

P205/P210 Plastic Card Printer

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Printing a card

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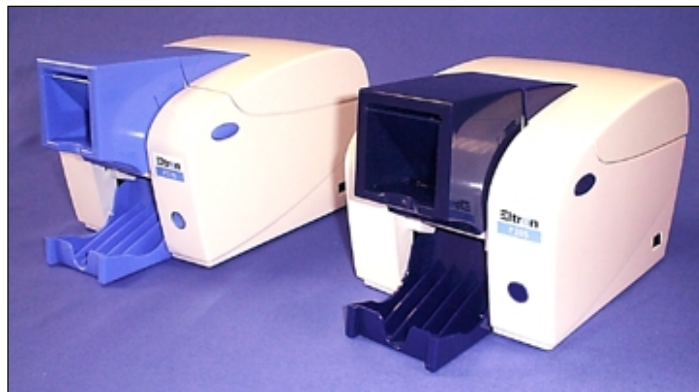
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Web Site Link for Online registration

Welcome to your new Eltron P205 (Monochrome) & Eltron P210 (Color) User's Manual



Part Number: 980363-001

Rev.A

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FOREWORD

This manual contains installation and operation information for the Eltron P200 Series card printers manufactured by Zebra Technologies Corporation.

RETURN MATERIALS AUTHORIZATION

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

For USA and Latin America:
Zebra Technologies Corporation
Eltron Card Printer Products
1001 Flynn Road
Camarillo, CA. 93012-8706.USA
Phone: +1 (805) 579-1800
FAX: +1 (805) 579-1808

For Europe, Asia and Pacific:
Zebra Technologies Inc. France
Eltron Card Printer Products
Zone Industrielle, Rue d'Amsterdam
44370 Varades, France
Phone: + 33 (0) 240 097 070
FAX: + 33 (0) 240 834 745

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DECLARATIONS OF CONFORMITY

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European Council Directive		Compliance to Standards	
89/336/EEC modified by 92/31/EEC and 93/68/EEC	EMC Directive	EN 55022-A	RF Emissions control
	EMC Directive	EN 500082-1,1992	Immunity to Electromagnetic Disturbances
73/23/EEC modified by 93/68/EEC	Low voltage Directive	EN 60950	Product safety



Model: P210 conforms to the following specification:
FCC Part 15, Subpart A, Section 15.107(a) and Section 15.109(a)
Class B digital device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful:

How to identify and resolve Radio/TV Interference Problems. This booklet is available from the U.S. Government printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

Use of a shielded cable is required to comply within Class B limits of Part 15 of FCC Rules.

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

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INTRODUCTION

Thank you for choosing the Eltron P210 Plastic Card Printer.

Eltron's P200 series card printers offer a low cost, high quality solution to those requiring computer-controlled printing and encoding of credit card style plastic cards. Card applications include customer loyalty, access control, visitor, membership, gift cards, durable business cards.

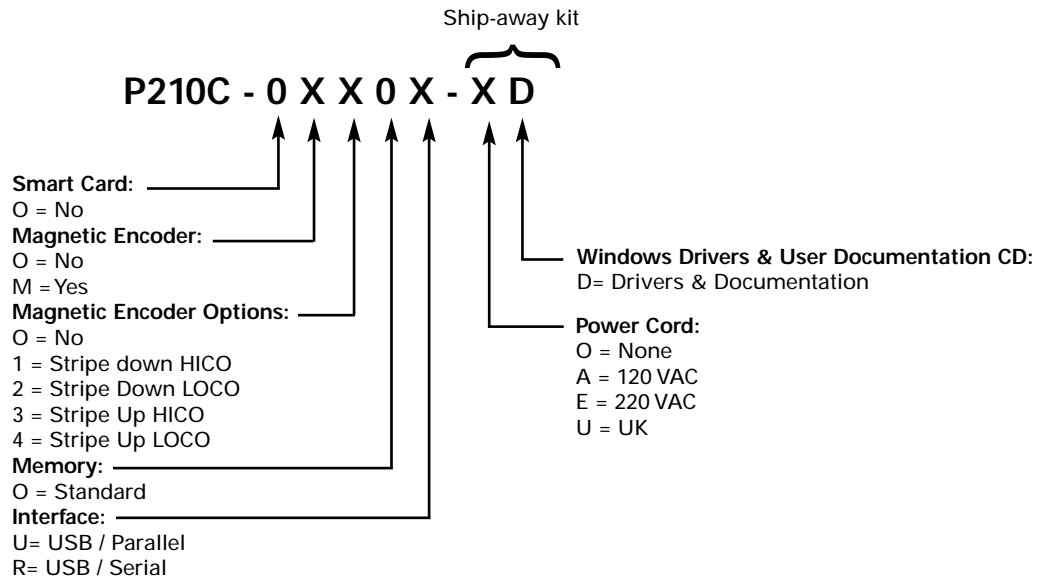
This manual guides you to efficient start up and operation of your new Card Printer.

