



INSTALLATION GUIDE

TorqDrive for Cable Actuated
Harley-Davidson 500/750

Pre-installation note:

Be aware that installing the clutch requires the removal of the right foot control assembly and some of the exhaust system to access the clutch cover. Consult the OE service manual for these instructions.

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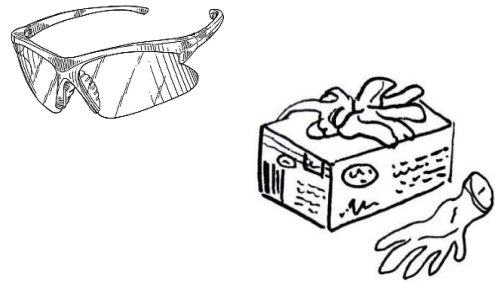
OVERVIEW

This kit replaces many of the OE (Original Equipment) or “stock” clutch parts. These parts are designed specifically for your motorcycle to ensure optimal performance. The following is a summary of what is replaced:












- OE friction disks
- OE drive plates
- OE pressure plate springs

INSTALLATION TIPS

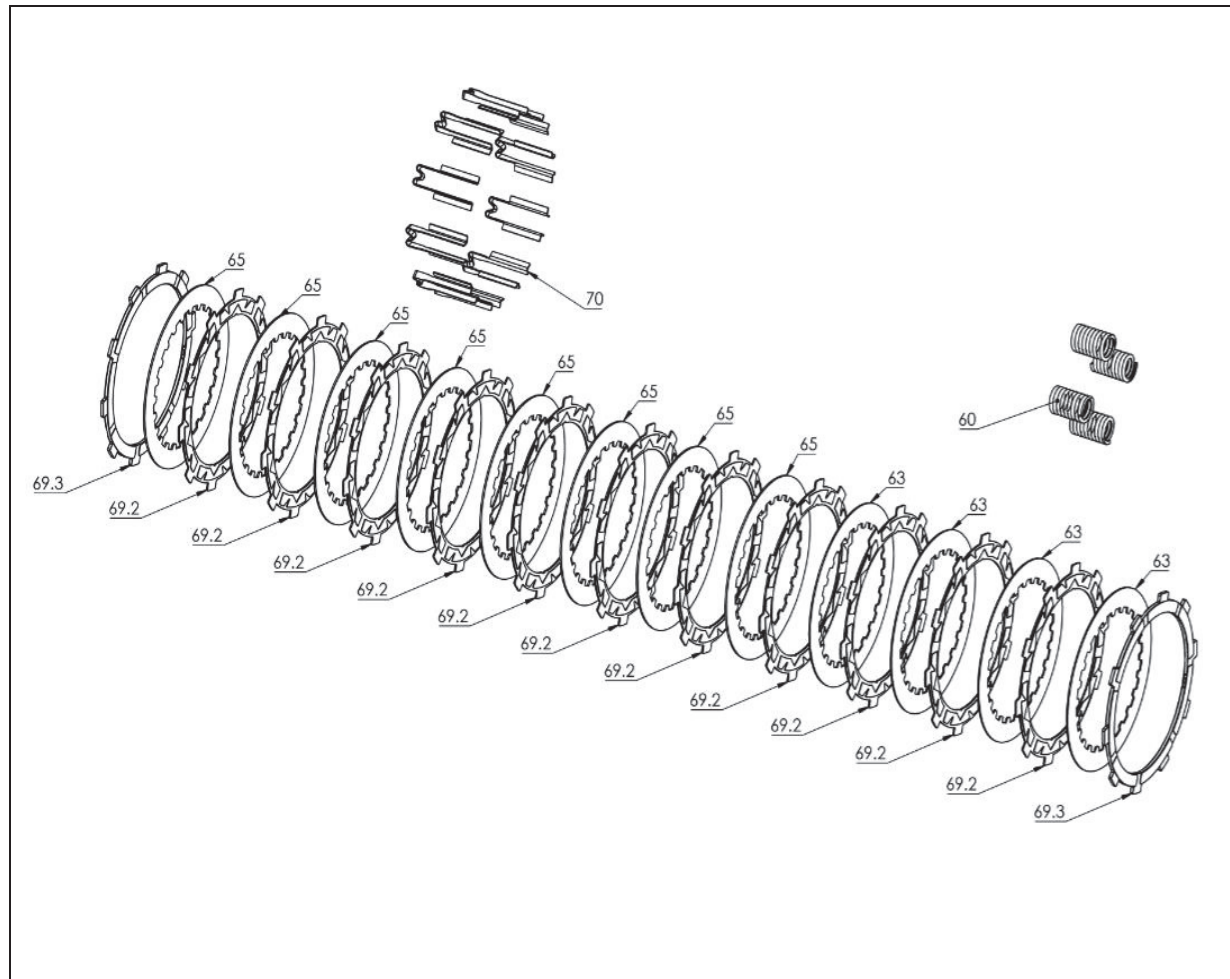
- Read the separate included Safety Information document before operating the vehicle with the product installed.
- Installation requires the removal of the right foot control assembly and some of the exhaust system to access the clutch cover. Consult the OE service manual for these instructions.
- Read 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.
- 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.
- Different spring options may be available purchased from Rekluse (depending on the bike model) for:
 - Motorcycles with taller gearing or modified engines with increased horsepower
 - Customers looking for a lighter lever pull
- Inspect your OE cable for fraying and replace if needed.
- 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

| | | | | |
|---|---|---|--|---|
|  |  |  |  |  |
| 1 3/16 in Socket | 9/16 in Socket | 1/2 in Socket | 10 mm Socket | 5/16 in Socket |
|  |  |  |  |  |
| 3/16 in Socket | Torque Wrench | Pick | 9/16 Wrench | Channel- lock Pliers |
|  | | | | |
| Socket Wrench | | | | |

