch any fuel that might drain in a suitable container.



3. Remove the clutch cover.

4. Remove the following OE parts. When removing the Belleville spring, make sure to note the orientation of the spring. See the following picture for reference. Parts are removed from right to left.



- 6 pressure plate screws
- Pressure ring
- Belleville spring
- Pressure plate steel liner
- Pressure plate

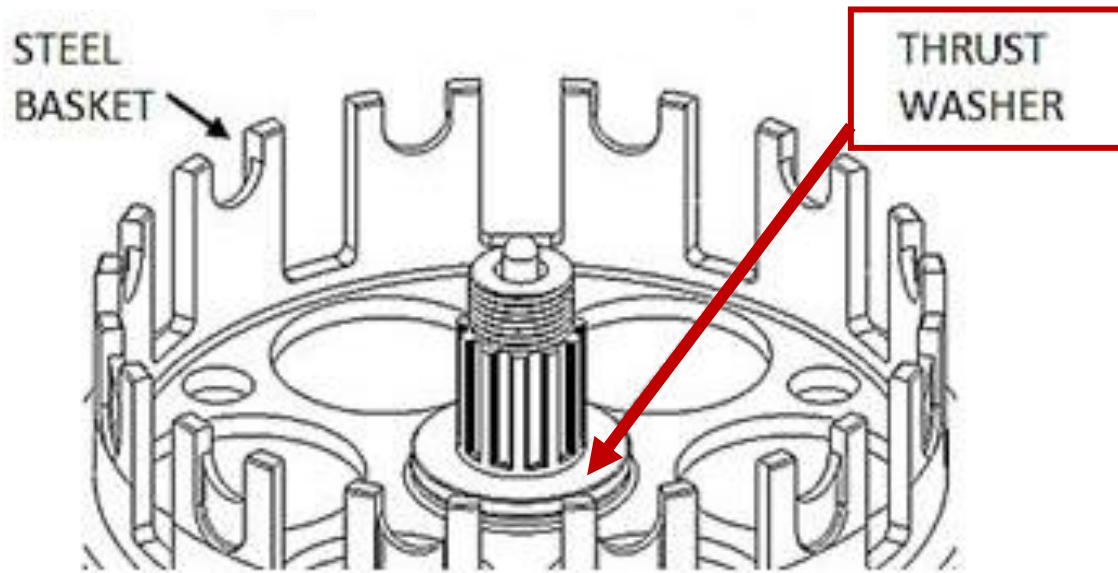
- Throw-out bearing and washer
- Clutch pack
- 6 drive pins
- Center clutch nut and washer
(Removed in step 5)

⚠ CAUTION

Be careful that the drive pins do not fall into the engine while disassembling.

5. Un-stake the hub nut from the shaft and remove it.
6. Remove the center hub assembly from the steel basket while leaving the thrust washer on the main shaft.

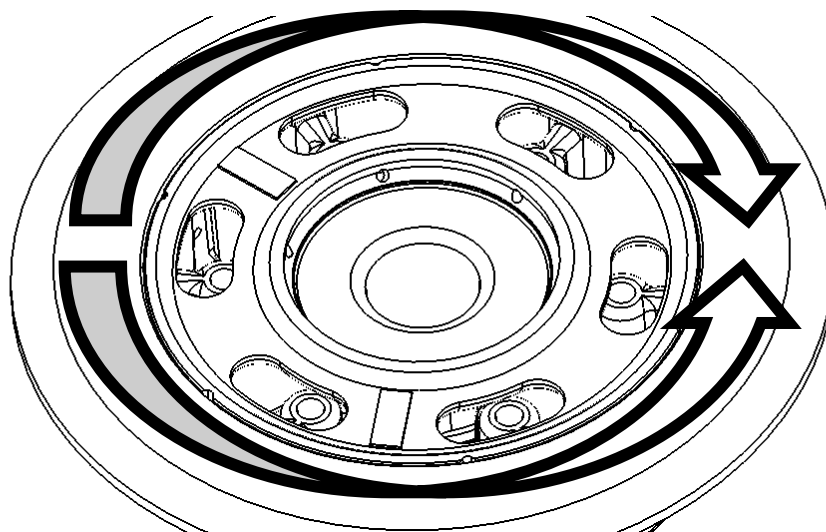
NOTICE



Check that the thrust washer is still on the main shaft and not stuck to the bottom of the center hub assembly. Missing the thrust washer will cause clutch performance issues.

INSPECT THE DAMPERS

If the OE dampers are worn they must be replaced. Any movement between the dampers will shorten the life of your clutch. To inspect this, try to rotate the inner hub while holding the outer hub

