USER MANUAL

MC DTC Series



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Matica
July 2022
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Printer Warranty

Refer to the warranty statement provided with the printer for the warranty terms and conditions, and its limitations of liability.

Environmental Impact

Matica is committed to reducing the environmental impact of its products through improvements in energy efficiency.

WEEE Directive (2012/19/EU) for customers in European Union (EU) & The Waste Electrical and Electronic Equipment Regulations 2013 For customers in the UK

1. FOR CUSTOMERS IN THE EUROPEAN UNION (EU) and UK

The disposal of electric and electronic devices as solid urban waste is strictly prohibited: it must be collected separately. The dumping of these devices at unequipped and unauthorized places may have hazardous effects on health and the environment. Offenders will be subjected to the penalties and measures laid down by the law.

TO DISPOSE OF OUR DEVICES CORRECTLY:

a) Contact the Local Authorities, who will give you the practical information you need and the instructions for handling the waste correctly, for example: location and times of the waste collection centers, etc.

b) When you purchase a new device of ours, give a used device like the one purchased to our dealer for disposal.



The crossed dustbin symbol on the device means that:

- If it is to be disposed of, the device is to be taken to the equipped waste collection center and is to be handled separately from urban waste:
- *Matica* guarantees the activation of the treatment, collection, recycling and disposal procedures in accordance with Directive 2002/96/EC (and subsequent amendments).

2. FOR OTHER COUNTRIES (NOT IN THE EU)

The treatment, collection, recycling and disposal of electric and electronic devices will be carried out in accordance with the laws in force in the country in question.

For Europe

Warning

"This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures."

Product contains RF section (or module), compiled with ETSI EN 300 330 V2.1.1 (2017-02)

For US

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, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution!!!

• Any changes or modification not expressly approved by the party responsible for compliance could void the user's authorities to operate this equipment.

This equipment has been tested and found to comply with the limits for 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 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.*

For Canada

In English:

This device complies with Industry Canada's license-exempt RSSs. 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.*

In French :

Cet appareil est conforme aux RSS sans licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:

1) *Cet appareil ne doit pas provoquer d'interférences ; et*
2) *Cet appareil doit accepter toutes les interférences, y compris celles qui pourraient entraîner un mauvais fonctionnement de l'appareil.*

General Note: - This equipment must be used by – Ordinary person / Instructed person / Skilled person

About caution symbols:

	These cautions indicate the risk of injury or shock or malfunction if the printer is not operated correctly. Be sure to follow these cautions to operate the printer safely.
	These cautions indicate the heated surface & involve the risk of heat injury if persons touch them with a bare hand.
	These cautions indicate where the touch of the surface with a bare hand is prohibited.

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2 Product overview

The printer described in this User Guide provides full colour dye-sublimation or monochrome thermal transfer printing on standard CR80 plastic cards. PVC, PVC composite and rewritable cards. PC, PET and ABS cards can be supported with a UcYMCK ribbon type.

Depending on the model and configuration purchased, it is managed via the driver installed on the computer through USB, Ethernet or Wi-Fi.

The ribbon carrier that comes with the printer allows the ribbon to be replaced quickly and easily.

Several options are available to configure the printer for different applications:

- Magnetic stripe encoder
- Contact and contactless smart card encoder
- 10/100 Ethernet and/or 802-11 Wi-Fi connection
- Single/exception card feed option
- Locking system for the input hopper, reject bin and ribbons.

3 MC DTC series features






Features	MC110	MC210 / MC320x	MC310	S3110	Remarks
Rewritable cards	X	X	✓	✓	
Magnetic stripe encoding	X	●	●	✓	Factory fitted
Single side printing	✓	✓	✓	✓	
Dual side printing	●	●	●	●	Kit No. PR10300016
Smart card encoding	●	●	●	✓	Kit No. PR10300003
Automatic feeder	✓	✓	✓	✓	
Manual feeder	X	X	✓	✓	
Dual feeder	X	X	●	●	
Rear eject	X	✓	✓	✓	
USB	✓	✓	✓	✓	
Ethernet	X	✓	✓	✓	
Wi-Fi	X	X	●	●	
Single wire encoding functionality	X	X	●	✓	
Display	X	✓	✓	✓	
Laminator compatibility (inline)	X	●	●	●	

Note: If upgrades are required, please contact the Matica agent quoting options or kit numbers.

● **Optional** ✓ **Standard** **X Not available**

4 Technical characteristics

Details	MC110	MC210 / MC320x	MC310	S3110
Technology				
Print method	Direct-to-card			
Print technology - color	Dye-sublimation			
Print technology - monochrome	Resin thermal transfer			
Print resolution	300 x 300 dpi (11.8 dots/mm)			
Print area	CR80 edge-to-edge			
Card path	Short edge			
Connectivity				
USB 2.0	✓	✓	✓	✓
Ethernet TCP-IP 10BaseT/100BaseT	X	✓	✓	✓
Wi-Fi (factory installed option 802.11a/b/g)	X	X	●	●
Single wire encoding functionality (factory installed)	X	X	●	✓
Card handling				
Input feeder	Automatic			
Dual feeder	X	X	●	●
Input feeder capacity	100 cards (0.76 mm – 30 mil)			
Output stacker	30 card (front)			
Rear bin (80 cards (rear)	X	●	●	●
Output stacker operation	Both, open or closed while printing			
Single / manual feeding	X	X	●	●
Card specifications				
Card format	ISO CR80, ISO 7810 53.98 mm x 85.60 mm / 3.370” x 2.125”			
Card thickness	0,25 – 1,25 mm / 10 – 50 mils			
Material	PVC, PVC Composite, Rewritable cards. Polycarbonate, PET, ABS (varnished) – crosscheck with ribbons portfolio			
Encoding options				
Magnetic stripe encoder 3 tracks, ISO 7811 / JIS II	X	●	●	✓
Smart card contact chip ISO 7816-1, 2 (excluding appendix B), 3, 4 PCSC and EMV compliant	●	●	●	✓
Smart card contactless ISO 14443A/B MIFARE®, MIFARE DESFire® iCLASS® ICODE, ISO 14443 A&B, ISO 15693 and ISO 7816	●	●	●	✓
Dimensions and weight				
Dimensions (H x W x L)	255,6 x 202 x 405,4 mm			
Weight	10 kgs			
Power supply				
-	Auto-switching external power supply unit with interchangeable power cords Input 220-240 volts AC, 50-60 Hz, 1.6 A Output 24 volts DC, 3.0 A			

Memory				
RAM	128 MB			
User interface				
LCD display	X	✓	✓	✓
Locks option				
Electronic / manual locks	X	X	✓	✓
Quality standards / certifications				
-	RoHS CE, FCC, cTÜVus, WEEE Proposition 65 (California, USA) Sound pressure less than 48 dB (A) in operation mode (ISO 7779)			
Operating conditions				
Temperature	Min/max operating temperature: 15° / 40 °C (59° / 104 °F)			
Humidity	Humidity: 20% to 65% without condensation			
Storage conditions				
Temperature	Min/max storage temperature: -5° / +70 °C (23° / 158 °F)			
Humidity	Storage humidity: 20% to 70% without condensation			
Safety				
Support for Kensington® security lock	✓	✓	✓	✓
Ribbons				
-	Automatic detection and parameter setting Two level encoding protection Smart ribbon level memory and management Smart ribbon optimization when monochrome printing			
XPS driver				
-	XPS Windows driver (not EDIsecure®) compatible with Windows® (32/64 bits) XP SP3, Vista, W7, W8, W10, W22 as a standard driver supplied with the printer EDIsecure® driver to facilitate integration and service bureau			
Software				
SDK	Available for system integrators upon request			?
Warranty				
-	Check T&Cs			

5 Getting started

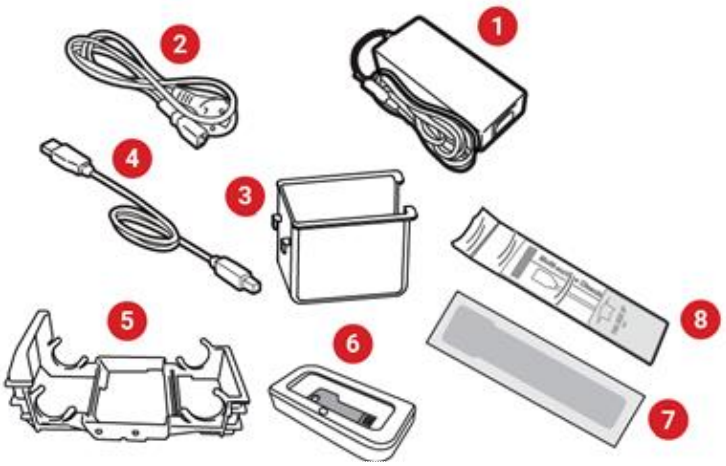
The printer comes with several accessories; check carefully that they have all been included. This list may vary depending on the location where the printer will be used and the model or the configuration you have purchased.

The printer is shipped in special packaging designed to prevent damage during transportation.
If any visible damage is noticed upon receipt, or if any of the items listed below are missing, contact your Matica agent immediately.

Maintain the printer packaging intact and store it in a clean and dry place.

Note: If the printer must be returned, it should be returned integrally with its full original packaging (box, cushions and protective bags). If it is returned without its original packaging and any components are damaged during transportation, such components will no longer be covered by the warranty. Matica will also charge for the new packaging which will be required to ship the printer back.

The following items are included in the various printer models:



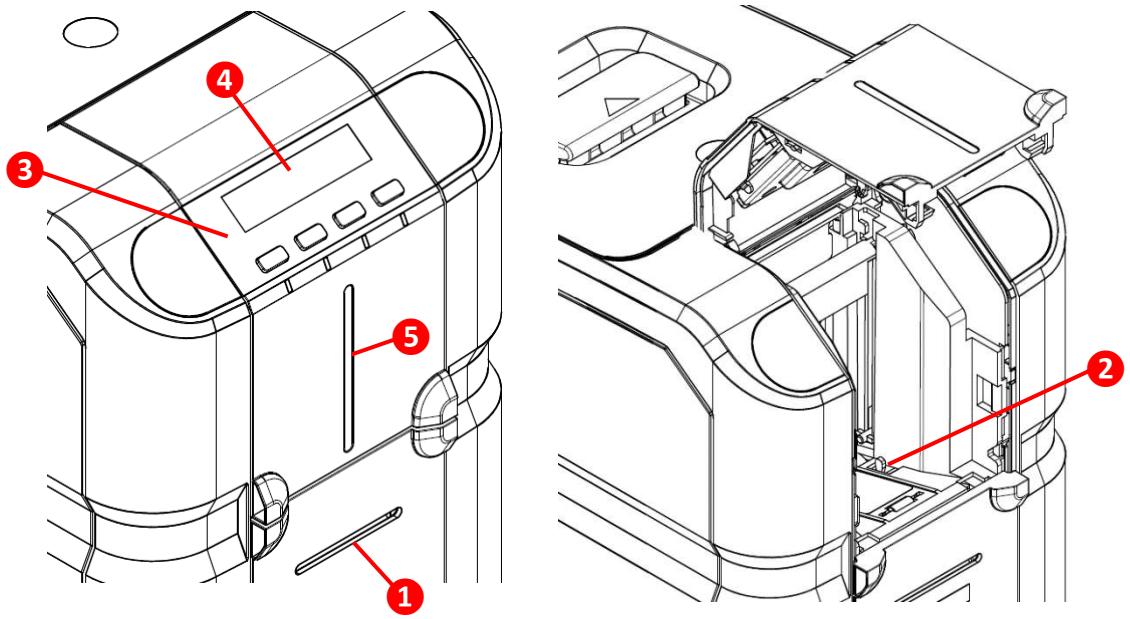


	Description	MC110	MC210 / MC320x	MC310	S3110	Remarks
1	Power supply	✓	✓	✓	✓	Only use the supplied one
2	Power cord	✓	✓	✓	✓	Plug type varies dependent on region
3	USB cable	✓	✓	✓	✓	
4	Reject bin	X	✓	✓	✓	
5	Ribbon cartridge	✓	✓	✓	✓	
6	USB stick	X	X	✓	✓	
7	Cleaning card	✓	✓	✓	✓	
8	Cleaning swab	✓	✓	✓	✓	
9	Quick start guide	✓	✓	✓	✓	Paper copy

Functional description

5.1.1 Front view

The front of the printer is the operator interface and has the following features:

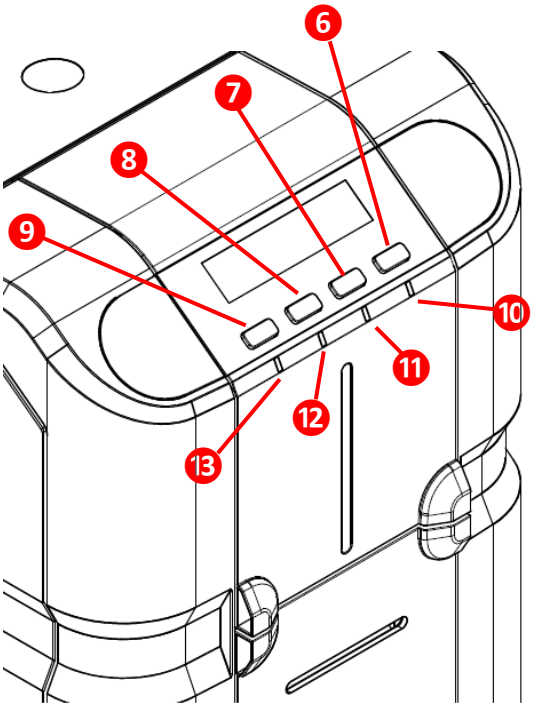


1. **Front slot**
   For single card manual feeding (not available for MC110 and MC210)
2. **Input hopper**
3. **Operator panel and printer status indicator with keys**
4. **LCD display**
   *Not available for MC110
5. **LED lights indicating card availability in the input hopper**
   *Not available for MC110 and MC210

   Off – indicates there is no card available in the input hopper
   Red intermittent – indicates cards in the input hopper are running low.
   Red – indicates there are cards available in input hopper

5.1.2 Operator panel

The front operator panel consists of 4 soft touch buttons and 4 status LEDs along with an informative display (MC210, MC320x, MC310 and S3110 only).



6 **Power button**
Short press to turn on the printer, long press to turn off the printer.

7 **Selection button**
To select a menu / sub-menu option and transit to the respective sub-menu

8 **Menu / scroll button**
Used to enter the main menu as well as enter and scroll the sub-menus.

9 **Wi-Fi button**
Press to turn on the (optional) Wi-Fi on MC310 printers, the LCD display will display the status accordingly.

10 **Power LED**
White when printer is on.

