



INSTALLATION & USER'S GUIDE

TorqDrive[®] Clutch Pack
for DDS clutches

Doc ID: 191-2885B

Revision: 011223

TABLE OF CONTENTS

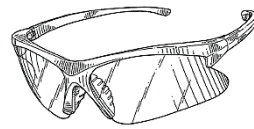
OVERVIEW	2
INSTALLATION TIPS	3
TOOLS NEEDED.....	4
INCLUDED PARTS	4
DISASSEMBLE THE CLUTCH	5
INSPECT THE DAMPERS	7
INSTALL THE CLUTCH PACK	8
Notes for installation.....	8
Preparing the Clutch Pack	9
Installing the Clutch Pack.....	10
REASSEMBLE THE CLUTCH	11
MAINTENANCE.....	13
Disk inspection examples	14
TROUBLESHOOTING.....	15
Performance issues	15
Clutch noise	15
NEED ADDITIONAL HELP?.....	16

OVERVIEW

This kit replaces the OE (Original Equipment) clutch pack with a Rekluse TorqDrive® clutch pack. This kit replaces:

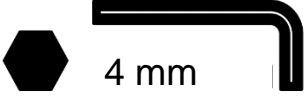
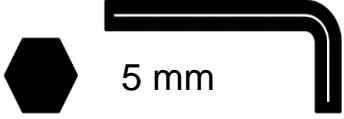

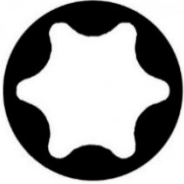


- All OE steel drive plates will be replaced with Rekluse precision drive plates.
- All OE friction disks will be replaced with Rekluse TorqDrive® disks.

INSTALLATION TIPS



- Read the safety information sheet included with your kit.
- 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.
- 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.
- **This clutch pack is not legal to race within the AMA Limited or Stock class.**

TOOLS NEEDED

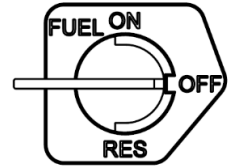
			
<p>4 mm Hex Key</p>	<p>5 mm Hex Key</p>	<p>8 mm Socket</p>	<p>T-25 Torx Bit</p>
			
<p>Torque Wrench</p>	<p>Fluid Catch Container</p>		

INCLUDED PARTS

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

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.