INCLUDED PARTS



| Item | Description | Qty. |
|------|--|------|
| 65 | Steel drive plate - .048" (1.2 mm) | 8 |
| 4 | Steel drive plate - .040" (1 mm) | 4 |
| 69.3 | TorqDrive® friction with a wider internal diameter | 2 |
| 69.2 | TorqDrive® friction disks | 11 |
| 60 | Pressure plate springs | 4 |
| 70 | Basket sleeves | 10 |

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

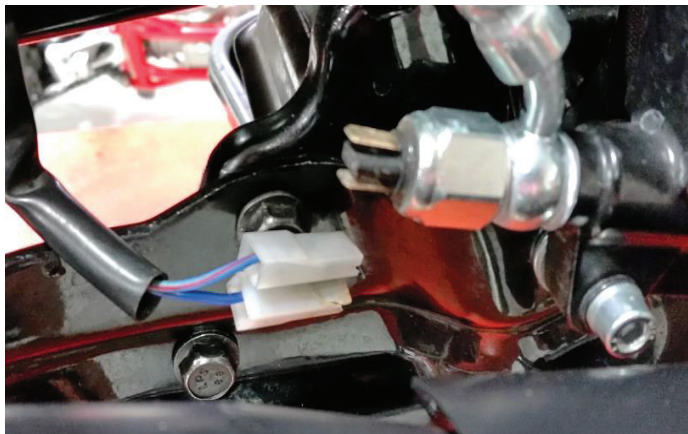
PREPARE BIKE FOR INSTALLATION

1. Stand the bike up on a suitable bike stand.
2. On the underside of the bike, use a ½" socket to remove the engine oil drain plug, then drain the oil into a suitable container.



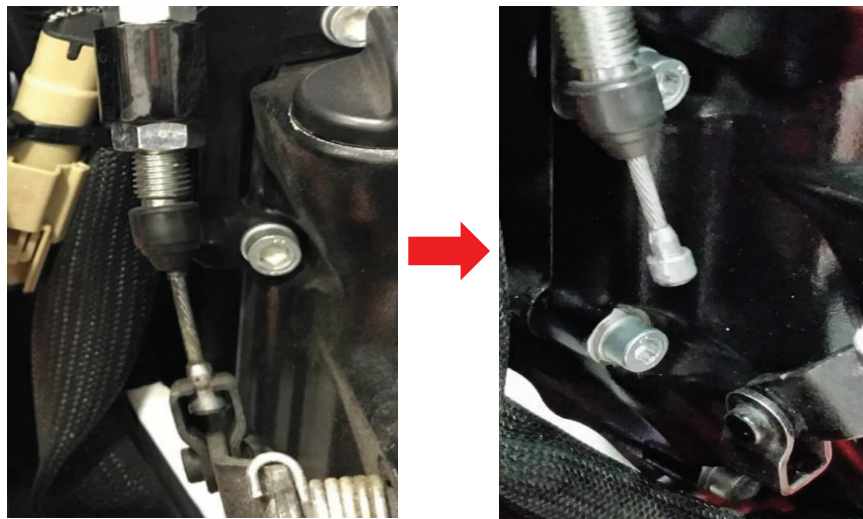
DISASSEMBLE CLUTCH

1. Unhook the break lamp switch connector wires by gently pulling the connectors to release them, then move them out of the way of the exhaust system.



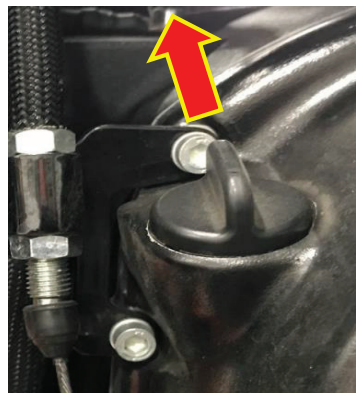
2. Remove the right foot control assembly according to the OE service manual.
3. Remove the exhaust assembly according to OE service manual.

4. Using channel-lock pliers, unhook the clutch cable from the actuator arm.



5. Move the wire harness aside to access the clutch cover bolts.

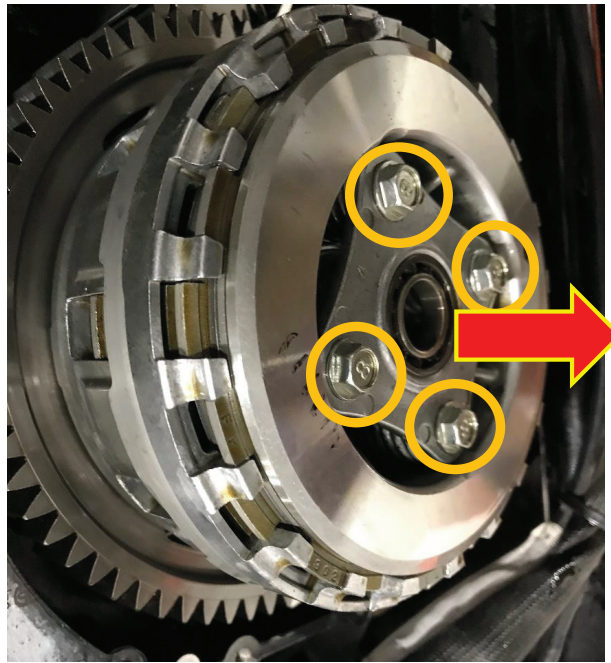
6. Loosen or remove the oil cap from the clutch cover.



