

evolIS

Identify what matters



TATTOO2 RW

USER GUIDE

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All Evolis printer models are trademarks of Evolis. All other trademarks belong to their respective holders.

WARRANTY

Refer to the warranty notice supplied with the printer for warranty terms and conditions and limitations.

Register on line at myplace.evolis.com to receive our special offers and general information.

ENVIRONMENTAL INFORMATION – RECYCLING OF END-OF-LIFE PRODUCTS

The manufacture of the equipment that you have purchased required the extraction and use of natural resources. It may contain materials that are hazardous to health and the environment.

To prevent the dispersal of such materials into our environment and reduce the pressure on our natural resources, we recommend that you use existing collection systems. These systems will appropriately re-use or recycle most of the materials in your end-of-life equipment.



The crossed-out dustbin symbol on your device is a reminder to use these systems.

If you need further information on collection, re-use and recycling systems, contact your local or regional waste management body.

Visit www.evolis.com or send an email to info@evolis.com for more information.

ABOUT YOUR NEW PRINTER

Thank you for choosing an Evolis printer.

Using your new printer, you will be able to create a wide variety of high-quality cards and badges which can be printed in various thicknesses, colours and styles. This printer uses consumables and accessories available from Evolis. For further details, visit our website at www.evolis.com.



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The following icons on the printer label are used to highlight important information:



Evaluation for apparatus only based on altitude not exceeding 2000m, therefore it's the only operating condition applied for the equipment. There may be some potential safety hazard if the equipment is used at altitude above 2000m.



Evaluation for apparatus only based on temperate climate condition, therefore it's the only operating condition applied for the equipment. There may be some potential safety hazard if the equipment is used in tropical climate region.

Environment

- Min/max operating temperature: 15°/30°C
- Humidity: from 20 to 65% non-condensing
- Min/max storage temperature: - 5°/+ 70°C
- Storage humidity: from 20 to 70% non-condensing
- Operating ventilation: air cooled.

Rewritable cards

- Format
 - CR-80 – ISO 7810 (53.98 mm x 85.60 mm)
- Thickness
 - From 0.5 mm to 0.76 mm (20 to 30mil)

Operating systems

- Windows XP and Vista, 32 & 64 bits

Interface

- USD & Ethernet – USB cable supplied

Printer dimensions

- Without output hopper: 166 mm (H) x 290 mm (L) x 187 mm (W)
- With output hopper: 166 mm (H) x 368 mm (L) x 187 mm (W)

Printer weight

- 2.4 kg

Power supply

- Power supply unit: 100-240 V AC, 50-60 Hz, 1.5 or 1.8 A
- Printer: 24 V DC, 3 A



GETTING STARTED

The purpose of this user guide is to guide you, step by step, through your printer and how it works. Take some time to read it in order to better understand your printer and its features, and to save time during installation and use.

As with all Evolis products, a great deal of care has been taken over this manual. Should you find an error, however, please let us know by emailing us at info@evolis.com.

ICONS

The following icons are used in this manual to highlight important information:



Information providing further details or depth about certain points in the main text.



Indicates that failing to take the recommended action is liable to damage your printer.



This symbol indicates that a video showing the procedure is available on myplace.evolis.com.

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1. GETTING STARTED

UNPACKING

Your printer is supplied with several accessories that we ask you to look at closely. This list may vary depending on your location.

The printer is shipped in special packaging designed to prevent any damage in transit. If you notice any visible damage, do not hesitate to contact the shipper and immediately inform your Evolis dealer, who will tell you the procedure to follow.

Evolis takes great care over the quality of its packaging and we ask that you keep this packaging somewhere clean and dry.



You will be asked for the full original packaging (outer box, inner wedges and protective bags) in the event that the printer is returned. If the printer is returned without its original packaging and components are damaged in transit, these components will no longer be covered by the warranty. You will be charged for new packaging for shipping the printer back to you.

Accessories supplied with your printer:

- Power supply unit - CWT type KPL-065M-VI
- Mains power cable.
- USB cable.
- Installation and documentation CD-ROM.
- Starter cleaning kit.
- Quick installation guide.
- Warranty notice.
- Compliance statement documentation.



If any of these components is missing, contact your Evolis dealer.
Use only the power supply unit supplied with your Evolis printer.
Use only the USB cable supplied with your Evolis printer.



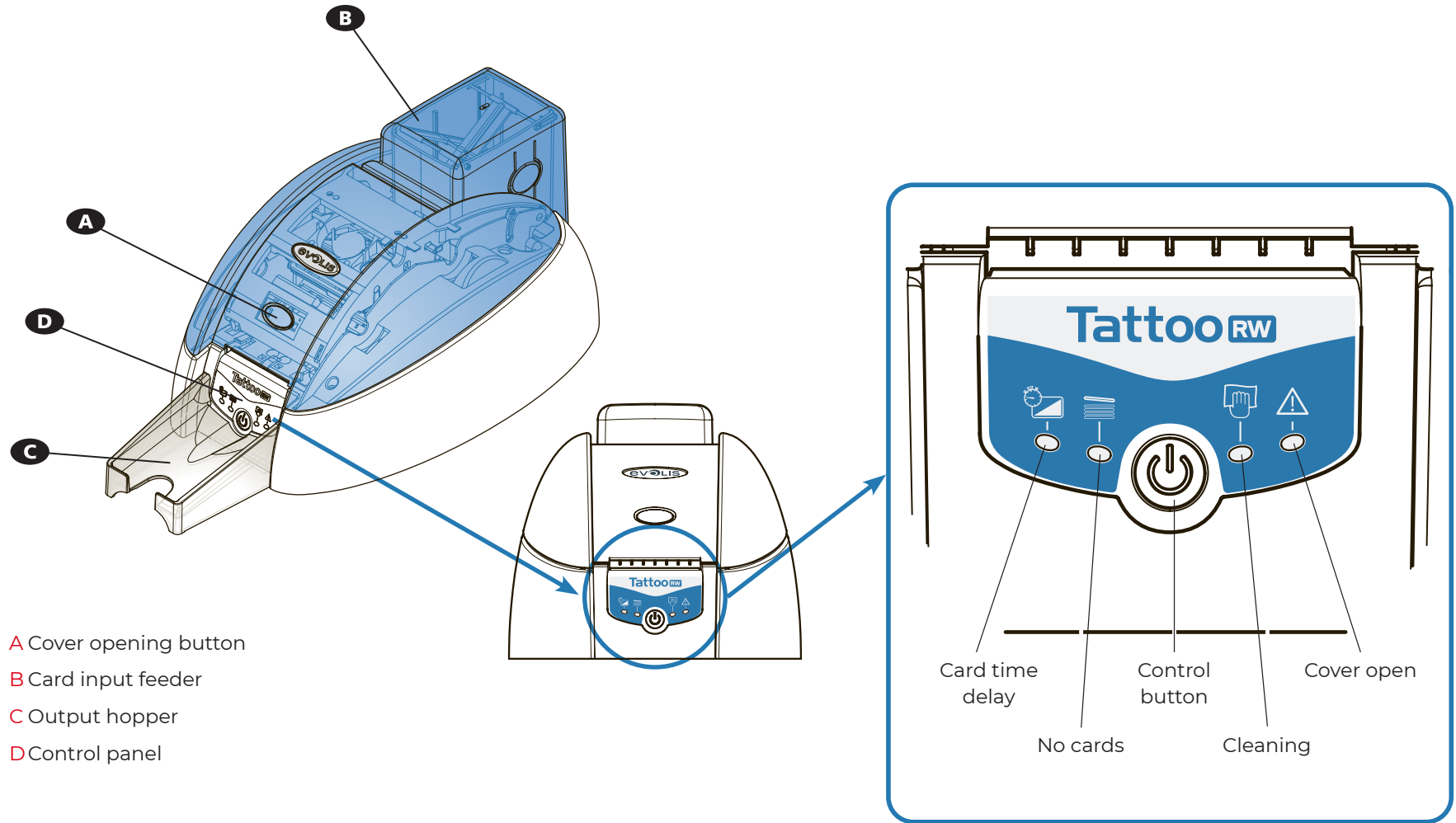
The Evolis printer must be placed in a dry location, protected from dust and draughts but well-ventilated. Take care to keep your printer on a flat, sturdy surface able to bear its weight.

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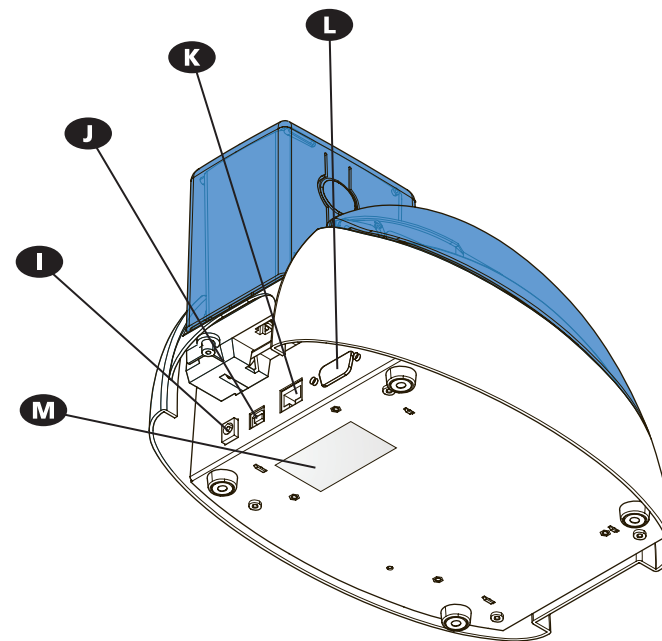
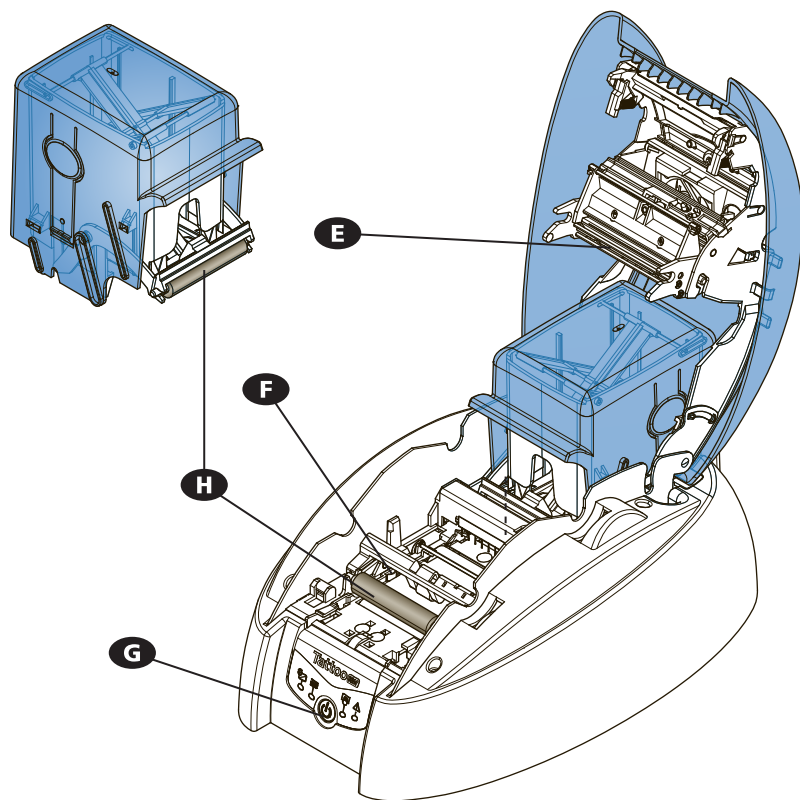
DESCRIPTION OF THE PRINTER AND ITS FUNCTIONS

