

P1011091-001 Rev. A



Zebra[®] ZXP Series 8[™] Card Printer

User's Manual



Card Printer Solutions

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Contents



1 • Introduction
Printer Features
Controls, Connectors, and Indicators
Icons
Zebra Supplies
2 • Installation and Setup
General Information
Unpacking the Printer
Installing the Card Hoppers8
Loading Cards
Opening the Printer Door10
Installing the Card Cleaning Cartridge11
Installing the Card Cleaning Roller12
Loading the Transfer Film
Loading a Print Ribbon
Connecting Power
Connecting the Printer to your Computer
Installing the Windows Printer Driver
3 • Operation
Introduction
Card Type Selection
Printing a Sample Card
Manual Card Feed
Operator Control Panel (OCP)

4 • Printer Settings and Adjustments 3	37
Introduction	37
Properties	38
Printing Preferences4	45
5 • ZXP ToolBox	51
Introduction	51
ZXP Toolbox Access	52
Printer Configuration	53
Print Test Card	32
Technology6	63
Advanced Security	35
Print Viewer6	68
6 • Cleaning	39
Cleaning the Printer	69
Cleaning the Printhead	73
Card Cleaning Cartridge	74
Card Cleaning Roller7	74
7 • Troubleshooting	75
OCP Error Messages	76
OCP Test Card Images	79
Test Card Descriptions	30
8 • Technical Specifications	31
Standard Features	31
Specifications	82
Declarations of Conformity	35
Annendix A • Printer Configurations	27
Appendix A • I finite Configurations	,, ,
Appendix D • Waynetic Card Encoder	29
Appendix C • Smart Card Options	13
Appendix D • Packing the Printer for Shipment	}7
Appendix E • Worldwide Support 9) 9

Introduction



This manual contains installation and operation information for the Zebra ZXP Series 8 Card Printers manufactured by Zebra Technologies Corporation.



The Zebra ZXP Series 8 Card Printers use reverse transfer printing technology to create photoquality and over-the-edge images on plastic identification cards.

Zebra's reverse transfer printers provide fast throughput and a range of encoding options for a variety of markets and applications.



Printer Features





Controls, Connectors, and Indicators

Your printer has an OCP Display and three OCP Buttons on the front and a power connector, power switch, and interface connector(s) on the rear panel.





lcons

Throughout this manual, different icons highlight important information, as follows:



Note • Indicates information that emphasizes or supplements important points of the main text.



Important • Advises you of information that is essential to complete a task, or points out the importance of specific information in the text.



Provides an example or scenario to demonstrate or clarify a section of text.



Electrostatic Discharge Caution • Warns you of the potential for electrostatic discharge.



Electric Shock Caution • Warns you of a potential electric shock situation.



Hot Surface • Warns you of a situation where excessive heat could cause a burn.



Caution • Advises you that failure to take or avoid a specific action could result in physical harm to you, or could result in physical damage to the hardware.

Zebra Supplies

Genuine Zebra supplies meet stringent quality standards and are recommended for optimal printing quality and proper printer performance. The ZXP Series 8 printer is designed to work only with Zebra True Colours[®] i Series[™] Ribbons and Transfer Film.

Installation and Setup



General Information

This section will guide you through the installation and setup of your Card Printer. This consists of the following procedures, which should be performed in the order presented.

• Unpacking the Printer
Installing the Card Hoppers
Loading Cards
Opening the Printer Door
Installing the Card Cleaning Cartridge
Installing the Card Cleaning Roller
Loading the Transfer Film
Loading a Print Ribbon
Connecting Power
Connecting the Printer to your Computer
• Installing the Windows Printer Driver

The procedure to be followed for Packing the Printer for Shipment is given at the end of this section.

Unpacking the Printer

- **Step 1.** Inspect the shipping container to ensure that no damage has occurred during shipment. If any damage is apparent, file a claim with the shipper.
- Step 2. Open the shipping container.
- Step 3. Remove the packing material and accessories.



Important • Save all the packing material and the shipping carton in case the Printer needs to be moved or shipped. If the original material is lost or damaged, a replacement Shipping Kit can be ordered from Zebra.

Step 4. Make sure the following items are included with your Printer:



Quick Start Guide



Card Cleaning Cartridge









CD-ROM with InstallWizard



Card Cleaning Roller



Cleaning Kit



Power Cable

If any items are missing, please contact your dealer. To reorder, please refer to Appendix E of this manual.

Step 5. Lift the Printer out of the carton by holding it with both hands.



Caution • The Printer weighs approximately 27.5 lbs (12.5 kg).

Step 6. Place the Printer in a location that meets the following requirements:

- A reasonably dust- and dirt-free environment.
- Flat surface at least 27 in (686 mm) x 28 in (711 mm) that can support the weight of the Printer; additional space preferred. Allow a 4-inch clearance, minimum, on all sides.
- Vertical clearance at least 32 in (813 mm).
- Temperature within the range of 59° to 77°F (15° to 25°C).
- Relative Humidity 20 to 80% inclusive, non-condensing.
- AC power accessible.
- Step 7. Remove the protective plastic bag from the Printer.

Installing the Card Hoppers

Input Hopper

The Input Hopper is positioned on the right side of the Printer and holds the cards to be printed.

- **Step 1.** Install the Input Hopper by sliding the hopper into the receptacle on the right side of the Printer.
- Step 2. Ensure that the Input Hopper locks securely in place.



Output Hopper

The Output Hopper is positioned on the left side of the Printer and receives the printed cards.

- **Step 1.** Install the Output Hopper by inserting the four tabs on the right side of the hopper into the four slots on the left side of the Printer.
- Step 2. Ensure that the Output Hopper locks securely in place.

Loading Cards

- Step 1. Open the Input Hopper Door.
- Step 2. Remove the wrapping from the card deck.
- **Step 3.** Holding the card deck by the sides, hold it vertically against a flat surface such as a desktop. If the deck is too thick for your hand to hold it comfortably, use about half a deck at a time.



Step 4. Push the stack back and forth to an angle of about 45° from vertical, so as to separate all of the cards.



- **Note** Static charges and edge burrs from the card die-cutting process can render individual cards stuck together with significant adhesion force. These cards *must be* physically separated from each other before inserting into the feeder; if not separated, feeding or printing problems may occur.
- Step 5. Restore the card stack to its original squared-off condition.
- **Step 6.** Place the cards in the Input Hopper in the correct orientation as shown. Ensure that the cards are seated properly the hopper.



Step 7. Close the Input Hopper Door.

Opening the Printer Door



Step 1. Press the Door Release button on the top of the Printer.

- Step 2. Observe that the Door releases and pops up approximately half an inch.
- **Step 3.** Grasp the Door at the bottom front.
- **Step 4.** Lift the Door to its upright position. It will remain in that position.

Installing the Card Cleaning Cartridge

The Card Cleaning Cartridge cleans the cards entering the Printer from the Input Hopper. The Card Cleaning Cartridge consists of a Cartridge Frame and an Adhesive Roller, which are packed together.

- Step 1. Remove the Cartridge Frame and the Adhesive Roller from their packaging.
- **Step 2.** Insert the Adhesive Roller into the Cartridge Frame. To avoid contamination, always hold the frame and the roller by the ends.
- Step 3. Peel the protective wrapper from the Adhesive Roller.
- Step 4. Open the Printer Door by pressing the Door Release button on the top of the Printer.
- **Step 5.** Locate the area where the Card Cleaning Cartridge will be installed (adjacent to the Input Hopper); circled below.



- Step 6. Hold the Card Cleaning Cartridge by the extended handle.
- **Step 7.** With the cartridge at about a 30° angle (pointing downward), insert the lip of the cartridge into the slot, until the cartridge seats against the back wall.
- Step 8. Press the front of the cartridge down until it seats all the way down and latches.
- Step 9. Close the Printer's Door.

Installing the Card Cleaning Roller

The Card Cleaning Roller cleans the cards entering the Printer from either the Input Hopper or the Single-Feed Input.

- **Step 1.** Remove the Card Cleaning Roller from its packaging. To avoid contamination, always hold the roller by the ends.
- Step 2. Peel the protective wrapper from the Card Cleaning Roller.
- Step 3. Open the Printer Door by pressing the Door Release button on the top of the Printer.
- Step 4. Locate the area where the Card Cleaning Roller will be installed; circled below.



- **Step 5.** Hold the Card Cleaning Roller by the ends.
- **Step 6.** Position the ends of the Card Cleaning Roller in the slots. Push until the roller fully seats and latches.
- Step 7. Close the Printer's Door.

Loading the Transfer Film

The ZXP Series 8 printer is designed to work only with Zebra True Colours[®] i Series[™] Transfer Film for near photographic print resolution and over-the-edge printing.

- Step 1. Locate the transfer film supply spindles and the transfer film take-up spindles.
- **Step 2.** Unroll about one foot from the full roll of transfer film (supply spool), and wind it (2 wraps) onto the empty take-up spool.



Loading the Transfer Film

- **Step 3.** Load transfer film supply spool onto the supply spindles, **green flange side to the left**.
- Step 4. Load the empty take-up spool onto the take-up spindles, white flange side to the right.
- **Step 5.** Make sure the transfer film comes off the bottom of the supply spool and feeds to the bottom of the take-up spool.
- Step 6. The figure below shows the proper installation of the transfer film.



Loading a Print Ribbon

The ZXP Series 8 printer is designed to work only with Zebra True Colours[®] i SeriesTM Ribbons in order to achieve rich, vibrant, image production over the full-color spectrum.

Step 1. Locate the print ribbon supply spindles and the print ribbon take-up spindles.



- **Step 2.** Load the print ribbon supply spool onto the supply spindles, **purple flange side to the left**.
- Step 3. Load the empty take-up spool onto the take-up spindle, blue flange side to the right.
- **Step 4.** Make sure the print ribbon comes off the bottom of the supply spool and feeds to the bottom of the take-up spool.
- Step 5. The figure below shows the proper installation of the print ribbon.



Connecting Power



Electric Shock Caution • Limit AC power supplied to the Printer to 100 - 230 volts, 60 ~ 50 Hertz. Limit excess current draw to 16 amps or less, using an associated circuit breaker or other such device. Never operate the Printer in a location where operator, computer, or printer can get wet. Personal injury could result. The Printer must be connected to an earthed electrical power source and properly protected against electrical surges and grounding faults; the electrical reliability of the Printer is based on the reliability of the mains power source and with the earth connection.

The Printer's power supply is an internal unit that can only be serviced or replaced by trained and authorized personnel.



- **Step 1.** Place the Printer's power switch in the OFF (\bigcirc) position.
- **Step 2.** Depending on your local AC voltage, plug the appropriate power cord into the Printer's power connector and a grounded AC power source connection.

DO NOT SWITCH THE PRINTER ON.

Connecting the Printer to your Computer

Connect the USB cable to the printer and the computer.



Installing the Windows Printer Driver

Overview

Each computer that will use the printer must have the Printer Driver installed.

If not already done, connect power to the printer; ensure that the printer's power switch in the OFF (\bigcirc) position, and connect the printer to the computer.

To install the Printer Driver, insert the **User Documentation and Drivers CD**, included with your printer, into the host computer and the InstallShield Wizard will walk you through the required installation steps. The InstallShield Wizard will:

• Automatically install the User Interface when the driver CD is inserted. (Autorun must be enabled for your CD).

If Autorun is disabled:

- a. Insert the Driver CD into the CD-ROM drive.
- b. At the root (top) level of the CD, double-click on the RunCD.exe file.
- Start the installation process when the **Install Printer Driver** menu item is selected from the Main Menu.



- Detect previous versions of the driver. If a previous version is detected, you will be prompted to remove it, reboot, and then restart the install process.
- Install the new driver files.

Installing the USB Printer Driver

- Step 1. If not already done, connect power to the printer. Do not turn power ON.
- Step 2. Connect the USB port on the rear of the printer to the computer's USB port.
- **Step 3.** Ensure that the Printer's power switch in the OFF () position.
- **Step 4.** Insert the **User Documentation and Drivers CD** into the CD drive of the host computer. The **Main Menu** will open.
- **Step 5.** From the drop-down menu in the upper-right corner of the **Main Menu**, choose the appropriate language for your system.
- Step 6. From the Main Menu, click Install Printer Driver.
- **Step 7.** If an older Printer and Driver is installed on your computer, the **Setup Type** window will be displayed; otherwise go to Step 9.



- **Step 8.** In the **Setup Type** window, choose the maintenance operation to be performed:
 - **a.** Select **Upgrade** to upgrade the older printer driver, click the **Next** button, and follow the screen prompts. At the end of the upgrade process, you will be asked to re-boot your computer. Re-boot your computer. The upgrade is complete.
 - **b.** Select **Remove** to remove the older printer driver, click the **Next** button, and follow the screen prompts. At the end of the uninstall process, you will be asked to re-boot your computer. Re-boot your computer, and start over with Step 1.

Step 9. The **InstallShield Wizard** window will open. To proceed with the installation, click the **Next** button.



Step 10. Select Install USB printer drivers, and click the Next button.

Select Features Select the feature you want to	install.	
	Please select the feature that you want to install. Install USB printer drivers. This is the default Install Ethernet printer drivers.	
InstallShield	< <u>₿</u> ack <u>N</u> ext >	Cancel

Step 11. Ensure that the Printer's power switch in the OFF () position; and then click the **OK** button.

ZMotif -	InstallShield Wizard	K
(į)	Please make sure that your printer is turned off. After installation of the driver, you would be prompted to turn on your printer	s
	ОК	

Step 12. This will bring up the **License Agreement** window. To proceed with the installation, select the *I accept the terms of the license agreement* option, and then click the **Next** button.



Step 13. This will bring up the **Customer Information** window. Enter User Name and Company Name; and then click the **Next** button.

bra ZXP Series 8 CardPri	nter - InstallShield Wizard	Þ
Customer Information Please enter your information.		
	Please enter your name and the name of the company for which you work.	
	User Name:	
	IS Department	
	Company Name:	
	Zebra Technologies	
nete/IChild	/ Back Next > C	ancel

Step 14. This will bring up the Choose Destination Location window.

• To accept the default destination location where setup will install the files, click the **Next** button.

- or -

• Select a folder where setup will install the files, and click the Next button.



Step 15. This will bring up the Ready to Install the Program window. To continue, click the Install button.



Step 16. Observe the Setup Status window.

Step 17. The Congratulations	window will appear.
------------------------------	---------------------



Step 18. At this point, turn on your printer; and then click the Next button.

Step 19. When the InstallShield Wizard Complete window appears, click the Finish button.

Zebra ZXP Series 8 CardPrin	ter - InstallShield Wizard
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed Zebra ZNP Series 8 CardPrinter. Click Finish to exit the wizard
	Show the Readme file
InstallShield	< Back Finish Cancel

Step 20. This completes USB driver installation. To use the Printer, you would select it just like you would any other printer connected to a Windows system.

3 Operation



Introduction

Printing with the Card Printer is similar to printing with any other printer in a Windows environment.

- The Printer Driver Software is installed on your computer (see Section 2).
- The Printer is connected to the power source and the computer (see Section 2).
- The Printer is selected by either the Operating System or the appropriate application software program.
- Printer Properties are set (the factory default values will be appropriate for many applications).
- Set the Card Type.
- Print a Test Card.
- Card printing is directed by the appropriate application software program.

Card Type Selection

The **Card Setup** tab allows you to to specify the card type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum print quality. If your card type is not listed in the drop-down menu, select *Custom* and fill out the Card Specifications pop-up screen.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

🌢 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 😰 🔀
Card Setup Encoding Black Panel (K) About
Card Info
Card source 📀 Card feeder 🕓 Single card feed slot
Card type in use PVC
Printing options PVC,LOCO
Orientation POLYCARBONATE
Print on both sides
Rotate 180° None 💽
Copies 1 *
Print front image on back side Yes Test Print Test Print
Ribbon info
YMCKK Overlay,
Ribbon combination
YMCK Back / K Front
Laminator options
Laminate side None 🔽 Laminate type Full Coverage 🔽
Restore Defaults
OK Cancel Apply

• Make the appropriate Card Type selection. Note that *PVC* is the default.

Printing a Sample Card

Sample card designs are installed with the printer driver. To print a sample card:

1. Access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

🖕 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 💽 🔀
Card Setup Encoding Black Panel (K) About
Card Info
Card source Card feeder C Single card feed slot
Card type in use PVC
Printing options
Orientation Landscape Front Back Back
Print on both sides Yes ID (RAD
Rotate 180° None
Copies 1 🔹
Print front image on back side Yes 💌 Test Print
Ribbon info
YMCKK Overlav
Ribbon combination
YMCK Back / K Front
Laminator options
Laminate side None 💌 Laminate type Full Coverage 💌
Restore Defaults
OK Cancel Apply

- 2. Ensure that cards are in the Input Hopper.
- 3. Click of the Test Print button (circled above).
- 4. The printer will feed in a card and start printing.
- **5.** Once the printing job is complete, the card is ejected from the printer into the Output Hopper.

Manual Card Feed

A Manual Feed Slot is available for feeding single cards. The Input Hopper must be empty for single-card feeding to work properly.

Access the Card Setup Tab: Select Start > Printers and Faxes. Right click on the Zebra ZXP Series 8 Card Printer listing; and select Printing Preferences > Card Setup.

🎍 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 💽 🗙
Card Setup Encoding Black Panel (K) About
Card Info Card source Card feeder Single card feed slot
Card type in use PVC
Printing options
Orientation Landscape Front Back
Print on both sides Yes ID GAD
Rotate 180° None 🗸
Copies 1 🕂
Print front image on back side Yes Test Print Test Print
Ribbon info Ribbon type
YMCKK Overlay,
Ribbon combination
YMCK Back / K Front
Laminator options
Laminate side None 💌 Laminate type Full Coverage 💌
Restore Defaults
OK Cancel Apply

- 2. In the Card Setup tab, select the *Single card feed slot* radio button (circled above).
- **3.** Click on the **Apply** button, and then click on the **OK** button.
- 4. Ensure that there are no cards in the Input Hopper.

5. Insert a single card into the slot in the correct orientation. Do not feed more than one card at a time.



Operator Control Panel (OCP)

The printer is equipped with an OCP Display and three OCP Buttons which give access to the printer menus. The menus can be accessed when the printer status shows READY.



- Press the MENU button, to access the Main Menu.
- Press the INFO button, to access and view the Printer Settings Menu.
- Press the CANCEL button, to cancel the current print job in the printer.

Messages

Your printer is equipped with an OCP Display to provide printer status information. The readout is controlled by three OCP Buttons directly below the OCP Display. The messages displayed fall into three categories: Operational, Warnings, and Errors.

Operational

Operational Messages are displayed during the Printer's normal operation.

MESSAGE	DESCRIPTION
WAIT INITIALIZING	Performing a self test on start up.
WARMING	Ready to accept a print job, roller heating.
READY	Ready and at temperature.
STANDBY	Printer is in "sleep" mode; i.e., power save mode.
PRINTING	Print job received, printing in process.
WARMING PRINT JOB WAITING	Print job received, warming rollers to temperature.
OFFLINE	Status toggled (offline/online) via the OCP Advanced Settings Menu.
WARNING	Indicates that additional OCP instructions need to be performed; e.g., PRINT RIBBON LOW, etc.
ALARM	Indicates error messages need to be cleared before normal operations can resume.
CANCELING	Cancel button was pressed, and the current operation is being terminated.
COOLING PRINT JOB WAITING	Print job received, cooling rollers to temperature.
MANUALLY INSERT CARD	Waiting for manual card feed (this function is set via the <i>Card Setup Tab</i> ; see page 46).

Warning Messages

Warnings alert the operator to action that should be taken; the printer will generally continue operation.

WARNING (Printer will still operate)	DESCRIPTION
PRINT RIBBON LOW	Indicates that the Print Ribbon is low; see <i>Loading a Print Ribbon</i> , Section 2.
TRANSFER FILM LOW	Indicates that the Transfer Film is low; see <i>Loading the Transfer Film</i> , Section 2.
CLEAN PRINTER SIDE	Indicates that the Side Card Path (X-Drive Rollers) needs cleaning; see <i>Cleaning the Rollers</i> , Section 6.
CLEAN PRINTER FRONT	Indicates that the Front Card Path (Y-Drive Rollers) needs cleaning; see <i>Cleaning the Rollers</i> , Section 6.
CLEAN PRINTER ROLLERS	Indicates that the Heated Roller Path (Heated Rollers) needs cleaning; see <i>Cleaning the Rollers</i> , Section 6.

Error Messages

Errors are displayed when a situation causes the printer to stop operating. Depending on the cause of the error message, restarting the printer or clearing the displayed error may return the printer to operational status; or the printer may require troubleshooting and repair.

Refer to Section 7, *Troubleshooting*, for a list of the error messages, possible causes, and possible solutions.
Printer Menu Information

Main Menu



- Press the UP button to move up the menu list.
- Press the **DOWN** button to move down the menu list.
- Press the **SELECT** button to select the item from the list.

Operator Control Panel (OCP)

Info Menu

The Info Menu allows the user to quickly view the operating settings and configuration of the printer.



- Press the **PREV** button to move up the menu list.
- Press the NEXT button to move down the menu list.
- Press the **EXIT** button to return to the Operating Mode Display

Print Test Cards Menu



- Press the **UP** button to move up the menu list.
- Press the **DOWN** button to move down the menu list.
- Press the **SELECT** button to select the item from the list.

Advanced Settings Menu



- Press the **UP** button to move up the menu list.
- Press the **DOWN** button to move down the menu list.
- Press the **SELECT** button to select the item from the list.

