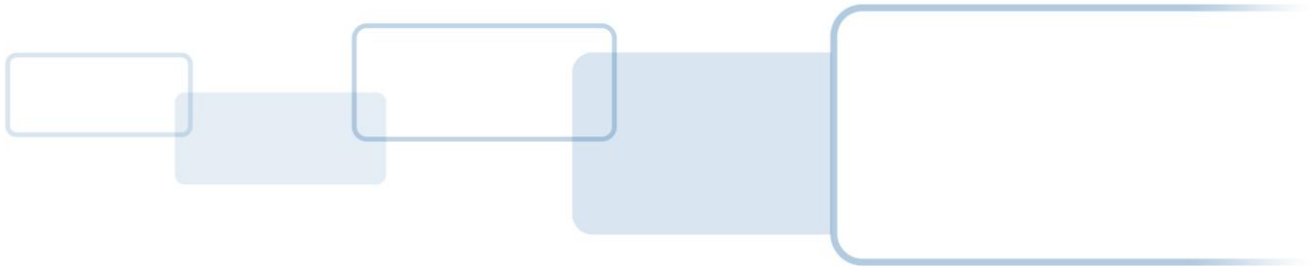




Printing and Encoding Solutions



FARGO[®] HDP8500 Industrial Card Printer/Encoder User Guide



© 2012 HID Global Corporation. All rights reserved.

Section 1: Specifications	8
Regulatory Compliance	8
Agency Listings	8
United States	9
Canada	9
Environmental Protection (China-RoHS)	10
Traditional Chinese RF Emissions and Safety Statements	11
Taiwan Traditional Chinese	12
China Simplified Chinese	12
Japan	14
Korean	14
Technical Specifications	15
Functional Specifications	19
Section 2: Graphical Display	21
Home Screen	21
System Information Screen Option	26
Process Status	27
Main Menu	28
Hopper Selection	29
Tools –Diagnostic Self Test Options	30
Tools –Diagnostic Mechanical Test Options	31
Sensor Calibration Options	32
Sleep and Lock Settings	33
Case Open	33
Station Error	34
Boolean Setting	35
Settings Keypad	35
Pin Keypad	36
Security Keypad	37
Text Button Select	37
Notification List	38
Menu Detail List	38
Consumable Status	39
Integer Selection	39
Confirmation	40
Card Counter	40
Help Screen	41
Section 3: Setup and Installation Procedures	42
Inspection – HDP8500	42
Unpacking the Printer.	42
Choosing a Good Location	42
About Moisture Condensation	42
Loading the HDP Transfer Film	43
Loading the Ribbon	45
Loading the Card Cleaning Roller	47
Loading the Overlamine	49
Loading the Blank Cards	51
Installing the Card Output Hopper	53
Connecting Power to HDP8500 Printer and/or Lamination Module	53

Printer Driver Installation Procedures	54
Section 4: Printer Driver Operations	55
Using the Card tab	55
Selecting the Card Size	56
Selecting the Card Type	57
Printing on Alternate Card Stocks	59
Conducting the Tape Adhesion Test	60
Using the Card Hopper Selection	62
Setting the Orientation	63
Specifying the number of Copies	64
Selecting the Diagnostics button	64
Printing a Test Print Image	65
Selecting the About button	66
Selecting the Toolbox button	66
Using the Device Options tab	67
Detecting Supplies at Print Time Function	68
Adjusting the Ribbon Type	69
Adjusting the Film Type	70
Using the Dual Sided Group Functions	70
Using the Dual Sided - Print Both Sides option	71
Using the Print Both Sides - Split 1 Set of Ribbon Panels option	71
Using the Print Both Sides - Print Back Image on Front of Card option	72
Using the Dual Sided - Print Back Side Only option	72
Using the Print Quality	73
Using the Options Group	74
Using the Rotate Front 180 Degrees or Rotate Back 180 Degrees options	74
Using the Disable Printing option	76
Using the Dual Pass and Invert F-Panel Image options	77
Using the Secure Resin Erase	77
Using the Encrypt Job Data	78
Using the Use Substitute Panel Data	78
Using the Image Color tab	80
Using the Image Quality – Color Matching dropdown	81
Adjusting for the Resin Dither	83
Using the Advanced Image Color window	84
Using the Image Transfer tab	87
Adjusting the Image Position controls	88
Adjusting the Transfer Dwell Time and Temperature	90
Using the Flattener Settings	91
Using the Default button	92
Using the Magnetic Encoding tab	93
Using the Encoding Mode dropdown list	94
Selecting the Coercivity/Magnetic Track	96
Reviewing the Shift Data Left Function	97
Using the Character Size buttons	97
Using the ASCII Offset dropdown list	98
Using the Bit Density dropdown list	98
Using the LRC Generation dropdown list	99
Using the Character Parity Mode dropdown list	100
Reviewing the ISO Track Locations	101
Sending the Track Information	102

Reviewing the Sample String _____	103
Reviewing the ASCII Code and Character Table _____	104
Using the Default button _____	105
Using the Lamination tab _____	106
Selecting the Lamination Position _____	107
Adjusting the Lamination Speed - Transfer Dwell Time _____	107
Selecting the Lamination Side dropdown menu _____	107
Selecting the Lamination Type _____	108
Using the K Panel Resin tab _____	109
Using the Click and Drag capability _____	110
Selecting “inches or mm” radio button _____	110
Using the Add and Delete buttons _____	110
Selecting the Full Card _____	111
Selecting the Defined Area and Undefined Area _____	111
Selecting the Print YMC under the K and Print K Only options _____	112
Using the Printer Supplies tab _____	113
Reviewing Information on the Supplies tab _____	114
Section 5: Accessing the Toolbox _____	115
Selecting the Configuration tab _____	116
Using the Optional Printer Features Group Box _____	117
Using the Event Monitoring Group Box _____	117
Reviewing the Ribbon Low message _____	118
Reviewing the Laminate Low Message _____	118
Using the Film Low message _____	118
Selecting the LCD Display Language _____	119
Using the Printer LCD Display to set the language _____	119
Using the Driver to set the language _____	120
Selecting the Calibrate Laminator tab _____	121
Selecting the Calibrate Film tab _____	122
Selecting the Calibrate Ribbon tab _____	123
Selecting the Clean Printer tab _____	124
Selecting the Advanced Settings tab _____	126
Setting the Printhead Resistance _____	127
Using the Print LOF (Left of Form) Option _____	127
Using the Image Darkness Option _____	128
Using the Print TOF (Top of Form) Option _____	129
Using the Mag Top of Form Option _____	130
Using the Transfer TOF (Top of Form) Option _____	131
Using the Transfer EOF (End of Form) Option _____	132
Using the Transfer Temp Offset Option _____	132
Using the Encoder Flip Angle Option _____	133
Using the Print Flip Angle Option _____	133
Using the Ribbon Print Take-up Tension Option _____	133
Using the Ribbon Print Supply Tension Option _____	133
Using the Film Print Take-up Tension Option _____	134
Using the Resin Heat Adjust Option _____	134
Using the Sleep Time Option _____	134
Using the Blush Point Option _____	135
Using the LCD Contrast Option _____	135
Using the Film Supply Transfer Tension Option _____	135
Using the Film Take-up Transfer Tension Option _____	135

Using the Film Print Supply Tension Option _____	136
Using the Cleaning rate Option _____	136
Using the Film Print Cooling Level Option _____	136
Using the Film Transfer Cooling Level Option _____	136
Using the EAT Disable Option _____	137
Using the Enable Ribbon Wrinkle Compensation Option _____	137
Using the Standby Time Option _____	137
Using the BEEP disable Option _____	137
Using the I Panel Heat Offset Option _____	137
Using the Holo Transfer Offset Option _____	137
Using the Standby Temp Option _____	137
Using the Mag Hi-Co Voltage Offset Option _____	138
Using the Mag Lo-Co Voltage Offset Option _____	138
Using the Mag Flipper Angle Offset Option _____	138
Using the Fluorescent (F) Panel Heat Offset _____	138
Using the Lamination End of Form Option _____	138
Using the Lamination Temp Offset Option _____	138
Using the Lamination Bottom Takeup Option _____	138
Using the Lamination Top Takeup Option _____	138
Using the Lamination Card Backup Option _____	139
Using the Lamination Card Length Option _____	139
Using the Lamination Fan Speed Option _____	139
Using the Lamination Peel Off Delay Option _____	139
Reviewing the No Printer Connected error message _____	139
Warming Time Delay _____	140
Power On Ribbon Film Skip _____	140
Flipper Reject Angle _____	140
Input Hopper Home Offset _____	140
Input Hopper Mag Offset _____	140
Transfer Image Length _____	140
Transfer Cooling Delay _____	140
Ribbon Factory Take-up _____	141
Ribbon Factory Supply _____	141
Film Factory Take-up _____	141
Film Factory Supply _____	141
Reviewing the Value outside the Range error message _____	141
Section 6: Fluorescent Panel Usage _____	142
Configuring Fluorescent Data (F-Panel for YMCFK Ribbon) using the Workbench _____	142
Configuring Fluorescent Data (F-Panel for YMCFK Ribbon) using the Application _____	148
Section 7: Inhibit Panel Usage _____	150
Using Inhibit Panel (via the Fargo Workbench Printer Utility) _____	150
Using Inhibit Panel with an Application _____	152
Generating Text Objects _____	152
Rendering Print Jobs _____	153
Using the Test Print _____	158
Troubleshooting the Inhibit Panel _____	159
Section 8: General Troubleshooting _____	160
Troubleshooting - LCD and Printer Error Message Tables. _____	160
How to use the LCD Error Message Table (example provided) _____	161
Troubleshooting with the LCD Error Message Table _____	162

Troubleshooting the Printer Error Message Table _____	173
Communications Errors _____	183
Resolving the Communication Errors _____	183
Printing a Test Image using the Workbench Diagnostic _____	185
Reviewing the Alignment Self Test Card _____	186
Reviewing the Magnetic Self Test _____	186
Reviewing the YMCK Self Test _____	187
Reviewing the Color Bars Self Test _____	187
Reviewing the Device Settings Self Test _____	188
Reviewing the Resin Self Test _____	188
Using the Test Print _____	189
Section 9: Packing the Card Printer _____	190
Section 10: Firmware Updates _____	191
Upgrading the Main Firmware with the Workbench Printer Utility _____	191
Section 11: HID Global Technical Support _____	193
Contacting Technical Support _____	193
Finding out when a Fargo Card Printer was manufactured _____	193

Trademarks

HID GLOBAL, HID, the HID logo, iCLASS and SIO are the trademarks or registered trademarks of HID Global Corporation, or its licensors, in the U.S. and other countries.

Revision History

Date	Description	Document Version
05//2012	HDP8500 Industrial Card Printer/Encoder User Guide	1.0

Contacts

North America	Europe, Middle East and Africa
15370 Barranca Parkway Irvine, CA 92618 USA Phone: 800 237 7769 Fax: 949 732 2120	Phoenix Road Haverhill, Suffolk CB9 7AE England Phone: +44 1440 714 850 Fax: +44 1440 714 840
Asia Pacific	
19/F 625 King's Road North Point, Island East Hong Kong Phone: 852 3160 9800 Fax: 852 3160 4809	

support.hidglobal.com


Any questions regarding changes, corrections, updates or enhancements to this document should be forwarded to:

Hid Global
Support Services
6533 Flying Cloud Drive
Eden Prairie, MN 55344 (USA)
(866)607-7339 Ext #6
FAX: (952) 946-8492
www.hidglobal.com

Section 1: Specifications

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

Regulatory Compliance

UL	The Card Printer is listed under UL 60950-1 (2 nd edition) INFORMATION TECHNOLOGY EQUIPMENT Note: This product is intended to be supplied by a Listed Power Unit marked Class 2 and rated for 24 V dc, 3.3A minimum
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 2002/95/EC
Environmental	Power supply Efficiency level V minimum, RoHS, China RoHS

Agency Listings

Emissions Standards	FCC Part 15 Class A, RSS-GEN, RSS 210 ,CNS 13438, EMC 2004/108/EC, R&TTE 1999/5/EC,GB9254-2008, GB 17625
Safety Standards	UL IEC 60950-1 (2nd edition), CSA C22.2 No. 60950-1-07 2 nd edition, LVD 2006/95/EC,GB4943, CNS14336

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, you is required to correct the interference at his own expense.

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

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.



Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Environmental Protection (China-RoHS)

环境保护(中国- RoHS)

Environmental Protection Use Period is based on the product being used in an office environment.

环保使用期限是基于本产品用于办公室环境

Traditional Chinese RF Emissions and Safety Statements

传统中文 射频放射及安全指令

安全信息 (小心检查)

标记	重要的安全事项说明安全
危险: 	<p>未按照说明安装可能造成人员伤亡。</p> <p>在可能产生潜在安全问题的地方有警示标记。(如左图所示)。</p> <p>为了防范人员伤害, 做带此警示标记的操作前, 参考安全信息提示。</p> <p>为了防范人员伤害, 在没有特别说明的情况下, 修理前关掉电源开关。</p>
小心: 	<p>此设备对静电很敏感。如果受到静电放电, 设备会被损害。</p> <p>在可能产生潜在静电安全问题的地方有警示标记。(如左图所示)。</p> <p>为了防范损害设备, 做带此警示标记的操作前, 参考安全信息提示。</p> <p>为了防范损害设备, 在排放电路板和打印头联合装置里面或附近的电线时, 请注意观察所有的静电放电设备。</p> <p>为了防范损害设备, 贴身佩戴合适的接地装置 (比如: 手腕上带一个高质量的接地皮带以免受到可能的伤害)。</p> <p>为了防范损害设备, 如果没有特殊说明, 在做任何修理前, 请取下打印机上的色带和卡。</p> <p>为了防范损害设备, 在使用打印机之前, 请摘下戒指和手上饰品, 仔细清洗手上的油脂。</p>

Taiwan Traditional Chinese

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。

China Simplified Chinese

安全消息 (请仔细阅读)

符号	涉及安全的重要过程
危险： 	<p>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。</p> <p>可能引发安全问题的信息由警告符号 (如左图所示) 来表示。</p> <ul style="list-style-type: none">• 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。
<p>小心：</p> 	<p>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。</p> <p>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。</p> <ul style="list-style-type: none">• 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饰物，并将手上的油渍和污渍彻底清洗干净。

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- x x x x x 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

Korean

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

Technical Specifications

Print Method	HDP Dye-Sublimation/ Resin Thermal Transfer				
Print Resolution	300 dpi (11.8 dots per mm)				
Print Colors	Up to 16.7 million and 256 shades per pixel				
Print Ribbon Options	<p>HDP8500 (prints or images):</p> <ul style="list-style-type: none"> • Full-color, YMC*, 750 prints • Full-color with resin black, YMCK*, 500 prints • Full-color with two resin black panels, YMCKK*, 500 prints • Full-Color – Half Panel YMCK*, 1000 prints • Full-color with resin black and heat seal panel for difficult-to-print surfaces, YMCKH*, 500 prints • Full-color with resin black and inhibit panel for signature or other non-printing areas, YMCKI*, 500 prints • Full-color with fluorescing and resin black, YMCFK*, 500 prints • Resin black, K, 3000 prints <p>* Indicates the Ribbon type and the number of Ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, H=Heat Seal, I= Inhibit, and F=Fluorescing</p>				
HDP Film Options	<p>System Capability - HDP Film Options:</p> <ul style="list-style-type: none"> • Clear (1,500 prints) • Standard Holographic (500 prints) • Custom Holographic, special order (500 prints) 				
Overlamine Options	<p>Overlamine options:</p> <ul style="list-style-type: none"> • Thermal Transfer Overlamine, .25 mil thick, 500 prints • PolyGuard® Overlamine, 1.0 mil and .6 mil thick, 250 prints (PolyGuard available in a CR-80 patch size) • All overlamines available in clear, standard holographic design or custom holographic design 				
Print Speed in Batch Mode-Normal mode	<p>Batch Mode:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">Performance</td> <td style="width: 25%; text-align: center;">Normal</td> <td style="width: 25%;"></td> </tr> </table>		Performance	Normal	
	Performance	Normal			

	Print Mode	Mode	
	YMC	24 seconds per card/ 150 cards per hour	29 seconds per card/ 124 cards per hour
	YMCK	29 seconds per card/ 124 cards per hour	35 seconds per card/ 103 cards per hour
	YMCKK	40 seconds per card/ 90 cards per hour	49 seconds per card/ 73 cards per hour
	YMCK+Lam	34 seconds per card/ 106 cards per hour	40 seconds per card/ 90 cards per hour
	YMCKK+Lam	48 seconds per card/ 75 cards per hour	55 seconds per card/ 65 cards per hour
Power Source Voltage, Amp & Frequency	Supply Voltage/Amp: <ul style="list-style-type: none"> • 100-240 VAC, 3.5 A MAX • Supply Frequency: • 50 Hz and 60 Hz 		
Power Supply	Printer- two (2) internal heavy duty power supplies Laminator- one (1) internal heavy duty power supply		
Dual Input Hopper	Two (2) Input Hoppers included: <ul style="list-style-type: none"> • Input Hopper supports 200 count card each 		
Card Exception Feed	standard		
Card Input Capacity	400 – (.030" / .762 mm) cards (Dual input Hoppers with 200 cards each)		
Card Output Capacity	Concealed/tinted output bin, lockable access and attachment to printer , 200 card minimum .030" (30 mil) to .050" (50 mil) (.762 mm to 1.27 mm)		

Reject Area Capacity	15 cards capacity, lockable (.030" and .762mm)
Card Materials and Types	<ul style="list-style-type: none"> • ABS • Laminated PVC • PET • PETG • Proximity • Smart Cards • Mag Stripe cards • Optical memory cards • Polycarbonate
Card Thickness	<ul style="list-style-type: none"> • System will be compatible with card thicknesses from 20-50 mil • Print only: .020" (20 mil) to .050" (50 mil) / .762mm to 1.27mm • Print/Lamination: .030" (30 mil) to .050" (50 mil) / .762mm to 1.27mm
Card Sizes Supported	CR-80 (3.452"L x 2.204"W and 87.7mmL x 56mmW).
Memory	32 MB RAM
Card Cleaning Roller	Automatically cleans cards for higher print quality. Replaceable biodegradable cleaning roller
Card Cleaning	<ul style="list-style-type: none"> • Printer will use 2 integrated cleaning stations. • Laminator will use 3 integrated cleaning station.
Cleaning Prompt	3000 cards default. Interval is adjustable.
Display	3.2 " Touchscreen Graphical Display
MS Windows Compatibility	<ul style="list-style-type: none"> • Windows XP • Server 2003 • Vista (32 & 64 bit) • Windows Server (32 & 64 bit) • Windows 7 (32 & 64 bit) • Windows 2008 R1 R2

Magnetic Stripe Encoding (Options)	<ul style="list-style-type: none"> • Dual high- and low-Coercivity • Tracks 1, 2 and 3 • ISO Mag Encoding • JIS 2 Mag Encoding • Custom Encoding • Raw Binary Encoding
E card	<ul style="list-style-type: none"> • Omnikey 5125 Proximity Encoder • Omnikey 5121 Encoder • Magnetic Encoder • Contact Encoder
Single Wire Encryption Options	<ul style="list-style-type: none"> • Contactless Smart Card Encoder (HID iCLASS and MIFARE) • Contact Smart Card Encoder reads from and writes to all ISO7816-1 and 2 and 3 and 4 memory and microprocessor smart cards (T=0, T=1) as well as synchronous cards • Prox Card Reader (HID read-only)
Encryption	AES-256 data
USB Connection	USB 2.0 standard
Ethernet Connection	Ethernet standard
System Requirements	<p>x86 based PC or compatible, Windows XP, Windows 2003, Windows Vista, Windows 2008, or Windows 7</p> <p>500MHz computer with 256MB of RAM or higher, 500MB free hard disk space or higher</p>
Operating Conditions	<p>Operating Temperature: 65° to 90° F and 18° to 32° C</p> <p>Humidity: 20 - 80% non-condensing</p>
Dimensions	28.2 " width x 14.0 " depth x 15.5" height –Printer only
Ship Weight	Printer: 61 lbs. Laminator: 30 lbs.
Warranty	<p>Printer- 3 years</p> <p>Printhead Lifetime ; unlimited passes</p> <p>Extended Warranty available</p> <p>No On-Call Express offered</p>

Functional Specifications



Component	Description
Card Cartridge	Load blank cards into this Cartridge.
Card Output Hopper	Stores 200 cards.
Card Lamination Module	Works in conjunction with the Printer to apply a variety of different overlaminates to printed cards, providing increased card durability and security. Will laminate in either the single or dual side (simultaneous) process (Note: When printing a batch of cards, the Printer can be encoding and printing one card while the Lamination Module laminates another card.)
Display	3.2" AVGA TFT LCD w/ Resistive Touch Overlay
Printhead	The component of the Printer that actually does the printing.
USB Interface	Connect to the Windows PC USB port
Hardware Accessories & Connectivity	Each model has multiple cords and connectors. <ul style="list-style-type: none"> • US power cord • EU power cord • USB cable (2.0) • Ethernet
Print Modes	There are two print modes (Performance and Normal) <ul style="list-style-type: none"> • Normal print mode (default) • Performance print mode is faster with lower image quality and is most suitable for minimal color with mostly resin text.
Resin Scramble (OPTIONAL)	The system can hide any information printed with the resin panel.
Edge-to-Edge Printing	Prints over the edge on CR-80 cards.
Color Profile	System Color Management & None


















<p>Card Flattener (OPTIONAL)</p>	<p>Fully adjustable temp dwell</p> <p>The card flattening routine occurs after the card is transferred but before lamination.</p> <ul style="list-style-type: none"> • The card flattener has an adjustable temp and dwell. • You can select from different offset values from the default temp. • You can select from different offset values from the default dwell. • The card flattener has a 0 to 15 second adjustable delay before the flattening routine will run. • The driver can disable the card flattener, if a dual sided job is sent. • Recommended for heat sensitive PVC cards.
<p>Locks</p>	<p>Hardware locks are a standard feature.</p> <ul style="list-style-type: none"> • Mechanical and key locks are used to secure the doors on the input card cartridges, the access door to the printer, the access door to the Laminator and the output card Hopper. • The input card cartridges are manually secured to the printer mechanism via toggle latch located inside the access door of the printer. • The Printer and Laminator include a compatible hole with a Kensington lock. • The printer and Laminator include threaded hardware.
<p>Andon Light (OPTIONAL)</p>	<p>4-Color Andon Light option. Each color is controlled separately. The four colors indicate the following:</p> <ul style="list-style-type: none"> • Red: A printer error has occurred or operator intervention is needed. • Blue: Printer has run out of materials (film, ribbon or cards) • Green: Normal Printer operation. • Orange: User intervention is needed soon. Printer materials are low or the printer needs to be cleaned.

Section 2: Graphical Display

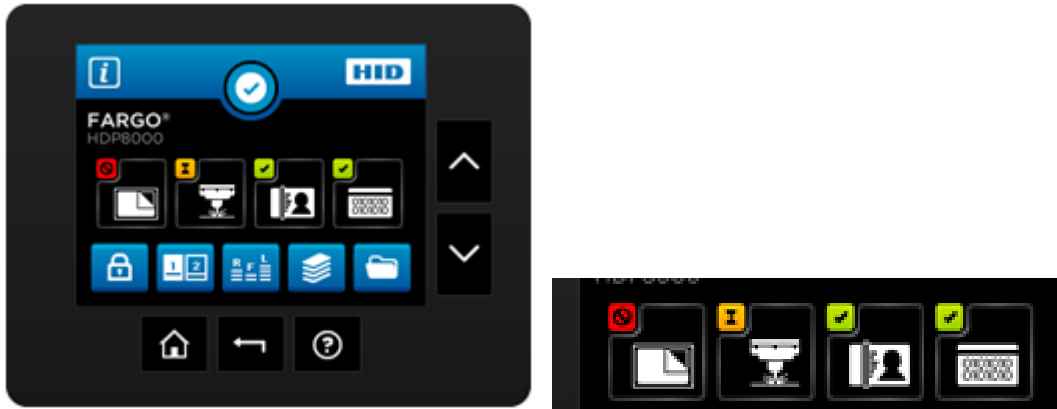
Home Screen


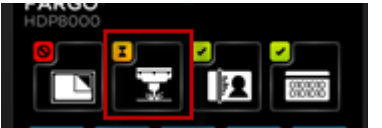
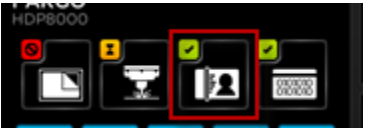
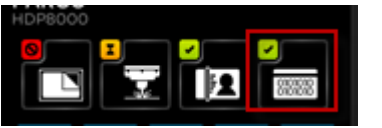





	<p>Click this icon to get to the System Information Screen System Information Screen Option.</p>
	<p>This is the Notification Icon which shows status and error messages</p>
	<p>Notification Icons</p> <p>These are the icons displayed in the notification area.</p>

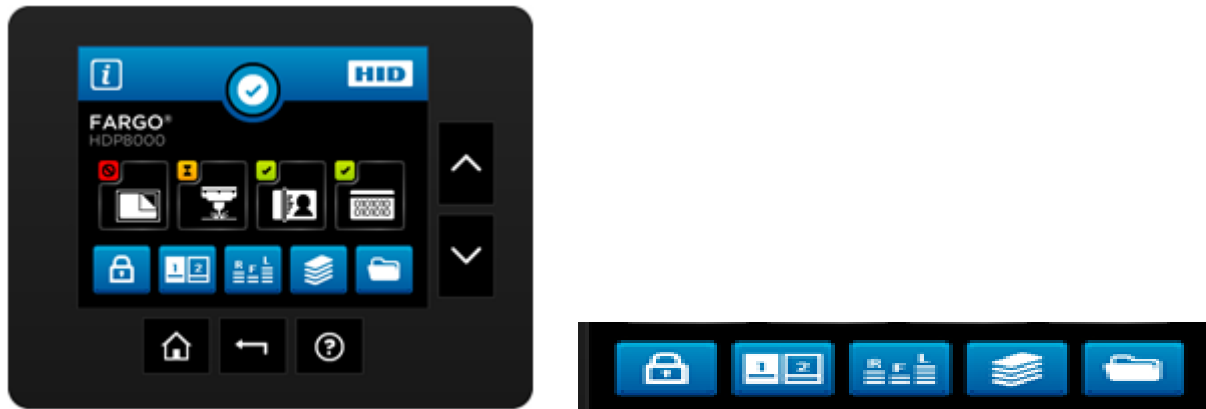
	 Ready/Idle	 Laminate low
	 Working	 Ribbon low
	 Locked	 Film low
	 Paused	 Clean printer
	 Output hopper full	 Output hopper almost full
	 Input hopper empty	 Error
	 Laminate empty	 Network disconnected
	 Ribbon empty	
	 Film empty	
	 Case open	






Home Screen (continued)



	<p>Laminator configuration (if displayed is installed)</p>
	<p>Laser Engraver (if displayed is installed)</p>
	<p>HID Printer</p>
	<p>Encoder (if displayed is installed)</p>
	<p>Icon shows status is PROBLEM Press the Station icon to open the Station Details screen, which provides more detail about the station status.</p>
	<p>Icon shows status is BUSY Press the Station icon to open the Station Details screen, which provides more detail about the station status.</p>
	<p>Icon shows status is READY Press the Station icon to open the Station Details screen, which provides more detail about the station status.</p>



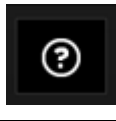

Home Screen (continued)

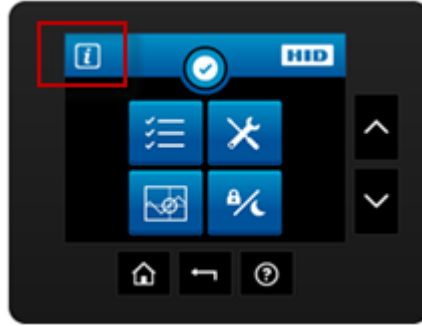


	Printer lock
	Hopper Select
	Ribbon Film Laminate levels shown
	Card Count
	Setup Menu

Home Screen (continued)



	Home Screen
	Back one level
	HELP
	The side buttons allow vertical scrolling when the current screen accommodates multiple lines.



System Information Screen Option

Note: Select the desired option to view information

Serial Number

Model Name

Printer Firmware

Laminator Firmware

Display Firmware

MAC Address

IP Address

Ribbon Type

Film Type

Lam 1 Type

Lam 2 Type

Mag Encoder

Smart Encoder

Prox Encoder

Mifare Encoder

iCLASS Encoder

Laminator

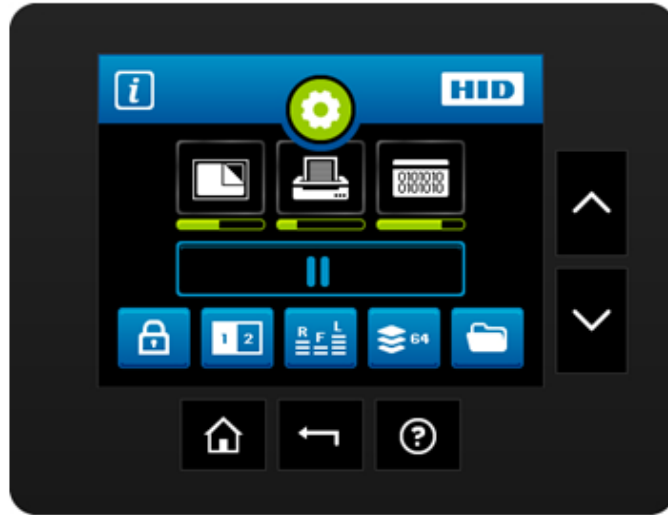
Flipper

Card Count

Pass Count

Transfer Count

Process Status



While the printer is working, the Notification icon shows a moving gear .

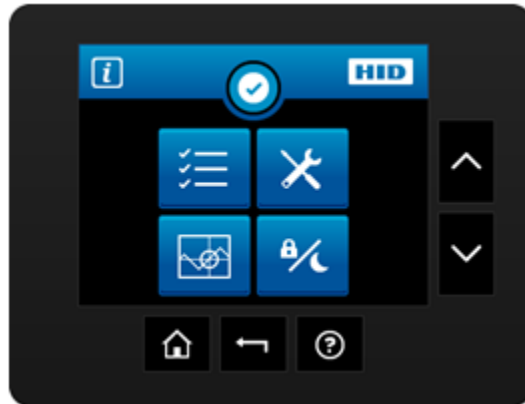


Each Station icon shows a progress bar with its current progress in the job







A global pause button is shown.

Main Menu



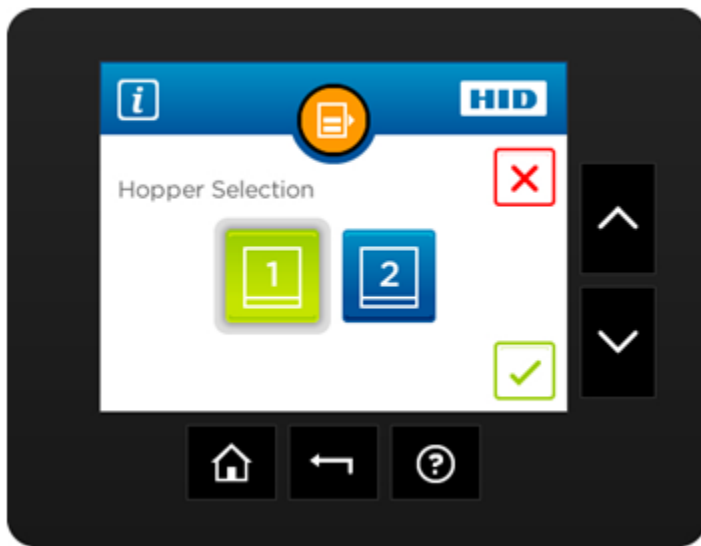
Press the Setup Menu Icon on the Home Screen to access the Main Menu

Icon	Name	Options Included
	Printer Settings For details see: Selecting the Advanced Settings tab	Printer Transfer Laminator Mag Encoding Flipper Hopper (see Display A below for details) Display Network Language
	Tools	<ul style="list-style-type: none"> Diagnostics Self Test (see Display B below for details) Mechanical Test (see Display C below for details) <ul style="list-style-type: none"> Cleaning the Printer Firmware Upgrade (use the Workbench Utility Program)
	Sensor Calibration	Calibration (see Display D below for details) Ribbon Sensor

		Film Sensor Mag Sensor Lamination Sensor
	Lock and Sleep settings	See Display E below for details Sleep Time Stand-by Time Stand-by Temp Display Sleep Time Change password



Main Menu (continued)

Hopper Selection

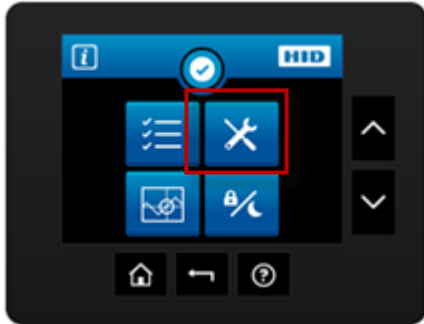


Display A

Hopper selection screen allows the user to change the hopper where cards are fed from.

Green indicates the selected hopper, also shows cancel  and save  buttons.

Main Menu (continued)

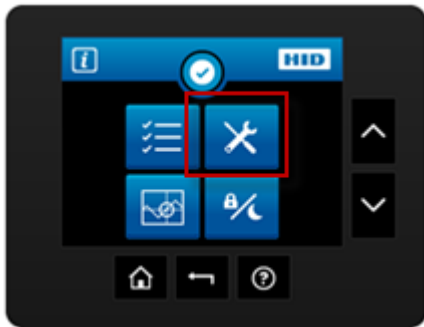


Display B

Tools –Diagnostic Self Test Options

Alignment Test
YMC Color Bar Test
Magnetic Test
YMCK Test
Standard Resin Test
Printer Settings card
Color Photo Test

Main Menu (continued)



Display C

Tools –Diagnostic Mechanical Test Options

When selected the printer will perform the test to verify mechanical options are working correctly

Lower Printhead

Raise Printhead

Home Flipper Table

Run ribbon take-up motor

Run ribbon supply motor

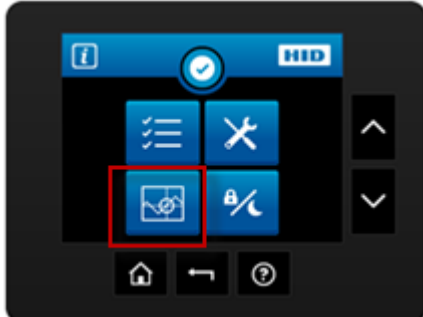
Run Printhead lift motor

Cycle transfer head lift motor

Run film supply motor

Run film take-up motor

Main Menu (continued)



Display D

Sensor Calibration Options

NOTE: Calibrating sensors may be done through the Driver Printing Preferences Toolbox OR through the LCD DISPLAY. Both options use the same printer setup information.

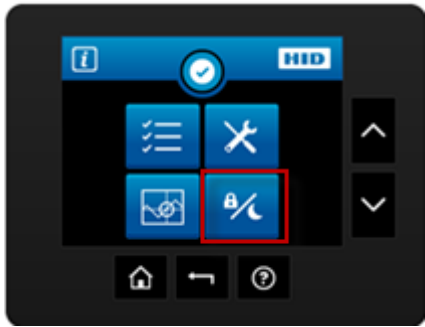
Ribbon Sensor Calibration

Film Sensor Calibration

Magnetic TOF (Top of Form)

Lamination Sensor Calibration

Main Menu (continued)



Display E

Sleep and Lock Settings

Select to desired option and use the + and – button to adjust the number.

Cancel  revert  save  buttons


- Sleep Time
- Standby Time
- Standby Temp
- Display Sleep Time
- Change Password

Case Open




When the cover is opened, this screen is presented.

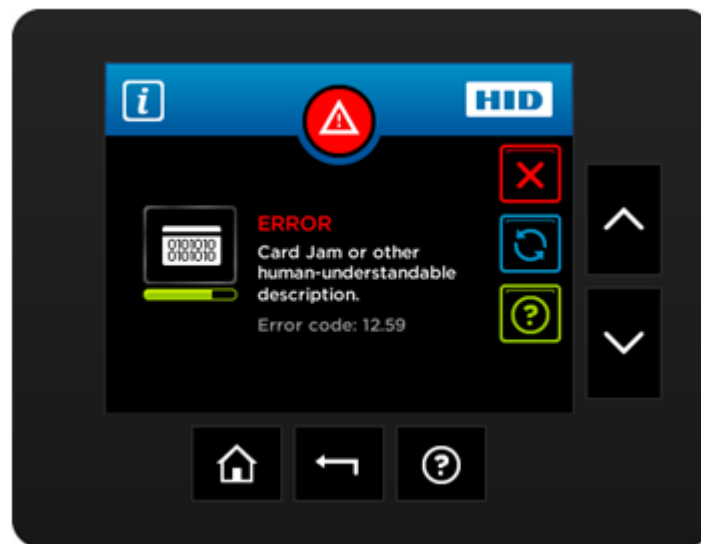


The arrows () allow card shuttle from 1 to 2



The arrows() move the rollers back and forth. This is used if a card jam occurs.

Station Error



When an error occurs a details screen appears, containing details about the specific error that occurred.

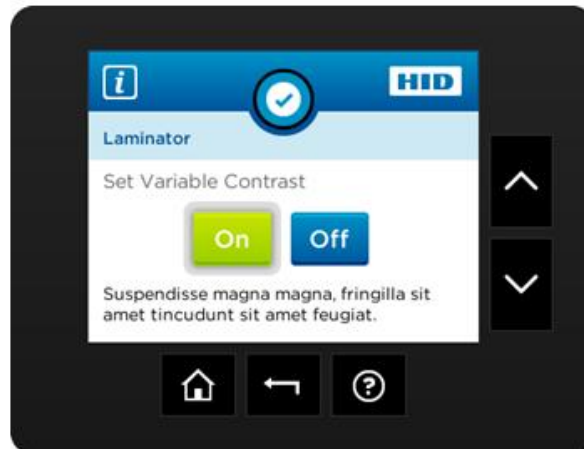
The keys to the right are:

Job Cancel





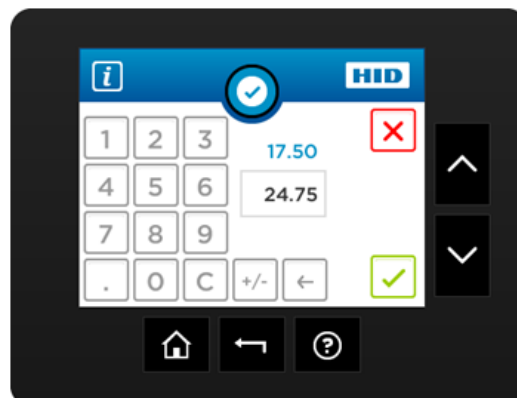
Boolean Setting



While adjusting settings in the setting menu, the Boolean setting can be set by pressing the desired value.



Green indicates the selected setting.

Settings Keypad



While setting a value in the settings menu that requires numeric input, a keypad will be presented.

Current value is displayed in blue font.

Cancel  and save  buttons

Pin Keypad



Blue instructions says: "Enter Current PIN" Button says: "Next >"

Blue instructions says: "Enter New PIN" Button says: "Next >"

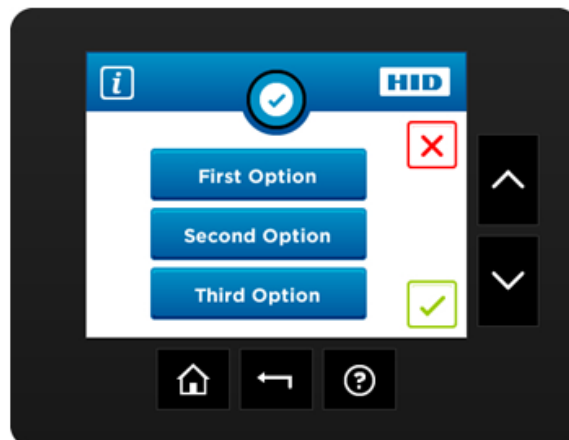
Blue instructions says: "Confirm New PIN" Button says: "Enter"

Security Keypad





When the printer is to be locked or unlocked the Security Keypad is presented.
Enter the PIN and press Enter.

Text Button Select

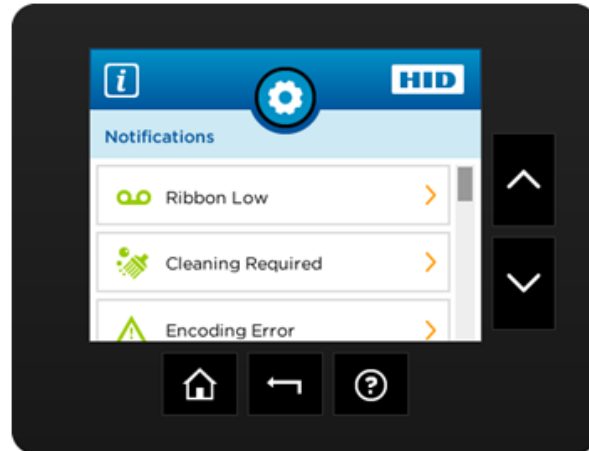


While setting a value in the settings menu that requires a selection, this screen will be presented.

Current value is highlighted in green.

Cancel  and save  buttons

Notification List

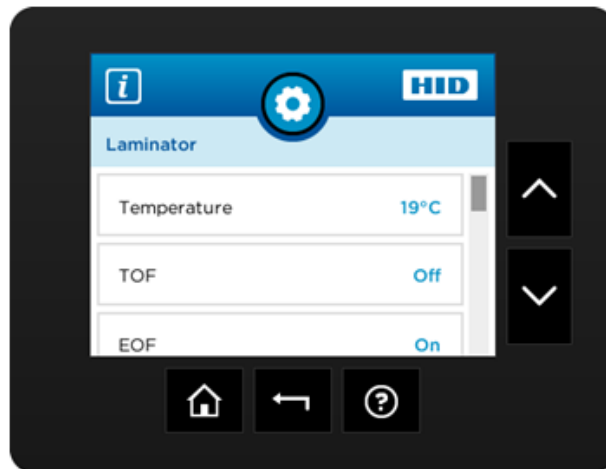


Navigate to the Notification list by pressing on the Notification Icon.



