evolis
c a r d   p r i n t e r s

QUANTUM
USER GUIDE

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Trademarks

QUANTUM is a trademark of Evolis Card Printer. All other trademarks belong to their respective holders.

Warranty

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

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.

Do not hesitate to contact us to find out more by visiting our website at **www.evolis.com** or by emailing the following address: **info@evolis.com**.

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**.

Warranty registration

Please register on line at **www.evolis.com** to receive our special offers and general information.

Once on the website, click on **Drivers and Support** and fill in all the fields, giving in particular the model and serial number found on your printer.

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**.

Contents

The bookmarks found top left of your screen can be used to navigate between the various sections in this user guide.

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 the www.evolis.com website.

Getting started

1-1 Unpacking

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

LThe 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 - VP ELECTRONIQUE Type PAC150M or PROTEK POWER Type PUP150N-14.

● 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, please contact your Evolis dealer.*
> *Use only the power supply unit supplied with your Evolis printer.*
> *VP ELECTRONIQUE Type PAC150M or PROTEK POWER Type PUP150N-14.*
> *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.*

1-2 Description of the printer and its functions
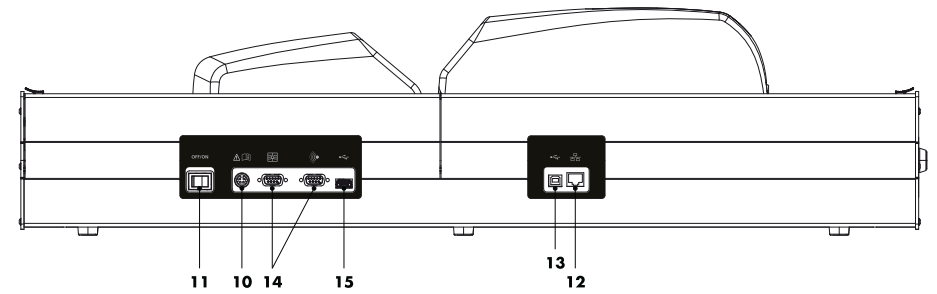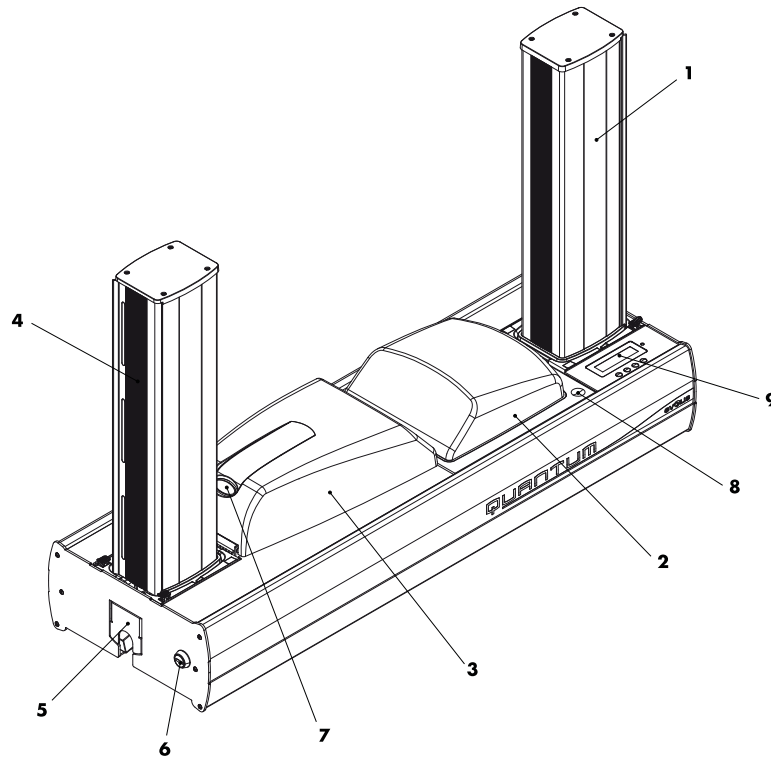
1 - Card input feeder

2 – Encoding module

3 – Printing module

4 – Output stack

5 – Reject hopper (20 x 0.76 mm or 30 mil cards)

6 – Centralised locking

7 – Cover opening button (printing module)

8 – Cover opening button (encoding module)

9 - Control panel

10 - Power cable socket

11 - On-off switch

12 - Ethernet socke

13 - Computer USB socket

14 - DB9 connectors

15 - Peripheral USB socket

1
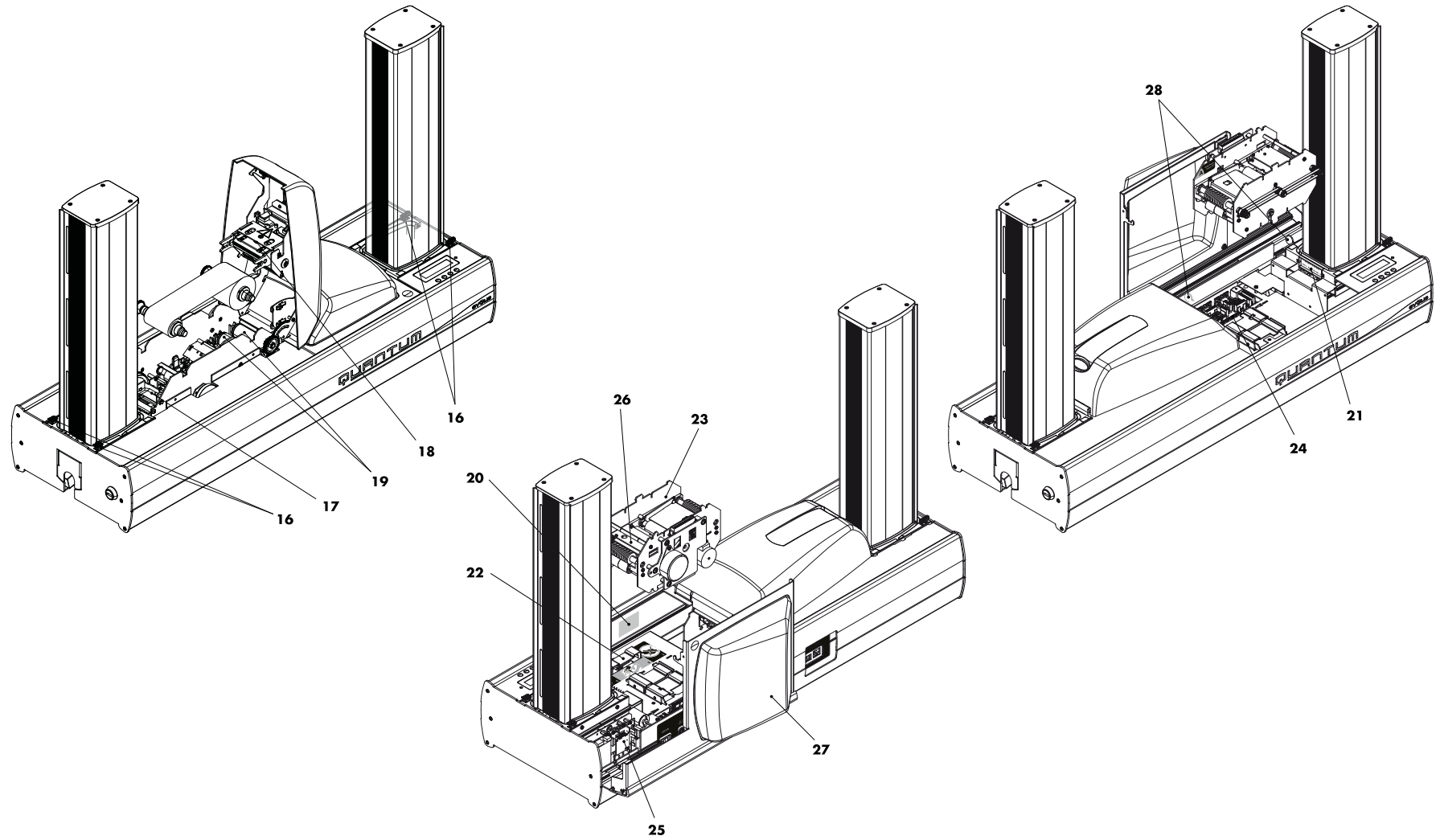
16 - Card input feeder and output stack release buttons

17 - Card turnover point

18 - Thermal print head

19 - Cleaning rollers

20 - Serial N° label

21 - Card thickness adjustment gauge

22 - Reversible module release button

23 - Reversible encoding module

24 - Encoder connections area

25 - Encoder attachment support

26 - Antenna attachment support

27 - Detachable cover

28 - Cover release button

1-3 Installation

1-3a CONNECTING THE PRINTER

➤ **Connection to the power supply**

⚠️ *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: Apparaten skall anslutas till jordat uttag.

⚠️ *This is a Class A device. Operation of this equipment in a residential area may cause interference to radio communications. Should this occur, the user may be asked to take appropriate measures.*

❶ Connect the power cable to the power supply unit, then plug the power cable connector into the printer.

❷ Next, plug the end of the power cable into an earthed power socket.

❸ Power up the printer by switching the switch to **ON**.

❹ The display on the control panel lights up and the message _ **INITIALISATION** _ is displayed. Once the start-up sequence has finished, the screen displays _ **READY** _ and the LED is a steady green light. Should this not be the case, the installation has not been carried out correctly.Check the installation.

Power

USB

Ethernet
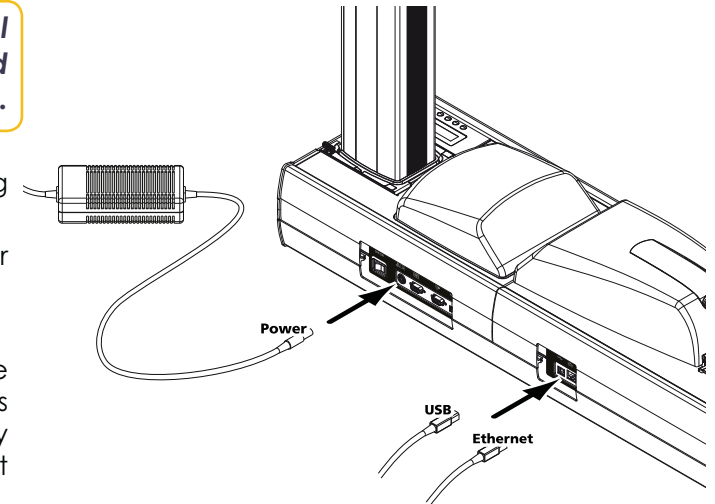
⚠️ *Before attempting any maintenance, always ensure that the power switch is in the OFF position and that the power cable is unplugged. For your personal safety, ensure that both remain easy to access, especially in the event of an emergency.*

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

1

➤ **Connecting the USB cable**

> ⚠ *Under no circumstances should you connect the USB data cable before installation of the printer driver is complete.*

Refer to the section on printer driver installation for further details, and follow the instructions carefully.

1-3b RIBBONS

Evolis original ribbons optimise your printer's operation and avoid causing damage to it. The use of ribbons from other suppliers is liable to damage your printer and voids the manufacturer's warranty for the printer.

