

USER MANUAL

KUBE II

Scanner VeriPrint®

CUSTOM®

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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 (*Limits and methods of measurements of radio disturbance characteristics of Information Technology Equipment*)
- EN 55024 (*Information Technology Equipment – Immunity characteristics – Limits and methods of measurement*)
- EN 60950-1 (*Safety of information equipment including electrical business 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.



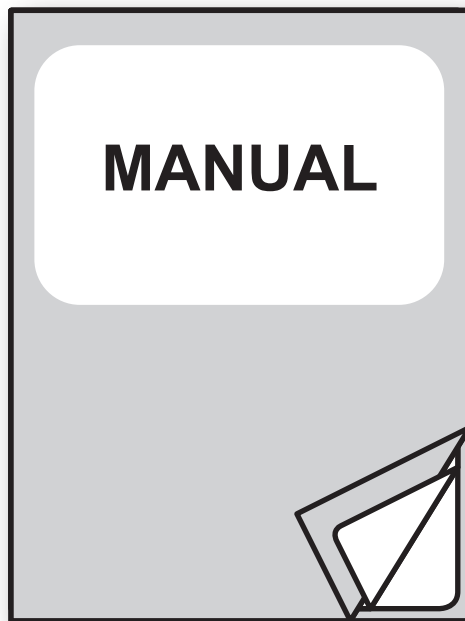
GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

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 2002/96/EC, 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.



For details on the commands,
refer to the manual with code **77200000005000**

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

This manual is valid for devices with HW release **R3 and later**.
The HW release of the device can be found on product label (see [paragraph 2.4](#)).

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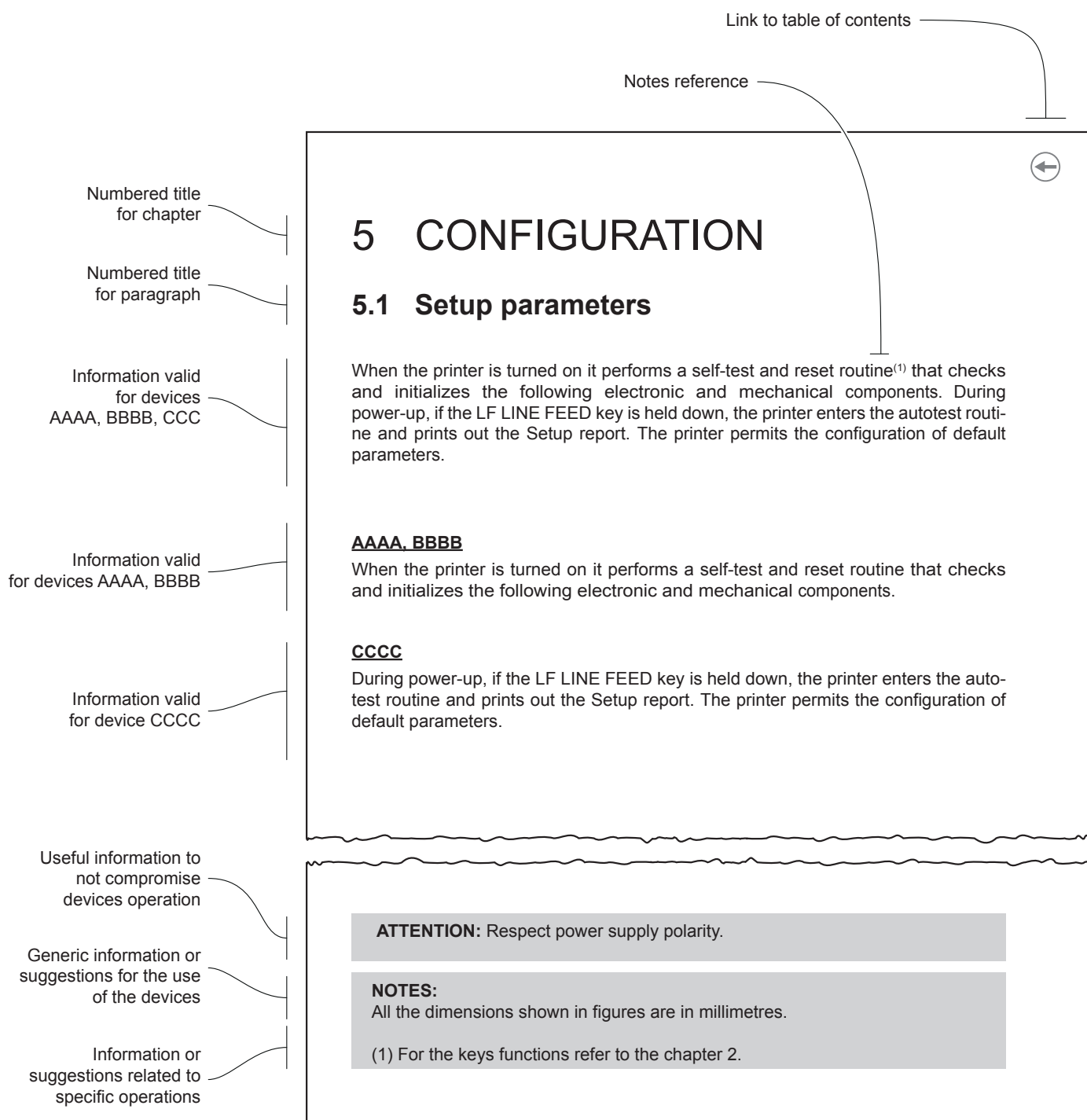
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1 INTRODUCTION

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.





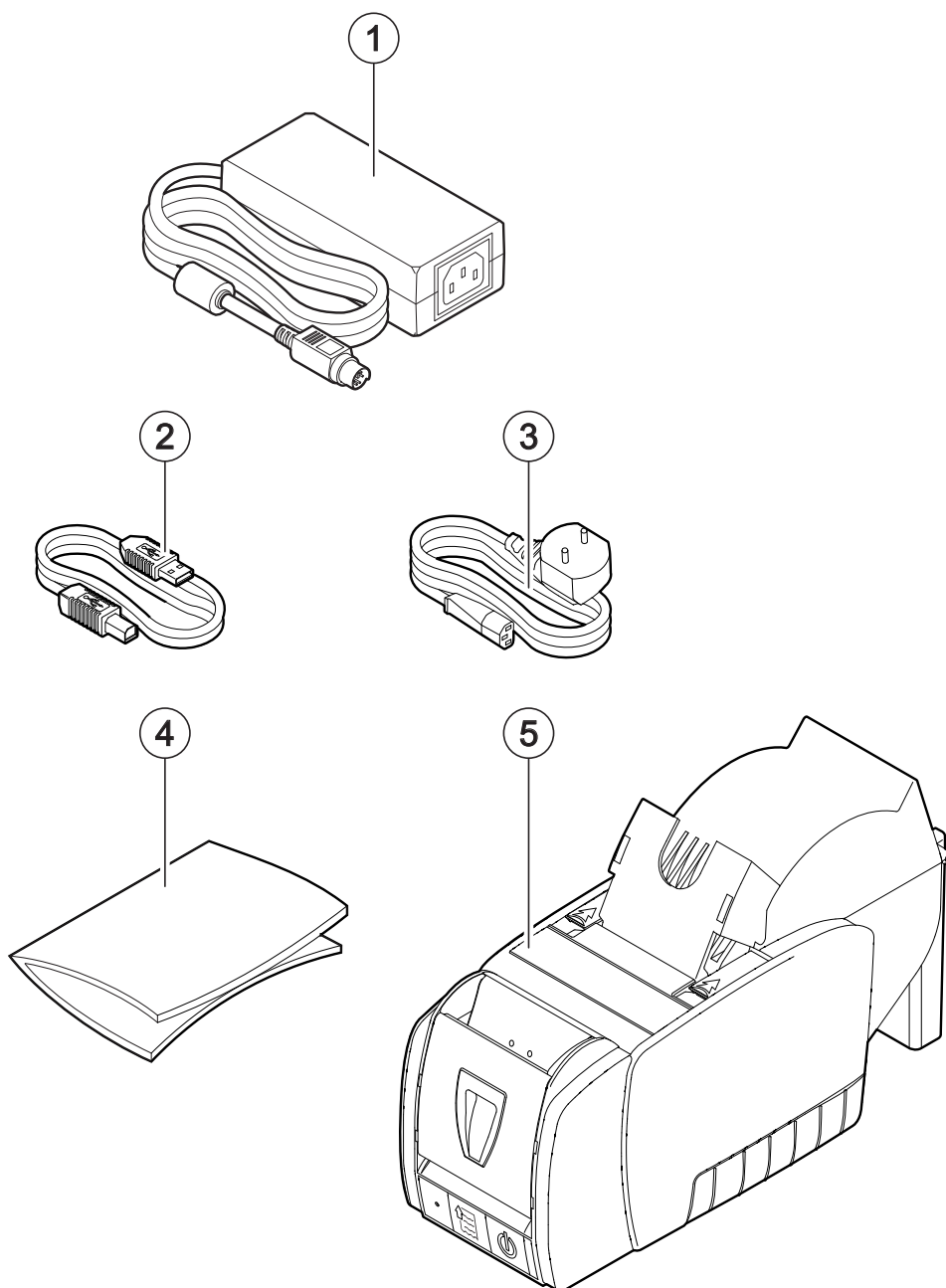
2 DESCRIPTION

2.1 Box contents

Remove the device from its carton 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.

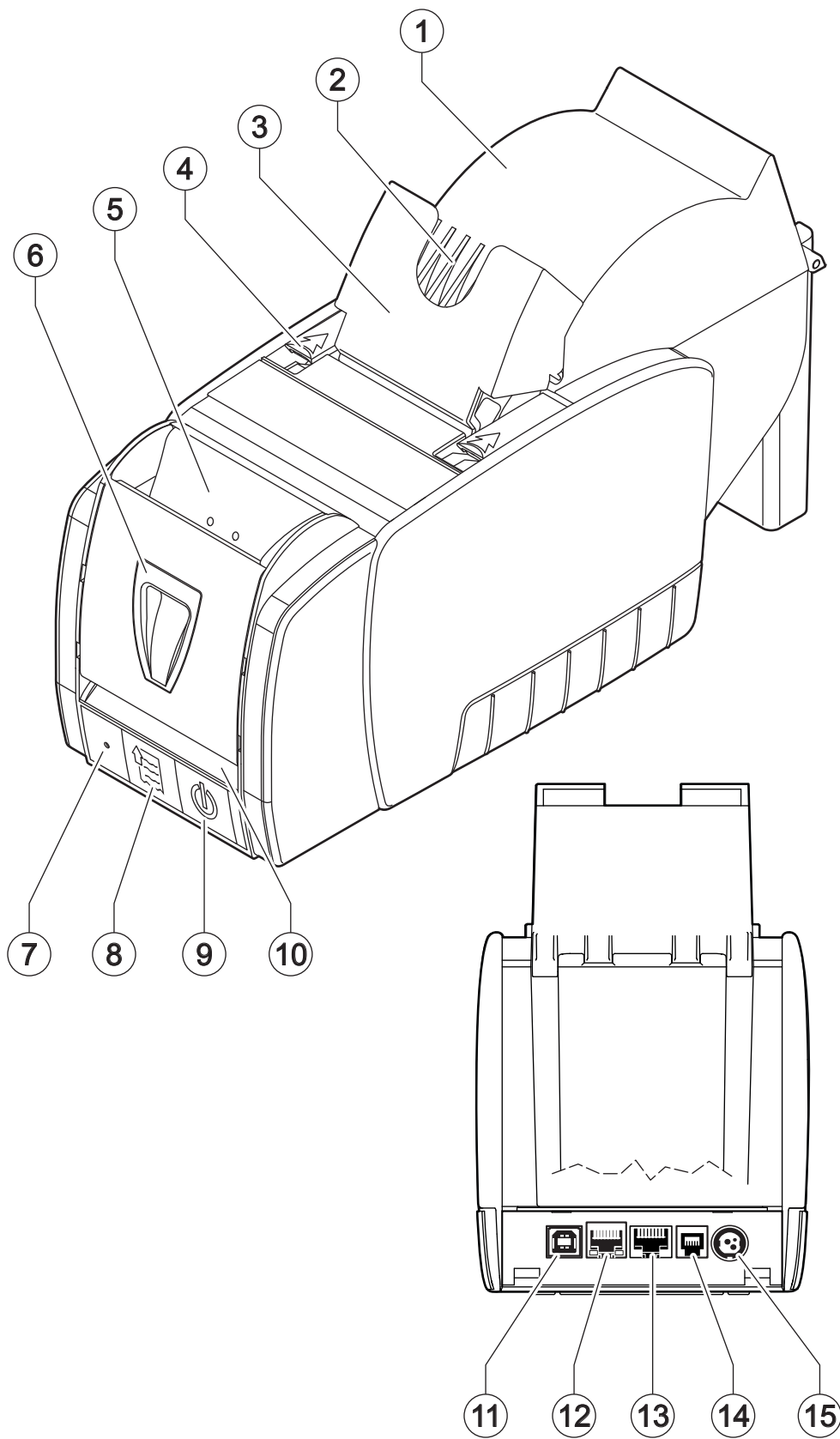
1. AC adapter
2. USB cable
3. AC Power cable
4. Documentation (short guide)
5. Device





2.2 Device components: external views

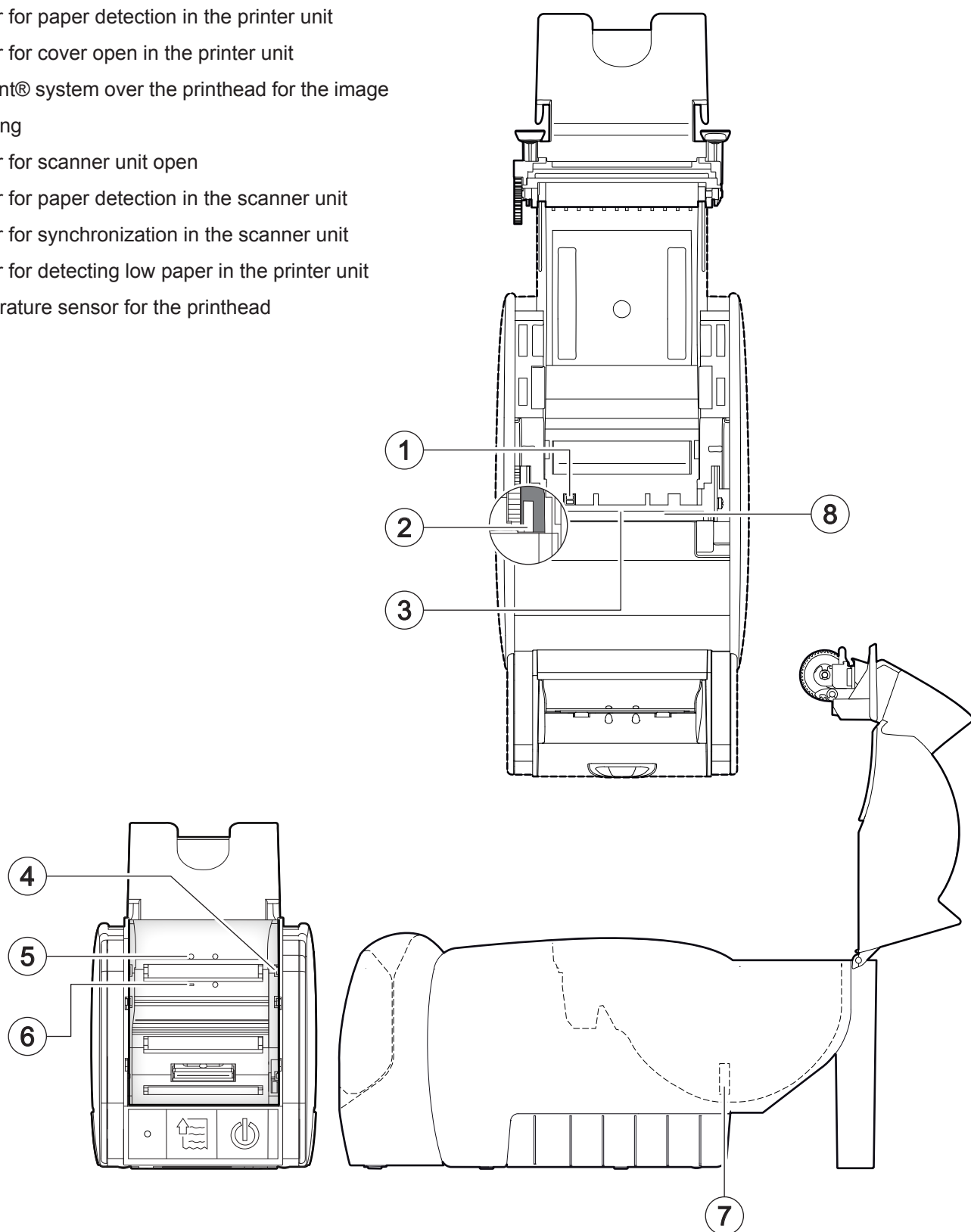
1. Paper compartment
2. Paper out (Printer)
3. Stacker
4. Opening lever (Printer)
5. Paper in (Scanner)
6. Opening key (Scanner)
7. Status LED
8. FEED key
9. ON/OFF key
10. Paper out (Scanner)
11. USB port
12. Ethernet port
13. RS232 serial port
14. Cash drawer port
15. Power supply port





2.3 Device components: internal views

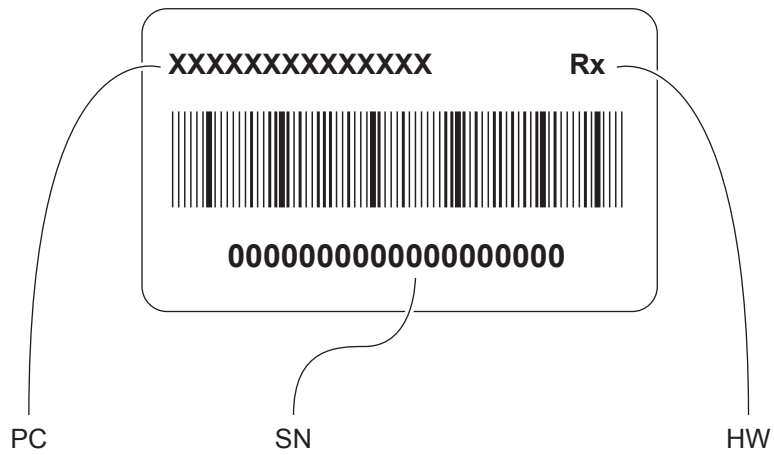
1. Sensor for paper detection in the printer unit
2. Sensor for cover open in the printer unit
3. VeriPrint® system over the printhead for the image capturing
4. Sensor for scanner unit open
5. Sensor for paper detection in the scanner unit
6. Sensor for synchronization in the scanner unit
7. Sensor for detecting low paper in the printer unit
8. Temperature sensor for the printhead



