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# **FARGO® HDP® 6600**

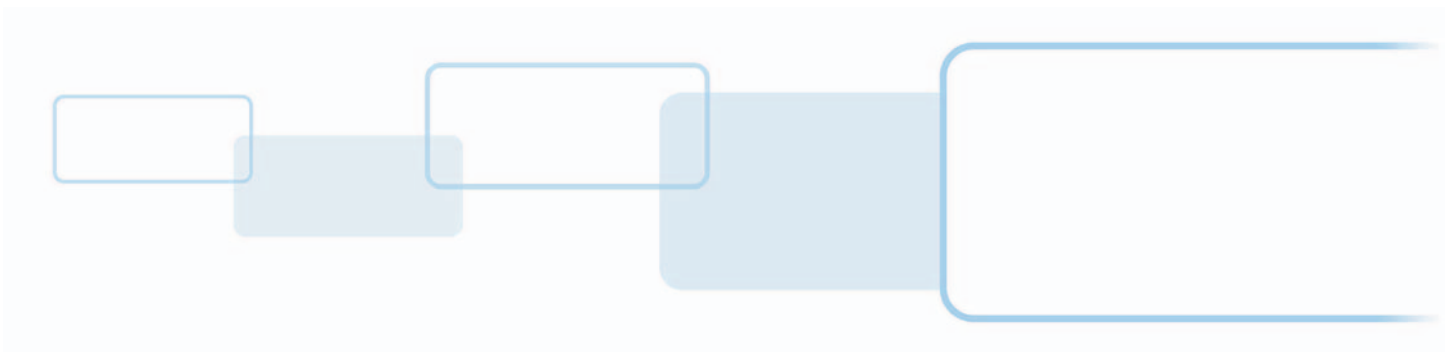
## **HIGH DEFINITION CARD PRINTER/ENCODER**

### **MODEL X002200**

### **USER GUIDE**

PLT-02931, Rev. A.1

July 2019



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## Revision history

Date	Description	Revision
July 2019	Added lamination feature.	A.1
September 2018	Initial release.	A.0

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**Наименование оборудования:**

Цветной карт-принтер

**Модель:**

HDP6600

Нормативный номер модели: X002200

**Назначение оборудования:**

Печать изображений на пластиковых идентификационных карт

**Рейтинги напряжения:**

100 В переменного тока до 240 В переменного тока, 50-60 Гц

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ТР ТС 004/2011 «О безопасности низковольтного оборудования» утв. Решением КТС

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ТР ТС 020/2011 «Электромагнитная совместимость технических средств» утв. Решением КТС

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Дата изготовления указана на маркировке оборудования

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# Section 1

## 1 Specifications

This section provides specific information on the Regulatory Compliances, Agency Listings, Technical Specifications and Functional Specifications for the HDP®6600 card printer.

### 1.1 Regulatory compliance

Agency	Regulatory Compliance
<b>UL</b>	The card printer is listed under UL 60950-1 (2nd edition) Information Technology Equipment. <b>File Number:</b> E145118
<b>CSA</b>	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 2nd edition <b>File Number:</b> E145118
<b>FCC</b>	The card printer complies with the requirements in Part 15 of the FCC rules for a Class A digital device.
<b>CE</b>	The card printer has been tested and complies with EN300-330, EN301-489, EN60950-1:2006 + A11:2009 + A1:2010 +A12:2011 + A2:2013, EN50581, and EN62479. <b>Note:</b> Based on this 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: RED 2014/53/EU, ROHS 2015/863/EU
<b>Emissions and Immunity Standards</b>	FCC Part 15 Class A, RSS-GEN, RSS 210, CNS 13438, EN55032 Class A, EN55024, EN6100-3-2, EN6100-3-3, EN300-330, EN301-489, GB9254, GB17625
<b>Safety Standards</b>	UL IEC 60950-1 (2nd edition), CSA C22.2 No. 60950-1-07 (2nd edition), EN60950-1, GB4943, CNS14336
<b>Additional Agency Listings</b>	CCC, BSMI, KC, EAC, BIS, MIC, RCM
<b>Environmental</b>	GreenCircle Certified Energy Savings

### 1.1.1 United States

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

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

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference; in which case, correction of the interference is at the users expense.

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

**Warning:**



This product can expose you to chemicals including Diisononyl Phthalate (DINP), which is known to the State of California to cause cancer. For more information go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

### 1.1.2 Canada

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

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

### 1.1.3 Taiwan

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

### 1.1.4 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-xxxxx 号です)






本製品は電波を使用した RFID 機器の読み取り・書き込み装置です。

そのため使用する用途・場所によっては、医療機器に影響を与える恐れがあります






### 1.1.5 Korea

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

## 1.2 Safety messages-United States



Symbol	Critical Instructions for Safety Purposes
<p><b>Danger:</b></p> 	<p>Failure to follow these guidelines results in personal injury or death. To prevent personal injury or death, reference the following safety messages before performing an operation:</p> <ul style="list-style-type: none"> <li>▪ Always remove the power cord prior to performing repair procedures, unless otherwise specified.</li> <li>▪ Ensure only qualified personnel perform these procedures.</li> </ul>
<p><b>ESD:</b></p> 	<p>This device is electro statically sensitive. Damage to the device may occur if it is exposed to static electricity discharges. To prevent damage, reference the following safety messages before performing an operation:</p> <ul style="list-style-type: none"> <li>▪ Observe all established Electrostatic Discharge (ESD) procedures while handling cables in or near the circuit board and printhead assemblies.</li> <li>▪ Always wear an appropriate personal grounding device.</li> <li>▪ Always remove the ribbon and cards from the printer before making any repairs, unless otherwise specified.</li> <li>▪ Remove jewelry and thoroughly clean hands before working on the printer.</li> </ul>
<p><b>Caution:</b></p> 	<p>This symbol warns of an electrical hazard that could result in personal injury or death.</p>
<p><b>Caution:</b></p> 	<p>For safety purposes, do not use Ethernet for a direct connection outside of the building.</p>
<p><b>Warning:</b></p> 	<p>This symbol warns of a hot surface that could result in personal injury.</p>

### 1.3 Safety messages-French Canada

Symbol	Instructions critiques visant la Sécurité
<b>Danger:</b> 	<p>Si ces directives ne sont pas suivies les résultats peuvent être des lésions corporelles ou la mort.</p> <p>Pour éviter des lésions corporelles ou la mort:</p> <ul style="list-style-type: none"> <li>■ Rapportez-vous aux avis suivants de sécurité avant de procéder à une opération.</li> <li>■ Retirez toujours le câble d'alimentation avant d'effectuer des procédures de réparation, sauf spécification contraire.</li> <li>■ Assurez-vous qu'uniquement des personnes qualifiées réalisent des procédures.</li> </ul>
<b>ESD:</b> 	<p>Ce dispositif est sensible à l'électricité statique. Il peut souffrir des dommages s'il est exposé à des décharges électrostatiques.</p> <p>Pour éviter des dommages:</p> <ul style="list-style-type: none"> <li>■ Rapportez-vous aux messages suivants avant de procéder à une opération.</li> <li>■ Suivez toutes les procédures de Décharges Electrostatiques (ESD) en vigueur durant le maniement des câbles dans ou à proximité des Ensembles de Cartes de Circuit Imprimé et Tête d'Impression.</li> <li>■ Portez toujours un dispositif de mise à la terre personnelle appropriée.</li> <li>■ Retirez toujours le ruban et les Cartes de l'Imprimante avant d'effectuer toute réparation, sauf spécification contraire.</li> <li>■ Retirez tous bijoux et lavez soigneusement vos mains avant de travailler à l'Imprimante.</li> </ul>
<b>Attention:</b> 	<p>Ce symbole est un avis de péril électrique passible de résulter en lésion corporelle ou mort.</p>
<b>Attention:</b> 	<p>Pour des motifs de sécurité, n'utilisez pas Ethernet pour une connexion directe hors du bâtiment.</p>
<b>Warning:</b> 	<p>This symbol warns of a hot surface that could result in personal injury.</p>

### 1.4 Safety messages-Taiwan

繁體中文 射頻發射及安全指令 安全訊息 ( 小心檢查 )

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

設備名稱：彩色卡片熱感印表機							，型號 ( 型式 )：X002200 (HDP6600)						
單元 Unit	限用物質及其化學符號												
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr+6)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)							
電源	-	○	○	○	○	○							
打印單元	-	○	○	○	○	○							
金屬零件	-	○	○	○	○	○							
備考 1. “超出 0.1 wt %” 及 “超出 0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。 備考 2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。 備考 3. “-” 係指該項限用物質為排除項目。													

## 1.5 Safety messages-China

安全消息 ( 请仔细阅读 )

符号	涉及安全的重要过程
危险： 	<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> <p>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。</p> <p>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>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> <p>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。</p> <p>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。</p> <p>为了防止设备或介质受损，请始终佩戴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）。</p> <p>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。</p> <p>为了防止设备或介质受损，在操作打印机前，请取下手指和手上的珠宝首饰物，并将手上的油渍和污渍彻底清洗干净。</p>
	<p>仅适用于海拔 2000m 以下地区安全使用</p> <p>Use only at altitudes not more than 2000m above sea level.</p>
	<p>仅适用于非热带气候条件下安全使用</p>
	<p>环境保护 ( 中国 -RoHS)</p> <p>环保使用期是基于本产品用于办公环境。</p> <p>Environmental Protection Use Period is based on the product being used in an office environment.</p>
	<p>警告：</p> <p>此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取可行的措施。</p>

## 1.6 Technical specifications

Component	Description
<b>Card cleaning</b>	Replaceable cleaning roller (included with each print ribbon). Recommended cleaning cycle after 2,000 cards.
<b>Card materials and types</b>	<ul style="list-style-type: none"> <li>■ Press polished PVC</li> <li>■ Composite (PET/PVC with PVC as an outer layer)</li> <li>■ Laminated PVC (credit card construction)</li> <li>■ 100% PETG</li> <li>■ 100% Polycarbonate</li> </ul>
<b>Card sizes supported</b>	These card printers accept standard CR-80 sized cards (3.370" L x 2.125" W / 85.6 mm L x 54 mm W) with a thickness of 30 mil.
<b>Dimensions (H x W x D)</b>	<p><b>Printer:</b> 11.50" x 14.50" x 12" (292 mm x 368 mm x 305 mm)</p> <p><b>Printer with dual-sided module:</b> 11.50" x 19.75" x 12" (292 mm x 501 mm x 305 mm)</p>
<b>Display</b>	OLED graphical display
<b>Encoding options</b>	<p>Magnetic stripe:</p> <ul style="list-style-type: none"> <li>■ ISO compliant, dual high/low coercivity, Tracks 1, 2 and 3</li> <li>■ JIS II mag</li> <li>■ Custom and raw</li> </ul> <p>Contact and contactless smart card:</p> <ul style="list-style-type: none"> <li>■ Contact—OMNIKEY® 5122</li> <li>■ Contactless—OMNIKEY 5127 CK Mini</li> <li>■ Programmer—OMNIKEY 5127 CK SI</li> </ul>
<b>HID Global certified supplies</b>	<b>Note:</b> The HDP6600 printer requires highly specialized print ribbons to function properly. To maximize printer life, reliability, printed card quality and durability, you must use only HID Global certified supplies. For this reason, your HID Global warranty is void, where not prohibited by law, if you use non-HID Global certified supplies. To order additional materials, please contact your authorized reseller.
<b>Hopper capacity—input</b>	<ul style="list-style-type: none"> <li>■ 100 cards, 30 mil—standard hopper</li> <li>■ 200 cards, 30 mil—dual-input hopper (optional)</li> </ul>
<b>Hopper capacity—output</b>	200 card output hopper capacity, 30 mil
<b>Interface</b>	<ul style="list-style-type: none"> <li>■ USB 2.0 (high speed)</li> <li>■ Ethernet (100 Mbps) with internal print server</li> <li>■ Interfacing information for E-card options</li> </ul>
<b>HDP film options</b>	Clear film, 1,500 prints
<b>HDP film storage temperature</b>	77° F (25° C) or lower for no longer than 1.5 years.
<b>Memory</b>	1 GB



Component	Description
<b>Microsoft Windows compatibility</b>	<ul style="list-style-type: none"> <li>■ Windows 7 (32- and 64-bit)</li> <li>■ Windows 8 / 8.1 (32- and 64-bit)</li> <li>■ Windows 10 (32- and 64-bit)</li> <li>■ Windows Server 2008 R1 (32- and 64-bit)</li> <li>■ Windows Server 2008 R2 (64-bit only)</li> <li>■ Windows Server 2012</li> <li>■ Windows Server 2012 R2</li> <li>■ Windows Server 2016</li> </ul>
<b>Operating conditions</b>	<p>Operating temperature: 65 to 90° F (18 to 32° C)</p> <p>Humidity: 20 to 80% non-condensing</p>
<b>Options</b>	<ul style="list-style-type: none"> <li>■ Dual-sided module</li> <li>■ Magnetic stripe encoder</li> <li>■ Contact encoder</li> <li>■ Contactless encoder</li> <li>■ Programmer encoder</li> <li>■ Printer cleaning kit</li> <li>■ Flattener</li> </ul>
<b>Print area</b>	Over-the-edge on CR-80 cards
<b>Print colors</b>	Up to 16.7 million and 256 shades per pixel
<b>Print method</b>	HDP dye-sublimation / resin thermal transfer
<b>Print nodes</b>	HDP6600 DPI print head only
<b>Print resolution</b>	600 DPI
<b>Print ribbon options</b>	<p>Prints or images:</p> <ul style="list-style-type: none"> <li>■ YMCK*—750 prints</li> <li>■ YMCKK*—600 prints</li> </ul> <p>*Indicates the ribbon type and the number of ribbon panels printed. Key: Y = Yellow, M =Magenta, C = Cyan, and K = Resin Black</p>
<b>Print speed</b>	YMCK—Up to 230 cards per hour/16 seconds per card
<b>Power source voltage, current &amp; frequency</b>	<p>Supply voltage / Current: 100 to 240V AC, 3.5A maximum</p> <p>Supply frequency: 50 Hz and 60 Hz</p>
<b>Ship weight</b>	<p><b>Printer:</b> 20.20 lbs (9.16 kg)</p> <p><b>Printer with dual-sided module:</b> 24.50 lbs (11.11 kg)</p>
<b>System requirements</b>	Access <a href="https://www.support.microsoft.com">https://www.support.microsoft.com</a> and search for your Microsoft Windows OS system requirements.
<b>Warranty</b>	<p><b>Printer:</b> Three-year (one-year On-Call Express, US only)</p> <ul style="list-style-type: none"> <li>■ Three-year factory warranty</li> <li>■ Covers parts and depot repair</li> <li>■ First year On-Call-Express (loaner printer US only)</li> <li>■ Second year On-Call-Express available for a fee. This must be purchased before the first-year On-Call-Express expires.</li> </ul> <p><b>Printhead:</b> Lifetime; unlimited pass with HID Global certified card</p>

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# Section 2

## 2 Setup and installation

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This section describes the setup and installation for the HDP®6600 card printer.

If you have a lamination unit to set up, see the *HDP6600 Lamination Installation Guide* (PLT-04395) that is included with the lamination unit for information.

### 2.1 Selecting a good location

The following guidelines help to ensure optimal printing performance:

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

### 2.2 Moisture condensation

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

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



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

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

## 2.3 Unpacking and inspection

While unpacking the printer, inspect the carton to ensure that damage did not occur during shipping.

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

- US/EU power cable
- Card input cartridge
- Card output hopper
- Ferrite
- USB cable

Make sure you have these accessories that are supplied separately:

- HDP film
- Print ribbon
- Cards

## 2.4 Installing the HDP film

FARGO<sup>®</sup> High Definition printers require highly specialized supplies to function properly. This printer uses a refillable HDP film drawer. To maximize the printer durability, reliability and printed card quality, you must use only FARGO-certified supplies. If not using FARGO-certified supplies, your FARGO warranty is void, where not prohibited by law.

1. Open the front door.



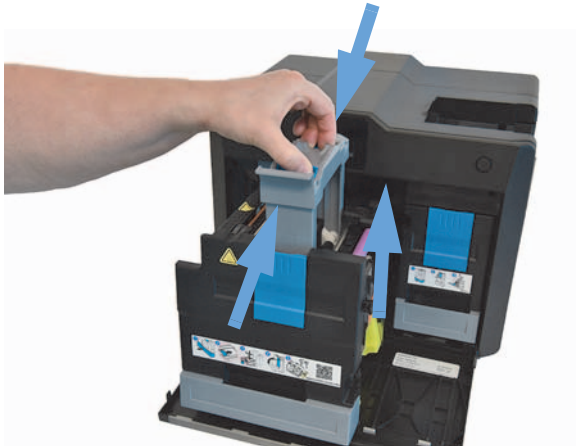
- Slide out the HDP film drawer by pulling on the gray handle.



**Caution:** Be careful not to touch the hot holler surface identified with this symbol.



- Unlatch and raise the accumulator unit. Twist the accumulator unit 90° to the right.



- Pull down the HDP film loading handle.

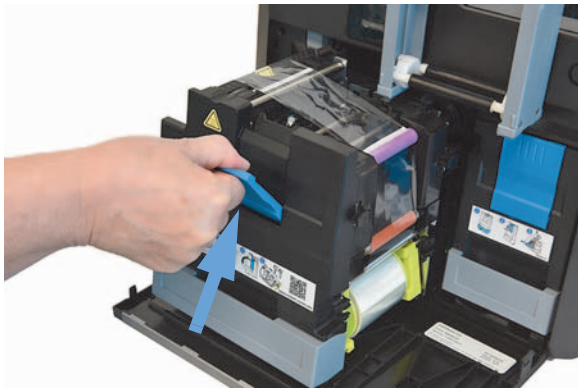


5. Load the HDP film, ensuring that each spool is correctly fitted to the corresponding color cartridge, and the film is not loose.

**Note:** Used film should have used panels to the left of the purple roller and new panels to the right of the purple roller.



6. Push up the HDP film loading handle.



7. Twist the accumulator unit 90 to the left. Push down in the center of the accumulator unit until it clicks into place.



8. Slide the HDP film drawer in until the gray handle clicks/latches.



9. Close the printer front cover.



## 2.5 Installing the print ribbon

**Important: Do not connect the power supply or communication cable (USB or Ethernet) at this stage.**

FARGO High Definition printers require highly specialized supplies to function properly. This printer uses a refillable ribbon drawer. To maximize the printer durability, reliability and printed card quality, you must use only FARGO-certified supplies. If not using FARGO-certified supplies, your FARGO warranty is void, where not prohibited by law.

Each print ribbon includes a replaceable cleaning roller. The recommended cleaning cycle is after every 2,000 cards printed.

1. Open the printer front cover.



2. Slide out the ribbon drawer by pulling on the gray handle.

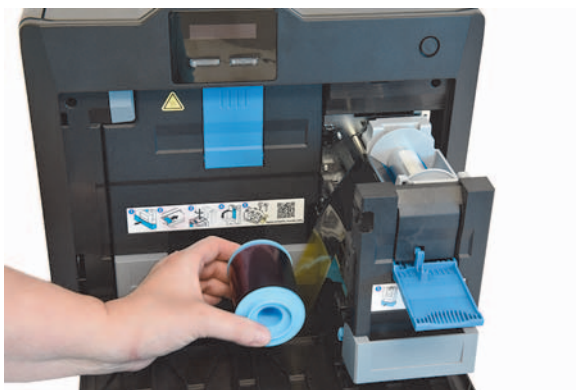




3. Pull down the loading handle.



4. Load the ribbon, ensuring that each spool is correctly fitted to the corresponding color cartridge, and the ribbon is not loose.



5. Push up the ribbon loading handle.



6. Slide in the ribbon drawer until the handle clicks/latches.



7. Close the printer front cover.



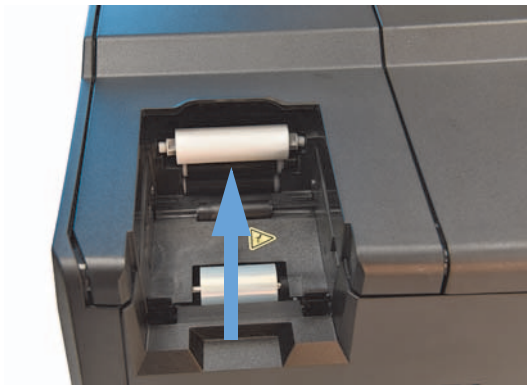
## 2.6 Installing the cleaning roller

Every HDP print ribbon contains a cleaning roller. Each time a new HDP print ribbon is inserted, a new cleaning roller should be installed.

1. Remove the protective sleeve from the cleaning roller.



2. Insert the cleaning roller into the card input area.



3. Attach the card input cartridge to the printer.



## 2.7 Installing blank cards into the input card hopper

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

### Notes:

- FARGO UltraCard® Premium card types are recommended (see *Section 2.7.1 General card information*).
- Cards eject into the output hopper or reject hopper.
- Each input hopper holds 100 cards.

1. Press the button to open the card input cartridge.



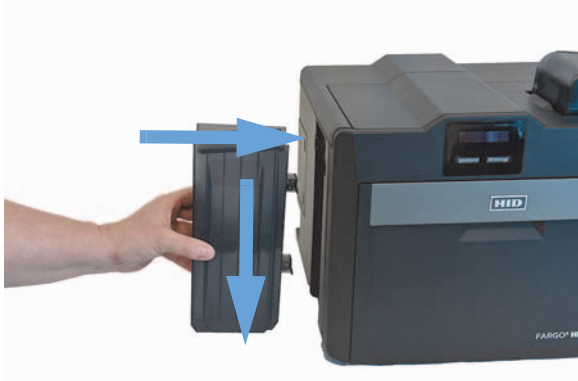
2. Load blank cards then close the card input cartridge.

**Note:** If using cards with a magnetic stripe, load the cards with the stripe facing up and towards the front of the printer.



3. Close the input card hopper door.

4. Attach the card output hopper to the printer.



### 2.7.1 General card information

**Important:** For the best results and ISO card specification compliance, composite PVC is recommended over straight PVC.

- The printer prints onto any card with a clean level, and polished PVC surface.
  - Suitable cards must have a polished PVC surface free of fingerprints, dust, or any other types of embedded contaminants.
  - For best results, HID recommends UltraCard, 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 UltraCard card stock are available.
    - **UltraCard** stock has a PVC core and offers medium card durability.
    - **UltraCard Premium** stock has a 40% polyester core and offers high durability (recommended).
- Both types of UltraCards produce printed images with a glossy, photo-quality finish.

## 2.8 Printer power

**Important:** Do not connect the printer USB cable until prompted during the printer driver installation.

**To connect power to the printer:**

1. Plug the power cable into the back of the printer.



2. Plug the wall power cable into a standard 100-240 VAC power outlet.
3. Switch on the printer.



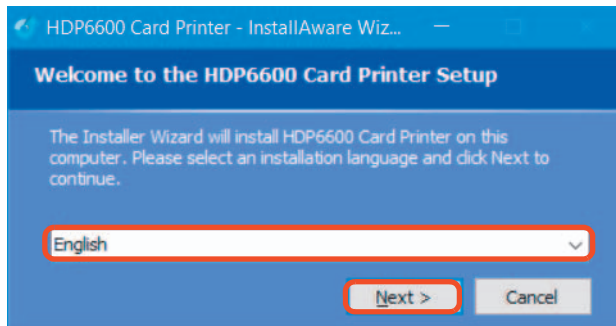
**Note:** If the physical switch is left on and the printer is left idle, the printer enters a low power state. When a print job is sent, the printer restores full power and the print job commences.

**Important:** If connecting by Ethernet, add the ferrite (supplied with the printer) before plugging in the Ethernet cable.

## 2.9 Driver installation instructions

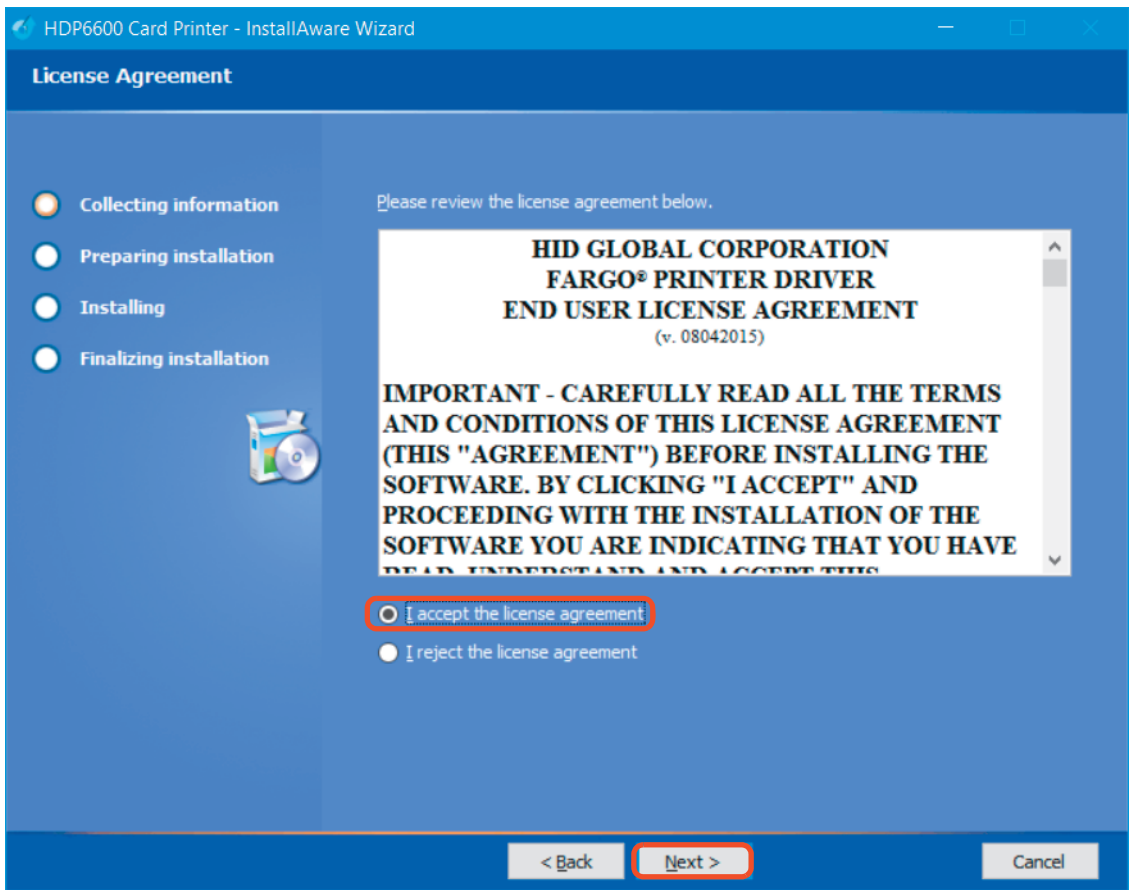
### To download and install the HDP6600 driver file:

1. Visit [www.hidglobal.com/drivers](http://www.hidglobal.com/drivers) and search for HDP6600.
2. Click **DOWNLOAD** from the search results and click **I ACCEPT** to accept the End User License Agreement.
3. Once the driver file has downloaded, double-click the .exe file to install the HDP6600 driver.
4. The installer verifies the contents of the setup package and the installation begins. Follow the on-screen instructions to complete the driver installation. Select your required language. Click **Next**.



5. The Welcome to HDP6600 Card Printer Install screen is displayed. Click **Next**.

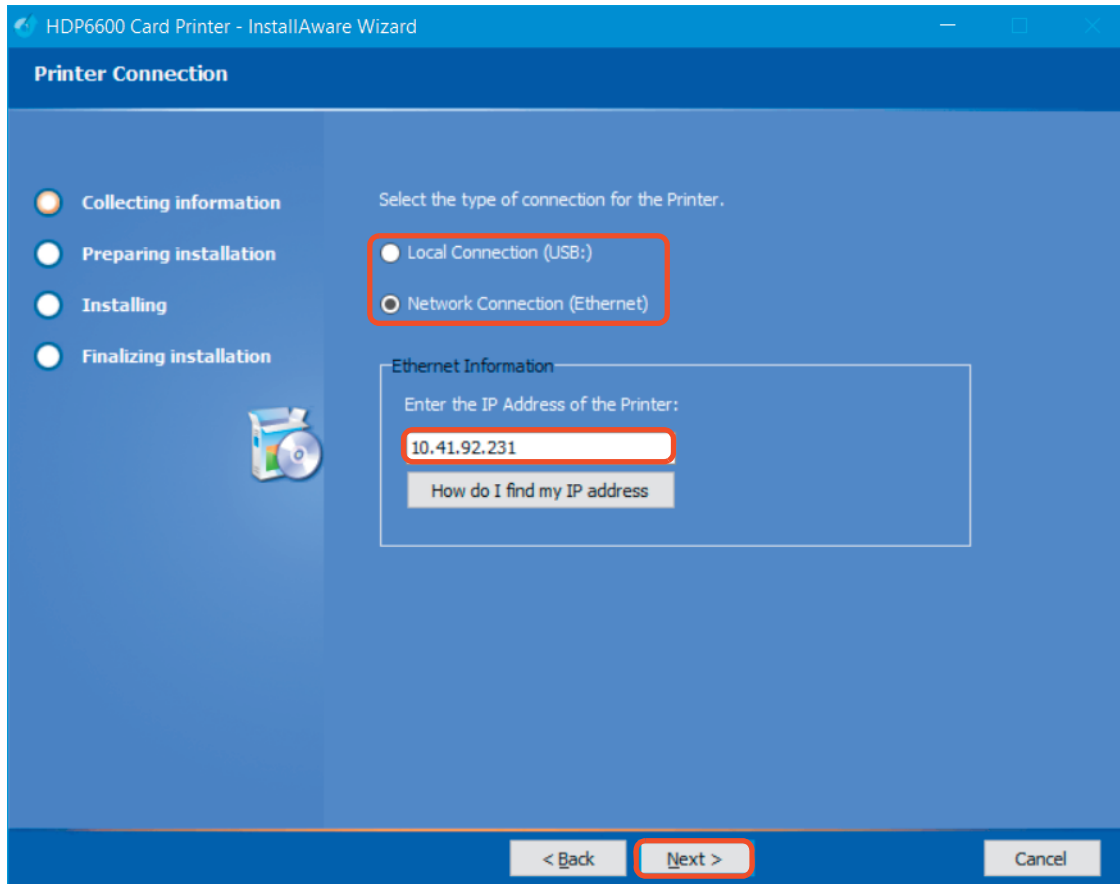
6. Read the license terms and conditions. Select **I accept the license agreement** and click **Next**.



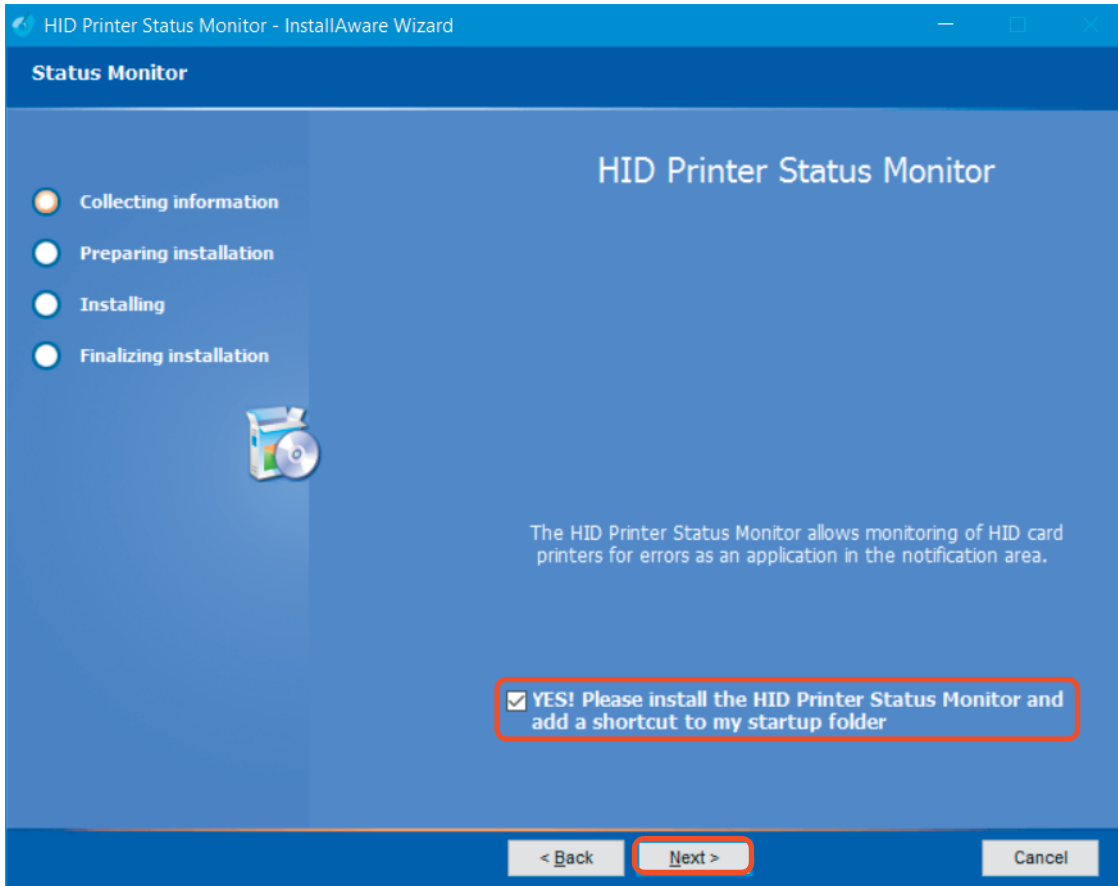


7. Select the type of connection for the printer.

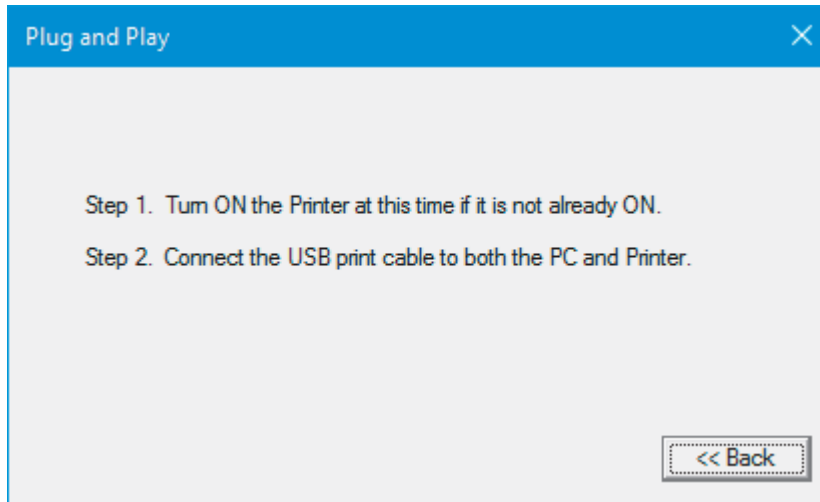
- If you are connecting to a local connection, select **Local Connection (USB)** and click **Next**.
- If you are connecting to a network, select **Network Connection (Ethernet)** and do the following:
  - a. Connect the Ethernet cable to the printer.
  - b. Enter the IP address of the printer.
    - a. Connect the printer to a power source and turn it on.
    - b. Click **Next**.