For optimum print quality, Evolis recommends that the printer is fully cleaned every time the ribbon is changed. See the Servicing and Maintenance section of this manual.
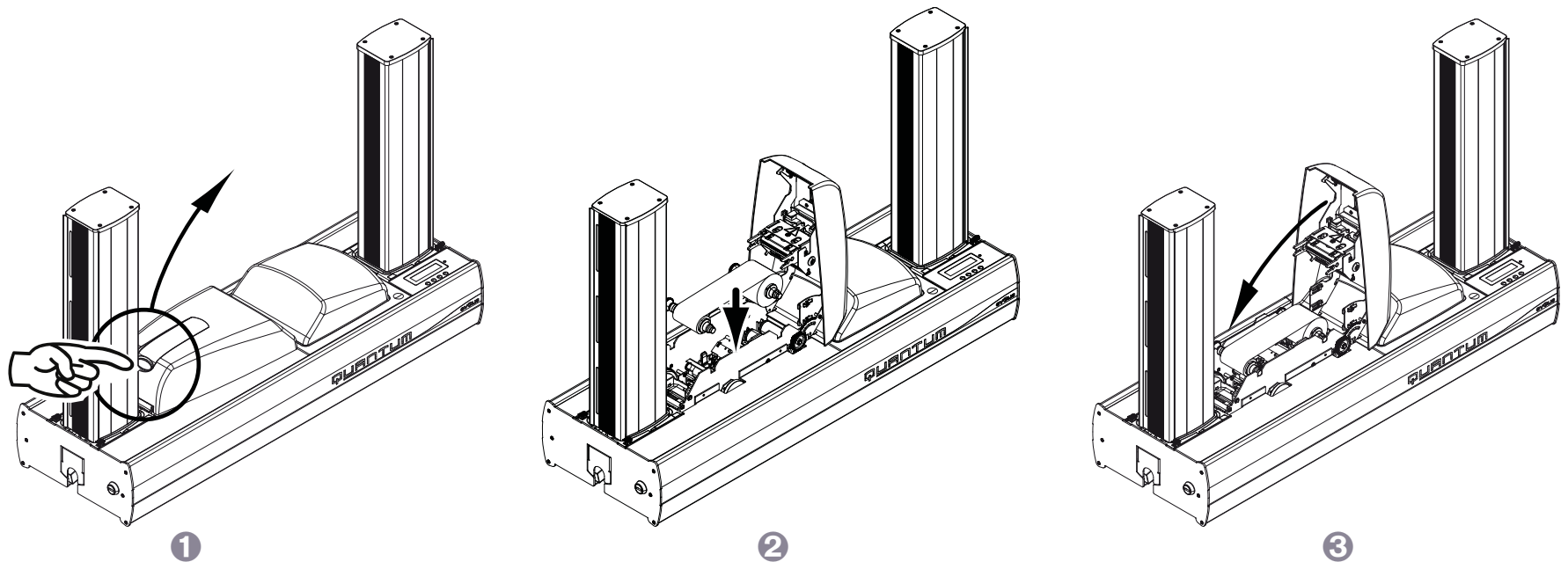
➤ Fitting the ribbon

NOTE

Ensure that the appropriate ribbon type is selected in the print driver.

❶ Open the printing module cover.
❷ Insert the ribbon as shown.
❸ Close the cover and press until a click is heard.

❶   ❷   ❸

1

1-3c 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.*
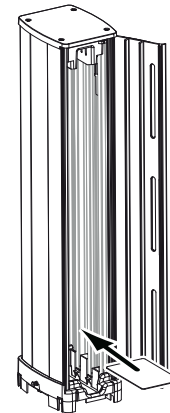> *Keep your cards protected from dust.*

➤ **Loading the cards**

❶ Remove the card feeder.
❷ Open the card feeder door, and raise the weight.
❸ Insert the cards, then lower the weight back down and close the card feeder door.
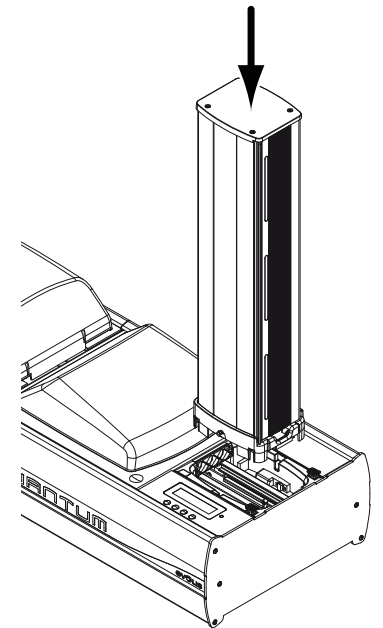❹ Put the feeder back into the printer (door facing outwards), clicking it into position.

❶ ❷ ❸ ❹
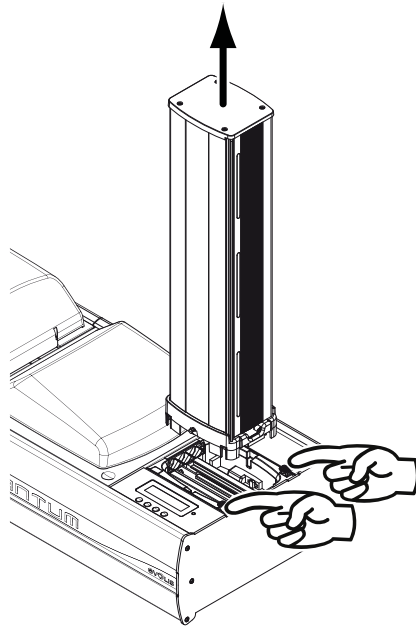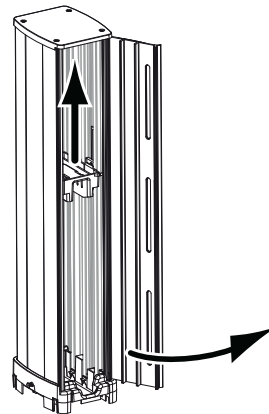
➤ Removing printed cards

Once the print and/or encoding cycle is complete, cards are delivered into the output stack found on the left of the device. This has a capacity of 500 x 0.76 mm (30 mil) cards.

❶ Remove the card output stack by pressing both release buttons

❷ Open the card output stack door, and raise the weight.

❸ Remove the cards, then lower the weight back down and close the card output stack.

❹ Put the output stack back into the printer (door facing outwards), clicking it into position.

❶   ❷   ❸   ❹
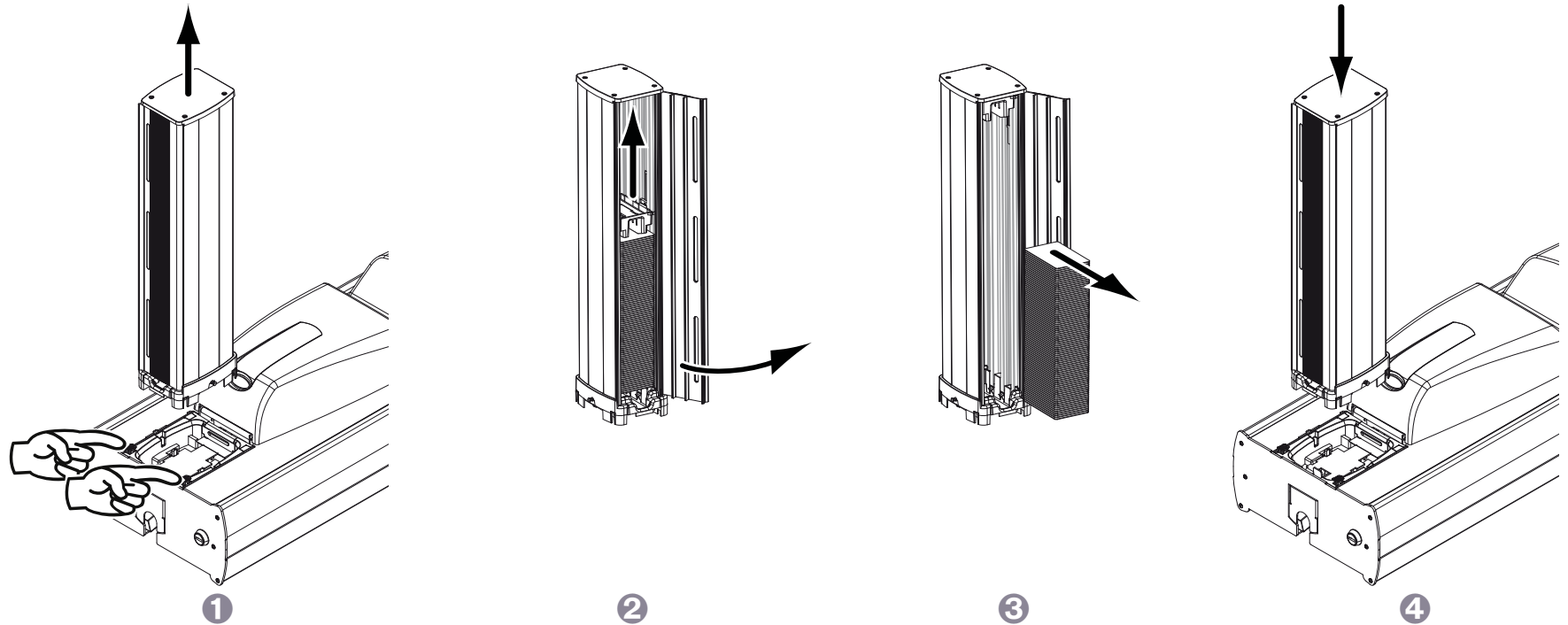
It is possible to eject a printed card into the reject hopper rather than the output stack.
To cause a card to be ejected into the reject hopper, simultaneously press both outside buttons on the control panel.
The following message appears: 'Next card ejected into reject hopper'. You then have one minute to start your print run.

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➤ Adjusting card thickness

The printer is equipped with a manual card thickness adjustment mechanism found at the base of the card feeder.
The printer accepts cards between 0.50 mm and 1 mm (20 to 40 mil) thick.
The factory setting handles cards between 0.76 mm and 1 mm thick.

To use cards 0.50 mm thick:

❶ Remove the card feeder from the printer as shown
❷ Remove the gauge from its housing and turn it over
❸ Replace the gauge in the housing
❹ **Put the feeder back into the printer (door facing outwards), clicking it into position.**

❶   ❷   ❸   ❹
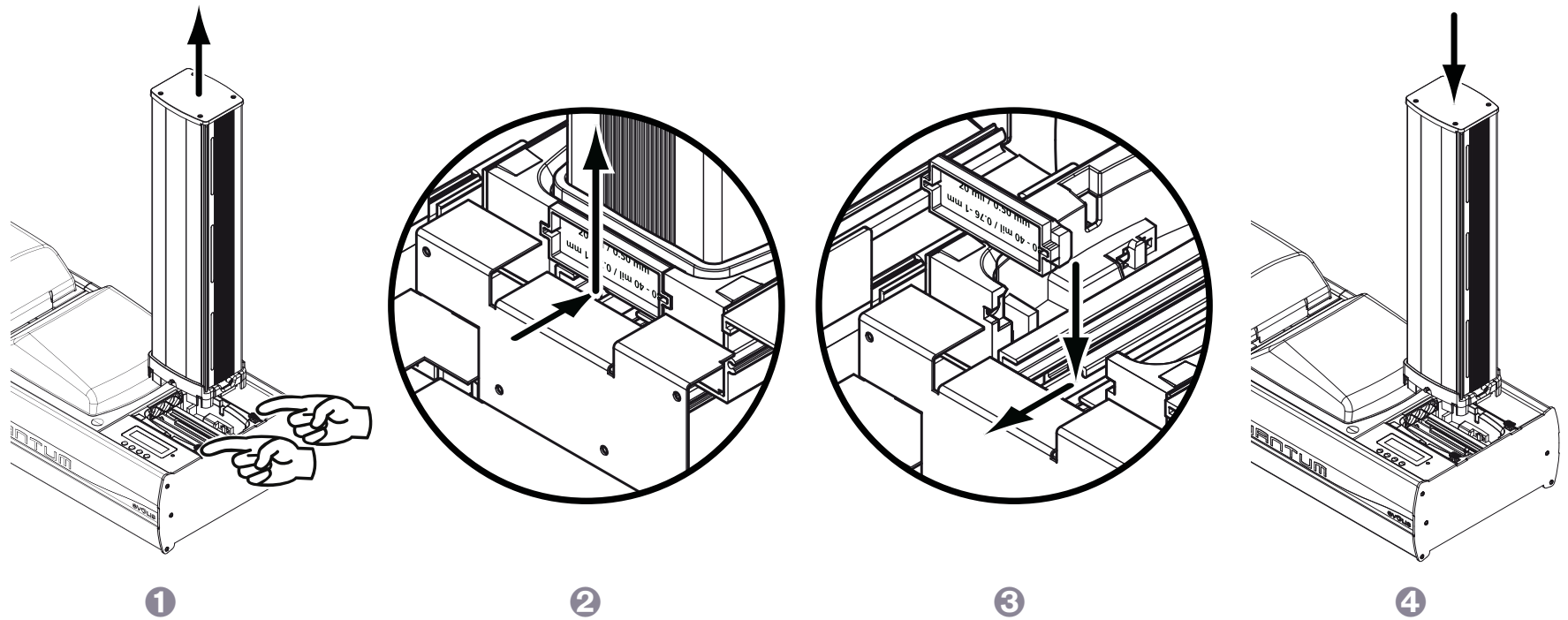
➤ Reject hopper management

The printer is equipped with a reject hopper with a capacity of 20 cards.
When the reject hopper is full, the message _REJECT HOPPER FULL_ is displayed on the control panel.

