



# **INSTALLATION GUIDE**

## **Clutch Basket Kit**

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Doc Rev: 121322

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## INSTALLATION NOTES

- The machined teeth in the center of your Rekluse billet clutch basket accepts the OEM starter gear.

Your Rekluse basket may have a different tooth profile than your OEM basket, which is part of the intended design for function and manufacturability. They may look different, but your starter gear will fit into the new basket in the same manner that it fit in the OEM basket.

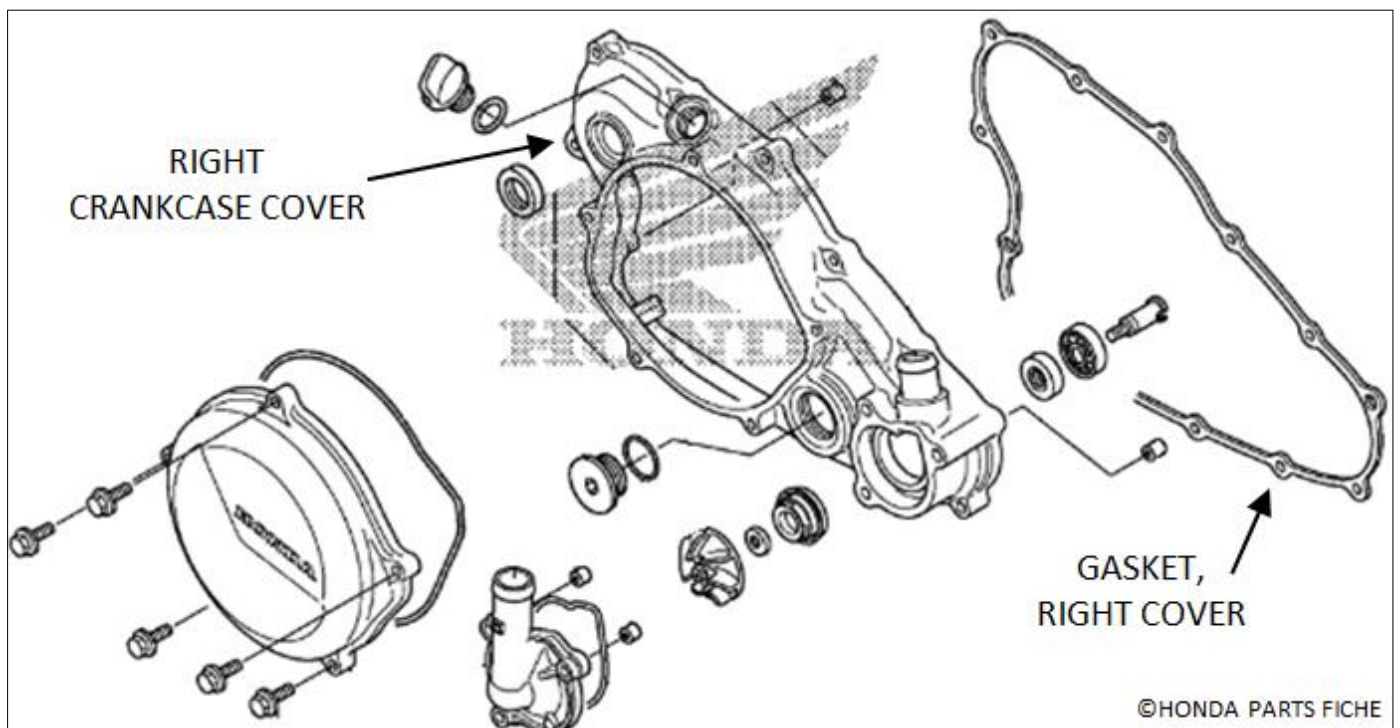
- It is imperative to follow the heating and cooling methods described in the “Starter Gear Installation” section of this document. This ensures a secure press-fit that will prevent the starter gear from backing out of the basket during use.

**Before attempting to install the starter gear**, read through the entire process and be prepared to perform the procedure as quickly as possible at favorable temperatures.

- Always wear gloves and proper eye protection when working on your bike.

- **Honda Owners:** Removing the OE basket may require draining the engine coolant and removing the right crankcase cover (refer to your OE service manual).