This will show the notification detail and allow navigation to further details.

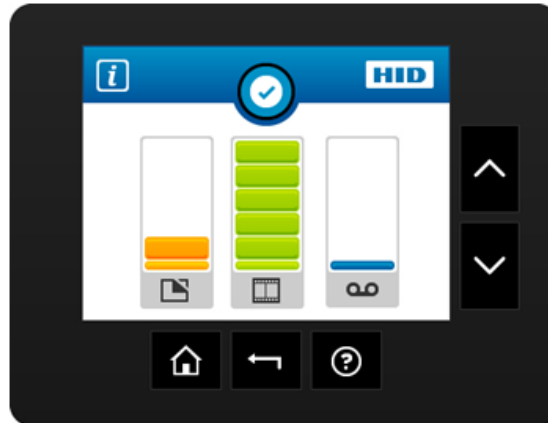
Menu Detail List




Navigate to a printer settings menu, a list of all settings will be displayed.

Scroll up and down using the side buttons, make selections by pressing the specific setting's button.

Consumable Status



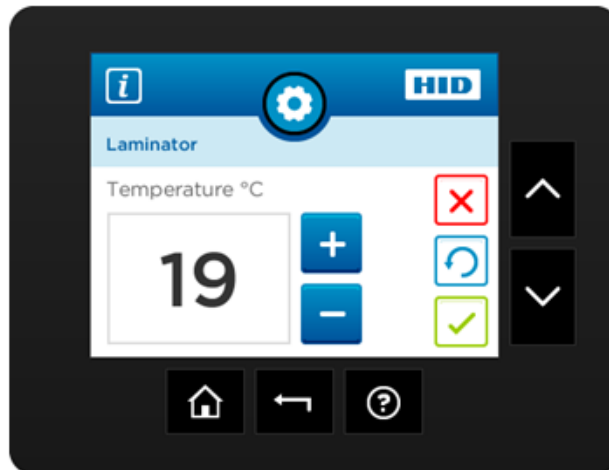
Consumables status screen shows current levels for :

Laminate supply 

Film supply 

Ribbon supply 

Integer Selection

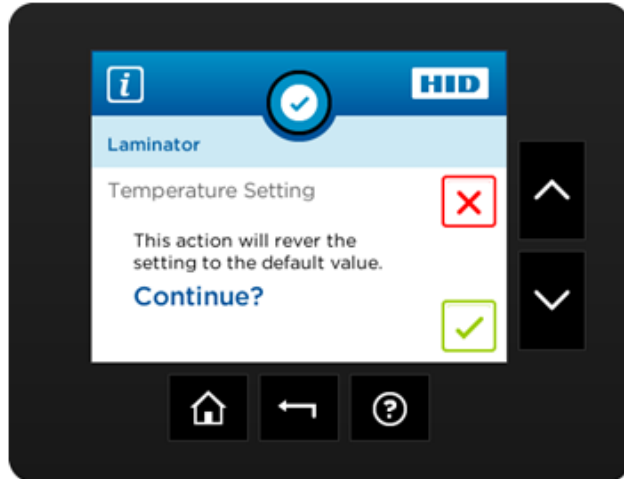


While setting a value in the settings menu that requires an integer input, this screen will be presented.

Current value is displayed and can be incremented or decremented by the + or – keys respectively.

Cancel  revert  save  buttons

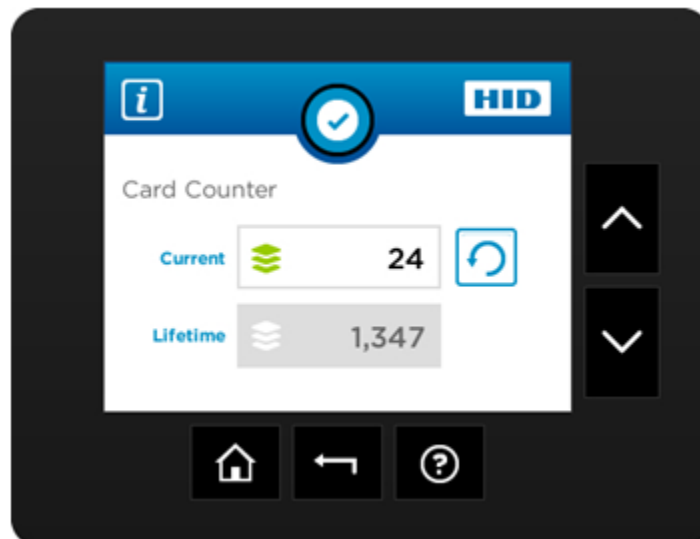
Confirmation




Some settings require a confirmation.

 to Decline or  to Accept.

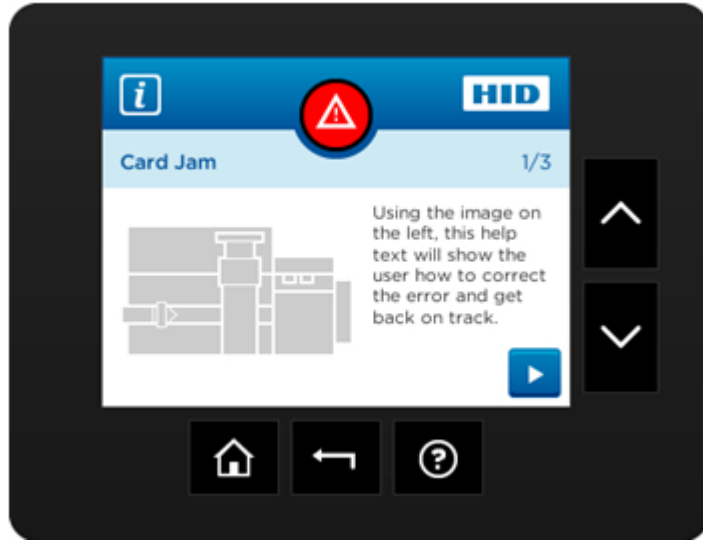
Card Counter



Card counter screen allows the user to view the total number of cards printed as well as the Current count for a particular batch.

The current count can be reset  to zero by pressing the reset key.

Help Screen



Help screen (in the future) will provide detailed information for recovering from common errors.

Section 3: Setup and Installation Procedures

Inspection – HDP8500

While unpacking your Printer, inspect the carton to ensure that no damage has occurred during shipping. Make sure that all supplied accessories are included with your unit.

Unpacking the Printer.

The following items are included with your Printer:

- Software Installation CD (includes Printer Driver, Online User's Guide and Printer Diagnostic Tool)
- Power Cord
- Card Cleaning Roller (x2)
- Card Cartridge (x2)
- Card Output Bin
- Ribbon Cartridge
- Film Cartridge
- Warranty Statement

This is included with the HDP8500-LC Only:

- Card Lamination Module

(Important: Please use the original packaging when shipping the HDP8500 Printer/Laminator. This will require the Laminator Module to be detached from the Printer prior to shipping.)

Choosing a Good Location

Follow these guidelines:

- Place the unit in a location with adequate air circulation to prevent internal heat build-up.
- Use the Printer's dimensions as a guideline for the minimum clearances to the unit. **(Note:** Allow for adequate clearance above the unit to accommodate the height of 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.

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 optimum.

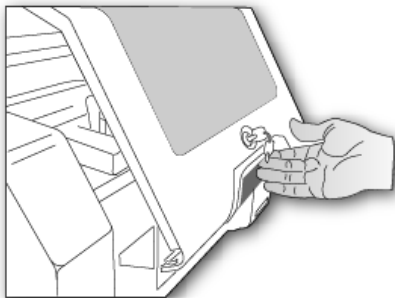
Leave the unit turned OFF in a warm, dry room for several hours before using. This will allow the moisture to evaporate.

Loading the HDP Transfer Film

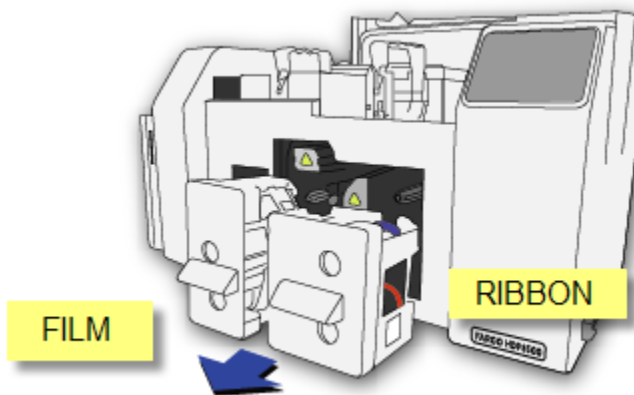
Note: Fargo Card Printers require highly specialized supplies to function properly.

- To maximize Printer life, reliability, printed card quality and durability, you must use only Fargo Certified Supplies.
- For this reason, your Fargo warranty is void, where not prohibited by law, if you use non-Fargo Certified Supplies.

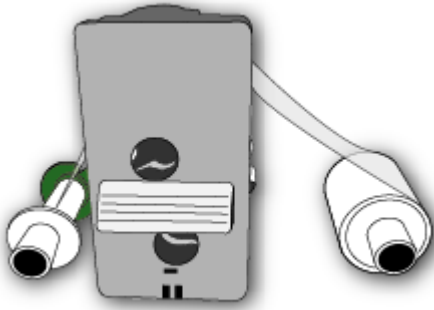
Step	Procedure
1	Unlock and open the Printer cover .



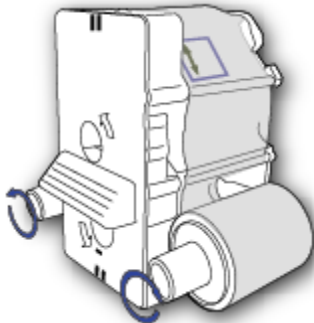
2	Remove the HDP Film Cartridge.
---	--------------------------------



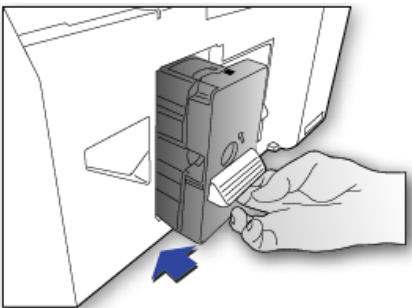
3	Load the HDP Film into the Film Cartridge and click into place. The green take-up spool goes on the left side, the full roll goes on the right side.
---	---



4	Tighten the HDP Film.
---	-----------------------

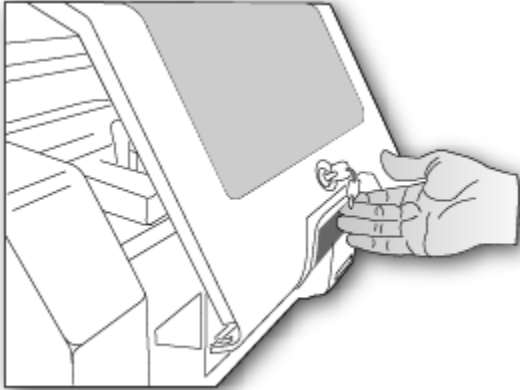


5	Insert the HDP Film cartridge back into the printer and click into place.
---	---

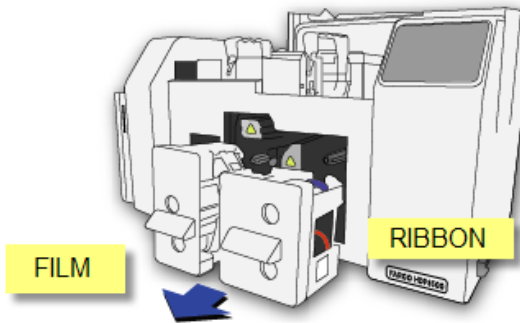


Loading the Ribbon

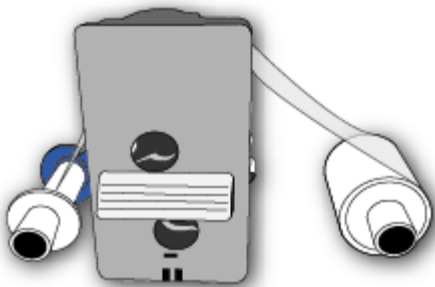
Step	Procedure
1	Unlock and open the Printer cover .



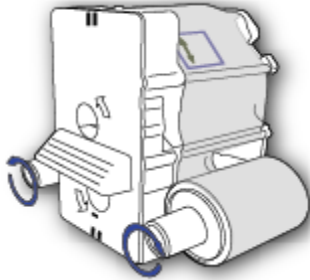
2	Remove the HDP Ribbon Cartridge.
---	----------------------------------



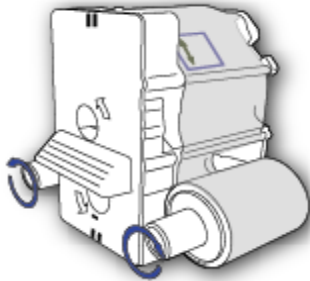
3	Load the HDP Ribbon into the Cartridge and click into place. The blue take-up spool goes on the left side, the full roll goes on the right side.
---	---



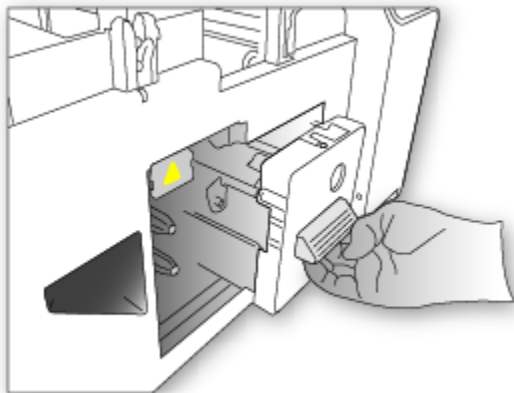
4	Tighten the Ribbon .
---	----------------------



5	Insert the HDP Ribbon cartridge back into the printer and click into place.
---	---



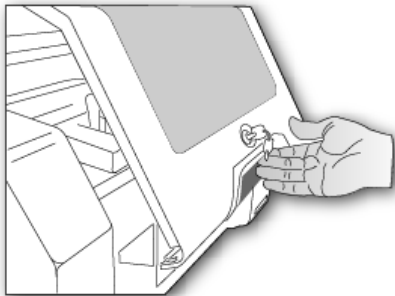
6	Insert the HDP Ribbon cartridge back into the printer and click into place.
---	---



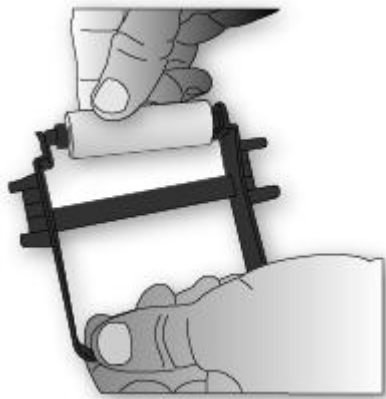
Loading the Card Cleaning Roller

The HDP8500 contains 2 card cleaning assemblies in the Printer and 1 cleaning assembly in the Lamination Module. Use the same procedure for both.

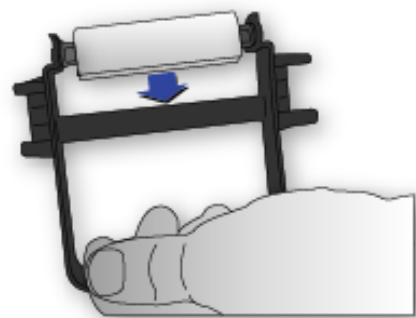
Step	Procedure
1	Unlock and open the Printer cover .



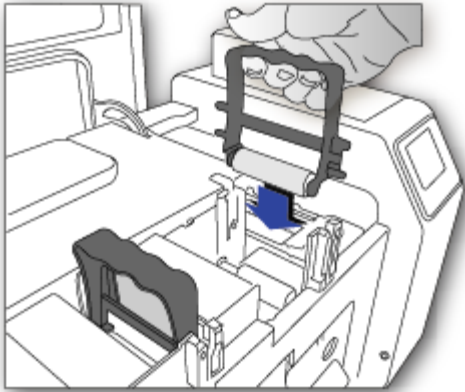
2	Remove the Card Cleaning Roller from the Print Ribbon packaging and insert the Cleaning Roller into the gray handle.
---	--



3	Remove the protective sleeve from the Card Cleaning Roller.
---	---



4	Insert the Card Cleaning Roller assembly into the card cleaning slot.
---	---



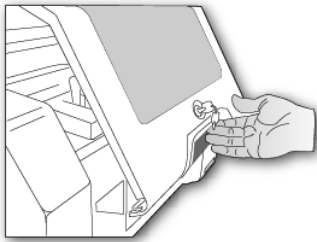
5	Follow the same procedure for the second cleaning assembly.
6	Follow the same procedures for the Lamination Module assembly.

Loading the Overlaminates

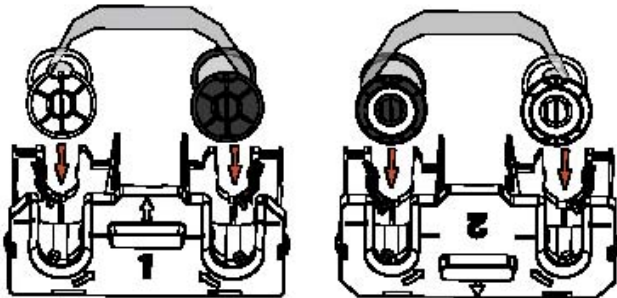
(Note: This procedure only applies to the HDP8500-LC.)

The loading process for both the Thermal Transfer Overlaminates and the PolyGuard™ Overlaminates material is the same. Refer to the following steps to load either type of overlaminates into the Printer.

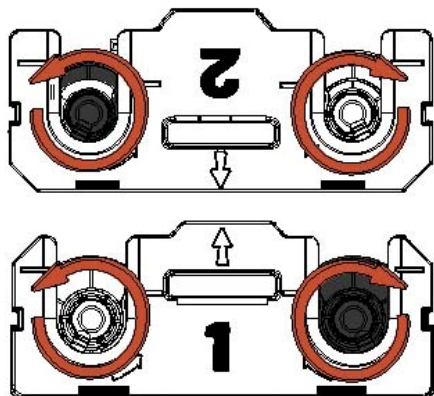
Step	Procedure
1	Unlock and open the Printer cover .



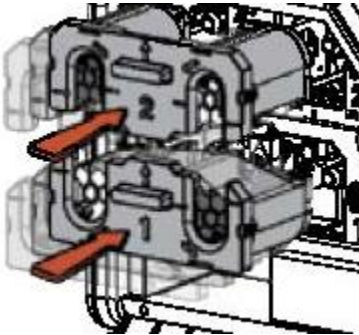
2	Remove the HDP Lamination Cartridge from the Printer.
3	Load the HDP Lamination into the Cartridge and click into place.



4	Tighten the HDP Lamination.
---	-----------------------------



5	Insert the HDP cartridge back into the printer and click into place.
---	--

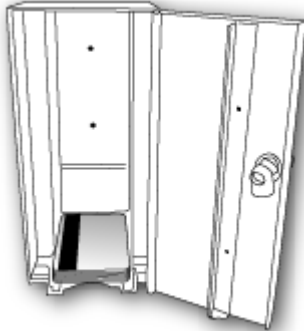


Loading the Blank Cards

Step	Procedure
1	Unlock and open the Card Input Cartridge. Leave the cartridge in the Printer, There is no need to completely remove the cartridge to load cards.



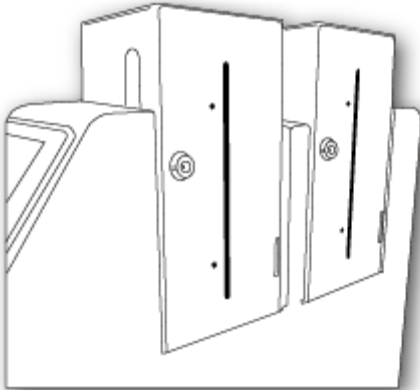
2	Load the cards into the cartridge. Important: The front of the card must face DOWN. The back of the card or the magnetic stripe on the card must face UP. The Smart Chip is loaded on the bottom.
---	---



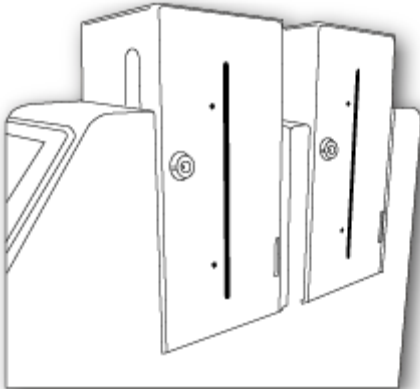
3	Place the Card Weight on top of each stack of cards.
---	--



4	Close and lock the Card Input Cartridge.
---	--

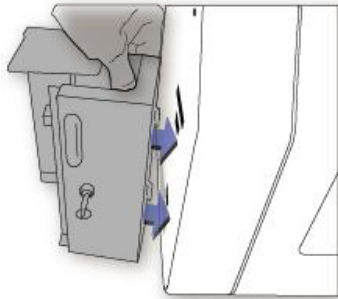


5	To completely remove the Card Input Hopper unlock the Printer Top Cover and release the BLUE lever to unlock the individual hopper.
---	---





Installing the Card Output Hopper

Step	Procedure
1	Unlock and place the card output hopper onto the output side (left) of the printer and push down until it clicks into place.



Connecting Power to HDP8500 Printer and/or Lamination Module

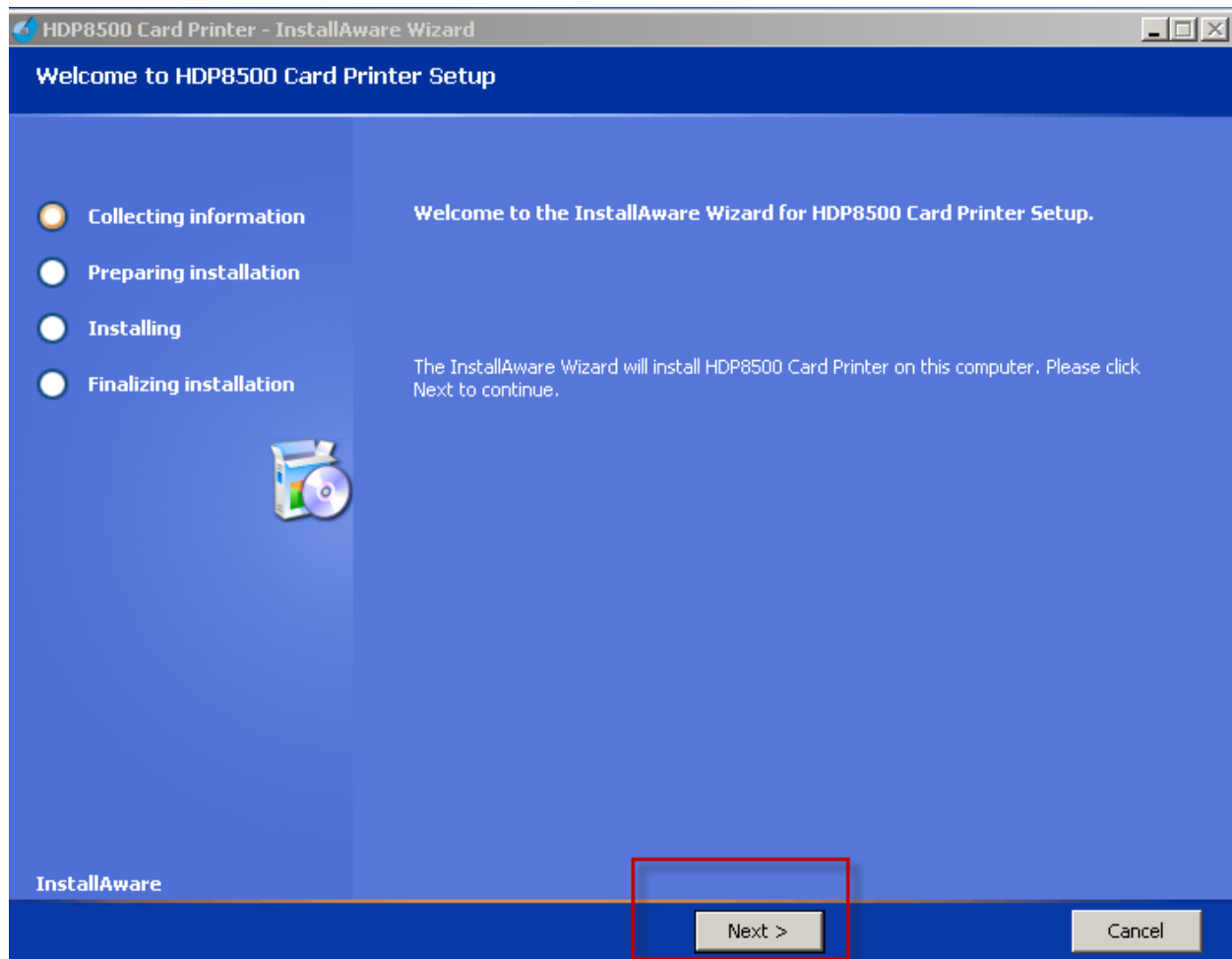
Important! Do not plug in the USB cable until prompted to do so during the installation of the HDP8500 Printer Driver. Refer to the Driver installation procedure below.

Step	Procedure
1	Insert the power cord into the Printer as shown below. 
2	Use the ON/Off switch to power up and down. This powers up both the Printer and the Lamination Module. 

Printer Driver Installation Procedures

(For MAC OS X and Linux Driver and User Guide see www.hidglobal.com)

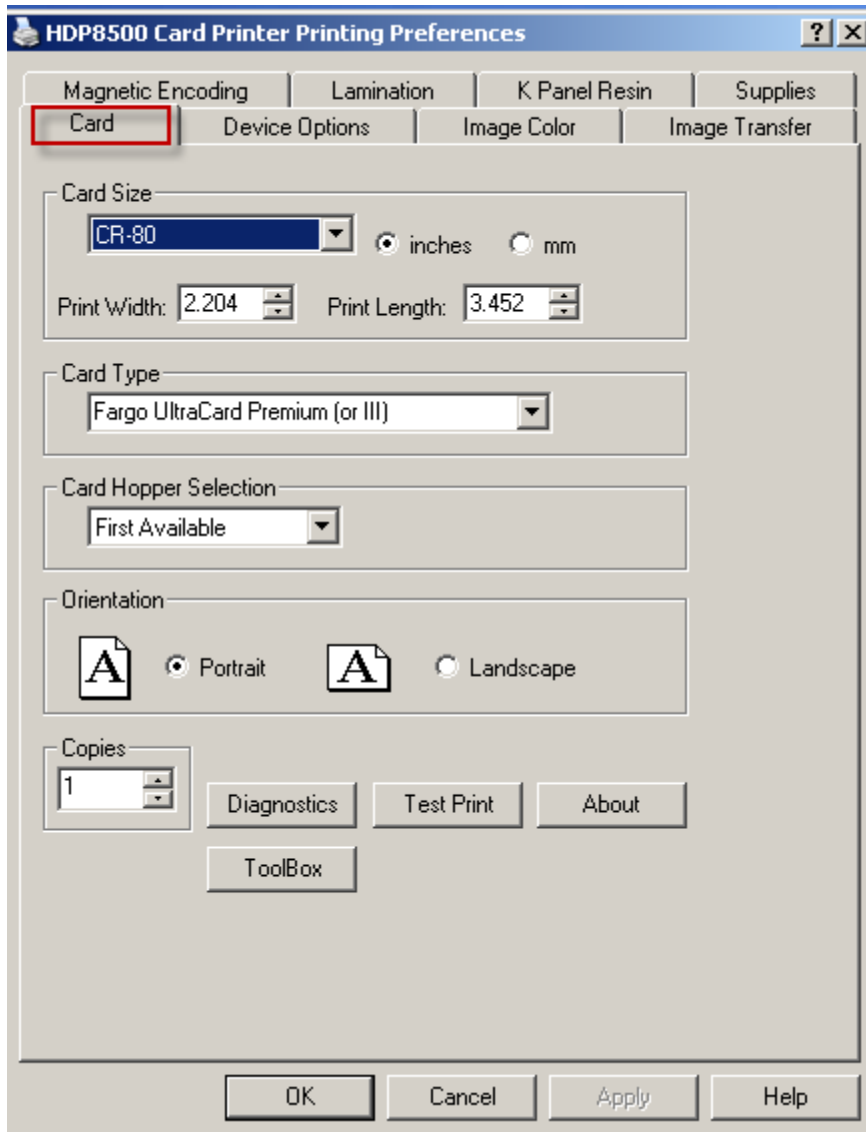
Step	Procedure
1	<p>Close down all programs.</p> <p>Insert the Software Installation CD into your computer's CD drive. After a few seconds, the CD's installer program will automatically open.</p> <p>Follow the CD's on-screen Procedures to complete installation.</p> <p>(Note: If the CD does not automatically open, use "My Computer" or "Windows Explorer" to view the contents of the CD. Then, double-click on the Setup.exe file listed on the CD.)</p>
2	<p>Click NEXT and <u>follow the screen prompts to complete the driver installation.</u></p>



Section 4: Printer Driver Operations

See this section for printer adjustments.

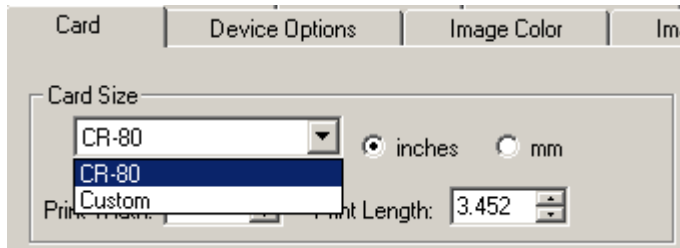
Using the Card tab



Selecting the Card Size

Important! Never run cards with a contaminated, dull or uneven surface through the Printer. Printing onto such cards will ultimately lead to poor print quality. Always store the card stock in its original packaging or in a clean, dust-free container. Do not print onto cards that have been dropped or soiled.

Step	Procedure
1	<p>Select the appropriate card option:</p> <ul style="list-style-type: none"> • These Card Printers accept standard CR80 sized cards (3.452L x 2.204W / 87.7 mmL x 56 mmW) • CR-80: This selection is the default form size for the HDP8500 • Custom: This selection is used to create a custom form size from 1.0 x 3.0 to 2.204 to 3.452 (25.4 X 76.2 mm to 56 X 87.7 mm). <p>The dimensions of the total print area for each card size will appear in the Print Width and Print Length boxes.</p> <ul style="list-style-type: none"> • These print area dimensions are .04" (1mm) larger than the actual card size. This is so the Printer can overprint images to ensure they will appear Edge-to-Edge when transferred to the card. • For this reason, when designing a card format, always set the card size or page size within the card design program to the exact Print Length and Width dimensions listed in the Printer Driver.)
Card Thickness	<ul style="list-style-type: none"> • System will be compatible with card thicknesses from 20-50 mil • Print only: .020" (20 mil) to .050" (50 mil) / .762mm to 1.27mm • Print/Lamination: .030" (30 mil) to .050" (50 mil) / .762mm to 1.27mm

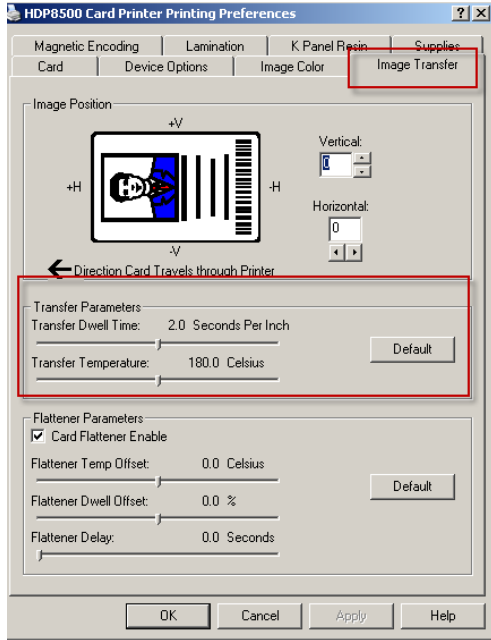


Selecting the Card Type

Select the appropriate card type according to the composition of the card stock.

Step	Procedure
Card Type	<p>You have these selections (to choose from):</p> <ul style="list-style-type: none"> • Fargo UltraCard Premium III (Default Card Type) = 180° and 2 sec • Fargo Ultracard = 175° and 2.0 sec • HID Tech Card Composite = 190° and 2 sec • HID Tech Card PVC = 180° and 2.0 sec • Indala FlexISO – Standard (FPISO) = 185° and 2.0 sec • Indala FlexISO XT-Composite (FPIXT) 190° and 2 sec • Custom 1 = 175° and 2.0 sec • Custom 2 = 175° and 2.0 sec • Defaults: The HDP Printer Driver software has default Transfer Temperature and Dwell Time settings that deliver the best transfer for these card types. These defaults automatically configure based on the card type, Ribbon type and whether printing single- or dual-sided. • Card Type Selection: Before printing, if using these standard Fargo card types, check to make sure that the appropriate card type option selected from the Card tab of the HDP Printer Driver: • Proper Settings: It is very important to note that not all card types will be accommodated by these default settings. In some cases, experimentation may be needed to find the proper settings. <p>IMPORTANT: If the appropriate option is not selected, the wrong Dwell Time and temperature may be used during the image transfer process, which may result in poor adhesion of the HDP Film or warping of the card.)</p>
Card Design	<p>The Printer will print onto any card with a clean, level and polished PVC surface. (Important: Composite PVC is recommended over straight PVC for the best results and for ISO card specification compliance. Single-side straight PVC does not conform to ISO compliance at this time.)</p>
Card Surface	<p>Suitable cards must have a polished PVC surface free of fingerprints, dust or any other types of embedded contaminants.</p>

	<ul style="list-style-type: none"> • In addition, cards must have a completely smooth, level surface in order for the Printer to achieve consistent color Coverage. • Some types of Proximity cards, for example, have an uneven surface which will inhibit consistent color transfer. • Likewise, some smart card chips are raised slightly above the cards surface, which also results in poor color transfer.
<p>UltraCard stock</p>	<p>Due to the importance of using high-quality blank cards, a factory-approved card stock called UltraCard™ is available and recommended for best results.</p> <ul style="list-style-type: none"> • UltraCard stock has a glossy PVC laminate on top and bottom and is optically inspected to provide the cleanest, most scratch and debris-reduced cards possible. • Two types of these cards are available: UltraCard and UltraCard Premium III. • UltraCard stock has a PVC core and offers medium card durability. • Recommended: UltraCard Premium III stock has a 40% polyester core and offers high durability. • Both types of UltraCards produce printed images with a glossy, photo-quality finish.
<p>Custom</p>	<p>If using a card stock other than listed, use the Custom 1 options to save custom Dwell Time and dwell temperature controls on the Image Transfer tab.</p> <ol style="list-style-type: none"> a. Click on the Custom options and enter a name for the card stock. b. Click on the Image Transfer tab to adjust the Dwell Time and temperature sliders to the appropriate settings. See the Display A below. page. (Note: These settings will be saved for the custom card type when the Printer Driver setup window is closed.) c. Custom Card stock: To determine the proper settings for custom card stock, apply the Tape adhesion Test. Conducting the Tape Adhesion Test.



Display A

Printing on Alternate Card Stocks

In order to optimize the HDP Card Printer's capabilities for cards with hard-to-print surfaces, we recommend evaluating the card stock selection before installation of the Printer.

The variability in cards based on:

- **Different surface textures and different sources of raw materials:** This may require different HDP Film transfer parameters.
- **Varied methods of assembling IC smart cards and proximity cards:** These particular adhesives used to glue a smart chip to a plastic card may react differently to a Transfer Roller's pressure and temperature.
- **Cleanliness of card stock:** The HDP process does not eliminate the need to use clean card stock. The best-looking card always starts with the cleanest card surface. Dirt and debris on a card can show up as blemishes on the card surface and may reduce the life of the image itself.

Conducting the Tape Adhesion Test

It is important to conduct tape adhesion tests because Fargo cannot be certain which transfer temperature and Dwell Time will work best (when printing cards other than UltraCard III). (**Note:** The optimal transfer settings may vary from card type to card type.)

Important! Inadequate time and temperature could produce cards that are more vulnerable to accelerated wear and dye migration. Use sufficient time and temperature to transfer HDP Film to the card to ensure a long lasting, durable card.

Step	Procedure
1	Test the adhesion quality of the HDP Film to the card by printing sample cards and completing an adhesive tape test.
2	Select the UltraCard IIIs-Glossy PVC if the card is glossy and print a test card.
3	<p>a. Apply a strip of ½ (12mm) wide Scotch-type clear adhesive tape (such as 3M brand 600), at least 2" (50mm) long, firmly across the surface of the card, pressing out all air bubbles with a fingertip.</p> <p>b. Remove the tape by smoothly and rapidly (approximately 2 inches/second (50mm/sec)) pulling it up at a perpendicular (90 degree) angle to the card. (Note: The IPC recommends a minimum of three tests for each card type evaluation.)</p>
4	<p>Visually examine the card and the strip of tape pulled from the card, to see if any portion of the HDP Film was removed from the card.</p> <ul style="list-style-type: none"> • If any residue (e.g., oil or grease from fingertips) is present on the card surface, the evaluation results may be affected. • If the printed, transferred HDP Film particles (a) pull away from the card and (b) adhere to the tape, this indicates that inadequate adhesion of the HDP Film to the card. Increased heat and Dwell Times are necessary to resolve this problem. <p>Samples 1, 2 and 3 show a representation of the adhesion level you can expect.</p> <ul style="list-style-type: none"> • Result 1: Sample 1 shows a significant transfer to the tape and is an absolute failure. • Result 2: Sample 2 shows that <u>very slight</u> transfer to the tape can be acceptable without sacrificing overall image durability on matte finish cards. • Result 3: Sample 3 shows no transfer to the Tape and is an Absolute Pass.
5	If the tape test indicates inadequate adhesion, increase the heat setting by 5 degrees, print another card and try the tape test again.

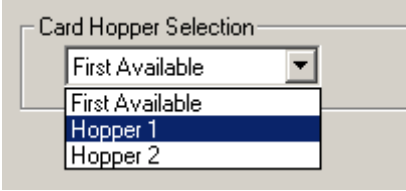


- Once the temperature has been increased 4 times (20 degrees), reset temperature to default and increase the Dwell Time by .5 second.
- Repeat this process until adequate adhesion is achieved.
- Ensure that the cards (in use) have a surface roughness (Ra) of 60 micro inches or less.

This information should be available from the card manufacturer.



Using the Card Hopper Selection

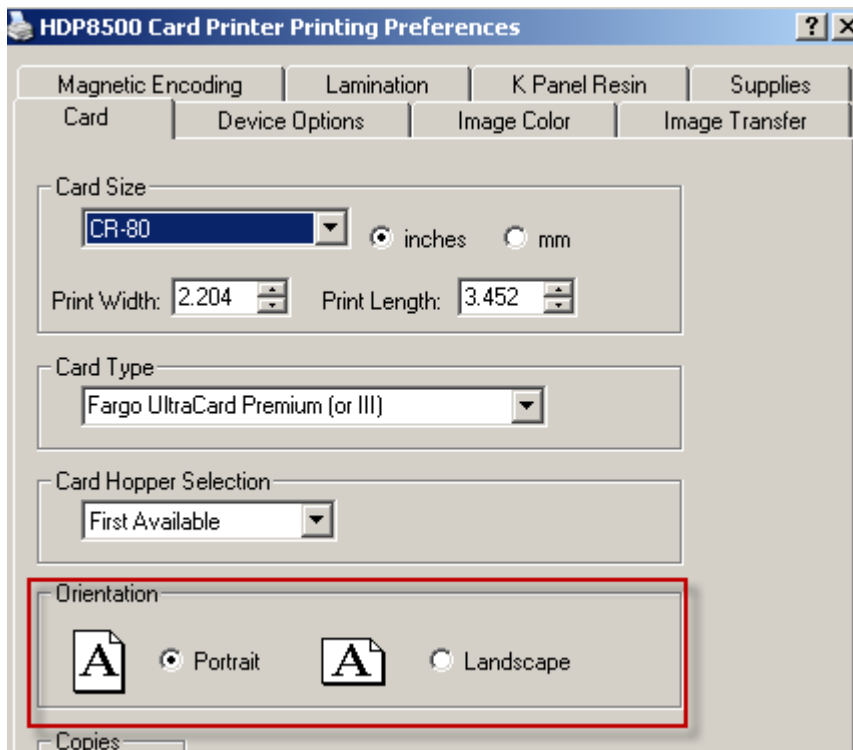
Use this option to select the Card Input Hopper. There are 2 options for setting the Hopper.

Step	Procedure
1	<p>From the Printer Driver select the desired hopper from which to feed the card.</p> 
2	<p>From the Printer Ready screen select the HOPPER icon</p> 
3	<p>Cycle between Hopper 1 and Hopper 2 by selecting 1 or 2 from the Printers Display Control Panel.</p> <p>Click <input checked="" type="checkbox"/> to save</p> 

Setting the Orientation

Select either the **Portrait** or **Landscape** radio buttons for Orientation.

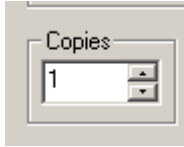
Step	Procedure
1	Select Portrait to cause the card to print in a vertical orientation. OR Select Landscape to cause the card to print in a horizontal orientation.



Specifying the number of Copies

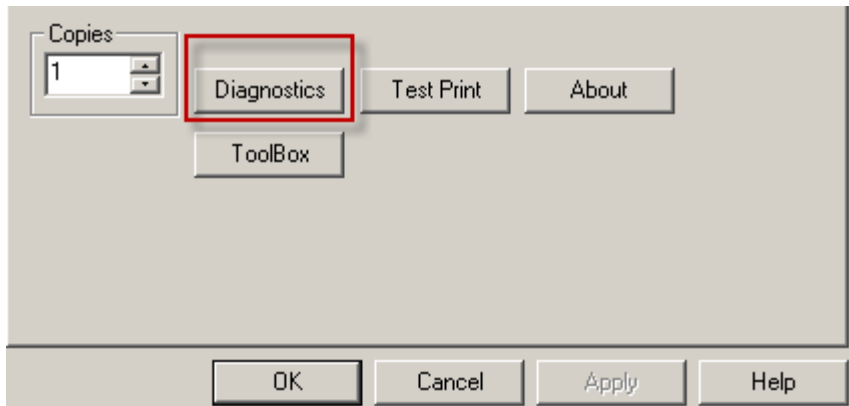
Specifies the number of copies to be printed.

