



INSTALLATION GUIDE

Left-Hand Rear Brake
& Foot Master Cylinder

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Installation Tips

- Carefully read and be sure to **understand the Safety Information** that accompanies this product before proceeding.
- **Read the entire Guide** before beginning installation.
- Watch the **Brake Kit Installation Video** found at <http://www.rekluse.com/videos>
- **Check brake pads and rotor.** Pads must have at least 50% life and be in good condition. The rotor must be in good condition. Rekluse recommends installing new brake pads with this kit.
- This brake kit is compatible with these brake fluid types: **DOT 3, 4, & 5.1.** Use your bike's recommended brake fluid. **DO NOT use DOT 5** or any mineral oil-based fluids.
- Follow the safety precautions listed on the fluid container.

- To gain space for the Left Hand Rear Brake, it may be advantageous to purchase a lower-profile switch cluster for bikes with bulky left-hand switches.
- Wear proper eye protection and rubber gloves when handling brake fluid.
- Follow local brake fluid disposal and storage guidelines.

Tools Needed

- 2.5 and 3 mm Allen Wrenches
- 8 & 17mm End Wrenches
- 8 & 13mm Sockets
- Torque Wrench

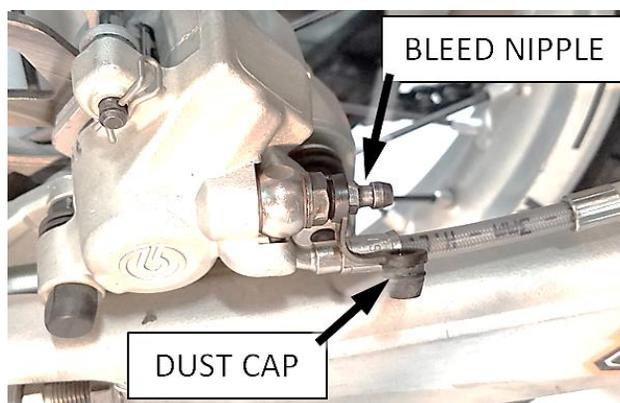
Included Parts

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

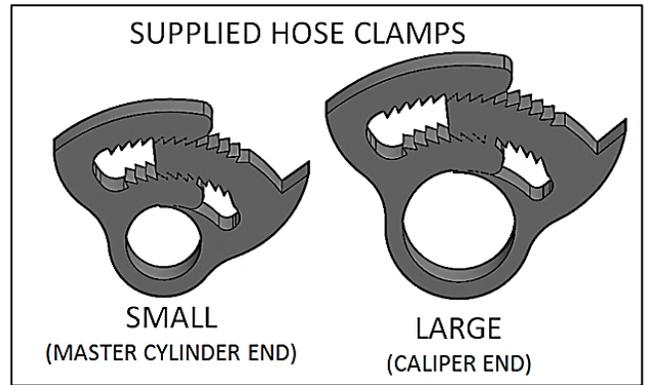
Visit www.rekluse.com/support for a full parts fiche illustration and part numbers.

Preparing the Bike

1. Stand the bike upright on a center stand.
2. Surround the caliper with disposable rags to protect the brake pads and rotor from any spilled brake fluid.
3. Remove the dust cap on the rear caliper bleed nipple and, clean the bleed nipple of any debris.



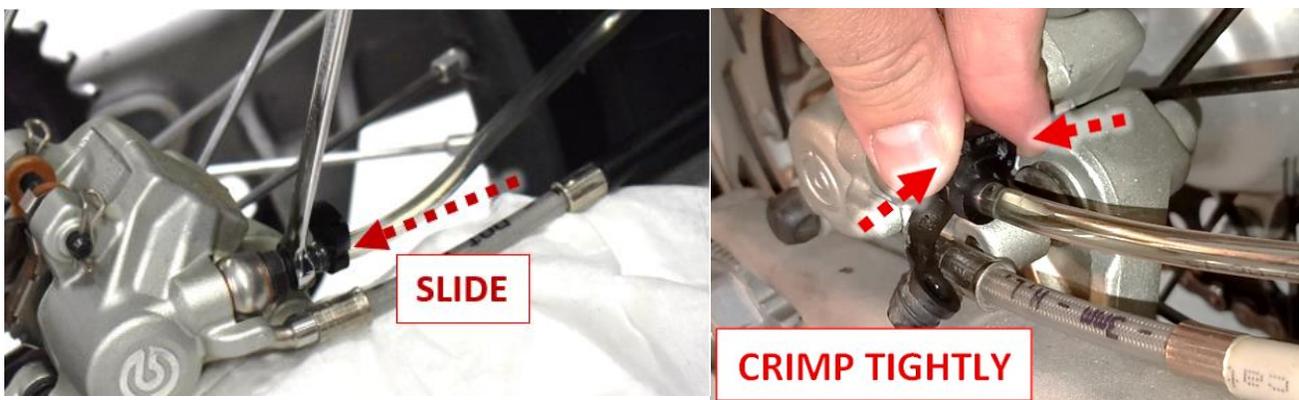
NOTE: Two clamps are included. The larger-diameter clamp will be used at the caliper tube while the smaller clamp will be used at the master cylinder tube.



