



ZXP Series 8

Summary of Firmware

Release FZ8ME.04.03.00

General Release

Important: This is a sustaining firmware release for the ZXP Series 8 Retransfer printer that fixes several reported customer use issues, improves production yield for the ribbon detect subsystem, further enhances the Custom 1 & 2 card setting feature and provides optimized speed and temperature settings for Zebra's Retransfer Ready Cards. Version 04.03.00 of the firmware is being released in conjunction with a new ZXP Series 8 Driver version DZ8CG.05.00.00.00.

It is strongly recommended that customers download and install both the new ZXP Series 8 firmware and driver together to take advantage of the important changes. Note: due to a bug found in v3.01.00 FW related to WiFi operation, v4.03.00 FW has fixed the bug, for users who operate in WiFi, it will be necessary to download v4.03.00 FW with either Ethernet or USB.

Note: The Firmware upgrade procedure for v04.03.00 has been slightly modified from previous versions. Carefully read the instructions below. It is required that the user follow the instructions below to ensure proper installation and operation.

- 1. For ZXP Series 8 Retransfer and Secure Issuance printers (Z81 / Z82 Models Only)** – First, cycle power and wait until initialization is complete. Next, upgrade the main printer controller board using the file labeled ZXP-Series-8-Firmware-R4.03.00 For Printers Only. Once the firmware upgrade is finished, cycle power again to complete the upgrade process.
- 2. For ZXP Series 8 Retransfer printers (Z83 / Z84 Models Only) with Laminator** - First, cycle power and wait until initialization is complete. Next, upgrade the main printer controller board using the file labeled ZXP-Series-8-Firmware-R4.03.00 For Printers Only. Once the main printer controller board firmware is upgraded, cycle power the printer. Lastly, after the printer has completed its initialization process, upgrade the laminator main controller board using the file labeled ZXP-Series-8-Firmware-R4.03.00 For Printers with Laminator. A power cycle is not necessary upon upgrading the laminator main controller board.



Firmware Fix Summary:

- Ribbon Detect Error – Customer / repair instances have been reported via the ZXP Series 8 OCP panel. The problem was isolated to the threshold value for the clear panel (blue) in conjunction with the tri-color LED performance resulting in the ribbon continuously advancing. A change to the threshold values has been made in the firmware to ensure this condition will not result in the error condition occurring.
- Y-panel non-printing – An isolated customer case was reported. The problem was isolated to the ribbon color panel detection subsystem. A change to the firmware was made to improve the panel detection reliability.
- Random reboot (WiFi Environment) – A few instances were reported that while using a ZXP Series 8 with Wireless interconnectivity, the printer rebooted. A change to the firmware was instituted.
- Horizontal line image artifact – Several customer instances of a horizontal line image artifact (yellow, blue & or white) were reported. The image artifact was duplicated and a fix was incorporated into this version of the firmware.
- K-panel Ribbon Grayscale Support – An isolated customer case was reported. Customer selects Send as Grayscale in the Monochrome Conversions which is in the Black Panel (K) Optimization tab in the printing preferences of the driver. When trying to print, a message pops up on P.C. that says "Job Aborted by Error. The print job was aborted due to an error and will be canceled". At that point the job is canceled and gone from the print queue. If we change the setting back to the default "Dither error diffusion", the job will make it to the printer and the card will print. Ribbons affected are: YMCKKI, YMCKI, YMCKH, and YMCUvK.
- Mag Retry Feature Modification – This feature will now automatically re-try the full encode cycle 3 times before declaring a mag error, ensure full 3-track erase function, and set the pass span match rate such that the read span bit length must be 70% or higher of the write span length before declaring a mag error.
- Incorporated a Print Head Motion Enhancement – An isolated customer use issue reported hearing printer noises associated with the stepper motor. Found that current firmware drives the step motor differently when the printer is initialized vs. when printing a card. The firmware has been modified such that, during mech initialization, should a print head lift error occur, the initialization will be retried two additional times. A print head motion error will be asserted only when the two retries have failed.
- Clean Front Card Path – It was found that unnecessary Clean Front Card Path warning was being generated. The firmware was modified to ensure that the placeholder entries are properly appended to the cleaning log before declaring that the log was valid, thereby eliminating a false cleaning warning.
- The Custom Card Driver Preferences Setting as seen in the ZXP Series 8 standalone toolbox has been modified to allow for user definable Custom 1 and Custom 2 card renaming. The firmware XML file was modified to enable this feature that is



accessible through the ZXP Series 8 driver. The change allows for the customer to edit and rename “Custom 1” and “Custom 2” card type.

Lastly, new speed and temperature settings were coded in the firmware to support Zebra’s offering of “Retransfer Ready” cards. The cards are of exceptional quality, durability and reliability. Extensive testing and qualification was conducted to ensure that the settings will provide optimum image quality first time every time reliably.

Zebra P/N	Description
104523-811	Card, PVC, 30 Mil Retransfer Ready
104523-813	Card, PVC, HiCo, 30 Mil, Retransfer Ready
104524-801	Card, Composite, 30 Mil, Retransfer Ready
104524-803	Card, Composite, HiCo, 30 Mil, Retransfer Ready

Issues Corrected:

1. Correction to timing to prevent printer reset when sending Wi-Fi jobs.
2. Tri-color Detection Improvement - Implemented variable threshold for discriminating color panel from clear panel.
3. Implemented firmware improvement to error handling of out of ribbon condition. (Fix for case where out of ribbon recovery causes next card to print OK; but, subsequent jobs are printed with not all of the color panels, followed by jobs that are just blank cards)
4. Implemented firmware change to remove image ‘horizontal line’ artifact. Results in only initializing the printhead position when necessary (i.e., just prior to applying pre-print tension for the first print job that is received after exiting standby).
5. Implemented firmware change to include ‘grayscale’ support for the following ribbons: YMCKI, YMCKKI and YMCUVK.
6. Implemented a firmware enhancement to overcome improper card reject count. Now properly reflects actual number of cards present in reject bin.

Changes:

1. Improved Bitmap resolution to ensure the following characters would be displayed. (Fixed character font for ò, í and Û characters so that these characters will display correctly.)
2. In support of printhead field replacement, implemented a firmware improvement to ensure proper image printing after changing the printhead serial number (‘proper’ meaning not light image quality). Fixed problem with light printing after setting printhead serial number.



3. Implemented firmware change to properly reflect in the OCP error conditions for error code '5008' ribbon authentication and '4017' InTM authentication; new OCP text 'Invalid Media'. (Change media authentication failure message on OCP from INVALID MAC to INVALID MEDIA.)
4. Implemented firmware settings for 'Retransfer Ready' cards. Added 4 retransfer-ready cards.
5. Implemented firmware enhancement to the printhead initialization sequence with retries to minimize false printhead motion error. (Enhancements for printhead initialization to try initialization 3 times, if there is a jam, before asserting a printhead motion error.)

For Your Information:

Due to the nature of certain firmware changes made in version 4.03.00, when upgrading the ZXP8 firmware from an older version of firmware, the user may notice a change in some values related to cleaning the printer. As reported in the Toolbox, the values for "Cards since last cleaning" will now be set to one-half of the "Cleaning Interval" value. In the example below, the firmware was upgraded, the counts were reset to one-half of the cleaning intervals (2500, 2500, and 10000, for the Side Card Path, Front Card Path, and Heater Rollers, respectively), and two cards were printed, resulting in the values seen below.