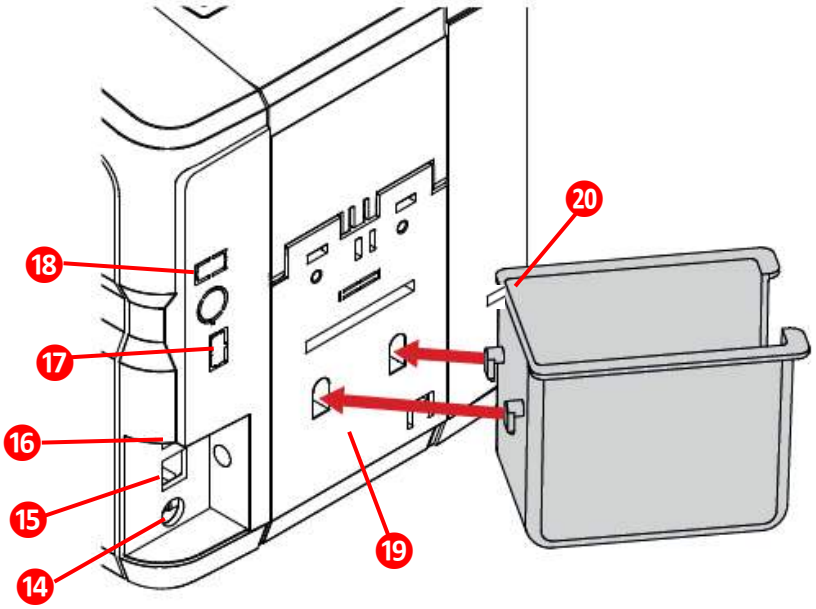
11 **Ready status LED**
Amber – indicates ribbon is nearing end
Amber intermittent – indicates there is no card OR no ribbon

12 **Error status LED**
Red – indicates there is an error – for example: card jam, cover open
Red intermittent – indicates printer requires servicing OR firmware upgrade
Green – indicates printer is ready to print
Green intermittent – indicates printer is receiving data or printing

13 **Wi-Fi LED**
Off – indicates Wi-Fi is not available
Blue intermittent – indicates Wi-Fi is available but not connected
Blue – indicates printer is connected to Wi-Fi

5.1.3 Rear view and bin installation

The following components are located on the back panel:



14 Power cord socket

15 USB 2.0. Female B type. Host socket

16 Ethernet connector with traffic LED (MC210 and MC310 only)

17 USB 2.0 Port – No.1

18 USB 2.0 Port – No.2

19 Rejection bin fixing slot

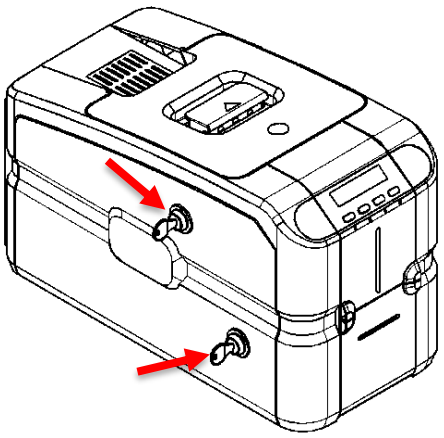
20 Kensington lock

5.1.4 Power supply

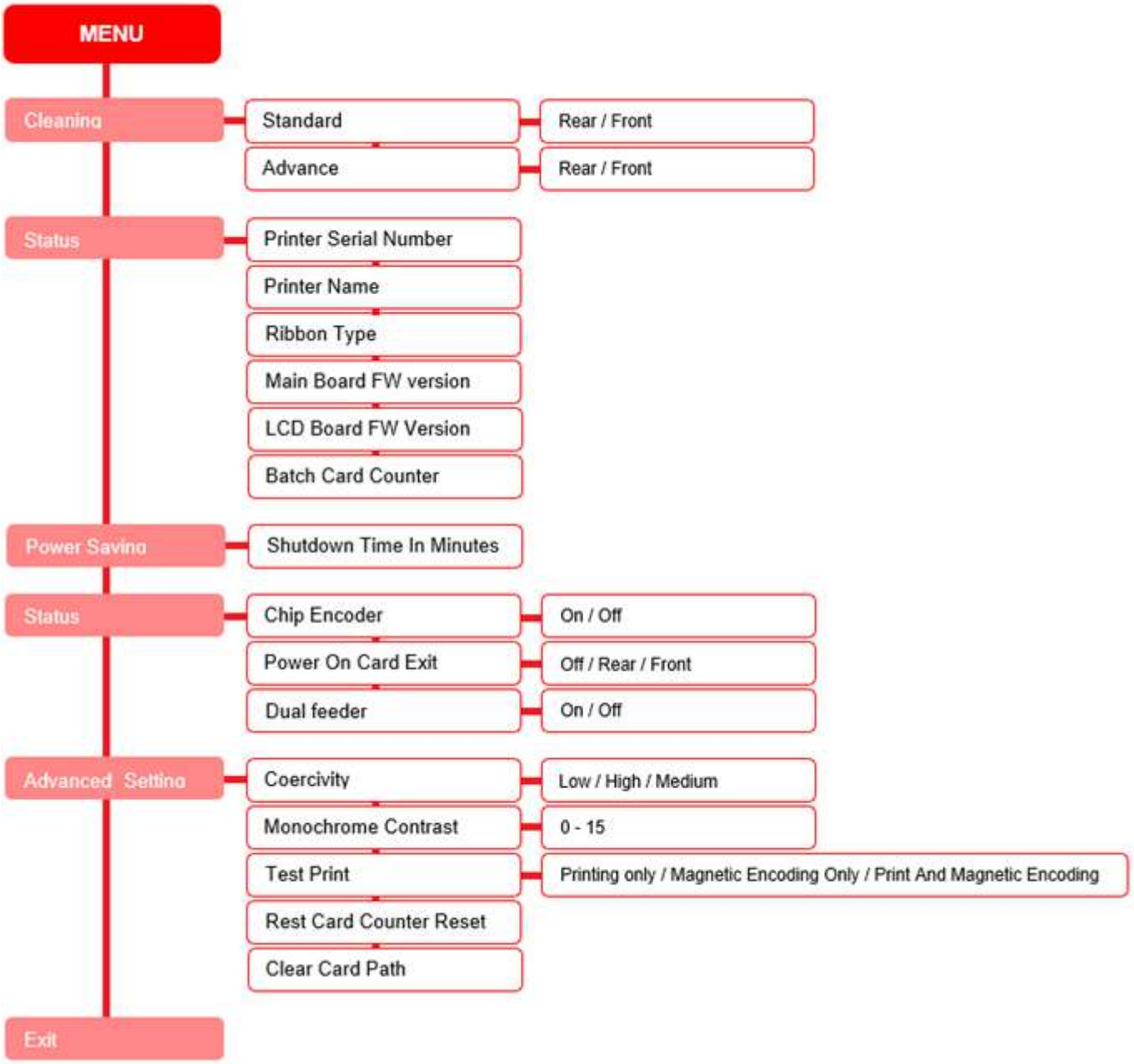
The printer comes with an external auto-switching power supply.

Note: Only use the power supply provided with the printer.

5.1.5 Manual lock (Optional):



5.1.6 LCD display menu options

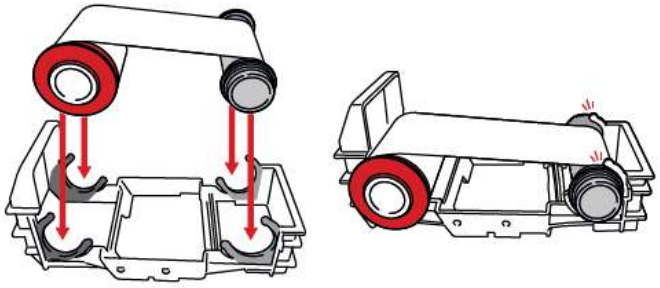


6 Installation procedures

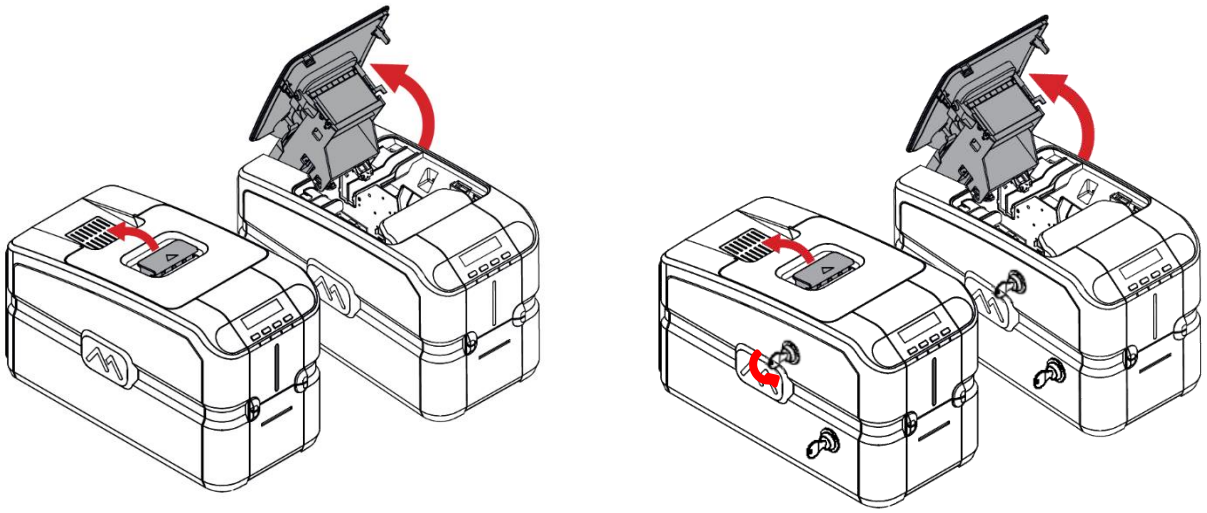
6.1.1 Installing the ribbon

Original Matica ChromXpert ribbons should always be used and are to be installed carefully. The ribbon cartridge that comes with the printer helps to install the ribbon quickly, easily and accurately.

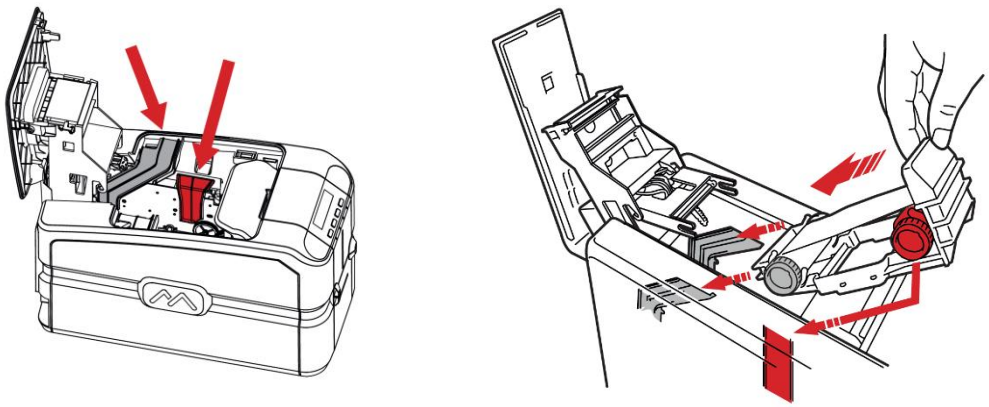
1. Remove the ribbon from the sealed bag, place the red reel into 'FRONT SIDE' of cartridge and push securely into the clips, then place the grey reel into the other end of the cartridge and push securely into the clips.



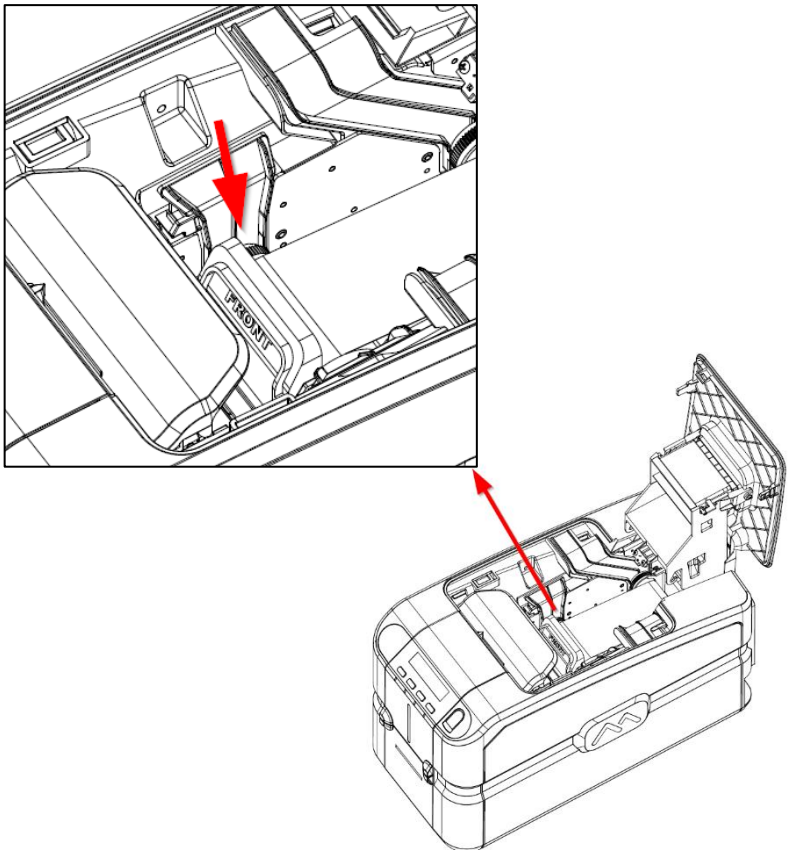
2. Move the door handle in the direction shown and open the top cover.



3 . Ribbon cartridge should be positioned inside the printer, color matching the guides with the cores as shown below:



4. Make sure the cartridge is inserted properly and the cores are positioned at the bottom of the guides, then close the top cover.



Note: Ribbon cartridge should be assembled without touching/damaging the printhead.

6.1.2 Card feeding

The input hopper (automatic card feeder) can hold a maximum of one hundred 0.76 mm thickness cards. A label inside the door gives the instructions for correctly positioning and orienting magnetic stripe and smart cards

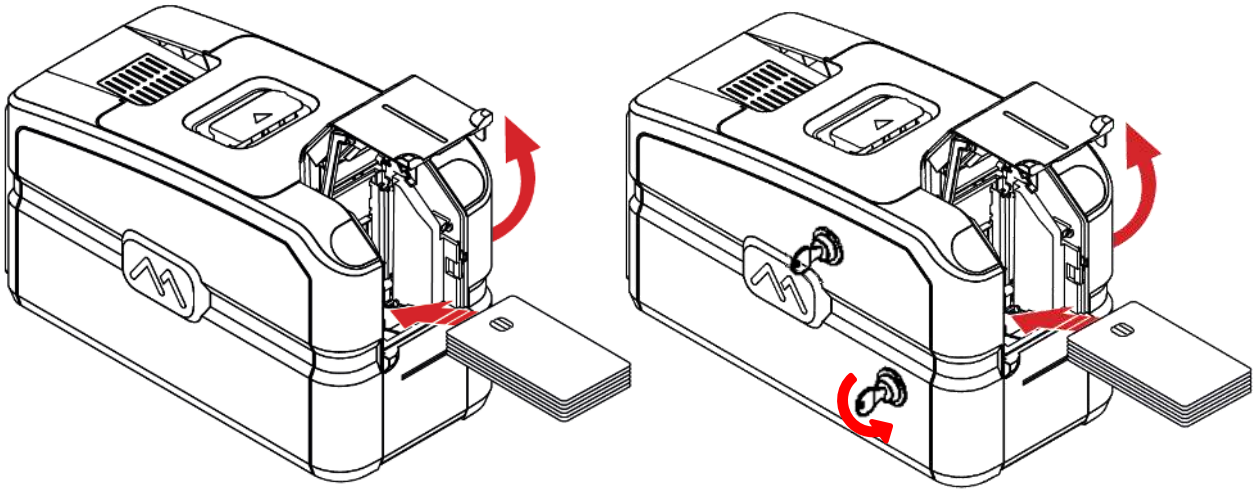
The card path can be selected from the driver to speed up card processing:

- Front hopper
- Rear hopper / reject bin (** not applicable for MC110)
- Manual feeder (** not applicable for MC110 and MC210)

The output hopper at the front of the printer can hold a maximum of thirty 0.76 mm thickness cards.

6.1.3 Input hopper (automatic card feeder)

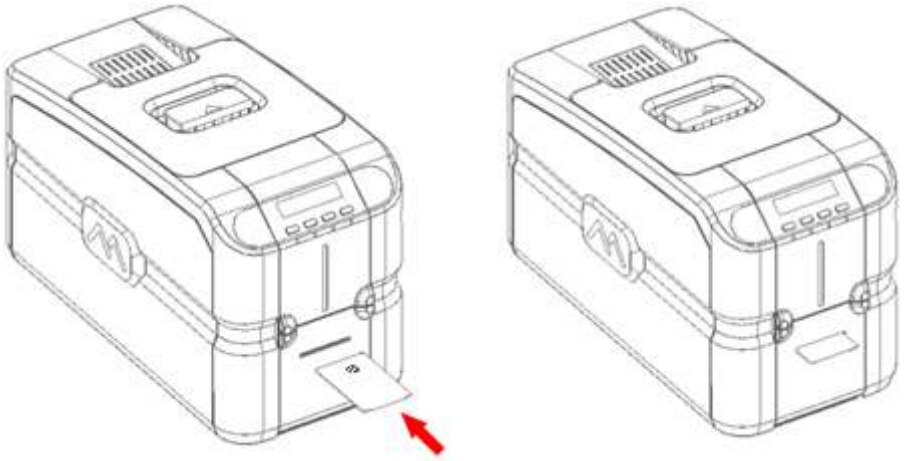
Open the hopper door as shown below to load the cards and close the door.



6.1.4 Front slot (manual card hopper)

The manual card feeder is always ready for use and is prioritized. It is suggested that it can be used when the job requires an exception card to the ones loaded inside the input hopper.

Insert the card inside the slot as shown below.



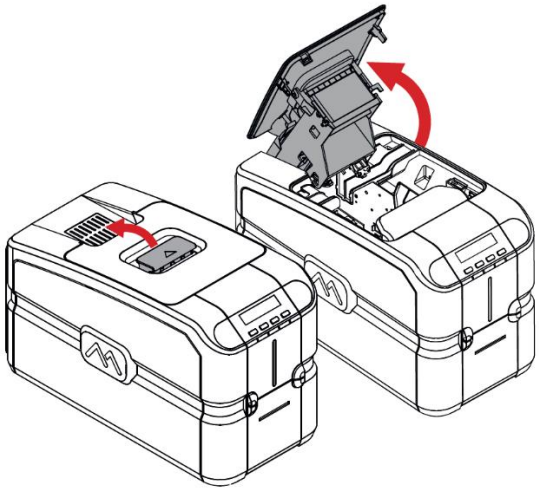
Note: Contact chip cards to be inserted face up, magnetic stripe cards should be inserted with the magnetic stripe facing downwards towards the right.