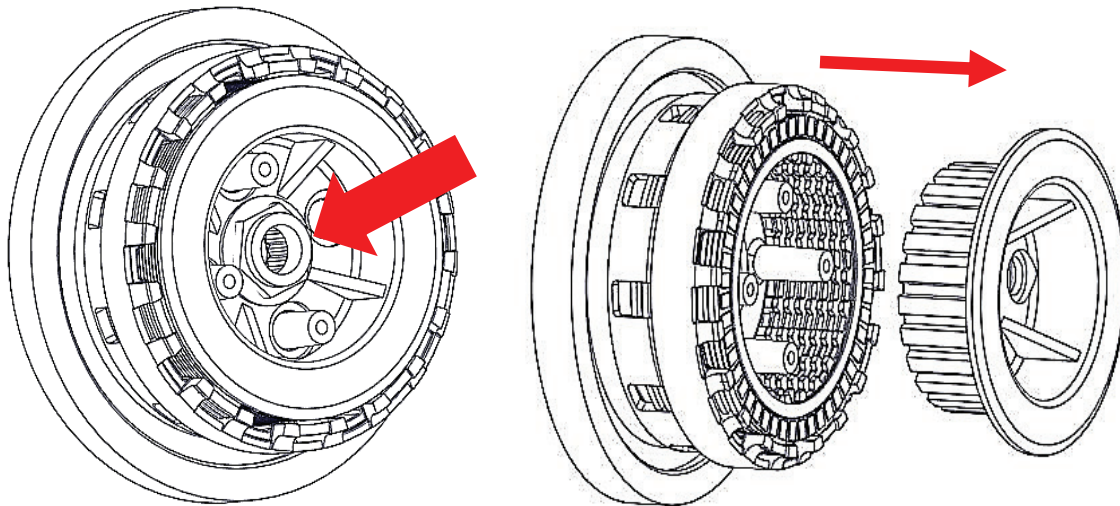
7. Use a 3/16" Hex head socket to remove the clutch cover bolts.



8. Remove the pressure plate bolts and lifter plate, then remove the springs.

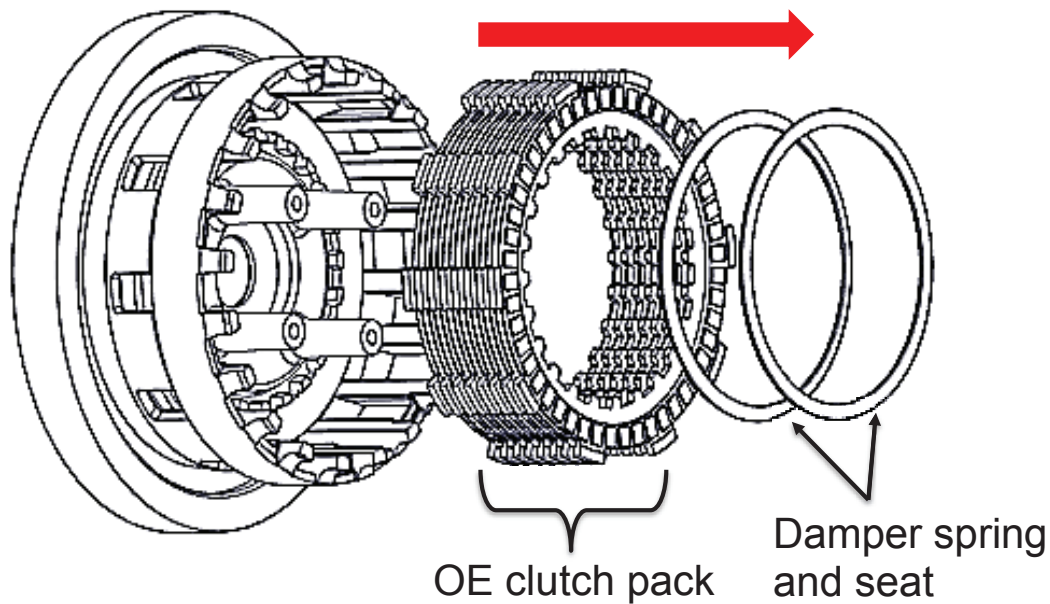


9. Use 1 3/16" socket to remove the clutch assembly nut, remove the cupped washer, then remove the inner hub.



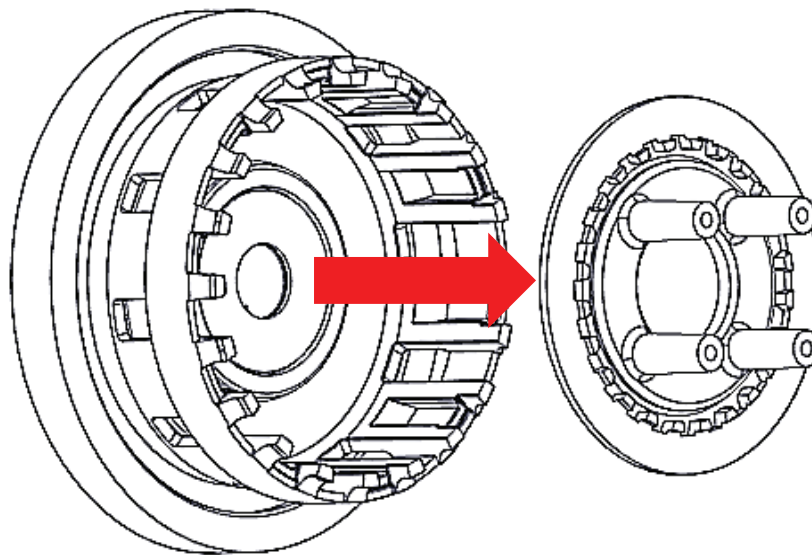
Note: Set the cupped washer and nut aside. It will be reused.

