

**TROUBLESHOOTING INDEX**

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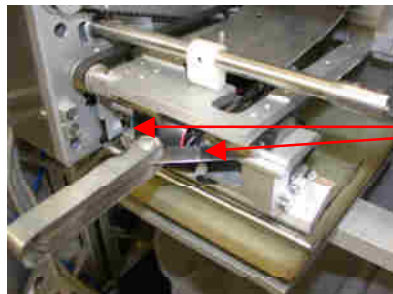
**Problem/Cause:** Printhead alignment /Improper Gap Setting

**Symptoms:**

- Light print on one side of the label.
- “Wrinkles” in the label.
- Faint or missing print in the label.
- Label image can be seen on the ribbon, but does not transfer to the web.

**Solution:**

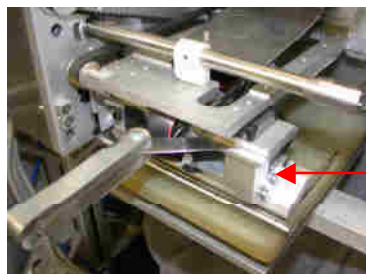
- These symptoms may indicate that the printhead gap is not correct. To set the printhead gap, use the gap gage (provided with the printer), and a 10mm open-end wrench. To make setting the gap easier, on the *EasyPrint III 128* model the floating printhead must be kept from moving. A set of gap feelers (used to set the gap in spark plugs) may be used to shim the printhead. See Figure 1.



Insert a gap feeler on each side of the printhead as shown.

**Figure 1**

- When setting the distance between the platen and printhead, make sure to set the end that strikes the platen first. Then, push the printhead assembly to the end of its travel and set that side. See Figures 2a and 2b.



**Figure 2a**

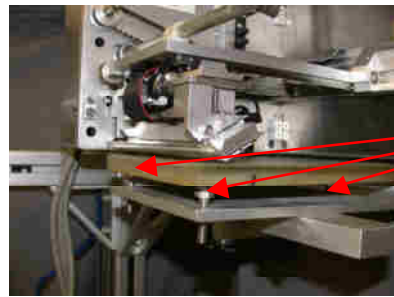
End of Travel

Home Position



**Figure 2b**

- When mounting the platen, it is absolutely essential that it be mounted so that the end with the two adjustment points is located at the end where the printhead first strikes the platen. This will ensure that you get the most accurate gap setting. See Figure 3.



Gap adjustment screws  
(Two on one end and  
one on the opposite end  
of the platen)

Figure 3

**Problem:** Air Pressure not correct.

**Symptoms/Causes:**

- No air pressure.
- Low air pressure.
- High air pressure.
- Water, dirt and/or oil in the air lines.

**Solutions:**

- With **no** air pressure, the printhead will not activate. This will cause the printhead to burn the label onto the ribbon, but the image will not transfer onto the web material. Premature damage to the printhead is likely.
- When the air pressure is **too low**, the two printhead air cylinders will not fully extend to the platen. This may cause the label to be faint or missing altogether.
- With the air pressure **too high**, the printhead is being forced into the platen. This can cause wrinkles, broken ribbon, ribbon sticking to the web material, and a variation in the height of the fonts. This will also cause premature damage to the printhead.



- **THE USE OF CLEAN, DRY AIR IS MANDATORY.** If water, dirt and/or oil are introduced into the air supply, malfunction of the solenoid and air cylinders may occur.

**Problem:** Platen Alignment

**Causes:**

- Improper Mounting
- Improper Adjustment

**Solutions:**

- When mounting the platen to the bracket, it is absolutely essential that you mount it in such a way as to have the end with the two adjustment screws under the printhead where it first strikes. See Figure 4.

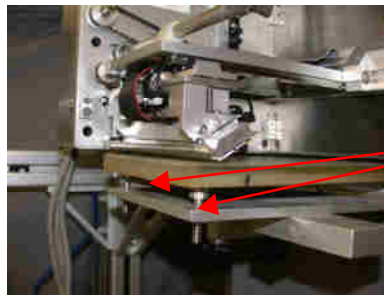


Figure 4

Place the two adjustment screws under the printhead when it is at its home position.

