

# Print Quality & Completeness

Please note, there is much commonality between the different models of LabelStation and therefore it is advisable to read the comments on other models if you cannot find a diagnosis relating to your own.

## All or some labels are blank

**Q. *Printer goes through the motions of printing and the print-head even buzzes, but nothing is printed.***

A. Check that the ribbon is loaded correctly (dull side down / shiny side up). Videos: [Pro 200 & Pro 300](#).

**Q. *Printer goes through the motions of printing but not everything (sometimes nothing) is printed.***

A. Look at your label template and check that no boundary box (the box that appears around a label object when it is selected) overhangs the label or is completely outside the label. A small amount of overhang is permissible, but not if the font is a printer font. Try changing to a Windows font.

Another trick is to select an object on the label (any object) and use the tab key on your computer keyboard to rotate through all the objects. If you discover an empty text box outside the label, delete it because it will cause mischief.

## Every other label is blank

**Q. *Alternate labels are blank.***

A. Make sure the label height (depth) you have entered in the template for your label corresponds to the physical height of the label. Likewise, make sure that the vertical gap has been measured correctly. Where there is any doubt, enter a slightly lower figure.

BarTender videos: [Page setup](#). [Gap setting](#).

**EXPLANATION:** The gap sensor looks for the gap where the gap is expected, based on the label dimensions you have entered in the template. If the label height you have specified in the template is greater than the actual height of the label then the sensor will start looking for the gap too late, which causes every other label to be missed.

## Blank labels occur randomly

**Q. *Printer is producing occasional blank labels when printing die-cuts.***

1. Try [recalibrating](#) the gap sensor. The gap sensor is an optical device. When you fit a new roll of labels, recalibration may be necessary when the transparency of its backing paper differs slightly from the previous roll.

2. Try reducing the gap size setting in the software by 1mm. BarTender video: [Gap setting](#)

3. Check that the labels are not physically damaged or flawed. Check that none are missing from the roll and, if one has become detached, check it is not stuck inside the printer.
4. There may be a marginal setting. In other words, if the label height you have entered in the template is exactly equal to the physical height of the label, the printer might overshoot some labels where there are production variations in gap distance and/or label size. When designing a template, if you are unable to make precision measurements, it is usually best to round numbers downwards. For example, if the gap seems very slightly under 3mm then entering 2mm in the template is best.
5. Check the sensing method in use is appropriate. Perhaps your label stock is of the black line type but the template is set to gap, or vice versa. BarTender video: [Sensing](#)

### **Trailing labels are blank**

Q. ***Printer produces one correct label followed by blanks then stops with a red error light.***

- A. Set the label template to 'Gap' or 'Black Mark' as appropriate. BarTender video: [Sensing](#)

### **Labels print incompletely**

Q. ***Not all objects on the label are printing even though they preview on screen.***

- A. If an empty text box is left forgotten anywhere outside the label boundary (can happen during label design stage) this can cause the label to come out blank. To check for this, select any object on the label then use the Tab key on your keyboard to rotate through all the other objects. You may find strays!
- Q. ***Character in a text box is cut off.***
- A. May happen to right-most character of italicised text, where the character overlaps the boundary box. Insert a space after the incomplete character.
- A. Any character cut-off may be caused by using X-axis offset (called 'horizontal' axis in BarTender) to overcome an alignment problem. An alternative, if the label is less than 100 mm wide, is to exaggerate the width of the label in Page Setup. E.g. if the label is 50mm wide then set the label width in the template to 55mm. This gives you room to reposition the text without using the offset adjustment. BarTender video: [Page setup](#).

Q. ***Labels are not printing fully across their width.***

- A. Check that you have fitted the correct width ribbon in the printer.

Q. ***Print has random bits missing throughout.***

- A. Check that you have fitted a new ribbon. If a ribbon is reused, the film of 'ink' across its surface will not be complete.

### **Banner/long label problems**

Q. ***Very long label (banner) only prints partially (or causes errors)***

- A. The maximum length of a LabelStation banner is nominally 2.8 metres, the exact value depending on the labelling software and other variables.

## Printer stalls almost immediately

Q. **Printer lays down the first row of pixels then stall and goes to error condition.**

A. The print-head connector might be loose. The printer shuts down if it registers spurious head currents. Contact Advanced Labelling for assistance.