4. Place an 8mm box end wrench over the bleed nipple and slide the large tubing clamp over the hose on one of the syringes (but don't clamp it yet), then slip the syringe hose over the caliper bleed nipple.



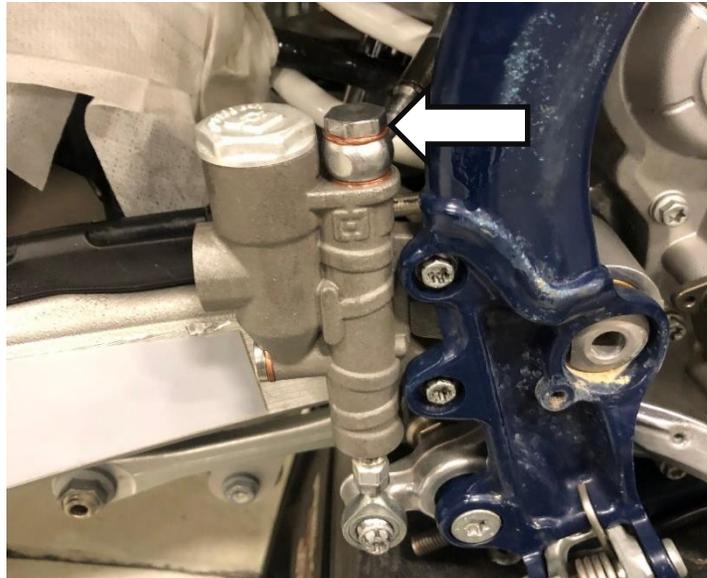
5. Slide the large hose clamp over the area of the syringe tube that is on the bleed nipple.



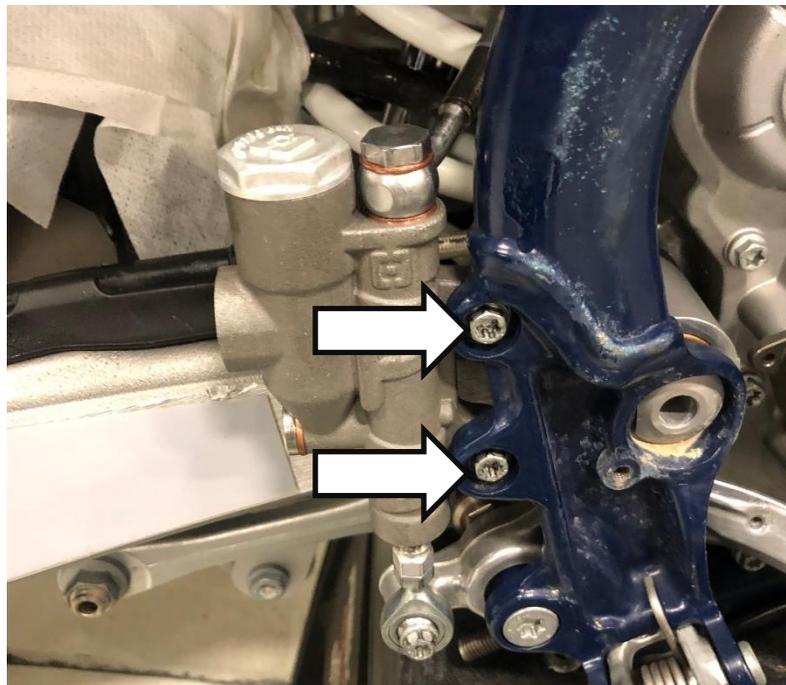
6. Prime the Rekluse foot master cylinder by filling it with brake fluid, and keeping it in an upright position. This will make bleeding the system easier.

Installing the Foot Master Cylinder

1. Loosen but do not remove the brake line banjo on the rear master cylinder.



2. Remove the OE foot master cylinder from the frame.



- 3.** Apply Blue Loctite 243 to the two mounting screws and mount the Rekluse master cylinder to the frame. Torque to **7 lb.ft**



- 4.** Remove the brake line from the OE master cylinder and attach it to the Rekluse master cylinder, hand tightening it. Performing this step quickly can keep much of the fluid in the line, and will make bleeding the system easier.
- 5.** Position the brake line so that it is safely away from the exhaust and any moving parts. Torque the banjo to **18 lb.ft**