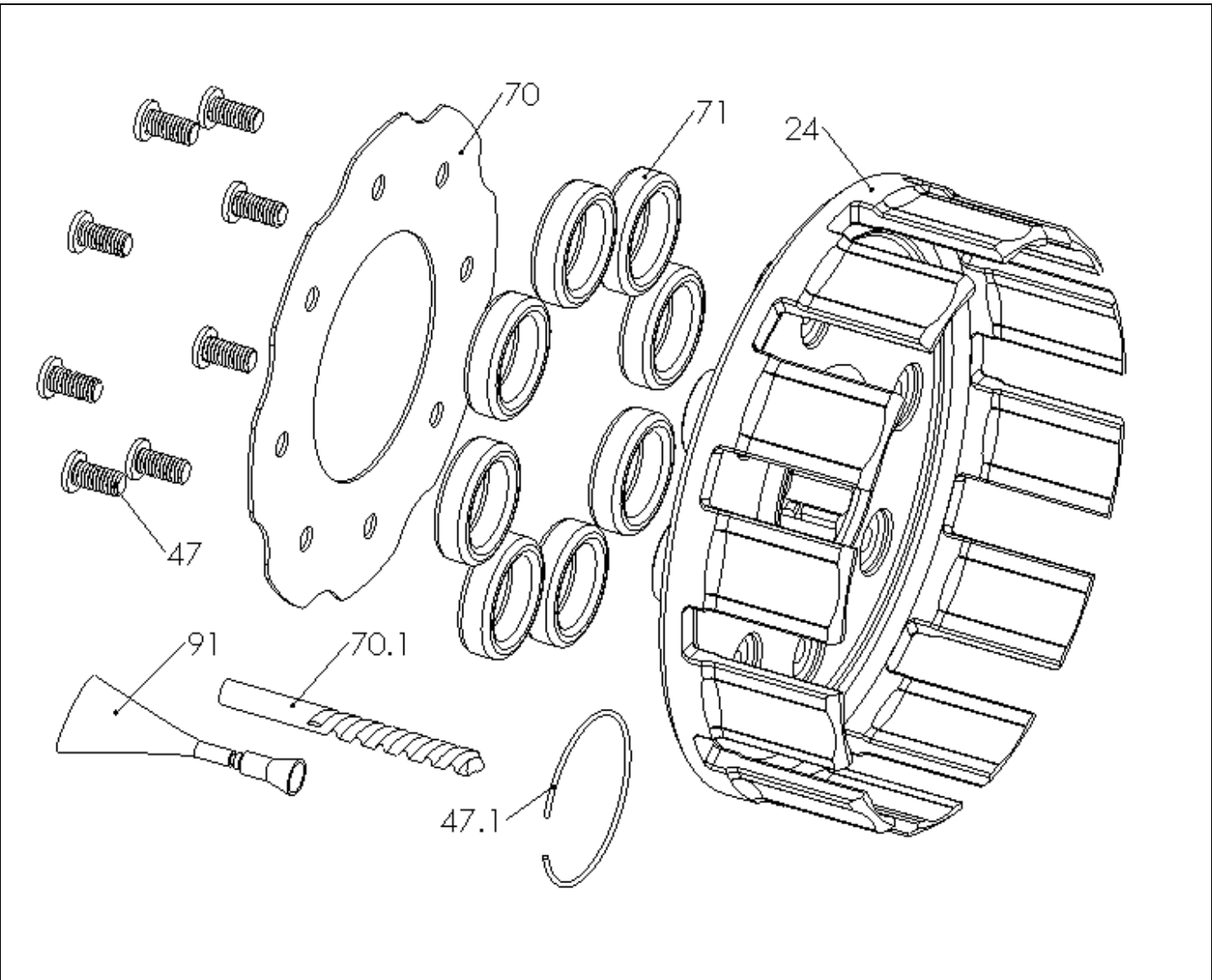
It is recommended that you replace the right cover gasket upon reinstallation. Your new *Rekluse basket* has been designed to fit through the clutch access hole in the right crankcase cover, so any future basket removal or clutch work can be performed without removing it again.



## **TOOLS NEEDED**

- Kitchen oven (or toaster oven) & freezer
- Center punch
- Hammer
- Soft mallet or dead blow
- Drill press or power drill
- Shop press or vice
- 1/4" bit driver
- Torque wrench (in-lb or N-m)

# INCLUDED PARTS



| Item #    | Item Type   | Qty    |
|-----------|---|--------|
| 24        | Clutch Basket   | 1      |
| 47        | M6 Flat-head screws                                   | 8      |
| 47.1      | Snap ring   | 1      |
| 70        | Backing plate   | 1      |
| 70.1      | ¼” drill bit  | 1      |
| 71        | Basket dampers  | 2 sets |
| 91        | Loctite 262 (Red)                                     | 1      |
| Not shown | Spacing washer for starter gear<br>(Some models only) | 1      |

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

## **BEFORE YOU BEGIN**

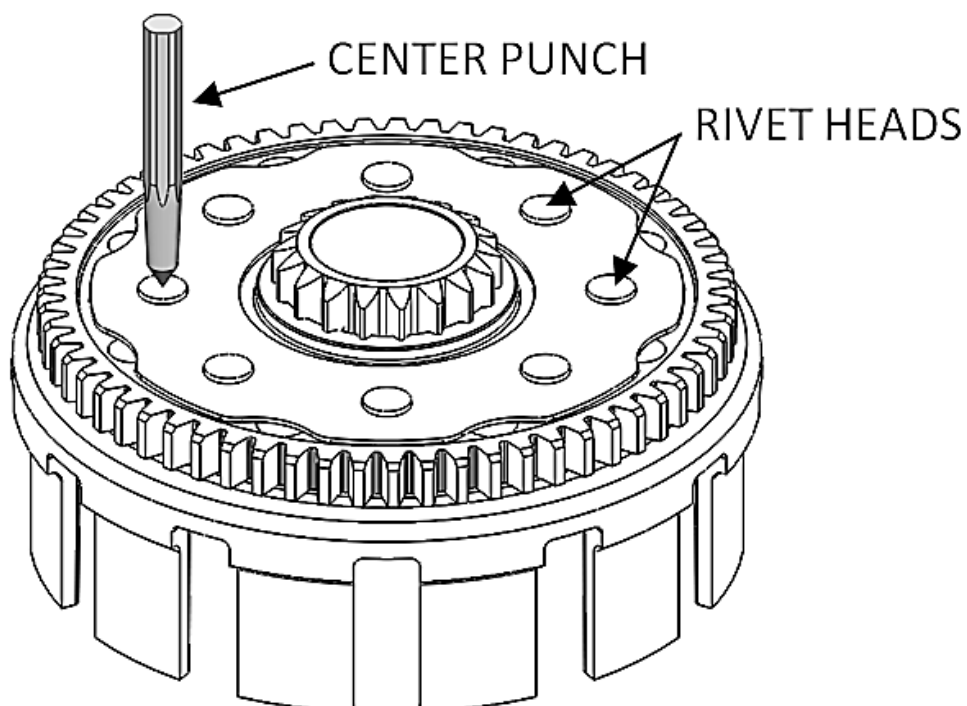
Rekluse highly recommends using a hydraulic press to install the OE starter gear into the Rekluse basket. The gear assembly is a tight fit is by design to prevent the starter gear from backing out of the basket during use.