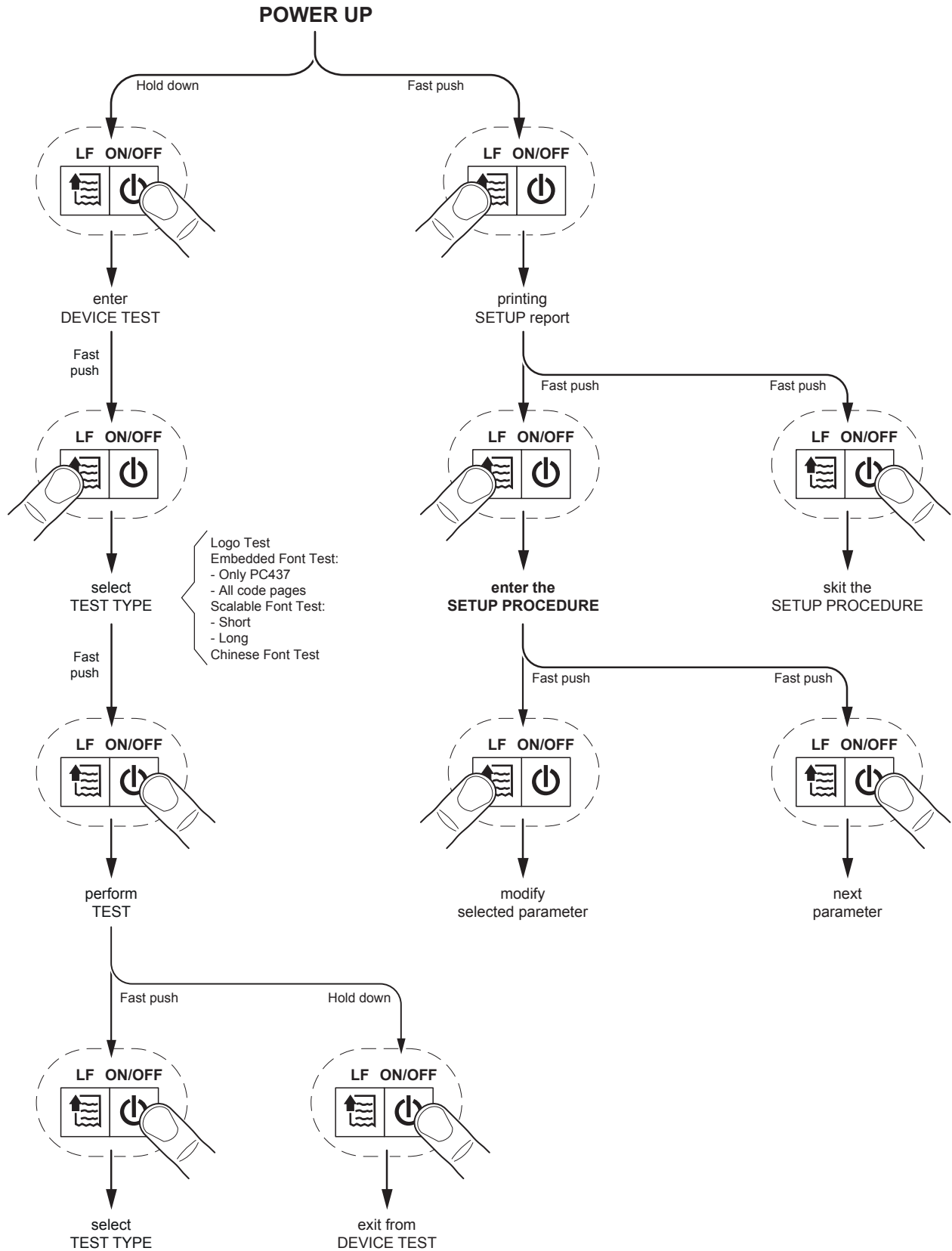


2.4 Product label

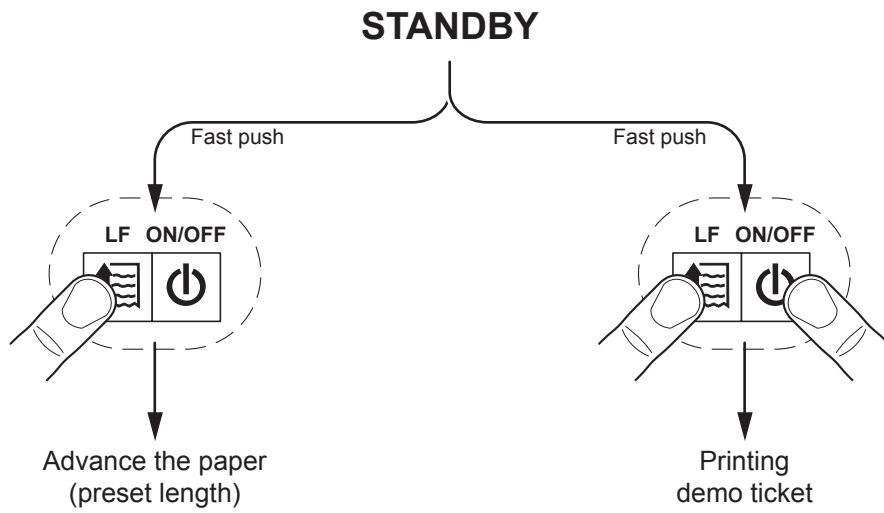
PC = Product code (14 digits)
SN = Serial number
HW = Hardware release



2.5 Key functions: power up



2.6 Key functions: standby





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	PRINTER OFF
GREEN	ON	PRINTER 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
	x 5	LOW PAPER
YELLOW RECOVERABLE ERROR	x 2	HEADING OVER TEMPERATURE
	x 3	PAPER END
	x 5	POWER SUPPLY VOLTAGE INCORRECT
	x 6	COVER OPEN
RED UNRECOVERABLE ERROR	x 3	RAM ERROR
	x 5	CUTTER ERROR

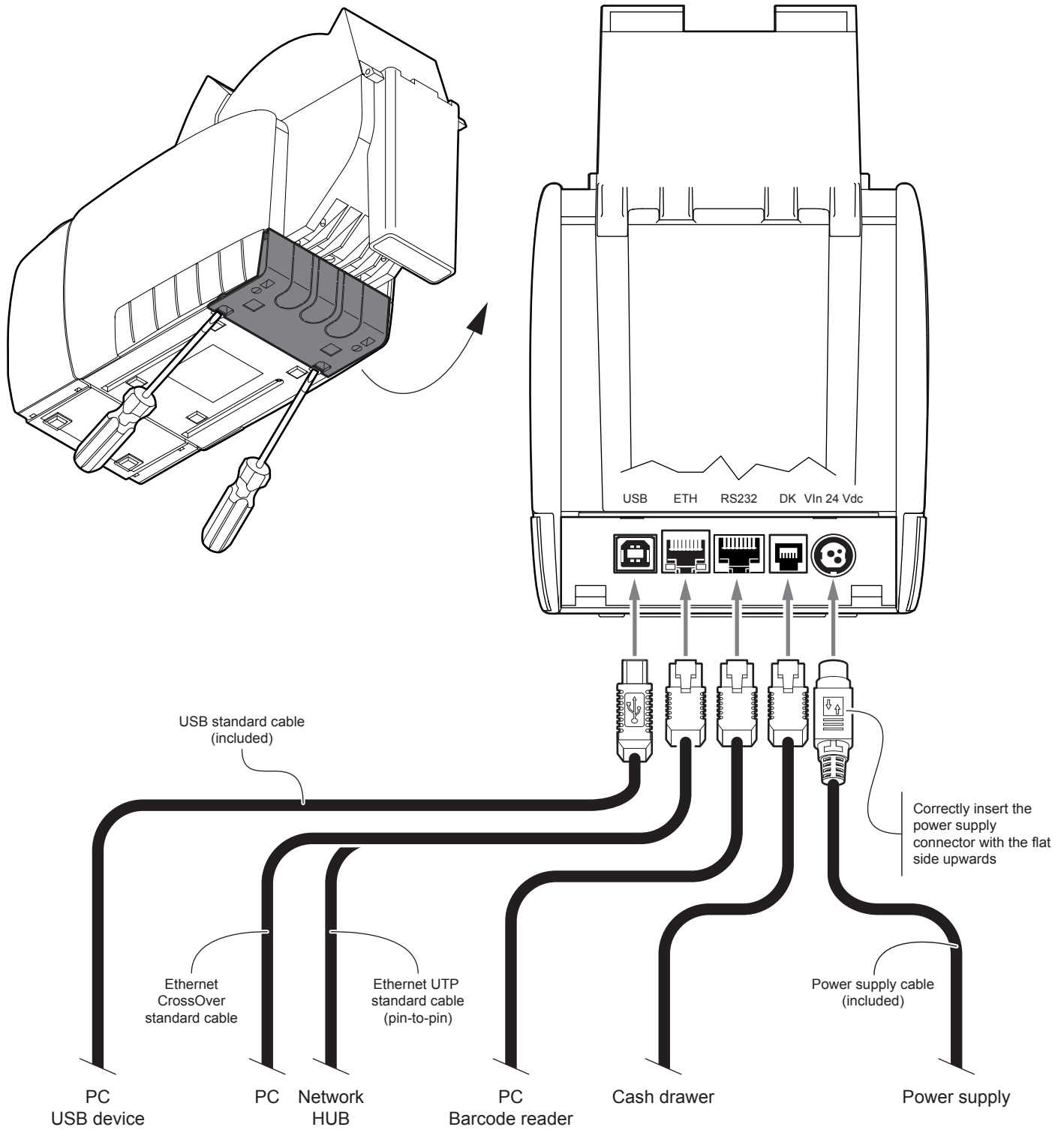




3 INSTALLATION

3.1 Connections

The following figure shows the possible connections for the device. When the RS232 and USB communication cables are connected to the device at the same time, communication takes place via the USB port.



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



3.2 Pinout

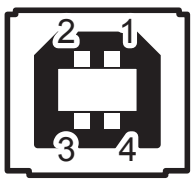
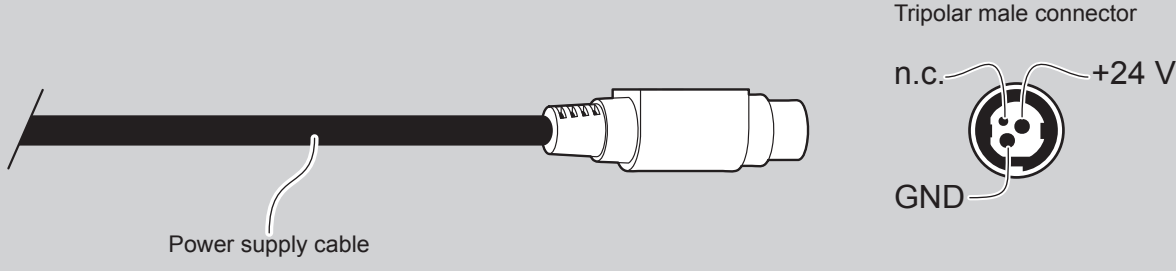


POWER SUPPLY
Tripolar female connector

J19	1	+24 Vdc
	2	GND
	3	GND
	4	Frame GND

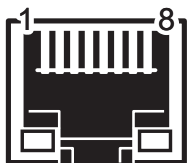
ATTENTION:
Respect power supply polarity.

NOTE: Power supply cable
The following figure shows the connector pinout of the power supply cable for the device:



USB INTERFACE
Female USB type B connector

J11	1	USBHS_VBUS (in)
	2	USBHS_D - (in/out)
	3	USBHS_D + (in/out)
	4	GND
	SH1	SHIELD
	SH2	SHIELD



ETHERNET INTERFACE

Female RJ45 connector

J12	1	RX +1
	2	+3.3V ETH
	3	RX -1
	4	TX +1
	5	+3.3V ETH
	6	TX -1
	7	n.c
	8	GND
	9	+3.3 V
	10	LED-LNK
	11	+3.3 V
	12	LED-LAN
	13	SH1
	14	SH2

NOTES:

The functionality of two LED are specified in following tables:

- For 10Base-T connection:

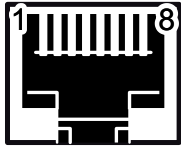
LED	FUNCTION
LED-LNK	Link (yellow color): the LED lights up when a connection is active
LED-LAN	Rx/Tx: (green color): the LED lights up when occurs a data reception or transmission

- For 10/100Base-TX connection:

LED	FUNCTION
LED-LNK	The LED light (yellow color) on when a connection is active and flashes when occurs a data reception or transmission
LED-LAN	The LED light (green color) on when occurs a 100 Mbit connection and off when occurs a 10 Mbit connection

The device automatically recognizes the type of connection (cross or pin-to-pin).

The pinout shown in table represents the input signals to component J12 before the isolation voltage transformer (through-hole pin).



RS232 SERIAL INTERFACE

RJ45 female connector

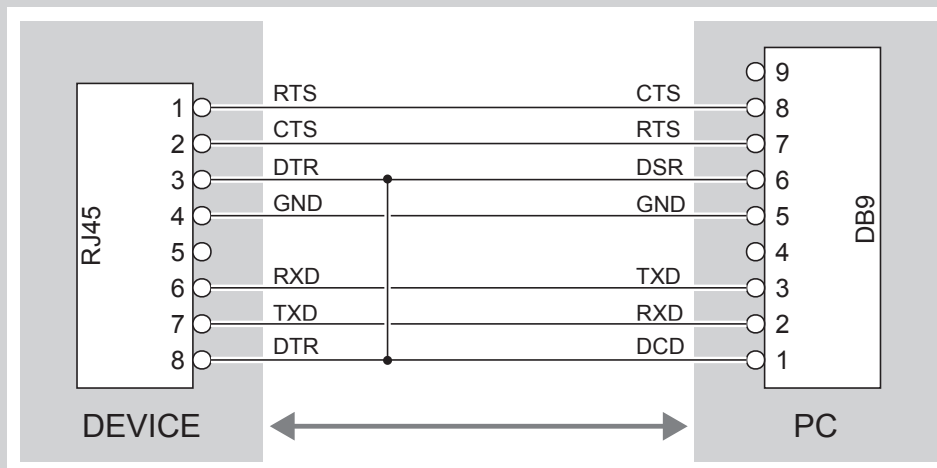
J10	1	RTS	(out)	When +VRS232, device is ready to receive data
	2	n.c.		
	3	DTR	(in)	When +VRS232, device is ready
	4	GND		
	5	n.c.		
	6	RX	(in)	During reception, takes the values -VRS232 and +VRS232 depending on data
	7	TX	(out)	During transmission, takes the values -VRS232 and +VRS232 depending on data
	8	DTR	(in)	When +VRS232, device is ready

NOTES:

Given the presence of the RS232 standard, logic value "0" corresponds to the voltage value +VRS232 (voltage value between +3Vdc and +15Vdc) and logic value "1" corresponds to the voltage value -VRS232 (voltage value between -3Vdc and -15Vdc).

DEVICE > PC connection

The following picture shows an example of connection between the device and a personal computer using an 8 pin serial RJ45 male connector and a 9 pin female connector.



When use a serial cable, we recommend the installation of a ferrite core on the power supply cable.



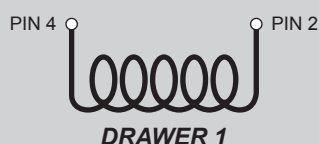
CASH DRAWER CONNECTOR

Female RJ12 connector

J4	1	GND	
	2	CASS	(out) Drawer 1 command
	3	IN-CASS	(in) Drawer status
	4	+24 Vdc	
	5	n.c.	
	6	GND	

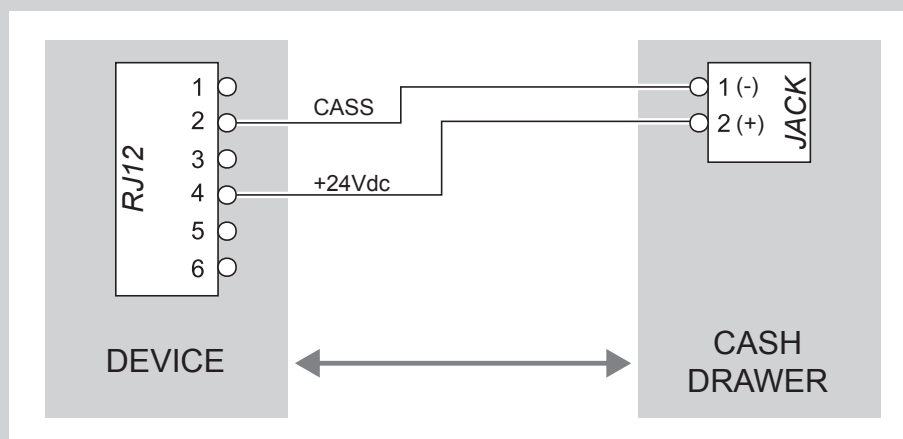
NOTES:

The solenoid of the drawer 1 must be connected from Pin 2 to Pin 4 on the drawer connector



DEVICE > CASH DRAWER (optional) connection

Use an optional adapter cable RJ12-Jack to connect the device to a cash drawer. Refer to the picture below for the connector pin signals





3.3 Driver and SDK

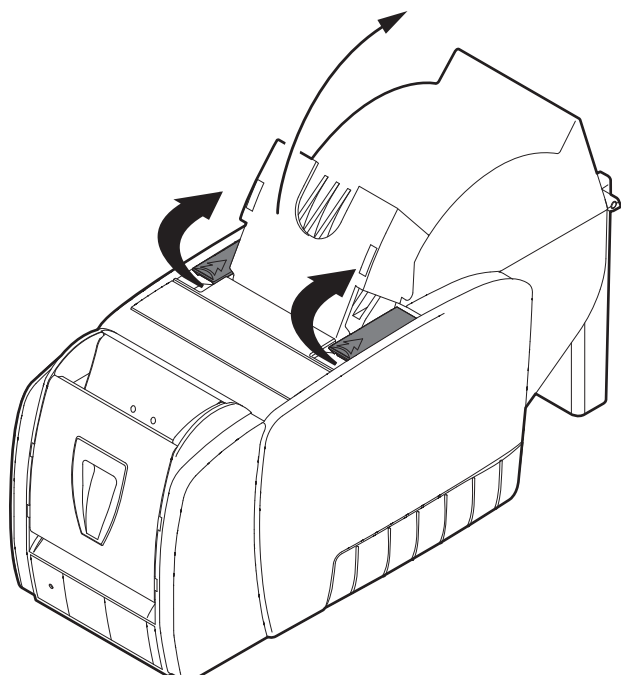
In the website www.custom4u.it are available the drivers for the following operating system:

OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows XP	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 VISTA (32/64bit)	
	Driver for Windows 7 (32/64bit)	
	Driver for Windows 8 (32/64bit)	
	Driver for Windows 8.1 (32/64bit)	
	Driver for Windows 10 (32/64bit)	
Linux	32/64bit	Follow the instruction get back on the README.TXT file. You can find it in the software package downloaded in advance.

4 OPERATION

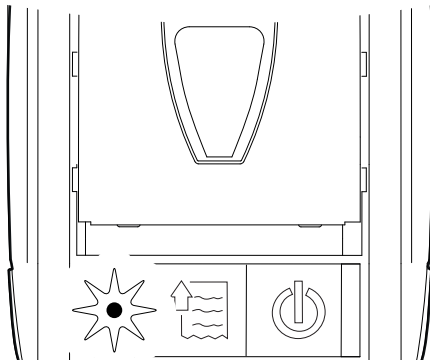
4.1 Opening cover

1 Printer cover



Lift the opening levers and open the printer cover.

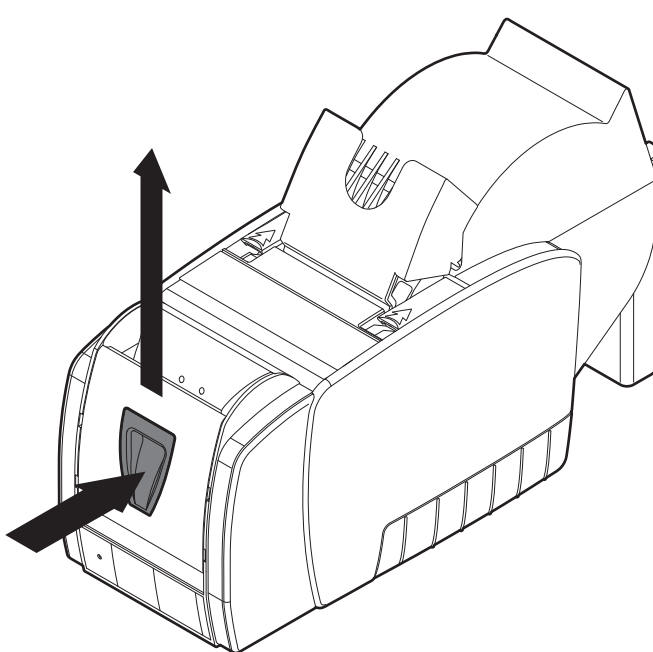
2



The indicator shows the state "Cover Open"

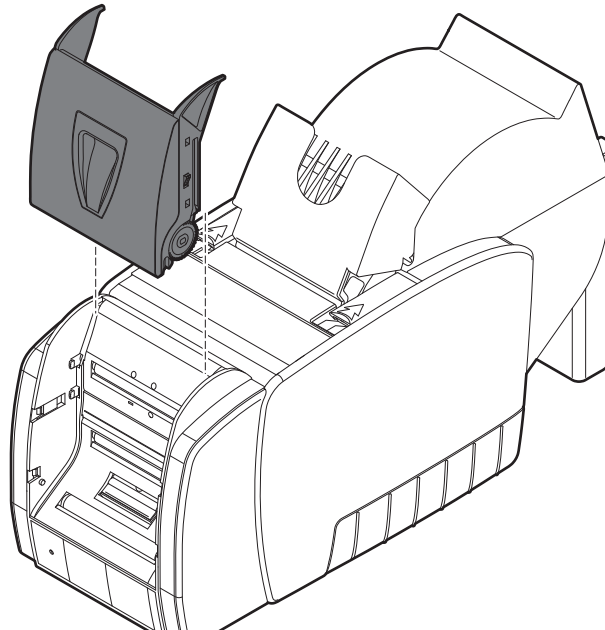
Detailed description: This diagram shows the printer cover being lifted. Two curved arrows indicate the levers on the front of the cover being pushed upwards. The second diagram shows the cover fully open, with a starburst indicator on the left side of the front panel.