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- E** Thermal print head
- F** Magnetic encoder (option)
- G** Control button
- H** Cleaning rollers
- I** Power socket
- J** USB socket (standard)
- K** RJ45 Ethernet socket (standard)
- L** DB-9 connector (option)
- M** Identification label



INSTALLATION

Connecting The Printer

Connection To The Power Supply

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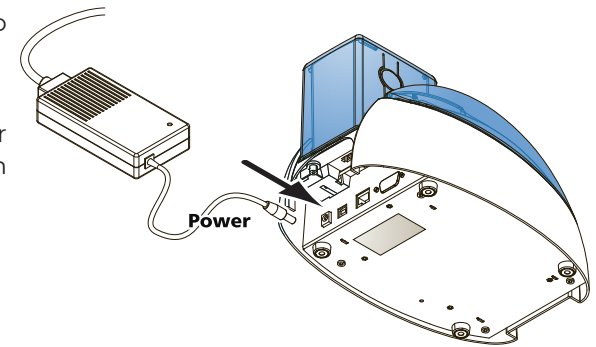
The printer must be connected to a properly protected and earthed electrical installation.

FI: Laite on liitettävä suojamaadoitus koskettimilla varustettuun pistorasiaan.

NO: Apparatet må tilkoples jordet stikkontakt.

SE: Apparatens skall anslutas till jordat uttag.

- 1 Connect the power cable to the power supply unit, then plug the power cable connector into the printer.
- 2 Next, plug the end of the power cable into an earthed power socket.
- 3 The printer is powered on, and the printer's control panel lights up, indicating that the printer is working properly. If the control panel does not light, then either installation has not been carried out correctly or the printer is not working properly. Check the installation.



Before attempting any maintenance, ensure that the power cable is always unplugged. For your personal safety, ensure that the cable and power supply unit remain easy to access, especially in the event of an emergency.



To save energy, the printer will automatically switch itself to standby mode after 10 minutes of inactivity.

Connecting the USB cable



Under no circumstances should you connect the USB data cable before installation of the printer driver is complete. See "Installing the print driver", page 14 for further details, and follow the instructions carefully.



Cards



For optimum quality, the cards used must be ISO 7810 certified.
Use only the card types recommended by Evolis.
Do not touch the printable surface of the cards in order to preserve print quality.
Do not use cards that have been damaged, folded, embossed or dropped on the floor.
Keep your cards protected from dust.

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Card Types

Rewritable cards require no ribbon. The card itself contains a thermosensitive material which becomes visible when heated to a high temperature, and disappears when a lower temperature is applied. This effect is reversible and the same card can be erased and re-written up to 500 times.

The thermal printing process requires the card to be cooled before re-printing. Should this not occur, partial erasing of the previous image is observed. A few seconds are typically enough. Similarly, standard contrast is reached a few seconds after the card has been printed.



If the cards are not flat, the printing around the edges may be incomplete, especially if the cards are thick. The problem is reduced after a few print runs. However, it may be impossible to print cards that are too out of shape. New cards must be kept in a clean, dry environment, such as inside the printer card feeder. Dirty or dusty cards may cause irregular or incomplete printing, or even premature wear and tear to the print head. A regular cleaning schedule is recommended. See the “Maintenance” section for more information.



Loading the cards

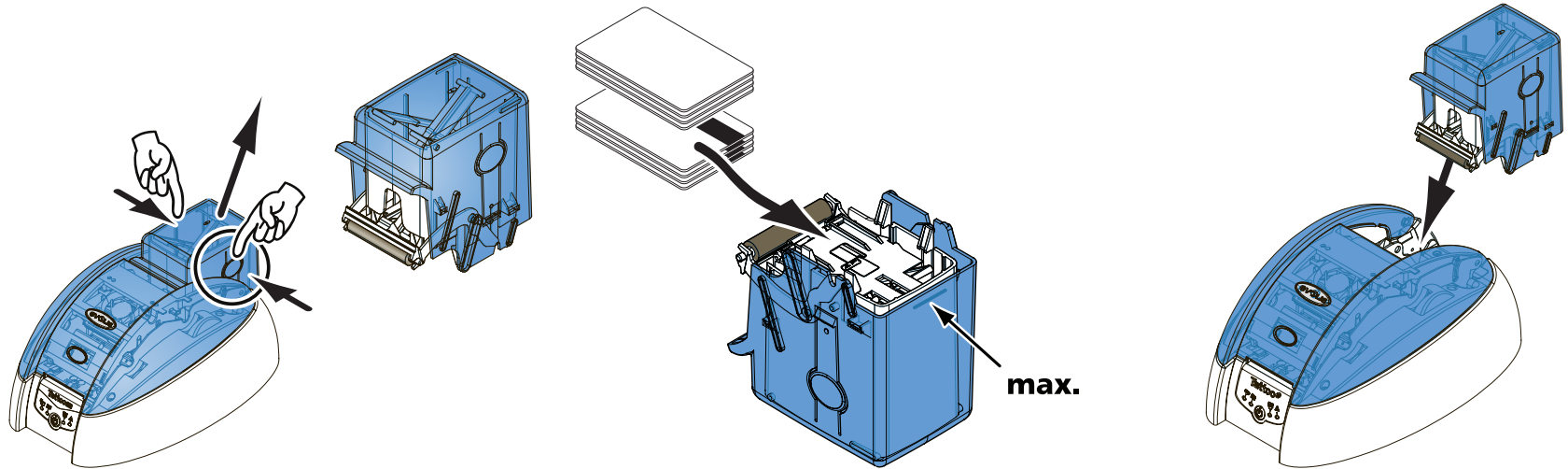
The printer accepts PVC cards between 0.50 mm (20 mil) and 0.76 mm (30 mil) thick. For optimum quality, the cards used must meet the CR80 standard.

Loading cards into the card feeder

Cards are loaded into the feeder as follows:



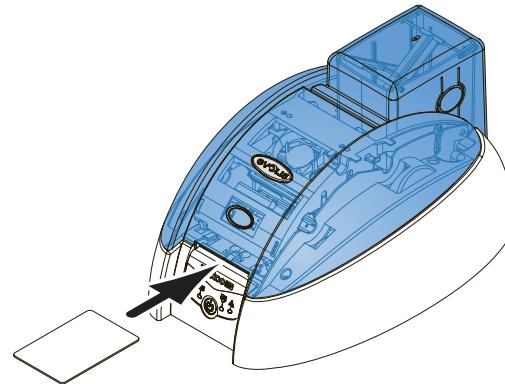
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- 1 Remove the card feeder from the printer as shown.
- 2 Insert the cards in the feeder as indicated, with the side to be printed facing down.
- 3 Put the feeder back into the printer, pressing until a click is heard.

Loading a card manually

Insert a card manually into the manual card feeder. The card will automatically eject after printing.

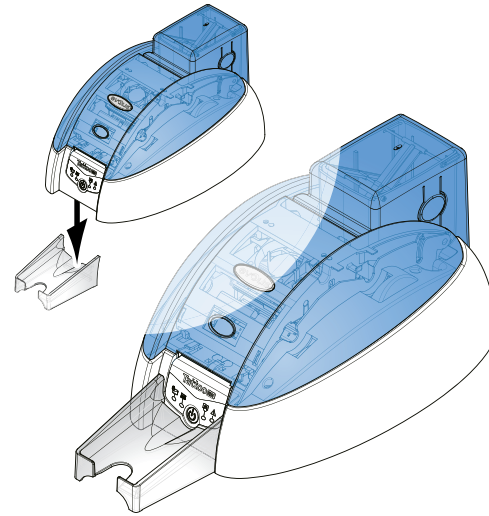




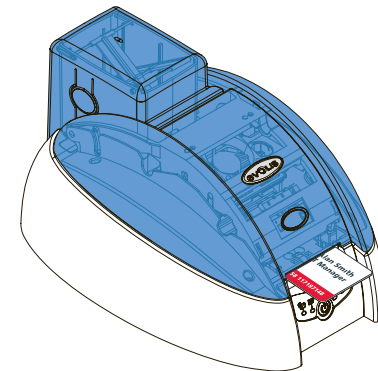
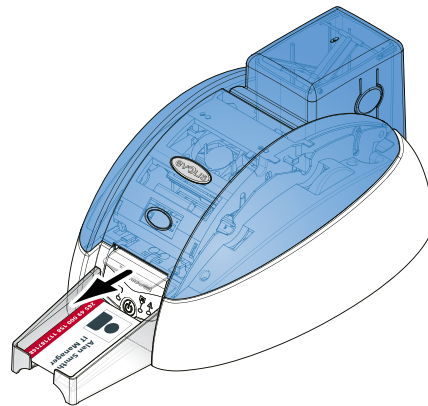
Removing printed cards

The printer is supplied with an output hopper with a capacity of **15 x 0.76 mm (30 mil.) cards**. This hopper receives the cards once printed and must be fitted to the printer as follows:

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Cards can be collected in two different ways:



- Automatic ejection mode (in this case, use of the detachable output hopper supplied with the printer is recommended)
- Manual collection mode (the card needs to be retrieved after printing).

