

# USER MANUAL

JACK Series



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Javelin  
Feb 2023  
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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

Javelin 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:
- Javelin 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)*

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

**About caution symbols:**

	<p>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.</p>
	<p>These cautions indicate the heated surface &amp; involve the risk of heat injury if persons touch them with a bare hand.</p>
	<p>These cautions indicate where the touch of the surface with a bare hand is prohibited.</p>

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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 and PVC composite.

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

### JACK series features



Features	Javelin JACK	Remarks
Rewritable cards	✓	
Single side printing	✓	
Dual side printing	●	KIT Number JV20100016
Smart card encoding	●	KIT Number PR10300003
Automatic feeder	✓	
USB	✓	

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

● **Optional**

✓ **Standard**

**X Not available**

## 3 Technical characteristics

Details	JACK
<b>Technology</b>	
Print method	Direct-to-card
Print technology - color	Dye-sublimation
Print technology - monochrome	Resin thermal transfer
Rewritable option	Yes
Print resolution	300 x 300 dpi
Print area	CR80 edge-to-edge
Card path	Short edge
Dual side print	Standard
Connectivity	USB 2.0
<b>Card handling</b>	
Input feeder capacity	100 cards (0.76 mm – 30 mil)
Output stacker	30 cards (front)
Output stacker operation	Both, open or closed while printing
<b>Card specifications</b>	
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.
<b>Encoding options</b>	
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	●
<b>Dimensions and weight</b>	
Dimensions (H x W x L)	255,6 x 202 x 405,4 mm
Weight (Including Chip encoder)	6 kgs
<b>Power supply</b>	
-	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
<b>Memory</b>	
RAM	128 MB

User interface	
Power	On/Off
Indication	LED Indications
Quality standards / certifications	
-	<p>RoHS CE &amp; UKCA</p> <p>Sound pressure less than 48 dB (A) in operation mode (ISO 7779)</p>
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	
-	<p>Automatic detection and parameter setting</p> <p>Two level encoding protection</p> <p>Smart ribbon level memory and management</p> <p>Smart ribbon optimization when monochrome printing</p>
XPS driver	
-	<p>XPS Windows driver compatible with Windows® (32/64 bits) XP SP3, Vista, W7, W8, W10, W22 as a standard driver supplied with the printer</p> <p>EDIssecure® driver to facilitate integration and service bureau</p>
Software	
SDK	Available for system integrators upon request
Warranty	
-	Check T&Cs

## 4 Getting started

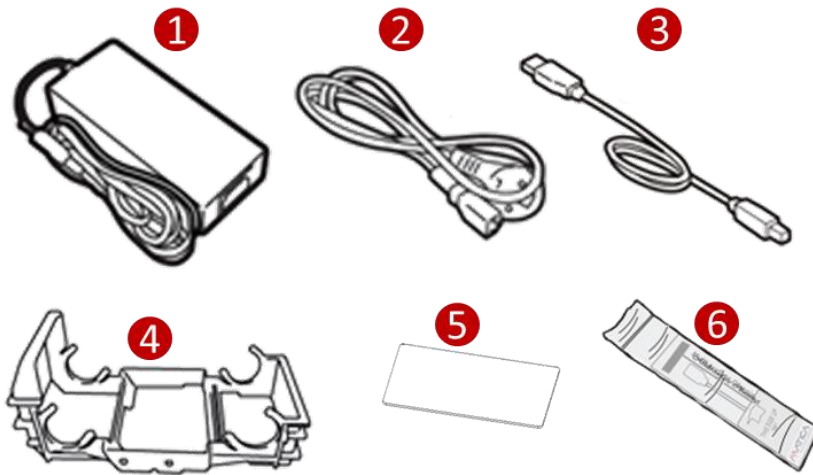
The printer comes with several accessories; check carefully that they have all been included. This list may vary depending on the location where the printer will be used and the model or the configuration you have purchased.

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 Javelin 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. Javelin will also charge for the new packaging which will be required to ship the printer back.

The following items are included in the printer:



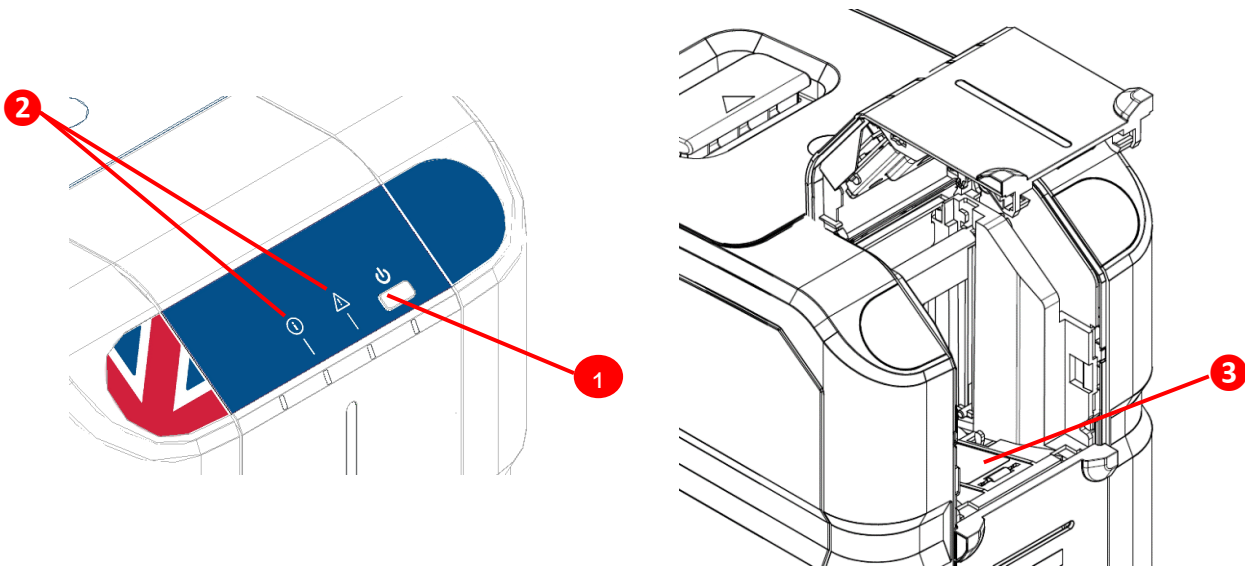
	Description	JACK	Remarks
1	Power supply	✓	Only use the supplied one
2	Power cord	✓	
3	USB cable	✓	
4	Ribbon cartridge	✓	
5	Cleaning card	✓	CR80
6	Cleaning swab	✓	
7	Quick start guide	✓	Paper copy



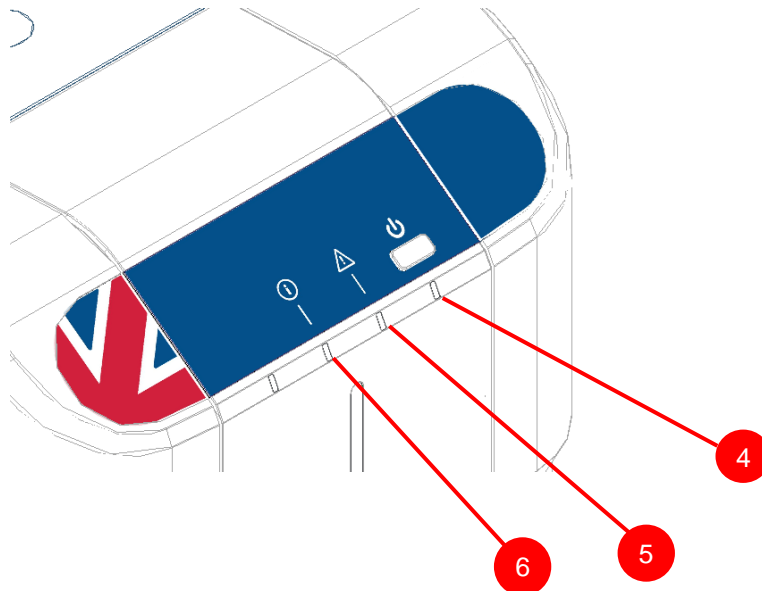
## Functional description

### 4.1 Front view

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



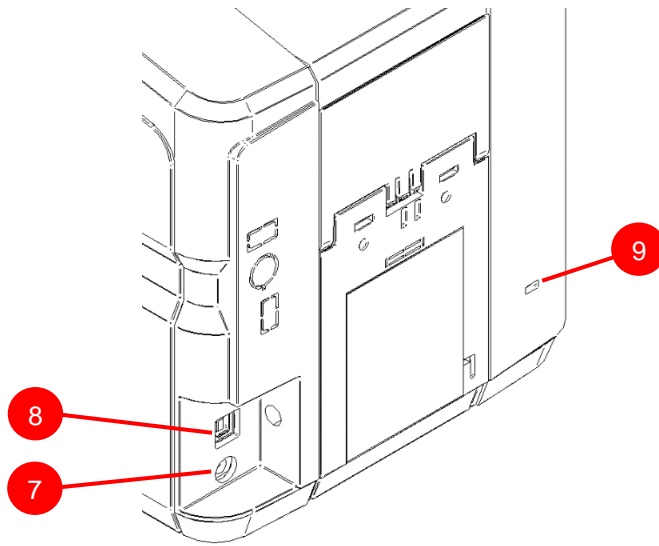
- 1 **Power Button**
- 2 **Printer status**
- 3 **Input hopper**



- 4 **Power LED**  
White when printer is on.
- 5 **Ready status LED**  
Amber steady– indicates ribbon is nearing end.  
Amber intermittent – indicates there is no card OR no ribbon
- 6 **Error status LED**  
Red steady– indicates there is an error – for example: card jam, cover open.  
Red intermittent – indicates printer requires servicing OR firmware upgrade.  
Green steady– indicates printer is ready to print.  
Green intermittent – indicates printer is printing or receiving data.