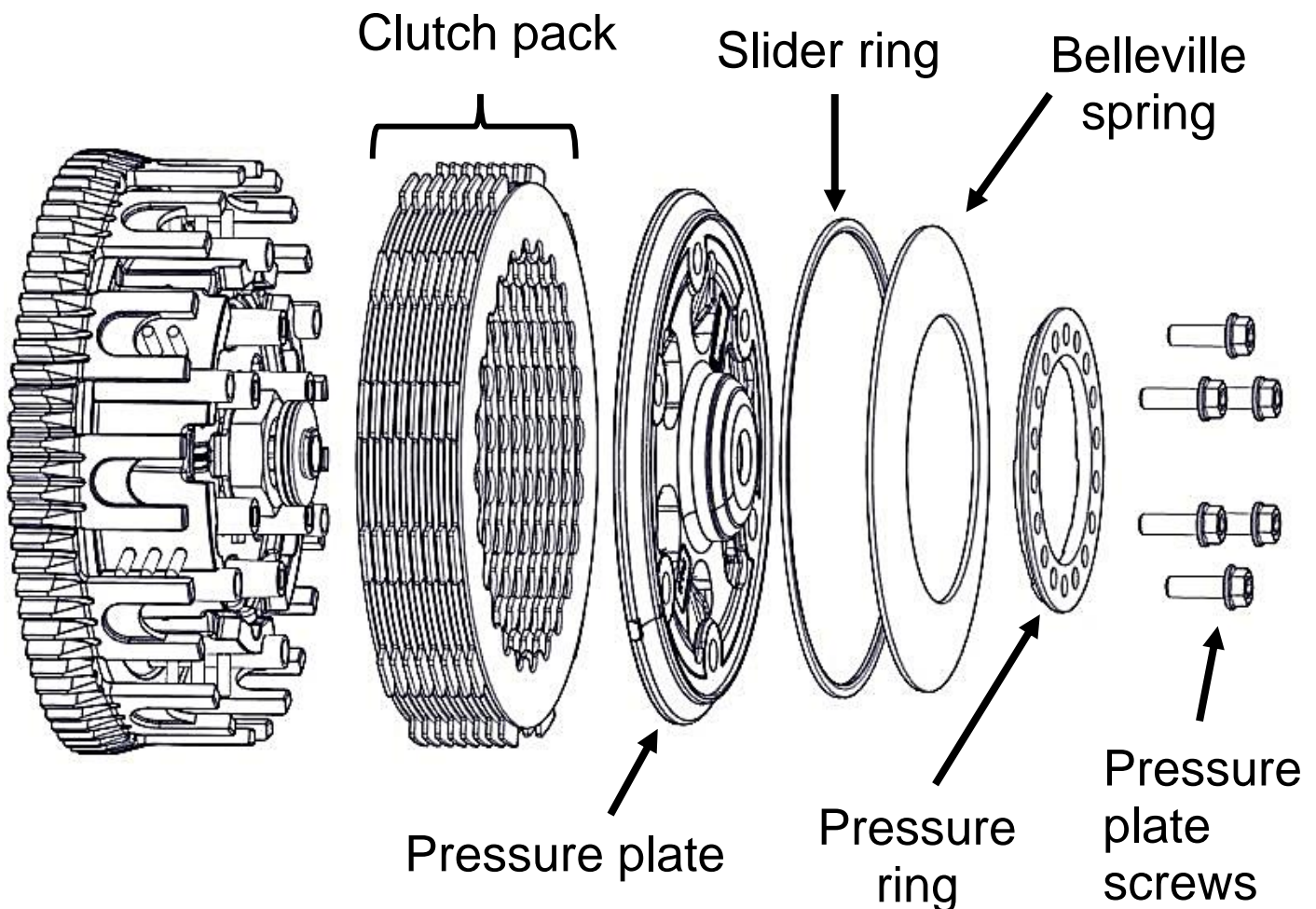


3. Use an 8 mm socket to remove the clutch cover. If your bike has an oil plug, loosen the plug before removing the cover.



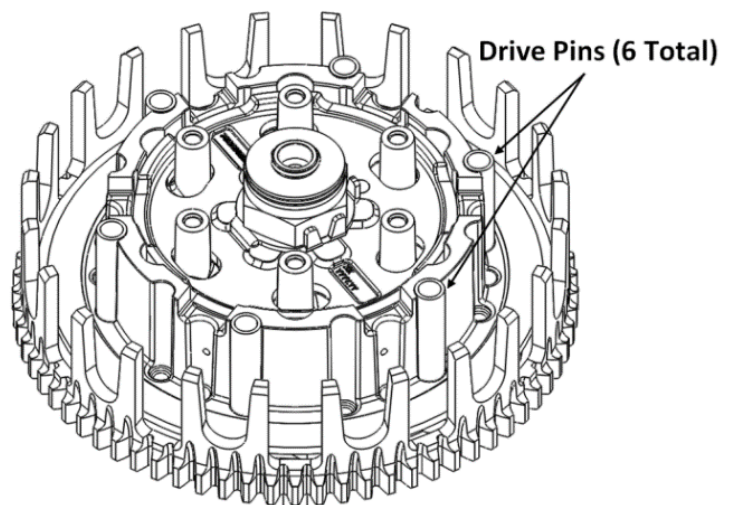
4. Use an 8 mm socket to remove the following OE parts. When removing the Belleville spring, make sure to note the orientation of the spring. See the following picture for reference.

- 6 pressure plate screws
- Pressure ring
- Belleville spring
- Slider ring
- Pressure plate
- OE clutch pack



CAUTION

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



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. With the bike in neutral, place your thumbs on the inner hub, at the location of the embossed part numbers.
 2. Try to spin the inner hub back and forth inside the outer hub. If you feel movement between the hubs, replace the dampers before installing the clutch pack.
- **Replacement dampers for most models are available from Rekluse**