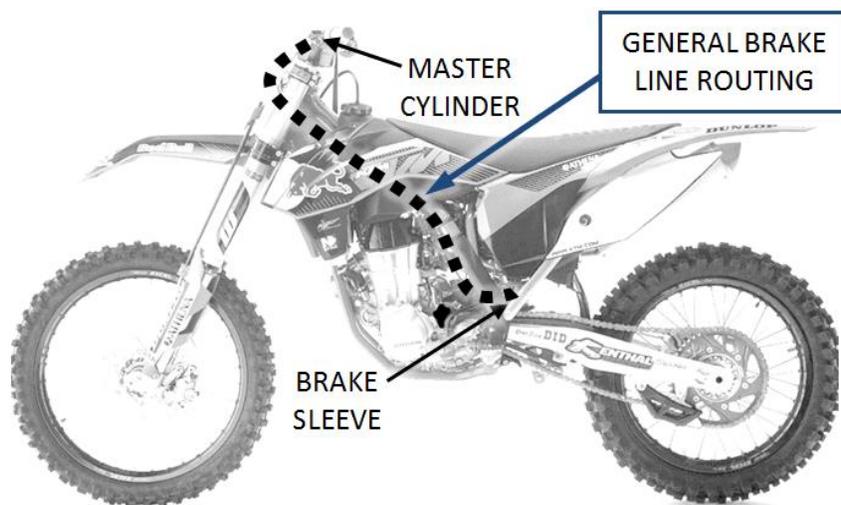
⚠ WARNING

Failure to correctly position the brake line may result in damage to the line and brake system failure. The line must be clear of any moving components as well as the exhaust

Installing the Left Hand Rear Brake

NOTE: Do not secure the brake line with the zip-ties until the bleeding procedure has been completed. This avoids creating low points in the system for air to be trapped when bleeding.

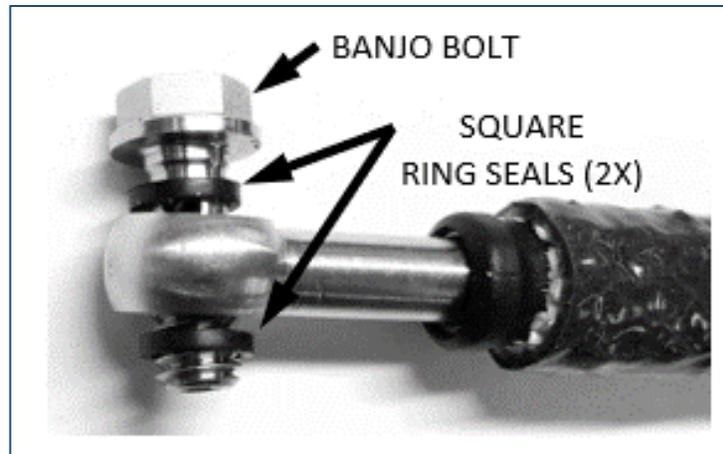
1. Starting from the front number plate with the banjo end of the brake line, route the new brake line beside the clutch cable (or hydraulic clutch line) along the left side of the frame. Continue behind the engine and cross over to the right side of the frame in front of the rear shock.



If the brake line is too long for this routing, you may route it from the number plate along the right side of the frame and then cross over to the left side behind the cylinder head, then behind the carburetor or throttle body and cross over to the right side of the frame in front of the rear shock. The key is to make sure the hose is away from the exhaust and is not pinched by the tank once installed.

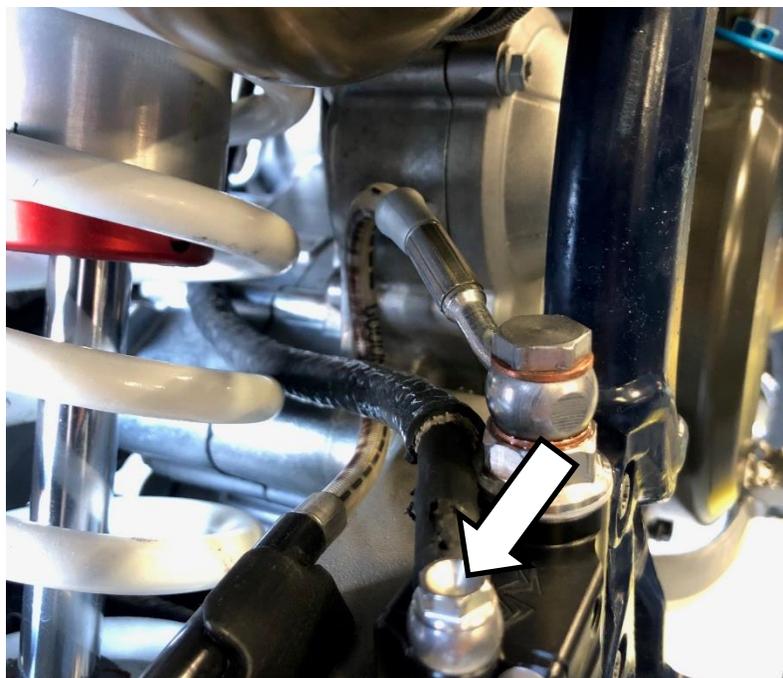


2. Install the brake line at the rear master cylinder as shown. The banjo fitting on the line should be sandwiched between two square-ring seals on the banjo bolt.



NOTE: Only two square-ring seals will be used. Extra square-ring seals are included in the kit in case any are lost or torn.

3. Ensuring that the line will not contact any moving parts or the exhaust pipe, tighten the banjo bolt to **60 in-lb (7 N-m)**.



