

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
for KTM 85

Doc ID: 191-7151A

Revision: 110821

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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 7 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 replaced.
- 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.

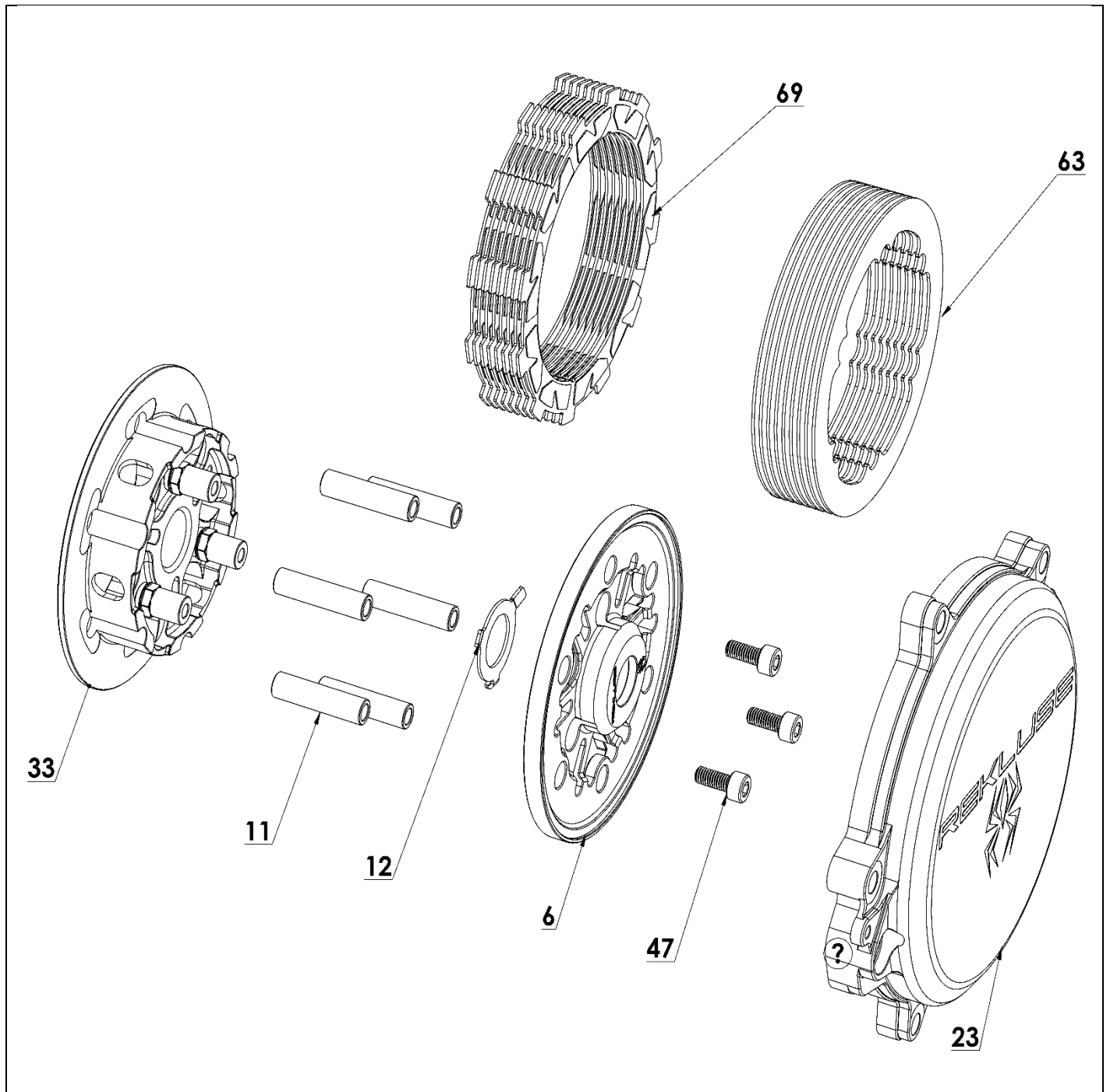
INSTALLATION TIPS

- 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 to learn more.

TOOLS NEEDED

- 8 mm socket
- 24 mm socket
- Channel-lock pliers
- Hammer
- Spring puller
- Torque wrench (in-lb & ft-lb, or N-m)
- 4 mm hex bit/socket
- Screwdriver

INCLUDED PARTS



Item	Item Type	Qty
33	Center hub	1
6	Pressure Plate	1
47	Socket head screws	3
23	Clutch Cover	1
63	Steel Drive Plate - .040" (1 mm)	9
69	TorqDrive Friction Disks	8
12	Clutch tab lock washer	1
11	Drive Pins	6

Visit 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.

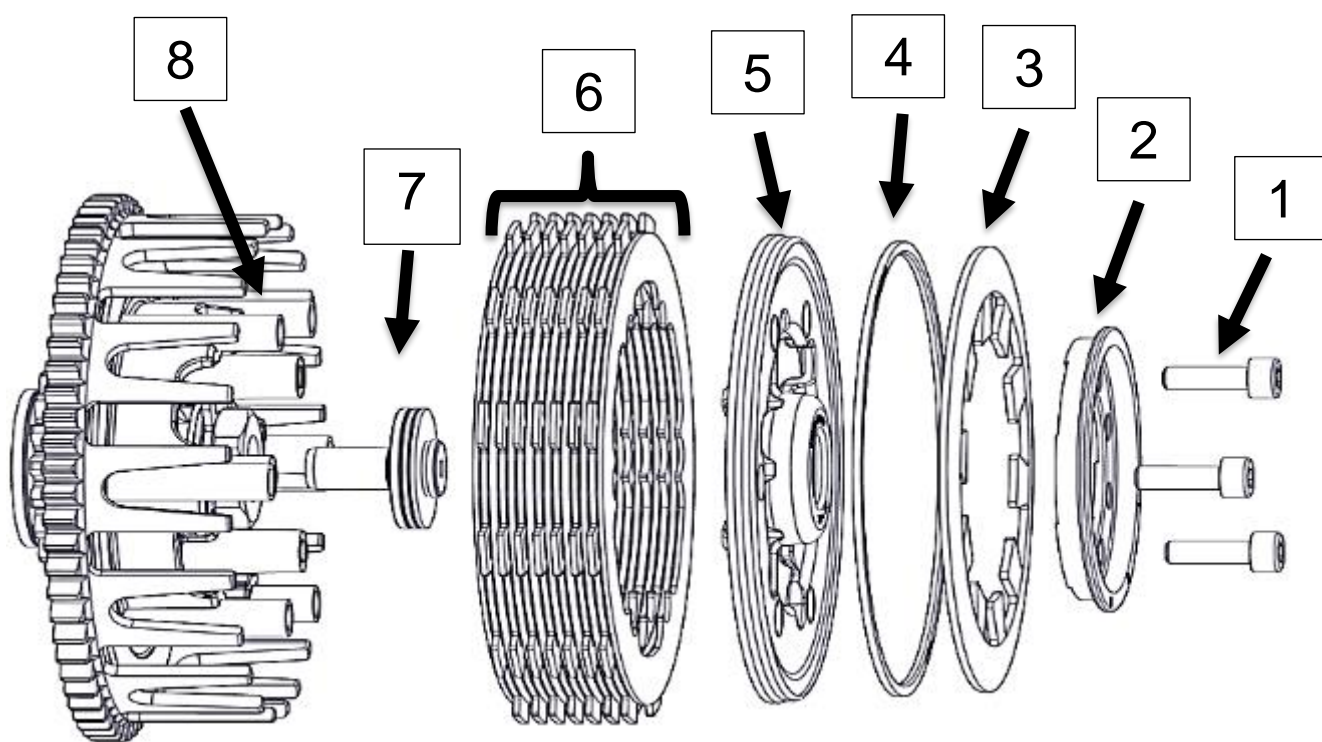
2. Remove the oil check bolt and
washer. Set these aside. They
will be reused.



