USER GUIDE



MC310

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Matica
April 2020
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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.

DIRECTIVE 2002/96/EC ON THE TREATMENT, COLLECTION, RECYCLING AND DISPOSAL OF ELECTRIC AND ELECTRONIC DEVICES AND THEIR COMPONENTS

1. FOR COUNTRIES IN THE EUROPEAN UNION (EU)

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:

- When it to be disposed of, the device is to be taken to the equipped waste collection centers 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 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 person touch with bare hand.
	These cautions indicate the touch of surface with bare hand is prohibited.

Table of Contents

1 Product Overview 1-1

2 Getting Started 2-1

2.1 Unpacking the Printer 2-2

2.2 Functional Description 2-3

2.2.1 Front View 2-3

2.2.2 Operator Panel 2-4

2.2.3 Rear View 2-6

2.2.4 Power Supply 2-6

2.2.5 Plastic Cards 2-6

3 Installation Procedures 3-1

3.1 Installing the Ribbon 3-1

3.2 Rear bin Installation 3-3

3.3 Card Feeding 3-4

3.3.1 Input Hopper (Automatic Card Feeder) 3-4

3.3.2 Front Slot (Manual Card Hopper) 3-5

3.4 Adjusting the Card Thickness 3-5

3.5 Connecting the Power Supply and Powering ON the Printer 3-6

4 Installing the Software and Configuring thePrinter 4-1

4.1 Connecting the Printer to the Computer and Installing the Software 4-1

4.1.1 Printer connection through USB 4-1

4.1.2 Printer connection through LAN/Ethernet 4-1

4.2 Uninstall Program Tabs 4-10

4.2.1 Tools 4-11

4.2.2 About 4-13

5 Printing 5-14

5.1 Card Printing 5-14

5.1.1 MC310 Printing preference 5-14

5.2 Color Settings 5-19

5.2.1 Monochrome option: 5-20

5.3 Printing Test Cards using Printer menu 5-21

6 Printer Maintenance 6-1

6.1 Printer Routine Cleaning 6-1

6.2 Standard Cleaning 6-1

6.3 Card Path Advanced Cleaning 6-4

6.3.1 Advanced Cleaning Procedure 6-4

6.4 Cleaning Roller Advanced Cleaning 6-5

6.4.1 Roller cleaning Procedure 6-5

6.5 Printhead Cleaning 6-7

***6.5.1** Printhead Cleaning Procedure 6-7*

6.6 Print head replacement procedure 6-9

6.6.1 Replacement procedure 6-9

7 Options 7-1

7.1 Chip Encoding (Contact and Contactless) 7-1

7.2 7.2 Use of PC/SC encoder wizard to test Dual interface in MC310 7-1

7.3 Magnetic Encoding 7-3

7.3.1 Configuration 7-3

7.4 Duplex activation 7-4

8 Trouble shooting 8-1

8.1 Printer does not power on 8-1

8.2 Printer has printing problems 8-1

8.3 Printer has problem with ribbon 8-2

8.4 Chip Encoding problems 8-2

8.5 Sensor setting display in LCD 8-3

9 Ribbons 9-1

10 Cleaning Kits 10-1

11 Technical Characteristics 11-1

1 Product Overview

The printer described in this User Guide provides full color dye-sublimation or monochrome thermal transfer printing on standard 54x86 mm plastic cards. PVC, PVC Composite, PET, ABS, PC and Re-printable cards are supported (accordingly with varnished card product configuration). It is managed from the computer through the USB port or via Ethernet/Wi-Fi.

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

Several options are available so that the printer can be configured to operate in different types of environments:

- Magnetic stripe encoder
- Smart Card Encoding Station with Contact and Contactless Smart Card encoder
- 10/100 Ethernet and/or 802.11a/b/g Wi-Fi connection
- Single Card Feed Option through Manual feeder
- Connection for external smart card encoding
- Locking system for input Hopper, reject bin and ribbons

2 Getting Started

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

The printer is shipped in special packaging designed to prevent damage during transportation. If any visible damage is noticed upon reception, contact the dealer immediately.

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

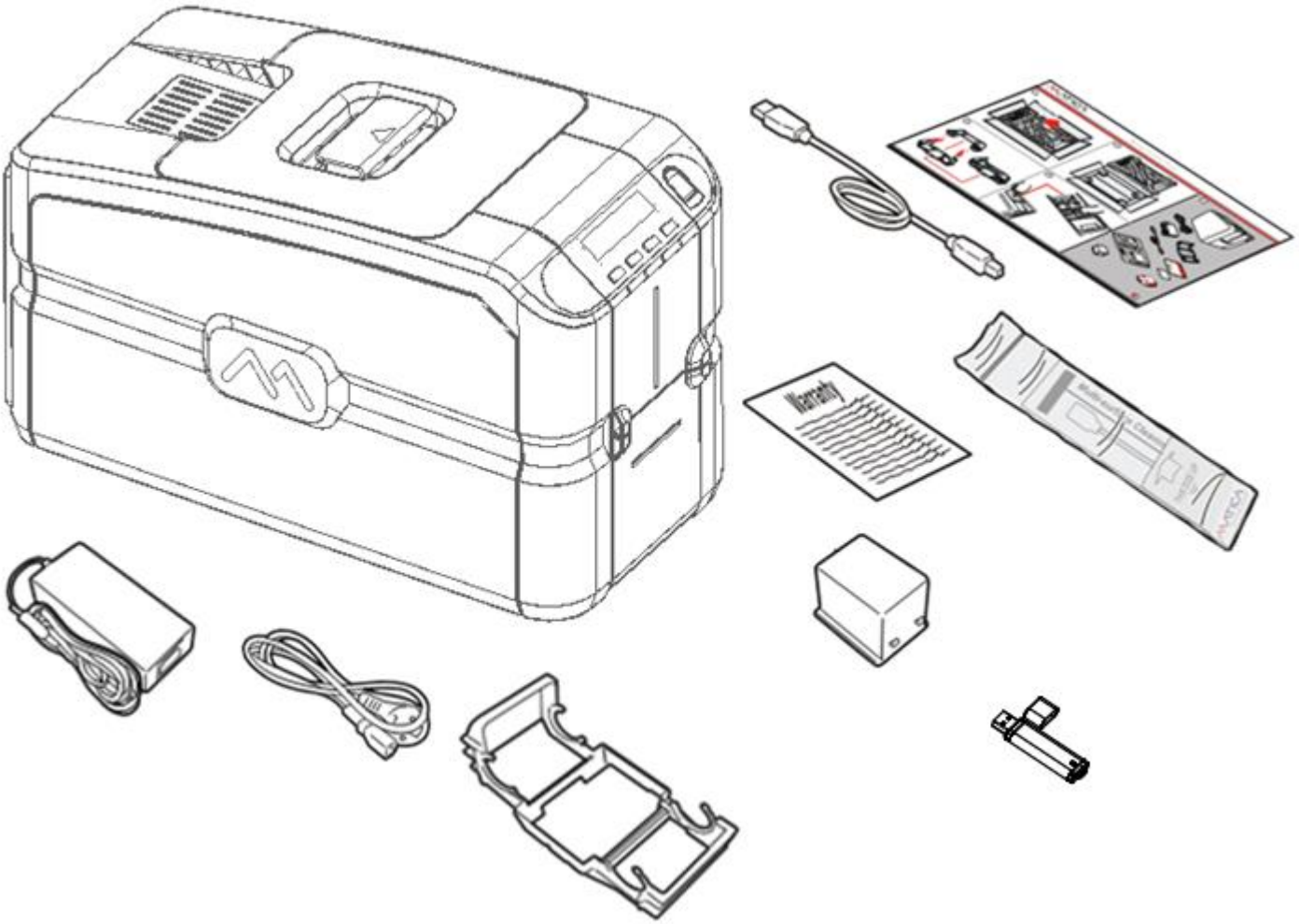
Note: If the printer has to be returned, it must be returned integrally with its full original packaging (box, cushions and protective bags). If it is returned without its original packaging and any components are damaged during transportation, such components will no longer be covered by the warranty.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

2.1 Unpacking the Printer

The following items are included in the box:

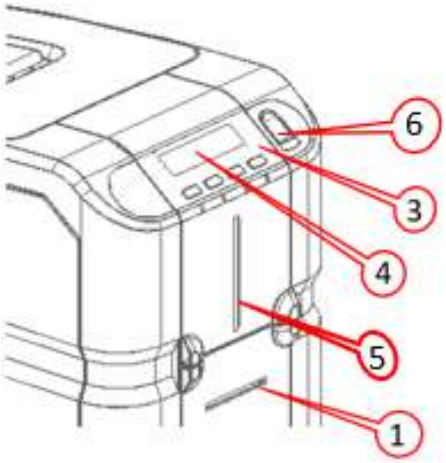
- Printer
- Memory stick containing the Installer, Printer driver and Printer Manager
- Quick Installation Guide
- Cleaning swab
- Cleaning card
- Power cord
- Power supply
- USB cable
- Ribbon carrier
- Reject bin

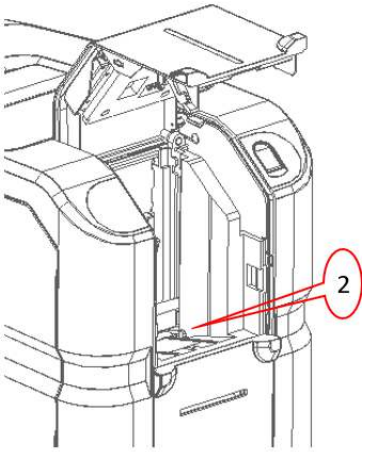
Note: Contact the dealer immediately if any of the items listed above is missing.
Only use the power supply provided with the printer.



2.2 Functional Description

2.2.1 Front View





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

1) Front slot for Single card Manual Feeding.

2) Input Hopper

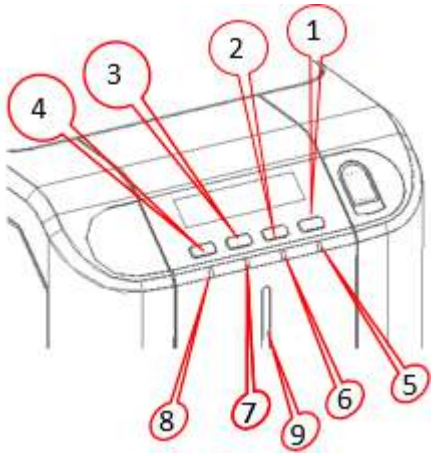
3) Operator panel and printer status indicators: ON/OFF key and 3 functional keys

4) LCD display

5) LED light indicating card availability status in the input hopper.

6) Biometric lock option (Only for MC310s, S3110 (Financial version))

2.2.2 Operator Panel

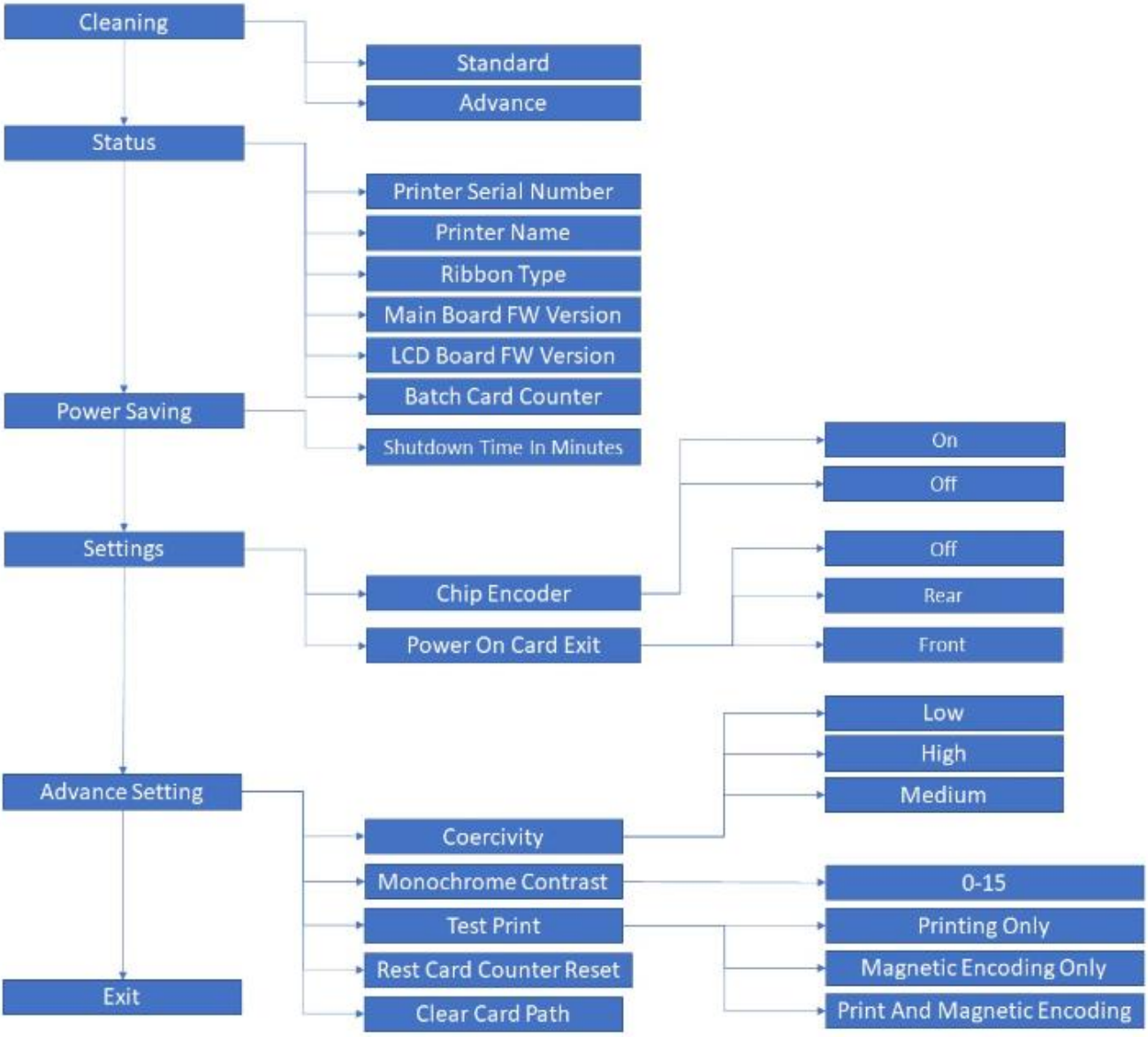


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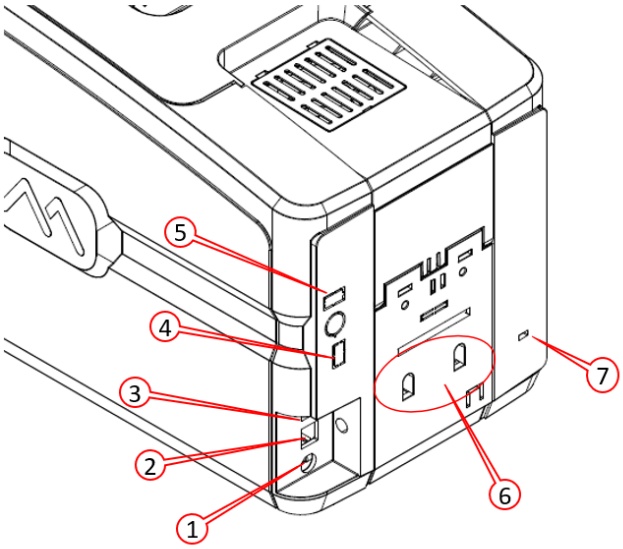
The front operator panel consists of 4 soft touch buttons and 4 status LEDs along with an informative display

- **Button operation**
  - **Power button (Shown as 1)**
    - Short press to turn on the printer
    - Long press to turn off the printer when it is ON
  - **Selection button (Shown as 2)**
    - To select the menu option and transit to respective sub-menu
    - Selecting option in sub-menu. Ex. Standard Cleaning, chip encoder setting
  - **Menu/Scroll button (Shown as 3)**
    - Button will be used to enter in **Menu**
    - Same button will be used to scroll to next menu item
    - Same button will be used for incrementing the value while setting Sleep time
  - **Wi-Fi button (Shown as 4)**
    - Press to tun on the Wi-Fi, if the Wi-Fi option is present in the system
    - LCD will display the status
- **Status LED**
  - **Power LED (Shown as 5)**
    - White - indicates printer is ON
  - **Status LED – Ready (Shown as 6)**
    - Amber – indicates ribbon is nearing end
    - Amber blinking – indicates there is no card OR no ribbon
  - **Status LED – Error (Shown as 7)**
    - Red – indicates there is an error, card jam, cover open etc in printer
    - Red blinking – indicates printer requires servicing OR firmware upgrade
    - Green – indicates printer is ready for printer
    - Green blinking – indicates printer is receiving data or printing
  - **Wi-Fi LED – (Shown as 8)**
    - Off – indicates Wi-Fi is not available in printer
    - Blue blinking – indicates Wi-Fi is available in printer but not connected
    - Blue – indicates printer is connected
  - **Input hopper LED – (Shown as 9)**
    - Off – indicates there is no card available in printer
    - Red blinking – indicates no. of cards in the hopper are running low.
    - Red – indicates there are cards available in input hopper

- **LCD Display Sequence for MENU option**



2.2.3 Rear View



The following components are located on the back panel:

1) Power cord socket
2) USB 2.0. Female B type. Host socket
3) Ethernet connector with traffic LED
4) USB 2.0 Port – No.1
5) USB 2.0 Port – No.2
6) Rejection bin fixing slot
7) Kensington lock

2.2.4 Power Supply

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

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

2.2.5 Plastic Cards

Listed below are the plastic card specifications:

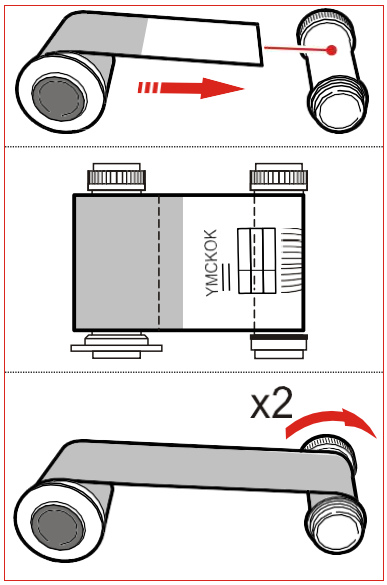
- **Type:** PVC**,** PVC Composite, PET, ABS (varnished), PC, Re-printable cards
- **Dimensions:** ISO CR80 - ISO 7810 (53.98 x 85.60)
- **Thickness:** 0.25 to 1.25 mm (10 to 50 mil) manual gauge adjustment
- **Magnetic stripe:** ISO 7811
- **Smart Card Contact:** ISO 7816-1,2,3,4
- **Smart Card Contactless:** ISO 14443A/B.

3 Installation Procedures

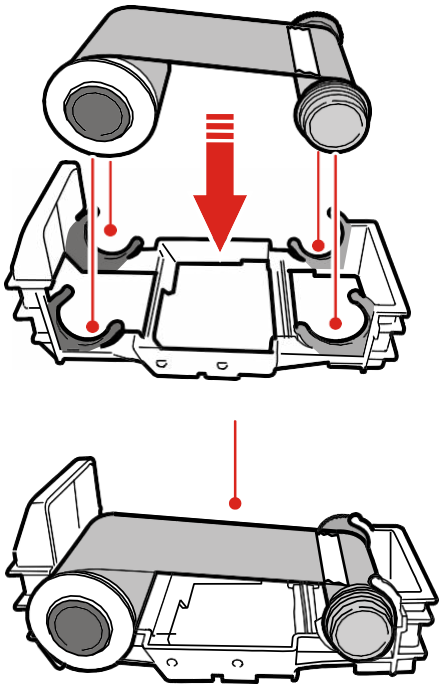
3.1 Installing the Ribbon

Original Matica ribbons are to be installed carefully. The ribbon carrier that comes with the printer helps to install the ribbon quickly, easily and accurately. Once the ribbon is in its carrier, the carrier can then be easily dropped into the printer using the red and grey guides.

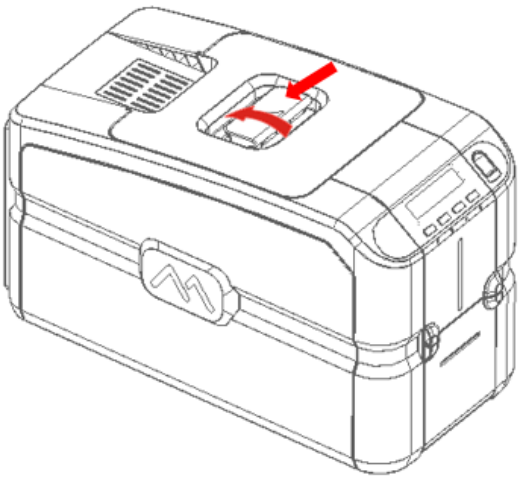
1) Installing the ribbon



2) Insert the ribbon (not provided with the printer) into the ribbon carrier.

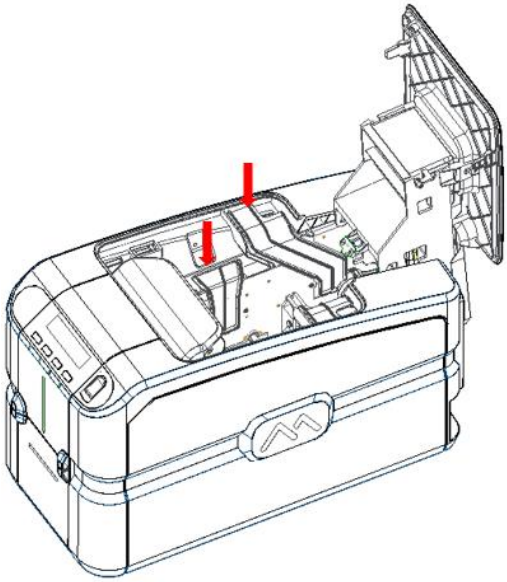


3) Move the door handle in the direction shown and open the Top cover.

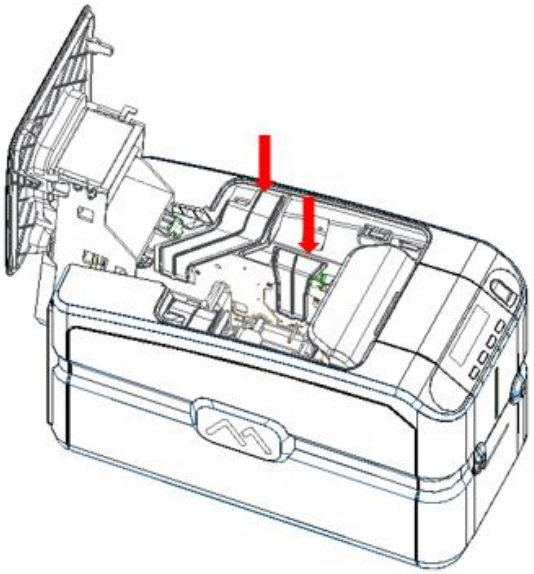




4) Ribbon carrier should be positioned inside the Right & Left Guide cores as illustrated below

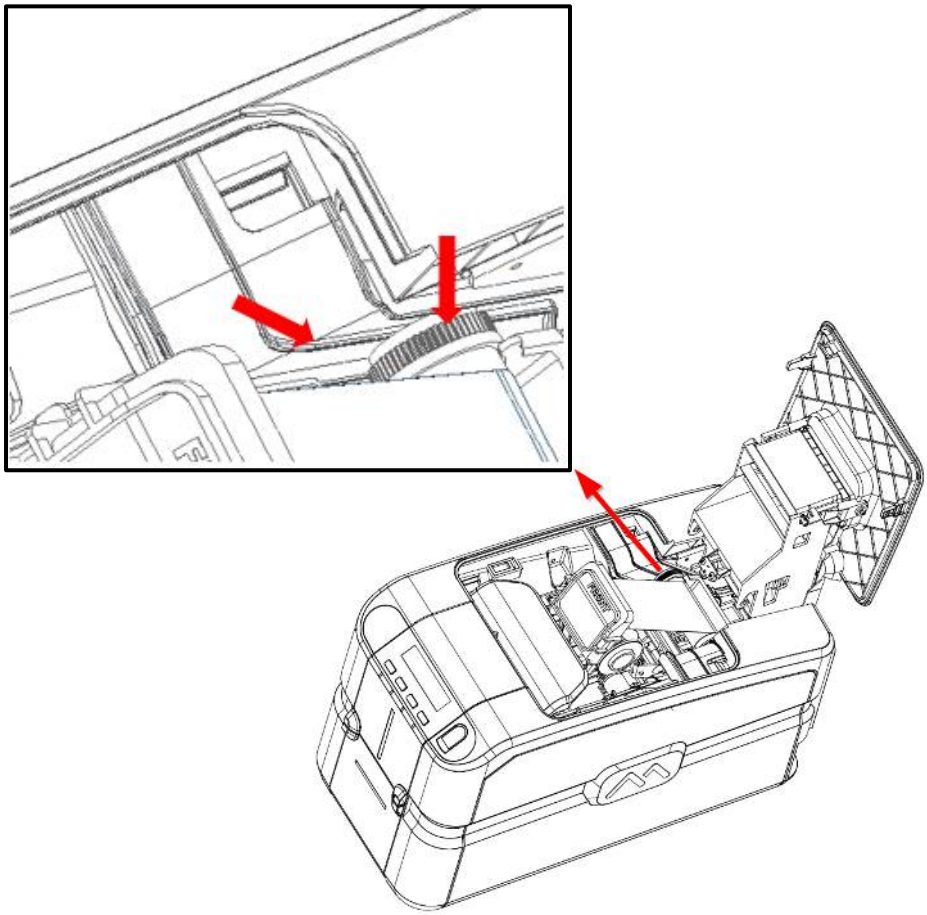


Left Guide Core for Ribbon carrier

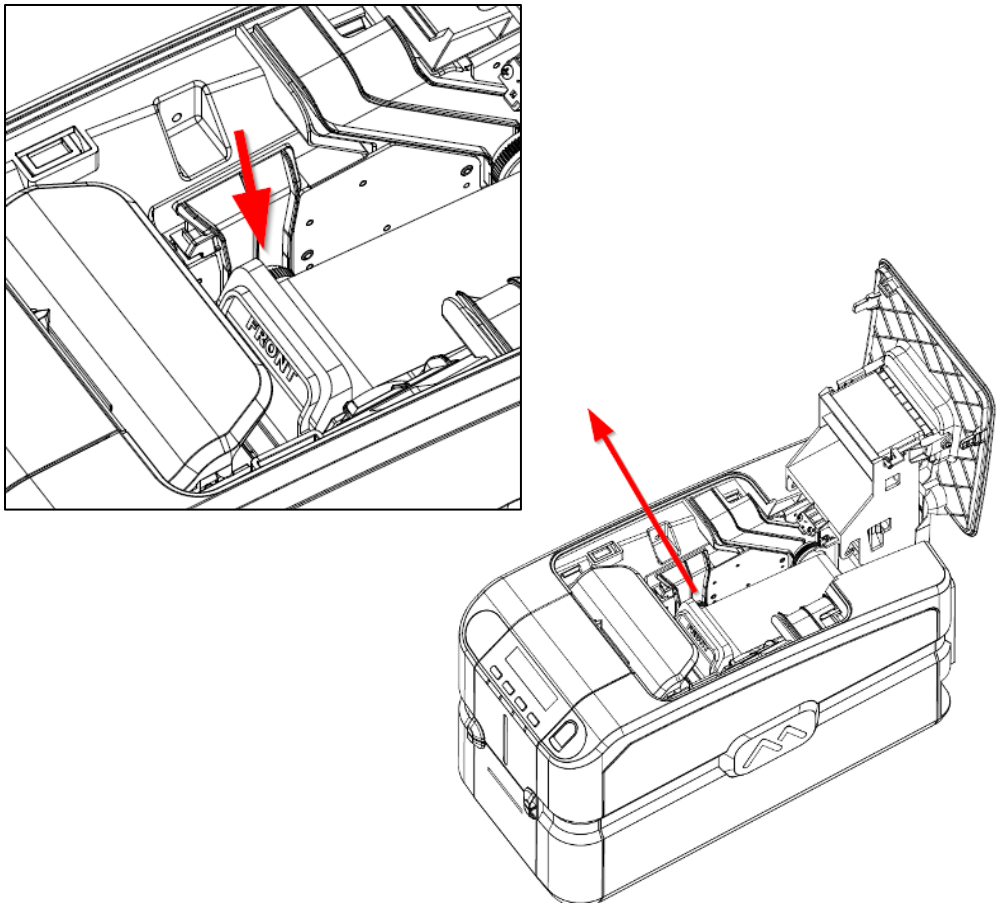


Right Guide Core for Ribbon carrier

5) Slide the Ribbon carrier back side (Trailer core) inside the backend Guide cores as per below instructions.



