



## READ ME FIRST

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Doc Revision: 110817

There are several crucial steps that must be understood and performed to ensure your clutch will function properly. Failure to properly install and maintain your clutch components will result in premature wear or failure.

### New Friction Disk Break-In

#### **⚠ WARNING**

**Failure to follow the oil screen inspection process after break in could cause motor oil delivery failure which can result in motor failure, serious injury, or death.**

- Following the installation of a new set of friction disks, there will be a short break in period during which the friction disks will wear in somewhat. Following this wear in period, it is vital to inspect the oil screens.
  - Soak new friction disks in oil
  - Install new friction disks
  - Ride the bike for an initial period
  - Inspect the oil screens, and change oil as necessary

### Damper Inspection (DDS clutches only)

During clutch installation, inspection of the OEM dampers is necessary. Follow the inspection process found in the installation manual.

- Remove OEM components called out in the installation manual
- Follow the damper inspection process found in the installation manual
- Replace dampers if necessary



## **INSTALLATION & USER'S GUIDE**

The Rekluse CoreManual TorqDrive Clutch Kit

Doc ID: 191-7113080A  
Revision: 011320

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## **OVERVIEW**

- This kit replaces the OE (Original Equipment) or “stock” core clutch components including the center clutch hub and pressure plate with high-quality billet components designed for optimal operation specific to your bike.
- All 8 OE friction disks will be replaced with Rekluse TorqDrive® Frictions, and all OE steel drive plates will be replaced with Rekluse TEC drive plates.
- All 6 of the OE drive pins will be reinstalled.
- 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.

# **INSTALLATION TIPS**

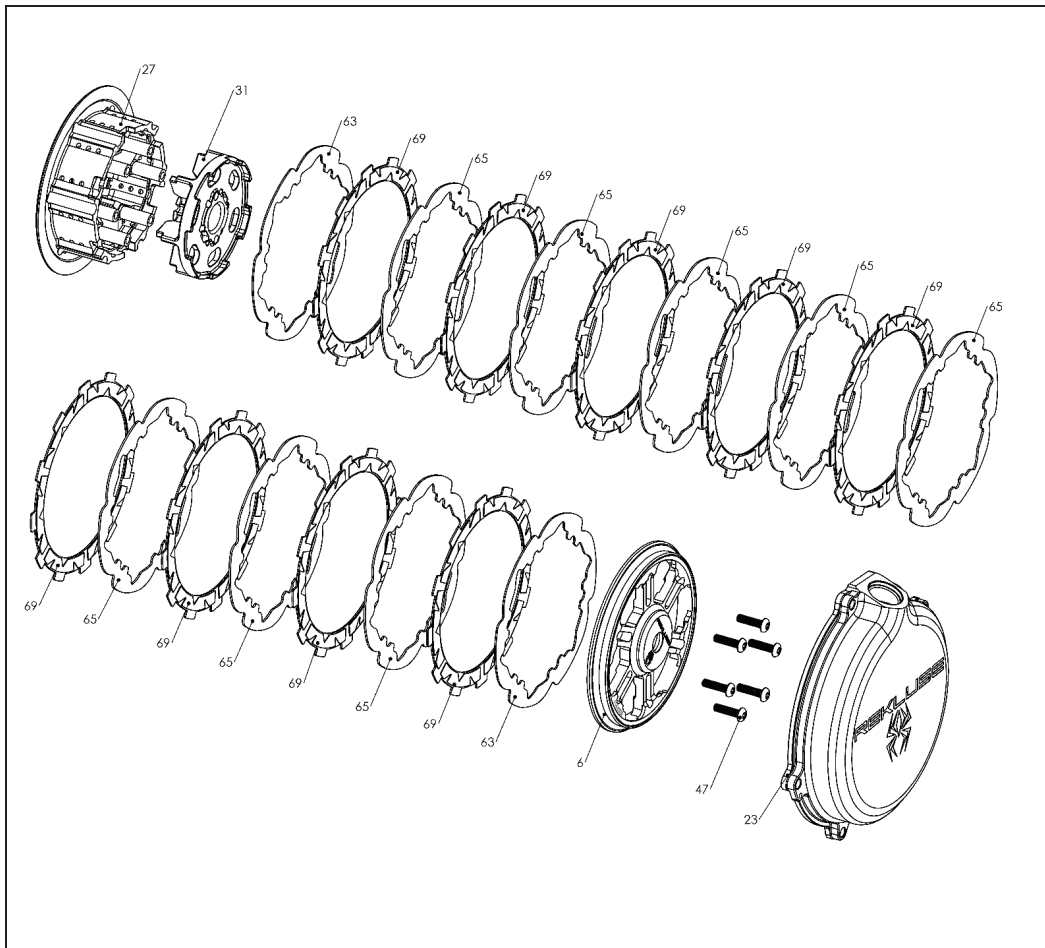
- Read this entire document before performing any steps, so you will know what to expect.
- Be sure to use proper eye protection.
- Laying the bike on its left side allows for easy clutch access and eliminates the need to drain oil.
- Use an air or electric impact wrench to remove the center clutch nut. 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.
- Channel-lock pliers work best to bend the tabs of the washer up over the center clutch nut.

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 NEEDED**

- 8 mm socket
- 27 mm socket
- Channel-lock pliers
- Hammer
- Torque wrench (in-lb & ft-lb, or N-m)
- T-25 Torx bit (included with kit)
- Screwdriver

# INCLUDED PARTS



Item	Item Type	Qty
6	Pressure Plate	1
23	Clutch Cover	1
27	Outer Hub	1
31	Inner Hub	1
47	Pressure ring screws - T-25 Torx Screw (T-25 Torx bit included)	6
65	Steel Drive Plate - .040" (1 mm)	2
63	Steel Drive Plate - .048" (1 mm)	8
69	TorqDrive Friction Disks	9