6.1.5 Adjusting the card thickness

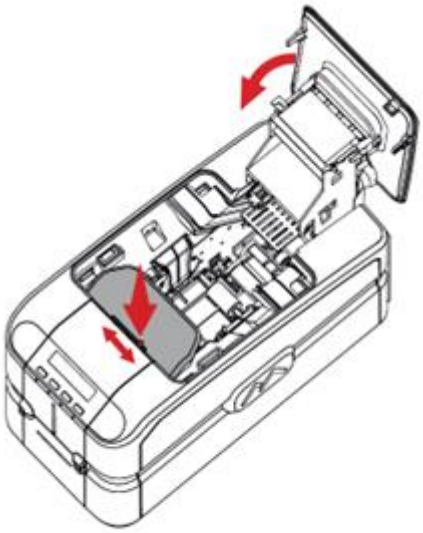
The card thickness can be adjusted by sliding the green selection lever to the required thickness. (a label is attached on the smart card encoder cover to guide the selection).

Cards with thicknesses ranging between 0.25 mm and 1.25 mm (10 - 50 mil) can be processed by the printer. To adjust the card thickness:

1. Open the printing module compartment cover.

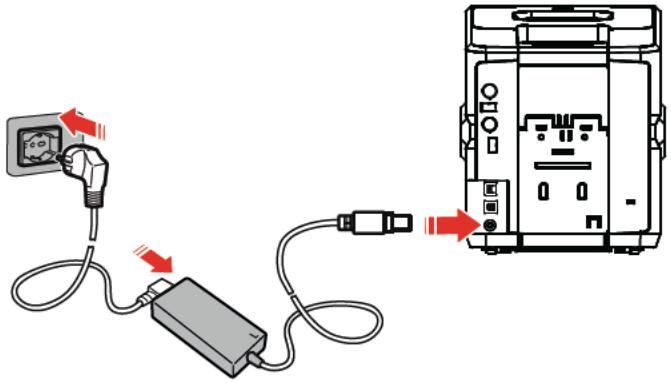


2. Slide the card thickness selection lever to match the card thickness which is to be printed, then close the top lid.

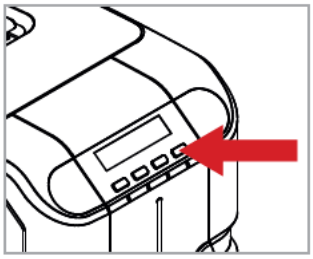


6.1.6 Connecting the power supply and powering ON the printer

1. Connect the power cord to the power brick. Then connect the power supply. Insert the power supply to the printer as shown below.



2. Press the power button to turn the printer ON.



7 Installing the software driver and configuring the printer

The USB thumb drive that comes with MC310 printers contains the following files:

- PDF of this user guide
- XPS driver installer

For MC110 and MC210 please visit www.maticacorp.com/install to download the XPS driver and to view step-by-step installation videos.

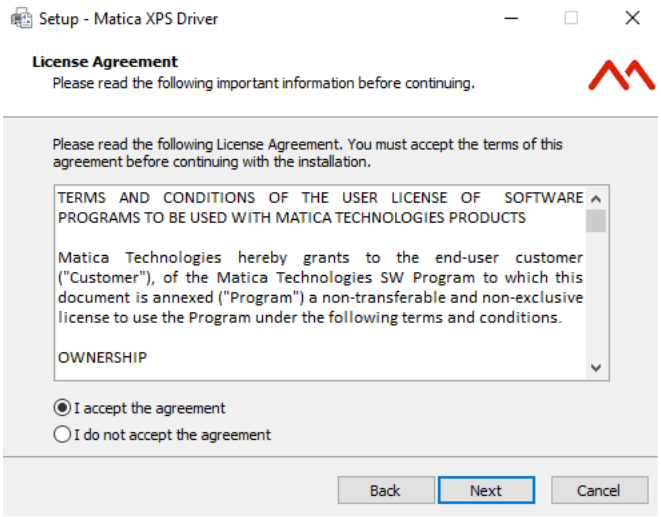
Connecting the printer to your computer and installing the driver software

7.1.1 Printer connection through USB

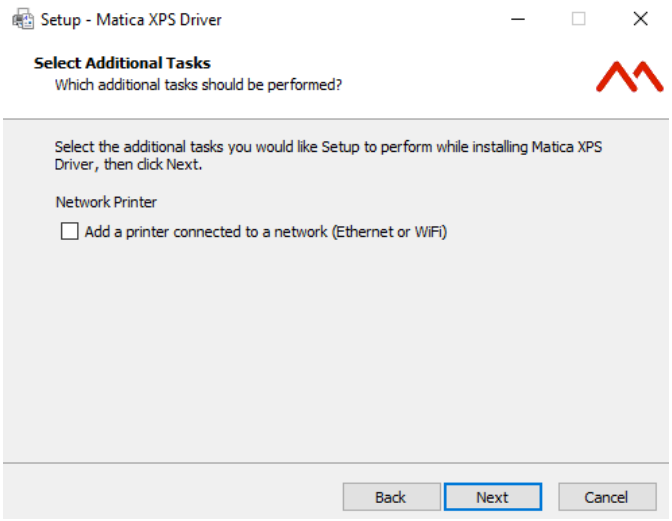
1. Download/save a copy of Matica XPS driver installer software onto your PC/Laptop.
2. Double click on the installer, then click **Next**



3. Accept the license agreement and click **Next**.

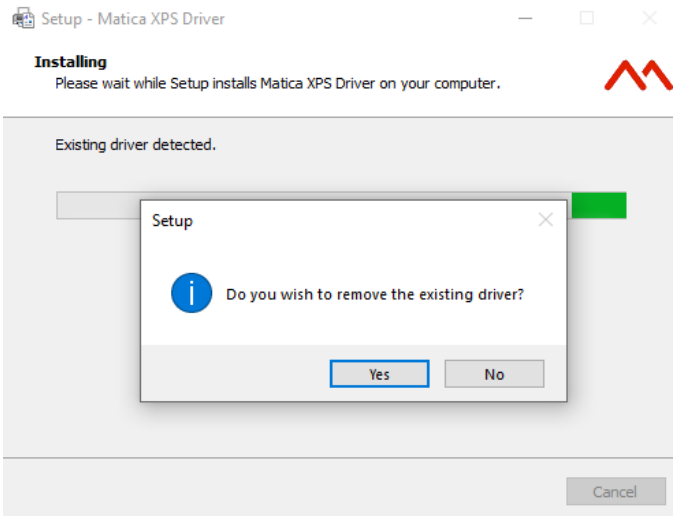


4. Leave the **Network Printer** option unticked, then click **Next** to continue with the installation.

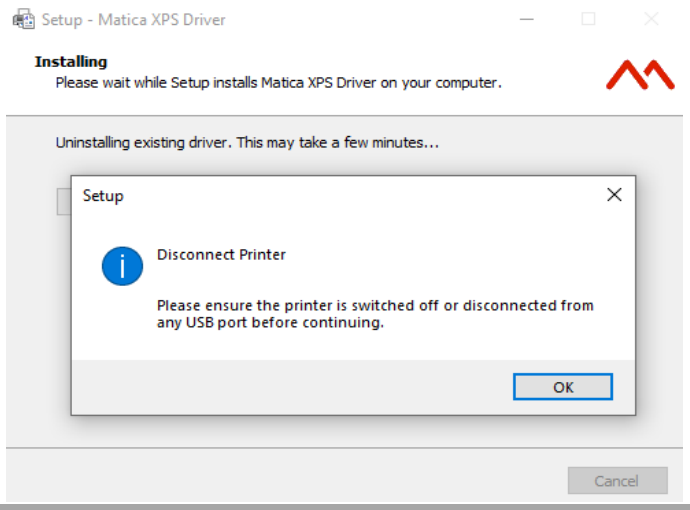


5. During the installation process, the installer checks for previous versions of the driver.
   a. If an older version is detected, a pop-up will ask permission to remove the existing driver. It is recommended to do so - click **Yes**.

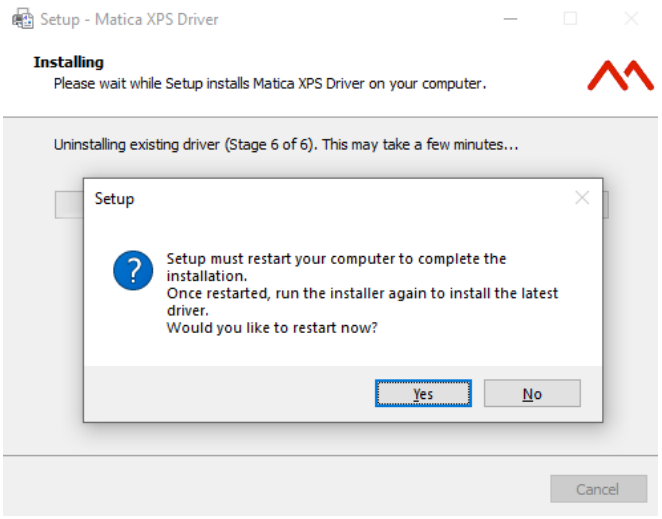
   b. If no driver is detected, move to step 9.



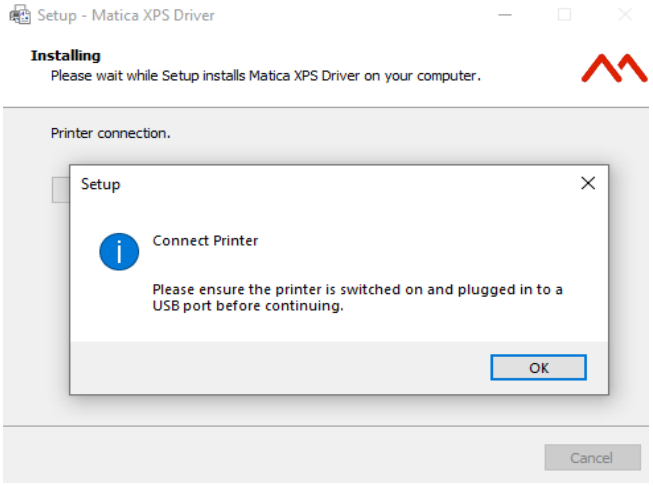
6. A dialog box appears, please disconnect or switch OFF the printer, then click **OK**.



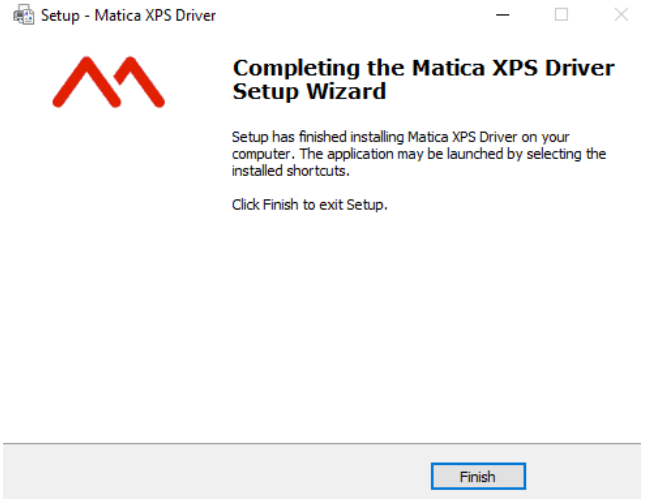
7. Restart is required, click **Yes**.



8. After restarting the PC, run the installer again. Installation repeats steps 1 to 5, then moves to step 9 – please note this might take several minutes.
   Once the installation is near completion, a pop-up message will ask to either connect or switch ON the printer, please do so and click **OK**.



9. The install is complete, click **Finish.**



7.1.2 Printer connection through LAN/Ethernet

The MC210 and MC310 printers can be connected to a network i.e., LAN/Ethernet connection through 2 types of connection.

a) DHCP

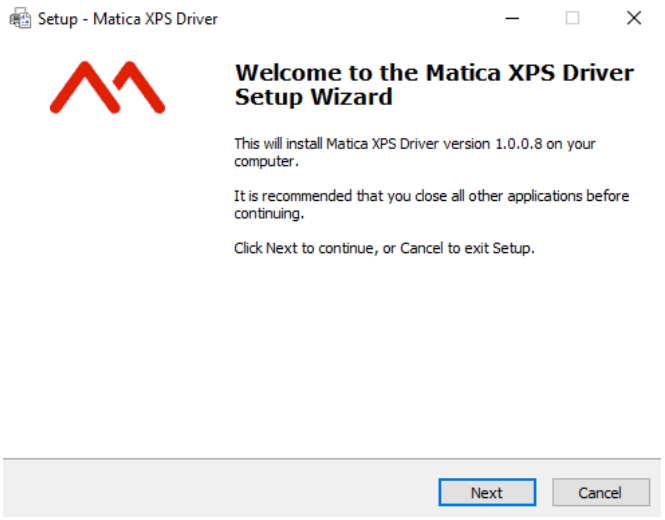
b) Static IP

7.1.3 DHCP

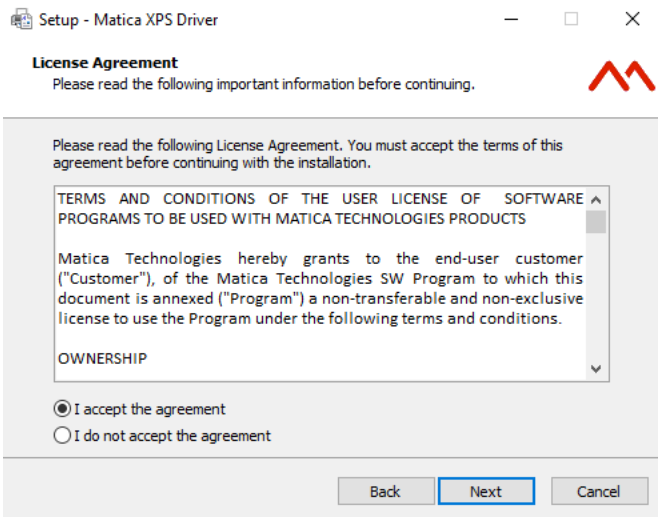
If the printer was already installed with a USB connection, disconnect the USB cable from the printer and switch OFF the printer.

1. Download/save a copy of Matica XPS driver installer software onto your PC/Laptop.

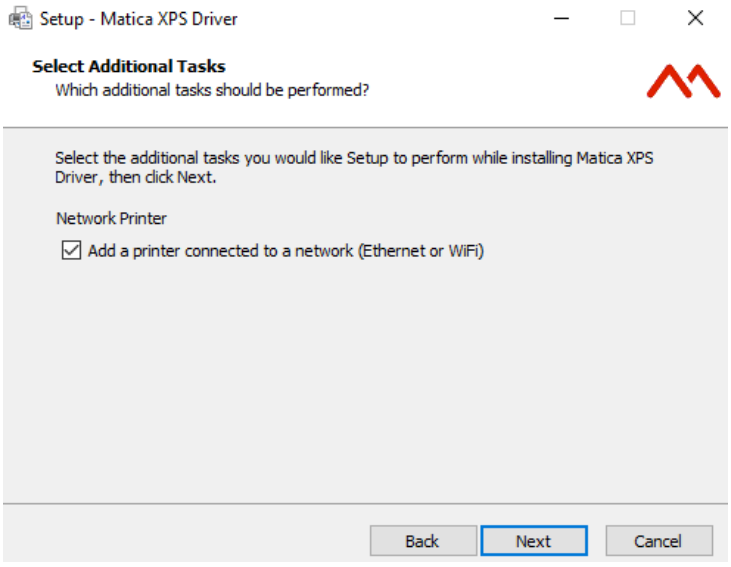
2. Double click on the installer, then click **Next**



3. Accept the license agreement and click **Next**.



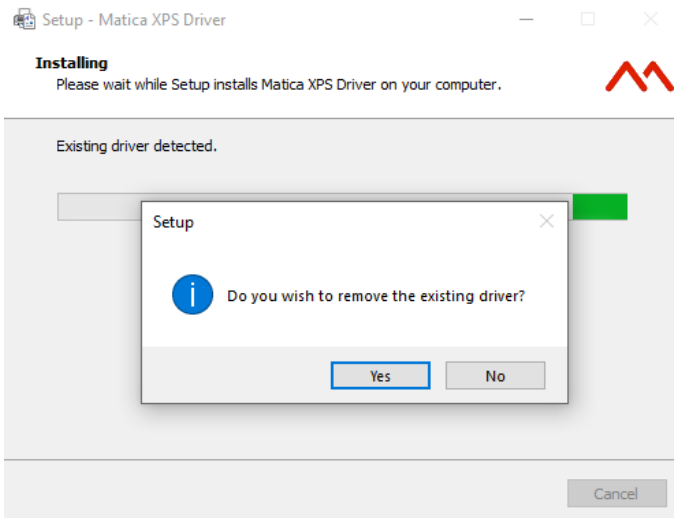
4. Tick the option **Add a printer connected to a network (Ethernet or Wi-Fi)**, then click **Next**.