- When mounting the platen, it is essential that the platen completely covers the printhead, or damage to the printhead is possible. See sample label in Figure 5.



Figure 5

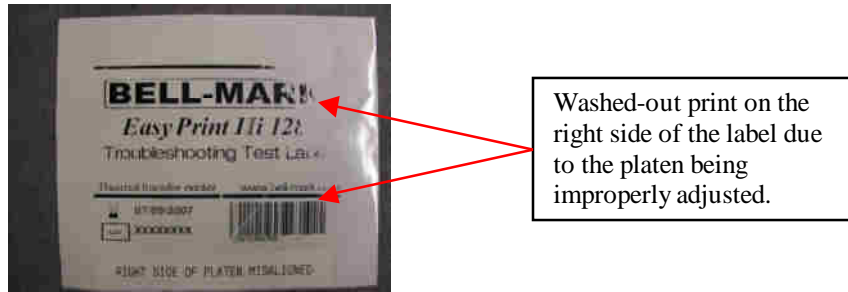
Sample label when the platen does not completely cover the printhead.

- The recommended distance between the printhead and platen is 1-1 ½ mm. A gap gage with a thickness of 1 ¼ mm is provided with the printer. If the gap is not identical on both sides of the printhead, the print will be washed-out. A sample of this is shown in Figures 6a and 6b.



Figure 6a

Washed-out print on the left side of the label due to the platen being improperly adjusted.



Washed-out print on the right side of the label due to the platen being improperly adjusted.

Figure 6b

**Problem:** Improper printhead angle

**Symptom:** Label appears to be washed-out on both the right and left sides.  
Label will not properly adhere to the web material.

**Solution:**

- On the *EasyPrint III 128* model there is a socket-head cap screw on the side of the printhead that can be loosened to set the correct angle. It is recommended that the sharpest printhead angle be used. See Figures 7a, 7b, and 7c.



*EasyPrint III 128* print head angle adjustment

Figure 7a



Figure 7b

Correct printhead angle sample.

Incorrect printhead angle sample.



Figure 7c

**Problem:** Lines of missing print in the direction of printhead travel.

**Causes:**

- Dirt on the printhead or on the web material.
- Pixels burned out in the printhead.
- “Destroyed” printhead.

**Solutions:**

- Dirt on the printhead can cause random lines (lines which appear in varying locations) of missing print on the label. See Figure 8.

**Figure 8**

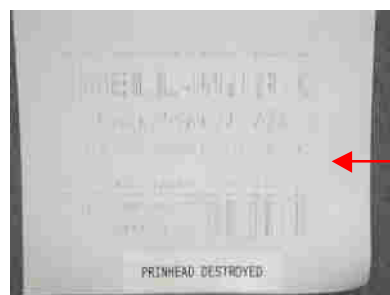
Random missing lines in the label caused by dirt particles on the printhead.

- Consistent lines of missing print in the label (lines that do not change location) can be caused by the pixels welding together in the printhead. When this happens, the heat that is used to transfer ink from the ribbon is no longer present, causing a missing line in the label. See Figure 9.

**Figure 9**

Missing lines of print due to burned out pixels in the printhead.

- A printhead that is “destroyed” will show massive lines of missing print. This damage to the printhead can be caused by: electrostatic discharge (EDS) from the web; attempting to print with no air pressure; attempting to print without contacting the platen; an extremely high contrast setting; or an incorrect printhead resistance setting. (Note: after printhead replacement, the resistance value in the control box must be changed to match the resistance of the new printhead). See Figure 10:

**Figure10**

Label printed with a “Destroyed” printhead.

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**Problem:** Defective printhead

**Symptom:**

- While in the “PRINTING” mode, exactly one-half of the label stops printing.

**Cause:**

- On the *EasyPrint III 128* model, the printhead circuit is made up of two connected halves. On the back of the printhead you will see a solder joint (in a “Y” shape) in the middle of the printed circuit board. If this solder joint is defective or missing, the printhead will only receive half of its information, causing the other half to not print. See Figure 11.