Printer Settings and Adjustments



Introduction

This section describes settings and adjustments that can be made to your Windows Driver. This consists of two major topics:

Properties	
Printing Preferences	ļ

Properties

To access Properties, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing, then select *Properties*

💩 Zebra ZXP Series 8 USB	Card Printer Properties 🛛 🛛 🔀
General Sharing Ports Ad	vanced Security Device Information
Zebra ZXP Series	8 USB Card Printer
Location:	
<u>C</u> omment:	
Model: Zebra ZXP Series	8 USB Card Printer
Color: Yes	Paper available:
Double-sided: Yes	
Staple: No	
Speed: 1 ppm	
Maximum resolution: 300 dpi	<u></u>
Printi	ng Preferences) Print <u>I</u> est Page
	OK Cancel Apply

- **General Tab** Displays printer information of a general nature, includes selection for Printing Preferences and Print Test Page (i.e., the standard Windows test page).
- **Sharing Tab** Operating System (OS) feature where the printer can be shared with other clients on a network.
- **Ports Tab** OS feature displays available communication ports.
- Advanced Tab OS feature to select printer availability and spooling options.
- Security Tab OS feature where permissions to printers can be defined.
- **Device Information Tab** Allows user to make basic printer adjustments and access advanced printer controls.

General Tab

The General tab shows the printer model and lists the features of the printer.

To access the General tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *General*.

💩 Zebra ZX	P Series 8 USB Card	Printer Properties	? 🗙
General Sh	aring Ports Advanced	Security Device Information	
	Zebra ZXP Series 8 USB	Card Printer	
Location:			۱ ۲
<u>C</u> omment:			ī
M <u>o</u> del: - Features-	Zebra ZXP Series 8 USB (Card Printer	
Color: Yes	s Pa	per available:	
Double-si	ded: Yes	~	
Staple: N	0		
Speed: 1	ppm		
Maximum	resolution: 300 dpi	~	
	Printing Prefe	erences) Print <u>I</u> est Page	
		OK Cancel A	spply

- Location Lets you specify where the printer is located.
- **Comment** Lets you specify general information about the printer, such as the type of print device and who is responsible for it. Once set, these fields can be displayed by applications.
- Model Specifies the name of the printer driver installed.
- Features Specifies whether various options are available on the printer.

The **Printing Preferences** button takes you to Printing Preferences used to set selected configuration parameters; see *Printing Preferences* on page 45.

The Print Test Page button sends the standard Windows test page to the printer.

Printer Settings and Adjustments Properties

Sharing Tab

On the Sharing tab (Sharing Property Page), you can choose to share the printer over the network and install additional drivers to accommodate different operating systems.

To access the Sharing tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Sharing*.

📚 Zebra ZXP Series 8 USB Card Printer Properties	? ×
General Sharing Ports Advanced Security Device Information	
You can share this printer with other users on your network. To enable sharing for this printer, click Share this printer.	
O not share this printer	
<u>Share this printer</u>	
Share name:	and a
List in the directory	
Drivers	
If this printer is shared with users running different versions of Windows, you may want to install additional drivers, so that the users do not have to find the print driver when they connect to the shared printer.	
Additional Drivers	
OK Cancel A	pply

Printer sharing tasks that you can perform include:

- To share a printer, select the *Share this printer* radio button; and specify a name for the shared resource. Click OK when you're finished.
- To change the shared name, simply enter a new name in the *Share name* field; and click OK.
- To quit sharing a printer, select the *Do not share this printer* radio button. Click OK when you're finished.

Ports Tab

Use the Ports tab to specify the computer port to which the printer is connected. This will have been established at the initial installation of the printer, and will not normally require attention.

To access the Ports tab, select *Start > Printers and Faxes*. Right click on the *Zebra ZXP Series* 8 *Card Printer* listing. Select *Properties > Ports*.

💩 Zebra ZXP Series 8 USB Card Printer Properties 🛛 🛛 🛜	X
General Sharing Ports Advanced Security Device Information Zebra ZXP Series 8 USB Card Printer Print to the following port(s). Documents will print to the first free checked port.	
Port Description Printer FILE: Print to File ZPR Zebra ZXP Series8 ZXP Emul USB Virtual printer port fo Zebra P330i Card Printer USB USB Virtual printer port fo Zebra P330i Card Printer USB USB Virtual printer port fo Zebra P430i Card Printer USB USB Virtual printer port fo Zebra P430i Card Printer USB USB Virtual printer port fo Zebra P430i Card Printer USB USB Virtual printer port fo Zebra P430i Card Printer USB USB Virtual printer port fo Zebra ZXP Series 8 USB Ca USB Virtual printer port fo Virtual printer port fo Add Port Delete Port Configure Port Pable bidirectional support Enable printer pooling	
OK Cancel Apply	

An exception to this is if you wish to use *printer pooling*, the ability to distribute print jobs to multiple printers. To enable printer pooling, check the "Enable printer pooling" box, then check the additional ports boxes. Each port should have a single Zebra printer installed on it. All the pooled printers must be identical models with the same configuration (e.g., all with YMC front, K back).

Now, when you print to the "main printer" (that is, whichever printer you right-clicked in Printers and Faxes to get to this screen), this printer will get print jobs until it has buffered as many jobs as it can take. Remaining jobs will then "spill over" to other printers until all printers in the pool are busy.

Advanced Tab

The Advanced tab determines the spooling (queuing) of print jobs and determines how spooled jobs are handled relative to the most recent job.

To access the Advanced tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Advanced*.

💩 Zebra ZXP Series 8 USB Card Printer Properties 🛛 🔹 💽
General Sharing Ports Advanced Security Device Information
 O Always available ○ Available from 12:00 AM ↓ To 12:00 AM
Priority: 1
Dri <u>v</u> er: Zebra ZXP Series 8 USB Card Printer 🛛 🖌 Ne <u>w</u> Driver
 Spool print documents so program finishes printing faster Start printing after last page is spooled Start printing immediately Print girrectly to the printer
 Hold mismatched documents ✓ Print spooled documents first Keep printed documents ✓ Enable advanced printing features
Printing Defaults Pri <u>n</u> t Processor Separat <u>o</u> r Page

To enable spooling: Select the radio button labeled *Spool print documents so program finishes printing faster.*

- Select *Start printing after last page is spooled* if you want the entire document to be spooled before printing begins. This option ensures that the entire document is sent to the print queue before printing. If for some reason printing is canceled or not completed, the job will not be printed.
- Select *Start printing immediately* if you want printing to begin immediately when the print device is not already in use. This option is preferable when you want print jobs to be completed faster or when you want to ensure that the application returns control to users as soon as possible.

To disable spooling: Select the radio button labeled *Print directly to the printer* radio button.

Security Tab

This is the standard Windows security screen, showing user access to various printer control options. Both Print and Manage Printers *must* be checked for full functionality of the printer.

To access the Security tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Security*.

💩 Zebra ZXP Series 8 USB Card Printer P	roperties 🛛 🖓 🔀
General Sharing Ports Advanced Security	Device Information
<u>G</u> roup or user names: @Administrators (01LXPRBARSELOU\Adminis	trators)
CREATOR OWNER GREVEryone CREVER USERS (011 XPBBABSEL 011 VPower 11)	sers]
	2
	A <u>d</u> d <u>R</u> emove
Permissions for Administrators	Allow Deny
Print	
Manage Printers Manage Documents	
Special Permissions	
For special permissions or for advanced settings, click Advanced.	Advanced
ОК	Cancel Apply

The Security tab allows you to assign the actual permissions that apply to the print queue. You can apply permissions to both users and to groups. It is usually considered a better practice to only apply security to groups.

The Advanced Security Settings properties sheet allows you to assign a more comprehensive set of permissions than the basic Security tab found on the printer's properties sheet does.

Device Information Tab

The Device Information tab provides printer information, job condition, printer history, and security status. Access to Media Info and ZXP ToolBox is included.

To access the Device Settings tab, select *Start > Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties > Device Information*.

💩 Zebra ZXP Serie	s 8 USB Car	d Printer Prope	erties	? 🛛
General Sharing Po	orts Advance	ed Security Dev	vice Informatio	on
Device information	ZXP Series 8	Serial number:	210619596	9
Firmware version:	00.10.00	MAC address:	12-34-56-78	3-9a-bc
Driver version:	1.00.74.0	IP address:	0.0.0.0	
Internal memory:	65536 KB	External memory:	16384 KB	
Jobs Job identifier: 0 Status: Re- No of jobs: 0	ady		E	
Printer history		Security		
Cards printed: 389	9	Data security	y password:	Disabled
Panels printed: 206	6	Passkey pro	tection:	Disabled
		z	Media Info XP ToolBox	
		ок с	ancel	Apply

- The Media Info button takes you to the Media Info screen which shows:
 - The color ribbon type installed and the number of color ribbon sets remaining
 - The transfer film type installed and transfer film panels remaining
- The **ZXP Toolbox** button takes you to the ZXP Toolbox which provides advanced configuration capabilities and tools to manage the operation of your printer; see Section 5 for details.

Note that the ZXP Toolbox is a separate application that works independently from the printer driver.

Printing Preferences

🖕 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 🕐
Card Setup Encoding Black Panel (K) About
Card Info
Card source Card feeder C Single card feed slot
Card type in use PVC 💌
Printing options
Orientation Front Back
Philic on both sides Yes Did GRAD
Rotate 180° None
Copies 1 ÷
Print front image on back side Yes Test Print
_ Dibbon info
Ribbon type
YMCKK Overlay
Ribbon combination
YMCK Back / K Front
-Laminator options
Laminate side None
all a
Restore Defaults
OK Cancel Apply

To access the Printing Preferences, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences*.

- Card Setup Tab Allows user to adjust selected card and print job parameters.
- Encoding Tab Allows the user to set various magnetic encoding options.
- Black Panel (K) Tab Displays available options for Black Extraction.
- About Tab Displays copyright and driver version information about the printer driver.

Printer Settings and Adjustments Printing Preferences

Card Setup Tab

Card Setup tab allows the user to adjust selected card and print job parameters.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences > Card Setup.*

💩 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 😰 🔀
Card Setup Encoding Black Panel (K) About
⊂ Card Info
Card source Card feeder C Single card feed slot
Card type in use PVC
Printing options
Orientation Landscape Front Back
Print on both sides
Rotate 180° None 🗨
Copies 1 📩
Print front image on back side Yes Test Print
Ribbon info
Ribbon type
YMCKK Overlay
Ribbon combination
YMCK Back / K Front
Laminator options
Laminate side None 💌 Laminate type Full Coverage 💌
Restore Defaults
OK Cancel Apply

Card info:

- Card source allows the user to feed cards into the printer from the card feeder or via the single card feed slot.
- **Card type in use** allows the user to specify the card type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum print quality.
- **Printing options** allows the user to select the card orientation, to print on both sides of the ٠ card, to rotate the card 180°, and to specify the number of copies to print. The Test Print button prints a test card.
- **Ribbon info:** ٠
 - **Ribbon type** is the color ribbon installed in the printer. This is not user selectable.
 - **Ribbon combination** allows you to apply color or black, or both, to either side of the card.

The Restore Defaults button restores Card Setup default values.

P Series 8 USB Card Printer Printing Preferences 🛛 😰 🔯
Encoding Black Banel (K) About
Encoung black Fahler (k) About
0
ource Card feeder C Single card feed slot
vpe in use PVC
options
ation Landscape V Front Back
n both sides
1902 ID CARD
ont image on back side Yes 💌 Test Print
ıfo
type
CKK Overlay
combination
r options
te side None 💌 Laminate type 🛛 Full Coverage 💌
Restore Defaults

Encoding Tab

The Encoding screen allows the user to set various magnetic and smart card encoding options.

To access the Encoding Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Encoding*.

崣 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 🛽	? 🗙
Card Setup Encoding Black Panel (K) About	
Magnetic encoding Disable magnetic encoding Encode only Magnetic stripe read Magnetic encoder verification Coercivity: None (Set via card type from Card Setup tab.)	
Magnetic encoding type ISO Smart card encoding	
Disable smart card encoding Encoding side None	
Restore Defaults	
OK Cancel App	yly

Although these options are user-selectable, they are set automatically when the Card Type is selected in the *Card Setup Tab* on page 46.

The Restore Defaults button restores Encoding default values.



Note • For advanced settings, see Section 5, ZXP ToolBox.

Black Panel (K) Tab

The Black Panel (K) Tab allows for special handling of black.



Note • The Black Panel (K) Tab applies only to surfaces of the card on which both YMC (color) and K (black) are to be printed.

To access the Black Panel (K) Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Black Panel* (K).

secup Encoding securit and (ii)	About
Front side black extraction	
🔲 Black text	C Disable black extraction
Black graphics	C Print YMC black under K
Black monochrome bitmaps	Print all black data
	Advanced Settings
Back side black extraction	
🗖 Black text	Oisable black extraction
🔲 Black graphics	Print YMC black under K
🗖 Black monochrome bitmaps	Print all black data
	Advanced Settings
	Advanced Settings
œ	Padros Peluiko

Overview

Printing equal amounts of Y, M, and C dyes, at maximum intensity, deliver a near-black image, but one that may not be machine readable. For example, a bar code, printed from YMC, will be visible to the eye but will not be detectable by most bar code readers.

The remedy for this is to extract the black; which means printing the same bar code using the K panel on top of the YMC bar code. You can also choose to print only in K, omitting YMC from that region. The K panel is not a dye. It is more of a resin containing carbon black, which is highly visible to infrared-type readers and renders a pure black image.

Black Extraction

When *Disable Black Extraction* is not selected (i.e., either *Print YMC black under K* or *Print all black data* is selected), Black Extraction is enabled.

With either *Print YMC black under K* or *Print all black data* selected, you can identify which elements are to be selected for black extraction: black text, black graphics, and/or black monochrome bitmaps.

The Restore Defaults button restores Black Panel default values.

Advanced Settings (Black Extraction)

The Advanced Settings tab allows you to manage Black Extraction.

To access the Advanced Settings Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Black Panel* (K) > *Advanced Settings*.

The figure below shows settings for the front side of the card; settings for the back side of the card are identical.

Advanced Black Panel Options (Front)
Black extraction from color images Print black with K panel Image: Defined areas Image: Defined ar
Area manager Orientation Landscape Units inches
Areas 1 \bigcirc X dimension $0.00 \times$ 2 \bigcirc X diffset $0.00 \times$ 4 \bigcirc Y dimension $0.00 \times$ 5 \bigcirc Y offset $0.00 \times$ 6 \bigcirc
OK Cancel Restore Defaults

- **Print black with K panel**: Specify the zones as either *Defined areas*, *Undefined areas*, or *Full card*.
- Black level: Set the limits (0 to 5) on the RGB values defined as black.
- Area manager: Note that this option is enabled when either the *Defined areas* or the *Undefined areas* is radio button is selected.

Select an Area radio button (1 to 6), and then "drag" the cursor diagonally across the card outline (circled above) to identify location of the Zone. All dimensions are referenced to the upper-left corner of the card outline.

The Restore Defaults button restores Advanced Settings default values.

About Tab

The About Tab shows the copyright and the driver version for the Zebra ZXP Series 8 Card Printer.

To access the About Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *About*.



ZXP ToolBox



Introduction



Important • Use of the ZXP Toolbox is intended only for advanced users and system administrators.

The ZXP Toolbox provides advanced configuration capabilities and tools to manage the operation of your printer. Note that the ZXP Toolbox is a separate application that works independently from the printer driver.

ZXP Toolbox Access

To access the ZXP Toolbox from the printer driver, select *Start* > *Printers and Faxes*. Then right-click on the *Zebra ZXP Series 8 Card Printer* listing, and select *Properties* > *Device Information* > *ZXP ToolBox*.

4	Zebra ZXP Series	8 USB Car	d Printer Prope	erties	? 🛛
0	aeneral Sharing Po	rts Advance	ed Security Dev	rice Informatio	m
	Device information Model:	ZXP Series 8	Serial number:	210619596	9
	Firmware version: Driver version:	00.10.00 1.00.74.0	MAC address: IP address:	12-34-56-78 0.0.0.0	-9a-bc
	Internal memory:	65536 KB	External memory:	16384 KB	
	Jobs Jobidentifier: 0 Status: Rea No of jobs: 0	ady		E	
	Printer history Cards printed: 389 Panels printed: 206	1	Security Data security Host authent Passkey prot	v password: ication: rection:	Disabled Disabled Disabled
	V Zebra			Media Info XP ToolBox	
			ок с	ancel	Apply

The ZXP ToolBox can also be accessed via *Start > All Programs > Zebra ZXP Series 8 Card Printer.*

Printer Configuration

The Printer Configuration section provides information on the printer, media information, mechanical and power adjustments, motor and sensor information, a save and restore configuration capability, a print job log, image controls, and firmware downloads.

Printer Information

• Version details include Firmware version and Driver version.

X ZXP Toolbox - Zebra ZXP Series	s 8 USB Card Printer			
ZXP Toolbox		~ ~ ~		C ?
Printer Configuration 🛛 🛠	Printer Information			
Printer Information	Version Details		Memory Information	
 Media information Motor and Sensor Information 	Firmware version	00.10.00	RAM	65536
Save/Restore	Driver version	1.00.74.0	Flash	10384
Solution	Other Information		-	_
 Image Control Firmware Download 	Interface Magnetic encoding	190	Print system Bibbon type	Hetranster MMCKK
nin in l	OCP language	English	LCD contrast	35
Print Test Lard A	Laminator type	None	Contactless smartcard	None
	Contact smartcard	None		
Technology *	Printer status	Ready		
 Magnetic Encoding Smart Card 	Image Size			
al le a	Logical length	1024	Physical length	1012
Advanced Security *	Logical width	648	Physical width	638
 Security Roles 	Finitresolution	300		
Drint Viewer	Network Configuration			
Print PRN File	Enable DHCP	0.000		
	IP address	0.0.0.0	Gateway U.L	
	Subnet mask	0.0.0	MAC address 12	-34-56-78-9a-bc
			Restore De	taults Apply

- Memory information includes RAM and Flash sizes (KB).
- Other information includes interface, print system, magnetic encoding, ribbon type, laminator type, printer status, contact smartcard, and contactless smartcard. Also included are a user-selectable OCP Language option (English, French, Spanish, German, Brazilian Portuguese, and Italian) and an Printer Panel LCD contrast adjustment capability.
- Image size details include logical length, physical length, logical width, and physical width in pixels; and print resolution in pixels per inch.
- Network configuration information includes an Enable DHCP checkbox, IP address, Gateway, Subnet mask, and MAC address.

The **Restore Defaults** button restores default values.

The Apply button applies changed values.

Media Information

This screen displays ribbon and transfer film details. This data is automatically read and updated from the installed media in the printer.

• Ribbon details include type, Zebra part number, description, initial size (total image count), and images remaining.

Printer Configuration Med Printer Information Media Information Media Information Media Information Media Information Save/Restore Job Log Inage Control Firmware Download Print Test Card Print Test Card Print Sample Card Technology Smart Card 	dia Informa poon Details pe escription tial size msfer Film D pe escription tial size	tion 101 YMCKK 510 Details 104 Standard 1250	Zebra part number Images remaining Zebra part number Images remaining	Ex. C 800133-480 304 800133-600 956	?
Printer Configuration Media Printer Information Media Information Media Information Save/Restore Job Log Image Control Firmware Download Print Test Card Print Sample Card Init Technology Smart Card Smart Card Magnetic Encoding Smart Card Media <li< th=""><th>dia Informa obon Details pe escription tial size msfer Film D pe escription tial size</th><th>tion 101 YMCKK 510 Details 104 Standard 1250</th><th>Zebra part number Images remaining Zebra part number Images remaining</th><th>800133-480 304 800133-600 956</th><th></th></li<>	dia Informa obon Details pe escription tial size msfer Film D pe escription tial size	tion 101 YMCKK 510 Details 104 Standard 1250	Zebra part number Images remaining Zebra part number Images remaining	800133-480 304 800133-600 956	
Printer Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control Firmware Download Print Test Card Magnetic Encoding Smart Card	obon Details pe escription tial size unsfer Film E pe escription tial size	101 YMCKK 510 Details 104 Standard 1250	Zebra part number Images remaining Zebra part number Images remaining	800133-480 304 800133-600 956	
Media Information Motor and Sensor Information Save/Restore Job Log Inage Control Firmware Download Print Test Card Print Sample Card Magnetic Encoding Smart Card	pe escription tial size msfer Film E pe escription tial size	101 YMCKK 510 Details 104 Standard 1250	Zebra part number Images remaining Zebra part number Images remaining	800133-480 304 800133-600 956	
Metor and Sensor Information Save/Restore Job Log Image Control Firmware Download Tra Print Test Card Print Sample Card Magnetic Encoding Smart Card	escription tial size unsfer Film D pe escription tial size	YMCKK 510 Details 104 Standard 1250	Images remaining Zebra part number Images remaining	304 800133-600 956	
Save/Restore Job Log Image Control Firmware Download Print Test Card Print Sample Card Magnetic Encoding Smart Card	tial size Insfer Film E pe escription tial size	510 Details 104 Standard 1250	Zebra part number Images remaining	800133-600 956	
Job Log Image Control Firmware Download Frint Test Card Print Sample Card Magnetic Encoding Smart Card	nnsfer Film E pe escription tial size	Details 104 Standard 1250	Zebra part number Images remaining	800133-600 956	
Trage Control Firmware Download Tyr Print Test Card Print Sample Card Init Cechnology Magnetic Encoding Smart Card	insfer Film D pe escription tial size	Details 104 Standard 1250	Zebra part number Images remaining	800133-600 956	
	pe escription tial size	104 Standard 1250	Zebra part number Images remaining	800133-600 956	
Print Test Card A Print Sample Card Init Technology A Magnetic Encoding Smart Card	escription tial size	Standard 1250	Images remaining	956	
Print Sample Card Init Technology Magnetic Encoding Smart Card	tial size	1250			
Technology ♠ Magnetic Encoding					
 Magnetic Encoding Smart Card 					
Smart Card					
Advanced Security 🛛 🕆					
Configure Security					
Security Roles					
Print Viewer 🏾 🕆					
Print PRN File					

• Transfer film details include type, Zebra part number, description, initial size (total image count), and images remaining.

