

#### Disclaimer:

These rearsets are not sold by MotoBits with the intention of breaking any laws or regulations. Check with local laws and racing regulations before installing.

These parts are designed and sold with the intent of closed-course use. MotoBits assumes no liability for their use or misuse. Use at your own risk.

The purchase of any MotoBits product releases MotoBits of all liabilities pertaining to the use of MotoBits products and parts.

Read all instructions before picking up tools.

#### **General info:**

# -Professional installation is recommended!-

Be aware that the footpegs are non-folding, and can adversely affect handling if they contact the ground during cornering.

Be very careful with routing of all hoses/cables and wiring, especially the rear brake.

Use threadlocker on all bolts/screws. Recommended product is Permatex #242.

Do not overtighten the footpeg bolt. This can cause expansion in the footpeg, binding the lever assembly.

The lever contains a permanently lubricated bushing. No lube is needed. The rod-end bearings included are also permanently lubricated, but a bit of oil or chain-lube on these once in a while will prevent squeaks that may occur.

When using adjustable linkage rod, always make sure that you have at least 10mm of thread engaged at all joints. Anything less may cause failure. There should be plenty of adjustment even with this requirement.

## Lever assembly

The levers come in a position that is known to work. Your installation may vary (A stock bike is rare, especially for racing). It is a good starting point, but you may want to play with different lever angles for better ergonomics and clearances.

You will notice that the lever and the lever collar have a different number of holes. This is to provide a vernier adjustment. Put both on a footpeg and hold the lever stationary. As you rotate the lever collar clockwise, you can see that the hole alignment moves counter-clockwise at a very fine adjustment angle.



Rotate collar clockwise...

Three equally-distant holes will always align. Use the provided capscrews in the three aligned holes.

Collar can be flipped over to better align brake actuator rod, or provide clearance for shift lever and rod. You can also bolt the shift rod to either side of the collar, giving quite a few possibilities.

When setting up the shifter side, be aware that there are a lot of possibilities for changing the geometry of your shifting. Start out with the arm on the lever parallel to the engine's shift arm, and the rod at 90 degrees to both. Then you can play games with the angles later to change force/distance on upshift and downshift.

## A note on geometry

The foot works better pushing down than pulling up. So setting up the shifter linkage is most important for the pulling up on the lever. Try to get the rod and lever arms at 90 degrees to each other when the shifter is loaded (the tight spot just before popping into gear) in the up position.

This geometry can also be adjusted to get different throws and forces in the up or down shift. You can do this without changing the lever position by adjusting the angle of the lever and collar once you find a comfortable lever position.

## Polishing and appearance

Parts are not anodised, so no chemical etching is needed. The footpeg IS anodised, so don't try polishing it.

# **Step-by-step instructions**

The product is packaged so that the left-side components are marked L, and the right side are marked R.

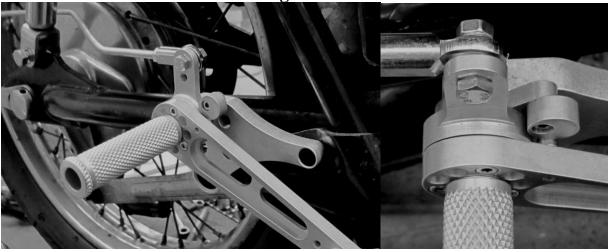
The bottom/rear mounting screws are a bit longer than needed to allow muffler hangars. It can be trimmed if not needed. Hangars should be on the inside of the stock mounting plate, since the rearset plate mounts to the outside. Stock pipes should be mounted on the inside as well, and maybe turn the header a bit to add some clearance for getting the toe under the shifter.

# Left side:



- 1. Remove the stock footpeg assemblies, including passenger pegs. The rearsets mount in the location of the passenger pegs.
- 2. Remove the shift lever.
- 3. Put the 10mm countersunk footpeg screw thru one of the inside holes in the rearset plate. Add the spacer on the outside of the rearset plate.
- 4. Insert the footpeg thru the shift lever, and screw onto the screw protruding from the plate. Don't tighten it all up yet, until you have sat on the bike and decided on what lever angle and peg position is comfortable for you.
- 5. Mount the rearset plate as shown above. The forward (6 x 25mm)screw goes into the stock threads on the frame tab, and the rear (10 x 40mm) uses the provided nut.
- 6. If you mount an exhaust using the frame tab, put it behind the tab, not between the rearset plate and the tab. The plate is designed to be flat on the tab.
- 7. Assemble the shift-shaft arm to the shift shaft. It can be flipped over for GP shift as well. Choosing different holes on the lever end or the shift-shaft end gives more/less throw and more/less force.

**Right side:** 



- 1. Remove the brake lever assembly.
- 2. The rear brake hub lever must be flipped over so that it is pointing up instead of down. Removing and flipping the lever may do this, but most of these bikes did not have the splines cut all around the actuator shaft. It is best to remove the rear wheel, and flip over the whole actuator assembly. Probably a good idea to clean and lube the brake shoe pivot points while in there.
- 3. Put the 10mm countersunk footpeg screw thru one of the inside holes in the rearset plate. Add the spacer with the cam on the outside of the rearset plate. The cam faces outward to engage the screw head on the brake lever (see closeup photo). Rotate the spacer for gross adjustment, the cam for fine.
- 4. Insert the footpeg thru the brake lever, and screw onto the screw protruding from the plate. Don't tighten it all up yet, until you have sat on the bike and decided on what lever angle and peg position is comfortable for you.
- 5. Mount the rearset plate as shown above. The forward (6 x 25mm) screw goes into the stock threads on the frame tab, and the rear ( $10 \times 40$ mm) uses the provided nut.
- 6. If you mount an exhaust using the frame tab, put it behind the tab, not between the rearset plate and the tab. The plate is designed to be flat on the tab.
- 7. Using the stock nut and spring, mount the pullrod to the brake actuator lever. Use the provided two nuts to set and lock the tension on the spring. The pullrod is quite long, it may need trimming for best fit.
- 8. Mount the front of the pullrod to the brake lever with the rod-end as shown. There is plenty of extra pull-rod, cut as needed to make sure the bend clears the shock and swingarm. The long end of the bent aluminum is toward the brake lever, the short end gets the threaded rod.
- 9. Adjust the stop cam and use it to make sure the lever cannot lift too far on brake release.
- 10. A pullrod system has geometry limitations, make sure you respect them. As the wheel moves up and down, it will change the tension on the pullrod. Make sure there is some freeplay at the lever throughout the wheel's travel.

#### Final:

- 1. Secure the toepieces to the levers. There are three positions to choose from to fit your foot size.
- 2. Try out the setup by sitting on the bike and getting the feel for the positions of the levers.
- 3. Adjust as needed by rotating the levers or adjusting the lengths of the linkage or brake pullrod.
- 4. Secure all screws with threadlocker and tighten to correct torques.

Please send suggestions, questions and comments to <a href="mailto:Support@MotoBits.com">Support@MotoBits.com</a> Check out other products at <a href="mailto:www.MotoBits.com">www.MotoBits.com</a>