



FARGO® DTC5500LMX CARD PRINTER

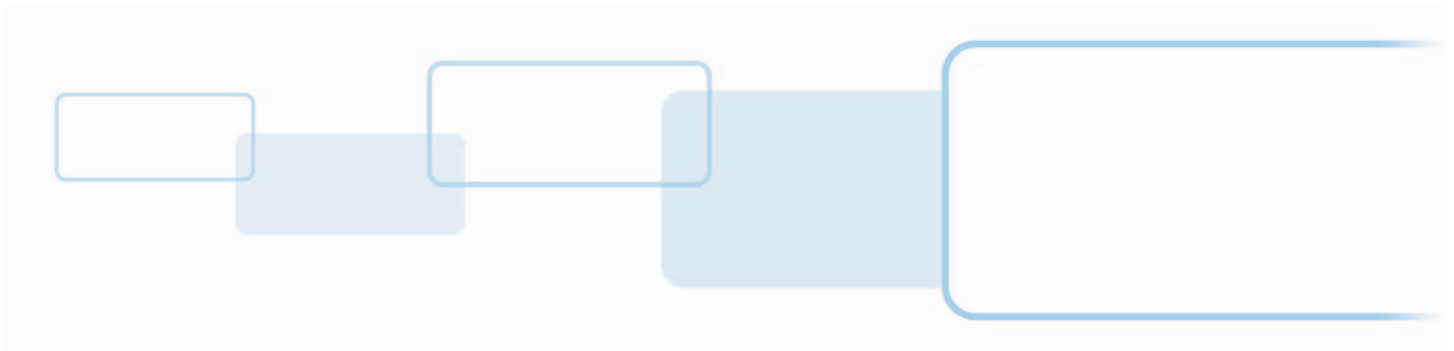
Model X002100

USER GUIDE

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Chapter 1

Specifications

The purpose of this section is to provide specific information on the Regulatory Compliances, Agency Listings, Technical Specifications and Functional Specifications for the HDP8500 Card Printer/Encoder.

1.1 Regulatory Compliance

Agency	Regulatory Compliance
UL	The Card Printer is listed under UL 60950-1 (2 nd edition) Information Technology Equipment. File Number: E145118
CSA	The printer manufacturer has been authorized by UL to represent the Card Printer as CSA Certified under CSA Standard C22.2 No. 60950-1-07 2 nd edition File Number: E145118
FCC	The Card Printer complies with the requirements in Part 15 of the FCC rules for a Class A digital device.
CE	The Card Printer has been tested and complies with EN300-330-1, EN300-330-2, EN301-489-1, EN60950-1:2006 + A11:2009 Note: Based on the above testing, the printer manufacturer certifies that the card printer complies with the following of the European Community and has placed the CE mark on the Card Printer. LVD 2006/95/EC, EMC 2004/108/EC, R&TTE 1999/5/EC, ROHS 2011/65/EU

1.1.1 Agency Listings

Agency	Listing
Emissions and Immunity Standards	FCC Part 15 Class A, RSS-GEN, RSS 210, CNS 13438, EN55022 Class A, EN55024, EN6100-3-2, EN6100-3-3, EN300-330-1, EN300-330-2, EN301-489-1, EN301-489-3, GB9254, GB17625
Safety Standards	UL IEC 60950-1 (2 nd edition), CSA C22.2 No. 60950-1-07(2 nd edition), EN60950-1, GB4943, CNS14336
Additional Agency Listings	CCC, BSMI, KC

1.1.2 United States

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment 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 used in accordance with the instruction 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, correction of the interference is at the users expense.

IMPORTANT: Changes or modifications to an intentional or unintentional radiator not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1.1.3 Canada

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

1.1.4 Taiwan

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

1.1.5 Japan

この装置は総務省の型式指定を受けています。"

(総務省指定番号は第 AC-12056 号です)

本製品は電波を使用した RFID 機器の読み取り?書き込み装置です。

そのため使用する用途?場所によっては、医療機器に影響を与える恐れがあります

1.1.6 Korea

이 기기는 업무용 (A 급) 전자파 적합기기로서 판매자 또는 사용자는 이 점을 주의하시길 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 .

1.2 Safety Messages

1.2.1 Safety Messages - United States

Symbol	Critical Instructions for Safety Purposes
Danger: 	Failure to follow these guidelines results in personal injury or death. To prevent personal injury or death: Reference the following safety messages before performing an operation. Always remove the power cord prior to performing repair procedures, unless otherwise specified. Ensure only qualified personnel perform these procedures.
ESD: 	This device is electro statically sensitive. Damage to the device may occur if exposing it to static electricity discharges. To prevent damage: Reference the following safety messages before performing an operation. Observe all established Electrostatic Discharge (ESD) procedures while handling cables in or near the circuit board and printhead assemblies. Always wear an appropriate personal grounding device. Always remove the ribbon and cards from the printer before making any repairs, unless otherwise specified. Remove jewelry and thoroughly clean hands before working on the printer.
Caution: 	This symbol warns of an electrical hazard that could result in personal injury or death.
Caution: 	For safety purposes, do not use Ethernet for a direct connection outside of the building.

1.2.2 Safety Messages - French Canada

Symbole	Instructions critiques visant la Sécurité
Danger: 	Si ces directives ne sont pas suivies les résultats peuvent être des lésions corporelles ou la mort. Pour éviter des lésions corporelles ou la mort: Rapportez-vous aux avis suivants de sécurité avant de procéder à une opération. Retirez toujours le câble d'alimentation avant d'effectuer des procédures de réparation, sauf spécification contraire. Assurez-vous qu'uniquement des personnes qualifiées réalisent des procédures.
ESD: 	Ce dispositif est sensible à l'électricité statique. Il peut souffrir des dommages s'il est exposé à des décharges électrostatiques. Pour éviter des dommages: Rapportez-vous aux messages suivants avant de procéder à une opération. Suivez toutes les procédures de Décharges Electrostatiques (ESD) en vigueur durant le maniement des câbles dans ou à proximité des Ensembles de Cartes de Circuit Imprimé et Tête d'Impression. Portez toujours un dispositif de mise à la terre personnelle appropriée. Retirez toujours le ruban et les Cartes de l'Imprimante avant d'effectuer toute réparation, sauf spécification contraire. Retirez tous bijoux et lavez soigneusement vos mains avant de travailler à l'Imprimante.
Attention: 	Ce symbole est un avis de péril électrique passible de résulter en lésion corporelle ou mort.
Attention: 	Pour des motifs de sécurité, n'utilisez pas Ethernet pour une connexion directe hors du bâtiment.

1.2.3 Safety Messages - Taiwan

繁體中文 射頻發射及安全指令 安全訊息（小心檢查）

標記	重要的安全事項說明
危險： 	未按照說明安裝可能造成人員傷亡。 在可能產生潛在安全問題的地方有警示標記。（如左圖所示）。 為了避免人員傷害，在進行有此警示標記的操作前，請先參考安全資訊提示。 為了避免人員傷害，在沒有特別說明的情況下，修理前請關掉電源開關。
小心： 	此設備對靜電很敏感。如果受到靜電放電，設備會損壞。 在可能產生潛在靜電安全問題的地方有警示標記。（如左圖所示）。 為了避免損壞設備，在進行有此警示標記的操作前，請先參考安全資訊提示。 為了避免損壞設備，在排放電路板和印刷頭聯合裝置裡面或附近的電線時，請注意觀察所有的靜電放電設備。 為了避免損壞設備，請隨時佩戴合適的接地裝置（比如：手腕上戴一個高品質的接地手腕帶以免受到可能的傷害）。 為了避免損壞設備，如果沒有特殊說明，在做任何修理前，請取下印表機上的色帶和卡。 為了避免損壞設備，在使用印表機之前，請摘下戒指和手上飾品，並仔細清洗手上的油脂。

1.2.4 Safety Messages - China

安全消息（请仔细阅读）

符号	涉及安全的重要过程
危险： 	如果不遵循这些安装指南进行操作，可能会导致重伤，甚至死亡。 可能引发安全问题的信息由警告符号（如左图所示）来表示。 为了确保人身安全，在执行前面带有此符号的操作之前，请先阅读下面的安全消息。 为了确保人身安全，除非另有规定，否则在执行维修过程前，始终应断开电源。
小心： 	此设备为静电敏感设备。如果暴露在静电电流下，可能会损坏设备。 可能引发静电安全问题的信息由警告符号（如左图所示）来表示。 为了防止设备或介质受损，在执行前面带有此符号的操作之前，请先阅读下面的安全消息。 为了防止设备或介质受损，请在处理电路板和打印头部件中或附近的电缆时，遵守所有规定的静电放电（ESD）过程。 为了防止设备或介质受损，请始终佩带适当的个人接地设备（例如，已接地避免出现潜在损坏的高质量腕带）。 为了防止设备或介质受损，除非另有规定，否则在执行任何维修过程前，始终应将色带和证卡与打印机分离。 为了防止设备或介质受损，在操作打印机前，请取下手指和手上的珠宝首饰物，并将手上的油渍和污渍彻底清洗干净。
	仅适用于海拔 2000m 以下地区安全使用
	仅适用于非热带气候条件下安全使用
	环境保护（中国 -RoHS） 环保使用期是基于本产品用于办公环境。

1.3 Technical Specifications

Component	Description
Card Cleaning	Card cleaning roller integrated into the ribbon cartridge. A new cleaning roller is included with each ribbon cartridge.
Card Size and Type Supported	CR-80 (3.375"L x 2.125"W / 85.6mmL x 54mmW) CR-79 (3.313"L x 2.063"W / 84.1mmL x 52.4mmW)
Card (Standard) Sizes	CR-80 edge-to-edge (3.36"L x 2.11"W / 85.3mmL x 53.7mmW) CR-79 (3.3"L x 2.04"W / 83.8mmL x 51.8mmW)
Card Thickness	.009" - .040" / 9 mil - 40 mil / .229mm - 1.016mm
Display	Graphical Display

Component	Description
Encoding Options Supported	• 125kHz (HID Prox) reader • 13.56 MHz (iCLASS, MIFARE, ISO 14443 A/B, ISO 15693) read/write encoder • Contact Smart Card Encoder reads from and writes to all ISO7816 1/2/3/4 memory and microprocessor smart cards (T=0, T=1) as well as synchronous cards. • ISO Magnetic Stripe Encoding, dual high- and low-coercivity, Tracks 1,2 and 3
Hopper (input) Card Capacity	Single hopper: 100 cards (.030" / .762mm) Dual hopper: 200 cards (.030" / .762 mm)
Hopper (output) Card Capacity	100 cards (.030" / .762mm)
Hopper (Reject) Card Capacity	100 cards (.030" / .762mm)
Interface	USB 2.0 and Ethernet with internal print server
Operating Conditions	Operating Temperature: 65° to 80° F (18° to 27° C) Humidity: 20 - 80% non-condensing
Operating Systems	Windows® XP / Vista™ (32 bit & 64 bit) / Server 2003 & 2008 / Windows® 7 (32 & 64 bit) / Windows® 8 (32 & 64 bit) / Linux®
Options	• Single Wire Ethernet and USB 2.0 Interface for inline printing and encoding • Single wire Ethernet encoding is only available for iCLASS and Contact Smart Card encoding) • Dual-Sided Printing Module - Upgradable • Dual Input Card Hopper • Same-Side Input / Output Card Hopper - Upgradable • Smart Card Encoding (contact / contactless) - Upgradable • Magnetic Stripe Encoding - Upgradable • Printer Cleaning Kit
Print Colors	Up to 16.7 million colors / 256 shades per pixel
Print Method	Dye-Sublimation/ Resin Thermal Transfer
Print Resolution	300 DPI (11.8 dots per mm); continuous tone

Component	Description
Print Ribbon Options	• Full-color with resin black and overlay panel, YMCKO* (500 prints) • Full-color half-panel with resin black and overlay panel, YMCKO* (850 prints) • Full-color with two resin black panels and overlay panel, YMCKOK* (500 prints) • Full-color with fluorescing, two resin black panels and overlay panel, YMCCKO* (500 prints) • Full-color with fluorescing, two resin black panels and overlay panel, YMCCKOK* (400 prints) • Resin black and overlay panel, KO* (1250 prints) • Dye-sublimation black and overlay print, BO* (1250 prints) • Resin black (standard and premium) (3000 prints) • Resin green, blue, red, white (1000 prints) • Resin silver (2000 prints) • Resin gold (1000 prints) • Rewrite technology - No ribbon is required * Indicates the ribbon type and the number of ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, O=Overlay F=Fluorescing Resin
Print Speed	• 6 seconds per card (K*) • 8 seconds per card (KO*) • 16 seconds per card (YMCKO*) • 24 seconds per card (YMCKOK*) • Print speed indicates an approximate batch print speed and is measured from the time a card feeds into the printer to the time it ejects from the printer. • Print speeds do not include encoding time or the time needed for the PC to process the image. • Process time is dependent on the size of the file, the CPU, amount of RAM and the amount of available resources at the time of the print. * Indicates the ribbon type and the number of ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, O=Overlay, F=Fluorescing Resin
Printer Memory	128 MB RAM
Power Source Voltage, Amp & Frequency	Supply Voltage/Amp: 100-240 VAC, 1.6A Max Supply Frequency: 50 Hz and 60 Hz
Ship Weight	Single-Sided: 8 lbs. / 3.63 Kg; Dual-Sided: 10 lbs. / 4.54 Kg
Software	FARGO Workbench Diagnosis Utility
Warranty	• Printer- 2 years • Printhead: 2 years unlimited pass with UltraCard™

1.4 Functional Specifications

This card printer utilizes two different, yet closely related printing technologies to achieve its remarkable direct-to-card print quality for dye-sublimation and resin thermal transfer.

1.5 Printer Components: Print Ribbons

The card printer utilizes both dye-sublimation and/or resin thermal transfer methods to print images directly onto blank cards. Because the dye-sublimation and the resin thermal transfer print methods each provide their own unique benefits, Print Ribbons are available in resin-only, dye-sublimation-only and combination dye-sublimation/resin versions.

To make it easier to remember which print ribbons are which, a letter code has been developed to indicate the type of ribbon panels found on each ribbon. This letter code is as follows:



= Dye-Sublimation Yellow Panel



= Dye-Sublimation Magenta Panel



= Dye-Sublimation Cyan Panel



= Resin Black Panel (Premium unless otherwise stated)



= Clear Protective Overlay Panel



= Fluorescing Panel

1.5.1 Ribbon Types and Print Counts

The following table lists print capability of each ribbon type.

