USER MANUAL

K3

Lottery

CUSTOM®

CUSTOM S.p.A.
Via Berettine 2/B
43010 Fontevivo (PARMA) - Italy
Tel. : +39 0521-680111
Fax : +39 0521-610701
http: www.custom.biz

Customer Service Department:
www.custom4u.it

THE IMAGES USED IN THIS MANUAL ARE USED AS AN ILLUSTRATIVE EXAMPLES. THEY COULDN'T REPRODUCE THE DESCRIBED MODEL FAITHFULLY.

UNLESS OTHERWISE SPECIFIED, THE INFORMATION GIVEN IN THIS MANUAL ARE REFERRED TO ALL MODELS IN PRODUCTION AT THE ISSUE DATE OF THIS DOCUMENT.

GENERAL INSTRUCTIONS
CUSTOM S.p.A. declines all responsibility for accidents or damage to persons or property occurring as a result of tampering, structural or functional modifications, unsuitable or incorrect installations, environments not in keeping with the equipment's protection degree or with the required temperature and humidity conditions, failure to carry out maintenance and periodical inspections and poor repair work.

GENERAL SAFETY INFORMATION
Your attention is drawn to the following actions that could compromise the characteristics of the product:
- Read and retain the instructions which follow.
- Follow all indications and instructions given on the device.
- Make sure that the surface on which the device rests is stable. If it is not, the device could fall, seriously damaging it.
- Make sure that the device rests on a hard (non-padded) surface and that there is sufficient ventilation.
- Do not fix indissolubly the device or its accessories such as power supplies unless specifically provided in this manual.
- When positioning the device, make sure cables do not get damaged.
- [Only OEM equipment] The equipment must be installed in a kiosk or system that provides mechanical, electrical and fire protection.
- The mains power supply must comply with the rules in force in the Country where you intend to install the equipment.
- Make sure that there is an easily-accessible outlet with a capacity of no less than 10A closely to where the device is to be installed.
- Make sure the power cable provided with the appliance, or that you intend to use is suitable with the wall socket available in the system.
- Make sure the electrical system that supplies power to the device is equipped with a ground wire and is protected by a differential switch.
- Before any type of work is done on the machine, disconnect the power supply.
- Use the type of electrical power supply indicated on the device label.
- These devices are intended to be powered by a separately certified power module having an SELV, non-energy hazardous output. (IEC60950-1 second edition).
- [Only POS equipment] The energy to the equipment must be provided by power supply approved by CUSTOM S.p.A.
- Take care the operating temperature range of equipment and its ancillary components.
- Do not block the ventilation openings.
- Do not insert objects inside the device as this could cause short-circuiting or damage components that could jeopardize printer functioning.
- Do not carry out repairs on the device yourself, except for the normal maintenance operations given in the user manual.
- The equipment must be accessible on these components only to trained, authorized personnel.
- Periodically perform scheduled maintenance on the device to avoid dirt build-up that could compromise the correct, safe operation of the unit.
- Do not touch the head heating line with bare hands or metal objects. Do not perform any operation inside the printer immediately after printing because the head and motor tend to become very hot.
- Use consumables approved by CUSTOM S.p.A.

THE CE MARK AFFIXED TO THE PRODUCT CERTIFY THAT THE PRODUCT SATISFIES THE BASIC SAFETY REQUIREMENTS.

The device is in conformity with the essential Electromagnetic Compatibility and Electric Safety requirements laid down in Directives 2014/30/EU and 2014/35/EU inasmuch as it was designed in conformity with the provisions laid down in the following Standards:
- EN 55032 *(Electromagnetic compatibility of multimedia equipment - Emission Requirements)*
- EN EN55024/EN55035 *(Electromagnetic compatibility of multimedia equipment - Immunity requirements)*
- EN IEC/EN62368-1 *(Audio/video, information and communication technology equipment)*

The device is in conformity with the essential requirements laid down in Directives 2014/53/EU about devices equipped with intentional radiators The Declaration of Conformity and other available certifications can be downloaded from the site www.custom4u.it.

GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

The crossed-out rubbish bin logo means that used electrical and electronic products shall NOT be mixed with unsorted municipal waste. For more detailed information about recycling of this product, refer to the instructions of your country for the disposal of these products.
- Do not dispose of this equipment as miscellaneous solid municipal waste, but arrange to have it collected separately.
- The re-use or correct recycling of the electronic and electrical equipment (EEE) is important in order to protect the environment and the wellbeing of humans.
- In accordance with European Directive WEEE 2012/19/EU, special collection points are available to which to deliver waste electrical and electronic equipment and the equipment can also be handed over to a distributor at the moment of purchasing a new equivalent type.
- The public administration and producers of electrical and electronic equipment are involved in facilitating the processes of the re-use and recovery of waste electrical and electronic equipment through the organisation of collection activities and the use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with the appropriate penalties.

The format used for this manual improves use of natural resources reducing the quantity of necessary paper to print this copy.
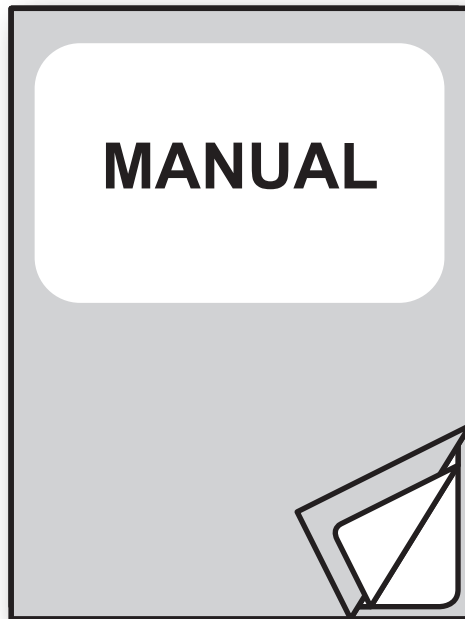
MANUAL

For details on the commands,
refer to the manual with code **77200000004900**

For further information about the use of "PrinterSet" tool
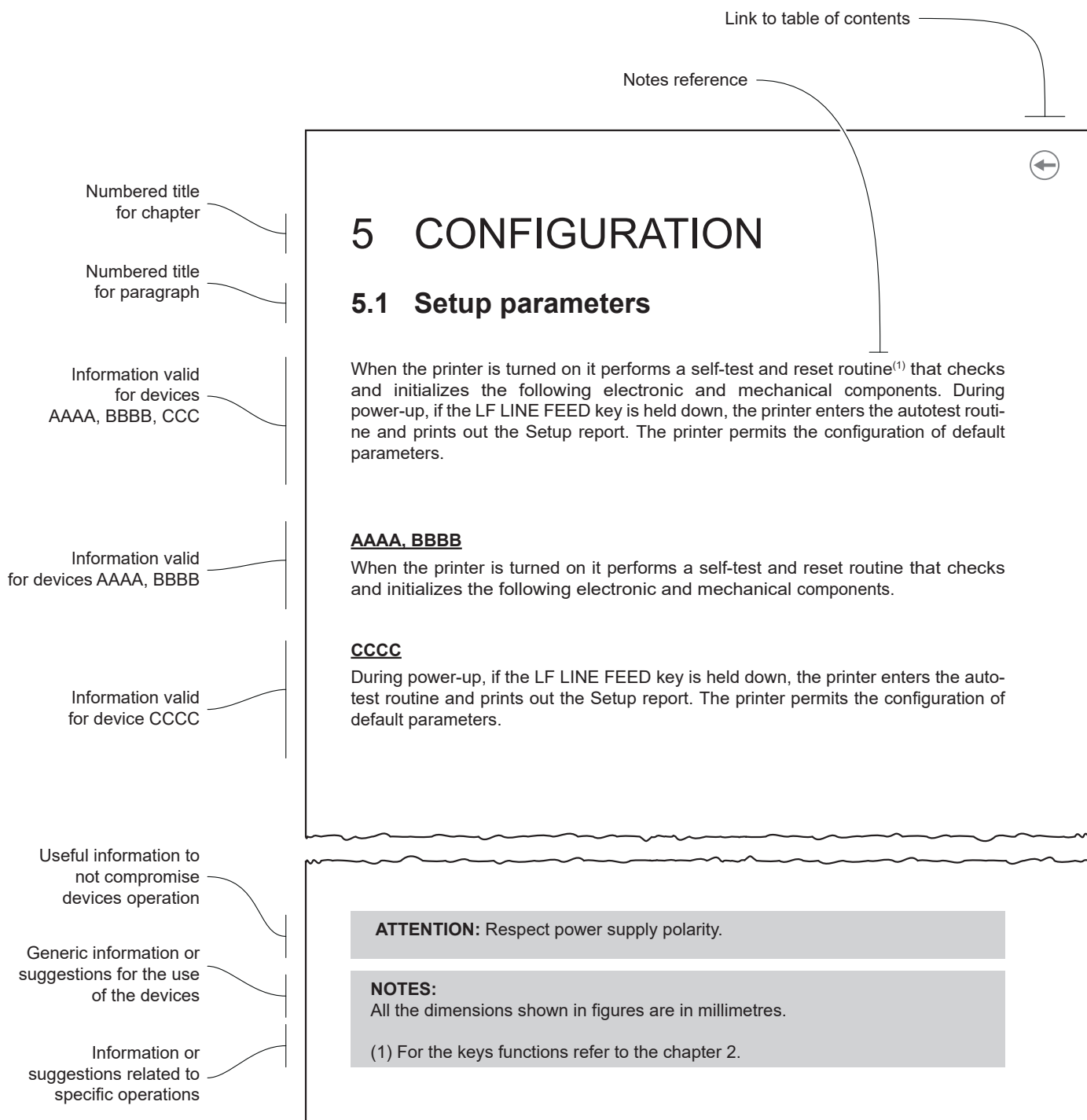refer to the manual with code **78200000001800**

TABLE OF CONTENTS

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1   INTRODUCTION

This document is divided into sections and chapters. Each chapter can be reached by the index at the beginning of this document. The index can be reached by the button on each page as shown in the diagram below.

Link to table of contents

Notes reference

Numbered title for chapter

Numbered title for paragraph

Information valid for devices AAAA, BBBB, CCC

Information valid for devices AAAA, BBBB

Information valid for device CCCC

5   CONFIGURATION

5.1   Setup parameters

When the printer is turned on it performs a self-test and reset routine[1] that checks and initializes the following electronic and mechanical components. During power-up, if the LF LINE FEED key is held down, the printer enters the autotest routine and prints out the Setup report. The printer permits the configuration of default parameters.

AAAA, BBBB
When the printer is turned on it performs a self-test and reset routine that checks and initializes the following electronic and mechanical components.

CCCC
During power-up, if the LF LINE FEED key is held down, the printer enters the autotest routine and prints out the Setup report. The printer permits the configuration of default parameters.

Useful information to not compromise devices operation

Generic information or suggestions for the use of the devices

Information or suggestions related to specific operations

ATTENTION: Respect power supply polarity.

NOTES:
All the dimensions shown in figures are in millimetres.

(1) For the keys functions refer to the chapter 2.

2 DESCRIPTION

2.1 Box contents

Remove all the box contents being careful not to damage the packing material so that it may be re-used if the device is to be transported in the future.
Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact customer service.
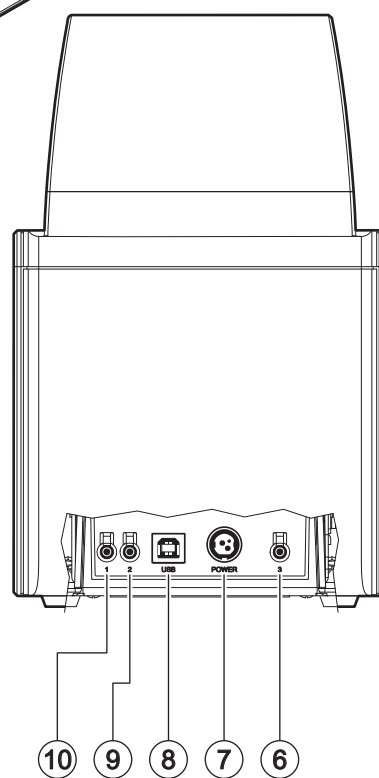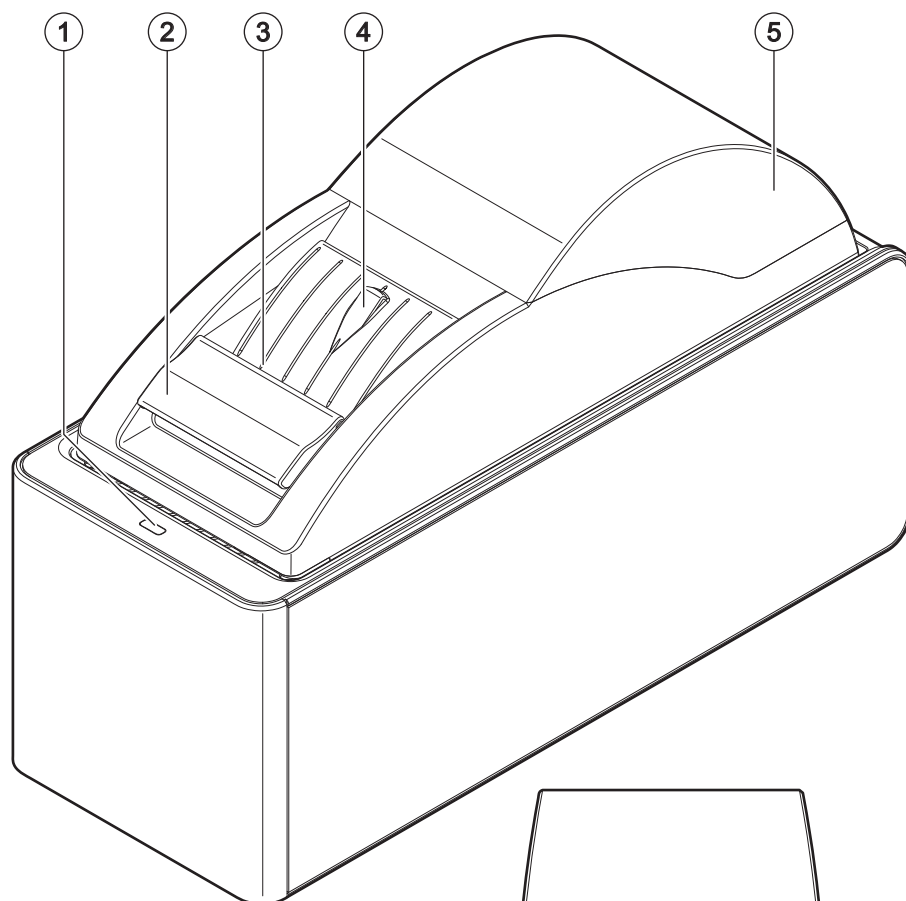
1. AC adapter
2. USB cable
3. Power cord
4. Device
5. Short guide
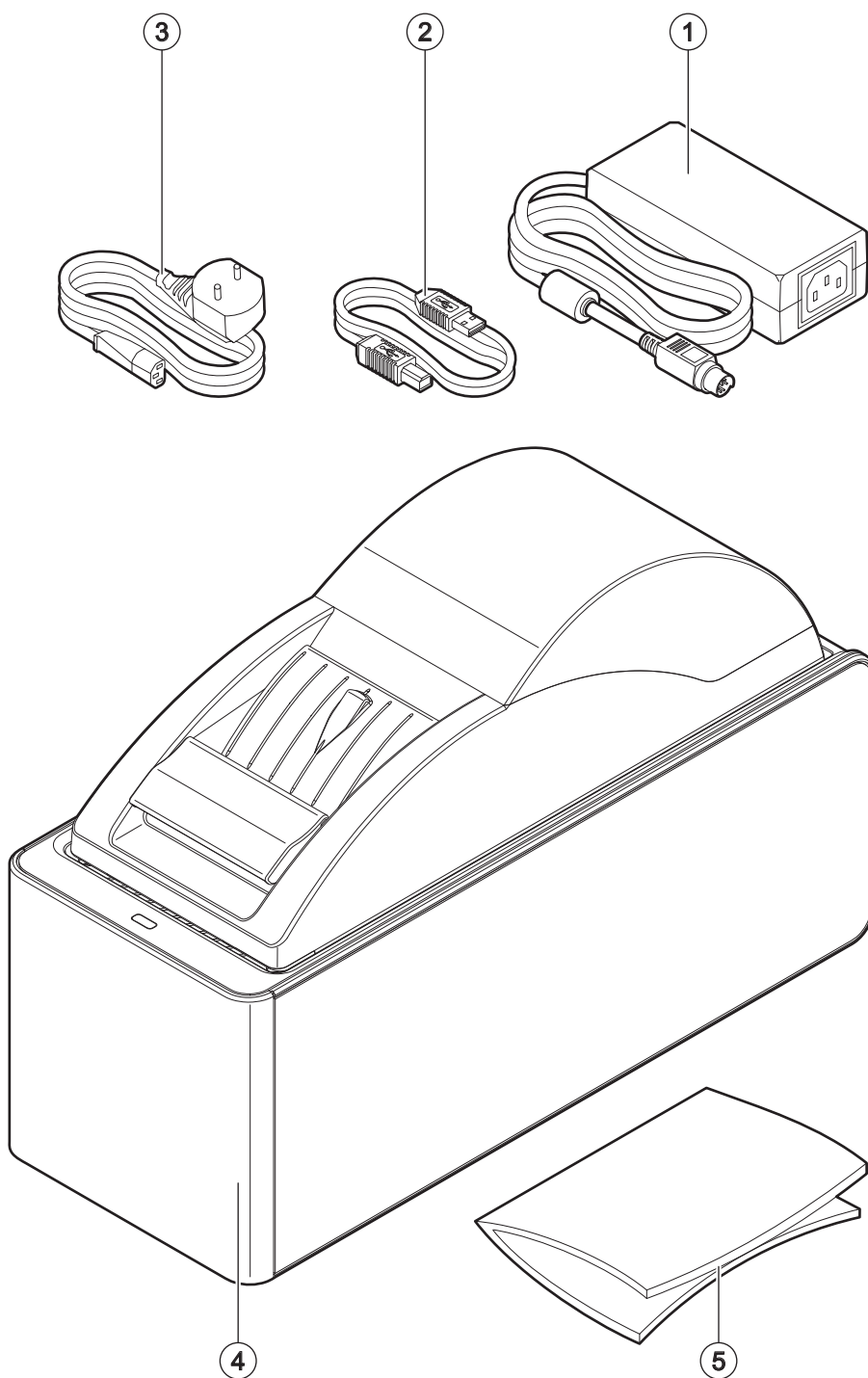
2.2 Device components: external views

1. Status LED
2. Opening lever for paper compartment
3. Paper out
4. Stacker
5. Paper compartment cover
6. Key 3
7. Power supply port
8. USB interface port
9. Key 2
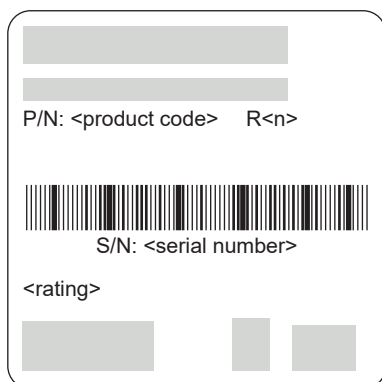10. Key 1