P210/P205 PRINTER MODELS

The Eltron Product Number tells a story:

Here is a quick review of the Eltron Card Printer Series numbering and lettering system to help you.

The P210 Plastic Card Printer employs Dye Sublimation and Resin Thermal Transfer technologies. Model numbers include identifiers that specify options using the following lettering conventions:



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GETTING STARTED

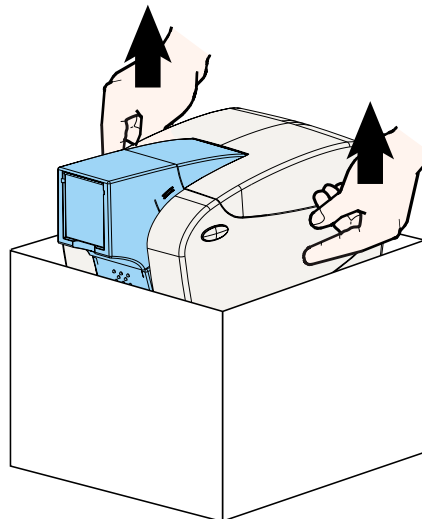
1 • 1 Unpacking your card printer

Your P210 printer ships in a carton and protective anti-static bag. Keep all packaging material in case you need to move or re-ship the printer.

Pull your printer out of the carton by grabbing it on both side.

While unpacking, inspect the carton to ensure that no damage occurred during shipment.

Please ensure that you have a clean and nearly dust free environment for proper operation and storage of the printer.



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Make sure the following items are included with your P210 printer:

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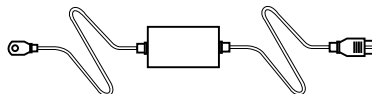
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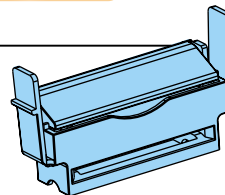
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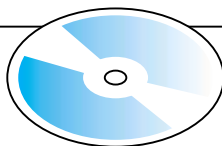
POCKET GUIDE



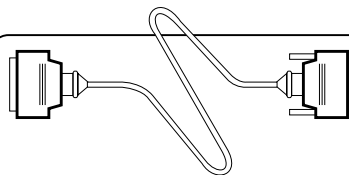
EXTERNAL POWER SUPPLY



CLEANING CARTRIDGE



PRINTER DRIVER &
USER'S MANUAL CD



INTERFACE CABLE

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




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1 • 2 Indicators and Control

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Your P210/P205 printer is equipped with a Multi Function Panel Button with a surrounding light ring that glows in three colors to provide printer status indication.

	ON	FLASHING
 Green	POWER ON READY	RECEIVING DATA PROCESSING
 Orange	RIBBON OR CARD OUT	COMMUNICATION ERROR CLEANING
 Red	HARDWARE OR FATAL ERROR Refer to troubleshooting	

The Multi Function Panel Button is used to perform the following operations:



- Clear Error
- Cleaning process (see chapter 4)
- Test Card (see chapter 2)

Power Switch:
The Power switch is located on the right-rear of the printer unit.

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1 • 3 Printer Installation

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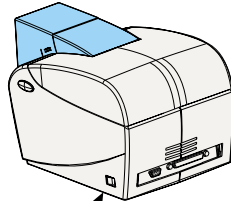
Appendix C



The following will guide you through the installation of your P210/P205 printer.

