USER MANUAL

K3

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 *(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.



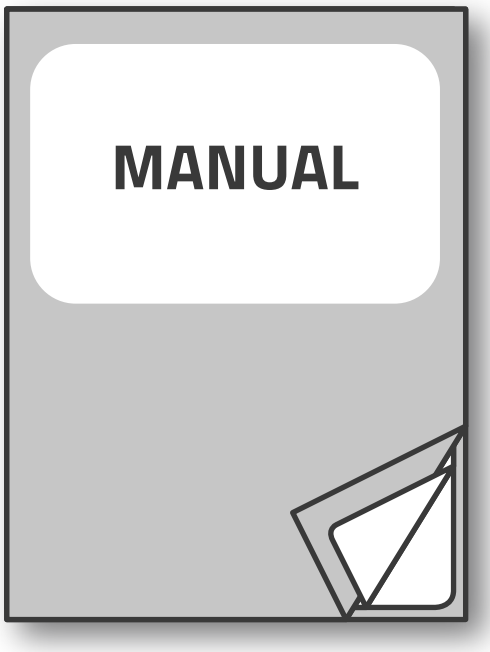
GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

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.
- For the waste sorting of the packaging materials, please check the local waste disposal laws.



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 **772000000002700**

For further information about the use of “PrinterSet” tool
refer to the manual with code **782000000001800**

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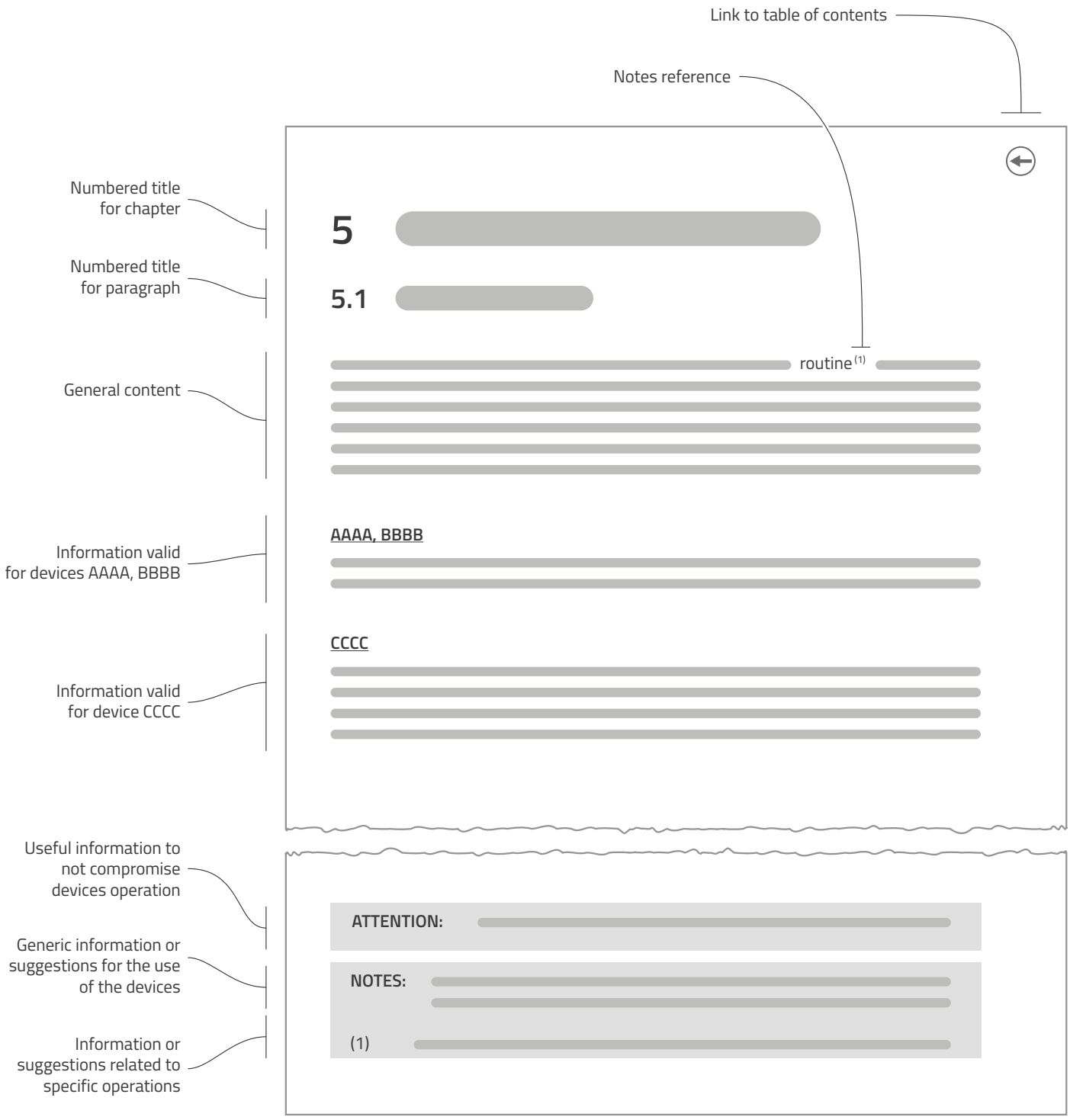
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1 INTRODUCTION

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 IDENTIFICATION OF THE MODELS

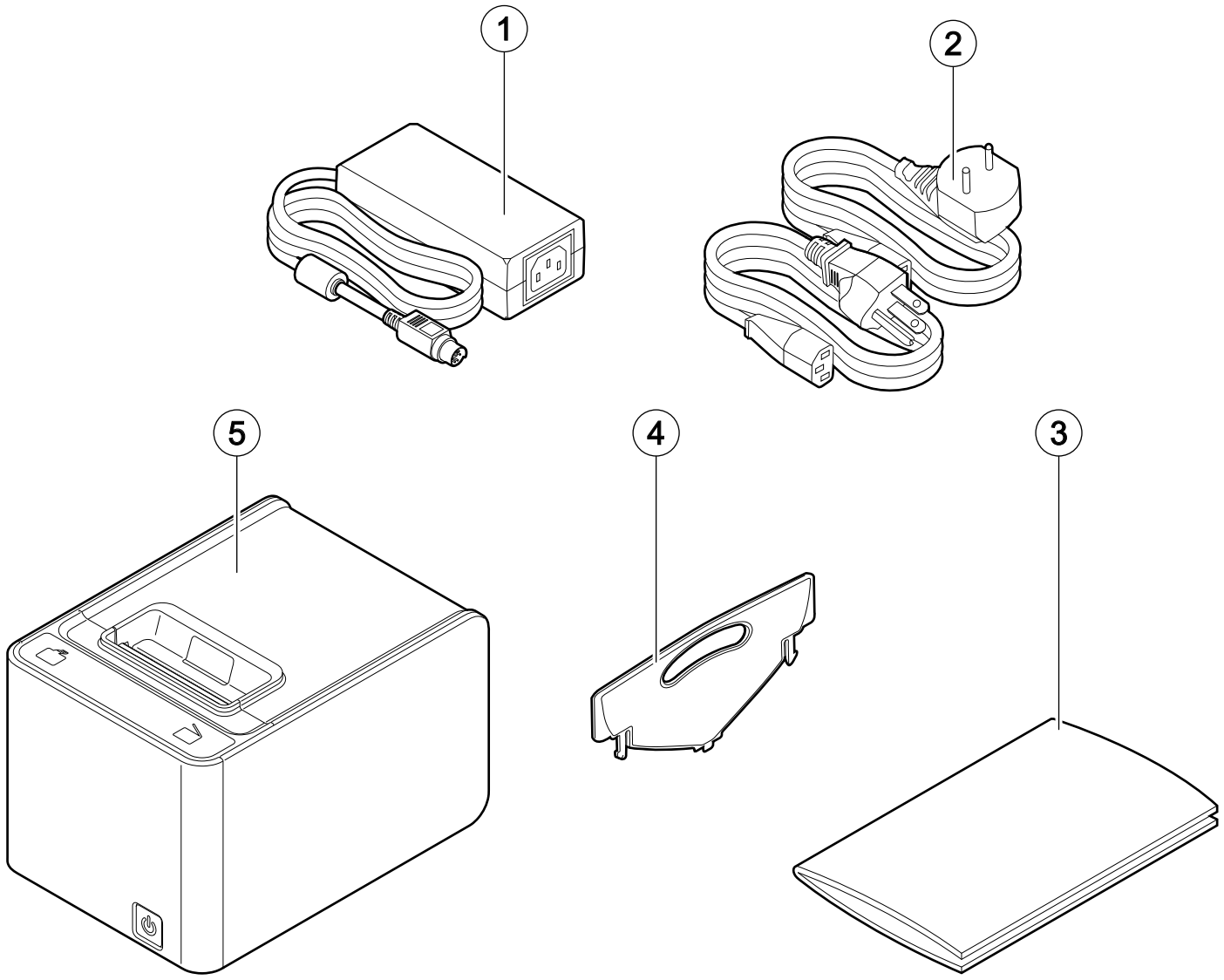
NOMENCLATURA	DESCRIPTION
K3 STD	K3 base configuration
K3 DSP	K3 with display
K3 HS	High speed K3
K3 HS LF	High speed K3 linerless

3 DESCRIPTION

3.1 Box contents

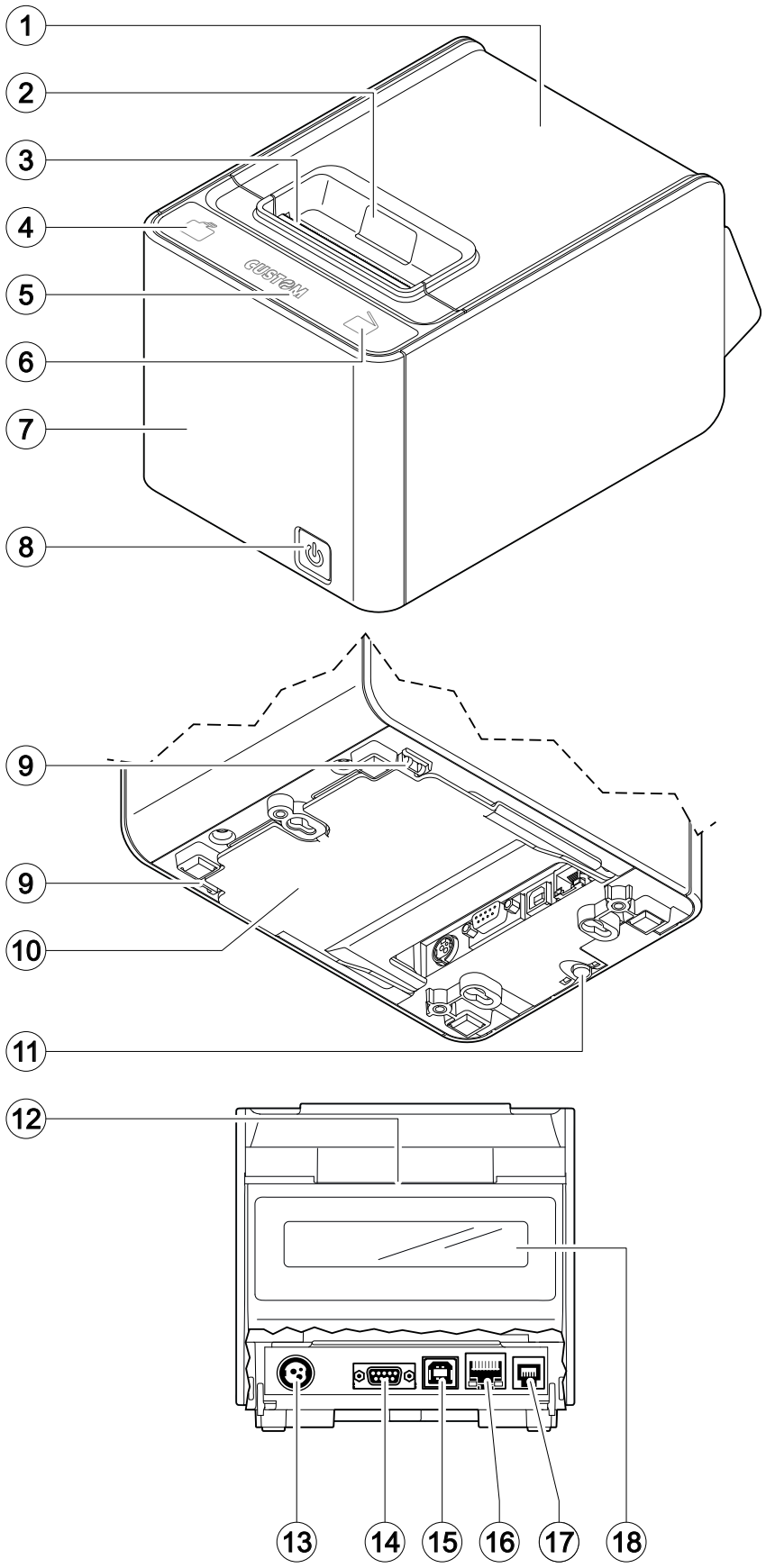
Remove all the box contents (see following figures) being careful not to damage the packing material so that it may be re-used if the device is to be transported in the future.
Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact Customer Service.

1. AC adapter
2. Standard AC power supply cable or US market AC power supply cable
3. Short guide
4. Adapter for the paper regulation
5. Device



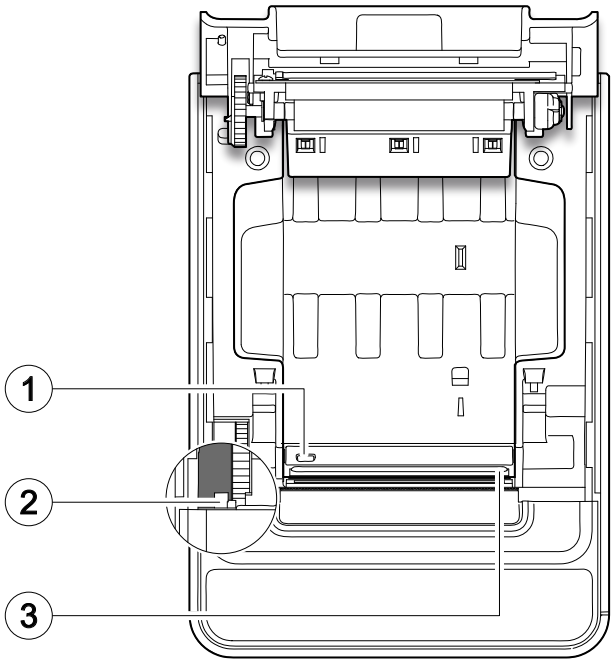
3.2 Device components: external views

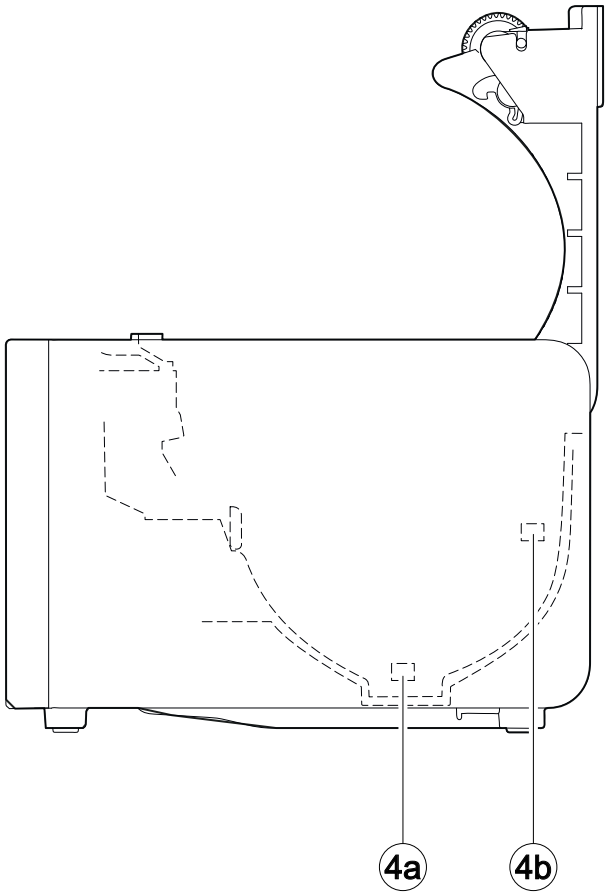
1. Paper compartment cover
2. Service button for cover opening
3. Paper out with serrated blade
4. FEED key with status LED
5. Status LED
6. OPEN key with status LED
7. Front cover
8. ON/OFF key
9. Opening levers of cables compartment
10. Cables compartment cover
11. Button for front cover release
12. Entrance for fanfold
13. Power supply port
14. RS232 serial interface port
15. USB interface port
16. Ethernet interface port
17. Cash drawer port
18. Customer display (only for K3 DSP)



3.3 Device components: internal views

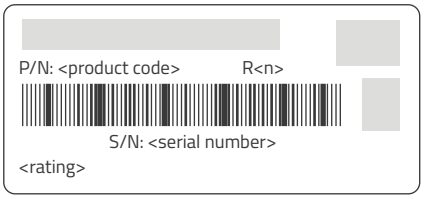
1. Sensor for paper presence and black mark detection on the thermal side of the paper
2. Sensor for cover open
3. Temperature sensor for the print-head (integrated in the printhead and not visible to the user)
4. Sensor for detecting low paper, adjustable in 2 positions (a = device in the normal position, b = device mounted on the wall)

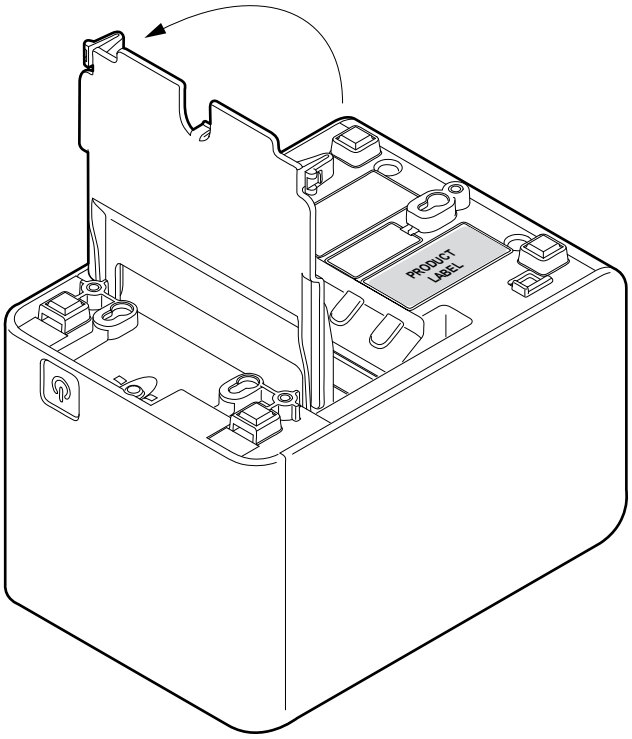




3.4 Product label

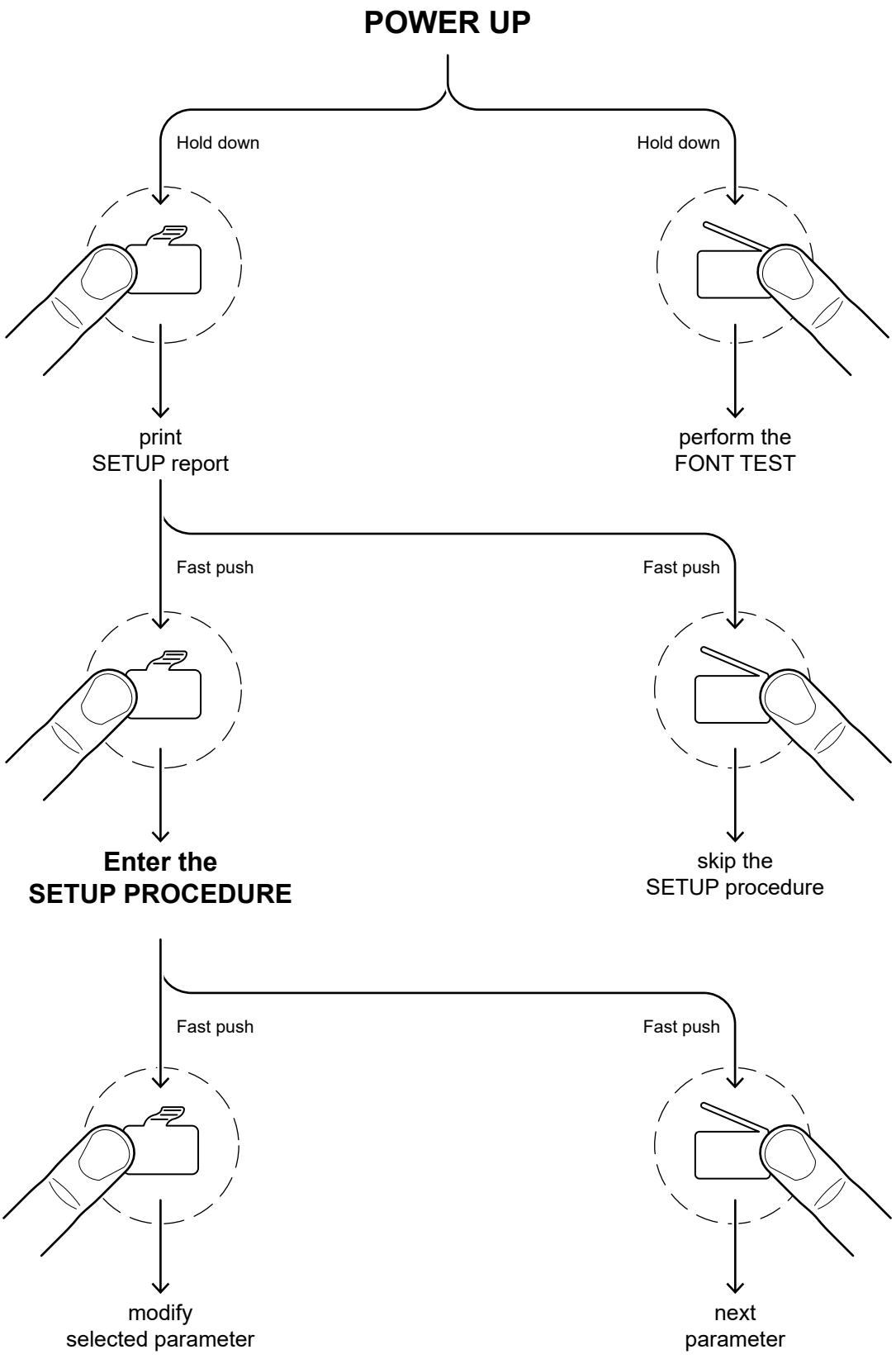
The main data used to identify the machine are shown on the label attached to the bottom of the device.
In particular, it shows the electrical data for the connection to a power source. It also shows the product code, the serial number and the hardware revision (R).