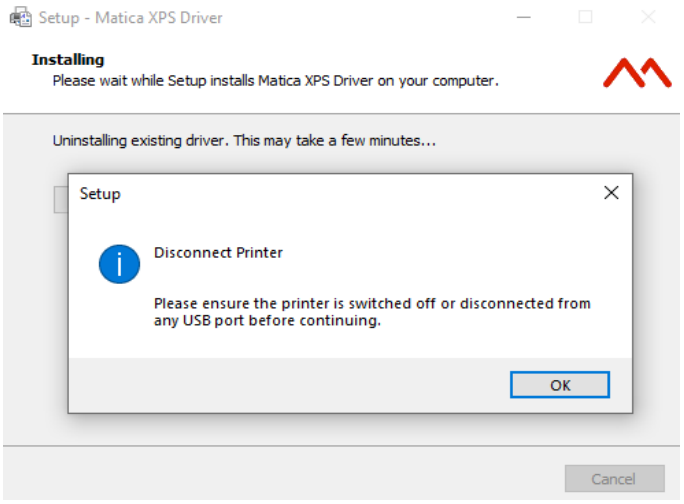
5. During the installation process, the installer checks for the previous versions of the driver

   c. If an older version is detected, a pop-up will ask permission to remove the existing driver. It is recommended to do so - click **Yes**.

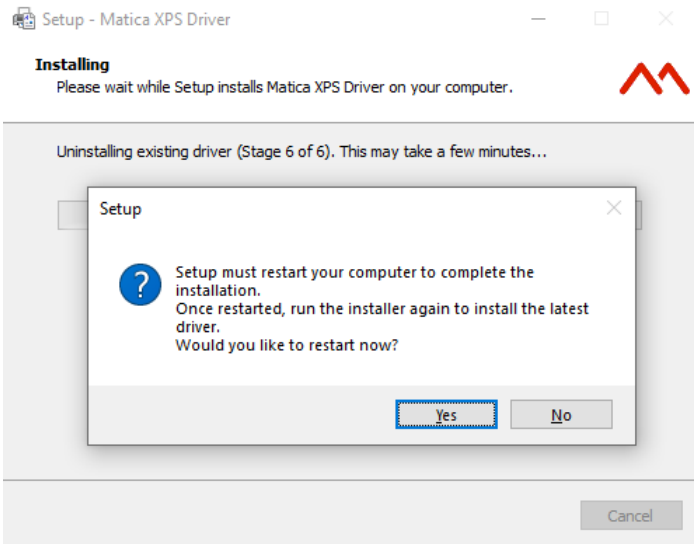
   d. If no driver is detected, move to step 9.



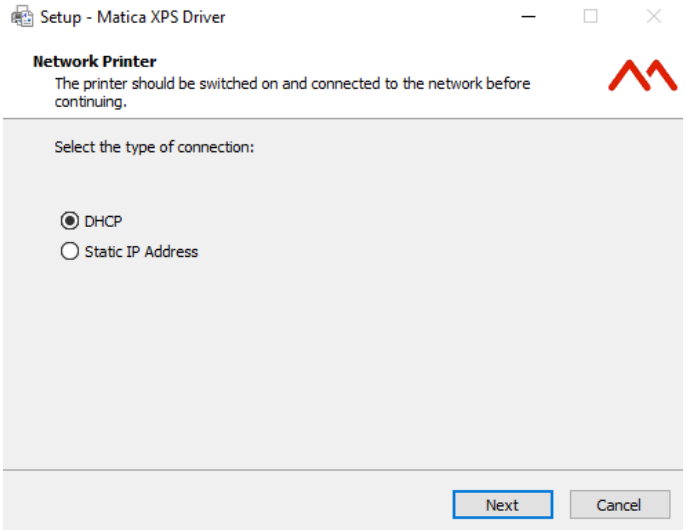
6. A dialog box appears, please disconnect or switch OFF the printer, then click **OK**.



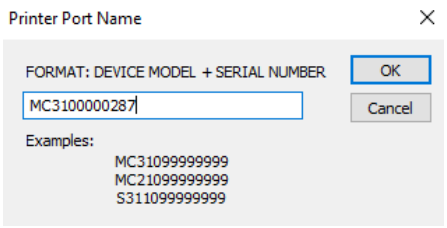
7. Restart is required, click **Yes**.



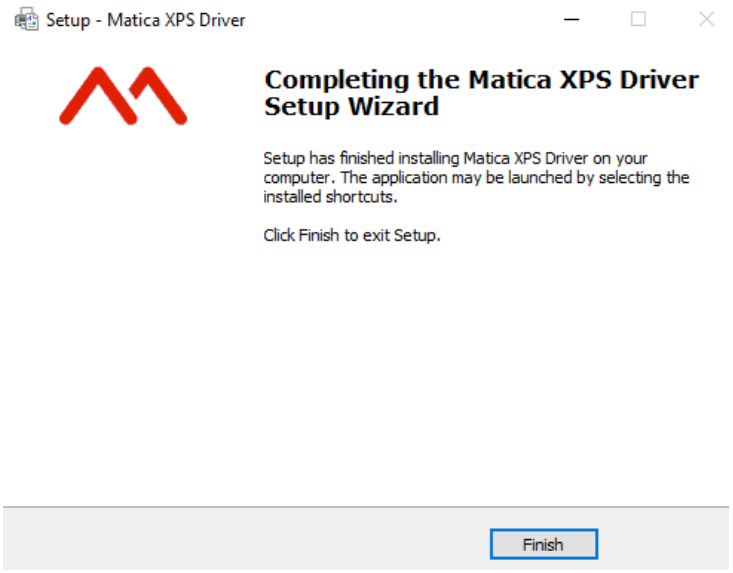
8. Connect the printer with an Ethernet cable (not supplied) and switch it ON.
9. For DHCP connections select **DHCP** and click **Next**



10. For DHCP connections the following dialog box appears.
    It enables you to add the printer port name per the guidance provided. I.e. model name + 7 digit serial number



11. Click **Finish** to complete the Matica XPS driver setup wizard



7.1.4 Static IP

Follow the steps below to set the printer to Static IP.

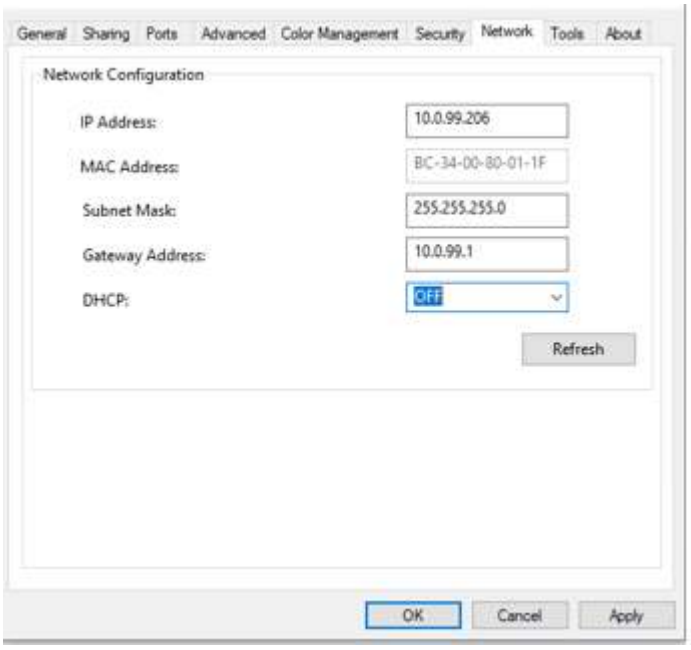
1. Ensure the driver was installed using USB connection, switch ON the printer and connect to the USB port.

2. Connect the Ethernet cable (not supplied) to your PC and to the printer whilst the USB cable is still connected.
   Then switch the printer OFF and ON again.

3. Go to **Control Panel** > **Devices and Printers** > **right click on MC DTC** > **Printer Properties** then select the **Network** tab.

4. Note down the IP address and set DCHP to OFF, then click **Apply** and **OK**.

   Note: If IP address needs changing, set the DCHP to **OFF** and change the IP address and gateway, then click **Apply** and **OK**.

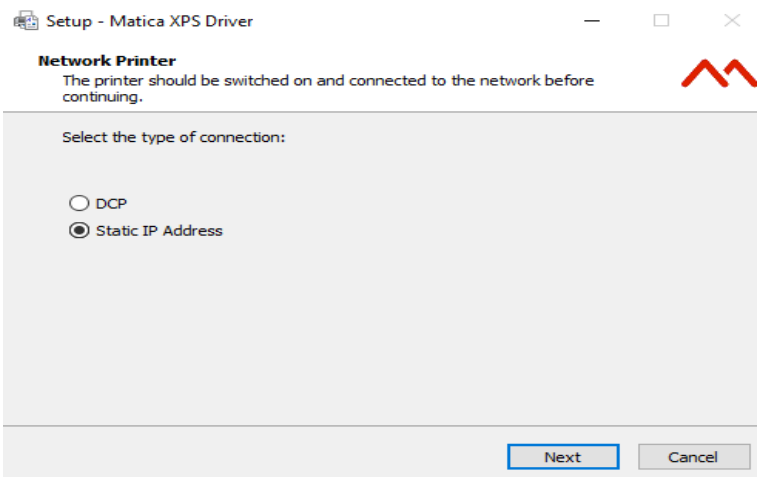


5. Once IP address is set or noted down, disconnect the USB connection from printer.

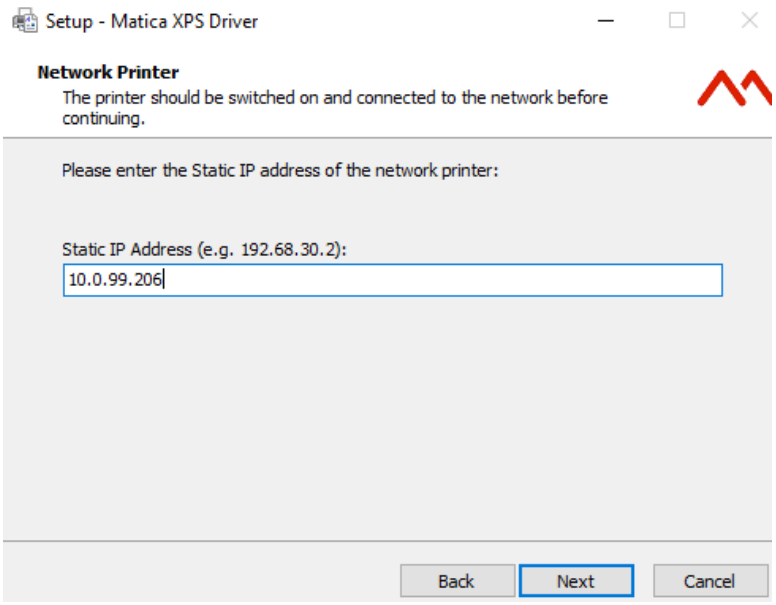
6. To connect the printer through Static IP run the installer and follow the steps 1 to 11 in chapter 6.1.2.1 - DHCP.

7. Connect the LAN cable, then turn the printer OFF and ON again.

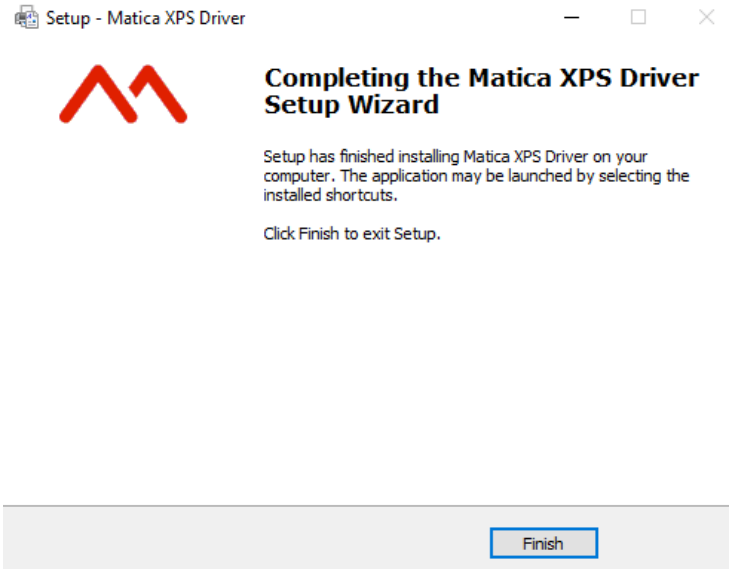
8. Select **Static IP Address** and click **Next**.



9. Enter the **Static IP Address** noted in step 4, then click **Next**.



10. Click **Finish** to complete the Matica XPS driver setup wizard.



8 Uninstall program tabs

To uninstall the software follow one of the two methods displayed below, then restart your PC.

Start > **Control Panel** > **Programs and features** > **Uninstall** > **Matica XPS Driver version 1.x.x.x**

Start > **Matica** > **Uninstall XPS driver**

8.1.1 Tools

In the Tools menu, the sser can manage different operations in the printer, for example:

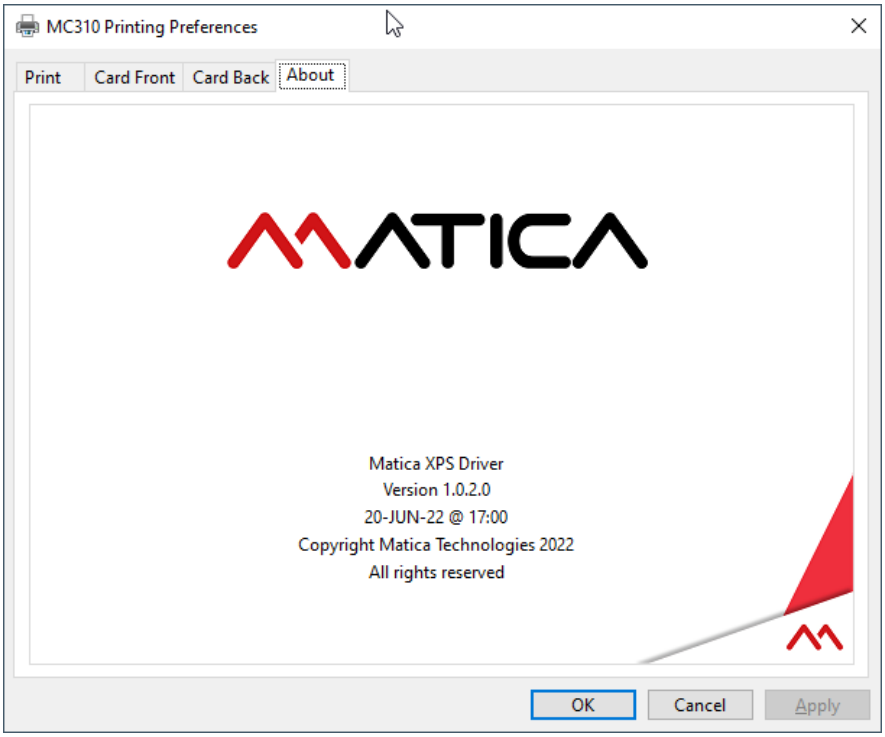
- Printer cleaning - Refer to chapter 8.1 (standard cleaning)
- Advanced printer cleaning - Refer to chapter 8.2 (card patch advanced cleaning)
- Activate duplex printing - Refer to chapter 9.4 (duplex activation)
- Update printer firmware
- Update printer LCD firmware
- Perform PC/SC encoder check
- Update printer FONT firmware
- Printhead replacement -Refer to chapter 8.5 (printhead replacement procedure)

Once the printer is correctly installed, connected and switched ON, the Tools tab can be accessed through:

Control Panel > **Devices and Printers** > **Right click on MC DTC** > **Printer Properties**

8.1.2 About

In the **About** tab, you can check the firmware version installed in the printer and other related information.



9 Printing

Card printing

Cards are usually printed and encoded by a printer application chosen by the user. However, if required, a compatible non-proprietary application is available as an option for designing and printing cards. Cards can be customized (logo, image and name) by creating graphic images and defining page formats.

The printer application recognizes the printer, enabling the user to create fully customized cards.

