MotoBits
Precision motorcycle parts

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.

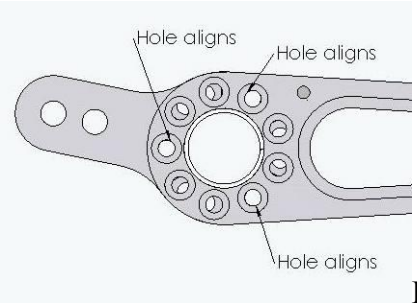
Do not overtighten the footpeg bolt. This can cause expansion in the footpeg, binding the lever assembly.

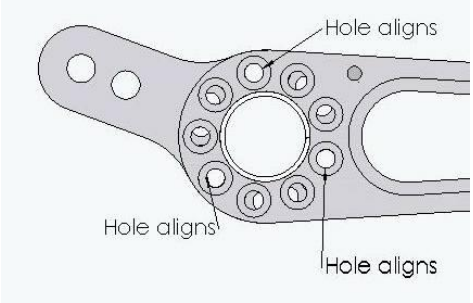
The lever contains a permanently lubricated bushing. No lube is needed. The rod-end bearings included are also permanently lubricated, but a bit of oil or chain-lube on these once in a while will prevent squeaks that may occur.

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.

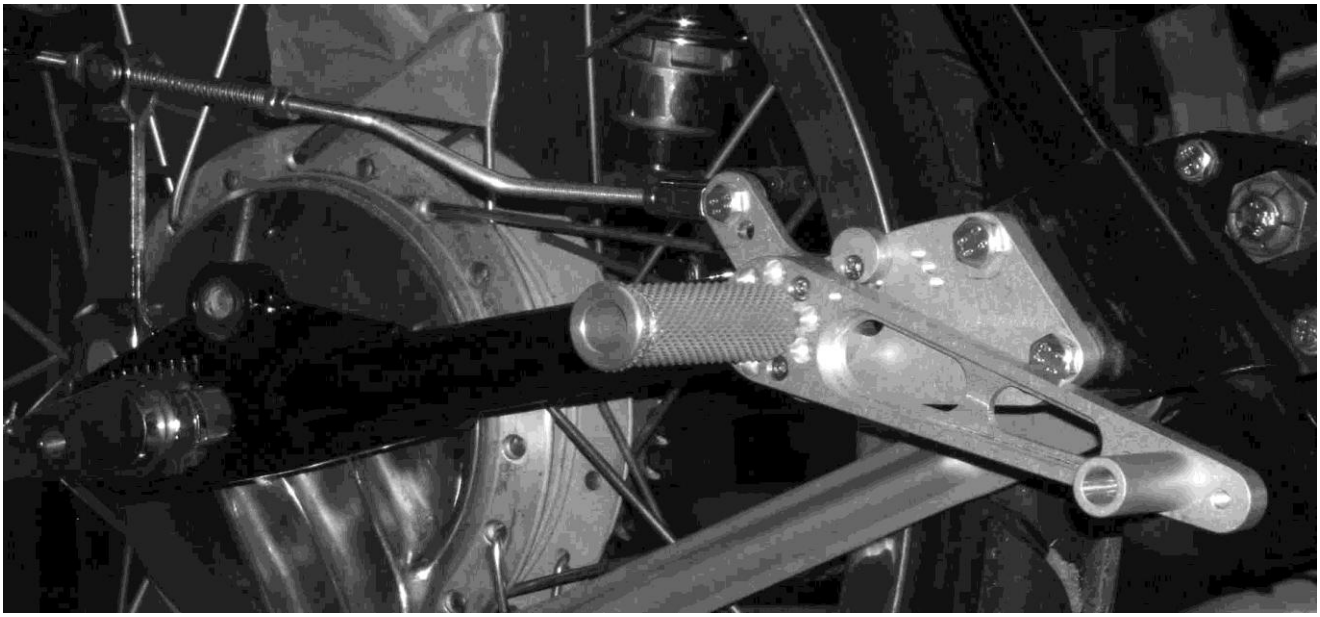
Polishing and appearance
Parts are not anodised, so no chemical etching is needed. The footpeg IS anodised, so don't try polishing it.

Step-by-step instructions
The product is packaged so that the left-side components are in one bag, and the right side are in another.

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. The passenger peg hangar plate must be cut. Supporting the bike, and removing the swingarm pivot shaft and the four bolts that hold it to the frame can remove the peg hangar plate. It can be cut in place if needed, but it is probably time to lube the swingarm bearings anyway.
4. Trace the back of the peg hangar plate to match the plate that is welded to the frame. You can reach in from behind with a marker to trace the frame mount plate onto the hangar plate as a cutting guide. ONLY CUT THE BACK TAB part of the hangar plate, well behind the rearward mount screws. You only need to remove the part of the hangar plate that is the tab for mounting the passenger peg. You need the front part to hold the swingarm.
5. After cutting the hangar plate to match the frame plate, mount it again. Removing one of the back screws at a time, drill out the 6mm hole through both plates with an 8mm (5/16" is close) drill.
6. Mount the rearset plate as shown above. The capscrews provided screw into the locknuts provided after going through both mounting plates.
7. Assemble the shift-shaft arm to the shift shaft as shown in the photo above. 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.
8. Assemble the footpeg assembly by inserting the peg thru the shift lever, and screwing it to the small end of the rearset plate. Don't tighten it all up yet, until you have sat on the bike and decided on what lever angle is comfortable for you.
9. Rotating the rearset plate around the top capscrew mount and using the second mounting hole on the bottom can lower height of the peg. The peg can also come forward by mounting the peg on the forward hole.

Right side:



1. Remove the brake lever assembly.
2. Repeat steps 3,4, & 5 from the Left Side.
3. The rear brake actuator 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.
4. Assemble the footpeg assembly by inserting the peg thru the shift lever, and screwing it to the small end of the rearset plate. Don't tighten it all up yet, until you have sat on the bike and decided on what lever angle is comfortable for you.
5. Using the stock nut and spring, mount the pullrod to the brake actuator lever. Use the two nuts to set and lock the tension on the spring. The pullrod is quite long, it may need trimming for best fit. The long end of the bent aluminum is toward the brake lever, the short end gets the threaded rod.
6. Mount the front of the pullrod to the brake lever with the rod-end as shown.
7. Mount the stop cam and use it to make sure the lever cannot lift too far.
8. 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.
9. Peg position adjusts like the left side. If you use the forward peg mounting hole, there may be clearance issues with the brake stop cam at some adjustments. A socket head capscrew is included to replace the upper mount screw to make this easier.

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.
5. Consider replacing the front 6mm screws that secure the hangar plate with higher grade ones and use a locknut on the back. Or drill out the holes and replace with 8mm capscrews. This will increase rigidity around the swingarm pivot.

Please send suggestions, questions and comments to **Support@MotoBits.com**
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