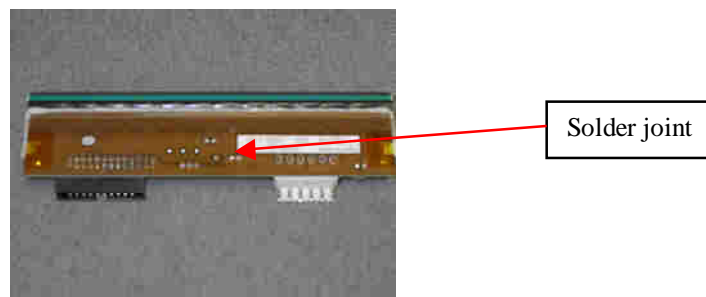


Figure 11

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**Problem:** Wrinkles

Wrinkle in the label.



Figure 12

**Causes:**

- Contrast set too high.
- Printhead misaligned.
- Platen mounted incorrectly.
- Insufficient ribbon tension.

**Solutions:**

- If the contrast is set too high (and there is a lot of information in the label file) the ribbon may fold over, causing wrinkles. See Figure 12.
- If the printhead-to-platen gap is not set properly, the printhead will not contact the platen evenly on both sides. This will cause the ribbon to have more pressure on one side than the other, causing wrinkles. See Figures 13a and 13b:

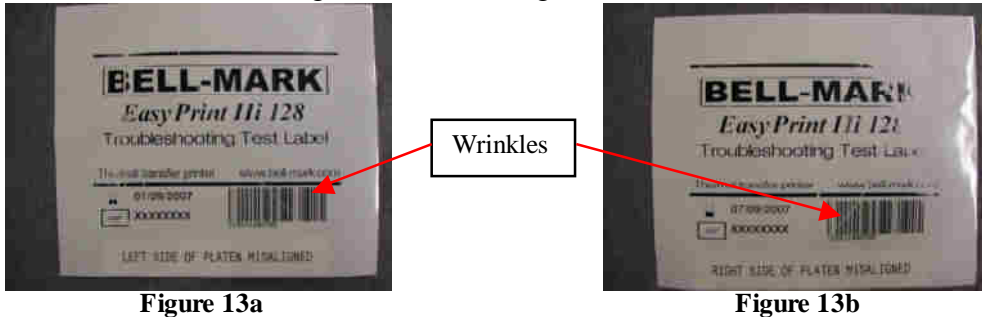


Figure 13a

Figure 13b

- If the platen is not mounted so that the end with two adjusting screws is located under the printhead (at its home position), it might not be possible to correctly set the gap. If the printhead strikes the platen unevenly, it will cause wrinkles. See Figure 14.

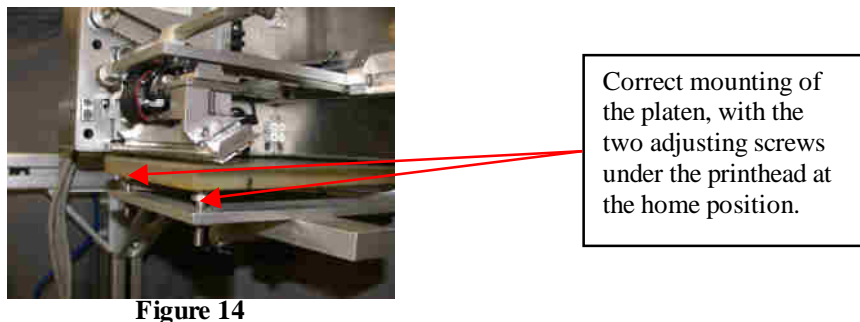


Figure 14

- If the tension on the ribbon is not sufficient, the ribbon will fold over as it passes the printhead. This will cause wrinkles to form, resulting in missed printing.

**Problem:** “Ribbon Error” Alarm

**Causes:**

- End of ribbon in the printer.
- Broken ribbon.
- Ribbon sensor malfunction.
- Drive-roll assembly failure (on cassette).