2.3 Device components: internal views

1. Platen roller

2. Sensor for detecting alignment black mark

3. Adapter guides for paper width

4. Low paper sensor

5. Sensor for detecting paper presence

6. Sensor for cover open

7. Autocutter

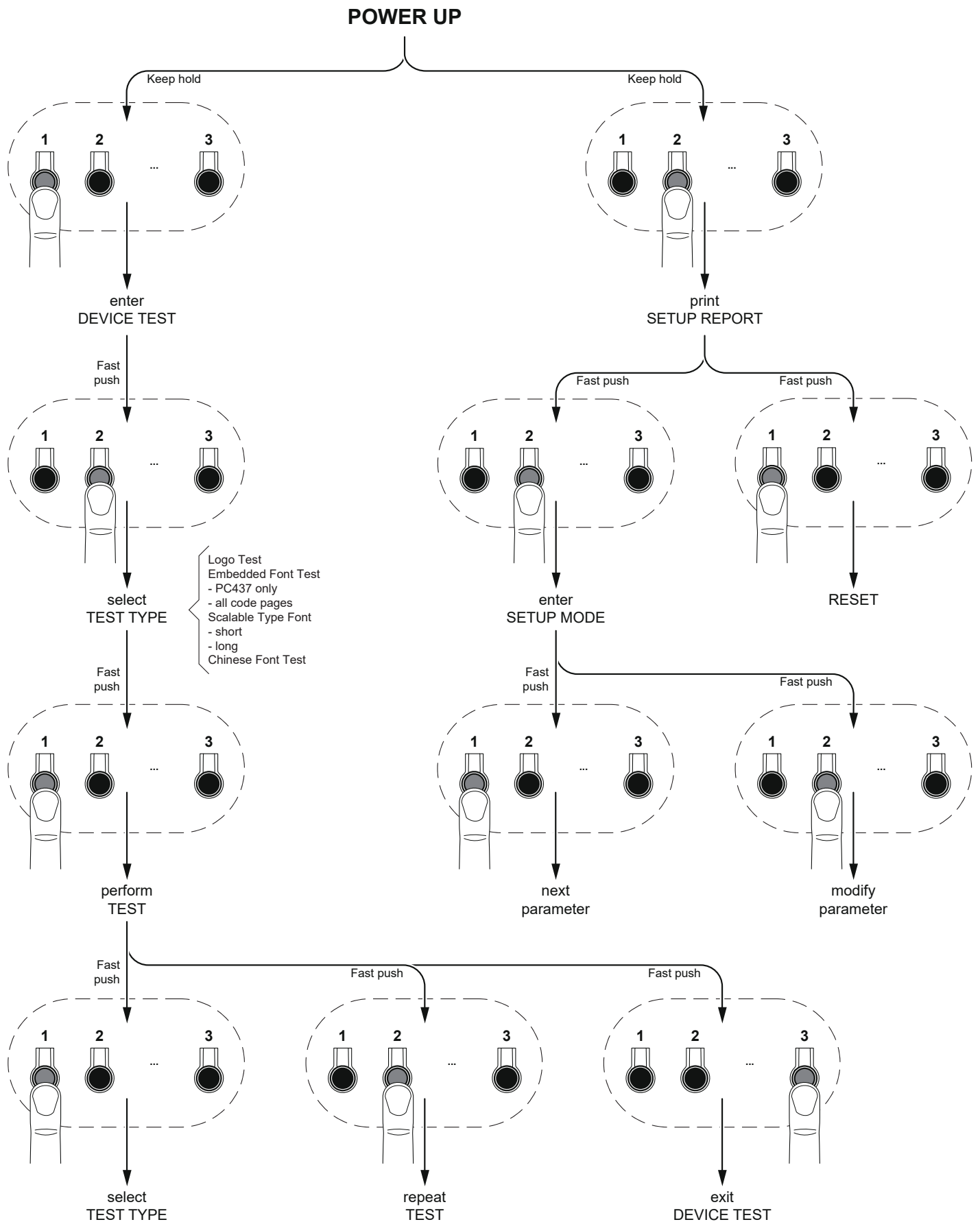8. Printing head with head temperature sensor
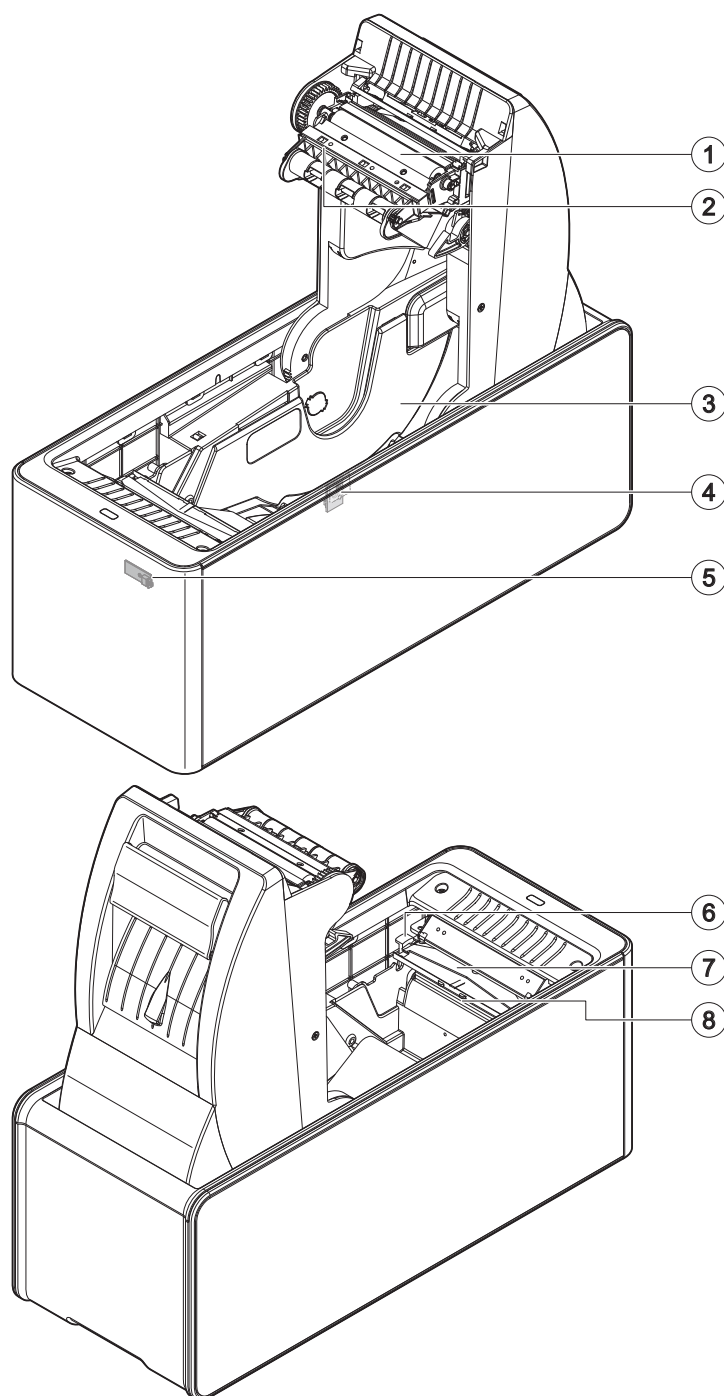
2.4 Product label

The main data used to identify the machine are shown on the label attached to the bottom of the device.
In particular, it shows the electrical data for the connection to a power source. It also shows the product code, the serial number and the hardware revision (R).
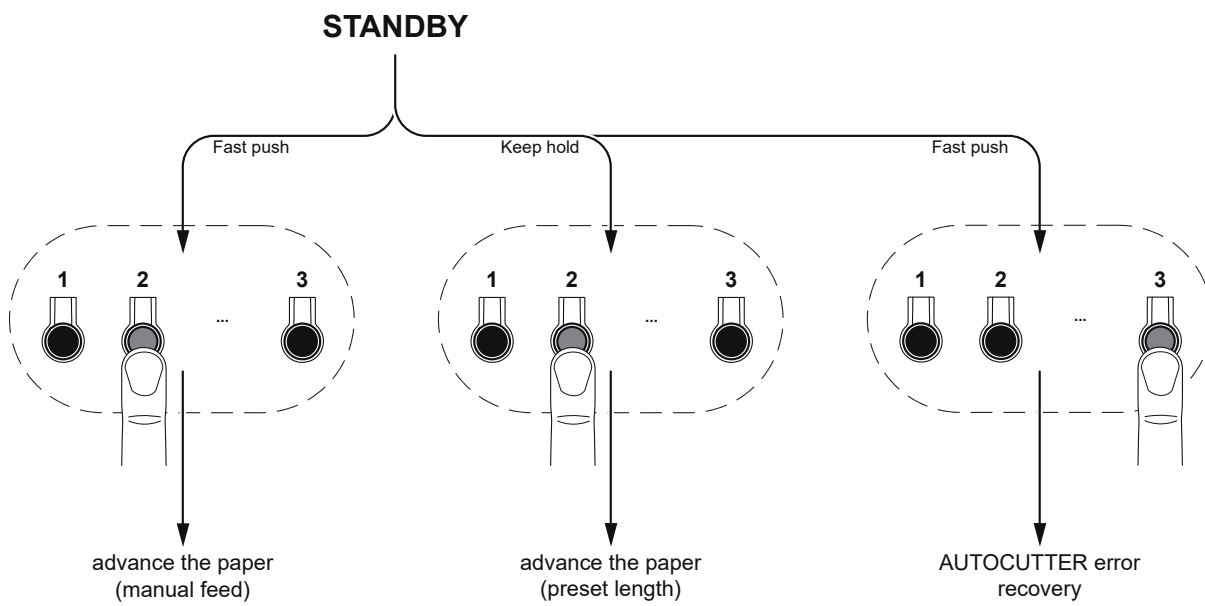
P/N: <product code>   R<n>

S/N: <serial number>

<rating>

2.5   Key functions: power up

POWER UP

Keep hold → enter DEVICE TEST

| 1 | 2 | ... | 3 |

Fast push → select TEST TYPE

Logo Test
Embedded Font Test
- PC437 only
- all code pages
Scalable Type Font
- short
- long
Chinese Font Test

Fast push → perform TEST

Fast push → select TEST TYPE
Fast push → repeat TEST
Fast push → exit DEVICE TEST

Keep hold → print SETUP REPORT

Fast push → enter SETUP MODE
Fast push → RESET

Fast push → next parameter
Fast push → modify parameter

2.6 Key functions: standby

STANDBY

Fast push | Keep hold | Fast push

1 2 ... 3

advance the paper
(manual feed)

advance the paper
(preset length)

AUTOCUTTER error
recovery

2.7   Status messages

The status LED indicates hardware status of device. Given in the table below are the various LED signals and the corresponding device status.

STATUS LED		DESCRIPTION
-	OFF	DEVICE OFF
GREEN	ON	DEVICE ON: NO ERROR
GREEN COMMUNICATION STATUS	x 1	RECEIVE DATA
	x 2	RECEPTION ERRORS (PARITY, FRAME ERROR, OVERRUN ERROR)
	x 3	COMMAND NOT RECOGNIZED
	x 4	COMMAND RECEPTION TIME OUT
YELLOW RECOVERABLE ERROR	x 2	PRINTHEAD OVERHEATED
	x 3	PAPER END
	x 4	PAPER JAM
	x 5	POWER SUPPLY VOLTAGE INCORRECT
	x 6	COVER OPEN
RED UNRECOVERABLE ERROR	x 3	RAM ERROR
	x 5	AUTOCUTTER ERROR [1]
	x 7	STACKER ERROR [2]

NOTES:
(1) When this error occurs, press the key 3 to recover error or send the proper unlock command (refer to commands manual).
(2) When this error occurs, send the proper unlock command (refer to commands manual) or switch the device off/on to recover error.
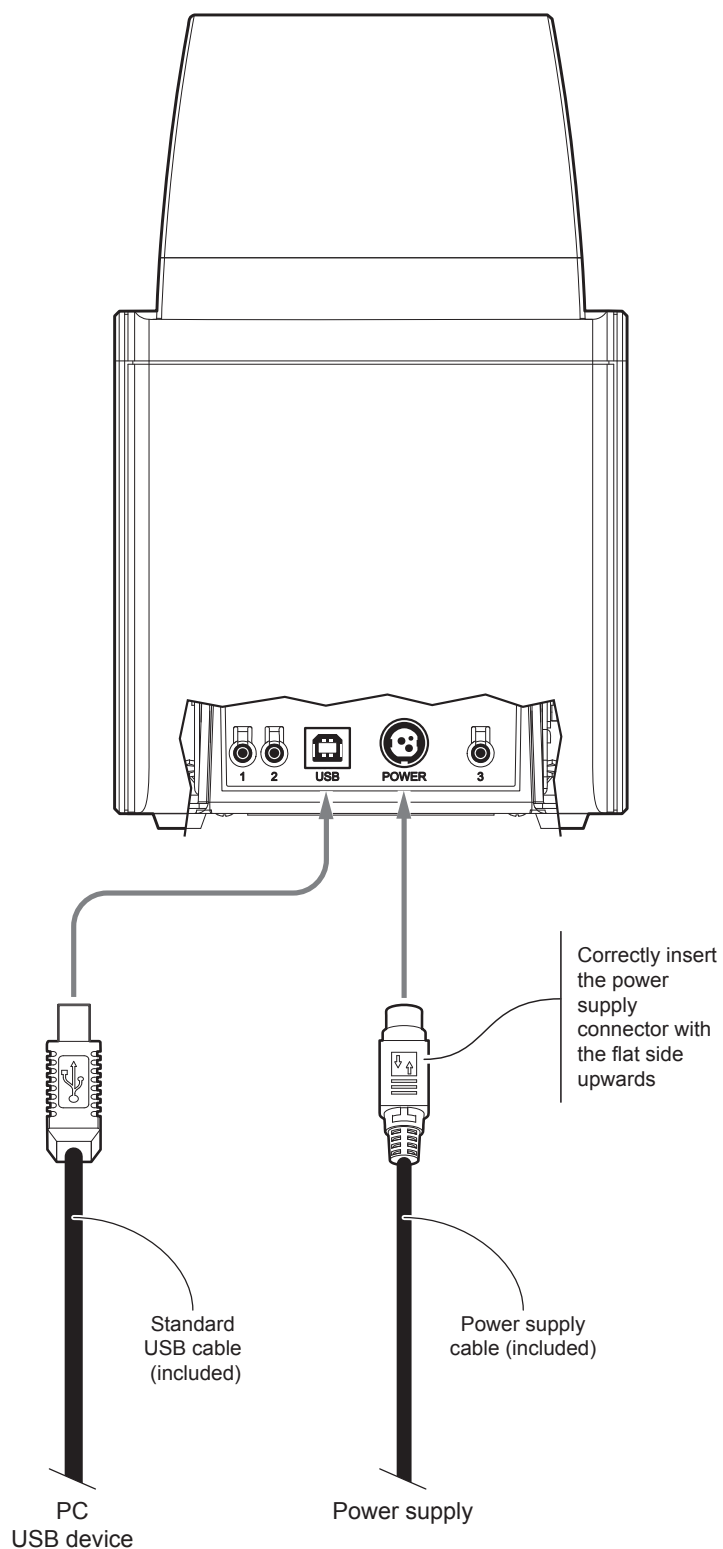
3 INSTALLATION

3.1 Connections

The following figure shows the possible connections for the device. For further details on fixing the power cable, refer to paragraph 3.2.

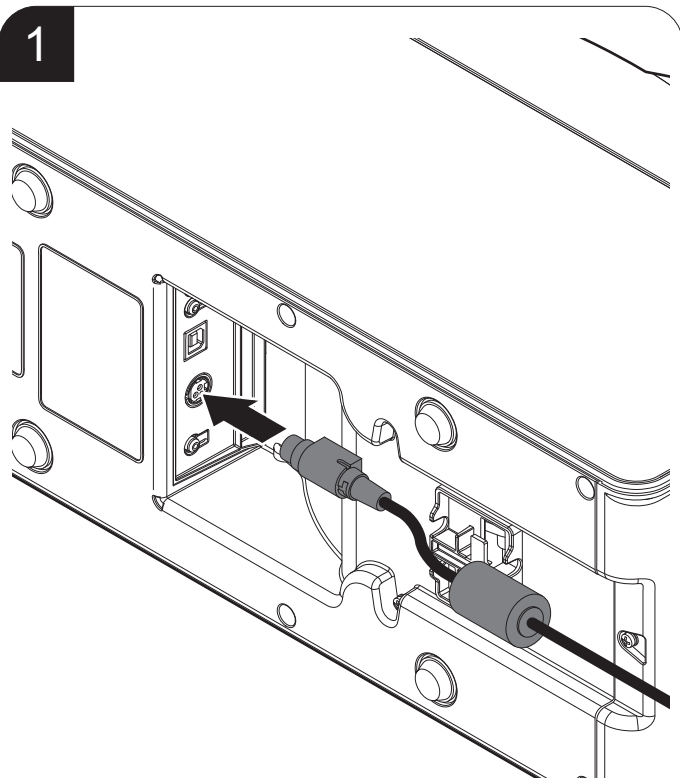Correctly insert the power supply connector with the flat side upwards

Standard USB cable (included)

Power supply cable (included)

PC USB device

Power supply

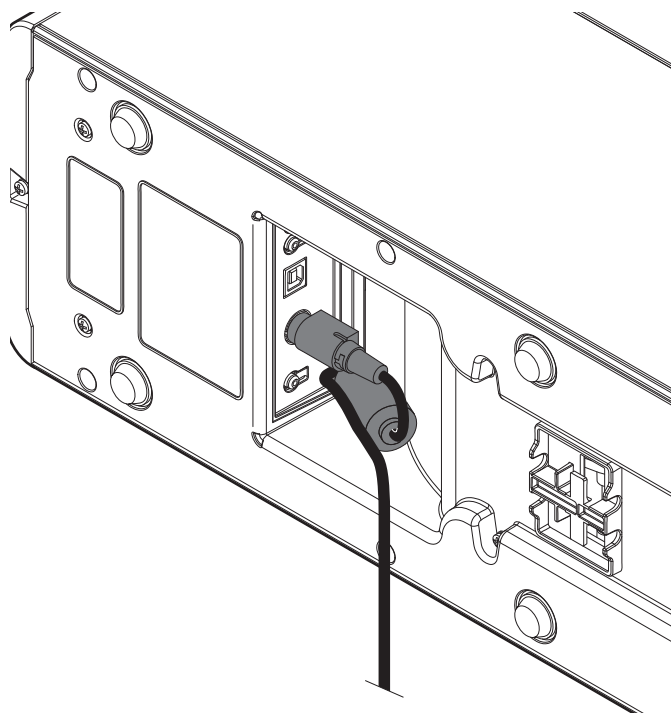ATTENTION: In some using conditions, we recommend the installation of a ferrite core on the power supply cable.
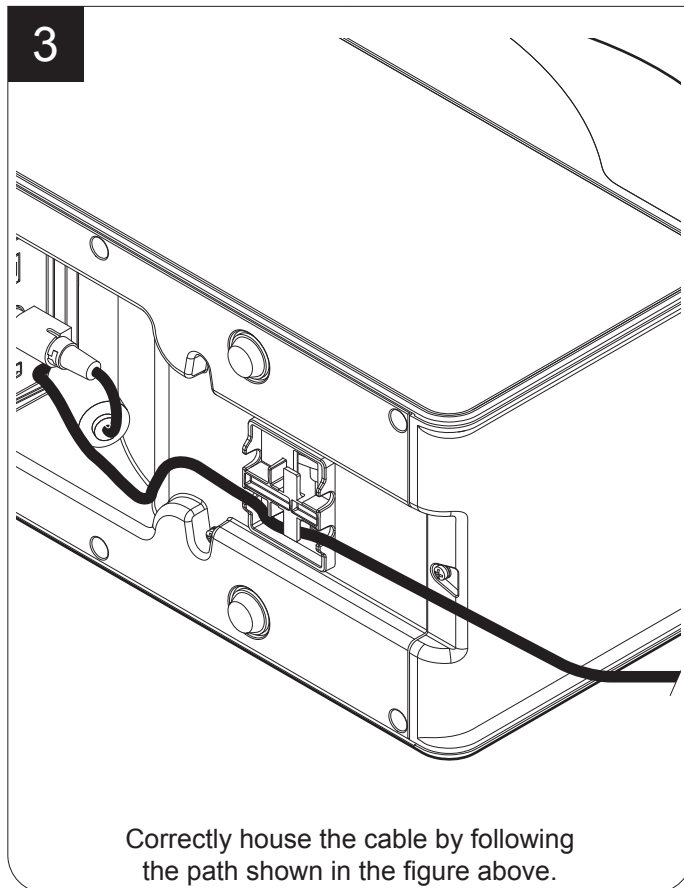
3.2 Fixing the power cable

1

Connect the power supply cable.