## **DISASSEMBLY**

1. Lay the bike on its left side. Catch any fuel that might drain with a suitable container. Remove the clutch cover.



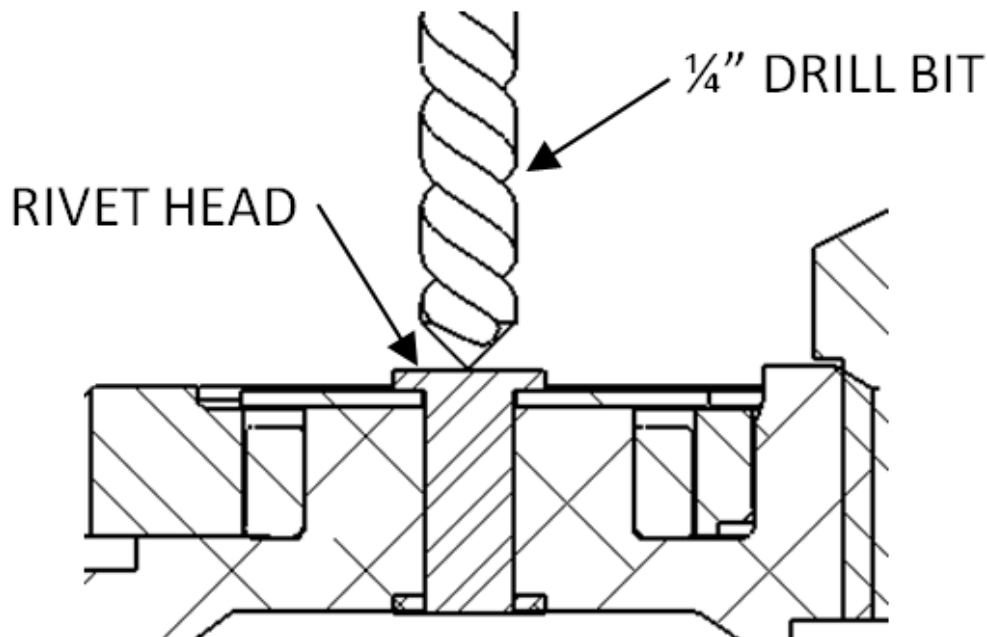
2. Remove the existing clutch basket from the engine according to your OE service manual.
3. Set the OE basket on a hard surface with the ring gear facing up. Using a center punch and hammer, punch a divot into the center of each top rivet head.



4. Using the supplied drill bit, drill out the heads of all the rivets. Set your drill to 300-400 RPM and use proper cutting fluid or oil for best results.

**⚠ CAUTION**

**Drill only deep enough to pop the rivet head off. Do not damage the steel ring gear; it will be reused.**



5. Carefully pry the OE steel backing plate from the basket and remove the ring gear. *A hammer and chisel may be used to carefully remove the rivet head if there is some remaining.*
6. Press the starter gear out of the OE basket without damaging it.

**Honda CRF450R Owners:**

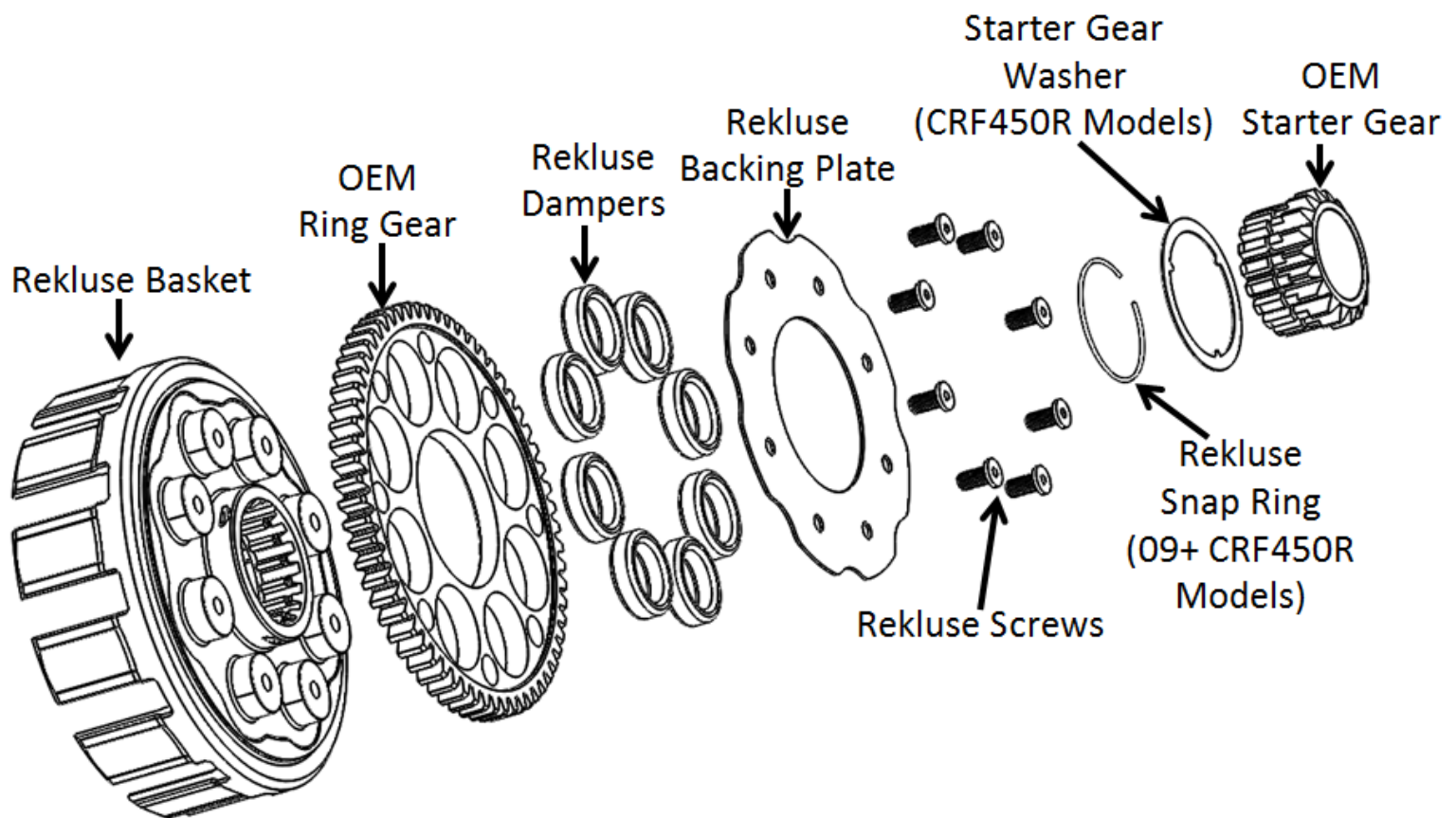
Your starter gear has a spacing washer behind it. This washer **WILL** be reused with the Rekluse basket.