## 4.2 Rear view and bin installation

The following components are located on the back panel:



- 7** Power cord socket
- 8** USB 2.0. Female B type. Host socket
- 9** Kensington lock

### 4.2.1 Power supply

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

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

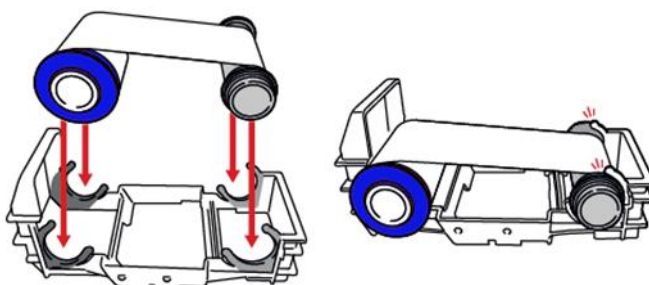
---

## 5 Installation procedures

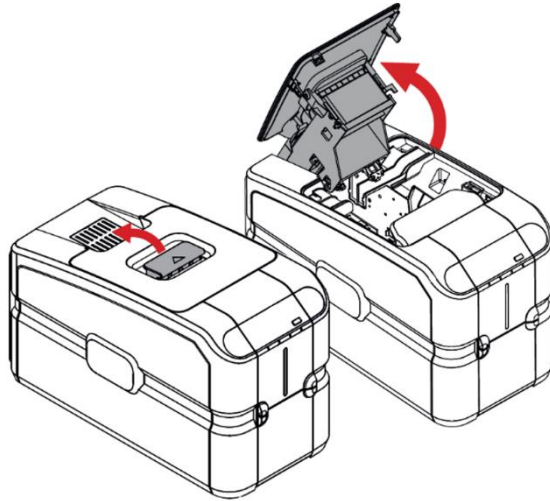
### 5.1 Installing the ribbon.

Original Javelin 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.

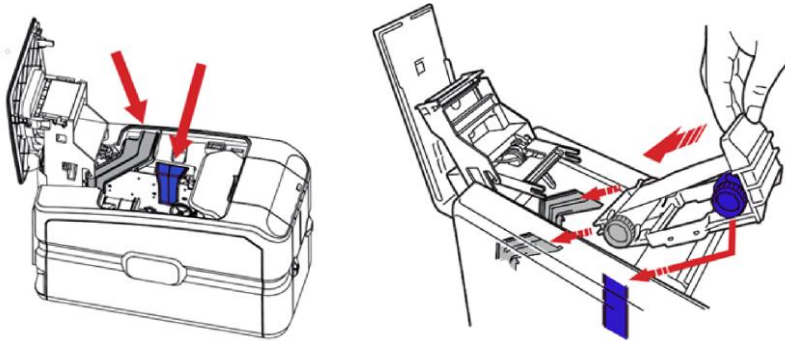
1. Remove the ribbon from the sealed bag, place the blue reel into 'FRONT SIDE' of cartridge and push securely into the clips, then place the grey reel into the other end of the cartridge and push securely into the clips.



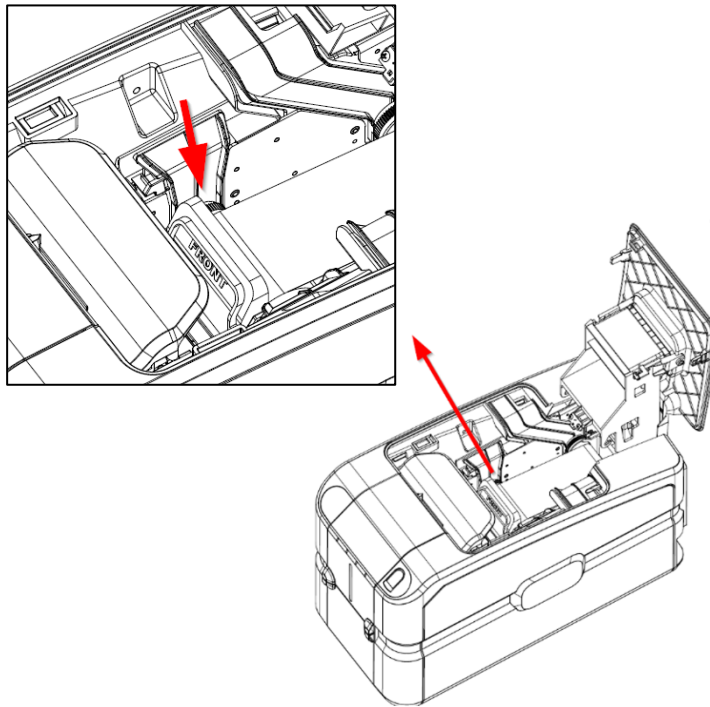
2. Move/push the door handle in the direction shown and open the top cover.



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.

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## 5.2 Card feeding

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

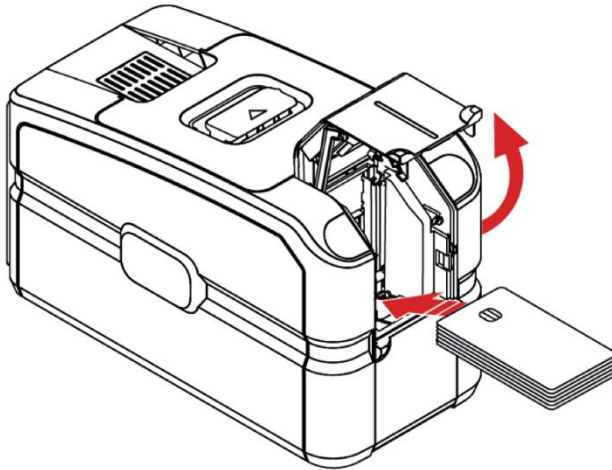
The card path can be selected from the driver to speed up card processing:

- Front hopper

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

### 5.2.1 Input hopper (automatic card feeder)

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



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**Note:** contact chip cards to be inserted face up.

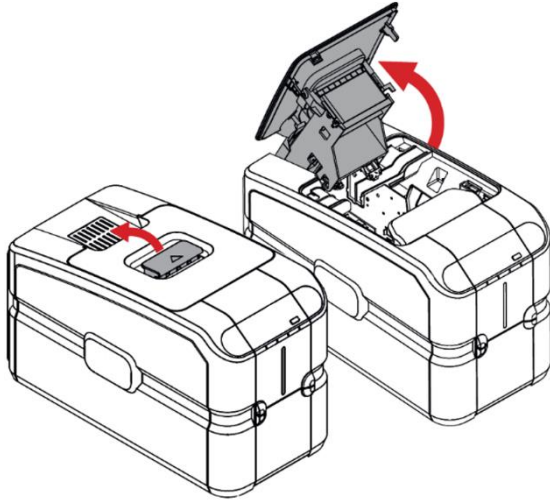
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## 5.3 Adjusting the card thickness.

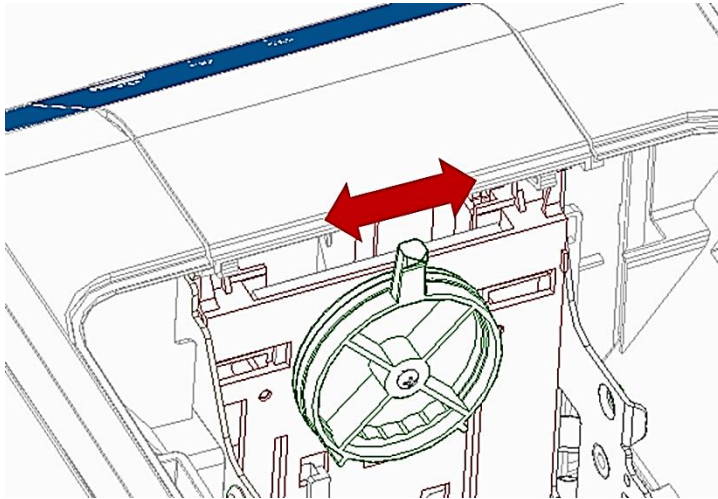
The card thickness can be adjusted by sliding the green selection lever to the required thickness. (a label is attached on the smart card encoder cover to guide the selection).

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.