2

Place the power supply cable in order
to house the ferrite core in its cradle.

3

Correctly house the cable by following
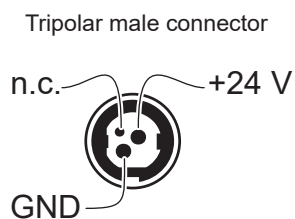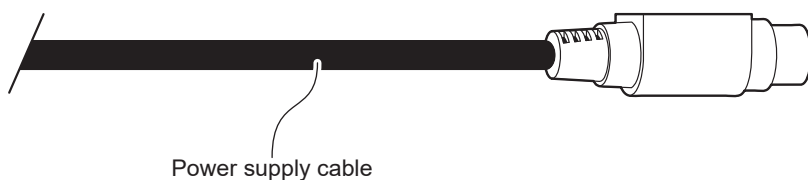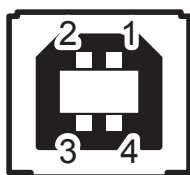the path shown in the figure above.

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3.3 Pinout

POWER SUPPLY
Tripolar female connector

J21	1	GND
	2	+24 V
	3	GND
	4	GND

The following figure shows the connector pinout of power supply cable:

Tripolar male connector

n.c.   +24 V

GND

Power supply cable

> ATTENTION:
> Respect power supply polarity.

USB INTERFACE
USB type B female connector

| J14	1	USBHS-VBUS	(in)
	2	USBHS_D-	(in/out)
	3	USBHS_D+	(in/out)
	4	GND	

3.4 Driver and SDK

The drivers for the following operating system are available in the website www.custom4u.it:

| OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows 7 (32/64 bit)	From the Start menu, press Run and type-in the path where the SW was saved on your PC, then click OK. Follow the instructions that appear on the screen to install the driver.
	Driver for Windows 8 (32/64 bit)	
	Driver for Windows 8.1 (32/64 bit)	
	Driver for Windows 10 (32/64 bit)	
Linux	32/64 bit	Follow the instruction get back on the "Readme.txt" file. You can find it in the software package downloaded in advance.
Android	SDK per Custom Android API	Estrarre la cartella compressa nel percorso di destinazione desiderato. Seguire le istruzioni presenti nel pacchetto software scaricato su come installare e usare l'SDK.

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4 OPERATION

4.1 Opening the cover
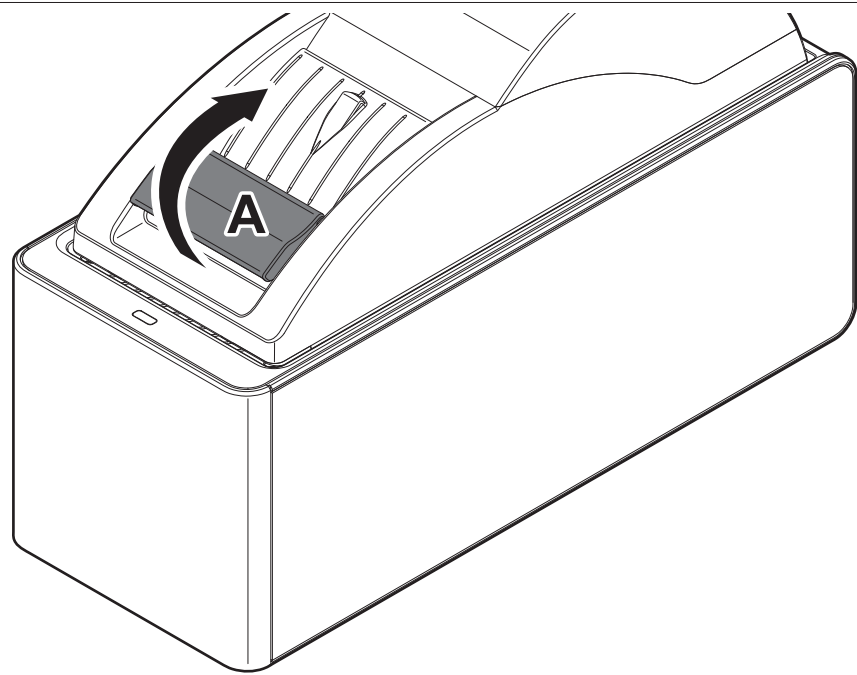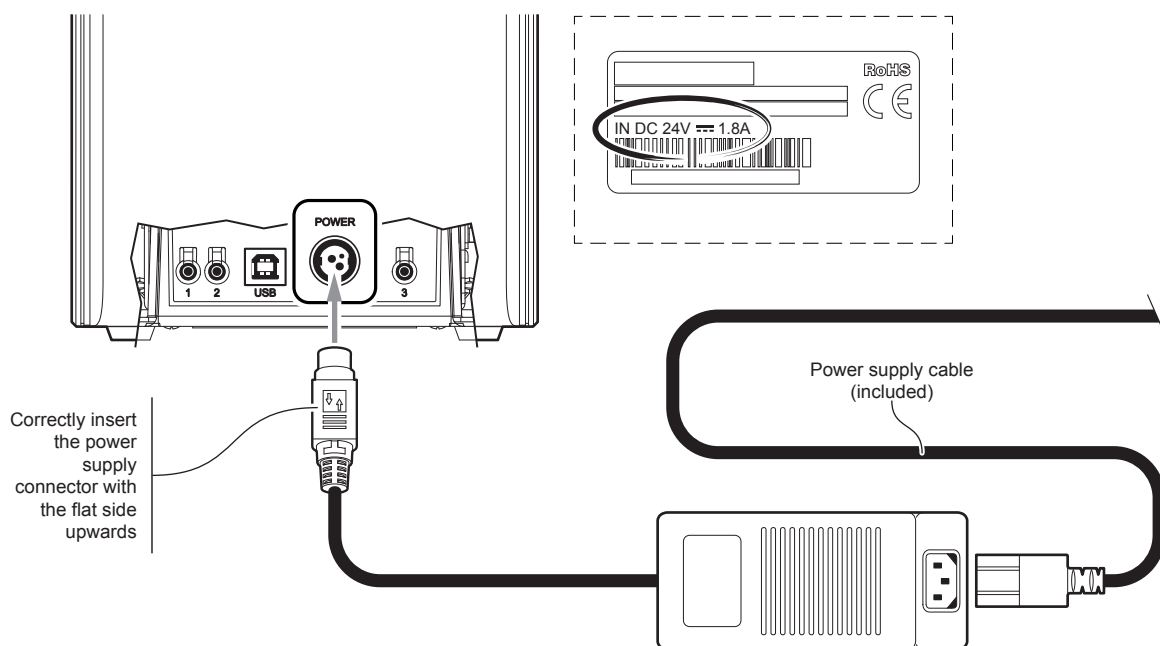

Lift the opening lever A.
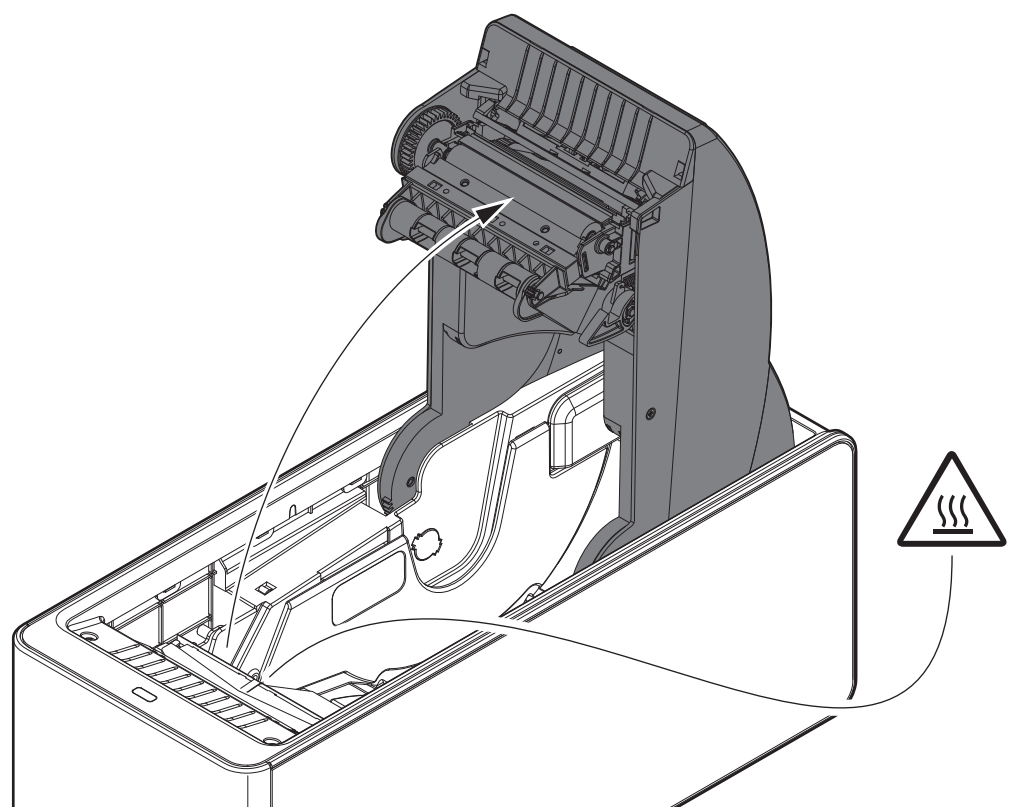
Open the paper compartment cover.

4.2   Switch the device on/off

To switch on the device proceed as follows. For further details on fixing the power cable, refer to paragraph 3.2.

1

POWER

1 2 USB 3

RoHS

IN DC 24V ⎓ 1.8A

Correctly insert
the power
supply
connector with
the flat side
upwards

Power supply cable
(included)

Switch on the device by connecting the power adapter (included) to the device and the mains outlet.
Use the type of electrical power supply indicated on the label.
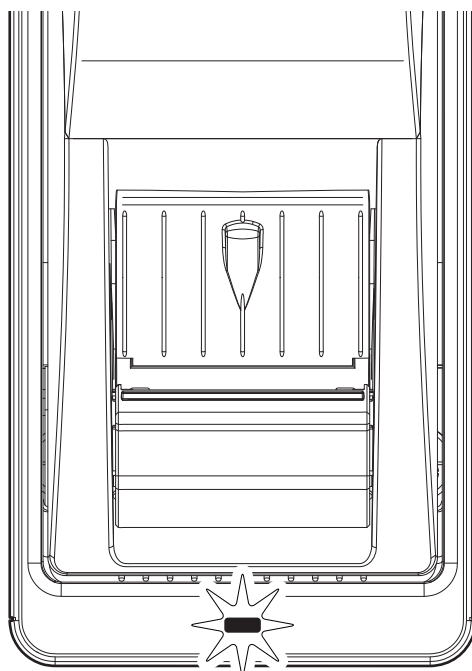
2
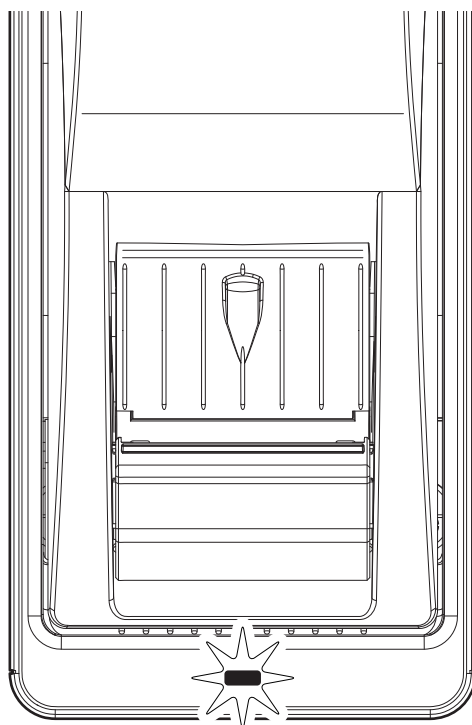
The status LED is switched on and the device is ready.
To switch off the device, disconnect the power adapter from the power supply port.

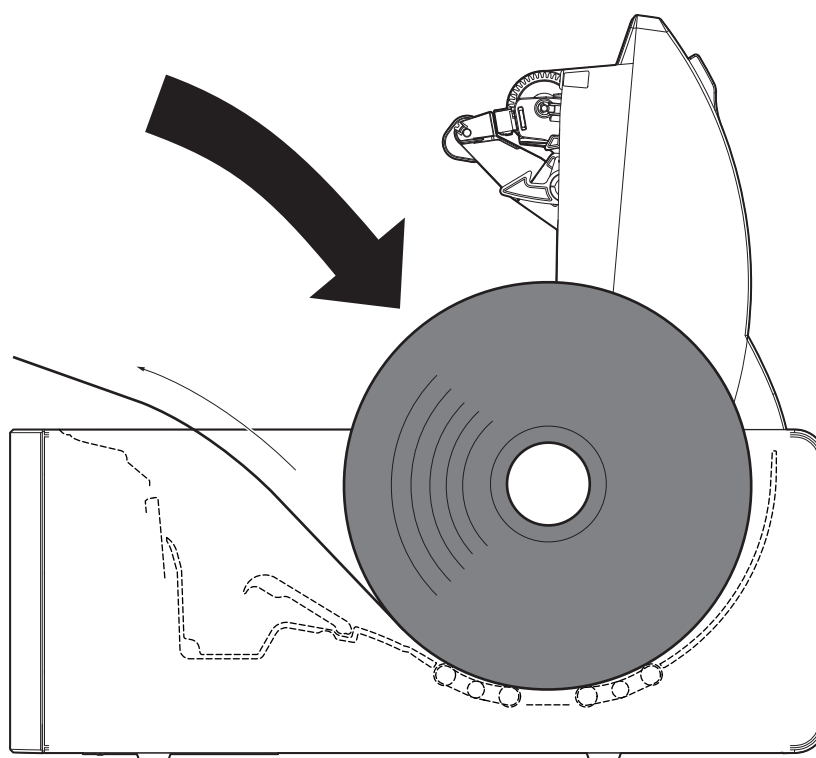CUSTOM®

4.3 Loading the paper roll

To change the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.
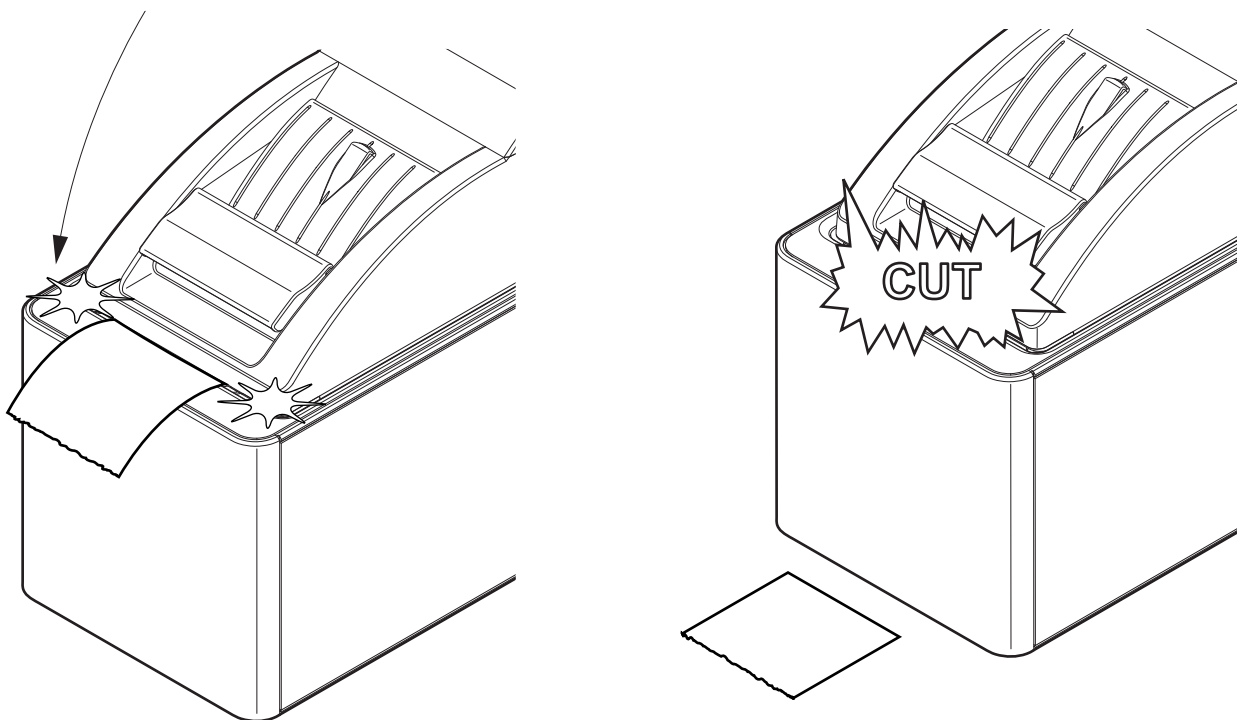
1

Switch the device on
(see paragraph 4.2).

2

Open the device cover (see paragraph 4.1).
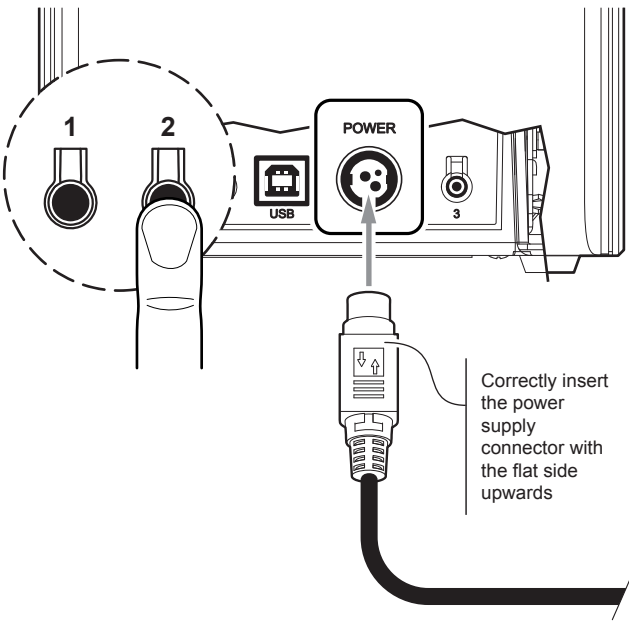Place the roll in the paper compartment and pull out the paper for a few centimetres.

Close the device cover and wait until the loaded paper is automatically cut.

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5 CONFIGURATION

5.1 Configuration by keys

To enter the configuration mode and print a setup report with the operating parameters of the device, proceed as follows.
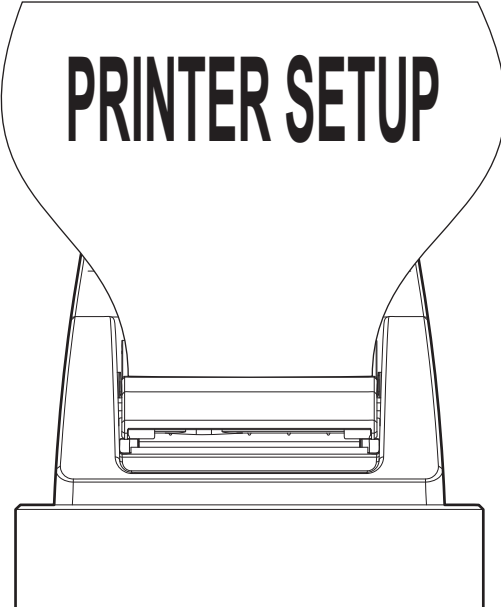
1

Correctly insert the power supply connector with the flat side upwards

Press key 2. While pressing key 2, switch on the device by connecting the power adapter (see paragraph 4.2).

2

PRINTER SETUP

The device prints the report with the settings parameters.
Follow the instruction printed on the paper to proceed with configuration procedure.

The following figure shows the setup report of the device. The shown values for parameters are sample values; for the list and the description of device parameters see the following paragraphs.

DEVICE NAME, FIRMWARE MODULES RELEASE AND SERIAL NUMBER

```
                    <device name>

    SCODE: <code>                    -   rel   1.00
    FCODE: <code>                    -   rel   1.00
    DCODE: <code>                    -   rel   1.00

                    S/N: <number>
```

PRINTHEAD STATUS

PRINTER SETTINGS

1 • • • • • • • • 640

PRINTHEAD WORKING GOOD!