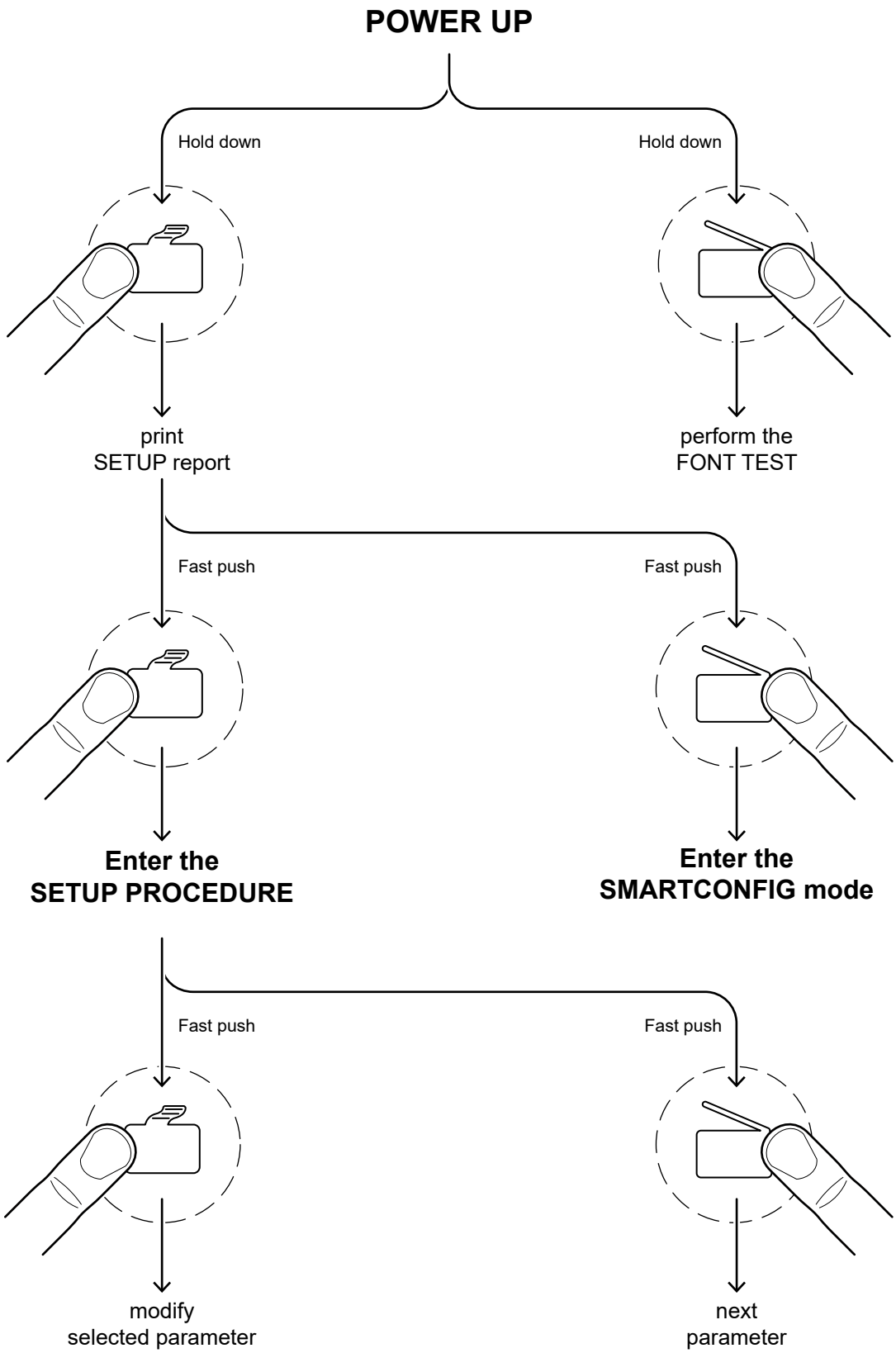


3.5 Key functions: power up

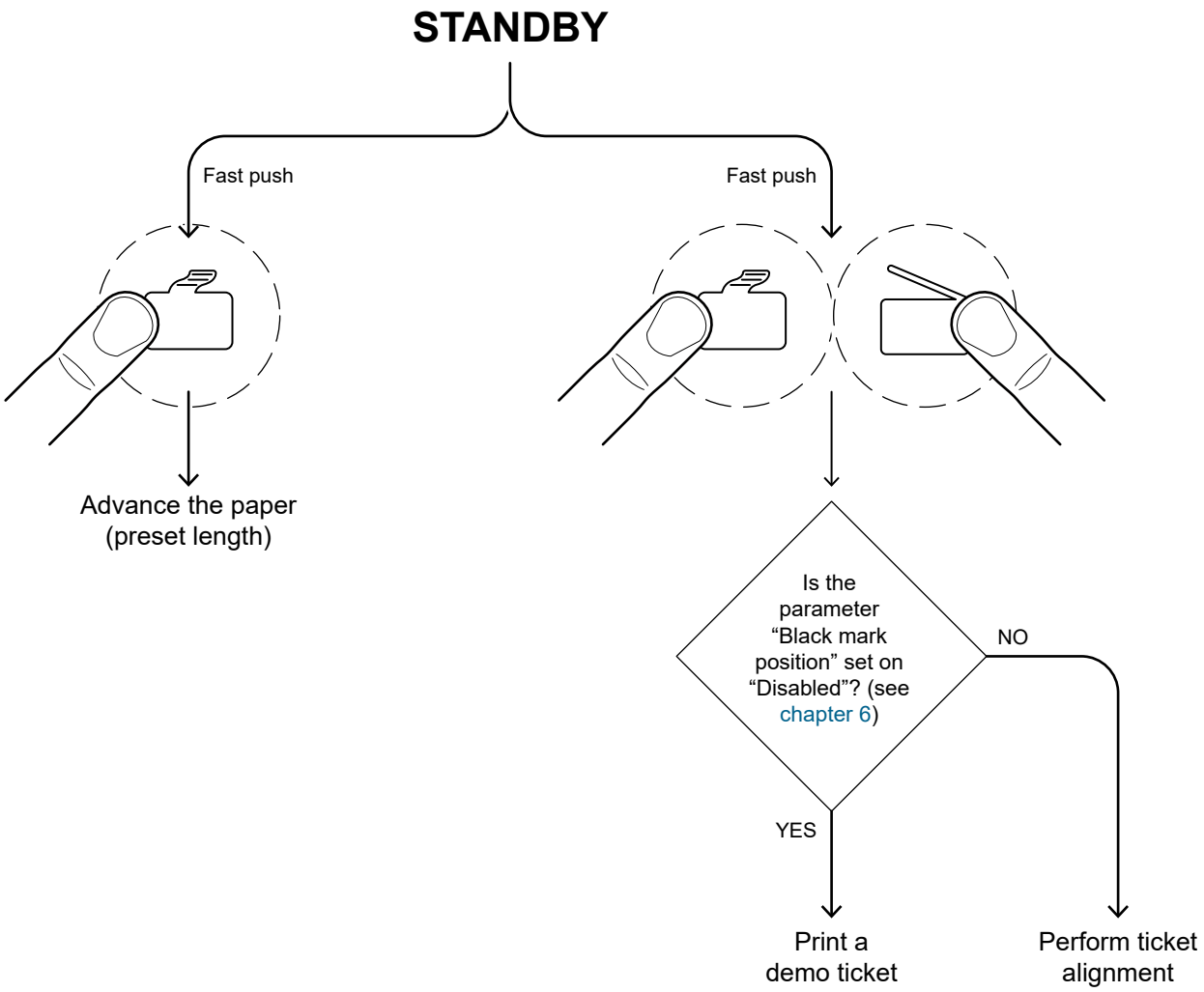
K3 STD, K3 DSP, K3 HS, K3 HS LF



models with optional Wi-Fi module

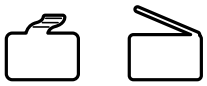
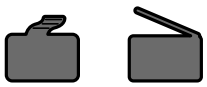


3.6 Key functions: standby



3.7 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
BLUE NOTIFICATION STATUS		ON	DEVICE ON: NO ERROR
BLUE 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
PURPLE RECOVERABLE ERROR		x 2	PRINTHEAD OVERHEATED
		x 3	PAPER END
		x 5	POWER SUPPLY VOLTAGE INCORRECT
		x 6	COVER OPEN
RED UNRECOVERABLE ERROR		x 3	RAM ERROR
		x 4	EXTERNAL FLASH ERROR
		x 5	CUTTER ERROR
WHITE	CUSTOM®	ON	ACTIVE CONNECTION
WHITE / BLUE	CUSTOM® 	⎍⎍⎍	Wi-Fi INITIALIZATION (only for models with optional Wi-Fi module)

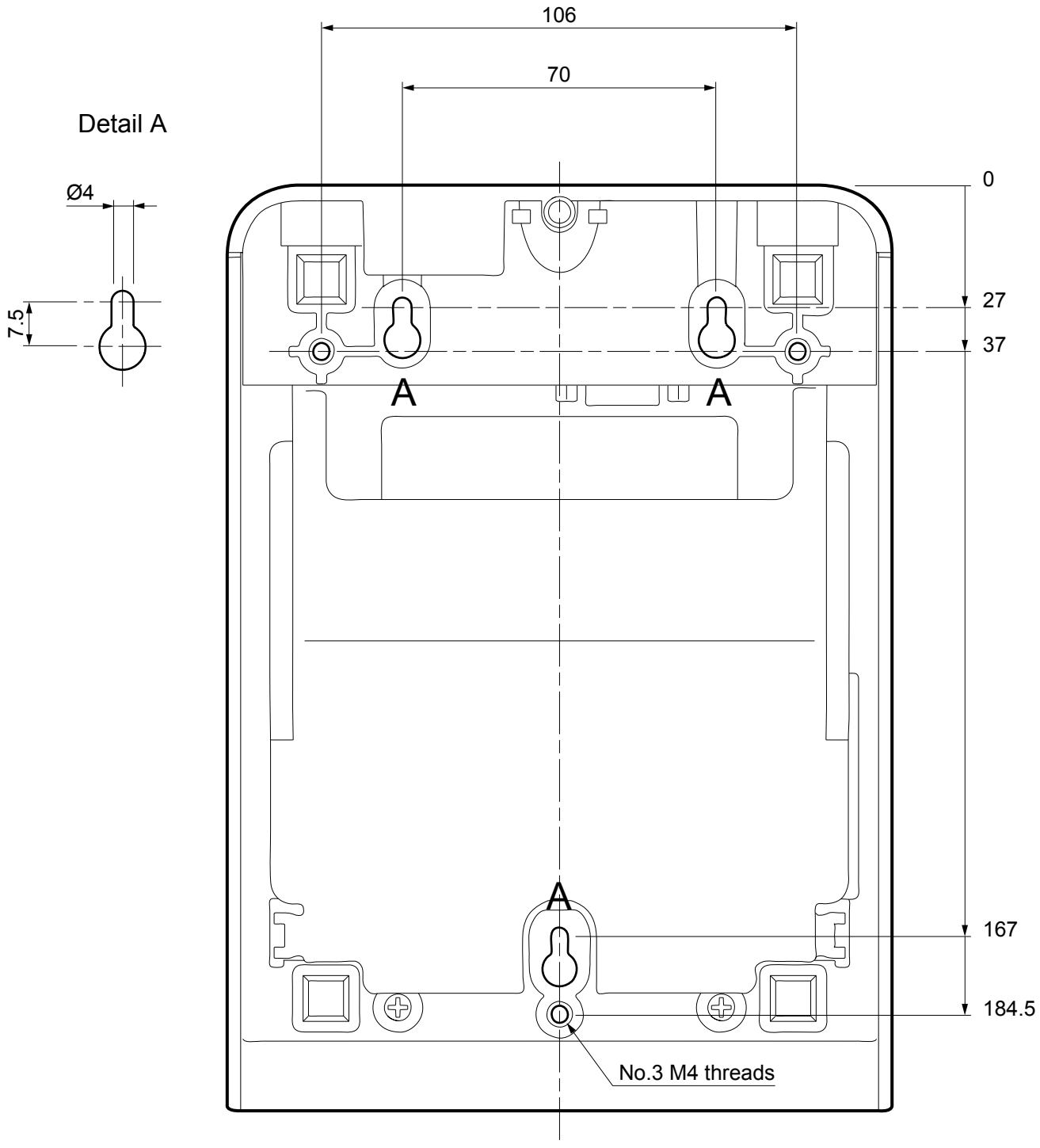
4 INSTALLATION

4.1 Wall mounting

The device is equipped with a double vertical mounting capability of the machine:

- Setup 1: Three threaded holes for mounting with M4 screws
- Setup 2: Three slots for mounting on pins.

Both arrangements are placed at the bottom of the machine (see figure below). The dimensions shown in the image are expressed in millimetres.



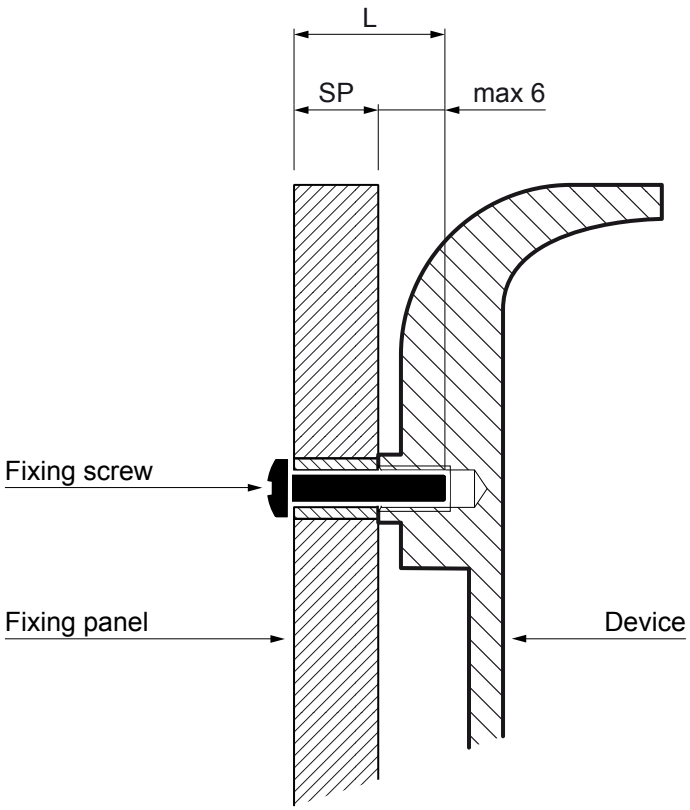
Guidelines for wall mounting with M4 screws

Drill holes in the fixing panel using the measurements shown on the previous page.
Pay attention to the length of the screws used.

The screw length (L) will be calculated according to the thickness of the panel (SP) on which the device is fixed, as follows

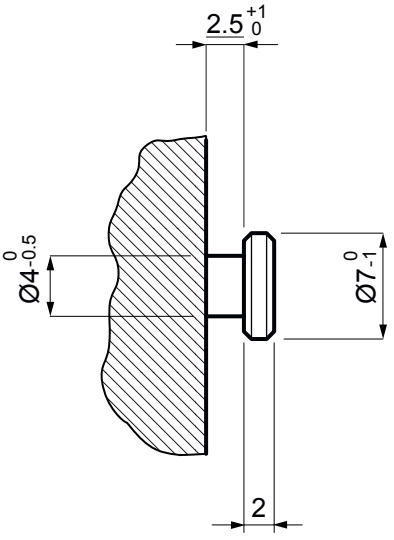
$$L \leq 6\ mm + SP$$

For example, if panel thickness is 10 mm (SP = 10 mm), the max screw length will be 16 mm.



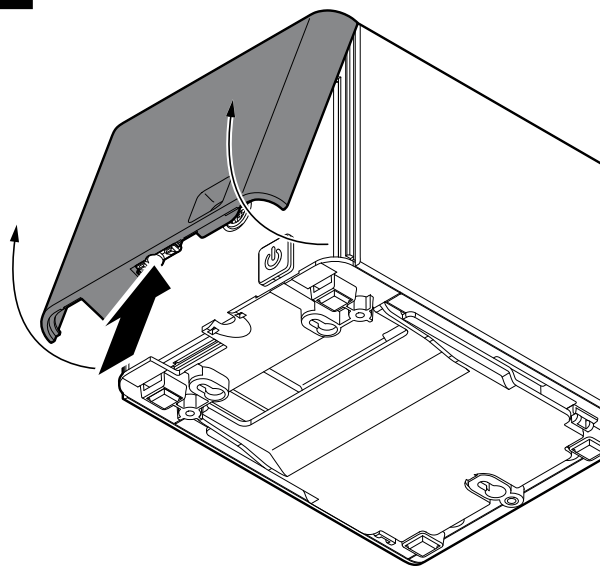
Guidelines for wall mounting on pins

Attach three pins to the wall using the measurements shown on the previous page.
The dimensions of the fixing pins are provided below. The dimensions shown in the image are in millimetres.



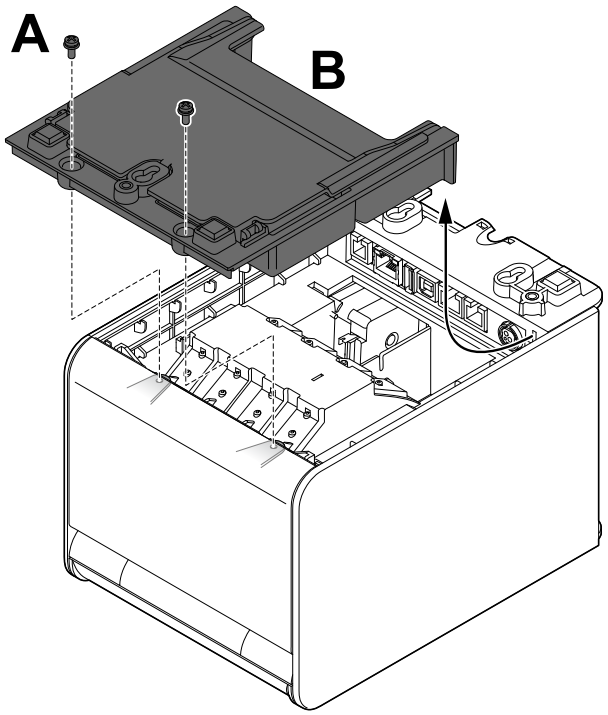
Mounting

1



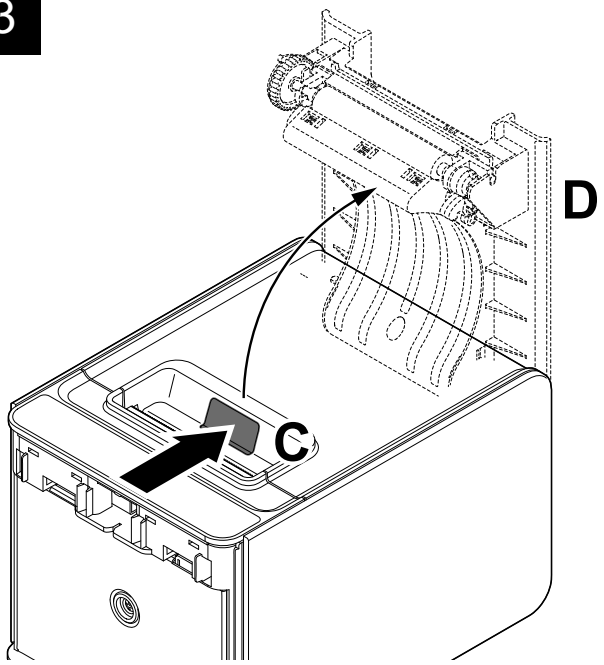
Press the release button and
remove the front cover.

2



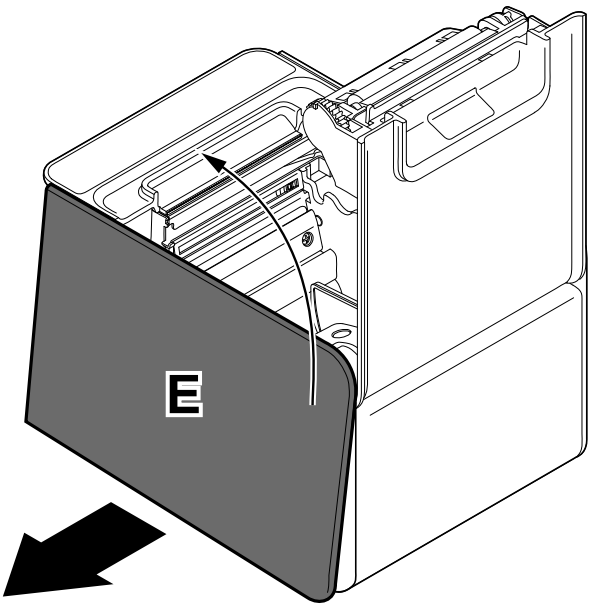
Turn the device upside down and unscrew the 2 fixing screws A. Remove the base B of the device by pulling it out from the seats in the direction shown.

3



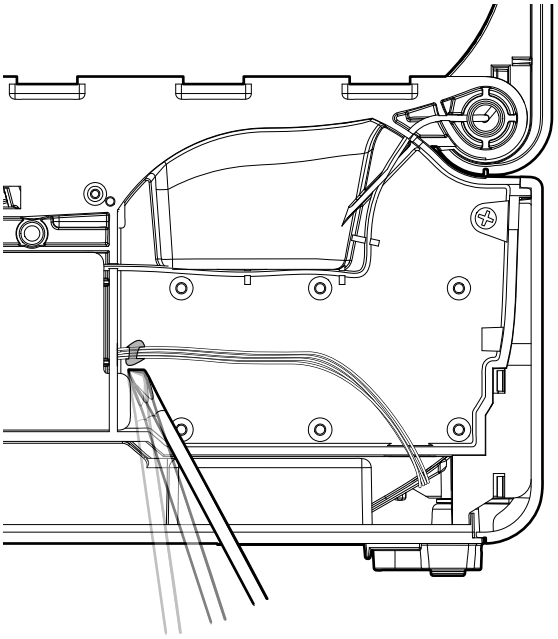
Press the service button C
to open the device cover D.

4



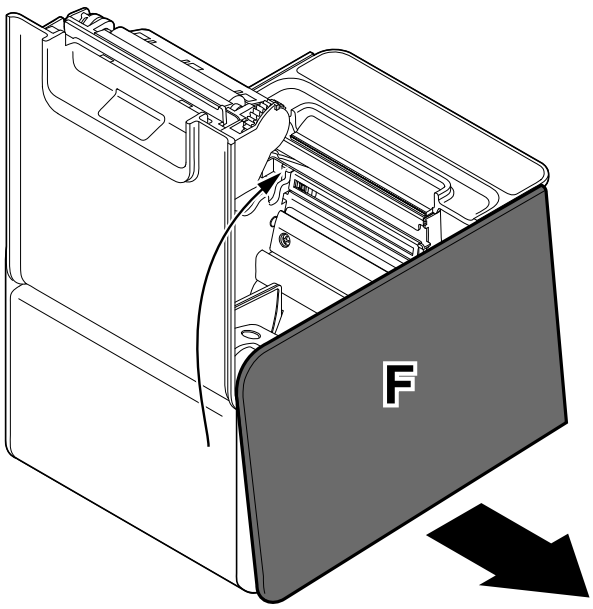
Pull the lower part of the side E.
Rotate the rear to release it from
its seats on the frame.

5



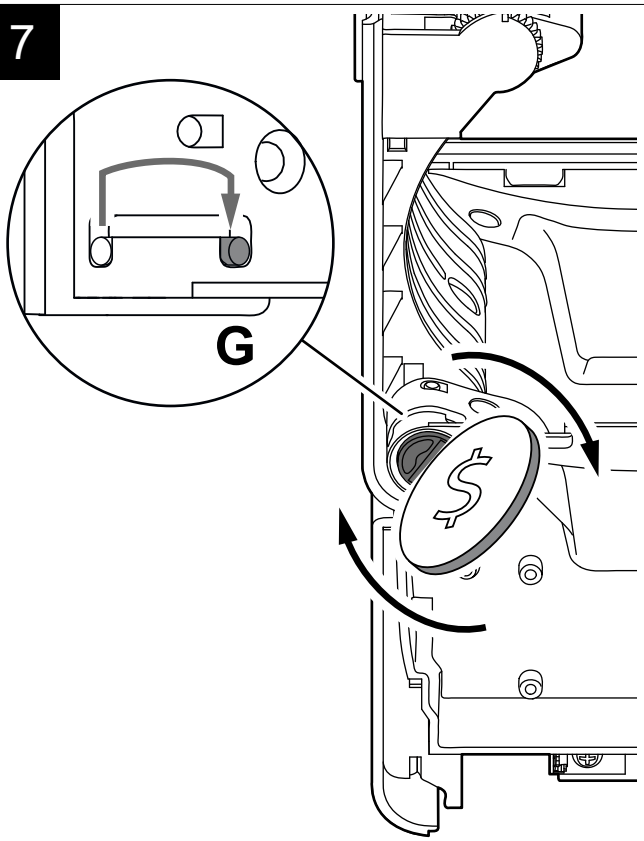
Remove the glue from the low paper sensor cable with a screwdriver, being careful not to damage the cable.

6



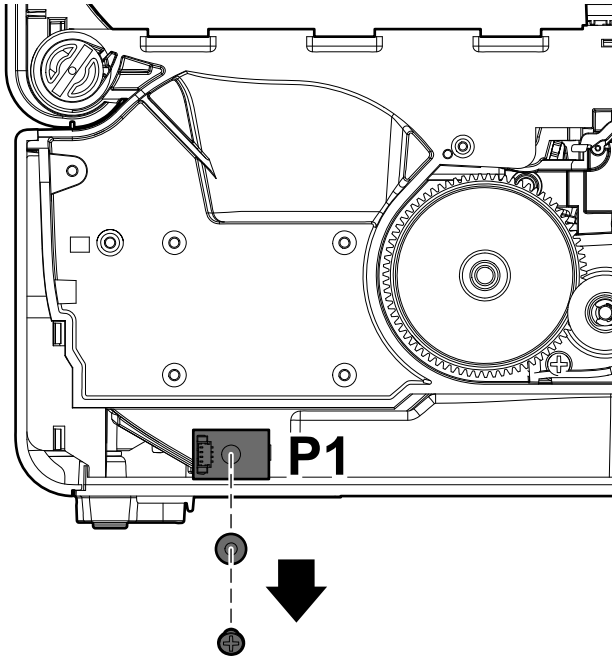
Pull the lower part of the side F.
Rotate the rear to release it from its seats on the frame.

7



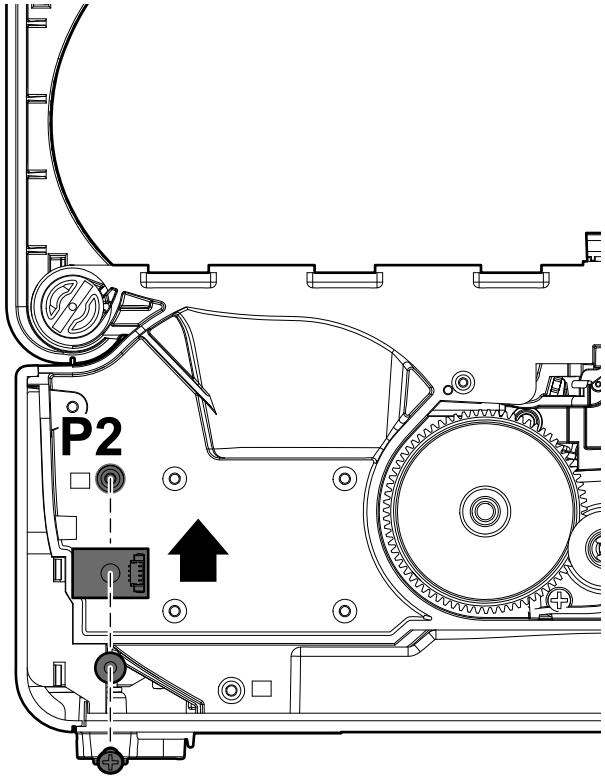
Rotate the selector that adjusts the load on the return spring for the cover in position G by using a coin.