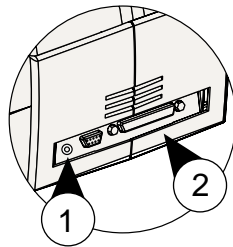


CAUTION: Limit AC power supplied to the P210/P205 Printer to 24 VDC. Limit excess current draw to 16 amps or less, using an associated circuit breaker or other such device. Never operate the printer in a location where operator, computer, or printer can get wet. Personal injury could result. The printer must be connected to an earthed electrical power supply and properly protected against electrical surges and grounding faults. The power supply pack can only be replaced by the same product from the constructor.



1 • Place the printer in a location that allows easy access to all sides. The printer should never be operated while resting on its side or upside down.

2 • Place the printer's power switch in the OFF "O" position.



3 • Insert the power supply to the printer power socket "1" and attach to grounded electrical socket of the proper voltage and type.

4 • Attach interface cable "2" to printer and computer and then secure.

5 • Switch power on.



CAUTION: Intermittent or unpredictable operation may occur from unsecured connectors. If damaged, the power cable must be replaced by an exact equivalent. Use only Parallel Cable under 3 Meters in length. The socket should always be easily accessible to power off the printer.

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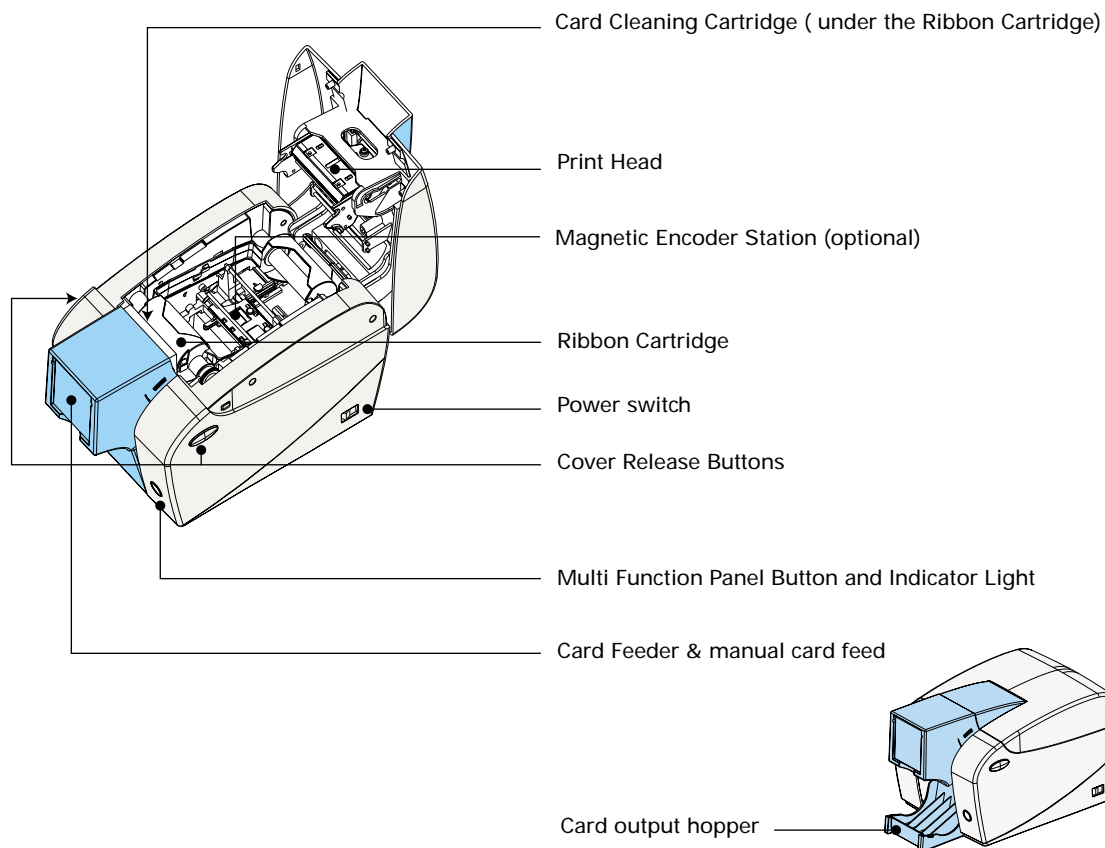


2 • 1 *Printer Features*

2

OPERATION

The following shows the features found on your P210 Printer:



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2 • 2 Loading Ribbon Cartridge

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The P210 Printer requires approved ribbon cartridges (see Appendix C). The Resin Thermal Transfer and Dye Sublimation ribbons are specifically designed for your P210 Printer. For optimum performance and printer life (Print Head), always use approved ribbons.