**2009+ Honda CRF450R Owners:**

The OE starter gear has a blind retaining ring holding it in place. It will take extra force to press the gear out of the OE basket and the basket may break during removal. This retaining ring **will not** be reused with the Rekluse basket.



# **ASSEMBLY OVERVIEW**



## **ASSEMBLE THE BASKET**

1. Some directions are model specific. Follow the directions for your specific bike.

- **CRF450X models:**

Skip to step 2.

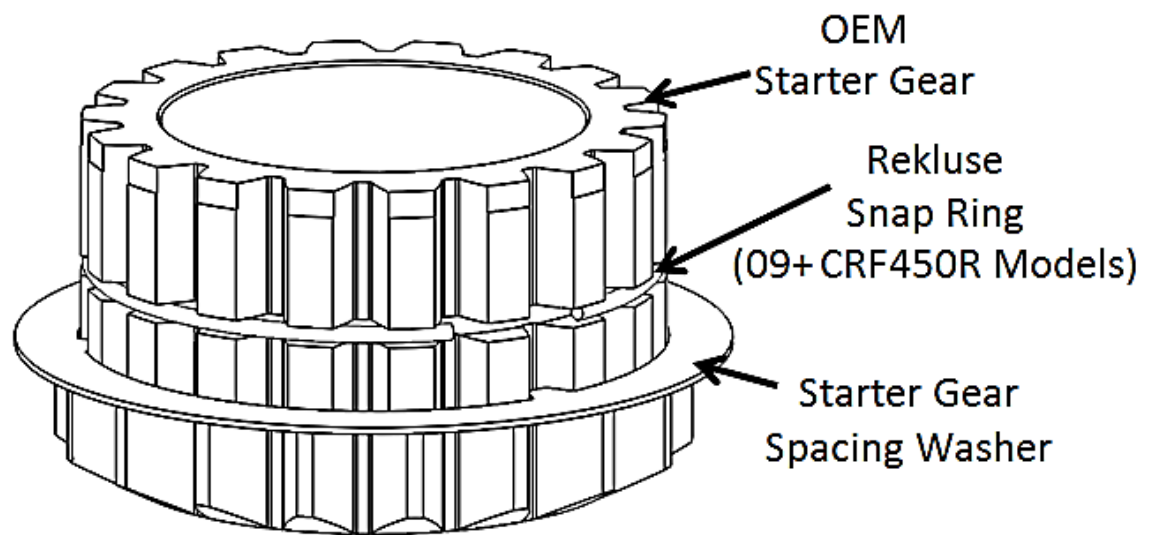
- **All CRF450R & CRF450RX models:**

Install the Rekluse supplied starter gear spacing washer onto the OE starter gear.

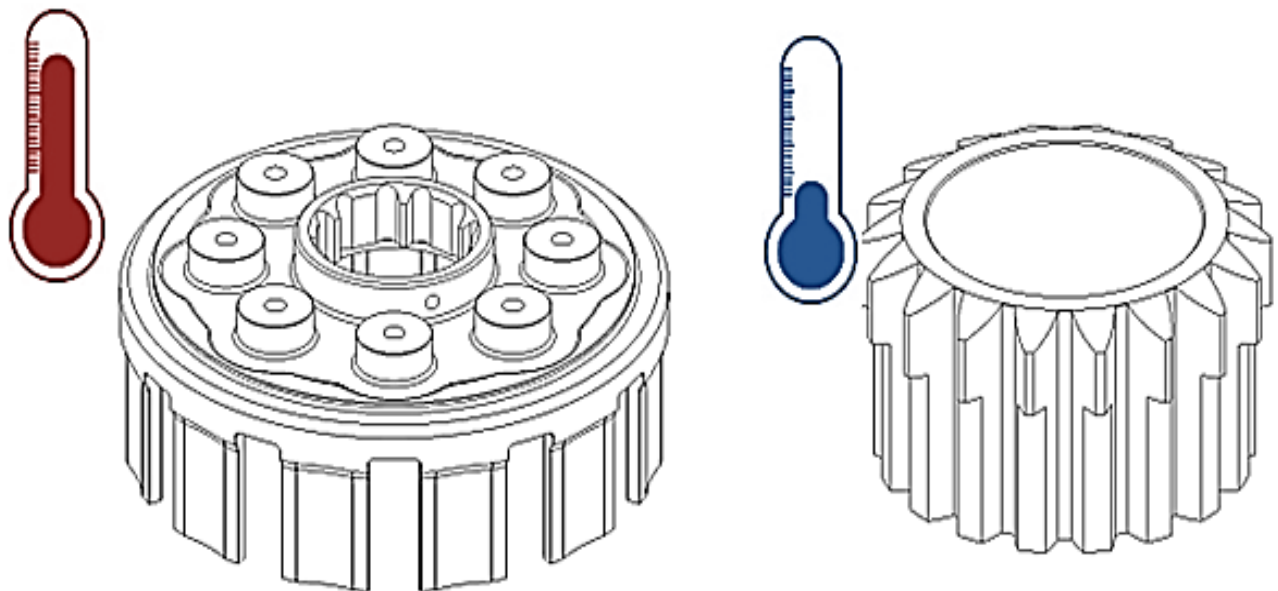
**NOTE:** *If your kit comes with a starter gear spacing washer, use the Rekluse washer. If your kit does not include a spacing washer, reuse the OE “stock” washer. Do not use both washers*

- **2009+ and newer CRF450R and CRF450RX models:**

In addition to the spacing washer, install the supplied Rekluse snap ring onto the OE starter gear. Take care not to bend the snap ring.