8



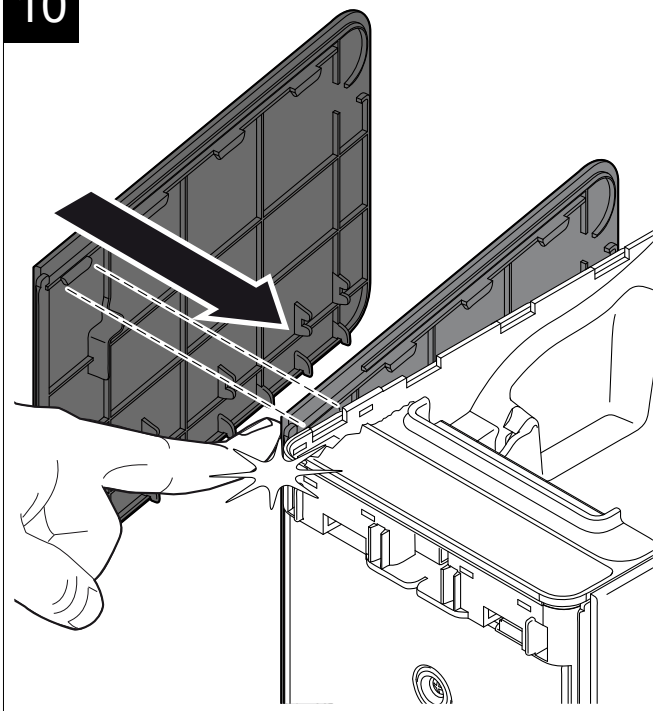
Unscrew the fixing screw and remove the low paper sensor from the mounting position P1.

9



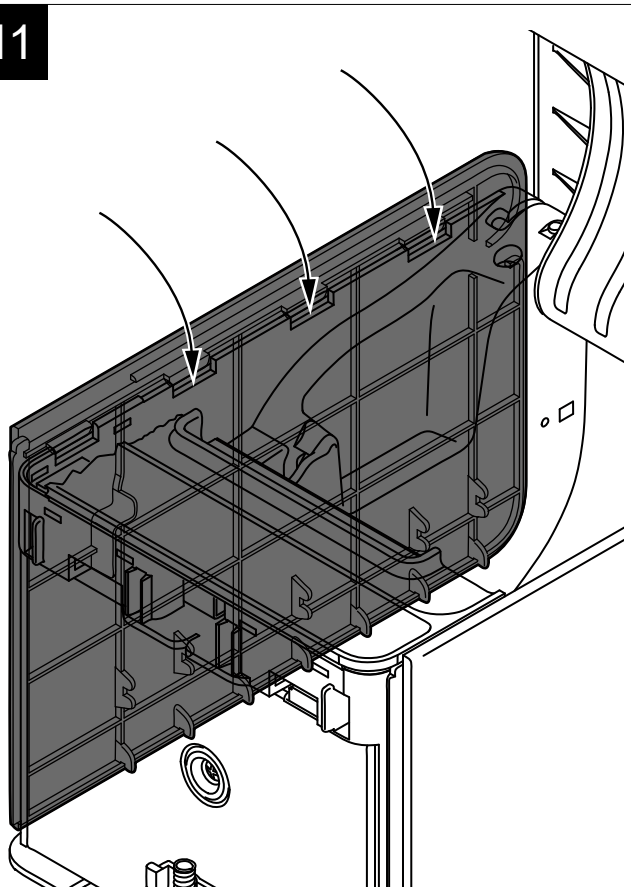
Place the low paper sensor in the mounting position P2 and screw the fixing screw.

10



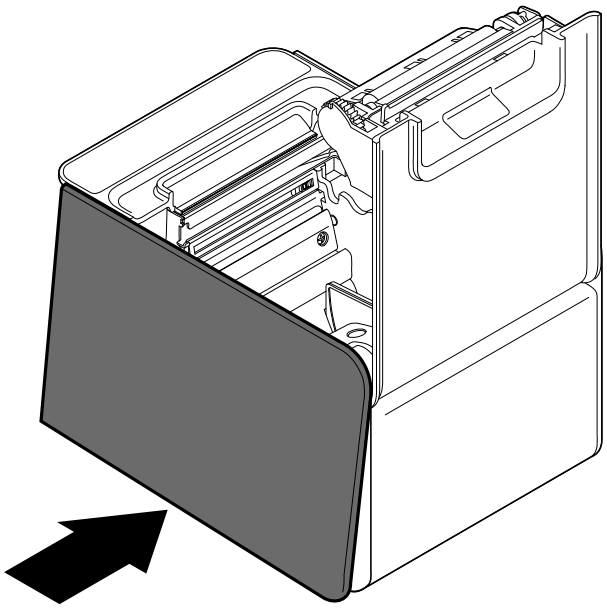
Tilt the side F and insert the pin into its seat on the frame.
Press in the specified position to lock the pin.

11



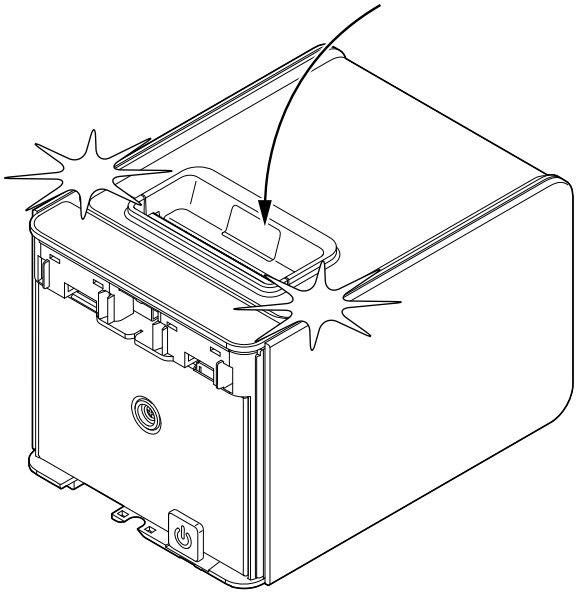
Turn down the side F to lock the other pins in its seats on the frame.

12



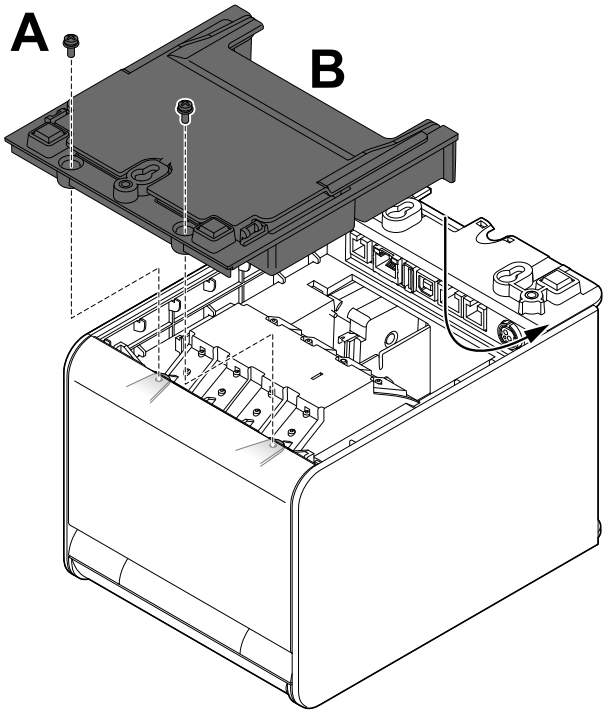
Lock the side E in the same way.

13



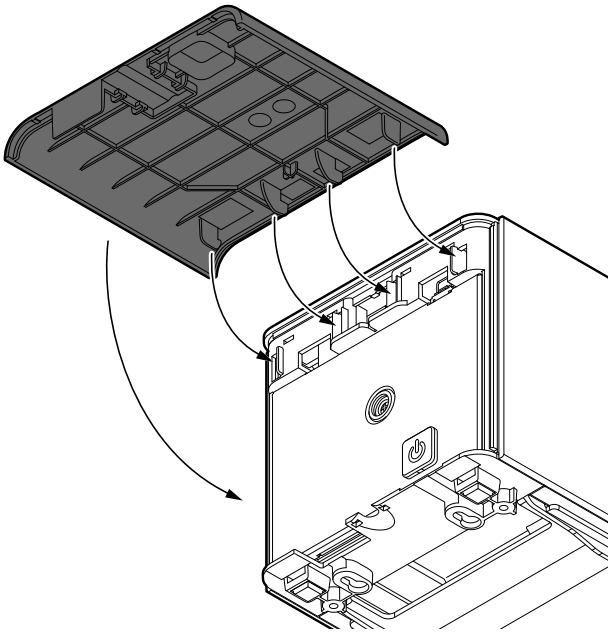
Close the device cover.

14



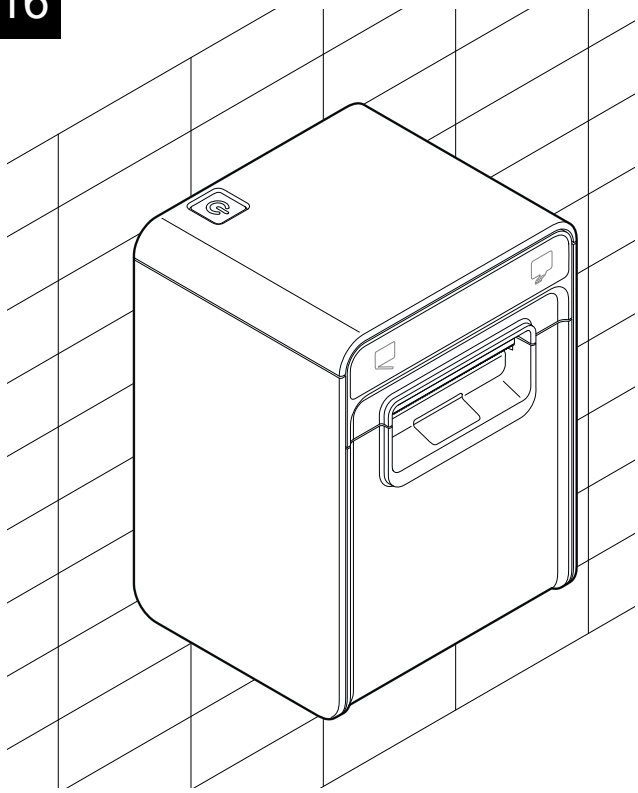
Turn the device upside down and insert the base B of the device into the seats in the direction shown. Screw the 2 fixing screws A.

15



Reassemble the front cover.

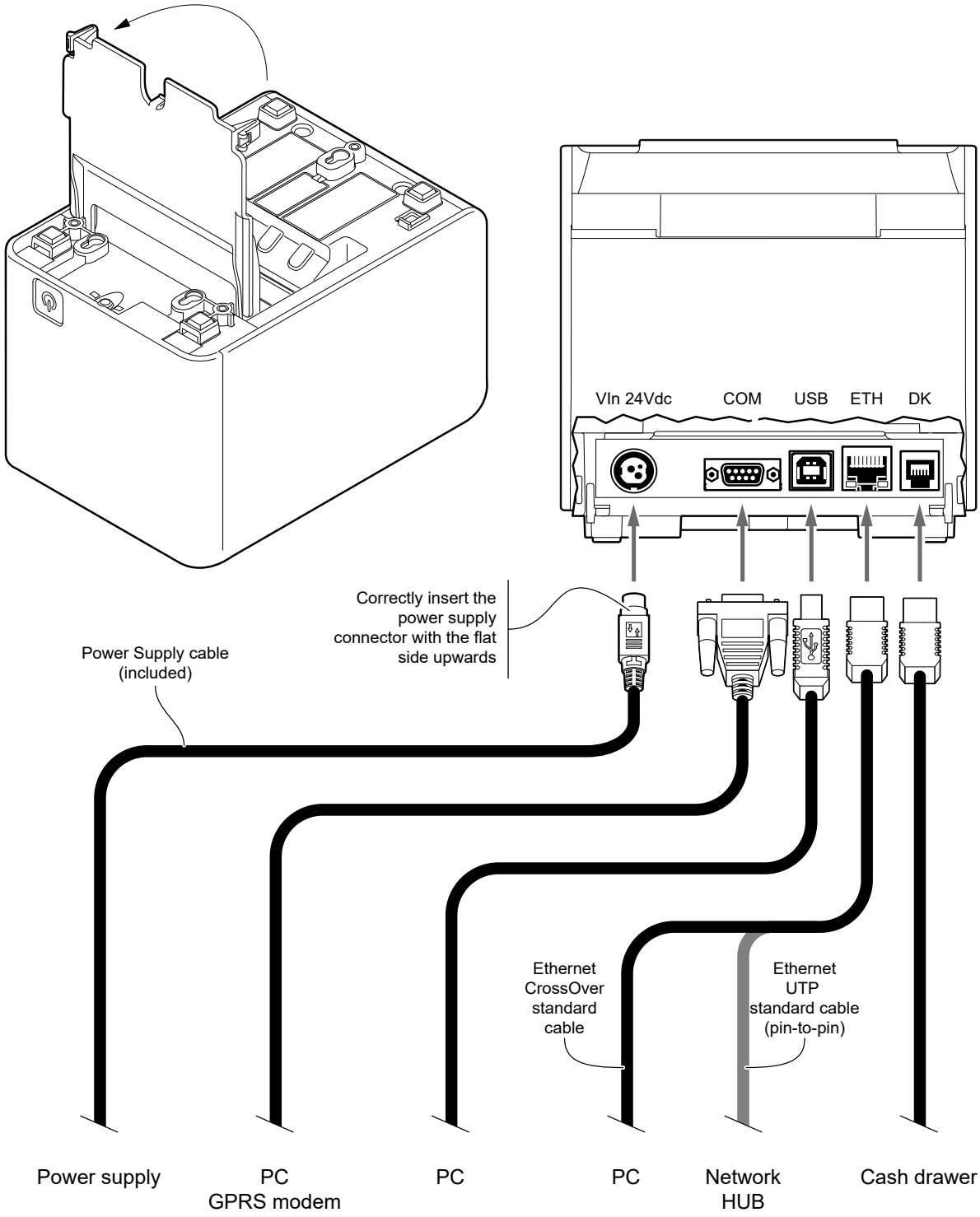
16



Fix the device to the wall.

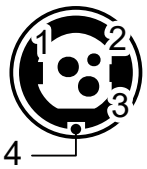
4.2 Connections

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.

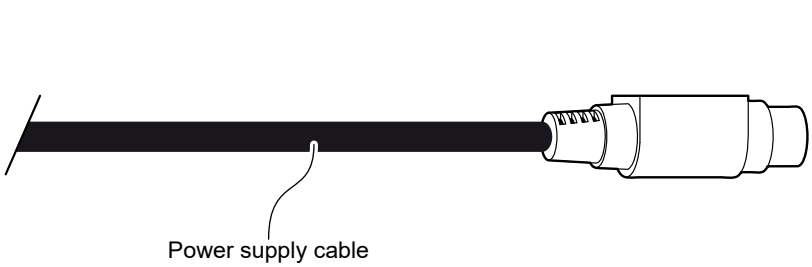
4.3 Pinout

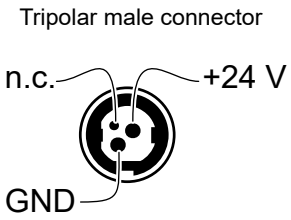


POWER SUPPLY
Tripolar female connector

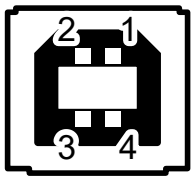
J1	1	GND
	2	+24 Vdc
	3	GND
	4	Frame GND

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



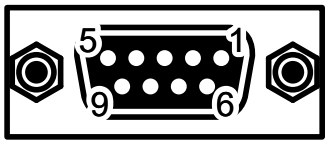


ATTENTION:
Respect power supply polarity.



USB INTERFACE
Female USB type B connector

J4	1	USB0-VBUS	(in)
	2	D0 -	(in/out)
	3	D0 +	(in/out)
	4	GND	



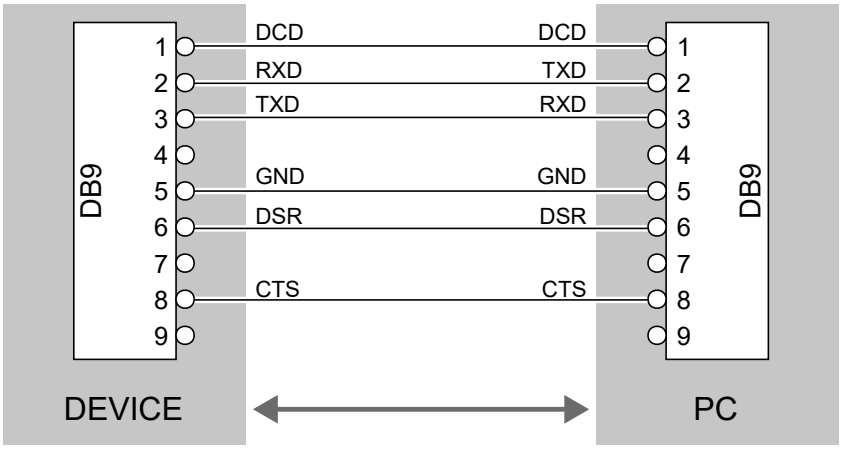
RS232 SERIAL INTERFACE

Female DB9 connector

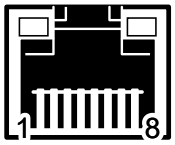
J3	1	DTR	
	2	TX	During transmission, takes the values -VRS232 and + VRS232 depending on data
	3	RX	During reception, takes the values -VRS232 and +VRS232 depending on data
	4	DSR	
	5	GND	
	6	DTR	When +VRS232, device is power on
	7	CTS	
	8	RTS	When +VRS232, device is ready to receive data
	9	n.c.	

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.

The following picture shows an example of connection between the device and a personal computer using a 9 pin RS232 serial connector:



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



ETHERNET INTERFACE

Female RJ45 connector

J5	1	TPOUT +
	2	TPOUT -
	3	TPIN +
	4	GND
	5	GND
	6	TPIN -
	7	n.c
	8	n.c
	9	+3.3 V
	10	LED-LAN
	11	+3.3 V
	12	LED-LNK
	13	Shield
	14	Shield

The functionality of two LEDs are specified in following tables:

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.

To directly connect the device to a Personal Computer, use a Cross-Over Ethernet cable.

To connect the device to a hub device, use an UTP Ethernet cable (Pin to Pin).

The pinout shown in table represents the input signals to component J5 before the isolation voltage transformer (through-hole pin).

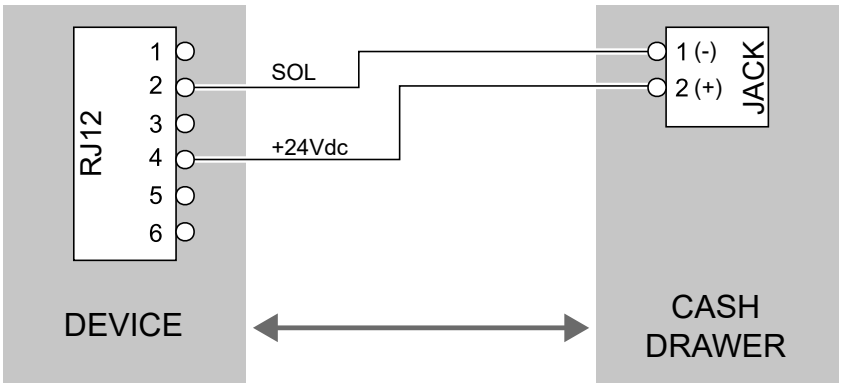


DRAWER CONNECTOR

Female RJ12 connector

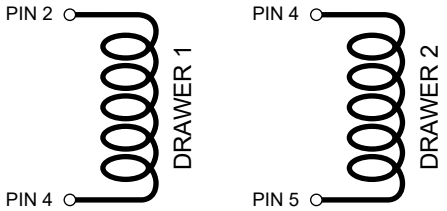
J2	1	GND		
	2	SOL1	(out)	Drawer 1 command (open collector)
	3	CASS	(in)	Drawer status
	4	+24 Vdc		
	5	SOI2	(out)	Drawer 2 command (open collector)
	6	GND		

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



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

The solenoid of the drawer 2 must be connected from Pin 4 to Pin 5 on the drawer connector.



4.4 Driver and SDK

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

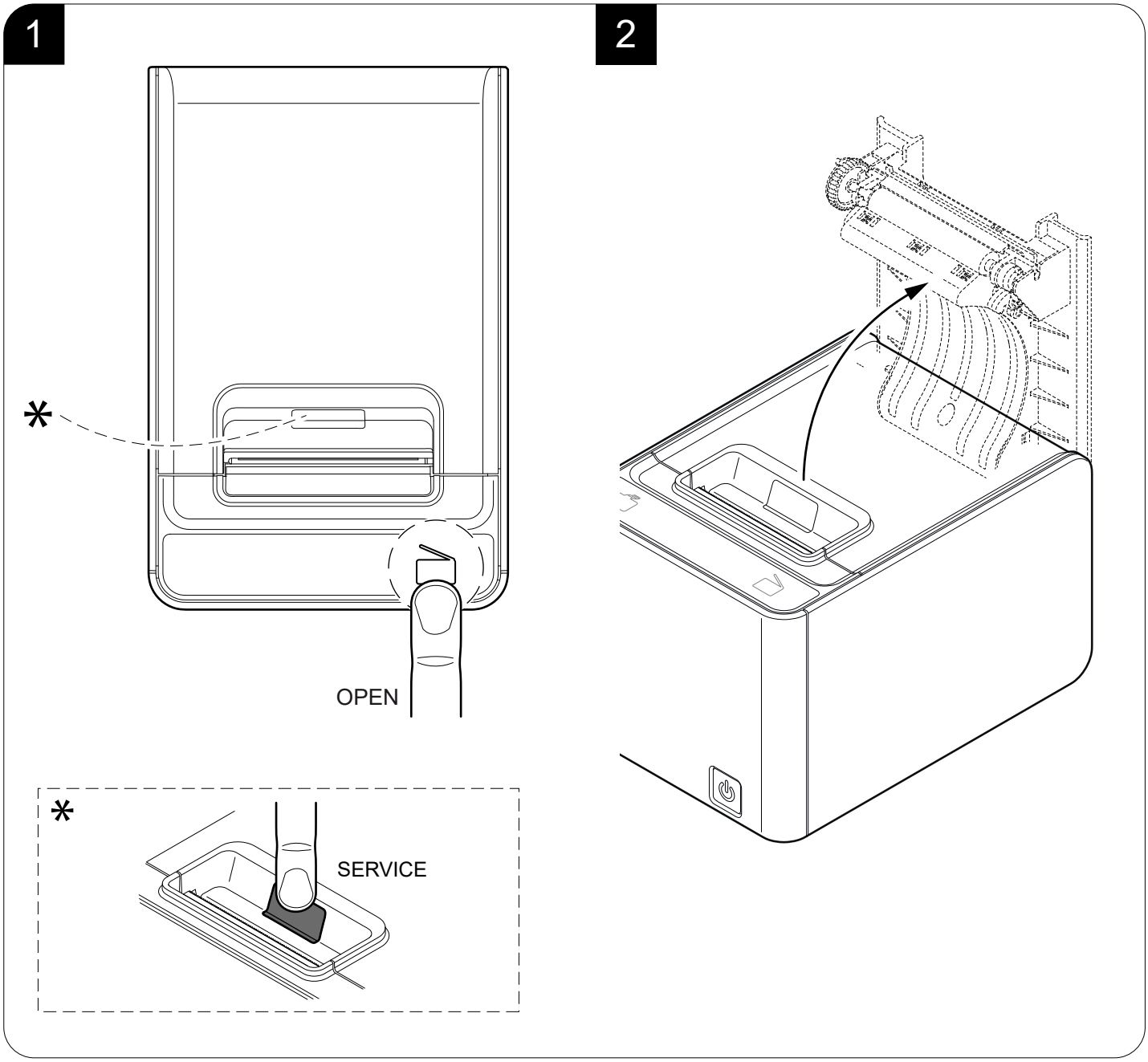
OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows XP	From the START menu, press Run and type-in the path where the SW was saved on your PC, then click OK. Follow the instructions that appear on the screen to install the driver.
	Driver for Windows VISTA (32/64 bit)	
	Driver for Windows 7 (32/64 bit)	
	Driver for Windows 8 (32/64 bit)	
	Driver for Windows 8.1 (32/64 bit)	
	Driver for Windows 10 (32/64 bit)	
	Self-installing driver for Virtual COM (32/64 bit) (see paragraph 6.6)	
	Driver for OPOS	
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.
Windows / Linux	Driver for JavaPOS	Extract the zipped folder to the destination path desired.
Android	Library for CustomAndroidAPI	Extract the zipped folder to the destination path desired. Follow the instructions present in the software package that you downloaded on how to install and use the SDK.
iOS	Library for CustomiOSApi	Extract the zipped folder to the destination path desired. Follow the instructions present in the software package that you downloaded on how to install and use the library.
Windows Phone 8	Library for CeWP8Api	Extract the zipped folder to the destination path desired. Follow the instructions present in the software package that you downloaded on how to install and use the library.

5 OPERATION

5.1 Cover opening

Manual opening

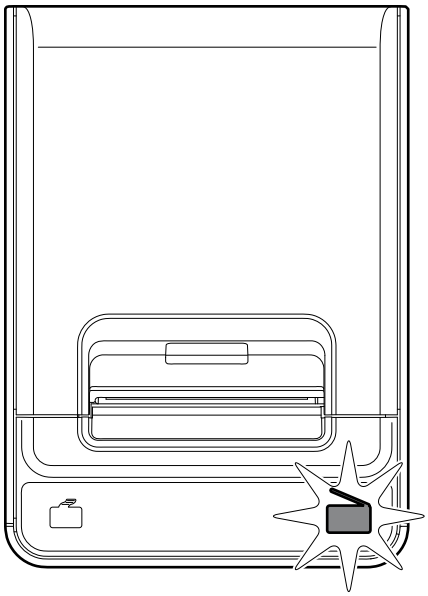
To open the device cover, press and hold the OPEN button.
In case of anomalies, press the service button.