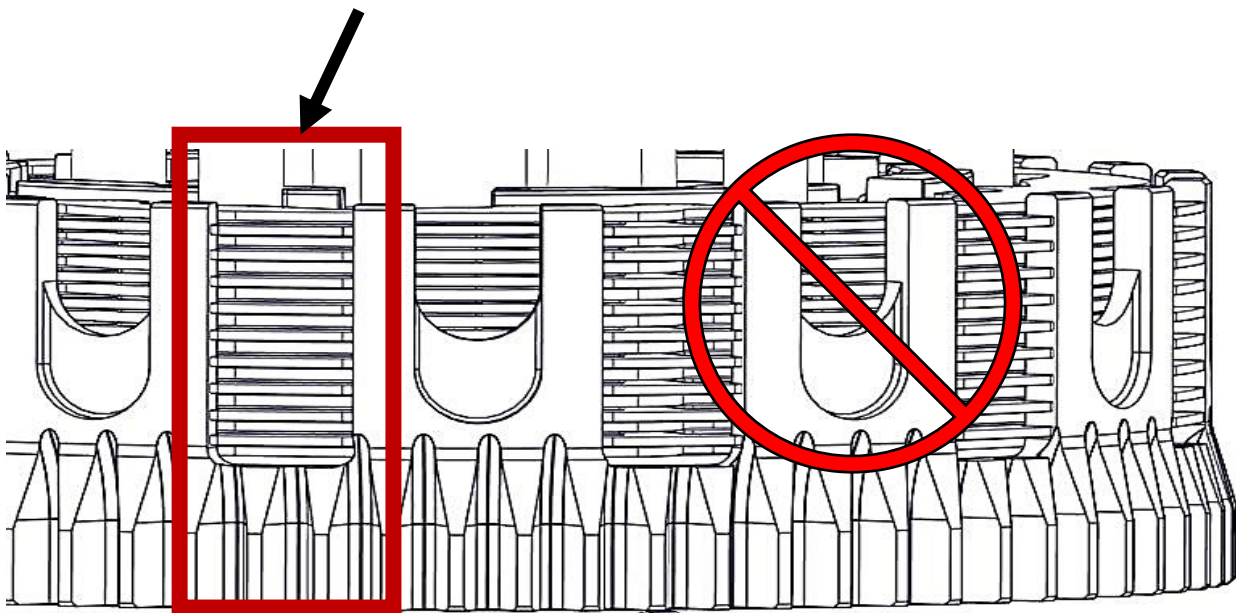


INSTALL THE CLUTCH PACK

Notes for installation

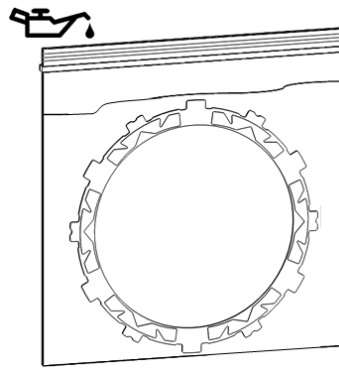
- *Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.*
- *The orientation of the clutch pack is different for each bike. The number and thickness of drive plates included in the kit also vary by bike. Please refer to the **Setup Sheet** for specific information before installing the clutch pack.*
- *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 clutch pack into the “half slots” will cause performance issues. See the following picture for reference.*