3. Remove the brake pedal spring from the clutch cover.

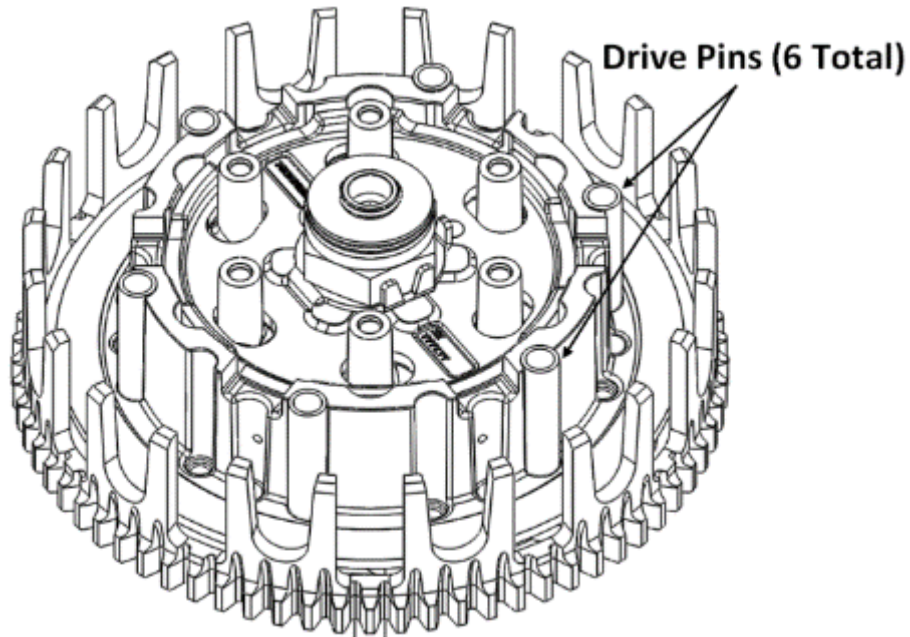
4. Using a socket, remove the clutch cover bolts, then remove
the clutch cover.

5. Remove the OE parts named in the following diagram.

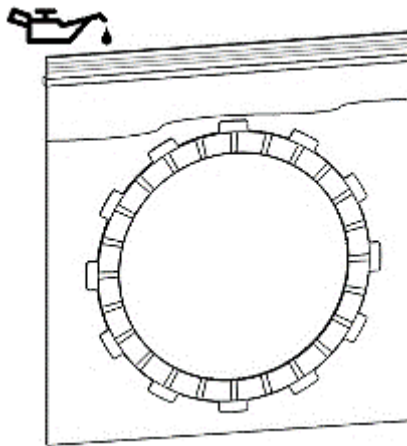


1	Pressure plate screws
2	Spring ring
3	Belleville spring
4	Slider ring
5	Pressure plate
6	Clutch pack
7	Throw-out
8	6 Drive pins

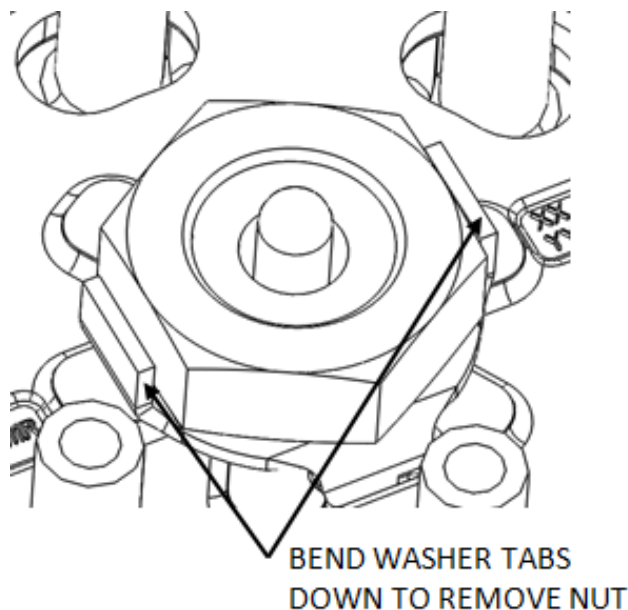
NOTE: Be careful that the drive pins do not fall into the engine while disassembling.