Adjusting card thickness

The printer is equipped with an automatic adjustment system for card thicknesses from 0.50 mm to 0.76 mm.



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2.PRINTING



The information about the procedures described in this section refers to a Windows XP environment.

INSTALLING THE PRINT DRIVER

Inappropriate settings can affect the quality of card customization. It is essential to proceed in stages, changing settings only when you are completely sure. Evolis offers the option to revert to the factory settings at any time if the adjustments made do not give the expected results.

The printer is delivered with a CD containing the print drivers for Windows and Macintosh platforms.

To install a print driver, insert the CD into the computer and select the print driver menu. Follow the instructions of the assistant.



Do not connect your USB cable to your computer until prompted to do so by the installation program. For the connection procedure, see the section on Connecting the Printer.



Follow the installation procedure scrupulously. Some versions of Windows and Macintosh require the user to have administrator rights to install the driver.

MANAGING THE PRINT SETTINGS

Before using your printer, it is essential to check and/or change the default print driver settings:

- Ribbon type (does not apply to rewriteable printers)
- Card type
- Card finish or treatment
- ...



You will find more detailed information about the cards recommended by Evolis in the 'Evolis Genuine Product' list of consumables.



Pay attention to the settings defined under the print driver Properties and do not hesitate to contact your Evolis dealer for any advice and assistance needed before making any changes.

These print settings are accessible:

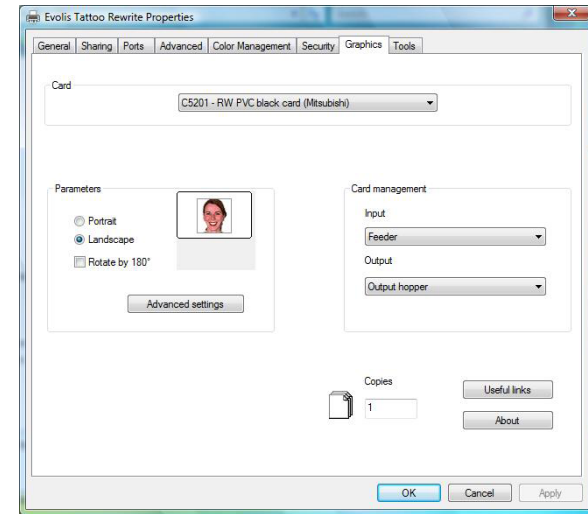
- 1 From the **Start** button found bottom-left on the Windows task bar, select **Printers and faxes**.
- 2 Select your printer and double click.
- 3 From the **Printer** menu, select **Properties**.
- 4 The first properties configuration screen for the equipment then appears.
- 5 The main tabs used to define the settings are "**Graphics**" and "**Tools**".



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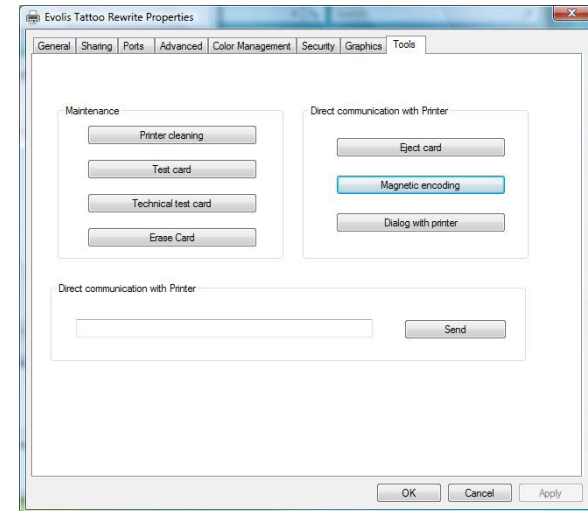
“Graphics” tab

- Ribbon* or card types
 - Front/back printing
 - Choice of methods for feeding and collecting cards
 - Card orientation, portrait or landscape
 - Number of copies
- * does not apply to rewriteable printers



“Tools” tab

- Setting and testing magnetic encoding options
- Test card printing
- Cleaning the printer
- Dialogue interface with the printer



It is recommended to print a test card when using the printer for the first time. This card records information such as the model and serial number of the printer. In case of an issue with the printer, information on the test card can be asked by technical support.



PRINTING A CARD

A large number of Windows applications allow documents to be printed (for example the tools in Microsoft's Office suite, i.e. MS-Word, MS-Access, Ms-Excel, MS-PowerPoint).

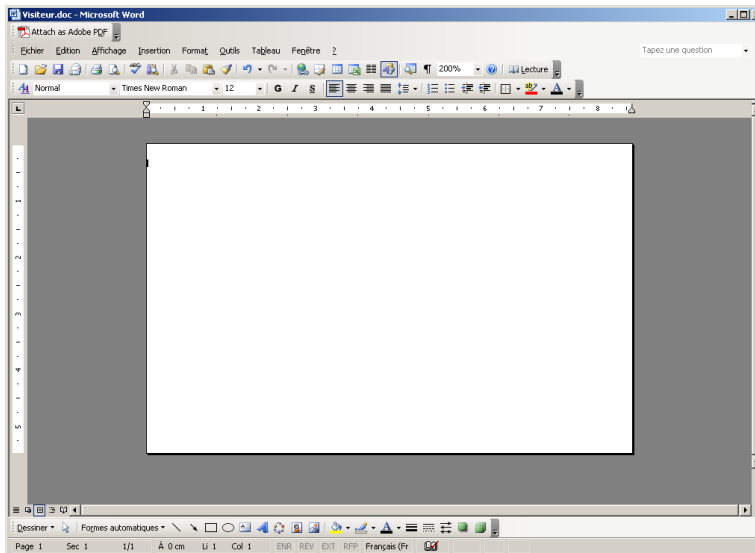
To gain familiarity with the layout of a card and configuring its formatting and printing, we suggest the following example.

In Microsoft® Word

After having set the Evolis printer as the default:

- 1 Start the MS-Word application
- 2 Click on the **File** in the menu bar, then on **Page Setup**
- 3 The **Paper** tab has a **Paper Size** option, select **CR80 Card**
- 4 In the **Margins** tab, set all margins to '0', then in the **Orientation** section, select Landscape.
- 5 Close the window by clicking OK.

Your Word window should now look like this:



- 6 Create the card design
- 7 Once ready, click on **File** and then on **Print**.

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CONNECTING TO A NETWORK (ETHERNET)

All Evolis printers have the benefit of a TCP/IP network connection mechanism. This feature is available as standard or as an option, depending on the model in the range.

Out of the box, the printer comes configured in DHCP mode (Dynamic Host Configuration Protocol), which means that its IP address is supplied by the network. In addition to these basic settings, the network administrator has the option of configuring the printer differently in order to comply with the constraints imposed by the corporate LAN:

- Printer connected in a subnet, in DHCP
- Printer connected within a subnet with fixed IP address, with WINS resolution
- Printer connected within a subnet with fixed IP address, without WINS resolution

The printer may be identified on the network in two ways:

- By its hostname (NETBIOS)
- By its IP address.

The user-definable settings are:

- The printer's IP address
- Subnet mask
- Gateway
- WINS server.



Changing the printer's basic settings, without prior knowledge of the layout of the LAN in question or without genuine technical knowledge may result in a malfunction of the printer, and may even extend to a more widespread failure of all or part of the LAN. Contact your System and Network Administrator before connecting to or changing the settings for your local area network.



For further details, refer to the 'Configuration of Evolis printers on a TCP/IP (Ethernet) LAN' manual.



3.MAINTENANCE

GENERAL WARRANTY INFORMATION



Comply with the instructions given below to ensure a good functioning of the printer.

The manufacturer's warranty is subject to a strict compliance with the routine servicing and maintenance instructions, and in particular the printer cleaning cycles.

Any failure to follow the maintenance and servicing procedures described in this section voids the print head warranty.

Evolis declines any liability where there has been a failure to carry out required maintenance on the printer.

The print head is a wearing part and a sensitive printer component. Its useful life can be reduced by the presence of dust, liquids or solids in the printer's immediate environment, on the print head or on the cards. Users must take all necessary precautions to insert only clean cards, free of dust deposits or foreign bodies, into the machine.

The frequency and quality of cleaning are decisive factors enabling users to extend the print head's useful life and to ensure excellent print quality. Particular care must be taken with cleaning.

In addition, the use of Evolis High Trust® ribbons ensures that the printer operates properly. Use of ribbons not approved by Evolis may affect the quality and reliability of print jobs, produce low quality printed output and even affect the printer's operation. The manufacturer's warranty does not cover physical damage or quality problems caused by using non-Evolis approved ribbons*.

Evolis provides replacement parts and consumables that you can refer to on www.evolis.com.

* does not apply to rewriteable printers

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ROUTINE PRINTER CLEANING



The print head warranty is directly linked to routine cleaning of your printer. If you do not carry out this cleaning at the required times, the print head warranty will cease to be valid.