## Unwanted black line

Q. **A vertical black line is printed through all my labels.**

A. This is caused by either a faulty print-head or a faulty PCB. Return the printer for repair.

## Missing print in the form of a horizontal line

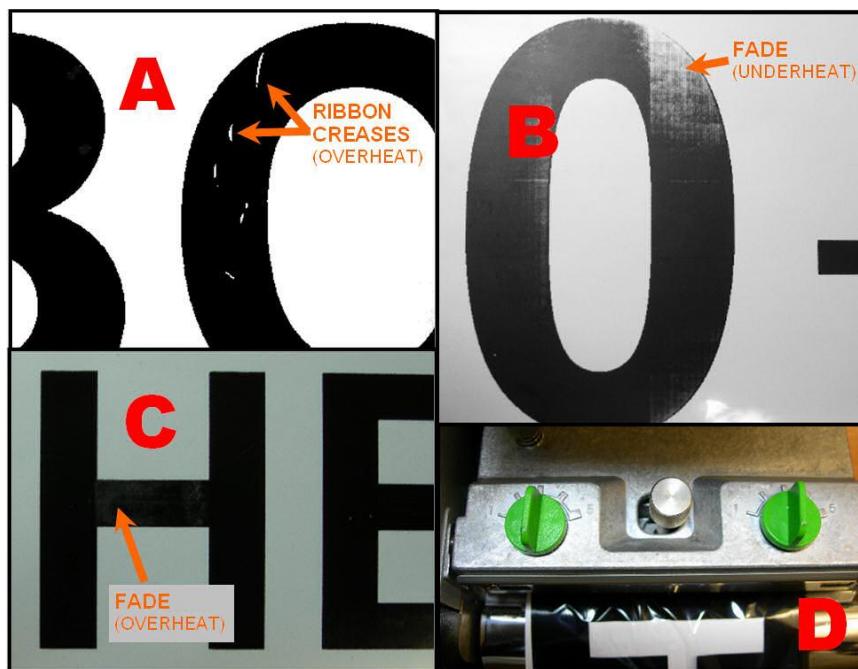
Q. **Labels have a line of missing print running horizontally through them.**

A. If you are using an electric cutter, try substantially reducing the print darkness setting. BarTender video: [Print quality](#).

## Patchy and faded print

Q. **Patchy print, faint print, random streaks of unprinted area.**

A. See photo below for a guide to the common imperfections.



**Pic. A** Print darkness (temperature) set too high. Ribbon expands under print head, causing creases.

**Pic. B** Print darkness (temperature) set too low. Insufficient heat to deposit ribbon resin. If temperature is only slightly too low then faintness occurs on leading edges of black areas (because

of slow pixel warm-up). If individual pixels are visible (fabric effect) then darkness is set far too low (or print speed to high)

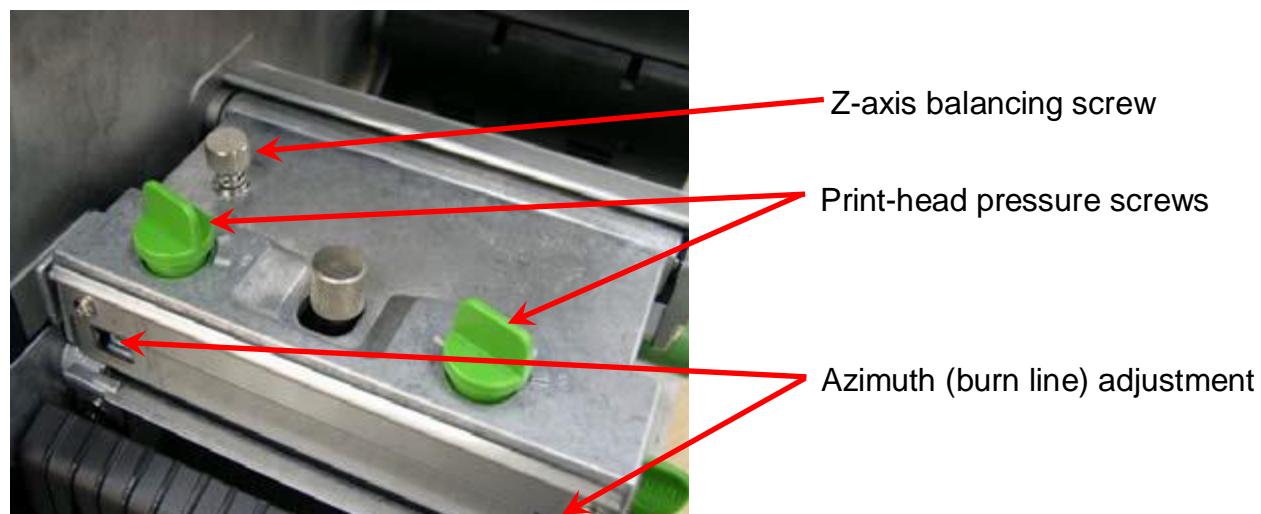
**Pic. C** Print darkness (temperature) set too high. 'Orange peel' or wave patterns occur on black areas. Note that only the horizontal part of the H is affected (print head travelling left-to-right). This is because here fewer pixels are energised allowing the voltage to the print-head to rise (less demand on power overall) and so the temperature rises in those pixels still at work. Lower the darkness setting or increase print speed.

**Pic. D** Using the Pro 240, some of the above problems can be controlled by increasing the print-head pressure. The photo shows this setting at 3 & 3.

BarTender video: [Print quality](#).