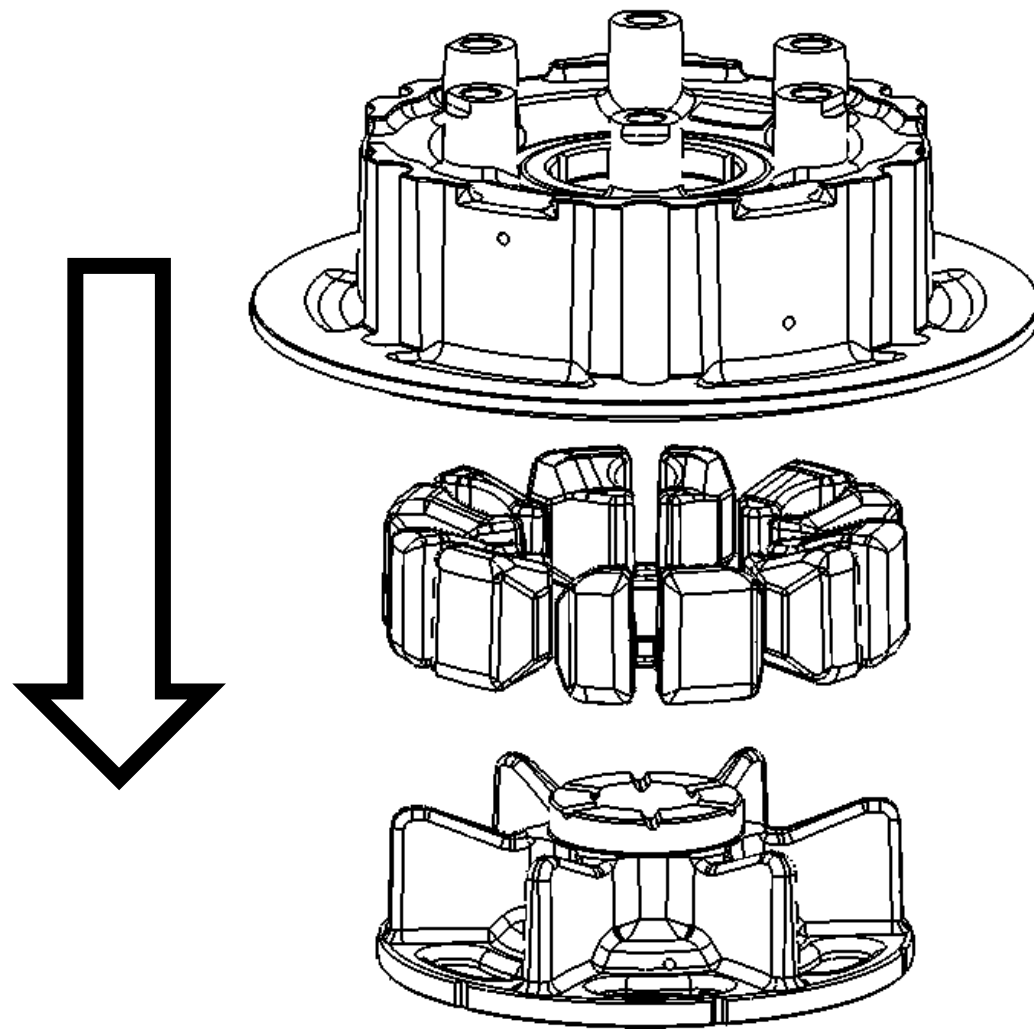


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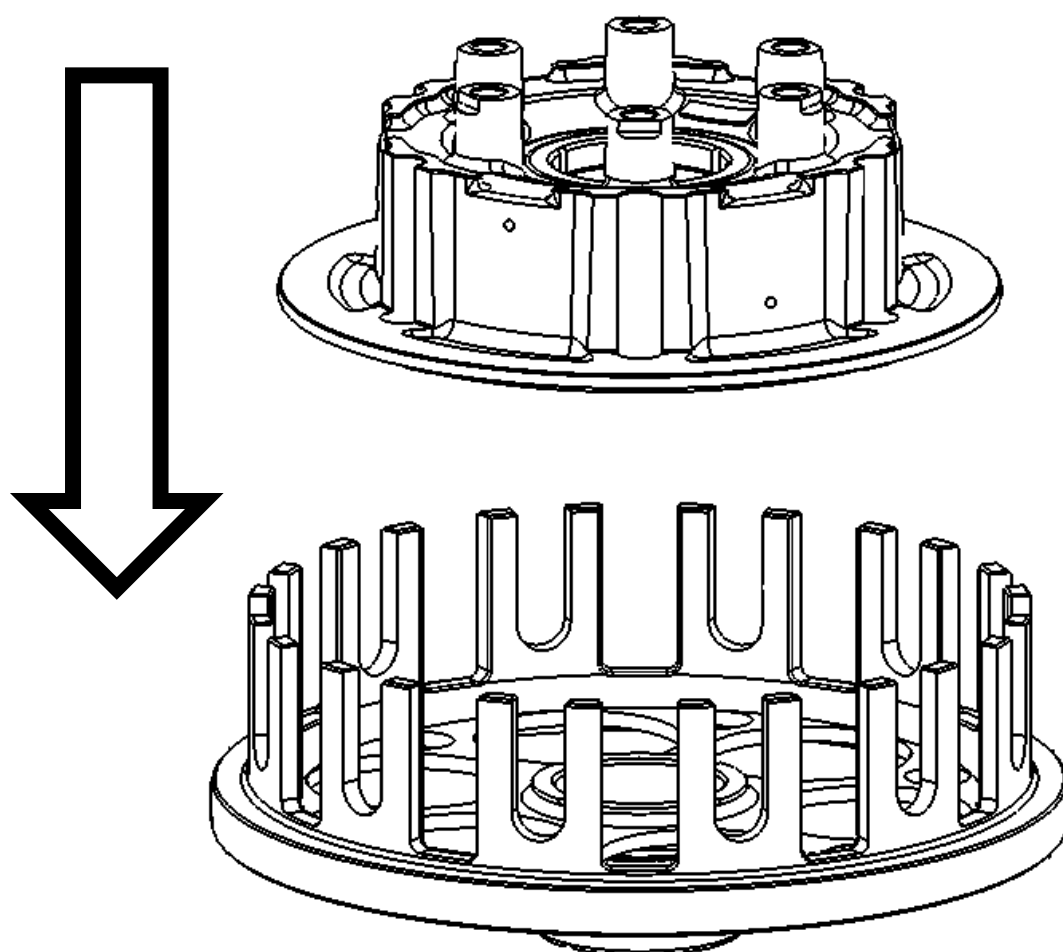
Rekluse recommends replacing the dampers if you feel any play between the two hubs.