10. Remove the damper spring seat and the damper spring, then remove the OE clutch pack. *Set the damper spring seat and damper spring aside. They will be reused.*

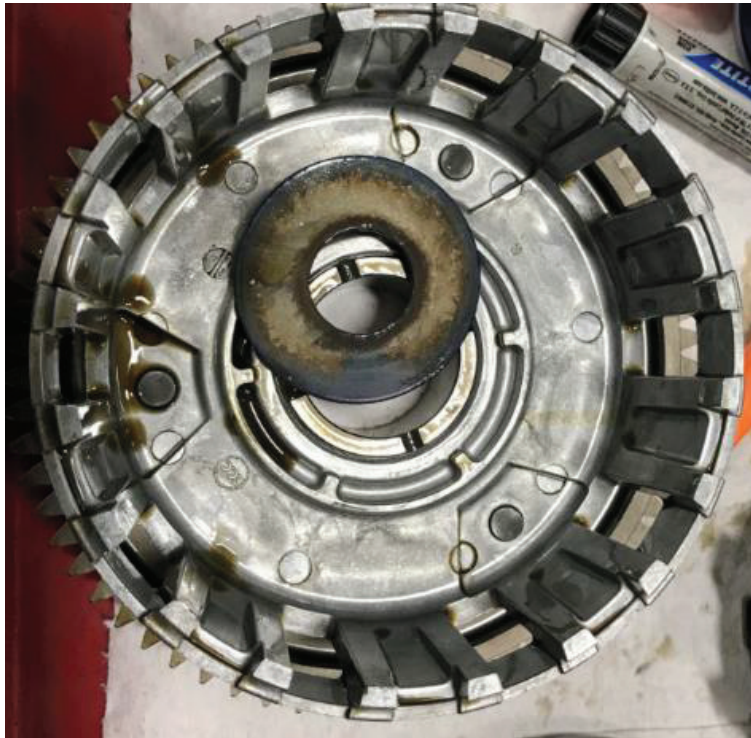


Note: *It may be necessary to use picks to reach and remove the bottom of the clutch pack.*

11. Remove the pressure plate.



12. Remove the flat washer and the clutch basket from the main shaft.

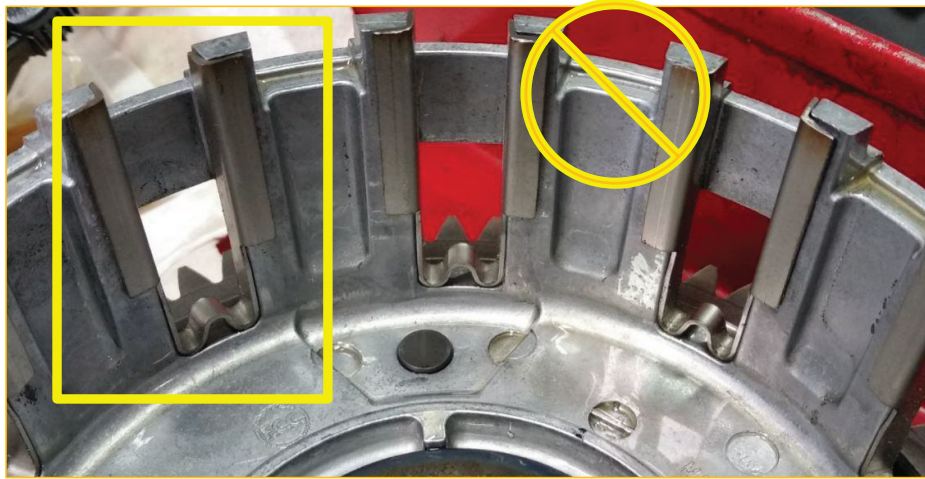


INSTALL THE CLUTCH PACK

Notes for Clutch Pack Installation:

- *The clutch pack is assembled outside the bike onto the inner hub and then installed into clutch basket.*
- *Some friction disks are marked with a small colored dot. This mark is used for processing and can be ignored.*

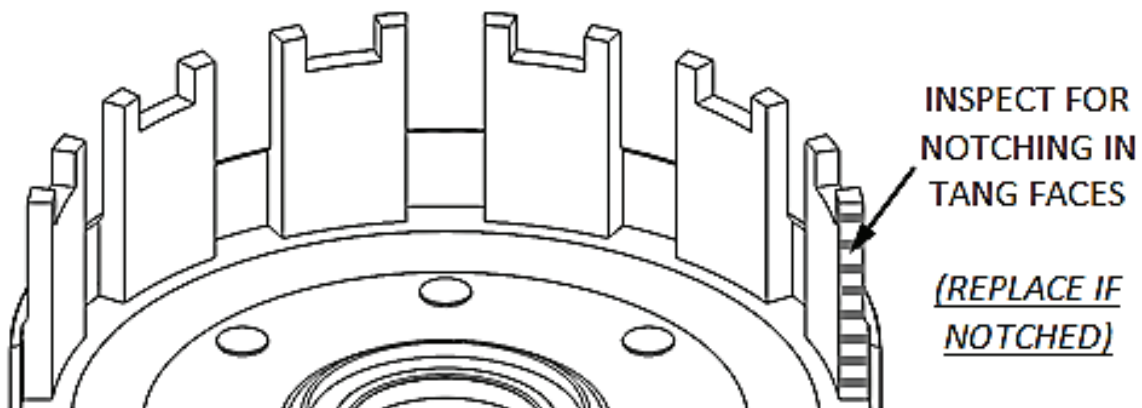
- Some OE basket have “half slots” at the top of the basket tangs. Rekluse products require the entire clutch pack be installed into the MAIN (deeper) basket slots. Do not use the “half slots.” Installing the pack in the “half slots” will cause performance issues.