Use main (deeper) basket slots

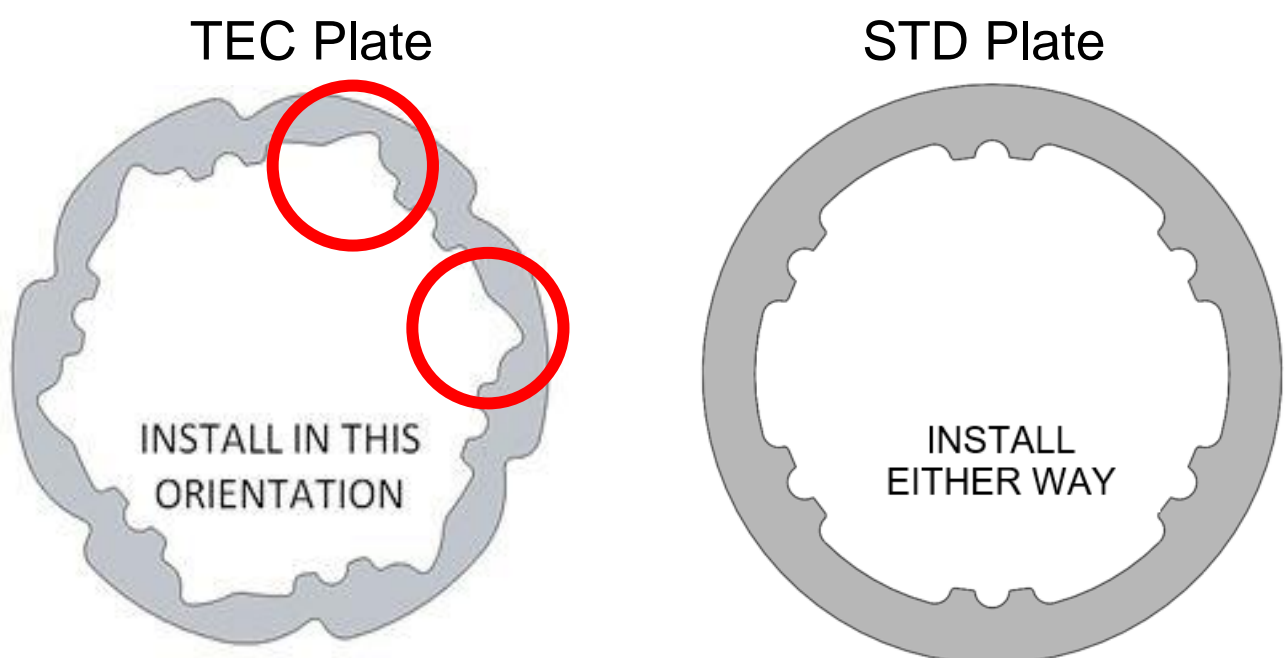


Preparing the Clutch Pack

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** 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.



3. The kit may include Rekluse TEC plates which have a wavy profile. If your kit includes TEC plates follow the next step to orient them correctly. If your kit includes standard plates, proceed to “Installing the Clutch Pack”



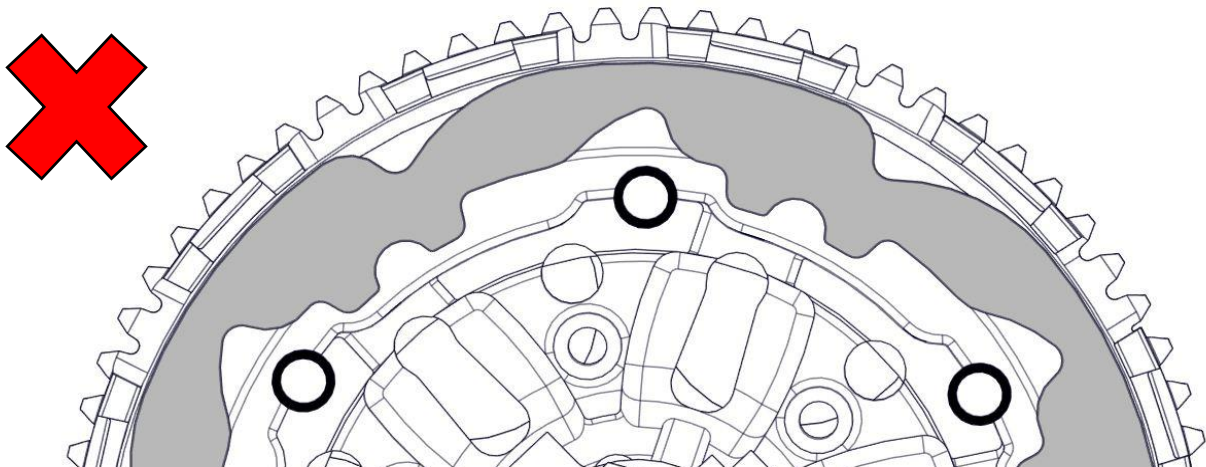
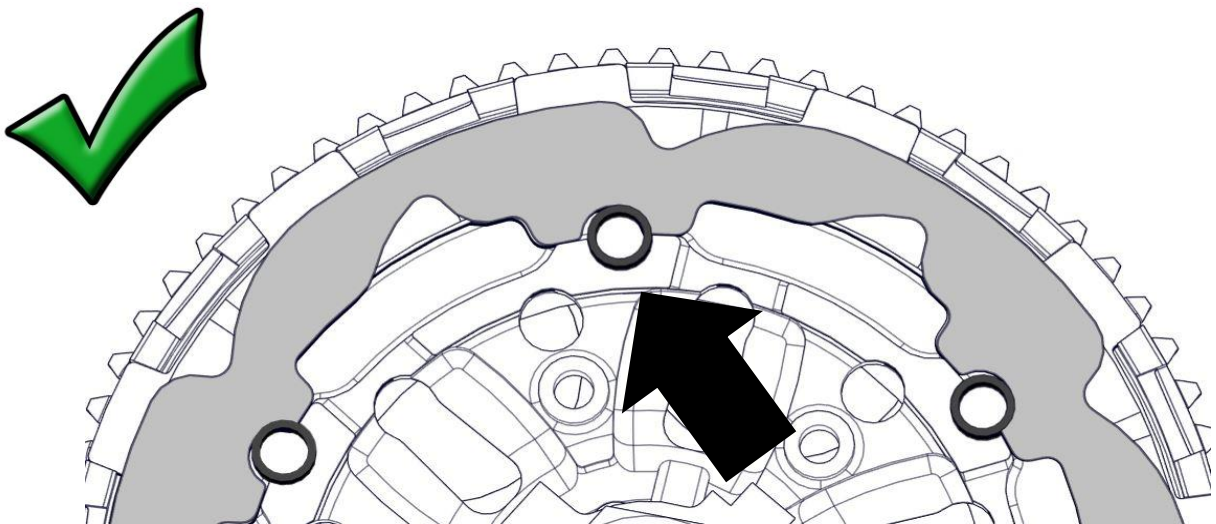
a. Hold a TEC plate so that the “shark fin” notches face toward the right. ***Install each drive plate this way.***