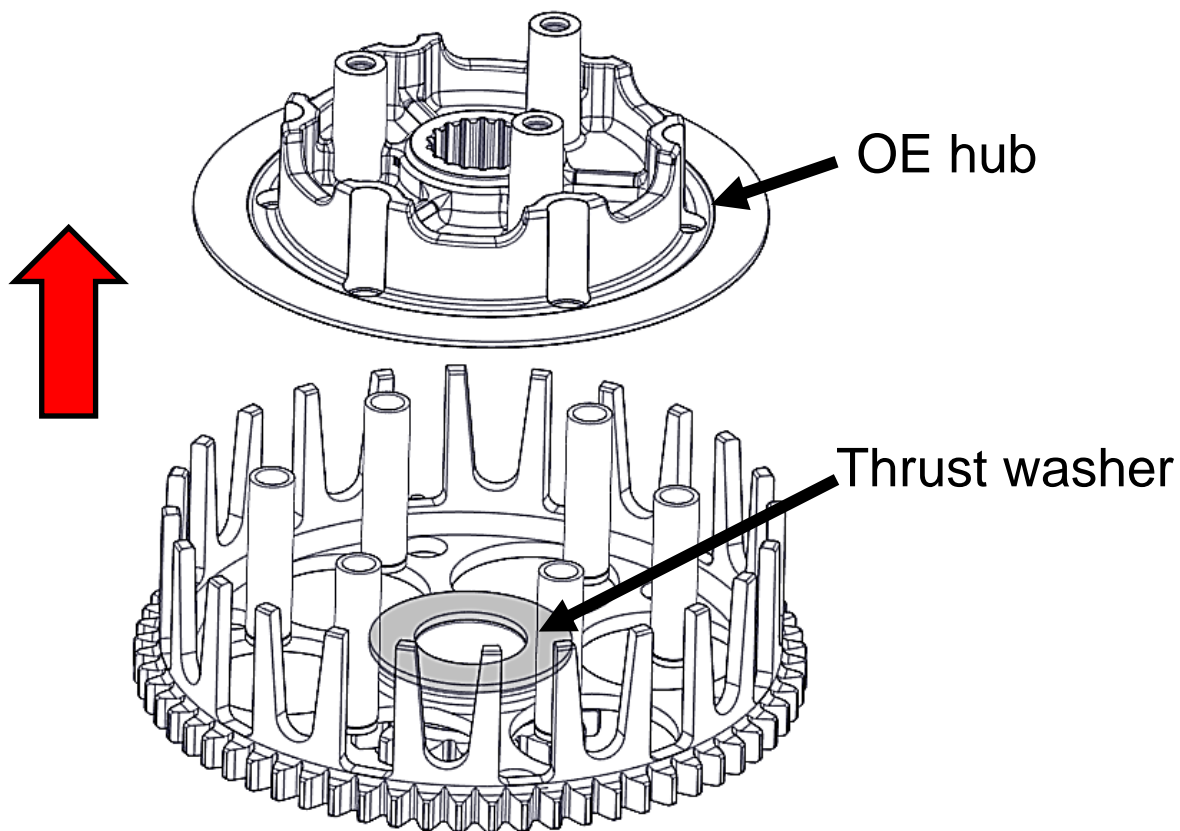
6. Soak the TorqDrive[®] friction disks in new engine oil for 5 minutes. Make sure the friction disks are coated on both sides.



7. Use a hammer and large screw driver to bend down the tabs of the tab washer, then remove the clutch nut.

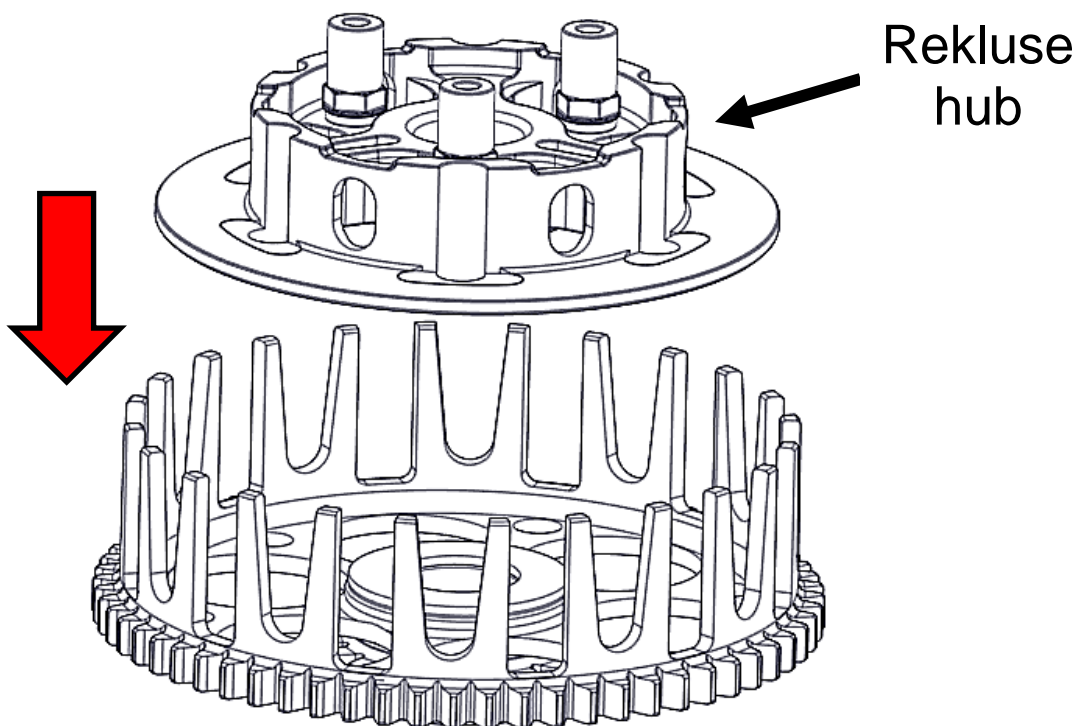


8. Remove the center hub assembly from the bike. *Make sure the thrust washer is in place on the main shaft and not stuck to the bottom of the center hub assembly.*

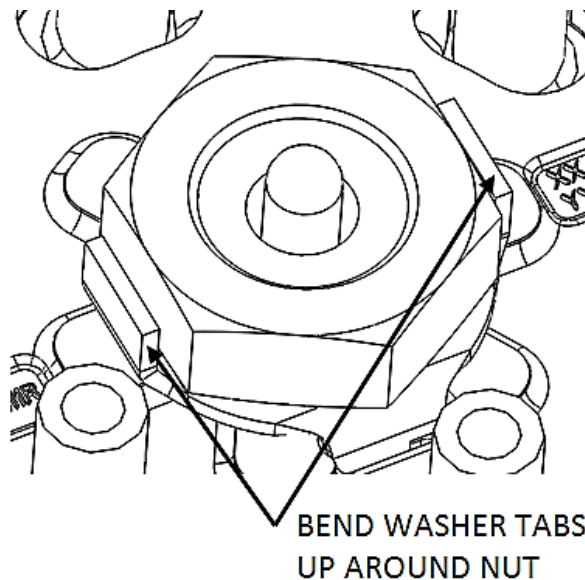


INSTALL THE CLUTCH PACK

1. Install the new Rekluse center hub assembly into the clutch basket. *Make sure the thrust washer is on the main shaft before installing.*

