



Zebra[®] ZXP Series 8[™] Retransfer Card Printer

Frequently Asked Questions
November 2009

Zebra Technologies Corporation

333 Corporate Woods Parkway » Vernon Hills, IL 60061-3109 USA T+1 847 634 6700 F+1 847 913 8766 www.zebra.com



Retransfer Card Printing Technology

Q. What is retransfer printing?

A. Retransfer technology uses a two-step process called reverse thermal transfer. The retransfer process prints a high-resolution image in reverse directly onto a clear receiving layer carried by a flexible, intermediate film. The dye sublimation process prints the image to the film and then uses heat and pressure to thermally transfer the image and the entire image-receiving intermediate film onto the card surface. The printed image resides underneath the clear image-receiving layer, inside the card.

Retransfer delivers high print quality, the ability to print on uneven card surfaces such as smart cards, and on non-PVC cards, for a more durable and abrasion-resistant card that lasts longer than traditional materials.

Superior image quality

Separates the image creation step from the process of applying the image to the card, relieving many of the constraints of direct-to-card (DTC) printing, and optimizes the dye for print quality—regardless of card material.

Greater flexibility

Over-the-edge printing enables true edge-to-edge images, giving users access to the entire card surface.

Retransfer process is relatively insensitive to card materials allowing for high quality images on a wide variety of card types such as biodegradable cards enabling “green” initiatives.

Improved security

The transfer film provides fraud protection since the film easily shows tamper evidence.

Retransfer technology allows the use of transfer films with holographic images and laminates with a multitude of security features such as holographic images, optical variable ink, and morphing.

Lower printhead costs

Printhead lifespan improves dramatically because retransfer printers print on soft transfer film panels and not on rigid card substrates as with traditional DTC printers resulting in a reduction in overhead for spare printheads, lowered maintenance workload, and improved ROI.

Q. How does retransfer printing differ from DTC printing?

A. DTC printing uses a traditional dye sublimation process and printhead to transfer the image through a dye ribbon directly onto the card surface. Retransfer uses the same dye sublimation process but prints the image in reverse onto a clear intermediate film which is then thermally transferred directly onto the card using heat and pressure.

Zebra ZXP Series 8 Retransfer Card Printer

Q. What is the Zebra ZXP Series 8 retransfer card printer?

A. The Zebra ZXP Series 8 printer is based on new leading-edge hardware and software technology that meets demanding enterprise needs for high-performance, photo-quality card printing. Retransfer technology is the optimal on-demand printing solution for meeting the stringent image quality and encoding standards that advanced card applications require. Retransfer printing is ideal for a broad range of applications such as:

- High-security credentials and identification cards
- Loyalty, membership and retail cards
- Financial cards with magnetic or smart card encoding
- And many other applications

- Q. Can the Zebra ZXP Series 8 printer print on both sides of the card?**
A. Yes, the Zebra ZXP Series 8 dual-sided card printer prints using a patent-pending process that applies the printed transfer film to both sides of a card at the same time. Other retransfer printers are limited to applying the transfer film to the card one side at a time. This simultaneous front/back transfer process enables breakthrough printing speeds and throughput.
- Q. Since the Zebra ZXP Series 8 printer applies the transfer film to both sides of the card simultaneously, will I lose a transfer panel if I only print on one side of the card?**
A. No, the ZXP Series 8 Card printer is designed to automatically wind back one panel of transfer film when you print only on one side of a card to minimize the number of unused transfer film panels per roll.
- Q. Can I print color on both sides of the card?**
A. Yes, the ZXP Series 8 dual-sided configuration will print in color on both sides of the card simultaneously. The ZXP Series 8 single-sided printer prints on one side of the card only.
- Q. Does the ZXP Series 8 print edge-to-edge?**
A. Yes, the ZXP Series 8 printer is specifically designed to print an image in a slightly oversized form factor than that of the card surface resulting in a full “over-the-edge” effect. This produces a sleek, photo-like appearance that is very different from a traditional ID card. If your printer has the laminator, it is highly recommended that any printed security elements be located under the laminate patch.
- Q. What are the standard features of the ZXP Series 8 printer?**
A. Standard features for the ZXP Series 8 card printer include:
 - USB connectivity and Ethernet-ready (available via firmware upgrade)
 - Single and dual-sided printing
 - Print speeds (max): 190 cph single-sided, 170 cph dual-sided
 - Single-card feed capability
 - 150 card capacity feeder (30 mil)
 - 15 card reject hopper (30 mil)
 - 100 card output hopper (30 mil)
 - Auto calibration of media
 - 64 MB memory
 - 21-character, 6-line LCD operator display
 - 304 dpi (12.0 dots/mm) print resolution
- Q. What options are available on the ZXP Series 8 printer?**
A. Options for the ZXP Series 8 card printer at launch will include:
 - ISO HICO/LoCo magnetic stripe encoding
 - MIFARE contactless and contact encoder combo
 - Contact station for third party contact encoders
 - Lockable enclosure/card feeder
Options available in future releases include:
 - Single- and dual-sided laminator
 - UHF Gen 2 RFID encoding
 - iClass contactless and contact encoder combo
 - Prox reader and contact encoder combo
 - 802.11b/g and 1 GB Ethernet connectivity
 - Barcode scanner

- Built-in USB hub
- Security Key

Q. What options are field upgradeable on the ZXP Series 8 printer?

- A. Field upgradeable options include:
- ISO HICO/LoCo magnetic stripe encoding
 - MIFARE contactless and contact encoder combo
 - Contact station for third party contact encoders
 - UHF Gen 2 RFID encoding
 - iClass contactless and contact encoder combo
 - Prox reader and contact encoder combo
 - 802.11b/g and 1 GB Ethernet connectivity
 - Barcode scanner

Q. What connectivity options are available for ZXP Series 8?

- A. The ZXP Series 8 comes standard with:
- USB 2.0 at launch
 - 10/100 Ethernet-ready at launch with firmware upgrade available in future release
 - 802.b/g wireless and 1 GB Ethernet available in future release

ZMotif™ Software

Q. Is software included with the ZXP Series 8 printer?

- A. Yes, the Zebra ZXP Series 8 printer includes an XML standards-based Windows® Certified printer driver, and job control software language. Also available is a new advanced ZMotif Software Development Kit (SDK) and developer tools for easy application integration and printer management.