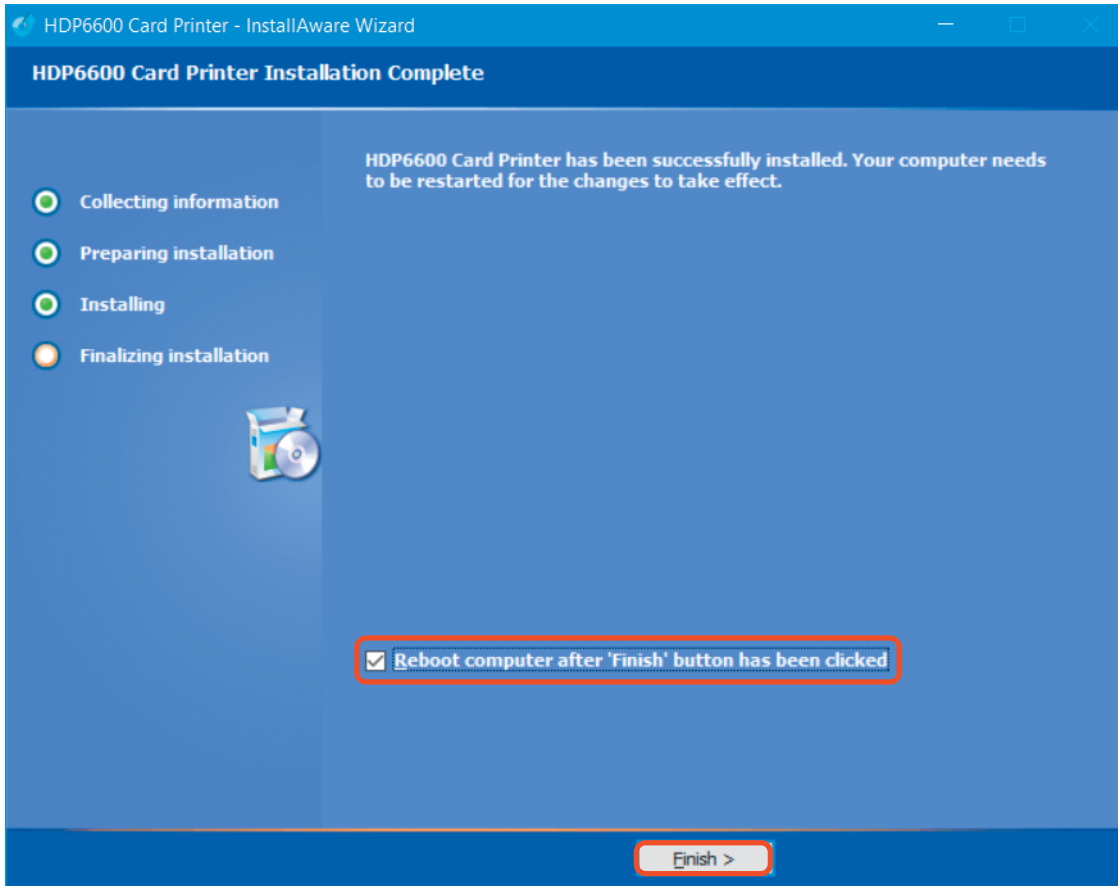
- The HID Printer Status Monitor can be installed with the driver. This is recommended and the checkbox is selected by default. The HID Status Monitor is used to provide information about the printers connected to this computer. Click **Next**.



9. The Ready to Install window is displayed. Click **Next** to begin the installation.
10. If you are using a local connection (USB), the Plug and Play window is displayed to prompt you to turn on the printer and connect the USB print cable. When the connections are recognized, the installation continues.



11. When the installation is completed, the PC may need to be restarted for the changes to take effect. If the check box to Reboot the computer is displayed, select the check box to restart your computer and click **Finish**.



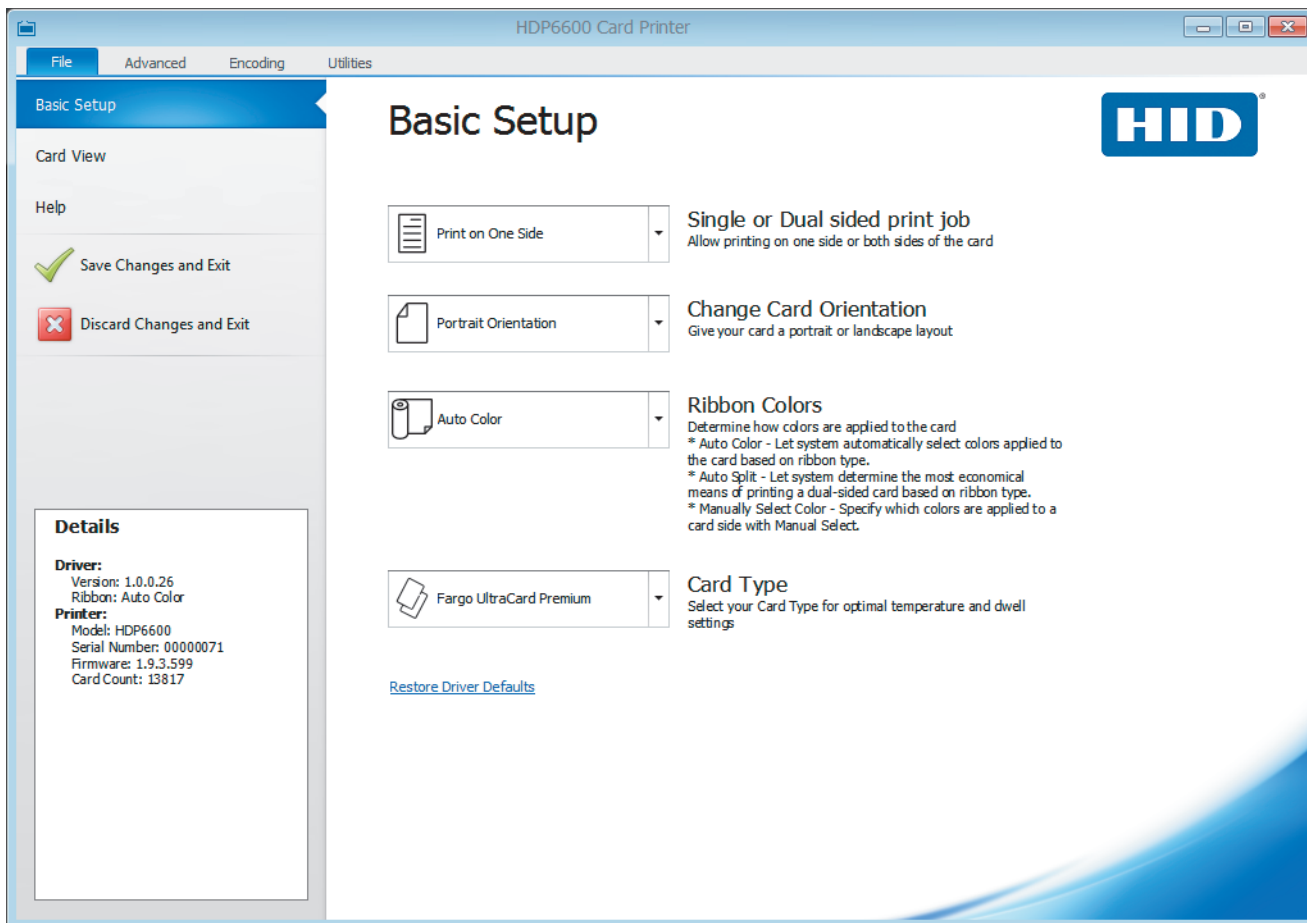
# Section 3

## 3 Printing preferences

All print driver operations and printing preferences are managed through the HDP®6600 Card Printer Printing Preferences. Accessing the printing preferences varies by Microsoft Windows operating system. For example, if you are running Microsoft Windows 10, the printing preferences are accessed by selecting **Settings > Devices > HDP6600 Card Printer > Manage > Printing preferences**.

All information is controlled through the **File**, **Advanced**, **Encoding**, and **Utilities** menu tabs. When you first access the preferences, the **File** menu is opened to the **Basic Setup** page.

The **File** menu allows you to save and restore system settings, set up global printer settings, and establish printer setting profiles.



### 3.1 File menu tab

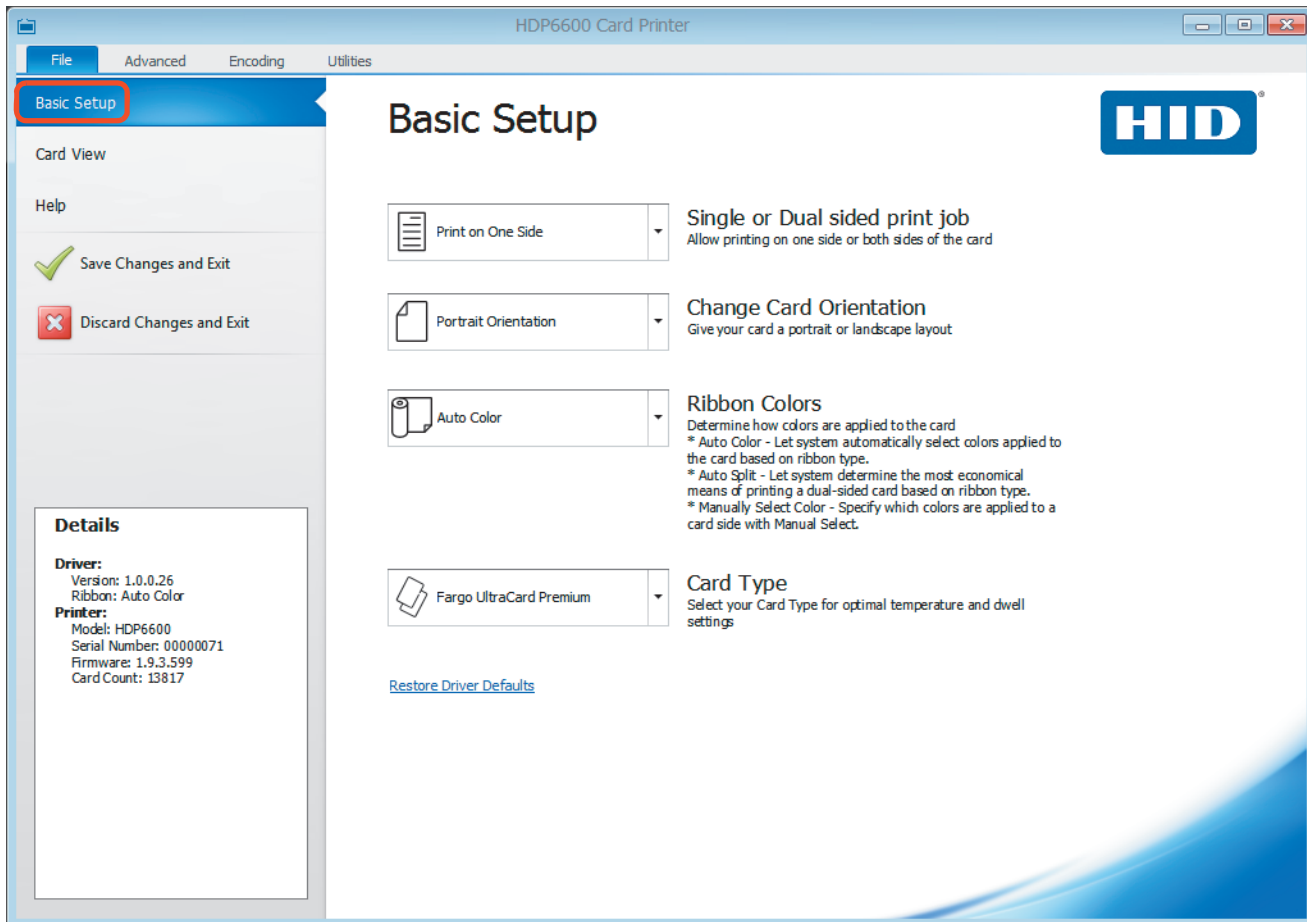
This tab allows you to view driver details and basic printer specifications. You can also restore driver default settings, save changes to your preferences, or discard changes before exiting the printing preferences.

The **File menu** includes selections for the following pages and two exit options:

- **Basic Setup** - Displays selections for printer settings, ribbon specifications, card type, and a link for restoring driver defaults.
- **Card View** - Displays a representation of the currently selected card options.
- **Help** - Displays links to available help files and videos for the maintenance of the HDP6600 card printer.
- **Save Changes and Exit** - Saves any changes made within the HDP6600 Card Printer Printing Preferences screens and exits the program.
- **Discard Changes and Exit** - Cancels any changes made within the HDP6600 Card Printer Printing Preferences screens and exits the program.
- **Details** - Displays the driver version number and ribbon color as well as the printer specifications for model, serial number, firmware, and card count. This information is displayed on all pages and menu tabs throughout the interface.

### 3.1.1 Basic setup page

This page displays selections for printing on one or both sides of a card, card orientation, ribbon colors, and card types. It also includes a Details pane and a link for restoring the driver defaults.



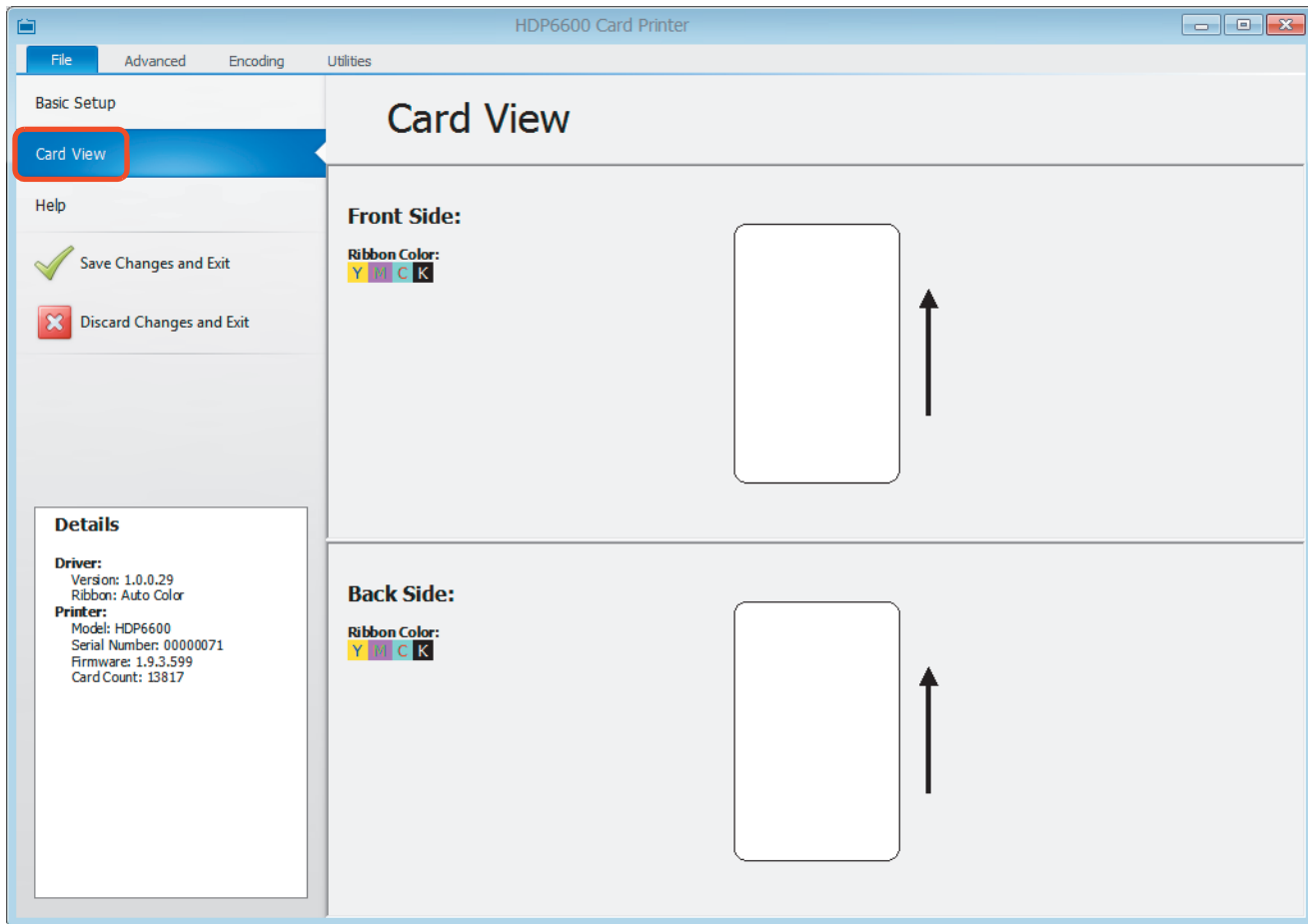
Field	Definition
<b>Single or Dual sided print job</b>	Defines whether to print on one side or both sides. If a dual-sided module is not detected, this selection is not available. Selections available are: <b>Print on One Side</b> or <b>Print on Both Sides</b> .
<b>Change Card Orientation</b>	Defines whether the card orientation is vertical or horizontal. Selections available are <b>Landscape</b> or <b>Portrait</b> .

Field	Definition
<b>Ribbon Colors</b>	Automatically or manually select the colors that print. Options are: <ul style="list-style-type: none"> <li>▪ <b>Auto Color:</b> The system automatically selects the colors applied to the card based on the ribbon type.</li> <li>▪ <b>Auto Split:</b> The system determines the most economical means of printing a dual-sided card based on the ribbon type.</li> <li>▪ <b>Manual Select:</b> You can specify which colors are applied to a card side.</li> </ul>
<b>Card Type</b>	Specify the card type for optimal temperature and dwell settings. Options are: <ul style="list-style-type: none"> <li>▪ <b>FARGO® UltraCard® Premium</b> (default card type)</li> <li>▪ <b>FARGO UltraCard</b></li> <li>▪ <b>FARGO UltraCard PC</b></li> <li>▪ <b>HID Tech Card Composite</b></li> <li>▪ <b>HID Tech Card PVC</b></li> </ul>
<b>Restore Driver Defaults</b>	Displays a prompt to reset all selections in the driver file to the default settings. Click <b>Yes</b> to reset or <b>No</b> to cancel.



### 3.1.2 Card view page

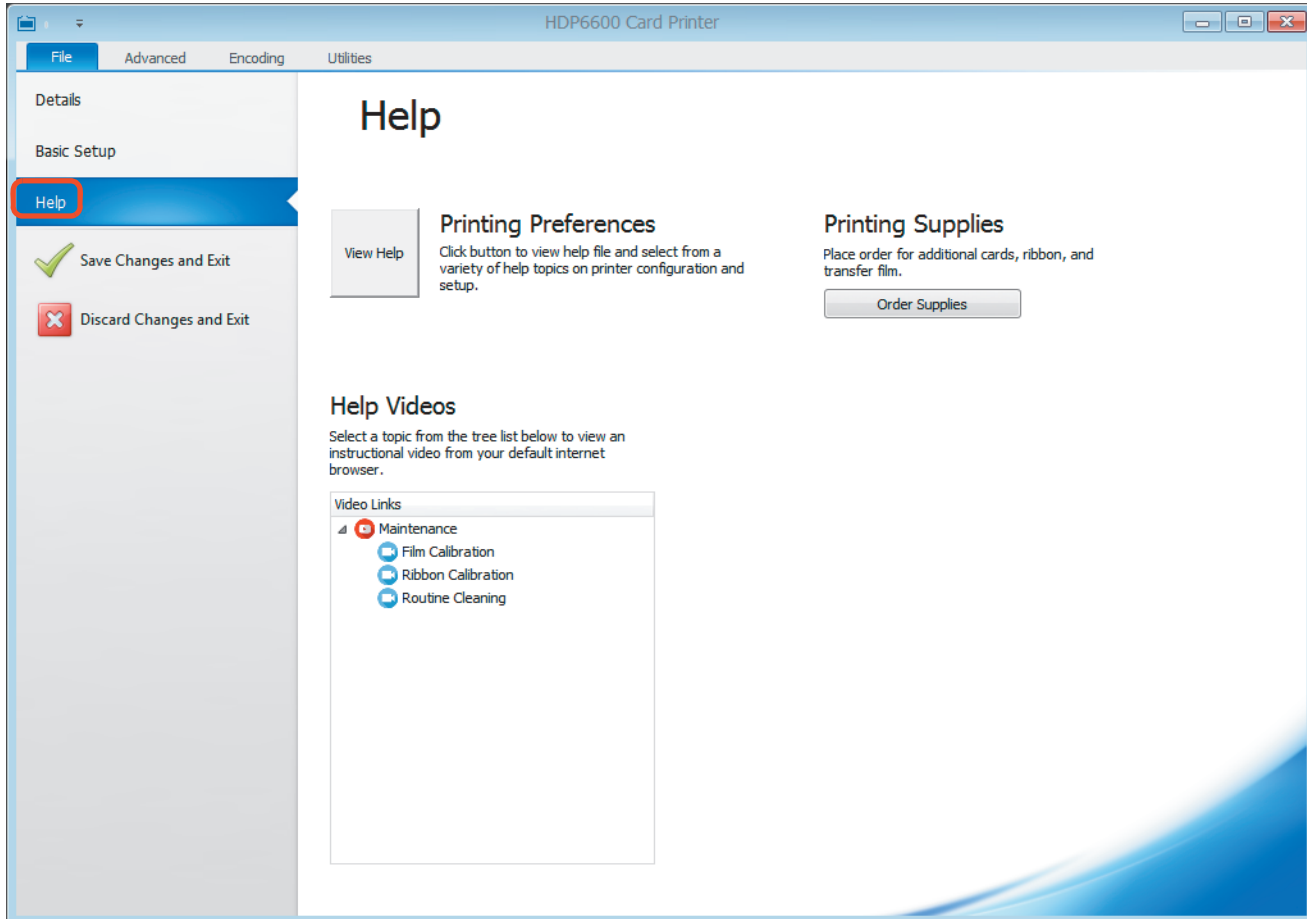
This page displays a representation of the currently selected card options.



### 3.1.3 Help page

This page displays links to:

- Available help files for the printing preferences
- Order printing supplies
- Instructional videos for the maintenance of the HDP6600 card printer



### 3.1.4 Exit options

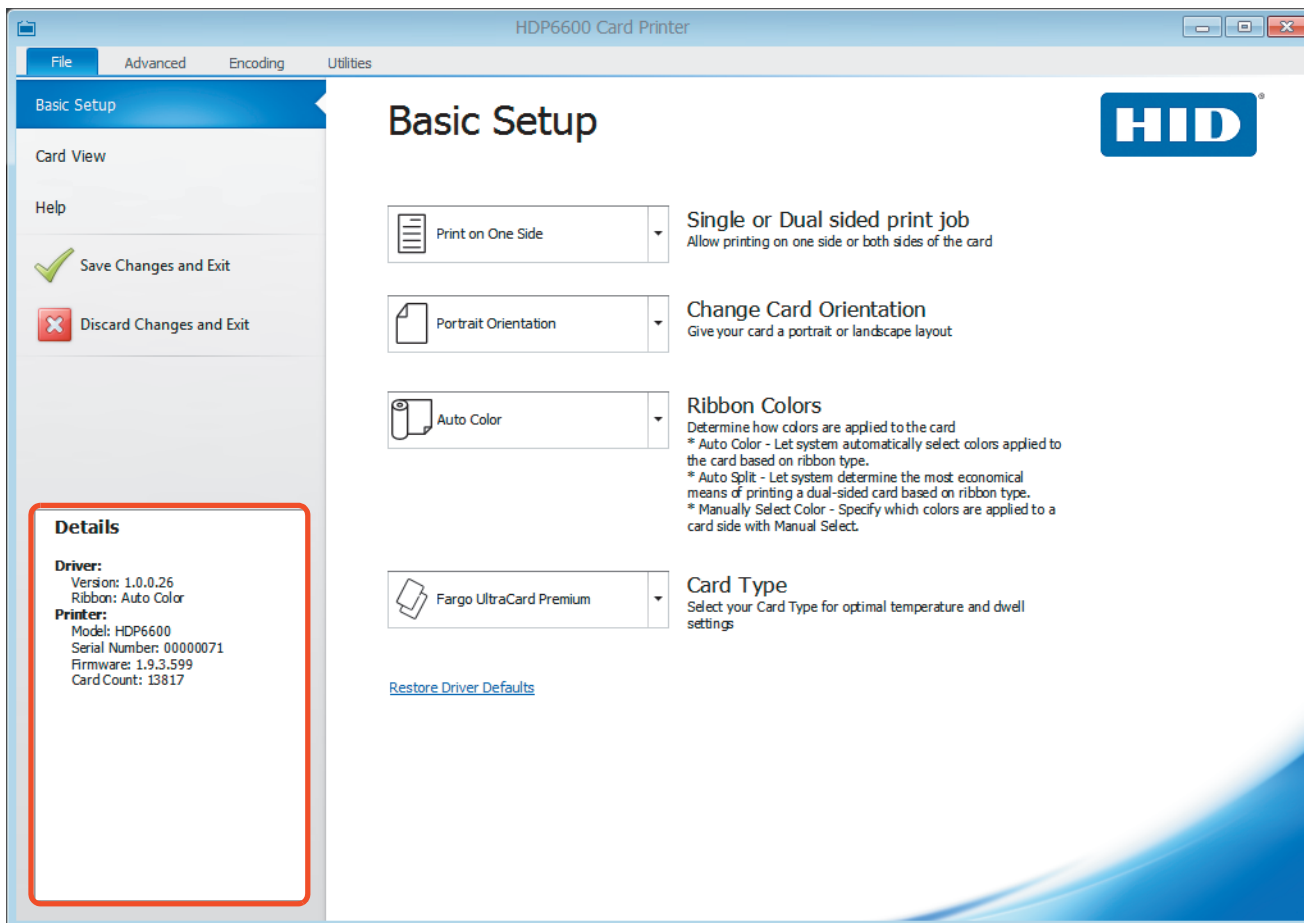
To exit the Printing Preferences, choose one of the following:

- **Save Changes and Exit** - Saves any changes made within the HDP6600 card printer printing preferences screens and exits the program.
- **Discard Changes and Exit** - Cancels any changes made within the HDP6600 card printer printing preferences screens and exits the program.



### 3.1.5 Details window

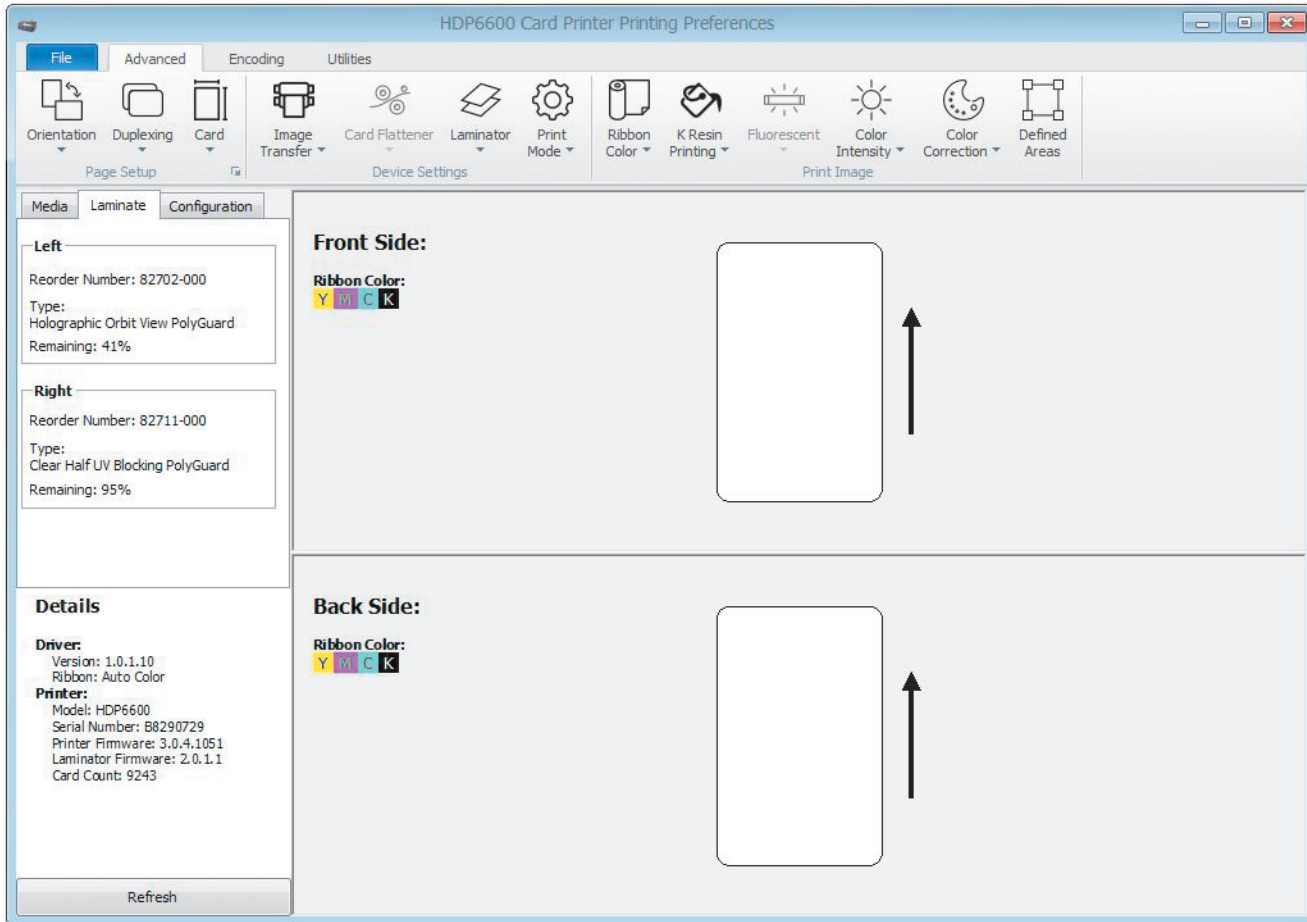
This window displays basic information about the driver and the printer connected to your PC. This information is also displayed on all pages and menu tabs throughout the interface.