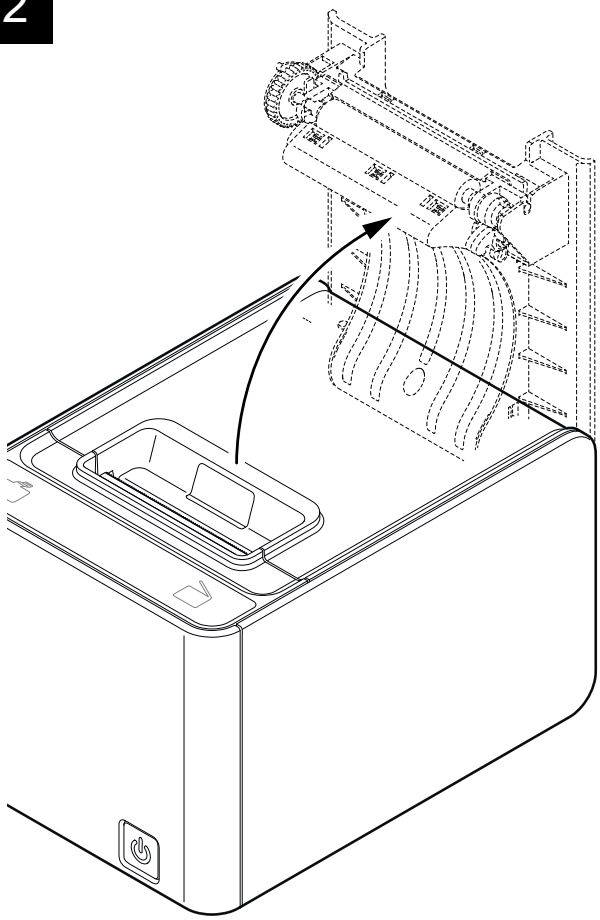
Automatic opening

The cover-opening mechanism is automatically triggered as soon as the roll runs out in order to prompt the user to replace it. The indicator shows the state “Paper end”.

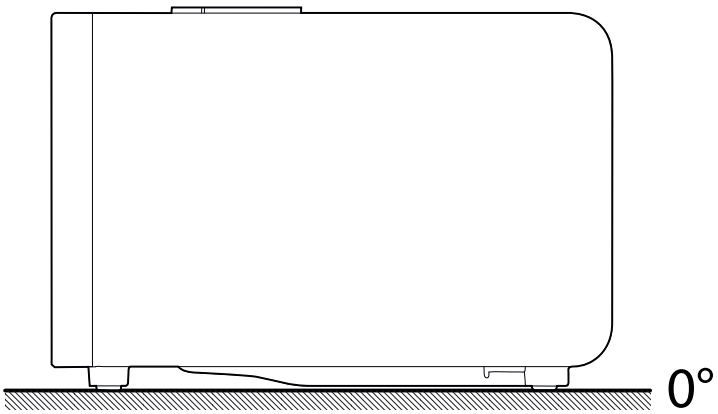
1



2



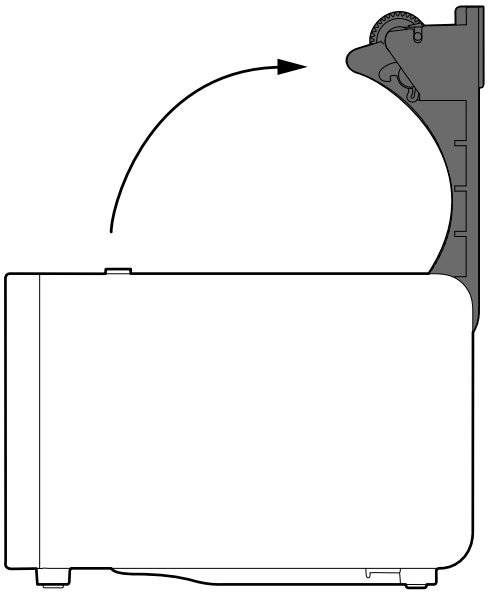
In order to allow the cover-opening mechanism to operate properly, the device must be placed on a perfectly horizontal plan. Different inclinations alter the way of opening.



5.2 Adjusting the paper width

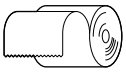
The device is equipped with an adapter for the regulation of paper width to use.
To adjust the paper width, proceed as follows.

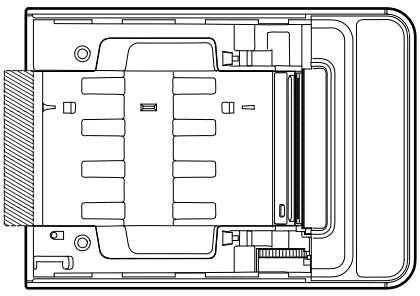
1



Open the device cover
(see paragraph 5.1).

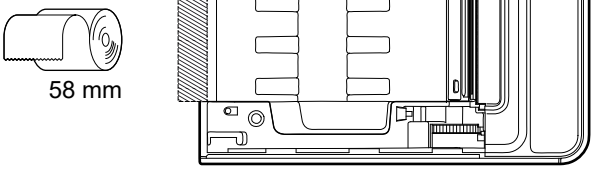
2

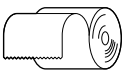


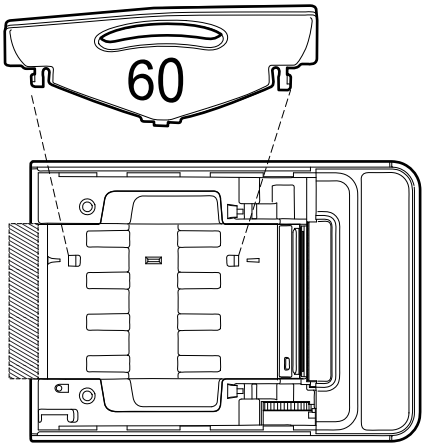


In standard configuration,
device handles 80 mm paper width.

3



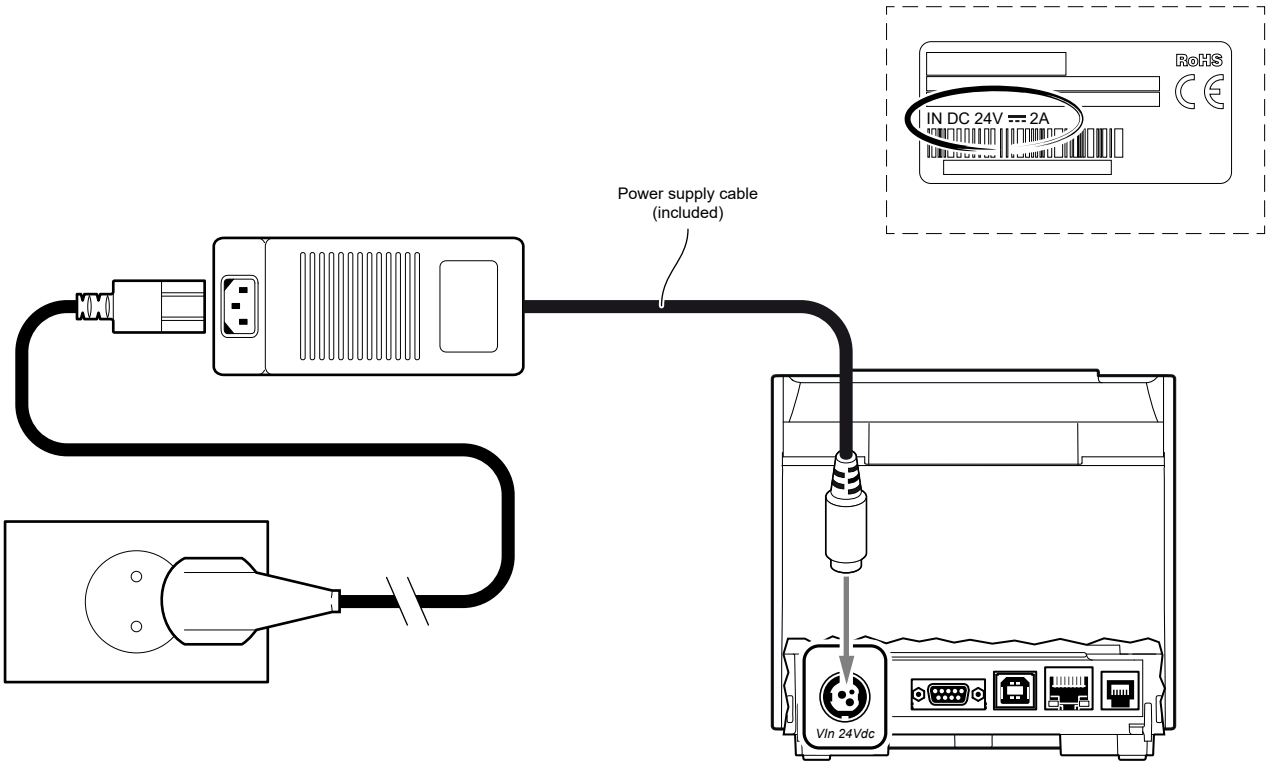




To use 58 mm or 60 mm paper width,
properly place thel paper adapter..

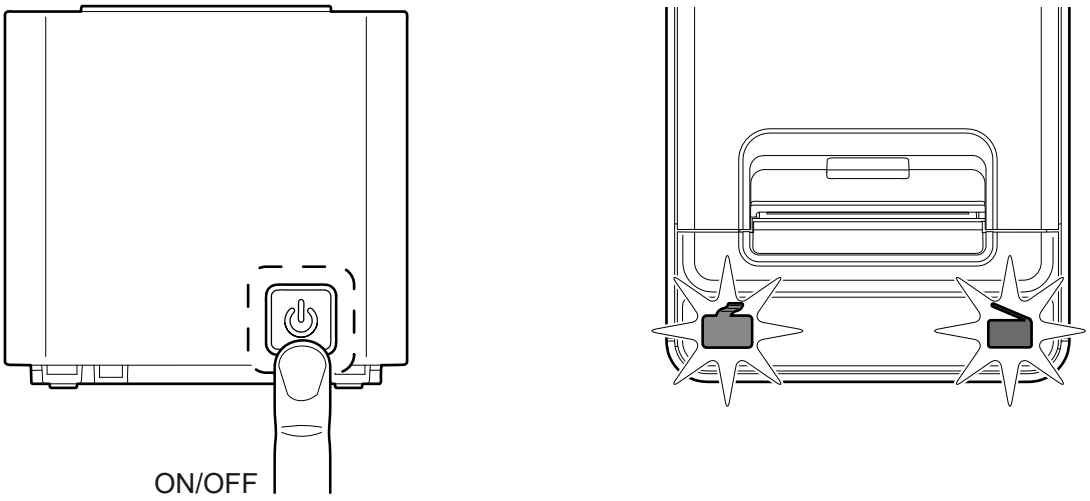
5.3 Switch the device ON/OFF

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

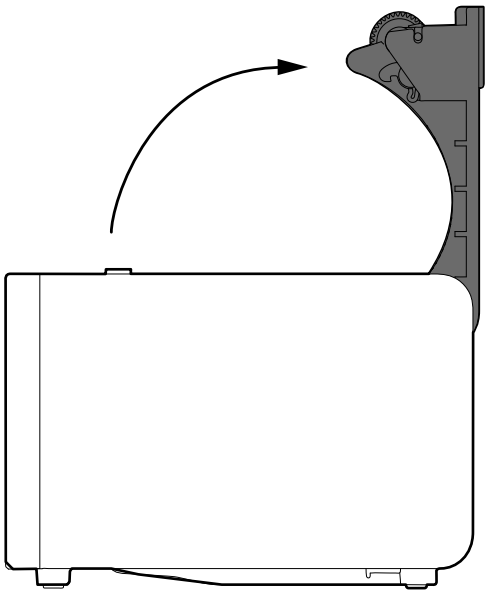


Switch device On pressing key ON/OFF, The indicator lights are switched on and the device is ready.
Switch device Off pressing key ON/OFF.

5.4 Loading the paper roll

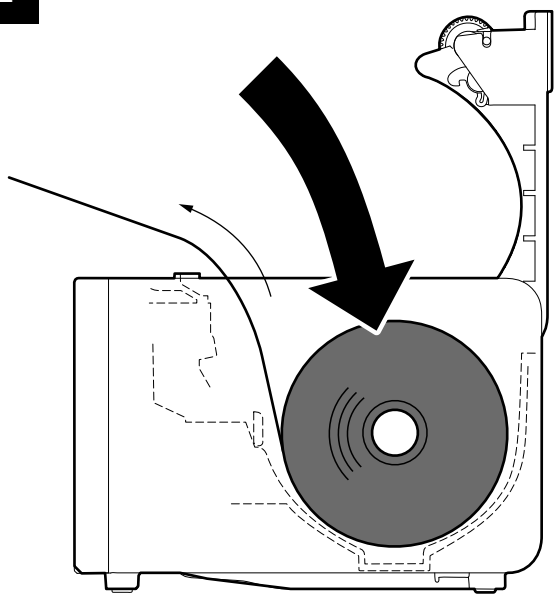
To change the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.

1



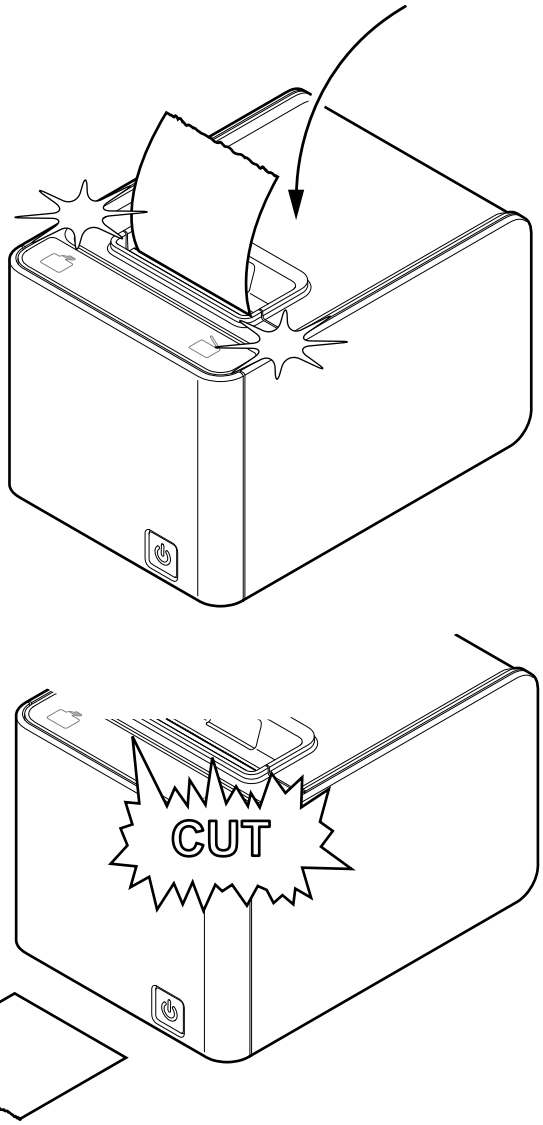
Open the device cover and,
if necessary, adjust the paper width
(see paragraph 5.2).

2



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

3

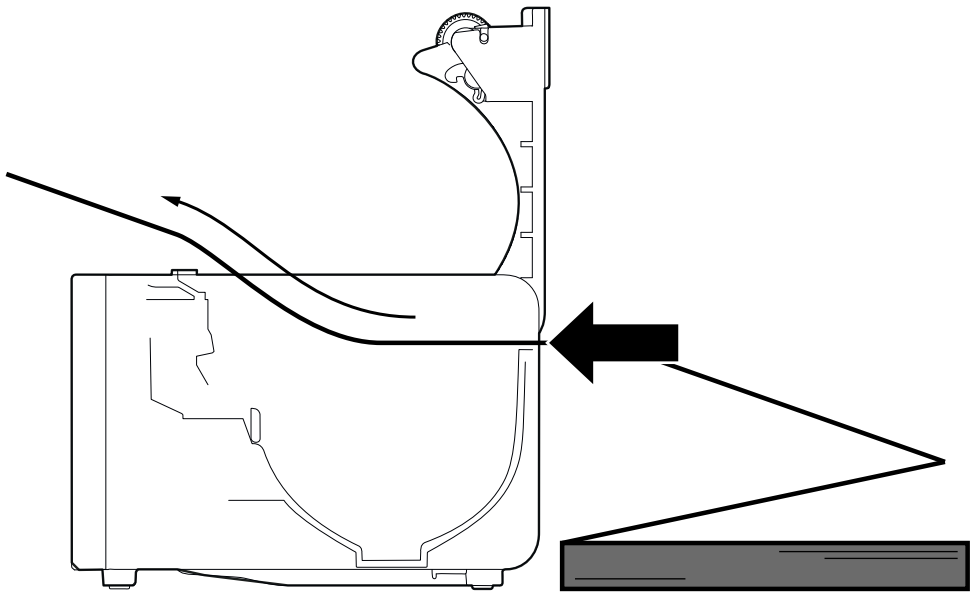


Close the device cover and wait until the paper is loaded and automatically cut off.

5.5 Loading the Fan-fold

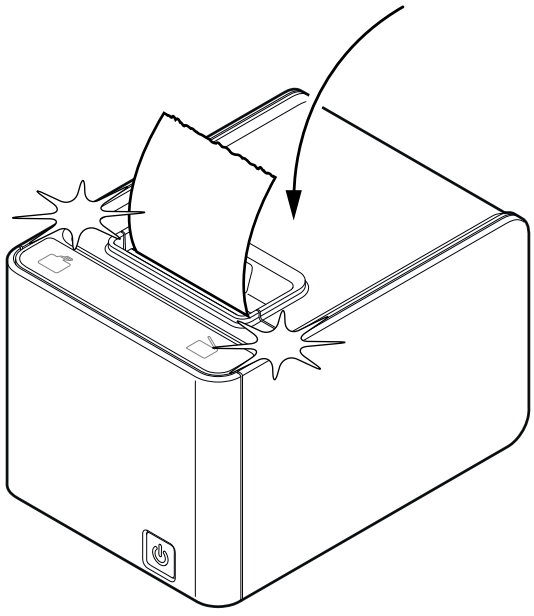
To load the Fan-fold proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.

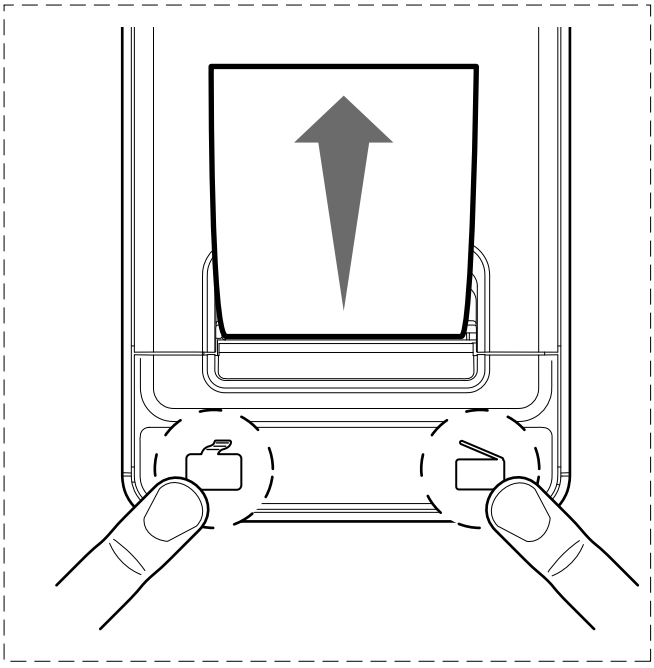
1



Open the device cover (see paragraph 5.1) and insert the Fan-fold through the input slot, located on the back of the device. Pull out the paper for a few centimetres.

2



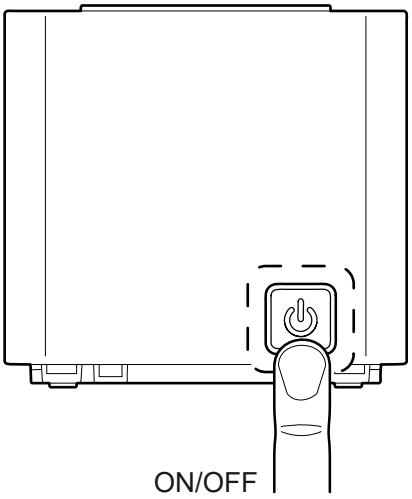


Close the device cover.
If the parameter “Black mark position” is enabled proceed with alignment by pressing both keys.

5.6 Wi-Fi pairing with mobile devices

models with optional Wi-Fi module

1



Turn on the device by pressing the ON/OFF key
(see paragraph 5.3).

2

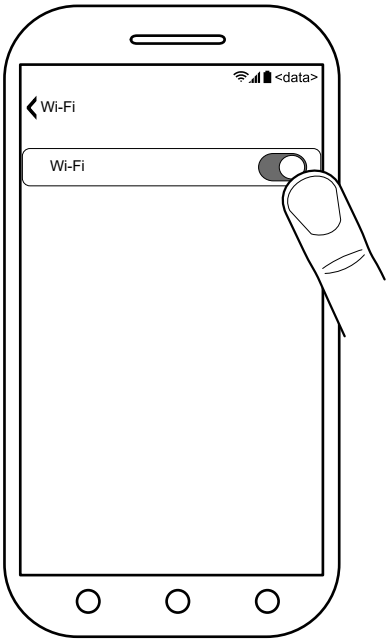
Wireless.....: **Wi-Fi**

SSID .....: **<name>**

Password.....: **<password>**

Check that the “Wireless” parameter is set on “Wi-Fi” and set “SSID” and “Password” parameters (see paragraph 6.6) to the values of the network you want to associate with.

3



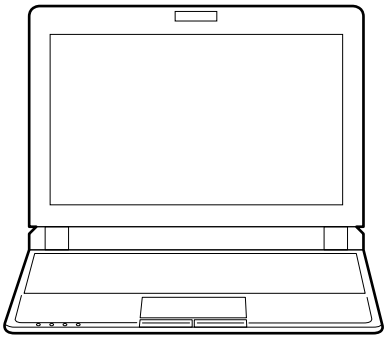
Check that the same wireless parameters set on the printer are set on your mobile device or that the devices are connected to the same network.

6 CONFIGURATION

6.1 Configuration by software

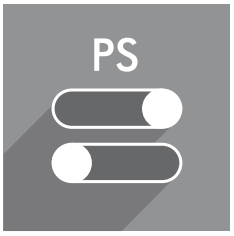
The setup parameters can be set by using the “PrinterSet” software tool available on www.custom4u.it.
For a detailed description of the device operating parameters see the following paragraphs.
To configure the device by software, proceed as follows:

1



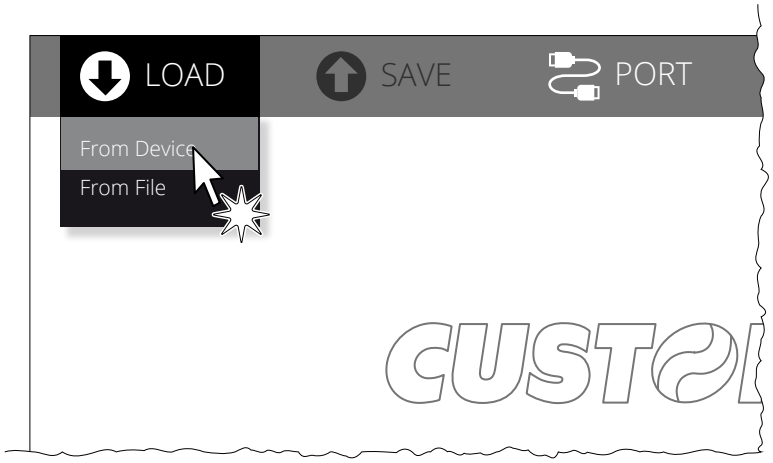
Connect the device to a PC directly (see paragraph 4.2),
without using HUB devices.

2



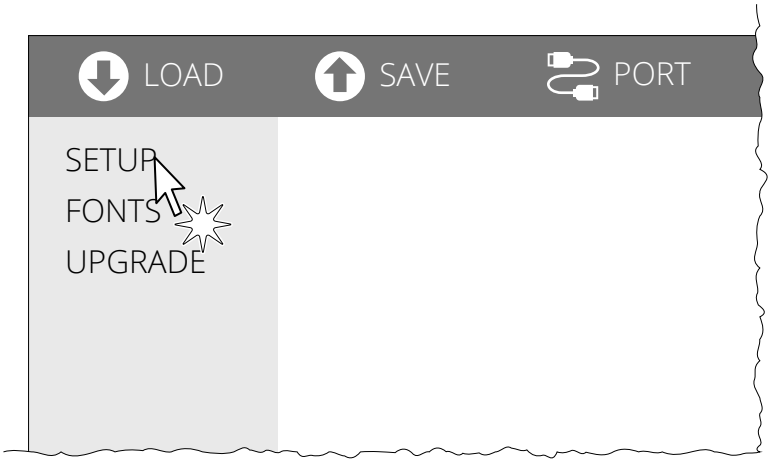
Start “PrinterSet” software tool.