1 Scanner cover



Press the button on the front side and push up the cover.

2

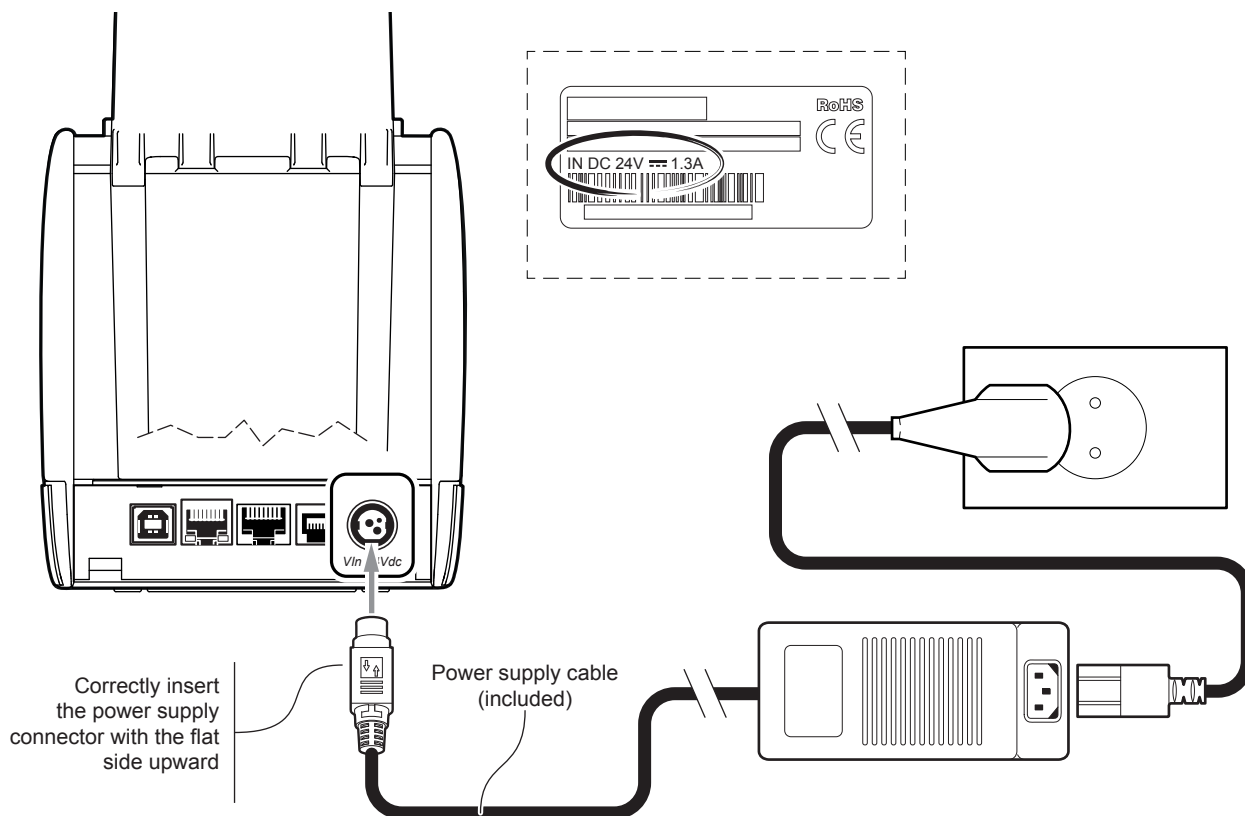


Lift the cover.

Detailed description: This diagram shows the scanner cover. A straight arrow points upwards from a button on the front panel. The second diagram shows the scanner cover being lifted, with dashed lines indicating its vertical movement.

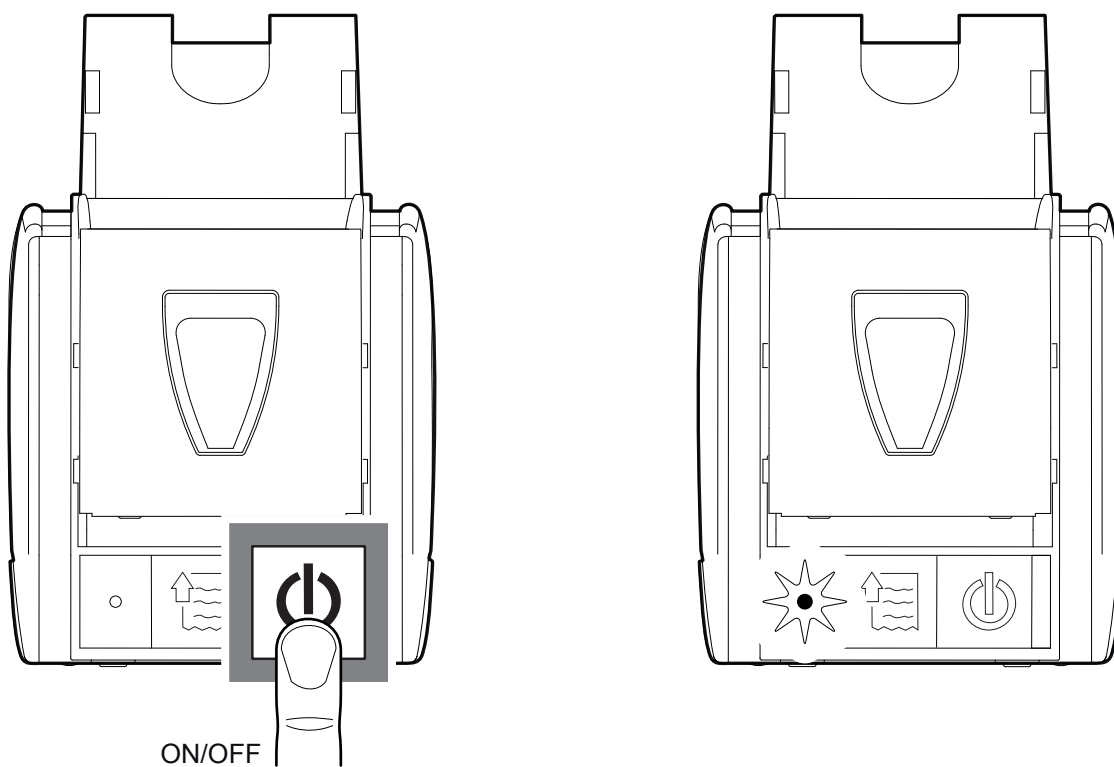
4.2 Switch the device ON/OFF

1



Connect the power adapter (supplied) to the device and the mains outlet.
Use the type of electrical power supply indicated on the label.

2

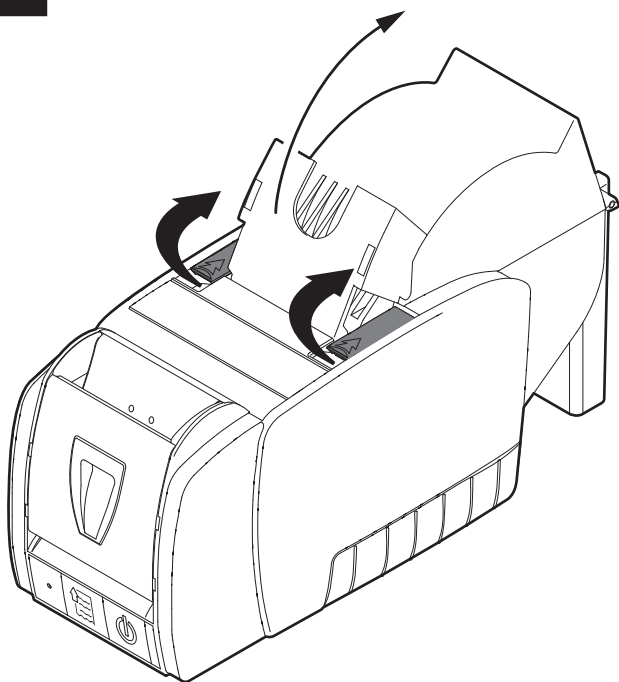


Switch device On pressing key ON/OFF, the indicator light is switched on and the device is ready.
Switch device Off pressing key ON/OFF for at least 3 seconds.

4.3 Loading the paper roll

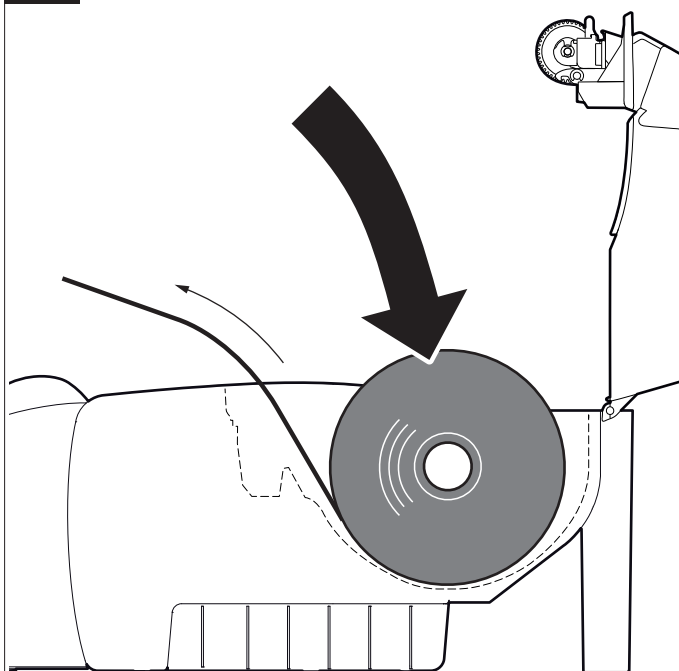
To change the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.

1



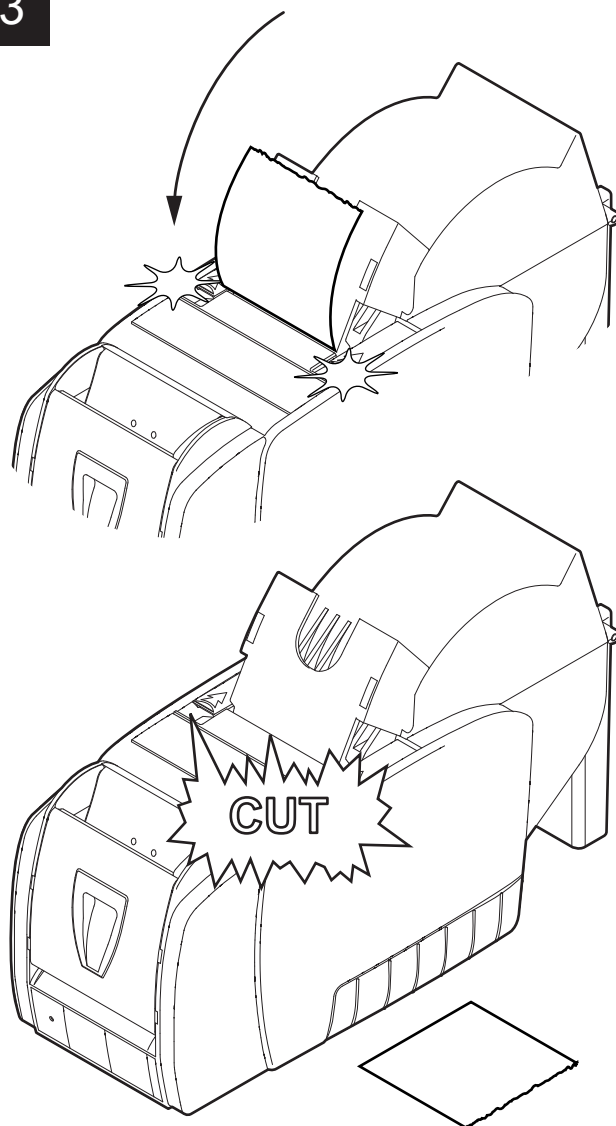
Open the device cover
(see [paragraph 4.1](#)).

2



Place the roll in the paper compartment and pull out the paper for a few centimetres.

3

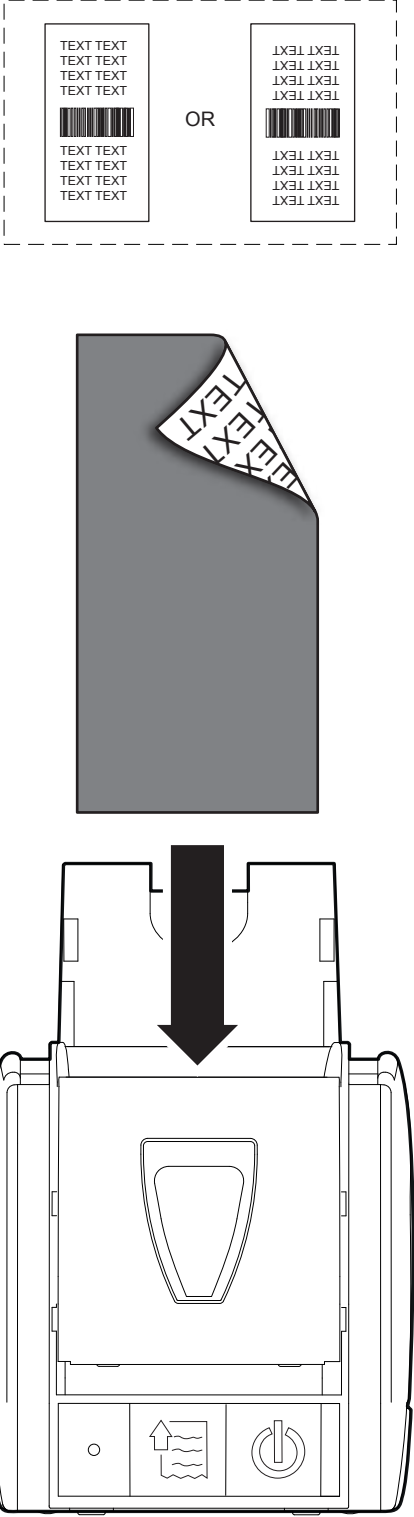


Close the device cover and wait until the paper is loaded and automatically cut off.

4.4 Ticket reading

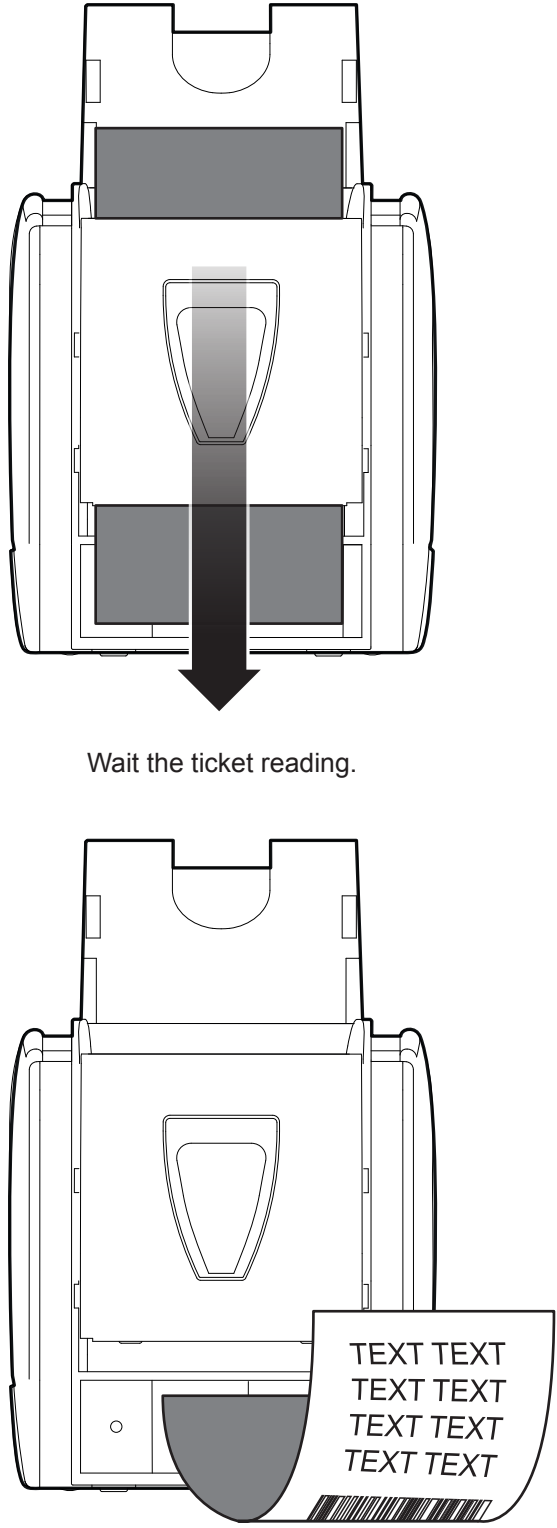
The reading of the ticket is handled by command (see the commands manual of the device). To read the ticket proceed as follows:

1



Insert the ticket into the paper inlet of scanner, in the direction shown in figure (with the text facing the rear of the printer).

2



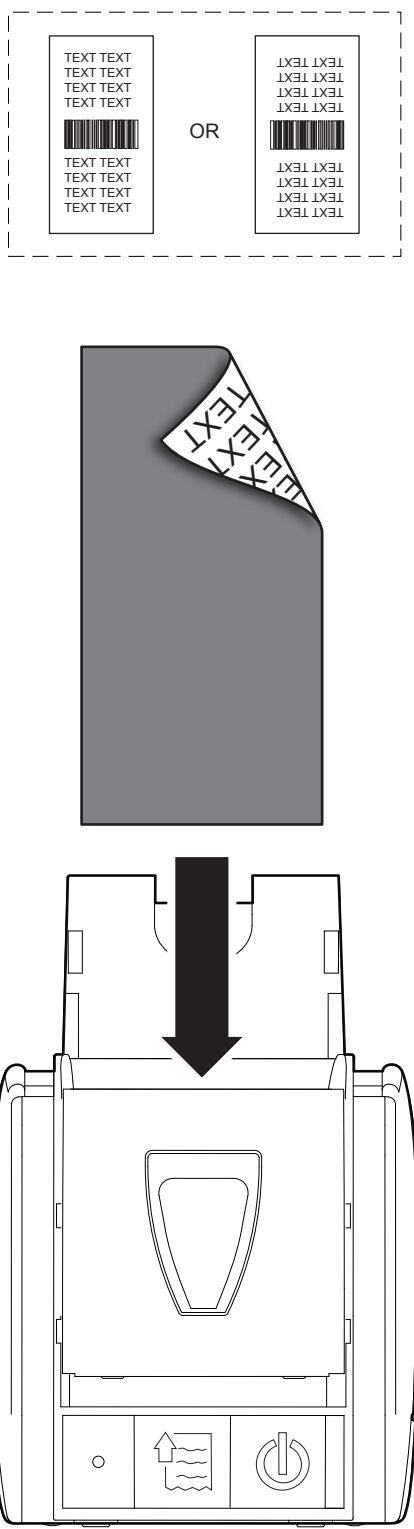
Wait the ticket reading.

Retrieve the ticket from the paper outlet of scanner.

