**ZEBRA**

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# SOLVING PRINT QUALITY ISSUES OR COLOR PRINTING ISSUES ON CARD PRINTERS

Article ID: 06894540

## DETAILS

**Symptom**

This solution applies to multiple print quality issues including:

- Ribbon wrinkle: multicolored, feather-like lines printing diagonally on the card, also known as "tiger stripes" or "lightning bolts"
- Light or faded text or images
- White spots, marks, or lines on print
- Ribbon breaking
- Print Quality issues

**Applies To**

All card printers except P630i / P640i, and ZXP Series 7 and Series 8

**Cause**

There could be one or multiple causes for each problem including:

**Supplies** - We recommend using Zebra cards for optimum print quality. However, when using third-party cards, make sure they meet the specifications required by each Zebra Card printer. Cards need to be clean and free of dust particles. Although Zebra ribbons have a long shelf life (under ideal temperature conditions), the use of old ribbons may cause print quality problems.

**Configuration** - There may be additional configuration of printer settings needed to adjust print quality, this includes driver settings and printer commands.

**Solutions**

Below are some suggestions you may try. Some solutions ask to view an attachment, which is located at the end of this article.

Before you try any of these solutions, it is important to understand that some of these issues are solved by **firmware updates**. Make sure the printer is running the latest firmware version, which can be found in the

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**Downloads** section for your respective printer on Zebra's website. Read More>>
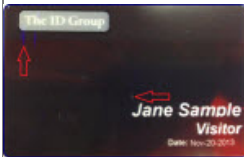
To view the current firmware on your printer  Read More>>

To update the firmware:

- *ZXP Series 1 & 3* Read More>>
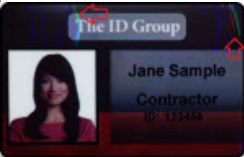- *Performance and Value Series* Read More>>

If you have any questions or if these suggestions do not help you resolve the issue, please contact Zebra Technical Support.

| Problem | Example | Resolution |
|---|---|---|
| **Light print** |   Click to expand | <ul><li>Printer may require **cleaning**<ul><li>For *Value Class* printers Read More>></li><li>For *Performance Class* printers Read More>></li></ul></li><li>Increase **color intensity** under **Printing Preferences** (*ZXP Series only,* see attachment)</li><li>Ribbon may be old or defective; try a new ribbon</li><li>**Head resistance** is too low. Increase head resistance. Read More>></li></ul> |
| **Extremely light or "washed out" print** |   Click to expand | <ul><li>Make sure the correct power supply is being used (*Value series and ZXP only*). **Value series printers should have power supply with an output voltage of 24V**. Any power supply with lower voltage will not have enough power to heat the printhead nor operate the printer properly</li><li>**Printhead needs alignment**. Printer needs service Read More>></li></ul> |
| **Very dark print** |   Click to expand | <ul><li>Decrease **color intensity** under **Printing Preferences** (*ZXP Series only,* see attachment)</li><li>**Head resistance** is too high. Lower head resistance. Read More>></li></ul> |
| **Light or spotty black text, barcodes, or images** |   Click to expand | <ul><li>Printer may require **cleaning**<ul><li>For *Value Class* printers Read More>></li><li>For *Performance Class* printers Read More>></li></ul></li><li>Cards have **contamination**. Use clean cards. Read More>></li><li>**Monochrome settings** may need adjustment. Different settings may be needed when printing black text, barcodes, or images.<ul><li>To adjust these settings on *ZXP* printers R</li></ul></li></ul> |

| | | • To adjust these settings on *Value and Performance* Read More>> |
|---|---|---|
| | | • **Head resistance** is too low. Increase head resistance. Read More>> |
| **White or colored spots on print** | \n\nClick to expand | • Cards have **contamination**. Use clean cards. Read More>><br>• Spotting may be shown due to dirty printer. Printer may require cleaning.<br><br>  • For *Value Class* printers Read More>><br>  • For *Performance Class* printers Read More>> |
| **Yellow spots on card** | \n\nClick to expand | • Mostly visible on white areas. This is due to **contamination** on the card, most likely the card surface has been touched and the fingers left oil residue. Use new cards following proper card handling recommendations. Read More>> |
| **White horizontal lines** | \n\nClick to expand | • **Dust or foreign particles** are stuck to the printhead. Run a cleaning procedure to clean printer or clean printhead manually.<br><br>  • For *Value Class* printers Read More>><br>  • For *Performance Class* printers Read More>><br><br>• Printhead has **damaged elements** and needs replacement. Read More>> |
| **Blurry letters or images** | \n\nClick to expand | • Card may not be traveling properly due to dirty rollers. This disturbs the timing for when the color panels on the ribbon lay down on the card as it prints. Run a **cleaning cycle**.<br><br>  • For *Value Class* printers Read More>><br>  • For *Performance Class* printers Read More>><br><br>• **Ribbon sensor** may need calibration:<br><br>  • To calibrate *Performance printers* Read More>><br>  • To calibrate *Value Class* and *ZXP Printers* Read More>> |
| **Image gets cutoff, is not centered, or there are white margins on the edge of card** |  | • You may need to adjust the **End of Card** (EC), **X** or **Y** offsets Read More>><br><br>*Note*: Procedure for making these changes is labeled for a ZXP Series 3. However, the commands and location of thes |

| | | |
|---|---|---|
| | | not the same, as the Performance and Value Class printers. |
| **Ribbon wrinkle** |  | • Decrease **color intensity** under **Printing Preferences** (*ZXP Series only,* see attachment)<br>• **Head resistance** is too high. Lower head resistance. Read More>><br>• Printhead may need alignment. Will need to get printer serviced. Read More>> |
| **Printing one or two panels/colors** |  | • Incorrect ribbon is being used or printer failed to recognize the ribbon. Card printers use **i-Series** ribbons only, make sure you are using the correct ribbon and it is installed correctly. Read More>> |
| **Printing half of card black (usually on P330i and P430i printers)** |  | • When cards are being printed with part of it half of one color, the **ribbon sensor** needs calibration.<br> • To calibrate *Performance printers* Read More>><br> • To calibrate *Value Class* and *ZXP Printers* Read More>> |
| **No print, blank cards coming out** | | • Make sure you are using cards that meet printer's specifications. Contact your card manufacturer if you are not sure.<br>• When using **adhesive backed** cards, make sure you are printing on the PVC/printable surface<br>• **Printhead data cable** may be disconnected. Printer needs service Read More>><br>• **Printhead may be damaged**. Printer needs service Read More>> |
| **Ribbon breaking during print** | | • If ribbon is breaking at the beginning of any color panel, the printhead is printing too close to the edge of the card. Adjust the **X offset**. Read More>><br>• If ribbon is breaking at the end of any color panel, the printhead is going past the edge of the card. Adjust the **EC setting**. Read More>><br><br>***Note***: Procedure for making these changes is labeled for a ZXP Series 3. However, the commands and location of these settings are similar, if not the same, as the Performance and Value Class printers.<br><br>• **Head resistance** is too high. Lower head resistance. Read More>><br>• If using custom cards such as: |

- Adhesive-backed cards Read More>>
- Pre-punched cards Read More>>

- **Printhead needs alignment**. Printer needs service Read More>>

**Helpful Information**

To purchase card supplies, including cleaning kits, you will need to contact a Zebra Card Reseller. Read More>>

For information on adjusting color intensity, click the following link.   Read More>>
Additional Info found here

+   PRODUCT CODES

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