Field	Definition
Details	<p>Displays the driver and printer information.</p> <p><b>Driver:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Version:</b> The installed printer driver version.</li> <li>▪ <b>Ribbon:</b> The detected ribbon color.</li> <li>▪ <b>Mode:</b> This is displayed if a dual-sided module is detected and if the card is set to flip before being printed.</li> </ul> <p><b>Printer:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Model:</b> The printer model.</li> <li>▪ <b>Serial Number:</b> The serial number of the printer.</li> <li>▪ <b>Firmware:</b> The installed firmware version.</li> <li>▪ <b>Card Count:</b> The number of cards printed.</li> </ul>

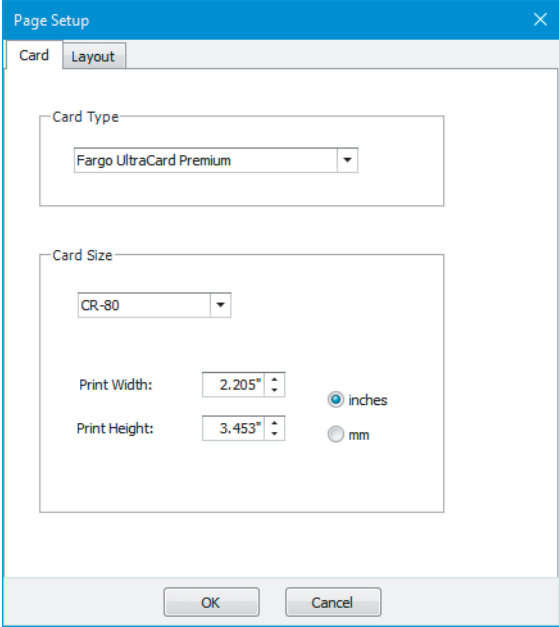
### 3.2 Advanced menu tab

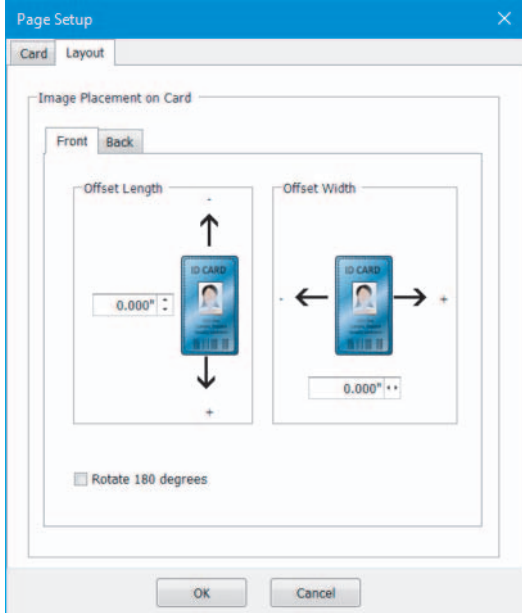
This tab allows you to select page setup options, printing options, diagnostic settings, and calibration settings.

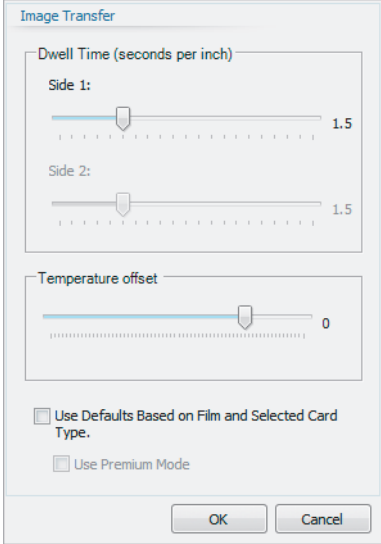


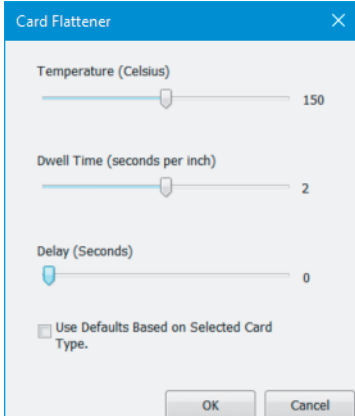
Page Setup	
Menu option	Description
<b>Orientation</b>	Sets the card orientation. Select <b>Portrait</b> to print the card vertically. Select <b>Landscape</b> to print horizontally.
<b>Duplexing</b>	<p><b>Note:</b> This option is grayed out if a dual-sided module is not detected.</p> <p><b>Single Sided:</b> Select this option to print only on one side of the card. This includes printing on the backside of preprinted cards that must have their magnetic stripe or smart card chip encoded.</p> <p><b>Dual Sided:</b> This option is used for cards printed on both sides.</p>

## Page Setup

Menu option	Description
<b>Card</b>	<p>Selects the type of card to print and optionally set up the card size and offset the print layout. Options are:</p> <p><b>Type:</b> Select the type of card to print:</p> <ul style="list-style-type: none"> <li>■ FARGO UltraCard Premium (default)</li> <li>■ FARGO Ultracard</li> <li>■ FARGO Ultracard PC</li> <li>■ HID Tech Card Composite</li> <li>■ HID Tech Card PVC</li> </ul> <p><b>More Card Settings:</b> Opens the <b>Page Setup</b> window to define the card type and size.</p>  <p>Select a <b>Card Type</b> to print:</p> <ul style="list-style-type: none"> <li>■ FARGO UltraCard Premium (default)</li> <li>■ FARGO Ultracard</li> <li>■ FARGO Ultracard PC</li> <li>■ HID Tech Card Composite</li> <li>■ HID Tech Card PVC</li> </ul> <p>Select a <b>Card Size</b>:</p> <ul style="list-style-type: none"> <li>■ <b>CR-80:</b> This is the default. This card printer accepts standard CR-80 sized cards (3.41" x 2.165", 86.6 mm x 55 mm).</li> <li>■ <b>Custom:</b> This selection is used to create a custom card size. Use the Print Width/Print Height adjustment arrows to set the dimensions of the total print area for each card size. Set the option for <b>inches</b> or <b>mm</b>.</li> </ul>

Page Setup	
Menu option	Description
	<p>Select the <b>Layout</b> tab to set the <b>Offset Length</b> and <b>Offset Width</b> for the image placement on the front and back of the card.</p> <p><b>Note:</b> If <b>Duplexing</b> is set to <b>Single Sided</b>, the Back tab is not available on this window.</p>  <p>Adjust the image position values by clicking the <b>Offset Length</b> and <b>Offset Width</b> adjustment arrows. The image position changes according to the selection of portrait or landscape.</p> <p><b>Rotate 180 Degrees:</b> Select this option to rotate the image on the front or back 180 degrees when printed.</p>

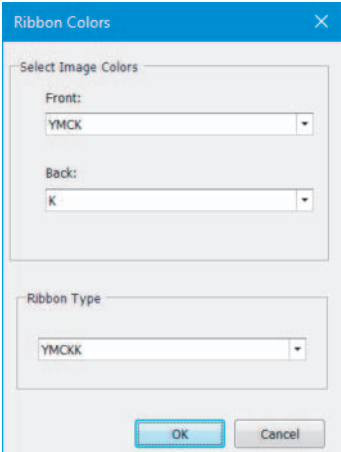
Device Settings	
Menu option	Description
<b>Image Transfer</b>	<p>This setting controls the speed and temperature at which printed images are transferred from the film to the card. These settings may vary depending on the card type.</p> <p>When the <b>Use Defaults Based on the Film and Selected Card Type</b> option is selected, the printer driver automatically optimizes these settings according to the card type and film type previously selected. Changes made to the <b>Dwell Time</b> and <b>Temperature offset</b> settings are saved for the selected card type option upon exiting the printer driver setup.</p>  <p><b>Dwell Time (seconds per inch):</b> Sets the speed at which the printed image is transferred from the HDP film to the card in seconds per inch for each side of the card.</p> <ul style="list-style-type: none"> <li>■ Lower limit = 1 second per inch</li> <li>■ Upper limit = 3 seconds per inch</li> </ul> <p><b>Temperature offset:</b> Sets the temperature at which the printed image is transferred from the HDP film to the card.</p> <ul style="list-style-type: none"> <li>■ Lower limit: -50</li> <li>■ Upper limit: +15</li> </ul> <p><b>Use Defaults Based on the Film and Selected Card Type:</b> This option is automatically selected. The printer driver software has default temperature and dwell time settings that deliver the best transfer for these card types. These defaults are automatically configured, based on the card type, ribbon type, and whether printing single- or dual-sided.</p> <p><b>Note:</b> If you select the wrong option, the incorrect dwell time and temperature may be used during the image transfer process which results in poor adhesion of the HDP film or card warping.</p> <p><b>Use Premium Mode:</b> Select this option to reduce the transfer temperature and speed to enhance the image quality.</p>

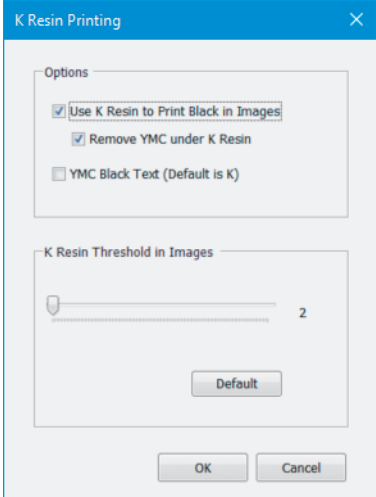
Device Settings	
Menu option	Description
<b>Card Flattener</b>	<p>This option is available only for single-sided card printing and is grayed out if a card flattener is not detected. Available options are:</p> <p><b>Enabled:</b> Select this option to enable the flattener.</p> <p><b>Advanced Settings:</b> This option is grayed out unless the <b>Enabled</b> option is selected. When selected, the Card Flattener window is displayed.</p>  <p><b>Temperature (Celsius):</b></p> <ul style="list-style-type: none"> <li>■ Lower limit: -50</li> <li>■ Upper limit: +50</li> </ul> <p><b>Dwell Time (seconds per inch):</b> Sets the Dwell Time for the flattening process.</p> <ul style="list-style-type: none"> <li>■ Lower limit = 1 second per inch</li> <li>■ Upper limit = 3 seconds per inch</li> </ul> <p><b>Delay (Seconds):</b> Sets the Delay for the flattening process.</p> <ul style="list-style-type: none"> <li>■ Lower limit = 0</li> <li>■ Upper limit = 15</li> </ul> <p><b>Use Defaults Based on Selected Card Type:</b> This option is automatically selected. Clear this box to set the options in this window.</p> <p><b>Note:</b> If you select the wrong option, the incorrect dwell time and temperature may be used in the flattening process which may result in card warping.</p>

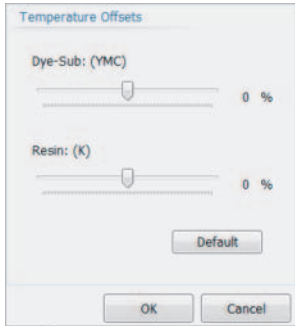


Device Settings	
Menu option	Description
<b>Laminator</b>	<p>This option allows control of the printer's lamination process. When a laminator is not detected, the lamination option is grayed out. Available options are:</p> <p><b>Front Side/Back Side:</b> Specify the side of the card to laminate:</p> <ul style="list-style-type: none"> <li>■ No Lamination</li> <li>■ Use Left LAM</li> <li>■ Use Right LAM</li> <li>■ First Available</li> </ul> <p><b>More Settings:</b> When selected, the Lamination window is displayed.</p> <div data-bbox="391 617 912 1423" data-label="Image"> </div> <p><b>Lamination Mode</b></p> <p><b>Front Side/Back Side:</b> Specify the side of the card to laminate. Available options are:</p> <ul style="list-style-type: none"> <li>■ No Lamination</li> <li>■ First Available</li> <li>■ Use Right LAM</li> <li>■ Use Left LAM</li> </ul>

Device Settings	
Menu option	Description
	<p><b>Left/Right</b></p> <p><b>Lamination Type:</b> The type of laminate affects the temperature required for lamination. Available options are:</p> <ul style="list-style-type: none"> <li>■ Clear Whole PolyGuard</li> <li>■ Clear Whole UV Blocking PolyGuard</li> <li>■ Holographic Orbit View PolyGuard</li> <li>■ Holographic Whole PolyGuard</li> <li>■ Clear Chip Cutout PolyGuard</li> <li>■ Clear Chip Cutout UV Blocking PolyGuard</li> <li>■ Holographic Chip Cutout PolyGuard</li> </ul> <p><b>Lamination Position:</b> Click the arrows to adjust the horizontal position of the laminate. The default is 0. The adjustment arrows point in the direction the patch moves on the card. The maximum horizontal value is 100 pixels (10 pixels=0.03 [0.8mm])</p> <p><b>Lamination Temp offset:</b> Available values are +/- 20.</p> <p><b>Flatten Card</b></p> <p><b>Enable:</b> Select this option to enable the flattener.</p> <p><b>Dwell Time (seconds per inch):</b> Sets the Dwell Time for the flattening process.</p> <ul style="list-style-type: none"> <li>■ Lower limit = 1 second per inch</li> <li>■ Upper limit = 3 seconds per inch</li> </ul>
<b>Print Mode</b>	<p>If <b>Flip Card Before Print</b> is selected, the reverse side of the card is printed first.</p> <p><b>Note:</b> This option is available only for dual-sided card printing and is grayed out if a dual-sided module is not detected.</p>

Print Image	
Menu option	Description
<b>Ribbon Color</b>	<p>This option allows the printer to automatically select the colors to print or allows you to specify card colors. This setting is determined by the ribbon detected in the printer and the selection of single- or dual-sided printing.</p> <p><b>Auto Color:</b> Automatically detects the ribbon type and splits the panel set when applicable. When <b>Auto Color</b> is selected, <b>Manual Select</b> is disabled.</p> <p><b>Auto Split:</b> If a dual-sided module is detected, prints YMCK on the front and K on the back.</p> <p><b>Manual Select:</b> Displays the <b>Ribbon Colors</b> window for you to select from the list of available colors.</p>  <p><b>Select Image Colors</b></p> <ul style="list-style-type: none"> <li>■ <b>Front/Back:</b> Available options are: <ul style="list-style-type: none"> <li>■ YMCK</li> <li>■ YMC</li> <li>■ K</li> </ul> </li> <li>■ <b>Ribbon Type:</b> Available options are: <ul style="list-style-type: none"> <li>■ YMCK</li> <li>■ YMCKK</li> <li>■ YMCKH</li> <li>■ YMCFK</li> </ul> </li> </ul>

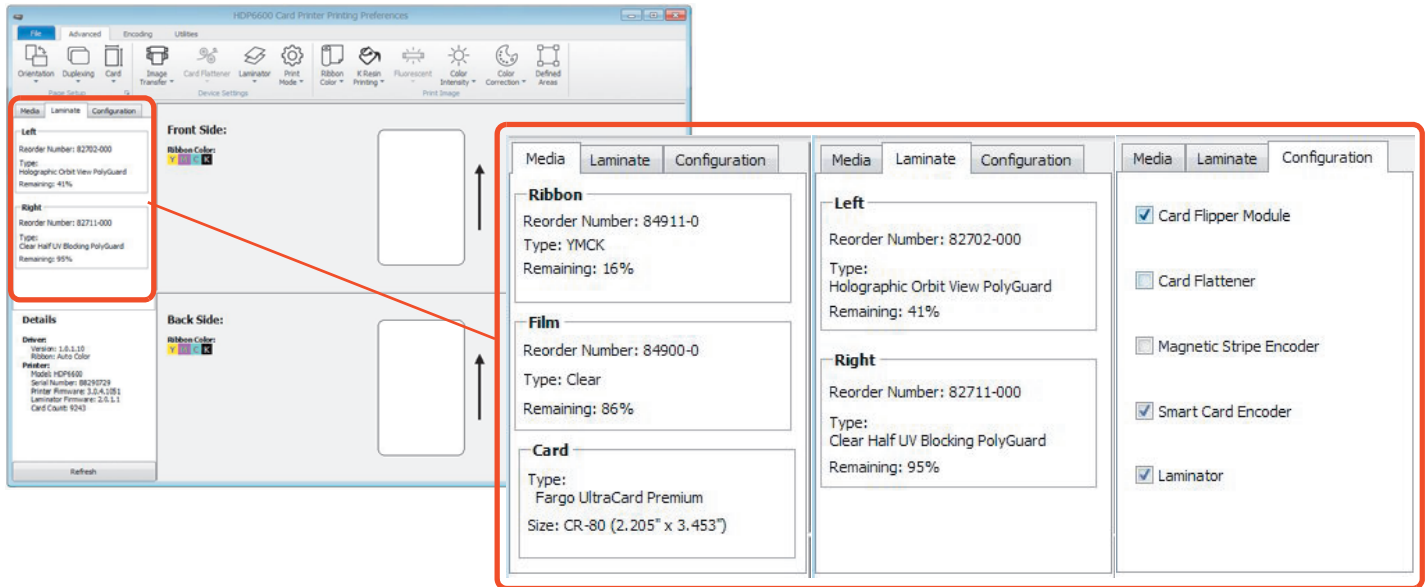
Print Image	
Menu option	Description
<b>K Resin Printing</b>	<p>This option controls where the resin black (K) panel of a full-color ribbon is printed. Resin black text is desirable due to its sharp, saturated color. Available options are:</p> <p><b>Dither Type:</b></p> <ul style="list-style-type: none"> <li>■ Graphics</li> <li>■ Photos</li> </ul> <p><b>More Settings:</b> This option is available when <b>Ribbon Color</b> is set to <b>Auto Color</b> or <b>Manual Select</b>. This option is only available with YMC-K panel combinations. This option opens the K Resin Printing window and provides the ability to:</p> <ul style="list-style-type: none"> <li>■ Print black in image using K-panel resin (white background)</li> <li>■ Print black in image using K-panel resin (color background)</li> <li>■ Remove resin from image in selected area (keep out). See the <b>Defined Areas</b> option.</li> <li>■ Print black in selected area of image. See the <b>Defined Areas</b> option.</li> </ul>  <p><b>Use K Resin to Print Black in Images:</b> Prints black in images using K-panel resin (white or color backgrounds) and automatically selects <b>Print YMC under K Resin</b>.</p> <p><b>Print YMC under K Resin:</b> Clear this check box to print black in image using K-panel resin (white or color backgrounds).</p> <p><b>YMC Black Text (Default is K):</b> This option prints black text with YMC instead of K.</p> <p><b>K Resin Threshold in Images:</b> When <b>Use K Resin to Print Black in Images</b> is selected, this option sets the K resin usage limit.</p> <ul style="list-style-type: none"> <li>■ Lower limit = 1</li> <li>■ Upper limit = 255</li> </ul> <p><b>Default:</b> Click this button to return the listed threshold to the factory setting.</p>

Print Image	
Menu option	Description
	<p><b>Use K Resin to Print Black in Images:</b> Prints black in images using K-panel resin (white or color backgrounds) and automatically selects <b>Print YMC under K Resin</b>.</p> <p><b>Print YMC under K Resin:</b> Clear this check box to print black in image using K-panel resin (white or color backgrounds).</p> <p><b>YMC Black Text (Default is K):</b> This option prints black text with YMC instead of K.</p> <p><b>K Resin Threshold in Images:</b> When <b>Use K Resin to Print Black in Images</b> is selected, this option sets the K resin usage limit.</p> <ul style="list-style-type: none"> <li>■ Lower limit = 1</li> <li>■ Upper limit = 255</li> </ul> <p><b>Default:</b> Click this button to return the listed threshold to the factory setting.</p>
<b>Fluorescent</b>	<p>This option is available when the <b>YMCFK Ribbon Type</b> is selected on the Ribbon Colors window. Available options are:</p> <p><b>Invert Image:</b> Causes light or white areas of the image to fluoresce and dark colors to remain dark on the printed card.</p> <p><b>Dual-transfer:</b> The fluorescing dye can be applied to a separate panel of HDP film. This enhances visibility.</p> <p><b>Image on Next Page:</b> Fluorescent print image is on the following page in the print job. This means the application must print an extra page. (For example, single-sided = page 2, dual-sided = pages 2 and 4).</p>
<b>Color Intensity</b>	<p>Controls the overall darkness and lightness of the printed color.</p>  <p><b>Dye-Sub (YMC):</b> This slider controls the overall darkness and lightness of the dye-sub printed image. Any adjustments only affect those images printed with dye-sublimation (YMC-type) ribbon panels.</p> <ul style="list-style-type: none"> <li>■ Moving the slider to the left causes less heat to be used; the prints are lighter.</li> <li>■ Moving the slider to the right cause more heat to be used; the prints are darker.</li> </ul> <p><b>Resin (K):</b> The heat is controlled for both front and back of cards. This control can be helpful for fine-tuning the sharpness of resin text and bar codes.</p> <p>This slider controls amount of heat the printer uses when printing with the resin black panel.</p> <ul style="list-style-type: none"> <li>■ Moving the slider to the left causes less heat to be used; the resin images are lighter or less saturated.</li> <li>■ Moving the slider to the right causes more heat to be used; the resin images are darker or more saturated.</li> </ul> <p><b>Default:</b> Returns the listed percentages to the factory settings.</p>
<b>Color Correction</b>	<p><b>Default:</b> Sets the optimal and most accurate color setting for this device.</p> <p><b>Legacy:</b> Attempts to duplicate the HDP5000 color settings.</p> <p><b>None:</b> Uses the uncorrected output from the printhead.</p>

Print Image	
Menu option	Description
<b>Defined Areas</b>	<p>Adds and removes defined areas for K resin and color correction.</p> <p><b>Enable Defined Area:</b> Select the type of area to add. Each defined area is represented by the following colors:</p> <p><b>K Resin:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Active:</b> Gray</li> <li>▪ <b>Keep Out:</b> Cyan</li> </ul> <p><b>Color Correction:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Active:</b> Green</li> <li>▪ <b>Keep Out:</b> Yellow</li> </ul> <p><b>Set Alignment PRN:</b> Click this button to retrieve a saved print file to verify the defined locations on your card.</p> <p><b>Add Area:</b> Defines additional areas. Select <b>K Resin</b> or <b>Color Correction</b> from the drop-down list.</p> <p><b>Resize Selected Area:</b> Defined areas can be moved or re-sized by selecting the area and either dragging one of the handles to the desired size or by manually setting the horizontal, vertical, X, and Y coordinates.</p> <p>To remove defined areas, select the area and press <b>Delete</b>.</p>

### 3.2.1 Information panel

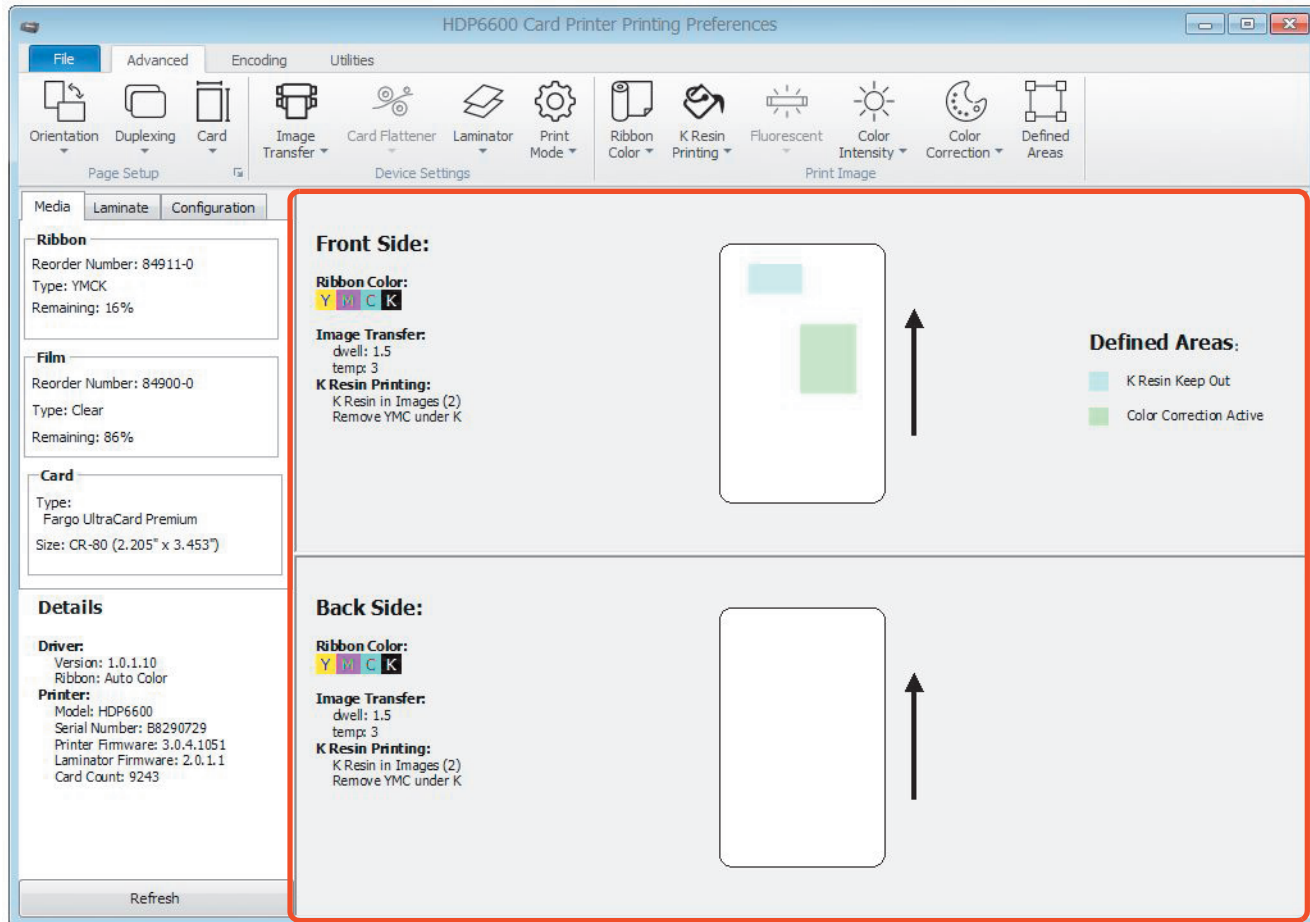
This panel is displayed on the left side of the **Advanced**, **Encoding**, and **Utilities** menu tabs.



Field	Definition
<b>Media tab</b>	Automatically detects the materials in the printer such as the ribbon, film, and cards.
<b>Ribbon</b>	Displays the reorder number, type, and remaining ribbon level detected.
<b>Film</b>	Displays the reorder number, type, and remaining film level detected.
<b>Card</b>	Displays the card type and card size detected in the printer.
<b>Configuration tab</b>	Displays any automatically detected features in your printer. Features are present when check boxes are selected. If communication with the printer does not exist, these configuration items can be manually selected. Available options are: <ul style="list-style-type: none"> <li>■ Card Flipper Module (dual-sided module)</li> <li>■ Card Flattener</li> <li>■ Magnetic Stripe Encoder</li> <li>■ Smart Card Encoder</li> <li>■ Laminator</li> </ul>
<b>Laminate tab</b>	This tab is displayed when Laminator is selected on the Configuration tab.
<b>Left</b>	Displays the reorder number, type, and remaining laminate level detected.
<b>Right</b>	Displays the reorder number, type, and remaining laminate level detected.
<b>Details</b>	Displays the driver and printer information. See <i>Section 3.1.5 Details window</i> for a description of these fields.

### 3.2.2 Card image area

The card image area displays a representation of the card options currently selected. The options shown include card side, ribbon color descriptor, image transfer settings, defined areas legend (if specified), and single-sided or dual-sided print area images.

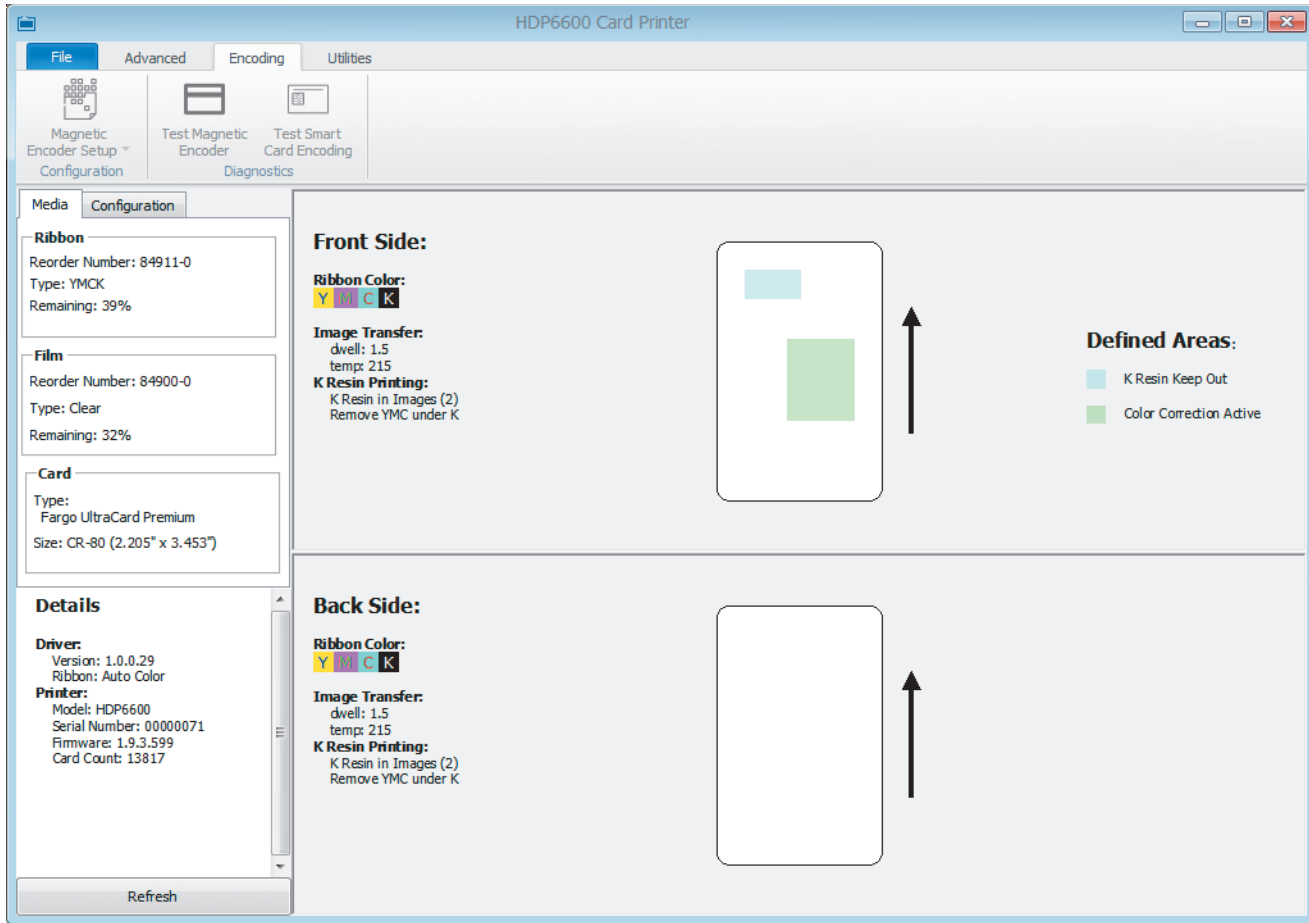


Field	Definition
<b>Front Side/Back Side</b>	Displays a single- or dual-sided card in a portrait or landscape orientation. This is determined by the selections made in the Page Setup area on the Advanced tab. If <b>Single Sided</b> is selected, this window displays all fields for Front Side. If <b>Dual Sided</b> is selected, this window displays all fields for Front Side and Back Side.
<b>Ribbon Color</b>	Displays the color descriptors for the card side. These are the detected ribbon colors. In addition, objects visually display how the ribbon is split (as shown in <b>Advanced</b> tab > <b>Ribbon Color</b> ).
<b>Image Transfer</b>	Displays any customized Image Transfer settings.
<b>K Resin Printing</b>	Displays any defined K resin printing areas.
<b>Print Direction</b>	Specifies the direction the card travels through the printer.



### 3.3 Encoding menu tab

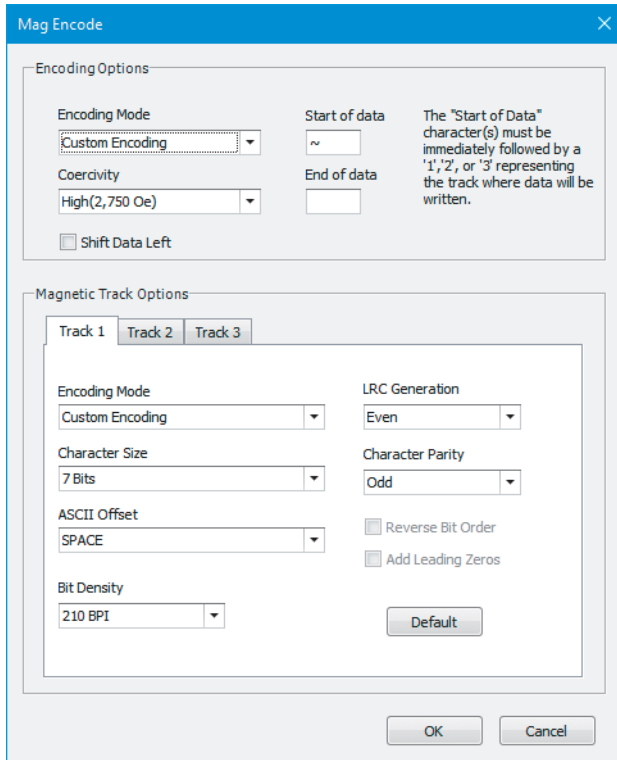
This tab contains the options for controlling the magnetic stripe encoding process.