Emptying the reject hopper:

❶ Open the reject hopper by raising the flap.
❷ Remove the cards found, and close the reject hopper flap again.
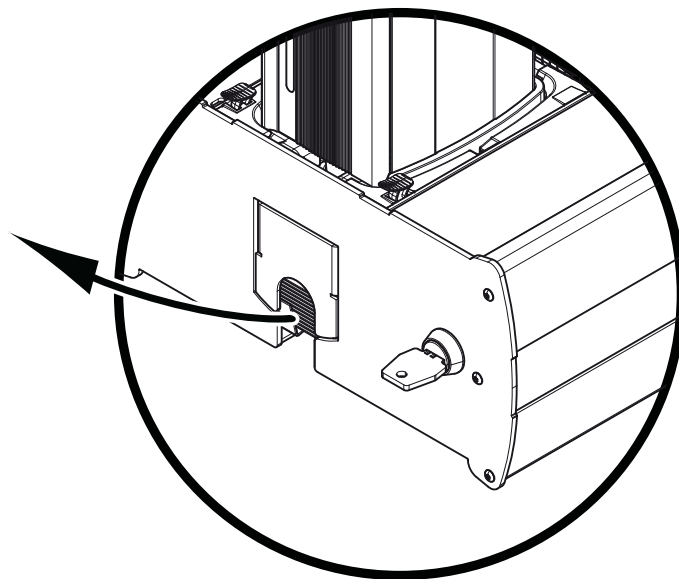
Evolis advises you to empty the reject hopper regularly, such as whenever the ribbon is changed or during routine maintenance.

1-4 Encoding module

1-4a GENERAL REMARKS

The QUANTUM printer is equipped with a multi-function, detachable and reversible encoding module.

Entirely flexible, this module can be used to encode any type of card, e.g. magnetic strip, contact and contactless smartcards.

Completely independent, it handles all the stages in an encoding run, at the same time as the printing jobs handled by the other module.

This encoding module is reversible, which means the user can turn the whole module round at once.

This unique feature means that cards can be encoded and printed in a single pass, without turning them over. The total card customisation time is therefore considerably reduced.

The location of the encoding module is shown by the label stuck on it.

Position A = factory configuration = smartcard contact station in upper position and magnetic strip encoder in lower position.

Position A = magnetic strip encoder in upper position and smartcard contact station in lower position.

Lastly, the encoding module has a dedicated motherboard fitted with a number of connectors enabling contact and contactless smartcard encoders to be mounted.

An attachment support found on the back of the QUANTUM can be used to fit such encoders inside the device.
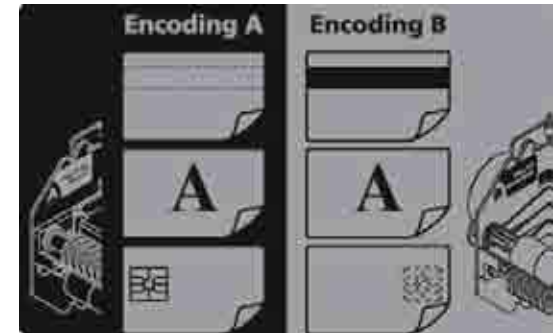
Before attempting any work on the encoding module, it is essential to turn the machine off and unplug the power cable.

For further details about the encoding module and its features, please refer to the KU15 manual available from your Evolis dealer.

1-4b FUNCTIONAL CHARACTERISTICS AND AVAILABLE OPTIONS

The encoding unit comprises:

● a fixed electronic component, fitted under the mechanical component

● a motorised unit including connection sockets, a magnetic strip read-write head, a smartcard contact station along with a dedicated area for contactless card encoders, with or without detachable antennae.

In its basic configuration, the module comprises:

● An encoding unit turning mechanism

● A 3-track HiCo/LoCo ISO 7811 magnetic encoding unit

● A ISO 7816-2 smartcard contact station

● An antennae support attachment

● 2 x internal USB ports for connecting a contact smartcard encoder and a contactless smartcard encoder

● 2 x serial RS232 ports (including one also supporting TTL) for connecting a contact smartcard encoder and a contactless smartcard encoder

● Internal power supply sockets enabling the encoders to be supplied with power directly

● 2 x DB9 female connectors mounted on the external connection panel for direct connection of encoders or smartcard station to the computer

● One linking connector between the motherboard and the reversible encoding unit

This module may on request be fitted with:

● JIS2 (Japan) magnetic encoding unit in place of the ISO encoder

● Contact and/or contactless microchip smartcard encoder (list of available encoders on request)
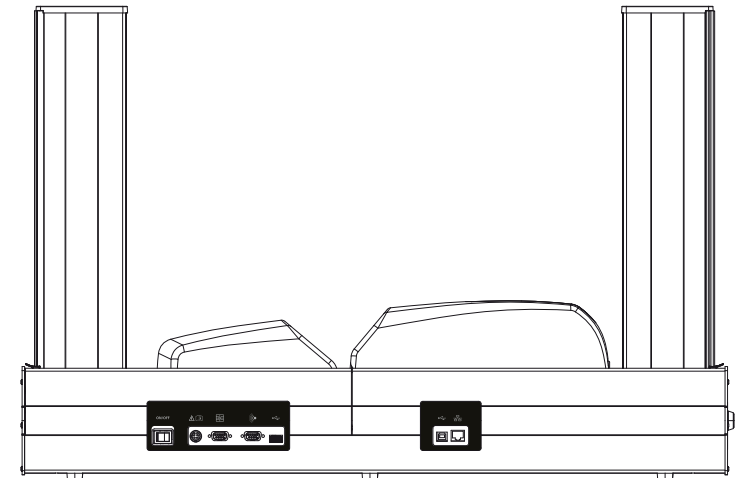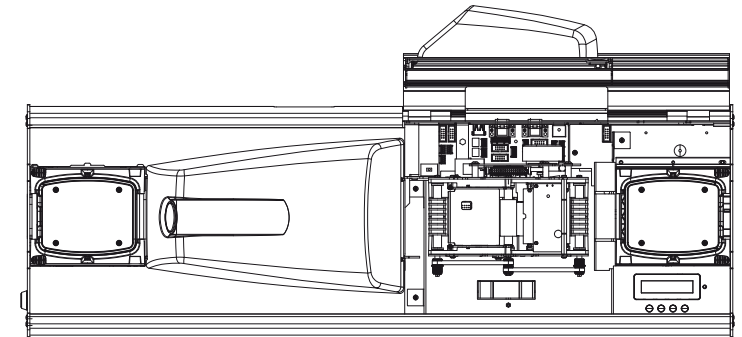
Options installed on site:

To offer maximum flexibility, the encoding module, while having an extensive range of factory settings, can be reconfigured in a few minutes by the user.
By means of extension kits or simply an appropriate connection, it is now very straightforward to carry out your own integration.
While observing security rules and making sure of the quality of assembly and electrical connections, any user can consequently adapt the QUANTUM to customisation work on a case-by-case basis and so, for example, convert a Mifare encoder into a device used to handle HID Proximity cards.

Such adjustments can only be carried out by well-informed users. Ensure that instructions and advice relating to the assembly and disassembly of an encoder are strictly observed to adhere to user safety guidelines, and protect the integrity of the Quantum printer.

1-4c TURNING THE ENCODING MODULE

Turning the encoding module should only be done after turning the machine off and unplugging the mains power cable.

❶ Open the encoding module cover.

❷ With one hand, press the button to release the encoding module and with the other, lift it up vertically.

❸ Turn the encoding module around (180°)

❹ Put it back in the machine.

❺ The module should click into place.

❻ Close the cover again.

❼ Turn the printer on using the ON/OFF switch.

1-4d REPLACING THE ENCODING MODULE

Despite the attention paid to the manufacture and quality of our products, the need to replace the encoding module may arise over the lifetime of the machine.

The module can be replaced by the user 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 encoding module.

The dealer will supply a new encoding module if need be.

Under these circumstances, the following procedure will need to be scrupulously carried out, in order to keep very high quality encoding, copying the properties and settings for the replacement module in the printer.

To exchange the encoding module, please proceed as follows:

> *Replacing the encoding module should only be done after turning the machine off and unplugging the mains power cable.*

❶ Open the encoding module cover.

❷ Remove the encoding module found inside the machine.

❸ Take the new encoding module, and note the code shown on the label stuck on it (bottom right of the front side when the module is in position A). You will be asked for this code subsequently.

❹ Fit the new encoding module in its housing, in position A.

❺ Close the cover.

❻ Power up the printer and check that it is properly connected to a computer on which the printer's print driver is installed.

❼ Under the print driver's Properties, click on the **"Tools"** tab.

❽ In the **"Printer dialogue"** section, enter the following command: **Pmn;x**

where x = the encoding module kit code number that you noted in Step 3.
For example, if the encoding module kit number is 89012700009321234567, the command to be entered is: Pmn;89012700009321234567

> *If the encoding module kit number is not entered correctly, machine malfunctions may occur and the warranty may be voided.*

1

1-4e MAGNETIC STRIP ENCODING

L'encodeur magnétique Evolis encode les pistes en un seul passage puis effectue une vérification des données.

Paramétrables en haute coercivité (HICO) ou en basse coercivité (LOCO) par simple clic à partir du pilote d'impression Windows, les encodeurs magnétiques Evolis sont cependant expédiés réglés par défaut en haute coercivité (HICO).

> *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 to match the configuration selected for the encoding module, in position A or in position B.

Position A = magnetic strip encoder in the lower position = cards loaded with the magnetic strip downwards.

Position B = magnetic strip encoder in the upper position = cards loaded with the magnetic strip uppermost.

Refer to section 1-3c for loading the cards.
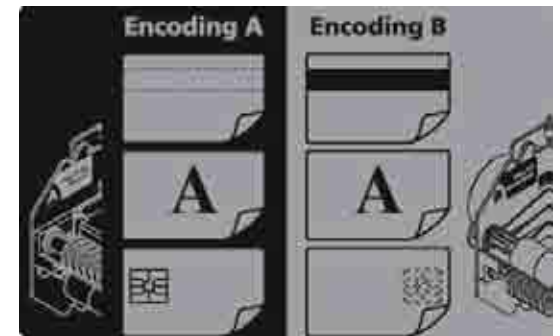
➤ Configuring the Windows print driver

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.

➤ "Magnetic Encoder" dialogue box

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 the "Maintenance" section of this manual for further information).

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 (please see the "Maintenance" section of this manual for the procedure to follow).

➤ **SO 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

1-4f CONTACT SMARTCARD ENCODING

The smartcard contact station supplied on your Evolis machine can be used to program chips to ISO 7816-2 standards.
To make contact with the station, the smartcard is positioned underneath it and is pushed mechanically towards it.
The programming sequence for a smartcard is always carried out before the printing.

> *Use only smartcards compliant with the ISO 7816-2 standard.*
> *Never print over the chip.*

The Evolis product catalogue also has printers equipped with a chip contact station and a built-in encoder.
Depending on the model, these encoders connect to the PC via an RS-232 interface (DB-9 socket) or a USB interface.

➤ Card positioning

Contact smartcards must be placed in the card feeder to match the configuration selected for the encoding module, in position A or in position B.
Position A = smartcard contact station in upper position = cards loaded with chip uppermost
Position B = smartcard contact station in lower position = cards loaded with chip downwards
Refer to section 1-3c for loading the cards.
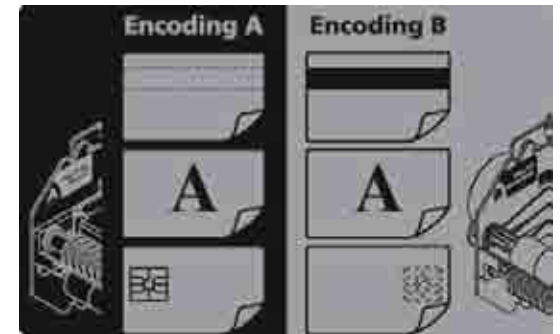
➤ Command sequence for positioning the smartcard

A sequence of commands must be sent via the printer's interface to insert a card into the printer then position it under the station and establish contact.