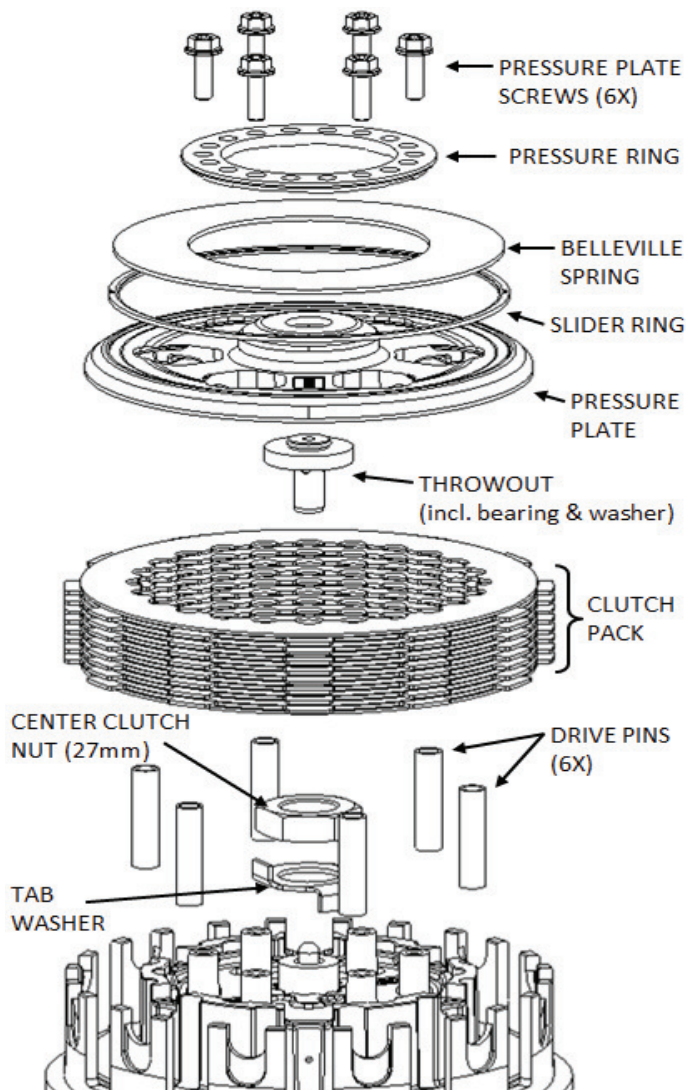
Visit [Rekluse.com/support](http://Rekluse.com/support) for a full parts fiche illustration and part numbers.

# **BIKE PREP & DISASSEMBLY**

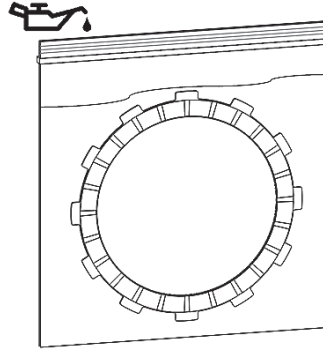
1. Lay the bike on its left side. Catch any fuel that might drain in a suitable container.



2. Using a socket, remove the clutch cover bolts, then remove the clutch cover.
3. Remove the OE parts named in the following diagram.

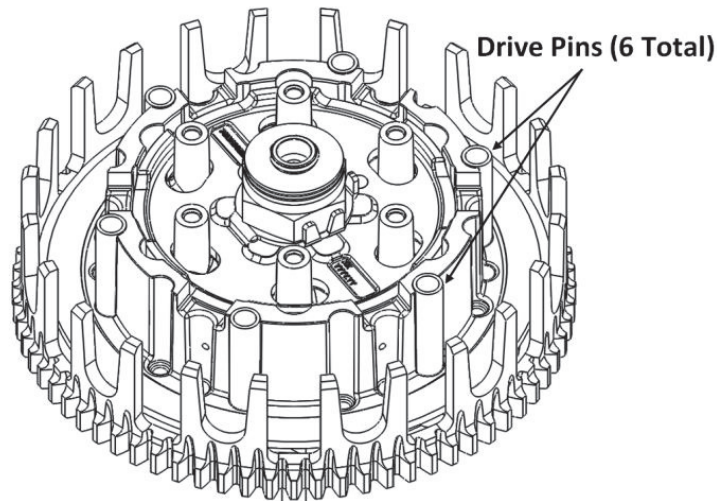


4. Soak the TorqDrive® friction disks in new engine oil for 5 minutes. Make sure the friction disks are coated on both sides.

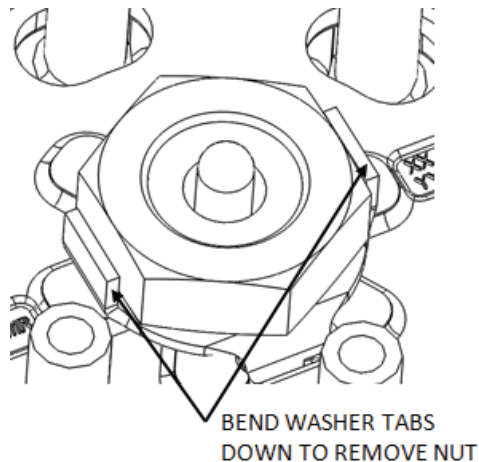


**NOTES:**

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

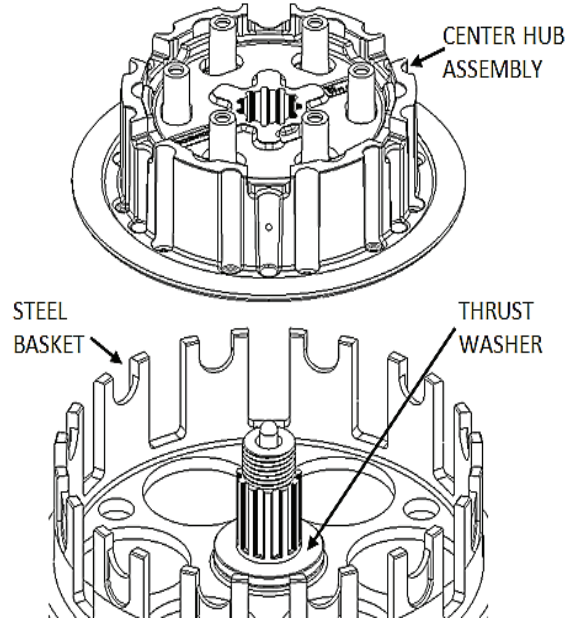


- Use a hammer and large screw driver to bend down the tabs of the tab washer.





5. Remove the center hub assembly from the bike. *Make sure the thrust washer is in place on the main shaft and not stuck to the bottom of the center hub assembly.*



## INSPECT THE DAMPERS

The OE dampers inside the center hub assembly shrink due to heat and use. Any movement between the dampers will shorten the life of your clutch. Inspect the dampers before proceeding and replace if necessary. Use the following instructions to inspect the dampers.