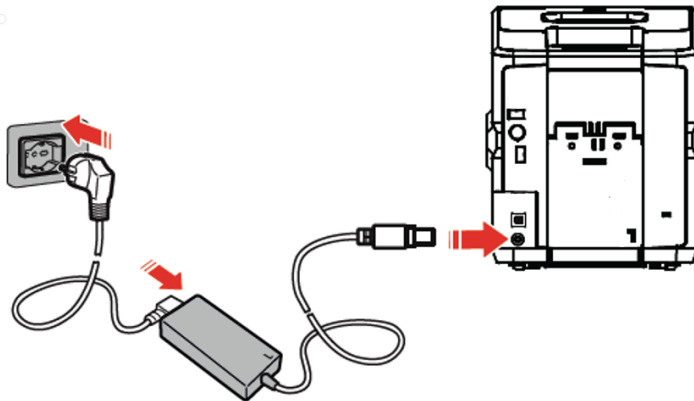


2. Slide the card thickness selection lever to match the card thickness, which is to be printed, then close the top lid.

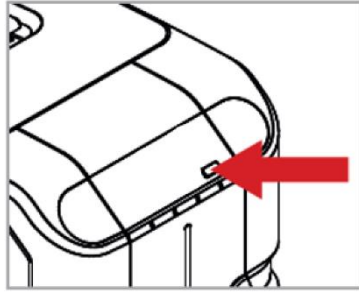


## 5.4 Connecting the power supply and powering ON the printer.

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.



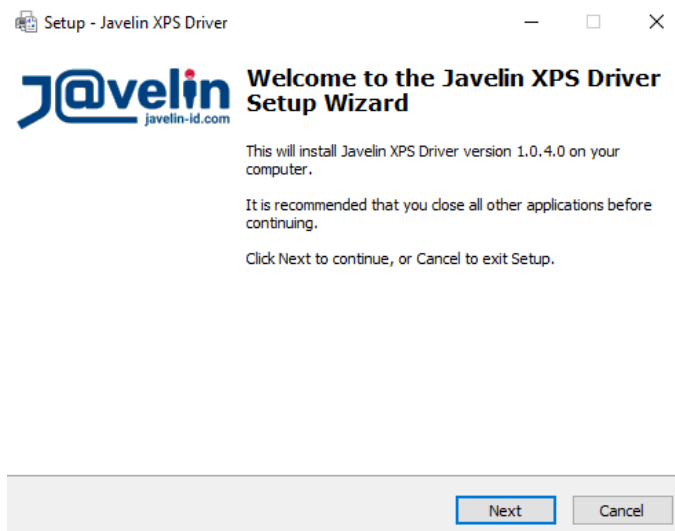
## 6 Installing the software driver and configuring the printer

Visit [www.Jav.../install](http://www.Jav.../install) to download the XPS driver and to view step-by-step installation videos.

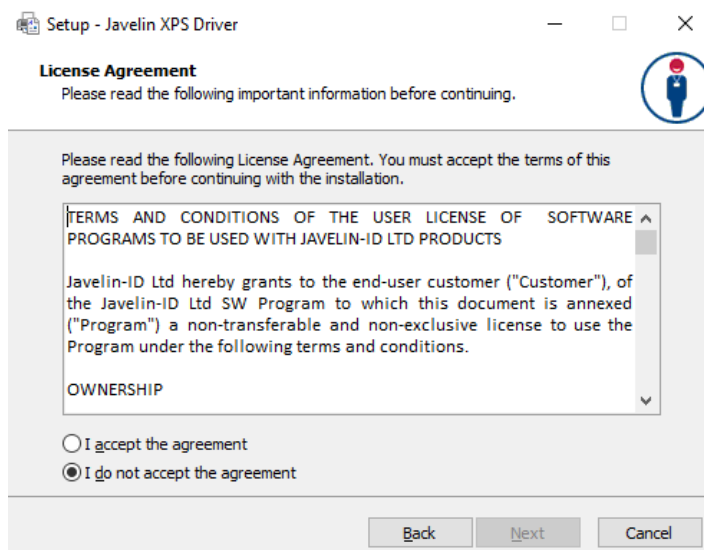
### Connecting the printer to your computer and installing the driver software

#### 6.1.1 Printer connection through USB

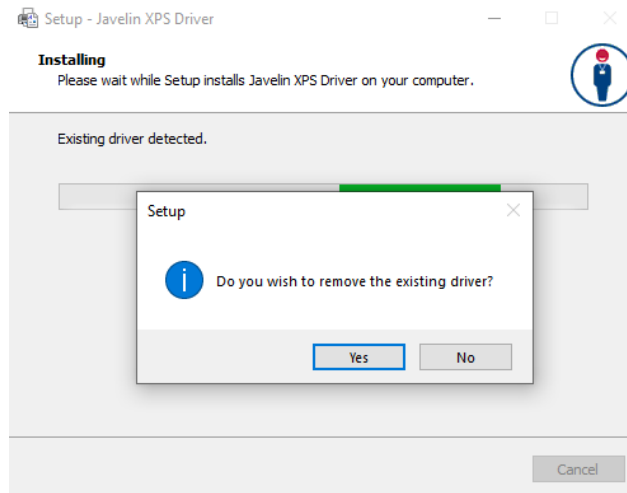
1. Download/save a copy of Javelin XPS driver installer software onto your PC/Laptop.
2. Double click on the installer, then click **Next**.



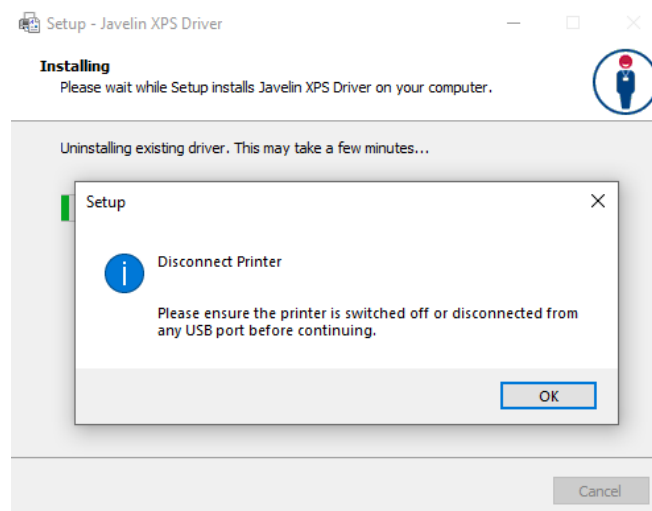
3. Accept the license agreement and click **Next**.



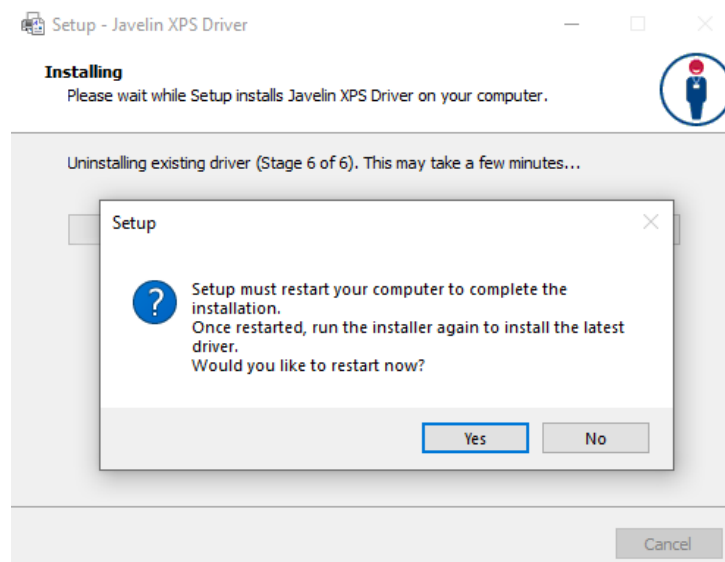
4. During the installation process, the installer checks for previous versions of the driver
  - a. If an older version is detected, a pop-up will ask permission to remove the existing driver. It is recommended to do so - click **Yes**.
  - b. If no driver is detected, move to step 8.



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

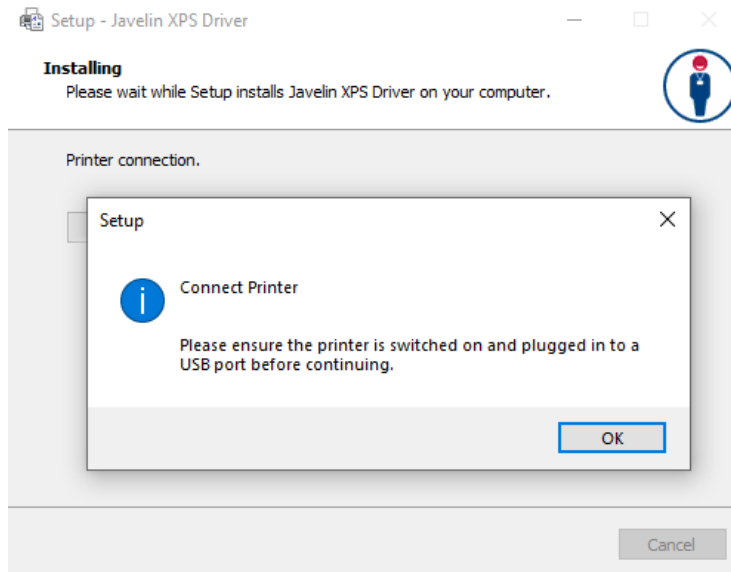


6. Restart is required, click **Yes**.

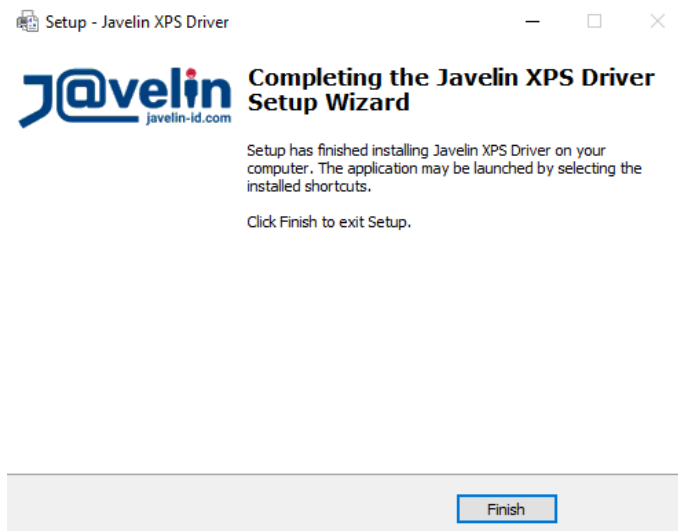




- After restarting the PC, run the installer again. Installation repeats steps 1 to 5, then moves to step 8 – please note this might take several minutes.  
Once the installation is near completion, a pop-up message will ask to either connect or switch ON the printer, please do so and click **OK**.