The XPS driver sets the printer properties based on the printing operation required such as:

- Print setting tab
- Card front setting tab
- Card back setting tab
- Magnetic stripe encoding setting tab (* if Magnetic stripe encoder module is installed in printer)
- Lamination (* Based on lamination installation inline with printer)
- E-locks (* Based on e-lock installation with printer)
- About tab

9.1.1 Print setting tab

The Print setting tab enables users to set the orientation of the image to be printed on the card. It also includes duplex option, card input and output options, card type and number of copies to be printed. It provides information on printer configuration, ribbon type and quantity of ribbon left.

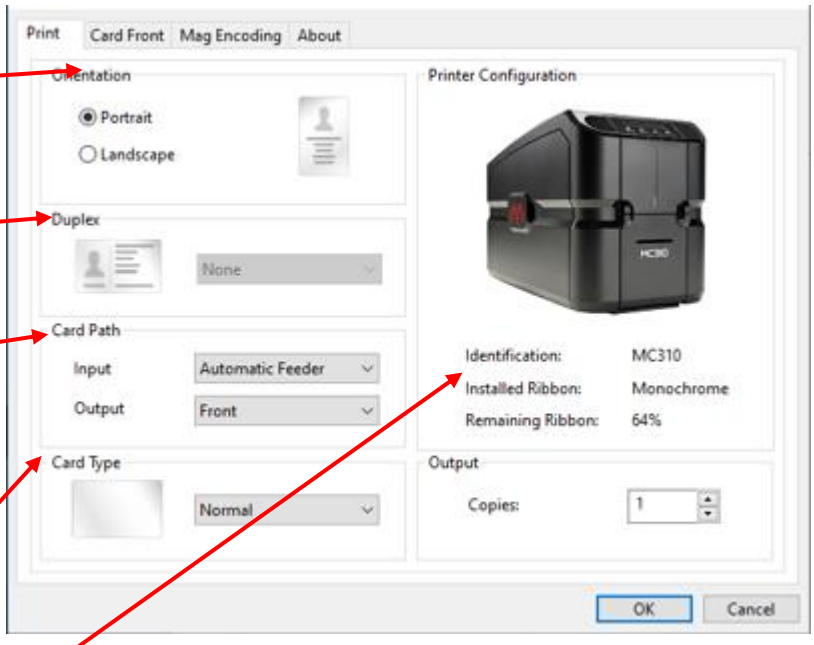
Print image orientation setting.
User can set Portrait or Landscape

Duplex option setting: User can print the card on both sides by setting the duplex option short edge or long edge in a duplex enabled printer.
For single side printing users should select None down menu.

Card path selection: drop down menu enables the user to select & set the input feeder & output option.

Card type selection: drop down menu enables the user to select & set type of card to be printedr.

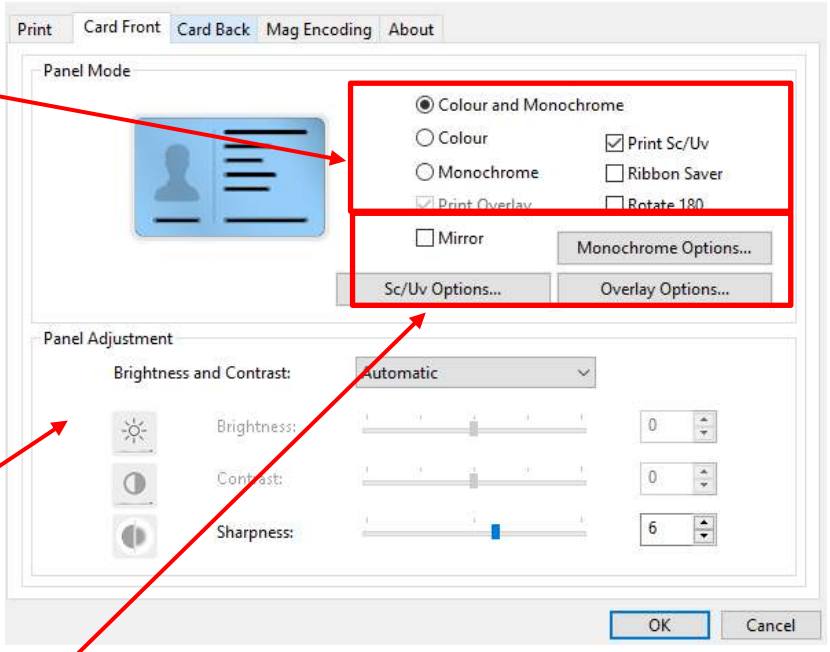
Printer model & ribbon details



9.1.2 Card Front setting tab

Panel Mode setting: based on type of ribbon added inside the printer for printing, the user can set color, monochrome or overlay options for the front side of the card, mirror or rotate 180 degrees and can select a Sc/Uv ribbon panel.
** For printing color and overlay front side & monochrome on the back side using a YMCKO ribbon, the user should select the **Ribbon Saver** option and click OK.

Panel Adjustment: the user can choose between automatic and manual setting of **Brightness**, **Contrast** & **Sharpness**.
Automatic: Uses default setting.
Manual: the user can adjust the **Brightness Contrast** and **Sharpness**, based on the print image requirement.



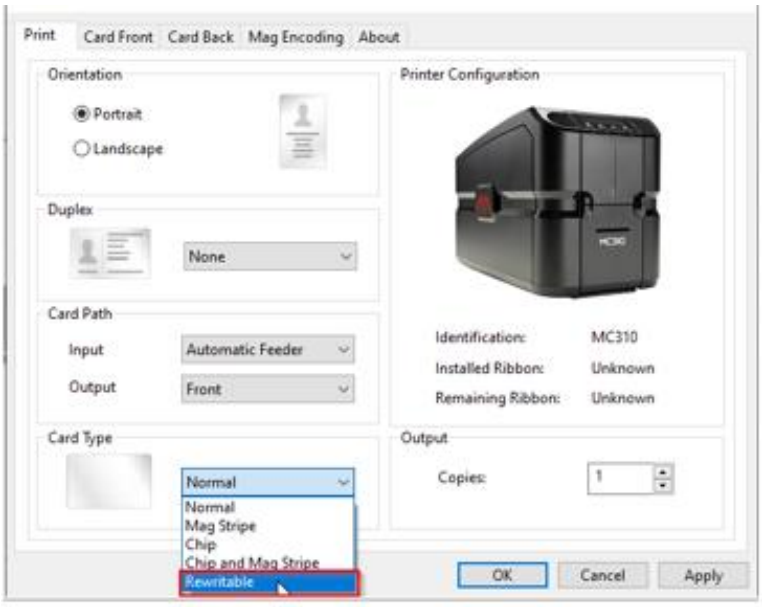
Monochrome Options: the user can set the contrast, use half tone for the monochrome panel and set areas for Resin Extraction.
Overlay Options: the user can set contrast for the overlay panel and the overlay area setting.
Sc/Uv Options: the user can set contrast for the Sc/Uv panel and its print area setting.

Note: Card back side setting options are available only for duplex activated DCP printers.

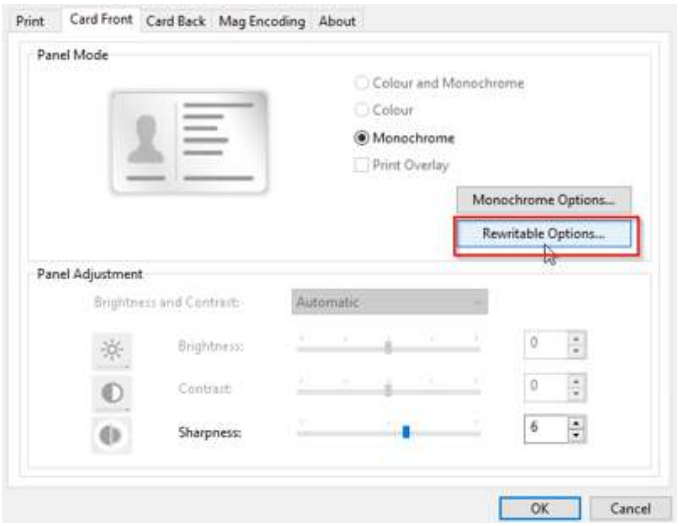
9.1.3 Rewritable card printing option

Follow the steps below to use rewritable cards.

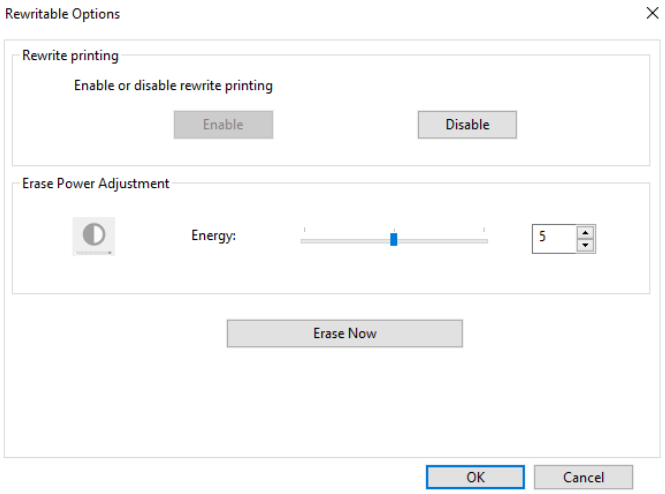
1. If printer is already printing remove the ribbon from the printer and switch the printer off and then on.
2. Open the MC310/MC210 printer properties, in the print tab select the card type as **Rewritable**.



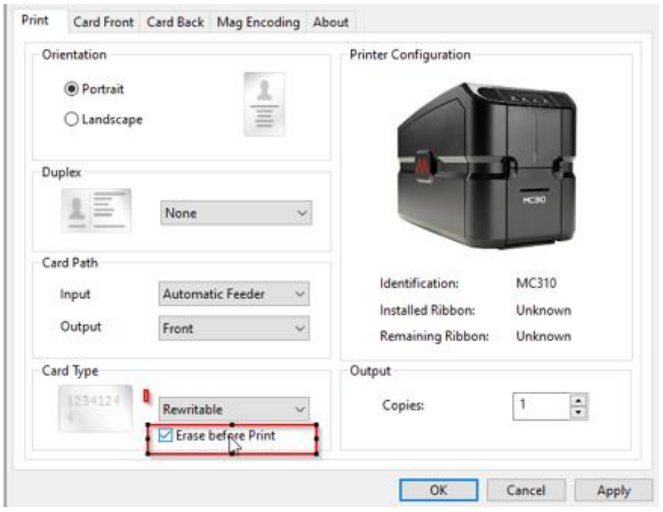
3. Go to **Card Front** tab and select **Rewritable Options**.



4. Make sure rewritable printing is enabled in the printer, if not add a rewritable card in feeder and click **Erase Now**. A card will feed in the printer and erase the rewritable card. After the rewritable card has been erased and ejected, the rewritable option is activated in the printer, then click **OK**.



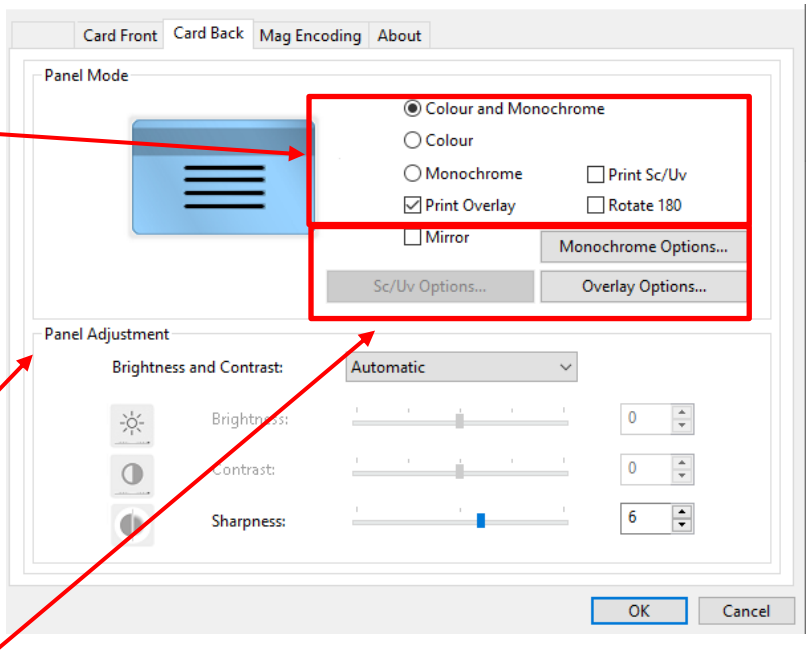
5. Once rewritable option is activated in printer, return to the print tab of MC310/MC210 printer properties. Select **Rewritable** card type and select **Erase before Print**. Click **OK** and the feature is ready to be utilized.



9.1.4 Card Back setting tab

Panel Mode setting: based on type of ribbon added inside the printer for printing, the user can set color, monochrome or overlay options for the back side of the card, mirror or rotate 180 degrees and can select a Sc/Uv ribbon panel.
** For printing color and overlay front side & monochrome on the back side using a YMCKO ribbon, the user should select the **Ribbon Saver** option and click OK.

Panel Adjustment: the user can choose between automatic and manual setting of **Brightness**, **Contrast** & **Sharpness**.
Automatic: Uses default setting.
Manual: the user can adjust the **Brightness Contrast** and **Sharpness**, based on the print image requirement.



Monochrome Options: the user can set the contrast, use half tone for the monochrome panel and set areas for Resin Extraction.
Overlay Options: the user can set contrast for the overlay panel and the overlay area setting.
Sc/Uv Options: the user can set contrast for the Sc/Uv panel and its print area setting.

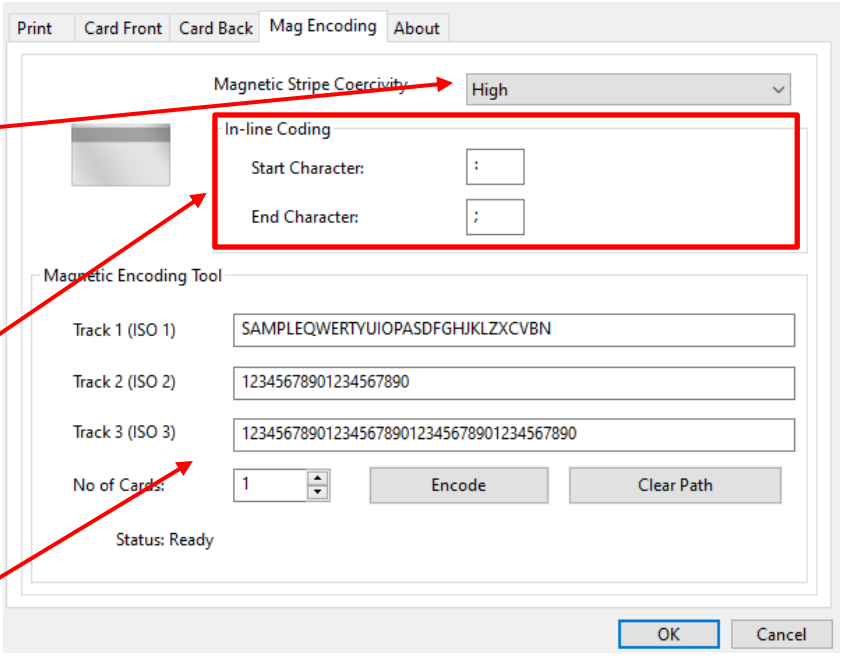
9.1.5 Magnetic stripe encoding and the Mag Encoding tool tab

The **Mag Encoding** setting tab is available for printers fitted with a magnetic stripe encoder.

Magnetic Stripe Coercivity setting: Based on the type of magnetic stripe card coercivity being used, the user selects the coercivity from the drop-down menu & then clicks OK.

In-line Coding: Users can choose and set the **Start Character** and **End Character** for encoding tracks.

Magnetic Encoding Tool: A standalone tool provided to encode magnetic encoding stripe cards.



9.1.6 Laminator

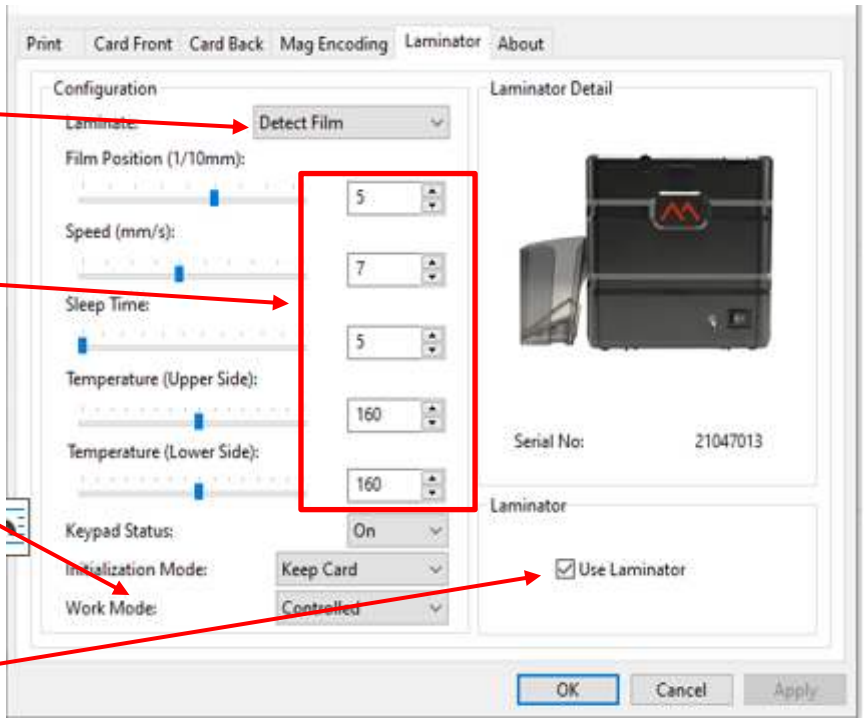
The **Laminator** tab enables for the MC-L2 Inline laminator to be configured.