Ribbon	Count
YMCKO - Full Color/Resin Black / Overlay	500
YMCKO Half Panel - Full Color (1/2)/Resin Black/Overlay	850
YMCCKO - Full Color/UV Fluorescing/Resin Black/Overlay	500
YMCKK - Full Color/2 Resin Black	500
YMCKOK - Full Color/2 Resin Black/Overlay	500
YMCCKOK - Full Color/UV Fluorescing/2 Resin Black/Overlay	400
K - Standard Resin	3000
K - Premium Resin	3000
Colored Resin	2000
KO - Premium Black Resin/Overlay	1250
BO - Dye-Sub Black/Overlay	1250
None - Rewritable	Supported

1.6 Printer Components: Blank Cards

Type	Description
Card Size	The Card Printer accepts standard CR-79 and CR-80 sized cards.
Card Surface	Suitable cards must have a polished PVC surface free of fingerprints, dust or any other types of embedded contaminants. In addition, cards must have a completely smooth, level surface in order for the printer to achieve consistent color coverage. Certain types of proximity cards have an uneven surface that inhibits consistent color transfer. Certain types of smart card chips are raised slightly above the card's surface, which also results in poor color transfer.
UltraCard Brand Cards	The UltraCard™ product line, available exclusively as part of HID Global FARGO brand secure card issuance solutions, has a long standing reputation among dealers and end-Users for consistent quality in construction. - In addition to blank stock, the UltraCard line is available in a variety of configurations for magnetic stripe, custom holograms and other additional anti-counterfeiting feature. - UltraCard Premium is the preferred card for Direct-to-Card (DTC®) applications that require a higher quality card. The UltraCard Premium's composite material construction provides for maximum durability, flexibility and card life, with optimal resolution print quality for lamination and fluorescent panel Ribbon printing applications. UltraCard PVC cards are medium-durability cards for a glossy, photo quality finish. These cards are manufactured to ensure clean, scratch-free cards for high-quality prints and extended printhead life.

Chapter 2

Setup and Installation Procedures

This section describes the setup and installation for the DTC5500LMX Card Printer.

2.1 Selecting a Good Location

The following guidelines help to ensure optimal printing performance:

- Place the unit in a location with adequate air circulation to prevent internal heat buildup.
- Use the printer's dimensions as a guideline for the minimum clearances to the unit.
Note: Allow for adequate clearance in front of the unit to accommodate the unit with its covers open.
- Do not install unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

2.1.1 About Moisture Condensation

If the unit is brought directly from a cold to a warm location or is placed in a very damp room, moisture may condense inside the unit. Should this occur, print quality may not be optimal.

Leave the unit unplugged in a warm, dry room for several hours before using to evaporate any moisture.



Caution: For safety purposes, Ethernet is not intended for a direct connection outside of the building.

Attention: Pour des raisons de sécurité, Ethernet n'est pas conçu pour une connexion directe à l'extérieur du bâtiment.

2.2 Unpacking and Inspection

While unpacking the printer, inspect the carton to ensure that no damage has occurred during shipping.

Make sure that all supplied accessories are included with the unit:

- Software Installation CD (includes Printer Driver, Online User Guide and Printer Diagnostic Tool)
- US/EU Power Cable
- USB Cable (2.0)
- Warranty Statement

2.3 Print Driver Installation

This section describes the printer driver installation requirements and standard procedures. Requirements are listed below. The DTC5500LMX Print Driver supports the following:

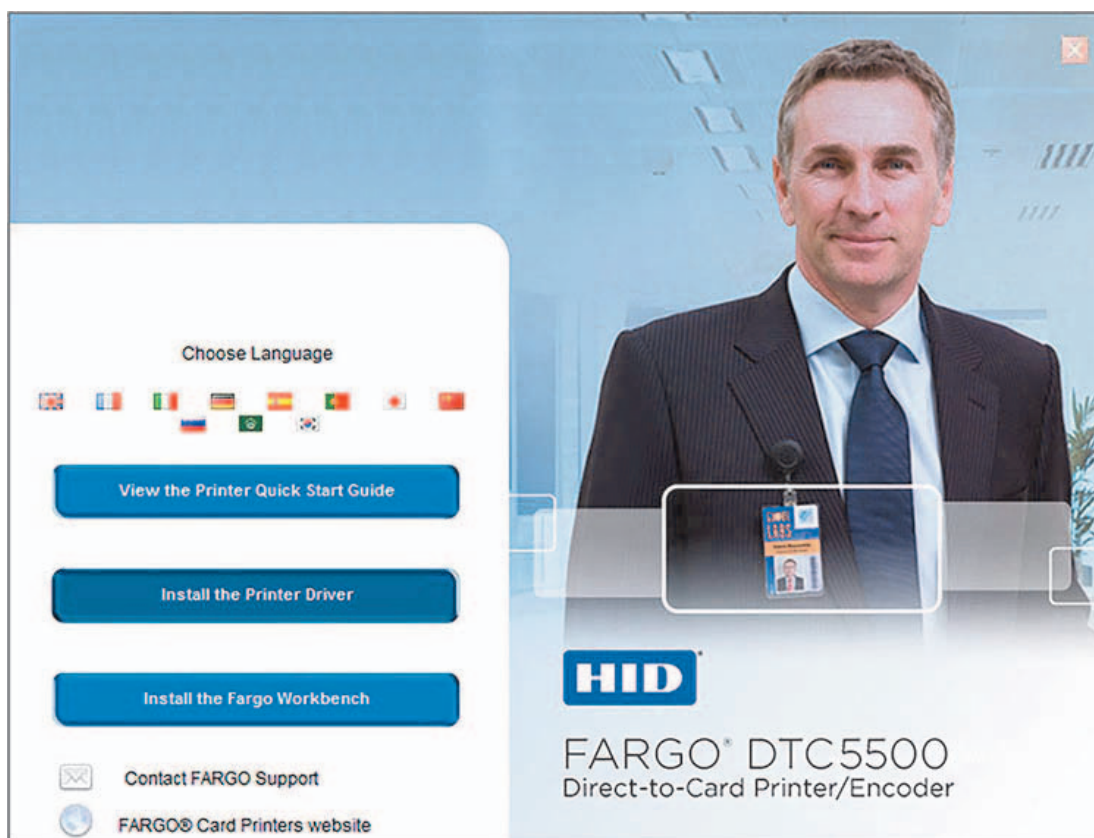
- Windows Vista 32 bit with SP2
- Windows Vista 64 bit with SP2
- Windows XP 32 bit with SP3
- Windows Server 2003 (R1) 32 bit
- Windows Server 2008 (R1) 32 bit with SP2
- Windows Server 2008 (R1) 64 bit with SP2
- Windows Server 2008 R2
- Windows 7 32 bit and 64 bit
- Windows 8 32 bit and 64 bit

For more information on supported Operating Systems, please visit the HID Global support page.

2.3.1 Driver Installation Instructions

Start the installation process by inserting the Driver CD into the computer; then, follow the Installation Wizard screen prompts.

1. Select **Install the Printer Driver** to go through the driver installation wizard.
2. Select the **Install the FARGO Workbench** to install the Diagnostic program.
3. All versions of Windows require *Administrator* rights.
4. Go to **Start > Devices & Printers**, right-click the *DTC5500LMX printer* icon and select **Printing preferences** to setup the printer driver after it has been installed.



2.4 Installing the Print Ribbon Cartridge

FARGO Direct-to-Card Printers require highly specialized supplies to function properly.

The FARGO DTC5500LMX Card Printer uses a one piece, disposable ribbon cartridge system.

To maximize printer durability, reliability and printed card quality, you must use only FARGO-certified supplies.

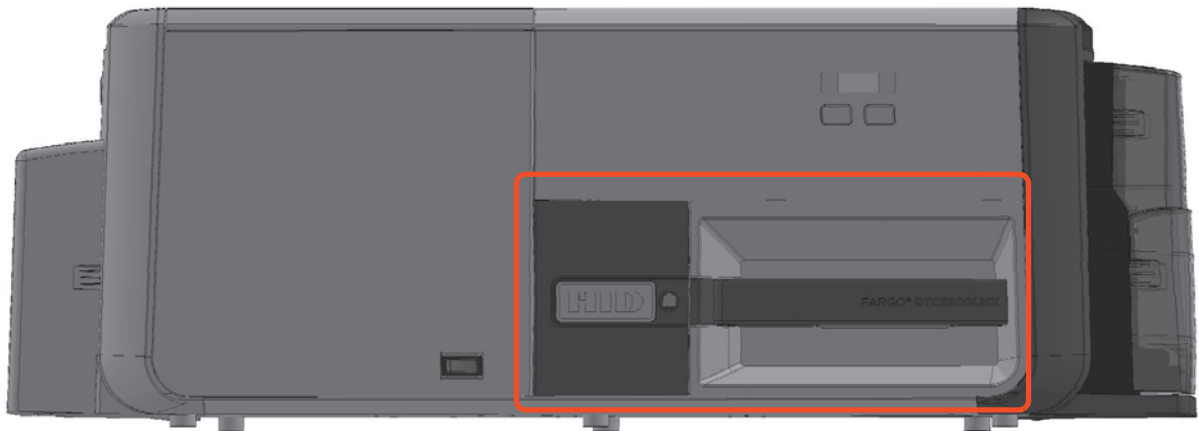
Your FARGO warranty is void, where not prohibited by law, if you use supplies other than FARGO-certified supplies.

Printer cleaning is recommended with each ribbon change to ensure quality printed cards.

Resin-only print ribbons consist of a continuous roll of a single resin color. No protective overlay panel (O) is provided because resin images do not require the protection of an overlay.

To Install the Print Ribbon Cartridge:

1. Pull open the front assembly.
2. Insert the print ribbon cartridge into the printer.
3. Close the front cover.



2.5 Installing Blank Cards into the Input Card Hopper

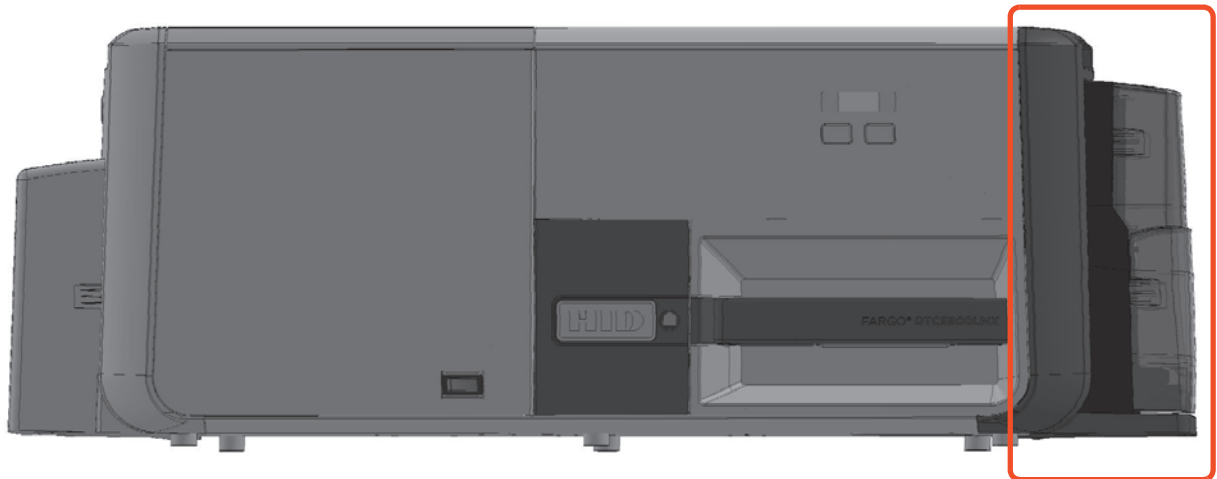
The FARGO DTC5500LMX Card Printer is capable of printing single feed cards and multiple feed cards (batch mode). To print a single feed card, remove all cards from the input card hopper, leave its door closed and place a card in the single feed card slot (which can be used repeatedly).

1. Load the cards with the print side down and (if applicable) the magnetic strip up and towards the front of the printer.

Information: Do not run the cards with a contaminated, dull or uneven surface through the Printer.

- Printing onto such cards may lead to poor print quality and can greatly reduce the life of the printhead.
- Card types include PVC or PVC finish.
- Cards eject into the output hopper or reject hopper.
- Each input hopper holds 100 cards.
- Certain types of smart card chips are raised slightly above the cards surface, which may result in poor color transfer. Design the card with white space surrounding the chip.
- To print using single feed, remove all cards from the input card hopper, leave its door closed. Place a card in the single feed card slot (which can be used repeatedly).

2. Open the input card hopper door.
3. Press the card hopper load lever down until the card tray locks into place.
4. Load up to 100 cards into the hopper with the print side down.
Note: If using cards with a magnetic stripe, the magnetic stripe should be loaded with the stripe up and to the front of the Printer.
5. Close the input card hopper door to release the lever to the printing position.



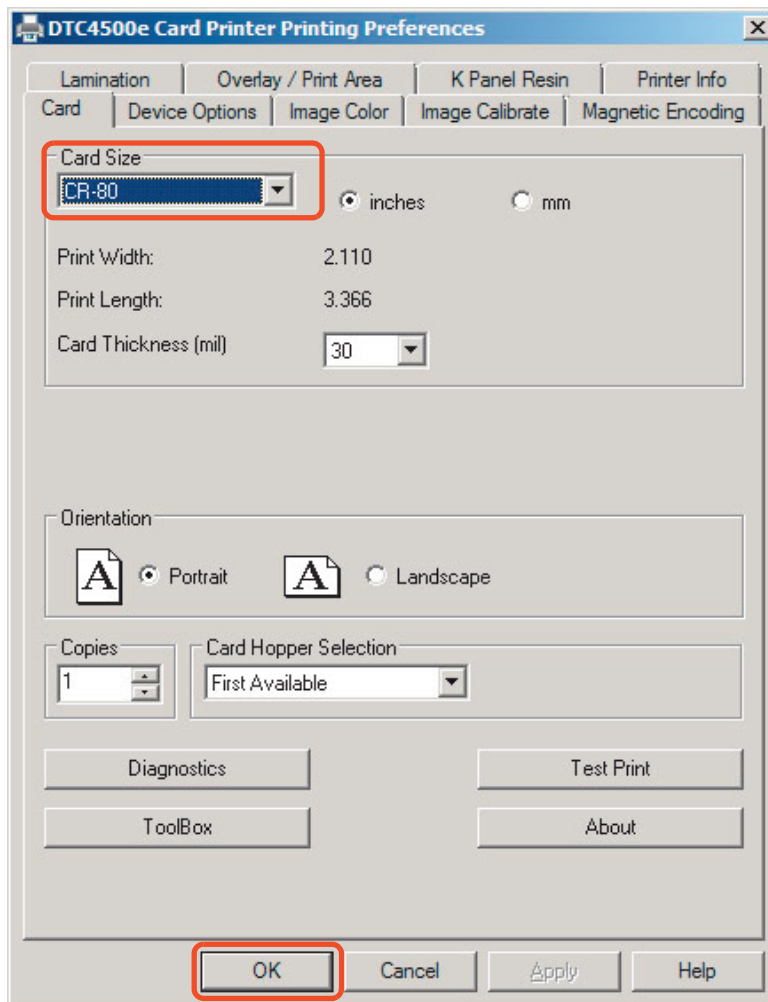
2.6 Card Size Selection

The Card Size (standard CR-70 and CR-80) must be set in the printer and in the Printer Driver Preferences.