Field	Definition
<b>Configuration</b>	
<b>Magnetic Encoder Setup</b>	Specifies magnetic encoder setup. Available options are: <ul style="list-style-type: none"> <li>■ ISO (default)</li> <li>■ Custom</li> <li>■ JSII</li> <li>■ Raw Binary</li> <li>■ More Settings displays the Mag Encode window.</li> </ul> See <i>Section 3.3.1 Magnetic encoder setup configuration</i> .
<b>Diagnostics</b>	
<b>Test Magnetic Encoder</b>	Tests magnetic encoder in the printer. See <i>Section 3.3.4 Test magnetic encoder</i> .
<b>Test Smart Card Encoding</b>	Tests smart card encoder in the printer. See <i>Section 3.3.5 Test smart card encoding</i> .

### 3.3.1 Magnetic encoder setup configuration

The **Mag Encode** window contains options for controlling the magnetic stripe encoding process.

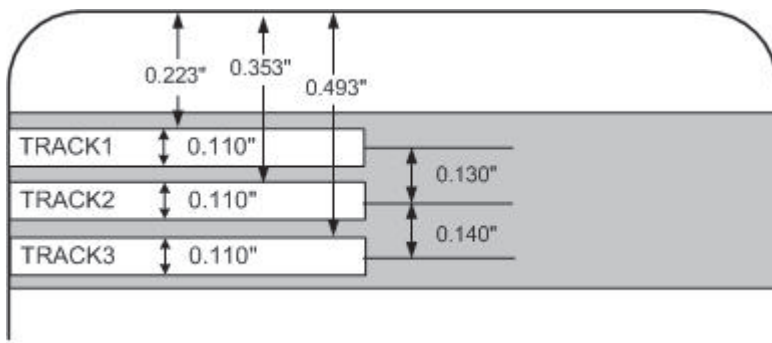


Field	Description
<b>Encoding Options</b>	<p>Set the Encoding Mode and Coercivity or modify the ISO standards for Tracks 1, 2 and 3.</p> <ul style="list-style-type: none"> <li> <b>ISO Encoding:</b> sends a formatted set of characters to the encoding module. The magnetic track tabs are inactive and display ISO defaults for each track. This is the default. See <i>Section 3.3.2 ISO track locations</i>.                 </li> <li> <b>Custom Encoding:</b> all magnetic track options are active and can be changed.                 </li> <li> <b>Raw Binary Encoding:</b> sends a raw binary string rather than a formatted set of characters to the encoding module. Some magnetic track options are enabled.                 </li> <li> <b>JIS II Encoding:</b> specific standards are used. The magnetic track tabs are inactive and display JIS II defaults for each track.                 </li> </ul> <p><b>Coercivity:</b> Select the Coercivity option (Oersted [Oe]) for the Magnetic Stripe type for the Card Type.</p> <ul style="list-style-type: none"> <li>Super High Coercivity = 4,000 Oe</li> <li>High Coercivity = 2,750 Oe (HID high coercivity UltraCard IIIs are 2750 Oe)</li> <li>Medium Coercivity = 600 Oe</li> <li>Low Coercivity = 300 Oe</li> </ul> <p><b>Shift Data Left:</b> This option shifts the recorded magnetic data to the left-hand side of the magnetic stripe on the card. This is used when cards require insert type readers.</p>

Field	Description
<b>Magnetic Track Options</b>	<p>If these options are enabled, the user can specify how tracks are to be configured. All tracks display the same options.</p> <p><b>Encoding Mode:</b> Displays the encoding mode selected.</p> <p><b>Character Size:</b> Sets the character data size (bits per character) used to encode the magnetic data on the currently selected track.</p> <p><b>Note:</b> This character size includes the parity bit (if enabled).</p> <p>When the drop-down list is enabled, selections vary for the selected encoding mode:</p> <ul style="list-style-type: none"> <li>▪ Custom encoding: 5 and 7 bits</li> <li>▪ Raw binary encoding: 4 and 8 bits</li> </ul> <p><b>ASCII Offset:</b> Sets the character ASCII offset used to encode the magnetic data on the currently selected track. Options are: NULL, SPACE, and ZERO.</p> <p><b>Note:</b> This character-offset value is subtracted from the ASCII value of each magnetic stripe data character prior to encoding on the track.</p> <p><b>Bit Density:</b> Sets the bit recording density (bits per inch) used to encode the magnetic data on the currently selected track. Options are: 75 and 210 BPI.</p> <p><b>LRC Generation:</b> Sets the LRC generation mode used to encode the magnetic data on the currently selected track. Options are: No LRC, Even Parity, and Odd Parity.</p> <p><b>Character Parity:</b> Sets the encoding mode used to encode the magnetic data on the currently selected track. Options are: No Parity, Even Parity, and Odd Parity.</p> <p><b>Reverse Bit Order:</b> This option is used to reverse the character bits for the encryption of data in specific programs.</p> <p><b>Add Leading Zeros:</b> This option is used to add a set number of leading zeros to the magnetic string to move the starting point of the encoded data in specific programs for encryption of data.</p> <p><b>Default:</b> Resets defaults for the current track.</p>

### 3.3.2 ISO track locations

The magnetic encoding module encodes onto tracks in accordance with an ISO/IEC 7811-2 magnetic stripe.



### 3.3.3 Sending track information

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

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

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

In most cases the user must carefully add these characters to the string of data. If these characters are not added to the track data, the text intended for the magnetic track appears as printed text on the card. To avoid this, track information must be entered as described here.

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

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

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

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

#### Reviewing the sample string

Track 1: ~1%JULIEANDERSON^1234567890?

Track 2: ~2;1234567890987654321?

Track 3: ~3;1234567890987654321?

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

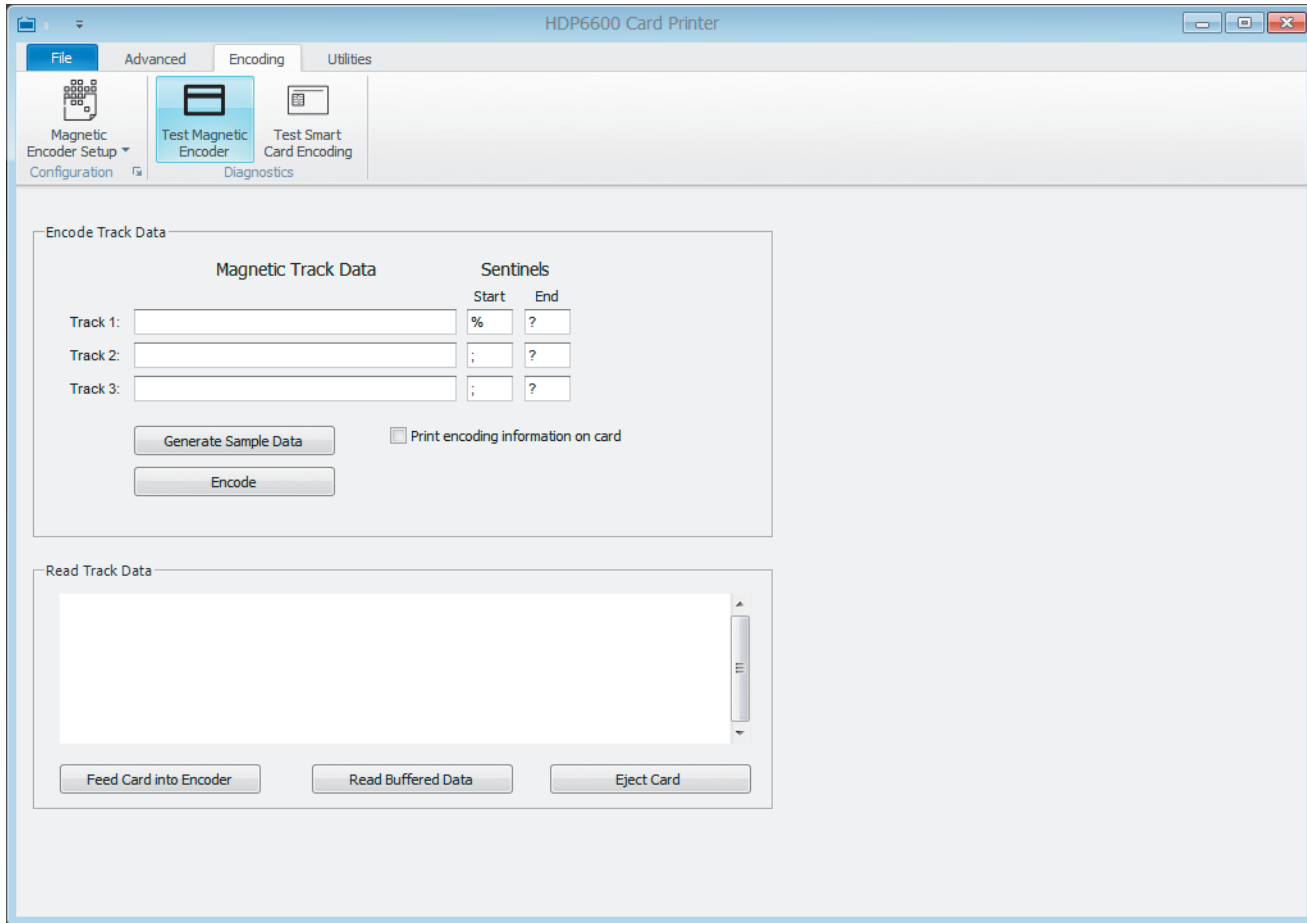
#### ASCII code and character table

ASCII Code	Character	ASCII Code	Character	ASCII Code	Character
32	space	54	6	76	L
33	!	55	7	77	M
34		56	8	78	N
35	#	57	9	79	O
36	\$	58	:	80	P
37	%	59	;	81	Q
38	and	60	<	82	R
39	'	61	=	83	S

ASCII Code	Character	ASCII Code	Character	ASCII Code	Character
40	(	62	>	84	T
41	)	63	?	85	U
42	*	64	@	86	V
43	+	65	A	87	W
44	'	66	B	88	X
45	-	67	C	89	Y
46	.	68	D	90	Z
47	/	69	E	91	[
48	0	70	F	92	\
49	1	71	G	93	]
50	2	72	H	94	^
51	3	73	I	95	_
52	4	74	J		
53	5	75	K		

### 3.3.4 Test magnetic encoder

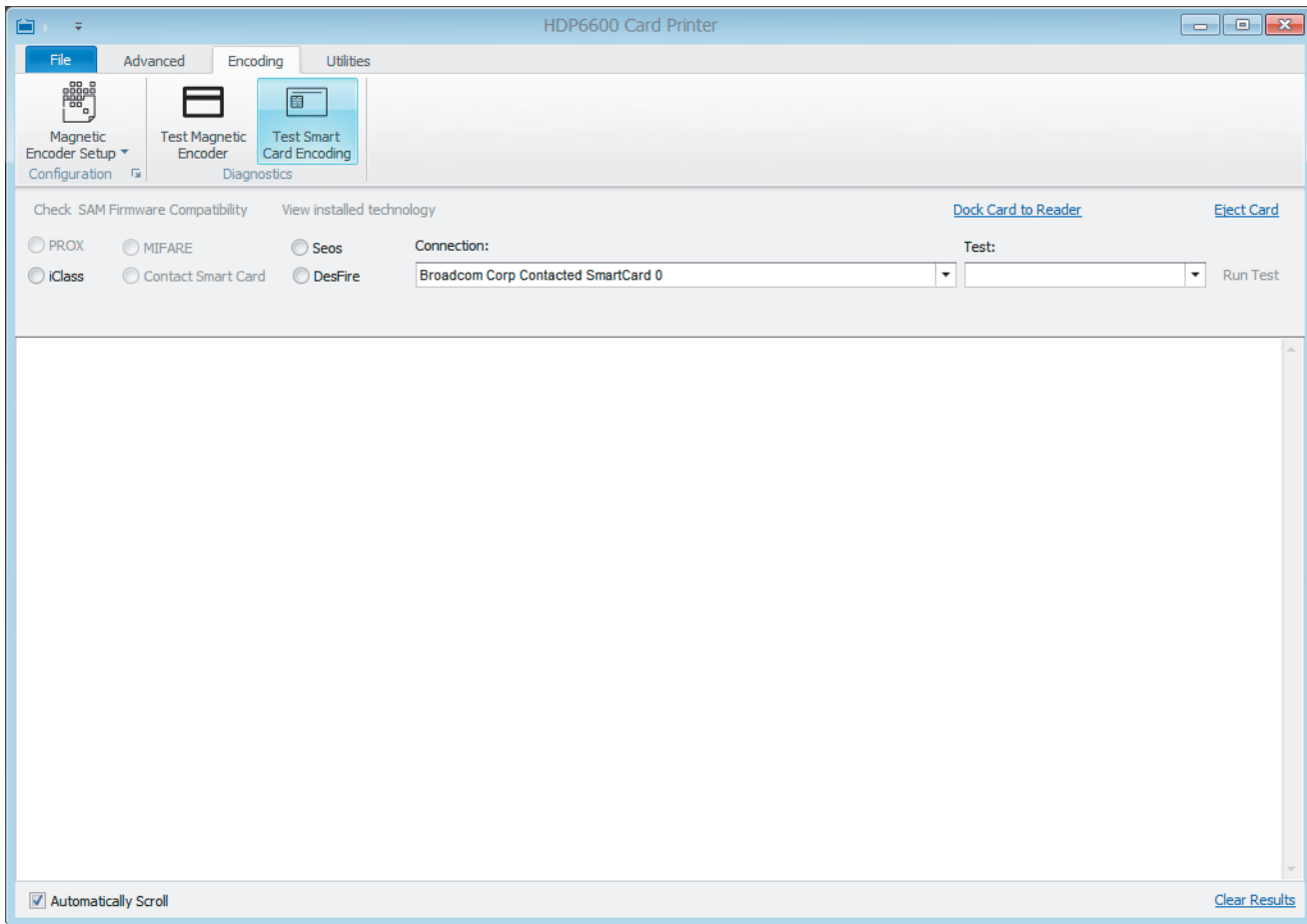
Exercises the printer's magnetic encoding functionality independent of image or application.



Field	Description
Encode Track Data	<b>Magnetic Track Data:</b> <ul style="list-style-type: none"> <li>■ Track 1:</li> <li>■ Track 2:</li> <li>■ Track 3:</li> </ul> <b>Sentinels:</b> <ul style="list-style-type: none"> <li>■ Start:</li> <li>■ End:</li> </ul> <b>General Sample Data:</b> <b>Encode:</b> <b>Print encoding information on card:</b>
Read Track Data	<b>Feed Card into Encoder:</b> <b>Read Buffered Data:</b> <b>Eject Card:</b>

### 3.3.5 Test smart card encoding

Provides the ability to test the smart card encoder in the printer.



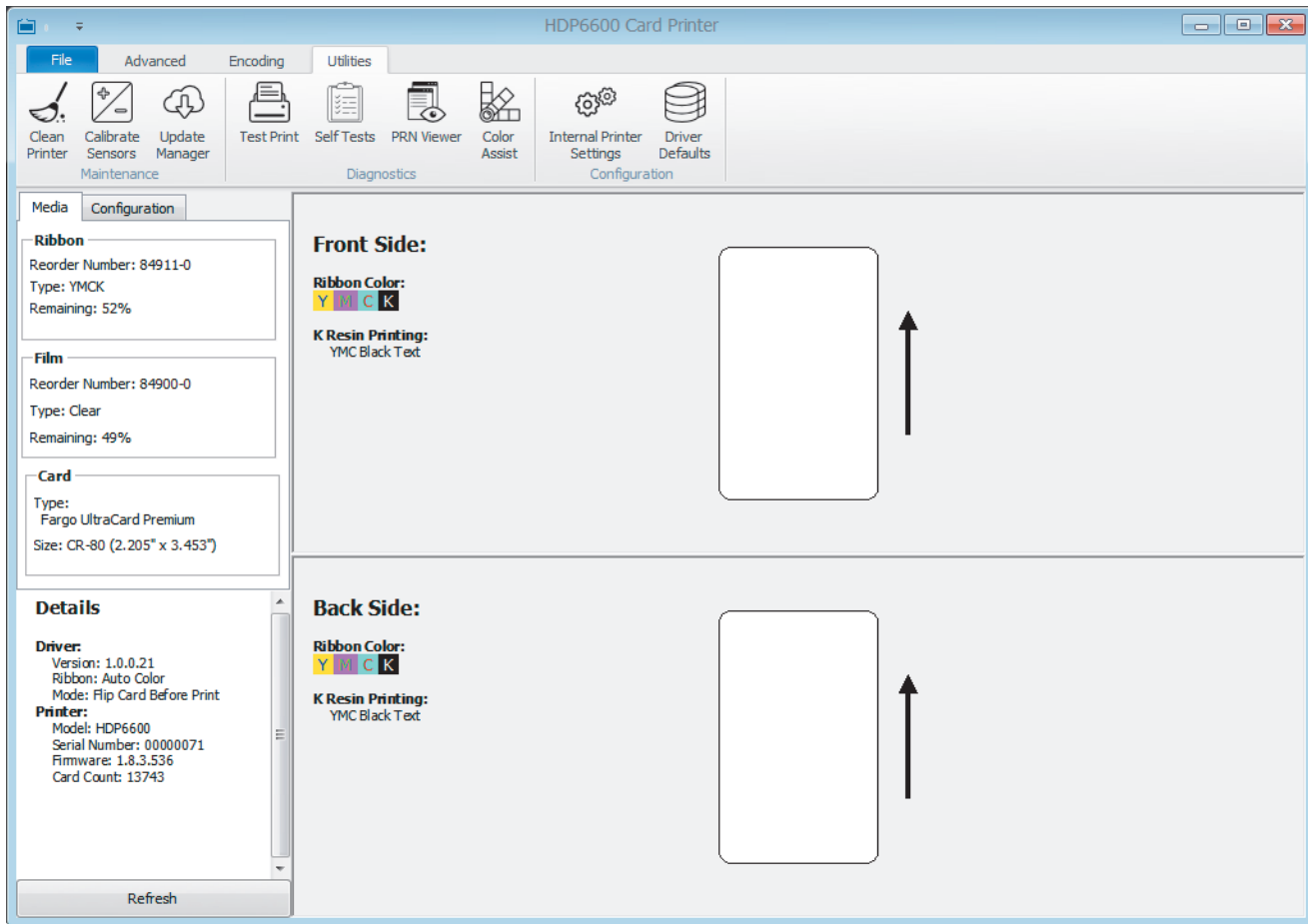
Field	Description
<b>Check SAM Firmware Compatibility</b>	
<b>View installed technology</b>	Available options are: <ul style="list-style-type: none"> <li>■ PROX</li> <li>■ iCLASS/iCLASS SE</li> <li>■ MIFARE</li> <li>■ Contact Smart Card</li> <li>■ Seos</li> <li>■ DesFire</li> </ul>
<b>Dock Card to Reader</b>	Select this link to instruct the printer to dock the card to the magnetic encoder.
<b>Eject Card</b>	Select this link after the test has been performed to eject the card from the printer.
<b>Connection</b>	Select the type of encoder from the list.

Field	Description
<b>Test</b>	Select the test you wish to run. Available options are: <ul style="list-style-type: none"><li>■ Perform Reader Test</li><li>■ Get Vendor Name</li><li>■ Get Vendor IFD Version</li><li>■ Get Vendor IFD Type</li><li>■ Get Reader System Name</li><li>■ Get Reader Friendly Name</li><li>■ Get Reader Max Data Rate</li></ul> Click <b>Run Test</b> to perform the test.
<b>Automatically Scroll</b>	Select this box to allow the test results in the status window to automatically scroll as new information is obtained.
<b>Clear Results</b>	Select this link to clear the test results in the status window.



### 3.4 Utilities tab

This tab provides several maintenance, diagnostic, and configuration settings for your printer.



Field	Definition
<b>Maintenance</b>	
<b>Clean Printer</b>	Specifies how to clean the printer using a cleaning card.
<b>Calibrate Sensors</b>	Specifies how to calibrate the ribbon and film sensors.
<b>Update Manager</b>	Checks, manages, and downloads updates for printer firmware and drivers.
<b>Diagnostics</b>	
<b>Test Print</b>	Sends sample cards to the printer using the current driver settings.
<b>Self Tests</b>	Sends commands to activate on-board self-tests in the printer.
<b>PRN Viewer</b>	Views a print file (PRN) as an image or send the file to the printer.
<b>Color Assist</b>	Create swatches of sample colors that can be printed and used for color matching.
<b>Configuration</b>	
<b>Internal Printer Settings</b>	Modifies settings stored in the printer.
<b>Driver Defaults</b>	Saves and restores printer instance default settings.

### 3.4.1 Clean printer

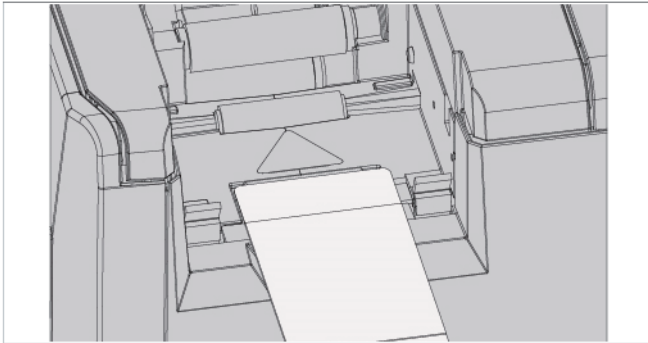
Follow the instructions on the page to clean the printer. The cleaning routine begins after all current print jobs have completed.

The **CardPath** option sends the cleaning routine to the printer. Follow the instructions on the page to clean the card path.

Card Path
  Film Roller
  Laminator

1. Remove Card, Film and Laminate and close the covers.
2. Remove the paper backing from both sides of the Cleaning Card.
- \*Note: (DO NOT remove left liner if a magnetic encoding module is installed in your printer.)
3. Insert the Cleaning Card into the Card Hopper's infeed rollers. See the diagram below.
4. Click on the Cleaning button below.
5. Guide the Cleaning Card into the printer if necessary.
6. When the Cleaning routine is complete, the Cleaning Card will exit the Printer.
7. Reinstall the Card, Film and Laminate.

Cleaning



The **Film Roller** option sends the cleaning routine to the printer. Follow the instructions on the page to clean the film roller.

Card Path
  Film Roller
  Laminator

1. Click the cleaning button below
2. Press the right enter button to start the cleaning routine, or left button to exit.
3. When prompted, open cover and remove film, leave film drawer in open position.
4. Press the right button to clear remove film message.
5. Press the right enter button to start the cleaning routine, or left button to exit.
6. Roller will start rotating for cleaning.
7. When routine completed, press the right enter button to restart the cleaning routine, or left button to exit.
8. When prompted, reinstall film, close film drawer and front cover.

Cleaning

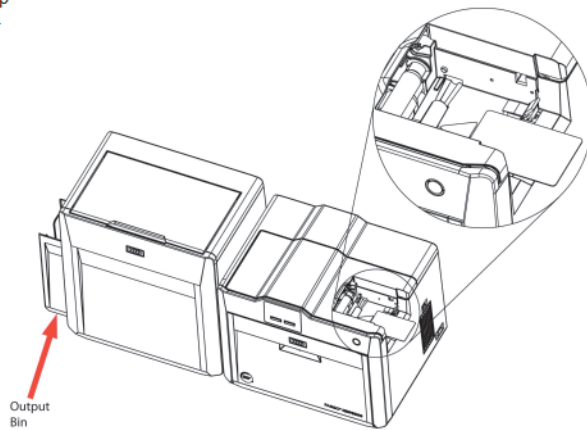
The **Laminator** option sends the cleaning routine to the printer. Follow the instructions on the page to clean the laminator.

Card Path Film Roller Laminator

1. Remove input card hopper from the printer
2. Take out the print ribbon and InTM film from the printer
3. Close the ribbon and film door
4. Please use the CR-80 Cleaning Card (Part Number - 082139). Remove the paper backing from both sides of the Cleaning Card. \*Note: DO NOT remove small liner strip if a magnetic encoding module is installed in your printer.
5. Insert the Cleaning Card into the Card Hopper's in-feed rollers. See the diagram below.
6. Click on the Clean button below
7. Guide the Cleaning Card into the printer if necessary.
8. When the Cleaning routine is complete, the Cleaning Card will exit into the output
9. Open the ribbon and film door and reinstall the print ribbon and InTM film rolls.
10. Close the ribbon and film door.

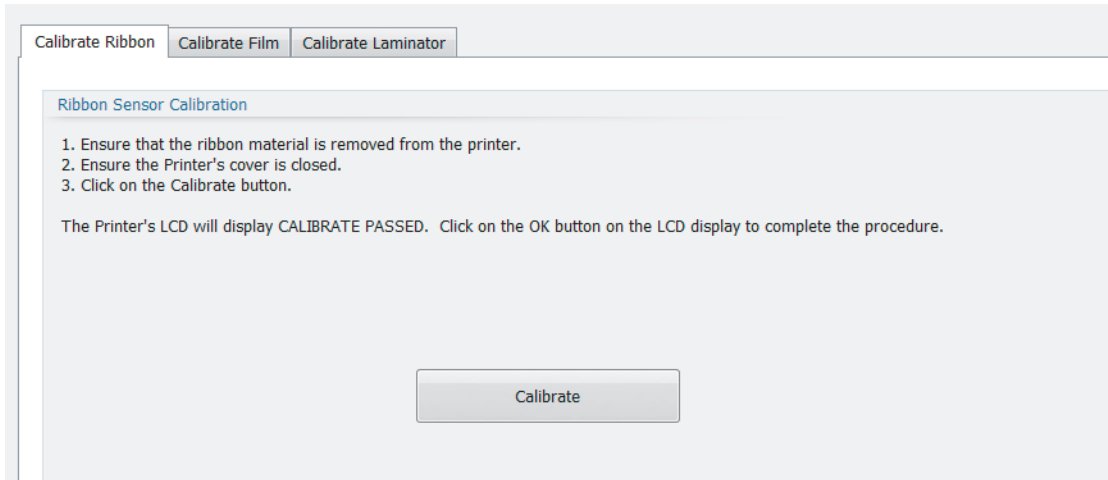
Note: The Cleaning routine will begin after all current print jobs have completed. A standard CR80 size cleaning card must be used.

Cleaning

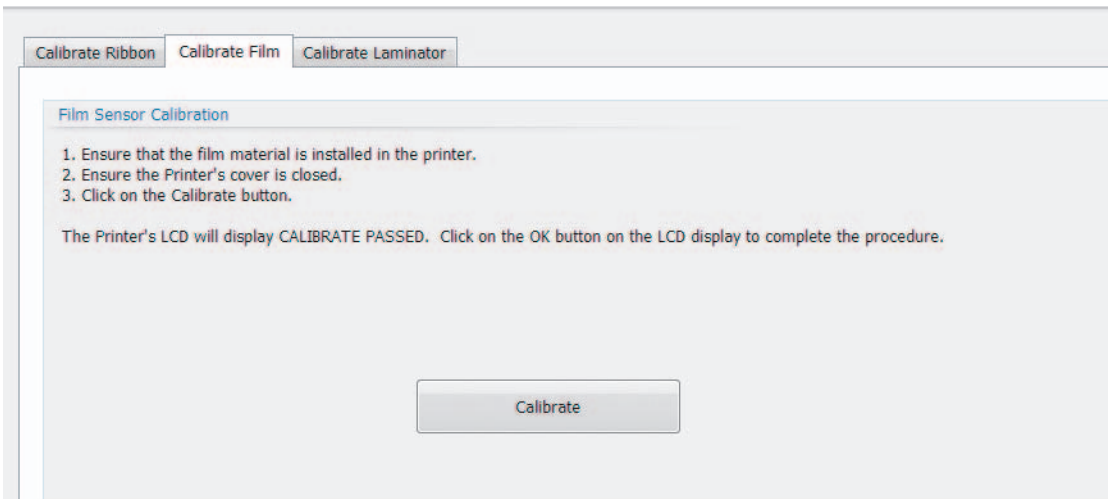


### 3.4.2 Calibrate sensors

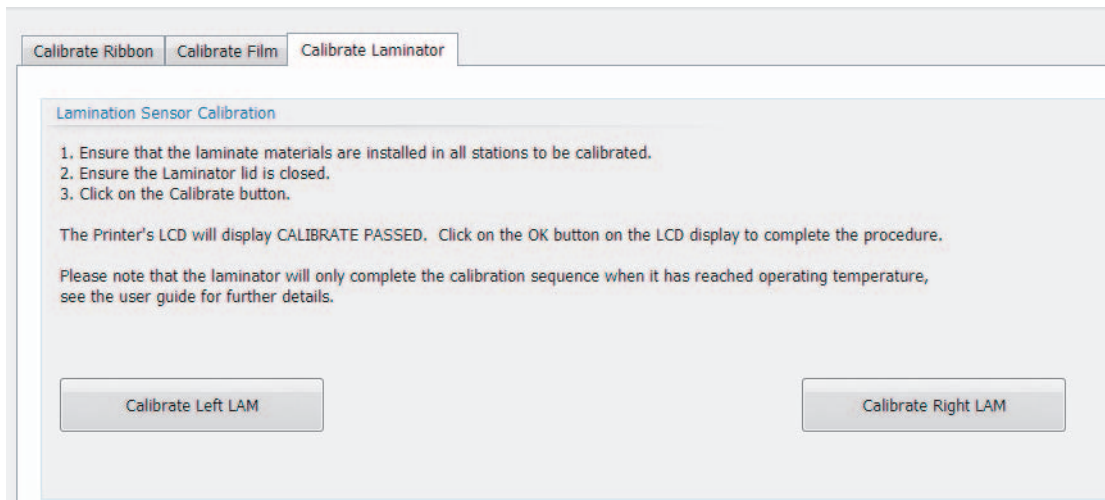
The **Calibrate Ribbon** option sends the calibrate ribbon command to the printer. Follow the instructions on the page for calibration of the ribbon sensor.



The **Calibrate Film** option sends the calibrate film command to the printer. Follow the instructions on the page for calibration of the film sensor.



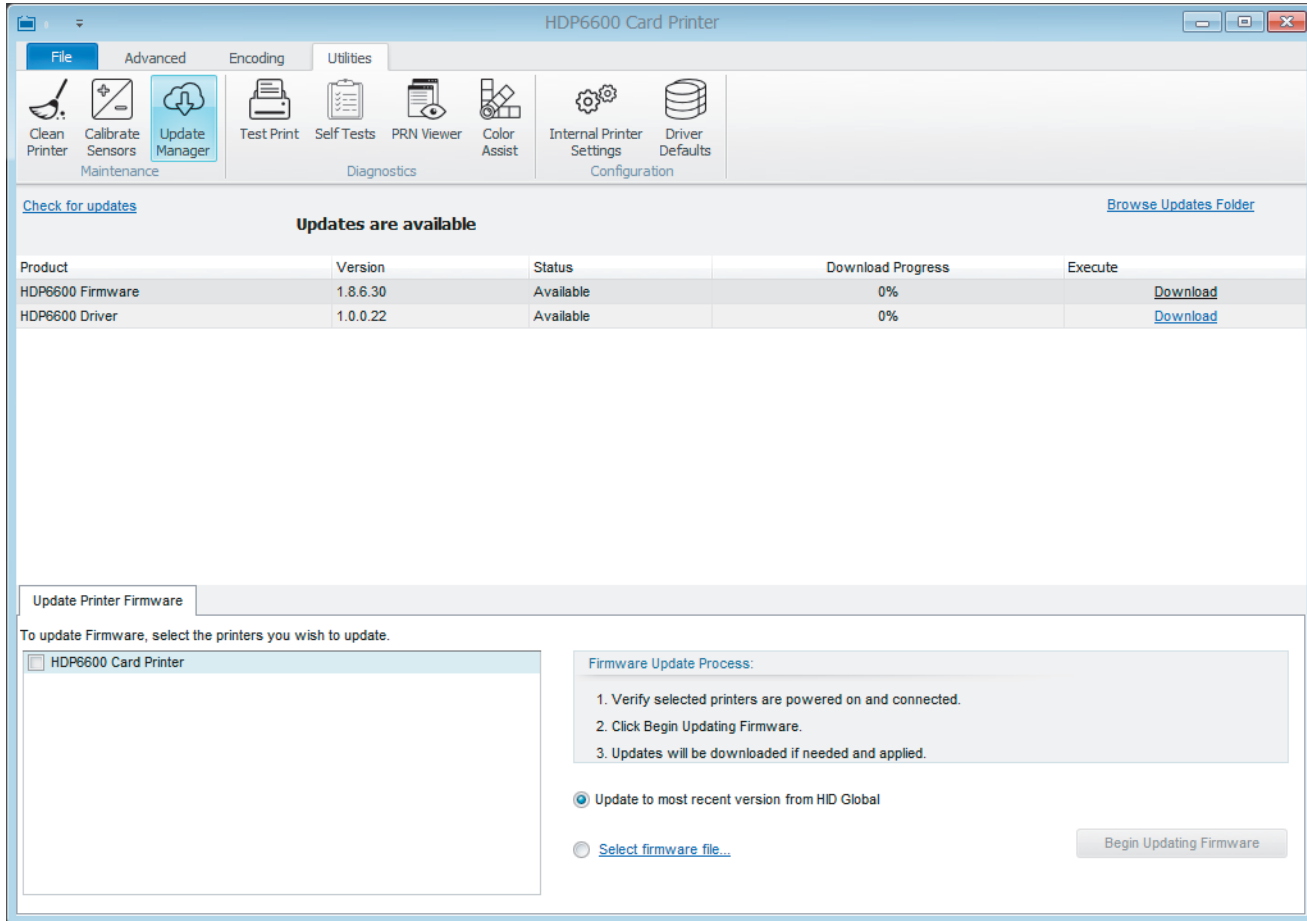
The **Calibrate Laminator** option sends the calibrate laminator command to the printer. Follow the instructions on the page for calibration of the laminator sensor.