**Solutions:**

- Once a complete roll of ribbon has been printed, a message will be displayed on the control box that reads “RIBBON ERROR”. If this occurs, change to a new roll of ribbon and reset the control box.
- If the ribbon breaks, the ribbon sensor will not detect any ribbon travel. This will result in a “RIBBON ERROR” message. If this occurs, re-thread the ribbon and reset the control box.

- If the ribbon sensor malfunctions or does not detect ribbon movement, a “RIBBON ERROR” will be displayed. Checking for a damaged sensor is accomplished by accessing the SERVICE MENU. See Figure 15.

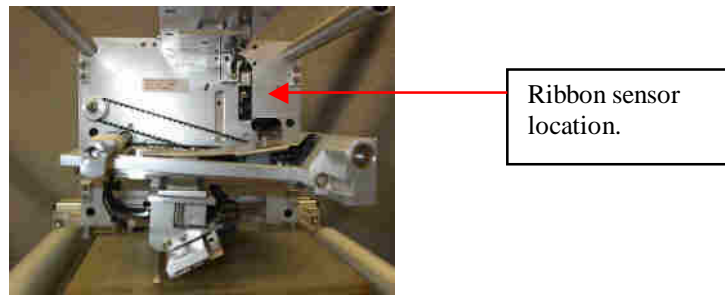


Figure 15

- There is a one-way bearing inside the drive-roll assembly on the cassette. If this bearing should fail, the ribbon will not advance. This will cause the printer to display a “RIBBON ERROR”. If this is the cause, replacing the drive-roll assembly will correct this problem. See Figure 16.

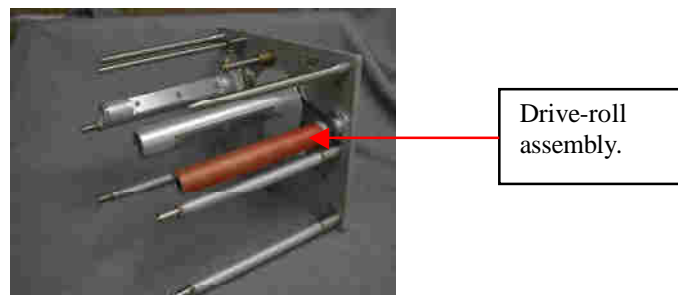


Figure 16

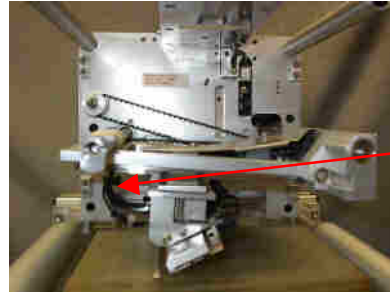
**Problem:** “ZERO ADJUST ERROR” alarm

**Causes:**

- Home sensor.
- Stepper motor malfunction.
- Incorrect line voltage.
- 4-amp fuse

**Solutions:**

- If the printer does not know when the printhead is at the home position, a “ZERO ADJUST ERROR” will be displayed. To check for a faulty or damaged sensor, access the SERVICE MENU. See Figure 17.



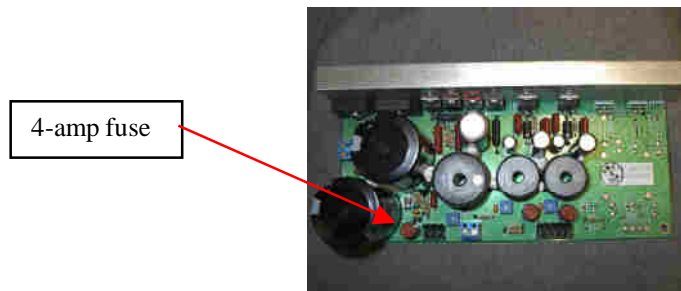
Home sensor  
location.

