

# **INSTALLATION MANUAL**

Manual Slave Cylinder Kit

Doc ID: 194-2400 Doc Rev: 042821

## **OVERVIEW**

This document includes instructions for replacing the OE slave cylinder with a Rekluse manual slave cylinder. These parts are 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.
- If using brake fluid (see following note), use a new, unopened container when replacing the fluid.
- Use the torque values listed in the instructions. Otherwise, use the torque specifications found in your OE service manual.

# **CLUTCH FLUID TYPE**

Every O-ring seal in the clutch control system is compatible with **ONLY ONE** clutch fluid type and **CANNOT** be used interchangeably. Read the information located on your bike's clutch fluid reservoir cap to determine which fluid system was installed with your bike.

# **A**CAUTION

Failure to use the correct clutch fluid type will cause seal damage.

### TOOLS NEEDED

Wrench set Rubber gloves and safety glasses Clutch fluid, compatible with your bike 8 mm deep-well socket

### **INCLUDED PARTS**

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

50 28.1 53.1 55 59 28 56 53 53.2 53.2				
ltem	Description	Qty		
56	Ball bearing	1		
53.2	Piston O-ring seal	1		
28	Slave cylinder piston	1		
53	Piston X-ring seal	1		
59	Wave spring	1		
55	Paper gasket	1		
53.1	Case O-ring seal	1		
28.1	Slave cylinder housing 1			
50	Crush washer 2			
Not shown	Clear vinyl tube	1		

54 $54.1$ $28$ $53.1$ $55$ $59$ $28.1$ $56$ $53$ $53.2$				
Item	Description	Qty		
56	Ball bearing	1		
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	Case O-Illig Seal	<b>I</b>		
28	Slave cylinder housing	1		
28 54.1				
	Slave cylinder housing	1		

### **BLEED THE NEW SLAVE CYLINDER**

On a workbench (away from the engine), bleed the Rekluse slave cylinder. The manual slave cylinder that comes in your kit may look different than pictured.

- 1. Using your thumbs, compress the slave cylinder piston until it bottoms out and hold it there.
- 2. While holding the slave cylinder piston, pour the appropriate clutch fluid into the slave cylinder port until it is full.

**Note:** When compressing the piston, fluid can shoot out from the slave cylinder port. Be sure to wear eye protection.

- 3. Release the piston and allow it to pull the fluid into the slave cylinder.
- 4. Repeat this process until the slave cylinder remains full when the piston is released.

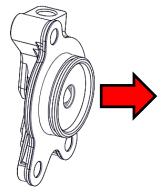
**Note:** There is a ball bearing installed in the slave piston with a small amount of grease. Confirm that this ball bearing is still inside the piston before installing on the bike.

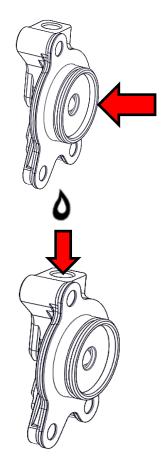


Ball

 $\bigcirc$ 

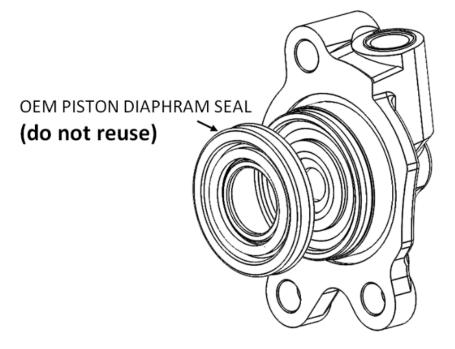
bearing





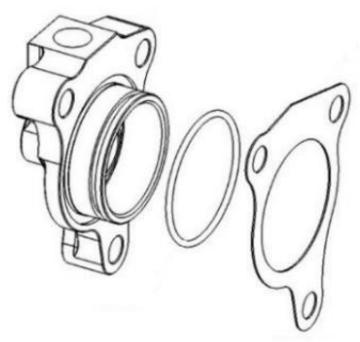


Some models have a piston diaphragm seal. DO NOT reuse them if OE equipped. The Rekluse slave cylinder does not require a diaphragm seal.



