



FARGO® DTC®ii Plus

User Guide

PLT-05151, A.O.R
August 2020

Powering
Trusted Identities

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What's new

Date	Description	Revision
August 2020	Initial release.	A.O.R

A complete list of revisions is available in [Revision history](#).



Section 01

Specifications

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1.1 Introduction

The purpose of this section is to provide you with specific information on the Regulatory Compliances, Agency Listings, Technical Specifications and Functional Specifications for the DTC®ii Plus card printer.

1.2 Regulatory compliance

UL	The card printer is listed under UL 60950-1 (2nd edition) Information Technology Equipment File Number: E145118 This product is intended to be supplied by a Listed Power Unit marked Class 2 and rated for 24Vdc, 3.3A minimum.
CSA	The printer manufacturer has been authorized by UL to represent the card printer as CSA Certified under CSA Standard C22.2 No. 60950-1-07 2nd edition File Number: E145118

1.2.1 Agency listings

Emissions and Immunity Standards	FCC Part 15 Class A, RSS-GEN, RSS 210
Safety Standards	UL IEC 60950-1 (2nd edition), CSA C22.2 No. 60950-1-07 (2nd edition)

1.2.2 United States

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

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

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

CAUTION: Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.

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







1.2.3 Canada

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





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

1.3 Safety messages

1.3.1 Safety messages - United States

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

1.3.2 Safety messages - French

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

1.4 Technical specifications

Term	Function
Print Method	Dye Sublimation / Resin Thermal Transfer
Print resolution	300 dpi (11.8 dots/mm); continuous tone
Colors	Up to 16.7 million colors / 256 shades per pixel
Print Ribbon Options	<p>Full-color with resin black and overlay panel, YMCKO* (500 prints) Full-color half-panel with resin black and overlay panel, YMCKO* (850 prints) Full-color with two resin black panels and overlay panel, YMCKOK* (500 prints) Full-color with fluorescing, resin black panel and overlay panel, YMCFKO* (500 prints) Full-color with fluorescing, two resin black panels and overlay panel, YMCFKOK* (400 prints) Full-color half-panel with two resin black and overlay panel, YMCKOK* (500 prints) Full-color half-panel with two resin black and two overlay panels, YMCKOK* (500 prints) Resin black and overlay panel, KO* (1250 prints) Dye-sublimation black and overlay print, BO* (1250 prints) Resin black (standard and premium) (3000 prints) Resin green, blue, red, white (1000 prints) Resin silver (2000 prints) Resin gold (1000 prints) Rewrite technology – No ribbon is required * Indicates the ribbon type and the number of ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, O=Overlay, F=Fluorescing Resin</p>
Print Speed	<p>8 seconds per card (KO*) 24 seconds per card (YMCKOK*) Print speed indicates an approximate batch print speed and is measured from the time a card feeds into the printer to the time it ejects from the printer. Print speeds do not include encoding time or the time needed for the PC to process the image. Process time is dependent on the size of the file, the CPU, amount of RAM and the amount of available resources at the time of the print. * Indicates the ribbon type and the number of ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, O=Overlay, F=Fluorescing Resin</p>
Card Size and Types Supported	CR-80 (3.375" L x 2.125" W / 85.6mm L x 54mm W)
Accepted Standard Card Sizes	CR-80 edge-to-edge (3.36" L x 2.11" W / 85.3mm L x 53.7mm W)
Accepted Card Thickness	.009" - .040" / 9 mil – 40 mil/.229mm – 1.016mm
Accepted Card Types	<ul style="list-style-type: none"> ■ Press polished PVC ■ Laminated PVC (credit card construction) ■ Blank white chip/mag ■ Dual interface MC and/or Visa
Input Hopper Card Capacity	200 cards (.030"/.762 mm)

Term	Function
Output Hopper Card Capacity	100 cards (.030"/.762.mm)
Reject Hopper Card Capacity	100 cards (.030"/.762.mm)
Card Cleaning	Card cleaning roller integrated into the ribbon cartridge. A new cleaning roller is included with each ribbon cartridge.
Printer Memory	32MB RAM
Operating Systems	Windows Server 2003 Windows Server 2008 Windows Server 2016 Windows Server 2019 Windows 7 (32- and 64 bit) Windows 10 (32- and 64-bit)
Interface	Ethernet with internal print server
Operating Temperature	65° F to 90° F / 18° C to 32°C
Humidity	20-80% non-condensing
Dimensions	9.8"H x 22.9"W x 9.2"D/249mm H x 583mm W x 234mm D
Weight	13 lbs./6 kg
Supply Voltage	100-240 VAC, 1.6 A
Supply Frequency	50 Hz/60 Hz
Warranty	Printer – Three years; Printhead – Three years, unlimited pass with UltraCard™
Encoding Options Supported	13.56 MHz (iCLASS®, MIFARE, ISO 14443 A/B, ISO 15693) read/write encoder Contact Smart Card Encoder reads from and writes to all ISO7816 1/2/3/4 memory and microprocessor smart cards (T=0, T=1) as well as synchronous cards ISO Magnetic Stripe Encoding, dual high- and low-coercivity, Tracks 1, 2 and 3
Display	Graphical Display

1.5 Functional specifications

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

1.6 Printer components: print ribbons

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

To make it easier to identify the print ribbons, a letter code has been developed to indicate the type of ribbon panels found on each ribbon:



= Dye-Sublimation Yellow Panel

M = Dye-Sublimation Magenta Panel

C = Dye-Sublimation Cyan Panel

K = Resin Black Panel (Premium unless otherwise stated)

O = Clear Protective Overlay Panel

F = Fluorescing Panel

1.6.1 Ribbon types and print counts

Ribbon	DTCii
YMCKO – Full Color/Resin Black / Overlay	N/A
YMCKO Half Panel – Full Color (1/2) / Resin Black/Overlay	N/A
YMCFKO - Full Color/UV Fluorescing / Resin Black / Overlay	N/A
YMCKK - Full Color / 2 Resin Black	N/A
YMCKOK - Full Color / 2 Resin Black / Overlay	200
YMCFKOK - Full Color/UV Fluorescing / 2 Resin Black / Overlay	N/A
YMCKOK – Half Panel-Full Color (1/2) / 2 Resin Black / Overlay	N/A
YMCKOKO – Half Panel-Full Color (1/2) / 2 Resin Black / 2 Overlay	N/A
K – Standard Resin	N/A
K – Premium Resin	N/A
Colored Resin	N/A
KO - Premium Black Resin / Overlay	1250
BO - Dye-Sub Black / Overlay	N/A
SOK - Silver Metallic Resin / Overlay / Resin Black	350
None – Rewritable	Supported

1.7 Printer components: blank cards

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

Revision history

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Powering Trusted Identities

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