The screenshot shows a software interface for "Calibrate Laminator". At the top, there are three tabs: "Calibrate Ribbon", "Calibrate Film", and "Calibrate Laminator", with the latter being the active tab. Below the tabs is a section titled "Lamination Sensor Calibration". This section contains a numbered list of three instructions: 1. Ensure that the laminate materials are installed in all stations to be calibrated. 2. Ensure the Laminator lid is closed. 3. Click on the Calibrate button. Below the list, there is a paragraph stating: "The Printer's LCD will display CALIBRATE PASSED. Click on the OK button on the LCD display to complete the procedure." Another paragraph follows: "Please note that the laminator will only complete the calibration sequence when it has reached operating temperature, see the user guide for further details." At the bottom of the interface, there are two buttons: "Calibrate Left LAM" on the left and "Calibrate Right LAM" on the right.

### 3.4.3 Update manager

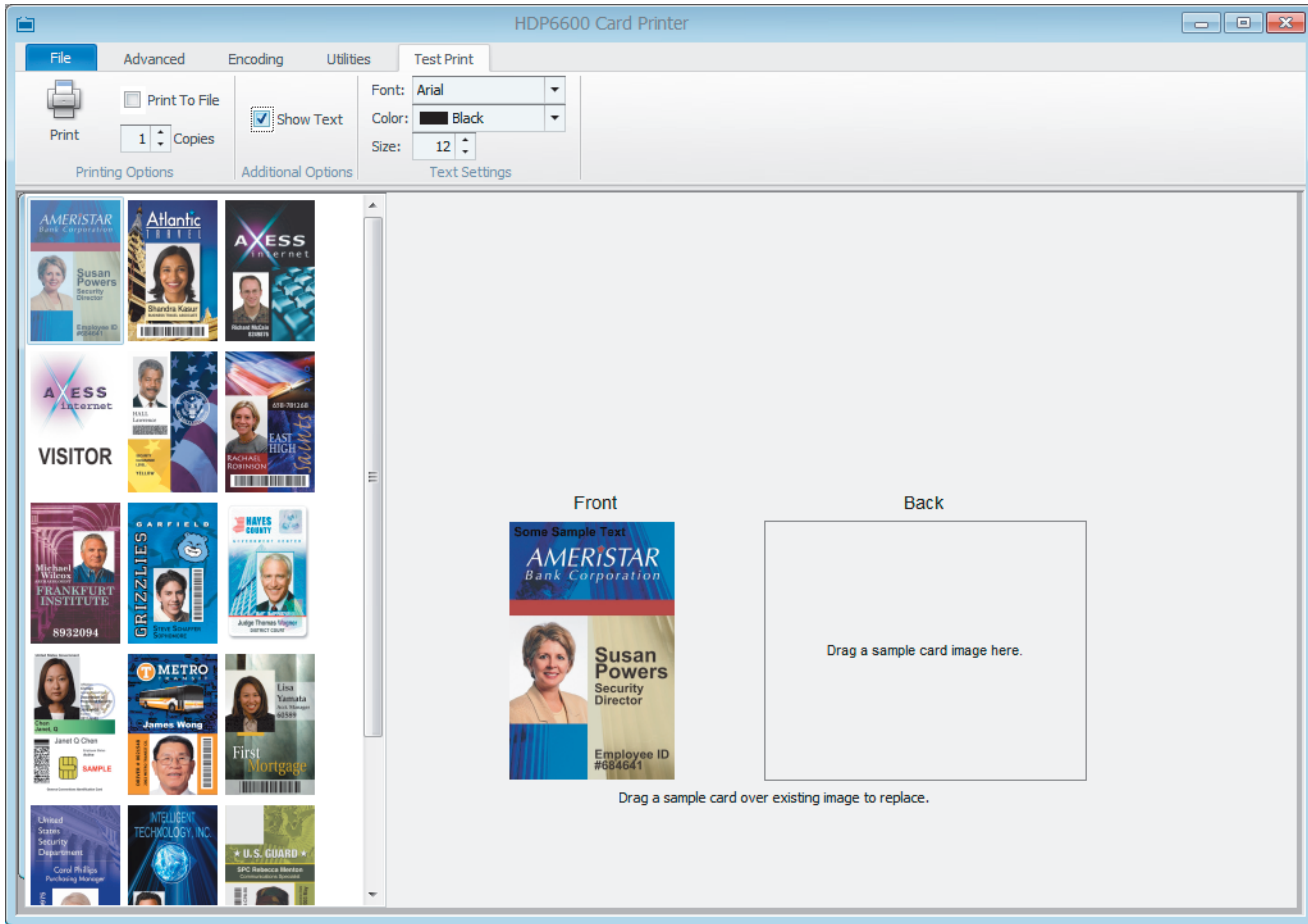
This selection allows you to check, manage, browse, and download updates for printer firmware and drivers. Each update is identified by product, version, status, and download progress.



Field	Description
<b>Check for updates</b>	Click this link to check for any available firmware and printer driver updates. Available updates are displayed by product, version, status, and download progress.
<b>Browse Updates Folder</b>	Opens a window to browse the updates folders stored on your PC or available network.
<b>Update Printer Firmware tab</b>	Lists available HID printers connected to your computer.
<b>Firmware Update Process</b>	Describes the steps to update your printer firmware.
<b>Select firmware file</b>	Opens a window to browse for saved firmware files.
<b>Begin Updating Firmware</b>	Click this button to begin updating the firmware on the selected printer.

### 3.4.4 Test print

Print a sample card based on the selected settings.

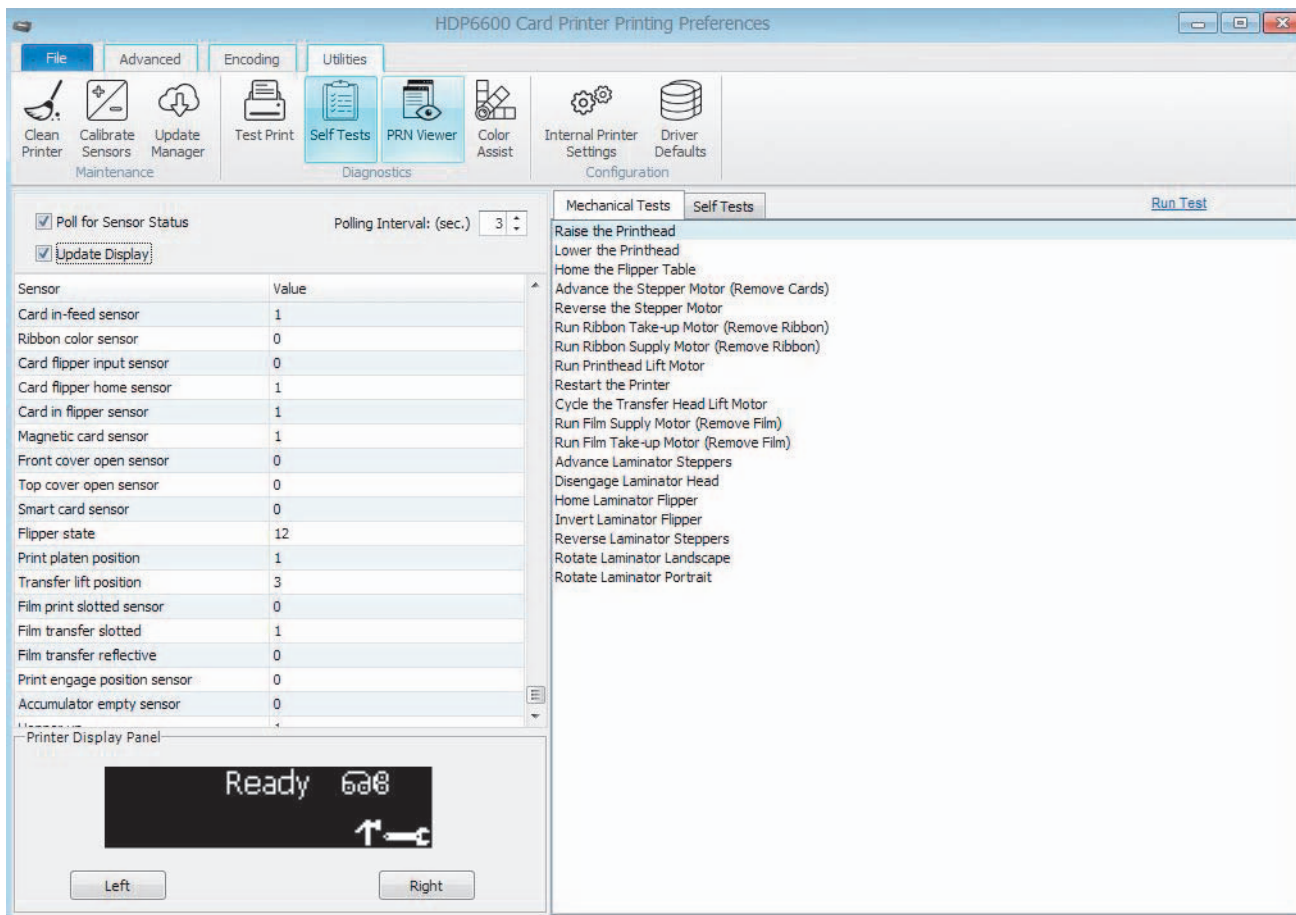


Field	Description
<b>Front</b>	Click and drag a sample card from the left side of the screen to the card outline on the right side of the screen. Cards images can be changed by dragging additional sample cards to the existing image. If a dual-sided module is detected, a <b>Back</b> card outline is displayed. Card images are displayed according to the orientation set on the <b>Advanced</b> tab.
<b>Print</b>	Once a sample card is selected, click this icon to print the sample card. If the <b>Print To File</b> check box is selected, this option opens a new window to specify the file location and file name.
<b>Print To File</b>	Saves the sample card image as a .prn file.
<b>Copies</b>	Sets the number of sample cards to print. Use the arrows to specify the number of cards to print. Available values are 1-99.
<b>Show Text</b>	Select this option to display <b>Some Sample Text</b> at the top of the sample card. When this option is selected, the <b>Font</b> , <b>Color</b> , and <b>Size</b> options can be adjusted.

Field	Description
<b>Font</b>	Changes the font of the sample text on the card. This field is available when the <b>Show Text</b> option is selected.
<b>Color</b>	Changes the color of the sample text on the card. This field is available when the <b>Show Text</b> option is selected.
<b>Size</b>	Changes the font size of the sample text on the card. This field is available when the <b>Show Text</b> option is selected.

### 3.4.5 Self tests

Provides the ability to run control feature commands resident in the firmware to exercise motors and sensors in the printer. These tests allow you to isolate printer functions and run them to determine operational status.



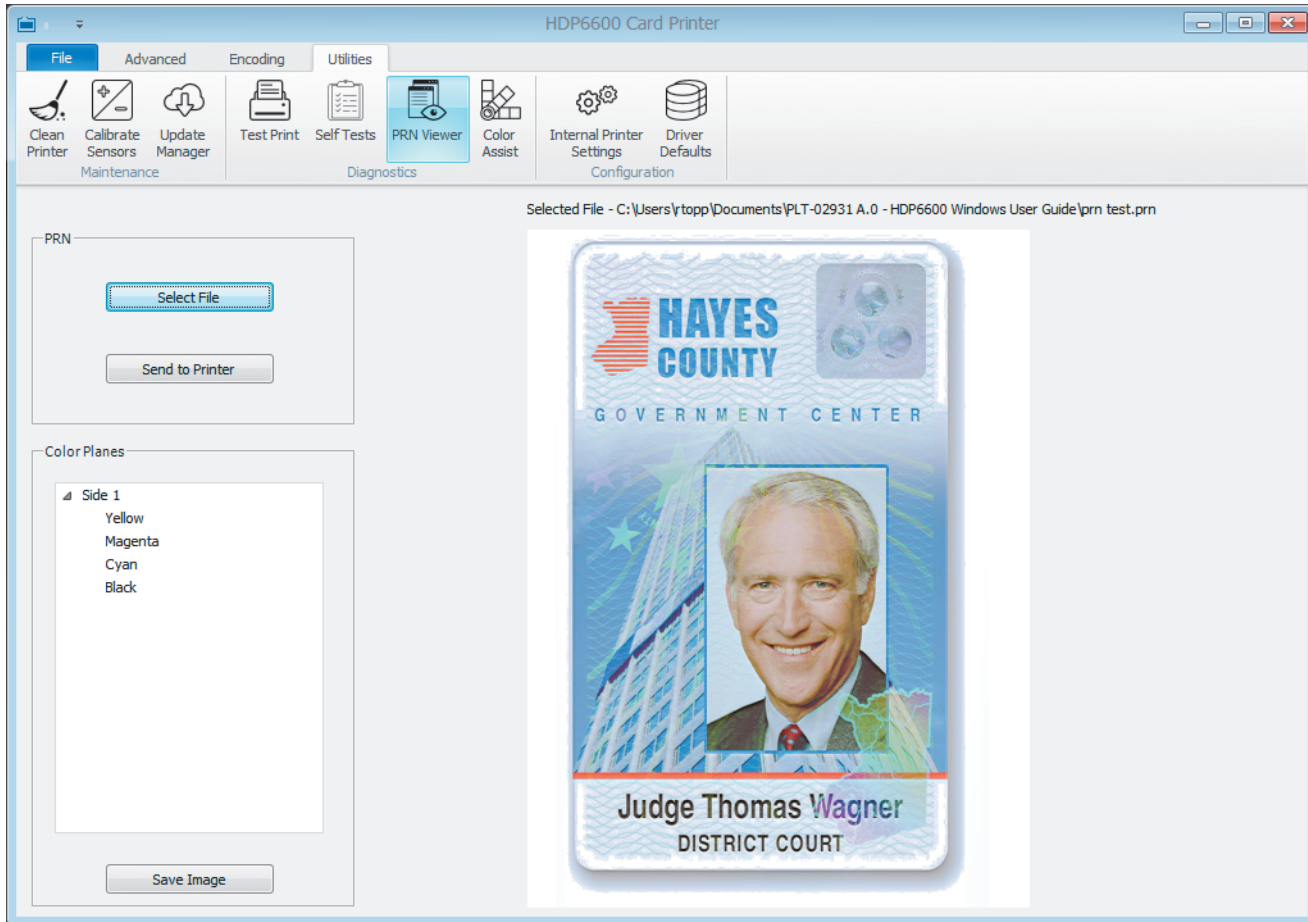
Field	Description
<b>Poll for Sensor Status</b>	When selected, each sensor is checked at the interval specified by the <b>Polling Interval: (sec.)</b> field.
<b>Update Display</b>	When selected, the <b>Printer Display Panel</b> reflects what is shown on the printer display.
<b>Polling Interval: (sec.)</b>	Sets the number of seconds to wait before each check of the printer status. Available values are 1 to 30 seconds.



Field	Description
<b>Sensor/Value</b>	Shows the list of printer sensors and their default values.
<b>Printer Display Panel</b>	Shows the current printer display. This window updates as the printer status changes.
<b>Mechanical Tests</b>	<p>Lists the available mechanical tests.</p> <ul style="list-style-type: none"> <li>■ Raise the Printhead</li> <li>■ Lower the Printhead</li> <li>■ Home the Flipper Table</li> <li>■ Ribbon Sensor Calibration (Remove Ribbon)</li> <li>■ Advance the Stepper Motor (Remove Cards)</li> <li>■ Reverse the Stepper Motor</li> <li>■ Run Ribbon Take-up Motor (Remove Ribbon)</li> <li>■ Run Ribbon Supply Motor (Remove Ribbon)</li> <li>■ Run Printhead Lift Motor</li> <li>■ Calibrate the Film Sensors</li> <li>■ Restart the Printer</li> <li>■ Cycle the Transfer Head Lift Motor</li> <li>■ Run Film Supply Motor (Remove Film)</li> <li>■ Run Film Take-up Motor (Remove Film)</li> <li>■ Advance Laminator Steppers</li> <li>■ Disengage Laminator Head</li> <li>■ Home Laminator Flipper</li> <li>■ Invert Laminator Flipper</li> <li>■ Reverse Laminator Steppers</li> <li>■ Rotate Laminator Landscape</li> <li>■ Rotate Laminator Portrait</li> </ul>
<b>Self Tests</b>	<p>Lists the available tests.</p> <ul style="list-style-type: none"> <li>■ Alignment Self Test</li> <li>■ Device Settings Self Test</li> <li>■ Resin Self Test</li> <li>■ Color Photo 1</li> <li>■ Color Photo 2</li> <li>■ Laminator Self Test</li> </ul>
<b>Run Test</b>	Click this link to run the selected mechanical or self test.

### 3.4.6 PRN viewer

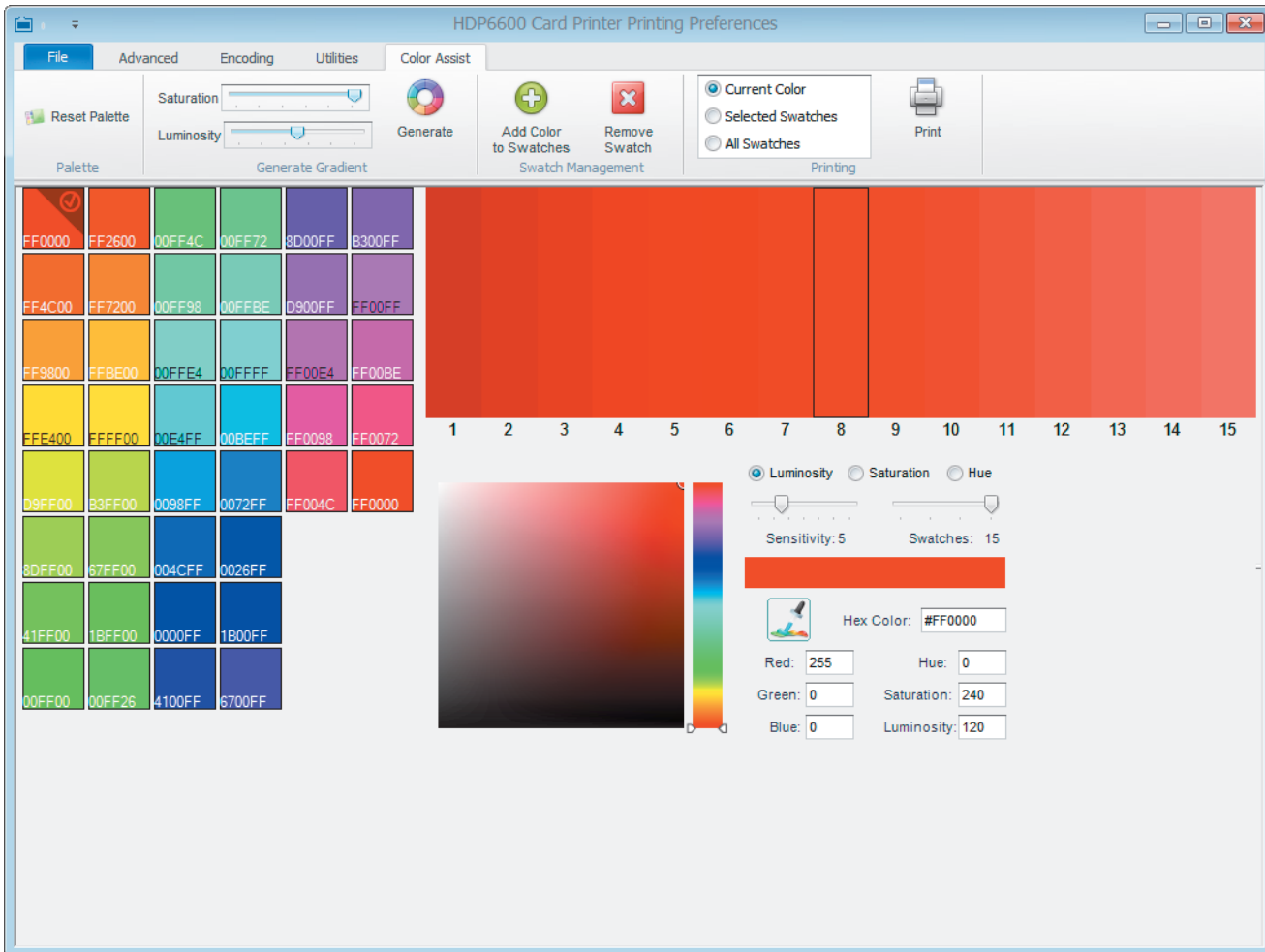
The PRN viewer provides the ability to view a print file (PRN) as an image. You can send print files to the printer to view proper layout, determine if image defects are part of the file going to the printer, and verify the printer driver settings are the same as the PRN file. You can also print copies of these for samples or troubleshooting.



Field	Description
<b>PRN</b>	
<b>Select File</b>	Click this button to browse for any saved printer file on your computer. The path and filename are displayed above the file image.
<b>Send to Printer</b>	Click this button to send the file to the printer.
<b>Color Planes</b>	
<b>Side 1/Side 2</b>	Open the menu to view each color plane for this card to determine if there are any image defects.
<b>Save Image</b>	Click this button to save any of the color planes as .bmp files.

### 3.4.7 Color assist

Opens the **Color Assist** tab to define the RGB values to accurately depict the colors to print on your cards.



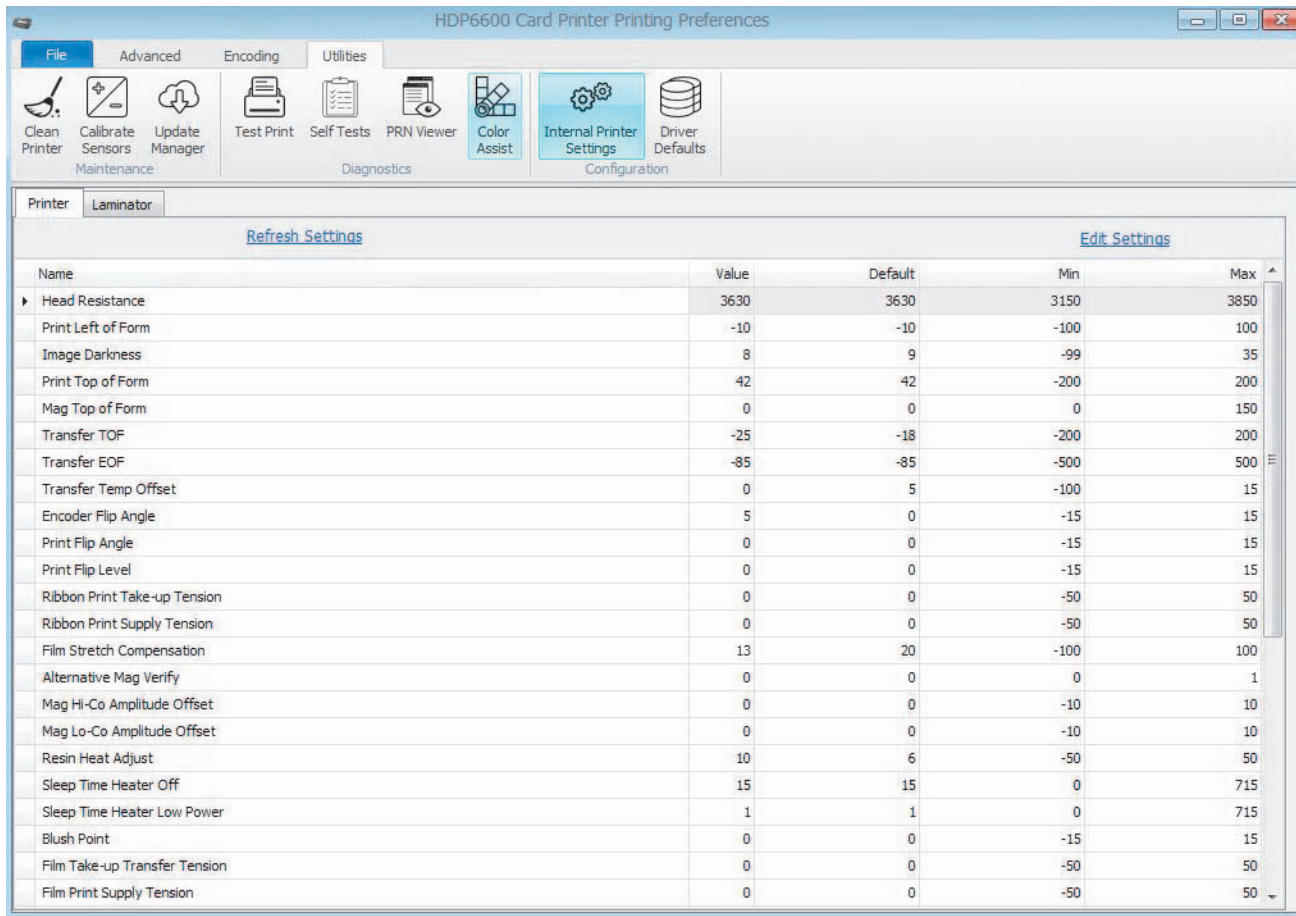
Field	Description
<b>Palette</b>	
<b>Reset Palette</b>	Resets your palette for new or future work.
<b>Generate Gradient</b>	
<b>Saturation</b>	Adjusts the intensity of the color. As the saturation increases, the colors appear more pure. As the saturation decreases, the colors appear more washed out gray.
<b>Luminosity</b>	Adjusts the brightness with a scale of white to black.
<b>Generate</b>	Click this icon to create the color gradient of the swatches based on the <b>Saturation</b> and <b>Luminosity</b> selected.
<b>Swatch Management</b>	
<b>Add Color to Swatches</b>	Click this icon to add the selected color to the visual list of color swatches.
<b>Remove Swatch</b>	Click this icon to remove the selected color from the visual list of color swatches.

Field	Description
<b>Printing</b>	
<b>Current Color</b> <b>Selected Swatches</b> <b>All Swatches</b>	Select one of these options to print: <b>Current Color:</b> Prints the currently selected color swatch. <b>Selected Swatches:</b> Allows you to select multiple swatches from the visual list. <b>All Swatches:</b> Selects all the swatches in the visual list.
<b>Print</b>	Prints the color swatches according to the selected option.

### 3.4.8 Internal printer settings

Use this option for adjusting the internal printer settings. These settings have been customized for the printer at the factory. These printer settings are HID advanced settings based on Electrically Erasable Programmable Read-Only Memory (EEPROM).

**Note:** Any changes affect the settings for the firmware.

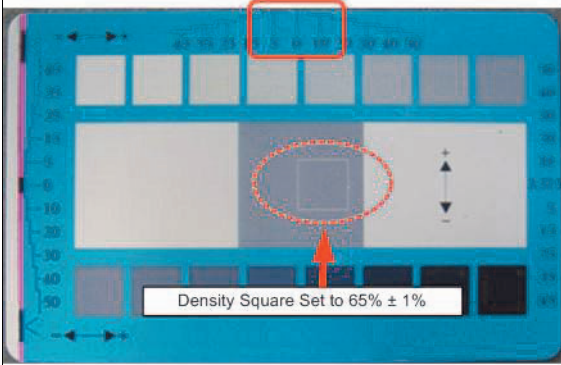
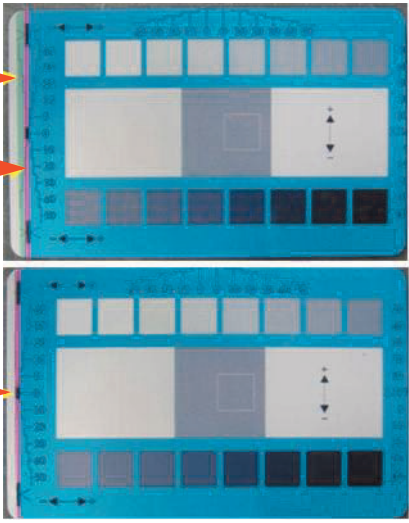


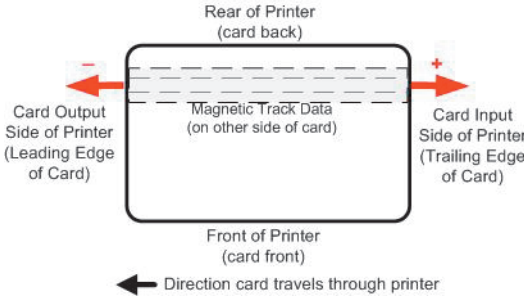
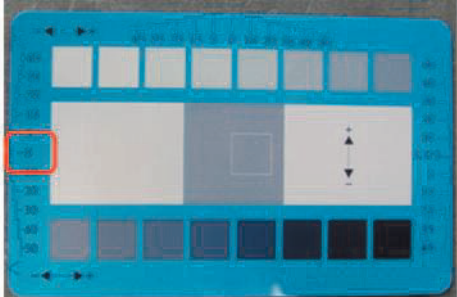
Name	Value	Default	Min	Max
Head Resistance	3630	3630	3150	3850
Print Left of Form	-10	-10	-100	100
Image Darkness	8	9	-99	35
Print Top of Form	42	42	-200	200
Mag Top of Form	0	0	0	150
Transfer TOF	-25	-18	-200	200
Transfer EOF	-85	-85	-500	500
Transfer Temp Offset	0	5	-100	15
Encoder Flip Angle	5	0	-15	15
Print Flip Angle	0	0	-15	15
Print Flip Level	0	0	-15	15
Ribbon Print Take-up Tension	0	0	-50	50
Ribbon Print Supply Tension	0	0	-50	50
Film Stretch Compensation	13	20	-100	100
Alternative Mag Verify	0	0	0	1
Mag Hi-Co Amplitude Offset	0	0	-10	10
Mag Lo-Co Amplitude Offset	0	0	-10	10
Resin Heat Adjust	10	6	-50	50
Sleep Time Heater Off	15	15	0	715
Sleep Time Heater Low Power	1	1	0	715
Blush Point	0	0	-15	15
Film Take-up Transfer Tension	0	0	-50	50
Film Print Supply Tension	0	0	-50	50

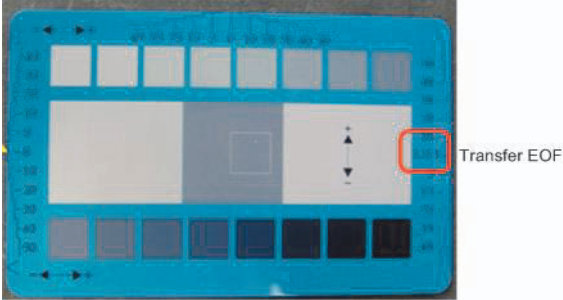

Field	Description
<b>Name</b>	Displays the label for each setting.
<b>Value</b>	Displays the current value for the setting.
<b>Default</b>	Displays the factory default value for the setting.
<b>Min</b>	Displays the minimum value available for the setting.
<b>Max</b>	Displays the maximum value available for the setting.
<b>Refresh Settings</b>	Click this link to refresh the values.
<b>Edit Settings</b> <b>Save Settings</b>	This link toggles between editing and saving. Click this link to edit the settings in the Value column. When all updates have been made, click the link again to save your updates.

To change a setting, click the **Edit Settings** link. In the value column, change the numeric value in the row. When all updates are correct, click the **Save Settings** link.