Note: *Proper orientation of TEC plates is critical for optimal clutch performance. Installing them backward will result in poor performance.*

Installing the Clutch Pack

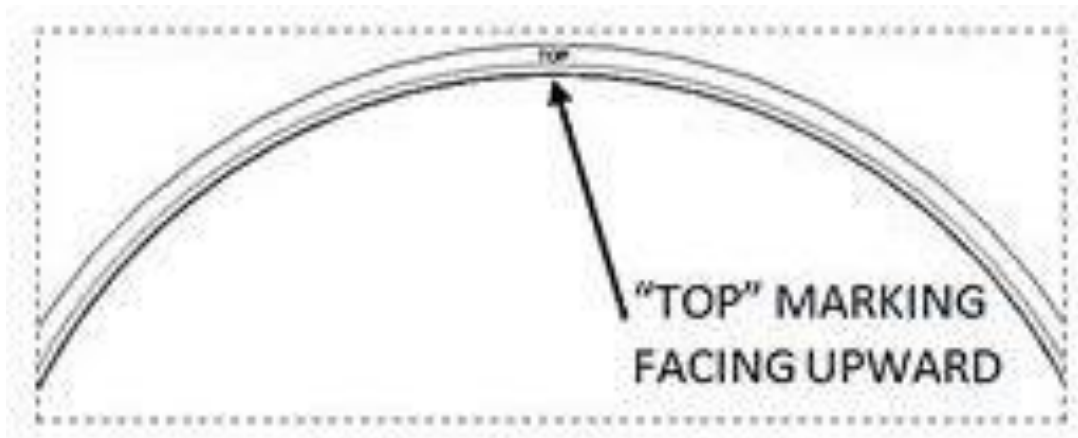
1. Install the clutch pack one plate at a time according to the **Setup Sheet** at the end of this document. Follow the plate order shown in the **Setup Sheet**.

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.*



REASSEMBLE THE CLUTCH

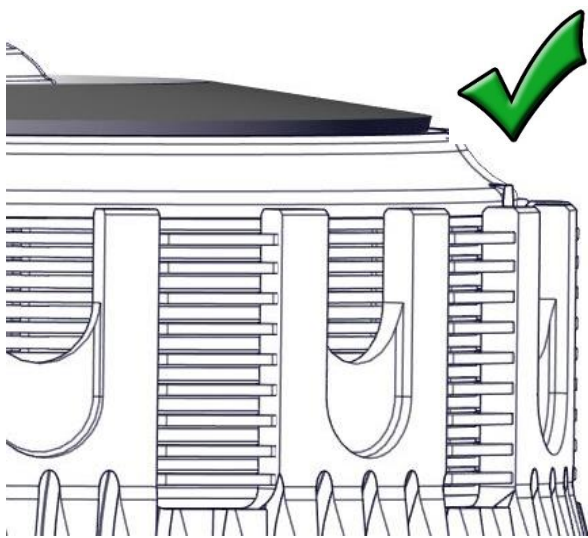
1. Reinstall the pressure plate.
2. Place the OE slider ring on the pressure plate if it was removed. If the ring has a “top” marking, ensure it is facing up.