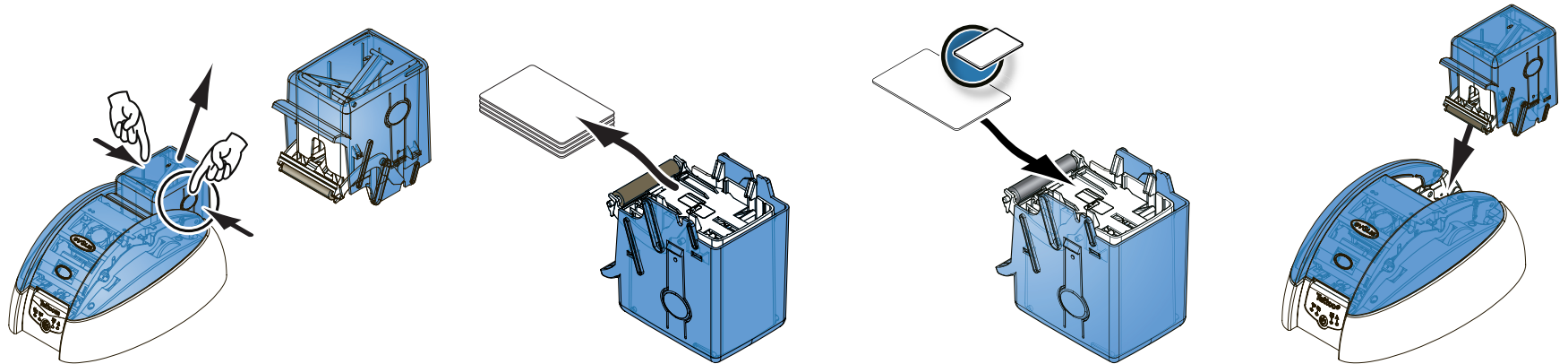
Recommended cleaning cycle: whenever the ribbon is changed
Mandatory cleaning cycle: when the cleaning warning is triggered
Servicing accessory: cleaning card



The printer is fitted with a cleaning warning system that is triggered after the insertion of a certain number of cards (see table below). Proceed with the routine cleaning of the printer when the warning is triggered. If you continue to run the printer despite the warning and if the warning light starts to flash, the print head warranty is automatically voided due to a failure to comply with contractual maintenance obligations.

Printer	Cleaning required after: (warning light steady)	Number of cards remaining before warranty voided (warning light steady)	Warranty invalid after: (warning light flashing)
Tattoo2 RW	400 cards	100 cards	500 cards

Repeatedly running the cleaning card through the printer cleans the feed rollers, the cleaning rollers and the print head.

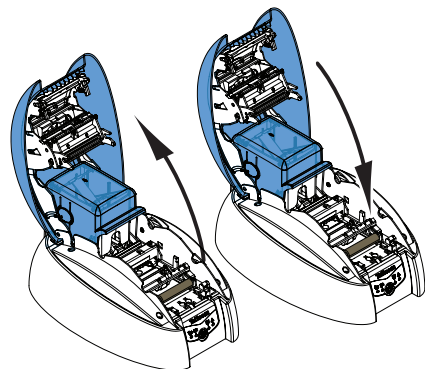


- 1 Remove the card feeder from the printer.
- 2 Remove any cards found in the feeder.
- 3 Insert the cleaning card into the feeder.
- 4 Put the feeder back into the printer, then press on the upper section of the feeder until it clicks

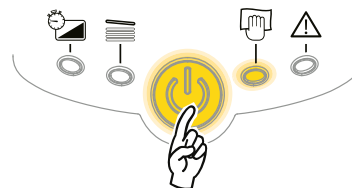
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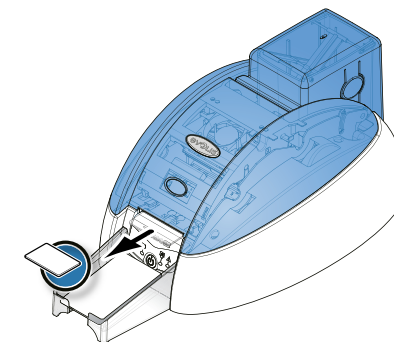
TATTOO2 RW



5 Open and then close the printer cover.



6 Hold down the control button on the control panel for one second. Cleaning starts.



7 The used cleaning card is ejected into the output hopper.



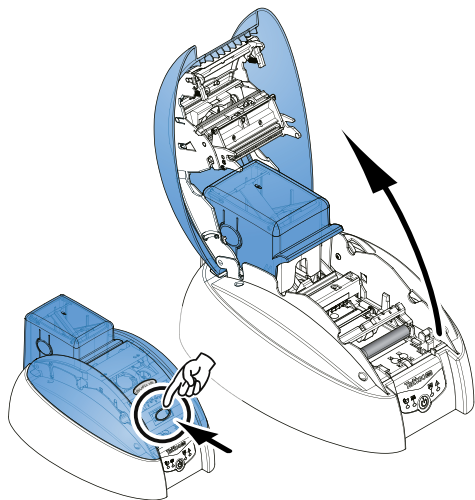
Wait for 2 minutes after cleaning before using your printer.

SERVICING THE CLEANING ROLLER(S)

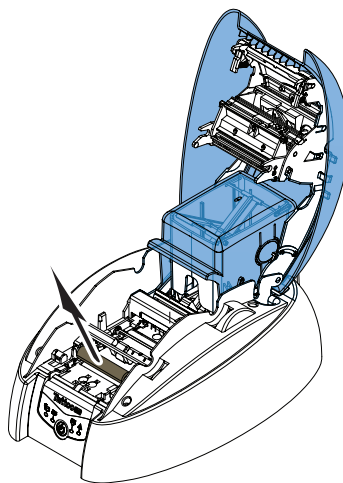
The cleaning roller(s) remove(s) any dust or particles from the cards before printing.



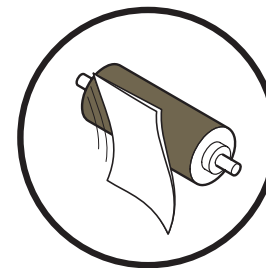
Recommended cleaning cycle: whenever the ribbon is changed
Servicing accessory: cleaning wipe



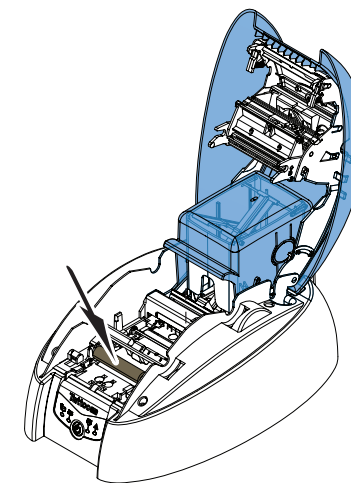
1 Open the cover.



2 Remove the cleaning roller.



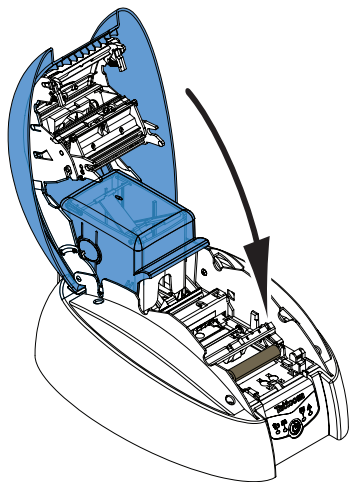
3 Rub the wipe gently over the surface of the roller.



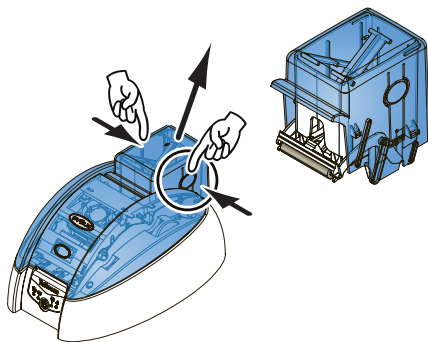
4 When it has dried, replace the cleaning roller in the printer.



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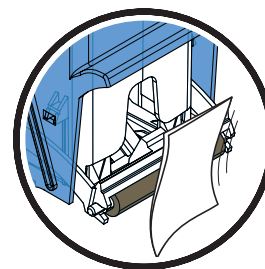


5 Close the cover.

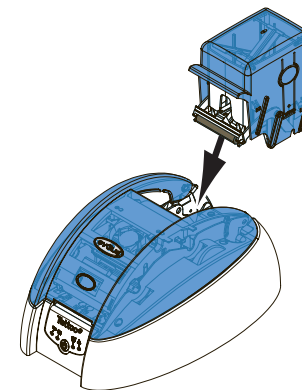


6 Remove the card feeder

7 Clean the roller with the wipe.



8 Press the card feeder back into the printer until it clicks.



Wait for 2 minutes after cleaning before using your printer.



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SERVICING THE PRINT HEAD



Recommended cleaning cycle: whenever the ribbon is changed

Servicing accessory: Special cotton bud impregnated with isopropyl alcohol

The print head is cleaned in the course of the printer's routine servicing procedure (see previously).

However, to maintain the original print quality and to absorb surplus ink on the print head, we recommend that you regularly clean the print head (whenever the ribbon is changed) using the cotton buds supplied by Evolis.

You must also protect the print head and its components from any discharge of static electricity.



Unplug the printer from its power supply before cleaning the print head.

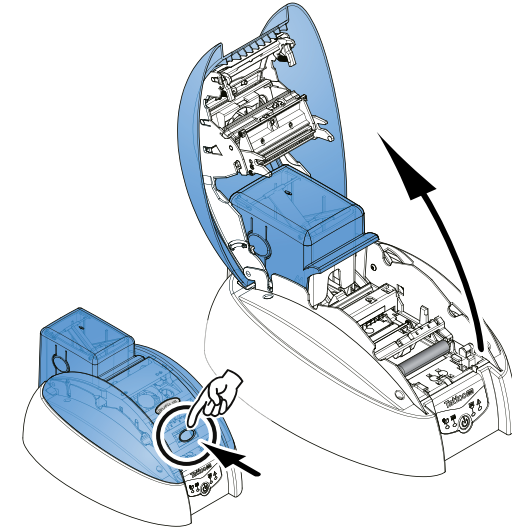
Follow the cleaning cycles scrupulously.

Avoid any contact between the print head and any metal or sharp objects.

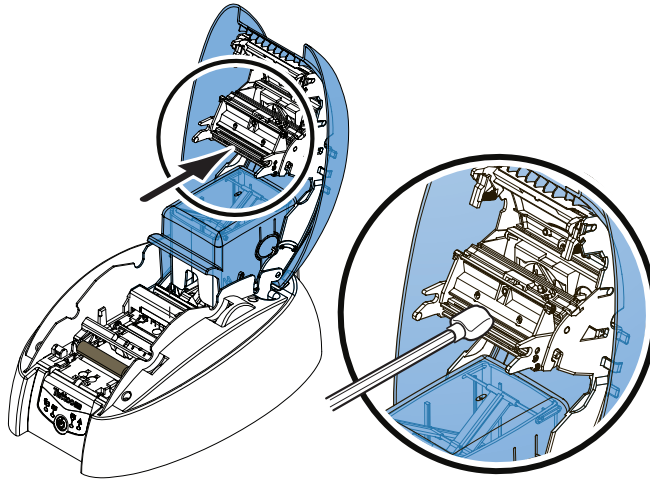
Avoid touching the print head directly with your fingers, as this could affect print quality or permanently damage the print head.