2. Place the Rekluse basket in a preheated oven at 400°F (200°C) for 15 minutes, making sure there is no oil on the basket. Place the starter gear, **with the Rekluse supplied snap ring installed (09+ models only)**, in the freezer for the same duration.



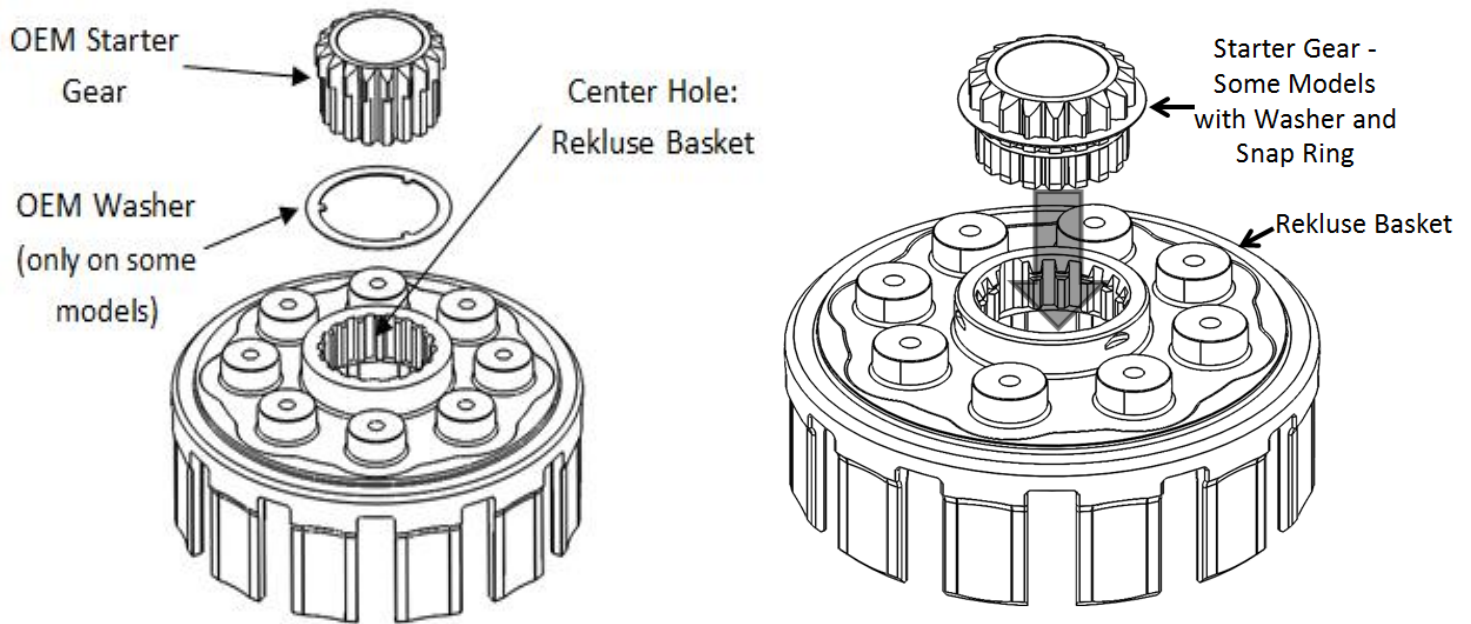
3. After 15 minutes, use oven mitts to remove the basket from the oven, then remove the starter gear from the freezer.

### **⚠ CAUTION**

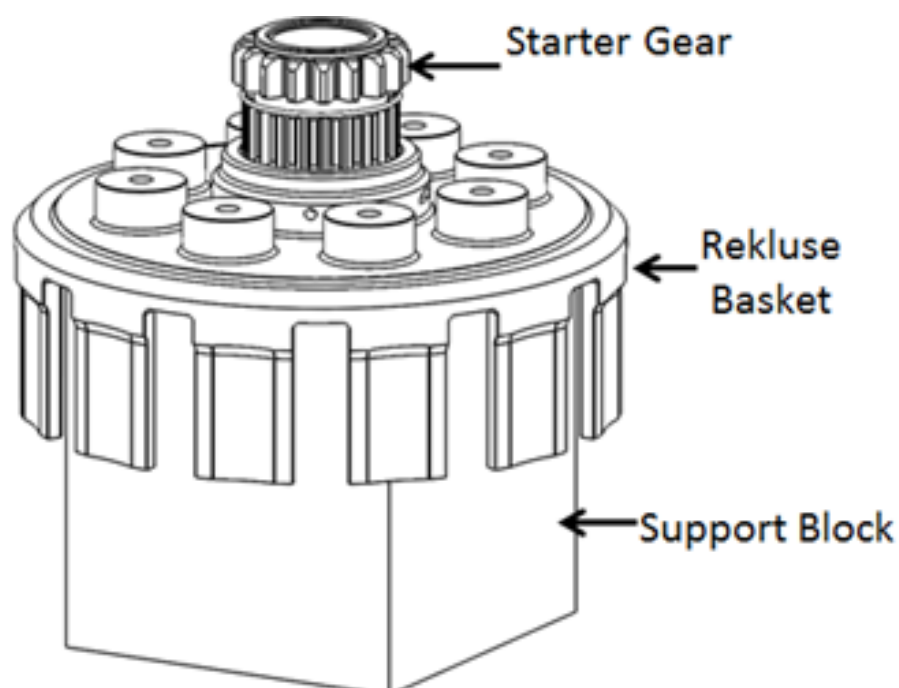
**The basket will be HOT! Be sure to wear protective covering on your hands when removing the basket from the oven.**



4. Set the basket on a flat surface. Quickly align and press the frozen starter gear by hand into the center hole in the basket being careful not to touch the hot basket.