INSTALL THE HUB

1. Remove the 6 rubber dampers from the OE center hub assembly.

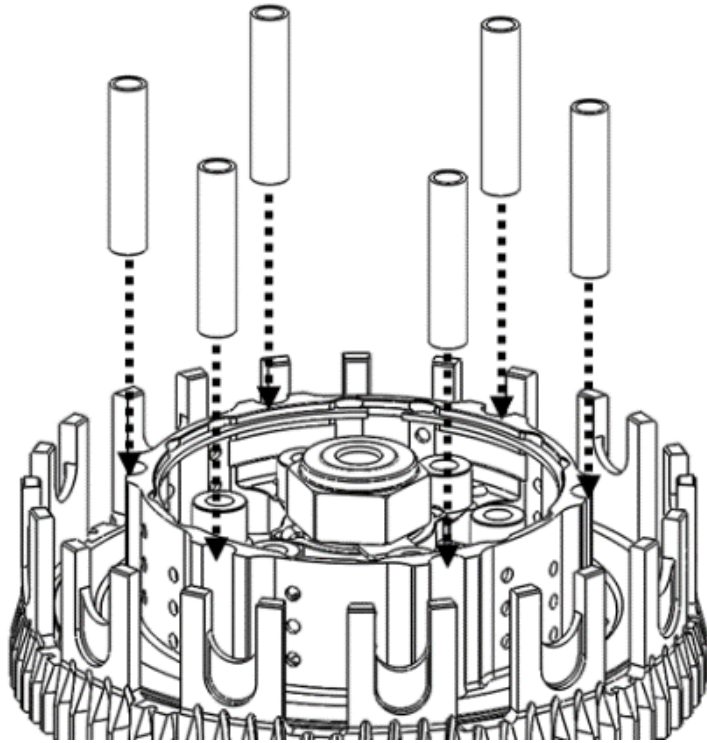


2. Install the 6 OE rubber dampers and inner hub onto the Rekluse outer hub.



3. Install the new center hub assembly onto the shaft.

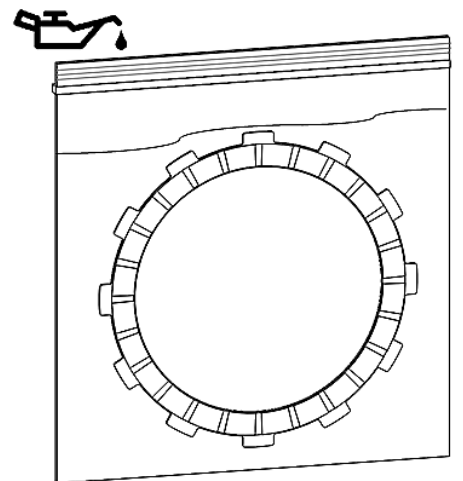
4. Reinstall the OE washer.
5. Apply blue thread locker to a new OE hub nut and torque it to **77 ft-lb (105 Nm)** before staking it to the shaft.
6. Seat the 6 included Rekluse drive pins into the Rekluse outer hub.