Figure 17

- If the stepper motor board (EY0009) fails, a “ZERO ADJUST ERROR” will be displayed. It is recommended that the board be replaced, and the faulty board returned to Bell-Mark for repair.
- The line module on the back of the control box can be set for either 115VAC or 230VAC. It is Bell-Mark’s practice to send control boxes out preset to 230VAC. If your printer only requires 115VAC, and the line module has not been changed from 230VAC, a “ZERO ADJUST ERROR” will be displayed.

**CAUTION**

- **CAUTION – PERMANENT DAMAGE TO THE CONTROL BOX WILL OCCUR IF 230 VOLTS IS APPLIED AND THE CONTROL BOX IS SET FOR 115 VOLTS**
- If the 4-amp fuse is blown, the printer will display a “ZERO ADJUST ERROR”. When checking to determine if the fuse is blown, always ohm-out the fuse, **NEVER** just check continuity. The resistance value should be 0.5 ohms or less. If the fuse is bad, it should be replaced. See Figure 18.



4-amp fuse

Figure 18

**Problem:** Incorrect contrast setting

**Causes:**

- Contrast too high.
- Contrast too low.

**Solutions:**

- If the contrast is set ***too high***, it can cause the printhead to burn through the ribbon, causing it to break. Depending upon the speed of the printer, the label may print and then lift-off in the same cycle. Contrast ***too high*** will also cause the ribbon to stick to the web material and/or cause wrinkles. Another symptom when the contrast is set ***too high*** is that the letters/numbers will appear to be filled-in or thick in appearance. See Figure 19.



Figure 19

Contrast set too high, causing the letters/numbers to appear filled-in.

- When the contrast is set ***too low***, the image will not completely transfer onto your web material. It gives an effect similar to the air pressure being set too low. See Figure 20.



Figure 20

Contrast set too low, causing the label to not completely transfer.

**Problem:** Voltages/Fuse replacement

**Details:**

- 2.5 / 5-amp line module fuse.
- 1-amp fuse.
- 2-amp fuse.
- 4-amp fuse.
- 8-amp fuse.

**Locations:**

- The line module on the back of the control box contains a 2.5-amp fuse when set to 230VAC and a 5-amp fuse when set to 115VAC. The location and placement of these fuses are provided in the Figures 21a through 21d.



Figure 21a



Figure 21b

Line module location.



Figure 21c

Fuse Holder

Cover

To access the fuse inside the line module, you need to first unsnap the cover; then pull out the fuse holder.



Figure 21d

Fuse location is on the right side of the fuse holder.

Fuse holder

Jumper location is on the left side of the fuse holder.

- The 1-amp fuse controls the 24VDC circuit for the printer. If the 1-amp fuse is bad, the fan inside the control box will not work and the printhead will not activate. This 1-amp fuse is located on the EY0001 (Power Supply) board at F2. The adjustment for this fuse is POT (potentiometer) P5. See Figure 22.



Figure 22

Potentiometer P5

1-amp fuse

- The 2-amp fuse controls the 5VDC circuit for the printer. The primary symptom will be that the LCD display will go blank. The 2-amp fuse is located on the EY0001 (Power Supply) board at F3. P3 is the potentiometer (POT) to adjust this voltage. See Figure 23.

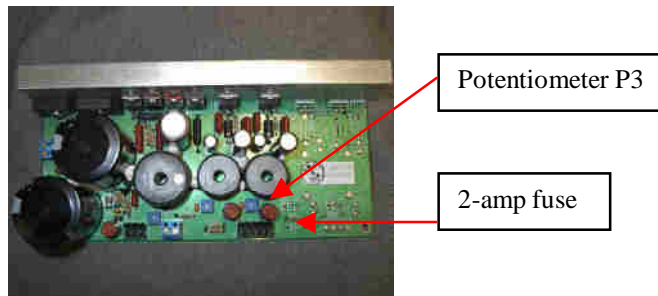


Figure 23

- The 4-amp fuse controls the 46VDC circuit for the printer. The primary symptom will be that the printhead will not perform a homing stroke and the display will read a “ZERO ADJUST ERROR”. There is no adjustment for this voltage. F7 on the EY0001 (Power Supply) board is the location of the 4-amp fuse. See Figure 24.