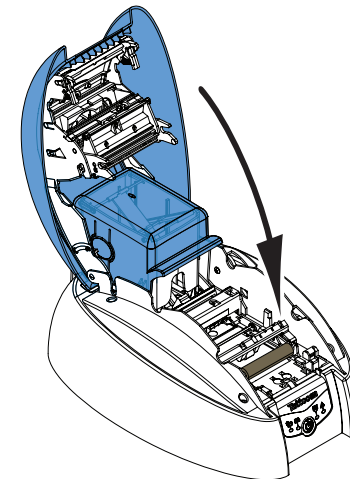
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- 1 Take an Evolis cotton bud and press the middle of the tube until the end of the cotton bud is impregnated with alcohol.
- 2 Open the cover and find the print head.



- 3 Gently rub the cotton bud from left to right along the print head for a few seconds.
- 4 Close the cover.





4. HELP

This section gives a number of suggestions allowing problems that may arise when using your printer to be pinpointed. If you do not manage to solve your problem, this section also explains how to contact Evolis technical support.

WARNINGS AND DIAGNOSIS

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Control Panel Warnings

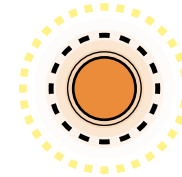
See "Description of the printer and its functions", page 8 for further details about the control panel.



OFF



STEADY LIGHT



FLASHING

	<p>PRINTER READY</p>	<ul style="list-style-type: none"> • The printer is ready to receive data.
	<p>PROCESSING</p>	<ul style="list-style-type: none"> • The printer is receiving data.
	<p>CARD TIME DELAY</p>	<ul style="list-style-type: none"> • The card that has just been printed is hot • Standard contrast not yet reached • Still too soon to re-print the card <p>If you re-print a card while it is still hot, there is a risk that it will not be fully erased. It is advisable to wait until the light goes out. This does not stop another card being re-printed.</p>

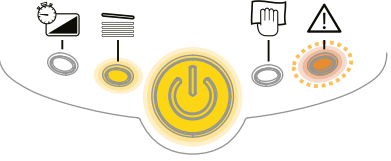
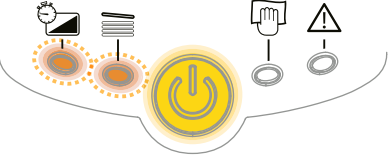


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	<p>NO CARDS OR NO CARD FEEDER</p>	<p>There are no cards in the card feeder</p> <ul style="list-style-type: none"> · Incorrect card thickness adjustment · The cards are not flat · The cards are stuck together · The feeder is missing from the printer or wrongly fitted <p>Check the condition of the cards in the feeder, and that the card feeder is properly fitted into the printer. Then press the control button for one second. Printing restarts.</p>
	<p>WAITING FOR A CARD</p>	<ul style="list-style-type: none"> · The printer is waiting for a card to be inserted. <p>The printer is in manual card feeder mode - insert a card into the printer. See “Loading the cards”, page 12.</p>
	<p>PRINTER COVER OPEN</p>	<ul style="list-style-type: none"> · The printer cover is open. <p>Close the cover – the printer restarts.</p>
	<p>CLEANING (after 400 cards have been inserted)</p>	<ul style="list-style-type: none"> · The printer must be cleaned. <p>See “Routine printer cleaning”, page 19</p>
	<p>CLEANING (after 500 cards have been inserted)</p>	<ul style="list-style-type: none"> · It is imperative that the printer is cleaned. <p>See “Routine printer cleaning”, page 19</p>
	<p>MECHANICAL PROBLEM</p>	<ul style="list-style-type: none"> · Card jammed in the printer. · Mechanical component fault. <p>Press the control button for one second. If the problem persists, contact your Evolis dealer for assistance.</p>



TATTOO2 RW

	<p>MAGNETIC ENCODING ERROR</p>	<ul style="list-style-type: none">• The magnetic strip is facing the wrong direction in the feeder.• The encoding type is incorrectly configured (HICO or LOCO).• The encoded data does not comply with ISO 7811 standards or with the settings predefined in the print driver properties. <p>See “6. Appendix C”, page 41 for more information.</p> <p>Press the control button for one second. The printer restarts the magnetic encoding cycle with a new card. If the problem persists, call your Evolis dealer for assistance.</p>
	<p>COOLING MODE</p>	<ul style="list-style-type: none">• The cooling system has been activated. <p>The printer pauses for a few seconds and restarts once it has returned to its normal operating temperature.</p>



TATTOO2 RW

DIAGNOSIS HELP

In this section, you will find all the information you need to carry out a few simple checks that you may be asked to run by your Evolis dealer to help you as effectively as possible.

Printing A Test Card

We recommend that you print a test card to ensure that your printer is working properly. This card shows various technical details for future reference. You may be asked for these by your dealer.

Printing A Test Card

- 1 Wait for any current print jobs to finish.
- 2 Check that there is a card in the printer.
- 3 Press the control button for three seconds. All the warning lights go out.
- 4 Press and hold down the control button again.
- 5 The control button light comes on.
- 6 Release the control button once the light flashes.
- 7 The test card is printed in a few seconds.
- 8 The printed card is ejected into the output hopper.

Information About The Test Card

A test card:

- Confirms the print quality
- Confirms proper ribbon* synchronisation
- Displays the printer model
- Displays the printer's serial number.

* does not apply to rewriteable printers

Identifying Installed Software Versions

You can also identify the version of the print driver installed as follows:

- 1 From the Start button found bottom-left on the Windows task bar, select Printers and faxes.
- 2 Select your printer and double click.
- 3 From the Printer menu, select Properties.
- 4 Go to the Graphics tab and then click About.



TATTOO2 RW

TROUBLESHOOTING



Do not attempt to use tools or other items to repair your printer in the event of problems, in case major damage is caused.

Printing Problems

No Printing

- 1 Check the power supply
 - Check that the power cable is correctly connected both to the printer and to a working mains socket.
 - The printer is on. The green light on the control panel must be lit.
 - The power unit used is the unit supplied with the printer.
- 2 Check the card input feed and the card in the printer
 - Check that there are cards in the card feeder.
 - Check the direction that the rewritable side is facing by referring to the pictogram on the card feeder.
 - Check that no cards are jammed.
- 3 Check the cards
 - Check that the cards inserted in the printer are in fact rewritable.
- 4 Print a test card
 - See “Printing A Test Card”, page 27.
- 5 Check the printer’s interface cable
 - Check the connection on the computer and the printer.
 - Try with another cable of the same type.
- 6 Check the print driver
 - Check that there is a print driver for the printer in the Windows configuration.
- 7 Check the computer’s print settings
 - Check that the printer is selected as the default printer.
 - See “Managing the print settings”, page 14.
- 8 Check the network configuration
 - Check that the printer is available from your workstation.



Blank Card Ejected

- 1 Check the ribbon*
 - Check that the ribbon is not finished or damaged. Replace it or re-install it if necessary.
- 2 The print head may be damaged
 - Print a test card.

If the test card does not print, contact an Evolis dealer for technical support or visit the website at myplace.evolis.com.

TATTOO2 RW

* does not apply to rewriteable printers



TATTOO2 RW

Poor print quality

Small blemishes on the card



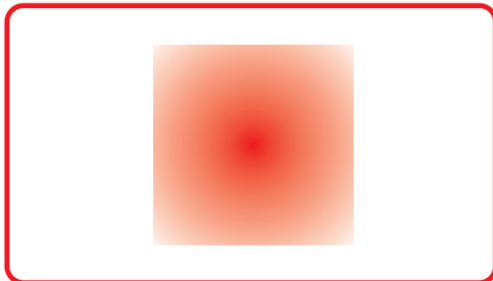
- The card surface may be dirty.
Check that your cards are perfectly clean.
Use new cards.
- Cleaning roller or print head clogged.
Run a cleaning cycle.

Horizontal white lines



- The print head is dirty or damaged.
Clean or replace the print head.

Blurred image



- Dirty printer or cleaning roller.
Clean the printer.
- Use of incompatible cards.
Check that the cards used match the specifications.



We recommend that you obtain your cards from an Evolis dealer.
Use of cards obtained elsewhere is liable to adversely affect print quality and/or damage the print head.



TATTOO2 RW

Inadequate Print Quality

- 1 The print and erase settings need to be altered
 - **Lack of contrast:** increase the contrast in the print driver configuration.
 - **Partial erase:** adjust the temperature in the print driver configuration.
 - **Quality still inadequate:** adjust the print quality in the print driver configuration. Please note that this setting alters the print speed. It is recommended only where the first two adjustments have not given satisfactory results.
- 2 The type of rewritable cards used may be unsuitable
 - Check that the type of rewritable cards used matches the specifications set out in Appendix A.
- 3 The card has a rough texture or the card is not perfectly flat
 - Try printing with another type of card.



Leave the cards to cool a few seconds before reprinting. If this is not done, partial erasing of the previous image is observed. Standard contrast is reached a few seconds after printing the card.

After printing, it is recommended to wait a few seconds for the **CARD TIME DELAY LED** to go out before reprinting the same card and/or altering the printer's settings. This does not stop another card being printed or re-printed.

Partial Or Incorrect Printing

- 1 Check the settings defined for the print run
 - Check that no element in your card layout is outside the print margins.
 - Check the orientation of the selected document in the print driver configuration (Landscape or Portrait)
- 2 Check the printer's interface cable
 - If unusual characters are printed, check that you are using an appropriate interface cable for your printer.
 - Check the connection on the computer and the printer.
 - Try with another cable of the same type.
- 3 Check that the printer is clean
 - Clean inside the printer, the cleaning rollers and print head if necessary.
 - See "Routine printer cleaning", page 19.
- 4 Check that the cards are clean and flat
 - Check that the cards are stored somewhere free from dust.
 - Check that they are not warped or folded.
- 5 Check that the print head is clean
 - See "Servicing the print head".
- 6 Check the print head
 - If (white) horizontal lines appear on the cards, print head components may be dirty or damaged.
 - See "Servicing the print head", page 22 or See "Replacing The Print Head", page 35.