DEVICE STATUS

```
PRINTER TYPE ...................................<device name>
INTERFACE .........................................USB
PROGRAM MEMORY TEST...............OK
DYNAMIC RAM TEST........................OK
CUTTER TEST...................................OK
HEAD VOLTAGE            [V]    =  24.34
HEAD TEMPERATURE    [°C]   =  28
POWER ON COUNTER            =  70
PAPER PRINTED            [cm]   =  40
CUT COUNTER                    =  1
```

PARAMETERS FOR DEVICE CONFIGURATION

```
Printer emulation ............................:   CUSTOM POS
Print Mode ......................................:   Normal
Autofeed .........................................:   Disabled
Chars / Inch ...................................:   A=15  B=20 cpi
Font Type........................................:   International
Speed / Quality...............................:   High Speed
Paper Threshold .............................:   40%
Notch/B.Mark Position .....................:   Disabled
PaperEnd Buffer Clear ....................:   Disabled
PrintHead Test Poweron.................:   Enabled
USB Address Number ....................:   0
Print Density...................................:   0%
Near paper end mode ....................   Disabled
```

KEYS FUNCTIONS

[KEY2]   enter Printer setup
[KEY1]   skip Setup

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5.2 Configuration by software

The setup parameters can be set by using the "PrinterSet" software tool available on www.custom4u.it.
For a detailed description of the device operating parameters see the following paragraphs.
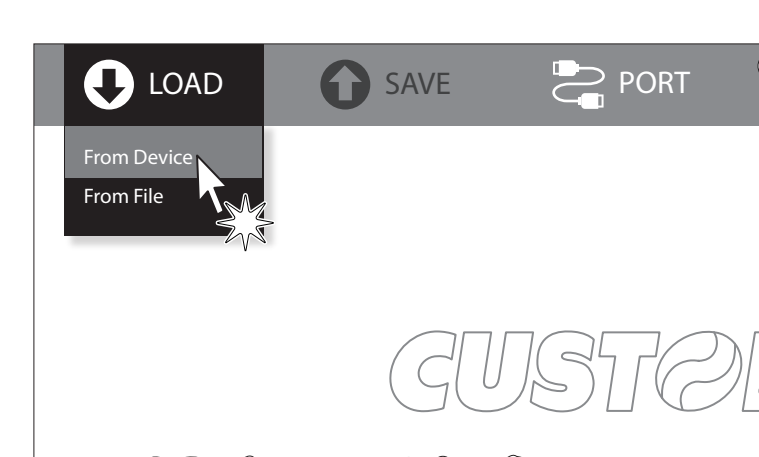To configure the device by software, proceed as follows:

1
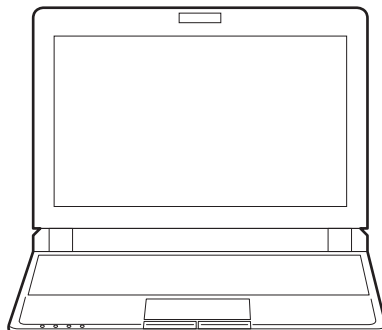
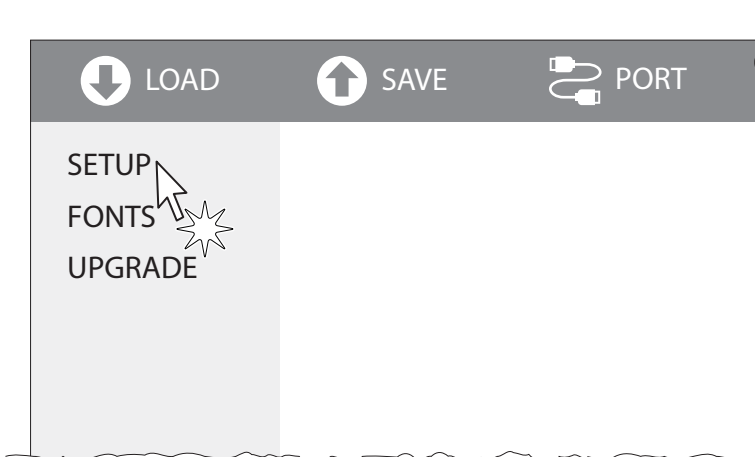Connect the device to a PC directly (see paragraph 3.1),
without using HUB devices.
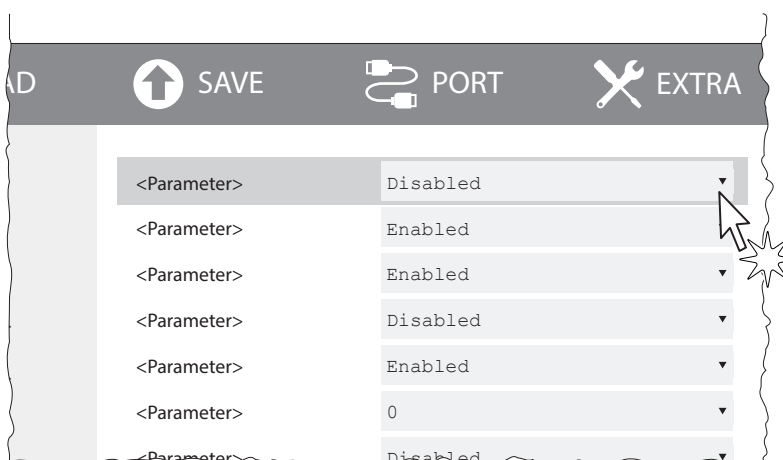
2
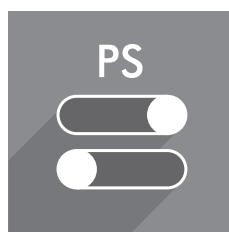
Start "PrinterSet" software tool.

3

Click on LOAD > FROM DEVICE and select
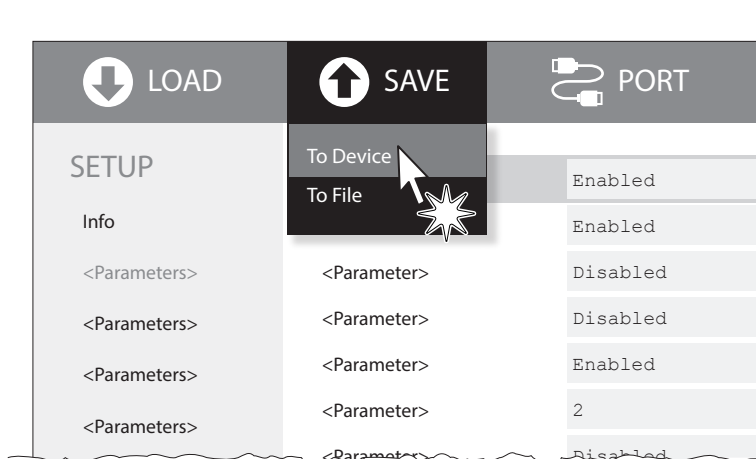the device connected to the PC.

4

⬇ LOAD	⬆ SAVE	🔌 PORT

SETUP
FONTS
UPGRADE

Click on SETUP to access the operating parameteres of the device to be configured.

5

⬆ SAVE	🔌 PORT	✖ EXTRA

<Parameter>	Disabled	▼
<Parameter>	Enabled	
<Parameter>	Enabled	▼
<Parameter>	Disabled	▼
<Parameter>	Enabled	▼
<Parameter>	0	▼
<Parameter>	Disabled	▼

Make the desired changes to the
device operating parameters.

6

⬇ LOAD	⬆ SAVE	🔌 PORT

SETUP

Info

<Parameters>

<Parameters>

<Parameters>

<Parameters>

To Device
To File

| <Parameter> | Enabled |
<Parameter>	Enabled
<Parameter>	Disabled
<Parameter>	Disabled
<Parameter>	Enabled
<Parameter>	2
<Parameter>	Disabled

Click on SAVE > TO DEVICE
to make the changes made effective.

ATTENTION:
During saving, it is strongly discouraged to disconnect the communication cable or to remove the power supply of the PC or the device.

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5.3   Printhead status

The device performs the printhead operating status when printing the setup report. The total number of dots is reported Are indicated the total dots number of the printhead and their status (see figure below).
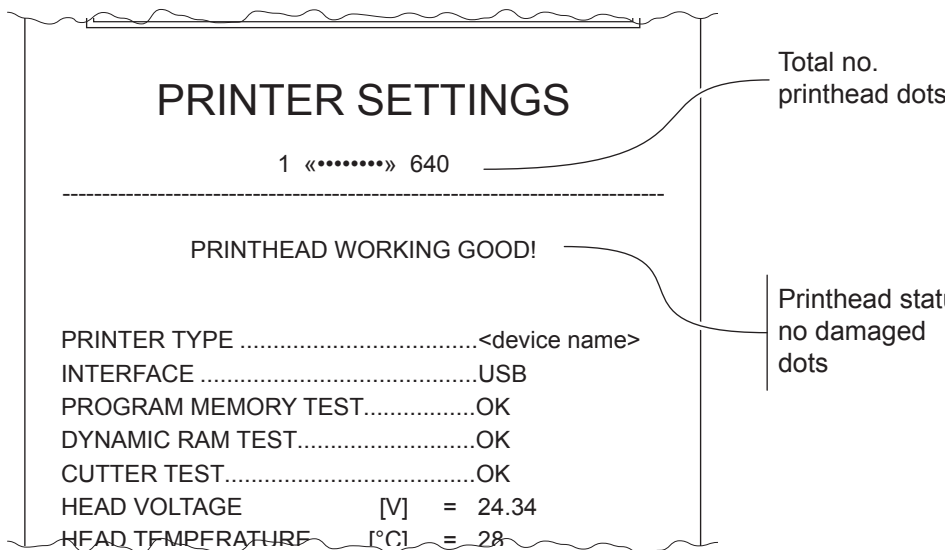
In case of damaged dots, these are listed in the print out in according to their position on the heating line (see figure below).
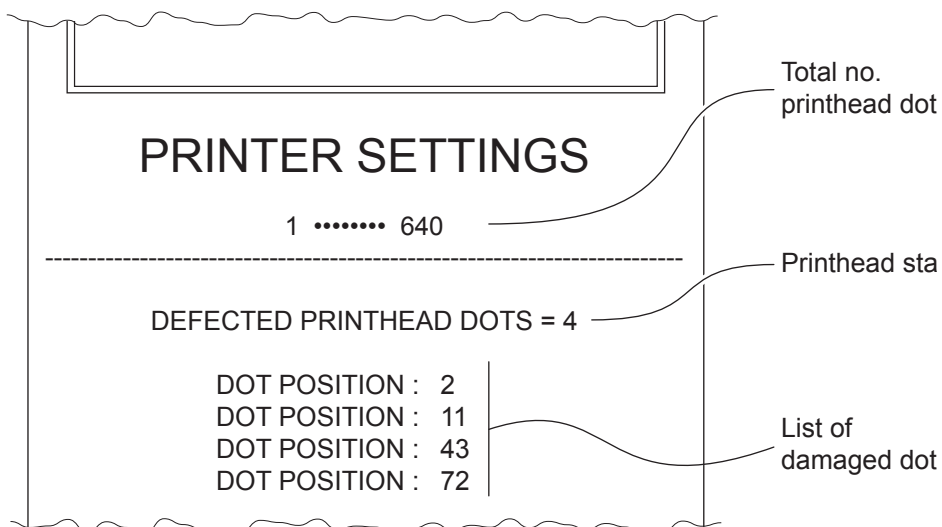
5.4   Device status

The device operating status is indicated in the configuration print-out in which, next to the name of the components displayed, the following information is given:

PRINTER TYPE	device model
INTERFACE	interface present
PROGRAM MEMORY TEST	OK appears if functioning and NOT OK if faulty
DYNAMIC RAM TEST	OK appears if functioning and NOT OK if faulty
CUTTER TEST	OK appears if functioning and NOT OK if faulty
HEAD VOLTAGE	voltage of the head
HEAD TEMPERATURE	temperature of the head
POWER ON COUNTER	number of power-ups made
PAPER PRINTED	centimetres of paper printed
CUT COUNTER	number of cuts made

5.5 Communication parameters

This device allows the configuration of the parameters listed in the following table.
The parameters marked with the symbol ^{D} are the default values.
Settings remain active even after the device has been turned off and they are stored in non-volatile memory.

USB ADDRESS NUMBER	Numerical address code for the univocal identification of the USB device (in case of more than a USB device connected with the same PC):
	$0^{\,D}$ 2 4 6 8 1 3 5 7 9

5.6　Operation parameters

This device allows the configuration of the parameters listed in the following table.
The parameters marked with the symbol ^D are the default values.
Settings remain active even after the device has been turned off and they are stored in non-volatile memory.

PRINTER EMULATION	Available emulations for the device: CUSTOM/POS ^D
PRINT MODE	Printing mode: Normal ^D = enables printing in normal writing way Reverse = enables printing rotated 180 degrees
AUTOFEED	Setting of the Carriage Return character: Disabled ^D = Carriage Return disabled Enabled = Carriage Return enabled
CHARS / INCH	Font selection: A = 11 cpi, B = 15 cpi A = 15 cpi, B = 20 cpi ^D A = 20 cpi, B = 25 cpi NOTE: CPI = Characters Per Inch
FONT TYPE	Setting of the font type: International ^D = Enables the use of the 256 characters font tables Chinese GB18030 = Enables the use of the chinese extended font GB18030-2000 Korean CP949 = Enables the use of the korean font CP949
SPEED / QUALITY	Setting of printing speed and printing quality: High Quality Normal High Speed ^D
PAPER THRESHOLD	Threshold value (in percent) for the recognition of the presence of paper by the paper presence sensor: 30% 70% 40% ^D 80% 50% 90% 60%
PAPEREND BUFFER CLEAR	Cleaning mode of the data in receive buffer, if the printing is stopped due to lack of paper: Disabled ^D = the data remain in the receive buffer. When the paper runs out, the device keeps the remaining data in the receive buffer and prints the remaining portion of the ticket after that the new paper is loaded. Enabled = when the paper runs out, all data in the receive buffer are deleted.

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PRINTHEAD TEST POWERON	Setting of the performing of the print head test:

Disabled ^D =   The test is performed only during the printing of the setup report.
Enabled =   The test is performed at each power on.

NEAR PAPER END MODE	Low paper reading management:

Disabled ^D	=	Low paper is not signaled.
Sensor	=	The low paper sensor is used to signal the low paper.
Notch	=	The black mark sensor is used to signal the low paper. The black mark sensor signals the low paper after reading the end of roll strip for 1 meter (see paragraph 8.5).

PRINT DENSITY	Adjusting the printing density:

-25%   0 ^D   +25%
-12%   +12%

The print quality is strongly influenced by the type of chemical treatment and the type of storage to which the thermal paper has been subjected, as well as by the weight of the same. It may therefore necessary to act on this parameter to obtain the desired print quality.

5.7   Alignment parameters

This device allows the configuration of the parameters listed in the following table.
The parameters marked with the symbol [D] are the default values.
Settings remain active even after the device has been turned off and they are stored in non-volatile memory.

NOTCH/B.MARK POSITION	Alignment management: Disabled [D] = the black mark alignment is not performed Enabled = the black mark alignment is performed
BLACK MARK DISTANCE [mm]	"Black mark distance" is the minimum distance (in millimetres) between the upper edge of the ticket and the black mark (see chapter 6). from -99.9 mm to 99.9 mm

5.8   Hexadecimal dump

This function is used for the diagnosis of the characters received from the communications port. Characters are printed as hexadecimal code and the corresponding ASCII code (see below). Each line is preceded by a counter in hexadecimal that indicates the number of bytes received.

During the startup, if you hold down the FEED key, the device enters the self-test routine and print the setup report. The device remains in standby until a key is pressed or characters are received through the communication port (Hexadecimal dump mode). For each character sent, the ticket shows the hexadecimal value and the ASCII codes (if the characters are underlined, the receive buffer is full). Shown below is an example of a Hexadecimal dump:

```
HEXADECIMAL DUMP

31  32  33  34  35  ...        12345 ...
39  30  31  32  33  ...        90123 ...
37  38  39  75  69  ...        789ui ...
68  6B  6A  73  64  ...        hkjsd ...
73  64  66  6B  6A  ...        sdfkj ...
66  73  64  66  6B  ...        fsdfk ...
65  69  6F  79  75  ...        eioyu ...
6F  72  69  75  77  ...        oriuw ...
6F  75  77  65  72  ...        ouwer ...
77  65  72  69  6F  ...        werio ...
72  69  6F  75  77  ...        riouw ...
6B  6C  73  64  66  ...        klsdf ...
64  66  6B  73  64  ...        dfksd ...
73  64  66  6B  6A  ...        sdfkj ...
66  6B  F2  6A  73  ...        fk≥j ...
6A  6B  6C  68                 jklh
```

6   ALIGNMENT

Device is provided with a sensor for the use of alignment black mark in order to handle rolls of tickets with pre-printed fields and a fixed length.

The alignment sensor is a "reflection" sensor: this kind of sensor emits a band of light and detects the quantity of light reflected to it. The presence of the black mark is therefore detected by the amount of light that returns to the sensor, considering that the light is reflected by the white paper and absorbed by the black mark.

Cover

Reflection
sensor

Paper roll

direction of
paper feed
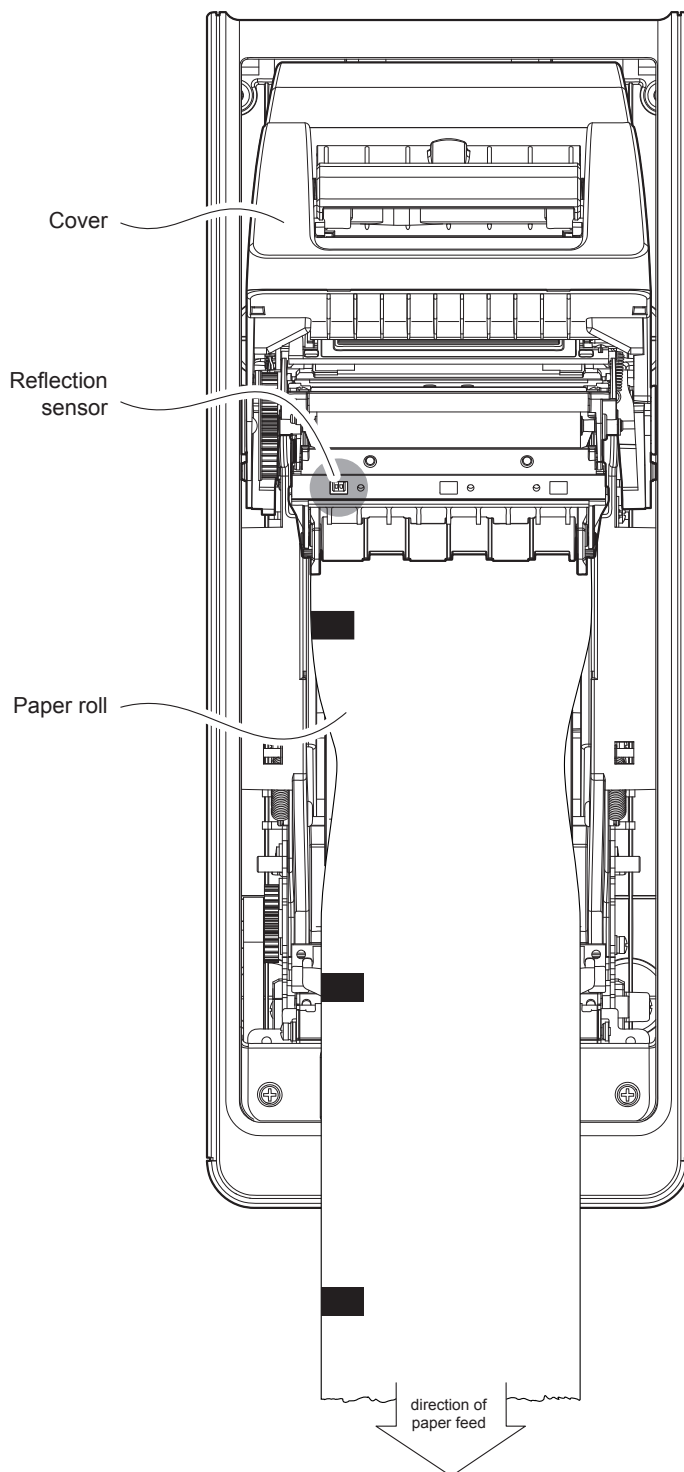
The following paragraphs show how to correctly set the configuration parameters of device in order to assure the alignment.