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



## 6.2 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 > Javelin XPS Driver version 1.x.x.x**

**Start > Javelin > Uninstall XPS driver.**

## 6.3 Tools

In the Tools menu, the user 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)
- Update printer firmware
- Update printer panel board 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 Javelin JACK > Printer Properties**

## 6.4 About

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



## 7 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.

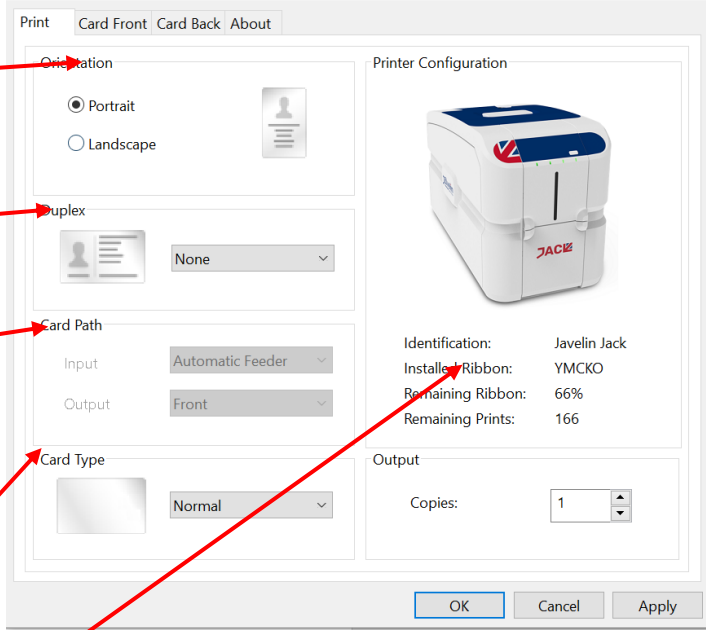
The printer application recognizes the printer, enabling the user to create fully customized cards.

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
- About tab

#### 7.1 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.

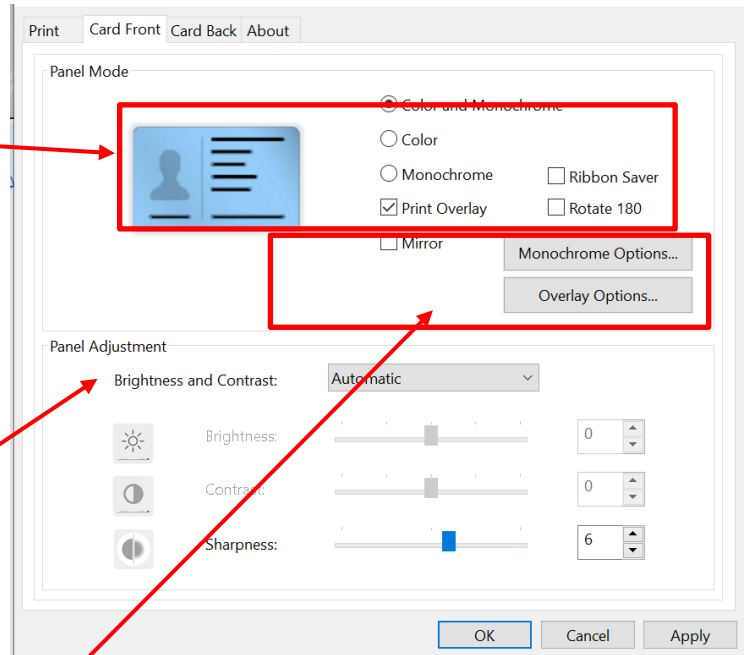
Card type selection: drop down menu enables the user to select & set type of card to be printer.

Printer model & ribbon details

## 7.2 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  
 \*\* 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.

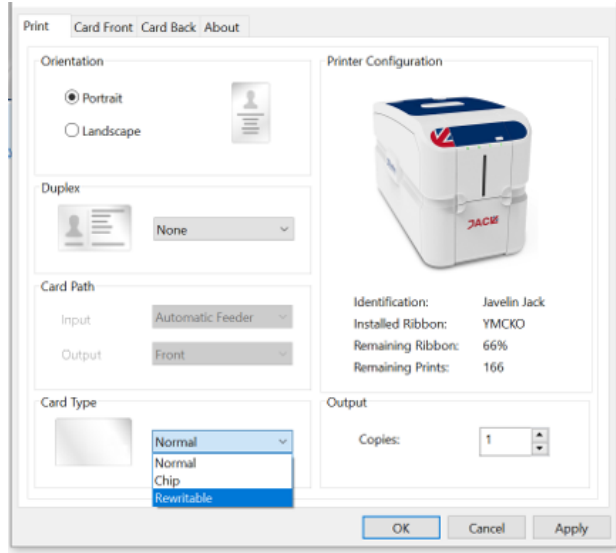


**Monochrome Options:** the user can set the contrast, use half tone for the monochrome panel and set areas for Resin Extraction.  
**Overlay Options:** the user can set contrast for the overlay panel and the overlay area setting.

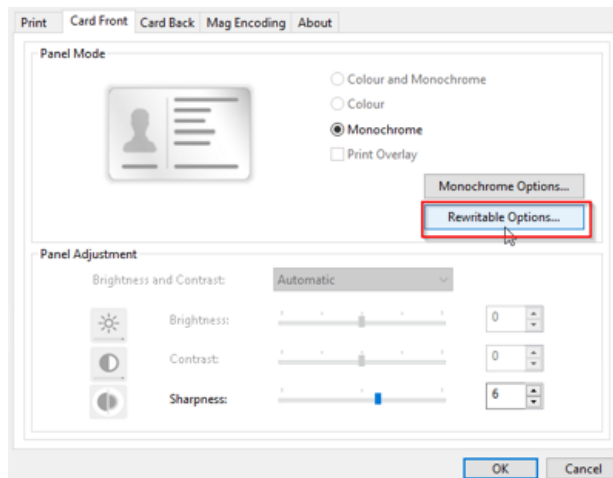
## 7.3 Rewritable card printing option

Follow the steps below to use rewritable cards.

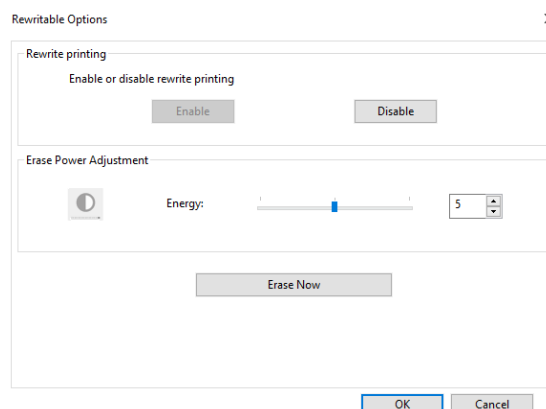
1. If printer is already printing remove the ribbon from the printer and switch the printer off and then on.
2. Open the Javelin JACK printer properties, in the print tab select the card type as **Rewritable**.



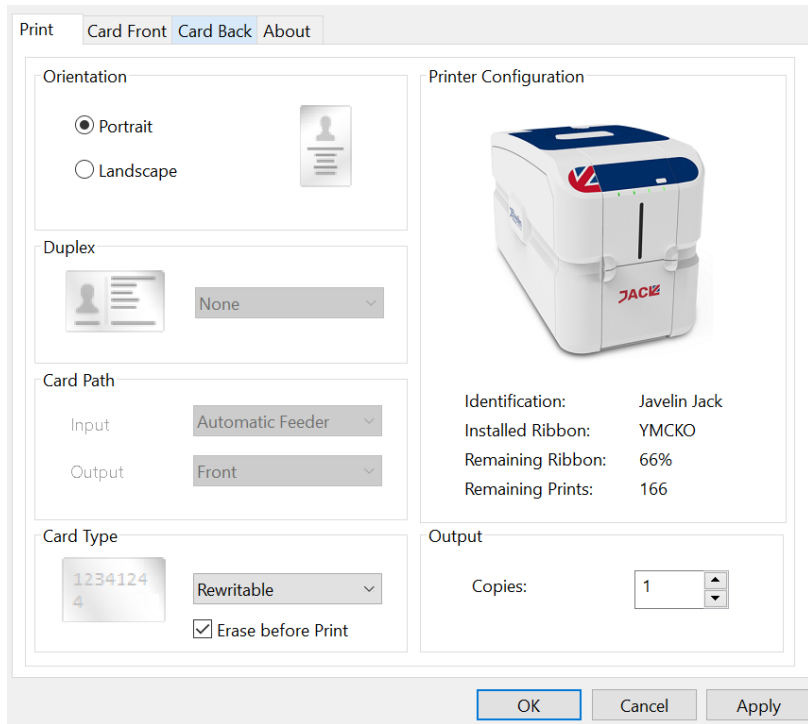
3. Go to **Card Front** tab and select **Rewritable Options**.