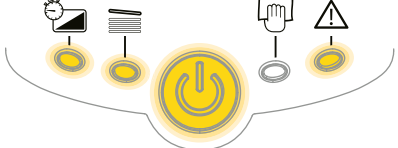
If the problem remains after cleaning, contact your dealer for a replacement print head.



TATTOO2 RW

Freeing Jammed Cards

Control panel displays:

	MECHANICAL PROBLEM	<ul style="list-style-type: none">• Card jammed in the printer.• Mechanical component fault. Press the control button for one second. If the problem persists, contact your Evolis dealer for assistance.
---	---------------------------	---



Do not turn your printer off, as this cancels pending print jobs in the printer's memory.

Remove the card as follows:

- 1 Open the printer cover.
- 2 Press the control button to turn the card transport rollers. If the card is still stuck inside the printer, slide it manually towards the printer output. If there is more than one card, always push the top one first.
- 3 Close the printer cover again.
- 4 Press the control button on the control panel for one second.

To prevent card jams:

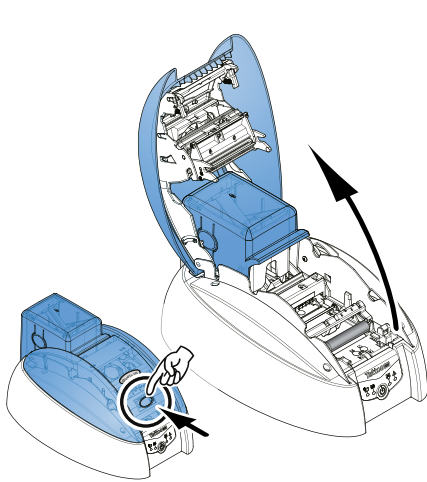
- 1 Check that the thickness of the cards used matches the specifications set out in Appendix A.
- 2 Check that the cards are flat. Keep them in a horizontal position.
- 3 Check that the cards are not stuck together. Shuffle the cards before loading them.



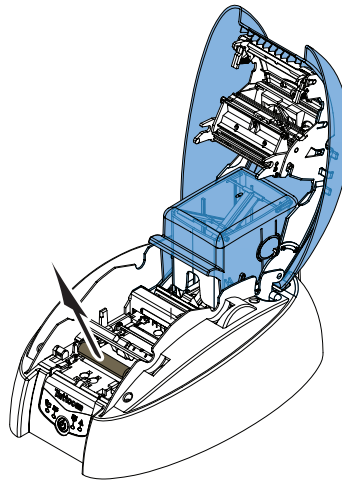
Replacing The Cleaning Rollers

If the cleaning rollers work less effectively, replace them to avoid dirt accumulating on the print head, resulting in permanent damage. The cleaning roller is available as a consumable from your Evolis dealer.

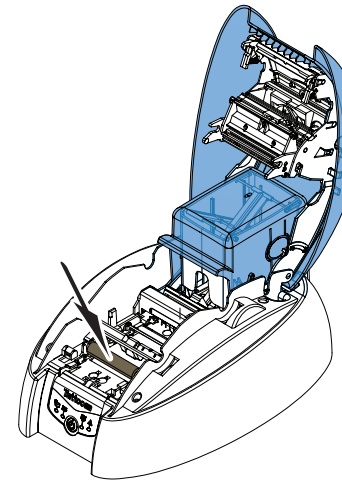
TATTOO2 RW



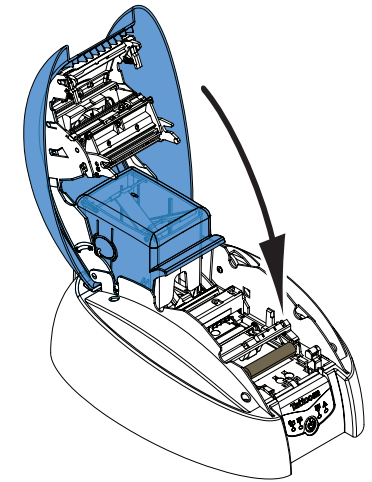
1 Open the printer cover.



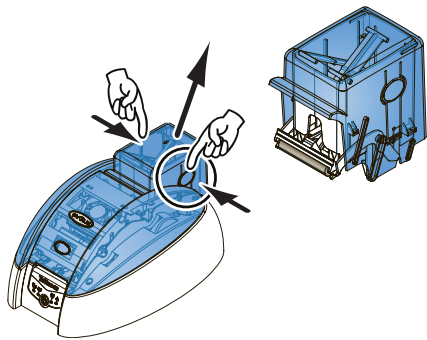
2 Locate the cleaning roller and release it from its housing.



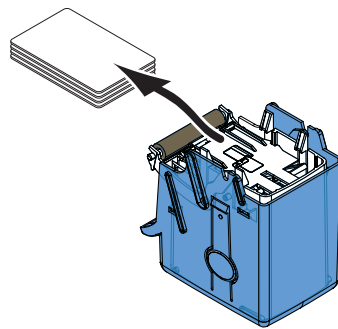
3 Fit the new roller in the printer, ensuring that it is correctly positioned in the housing.



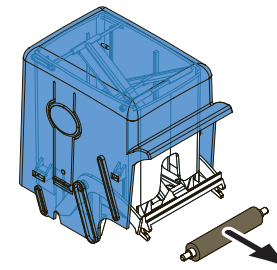
4 Close the printer cover.



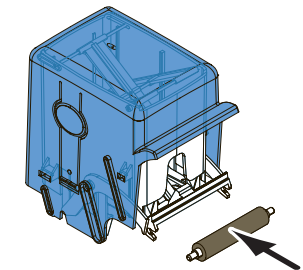
5 Remove the card feeder as shown.



6 Remove any cards found.

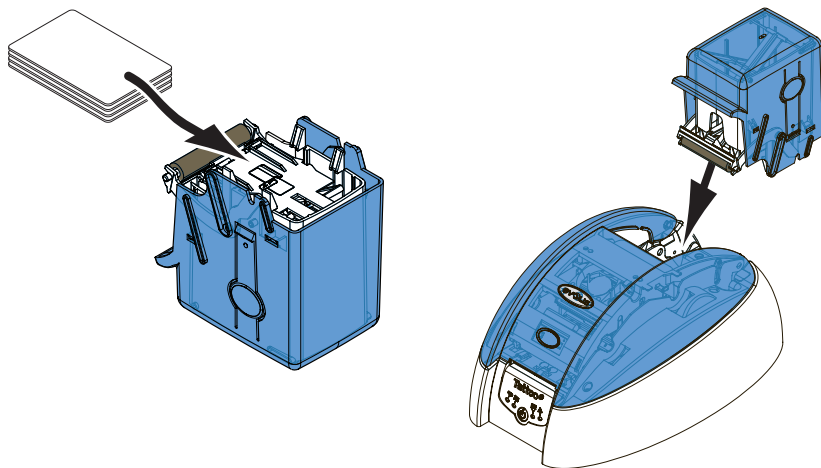


7 Locate the worn cleaning roller, remove it and fit the new one.





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- 8 Put the cards in the card back
input feed.
- 9 Put it back in the printer.



Replacing The Print Head

The print head is a sensitive component of your equipment. It determines the print quality, and regular servicing along with an immediate environment free from dust or other particles ensure a lengthy useful life. Nonetheless, the print head may sometimes need to be replaced. Evolis has designed a unique device enabling users to undertake such replacement with no tools needed, simply by following the instructions very carefully.

Before doing anything else, please contact your Evolis dealer in order to check the advisability of replacing the print head. The dealer will supply a new print head if need be.

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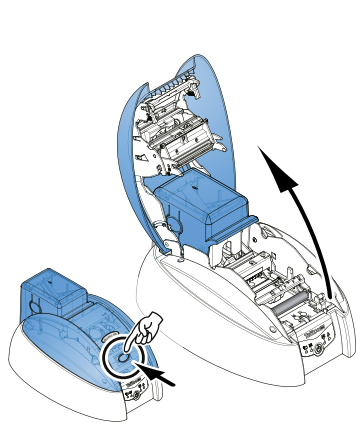


Evolis has set up a scheme for replacing defective print heads during the printer's warranty period. Your equipment is eligible under the scheme if:

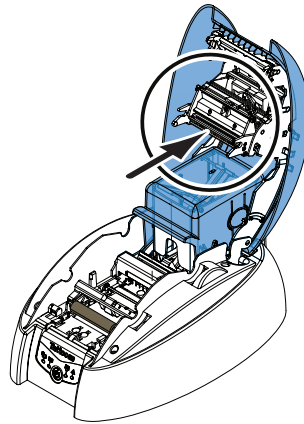
- You use only Evolis consumables (cards and maintenance products).
- You have followed the cleaning and servicing cycles.
- You are working in a dust-free environment complying with the technical specifications.
- You are using flat cards, with no rough patches which could damage the print head surface.

Unplug the power cable before changing the print head.

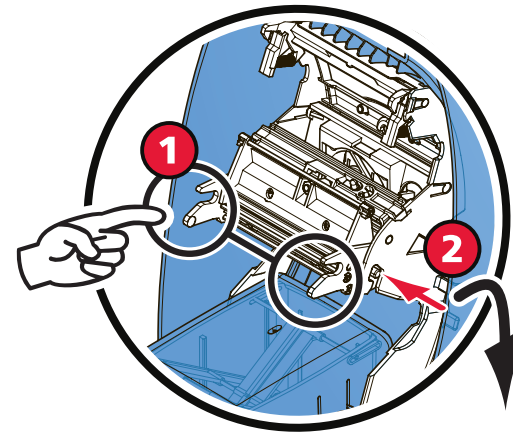
Step 1 - Removing the defective print head



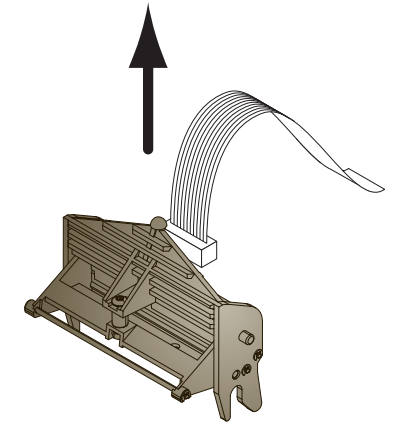
1 Open the printer cover.