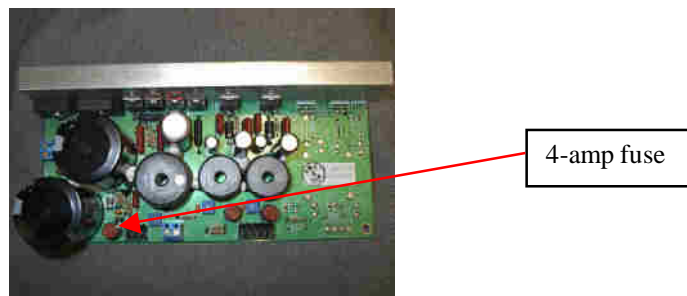


Figure 24

- The 8-amp fuse is a safeguard for the AC line voltage. It is located at F1 on the EY0001 (Power Supply) board. See Figure 25.

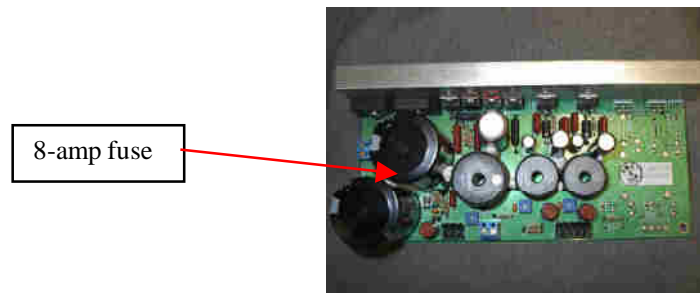


Figure 25

**Problem:** While “PRINTING” the printer misses every other cycle.

**Symptom:**

- The printhead is not at the home position when the print signal is given.

**Solution:**

- The “MAX SPEED FORWARD” setting is too slow for the speed of the packaging machine.

- When using multiple variables that update frequently, the printer requires a certain amount of time to update. Whenever possible it is recommended that the variable update only once.

**Problem:**

- When “PRINTING” the printer either prints 2 ½ labels, or the print “wraps” the printhead.

**Causes:**

- Incorrect printer model setting.
- X-displacement too high/low.

**Solutions:**

- If the printer is set-up for an *EasyPrint Iii 053* and the printer you have is an *EasyPrint Iii 128*; during printing, the printer will print 2 ½ prints per cycle. See figure 26.

**Figure 26**

Incorrect printer model selected at the control box.

- X-displacement will move the label on the x-axis. If this setting is too high or too low, the label will “wrap” the printhead. See Figure 27.

**Figure 27**

Label “wrapping” the printhead.

**Problem:**

- When “PRINTING”, the printer will print 1-plus a small portion of another label.

**Symptom:**

- Poor quality print.
- Information duplicated.

- Wrong positioning.

**Solution:**

- On the *EasyPrint III 128* model printer, the recommended maximum speed forward is 300mm/sec. If the “MAX SPEED FORWARD” setting goes above 350mm/sec, the printer may not process the information to the printhead correctly. See Figure 28.

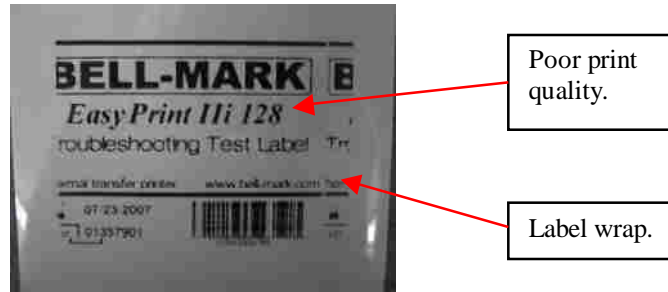


Figure 28

**Problem:** “ENABLE OPEN” error.

**Causes:**

- The interface cable (brown and white wires) is not properly connected.
- A jumper is missing.

**Solutions:**

- When interfacing the printer to the packaging machine, the brown and white wires must either be connected to a dry contact (which enables the printer), or they must be connected together.
- The EY0008 (Controller) board has a jumper located at J6. If this jumper is not in place, the printer will display an “ENABLE OPEN” error.

