



INSTALLATION GUIDE

Harley-Davidson
Milwaukee 8
Hydraulic-Actuated

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OVERVIEW

This kit replaces the OE (Original Equipment) or “stock” clutch pack.

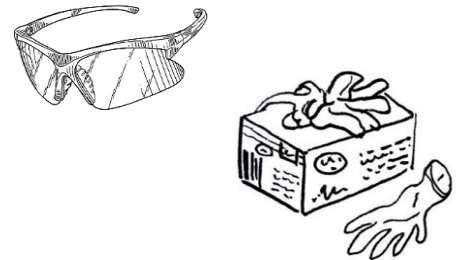
- This kit will replace all the OE frictions, drive plates, and springs with a Rekluse TorqDrive® clutch pack and EXP disk.
- No modification of the OE parts is necessary.
- This kit includes extra EXP springs, which can be used to tune for your desired engagement. See the **EXP tuning options** section in this document for specific tuning information.

CAUTION

- **Do not dyno test this product without reviewing the included dynamometer document.**

INSTALLATION TIPS

- Read the separate included Safety Information document before operating the vehicle with the product installed.
- 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 and User Guide** before operating the bike with the product.
- Videos related to this product can be viewed online at www.rekluse.com/support/videos.
- Protect eyes and skin – wear safety glasses and work gloves. Work in a well-ventilated area.
- Use the torque values listed in the instructions. Otherwise, use the torque specifications found in your OE service manual.



- 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

- SAE hex key set
- 4 mm hex key
- 5/8" Open-ended wrench
- Snap ring pliers
- Telescoping magnet
- Torque wrench
- 1/2" socket
- 10 mm socket
- Dental pic
- Phillips screwdriver
- Torx bit set
- Transmission oil

INCLUDED PARTS

Refer to the included **Parts Fiche** for a detail of the components.

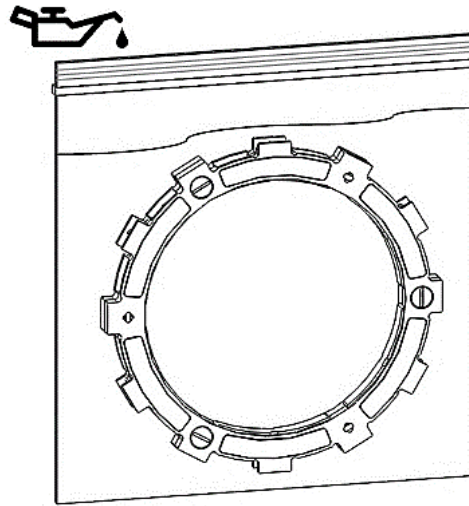
Visit www.rekluse.com/support for a full parts fiche illustration and part numbers.

BEFORE YOU BEGIN

- Warm up the bike and check the idle speed before installing the clutch. The idle speed will determine which EXP springs to install for the optimal engagement setting. The chart can be found in the EXP tuning options section.
- Rekluse recommends replacing the chaincase cover gasket when installing this product.

DISASSEMBLE THE CLUTCH

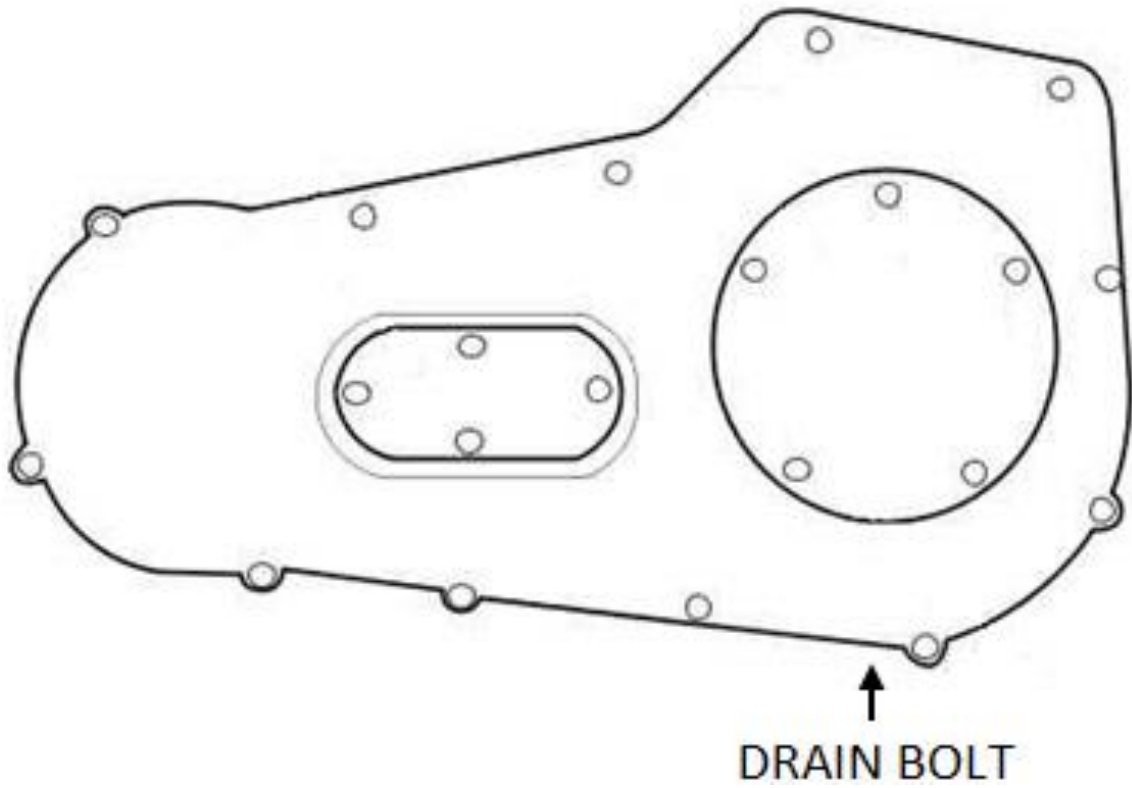
1. Make sure the bike has cooled before disassembling the clutch.
2. Soak the EXP disk and TorqDrive[®] friction disks in primary/transmission oil for 5 minutes. Make sure the EXP and friction disks are coated on both sides.



3. Stand the bike up on a suitable bike stand or lift.

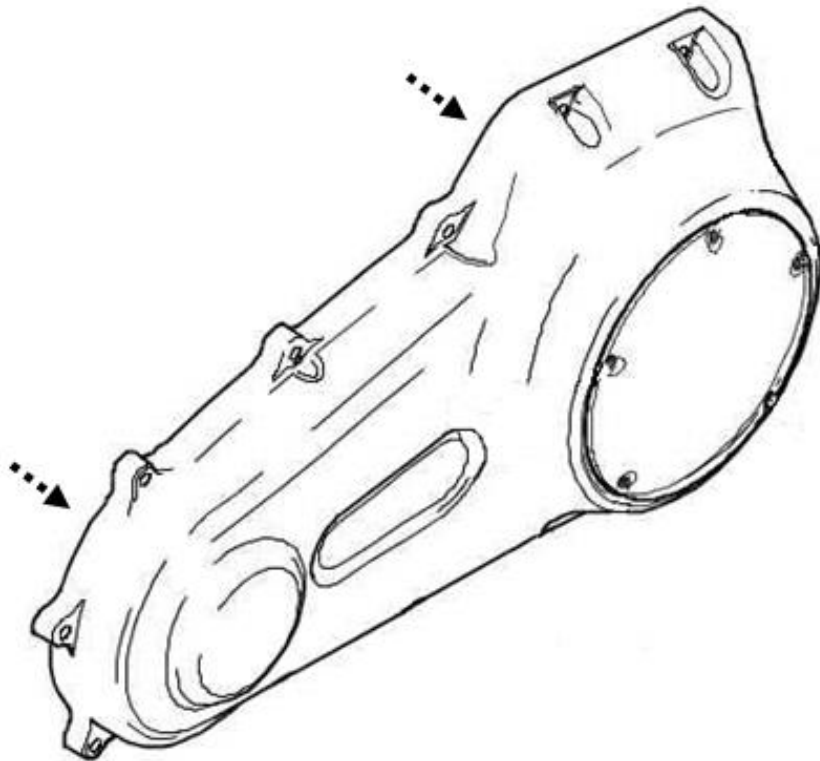


4. On the primary chaincase, use a 5/8" wrench to remove the oil drain plug, then drain the oil.



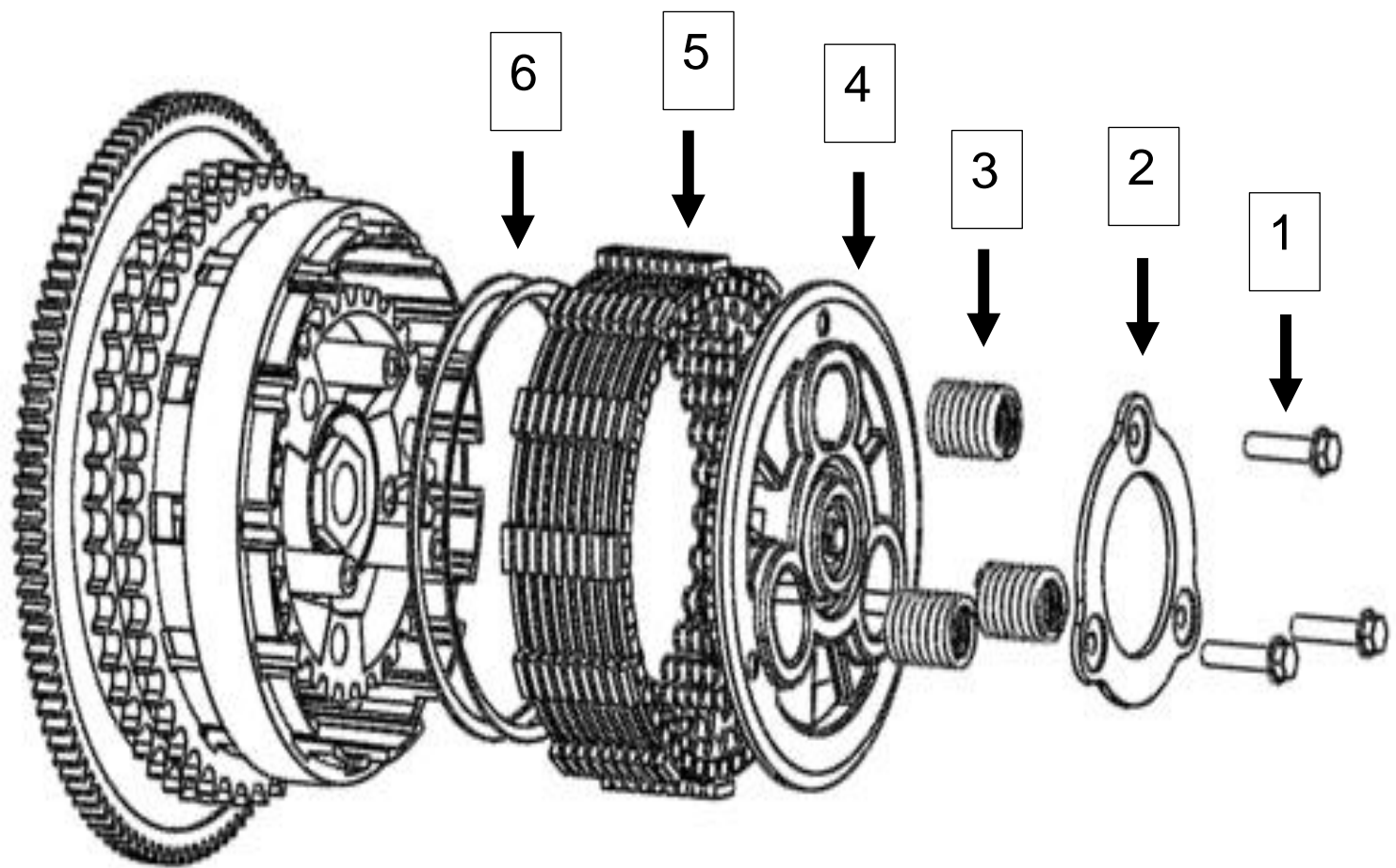
5. Remove any parts that are attached or blocking the primary chaincase cover. These may include the left floorboard, footpeg(s), shift lever, and/or the side stand.

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



6. Remove the primary chaincase cover.

7. Remove the following OE parts:



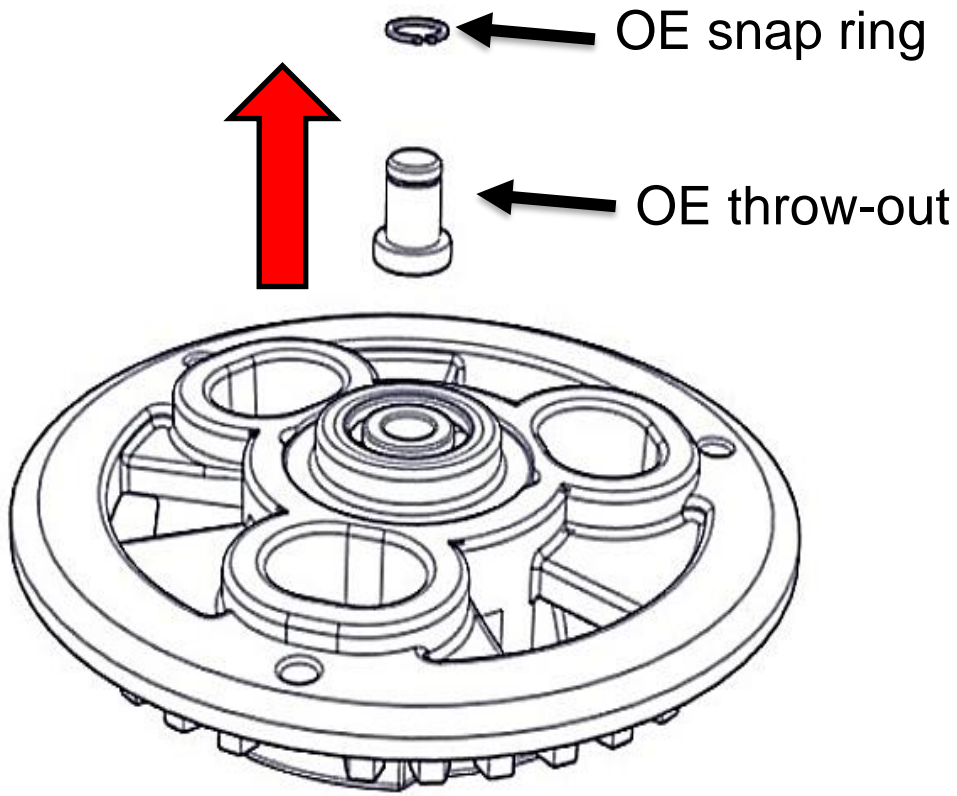
1	Spring ring bolts
2	Spring ring
3	Pressure plate springs
4	Pressure plate
5	Clutch pack
6	Damper spring and seat

Note: The OE clutch pack, damper spring, and pressure plate springs will not be reused.