4. Using an 8mm socket, mount the Rekluse master cylinder onto the left handlebar. This does not have to be its permanent location but is a good location for routing the brake line and bleeding the system.



NOTE: It can be helpful to remove the clutch master cylinder from the bar after installing the line to assist in the bleeding of the Rekluse master cylinder



Do NOT move the engine kill switch in a manner that makes it inaccessible for proper use in emergencies.

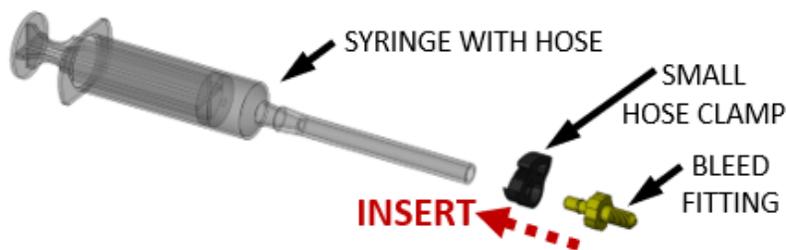
5. With the Rekluse master cylinder mounted on the handlebar, insert the line fitting and tighten to **15 lb.ft (20 N-m)**.



6. At the Rekluse master cylinder, remove the top bleed port screw using a 2.5mm Allen



7. Slide the small hose clamp onto the empty syringe, followed by the supplied bleed fitting, but do not crimp the hose clamp yet.

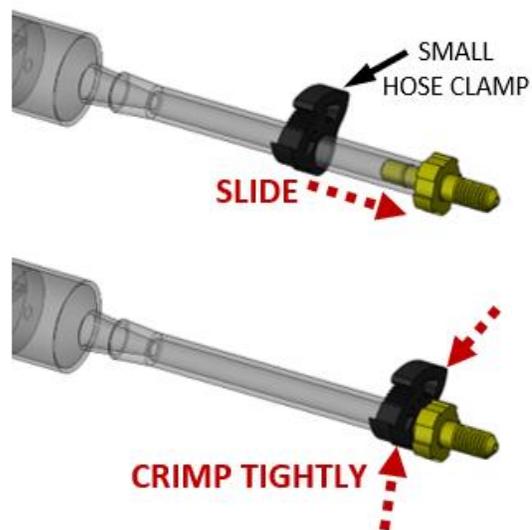


8. Thread the empty syringe into the bleed port in the Rekluse master cylinder.



NOTE: If the fitting leaks after being tightened hand tight, then pliers can be used to tighten the fitting into the housing. Be careful not to over-tighten and snap the fitting off in the housing.

9. Slide the hose clamp down over the bleed fitting and crimp the hose clamp to secure the hose to the bleed fitting.



NOTE: The master cylinder cap will **NOT** be removed in this process. The Rekluse master cylinder cannot be properly bled with the cap off.

10. Fill the second syringe with fluid and attach it to the bleed port on the rear caliper.

Bleeding The System

See the *Brake Kit Installation* video online at rekluse.com/support/videos for visual instructions

NOTE: It can be helpful to have two people when bleeding: one at the caliper and one at the master cylinder

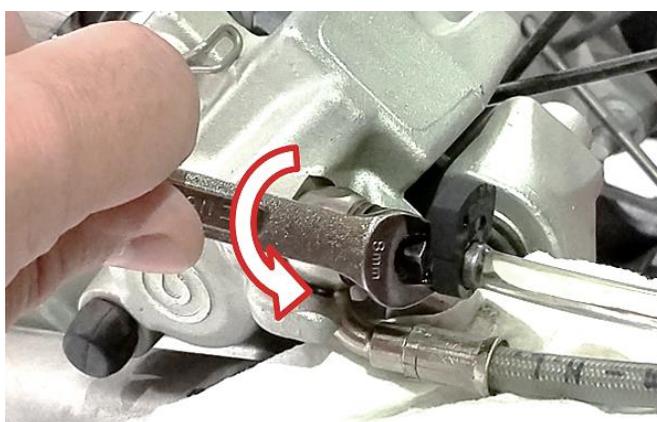
The brake system will first be “back-bled” from the lowest point (rear caliper) to the highest (Rekluse master cylinder bleed port).

NOTE: Be sure the rotor and pads are in good condition. See the *MAINTENANCE* section for further details.

1. Orient the filled syringe at the caliper so that the plunger is facing upward and tap on the hose to ensure any air bubbles rise to the top and out of the tubing.



2. Apply light pressure with the syringe at the caliper, then loosen the bleed nipple ½-turn.



3. Slowly start to push fluid through the system with the syringe at the caliper.



6. Keep pushing fluid through the system while it starts to fill the syringe up at the master cylinder. Push until no more air bubbles are coming out of the master cylinder bleed port, then close the bleed nipple at the caliper



7. Check the brake pedal and lever for pressure. If both are firm and there are no air bubbles, continue to step 9.
8. If either the pedal or lever feels spongy or soft, continue to push fluid back and forth until there is firm pressure.