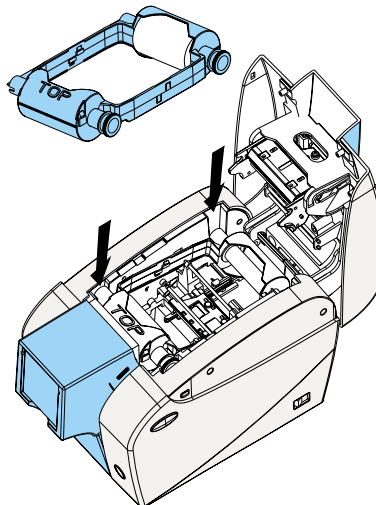
You can print up to 100 cards in YMCKO with the ribbon cartridge.

When ribbon is completely used change the whole cartridge assembly.



DO NOT TOUCH the print head or the electronic components on the print head carriage. Discharges of electrostatic charge from the human body or other surfaces can damage the print head or other electronic components used in this device.

- 1 • Open printer cover by pressing both Cover Release buttons on the sides of your printer.
- 2 • Insert vertically the ribbon cartridge into the slot and press gently until you can feel it engage properly.



Please note that the ribbon automatically synchronizes.

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2 • 3 Loading Cards

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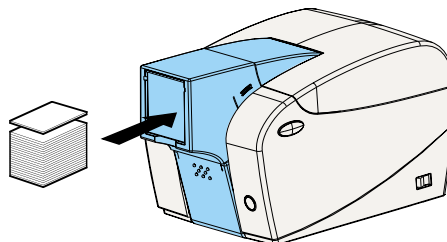
To help you load, print, and collect cards, the P210 has the following items:



A - CARD FEEDER

This item is used for loading cards, it can hold up to 50 cards of 30 mils.

You may have to install the Card Feeder.
Hold the card feeder on the sides and slide it into the rail guide.



- Install Cards into feeder at the front of your P210 printer.

For Cards with magnetic stripe refer to Appendix A for loading instructions.



DO NOT bend cards or touch print surfaces as this can reduce print quality. The surface of the cards must remain clean and dust free. Always store cards in an enclosed container. Ideally, use cards as soon as possible. If cards stick together, carefully shuffle them.

* See Chapter 6, Technical Specifications, for card requirements and capacities.

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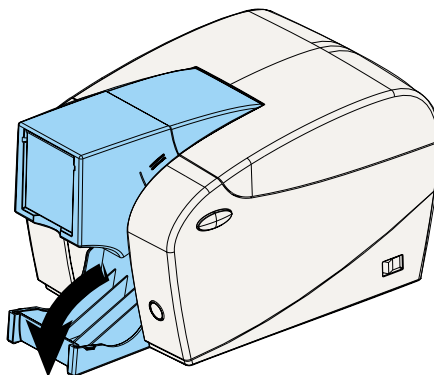
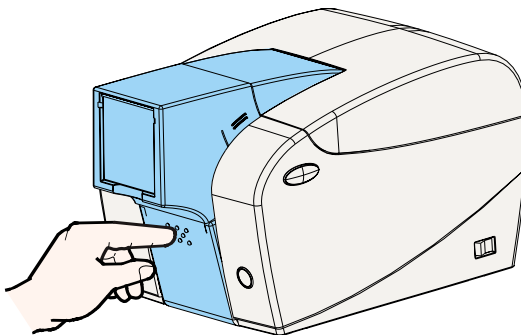
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B - CARD OUTPUT HOPPER

- 1 • Press on the card output hopper door and pull it down to place it in its functional position.

When not using the printer place the card output hopper back in its closed position to protect the printer from dust.