Motor and Sensor Information

This screen displays the current status of the printer and provides standard printer information and sensor data.

This information cannot be edited or changed by the user; however, this information may be useful for Zebra trained and certified personnel in diagnosing or evaluating the status of the printer.

• *Transfer Temperature* details include top single, top double, bottom double, top single offset, top double offset, bottom double offset.

🖇 ZXP Toolbox - Zebra ZXP Series 8	USB Card Printer				
ZXP Toolbox		252	44	IN	& C ?
Printer Configuration \$ 	Motor and Sensor Inforr Transfer Temperature Top single	nation 180 °C	Transfe Input s	er Speeds	1.5 Inches/Sec
Motor and Sensor Information Save/Restore Job Log Image Control Firmware Download	Top double Bottom double Top single offset Top double offset Bottom double offset	175 °C 165 °C 0 °C 0 °C 0 °C	Output Input o Output Transf	tsingle double tdouble ertype	3 Inches/Sec 1.3 Inches/Sec 1.8 Inches/Sec dual
Print Test Card \$ Image: Card Strength Strength Card	Ribbon Take-up Motor S0 33.3 RPM		MO	120.7629	mA/in-Ib
Technology ♠ ● Magnetic Encoding ● Smart Card	Ma -0.0012 mA-m Mb 0.09 mA-min2. Kb 0.34 mA-min2.	in/in-lb-rev iin-lb-rev2 irev2	K0 Ka Vtol	79.0839 n -0.0077 m 0 mA/V	nA A-min/rev
Advanced Security Configure Security Security Roles	Card Type Card type in use	PVC			
Print Viewer \$ 				View	Sensor Information

- *Transfer Speeds* details include input single, output single, input double, output double, and transfer type.
- *Ribbon Take-up Motor* lists various electrical characteristics of the motor. These characteristics are fixed settings/values.
- *Card Type* displays the card type in use.

The View Sensor Information button displays the Sensor Information screen; see next page.

View Sensor Information

Film takeup encoder	unknown	Head cam blocked	Yes
Ribbon pavout encoder	unknown	Film strip1 blocked	No
Door open	No	Film strip2 blocked	No
Card edge blocked	No	Card feeder blocked	Yes
Tri color state	yellow_panel	Tri color error	0
ensor Values			
Voltage 24	24.104 V	Ribbon BEMF	514
Voltage AC	110 V	Tri-color any	291
Voltage RAW	736 V	Tri-color red	174
Mag Track1	516	Tri-color green	233
Mag Track2	514	Tri-color blue	494
Mag Track3	516	Top transfer temp	175 °C
Print head temp	38 °C	Bottom transfer temp	166 °C
Mag head type	507		

This screen displays "live" Sensor States and Sensor Values.

Click on the **Close** button to close this screen.

Save/Restore

When you set up a printer, you can save the printer and driver configuration settings; then, when you restore or add additional printers, you can use the saved configuration to ensure configuration consistency.

Note that the Saved/Restored Settings (circled below) are for the Printer.

🏶 ZXP Toolbox - Zebra ZXP Series 8	USB Card Printer
ZXP Toolbox	
Printer Configuration *	Save/Restore
Printer Information Media Information Motor and Sensor Information Save/Bestore	Save Driver Settings Printer Settings Save
 Job Log Image Control Firmware Download 	Restore Driver Settings Printer Settings Restore
Print Test Card Print Sample Card	Saved/Restored Setting:
Technology * Magnetic Encoding Smart Card 	wml version='1.0" encoding='UTF-8" ? <configuration> <!--Ethemet MAC address---> <physical_address>12:34:56:78:9a.bc</physical_address> <!--Current wired Ethernet settings--></configuration>
Advanced Security Configure Security Security Roles	<pre><cehemeb< pre=""> </cehemeb<></pre> <dpc>>mabled <up><pre></pre></up></dpc>
Print Viewer Print PRN File	<pre><!---Current UCP language selection--> <cop_language <cop_language="" <copso_loc="" crame="" lypes="">Englist </cop_language></pre>
	<icurrent counter="" last="" reset="" since="" usage="" values=""> <usage_counters> <unum_cato_printed>393(/num_cards_printed> <num_lines_printed>1253232(/num_lines_printed></num_lines_printed></unum_cato_printed></usage_counters></icurrent>



- **Note** The configuration files are stored in an XML format in the following default location: *C:\Documents and Settings\All Users\ZMotif\Config*
- The Save button saves the Driver Settings and/or Printer Settings in an XML file format.
 - The printer configuration settings are stored as P <filename>
 - The driver configuration settings are stored as D_<filename>

The **Restore** button restores the Driver Settings and/or Printer Settings.

Job Log

The Job Log is a utility that builds a database of card transactions in the printer's host computer. Job Log records data encoded on the card's magnetic stripe, together with date, time, and the printer's serial number.

The data set can be uploaded at any time to a central archive, thus providing a means for security officers to validate the card by comparing it with tamper-proof *real data*.

🗱 ZXP Toolbox - Zebra ZXP Series 8 U	SB Card Printer
ZXP Toolbox	
Printer Configuration * Printer Information Motor and Senso Information Save/Restore Job Log Image Control Firmware Download Print Test Card * Print Sample Card Technology * Magnetic Encoding * Smart Card * Advanced Security * Security Roles * Print PRN File *	Job Log V Enable logging Log File Definition Create new log file each day Filename Path: C\Documents and Settings\All Users\ZMotift Seperator Delete Log Files Log File Contents Time Date Printer serial number Static text IP address Magnetic Track 1 Data Magnetic Track 2 Data EIN data from Mag Track 2 Magnetic Track 3 Data Application will send data with ""L=xxx" TextOut Spooler job number User name Save Job Log Settings Save Printer Log Files

- Enable Logging If this box is checked, the logging feature is enabled.
- Logfile Definition Choose one of the following options:
 - If the "Create new log file each day" box is unchecked, the data is saved to a log file of your choice (Filename).
 - If the box is checked, the data is saved to log file *ZXPLog* with the day's date; e.g., *ZXPLog_2009_3_4*.
 - In addition to the Filename, you may wish to enter a special field Separator Character. The default field Separator Character is "]".

• Log File Contents - The Log File Contents group selects the data to be logged in the file you specified above.

The data will be logged in the order displayed on the screen, each field being separated by the character specified in the Logfile Definition, Separator.

Log File Contents selections include:

- **Time**: Logs the time a which the card was sent to the printer in the HH:MM:SS format. The 24-hour clock is used, so 13:00:00 = 1:00 pm, and 05:00:00 = 5:00 am.
- Date: Logs the date the card was sent to the printer in the MM/DD/YYYY format.
- **Printer serial number**: Logs the serial number of the printer that printed the card.
- Static text: Adds to the record text in the box at right, 16 characters maximum.
- IP address: Logs the IP address of the PC that sent the card to the printer.
- Magnetic Track 1, 2, 3 Data: Logs the data sent to the printer to be encoded on the card's magnetic stripe.
- EIN data from Mag Track 2: Not implemented.
- **Application will send data with "~L=xxx" TextOut**: Allows third-party applications to send data to be logged in much the same way as they would send magnetic data.
- **Spooler job number**: Logs the number which the card print job was assigned in the Windows print spooler.
- User name: Logs the username of the person submitting the card print job.



Note • Job Logs and Printer Logs are stored in the following default location: C:\Documents and Settings\All Users\ZMotif

The **Save** button saves the Job Log settings.

The Save Printer Log button creates the following XML Log Files:

- GetLogCleanHistory.xml
- GetLogErrors.xml
- GetLogEventHistory.xml
- GetLogServiceHistory.xml

Image Control

The Image Control window lets you make color adjustments to compensate for camera or lighting conditions.

Keep in mind that these color adjustments modify how the pictures *print*. The adjustments do not affect the image files. (That type of adjustment would be made in an image processing application program.)

ZXP Toolbox - Zebra ZXP Series	8 USB Card Printer	
ZXP Toolbox		
Printer Configuration 🛛 🛠	Image Control	
Printer Information Media Information Motor and Sensor Information Save/Restore Job Log Jacob Log	Monochrome Conversions Dither error diffusion Full Color Printing	Brightness 0
 Image Lontrol Firmware Download 		Contrast 0 🔹 - +
Print Test Card		Gamma 0 🗢 - + Saturation 0 🗢 - +
Technology \$ Magnetic Encoding Smart Card 	Original	Red 0 0
Advanced Security Configure Security Security Roles		Blue Sharpening Filter (no effect on preview) None None High
Print PRN File	Preview	Use color matching profile selected in Properties -> Color Management Disable color matching profile
		Restore Defaults Save

- The **Monochrome conversions** dropdown menu lets you select Dither error diffusion, dither halftoning, or Dither pure black on white.
- **Full color printing adjustments** (-25 to +25 range) include Brightness, Contrast, Gamma, Saturation, Red, Green, and Blue.
- Sharpening filter options are None, Normal, and High. Note that these adjustments have no effect on the preview image.

Depending on the radio button selected, you can use the color matching profile selected in Properties > Color Management or you can disable the color matching profile.

The Save button saves your image control settings.

The **Restore Defaults** button restores the image control default values.

Firmware Download

The Firmware Download screen allows you to download firmware and firmware updates. Note that firmware updates can be found at <u>http://zebracard.com</u> under *Drivers & Downloads*.



Caution • Do not turn power OFF while the printer is downloading and configuring the new firmware.

Printer Configuration Firmware Download Printer Information Motion and Sensor Information Save/Restore Save/Restore Save/Restore Job Log Image Control Firmware Download Download Print Test Card * Print Sample Card Print Sample Card Print Sample Card Advanced Security * Print Viewer * Print Yells Print Viewer	Printer Configuration * Printer Information Media Information Media Information Save/Restore Job Log Image Control Firmware Download Print Test Card Print Test Card Print Sample Card Magnetic Encoding Smart Card Configure Security Security Roles Print Viewer Print PRIN File Print PRIN File Print PRIN File 	ZXP Toolbox - Zebra ZXP Serie ZXP Toolbox	s 8 USB Card Printer
 Printel Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control Firmware Download Print Test Card Print Sample Card Technology Magnetic Encoding Smart Card Advanced Security Security Roles Print Viewer Print Viewer Print YEIR File 	 Printel Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control Firmware Download Print Test Card Print Sample Card Technology Magnetic Encoding Smart Card Advanced Security Security Roles Print Viewer Print Viewer Print PRIN File 	Printer Configuration *	Firmware Download
	Firmt Test Card Print Test Card Print Sample Card Technology Magnetic Encoding Smart Card Advanced Security Configue Security Security Roles Print Viewer Print PRIN File	Printer Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control	Select Firmware to Download Firmware source path Download.
Print Sample Card Technology Magnetic Encoding Smart Card Advanced Security Configure Security Security Roles Print Viewer Print PRN File	Print Sample Card Technology Magnetic Encoding Smart Card Advanced Security Security Roles Print Viewer Print Viewer	Firmware Download Print Test Card	
Configure Security Configure Security Configure Security Security Security Print Viewer Print PRN File	Configure Security Configure Security Configure Security Security Print Viewer Print PRN File	Print Sample Card Technology	
Advanced Security x Configure Security Security Roles Print Viewer x Print PRN File	Advanced Security * Configure Security Security Roles Print Viewer * Print PRN File	 Magnetic Encoding Smart Card 	
Configure Security Security Roles Print Viewer Print Viewer Print PRN File	Configure Security Security Roles Print Viewer Print PRN File	Advanced Security *	
Print Viewer Print PRN File	Print Viewer Print PRN File	 Configure Security Security Roles 	
Print PRN File	Print PRN File	Print Viewer *	
		Print PRN File	

Print Test Card

Print Sample Card



- Note The sample cards in the Test Card Library are .bmp images stored in the following default location: C:\Documents and Settings\All Users\ZMotif\Library
 - 1. View the Test Card Library. Use the scrollbar to view all the selections.

ZXP Toolbox - Zebra ZXP Series	s 8 USB Card Printer
CXP Toolbox	
Printer Configuration 🛛 🛠	Print Sample Card
Printer Information	Test Card Library
Media Information	Front Side
Motor and Sensor Information	Front side
Save/Restore	
Job Log	
Image Control	
Firmware Download	Crystal3.bmp Drivers License FedID.bmp
Print Test Card 🛛 🕆	
Print Sample Card	Set As Front Set As Back Add Remove Print
Technology 🏾 🕆	
Magnetic Encoding	Reprint Last Card
Smart Card	Preview
Advanced Security 🛛 🛠	
Configure Security	Tun yay
Security Roles	
Print Viewer 🌼	2/20/10
Print PRN File	Crystal Ridge Reson
	Exact Olds David Olds

- **2.** Set the front side:
 - **a.** Select (click on) a card from the Test Card Library.
 - **b.** Click on the **Set As Front** button.
 - **c.** View the selected card in the Preview. Note that to remove the selected card from the Preview, click on the **Set As Front** button.
 - **d.** To change your selection, repeat steps a through c.
- 3. Set the back side: same as step 2, except click on the Set As Back button.
- 4. When satisfied with your selection, click on the **Print** button to print the sample card.

The **Reprint last card** button sends a command to the printer to print the last card.

Technology



Note • Magnetic Encoding and Smart Card default values are set via the *Card type in use* option in the Card Setup tab, see page 46)

Magnetic Encoding

The Magnetic Encoding screen allows the user to test various magnetic encoding options. For more information on magnetic encoding, refer to Appendix B.

🖇 ZXP Toolbox - Zebra ZXP Series 8	USB Card Printer
ZXP Toolbox	
Printer Configuration \$ Image: Printer Information Motor and Sensor Information Motor and Sensor Information \$ Job Log Image Control Image Control Firmware Download Print Test Card \$ Image Print Sample Card \$	Magnetic Encoding Settings Enable EIN required (inventory number pre-encoded on magnetic stripe) Disable error polling when EIN required Enable EIN readback from magnetic stripe Track 1 Track 2 Track 3 Bit density 210 Start sentinel % Character size 7 Start sentinel % End sentinel offset (x0.001") 293 LRC parity Even V End sentinel 2
Technology \$ Image is including \$	Read Data Coercivity High
Security Roles Print Viewer	I Track 2 I Track 2 I Track 3 Read Encode Get EIN

Settings: EIN options not implemented.

Read Data:

- Coercivity: Select either *High* or *Low*.
- Track selection:
 - For encoding: Click on the checkboxes to select *Track 1*, *Track 2*, and/or *Track 3*; enter the data to be written; and click on the **Encode** button.
 - For reading: Click on the checkboxes to select *Track 1*, *Track 2*, and/or *Track 3*; click on the **Read** button, and validate the data read.

Smart Card

The Smart Card screen allows the user to test various smart card encoding options. For more information on smart card encoding, refer to Appendix C.

🗱 ZXP Toolbox - Zebra ZXP Series 8	USB Card Printer	
ZXP Toolbox	11778 Y	E , C ?
Printer Configuration * Printer Information Media Information Motor and Sensor Information Sour Officiation 	Smart Card Card Readers SCM Microsystems Inc. SDI010 Smart Car	
Save/Hestore Job Log Image Control Firmware Download	Card Types GemClub	Feed Card
Print Test Card ♠ ● Print Sample Card Technology	Address 16 V Input	Write Raw Data
Magnetic Encoding Smart Card	Get ATR Eject Card Messages Show output as hex format	
Configure Security Configure Security Security Roles Print Viewer A Print PRN File		4

- Card Readers: Select the card reader from the drop-down menu.
 - Card Option: Select either Contact or Contactless.
- Card Types: Select the card type from the drop-down menu.
 - The Feed Card button feeds the card into the printer.
 - Input Data includes address, length, and input.
 - Click on the **Read** button to read data from the card.
 - Click on the Write button to write data to the card.
 - Click on the Write Raw Data button to write "raw data" to a card.
- The **Get ATR** button returns the ATR (Answer To Reset) result from the card reader. This is useful to identifying the type of smart card inserted into the printer.

The Eject Card button ejects the card.

Click on the Messages checkbox to show the output in hex format.

Advanced Security



Important • To manage this Advanced Security section, you are required to be the administrator of the computer or have administrative privileges.

Configure Security

Enabling driver password protection prevents unauthorized persons from changing the printer configuration settings. Access to various printer screens can be selectively disabled based on the Windows User Login.

To activate Driver Password Protection:

1. Click on the Activate driver password protection checkbox.

🗱 ZXP Toolbox - Zebra ZXP Series	8 USB Card Printer		
ZXP Toolbox		STATING	Q C ?
XP Toolbox - Zebra ZXP Series I ZXP Toolbox Printer Configuration Printer Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control Frimt Test Card Print Test Card Magnetic Encoding Smart Card Advanced Security	B USB Card Printer Configure Security Unauthorized changes to prin protected. The password is case sensitiv password, enter it in New pas ✓ Activate driver password pr Old password New password Confirm password Confirm password Last Print job options ○ Erase job data followin ③ Retain job data after ca	ter settings cannot be made if the driver i e, eight characters minimum. If this is the sword. rotection	s password first use of a Apply Save
Technology \$ Magnetic Encoding Smart Card Advanced Security Configure Security Configure Security Security Roles Print Viewer Print PRN File	Last Print job options O Erase job data followin Retain job data after ca	g successful card printing ard printing	Save

- **2.** Enter the new password on the *New password* field. The password is case sensitive, eight characters minimum.
- 3. Repeat the password in the *Confirm password* field.
- 4. Click on the Apply button.

To deactivate Driver Password Protection:

1. Click on the Activate driver password protection checkbox to remove the checkmark.

XP Toolbox	
Printer Configuration 🛛 🕆	Configure Security
Printer Information Media Information Motor and Sensor Information	Unauthorized changes to printer settings cannot be made if the driver is password protected. The password is case sensitive, eight characters minimum. If this is the first use of a password, enter it in New password.
Save/Restore Job Log Image Control Firmware Download	Cld password protection Clipplay characters
Print Test Card	New password Confirm password
Technology ♠ ● Magnetic Encoding ● Smart Card	Last Print job options Erase job data following successful card printing Retain job data after card printing Save
Advanced Security Configure Security Security Roles	
Print Viewer Rie	

- 2. Enter your password in the *Old password* field.
- 3. Leave the *New password* and the *Confirm password* fields blank.
- **4.** Click on the **Apply** button. This will bring up a ZXP Toolbox pop-up screen. To deactivate the the printer driver password, click on *Yes*. This will bring up another ZXP Toolbox pop-up screen. Click on *OK*.

Last Print job option:

- The *Erase job data following successful card printing* option erases the print job after successful card printing.
- The *Retain job data after card printing* option allows the print job to remain in memory for multiple prints via the OCP.

The Save button saves your selection.

Security Roles

Use this section used to establish security roles; i.e., grant and restrict access to various ZXP ToolBox screens.

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Note • The list of users in the drop-down menu (e.g., Guest, HelpAssistant, Local User, localfix, etc.) is derived from the list of users on the system.

To set security access roles:

1. Select a user from the drop-down menu.

🖡 ZXP Toolbox - Zebra ZXP Series 8	USB Card Printer	
ZXP Toolbox	9844	€, C ?
Printer Configuration * Printer Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control Firmware Download Print Test Card Print Sample Card Technology Smart Card Advanced Security Security Roles Print Viewer Print PRN File 	Security Roles Select user ZGN/rbarselou Administrator AspNET Motor an HelpAssistant SaveRes Incol user Job Log Incolfix Image C SUPPORT_388945a0 Firmward ZGN/rbarselou Magnetic Encoding Smart Card Print PRN File	ricted Features

- 2. Use the arrow buttons (>, >>, <, and <<) to make specific features available to or restrict specific features from the selected user role.
- 3. When satisfied with the selection, click on the **Save** button.

At the next log in, the user will only see or have access to the features previously granted.



Print Viewer

When you print a PRN file, you print directly to the printer, bypassing computer applications and associated printer drivers. This utility can be used to ensure that your printer is working properly by isolating it from driver-related and communication-related issues.

Print PRN file



Note • Sample PRN files are stored in the following default directory/folder: C:\Documents and Settings\All Users\ZMotif\Library

To send a PRN file to the printer:

1. Click on the **Browse** button.

inter Configuration	PrintPRNfile
Printer Information Media Information Motor and Sensor Information Save/Restore Job Log Image Control Firmware Download	Increases of 4-73 Birding of 4-73 Bird
int Test Card 🔹	Resistors Type Class B CRS 0 Skren H. Johns
echnology Magnetic Encoding Smart Card	Identification Card
dvanced Security \$ Configure Security \$ Security Roles \$	123 Male Stored Antoniou USA 0123 Make diffice 110 bis BHREpus Antonion Type Class B Opp 0 B Opp 0 Character Control Class
int Viewer Print PRN File	Select a File to View

- 2. From the Browse window, locate and select a PRN file.
- 3. Click on the **Open** button.
- 4. View the PRN file.
- 5. When satisfied with the selection, click on the **Print** button.

Successfully printing the PRN file indicates that the printer and data communications to the printer are set up and configured properly.
6 Cleaning

Caution • PROTECT YOUR FACTORY WARRANTY!

The recommended cleaning procedures must be performed to maintain your factory warranty. Other than the recommended cleaning procedures described in this manual, allow only Zebra authorized technicians to service the Printer.

NEVER loosen, tighten, adjust, bend, etc., any part or cable inside the printer.

NEVER use a high pressure air compressor to remove particles in the printer.