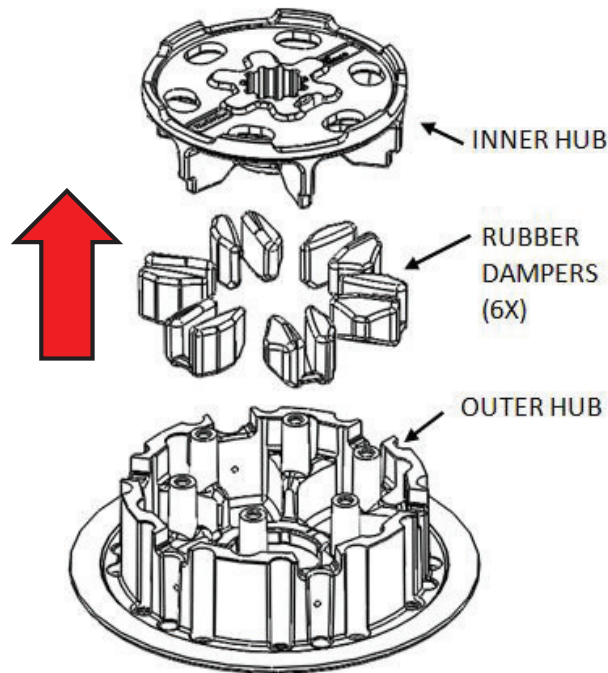
1. Hold the center hub assembly in your hands, then place your thumbs on the inner hub by the embossed part numbers.
2. Rotate the inner hub back and forth inside the outer hub. *Rekluse recommends replacing the dampers if you feel any play between the two hubs.*



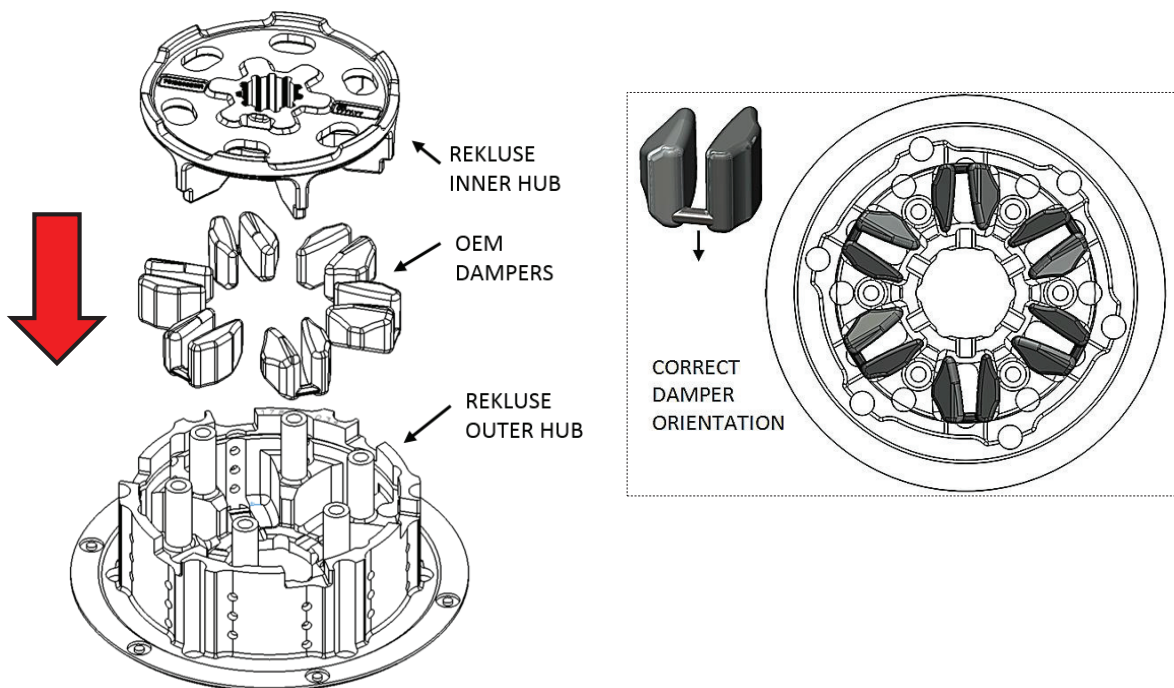


# **INSTALL HUBS**

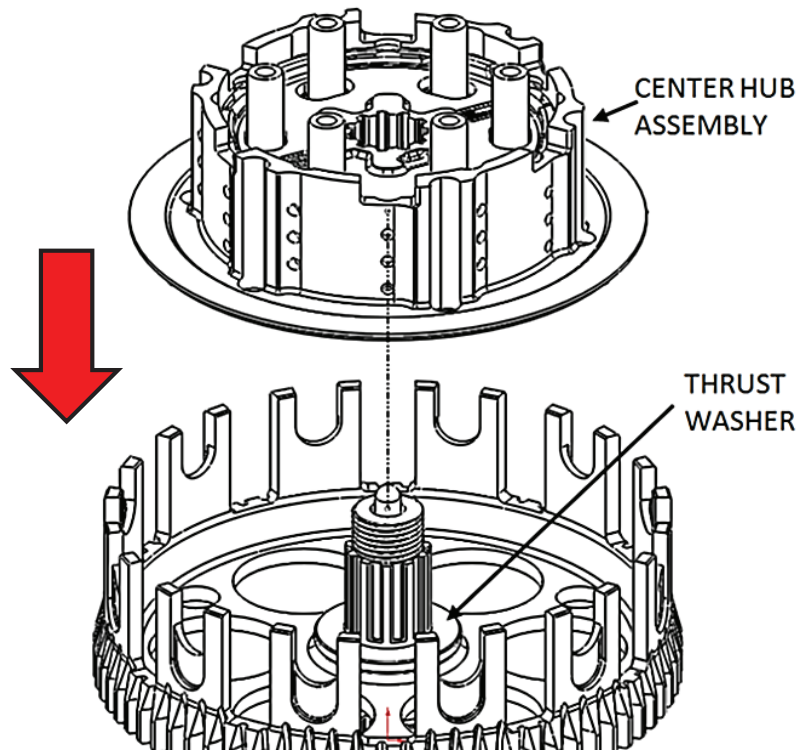
1. If the dampers are in good condition, remove the 6 rubber dampers from the OE center hub assembly.



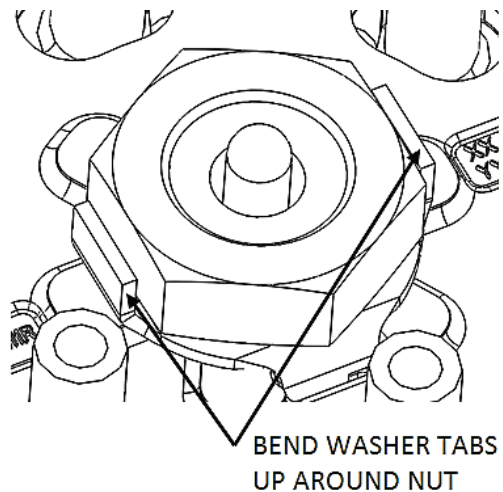
2. Install the 6 OE rubber dampers and the Rekluse inner hub onto the Rekluse outer hub.