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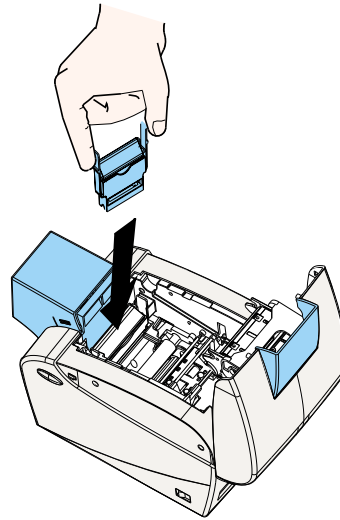
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C - INSTALL CARD CLEANING CARTRIDGE

This item is used to clean the cards entering the printer.
It must be installed before using the printer.

*Improper cleaning will reduce printer life and degrade print quality.



- 1 • Open the lid by pressing both Cover Release buttons located on the sides of your printer.
- 2 • If the ribbon cartridge is installed, remove it to access the cleaning cartridge location.
- 3 • Remove Card Cleaning Cartridge from plastic bag. Peel off protective wrapper from adhesive cleaning roller.
- 4 • Install adhesive cleaning roller supplied with your ribbon cartridge.
- 5 • A slide rail will guide you to insert the Cleaning Cartridge in the appropriate location.
A Cleaning Cartridge diagram is visible on the inside of your printer to help you find the appropriate location.
- 6 • Ensure the assembly locks in place by pressing gently on the top of the cartridge until it engages properly.
- 7 • Close the lid by pressing down firmly on both sides until you hear audible "clicks" as each side becomes latched.

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2 • 4 Feeding one card at a time

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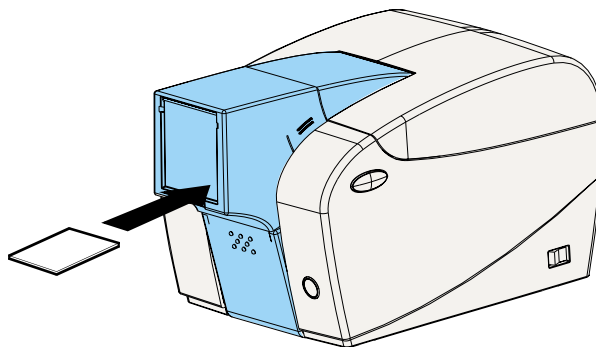
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For feeding one card at a time, like Cleaning Cards for example, remove all cards from card feeder and insert one card at a time at the bottom of the feeder.

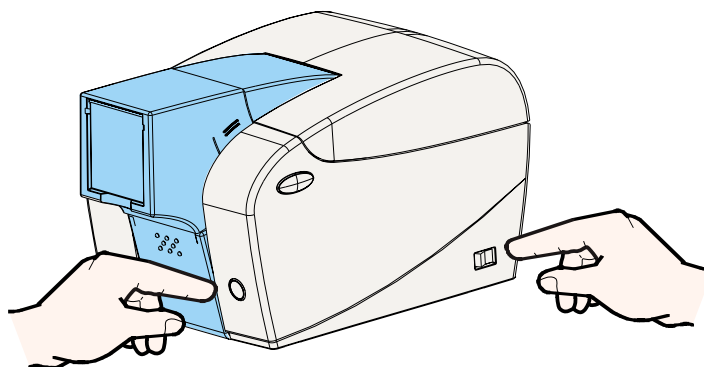


Do not feed more than one card at a time.

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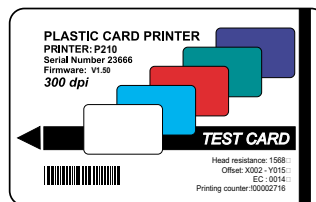
2 • 5 Printing a Test Card

With ribbon cartridge and cards loaded, your P210 printer is ready to print. To check the operation of the printer, you should print a test card.



- 1 • Place the printer's power switch in the OFF (0) position.
- 2 • While holding down the Multi Function Panel Button, switch printer ON (1). The status indicator will glow green.
- 3 • Keep pressing the Multi Function button until the green indicator starts flashing.
- 3 • Release the Multi Function button and a test card will print after a few seconds.

This is an example of the test card.