Cleaning the Printer

Clean your Printer using the Cleaning Cards provided. The regular use of these cards will clean and maintain important parts of your printer that cannot be reached, including the Printhead, Transport Rollers, and optional Magnetic Encoder Station.

When to Clean

- X-Roller and Y-Roller cleaning should occur every 5,000 cards.
- Heated Roller cleaning should occur every 20,000 cards. Note that a Heated Roller Cleaning Card is not supplied with the printer; order Zebra Cleaning Card Kit P/N 105999-001.

Cleaning the Rollers



Note • Do not use previously used cleaning cards.

- Step 1. Initiate the cleaning process.
 - **a.** Press the MENU button on the Operator Control Panel (OCP). The OCP will display the Main Menu.
 - **b.** Scroll through the Main Menu, and select Advanced Settings. The OCP will display the Advanced Settings Menu.
 - **c.** Scroll through the Advanced Settings Menu, and select Clean Printer. The OCP will display the Clean Printer Menu.
- Step 2. Clean the X-Drive Rollers.
 - a. Select *Clean Card Side Path* to run the X-Roller Cleaning Routine.
 - **b.** Use X-Path Cleaning Card P/N 211973-001.
 - **c.** Follow the OCP instructions.



d. When complete, the OCP will return to the Clean Printer Menu.

Step 3. Clean the Y-Drive Rollers.

- a. Select *Clean Card Front Path* to run the Y-Roller Cleaning Routine.
- **b.** Use Y-Path Cleaning Card P/N 211974-001.
- **c.** Follow the OCP instructions.



d. When complete, the OCP will return to the Clean Printer Menu.

Step 4. Clean the Heated Rollers.

- **a.** Select *Clean Heated Roller Path* to run the Heated Roller Cleaning Routine.
- **b.** Use Heated Roller Cleaning Card P/N 211975-001.
- **c.** Peel the protective film from the card.
- **d.** Follow the OCP instructions.



- e. When complete, the OCP will return to the Clean Printer Menu.
- f. Then use the Heated Roller Cleaning Card to clean the Platen; see page 72.

Exit the Printer Menus by selecting RETURN at each menu level (Clean Printer Menu, Advanced Settings Menu, and Main Menu).

Cleaning the Platen

- **Step 1.** Open the printer Door.
- **Step 2.** Remove the Transfer Film.
- Step 3. Manually run the Heated Roller Cleaning Card (P/N 211975-001) over the Platen.





Step 5. Close the printer Door.

Cleaning the Printhead

Printhead cleaning removes deposits when print anomalies persist. To clean, only use foamtipped swabs.



Caution • Never use a sharp object or any abrasive to scrape deposits from the Printhead. Permanent damage to the Printhead will result.



Caution • Do not touch the Printhead if the printer has been in service in the last 10 minutes. It could be very hot and cause a burn.

- **Step 1.** Place the printer power switch in the OFF (\bigcirc) position.
- Step 2. Open the Door, and remove the print ribbon.
- Step 3. Bend the Cleaning Swab to release the cleaning fluid.
- **Step 4.** Clean Printhead by moving Cleaning Swab tip side-to-side across the Printhead elements. Only use moderate force. To re-order Cleaning Swabs, see the Media List on the **User Documentation and Drivers CD** supplied with this printer.
- Step 5. Reinstall the print ribbon, and close the Door.
- Step 6. Place the printer power switch in the ON (|) position.

Card Cleaning Cartridge

The Card Cleaning Cartridge cleans the cards entering the printer through the card feeder. To ensure print quality, the card cleaning roller requires periodic replacement. New card cleaning rollers are included with each print ribbon or may be purchased separately. (To reorder, refer to the Media List on the **User Documentation and Drivers CD** supplied with this printer.)

Installation of the Card Cleaning Cartridge is described in Section 2 and is not repeated in detail here.



Note • Before replacing the Card Cleaning Cartridge or its adhesive roller, clean the Printer using the Cleaning Cards as described earlier in this chapter.

Card Cleaning Roller

The Card Cleaning Roller cleans the cards entering and exiting the Transfer Station. To ensure print quality, the card cleaning roller requires periodic replacement. A new card cleaning roller is included with each print ribbon or may be purchased separately. (To reorder, refer to the Media List on the **User Documentation and Drivers CD** supplied with this printer.)

Installation of the Card Cleaning Roller is described in Section 2 and is not repeated in detail here.

Troubleshooting



The table on the next page offers causes and solutions to symptoms related to improper operation. Check the table when experiencing any loss of operation or print quality.

Use the following figure in conjunction with the table to help locate the possible cause and effect a solution.



OCP Error Messages

ERROR MESSAGE	POSSIBLE CAUSE	POSSIBLE SOLUTION
CARD CLEAN ERROR	Faulty Card Cleaning Roller (if error during single card feed) or Card Cleaning Cartridge (if cards fed from Input Hopper)	Replace the Card Cleaning Roller or Card Cleaning Cartridge, as appropriate
CARD FEED ERROR	Card is jammed in Input Hopper	a. Clear the card jam in the Input Hopper, and re-seat the Input Hopper
		 Ensure that cards are not stuck together and that they are the correct thickness (30 - 40 mil)
CARD JAM	Card is jammed in Card Transport or	Check the card path:
		a. Idler Roller Assembly (open door)
		 b. Transfer Station (rotate the eject roller CCW)
CARD NOT DETECTED	Card did not reach card sensor or is jammed in Input Hopper or	a. Clear the card jam in the Input Hopper, and re-seat the Input Hopper
	Card Transport	 Ensure that cards are not stuck together and that they are the correct thickness
		 c. Check Idler Roller Assembly (open door)
CARD NOT INSERTED	Card was not fed into Single Card Feed Slot within nominal 30-second period	Retry and feed card into the Single Card Feed Slot, or cancel the operation
COVER OPEN	Door is ajar	Verify the Door is completely closed
EP SCRIPT ERROR	Internal logic error	a. Power cycle the printer
		b. Contact Zebra Technical Support
FILM JAM	The Transfer Film is jammed	a. Check the Transfer Film
		b. Reinstall the Transfer Film
		c. Repair the break in the Transfer Film and reinstall
FILM MOTION ERROR	Transfer Film not correctly responding to	a. Check the Transfer Film
	motion commands	b. Reinstall the Transfer Film
		c. Power cycle the printer
		d. Contact Zebra Technical Support
FW UPGRADE ERROR	Invalid firmware version selected	Verify the version, and retry updating the firmware
GENERAL MEMORY	There is a problem when accessing	a. Power cycle the printer
ERROR	memory	b. Contact Zebra Technical Support
HCB BULB ERROR	The Heater Controller Board (HCB) is unable to pulse the upper and lower heaters to bring the upper and lower rollers to the proper temperature	Contact Zebra Technical Support
HCB SENSOR ERROR	The Heater Controller Board (HCB) is unable to detect temperature of the upper or lower rollers	Contact Zebra Technical Support

Troubleshooting OCP Error Messages

ERROR MESSAGE	POSSIBLE CAUSE	POSSIBLE SOLUTION
INVALID CARD TYPE	Encoding error	a. Ensure that you are using the correct card typeb. In the Encoding tab of the driver
		Printing Preferences, check that the settings are correct for the cards you are using
		c. Ensure that the data conforms to ISO Specifications
		d. Retry writing and reading
INVALID FILM	Transfer Film does not match the printer	a. Verify the part number of the Transfer Film is correct on OCP
		b. Power cycle the printer
INVALID RIBBON	Print ribbon does not match the printer	a. Verify the part number of the print ribbon is correct on OCP
		b. Power cycle the printer
MAG MOTION ERROR	Mag card positioning error encountered	Retry writing and reading
MAG READ ERROR	Encoding errorDefective magnetic stripe	a. Ensure that you are using the correct card type
		 b. Check that the cards are loaded with the magnetic stripe in the correct orientation (normally this will be with the stripe down and toward the rear of the printer)
		 c. Ensure that the cards are set-up correctly in the printer driver (coercivity setting)
		 d. Ensure that the data conforms to ISO Specifications
		e. Retry reading
MAG WRITE ERROR	Encoding errorDefective magnetic stripe	a. Ensure that you are using the correct card type
		 b. Check that the cards are loaded with the magnetic stripe in the correct orientation (normally this will be with the stripe down and toward the rear of the printer)
		 c. Ensure that the cards are set-up correctly in the printer driver (coercivity setting)
		d. Ensure that the data conforms to ISO Specifications
		e. Retry writing
MISSING HCB ERROR	There is a problem with the Heater	a. Power cycle the printer
		b. Contact Zebra Technical Support
MISSING MAB	An error occurred when reading the RFID Tag by the MAB (Media Authentication Board)	a. Check print ribbon orientation
		b. Verify part number of the print ribbon
		c. Power cycle the printer
		u. Contact Zebra Technical Support

ERROR MESSAGE POSSIBLE CAUSE		POSSIBLE SOLUTION
MOTOR VOLTAGE ERROR	Incorrect voltage detected at one or	a. Power cycle the printer
	several motors in the unit	b. Contact Zebra Technical Support
NO MAG STRIPE	Mag stripe not detected	a. Ensure that you are using the correct card typeb. Check that the cards are loaded with the magnetic stripe in the correct orientation (normally stripe down and
		toward the rear of the printer)
OUT OF CARDS	The Input Hopper is empty	a. Load cards in the Input Hopper
	Card is stuck in Input Hopper	b. Re-seat the Input Hopper
OUT OF FILM	The Transfer Film has run out	Load new roll of Transfer Film
OUT OF RIBBON	The print ribbon has run out	Load a new roll of print ribbon
PRINTHEAD MOTION ERR	Printhead did not move to proper position	a. Power cycle the printer
	during initialization	b. Contact Zebra Technical Support
PRINTHEAD TOO COLD	Printhead temperature out of proper range (COLD)	Contact Zebra Technical Support
PRINTHEAD TOO HOT	Printhead temperature out of proper range (HOT)	Contact Zebra Technical Support
REJECT ERROR	A problem during the reject process	Contact Zebra Technical Support
RIB COLOR DETECT ERR	Print ribbon is not installed correctly	Reinstall the print ribbon
RIBBON ADC ERROR	Possible hardware issue	Contact Zebra Technical Support
RIBBON BEMF ERROR	Problem with the Back EMF (BEMF) of the ribbon motors	Contact Zebra Technical Support
RIBBON JAM	The print ribbon is jammed	a. Check the print ribbon
		b. Reinstall the print ribbon
		c. Repair the break in the print ribbon and reinstall
RIBBON MOTION ERROR	Ribbon not correctly responding to	a. Check the print ribbon
	motion commands	b. Reinstall the print ribbon
		c. Repair the break in the print ribbon and reinstall
ROLLERS OVER TEMP	Heated Rollers (used to transfer the image from the Transfer Film to the Card) are too hot for proper operation	Turn off power, and contact Zebra Technical Support
ROLLERS UNDER TEMP	Heated Rollers (used to transfer the image from Transfer Film to Card) are not hot enough for proper operation	Turn off power, and contact Zebra Technical Support
SYSTEM ERROR	Internal logic error	a. Power cycle the printer
		b. Contact Zebra Technical Support
SYSTEM NOT READY	A problem was detected during printer	a. Power cycle the printer
	start-up	b. Contact Zebra Technical Support
TRANSFER ERROR	A problem was detected during the transfer process (print ribbon to film)	Contact Zebra Technical Support

OCP Test Card Images

Mid Gray Grid On Gray **Cyan Stripes** Mid + Dark Cyan 2 Pixel Grid -. Max Gray Offset Dots Smear 255 255 Min Magenta White Max-Gray Max-Gray White **–**1 Motion & Registration **Gradient Boxes Density Setup** Grid On Gray 2

See detailed Test Card descriptions on the following page.

Test Card Descriptions

Image	Description	Print artifacts to look for with this image
Mid Gray	Flat uniform gray	Motion artifacts, banding, platen defects, transfer artifacts, dirt, overall density level
Grid On Gray	Solid black on top, gray grid underneath	Colored ribbon wrinkles in the black area, or clear/white transfer film wrinkles in the gray area
Cyan Stripes	Horizontal cyan stripes alongside vertical lighter cyan box	Non-uniformity or horizontal banding within cyan box on right of card
2 Pixel Grid	2 pixel wide grid lines on white	Mis-registration between color planes
Mid Magenta	Flat uniform mid- density magenta	Motion artifacts, banding, platen defects, density level, uniformity
Dark Cyan	Maximum cyan only density image	Motion artifacts, transfer artifacts, scratches, dirt
Max Gray	Maximum CMY (black) density image	Wrinkles, snapping noise during printing, ribbon / transfer-film tears or breaks, flash, card positioning
Offset Dots	Individual C, M, and Y dots spaced at regular intervals	Motion artifacts on specific color planes, mis-registration
Smear	Gray with full density YMCK blocks near top	Color smear artifacts
Min Magenta	Flat uniform low- density magenta	Motion artifacts, banding, platen defects, density level, uniformity, bead position
White Max-Gray	Max-density areas on sides with tilted white center	Ribbon wrinkle
Max-Gray White	Same as above with slant direction changed	Ribbon wrinkle
Motion & Registration	Uniform cyan with registration marks on sides	Banding, mis-registrations, motion artifacts
Gradient Boxes	3 sets of light-to-dark grayscale ramps	Used to create color calibration look-up table
Density Setup	Used to measure mid and max densities	Density level of mid-gray and black
Grid On Gray 2	Less stressful version of the grid- on-gray target	Colored ribbon wrinkles in the black area, or clear/white transfer film wrinkles in the gray area

Technical Specifications



Standard Features

- Thermal transfer and dye diffusion to transfer film
- Full color or monochrome reverse transfer printing
- Single- and dual-sided printing
- Maximum print speed (batch mode; i.e., the same image repeatedly)

•	Single-sided (Front Only)	
	YMC	190 cph
	YMCK 16	0 cph

- Dual-sided (Front and Back) YMCK (YMC Front, K Back) 170 cph YMCKK (YMCK Front, K Back) 150 cph
- Photo quality image
- · Over-the-edge printing on standard CR80 media
- Microsoft Windows Certified drivers
- Single-card feed capability
- 150 card capacity feeder (30 mil)
- 15 card reject hopper (30 mil)
- 100 card output hopper (30 mil)
- i SeriesTM intelligent media technology
- Auto calibration of media
- 21-character soft menu LCD text operator display
- 304 dpi (12.0 dots/mm) print resolution
- 64MB memory standard
- 2-year unlimited warranty on printer, lifetime limited warranty on printhead with Genuine Zebra Supplies

Specifications

Encoding Options

- Smart card contact encoder ISO 7816, PC/SC Compliant
- Magnetic stripe encoder ISO 7811 and JIS-II (new and re-encoded; tracks 1, 2, and 3; high and low coercivity; stripe down; 30 40 mil card thickness)
- Contact smart card encoder EMV level 1 certified
- ISO 14443 MIFARE (13.56 MHz) and ISO 7816 contact encoder combo

Communications Interfaces

- USB V2.0 / 1.1 protocol
- USB supports plug-n-play printer identification
- USB and internal 10/100 Ethernet (Standard) *
 - * The 10/100 Ethernet functionality requires a firmware upgrade to be activated. This firmware is pending release and will be available for download at <u>www.zebracard.com</u>. Check our website occasionally for this and other upgrades.

Software

Microsoft Windows Certified Printer Drivers Supported

• Windows XP*, Windows Vista*, Windows Server 2003*

*32-bit and 64-bit certified

Driver Features

- Graphical card orientation setting to visualize card printing setup and configuration
- · Card type setting eliminates unnecessary setup and configuration settings
- Complete graphical control over area and element selection of black extraction parameters insures true black and color printing exactly where you want it on the card
- Auto sensing of print ribbon type
- Optional driver password protection setting to prevent accidental or unauthorized printer configuration changes

ZXP Toolbox

- Printer configuration tools and utilities for complete control over all printer functions and features
- User role-based features enables true security printer operations
- Complete technology card management enables setup and testing of all printer and encoder features and functionality
- Printer test cards and diagnostics utilities ensure error free printing and fast troubleshooting capabilities

Card Compatibility

- Card Thickness: 30 40 mil
- Card Size: ISO 7810 format, Type ID-1, CR-80
- Card Material: ABS; PVC, Composite; TESLIN, Composite; PET; PETG; Polycarbonate; PVC

Agency Approvals

Zebra ZXP Series 8 Card Printer complies with following applicable directives and standards for the ITE: Residential, Commercial and Light Industry environments

- For US/Canada/Mexico/Australia and New Zealand
 - FCC Class A, cfr47, Part 15 Subpart J
 - FCC 15.257 2008, Part15 Subpart C
 - Canadian STD RSS-210
 - NOM-ETL (Mexico)
 - EN60950: 2000 Safety Standard (TUV & RTL)
 - C-Tick (Australia) Electromagnetic Radiation Standard
- For uEope:
 - Applicable Directives and Supporting Standards: 2004/108/EC EMC Directive, EN55022:2006 Class A, EN55024:1998+AD1:2001+AD2:2003, EN61000-3-2:2006, EN61000-3-3:1995+AD1:2001, 2006/95/EC LVD Directive, EN60950-1:2001, CB Scheme
 - WLAN Enabled

Applicable Directives and Supporting Standards:

99/5/EC R&TTE Directive, EN 301 489-17 V1.2.1 (2002-08), EN 300 328 V1.7.1 (2006-10)

• RFID nEbled

Applicable Directives and Supporting Standards:

99/5/EC R&TTE Directive, EN 301 489-3 V1.4.1 (2002-08), EN 300 220-2 V2.1.2 (2007-06)

Technical Specifications

Specifications

Electrical

- Auto-switching Single-phase AC power
- 90V~264V AC RMS and 47-63 HZ (50-60 Hz nominal)
- Power consumption:

Idle	100 W
Printing	150 W
Initializing / Warm-up	300 W
Sleep	20 W

Physical

•	Height (printer only)	11.9" (303 mm)
•	Height (with card feeder)	13.2" (334 mm)
•	Width	14" (356 mm)
•	Width (with card feeder)	14.9" (379 mm)
•	Depth	20.4" (519 mm)
•	Weight (printer only)	27.5 lbs (12.5 kg)

Environmental

•	Operating Temperature	59° to 77°F (15° to 25°C)
•	Storage Temperature	23° to 131°F (-5° to 55°C)
•	Operating Humidity	20% to 80% non-condensing
•	Storage Humidity	10% to 90% non-condensing
•	Shipping Temperature	-40° to 140°F (-40° to 60°C)
•	Shipping Humidity	10 to 90% non-condensing

Declarations of Conformity

ZEBRA TECHNOLOGIES CORPORATION Declares that the following Information Technology Equipment

Zebra ZXP Series 8 Card Printer complies with following applicable directives and standards for the ITE: Residential, Commercial & Light Industry environments

Applicable Directives and Supporting Standards: 2004/108/EC EMC Directive, EN55022:2006 Class A, EN55024:1998+AD1:2001+AD2:2003EN61000-3-2:2006, EN61000-3-3:1995+AD1:2001, 2006/95/EC LVD Directive, EN60950-1:2001, CB Scheme

RFID Enabled

Applicable Directives and Supporting Standards: 99/5/EC R&TTE Directive, EN 301 489-3 V1.4.1 (2002-08), EN 300 220-2 V2.1.2 (2007-06)

For a formal certificate, please contact the Compliance Office at Zebra's Camarillo facility.

EUROPE: Norway Only: This product is also designed for IT power system with phase to phase voltage 230V. Earth grounding is via the polarized, 3-wire power cord.

FI: "Laite on liitettävä suojamaadoitus koskettimilla varustettuun pistorasiaan"

SE: "Apparaten skall anslutas till jordat uttag"

NO: "Apparatet må tilkoples jordet stikkontakt"

FCC Regulations

The Zebra ZXP Series 8 Card Printer has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and operated in accordance with the Zebra ZXP Series 8 Card Printer User's Manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by Zebra may cause harmful interference and void the FCC authorization to operate this equipment.

FCC Radiation Exposure Statement (applicable to 15.247 device only)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum 20 cm between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.

Industry Canada Notice

This device complies with Industry Canada ICES-003 class A requirements. Cet équipement est conforme à l'ICES-003 classe A de la Norme Industrielle Canadienne.



APPENDIX A

Printer Configurations



Introduction

The Part Number of a particular printer is shown on a label affixed to the bottom of the printer; that Part Number identifies the specific configuration for that printer. The chart on the following page shows the configurations that are available.

Part Numbers

PART NUMBER		DESCRIPTION	
Z 8 _		Base Unit	
1 - 2 -		Single-Sided Printing Dual-Sided Printing	
	0	Smart Card Options None Contact Encoder + Contactless MIFARE Contact Station	
•	_ 0	Mag Encoders None ISO HiCo/LoCo Mag S/W Selectable	
•	0	Security Options None Enclosure Lock	
	C	Interface USB and 10/100 Ethernet * * The 10/100 Ethernet functionality requires a firmware upgrade to be activated. This firmware is pending release and will be available for download at <u>www.zebracard.com</u> . Please check our website occasionally for this and other upgrades.	
	0	Software/Kit None Media Starter Kit (includes: 1 YMCK ribbon kit, 1 roll of InTM, 200 PVC cards)	
	0 0 0	Miscellaneous None	
	X X	Country Code Country Code	
	0 0	Custom Code Reserved for future options	



Magnetic Card Encoder



Introduction

This Appendix includes operation and maintenance requirements for Printers with the optional magnetic card stripe encoder.



The magnetic encoder can be set for either high or low coercivity. Use the printer driver to change the encoder setting.

Driver Setting

The **Card Setup** tab allows the user to specify the Magnetic Encoder Card Type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum performance.