Drop down menu for lamination that includes options for film detection, upper side lamination, lower side lamination, pass through and both sides.

Laminator parameter adjustment option.

Work Mode: this can be **Controlled** & **Standalone**.
To control the lamination parameters through the XPS driver, **it should be set to controlled mode**

Tick the **Use Laminator** option to use a laminator in line with MC210 & MC310

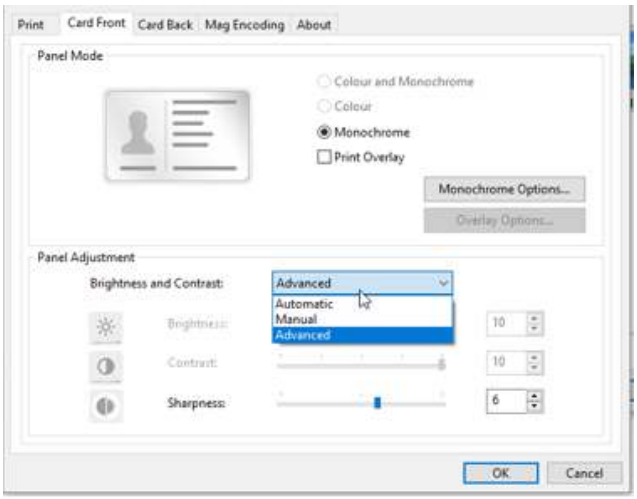


Note: To use a laminator inline with the MC310/MC210, the user must select the output card path as the rear outbin.

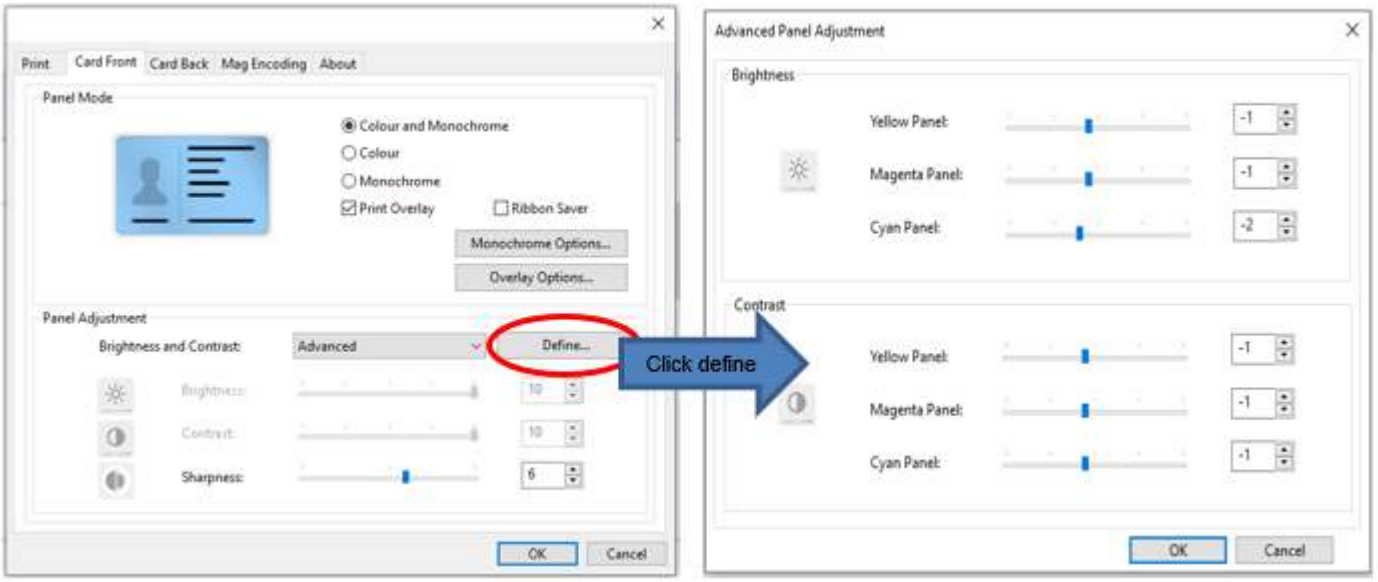
9.1.7 Color settings

By default, the **Brightness and Contrast** settings in printer properties show as **Automatic**.

To customize color printing select **Manual** from the drop-down menu, adjust Brightness, Contrast and Sharpness and click **Apply** and **OK**.



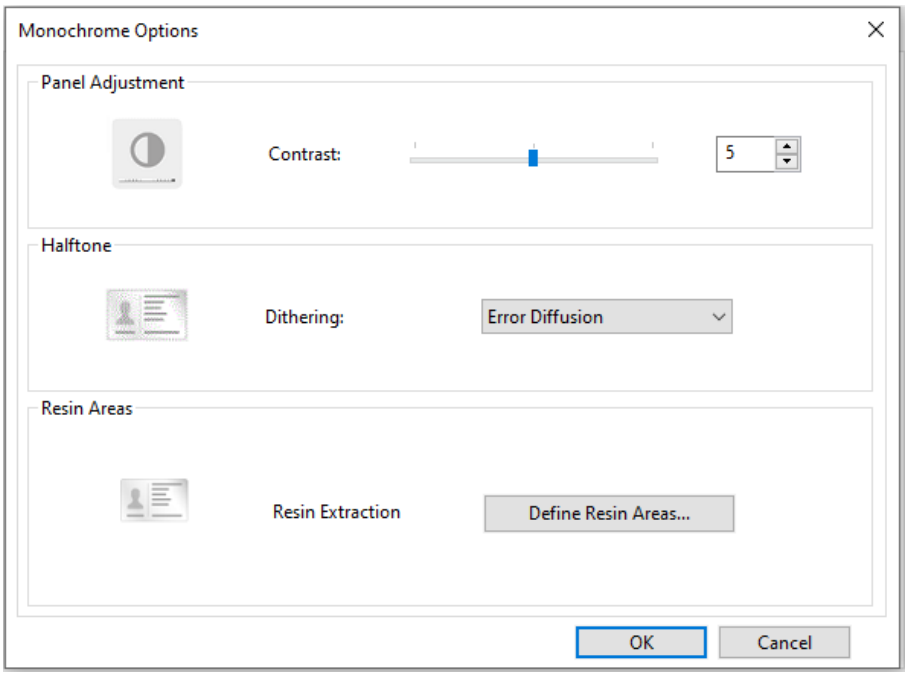
The **Advanced** option enables the user to define different brightness & contrast values for YMC panels separately.



Click the **Define** tab after selecting the **Advanced** option in the drop down menu, the Advanced **Panel Adjustment** menu appears.
The user can adjust the required **Brightness** and **Contrast** value for each panel and click **OK**.

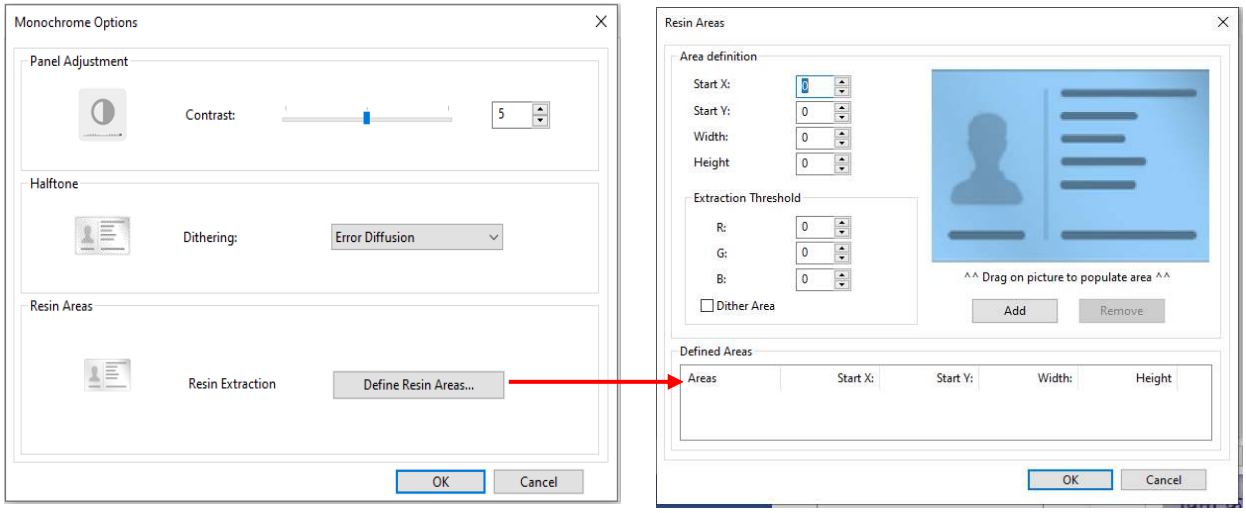
9.1.8 Monochrome Options

In **Monochrome Options** the user can set **Contrast** for monochrome, **Halftone** & **Resin Areas** extraction.

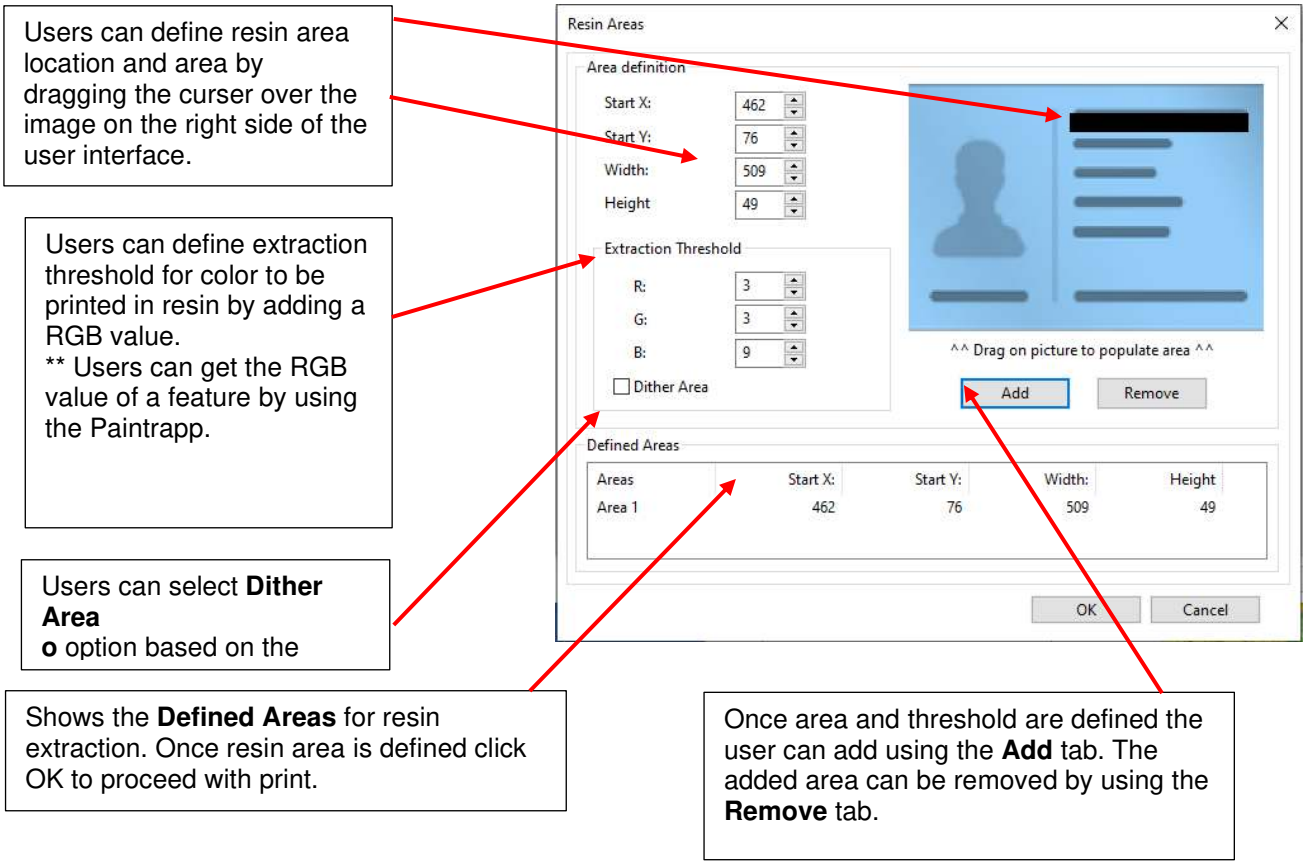


9.1.9 Resin area extraction

When printing with a YMCKO ribbon, the user can select area/features in an image to print with resin (K panel) using the **Resin Areas** extraction option.



Resin Areas extraction user interface



Note: Once the user has defined a resin area, this will always need to be removed or readjusted for a different card layout.

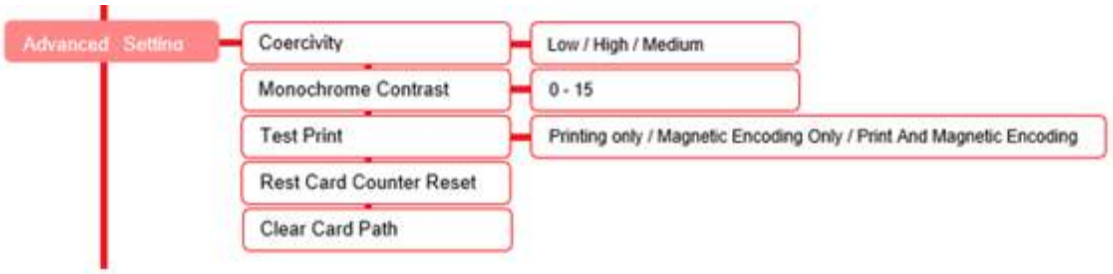
9.1.10 Printing test cards using the printer menu.

Test cards are used to check that the printer is operating correctly and to obtain some important printing parameters.

Print a test card using the LCD display menu:

- Using the Menu/Scroll button, Scroll to Advanced Setting.
- Press the Selection button to open the respective sub-menu.
- Scroll to Test Print
- Press the Selection button to print the test card.

Refer to the navigation chart below:



10 Printer maintenance

Four different cleaning processes are available for the MC DTC series.

10.1.1 Standard cleaning

- Suggested frequency for color printing: each time the ribbon is changed.

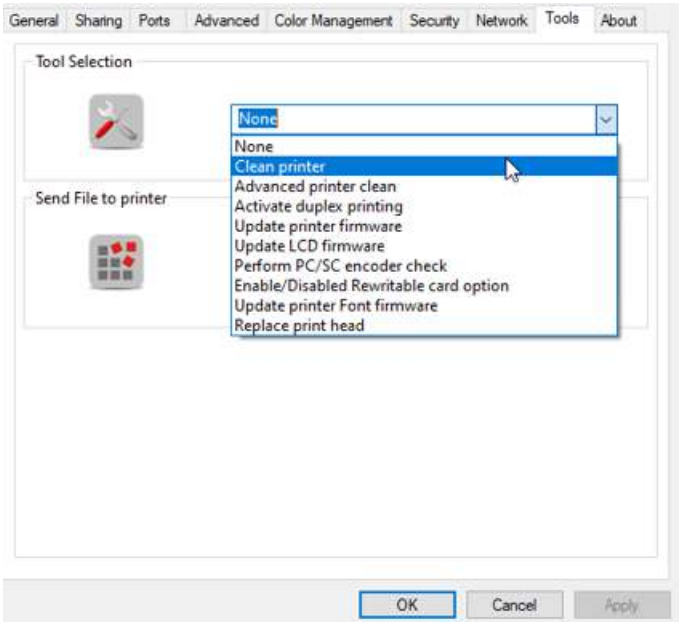
- Mandatory frequency (to prevent voiding the warranty): after every 1,000 prints. Then, the printer will alert the user for **Basic Cleaning** on the display and with an intermittent amber LED.