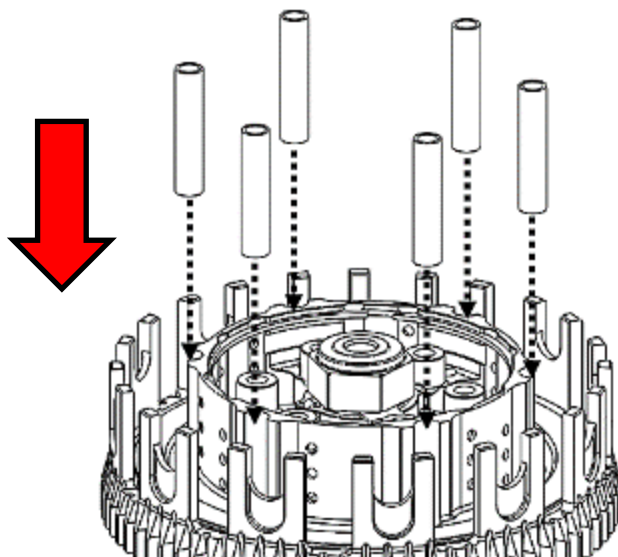


2. Install the Rekluse lock tab washer and OE center clutch nut, then torque the nut to **50 ft-lb (68 N-m)**.

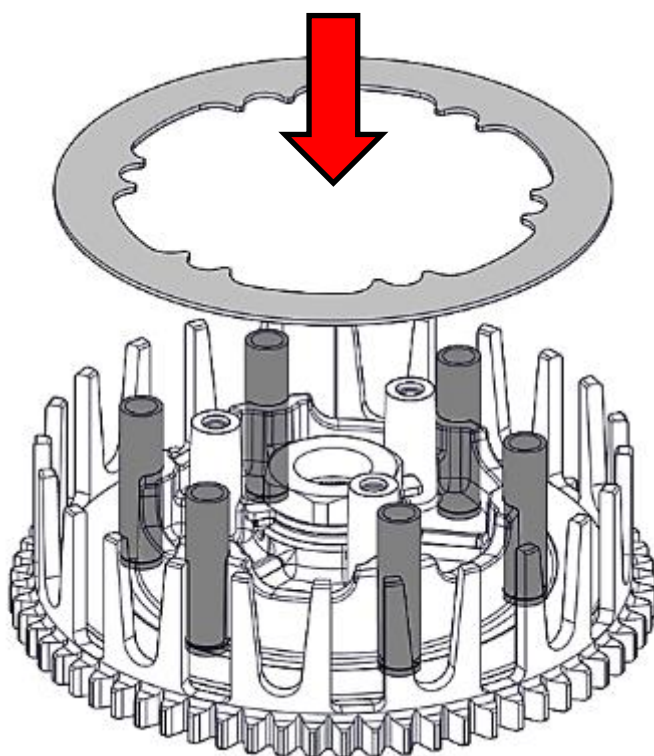


3. Use a screwdriver to begin bending **both** tabs of the lock washer up, then use channel-lock pliers to finish tightening it around the nut. *The tabs can be bent on the straight sides or around the corners.*

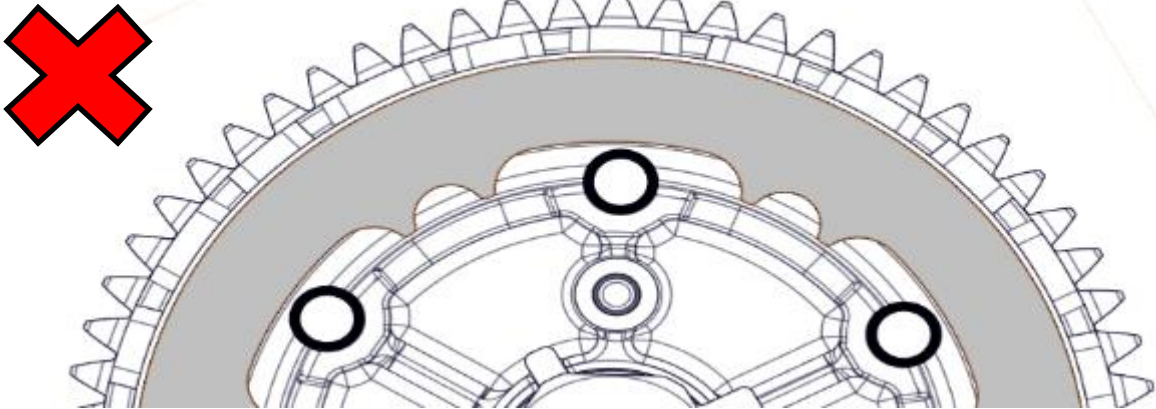
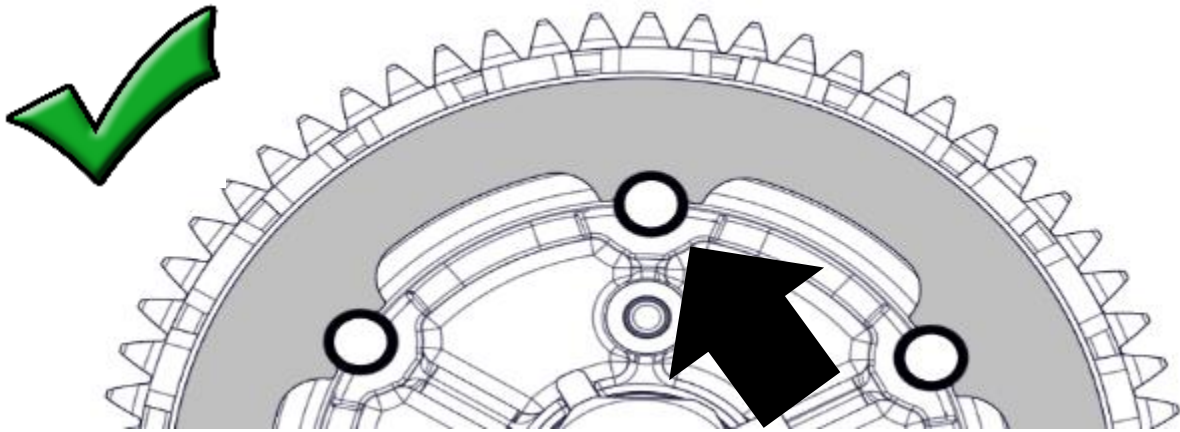
4. Install the 6 Rekluse drive pins into the Rekluse hub.



5. Install a Rekluse steel drive plate. Align the drive pin notches in the drive plate with the drive pins on the hub when you install it into the basket.