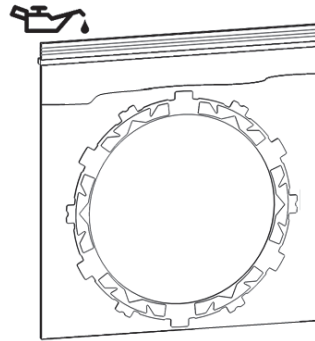
1. Inspect the clutch basket for notching. Do not install sleeves or use product with a notched basket. Notched basket tang faces can cause the sleeves to break. Do not use baskets that have been filed, machined, or modified on the tangs. Replace basket if necessary.

⚠ WARNING

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



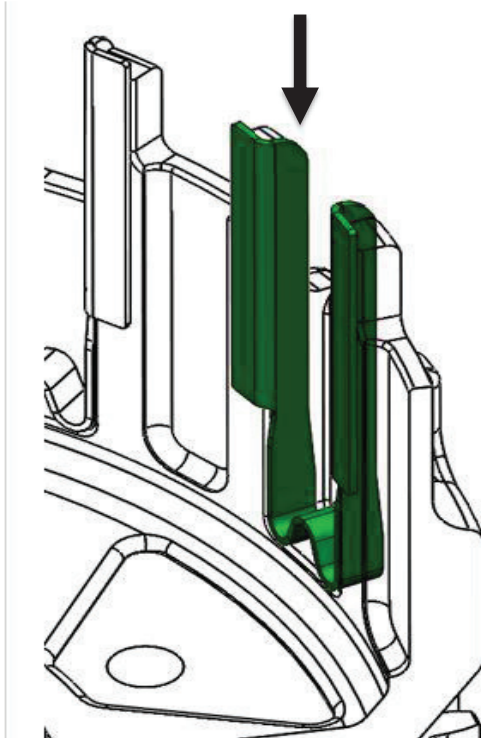
2. Soak the friction disks in new engine oil for 5 minutes. Make sure the disks are coated in oil on both sides.



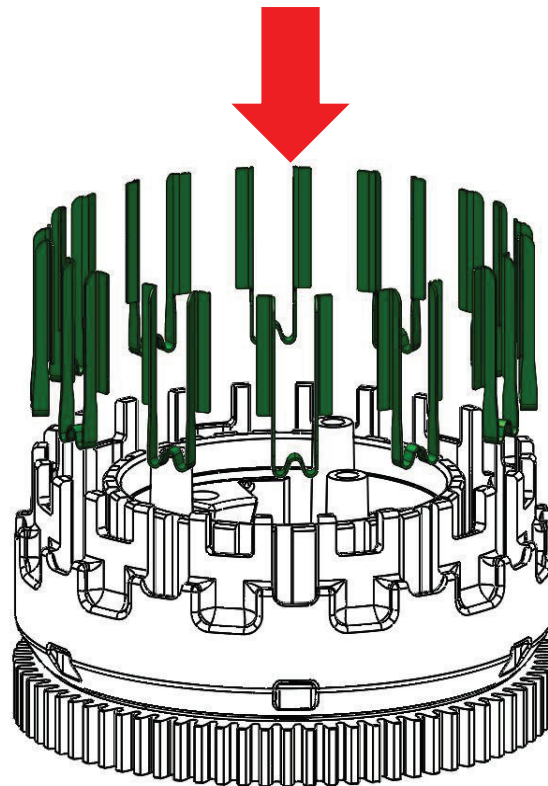
3. Install **ALL** the Rekluse basket sleeves into the basket slots. Make sure the sleeve tabs sit against the inside of the basket, then push the sleeves down until they contact the bottom of the tang slot. See pictures for reference.

Note: When seated in the basket, the sleeves will stick slightly above or below flush with the top of the basket. This is normal.