**Problem:** “FIELD DATA LINE TOO LOW” error.

**Symptoms/Causes:**

- When creating the label, one or more lines exceed the length of the label.
- When saving a label to the memory card, the “LABEL LENGTH” setting was incorrect.

**Solutions:**

- The maximum label length for the *EasyPrint III* model printers is 102mm. If, when creating the label, the length is made greater than 102mm, the printer will search for the information, but cannot process it.
- When saving a label to the memory card, verify that the “LABEL LENGTH” is correct. When this information is sent to the memory card from the PC, the label length does not follow the label.

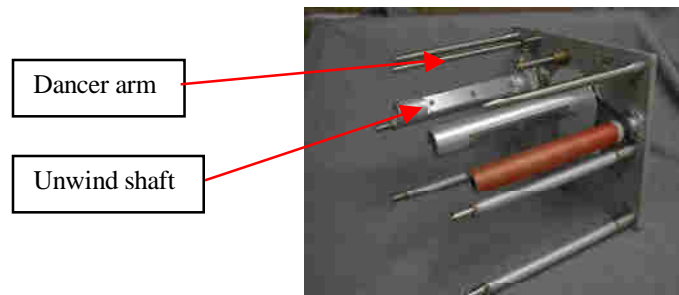
**Problem:** Ribbon tension not correct.

**Symptoms:**

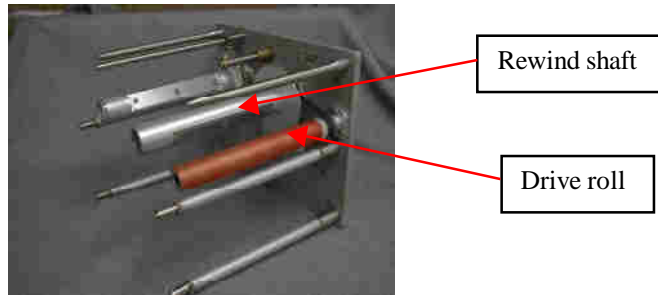
- Ribbon too loose.
- Ribbon too tight.

**Solutions:**

- A ***loose ribbon*** will cause wrinkles. The unwind side of the cassette controls the amount of tension on the dancer arm which, in turn, controls ribbon tension. When the dancer arm is at the 12 o'clock position it provides very little tension to the ribbon. When the cassette is working correctly the dancer arm should be in the 10 o'clock range. To adjust the tension on the dancer arm, remove the roll of ribbon, and pull the dancer arm counter-clockwise until it stops (approximately the 8 o'clock position). Next, tighten the nut on the unwind shaft until the dancer arm does not want to return to the 12 o'clock position. Now, slowly loosen the nut on the unwind shaft until the dancer arm slowly starts to return toward the 12 o'clock position. Once the dancer arm reaches the 10 to 11 o'clock range, stop loosening the nut. This setting may now be tested by pulling the dancer arm slightly and then releasing it. The arm should just return to the 12 o'clock position. See Figure 29.

**Figure 29**

- A ***tight ribbon*** will cause the drive roll to slip and the ribbon will not advance properly. It may even cause the ribbon to break. If the dancer arm is adjusted too tightly, it will not work in the desired 10 to 11 o'clock range. See the above procedure to correct this problem. Also, if the rewind shaft is adjusted too tightly, these same symptoms may occur. When setting the rewind shaft, keep in mind that the tension for how tightly the ribbon winds onto the core is being set. If this is set too tightly, the used-ribbon spool will be very difficult to remove from the rewind shaft. If it is set too loosely, the ribbon will wind up loose on the core (will feel "spongy"). When this occurs, the ribbon usually pulls off the core during spool removal, or it will not be possible to rewind a complete roll of ribbon. To adjust, lightly hold the drive roll and tighten the nut on the rewind shaft. To test this setting, while still lightly holding the drive roll, manually turn the rewind shaft counter-clockwise. There should be some resistance before the belt that connects the drive roll to the rewind shaft slips. See Figure 30.



**Figure 30**