2 Locate the print head.



3 Press on the metal part at the bottom as shown on the diagram to free the lugs from the holding fork. Then remove the lugs from their slots.

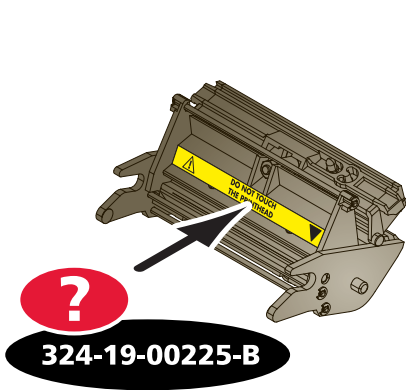
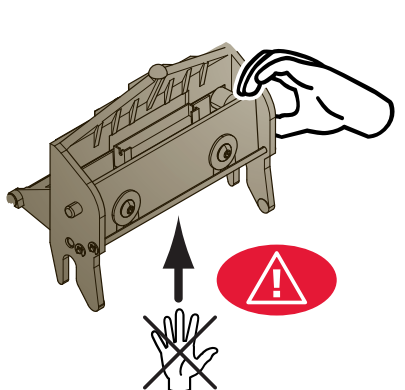
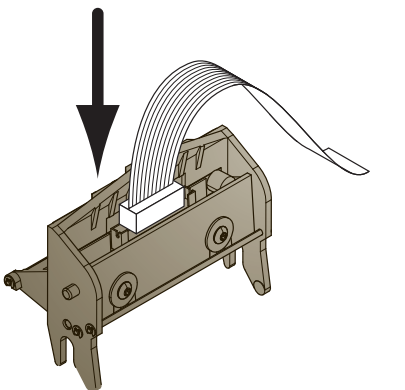
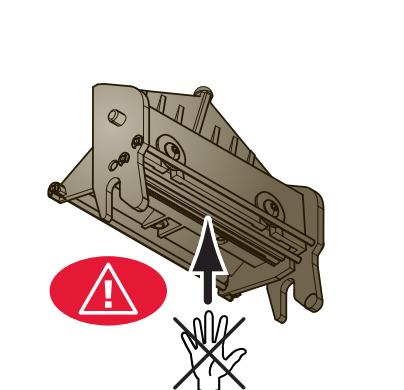


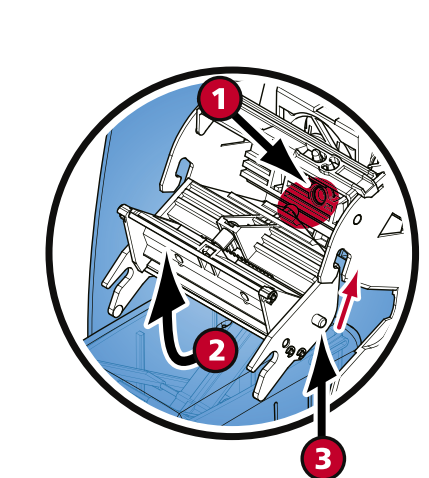
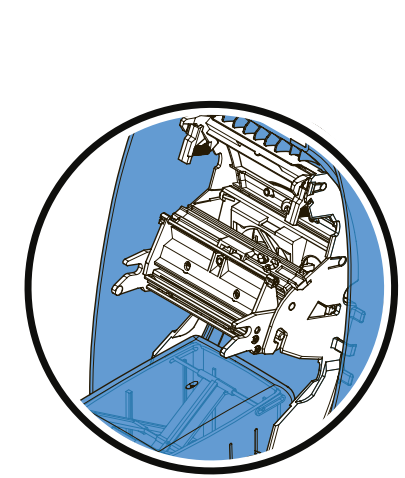
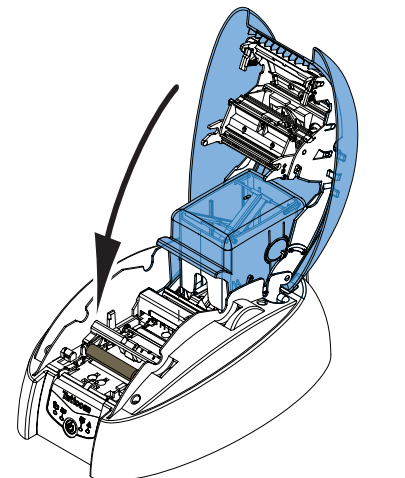
4 Tilt the print head carefully and disconnect the connector linked to the cable without using force on the mechanism.



Step 2 - Installing the new print head

TATTOO2 RW

- 
- 
- 
- 
- 1 Note the code shown on the white label stuck on the print head. You will be asked for this code in Step 3.
 - 2 Pick up the new print head and turn it towards you, with the white connector visible.
 - 3 Connect the cable into its socket, making sure it is the right way round. Do not use any force, as this part is fragile.
 - 4 Turn the head so that the logo is visible (be careful), the connector can no longer be seen.

- 
- 
- 
- 5 Insert the head vertically between the two guides so that the fork lugs are held within the slot.
 - 6 The print head is in position.
 - 7 Close the cover. The print head is now fitted.



Step 3 - Configuring the new print head

- 1 Power up the printer and check that it is properly connected to a computer on which the printer's print driver is installed.
- 2 Under the print driver's Properties, click on the "Tools" tab.
- 3 In the "Printer dialogue" section, enter the following command: Pkn;x
where x = the print head kit code number that you noted in Step 2.

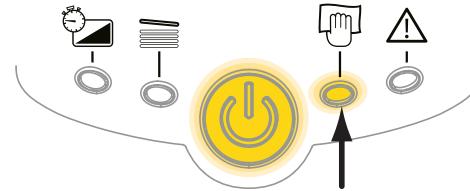
For example, if the print head kit number is 179-004-00048, the command to be entered is: Pkn;179-004-00048



If the print head kit number is not entered correctly, printer malfunctions may occur and the warranty may be voided.

Step 4 - Cleaning the printer

On the printer's control panel, the "CLEANING" light is lit:



Cleaning is absolutely necessary after changing the print head. No print jobs can be run until the cleaning operation has finished. See "Routine printer cleaning", page 19 and See "Servicing the cleaning roller(s)", page 20. Then put the ribbon and the cards back in place.

Once cleaning is done, the printer is ready to be used.

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Updating The Firmware (under Windows)



An update of the firmware that is not properly performed may result in a malfunctioning printer.

Before updating the firmware, contact your Evolis dealer.

Firmware updates are only required in case of an issue or a malfunction clearly identified by your Evolis dealer.

Interrupting the transfer between computer and printer during the download phase (powering off the printer or computer, unplugging a cable) would make it impossible to restart the printer. If such an incident occurs, contact your Evolis dealer to replace the printer's processing board.

Updates can be downloaded from the website at myplace.evolis.com :

- 1 Click on the Software and Firmware tab.
 - 2 Click on the file for the corresponding Firmware.
 - 3 Accept the download then save the file in a directory on your hard drive.
 - 4 Double-click on the file in the directory in order to run the firmware installation program
 - 5 When prompted by the program, click on the Download button to run the job. The firmware download is in progress.
 - 6 After about thirty seconds, the firmware has transferred to the printer and the operation is complete.
- If the printer is not showing a 'READY' status, this means that the update has not been carried out correctly or, possibly, that the printer is not working properly. Check the connection cables and run a new update.

Updating The Print Driver

Updating the print driver is a task that is required in order to fix malfunctions or gain the benefit of new options.



Before any update, please contact your Evolis dealer who will be able to guide you on the advisability or otherwise of carrying out an upgrade.

Updates can be downloaded from the website at myplace.evolis.com :

- 1 Click on the Software and Firmware tab.
- 2 Click on the file for the corresponding to the print driver
- 3 Accept the download then save the file in a directory on your hard drive.
- 4 Double-click on the setup.exe file that you have just downloaded in order to run the installation program.



For more details about the procedure, please see the Installing the print driver section.



TECHNICAL SUPPORT

If you are having difficulties in configuring and using your printer, read this manual carefully.

If you do not manage to solve your problem, you can obtain further information and help from the Evolis partner network.

Evolis Partner Network

For unresolved technical problems, contact your Evolis dealer.

If you do not know any Evolis dealers, contact us to have the contact information of the nearest Evolis dealer. When calling an Evolis dealer, make sure to be close to a computer and to provide the following information:

- Printer model and serial number
- The version of your mobile operating system.
- A description of the incident
- A description of what was performed to try and resolve the incident

Finding information on myplace.evolis.com

If additional technical help is needed, information on using and troubleshooting Evolis printers is available on myplace.evolis.com.

- Latest versions of firmware,
- Print drivers
- User manuals
- Videos about using and maintaining Evolis printers
- A knowledge base to find answers to your questions

TATTOO2 RW



5. DECLARATIONS OF CONFORMITY

In this section, you will find the certifications for your Evolis printer.

TATTOO2 RW

Concerning Safety and Electromagnetic Compatibility of Radio Equipment (LVD 2014/35/EU, EMC 2014/30/EU Directives) and (RoHS3) 2015/863/EU:

Manufacturer name: Evolis
Manufacturer address: 14, avenue de la Fontaine
 Z.I. Angers Beaucouzé
 49070 Beaucouzé, France

Equipment name: Tattoo2 RW
Year of manufacture: 2022

I, the undersigned,

Laurent Godard,

Declare under my own responsibility that the product here above described complies with the essential applicable requirements, (particularly with those of the **LVD 2014/35/EU, EMC 2014/30/EU directives and (RoHS3) 2015/863/EU** as follows:

Safety standard applied **EN62368 -1: 2014**
EN62311: 2008

EMC standard applied **EN55032: 2012**
EN55024: 2010
EN61000-3-2: 2014
EN61000-3-3: 2013



Full name: Laurent Godard

Position: R&D Director

Date: January 4th 2022

Signature:

EUROPE - Norway Only: This product is designed for IT power system with phase-to-phase voltage 230V. Earth grounding is via the polarised, 3-wire power cord.

FI: "Laitte on liitettävä suojamaadoitus koskettimilla varustettuun pistorasiaan"

SE: "Apparaten skall anslutas till jordat uttag"

NO: "Apparatet må tilkoples jordet stikkontakt"

DK : „Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord“.

FCC Statement (For U.S.A.)