INSTALL THE CLUTCH PACK

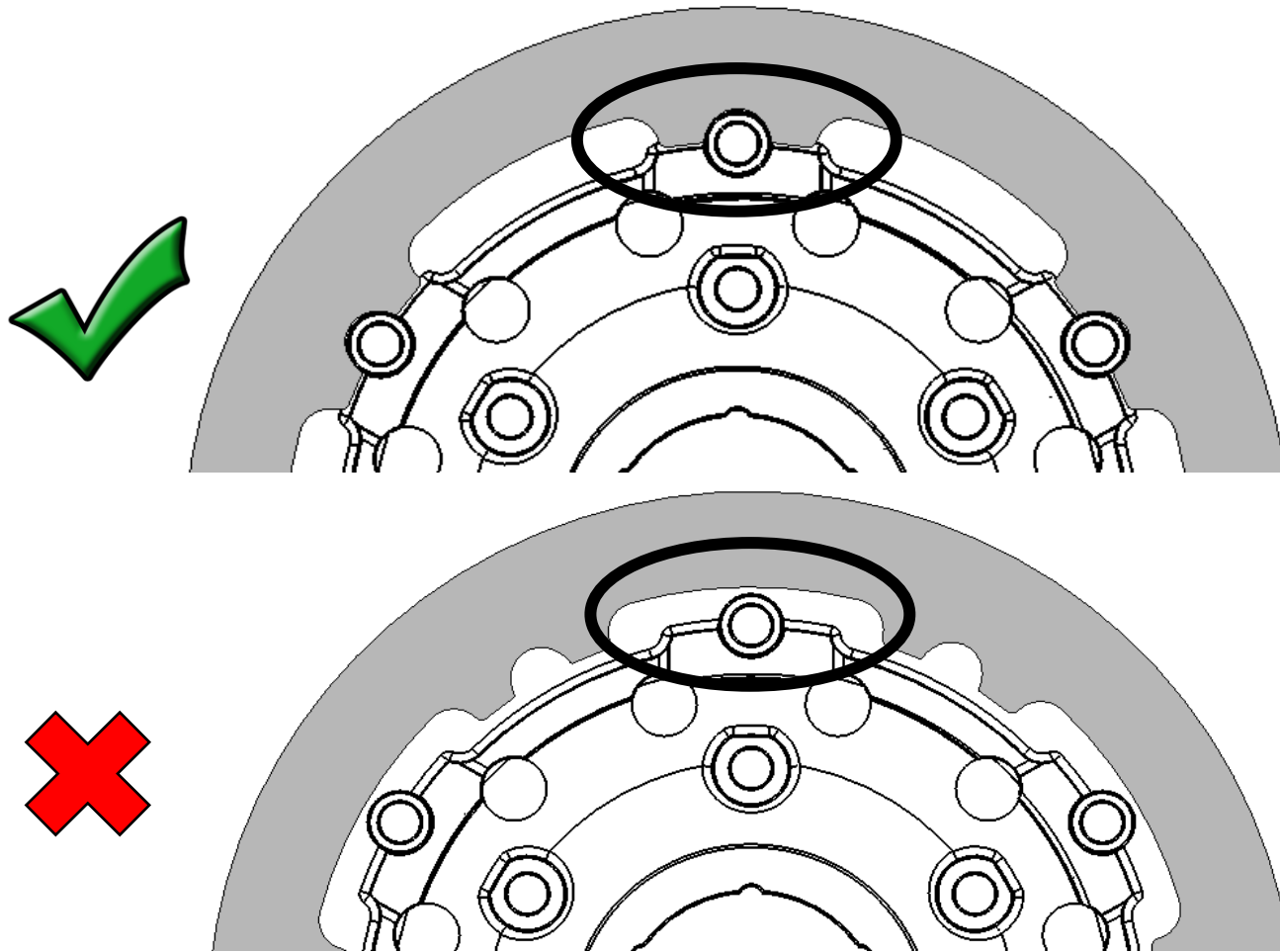
Preparing the Clutch Pack

1. Measure the clutch pack thickness.
 - a. Stack all Rekluse friction and drive plates together and measure the total thickness.
 - b. Refer to the ring Setting Chart on the **Setup Sheet** at the back of the manual and note which setting to use when installing the ring.
2. Soak the friction disks in new oil for at least 5 minutes. Make sure the friction disks are coated on both sides.

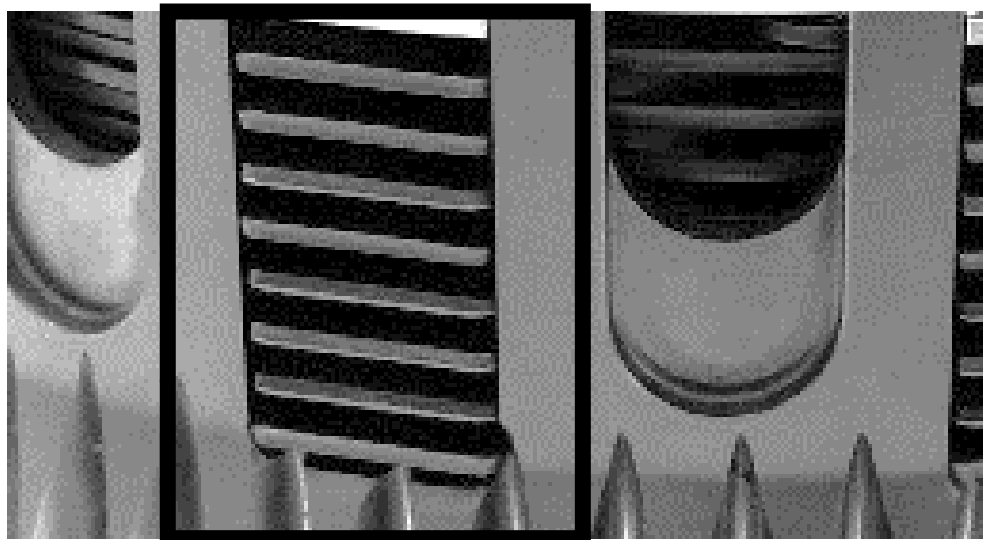


Installing the Clutch Pack

1. Install the clutch pack one plate at a time according to the **Setup Sheet** at the back of the manual. Follow the plate order shown in the **Setup Sheet**.



Note: ALL the drive plates must be aligned in the drive pins notches or damage may occur. The plates will not move when installed correctly.