### 3.4.8.1 Printer settings

Setting	Description
<b>Head Resistance</b>	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.
<b>Print Left Of Form</b>	Prints the alignment self-test card. Adjust the <b>Print Left of Form</b> up or down until the border of the left of form zero line is showing on the edge of the card. Measure the density square. Adjust the image density to 65% $\pm$ 1%. <div style="text-align: center;">  </div>
<b>Image Darkness</b>	Use this option to set the overall darkness of the printed image by increasing or decreasing the amount of heat the printhead uses while printing. Use the up and down arrows to increase or decrease the amount of heat. <b>Important: If the value is set too high, the ribbon may jam or break.</b>
<b>Print Top of Form</b>	Print the alignment self-test card. Adjust the <b>Print Top of Form</b> until the green border is eliminated and the entire transfer alignment block is as shown in the bottom graphic <b>Note:</b> Due to variation in roller alignment, the green border may appear at a slight angle on the top of the card. <div style="margin-top: 20px;">  </div>

Setting	Description
<p><b>Mag Top of Form</b></p>	<p>This option is only for the built-in magnetic stripe encoder.</p> <p>Use this option to shift the starting point of where the printer begins encoding the magnetic track data on a magnetic stripe of the card.</p> <p>When adjusting this value, keep in mind that a card and its magnetic stripe always remains in the same relative position as the card travels through the printer.</p> <p><b>Magnetic Data Direction</b></p> <p>The arrows on these buttons indicate the direction the magnetic data moves on the magnetic stripe on the card.</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> <p><b>Maximum Adjustment Range</b></p> <p>The maximum adjustment range is 0-120. As a rule, 20 equals .030" (0.8 mm).</p> <p><b>Note:</b> If the negative value is set too high, the printer may start encoding before the magnetic stripe on the card reaches the encoding head.</p> 
<p><b>Transfer TOF</b></p>	<p>Print the alignment self-test card.</p> <p>Adjust the <b>Transfer TOF</b> until the TOF zero line is located on the edge of the card.</p> <p>If the Transfer TOF is made too negative, the transfer roller can engage in front of the card causing a transfer jam.</p> 

Setting	Description
<b>Transfer EOF</b>	<p>Print the alignment self-test card.</p> <p>Setting the <b>Transfer EOF</b> to a positive number causes the image length to grow. Setting the <b>Transfer EOF</b> to a negative number causes the image length to shorten.</p>  <p>The image shows an alignment self-test card with various grayscale and color patches. A red box highlights a specific area on the right side of the card, labeled 'Transfer EOF'.</p>
<b>Transfer Temp Offset</b>	<p>Both the printer and the printer software driver control the built-in transfer roller. To change the temperature of the transfer roller, adjust the temperature through the <b>Image Transfer</b> selection within the <b>Advanced</b> tab of the printer preferences. Once adjusted, the new temperature setting is sent down with the next print job along with the rest of the printer driver information.</p> <p>Before printing begins, the transfer roller automatically adjusts to the new temperature setting. This new temperature setting remains programmed within the printer until it is once again changed within the printer driver or until the printer is turned off.</p> <p>Whenever the printer is turned <b>OFF</b>, the transfer roller automatically resets and returns to the default temperature the next time the printer is turned <b>ON</b>. Disconnect the printer power supply.</p> <p><b>Technician Note:</b> Cycling the printer power supply serves to reset the transfer roller to its default temperature. The temperature setting within the printer driver, however stays the same until it is changed.</p>
	<p><b>DANGER:</b> The printer transfer roller can reach temperatures exceeding 350°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.</p> <p><b>DANGER:</b> Le rouleau de transfert de l'imprimante peut atteindre des températures supérieures à 350°F (175°C). Soyez extrêmement prudent lorsque vous utilisez le rouleau de transfert. Ne touchez jamais le rouleau de transfert à moins que l'alimentation de l'imprimante a été éteint pendant au moins 20 minutes.</p>
<b>Encoder Flip Angle</b>	<p>Use this setting to fine tune the position of the flipper.</p> <p><b>Note:</b> Only used if encoder is present.</p>
<b>Print Flip Angle</b>	<p>Use this setting to fine tune the home position of the flipper if cards have difficulty moving from the printer into the flipper.</p>
<b>Print Flip Level</b>	<p>Use this option to set the position of the flipper so it is level with the card path after a flip operation.</p>
<b>Ribbon Print Take-up Tension</b>	<p>This controls the tension of the color ribbon during printing. Adjust the ribbon tension if ribbon wrinkle is appearing on the card.</p> <p><b>Note:</b> Adjustments moderately change the image length.</p>
<b>Ribbon Print Supply Tension</b>	<p>This controls the supply side tension of the color ribbon during printing. Adjust the ribbon tension if ribbon wrinkle is appearing on the card.</p>



Setting	Description
<b>Film Stretch Compensation</b>	When printing, the position of the image on the film can vary depending on whether the previous film panel is used or not. Adjust this setting if the first card after an error is shifted from the rest.
<b>Alternative Mag Verify</b>	If set to 1, enables a quicker mag verification step of just looking for any data encoded on the card. If set to 0 verifies all data written to the card.
<b>Mag Hico DAC Adj</b>	Fine tunes the mag drive current for high-coercivity/super coercivity cards. Adjust if mag verify errors start occurring with new card stock.
<b>Mag Loco DAC Adj</b>	Fine tunes the mag drive current for low-coercivity/medium-coercivity cards. Adjust if mag verify errors start occurring with new card stock.
<b>Resin Heat Adjust</b>	Print the resin self-test card. Use this adjustment for black resin text and barcodes that appear faded or too light or dark.
<b>Sleep Time Heater Off</b>	This setting adjusts how many minutes after the printer goes idle or enters a low power state that the printer goes into a heater off power state.
<b>Sleep Time Heater Low Power</b>	This setting adjusts how many minutes after the printer goes idle, the printer goes into a low power state.
<b>Blush Point</b>	The blush point is compensation during printing: <ul style="list-style-type: none"> <li>■ There is no dye transfer.</li> <li>■ There is no light gray line on a portion of the card.</li> <li>■ It should be white.</li> </ul>
<b>Film Takeup Transfer Tension</b>	<ul style="list-style-type: none"> <li>■ Negative adjustments can cause card jams.</li> <li>■ Positive adjustments can help stop jamming.</li> </ul> <b>Note:</b> Adjustments affect flash and smudge.
<b>Film Print Supply Tension</b>	<b>Important: The film drive sets the baseline for the film tension and should not be adjusted by the reseller or the end user.</b> <b>Note:</b> Adjustments moderately change the image length.
<b>Cleaning Rate</b>	This adjustment changes the cleaning rate from 2000 to the new setting.
<b>Transfer Heat Dissipation Level</b>	This setting adjusts when the transfer fan turns on. <ul style="list-style-type: none"> <li>■ 0, 1, and 2 - Transfer fan is on only during transfer.</li> <li>■ 3 - Transfer fan turns on when transfer roller comes up to temp.</li> <li>■ 4 - Transfer fan always on when not in sleep mode.</li> </ul>
<b>EAT Disable</b>	Environmentally Adaptive Transfer (EAT) automatically adjusts the transfer temperature based on the ambient air conditions within the printer. This is an <b>ON</b> (1) or <b>OFF</b> (0) switch. <b>Note:</b> Settings can increase or decrease the transfer roller temperature by as much as 68°F (20°C) in extreme conditions.
<b>Beep Disable</b>	This setting disables the beep the printer generates after an EE setting is updated.
<b>eSTANDBY_TEMP</b>	This option changes the temperature used when the printer is in standby mode.
<b>Flipper Offset Mag</b>	This setting fine tunes the position of the flipper relative to the mag encoder. Only use if a mag encoder is installed.
<b>Image Length</b>	Fine tunes the length of the image on the card. Increase this value if the image length is too short. Decrease this value if the image length is too long.
<b>Internal Encoder offset in mm</b>	Fine tunes the position of the card when docking into Bay 0.

Setting	Description
<b>Flattener TOF offset</b>	Adjusts the position of the card when the flattener roller engages.
<b>Job Canceling Timeout Period</b>	Slower PCs can have difficulty canceling all print jobs. Increase this value if all print jobs do not get canceled and instead some restart printing.
<b>Ribbon Queueing Position Offset</b>	Fine tunes the position of the ribbon prior to printing. Adjust if printing starts in the previous panel or goes off into the next panel.
<b>Mag Verify</b>	If set to 1, enables verification of encoded mag data.

### 3.4.8.2 Laminator settings

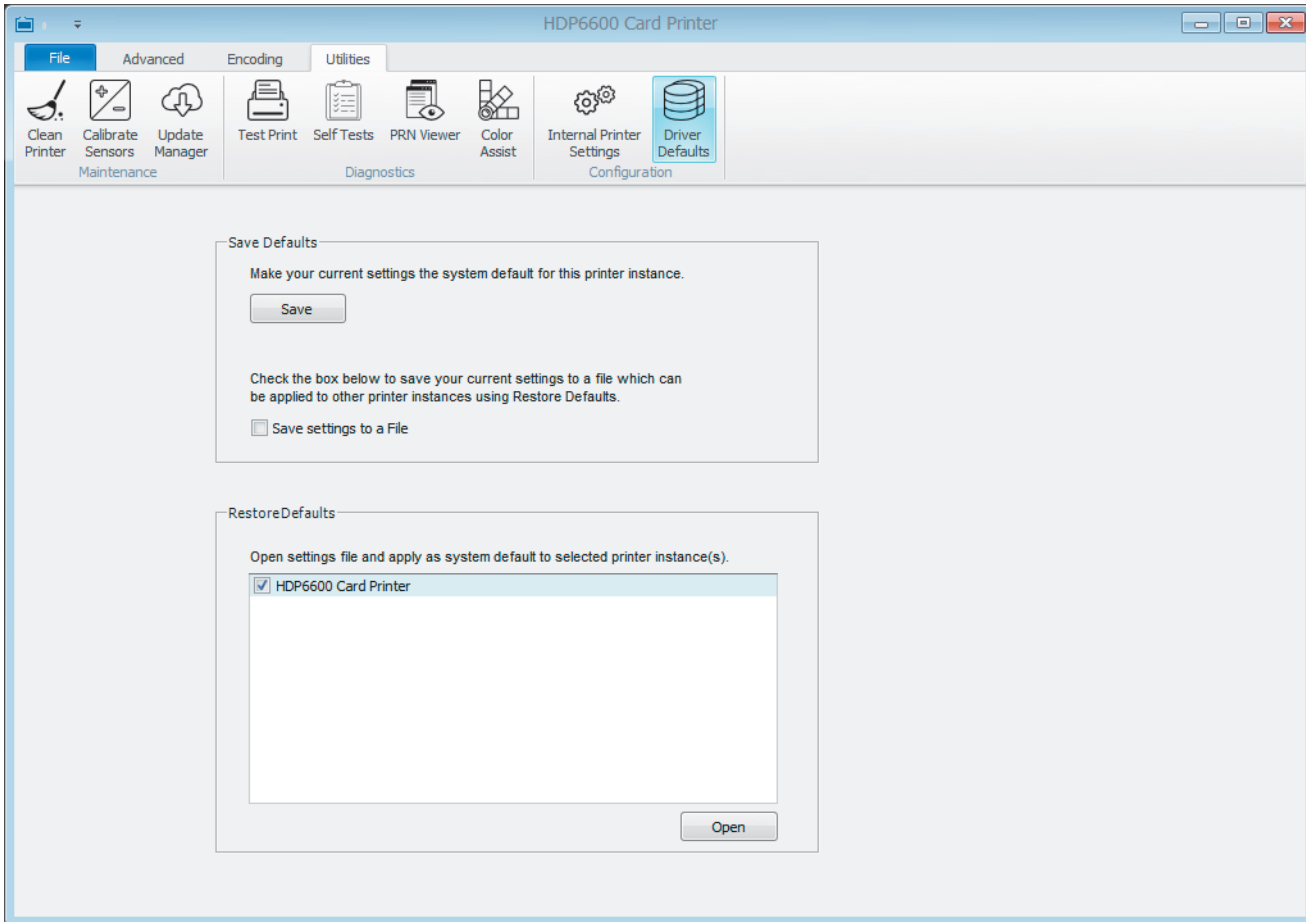
Name	Value	Default	Min	Max
▶ Lam Rotator Card Position Offset	10	10	-50	50
Lam Rotator Portrait Offset	4	4	-10	10
Lam Rotator Landscape Offset	0	0	-10	10
Lam Flipper Home Offset	-3	-3	-10	10
Lam Flipper Inverted Offset	-2	-2	-10	10
Lam Flipper Card Position Offset	0	-2	-50	50
Lam Right Full Card Top Of Form	25	25	-100	100
Lam Right Laminate Top Of Form	0	0	-100	100
Lam Right Full Card End Of Form	0	0	-50	50
Lam Right Half Card End Of Form	0	0	-100	100
Lam Left Full Card Top Of Form	40	40	-100	100
Lam Left Laminate Top Of Form	15	15	-100	100
Lam Left Full Card End Of Form	0	0	-50	50
Lam Left Half Card End Of Form	0	0	-100	100
Lam Standby Temperature	120	120	0	170
Lam Sleep Time	10	10	0	240
Lam Whole Patch Speed	80	80	-580	650
Lam IC Cutout Patch Speed	80	80	-580	650
Lam Flatten TOF	0	-1	-100	100
Lam Flatten EOF	0	-1	-100	100

Setting	Description
<b>Lam Rotator Card Position Offset</b>	Position of the card on the rotator. 1 = .0014 inches.
<b>Lam Rotator Portrait Offset</b>	Angle of the rotator in the portrait position. 1 = 1°
<b>Lam Rotator Landscape Offset</b>	Angle of the rotator in the landscape position. 1 = 1°
<b>Lam Flipper Home Offset</b>	Flipper angle at the home position (plastic pinch rollers facing up). 1 = .75°
<b>Lam Flipper Inverted Offset</b>	Flipper angle opposite the home position (rubber driver rollers facing up) 1 = .75°

Setting	Description
<b>Lam Flipper Card Position Offset</b>	Position of the card on the flipper table. 1 = .0076 inches.
<b>Lam Right Full Card Top Of Form</b>	Controls the card's leading edge position relative to the hot roller. 1 = .0014 inches.
<b>Lam Right Laminate Top Of Form</b>	Controls the right side lam patch leading edge position relative to the card. 1 = .0014 inches.
<b>Lam Right Full Card End Of Form</b>	Position of the end a lamination. 1 = .0014 inches.
<b>Lam Right Half Card End Of Form</b>	Position of the end of a half patch lamination. 1 = .0014 inches.
<b>Lam Left Full Card Top Of Form</b>	Card's leading edge position relative to the hot roller. 1 = .0014 inches.
<b>Lam Left Laminate Top Of Form</b>	Controls the right side lam patch leading edge position relative to the card. 1 = .0014 inches.
<b>Lam Left Full Card End Of Form</b>	Position of the end a lamination. 1 = .0014 inches.
<b>Lam Left Half Card End Of Form</b>	Position of the end of a half patch lamination. 1 = .0014 inches.
<b>Lam Standby Temperature</b>	Hold temperature between jobs. 1 = 1° C.
<b>Lam Sleep Time</b>	Time in minutes before going to sleep. 1 = 1 minute.
<b>Lam Whole Patch Speed</b>	Patch speed (tension) during lamination. 1 = 1 step/sec.
<b>Lam IC Cutout Patch Speed</b>	IC Cutout patch (tension) speed during lamination. 1 = 1 step/sec
<b>Lam Flatten TOF</b>	Adjusts the position of the card when the flattener roller engages the card. 1 = .0014 inches.
<b>Lam Flatten EOF</b>	Adjusts the position of the card when the flattener roller disengages from the card. 1 = .0014 inches.
<b>Enable Lam Registration Pass</b>	Enable registration pass for card.

### 3.4.9 Driver defaults

This setting allows you to save the current settings for this printer instance as the default. The settings can be saved to a file and be applied to other printer instances of the same printer model.



Field	Description
<b>Save Defaults</b>	Click <b>Save</b> to make the current settings the system default for this printer instance. If you want to save these settings to a file. <ol style="list-style-type: none"> <li>1. Select the check box and click <b>Save</b>.</li> <li>2. At the prompt to confirm this action, click <b>Yes</b>.</li> <li>3. Select a file location and name the file. Click <b>Save</b>.</li> </ol>
<b>Restore Defaults</b>	Allows you to open a saved system default file and apply it to the selected printer. The printers must be the same model.



# Section 4

## 4 HID Printer Status Monitor

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The HID Printer Status Monitor displays information about your card printer print jobs. During the installation of the printer driver, you were prompted with the recommended option to install the HID Printer Status Monitor.

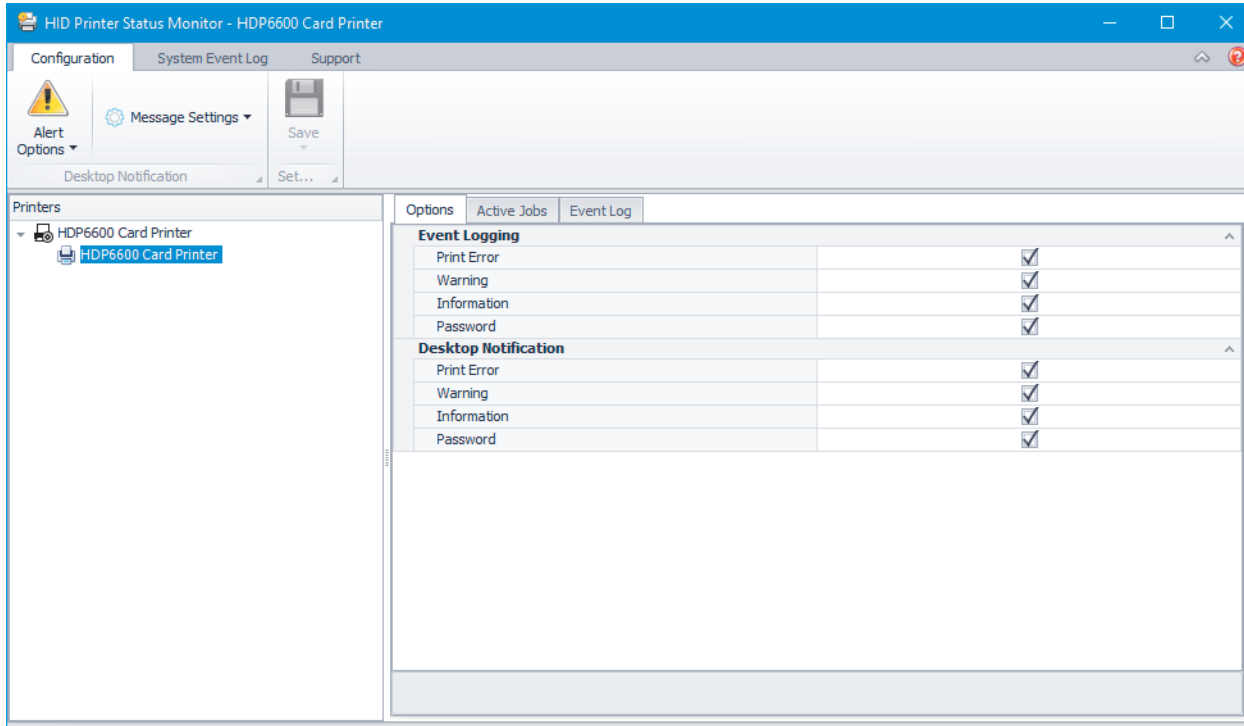
After installation, the Status Monitor is set to launch on start up. It can be accessed through a short cut in your startup folder or an icon in the notification area (which may be hidden). To make the HID Status Monitor icon be more visible on your PC, you can pin it to your taskbar or use the Windows settings to always show the icon on the taskbar.

Features of the Status Monitor include enabling and customizing desktop notifications, saving or opening a system log event, canceling a print job, and submitting a technical support case.

The Status Monitor can monitor all printers that are connected to your PC, either through a network connection (Ethernet) or through a USB cable. The printers are shown in a folder structure also known as a device tree with groups of printers at the top level and printer instances in subgroups. Each node and each instance can be configured and monitored.

## 4.1 Configuration tab

This tab allows you to set up how you are notified of print job statuses per printer instance.

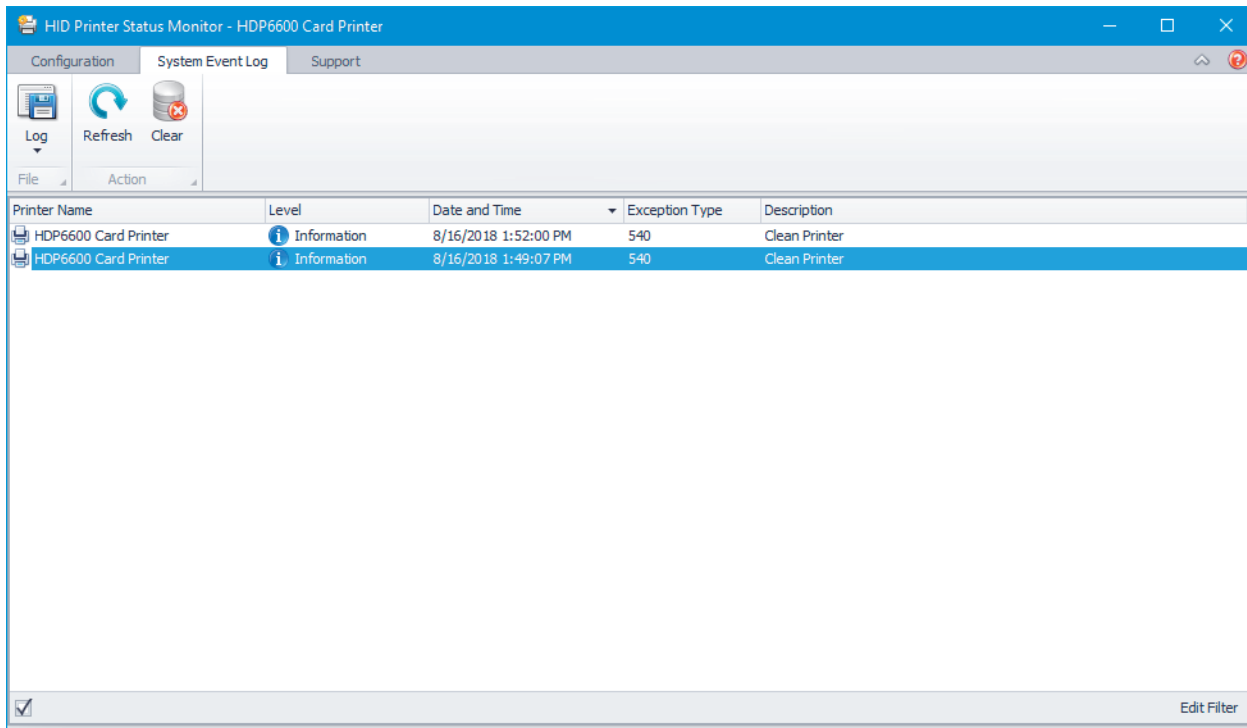


You can select either the printer node or the printer instance in the device tree. If you select the printer node on the left side of the screen, any changes to the selections on the Options tab on the right side of the screen affect all instances of that printer type. If you select the individual printer instance, you can modify the options individually.

Field	Description
<b>Alert Options</b>	Specifies how notification of alerts are displayed. Options are: <b>Desktop Message:</b> Displays a small window on the right left side of the main screen. <b>Icon Alert:</b> Displays an icon in the task bar. When an alert is active, the icon blinks.
<b>Message Settings</b>	Sets the characteristics of the desktop message. Settings are: <b>Duration:</b> Sets the amount of time the error message is displayed on your screen when an error occurs. Available setting is 3-30 seconds. Default is 3 seconds. <b>Transparency:</b> Sets the background color of the message displayed on the screen. Values available are 0-80%. If set to a lower number, the background of the message window is more opaque. Default is 50%. <b>Preview message:</b> Displays the desktop message using the currently selected settings.
<b>Printer</b>	This selection is displayed when the <b>Active Jobs</b> tab is displayed. <b>Cancel All</b> removes all jobs waiting in the print queue area.
<b>Save</b>	Saves the selected options for this printer instance. <b>Save:</b> Saves the settings that are currently set. <b>Save And Exit:</b> Saves the settings and closes the HID Printer Status Monitor.

## 4.2 System event log tab

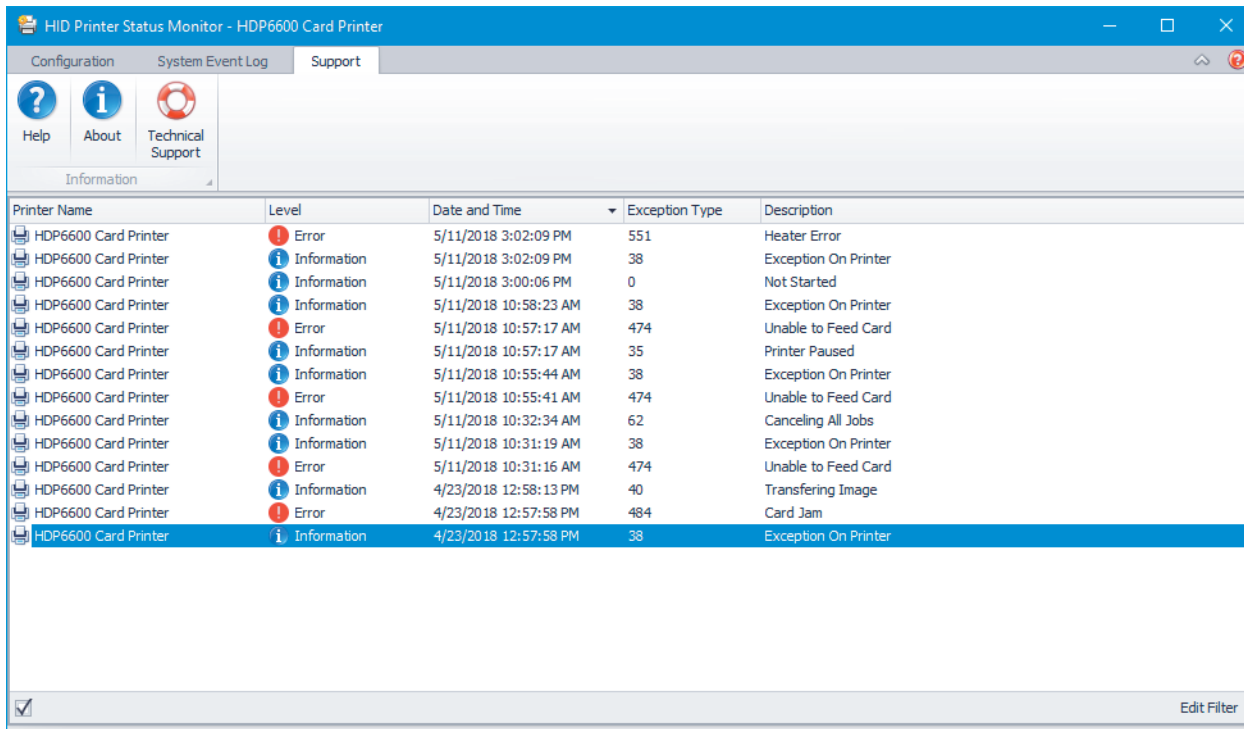
This tab lists all of the printing events (error, warning, information, or password) since the last time the log has been cleared. The event log can be saved as an EVTX file that can be viewed with the Windows Event Viewer. The system event log is a good way to send information to HID Technical Support.



Field	Description
<b>Log</b>	Saves the current log file or opens a saved log file. Options are: <b>Save As:</b> Opens a new window to choose the location to save the event log. <b>Open Saved Log:</b> Open a new windows to browse to the location of the saved event log.
<b>Refresh</b>	Updates the system event log and redisplayes the current log information.
<b>Clear</b>	Removes all entries in the system event log. To clear the log, you may be prompted to re-launch the Status Monitor with administrator privileges.

### 4.3 Support tab

This tab shows the options for obtaining help with the Status Monitor application.



Field	Description
<b>Help</b>	Opens a link to the online help file.
<b>About</b>	Opens a window that displays the print driver version and copyright information for the HID Status Monitor.
<b>Technical Support</b>	Opens a link to HID Technical Support to submit a technical support case.



# Section 5

## 5 Ethernet option

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### 5.1 Introduction

The Ethernet option for the FARGO® HDP®6600 High Definition Card Printer/Encoder includes the Ethernet port and the internal printer server.

**Printer Management:** The printer driver provides bi-directional status information so you can monitor and manage the printer just as you would any other networked printer.

**Compatibility:** The Ethernet option provides compatibility with TCP/IP and 802.3 Ethernet protocols with an IEEE 802.3 10/100 Base-T Ethernet female RJ45 connector.

**Application:** The Ethernet Option applies to the card printer/encoder. With the Ethernet option properly installed and configured, these printers are able to print in the same manner as a printer directly connected to the PC using a USB interface.

**Note:** Any reference to a specific printer name is for demo purposes only. Your printer name varies according to what you are using.

### 5.2 Technical specification

The system requirements for Ethernet are as follows:



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

Function	Requirement
<b>Network</b>	An IEEE 802.3 10/100 Base-T Ethernet network is required.
<b>Printer</b>	A printer with the Ethernet option installed is required.
<b>Printer configuration</b>	Since TCP/IP is used for the network communication, the printer must be configured with an IP address and a subnet mask (before it can be seen on the network). An additional network setting for the default gateway can also be configured, which allows communication across the subnets. Dynamic Host Configuration Protocol (DHCP) is also supported for auto configuration.

Function	Requirement
<b>Host computer</b>	<ul style="list-style-type: none"> <li>■ Windows 7 (32- and 64-bit)</li> <li>■ Windows 8 / 8.1 (32- and 64-bit)</li> <li>■ Windows 10 (32- and 64-bit)</li> <li>■ Windows Server 2008 R1 (32- and 64-bit)</li> <li>■ Windows Server 2008 R2 (64-bit only)</li> <li>■ Windows Server 2012</li> <li>■ Windows Server 2012 R2</li> <li>■ Windows Server 2016</li> </ul>
<b>Host printer driver</b>	The host PC must have installed the correct printer driver with Ethernet support. <b>Note:</b> This driver must be configured for printing to the IP address of the printer.

### 5.3 Functional specification

The Ethernet option includes the following features.

Feature	Description
<b>Simultaneous printing</b>	Print simultaneously from multiple PCs to the network printer.
<b>Printer feedback</b>	Status information from the network printer to the PC.
<b>Web pages</b>	Easy printer configuration with any web browser.
<b>Password security</b>	Provides password security for admin user only.
<b>SNMP</b>	Provides an SNMP (Simple Network Management Protocol) agent that supports MIB-II (Management Information Base, second version).
<b>Upgrades</b>	Support for firmware upgrades over the network.
<b>Troubleshooting</b>	Provides a Ping client for network troubleshooting.
<b>SSDP</b>	Simple Service Discovery Protocol (SSDP) is used to find the printers with an Ethernet connection on a local network.

## 5.4 Network services

The Ethernet option provides the following services:

- Print server
- Web server

**Note:** Other services include a Ping client, address assignment, and printer discovery.

### 5.4.1 Print server

The print server provides printing services via the local area network (LAN) to the client PC (in the same way as a printer connected directly to a USB interface). The print server must be properly configured to provide this printing capability.

- The print server can queue up to eight client PCs while printing. Communications between each PC and the printer are implemented over a bi-directional TCP/IP interface.
- All clients are able to send print jobs to the printer and monitor printer jobs and errors with the standard Windows printing system using the printer driver installed on their local PC.

Therefore you know whether or not a print job has been successful, as well any problems that have been encountered while processing the print job.

### 5.4.2 Web server

An HTTP service serves web pages that are the interface through which to configure the printer.

The printer operates as a Simple Network Management Protocol (SNMP) agent to allow a network administrator to support the network interface of the printer.

**Note:** A standard host MIB-II is implemented to maximize the utility of the printer on the network.

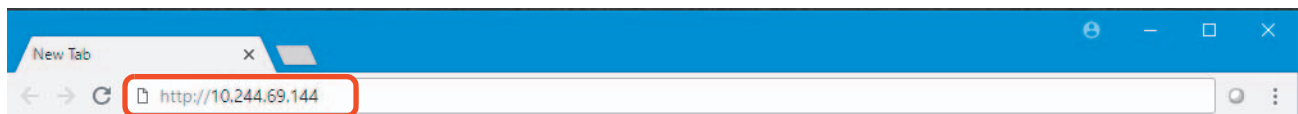
## 5.5 Ethernet web pages

Use the Ethernet web pages from your Ethernet-connected printer to view attributes about the printer. To alter settings of the printer, you must have administrative rights confirmed by entering a valid user name and password.

### 5.5.1 Accessing the home page

1. Open a window for your network browser application on your local PC.
2. Find the IP address of the printer. See *Section 5.6.1 Accessing the IP address of the printer* on how to retrieve this information from the printer display.
3. Enter “http://” and the IP address of the printer you want to access into the address bar of the browser.