If your card type is not listed in the drop-down menu, select *Custom* and fill out the Card Specifications pop-up screen.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

💩 Zebra ZXP Series (3 USB Card Printer Printing Preferences 🛛 🛜 🔀			
Card Setup Encoding	Black Panel (K) About			
Card Info				
Card source 💿	Card Fooder C. Single card food slet			
Card type in use	PVC,HICO			
Printing options	PVC,LOCO			
Orientation	POLYCARBONATE PVC,SLE4428			
Print on both sides				
Copies				
Print front image on back side Yes Test Print				
Ribbon info				
Ribbon type				
YMCKK	Overlay			
Ribbon combination	a			
YMCK Back / K F	iront UV			
Laminator options —				
Laminate side No	ne 💌 Laminate type 🛛 Full Coverage 💌			
Zebra	Restore Defaults			
	OK Cancel Apply			

• Make the appropriate Magnetic Encoder Card Type selection.

Media Loading Orientation



Note • ONLY USE cards that comply with ISO 7810 and 7811 standards for magnetic stripe cards. The magnetic stripe must be flush to the surface of the card to work properly. Never use cards which have taped-on magnetic stripes.

When loading cards with magnetic stripes into the card feeder, ensure that the magnetic stripe is down and to the rear of the printer.



Magnetic Encoder Cleaning

The Magnetic Encoder is cleaned as part of the printer cleaning process; see Section 6. If the frequency of encoding errors increases, the head may need additional cleaning. To cleans, only use foam-tipped swabs.



Caution • Never use a sharp object or any abrasive to scrape deposits from the Magnetic Encoder. Permanent damage to the Magnetic Head will result.

- **Step 1.** Open the Door.
- Step 2. Open the idler roller assembly door.
- Step 3. Bend the Cleaning Swab to release the cleaning fluid.
- Step 4. Clean the Magnetic Encoder by moving Cleaning Swab tip side-to-side across the head elements. To re-order Cleaning Swabs, see the Media List on the User Documentation and Drivers CD supplied with this printer.
- Step 5. Close the idler roller assembly door.
- Step 6. Close the Door.



APPENDIX C

Smart Card Options



Introduction

This section contains information on the additional operations of a Printer equipped with one or more of the available Smart Card options.

Smart Cards can have a built-in microcomputer and/or memory to store fingerprints, voice recognition patterns, medical records, and other such data. All other printer operations remain the same as the standard models.

Encoding and Reading Smart Cards

Encoding data onto Smart Cards and reading the data previously encoded on them is totally under control of the application software; no operator action is required.

If you experience any problems with encoding or reading data, refer to the users manual or other documentation for the application software.

Driver Setting

The **Card Setup** tab allows the user to specify the Smart Card Type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum printer performance.

If your card type is not listed in the drop-down menu, select *Custom* and fill out the Card Specifications pop-up screen.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

🖢 Zebra ZXP Series 8 USB Card Printer Printing Preferences 🛛 🛜 🔯
Card Setup Encoding Black Panel (K) About
Card Info Card Source Card Seader C Cingle and Sead day Card type in use PVC, MIFARE 1K Printing options PVC, MIFARE 1K Printing options PVC, MIFARE 1K PVC,
Orientation PVC_3LE4442_mIPARE_IK Pvint on both sides PVC_SLE5528 Print on both sides PVC_SLE5542 Potate 180° PVC
Copies 1
Ribbon info Ribbon type VMCKK Overlay Ribbon combination VMCK Back / K Propt
Laminator options Laminate side None Laminate type Full Coverage
Restore Defaults
ОК Cancel Дррly

• Make the appropriate Smart Card Type selection.

Contact Smart Cards

Contact Smart Cards have a pad of contacts on the surface of the card that connect to the circuitry embedded into the card. The printer responds to commands that position the card at the contact location, where the printer connects to the contacts on the Smart Card. Data to be encoded onto the Smart Card, and data read from the Smart Card, can interface via a connector on the printer's rear panel ("Contact Station"), or encoding/decoding can be performed by logic on the printer's Main PCBA ("Contact Encoder"). All other printer operations remain the same as the standard models.

Media Loading Orientation for Contact Smart Cards

Orient the cards with the gold-plated Smart Card contacts at the top surface of the card and facing to the left.



Contact Station Smart Card Interface

When a command to the printer interface sends a card to the Smart Card Contact Station, the printer connects the Smart Card Contact Station to the female DB-9 connector on the rear of the printer.



An attached external Smart Card Programmer can be used to program Smart Card chips. The following table shows the Smart Card Contact Points.

Pin	Smart Card Contact Points	DB-9	Smart Card Contact Points
1	C1 (VCC)	6	C6 (Vpp)
2	C2 (Reset)	7	C7 (I/O)
3	C3 (Clock)	8	C8 (RFU)
4	C4 (RFU)	0	(GND when chip
5	C5 (GND)	3	is at station)

Contactless Smart Cards

Rather than using a contact pad, Contactless Smart Cards use various short-range radio technologies to "connect" to the printer. The printer moves the card to an antenna location on the card path, and the encoding or decoding occurs. All other printer operations remain the same.

Media Loading Orientation for Contactless Smart Cards

For Contactless Smart Cards, orientation is not a consideration.

Printing on Contactless Smart Cards

With reverse transfer printing technology, there are no restrictions when designing material to be printed on Contactless Smart Cards.

Appendix D

Packing the Printer for Shipment



Introduction

If the printer is to be shipped, it is important to use the original packing and shipping material to prevent damage to the Printer.

If the original material is lost, a replacement Shipping Kit can be ordered from Zebra; refer to the Media List on the **User Documentation and Drivers CD** supplied with this printer.

Procedure



- **Note** The specifics of the shipment and the printer's condition may influence which of the following steps are followed; common sense should prevail.
- Step 1. Remove any cards from the Input and Output Hoppers.
- **Step 2.** If the printer still has power applied and is turned on and is still connected to the host computer, set the printer's power switch (on the back of the printer) to the OFF (O) position; and disconnect the interface and power cables to the printer.
- Step 3. Open the printer Door.
- **Step 4.** Remove the Print Ribbon and Transfer Film. (If you wish to save the print ribbon and film for future use, you may want to put them in a plastic bag for storage.)
- **Step 5.** Remove the Card Cleaning Cartridge and Card Cleaning Roller, and place them in the foam insert.
- Step 6. Close the printer Door.

Step 7. Remove the Input and Output Hopper, and place them in the foam insert.



Note • In the figure below, the printer and accessories are shown in the bottom foam insert, out of the shipping carton for clarity.



- Step 8. Place the Printer in its protective plastic bag.
- Step 9. Place the lower foam insert in the Shipping Carton.
- Step 10. Use both hands to carefully place the Printer into the recess in the lower foam insert.
- **Step 11.** Place the upper foam insert onto the Printer, and gently press it down so it makes a snug fit on the Printer -- the top of the upper foam insert should be even with the upper edge of the Shipping Carton.
- Step 12. Close the Shipping Carton.
- Step 13. Tape the Shipping Carton securely.



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Zebra[®] ZXP Series 8[™] Card Printer

User's Manual



Card Printer Solutions

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Contents



1 • Introduction	1
Printer Features	2
Controls, Connectors, and Indicators	3
lcons	4
2 • Installation and Setup	5
General Information.	5
Unpacking the Printer	6
Installing the Card Hoppers	8
Loading Cards	9
Opening the Printer Door	10
Installing the Cleaning Cartridge	11
Installing the Cleaning Roller	12
Loading the Transfer Film	13
Loading a Print Ribbon	15
Connecting Power	17
Connecting the Printer to your Computer	18
Installing the Windows Printer Driver	19
3 • Operation	25
Introduction	25
Card Type Selection	26
Printing a Sample Card	27
Manual Card Feed	28
Multi-Function LCD Panel	30
Operator Control Panel (OCP)	31

4 • Printer Settings and Adjustments	35
	35
Printer Properties	36
Printing Preferences	44
5 • ZXP ToolBox	51
Introduction	51
Printer Configuration	53
Print Test Card	60
Technology6	61
Advanced Security6	63
Print Viewer	65
6 • Cleaning	57
Cleaning the Printer	37
Cleaning the Printhead	71
Card Cleaning Cartridge7	72
Cleaning Roller	72
7 • Troubleshooting	'3
Operational Issues	74
8 • Technical Specifications	' 9
Standard Features	79
Specifications	30
Declarations of Conformity	33
Appendix A • Printer Configurations 8	35
Appendix B • Magnetic Card Encoder 8	37
Appendix C • Smart Card Options)1
Appendix D • Packing the Printer for Shipment)5
Appendix F • Worldwide Support	17
	,

Introduction



This manual contains installation and operation information for the Zebra ZXP Series 8 Card Printer manufactured by Zebra Technologies Corporation.



The Zebra ZXP Series 8 card printers use reverse transfer printing technology to create photoquality and edge-to-edge images on plastic identification cards.

Zebra's reverse transfer printers provide fast throughput and a range of encoding options for a variety of markets and applications.



Printer Features




Controls, Connectors, and Indicators

Your printer has an LCD Display Panel and three Panel Buttons on the front and a power connector, power switch, and interface connector(s) on the rear panel.





lcons

Throughout this manual, different icons highlight important information, as follows:



Note • Indicates information that emphasizes or supplements important points of the main text.



Important • Advises you of information that is essential to complete a task, or points out the importance of specific information in the text.



Provides an example or scenario to demonstrate or clarify a section of text.



Electrostatic Discharge Caution • Warns you of the potential for electrostatic discharge.



Electric Shock Caution • Warns you of a potential electric shock situation.



Hot Surface • Warns you of a situation where excessive heat could cause a burn.



Caution • Advises you that failure to take or avoid a specific action could result in physical harm to you, or could result in physical damage to the hardware.

Installation and Setup



General Information

This section will guide you through the installation and setup of your Card Printer. This consists of the following procedures, which should be performed in the order presented.

•	Unpacking the Printer
•	Installing the Card Hoppers
•	Loading Cards
•	Opening the Printer Door
•	Installing the Cleaning Cartridge
•	Installing the Cleaning Roller 12
•	Loading the Transfer Film
•	Loading a Print Ribbon
•	Connecting Power
•	Connecting the Printer to your Computer
•	Installing the Windows Printer Driver

The procedure to be followed for Packing the Printer for Shipment is given at the end of this section.

Unpacking the Printer

- **Step 1.** Inspect the shipping container to ensure that no damage has occurred during shipment. If any damage is apparent, file a claim with the shipper.
- Step 2. Open the shipping container.
- Step 3. Remove the packing material and accessories from around the top of the Printer.



Important • Save all the packing material and the shipping carton in case the Printer needs to be moved or shipped. If the original material is lost or damaged, a replacement Shipping Kit can be ordered from Zebra.

Step 4. Make sure the following items are included with your Printer:



Quick Start Guide



Cleaning Cartridge





USB Cable



CD-ROM with InstallWizard



Cleaning Roller



Cleaning Kit



Power Cable

If any items are missing, please contact your dealer. To reorder, please refer to Appendix E of this manual.

Step 5. Lift the Printer out of the carton by holding it with both hands.



Caution • The Printer weighs approximately 27.5 lbs (12.5 kg).

Step 6. Place the Printer in a location that meets the following requirements:

- A reasonably dust- and dirt-free environment.
- Flat surface at least 27 in (686 mm) x 28 in (711 mm) that can support the weight of the Printer; additional space preferred. Allow a 4-inch clearance, minimum, on all sides.
- Vertical clearance at least 32 in (813 mm).
- Temperature within the range of 59° to 95° F (15° to 35° C).
- Relative Humidity 20 to 80% inclusive, non-condensing.
- AC power accessible.
- Step 7. Remove the protective plastic bag from the Printer.

Installing the Card Hoppers

Input Hopper

The Input Hopper is positioned on the right side of the Printer and holds the cards to be printed.

- **Step 1.** Install the Input Hopper by sliding the hopper into the receptacle on the right side of the Printer.
- Step 2. Ensure that the Input Hopper locks securely in place.



Output Hopper

The Output Hopper is positioned on the left side of the Printer and receives the printed cards.

- **Step 1.** Install the Output Hopper by inserting the four tabs on the right side of the hopper into the four slots on the left side of the Printer.
- Step 2. Ensure that the Output Hopper locks securely in place.

Loading Cards

- Step 1. Open the Input Hopper Door.
- Step 2. Remove the wrapping from the card deck.
- **Step 3.** Holding the card deck by the sides, hold it vertically against a flat surface such as a desktop. If the deck is too thick for your hand to hold it comfortably, use about half a deck at a time.



Step 4. Push the stack back and forth to an angle of about 45° from vertical, so as to separate all of the cards.





Note • Static charges and edge burrs from the card die-cutting process can render individual cards stuck together with significant adhesion force. These cards *must be* physically separated from each other before inserting into the feeder; if not separated, feeding or printing problems may occur.

- Step 5. Restore the card stack to its original squared-off condition.
- **Step 6.** Place the cards in the Input Hopper in the correct orientation as shown. Ensure that the cards are seated flat on the botton of the hopper.



Step 7. Close the Input Hopper Door.

Opening the Printer Door



Step 1. Press the Door Release button on the top of the Printer.

- Step 2. Observe that the Door releases and pops up approximately half an inch.
- **Step 3.** Grasp the Door at the bottom front.
- Step 4. Lift the Door to its upright position. It will remain in that position.

Installing the Cleaning Cartridge

The Cleaning Cartridge cleans the cards entering the Printer from the Input Hopper. The Cleaning Cartridge consists of a Cartridge Frame and an Adhesive Roller, which are packed together.

- Step 1. Remove the Cartridge Frame and the Adhesive Roller from their packaging.
- **Step 2.** Insert the Adhesive Roller into the Cartridge Frame. To avoid contamination, always hold the frame and the roller by the ends.
- Step 3. Peel the protective wrapper from the Adhesive Roller.
- Step 4. Open the Printer Door by pressing the Door Release button on the top of the Printer.
- **Step 5.** Locate the area where the Cleaning Cartridge will be installed (adjacent to the Input Hopper); circled below.



- Step 6. Hold the Cleaning Cartridge by the extended handle.
- **Step 7.** With the cartridge at about a 30° angle (pointing downward), insert the lip of the cartridge into the slot, until the cartridge seats against the back wall.
- **Step 8.** Press the front of the cartridge down until it seats all the way down and latches with an audible click.
- Step 9. Close the Printer's Door.

Installing the Cleaning Roller

The Cleaning Roller cleans the cards entering the Printer from either the Input Hopper or the Single-Feed Input.

- **Step 1.** Remove the Cleaning Roller from its packaging. To avoid contamination, always hold the roller by the ends.
- Step 2. Peel the protective wrapper from the Cleaning Roller.
- Step 3. Open the Printer Door by pressing the Door Release button on the top of the Printer.
- Step 4. Locate the area where the Cleaning Roller will be installed; circled below.



- **Step 5.** Hold the Cleaning Roller by the ends.
- **Step 6.** Position the ends of the Cleaning Roller in the slots. Push down until the roller fully seats and latches.
- Step 7. Close the Printer's Door.

Loading the Transfer Film

- Step 1. Locate the transfer film supply spindles and the transfer film take-up spindles.
- **Step 2.** Unroll about one foot from the full roll of transfer film (supply spool), and wind it (2 wraps) onto the empty take-up spool.



Step 3. Load transfer film supply spool onto the supply spindles, green flange side to the left.

Loading the Transfer Film

- Step 4. Load the empty take-up spool onto the take-up spindles, white flange side to the right.
- **Step 5.** Make sure the transfer film comes off the bottom of the supply spool and feeds to the bottom of the take-up spool.
- **Step 6.** The figure below shows the proper installation of the transfer film.



Loading a Print Ribbon



Step 1. Locate the print ribbon supply spindles and the print ribbon take-up spindles.

- **Step 2.** Load the print ribbon supply spool onto the supply spindles, **purple flange side to the left**.
- Step 3. Load the empty take-up spool onto the take-up spindle, blue flange side to the right.

- **Step 4.** Make sure the print ribbon comes off the bottom of the supply spool and feeds to the bottom of the take-up spool.
- **Step 5.** The figure below shows the proper installation of the print ribbon.



Connecting Power



Electric Shock Caution • Limit AC power supplied to the Printer to 100 - 230 volts, $60 \sim 50$ Hertz. Limit excess current draw to 16 amps or less, using an associated circuit breaker or other such device. Never operate the Printer in a location where operator, computer, or printer can get wet. Personal injury could result. The Printer must be connected to an earthed electrical power source and properly protected against electrical surges and grounding faults; the electrical reliability of the Printer is based on the reliability of the mains power source and with the earth connection.

The Printer's power supply is an internal unit that can only be serviced or replaced by trained and authorized personnel.



- Step 1. Place the Printer's power switch in the OFF (**O**) position.
- **Step 2.** Depending on your local AC voltage, plug the appropriate power cord into the Printer's power connector and a grounded AC power source connection.

Connecting the Printer to your Computer

Connect the USB cable to the printer and the computer.



Installing the Windows Printer Driver

Overview

Each computer that will use the printer must have the Printer Driver installed.

If not already done, connect power to the printer; ensure that the printer's power switch in the OFF ($\mathbf{0}$) position, and connect the printer to the computer.

To install the Printer Driver, insert the **User Documentation, Drivers, and Training CD**, included with your printer, into the host computer and the InstallShield Wizard will walk you through the required installation steps. The InstallShield Wizard will:

• Automatically install the User Interface when the driver CD is inserted. (Autorun must be enabled for your CD).

If Autorun is disabled:

- a. Insert the Driver CD into the CD-ROM drive.
- b. Launch your Web Browser.
- c. From within the Web Browser, open the index.htm file at the root (top) level of the CD.
- Start the installation process when the **Install Printer Driver** menu item is selected from the Main Menu.



- Detect previous versions of the driver. If a previous version is detected, you will be prompted to remove it, reboot, and then restart the install process.
- Install the new driver files.

Installing the USB Printer Driver

- Step 1. If not already done, connect power to the printer. Do not turn power ON.
- Step 2. Connect the USB port on the rear of the printer to the computer's USB port.
- Step 3. Ensure that the Printer's power switch in the OFF (**O**) position.
- Step 4. Insert the User Documentation, Drivers, and Training CD into the CD drive of the host computer. The Main Menu will open.



- **Step 5.** From the drop-down menu in the upper-right corner of the **Main Menu**, choose the appropriate language for your system.
- Step 6. From the Main Menu, click Install Printer Driver (arrow above).
- Step 7. If an older Printer and Driver is installed on your computer, the Welcome Modify, repair, or remove the program window will be displayed; otherwise go to Step 9.
- **Step 8.** Select *Remove*, click the **Next** button, and follow the screen prompts. At the end of the uninstall process, you will be asked to re-boot your computer. Re-boot your computer, and start over with Step 1.

Step 9. The **InstallShield Wizard** window will open. To proceed with the installation, click the **Next** button.



Step 10. Select Install USB printer drivers, and click the Next button.

Select Features Select the feature you want to	tal.	
	Please select the feature that you want to install. Install USB printer drivers. This is the default Install Ethernet printer drivers.	
InstallShield	< <u>₿</u> ack <u>N</u> ext >	Cancel

Step 11. Ensure that the Printer's power switch in the OFF (O) position; and then click the OK button.

ZMotif -	InstallShield Wizard
(į)	Please make sure that your printer is turned off. After installation of the driver, you would be prompted to turn on your printers
	ок

Step 12. This will bring up the **License Agreement** window. To proceed with the installation, select the *I accept the terms of the license agreement* option, and then click the **Next** button.



Step 13. This will bring up the **Customer Information** window. Enter User Name and Company Name; and then click the **Next** button.

Zebra ZXP Series 8 CardPrin	ter - InstallShield Wizard	
Customer Information Please enter your information.		
	Please enter your name and the name of the company for which you work.	
	User Name:	
	IS Department	
	Company Name:	
	Zebra Technologies	
InstallShield	<back next=""> Can</back>	cel

Step 14. This will bring up the Choose Destination Location window.

• To accept the default destination location where setup will install the files, click the **Next** button.

- or -

• Select a folder where setup will install the files, and click the Next button.



Step 15. This will bring up the Ready to Install the Program window. To continue, click the Install button.



Step 16. Observe the Setup Status window.

Step 17. The Congratulations window will appear.



Step 18. At this point, turn on your printer; and then click the Next button.

Step 19. When the InstallShield Wizard Complete window appears, click the Finish button.

Zebra ZXP Series 8 CardPrin	ter - InstallShield Wizard
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed Zebra ZXP Series 8 CardPrinter. Click Finish to
	ext the weard
InstallSciold	< Back Finish Cancel

Step 20. This completes USB driver installation. To use the Printer, you would select it just like you would any other printer connected to a Windows system.

3 Operation



Introduction

Printing with the Card Printer is similar to printing with any other printer in a Windows environment.

- The Printer Driver Software is installed on your computer (see Section 2).
- The Printer is connected to the power source and the computer (see Section 2).
- The Printer is selected by either the Operating System or the appropriate application software program.
- Printer Properties are set (the factory default values will be appropriate for many applications).
- Set the Card Type.
- Print a Test Card.
- Card printing is directed by the appropriate application software program.

Card Type Selection

The **Card Setup** tab allows you to to specify the card type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum print quality. If your card type is not listed in the drop-down menu, select *Custom* and fill out the Card Specifications pop-up screen.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

💩 Zebra ZXP Series 8 U	SB CardPrinter Printing Preferences ?	×	
Card Setup Encoding Bla	ck Panel (K) About	_	
Card Info			
Card source 🔎 Car	d feeder 🛛 C Single card feed slot		
Card type in use	Zebra Standard PVC		
Printing options	Lustom 1		
Orientation	Zebra Premier High-Grade PVC Zebra Premier Argh-Grade PVC		
Print on both sides	Zebra High-Coercivity PVC		
Rotate 180°			
Copies	1 🗄		
Print front image on b	ack side No 💌 Test Print		
Ribbon info			
YMCKK	Overlay,		
Ribbon combination			
YMCK Front / K Bac	kV,		
Laminator options			
Laminate side Double	e Sided 💌 Laminate type 🛛 Full Coverage 💌		
will.			
Zebra	<u>R</u> estore Defaults		
	OK Cancel Apply		

• Make the appropriate Card Type selection. Note that Zebra Standard PVC is the default.