  The product has an internal counter that keeps track of the number of cards printed and warns the user when the mandatory cleaning procedure must be performed.

- If the cleaning procedure is not followed at 1000 prints, at 1200 prints, the printer will alert the user for **Mandatory Cleaning** on the display with a red LED

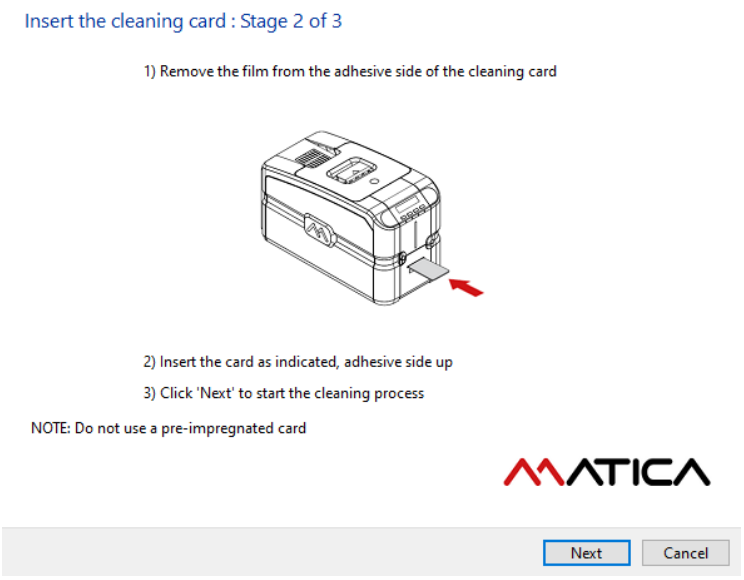
- For printers fitted with Magnetic stripe encoders: cleaning frequency should be more often.

1. To perform standard cleaning, select '**Clean printer'** from the drop-down menu available in the **Tools** tab.

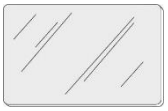


2. Remove the cards and ribbon cartridge and make sure both the hopper and top cover are closed, then click **Next**.

3. Remove the adhesive protection film from the cleaning card and insert it into the printer.

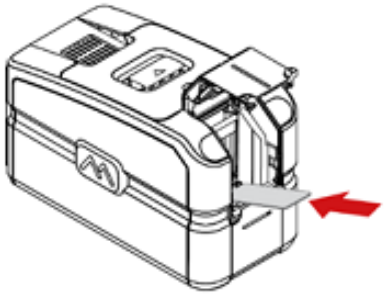


Note: The CR80 double sided adhesive card is compatible with all MC direct to card printers. Please remove the protective film and feed the cleaning card into the printer as shown below.



CR80 size card

MC110 and MC210



For MC310 & S3110



4. Clean the printhead referring to Chapter 10.1.4, then click **Finish**.

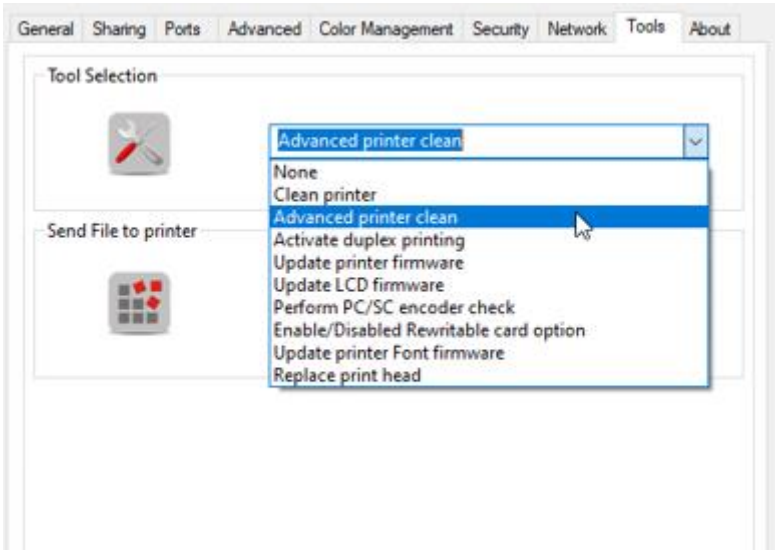
10.1.2 Card path advanced cleaning

The card path advanced cleaning procedure is required after performing **five** standard cleaning procedures:

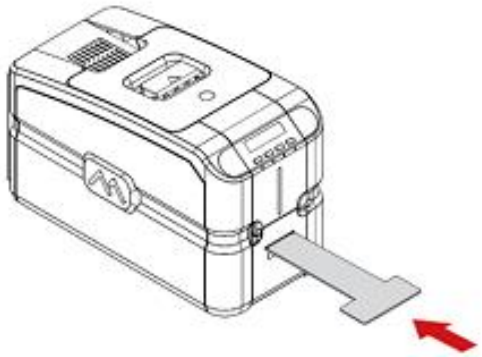
.

- After every 5000 prints, the printer will alert the user for Advanced Cleaning on the printer display and with an intermittent red LED.
- Advanced cleaning is performed using the T-card as explained below.
  The procedure involves cleaning the card path, removing the dust on the rollers and cleaning the magnetic head.
- The printer has an internal counter that stores the number of standard cleaning procedures performed, so as to notify when the advanced cleaning procedure is required (see Printer Manager Specifications).
- A software-guided procedure will assist in carrying out the cleaning operations.

1. To perform the advanced printer clean, select the **Advanced printer clean** wizard from the drop-down menu in the printer properties **Tools** tab and follow the instructions in the wizard.



2. Insert the **T-card** in the slot of the printer as guided in driver wizard

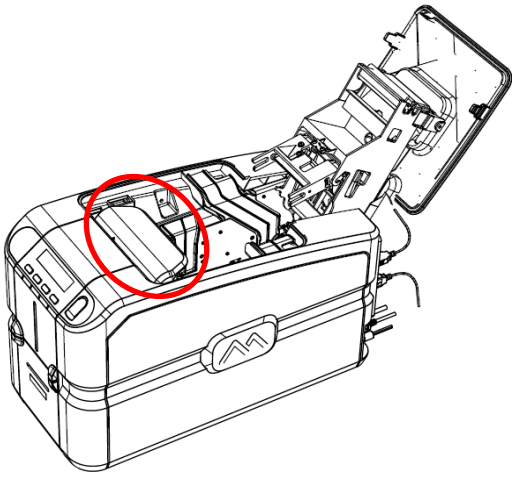


Note: For the MC110 and MC210 carry out advanced cleaning with the T-card via the automatic hopper.

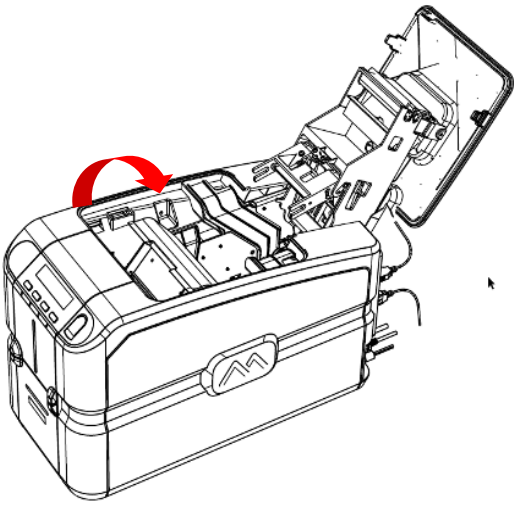
10.1.3 Cleaning roller advanced cleaning

It is suggested to perform an advanced cleaning of the cleaning roller when the standard cleaning procedure does not efficiently remove all the dust from the cleaning roller. (Cleaning frequency: After every 1000 prints or more often based on the working environment)

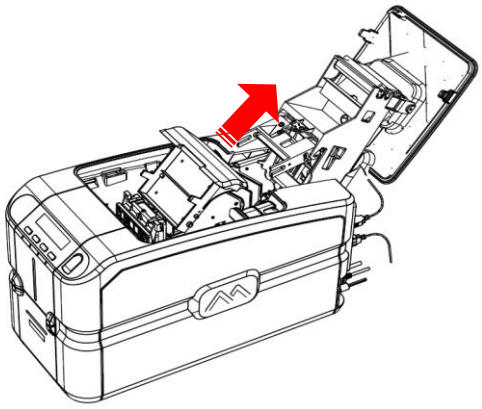
1. Switch the printer off, unplug the power supply, open the top cover and remove the ribbon cartridge.
2. Remove the encoder cover by following the instructions below.



Step 1: Hold the encoder cover

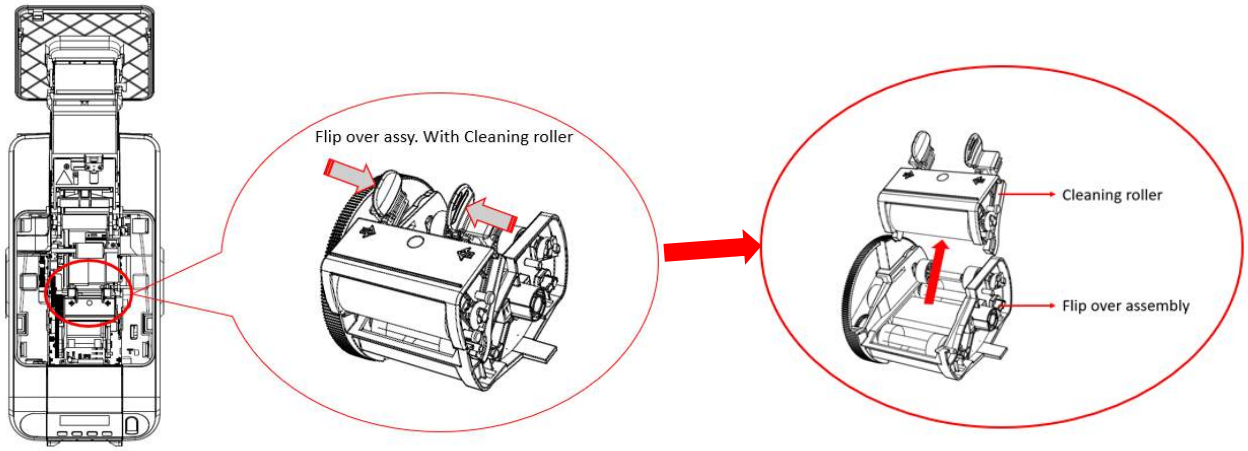


Step 2: Move the cover downward as shown in the image to disengage

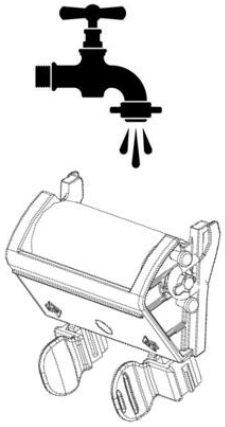


Step 3: Slide out the encoder cover in the direction shown in the image

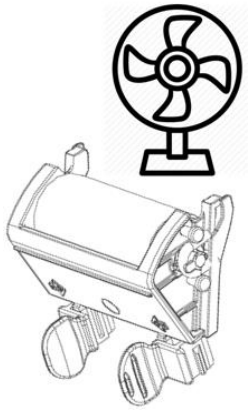
3. With the cover out of the way you can see the flip over assembly with cleaning roller (marked with arrows) Press with two fingers to remove the cleaning roller from the flip over assembly, as illustrated below.



4. Clean the roller with water only and dry it thoroughly.

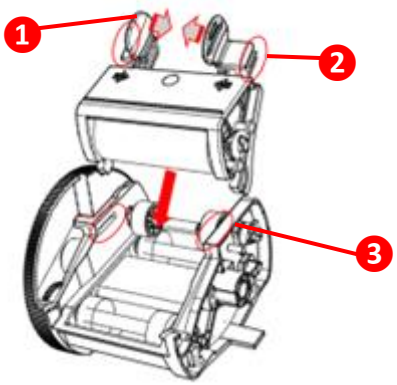


Do not use Acid for washing Roller



Just air dry.
Do not use paper towels or cloth towels for drying the cleaning roller.

5. Reinsert the roller by pressing the flanges 1 of the cleaning roller and pushing the projections 2 into its slot 3, pressing downwards until you hear a locking click.



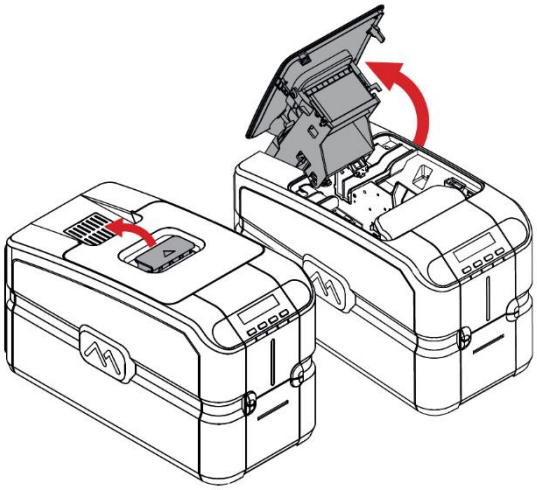
6. To complete the procedure, insert the encoder cover and ribbon cartridge back into position, then close the top cover.

10.1.4 Printhead cleaning

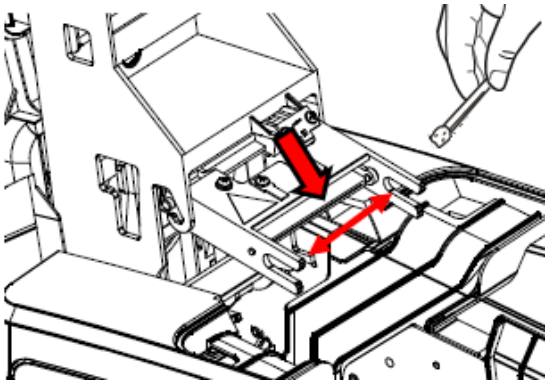
It is suggested to clean the printhead when pixels are missing on printed cards:

- The edge of the printhead must be cleaned using the cleaning pen to remove residual ink ordust.

1. Unplug the printer from the power supply and open the top cover.



2. Using the pen included in the cleaning kit, clean the printhead by rubbing the pen in the direction indicated by the arrow in the figure below.





Printhead might be hot, please ensure that it is cooled down before proceeding further

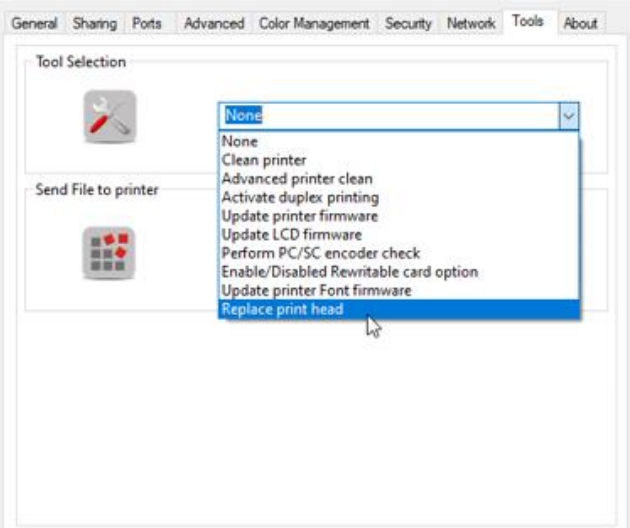
3. Close the top cover, the printhead cleaning procedure is now complete.

10.1.5 Printhead replacement procedure

As the print head is the most important component of the printer, it is advisable to carry out the recommended cleaning procedures in order to guarantee maximum quality at all times and the longest possible service life.

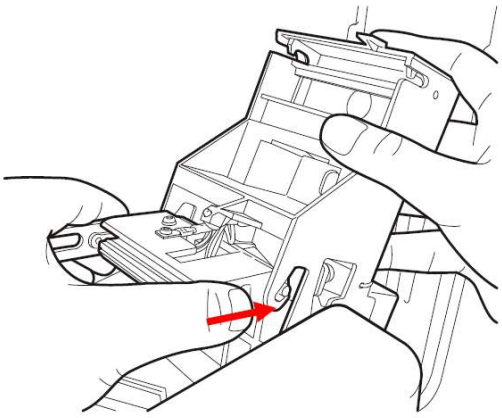
However, after a certain period the print head may become worn and then must be replaced.

1. To perform printhead replacement, select **Replace print head** from the **Tools** menu.

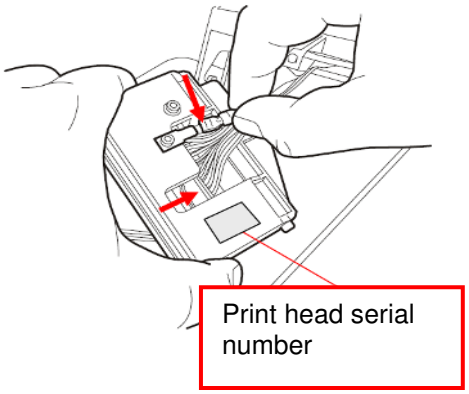


2. Unplug the printer from the power supply, open the top cover and remove the print head as instructed below,

   To remove the print head. Press in the direction indicated by the arrow to loosen the spring and to release this from its housing and click **Next** to continue.