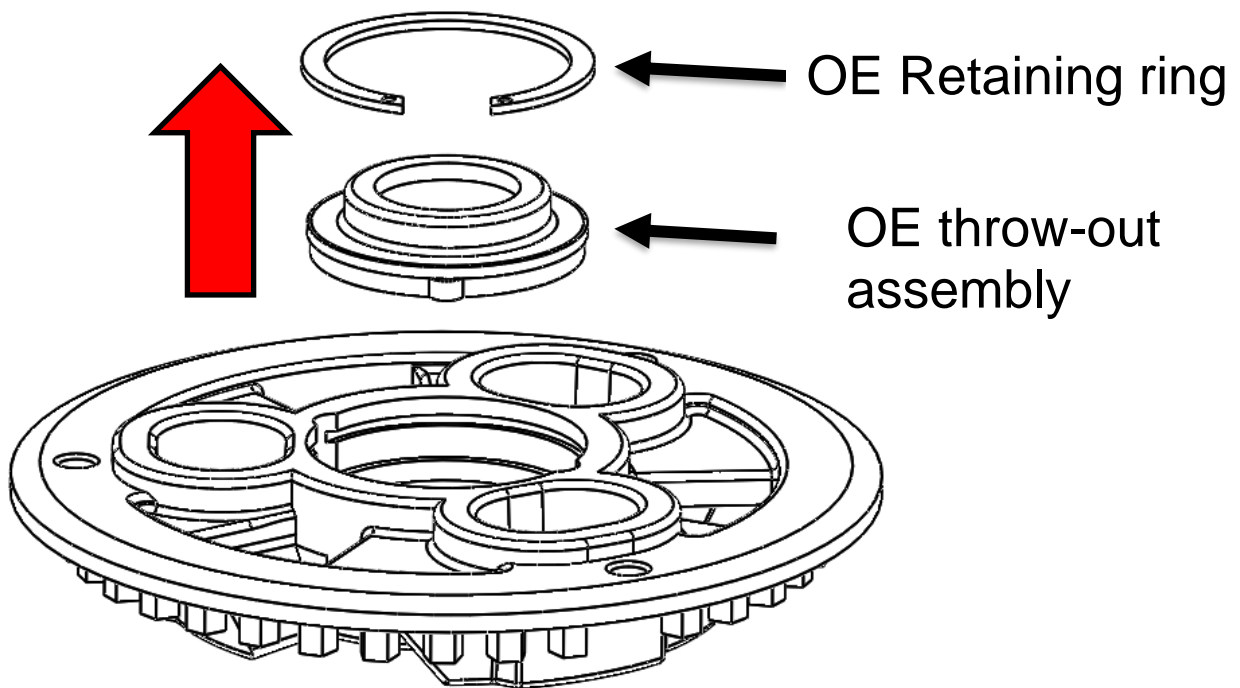
8. On a workbench, use snap ring pliers to remove the small retaining ring from the pressure plate bearing.

9. Remove the throw-out and set it aside. It will be reused.

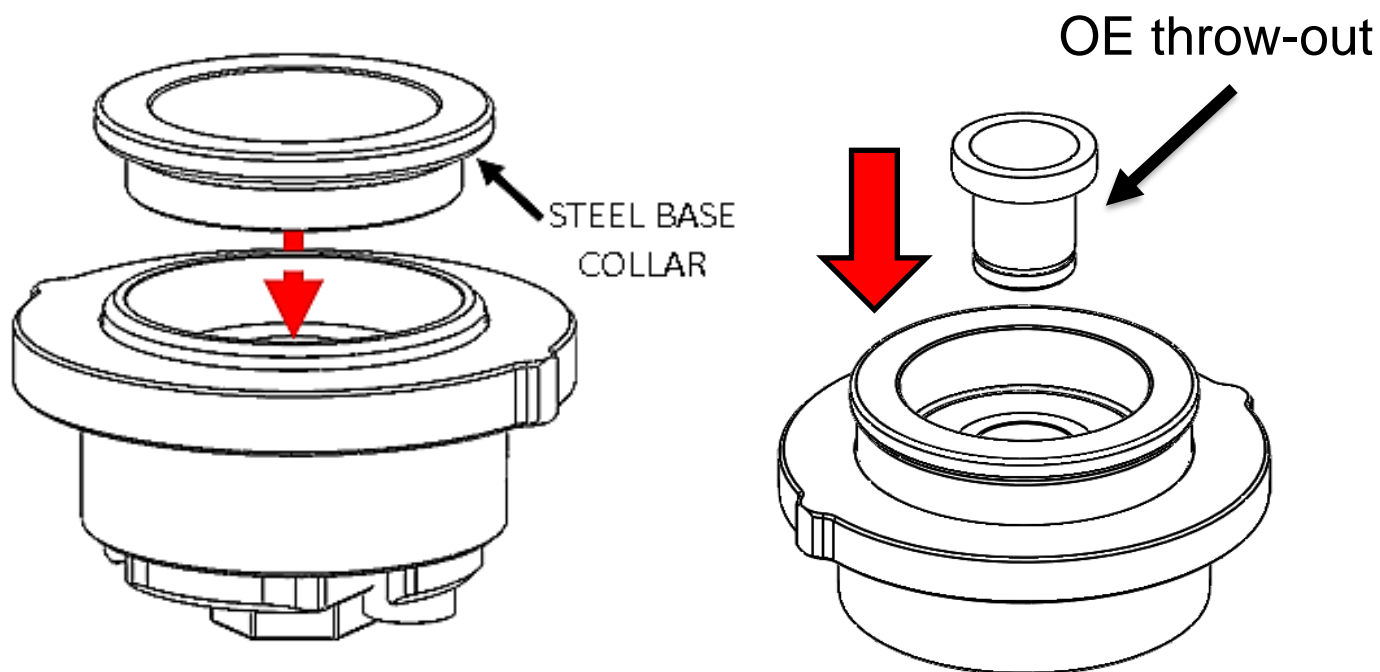
Note: The throw-out may look different than pictured. All throw-outs are removed and installed in the same way.



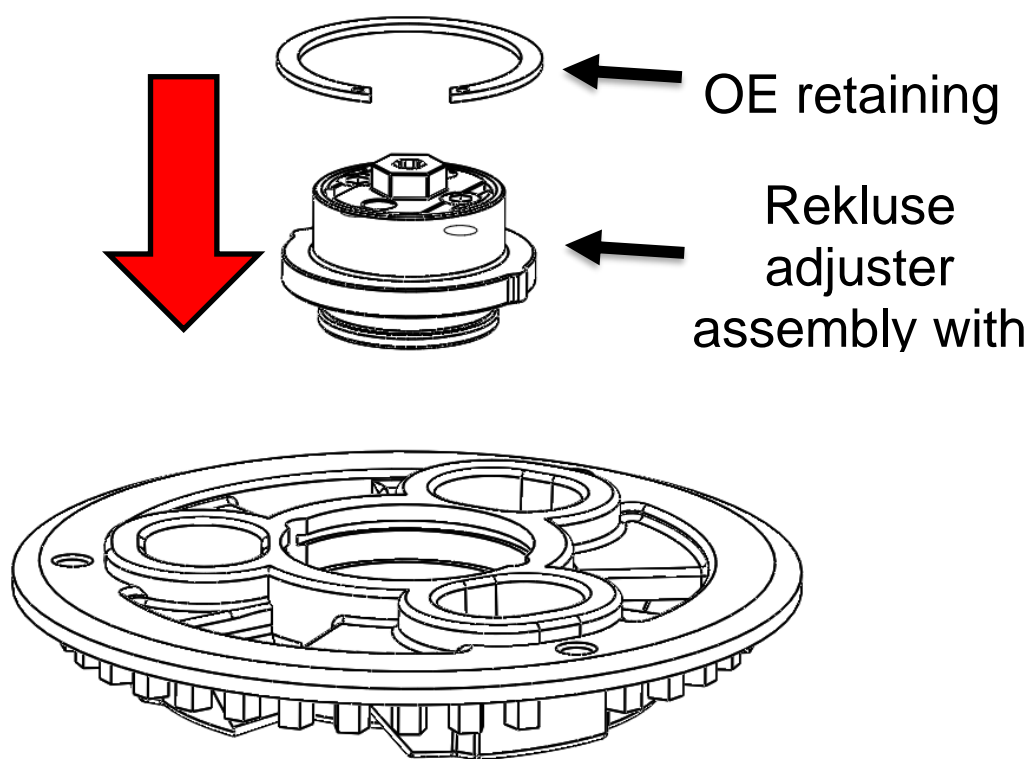
10. Use the snap ring pliers to remove the OE retaining ring, then remove the throw-out assembly from the pressure plate.



11. Turn the new Rekluse adjuster assembly over and insert the adjuster base collar, then install the OE throw-out into the assembly. **Adding a small amount of engine assembly grease to each part will help hold them in place during installation.**



12. Install the Rekluse adjuster assembly into the pressure plate, then use a pair of snap ring pliers to reinstall the OE retaining ring.

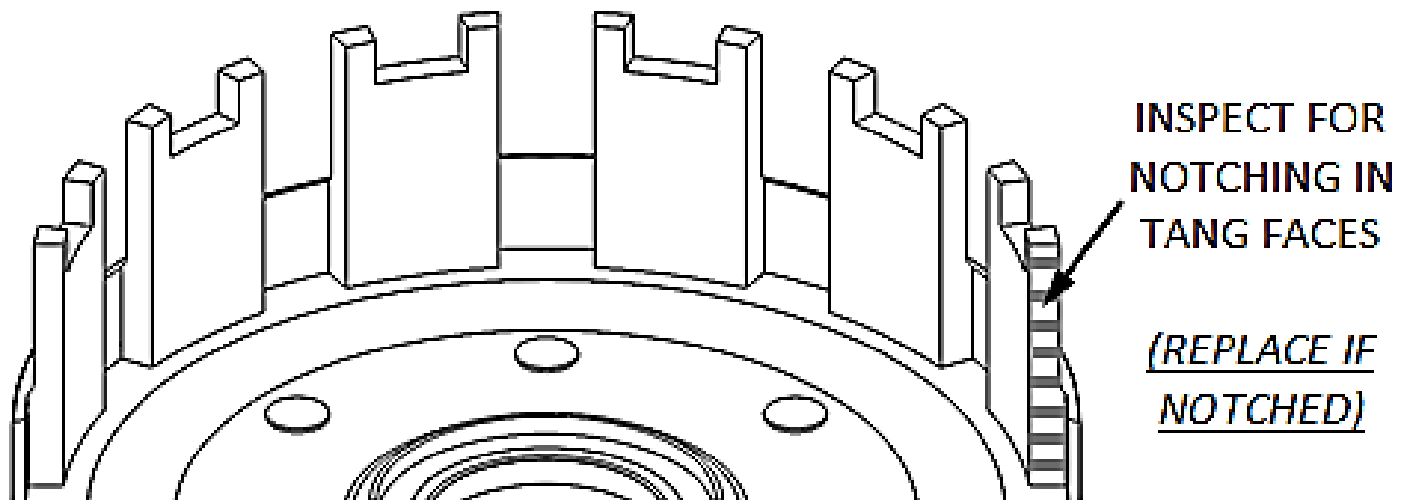


INSPECT THE BASKET

⚠ WARNING

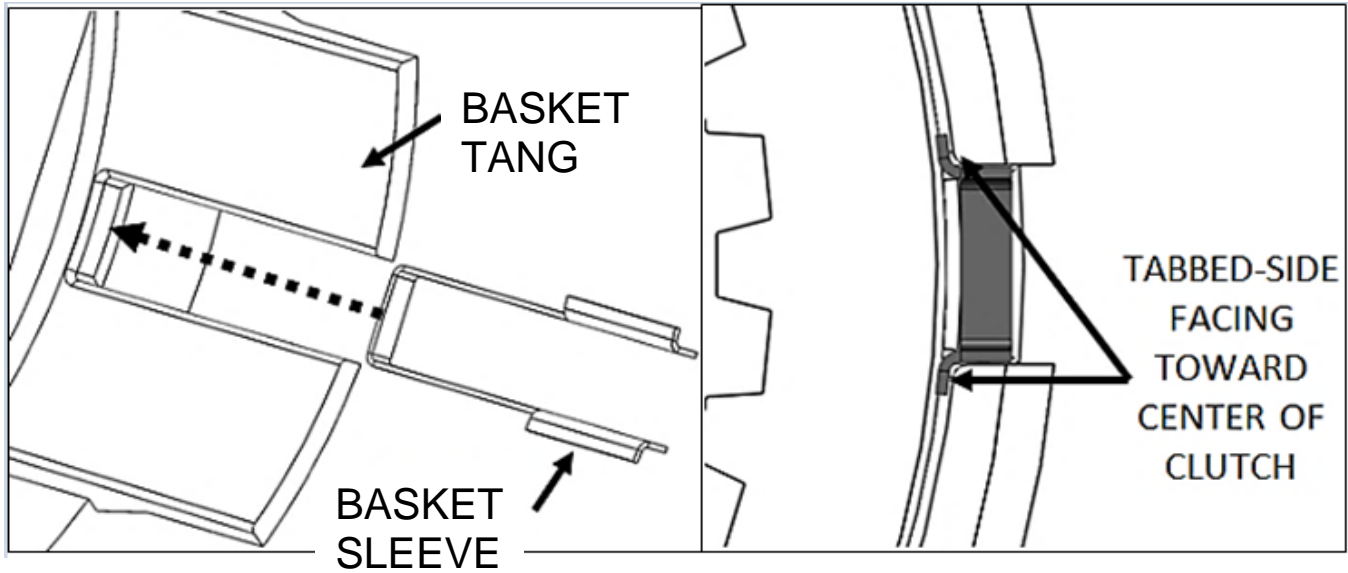
Failure to inspect the basket and replace it if necessary could result in death, serious injury, and/or property damage.