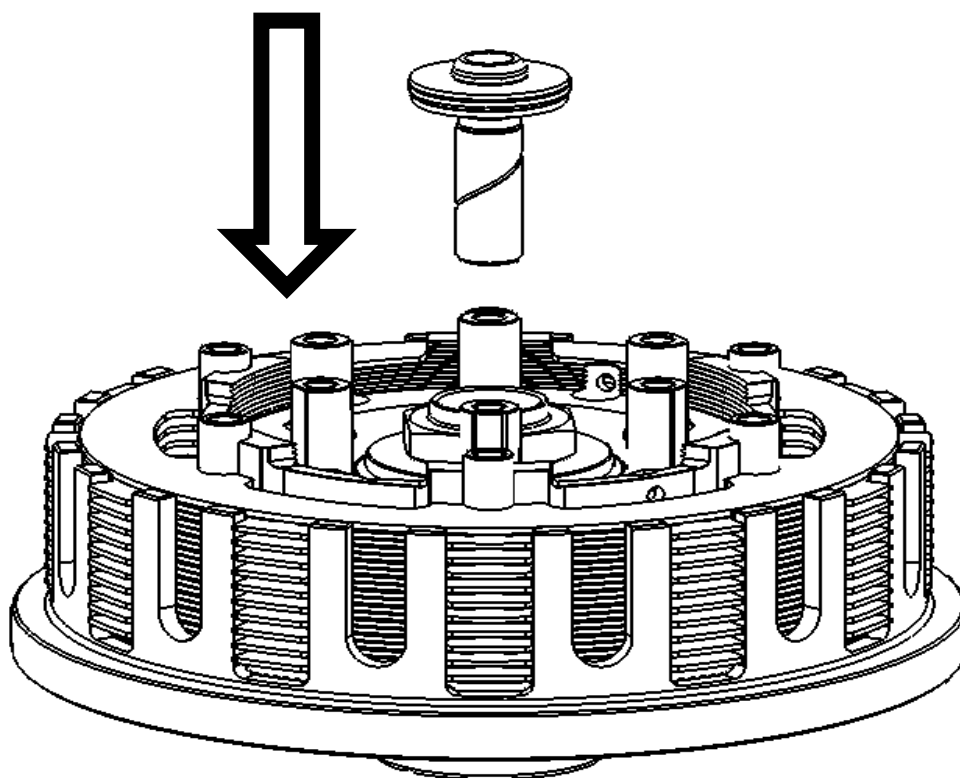


NOTICE

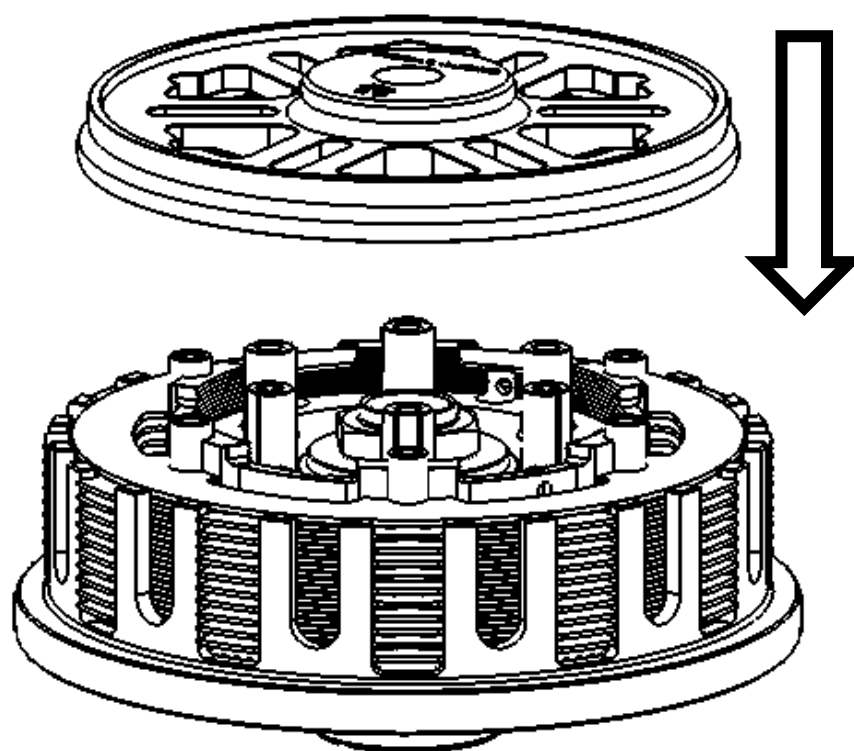
Some OE baskets have “half slots” at the top of the basket tangs. Rekluse products require the entire clutch pack to be installed into the MAIN (deeper) basket slots.

INSTALL THE PRESSURE PLATE & SPRING

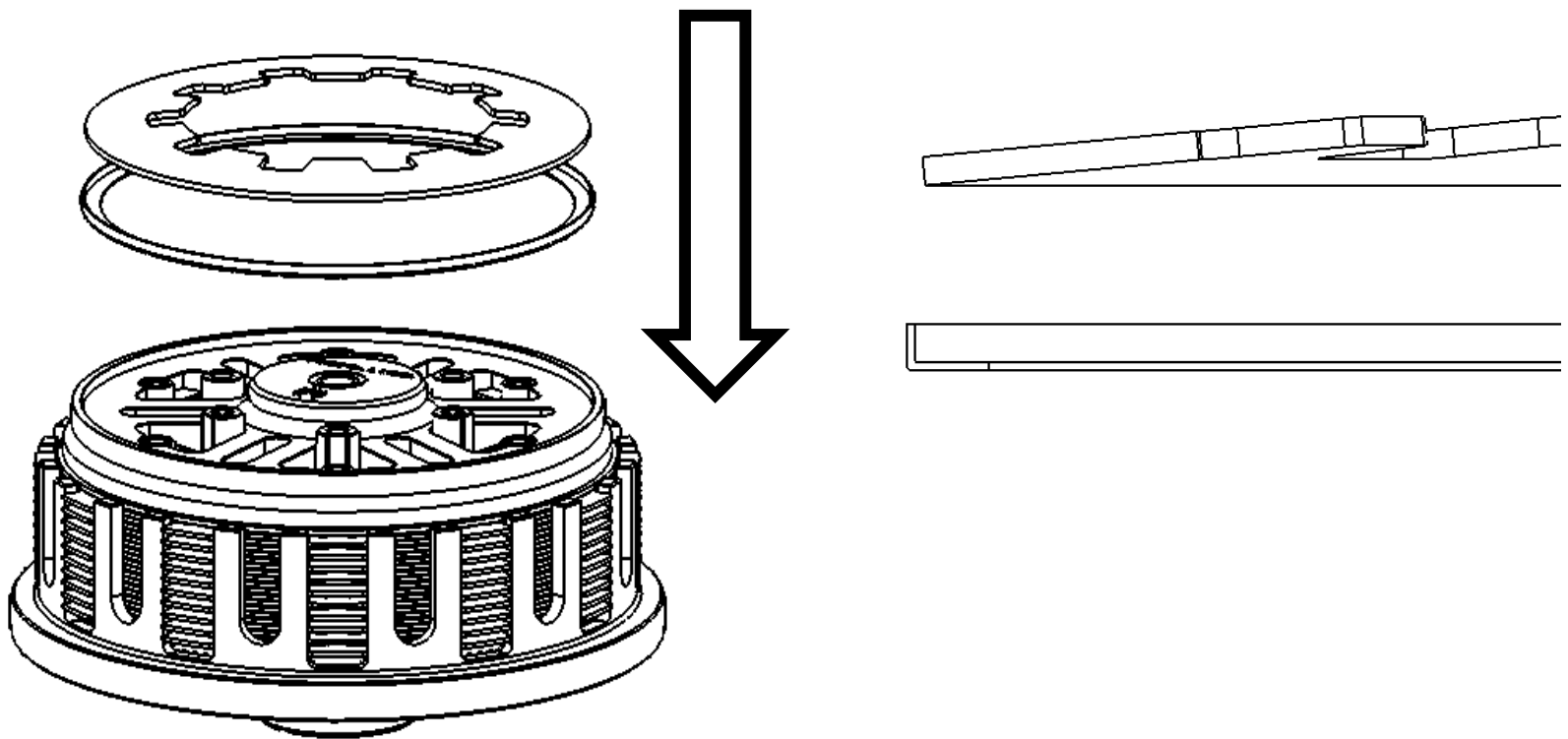
1. Reinstall the OE throw-out.