6.1 Enable alignment

To guarantee the correct alignment, you must enable the parameter "Notch/B.Mark Position" during the configuration procedures (see chapter 5).

6.2 Alignment parameters

The "alignment point" is defined as the position inside the ticket to use for the black mark alignment.
The distance between the black mark edge and the alignment point is defined as "Black Mark Distance". The "Black Mark Distance" can be set with the command 0x1D 0xE7 (see commands manual) or during the configuration procedure by software (see paragraph 5.2).

Referring to the front of the black mark, the value of "Black Mark Distance" value varies from -99.9 mm minimum and 99.9 mm maximum.

If the "Black Mark Distance" value is set to 0, the alignment point is set at the beginning of the black mark.
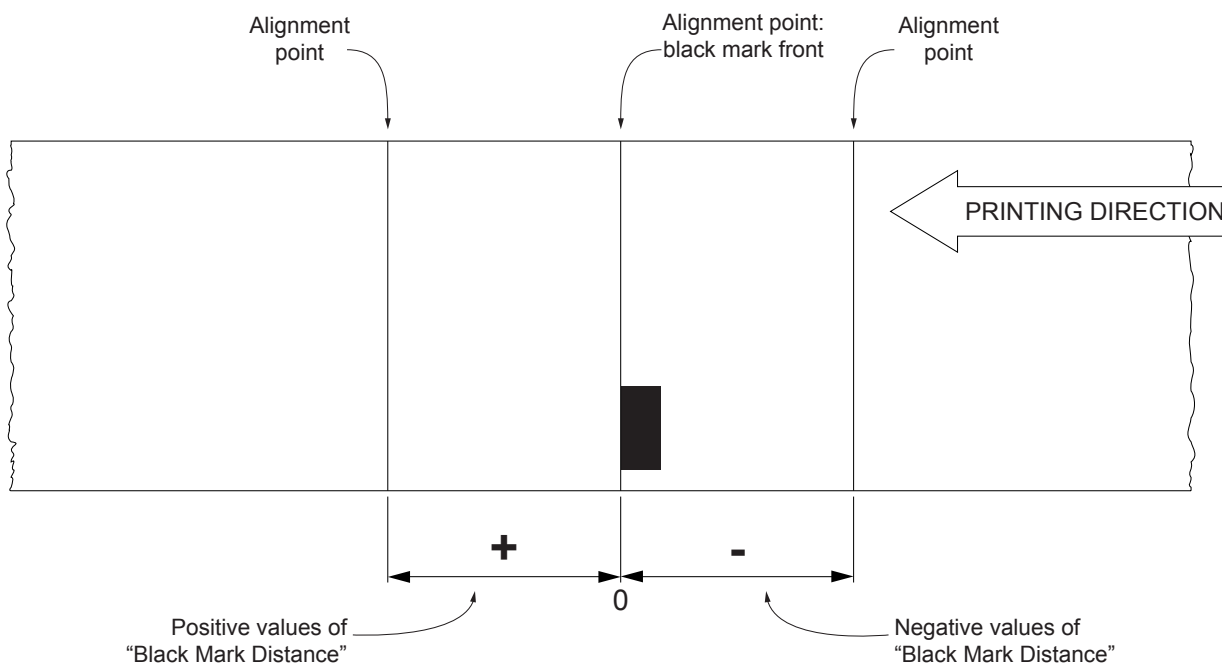
The following figure shows an example of paper with alignment point set by a positive value of "Black Mark Distance" ("Black Mark Distance" = + A):
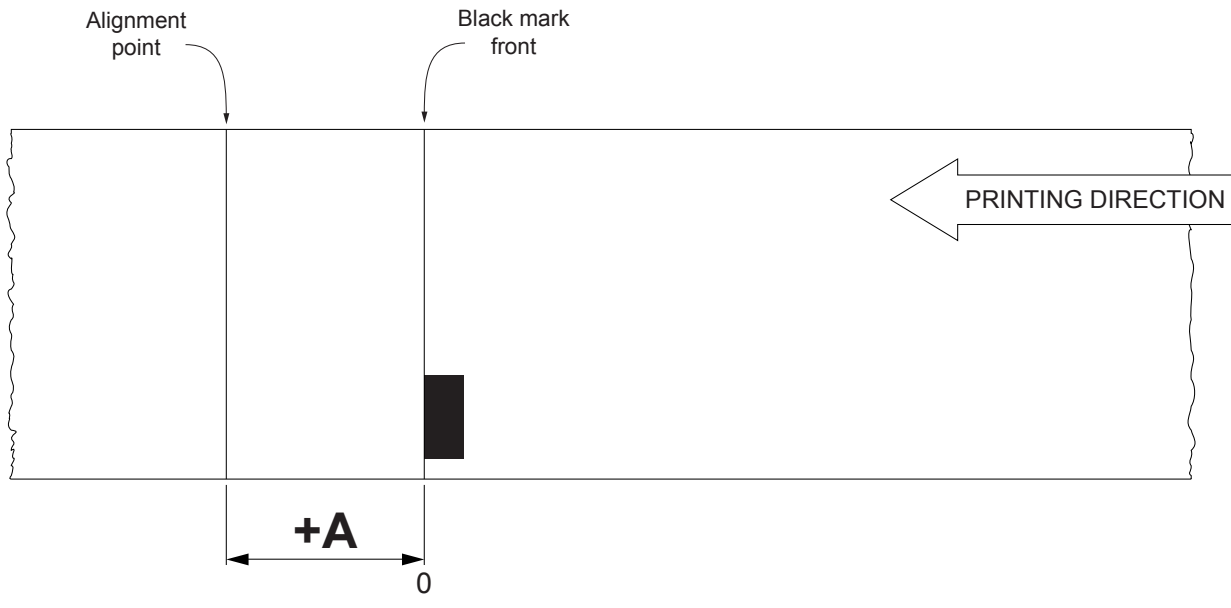
To set a negative value of the "Black Mark Distance" parameter is useful in cases where the alignment point refers to the black mark printed on the previous ticket or where the desired cutting line is placed in the middle of the alignment black mark. In the following images, the value of "Black Mark Distance" parameter is set to -A.
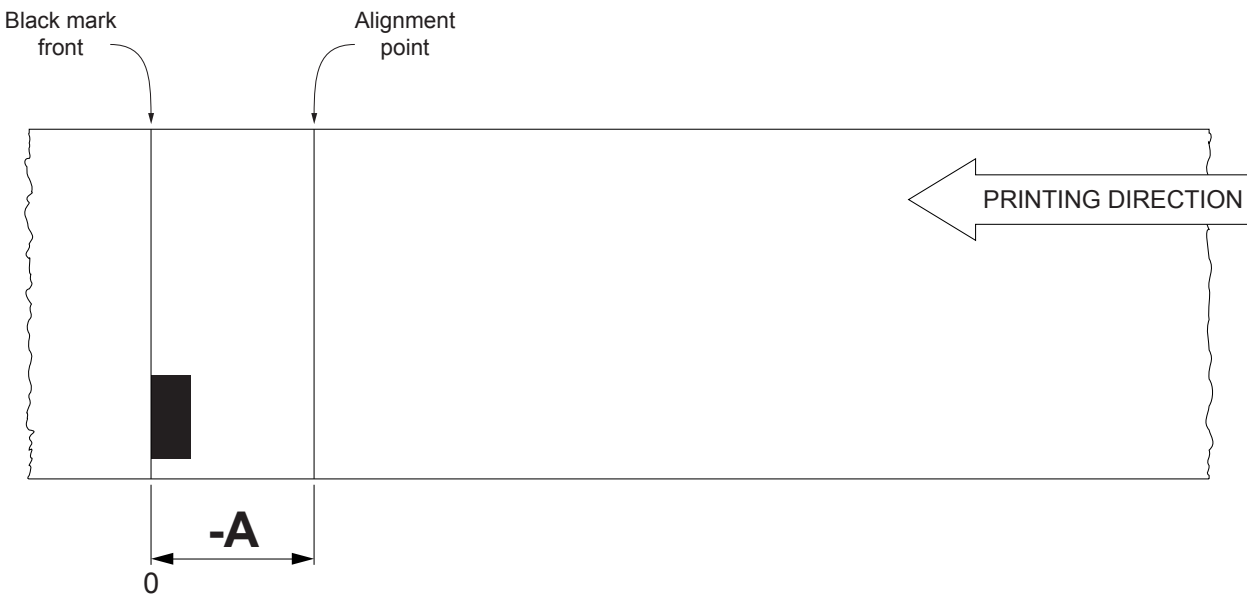
The following figure shows a section of the device with the paper path and the distances (expressed in millimetres) between the alignment sensor, the printhead (print line) and the autocutter (cutting line).

Distance between printing line and cutting line

14.7

Distance between printing line and black mark detection

20

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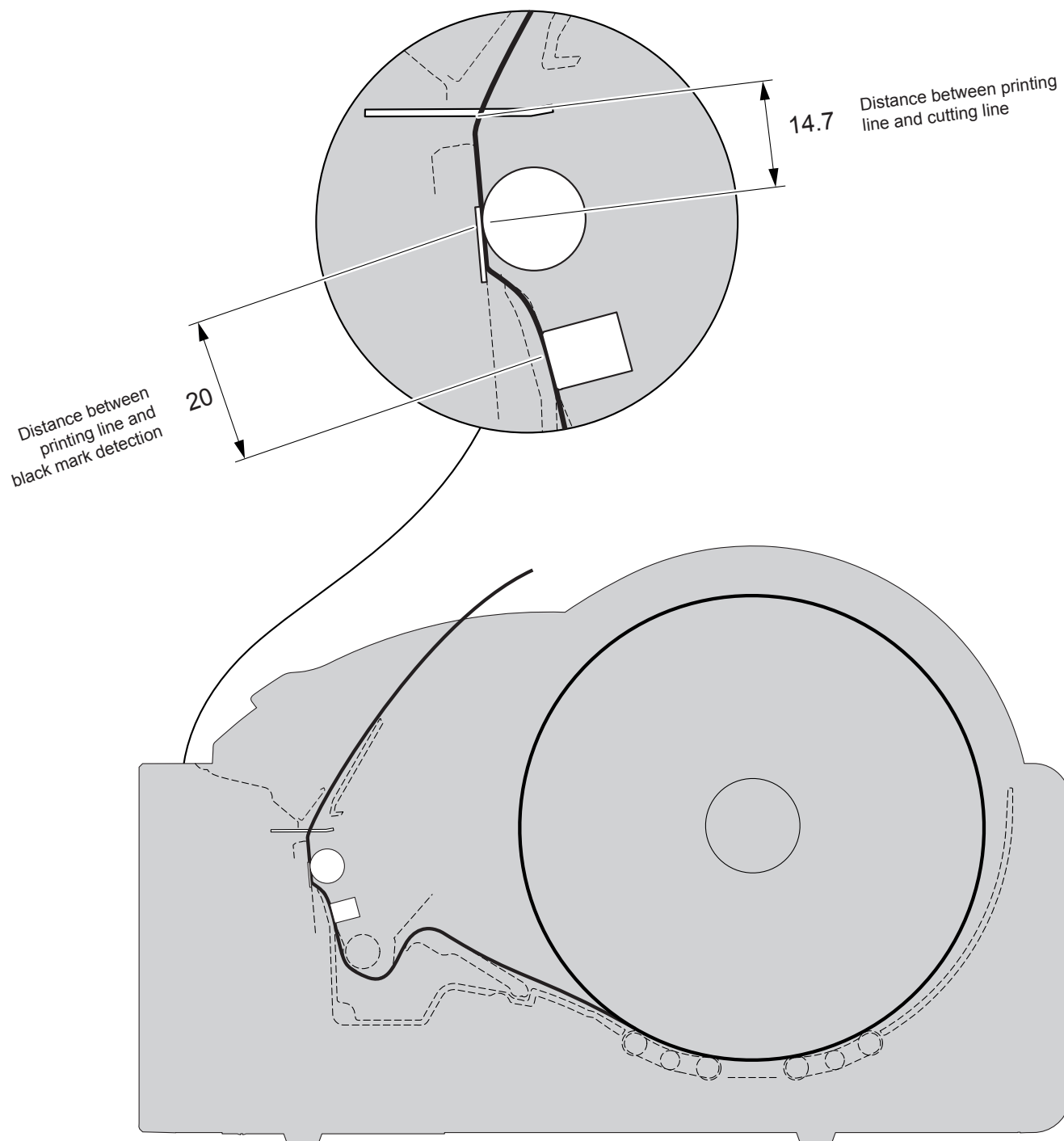
6.3 Printing area

In order to print ticket containing only one black mark and to not overlay printing to a black mark (that will make it useless for the next alignment), it is important to properly calibrate the length of the printing area of ticket according to the inter-black mark distance.

The following figure shows an example of tickets with "Black Mark Distance" set to 0.5 mm:
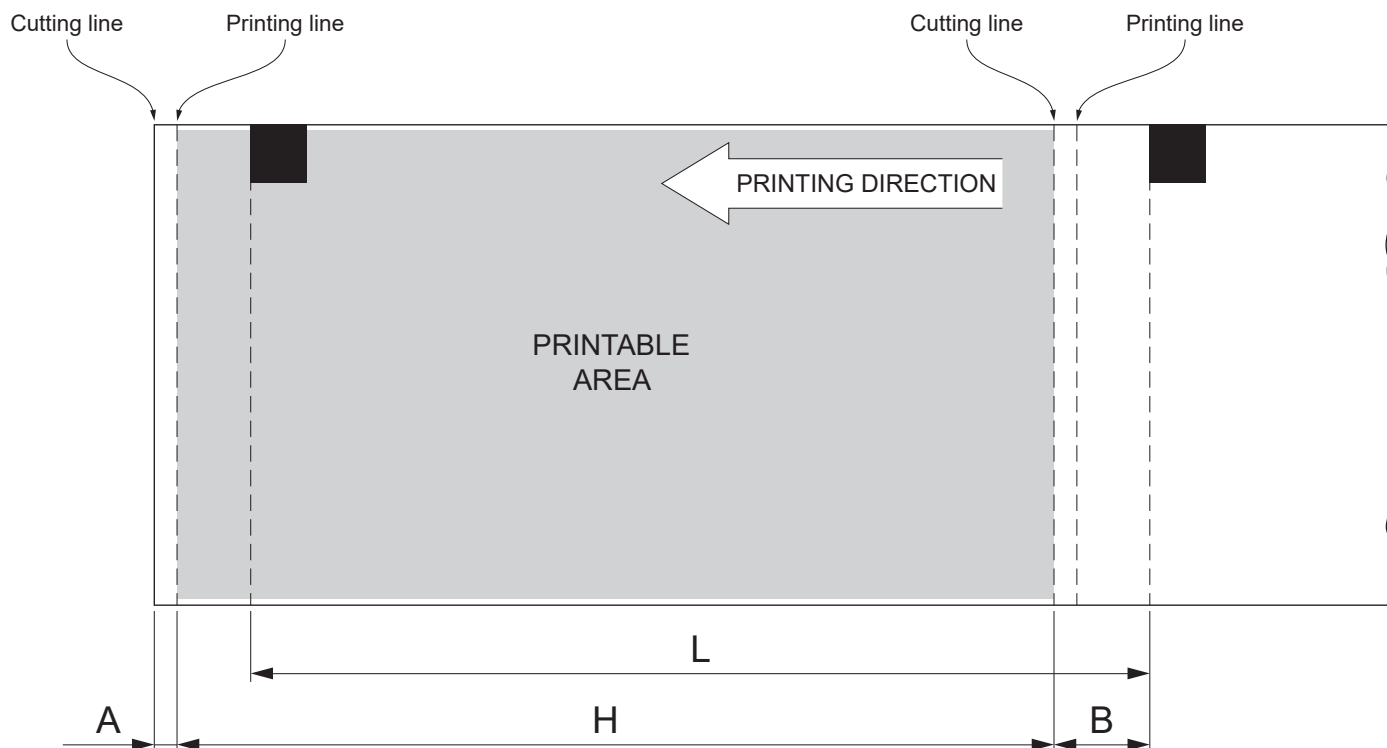
A   "Non-printable area" = "Distance between autocutter and beginning of printing area" = 8 mm

B   "Black Mark Distance" = 0.5 mm

H   Distance between the first and the last print line, called "Height of the printing area".

L   Distance between an edge of the black mark and the next one, called "Inter-black mark distance".

To use all the black marks on paper, you must comply with the following equation:

$$H + A \leq L$$
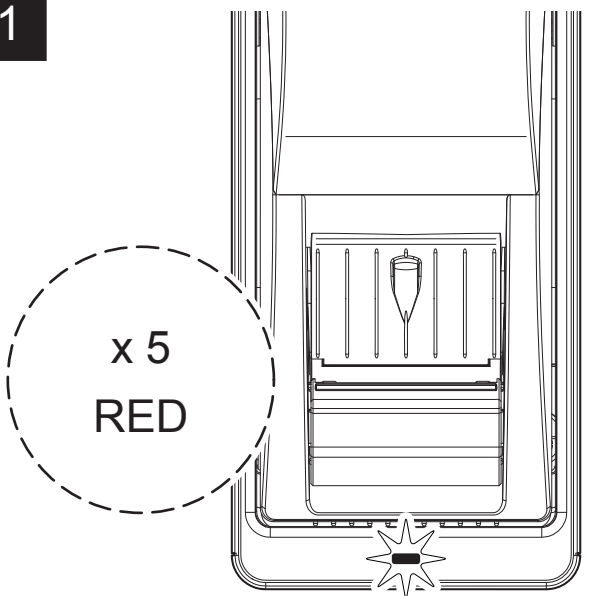
7 MAINTENANCE

7.1 Autocutter jam

In case of autocutter jam, proceed as follows.
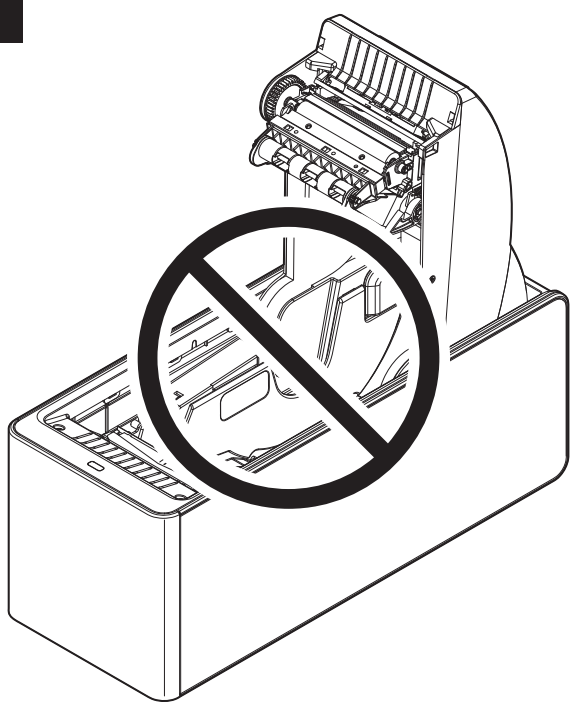
1

x 5
RED
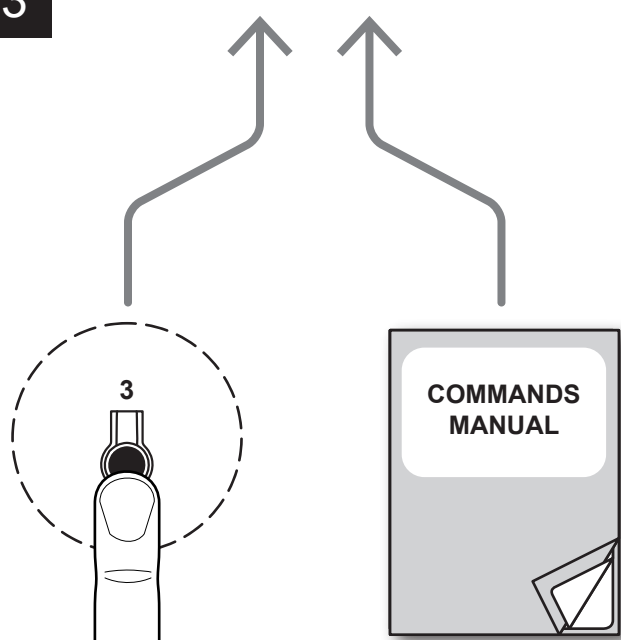
In case of autocutter jam,
the status LED lights red
and performs five flashes (see paragraph 2.7).

