

General

Poor print quality is normally caused by flaws or debris on the printable surface of the slide. To ensure the best print quality, approved slide types should be used. The printable surface must be of uniform thickness across the entire width of the slide, it must be smooth and free of any clumps or dust embedded in the coating.

The quality of the slides printing surface determines the print quality. You cannot improve print quality by adjusting printer settings if the slide surface is low quality.

When troubleshooting compare the slides in question against a slide type known to produce good quality and consistent print.

Different slide types may need to have different heat settings. It is important to use the lowest heat setting possible. Use the table below to diagnose quality problems.

Error / Symptom	Possible Cause
	<p>Smudging. smudging this is a sign that the heat is too high or the print head requires cleaning.</p> <p>Try reducing the heat setting until it disappears. If it does not disappear, there may some debris on the print head preventing the heat dissipating through the slide surface.</p> <p>Complete the print head cleaning and recovery procedure.</p>
	<p>Light Patches. This is caused by an uneven or inconsistent surface. Low quality slides, defective slides or slides that are not thermal printable, such as inkjet type may be the cause.</p> <p>Do not adjust the heat setting.</p>
	<p>Horizontal Line. A horizontal line through print is caused by a small bump on the slide. This causes the entire print head to lift at this point, so the effect of the bump is extended to the left and right of the bump. Low quality or defective slides may be the cause.</p> <p>It can also be caused by the tape being dragged by the print head. This can be a sign that the heat setting is too high. If this is seen repeatedly reduce the heat setting.</p>

 <p>A slide with text 'H16 (177', 'A 01', and 'L1'. The QR code is partially missing.</p>	<p>Random Missing Area (Print Surface Intact). This is caused by a rough printable surface. Low quality slides, defective slides or slides that are not thermal printable such as inkjet type may be the cause.</p> <p>Do not adjust the heat setting.</p>
 <p>A slide with text 'H16 01977', 'A 01', and 'L1'. The QR code has several dark spots.</p>	<p>Group of Spots. This may be caused by dust particles on the slide. Keep the slide clean. Avoid handling the slides. Do not remove them from their shrink wrapping until you are inserting the slides into the dispense hopper.</p> <p>Do Not adjust the heat setting</p>
 <p>A slide with text 'H16 01077', 'A 01', and 'L1'. A vertical line runs through the QR code.</p>	<p>Vertical Line. A line vertically through the entire print is caused by dust or debris on the print head burn line.</p> <p>If this is seen on every slide the print may need cleaning. Remove the tape and clean the head with a cleaning swab (Part No P30001-E).</p> <p>If after cleaning the line is still present, the print head is damaged and needs replacing.</p>
 <p>A slide with text 'H16 01077', 'A 01', and 'L1'. The QR code is very faint.</p>	<p>Light Printing. Consistent light printing is caused by insufficient heat or slides that are not thermal printable such as inkjet type. You may be able to improve quality by increasing the heat setting.</p>

Slide Requirements

Slides must have a coated frosting. The frosted coating should cover 20mm of the length of the slide. The coating must be of uniform thickness across the entire width of the slide. The PiSmart Slide Printers use thermal transfer print technology. This print technology requires stricter standards on the surface finish and cleanliness of the slide's frosted coating compared to slides that are used with ink jet technology printers. The coating must be smooth and free of any clumps or dust embedded in the coating or print defects will occur.

Ribbon Burn – Possible Causes:

- Heat setting set too high. Follow the Print Quality Setup. Use a slide Known to be good quality as a sanity check.
- Incorrect resistance set for the installed print head. Check the resistance on the print head is the same as entered on the printer settings.
- Buildup of debris on the print head.
 - Uneven slide surface can cause local tape burn if the head is not in contact with the slide surface.
 - The example image shows light print down one side and tape burn under it. This will cause melted tape to build up on the head.
 - If the print head has debris stuck on it this can move and hold the head away from the slide causing an air gap. The heat cannot transfer to the slide resulting in the head over heating.
- Take the ribbon out and inspect the print head from the top and bottom.
- Print head printing when not in full contact with the slide.
 - This can be caused by debris on the print head. It can also be as a result of a slide jam.
 - It is important that no more than 10 slides are allowed to collect in the collection guide.
 - The printer cannot detect a buildup of slides on the collection guide. It detects the slide exiting the printer.
 - If slides are allowed to back up they will eventually prevent slides exiting the printer and causing a jam. If a slide cannot exit the print mechanism the next slide may drop through the bottom stop and be in the wrong position for printing. This will cause the print head to print in air and overheat resulting in melted or broken ribbon.
 - The head will require cleaning and the Print Head Recovery process should be followed.