Federal Communications Commission Radio Frequency Interferences Statement



Tattoo2 RW model conforms to the following specifications: FCC Part 15, Subpart A, Section 15.107(a) and Section 15.109(a) Class B digital device.

Supplemental information:

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

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

It is recommended to respect a distance of 20 cm between user and RFID module when the module is powered.

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

VCCI (For Japan)

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.



この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。



이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.



6. APPENDIX

ENCODING OPTIONS

Some models of Evolis printers are equipped with encoding systems which are used to customise magnetic strips, and contact and contactless smartcards.

Depending on the model, it is possible to install up to three types of encoders in the printer (magnetic strip, contact and contactless smartcards).

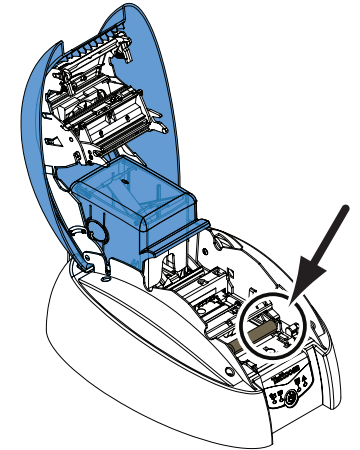
Magnetic strip encoding

A printer fitted with a magnetic encoder works in exactly the same way as a basic card printer. The Evolis encoder encodes the magnetic strips in a single pass then runs a data check.

Configurable as high coercivity (HiCo) or low coercivity (LoCo) by a simple click in the Windows print driver, Evolis magnetic encoders are however shipped with a default setting of high coercivity (HiCo), unless otherwise requested when placing the order.

Location Of The Magnetic Encoder

The magnetic encoder is a module fitted in the factory. The read-write head is located under the path taken by the cards and after the print head. The encoding sequence for a card is always carried out before the printing.



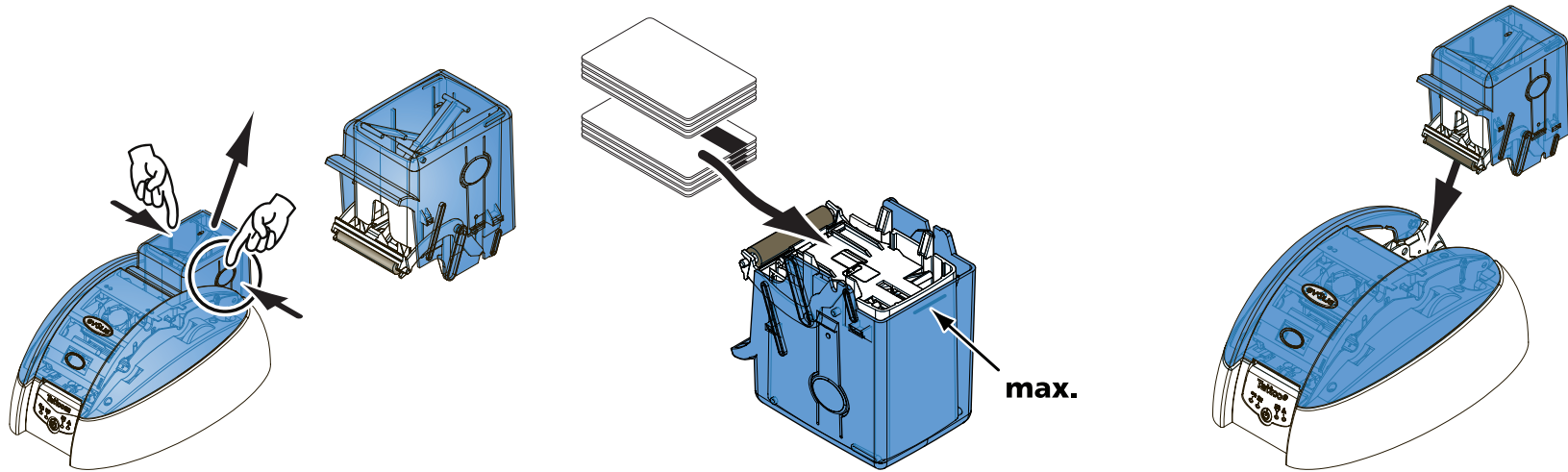
Use only magnetic strip cards that comply with ISO 7810 and ISO 7811 standards.
The magnetic strip must be moulded into the card to work properly.
Never use cards with a glued-on magnetic strip.



Card positioning

Magnetic strip cards must be placed in the card feeder so that the magnetic strip is facing upwards as shown below:

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- 1 Remove the card feeder from the printer as shown.
- 2 Lower the spring system as shown and insert a maximum of 100 x 0.76 mm magnetic cards.
- 3 Put the feeder back into the printer, then press on the upper section of the feeder until it clicks.

Configuring the Windows print driver

When first installing the Windows print driver, the magnetic encoder functions need to be configured. The magnetic encoder functions are found in the print driver's **Tools** dialogue box by clicking on the **Encoding Settings** button.



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“Magnetic Encoder” dialogue box

Magnetic encoding

Track settings

Track 1: ISO1
Track 2: ISO2
Track 3: ISO3

Track Settings to set the features of each track.
ISO1 accepts up to 76 alphanumeric characters, from A to Z and from 0 to 9 as well as ASCII characters between 20 and 95.
ISO2 accepts up to 37 numerical digits, from 0 to 9 as well as ASCII characters between 48 and 62.
ISO3 accepts up to 104 numerical digits, from 0 to 9 as well as ASCII characters between 48 and 62.
SPASS accepts up to 21 characters, from 16 to 127 (ASCII characters).
C2: Mode allocated to a specific use in the future
JIS2: Japanese standard.
C4: Mode allocated to a specific use in the future.
Coercivity sets the magnetic encoder in high or low Coercivity (HiCo/LoCo). A high coercivity magnetic stripe is more resilient to external disturbance than a magnetic stripe encoded in low coercivity.

Direct encoding

Track 1
Track 2
Track 3

Coercivity

Low coercivity
 High coercivity

Encoding through an application

Auto detection

To encode from your application or document, insert a data string indicating the track number, followed by the data and bounded by | character (ex: |1DATA| --> encodes the DATA data on track 1)

Lead-in code |
Trail-in code |

Buttons: OK, Cancel, Apply, Reset to default settings, Send, Set coercivity

The **Magnetic Encoder** dialog box opens when the **Encoding Settings** button is selected.

Track settings is used to select the desired ISO standard for each magnetic strip. See the table in this Appendix for information regarding ISO 7811 standards.

Coercivity sets the magnetic encoding to high (HiCo) or low (LoCo) coercivity. A magnetic strip that is encoded in high coercivity is more resistant to external disturbance than a magnetic strip encoded using low coercivity.

Direct encoding is used to directly encode one or more magnetic strips from this window simply by selecting them and entering the data to be encoded. Click on the “Send” button (previously “execute encoding”) to run the encoding cycle.

Automatic extraction is used to encode magnetic strip cards from applications under Windows (such as Word for example). A text field enclosed within “|” and “|” characters (or some other character which the user can define) will be interpreted as an encoding command by print driver.

Cleaning The Magnetic Encoder

The magnetic encoder head requires regular maintenance in order to ensure the integrity of the data encoded onto cards.

Cleaning of the magnetic encoder is carried out when the printer runs a cleaning sequence with impregnated cards (See “3. Maintenance”, page 18). Repeatedly running the cleaning card through the printer cleans the card feed rollers, the cleaning rollers, the print head and the magnetic encoder read-write head.

If, in between two routine printer cleaning runs (every 1000 cards inserted), the read-write process fails with more than one card, it is recommended to run a printer cleaning sequence manually (See “3. Maintenance”, page 18 for the procedure to follow).



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ISO 7811 Magnetic Encoding Standards

Track number	Separator	Density	Character set	Number of characters
Track 1	^	210 ppp ¹	Alphanumeric (ASCII 20-95) ²	79 ³
Track 2	=	75 ppp ¹	Numeric (ASCII 48-62) ²	40 ³
Track 3	=	210 ppp ¹	Numeric (ASCII 78-62) ²	107 ³

¹ bits per inch

² Except for the “?” character

³ Including the Start, Stop and LRC characters which are automatically handled by the magnetic encoder

Contactless Smartcard Encoding

Evolis printers may be equipped with an encoding device for contactless smartcards (RFID). This consists of an encoding module and sometimes a detachable antenna.

Integration of such a module must be carried out by specialist. The Evolis product catalogue has printers equipped with a built-in encoder for contactless chips.

Depending on the model, these encoders connect to the PC via an RS-232 interface (DB-9 socket) or a USB interface.

There is a very wide variety of contactless cards, and each card has specific technical properties associated with an equally specific type of encoder. See your Evolis dealer for further information.

Location of the antenna (or the encoder including an antenna)

By means of a specific command, the card is positioned close to the antenna such that the card lies within its radio range.

Reading data from or writing data to the card can then start.

The programming sequence for a smartcard is always carried out before the printing.

Card positioning

On the face of it, there are no restrictions on card positioning when programming in contactless mode.

However, the miniaturisation of components is bringing about the emergence of cards fitted with mini-antennae.

In this situation, please see your card supplier for further information about where such mini-antennae are located within the card, so as to present the card as close as possible to the encoder’s antenna. Doing so will ensure optimum encoding of the cards.



Computer connection

If the encoder is supplied with an USB interface, it will either be connected to the printer's internal USB Hub, or equipped with a USB cable to connect to your computer directly.

In the first case, your printer's USB cable is used to drive firstly the printer and secondly the encoder from the computer.

If your encoder is supplied with an RS-232 interface, it needs to be connected to the computer via a serial cable. This cable plugs into the printer's female DB-9 socket, and into a COM port on the computer.

DB-9 connector pins	RS-232 signals (serial)
1	Not used
2	RxD
3	TxD
4	Not used
5	Not used
6	Not used
7	RTS
8	CTS
9	Not used

A sequence of commands must be sent via the printer's interface to insert a card in the printer then position it close to the antenna to establish radio communication between the card and the encoder.

The command sequence is as follows:

Sending the SIC sequence:

- 1 A card is moved from the feeder towards the antenna and is positioned nearby.
- 2 The chip is programmed via the computer's serial (or USB) interface connecting the built-in encoder and the computer.



Refer to the Evolis printer Programming Guide for further details on programming contactless smartcards.

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