1. Slide out the front assembly, which exposes the card switch.
2. The card switch is clearly marked with the 2 card options. Slide the switch to the card size needed.
 - LEFT for the CR-79 card.
 - RIGHT for the CR-80 card.



3. From the **Driver Printing Preferences** (right-click the printer icon and select **Printing preferences**), Select the **Card** tab.
4. Select the correct card size from the **Card Size** pull-down list.
5. Click **OK**.

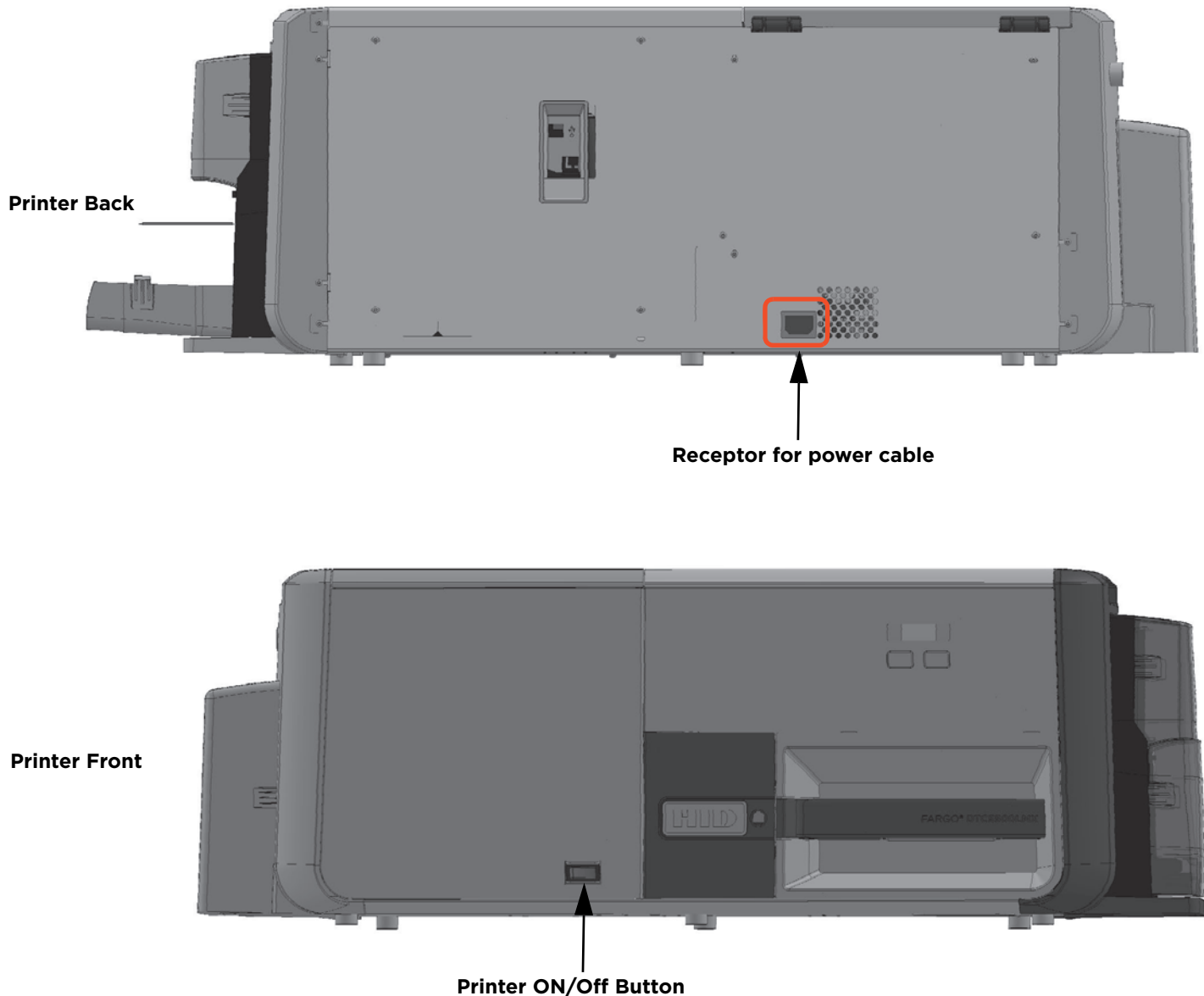


2.7 Printer Power

To connect power to the printer, follow this procedure.

Note: Do not connect the printer's USB cable until prompted during the printer driver installation.

1. Plug the power cable into the back of the printer.
2. Plug the wall power cable into a standard 100-240VAC power outlet.
3. Press the printer's **ON/OFF** button to power on the printer.



Note: The printer powers down during the “sleep time” but automatically powers up when a print job is sent.

Chapter 3

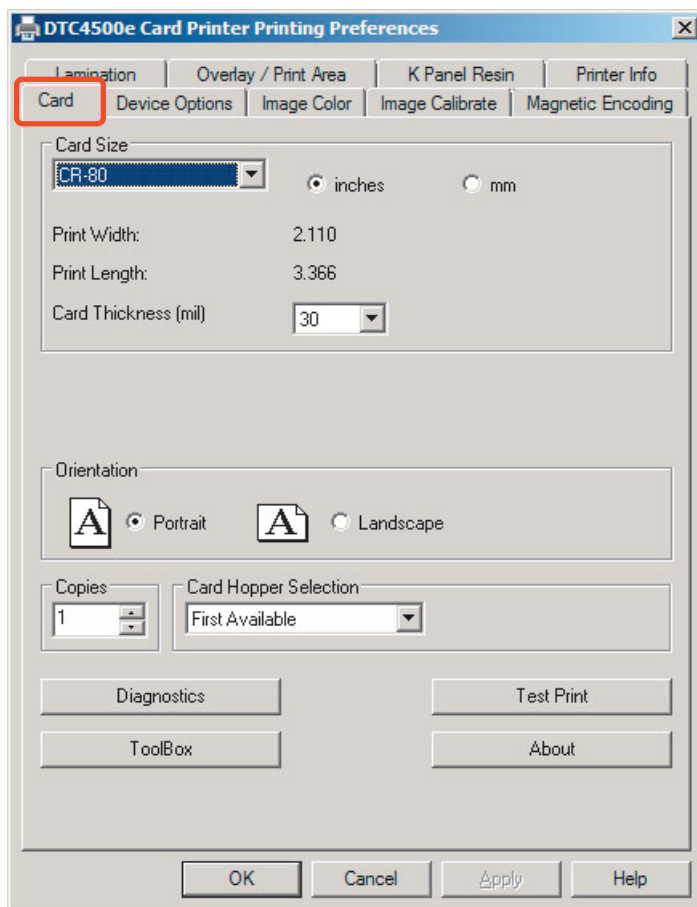
Printing Preferences

This chapter provide an overview of the Printing Preferences of the DTC5500LMX.

To locate the **Printing Preferences** menu select **Start > Devices and Printers**. Right-click the printer icon and select **Printing preferences**.

3.1 Card Tab

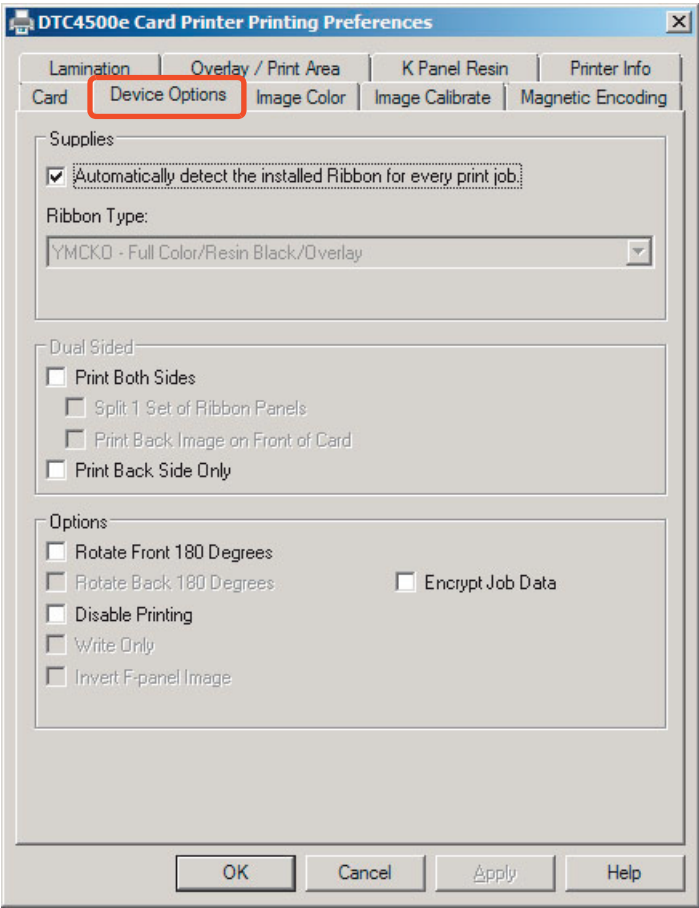
Use the **Card** tab to select options for the card as well as diagnostics and calibration.



Field	Definition
Card Size	Select the appropriate card option: • CR-79: 3.313 x 2.063 inch (84.14 x 52.39 mm). • CR-80: 3.452 x 2.204 inch (87.7 x 56 mm). Inches/mm: Card sizes will display in inches or mm, depending on the option selected. Print Width & Print Length: The dimensions of the total print area for each card size. Note: These print area dimensions are .04 in (1 mm) larger than the actual card size. This allows the printer to overprint images to ensure they will appear edge-to-edge when transferred to the card. When designing a card format, always set the card size within the card design program to the exact print length and width dimensions of the card. Card Thickness (mil): Select the card thickness from the pull-down list. Options are 10, 20, 30 (default), and 40 mil.
Orientation	There are two selections for card printing orientation. • Portrait prints card vertically. • Landscape prints card horizontally.
Copies	Select the number of copies to print using Test Print .
Card Hopper Selection	First Available: Selects the first available hopper (default). Top: Selects the top hopper. Bottom: Selects the bottom hopper.
Diagnostics	This will launch the Workbench program, which is included on the driver CD. Also see the Workbench user guide located on the driver CD.
ToolBox	See <i>Chapter 4: ToolBox</i> .
Test Print	Sends one or more self-test prints to the printer.
About	This opens a dialog box containing the copyright information, the driver's version number and date code.

3.2 Device Options Tab

Use the **Device Options** tab to set print options.

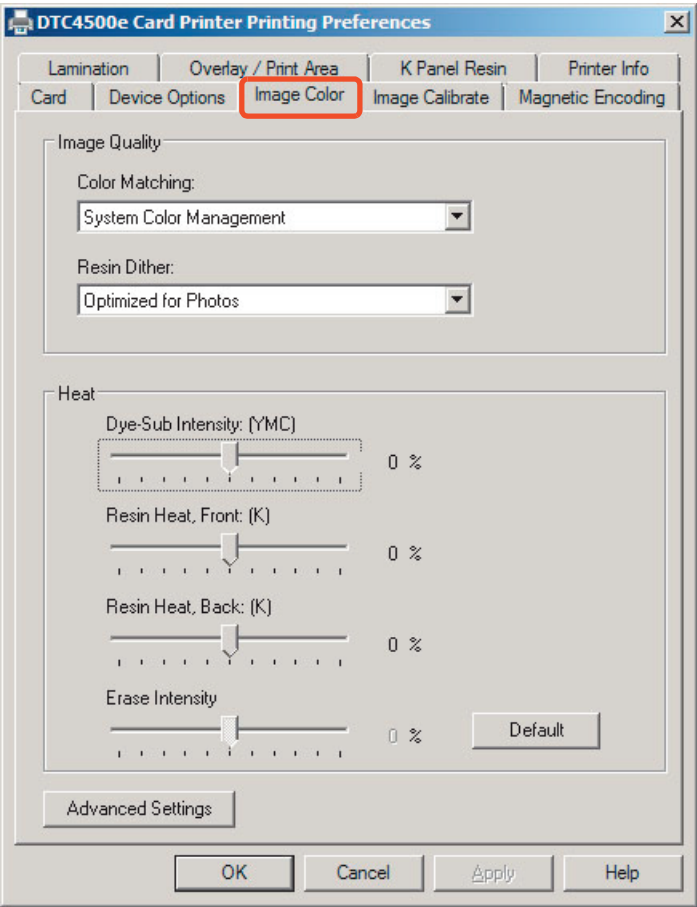


Field	Definition
Supplies	Automatically detect the installed Ribbon and Film for every print job: Use this option to verify that the ribbon type selected matches the installed ribbon. The printer changes the Ribbon Type to the correct setting. Ribbon Type: Use this option to manually select the ribbon type. Note: the Automatically detect the installed Ribbon and Film for every print job option must be unselected for this option to be active. Select from the available ribbon types on the drop-down list. For rewritable cards, select NONE - Re-Writable.
Dual Sided	Note: The Dual Sided area is grayed out when the printer is single-sided only. Print Both Sides: Prints on the front and back sides of the card. • Split 1 Set of Ribbon Panels: Prints on the front and back sides of the card using one ribbon panel. • Print Back Image on Front of Card: Prints the first page of a two-page print file on the card's backside. This option can also be used to print black resin on a smart card's chip side. Note: The second page of the file is printed on the card's front side. Print Back Side Only: Prints only on the card back side.

Field	Definition
Options	Note: The availability of options below is based on the Ribbon Type selected. Rotate Front 180 Degrees: Adjusts the orientation of the first page of the card design to accommodate the location of a chip or RFID sensor. Rotate Back 180 Degrees: Adjusts the orientation of the second page of the card design to accommodate the location of a chip or RFID sensor. Disable Printing: Disables printing. Write Only: For rewritable cards. The default setup is for the printer to first erase the entire card and then write new information on the card. There is no option to select specific areas to erase. However, to print or erase a section, use the Overlay/Print Area tab. Select the specific area in the same manner as a print job with a color ribbon. To erase many cards, use the FARGO Workbench Re-Writable Card Eraser option. It does not print. It only erases. Note: No ribbon is used with rewritable cards. Do not load a ribbon into the printer when using this process. Printing on a rewritable card with a ribbon will damage the card. Invert F-panel Image: Creates a negative of the fluorescent image. Used with Fluorescent Panel Ribbon Type. Encrypt Job Data: Encrypts information about the print job for enhanced security.

3.3 Image Color Tab

Use the **Image Color** tab to control the sharpness, contrast, and gamma of the printed image, as well as the individual color balance of yellow, magenta and cyan.