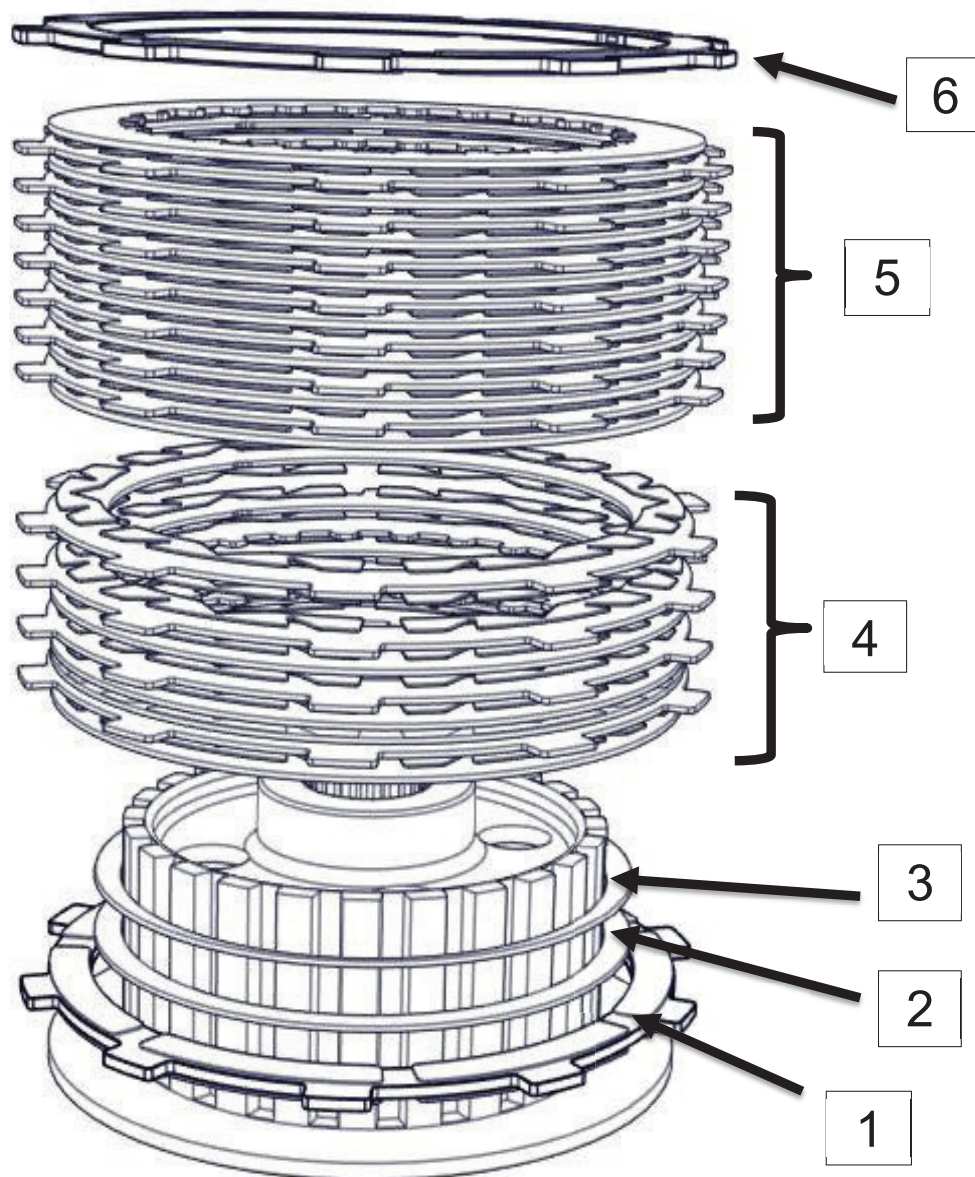
Sleeve tabs sit
inside the basket



Insert all the
basket sleeves

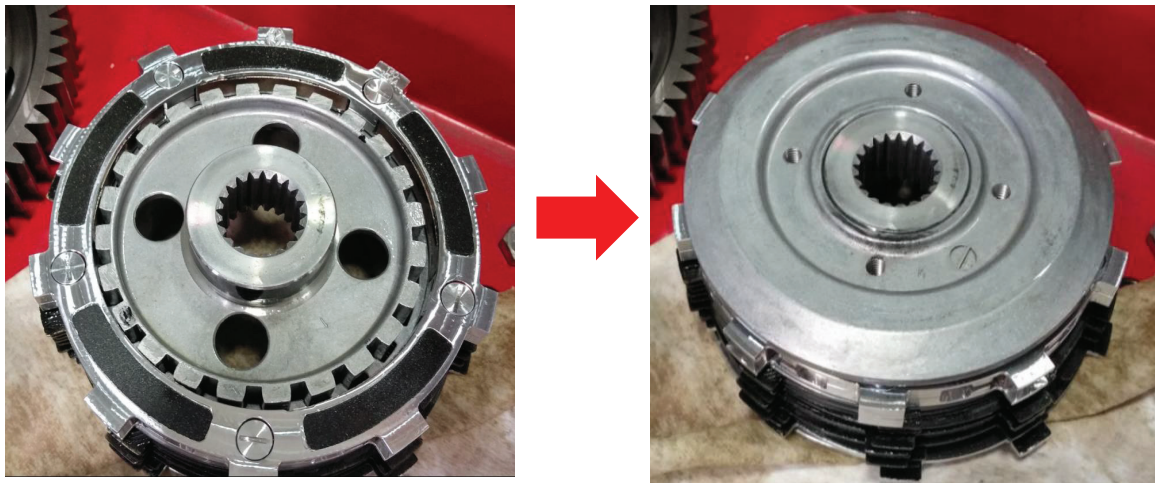


4. Turn the inner hub upside down on a workbench.
5. Begin by installing the wider internal diameter friction disk onto the hub.
6. Install the damper spring seat, then add the damper spring, cupped side down.
7. On top of the damper spring, alternate 4 - .040" (1 mm) steel drive plates with 4 friction disks.
8. On top of the last friction disk, alternate 8 - .048" (1.2 mm) steel drive plates with 7 friction disks. *The assembled clutch pack will end with a steel drive plate.*
9. Install the second wider diameter friction on top of the last steel drive plate.