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**.



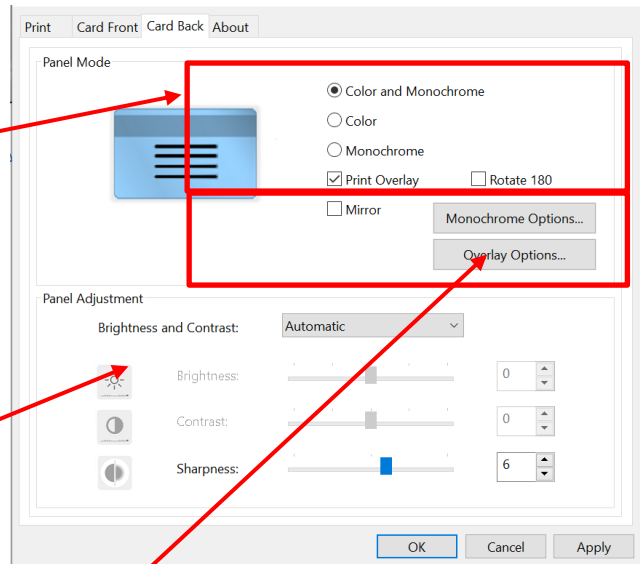
- Once rewritable option is activated in printer, return to the print tab of Javelin JACK printer properties. Select **Rewritable** card type and select **Erase before Print**. Click **OK** and the feature is ready to be utilized.



## 7.4 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 .  
 \*\* 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.

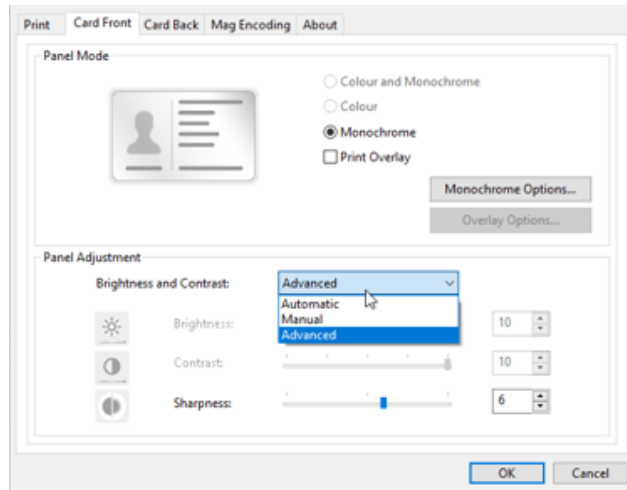


**Monochrome Options:** the user can set the contrast, use half tone for the monochrome panel and set areas for Resin Extraction.  
**Overlay Options:** the user can set contrast for the overlay panel and the overlay area setting.

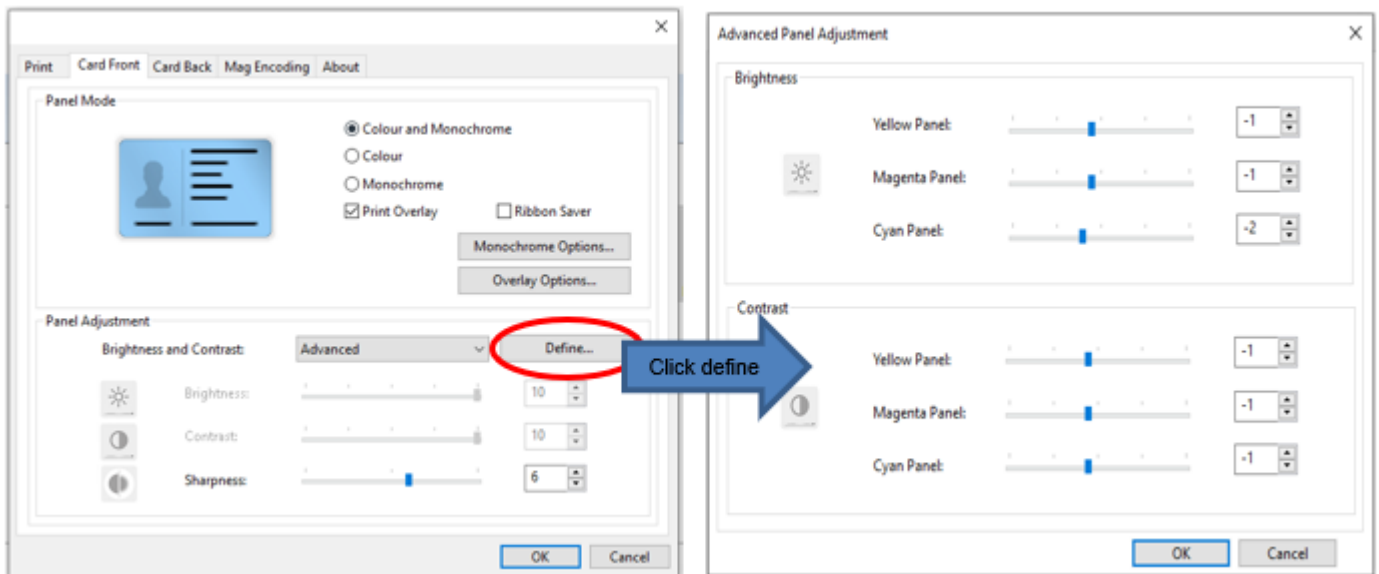
## 7.5 Color settings

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.

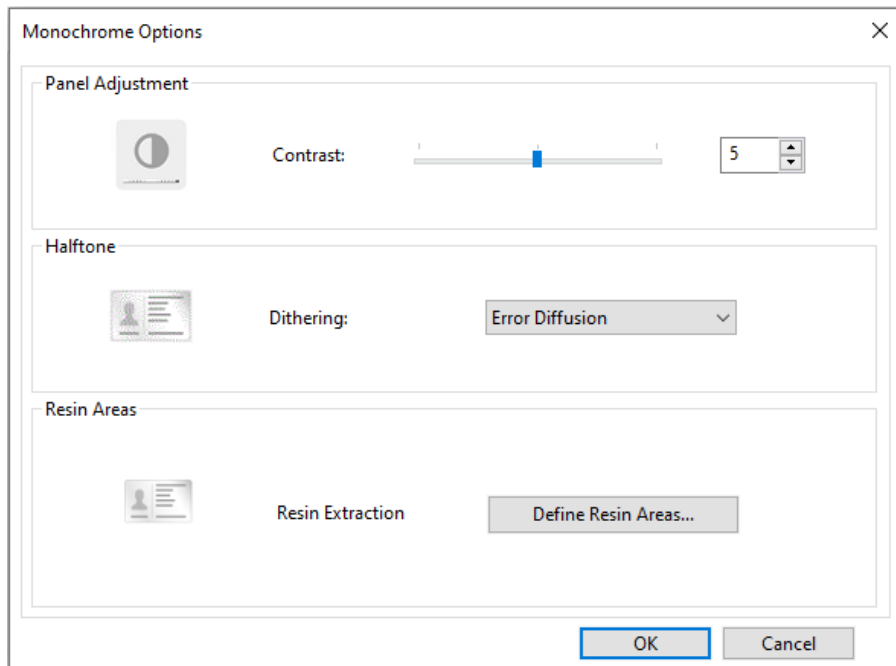


Click the **Define** tab after selecting the **Advanced** option in the drop down menu, the Advanced **Panel Adjustment** menu appears.

The user can adjust the required **Brightness** and **Contrast** value for each panel and click **OK**.