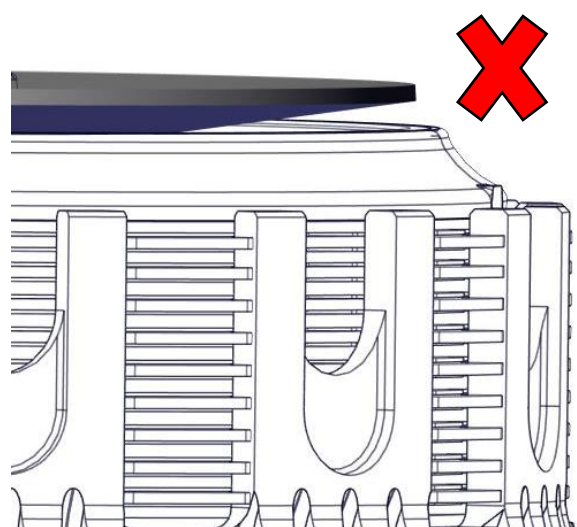
3. Place the OE Belleville spring onto the slider ring, with the rounded dome side facing up.

NOTICE

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.



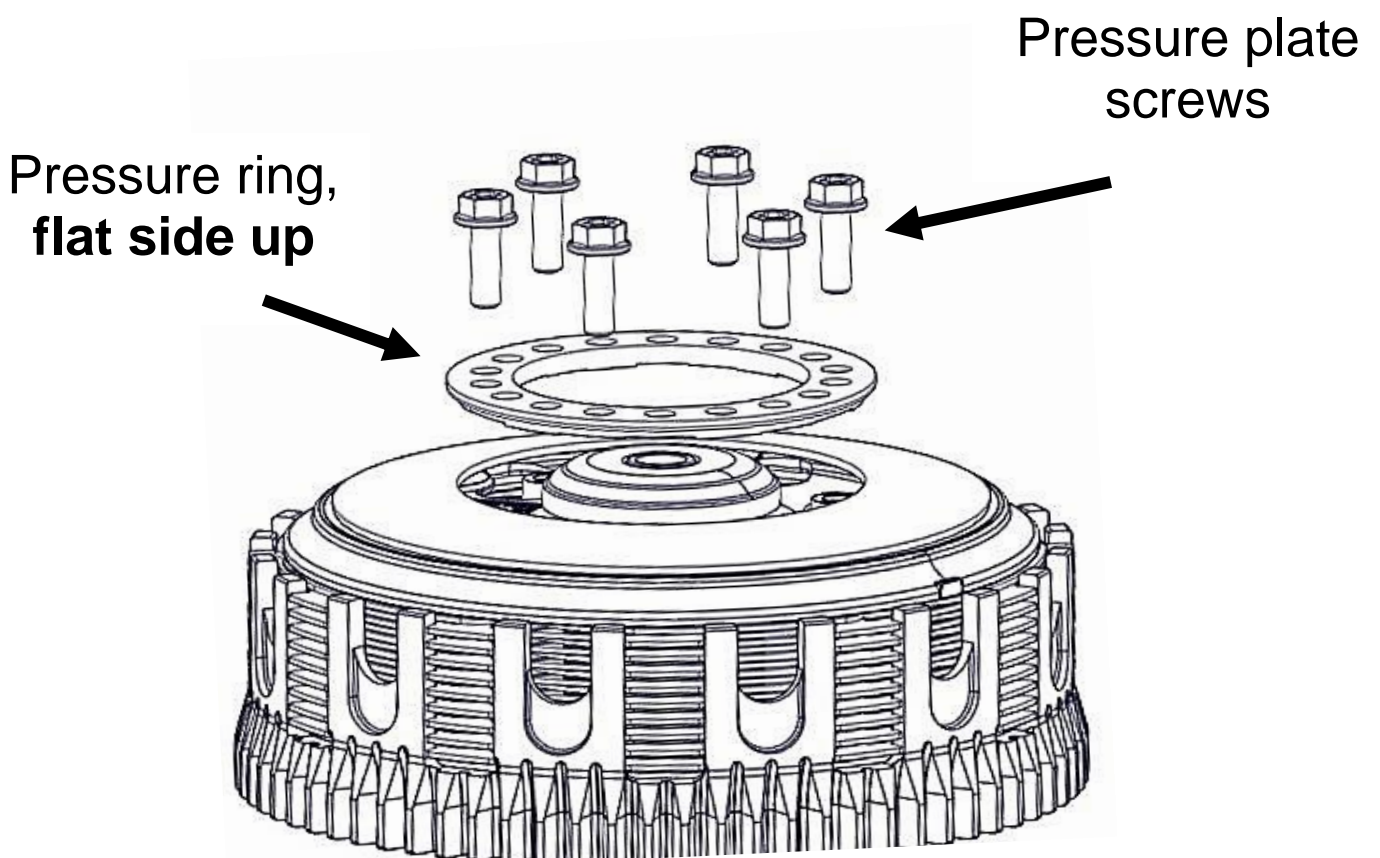
Incorrect – The Belleville spring is upside down.