3



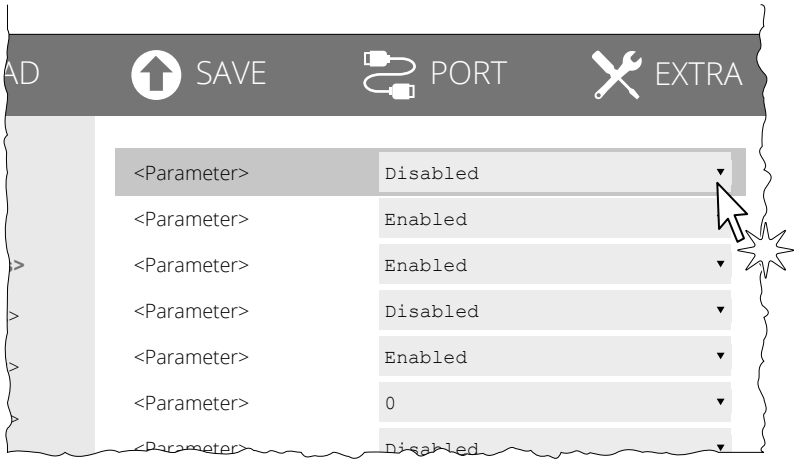
Click on LOAD > FROM DEVICE and select
the device connected to the PC.

4



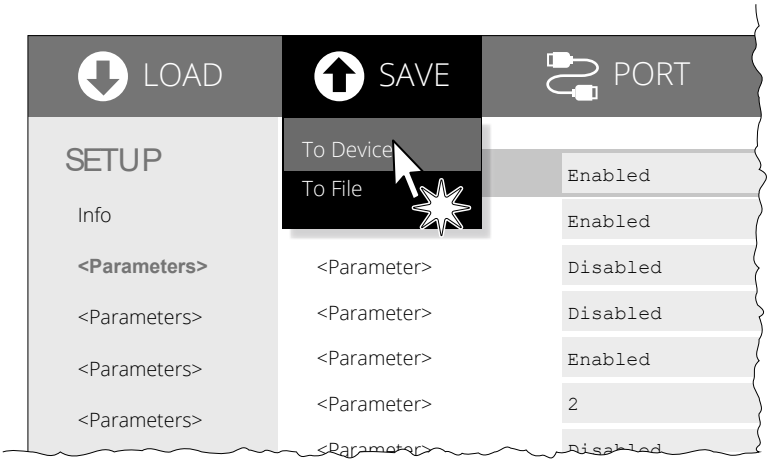
Click on SETUP to access the operating parameteres of the device to be configured.

5



Make the desired changes to the
device operating parameters.

6



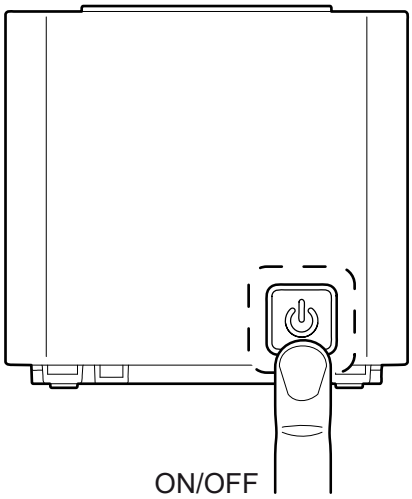
Click on SAVE > TO DEVICE
to make the changes made effective.

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

6.2 Configuration by keys

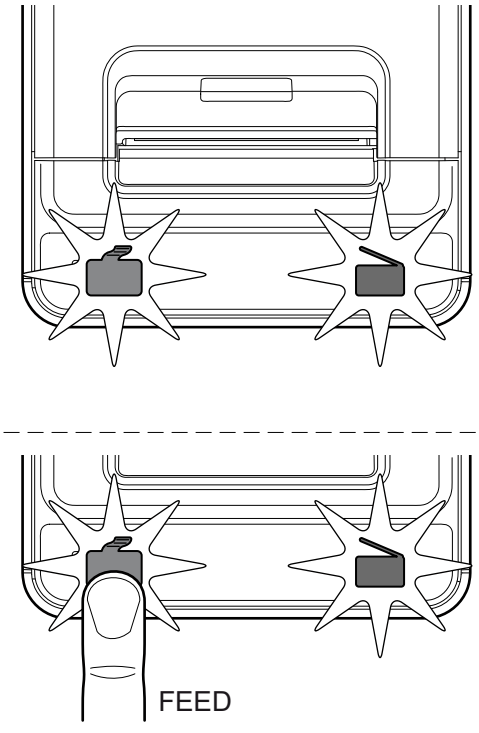
To enter the configuration mode and print a setup report with the operating parameters of the device, proceed as follows.

1



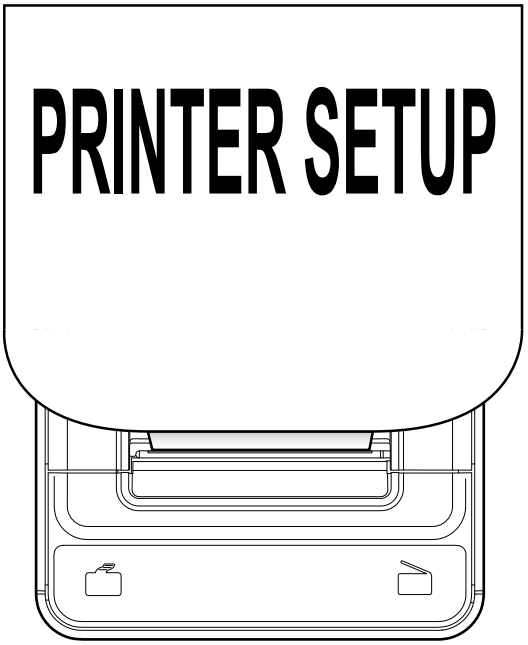
Turn on the device by pressing the ON/OFF key (see paragraph 5.3).

2



When the indicator lights come on, press and hold down the FEED key.

3



The device prints the report with parameters for printer settings.

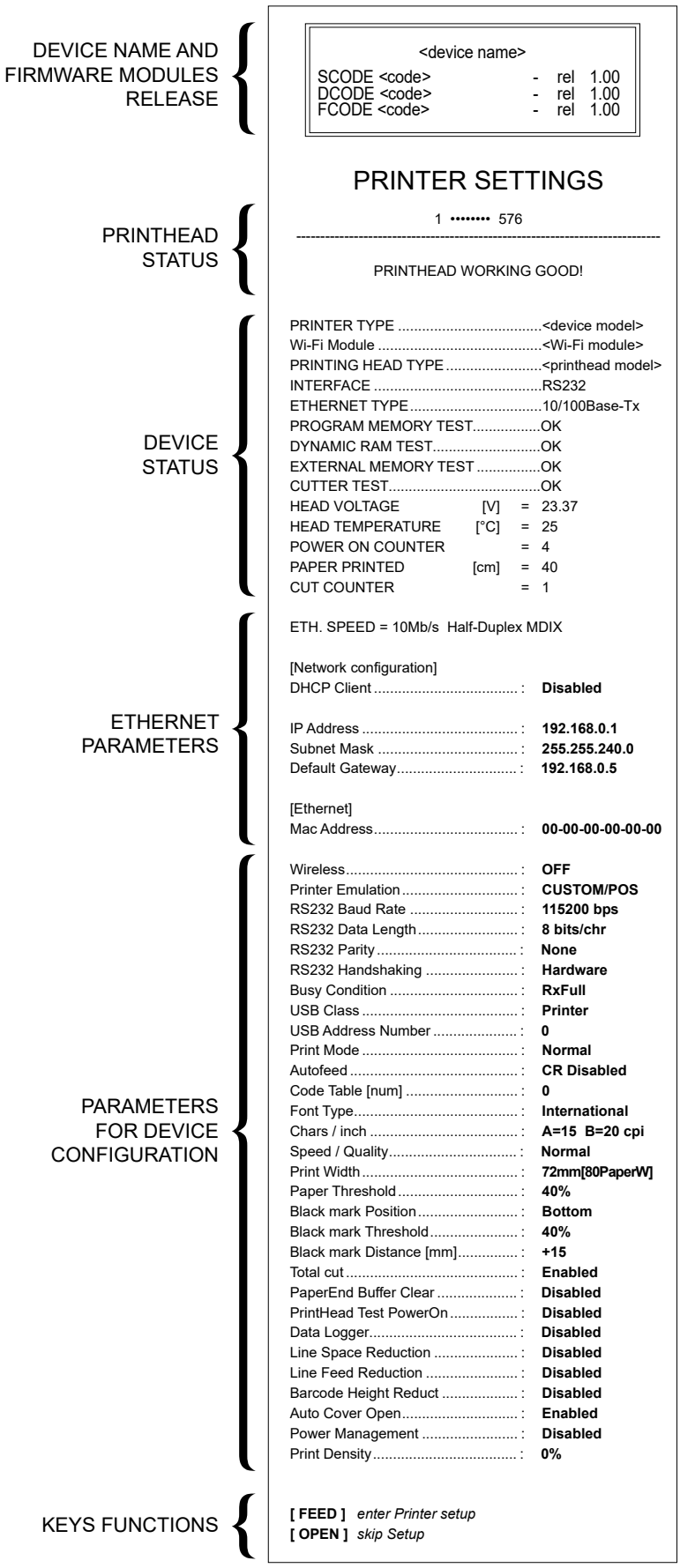
4



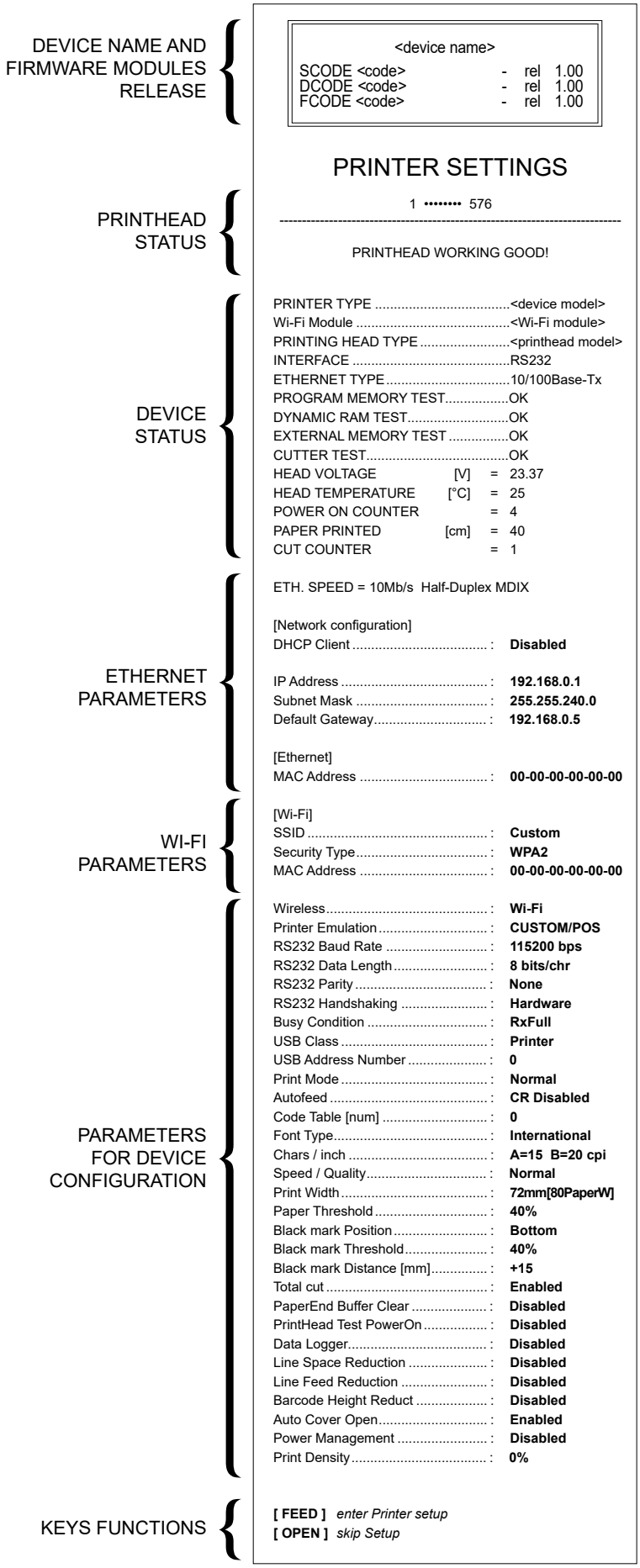
Press the FEED key to enter the configuration mode.

The following figures shows the device setup reports. The shown values for parameters are sample values; for a detailed description of the device operating parameters see the following paragraphs.

K3 STD, K3 DSP, K3 HS, K3 HS LF



models with optional Wi-Fi module



6.3 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 6.2)
or by software (see paragraph 6.1).

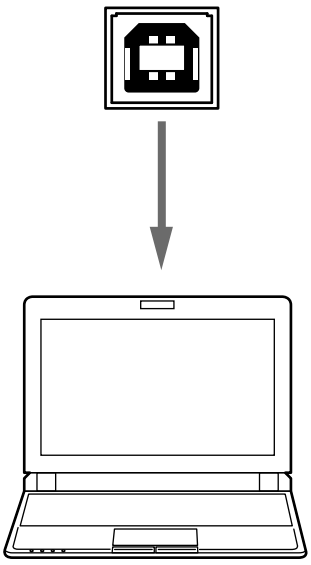
2

<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.

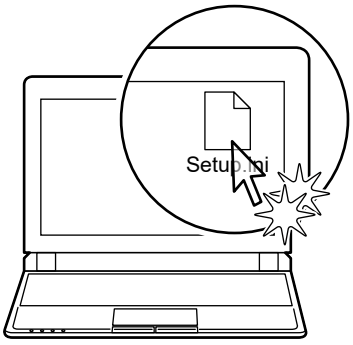
3

USB



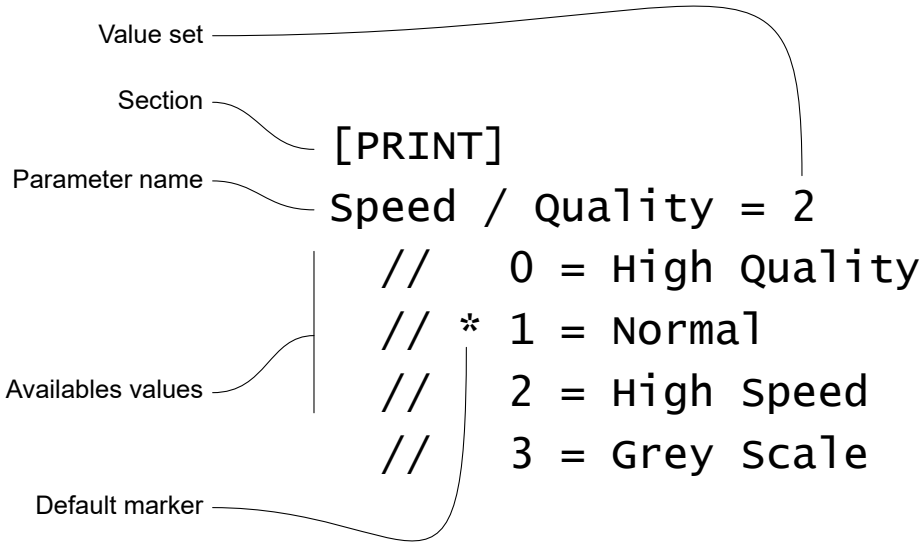
Plug the device to a Personal Computer
via USB.

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).

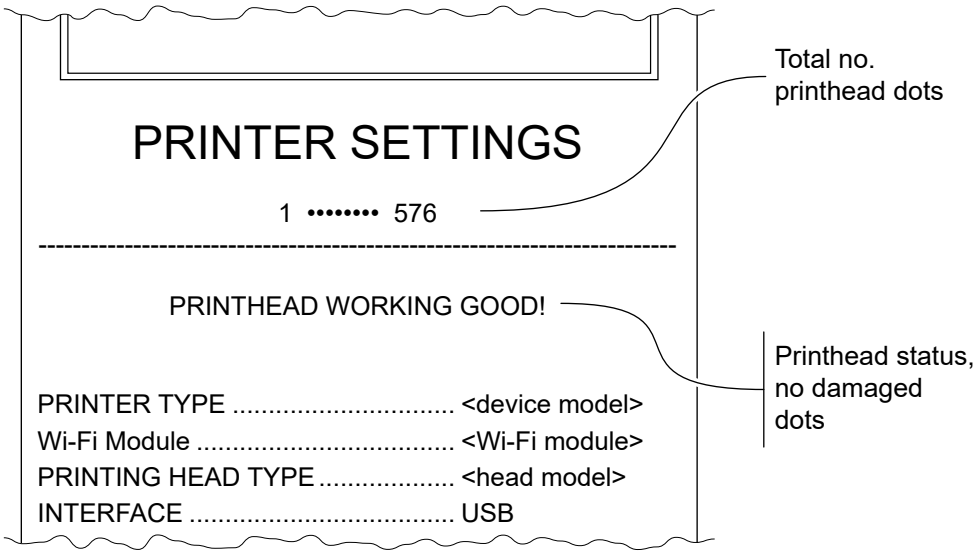


To modify the parameter, change the numeric value after the parameter name or use the default value by typing “D”. After editing device’s parameter, simply save the “Setup.ini” file to make the modifies activated.
For a detailed description of the device operating parameters see the following paragraphs.

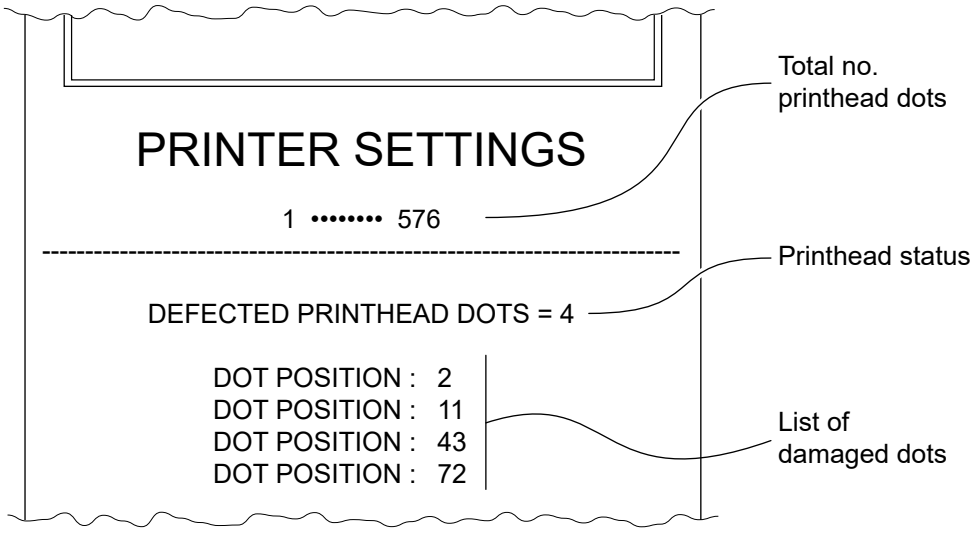
ATTENTION:
The change of value for the “USB Class” parameter may compromise the access to the Setup.ini file. Be careful to keep the “Mass Storage” value to allow a new access to the Flash Drive.

6.4 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).



6.5 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
WI-FI MODULE	presence of the Wi-Fi module
PRINTING HEAD TYPE	print head model
INTERFACE	interface present
ETHERNET TYPE	ethernet connector 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
EXTERNAL MEMORY 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

6.6 Communication parameters

The 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.

RS232 BAUD RATE

Communication speed of the serial interface:

9600 57600
19200 115200 [D]
38400

Parameter valid only with serial interface.

RS232 DATA LENGTH

Number of bit used for characters encoding:

7 bits/car
8 bits/car [D]

Parameter valid only with serial interface.

RS232 PARITY

Bit for the parity control of the serial interface:

None [D] = 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 [D] = hardware handshaking (CTS/RTS)

Parameter valid only with serial interface.

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 the Busy signal:

OffLine/ RxFull = Busy signal is activated when the device is both in OffLine status and the buffer is full
RxFull [D] = 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 [D] = setting the printer function Mass Storage = setting the sharing mode from Mass Storage Virtual COM = setting the USB port as a serial port
DHCP CLIENT	Setting of the DHCP protocol: Disabled [D] = protocol disabled Enabled = protocol enabled When “DHCP Client” is disabled, the IP that is set will be used by both network interfaces.
IP ADDRESS	IP address of device; this parameter is assigned by the network administrator. This parameter can’t be modified by setup.
SUBNET MASK	IP address of device; this parameter is assigned by the network administrator. This parameter can’t be modified by setup.
DEFAULT GATEWAY	This parameter identifies the Gateway IP address used to send applications to the external network. This parameter can’t be modified by setup.
TCP PRINTER PORT	This parameter sets the TCP port number. This parameter is not printed on setup report and it is modifiable only during setup procedure by file (see paragraph 6.3).
MAC ADDRESS ETHERNET	This is the number, provided by the constructor, that identifies the device; this number is univocal. This parameter is not modifiable by setup.
WIRELESS	Activation of the Bluetooth or Wi-Fi communication: OFF [D] Wi-Fi
SECURITY TYPE	Security Protocol: None [D] = protocol disabled WPA = WPA protocol enabled WPA2 = WAP2 protocol enabled This parameter is only present with the optional Wi-Fi module installed and cannot be modified by setup.

SSID	IP address of Wi-Fi; this parameter is assigned by the network administrator. This parameter is only present with the optional Wi-Fi module installed and cannot be modified by setup.
TPC TIMEOUT (x 10 sec)	Wi-Fi inactivity timeout (default 300 seconds). This parameter is only present with the optional Wi-Fi module installed.
MAC ADDRESS Wi-Fi	This is the number, provided by the constructor, that identifies the device; this number is univocal. This parameter is only present with the optional Wi-Fi module installed and cannot be modified 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.

NOTE:
Wi-Fi network WEP keys only accept ASCII encoding and not HEXADECIMAL encoding.

6.7 Operating parameters

The 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: CR disabled [D] = Carriage Return disabled CR 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 = 15 cpi CPI = Characters Per Inch
CODE TABLE [num]	Identifier number of the character code table to use. See paragraph 9.6 to learn about the character tables corresponding to the identification numbers set with this parameter. The character tables set with this parameter are the same set with the command 0x1B 0x74 (refer to the commands manual of the device). The numeric value of the identifier is made up with the following two parameters for the setting of two digits for the tens and the units:

CODE TABLE [num x 10]	Setting the digit for tens: 0 [D] 2 4 1 3 5
CODE TABLE [num x 1]	Setting the digit for units: 0 [D] 2 4 6 8 1 3 5 7 9

FONT TYPE	Setting of the font type: International [D] Chinese GB 18030 When the chinese font is enabled, the selection of the character code table is suspended (“Code table” parameter). When the Chinese fonts is disabled, it returns the character code table previously in use (“Code table” parameter).

SPEED / QUALITY	Setting of printing speed and printing quality: Normal [D] High Quality High Speed
PRINT WIDTH	Width of printing area: 50mm [58 PaperW] 54mm [60 PaperW] 72mm[80 PaperW] [D]
PAPER THRESHOLD	Threshold value (in percent) for the recognition of the presence of paper by the paper presence sensor: 30% 60% 90% 40% [D] 70% 50% 80%
TOTAL CUT	Sets the behavior of the cutter when the total cut command 0x1B 0x69 (ESC i) is sent: Disabled = The total cut command 0x1B 0x69 (ESC i) will be ignored and the device executes a partial cut Enabled [D] = The total cut command 0x1B 0x69 (ESC i) will be executed.
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.
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
DATA LOGGER	Setting of the data logger function on the LOG folder on the Flash memory: Disabled [D] = data logger function disabled Text = the printed text is stored in .txt file Graphic = the printed graphic is stored in .bmp file Text + Graphic = both text and graphic are stored in .txt and .bmp files The name of the first text file stored will be “00000001.txt”; the name of the first graphic file stored will be “00000001.bmp”; the file number is incremented automatically, when there is no more space, the oldest files are deleted.

LINE SPACE REDUCTION	Reduction value of line spacing (vertical distance between the base line of a row and the next one). Recommended to reduce paper consumption. Disabled [D] 25% 50% 75%
LINE FEED REDUCTION	Reduction value for the distance of paper feed. Recommended to reduce paper consumption. Disabled [D] 25% 50% 75%
BARCODE HEIGHT REDUCTION	Reduction value for the height of the barcode printed. Recommended to reduce paper consumption. Disabled [D] 25% 50% 75%
AUTO COVER OPEN	Setting the automatic cover opening function as the paper roll runs out. Enabled [D] Disabled
POWER MANAGEMENT	Setting the device power management Disabled [D] = switch on depends on the ON/OFF. key RS232/USB = switch on occurs via RS232/USB communication
PRINT DENSITY	Adjusting the printing density: -50% -12% +25% -37% 0 [D] +37% -25% +12% +50% 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.

6.8 Alignment parameters

The 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.