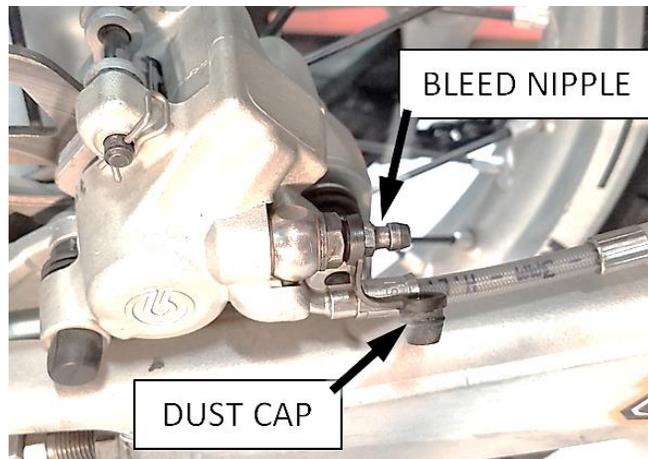
TIP: *It can be helpful to remove the master cylinder from the bars and tilt it up and down while bleeding. This can dislodge any remaining air in the system.*

NOTE: It may be necessary to re-bleed the system after the first ride for best performance, as riding tends to help loosen any remaining air bubbles in the brake system.

9. Once all the air is bled from the system, place rags around the bleed port of the Rekluse master cylinder to avoid fluid spillage in the next step.
10. Unscrew the bleed fitting from the master cylinder.
11. Using the syringe at the caliper, *gently* force a small amount of fluid to top off the master cylinder bleed port and reinstall the bleed port screw.

NOTE: Fluid should be flush with the bleed port when installing the screw.

12. With the bleed nipple tightly closed at the caliper, remove the end wrench, syringe, and hose. Replace the dust cap on the bleed nipple.



NOTE: Do not discard any items from your Bleed Kit, as you will reuse them when performing future maintenance on your brake system. See the MAINTENANCE section for info.

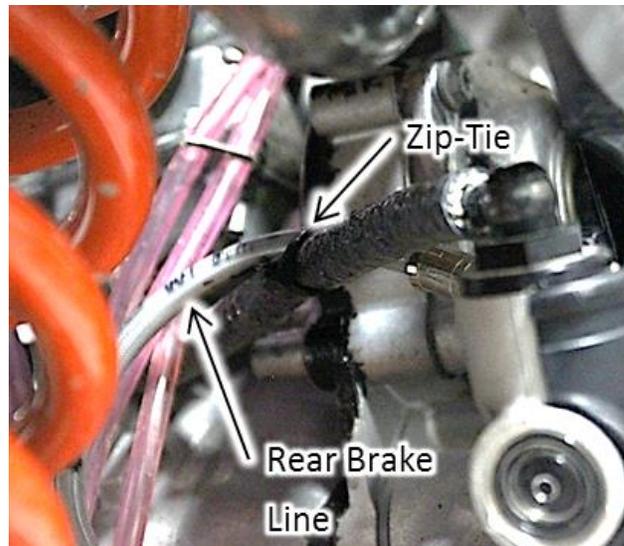
4. Check all brake line fittings for leaks.

 **WARNING**

Pads contaminated with brake fluid cannot be used. New pads must be installed if contamination occurs.

Final Installation

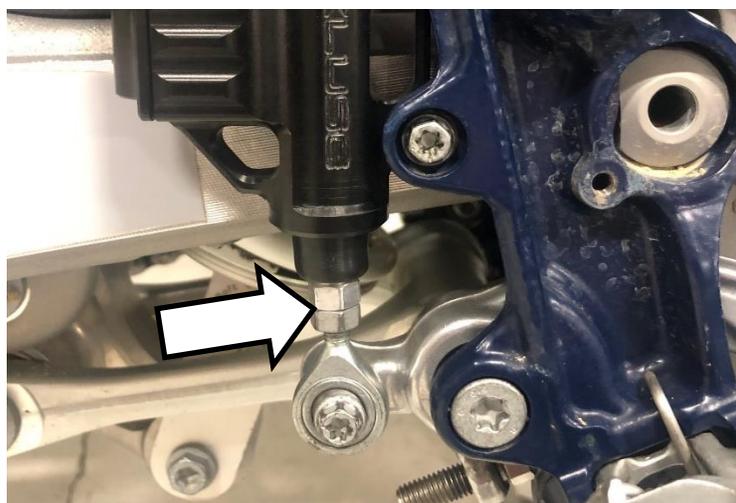
1. Secure the new brake line to the OEM rear brake line near the shock with the included zip-tie and then to the hydraulic clutch line (or clutch cable) upward along the frame using the other provided zip-ties. Ensure the brake line is clear of moving parts and the exhaust pipe.



NOTE: The brake line comes preassembled with a length of thermal shielding on the banjo end. Make sure that this shielding is slid down the line toward the banjo before securing the line with zip ties. The shield is intended to protect the brake line from the heat of the exhaust pipe.