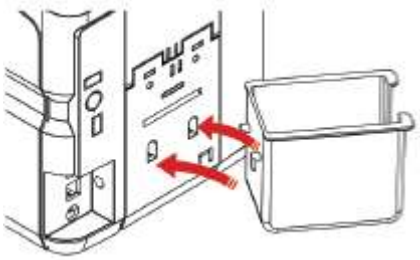
6) Slide Ribbon carrier front side (Leading core) inside the front Guide cores as per instructions till it touches the bottom of guide core as illustrated below,



7) Close the Top cover.

Note: Ribbon carrier should be assembled without touching/damaging the printer head

3.2 Rear bin Installation



3.3 Card Feeding

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

When the single card manual feeder option is present, it can be used without needing to empty the input Hopper.

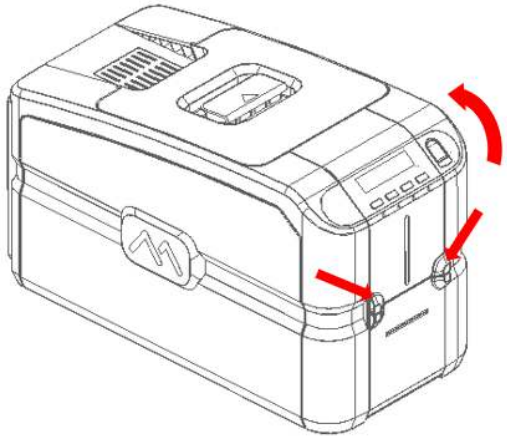
The card path can be selected via software to speed card processing:

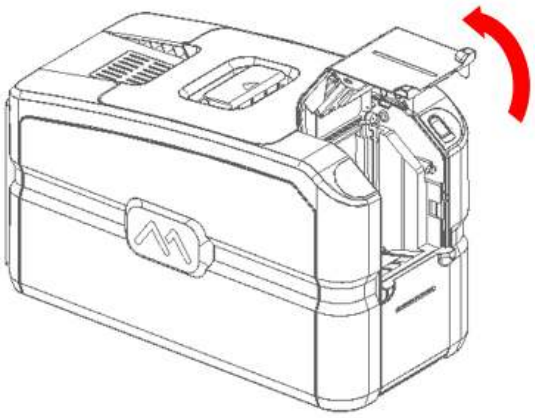
- *Hopper*
- *Reject bin*

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

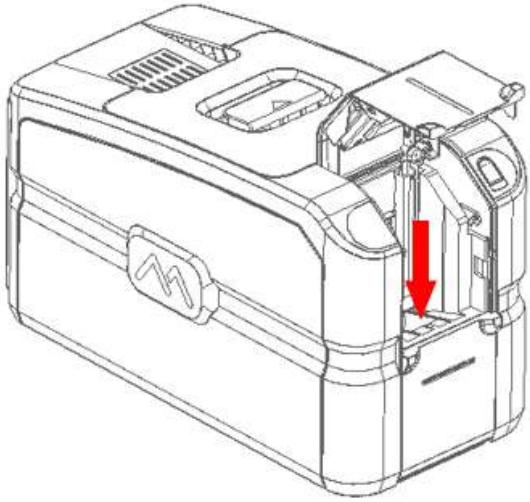
3.3.1 Input Hopper (Automatic Card Feeder)

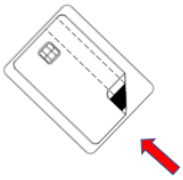
1. Open Front door manually as shown below.



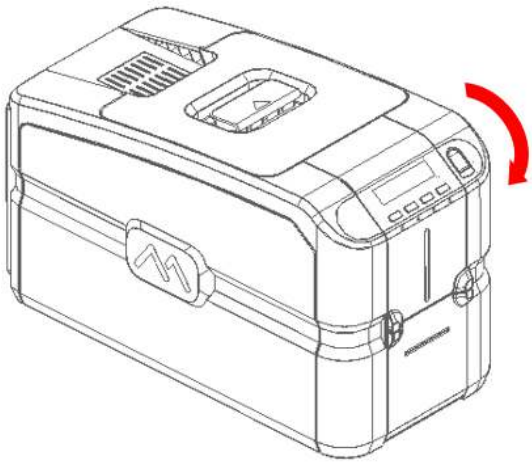


2. Load the cards in the Hopper and then close the door.





<u>Card insertion direction</u>
For contact type cards, chip will be visible on the top.
Mag stripe will be facing downwards towards right.

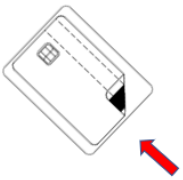


3.3.2 Front Slot (Manual Card Hopper)

The manual card feeder is always ready for use and is prioritized. It is suggested that it can be used when the job requires a different card other than the ones loaded inside the input Hopper.

Insert the card inside the slot as per below illustration.





Card insertion direction

For contact type cards, chip will be visible on the top. Mag stripe will be facing downwards towards right.

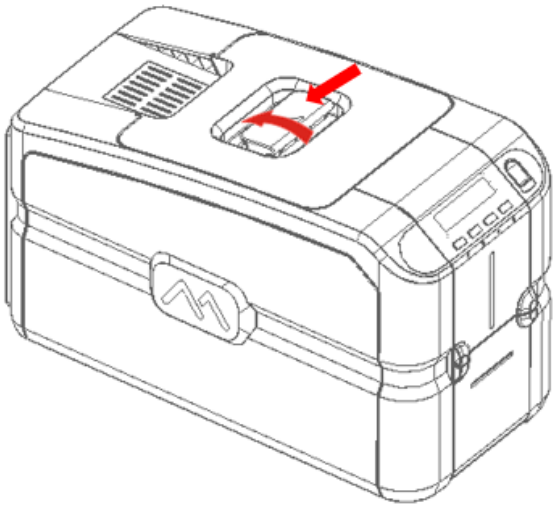


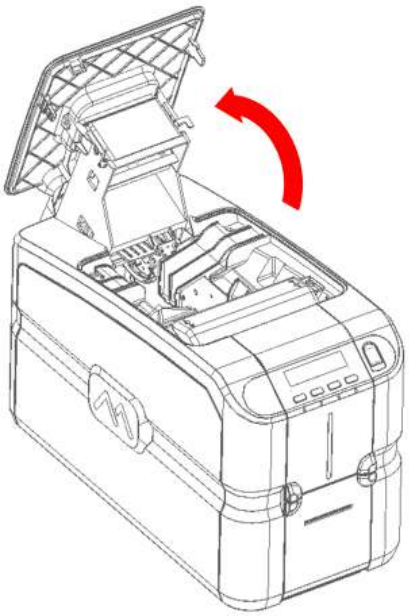
3.4 Adjusting the Card Thickness

The card thickness can be adjusted by sliding the Selection knob (A label is attached on the Encoder cover to guide the selection knob) to the required thickness.

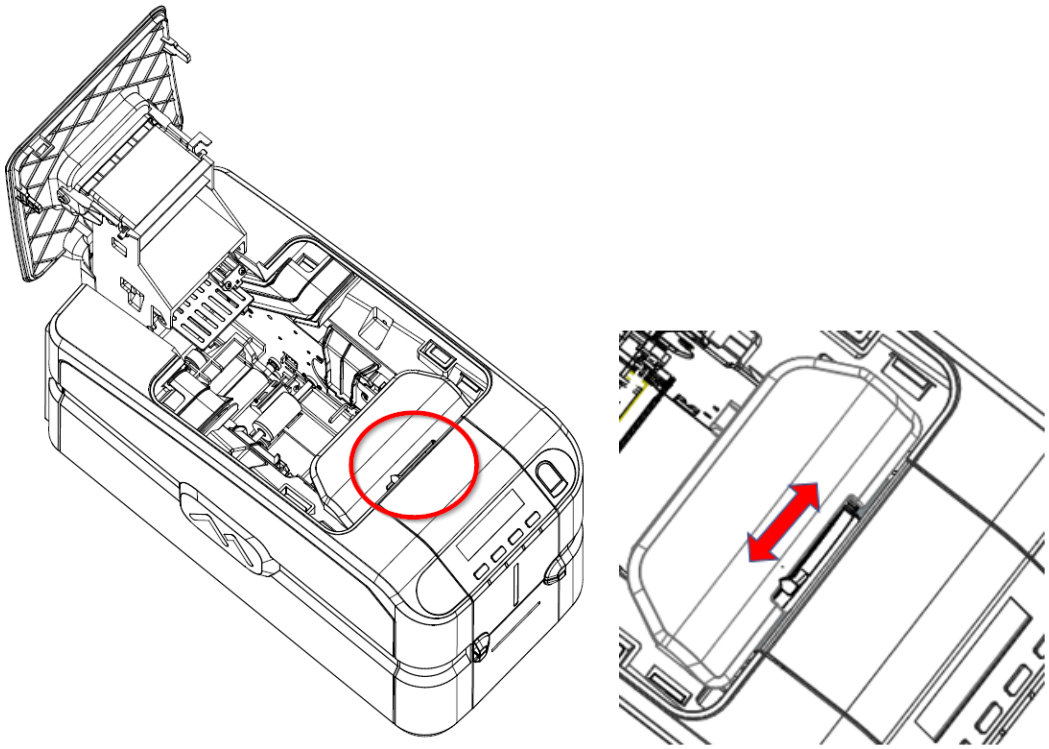
Cards with thicknesses ranging between 0.25 mm and 1.25 mm (10 - 50 mil) can be processed by the printer. Proceed as follows to adjust the card thickness:

1) Open the printing module compartment cover as per below instructions.





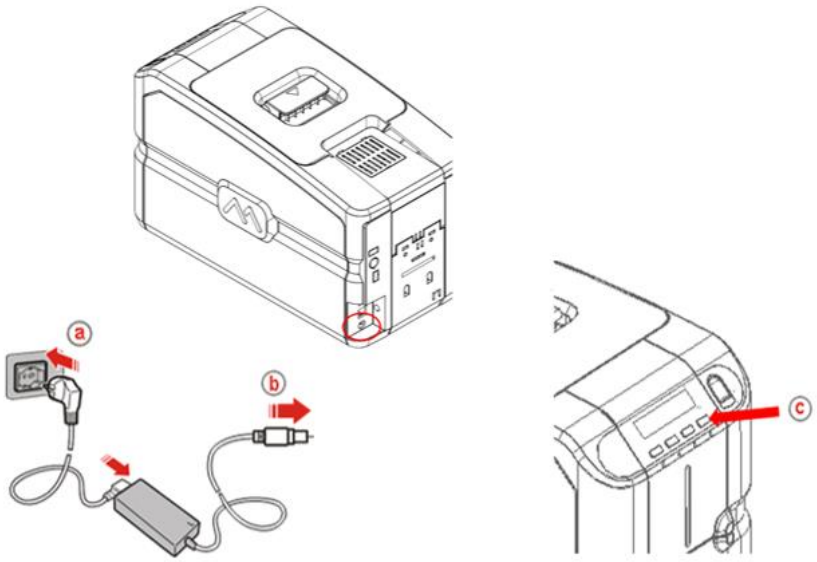
2) Slide the Card thickness selection knob to match the card thickness which is to be printed.



3) Close the Top cover.

3.5 Connecting the Power Supply and Powering ON the Printer

Connect the power cord to the power outlet (a) to the power supply and then connect the power supply to the printer (b) as shown below. Press the ON/OFF button (c) to power on the printer.



4 Installing the Software and Configuring the Printer

The USB stick that comes with the printer contains the following:

- Windows Vista, Win7, Win8, Win8.1 (32 and 64 bit), Win10 printer driver for USB, Ethernet LAN and Wireless connections (if supported by the purchased model)
- PDF User Guide
- Driver Installer (XPS DRIVER)

4.1 Connecting the Printer to the Computer and Installing the Software

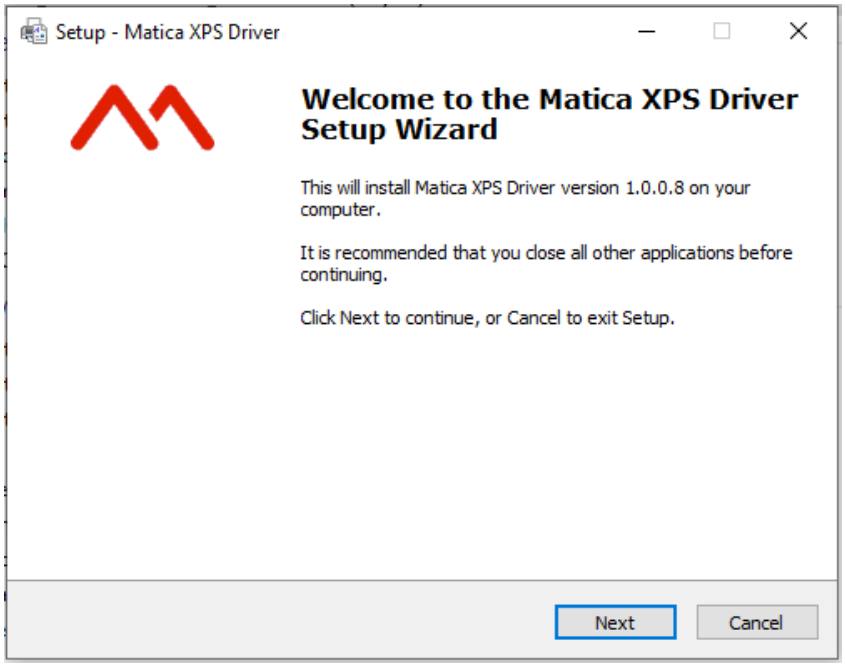
4.1.1 Printer connection through USB

1) Download/ save a copy of MC310 driver installer software into your PC/Laptop.

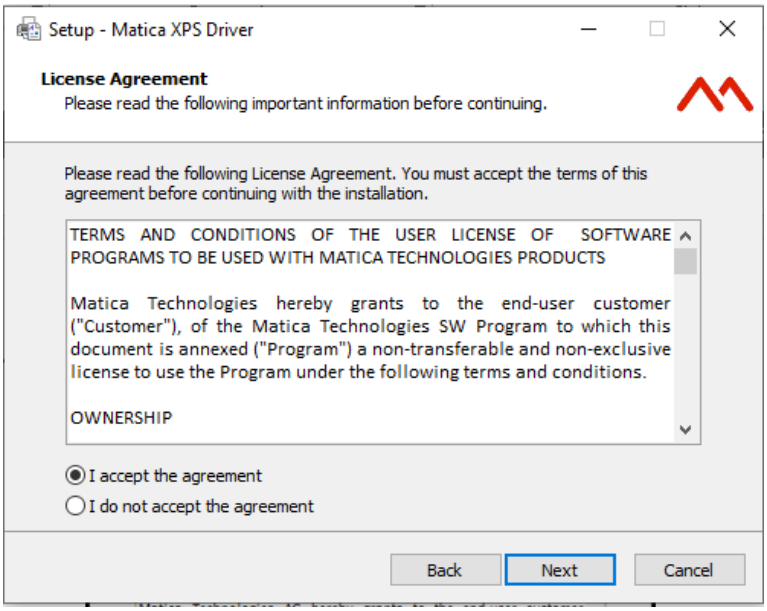
2) Double click on the Matica XPS Driver installer.exe application to setup the Wizard.



3) Set up wizard displayed. Click ´Next´ button.



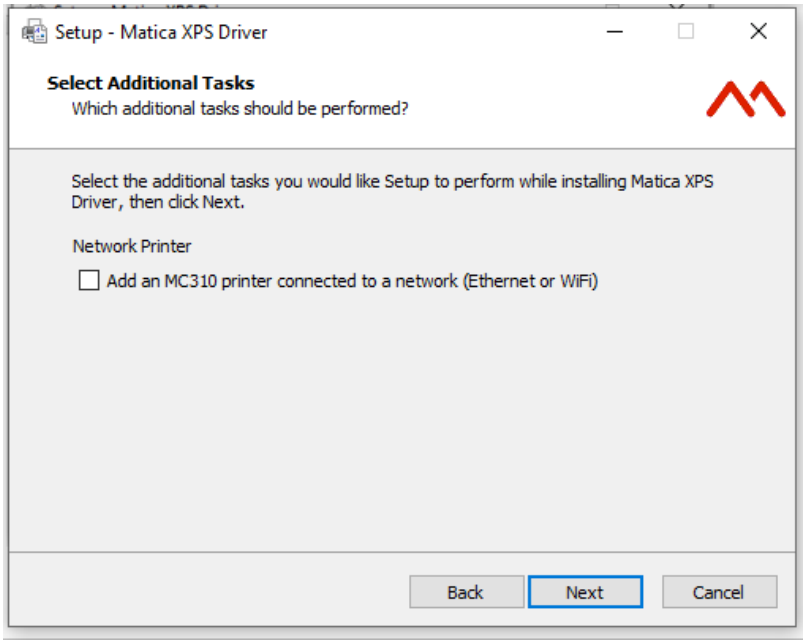
4) Select on “I accept the agreement” to accept the license agreement and then click **Next**.



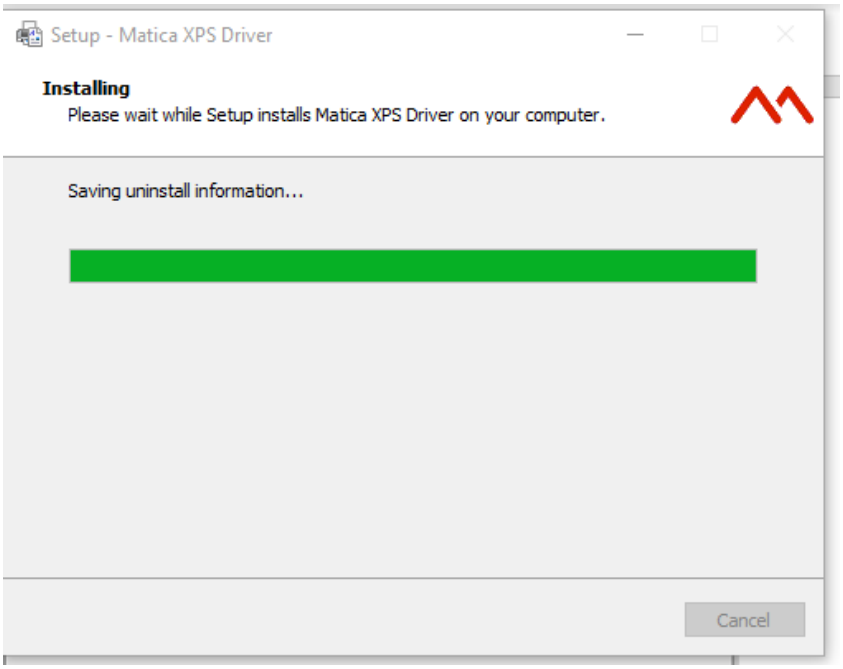
5) Incase you want to Install the printer using LAN connection tick the box ‘Add an MC310 printer connected through the network’ and Click **Next** to continue with the installation.

For USB connection leave the option unticked & click Next to continue with the installation.

Network printer selection is not mandatory to continue the setup.