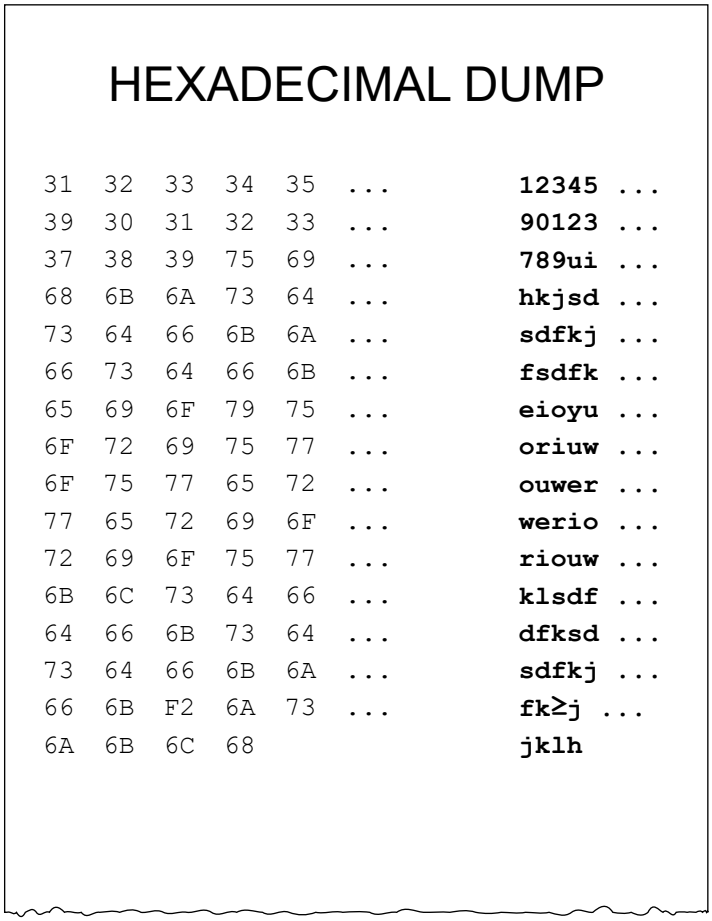
BLACK MARK POSITION	Detection of the alignment black mark: Disabled [D] = the black mark alignment is not performed Bottom = the black mark position is detected by the sensor aimed to the thermal side of the paper
BLACK MARK THRESHOLD	Threshold value (in percent) for the recognition of the presence of black mark by the black mark sensor: 30% 70% 40% [D] 80% 50% 90% 60% If the “Black mark position” parameter is set to “Disabled”, this parameter has no effect on the device configuration and is not printed on the setup report.
BLACK MARK DISTANCE	“Black mark distance” is the minimum distance (in millimetres) between the upper edge of ticket and the black mark (see chapter 7). If the “Black mark position” parameter is set to “Disabled”, this parameter has no effect on the device configuration and is not printed on the setup report. The numeric value of the distance is made up with the following four parameters for the setting of three digits (two for the integer part of the number, one for the decimal part and of the sign):

BLACK MARK DISTANCE SIGN	Sign setting: + [D] = positive distance - = negative distance
BLACK MARK DISTANCE [mm x 10]	Setting the digit for tens: 0 [D] 2 4 6 8 1 3 5 7 9
BLACK MARK DISTANCE [mm x 1]	Setting the digit for units: 0 [D] 2 4 6 8 1 3 5 7 9
BLACK MARK DISTANCE [mm x .1]	Setting the digit for decimals: 0 [D] 2 4 6 8 1 3 5 7 9

6.9 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 receipt contain an indication of the hexadecimal and ASCII values (if the characters are underlined, the receive buffer is full). Shown below is an example of a Hexadecimal Dump:



7 ALIGNMENT

Device is provided with sensors for the use of alignment black mark in order to handle:
- roll of tickets with pre-printed fields and a fixed length;
- Fan-fold of tickets with pre-printed fields and a fixed length.

The black mark alignment may be formed by a black mark printed on paper (see paragraph 9.5).

The alignment sensors 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.

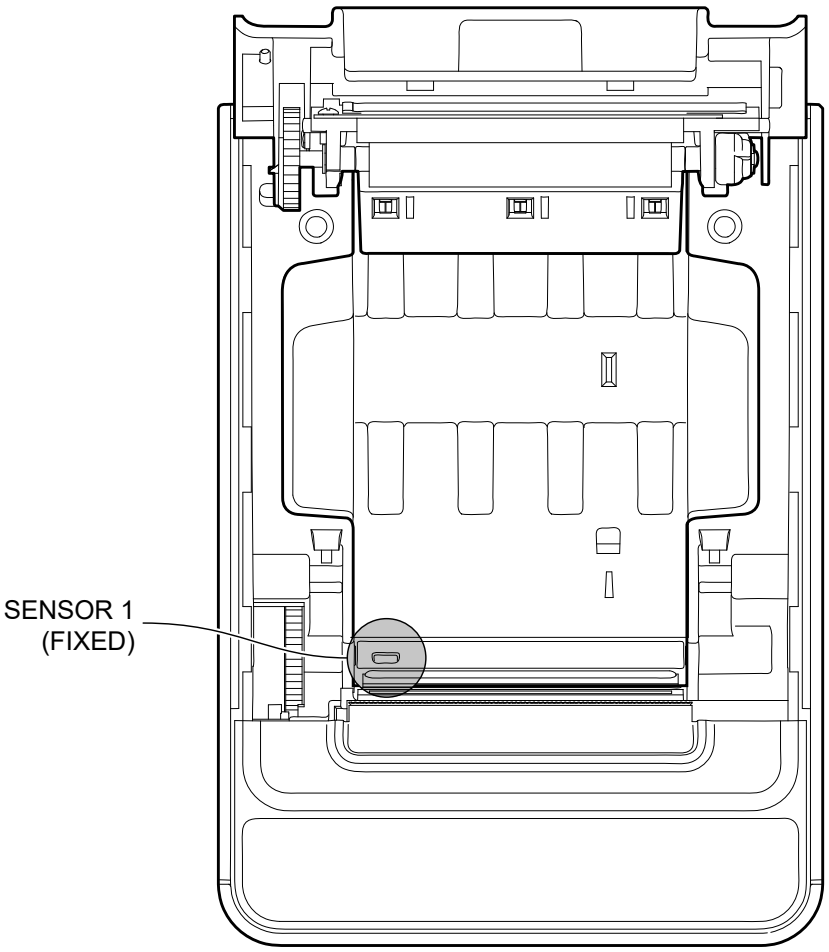
The following paragraphs show how to correctly set the configuration parameters of device in order to assure the alignment.

7.1 Enable alignment

Device is provided with one fixed sensor aimed to the thermal side of the paper.

To perform the alignment, it is necessary to enable the parameter “Black Mark Position” during the setup procedure (see chapter 6) and set the correct value of this parameter as described in the following table.

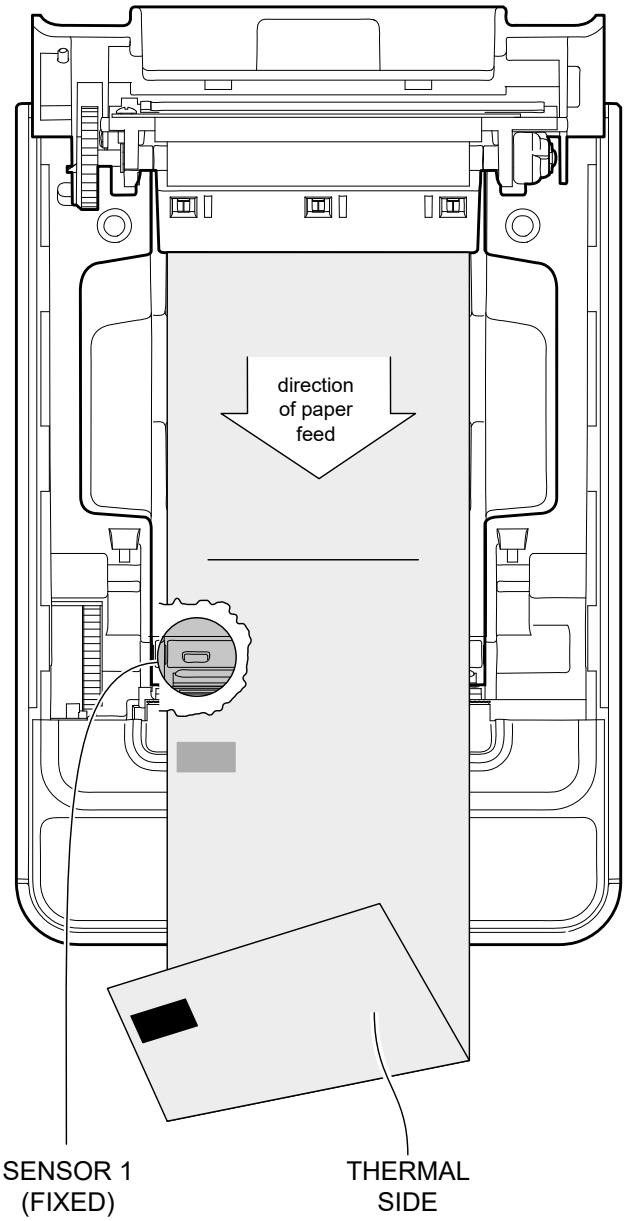
SENSOR USED (see following figure)	VALUE OF THE “BLACK MARK POSITION” PARAMETER	USING MODE OF SENSORS	BLACK MARK TYPE
-	Disabled	-	Alignment disabled
1	Bottom	Reflection	Black mark printed on the thermal side of paper



The following figure shows the usable format of paper.

Paper with black mark on the thermal side

In the standard model the detection of black mark and paper presence is performed by the fixed sensor.



7.2 Calibration

The sensor calibration occurs automatically and consists in adjusting the quantity of light emitted to match the degree of whiteness of the paper used and the degree of black of the mark printed on paper.

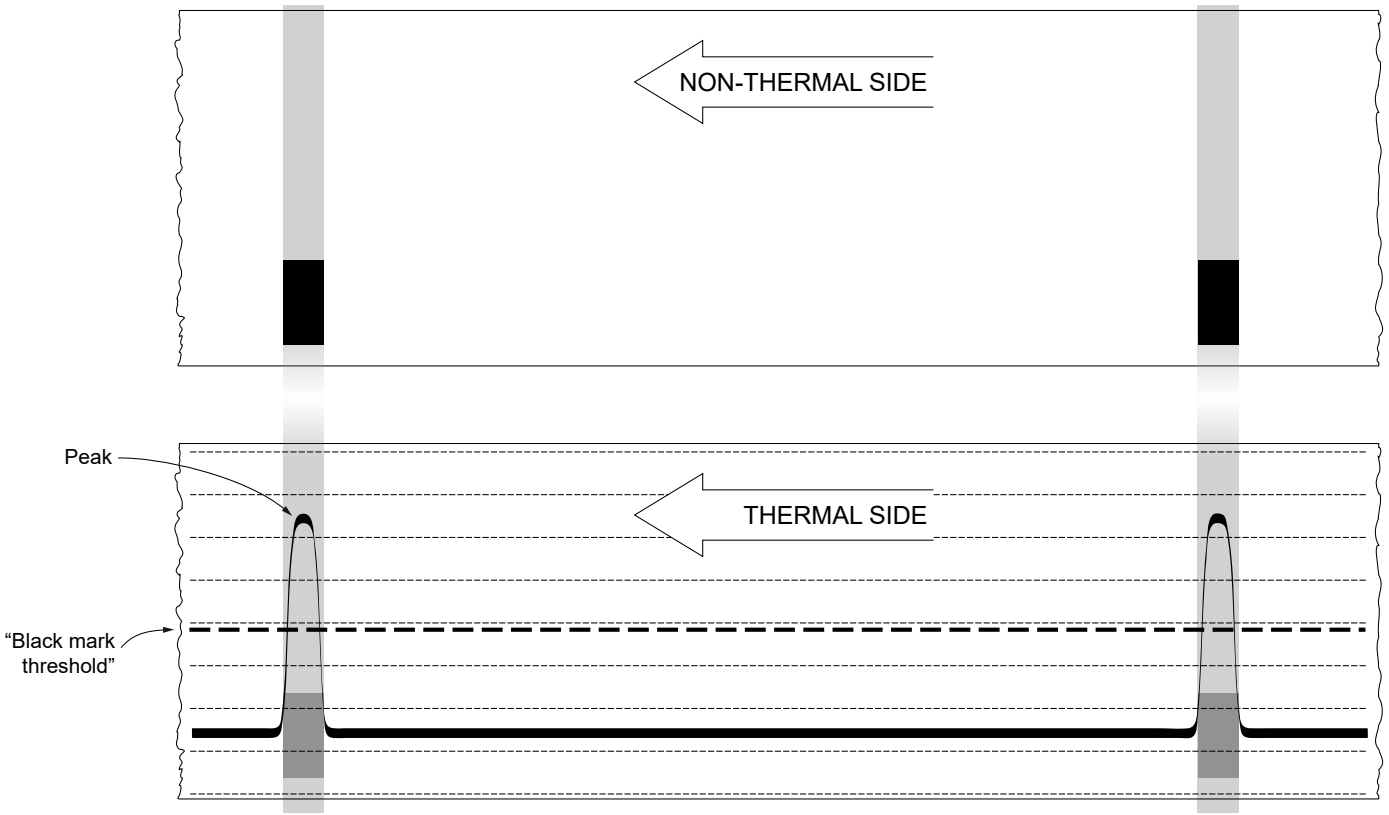
The device automatically performs the self-calibration during the setup procedure only if the “Black Mark Position” parameter is set to a value other than “Disabled” (see chapter 6).

When self-calibration starts, the device performs some paper feeds and then it prints the calibration result and the value of the PWM duty-cicle of the alignment sensor driver so that it can be perform an optimal black mark detection:

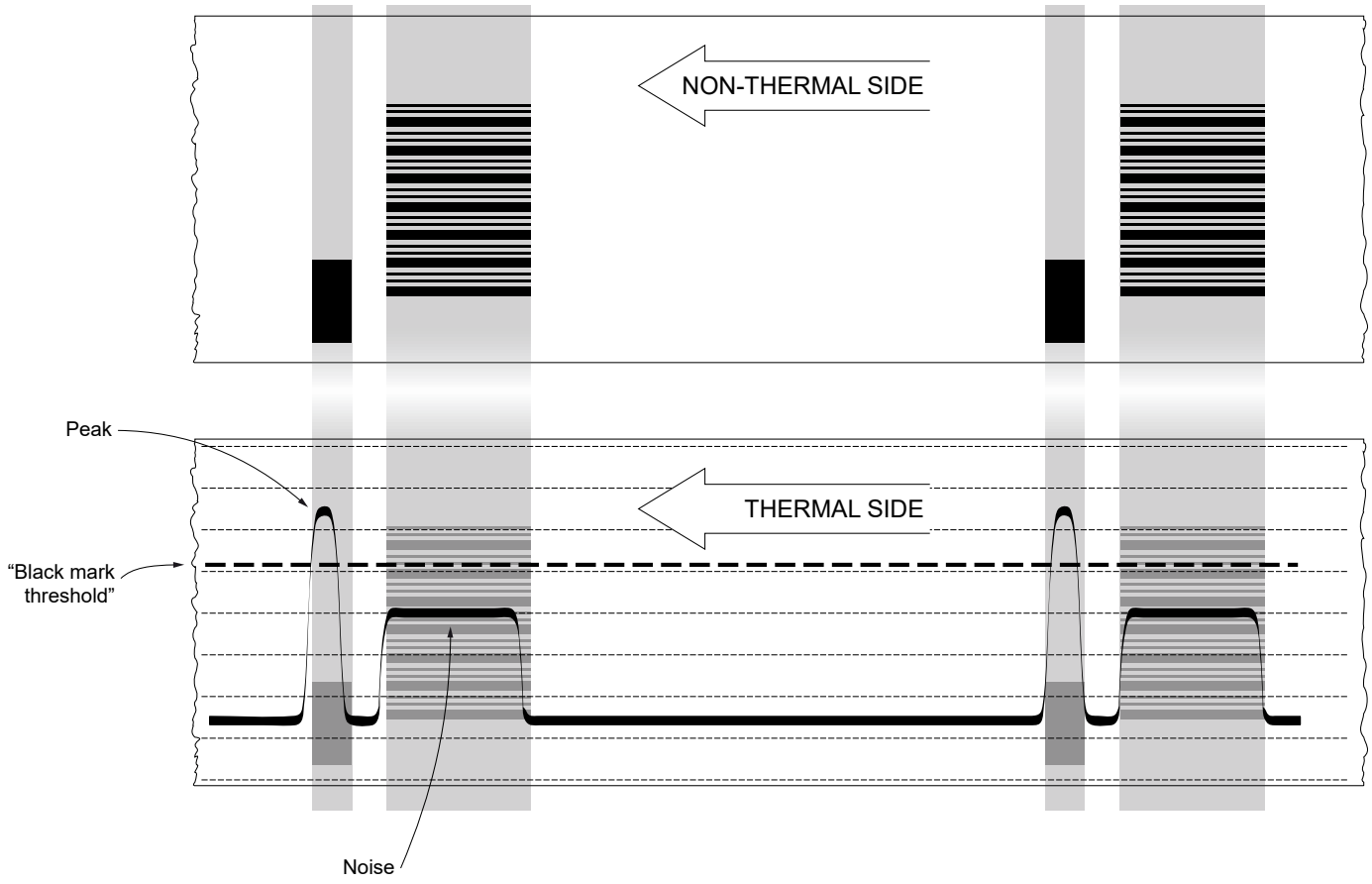
Autosetting black mark: OK
PWM Duty Cycle: 85.3%

The “Autosetting Black Mark” parameter indicates the result of the self-calibration procedure; OK will appear if it has been successful, NOT OK will appear if the procedure has failed.

After the printing of the procedure result, the device offers the execution of the function of paper characterization “Characterize paper” and the change of the “Black Mark Threshold” parameter which represents the detection threshold of the black mark.
Choosing the “Yes” value for the “Characterize paper” parameter, the device prints a graphic representation (see following figures) of the outgoing voltage of the alignment sensor (expressed as a percentage) and the “Black Mark Threshold” value. This graphic representation is useful to set the most suitable value to assign to the “Black Mark Threshold” parameter and then to better identify the optimal threshold value which takes into account the variations of the signal and the small oscillations around zero.
The following figure shows an example of paper with the thermal paper printed with black marks: the outgoing voltage is constant while passing the white paper between two black marks and presents a peak at each black mark.
In this case, the optimal value for the “Black Mark Threshold” parameter is placed about half of the peak.



The following figure shows an example of paper with the thermal paper printed with black marks and other graphics (for example, a barcode): the outgoing voltage is constant while passing the white paper between two black marks, presents a peak at each black mark and presents some “noise” at each barcode. In this case, the optimal value for the “Black Mark Threshold” parameter is located about halfway between the peak value and the maximum value of the “noise”.



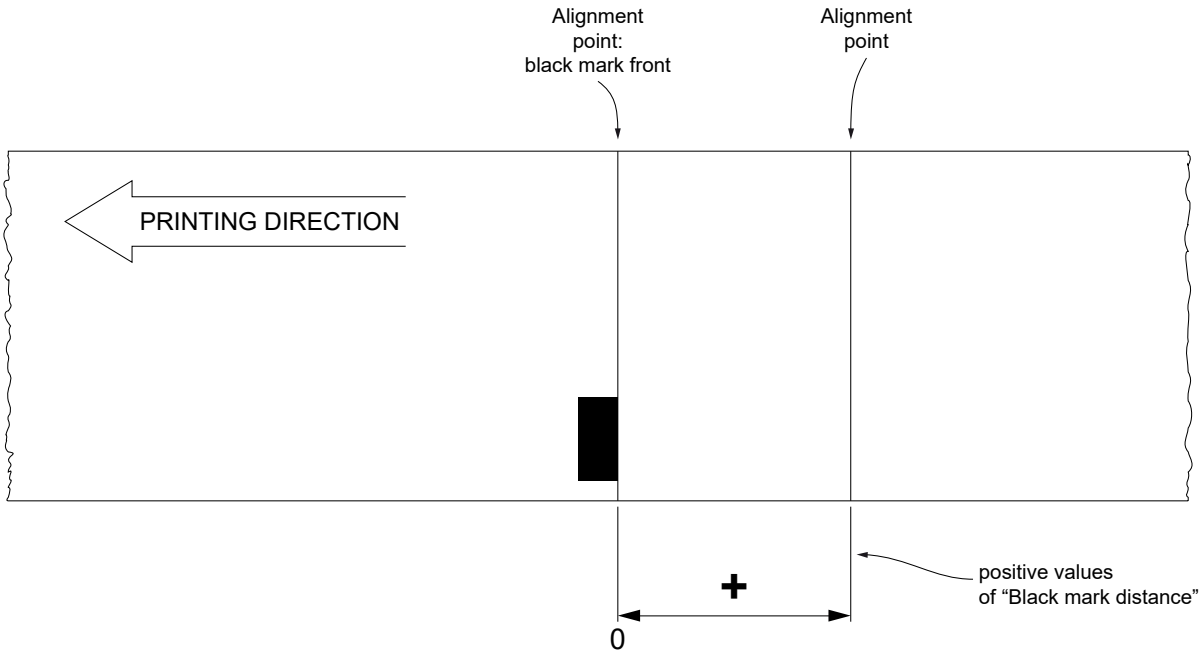
If the maximum value of “noise” read by the sensor is very close to the peak value, it might be difficult to place the value of the “Black Mark Threshold” at an intermediate point. In these cases, it is mandatory that the portion of paper between the point of printing end and the front black mark is completely white (no graphics). In this way, the only next graphic detected by the sensor for alignment after the printing end will be the black mark.

7.3 Alignment parameters

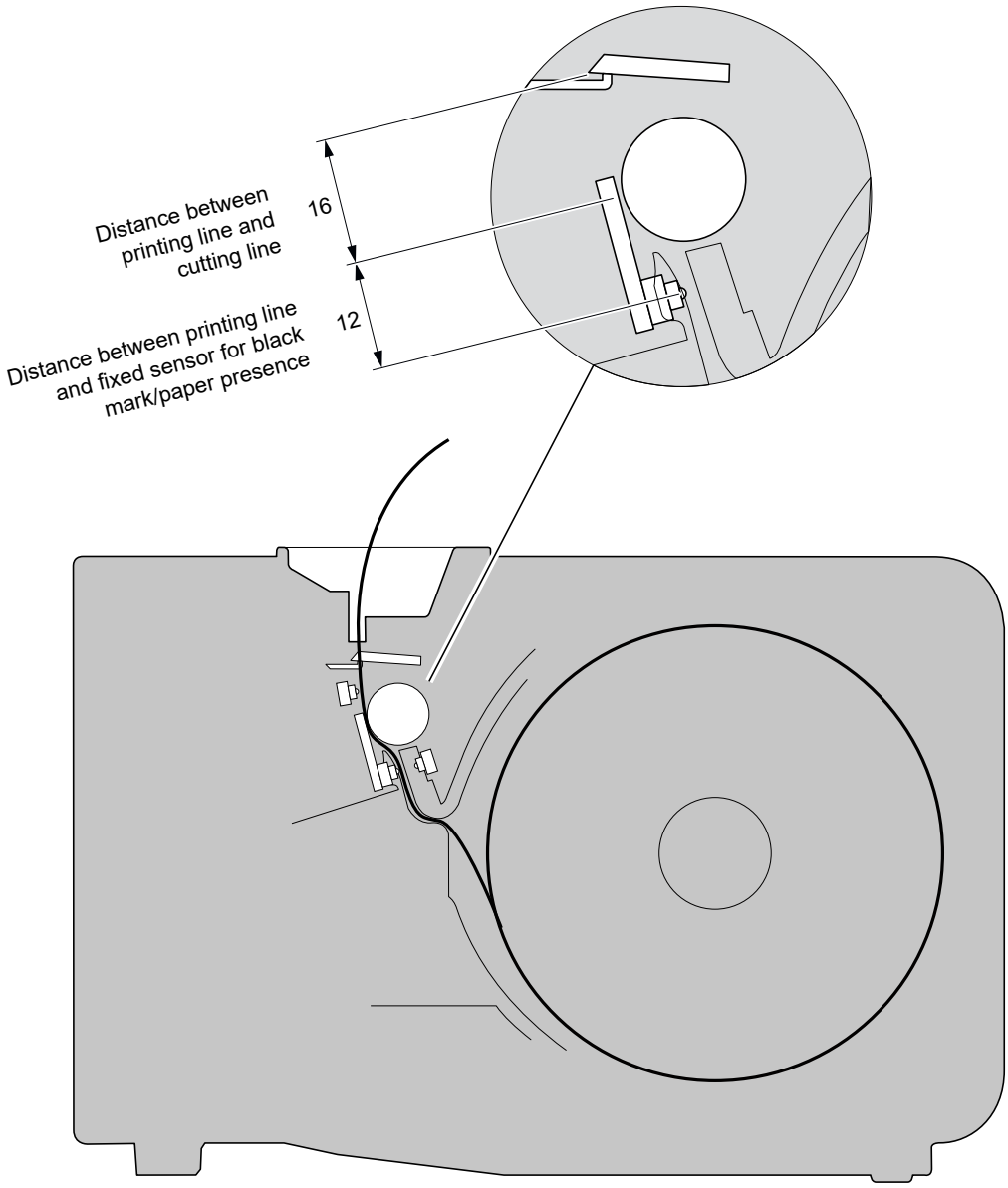
The “alignment point” is defined as the position inside the ticket to use for the black mark alignment.
The distance between the black mark edge and the alignment point is defined as “Black mark distance”.

Referring to the front of the black mark, the value of “Black mark distance” value varies from 0mm 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 a section of the device with the paper path and the distances (in millimetres) between the alignment sensor, the print head and the cutter (cutting line).