- The upper limit is 10000 and the lower limit is 1.



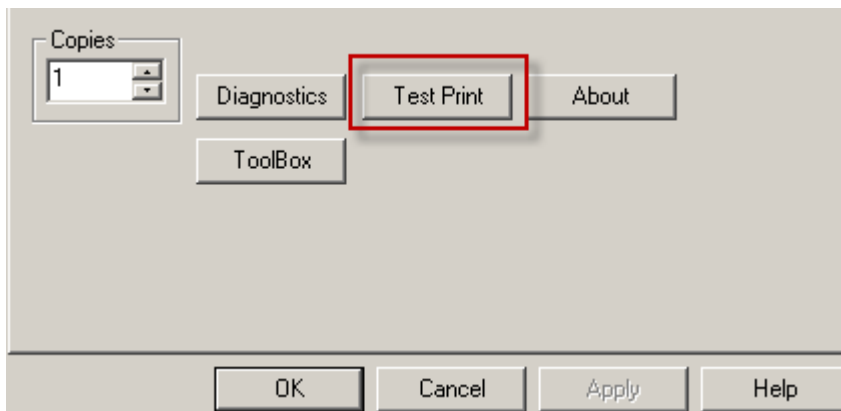
Selecting the Diagnostics button

This will launch the Diagnostic tool (if installed). The Workbench Utility Program is included on the driver CD. Also see the Workbench Utility Program User Guide located on the driver CD..



Printing a Test Print Image

Step	Procedure
1	Install a HDP8500 compatible ribbon in the Printer for the Test Print. The ribbon installed determines the Test Print PRN file sent to the printer.
2	Open the Driver settings. a. From your computer's startup menu, select Settings > Printers and Faxes. b. Double click on the HDP8500 Card Printer under the Printer's window. c. Select Printing Preferences under the Printer drop-down menu. (Note: This will bring up the HDP8500 Printing Preferences window.)
3	a. Select the Card tab, and then click on the Test Print button, as shown in Display A on the next page. b. When the Test Print button is selected, an image is copied to the Printer.



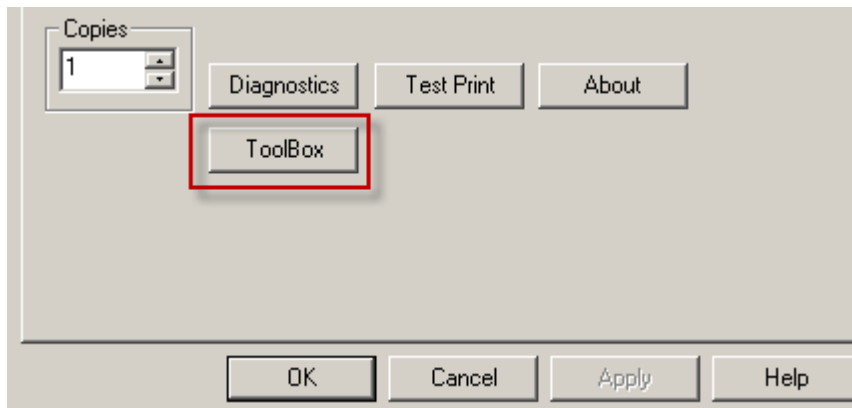
Selecting the About button

Select the **About** button to open a dialog box containing the copyright information as well as the Driver's version number and date code.



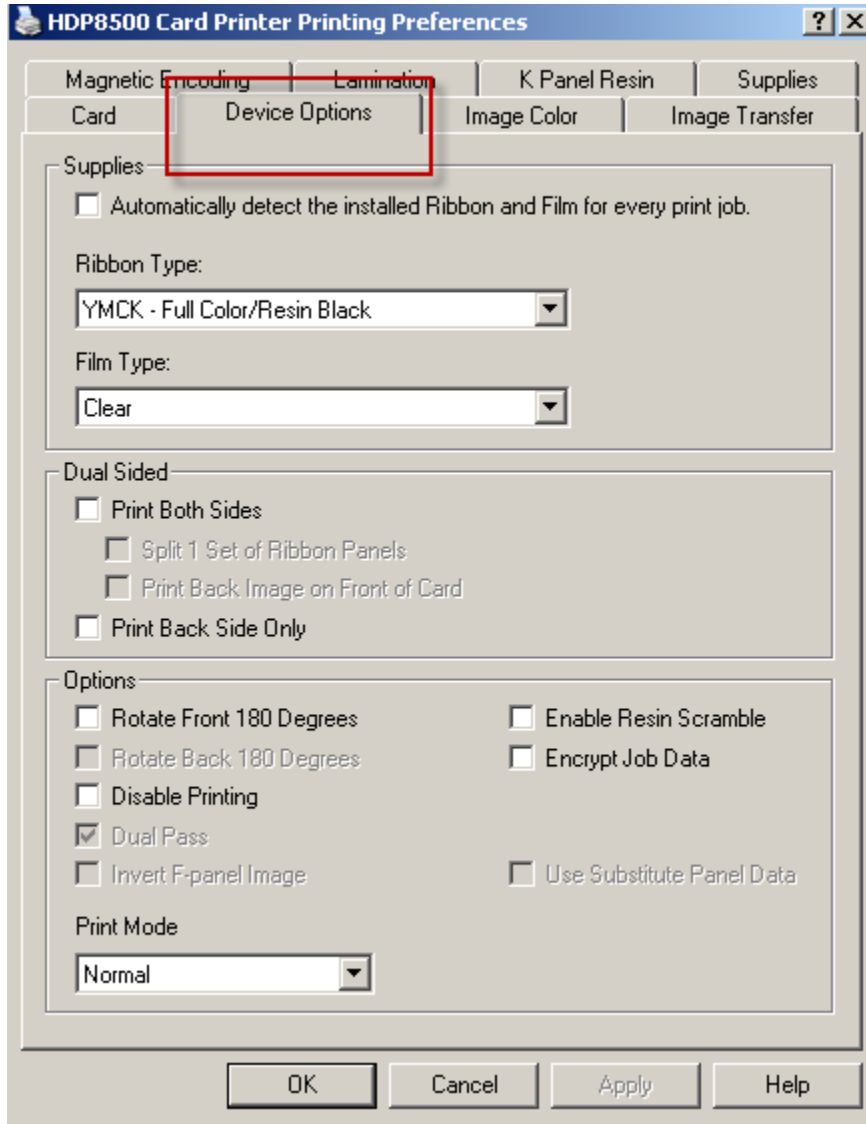
Selecting the Toolbox button

Select the **Toolbox** button. See the [Section 5: Accessing the Toolbox](#) HELP section for more information and procedures.



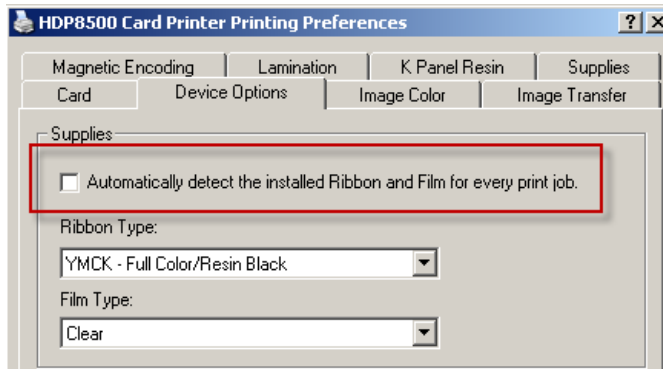
Using the Device Options tab

This section describes the use of the Device Options tab.



Detecting Supplies at Print Time Function

Step	Procedure
1	<p>Use the Supplies checkbox for auto detection of the consumables, which are the Ribbon and, Film. See below.</p> <ul style="list-style-type: none"> In the Firmware, the values (representing the installed Ribbon, installed Transfer Film) are updated on initialization (including each time the cover is closed). The Firmware compares the Ribbon and, Film values in the PRN file to the values (it holds regarding the currently installed consumables). <p>If the values do not match, the LCD displays Wrong Ribbon Error or Wrong Film Error the Driver returns the corresponding error message. See below.</p>

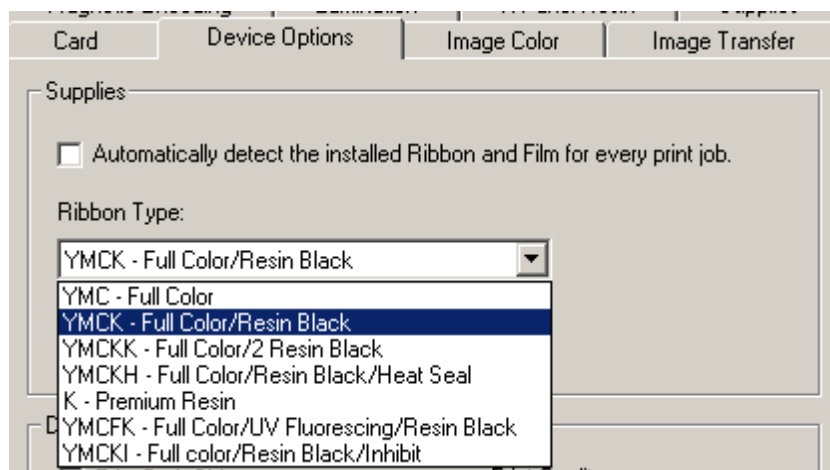


3	<p>When the Supplies checkbox is checked, the following takes place:</p> <ul style="list-style-type: none"> Ribbon and Film Type dropdown boxes are inactive and populated with values of installed supplies. Dual Sided and Options are set to defaults for detected supplies. Before the Driver initiates each job, it retrieves the consumables values from the Firmware. If no Printer is found or no Ribbon is installed, the checkbox is allowed to be checked. (Note: The previously-chosen Ribbon and Film values will remain. You will see an error message.) Activating the Device Options tab automatically repopulates the Ribbon and Film types. (Note: You will see an error message if no Printer found when activating the Device Options tab.)
4	<p>When the Supplies checkbox is not checked or it is de-selected (cleared) from a selected state, the Ribbon and Film dropdown boxes become active and auto selected Ribbon and Film types remain (until manually changed).</p>

Adjusting the Ribbon Type

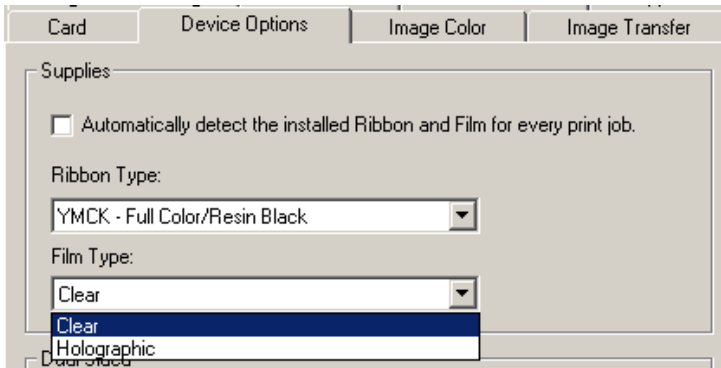
Use the Ribbon Type dropdown menu to match Ribbon type.

Step	Procedure
1	<p>Adjust to match the Ribbon Type selection with the Ribbon type that is loaded in the Printer.</p> <ul style="list-style-type: none"> • YMC (Full Color): Yellow, Magenta, Cyan OR • YMCK (Full Color/Resin Black): Yellow, Magenta, Cyan, Resin Black OR • YMCKK (Full Color/2 Resin Black): Yellow, Magenta, Cyan, Resin Black, Resin Black OR • YMCKH (Full Color/Resin Black/Heat Seal): Yellow, Magenta, Cyan, Resin Black, and Heat Seal OR • YMCFK (Full Color/ Fluorescing /Resin Black): Yellow, Magenta, Cyan, UV Fluorescing, and Resin Black • YMCKI (Full Color/Resin Black/Inhibit): Yellow, Magenta, Cyan, Resin Black, Inhibit • K Resin Black: Resin Black



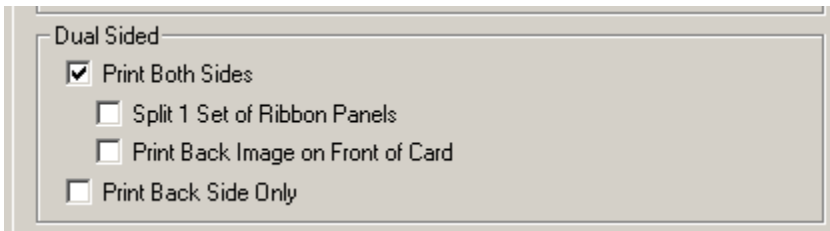
Adjusting the Film Type

Step	Procedure
1	<p>Allows you to select the film type option that is appropriate for the type of HDP film currently loaded in the Printer.</p> <ul style="list-style-type: none">Select the Clear option to automatically adjust the appropriate transfer time and temperature to pre-determined defaults. (Note: Select this option to automatically adjust the transfer temperature and the dwell times to defaults when non-custom card type is chosen on Card tab.) <p>OR</p> <ul style="list-style-type: none">Select the Holographic option to change appropriate internal Printer settings needed to make the holographic film work. (Note: Select this option to automatically adjust the transfer temperature and the dwell times to defaults when non-custom card type is chosen on Card tab.) <p>(Note: It will also adjust the necessary transfer temperature and the dwell settings in the Driver to provide the optimal holographic InTM performance.)</p>



Using the Dual Sided Group Functions

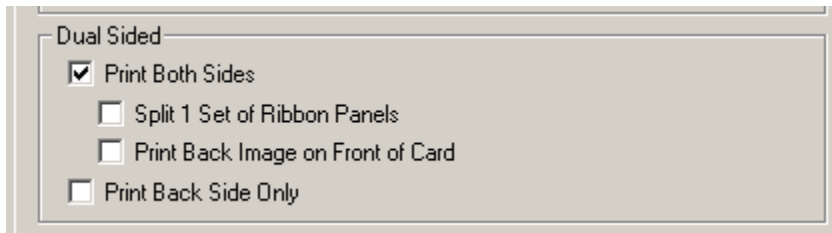
The Dual Sided group checkboxes (shown below) are grayed out if no Flipper is automatically found or if the Dual Sided is manually turned off. See the procedures in this section for more instructions.



Using the Dual Sided - Print Both Sides option

Use this option to automatically print on both the front and backside of a card.

Step	Procedure
1	Select this option in conjunction with any application program that supports a multiple-page document, duplex printing. (Note: The program must be able to send down two or more separate pages to be printed within the same document.)
2	<ul style="list-style-type: none"> • Page 1 will be transferred to the front side of the card. • Page 2 will be transferred to the backside of the card. • The Printer Driver will always place all odd numbered pages on the front side of the card and all even numbered pages on the back side with this option selected.



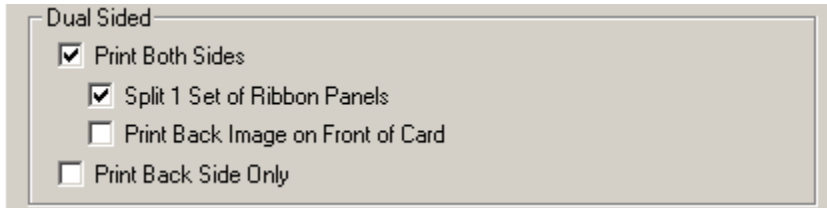
Using the Print Both Sides - Split 1 Set of Ribbon Panels option

Use this option to provide the most economical means of printing a dual-sided card since a single set of Ribbon Panels will be split to print both the front and backside of a card.

- This option becomes active when **Print Both Sides** is checked.
- The Default is active and unchecked except for YMCKK, which is checked.

Step	Procedure
1	<p>Select this option to automatically print full-color on the front of a card and resin black on the back of a card (using YMCKK Print Ribbons).</p> <ul style="list-style-type: none"> • If using a YMCKK Ribbon, the front of the card is printed with the YMCK Panels and the back is printed with the second K Panel. <p>(Note #1: This option is automatically enabled when a YMCKK Ribbon type is selected.)</p>

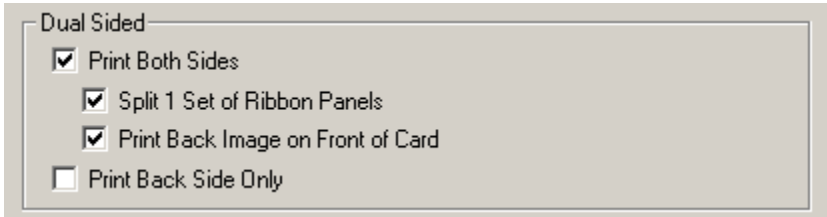
(Note #2: This option is not available if using a YMCKH Ribbon.)



Using the **Print Both Sides - Print Back Image on Front of Card** option

This option becomes active when **Print Both Sides** is checked. The Default is active and unchecked.

Step	Procedure
1	Select this option: <ul style="list-style-type: none"> • If you need to print the first page of a two-page document on the backside of the card. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • If you need to print the resin black on the chip-side of the Smartcard. The second page of the document will be printed on the front side of the card.

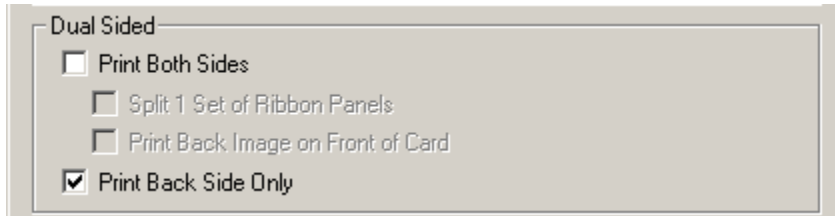


Using the **Dual Sided - Print Back Side Only** option

Use this option to print only onto the backside of cards. (**Note:** The **Print Back Side Only** checkbox default is active and unchecked.)

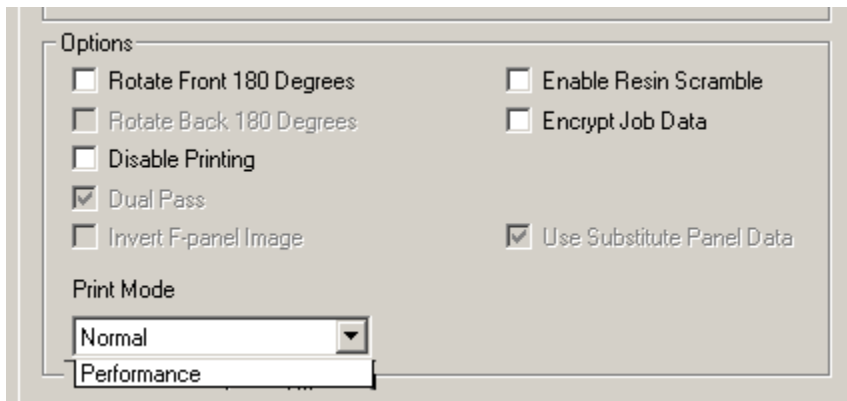
Step	Procedure
1	Select this option to print only onto the backside of preprinted cards that must have their Magnetic Stripe or smart card chip encoded. (Note: Load the

- cards in the usual fashion.)
- When this option is selected, the **Print Both Sides** option is automatically disabled.)
 - When attempting to print a two-page document (if **Print Back Side Only** is selected), the first page of the document will print on the backside of the card.
 - The second page of the document will then be printed on the back of a second card.



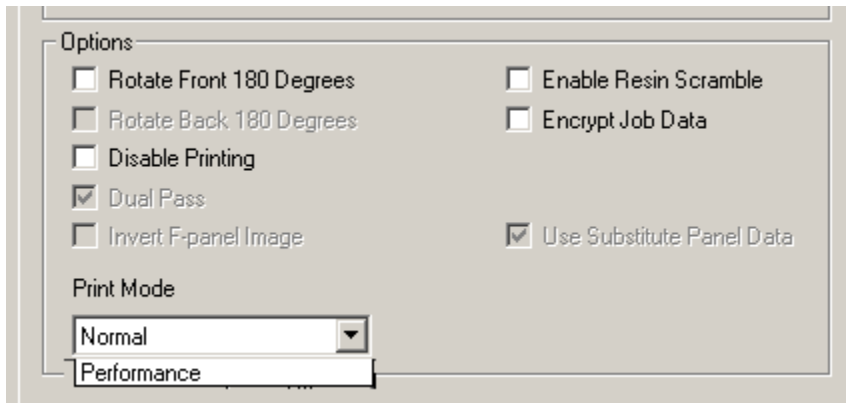
Using the Print Quality

- Normal print mode (default)
- Performance print mode is faster with lower image quality and is most suitable for minimal color with mostly resin text.



Using the Options Group

The functions under the Options Group are described in this section.



Using the Rotate Front 180 Degrees or Rotate Back 180 Degrees options

Use this option to change the position of the printed image in relation to the set location of a card's Magnetic Stripe or smart chip.

Step	Procedure
1	Select the Rotate Front 180 Degrees option to rotate the image on the front of the card by 180 degrees when printed. OR Select the Rotate Back 180 Degrees option to rotate the image on the back of the card by 180 degrees when printed.

Dual Sided

- Print Both Sides
 - Split 1 Set of Ribbon Panels
 - Print Back Image on Front of Card
 - Print Back Side Only

Options

- Rotate Front 180 Degrees
- Rotate Back 180 Degrees
- Disable Printing
- Dual Pass
- Invert F-panel Image
- Enable Resin Scramble
- Encrypt Job Data
- Use Substitute Panel Data

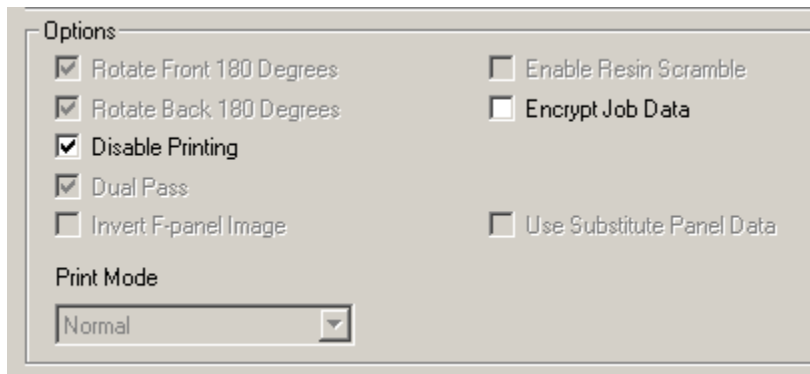
Print Mode

Normal

Using the Disable Printing option

Use this option to disable the printing capabilities of the Printer while still allowing the Printer to encode cards. (**Note:** This option is useful to encode or re-encode preprinted cards without wasting additional time or printing supplies.)

Step	Procedure
1	Select this option to ensure no print data will be sent to the Printer (while all encoding instructions will be sent according to how they are configured within the software). This option also allows you to laminate ONLY.



Using the Dual Pass and Invert F-Panel Image options

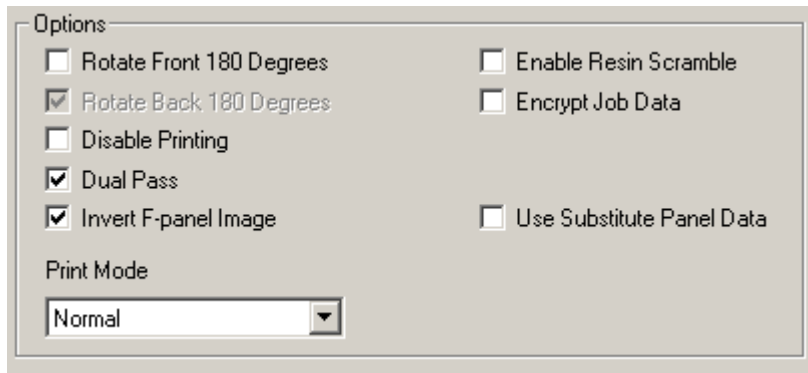
See Configuring Fluorescent Data (F-Panel for YMCfK Ribbon) using the Workbench procedure in the Fargo Workbench Printer Utility section.

- **Dual Pass option:** This refers to the fact that the fluorescing dye can be applied to a separate panel of HDP Film. (**Note:** First, the YMC ink is applied to a panel of HDP Film; then, the F and possibly K are applied to a separate panel. If this is not done, the fluorescent ink tends to mix with the YMC colors and lose its fluorescent qualities; it also tends to become visible.)

It is recommended that the user use the default “Dual Pass” option if the fluorescent image is used in places where other dye is used or if the “Invert F panel” option is selected.

- **Invert F-Panel option:** This refers to the ability to cause light or white areas of the image to fluoresce and dark colors to remain dark on the printed card when exposed to a UV light. (**Note:** This was requested because the fluorescent dye color is bright when black light is applied to it. By default, the dark areas of the image will fluoresce on the card and the lighter or white areas will have no dye applied.)

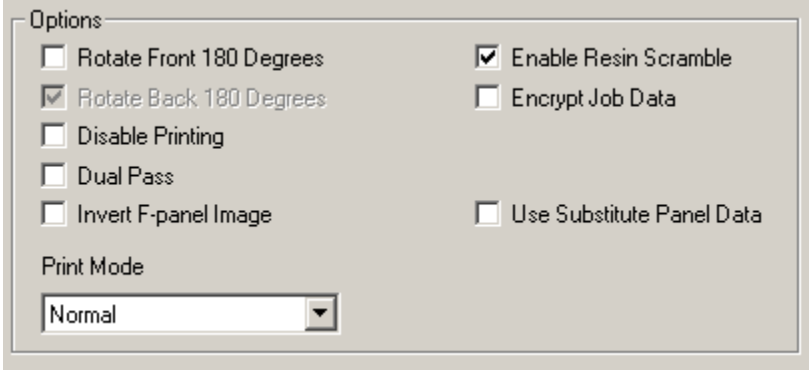
The User can select the **Invert F-Panel** option to cause the black in the design to show as dark on the card. This option is recommended if the user is printing a photo.



Using the Secure Resin Erase

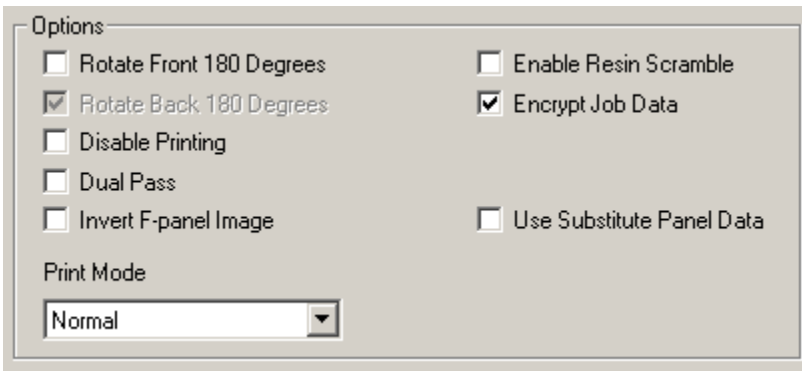
- Resin erase feature - eliminates the personal data traceability on used ribbon panels and lower the risk of identity theft .
- The Yellow, Magenta, Cyan and resin (K) panels are printed like normal. However, prior to transfer the film is reversed to the previously used film panel and the ribbon is rewound to the beginning of resin (K) panel.
- A white noise image is then printed on the resin (K) panel to the used film panel. The film and ribbon as then backed up again. The white noise image is the printed again but it begins at a different point of the film from the first pass.

- The end result is the ribbon has almost no resin left on it while the film has the scrambled image.
- Only ribbons with the K panel have this option available in the driver.



Using the Encrypt Job Data

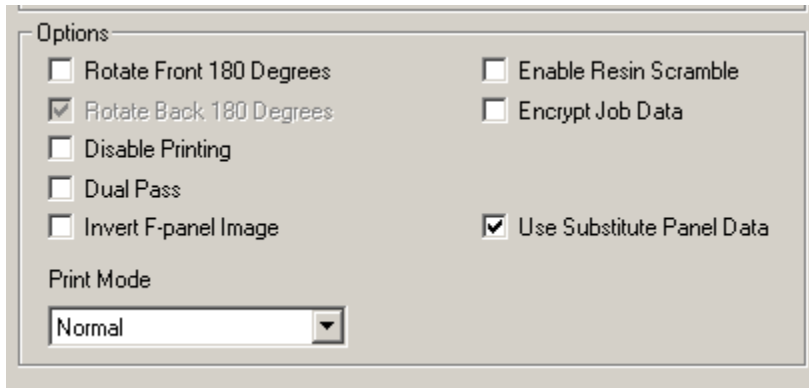
- AES256 encryption - protects the data passed from the computer to the printer .



Using the Use Substitute Panel Data

- Only ribbons with the **F** or **I** panel have this option available in the driver.
- When 'Split Mode' is selected in the driver AND the Flipper Module is present;
the first page of the document is printed to the front of the card with the YMC ribbon panel,
the second page is printed on the front of the card with the F ribbon panel ,
the third page is printed on the back with the K ribbon panel.
- When 'Split Mode' is NOT selected AND the Flipper Module is present;
the first page of the document is printed to the front of the card with the YMC ribbon panel,
the second page is printed on the front of the card with the F ribbon panel ,

the third page is printed on the back of the card with the YMC ribbon panel,
the fourth page is printed on the back of the card with the F ribbon panel.

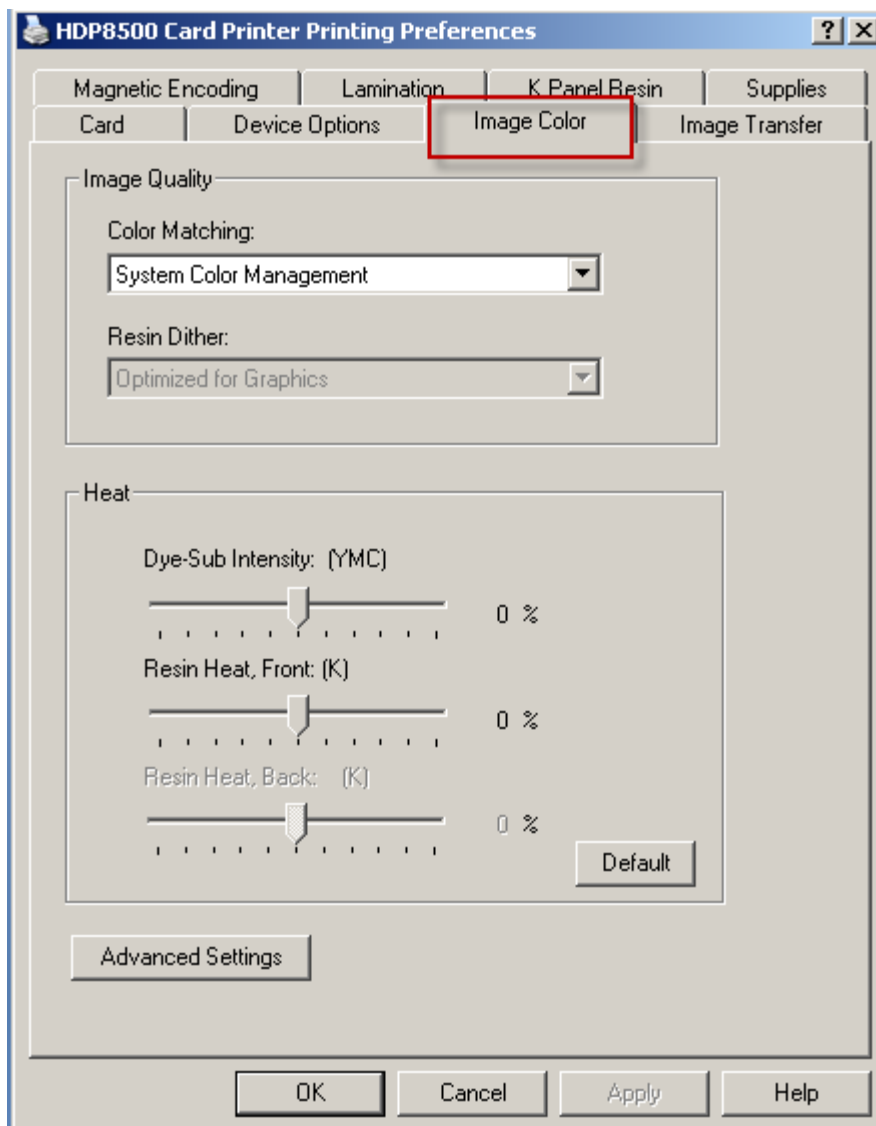


Using the Image Color tab

Use this tab to adjust color properties.

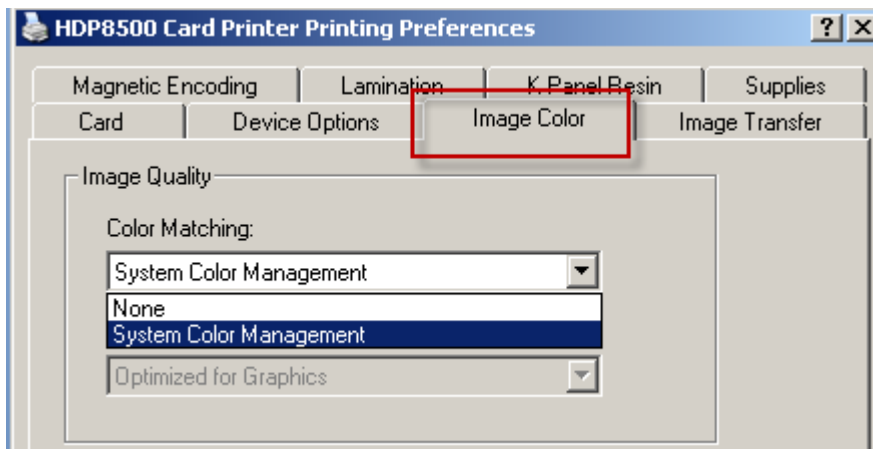
Step	Procedure
1	Select the Image Color tab to control the Sharpness, Contrast and Gamma of the printed image, as well as the individual color balance of Yellow, Magenta and Cyan . See both displays in this section. Proceed to related procedures (provided below).

Display A – Image Color tab

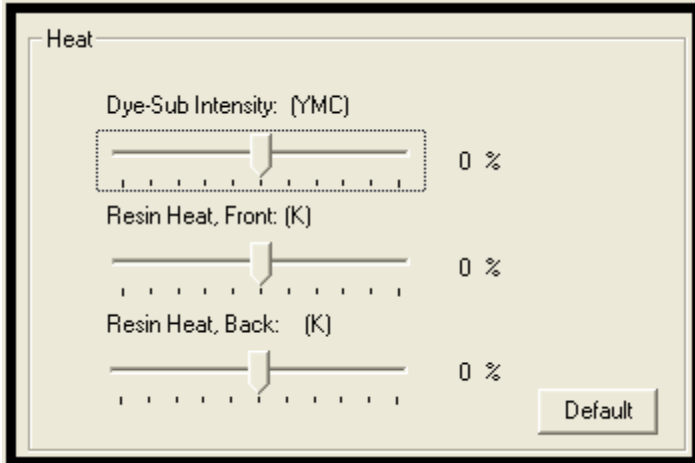


Using the Image Quality – Color Matching dropdown

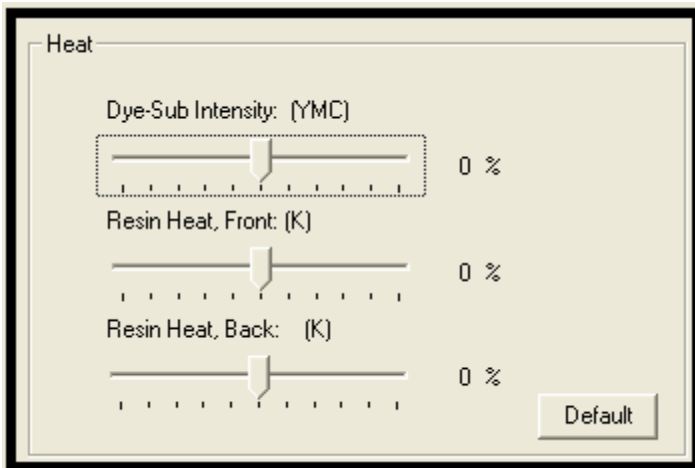
Step	Procedure
1	<p>Select None if color correcting the image for printing has already been done or if using third party color matching software.</p> <p>OR</p> <p>Select System Color Management to allow the Printer Driver to make color corrections similar to the Algebraic option but through a more complex color matching algorithm. (Note: This option shifts colors more radically so the colors in the image will more closely match how they appear on screen.)</p>



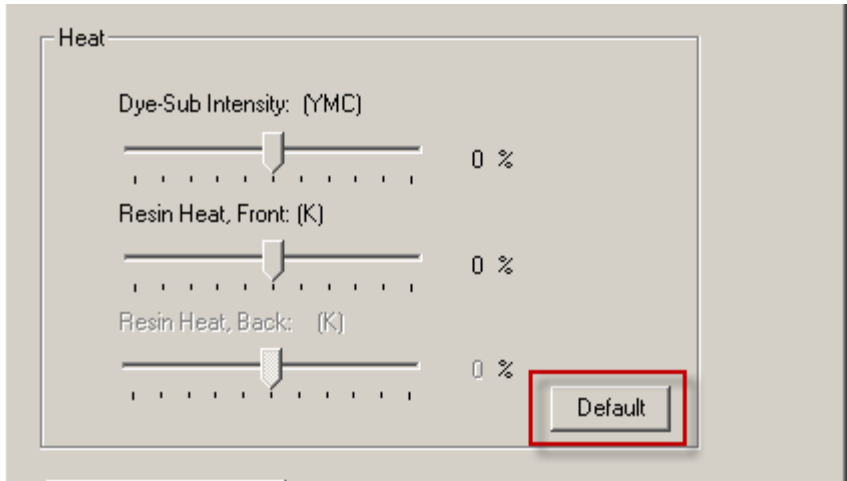
Step	Procedure
2	<p>Control the overall darkness and lightness of the dye-sub printed image by adjusting the Dye-Sub Intensity slide by clicking and dragging the slide's box.</p> <ul style="list-style-type: none"> Move the slide to the left to cause less heat to be used in the printing process, thus generating a lighter print. <p>OR</p> <ul style="list-style-type: none"> Move the slide to the right to cause more heat to be used, thus generating a darker print. <p>(Note: This slide only affects those images printed with dye-sublimation Ribbon Panels (YMC).)</p>



Step	Procedure
3	<p>Control the amount of heat the Printer uses when printing with the resin black Panel by adjusting the Resin Heat slide.</p> <ul style="list-style-type: none">• Move the slide to the left to cause less heat to be used in the printing process, causing resin images to be lighter or less saturated. <p>OR</p> <ul style="list-style-type: none">• Move the slide to the right to cause more heat to be used, causing resin images to be darker or more saturated. <p>(Note: This control can be helpful for fine-tuning the sharpness of resin text and bar codes.)</p>



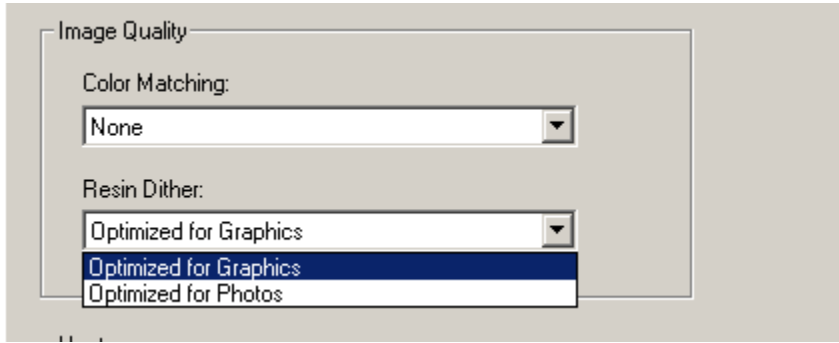
Step	Procedure
4	As needed, return all options to their factory settings by clicking on the Default button.



Adjusting for the Resin Dither

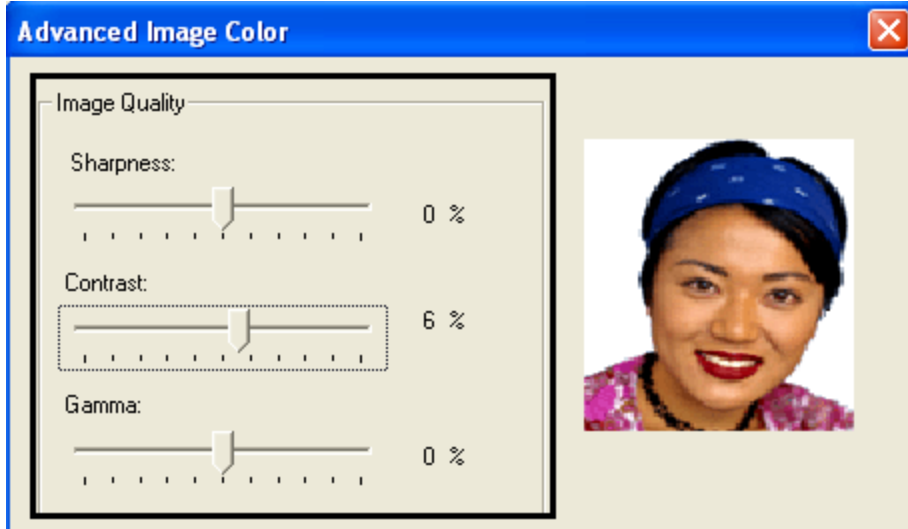
Select the appropriate dither method according to the type of image to be printed. (**Note:** This option only affects those objects printed on the backside of a card with the resin black Panel of a YMCK YMCKK and YMCKI Print Ribbon. This is only enabled when using at least one K panel and dual sided enabled, splitting one set of panels.)