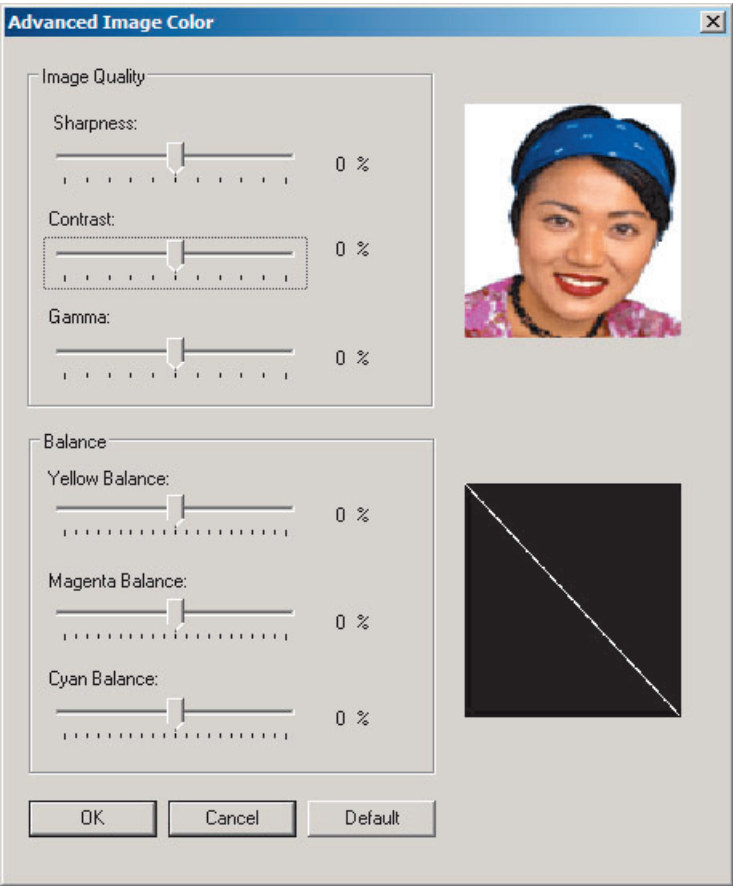


Field	Description
Image Quality	Color Matching: There are two selections for color matching in the drop-down list. • None: Select this option if: - interested in print speed rather than print color - color correcting an image that has been previously printed, or - using third-party color matching software • System Color Management: To perform color corrections through a complex color matching algorithm. Note: This option shifts colors so they more closely match how they appear on screen. • Algebraic: Use the Algebraic color-matching algorithm. Resin Dither: Select the appropriate dither method according to the type of image to be printed. • Optimized for Graphics: Select this option when printing lower quality images (e.g., clip-art, logos, etc.) with resin. • Optimized for Photo: Select this option when printing photo quality images with resin.

Field	Description
Heat	The Heat area includes sliders for adjusting the temperature when printing with various types of ribbons. Dye-Sub Intensity (YMC): Move the slider to the left to use less heat in the printing process, resulting in a lighter print. Move the slider to the right to use more heat, resulting in a darker print. Note: This slide only affects those images printed with dye-sublimation ribbon panels. Resin Heat, Front: (K): Move the slider to the left to use less heat in the printing process, resulting in a lighter or less saturated print. Move the slider to the right to use more heat, resulting in a darker or more saturated print. Note: This control can be helpful for fine-tuning the sharpness of resin text and bar codes. Resin Heat, Back: (K): Move the slider to the left to use less heat in the printing process, resulting in a lighter or less saturated print. Move the slider to the right to use more heat, resulting in a darker or more saturated print. Overlay Heat: (O): Move the slider to the left to use less heat in the printing process, resulting in a lighter or less saturated print. Move the slider to the right to use more heat, resulting in a darker or more saturated print. Default: Clicking the will return all options to factory settings.
Advanced Settings	See <i>Section 3.3.1: Advanced Image Color Tab</i> .

3.3.1 Advanced Image Color Tab

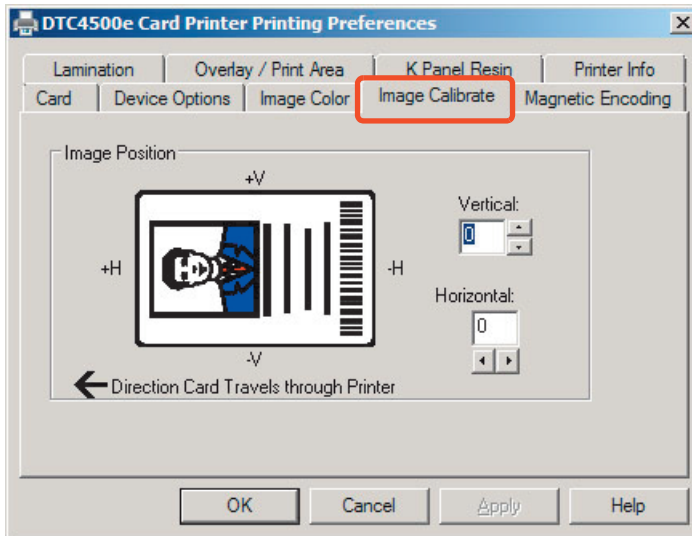
Select **Advanced Settings** on the *Image Color* tab. The graphic on the right will display the current settings.



Group or Field	Description
Image Quality	Sharpness: Move the slider to the right to sharpen the image. Move the slider to the left to decrease sharpness. Contrast: Move the slider to the right to increase contrast in the image. Move the slider to the left to decrease contrast. Gamma: Move the slider to the right to increase gamma in the image. Move the slider to the left to decrease gamma.
Balance	Yellow Balance: Move the slider to the right to increase the amount of yellow in the image. Move the slider to the left to decrease the amount of yellow. Magenta Balance: Move the slider to the right to increase the amount of magenta in the image. Move the slider to the left to decrease the amount of magenta. Cyan Balance: Move the slider to the right to increase the amount of yellow in the cyan. Move the slider to the left to decrease the amount of cyan.

3.4 Image Calibrate Tab

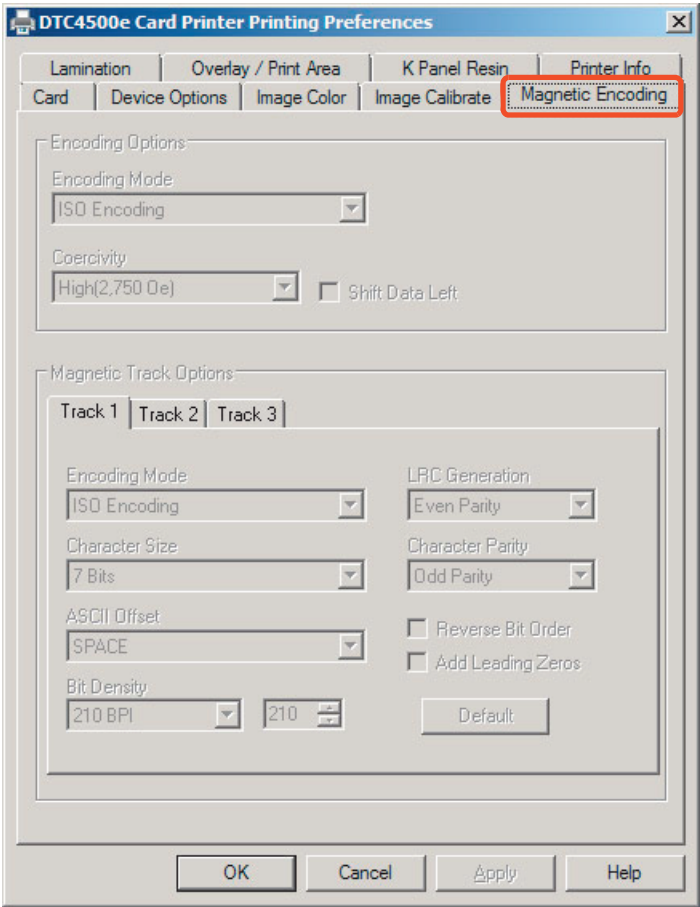
Use the **Image Calibrate** tab to control the position of the printable area in relation to the card.



Group or Field	Description
Image Position	Use the Image Position controls to position the image on a card. Adjust the image position values by clicking on the Vertical and Horizontal adjustment arrows. The image position will flip and rotate according to the selection of portrait, landscape, or rotate 180 degrees on previous screens

3.5 Magnetic Encoding Tab

Select the **Magnetic Encoding** tab to configure the Magnetic Stripe encoding process. These options are only available if the printer has an optional Magnetic Stripe Encoding Module installed.



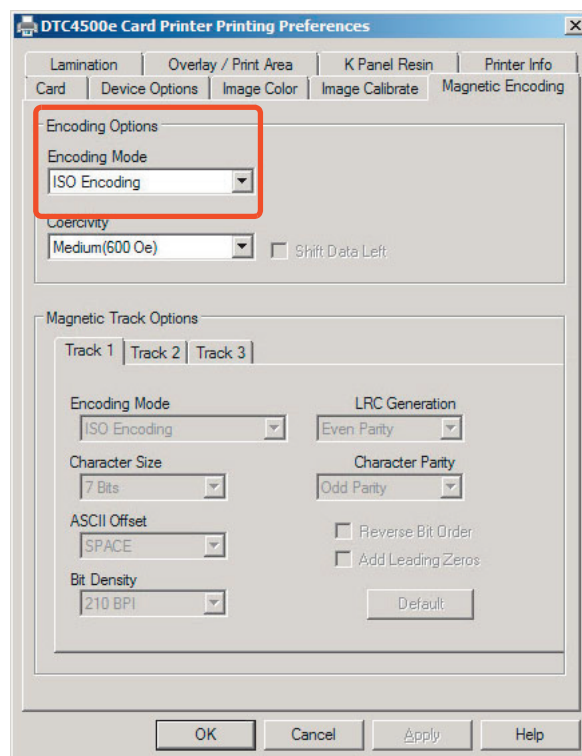
Field	Description
Encoding Options	Encoding Mode: Change the encoding mode and coercivity setting or modify the ISO standards for tracks 1, 2 and 3. Options are: • ISO Encoding (see <i>Section 3.5.1: ISO Encoding Option</i>) • Custom Encoding (see <i>Section 3.5.2: Custom Encoding Option</i>) • Raw Binary Encoding (see <i>Section 3.5.3: Raw Binary Encoding Option</i>) • JIS II Encoding (see <i>Section 3.5.4: JIS II Encoding Option</i>) Coercivity: Select the coercivity option (Oersted [Oe]) for the magnetic stripe type that matches the card type. • High Coercivity = 4000 Oersted • FARGO's High Coercivity UltraCard IIIs are 2750 Oersted • Medium Coercivity = 600 Oersted • Low Coercivity = 300 Oersted Shift Data Left: Select this option to shift the recorded magnetic data to the left-hand side of the card's magnetic stripe. This is useful in situations that require cards to be readable with insert type readers

Field	Description
Magnetic Track Options	Encoding Mode: Displays the Encoding Mode selected above. Character Size: Customize the character data size used to encode the magnetic data on the currently selected track. Note: Character size includes the parity bit (if enabled). Selections vary for the selected encoding mode. Options are 4, 5, 7, or 8 Bits • Custom Encoding: 5, or 7 Bits • Raw Binary Encoding: 4 or 8 Bits ASCII Offset: Customize the character ASCII offset used to encode the magnetic data on the currently selected track. Note: This character-offset value is subtracted from the ASCII value of each magnetic stripe data character prior to encoding on the track. Options are: NULL, SPACE, ZERO Bit Density: Customize the bit recording density (Bits Per Inch) used to encode the magnetic data on the currently selected track. Options are: 75, 128, 210, or Custom BPI. LRC Generation: Customize the LRC generation mode used to encode the magnetic data on the currently selected track. Options are: No LRC, Even Parity, or Odd Parity Character Parity: Customize the encoding mode used to encode the magnetic data on the currently selected track. Options are: No Parity, Even Parity, Odd Parity Reverse Bit Order: This option is used to reverse the character bits for the encryption of data in specific programs. Add Leading Zeros: This option is used to add a set number of leading zeros to the magnetic string in order to move the starting point of the encoded data in specific programs for encryption of data. Default: Clicking this resets defaults for only the current track.

3.5.1 ISO Encoding Option

With **ISO Encoding**, a formatted set of characters are sent down.

This selection activates the **Track** tabs. However, all functions on the **Track** tabs are inactive or gray and display ISO defaults, which are the defaults listed for each track below. The **Shift Data Left** option remains inactive.

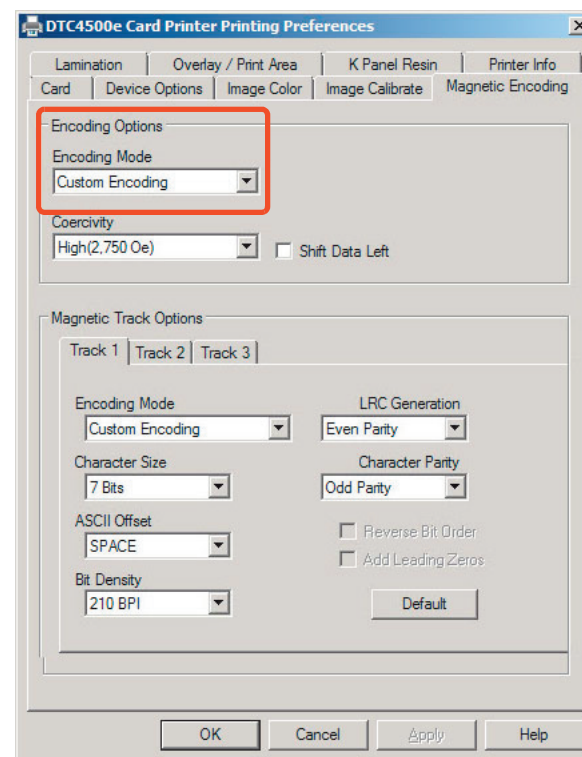


3.5.2 Custom Encoding Option

With **Custom Encoding**, all options are active.

The default is **ISO Encoding**. Note: The defaults are the same as the **ISO Encoding** defaults.

All functions on the **Magnetic Track Options** tabs are active.

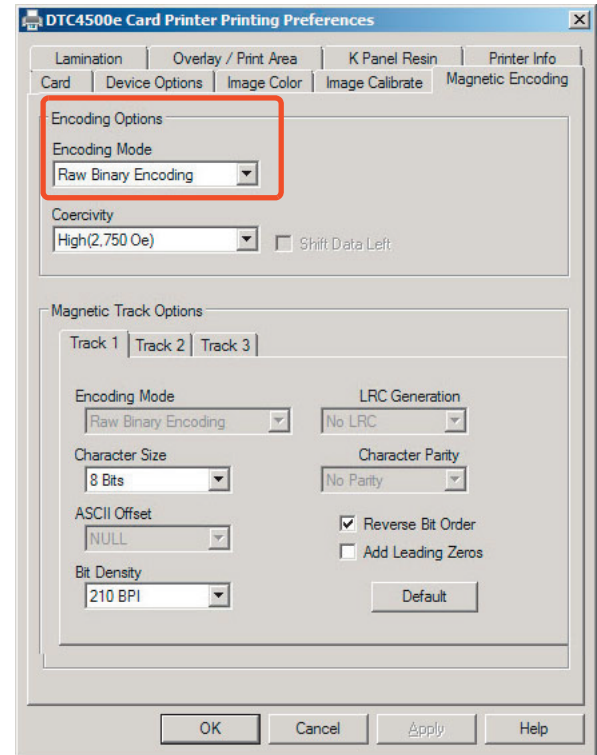


3.5.3 Raw Binary Encoding Option

With **Raw Binary Encoding**, a raw binary string rather than a formatted set of characters is sent down.