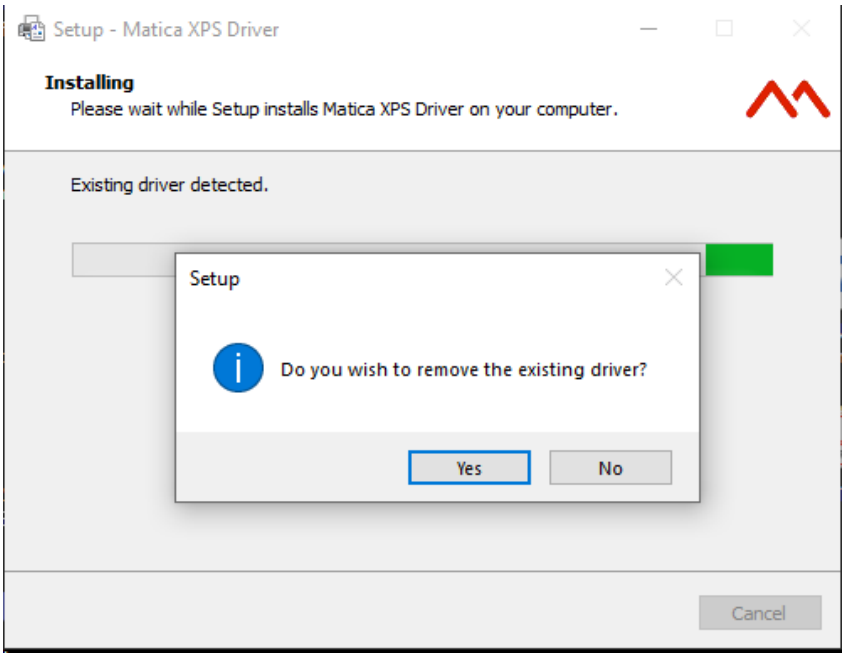


6) Installation process starts,

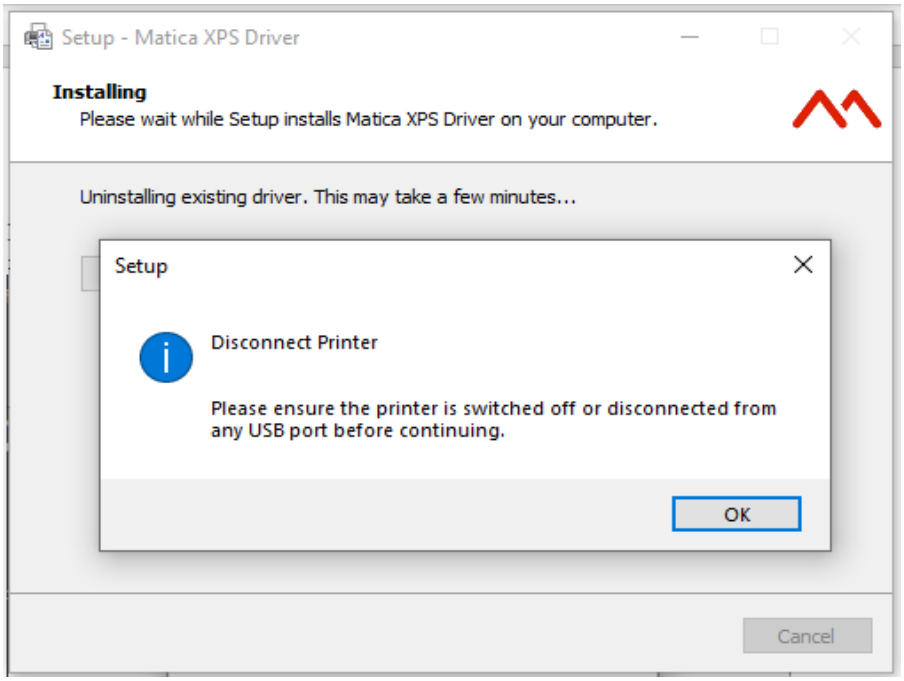


7) During the Installation process, Installer checks for the previous version of the Driver

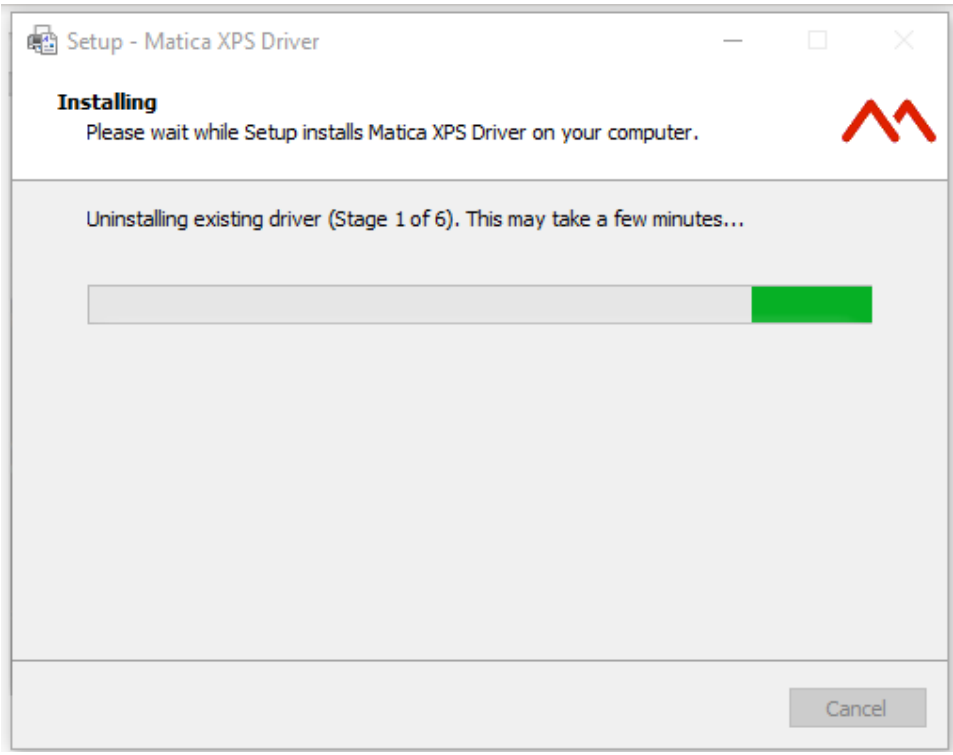
a. If it detects then it pops up a window asking for the permission to remove the existing driver. Click ´Yes´ as it is recommended to remove the older version of the Driver.
b. If it doesn't detect then there is no Computer Restart needed and can continue with Switching on and connecting the Printer to USB (See Step 11)



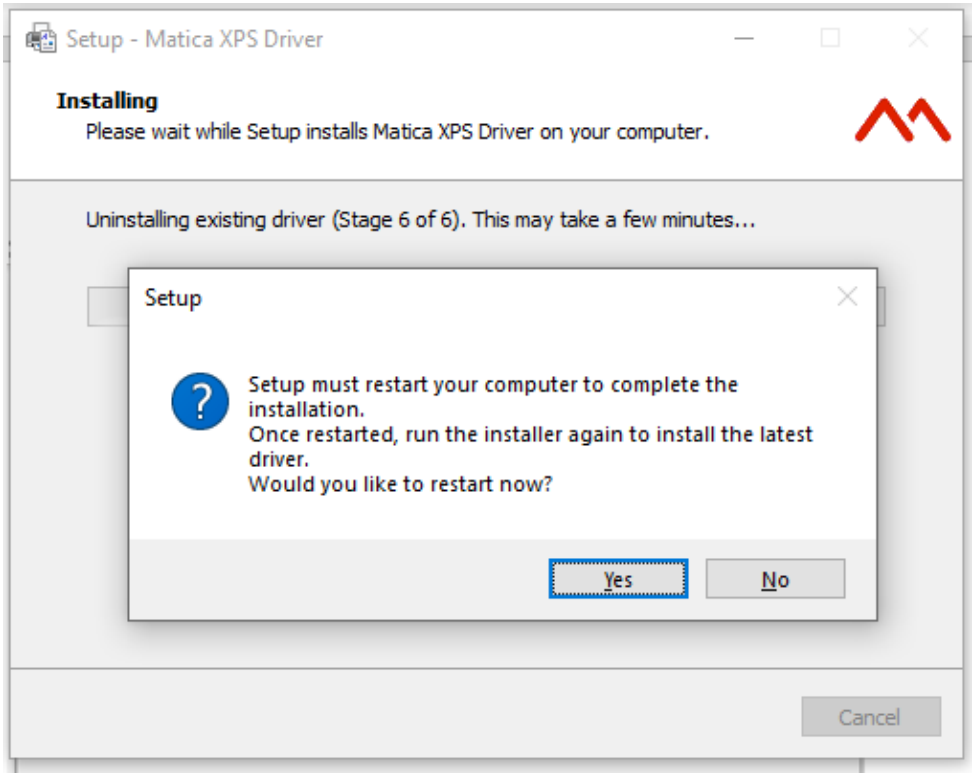
8) A Dialog box appears to switch off the printer or disconnect from any USB port of PC/laptop. Ensure same & click Ok.



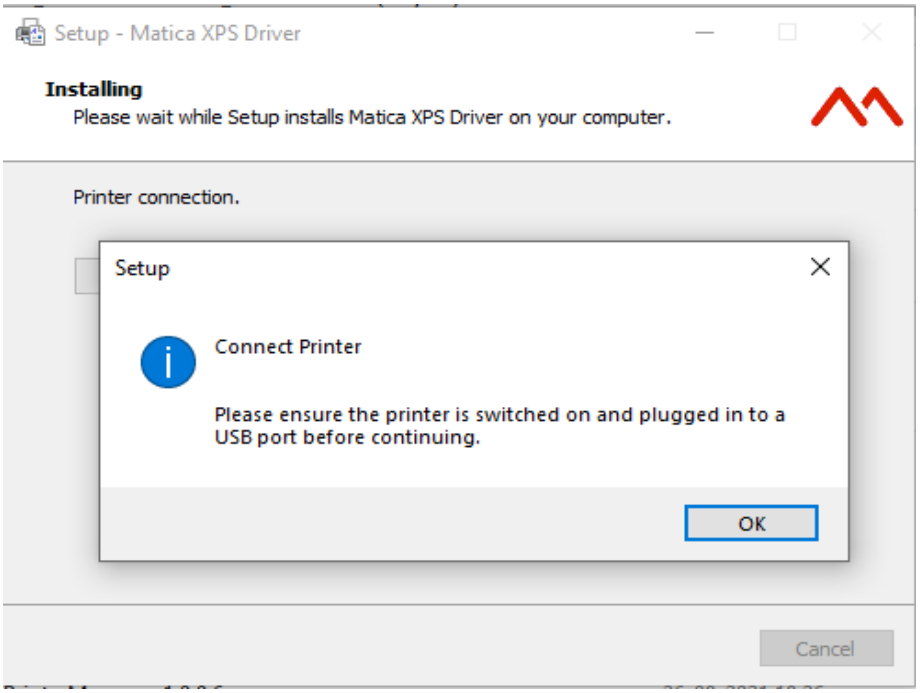
9) At this stage, Installer starts to Uninstall the existing drivers



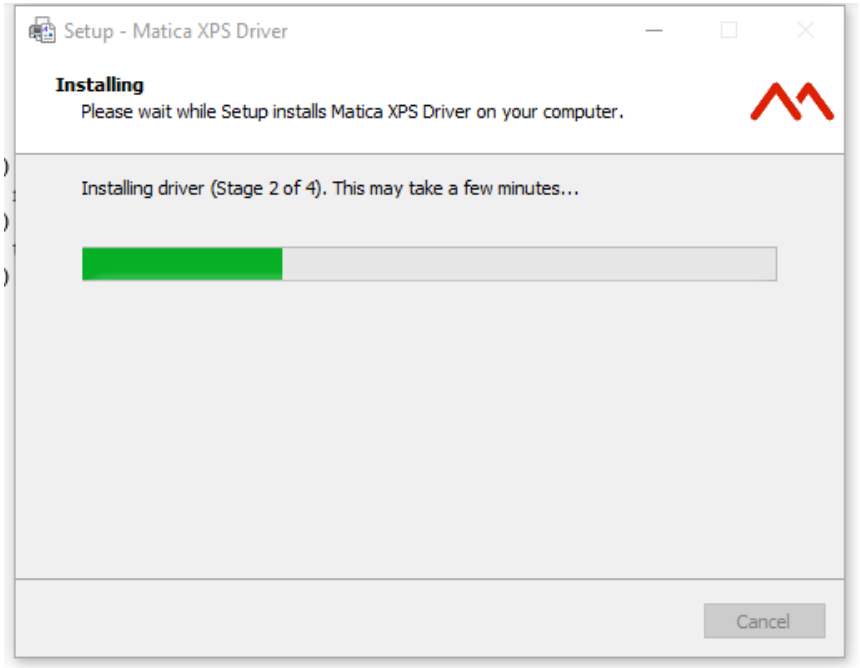
10) Restart of the computer is needed to complete the Installation, follow the next steps to complete the installation procedure.



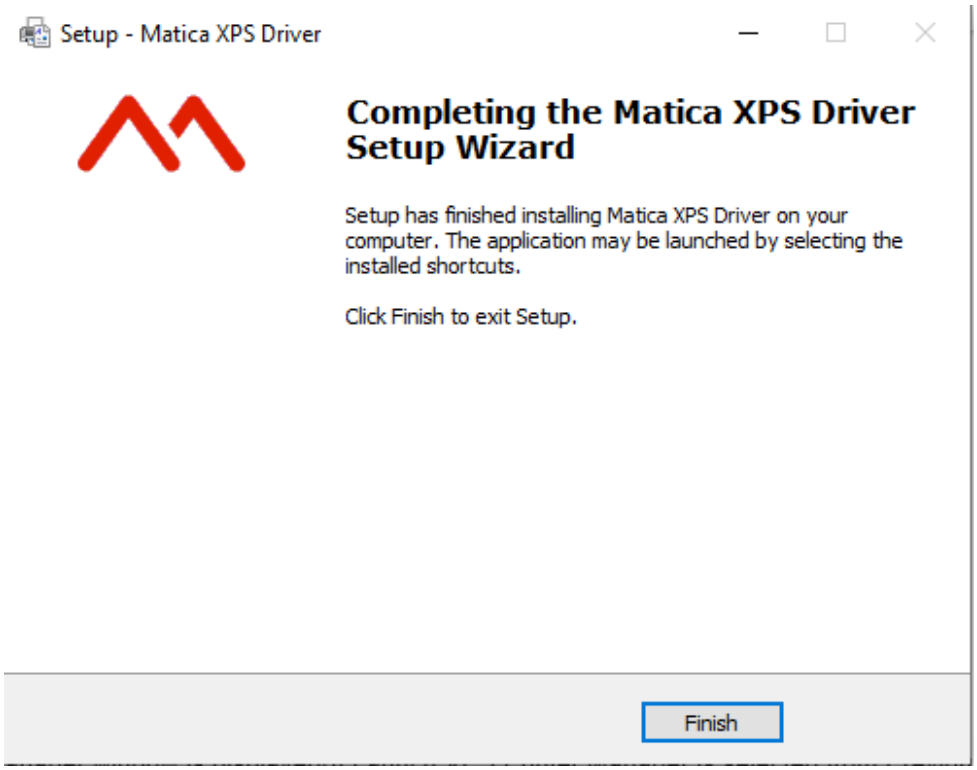
11) After Restarting the PC, Run the installer again. Installation repeats the process steps from 1 to 6. Ensure the Printer is switched on and plugged into a USB port before clicking OK on the dialogue box.



12) Installation may take several minutes to set up the Driver.



13) XPS Driver setup is finally complete, Click ´**Finish**´



4.1.2 Printer connection through LAN/Ethernet

The M310 printer can be connect to Network i.e. LAN/Ethernet connection through 2 types of connection

a) DHCP

b) Static IP

4.1.2.1 DHCP

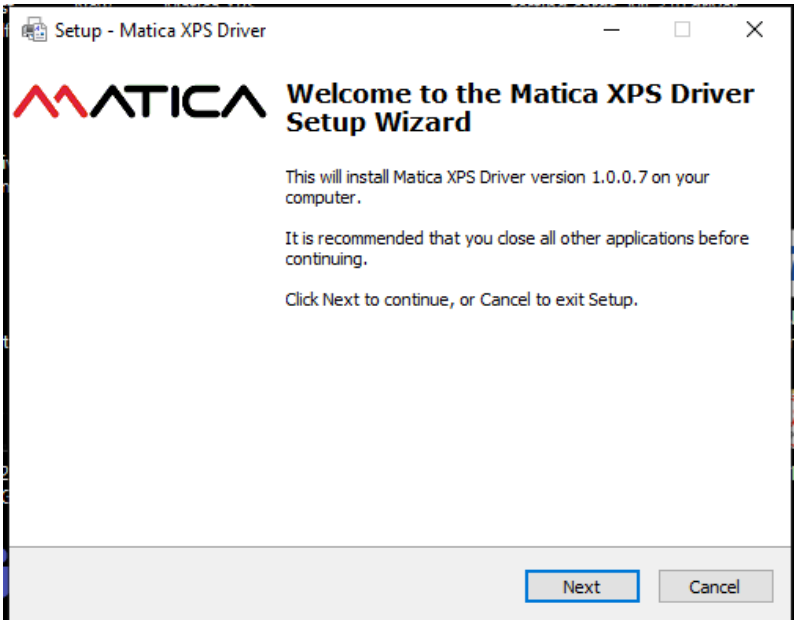
If the printer already installed through USB connection, disconnect the USB connection of the printer and Switch OFF the printer.

1) Download/ save a copy of MC310 driver installer software into your PC/Laptop.

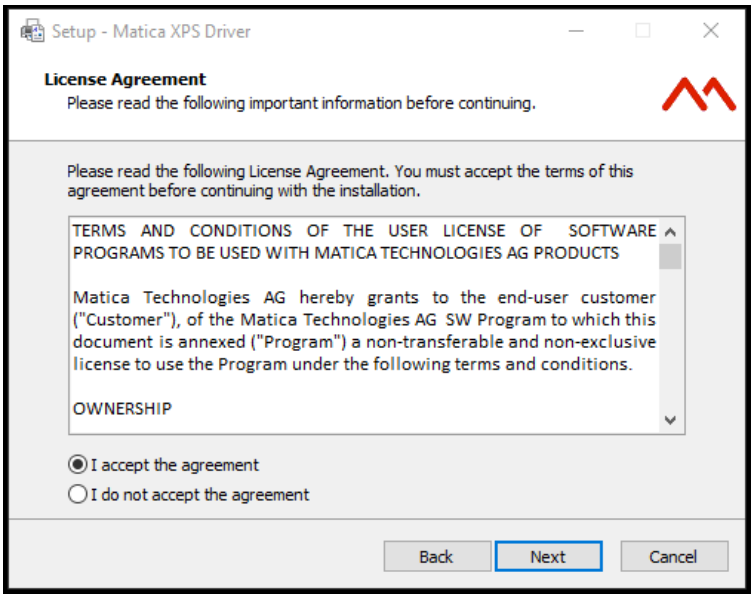
2) Double click on the Matica XPS Driver installer.exe application to setup the Wizard.



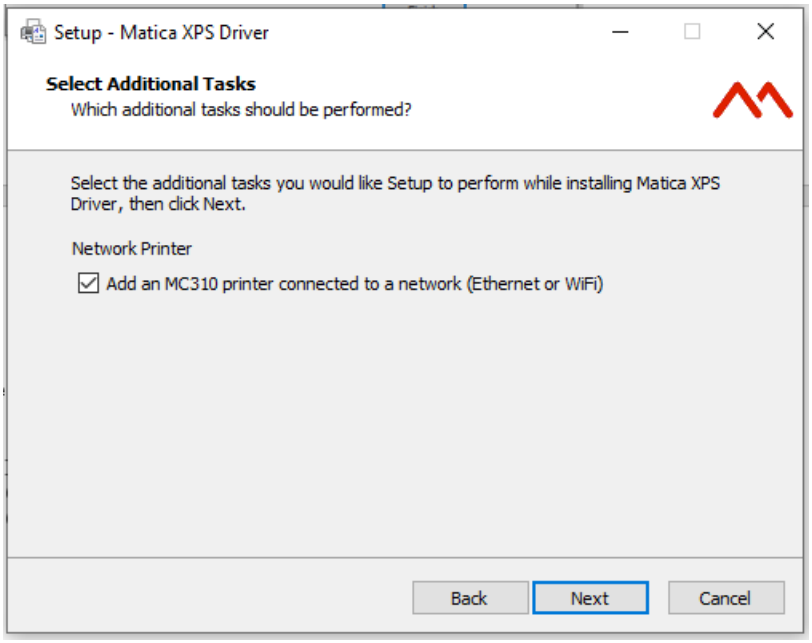
3) Set up wizard displayed. Click ´Next´ button.



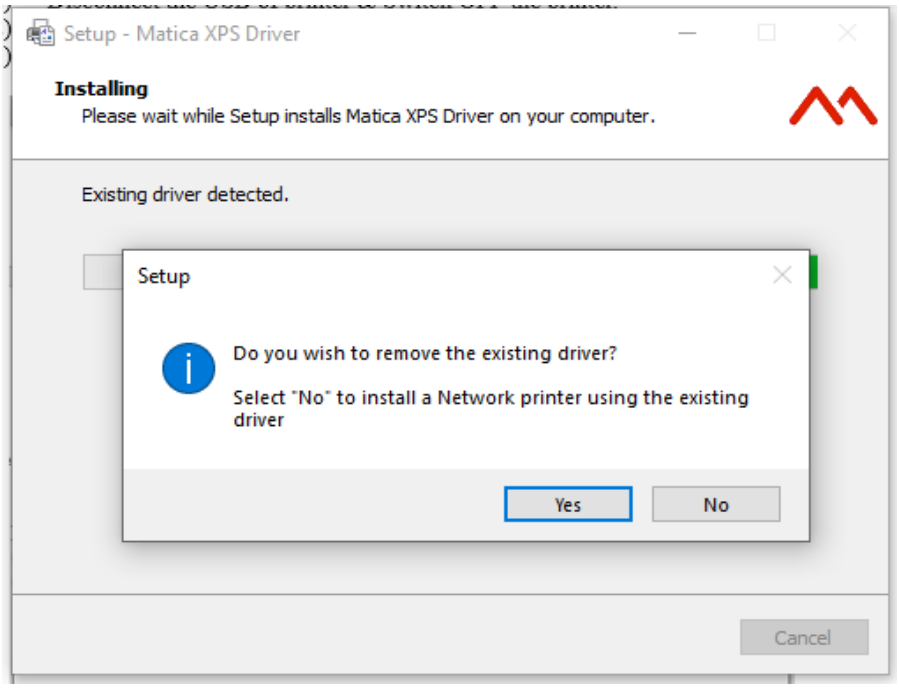
4) Select on “I accept the agreement” to accept the license agreement and then click **Next**.



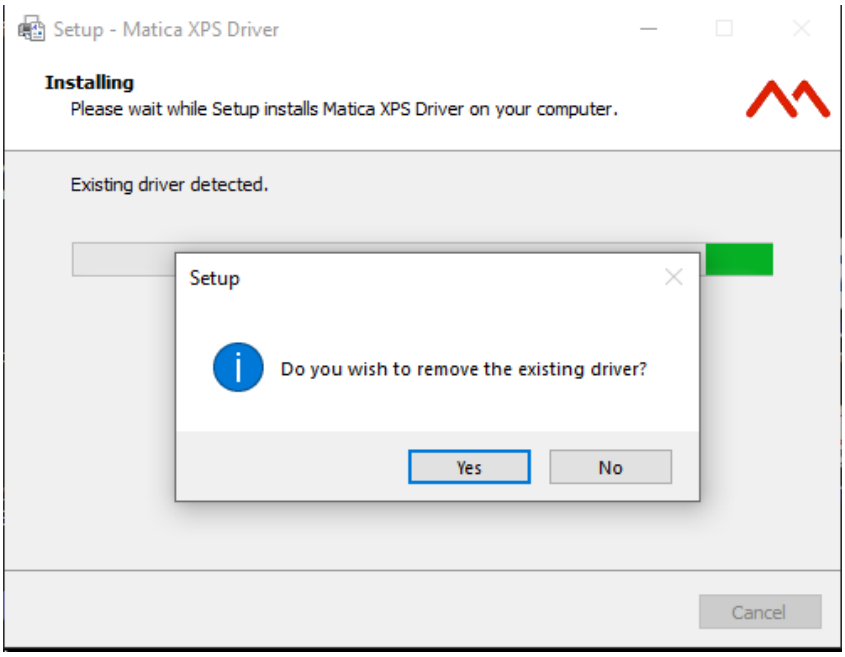
5) Click add an MC310 printer connected to a network (ethernet or Wi-Fi). Click Next.



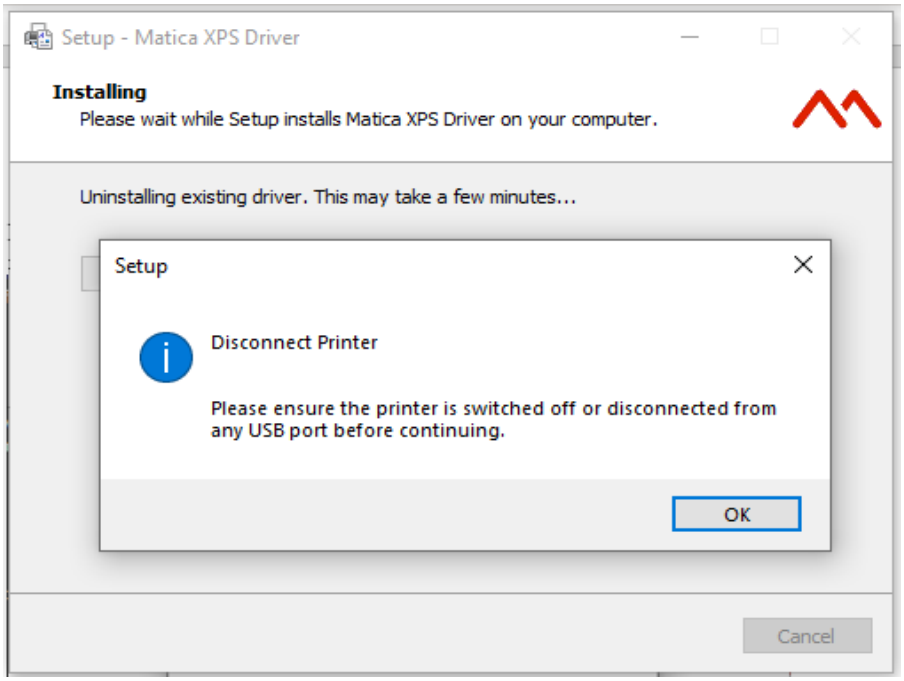
6) Installation process starts & below dialog box appears. Click No if user already installed the new version of driver in Laptop/PC. Click yes if user going with fresh installation & follow steps



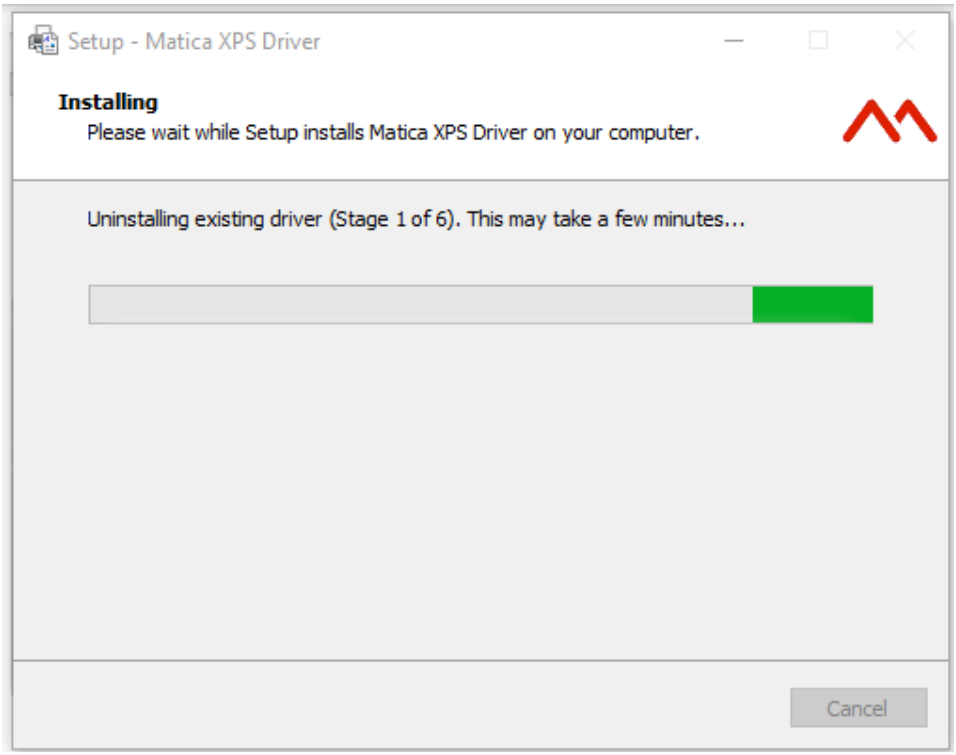
7) During the Installation process, Installer checks for the previous version of the Driver
   c. If it detects then it pops up a window asking for the permission to remove the existing driver. Click ´Yes´ as it is recommended to remove the Older version of the Driver.
   d. If it doesn't detect then there is no Computer Restart needed and can continue with Switching on and connecting the Printer to USB (See Step 11)



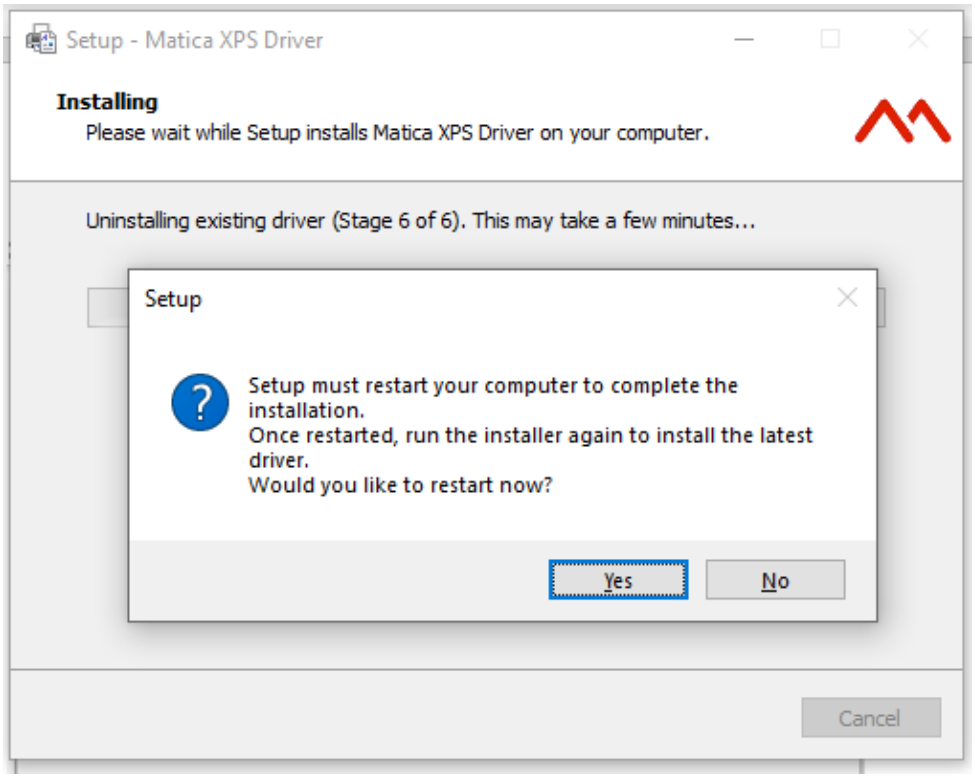
8) A Dialog box appears to switch off the printer & disconnect from any USB port of PC/laptop. Ensure same & click Ok.