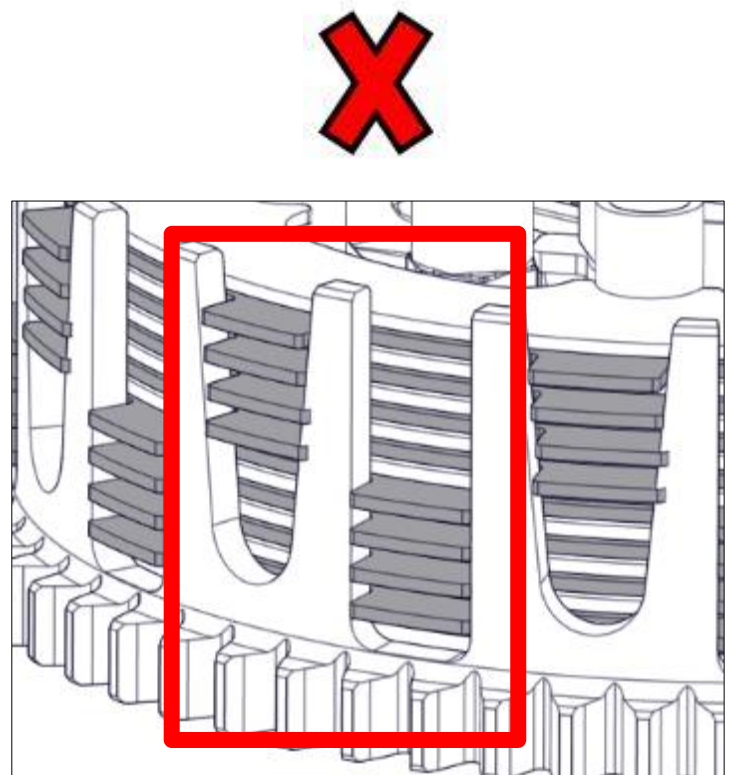
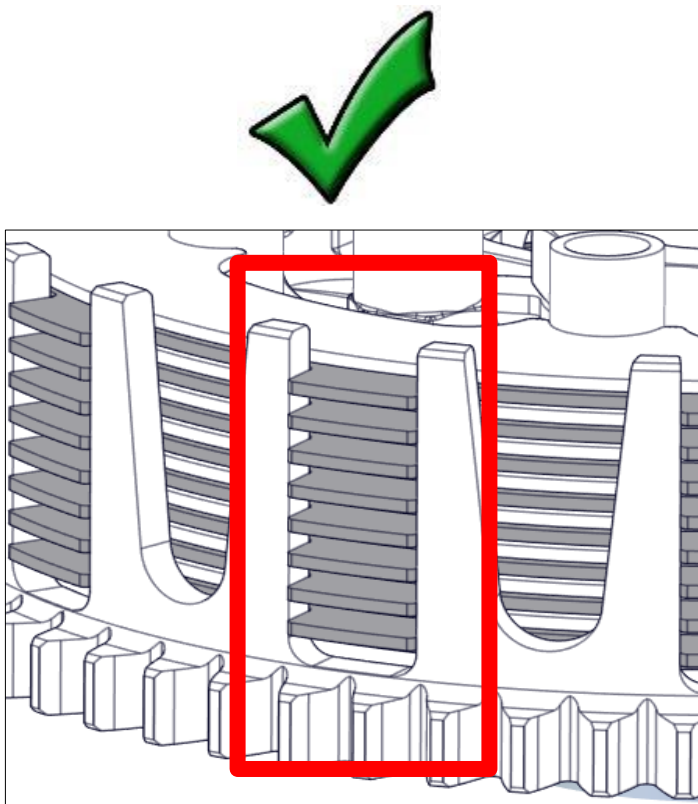


NOTE: Be sure that the drive pins are seated in the notches and not in the bigger sections. ALL the steel drive plates must be aligned in the drive pins notches or damage may occur. The plates will not move when installed correctly.