Step	Procedure
1	Select Optimized for Graphics when printing lower quality images (e.g., clipart, logos, etc.) with resin. OR Select Optimized for Photo when printing photo quality images with resin.

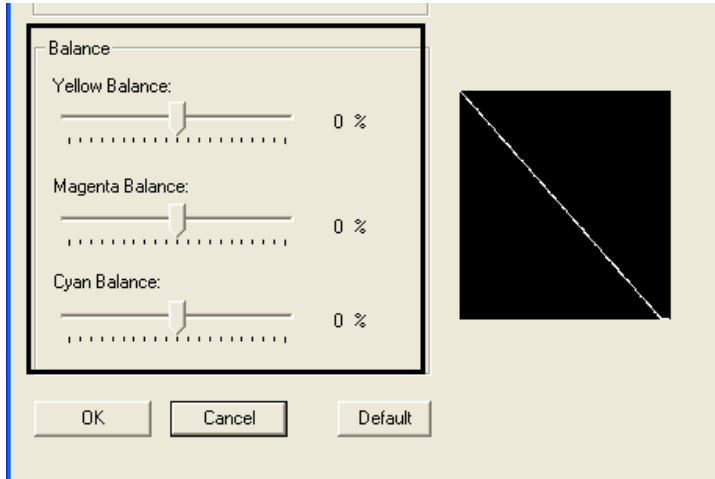


Using the Advanced Image Color window

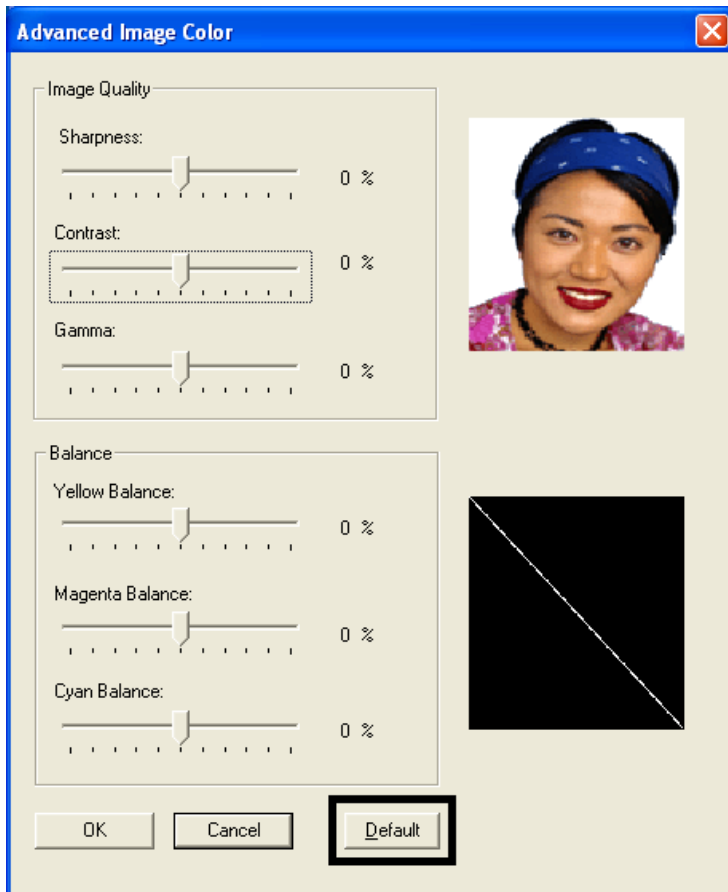
Step	Procedure
1	Click on the Advanced Settings button to bring up the Advanced Image Color window. See below.
2	<p>For the Image Quality slider bar controls, see below.</p> <p>Click OK to accept any variance from the default (for this specific slider bar) and return to the Image Color tab window.</p> <p>Click Cancel to negate any variance on the slide and return to the Image Color tab window.</p> <p>Click on the Default button to clear changes back to the default settings for this window only.</p> <p>In addition, here are further instructions:</p> <p>Sharpness (Default, 0%): Move the slide to the left (-) or less sharpness. Move the slide to the right (+) or more sharpness of the printed image. Study the image (on the right) to determine correct sharpness.</p> <p>Contrast (Default, 0%): Move the slide to the left (-) or less contrast. Move the slide to the right (+) or more contrast of the printed image. Study the image (on the right) to determine correct contrast.</p> <p>Gamma (Default, 0%): Move the slide to the left (-) or less gamma. Move the slide to the right (+) or more gamma of the printed image. Study the image (on the right) to determine correct gamma.</p>



Step	Procedure
3	<p>For the Balance slider bar controls, see below.</p> <p>Click OK to accept any variance from the default (for this specific slider bar) and return to the Image Color tab window.</p> <p>Click Cancel to negate any variance on the slide and return to the Image Color tab window.</p> <p>Click on the Default button to clear changes back to the default settings for this window only.</p> <p>In addition, here are further instructions:</p> <p>Yellow Balance (Default, 0%): Move the slide to the left for (-) or less yellow as an individual color. Move the slide to the right (+) or more yellow as an individual color balance. Study the image (on the right) to determine correct color yellow balance effect.</p> <p>Magenta Balance (Default, 0%): Move the slide to the left for (-) or less magenta as an individual color. Move the slide to the right (+) or more magenta as an individual color balance. Study the image (on the right) to determine correct color magenta balance effect.</p> <p>Cyan Balance (Default, 0%): Move the slide to the left for (-) or less cyan as an individual color balance. Move the slide to the right (+) or more cyan as an individual color balance. Study the image (on the right) to determine correct color cyan balance effect.</p>

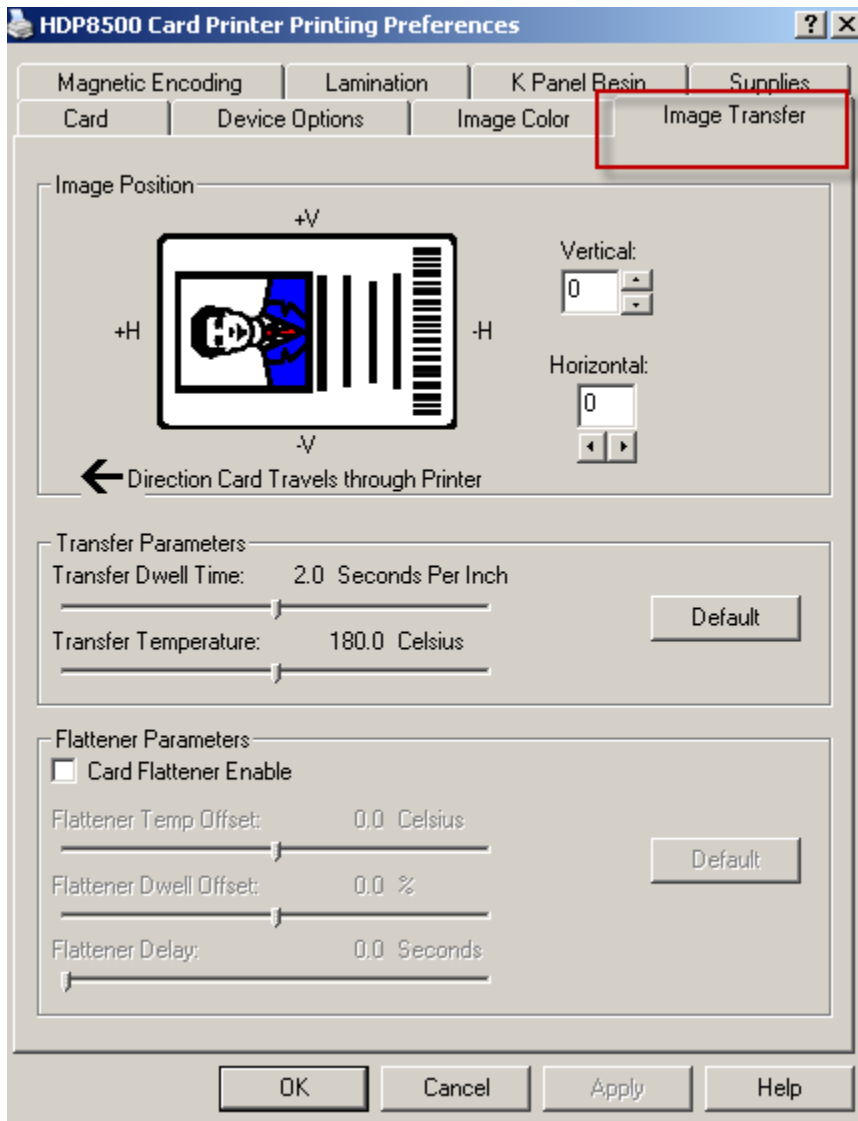


Step	Procedure
4	Click on the Default button to clear changes back to the default settings for this window only and NOT for the Advanced Image Color dialog box



Using the Image Transfer tab

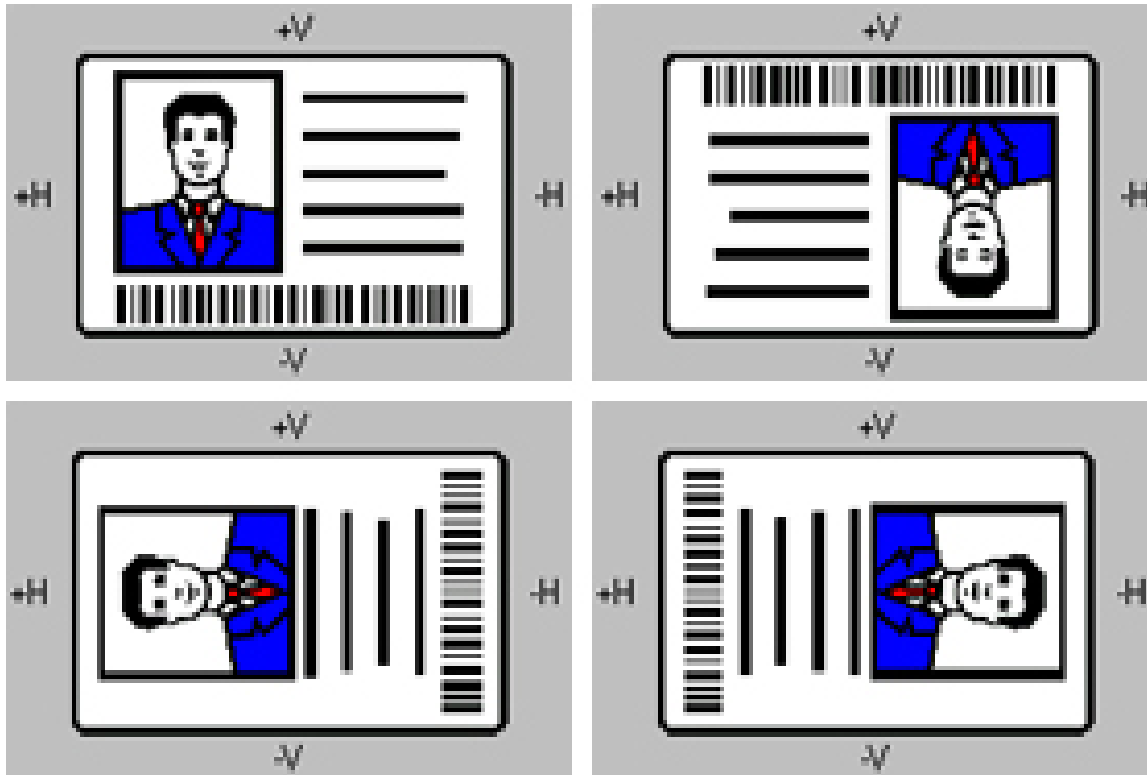
Use this tab to adjust the **Image Position**, **Transfer Dwell Time** and **Transfer Temperature**.
(**Note:** The HDP8500 Printing Preferences window has the same Image Color tab functionality as the HDP8500-LC Printing Preferences window.)



Adjusting the Image Position controls

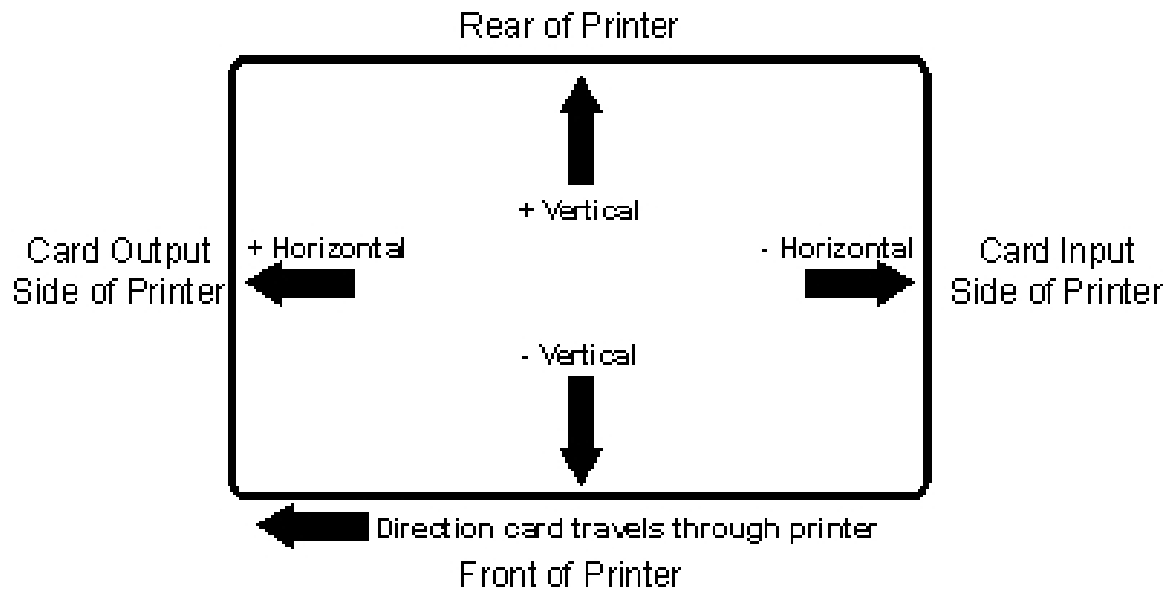
Use the **Image Position** controls to position the image on a card (to be adjusted).

Step	Procedure
1	<p>Adjust the Image Position values by clicking on the Vertical and Horizontal adjustment arrows.</p> <ul style="list-style-type: none">• These values ensure that the Cards always remain in the same position as they travel through the Printer (regardless of image orientation).• The Card Illustration (shown in the Image Position box) will flip and rotate according to the selection of Portrait, Landscape or Rotate 180 Degrees.• The outline around the illustration will always remain in the same Landscape orientation.



The display (below) represents how the printed image will move in relation to the fixed card position as positive and negative image placement values are entered.

Step	Procedure
2	<p>Follow these instructions:</p> <ul style="list-style-type: none"> Use the Vertical adjustment to move the image toward the front of the Printer if a positive number is entered and toward the rear of the Printer if a negative number is entered. <p>OR</p> <ul style="list-style-type: none"> Use the Horizontal adjustment to move the image toward the card output side of the Printer if a positive number is entered and toward the card input side of the Printer if a negative number is entered. <p>(Note: The maximum value for the Vertical and Horizontal adjustments is ± 100 Pixels (10 Pixels = 0.03 (.8mm).)</p>

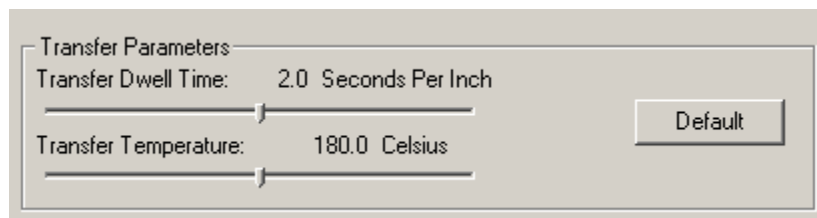


Adjusting the Transfer Dwell Time and Temperature

Use the Image Transfer option to control of the **Transfer Dwell Time** and **Transfer Temperature**.

- These settings control the speed and temperature at which printed images are transferred from the HDP Film to the card. These settings may vary depending on the card type.
- The Printer Driver automatically optimizes these settings according to the selection made in the **Card Type** option.
- Changes made to the Dwell Time and temperature settings are saved for the selected **Card Type** option (upon exiting the Printer Driver setup in the Printer's Control Panel).

Step	Procedure
1	<p>Transfer Dwell Time Sets dwell time for InTM transfer in seconds per inch Lower limit = 1.0 seconds per inch, Upper limit = 3.0 seconds per inch</p> <ul style="list-style-type: none"> • UltraCard III - Composite: Default = 2 seconds per inch • UltraCard - PVC: Default = 2.0 seconds per inch • Custom: Default = 2.0 seconds per inch
2	<p>Transfer Temperature Sets temperature for InTM transfer in Celsius Lower limit = 150.0 Celsius, Upper limit = 210.0 Celsius</p> <ul style="list-style-type: none"> • UltraCard III - Composite: Default = 2 seconds per inch • UltraCard- PVC: Default = 175.0 Celsius • Custom: Default = 175.0 Celsius

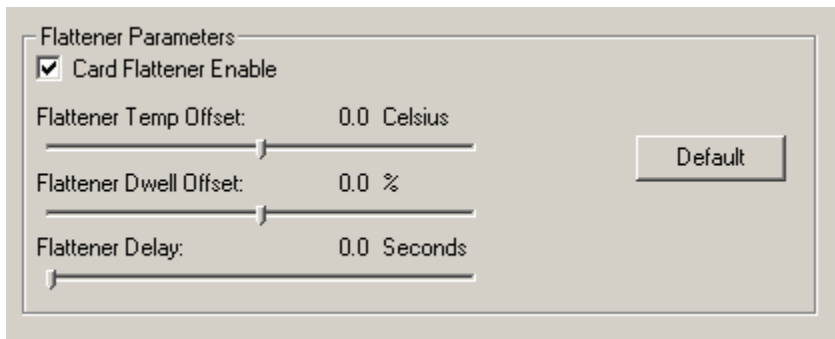


Step	Procedure
3	Return to the factory default settings for the selected Card Type by clicking on the Default button. If using cards (that differ from the Card Type Glossy-PVC or Matte-PVC options), select one of the Card Type Custom options.
4	Adjust the dwell time and temperature settings to ensure proper image transfer. Determine the appropriate settings for the card stock by setting the Transfer Dwell Time and Transfer Temperature to the default settings.

	<p>Print a card.</p> <p>a. If the HDP Film is not transferring properly, adjust these settings accordingly.</p> <p>OR</p> <p>b. If the Film is transferring properly, perform a final durability test called the Tape Test.</p> <p>For instructions on how to do a tape test, see Conducting the Tape Adhesion Test procedure.</p>
--	--

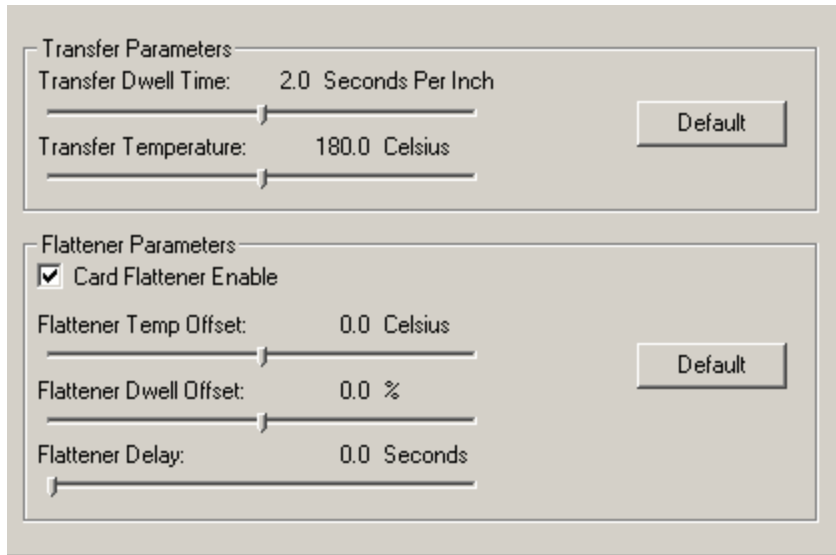
Using the Flattener Settings

Step	Procedure
1	<p>Click the Card Flattener Enable box.</p> <p>Use the slider to adjust the Temperature, Dwell Time, and Delay OFFSETS.</p> <p>This will adjust the offset between -20 and 20 in increments of 5.</p>
2	<ul style="list-style-type: none"> The card flattening routine occurs after the card is transferred. The card flattener will have adjustable temp and dwell. Instead of directly setting the flattener temp, the user will be able to select from a few different offset values from the default speed. Instead of directly setting the flattener dwell, the user will be able to select from a few different offset values from the default dwell. The card flattener will have a 0 to 15 second adjustable delay before the flattening routine will run after the printing has finished.. The driver will disable the card flattener, if a dual sided job is sent.
3	Use the Default button to reset the Flattener to the default , - zero, setting.



Using the Default button

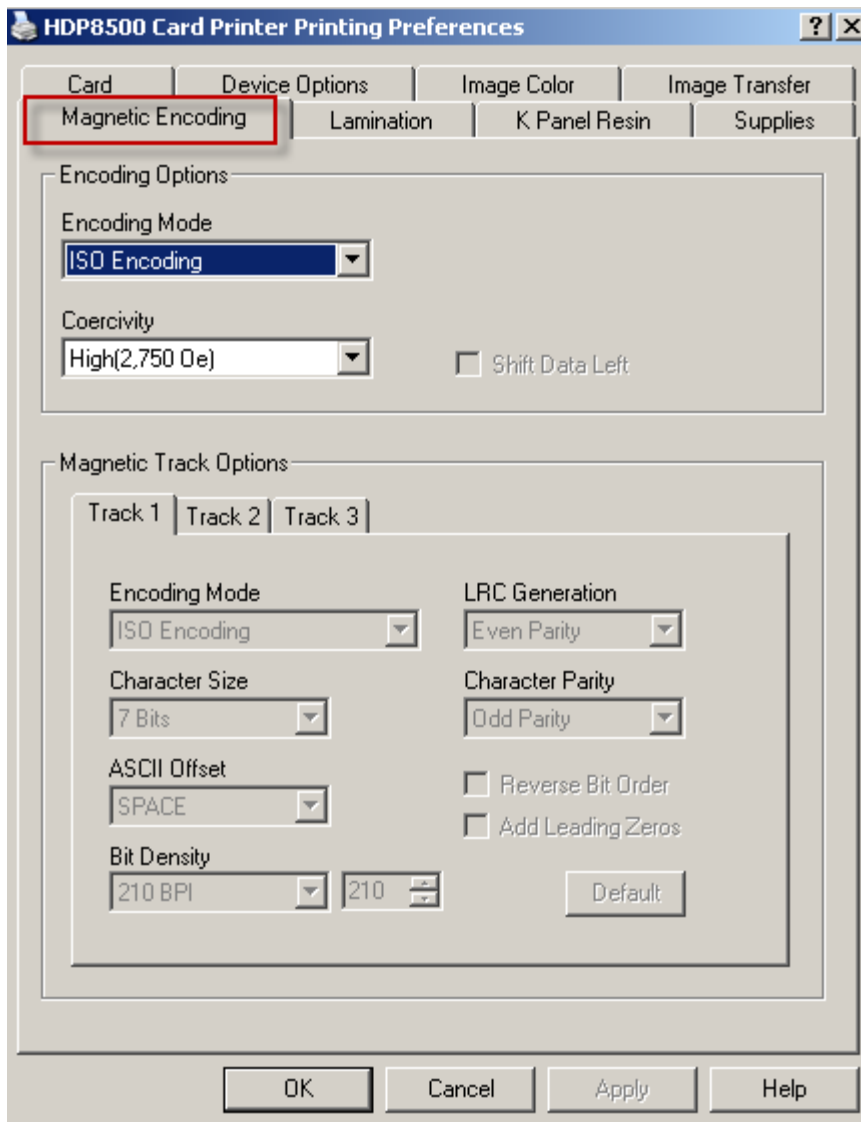
Step	Procedure
1	Use the Default button to reset the Transfer Dwell Time and Transfer Temperature to defaults for current Card Type choice.



Using the Magnetic Encoding tab

Use these options only if the Printer has an optional Stripe Encoding Module installed. (**Note:** If no Encoder is detected, the tab is active but all functions are grayed out.)

Step	Procedure
1	Select the Magnetic Encoding tab to display options for controlling the Magnetic Stripe encoding process. (Note: The following describes these options and the Printer's magnetic encoding process.)

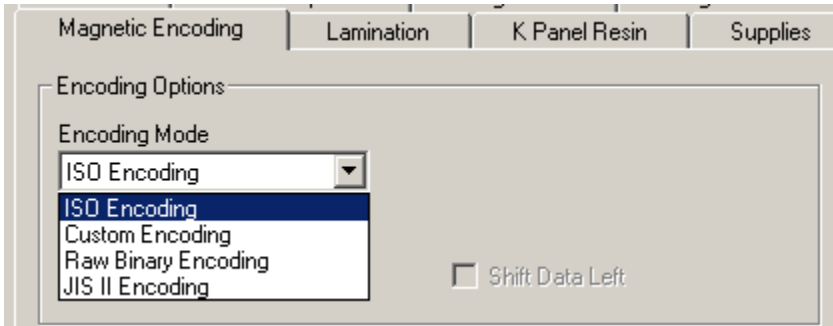


Using the Encoding Mode dropdown list

Use the Encoding Mode option to specify which magnetic encoding standard to use.

Category	Description
Magnetic Encoding options (changing and modifying)	Change the encoding mode and coercivity setting or modify the ISO standards for tracks 1, 2 and 3, by correctly modifying these Magnetic Encoding options.
ISO Encoding selection (active and inactive functions)	If you select ISO Encoding, you send down a formatted set of characters. (Note: This selection activates the track tabs. However, all functions on the Track tabs are inactive/gray and display ISO defaults, which are the defaults listed for each track below. The Shift Data Left check box remains unchecked and inactive.)
Custom Encoding selection (active and inactive functions)	If you select Custom Encoding, all options are active. The Default is ISO Encoding. (Note: The defaults are the same as the ISO Encoding defaults. However, all functions on the Magnetic Track Options tabs are active.)
Raw Binary Encoding selection (active and inactive functions)	<p>If you select Raw Binary Encoding, you send down a raw binary string rather than a formatted set of characters. (Note: The Coercivity dropdown function is active and the Bit Density, Character Size, Reverse Bit Order and Add Leading Zeros are also active and configurable for each track when Raw Binary Encoding is selected).</p> <p>Reverse Bit Order is used to reverse the character bits and is used for the encryption of data in specific programs</p> <p>Add Leading Zeros 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.</p> <p>Raw Magnetic Encoding</p> <p>The User can select Raw Magnetic Encoding from the Driver.</p> <p>Raw Coercivity</p> <p>The User can select options for from the Driver. (Low, Medium, High, Super)</p> <p>Raw Bit Density</p> <p>The User can select the Configurable Bit Density option. This option supports these standard configurable bit densities:</p> <p>75 Bits Per Inch (BPI)</p> <p>210 BPI</p> <p>Raw Bit Density Per Track</p> <p>The User can select the Configurable Bit Density, Character Size,</p>

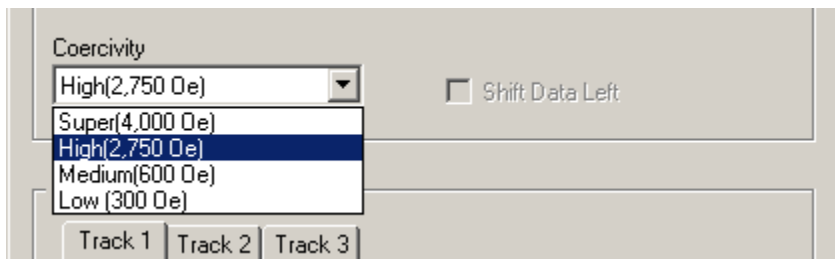
	Reverse Bit Order and Add Leading Zero options for each individual magnetic encoding track.
JIS II Encoding selection (active and inactive functions)	If you select JIS II Encoding, specific standards are used. (Note: This selection disables all the Magnetic Track Options tabs. It also disables the Coercivity dropdown function and Shift Data Left checkbox option.) The default Coercivity is 600 Oe.



Selecting the Coercivity/Magnetic Track

Use the **ISO** option for encoding capability for either high- or low-coercivity cards on tracks 1, 2 and 3 and is the industry's standard mode of magnetic encoding.

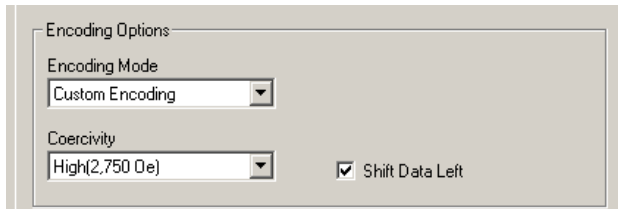
Step	Procedure
1	<p>Select the Coercivity option (Oersted) to use the Magnetic Stripe type that matches the card type.</p> <ul style="list-style-type: none">• Super High Coercivity = 4000 Oersted• High Coercivity = 2750 Oersted• (Fargo's High Coercivity UltraCard IIIs are 2750 Oe)• Medium Coercivity = 600 Oersted• Low Coercivity = 300 Oersted
2	<p>Select the Magnetic Track Selection option to specify which track is to be configured through the Magnetic Track Options (if the application being used requires customization of the standard ISO encoding process).</p>



Reviewing the Shift Data Left Function

Use the **Shift Data Left** option, which applies to all tracks when selected. (**Note:** When this option is unchecked, it is the default.)

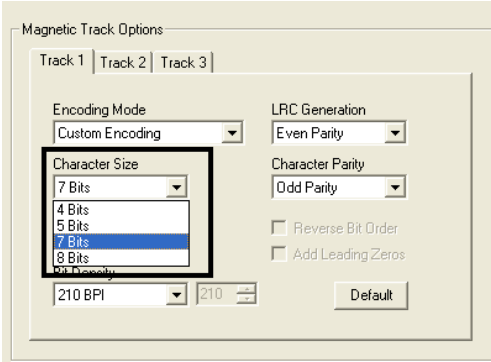
Step	Procedure
1	Select this option to shift the recorded magnetic data to the left-hand side of the card's Magnetic Stripe. (Note: This is useful in situations that require cards to be readable with insert type readers.)



Using the Character Size buttons

Use this option to customize the Character Data Size (Bits per Character) used to encode the magnetic data on the currently selected track. (**Note:** This character size includes the parity bit (if enabled).)

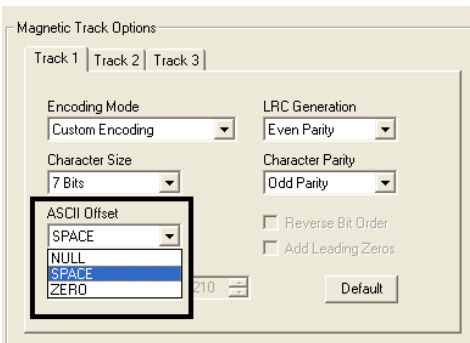
Step	Procedure
1	<ul style="list-style-type: none">Select 4 Bits to change the bits per character to 4 BPC.Select 5 Bits to change the bits per character to 5 BPC. (Note: This is the default for Tracks 2 and 3). <p>OR</p> <ul style="list-style-type: none">Select 7 Bits to change the bits per character to 7 BPC. (Note: This is the default for Track 1). <p>OR</p> <ul style="list-style-type: none">Select 8 Bits to change the bits per character to 8 BPC.



Using the ASCII Offset dropdown list

Use this option to 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.)

Step	Procedure
1	<ul style="list-style-type: none"> Select NULL to change the ASCII Offset to NULL. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Select SPACE to change the ASCII Offset to SPACE. (Note: This is the default for Track 1.) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Select ZERO to change the ASCII Offset to ZERO. (Note: This is the default for Tracks 2 and 3.)

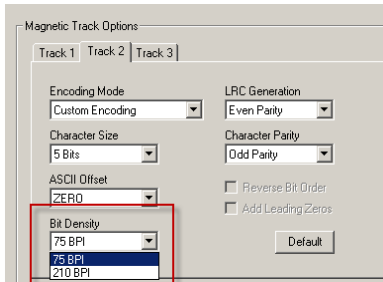


Using the Bit Density dropdown list

Use this option to customize the Bit Recording Density (Bits per Inch) used to encode the magnetic data on the currently selected track.

The default ISO Standard selections for this option are as follows:

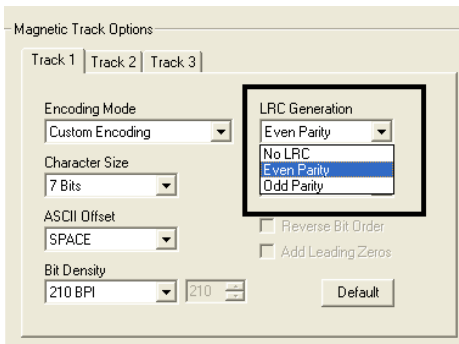
Step	Procedure
1	<ul style="list-style-type: none"> Select 75 BPI to change the bits per inch to 75 BPI. (Note: This is the default for Track 2.) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Select 210 BPI to change the bits per inch to 210 BPI. (Note: This is the default for Tracks 1 and 3.)



Using the LRC Generation dropdown list

Use this option to customize the LRC Generation Mode (used to encode the magnetic data on the currently selected track).

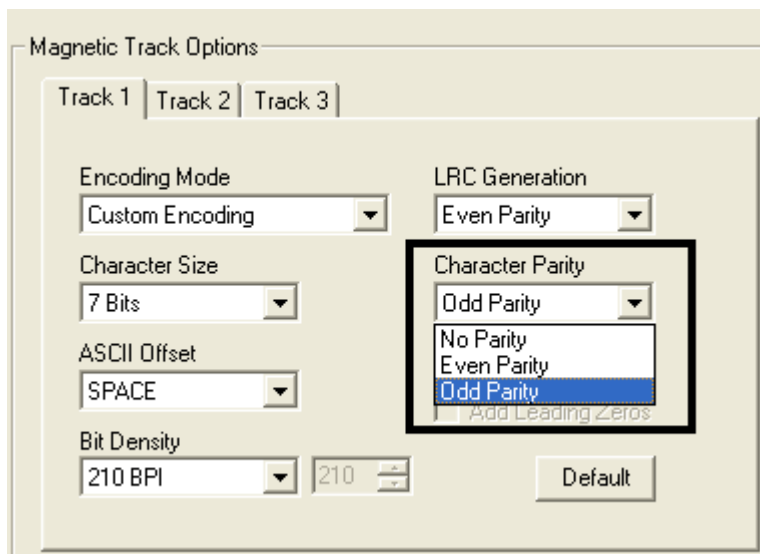
Step	Procedure
1	<ul style="list-style-type: none"> Select No LRC to change the LRC Generation to none. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Select Even Parity to change the LRC Generation to Even Parity. (Note: This is the default for all tracks.) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Select Odd Parity to change the LRC Generation to Odd Parity.



Using the Character Parity Mode dropdown list

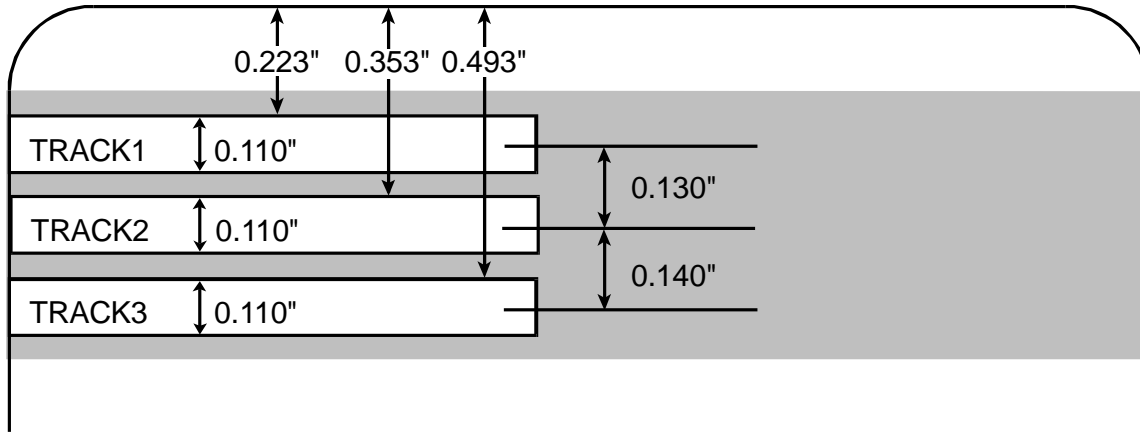
Use this option to customize the Encoding Mode (used to encode the magnetic data on the currently selected track).

Step	Procedure
1	<ul style="list-style-type: none">• Select No Parity to change the Character Parity to none. OR• Select Even Parity to change the Character Parity to Even Parity. OR• Select Odd Parity to change the Character Parity to Odd Parity. (Note: This is the default for all tracks.)



Reviewing the ISO Track Locations

The magnetic Encoding Module encodes onto tracks in accordance with an ISO 7811-2 Magnetic Stripe. For track locations, review the display below.



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 the magnetic data to be encoded.
- 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 Magnetic Track 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.

Step	Procedure
1	<p>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.</p> <ul style="list-style-type: none">• 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 table below 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?

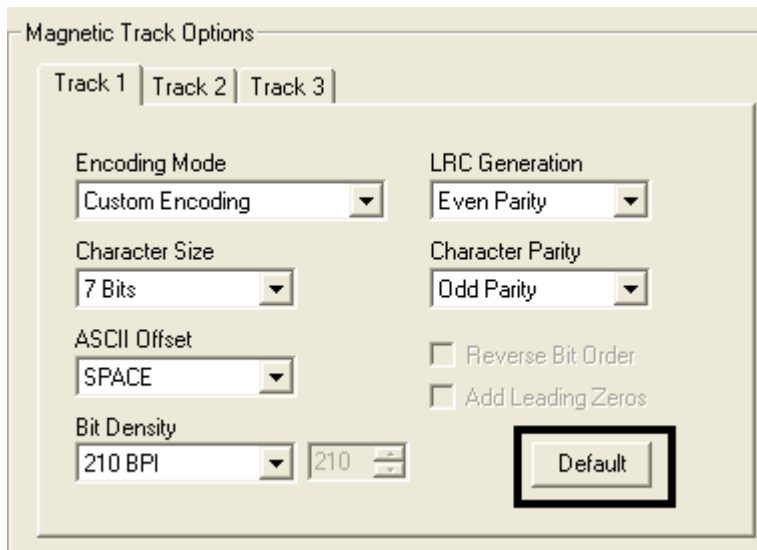
Track	Start Sentinel	End Sentinel	Field Separator	Valid Characters	Maximum Number of Characters
Track 1	%	?	^	ASCII 32-95 (See the table below.)	78
Track 2	;	?	=	ASCII 48-63 (See the table below.)	39
Track 3	;	?	=	ASCII 48-63 (See the table below.)	106

Reviewing the ASCII Code and Character Table

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

Using the Default button

Step	Procedure
1	Use the Default button to reset defaults for the current Track tab only. See below.

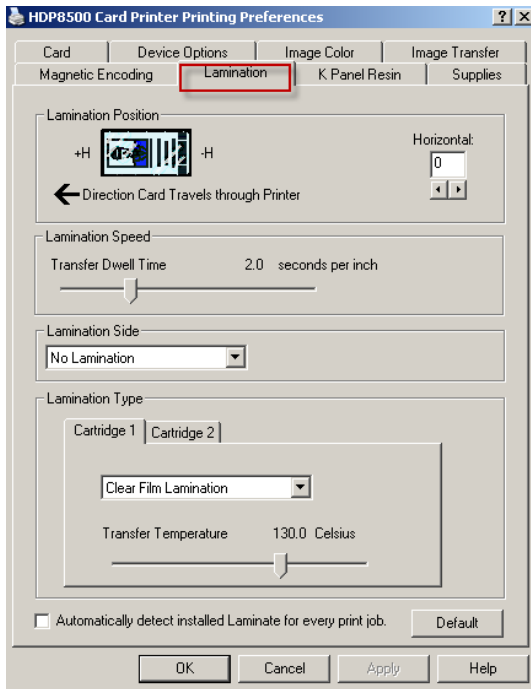


Using the Lamination tab

Use this option to control specific Printer functions. These options allow you to control the Printer's Lamination process. (Note: When no Laminator is detected, the Lamination tab is active but all functions are grayed out.)

Important! FARGO Card Printers require highly specialized overlaminates to function properly. To maximize Printer life, reliability, printed card quality and durability, you must use only FARGO Certified Supplies. For this reason, the FARGO warranty is void, where not prohibited by law, if you use non-FARGO Certified Supplies. To order additional materials, please contact an authorized reseller.

Term	Description
<p>Thermal Transfer Film and PolyGuard Overlaminates</p>	<p>The Card Lamination Module will accept either a Thermal Transfer overlaminate or a PolyGuard™.</p> <p>Thermal Transfer Film: The Thermal Transfer Film overlaminate is a relatively thin material which Covers a card Edge-to-Edge and provides a medium level of card durability and security.)</p> <p>PolyGuard Overlaminate: PolyGuard is a much thicker material which does not Cover Edge-to-Edge, but provides an extremely high level of card durability and security.</p> <p>(Note: PolyGuard is available in either a 1.0 or .6 mil thickness and should always be used for those applications requiring the highest degree of card durability and security. Available in clear or holographic patch)</p>



Selecting the Lamination Position

Step	Procedure
1	<p>Use the Lamination Position control to adjust the horizontal position of the PolyGuard Overlamine. (Note: This control functions in the same manner as the Image Position controls, except only the horizontal position of the overlamine requires adjustment.)</p> <ul style="list-style-type: none"> • To adjust the Lamination position, click on the Horizontal adjustment arrows. • To move the overlamine more toward the card output side of the Printer, enter a positive number. • To move the overlamine more toward the card input side of the Printer, enter a negative number. (Note: The adjustment arrows point in the direction the patch will move on the card. The maximum value for the Horizontal adjustment is ± 100 Pixels (10 Pixels = about .03/.8mm) The default is 0.)