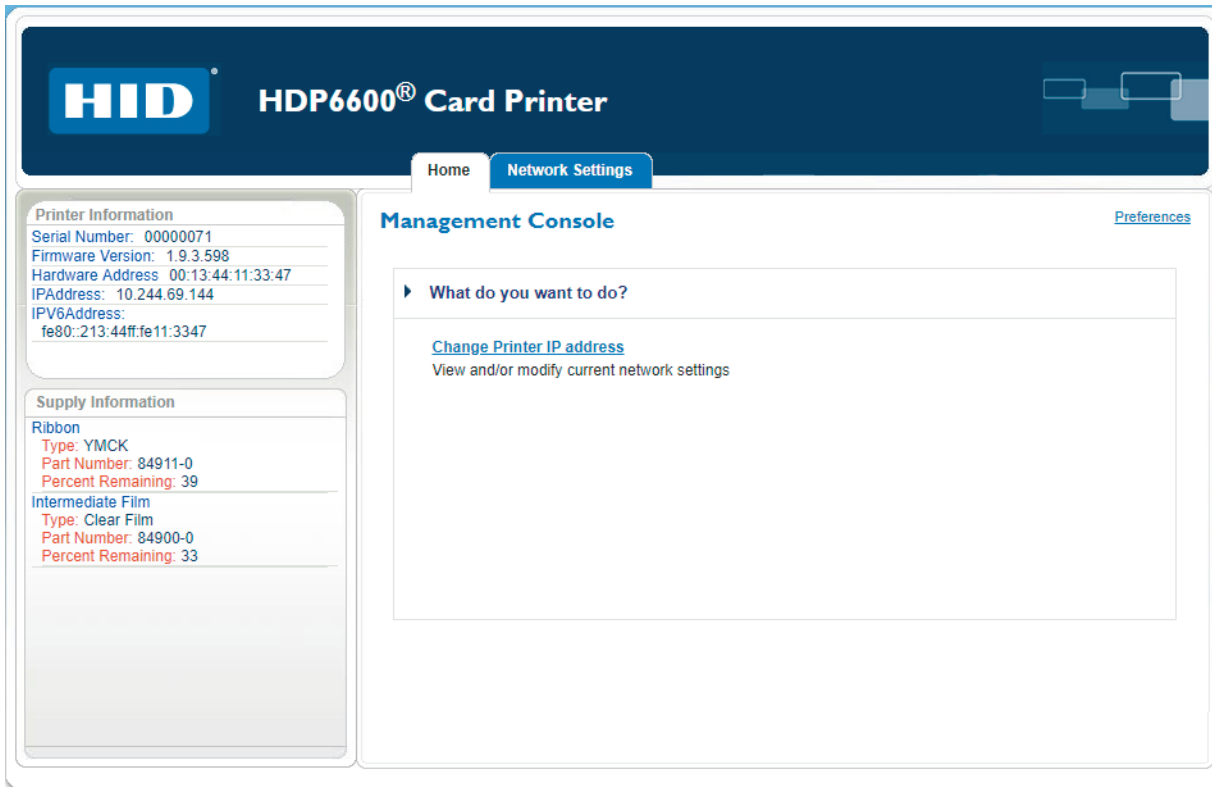
**Note:** The IP address changes for your printer installation.



4. Press **Enter**.  
The Home page is displayed.

### 5.5.2 Home page

The Home page displays general information about the printer.



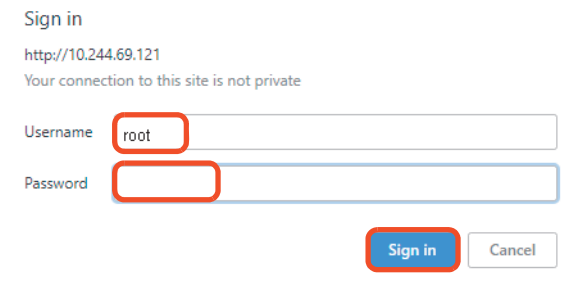
Field	Description
<b>Printer Information</b>	
<b>Serial Number</b>	Displays the unique fixed serial number of the printer.
<b>Firmware Version</b>	Displays the current firmware version.
<b>Hardware Address</b>	Displays the unique fixed hardware address (MAC) of the printer, which is the unique Ethernet device identifier.
<b>IPAddress</b>	Internet protocol address.
<b>IPv6Address</b>	Internet protocol address.
<b>Supply Information</b>	
<b>Ribbon</b>	Print ribbon. Information includes: <b>Type</b> , <b>Part Number</b> , and <b>Percent Remaining</b> .
<b>Intermediate Film</b>	HDP film. Information includes: <b>Type</b> , <b>Part Number</b> , and <b>Percent Remaining</b> .
<b>Change Printer IP Address</b>	Accesses the Network Settings to view or modify the current network settings. See <i>Section 5.5.4 Configuring the network settings</i> .
<b>Preferences</b>	Accesses the Preferences settings. See <i>Section 5.5.5 Preferences</i> .

### 5.5.3 Changes to the settings

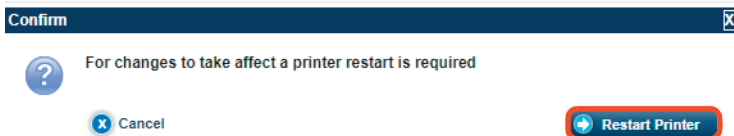
When you change any setting, you may need to confirm your administrative rights by entering the user name and password. You may also need to restart the printer to continue.

**Note:** The windows displayed for the user name and password varies by the browser you are using. The information to input into the fields is the same. This example shows Google Chrome.

1. Enter the correct user name. The default user name is “root”.
2. Enter the password: The default password is blank.  
To change the password, see *Section 5.5.5.1 Change password*.
3. Click **Sign In**.



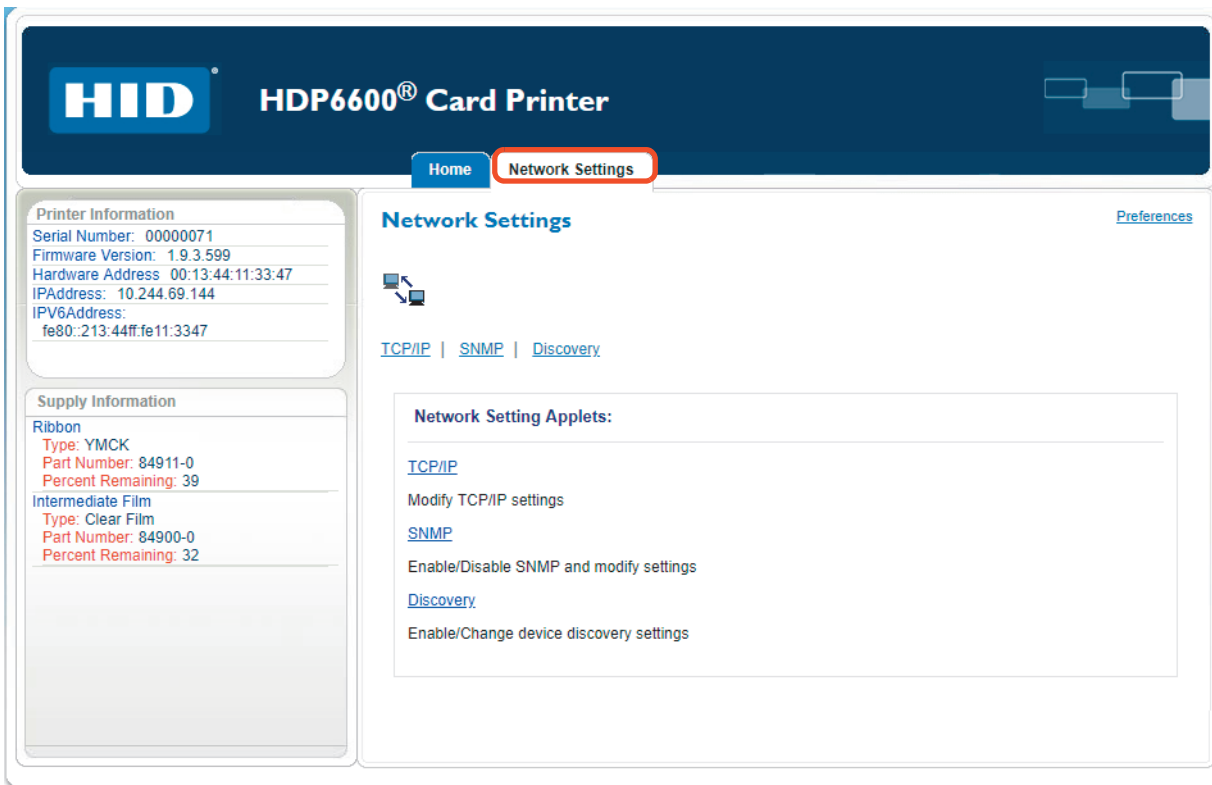
4. If the user name and password is not accepted, another login prompt is displayed on the screen. Repeat this procedure with the correct user name and password.
5. The **Confirm** window is displayed. Click **Restart Printer**.



A notification is displayed as the printer is restarted.

### 5.5.4 Configuring the network settings

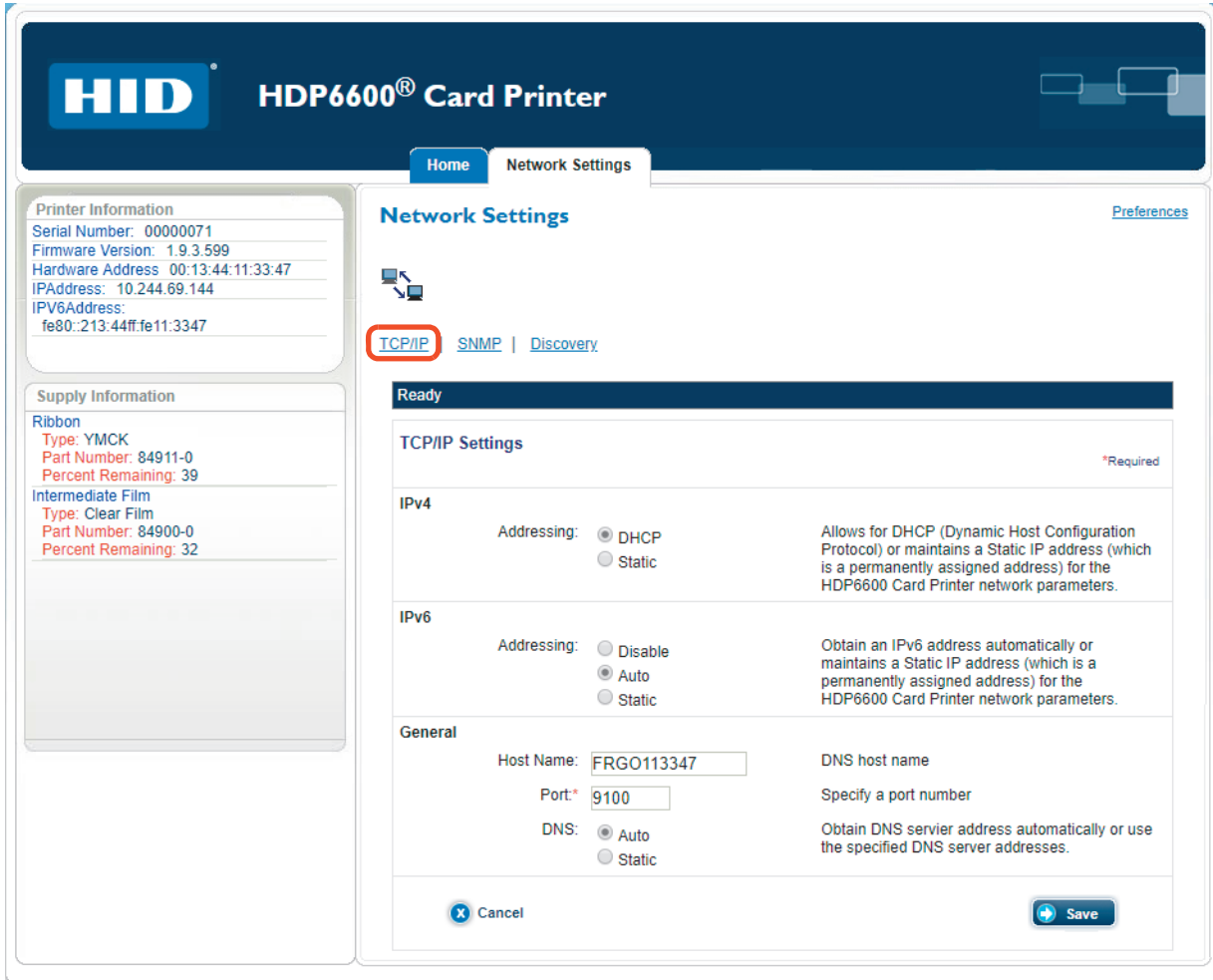
Select the **Network Settings** tab. The Network Settings page displays the current network settings.



Field	Description
<b>TCP/IP</b>	Modify the network communications using the transmission control and internet protocol (TCP/IP) settings.
<b>SNMP</b>	Enables or disables the simple network management protocol (SNMP) and modify settings
<b>Discovery</b>	Enable or change device discovery settings.

### 5.5.4.1 TCP/IP settings

1. Select the **TCP/IP** link to display the current TCP/IP network settings.



The screenshot shows the HID HDP6600 Card Printer web interface. The 'Network Settings' tab is active, and the 'TCP/IP' sub-tab is selected. The 'Ready' status is shown at the top. The 'TCP/IP Settings' section is marked as '\*Required' and contains the following fields:

- IPv4:** Addressing:  DHCP (selected),  Static. Description: Allows for DHCP (Dynamic Host Configuration Protocol) or maintains a Static IP address (which is a permanently assigned address) for the HDP6600 Card Printer network parameters.
- IPv6:** Addressing:  Disable,  Auto (selected),  Static. Description: Obtain an IPv6 address automatically or maintains a Static IP address (which is a permanently assigned address) for the HDP6600 Card Printer network parameters.
- General:**
  - Host Name: . Description: DNS host name.
  - Port: . Description: Specify a port number.
  - DNS:  Auto (selected),  Static. Description: Obtain DNS server address automatically or use the specified DNS server addresses.

Buttons for 'Cancel' and 'Save' are located at the bottom of the settings panel.

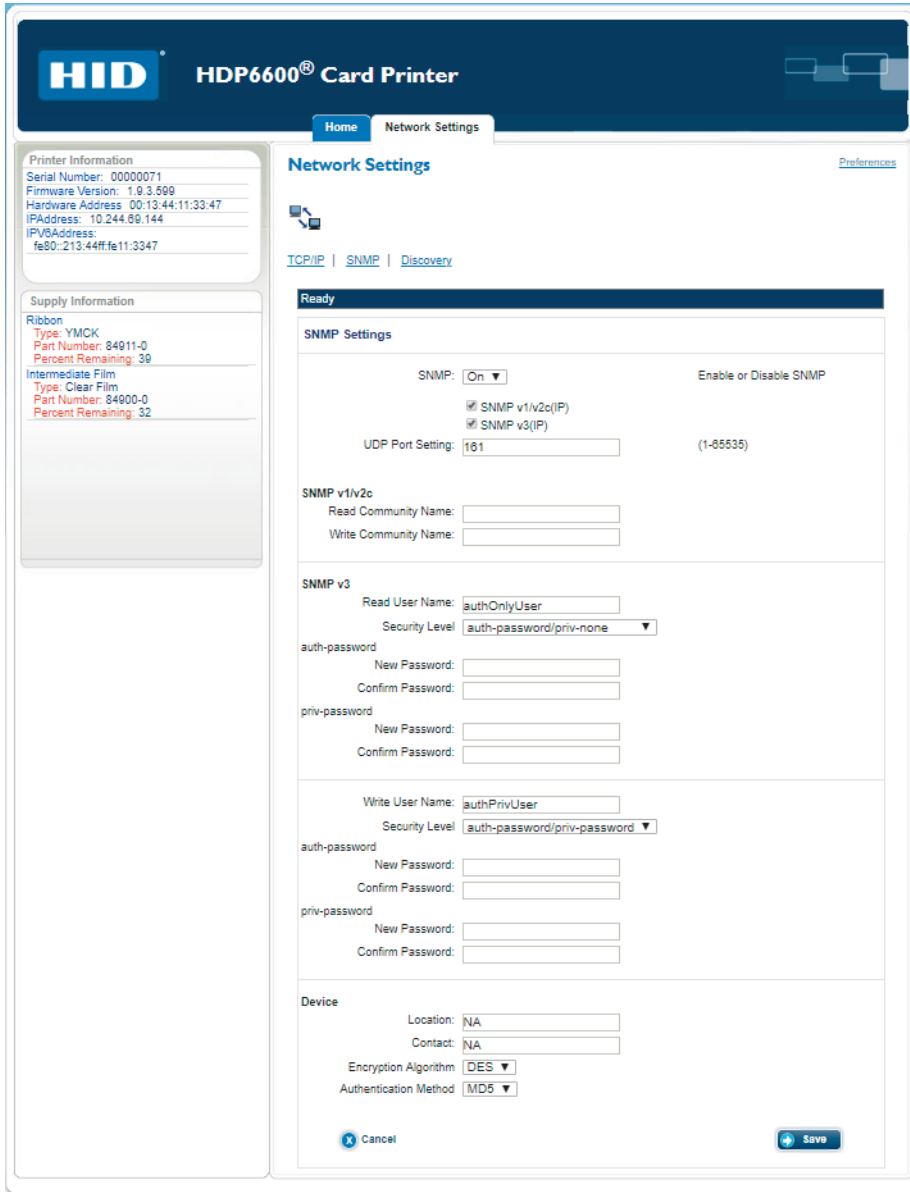
Field	Description
<b>IPv4</b>	Sets either a dynamic host configuration protocol or maintains a permanently assigned IP address for the HDP6600 card printer network parameters. Available options are: <b>DHCP</b> or <b>Static</b> .
<b>IPv6</b>	Sets the IPv6 address automatically, maintains a permanently assigned IP address, or disables the IP address for the HDP6600 card printer network parameters. Available options are: <b>Disable</b> , <b>Auto</b> , and <b>Static</b> .
<b>General</b>	Sets the domain name system (DNS) name, port number, and an automatic or permanently assigned DNS server address. Available fields are <b>Host Name</b> , <b>Port</b> (required), and <b>DNS</b> options: <b>Auto</b> or <b>Static</b> .

2. Make any necessary changes and click **Save**.

**Note:** You may need to confirm your administrative rights by entering a valid user name and password. You may also need to restart the printer to save any changes. See *Section 5.5.3 Changes to the settings*.

### 5.5.4.2 SNMP settings

1. Select the **SNMP** link to display the current SNMP network settings.





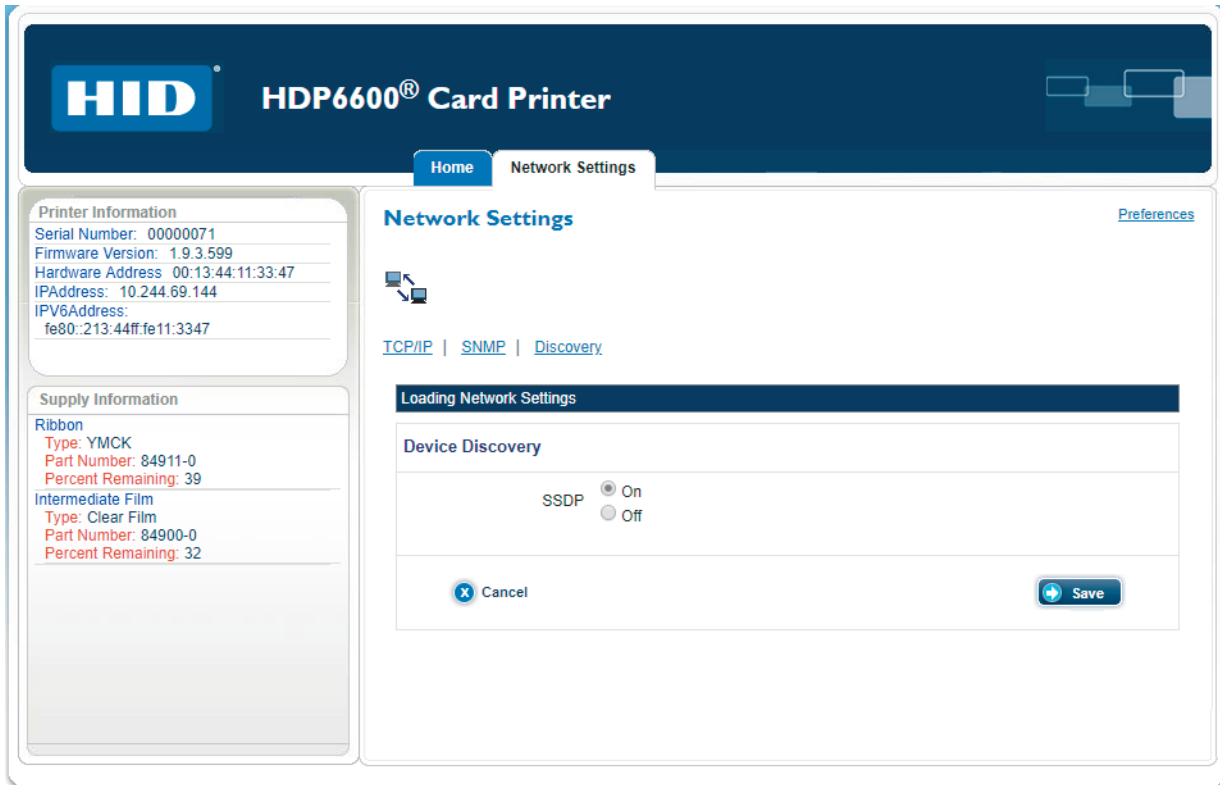
Field	Description
<b>SNMP Settings</b>	Enable or disable simple network management protocol (SNMP). Select the version you wish to use. Available options are <b>SNMP v1/v2c</b> and <b>SNMP v3</b> . Also specify the <b>UDP Port Setting</b> .
<b>SNMP v1/v2c</b>	Enter the <b>Read Community Name</b> and the <b>Write Community Name</b> for the SNMP v1/v2c setting.
<b>SNMP v3</b>	Enter the <b>Read User Name/Write User Name</b> , <b>Security Level</b> , <b>auth-password</b> , and <b>priv-password</b> for the SNMP v3 settings.
<b>Device</b>	Enter the <b>Location</b> , <b>Contact</b> , <b>Encryption Algorithm</b> , and the <b>Authentication Method</b> for this device.

2. Make any necessary changes and click **Save**.

**Note:** You may need to confirm your administrative rights by entering a valid user name and password. You may also need to restart the printer to save any changes. See *Section 5.5.3 Changes to the settings*.

### 5.5.4.3 Discovery settings

1. Select the **Discovery** link to display the current device discovery network settings.



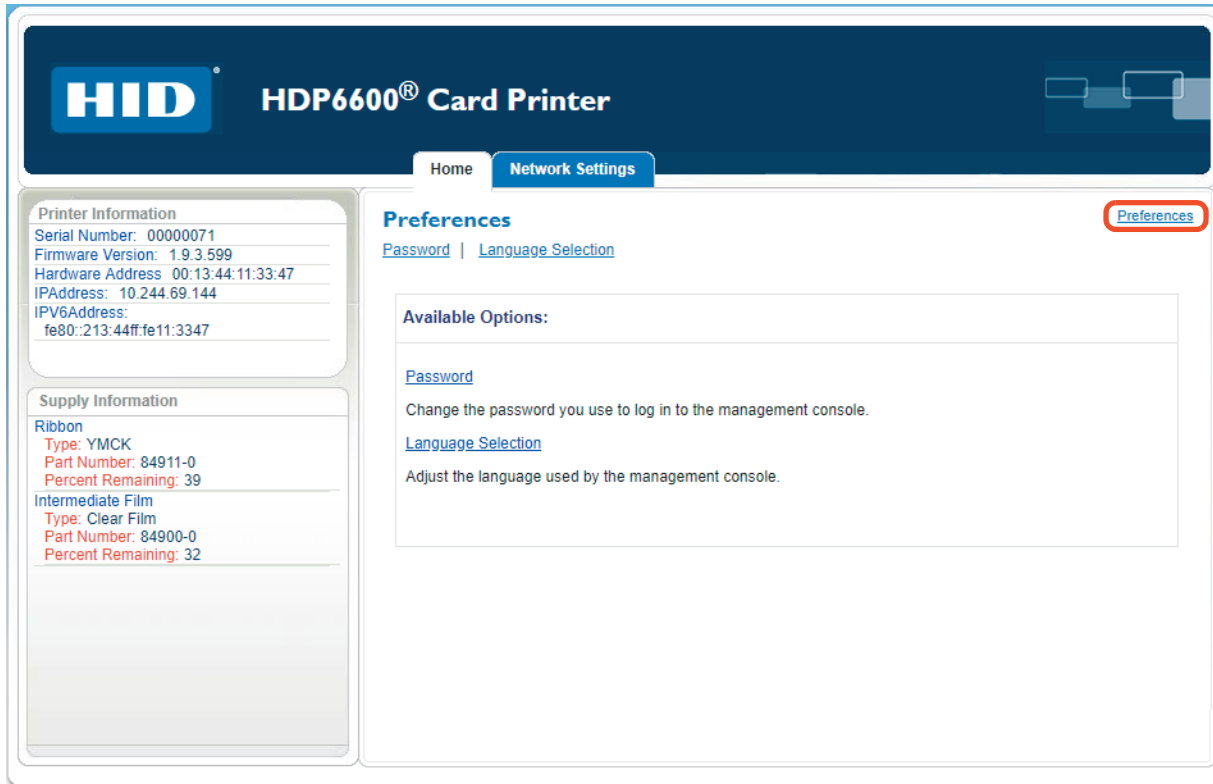
Field	Description
Device Discovery	Turns device discovery on or off.

2. Make any necessary changes and click **Save**.

**Note:** You may need to confirm your administrative rights by entering a valid user name and password. You may also need to restart the printer to save any changes. See *Section 5.5.3 Changes to the settings*.

## 5.5.5 Preferences

The Preferences can be accessed from any of the pages of the interface. Using the Preferences page, you can change your web interface log in password and your language selection.



The screenshot displays the web interface for the HID HDP6600 Card Printer. The top navigation bar includes the HID logo and the product name "HDP6600® Card Printer". Below the navigation bar, there are two tabs: "Home" and "Network Settings". The "Network Settings" tab is active, and the "Preferences" sub-tab is selected, indicated by a red border around the "Preferences" label in the top right corner.

The main content area is divided into two columns. The left column contains two sections: "Printer Information" and "Supply Information".

**Printer Information:**

- Serial Number: 00000071
- Firmware Version: 1.9.3.599
- Hardware Address: 00:13:44:11:33:47
- IPAddress: 10.244.69.144
- IPv6Address: fe80::213:44ff:fe11:3347

**Supply Information:**

- Ribbon**
  - Type: YMCK
  - Part Number: 84911-0
  - Percent Remaining: 39
- Intermediate Film**
  - Type: Clear Film
  - Part Number: 84900-0
  - Percent Remaining: 32

The right column is titled "Preferences" and contains two sub-sections: "Password" and "Language Selection".

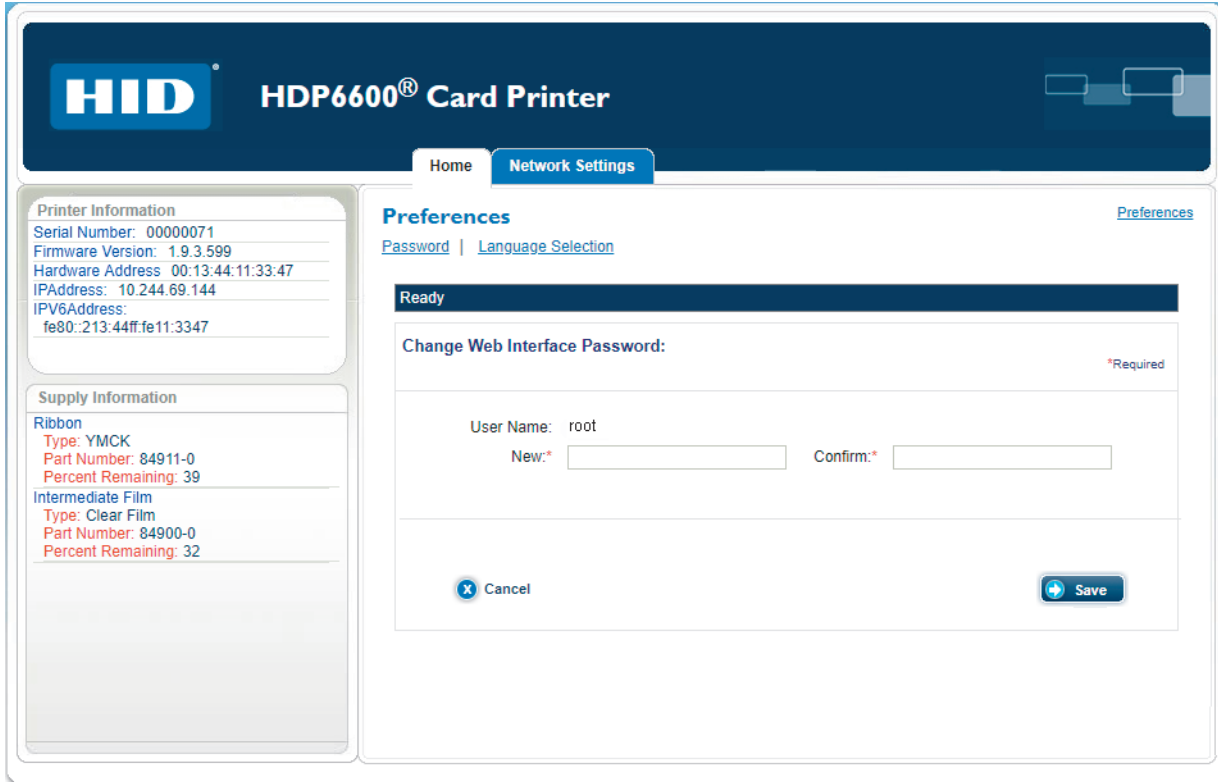
**Available Options:**

- Password:** Change the password you use to log in to the management console.
- Language Selection:** Adjust the language used by the management console.

### 5.5.5.1 Change password

1. Click the **Password** link.

The Change Web Interface Password window is displayed.



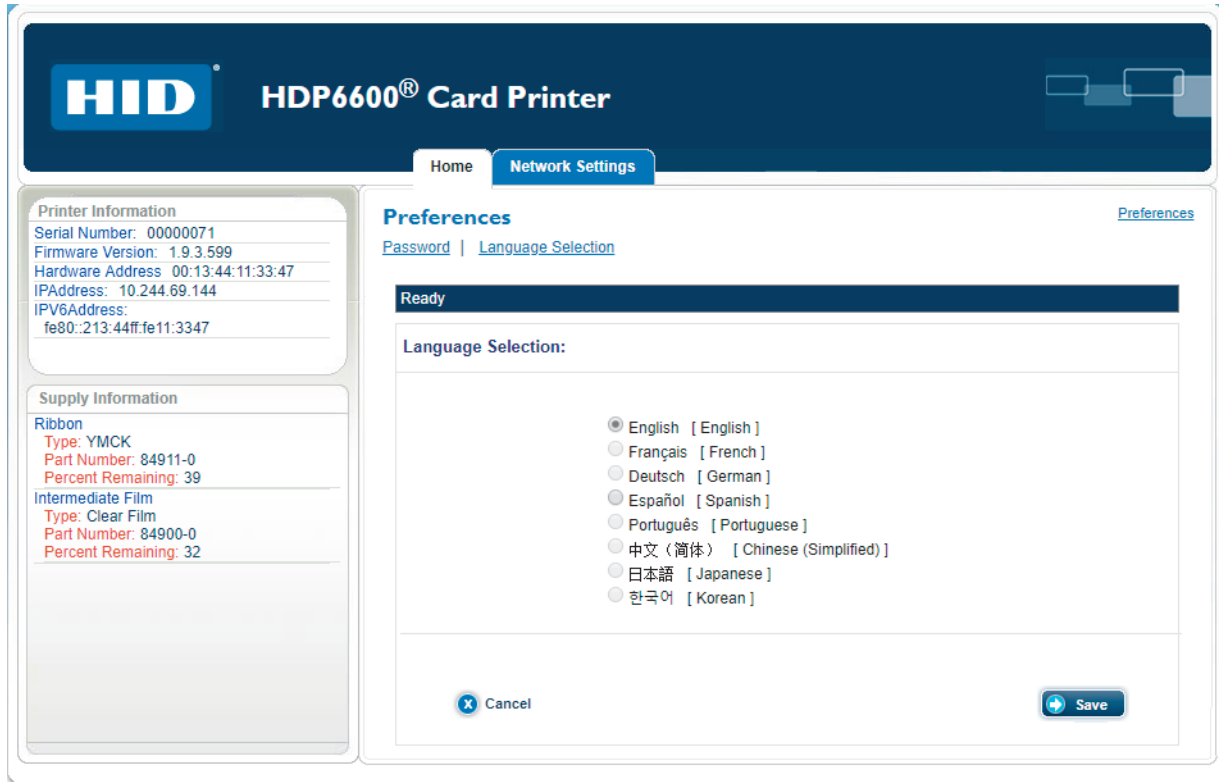
2. Enter a new password. This field is required.
3. Re-enter the new password to confirm. This field is required.
4. Click **Save**.

**Note:** You may need to confirm your administrative rights by entering a valid user name and password. You may also need to restart the printer to save any changes. See *Section 5.5.3 Changes to the settings*.

### 5.5.5.2 Language selection

1. Click the **Language Selection** link.

The Language Selection window is displayed.



2. Select a language.
3. Click **Save**.


**Note:** You may need to confirm your administrative rights by entering a valid user name and password. You may also need to restart the printer to save any changes. See *Section 5.5.3 Changes to the settings*.