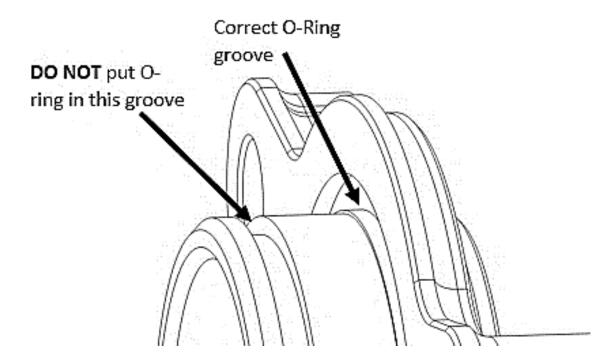


The Rekluse slave cylinder comes preassembled in the kit. If the parts are separated, assemble them in the following order: Rekluse slave cylinder, O-ring (the one supplied or OE), then the supplied paper gasket. Not all slave cylinders come with a gasket. If not supplied, use the OE gasket.





If you need to install the case sealing O-ring seal (OE or Rekluse supplied), make sure it is seated against the slave cylinder flange.



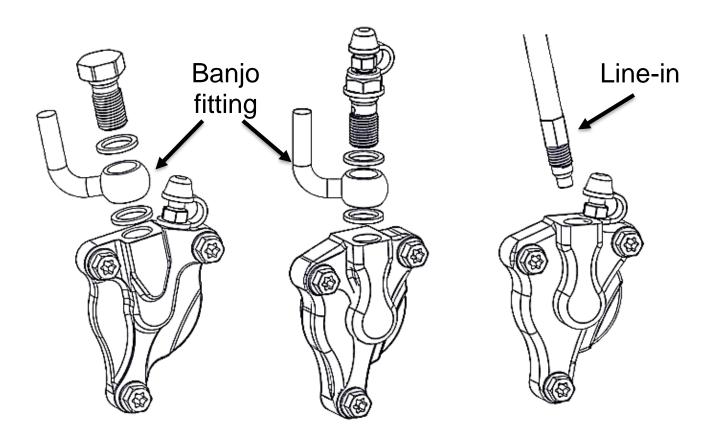
### **REPLACE THE OE SLAVE CYLINDER**

1. Stand the bike up and lean it on its kickstand, or place it on a suitable bike stand. Catch any fluid that might drain into a suitable container.



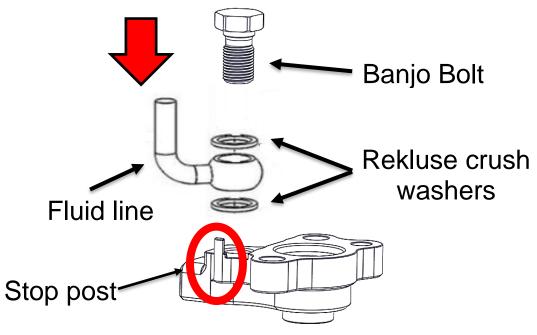
2.On the left side of the bike, while leaving the OE slave cylinder intact on the engine, remove the banjo bolt and the 2 OE crush washers (or the fluid line-in) from the OE slave cylinder (depending on your bike model). Discard the OE crush washers.

**Note:** The configuration of the fitting depends on the bike model. See examples below.



3. Attach the clutch fluid line to the Rekluse slave cylinder using the OE banjo bolt and the 2 new Rekluse crush washers (if applicable). Make sure the banjo fitting is sandwiched between the 2 crush washers.