If you have a Pro 240 and are using 300 micron horticultural labels instead of the more common 200 micron thickness, and one side of your label is not printing properly, try increasing the head pressure (both screws equally at first) to about 4. See user manual, and illustration below. *Note that 300 micron stickin labels can be wider than the print-head and so must be inserted in the printer with the non-printable end on right-hand side.*

**LabelStation Pro 240** special considerations. After years of heavy use it might become necessary to make general adjustments to the entire mechanism. See following picture, which shows all possible adjustment mechanisms. Your printer may not have all of these.



The **Z-axis balancing screw** (tilt adjustment) equalises the two head pressure springs when they are set to the same number.

The **print-head pressure screws** allow the left and right pressure to be adjusted independently.

The **burn line** screws are used to align the print-head with the top of the platen roller arc and should be adjusted only by a competent technician.

If adjusting the print-head pressure screws does not improve print quality, and it is observed that when the pressure screws are set equally the print-head pressure remains unequal, adjust the Z-axis screw.

If the print-head pressure is satisfactory but the print quality remains poor, then probably the print-head is either dirty or worn out.

**Q. *Label printing poor after starting a new roll.***

A. Check that your labels (and ribbon) are not past their shelf life or of poor quality generic origin. Also check that your ribbon and label stock are compatible. You may need to change your ribbon to a different type, e.g. from Industrial to General Purpose. Wax ribbon (General Purpose) is suitable for Thermal Transfer type paper labels, and sometimes better for wire wrap and heat-shrink tube. Resin ribbon (Industrial) is suitable for synthetic labels such as vinyl and polyester etc., and is scratch resistant and generally chemical/weather proof.

Avoid contaminating or creasing media during handling and fitting.

If you think the print-head needs cleaning, apply IPA (Isopropyl Alcohol) sparingly to a soft, lint free cloth or plain kitchen paper. Do not use abrasive materials or aggressive techniques. IPA may be purchased in aerosol form or as print-head cleaning pads.

Maybe you have fitted the ribbon wrongly, possibly with the dull side facing upwards where it passes under the print-head (over the rubber platen roller). Also check that you are using the LabelStation mains adaptor that was supplied with your printer. If the adaptor is underpowered the printer may continue to work but produce faint print.

**Print faint on one side**

**Q. *Labels are printing one side good, the other side faint and patchy.***

- A. One of the catches which locks down the print-head carriage is broken.
- A. Print-head pressure spring broken or dislocated. Remove ribbon to inspect.
- A. **Model Pro 200/Pro 300:** There might be a contaminant stuck to the white roller located beneath the rubber drive roller (platen roller). Remnants of label stuck to this can tilt the platen roller and offset the pressure against the print head. The platen roller may be removed by pinching the clips at each end.

**Model Pro 240:** The print-head pressure springs might need adjusting. Refer to the manual.

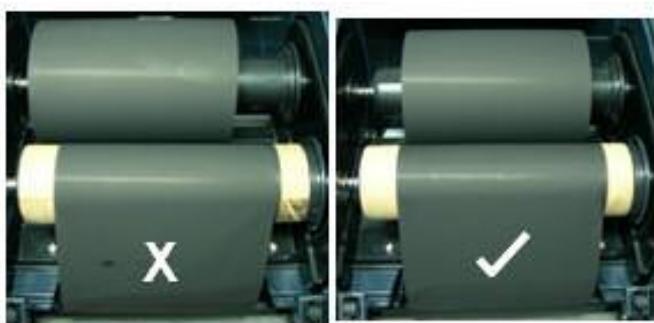
If you are printing on labels less than 100 mm wide (less than the width of the print-head), the print-head can tilt slightly and cause faint print on one side. Independent adjustment of the head pressure springs is possible using the green knobs.

**All models:** The problem may be caused by a worn print-head.

**Streaks in the print**

**Q. *Labels printing with diagonal streaks across them, caused by the ribbon creasing.***

- A. Perhaps you have not aligned the front and rear ribbon spools. The rear one must be directly behind the front one. See photo below:



If the ribbon spools are misaligned, the ribbon is forced to travel sideways, which causes wrinkles to form.

A. If you have streaks (missing print) biased towards the leading edge of the label, you may have the label template set to Cut while the printer has no cutter. Newer machines do not go to error state when there is no cutter fitted but do still retract the label, this brief reversal of direction creasing the ribbon. This phenomenon has been observed in the pro 240.

### **Blotchy bar code**

Q. ***Barcode prints blotchy after being rotated 90 degrees.***

A. Try using a very low print darknesss setting with a faster print speed.  
BarTender video: [Print quality](#).

### **Distorted print**

Q. ***Model 342: Printing text with jagged edges.***

A. If text is distorted as below, renew the parallel cable to your PC.



### **White on black printing failure**

Q. ***Inversed print area (white font on black background) does not appear as it should.***

A. You are probably using a printer font. Printer fonts cannot be inverted. For white-on-black printing use a Windows font or, if the entire label is to be inverted, use appropriately coloured label and ribbon.