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TECHNICAL SPECIFICATIONS



General

- High speed printing
40 seconds per card in YMCKO
4 seconds per card in Monochrome
- Small footprint
- Windows Drivers for 95/98/2000/ME and NT 4.0
- One year printer warranty
- One year (100,000 passes) print head warranty
- Powerful EPCL (Eltron Printer Command Language)

Color Printing

- Color dye sublimation or monochrome thermal transfer printing
- 300 dpi (11.8 dots/mm) print resolution
- Edge to edge printing standard (P210 only)
- 40 seconds per card edge to edge in full color (YMCKO)

Bar Code

- Code 39
- Code 128 B & C with & without check digit
- 2 of 5 & 2 of 5 interleave
- UPCA
- EAN8 & EAN13

Fonts

- Resident: Arial Normal 100, Arial Bold 100
- Flash memory supports download of different fonts.
- TrueType fonts available via Windows Driver

Cards

- Types PVC, Composite
- Card width/length: ISO CR-80 - ISO 7810,
2.125" (54mm) by 3.375" (86mm)
- Option: Magnetic Stripe - ISO 7811
- Card thickness: 10mil (0,25mm) to 30mil (0,75mm)
- Card Feeder capacity: up to 50 cards (30mil)
- Card Output Hopper capacity: 20 cards (30mil)

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Ribbons Cartridges

- Black Monochrome: 500 cards/cartridge
- YMCKO dye sub: 100 cards/cartridge

Interfaces

- USB port / Parallel
- USB port / Serial

Mechanical

- Width: 7.18" (182,4mm)
- Depth: 11.92" (303mm)
- Height: 7.03" (178,8mm)
- Weight: 6.39 lbs (2,9 kg)

Electrical

- 110 ~ 230 Volts AC, 60 ~ 50 Hz
- FCC Class A, CE, UL, and CUL approved

Environmental

- Operating Temperature: 60 to 86°F (15 to 30°C)
- Operating Humidity: 20 to 65% non condensing
- Storage Temperature: -23 to 158°F (-5 to 70°C)
- Storage Humidity: 20 to 70% non condensing
- Ventilation: Free air

Options

- Magnetic Encoder (0.76mm cards only)
- Cleaning supplies

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CARD DIMENSIONS

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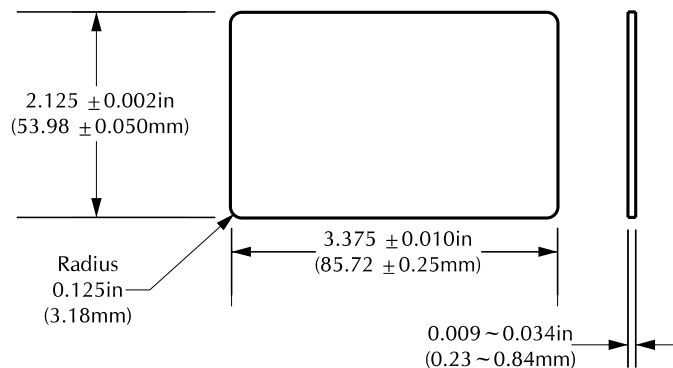
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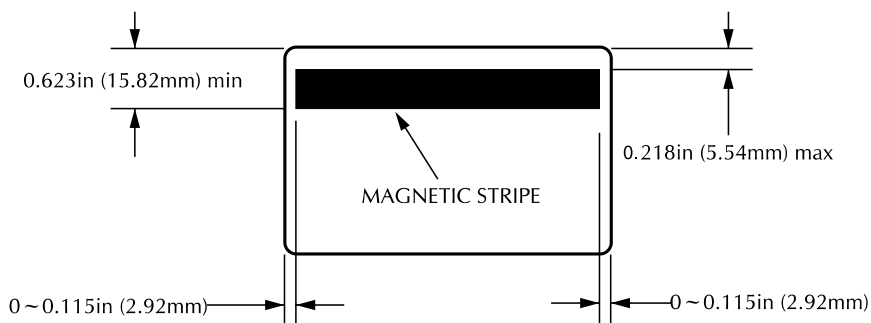
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ISO STANDARD DIMENSIONS FOR PLAIN CARD