4.5 Ticket branding

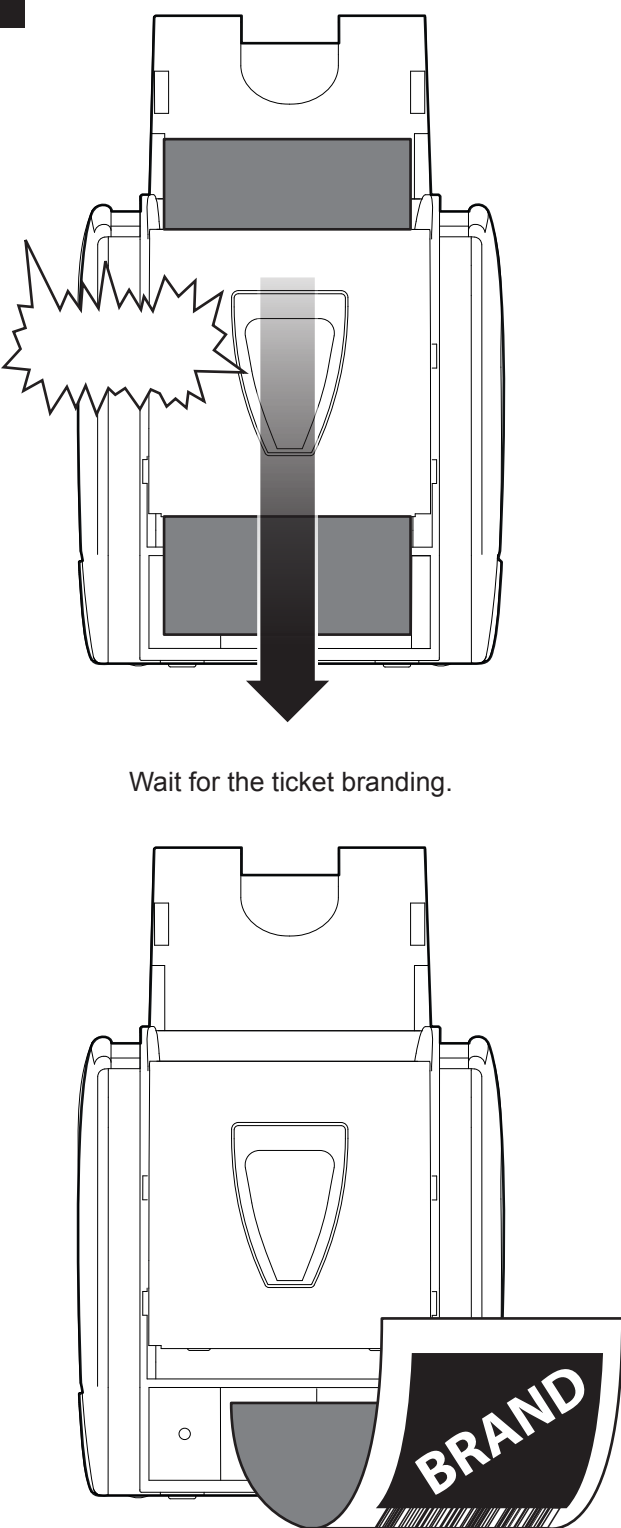
The branding of the ticket is handled by command (see the commands manual of the device). To brand the ticket proceed as follows:

1



Insert the ticket into the paper inlet of scanner, in the direction shown in figure (with the text facing the rear of the printer).

2



Wait for the ticket branding.

Retrieve the ticket from the paper outlet of scanner.

4.6 VeriPrint® system

VeriPrint® is a system designed by CUSTOM S.p.A. thanks to which the functions of an image scanner and those of a thermal printing head can be integrated in a single component to be included in systems and terminals for POS, betting/lottery and ticketing application automation. Solutions and benefits with VeriPrint®:

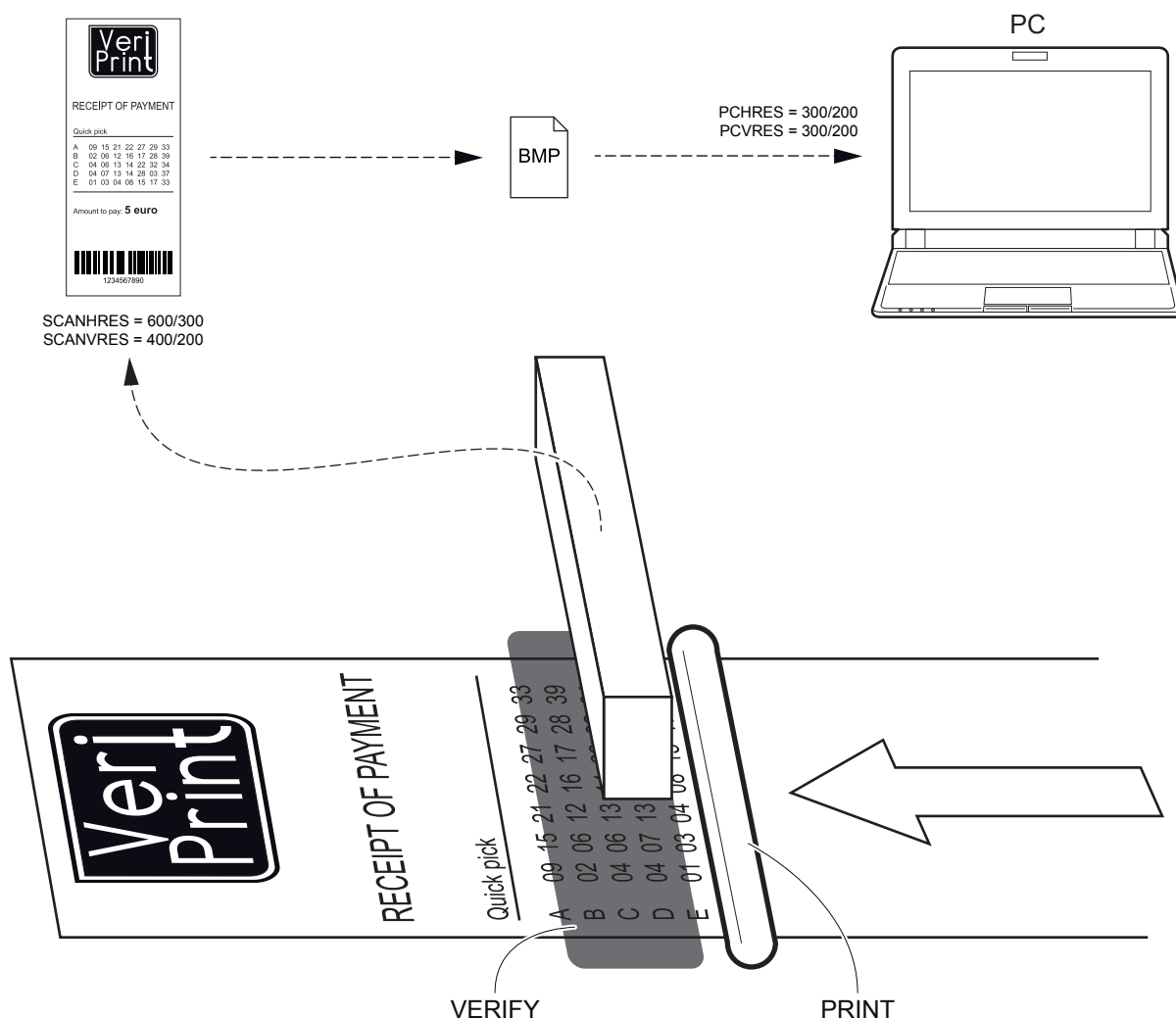
- Automatic scan of the images of all tickets.
- Protection against manipulated tickets.
- In case of doubts on the originality of a ticket presented, possibility of retrieval of the original image.
- Maximum safety, resulting in claim and cost reductions.



How VeriPrint® works

While printing a receipt, an integrated scanning element captures the image of the receipt automatically and reads any barcode printed (readable formats: CODE 39 and CODE 128). The image can be sent to a remote host in real time through the 0x1F 0x42 command (see the device commands manual). The captured image represents the actual and “true” look of the receipt as the customer receives it from the operator or a self-service kiosk.

The operating parameters for the scanner unit and VeriPrint® system can be set by using the “PrinterSet” software tool available on www.custom4u.it.



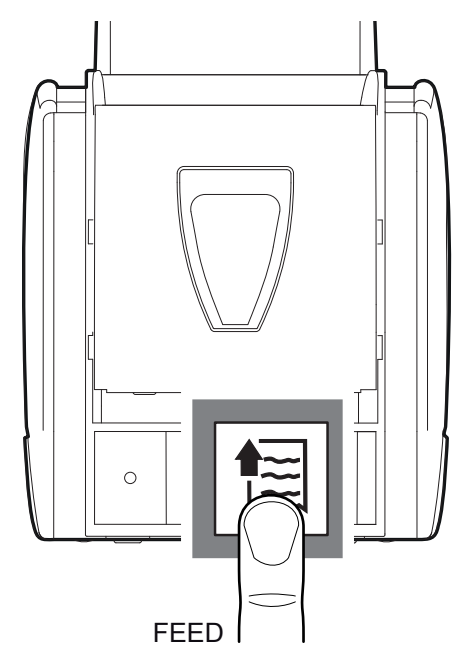


5 CONFIGURATION

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.

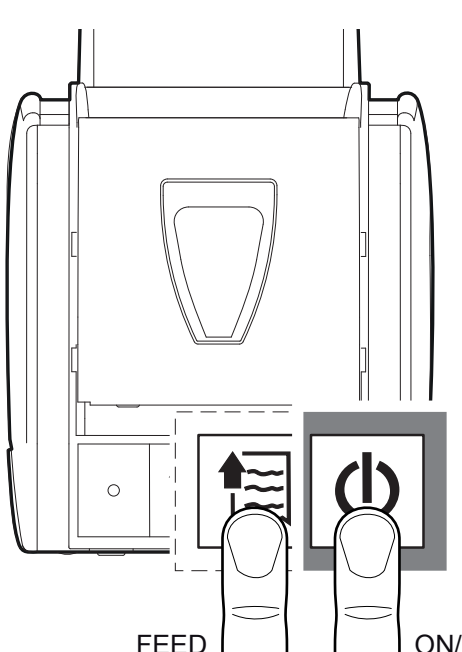
1



FEED

Press the FEED key.

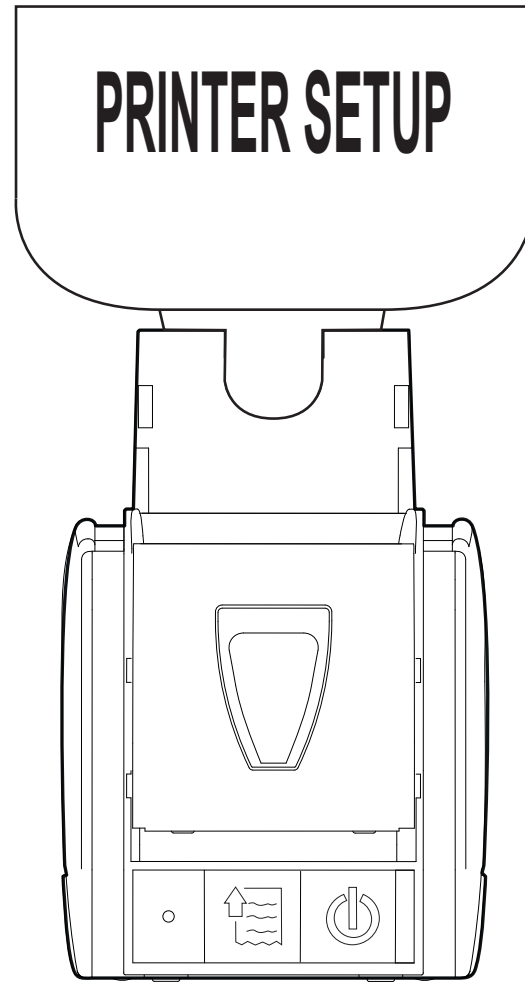
2



FEED ON/OFF

While pressing the FEED key, switch on the device by pressing the ON/OFF key.

3



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>
SCORE. <code>      - rel 1.00
FCODE. <code>      - rel 1.00
DCODE. <code>      - rel 1.00
                S/N: <number>
  
```

PRINTER SETTINGS

DEVICE
STATUS

```

PRINTER TYPE .....<device model>
INTERFACE .....USB
ETHERNET TYPE .....10/100Base-TX
PROGRAM MEMORY TEST.....OK
DYNAMIC RAM TEST.....OK
CUTTER TEST.....OK
HEAD VOLTAGE          [V]  = 23.37
HEAD TEMPERATURE     [°C] = 25
POWER ON COUNTER          = 4
PAPER PRINTED          [cm] = 40
CUT COUNTER              = 1
DATE - TIME              = 01/01/2019 12:00
  
```

PARAMETERS
FOR DEVICE
CONFIGURATION

```

RS232 Baud Rate .....: 115200 bps
RS232 Data Length.....: 8 bits/chr
RS232 Parity .....: None
RS232 Handshaking .....: Hardware
Busy Condition .....: RxFull
USB Address Number .....: 0
USB Class .....: Status Mon.
Print Mode .....: Normal
Autofeed .....: CR Disabled
Chars / inch .....: A=15 B=20 cpi
Font Type.....: International
Speed / Quality.....: High Speed
Print Width.....: 80 mm
PaperEnd Buffer Clear .....: Enabled
PowerFail WakeUp Mode.....: LAST PWR State
Print Density.....: 0%
  
```

KEYS FUNCTIONS

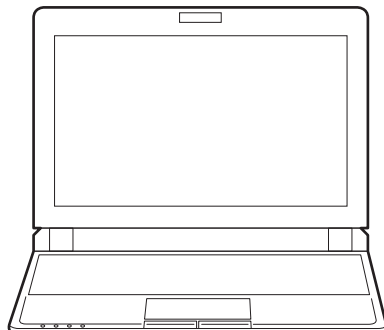
```

