HQ Precision-Glide Machine-Wheel Kit Installation Instructions

OVERVIEW: READ THIS FIRST

The HQ Precision-Glide Machine-Wheel Kit includes several washers for precise alignment of the wheels with the carriage track. In most instances, the new wheels will correctly align with the carriage's aluminum track by placing a thick washer on the inside of each Precision-Glide wheel and two thin washers on the outside of each Precision-Glide wheel. (This will be done during steps 4 and 6 below.) First, complete all of the installation steps. Then, if further adjustments are necessary, use the additional washers included in the kit for fine-tuning the wheel alignment.

If further adjustments are necessary

Make the adjustments to the wheels on the side of the machine without the Stitch-Regulation Encoder. Changing the washers on the wheels on one side should make both sets of wheels on the machine align better with the track.

If the wheel spacing needs to be wider

Add thin outside washers to the inside of both wheels until the wheels on both sides of the machine properly align with the radius on the tracks.

If the wheel spacing is too wide

Remove the thick washer from the inside of both wheels and replace it with one or more thin washers until the wheels on both sides of the machine properly align with the radius on the tracks.

If the wheels still are not centered properly on the aluminum carriage tracks

Make the same washer adjustments to the polyoxymethylene (POM) wheels on the Stitch-Regulation Encoder side of the machine. The wheel radius should now match the radius on the track.

Kit Part Numbers: QM09811 Kit Contents

- 4: QM10233 Wheel, Machine, Polyoxymethylene (POM)
- 3: QM10766 Screw, 1/4-20 x 1.25" Hex Head
- 1: QM10773 Screw, 1/4-20 x 2" Socketed, Set
- 1: QM10776 Nut, 1/4-20 Jam
- 1: QM10772 Nut, 1/4-20 Nyloc
- 2: QM10635 Washer, .010" x 1/4" X 1/2"
- 4: QM10188 Washer, .031" x 1/4" x 3/8"
- 8: QM12487 Washer, .010" x 1/4" x 3/8"
- 1: QM10287 Hex Key, 3mm, L

Tools Needed:

- 1: Hex Key, 3mm, L provided
- 1: 7/16" wrench not provided



Figure 1 Contents of Precision-Glide Machine-Wheel Kit.

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Step 1: Remove the old metal-surface wheels (**Figure 2**) from the machine. Set the wheels and bolts aside; they will not be reused.

Step 2: Remove the encoder assembly. It will be remounted in the same position (P-pod, rear side of machine), but with the new Precision-Glide Wheel and washers. **Note: The machine will have either a black Stitch-Regulation encoder or a silver Stitch-Regulation encoder. Both encoders mount the same way (Figures 3 & 4).**

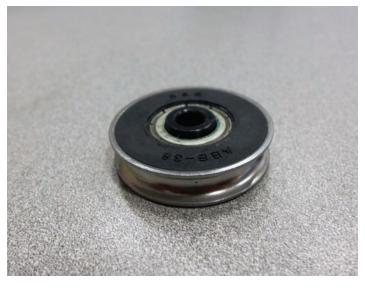


Figure 2



Figure 3, Black Stitch-Regulation Encoder

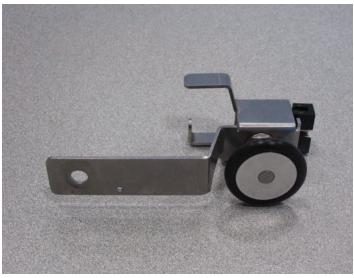


Figure 4, Silver Stitch-Regulation Encoder

Step 3: Use the provided 3mm hex key to rotate the 2"screw into the machine base plate 11 or 12 revolutions (**Figure 5**).

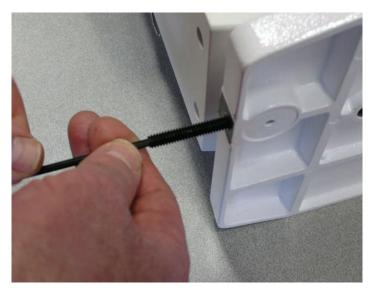
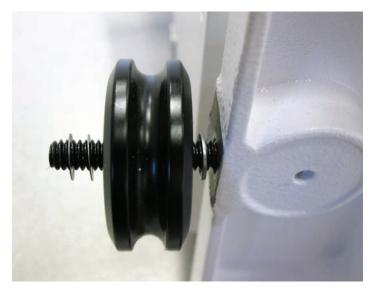


Figure 5

Step 4: Place the parts on the 2" screw as follows: thick washer against the machine base plate, Precision-Glide Wheel, two thin washers (**Figures 6 & 7**). Then add a thin jam nut (**Figure 8**). Be sure to place the ring side of the wheel towards the machine.

Step 5: Fully tighten the thin jam nut against the Precision-Glide Wheel (**Figure 9**).



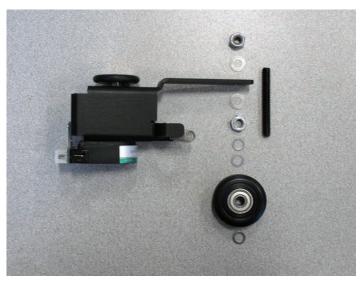


Figure 6

Figure 7





Figure 8

Figure 9

Step 6: Place the remainder of the parts (**Figure 10**) on the 2" screw as follows: large outside-diameter (OD) washer, encoder, large OD washer, Nyloc nut (**Figures 11, 12, and 13**).





Figure 10

Figure 11



Figure 13



Figure 12

Step 7: Tighten the Nyloc nut until the encoder has minimal play on the 2" screw but still springs up when lifted and released (**Figure 13**). **Note: The encoder will not function properly if it is over-tightened.**

Step 8: Install the coil spring onto the encoder and base plate locator tabs (**Figure 14**).



Figure 14

Step 9: Prepare and attach each of the remaining three Precision-Glide Wheels (**Figure 15**). Slide two thin washers, the Precision-Glide Wheel and a thick washer onto a 1.25" hex head screw (**Figure 16**). Attach to the machine base plate (**Figure 17**). Be sure to place the ring side of the wheel towards the machine. Fully tighten the screw with a 7/16" wrench (**Figure 18**).

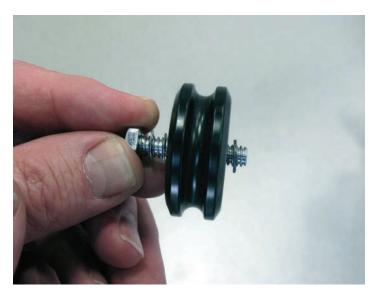




Figure 15

Figure 16



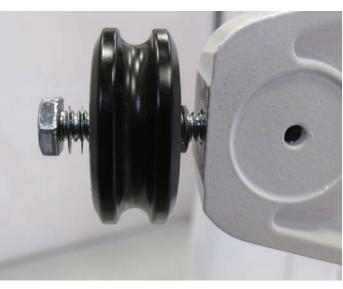


Figure 17

Figure 18

Step 9: Check that the wheels are properly aligned with the carriage's aluminum track. If further adjustments are necessary, make the adjustments outlined in the Overview at the beginning of this document.