Printing a Sample Card

Sample card designs are installed with the printer driver. To print a sample card:

 Access the Card Setup Tab, select Start > Printers and Faxes. Right click on the Zebra ZXP Series 8 Card Printer listing; and select Printing Preferences > Card Setup.

🕹 Zebra ZXP Series 8 USB CardPrinter Printing Preferences 🛛 💽 🔀
Card Setup Encoding Black Panel (K) About
Card Info
Card source Card Feeder C Single card feed slot
Card type in use Zebra Standard PVC 💌
Printing options
Orientation Landscape Tront Back
Print on both sides Yes V D (RAD
Rotate 180° None VILLE ILL CARD
Copies 1 🛨
Print front image on back side No Test Print
Ribbon info
YMCKK Overlay
Ribbon combination
YMCK Front / K Back
Laminator options
Laminate side None 💌 Laminate type Full Coverage 💌
Restore Defaults
OK Cancel Apply

- 2. Ensure that cards are in the Input Hopper.
- 3. Click of the Test Print button (circled above).
- **4.** The printer will feed in a card and start printing (download time will vary depending on the complexity of the card design and the processing speed of your computer).
- **5.** Once the printing job is complete, the card is ejected from the printer into the Output Hopper.

Manual Card Feed

A Manual Feed Slot is available for feeding single cards. The Input Hopper must be empty for single-card feeding to work properly.

Access the Card Setup Tab: Select Start > Printers and Faxes. Right click on the Zebra ZXP Series 8 Card Printer listing; and select Printing Preferences > Card Setup.

💩 Zebra ZXP Series 8 USB CardPrinter Printing Preferences 👘 💽 🔀				
Card Setup Encoding Black Panel (K) About				
Card Info				
Card type in use Zebra Standard PVC				
Printing options				
Orientation Landscape Front Back				
Print on both sides Yes ID (QAD				
Rotate 180° None 💽				
Copies 1 🚎				
Print front image on back side No 💌 Test Print				
Ribbon info Ribbon type				
Ribbon combination				
YMCK Front / K Back				
Laminator options				
Laminate side None 🔽 Laminate type Full Coverage 🔽				
Restore Defaults				
OK Cancel Apply				

- 2. In the Card Setup tab, select the *Single card feed slot* radio button (circled above).
- **3.** Click on the **Apply** button, and then click on the **OK** button.
- 4. Ensure that there are no cards in the Input Hopper.

5. Insert a single card into the slot in the correct orientation. Do not feed more than one card at a time.



Multi-Function LCD Panel

Your printer is equipped with a Multi-Function LCD Panel to provide printer status information. The readout is controlled by Multi-Function Control Buttons directly below the viewing window. Multi-Function LCD Panel messages fall into three categories (Operational, Warnings, and Errors).

Operational Messages

Operational Messages are displayed during the Printer's normal operation.

MESSAGE	DESCRIPTION
Initializing	Performing a self test on start up
Ready - Warming	Ready to accept a print job, roller heating
Ready	Ready and at temperature
Printing - Warming	Print job received, warming lower roller to temperature on double-sided print job
Printing - Cooling	Print job received, cooling lower roller to temperature on single-sided print job
Printing	Print job received, printing in process
Single Card Feed	Waiting for manual card feed (this function is set via the <i>Card Setup Tab</i> ; see page 45)
Standby	Printer is in "sleep" mode; i.e., powersave mode
Printer Offline	Status toggled (offline/online) via the OCP Advanced Settings Menu
Alarm	Indicates error messages need to be cleared before normal opeartions can resume

Warning Messages

Warnings alert the operator to action that should be taken; the printer will generally continue operation.

WARNING (Printer will still operate)		
Clean Printer		
Print Ribbon Low		
Transfer Film Low		

Error Messages

Errors are displayed when a situation causes the printer to stop operating. Depending on the cause of the error message, restarting the printer or curing the displayed Error may return the printer to operational status; or the printer may require troubleshooting and repair.

Refer to Section 7, *Troubleshooting*, for a list of the error messages, possible causes, and possible solutions.

Operator Control Panel (OCP)

Printer Menu Information

The printer is equipped with an LCD Display and three key buttons which give access to the printer menus. The menus can be accessed when the printer status shows READY.



- Press the **INFO** button, to access the Printer Settings Menu.
- Press the **MENU** button, to access the Main Menu.
- Press the CANCEL button, to cancel the current print job in the printer.

Printer Settings Menu



- Press the **UP** button to move up the menu list.
- Press the **DOWN** button to move down the menu list.
- Press the **SELECT** button to select the item from the list.

Main Menu



- Press the UP button to move up the menu list.
- Press the **DOWN** button to move down the menu list.
- Press the **SELECT** button to select the item from the list.

Advanced Settings Menu



- Press the **UP** button to move up the menu list.
- Press the **DOWN** button to move down the menu list.
- Press the **SELECT** button to select the item from the list.

Printer Settings and Adjustments



Introduction

Printer Properties can be set either at the Operating System level or within the application software program used for printing cards.

Preferences settings can configure the Card Printer for Landscape (wide) or Portrait (tall) printing orientation, and allow the user to verify that the desired print ribbon is installed in the printer.

If the Printer includes the optional magnetic card stripe encoder, encoding parameters and coercivity can be set.

This section describes settings and adjustments that can be made to your printer. This consists of two major topics:

Printer Properties	
Printing Preferences	

Printer Properties

💩 Zebra ZXP Series 8 USB CardPrinter Properties 🛛 🔹 💽				
Color Management General Sharing	Security	Devic	e Information Advanced	
Zebra ZXP Series 8	USB CardPrin	ter		
Location:				
<u>C</u> omment:				
Model: Zebra ZXP Series 8	USB CardPrint	er		
Features				
Color: Yes	Paper avail	able:		
Double-sided: Yes			~	
Staple: No				
Speed: 1 ppm				
Maximum resolution: 300 dpi			\sim	
Printing Preferences) Print <u>T</u> est Page				
	ОК	Cancel	Apply	

To access Printer Properties, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing, then select *Properties*

- **General Tab** Displays printer information of a general nature, includes selection for Printing Preferences and Print Test Page (i.e., the standard Windows test page).
- **Sharing Tab** Operating System (OS) feature where the printer can be shared with other clients on a network.
- Ports Tab OS feature displays available communication ports.
- Advanced Tab OS feature to select printer availability and spooling options.
- Color Management Tab Allows user to define color profile(s) with color printers.
- Security Tab OS feature where permissions to printers can be defined.
- **Device Information Tab** Allows user to make basic printer adjustments and access advanced printer controls.

General Tab

The General tab shows the printer model and lists the features of the printer.

To access the General tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *General*.

Zebra ZXP Ser	ies 8 USB Ca	rdPrinter Pro	perties ?			
Color Manager	nent	Security Device Information				
General	Sharing	Ports	Advanced			
Zebra ZXP Series 8 USB CardPrinter						
Location:						
Comment:						
M <u>o</u> del: Zebra	ZXP Series 8 US	B CardPrinter				
Features						
Color: Yes		Paper available:				
Double-sided: Yes			^			
Staple: No						
Speed: 1 ppm						
Maximum resolut	ion: 300 dpi		~			
	Printing F	Preferences	Print <u>I</u> est Page			
		ОК	Cancel Apply			

- Location Lets you specify where the printer is located.
- **Comment** Lets you specify general information about the printer, such as the type of print device and who is responsible for it. Once set, these fields can be displayed by applications.
- Model Specifies the name of the printer driver installed.
- Features Specifies whether various options are available on the printer.

The **Printing Preferences** button **t**akes you to Printing Preferences used to set selected configuration parameters; see *Printing Preferences* on page 44.

The Print Test Page button sends the standard Windows test page to the printer.

Printer Settings and Adjustments Printer Properties

Sharing Tab

On the Sharing tab (Sharing Property Page), you can choose to share the printer over the network and install additional drivers to accommodate different operating systems.

To access the Sharing tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Sharing*.

🕹 Zebra ZXP Series 8 USB CardPrinter Properties 🛛 🔹 💽						
Color Manage	Color Management Security		D	Device Information		
General	Sharing	P	orts	Advanced		
You can enable s	share this print haring for this p	er with other u rinter, click Sh	sers on you are this prir	r network. To iter.		
⊙ Do <u>n</u> ot sha	e this printer					
<u>S</u> hare this p	rinter					
S <u>h</u> are name:						
List in the d	irectory					
Drivers						
If this printer is shared with users running different versions of Windows, you may want to install additional drivers, so that the users do not have to find the print driver when they connect to the shared printer.						
		(A <u>d</u> ditional	Drivers		
	(OK	Can	cel Apply		

Printer sharing tasks that you can perform include:

- To share a printer, select the *Share this printer* radio button; and specify a name for the shared resource. Click OK when you're finished.
- To change the shared name, simply enter a new name in the *Share name* field; and click OK.
- To quit sharing a printer, select the *Do not share this printer* radio button. Click OK when you're finished.
Ports Tab

Use the Ports tab to specify the computer port to which the printer is connected. This will have been established at the initial installation of the printer, and will not normally require attention.

To access the Ports tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series* 8 *Card Printer* listing. Select *Properties* > *Ports*.

💩 Zebra ZXP Ser	ies 8 USB Car	dPrinter P	roperties	? 🛛	
Color Manager General	nent Sharing	Security Port	Device Info 8 Adv	rmation vanced	
Print to the following	Zebra ZXP Series 8 USB CardPrinter				
Port De COM4: Seri FILE: Prin ZPR Zeb USB Virtu	scription al Port t to File ra ZXP Series8 ial printer port fo ial printer port fo	Printer	0i Card Printer USB		
USB Virtu	al printer port fo ndard TCP/IP Por	. Zebra ZXF t Zebra Valu	Series 8 USB Ca ie Class Network,		
Add Port Delete Port Configure Port ✓ Enable bidirectional support Enable printer pooling					
		OK	Cancel	Apply	

An exception to this is if you wish to use *printer pooling*, the ability to distribute print jobs to multiple printers. To enable printer pooling, check the "Enable printer pooling" box, then check the additional ports boxes. Each port should have a single Zebra printer installed on it. All the pooled printers must be identical models with the same configuration (e.g., all with YMC front, K back).

Now, when you print to the "main printer" (that is, whichever printer you right-clicked in Printers and Faxes to get to this screen), this printer will get print jobs until it has buffered as many jobs as it can take. Remaining jobs will then "spill over" to other printers until all printers in the pool are busy.

Advanced Tab

The Advanced tab determines the spooling (queuing) of print jobs and determines how spooled jobs are handled relative to the most recent job.

To access the Advanced tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Advanced*.

🌢 Zebra ZXP Ser	ies 8 USB CardP	rinter Prope	erties 🛛 🛛 🛛
Color Manager	ment Sec	surity	Device Information
General	Sharing	Ports	Advanced
 Aļways availab 	le		
O Availa <u>b</u> le from	12:00 AM	To	12:00 AM
Priority: 1	*		
Dri <u>v</u> er: Zebra Z	≺P Series 8 USB Car	dPrinter 🔽	Ne <u>w</u> Driver
Start printin Start printin Print directly to	g after last page is sp g immediately the printer ed documents	ooled	
Print spooled d	iocuments first		
<u>K</u> eep printed d	ocuments		
✓ Enable advance	ed printing features:		
Printing De <u>f</u> aul	ts Pri <u>n</u> t Proc	essor	Separat <u>o</u> r Page
			Cancel Apply

To enable spooling: Select the radio button labeled *Spool print documents so program finishes printing faster.*

- Select *Start printing after last page is spooled* if you want the entire document to be spooled before printing begins. This option ensures that the entire document is sent to the print queue before printing. If for some reason printing is canceled or not completed, the job will not be printed.
- Select *Start printing immediately* if you want printing to begin immediately when the print device is not already in use. This option is preferable when you want print jobs to be completed faster or when you want to ensure that the application returns control to users as soon as possible.

To disable spooling: Select the radio button labeled *Print directly to the printer* radio button.

Color Management Tab

l	

Important • The optimal color profile is automatically selected when the card type is selected; see the Printing Preferences, Card Setup Tab.

Color Management settings allow you to associate color profiles on the printer based on the type of media being used and printer configuration. The **Add** button allows the operator to add additional profiles to the color profile list.

To access the Color Management tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Color Management*.

		OSD Ca	raprinter i	Propert	ies [?
General		Sharing	Po	rts	Advanced
Color Mana	agement		Security		evice Information
These settings let you associate color profile(s) with your color printer. Color profiles control the color on your printer based on the type of media being used and the printer configuration.					
⊙ A <u>u</u> tomatic	: Window the list	vs will autor of associate	matically sele ed color profil	ot the bes es [Recon	t color profile from nmended]
◯ <u>M</u> anual:	Manual this dev	ly select the rice from th	e default colo e list of assoc	r profile fo iated colo	r all output from r profiles
	Default	color profile	e: <none></none>		
Calas DesGlass					
	currently	associated	with this print	er:	>
	Add		with this print	er:	et As Default

The following settings let you associate color profiles with your printer:

- The **Automatic** radio button lets Windows select the best color profile from the list of associated profiles (default).
- The **Manual** radio button lets you select the appropriate profile from the list shown in the Color Profile window.

You can manage Color Profiles currently associated with your printer as follows:

- The Add button allows you to add additional profiles to the color profile list.
- The **Remove** button allows you to remove profiles from the color profile list.
- The Set As Default button allows you to set the selected profile as the default profile.

Security Tab

This is the standard Windows security screen, showing user access to various printer control options. Both Print and Manage Printers *must* be checked for full functionality of the printer.

To access the Security tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Security*.

Sebra ZXP Series 8 USB CardPrinter Properties
General Sharing Ports Advanced Color Management Security Device Information
Group or user names: Administrators (01WXPRRINGWALD\Administrators) CREATOR DWNER Everyone Power Users (01WXPRRINGWALD\Power Users)
Add Remove Permissions for Administrators Allow Deny Print V Image Manage Printers V Image Manage Documents V Image Special Permissions Image Image
For special permissions or for advanced settings, Advanced click Advanced.

The Security tab allows you to assign the actual permissions that apply to the print queue. You can apply permissions to both users and to groups. It is usually considered a better practice to only apply security to groups.

The Advanced Security Settings properties sheet allows you to assign a more comprehensive set of permissions than the basic Security tab found on the printer's properties sheet does.

Device Information Tab

The Device Information tab provides printer information, job condition, printer history, and security status. Access to Media Info and ZXP ToolBox is included.

To access the Device Settings tab, select *Start > Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties > Device Information*.

🌢 Zebra ZXP Series 8 USB	CardPrinter Prope	rties 🛛 🕐 🔀
General Sharin Color Management	g Ports Security	Advanced Device Information
Device information Model: Firmware version: Driver version: 1.00.41.0 Internal memory: 0 KB	Serial number: MAC address: I IP address: External memory:	0 00-00-00-00-00 0.0.0 0 KB
Jobs Job identifier: 0 Status: Ready No. of copies: 0 No. of jobs: 0		
Printer history Cards printed: 0 Panels printed: 0	Security Data security Host authen Passkey pro	y password: Disabled tication: Disabled tection: Disabled
Victore	Z	Media Info XP ToolBox
	ОК	Cancel Apply

- The Media Info button takes you to the Media Info screen which shows:
 - The color ribbon type installed and the number of color ribbon sets remaining
 - The transfer film type installed and transfer film panels remaining
- The **ZXP Toolbox** button takes you to the ZXP Toolbox which provides advanced configuration capabilities and tools to manage the operation of your printer; see Section 5 for details.

Note that the ZXP Toolbox is a separate application that works independently from the printer driver.

Printing Preferences

To access the Printing Preferences, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences*.

😓 Zebra ZXP Series 8 USB CardPrinter Printing Preferences 🛛 💽 🔀
Card Setup Encoding Black Panel (K) About
Card Info
Card source Card feeder Cingle card feed slot
Card type in use Zebra Standard PVC
Printing options
Orientation Landscape Front Back
Print on both sides
Rotate 180° None
Print front image on back side No Test Print
Ribbon info Ribbon type
YMCKK Overlay
Ribbon combination
YMCK Front / K Back
Laminator options
Laminate side None 💌 Laminate type Full Coverage 💌
de
Restore Defaults
OK Cancel Apply

- Card Setup Tab Allows user to adjust selected card parameters.
- Encoding Tab Allows the user to set various magnetic encoding options.
- Black Panel (K) Tab Displays available options for Black Extraction.
- About Tab Displays copyright and driver version information about the printer driver.

Card Setup Tab

Card Setup tab allows the user to adjust selected card parameters.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

🞍 Zebra ZXP Series 8 USB CardPrinter Printing Preferences 🛛 💽 🔀
Card Setup Encoding Black Panel (K) About
Card Info
Card source • Card feeder • Single card feed slot
Card type in use Zebra Standard PVC 💌
Printing options
Orientation Landscape Front Back
Print on both sides Yes V D GAD
Rotate 180° None 🔽 🛄 🛄 Rotate 180°
Copies 1 📩
Print front image on back side No Test Print Test Print
Ribbon info Ribbon type
YMCKK Overlay
Ribbon combination
YMCK Front / K Back
Laminator options
Laminate side None 💌 Laminate type Full Coverage 💌
Mile Defende
NZabra
OK Cancel Apply

• Card info:

- **Card source** allows the user to feed cards into the printer from the card feeder or via the single card feed slot.
- **Card type in use** allows the user to specify the card type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum print quality.
- **Printing options** allows the user to select the card orientation, to print on both sides of the card, to rotate the card 180°, and to specify the number of copies to print. The **Test Print** button prints a test card.
- Ribbon info:
 - **Ribbon type** is the color ribbon installed in the printer. This is not user selectable.
 - **Ribbon combination** allows you to apply color or black, or both, to either side of the card.

The **Restore Defaults** button restores Card Setup default values.

Printer Settings and Adjustments Printing Preferences

Encoding Tab

The Encoding screen allows the user to set various magnetic and smart card encoding options.

To access the Encoding Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Encoding*.

🚴 Zebra ZXP Series 8 USB CardPrinter Printing Preferences 🛛 🚺	
Card Setup Encoding Black Panel (K) About	
Magnetic encoding	
Smart card encoding Disable smart card encoding Encoding side None	
Restore Defaults	1
	1
OK Cancel Appl	

Although these options are user-selectable, they are set automatically when the Card Type is selected in the *Card Setup Tab* on page 45.

The **Restore Defaults** button restores Encoding default values.



Note • For advanced settings, see Section 5, ZXP ToolBox.

Black Panel (K) Tab



Note • The Black Panel (K) Tab applies only to surfaces of the card on which both YMC (color) and K (black) are to be printed.

The Black Panel (K) Tab allows for special handling of black.

To access the Black Panel (K) Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Black Panel (K)*.

Front side black extraction	
	Disable black extraction
Black graphics	C Print YMC black under K
Black monochrome bitmaps	C Print all black data
	Advanced Settings,
Deale side black as the ation	
Black text	Disable black extraction
Black graphics	Print VMC black under K
Black monochrome bitmaps	C Print all black data
	Advanced Settings

Black Extraction

When *Disable Black Extraction* is not selected (i.e., either *Print YMC black under K* or *Print all black data* is selected), Black Extraction is enabled.

With either *Print YMC black under K* or *Print all black data* selected, you can identify which elements are to be selected for black extraction: black text, black graphics, and/or black monochrome bitmaps.

Equal amounts of Y, M, and C dyes, at maximum intensity, deliver a near-black image, but one that is not machine readable. A bar code printed from YMC will be visible to the eye, but will not be detectable by most bar code readers.

The remedy for this is to extract the black; which means printing the same bar code, using the K panel, on top of the YMC bar code. You can also choose to print only in K, omitting YMC from that region. The K panel is not a dye. It is more of a paint containing carbon black, which is highly visible to infrared-type readers.

The Restore Defaults button restores Black Panel default values.

Advanced Settings

The Advanced Settings tab allows you to manage Black Extraction.

To access the Advanced Settings Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Black Panel (K)* > *Advanced Settings*.

The figure below shows settings for the front side of the card; settings for the back side of the card are identical.

Advanced Black Panel Optic Black extraction from color imag Print black with K panel C Defined areas C Undefined areas Full card	Black level Set limits on RGB values defined as black (0 to 5): R 0 G 0 B 0
Area manager Orientation Landscape Areas 1 C X dimension 3 C X offset 4 C Y dimension 5 C Y offset 6 C	
	OK Cancel <u>R</u> estore Defaults

- Print black with K panel: Specify the zones as either Defined or Undefined areas.
- Black level: Set the limits (1 to 5) on the RGB values defined as black.
- Area manager: Select the Area radio button (1 to 6), and then "drag" the cursor diagonally across the card outline (circled above) to identify location of the Zone.

The Restore Defaults button restores Advanced Settings default values.

About Tab

The About Tab shows the copyright and the driver version for the *Zebra ZXP Series 8 Card Printer*.

To access the About Tab, select *Start > Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences > About*.





ZXP ToolBox



Introduction



Important • Use of the ZXP Toolbox is intended only for advanced users and system administrators.

The ZXP Toolbox provides advanced configuration capabilities and tools to manage the operation of your printer. Note that the ZXP Toolbox is a separate application that works independently from the printer driver.

To access the ToolBox from the printer driver, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing. Select *Properties* > *Device Information* > *ZXP ToolBox*.