[ LF ]      enter Printer Setup
[ ON/OFF ]  skip Setup
  
```


5.2 Configuration by software

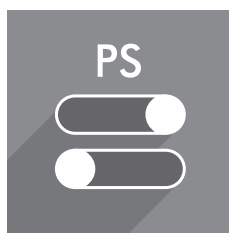
The setup parameters can be set by using the “PrinterSet” software tool available on www.custom4u.it. For a detailed description of the device operating parameters see the following paragraphs. To configure the device by software, proceed as follows:

1



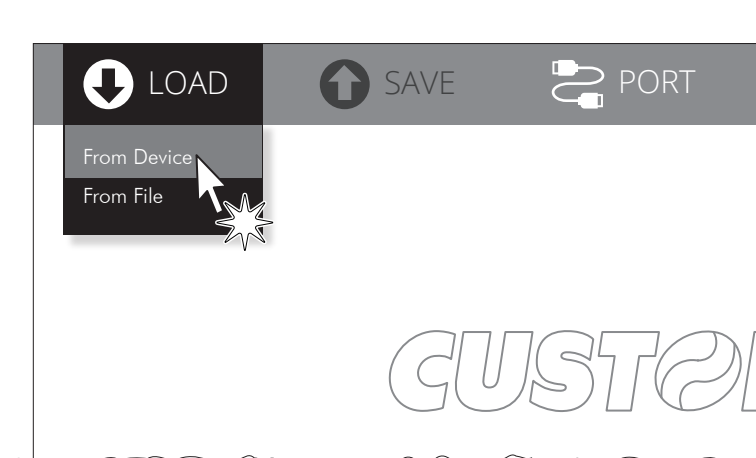
Connect the device to PC directly (see [paragraph 3.1](#)), without using HUB devices.

2



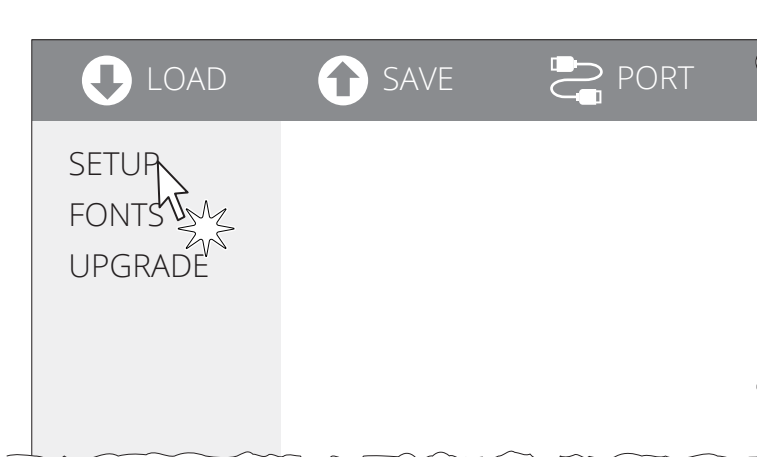
Start “PrinterSet” software tool.

3



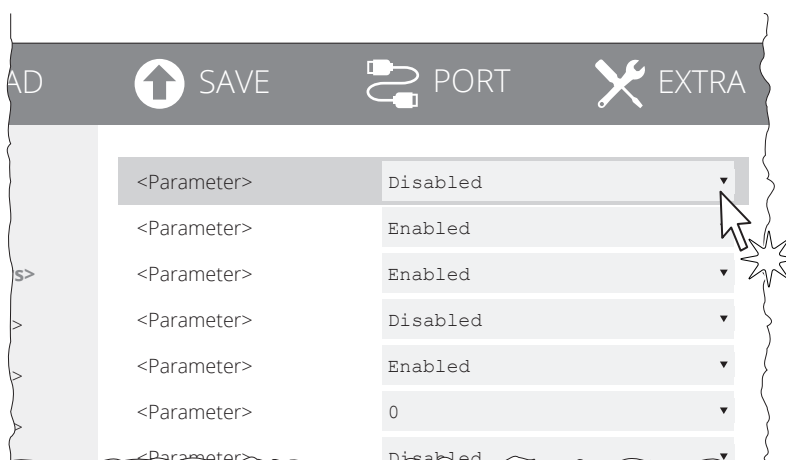
Click on LOAD > FROM DEVICE and select the device connected to the PC.

4



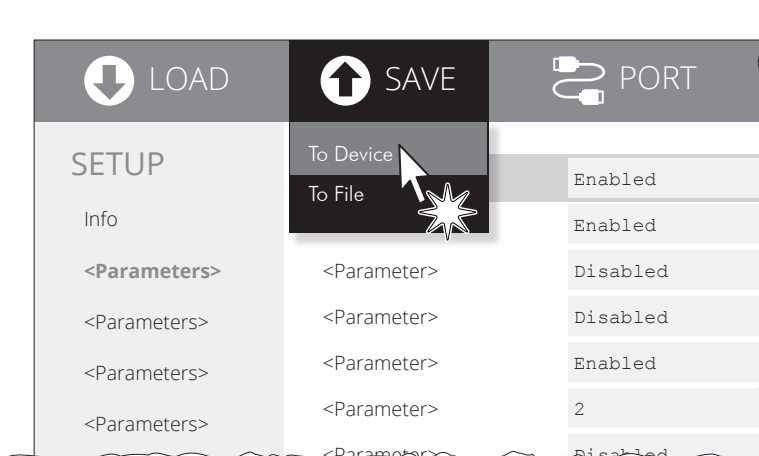
Click on SETUP to access the operating parameters of the device to be configured.

5



Make the desired changes to the device operating parameters.

6



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

5.3 Configuration by file

The setup parameters can be set by editing the "Setup.ini" file stored on the Flash Drive of the device. Proceed as follows:

1

↓

Enter setup

Enter the configuration procedure by keys (see [paragraph 5.1](#)) or by software (see [paragraph 5.2](#)).

2

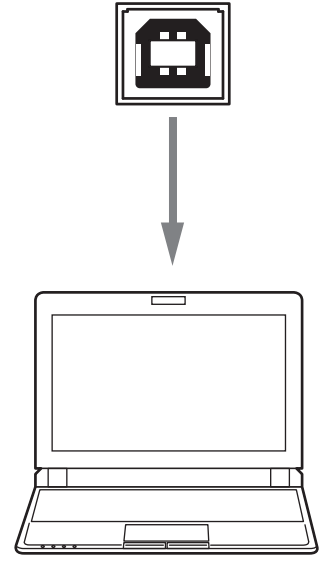
<parameter> : <value>
<parameter> : <value>
<parameter> : <value>
<parameter> : <value>
USB Class : Mass Storage
<parameter> : <value>
<parameter> : <value>
<parameter> : <value>
<parameter> : <value>

Check that the "USB Class" parameter is set to "Mass Storage". Otherwise, this configuration mode is not available.

3

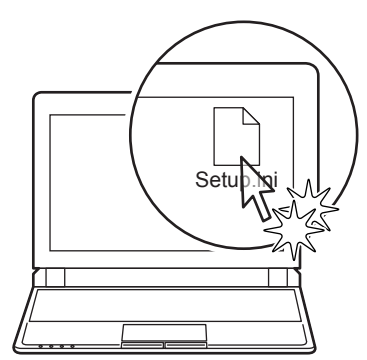
USB

↓



Plug the device to a Personal Computer via USB.

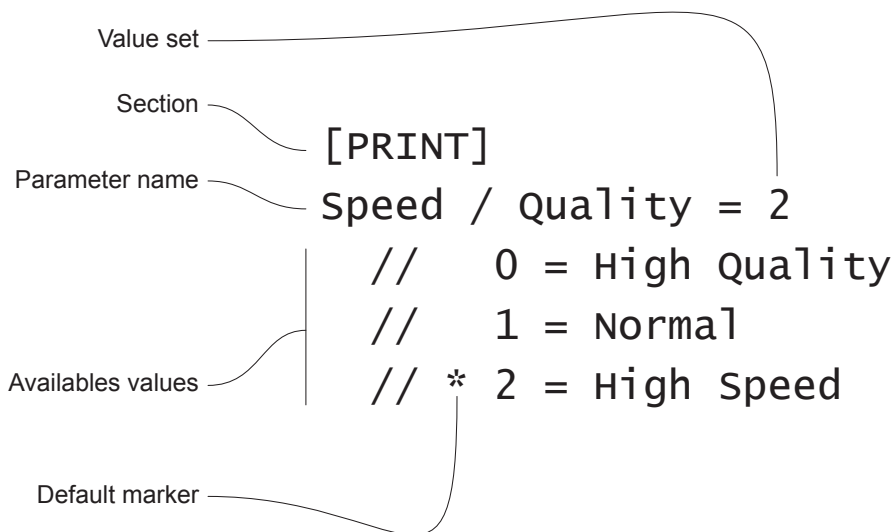
4



Enter the Flash drive of the device and edit the "Setup.ini" file.



The "Setup.ini" file is a configuration file that contains all the configurable parameters listed in text format and divided into some sections (indicated between square brackets). For each parameter, you find the parameter name followed by the value currently set and then the available values listed with a reference number. The reference number marked with the symbol ' * ' is the default one (see figure).



To modify the parameter, change the numeric value after the parameter name or use the default value by typing "D". After editing device's parameter, simply save the "Setup.ini" file to make the modifies activated. For a detailed description of the device operating parameters see the following paragraphs.

ATTENTION:

The change of value for the "USB Class" parameter may compromise the access to the Setup.ini file. Be careful to keep the "Mass Storage" value to allow a new access to the Flash Drive.



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
PRINTING HEAD TYPE	print head model
ETHERNET TYPE	communication speed
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 performed
DATE - TIME	current date and time



5.5 Communications parameters

This device allows the configuration of the parameters listed in the following table.

The parameters marked with the symbol [ⓓ] are the default values.

Settings remain active even after the device has been turned off and they are stored in non-volatile memory.

RS232 BAUD RATE

Communication speed of the serial interface:

115200 [ⓓ] 9600
57600 4800
38400 2400
19200 1200

Parameter valid only with serial interface.

RS232 DATA LENGTH

Number of bit used for characters encoding:

7 bits/car
8 bits/car [ⓓ]

Parameter valid only with serial interface.

RS232 PARITY

Bit for the parity control of the serial interface:

None [ⓓ] = parity bit omitted
Even = even value for parity bit
Odd = odd value for parity bit

Parameter valid only with serial interface.

RS232 HANDSHAKING

Handshaking:

XON/XOFF = software handshaking
Hardware [ⓓ] = hardware handshaking (CTS/RTS)

Parameter valid only with serial interface.

NOTE:

When the receive buffer is full, if handshaking is set to XON/XOFF, the device sends the XOFF (0x13) on the serial port. When the receive buffer has cleared once again, if handshaking is set to XON/XOFF, the device sends the XON (0x11) on the serial port.

BUSY CONDITION

Activation mode for Busy signal:

OffLine/ RXFull = Busy signal is activated when the device is both in OffLine status and the buffer is full
RXFull [ⓓ] = Busy signal is activated when the buffer is full

Parameter valid only with serial interface.



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
---------------------------	--

USB CLASS	USB communication class definition. Printer = setting the printer function Mass Storage = setting the sharing mode from Mass Storage Status Mon. ^D = enable the option Driver Status Monitor
------------------	---

NETWORK PRINTER NAME	Identification name of the device within a network. This parameter is not printed on setup report because it can be modified only during setup procedure by software (see paragraph 5.2)
-----------------------------	--

DHCP CLIENT	Setting of the DHCP protocol: Disabled ^D = protocol disabled Enabled = protocol enabled This parameter is not printed on setup report because it can be modified only during setup procedure by software (see paragraph 5.2) and by file (see paragraph 5.3).
--------------------	---

IP ADDRESS	IP address of the device, assigned by the network administrator. This parameter is not printed on setup report because it can be modified only during setup procedure by software (see paragraph 5.2) and by file (see paragraph 5.3).
-------------------	---

SUBNET MASK	This parameter identifies the local network address. This parameter is not printed on setup report because it can be modified only during setup procedure by software (see paragraph 5.2) and by file (see paragraph 5.3).
--------------------	---

DEFAULT GATEWAY	This parameter identifies the gateway IP address used to send applications to the external network. This parameter is not printed on setup report because it can be modified only during setup procedure by software (see paragraph 5.2) and by file (see paragraph 5.3).
------------------------	--

PRIMARY DNS SERVER	This parameter identifies the Domain Name System (DNS). This parameter is not printed on setup report because it can be modified only during setup procedure by file (see paragraph 5.3).
---------------------------	---

SECONDARY DNS SERVER	This parameter identifies the Domain Name System (DNS). This parameter is not printed on setup report because it can be modified only during setup procedure by file (see paragraph 5.3).
-----------------------------	---



TCP PRINTER PORT

This parameter sets the TCP port number.

This parameter is not printed on setup report because it can be modified only during setup procedure by file (see [paragraph 5.3](#)).

MAC ADDRESS

This is the number, provided by the constructor, that identifies the device; this number is univocal.

This parameter is not modifiable by setup.

ATTENTION:

Any changes to network parameters will interrupt browser connection. If the server not responding you must reconnect to the new IP address set.



5.6 Operation parameters

This device allows the configuration of the parameters listed in the following table.

The parameters marked with the symbol [Ⓓ] are the default values.

Settings remain active even after the device has been turned off and they are stored in non-volatile memory.

PRINT MODE	Printing mode: Normal [Ⓓ] = enables printing in normal writing way Reverse = enables printing rotated 180 degrees
AUTOFEED	Setting of the Carriage Return character: CR disabled [Ⓓ] = Carriage Return disabled CR enabled = Carriage Return enabled
CHARS / INCH	Font selection: A = 11 cpi, B = 15 cpi A = 15 cpi, B = 20 cpi [Ⓓ] NOTE: CPI = Characters Per Inch
FONT TYPE	Setting of the font type: International [Ⓓ] = 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: Normal High Quality High Speed [Ⓓ]
PRINT WIDTH	Width of printing area: 52 mm 60 mm 68 mm 76 mm 54 mm 62 mm 70 mm 78 mm 56 mm 64 mm 72 mm 80 mm [Ⓓ] 58 mm 66 mm 74 mm
PAPER THRESHOLD	Threshold value (in percent) for the recognition of paper presence by the paper presence sensor: 30% 60% 90% 40% 70% 50% 80% [Ⓓ] This parameter is not printed on setup report because it can be modified only during setup procedure by software (see paragraph 5.2).



PAPEREND BUFFER CLEAR

Cleaning mode of the data in receive buffer, if the printing is stopped due to lack of paper:

Disabled = 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 ^D = When the paper runs out, all data in the receive buffer are deleted.

POWERFAIL WAKEUP MODE

This parameter set the printer state (ON or OFF) that will be automatically restored after a power fail:

LAST PWR State ^D = the printer returns in the previous state (ON or OFF) before the power fail.

Always ON = the printer always switches on automatically, after a power fail.

Always OFF = the printer switches on only by pressing the ON/OFF key after a power fail.

PRINT DENSITY

Adjusting the printing density:

-50%	-12%	+25%
-37%	0 ^D	+37%
-25%	+12%	+50%

NOTE:

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 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 printer enters the self-test routine and print the setup report. The printer 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
```

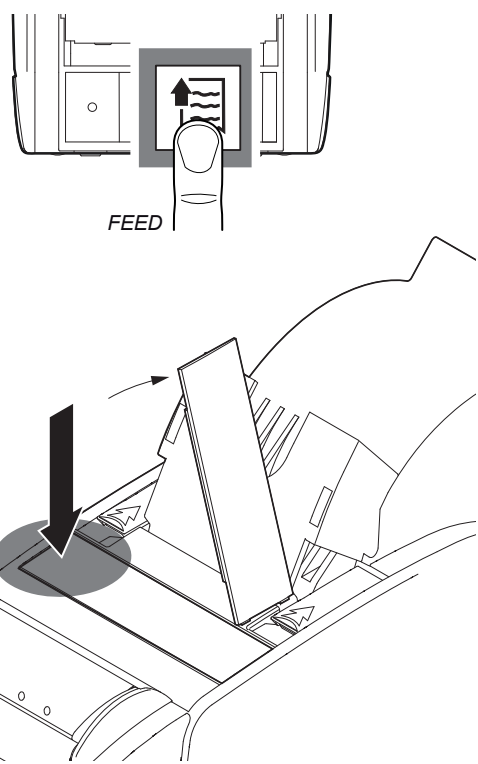


6 MAINTENANCE

6.1 Autocutter jam

In case of autocutter jam proceed as follows.

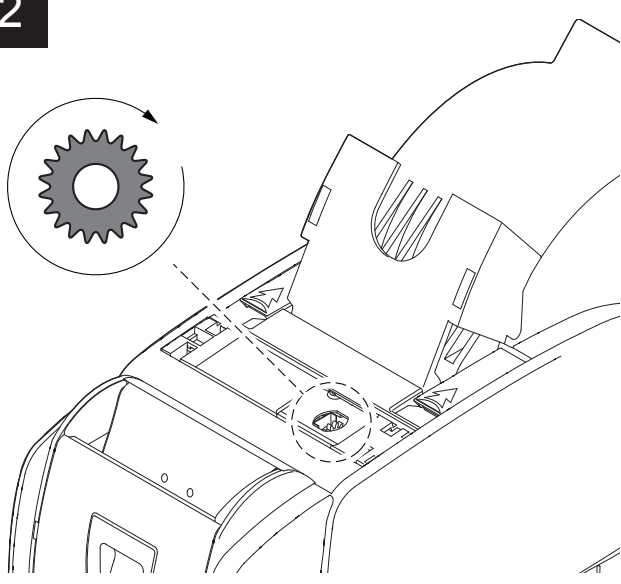
1



FEED

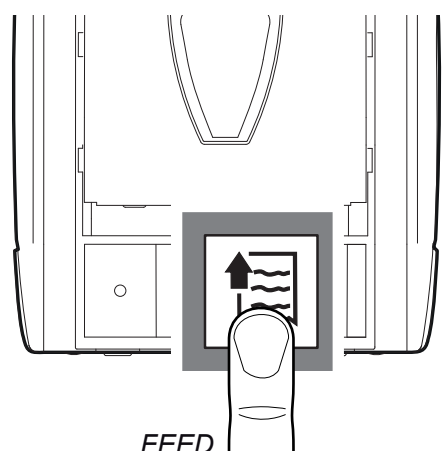
Press the FEED key to try to unlock the cutter.
If the cutter did not unlock press slightly the left side of the cutter cover, so that it opens.

2



Rotate the mechanism in the direction that oppose less resistance, as shown in the label.

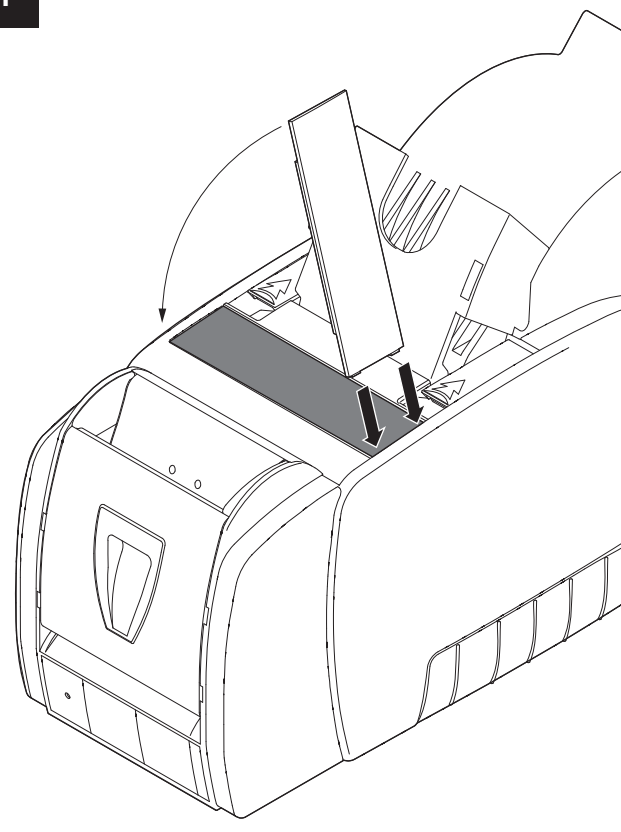
3



FEED

Press the FEED key.

4



If the problem persists, please contact the customer service.
Reassemble the cover removed previously.



6.2 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 the intervals between the cleaning operations.

For specific procedures, see [paragraph 6.3](#).

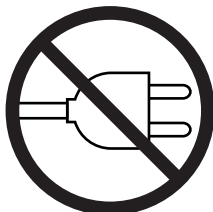
EVERY PAPER CHANGE	
Printhead and scanner 'VeriPrint'	Use isopropyl alcohol
Rollers	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Cutter	Use compressed air
Paper path	Use compressed air or tweezers
Sensors	Use compressed air
EVERY 6 MONTHS OR AS NEEDED	
Printer case	Use compressed air or a soft cloth
AT ANY DECREASE IN PRINT QUALITY	
Printhead for branding (scanner unit)	Use isopropyl alcohol

6.3 Cleaning

For periodic cleaning of the device, see the instructions below

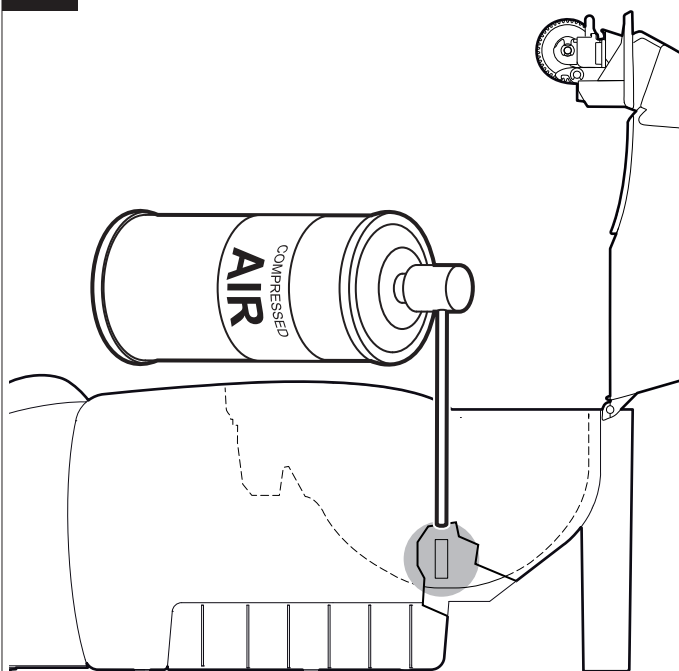
Sensors

1



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

2

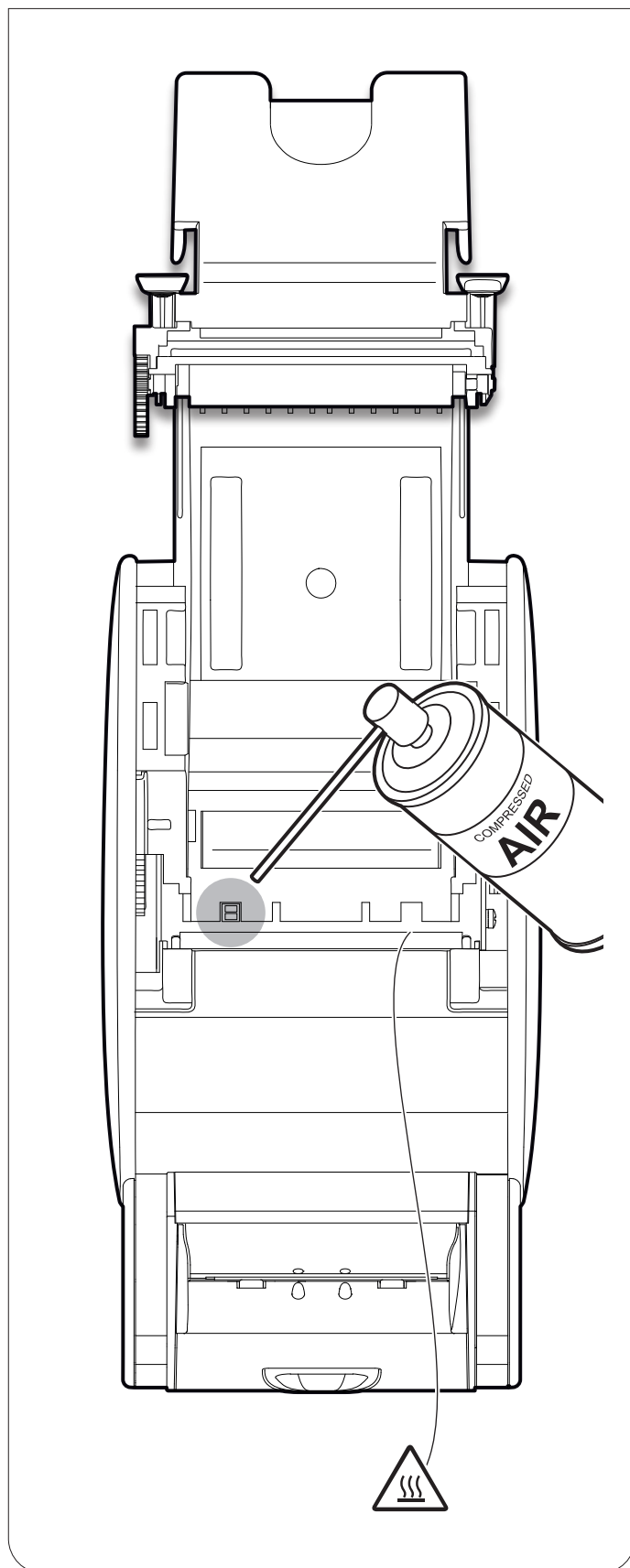


ATTENZIONE:

Non utilizzare alcol, solventi o spazzole dure. Assicurarsi che acqua o altri liquidi non penetrino all'interno del dispositivo.

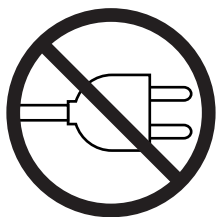


Pulire i sensori del dispositivo utilizzando aria compressa.