4. Install the pressure ring using the setting noted previously.
 - a. If your kit includes a Rekluse pressure ring, use this in place of the OE ring.

NOTICE

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

2. Loosely tighten the screws in a star pattern, then torque them in a star pattern to OE specification.



3. Reinstall the clutch cover by lightly tightening the cover bolts in a star pattern. Tighten bolts in small increments and torque to OE specification. *If your bike has an oil plug, tighten the oil plug.*

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 clean oil.
- 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. Clutch wear is dependent on the rider's use.
- The OE 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 can be viewed in color 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 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

TROUBLESHOOTING

Performance issues

If the clutch exhibits slipping or any other performance issue it should be inspected. Excessive heat or clutch slip can cause premature clutch failure as well. Once extreme temperatures are reached, irreversible damage will occur.

- 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.
- Measuring the clutch pack can help determine if the components need replacing. See the attached Setup Sheet for the specific clutch pack measurements.

Clutch noise

Although it is harmless, some bike models may have “squeal” or “chatter” coming from the clutch at low RPM as it engages. Clutch squeal is caused by the clutch components vibrating as the clutch engages and can become more audible as the clutch gets hot.

For bike models that have clutch squeal or chatter here are some recommendations to reduce or eliminate it:

- Change the oil: Rekluse recommends that you have fresh, clean JASO-MA or JASO-MA2 rated oil for best clutch performance. Dirty or old oil can make the clutch more likely to squeal or chatter.

NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Phone

(208) 426-0659

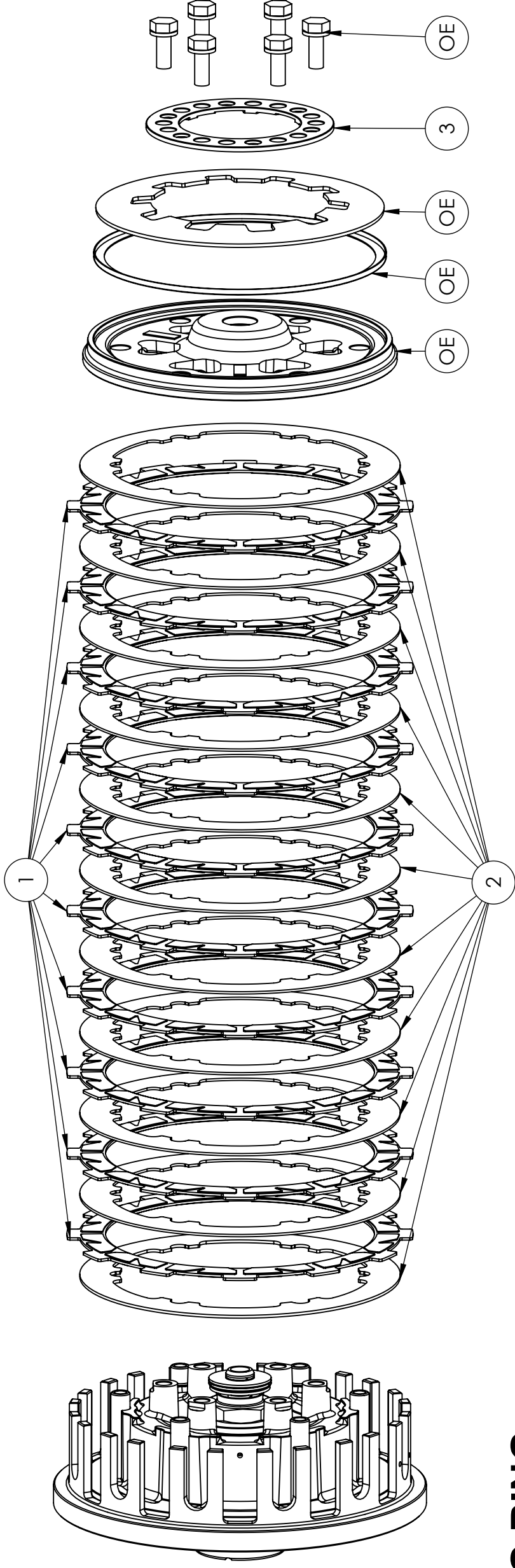
Monday thru Friday: 8 am – 5 pm Mountain Time