9) At this stage, Installer starts to Uninstall the existing drivers

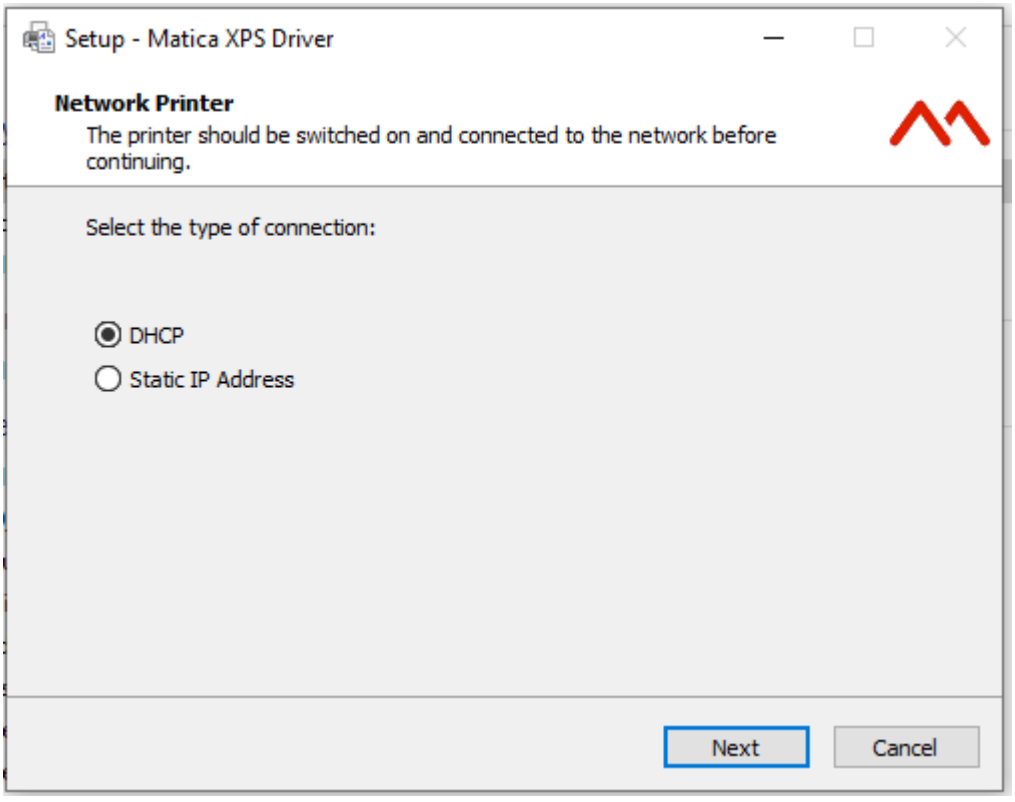


10) Restart of your computer so Click Yes in order to complete the Installation and follow the next steps to complete the installation procedure

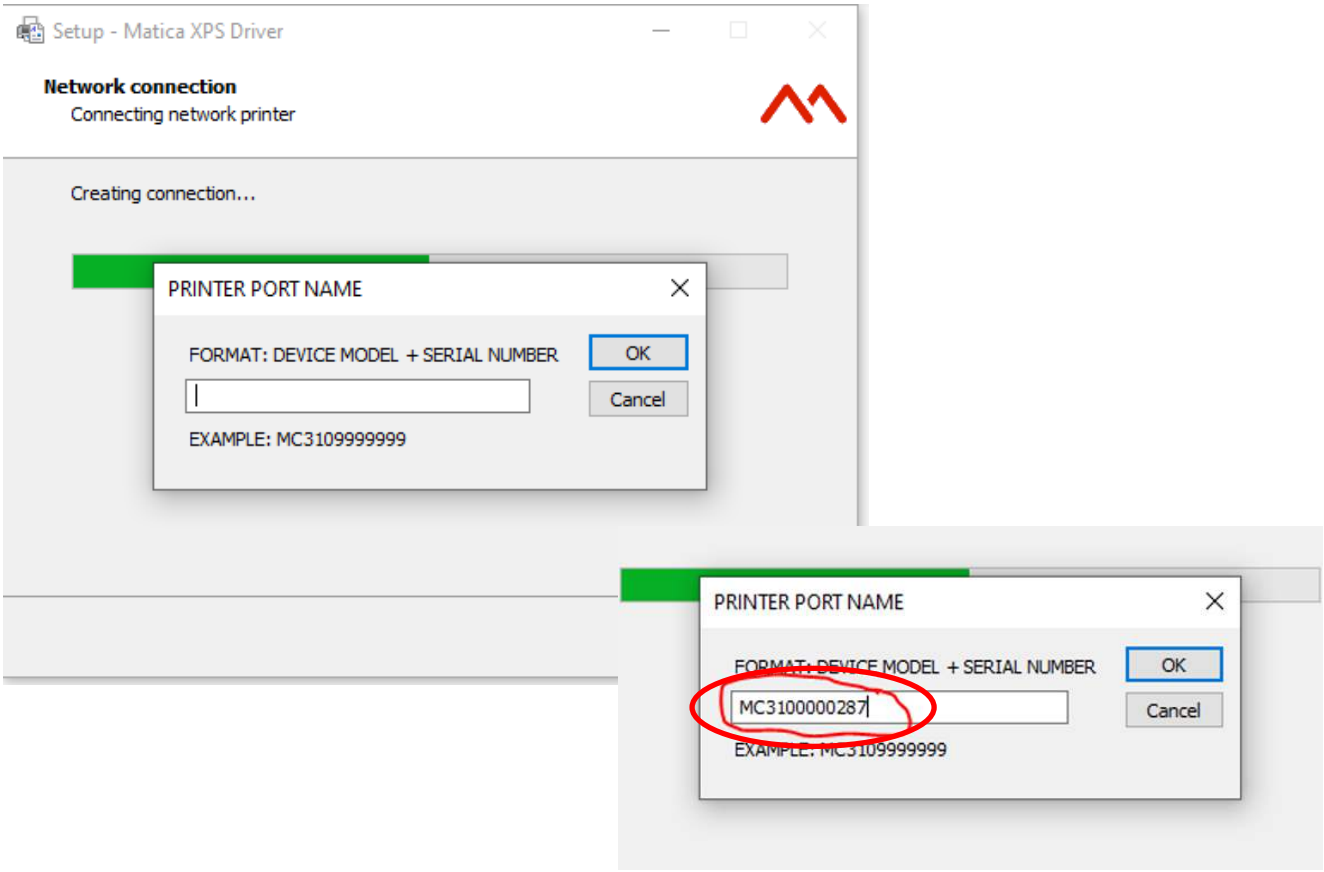


11) Connect the printer with Ethernet cable and switch ON the printer

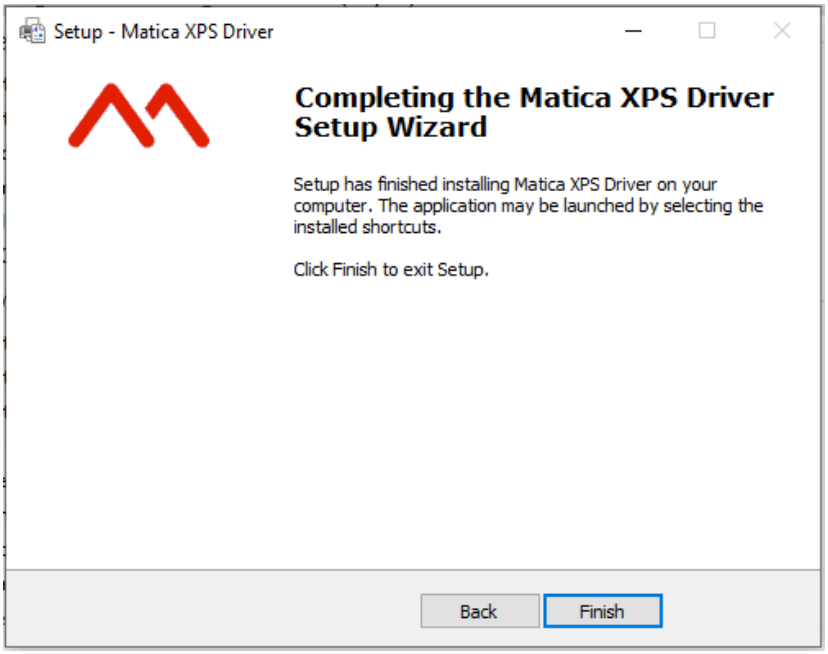
12) For DCP type connection: Select the DHCP connection type & click Next



13) Connect the printer using DCP option, below dialog box appears. It allows user to add the printer port name as the guideline provided in it i.e Model name + 7 digit serial number
An example shown below,



14) Click Finish to complete the Matica XPS Driver setup wizard



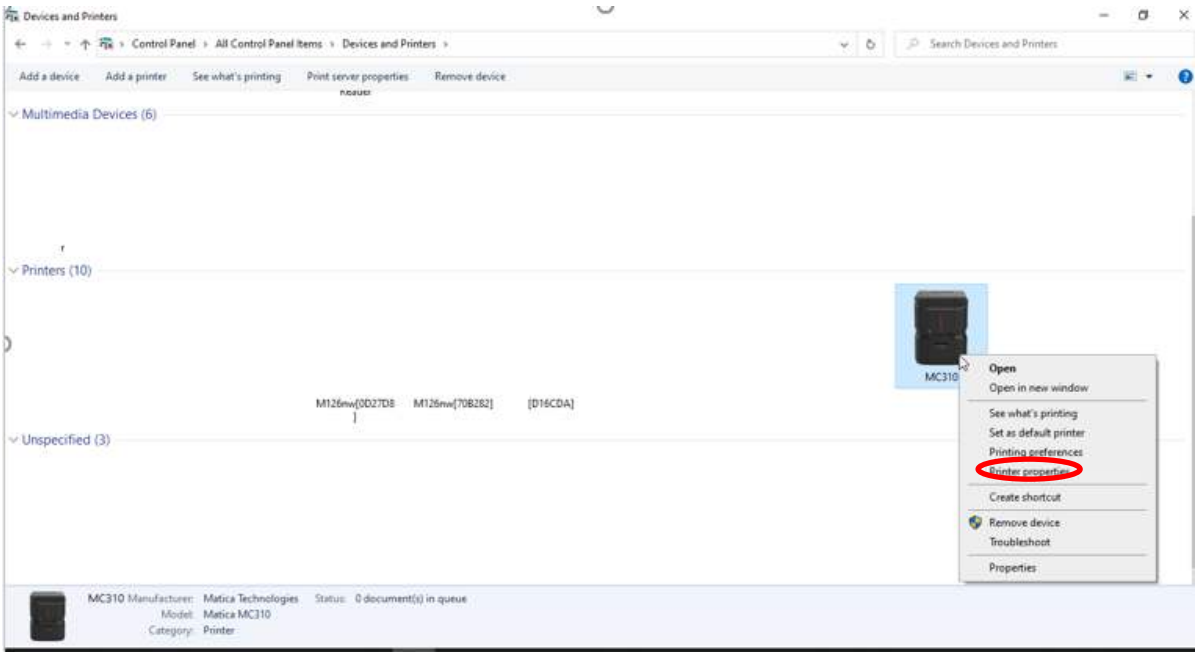
4.1.2.2 Static IP

Follow the below steps for setting Static IP for MC310 printer

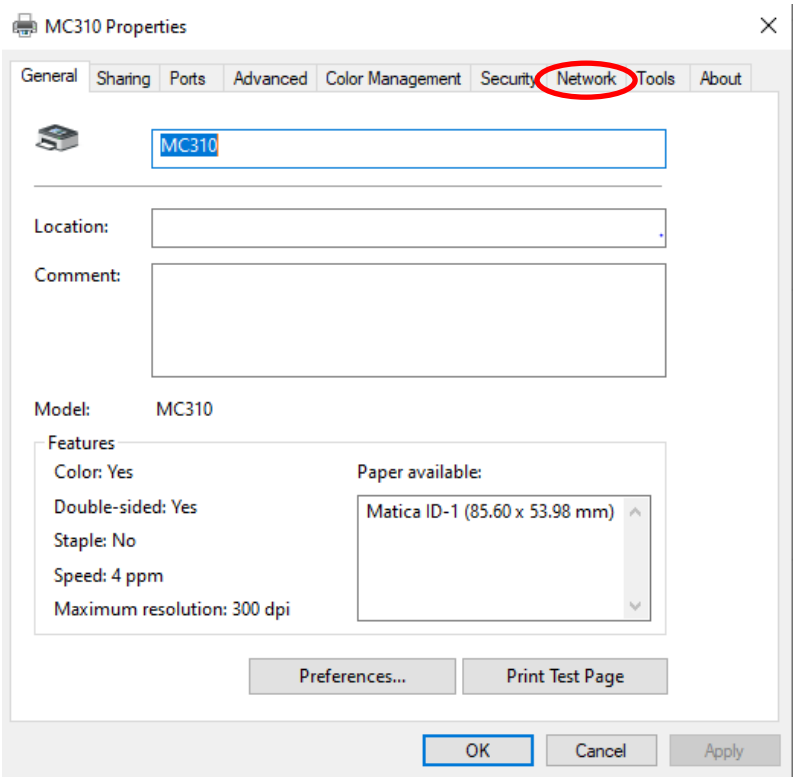
1. Ensure the driver installed using USB connection in Laptop/PC. Switch ON the printer & connect to the USB port.

2. Connect the LAN to printer along with USB & switch OFF & ON the printer. Ensure the PC/ Laptop also connect to same LAN connection.

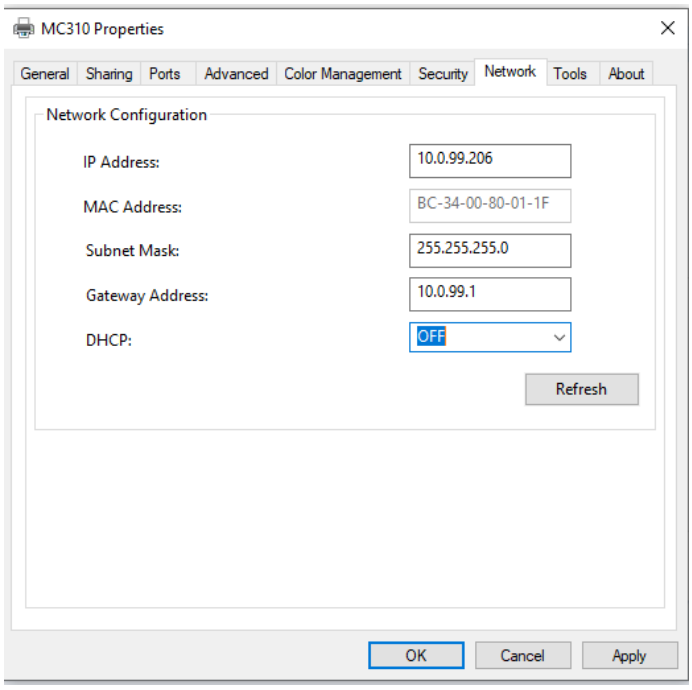
3. In the PC/Laptop go to devices & printers and right click using mouse on MC310 printer icon installed in the PC/Laptop. Select printer properties from drop down menu.



4. In MC310 printer properties, click network tab.



5. Network configuration tab appears. Note down the IP address & set DCHP to OFF condition. Click Apply & than OK.
   Note: If User need to change the IP address then set the DCHP to OFF state & change the IP address & gate way address. Click apply & than OK.

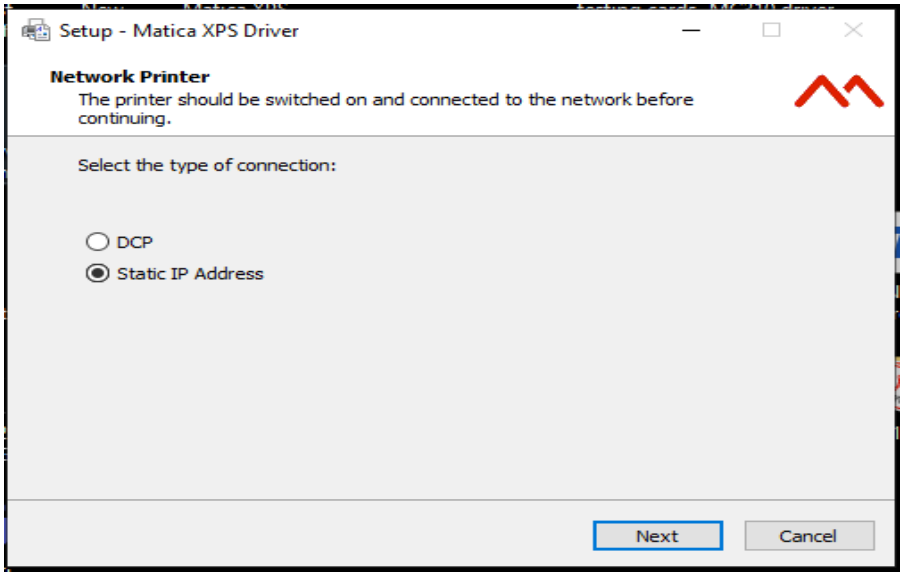


6. Once IP address set or noted down, disconnect the USB connection from printer.

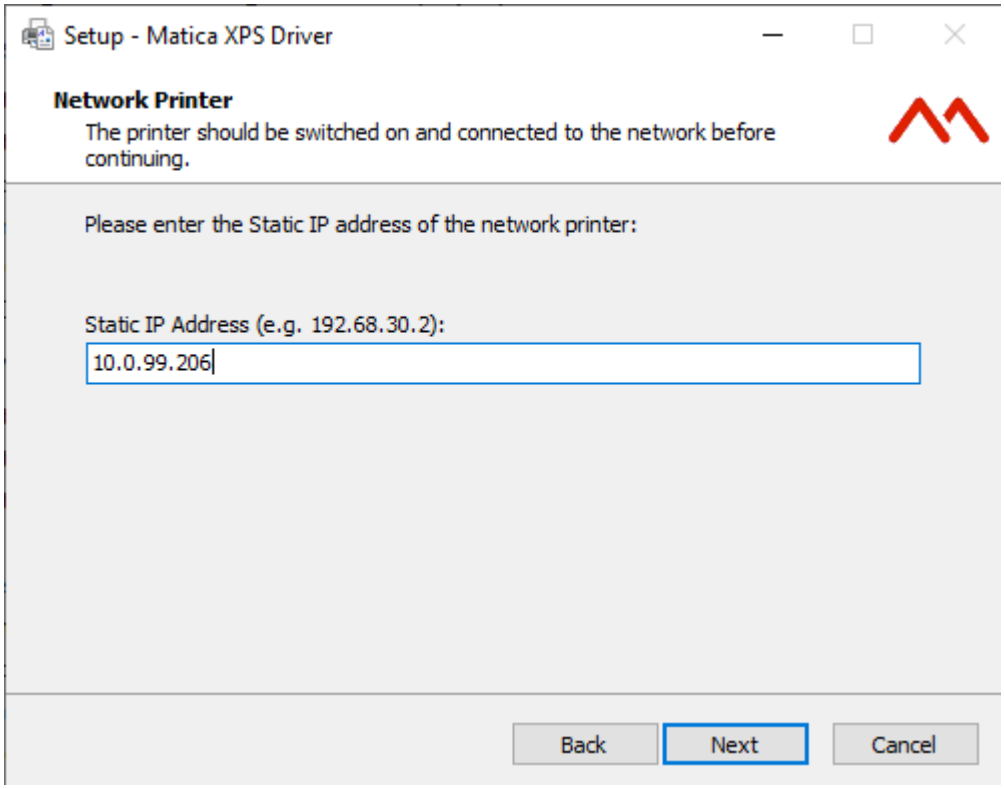
7. For connecting the MC310 through Static IP run the MC310 driver installer & follow the steps explaining in Sub chapter 4.1.2.1 DCP from steps 1 to 11.

8. Connect the LAN cable and Switch OFF & Switch ON the printer.

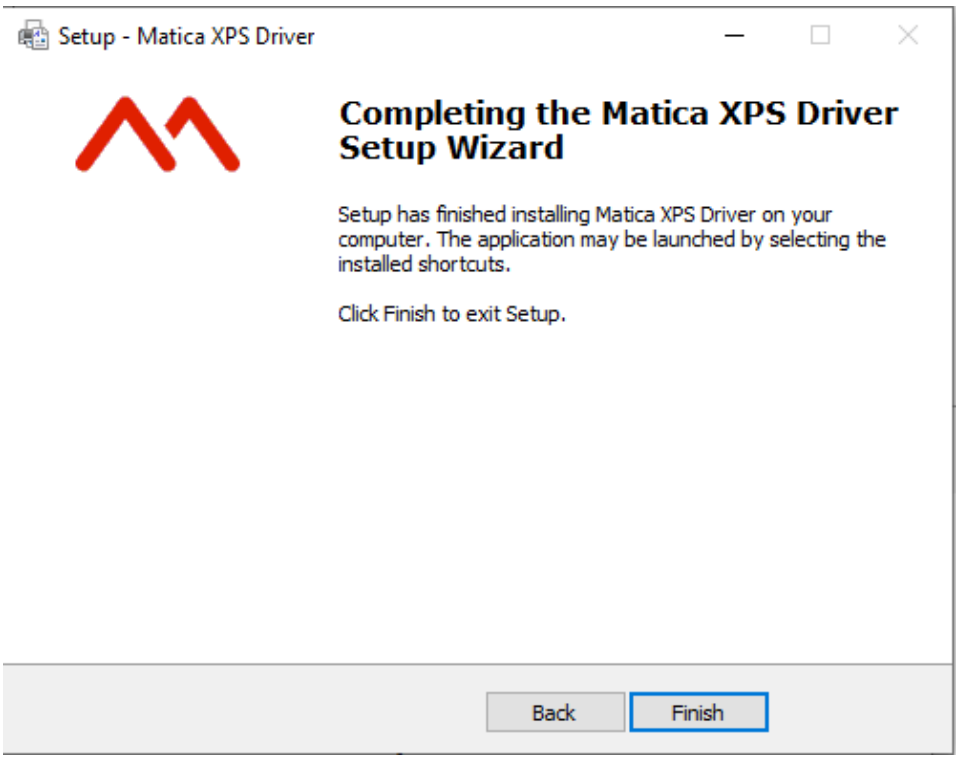
9. Select Static IP address and Click ´Next´.