💩 Zebra ZXP Series 8 USB Ca	rdPrinter Proper	ties 🛛 🕐 🔀
General Sharing Color Management	Ports Security	Advanced Device Information
Device information Model: Firmware version: Driver version: 1.00.41.0 Internal memory: 0 KB	Serial number: MAC address: IP address: External memory:	0 00-00-00-00-00 0.0.0 0 KB
Jobs Job identifier: 0 Status: Ready No. of copies: 0 No. of jobs: 0		
Printer history Cards printed: 0 Panels printed: 0	Security Data security Host authenti Passkey prote	password: Disabled cation: Disabled ection: Disabled
200ro		tedia Info
0	ОК Са	ancel Apply

The ToolBox can also be accessed via *Start* > *All Programs* > *Zebra ZXP Series 8 Card Printer*.

Printer Configuration

The Printer Configuration section provides information on the printer, media information, mechanical and power adjustments, motor and sensor information, a save and restore configuration capability, and a print job log.

Printer information

- Version details include Firmware version and Driver version.
- Memory information includes RAM and Flash sizes (KB).
- Other information includes interface, print system, magnetic encoding, ribbon type, laminator type, printer status, contact smartcard, and contactless smartcard. Also included are a user-selectable OCP Language option (English, French, Spanish, German, Portuguese, and Italian) and an Printer Panel LCD contrast adjustment capability.
- Network configuration information includes an Enable DHCP checkbox, IP address, Gateway, Subnet mask, and MAC address.



- The **Restore Defaults** button restores default values.
- The **Apply** button applies changed values.

Media information

• Ribbon details include type, Zebra part number, description, initial size (total image count), and images remaining.



Transfer film details include type, Zebra part number, description, initial size (total image count), and images remaining.

Motor and sensor information

This screen displays the current status of the printer and provides standard printer information and sensor data.

• Image size details include logical length, physical length, logical width, and physical width all in pixels; print resolution in pixels per inch; and print head resistance in ohms.



- Transfer temperature details include top single, top double, bottom double, top single offset, top double offset, bottom double offset.
- Transfer speeds details include input single, output single, input double, output double, and transfer type.
- Ribbon take-up motor details include SO, MO, Ma, KO, Mb, Ka, Kb, and Vtol.
- Ribbon tricolor settings details include red, green, and blue values.

Save/Restore

When you set up a printer, you can save the printer and driver configuration settings; then, when you restore or add additional printers, you can use the saved configuration to ensure configuration consistency.

Note that the Saved/Restored Settings (circled below) are for the Driver.





- **Note** The configuration files are stored in an XML format in the following default directory: *C:\Documents and Settings\All Users\ZMotif\Librar*
- The Save button saves the Driver Settings and/or Printer Settings in an XML file format.
 - The printer configuration settings are stored as P_<filename>
 - The driver configuration settings are stored as D_<filename>
- The **Restore** button restores the Driver Settings and/or Printer Settings.

Job log

The Job Log is a utility that builds a database of card transactions in the printer's host computer. Job Log records data encoded on the card's magnetic stripe, together with date, time, and the printer's serial number.

The data set can be uploaded at any time to a central archive, thus providing a means for security officers to validate the card by comparing it with tamper-proof *real data*.

Card Printer	• 🔀
	2 2
Job Log	
Enable leaving	
Loafile Definition	
Create new log file each day	
Seperator Delete log files	
Les File Contract	
I Ime	
M Date	
Printer serial number	
Static text	
✓ IP address	
Magnetic Track 1 Data	
Magnetic Track 2 Data	
EIN data from Mag Track 2	
Magnetic Track 3 Data	
Application will send data with "~L=xxx" TextOut	
Spooler job number	
₩ User name	
NOTE: EIN readback must be enabled in order to log EIN data. EIN readback enable	e can
be round on the wagnetic Encoding tab.	/e
	-
	Card Printer Job Log Image: Create new log file each day Filename ZPLog Seperator Delete log files Log File Contents Image: Time Image: T



Important • In order to log either Magnetic Stripe data or Barcode EIN data, EIN Readback must be enabled. **Enable EIN Readback** can be found in the *Magnetic encoding* section on page 61.

- 1. Enable Logging If this box is checked, the logging feature is enabled.
- 2. Logfile Definition Choose one of the following options:
 - If the "Create new log file each day" box is unchecked, the data is saved to a log file of your choice (Filename).
 - If the box is checked, the data is saved to log file *ZXPLog* with the day's date; e.g., *ZXPLog_2009_3_4*.
 - In addition to the Filename, you may wish to enter a special field Separator Character. The default field Separator Character is "|".

3. Log File Contents - The Log File Contents group selects the data to be logged in the file you specified above.

The data will be logged in the order displayed on the screen, each field being separated by the character specified in the Logfile Definition, Separator.

Log File Contents selections include:

- **Time**: Logs the time a which the card was sent to the printer in the HH:MM:SS format. The 24-hour clock is used, so 13:00:00 = 1:00 pm, and 05:00:00 = 5:00 am.
- Date: Logs the date the card was sent to the printer in the MM/DD/YYYY format.
- **Printer serial number**: Logs the serial number of the printer that printed the card.
- Static text: Adds to the record text in the box at right, 16 characters maximum.
- IP address: Logs the IP address of the PC that sent the card to the printer.
- Magnetic Track 1, 2, 3 Data: Logs the data sent to the printer to be encoded on the card's magnetic stripe.
- **EIN data from Mag Track 2**: Logs the Embedded Inventory Number pre-encoded on Track 2.

Note that EIN Readback must be enabled. **Enable EIN Readback** can be found in the *Magnetic encoding* section on page 61.

- Application will send data with "~L=xxx" TextOut: Allows third-party applications to send data to be logged in much the same way as they would send magnetic data.
- **Spooler job number**: Logs the number which the card print job was assigned in the Windows print spooler.
- User name: Logs the username of the person submitting the card print job.



- **Note** Job Logs and Printer Logs are stored in the following location: C:\Documents and Settings\All Users\ZMotif
- The **Save** button saves the Job Log.
- The Save printer log button saves the Printer Log.

Image control

The Image Control window lets you make color adjustments to compensate for camera or lighting conditions.

Keep in mind that these color adjustments modify how the pictures *print*. The adjustments do not affect the image files. (That type of adjustment would be made in an image processing application program.)



- The **Monochrome conversions** dropdown menu lets you select Dither error diffusion, dither halftoning, or Dither pure black on white.
- **Full color printing adjustments** (-25 to +25 range) include Brightness, Contrast, Gamma, Saturation, Red, Green, and Blue.
- Sharpening filter options are None, Normal, and High. Note that these adjustments have no effect on the preview image.

Depending on the radio button selected, you can use the color matching profile selected in Properties > Color Management or you can disable the color matching profile.

The Save button saves your image control settings.

The **Restore Defaults** button restores the image control default values.



Print Test Card

Print sample card



- Note The sample cards in the Test Card Library are .bmp images stored in the following default directory/folder: C:\Documents and Settings\All Users\ZMotif\Library
 - 1. View the Test Card Library. Use the scrollbar to view all the selections.

👫 ZXP Toolbox - Zebra ZXP Series 8 USB (Card Printer	
ZXP Toolbox	and a log of	🔒 🕄 ?
Printer Configuration \$ Printer information Media information Media information Media information Motor and sensor information Save/Restore Job log Image control Print Test Card \$ Print Test Card \$ Print sample card \$	Print Sample Card Test Card Library Front Side Crystal3.bmp Crystal3.bmp Drivers License.	FedID.bmp
Hardware Hardware Diagnostics Technology	Preview Front Side	Reprint last card
Magnetic encoding Smart card Advanced Security Configure security Security roles	Full Dav Judy Haugen 2/20/10	HILDOOR HARE AND PROVIDENT AND HARE AND PROVIDENT HARE AND HARE AND H
Print Viewer *		

- **2.** Set the front side:
 - **a.** Select (click on) a card from the Test Card Library.
 - **b.** Click on the **Set As Front** button.
 - **c.** View the selected card in the Preview.
 - d. To change your selection, repeat steps a through c.
- 3. Set the back side: same as step 2, except click on the Set As Back button.
- 4. When satisfied with your selection, click on the **Print** button to print the sample card.

The **Reprint last card** button sends a command to the printer to print the last card.

Technology



Note • Magnetic Encoding and Smart Card default values are set via the *Card type in use* option in the Card Setup tab, see page 45)

Magnetic encoding

The Magnetic Encoding screen allows the user to test various magnetic encoding options. For more information on magnetic encoding, refer to Appendix B.

XP Toolbox - Zebra ZXP Series 8 USB C	Card Printer	
ZXP Toolbox		a G ?
Printer Configuration A Printer information Media information Media information Media information Motor and sensor information Save/Restore Save/Restore Job log Image control Image control Print Test Card A Print sample card A	Magnetic Encoding Settings ✓ Enable EIN required (inventory number pre-encoded on magnetic stripe ✓ Disable error polling when EIN required ✓ Enable EIN readback from magnetic stripe Track1 Track2 Track1 Track3 Bit density 210 ▼ Start sentinel Character size 7 ▼ Start sentinel offset (x0.001") LRC parity Even ▼ End sentinel	96 293 7
Hardware * Diagnostics Technology *	Read Data	Save
Magnetic encoding Smart card Advanced Security * Configure security	Coercivity high ▼ IF Track1 ABCDEFGHJKLMN IF Track2 123456789	
Security roles Print Viewer Print PRN file	✓ Track 3 937654321	Encode
	EIN Data Get EIN	Eject

Settings: Click on the appropriate checkboxes to enable/disable EIN options.

- Enable EIN required (inventory number pre-recorded on magnetic tape)
- Disable error polling when EIN required
- Enable EIN Readback from magnetic stripe

Read Data:

- Coercivity: Select either high or low.
- For encoding: Click on the checkboxes to select Track 1, Track 2, and/or Track 3; enter the data to be written; and click on the **Encode** button.
- For reading: Click on the checkboxes to select **Track 1**, **Track 2**, and/or **Track 3**; click on the **Read** button, and validate the data read.

Smart card

The Smart Card screen allows the user to test various smart card encoding options. For more information on smart card encoding, refer to Appendix C.



- Card Readers: Select the card reader from the drop-down menu.
 - Card Option: Select either Contact or Contactless.
- Card Types: Select the card type from the drop-down menu.
 - The Feed Card button feeds the card into the printer.
 - Input Data includes address, length, and input.
 - Click on the **Read** button to read data from the card.
 - Click on the Write button to write data to the card.
 - Click on the Write Raw Data button to write "raw data" to a card.
- The **Get ATR** button returns the ATR (Answer To Reset) result from the card reader. This is useful to identifying the type of smart card inserted into the printer.
- The Eject Card button ejects the card.
- Click on the Messages checkbox to show the output in hex format.

Advanced Security



Important • To manage this Advanced Security section, you are required to be the administrator of the computer or have administrative privileges.

Configure security

Enabling driver password protection prevents unauthorized persons from changing the printer driver settings. Access to various driver adjustment screens can be selectively disabled based on the Windows User Login.

To activate Driver Password Protection:

1. Click on the Activate driver password protection checkbox.

🌾 ZXP Toolbox - Zebra ZXP Series 8 USB	Card Printer	- • •
ZXP Toolbox		E G ?
Printer Configuration *	Configure Security	
Printer information Media information	Unauthorized changes to printer settings cannot be made if the opportected.	lriver is password
Mechanical and power adjustm Motor and sensor information	The password is case sensitive, eight characters minimum. If this password, enter it in New password.	is the first use of a
Save/Restore Job log	Activate driver password protection Display characters	
Image control	Current password	
Print Test Card *	New password	
Print sample card	Confirm password	
Hardware *		Apply
Diagnostics	Last Print job options	
Technology *	Erase job data following successful card printing	
Magnetic encoding	 Retain job data after card printing 	Save
Advanced Security *		
Configure security		
Print Viewer *		
Print PRN file		

- **2.** Enter the old password in the *Current password* field (leave blank if this is the first use of a password).
- **3.** Enter the new password on the *New password* field.
- 4. Repeat the password in the *Confirm password* field.
- 5. Click on the Apply button.

Last Print Option: The *Retain job data after card printing* option allows the print job to remain in memory for multiple prints via the OCP.

Security roles

Use this section to establish security roles; i.e., grant and restrict access to various printer ToolBox screens.



Note • The list of users in the drop-down menu (e.g., Guest, HelpAssistant, Local User, localfix, etc.) is derived from the list of users on the system.

To set security access roles:

1. Select a user from the drop-down menu.

🗱 ZXP Toolbox - Zebra ZXP Series 8 USB	Card Printer	
ZXP Toolbox		3 3 ?
Printer Configuration *	Security Roles Select user lamak	
Media information Mechanical and power adjustm Motor and sensor information O = P interval.	Available ZXP Toolbox Features	Restricted Features
Saverkestore Job log Image control	Media information Mechanical and power adjustm Motor and sensor information Save/Restore	>
Print Test Card * Print sample card	Sol log Print sample card Diagnostics	»
Hardware Diagnostics Technology	Magnetic encounty Magnetic encounty Smart card Configure security Security roles Print PRN file	~
Magnetic encoding Smart card		
Advanced Security * Configure security Security roles		Save
Print Viewer *		

- **2.** Use the arrow buttons (>, >>, <, and <<) to make specific features available to or restrict specific features from the selected user role.
- **3.** When satisfied with the selection, click on the **Save** button.

At the next log in, the user will only see or have access to the features previously granted.

Print Viewer

When you print a PRN file, you print directly to the printer, bypassing computer applications and associated printer drivers. This utility can be used to ensure that your printer is working properly by isolating it from driver-related and communication-related issues.

Print PRN file



Note • Sample PRN files are stored in the following default directory/folder: C:\Documents and Settings\All Users\ZMotif\Library

To send a PRN file to the printer:

1. Click on the **Browse** button.



- 2. From the Browse window, locate and select a PRN file.
- 3. Click on the **Open** button.
- 4. View the PRN file.
- 5. When satisfied with the selection, click on the **Print** button.

Successfully printing the PRN file indicates that the printer and data communications to the printer are set up and configured properly.



6 Cleaning

Caution • PROTECT YOUR FACTORY WARRANTY!



The recommended cleaning procedures must be performed to maintain your factory warranty. Other than the recommended cleaning procedures described in this manual, allow only Zebra authorized technicians to service the Printer.

NEVER loosen, tighten, adjust, bend, etc., any part or cable inside the printer.

NEVER use a high pressure air compressor to remove particles in the printer.

Cleaning the Printer

Clean your Printer using the Cleaning Cards provided. The regular use of these cards will clean and maintain important parts of your printer that cannot be reached, including the Printhead, Transport Rollers, and optional Magnetic Encoder Station.

When to Clean

- X-Roller and Y-Roller cleaning should occur every 5 thousand cards.
- Heated Roller cleaning should occur every 20 thousand cards.

Cleaning the Rollers



Note • Do not use previously used cleaning cards.

- Step 1. Initiate the cleaning process.
 - **a.** Press the MENU button on the Operator Control Panel (OCP). The OCP will display the Main Menu.
 - **b.** Scroll through the Main Menu, and select Advanced Settings. The OCP will display the Advanced Settings Menu.
 - **c.** Scroll through the Advanced Settings Menu, and select Clean Printer. The OCP will display the Clean Printer Menu.
- Step 2. Clean the X-Drive Rollers.
 - a. Select *Clean Card Side Path* to run the X-Roller Cleaning Routine.
 - **b.** Use X-Path Cleaning Card 211973-001.
 - **c.** Follow the OCP instructions.



d. When complete, the OCP will return to the Clean Printer Menu.

Step 3. Clean the Y-Drive Rollers.

- **a.** Select *Clean Card Front Path* to run the Y-Roller Cleaning Routine.
- **b.** Use Y-Path Cleaning Card 211974-001.
- **c.** Follow the OCP instructions.



d. When complete, the OCP will return to the Clean Printer Menu.

Step 4. Clean the Heated Rollers.

- **a.** Select *Clean Heated Roller Path* to run the Heated Roller Cleaning Routine.
- **b.** Use Heated Roller Cleaning Card 211975-001.
- **c.** Follow the OCP instructions.



d. When complete, the OCP will return to the Clean Printer Menu.

Exit the Printer Menus by selecting RETURN at each menu level (Clean Printer Menu, Advanced Settings Menu, and Main Menu).

Cleaning the Platen

- **Step 1.** Open the printer Door.
- Step 2. Remove the Transfer Film.
- Step 3. Manually run the Heated Roller Cleaning Card over the Platen (circled below).



- Step 4. Install the Transfer Film.
- Step 5. Close the printer Door.

Cleaning the Printhead

A cleaning using the Cleaning Cards usually suffices; however, a separate Printhead cleaning can remove more stubborn deposits when print anomalies persist. To avoid deposits, only use foam-tipped swabs.



Caution • Never use a sharp object or any abrasive to scrape deposits from the Printhead. Permanent damage to the Printhead will result.



Caution • Do not touch the Printhead if the printer has been in service in the last 10 minutes. It could be very hot and cause a burn.

- Step 1. Place the printer power switch in the OFF position.
- **Step 2.** Open the Door, and remove the print ribbon.
- Step 3. Bend the Cleaning Swab to release the cleaning fluid.
- **Step 4.** Clean Printhead by moving Cleaning Swab tip side-to-side across the Printhead elements. Only use moderate force. To re-order Cleaning Swabs, see the Media List on the *User Documentation, Drivers, and Training CD* supplied with this printer.
- Step 5. Reinstall the print ribbon, and close the Door.
- Step 6. Place the printer power switch in the ON position.

Card Cleaning Cartridge

The Card Cleaning Cartridge cleans the cards entering the printer through the card feeder. To ensure print quality, the cleaning roller requires periodic replacement. New cleaning rollers are included with each print ribbon or may be purchased separately. (To reorder, please refer to the Media List on the *User Documentation, Drivers, and Training CD* supplied with this printer.)

Installation of the Card Cleaning Cartridge is described in Section 2 and is not repeated in detail here.



Note • Before replacing the Card Cleaning Cartridge or its adhesive roller, clean the Printer using the Cleaning Cards as described earlier in this chapter.

Cleaning Roller

The Cleaning Roller cleans the cards entering the Printer from either the Input Hopper or the Single-Feed Input. To ensure print quality, the cleaning roller requires periodic replacement. A new cleaning roller is included with each print ribbon or may be purchased separately. (To reorder, please refer to the Media List on the *User Documentation, Drivers, and Training CD* supplied with this printer.)

Installation of the Card Roller is described in Section 2 and is not repeated in detail here

Troubleshooting



The table on the next page offers causes and solutions to symptoms related to improper operation. Check the table when experiencing any loss of operation or print quality.

Use the following figure in conjunction with the table to help locate the possible cause and effect a solution.



Operational Issues

The following table lists the Operator Control Panel (OCP) Error Messages, possible causes, and possible solutions.