**Note:** 2019+ Kawasaki Models -*It is important to move the fluid line against the small stop post on the slave cylinder when you tighten the banjo bolt. This will keep the line from rotating when it is torqued.* 



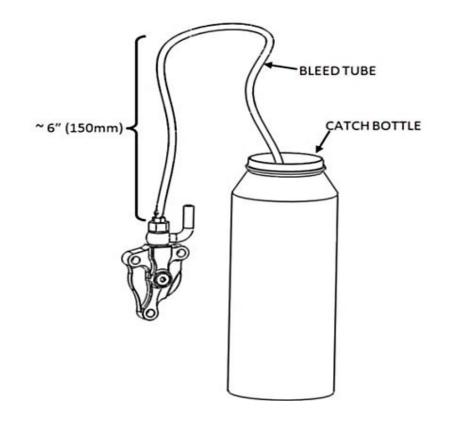
- 4. Tighten the banjo bolt with your hand until snug. (You will torque it to spec once installed on the bike.)
- 5. With the clutch fluid line attached to the Rekluse slave cylinder, remove the OE slave cylinder from the engine. Keep the OE bolts for reuse.

**Note:** Beta, Honda, or Kawasaki models—see additional install information included at the back of your manual.

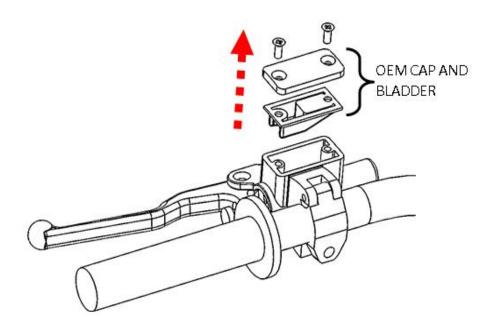
- 6. Mount the Rekluse slave cylinder to the engine using the OE bolts, returning each to its original location. Torque to OE specifications.
- 7. Torque the banjo bolt to OE specification.

### **BLEED THE CLUTCH LINE**

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

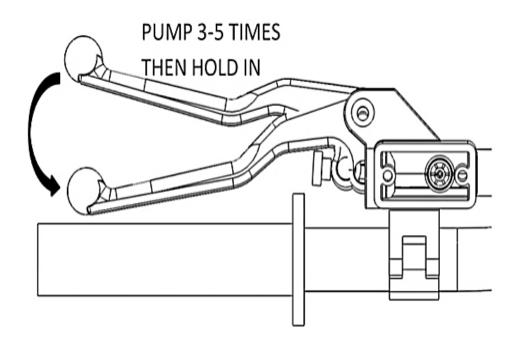


2.On the handlebar, remove the cap and bladder from the clutch master cylinder. Adjust the reservoir so it is level with the ground.

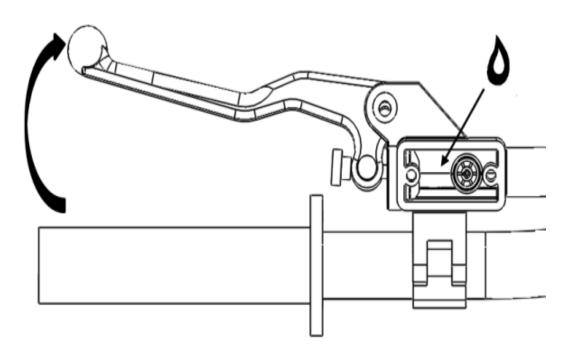


3. Top off the master cylinder with the recommended clutch fluid.

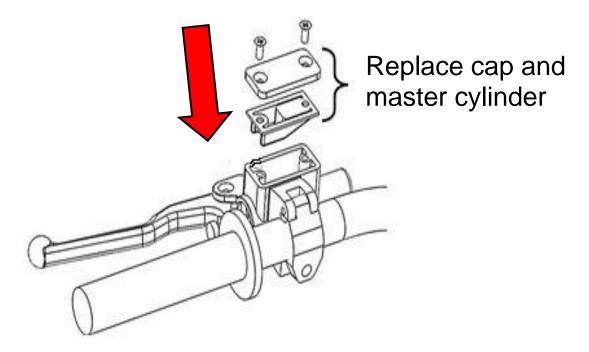
4. Pump the clutch lever 3 to 5 times, then hold it against the handlebar/grip.



- 5. While still holding the clutch lever in, use a wrench to open the bleed port. Air and fluid should flow from the bleed tube into the catch bottle.
- 6.Before releasing the clutch lever, tighten the bleeder screw.
- 7. Slowly release the clutch lever and check the fluid level in the clutch master cylinder. Top off if necessary.