The command sequence is as follows:

Sending the SIS sequence:

● A card is moved from the feeder to the contact station, and stops underneath it.

● The card is pushed upwards to make contact with the station.

● The printer connects the contact station to the DB9 connector.

● The chip is programmed via the computer's serial interface and the external coupler.

> *Refer to the Evolis printer Programming Guide for further details on programming smartcards.*
> *Refer to the KU15 'Quantum Encoding Module' manual for further details on connecting the smartcard encoder.*

1

1-4g CONTACTLESS SMARTCARD ENCODING

B   A

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

Quantum is fitted as standard with an encoder attachment **(A)** and antenna attachment (B), see the diagram opposite.

Integration of such a module must be carried out by specialist.

The Evolis product catalogue also 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.
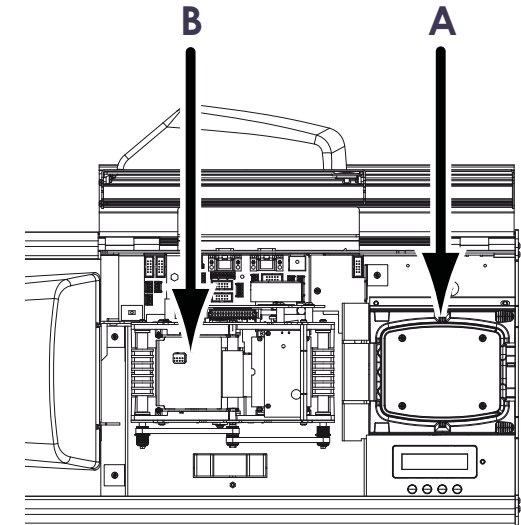
➤ **Location of the antenna (or the encoder including an antenna)**

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.

1

➤ Command sequence for positioning the contactless smartcard

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:

● A card is moved from the feeder towards the antenna and is positioned nearby.

● The chip is programmed via the computer's serial (or USB) interface connecting the built-in encoder and the computer.

> **NOTE**
> *Refer to the Evolis printer Programming Guide for further details on programming contactless smartcards.*
> *Refer to the KU15 'Quantum Encoding Module' manual for further details on connecting the smartcard encoder.*

2 Printing

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

2-1 Installing the print driver

Configuration of the printer and its driver is a very important step and requires very special care. In fact, inappropriate settings are a factor having a negative impact on the quality of card customisation. It is therefore 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.

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

To install a print driver, insert the CD into your computer and select the print driver menu. A program will guide you through the entire installation process.

> *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.*

2

2-2 Managing the print settings

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

● Ribbon type

● 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:

● From the **Start** button found bottom-left on the Windows task bar, select **Printers and faxes**.

● Select your printer and double click.

● From the **Printer** menu, select **Properties**.

● The first properties configuration screen for the equipment then appears.

● The main tabs used to define the settings are **"Graphics"** and **"Tools"**.

2
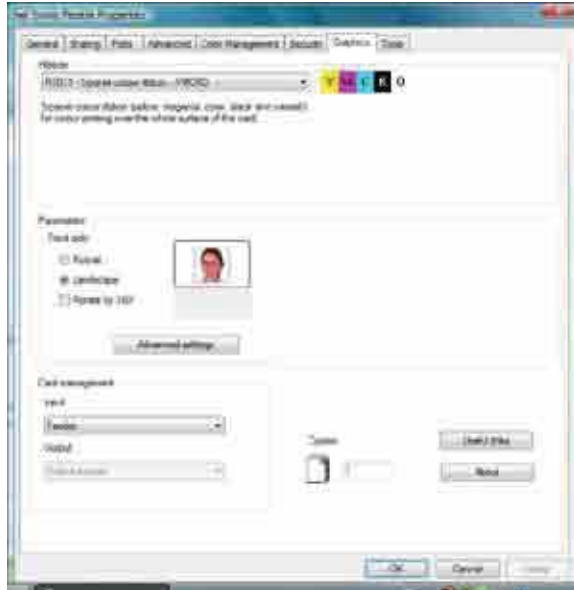
➤ **"Graphics" tab**

● The ribbon type
● Front/back printing
● The card loading method
● Card orientation, portrait or landscape
● Number of copies

➤ **"Tools" tab**

● Setting and testing magnetic encoding
options
● Test card printing
● Cleaning the printer
● Dialogue interface with the printer.
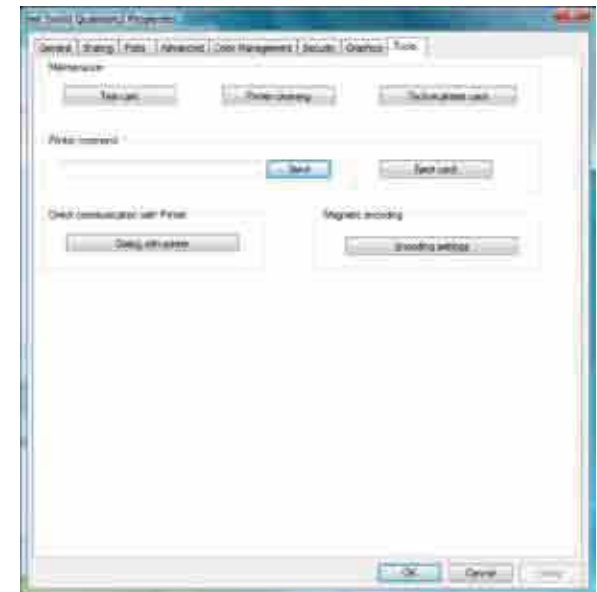
We recommend that you print a test card when first using the printer, and keep it. This card records information such as the model and serial number which you could be asked to provide if you call technical support.

2-3 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:

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

Your Word window should now look like this:

You are ready to customise your card by adding the various items that go to make up a card:

● Logo and Illustration
● Identification photo
● Fixed and variable text
● Bar code, etc.

Once ready, click on **File** and then on **Print**.
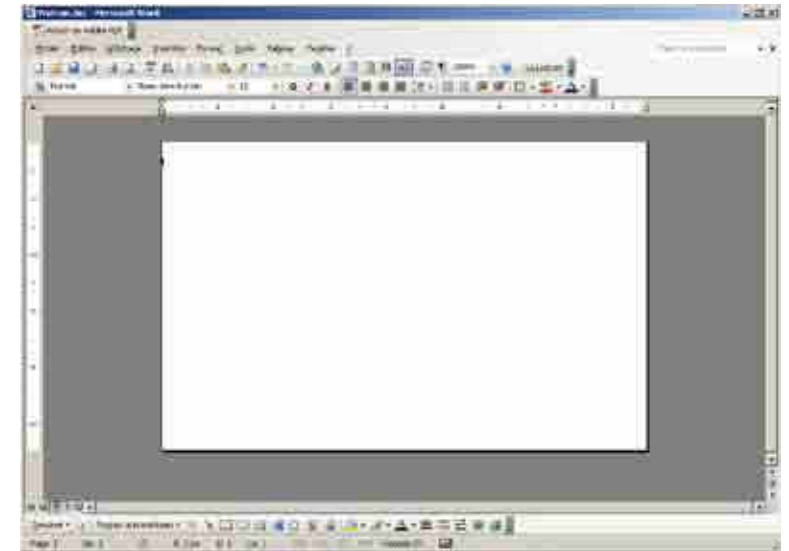
2-4 Connecting to a network (Ethernet)

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.

SOut 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

3-1 General warranty information

Your Evolis printer has been designed to give you long service and needs only minimal regular maintenance. Please comply with the instructions given below to ensure that it runs satisfactorily.

Keep your warranty cover!

The manufacturer's warranty is subject to strict adherence to 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 an extremely sensitive printer component. Its useful life can be seriously curtailed 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 therefore be taken with cleaning. Users must comply with the servicing and maintenance instructions as fully described in this section.

In addition, the use of Evolis brand ribbons (Evolis Genuine Ribbons) also ensures that your equipment operates properly. Use of ribbons not approved by Evolis may as a consequence 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 within this user guide or by visiting the website at **www.evolis.com**.

3-2 Routine printer cleaning

3

⚠️ *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

⚠️ *Your printer is fitted with a cleaning warning system which is triggered after a certain number of cards have been inserted, depending on the model of printer that you have (see table below).*
You should proceed with the routine cleaning of your printer as soon as 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 will be automatically voided owing to a failure to comply with your 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	400 cards	100 cards	500 cards
Tattoo RW	400 cards	100 cards	500 cards
Pebble4	1000 cards	200 cards	1200 cards
Dualys3	1000 cards	200 cards	1200 cards
Securion	800 cards	200 cards	1000 cards
Quantum	900 cards	700 cards	1600 cards

So for example for a Tattoo2 printer, if you insert 50 cards after the cleaning warning is triggered, you have only 50 more cards before cleaning the printer and keeping your warranty valid.

3

Follow the procedure below:

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

❶ Remove the card feeder from the printer as shown.
❷ Check that the gauge is set to 0.76mm to 1mm (30 to 40 mil).
❸ Remove any cards found in the feeder.
❹ Insert the cleaning card into the feeder.

❶   ❷   ❸   ❹

3
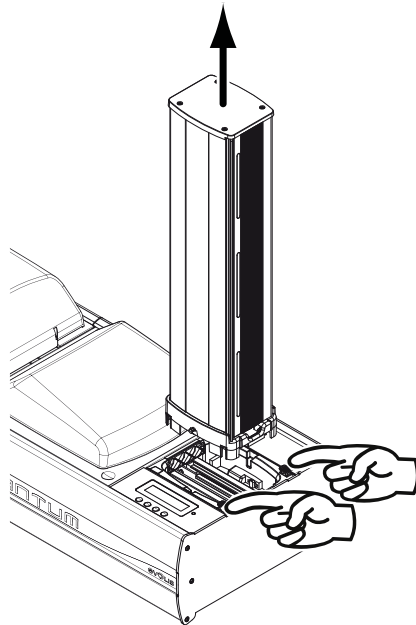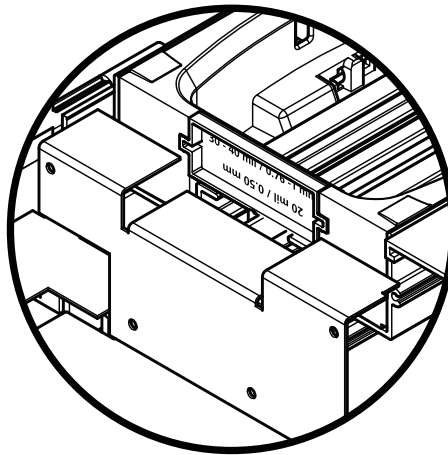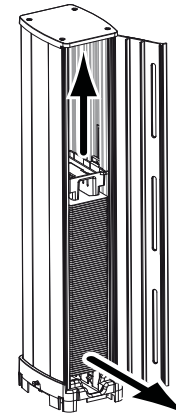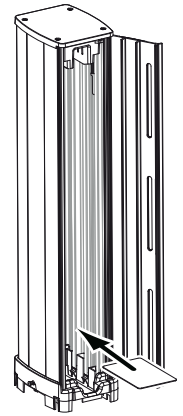
❺ Open the printing module cover.

❻ Remove any ribbon there may be

❼ Close the cover.

❽ Go to the LCD display unit menu by pressing any key, select the **'Cleaning'** menu and confirm with **'OK'**.
Select **'Start cleaning'** and confirm with **'OK'**.

❾ Put the feeder back into the printer. Cleaning starts, and the display shows **'Cleaning'**.