The **Coercivity** drop-down function is active and the **Shift Data Left** option is not active.

All functions on the Magnetic Track Options tabs are inactive except for **Bit Density**.

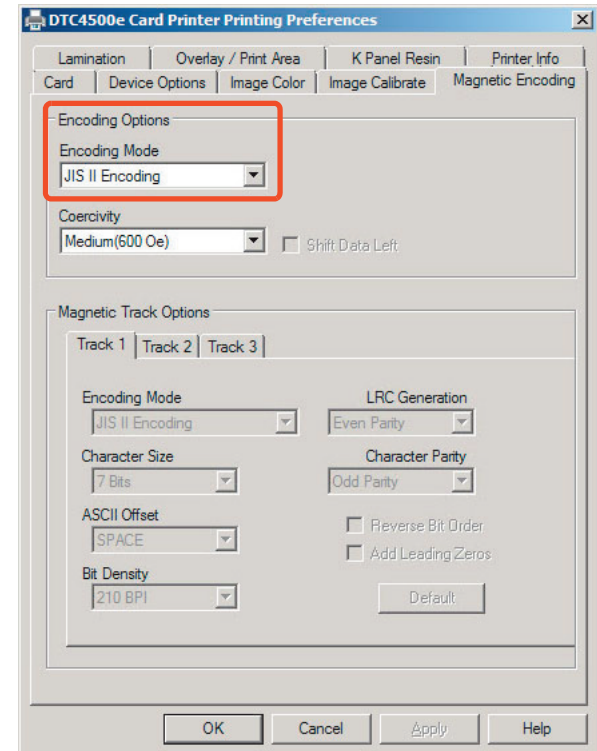


3.5.4 JIS II Encoding Option

With **JIS II Encoding**, specific standards are used.

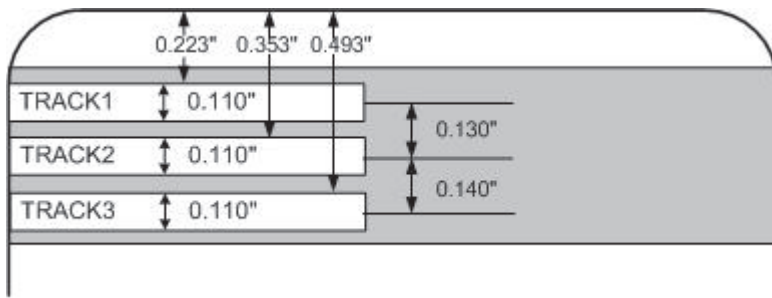
This selection disables all the **Magnetic Track Options** tabs, the **Coercivity** and **Shift Data Left** options.

The default Coercivity is 600 Oe.



3.5.5 ISO Track Locations

The magnetic Encoding Module encodes onto tracks in accordance with an ISO 7811-2 Magnetic Stripe.



3.5.5.1 Sending the Track Information

Magnetic track data is sent in the form of text strings from the application software to the printer driver.

In order for the printer driver to differentiate between magnetic track data and the rest of the printable objects, specific characters must be added to encode the magnetic data. These specify the data that is to be encoded, the tracks to encode, and mark the start and stop of the data string.

In some cases, these specific characters are automatically added to the string of track data by ID software applications.

In most cases, the user must carefully add these characters to the string of data. If these characters are not added to the track data, the text intended for the magnetic track will appear as printed text on the card.

To avoid this, track information must be entered as described below.

When entering track data, the ~ (tilde) character is entered first, followed by the track number (1, 2 or 3) on which the data should encode. This is followed by the data to be encoded

The first character of this data string must be the track's specific Start Sentinel (SS) and the last character must be the specific End Sentinel (ES).

The characters or data in between the SS and ES can include all of the valid characters specific to each track.

- The number of these characters, however, is limited by each track's maximum character capacity.
- When segmenting track data, the appropriate Field Separator (FS) must be used.
The **ASCII Code and Character Table** shows the SS, ES, FS and the valid characters defined for each track

Reviewing the Sample String

Track 1: ~1%JULIEANDERSON^1234567890?

Track 2: ~2;1234567890987654321?

Track 3: ~3;1234567890987654321?

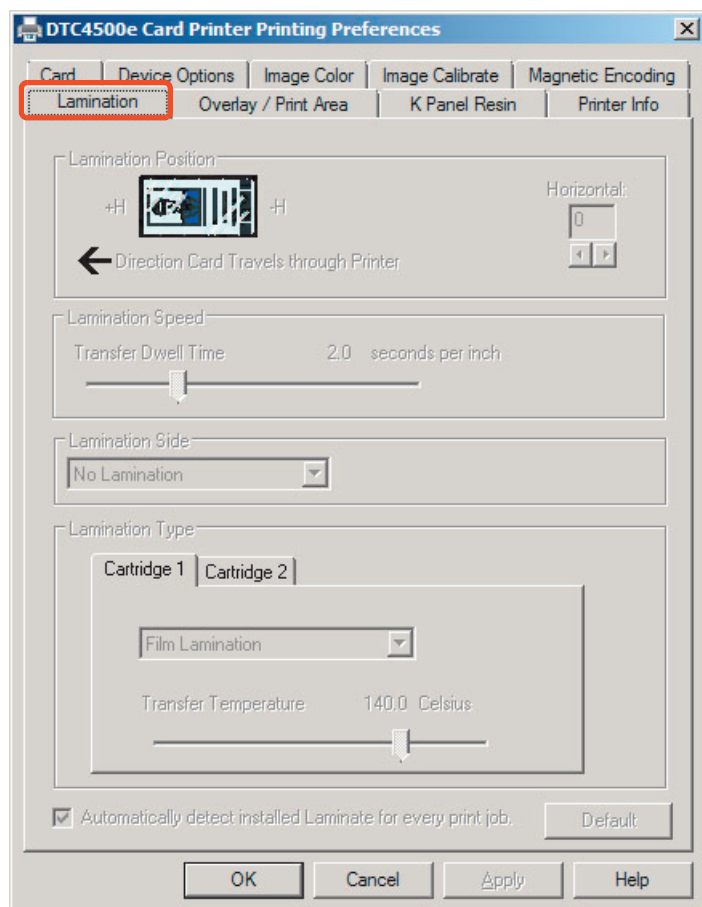
Track	Start Sentinel	End Sentinel	Field Separator	Valid Characters	Maximum Number of Characters
Track 1	%	?	^	ASCII 32-95 (See the table)	78
Track 2	;	?	=	ASCII 48-63 (See the table)	39
Track 3	;	?	=	ASCII 48-63 (See the table)	106

ASCII Code and Character Table

ASCII Code	Character	ASCII Code	Character	ASCII Code	Character
32	space	54	6	76	L
33	!	55	7	77	M
34		56	8	78	N
35	#	57	9	79	O
36	\$	58	:	80	P
37	%	59	;	81	Q
38	and	60	<	82	R
39	'	61	=	83	S
40	(	62	>	84	T
41	)	63	?	85	U
42	*	64	@	86	V
43	+	65	A	87	W
44	,	66	B	88	X
45	-	67	C	89	Y
46	.	68	D	90	Z
47	/	69	E	91	[
48	0	70	F	92	\
49	1	71	G	93	]
50	2	72	H	94	^
51	3	73	I	95	_
52	4	74	J		
53	5	75	K		

3.6 Lamination Tab

These options allow control of the printer's lamination process. When no laminator is detected, the lamination tab is active but all functions are disabled.



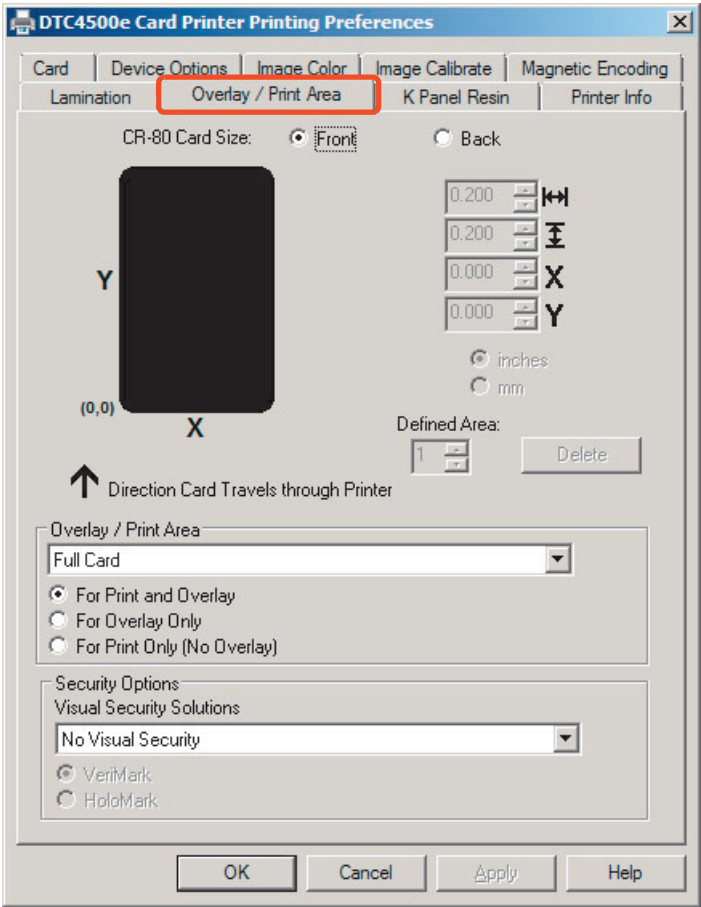
Field	Description
Lamination Position	Use this control to adjust the horizontal position of the laminate. Only the horizontal position needs adjustment. Default is 0. To adjust the position, click on the horizontal adjustment arrows. The adjustment arrows point in the direction the patch will move on the card. The maximum horizontal value is 100 Pixels (10 Pixels = 0.03 [0.8mm]).
Lamination Speed	Transfer Dwell Time: Adjust this control for the throughput speed of a card in seconds per inch, default is 2.0 seconds per inch. - Maximum Limit - 4.9 seconds per inch - Minimum Limit - 0.8 seconds per inch
Lamination Side	Specify the side(s) of the card to laminate: - No Lamination - Front - Back - Both

Field	Description
Lamination Type	Laminate type can be specified for one or two cartridges, depending on cartridge availability. The type of laminate affects the temperature required for lamination. Transfer Temperature: Adjust the temperature by moving the slider.
Automatically Detect Installed Laminate for Every Print Job	Use the option to auto-detect the installed lamination. Default: To automatically set the lamination dwell time and transfer temperature.

3.7 Overlay/Print Area Tab

Use the **Overlay / Print Area** tab to control and customize where the Overlay (O) panel and/or the print area appear on the card. By default, this option is set to print and overlay the entire card.

The orientation of the card display area is determined by the orientation specified in your template. For additional information, see [Appendix A](#).

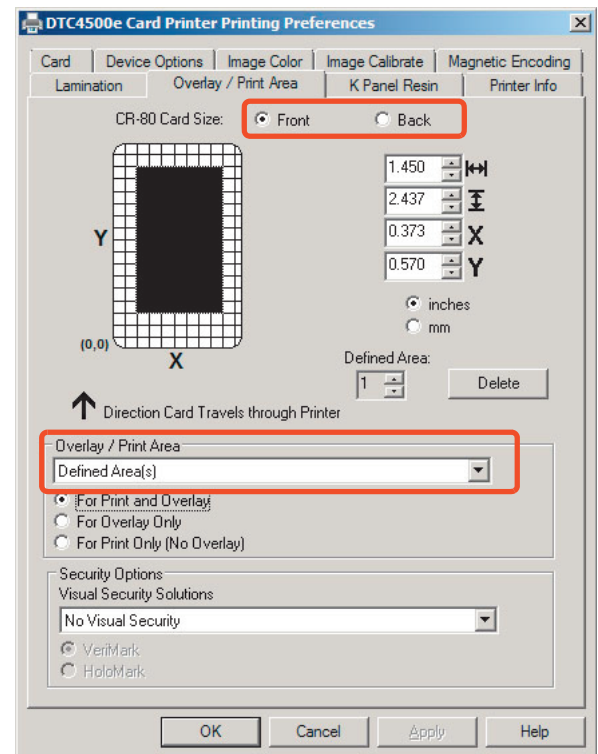


Field	Description
Front/Back	Specify the side of the card to apply the area definition.
Overlay/Print Area	Define the Overlay or Print Area. Full Card: Select this option to overlay and/or print the entire card. Defined Area(s): Select this option to overlay and/or print only in the selected and defined area(s). Undefined Area(s): Select this option to overlay and/or print in the space outside the selected and defined area. Omit Smart Chip Area: Select this option to overlay and/or print only in the space outside the standard location of a smart chip. Omit Mag Strip Area: Select this option to overlay and/or print only in the space outside the standard location of an ISO-standard magnetic stripe. Omit Signature Area: Select this option to overlay and/or print only in the space outside the standard location of a signature panel.

Field	Description
Overlay/Print Area (continued)	For Print and Overlay: This option applies the defined area to both the print and overlay processes. For Overlay Only: The defined area applies only to the overlay process. The entire card prints and only the overlay is affected. For Print Only (No Overlay): The defined area applies only to the print process. Overlay is disabled.
Security Options	Visual Security Solutions: Enables a visual security option. The options are only available for the Front side of a card. The default value for all cards is No Visual Security. This field presents options based on the orientation of the card in the template. Landscape designs offer: - A - Upper Left - B - Upper Right - C - Lower Left - D - Lower Right Portrait designs offer: - E - Upper Left - F - Upper Right - G - Lower Left - H - Lower Right Verimark: This option is reserved for future use. HoloMark: Use this option for hologram security. Note: When an option is selected, the Overlay/Print Area is disabled and the Security Options become selectable.

3.7.1 Define a Print Area

1. Select **Front** or **Back**.
2. Select an **Overlay/Print Area** from the drop-down list.
When an option is selected, a default blacked area appears on the card design area grid.
3. Click and drag to enlarge or move the area to the preferred location on the card. The size and coordinates of the area update with the changes.
Note: To delete the area, click **Delete**.
4. When complete, click **OK**.

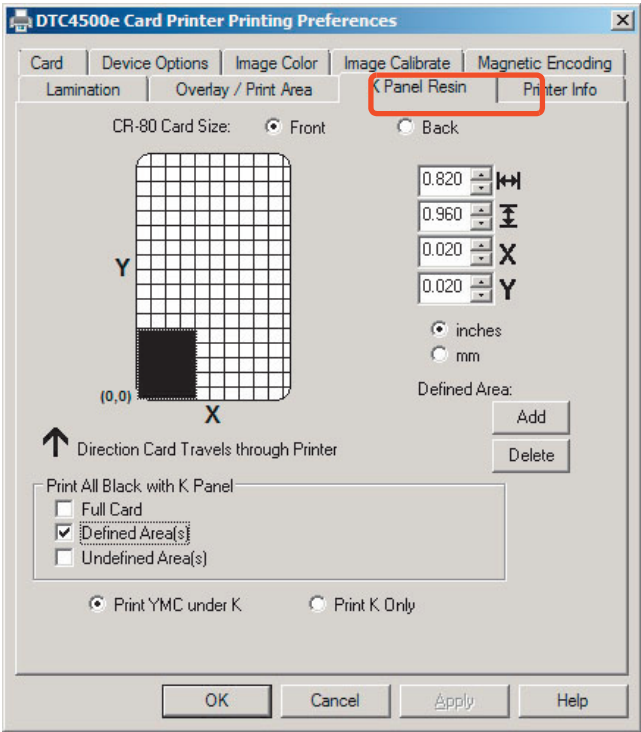


3.8 K-Panel Resin Tab

Use the **K-Panel Resin** tab to control where the resin black (K) panel of a full-color ribbon is printed. If printing with a ribbon type that does not have a K-Panel, all **K-Panel Resin** options will be disabled.