10. Enter the Static IP address, as noted from the Step 5 and Click Next,



11. Click Finish to complete the Matica XPS Driver Setup Wizard,



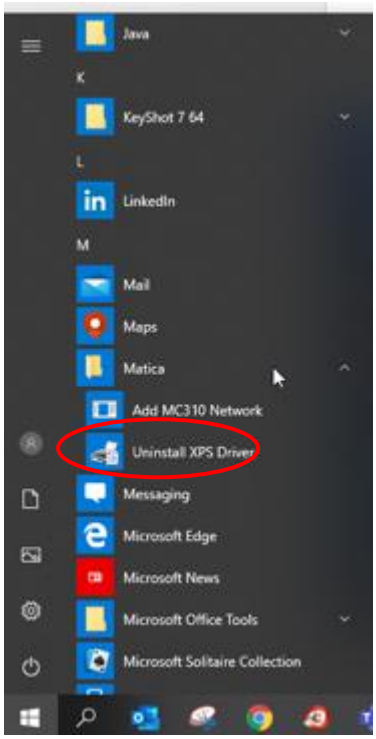
4.2 Uninstall Program Tabs

To uninstall the software:

1) in Windows XP, select Start > Control Panel > Add/Remove Programs > Matica XPS Driver version 1.x.x.x

2) in Windows 7, Windows 8/8.1, Win10 select Start > Control Panel > Programs> Uninstall a Program > Matica XPS Driver version 1.x.x.x.

   Or click start button & select Matica and click Uninstall XPS driver. Uninstallation process guide the user to uninstall XPS driver.



3) Once XPS driver uninstalled re-start the PC/Laptop.

4.2.1 Tools

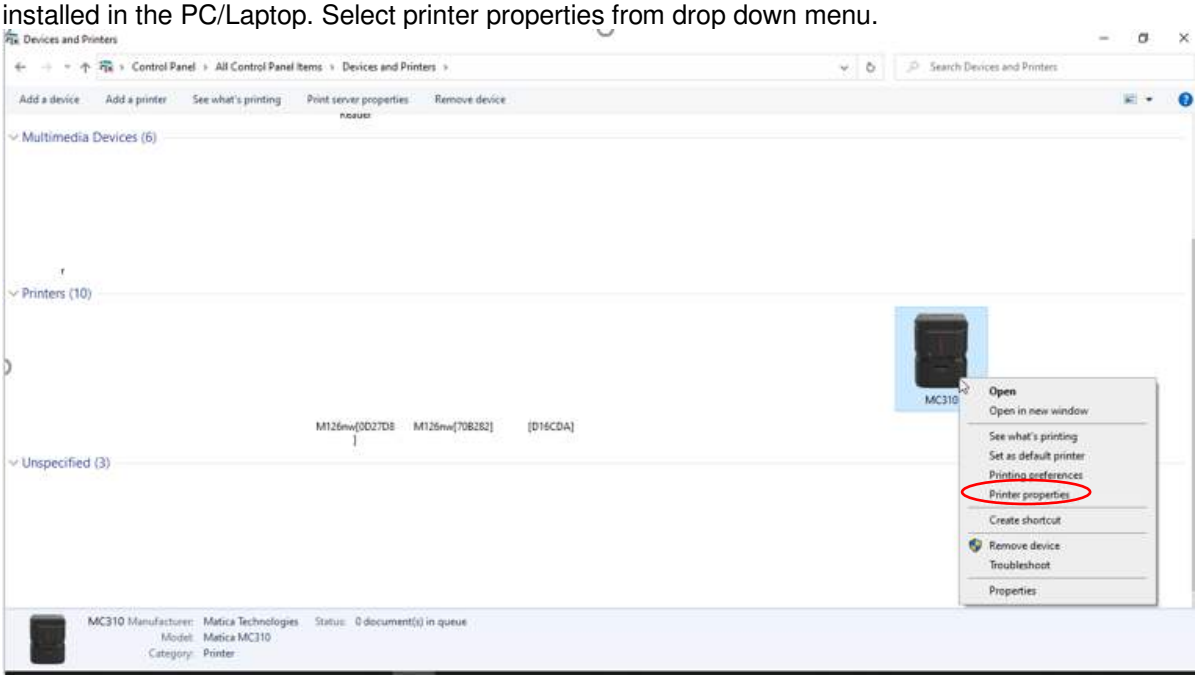
In the Tools menu, User can manage different operations in the Printer like the following

- Printer cleaning, Refer to Chapter 6.2 (Standard Cleaning)
- Advanced printer cleaning, Refer to Chapter 6.3 (Card patch advanced Cleaning)
- Activate Duplex printing, Refer to Chapter 7.3 (Duplex activation)
- Update printer firmware
- Update Printer LCD firmware
- Perform PC/SC encoder check
- Update Printer FONT firmware
- Printhead replacement, Refer to Chapter 6.7 (Printhead replacement procedure)

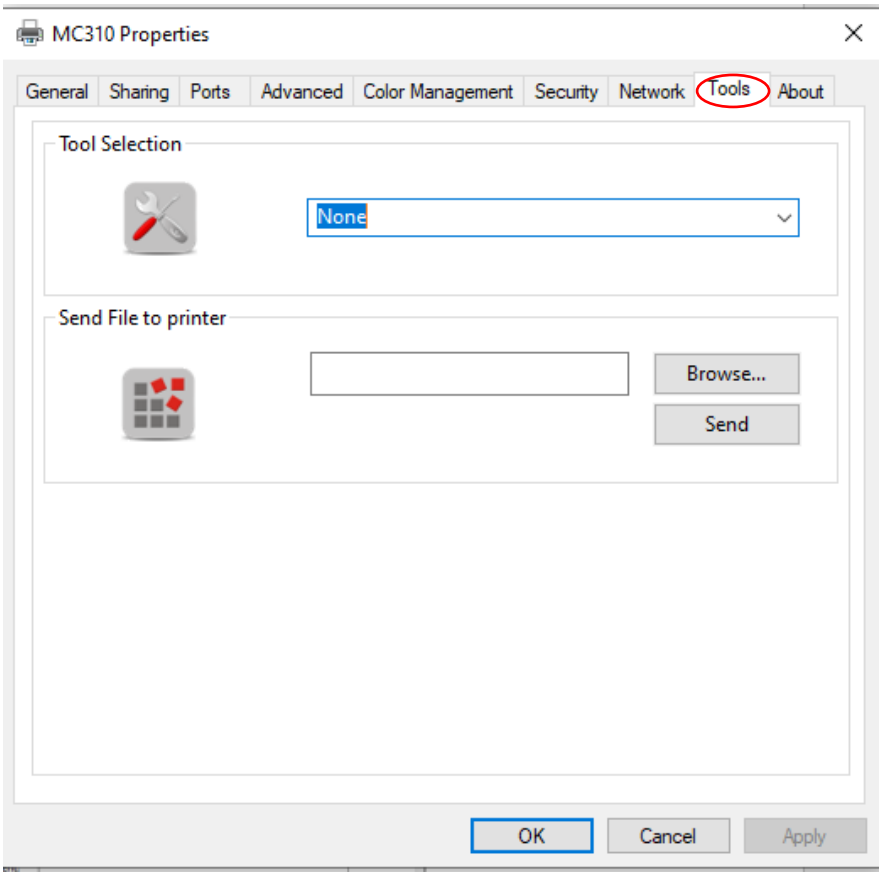
The user can access the tool menu in MC310 printer properties.

1) Ensure that printer is connected to PC/Laptop through USB.

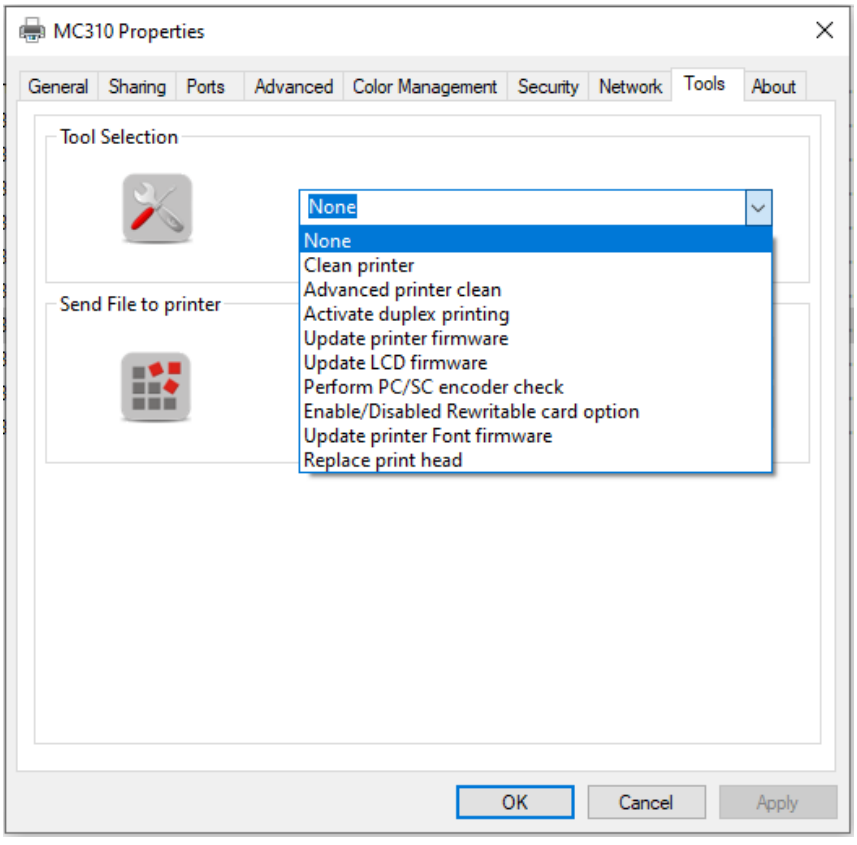
2) In the PC/Laptop go to devices & printers and right click using mouse on MC310 printer icon installed in the PC/Laptop. Select printer properties from drop down menu.



3) Click on Tool tab in MC310 printer properties,

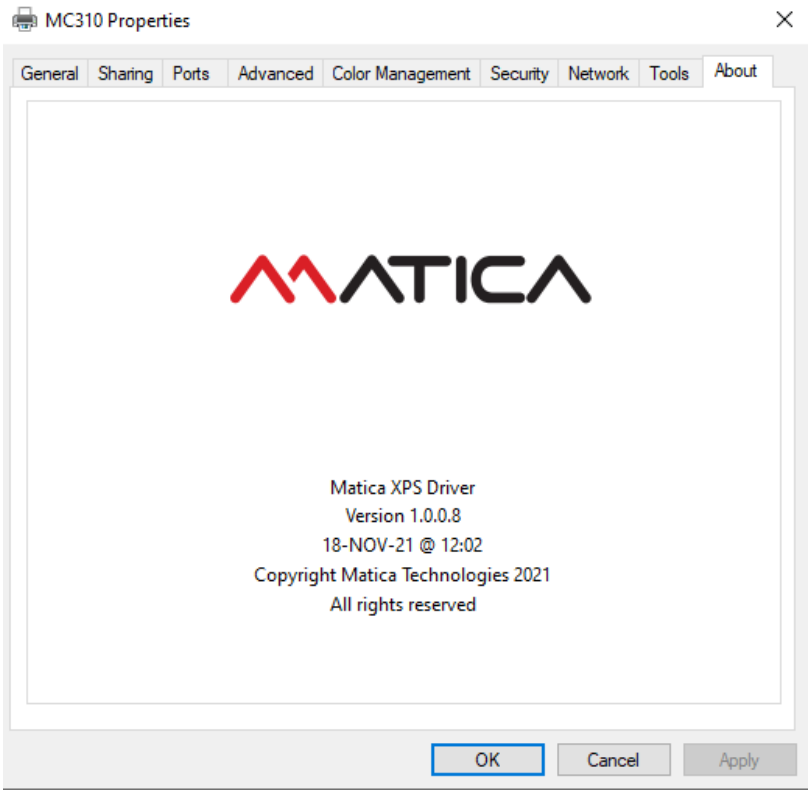


4) Select required wizard from tool selection menu,



4.2.2 About

In the About menu of MC310 properties, User can check the FW version installed in the printer & other related details.



5 Printing

5.1 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, allowing the User to create fully customized card jobs.

5.1.1 MC310 Printing preference

MC310 XPS driver printing preferences allow user to set the printer properties based on printing operation requirement.
MC310 printing preference has following tabs,

- Print setting tab
- Card front setting tab
- Card back setting tab
- Mag encoding setting tab (* if Mag encoder module is installed in printer)
- Lamination (* Based on Lamination installation with printer)
- About tab

5.1.1.1 Print Setting tab

Print setting tab allows user to set the orientation of image printing on the card, duplex option, card input & output option, Card type setting & number of copies to be printed. Also, it provides information on printer configuration, ribbon type & ribbon % remaining for the ribbon inside the printer.

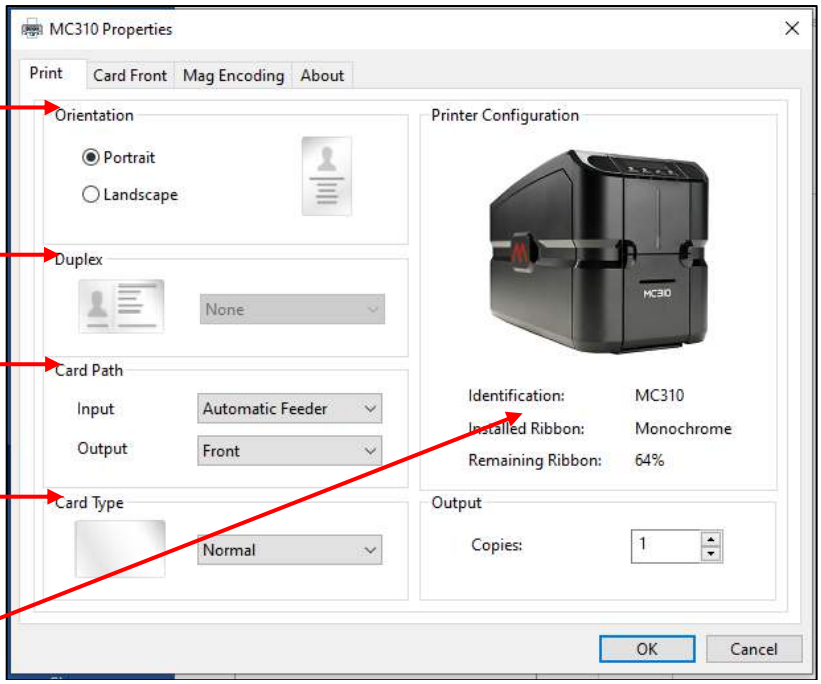
Print Image orientation setting.
User can set Portrait or Landscape

Duplex Option setting: User can print the card on both side by setting the duplex option short edge or long edge in duplex enabled printer.
For single side printing User need to select None option from drop down

Card path selection: Drop done menu allows the user to select & set the feeder option & out put option.

Card type selection: Drop done menu allows the user to select & set type of card used for printing in the printer.

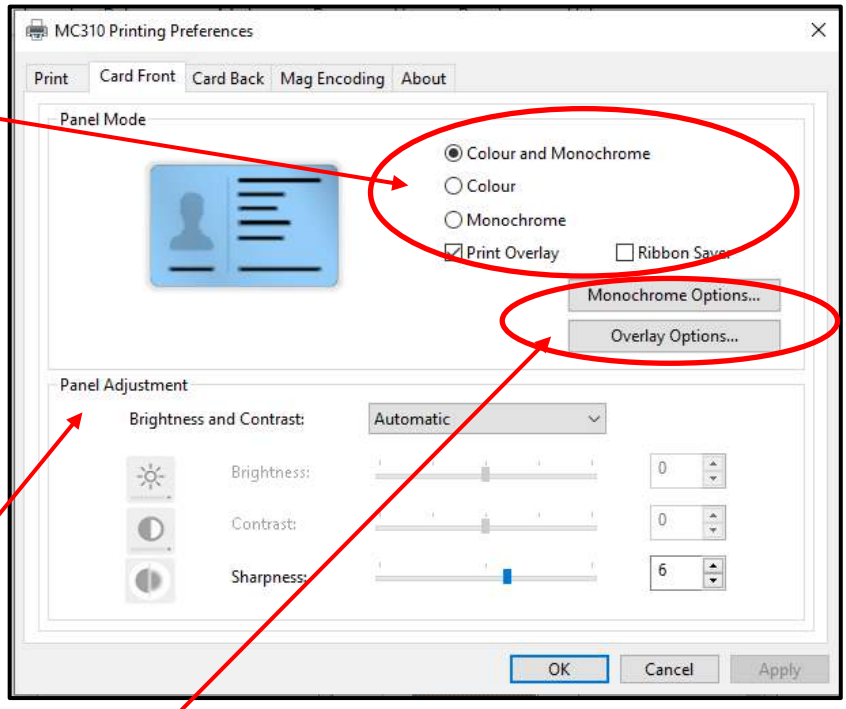
Printer Model & Ribbon details



5.1.1.2 Card front Setting tab

Panel Mode setting: based on type of ribbon added inside the printer for printing, the user allowed set color, monochrome & overlay option for front side printing on card.
*** For printing color & overlay front side & Monochrome K back side using YMCKO ribbon User need to select Ribbon saver option & click Ok.*

Panel Adjustment: using this option the user can select Automatic & manual setting of Brightness, Contrast & Sharpness.
Automatic: Default setting available.
Manual: By selecting this option the user can vary the brightness contrast & sharpness, based on the print image requirement.



Monochrome option: This option allows the user to set the contrast, Half tone for monochrome panel and Resin area Extraction.

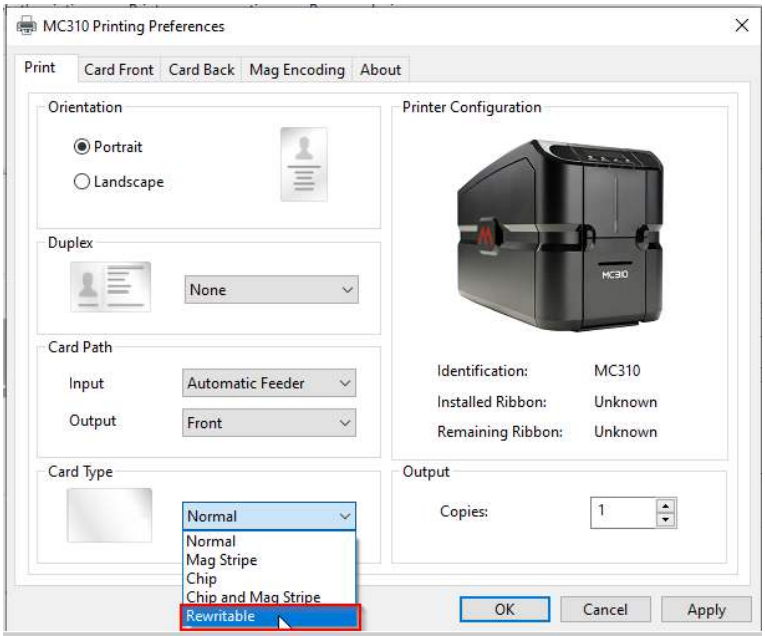
Overlay option: This option allows the user to set contrast for overlay panel and overlay area setting.

5.1.1.3 Rewritable card printing option:

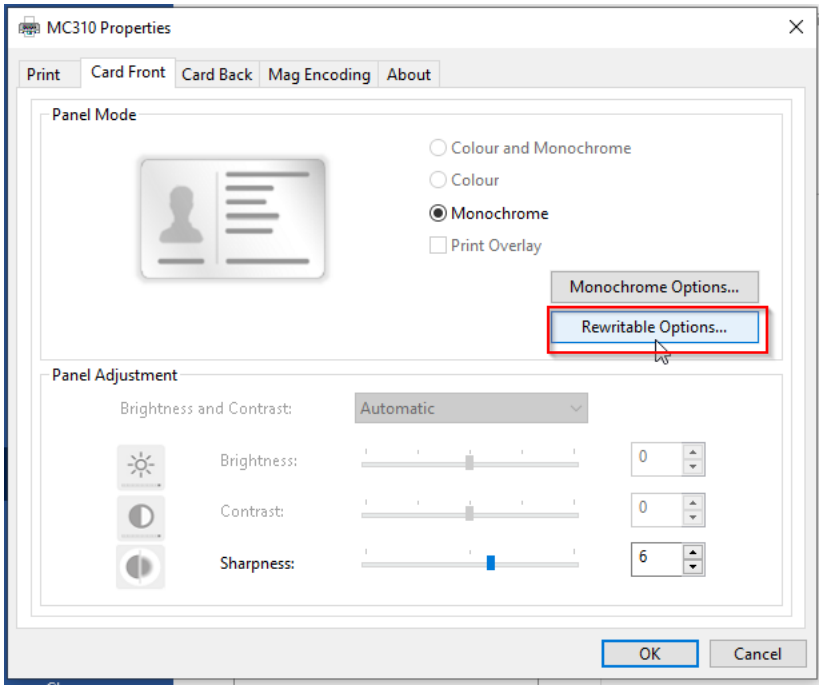
Follow below step to use rewritable card printing option.

Step 1: If printer is already printing with other type of ribbon remove the ribbon from printer & Switch OFF & Switch On printer.

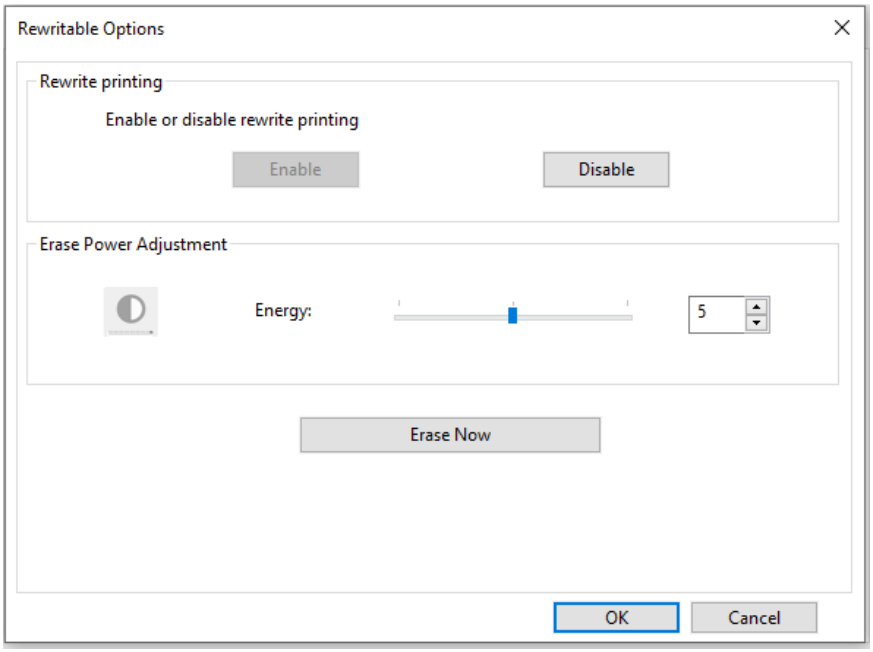
Step 2: Open the MC310 printer properties, in print tab select the card type as Rewritable.



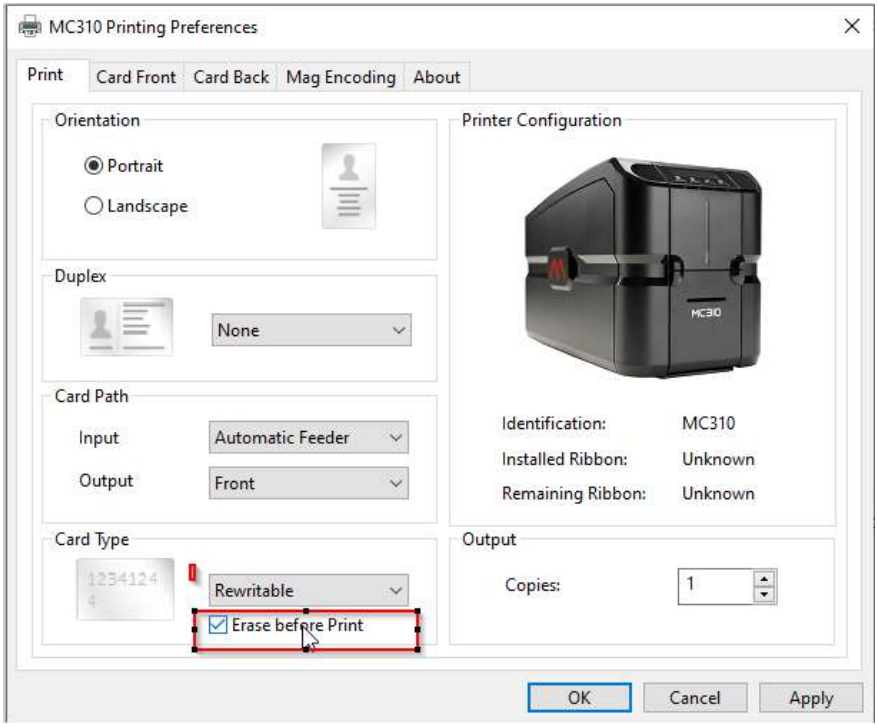
Step 3: Go to Card front tab & Select Rewritable options.



Step 4: Check Rewritable printing option is enabled in printer, if not add a rewritable card in feeder and click Erase Now. Card feed into printer & erase the re-writable card. After the Rewritable card is Erased & output, the re-writable option is activated in the printer. Click OK.