CUSTOM/POS EMULATION

To define the alignment point you need to set the device parameters that compose the numerical value of the “Black Mark Distance” parameter (see paragraph 6.8).
For example, to set a black mark distance of 15 mm between the black mark and the alignment point, the parameters must be set on the following values:

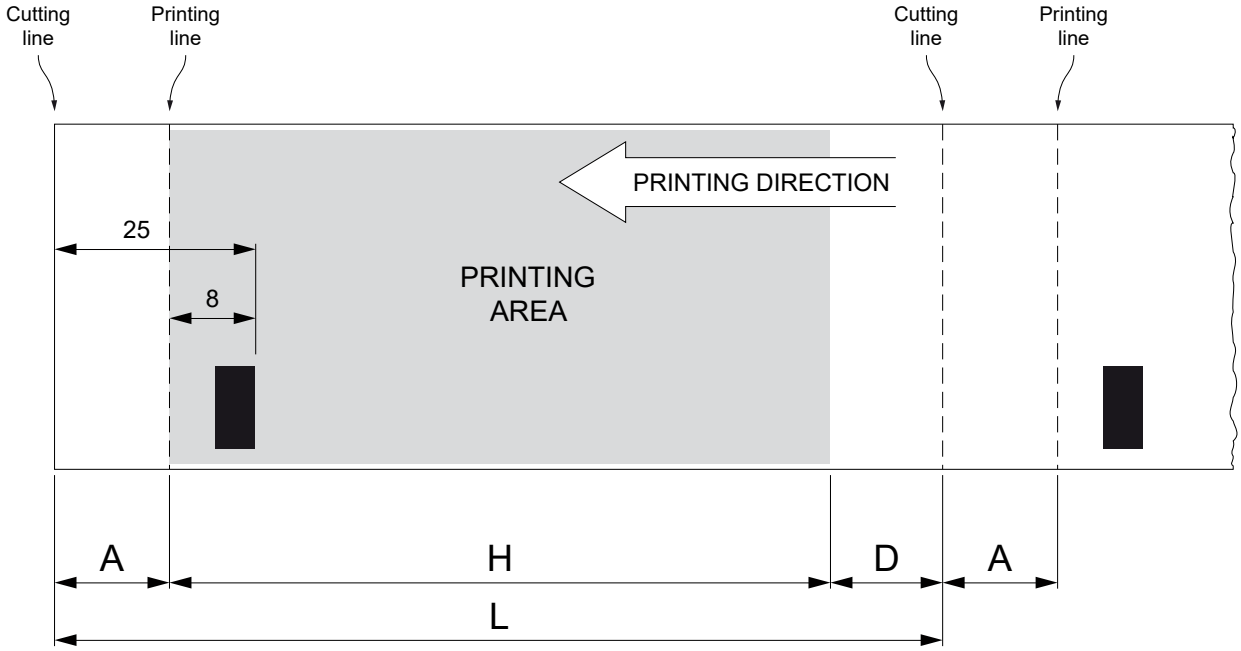
Black mark distance sign	: +
Black mark distance [mm x 10]	: 1
Black mark distance [mm x 1]	: 5
Black mark distance [mm x .1]	: 0

The “Black Mark Distance” parameter can be modified as described in chapter 6.

7.4 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 well calibrate the height 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:



A “Non-printable area” of 17 mm generated from:

“Distance between black mark front/cutting line” - “Distance between black mark front/printing line”

where:

“Distance between black mark front/cutting line” =	25 mm	(fixed distance)
“Distance between black mark front/printing line” =	8 mm	(fixed distance)

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

L Ticket length.

D Automatic feed for alignment at the next black mark.

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

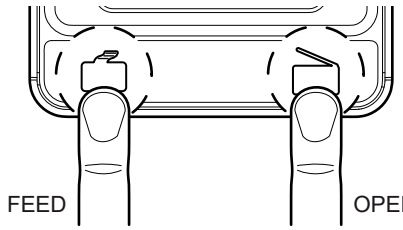
$H + A \leq L$

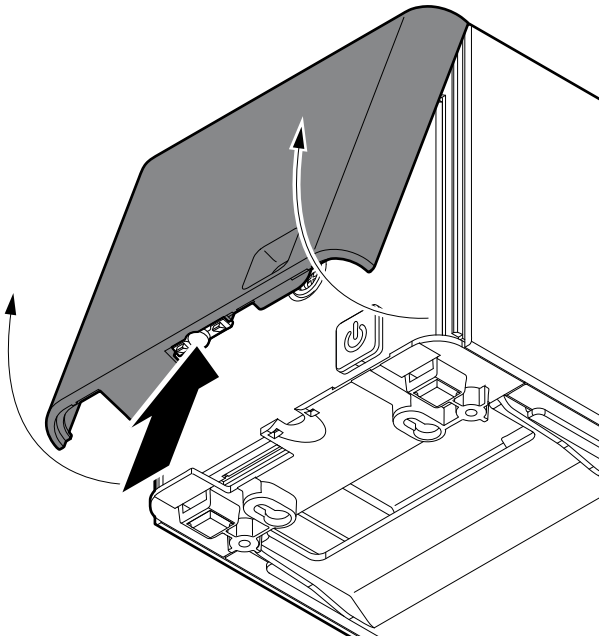
The height of the printing area (H) can be increased to make no progress on alignment (D) but no further.

8 MAINTENANCE

8.1 Autocutter paper jam

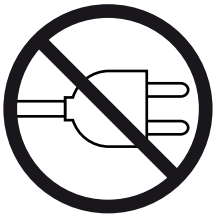
1





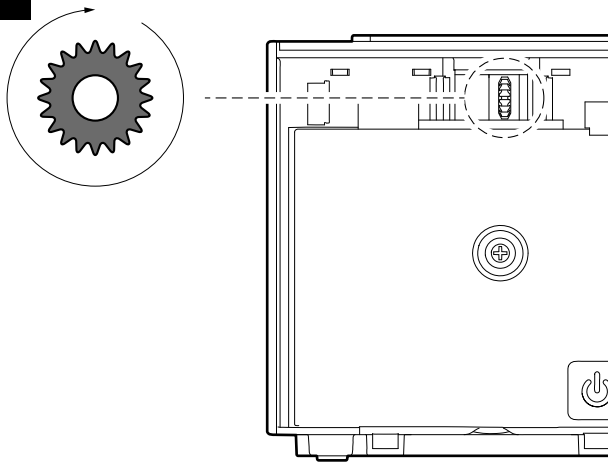
Press the FEED key and the OPEN key simultaneously to try to unlock the autocutter. If the autocutter did not unlock press the release button and remove the front cover.

2



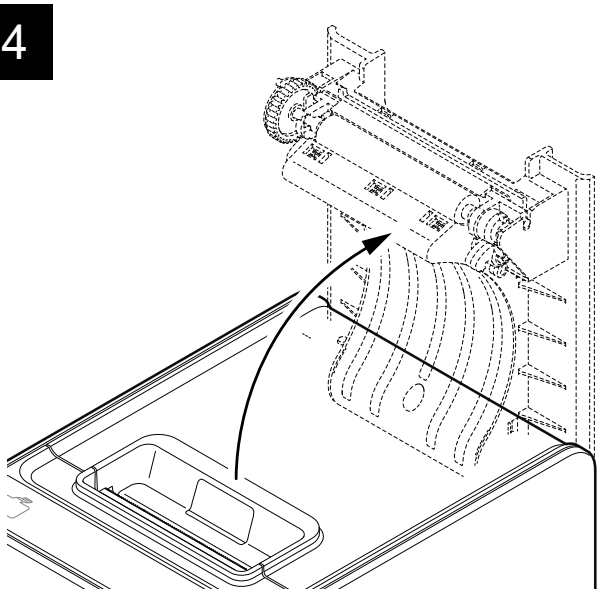
Disconnect the power supply.

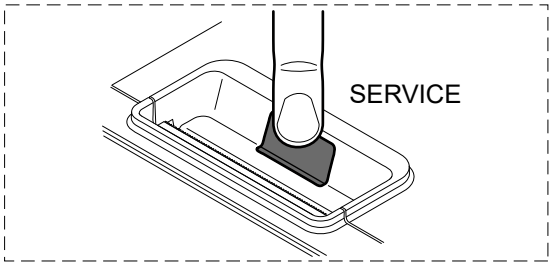
3



Rotate the gear in the direction with no resistance until the autocutter does not return to its inital position.

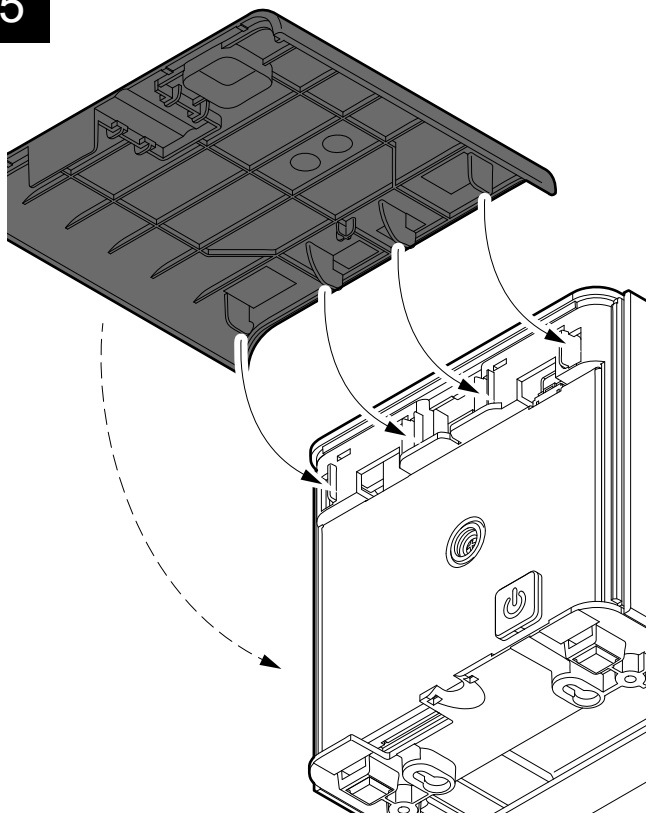
4





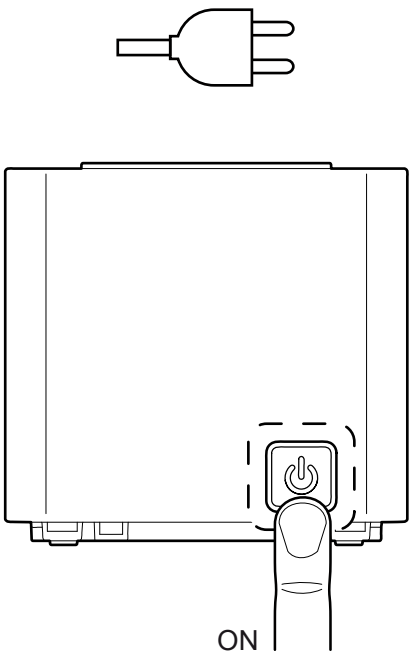
Press the service button and try to open carefully the device cover. If it opens, the autocutter is in the correct position.

5



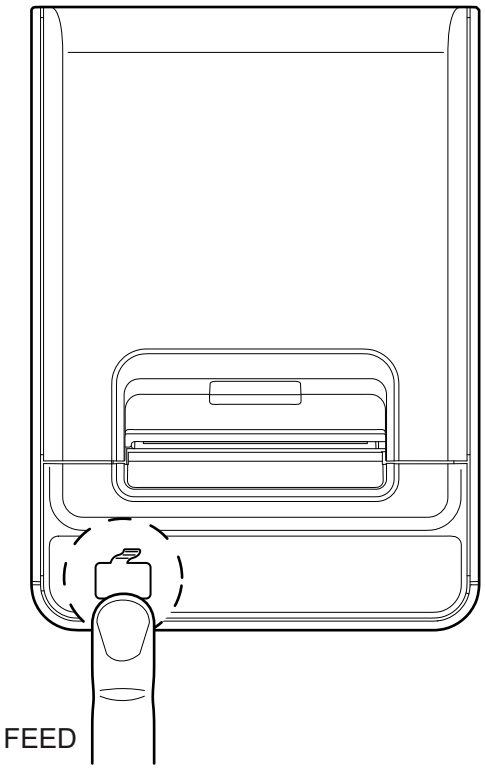
Reassemble the cover removed previously.

6



Connect the power supply and switch the device ON.

7



Press the FEED key to verify the proper functioning of the device.

8

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If the problem persists, please contact the customer service.

8.2 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 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	
Chassis	Use compressed air or a soft cloth
Display (1)	Use compressed air or a soft cloth

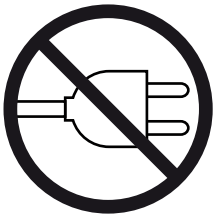
NOTE:
(1) : Only for K3 DSP.

8.3 Cleaning

For periodic cleaning of the device, see the instructions below

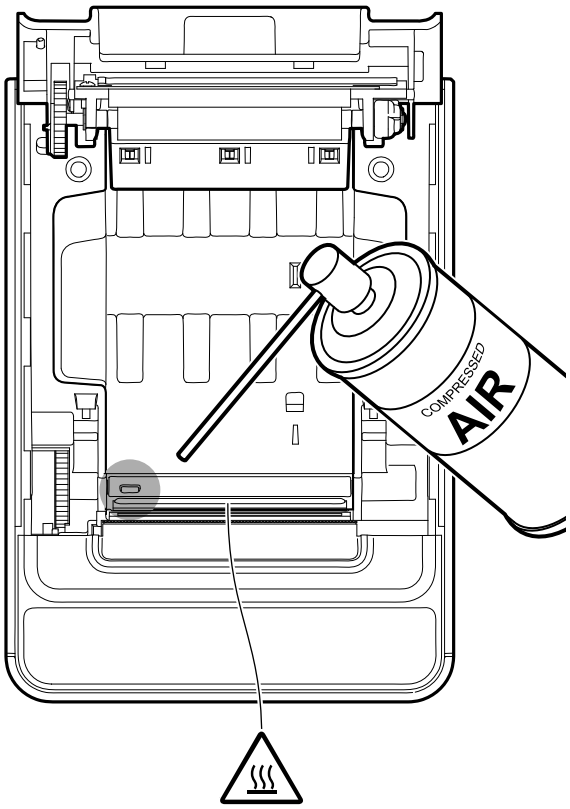
Sensors

1

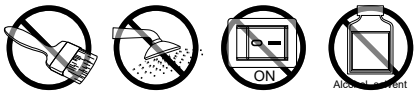


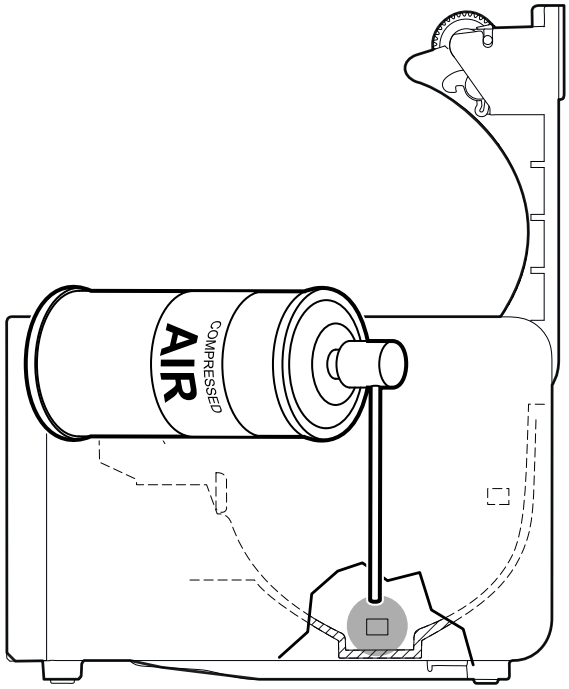
Disconnect the power supply cable
and open the device cover
(see paragraph 5.1).

2



ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.

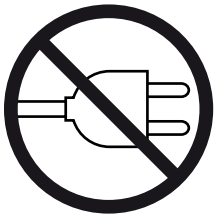




Clean the device sensors
by using compressed air.

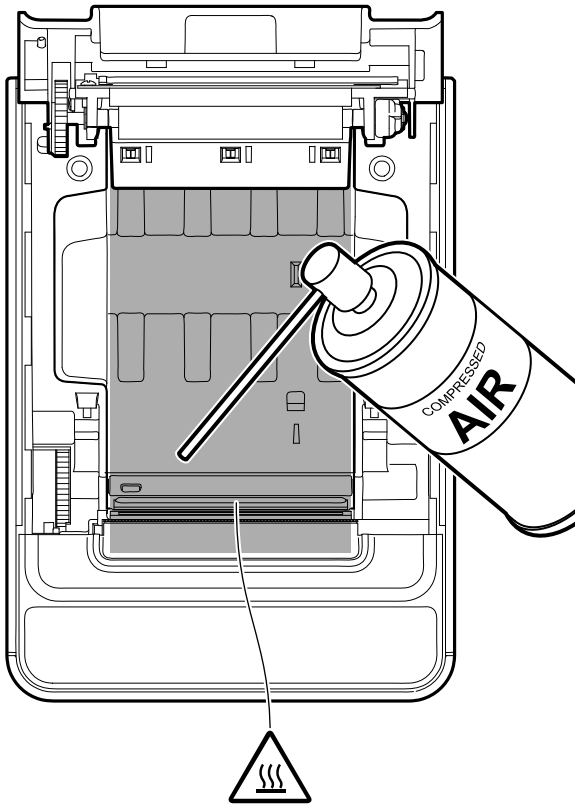
Paper path

1

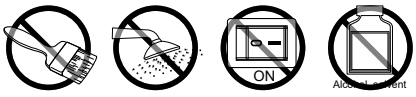


Disconnect the power supply cable
and open the device cover
(see paragraph 5.1).

2



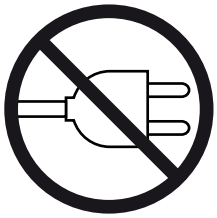
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

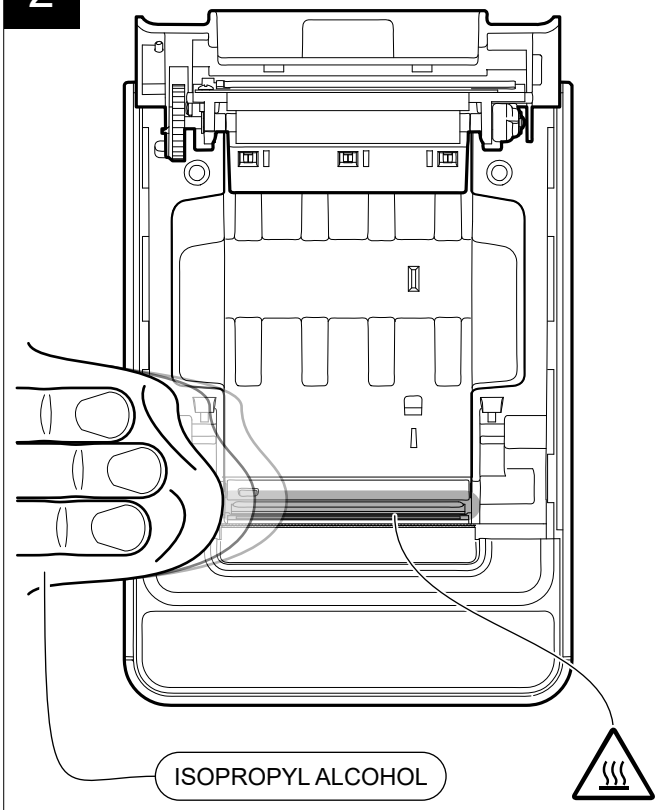
Printhead

1



Disconnect the power supply cable
and open the device cover
(see paragraph 5.1).

2



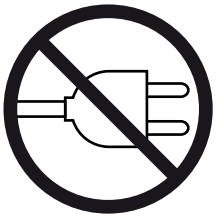
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

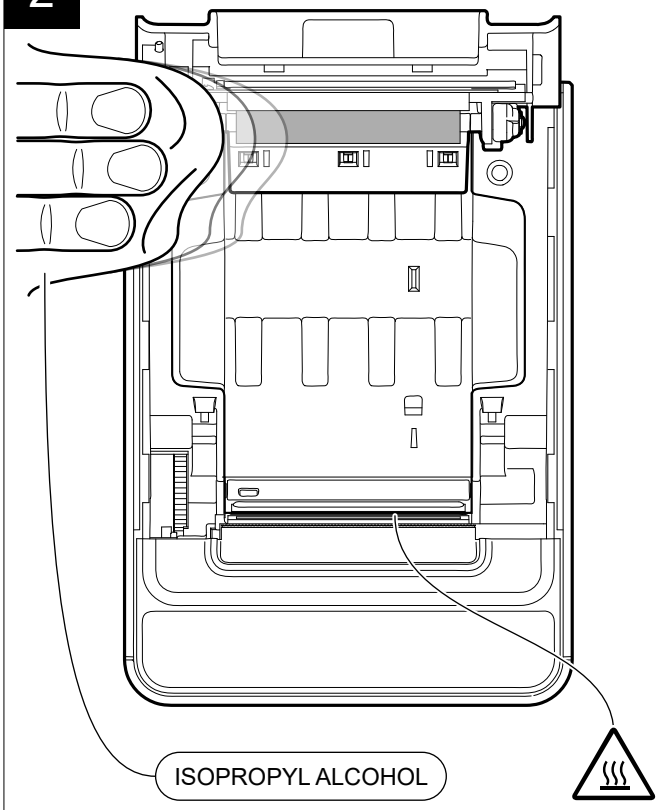
Platen roller

1



Disconnect the power supply cable
and open the device cover
(see paragraph 5.1).

2



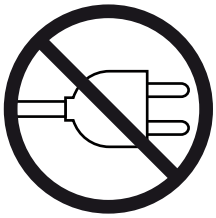
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

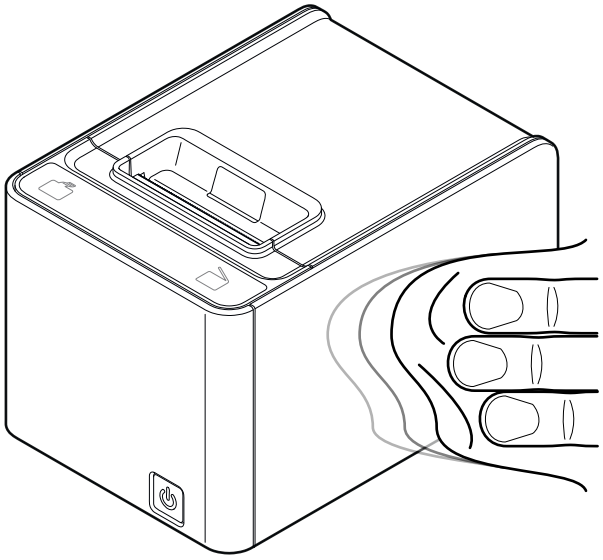
Chassis

1

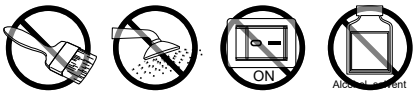


Disconnect the power supply cable.

2



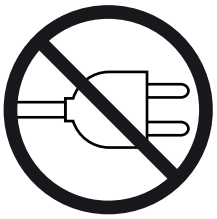
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

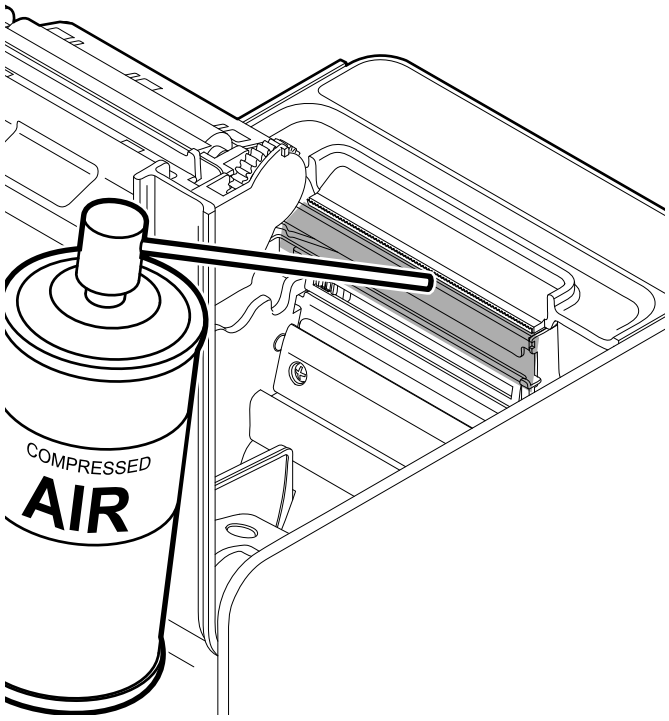
Autocutter

1

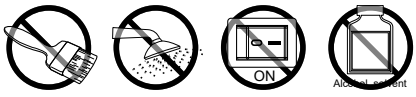


Disconnect the power supply cable
and open the device cover
(see paragraph 5.1).

2

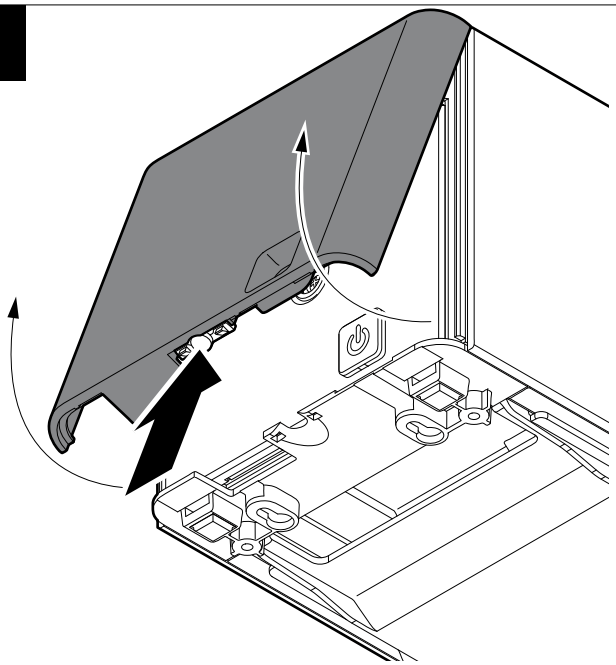


ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



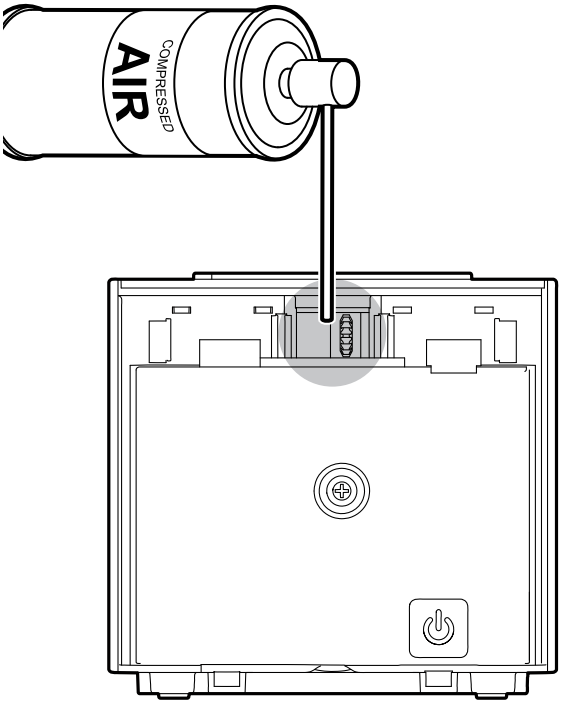
Clean the autocutter compartment from the inside
using compressed air.