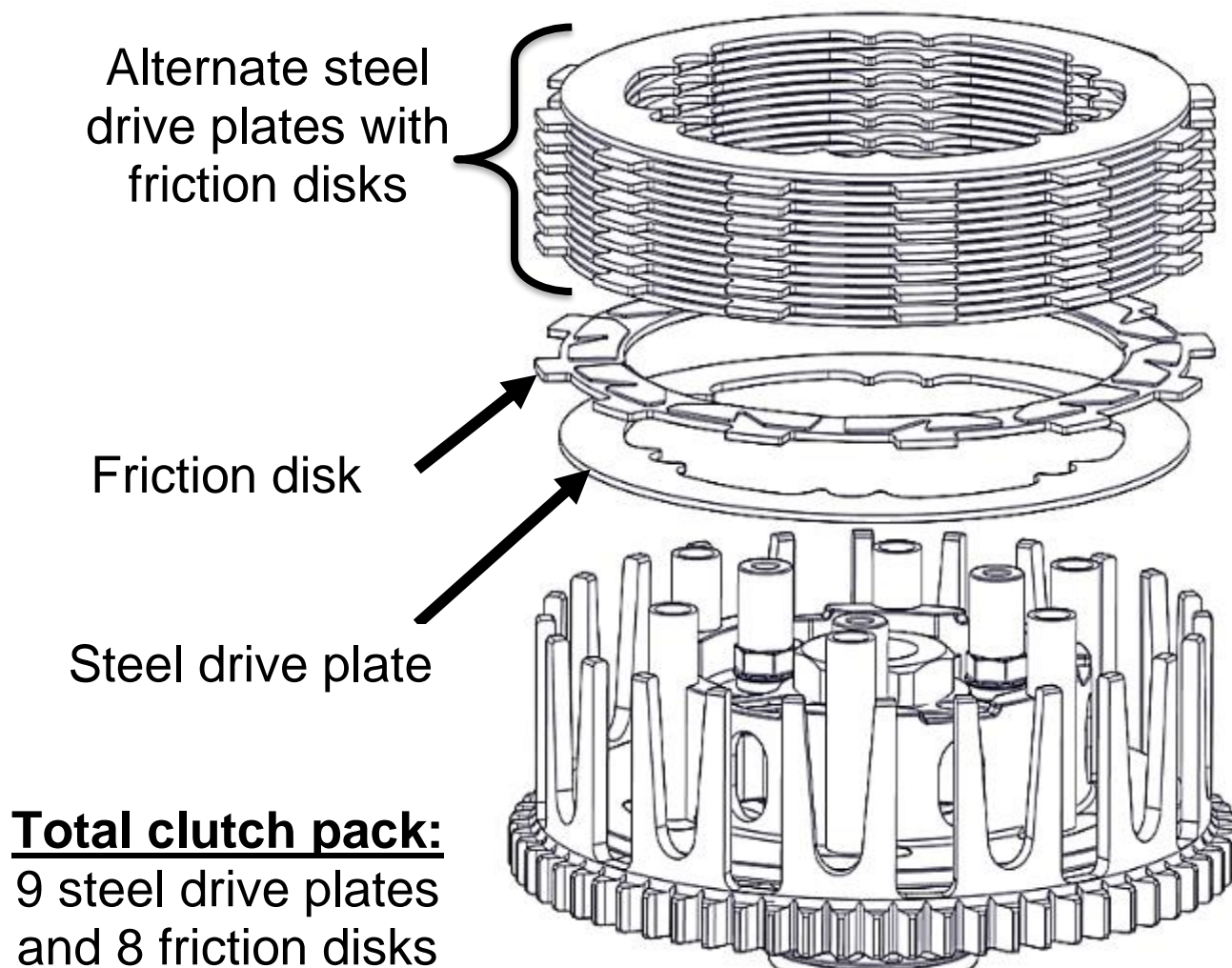


6. On top of the steel drive plate, install a Rekluse friction disk.

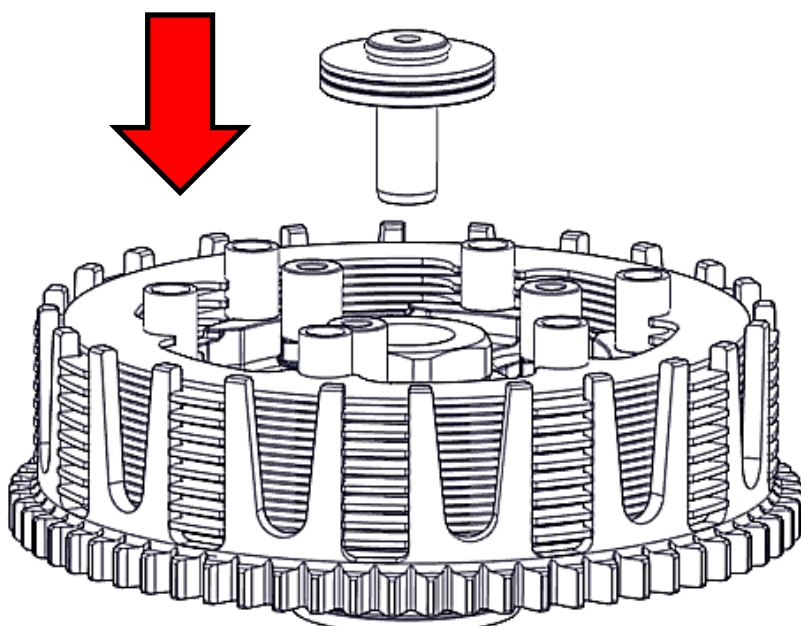
NOTE: The OE basket has “rounded slots” at the bottom of alternating basket tangs. Rekluse products require the entire clutch pack be installed into the MAIN (deeper) basket slots. Installing the pack in the “rounded slots” will cause performance issues. See the following pictures for reference.



7. Continue to alternate steel drive plates and friction disks for the entire clutch pack for a **total of 9 steel drive plates and 8 friction disks**. *Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.*

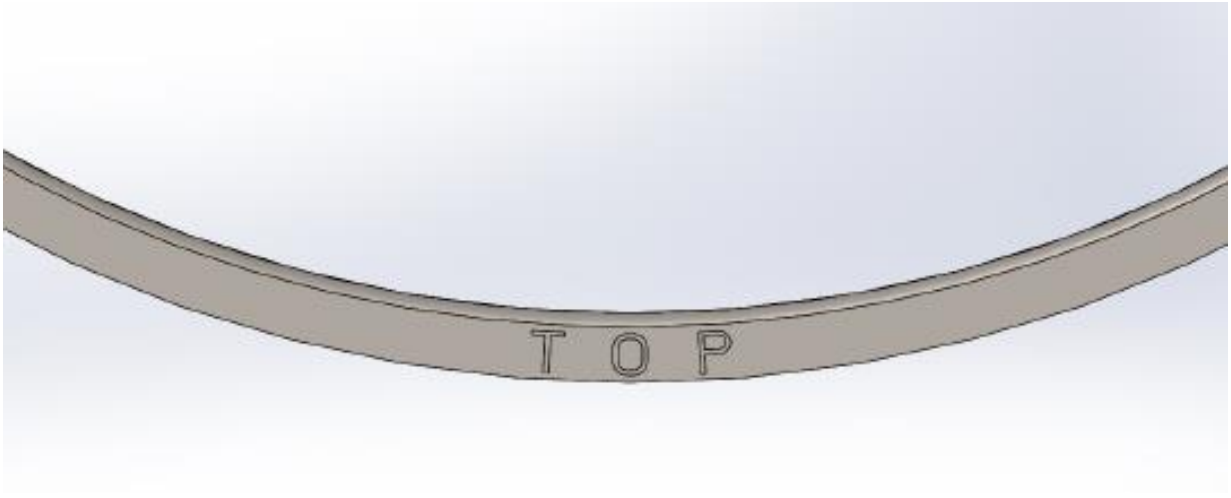


8. Reinstall the OE throw-out.



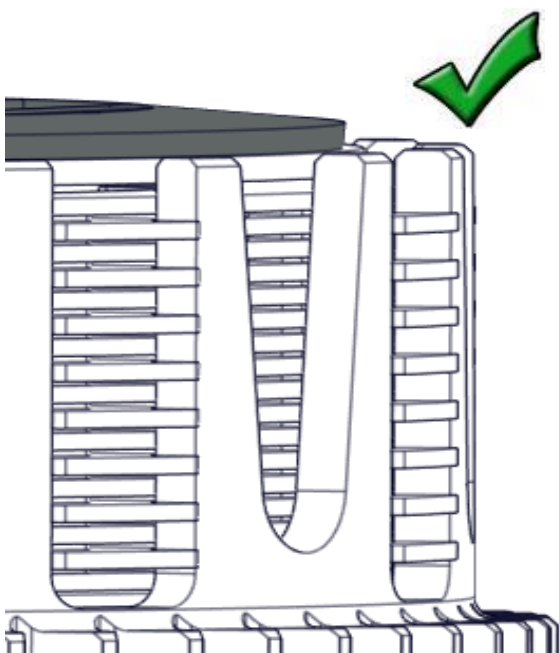
PRESSURE PLATE INSTALLATION

1. Install the Rekluse pressure plate onto the clutch.
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.)

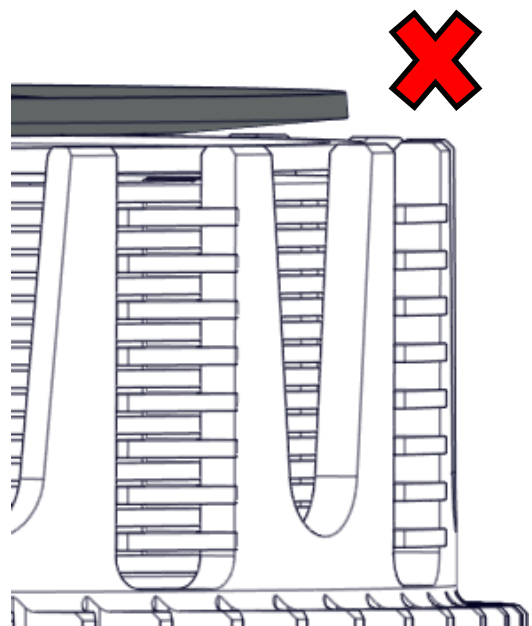


3. Install the OE Belleville spring onto the slider ring, with the rounded dome side facing up. See pictures for reference.