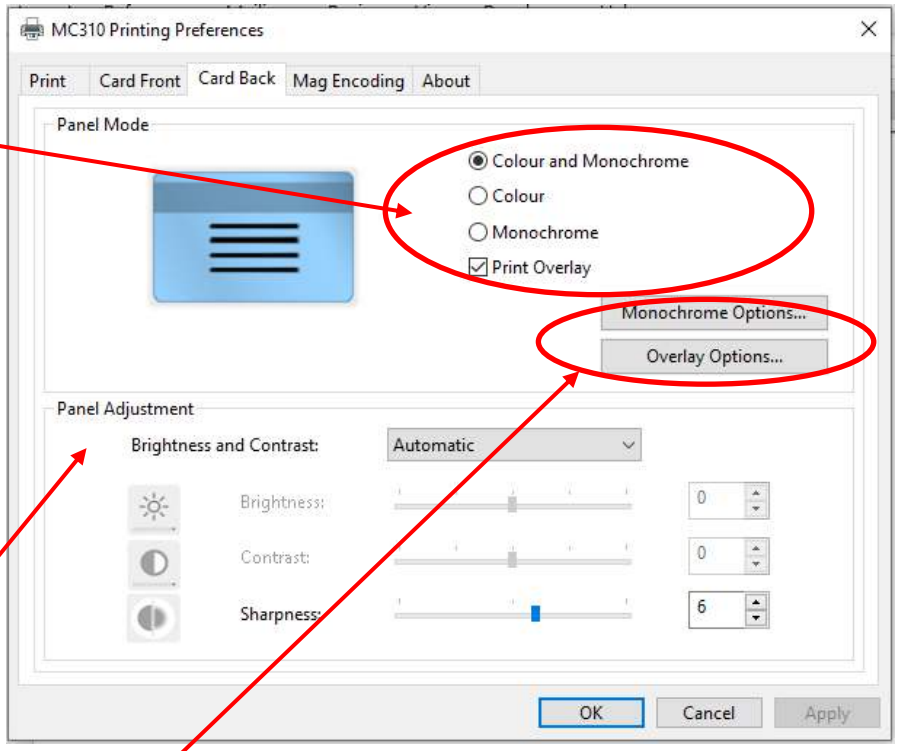
Step 5: Once rewritable option is activated in printer, come back to print tab of MC310 printer properties. Select Rewritable card type & select Erase before print option. Click Ok.



Step 6: Print the document to be printed on the rewritable side of the rewritable card.

5.1.1.4 Card back Setting tab

Panel Mode setting: based on type of ribbon added inside the printer for printing, the user allowed set color, monochrome & overlay option for back side printing on card.



Panel Adjustment: using this option the user can select Automatic & manual setting of Brightness, Contrast & Sharpness.
Automatic: Default setting available.
Manual: By selecting this option the user can vary the brightness contrast & sharpness, based on the print image requirement.

Monochrome option: This option allows the user to set the contrast, Half tone for monochrome panel and Resin area Extraction.

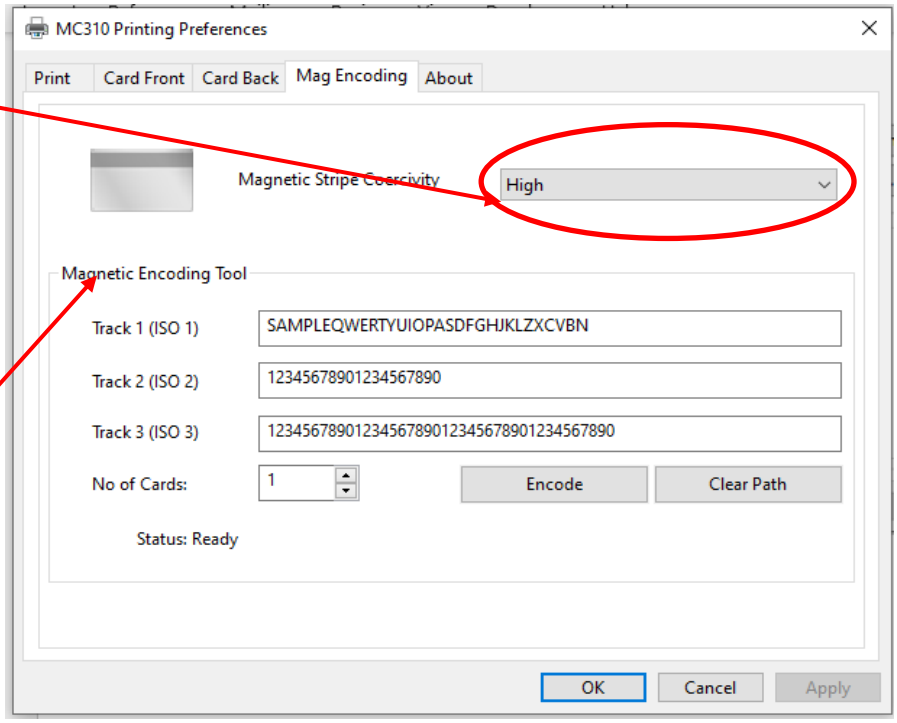
Overlay option: This option allows the user to set contrast for overlay panel and overlay area setting.

5.1.1.5 Mag encoding setting & mag encoding tool tab

Mag encoding setting tab will be available for printer assembled with mag encoder.

Magnetic stripe coercivity setting: Based on the type of magnetic stripe card coercivity, using this option the user must select the coercivity from drop down menu & click Ok.

Magnetic Encoding Tool: Standalone tool provided to encode mag encoding stripe card.



5.1.1.6 Laminator:

XPS driver show laminator tab for Printer connected with inline MC-L2 laminator & User can select the laminator options.

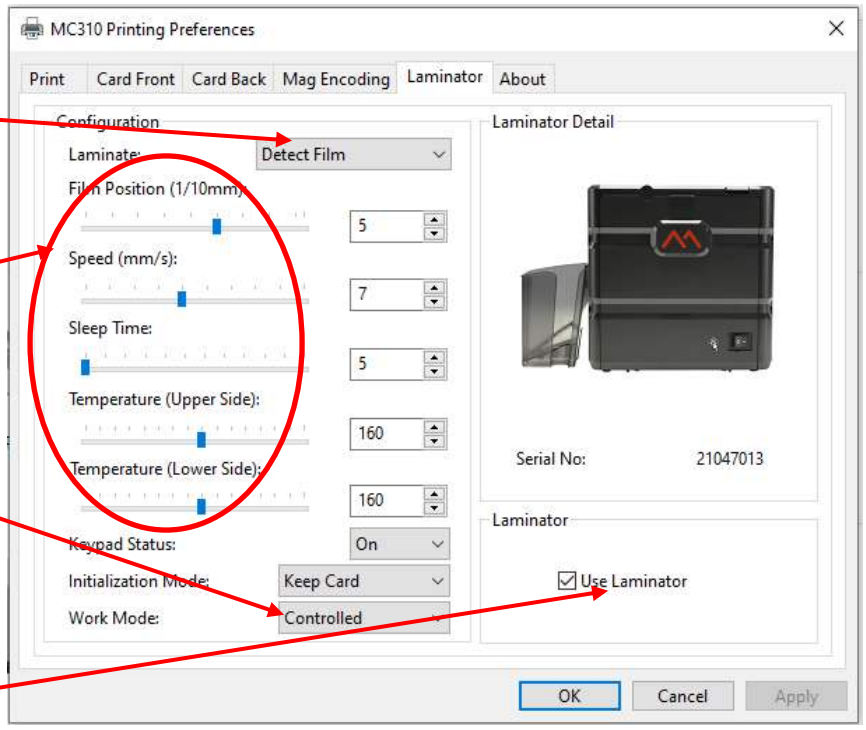
Drop down menu for lamination option like, detect film, upper side, lower side, pass through & both side.

Laminator parameter adjustment option.

Work mode: it has controlled & standalone.
With controlled mode lamination parameter are controlled through XPS driver.

- *It should be set to controlled mode*

Need tick use laminator option to use laminator inline with MC310.



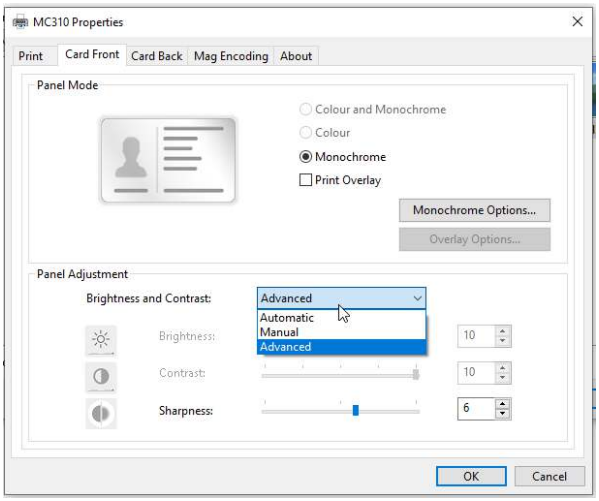
***Note: To use Laminator inline with MC310 printer, user need to select output card path as rear outbin.*

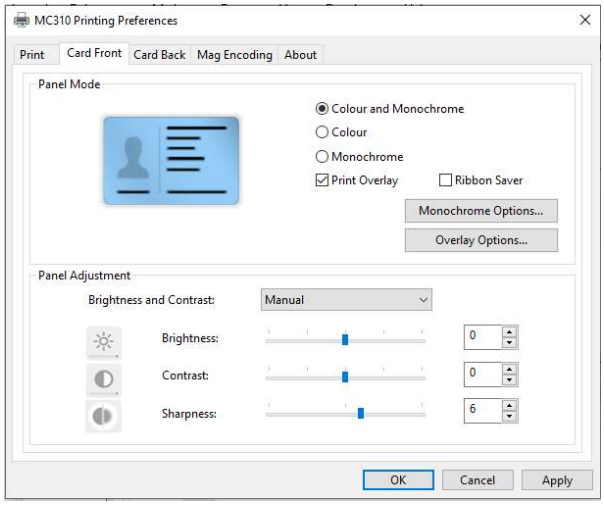
5.2 Color Settings

By default, the Brightness and Contrast setting in printer properties shown as Automatic.

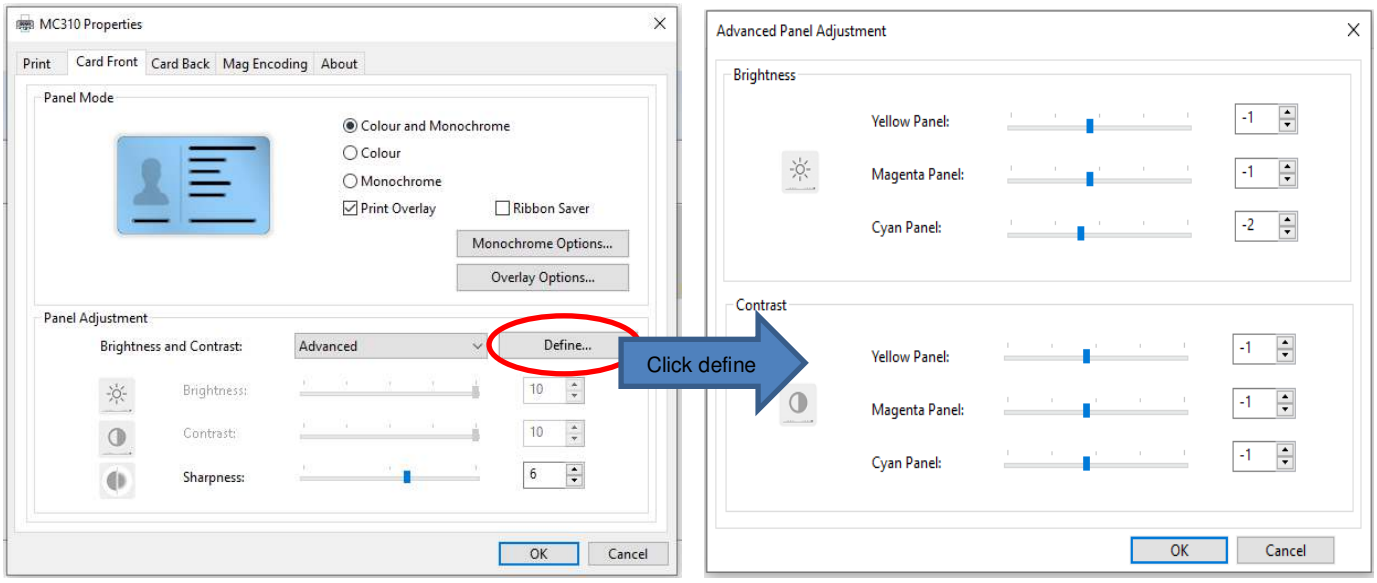
To customize color printing, Click Printer Properties → select tab Card front/card back → panel adjustment → in Brightness and contrast select manual or advanced from drop down menu

If User select Manual option→ adjust the Brightness, contrast and sharpness based on requirement → click apply → click OK.





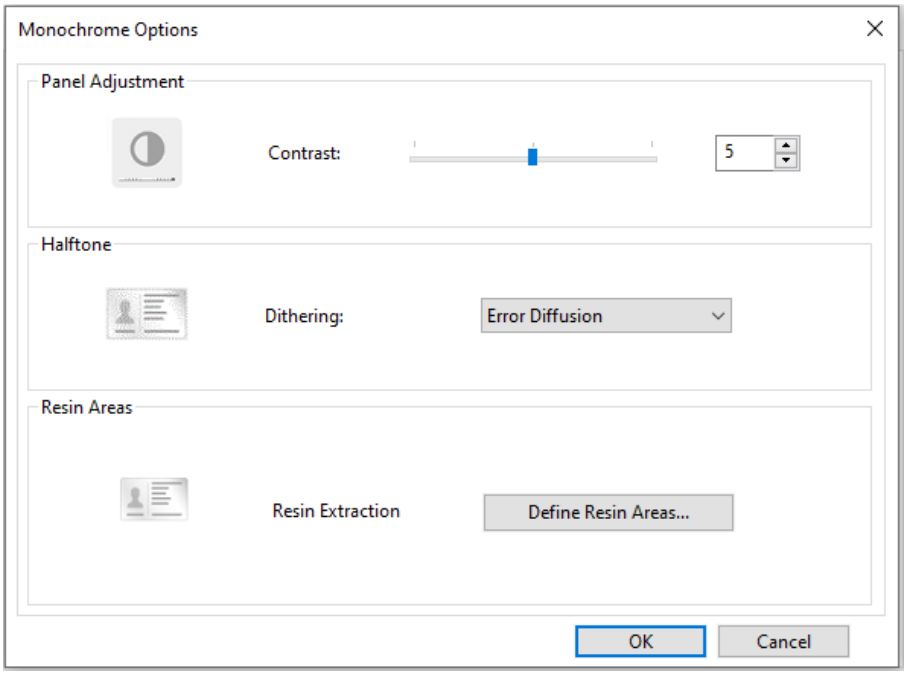
The advance option allows the user to define different brightness & contrast value for YMC panel separately.



Once user define tab after selecting advance option in drop down menu, Advanced panel adjustment menu appears. The user can adjust the required brightness & contrast value for each panel and click OK.

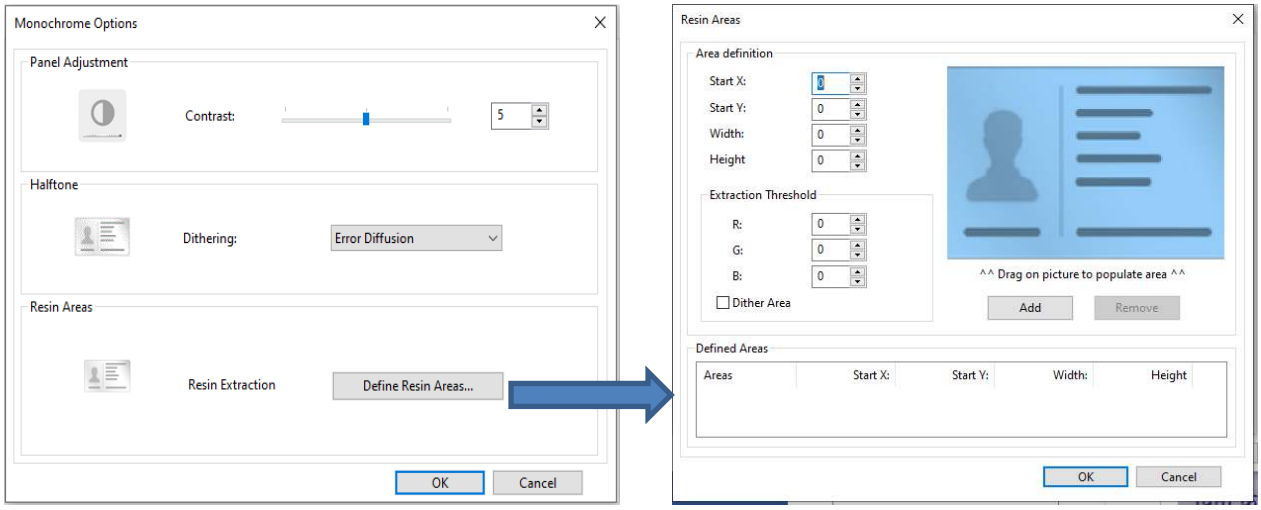
5.2.1 Monochrome option:

In monochrome setting option the user can set contrast for monochrome, Halftone & Resin areas extraction.

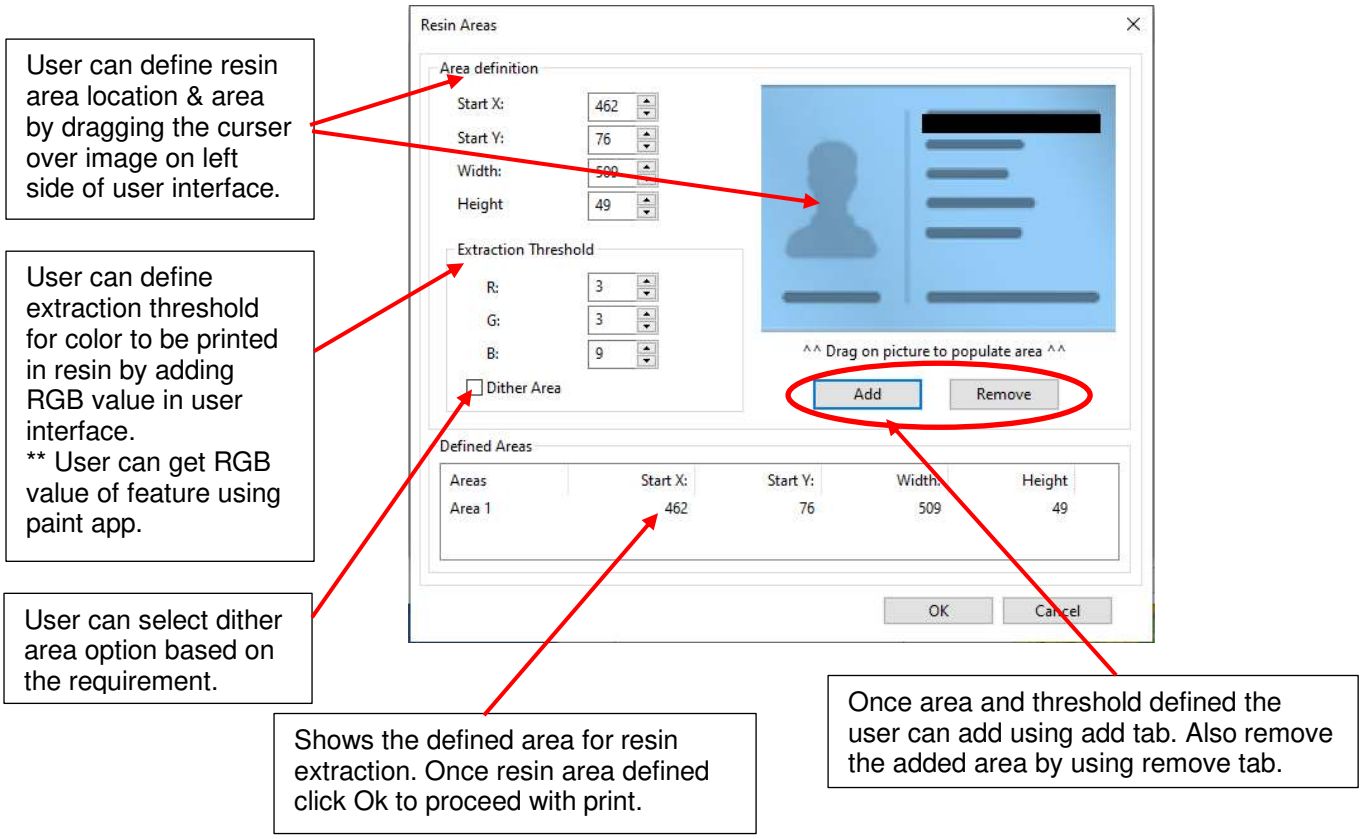


5.2.1.1 Resin Area Extraction:

For printing with YMCKO ribbon the user can select area/features in an image to print with resin (K panel) using resin area extraction option in XPS driver.



Resin Area Extraction user interface for defining resin extraction,



***** Note: If user defined resin area, then user always need to remove or re-adjust defined resin area for fresh printing.*

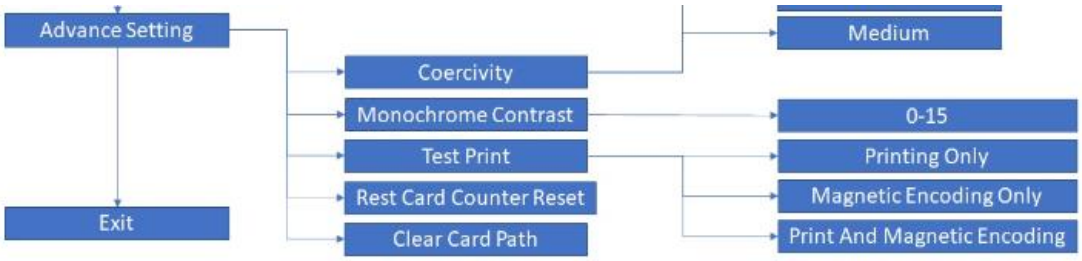
5.3 Printing Test Cards using Printer menu

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,

- In the Menu/Scroll button, Scroll to Advanced setting
- Press the Selection button to transit to respective sub-menu
- Scroll to Test Print only
- Press the Selection button to print the Test card

Refer to the Navigation as in chart,



6 Printer Maintenance

6.1 Printer Routine Cleaning

Four different cleaning processes are implemented in the printers using MC310 Cleaning kit (PR20309601)

6.2 Standard Cleaning

- Suggested frequency
  Color printing: Each time the ribbon is changed

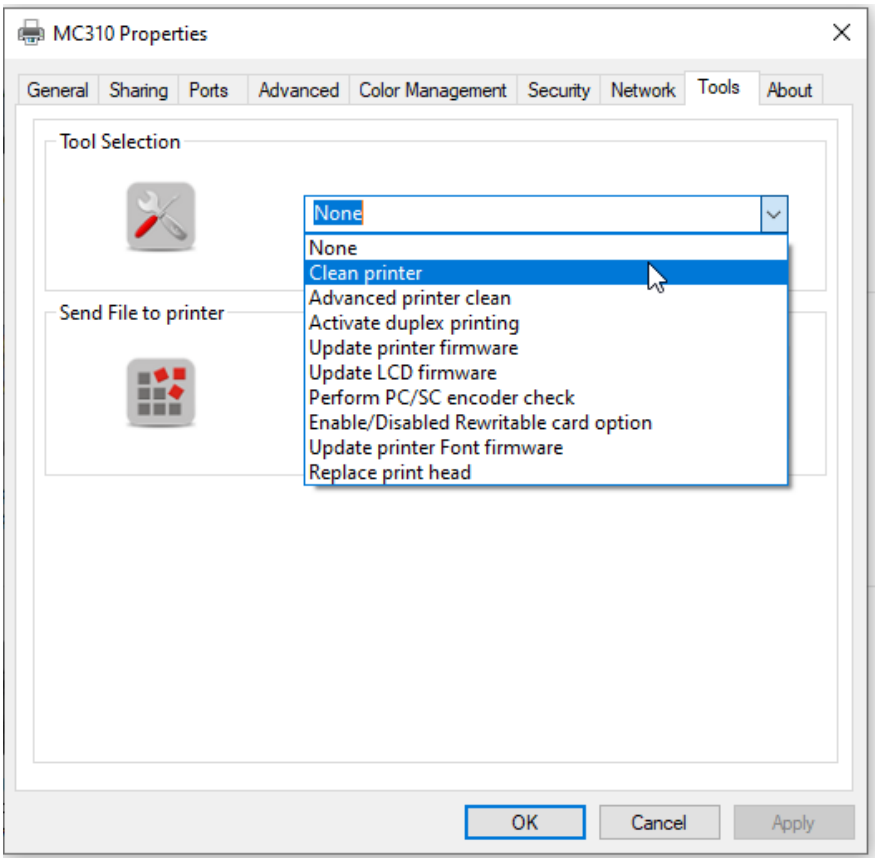
- Mandatory frequency (to prevent voiding the warranty)
  After every 1,000 prints, Printer will alert the user for 'Basic Cleaning' in the display with AMBER LED blink
  Standard cleaning is performed using the Extended cleaning card as explained below.
  The product has an internal counter that keeps 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 after 1000 prints, at 1200 print Printer will alert the user for 'Mandatory cleaning' in the display and RED LED