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 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

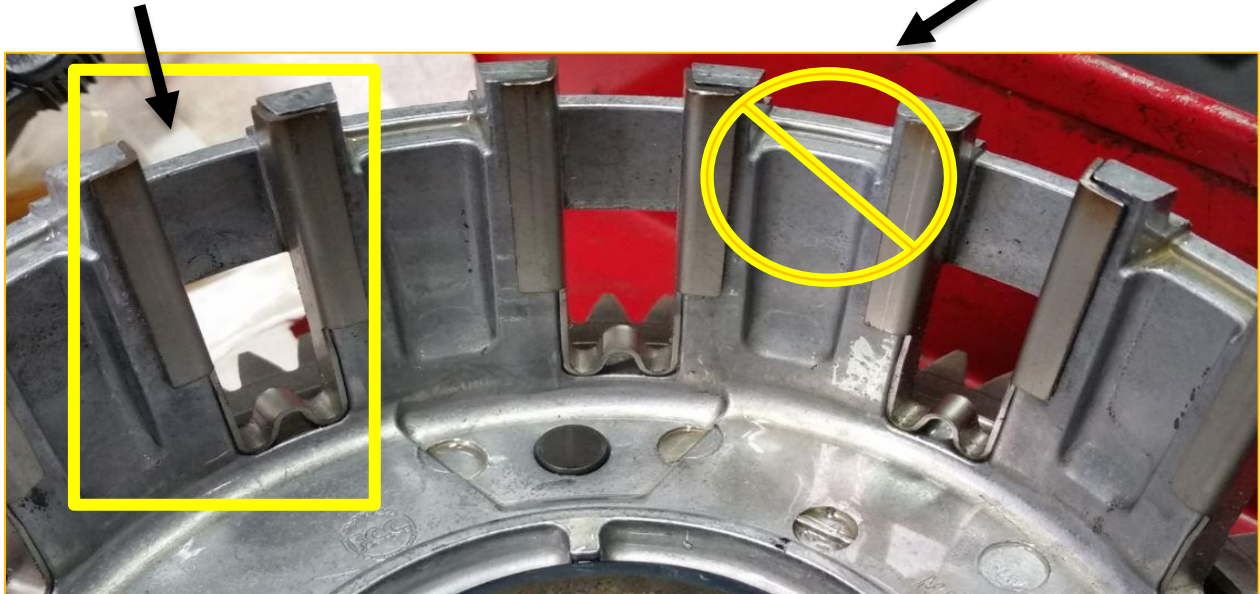
Refer to the included **Setup Sheet** for a breakdown of the clutch pack.

Notes for installation

- Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.
- 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 pack in the “half slots” will cause performance issues.

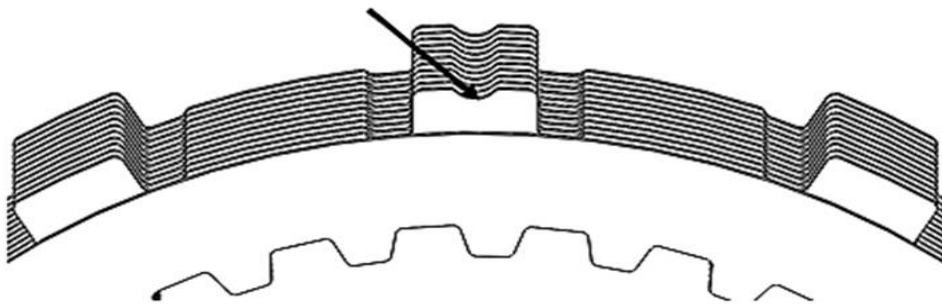
Use only the deeper basket slots for installation

Do not use the “half-slots”



- 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 and EXP



Clutch Pack

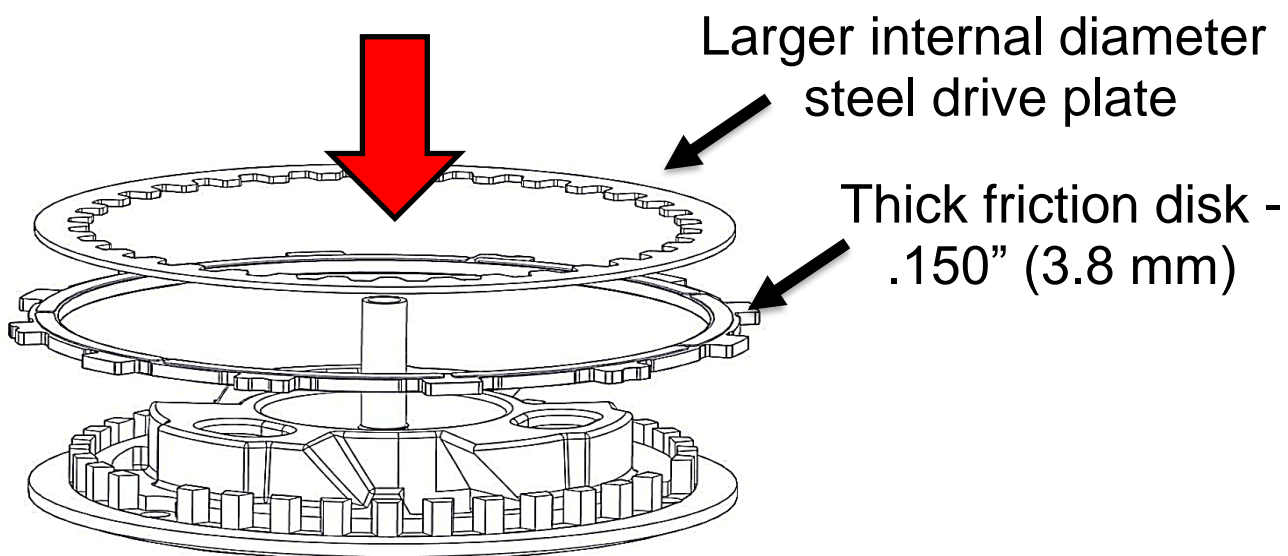
Install the clutch pack one plate at a time. Follow the **Setup Sheet** at the back of the manual for the order of clutch pack disk installation.

Do not install the last friction and the last drive plate. These will be placed on the pressure plate in the next step.

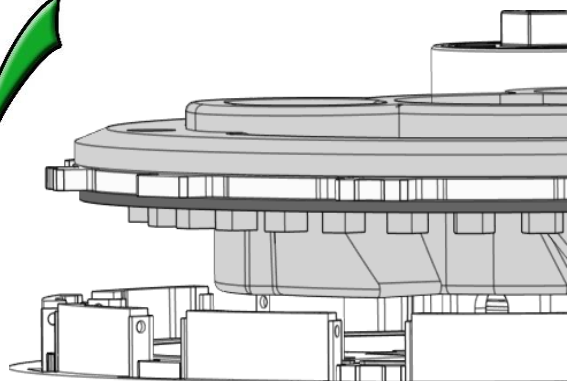
Note: *Using dental picks can help control the basket sleeves during the installation of the clutch pack.*

INSTALL THE PRESSURE PLATE

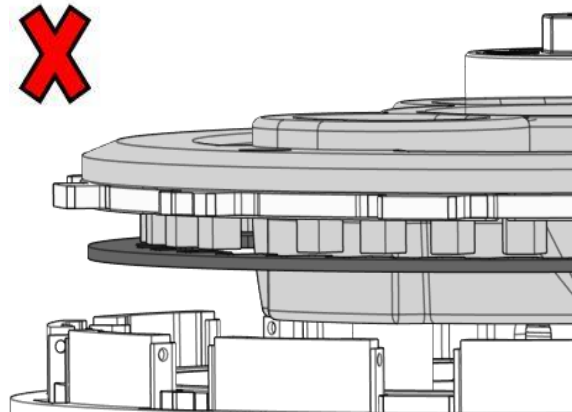
1. Install the remaining .150" (3.8 mm) thick friction on top of the pressure plate.
2. Install the narrow steel drive plate on top of the thick friction disk. Make sure the drive plate fits on the teeth of the pressure plate



3. Install the assembled pressure plate onto the clutch pack.



Correct: Steel is indexed to pressure plate



Incorrect: Steel has slipped off

4. Make sure the steel stays indexed on the pressure plate. If this plate slips off, damage can occur.

Note: *Be sure that the adjuster assembly collar and throw-out stay in place and do not become unindexed when installing the pressure plate onto the clutch. An unindexed collar could cause damage to the clutch when setting the installed gap.*

INSTALL THE CLUTCH SPRINGS

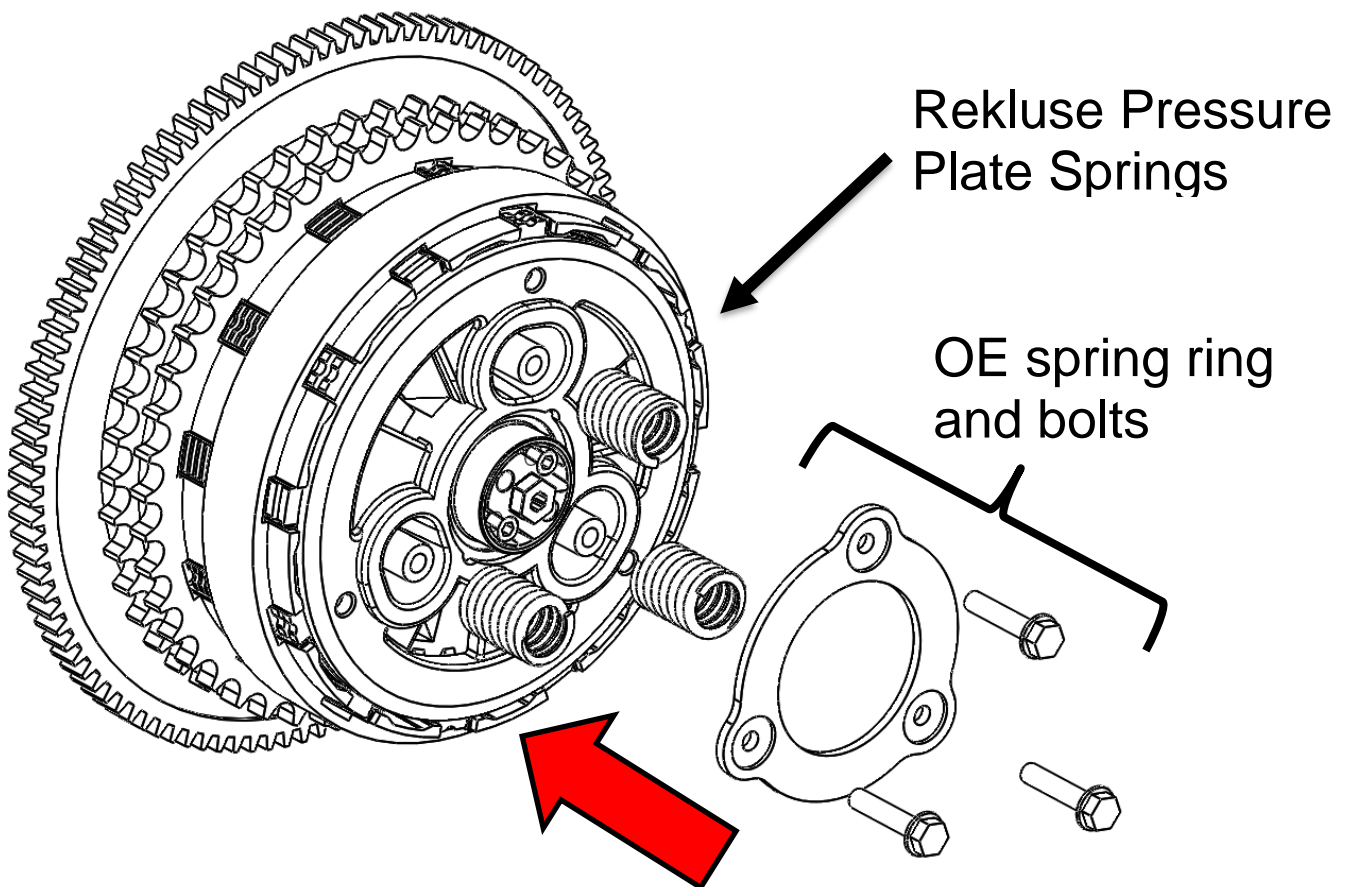
1. Select which pressure plate springs are best suited for your motorcycle and riding style using the table below. *For reference, the factory 3 spring clutch is rated to hold approximately 135 ft-lbs of engine torque.*

	Torque Capacity (ft-lb)	Change in Lever Pull	Spring Option	Spring Color
<u>RMS-6205</u>	165.0	+27%	Heavy Spring (744-127)	Yellow Stripe
	135.0	+4%	Standard Spring (744-126)	Black Stripe

Note: If you own a Trike or plan to tow with your motorcycle, Rekluse highly recommends selecting the “Heavy” spring option.