- 8. Repeat steps 4 7 until air no longer comes out of the bleed tube and the clutch feels normal.
- 9. Check that the clutch master cylinder is 75% full, then replace the cap and bladder.



- 10. Remove the bleeder screw from the bleed bolt and remove the bottle.
- 11. Torque the bleeder screw to **150 in-lb (17 N-m)** with a socket or the closed end of an 8 mm wrench.

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

12. Finally, install the rubber dust cap over the bleeder screw.

### **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

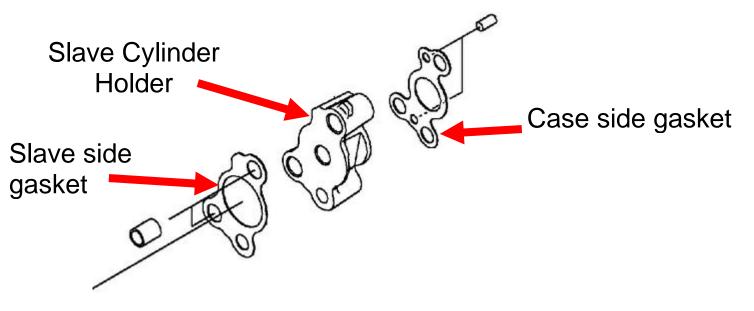
Email: <a href="mailto:customerservice@rekluse.com">customerservice@rekluse.com</a>



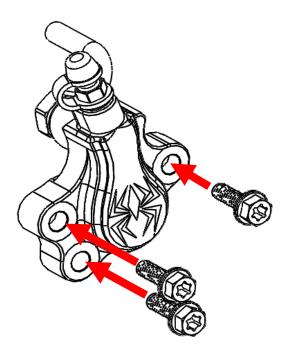
## <u>APPENDIX A</u>

### Kawasaki Bike Models

OE Kawasaki slave cylinders come with a metal slave cylinder holder, dowel pins, and two gaskets. All these components will be reused.



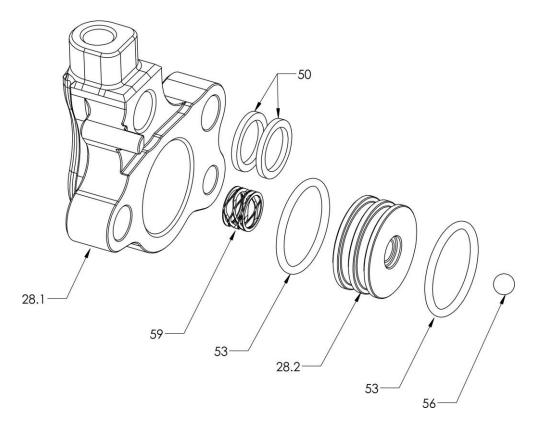
- 1. If the slave cylinder holder and gaskets have been removed from the engine case, assemble in the order shown above.
- 2. Reinstall the holder and gaskets onto the engine case holding it in place with the OE dowel pins.
- 3. Install the Rekluse slave cylinder and OE chain guard to the engine using the OE bolts, return each bolt to its original location.



4. Tighten all the slave cylinder screws to OE specifications.

5. Torque the banjo bolt per OE specification.

#### 747-047A - SLAVE CYLINDER ASSEMBLY



ltem	Part Number	Item Description	Qty
28.2	180-347A	SLAVE CYLINDER PISTON - DIV 0.052 WS 21+ KX250	1
28.1	180-446A	SLAVE CYLINDER HOUSING - 19+ Kawasaki KX450 Non-ASC	1
50	414-230	HARDWARE - Crush Washers: 10mm	2
53	418-925A	HARDWARE - EPDM O-Ring, size-018, Black, for 22mm Bore	2
Not Shown	419-104	HARDWARE - 15 in L X 1/4OD. X .17ID. Clear Vinyl Tube	1
56	431-307	BALL BEARING - 3/16in Chrome Steel Ball	1
59	441-046A	WAVE SPRING - Slave Cylinder Return - 2019 KX450	1