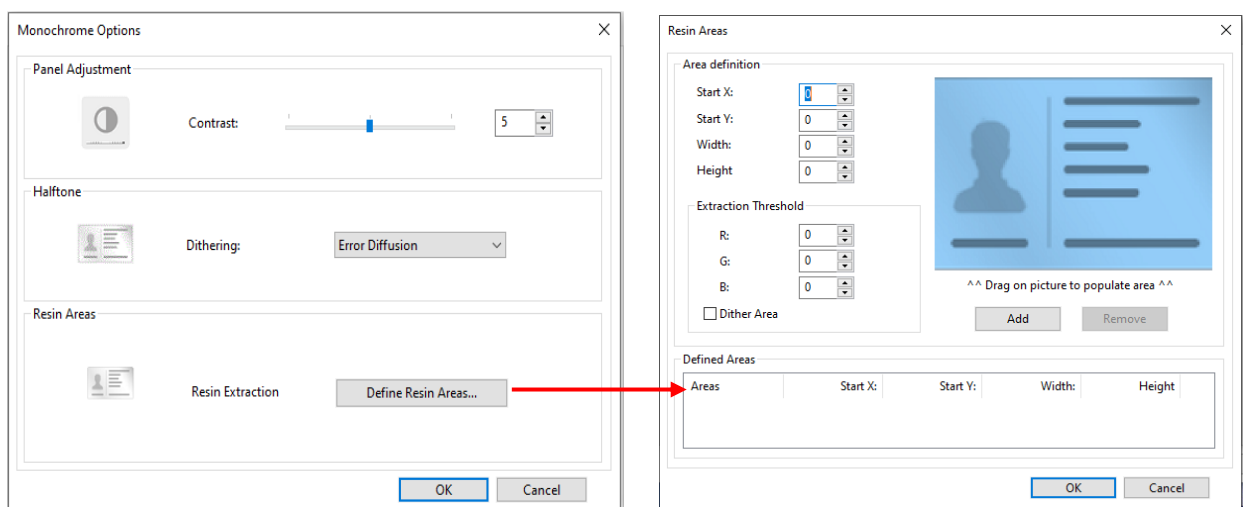
## 7.6 Monochrome Options

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



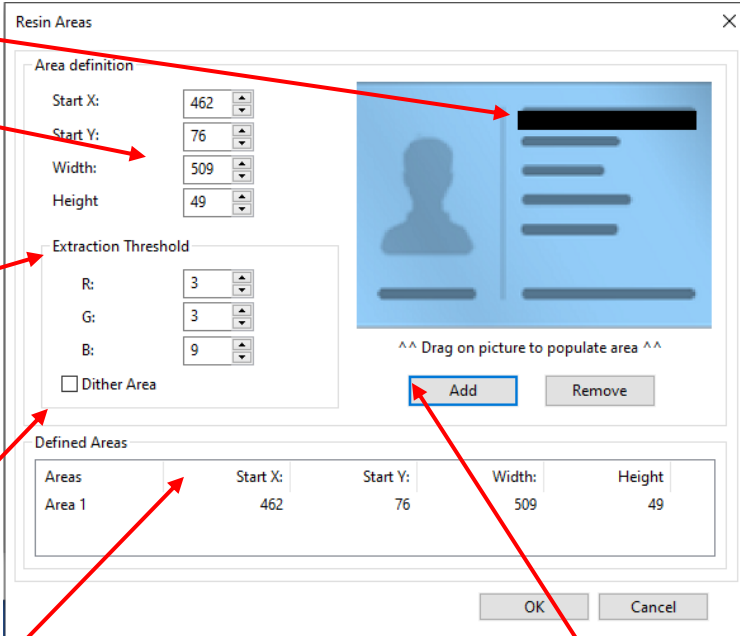
### 7.6.1 Resin area extraction

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



The screenshot shows the 'Resin Areas' dialog box. It includes an 'Area definition' section with input fields for Start X (462), Start Y (76), Width (509), and Height (49). Below this is an 'Extraction Threshold' section with RGB sliders for R (3), G (3), and B (9), and a 'Dither Area' checkbox. On the right, there is a preview image of a card with a black rectangle overlaid on it. Below the preview are 'Add' and 'Remove' buttons. At the bottom, there is a 'Defined Areas' table and 'OK' and 'Cancel' buttons.

**Callout 1:** Users can define resin area location and area by dragging the cursor over the image on the right side of the user interface.

**Callout 2:** Users can define extraction threshold for color to be printed in resin by adding a RGB value. \*\* Users can get the RGB value of a feature by using the Paint app.

**Callout 3:** Users can select **Dither Area** option based on the

**Callout 4:** Shows the **Defined Areas** for resin extraction. Once resin area is defined click OK to proceed with print.

**Callout 5:** Once area and threshold are defined the user can add using the **Add** tab. The added area can be removed by using the **Remove** tab.

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

## 8 Printer maintenance

Four different cleaning processes are available for the Javelin JACK.

### 8.1 Standard cleaning

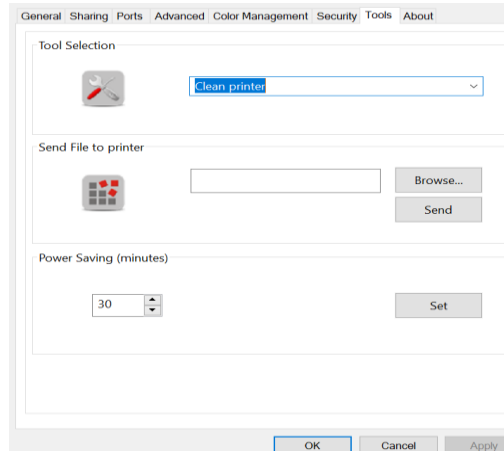
Suggested frequency for color printing: each time the ribbon is changed.

- 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.

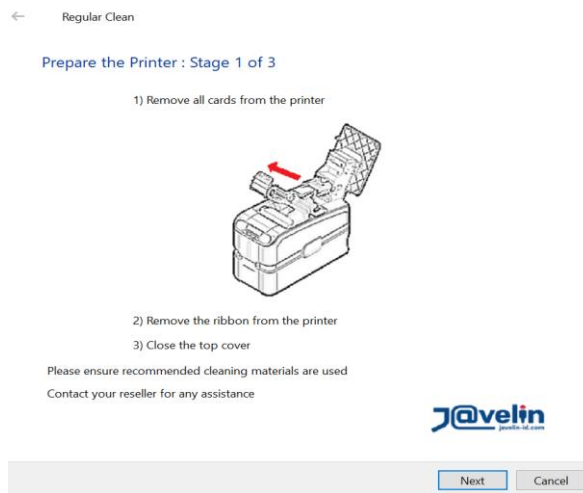
The product has an internal counter that keeps track of the number of cards printed and warns the user when the mandatory cleaning procedure must be performed.

- 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

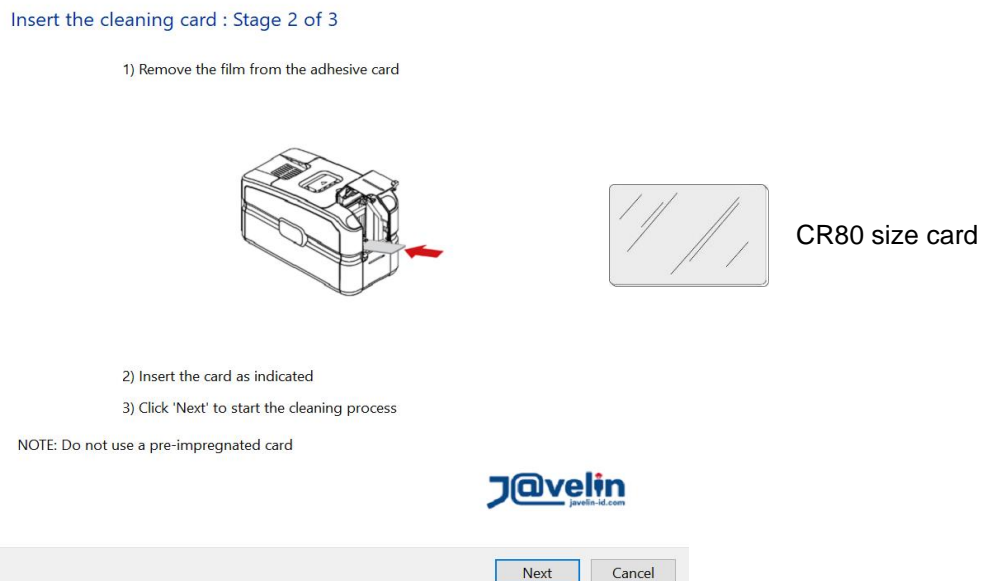
To perform standard cleaning, select 'Clean printer' from the drop-down menu available in the **Tools** tab.



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



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

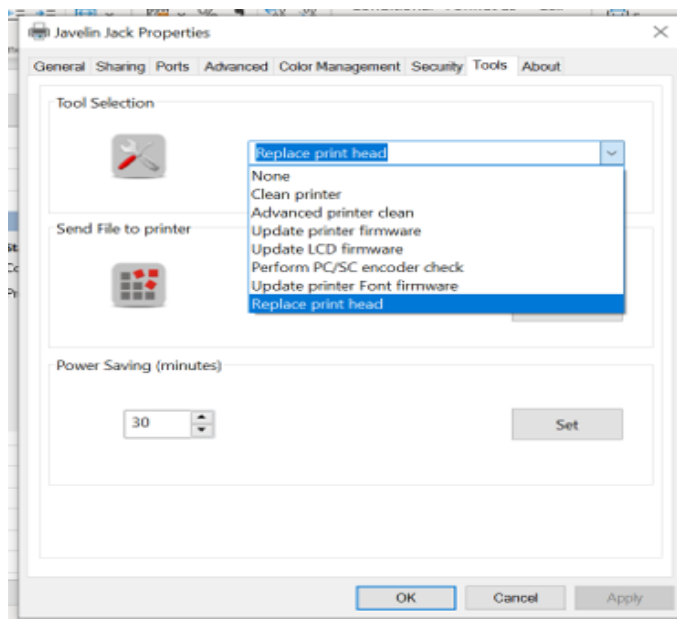


3. Clean the printhead referring to Chapter 8.4, then click **Finish**.

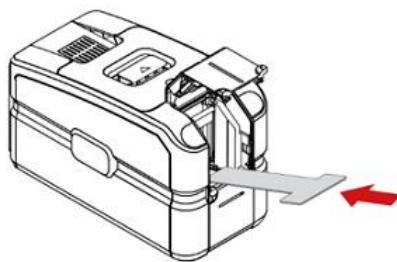
## 8.2 Card path advanced cleaning

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.