Adjusting the Lamination Speed - Transfer Dwell Time

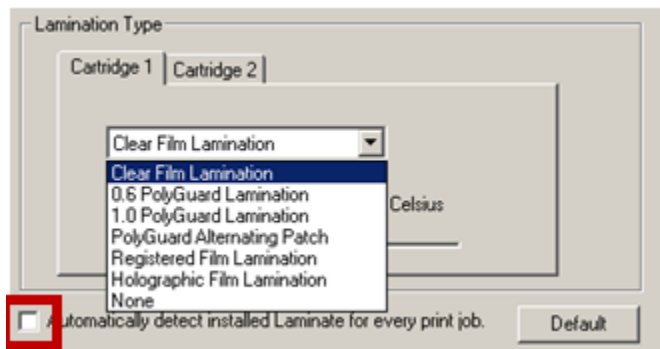
Step	Procedure
1	<p>Adjust the Transfer Dwell Time to control the Lamination Dwell Time or through-put speed of a card in seconds per inch and the Lamination Temperature.</p> <ul style="list-style-type: none"> • Default = 2.0 seconds per inch • Upper Limit = 5.5 seconds per inch • Lower Limit = 0.8 seconds per inch

Selecting the Lamination Side dropdown menu

Step	Procedure
1	<ol style="list-style-type: none"> Select the No Lamination option if you do not want to use the Printer's built-in Laminator. Select Laminate Front Side, Laminate Back Side, Laminate Both Sides or Laminate Opposite Sides to specify the side(s) of the card to laminate.

Selecting the Lamination Type

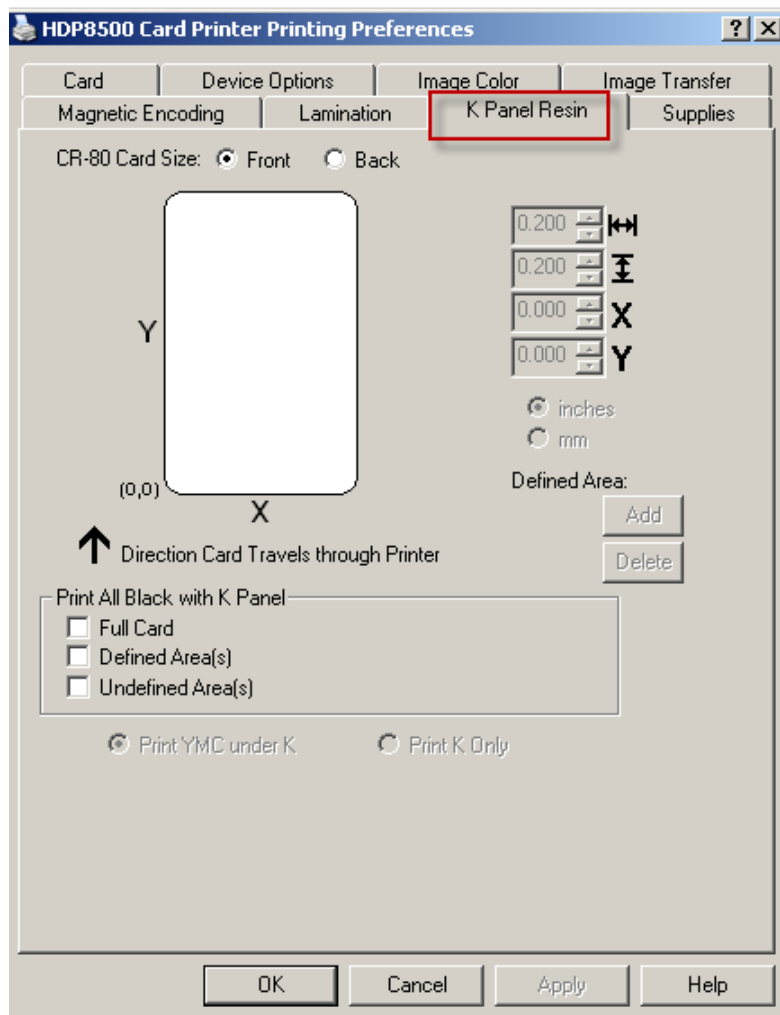
Step	Procedure
1	<p>Select one of the Lamination Type options, according to which type of Lamination media is currently installed. Two types of overlaminates are supported by the Driver: Film Lamination and PolyGuard Lamination. Custom versions of each type are also available.</p> <ul style="list-style-type: none"> • Select the Clear Film Lamination option if the Thermal Transfer Film Overlamine type is installed in the Lamination Module. • Select the 0.6 PolyGuard Lamination option or 1.0 PolyGuard Lamination option for either patch thickness. (Note: These require different heat settings and Lamination speeds. Select the appropriate option according to the thickness of the PolyGuard material you are using.) • Select Registered Film Lamination if you have a registered thermal transfer film. • PolyGuard Alternating Patch and Holographic Film Lamination are options.
2	<p>Click on the Default button to return the Transfer Dwell Time and Transfer Temperature to the Default settings for the Lamination Type (being used).</p>
3	<p>Use the checkbox for auto detection of the consumables, which are the Ribbon and, Film. See below.</p> <ul style="list-style-type: none"> • In the Firmware, the values (representing the installed Ribbon, installed Transfer Film) are updated on initialization (including each time the cover is closed). • The Firmware compares the Ribbon and, Film values in the PRN file to the values (it holds regarding the currently installed consumables). <p>If the values do not match, the LCD displays Wrong Laminate Error.</p>



Using the K Panel Resin tab

Use this tab to adjust the Card Size, the Direction the Card Travels through the Printer, the Print All Black with K Panel (options) and the Defined Areas. Use this tab to control where the resin black (K) Panel of a full-color Ribbon is printed. (**Note:** When Disable Printing under the Device Options tab is selected, this tab will be active while all functions will be grayed out.)

- If printing with a Ribbon type that does not have a K Panel, such as the YMC Ribbon type, all K Panel Resin options will be grayed out. Resin black text is desirable due to its sharp, saturated color and resin black barcodes are required to ensure readability when scanned by an infrared barcode reader. (**Note:** The Printer Driver will automatically print all TrueType black text and TrueType barcodes only with the resin black (K) Panel of the Print Ribbon by default.)
- If printing black text or barcodes that are not TrueType fonts or black graphics, select one of the three options listed under **Print All Black with K Panel** (see the next page). (**Note:** The Printer Driver will print areas of the image where it finds black coloring with the Print Ribbon's resin black (K) Panel as specified by each of the following options.)



Using the Click and Drag capability

Click and drag the corners and the sides of an area to change size and location of area.

- The Horizontal, Vertical size and X, Y coordinates update accordingly.

Click and drag the area to change the location.

- The X, Y coordinates update accordingly.

Selecting “inches or mm” radio button

Select from the **inches** or **mm** radio button to change the measurement type. (**Note:** This is similar to the choice on the Card tab.)

- The **inches** radio button displays the area size and the location in inches.
- The **mm** radio button displays the area size and the location in mm.

Using the Add and Delete buttons

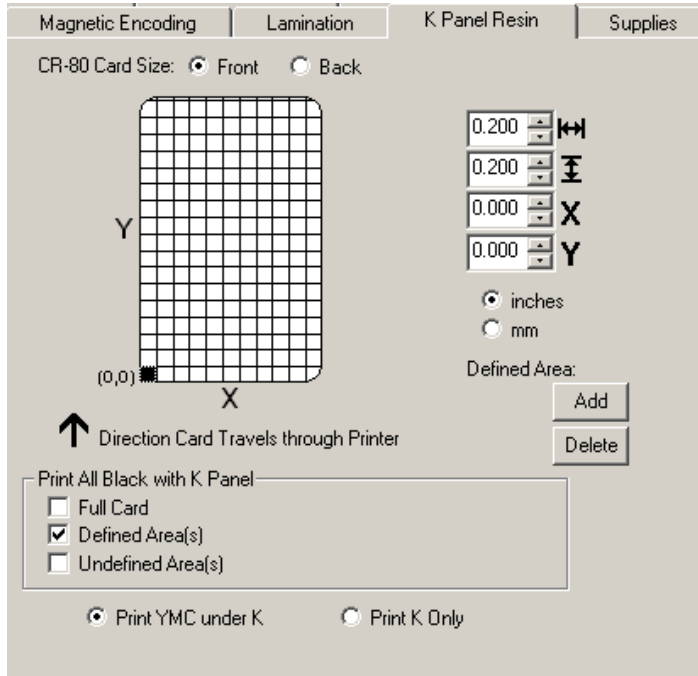
Step	Procedure
1	Use the Add button for these capabilities: <ul style="list-style-type: none">• Add an area default sized to .2 (.2 at location “0” with focus on the added area).• Add multiple areas in the same location with the same affect (as if there were only one area). (Note: Intersecting/overlapping areas do not cancel each other out; instead, they act as one area.)
2	Using the Delete button to delete the area with focus from the graphic.

Selecting the Full Card

Step	Procedure
1	<p>Select the Full Card option to print the resin black (K) Panel for all black found within all areas of the image, as shown below.</p> <ul style="list-style-type: none">• The Card image becomes fully black.• The resin prints anywhere for black.• The Add and Delete buttons become inactive and are grayed out.• The Defined Area object size and location scroll controls become inactive and are grayed out.• The inches and mm dials become inactive and are grayed out.

Selecting the Defined Area and Undefined Area

Step	Procedure
1	<p>Select the Defined Area(s) option to print the resin black (K) Panel for all black found only in an area or areas defined, as shown below.</p> <ul style="list-style-type: none">• The card image becomes white with the grid and one area (available for the User to start with).• The defined areas print black with resin.• It is through this card grid that up to five areas can be defined.• When the card grid is first activated, then a small black square will appear at its default size of .2 x .2 (5mm x 5mm) and at its default location in the lower left-hand corner (0,0). (Note: This square represents the first defined area.)
2	<p>Select the Undefined Area(s) option to print the resin black (K) Panel for all black found only in the space outside the areas defined, as shown below.</p> <ul style="list-style-type: none">• The card image becomes black with the grid and one area (available for the User to start with).• The defined area does not print black with resin.

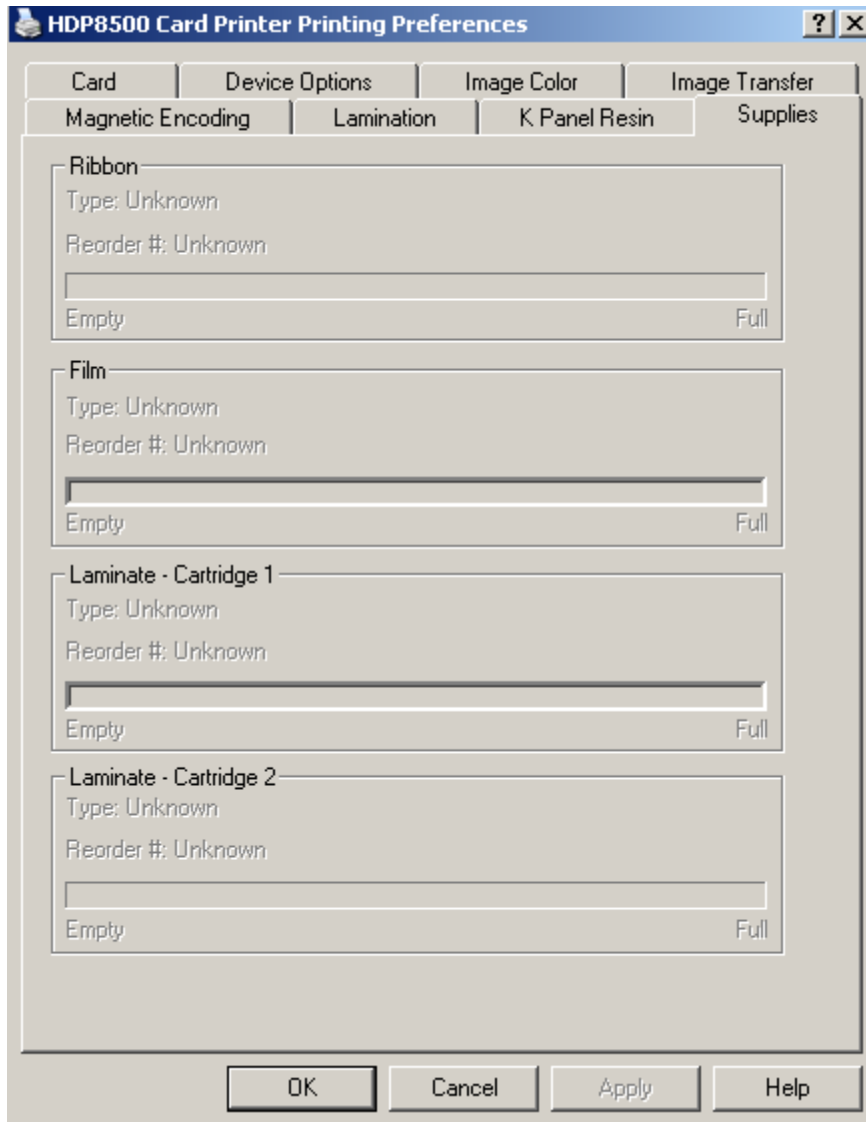


Selecting the Print YMC under the K and Print K Only options

Step	Procedure
1	<p>Use the Defined Area function.</p> <ol style="list-style-type: none"> Define another area by clicking on the Defined Area. (Note: Another .2 x .2 (5mm x 5mm) area will appear in the lower left-hand corner. This is the location in which all newly defined areas will first appear. Up to 5 areas can be defined.) Delete an area by selecting the area and clicking on the Delete button. (Note: If all areas are deleted, the K Panel Resin options will automatically be deselected.)
2	<p>Select the Print YMC Under K option to 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. (Note: Select this option if printing resin black text or barcodes onto a colored background to provide a more gradual transition between the two.)</p> <p>OR</p> <p>Select the Print K Only option to print all black in the designated Defined/Undefined areas only with the resin black (K) Panel or to print resin black onto a white background to maximize the sharpness of printed text and barcodes.</p>

Using the Printer Supplies tab

Use the options on this tab to view information about the Ribbon, HDP Film, Laminate (Cartridge 1) and Laminate (Cartridge 2) installed in the Printer. (**Note:** The gauges are horizontal.)



Reviewing Information on the Supplies tab

Here are the guidelines for automatic positioning on the Supplies tab.

Step	Procedure
1	<p>Use this tab to determine the following information (see below):</p> <ul style="list-style-type: none"><li data-bbox="326 485 1170 520">• Ribbon Level: Type, Reorder Number and Gauge Indicator.<li data-bbox="326 533 1198 569">• HDP Film Level: Type, Reorder Number and Gauge Indicator.<li data-bbox="326 581 1279 688">• Lamination - Cartridge 1 Level: Type, Reorder Number and Gauge Indicator. (Note: This is visible only when the Laminate – Cartridge 1 is detected.)<li data-bbox="326 701 1284 808">• Lamination – Cartridge 2 Level: Type, Reorder Number and Gauge Indicator. (Note: This is visible only when the Laminate – Cartridge 2 is detected.)

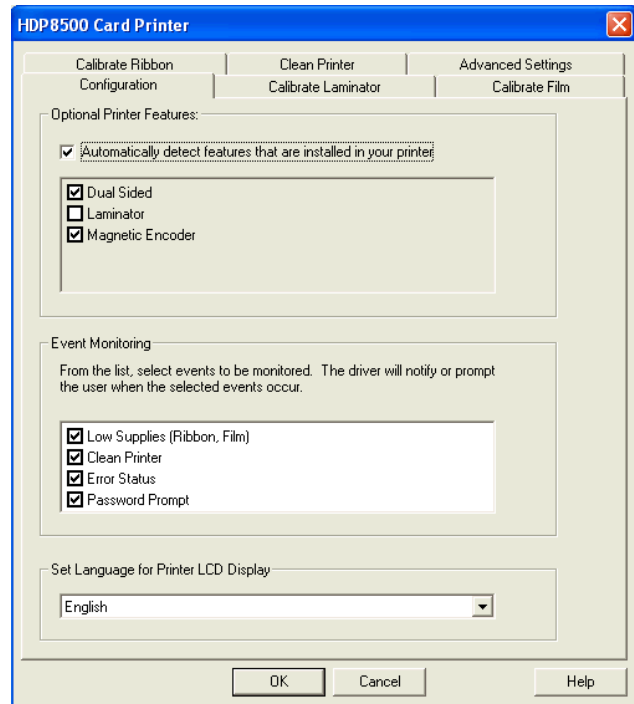
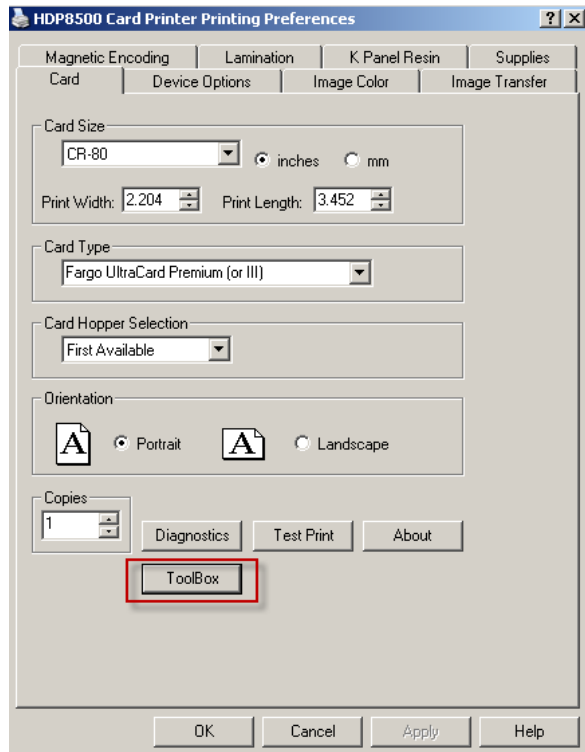
Section 5: Accessing the Toolbox

Select Toolbox to access the Driver Toolbox window and its tabs, as shown throughout this section.

OK button: Closes the dialog box and saves the Driver configuration changes since the Driver dialog box has been opened.

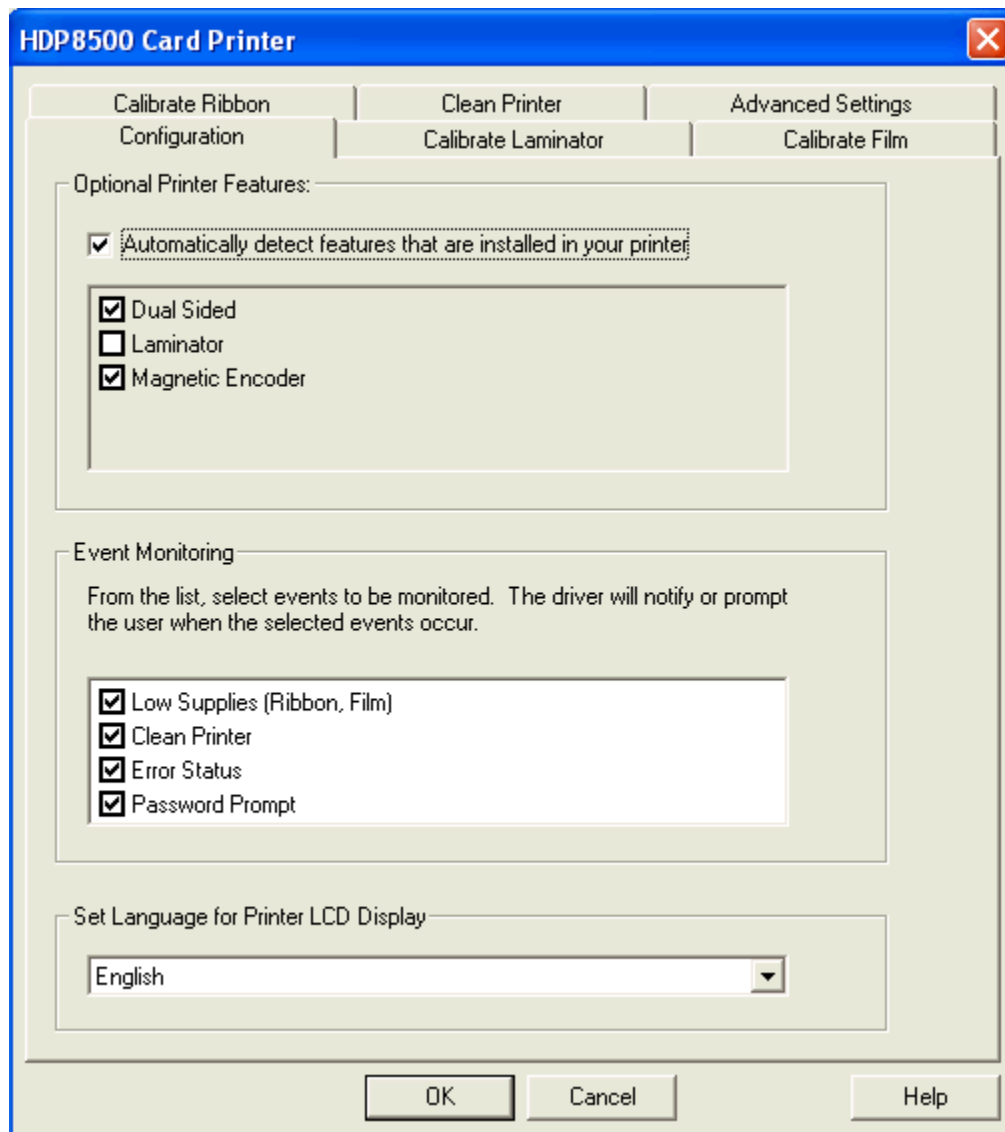
Cancel button: Closes the dialog box and cancels the Toolbox changes since the Driver dialog box has been opened.

Help button: Launches Help specific to the active tab.



Selecting the Configuration tab

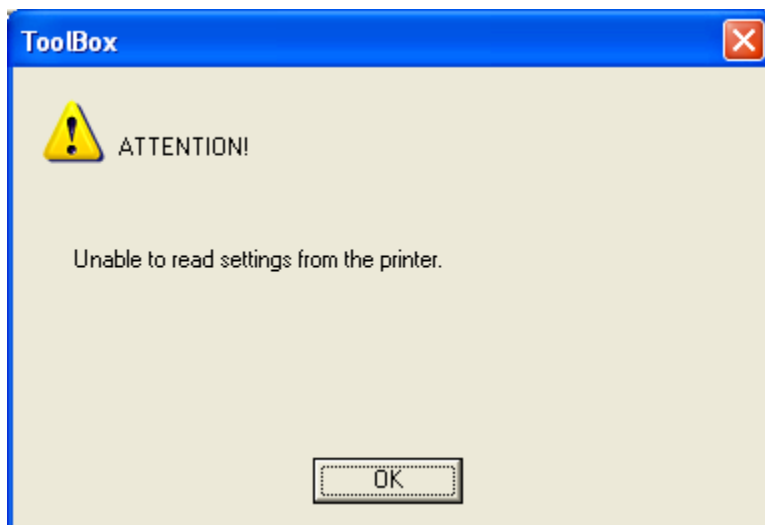
Step	Procedure
1	<p>Select the Configuration tab.</p> <ul style="list-style-type: none">• Under Printer Features, select features by clicking on a check box or by clicking on the Auto Select button. See instructions provided under that heading.• Under Event Monitoring, select events to be monitored. (Note: The Driver will notify or prompt the User when the selected events occur.)• Under Set Language for Printer LCD Display, select a language.



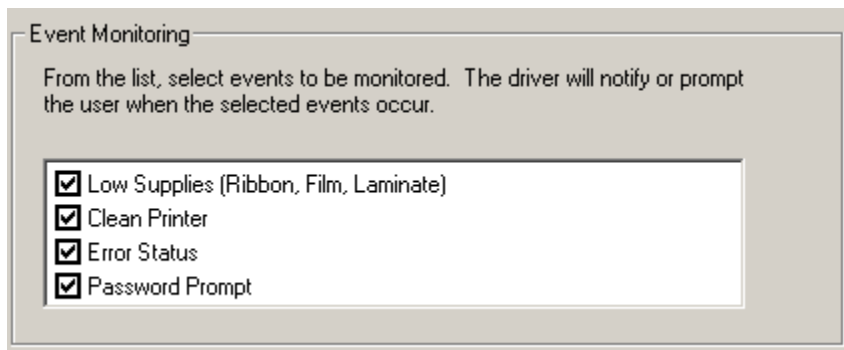
Using the Optional Printer Features Group Box

The Default setting is checked.

- If checked, upon **Configuration** tab activation, the Driver retrieves the installed Printer features information from the Firmware and automatically checks the appropriate check boxes for Dual Sided, Lamination and Magnetic Encoder.
- If checked, the Dual Sided, Laminator, and Magnetic Encoder checkboxes are read only.
- If checked and no Printer is found or bi-directional capabilities are disabled or unavailable, the error message (shown below) is displayed.
- If unchecked or cleared, feature check boxes become active and can be manually set.
- If the Driver is reinstalled, it resets to the default of checked.



Using the Event Monitoring Group Box



This Event Monitoring group box displays the Low Supplies (Ribbon, Laminate and Film).

The default setting is checked. If checked, the Ribbon Low message box is displayed with every print job when Printer reports low Ribbon to the Driver.

Do not show this message again: The check box allows the User to suppress message per Driver instance. Default = unchecked.

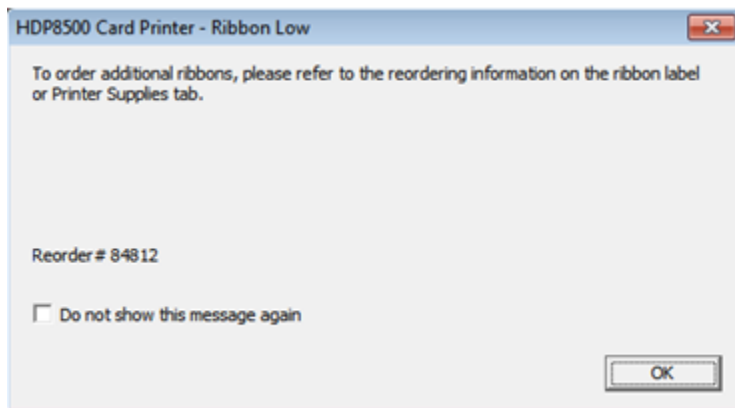
The Clean Printer, Error Status, and Password Prompt message will be displayed if these boxes are checked.

Reviewing the Ribbon Low message

The default setting is checked.

If checked, Ribbon Low message box is displayed with every print job when Printer reports low Ribbon to the Driver.

Do not show this message again. The check box allows the User to suppress message per Driver instance. Default = unchecked.



Reviewing the Laminate Low Message

The default setting is checked.

If checked, Lamination Low message box is displayed with every print job when Printer reports low Laminate to the Driver.

Do not show this message again. The check box allows User to suppress message per Driver instance. Default = unchecked.

Using the Film Low message

The default setting is checked.

If checked, Film Low message box is displayed with every print job when Printer reports low Ribbon to the Driver.

Do not show this message again. The check box allows the User to suppress message per Driver instance. Default = unchecked.



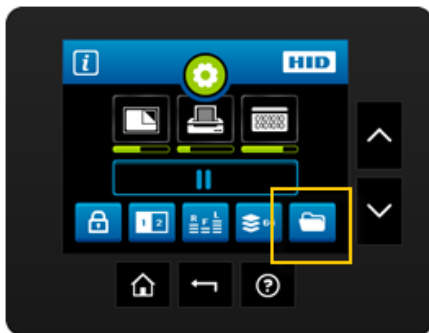
Selecting the LCD Display Language

The LCD Display Language can be chosen or changed from the Driver Toolbox Configuration tab or directly from the LCD Display.

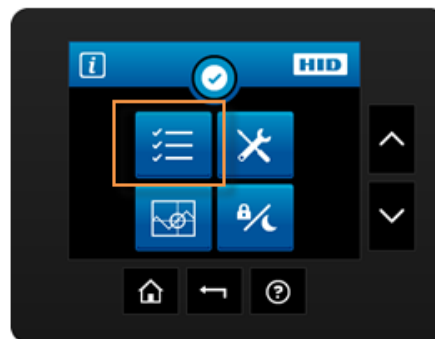
The last language chosen from any of these methods is the active language for the LCD.

- English is the default.
- Languages (available in drop down list) are the languages available in the language set (currently resident in the Firmware).

Using the Printer LCD Display to set the language



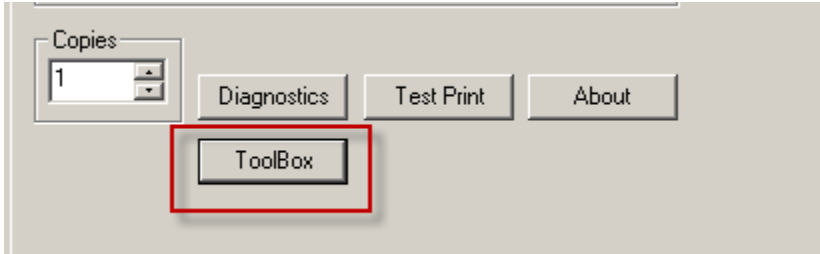
Select the Folder icon



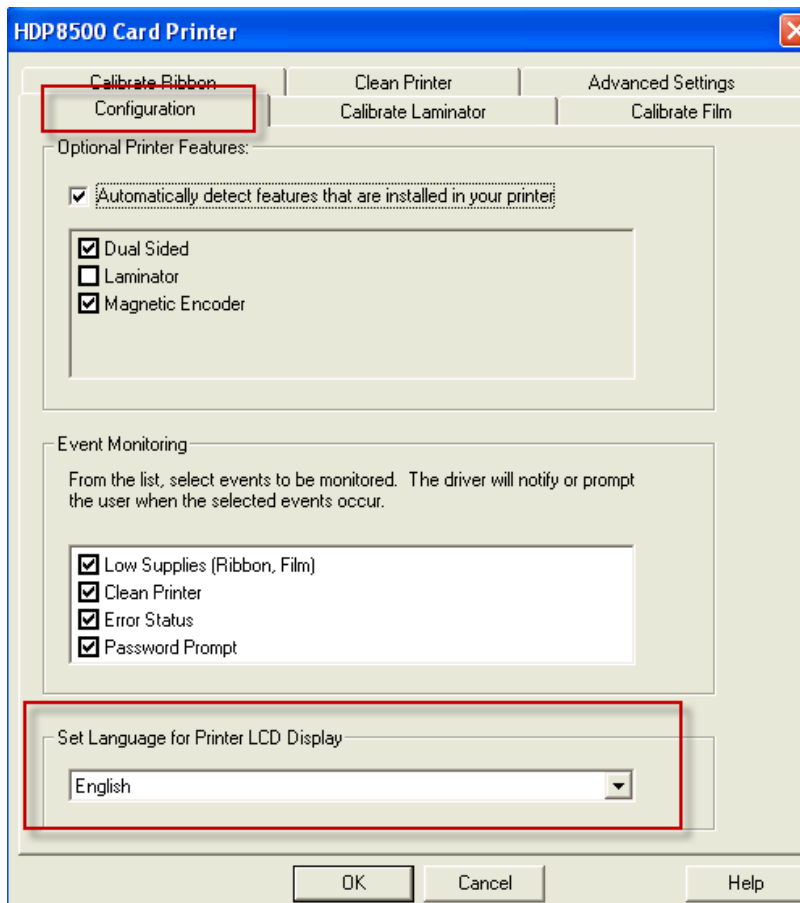
Select the Settings icon

Use the arrow to select the language.

Using the Driver to set the language



- Select the Toolbox option

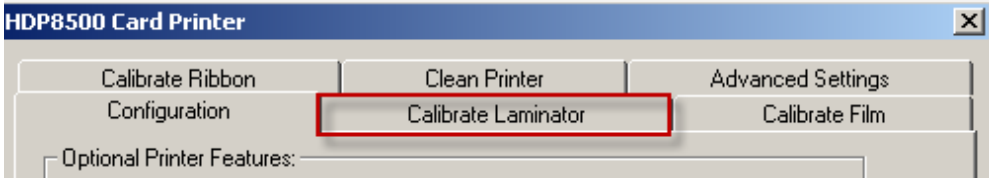
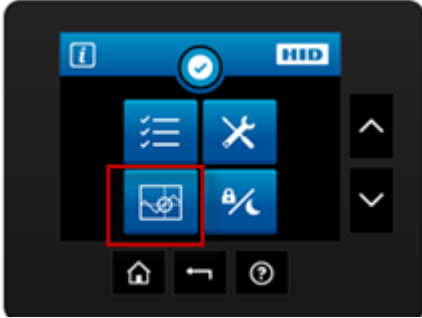


- Select the Configuration Tab
- Select the Printer LCD Display language
- Click OK

Selecting the Calibrate Laminator tab

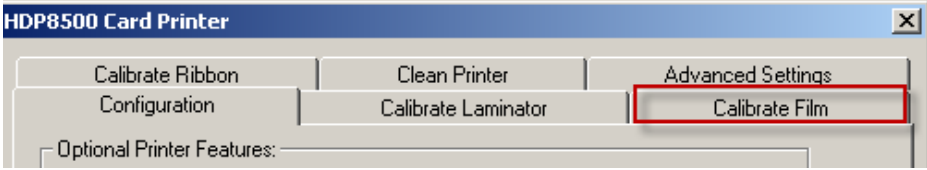
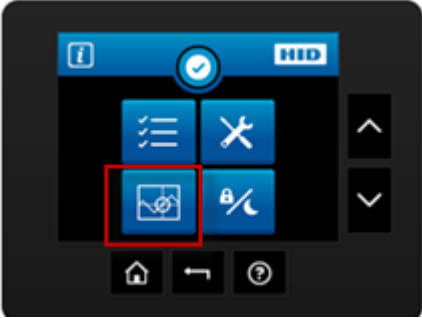
The Calibrate Laminator tab is active when the Laminator is automatically detected or when the Laminator is manually checked (as a Printer Feature on the Configuration tab).

- **Calibrate button:** Sends calibrate Laminator command to Printer. Follow the instruction on the page for setting up the Printer.
- Lamination Module must be warm before sending Calibration option. If not an error will occur and will trigger the laminator to warm up . Retry the calibration again after several minutes.

Step	Procedure
Option 1	 <p>Select the Calibrate Laminator tab.</p> <ol style="list-style-type: none">Remove the Laminate CartridgeEnsure the Laminator Cover is closed.Click on the Calibrate button.Click on the OK button to close the screen.If successful the printer's LCD will reset to ready.
Option 2	<p>NOTE: Calibration of the Ribbon, Film, and Lamination may also be performed from the DISPLAY ICON.</p>  <ol style="list-style-type: none">Remove the Laminate CartridgeEnsure the Laminator Cover is closed.Select Lam Calibrate option from the Display.If successful the printer's LCD will reset to ready.

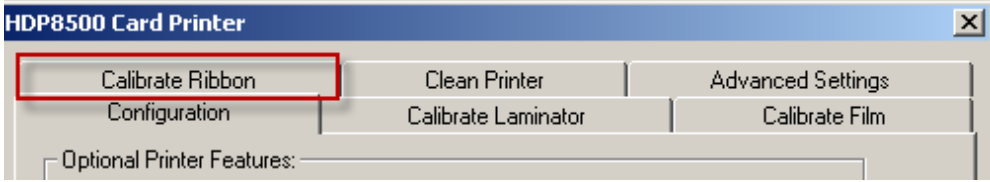
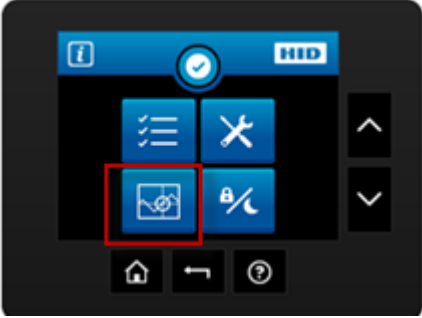
Selecting the Calibrate Film tab

- **Calibrate button:** Sends calibrate film command to Printer. Follow the instruction on the page for setting up the Printer.

Step	Procedure
Option1	 <p>Select the Calibrate Film tab.</p> <ol style="list-style-type: none"> Leave the Film Cartridge installed. Close the Printer Cover. Click on the Calibrate button. Click on the OK button to close the screen. If successful the printer's LCD will reset to ready.
Option2	<p>NOTE: Calibration of the Ribbon, Film, and Lamination may also be performed from the DISPLAY ICON.</p>  <ol style="list-style-type: none"> Leave the Film Cartridge installed Close the Printer's Cover. Select Film Calibrate option from the Display. If successful the printer's LCD will reset to ready.

Selecting the Calibrate Ribbon tab

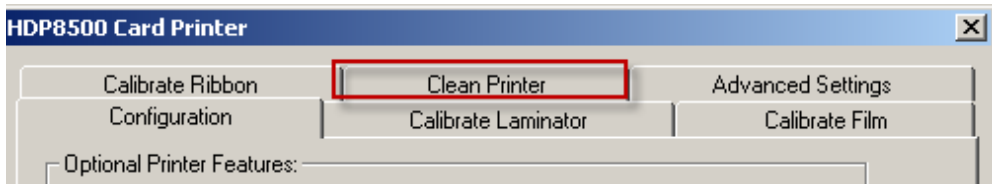

- **Calibrate button:** Sends the Calibrate Ribbon Command to Printer. Follow the instructions below to set up the Printer.



Step	Procedure
Option 1	 <p>Select the Calibrate Ribbon tab.</p> <ol style="list-style-type: none"> e. Leave the Ribbon Cartridge installed a. Close the Printer Cover. b. Click on the Calibrate button. c. Click on the OK button to close the screen. d. If successful the printer's LCD will reset to ready.
Option 2	<p>NOTE: Calibration of the Ribbon, Film, and Lamination may also be performed from the DISPLAY ICON.</p>  <ol style="list-style-type: none"> f. Leave the Ribbon Cartridge installed a. Close the Printer Cover. b. Select Ribbon Calibrate option from the Display. c. If successful the printer's LCD will reset to ready

Selecting the Clean Printer tab

The button for the Clean Printer tab is described below.

- **Clean Button:** Launches cleaning routine. Follow the instruction on the page for setting up the Printer.
- **Help button:** Launches help that is specific to this tab.
- **Use the CR80 size cleaning card. Part Number: 085974**

Step	Procedure
Option 1	<p data-bbox="391 730 789 764">Using the Printer Driver option</p>  <p data-bbox="391 976 1029 1010">Set up the Printer and click the Clean Printer tab.</p> <ol style="list-style-type: none"><li data-bbox="391 1024 1354 1058">Remove the Card, Film and Laminate Cartridges and close the covers.<li data-bbox="391 1073 1419 1178">Remove the paper back from both sides of the Cleaning Card. (Note: DO NOT remove the left liner if a Magnetic Encoding Module is installed in your printer.)<li data-bbox="391 1192 1097 1226">Insert the Cleaning Card into the Card Hopper 2.  <ol style="list-style-type: none"><li data-bbox="391 1766 781 1799">Click on the Clean button.<li data-bbox="391 1829 1114 1862">Guide the Cleaning Card into the Printer as needed.

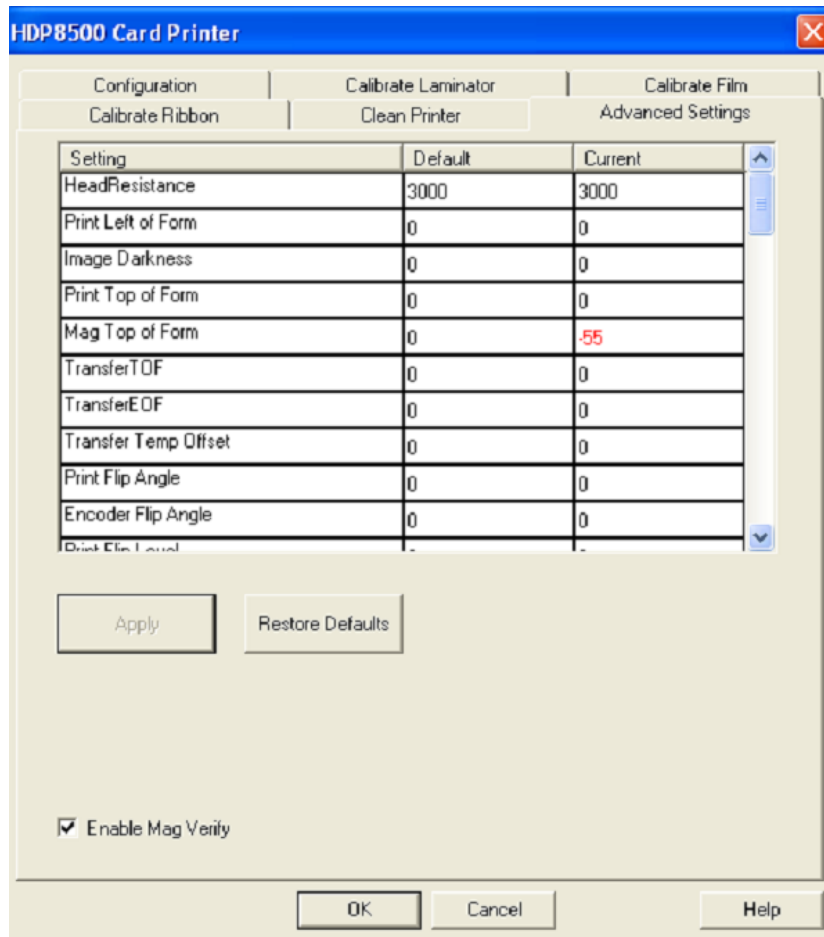
	<p>f. When the Cleaning routine is complete, the Cleaning Card will exit the Printer.</p> <p>g. Reinstall the Card, Film and Laminate Cartridges.</p> <p>The Cleaning routine will begin after all current print jobs have completed.</p>
Option 2	<p>Using the LCD Display option</p> <p>Set up the printer as in option 1.</p> <p>From the HOME Menu</p> <p>Select the MENU SETUP  icon</p> <p>Select the TOOLS  icon</p> <p>Select the CLEAN PRINTER option</p>

Selecting the Advanced Settings tab

Use the **Advanced Settings** tab for adjusting the internal Printer settings, which are customized for every Printer at the factory and saved directly within the Printer's memory. (**Note:** You can select the Restore Defaults to restore the internal default settings.)