❿ The used cleaning card is ejected into the reject hopper.
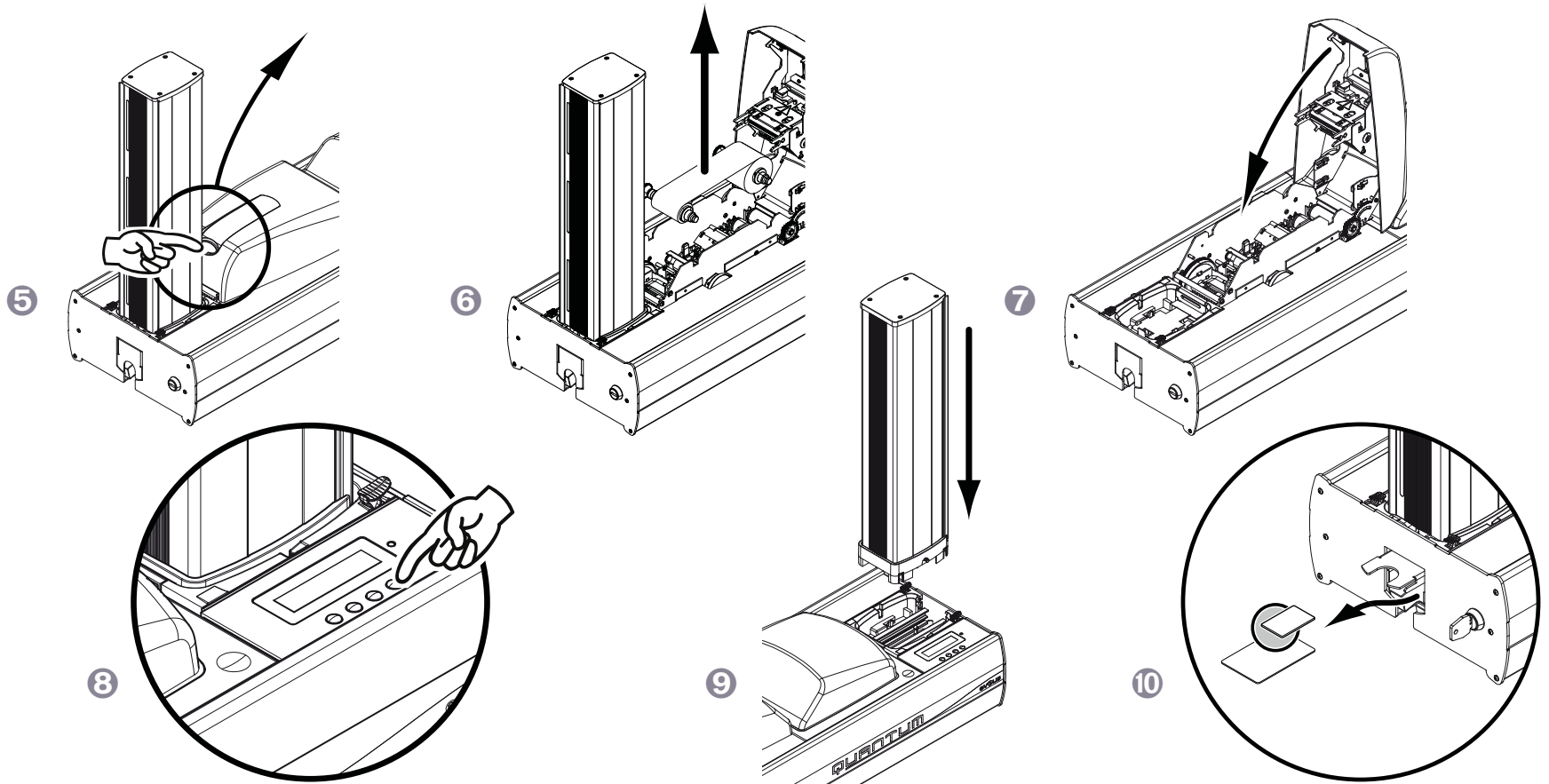
Wait for 2 minutes after cleaning before using your printer.

3-3 Servicing the cleaning roller(s)

In addition to routine printer cleaning, we suggest that you clean the cleaning roller(s) using the special wipes available from Evolis. 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**

Follow the procedure below:

❶ Open the cover and remove any ribbon.
❷ Remove the cleaning rollers.
❸ Rub the wipe gently over the surface of the roller.
❹ When it has dried, put the cleaning roller back in the printer.

❶   ❷   ❸   ❹
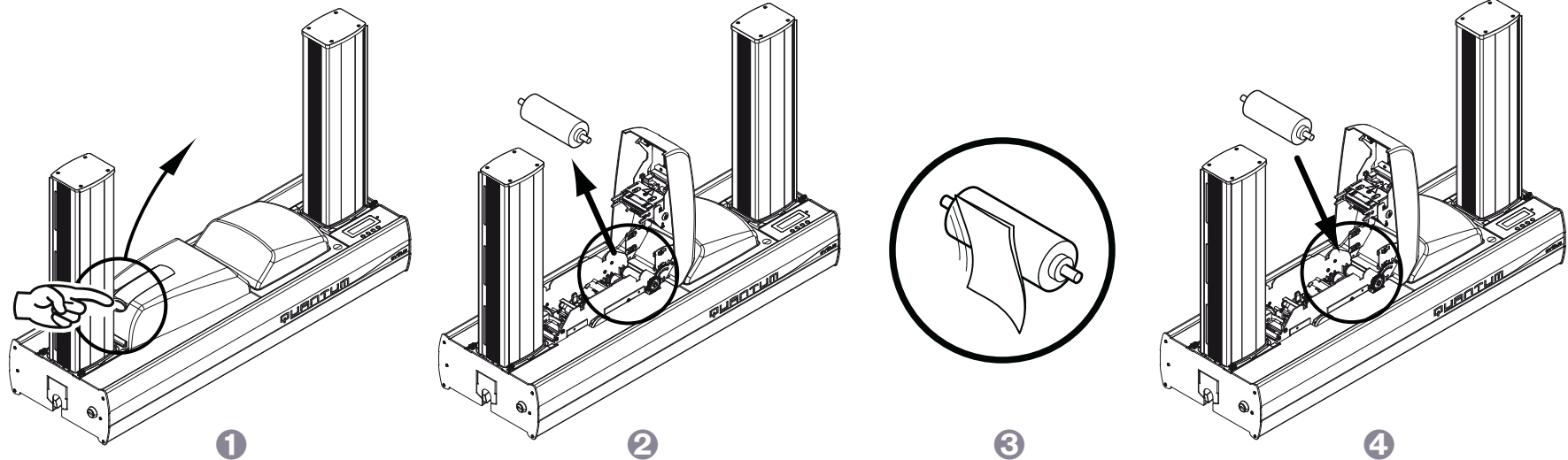
> ***Wait for 2 minutes after cleaning before using your printer.***

3

3-4 Servicing the print head

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.

3

Follow the procedure below:

❶ Take an Evolis cotton bud and press the middle of the tube until the end of the cotton bud is impregnated with alcohol.
❷ Open the cover and find the print head.
❸ Gently rub the cotton bud from left to right along the print head for a few seconds.
❹ Close the cover.
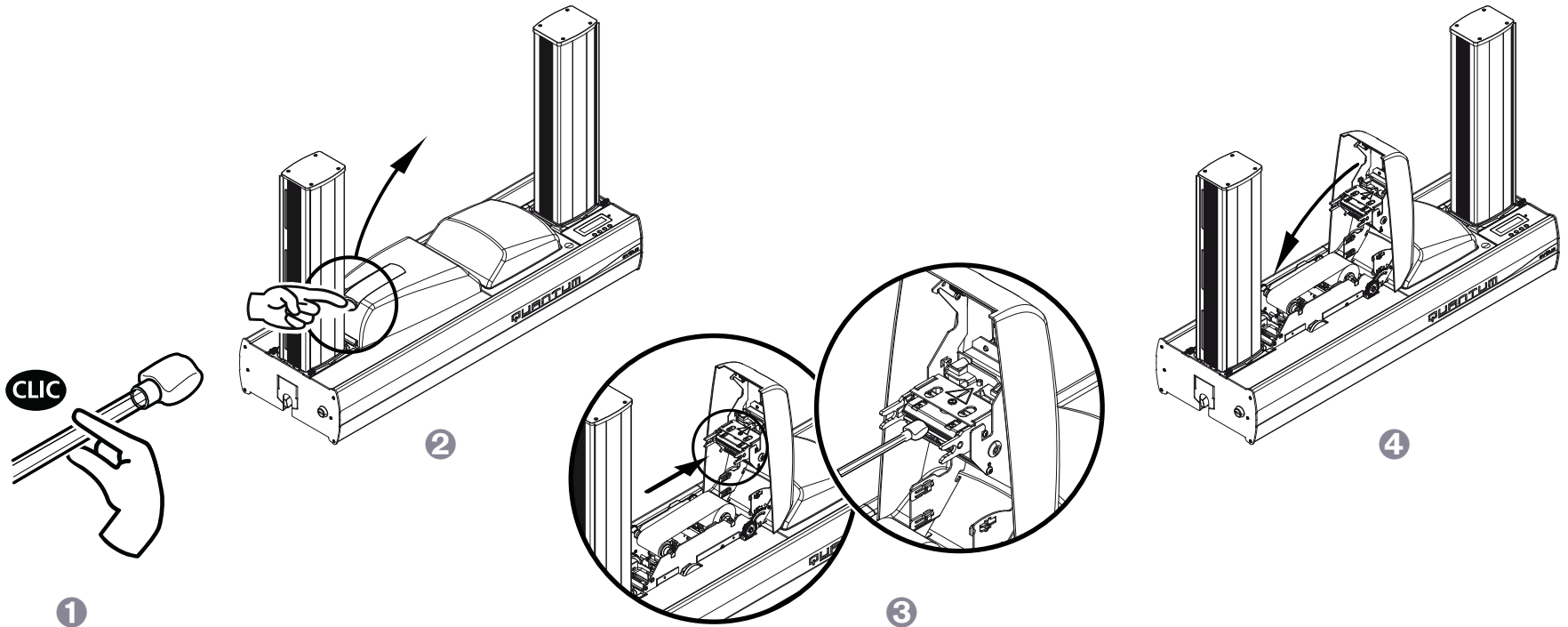
Wait for 2 minutes after cleaning before using your printer.

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.

4-1 Introduction to the printer menu

The Quantum printer has an LCD unit combined with an LED (light-emitting diode) enabling the operator to see the operating condition of the equipment and make adjustments to the most common settings.

The control panel comprises 3 units:

● One LCD unit with 2 lines, each of 16 characters, back-lit for better readability.

● Four navigation buttons used to move around the menu, and confirm or cancel selections

● 1 Dual-colour LED: green for running normally, red in the event of a warning requiring the operator's attention

When idle, after a short phase when the printer is turned on, the control panel shows the following status:

Line 1 = printing module status = READY
Line 2 = encoding module status = READY A or READY B (the letter A or B corresponding to the encoding module position)

When running, the information shown varies:

● Upper line - Printing module status

● Lower line - Encoding module status

● Steady green LED - Pending

● Flashing green LED - Data transfer with the PC or printing in progress

● Steady or flashing red LED, displaying a warning or error message
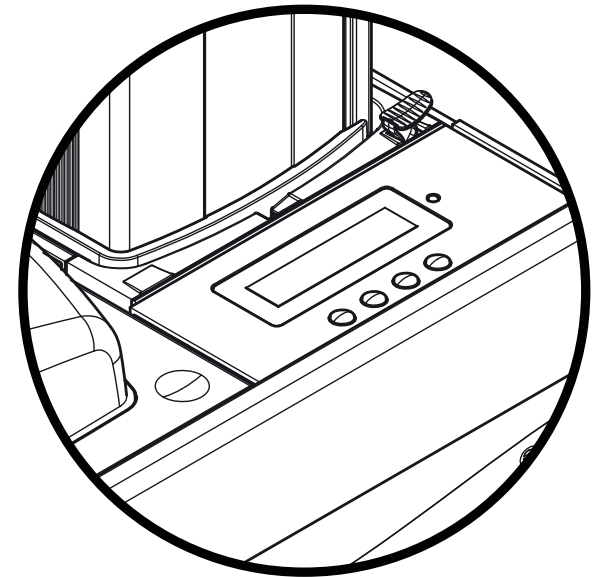
4

In the event of operator intervention activating the menu, the LCD unit is converted into a dialogue and configuration support interface. The lower line of the display unit is used to show the function of the control panel buttons at any time within a context-based menu.