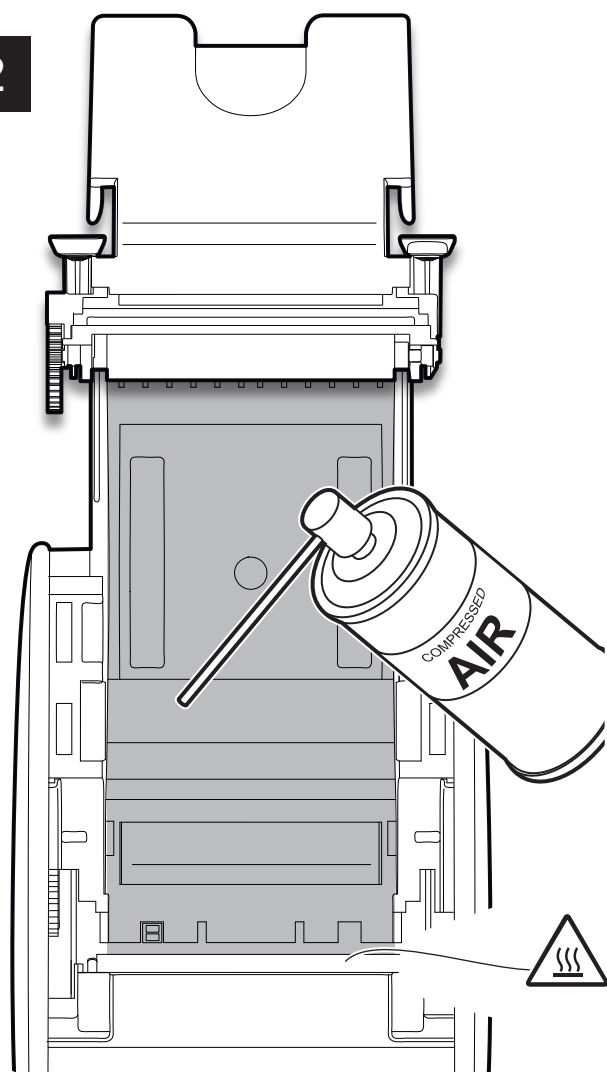
Paper path

1



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

2



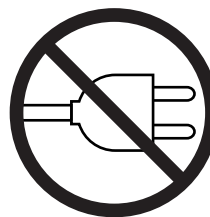
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



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

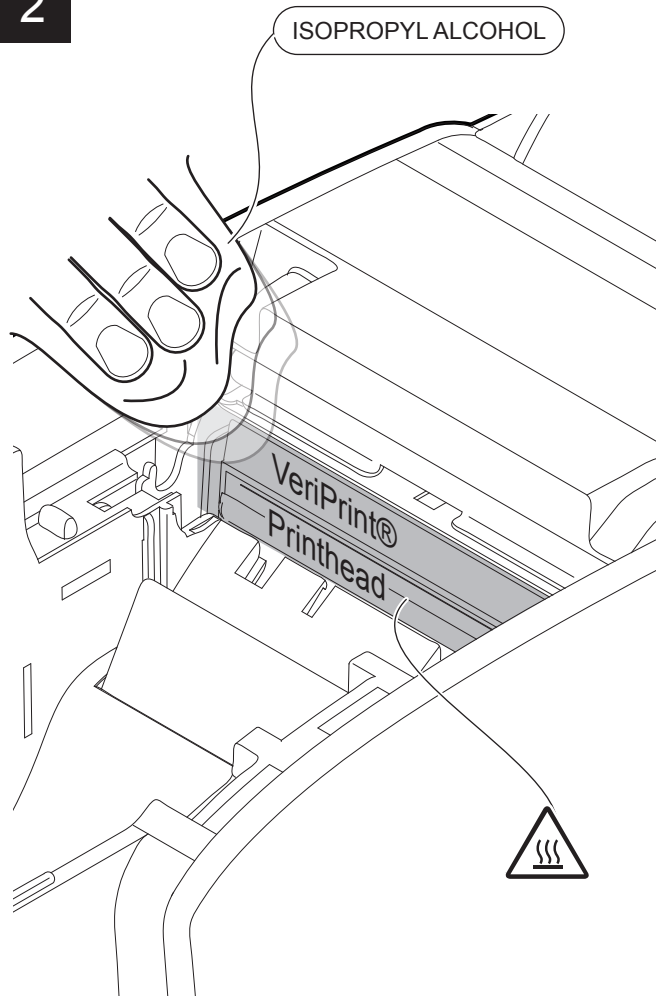
Printhead and scanner VeriPrint®

1



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

2



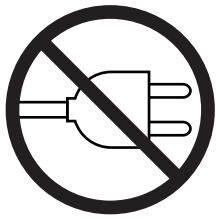
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



Clean the printing head and the scanner unit by using a non-abrasive cloth moistened with isopropyl alcohol.

Printing roller

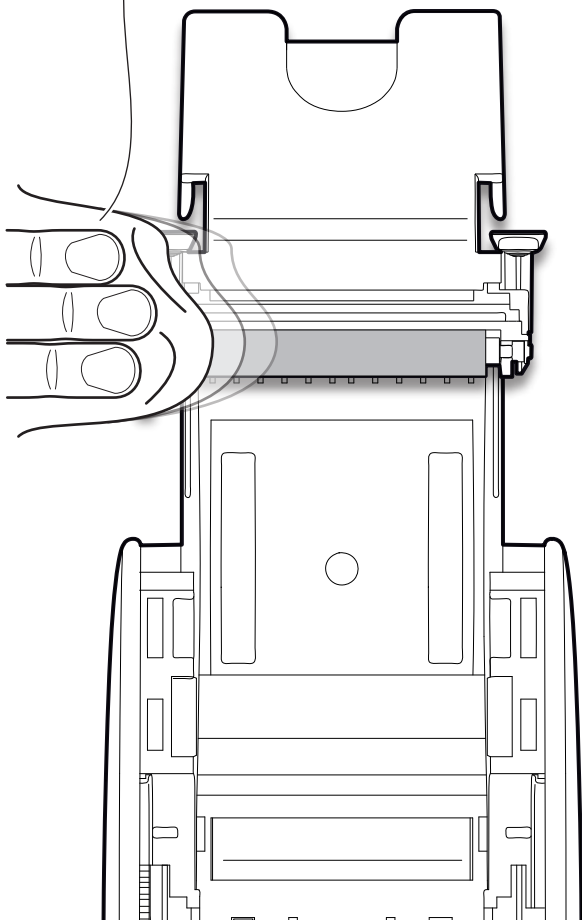
1



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

2

ISOPROPYL ALCOHOL



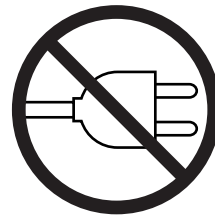
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



Clean the printing roller by using a non-abrasive cloth moistened with isopropyl alcohol.

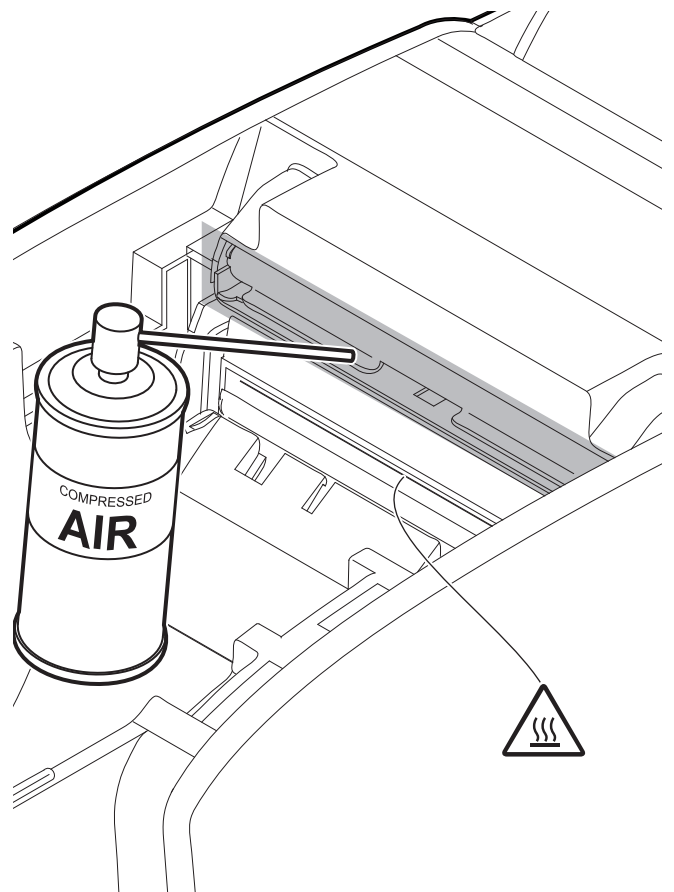
Autocutter

1



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

2

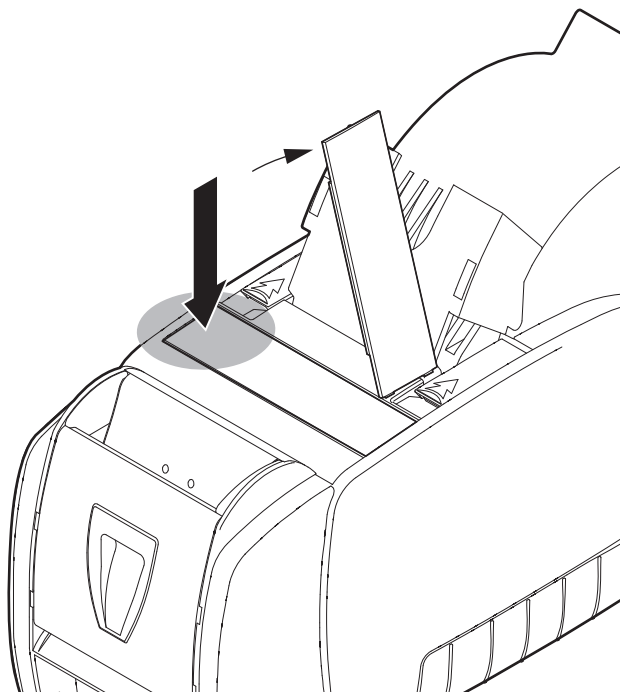


ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



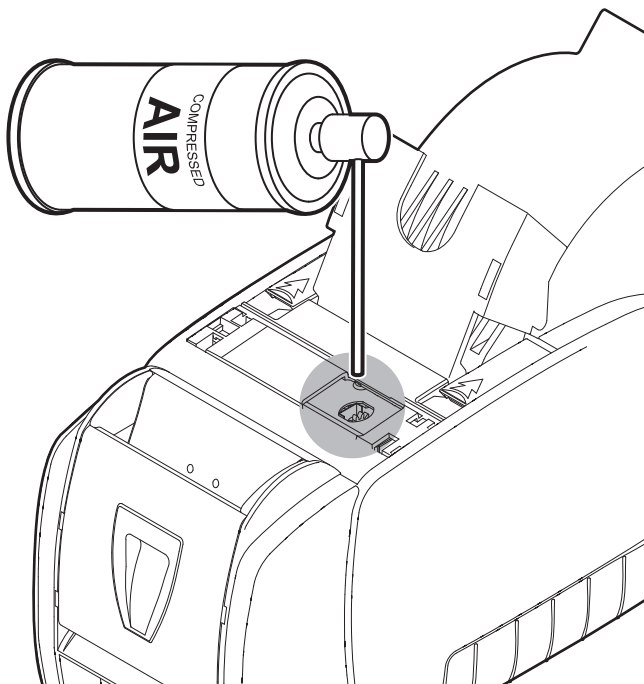
Clean the cutter compartment from the inside using compressed air.

3



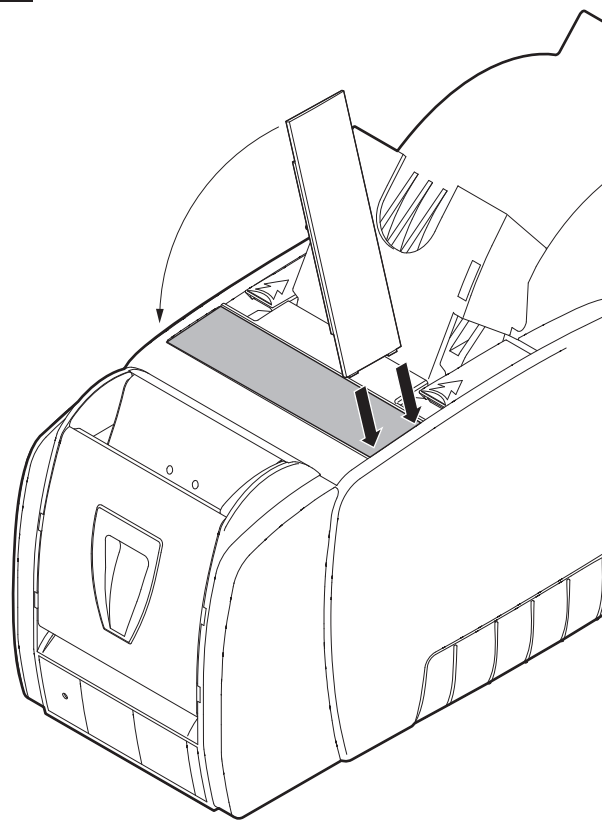
Press slightly the left side of the cutter cover, so that it opens.

4



Clean the cutter compartment using compressed air.

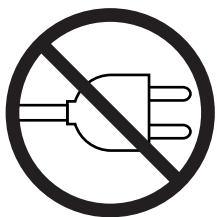
5



Reassemble the cover removed previously.

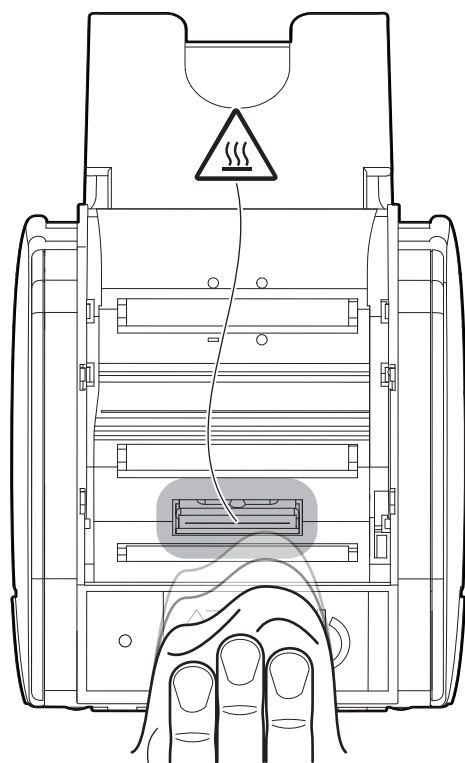
Printhead for branding (scanner unit)

1



Disconnect the power supply cable and open the scanner cover (see [paragraph 4.1](#)).

2



ISOPROPYL ALCOHOL

ATTENTION:

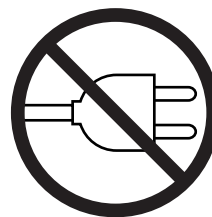
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



Clean the printing head by using a non-abrasive cloth moistened with isopropyl.

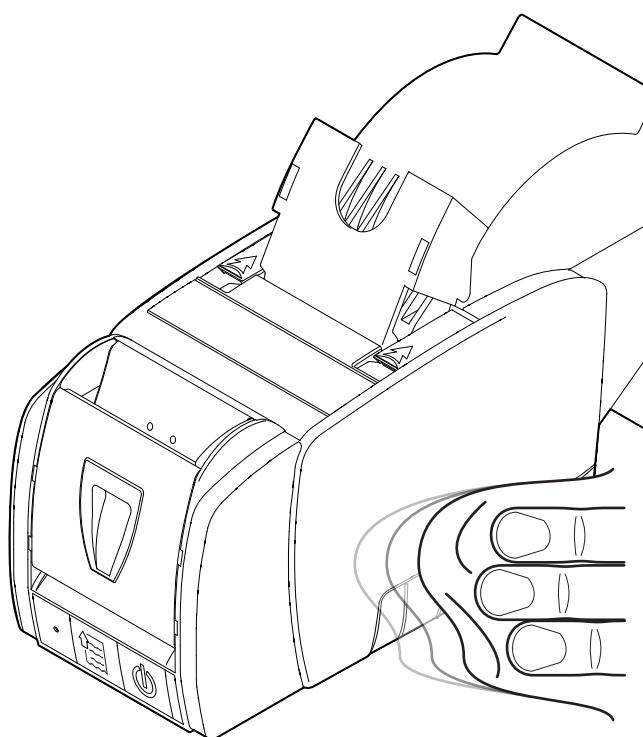
Case

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.




To clean the device, use compressed air or a soft cloth.

6.4 Upgrade firmware

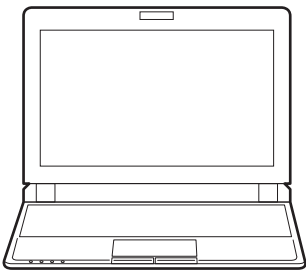
Firmware upgrade can be performed by using the “PrinterSet” software tool available on www.custom4u.it. To upgrade firmware, proceed as follows:

1



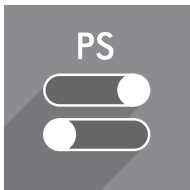
Login to web site www.custom4u.it type in the product code of the device and download the latest firmware release available

2



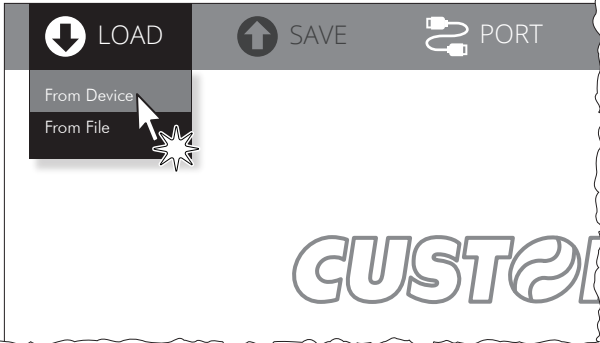
Connect the device to a PC directly (see [paragraph 3.1](#)), without using HUB devices.

3



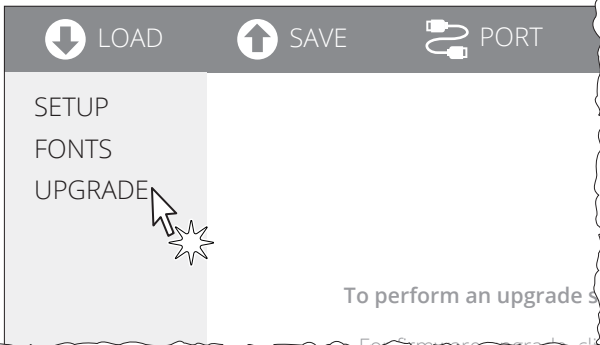
Start the “PrinterSet” software tool.

4



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

5



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.