These change values for Firmware settings. See below.

- **Setting Column:** Displays label for setting
- **Default Column:** Displays default value for setting
- **Current Column:** Displays current value for setting
- Change the value by clicking on the value to activate spin control or type.
- **Apply Button:** Applies changed values.
- **Restore Defaults Button:** Restores default values.



Setting the Printhead Resistance

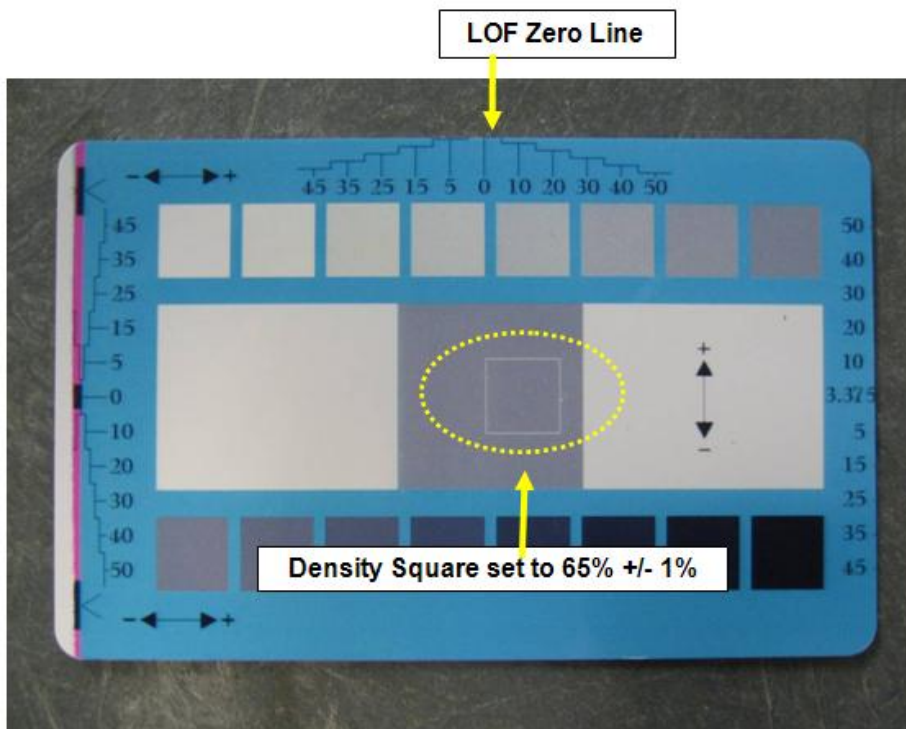
This is factory set. If the main board or the Printhead is replaced then adjust this number.

- Locate the Printhead Setting Number on the bottom of the Printhead.
- The number reads R=XXXX.

Using the Print LOF (Left of Form) Option

Follow this instruction.

Step	Procedure
1	Print the Alignment Card Self-test.
2	Adjust the Print LOF up or down until the border of the LOF Zero Line is showing on the edge of the card as shown below.
3	a. Measure the density square, as shown below. b. Adjust the image density to $65\% \pm 1\%$. Note – the 500 Series Densitometer is to be used for this measurement.



•

Using the Image Darkness Option

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.

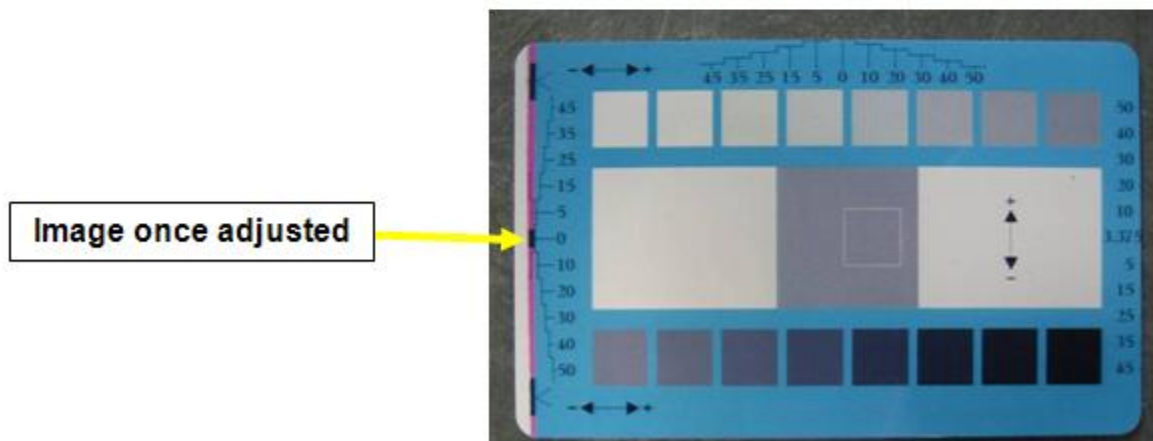
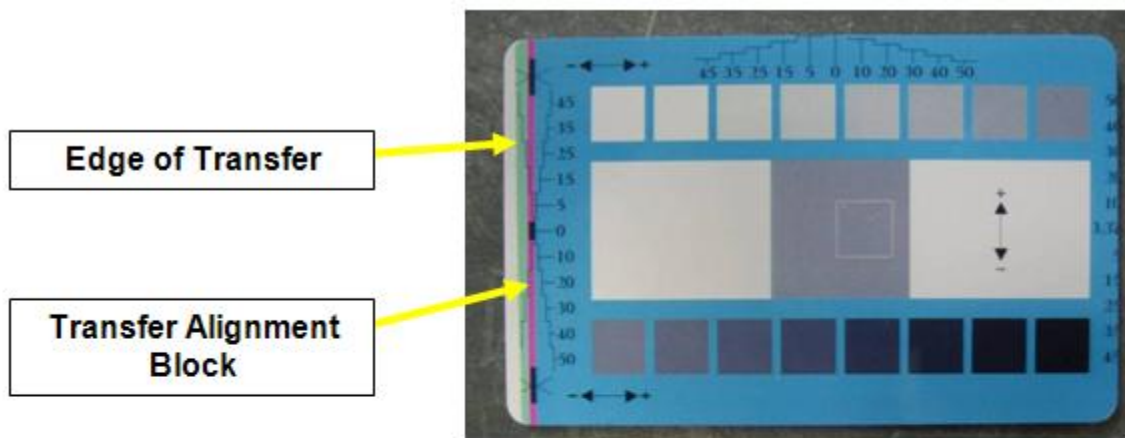
Step	Procedure
1	<p>Lighten the printed image by clicking the down arrow ▼ to enter a negative value and decrease the amount of Printhead heat.</p> <p>OR</p> <p>Darken the image by clicking the up arrow ▲ to enter a positive value and increase the amount of Printhead heat.</p> <p>IMPORTANT: If the value is set too high, the Ribbon may jam or even break.</p>



Using the Print TOF (Top of Form) Option

Follow these instructions:

Step	Procedure
1	Print the alignment card self-test (The front edge should look like figure below).
2	Adjust the Print TOF until the green border is eliminated and the entire Transfer Alignment Block is shown in the <u>center</u> of the card. Note – due to variation in roller alignment, the green border may appear at a slight angle on the top of the card.



Using the Mag Top of Form Option

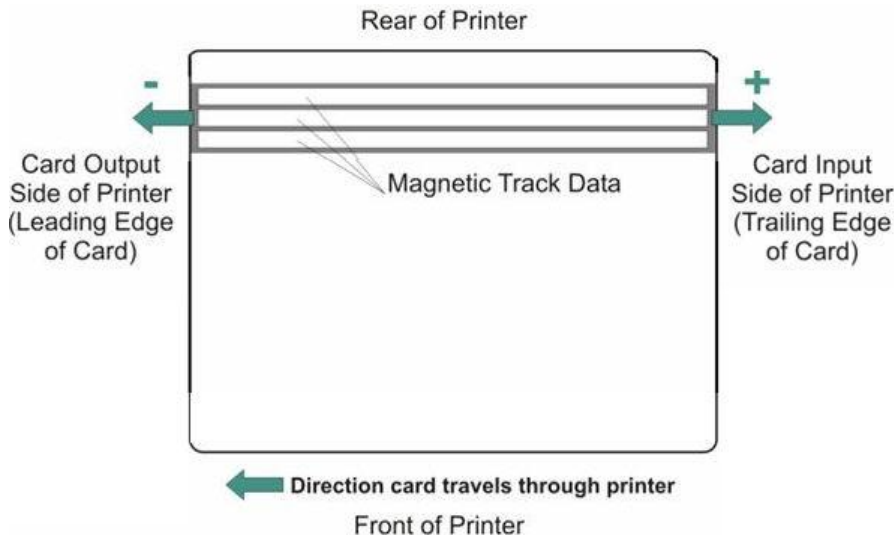
Use this option only if the Printer has a built-in Magnetic Stripe Encoder.

- If so, use this option to shift the starting point of where the Printer will begin encoding the magnetic track data on a card's Magnetic Stripe.
- When adjusting this value, keep in mind that a card and its Magnetic Stripe will always remain in the same relative position as the card travels through the Printer.

The diagram (below) represents:

- How the magnetic data will move in relation to the fixed position of a card's Magnetic Stripe as a "positive" or "negative" Magnetic Offset value is entered.
- For this diagram, assume that the card is transparent and the card's Magnetic stripe can be seen through the top or front side of the card.

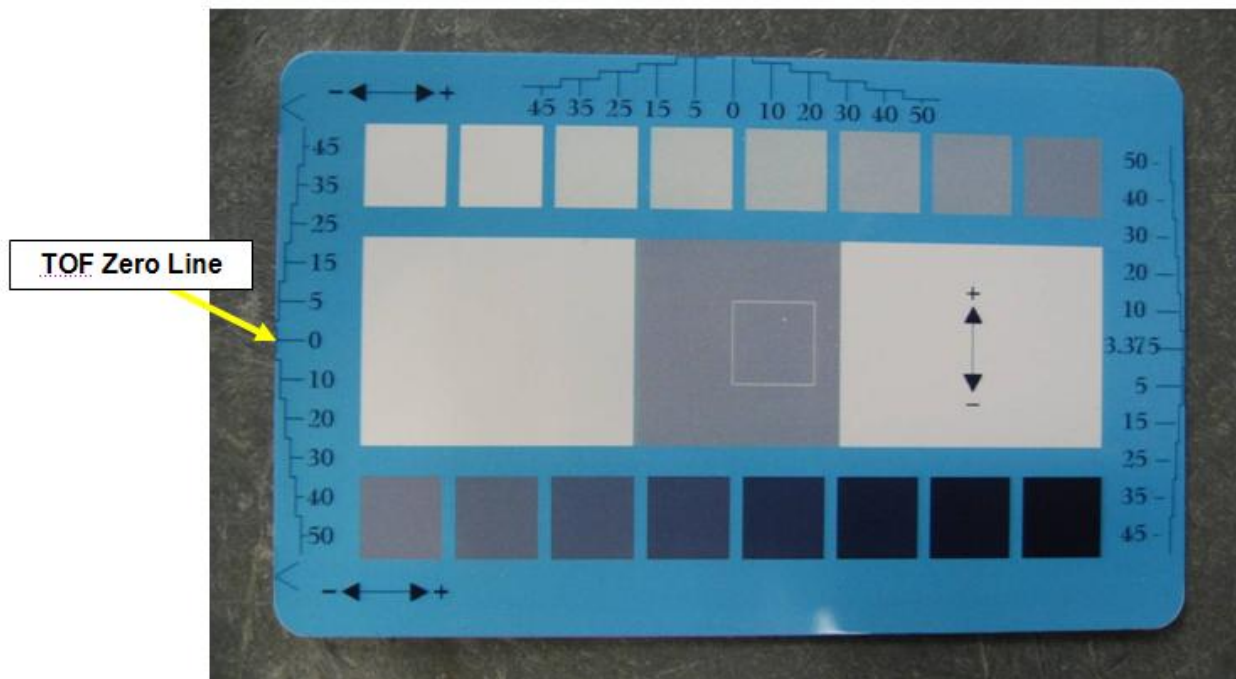
Step	Procedure
1	<p>Enter a negative value to move the start of the magnetic data more toward the leading edge of the card or the card output side of the Printer.</p> <p>OR</p> <p>Enter a positive value to move the start of the magnetic data toward the trailing edge of the card or the card input side of the Printer.</p> <ul style="list-style-type: none"> • Magnetic Data Direction: The arrows on these buttons indicate the direction the magnetic data will move on the card's Magnetic Stripe. • Maximum Adjustment Range: The maximum adjustment range is ± 99. As a rule, 20 equals about .030"/. 8mm.) (Note: Keep this in mind when adjusting this option to avoid over-adjusting.) <p>IMPORTANT: If the negative value is set too high, the Printer may start encoding before the card's Magnetic Stripe reaches the encoding head.</p>



Using the Transfer TOF (Top of Form) Option

Follow this instruction.

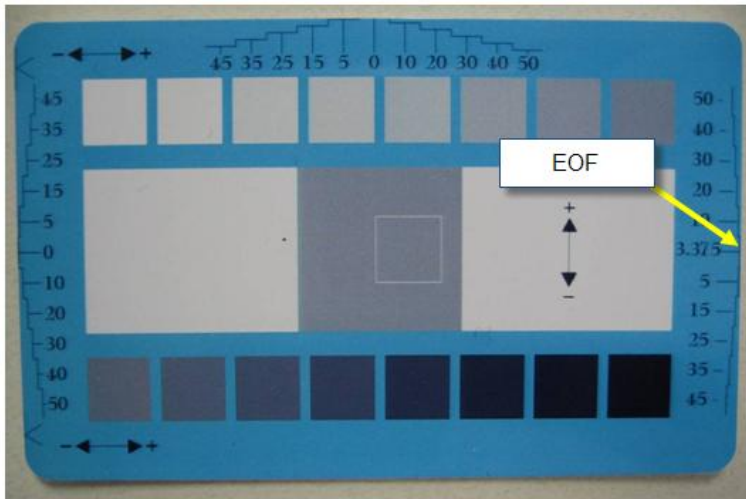
Step	Procedure
1	Print the Alignment Card Self-test.
2	Adjust the Transfer TOF until the TOF Zero Line is located on the edge of the card as shown below.



Using the Transfer EOF (End of Form) Option

Follow this instruction.

Step	Procedure
1	Print the Alignment Card Self-test.
2	Setting the EOF positive (i.e. to a + number) will cause the image length to SHORTEN Setting the EOF negative (i.e. to a – number) will cause the image length to GROW .



Using the Transfer Temp Offset Option

This option adds an offset to the temp the printer is reading from the transfer roller. (**Note:** This setting should be used only to make the temp of the transfer roller and the goal on LCD match.)

- Use the slider on “Image Transfer” tab to make adjustment for card stock. (**Note:** A “-” Adjustment will increase the actual temp of roller.)



Danger: The Printer’s Transfer Roller can reach temperatures exceeding 350 degree F (175 C). Use extreme caution when operating the Transfer Roller. Never touch the Transfer Roller unless the Printer Power has been turned off for at least 20 minutes.

Type	Description

Controls	Both the Printer itself and the Printer's software Driver control the built-in Transfer Roller.
Temperature Adjustment	To change the temperature of the Transfer Roller, adjust its temperature through the Image Transfer Tab within the Printer Driver setup window. Once adjusted, the new temperature settings will be sent down with the next print job along with the rest of the Printer Driver information.
New Temperature Setting	Before printing begins, the Transfer Roller will automatically adjust itself to the new temperature setting. (Note: This new temperature setting will remain programmed within the Printer until it is once again changed within the Printer Driver or until the Printer is turned OFF.) Whenever the Printer is turned OFF, the Transfer Roller will automatically reset itself and return to its default temperature the next time the Printer is turned ON. Disconnect the Printer's power supply. (Technician Note: Cycling the Printer's power supply serves to reset the Transfer Roller to its default temperature. The temperature setting within the Printer Driver, however, will stay the same until it is changed.)

Using the Encoder Flip Angle Option

Use the **Encoder Flip Angle** option to fine tune the position of the Flipper. (**Note:** This is done in relation to the Printer's built-in Encoder if your Printer is equipped with this option.)

Using the Print Flip Angle Option

Use the **Print Flip Angle** option to set the position of the Flipper so it is level with the card path after a flip operation.

Using the Ribbon Print Take-up Tension Option

This procedure controls the tension of the color Ribbon during printing.

- Adjust the Ribbon tension if the Ribbon wrinkle is appearing on the card. (**Note:** Adjustments moderately change the image length.)

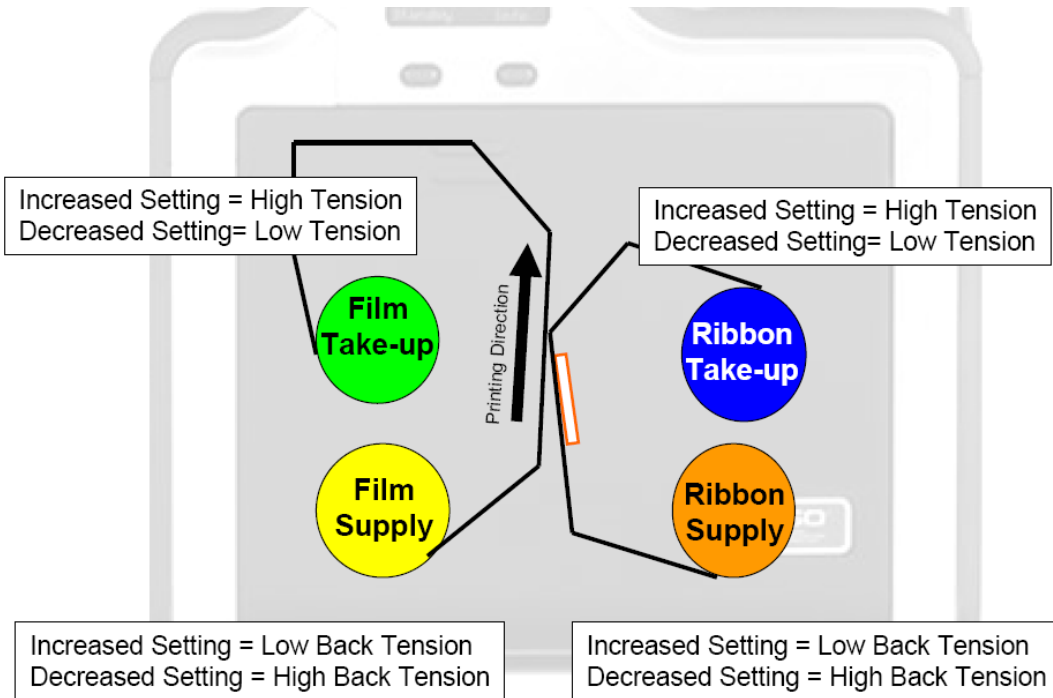
Using the Ribbon Print Supply Tension Option

This procedure controls the tension of the color Ribbon during printing. Adjust the Ribbon tension if the Ribbon wrinkle is appearing on the card. (**Note:** Adjustments moderately change the image length. "+" Adjustments can eliminate some cases of wrinkle.)

Using the Film Print Take-up Tension Option

IMPORTANT: The Film Drive sets the baseline for the Film Tension and should not be adjusted by the reseller or the end User.

- Adjustments moderately change the image length.)



Using the Resin Heat Adjust Option

Use this adjustment for Black resin text and barcodes appear faded or too light/dark.

Using the Sleep Time Option

This setting adjusts the time until printer stops energizing the transfer roller conserve energy. A setting of "0" will disable. (**Note:** The counter for this setting starts after Standby Time has elapsed.)

Using the Blush Point Option

The blush point is compensation during printing:

- There is no dye transfer.
- There is no a light gray line on a portion of the card.
- It should be white.
-

Using the LCD Contrast Option

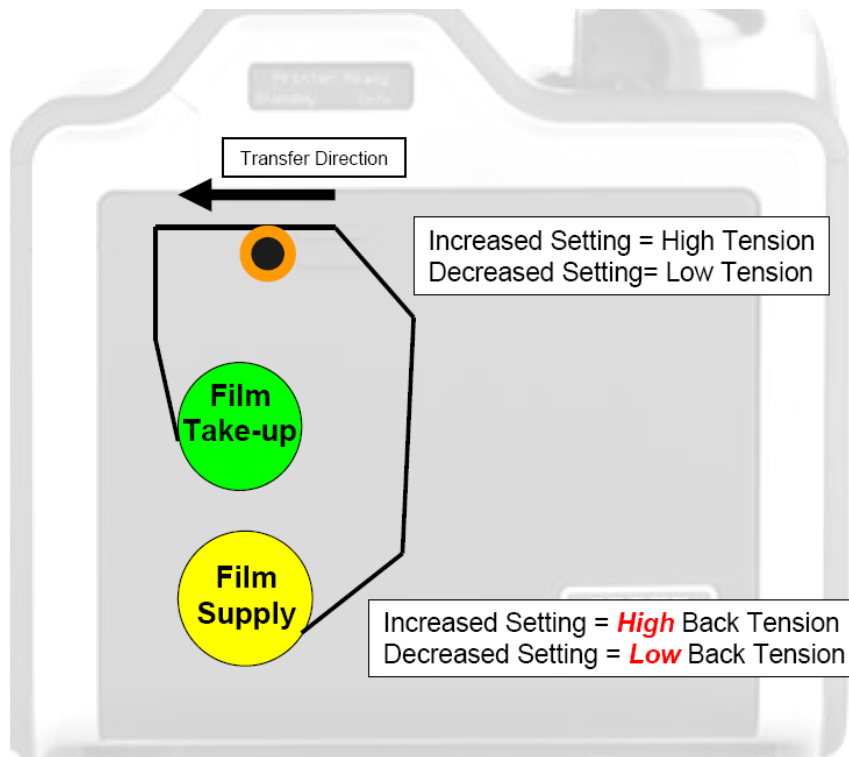
Use this setting to adjust the brightness of the LCD panel.

Using the Film Supply Transfer Tension Option

Adjustments significantly change image length. Only small adjustments recommended because of sensitivity. (**Note:** Adjustments affect flash and smudge.)

Using the Film Take-up Transfer Tension Option

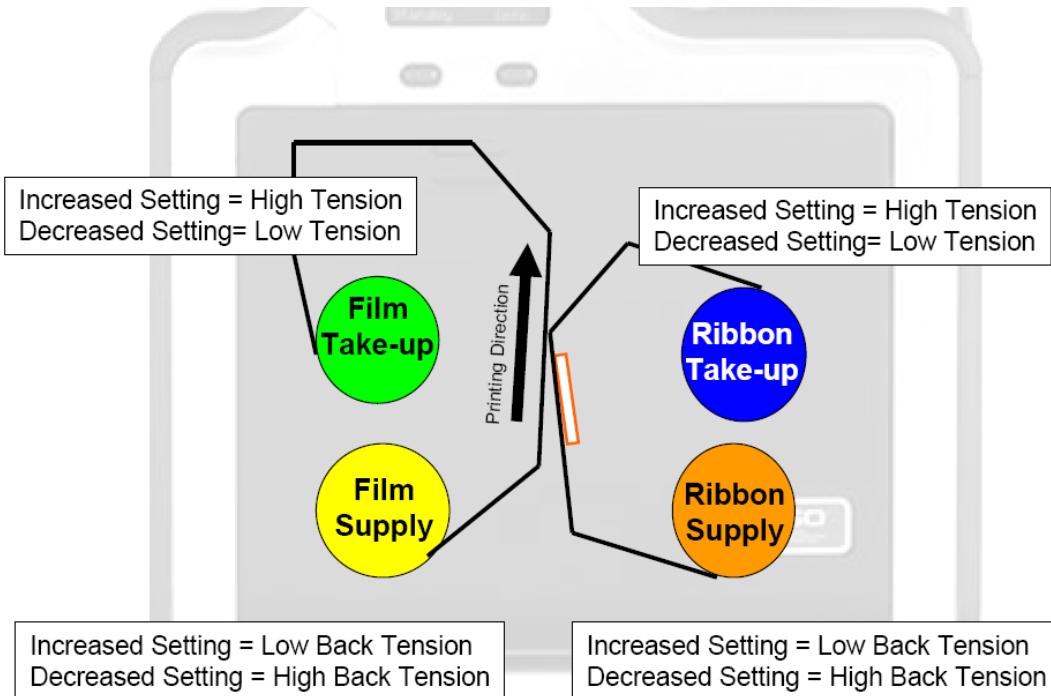
“-” Adjustments can cause card jams. (**Note:** “+” Adjustments can help stop jamming. Adjustments affect flash and smudge.)



Using the Film Print Supply Tension Option

IMPORTANT: The Film Drive sets the baseline for the Film Tension and should not be adjusted by the reseller or the end User.

- Adjustments moderately change the image length.)



Using the Cleaning rate Option

The message to clean the printer uses a defaulted number of passes of 3000 and to change this click up or down one number per one card.

Using the Film Print Cooling Level Option

This controls the speed of the transfer roller cooling fan during the printing process.

This setting should normally be off, but can be turned on to help with splotchy color areas on the image. Too high fan speed can cause smudge.

Using the Film Transfer Cooling Level Option

This controls the default speed of the cooling fan for the transfer process.

Adjusts fan speeds and on times during transferring. This setting affects both flash and smudge.

Using the EAT Disable Option

This is an **ON** or **OFF** switch. 0 is off and 1 is on. This will tell the printer to keep track of the environmental temperature and compensate for it.

“Environmentally Adaptive Transfer” automatically adjusts the transfer temp based on the ambient air conditions within the printer. Will increase or decrease the transfer roller temp by as much as 20C in extreme conditions.

This mode defaults to on and a setting of “1” will disable.

Using the Enable Ribbon Wrinkle Compensation Option

This is an on or off switch. When this enabled it will turn on extra pixels on the printhead to help with ribbon wrinkle during the print process.

Using the Standby Time Option

This option changes the time used when the printer enters standby mode.

Using the BEEP disable Option

This setting will disable the beep the printer generates after an EE settings gets updated.

Using the I Panel Heat Offset Option

This option adjusts the heat used during the removal of unwanted HDP Film. Use minimal adjustments, or print ribbon and HDP Film breaks may occur.

Using the Holo Transfer Offset Option

This option changes the Hologram Overlaminate Offset for placement parameters.

Using the Standby Temp Option

This option changes the temperature used when the printer is in standby mode.

Using the Mag Hi-Co Voltage Offset Option

This option changes the voltage going the magnetic head.

This is factory set and should not be changed unless directed by a technician.

Using the Mag Lo-Co Voltage Offset Option

This option changes the voltage going the magnetic head.

This is factory set and should not be changed unless directed by a technician.

Using the Mag Flipper Angle Offset Option

This option changes the angle of the Flipper Table. Increasing the flipper angle will rotate the flipper table clockwise. This is factory set and should not be changed unless directed by a technician.

Using the Fluorescent (F) Panel Heat Offset

This setting adjusts how dark or light the fluorescent panel is printed. It has a range of +/- 20.

Using the Lamination End of Form Option

This option changes head lift at end of card

Using the Lamination Temp Offset Option

This option changes Lamination Roller temperature.

Using the Lamination Bottom Takeup Option

This option changes tension of Laminate roll 1.

Using the Lamination Top Takeup Option

This option changes tension of Laminate rolls 2 (if equipped)

Using the Lamination Card Backup Option

This option changes distance card backs up after lam pressure is first applied

Using the Lamination Card Length Option

This option dictates length of card (should not be adjusted)

Using the Lamination Fan Speed Option

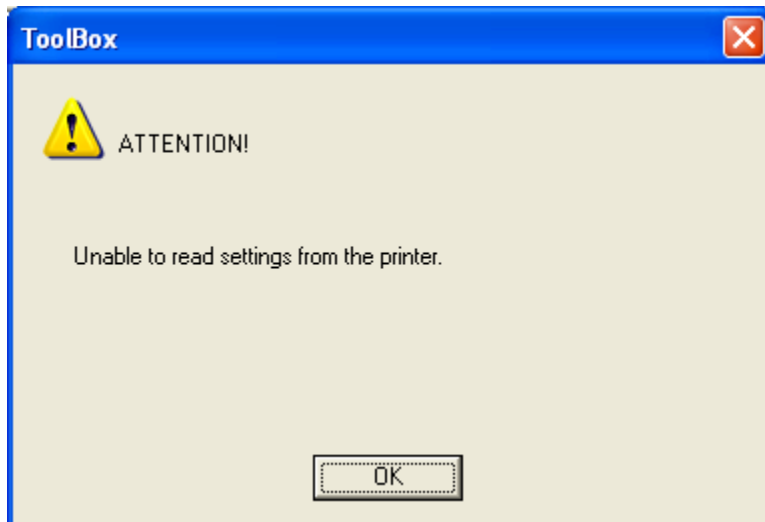
This option adjust the fan speed level 0 - 100%, 1 - 75%, 2 - 50%, 3 - 25% (replicate printer fan speed control)

Using the Lamination Peel Off Delay Option

This option adjust the delay between lamination stage and peel off stage.

Reviewing the No Printer Connected error message

If there is no Printer connected or if the Driver is unable to communicate with the Printer, the following error will be displayed and the grid will be blank.



Warming Time Delay

The setting adjusts how much additional time (in minutes) the printer will wait after the transfer roller reaches temperature before beginning transfer. It has a range of 0 to 20.

Power On Ribbon Film Skip

This setting enables power up ribbon/film savings. When enabled the ribbon and film will not skip to a new set of panels after a power up. Cover open/close behavior is unaffected, so upon a cover close the ribbon and film will skip a set of panels.. 0 – disabled/1- enabled.

Flipper Reject Angle

This setting adjusts the flipper angle when trying to place a card in the reject hopper. It has a range of +/-20. This setting should not be needed.

Input Hopper Home Offset

This setting adjusts the position of the shuttle when it's in the home position. It has a range of 0 to 30. The larger then number the closer to the front of the printer the shuttle will be placed. The printer must be rebooted for this setting to take effect.

Input Hopper Mag Offset

This setting adjusts the position of the shuttle when it's in the mag position. It has a range of -20 to 20. The larger then number the closer to the front of the printer the shuttle will be placed. The printer must be rebooted for this setting to take effect.

Transfer Image Length

This setting adjusts the length of the image on the card during transfer. It has a range of -10 to +10. The larger the number, the longer the image.

Transfer Cooling Delay

This setting adjusts the delay (in seconds) before transferring the second side of the card. It has a range of 0 to 180. The larger the number, the longer the delay in seconds..

Ribbon Factory Take-up

This setting corrects for motor speed variation of the ribbon take-up motor. It has a range of -20 to +20. The larger the value the faster the motor will go. This is a factory setting, the user should never adjust this.

Ribbon Factory Supply

This setting corrects for motor speed variation of the ribbon supply motor. It has a range of -20 to +20. The larger the value the faster the motor will go. This is a factory setting, the user should never adjust this.

Film Factory Take-up

This setting corrects for motor speed variation of the film take-up motor. It has a range of -20 to +20. The larger the value the faster the motor will go. This is a factory setting, the user should never adjust this.

Film Factory Supply

This setting corrects for motor speed variation of the film takeup motor. It has a range of -20 to +20. The larger the value the faster the motor will go. This is a factory setting, the user should never adjust this.

Reviewing the Value outside the Range error message

If typing a value outside the range, an error message will display specific to the setting when leaving the spin control to click any other spin control, button or tab.



Section 6: Fluorescent Panel Usage

YMCFK Ribbon for HDP8500 is an economical way to add a fully customizable, incremental level of security to your photo identification cards. This process allows the user to configure the data that is printed with the fluorescent panel of an YMCFK Ribbon. (**Note:** Any software program may be used to print the special florescent panel of the Ribbon to a card once the driver and Workbench are set up correctly.)

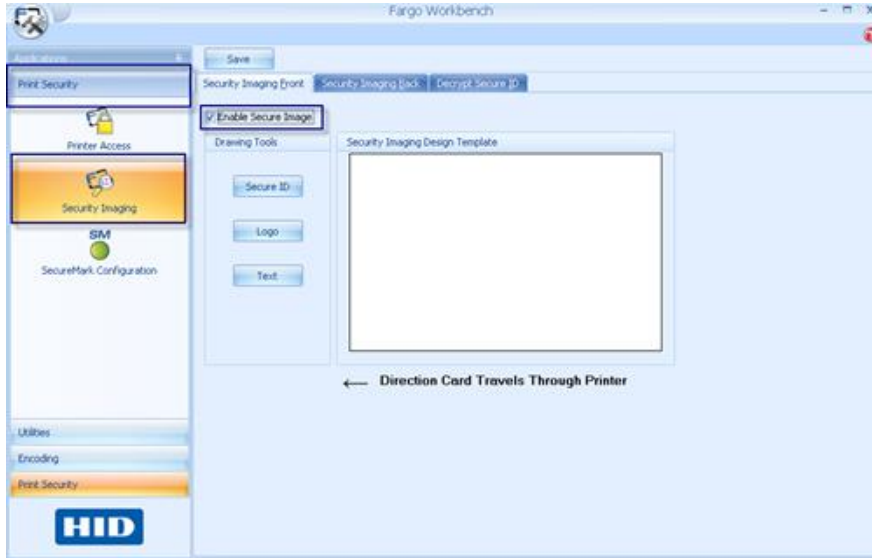
- These Ribbons contain a yellow (**Y**), magenta (**M**), cyan (**C**), and resin black (**K**) panels to create a full color over-the-edge printing identification card. In addition, the Ribbon contains a dye-based fluorescing panel (**F**) which will allow you to print a standard or one-to-one personalized grayscale fluorescing image that is completely invisible until exposed to ultraviolet light.

There are two (2) methods used to accomplish the creation of a custom fluorescent image when using the YMCFK Ribbon for the HDP8500.

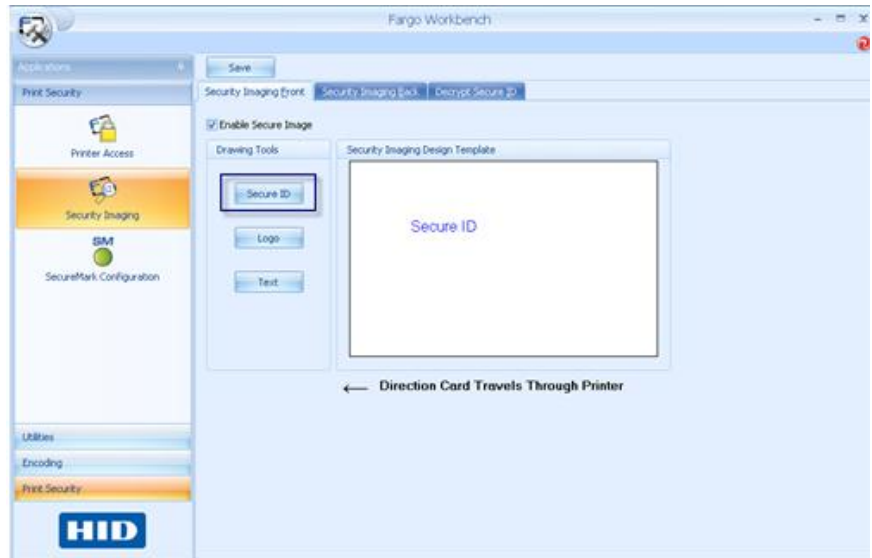
- The first method (described below) uses the Fargo Workbench Printer Utility to create a static image that will be applied automatically to each card sent to the printer.
- The second method (described later in this document) allows the creation of the fluorescent panel image directly from the badge application software. (**Note:** This enables the user to print a unique fluorescent image, such as the card holder's picture, on each card.)

Configuring Fluorescent Data (F-Panel for YMCFK Ribbon) using the Workbench

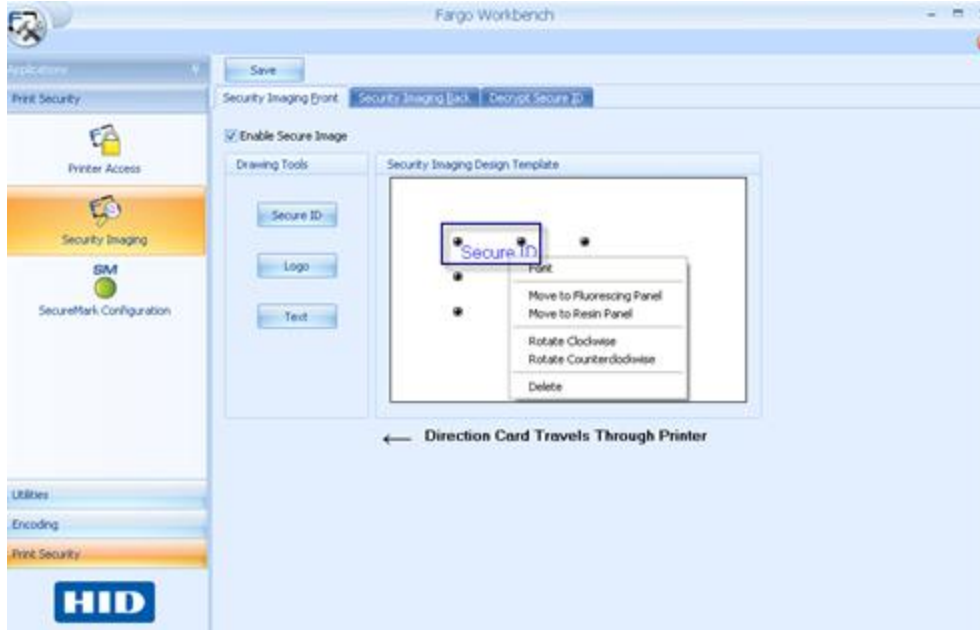
Step	Procedure
1	From the Driver Printing Preferences, click on Diagnostics to bring up the Fargo Workbench Printer Utility.
2	<ol style="list-style-type: none">a. Click the Print Security applet group and select the Security Imaging applet.b. Check the Enable Secure Imaging Checkbox. (Note: The option for both front and back are set up the same way.)



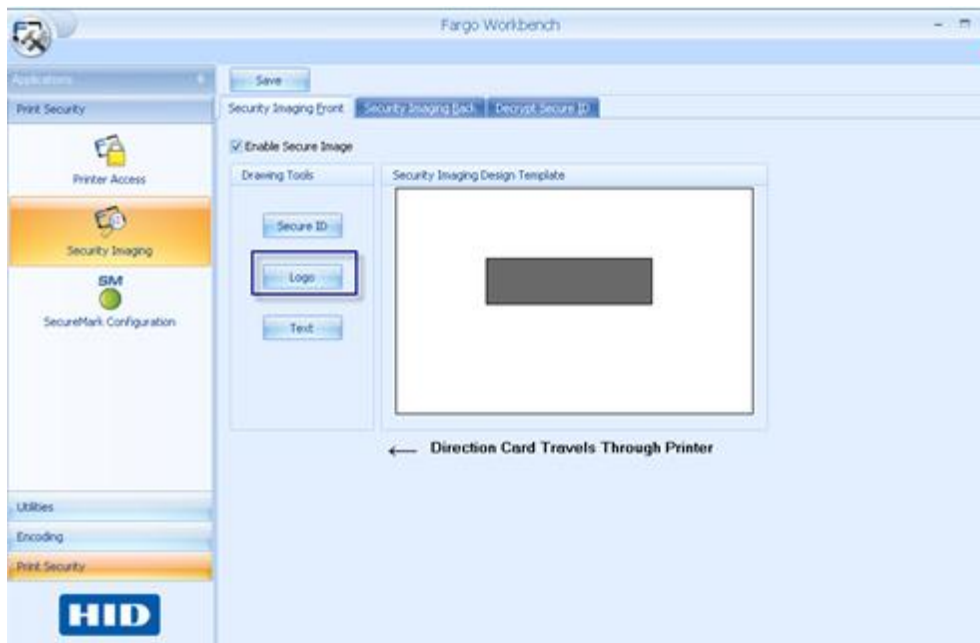
Step	Procedure
3	a. Click on the Secure ID box on the left. b. Click and drag a box onto the Template. c. Move and size as needed.



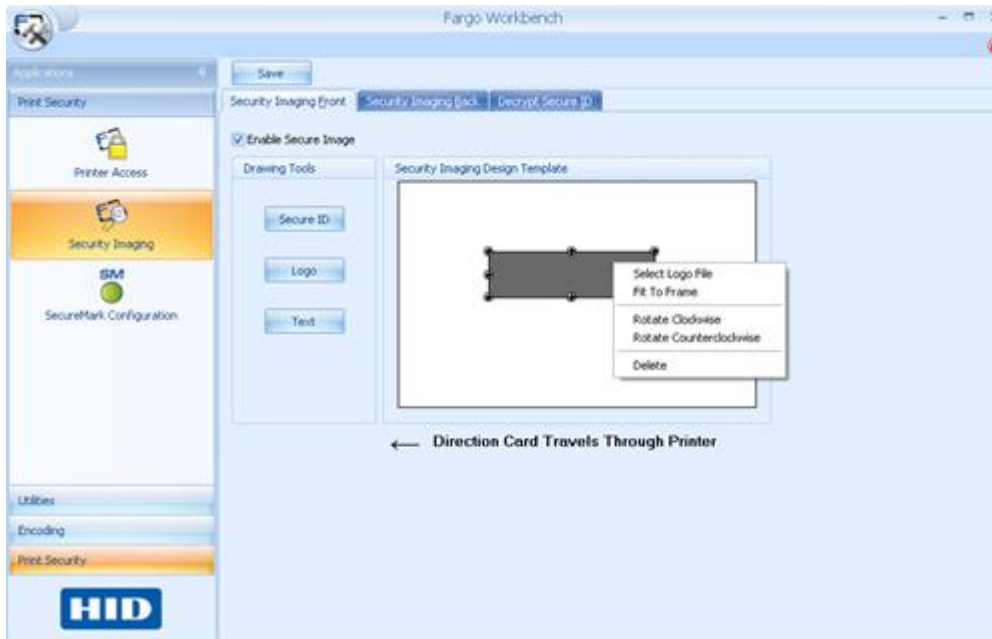
Step	Procedure
4	On the Template, right click on the Secure ID box for the options.