ISO STANDARD DIMENSIONS FOR MAGNETIC STRIPE CARD



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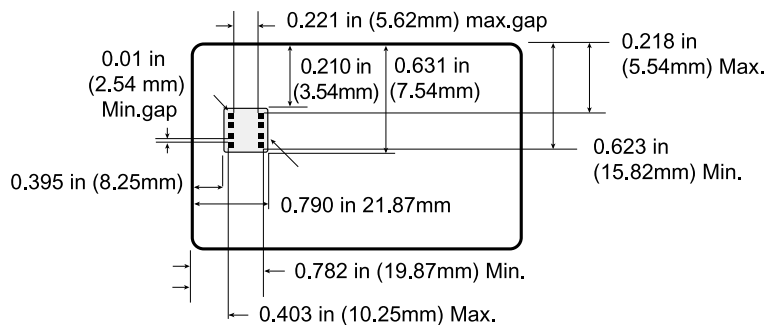
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CHIP POSITION FOR SMART CARD



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APPENDIX

Magnetic Card Stripe Encoder



This section contains information on the additional operations of the P210 Printers with Magnetic Card Stripe Encoder.
(See Chapter 2 for location.)

INTRODUCTION

Operation and maintenance requirements for the P210 Printer with the optional magnetic card stripe encoder.
(See Chapter 2 for location.)
The magnetic encoder can be set for either high or low coercivity.

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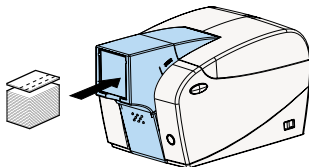
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The magnetic encoder is a factory installed item with the read/write head positioned below the card path, available with HICO encoding or LOCO encoding.

When loading cards into the Card Cartridge, please ensure that the magnetic stripe is facing down and closest to the right.

Note:

M1 = Stripe Down HICO M3 = Stripe up HICO

M2 = Stripe Down LOCO M4 = Stripe up LOCO

approved HICO & LOCO PVC cards are available. (See Appendix C).



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

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B • MAGNETIC ENCODER CLEANING

Use the standard cleaning card process.
. This cleans the most important parts of the printer; including the print Head, Transport Roller and Magnetic Stripe Encoder (refer to chapter 4 “Cleaning” for more instructions.)

- 1 • Leave power on.
- 2 • Remove cards from the card feeder.
- 3 • Insert one presaturated card (provided) through slot on the side of the Card Cartridge.
- 4 • Press the Multi function button.

ISO STANDARD ENCODING

Track #	Field Separator	Track density	Valid Characters	# of characters
1	^	210BPI*	Alphanumeric (ASCII 20 - 95**)	79***
2	=	75BPI*	Numeric (ASCII 48 - 62)	40***
3	=	210BPI*	Numeric (ASCII 48 - 62)	107***
<p>* Bit per inch</p> <p>** Except the “?” character</p> <p>*** Including Start, Stop and LRC characters. Also note that these 3 characters are automatically managed by the magnetic encoder according to the ISO Standard norms.</p> <p>NOTE: Refer to the Card Printer Programmer’s Manual for complete programming information.</p>				

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Accessories & Supplies

Please contact your Eltron authorised dealer to place an order for accessories and supplies.



Use only Zebra-approved card, ribbon and patches media. Using non-approved card or ribbon media can void your warranty.

Refer to the Accessories section for more information about Card and Ribbon Media available from Zebra Technologies Corp.

RIBBONS:

Part Number	Description : Starter Kit
105912-294	YMCKO Ribbon Cartridge + Cleaning Roller+ 100 PVC Cards

Part Number	Description	Cards/Cartridge
800015-201	Black Monochrome	500
800015-240	5 PanelYMCKO Dye Sub	100

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ACCESSORIES

Accessories available for P210 printers appear below. Always refer to the part number when placing an order.

	Printer supplies
Part Number	Description
300320-001	Centronics Parallel cable (36 pins)
105912-212	USB Cable (6ft A-B)
105925-001	Replacement Print Head Kit

	Cleaning Supplies
Part Number	Description
105909-169	Premier Cleaning Kit (25 swabs, 50 cards)
105912-301	Adhesive Cleaning Roller Kit (set of 5)
105912-302	Cleaning Cartridge, complete
105909-055	Cleaning Card Kit (box of 100 cards)
105909-057	Cleaning Swab Kit (box of 25 swabs)

	Miscellaneous
Part Number	Description
105576-002	CD ROM (Software, Windows Drivers, Documentation)
806503-001	Card Punch (slots card for lapel clip)
104527-001	Lapel Clips (pack of 100 clips)

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