Email

tech@rekluse.com



SETUP SHEET 198-2807176



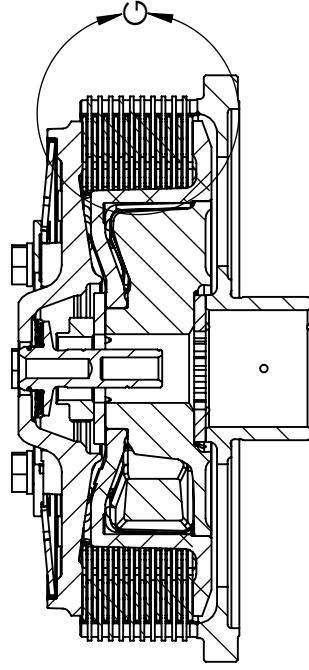
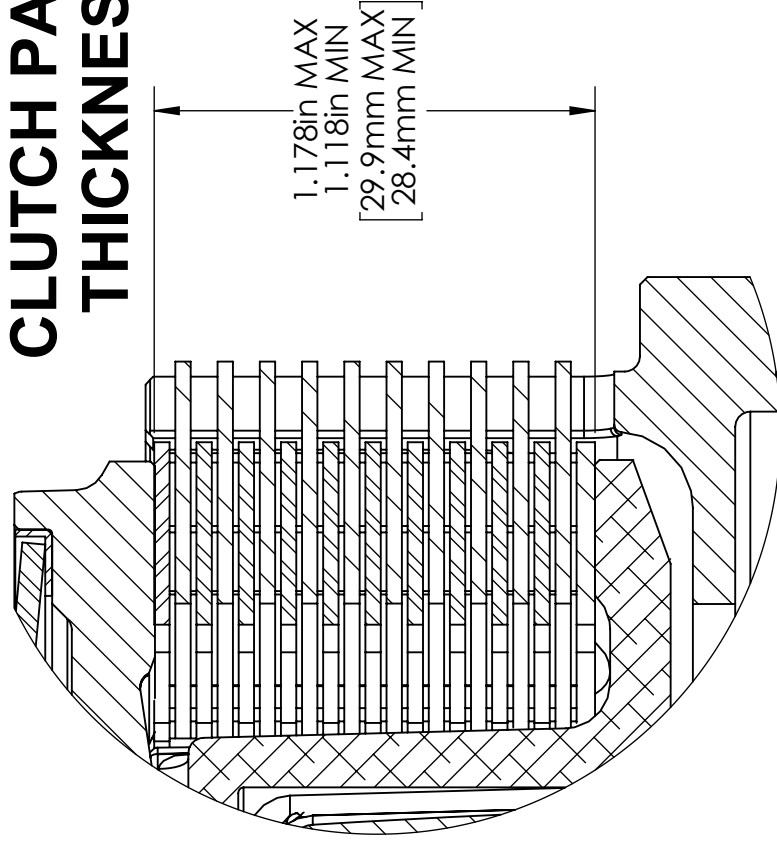
SPRING RING SETTING

Clutch Pack Thickness in (mm)	Setting
1.118-1.138 (28.4-28.9)	I
1.138-1.158 (28.9-29.4)	II
1.158-1.178 (29.4-29.9)	III

COMPONENTS

ITEM NO.	PART NUMBER	QTY.
1	TorqDrive Friction Disc	10
2	Drive Plate	11
3	Spring Ring	1
OE	OEM Components	1

CLUTCH PACK THICKNESS



SERVICE LIMITS

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