7 SPECIFICATION

7.1 Hardware specifications

GENERALS	
Sensors	Paper presence, head temperature, cover open, near paper end
Emulations	CUSTOM/POS
Printing driver	Windows XP VISTA (32/64bit) Windows 7 (32/64bit) Windows 8 (32/64bit) Windows 8.1 (32/64bit) Windows 10 (32/64bit) Linux
INTERFACES	
USB Port	480 Mbit/s (USB 2.0 high speed)
RS232 serial port	from 1200 to 115200 bps
Ethernet Port	10 Mbit/s, 100 Mbit/s
MEMORIES	
Receive buffer	16 kB
Flash memory	2 MB (internal) + 8 MB (external)
RAM memory	32 MB
Graphic memory	Logos dynamic management (max 10 MB graphics memory)
PRINTER SPECIFICATIONS	
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	from 52 mm to 80 mm (step 2 mm)
Printing mode	Normal, 90°, 180°, 270°
Printing format	Height/Width from 1 to 8, bold, reverse, underlined, italic
Character fonts	PC437, PC850, PC860, PC863, PC865, PC858 (euro), 2 TrueType fonts ⁽³⁾
Printable barcode	UPCA, UPCE, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417, DATAMATRIX, AZTEC, QRCODE
Printing speed ^{(1) (4)}	High quality = 90 mm/s Normal = 150 mm/s High speed = 180 mm/s

PAPER

Type of paper	Thermal rolls, heat-sensitive side on outside of roll
Paper width	82.5 ± 0.5 mm
Paper weight	from 70 g/m ² to 80 g/m ²
Paper thickness	from 75 µm to 85 µm
Recommended paper	KANZAN KP460 MITSUBISHI TL4000, TL1000
External roll diameter	max 150 mm
External roll core diameter	40 mm
Paper end	Not attached to roll core
Core type	Cardboard or plastic

CUTTER

Paper cut	Toal cut
Estimated life ⁽¹⁾	> 1000000 cuts



VERIPRINT® SYSTEM

Scanning width	84 mm
Scanning resolution	400, 200 dpi (Vertical) 600, 300 dpi (Horizontal)
Files format	BMP (256, 16, 2 gray tones)
Saving resolution	300, 200 dpi (Vertical) 300, 200 dpi (Horizontal)

SCANNER UNIT

Scanning speed	250 mm/s
Scanning area	82 mm (W) x 350 mm (L) max
Output format	256 gray scale and b/w image, dot matrix (x,y)
Scanning resolution	203 DPI (8 dot/mm)
Tickets Layout	max 40
Rectangles research	8800 max (total)

PRINTER ELECTRICAL SPECIFICATIONS

Power supply	24 Vdc ±10%
Medium consumption ⁽⁴⁾	1 A
Standby consumption	0.14 A

ELECTRICAL SPECIFICATIONS POWER SUPPLY cod.963GE020000003

Power supply voltage	from 100 Vac to 240 Vac
Frequency	from 50 Hz to 60 Hz
Output	24 V, 2.5 A
Power	60 W



ENVIRONMENTAL CONDITIONS

Operating temperature	from 0 °C to +40 °C
Relative humidity (RH)	from 10% to 85%
Storage temperature	from -20 °C to +70 °C
Storage relative humidity (RH)	from 10% to 90%

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 device flash disk. It is possible to install additional TrueType fonts using the "PrinterSet" software tool (for further information about this tool refer to the manual with code 78200000001800).
- (4) : Referred to a standard CUSTOM receipt (L=10 cm, Density = 12.5% dots on).



7.2 Character specifications

Character set		3	
Character density	11 cpi	15 cpi	20 cpi
Number of columns	35	45	64
Character / s	2250	2895	4050
Lines / s	63	63	63
Characters (L x H mm)-Normal	2.25x3	1.75 x 3	1.25 x 3

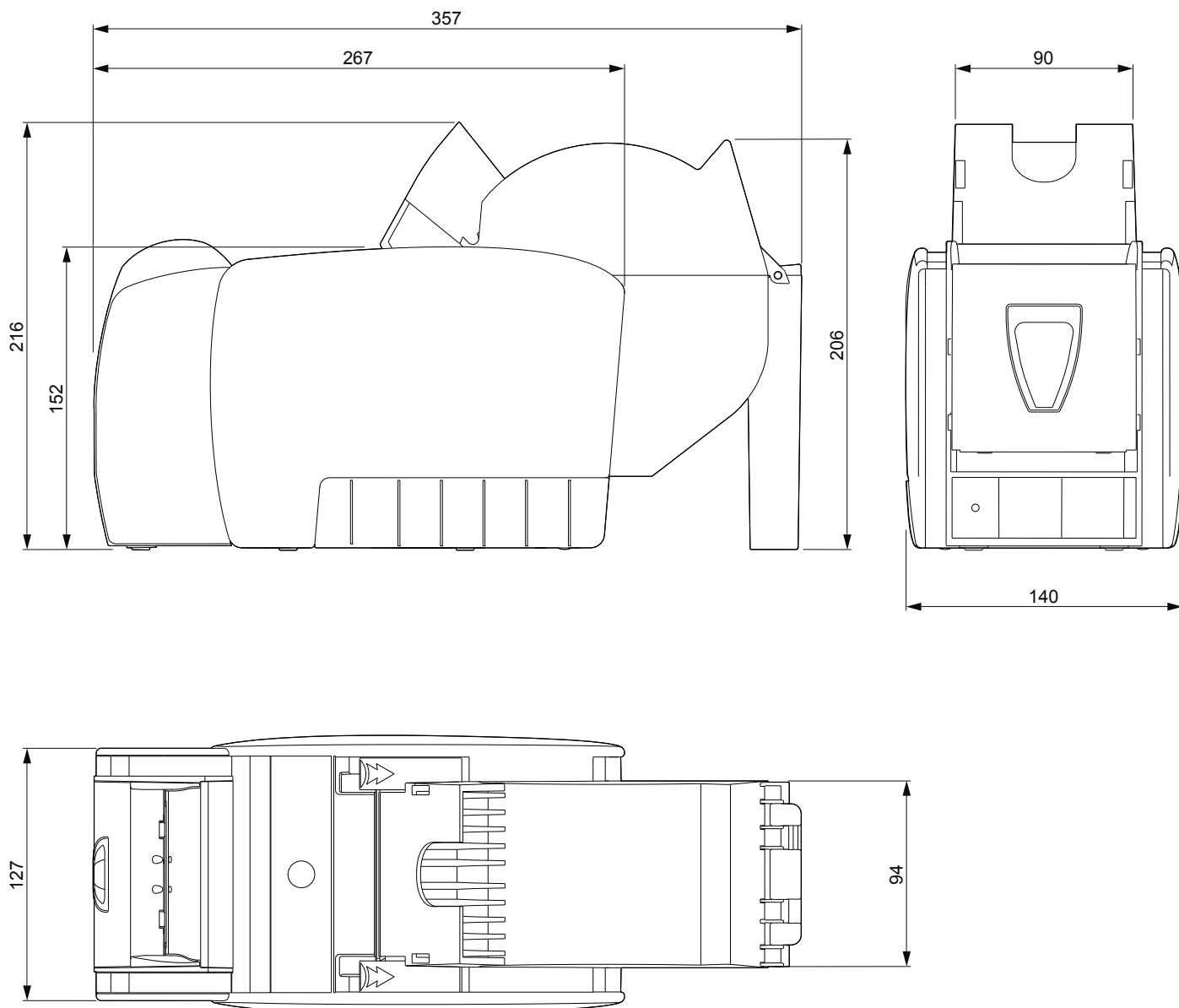
NOTE: Theoretical values.



7.3 Device dimensions

Length	357 mm (with cover closed) 445 mm (with cover open)
Height	216 mm (with cover closed) 345 mm (with cover open)
Width	140 mm
Weight	3300 g (without paper roll)

All the dimensions shown in following figure are in millimetres.





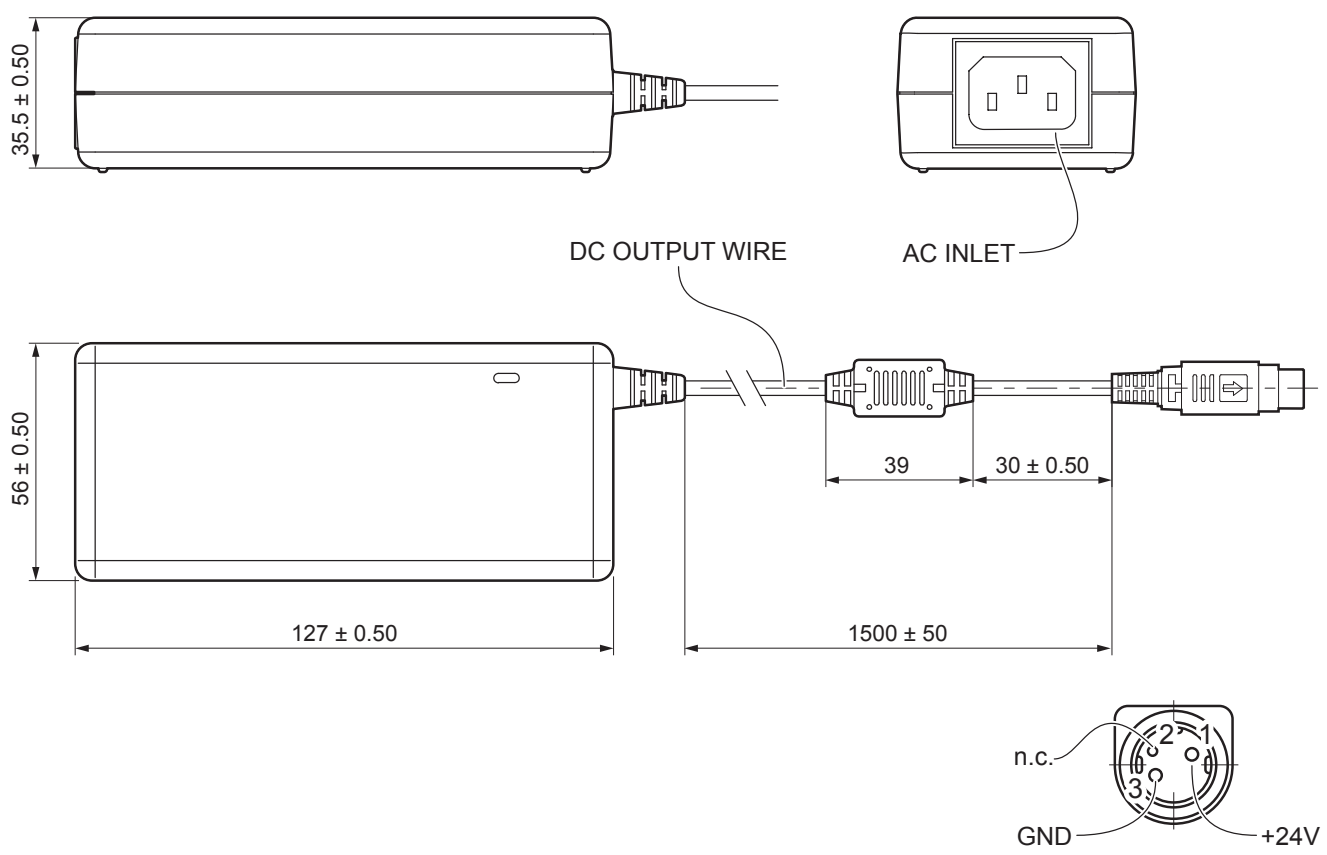
7.4 Dimension of power supply and power cord

The following table shows the dimensions of the power supply and the power cord available for the device.

POWER SUPPLY code 963GE020000053	
Length	127 mm
Height	35.5 mm
Width	56 mm
POWER CORD code 26100000000311	
Length	2000 mm

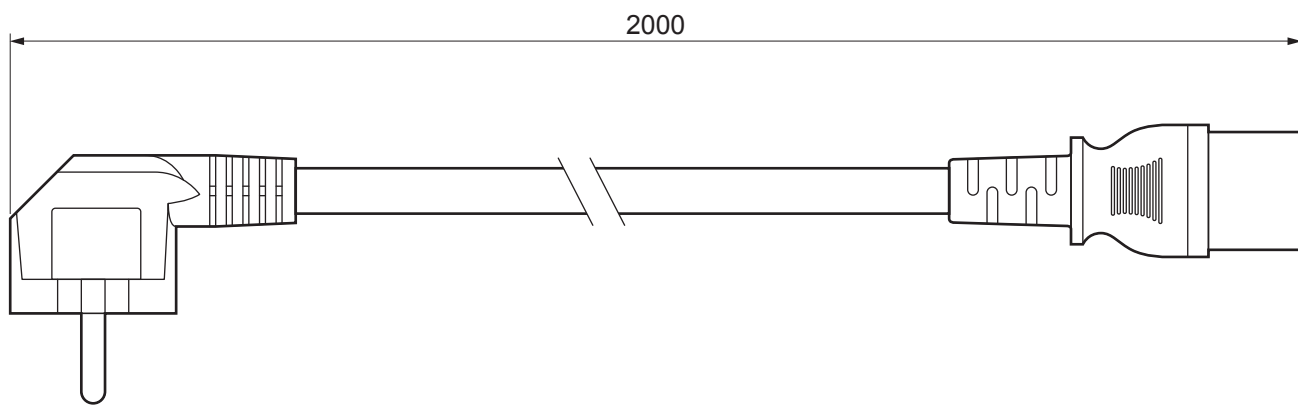
All the dimensions shown in following figures are in millimetres.

POWER SUPPLY code 963GE020000053





POWER CORD code 2610000000311



7.5 Paper specifications

Card structure

The card must be structured using the rules below (refer to the following images).
Note that the red light scanner detects the white and red colours as “transparent” colours.

CARD DIMENSIONS

TICKET WIDTH:	min 80 mm	max 83 mm
TICKET LENGTH:	min 45 mm	max 350 mm

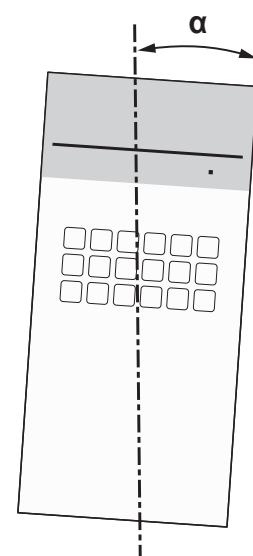
FREE ZONE ON THE UPPER AND BOTTOM SIDES

Place a zone 20 mm height in the upper side and in the bottom side of the card.
Inside these zones, text and picture are allowed only with red and white colours.
Inside these zones, will be placed markers and alignment bar having different colours from red and white.

ALIGNMENT BAR (OPTIONAL)

Place in the upper or bottom free zone an horizontal line having approximately the length of the card.
When you insert the card in the scanner, firmware use this line to calculate the rotation of the card (α angle) compared with the vertical axis. Research for rectangles start only if α angle don't exceed the value set with the command 0x1F 0x69.

With no alignment bar the rotation of the card is calculated using the card margins.



ID CARD MARKER

Place in the upper or bottom free zone a combination of squares (markers) to identify the card univocally.
Firmware recognizes this markers using dimension and X,Y position referred to the upper right corner (A) of the card. Make sure preliminarily that the combination of markers is not used in another card.

RESEARCH RECTANGLES ZONE

Inside this zone, will be freely placed the research rectangles.
Only red and white colours is allowed.

RESEARCH RECTANGLES

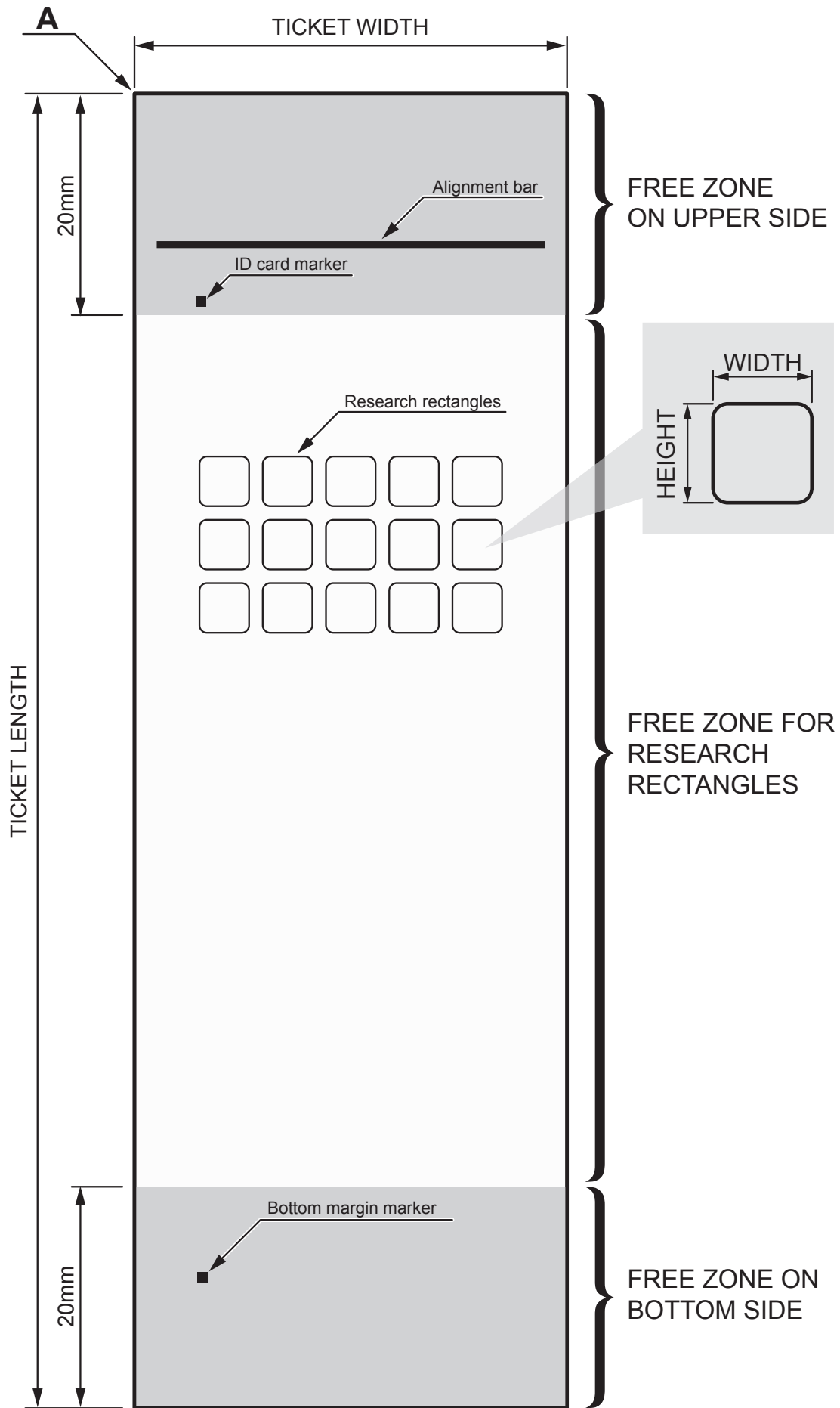
Dimensions for research rectangles:

WIDTH :	min 1.5 mm	max 6 mm
HEIGHT:	min 1.5 mm	max 6 mm

MARKER FOR BOTTOM MARGIN (OPTIONAL)

Place a square (marker) in the bottom free zone. It will be used to correct mechanical tolerances for scanner and printing tolerances for the card.

If this marker is not present on the card, the bottom margin of the card is used as reference for the calculation.





7.6 Character sets in CUSTOM/POS emulation

The printer has 3 fonts of varying width (11, 15 and 20 cpi) which may be accessed through programming or control characters. Each of these fonts offers the following code tables: PC437, PC850, PC860, PC863, PC865, PC858.