ERROR MESSAGE	POSSIBLE CAUSE	POSSIBLE SOLUTION
CARD CLEAN ERROR	Faulty Card Cleaning Roller (if error during single card feed) or Card Cleaning Cartridge (if cards fed from Input Hopper)	Replace the Card Cleaning Roller or Card Cleaning Cartridge, as appropriate
CARD FEED ERROR	Card is jammed in Input Hopper	 a. Clear the card jam in the Input Hopper, and re-seat the Input Hopper b. Ensure that cards are not stuck together and that they are the correct thickness
CARD JAM	Card is jammed in Card Transport or Transfer Station	Check the card path:a. Idler Roller Assembly (open door)b. Transfer Station (rotate the eject roller CCW)
CARD NOT DETECTED	Card did not reach card sensor or is jammed in Input Hopper or Card Transport	 a. Clear the card jam in the Input Hopper, and re-seat the Input Hopper b. Ensure that cards are not stuck together and that they are the correct thickness c. Check Idler Roller Assembly (open door)
CARD NOT INSERTED	Card was not fed into Single Card Feed Slot within nominal 30-second period	Retry and feed card into the Single Card Feed Slot, or cancel the operation
COLOR DETECT ERROR	Print ribbon is not installed correctly	Reinstall the print ribbon
CONTACT READ ERROR	Data cannot be read from the Contact Smart Card	 a. Ensure that you are using the correct card type b. Check that the cards are loaded in the correct orientation (normally this will be with the contact pad up and toward the left) c. In the Encoding tab of the driver Printing Preferences, check that Smart Card Encoding Type is set to Contact d. Ensure that the data conforms to ISO Specifications e. Retry reading
ERROR MESSAGE	POSSIBLE CAUSE	POSSIBLE SOLUTION
-----------------------------	--	---
CONTACT ENCODE ERROR	Data cannot be written to the Contact Smart Card	a. Ensure that you are using the correct card type
		 b. Check that the cards are loaded in the correct orientation (normally this will be with the contact pad up and toward the left)
		 c. In the Encoding tab of the driver Printing Preferences, check that Smart Card Encoding Type is set to Contact
		d. Ensure that the data conforms to ISO Specifications
		e. Retry writing
CONTACTLESS READ ERROR	Data cannot be read from the Contactless Smart Card	a. Ensure that you are using the correct card type
		 b. In the Encoding tab of the driver Printing Preferences, check that Smart Card Encoding Type is set to Contactless
		c. Ensure that the data conforms to ISO Specifications
		d. Retry reading
CONTACTLESS ENCODE ERROR	Data cannot be written to the Contactless Smart Card	a. Ensure that you are using the correct card type
		 b. In the Encoding tab of the driver Printing Preferences, check that Smart Card Encoding Type is set to Contactless
		c. Ensure that the data conforms to ISO Specifications
		d. Retry writing
DIAGNOSTIC ERROR	There is a problem with the Print Engine Processor	a. Power cycle the printer b. Contact Zebra Technical Support
DOOR OPEN	Door is ajar	Verify the Door is completely closed
EP SCRIPT ERROR	Internal logic error	a. Power cycle the printer b. Contact Zebra Technical Support
FIRMWARE UPGRADE ERROR	Invalid firmware version selected	Verify the version, and retry updating the firmware
GENERAL MEMORY ERROR	There is a problem when accessing memory	a. Power cycle the printer b. Contact Zebra Technical Support
GENERAL SYSTEM FAULT	Internal logic error	a. Power cycle the printerb. Contact Zebra Technical Support
HCB BULB ERROR	The Heater Controller Board (HCB) is unable to pulse the upper and lower heaters to bring the upper and lower rollers to the proper temperature	Contact Zebra Technical Support

ERROR MESSAGE	POSSIBLE CAUSE	POSSIBLE SOLUTION
HCB SENSOR ERROR	The Heater Controller Board (HCB)is unable to detect temperature of the upper or lower rollers	Contact Zebra Technical Support
HEAD TEMP ERROR	Printhead temperature out of proper range	Contact Zebra Technical Support
INVALID CARD TYPE	Encoding error	 a. Ensure that you are using the correct card type b. In the Encoding tab of the driver Printing Preferences, check that the settings are correct for the cards you are using c. Ensure that the data conforms to ISO Specifications d. Retry writing and reading
INVALID RIBBON	Print ribbon does not match the printer	Verify the part number of the print ribbon is correct
INVALID TRANSFER FILM	Transfer Film does not match the printer	Verify the part number of the Transfer Film is correct
MAG READ ERROR	 Encoding error Defective magnetic stripe 	 a. Ensure that you are using the correct card type b. Check that the cards are loaded with the magnetic stripe in the correct orientation (normally this will be with the stripe down and toward the rear of the printer) c. Ensure that the cards are set-up correctly in the printer driver (coercivity setting) d. Ensure that the data conforms to ISO Specifications e. Retry reading
MAG ENCODE ERROR	 Encoding error Defective magnetic stripe 	 a. Ensure that you are using the correct card type b. Check that the cards are loaded with the magnetic stripe in the correct orientation (normally this will be with the stripe down and toward the rear of the printer) c. Ensure that the cards are set-up correctly in the printer driver (coercivity setting) d. Ensure that the data conforms to ISO Specifications e. Retry writing
MISSING HCB ERROR	There is a problem with the Heater Controller Board (HCB)	Contact Zebra Technical Support

ERROR MESSAGE	POSSIBLE CAUSE	POSSIBLE SOLUTION
MISSING MAB ERROR	An error occurred when reading the RFID Tag by the MAB (Media Authentication Board)	a. Check the print ribbon orientationb. Verify the part number of the print ribbon
MOTOR VOLTAGE ERROR	Incorrect voltage detected at one or several motors in the unit	a. Power cycle the printer b. Contact Zebra Technical Support
NO MAG STRIPE	Mag stripe not detected	a. Ensure that you are using the correct card typeb. Check that the cards are loaded with the magnetic stripe in the correct orientation (normally this will be with the stripe down and toward the rear of the printer)
OUT OF CARDS	The Input Hopper is emptyCard is stuck in Input Hopper	a. Load cards in the Input Hopper b. Re-seat the Input Hopper
OUT OF RIBBON	The print ribbon has run out	Load a new roll of print ribbon
OUT OF TRANSFER FILM	The Transfer Film has run out	Load new roll of Transfer Film
PRINT HEAD MOTION ERROR	Printhead did not move to proper position during initialization	a. Power cycle the printer b. Contact Zebra Technical Support
RIBBON JAM	The print ribbon is jammed	a. Check the print ribbonb. Reinstall the print ribbonc. Repair the break in the print ribbon and reinstall
RIBBON MOTION ERROR	Ribbon not correctly responding to motion commands	a. Check the print ribbonb. Reinstall the print ribbonc. Repair the break in the print ribbon and reinstall
ROLLERS OVER TEMP	Heated Rollers (used to transfer the image from the Transfer Film to the Card) are too hot for proper operation	Turn off power, and contact Zebra Technical Support
ROLLERS UNDER TEMP	Heated Rollers (used to transfer the image from the Transfer Film to the Card) are not hot enough for proper operation	Turn off power, and contact Zebra Technical Support
SYSTEM ERROR	Internal logic error	a. Power cycle the printer b. Contact Zebra Technical Support
SYSTEM NOT READY	A problem was detected during printer start-up	a. Power cycle the printer b. Contact Zebra Technical Support
TRANSFER FILM MOTION ERROR	Transfer Film not correctly responding to motion commands	a. Check the Transfer Film b. Reinstall the Transfer Film
TRANSFER FILM JAM	The Transfer Film is jammed	a. Check the Transfer Filmb. Reinstall the Transfer Filmc. Repair the break in the Transfer Film and reinstall



Technical Specifications



Standard Features

- Thermal transfer and dye diffusion to transfer film
- Full color or monochrome reverse transfer printing
- Single- and dual-sided printing
- Max print speed single-side 150 cph
- Max print speed dual-sided 120 cph
- Photo quality image
- Over-the-edge printing on standard CR80 media
- Microsoft Windows Certified drivers
- Single-card feed capability
- 150 card capacity feeder (30 mil)
- 15 card reject hopper (30 mil)
- 100 card output hopper (30 mil)
- i SeriesTM intelligent media technology
- Auto calibration of media
- 21-character soft menu LCD text operator display
- 304 dpi (12.0 dots/mm) print resolution
- 64MB memory standard
- 2-year unlimited warranty on printer, lifetime limited warranty on printhead with Genuine Zebra Supplies

Specifications

Encoding Options

- Smart card contact encoder ISO 7816, PC/SC Compliant
- Magnetic stripe encoder ISO 7811 and JIS-II (new and re-encoded; tracks 1, 2, and 3; high and low coercivity; stripe down; 30 40 mil card thickness)
- Contact smart card encoder EMV level 1 certified
- ISO 14443 MIFARE (13.56 MHz) and ISO 7816 contact encoder combo

Communications Interfaces

- USB V2.0 / 1.1 protocol
- USB supports plug-n-play printer identification
- USB and internal 10/100 Ethernet (Standard)

Software

Microsoft Windows Certified Printer Drivers Supported

Windows 2000, Windows XP*, Windows Vista*, Windows Server 2003*
 *32-bit and 64-bit certified

Driver Features

- Graphical card orientation setting to visualize card printing setup and configuration
- Card type setting eliminates unnecessary setup and configuration settings
- Complete graphical control over area and element selection of black extraction parameters insures true black and color printing exactly where you want it on the card
- Auto sensing of print ribbon type
- Optional driver password protection setting to prevent accidental or unauthorized driver configuration changes

ZXP Toolbox

- Printer configuration tools and utilities for complete control over all printer functions and features
- User role-based features enables true security printer operations
- Complete technology card management enables setup and testing of all printer and encoder features and functionality
- Printer test cards and diagnostics utilities ensure error free printing and fast troubleshooting capabilities

Card Compatibility

- Card Thickness: 30 40 mil
- Card Size: ISO 7810 format, Type ID-1, CR-80
- Card Material: PVC, Composite

Agency Approvals

Zebra ZXP Series 8 Card Printer complies with following applicable directives and standards for the ITE: Residential, Commercial & Light Industry environments

- For US/Canada/Mexico/Australia&NZ:
 - FCC Class A, cfr47, Part 15 Subpart J
 - FCC 15.257 2008, Part15 Subpart C
 - Canadian STD RSS-210
 - NOM-ETL (Mexico)
 - EN60950: 2000 Safety Standard (TUV & RTL)
 - C-Tick (Australia) Electromagnetic Radiation Standard
- For Europe:
 - Applicable Directives and Supporting Standards:

2004/108/EC EMC Directive, EN55022:2006 Class A, EN55024:1998+AD1:2001+AD2:2003, EN61000-3-2:2006, EN61000-3-3:1995+AD1:2001, 2006/95/EC LVD Directive, EN60950-1:2001, CB Scheme

WLAN Enabled

Applicable Directives and Supporting Standards:

99/5/EC R&TTE Directive, EN 301 489-17 V1.2.1 (2002-08), EN 300 328 V1.7.1 (2006-10)

RFID Enabled

Applicable Directives and Supporting Standards:

99/5/EC R&TTE Directive, EN 301 489-3 V1.4.1 (2002-08), EN 300 220-2 V2.1.2 (2007-06)

Technical Specifications

Specifications

Electrical

- Auto-switching Single-phase AC power
- 90V~264V AC RMS and 47-63 HZ (50-60 Hz nominal)
- Power consumption:

Idle	100 W
Printing	150 W
Initializing / Warm-up	300 W
Sleep	20 W

Physical

•	Height (printer only)	11.9" (303 mm)
•	Height (with card feeder)	13.2" (334 mm)
•	Width	14" (356 mm)
•	Width (with card feeder)	14.9" (379 mm)
•	Depth	20.4" (519 mm)
•	Weight (printer only)	27.5 lbs (12.5 kg)

Environmental

•	Operating Temperature	59° to 95°F (15° to 35°C)
•	Storage Temperature	23° to 131° F (-5° to 55°C)
•	Operating Humidity	20% to 80% non-condensing
•	Storage Humidity	10% to 90% non-condensing
•	Shipping Temperature	-40° to 140°F (-40° to 60°C)
•	Shipping Humidity	10 to 90% non-condensing

Declarations of Conformity

ZEBRA TECHNOLOGIES CORPORATION

Declares that the following Information Technology Equipment

Zebra ZXP Series 8 Card Printer complies with following applicable directives and standards for the ITE: Residential, Commercial & Light Industry environments

Applicable Directives and Supporting Standards:

2004/108/EC EMC Directive, EN55022:2006 Class A, EN55024:1998+AD1:2001+AD2:2003EN61000-3-2:2006, EN61000-3-3:1995+AD1:2001, 2006/95/EC LVD Directive, EN60950-1:2001, CB Scheme

RFID Enabled

Applicable Directives and Supporting Standards: 99/5/EC R&TTE Directive, EN 301 489-3 V1.4.1 (2002-08), EN 300 220-2 V2.1.2 (2007-06)

For a formal certificate, please contact the Compliance Office at Zebra's Camarillo facility.

EUROPE: Norway Only: This product is also designed for IT power system with phase to phase voltage 230V. Earth grounding is via the polarized, 3-wire power cord.

FI: "Laite on liitettävä suojamaadoitus koskettimilla varustettuun pistorasiaan"

SE: "Apparaten skall anslutas till jordat uttag"

NO: "Apparatet må tilkoples jordet stikkontakt"

FCC Regulations

The Zebra ZXP Series 8 Card Printer has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and operated in accordance with the Zebra ZXP Series 8 Card Printer User's Manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by Zebra may cause harmful interference and void the FCC authorization to operate this equipment.

FCC Radiation Exposure Statement (applicable to 15.247 device only)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum 20 cm between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.

Industry Canada Notice

This device complies with Industry Canada ICES-003 class A requirements. Cet équipement est conforme à l'ICES-003 classe A de la Norme Industrielle Canadienne.

CE



APPENDIX A

Printer Configurations



Introduction

The Part Number of a particular printer is shown on a label affixed to the bottom of the printer; that Part Number identifies the specific configuration for that printer. The chart on the following page shows the configurations that are available.

Part Numbers

PART NUMBER	DESCRIPTION
z 8 _	Base Unit
	Single-Sided Printing Dual-Sided Printing
0	Smart Card Options None Contact Encoder + Contactless MIFARE Contact Station
0	Mag Encoders None ISO HiCo/LoCo Mag S/W Selectable
0 A	Security Options None Enclosure Lock
c	Interface USB and 10/100 Ethernet
=0 =D	Software/Kit None Media Starter Kit (includes: 1 YMCK ribbon kit, 1 roll of InTM, 200 PVC cards)
000	Miscellaneous None
x x	Country Code Country Code
0 0	Custom Code Reserved for future options



Magnetic Card Encoder



Introduction

This Appendix includes operation and maintenance requirements for Printers with the optional magnetic card stripe encoder.



The magnetic encoder can be set for either high or low coercivity. Use the printer driver to change the encoder setting.

Driver Setting

The **Card Setup** tab allows the user to specify the Magnetic Encoder Card Type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum performance.

If your card type is not listed in the drop-down menu, select *Custom* and fill out the Card Specifications pop-up screen.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

🚴 Zebra ZXP Series 8 USB CardPrinter Printing Preferences 🛛 💽	
Card Setup Encoding Black Panel (K) About	
Card Info Card source Card Stords Composed Final det Card type in use Zebra Standard PVC Custom 1 Custom 2 Card Standard PVC Zebra Standard PVC Zebra Standard PVC Zebra Standard PVC Custom 2 C	
Print on both siles Zebra High-Coercivity PVC Cake Rotate 180° Copies I	
Ribbon info Ribbon type YMCKK Overlay Ribbon combination	
YMCK Front / K Back UV Laminator options Laminate side Double Sided Laminate type Full Coverage	
Restore Defaults OK Cancel Apply	

• Make the appropriate Magnetic Encoder Card Type selection.

Media Loading Orientation



Note • ONLY USE cards that comply with ISO 7810 and 7811 standards for magnetic stripe cards. The magnetic stripe must be flush to the surface of the card to work properly. Never use cards which have taped-on magnetic stripes.

When loading cards with magnetic stripes into the card feeder, ensure that the magnetic stripe is down and to the rear of the printer.



Magnetic Encoder Cleaning

The Magnetic Encoder is cleaned as part of the printer cleaning process; see Section 6. If the frequency of encoding errors increases, the head may need cleaning. To avoid deposits, only use foam-tipped swabs.



Caution • Never use a sharp object or any abrasive to scrape deposits from the Magnetic Encoder. Permanent damage to the Magnetic Head will result.

- **Step 1.** Open the Door.
- Step 2. Open the idler roller assembly door.
- Step 3. Bend the Cleaning Swab to release the cleaning fluid.
- **Step 4.** Clean the Magnetic Encoder by moving Cleaning Swab tip side-to-side across the head elements. To re-order Cleaning Swabs, see the Media List on the *User Documentation, Drivers, and Training CD* supplied with this printer.
- Step 5. Close the idler roller assembly door.
- Step 6. Close the Door.



APPENDIX C

Smart Card Options



Introduction

This section contains information on the additional operations of a Printer equipped with one or more of the available Smart Card options.

Smart Cards can have a built-in microcomputer and/or memory to store fingerprints, voice recognition patterns, medical records, and other such data. All other printer operations remain the same as the standard models.

Encoding and Reading Smart Cards

Encoding data onto Smart Cards and reading the data previously encoded on them is totally under control of the application software; no operator action is required.

If you experience any problems with encoding or reading data, refer to the users manual or other documentation for the application software.

Driver Setting

The **Card Setup** tab allows the user to specify the Smart Card Type in use. Based on your selection, the printer automatically adjusts various printer properties for optimum printer performance.

If your card type is not listed in the drop-down menu, select *Custom* and fill out the Card Specifications pop-up screen.

To access the Card Setup Tab, select *Start* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 8 Card Printer* listing; and select *Printing Preferences* > *Card Setup*.

Zebra ZXP Series 8 USB CardPrinter Printing Preferences
Card Setup Encoding Black Panel (K) About Card Info
Card source Card feader Card and PVC Card type in use Zebra Standard PVC Printing options Orientation Print on both sides MIFARE Utralight PVC Orientation Print on both sides MIFARE 1K + SLE4442 PVC Rotate 180°
Copies 1 - Print front image on back side No Ribbon info Ribbon type YMCKK Overlay
Ribbon combination VMCK Front / K Back UV Laminator options Laminate side Double Sided Laminate type Full Coverage
Restore Defaults

• Make the appropriate Smart Card Type selection.

Contact Smart Cards

Contact Smart Cards have a pad of contacts on the surface of the card that connect to the circuitry embedded into the card. The printer responds to commands that position the card at the contact location, where the printer connects to the contacts on the Smart Card. Data to be encoded onto the Smart Card, and data read from the Smart Card, can interface via a connector on the printer's rear panel ("Contact Station"), or encoding/decoding can be performed by logic on the printer's Main PCBA ("Contact Encoder"). All other printer operations remain the same as the standard models.

Media Loading Orientation for Contact Smart Cards

Orient the cards with the gold-plated Smart Card contacts at the top surface of the card and facing to the left.



Contact Station Smart Card Interface

When a command to the printer interface sends a card to the Smart Card Contact Station, the printer connects the Smart Card Contact Station to the female DB-9 connector on the rear of the printer.



An attached external Smart Card Programmer can be used to program Smart Card chips. The following table shows the Smart Card Contact Points.

Pin	Smart Card Contact Points	DB-9	Smart Card Contact Points
1	C1 (VCC)	6	C6 (Vpp)
2	C2 (Reset)	7	C7 (I/O)
3	C3 (Clock)	8	C8 (RFU)
4	C4 (RFU)	٥	(GND when chip
5	C5 (GND)	J	is at station)

Contactless Smart Cards

Rather than using a contact pad, Contactless Smart Cards use various short-range radio technologies to "connect" to the printer. The printer moves the card to an antenna location on the card path, and the encoding or decoding occurs. All other printer operations remain the same.

Media Loading Orientation for Contactless Smart Cards

For Contactless Smart Cards, orientation is not a consideration.

Printing on Contactless Smart Cards

With reverse transfer printing technology, there are no restrictions when designing material to be printed on Contactless Smart Cards.

Appendix D

Packing the Printer for Shipment



Introduction

If the printer is to be shipped, it is important to use the original packing and shipping material to prevent damage to the Printer.

If the original material is lost, a replacement Shipping Kit can be ordered from Zebra; please refer to the Media List on the Windows Drivers and User Documentation CD supplied with this printer.

Procedure



Note • The specifics of the shipment and the printer's condition may influence which of the following steps are followed; common sense should prevail.

- Step 1. Remove any cards from the Input and Output Hoppers.
- **Step 2.** If the printer still has power applied and is turned on and is still connected to the host computer, set the printer's power switch (on the back of the printer) to the OFF (**O**) position; and disconnect the interface and power cables to the printer.
- Step 3. Open the printer Door.
- **Step 4.** Remove the Print Ribbon and Transfer Film. (If you wish to save the print ribbon and film for future use, you may want to put them in a plastic bag for storage.)
- **Step 5.** Remove the Cleaning Cartridge and Cleaning Roller, and place them in the foam insert.
- Step 6. Close the printer Door.

Step 7. Remove the Input and Output Hopper, and place them in the foam insert.



Note • In the figure below, the printer and accessories are shown in the bottom foam insert, out of the shipping carton for clarity.



- Step 8. Place the Printer in its protective plastic bag.
- Step 9. Place the lower foam insert in the Shipping Carton.
- Step 10. Use both hands to carefully place the Printer into the recess in the lower foam insert.
- **Step 11.** Place the upper foam insert onto the Printer, and gently press it down so it makes a snug fit on the Printer -- the top of the upper foam insert should be even with the upper edge of the Shipping Carton.
- Step 12. Close the Shipping Carton.
- Step 13. Tape the Shipping Carton securely.

Appendix E

Worldwide Support



For Technical Support or Repair Services, contact the appropriate facility listed below.

North America and Latin America - Technical Support

Zebra Technologies Card Printer Solutions 1001 Flynn Road Camarillo, CA 93012-8706 USA

Phone:	+1 800 511 9909 (when calling from within the U.S.)
	+1 805 577-7002, option 1 (when calling from Latin America)
email:	techsupport@zebra.com

North America and Latin America - Repair Services

Before returning any equipment to Zebra Technologies Corporation for in-warranty or out-ofwarranty repair, contact Repair Services for a Return Materials Authorization (RMA) number. Repack the equipment in the original packing material, and mark the RMA number clearly on the outside. Ship the equipment, freight prepaid, to either address listed below:

Zebra Technologies Card Printer Solutions 1001 Flynn Road Camarillo, CA 93012-8706 USA

Phone:	$+1\ 800\ 452\ 4034$
	+1 805 578 1201
email:	repair-ca@zebra.com

Zebra Technologies Card Printer Repair Services 333 Corporate Woods Parkway Vernon Hills, IL 60061

Phone:	1-877-275-9327
email:	repair@zebra.com
webform:	www.zebra.com/repair

Europe, Middle East, and Africa - Technical Support

Zebra Technologies Card Printer Solutions Dukes Meadow Millboard Road, Bourne End Buckinghamshire SL8 5XF, UK

Phone:	+44 (0) 1628 556 000
FAX:	+44 (0) 1628 556 001
e-mail:	cardts@zebra.com

Europe, Middle East, and Africa - Repair Services

Before returning any equipment to Zebra Technologies Corporation for in-warranty or out-ofwarranty repair, contact Repair Services for a Return Materials Authorization (RMA) number. Repack the equipment in the original packing material, and mark the RMA number clearly on the outside. Ship the equipment, freight prepaid, to the address listed below:

Zebra Technologies Card Printer Solutions Pittman Way Fulwood, Preston Lancashire PR2 9ZD, UK

Phone:	+ 44 (0) 177 2 69 3069
FAX:	+ 44 (0) 177 2 69 3046
email:	ukrma@zebra.com

Asia Pacific - Technical Support and Repair Services

Before returning any equipment to Zebra Technologies Corporation for in-warranty or out-ofwarranty repair, contact Repair Services for a Return Materials Authorization (RMA) number. Repack the equipment in the original packing material, and mark the RMA number clearly on the outside. Ship the equipment, freight prepaid, to the address listed below:

Zebra Technologies Card Printer Solutions 120 Robinson Road #06-01 Parakou Building Singapore 068913

Phone:	+ 65 6885 0833
e-mail:	esoh@zebra.com

Website

www.zebracard.com