Resin black text is desirable due to its sharp, saturated color (good for barcodes). By default, the printer driver will print all True-type black text and True-type barcodes with the resin black (K) panel of the print ribbon.

If printing black text or barcodes that are not True-type, select a **Print All Black with K Panel** option. The printer driver will print areas of the image where it finds black coloring with the print ribbon resin black (k) panel as specified by selected options.



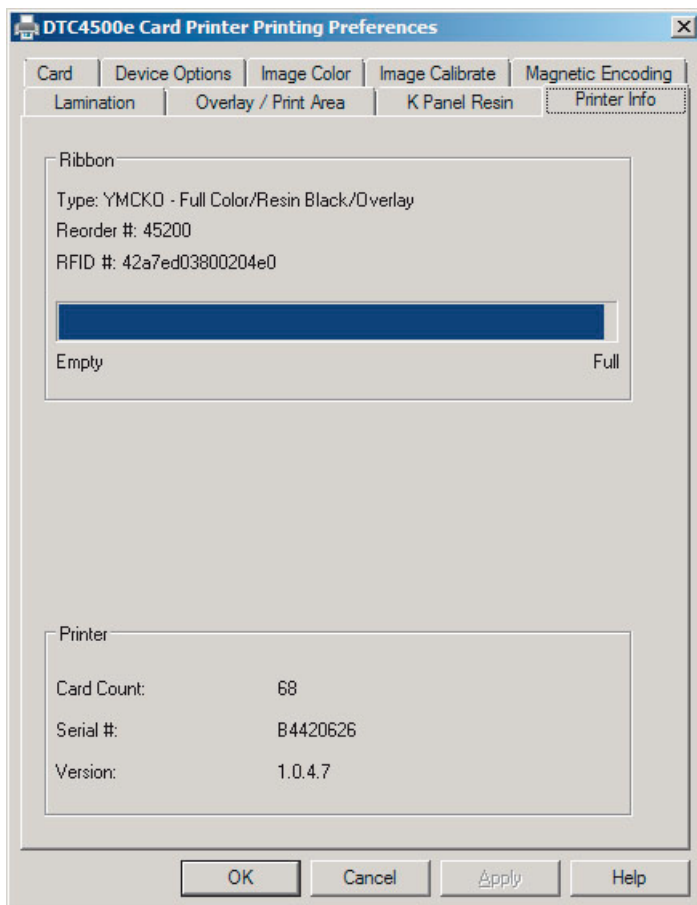
Click and drag the corners and the sides of an area to change size and location of area. The horizontal, vertical, and X, Y coordinates update accordingly.

Up to five areas can be added for the K-Panel.

Field	Description
Front/Back	Specify the side of the card to apply the area definition.
Print All Black with K Panel	Define the Overlay or Print Area. Full Card: Select this option to print the resin black (K) panel for all black found within all areas of the image. Defined Area(s): To print the resin black (K) panel in the selected and defined area(s). Undefined Area(s): To print the resin black (K) panel in the space outside the selected and defined area.
Print YMC under K	Print all black in the designated defined/undefined areas, with the Yellow (Y), Magenta (M) and Cyan (C) ribbon panels directly beneath the resin black (K) Panel. Select this option if printing resin black text or barcodes onto a colored background to provide a more gradual transition between the two.
Print K Only	Print all black in the designated defined/undefined areas only with resin black, or to print resin black onto a white background to maximize the sharpness of printed text and barcodes.

3.9 Printer Info Tab

The Printer Info tab displays information about the printer Ribbon, Film, Laminate (Cartridge 1), and Laminate (Cartridge 2).

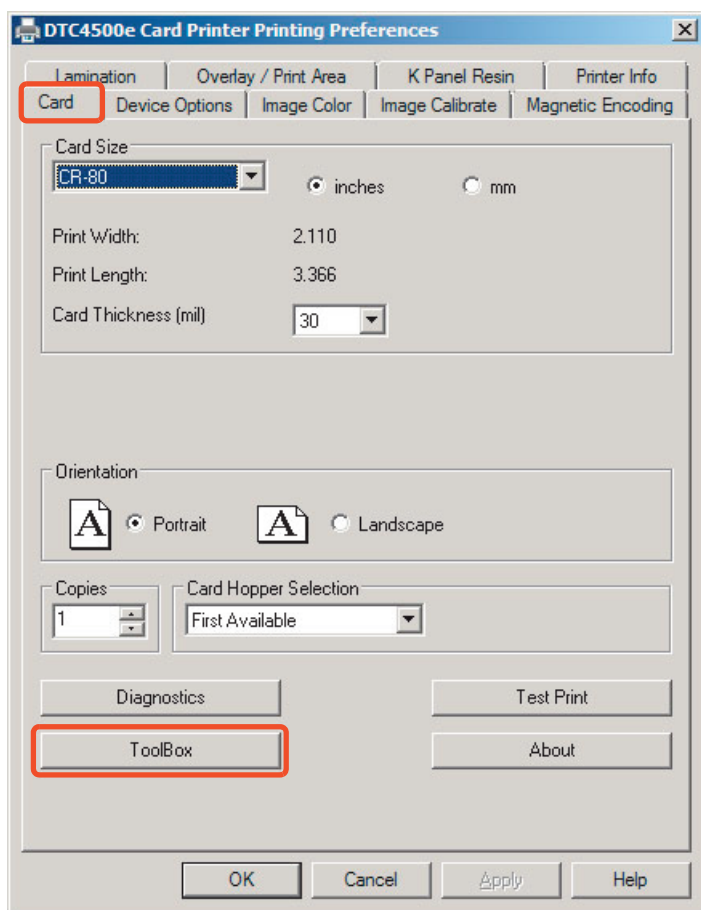


Group or Field	Description
Ribbon	Indicates Ribbon Type, Reorder Number and remaining level.
Printer	Indicates the Printer • Card Count • Serial Number • Version Number

Chapter 4

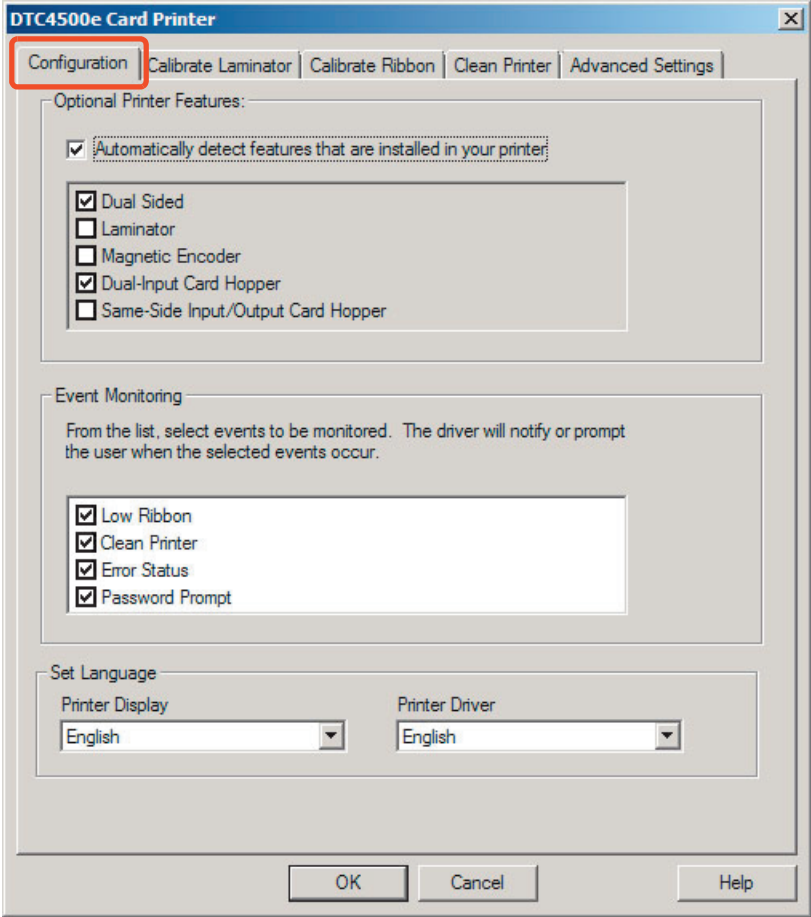
ToolBox

The ToolBox is located on the DTC5500LMX Card Printer Printing Preferences, **Card** tab. See *Section 3.1: Card Tab* for more information.



4.1 Configuration Tab

When ToolBox is selected on the **Card** tab this is the default screen that opens. See *Section 3.1: Card Tab* for more information.



Field	Description
Optional Printer Features	Automatically Detect Features that are Installed in your Printer: If selected the driver retrieves the installed printer features information from the firmware and automatically checks the appropriate options. The features are read-only and cannot be updated. If selected and no printer or modules are found, an error message is displayed. If this option is not selection, the user will select the options included in the printer.
Event Monitoring	This option enables the monitoring of events, and will notify the user when attention is required.
Set Language	Allows the user to set the printer display language from the pull-down list.
OK	Closes the window and saves the configuration changes made.
Cancel	Closes the window and cancels any configuration changes made.
Help	Opens the Help for this window.

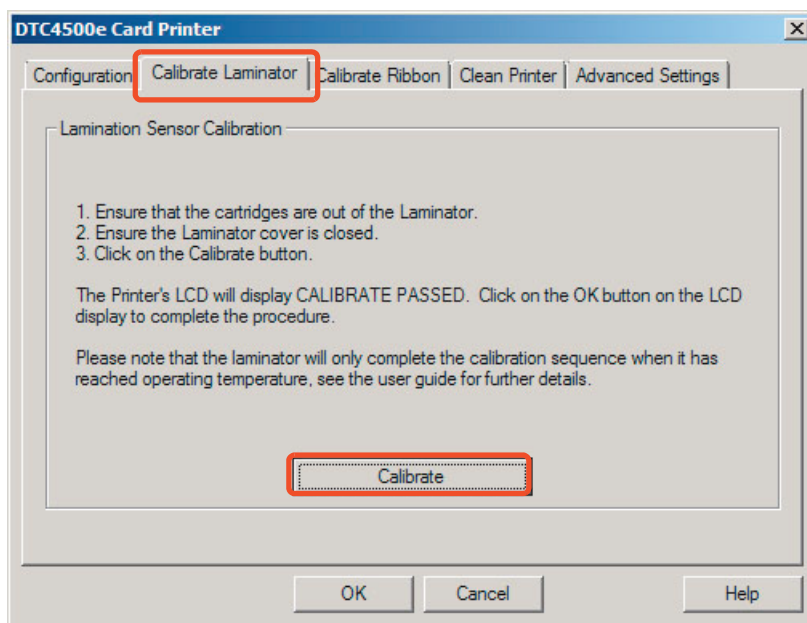
4.2 Calibrate Laminator Tab

The **Calibrate Laminator** tab is active when the laminator is automatically detected or when the laminator is manually checked as a feature on the **Configuration** tab.

Note: The lamination module must be warm before calibrating. Calibration may also be performed from the printer LCD. See *Section 3.10.2: Sensor Calibration Options*.

To Calibrate the Laminator:

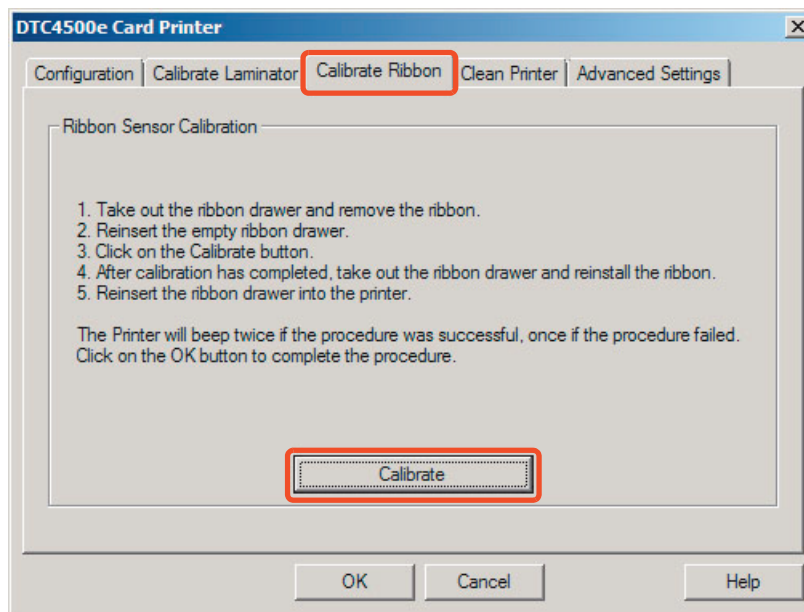
1. Ensure that the cartridges are out of the Laminator.
2. Ensure the Laminator cover is closed.
3. Click **Calibrate**.



4.3 Calibrate Ribbon Tab

To Calibrate the Ribbon:

1. Take out the ribbon drawer and remove the ribbon.
2. Reinsert the empty ribbon drawer.
3. Click Calibrate.
4. After calibration has completed, take out the ribbon drawer and reinstall the ribbon. Reinsert the ribbon drawer into the printer.
5. The printer will beep twice if the procedure was successful, once if the procedure failed.
6. Click the **OK** button to complete the procedure.