Adjusting the Pedal

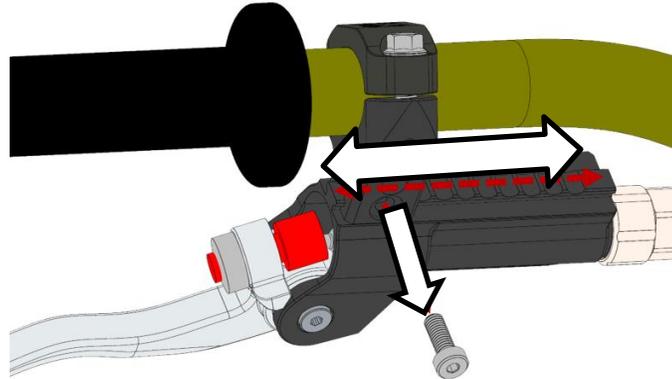
Adjust the brake pedal to achieve the proper amount of free play as specified in the OE manual. (typically 3-5mm)



Adjusting the Lever

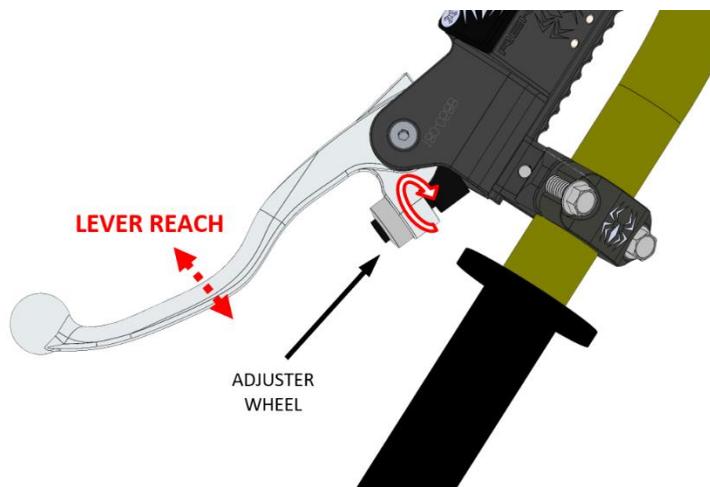
Lateral Lever Adjustment

The master cylinder body can be moved laterally (left and right) in the bar mount by removing the stainless-steel Allen screw. Once adjusted, reinsert the screw and torque to **26 in.lbs (3N-m)**