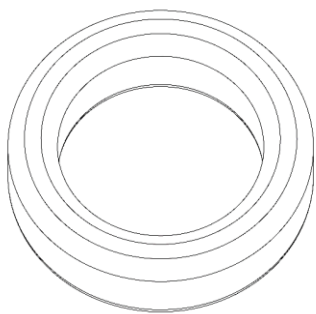


5. If the fit seems too tight due to the constraints of the snap ring, a shop press or vice may be needed to fully press in the gear. Support the basket (such as using a block of wood) when pressing in the starter gear. **Pressing the gear in while the tangs are resting on a hard surface may damage the basket.**



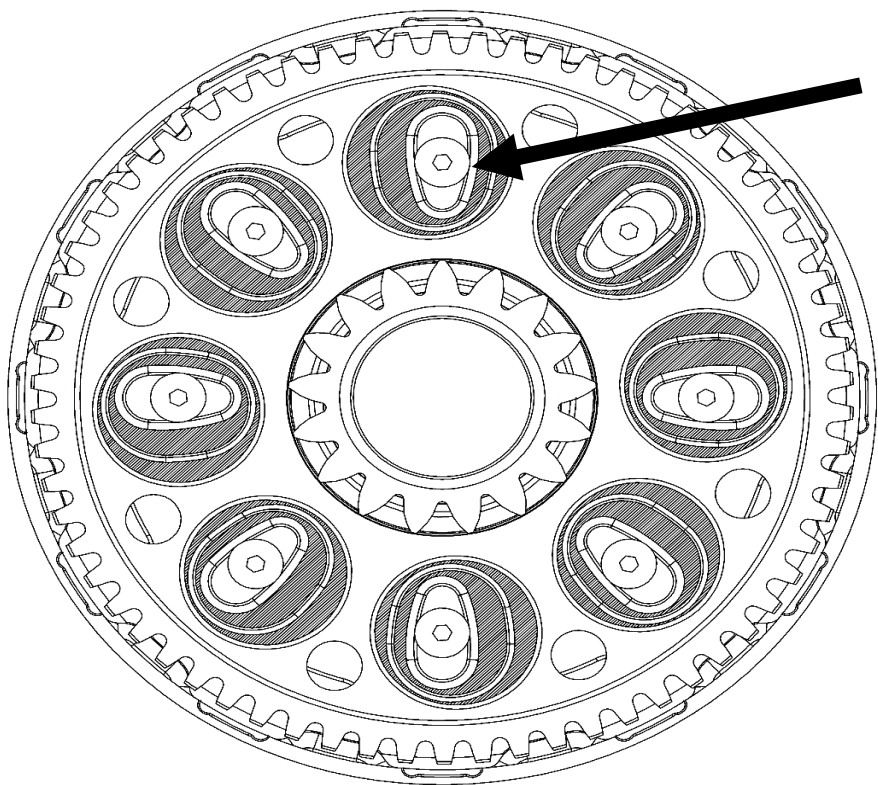
6. Once the basket has cooled, add some engine oil to the damper cushions and install one per standoff post.

7. **NOTE:** If the included basket dampers are circular on the inside such as the image below, orientation does not matter, install and proceed.



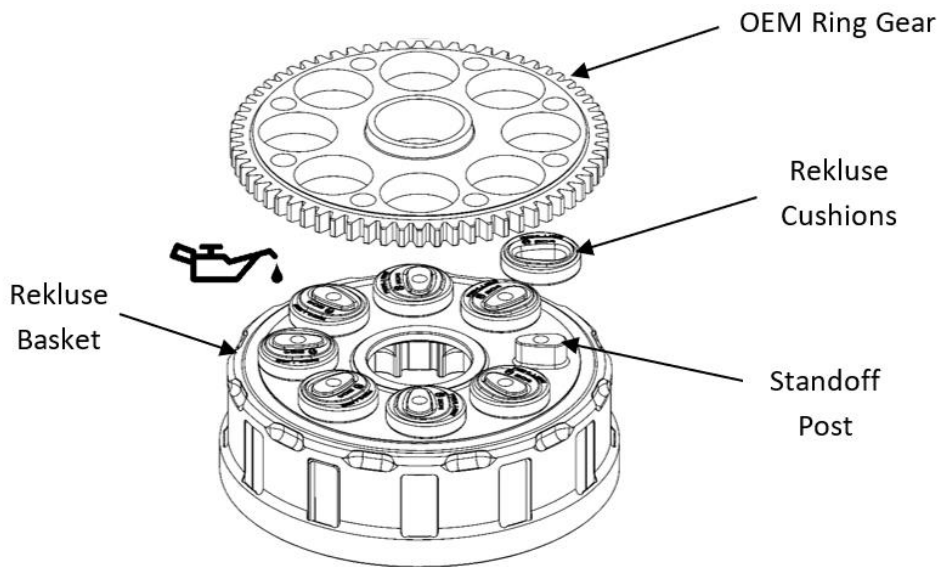
**⚠ CAUTION**

Failure to install dampers in the correct orientation can result in excessive clutch and transmission wear. Dampers should be oriented as shown in the image below.



Starting from the top install dampers with the thick side of the damper to left of the standoff

8. Reinstall the OE ring gear (recessed side out). The ring gear may fit snugly and will likely require using a soft mallet to tap it on until it seats down against the basket.