For hydraulic clutch owners looking to reduce their clutch lever pull without affecting the clutch’s torque capacity, please see Rekluse’s 30% lighter pull Manual Slave Cylinder, product number RMS-2415050 (M8 Models) or RMS-2415051 ('13 -'16 HD Models), at <https://rekluse.com/>

2. Install the Rekluse pressure plate springs, then install the OE spring ring and OE pressure plate bolts.



3. Torque the pressure plate bolts to **80 in-lb (9 N-m)**.

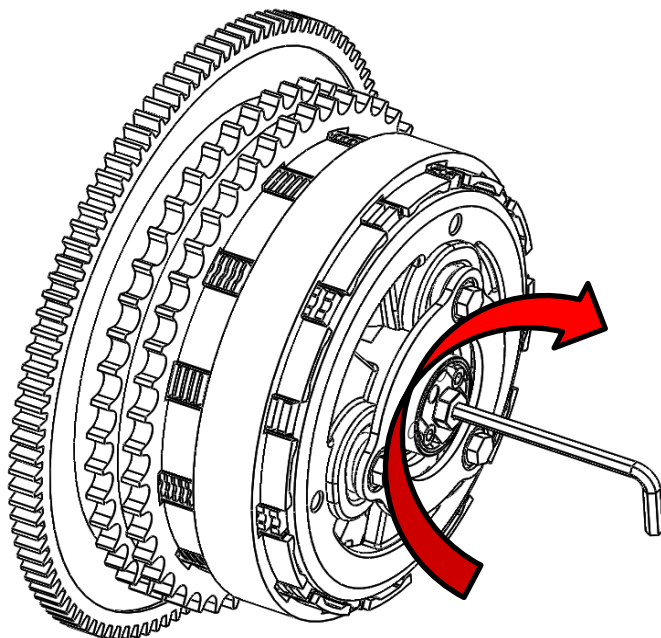
SET THE INSTALLED GAP

The installed gap is the separation in the clutch pack created by adjusting the Rekluse adjuster assembly. This gap is what allows the clutch to spin freely until the desired RPM is reached for engagement. The gap must be set correctly for optimal performance.

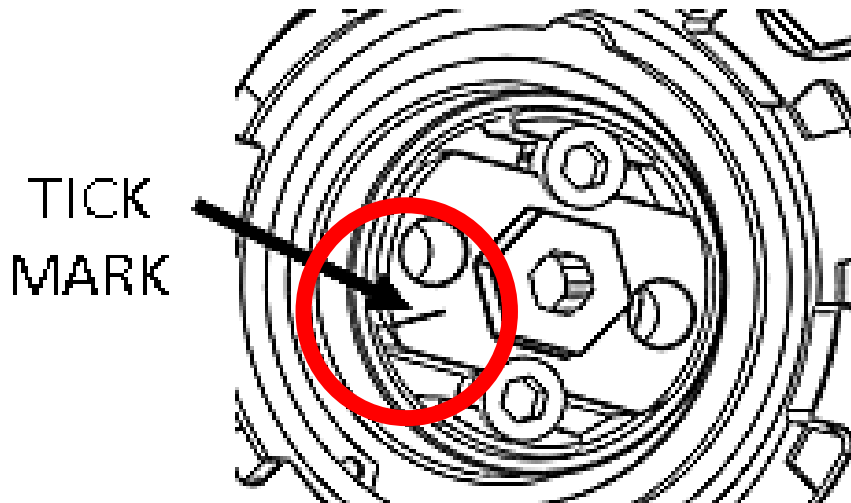
⚠ CAUTION

Do not ride your bike without adjusting the installed gap. You will not be able to disengage the clutch until you set the installed gap.

1. Remove the cap from the master cylinder reservoir. Be sure to protect the bike during the adjustment process by catching any fluid that might overflow into a suitable container.
2. Using the long end of the 7/32" hex key, gently turn the adjuster screw **CLOCKWISE** until it stops under moderate pressure.
 - You are feeling 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**.

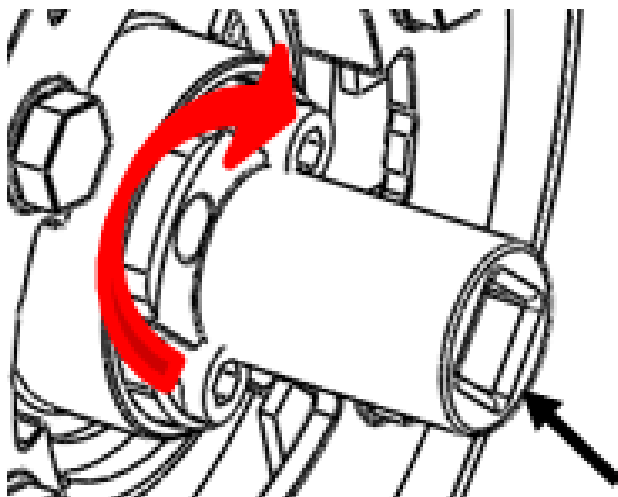


3. At this starting point, note the location of the tick mark on the aluminum adjuster. Marking the tick mark with a marker can help make it more visible during the adjustment.



4. Using either a $\frac{1}{2}$ " socket or a $\frac{7}{32}$ " hex key, turn the adjuster **CLOCKWISE** $1\frac{3}{8}$ turns from the starting point.

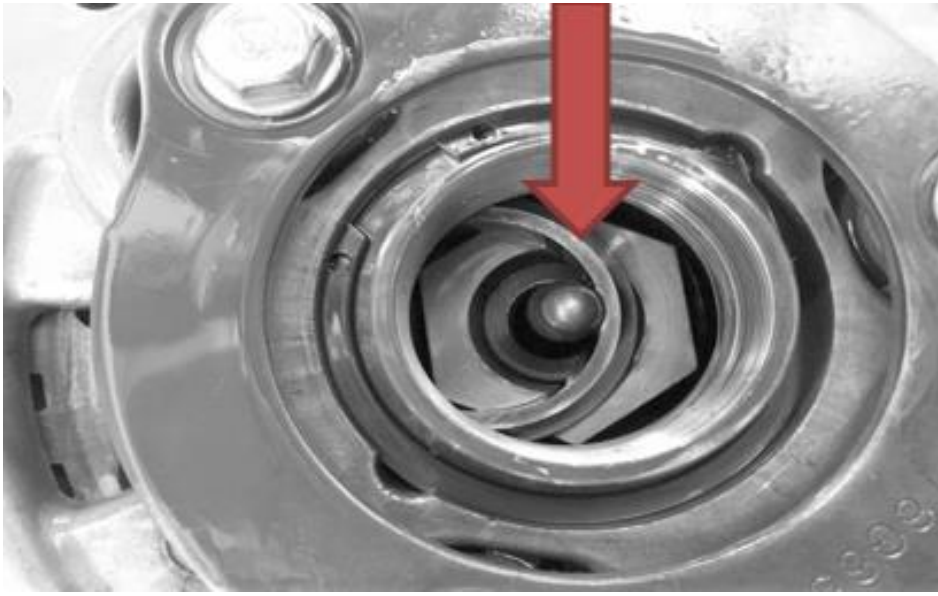
Notes:



Use $\frac{1}{2}$ " socket or
 $\frac{7}{32}$ " hex key

- *If the adjuster is not turning smoothly, then the adjuster collar may be unindexed from the adjuster assembly. Uninstall the adjuster assembly and reindex the adjuster collar.*

Example of an unindexed collar



- *If the adjuster bottoms out, the steel drive plate may be unindexed from the pressure plate. Uninstall the pressure plate and reindex the steel drive plate.*
- *After setting the installed gap, the aluminum center adjuster should be flush or near flush in the adjuster assembly.*
 - *If the adjuster is deeper than flush likely the top drive plate and friction have become unindexed from the pressure plate. **See the following images for reference***
 - *If the adjuster is protruding out of the adjuster assembly the adjuster collar likely has unindexed while installing the pressure plate. **See the following images for reference***

Correct – adjuster flush in the adjuster assembly



Incorrect – adjuster protruding out of adjuster assembly



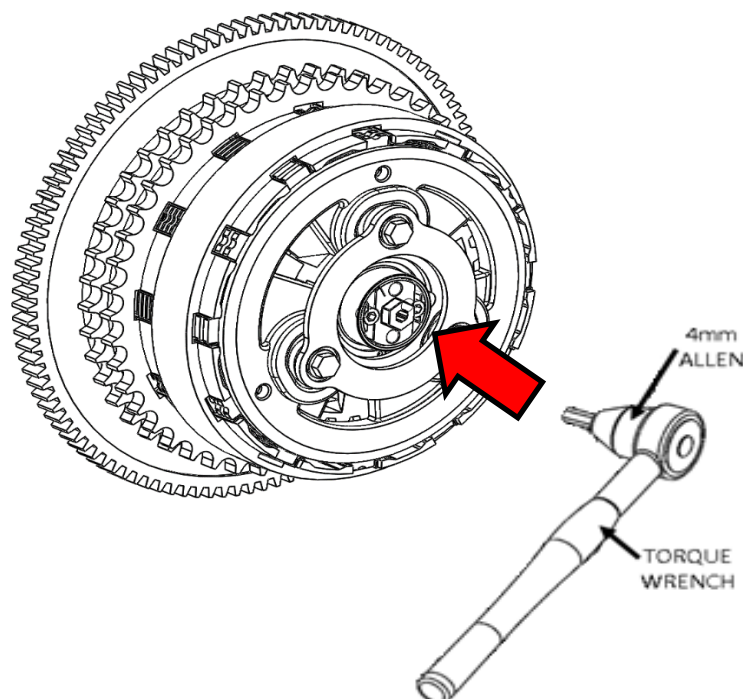
(Collar unindexed out of the adjuster assembly – See page 11,18- steps 11-12)

Incorrect – adjuster deeper than flush



(Top drive plate and/or friction plate unindexed – See page 17- step 11)

5. Use a 4 mm hex socket and torque wrench to lock the adjuster in place. Alternate tightening the two pipe plugs in small increments to **40 in-lb (4.5 N-m)**.

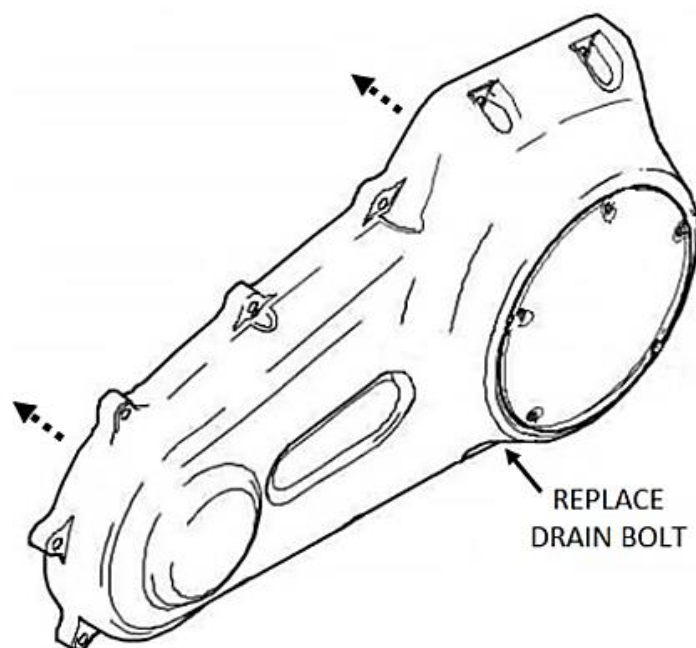


Note: When torqued correctly, the tops of the plugs should be nearly flush with the top of the aluminum adjuster piece.

INSTALL THE PRIMARY COVER

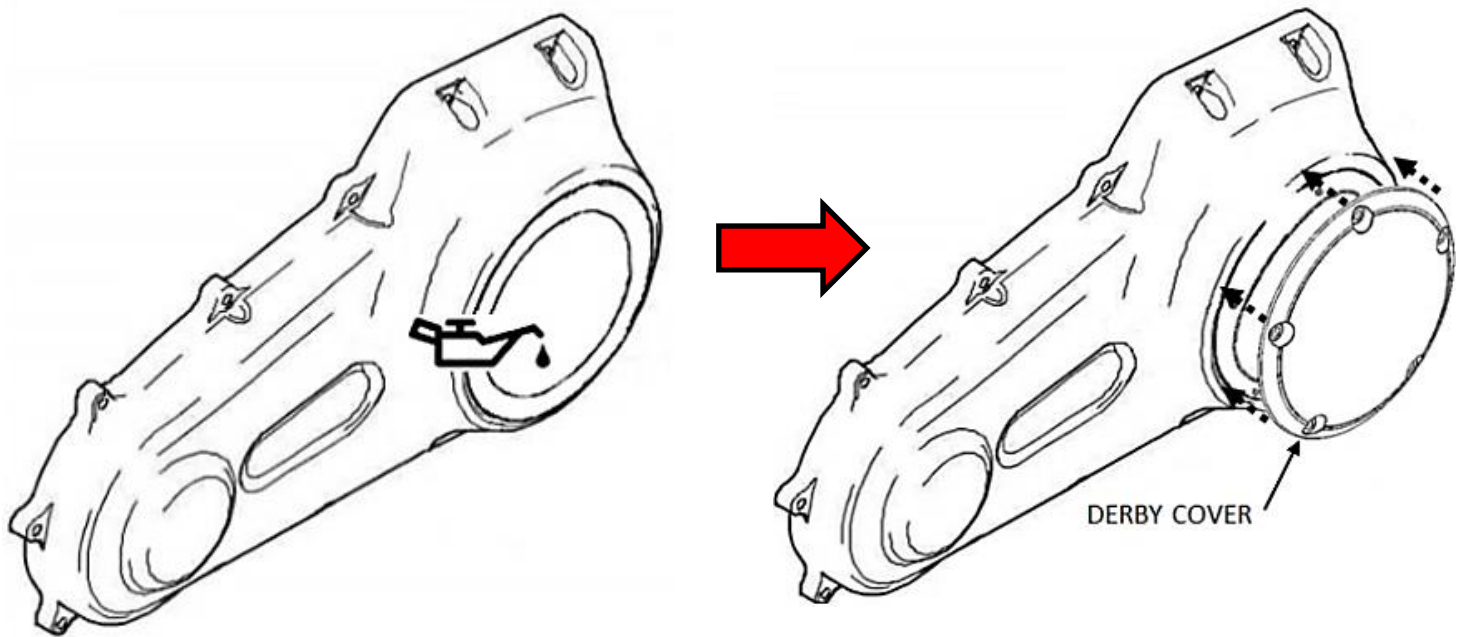
1. Thoroughly clean the mating surfaces of the primary cover and the engine case.
2. Reinstall the primary gasket (or new gasket), then install the drain bolt.