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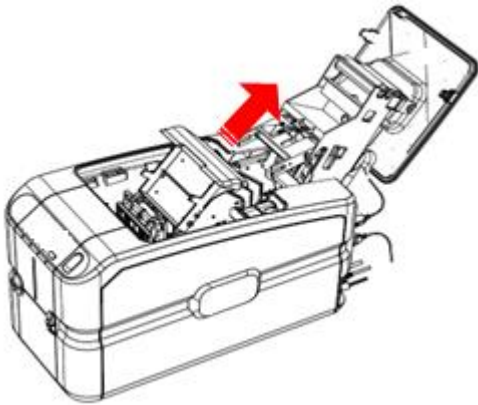
**Note:** For the Jack carry out advanced cleaning with the T-card via the automatic hopper.

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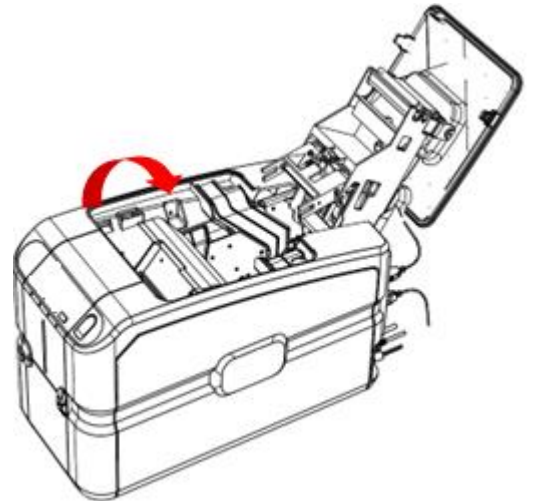
## 8.3 Cleaning roller advanced cleaning

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)

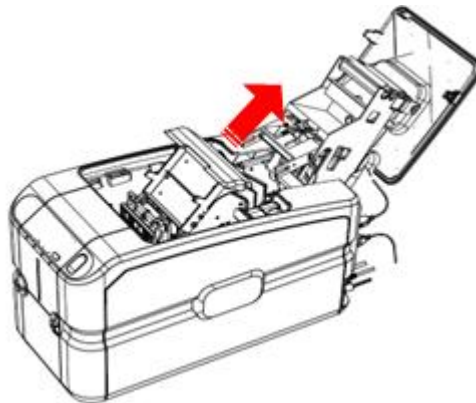
1. Switch the printer off, unplug the power supply, open the top cover and remove the ribbon cartridge
2. Remove the encoder cover by following the instructions below



*Step 1: Hold the encoder cover*

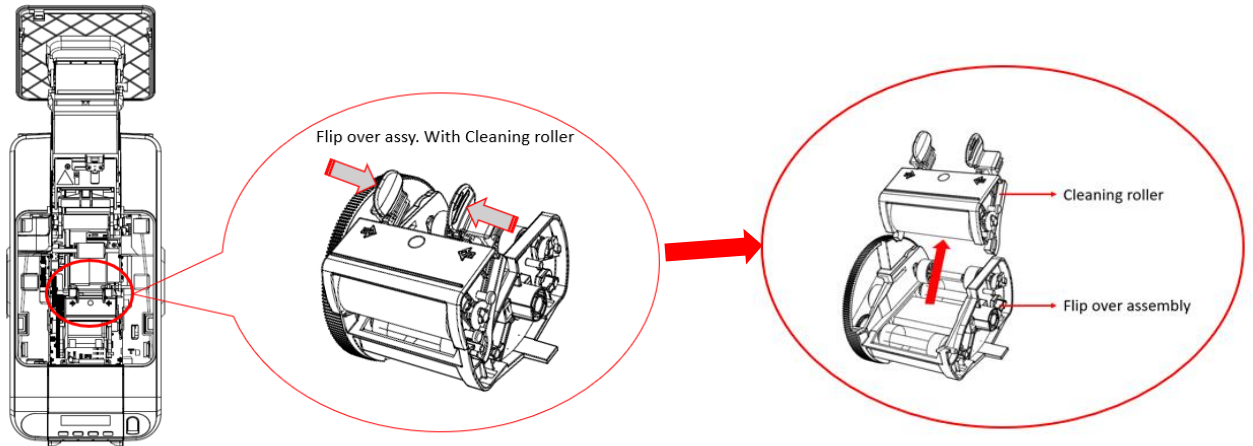


*Step 2: Move the cover downward as shown in the image to disengage*

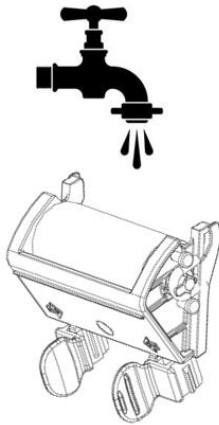


*Step 3: Slide out the encoder cover in the direction shown in the image*

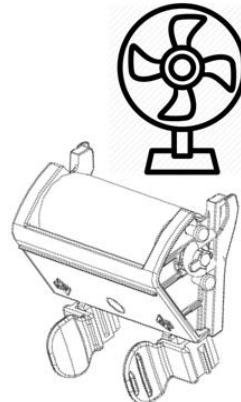
- With the cover out of the way you can see the flip over assembly with cleaning roller (marked with arrows) Press with two fingers to remove the cleaning roller from the flip over assembly, as illustrated below.




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

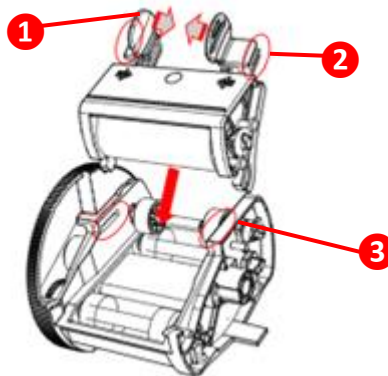


 Do not use Acid for washing Roller



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

- 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.



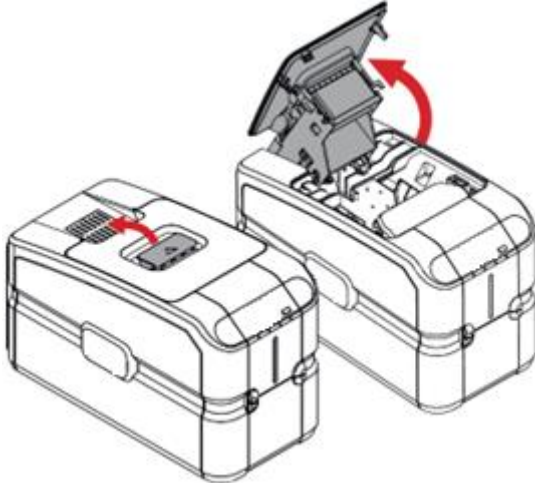
- To complete the procedure, insert the encoder cover and ribbon cartridge back into position, then close the top cover.

## 8.4 Printhead cleaning

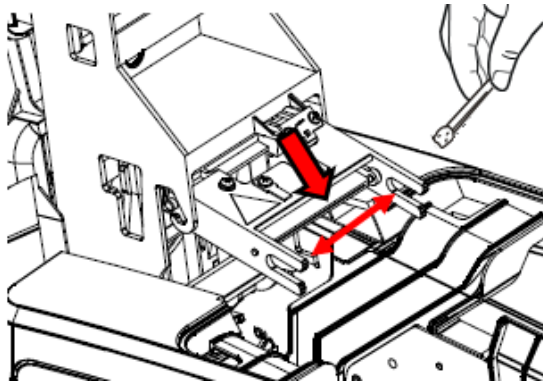
It is suggested to clean the printhead when pixels are missing on printed cards:

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

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



1. 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**

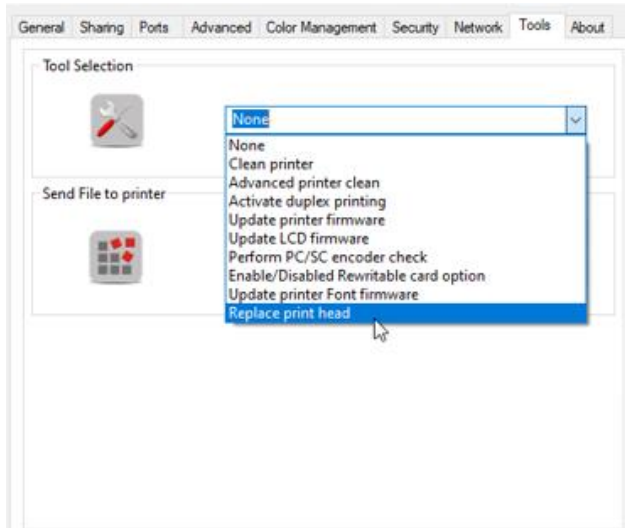
2. Close the top cover, the printhead cleaning procedure is now complete.