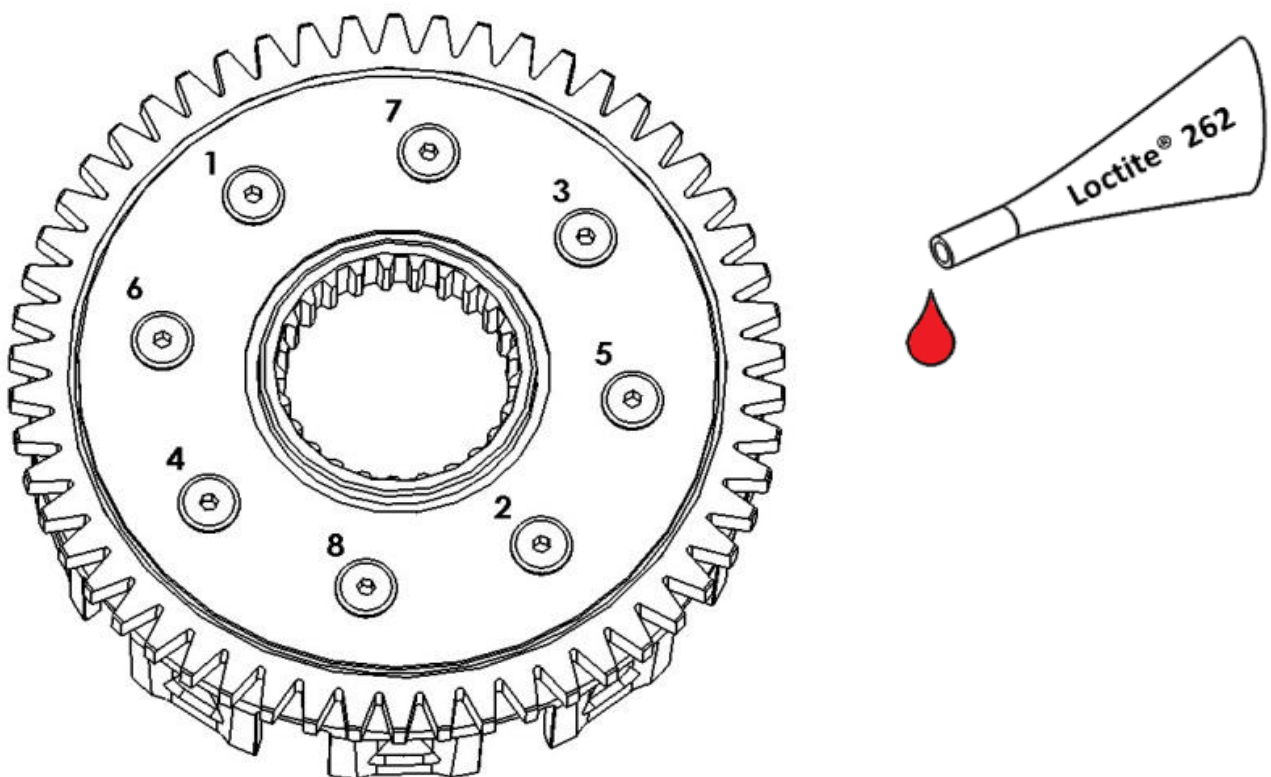


9. Install the Rekluse backing plate and **apply the supplied Loctite® 262 to each of the M6 screws**, threading them into the clutch basket assembly.
10. Torque the screw in small increments in a star pattern to **80 in-lbs (9 N-m)** to compress the assembly evenly.

### **⚠ WARNING**

**It is critical that you apply Loctite and torque the screws or they can back out during use. Rekluse is not responsible for engine damage caused by screws that back out.**

11. Install the new Rekluse clutch basket assembly into the engine following the procedures in your OE service manual.



## **INSPECTION AND MAINTENANCE**

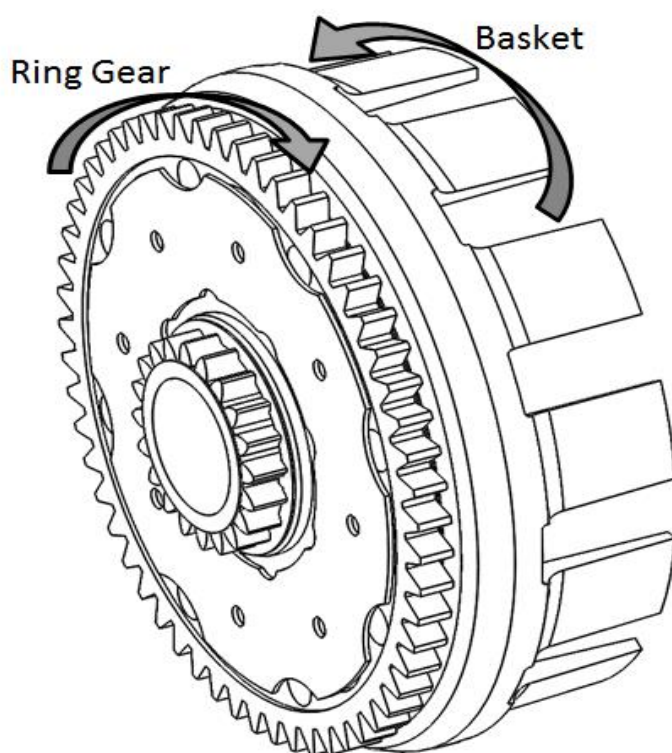
### **Dampers**

The dampers inside the basket assembly shrink due to heat and use. This is a normal wear item and should be **inspected every 10 hours**. Any movement of the dampers will shorten the life of your inner hub and accelerate basket wear.

- Inspect the basket dampers and/or springs by checking the play between the ring gear and the basket. Replace the dampers/springs if you feel any play in the assembly.
- Inspect the dampers if your inner hub is notched. This is usually a sign that the dampers need to be replaced.

### **To inspect the dampers:**

1. Remove the basket from the engine, hold the ring gear in one hand and the basket in the other, then twist in opposite directions. *The rotational play is sometimes accompanied by an audible “click” sound when rotating back and forth.*
2. If any rotational play can be felt between the basket and the ring gear, the dampers are worn and either the dampers and/or basket assembly need to be replaced.