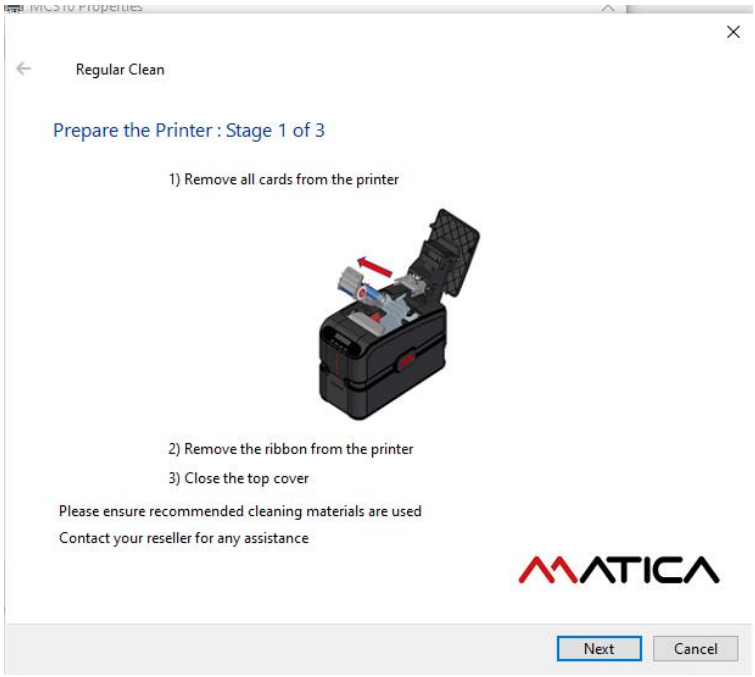
- For Printer with ISO Magnetic stripe option: cleaning frequency should be more often

Standard Cleaning Procedure

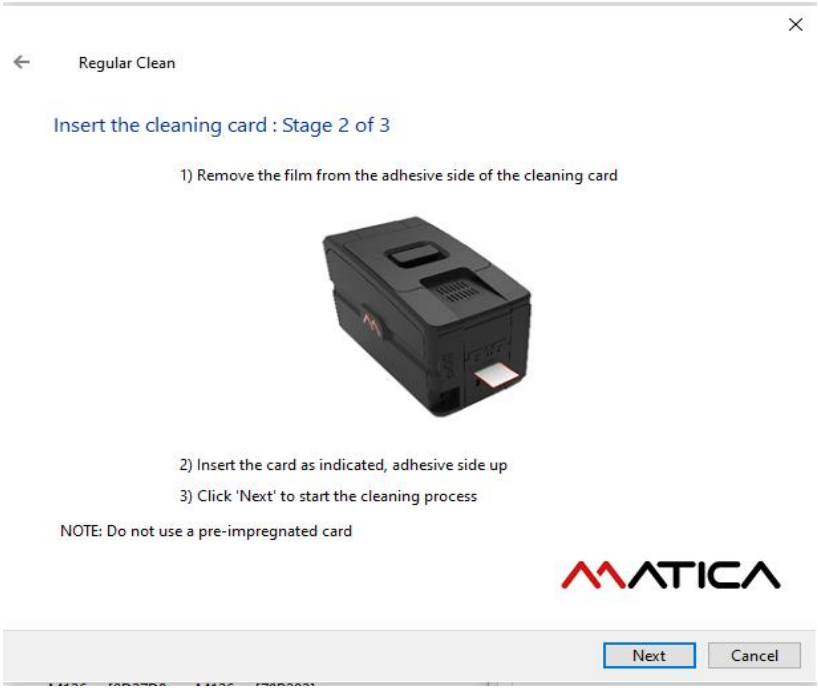
1. To perform the Standard cleaning, Select 'clean printer" wizard from drop down menu available in the printer properties tool tab,



2. Follow the instructions in the wizard, as below

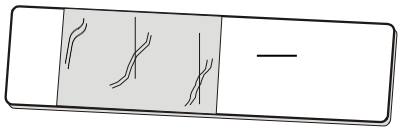


3. Close the Top cover & click next



Note: a) **Use** the Extended Cleaning Card. **Remove the protective film.**

Extended card



b) Insert the Longer side of the Extended card in the back slot of the printer as represented in Figure

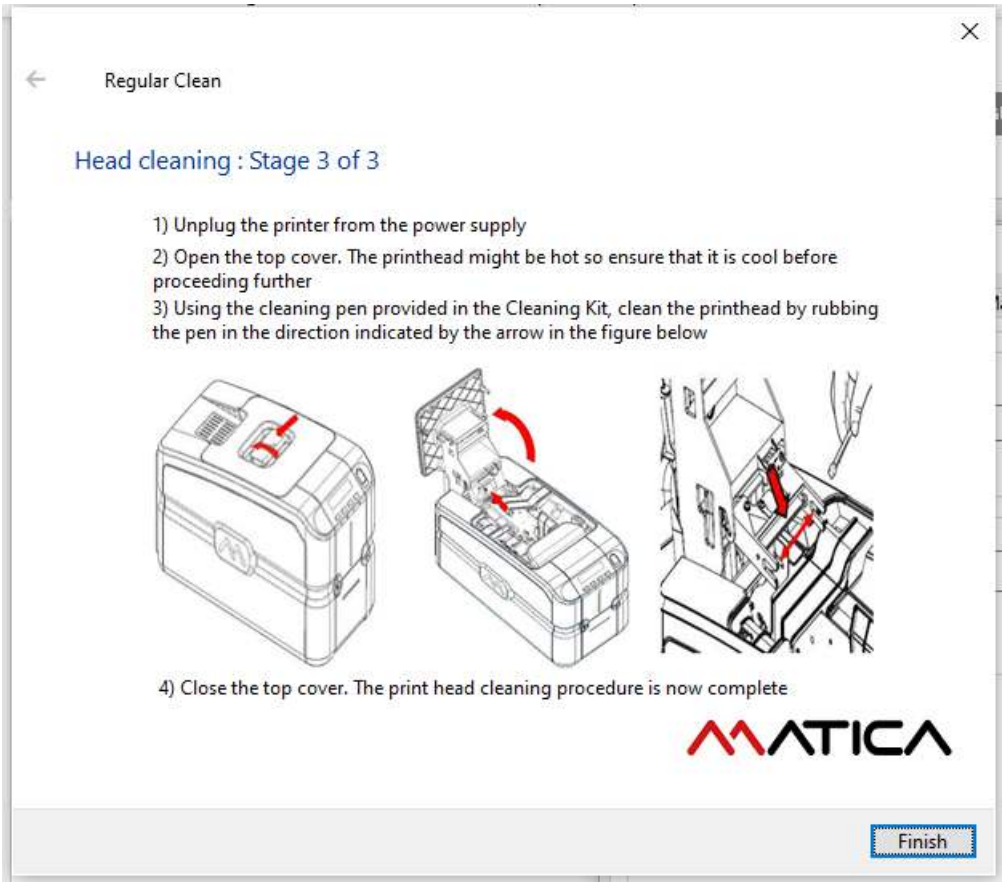
The adhesive surface is on both sides.



Insert the **Long side** of the **Extended card** in the **Back slot**

4. Clean of print head,

   Refer to Chapter 6.5 for Printhead cleaning procedure, Click 'Finish' to complete the Standard Cleaning procedure



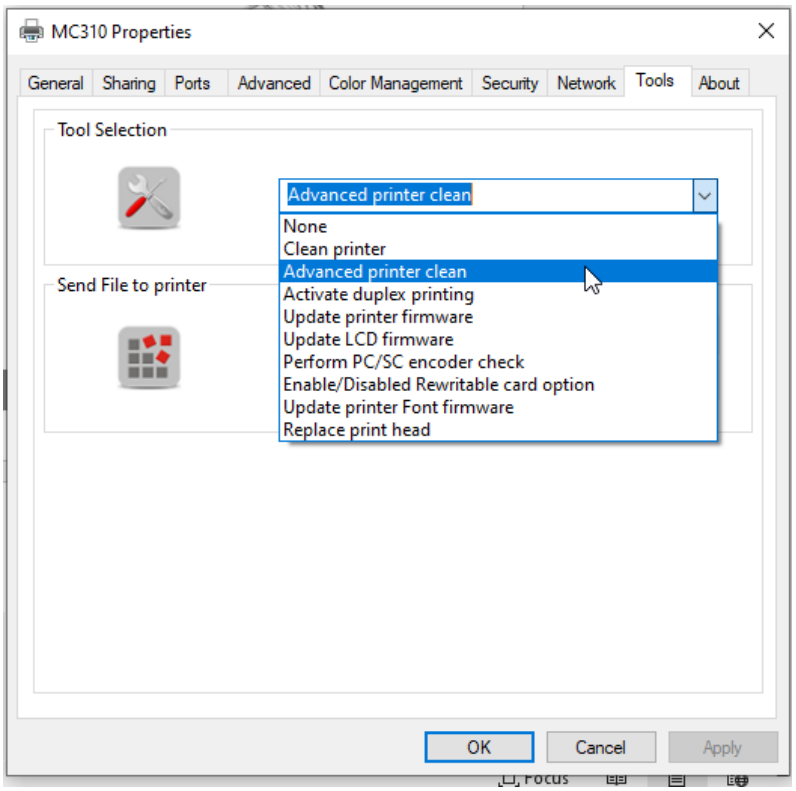
6.3 Card Path Advanced Cleaning

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

- After every 5000 prints, Printer will alert the user for 'Advanced Cleaning' in the Printer display with RED LED blink
- 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 the Printer Manager Specifications).
- A software-guided procedure will assist in carrying out the cleaning operations.

6.3.1 Advanced Cleaning Procedure

1. To perform the Advance printer clean, Select 'Advance printer clean" wizard from drop down menu available in the printer properties tool tab and follow the instruction in the wizard.



Note: a) Insert the **T-card** in the back slot of the printer



Insert the **T-card** in the **Back slot**

6.4 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 even more often based on the working environment)

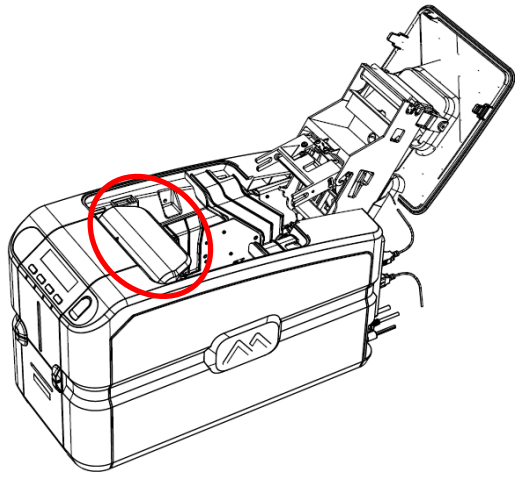
6.4.1 Roller cleaning Procedure

1) Unplug the printer from the power supply.

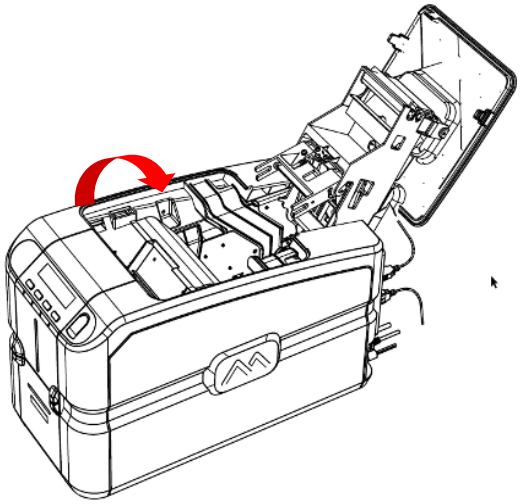
2) Open the Top cover

3) Remove the ribbon carrier

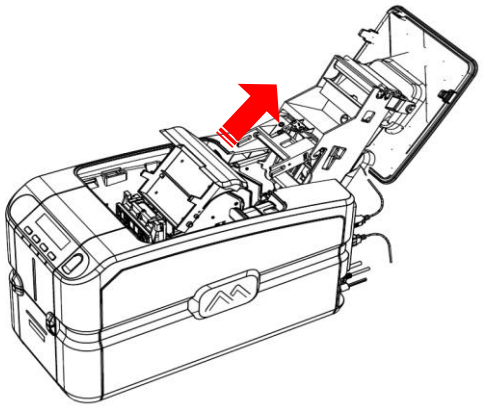
4) Remove the Encoder Cover by following the instructions as in the Figures



Step 1: Hold the Encoder cover

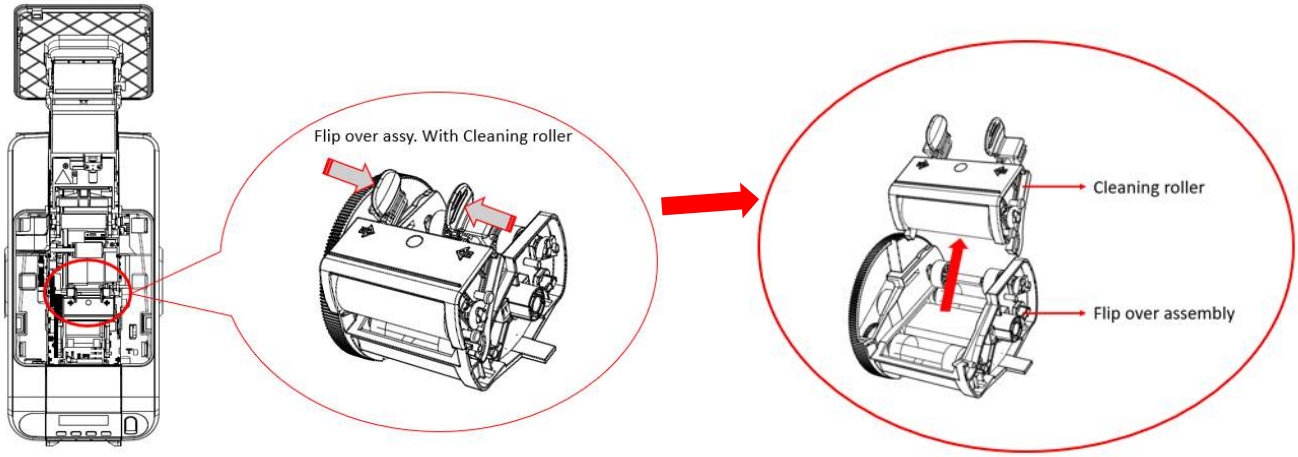


Step 2: Move the Cover towards the downward direction as shown in the image to disengage



Step 3: Slide out the Encoder cover in the direction as shown in the image

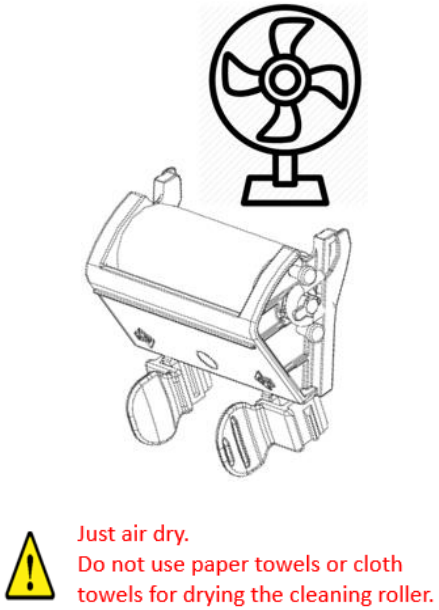
5) Once the cover is open below you could see the Flip over Assembly with Cleaning roller (Marked with 2 arrows)
Press with 2 fingers to remove only the Cleaning roller from the Flip over assembly, as illustrated below.



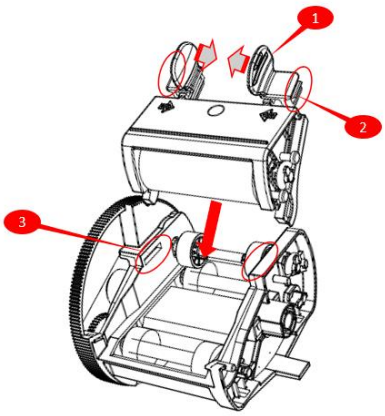
6) Identify the roller & gently clean the roller with water only.



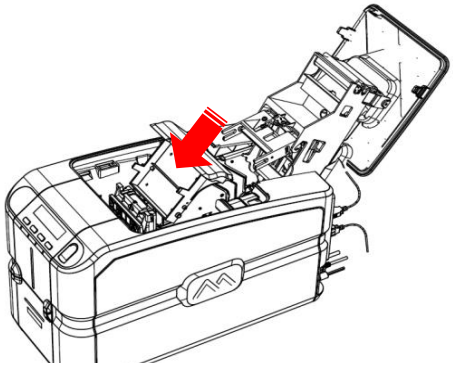
7) After cleaning, dry the roller thoroughly.



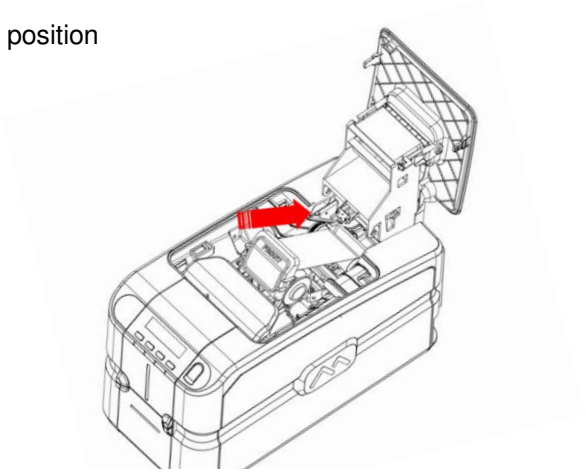
8)Reinsert the roller by pressing the flanges (1) of the Cleaning roller and pushing the projections(2) into its slot(3), pressing downwards until you hear a sound of locking.



9)Insert the Encoder cover and ribbon carrier back into its position



1.Insert the Encoder cover



2.Insert the Ribbon carrier

10)Close the printing module compartment

11)The roller cleaning procedure is now concluded.

6.5 Printhead Cleaning

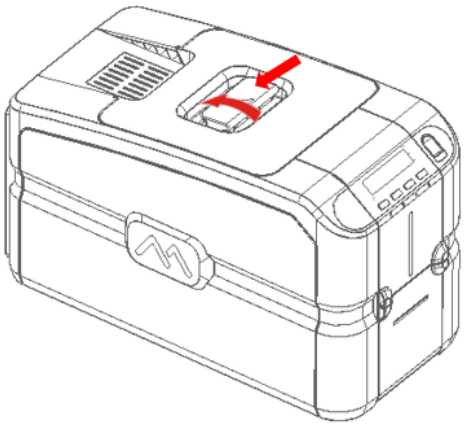
It is suggested to clean the printhead when dots are missing on the printed cards:

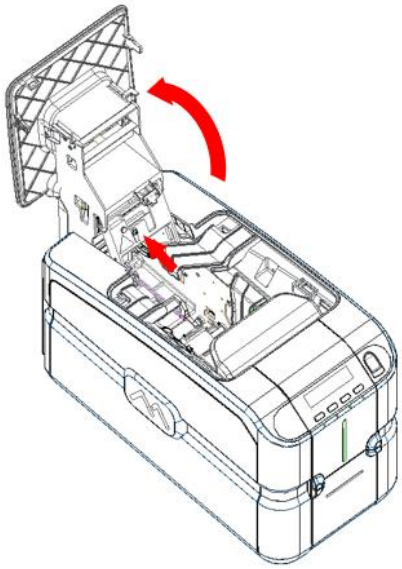
- The edge of the printhead must be cleaned using the cleaning pen.
- The edge of the printhead must be cleaned to remove residual ink or dust.

6.5.1 Printhead Cleaning Procedure

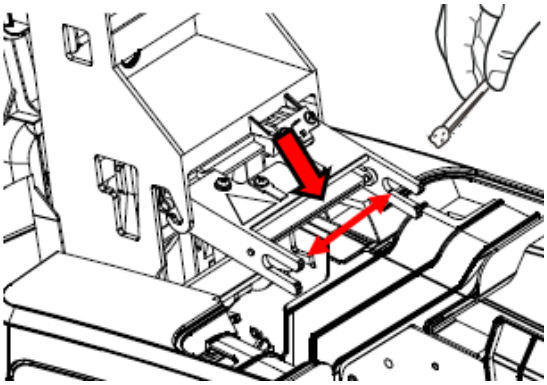
1) Unplug the printer from the power supply.

2) Open the Top cover.





3) Using the cleaning pen that is provided 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

4) Close the Top cover

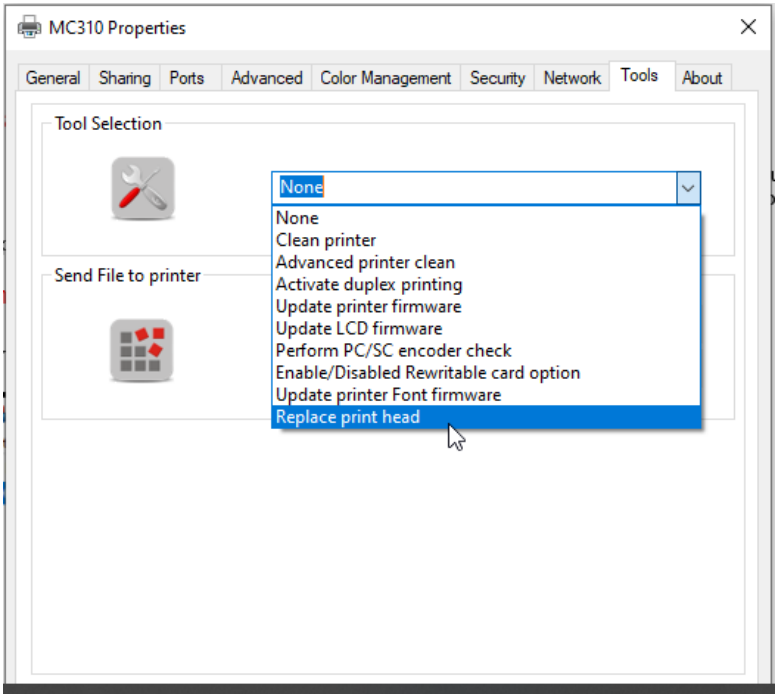
5) The printhead cleaning procedure is now concluded.

6.6 Print head 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 longest possible service life. However, the print head may become worn and must be replaced after a certain period of time.

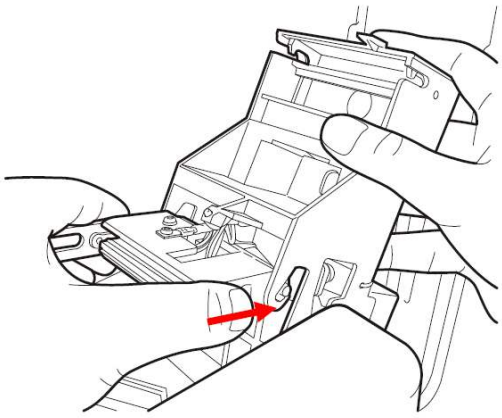
6.6.1 Replacement procedure

1) To perform the Printhead replacement, select 'Replace Printhead' from the Tool menu,

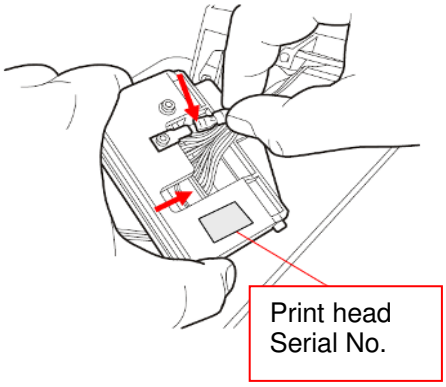


2) Unplug the Printer from the Power supply, Open the Top cover. Remove the Printhead as instructed below,

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 in the Printer Manager wizard

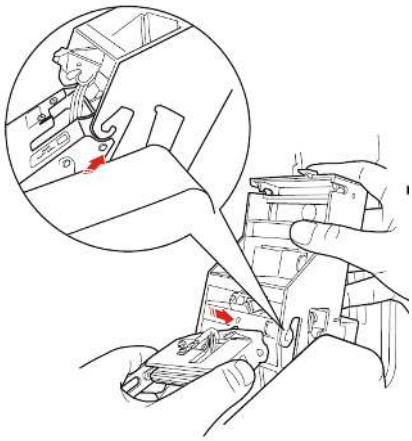


3) Remove the earth wire and the connector, connect these to the new print head and make a note of the Print Head Serial No. and Click ‘Next’ to continue in the Printer Manager wizard

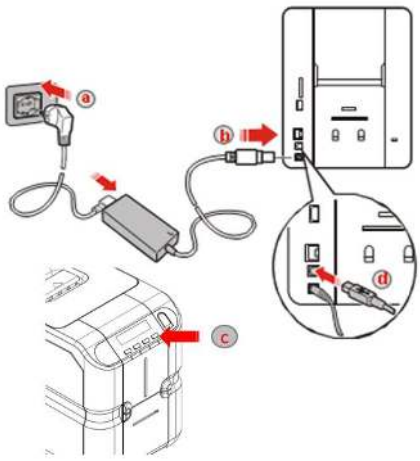


4) Insert the new print head.
During re-insertion, press with the sphere present in the tip of the print head on the point indicated in the figure and rotate it slightly in order to insert it in its housing and Close the top cover.

Click ‘Next’ to continue in the Printer Manager wizard



6) Connect the printer to the power supply, switch on and connect it to a computer with the USB cable
Click ‘Next’ to continue in the Printer Manager wizard



7) Enter the **Print Head Serial number** and confirm with the **Set** button.



8) Click ‘Finish’ to complete the Printhead replacement operation

7 Options

7.1 Chip Encoding (Contact and Contactless)

The Chip Encoder is an optional module for the MC310 Series that allows the encoding of chip cards (smart cards).