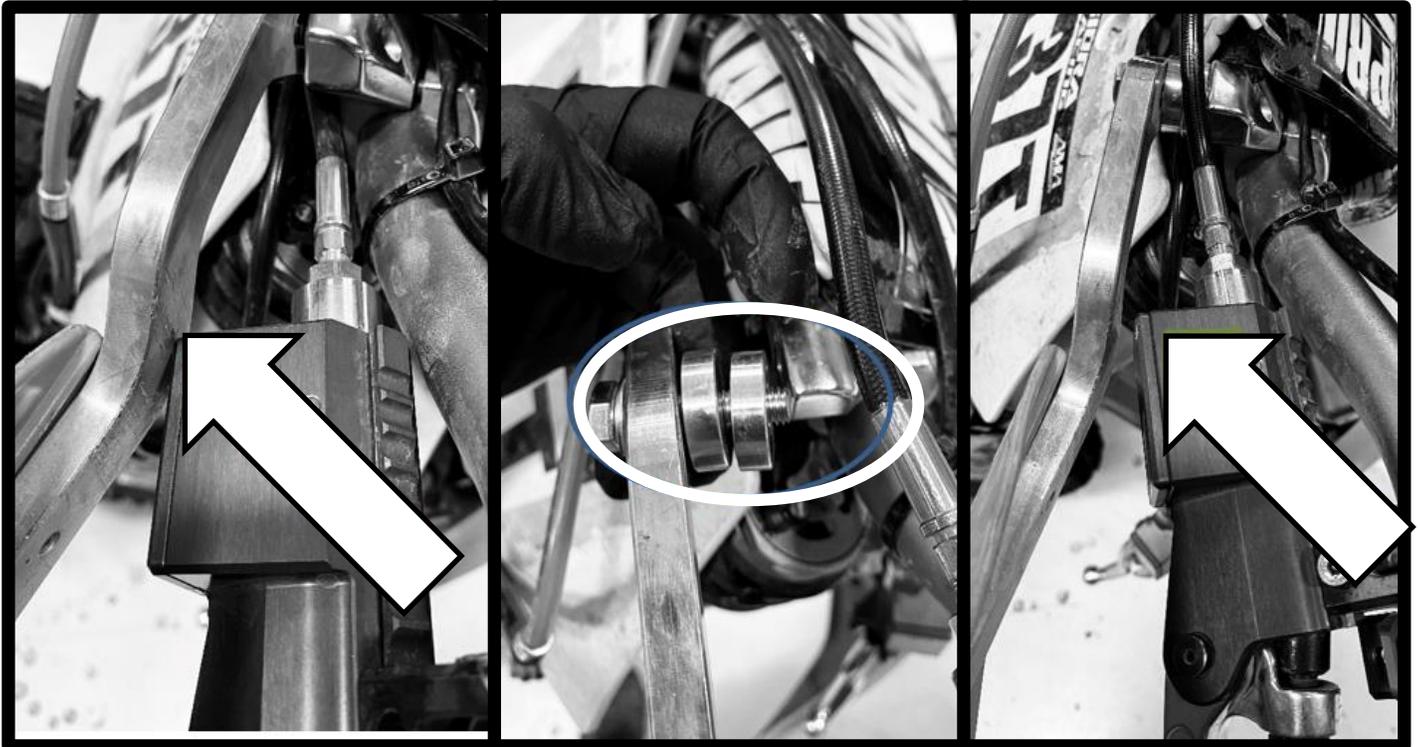


Lever Reach Adjustment

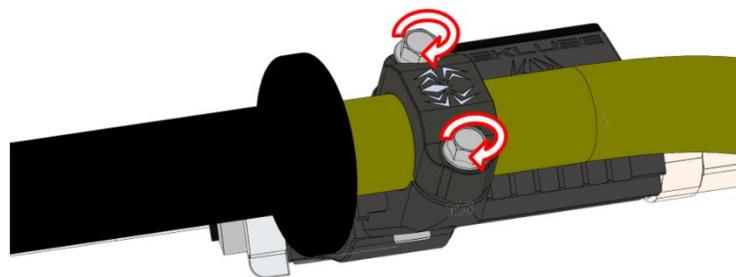
To adjust the brake lever toward or away from the handlebar, turn the adjuster wheel located at the push rod cup to obtain the desired position.



NOTE: Some hand guards may need to be adjusted or modified to achieve the desired lever positions. Shown is an example of where spacing washers were used to space out a bark buster spar to clear the master cylinder:



2. After determining the desired lever positions, including the clutch lever perch, re-tighten the handlebar clamps evenly. Tighten the clamp screws to **7 ft-lbs (10N-m)**.



3. Check the rotation of the handlebars to ensure there is no binding or pinching in the lines.

NOTE: Be sure to leave enough clearance for proper actuation of the clutch and brake lever.



NOTE: The Rekluse master cylinder can be mounted **above** or **below** the stock clutch lever depending on your preference and riding style. However, mounting below is recommended.

4. If the brake rotor was contaminated with any brake fluid during the bleeding process, use brake cleaner or isopropyl alcohol to clean it.

 **WARNING**

Pads contaminated with brake fluid cannot be used. New pads must be installed if contamination occurs.

5. Reinstall the bike's fuel tank and seat, along with any other components that were removed during the installation process.

 **WARNING**

Failure to become familiar with Rekluse Left Hand Rear Brake operation before use can cause death, serious injury, and/or property damage.

Do NOT attempt to operate a Rekluse Left Hand Rear Brake equipped vehicle on unfamiliar terrain until you are completely familiarized with the operation of this product.

First practice operating Rekluse Left Hand Rear Brake equipped vehicles in a safe area free of obstructions.

Trim and Install the Frame Guard

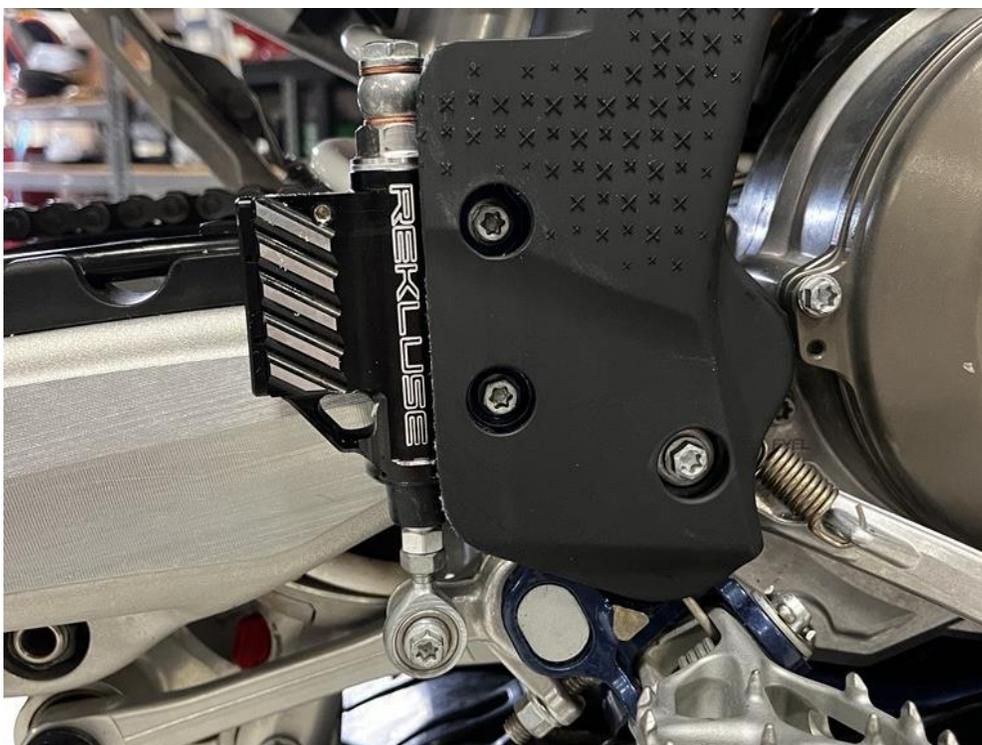
To better fit the frame guard over the Rekluse Master Cylinder, it is recommended that the guard be trimmed.