PC437 CODE TABLE (Usa, Standard Europe)

Char	SP	!	“	#	\$	%	&	‘	()	*	+	,	-	.	/
Hex	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
Dec	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Char	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
Hex	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
Dec	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
Char	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Hex	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
Dec	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Char	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
Hex	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F
Dec	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Char	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
Hex	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
Dec	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
Char	p	q	r	s	t	u	v	w	x	y	z	{	 	}	~	␣
Hex	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F
Dec	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
Char	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
Hex	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
Dec	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
Char	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ç	£	¥	Pts	f
Hex	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F
Dec	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Char	á	í	ó	ú	ñ	Ñ	a	o	¿	¡	½	¼	i	«	»	
Hex	00A0	00A1	00A2	00A3	00A4	00A5	00A6	00A7	00A8	00A9	00AA	00AB	00AC	00AD	00AE	00AF
Dec	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
Char					┌	┐	└	┘	┑	┒	┓	└	┘	┑	┒	┓
Hex	00B0	00B1	00B2	00B3	00B4	00B5	00B6	00B7	00B8	00B9	00BA	00BB	00BC	00BD	00BE	00BF
Dec	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
Char	L	┌	┐	└	┘	┑	┒	┓	└	┘	┑	┒	┓	└	┘	┑
Hex	00C0	00C1	00C2	00C3	00C4	00C5	00C6	00C7	00C8	00C9	00CA	00CB	00CC	00CD	00CE	00CF
Dec	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
Char	└	┘	┑	┒	┓	└	┘	┑	┒	┓	└	┘	┑	┒	┓	└
Hex	00D0	00D1	00D2	00D3	00D4	00D5	00D6	00D7	00D8	00D9	00DA	00DB	00DC	00DD	00DE	00DF
Dec	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
Char	α	β	Γ	π	Σ	σ	μ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
Hex	00E0	00E1	00E2	00E3	00E4	00E5	00E6	00E7	00E8	00E9	00EA	00EB	00EC	00ED	00EE	00EF
Dec	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
Char	≡	±	≥	≤	∫	∫	÷	≈	°	·	·	√	n	²	■	NBSP
Hex	00F0	00F1	00F2	00F3	00F4	00F5	00F6	00F7	00F8	00F9	00FA	00FB	00FC	00FD	00FE	00FF
Dec	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255



PC850 CODE TABLE (Multilingual)

Char	SP	!	“	#	\$	%	&	‘	()	*	+	,	-	.	/
Hex	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
Dec	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Char	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
Hex	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
Dec	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
Char	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Hex	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
Dec	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Char	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
Hex	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F
Dec	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Char	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
Hex	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
Dec	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
Char	p	q	r	s	t	u	v	w	x	y	z	{	 	}	~	␣
Hex	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F
Dec	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
Char	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
Hex	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
Dec	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
Char	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	×	f
Hex	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F
Dec	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Char	á	í	ó	ú	ñ	Ñ	ª	º	¿	®	¬	½	¼	¡	«	»
Hex	00A0	00A1	00A2	00A3	00A4	00A5	00A6	00A7	00A8	00A9	00AA	00AB	00AC	00AD	00AE	00AF
Dec	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
Char				 	†	Á	Â	À	©	¶	 	¶	¶	¢	¥	¬
Hex	00B0	00B1	00B2	00B3	00B4	00B5	00B6	00B7	00B8	00B9	00BA	00BB	00BC	00BD	00BE	00BF
Dec	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
Char	Ł	ł	Ŧ	ŧ	—	†	ã	Ã	Ł	Ŧ	Ł	Ŧ	Ŧ	=	¶	¤
Hex	00C0	00C1	00C2	00C3	00C4	00C5	00C6	00C7	00C8	00C9	00CA	00CB	00CC	00CD	00CE	00CF
Dec	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
Char	ð	Đ	Ê	Ë	È	ı	Í	Î	İ	Ј	Г			ı	ì	
Hex	00D0	00D1	00D2	00D3	00D4	00D5	00D6	00D7	00D8	00D9	00DA	00DB	00DC	00DD	00DE	00DF
Dec	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
Char	Ó	ß	Ô	Ò	õ	Õ	µ	þ	Ɔ	Ú	Û	Ù	ý	Ý	ˉ	˘
Hex	00E0	00E1	00E2	00E3	00E4	00E5	00E6	00E7	00E8	00E9	00EA	00EB	00EC	00ED	00EE	00EF
Dec	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
Char	SHY	±	=	¾	¶	§	÷	˘	°	ˆ	˙	1	3	2		NBSP
Hex	00F0	00F1	00F2	00F3	00F4	00F5	00F6	00F7	00F8	00F9	00FA	00FB	00FC	00FD	00FE	00FF
Dec	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255



PC860 CODE TABLE (Portuguese)

Char	SP	!	“	#	\$	%	&	‘	()	*	+	,	-	.	/
Hex	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
Dec	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Char	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
Hex	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
Dec	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
Char	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Hex	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
Dec	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Char	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
Hex	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F
Dec	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Char	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
Hex	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
Dec	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
Char	p	q	r	s	t	u	v	w	x	y	z	{	 	}	~	␣
Hex	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F
Dec	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
Char	Ç	ü	é	â	ã	à	Á	ç	ê	Ê	è	í	Ô	ì	Ã	Â
Hex	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
Dec	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
Char	É	À	È	ô	ö	ò	Ú	ù	ì	Õ	Ü	ç	£	Ù	Pts	Ó
Hex	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F
Dec	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Char	á	í	ó	ú	ñ	Ñ	ª	º	¿	Ò	¬	½	¼	¡	«	»
Hex	00A0	00A1	00A2	00A3	00A4	00A5	00A6	00A7	00A8	00A9	00AA	00AB	00AC	00AD	00AE	00AF
Dec	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
Char					┌	┐	└	┘	┌	┐	└	┘	┌	┐	└	┘
Hex	00B0	00B1	00B2	00B3	00B4	00B5	00B6	00B7	00B8	00B9	00BA	00BB	00BC	00BD	00BE	00BF
Dec	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
Char	┌	└	┐	┘	—	┌	┐	└	┘	┌	┐	└	┘	┌	┐	└
Hex	00C0	00C1	00C2	00C3	00C4	00C5	00C6	00C7	00C8	00C9	00CA	00CB	00CC	00CD	00CE	00CF
Dec	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
Char	┌	└	┐	┘	┌	┐	└	┘	┌	┐	└	┘	┌	┐	└	┘
Hex	00D0	00D1	00D2	00D3	00D4	00D5	00D6	00D7	00D8	00D9	00DA	00DB	00DC	00DD	00DE	00DF
Dec	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
Char	α	β	Γ	π	Σ	σ	μ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
Hex	00E0	00E1	00E2	00E3	00E4	00E5	00E6	00E7	00E8	00E9	00EA	00EB	00EC	00ED	00EE	00EF
Dec	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
Char	≡	±	≥	≤	┌	┐	÷	≈	°	·	·	√	n	²	■	NBSP
Hex	00F0	00F1	00F2	00F3	00F4	00F5	00F6	00F7	00F8	00F9	00FA	00FB	00FC	00FD	00FE	00FF
Dec	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255



PC863 CODE TABLE (Canadian, French)

Char	SP	!	“	#	\$	%	&	‘	()	*	+	,	-	.	/
Hex	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
Dec	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Char	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
Hex	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
Dec	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
Char	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Hex	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
Dec	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Char	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
Hex	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F
Dec	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Char	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
Hex	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
Dec	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
Char	p	q	r	s	t	u	v	w	x	y	z	{	 	}	~	␣
Hex	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F
Dec	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
Char	Ç	ü	é	â	Â	à	¶	ç	ê	ë	è	ï	î	=	À	§
Hex	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
Dec	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
Char	É	È	Ê	ô	Ë	ï	û	ù	¤	Ô	Ü	¢	£	Ù	Û	f
Hex	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F
Dec	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Char	¡	´	ó	ú	¨	¸	³	—	î	ƒ	¬	½	¼	¾	«	»
Hex	00A0	00A1	00A2	00A3	00A4	00A5	00A6	00A7	00A8	00A9	00AA	00AB	00AC	00AD	00AE	00AF
Dec	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
Char				 	†	‡	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶
Hex	00B0	00B1	00B2	00B3	00B4	00B5	00B6	00B7	00B8	00B9	00BA	00BB	00BC	00BD	00BE	00BF
Dec	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
Char	L	⊥	T	†	—	†	‡	¶	¶	¶	¶	¶	¶	¶	¶	¶
Hex	00C0	00C1	00C2	00C3	00C4	00C5	00C6	00C7	00C8	00C9	00CA	00CB	00CC	00CD	00CE	00CF
Dec	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
Char	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶
Hex	00D0	00D1	00D2	00D3	00D4	00D5	00D6	00D7	00D8	00D9	00DA	00DB	00DC	00DD	00DE	00DF
Dec	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
Char	α	β	Γ	π	Σ	σ	μ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
Hex	00E0	00E1	00E2	00E3	00E4	00E5	00E6	00E7	00E8	00E9	00EA	00EB	00EC	00ED	00EE	00EF
Dec	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
Char	≡	±	≥	≤	∫	∫	÷	≈	°	·	·	√	n	²	■	NBSP
Hex	00F0	00F1	00F2	00F3	00F4	00F5	00F6	00F7	00F8	00F9	00FA	00FB	00FC	00FD	00FE	00FF
Dec	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255



PC865 CODE TABLE (Nordic)

Char	SP	!	“	#	\$	%	&	‘	()	*	+	,	-	.	/	
Hex	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F	
Dec	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	
Char	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	
Hex	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F	
Dec	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	
Char	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
Hex	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F	
Dec	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	
Char	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	
Hex	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F	
Dec	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	
Char	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	
Hex	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F	
Dec	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	
Char	p	q	r	s	t	u	v	w	x	y	z	{	 	}	~	␣	
Hex	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F	
Dec	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	
Char	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å	
Hex	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F	
Dec	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	
Char	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	Þ	ƒ	
Hex	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F	
Dec	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	
Char	á	í	ó	ú	ñ	Ñ	ª	º	¿	¬	¬	½	¼	¡	«	»	
Hex	00A0	00A1	00A2	00A3	00A4	00A5	00A6	00A7	00A8	00A9	00AA	00AB	00AC	00AD	00AE	00AF	
Dec	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	
Char																	
Hex	00B0	00B1	00B2	00B3	00B4	00B5	00B6	00B7	00B8	00B9	00BA	00BB	00BC	00BD	00BE	00BF	
Dec	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	
Char																	
Hex	00C0	00C1	00C2	00C3	00C4	00C5	00C6	00C7	00C8	00C9	00CA	00CB	00CC	00CD	00CE	00CF	
Dec	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	
Char																	
Hex	00D0	00D1	00D2	00D3	00D4	00D5	00D6	00D7	00D8	00D9	00DA	00DB	00DC	00DD	00DE	00DF	
Dec	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	
Char	α	β	Γ	π	Σ	σ	μ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩	
Hex	00E0	00E1	00E2	00E3	00E4	00E5	00E6	00E7	00E8	00E9	00EA	00EB	00EC	00ED	00EE	00EF	
Dec	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	
Char	≡	±	≥	≤	 	 	÷	≈	°	·	·	√	n	²	■	NBSP	
Hex	00F0	00F1	00F2	00F3	00F4	00F5	00F6	00F7	00F8	00F9	00FA	00FB	00FC	00FD	00FE	00FF	
Dec	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	



PC858 CODE TABLE (Euro symbol)

Char	SP	!	“	#	\$	%	&	‘	()	*	+	,	-	.	/
Hex	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
Dec	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Char	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
Hex	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
Dec	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
Char	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Hex	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
Dec	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Char	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
Hex	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F
Dec	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Char	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
Hex	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
Dec	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
Char	p	q	r	s	t	u	v	w	x	y	z	{	 	}	~	␣
Hex	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F
Dec	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
Char	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
Hex	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
Dec	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
Char	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	×	f
Hex	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F
Dec	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Char	á	í	ó	ú	ñ	Ñ	ª	º	¿	®	¬	½	¼	¡	«	»
Hex	00A0	00A1	00A2	00A3	00A4	00A5	00A6	00A7	00A8	00A9	00AA	00AB	00AC	00AD	00AE	00AF
Dec	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
Char				 	†	Á	Â	À	©	¶	 	¶	¶	¢	¥	¬
Hex	00B0	00B1	00B2	00B3	00B4	00B5	00B6	00B7	00B8	00B9	00BA	00BB	00BC	00BD	00BE	00BF
Dec	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
Char	L	⊥	T	†	—	†	ã	Ã	ℒ	℞	≡	¶	¶	=	¶	¤
Hex	00C0	00C1	00C2	00C3	00C4	00C5	00C6	00C7	00C8	00C9	00CA	00CB	00CC	00CD	00CE	00CF
Dec	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
Char	ð	Ð	Ê	Ë	È	€	Í	Î	Ï	⋈	Γ	■	■	¡	ì	■
Hex	00D0	00D1	00D2	00D3	00D4	00D5	00D6	00D7	00D8	00D9	00DA	00DB	00DC	00DD	00DE	00DF
Dec	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
Char	Ó	ß	Ô	Ò	õ	Õ	µ	þ	Ɔ	Ú	Û	Ù	ý	Ý	ˉ	˘
Hex	00E0	00E1	00E2	00E3	00E4	00E5	00E6	00E7	00E8	00E9	00EA	00EB	00EC	00ED	00EE	00EF
Dec	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
Char	SHY	±	=	¾	¶	§	÷	˘	°	ˆ	˙	1	3	2	■	NBSP
Hex	00F0	00F1	00F2	00F3	00F4	00F5	00F6	00F7	00F8	00F9	00FA	00FB	00FC	00FD	00FE	00FF
Dec	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

NOTE: To print the Euro (€) symbol, the command sequence is: 0x1B, 0x74, 0x13, 0xD5 (see the commands manual of the device).



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).

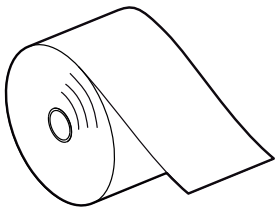
The quality of TrueType fonts, the correct positioning into the printable area and the available code tables, will result from the font producers and the font implementation.

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.



8 CONSUMABLES

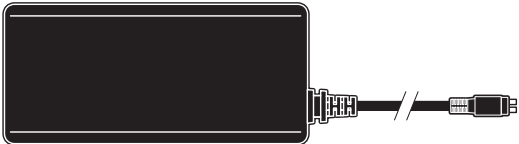


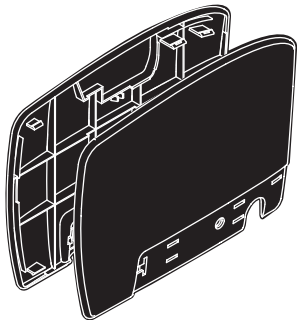
The following table shows the list of available consumables for device:

DESCRIPTION	CODE
<p>THERMAL PAPER ROLL</p> <p>weight = 78 g/m² width = 82.5 mm Ø external = 150 mm Ø core = 40 mm</p>	<p>67300000000410</p> 



9 ACCESSORIES

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

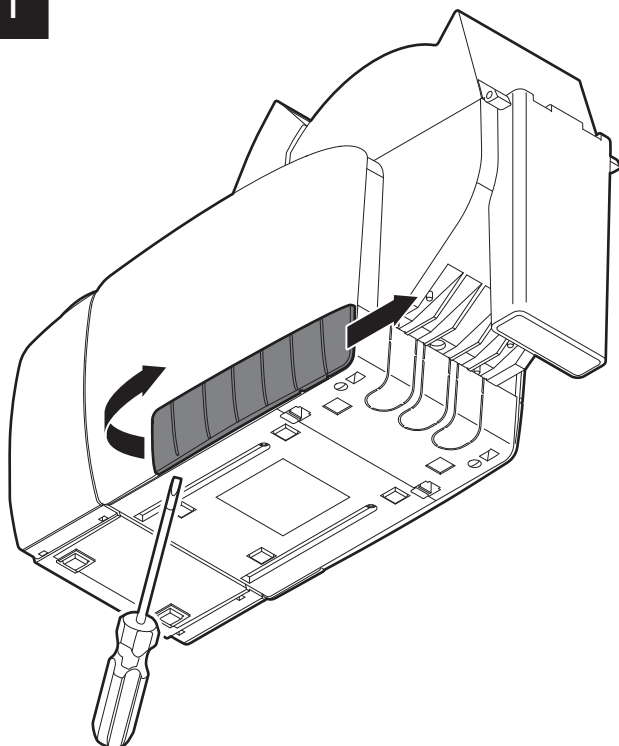
DESCRIPTION	CODE
<p>POWER SUPPLY (for technical specifications, see paragraph 7.1)</p>	<p>963GE020000053</p> 
<p>POWER CORD SCHUKO PLUG length = 2 m (see paragraph 7.4)</p>	<p>26100000000311</p> 
<p>USB CABLE TYPE A-B Length = 1.8 m</p>	<p>26500000000356</p> 
<p>RIGHT AND LEFT SIDES KUBE color: black (see paragraph 9.1)</p>	<p>976BG010000003</p> 



9.1 Sides replacement

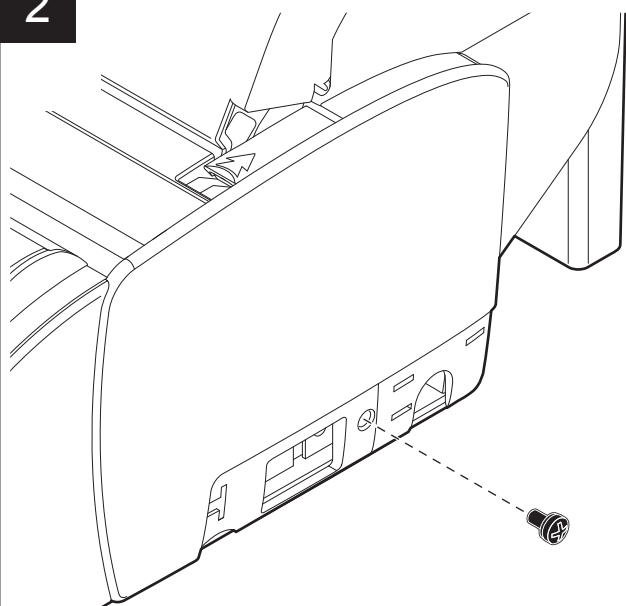
To replace the printer side (right or left), proceed as follows.

1



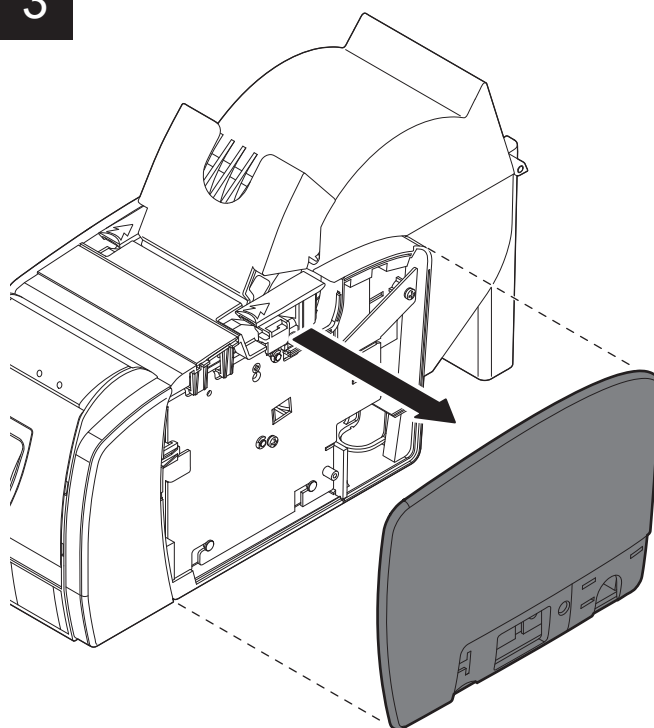
Remove the carter on the printer side using a screwdriver.

2

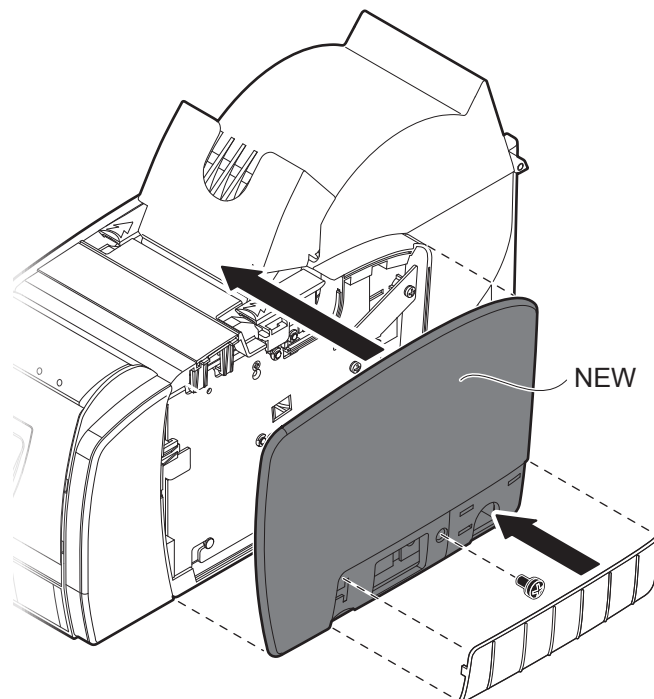


Unscrew the fixing screw for the printer side.

3



Remove the printer side.



Assemble the new side performing the previous operations in reverse order.



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](#));
- by consulting the “setup.ini” file (see [paragraph 5.3](#)).







CUSTOM[®]

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