2

DO NOT open the cover for the paper compartment
to avoid damaging internal components.

3

3

COMMANDS
MANUAL

To unlock autocutter, press the key 3
or send the proper unlock command
(see commands manual).
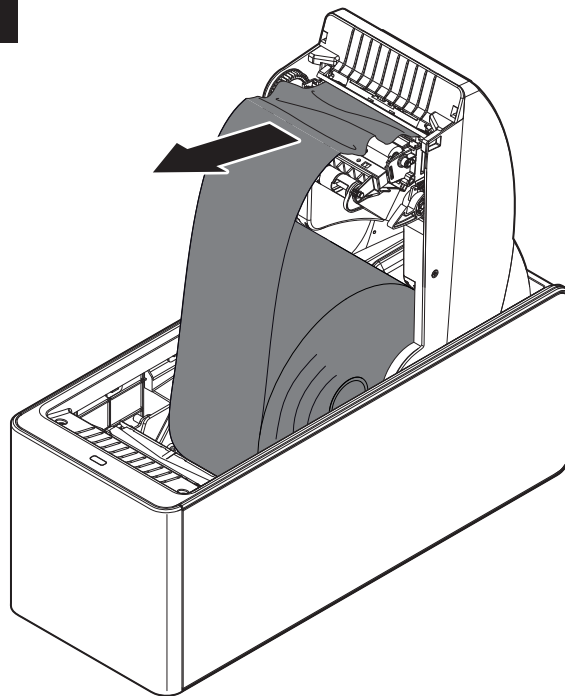
7.2　Paper jam

In case of paper jam, proceed as follows.

1

x 4
YELLOW
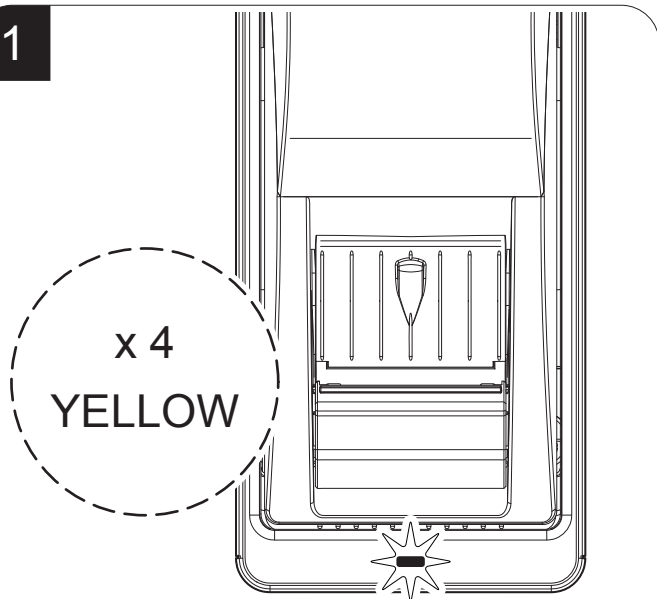
In case of paper jam,
the status LED lights yellow
and performs four flashes (see paragraph 2.7).

2
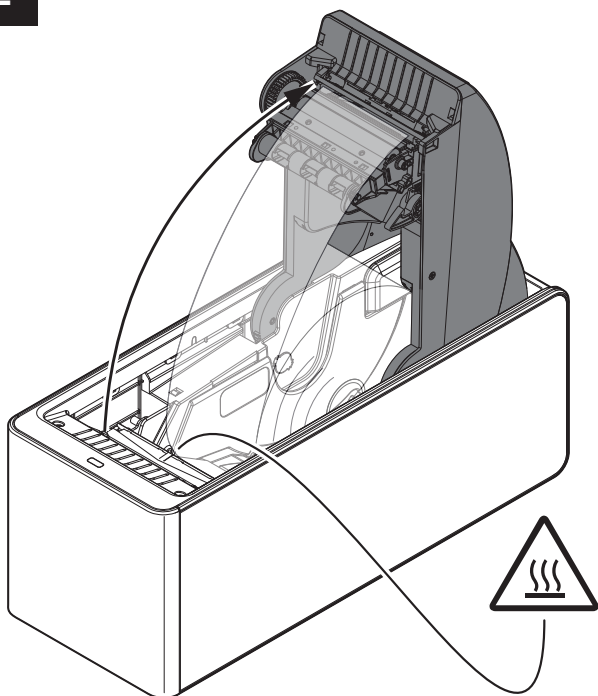
Open the cover for the paper compartment
(see paragraph 4.1).

3

Remove any damaged paper
under the paper diverter.

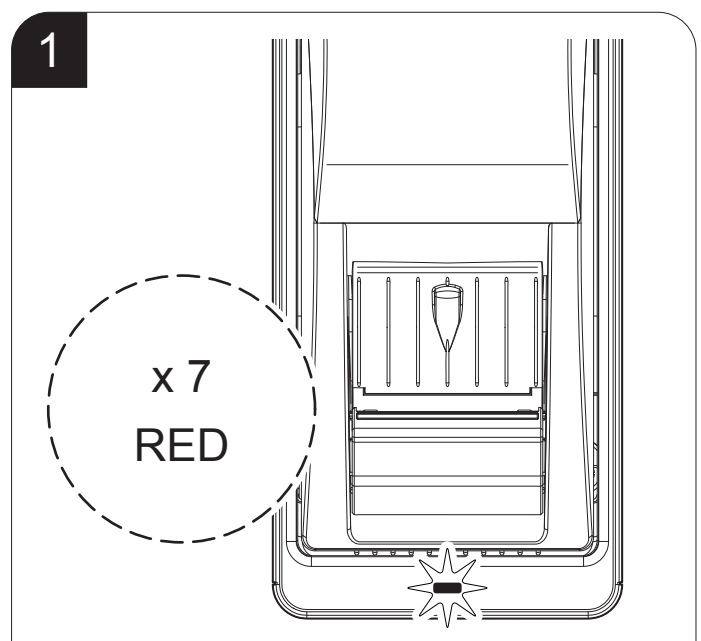**4**
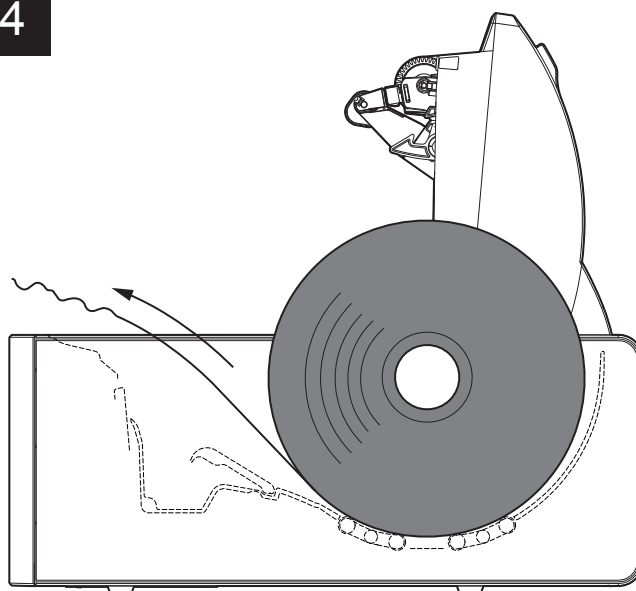
Pull out the damaged paper
for a few centimetres.

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7.3 Stacker jam

In case of stacker jam, proceed as follows.
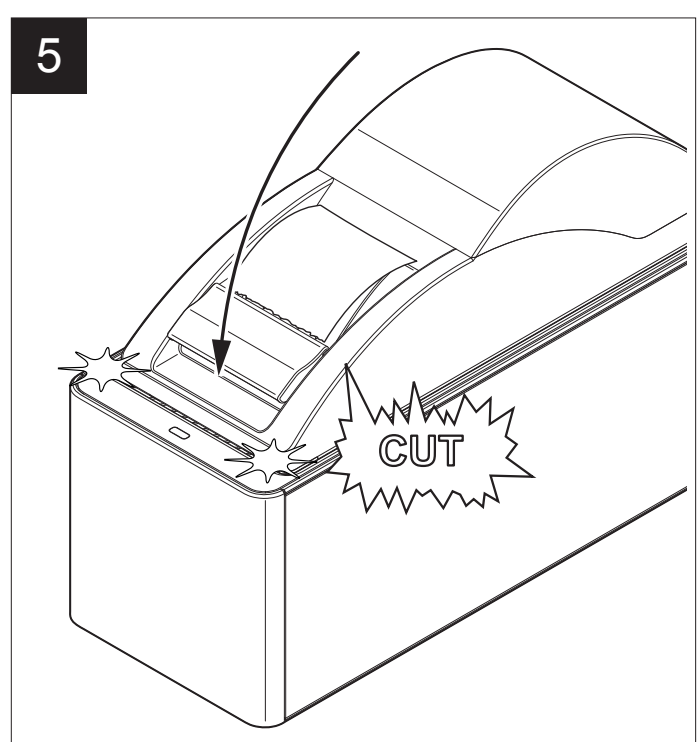
Close the paper compartment cover and wait until the damaged paper is automatically cut.
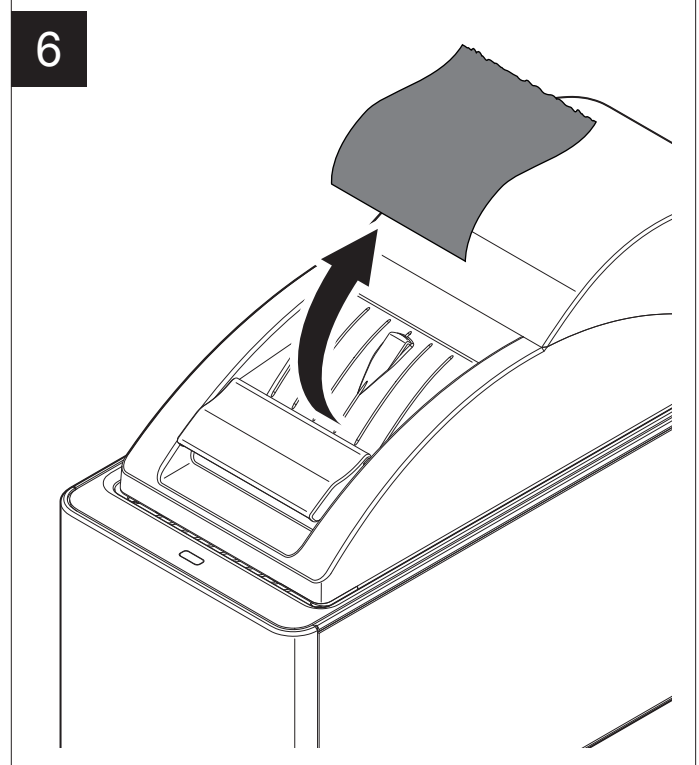
Remove the damaged paper just cut.

In case of stacker jam,
the status LED lights red
and performs seven flashes (see paragraph 2.7).
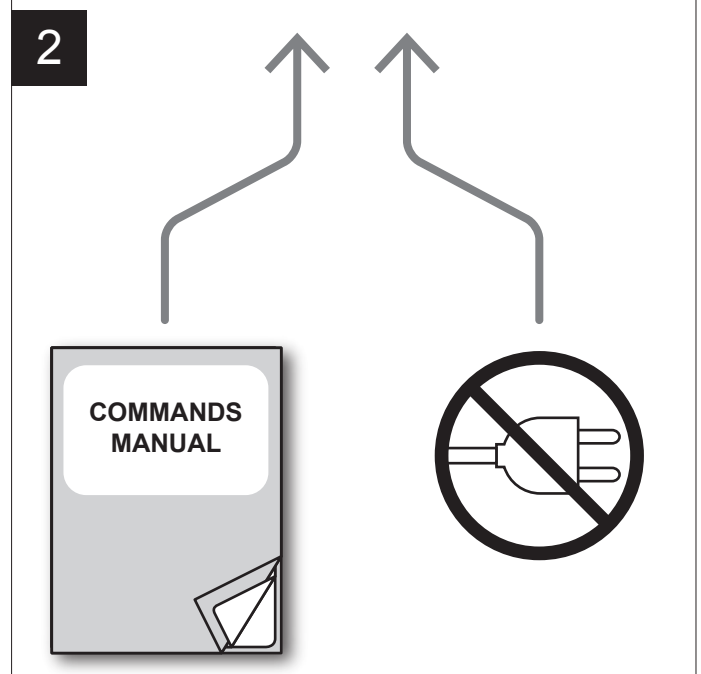
To unlock stacker, send the proper unlock command
(see commands manual) or
switch the device ON/OFF .

7.4 Planning of cleaning operations

The regular cleaning of the device keeps the print quality and extends its life.
The following table shows the recommended planning for the cleaning operations. If you use the device in dusty environments, you must reduce intervals between cleaning operations.

For specific procedures, see the following pages.

EVERY PAPER CHANGE	
Printhead	Use isopropyl alcohol
Platen roller	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Autocutter	Use compressed air
Paper path	Use compressed air or tweezers
Sensors	Use compressed air
EVERY 6 MONTHS OR AS NEEDED	
Case	Use compressed air or a soft cloth

7.5   Cleaning

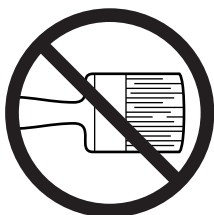For periodic cleaning of the device, see the instructions below.
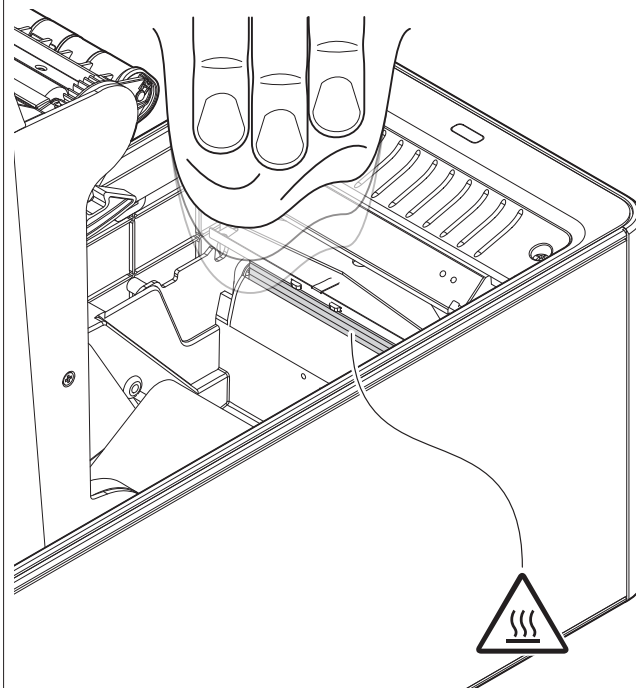
<u>Printhead</u>

1
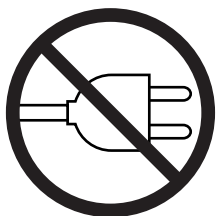
Disconnect the power supply cable and
open the device cover (see paragraph 4.1).

2

ATTENTION:
Do not use solvents or hard brushes.
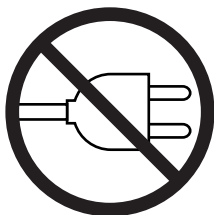Do not let water or other liquids
get inside the device.

3

Clean the printhead by using
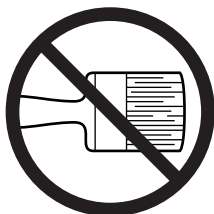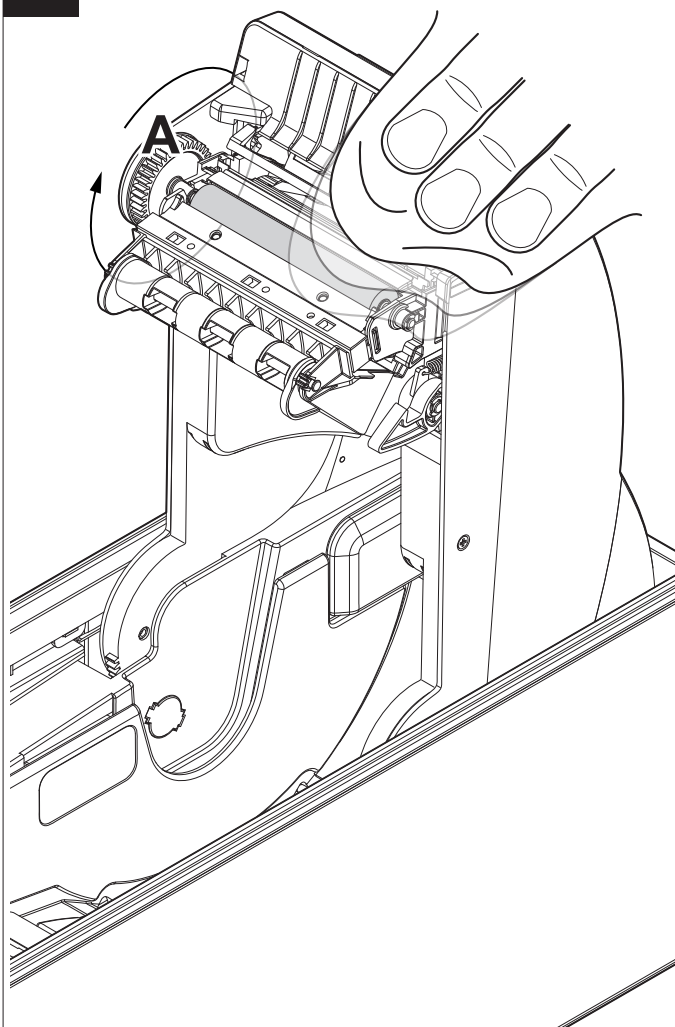an anti-scratch wipe
soaked in isopropyl alcohol.

Platen roller

Disconnect the power supply cable and open the device cover (see paragraph 4.1).
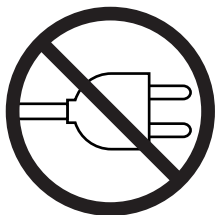
2

A

3

Clean the platen roller by using an anti-scratch wipe soaked in isopropyl alcohol.

Make sure that you have performed a complete rotation of platen roll by rotating the gear A.
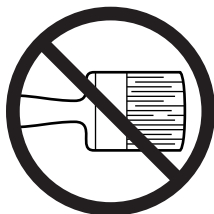
ATTENTION:
Do not use solvents or hard brushes.
Do not let water or other liquids
get inside the device.

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Autocutter

1

Disconnect the power supply cable and open the device cover (see).

2

ATTENTION:
Do not use alcohol, solvents or hard brushes.
Do not let water or other liquids
get inside the device.

3

Clean the device autocutter
by using compressed air.

