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Purpose

This document provides instructions for adjusting the ribbon tension on the Sci-Print VX2/VXL.

Intended Use

If experiencing issues with the ribbon ripping, or diagonal white lines through the print on the label (ribbon wrinkles).

Required Material and Equipment

- 2.5mm Allen wrench (for Squix printer)
- 2mm Allen wrench (for A2 printer)

Intended Audience

Scinomix End User

Intended Audience

Field Service Representative from Scinomix or approved vendors.

Prerequisites

N/A

Procedure

1. **Ribbon Core.** Make sure the ribbon core is tightened against the bottom of the ribbon take-up reel.

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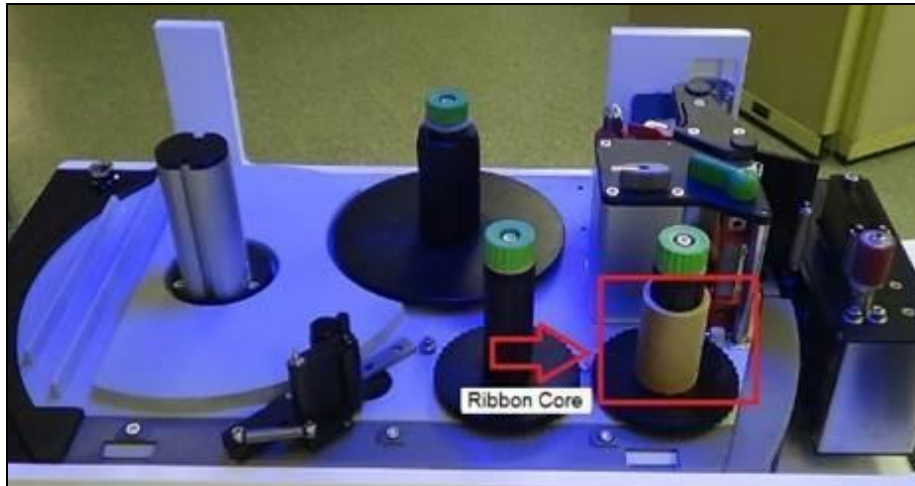


Figure 1. (A2 printer View from rear of instrument)



Figure 2. (Squix printer from front of instrument)

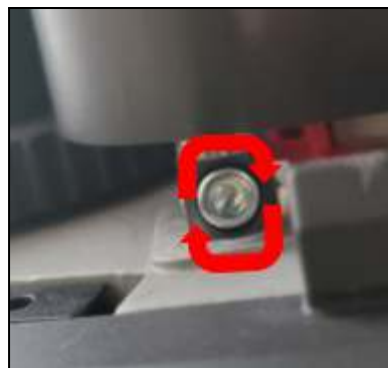
2. **Ribbon Attached to Core at Bottom.** Confirm the ribbon is wrapped around the ribbon core (counter-clockwise). Make sure:
 - a. The bottom edge of the ribbon is touching the bottom of the core.
 - b. The ribbon does not drift up when winding.
 - c. The ribbon has no folds/wrinkles.

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Figure 3.

3. **Check/Adjust Ribbon Tension Bar.** Use a 2.5mm Allen wrench to adjust the set screw in the base of the ribbon tension bar.
 - a. The +/- graduations and the line on the base of the ribbon tension bar are used to determine relative position.
 - b. Typically the bar is set between the center line and the ¼+ line for ribbon ~1.5" tall (ex. PN 2000-464).
 - c. The set point may need to be optimized for other ribbon types (ex. PN 2000-184).



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Figure 4.