3. Reinstall the primary cover, then torque the cover bolts to **84-108 in-lb (9.5-12.2 N-m)**. Torque the drain bolt to **36-60 in-lb (4-6.8 N-m)**.



4. With the primary cover installed, use a T-27 Torx bit to remove the derby cover.
5. Using a funnel, add 1.25 quarts of oil to the primary case through the derby cover cavity. Use the OE recommended oil or any quality primary oil.

6. Reinstall the derby cover.



7. Check the hydraulic fluid level at the master cylinder reservoir, and add fluid if required. The system may need to be bled if the fluid level is below the intake port in the reservoir. Replace the cap.

8. Install the provided warning sticker on the backside of the clutch lever, such that it is visible to the rider.



CHECK FREE PLAY GAIN

It is very important to understand how to verify the correct installed gap by checking Free Play Gain. The installed gap is what allows the auto function of the product to perform properly.

Correct Free Play Gain = Correct installed gap

Setup, break-in, and rechecking the installed gap are CRUCIAL. Failure to properly maintain your installed gap can result in premature wear or failure of your clutch. Use the following steps to verify the installed gap by checking Free Play Gain.

⚠ WARNING

Failure to check and verify Free Play Gain can cause failure or damage to this product. Setting the correct installed gap is critical for clutch performance.

Learn how to check Free Play Gain

If you are familiar with checking Free Play Gain, check for Free Play Gain then skip to the “Adjust the Installed Gap” section.

If Free Play Gain is new to you, follow the instructions below to help you learn this important step. You can also view the video entitled “How to Check Free Play Gain” on our website at <https://rekluse.com/support/videos>.

Checking Free Play Gain allows you to externally monitor the installed gap so you can know when to adjust if the installed gap is too large or too small.

The correct installed gap is verified by observing and feeling the increased free play movement in the clutch lever. This extra movement is called “Free Play Gain.”



Lever with "slack" removed

Lever position around 4,000 RPM

Free Play Gain

1/8"-1/4" (3 mm-6 mm) lever movement

- **If there is too much Free Play Gain**, the installed gap is too small.
 - The bike may drag and stall because it has difficulty disengaging the clutch. It may also be difficult to shift.
 - Too much Free Play Gain will not hurt the clutch, but it will negatively affect clutch performance.
- **With too little or no Free Play Gain**, the installed gap is too large.
 - This means when the EXP is fully expanded it does not lift the pressure plate. The clutch may slip and make the bike seem like it is losing power.

- The bike may not move forward even though the engine RPM increases as if the clutch lever is slightly pulled.
- Too little Free Play Gain will cause the clutch system to burn up.

Optimal Free Play Gain yields 1/8”-1/4” (3 mm-6 mm) of clutch lever movement, measured at the ball end of the lever. This measurement at the lever correlates to achieving the ideal installed gap.

Two Ways to Check for Free Play Gain

The following steps explain **2 ways** to check Free Play Gain. One way uses the rubber band Rekluse includes in the clutch kit, and one uses your hand. You can use either method to check for Free Play Gain.

Rekluse recommends that you begin with the rubber band method first to check for Free Play Gain and then learn the hand method. The rubber band will help you learn how to recognize Free Play Gain until you are comfortable with the hand method. Learning to check Free Play Gain by hand effectively and comfortably can make it easy to check Free Play Gain every time you ride.

The Rubber Band Method

Use the rubber band method for the initial setup. It can also be used before each ride until you feel comfortable checking the Free Play Gain using the hand method.

⚠ WARNING

BEFORE YOU BEGIN, verify that the bike is in **NEUTRAL** before checking Free Play Gain. Failure to do so may result in the bike lurching forward, and loss of control and/or injury may result.

A Rekluse auto-clutch can make your motorcycle appear to be in neutral when in gear, even when the engine is running and clutch lever released.

Motorcycles equipped with a Rekluse auto-clutch can move suddenly and unexpectedly and cause riders to lose control. To avoid death, serious injury, and/or property damage, always sit on the motorcycle to start it.

a) Before you begin, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm the engine oil.

b) Stretch the included rubber band between your thumbs, then place the top end of the rubber band on the outer end of the left handlebar grip.



c) While holding the top end of the rubber band against the handlebar, stretch the band downward, then loop it through itself.



d) Pull the band through the loop, then attach it to the outside end of the clutch lever. This will take up the initial free play (slack) and put the lever in a position to detect the Free Play Gain.



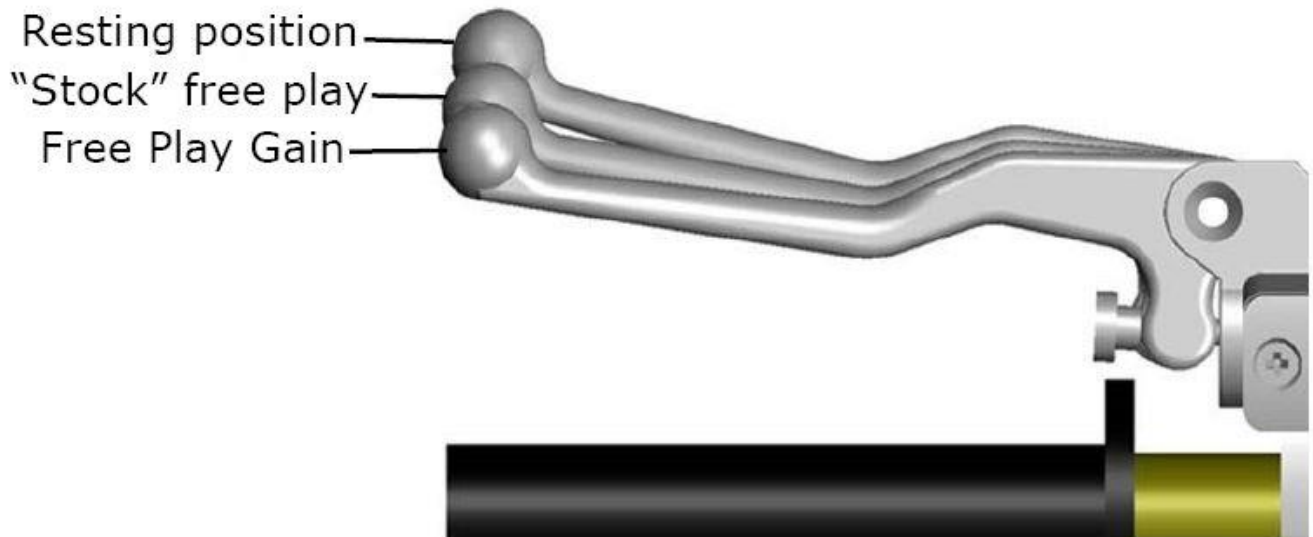
e) While still in **NEUTRAL**, quickly rev the engine between 3,000-5,000 RPM (1/4 to 1/2 throttle), then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.

Note: *It is very important the motor returns to idle before revving the engine again or Free Play Gain will not be correct.*

- f) When the bike returns to idle, rest your hand across the clutch lever. Rev the engine again to 3,000-5,000 RPM so you can observe the movement while feeling for Free Play Gain with your hand.

The Hand Method

Use the hand method to check Free Play Gain before the start of every ride for optimum performance and longevity of your new clutch.



- a) Before you begin, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm up the engine oil.
- b) With the bike at idle, apply enough pressure to the clutch lever to take up the initial free play (slack) in the clutch lever.
- c) While still in **NEUTRAL**, continue to apply light pressure and quickly rev the engine between 3,000-5,000 RPM (1/4 to 1/2 throttle), then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.
- d) When the bike returns to idle, rev the engine between 3,000-5,000 RPM a second time to verify the Free Play Gain again.

ADJUST THE INSTALLED GAP

After checking for Free Play Gain, you may need to adjust the installed gap. If Free Play Gain is optimal, continue to “BREAK IN THE NEW CLUTCH.” If Free Play Gain is not optimal, the installed gap needs to be adjusted.

The installed gap should be fine-tuned in small increments and then recheck Free Play Gain. Refer to the table below to set the proper installed gap based on your Free Play Gain.



Symptom	Reason	Solution
<ul style="list-style-type: none">• Too much Free Play Gain: Clutch lever moves in too far• Clutch has excessive drag or stalls• It is difficult to fully override the clutch with the lever	The installed gap is too small	Turn the adjuster clockwise to increase the Installed Gap. Recheck Free Play Gain.
<ul style="list-style-type: none">• Too little Free Play Gain: Clutch lever only moves slightly or does not move at all• Clutch slips• The bike seems to lose power	The installed gap is too large	Turn the adjuster counterclockwise to reduce the Installed Gap. It may be helpful to re-find the starting point. Recheck Free Play Gain.

BREAK IN THE NEW CLUTCH

Once you install your new clutch, it is important to break it in. A series of roll-on starts are used to break in the clutch. Follow these procedures for breaking in your clutch and any time new friction disks, EXP bases, Teflon pads, or wedges are installed.

⚠ WARNING

Failure to follow the break-in procedure could cause motor oil delivery failure, which can result in motor failure, serious injury, or death.

Break-in Procedure	Number of times
1. Warm up the bike for 2-3 minutes. With the bike in NEUTRAL and your hand off of the clutch lever, rev the engine 10 times, being sure to let it return to idle between each rev cycle.	
2. With the engine still running, pull in the clutch lever, then shift the bike into 1 st gear. Slowly release the clutch lever. The bike should stay running and in place, or have a slight amount of forward creep.	
3. With the bike idling in first gear, slowly apply throttle to begin moving.	 15 roll-on starts
4. Without using the clutch lever, accelerate moderately to approximately 3,500 RPM to fully lock up the clutch and come to a complete stop. Repeat 15 times.	

Note: *If the engine wants to stall or the creep is excessive, the idle may be too high or the installed gap may be too small. Make necessary adjustments before proceeding.*

5. Place the bike in **NEUTRAL** and recheck Free Play Gain. Continue to adjust the installed gap until the clutch lever is 1/8"-1/4" (3 mm-6 mm).



Recheck Free Play Gain and adjust the installed gap

Note: *Your clutch pack will expand with heat, so the final adjustment to Free Play Gain should be made when the bike is warm. Remember not to ride without sufficient Free Play Gain.*

⚠ CAUTION

Do not perform 2nd and 3rd gear starts with this product. Always keep the motorcycle in first gear when taking off from a stop. Taking off from a higher gear can cause premature clutch wear and damage the product.

DO NOT DYNO TEST YOUR MOTORCYCLE BEFORE BREAK-IN! Always break in the product before performing dyno testing. Read the included dynamometer sheet for more information.

EXP TUNING OPTIONS

Adjusting the engine idle speed to match your engagement setting is important and greatly affects the overall feel of how the EXP disk engages.

To prevent freewheeling and maximize engine braking, set the idle so there is a slight amount of drag while the bike is idling in gear and warmed up. The idle should not be so high as to move the bike forward in gear with the throttle closed. However, with a small opening of the throttle, the bike should move forward.

You can tune the engagement RPM of the EXP disk by changing the spring configuration. The EXP disk comes set with the recommended “**Medium**” setting from Rekluse, based on an idle of RPM = 850 - 1050. If your idle is higher than 1050 RPM, it may be best to install the “High” spring setting. A low idle may benefit from a low spring setting.

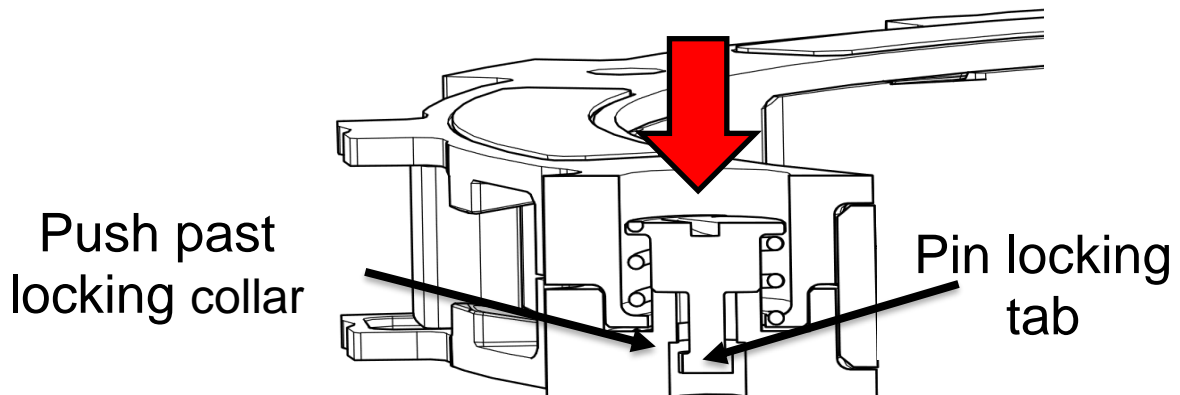
See the following chart for settings. Use the following steps to change the springs. It is **NOT necessary** to disassemble the EXP halves to change springs!

