Quill Stop Little Machine Shop 5500/5550 (Sieg SX2.7) Installation Guide

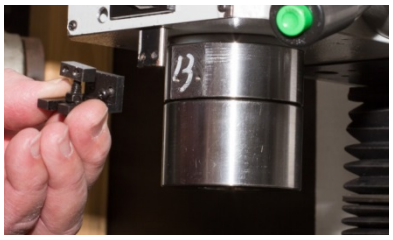
Thank you for purchasing the Quill Stop for the Little Machine Shop 5550 and all Sieg SX2.7 compatible mills. Your feedback is always appreciated. Please email questions and comments to gregpriest@cox.net.

What's Included

1. Stop plate
2. Quill bracket
3. Button nut
4. Threaded rod, 1/2-20 x 6"
5. Parts Bag
   a. Socket cap screw, 3-.5 x 20mm (2)
   b. Socket cap screw, 3-.5 x 10mm (2)
   c. Socket set screw, 10-24 x 1/4"
   d. Washer, 5mm (2)
   e. Washer, 3mm (2)

Tools Required

1. Hex keys: 3/32", 2.5mm, #1 Phillips screwdriver, 8mm wrench, small square



Installation

1. Remove power to the mill and remove tooling from the spindle.

2. Remove the screws and display bracket that secure the depth gage to the quill.

3. Remove the t-block head stud from the display bracket.

4. Lower the bottom of the height gage tongue below the bottom of the quill to access the 2 holes in the height gage tongue from the back with a #1 Phillips screwdriver.

5. Feed the 3mm Phillips screws just removed through the **back** of the height gage tongue and mount the t-block head to the **front** of the height gage.

6. Push the height gage tongue up and out of the way of the quill. Lower the quill a few inches and lock in place to make mounting the quill bracket easier to mount.

7. Place the display bracket in front of the quill bracket and align the mounting holes. Mount the display and quill brackets to the quill as shown using the 2 supplied 3 x 20mm socket cap screws. Use a small square to align the quill bracket perpendicular to the edge of the face plate on the mill head as shown. When aligned, tighten the 3mm socket cap screws securely to the quill, but, of course, do not over tighten. It is recommended to use a standard-end (not ball-end) 2.5mm hex l-key when tightening the 3mm screws.

8. Release the quill and raise to its top position. While doing this, place one of the supplied 3mm large format washers on the display bracket so

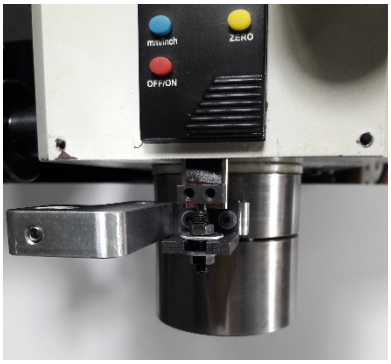
that the washer slides up onto the t-block.

9. Slide the t-block down onto the display bracket. Secure the t-block to the display bracket using a 3mm large format washer and nut removed earlier. Tighten the nut with an 8mm wrench.

10. Remove the lower 2, 3mm screws from the cover plate of the mill head. Mount the stop plate using the supplied 3 x 10mm socket cap screws using these holes. Align the stop plate to be perpendicular to the mill head cover plate using a small square. Tighten the screws.

11. Feed the threaded rod down through the stop plate and screw the end with the flat into the hole in the quill bracket leaving one or two threads of the flat showing above the surface of the Plate. Position the flat outward so that it will face the 10-24 x 1/4" set screw. Install and tighten the 10-24 set screw.

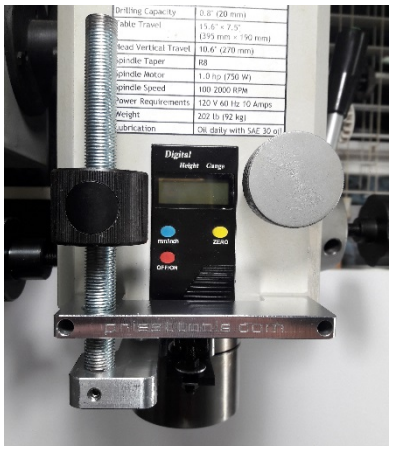
12. Slide the button nut down over the 1/2-20 threaded rod to any spot above the stop plate and check the operation of the Quill Stop by rotating the quill until the Button Nut contacts the plate.



13. Important: when operating the Quill Stop, lower the quill until the button nut meets the top of the stop plate and do not force further downward movement. The handles of the quill present a high-leverage force which may overcome the shear strength of the 3mm socket cap screws holding the stop plate in place.

14. To ensure smooth operation, minor adjustments may be made to the horizontal position of the stop plate and quill plate slightly in either direction. Loosen the fasteners, adjust, and re-tighten the fasteners to confirm a smooth operation. Congratulations, installation of your new Quill Stop is complete!

Operation



The Quill Stop is simple to operate, simply press the button and the nut disengages from the thread. Slide to the 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.