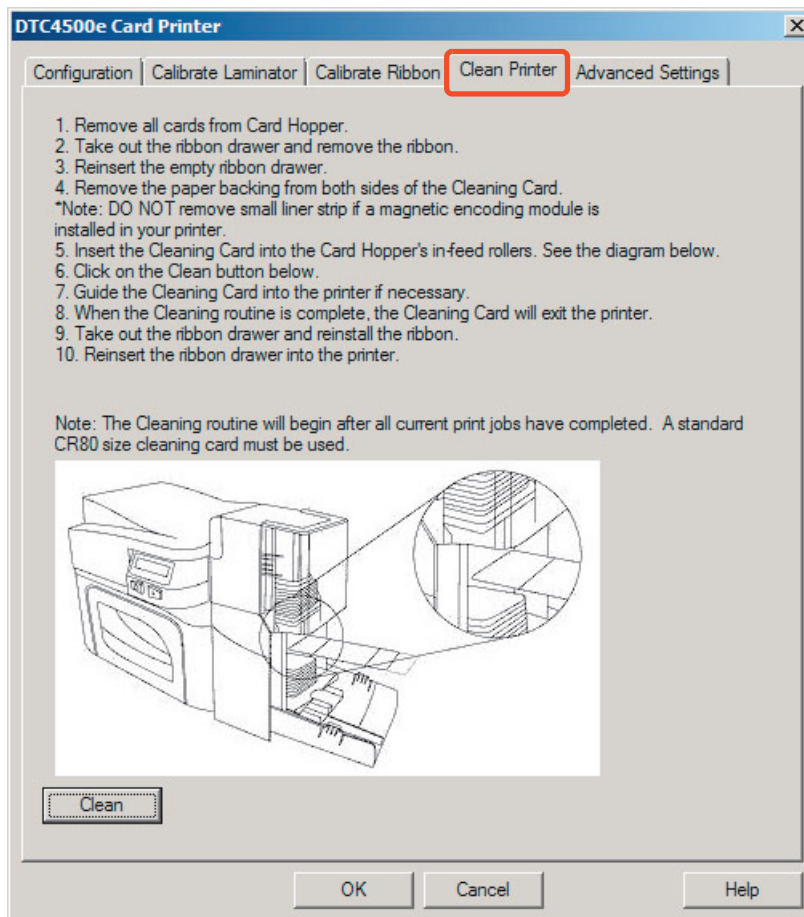


Note: Calibration may also be performed from the printer LCD. See *Section 3.10.2: Sensor Calibration Options*.

4.4 Clean Printer Tab

To Clean the Printer:

1. Remove all cards from the Card Hopper.
2. Take out the ribbon drawer and remove the ribbon.
3. Reinsert the empty ribbon drawer.
4. Remove the paper backing from both sides of the Cleaning Card. **Note:** DO NOT remove small liner strip if a magnetic encoding module is installed in your printer.
5. Insert the Cleaning Card into the Card Hopper's in-feed rollers. See the diagram below.
6. Click the **Clean** button.
7. Guide the Cleaning Card into the printer if necessary.
8. When the Cleaning routine is complete, the Cleaning Card will exit the printer.
9. Take out the ribbon drawer and reinstall the ribbon.
10. Reinsert the ribbon drawer into the printer.



Note: The cleaning routine will begin after all current print jobs have completed.

Cleaning can also be completed through the printer LCD screen. See *Section 3.10: Tools Menu*.

4.5 Advanced Settings Tab

Use the **Advanced Settings** tab for adjusting the internal printer settings. These settings have been customized for every printer at the factory.

Note: Any changes affect settings for the firmware.

To modify a Setting, click on the numeric value in the cell, click the up/down arrow to modify the value, or select the value and type a new value.

Setting	Default	Current
Head Resistance	3045	3045
Print Left of Form	7	7
Image Darkness	-9	-9
Print Top of Form	19	19
Print End of Form	19	19
Mag Top of Form	25	25
Ribbon Print Tension	3	3
Ribbon Calibrate Green	204	204
Resin Heat Adjust	10	10
Sleep Time	5	5

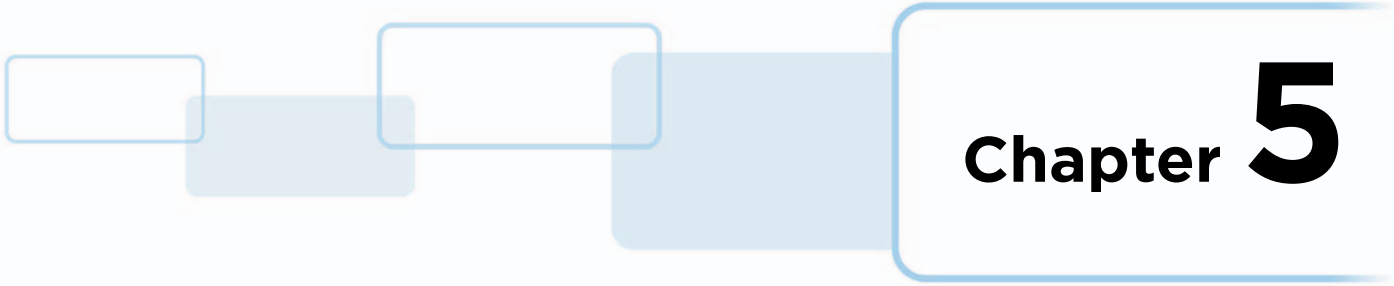
☐ Enable Mag Verify

Field	Description
Setting	This column displays the name of the Setting.
Default	This column displays default value for the Setting.
Current	This column displays current value for the Setting.
Apply	Applies the changed values.
Restore Defaults	Restores the default values.
Enable Mag Verify	Select this option to verify that the data is written to the tracks correctly.

4.5.1 Settings Information

Setting	Description
Head Resistance	This is factory set. If the main board or the printhead is replaced then adjust this number. Locate the printhead setting number on the bottom of the printhead. The number reads R=XXXX.
Print Left of Form	Use this option to adjust the vertical position of the printed image on the card; so it appears centered. Maximum Adjustment Range is +/- 127. Each increment equals .01".
Image Darkness	Use this option to set the overall darkness of the printed image by increasing or decreasing the amount of heat (used by the Printhead when printing). Note: If the value is set too high, the Ribbon may jam or even break.
Print Top of Form	Use this option to adjust the length-wise or horizontal position of the printed image on the card (so it appears to be centered). Note: If the negative value is set too high, the Print Ribbon may break.
Mag Top of Form	Use this option to shift the starting point where the Printer begins to encode the magnetic track data on the card's Magnetic Stripe. Note: If the negative value is set too high, the Printer may start encoding before the Magnetic Stripe reaches the encoding head. Maximum adjustment range is +/- 80. Each increment equals .01".
Ribbon Print Tension	Use the Ribbon Tension option to increase or decreases the amount of tension (drag) on the Ribbon during printing.
Ribbon Calibrate Green	This is a calibration driven value and should not be adjusted. Note: This is factory set and should not be changed unless directed by a technician.
Resin Heat Adjust	Use this adjustment for Black premium resin text and barcodes if they appear faded, too light or too dark. Maximum Adjustment Range is +/- 100. Note: This control can be helpful for fine-tuning the transfer of resin text and bar codes.
Sleep Time	The Sleep Time setting adjusts the number of minutes of inactivity before the Printer enters a low power sleep state.
OLED Contrast (Display Contrast)	Use this option to increase or decrease the contrast of the printer OLED (if applicable).
Ribbon Calibrate Blue	This setting is a calibration driven value and should not be adjusted. Note: This is factory set and should not be changed unless directed by a technician.
Cleaning Rate	Use this option to adjust the number of cards printed before the Printer displays a message indicating cleaning is needed. The default value is 3000 cards.
Mag HI-Co Voltage Offset	This setting is a calibration driven value and should not be adjusted. Note: This is factory set and should not be changed unless directed by a technician.

Setting	Description
Mag Lo-Co Voltage Offset	This setting is a calibration driven value and should not be adjusted. Note: This is factory set and should not be changed unless directed by a technician.
Ribbon Green LED Level	This setting is a calibration driven value and should not be adjusted. Note: This is factory set and should not be changed unless directed by a technician.
Ribbon Blue LED Level	This setting is a calibration driven value and should not be adjusted. Note: This is factory set and should not be changed unless directed by a technician.



Chapter 5

Troubleshooting

5.1 System Overview

Knowing the sequence of the printer operation helps when troubleshooting the printer. Troubleshooting utilizes the printer error buttons, error messages and printer-specific tools.

5.1.1 Sequence of Operations

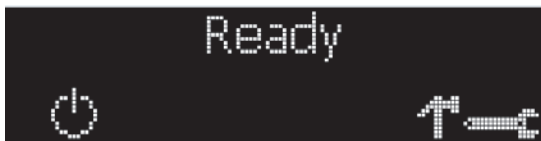
1. File information is received from the PC.
2. Printer compares the installed ribbon type stored in memory with the ribbon type command that was sent from the printer. If the ribbon type does not match, the **Pause** button (on the right) flashes.
3. The print stepper motor engages.
4. The card feed sensor detects the leading edge of the card and the headlift stepper engages to disengage the input lever.
5. The card feeds through for the alignment pass.
6. The card feed stepper motor engages to queue card for magnetic encoding (if applicable).
7. The encoded data is written to the card (if applicable).
8. The magnetic encoder verifies while the stepper reverses the card (if applicable). The print ribbon drive engages (if not already at the yellow panel).
9. The print ribbon sensor looks for the yellow panel.
Note: The print ribbon encoder detects the number of revolutions required to use an entire color panel.
10. The print stepper motor engages.
11. The card feed sensor detects the leading edge of card.
12. The print stepper motor queues card to the middle of the platen roller. All stop.
13. The print headlift motor engages to the print position.
14. The print cover sensor checks for closed state.
15. The print stepper motor engages.
16. The ribbon drive motor engages.
17. The image data is burned by the printhead until the image data is depleted. All Stop.
18. The thermistor engages the printhead cooling fan to maintain proper operating temperature.
19. The headlift motor engages to the queue position.
20. The print stepper motor engages.
21. The print ribbon drive engages.

22. After ribbon advances a few encoder clicks, assume the ribbon is free of card. All stop.
23. Repeat Steps 9 through 22 for the appropriate number of color/overlay Panels.
24. Either the card is ejected from the singled-sided printer or the card feed stepper engages to queue the card for the flipper table for the dual-sided printer.
25. All stop.

5.2 Printer Error Buttons

The DTC5500LMX uses both button messages and message display.

The display message system appears as a graphical message, for example:



5.2.1 Printer Error Button and On-screen Messages

26. The **Pause** () button illuminates blue when the printer is capable of accepting a print job and is not in an error state.
This button LED will continue to stay on while the printer prints as long as there is no error.
This button LED will also be dimmed when the printer goes into Sleep mode. When an error occurs, the **Pause** () button no longer illuminates blue but blinks red.
27. Press the **Pause** () button when printer is in an error state to cause the printer to retry.
Note: The button illuminates as blue and retries the failed action.
When downloading an upgrade file, both buttons are blue and blink.
28. If a language (other than English) is currently selected, you can press and hold the **Pause** () button during the power-up sequence to change the language back to English.
29. If no printer display is available, press or hold the buttons to access some internal tests.
To print a card with the Printer Settings, press the **Pause** () button and hold for 4+ seconds when the printer is ready and idle.
To print the Alignment or the Self Test, press and hold the **Pause** () button during the power-up sequence.

5.2.2 Error Messages

When an error occurs in the printer, the PC shows the error message on screen with solutions.

The display blinks in the location requiring attention. Locations can include the printer, input hopper, magnetic encoder, flipper, card path, ribbon, and data/communication device error.

Each table uses a 3-column presentation to display a specific or printer error message, its cause and its solution.

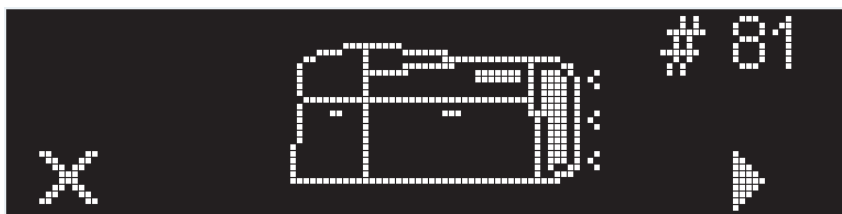
This format allows the troubleshooter to identify the error and its cause, and then perform the procedure provided in the solution column.

This standard mode of identifying the problem and its solution should provide an efficient method of troubleshooting this printer

If you encounter problems beyond the capabilities of this error message table, you should contact Technical Support.

Example of an Error Message:

Error Message	Cause	Solution
# 81 Unable to Feed	The printer is unable to feed a card from the input card hopper.	Check the following, then press the Pause button to continue. Verify the card thickness setting is set to the thickness of your cards. Verify the Cleaning roller is properly installed on the Ribbon Cartridge. Check for card slippage. If necessary, run the Printer cleaning routine. Verify that your cards are within the accepted card size range. Verify the cards are not sticking together.



5.2.3 Troubleshooting with the Error Message Table

Error Message	Cause	Solution
# 2 Head Move Error	The printhead lift has malfunctioned.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 8 Head Sensor Error	The printhead temperature sensor is not functioning or is not connected properly. Or, the printhead is not cooling properly.	Reset the printer and try again. If the problem persists, call for technical assistance.
# 9 Reboot Required	An unspecified system error has been detected by the printer firmware.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 25 Ribbon not Installed	No ribbon is installed in the printer.	Install a ribbon and retry.
# 30 Mag Verify Error	Magnetic encoding verification has failed.	Try encoding with a different card. Verify cards have the magnetic stripe. Replace the magnetic encoding module.
# 31 No Mag Module	The printer is not configured with the encoder data type that you are trying to send.	Ensure that no encoding data is being sent with the print job and reprint the card. Install a magnetic encoding module.
# 38 # 39 # 40 EEPROM Corrupt EEPROM Read Error	EEPROM is restored with factory default values.	If changes were made in the Advanced Settings tab in the printer driver, click the Default button to reset these numbers. Reset the printer and try again. If this problem persists, call for technical assistance.
# 44 Flipper Jam/ Home Error	A card has become jammed in the printer's flipper table. The flipper failed to position properly while aligning a card or flipping a card.	Clear any cards in the flipper table using the buttons to move the card out. Resume printing. The flipper table should be level when the printer is powered up. If the flipper Table is at an angle, open the card output door and manually level it. Then cycle the printer power to reset. Reset the printer and retry. If problem persists call for technical assistance.
# 45 No Flip Module installed	Request to print on 2 nd side of card, but no flipper is installed.	If a Flipper Module is present, ensure that the Print Both Sides option in the printer driver is set correctly. Install a flipper module.
# 60 Laminator Calibration Fail	LED calibration error occurred.	Try again.

Error Message	Cause	Solution
# 64 # 65 # 66 Reboot Required	Unspecified system error detected by the printer firmware.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 67 General	Utility command does not exist.	Verify the command and reenter.
# 68 Card in Printer	A card is jammed in the print station or card flipping area of the Printer.	Clear the jam and press the Pause button.
# 70 Multiple Feed	Multiple cards were fed into the printer.	Verify the card thickness is set to the thickness of your cards, then press the Pause button. Check for card slippage. If necessary, run the printer cleaning routine Verify the cleaning roller is properly installed on the ribbon cartridge. Verify the cards are not sticking together.
# 81 Unable to Feed	The printer is unable to feed a card from the input card hopper.	Check the following, then press the Pause button to continue. Verify the card thickness setting is set to the thickness of your cards. Verify the Cleaning roller is properly installed on the Ribbon Cartridge. Check for card slippage. If necessary, run the Printer cleaning routine. Verify that your cards are within the perimeters accepted card size range. Verify the cards are not sticking together.
# 82 Mag Jam	A card is jammed magnetic station	Clear any cards in the magnetic station using the buttons to move the card out. Press the Pause button to continue.
# 91 Ribbon Out	The print ribbon has run out.	Install a new ribbon. Press the Pause button to continue or the ON/OFF button to cancel.
# 93 Wrong Ribbon	The print ribbon installed in the printer does not match the ribbon type selected in the printer driver.	Change either the installed print ribbon or the ribbon type selected in the printer driver. Press the Pause button to continue or the ON/OFF button to cancel.
# 97 Ribbon Search Error	The ribbon is not able to find the next panel correctly. Check for jams/breaks.	Recalibrate the ribbon sensor. If broken, repair by taping the ribbon back on to the take- up core. Replace the ribbon. Press the Pause button to continue or the ON/OFF button to cancel.