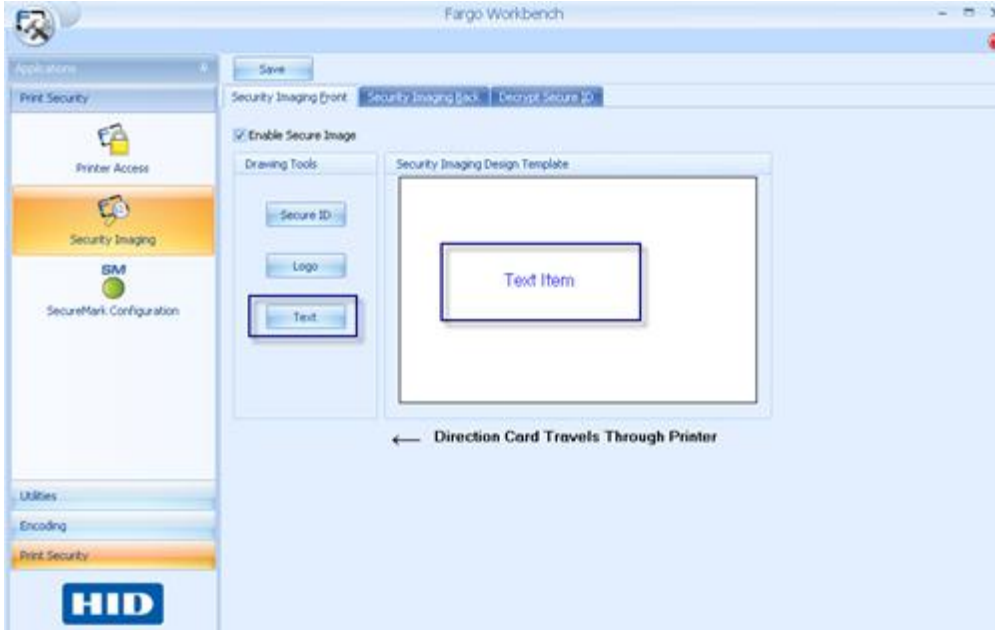
Step	Procedure
5	a. Click on the Logo box on the left. b. Click and drag a box onto the Template. c. Move and size (as needed) by grabbing the corner of the box.



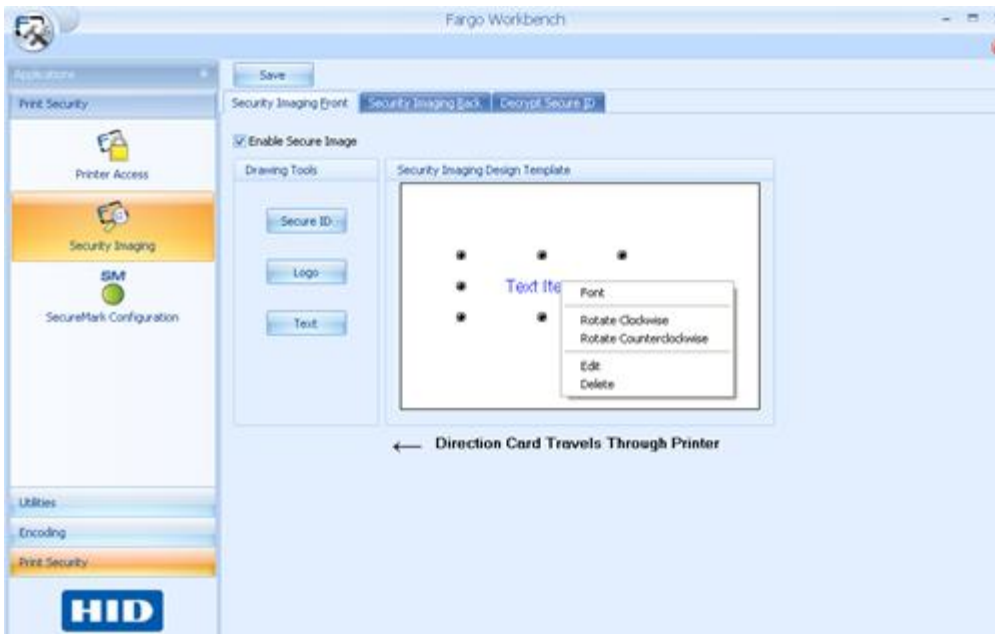
Step	Procedure
6	On the Template right click on the Logo box for the options shown below.
7	<p>Select Logo File.</p> <p>Find the source of the Logo to place on the card. (Note: Fit to Frame will size the image to fit the box. Once this is set up, this logo will print from the software program. This is set up in the background.)</p>



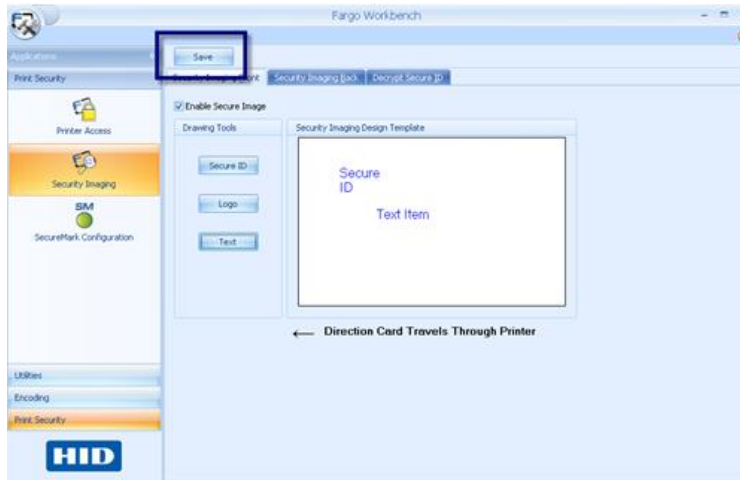
Step	Procedure
8	<ol style="list-style-type: none"> a. Click on the Text box on the left. b. Click and drag a box onto the Template. c. Move and size as needed.



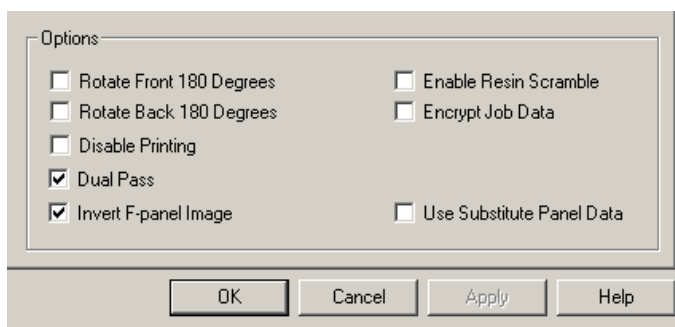
Step	Procedure
9	On the Template, right click on the Text box for the options shown below.



Step	Procedure
10	Follow the same instruction as above for the back side of the card.
11	<p>a. Save this template using the Save tab.</p> <p>b. Close the Workbench. (Note: Any Software program file printed with the YMCFK ribbon installed into the printer will print this design with the F panel of the ribbon. It will print the same file each time unless you recreate a new template.)</p>



Step	Procedure
12	Set the ribbon for YMCFK in the Printing Preferences. (Note: The Auto Detect button may also be used. The F panel ribbon must be installed for this process to work.)
13	Check Dual Pass if you would like to print the F panel on a separate panel of HDP film from the YMC image. (Note: It is recommended that the user use the default “Dual Pass” option if the fluorescent image is used in places where other dye is used or any time the “Invert F panel Image” option is selected)
14	Check Invert F-Panel Image to create a negative of the fluorescent image. (Note: This may improve the look of the person’s image if used for the Logo.)



Configuring Fluorescent Data (F-Panel for YMCFK Ribbon) using the Application

This process creates a fluorescent image on your card using a simple text string command in your badge application.

Step	Procedure
1	Creating Fluorescent Text: Create a new text box in your badge application.
2	Type the TEXT that you want to appear as fluorescent and put a ~T before the start of the text with no space after the ~T . The text will start on the card where the ~T begins. (see Display A below)
3	Creating a Fluorescent Image: In a separate drawing program, create the image that you wish to fluoresce. (See Display C below)
4	Create the IMAGE in the actual size that you want it to appear on the card, and save it as a "Grayscale" or "1 - bit" bmp file on the root c:\ directory. Do not put spaces in the file name.
5	Create a new text box in your badge application, and type ~I followed by the address of your image (see Display A below). The top left of your image will start at the top left of your text box.
6	Set up the printer driver preferences. Refer to Step 8-10 below
7	Printer will print the fluorescent BMP IMAGE at the ~I position on the card. Printer will print the fluorescent TEXT at the ~T position on the card. (See Display B below)

Display A
Card as seen in badge application

Display B
Card as Printed



Step	Procedure
8	Set the ribbon for YMCFK in the Printing Preferences. (Note: The Auto Detect button may also be used.)
9	Check Dual Pass if you would like to print the F panel on a separate panel of HDP film from the YMC image. (Note: It is recommended that the user use the default “Dual Pass” option if the fluorescent image is used in places where other dye is used or any time the “Invert F panel Image” option is selected)
10	Check Invert F-Panel Image to create a negative of the fluorescent image. (Note: This may improve the look of the person’s image if used for the Logo.)

Display C:
BMP Image located at c:\globe.bmp



Section 7: Inhibit Panel Usage

You can use the Inhibit Panel (I designation under YMCKI) to define areas on the surface of the card, in order to prevent the transfer of film to the card surface. Examples of where the I Panel has potential use are to ensure that signature panels, security holograms or pre-printed graphics are not covered or obscured by print images or transfer film.

- **When Active:** This feature is active when using YMCKI Ribbons.
- **Application Usage:** An application which supports the use of text based objects is used to access and work with the Inhibit Panel.

Using Inhibit Panel (via the Fargo Workbench Printer Utility)

You can use the Fargo Workbench Printer Utility to generate an Inhibit Panel Layout. (**Note:** This utility allows the operator to add a rectangular area(s) that define which areas are to be inhibited.)

- **Inhibit Panel Placement:** Each print job (generated from that individual client workstation) will generate the instructions within the print job that place the corresponding area(s) on the I-panel.
- **Operating Systems:** This method works on all applications generating print jobs to the HDP5000 under all operating systems. (**Note:** This is regardless of whether the printer (being used) is a shared instance from another workstation or an instance local to that particular workstation.)

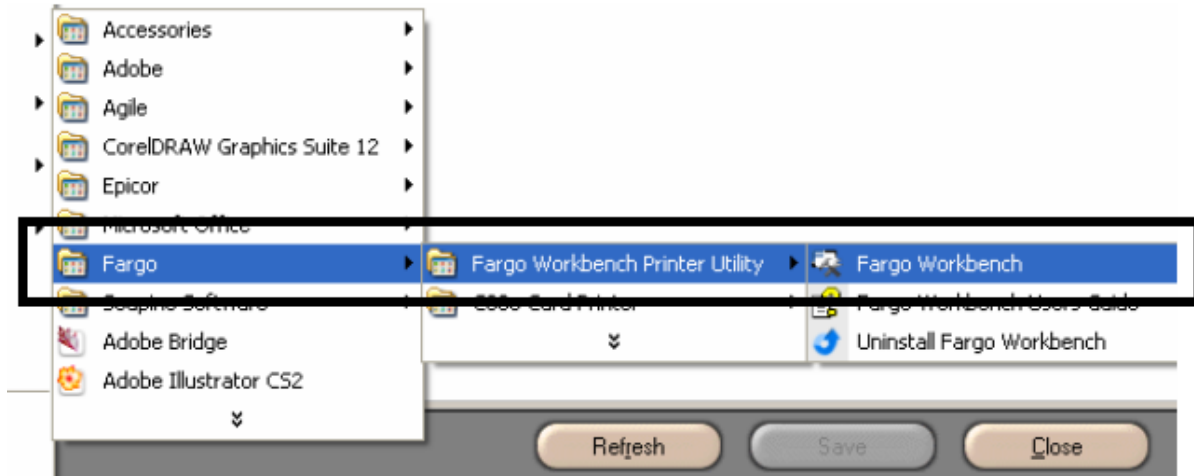
-

Follow these instructions:

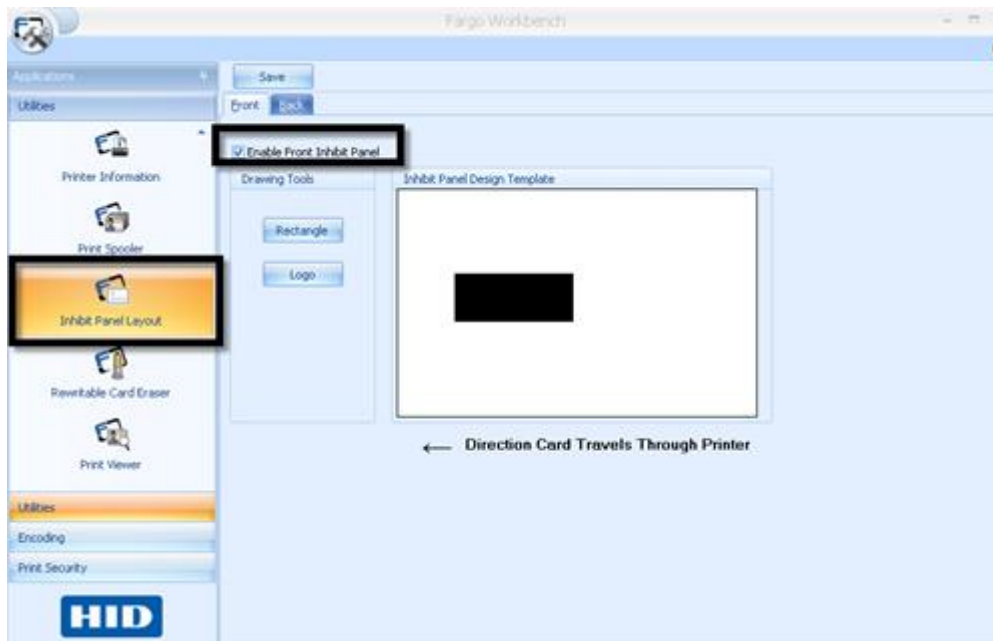
- To create an inhibit area using the Fargo Workbench Printer Utility, see **Using the Inhibit Panel Layout Applet** in the Help file associated with the specific application.
- To open the Fargo Workbench Printer Utility, select (on your desktop)

Start > Programs > Fargo > Fargo Workbench Printer Utility > Fargo Workbench

- Please verify that you have the latest version of the Workbench installed. The latest version is located on www.hidglobal.com



Step	Procedure
1	Create the Inhibit Panel Layout within the Workbench Printer Utility.
2	Save the file. Failure to save will not allow the Inhibit Panel to work
3	You are now ready to print from your application. Any image file will print with the inhibit panel until that image file is deleted.



Using Inhibit Panel with an Application

Some applications can utilize the inhibit panel by using text objects containing a “~i” within the print job itself. The “~i” is followed by the file path and file name of a bitmap file, which is merged when the print job is rendered.

- Rendering is the process which changes the application output to instructions that the printer understands.
- This string will be removed from the print and the bitmap will be used to define the area where the transfer is to be inhibited.

Generating Text Objects

- **Incompatible Applications (which do not print text as objects):** Some Windows applications create print jobs, but do not generate text objects within the print job output.
 - These types of application are not compatible with the inhibit panel and will not generate the correct print output. If an application saves its files as a single bitmap the text will not be sent to the printer to be handled correctly.
 - In this case the “~i” string may appear printed on the card instead of being substituted with the inhibit bitmap.
 - Examples of applications (which are incompatible with inhibit printing) are Notepad and Microsoft Paint. Microsoft Paint can be used for the creation of the INHIBIT BMP.
- **Compatible Applications (which utilize text objects compatible with the Inhibit Panel):** Windows applications which generate text objects to Windows GDI are compatible with inhibit panel operation. (**Note:** Compatible applications will allow you to edit text strings after the file has been saved. Examples of compatible applications are Corel Draw, Microsoft Word, and Microsoft WordPad.)

Rendering Print Jobs

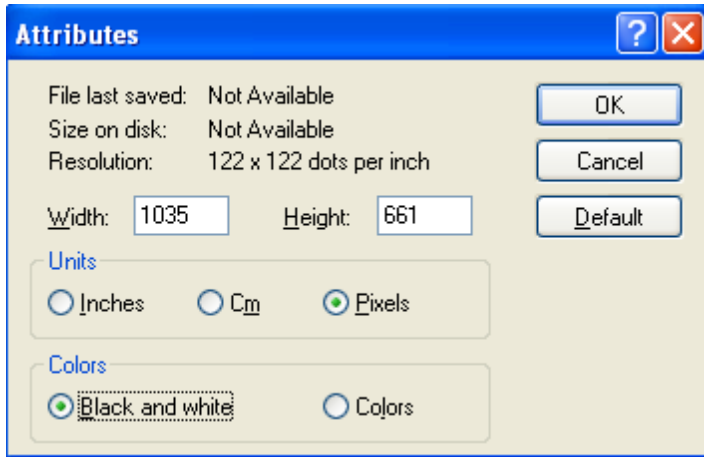
Rendering of the print job occurs on the given local workstation if the Printer Driver is installed for use on that particular workstation.

- **Shared Instance:** However, if the Printer Driver is a shared instance (e.g., shared from another workstation), the print job is rendered (converted to something that the printer understands) on the workstation where the Printer Driver is shared from while under Microsoft Windows.
- **Print Job Rendering:** Under Microsoft Windows Vista, the rendering of the print job may be performed on either the workstation sharing the printer or the workstation creating the print job, depending upon the setting chosen in the printer instance.
- **Rendering Engine:** Since the Printer Driver looks for the file with the “~i” command, the file location specified within the command is relative to the sharing workstation on Windows.
 - Under Windows Vista the default configuration is to render the job on the workstation that is generating the print job.
 - The bitmap image file must exist in the location specified on the sharing workstation or on the printing workstation, depending upon your settings for that printer on the workstation generating the print job.
- **Example:** Place a “~iC:\Test\inhibit.bmp” text object within a Word Pad print job against a non-shared (e.g., local) HDP5000 printer under Windows XP to cause the Printer Driver to look for a file with that name and location on the local workstation. (**Note:** This is because the Printer Driver processing occurs on the local workstation.)
- **Inhibit Area Location:** The location of the inhibit area within the print job is the upper left hand corner, where the text object is placed upon the drawing within the application. (**Note:** The inhibit file bitmap must contain one bit per pixel (e.g., monochrome).)
- **Print Size:** If the inhibit bitmap is larger than the page print size, it is trimmed to fit it. The normal print size for a HDP5000 CR-80 card is 2.204 inches by 3.452 inches.
 - With that print size, the maximum size of the inhibit bitmap area would be 661 pixels by 1035 pixels.
 - If the inhibit bitmap is smaller than the page print size, it will still be used by the driver and be referenced to the upper left hand corner of the ~i text object.
- **Bitmap Black Areas:** The black areas of the bitmap are the areas that will correspond to where the inhibit material will prevent the transfer of dyes on to the card.

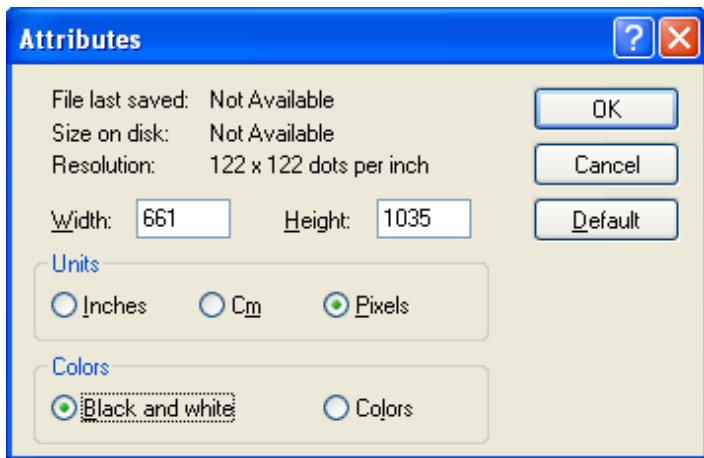
The inhibit bmp file can be generated with any bit map editor. The following procedure explains how this is done with Microsoft Paint.

Step	Procedure
1	Create a bitmap file using Microsoft Paint. Note: The size for landscape orientation is 1035 pixels in width and 661 pixels in length. The size for portrait orientation is 661 pixels in width and 1035 pixels in length. Set this under Paint –Image –Attributes. Select “black and white” under COLORS.

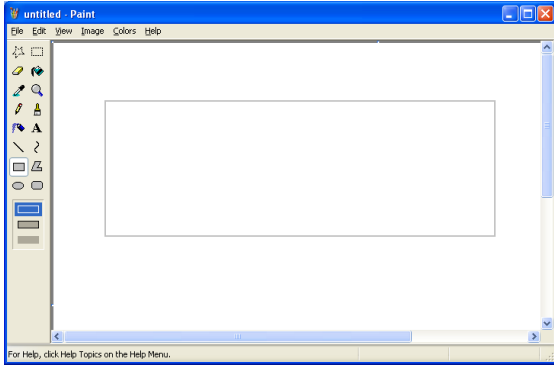
Landscape Orientation (see below)



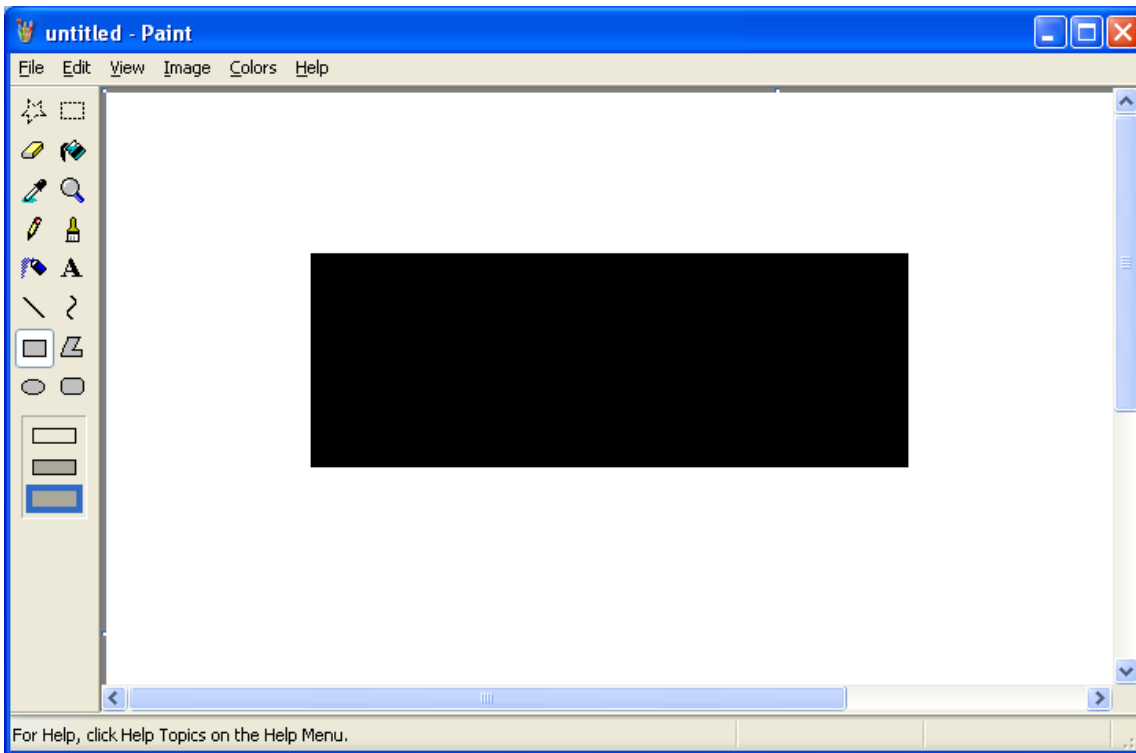
Portrait Orientation (see below)



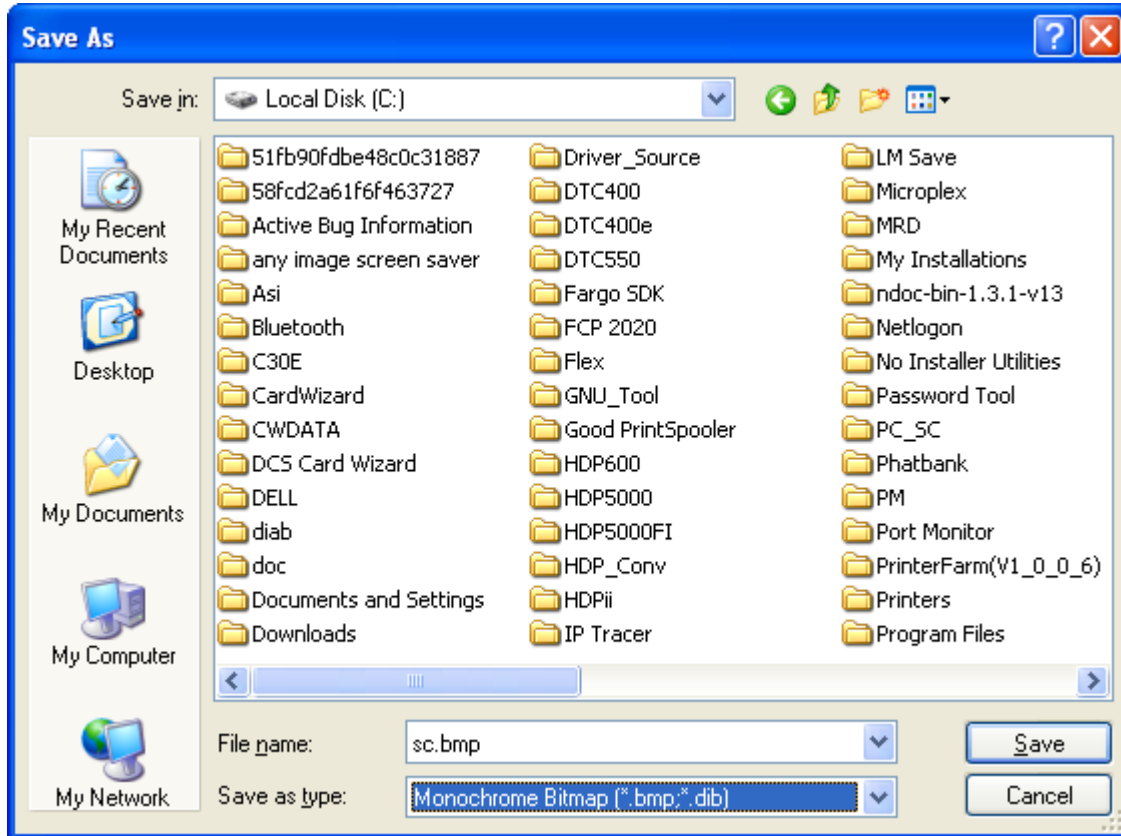
Step	Procedure
2	Place objects on the image, which correspond to the exact areas that are being inhibited.



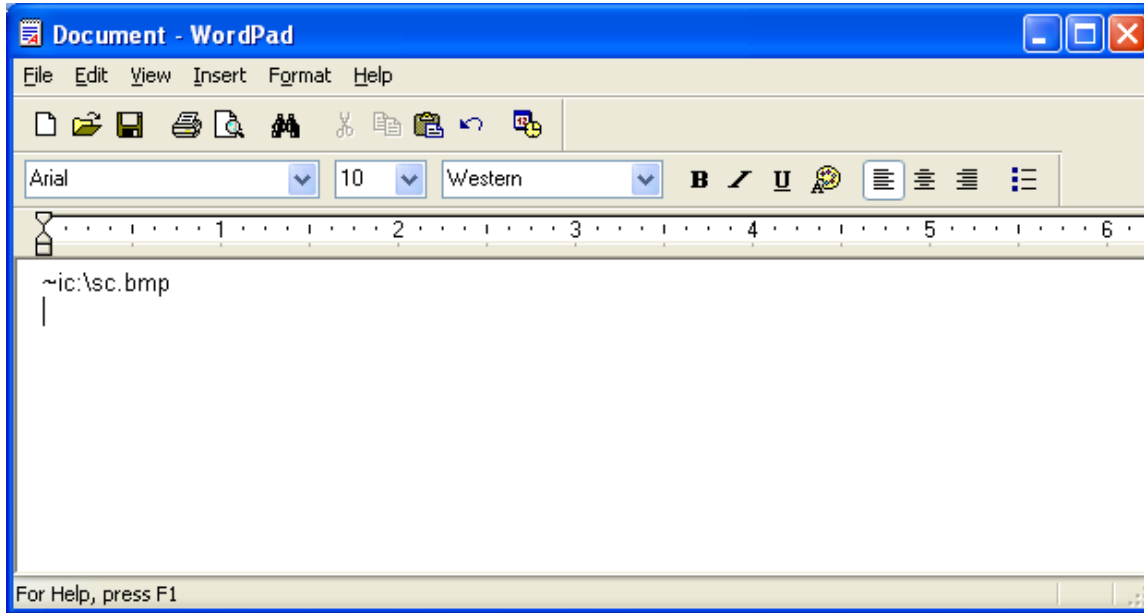
Step	Procedure
3	Fill the inhibit areas with black color.



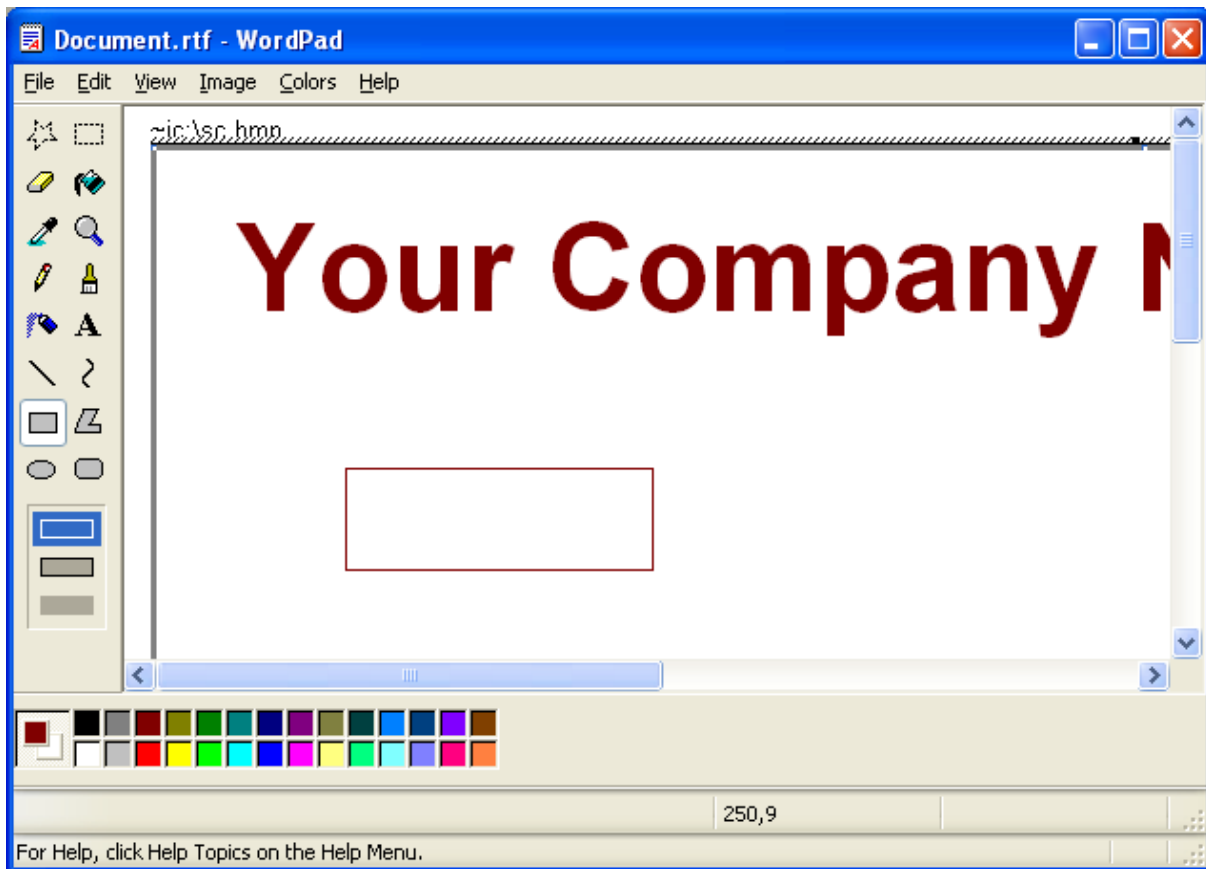
Step	Procedure
4	Save the file as a BMP from within Microsoft Paint.



Step	Procedure
5	Add the '~i' command to the application file. (Note: In this case, Microsoft WordPad was used. With WordPad the '~' must be left justified.)



Step	Procedure
6	Create the rest of the card using the application.

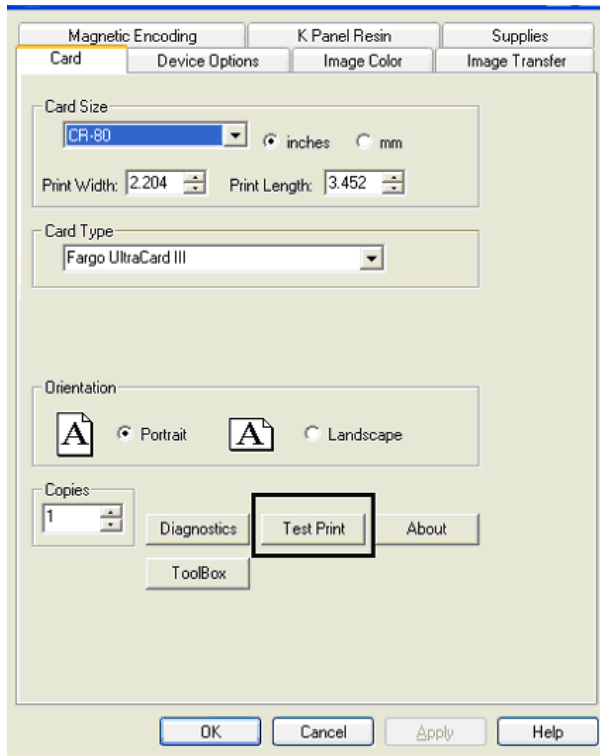


Step	Procedure
7	Print the card from within the application. (Note: In this case, use File -> Print.) If the ~i text object is printed on the card.
8	This completes the procedure..

Using the Test Print

The printer has a test print file, which can be sent to the printer to verify the Inhibit Panel functionality. This test image uses a pre-formatted inhibit area and will not test a user-defined inhibit bitmap. To use this test of the inhibit panel perform these steps.

Step	Procedure
1	Bring up the Printer Preferences dialog via Start -> Settings -> Printers and Faxes . Right click on the HDP5000 printer instance; then left click on Printer Preferences to select the Card tab.
2	Click on the Test Print button.



Troubleshooting the Inhibit Panel

If you are having trouble getting the Inhibit Panel to produce the expected results, verify the following information.

- You have used a lower case “~i”, not an upper case “~I”. Some applications have an auto-correct feature that will change the case on the small ‘i’.
- The bitmap file (being used) is at the location on the workstation (see notes above regarding shared printer instances) as specified by the text object.
- The bitmap file is monochrome (e.g., black and white).
- The size of the bitmap image is large enough to cover the space you are seeking to inhibit. (**Note:** The printer resolution is 300 dpi on both the horizontal and vertical axis, which will aid you in placement of the image. Oversize images will be truncated at the size of the card.)
- The bitmap image should be created in the same orientation as your application image (e.g., landscape or portrait).
- Some Windows applications have a mode where prints are converted to a bitmap before printing which will prevent proper inhibit panel operation.
- In some applications, such as Microsoft WordPad, the ‘~’ must be left justified or it may print on the card and the inhibit functionality will not work.

Section 8: General Troubleshooting

The purpose of this section is to provide the User with specific procedures relating to the LCD Messages, Communication Errors, Card Feeding Errors, Encoding Errors, Printing Process Errors, Transfer Process Errors and Diagnosing the Image Problems for the HDP8500.

Important! Fargo Card Printers require highly specialized print Ribbons to function properly. To maximize Printer life, reliability, printed card quality and durability, you must use only Fargo Certified Supplies. For this reason, your Fargo warranty is void, where not prohibited by law, if you use non-Fargo Certified Supplies. To order additional materials, please contact your authorized reseller.

Troubleshooting - LCD and Printer Error Message Tables.

The LCD display shows the current status of the Printer. Refer to the cause and solution tables in this section for all possible LCD messages.

This section provides two troubleshooting tables for the LCD error messages and the Printer error messages. Each table uses a 3-column presentation to present a specific LCD or Printer error message, its cause and its solution.

- This 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 these two error message tables, you should contact www.hidglobal.com

How to use the LCD Error Message Table (example provided)

The PC Error Message in Column 1 (LCD Error Message) provides the Lower Left Corner Number. This number identifies the PC Error Message screenshot with its respective LCD Error Message.

- Note the correlation between Column 1 (below) and the PC Error Message window (below).
- This allows you to correlate the LCD Error Message with the PC Error Message (identifying number), then troubleshoot your Printer as needed.

Display – Single Example from the LCD Error Message Table

LCD Error Message	Cause	Solution
Unable to Feed Card (PC Error Message Nos. <u>14</u> and 81) Matches with the screenshot below.	The Printer is unable to feed a card from the Card Cartridge.	Verify there are cards in the cartridge. Verify cards are not stuck together or jammed, and they are the correct thickness.

Display – Unable to Feed Card (screenshot; Lower Left Corner Number, 14)



Troubleshooting with the LCD Error Message Table

LCD Error Message	Cause	Solution
Calibrate Failed (PC Error Message No. 155 and 170)	Film or Ribbon calibration has failed.	Verify the film is installed correctly. No ribbon should be installed for Ribbon Calibration. If this problem persists, call for technical assistance.
Calibrate Film/ Film Release Error (PC Error Message No. 153)	Film Sensors need to be calibrated.	Select Cancel and then perform the Film calibration procedure.
Calibrate Ribbon (PC Error Message Nos. 128 and 170)	Ribbon Sensor needs to be calibrated.	Select Cancel and then perform the Ribbon calibration procedure.
Card Feed Stop (PC Error Message No. 137)	The card handler module is currently in a pause state.	Press Resume or Cancel .
Card Jam (PC Error Message Nos. 83, 112, and 200)	A card is jammed in the Print Station or card flipping area of the Printer.	Clear the jam. Remove Card.
Card Jam Mag (PC Error Message Nos. 82)	A card is jammed in the Mag Station or card flipping area of the Printer.	Clear the jam. Remove Card.
Card Jam: Prox (PC Error Message No. 86)	A card is jammed in the PROX card encoding area of the Printer.	Clear the jam. Remove Card.
Card Jam: Smart (PC Error Message No. 85)	A card is jammed in the smart card encoding area of the Printer.	Clear the jam. Remove Card.
Card Not Found (PC Error Message	Card cannot be found in the Printer.	Verify card not jammed in Printer and select Cancel .

No. 69)		Load cards into Hopper.
Check Film (PC Error Message No. 244)	The film is not able to move correctly. The film has become jammed or the wrong number of film marks was seen during printing.	Check for jams/breaks. Verify film is installed correctly in cartridge. Remove film and check for any damage to the film. Scroll film to unused panel, install film cartridge and cancel last print job.
Check Laminate 1 (PC Error Message Nos. 231)	The Laminator was unable to find the mark on the material in cartridge one.	Make sure there are no obstructions to the Sensor, and recalibrate the Laminator Sensor.
Check Laminate 2 (PC Error Message No. 232)	The Laminator was unable to find the mark on the material in Cartridge 2.	Make sure there are no obstructions to the Sensor, and recalibrate the Laminator Sensor.
Check Film Error (PC Error Message Nos. 26, 158, and 176, 290)	The film is not able to move correctly. Check for jams/breaks.	Check for obstruction. Verify film is installed correctly in cartridge. If the problem persists, call for technical assistance.
Check Ribbon (PC Error Message No. 97, 98, 99)	The Ribbon is not able to find the next panel correctly. Check for jams/breaks.	If jammed, clear the jam. If broken, repair by taping the Ribbon back on to the take-up core. Press Resume to continue or Cancel to abort.
Cover is Open (PC Error Message No. 295)	Cover is open and printer going into pause mode.	Close printer cover and resume.
Expansion Board Error (PC Error Message No. 314, 315, 316)	An error has occurred on one of the expansion boards; Comm Error, ASYNC Timeout, Timeout	Reset the Printer and try again. If this problem persists, call for technical assistance.
EEPROM Error (PC Error Message No. 38,39,40,44,52)		Reset the Printer and try again. If this problem persists, call for technical assistance.