## 5.6 Troubleshooting

If you are having trouble connecting to your Ethernet printer or printing to it, you should go through each of the following procedures.

### 5.6.1 Accessing the IP address of the printer

The additional printer display menus for an Ethernet-enabled printers are provided to view its IP address. Follow these procedures to access the IP address of your printer.

1. Switch on the printer.
2. Ensure the printer is connected to the network.
3. Wait up to one minute to allow the printer to configure the IP address.
4. On the printer display, select  > **Info**.
5. Scroll through the messages until the IP address is displayed as a dotted quad number, i.e. 168.192.1.1.

### 5.6.2 Verifying the printer connection

1. Ensure the printer has a valid network connection.
2. Verify that the printer has the green LED on solidly and that the amber LED is flashing with network activity.
3. If the LEDs do not indicate connection, verify the network connection with another device.
4. If the connection is OK, then something may be wrong with the Ethernet option installation.

### 5.6.3 Verifying the printer IP address

1. Check the printer display for a valid IP address (0.0.0.0 is not valid).
  - If the IP address is valid, go to Step 4.
  - If the IP address is not valid go to Step 2.
2. If your network is using DHCP, then verify that the printer has not been configured to use a static address (unless you have a known, unused static IP address assigned to the printer).
3. If you are using a static IP address, verify that there is no other device using the same address by removing your printer and sending a ping to the desired address.
4. If any device responds, then you must find a different available IP address.
5. If the printer reports an IP address, verify that it matches subnet of the network where it is connected.
6. If your printer has DHCP disabled, then the static IP address may have been previously set for a different subnet.

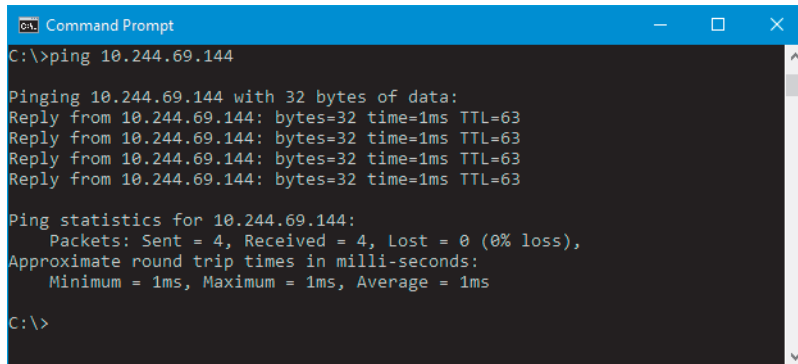
### 5.6.4 Verifying that the PC can access the printer using the ping command

Follow these instructions to issue a ping command to the printer.

1. At a Command Prompt window, enter “ping [IP address]”:

For example: C:\>ping 10.244.69.144

2. A successful ping response is shown here:



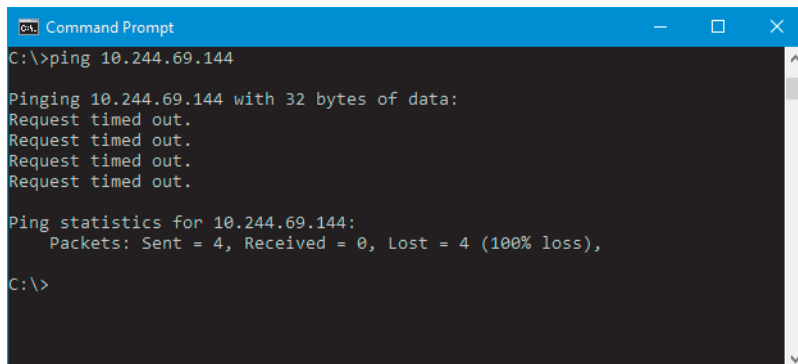
```
Command Prompt
C:\>ping 10.244.69.144

Pinging 10.244.69.144 with 32 bytes of data:
Reply from 10.244.69.144: bytes=32 time=1ms TTL=63
Reply from 10.244.69.144: bytes=32 time=1ms TTL=63
Reply from 10.244.69.144: bytes=32 time=1ms TTL=63
Reply from 10.244.69.144: bytes=32 time=1ms TTL=63

Ping statistics for 10.244.69.144:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\>
```

3. If the response is successful, move on to the next troubleshooting procedure.
4. An unsuccessful response is shown here:



```
Command Prompt
C:\>ping 10.244.69.144

Pinging 10.244.69.144 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 10.244.69.144:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

5. If the ping response is not successful, continue to Step 6.
6. Verify that the PC and the printer are connected to the same network.
7. You may be on different subnets of your network and some of the network settings for the printer are not correct. See your network administrator for additional assistance.

**Note:** The subnet mask must be the same as other devices on the network, and the unique IP address must be part of the network specified by the subnet mask.

### 5.6.5 Printing a test page

Try printing a test page from the printer driver properties window.

If you cannot print a test page, then consider the following possibilities:

- There may be an error at the printer.
- There may be a job in the Windows print queue which has stalled.
- The printer may be paused or set to operate offline in the Windows print queue.

## 5.7 Frequently asked questions

Question	Answer
How do I know if my printer has the Ethernet option installed?	All printer models come with Ethernet installed as standard equipment.
What PC operating systems work with my Ethernet printer?	<ul style="list-style-type: none"> <li>■ Windows 7 (32- and 64-bit)</li> <li>■ Windows 8 / 8.1 (32- and 64-bit)</li> <li>■ Windows 10 (32- and 64-bit)</li> <li>■ Windows Server 2008 R1 (32- and 64-bit)</li> <li>■ Windows Server 2008 R2 (64-bit only)</li> <li>■ Windows Server 2012</li> <li>■ Windows Server 2012 R2</li> <li>■ Windows Server 2016</li> </ul>
How do I connect my printer to my network?	You can connect from the RJ45 network connection on the back of your printer to an available connection on your network (not directly to your PC). You can use a good CAT-5 or better cable to make this connection.
How can I find the MAC address of my Ethernet printer?	<p>Do one of the following:</p> <ul style="list-style-type: none"> <li>■ If you know the IP address of your printer, you can see the MAC address on the Home page of the print server.</li> <li>■ If you do not know the IP address or the printer does not work with a usable IP address, then the MAC address is listed in the data printed on the “Printer Settings” self-test card.</li> </ul>
How can I find the IP address of my Ethernet printer?	You can find it on the printer display if the Ethernet option is functioning properly. Select <b>Info</b> , then click <b>Next</b> several times until the IP address is shown.
Can I print from my PC to multiple Ethernet printers?	<p>Choose <b>Local printer...</b> unless a shared network printer is to be installed on a print server.</p> <p>Use the Windows <b>Add Printer Wizard</b> to create a printer instance to communicate to the printer at the new IP address.</p> <p>If the printer port is not listed as an existing port then a new <b>Card Printer TCP/IP Port</b> must be created and configured to communicate to the printer at the proper IP address.</p> <p>See the appropriate Windows documentation for additional help.</p>
Can multiple PCs print to my Ethernet printer?	Yes. Each PC must install the printer driver software for the specific Ethernet-enabled printer and connect to the intended printer using the correct IP address.
Can I print from my PC to an Ethernet printer on a different network segment?	Yes. If you know the IP address of the printer on any segment of your network, you will be able to print to it.



Question	Answer
How do I upgrade the printer firmware in my Ethernet-enabled printer?	<p>This is done in the same way as a USB-connected printer. The PC doing the upgrade must have a driver installed for the printer to be upgraded. This varies by the level of Microsoft Windows you are running. In general,</p> <ol style="list-style-type: none"> <li>1. Run the <b>Driver Update Manager</b> from the <b>Settings &gt; Devices &gt; HDP6600 Card Printer &gt; Manage &gt; Printing Preferences</b>.</li> <li>2. Go to the <b>Utilities</b> tab.</li> <li>3. Select <b>Update Manager</b>.</li> <li>4. Click <b>Check for updates</b>.</li> <li>5. Select the printer you wish to update.</li> <li>6. Select the update you wish to install.</li> <li>7. Click <b>Begin Updating Firmware</b>.</li> </ol>
How do I upgrade the print server firmware for my printer?	<p>Since the print server is integrated into the main print firmware on the printer, there is not a separate firmware upgrade for the printer server.</p> <p><b>Note:</b> Therefore, the upgrades are done with the main printer firmware.</p>
What do I do if the IP address of my printer is being changed by my network?	<p>Do one of the following:</p> <ul style="list-style-type: none"> <li>■ Contact your network administrator. Ask that your current IP address be reserved or ask that they provide a specific IP address that you can use to configure the Ethernet interface.</li> <li>■ Choose an IP address that you know is not used by any other PC, server or network device. Use those settings to configure your printer with static network settings.</li> </ul> <p><b>Note:</b> Do not do this unless you know that these settings are always available.</p>
How do I reconfigure my PC printer driver to connect to a different printer or different IP address?	<p>Choose <b>Local printer...</b> unless a shared network printer is to be installed on a print server. Use the Windows <b>Add Printer Wizard</b> to create a printer instance to communicate to the printer at the new IP address. If the printer port is not listed as an existing port then a new <b>Card Printer TCP/IP Port</b> must be created and configured to communicate to the printer at the proper IP address. See the appropriate Windows documentation for additional help.</p>
How can I verify/change the IP address where my installed printer driver is expecting to find my printer?	<p>This varies by the level of Microsoft Windows you are running. In general,</p> <ol style="list-style-type: none"> <li>1. Open the <b>Settings &gt; Devices &gt; HDP6600 Card Printer &gt; Manage &gt; Printer Properties</b>.</li> <li>2. From the <b>Ports</b> tab, select <b>Configure Port</b>. The <b>Host Name</b> indicates the IP address of the connected printer.</li> <li>3. If this does not match your printer's IP address, you can change it from this window.</li> <li>4. Enter the correct IP address.</li> <li>5. Click <b>OK</b>.</li> <li>6. Click <b>Apply</b>.</li> <li>7. Click <b>Close</b>.</li> </ol>
How do I configure my printer's IP settings?	<p>Do one of the following:</p> <ul style="list-style-type: none"> <li>■ By default, the printer is configured for dynamic IP address assignment. That is, it will try to get its IP address and other settings from your network. If it is given valid network settings, it uses those.</li> <li>■ You can choose to configure the printer, using a static IP address and network settings.</li> </ul>

Question	Answer
<p>How do I choose a static IP address for my printer?</p>	<p>Use the Network Settings page if you know the current IP address.</p> <p>The printer also allows you to save the current network settings as static settings using the printer display menu (<b>Network Settings &gt; TCP/IP</b> ), and then switch DHCP (dynamic IP address selection) to DISABLED.</p> <p><b>Note:</b> You can save static addresses. However, they are not used until you reconfigure the printer to use those static addresses and reboot the printer.</p>
<p>What do the LEDs by the Ethernet connection on the back of the printer indicate?</p>	<p>The green LED indicates a valid Ethernet connection.</p> <p>The amber LED indicates network activity.</p>
<p>How do I print a test page from Windows to verify the Ethernet configuration of the printer and printer driver?</p>	<p>This varies by the level of Microsoft Windows you are running. In general,</p> <ol style="list-style-type: none"> <li>1. Open the Windows Settings page.</li> <li>2. Select <b>Settings &gt; Devices &gt; HDP6600 Card Printer &gt; Manage &gt; Printer Properties</b>.</li> <li>3. Select the <b>General</b> tab.</li> <li>4. Ensure that the printing preferences are set correctly for the ribbon installed in your printer. Then select <b>Print Test Page</b>.</li> </ol>

## 5.8 Glossary of terms

Term	Definition
Default gateway	Specifies the address of the router (in a network using subnets) that forwards traffic to a destination outside of the subnet of the transmitting device.
DHCP (Dynamic Host Configuration Protocol)	The protocol used by a network to automatically assign network settings to connected devices so that they work together.
DNS (Domain Name System)	Defines the network protocol that allows devices to find IP addresses from a network name server.
DNS domain suffix	This is the suffix to be added to the domain name to make a complete name.
DNS server address	This is the address of the server that provides the translation from a descriptive name to an IP address.
Guest user	A user without rights to change printer settings.
ICMP (Internet Control Message Protocol)	The basic message protocol for the internet.
IP (Internet Protocol)	The network protocol that identifies devices and messages by addresses so that communications can occur between devices on different local networks.
IP addresses	Specifies the current IP addresses that are 32-bit values that are normally expressed in dotted-quad format. <b>Note:</b> This address must not be the same as another device on the same local network.
MAC (Media Access Control)	The unique numeric value address associated with a network device that gives the device a unique identity. This address is assigned by the device manufacturer to ensure its uniqueness.
MIB (Management Information Base)	A formal description of the way an agent can be accessed using SNMP and the functions that can be managed.
Network settings	The basic network parameters needed to configure the network interface. These include the IP address, the subnet mask, the default gateway, the DNS server address and the DNS domain suffix.
Ping	A common utility or command that sends a message to network devices asking for a return message. This is used to diagnose if the device is on the network or to troubleshoot the connection.
Root user	A user with administrative rights to change any printer settings.
SNMP (Simple Network Management Protocol)	This is protocol for the network management services. This protocol provides a means for network compliant devices, called agents, to store data about themselves in Management Information Bases (MIBs) and return this data to the SNMP requesters.
Subnet mask	Specifies a 32-bit value that routers use to send a message to the correct subnet.
Syslog	The standard method for logging system events.
TCP (Transmission Control Protocol)	The network protocol that allows reliable network communications between devices.
TCP/IP	Network communications using TCP and IP protocols.
Telnet	This is a common terminal emulation program that allows a user to send commands to a TCP/IP connected device and receive the responses.
UDP (User Datagram Protocol)	Defines a protocol for sending and receiving messages on a network.

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# Section 6

## 6 Troubleshooting

This section provides specific procedures relating to diagnosing error messages shown on the printer display and the HID Printer Status monitor.

### 6.1 Error message tables

This section provides two troubleshooting tables: the printer display error messages and the messages shown in the status monitor. Each table uses a 3-column presentation to present a specific error shown in the printer display or the printer error message shown on your PC, its cause and solution.

If you encounter problems beyond the capabilities of these two error message tables, visit:

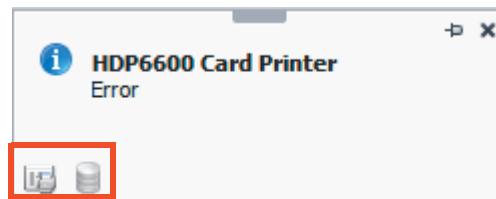
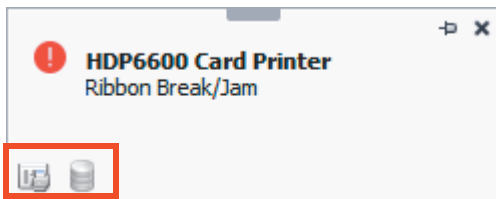
<http://www.hidglobal.com/customer-service>.


#### 6.1.1 How to use the error message tables

The Printer Display Error Message column contains the error message and number that is displayed on the printer display. In the following table and screen capture examples, you can find the printer display error message or the Error Message number and then troubleshoot your printer as needed.

Printer Display Error Message	Cause	Solution
<b>Ribbon Break/Jam</b> <b>Error Message No. 523, 537</b>  Matches the following screen shots.	The ribbon is not able to find the next panel correctly. Check for jams/breaks.	If jammed, clear the jam. If the ribbon is broken, repair it by taping the ribbon back on to the take-up core. Press <b>Resume</b> to continue or <b>Cancel</b> to abort.

You can also view the error information in the HID Status Monitor by clicking the icons on the error messages when they are displayed on your PC. These icons open the **Configuration** tab or the system **Event Log** tab of the status monitor, where you can view additional information.



 Opens the Configuration tab of the HID printer status monitor. See *Section 4.1 Configuration tab* to view current status of the selected instance.

 Opens the System Event Log tab of the HID printer status monitor to view the latest print job statuses. See *Section 4.2 System event log tab* to view current print jobs.

### 6.1.2 Troubleshooting with the printer display error message table

The printer display shows the current status of the printer.

Printer Display Error Message	Cause	Solution
<b>Calibrate Failed</b> Error Message No. 508, 535	Film or ribbon calibration has failed.	Verify the film is installed correctly and there is not a ribbon installed. If this problem persists, call for technical assistance.
<b>Calibrate Film</b> Error Message No. 504	Film sensors need to be calibrated.	Press <b>Cancel</b> and then perform the film calibration procedure.
<b>Calibrate Ribbon</b> Error Message No. 527	The print ribbon sensor is out of calibration.	Press <b>Cancel</b> and then perform the ribbon calibration procedure.
<b>Card Jam</b> Error Message No. 467, 476, 484	A card is jammed in the print station or card flipping area of the printer.	Clear the jam.
<b>Card Jam: Smart Card</b> Error Message No. 469	A card is jammed in the smart card encoding area of the printer.	Clear the jam.
<b>Card Jam</b> Error Message No. 466	Card became jammed in the printer during transfer.	Clear the jam.
<b>Card Not Found</b> Error Message No. 465	Card cannot be found in the printer.	Verify that the card is not jammed in the printer and press <b>Cancel</b> .
<b>Check Film</b> Error Message No. 501	The film is not able to move correctly. Check for jams/breaks.	Check for obstruction. If the problem persists, call for technical assistance.
<b>Film Sensor Calibration Failure</b> Error Message No. 508	Film sensor failure.	Reset the printer. Make sure film is installed correctly. Try again.
<b>Ribbon Sensor Calibration Failure</b> Error Message No. 535	Ribbon sensor failure.	Reset the printer and try again. If failure persists, call for technical assistance.
<b>Empty Reject Bin</b> Error Message No. 490	The reject bin is full.	Remove the large number of rejected cards from the reject bin. Press <b>OK</b> to clear the notification message. In some cases, rejected cards are incomplete or pose a security risk, and should be disposed of properly.
<b>Check Film</b> Error Message No. 500, 501, 506	The film is not able to move correctly. Check for jams/breaks.	Check for obstruction. If the problem persists, call for technical assistance.
<b>Film Low</b> Error Message No. 503	The HDP® film will soon run out.	If printing a large number of cards, replace the film now or monitor the printer until the film is gone and install a new film.
<b>Film Out</b> Error Message No. 497, 499	The HDP film has run out.	Install a new roll of film and press <b>Resume</b> to continue or <b>Cancel</b> to reset.
<b>Invalid Film</b> Error Message No. 493	The HDP film has been programmed incorrectly or is damaged.	Verify the correct film is installed in the film cartridge.

Printer Display Error Message	Cause	Solution
<b>Failed to Initialize</b> <b>Error Message No. 455, 456</b>	An error has occurred during printer start up.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>Check Options File</b> <b>Error Message No. 458</b>	Printer not set up correctly or hardware failure.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>No Film</b> <b>Error Message No. 498</b>	Error reading film tag.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>Ribbon Tag Error</b> <b>Error Message No. 524</b>	Error reading ribbon tag.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>Heater Error</b> <b>Error Message No. 558, 559</b>	The flattener is too hot.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>Flipper Jam</b> <b>Error Message No. 480, 481</b>	A card is jammed in the card flipping area of the printer. The flipper table is jammed or non-functional.	Open the printer flipping module cover. Clear any cards in the flipping module by opening the printer cover and pressing the <b>Forward</b> and/or <b>Back</b> buttons located on the printer display. Ensure that the flipper module can rotate freely. Close the printer flipping module cover. Press <b>Resume</b> on the printer display to continue printing. To cancel the print, click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>Head Resistance</b> <b>Error Message No. 434</b>	The EE setting in printer driver for head resistance is out of range.	Enter a value for Head Resistance in the EE settings in the printer driver. Reset the correct value according to the steps in <i>Section 3.4.8 Internal printer settings</i> . If this problem persists, call for technical assistance.
<b>See Manual</b> <b>Error Message No. 435, 440</b>	A hardware fault has prevented setting the correct printhead voltage.	Verify Head Resistance EE setting is correct. Reset the printer and try again. If this problem persists, call for technical assistance.
<b>Headlift Error</b> <b>Error Message No. 436, 437, 442, 443</b>	This is a problem with the printhead lift.	Reset the printer and try again. If this problem persists, call for technical assistance.
<b>Heater Error</b> <b>Error Message No. 551, 557</b>	The transfer heater roller is too hot.	Reset the printer and try again. If this problem persists, call for technical assistance.
<b>Invalid Ribbon</b> <b>Error Message No. 519</b>	An unauthorized ribbon is installed in the printer.	Get the correct ribbon from your dealer.

Printer Display Error Message	Cause	Solution
<b>Headlift Error</b> Error Message No. 553, 554, 555, 556	There is a problem with the transfer roller headlift.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>Headlift Error</b> Error Message No. 560	There is a problem with the transfer roller headlift.	Reset the printer and try again. If problem persists, call for technical assistance.
<b>Job Data Error</b> Error Message No. 544	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.
<b>Mag Verify Error</b> Error Message No. 487	Printer could not verify mag write. OR The magnetic stripe was not encoded properly.	Check the cards for correct mag stripe orientation and try again. Verify the mag coercivity selection in the driver matches that of the cards
<b>Multiple Feed</b> Error Message No. 475	Multiple cards were fed into the printer.	Remove all cards and try again.
<b>No E-card Encoder</b> Error Message No. 451	You are trying to send encoding data, but the printer is not configured with this encoder type.	To cancel, press <b>Cancel Print</b> .
<b>No Film</b> Error Message No. 492	Film is not installed in the printer. OR Film RFID tag is bad.	Install the film and press <b>Resume</b> . To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>No Flip Module</b> Error Message No. 482	Two-sided job sent to a one-sided printer.	Using the printer display, verify the printer has flipper capabilities. If flipper capabilities are present, ensure that the <b>Print Both Sides</b> option in the printer driver is set correctly. Press <b>Resume</b> on the printer display to continue printing. To cancel the print, click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>No Mag Module</b> Error Message No. 486	Mag encoding job sent to the printer without a mag encoder. You are trying to send encoding data, but the printer is not configured with this encoder type.	To cancel the print, click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>No Ribbon</b> Error Message No. 518, 524	No ribbon is installed in the printer. OR The ribbon RFID tag is bad.	Install the correct ribbon and press <b>Resume</b> on the printer display. To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>See Manual</b> Error Message No. 444	An error was detected during printing.	Reset the printer and try again. If this problem persists, call for technical assistance.



Printer Display Error Message	Cause	Solution
<b>Reboot Required</b> <b>Error Message No. 430</b>	Unspecified system error detected by the printer firmware.	Reset the printer and try again. If this problem persists, call for technical assistance.
<b>Remove Card</b> <b>Error Message No. 464</b>	A card is jammed in the print station or card flipping area of the printer.	Clear the jam and press <b>Cancel</b> .
<b>Remove Ribbon</b> <b>Error Message No. 533</b>	The print ribbon is installed and needs to be removed.	Remove the ribbon.
<b>Ribbon Break/Jam</b> <b>Error Message No. 523, 537</b>	The ribbon is not able to find the next panel correctly. Check for jams/breaks.	If jammed, clear the jam. If broken, repair the ribbon by taping the ribbon back on to the take-up core. Press <b>Resume</b> to continue or <b>Cancel</b> to abort.
<b>Ribbon Low</b> <b>Error Message No. 528</b>	The ribbon will soon run out.	If printing a large number of cards, replace the ribbon now or monitor the printer until the ribbon is gone and install a new ribbon.
<b>Check Ribbon</b> <b>Error Message No. 530</b>	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 <b>Resume</b> to continue or <b>Cancel</b> to abort.
<b>Ribbon Out</b> <b>Error Message No. 526, 538</b>	The ribbon has run out.	Install a new ribbon and press <b>Resume</b> to continue.
<b>Invalid Ribbon</b> <b>Error Message No. 519, 531</b>	The ribbon is not installed properly or has been damaged.	Verify the correct ribbon is installed in the ribbon cartridge.
<b>Unable to Feed</b> <b>Error Message No. 474</b>	The printer is unable to feed a card from the card hopper.	Verify there are cards in the card cartridge. Verify cards are not stuck together or jammed, and they are the correct thickness.
<b>See Manual</b> <b>Error Message No. 453</b>	Command resulted in an error.	Verify correct utility command is sent to the printer.
<b>Waiting for Data</b> <b>Error Message No. 454</b>	The printer has stopped receiving data from the PC.	Reset the printer and try again. If this problem persists, call for technical assistance.
<b>Wrong Film</b> <b>Error Message No. 494</b>	The print film installed in the printer does not match the film type selected in the printer driver. OR A self-test job cannot be printed with the print media installed.	Replace the film in the printer with the type specified by the printer driver. A reboot is required.

Printer Display Error Message	Cause	Solution
<b>Wrong Ribbon</b> <b>Error Message No. 520</b>	The ribbon installed in the printer does not match the ribbon type selected in the printer driver. OR A self-test job cannot be printed with the print media installed.	Replace the ribbon in the printer with the type specified by the printer driver.
<b>See Manual</b> <b>Error Message No. 431, 432, 433, 452, 457, 485, 547, 548, 549, 550</b>	Unspecified system error is detected by printer firmware.	Reset printer and try again. If problem persists, call for technical assistance.
<b>See Manual</b> <b>Error Message No. 438</b>	The print head has become too hot.	Allow to cool off and try again.
<b>Ribbon Temp Error</b> <b>Error Message No. 441</b>	The ambient temperature of the printer is too high. OR Sensor failure.	Allow to cool off and try again. If problem persists, call for technical assistance.
<b>Please Install Film and Close Cover</b> <b>Error Message No. 536</b>	Film is not installed.	Install the film. Press <b>OK</b> and run the calibration routine again.
<b>Check Film/Card</b> <b>Error Message No. 552</b>	Card became jammed in printer during transfer.	Clear the jam.

### 6.1.3 Troubleshooting the printer error message table

Printer Error Message	Cause	Solution
<b>See Manual Fail To Initialize</b>	A general printer error has occurred.	Press <b>Cancel</b> on the printer or click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>Card Not Found</b>	The printer is unable to find the card.	Check the printer for the card or other obstruction. Remove the obstruction. To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>Unable to Feed</b>	The printer is unable to feed a card from the card cartridge.	Ensure that cards are available and loaded correctly, press <b>Resume</b> on the printer display to continue printing. To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>Card Jam Card Jam: Smart Card Multiple Feed Check Film/Card</b>	A card has become jammed in the printer.	Open the printer front cover and remove the print ribbon and film cartridges. Clear any cards in the printer by pressing the <b>Forward</b> and/or <b>Back</b> buttons on the printer display. Re-insert the ribbon and close the printer front cover. Press <b>Resume</b> on the printer display to continue printing. To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.
<b>Head Resistance</b>	Printhead resistance out of range.	Verify that the head resistance stamped on print head matches value stored in EEPROM. Press <b>Cancel</b> on the printer display.
<b>Ribbon Temp Error</b>	The ambient temperature of the printer is out of range. OR Sensor failure.	Press <b>Cancel</b> to cancel job. Allow the printer to cool and cycle the power to reboot.

Printer Error Message	Cause	Solution
<b>Flipper Jam</b>	The flipper table has jammed while either aligning itself or flipping a card.	<p>Open the printer flipper module cover. Clear any cards in the flipper module by pressing <b>Forward</b> and/or <b>Back</b> on the printer display.</p> <p>Ensure that the flipper table can rotate freely. Close the printer flipper module cover.</p> <p>Press <b>Resume</b> on the printer display to continue printing.</p> <p>To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.</p>
<b>No Flip Module</b>	The printer does not have flipping capabilities.	<p>Verify the printer has flipper capabilities by way of the printer display menu.</p> <p>If flipper capabilities are present, ensure that the Print Both Sides option in the driver is set correctly.</p> <p>Press <b>Resume</b> on the printer display to continue printing.</p> <p>To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.</p>
<b>Wrong Ribbon Wrong Film</b>	An incorrect ribbon or film is installed, or a driver setting is incorrect.	<p>Check that the ribbon or film is correct for the printer and job. Press <b>Resume</b> on the printer display to continue printing.</p> <p>To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.</p>
<b>No Ribbon No Film</b>	No print ribbon or film is installed in the printer. OR Ribbon or film tag information corrupt.	Install the correct ribbon or film and press <b>Resume</b> on the printer display.
<b>Ribbon Out Film Out</b>	The print ribbon or film installed in the printer is empty.	Install a new ribbon or film and press <b>Resume</b> on the printer display.
<b>Calibrate Ribbon</b>	The ribbon sensor is not calibrated.	Cancel the job, open the cover, remove the ribbon, close the cover, run the ribbon calibration routine.
<b>Calibrate Film</b>	The film sensor is not calibrated.	Cancel the job, run the film calibration routine.
<b>Calibrate Failed</b>	The ribbon or film sensor failed calibration.	Verify the ribbon is removed, the film is installed, and print cover is closed. Run calibration again.

Printer Error Message	Cause	Solution
<b>Ribbon Break/Jam, Check Ribbon</b>	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> <p>Open the printer cover and remove the print ribbon. If ribbon is jammed, remove the jam and tighten the ribbon.</p> <p>Clear any cards in the printer by pressing the <b>Forward</b> and/or <b>Back</b> buttons on the printer display.</p> <p>Tape the ends of the ribbon together and wind any excess onto the take-up spool of the print ribbon.</p> <p>Re-install the print ribbon, close the printer cover and press <b>Resume</b> on the printer display to continue printing.</p> <p>To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.</p>
<b>Check Film</b>	A film break/jam has been detected inside the printer.	<p>Open the printer cover and remove the print film. Check the film and see if it is broken.</p> <p>If the print film is not broken, re-install the print film, close the printer cover, and press <b>Resume</b> on the printer display to continue printing.</p> <p>If the print film is broken, tape the ends of the print film together and wind any excess onto the take-up spool. Re-install the print film, close the printer cover and press <b>Resume</b> on the printer display to continue printing.</p> <p>To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.</p>
<b>Invalid Film</b>	An incorrect print ribbon/print film has been installed in the printer. (This is if you are using SecureMark™ ribbon and film.)	<p>A non-SecureMark ribbon or film is installed in a SecureMark printer.</p> <p>Replace with the appropriate SecureMark ribbon or film and press <b>Resume</b> on the printer display to continue printing.</p> <p>Install a certified print ribbon and press <b>Resume</b> on the printer display to continue printing.</p> <p>To cancel the print, press <b>Cancel</b> on the printer display or click <b>Cancel Print</b> from the HID Printer Status Monitor.</p>

Printer Error Message	Cause	Solution
<b>No Mag Module</b>	A print job with magnetic encoding was sent with no magnetic encoder installed in the printer.	Ensure that encoding data is not being sent with the print job and reprint the card.
<b>Mag Verify Error</b>	The printer is unable to verify encoded data.	Check the cards and click <b>Cancel Print</b> on the printer display.
<b>No Ecard Encoder</b>	No smart prox card encoder is installed in the printer.	To cancel, click <b>Cancel Print</b> on the printer display.
<b>Headlift Error</b>	The headlift sensor is not detecting movement from the headlift cam. This can occur for the printhead, transfer roller, or card flattener.	Reboot the printer by cycling the power. To cancel, press <b>Cancel Print</b> on the printer display.
<b>Waiting For Data Job Data Error</b>	Entire print job is unable to be sent to the printer	Verify physical connection to the printer. To cancel, press <b>Cancel Print</b> on the printer display.
<b>Heater Error</b>	The transfer roller or card flattener can not achieve correct temperature.	To cancel, press <b>Cancel Print</b> on the printer display. Reboot the printer by cycling the power.

## 6.2 Resolving common errors

### Confirm that the system meets the minimum requirements.

Access <https://www.support.microsoft.com> and search for your Microsoft OS system requirements.

### Confirm the correct installation of the printer driver:

- Close the software program and check the printer driver.
- Reboot the computer.
- Ensure the printer driver is installed correctly.


**Note:** This especially pertains if an obsolete driver was recently removed.

Ensure the correct setup options in the printer driver are selected. Confirm that the driver is current by checking at: <http://www.hidglobal.com/drivers>.

### Confirm the correct installation of the flipper table module assembly:

1. Reboot the computer.
2. Ensure that the print both sides option in the printer driver is set correctly.
3. Verify the flipper table module assembly is functioning properly by printing out cards in a test run.

### Determine the problem with printing from the application:

- Print a self-test from the printer.  
On the printer display, select  > **Test Prints** > **Settings** to ensure that the printer is functioning properly.
- Print the Windows test page from your computer.
  - a. From the Printing Preferences window, select the **Utilities** tab > **Self Tests**.
  - b. From the **Self Tests** tab, select one of the tests in the list, and click **Run Test**.
- Use WordPad to print a test card.
  - a. Open WordPad and type: **This is a test**.
  - b. Go to the **File** menu and select **Print**.
  - c. Select **HDP6600 Card Printer** and click **Apply**.
  - d. Click **Print**.

### Determine whether there is adequate hard disk space.

**Note:** A large volume of temporary files on the computer can cause communications errors. Use the Disk Cleanup feature in your **Windows Settings** to free up disk space by deleting unnecessary files.

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