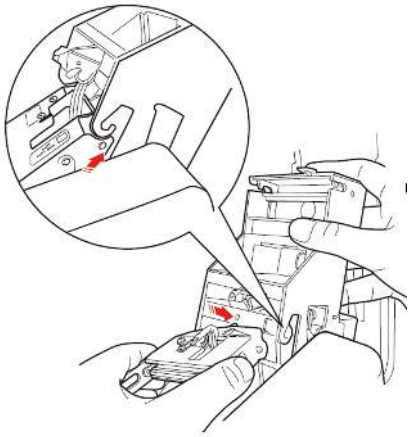


3. Remove the earth wire and the connector, connect these to the new printhead, make a note of the print head serial number and click **Next**.



4. Insert the new print head.

   During re-insertion, press the sphere present in the tip of the print head on the point indicated below and rotate it slightly to insert it in its housing. Close the top cover, then click **Next**.



5. Connect the printer to the power supply, switch it on and connect it to a computer with the USB cable. Click **Next** to continue, then enter the **Print Head Serial Number** and confirm with the **Set** button.



6. Click **Finish** to complete the print head replacement operation

11 Options

11.1.1 Smart card chip encoding (Contact and Contactless)

The smart card chip encoder is an optional module for the MC DTC series that enables the encoding of contact and contactless smart cards.

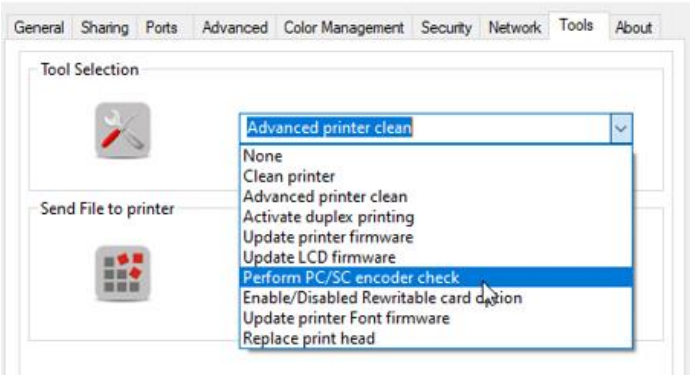
Available chip encoding modules and related functionalities:

Dual Interface Encoder Module Code **PR10300003**

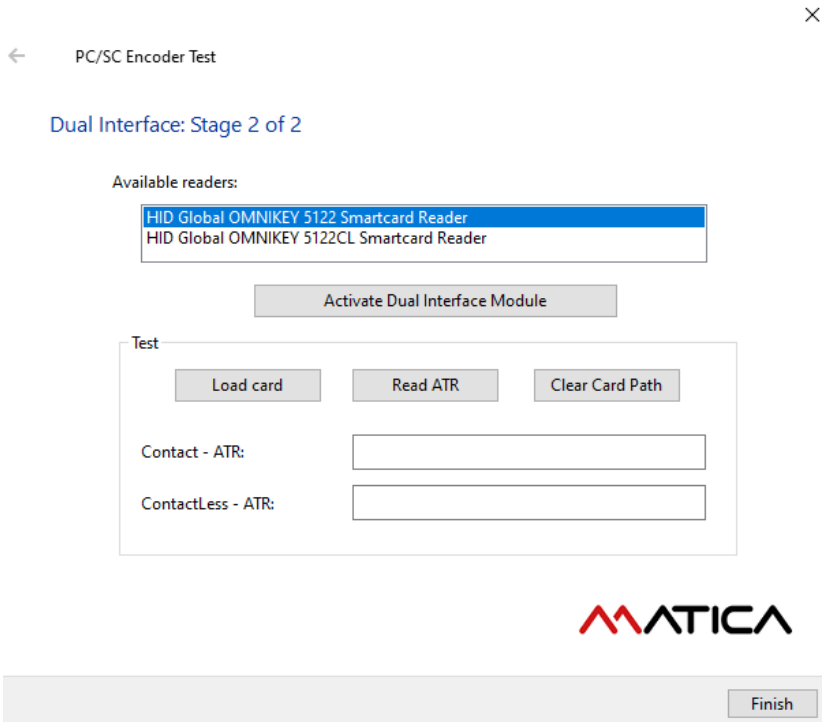
Note: Install the module according to the instructions contained in the package.
Make sure the module has been installed in the printer before running functionality tests.

11.1.2 Use of PC/SC encoder wizard to test dual interface encoder

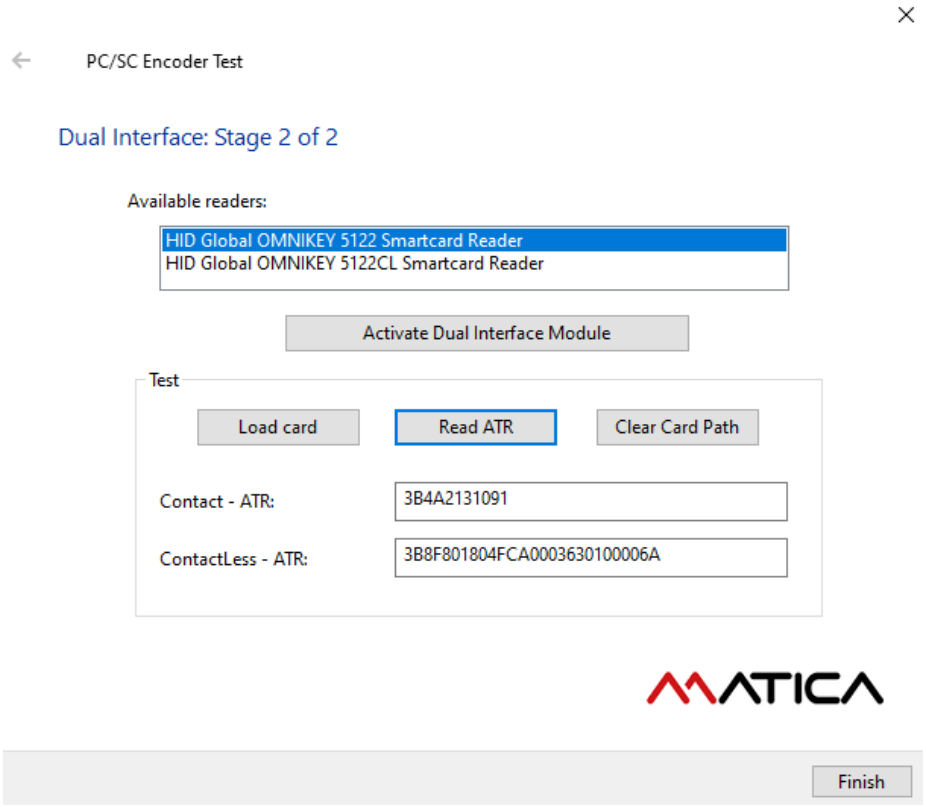
1. To run a functionality check, go to **Printer Properties** > **Tools** > **Perform PC/SC encoder check** and click **OK**.



2. In stage 2 of the wizard, click **Activate Dual Interface Module** and insert the dual interface smart card into feeder.



3. To perform the test, click **Load card** and wait for the card to move to the encoding position, then click **Read ATR**. The software will read and display the card's ATR once the test has completed successfully.



11.1.3 Magnetic stripe encoding

A magnetic stripe encoder is available as a factory-fitted optional module for the MC210 and MC310 printers. It enables the encoding of HICO and LOCO magnetic stripe cards.

*not available for the MC110.

11.1.4 Configuration

Before proceeding with configuration ensure the printer is turned on and connected to your computer via USB, refer to chapter 7.5 of this document for magnetic stripe encoding settings and the **Mag encoding** tool tab.

Sample encoding format in the document for default setting:

Layout test for sending data to track 1: ~**1:**ABCDEFGHIJKL1234**;**

Layout test for sending data to track 2*:* **~2:**123456789456789999**;**

Layout test for sending data to track 3*:* ***~3:****123456*789342567***;***

11.1.5 E-locks and manual locks

E-lock and manual lock options are available for specific variants of Matica DTC printers.

i.e.: S3110 for Financial Instant Issuance comes with pre-installed electromechanical locks for the feeder door and top cover.

11.1.6 Duplex activation

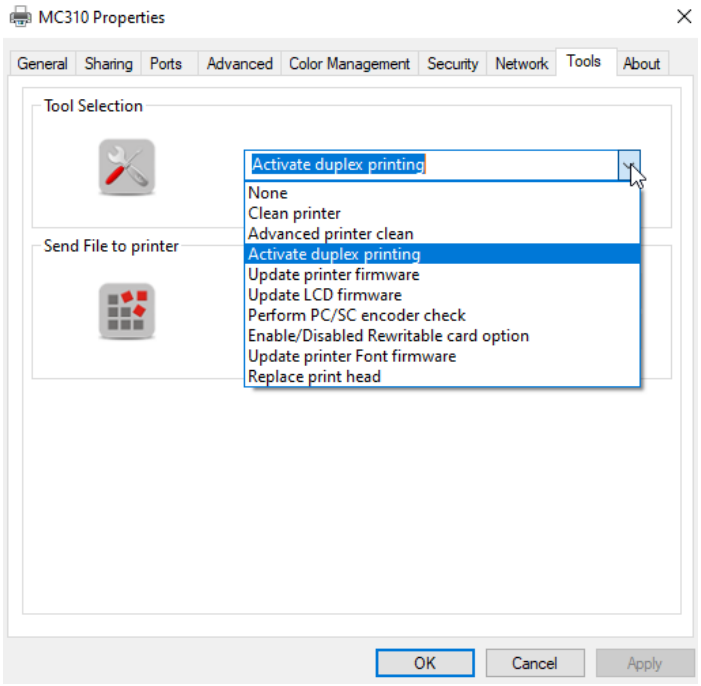
The duplex activation kit is an optional module for the MC DTC Series that enables printing on both sides of the card.

Available duplex activation kits and related functionalities:

MC DTC Series Duplex Activation Kit Code **PR10300016**

To enable the dual sided printing please follow the instructions below:

1. **Printer Properties** > **Tools** > **Activate Duplex printing**, then click **OK** to proceed.



2. Place the activation kit card over the red logo on the right-hand side of the printer, then follow the wizard instructions.



3. Once the option has been activated, switch the printer off, then on again.

12 Troubleshooting

Printer does not power on

- Disconnect and reconnect the power cables making sure that an electricity supply is present.

Printer does not start printing (no movement)

- Make sure that the printer (MC110/MC210/MC310) appears in **Devices and Printers** and that it is active
- Make sure that cards are present in the input hopper
- Make sure that the ribbon is loaded and that the cover is fully closed

Executes movements but card is not printed (blank card)

- Make sure that the ribbon cartridge is inserted correctly
- If the RFID identifier of the ribbon has been damaged and as a result cannot be used by the machine: change the ribbon

Defects in print quality

- Single or multiple horizontal lines: clean the printhead using a swab or pen as described in the user manual
- Dots appear on printout due to dirty cleaning roller: clean with water as described in the user manual
- Partial printing or dots due to dirty cards: use only clean cards
- If printout colors or appearance are not satisfactory, modify the **Brightness, Contrast** and **Sharpness** values in **Color Settings** in the **Properties** window and check printout improvement
- Red marks appearing on printouts: these may occur when printing dark images with high contrast and brightness settings. To eliminate them, reduce the **Contrast** and **Brightness** values in **Color Settings**

Printer takes up the card but remains blocked

- The card thickness setting does not correspond with that of the card being used: set the correct value, remove the card, then switch the printer off and on again.
- Flip over not in position: switch off the machine, remove by hand any card left in the flip over, then switch the printer on again
- Check that the cleaning roller is not out of place. If it is, switch off the machine, put the roller back into position and switch the machine on again.
- Check that no ribbon fragments are present in the card path. If there are, switch the machine off and remove them, then switch the machine on again.
- Check that no card is present in the path. If there is, switch the machine off, remove the card, then switch the machine on again.

If the ribbon has tears or locks with error 14

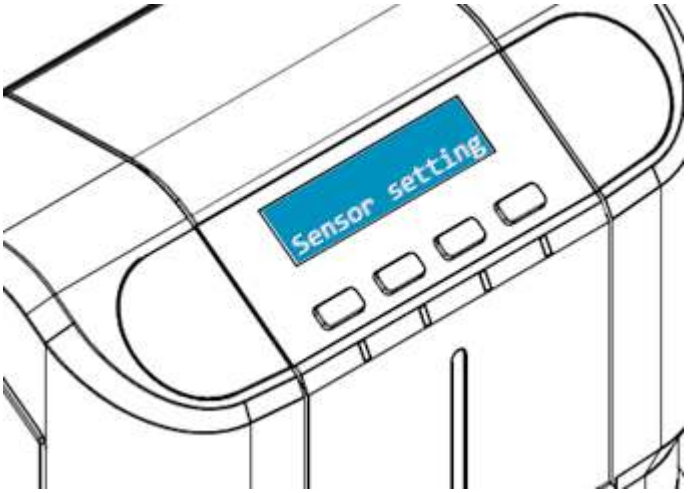
- Lower the **Contrast** and **Brightness** values in the **Color Settings** tab in the **Properties** window.
- Check the ribbon placement inside the ribbon cartridge.

Difficulties or failures in the code reading ATR

- Use PC/SC test wizard to check the smart encoding option with different smart cards. If it is not resolved contact your Matica Service Center.

12.1.1 Sensor setting display in LCD

Follow the calibration steps below if the printer LCD display shows the following error:



1. If the error is displayed when using a ribbon other than YMCKO, utilize a YMCKO ribbon instead.
2. With the YMCKO ribbon present in the printer and the error displayed on the LCD, send a print using the XPS driver to the printer - the following pop-up message will appear:



3. Click **Retry** to start the calibration.
4. Once the color sensor is calibrated successfully, the job will print.
5. Switch the printer off, then on again.

Note: Ribbon carrier should be assembled without touching/damaging the printhead.

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13 Ribbons and cleaning kits

chromXpert Consumables

Part Nos	Description	Yield (Prints/roll)	MC110	MC210	MC310 / S3110
MC series Direct-to-card ribbons - Diamond Line					
PR21119301	ChromXpert diamond YMCKO MC110, MC210 MC310 series color ribbon	100	●		
PR20319301	ChromXpert diamond YMCKO MC110, MC210 MC310 series color ribbon	250	●	●	●
PR20319302	ChromXpert diamond YMCKO-K MC110, MC210 MC310 series color ribbon	200	●	●	●
PR20319303	ChromXpert diamond YMCKO MC110, MC210 MC310 series color ribbon	400	●	●	●
MC series Direct-to-card ribbons - Platinum Line					
PR20307301	ChromXpert platinum YMCKO MC210, MC310 series color ribbon	250		●	●
PR20307302	ChromXpert platinum YMCKO-K MC210, MC310 series color ribbon	200		●	●
PR20307382	ChromXpert UcYMCK MC310 Color Ribbon	250			●
PR20305391	ChromXpert platinum GOKO MC310 series ribbon	250			●
PR20305392	ChromXpert platinum SOKO MC310 series ribbon	250			●
MC series Direct-to-card ribbons					
PR20305304	ChromXpert KO MC110, MC210, MC310 series ribbon, 600 prints	600	●	●	●
PR20314305	ChromXpert K MC110, MC210, MC310 series monochrome Ribbon	1650	●	●	●
PR20314306	ChromXpert SILVER MC210, MC310 series monochrome Ribbon	500		●	●
PR20314307	ChromXpert GOLD MC210, MC310 series monochrome Ribbon	500		●	●
PR20314308	ChromXpert WHITE MC210, MC310 series monochrome Ribbon	1000	●	●	●
PR20314309	ChromXpert RED MC210, MC310 series monochrome Ribbon	1000	●	●	●
PR20314311	ChromXpert GREEN MC210, MC310 series monochrome Ribbon	1000	●	●	●
PR20314312	ChromXpert BLUE MC210, MC310 series monochrome Ribbon	1000	●	●	●
PR20314313	ChromXpert SCRATCH-OFF MC210, MC310 series Ribbon	1000		●	●
Direct-to-card cleaning Kits					
PR20309601	Direct-to-card printer cleaning kit		●	●	●

Each Matica ribbon has an RFID tag with ribbon identification data that enables the printer to configure all the counting and optimization parameters and procedures.

It is strongly suggested to exclusively use original ChromXpert Matica ribbons. The use of non-original accessories could damage the product and therefore void the factory warranty.

www.maticacorp.com