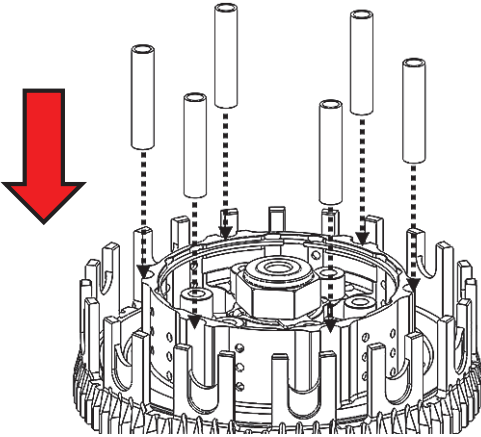
3. Install the new center hub assembly into the motorcycle.  
*Make sure the thrust washer is on the main shaft before installing.*



4. Reinstall the OE tab washer and center clutch nut torquing the nut to **50 ft-lb (68 N-m)**.
5. Using the channel-lock pliers, bend up **both** tabs of the tab washer tightly around the nut. The tabs can be bent on the straight sides or around the corners.



6. Seat the 6 OE drive pins into the Rekluse hub.



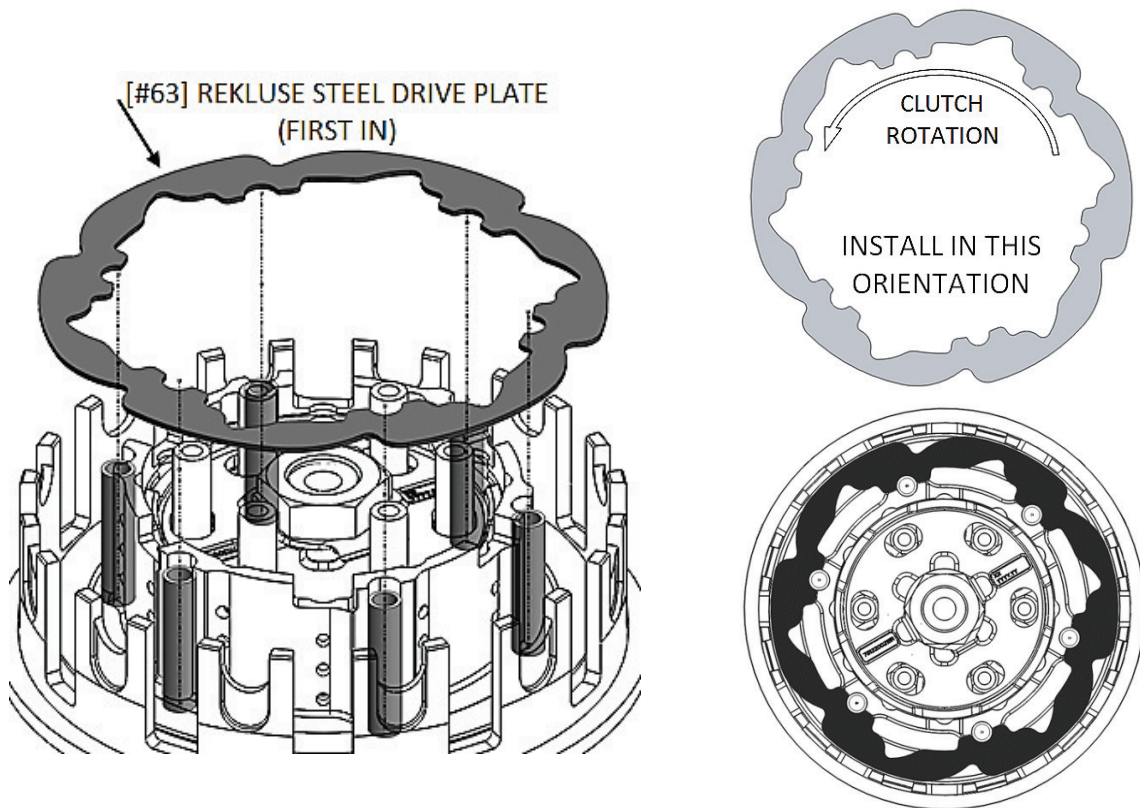
# INSTALL THE CLUTCH PACK

## NOTICE

The clutch pull effort has different pressure ring settings that depend on the thickness of the clutch pack. You will need to measure the clutch pack **BEFORE** you begin if you wish to optimize the clutch pull effort vs. clutch performance. Please refer to the Setup Sheet at the back of the manual for clutch pack

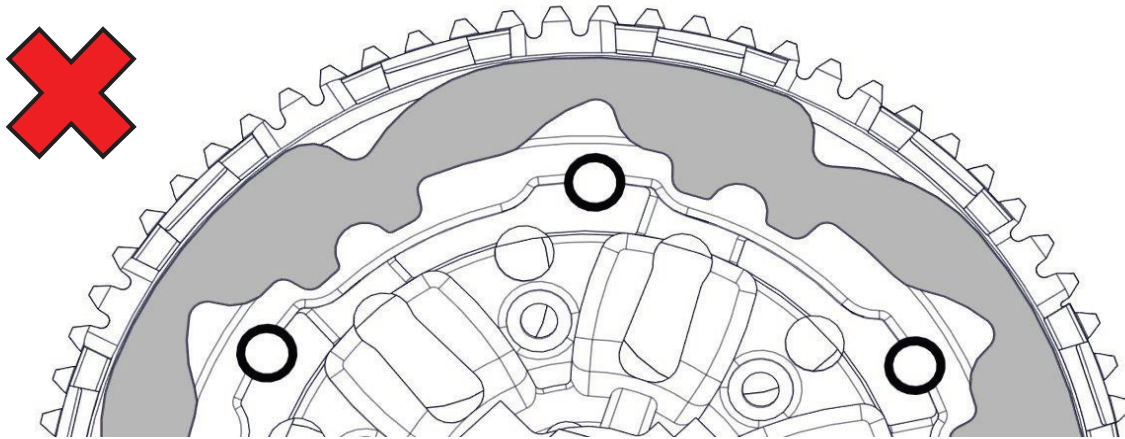
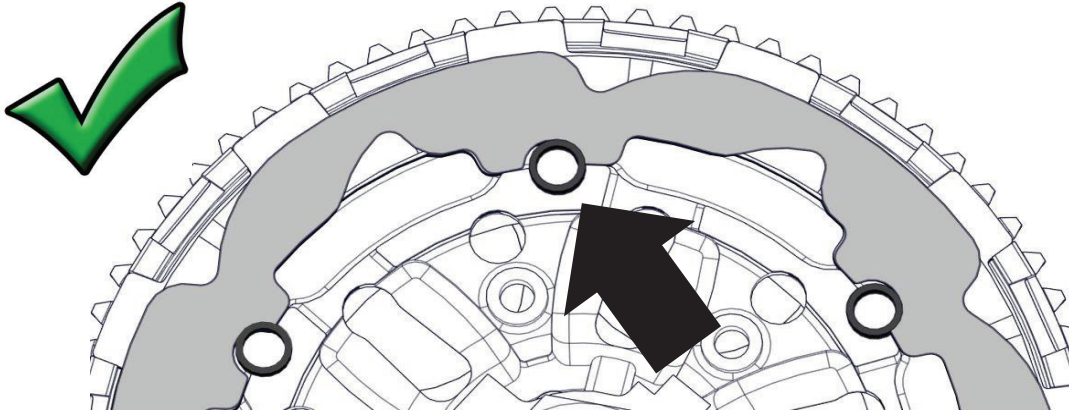
1. Install 1 of the .040" (1 mm) thick drive plates in the orientation shown into the clutch basket. (All drive plates will follow this orientation).