Paper path

1

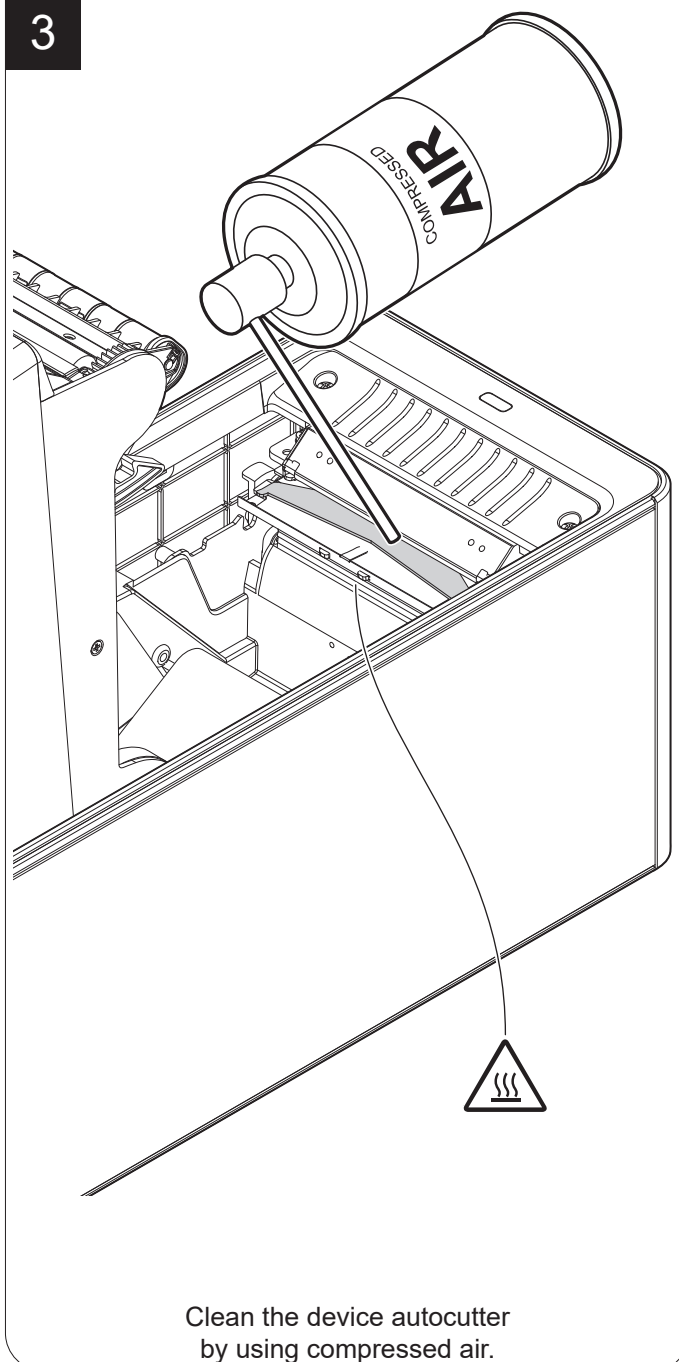Disconnect the power supply cable and open the device cover (see paragraph 4.1).

2

ATTENTION:
Do not use alcohol, solvents or hard brushes.
Do not let water or other liquids
get inside the device.

3

COMPRESSED
AIR

Clean the area involved in the passage of paper
by using compressed air.

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Case

1

Disconnect the power supply cable.

2

ATTENTION:
Do not use alcohol, solvents or hard brushes.
Do not let water or other liquids
get inside the device.

3

COMPRESSED
AIR

Clean the hard to reach points
with compressed air...

4
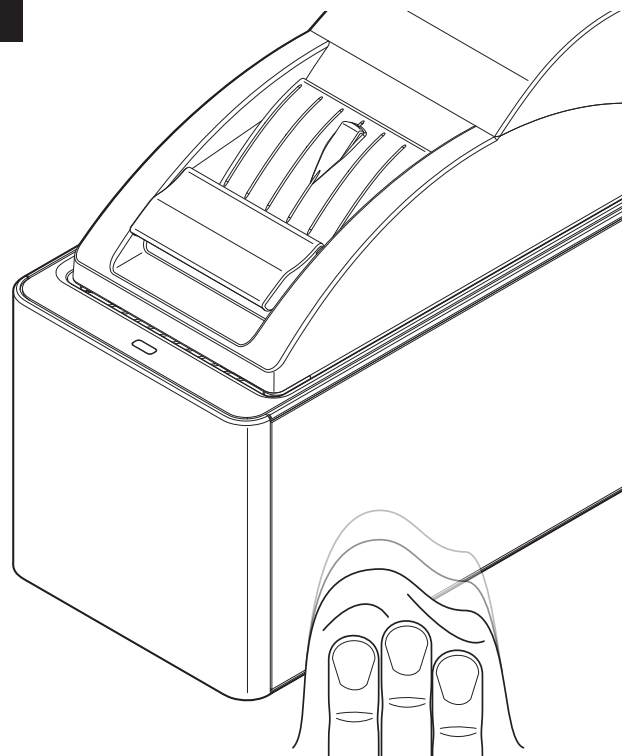
... and clean the device case
by using a soft cloth.

Sensors

1
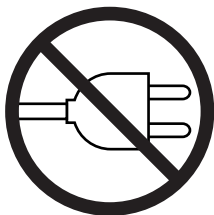
Disconnect the power supply cable and open the device cover (see paragraph 4.1).
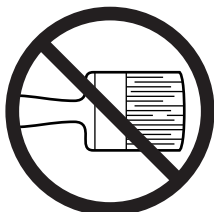
2

ATTENTION:
Do not use alcohol, solvents or hard brushes.
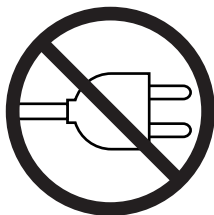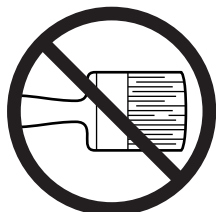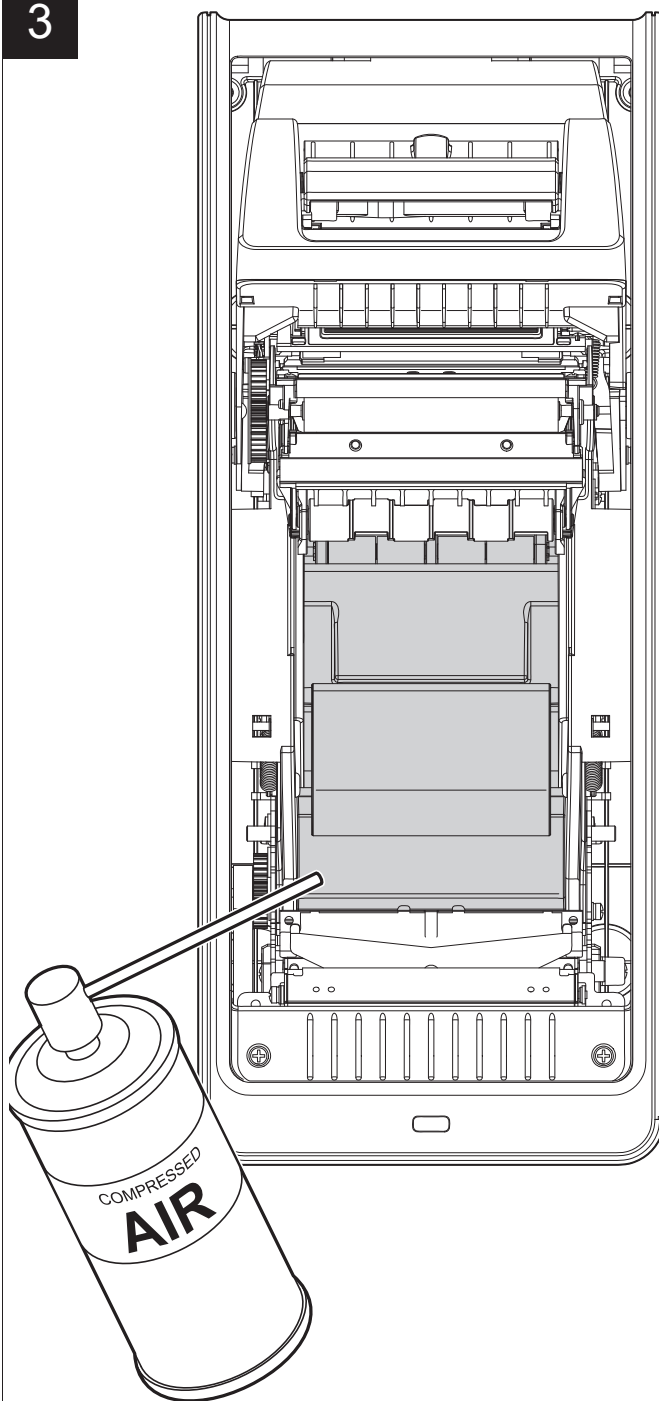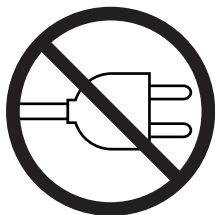Do not let water or other liquids
get inside the device.

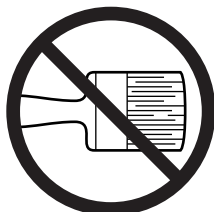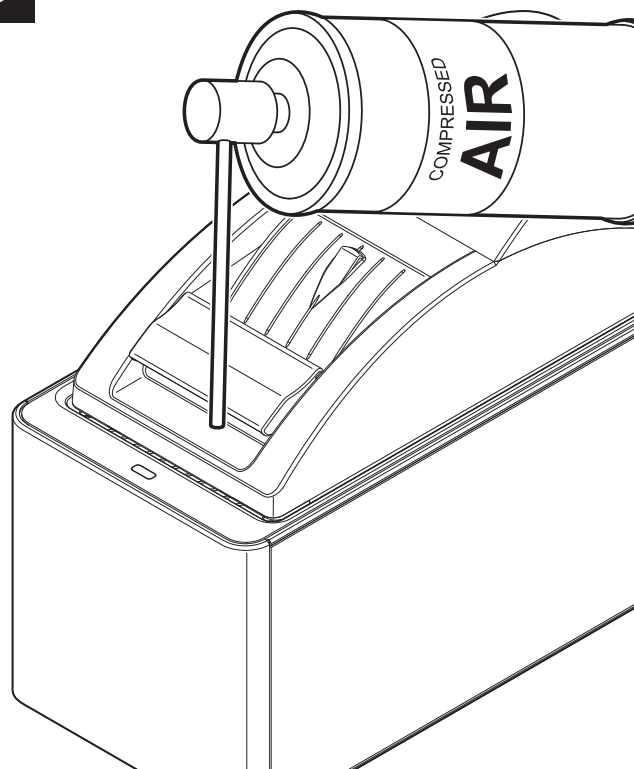**3**
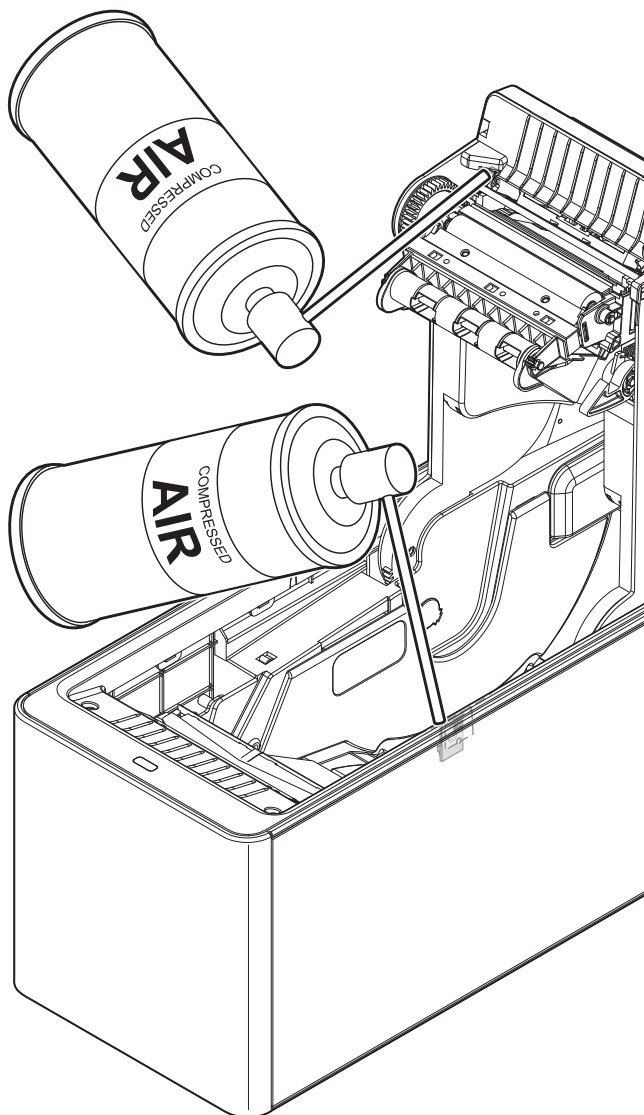
Clean the device sensors by using
compressed air.

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4
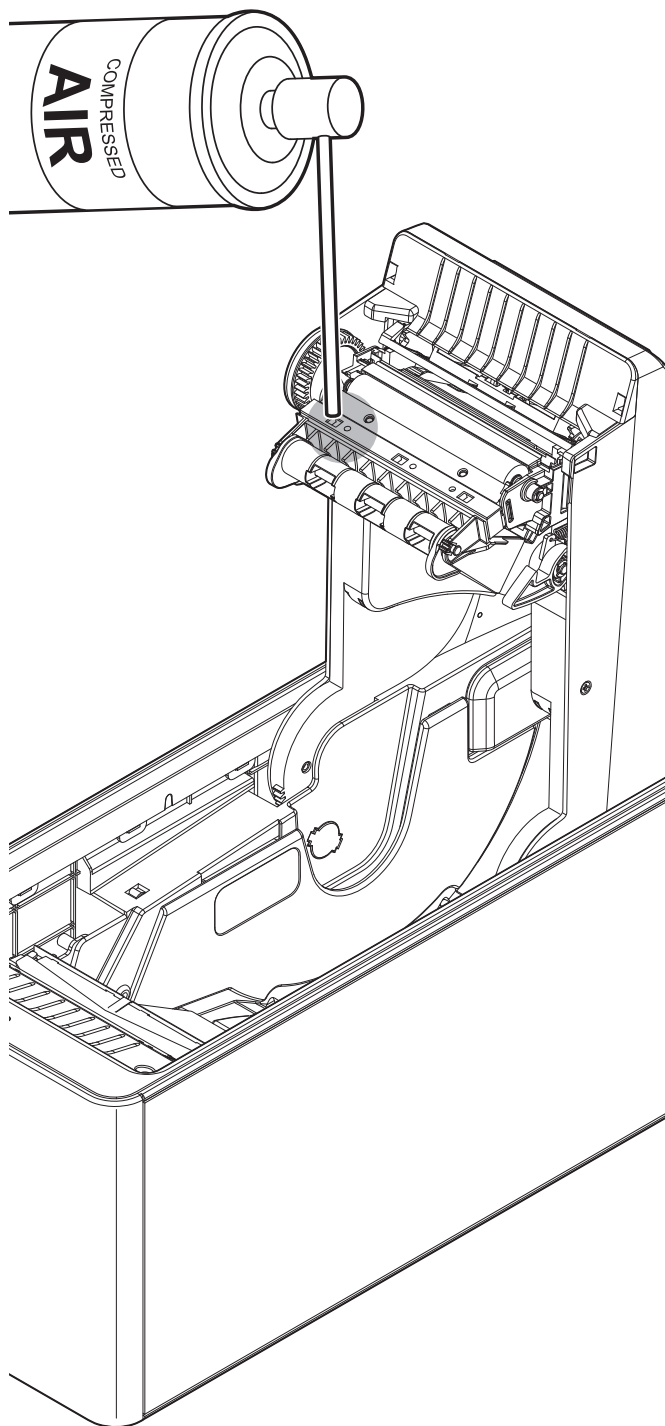
Clean the device sensors by using
compressed air.

7.6 Firmware upgrade

Firmware upgrade can be performed by using the "PrinterSet" software tool available on www.custom4u.it.
To upgrade firmware, proceed as follows:

1

www.**CUSTOM4U**.it

Login to the website www.custom4u.it, type in the product code of the device
and download the latest firmware release available.

2
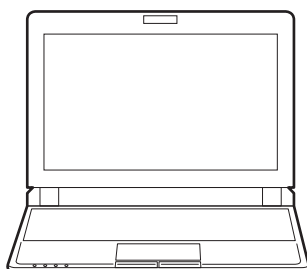
Connect the device to a PC directly (see paragraph 3.1),
without using HUB devices.

3

PS
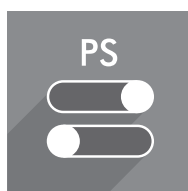
Start the "PrinterSet" software tool.

4

| LOAD | SAVE | PORT | EXTRA | HELP |

From Device
From File

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Select a configuration file as follows:

Click on LOAD > From device and select a device connected with the PC

Click on LOAD > From file and select a .psc file on your PC

Drag and drop a .psc file

Click on LOAD > FROM DEVICE and select the device connected to the PC.

5

| LOAD | SAVE | PORT | EXTRA | HELP |

SETUP
FONTS
UPGRADE

To perform an upgrade select a file as follows:

For firmware upgrade, click on OPEN and select
a.psw or .pfw file on your PC

For module upgrade, click on OPEN and select
a.mod file on your PC

Click on UPGRADE and follow the instructions shown on the screen.

ATTENTION:
During saving, it is strongly discouraged to disconnect the communication cable or to remove the power supply of the PC or the device.

8 SPECIFICATION

8.1 Hardware specifications

GENERAL	
Sensors	Autocutter blade position, input paper presence, black mark detection, head temperature, paper jam, stacker position, low paper, paper compartment cover open
Emulations	CUSTOM/POS
Printing driver	Windows 7 (32/64 bit) Windows 8 (32/64 bit) Windows 8.1 (32/64 bit) Windows 10 (32/64 bit) Linux (32/64 bit) Android

INTERFACES	
USB port	480 Mbit/s (USB 2.0 high speed)

MEMORIES	
Receive buffer	16 kB
Flash memory	2 MB
RAM memory	8 MB
Graphic memory	Logos / fonts (TrueType) management, 8 MB

PRINTER	
Resolution	203 dpi (8 dot/mm)
Printing method	Thermal, fixed head
Head life [1]	
Abrasion resistance [2]	100 km (with recommended paper)
Pulse durability	100 M (12.5% duty cycle)
Printing width	80 mm

Printing mode	Normal, 90°, 180°, 270°
Printing format	Height/Width from 1 to 8, bold, reverse, underlined, italic
Character fonts	27 character code tables (see paragraph 8.6), 2 TrueType font [3] Extended chinese GB18030-2000 Korean PC949
Printable barcode	UPCA, UPCE, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32 PDF417, DATAMATRIX, AZTEC, QRCODE, RSS
Printing speed [1] [4]	High quality = 150 mm/s Normal = 200 mm/s High speed = 254 mm/s

PAPER	
Type of paper	Thermal rolls (heat-sensitive side on outside of roll)
Paper width	82.5 mm + 0.00 / -0.38 mm
Paper weight	from 70 g/m^2 to 90 g/m^2
Paper thickness	from 71 µm to 89 µm
Recommended paper	APPVION ALPHA PLUS 600-3.2 MITSUBISHI TF7067, TL3000
External roll diameter	max. 203 mm
External roll core diameter	25 mm
Paper end	Not attached to roll core
Core type	Cardboard or plastic

AUTOCUTTER	
Paper cut	Total cut
Estimated life [1]	> 2000000 cuts

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DEVICE ELECTRICAL SPECIFICATIONS	
Power supply	24 Vdc ±10% (external power supply)
Medium consumption [4]	1.8 A
Standby consumption	0.05 A

ELECTRICAL SPECIFICATIONS POWER SUPPLY code 963GE020000071	
Power supply voltage	from 90 Vac to 264 Vac
Frequency	from 47 Hz to 63 Hz
Output	24 V, 2.5 A
Power	60 W

ENVIRONMENTAL CONDITIONS	
Operating temperature	from 0 °C to +45 °C
Relative humidity (RH)	from 5% to 95% (w/o condensation)
Storage temperature	from -20 °C to +60 °C
Storage relative humidity (RH)	from 5% to 95% (w/o condensation)

NOTES:
(1) : Respecting the regular schedule of cleaning for the device components.
(2) : Damages caused by scratches, ESD and electromigration are excluded.
(3) : "Veramono.ttf" and "Vera.ttf" are installed on the device. It is possible to install additional TrueType fonts.
(4) : Referred to a standard CUSTOM receipt (L = 10 cm, Density = 12.5% dots on).