Generally speaking, unless otherwise indicated, navigation works as follows:

choice line

Navigation line

Esc (Escape)
Interrupts the operation and returns to the previous level

OK
Confirms setting and returns to previous level

← Back
Scrolls back

→ Forward
Scrolls forward
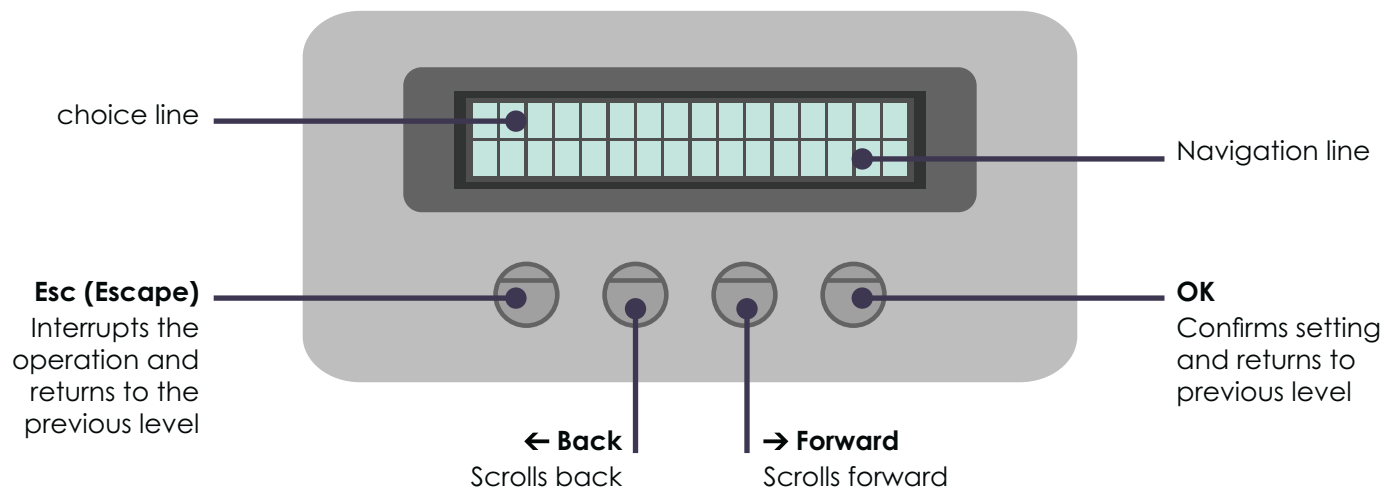
4

4-2 Warnings and diagnosis

Although the Evolis printer was designed to work independently, keeping user involvement to a minimum, it may nonetheless prove useful to gain some familiarity with the main warnings.

LCD Display	Description	Action requise	
Initializing...	Start-up in progress	No	
Ready	The printer is ready to receive data.	No	
Printer Cover Open	The printer cover is open	Yes	Close the cover The printer restarts
Feeder Empty	The card input feeder is empty.	Yes	Put cards in the card feeder.
Stacker Full	The card output stack is full.	Yes	Empty the output stack.
No Feeder	The card feeder is missing or incorrectly installed.	Yes	Check the card feeder installation.
No Stacker	The output stack is missing or incorrectly installed.	Yes	Check the output stack installation.
Feeder Almost Empty	The input feeder is approximately 90% empty	No	
Stacker Almost Full	The output stack is approximately 90% full.	No	
No encoding module	The encoding module is missing or incorrectly fitted.	Yes	Check the encoding module installation.
Ribbon error	No ribbon in the printer. End of ribbon. The ribbon is not correctly fitted. The ribbon is torn	Yes	Check the condition of the ribbon in the printer. If you have a print job in progress, this restarts with a new card.
Need Cleaning	The printer must be cleaned.	Yes	See section 3 - Maintenance
Cleaning Compulsory	It is imperative that the printer is cleaned.	Yes	See section 3 - Maintenance
Reject Tray Full	The hopper holding rejected cards is full.	Yes	Empty the reject hopper. See section 3.
Printhead Error	The printer has detected a problem related to the print head. Print jobs are interrupted.	Yes	Contact your Evolis dealer for assistance.

4

LCD Display	Description	Action requise
Mechanical error	The printer has detected a problem carrying the card through the printing module or turnover area.	**Yes** Open the device cover and remove the ribbon. Gently remove the jammed card being careful not to damage the printer and its components. Replace the ribbon and close the cover. The printer restarts. If the problem persists, contact your Evolis dealer for assistance.
Magnetic error	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.	**Yes** Refer to section 1-4 of this manual for further information. Press the control button for one second. The printer will restart the magnetic encoding cycle with a new card. If the problem persists, call your Evolis dealer for assistance.
Cooling…	The printing module is cooling.	*No*
Printing…	Printing in progress.	*No*
Encoding…	Encoding in progress	*No*
Downloading...	Loading Firmware in progress. To enable this operation to run successfully, do not unplug the printer or PC connection.	*No*
Restarting…	The printer is restarting following the load of the firmware.	*No*
Waiting…	Waiting for a job to finish.	*No*
Cleaning…	Cleaning procedure in progress.	*No*
Processing…	The printer is receiving data.	*No*

4-3 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.

4-3a 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 until all the printing jobs have finished.

2 Make sure that a ribbon is installed and that there is a blank card in the loader.

3 Enter the display menu by pressing one of the keys.

4 Press the key to scroll through the menu selections until the **SERVICE** selection is displayed, then confirm with **OK**.

5 Press the key to scroll through the menu until the **TECH CARDS** menu is displayed , then confirm with **OK**.

6 The Self-test selection will be displayed. Confirm with **OK** to start printing the tech card.

7 The tech card will be printed in a few seconds.

8 It will provide you with information such as the printer model and serial number.

9 The printed card will be ejected into the reject box.

➤ Information about the test card

A test card:

● Confirms the print quality in colour or black and white

● Confirms proper ribbon synchronisation

● Displays the printer model

● Displays the printer's serial number

4

4-3b IDENTIFYING INSTALLED SOFTWARE VERSIONS (under Windows XP)

As previously shown, you can easily identify the version of the software embedded in your printer (firmware number) by means of the test card.

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

❶ From the **Start** button found bottom-left on the Windows task bar, select **Printers and faxes**.

❷ Select your printer and double click.

❸ From the **Printer** menu, select **Properties**.

❹ Go to the **Graphics** tab and then click **About**.

4-4 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.***

4-4a PRINTING PROBLEMS

➤ Nothing prints

❶ Check the print driver

Check that there is a print driver for your printer in the Windows configuration.
Check that the printer is selected as the default printer.

❷ Check the printer's power supply

Check that the power cable is correctly connected to the printer and to a working electrical socket.
Check that the printer is on and that the control button is lit.

Make sure you are using the power supply unit supplied with the printer.

❸ Check the USB cable

Check that the USB cable is connecting the printer to your computer.

❹ Check the ribbon

Check that the ribbon is fitted correctly and that the cover is closed.

❺ Print a test card

Check that there are cards in the card feeder.
Check that no cards are jammed in the printer.

❻ Print a test card

See elsewhere in this section for the procedure to be followed.

➤ Blank card ejected

❶ Check the ribbon

Check that the ribbon is not finished or damaged. Replace it or re-install it if necessary.

❷ 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 **www.evolis.com**.

4

➤ Poor print quality

Small blemishes on the card
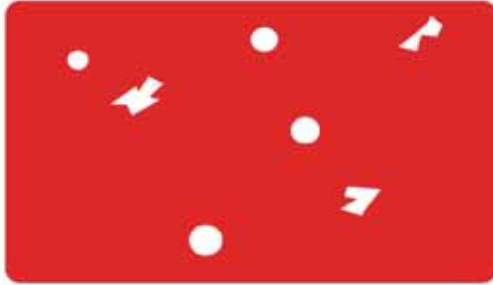
- ● **The card surface may be dirty.**
  Check that your cards are perfectly clean.
  Use new cards.

- ● **Cleaning rollers or print head clogged.**
  Clean the cleaning rollers and print head.

Horizontal white lines

- ● **The ribbon is not correctly fitted.**
  Check that the ribbon is correctly positioned in the printer.
  Check that there are no wrinkles on the ribbon surface.

- ● **Print head dirty or damaged.**
  Clean or replace the print head.

Blurred image
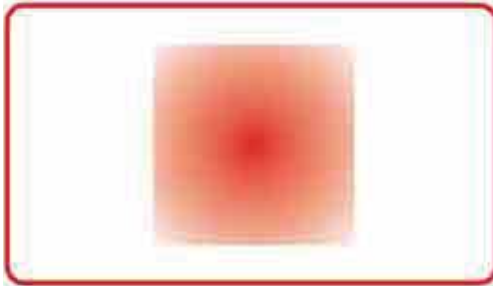
- ● **The ribbon is not correctly fitted.**
  Check that the ribbon is correctly positioned in the printer.

- ● **Poor ribbon synchronisation.**
  Open and close the printer cover to synchronise the ribbon.

- ● **Dirty printer or cleaning rollers.**

- ● **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.*

4

➤ **Partial or incorrect printing**

❶ Check the print settings
Check that no area of the card design to be printed is outside the print margins.
Check the document orientation (portrait or landscape) in the print driver configuration.

❷ Check the interface cable
If irregular characters are printed, check that you are in fact using the USB cable supplied with your printer.
Check the connection between the computer and the printer.
Try using another cable of the same type.

❸ Check that the printer is clean
Clean the printer, especially the cleaning rollers.
See the maintenance section.

❹ Check that the cards are clean
Store your cards protected from dust.

❺ Check the ribbon
Check that the ribbon is fitted correctly.
Check that the ribbon spools freely.

❻ Check the print head
Should horizontal straight lines appear on printed cards, it is likely that the print head is dirty or damaged.
See the section on maintenance and troubleshooting. If the problem persists, contact an Evolis dealer or visit the website at **www.evolis.com**.

4

4-4b FREEING JAMMED CARDS

Control panel displays – **MECHANICAL ERROR** – Print jobs are interrupted.

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

Remove the card as follows:

❶ Open the printer cover and remove the ribbon.

❷ Press the control button on the control panel 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.

❸ Replace the ribbon, then close the printer cover.

To prevent card jams:

❶ Check that the card thickness gauge is correctly adjusted.

❷ Check that the thickness of the cards used matches the specifications set out in Appendix A "Technical specifications" in this manual.

❸ Check that the cards are flat. Keep them in a horizontal position.

❹ Check that the cards are not stuck together. Shuffle the cards before loading them.

4

4-4c REPLACING THE CLEANING ROLLERS

Should your cleaning rollers start to work less effectively despite regular maintenance, it is advisable to replace them in order to avoid dirt accumulating on the print head, resulting in permanent damage (See section 3 – Maintenance).
The cleaning roller is available as a consumable from your Evolis dealer.

Roller replacement procedure:

❶ Open the printer cover.

❷ Remove the ribbon if any then locate the cleaning roller and release it from its housing.

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

❹ Replace the ribbon and then close the printer cover.

❶   ❷   ❸   ❹
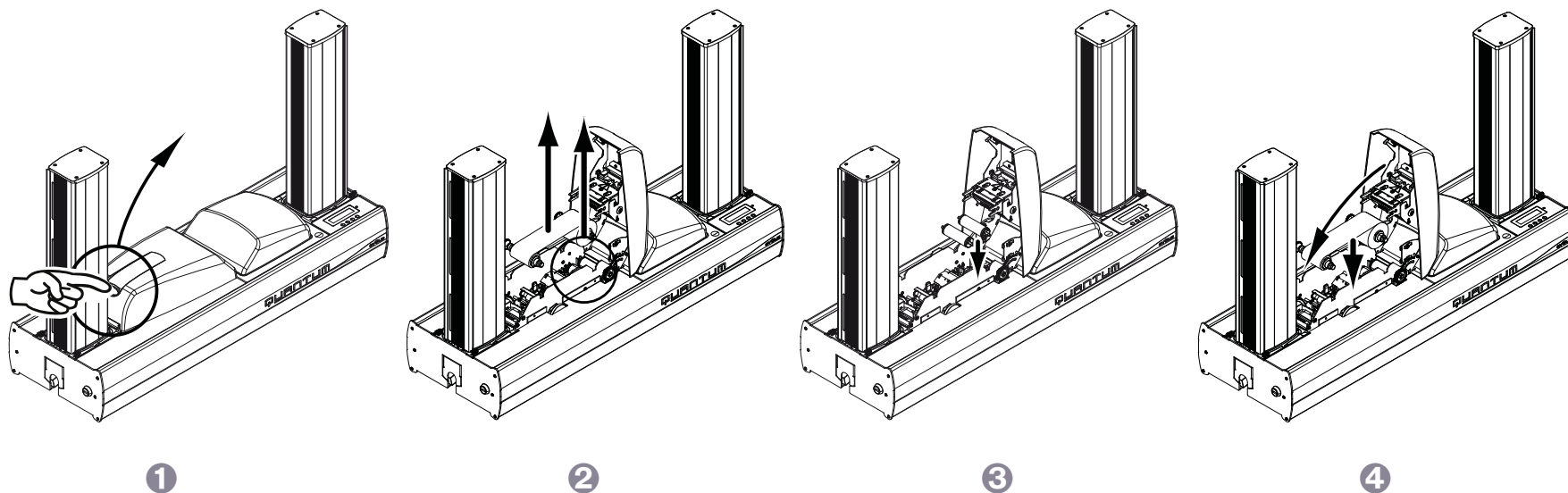
4-4d REPLACING THE PRINT HEAD

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.