**NOTE:** Proper orientation of the drive plates is critical for optimal clutch performance. If you install them backwards, the clutch will still function but will lack proper modulation performance.



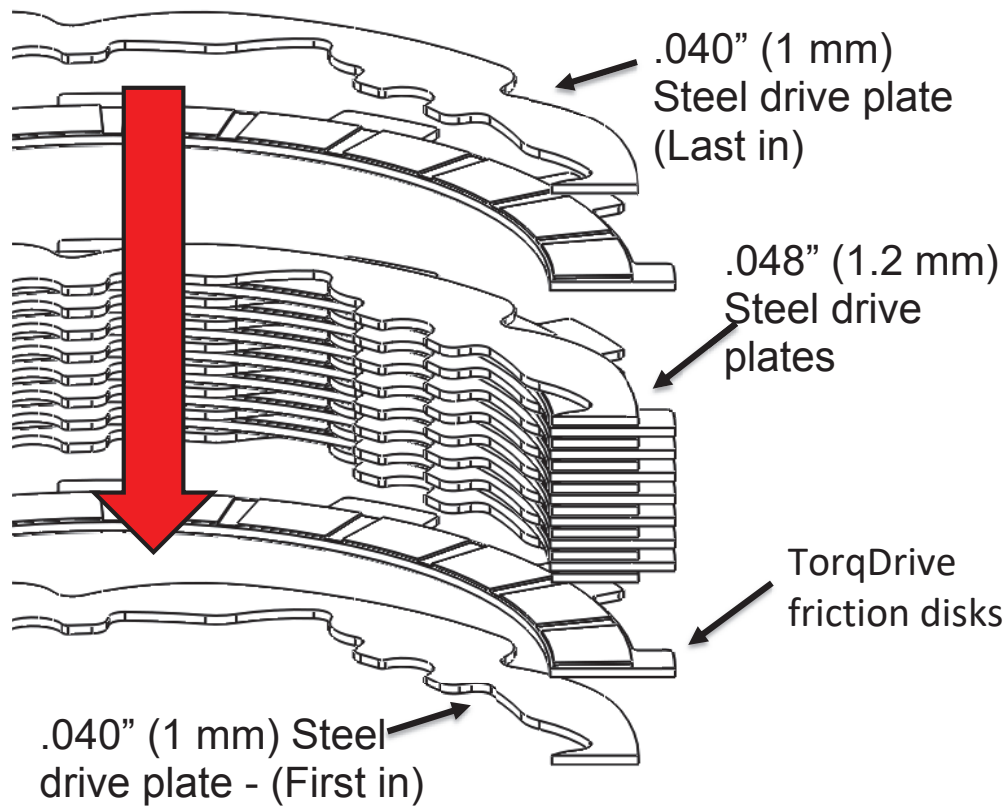
## NOTES:

- Align the drive pin notches in the TEC drive plate with the drive pins on the hub when you install the drive plate into the basket. Be sure that the drive pins are seated in the notches and not in the bigger sections.
- ALL the TEC plates must be aligned in the drive pins notches or damage may occur. The plates will not move when installed correctly.

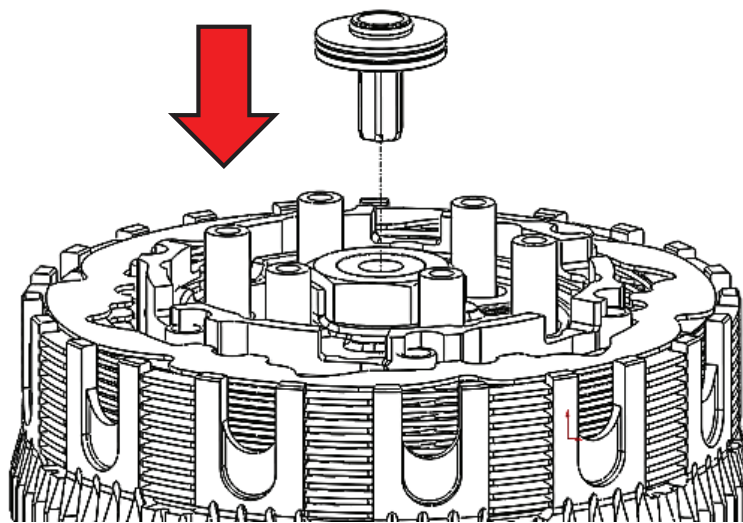




2. On top of the steel drive plate, install the rest of the clutch pack. The clutch pack number and order is based on the bike model. This information is found in the attached **Setup Sheet located at the back of the manual**. The following diagram is an example of the installed clutch pack.