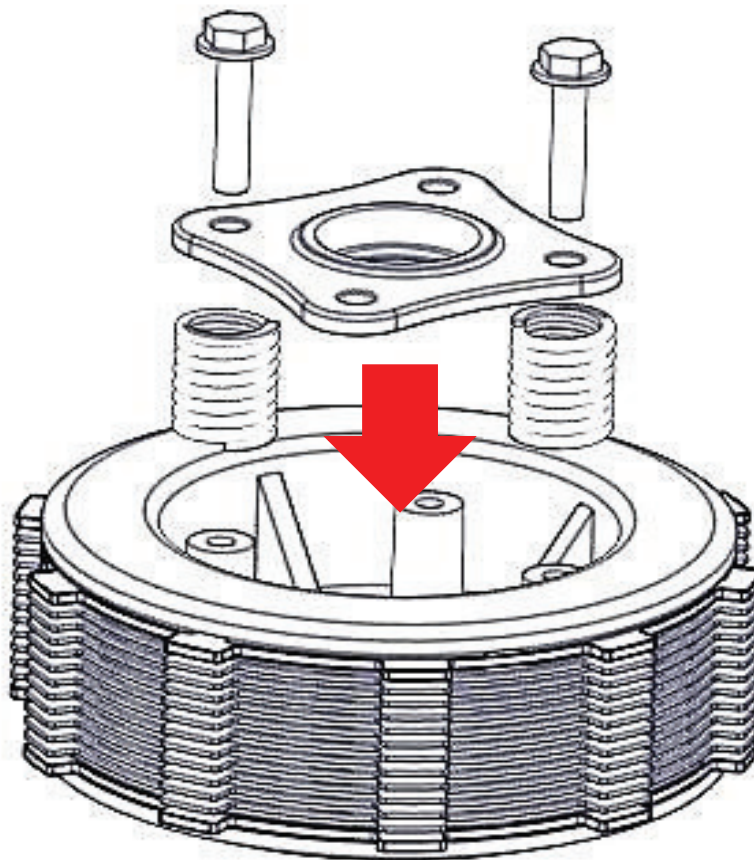
| | |
|---|---|
| 1 | Wider internal diameter friction |
| 2 | Damper spring seat |
| 3 | Damper spring- cupped side down |
| 4 | Alternate 4 - .040" (1 mm) steel drive plates with 4 friction disks |
| 5 | Alternate 8 - .048" (1.2 mm) steel drive plates with 7 friction disks |
| 6 | Wider internal diameter friction |

10. Install the pressure plate onto the inner hub.

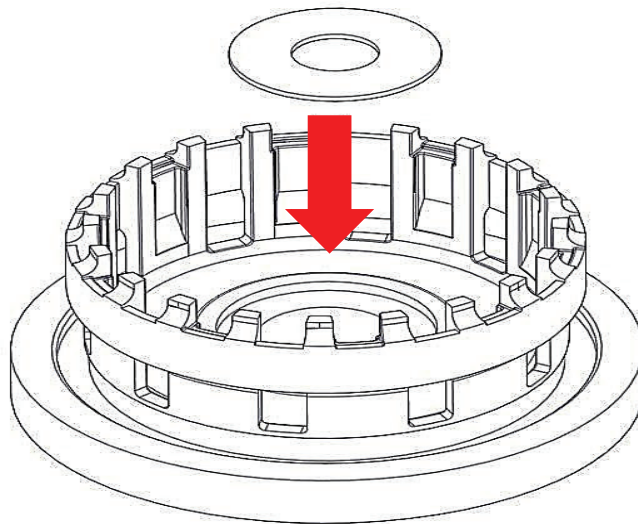


11. Flip the assembled inner hub over on the workbench.

12. Install 2 new Rekluse pressure plate springs, then install the lifter plate with 2 OE pressure plate bolts. *All 4 bolts are installed in Step 20.*

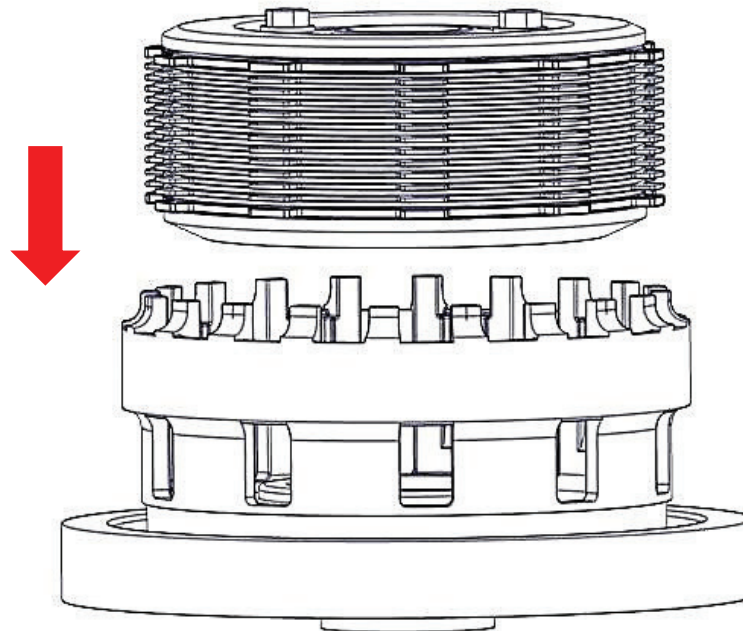


13. Reinstall the flat thrust washer into the clutch basket.



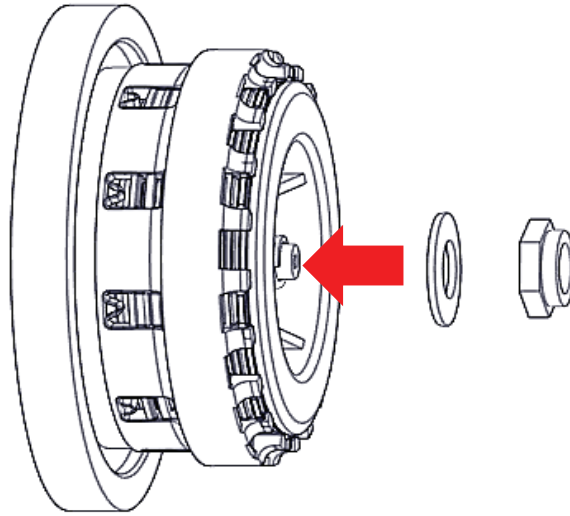
14. Insert the inner hub assembly into the clutch basket with the pressure plate toward the bottom of the basket.

Note: Make sure the alignment notches on all the friction disks are lined up and installed into the slots with the basket sleeves.