Available chip encoding modules and related functionalities:

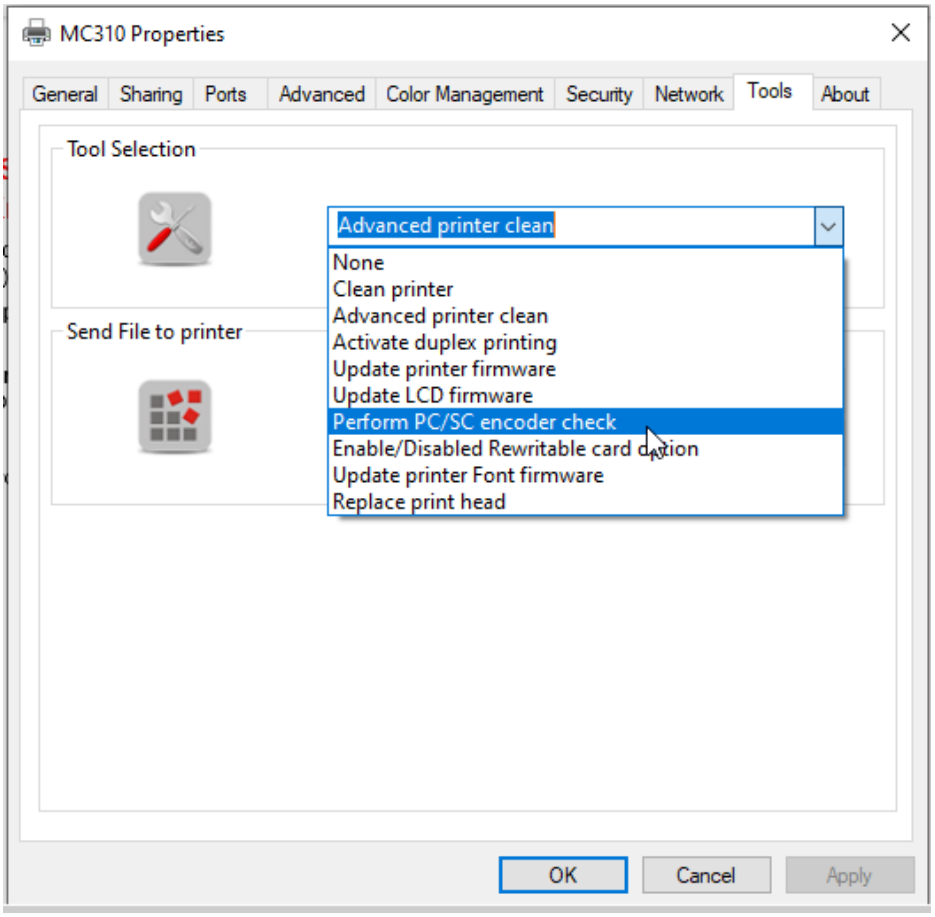
- **Dual Interface Encoder Module (Contact and Contactless cards)** Code **PR10300003**
  Allows you to run chip encoding on contact and contactless cards

Install the module according to the instructions contained in the package.

7.2 7.2 Use of PC/SC encoder wizard to test Dual interface in MC310

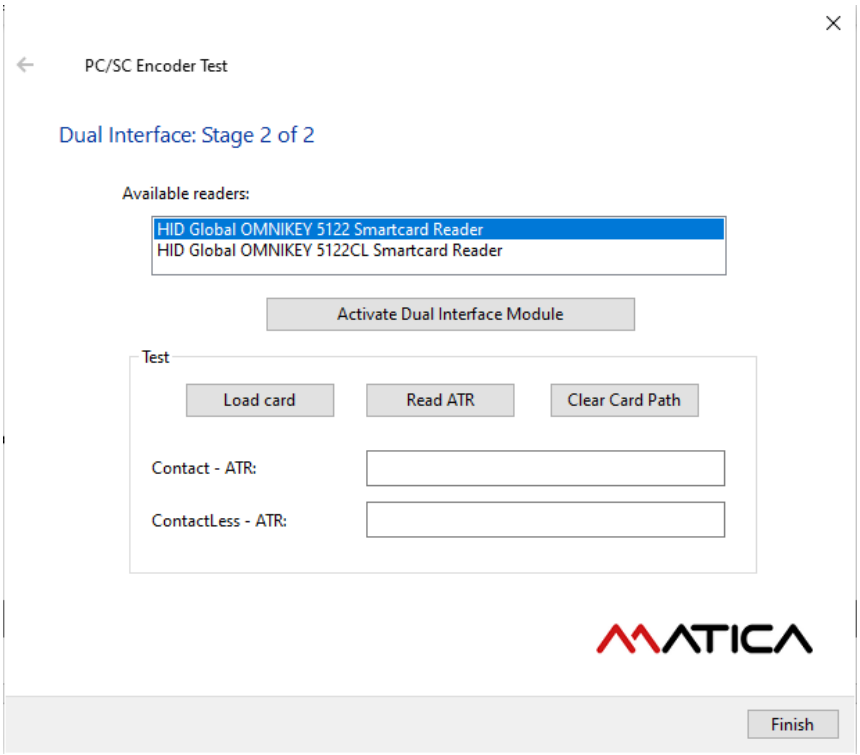
To perform the Dual interface working check, select 'Perform PC/Sc encoder check' from the Tool menu & click OK.

Note: The test can only be performed with MC310 printer installed with Dual interface module PR10300003.

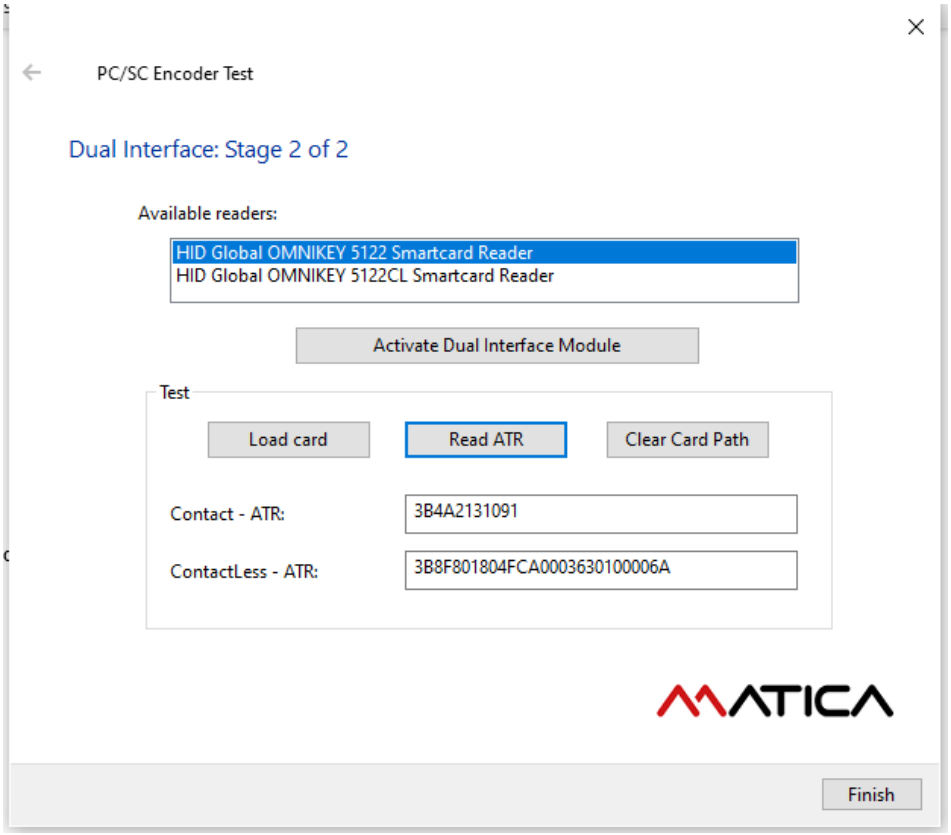


Follow the instruction provided in wizard & click next to continue the test.

In stage 2 of Wizard , click the activate dual interface module and Insert the dual interface smart card into feeder.



To conduct the test, click load card & card move to dual interface → click Read ATR. The software read & display ATR once test complete successfully.



7.3 Magnetic Encoding

The Magnetic Encoder is an optional module for the MC310 Series that allows the encoding of magnetic cards.

The following modules are available:

- **MAG ENCODER**
  It allows you to perform the encoding magnetic in ISO/ JIS2 format Code **PR10300001**

Install the module according to the instructions contained in the package.

7.3.1 Configuration

Warning: *Before proceeding with the configuration of the module make sure the printer is turned on and connected to your computer via USB.*

Note: Refer 5.1.1.5 of this document for Mag encoding setting & mag encoding tool tab.

Sample Encoding format in the document:

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***;***

7.4 Duplex activation

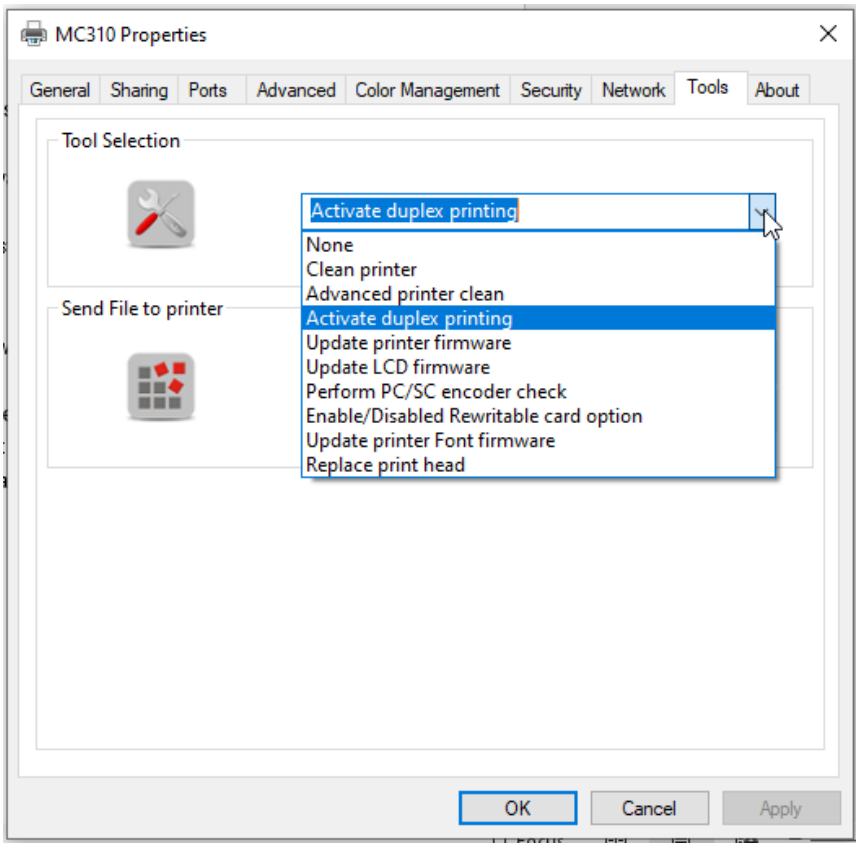
The Duplex activation is an optional module for the MC310 Series that allows the printer to print on both side of the cards.

The following modules are available:

- **MC310 Duplex Activation Kit**
  It will enable the printer to print dual side of a card Code **PR10300016**

  To enable the Dual sided printing please follow the below instructions,

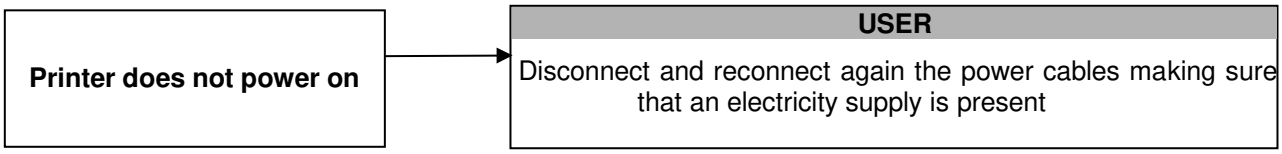
  1. Go to Printer properties → Tools → select Activate Duplex printing from drop down menu→ Click ok to proceed to the Duplex activation wizard window. Follow the steps instructed in activate duplex printing wizard.



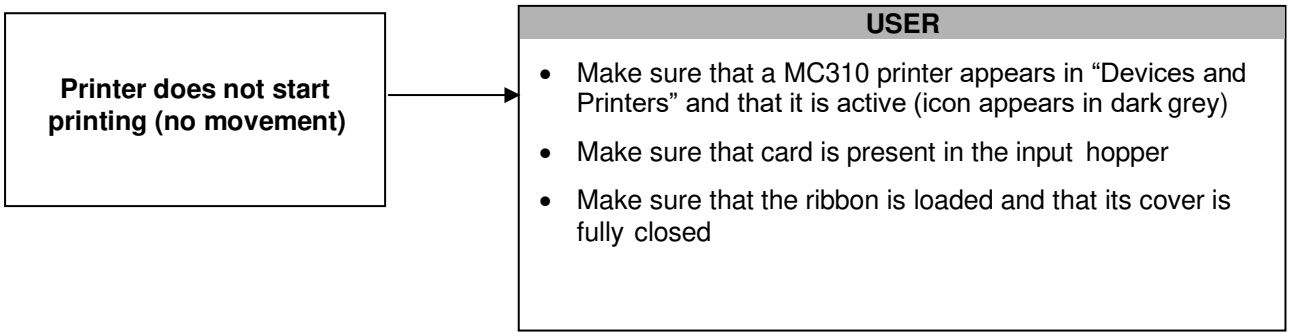
Once Duplex activated in printer successfully, switch OFF & Switch the printer & test a duplex printing using the driver.

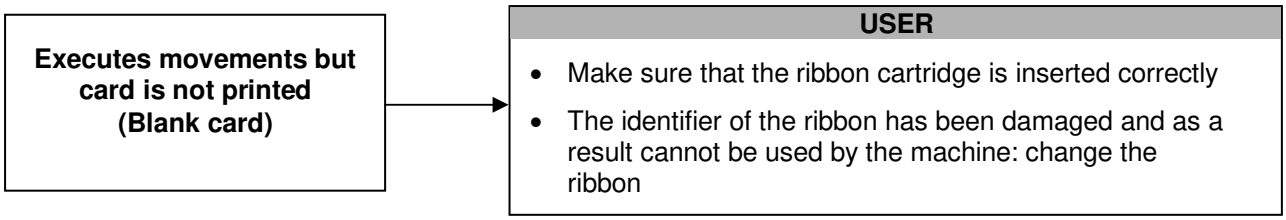
8 Trouble shooting

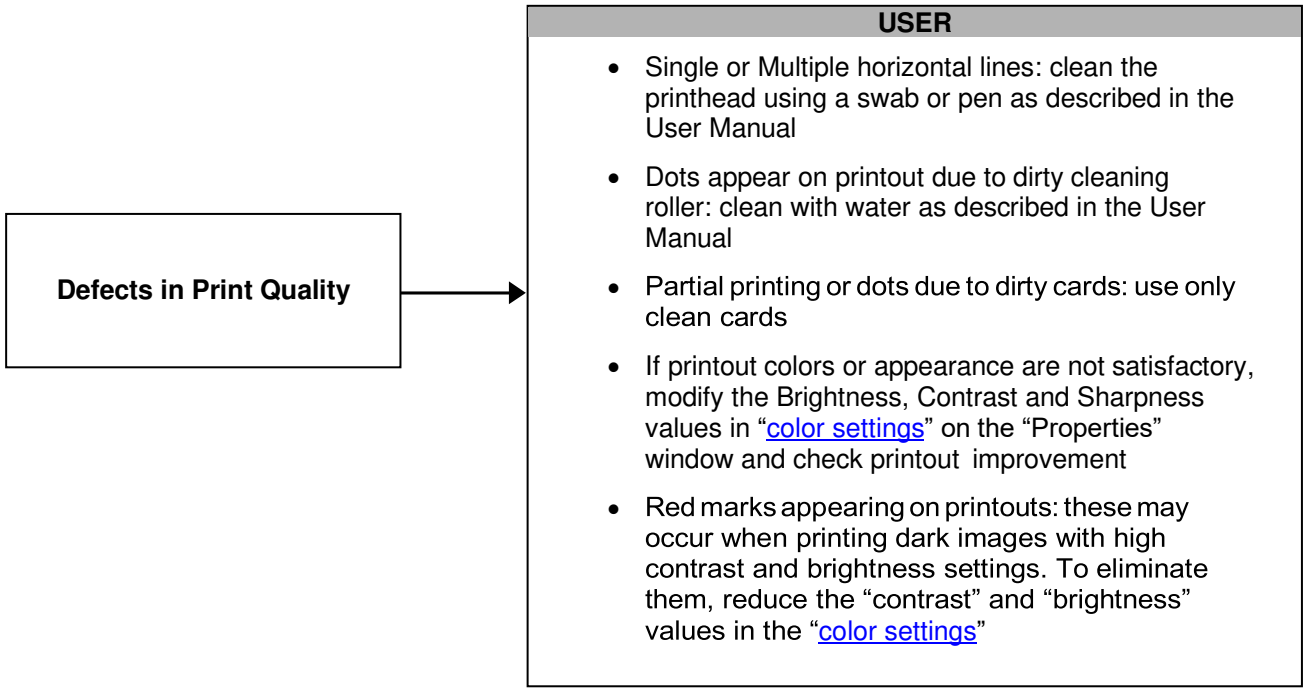
8.1 Printer does not power on



8.2 Printer has printing problems







Printer takes up the card but remains blocked	**USER** • 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. • If you are using non-original ribbon, check that the type of ribbon set for the driver corresponds with the one being used • 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 • The weight of the input hopper does not rest on the card in the tray or is missing. Free the weight or introduce it • 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

8.3 Printer has problem with ribbon

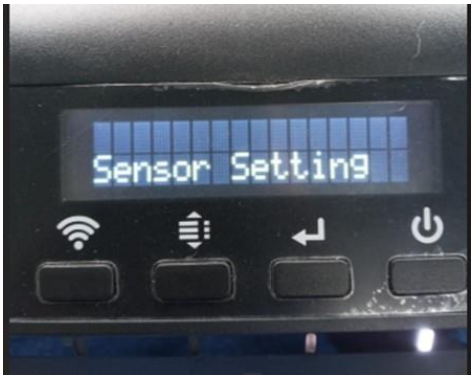
If the ribbon has tears or locks with error 14	**USER** • Lower the “contrast” and “brightness” values in the “media” tab on the “Properties” window

8.4 Chip Encoding problems

Difficulties or failures in the code reading ATR	**USER** • *Use PC/SC test wizard to check the smart encoding option with different smart cards. If it is not resolved Contact Matica Service center.*

8.5 Sensor setting display in LCD

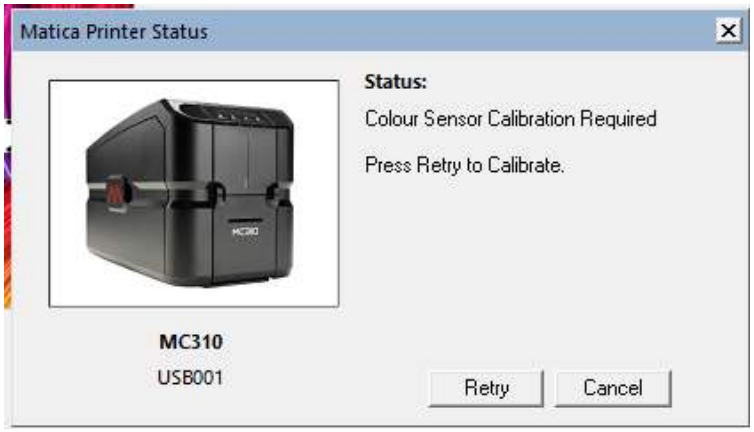
The printer LCD display shows sensor setting error (refer below photo) while using new YMCKO ribbon.



Follow below steps if user see sensor setting on LCD display while adding YMCKO ribbon or other type of ribbon in the printer.

a) If sensor setting shown on the display for a type of ribbon of ribbon other than YMCKO, then remove the ribbon & add YMCKO ribbon manufactured from same manufacturer.

b) With YMCKO ribbon added in printer & sensor setting error displayed on the LCD, send a print using XPS driver to the printer. Below pop-up message appears.



c) Click retry to calibrate the ribbon & color sensor calibration starts.
Note: Do not switch off the printer while color sensor is calibrating in printer.

d) Once color sensor calibrated successfully the job will print.

e) Switch OFF & Switch ON the printer.

9 Ribbons

The following Matica ribbons can be used:

Ribbon Type	Code to order
chromXpert **YMCKO** MC310 Color Ribbon, 250 prints	PR20307301
chromXpert **YMCKO** MC310 Color Ribbon, 100 prints	PR20307311
chromXpert **YMCKO-K** MC310 Color Ribbon, 200 prints	PR20307302
chromXpert **ymcKO** MC310 Color Ribbon, 400 prints	PR20307303
chromXpert **KO** MC310 Ribbon, 600 prints	PR20305304
chromXpert **K** MC310 Monochrome Ribbon, 2000 prints	PR20314305
chromXpert **SILVER** MC310 Monochrome Ribbon, 500 prints	PR20314306
chromXpert **GOLD** MC310 Monochrome Ribbon, 500 prints	PR20314307
chromXpert **WHITE** MC310 Monochrome Ribbon, 1000 prints	PR20314308
chromXpert **RED** MC310 Monochrome Ribbon, 1000 prints	PR20314309
chromXpert **GREEN** MC310 Monochrome Ribbon, 1000 prints	PR20314311
chromXpert **BLUE** MC310 Monochrome Ribbon, 1000 prints	PR20314312
chromXpert **SCRATCH-OFF** MC310 Ribbon, 2000 prints	PR20314313

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

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

10 Cleaning Kits

The following Cleaning Kits can be used:

Cleaning Kits	Code to order
Standard Cleaning Kit: 5 Cleaning Cards, 5 Cleaning Swabs, 1 Cleaning Pen for Printhead, 1 Long T-Card	PR20309601

11 Technical Characteristics

- Single-side or dual-side (*) printing module
- Edge-to-edge printing
- Color dye sublimation and monochrome thermal transfer
- 300 dpi printhead (11.8 dots/mm)
- Up to 128MB of RAM
- Drop-in ribbon carrier
- User-friendly features for easy-to-use functionality and maintenance

Connectivity*

- High-speed USB 2.0
- Ethernet TCP-IP, 10BaseT, 100BaseT with Traffic LED
- WiFi 802.11 a/b/g (*)

Card Management

- 100 card capacity in automatic input Hopper (0.76 mm – 30 mil thickness)
- 30 cards (front) or 80 cards (rear) card capacity in output Hopper (0.76 mm – 30 mil thickness)
- Exception card manual feeder
- Reject bin
- Card types: PVC, PVC Composite, PET(*), ABS(*), and re-writable cards (*), PC(*)
- Card thickness: 0.25 to 1.25 mm (10 to 50 mil thickness)
- Card format: ISO CR80, ISO 7810 (53,98 mm x 85,60 mm)

Ribbons

- Automatic detection and parameter setting
- Two level encoding protection
- Smart Ribbon level memory and management
- Smart Ribbon optimization in monochrome printing
- Available ribbon: please refer to Matica website: www.maticacorp.com

Print Speed

- Single-side Monochrome: up to 850 cph
- Single-side YMCKO: up to 180 cph
- Dual-side YMCKO-K: up to 130 cph

Encoding (*)

- Magnetic encoder (read/write) 3-track HiCo/LoCo ISO 7811 and JIS II
- Smart card contact station ISO 7816-1, -2 (excluding Appendix B), -3, -4
- Contact/Contactless encoders compatible with standard Cards MIFARE®, MIFARE DESFire® iCLASS® ICODE, ISO 14443 A&B, ISO 15693 and ISO 7816

Software

- Printer driver (XPS driver)
- Printer Manager
- Automatic Installer
- Compatible with Windows: XP SP3, Win7, Win8, Win8.1, Win10 (32/64 bit)

Security

- Slot for Kensington®lock (*)
- Lockers with keys for input Hopper, rear bin and ribbon (*)
- K-panel erase feature (or scramble printing) (*)

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

Dimensions and Weight

- Dimensions (H x W x L): 255,6 x 202 x 405,4 mm
- Weight: 10 kg

Quality Standards

- RoHS
- CE, FCC, cTÜVus, WEEE
- Proposition 65 (California, USA)
- Sound pressure less than 48 dB (A) in operation mode (ISO 7779)
- Min/max operating temperature: 15° - 40 °C (59° F- 104 °F)
- Humidity: 20% to 65% non-condensing
- Min/max storage temperature: –5° - +70 °C (23° - 158 °F)
- Storage humidity: 20% to 70% (non-condensing)

(*) Only in some models/options

Matica Technologies AG · Theresienhöhe 30 · 80339 München, Germany

Declaration of Conformity

We, manufacturer, hereby declare that the product
Model: MC3XXX, S3XXX (X = A-Z, a-z, 0-9 or BLANK)
Type: Desktop Direct-To-Card Printer

is in compliance with all the essential requirements of 2014/53/EU **and** 2014/30/EU **where applicable:**
Safety: EN 62368-1: 2014+A11:2017
EMI/EMC: EN 300 330 V2.1.1 (2017-02), EN 55032:2015+A11:2020, EN 55035:2017+A11:2020, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019

Test laboratory:
TÜV Rheinland (India) Pvt. Ltd.
27/B, 2nd Cross Road, Electronic City Phase 1; Bengaluru-560 100, INDIA

Representative (or importer) in the EU:
MATICA Technologies AG
Theresienhoehe 30, 80339 Munich, Germany
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Fax. +49 89 510 8588-88

This declaration has been issued under the sole responsibility of the manufacturer and his authorized Representative, and is marked in accordance with the council regulation (EC) No 765/2008 on CE marking.

Manufacturer:
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CE

Munich, 17 Feb. 2022

Matica Technologies AG
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Technologies for a safe world

Product Code: PR00300001

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