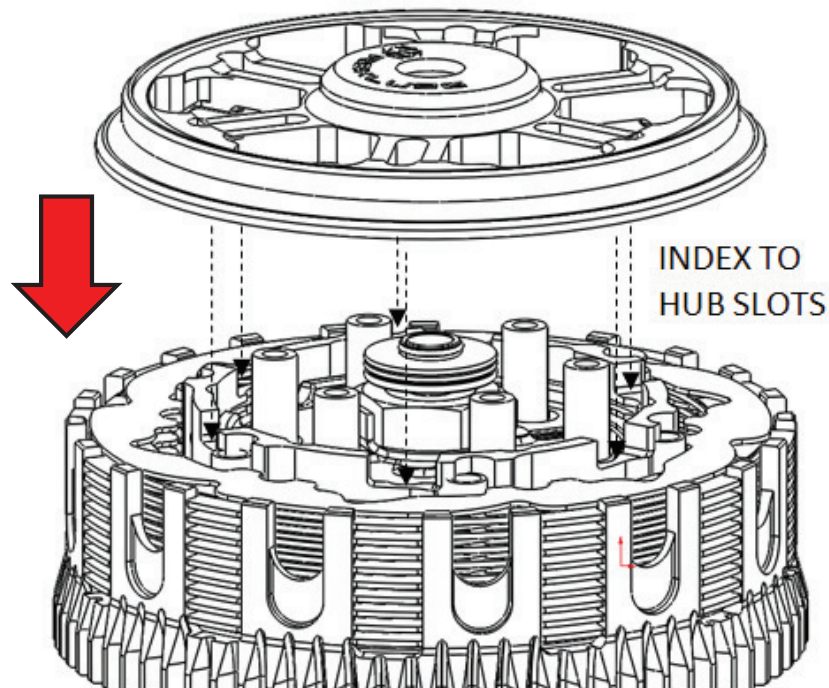


3. Reinstall the OE throw-out.

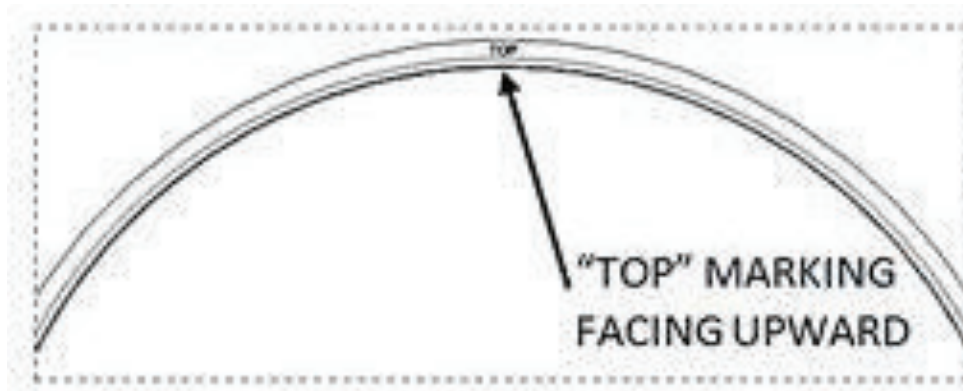


# PRESSURE PLATE INSTALLATION

1. Install pressure plate by indexing the pressure plate into the slots in the hub.



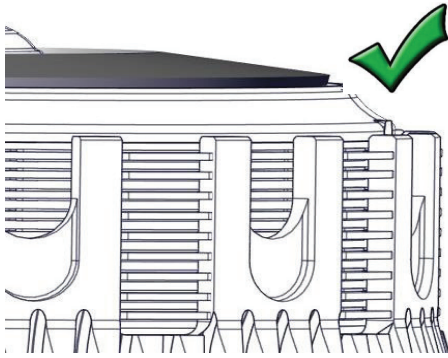
2. Place the OE slider ring on the pressure plate with the "top" marking facing up. (The top side is rounded, and the bottom edge is sharp.)



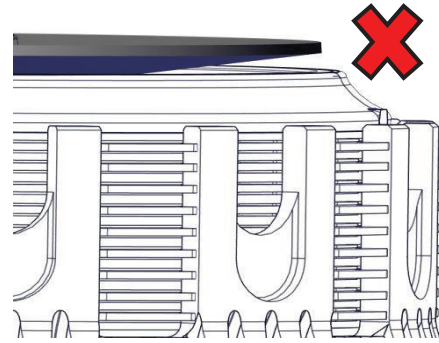
3. Install the OE Belleville spring onto the slider ring, with the rounded dome side facing up. See pictures for reference.

**NOTE:** *The outer edge of the Belleville spring will make contact with the slider ring. If it does not, the Belleville spring is upside down.*





**Correct** – The Belleville spring sits flat against the slider ring.

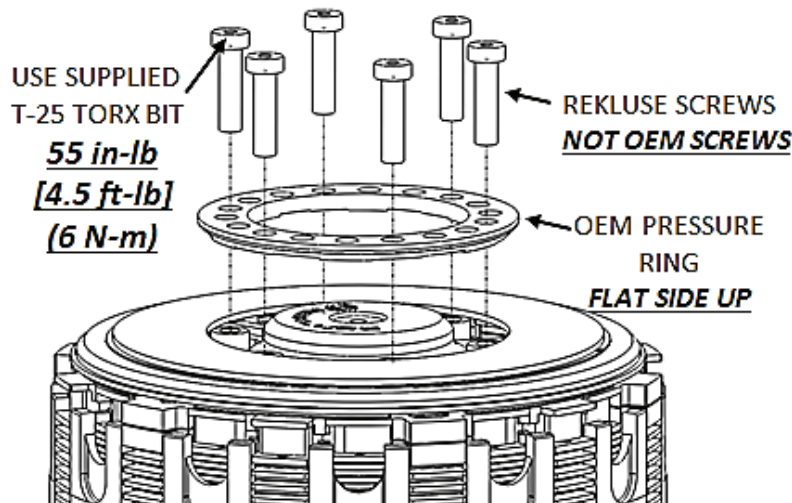


**Incorrect** – The Belleville spring is upside down.

4. Install the OE pressure ring followed by the Rekluse Pressure Plate Screws.

**NOTE:** There are 3 possible settings on the OE pressure ring that will be reused with the Rekluse Clutch system. These settings will be listed as I, II, III or X, Y, Z depending on model. To select the correct setting, you must refer to the set-up sheet for optimized performance. The thickness measurement of the Rekluse clutch pack will determine the setting to be used on the OE pressure ring.

**Clutch damage can occur if you do not use the correct OE pressure ring setting as stated in the Rekluse set-up sheet.**



 **CAUTION**

**DO NOT** reuse the stock screws, or clutch cover interference will occur! **DO NOT over-torque** the screws, or damage to the screw heads will occur!

5. Torque the pressure ring screws to **55 in-lb (4.5 ft-lb) (6 N-m)**.
6. Install the OE cover gasket onto the Rekluse clutch cover, then install the cover onto the clutch.
7. Reinstall the clutch cover bolts in their proper location, then lightly tighten the cover bolts in small increments in a star pattern. Torque the cover bolts to OE specifications.