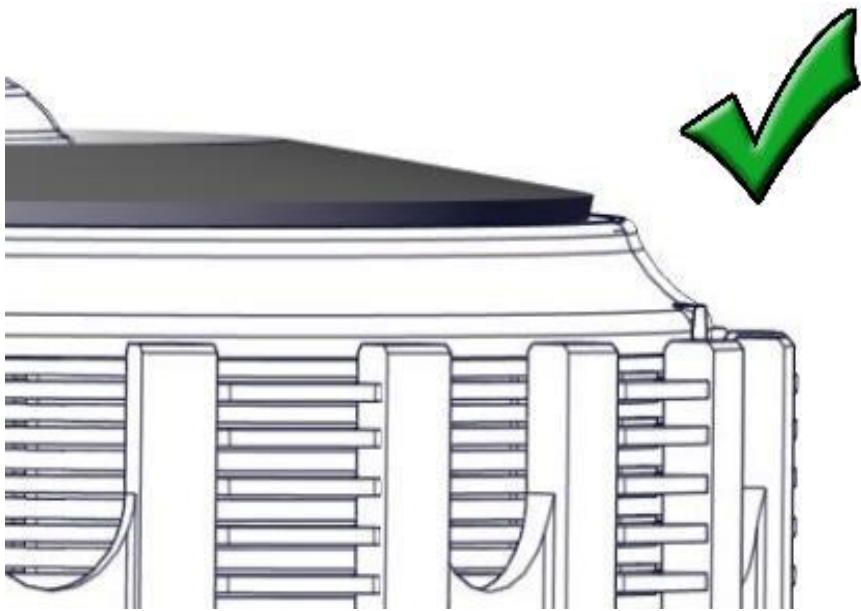
2. Install the pressure plate. Make sure it indexes on the drive pins.



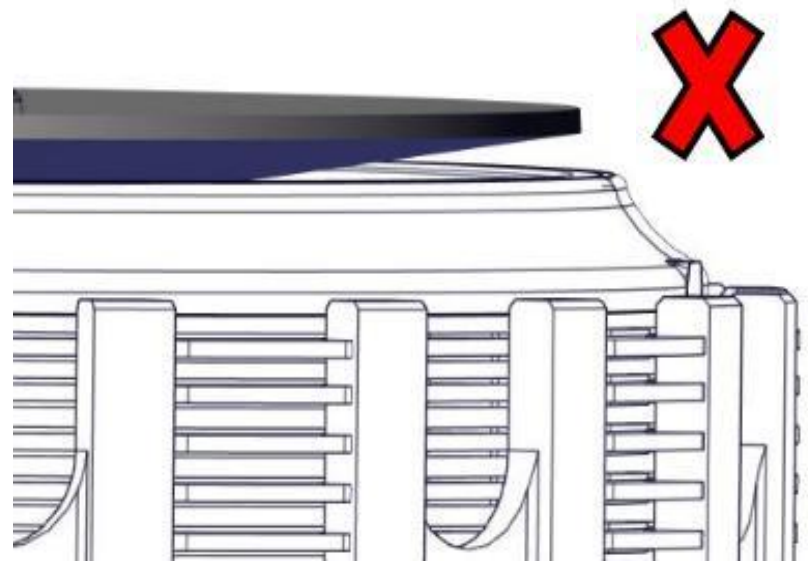
- Place the OE steel pressure plate liner in the Rekluse pressure plate. (It may be stuck to the OE pressure plate). Place it with the flat side down.



- Place the OE Belleville spring onto the pressure plate.



Correct – The Belleville spring sits flat against the steel liner.