8.2 Character specifications

Character set		3	
Character density	11 cpi	15 cpi	20 cpi
Number of columns	35	45	64
Character / s	3010	3870	5418
Lines / s	84	84	84
Characters (L x H mm) - Normal	2.25 x 3	1.75 x 3	1.25 x 3

NOTE: Theoretical values.

8.3 Device dimensions

Length	381 mm
Height	244.5 mm (with cover closed)
	348.8 mm (with cover open)
Width	154 mm
Weight	3590 g (without paper roll)

All the dimensions shown in following figures are in millimetres.

348.8

381

155.5

154

244.5
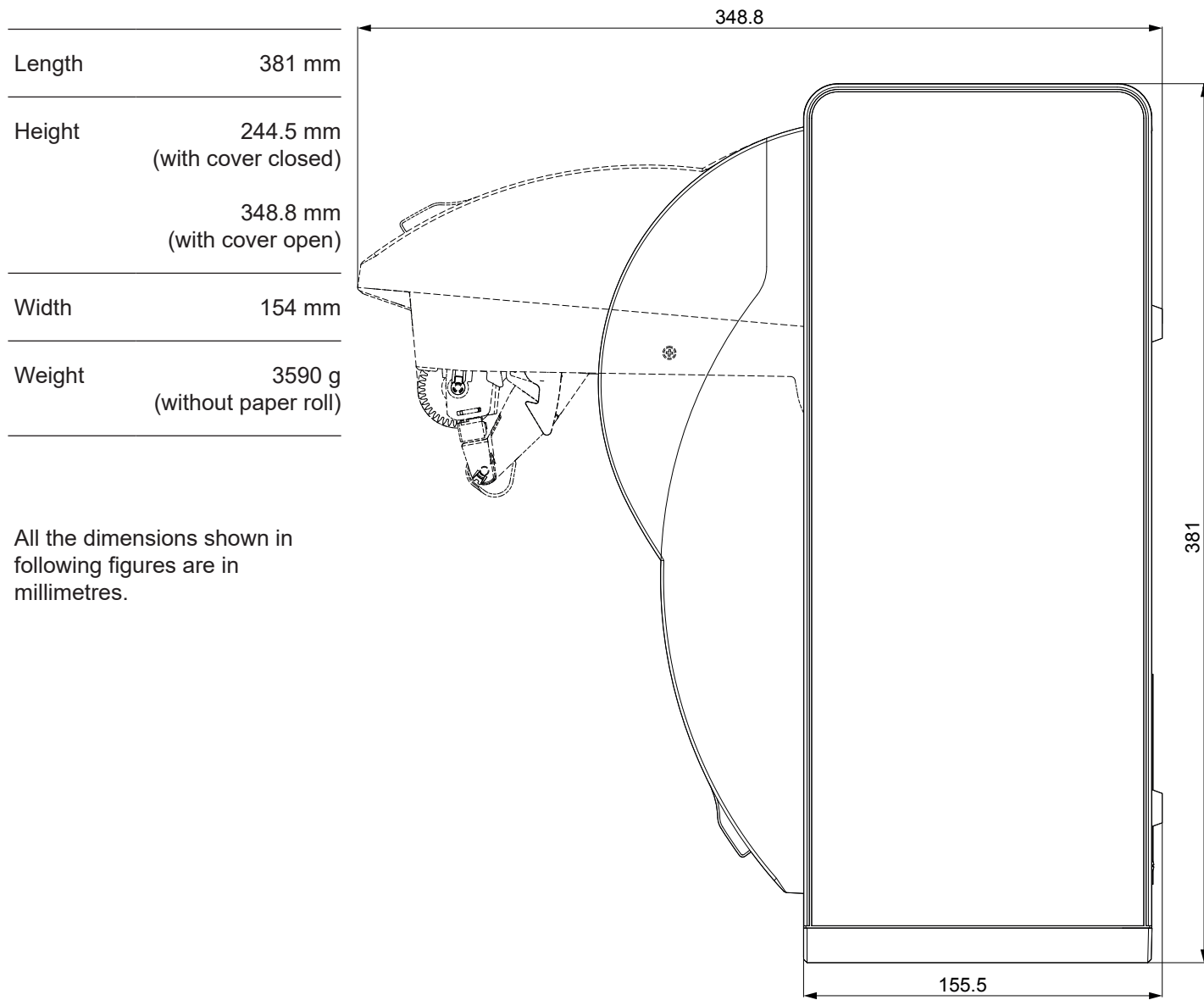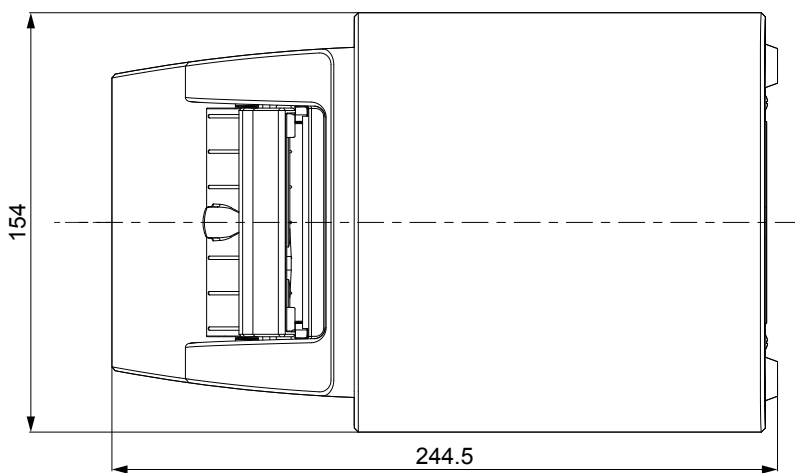
8.4 Power supply and power cord dimensions

The following table shows the dimensions of the power supply and power cord supplied with the device:

POWER CORD code 26100000000311	
Length	2000 mm
POWER SUPPLY code 963GE020000071	
Length	130 ± 1 mm
Height	36 ± 1 mm
Width	57 ± 1 mm

All the dimensions shown in following figures are in millimetres.

POWER CORD code 26100000000311

POWER SUPPLY code 963GE020000071

AC INLET

DC OUTPUT WIRE

36 ± 1

57 ± 1

130 ± 1

1500

30 ± 5

n.c.

2

3

1

GND

+24V
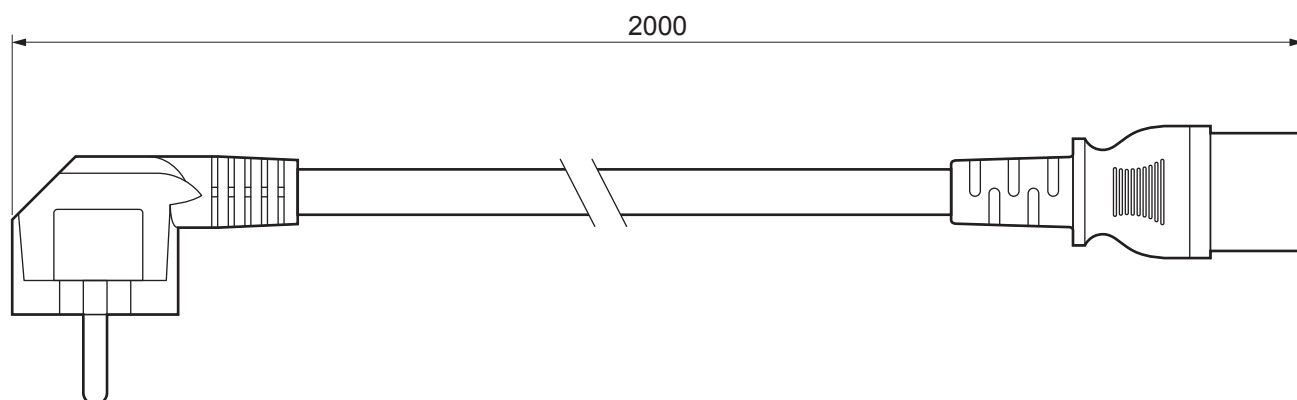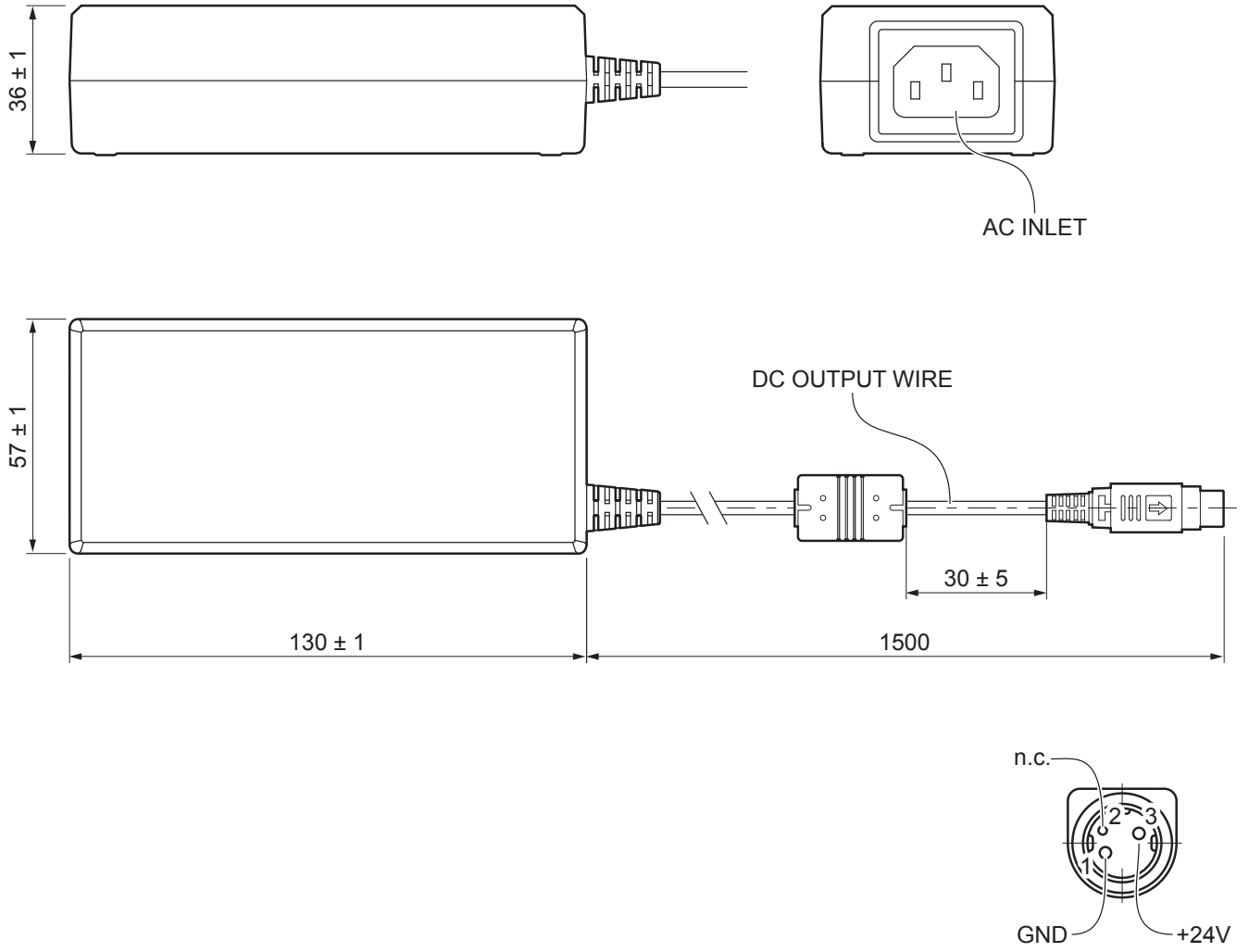
8.5 Paper specification

Paper with black mark

The following image shows an example of black mark placement on the non-thermal side of paper.
For more information about the use of paper with black mark see chapter 6.

> NOTE: All the dimensions shown in following figures are in millimetres.

8.6 Character sets in CUSTOM/POS emulation

The device has 3 internal fonts with a width of 11, 15, 20 cpi, which may be related one of the coding tables provided on the device.

To know the coding tables actually present on the device, you need to print the font test (see paragraph 2.5).
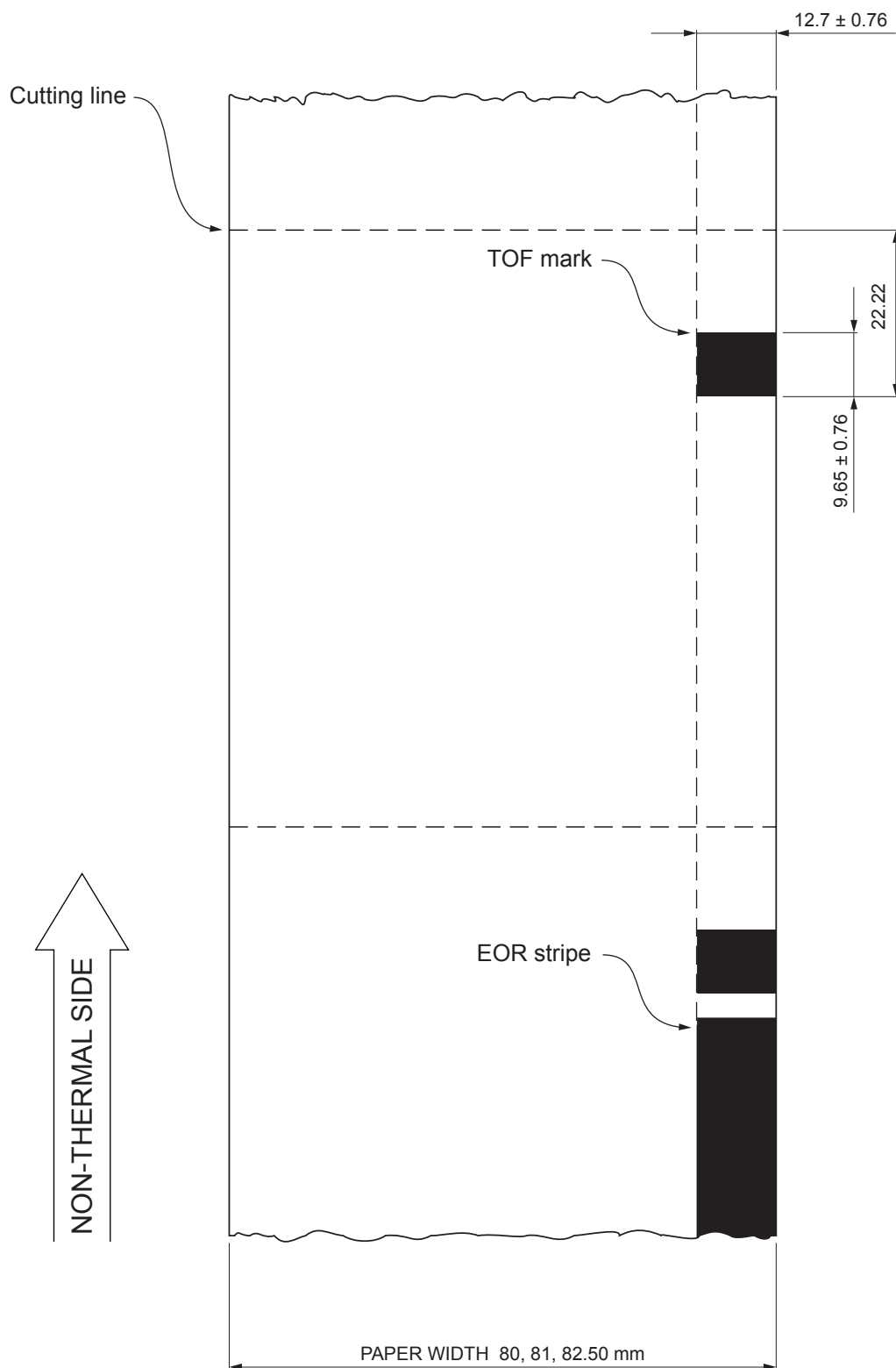
You can set font and coding table by using the commands (see the commands manual of the device).
The selection of the font width is available also in the setup procedure by properly setting the parameter "Chars/inch" (see paragraph 5.6).

The following is the full list of coding tables that can be installed on the device.

\<CodeTable\>	Coding table	
0	PC437 - U.S.A., Standard Europe	
1	Katakana	
2	PC850 - Multilingual	
3	PC860 - Portuguese	
4	PC863 - Canadian/French	
5	PC865 - Nordic	
6	VISCII - Vietnamese Standard Code	
11	PC851 - Greek	on request
12	PC853 - Turkish	on request
13	PC857 - Turkish	
14	PC737 - Greek	
15	ISO8859-7 - Greek	on request
16	WPC1252 - Scandinavian	
17	PC866 - Cyrillic 2	
18	PC852 - Latin 2	
19	PC858 for Euro symbol in position 213	
20	KU42 - Thai	
21	TIS11 - Thai	on request
26	TIS18 - Thai	on request
30	TCVN_3 - Vietnamese	on request
31	TCVN_3 - Vietnamese	on request
32	PC720 - Arabic	on request

<CodeTable>	Coding table	
33	WPC775 - Baltic Rim	on request
34	PC855 - Cyrillic	
35	PC861 - Icelandic	on request
36	PC862 - Hebrew	
37	PC864 - Arabic	
38	PC869 - Greek	on request
39	ISO8859-2 - Latin 2	on request
40	ISO8859-15 - Latin 9	on request
41	PC1098 - Farsi	
42	PC1118 - Lithuanian	on request
43	PC1119 - Lithuanian	on request
44	PC1125 - Ukrainian	
45	WPC1250 - Latin 2	
46	WPC1251 - Cyrillic	
47	WPC1253 - Greek	
48	WPC1254 - Turkish	
49	WPC1255 - Hebrew	
50	WPC1256 - Arabic	
51	WPC1257 - Baltic Rim	
52	WPC1258 - Vietnamese	
53	KZ1048 - Kazakh	on request
255	Space page	

8.7   True Type fonts

In CUSTOM/POS emulation, it is possible to use TrueType fonts. To be used, a TrueType font must be monospace type (every character of the font must have the same dimension). The check is made by the device when the font is selected.

TrueType fonts will be automatically scaled by the device in order to obtain the same available width for the embedded fonts (11, 15 and 20 cpi).

The quality of TrueType fonts and the correct positioning into the printable area will result from the font producers and the font implementation.

For the correct printing of the code tables, it is necessary that the selected TrueType font contains all the characters in the tables. Otherwise, the '□' symbol will be printed instead the missing character. All commands for printing configuration are usable both with TrueType fonts and with embedded fonts. It is possible to address the TrueType font respects the UNICODE™ standard (see www.unicode.org), by using UTF-8 or UTF-16 encoding.

To store a TrueType font in the device use the command 0x1D 0xE9 (refer to the commands manual).
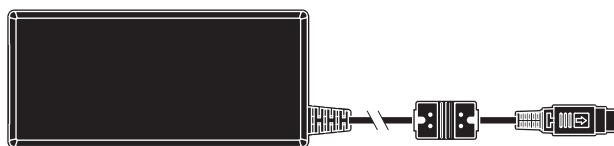
9 ACCESSORIES

The following table shows the list of available accessories for device:

963GE020000071

POWER SUPPLY
(for technical specifications, see paragraph 8.1)

26100000000311

POWER CORD SCHUKO PLUG
length = 2 m
(see paragraph 8.4)

10 TECHNICAL SERVICE

In case of failure, contact the technical service accessing the website www.custom4u.it and using the support tools on the homepage. It is advisable to keep the identification data of the product at hand.

The product code, the serial number and the hardware release number can be found on the product label (see paragraph 2.4). The firmware release number (SCODE) can be found:
- on the setup report (see paragraph 5.1)
- connecting the device to a PC and starting the "PrinterSet" tool (see paragraph 5.2)

CUSTOM S.p.A.
World Headquarters
Via Berettine, 2/B - 43010 Fontevivo, Parma ITALY
Tel. +39 0521 680111 - Fax +39 0521 610701
info@custom.biz - www.custom.biz

www.custom.biz