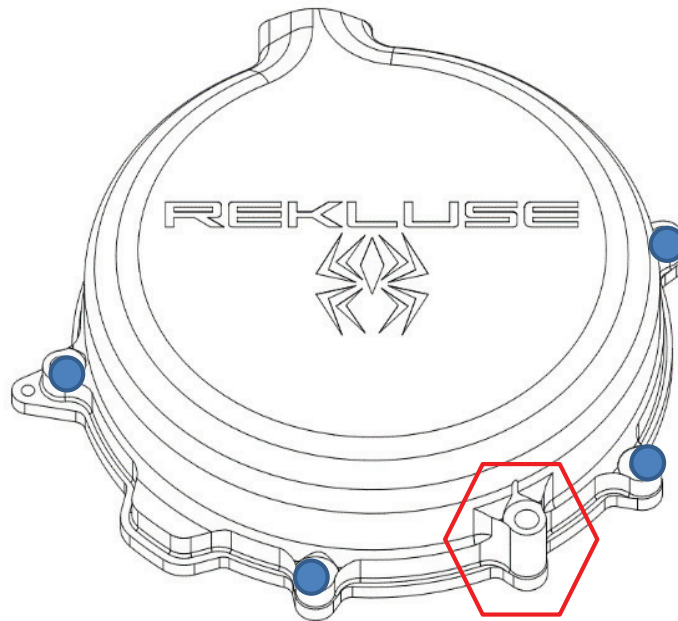
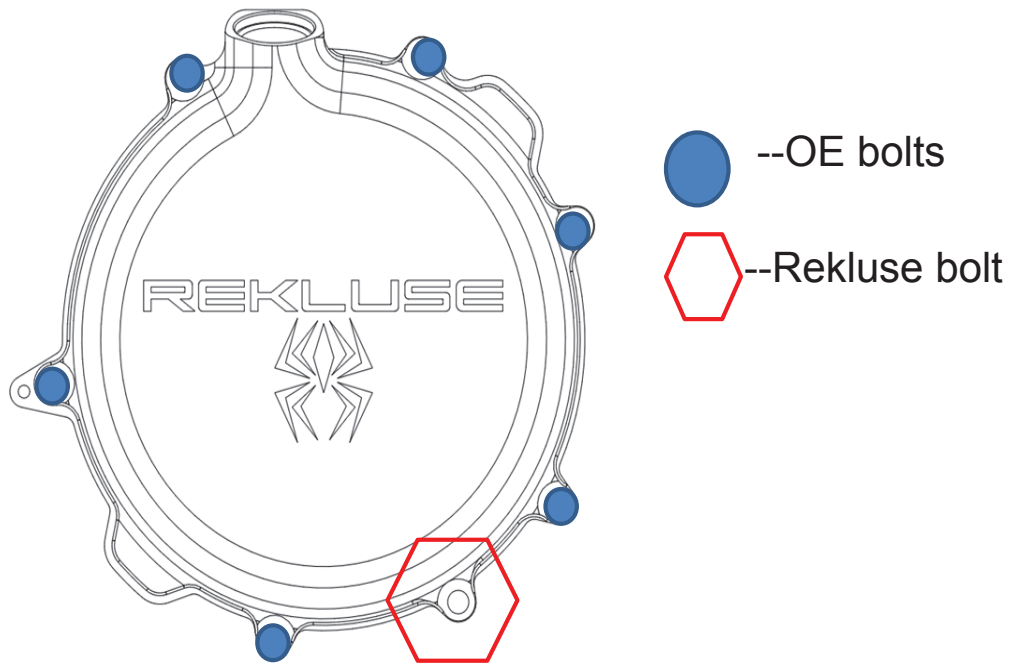
**250/300 2 stroke 2017+ models:**

- **Use 6 OEM bolts and 1 Rekluse bolt.** Your Rekluse clutch cover kit comes with 1 longer bolt to replace a shorter OEM bolt. Install 6 of the OEM bolts in their original location and install the longer Rekluse bolt in the lower right hand corner. **See following pictures for reference.**

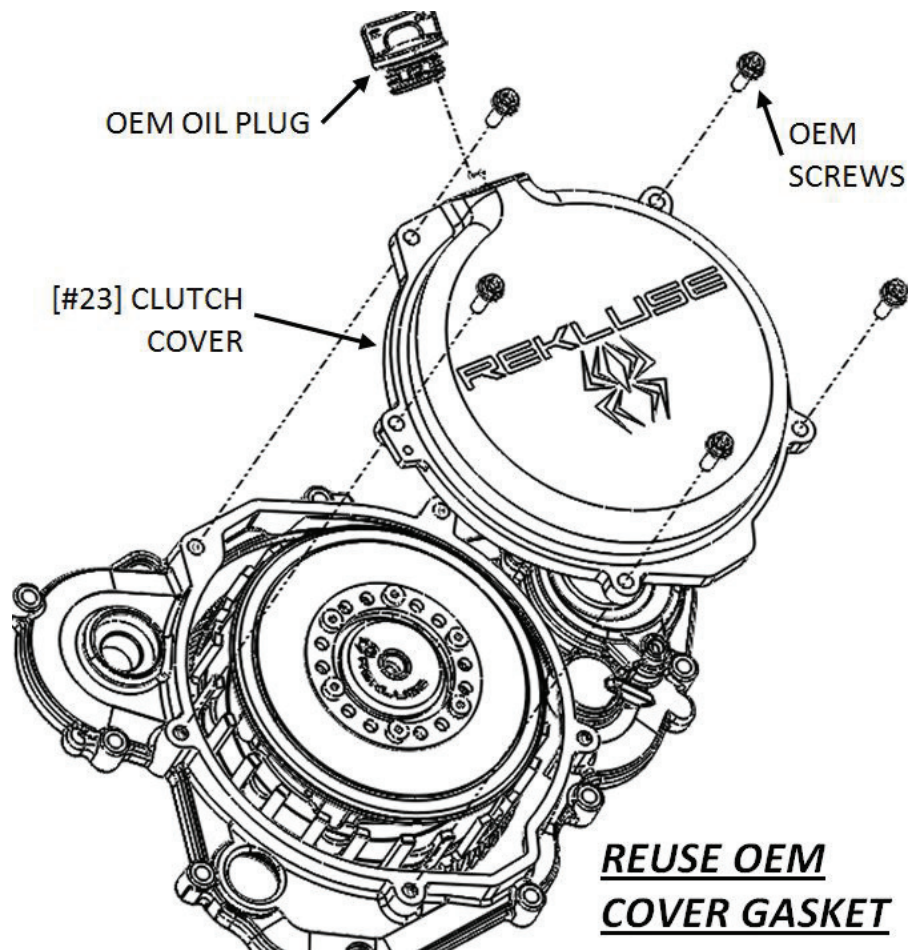
 **CAUTION**

Failure to install the OEM clutch cover bolts back in there proper location can result in damage to your motorcycle.