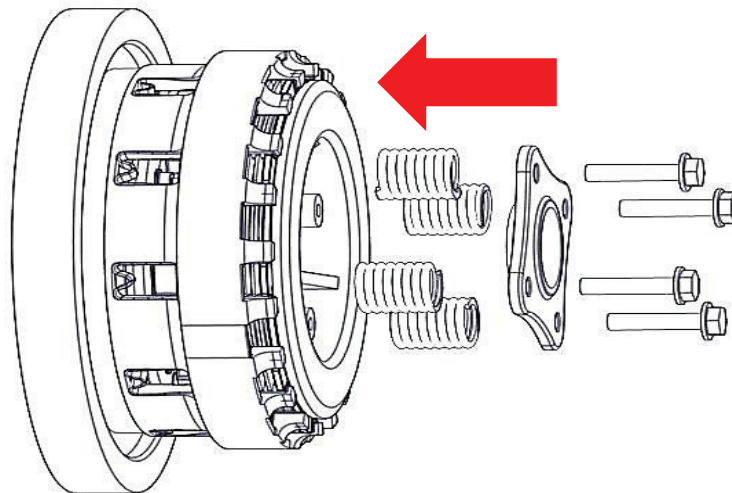


15. Install the assembled clutch basket onto the main shaft in the bike, being sure to line up the ring gear with the crankshaft gear before seating the basket.

16. Once installed on the bike, remove the 2 pressure plate bolts, the lifter plate, and the 2 springs.
17. Reinstall the cupped washer (cupped side toward the bike) on the main shaft, then reinstall the clutch assembly nut.



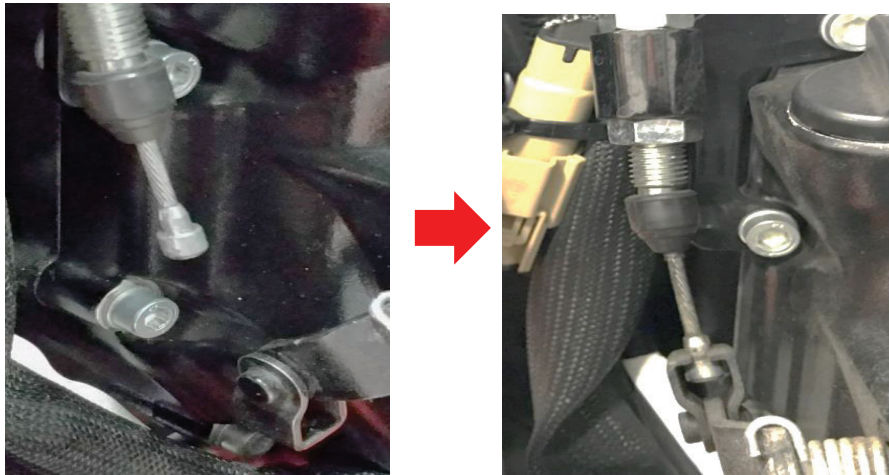
18. Torque the clutch assembly nut to 130-136 ft-lbs (175-185 N-m) per OE specifications.
19. Install the 4 Rekluse pressure plate springs, the lifter plate, and the 4 OE pressure plate bolts.



20. Torque the pressure plate bolts to 71-106 in-lbs (8-12 N-m) per OE specifications.

CLUTCH COVER INSTALLATION

1. Reinstall the OE clutch cover gasket, then reinstall the clutch cover.
2. Reinstall the clutch cover bolts and torque to 89-106 in-lbs (10-12 N-m) per OE specifications.
3. Tighten or reinstall the clutch cover oil plug.
4. Reinstall the clutch cable to the actuator arm.



5. Reinstall the exhaust assembly according to OE service manual.
6. Reinstall the break pedal assembly according to the OE service manual.
7. Reattach the break lamp switch connector wires.
8. Replace the oil plug, then fill with oil according to OE service manual.



9. Torque the engine oil drain plug to 15-18 ft lb (20-25 N-m) per OE specifications.

SET CLUTCH LEVER FREE PLAY

“Lever Free Play” is essentially the “slack” in the clutch cable before it starts actuating the clutch. Applying a light finger pressure will take up this slack.

- Adjust the lever free play using the threaded cable tension adjuster or with the perch adjuster.
- Adjust the free play until the cable slack is between 1/16” and 1/8” at the lever perch.

BREAK IN THE NEW CLUTCH

The clutch will break in within 100-200 miles of normal riding. Until break-in is complete, you may experience more clutch drag than normal.

- It is recommended to do an oil change after the first 1,000 miles to drain any excess clutch debris that occurred from break-in.

MAINTENANCE

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

- Keep up with regular oil changes according to the bike manufacturer’s recommendations. Clutch performance and longevity depend on oil quality.
- Use oil recommended by the manufacture of your bike.
- 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. This includes your basket sleeves. Clutch wear is dependent on the riders use.

- Measuring the friction disks for wear. This can help determine if the components need replacing.
 - Rekluse thin friction disk minimum allowable thickness = **0.068" (1.7 mm)**
 - Wider internal diameter friction disk = **0.116" (2.9 mm)**
- Repeat the break-in procedure anytime you replace the frictions disks. Always soak 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.

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 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

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 riders use.
- Measuring the clutch pack can help determine if the components need replacing.

Clutch Drag:

If drag occurs only while the bike is cold, oil is the most likely cause. Be sure to warm up the bike before riding and/or racing. Use of lighter weight oil can help to minimize cold drag.

Clutch Slip:

If clutch slip occurs, inspect the clutch for signs of wear or heat.

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.

Technical Support 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.

Customer Service hours:

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

Mountain Time zone

Email: customerservice@rekluse.com