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.

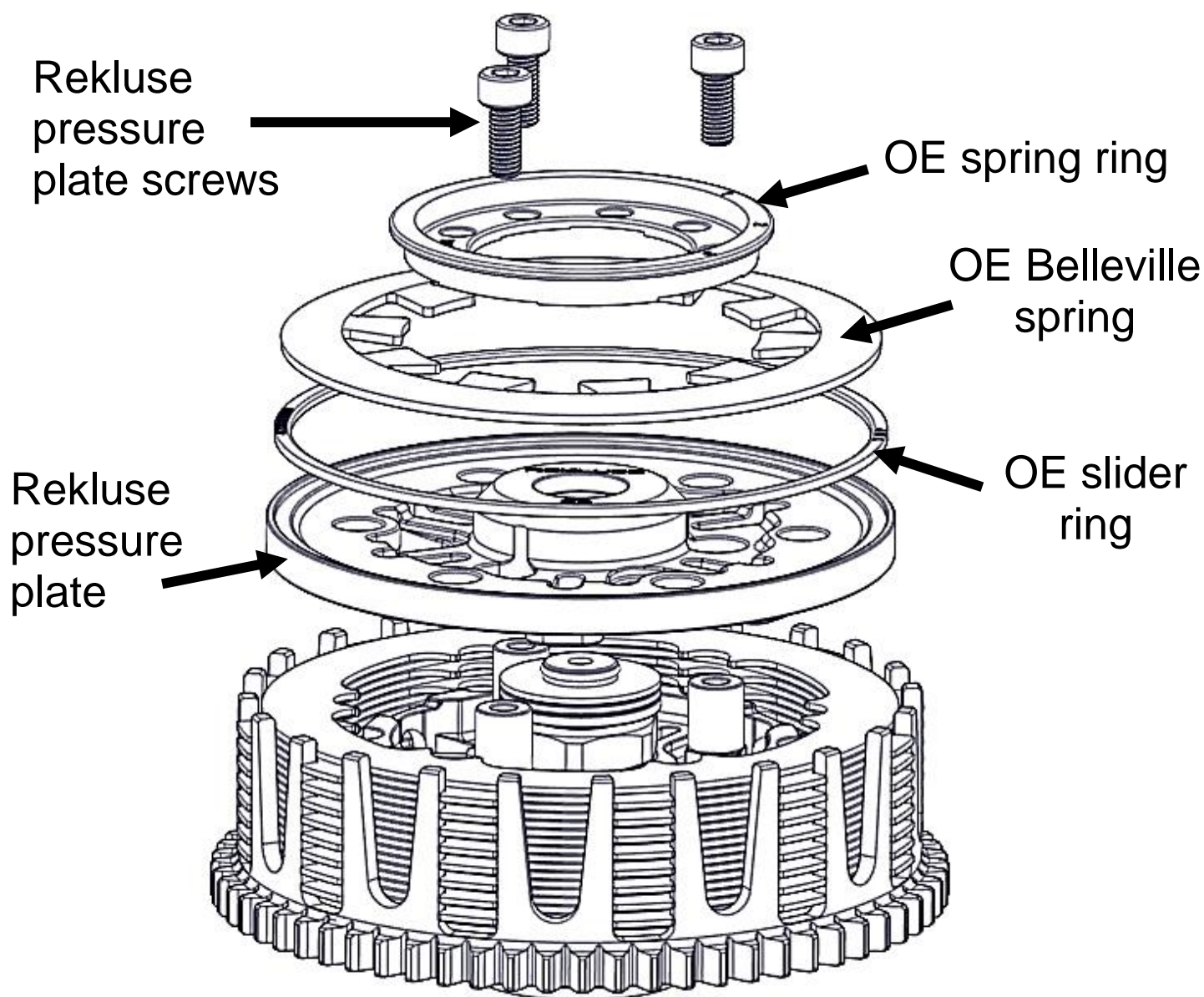


Incorrect – The Belleville spring is upside down.

4. Reinstall the OE spring ring.

NOTE: There are 3 possible settings on the OE spring ring. Rekluse recommends setting "2" for standard clamping force. See the **Setup Sheet located at the back of the manual** for more information.

5. Reinstall the OE pressure plate screws.

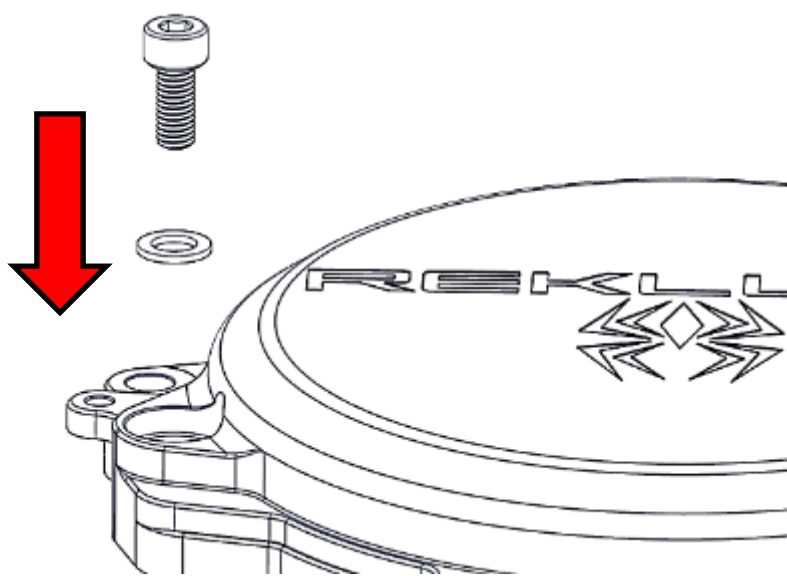


⚠ CAUTION

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

6. Torque the pressure ring screws to **55 in-lb (4.5 ft-lb) (6 N-m)**.

7. Install the OE cover gasket onto the Rekluse clutch cover, then install the cover onto the clutch.
8. 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.
9. Install the oil bolt washer and bolt from the OE cover to the Rekluse cover, then tighten the bolt until snug.