Error Message	Cause	Solution
# 99 Ribbon Error	The print ribbon has either broken or jammed.	If jammed, clear the jam. If broken, repair by taping the ribbon back on to the take- up core. Press the Pause button to continue or the ON/OFF button to cancel.
# 100 Ribbon RFID Error	There is no ribbon or the ribbon tag information is corrupted or incorrect.	Verify the printer driver settings for correct Ribbon. Try a new ribbon and continue. Press the ON/OFF button to cancel.
# 102 # 103 # 104 #3 Headlift Error	This is a problem with the printhead Lift.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 106 Job Data Error	The print data sent to the printer is corrupt or has been interrupted.	Check the interface cable. Select the ON/OFF button to cancel this print job and then resend the job.
# 107 Printing Error	An error was detected during printing.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 109 # 113 Ribbon Release Error	The printer cannot locate the next ribbon panel in order to release the ribbon from the card.	Ensure that the ribbon is not stuck to the card. Replace the ribbon. Recalibrate the ribbon sensor. If the ribbon is broken, repair by taping the ribbon back onto the take- up core and manually advance to the next panel. Press the Pause button to continue.
# 110 Card Jam/Align error	A card is jammed in the print station or card flipping area of the printer.	Clear the jam. Press the Pause button to continue.
# 111 Head Loading	An unrecoverable error has occurred during printing.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 112 Card Jam/Align error	A card is jammed in the print station or card flipping area of the Printer.	Clear the jam. Press the Pause button to continue.
# 128 # 170 Calibrate Ribbon	The print ribbon sensor is out of calibration or has failed.	Calibrate the ribbon sensor. Check for material blocking sensor and try again.
# 129 General	Utility command input error has occurred.	Verify the command and reenter.

Error Message	Cause	Solution
# 131 Flipper Jam/Home Error	A card has become jammed in the printer's flipper table. The flipper failed to position properly while aligning a card or flipping a card.	Clear any cards in the flipper table, using the buttons to move the card out. Resume printing. Reset the printer and retry. If problem persists call for technical assistance.
# 136 Secure Guard Print Disabled	Printing is disabled by SecureGuard until a password is received.	Reset the printer and retry. If the problem persists, call for technical assistance.
# 139 Please Remove Ribbon	Ribbon needs to be removed.	Reset the printer and retry. If problem persists, call for technical assistance.
# 144 EEPROM Corrupt EEPROM Read Error	EEPROM restored with factory default values.	If changes were made in the Advanced Setting tab in the printer driver, click the Default button to reset these numbers. Reset the printer and try again. If this problem persists, call for technical assistance.
# 202 Encoder Not Installed	You are trying to send encoding data, but the Printer is not configured with this Encoder type. iCLASS, Prox, MIFARE, SmartCard	Ensure that no encoding data is being sent with the print job and reprint the card. Install an encoding module.
# 266 Calibration Failed	Laminator is too cold to calibrate.	Reboot the printer or perform a lamination sample.
# 286 General	Not used.	
# 303 Job Too Large for Multiple Copies	Job is too big.	Send a smaller job.
# 306 Laminator Clean Fail	Laminator clean cycle failed.	Try again.
Error Message	Cause	Solution
# 2 Head Move Error	The printhead lift has malfunctioned.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 8 Head Sensor Error	The printhead temperature sensor is not functioning or is not connected properly. Or, the printhead is not cooling properly.	Reset the printer and try again. If the problem persists, call for technical assistance.
# 9 Reboot Required	An unspecified system error has been detected by the printer firmware.	Reset the printer and try again. If this problem persists, call for technical assistance.

Error Message	Cause	Solution
# 25 Ribbon not Installed	No ribbon is installed in the printer.	Install a ribbon and retry.
# 30 Mag Verify Error	Magnetic encoding verification has failed.	Try encoding with a different card. Verify cards have the magnetic stripe. Replace the magnetic encoding module.
# 31 No Mag Module	The printer is not configured with the encoder data type that you are trying to send.	Ensure that no encoding data is being sent with the print job and reprint the card. Install a magnetic encoding module.
# 38 # 39 # 40 EEPROM Corrupt EEPROM Read Error	EEPROM is restored with factory default values.	If changes were made in the Advanced Settings tab in the printer driver, click the Default button to reset these numbers. Reset the printer and try again. If this problem persists, call for technical assistance.
# 44 Flipper Jam/ Home Error	A card has become jammed in the printer's flipper table. The flipper failed to position properly while aligning a card or flipping a card.	Clear any cards in the flipper table using the buttons to move the card out. Resume printing. The flipper table should be level when the printer is powered up. If the flipper Table is at an angle, open the card output door and manually level it. Then cycle the printer power to reset. Reset the printer and retry. If problem persists call for technical assistance.
# 45 No Flip Module installed	Request to print on 2 nd side of card, but no flipper is installed.	If a Flipper Module is present, ensure that the Print Both Sides option in the printer driver is set correctly. Install a flipper module.
# 64 # 65 # 66 Reboot Required	Unspecified system error detected by the printer firmware.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 68 Card in Printer	A card is jammed in the print station or card flipping area of the Printer.	Clear the jam and press the Pause button.
# 70 Multiple Feed	Multiple cards were fed into the printer.	Verify the card thickness is set to the thickness of your cards, then press the Pause button. Check for card slippage. If necessary, run the printer cleaning routine Verify the cleaning roller is properly installed on the ribbon cartridge. Verify the cards are not sticking together.

Error Message	Cause	Solution
# 81 Unable to Feed	The printer is unable to feed a card from the input card hopper.	Check the following, then press the Pause button to continue. Verify the card thickness setting is set to the thickness of your cards. Verify the Cleaning roller is properly installed on the Ribbon Cartridge. Check for card slippage. If necessary, run the Printer cleaning routine. Verify that your cards are within the perimeters accepted card size range. Verify the cards are not sticking together.
# 82 Mag Jam	A card is jammed magnetic station	Clear any cards in the magnetic station using the buttons to move the card out. Press the Pause button to continue.
# 91 Ribbon Out	The print ribbon has run out.	Install a new ribbon. Press the Pause button to continue or the ON/OFF button to cancel.
# 93 Wrong Ribbon	The print ribbon installed in the printer does not match the ribbon type selected in the printer driver.	Change either the installed print ribbon or the ribbon type selected in the printer driver. Press the Pause button to continue or the ON/OFF button to cancel.
# 97 Ribbon Search Error	The ribbon is not able to find the next panel correctly. Check for jams/breaks.	Recalibrate the ribbon sensor. If broken, repair by taping the ribbon back on to the take- up core. Replace the ribbon. Press the Pause button to continue or the ON/OFF button to cancel.
# 99 Ribbon Error	The print ribbon has either broken or jammed.	If jammed, clear the jam. If broken, repair by taping the ribbon back on to the take- up core. Press the Pause button to continue or the ON/OFF button to cancel.
# 100 Ribbon RFID Error	There is no ribbon or the ribbon tag information is corrupted or incorrect.	Verify the printer driver settings for correct Ribbon. Try a new ribbon and continue. Press the ON/OFF button to cancel.
# 102 # 103 # 104 #3 Headlift Error	This is a problem with the printhead Lift.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 106 Job Data Error	The print data sent to the printer is corrupt or has been interrupted.	Check the interface cable. Select the ON/OFF button to cancel this print job and then resend the job.

Error Message	Cause	Solution
# 107 Printing Error	An error was detected during printing.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 109 # 113 Ribbon Release Error	The printer cannot locate the next ribbon panel in order to release the ribbon from the card.	Ensure that the ribbon is not stuck to the card. Replace the ribbon. Recalibrate the ribbon sensor. If the ribbon is broken, repair by taping the ribbon back onto the take- up core and manually advance to the next panel. Press the Pause button to continue.
# 110 Card Jam/Align error	A card is jammed in the print station or card flipping area of the printer.	Clear the jam. Press the Pause button to continue.
# 111 Head Loading	An unrecoverable error has occurred during printing.	Reset the printer and try again. If this problem persists, call for technical assistance.
# 112 Card Jam/Align error	A card is jammed in the print station or card flipping area of the Printer.	Clear the jam. Press the Pause button to continue.
# 128 # 170 Calibrate Ribbon	The print ribbon sensor is out of calibration or has failed.	Calibrate the ribbon sensor. Check for material blocking sensor and try again.
# 131 Flipper Jam/Home Error	A card has become jammed in the printer's flipper table. The flipper failed to position properly while aligning a card or flipping a card.	Clear any cards in the flipper table, using the buttons to move the card out. Resume printing. Reset the printer and retry. If problem persists call for technical assistance.
# 136 Secure Guard Print Disabled	Printing is disabled by SecureGuard until a password is received.	Reset the printer and retry. If the problem persists, call for technical assistance.
# 139 Please Remove Ribbon	Ribbon needs to be removed.	Reset the printer and retry. If problem persists, call for technical assistance.
# 144 EEPROM Corrupt EEPROM Read Error	EEPROM restored with factory default values.	If changes were made in the Advanced Setting tab in the printer driver, click the Default button to reset these numbers. Reset the printer and try again. If this problem persists, call for technical assistance.
#202 Encoder not installed	You are trying to send encoding data, but the Printer is not configured with this Encoder type. iCLASS, Prox, MIFARE, SmartCard	Ensure that no encoding data is being sent with the print job and reprint the card. Install an encoding module.

5.2.4 Printer-Specific Tools



The status icons are as follows:



This icon indicates that the print ribbon supply is low and will require replacement soon. The entire ribbon cartridge must be replaced.



This icon indicates that the printer needs to be cleaned.



This icon is only displayed for printers with an attached dual-input card hopper and indicates that the top input hopper is currently selected.



This icon is only displayed for printers with an attached dual-input card hopper and indicates that the bottom input hopper is currently selected.

Press the  button to scroll through the details of the printer and perform the action.

Press the  button to select the option.

When  is selected, use the left down arrow  to scroll through the Info, Test Prints, and Languages and Exit.

Use the corner arrow  to run that option.

The curved arrow  will return to the first screen.

5.2.4.1 Additional Printer Specific Tools

Label	Description
INFO	Printer Type Firmware Version IP Address Flipper Lamination Magnetics E-Card Password Card count
TEST PRINTS	Color Photo: Select this choice to print a color card to test communication and integrity. Alignment: Select this choice to print a card used to align the print image on the card. Settings: Select this choice to print a card with the Advanced settings. Resin: Select this choice to print a RESIN test card. Rewritable: Select this choice to ERASE the Rewritable card. Magnetic: Select this choice to test Magnetic encoding (Hi-Co only) Lamination: Select this choice to laminate a test card.
Hopper Select	Select the hopper to input cards. Applies to dual-hopper printers.
ToolBox	Clean Printer: Select this choice to run the clean printer routine. Clean Laminator: Select this choice to run the clean laminator routine. Calibrate Mag: Select this choice to calibrate the Magnetic Sensor. Calibrate Rib Sensor: Select this choice to calibrate the ribbon sensor. Network: Select this to choice configure network options
Language	Select this choice to change the Printer Displayed Language.
Exit	Select this choice to exit the Printer Tool options.



Chapter 6

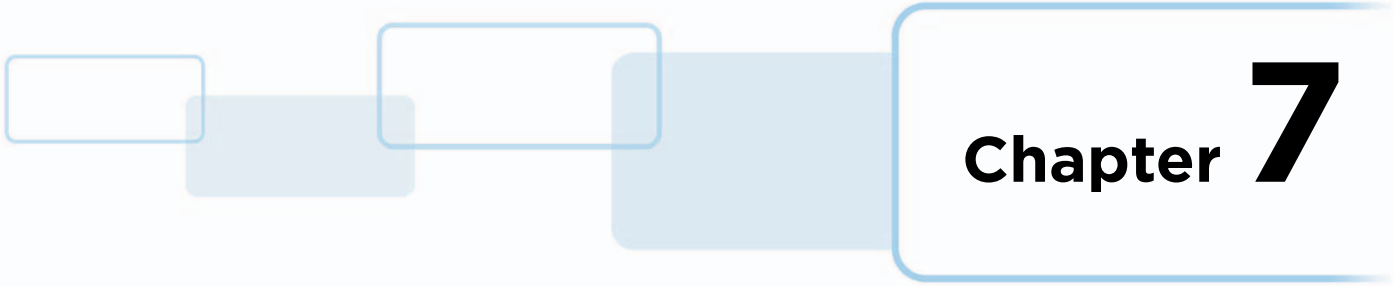
Firmware Upgrades

6.1 Upgrade Information

To upgrade the printer's firmware, perform the following steps:

1. Run the FARGO Workbench Card Printer Utility.
2. **If running FARGO Workbench Version 3 or greater:**
 - a. Select the **Update Manager** utility.
 - b. Select the printer(s) to update.
 - c. Select the **Select Firmware file** option to locate or enter the latest firmware file (i.e. FRW-00373_DTC100_v2.3.3.20.frm).
 - d. Locate the firmware file and click **Open**.
 - e. Click **Begin Updating Firmware** to send the file to the printer(s).
3. **If running a FARGO Workbench release prior to Version 3:**
 - a. Select the **Application Menu** at the upper left and select **Upgrade Firmware**.
 - b. Enter the firmware file name or click **Browse** to find and select the latest firmware file (i.e. FRW-00373_DTC100_v2.3.3.20.frm).
 - c. Click **OK** to send the file to the printer(s).
4. Restart the printer if it does not restart automatically.

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Chapter 7

Technical Support

7.1 Technical Support

This section provides you with an efficient, step-by-step procedure to be used when contacting HID Global Technical Support, as needed, for this card printer.

Contact the HID Global Technical Support Group by phone at (866)607-7339 Ext #6 or by fax at (952) 946-8492 for additional technical assistance.

OR

Contact HID Technical Support.

Position a phone near the printer and computer so the Technician can help to troubleshoot the printer.

Please have a self-test and a sample card ready when calling HID Technical Support.

7.1.1 Reading the Serial Numbers on a FARGO Printer

You can determine when your card printer was manufactured by reading directly from the serial number (affixed to your card printer).

Example: Serial Number **B2050028 (2012)**

B2050028: The first two digits in the serial number indicate the year the printer was built (e.g., the digits B2 indicate the year 2012).

B2050028: The third and fourth digits in the serial number indicate the week the printer was built (e.g., the digits 05 indicate week 5 of that year).

B2050028: The last four digits indicate the sequence number for the numeric order in which the printers were built.

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Revision History

Date	Description	Document Version
November 2015	Initial release.	1.0