Engines with Stage 3+ modifications or modified cylinder heads/cams are recommended to be tuned to the **High** or **Extra High** setting.

Idle RPM	Engagement Spring Combination	Engagement setting
< 850 RPM	3 Green, 3 Gold	Low
850 - 1050 RPM	6 Green	Medium
1050 - 1150 RPM	3 Green, 3 White	High
> 1150 RPM	6 White	Extra-High

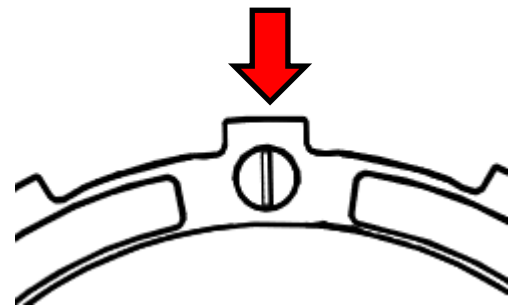
Changing the springs

1. Using a flat-blade screwdriver, push the $\frac{1}{4}$ turn pin in far enough for the locking tab to push out of the locking collar.
2. With the pin still pushed past the locking collar, turn 90° to remove the pin and spring.



3. Remove the remaining 2 pins and springs from the same side of the EXP base.
4. Drop a new spring into the spring slot on the base, then add the $\frac{1}{4}$ turn pin.

NOTE: Lining up the slot in the pin with the tab in the EXP will align the pin in the proper position for locking the pin.

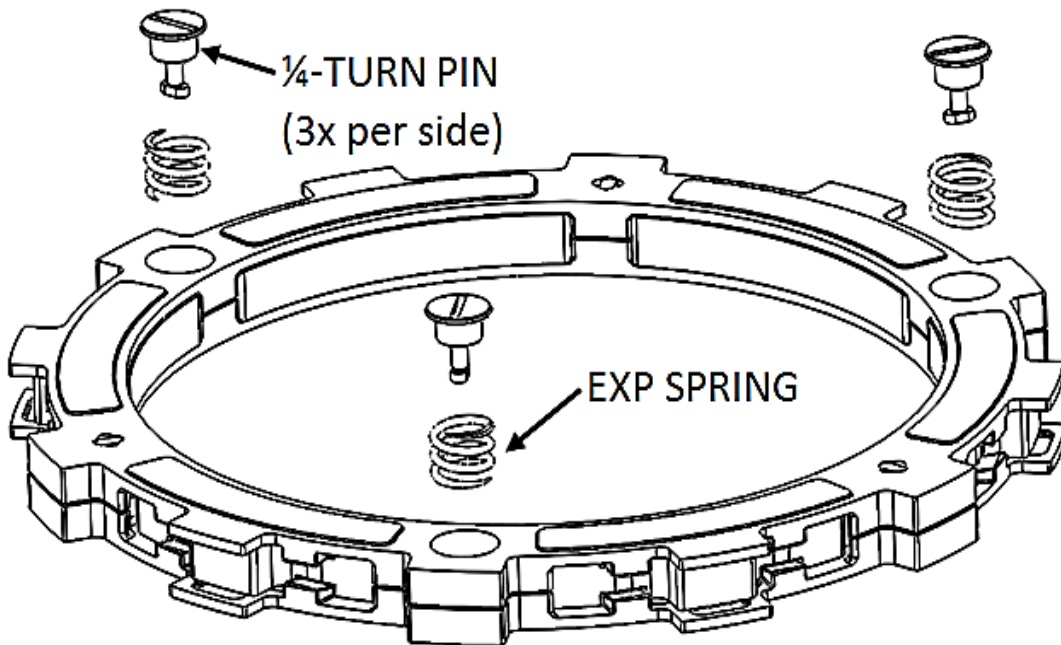


5. Push the turn pin in far enough to clear the locking collar, then turn 90° and release the pin. The pin should sit almost flush with the EXP base.

CAUTION

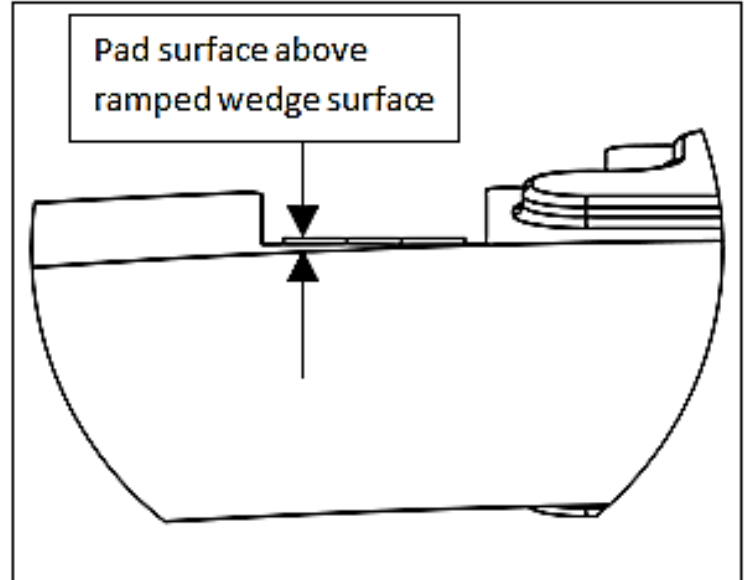
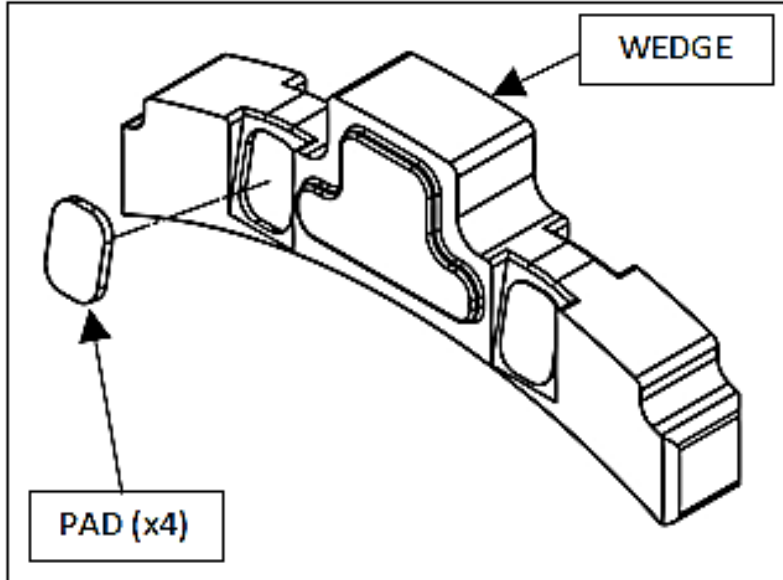
If you disassemble the EXP, the Teflon pads may fall out or be stuck to the ramp surfaces of the EXP bases. Take care to ensure all pads are correctly placed into wedge pockets using gentle pressure to avoid damage to the pad surfaces before reassembling the EXP. Properly seated pads will be secured in place once the EXP is reassembled. Operating the clutch without the pads in place will cause part damage or failure.

6. Flip the EXP friction disk over, and repeat on the other side depending on engagement preference.



7. If you need to disassemble the EXP disk, you can watch the video on our website under Tech Tips at www.rekluse.com/support/videos.

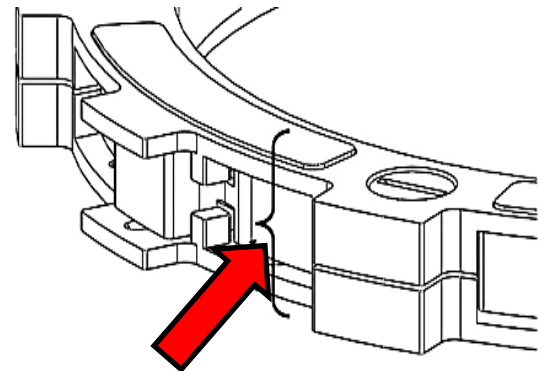
Note: To maintain even pressure, when using two different color spring sets, install one set of 3 on one side of the EXP and the remaining set of 3 on the other side.



MAINTENANCE

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

- Inspect all of your clutch parts for signs of wear or excessive heat, and replace components as necessary. This includes your basket sleeves and/or dampers. Clutch wear is dependent on the rider's use.
- If you frequently adjust your cable to fix Free Play Gain, drag, or performance issues, the clutch pack may need to be replaced.
- Measuring the clutch pack and/or the EXP disk can help determine if the components need replacing.
 - Friction disk minimum allowable thickness = **0.065"**
(1.65 mm)
 - Thick Friction disk minimum allowable thickness = **.145"**
(3.68 mm)
 - EXP disk minimum allowable thickness = **.586" (14.9 mm)**
- Repeat the break-in procedure anytime you replace the frictions disks.
- Always soak EXP disk, wedges, and friction disks in oil for at least 5 minutes before installing.
- Replace friction disks if they measure below specifications or if the disks are glazed and/or burnt.
- Replace the drive plates if they show signs of excessive heat.



Measure EXP
for allowable

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 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

Performance issues

If you find yourself constantly adjusting free play or adjusting for drag, the clutch disks might be worn. 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.

Clutch Drag:

- **Cold Drag Only** – Cold drag is normal. The clutch will usually have some amount of drag before the oil warms to operating temperature. Be sure to warm up the bike before riding.
- **Hot and Cold Drag** – Change the oil. Verify ideal Free Play Gain. Check for warped or non-flat plates in the clutch pack.

Clutch Slip:

- If clutch slip occurs, verify Free Play Gain. Inspect the clutch for signs of wear or heat.

LEVER SAFETY STRAPS

Your kit includes 2 Velcro-type straps to be used to secure both the clutch and front brake levers when the bike is parked.

These straps are intended to reduce the risk of injury or damage that may occur from the bike rolling or launching unexpectedly with or without a rider. Use the lever safety straps every time you park or leave the bike. **Refer to the Safety Information sheet for more information.**

1. Pull the lever tight against the handlebar.
2. Wrap the Velcro safety strap around the lever and handlebar, pull it tight, then fasten it.



Clutch Lever Strap: to prevent unwanted launching.



Brake Lever Strap: for use as a parking brake.

NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Phone

(208) 426-0659

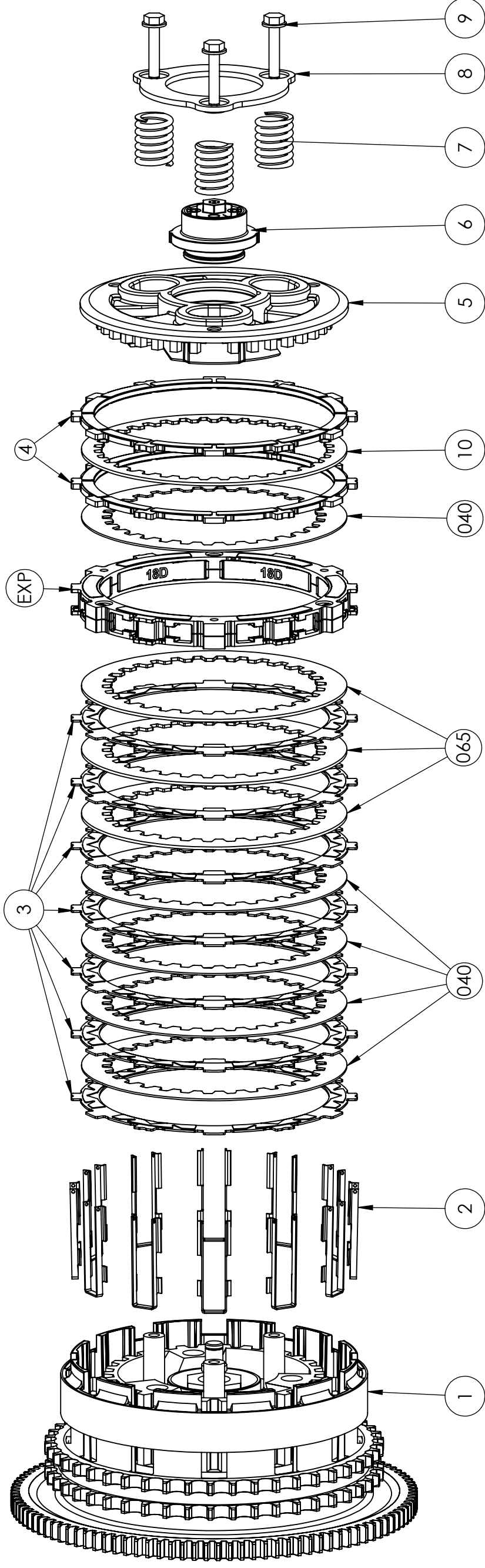
Monday thru Friday: 8 am – 5 pm Mountain Time