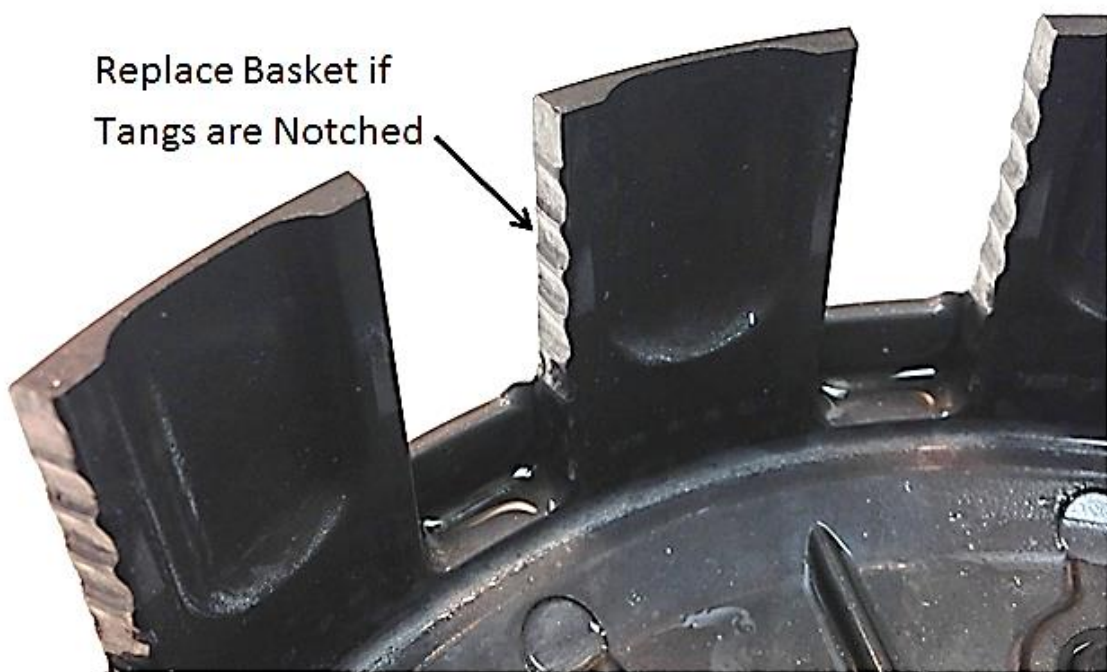


## **Basket**

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



- To keep your clutch basket performing at its best, perform regular maintenance on your bike and inspect your components regularly.
- Inspect the clutch basket for notching. Notched basket tang faces can cause performance issues. The basket should also be inspected for any fatigue cracking at the tang bases. Replace basket if necessary.
- Do not use baskets that have been filed, machined, or modified on the tangs.



## Starter Gear

The starter gear fitment can wear and should be inspected at regular intervals. A loose starter gear can cause performance issues in the clutch.

### To inspect the starter gear:

1. Press on one side of the clutch basket, then press on the opposite side trying to see if the basket moves when pressure is applied to each side.
2. If the basket moves or tilts significantly, the basket needs to be replaced.

# **NEED ADDITIONAL HELP?**

## **Website**

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

## **Frequently Asked Questions**

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

## **Support Videos**

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

## **Phone**

(208) 426-0659

## **Technical Support**

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

### **Hours:**

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

Mountain Time zone

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

## **Customer Service**

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

### **Hours:**

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

Mountain Time zone

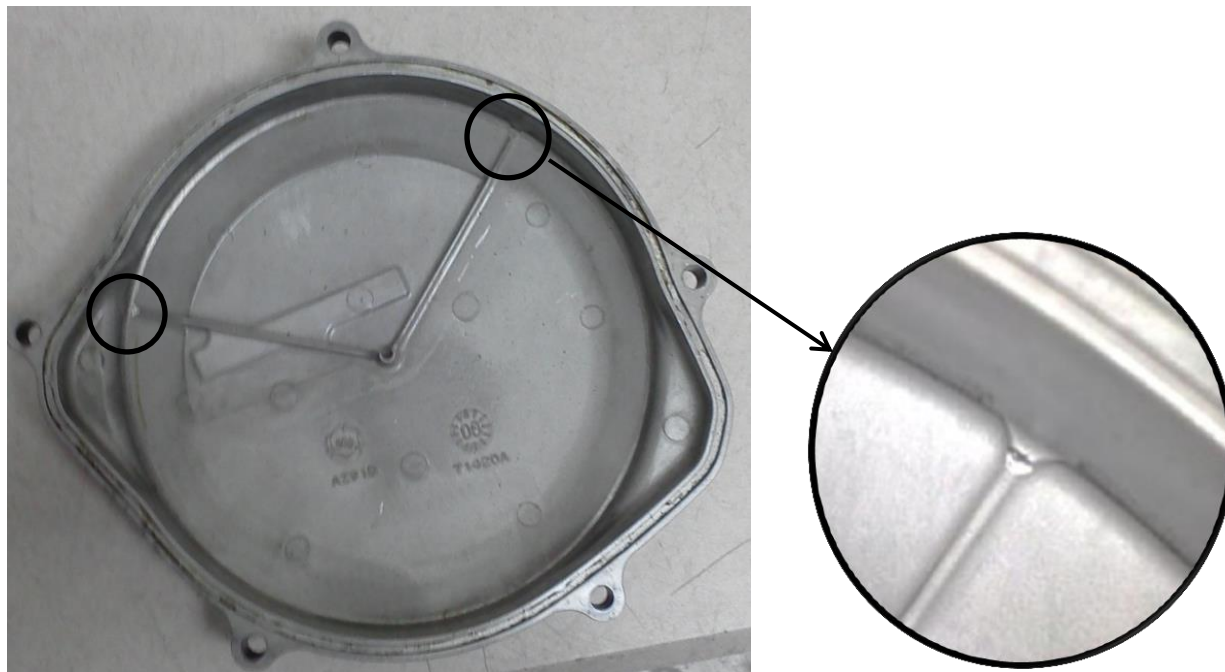
Email: [customerservice@rekluse.com](mailto:customerservice@rekluse.com)



## 2013 and newer CRF450 ONLY

*Disregard this if using a Rekluse clutch cover.*

Due to the shortened engine case dimensions on the 2013 and newer CRF450R, the Rekluse basket has reduced clearance and can rub the ribs inside the OEM clutch cover.



Use a file or small grinder to shave the ends of these ribs and reduce them to flush with the surfaces of the clutch cover.