<p>Film Out (PC Error Message No. 157)</p>	<p>The HDP film has run out. There is no material loaded in the Laminator.</p>	<p>Install a new roll of film and press Resume to continue or Cancel to reset.</p>
<p>Film: Wrong Material (PC Error Message No. 173)</p>	<p>The HDP Film is not installed properly or has been damaged. Ribbon is installed in Film Cartridge.</p>	<p>Verify the correct film is installed in the film Cartridge.</p>
<p>Flipper Jam (PC Error Message Nos. 74 and 199)</p>	<p>A card is jammed in the card flipping area of the Printer.</p>	<p>Open the Printer's Flipping Module Cover. Clear any cards in the Flipping Module by opening the Printers Cover and using the Forward and/or Back buttons located on the Printer's Front Cover. Ensure that the Flipper Module can rotate freely. Close the Printer's Flipping Module Cover. Press the Resume button on the Printer's Front Cover to continue printing. To cancel the print, press the Cancel Print button from the Driver's display dialog.</p>
<p>Head Loading (PC Error Message No. 111)</p>	<p>An unrecoverable error has occurred during printing.</p>	<p>Reset the Printer and try again. If this problem persists, call for technical assistance.</p>
<p>Head Resistance (PC Error Message No. 6)</p>	<p>The EE setting in Driver for head resistance is out of range.</p>	<p>Enter a value for head resistance in the EE settings in the Driver. Refer to the resistance number on the printhead and load into the Advanced Settings option. Reset the correct value according to the steps in the Troubleshooting Section. If this problem persists, call for technical assistance.</p>
<p>Head Voltage Err (PC Error Message</p>	<p>A hardware fault has prevented setting the correct</p>	<p>Reset the Printer and try again. If this problem persists, call for</p>

Nos.88 and 89)	Printhead voltage.	technical assistance.
Headlift Error (PC Error Message Nos. 102, 103, 104, and 105, 291, 292, 293, 294)	This is a problem with the Printhead Lift or Transfer Roller Headlift.	Remove ribbon and film cartridges. Check for any obstructions in the printhead area or mechanism. Remove any obstructions. Cycle printhead up and down from the display. If printhead cycles normally, reinstall cartridges.
Heater Error (PC Error Message No. 161,)	The Transfer Heater Roller is too hot.	Heater or RTD is malfunctioning. Check heater and RTD connections. If this problem persists, call for technical assistance.
Output Hopper Full (PC Error Message No. 313)	Output Card Hopper is full to capacity	Empty the Hopper.
Invalid Ribbon (PC Error Message No. 94, 95, 96)	An unauthorized Ribbon is installed in the Printer. The wrong Securemark ribbon was installed in the printer.	Get the correct Ribbon from your dealer.
Invalid Film (PC Error Message Nos. 164, 165, and 166,)	An unauthorized film is installed in the Printer.	Get the correct Film from your dealer.
Internal Laminator Error PC Error Message Nos. 257, 258)		Reset the Printer and try again. If this problem persists, call for technical assistance.
Job Data Error (PC Error Message No. 106)	The print data sent to the Printer is corrupt or has been interrupted.	Reset the Printer and try again. If this problem persists, call for technical assistance.
Lam Check Card (PC Error Message Nos. 213)	A jam occurred inside the laminator	Remove Card from Card Path. Make sure there are no obstructions to the Sensor, and recalibrate the Sensor.
Lam Async Error	The Printer timed out waiting for communication from the	Check Lam power/connections and

(PC Error Message No. 245)	Laminator.	restart the Printer.
Lam Card Jam (PC Error Message No. 53, 212, 214, and 215, 216)	A jam occurred somewhere between the Printer and the Laminator. Card can't be ejected from laminator.	Open covers and clear the obstruction/jam. The Lamination material is stuck to the card.
Lam Com Error (PC Error Message No. 246)	There was a communication failure between the Printer and Laminator.	Check Lam power/connections and restart the Printer.
Lam Card Jam- Not Ejected (PC Error Message No. 216)	The card is not ejected from the Laminator.	The Lamination material is stuck to the card.
Lam Timeout (PC Error Message No. 247)	The Printer timed out while processing information related to the Laminator.	Check Lam power/connections and restart the Printer.
Lam No Film (PC Error Message No. 63)	No laminate installed in cartridge	Load Laminate into cartridge.
Lam1 Wrong Film (PC Error Message No. 237)	Material in Cartridge 1 of the Laminator does not match the material type specified by the job.	Make sure Driver material matches what is actually in the Laminator.
Lam2 Wrong Film (PC Error Message No. 238)	Material in Cartridge 2 of the Laminator does not match the material type specified by the job.	Make sure Driver material matches what is actually in the Laminator.
Laminate 1 Bad (PC Error Message No. 233, 235, 227, 225, 223,263, 261, 249)	The Lamination material in Cartridge 1 is not valid for this Laminator. The wrong Securemark lam material was installed in cartridge. The wrong OEM material was installed in cartridge one. The wrong grade material	Install valid material.

	<p>was installed in cartridge one.</p> <p>The wrong Q Encrypt material was installed in cartridge one.</p> <p>Bad RFID Tag in lam cartridge one.</p>	
<p>Laminate 2 Bad (PC Error Message No. 234 and 236, 228, 226, 265, 262, 250, 224)</p>	<p>The Lamination material in Cartridge 2 is not valid for this Laminator.</p> <p>The wrong Securemark lam material was installed in cartridge.</p> <p>The wrong OEM material was installed in cartridge two.</p> <p>The wrong grade material was installed in cartridge two.</p> <p>The wrong Q Encrypt material was installed in cartridge two.</p>	<p>Install valid material.</p>
<p>Laminate 1 Jam (PC Error Message No. 229)</p>	<p>A Jam occurred with the Laminator material in Cartridge 1.</p>	<p>Open Lam cover and clear the obstruction</p>
<p>Laminate 2 Jam (PC Error Message No. 230)</p>	<p>A Jam occurred with the Laminator material in Cartridge 2.</p>	<p>Open Lam cover and clear the obstruction.</p>
<p>Laminate 1 Out (PC Error Message No. 208)</p>	<p>The Laminate in Cartridge 1 has run out.</p>	<p>Replace it with a new roll of material.</p>
<p>Laminate 2 Out (PC Error Message No. 209)</p>	<p>The Laminate in Cartridge 2 has run out.</p>	<p>Replace it with a new roll of material.</p>

Lm1 Headlift Err (PC Error Message No. 217)	The Laminator failed to move or sense the lower (Lam module 1) head.	Check head connections and call for service/repair.
Lm2 Headlift Err (PC Error Message No. 218)	The Laminator failed to move or sense the upper (Lam Module 2) head.	Check head connections, call for service/repair.
Lam 1 Tag Error PC Error Message No. 219, 221)	RFID tag write error in lam cartridge one. RFID tag lock error in lam cartridge one.	Verify the correct Laminate is installed in the Lam 1 Cartridge.
Lam 2 Tag Error PC Error Message No. 220, 220)	RFID tag write error in lam cartridge two. RFID tag write error in lam cartridge two.	Verify the correct Laminate is installed in the Lam 2 Cartridge.
Lamination Calibrate Temperature error No 266	Lamination Module must be warm before sending Calibration option.	If not an error will occur and will trigger the laminator to warm up . Retry the calibration again after several minutes.
Mag Encoder Paused (PC Error Message No. 143)	The Magnetic Encoder is in a pause state.	
Mag Verify Error (PC Error Message No. 30)	Print could not verify MAG write. OR The magnetic stripe was not encoded properly.	Check the Cards and click on Cancel Print. Remove card from printer and check for debris or damage on the card. If card still cannot be verified, reject card.
Multiple Feed (PC Error Message No. 70)	Multiple cards were fed into the Printer.	Remove all cards and try again.
No Film (PC Error Message No. 28, 167)	Film is not installed in the Printer. OR Film RFID tag is bad.	Install the Film and press Resume . To cancel the print, press the Cancel Print button or the Cancel button located on the Printer.
No Flip Module	Two-sided job sent to a one-	Verify the Printer has flipper

<p>(PC Error Message No. 201, 211)</p>	<p>sided Printer. No flipper module is installed in the printer. The laminate is in the wrong position for the side they want to laminate, and they don't have a flipper.</p>	<p>capabilities via the LCD Menu. If Flipper capabilities are present, ensure that the Print Both Sides option in the Driver is set correctly. Press the Resume button on the Printer's Front Cover to continue printing. To cancel the print, press the Cancel Print button from the Driver's display dialog.</p>
<p>No Mag Module (PC Error Message No. 31)</p>	<p>MAG encoding job sent to Printer without a MAG Encoder. You are trying to send encoding data, but the Printer is not configured with this Encoder type.</p>	
<p>No Ribbon (PC Error Message No. 25, 100)</p>	<p>No Ribbon is installed in the Printer. OR The Ribbon RFID tag is bad.</p>	<p>Install the correct Ribbon and press the Resume button located on the Printer's LCD display. To cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button located on the Printer's LCD display.</p>
<p>Printing Error (PC Error Message No. 107)</p>	<p>An error was detected during printing.</p>	<p>Reset the Printer and try again. If this problem persists, call for technical assistance.</p>
<p>Printhead thermistor error (PC Error Message No. 8)</p>	<p>The Printhead Temperature Sensor is not functioning or is not connected properly. OR The Printhead is not cooling properly.</p>	<p>If the problem persists, call for technical assistance.</p>
<p>Printhead Temp Error (PC Error Message Nos. 9,67)</p>	<p>Unspecified system error detected by the Printer Firmware.</p>	<p>Reset the Printer and try again. If this problem persists, call for technical assistance.</p>
<p>Remove Card (PC Error Message No. 68)</p>	<p>A card is jammed in the Print Station or card flipping area of the Printer.</p>	<p>Clear the jam and press Cancel.</p>

Remove Kiosk Jam (PC Error Message No. 296)	The printer is in kiosk mode and a card is stuck under the kiosk sensor.	Clear the jam and press Cancel .
Remove Lam Material (PC Error Message No. 210)	Single Sided Lam job specified but the material is loaded in both Modules.	Remove either Lamination Cartridge.
Remove Lam1 Material (PC Error Message No. 204)	Single sided lamination on the back side is specified but material is loaded in the Lam 1 Module.	Remove Cartridge 1.
Remove Lam2 Material (PC Error Message No. 205)	Single sided lamination on the front side is specified but material is loaded in the Lam 2 Module.	Remove Cartridge 2.
Reject Bin Full (PC Error Message No. 265)	The reject bin is full.	Remove the large number of rejected cards from the reject bin. Click OK to clear the notification message. (Note: In some cases, rejected cards are incomplete or pose a security risk, and should be disposed of properly.)
Ribbon Out (PC Error Message No. 91)	The print Ribbon has run out.	Install a new Ribbon and press Resume to continue.
Ribbon Tension (PC Error Message No. 98)	The Ribbon tensions may be out of range.	Check and adjust the setting through the TOOLBOX under the Advanced Settings tab. If this problem persists, call for technical assistance. Press Resume to continue or cancel to abort.
Shuttle Jam Error (PC Error Message No. 308)	The Input Hopper Card Shuttle is jammed.	Open the Printer's Cover. Clear any cards in the Shuttle Module by opening the Printers and follow this direction. #Case Open Press the Resume button on the Printer's Front Cover to continue

		<p>printing.</p> <p>To cancel the print, press the Cancel Print button from the Driver's display dialog.</p>
<p>System Fault (PC Error Message No. 286)</p>	<p>Unspecified system error is detected by the Printer Firmware.</p> <p>The mag encoder module suffered a fatal error. Reboot the printer.</p>	<p>Reset the Printer and try again.</p> <p>If this problem persists, call for technical assistance.</p>
<p>Start Film Release Error (PC Error Message No. 160)</p>	<p>An error has occurred during the transfer release phase.</p>	<p>Reset the Printer and try again.</p> <p>If this problem persists, call for technical assistance.</p>
<p>Unable to Feed (PC Error Message Nos. 14, 297, and 81)</p>	<p>The Printer is unable to feed a card from the Card Cartridge</p>	<p>Verify there are cards in the Card Cartridge.</p> <p>Verify cards are not stuck together or jammed, and they are the correct thickness.</p> <p>Fan cards to remove excess static. Break apart any cards that are edge welded or stuck together. Check to see if card weight is present. Reboot printer.</p>
<p>Utility Error (PC Error Message Nos. 129)</p>	<p>Command resulted in an error.</p>	<p>See Resolving the Communication Errors.</p>
<p>Wrong Film (PC Error Message Nos. 162 and 163)</p>	<p>The print film installed in the Printer does not match the film type selected in the Printer Driver.</p> <p>OR</p> <p>A Self-test job cannot be printed with the print media installed.</p> <p>An invalid OEM film was installed in the printer.</p>	<p>Replace film in Printer with type specified in the Driver.</p> <p>A reboot is required.</p>

<p>Wrong Ribbon (PC Error Message No. 93, 122, and 172)</p>	<p>The print Ribbon is not installed properly or has been damaged. An invalid OEM ribbon was installed in the printer.</p>	<p>Verify the correct Ribbon is installed in the Ribbon Cartridge.</p>
<p>Undefined or fatal Error Codes (PC Error Message No.267, 268, 269, 271, 272, 273, 274, 275, 276, 277, 282, 283, 284, 285,287)</p>		<p>Reboot Printer. If this problem persists, call for technical assistance</p>

Troubleshooting the Printer Error Message Table

Printer Error Message	Cause	Solution
General Error	A general Printer error has occurred.	Press Cancel on the printer or click on Cancel Print .
Card Not Found	The Printer is unable to find the card.	Please check Printer for a card or other obstruction, remove the card and cancel the print by pressing the Cancel Print button from the Driver's display dialog or the Cancel button, located on the Printer.
Cover Open	The Printer cannot start printing because the Cover is open.	Close the Cover to continue printing.
Unable to Feed Card	The Printer is unable to feed a card from the Card Cartridge.	Ensure that cards are available and loaded correctly, press the Resume button located on the Printer's LCD display to continue printing. To cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button located on the Printer's LCD display.
Card Jam	A Card has become jammed in the Printer.	<ol style="list-style-type: none"> Open the Printer's Front Cover and remove the Print Ribbon and Film Cartridges. Clear any cards in the printer by using the Forward and/or Back Buttons located on the printer's LCD display. Re-insert the Ribbon and close the Printer's Front Cover. Press the Resume button located on the Printer's LCD display to continue printing. To Cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button located on the

		Printer's LCD display.
Card Jam	A Card has become jammed in the Printer.	<ul style="list-style-type: none"> f. Open the Printer's Front Cover and remove the Print Ribbon and Film Cartridges. g. Clear any cards in the printer by using the Forward and/or Back Buttons located on the printer's LCD display. h. Re-insert the Ribbon and close the Printer's Front Cover. i. Press the Resume button located on the Printer's LCD display to continue printing. j. To Cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button located on the Printer's LCD display.
Card Jam (Encoder)	A Card has become jammed in the Printer's Encoding station.	<ul style="list-style-type: none"> a. Open the Printer's Front Cover and remove the Print Ribbon. b. Open the Printer's Flipping Module Cover. c. Clear any cards in the Encoding Module by using the Forward and/or Back buttons located on the Printer's LCD display. d. Re-insert the Print Ribbon and close the Printer's Front Cover. e. Press the Resume button located on the Printer's LCD display to continue printing. f. To cancel the print, press the Cancel Print button from the Driver's display dialog or the Cancel button located on the Printer's LCD display.
Card Jam (Flipper)	A Card has become jammed in the Printer's Flipper Table.	<ul style="list-style-type: none"> a. Open the Printer's Front Cover and the Flipper Module Cover. b. Clear any cards in the Flipper Table by using the Forward and/or Back buttons located on the Printer's LCD display.

		<p>c. Close the Printer's Front Cover.</p> <p>d. Press the Resume button located on the Printer's LCD display to continue printing.</p> <p>e. To cancel the print, press the Cancel Print button from the Driver's display dialog or the Cancel button on the Printer's LCD display.</p>
Card Jam (Laminator)	A Card has become jammed in the Printer's Lamination Module.	<p>a. Open the Printer's Module's Front Cover and remove the Overlaminates.</p> <p>b. Clear any cards in the Lamination Module by using the Forward Arrow and/or Back Arrow buttons located on the Printer's LCD display. The Printer's Front Cover must be open for use of the Forward and Back buttons.</p> <p>c. Re-insert the Overlaminates and close the Lam Module's Front Cover.</p> <p>d. Press the Resume button located on the Printer's LCD display to continue printing.</p> <p>e. To cancel the print, press the Cancel Print button from the Driver's display dialog or the Cancel button on the Printer's LCD display.</p>
Card Eject Error	The Printer is unable to eject a card.	<p>Please check Printer for a card jam or other obstruction and press the Resume button located on the Printer's LCD display to continue printing.</p> <p>To cancel the print, press the Cancel Print button from the Driver's display dialog or the Cancel button located on the Printer's LCD display.</p>
Flipper Jam	The Flipper Table has jammed while either aligning itself or flipping a	<p>a. Open the Printer's Flipper Module Cover.</p>

	card.	<ul style="list-style-type: none"> b. Clear any cards in the Flipper Module by using the Forward and/or Back buttons located on the Printer's Front Cover. c. Ensure that the Flipper Table can rotate freely. Close the Printer's Flipper Module Cover. d. Press the Resume button on the Printer's Front Cover to continue printing. e. To cancel the print, press the Cancel Print button from the Driver's display dialog.
No Flipper	The Printer does not have flipping capabilities.	<ul style="list-style-type: none"> a. Verify the Printer has flipper capabilities via the LCD Menu. b. If Flipper capabilities are present, ensure that the Print Both Sides option in the driver is set correctly. c. Press the Resume button on the Printer's Front Cover to continue printing. d. To cancel the print, press the Cancel Print button from the Driver's display dialog or press the Cancel button located on the Printer's LCD display.
Ribbon RFID Error	The ribbon tag information is corrupted or incorrect.	<p>Check that the Ribbon is installed properly. Cancel is the only option.</p> <p>Press the Cancel Print button from the Driver's display dialog, or the Cancel button located on the Printer's LCD display.</p>
Wrong Ribbon Installed	An incorrect ribbon has been installed, or a driver setting is incorrect.	<p>Check that the ribbon is correct for the printer and job. Press the Resume button located on the Printer's LCD display to continue printing.</p> <p>To cancel the print, press the Cancel Print button from the Driver's display dialog, or the Cancel button located on the Printer's LCD display.</p>

No Ribbon Installed	No Print Ribbon is installed in the Printer.	Install the correct Ribbon and press Resume on the LCD display.
Ribbon Out	The Print Ribbon installed in the printer is empty.	Install a new Ribbon and press Resume on the LCD display.
Ribbon Break/Jam	A Ribbon break/jam has been detected inside the Printer.	<p>The printer has determined that the installed ribbon has either jammed or broken.</p> <ol style="list-style-type: none"> a. Open the Printer Cover and remove the Print Ribbon. If ribbon is jammed, remove jam and tighten ribbon. b. Clear any cards in the printer by using the Forward and/or Back buttons located on the Printer's LCD display. c. Tape the ends of the Ribbon together and wind any excess onto the Take-up Spool of the Print Ribbon. d. Re-install the Print Ribbon, close the Printer Cover and press the Resume button located on the Printer's LCD display to continue printing. e. To cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button located on the Printer's LCD display.
Ribbon Miscue	A Ribbon Miscue has been detected inside the Printer.	<p>Open the Printer's Cover and remove the Print Ribbon. Check the Ribbon and see if it is broken.</p> <ol style="list-style-type: none"> a. If the Print Ribbon is not broken, re-install the Print Ribbon, close the Printer's Cover and press the Resume button on the Printer to continue printing. b. If the Print Ribbon is broken, tape the ends of the Print

		<p>Ribbon together and wind any excess onto the Take-up Spool. Re-install the Print Ribbon, close the Printer's Cover and press the Resume button on the Printer to continue printing.</p> <p>c. To cancel the print, press the Cancel Print button on the Driver's display dialog or the Cancel button on the printer.</p>
Ribbon Sensor Error	The Printer cannot find the next panel on the Print Ribbon.	<p>Recalibrate the Ribbon Sensor using the Calibrate Ribbon Tab within the Toolbox.</p> <p>To cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button on the Printer's LCD display.</p>
Invalid Ribbon	An incorrect Print Ribbon has been installed in the Printer.	<p>Check that the ribbon is correct for the printer and retry.</p> <p>To cancel, click on Cancel Print.</p>
Ribbon Error	The Print Ribbon caused a general error.	<p>Press the Resume button located on the Printer to continue.</p> <p>To cancel, press the Cancel Print button or the Cancel button located on the Printer.</p>
No Magnetic Encoder Installed	A print job with Magnetic encoding was sent with no Magnetic Encoder installed in the printer.	Ensure that no encoding data is being sent with the print job and reprint the card.
Mag Verify Error	The printer is unable to verify encoded data.	Check the Cards and click on Cancel Print .
No Mag Strip Present	The Printer is unable to find a Magnetic stripe on the card.	Check the Cards and click on Cancel Print .
No Smart Card Encoder	No Smart Card Encoder is installed in the printer.	To cancel, click on Cancel Print .

No Prox Card Encoder	No Proximity Card Encoder is installed in the printer.	To cancel, click on Cancel Print .
Headlift Error	The Headlift Sensor is not detecting movement from the Headlift Cam.	Reboot the Printer by cycling power. To cancel, press the Cancel Print button.
Invalid Password	The Password entered is not a valid password.	Press OK to enter another password. To cancel, press the Cancel Print button.
Laminator (General Error)	The Laminator has reported a general fault.	Press the Resume button located on the Printer to continue. To cancel, press the Cancel Print button or the Cancel button located on the Printer.
Laminator (Check Power)	The Laminator's power is OFF.	Ensure that the laminator's power cord is properly connected, cycle power and press the Resume button to continue. To cancel, press the Cancel Print button or the Cancel button located on the Printer.
Laminator (Heater Off)	The Laminator's Heater is OFF.	Press the Resume button to continue. To cancel, press the Cancel Print button or the Cancel button located on the Printer.
Laminator (Heater Timed Out)	The Laminator cannot reach the desired operating temperature.	<ol style="list-style-type: none"> a. Reboot the Printer by cycling power. Check the Laminator settings in the Printer Driver. b. Click on the Default button located on the Lamination Tab of the driver to set the Laminator settings to the factory default. c. Resend the print job. d. To cancel, press the Cancel Print button or the Cancel button located on the Printer.

No Laminator Film Installed	No laminator Film is installed in the laminator unit.	Ensure that the appropriate Laminator Film is installed. To cancel the print, press the Cancel Print button or the Cancel button located on the Printer.
Wrong Laminator Film Installed	An incorrect laminator film has been installed, or a driver setting is incorrect.	Ensure that the appropriate Laminator Film is installed and press the Resume button located on the Printer to continue printing. To cancel, press the Cancel Print button or the Cancel button located on the Printer.
Laminator Film Out	The Film installed in the laminator is empty.	The Film installed in the laminator is empty.
Laminator Film Break/Jam	A Film break/jam has been detected inside the Laminator.	The printer has determined that one or both overlaminates have either jammed or broken. <ol style="list-style-type: none"> Open the Laminator Cover and remove the Laminator Cartridge(s). If overlaminates are jammed, remove jam and tighten the material Clear any cards in the printer by using the Forward and/or Back buttons located on the Printer's LCD display. Tape the ends of the overlaminates together and wind any excess onto the Take-up Spool of the Overlaminates. Re-install the Laminator Cartridge(s), close the Laminator Cover and press the Resume button located on the Printer's LCD display to continue printing. To cancel the print, press the Cancel Print button from the Driver's display dialog and the Cancel button located on the Printer's LCD display.
Laminator Film	The Laminator cannot find the next panel on the	Check that the Film is installed

Sensor Error	Film.	properly and press Resume . To cancel, press the Cancel Print button or the Cancel button located on the Printer.
Remove Laminator Film	To continue, remove the laminator's film.	Open the Laminator's Front Cover. Remove the film and close the Laminator's Front Cover.
Print Film Out	The Print Film installed in the printer is empty.	Install new Film and press the Resume button to continue printing. To cancel the print, press the Cancel Print button or the Cancel button located on the Printer.
Print Film is not Installed	No Print Film is installed in the Printer.	Install the Film and press Resume . To cancel the print, press the Cancel Print button or the Cancel button located on the Printer.
Print Film Sensor Error	The Printer cannot find the next panel on the Print Film.	Check that the Print Film is installed properly and press Resume . To cancel the print, press the Cancel Print button or the Cancel button located on the Printer.
Wrong Print Film Installed	An incorrect Print Film has been installed, or a driver setting is incorrect.	Ensure that the appropriate Print Film is installed and press the Resume button located on the Printer to continue printing. To cancel, press the Cancel Print button or the Cancel button located on the Printer.
Print Film Error	The Print Film caused a general error.	Ensure that the appropriate Print Film is installed and press the Resume button located on the Printer to continue printing. To cancel, press the Cancel Print button or the Cancel button.
Invalid Film	An unauthorized film is installed in the Printer.	Get the correct Film from your dealer.
Hopper Full	Output Card Hopper is full to capacity	Empty the Hopper.

Hopper Empty	No cards in the Input Hopper.	Add cards to the Input hopper
--------------	-------------------------------	-------------------------------

Communications Errors

Resolving the Communication Errors

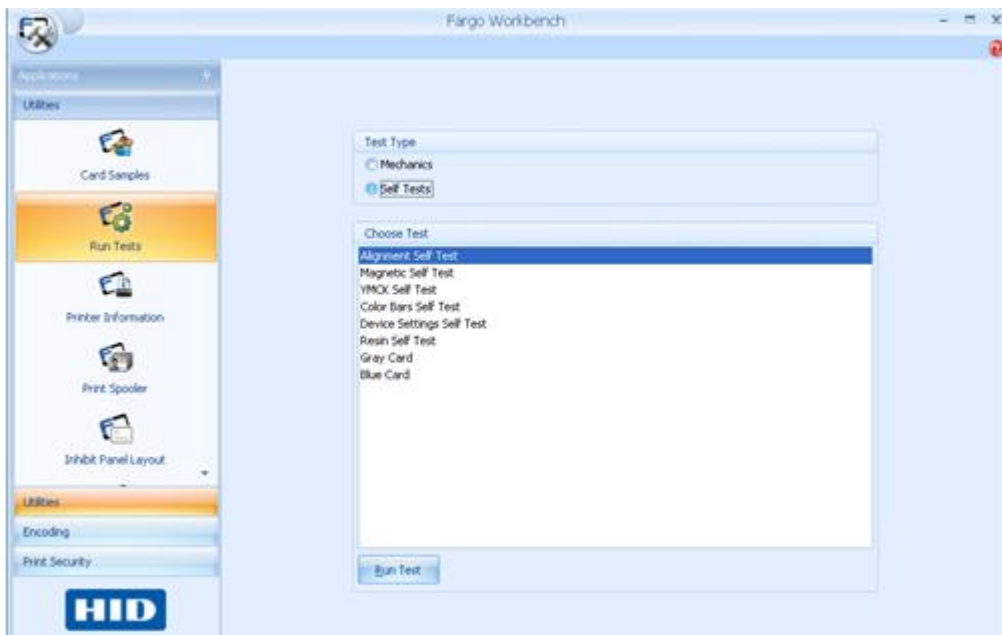
Symptom(s): Incorrect output, communications error on PC or Printer, stalling, no response from Printer, no job printed, “paper out” error.

Step	Procedure
1	Confirm that the system meets the minimum requirements, as shown here: <ul style="list-style-type: none">• IBM-PC or compatible.• Windows XP Windows Vista & Windows7, Windows 2008, Pentium™ class 500 MHz computer with 256 MB of RAM or higher• 500 MB free hard disk space or higher• USB Port (Optional Ethernet connection)
2	Confirm the correct installation of the Printer Driver. <ol style="list-style-type: none">a. Close the software program and check the Printer Driver.b. Reboot the computer.c. Ensure the Printer Driver is installed correctly. (Note: This pertains especially if an obsolete Driver was recently removed.) Ensure the correct setup options within the Printer Driver are selected. Confirm that the Driver is current by checking at: www.hidglobal.com
3	Confirm the correct installation of the Flipper Table Module Assembly. <ol style="list-style-type: none">a. Reboot the computer.b. Ensure that the Print Both Sides option in the Printer Driver is set correctly.c. Verify the Flipper Table Module Assembly is functioning properly by printing out cards in a test run.
4	Determine the problem with printing from the application. <ol style="list-style-type: none">a. Print a self-test from the Printer by pressing Options -> Menu-> Select -> Print on the printer's LCD to ensure that the Printer (itself) is functioning properly. See the next procedure.b. Print the Windows test page that is located in the General tab of the Driver.c. Use WordPad (a Windows 2000/XP word processing program in the Accessories Program Group).

	<ol style="list-style-type: none">1) Go to the File menu and select Page Setup.2) Click on the Printer button and select the HDP8500 Card Printer.3) Click OK and reset all four margins to zero. (Note: The WordPad will automatically replace the values with its minimum margins.)4) Open the program and type: "This is a Test." then, go to File on the menu bar and select Print.
5	<p>Determine whether there is adequate hard Drive space.</p> <p>(Note: A large volume of temporary files on the computer can cause communications errors.)</p> <p>a. Access the temporary files by following this process:</p> <ul style="list-style-type: none">• Search for all folders called TEMP. Once found, clear out the contents of the folders.• If using Windows run the System Utility - Disk Defragmenter found in the Accessories folder of the Start Menu.• Use a disk cleanup utility (such as Disk Cleanup found in the System Tools folder of the Start menu) or use a third party application.

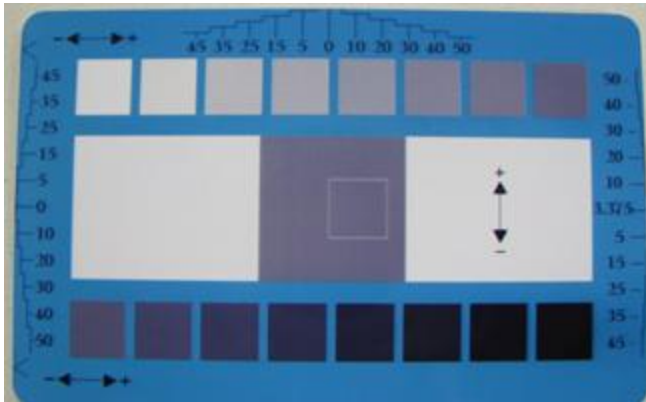
Printing a Test Image using the Workbench Diagnostic

Step	Procedure
1	Open the Diagnostic Tool from the Driver. Choose Run Tests to select a preset test image. Select Self Tests (Note: These images help to determine if the Printer is functioning properly.)
2	Scroll to the desired Self Test image from the Choose Test window options and press the Run Test button.



Reviewing the Alignment Self Test Card

Step	Procedure
1	Use this card to determine Image Placement and confirm that the Printer is working properly. (Note: The image consists of sixteen (16) gray scale boxes and alignment arrows. The gray boxes are composed from a composite of YMC color panels.) Adjust the TOF and EOF settings to change image placement.



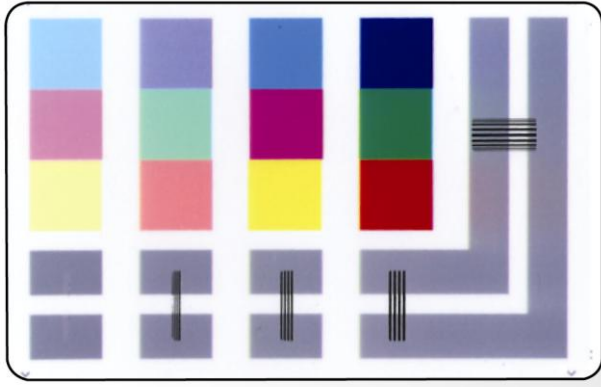
Reviewing the Magnetic Self Test

Step	Procedure
1	This option only applies if a Magnetic Encoding Module is installed in the Printer. (Note: The Printer will feed, encode and eject a card. Be sure to have high coercivity cards installed when running this test.)



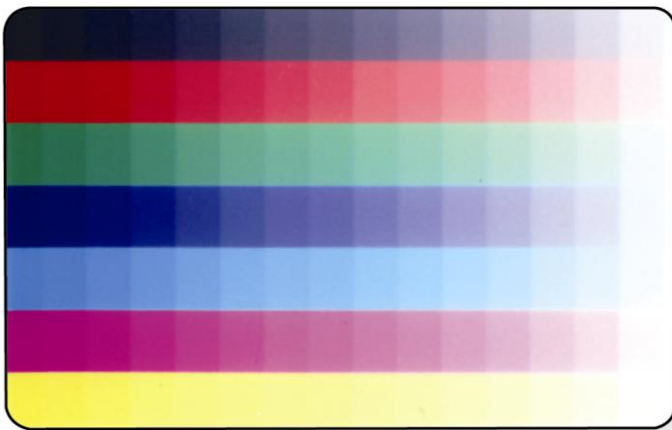
Reviewing the YMCK Self Test

Step	Procedure
1	Use this card to confirm that image colors are properly reproduced. Image consists of sixteen graduated steps of RGB and YMCK. (Note: This print will provide maximum image size, giving complete card Coverage on a CR-80 sized card.)



Reviewing the Color Bars Self Test

Step	Procedure
1	Use this card to confirm that image colors are properly reproduced. Image consists of sixteen graduated steps of RGB and YMCK. (Note: This print will provide maximum image size, giving complete card Coverage on a CR-80 sized card.)



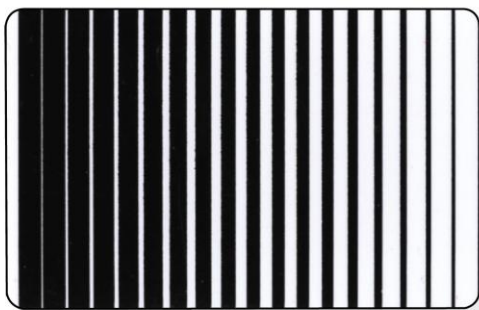
Reviewing the Device Settings Self Test

Step	Procedure
1	Use this card to view the Printer settings and counts for Card Count (CC), Card Cleaning Count (TC) and others. The Card Count is the total number of cards the Printer has produced.



Reviewing the Resin Self Test

Step	Procedure
1	Use this card to determine that the Resin Panel is printing properly.

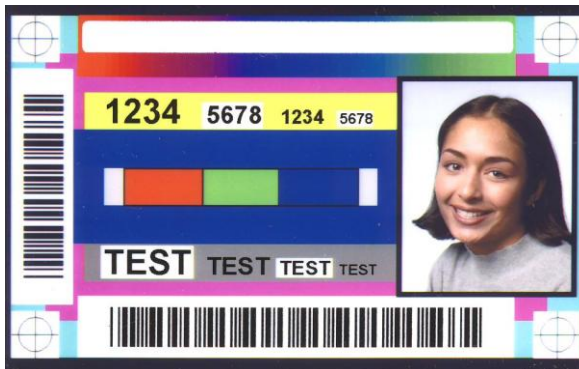
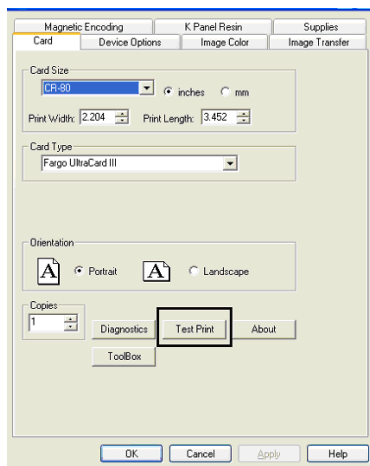


Using the Test Print

Each ribbon type has its own test print PRN associated with it. Therefore, with the test print there is no user configuration used to create the print job data.

Example below: The ribbon is set to YMCKI and the printer has a specific test print file, which can be sent to the printer to verify the Inhibit Panel functionality. This test image uses a pre-formatted inhibit area and will not test a user-defined inhibit bitmap. To use this test of the inhibit panel perform these steps.

Step	Procedure
1	Install the YMCKI ribbon. (or other applicable ribbon)
2	Bring up the Printer Preferences dialog via Start -> Settings -> Printers and Faxes. Right click on the HDP8500 printer instance; then left click on Printer Preferences to select the Card tab.
3	Click on the Test Print button.



Section 9: Packing the Card Printer

The purpose of this section is to provide the User with a specific packing procedure for the HDP8500.

(Note: Do not install the Lamination Module to the Printer before shipping. The Lamination Module must be packaged in its own box and shipped separately, then installed at the site. Attaching both modules together before shipping may cause damage.)

Follow this instruction to pack the Card Printer for transport.

Step	Procedure
1	Clean the inside of the Printer with deionized air. Wipe it down with a lint-free cloth.
2	Clean the Printhead with a Printhead swab.
3	Pack the Printer in the original carton and packing materials.
4	Be sure to enclose any necessary paperwork, test cards, etc.

Section 10: Firmware Updates

The purpose of this section is to provide the User with information on the internal software or Firmware, which controls all aspects of the Printer's operation. New Firmware versions may be released containing enhancements, such as improved reliability, added features or better print quality. New Firmware updates can be downloaded from the Internet.

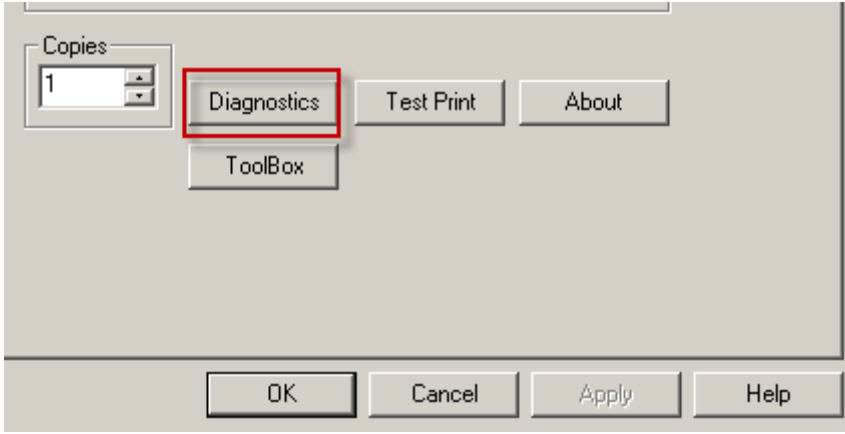
Refer to the **FARGO Workbench Printer Utility User Guide** to download and install Firmware updates.


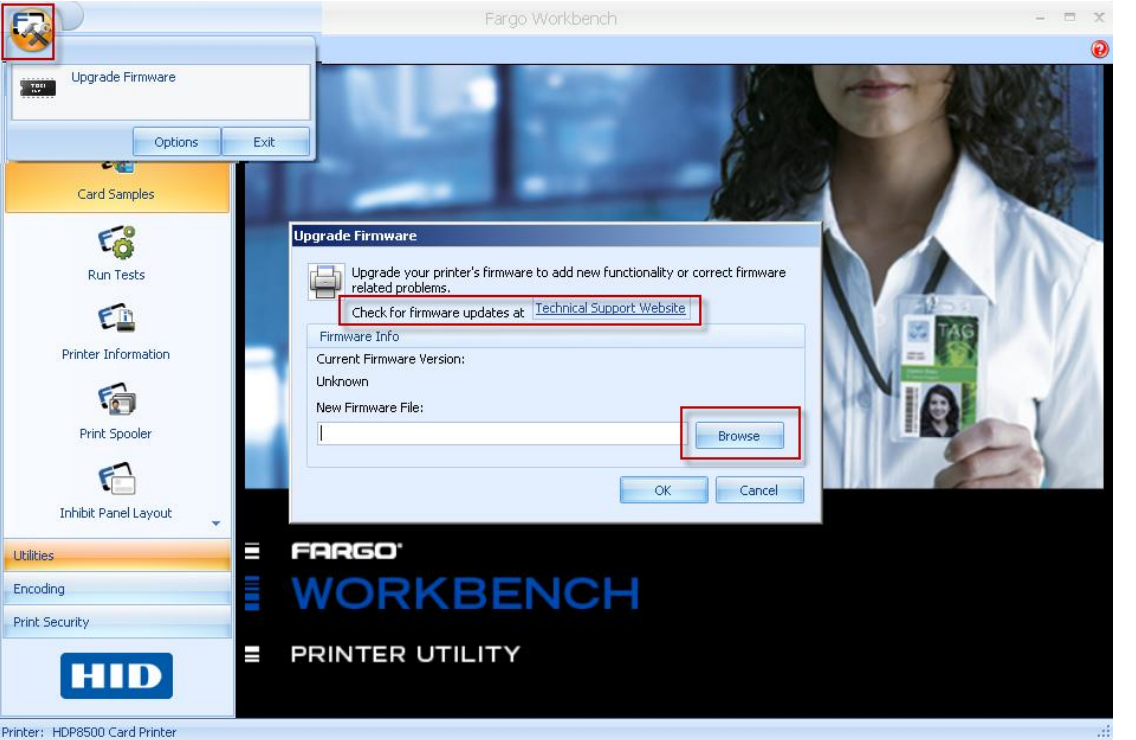
Firmware is located: www.HIDglobal.com

Upgrading the Main Firmware with the Workbench Printer Utility

The Main Printer Firmware upgrades are done with the same procedure as the USB-connected Printer.

- The PC doing the upgrade must have a Driver installed for the Fargo Printer to be upgraded.

Step	Procedure
1	<p>Run the Fargo Workbench Printer Utility by selecting from the start menu the following: Start -> Programs -> Fargo -> Fargo Workbench Printer Utility -> Fargo Workbench.</p> <p>OR</p> <p>Open the Diagnostic button from the Driver to access Workbench.</p> 
3	Select the Fargo Printer to upgrade.
4	Access the Upgrade Firmware window from the Actions menu.

	
5	<p>Select the New Firmware File by clicking Browse and selecting the Firmware file from the appropriate folder.</p>  <p>Printer: HDP8500 Card Printer</p>
6	<p>Begin the upgrade by clicking OK.</p>

Section 11: HID Global Technical Support

The purpose of this section to provide the User with an efficient, step-by-step procedure to be used when contacting Fargo Technical Support as needed for the HDP8500.

Contacting Technical Support

Step	Procedure
1	<p>Read the suggested Sections of the Technical Service and Maintenance Manual in order to troubleshoot the Card Printer.</p> <p>As needed, contact the Fargo Technical Support Group by phone at (866) 607-7339 #6 or by fax at (952) 946-8492 for additional, technical assistance.</p> <p>OR</p> <p>Contact Technical Support via the Web: www.hidglobal.com</p>
2	<p>Position a phone near the Printer and Computer so the technicians can troubleshoot the Printer(s) with efficiency.</p>
3	<p>Please have a self-test and a sample card ready when calling HIDGlobal Technical Support.</p>

Finding out when a Fargo Card Printer was manufactured

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

- **Year Built:** The first two digits in the serial number indicate the year that the Printer was manufactured.
- **Week Built:** The second two digits indicate the week.
- **Numeric Order:** The last four digits indicate the sequence number for the numeric order in which the Printer's were built.

Reviewing Example: Serial Number B2090001

- **B2090001:** The first two digits in the serial number indicate the year the Printer was built (e.g., the letter and digit B1 indicate the year 2012).
- **B2090001:** The third and fourth digits in the serial number indicate the week the Printer was built (e.g., the digits 09 indicate week 9 of that year).
- **B2090001:** The last four digits indicate the sequence number for the numeric order in which the Printer's were built.