ZMotif Software features include:

- Windows Certified drivers (32-bit and 64-bit compatible)
- Ease of integration with enterprise applications
- XML based SDK
- ZXP printer toolbox application provides a complete management console for advanced printer and driver configuration and management including:
 - role-based printer password protection
 - printer/driver configuration save and restore capability
 - print job logging feature
 - test card library for easy setup and configuration

Q. What are the supported operating systems?

- A. The ZXP Series 8 has drivers compatible with Microsoft Windows® XP/XP Professional, Server 2003 and Vista.

Q. What drivers do the contact and contactless encoder use?

- A. The ZXP Series 8 contact and contactless encoders are USB PC/SC compliant drivers. The PC/SC drivers are included with the ZXP printer driver distribution CD.

Q. Will the Ethernet version support IPV6?

- A. At first release, the ZXP Series 8 printer will not have IPV6 network support, but will be available in future releases of the Ethernet driver.

- Q. Will the Ethernet version support and have SMTP and MIB support for network device manageability?**
- A. Yes, the Ethernet driver will have full SMTP and MIB support for network device discovery and management
- Q. What logical security features will be supported in the ZXP Series 8 driver and ZMotif?**
- A. Future releases of the ZXP driver will have advanced security features including:
- Printer driver host to printer encryption for increased data security
 - Ability to restrict or lock the printer to one or more specific host drivers for added security
- Q. How can I get a copy of the new ZMotif SDK documentation and development tools?**
- A. These are available for download on our website www.zebracard.com under drivers and downloads, or you can email your request to Card_SDK_Questions@zebra.com.
- Q. What kind of service and support is available for the ZMotif SDK development tools?**
- A. Zebra offers technical support for applications developers using the Zebra card printers SDK. The part number and price are referenced in the service programs section of the Zebra card printer price list.

ZXP Series 8 Retransfer Printer Media

- Q. What media do I use for the Zebra ZXP Series 8 printer?**
- A. The Zebra ZXP Series 8 retransfer printer is designed to work only with Zebra True Colours® i Series™ ribbons, Zebra True Colours™ i Series transfer film and Zebra True Secure™ i Series laminates.
- Following is a list of specifically designed ribbons and transfer film for the ZXP Series 8 printer:
- PN 800012-445 - YMCK ribbon; 625 images/roll
 - PN 800012-480 - YMCKK ribbon; 500 images/roll
 - PN 800012-601 - Transfer Film, 1250 images/roll single-sided, 625 images/roll dual-sided
- The following ribbons and transfer film will also be made available in the near future:
 YMC, YMCuVK and Monochrome (black, gold, silver) ribbons
 Transfer Film with Hologram
- Q. What cards are compatible with the Zebra ZXP Series 8 printer?**
- A. Compatible cards include: CR-80 size cards with a thickness between 30 and 40 mil (+/- 3 mil); PVC, PVC composite, ABS, PET, PET-G and Teslin® Composite, polycarbonate, contact and contactless smart cards, UHF cards.
- Q. Are there special precautions when loading printer ribbon and/or transfer film?**
- A. Yes, the ribbon and transfer film must be installed with the colored side of the ribbon or film matched to the colored ribbon or transfer film holder.

ZXP Series 8 Printer Maintenance

- Q. Is the cleaning and maintenance routine different from other Zebra card printers?**
- A. Yes, although like all Zebra card printers, ZXP Series 8 printers require routine cleaning and maintenance for optimal performance. It is recommended to clean the transport rollers after 5,000 cards and the transfer station after 20,000 cards.

The ZXP Series 8 cleaning card kit includes 12-X and Y roller alcohol cleaning cards and 3 hot roller tacky cleaning cards; enough for 12 cleaning cycles or 60,000 images.

- Cleaning rollers are provided with each set of color ribbons. Change the cleaning rollers every time you install a new ribbon.
- Alcohol cards are available for periodic cleaning. The printer should be cleaned with these cards every 5,000 images. A special tacky card is available to clean the transfer rollers which should be cleaned every 20,000 images by your reseller.
- The print head should be carefully wiped using the swab (P/N 105909-057) every 5,000 images or if particular build-up occurs.

ZXP Series 8 Printer Service and Support

Q. How do I get support for the Zebra ZXP Series 8 retransfer printer?

A. For questions relating to the operation of Zebra equipment and software, please use one of the following methods:

Call technical support at +1 800 511 9909 or +1 805 577 7002, then press option 1 (Americas only), send e-mail to techsupport@zebra.com or visit us on the web at www.zebracard.com

Q. What is the warranty for this printer?

A. The ZXP Series 8 printer comes with a lifetime warranty on the printhead and 2-years limited warranty on printer including a 2-year hot swap (U.S. only).

Q. From what location is the warranty for the ZXP Series 8 currently provided?

A. Currently, hardware and software support for the ZXP Series 8 printer is provided out of the Zebra U.S. support center. ZXP Series 8 service and support for Latin America will be handled out of the United States. Any service or support issues in EMEA or Asia Pacific should be directed to your local Zebra office.