1. Mark a vertical line as shown here.



2. Cut the frame guard along the line and sand or buff the plastic to clean the edge

3. Install the guard on the bike with the screw and a cable-tie



Troubleshooting

Symptom	Solution
Spongy left-hand lever, but firm foot pedal	This is caused by air trapped between the foot master cylinder and the left-hand master cylinder. Re-bleed the system from the bottom up, taking extra care to get all of the air out of the master cylinder by rotating and tapping on it.
Spongy left-hand lever, and spongy foot pedal	This is caused by air trapped between the foot master cylinder and the rear caliper. Re-bleed the system from the top down to push air out at the caliper. Then bleed from the bottom up and check again. The brake line connections at the foot master cylinder can be cracked open while pressure is applied with the syringe to aid in purging bubbles
Inconsistently spongy lever (goes spongy, but firms up again)	When the lever becomes spongy occasionally but then goes back to normal, this indicates there is air trapped in the reservoir of the left-hand master cylinder. Bleed the system again and be sure there is no air in the reservoir when replacing the reservoir plug. Make sure there is a small amount of fluid seeping out of the bleed hole when the set screw plug is reinstalled.
Leaking fluid around the master cylinder	Clean the master cylinder and inspect for leaks again to identify where the leaks are coming from. Inspect the crush washers and re-torque the connections. Replace any seals or washers where the leaks are coming from.
Fluid will not push through the system (hydro-locked)	<p>Either the brake line is plugged or pinched somewhere, there is debris in the system, or the master cylinder port is blocked by its piston.</p> <ol style="list-style-type: none"> 1. Ensure that the system is bled up to the rear master cylinder by loosening the banjo bolt and pushing fluid until it flows out around the banjo bolt without bubbles. 2. Confirm that the Rekluse master cylinder lever is not being depressed by a hand guard or something else on the handlebars. 3. Check to see that the line is not blocked or pinched by decoupling it from the Rekluse master cylinder and pushing fluid. If the fluid does not flow freely, try to flush the line or order a new one.
The system will not pressurize (the lever remains spongy after re-bleeding)	Air is likely trapped in a low spot of the brake line. One common area for this to happen is near the rear shock where the line dips underneath the intake. Try to position the line in a way that this section slopes upward, and air can travel up the line.

	<p>Remove the MC from the bars and hold it high in the air, pulling it tight to get the line as straight and vertical as possible. Repeat the bleeding process, shaking and tapping the lower sections of the line to loosen any air bubbles.</p> <p>It may also help to close the bleeder bolt and pull on the syringe at the master cylinder. This may dislodge the air.</p>
Rear Wheel is Not Locking / Poor Braking Performance	<p>The brake pads and/or rotor may have been contaminated with brake fluid during the bleeding process. Clean the area with isopropyl alcohol or a quality brake-cleaning spray. If this does not help, replace the pads and/or rotor (once brake-pad friction material is exposed to brake fluid, it will absorb it and is permanently compromised).</p>
During or after riding, the lever gets spongy or performance lessens	<p>Likely, a small amount of air was trapped in the Rekluse master cylinder after bleeding, and vibrations created during the ride allowed the air to enter the pressurized brake line. To ensure that no air is trapped in the master cylinder, re-bleed the system and be sure to top off the bleed port as described in the bleeding process.</p>
Squeaky Lever Pivots	<p>Lubricate the pivot joints using either a graphite dry lubricant or white lithium grease.</p>
Worn-out Lever Pivots	<p>If you have worn your pivots to the point that they are loose and/or your lever is sloppy, a replacement lever and pivot kit can be purchased from Rekluse.</p>
Lever or Pedal Not Returning	<p>Lubricate the master cylinder piston and seals using silicone-based grease. Re-bleed the system after reassembly of the master cylinder.</p>

Maintenance

1. Before every ride, check to be sure that your brake pedal has sufficient fluid pressure.
2. Inspect the system for leaks and verify that the pedal moves properly.
3. After hard use, if the brake pedal does not return to full extension or it takes too long to do so, it may become necessary to lubricate the master cylinder piston and seals. Use silicone-based grease such as Molykote® 111 to lubricate the piston and seals, and then re-bleed the system after reassembly.
4. The Rekluse master cylinder is fully rebuildable. Rebuild kits and replacement parts are available from Rekluse

NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Phone

(208) 426-0659

Monday thru Friday: 8 am – 5 pm Mountain Time

Email

customerservice@rekluse.com

