



Quill Stop Spindle Brake Grizzly G0704 (Weiss BF20) Installation Guide 7/4/2017

Thank you for purchasing the Quill Stop Spindle Brake for the Grizzly G0704 and all Weiss BF20 compatible mills. Your feedback is always appreciated. Please email questions and comments to gregpriest@cox.net.

What's Included

Quill Stop

1. Quill Stop Spindle Brake plate
2. Quill Stop block
3. Button nut
4. Threaded Rod, Zinc, 1/2"-20 x 12"
5. Socket cap screw, 1/4-20 x 1 1/4"
6. Socket cap screw, 1/4-20 x 5/8" (2)
7. Socket set screw, 1/4-20 x 1/4"

Spindle Brake

8. Spindle Brake block
9. Lock pin
10. Dowel pin, .125 x .750 (2)
11. Socket cap screw, alloy, 1/4-20 x 1 (2)
12. Installation instructions

Required Tools

1/8 and 3/16" hex key wrenches



Installation

1. Remove power to the mill and remove tooling from the spindle. Lower the mill head to its lowest point while still being able to lower the quill to its lowest point.
2. Insert the two supplied .125 x .75" dowel pins into the top holes of the Spindle Brake block. Align these with the corresponding holes in the bottom of the Quill Stop plate and carefully press these two pieces together. Insert the two supplied 1/4-20 x 1" socket cap screws in the bottom of the Spindle Brake block and tighten.
3. Thread the supplied 1/4-20 x 1 1/4" SHCS into the end of the Quill Stop plate with the slot. Slide the Plate up onto the spindle sleeve (the non-rotating part). The fit of this plate on the spindle sleeve is close and it may be necessary to use a flat blade screwdriver to gently pry apart the slot to get the plate to fit up onto the spindle sleeve. Align the front edges of the Plate and bottom front of the mill head. Sight through the lock pin hole of the Spindle Brake





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block and rotate the spindle by hand until the hole in the spindle is aligned. Insert the lock pin supplied with your mill and adjust the Quill Stop Spindle Brake plate vertically to align the holes. Test this alignment with the lock pin and make sure the lock pin can be inserted and removed smoothly. Tighten the 1/4-20 SHCS.

4. Screw the end of the 1/2-20 threaded rod with the flat into the hole in the Plate leaving one or two threads of the flat showing above the surface of the Plate. Secure the threaded rod using the supplied 1/4-20 socket set screw.
5. Slide the Button Nut down over the 1/2-20 threaded rod until the top of the Button Nut is just above the top of the E-Stop Switch. It may be necessary to open the yellow E-Stop Switch cover to allow room for the Button Nut in this position. If additional room for the Button Nut is necessary, unscrew the E-Stop Switch and move the E-Stop switch to the side.
6. Slide the Stop Block down over the 1/2-20 threaded rod so that it sits on top of the Button Nut. Center the threaded rod in the Stop Block hole. The Stop Block should now be level and correctly positioned on top of the Button Nut.
7. Insert a 9/32" transfer pin or drill through one of the holes in the Stop Block and mark a spot on the side of the mill head. Remove the Stop block and Button Nut and drill and tap a 1/4-20 hole at the spot just marked in the side of the mill head. Be careful to make sure the drill is perpendicular to the mill head. Use a 1/8" drill to drill a pilot hole, then a #7 or 13/64" drill for the final hole. Chamfer and tap the hole (use a tapping block if available). Replace the Stop Block and secure it to the mill head with the supplied 1/4-20 x 5/8 SHCS making sure it is flush and square. Repeat this procedure for the other Stop Block hole.
8. Remove the Stop Block and Button Nut from the 1/2-20 threaded rod and then slide the Stop Block down the 1/2-20 threaded rod and secure it to the side of the mill head. The 1/2-20 threaded rod should be centered and move freely in the Stop Block hole.
9. Slide the Button Nut down over the 1/2-20 threaded rod to any spot above the Stop Block and check the operation of the Quill Stop by rotating the quill until the Button Nut contacts the Stop Block. Minor adjustments may be made to the position of the Stop Block and the rotation of the Plate by loosening the fasteners, adjusting, and re-tightening the fasteners. If the E-Stop Switch was removed, replace it now and close the yellow cover.

Operation

The Quill Stop is simple to operate, simply press the button and the nut disengages from the thread. Slide to desired position and release the button to engage the threads. Turning the nut then allows for precision micro-adjustments of depth of cut.

The Quill Stop is great for doing chamfers. With the Spindle stopped and the chamfer tool in the spindle and centered on the hole, lower the quill until the chamfer tool seats in the hole. Then lower the Button Nut until it contacts the Stop Block. Rotate the Button Nut clockwise a half-turn to back out of the hole a bit and release the quill. Lower the spindle using the quill to make sure that the chamfer tool is not contacting the part. Start the spindle turning (150 RPM is recommended for chamfers) and lower the spindle using the quill. Then start a cycle of rotating the Button Nut counter clockwise in small increments while checking the depth of the chamfer by lowering and raising the quill. This is a great way to sneak-up on the correct chamfer depth.