Email

tech@rekluse.com



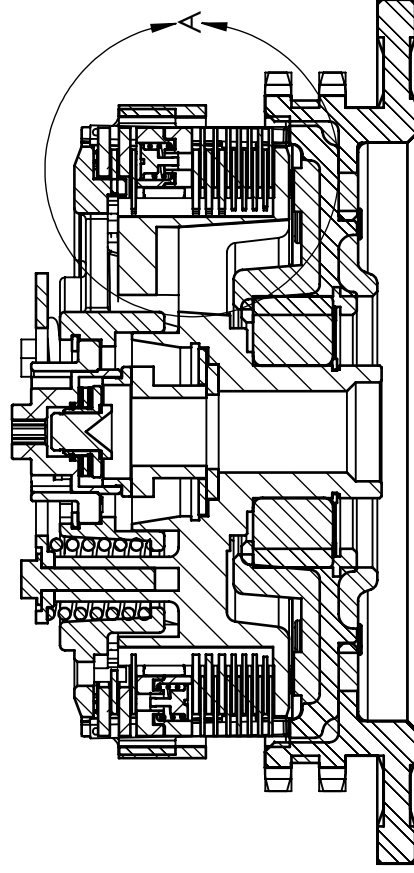
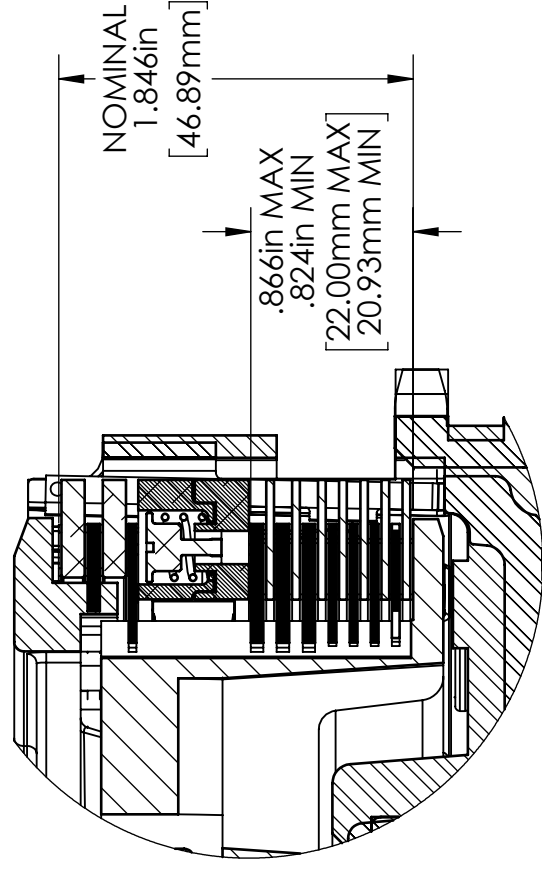
SETUP SHEET 198-6205



SERVICE LIMITS

COMPONENT	STANDARD	SERVICE LIMIT
TORQDRIVE FRICTION	.068-.072in 1.73-1.83mm	.065in 1.65mm
EXP	.596-.616in 15.1-15.6mm	.586in 14.9mm

CLUTCH PACK THICKNESS



COMPONENTS

ITEM NO.	DESCRIPTION	QTY.
1	STOCK BASKET AND CENTER CLUTCH	1
2	BASKET SLEEVES	12
3	TORQDRIVE FRICTION	7
5	OE PRESSURE PLATE	1
6	REKLUSE THROWOUT ADJUSTER	1
7	REKLUSE SPRING	3
8	OE SPRING PLATE	1
9	OE PRESSURE PLATE SCREW	3
10	DRIVE PLATE - .065 - PP	1
040	DRIVE PLATE - .040	5
065	DRIVE PLATE - .065	3
EXP	EXP Disk	1



REKLUSE
SlaveCylinder

INSTALLATION MANUAL

Harley Davidson
Manual Slave Cylinder Kit

Doc ID: 194-2415050A
Revision: 050422

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OVERVIEW

This kit replaces the OE (Original Equipment) or “stock” clutch slave cylinder. This part is designed specifically for your motorcycle to ensure optimal performance.

INSTALLATION TIPS

- Read this entire document before performing any steps.
- 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.
- Visit Rekluse.com/support for a full parts fiche illustration and part numbers.



CLUTCH FLUID TYPE

CAUTION

Failure to use the correct clutch fluid type will cause seal damage. Read the information located on your bike's clutch fluid reservoir cap to determine which fluid was installed with your bike.

IMPORTANT CLUTCH FLUID NOTE:

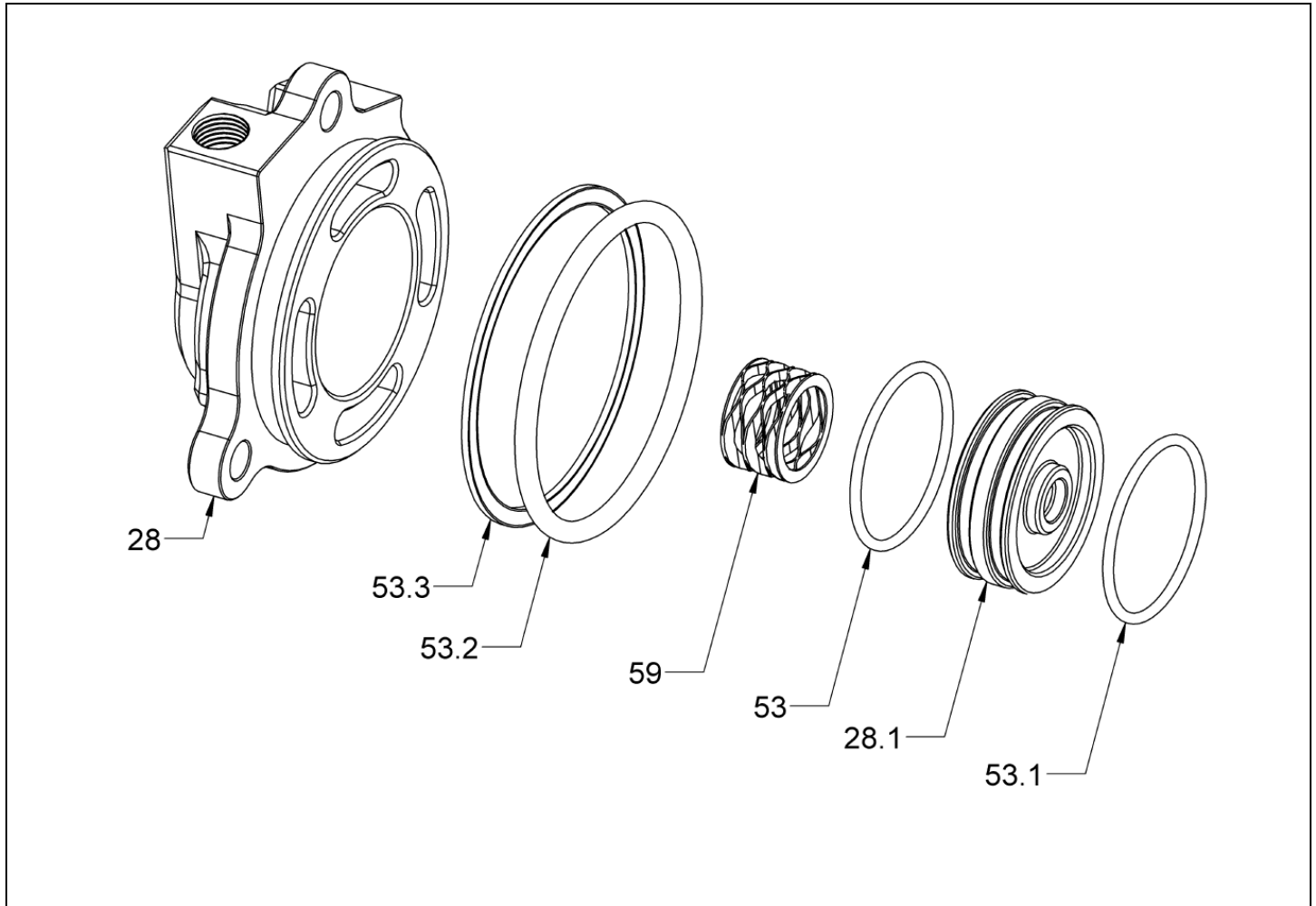
- Harley Davidson recommends using **DOT 4 fluid** from a sealed container

TOOLS NEEDED

- 5/16, 3/8, 7/16, 1/2, & 9/16 wrenches
- 1/2 & 9/16 sockets
- 3/16 hex driver
- Phillips screw driver
- Torque wrench (in-lbs & ft-lbs, or N-m)
- DOT 4 fluid from sealed container
- Rubber gloves & safety glasses
- Shop towels
- Plastic sheet

INCLUDED PARTS

The manual slave cylinder that comes in your kit may look different than pictured. Please visit Rekluse.com/support for a full parts fiche illustration and part numbers for your bike model.



Item	Description	Qty
28	Slave Cylinder Housing	1
53.3	Buna-N Backup Ring	1
53.2	Buna-N O Ring	1
59	Wave Spring	1
53	EPDM O-Ring	1
28.1	Slave Cylinder Piston	1
53.1	Viton O-Ring	1
Not shown	Clear vinyl tube	1

REMOVE THE OE SLAVE

CYLINDER

Installing the new Rekluse slave cylinder takes several steps. Please read the entire section before beginning the process to ensure you have the right equipment and clutch fluid needed for the replacement. Rekluse recommends wearing gloves and safety glasses for the install.

1. Stand the bike up on a suitable bike stand or lift.

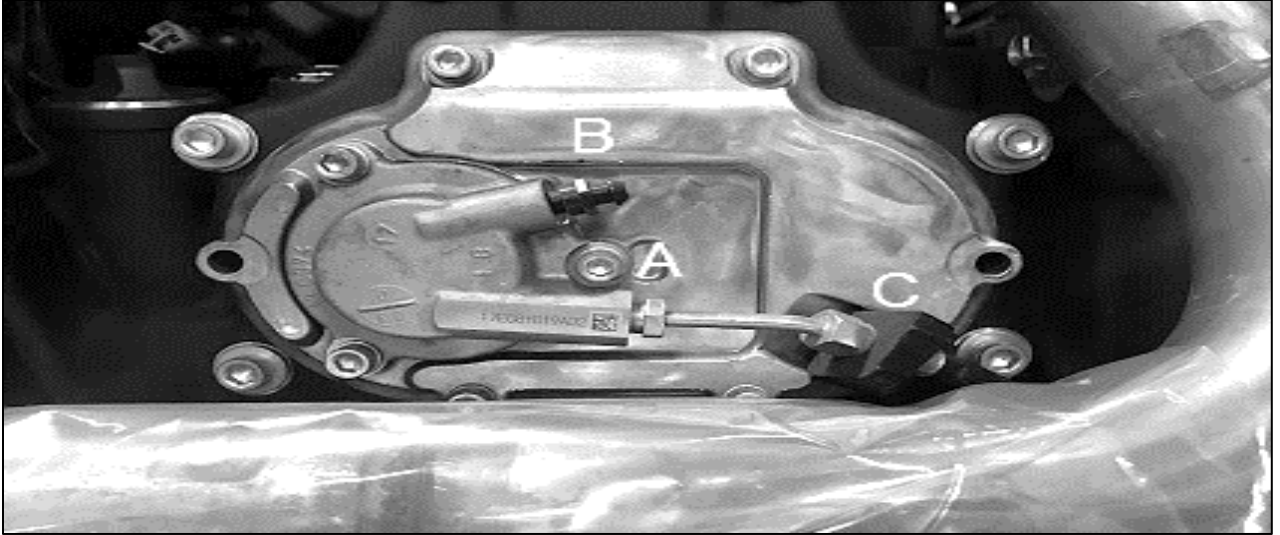


2. Loosen the exhaust system (muffler and header assembly) to gain access to the transmission side cover. Removing the exhaust heat shields will also give more clearance and help prevent damage from brake fluid.
3. Remove the two transmission side cover bolts located on the left and right side of the cover.



Note: Brake fluid is highly corrosive, it is recommended to cover the exhaust with plastic. Perform the following steps quickly. This method retains the fluid inside the line and makes the final bleeding much easier.

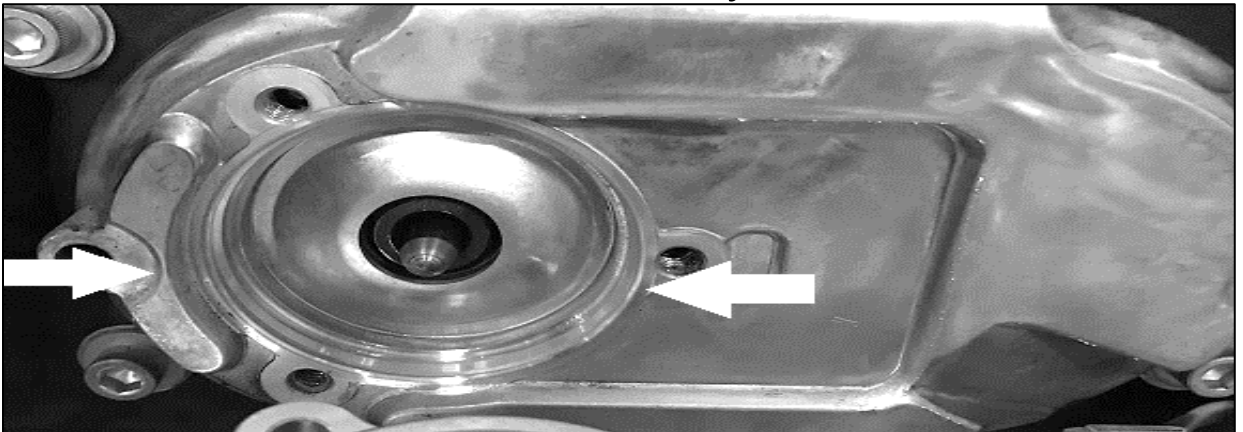
4. While leaving the OE slave cylinder (secondary clutch actuator) attached to the transmission inner side cover, use a wrench to loosen the hydraulic line assembly (A). The bleed screw (B) will not be reused. Note the location of the rubber grommet (C), it will need to be positioned the same way when installing the Rekluse slave cylinder.



5. Remove the OE slave cylinder from the transmission inner side cover.
6. Remove the hydraulic line assembly from the OE slave cylinder.

SLAVE CYLINDER INSTALLATION

1. Clean the area where the slave cylinder will mount



2. Attach the hydraulic line to the Rekluse slave cylinder and finger tighten.

Note: Some models use a flared hydraulic line and are still compatible with the Rekluse slave cylinder. The flared crush washer is not reused.



3. Mount the Rekluse slave cylinder to the transmission case using the OE bolts, correctly returning each bolt to its original location and positioning the hydraulic line rubber grommet. Tighten the bolts in small increments. Torque to **84-108 in-lbs (9.5-12.2 Nm)**.