**250/300 2 stroke 2017+ models:**



8. If your clutch cover has an oil fill plug and/or engine inspection plug, reinstall the plug.



## MAINTENANCE

### **Clutch wear**

Rekluse clutches are built using high quality materials but do wear based on the rider's use, type of terrain, and natural wear and tear.

- Clutch longevity and performance is greatly increased with oil quality and other bike factors that reduce engine heat.
- Riding style, such as speed, engine RPM, and terrain can also effect the life of the clutch.
- To keep your clutch performing at its best, perform regular maintenance on your bike and clutch based on your riding style.

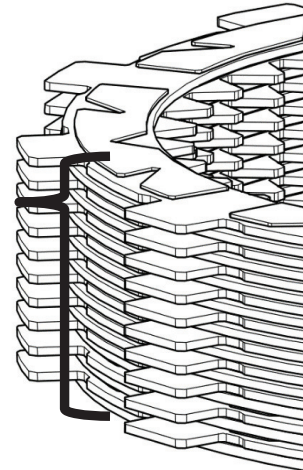
- The maintenance range is based on an average rider's moderate use. If you ride in extreme environments or riding conditions, use the lower end of the range for best performance.

## Clutch parts

Inspect all of your clutch parts at regular intervals for signs of wear or excessive heat, and replace components as necessary.

- The OE spring ring can be optimized based on the wear and height of the clutch pack. See the attached Setup Sheet for the specific clutch pack measurements.
- Repeat the break-in procedure anytime you replace the frictions disks. Always soak new friction disks in fresh oil before installing.
- Measuring the clutch pack can help determine if the components need replacing. The clutch pack is measured with the entire clutch pack together. Include the friction pad in the measurement.
- Disk inspection examples are found in the following section.

Measure entire clutch pack including the friction pad.



## Preventive Maintenance

- For optimal clutch performance Rekluse recommends using fresh, clean oil that meets JASO-MA oil rating requirements.
- Keep up with regular oil changes as per the bike manufacturer's recommendations. Clutch performance and longevity depend on oil quality.
- Change the oil filter and/or clean the oil screen with every oil change.



- **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 our website at [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 pictures below. Not all drive plates look the same and may look different than pictured.

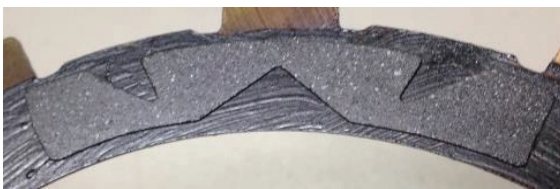


Normal Heat

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

## **Frequently Asked Questions**

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

## **Support Videos**

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

## **Phone**

(208) 426-0659

## **Technical Support**

Contact Technical Support for questions related to product installation, tuning, and performance.

Hours:

Monday thru Friday: 8:00 a.m. - 5:00 p.m.

Mountain Time zone

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

## **Customer Service**

Contact Customer Service for additional product information, orders, and returns.

Hours:

Monday thru Friday: 8:00 a.m. - 5:00 p.m.

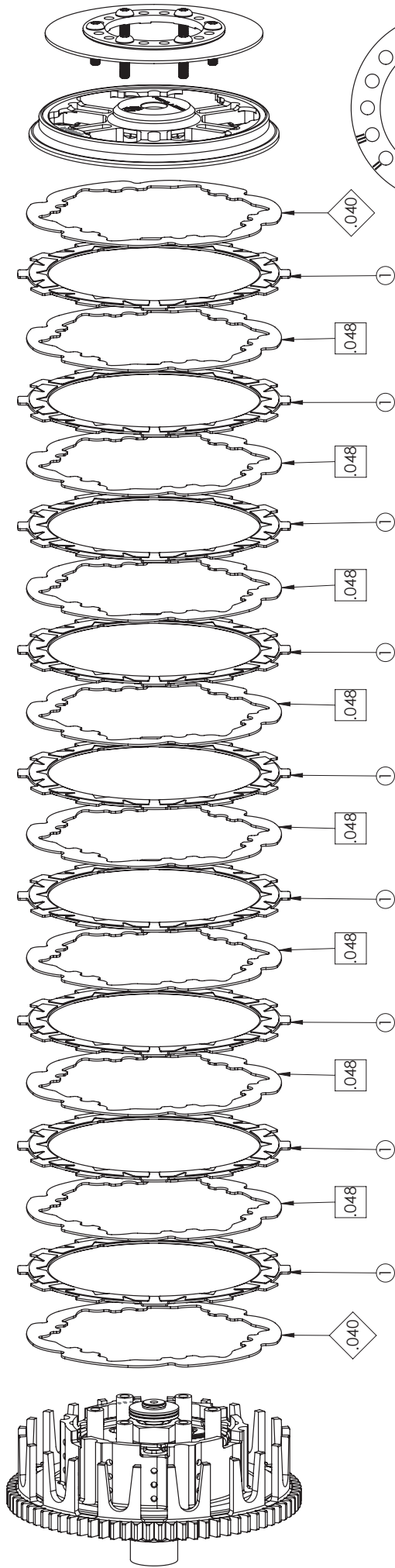
Mountain Time zone

Email: [customerservice@rekluse.com](mailto:customerservice@rekluse.com)





# SETUP SHEET 198-7113080



ITEM NO.	DESCRIPTION	QTY.
.040	DRIVE PLATE (.040")	2
.048	DRIVE PLATE (.048")	8
1	TORQDRIVE FRICTION (.070")	9

The OEM spring ring has different settings to account for variances in the clutch pack and wear. The optimal setting depends on the thickness of the clutch pack. In general, MORE preload on the spring results in LESS clamping force, which in turn provides a lighter lever pull and less aggressive clutch performance. LESS preload on the other hand provides MORE clamping force, a heavier clutch pull, and more aggressive clutch performance.

Spring Ring

PACK THICKNESS (IN/mm)	SPRING RING SETTING
> 1.100 (>27.9)	III OR Z
1.088-1.100 (27.6-27.9)	II OR Y
1.066-1.088 (27-27.6)	I OR X

**KEY:**

MIN = MINIMUM ALLOWABLE THICKNESS  
 MAX = MAXIMUM ALLOWABLE THICKNESS