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

● **You use only Evolis consumables (ribbons and maintenance products).**
● **You have followed the cleaning and servicing cycles scrupulously.**
● **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.**

Please refer to the warranty conditions for further information.

4

To exchange the print head, please proceed as follows:

⚠️ **Before changing the print head, please unplug the power cable.**

➤ **Step 1 - Removing the defective print head**

❶ Open the printer cover.

❷ Locate the print head.

❸ Press on the metal part found at the bottom as shown on the diagram, in order to free the lugs from the holding fork, then remove the lugs from their slots.

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

❶   ❷   ❸   ❹
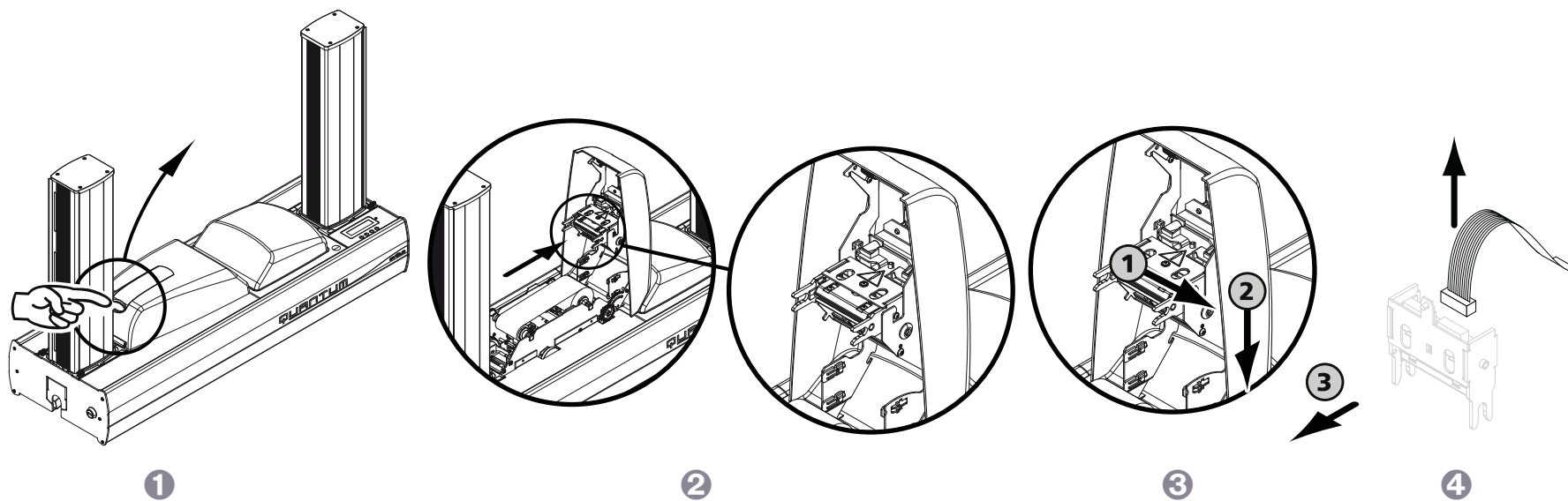
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➤ **Step 2 - Installing the new print head**

❶ Note the code shown on the white label stuck on the print head. You will be asked for this code in Step 3.

❷ Pick up the new print head and turn it towards you, with the white connector visible

❸ Connect the cable into its socket, making sure it is the right way round. Do not use any force, as this part is relatively fragile.

❹ Turn the head so that the logo is visible (be careful), the connector can no longer be seen.

❺ Insert the head vertically between the two guides so that the fork lugs are held within the slot.

❻ The head is back in position.

❼ Close the cover. The print head is now fitted.

?
324-19-00225-B

❶   ❷   ❸   ❹

❺   ❻   ❼
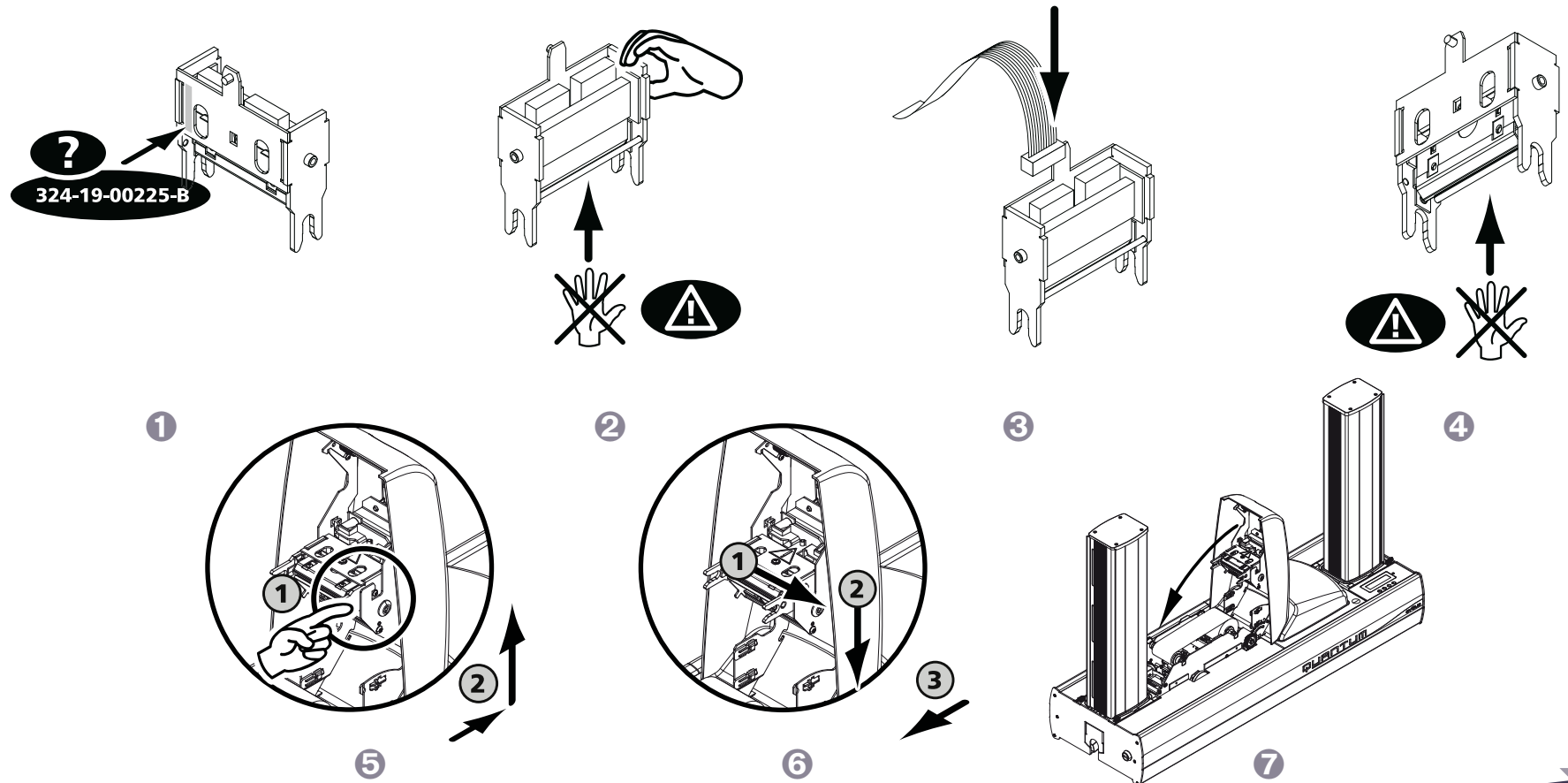
4

➤ **Step 3 - Configuring the new print head**

❶ Power up the printer and check that it is properly connected to a computer on which the printer's print driver is installed.

❷ Under the print driver's Properties, click on the **"Tools"** tab.

❸ 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 your 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.*
Refer to section 3 – Maintenance to carry out cleaning.

Also service the cleaning roller and then replace the cards and ribbon.
Once cleaning has been carried out, your printer is once again ready to customise your cards.

4-4e UPDATING THE FIRMWARE (UNDER WINDOWS)

Updating the firmware is a simple operation but one which, if not properly completed, can result in your printer breaking down.

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. In general, such updates are only required in the event of problem or malfunction that has been clearly identified by your Evolis dealer.

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

1 Select your printer model, then click on the **Print drivers and Firmware** link

2 Then click on the file for the corresponding Firmware.

3 Accept the download then save the file in a directory on your hard drive. The firmware is stored compressed as a zip file, which you will need to extract.

4 Then 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

7 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.

The update is complete, and your equipment is ready to customise your cards.

> *Never interrupt the transfer between computer and printer during the download phase (powering off the printer or computer, unplugging a cable). This would result in a complete inability to restart the printer. Should such an incident occur, please contact your Evolis dealer, who will replace your printer's processing board.*

4-4f 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 www.evolis.com :

❶ Select your printer model, then click on the **Print drivers and Firmware** link.

❷ Then click on the file for the corresponding print driver.

❸ Accept the download then save the file in a directory on your hard drive. The firmware is stored compressed as a zip file, which you will need to extract.

❹ Then 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.*

4

4-5 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.

4-5a EVOLIS PARTNER NETWORK

For any unresolved technical problem, contact an Evolis dealer. If you do not know any Evolis dealers, visit the **www.evolis.com** website and send us your question. Evolis will pass on the contact details of your nearest Evolis dealer. When calling an Evolis dealer, you do need to be close to your computer and ready to provide the following information:

❶ Your printer model and serial number

❷ The configuration and operating system that you are using

❸ A description of the incident that has occurred

❹ A description of the steps that you have taken to resolve the problem.

In addition, to enable you to find answers to your questions 24/7, the **www.evolis.com** website includes a number of aspects related to day-to-day use of your printer.

4-5b FINDING INFORMATION ON WWW.EVOLIS.COM

If you need additional technical help, you will find a great deal of information on using and troubleshooting Evolis printers under the **Drivers and Support** section on the Evolis website at **www.evolis.com**.
This section offers downloads of the latest versions of firmware, print drivers and user manuals, videos about using and maintaining Evolis printers, and an FAQ* section giving answers to the most frequently asked questions

*FAQ : Frequently Asked Questions

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Appendix A

A1 - Technical specifications

This section presents your printer's technical printing properties.