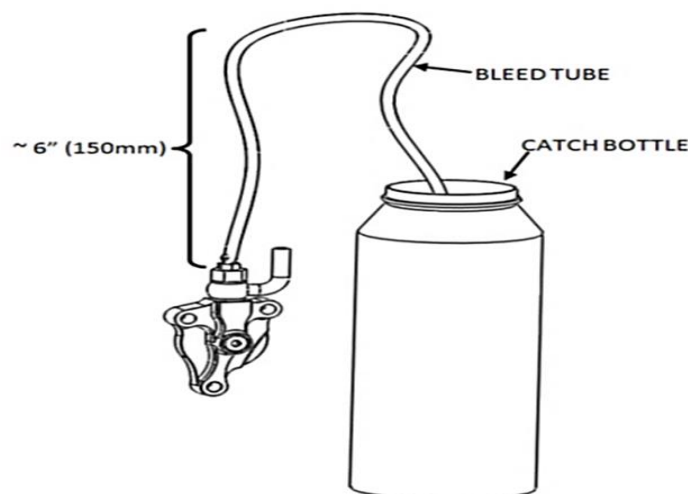
Note: *The seal fitment on the Rekluse Slave Cylinder is tighter than the OE slave cylinder. It is easiest to install the slave using the OE bolts, tightening in small increments, to gently press the slave into the case. The OEM rubber boot will not be reused with the Rekluse Slave Cylinder.*

4. Tighten the hydraulic line to OE specifications

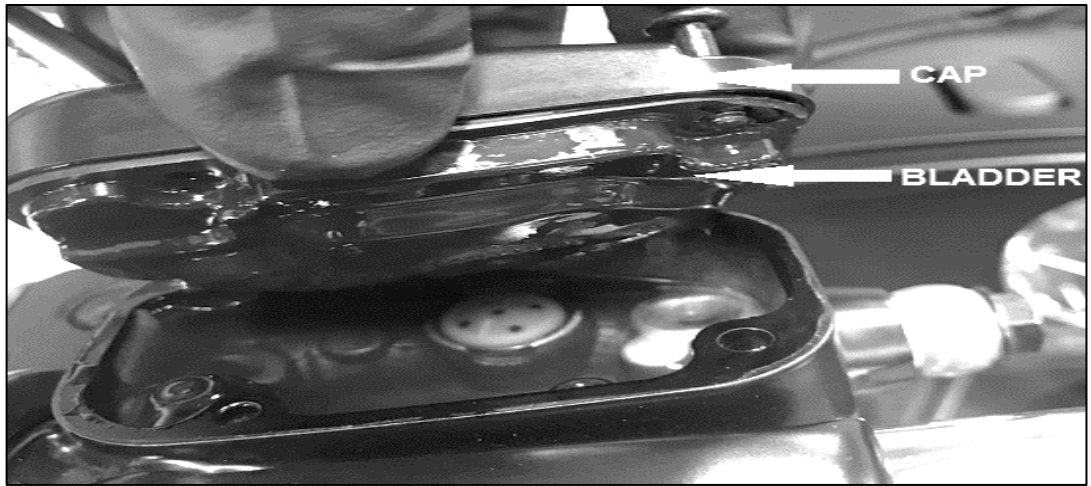
Note: *Do not reattach the transmission side cover, it will be reattached after the bleeding process.*

BLEEDING THE CLUTCH LINE

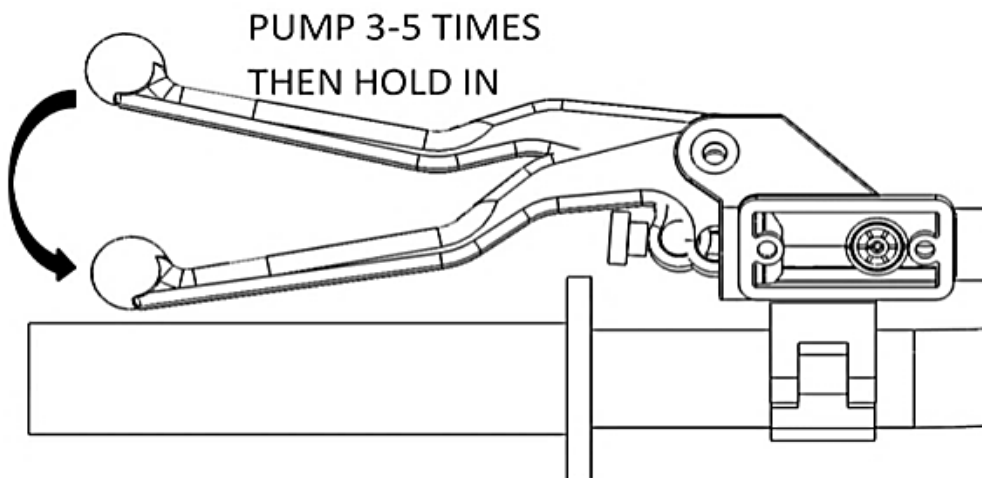
1. Attach one end of the supplied bleed tube to the bleed screw, then loop the opposite end into a suitable catch bottle.



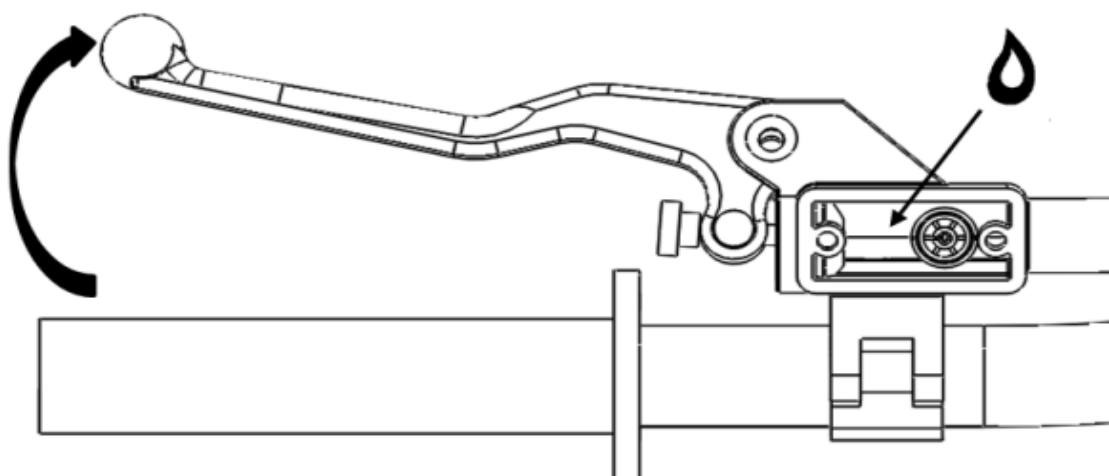
2. On the handlebar, adjust the clutch master cylinder reservoir so that it is somewhat level. Remove the cap and bladder from the clutch master cylinder.



3. Fill the master cylinder with **Dot 4** fluid until it is 75% full.
4. Pump the clutch lever 3 to 5 times, then hold it against the handlebar/grip.



5. While still holding the clutch lever against the handle bar, use a wrench to open the slave cylinder bleed port. Air and fluid should flow into the bleed tube.
6. Before releasing the clutch lever, tighten the bleed port.
7. Slowly release the clutch lever and check the fluid level in the clutch master cylinder. Fill if necessary.

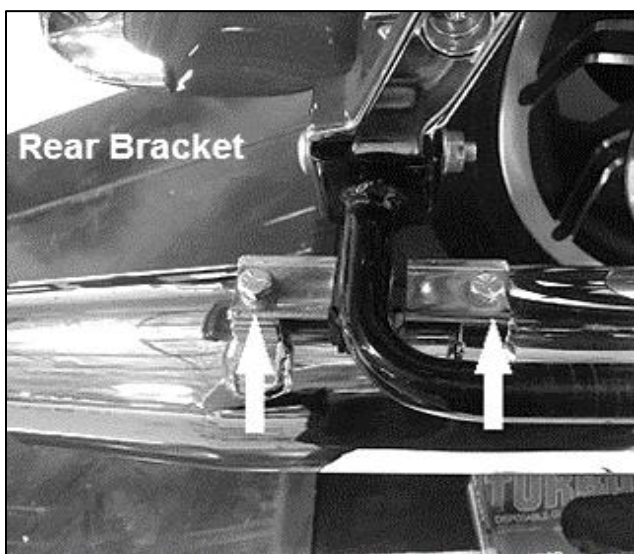


8. Repeat steps 4 - 7 until air no longer comes out of the bleed port and the clutch feels normal.
9. Check that the clutch master cylinder is 75% full, then secure the reservoir bladder and cap with the original screws.
10. Remove the bleed tube from the bleed bolt and remove the bottle.
11. Torque the bleed screw to **150 in-lb (17 N-m)** with a socket or the closed end of an 3/8 wrench.

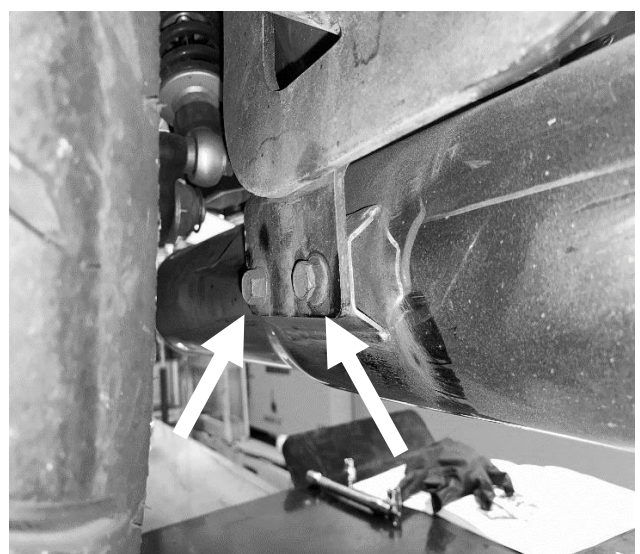
Note: *Be sure to use a socket or closed end wrench when torquing the bleed screw. Using an open-ended wrench can strip the hex screw.*

Transmission Cover and Exhaust

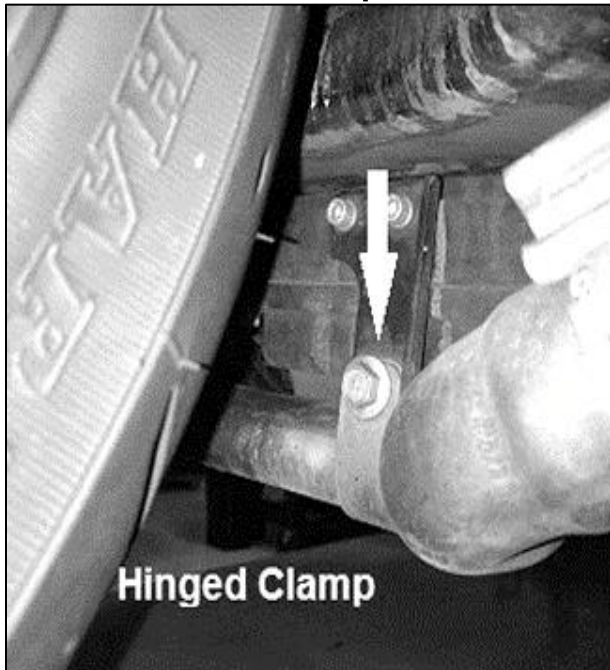
12. Check for leaks around the bleed port and hydraulic line.
13. Attach the transmission inner side cover. Torque bolts to **84-108 in-lbs (9.5-12.2 Nm)**.
14. Tighten the exhaust system using the method listed below.
 - a. Muffler
 - i. Tighten Rear mounting bracket and torque to **25 ft lbs**



OR



- ii. Apply Loctite to the hinged clamp bolt and torque to **25 ft lbs**



OR

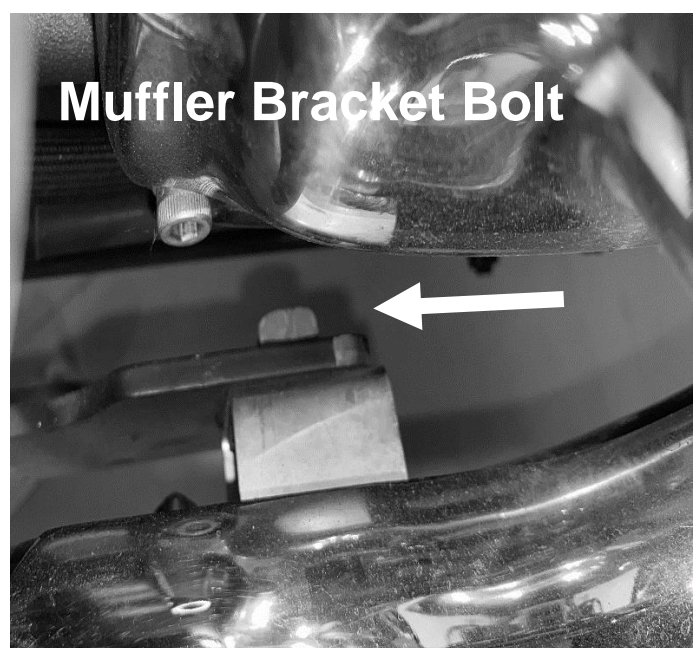


- iii. Torque to the specific value for the type of mount.

- Muffler bracket strap **18 ft lbs**
- Muffler bracket bolt **25 ft lbs**



OR



b. Header Assembly

- Starting with the front cylinder torque the top exhaust flange nut to **9-18 in-lbs (1.0-2.0 Nm)**
- Next torque the lower exhaust flange nut to **100-120 in-lbs (11.3-13.6 Nm)**
- Now torque the top exhaust flange nut to **100-120 in-lbs (11.3-13.6 Nm)**
- Repeat steps **i-iii** for the rear cylinder exhaust flange nuts

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