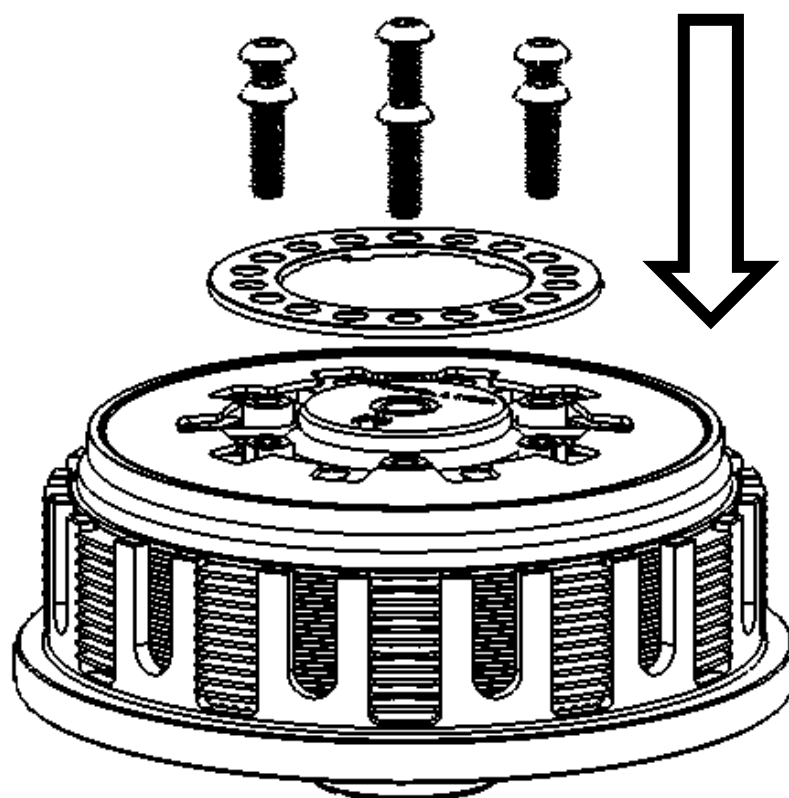


Incorrect – The Belleville spring is upside down.

NOTICE

The outer edge of the Bellville spring will make contact with the steel liner. If it does not, the Bellville spring is upside down.

5. Install the Rekluse spring ring, flat side up, and the Rekluse screws. Make sure to use the correct setting for your clutch pack height as shown in the **Setup Sheet**, the default setting is **II**



6. Tighten the screws in a star pattern by hand, then torque to **9 lb-ft (12 N-m)**.
7. Remove the OE cover gasket from the OE clutch cover and install it onto the new Rekluse clutch cover.
8. Install the Rekluse clutch cover with the OE cover bolts. Tighten the bolts in a star pattern by hand, then torque to **7.4 lb-ft (10 N-m)**.

MAINTENANCE

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

- Keep up with regular oil changes as per the bike manufacturer's recommendations. Clutch performance and longevity depend on oil quality.

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.

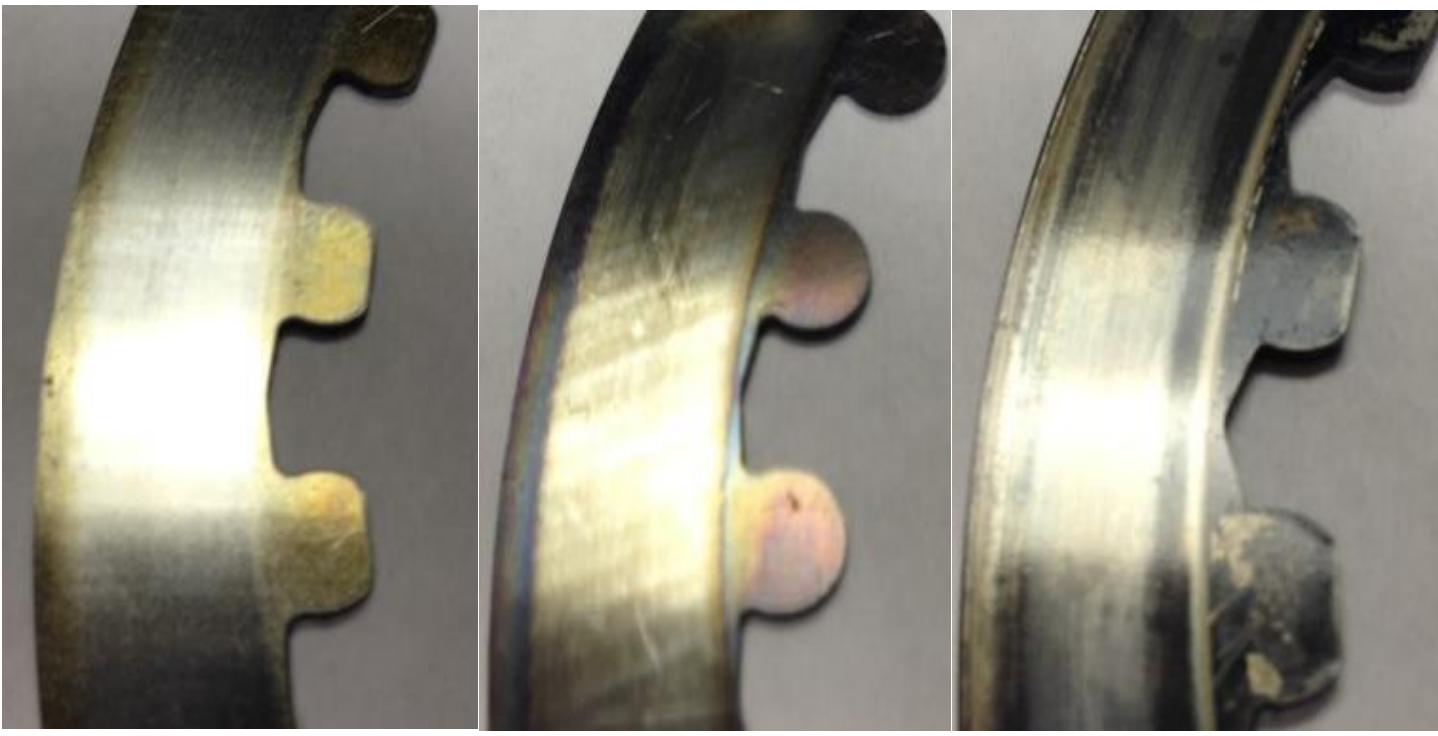
Oil recommendations can be viewed under Tech Tips on our website at www.rekluse.com/support/videos/atv-mc-support-videos.