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.

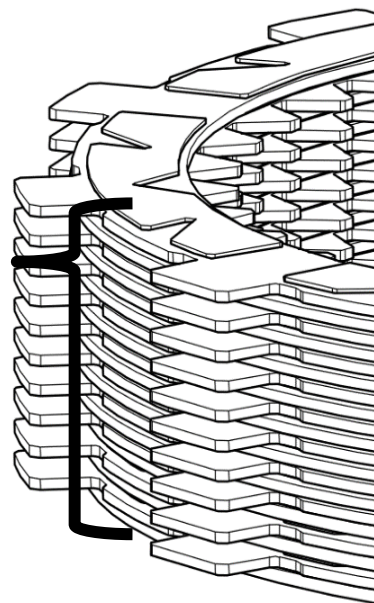
- Clutch longevity and performance is greatly increased with oil quality and other bike factors that reduce engine heat.
- Riding style, such as speed, engine RPM, and terrain can also effect the life of the clutch.
- To keep your clutch performing at its best, perform regular maintenance on your bike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

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 **Setup Sheet at the back of the manual** 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.**

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

Frequently Asked Questions

www.rekluse.com/faq

Support Videos

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

Customer Service

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

Hours:

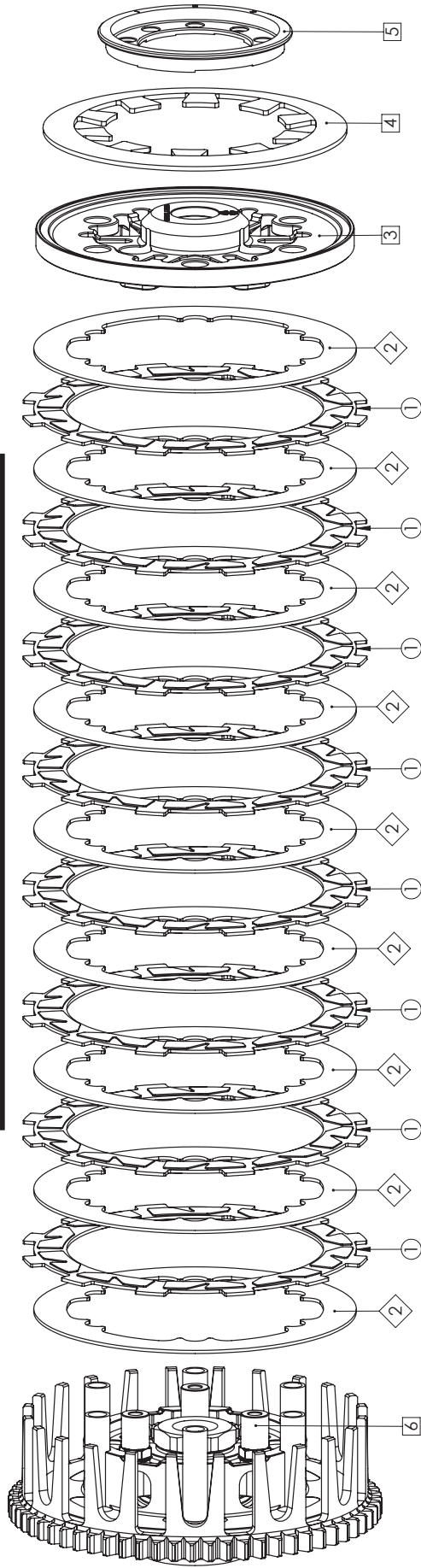
Monday thru Friday: 8:00 a.m. - 5:00 p.m.

Mountain Time zone

Email: customerservice@rekluse.com

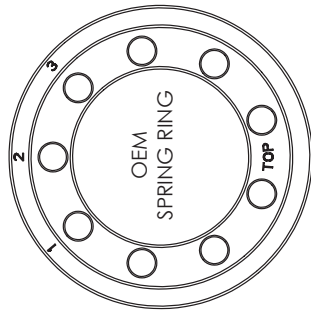


SETUP SHEET 198-7113051

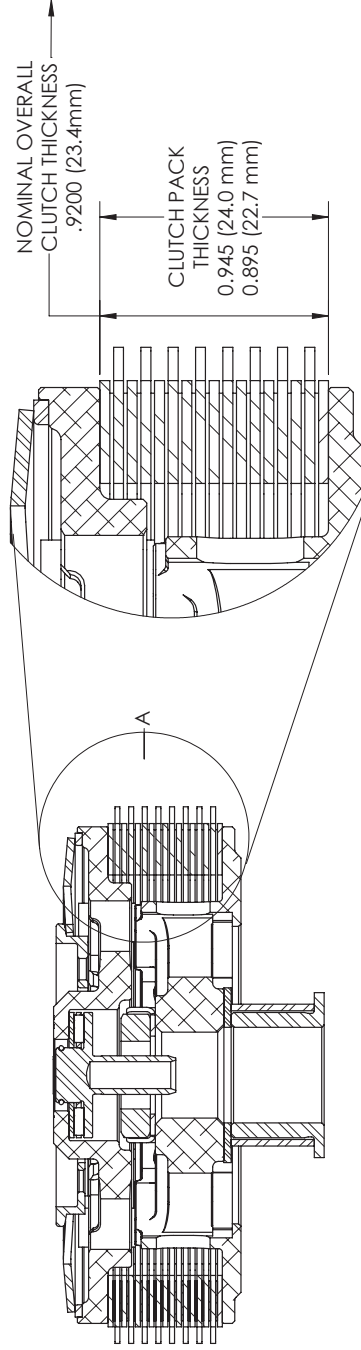


ITEM NO.	DESCRIPTION	QTY.
1	FRICITION DISK	8
2	DRIVE PLATE	9
3	PRESSURE PLATE	1
4	OEM CLUTCH SPRING	1
5	OEM SPRING RING	1
6	CENTER HUB	1

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. The OEM spring ring has different settings to account for variances in the clutch pack and wear. Reference the "Spring Ring Optimization Table" for spring ring recommendations.



CLUTCH PACK SPECS & SERVICE LIMITS



SPRING RING OPTIMIZATION TABLE	
CLUTCH PACK THICKNESS [IN/mm]	SPRING RING SETTING
0.895 - 0.913 (22.7 - 23.2)	3
0.914 - .926 (23.2 - 23.5)	2
>.927 (>23.5)	1