4. **Check the location and pressure of the red tension fingers:** The red tension fingers that press the printhead against the print roller should be set as shown in Figure 5 below.
 - a. Open the printhead, and locate a hole in the rail at the top and the bottom that line up with the tension fingers.
 - b. Slide a 2.5mm Allen (you can use the one on the printer) into each of the two holes and loosen until it stops.
 - c. Turn the screw back clockwise 1.5 turns to tighten to the setting found to work the best.
 - d. Slide the top tension finger down so the pressure point is in line with the top of the ink ribbon as shown below.
5. **Check the adjustment of the wrinkle bar:**
 - a. With the ribbon run through the printhead, the ink ribbon heads to the waste spool. The wrinkle bar (roller) has a set screw and an index line showing a positive/negative position.
 - b. Make sure that the scribed line on the wrinkle bar is slightly to the positive side of the centerline. **Picture is below.**
6. **Check/Adjust Top and Bottom Guide Pin Tension.** The core of the guide pins is adjustable and affects how much tension each pin puts on the print head.
 - a. Use a 2.5mm Allen wrench to loosen the set screw in the face of the top guide pin, then slide the pin up to the top.
 - b. Insert the 2.5mm Allen wrench into the hole on the back side of the pin.
 - c. Loosen the pin by turning counterclockwise until completely loose, then clockwise 1.5 turns to tighten to the setting we have found works the best.
 - d. When complete, slide the top tension finger down so the pressure point is in line with the top of the ink ribbon. Having the top finger in line with the top edge of the ribbon reduces wear on the print roller.
 - e. Once run through the printhead, the ink ribbon heads to the waste spool. There is a roller that we call the wrinkle bar that has a set screw and an index line that shows a positive/negative position. You want to make sure

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that the scribed line on the wrinkle bar is slightly to the positive side of the centerline.

- f. Set the bottom pin the same way (no need to adjust the position of this pin).
- g. Inspect the metal tabs on top of each pin to confirm they're set in the same position. See Figure 6 below.

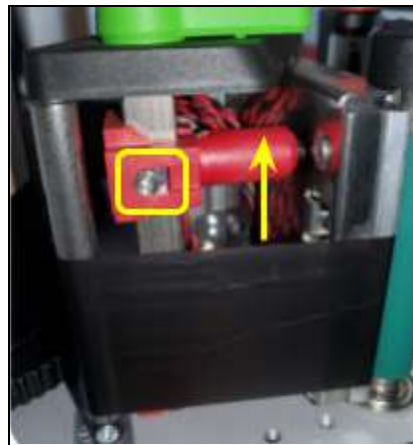


Figure 5.



Figure 6.

7. **Check the ribbon roll is not over-splayed:** If the ribbon roll is over-tightened to the point the reel on which it sits is at an angle, this increases potential for wrinkles. Loosen the reel and then retighten just enough for the reel to spin with the ribbon roll to correct it.
8. **Check/Adjust Top Guide Pin Position.** The top guide pin position affects the pressure distribution of the printhead against the print drive roller.

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- a. If experiencing ribbon wrinkling, moving the pin up may help reduce wrinkling.
- b. Use a 2.5mm Allen wrench to loosen the set screw in the face of the top guide pin, then slide the pin up.

9. Check angle of printhead guide: While this does not happen often and typically the checks before this fix it, it may be necessary to change the angle on the printhead guide rail. There is a center screw on the back side of the printhead that when loosened, adjusts the pitch of the printhead guide. At the top and bottom of this guide, there is a socket head screw. The one at the top is used as a stop (notice the larger hole that it is positioned in. Ideally this screw is centered in this hole, but may need to be brought slightly towards the front. Picture below.

10. Test by printing multiple labels. Ribbon wrinkling should be minimal on the ribbon/label back feed after each printed label.

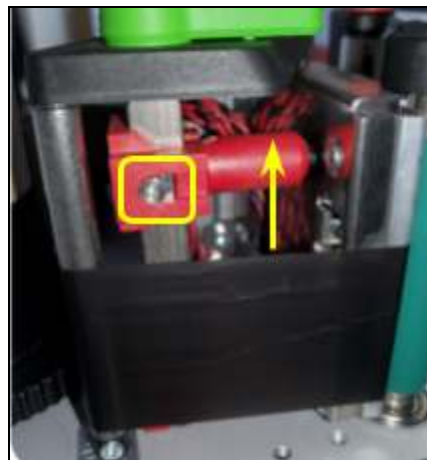


Figure 6.

- 11. Check the Ribbon Source Rewind.** After the ribbon is properly installed, close the print head and confirm the ribbon is taut.
- a. Turn the source reel clockwise $\frac{1}{2}$ turn and release.
 - b. Confirm that the internal spring rewinds the source reel and tensions the ribbon. (If not, see [TS-1049 Installing the Shim Washer into a SQUIX Printer](#)).

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Figure 7.

If you need additional assistance, please call our service department at 314-298-9800 or email service@scinomix.com.

Definitions

N/A

Revision History

Version:	Change:	Effective Date:	Approved by:
A	NEW	APR-24-2020	B. Petti
B	Content Review Added <i>Intended Use</i> section	AUG-08-2022	Service