## 8.5 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.

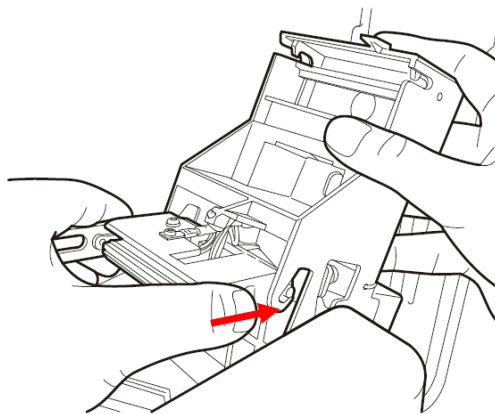
However, after a certain period the print head may become worn and then must be replaced.

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

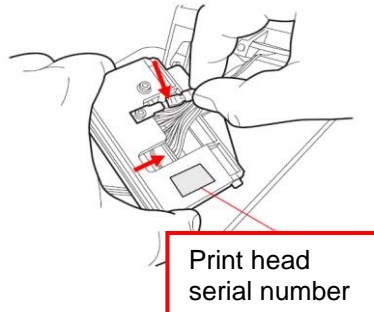


2. Unplug the printer from the power supply, open the top cover and remove the print head as instructed below,

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.

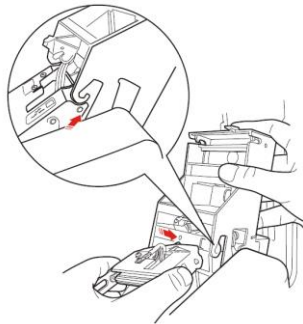


3. Remove the earth wire and the connector, connect these to the new printhead, make a note of the print head serial number and click **Next**.



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.

#### Set Serial Number : Stage 6 of 6

8) Enter the Print Head Serial number and confirm with the 'Set' button

Print Head Serial Number:



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



## 9 Options

### 9.1 Smart card chip encoding (Contact and Contactless)

The smart card chip encoder is an optional module for the JACK direct to card printer that enables the encoding of contact and contactless smart cards.

Available chip encoding modules and related functionalities:

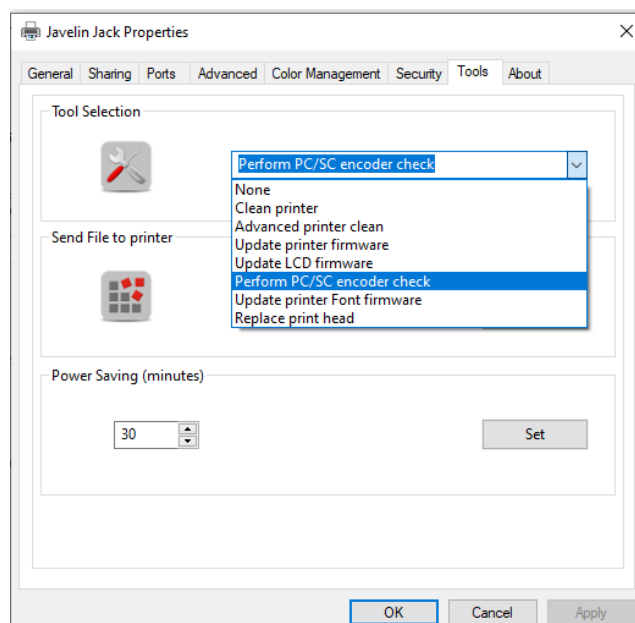
#### Dual Interface Encoder Module

Code **PR1030003**

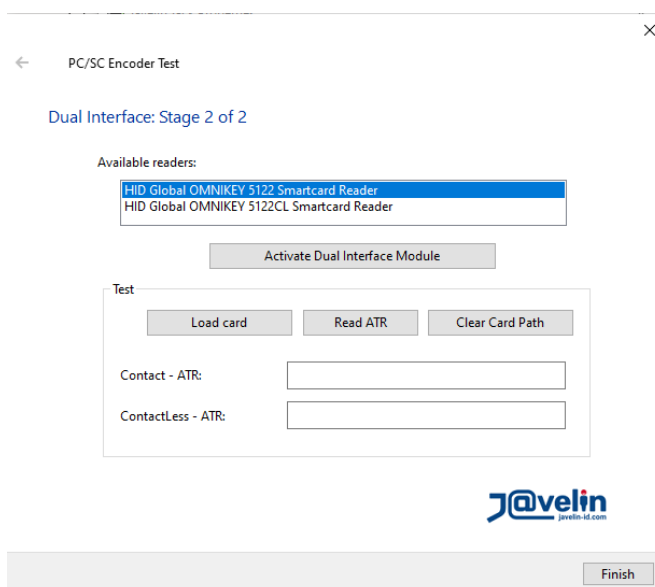
**Note:** Install the module according to the instructions contained in the package. Make sure the module has been installed in the printer before running functionality tests.

#### 9.1.1 Use of PC/SC encoder wizard to test dual interface encoder.

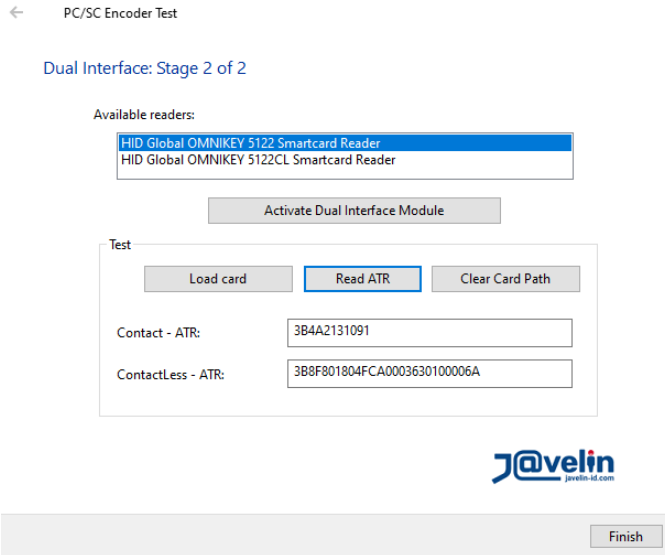
1. To run a functionality check, go to **Printer Properties > Tools > Perform PC/SC encoder check** and click **OK**.



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



- 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.



## 9.2 Duplex activation

The duplex activation kit is an optional module for the Javelin Jack printer that enables printing on both sides of the card.

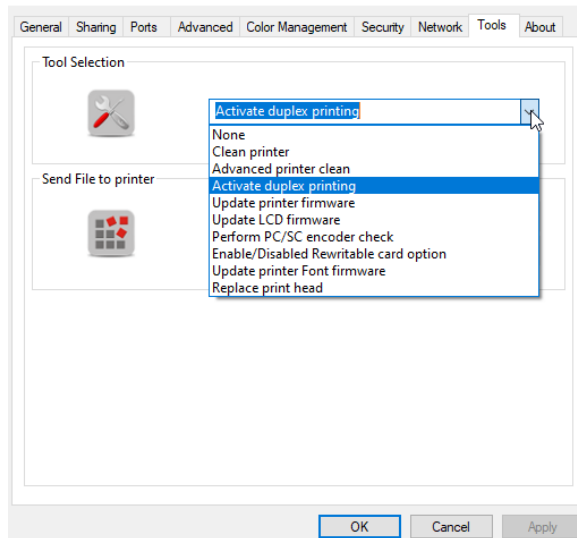
Available duplex activation kits and related functionalities:

### Javelin Jack Duplex Activation Kit

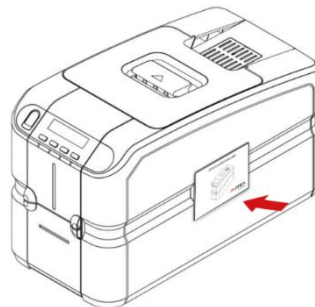
Code **JV20100016**

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

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



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



Once the option has been activated, switch the printer off, then on again. Its ready!

## 10 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 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.

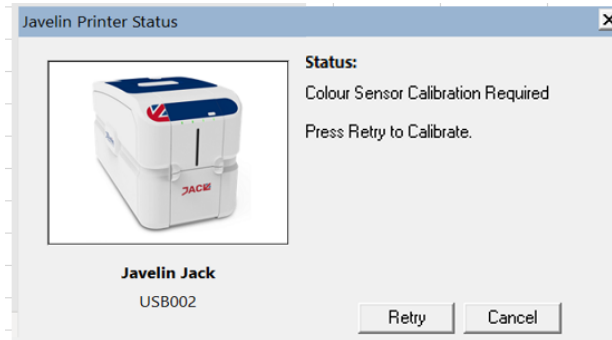
### Difficulties or failures in the code reading ATR

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

## 10.1 Color Sensor calibration

Follow the calibration steps below if the Driver Status menu pop up Colour sensor calibration required.

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 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.

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

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## 11 Ribbons and cleaning kits

### Consumables

Part Nos	Description	Yield (Prints/roll)
JV30113302	Javelin Jack YMCKO color ribbon	250
JV30113301	Javelin Jack YMCKO color ribbon	100
JV30113303	Javelin Jack YMCKO-K color ribbon	200
JV30110306	Javelin Jack K monochrome ribbon	2000
<b>Direct-to-card cleaning Kits</b>		
PR20309601	Cleaning kit for MC310 Direct-to-card Printer	
PR20309610	Cleaning kit for MC110, 210 Direct-to-card Printer	

Each Javelin 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 Javelin ribbons. The use of non-original accessories could damage the product and therefore void the factory warranty.

[javelin-id.com](http://javelin-id.com)