➤ General technical features

- Colour printing module
- 300 dpi print head (11.8 dots/mm)
- Complete locking system to prevent any access to blank cards, ribbons, films and defective cards
- USB and Ethernet TCP/IP connections
- 16 MB RAM allowing two colour cards (front and back) to be stored
- Card turnover area for double-sided printing
- Detachable and interchangeable card input feeder and output stack with 500 card (0.76 mm or 30 mil) capacity
- Reversible encoding unit
- Two-line LCD control panel and status LED
- Reject hopper with a capacity of 20 cards (0.76 mm or 30 mil)
- Aluminium & black in colour

➤ Printing modes

- Colour sublimation and monochrome thermal transfer
- Advanced colour management system for top-quality photographs
- Edge-to-edge printing
- Double-sided printing
- Integrated ribbon saving for monochrome printing

➤ Encoding module

- Reversible unit for upper and lower encoding of magnetic strip cards and contact smartcards
- ISO 7811 HiCo/LoCo or JIS2 magnetic strip encoder
- ISO 7816-2 smartcard contact station
- Connection and attachment support area for user integration of any type of encoder.
- Options available:
  - Smartcard encoder - PC/SC, EMV 2000-1
  - Contactless card encoder - ISO 14443A, B, ISO 15693, Mifare, DesFire, HID iCLASS
  - Other specific encoders on request

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➤ Performance

- Colour 1 side (YMCKO), more than 150 cards/hour
- Colour 2 sides (YMCK0-K), 115 cards/hour
- Monochrome 1 side full card, more than 1,000 cards/hour
- Monochrome 2 sides full card, more than 320 cards/hour

➤ Platforms supported

- Windows™ XP, and Vista, 32 & 64 bits
- Macintosh™ OS X 10.4 and over (on request)
- Linux (on request)

➤ Software supplied

- eMedia Card Designer for designing and printing badges :
  - Compatible with Windows™ 2003, XP and Vista
  - Connects to Microsoft Excel databases

➤ Ribbon types

- 2-panel KO monochrome black ribbon – 500 cards/roll
- 5-panel YMCKO colour ribbon – 500 cards/roll
- 6-panel YMCKO-K colour ribbon – 500 cards/roll
- Half-panel YMCKO colour ribbon – 400 cards/roll
- Monochrome black ribbon – up to 3,000 cards/roll
- Monochrome ribbons – up to 1,000 cards/roll: available in , red, green, blue, white, gold and silver
- Special ribbons: hologram clear overlay – 350 cards/roll, scratch-off ink – up to 1,000 cards/roll, BlackWAX – up to 1,000 cards/roll

➤ Options

- Production pack comprising 1 detachable card feeder, 2 cleaning rollers and one cleaning kit (50 cards, 25 cotton buds, 40 wipes)
- Security pack comprising 1 print head, 1 reversible encoding module, one detachable card feeder
- 500-card additional card feeder

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➤ Warranty

For best results and to lengthen the useful life of your printer, use original Evolis Genuine Product consumables.

● Printer and print head: one-year warranty [2], limited to 500,000 cards inserted.

Card types: PVC and composite PVC cards, PET, ABS1 and special clear overlaid cards[1]

Card format: ISO CR-80 - ISO 7810 (53.98 mm x 85.60 mm - 3.375» x 2.125»)

Card thickness: From 0.5 mm (20 mil) to 1 mm (40 mil)

Card feeder capacity: 500 cards (0.76 mm-30 mil)

Output hopper capacity: 500 cards (0.76 mm-30 mil)

Dimensions:
Without card feeders: 215 mm (H) x 850 mm (L) x 300 mm (W)
With card feeders: 567 mm (H) x 850 mm (L) x 300 mm (W)

Weight: 21.2 Kg (46.7 lbs)

Connections: USD port (cable supplied). Ethernet TCP/IP port.

Power supply: Power supply unit: 100-240 V AC, 50-60 Hz, 2 A – Printer: 23 V DC, 6.26 A

Environment:
- Min/max operating temperature: 15° / 30°C (59° / 86° F)
- Humidity: 20% to 65% non-condensing
- Min/max storage temperature: -5° / +70°C (23° / 158° F)
- Storage humidity: from 20% to 70% non-condensing
- Operating ventilation: air cooled.

[1] Under specific conditions
[2] Warranty subject to strict compliance with specific usage and maintenance conditions and the use of Evolis consumables.

Appendix B

B1 - Compliance statements

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

Compliance Statements

As regards Safety and Electromagnetic Compatibility

Manufacturer name: Evolis Card Printer
Manufacturer address: 14, avenue de la Fontaine
Z.I. Angers Beaucouzé
49070 Beaucouzé, France
Equipment name: Quantum2
Year of manufacture: 2009

I, the undersigned,
Monsieur **Serge Olivier**,
hereby declare that the equipment named above, used and installed in accordance with the notice, complies with the essential requirements of Directives 2006/95/EC and 2004/108/EC by application of the following standards:

EN 60950-1 of 2001 + A11
EN62311 of 2008
EN 55022 of 2006 + A1
EN 61000-3-2 of2006
EN 61000-3-3 of 1995 + A1 + A2

Full name: Serge Olivier
Position: Technical director
Date: July 2009

Signature :

This is a Class A device. Operation of this equipment in a residential area may cause interference to radio communications. Should this occur, the user may be asked to take appropriate measures.

EUROPE - Norway Only : This product is designed for IT power system with phase-to-phase voltage 230V. Earth grounding is via the polarized, 3-wire power cord.
FI: "Laite on liitettävä suojamaadoitus koskettimilla varustettuun pistorasiaan"
SE: "Apparaten skall anslutas till jordat uttag"
NO: "Apparatet må tilkoples jordet stikkontakt"

FCC Federal Communications Commission notice

Radio frequency interference in the United States

Quantum2 models comply with the following specification: FCC Part 15, Subpart A, Section 15.107(a) and Section 15.109(a) Class A Digital device

Additional information:
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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 residential area. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference at his own expense

Use of a shielded twisted pair cable is necessary to comply with the restrictions laid down by part 15 of the FCC Rules for Class A digital devices.

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications made to this equipment without the express, written consent of Evolis Card Printer may cause harmful interference and void the FCC authorisation to operate this equipment.

Japanese radio frequency interference (VCCI)

This equipment is Class A information technology equipment based on the rules laid down by the Voluntary Control Council For Interference by Information Technology Equipment (VCCI). Its use in or close to a residential area may cause radio interference, in which case, you must take appropriate steps.

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Ａ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Appendix C

C1 - Consumables and accessories

Evolis offers a full range of consumables and accessories specially designed to work with its printers. Tested and approved by Evolis' R&D and Quality departments, these consumables and accessories provide optimum print quality and reliability.

➤ **Ribbons**

Ref.	Description		Tattoo RW	Tattoo2	Pebble4	Dualys3	Securion	Quantum2
Rubans Monochromes								
R3012	KO (black and clear overlay)	500 cards/roll			●	●	●	●
R2211	Black	Up to 600 cards/roll		●				
R2212	Blue	Up to 600 cards/roll		●				
R2213	Red	Up to 600 cards/roll		●				
R2214	Green	Up to 600 cards/roll		●				
R2215	White	Up to 500 cards/roll		●				
R2216	Gold	Up to 500 cards/roll		●				
R2217	Silver	Up to 500 cards/roll		●				
R2011	Black	Up to 1000 cards/roll			●	●	●	
R2012	Blue	Up to 1000 cards/roll			●	●	●	●
R2013	Red	Up to 1000 cards/roll			●	●	●	●
R2014	Green	Up to 1000 cards/roll			●	●	●	●
R2015	White	Up to 1000 cards/roll			●	●	●	●
R2016	Gold	Up to 1000 cards/roll			●	●	●	●
R2017	Silver	Up to 1000 cards/roll			●	●	●	●
R2131	Black	Up to 3000 cards/roll						●

Ref.	Description		Tattoo RW	Tattoo2	Pebble4	Dualys3	Securion	Quantum2
Colour ribbons								
R3011	YMCKO	200 cards/roll			●	●	●	
R3013	½ YMCKO	400 cards/roll			●	●	●	
R3314	YMCKOK	200 cards/roll						
R3411	YMCKO	100 cards/roll		●				
R3511	YMCKO	500 cards/roll						●
R3514	YMCKOK	500 cards/roll						●
Special ribbons								
R2218	Scratch-off ink	Up to 500 cards/roll		●				
R2219	BlackWAX*	Up to 1000 cards/roll		●				
R2018	Scratch-off ink	Up to 1000 cards/roll			●	●	●	●
R2019	BlackWAX*	Up to 1000 cards/roll			●	●	●	●
R4001	Optoseal© hologram ribbon	Up to 1000 cards/roll			●	●		●

* for printing on ABS, special overlay and paper

➤ Cartes

Ref.	Description		Tattoo RW	Tattoo2	Pebble4	Dualys3	Securion	Quantum2
Cartes plastiques								
C1001	Blank PVC cards, Premium, 0.76 mm	500 cards/box		◗	◗	◗	◗	◗
C1003	Blank PVC cards, Premium, with HiCo mag strip - 0.76 mm	500 cards/box		◗	◗	◗	◗	◗
C1004	Blank PVC cards, Premium, with LoCo mag strip - 0.76 mm	500 cards/box		◗	◗	◗	◗	◗
C4001	Blank PVC cards, Standard, 0.76 mm	500 cards/box		◗	◗	◗	◗	◗
C4002	Blank PVC cards, Standard, 0.50 mm	500 cards/box		◗	◗	◗	◗	◗
C4003	Blank PVC cards, Standard, with HiCo mag strip - 0.76 mm	500 cards/box		◗	◗	◗	◗	◗
C4004	Blank PVC cards, Standard, with LoCo mag strip - 0.76 mm	500 cards/box		◗	◗	◗	◗	◗
Paper cards								
C2001	Blank paper cards, 0.30 mm*	500 cards/box		◗				
RW cards								
C5101	Blank RW PVC cards in blue, 0.76 mm	100 cards/box	◗					
C5103	Blank RW PVC cards, in blue with HiCo mag strip - 0.76 mm	100 cards/box	◗					
C5201	Blank RW PVC cards in blue, 0.76 mm	100 cards/box	◗					
C5203	Blank RW PVC cards, in blue with HiCo mag strip - 0.76 mm	100 cards/box	◗					

*use the BlackWAX ribbon for printing on paper cards

➤ Software and accessories

Ref.	Description	Tattoo RW	Tattoo2	Pebble4	Dualys3	Securion	Quantum2
Software							
L8001	L8001 eMedia Card Designer software, Pro Edition, unrestricted version, all database types	◉	◉	◉	◉	◉	◉
L8002	L8002 eMedia Card Designer software, Standard Edition, unrestricted version, Excel database connection	◉	◉	◉	◉	◉	◉
Maintenance kits							
A5011	UltraClean cleaning kit (for full printer cleaning) 5 pre-impregnated cards, 5 cotton buds, 1 box of 40 pre-impregnated wipes	◉	◉	◉	◉	◉	◉
A5002	PrinterClean cleaning kit (for cleaning the card feed rollers) 50 isopropyl alcohol impregnated cards, delivered in individual sachets	◉	◉	◉	◉	◉	◉
A5003	HeadClean cleaning kit (for cleaning the print head) 25 cotton buds with foam ends and reservoir with isopropyl alcohol (IPA)	◉	◉	◉	◉	◉	◉
A5004	DustClean cleaning kit (for cleaning roller servicing) 1 dispensing box of 40 pre-impregnated, anti-static, cleaning wipes	◉	◉	◉	◉	◉	◉
A5070	LamClean cleaning kit (for cleaning the laminating unit) 10 double-sided adhesive cards					◉	

Ref.	Description	Tattoo RW	Tattoo2	Pebble4	Dualys3	Securion	Quantum2
Printer accessories							
S2304BB	Extra card feeder for 100 cards (brilliant blue)	●					
S2304FR	Extra card feeder for 100 cards (flame red)		●				
S5304OC	Extra card feeder for 100 cards (ocean blue)			●	●		
S5304FR	Extra card feeder for 100 cards (flame red)			●		●	
S5304JG	Extra card feeder for 100 cards (jungle green)			●			
S5305OC	Manual card feeder (ocean blue)			●	●		
S5305FR	Manual card feeder (flame red)			●			
S5305JG	Manual card feeder (jungle green)			●			
A5310	Carrying case – delivered in a cardboard box		●				
A5309	Carrying case – delivered in a cardboard box			●			
A5306	Carrying bag – delivered in a cardboard box			●	●		
A5017	1.80m USB cable	●	●	●	●	●	●
A5008	Power supply unit	●	●	●	●		
A7004	220V power cable - Europe					●	●
A5009	110V power cable - US	●	●	●	●	●	●
A5010	220V power cable - UK	●	●	●	●	●	●
A5019	Câble d'alimentation 220V – UK	●	●	●	●	●	●