- Inspect all of your clutch parts for signs of wear or excessive heat, and replace components as necessary. Clutch wear is dependent on the rider's use.
- The spring ring can be optimized based on the wear and height of the clutch pack. See the attached Setup Sheet for the spring ring optimization table to adjust the spring ring.
- Measuring the clutch pack can help determine if the components need replacing. See the Setup Sheet for the specific clutch pack measurements.
- Inspect the dampers, and replace them if you feel any movement between the two hubs. Refer to the section on inspecting the dampers for more information.
- Replace friction disks if they measure below the specifications listed on the attached Setup Sheet or if the disks are glazed and/or burnt.
- 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 from 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 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

NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Phone

(208) 426-0659

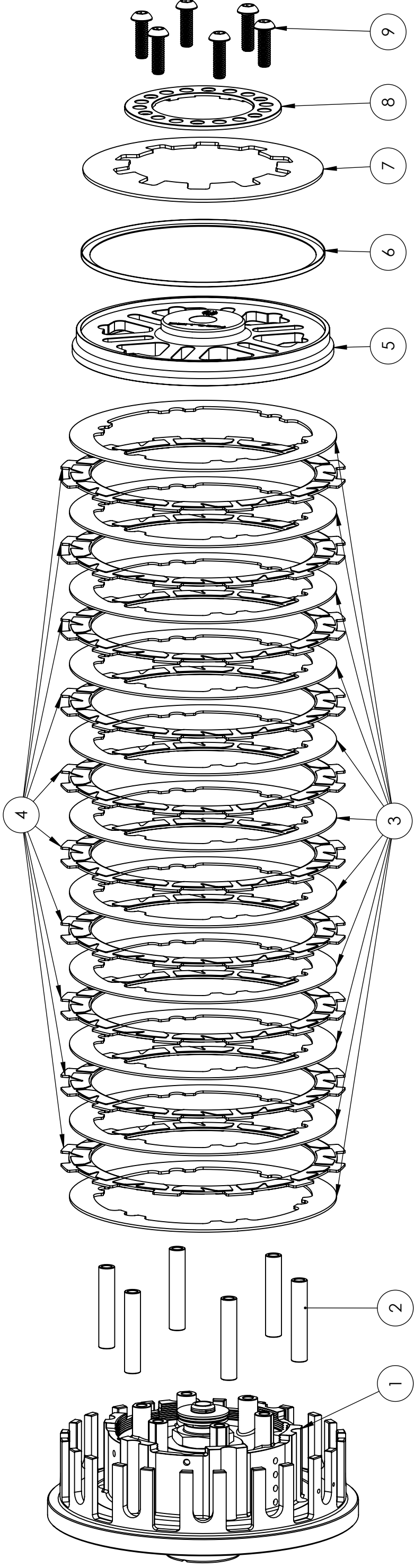
Monday thru Friday: 8 am – 5 pm Mountain Time

Email

tech@rekluse.com



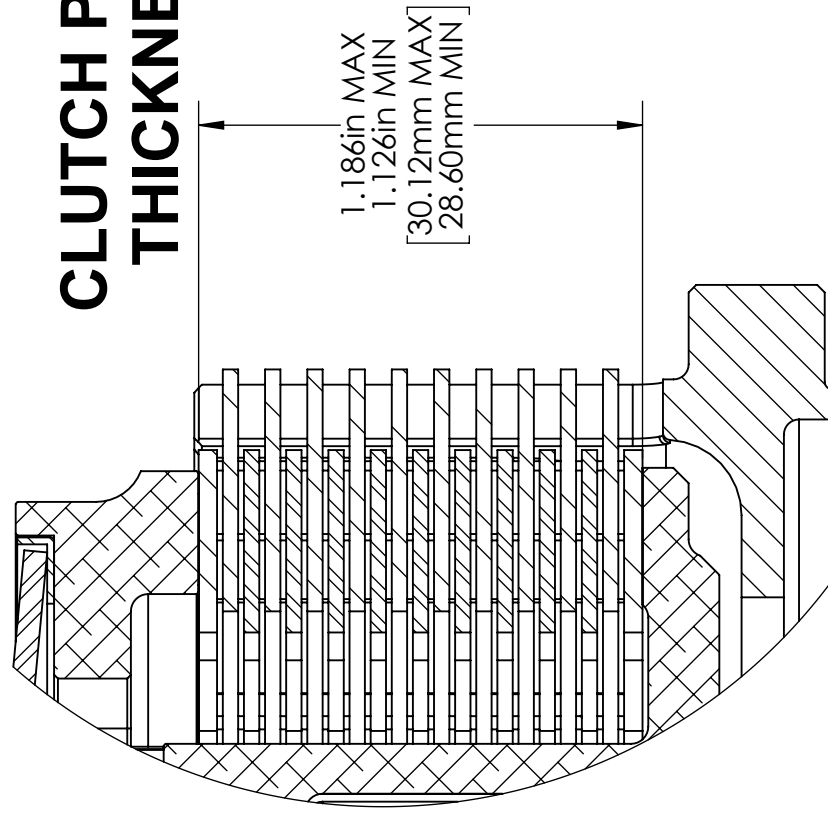
SETUP SHEET 198-7107176



COMPONENTS

ITEM NO.	DESCRIPTION	QTY.
1	HUB	1
2	DRIVE PIN	6
3	6-PIN DDS STD PLATE	11
4	TORQ DRIVE FRICTION	10
5	PRESSURE PLATE	1
6	OE SPRING LINER	1
7	OE BELLEVILLE SPRING	1
8	YZ450 ADJUSTABLE SPRING RING	1
9	M6 X 20 BUTTON TORX SCREW	6

CLUTCH PACK THICKNESS



SPRING RING SETTING

Clutch Pack Thickness in (mm)	Setting
1.126-1.146 (28.6-29.1)	I
1.146-1.166 (29.1-29.6)	II
1.166-1.186 (29.6-30.1)	III

SERVICE LIMITS

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