3



Press the release button
and remove the front cover.

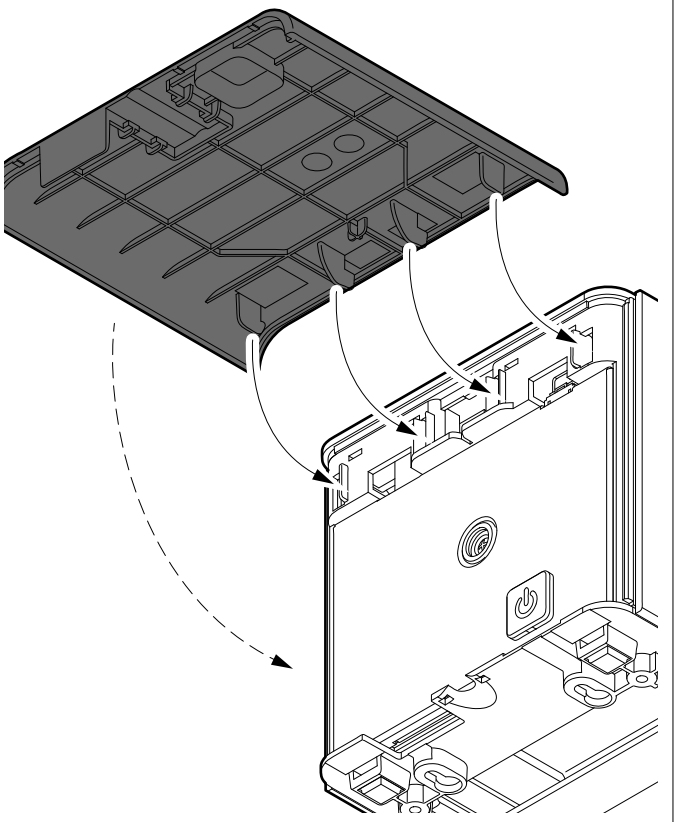
4



Clean the autocutter compartment from the outside
using compressed air.

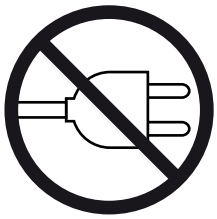
Display (K3 DSP)

5



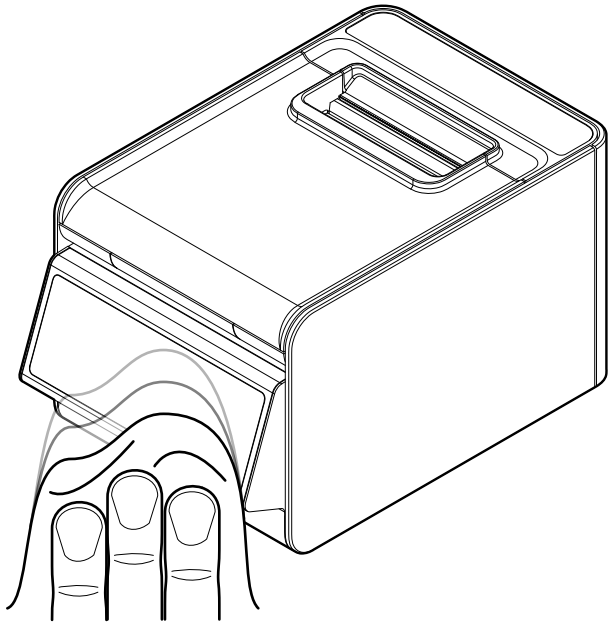
Reassemble the cover
removed previously.

1

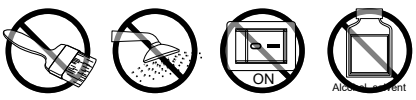


Disconnect the power supply cable.

2



ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

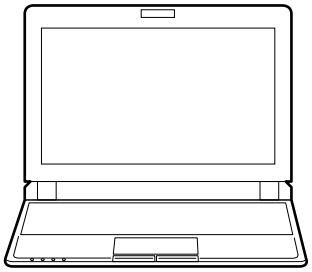
8.4 Firmware upgrade

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

1

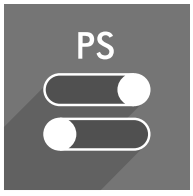
Login to the website www.custom4u.it, type in the product code of the device and download the latest firmware release available.

2



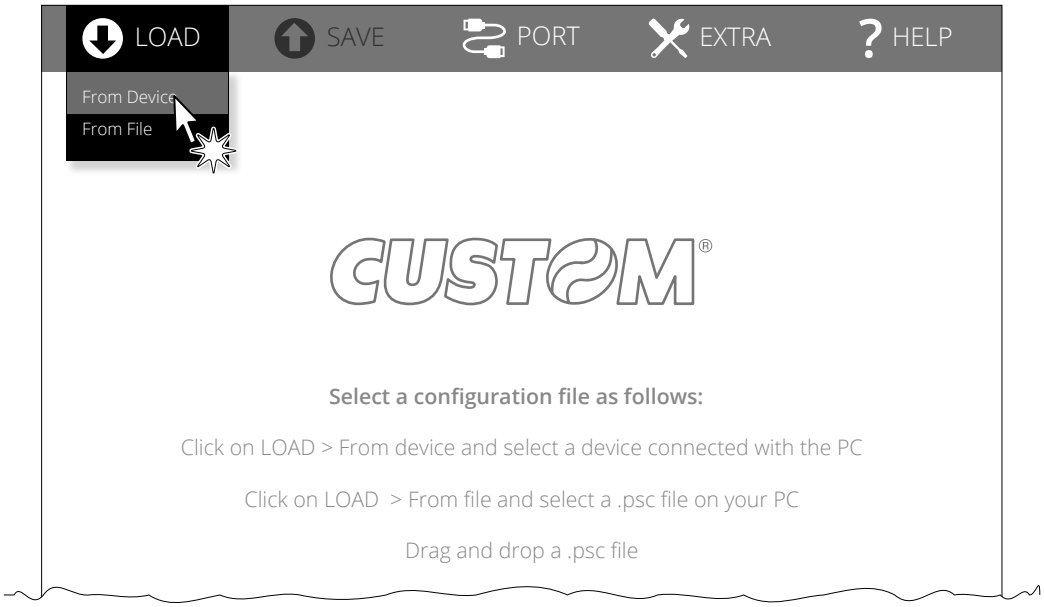
Connect the device to a PC directly (see paragraph 4.2), without using HUB devices.

3



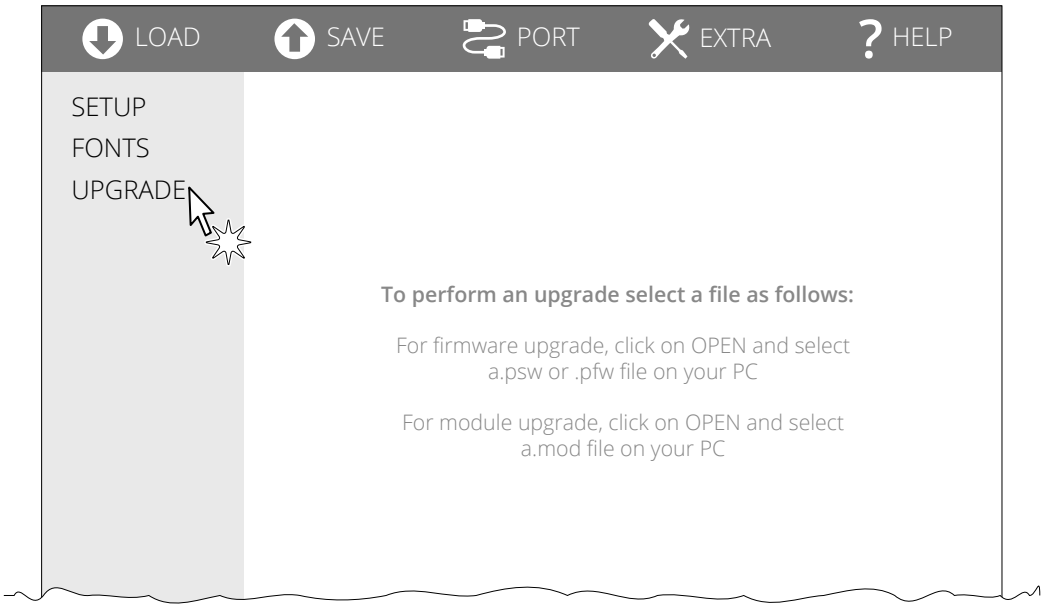
Start the “PrinterSet” software tool.

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.

9 SPECIFICATIONS

9.1 Hardware specifications

GENERALS	
Sensors	Head temperature, paper presence, detection of black mark, cover open, low paper
MTBF (control board)	370000 hours
Emulations	CUSTOM/POS
Printing driver	Windows XP VISTA (32/64 bit) Windows 7 (32/64 bit) Windows 8 (32/64 bit) Windows 8.1 (32/64 bit) Windows 10 (32/64 bit) Self-installing driver for Virtual COM (32/64 bit) Linux OPOS JavaPOS Android iOS Windows Phone 8
INTERFACES	
USB port	12 Mbit/s (USB 2.0 full speed)
RS232 serial port	from 9600 bps to 115200 bps
Ethernet port	10 Mbit/s
MEMORIES	
Receive buffer	16 kB
Flash memory	4 MB (+1 MB internal to the micro)
RAM memory	8 MB
Graphic memory	Logos dynamic management (max 1 MB graphic memory)

PRINTER	
Resolution	203 dpi (8 dot/mm)
Printing method	Thermal, fixed head
Head life [1]	
Abrasion resistance [2]	200 km (with recommended paper, 12.5% duty cicle)
Pulse durability	100 M (referred to each dot)
Printing width	50, 54, 72 mm
Printing mode	Normal, 90°, 180°, 270°
Printing format	Height/Width from 1 to 6, bold, reverse, underlined, italic
Character fonts	54 character code tables (see paragraph 9.6) 2 TrueType font [3] Extended chinese GB18030-2000
Printable barcode	UPCA, UPCE, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417, DATAMATRIX, AZTEC, QRCODE
Printing speed [1] [4]	
K3 STD K3 DSP	High Speed = 350 mm/s Normal = 190 mm/s High Quality = 140 mm/s
K3 HS K3 HS LF	High Speed = 400 mm/s [5] Normal = 220 mm/s High Quality = 150 mm/s
PAPER	
Type of paper	Thermal rolls, heat-sensitive side on outside of roll Fan-fold
Paper width	80 mm ± 0.5 mm
Paper width (with paper width adapter)	58 mm, 60 mm ± 0.5 mm
Paper weight	from 55 g/m^2 to 90 g/m^2

Paper thickness	from 61 µm to 85 µm
Recommended types of paper	KANZAN KP460, KANZAN KLS46 MITSUBISHI PF5067, MITSUBISHI TL3000 MITSUBISHI TF7067, KANZAKI Lotto 500 RICOH 140GA, APPVION Alpha Plus 600-3.2
External roll diameter	max. 100 mm
External roll core diameter	25 mm (+ 1 mm)
Core thickness	2 mm (+1 mm)
Paper end	Not attached to roll core
Core type	Cardboard or plastic
LINERLESS LABELS (K3 HS LF)	
Tipo di carta	Linerless thermal paper rolls, heat-sensitive side on outside of roll
Paper width	80 mm ± 0.5 mm
Paper width (with paper width adapter)	58 mm, 60 mm ± 0.5 mm
Paper weight	80 g/m^2
Recommended type of paper	MAXStick PlusD
External roll diameter	max. 100 mm
External roll core diameter	25 mm (+ 1 mm)
Core thickness	2 mm (+1 mm)
Paper end	Not attached to roll core
Core type	Cardboard or plastic
AUTOCUTTER	
Paper cut	Total or partial
Estimated life (1)	1000000 cuts (with paper thickness 63 µm, ambient temperature, with recommended paper)

PRINTER ELECTRICAL SPECIFICATIONS	
Power supply	24 Vdc ±10% (optional external power supply)
Medium consumption (6)	2 A
Typical. consumption (4)	1.5 A
Standby consumption	0.1 A
ELECTRICAL SPECIFICATIONS POWER SUPPLY code 963GE020000071	
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	
K3 STD K3 DSP K3 HS	from 0 °C to +50 °C
K3 HS LF	from 0 °C to +40 °C
Relative humidity (RH)	from 10% to 85% (w/o condensation)
Storage temperature	from -20 °C to +70 °C
Storage relative humidity (RH)	from 10% to 90% (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 device flash disk.
(4) : Referred to a standard CUSTOM receipt (L=10 cm, Density = 12.5% dots on).
(5) : For optimum print quality, use thermal paper specifically designed for speeds of 400 mm/s or greater.
(6) : Referred to the UL measurements.

9.2 Character specifications

K3 STD, K3 DSP

Character set		3	
Character density	11 cpi	15 cpi	20 cpi
Number of columns	32	44	57
Chars / second	3733	5133	6650
Lines / second	116	116	116
Characters (L x H mm)-Normal	2.25 x 3	1.625 x 3	1.25 x 3

K3 HS, K3 HS LF

Character set		3	
Character density	11 cpi	15 cpi	20 cpi
Number of columns	32	44	57
Chars / second	4266	5866	7600
Lines / second	133	133	133
Characters (L x H mm)-Normal	2.25 x 3	1.625 x 3	1.25 x 3

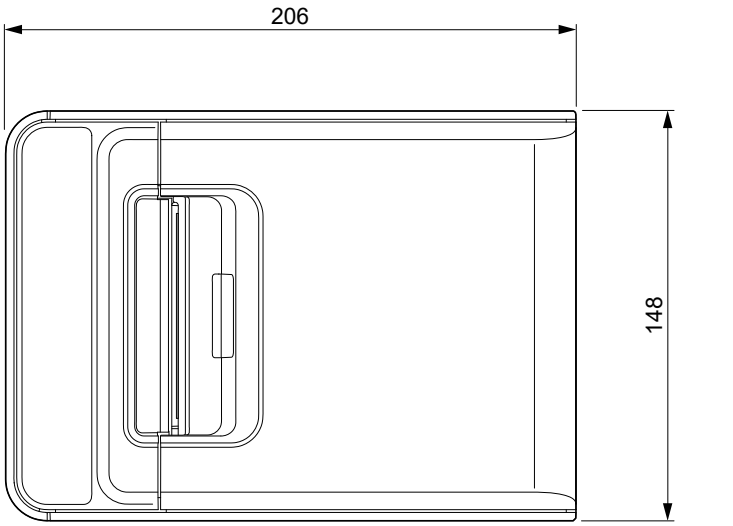
NOTE: Theoretical values.

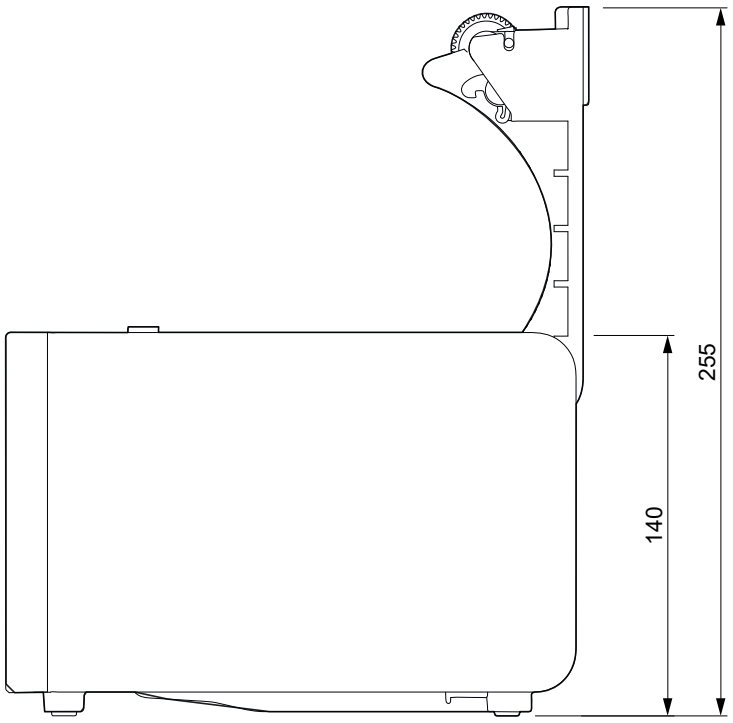
9.3 Device dimensions

K3 STD, K3 HS, K3 HS LF

Length	206 mm
Height	140 mm (with cover closed) 255 mm (with cover open)
Width	148 mm
Weight	1970 g (without paper roll)

All the dimensions shown in following figures are in millimetres.

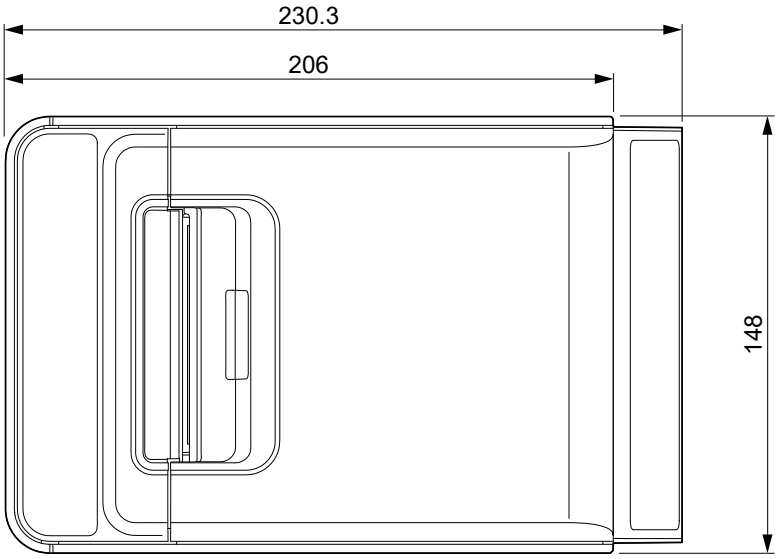


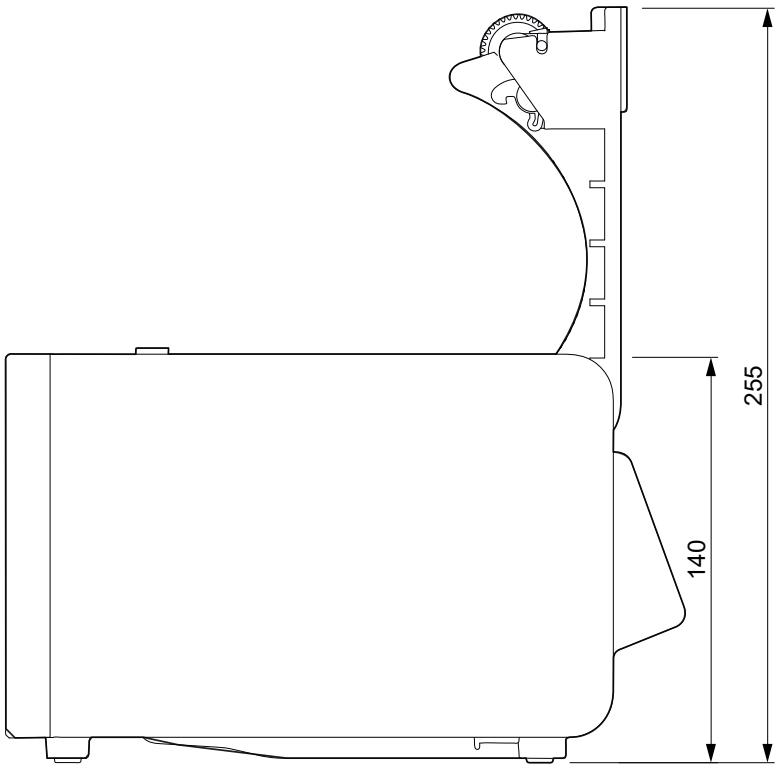


K3 DSP

Length	230.3 mm
Height	140 mm (with cover closed) 255 mm (with cover open)
Width	148 mm
Weight	2100 g (without paper roll)

All the dimensions shown in following figures are in millimetres.





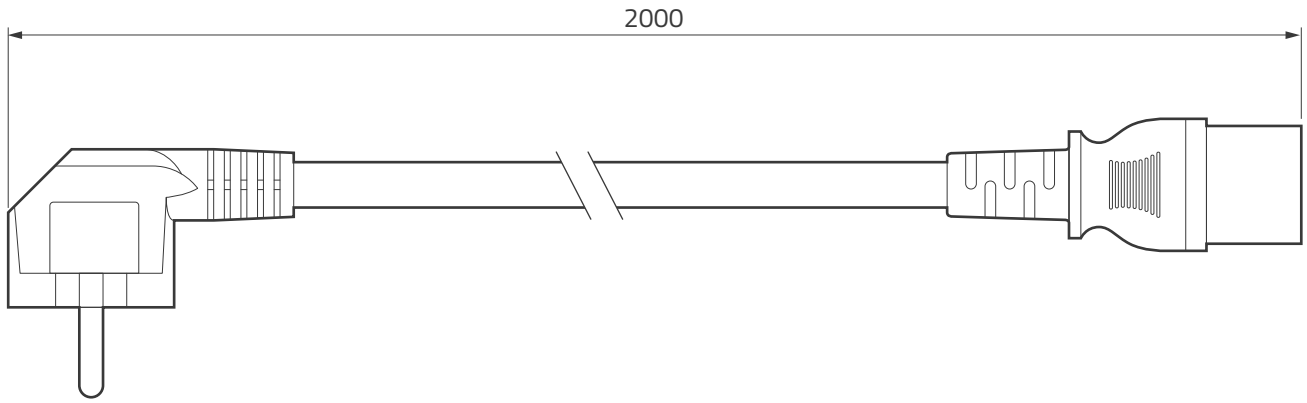
9.4 Power supply and power cord dimensions

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

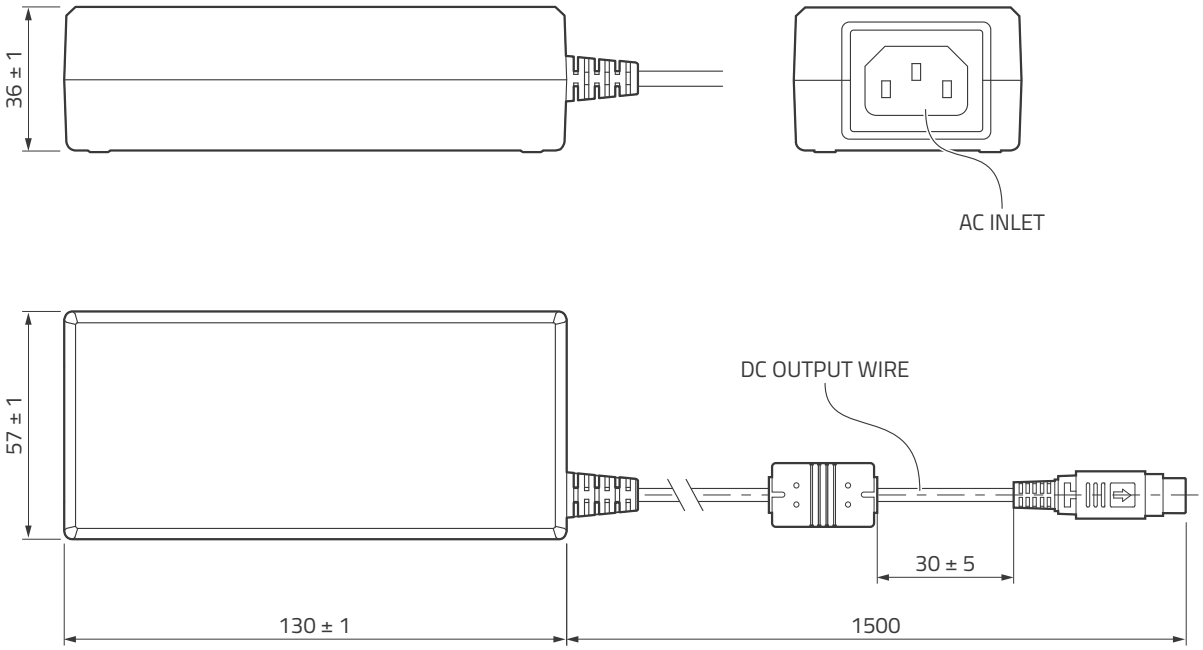
POWER CORD code 26100000000311	
Length	2000 mm
POWER SUPPLY code 963GE020000071	
Length	130 mm
Height	36 mm
Width	57 mm

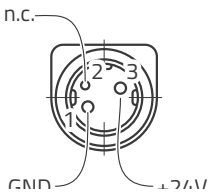
NOTE: All the dimensions shown in following figures are in millimetres.

POWER CORD code 26100000000311



POWER SUPPLY code 963GE020000071

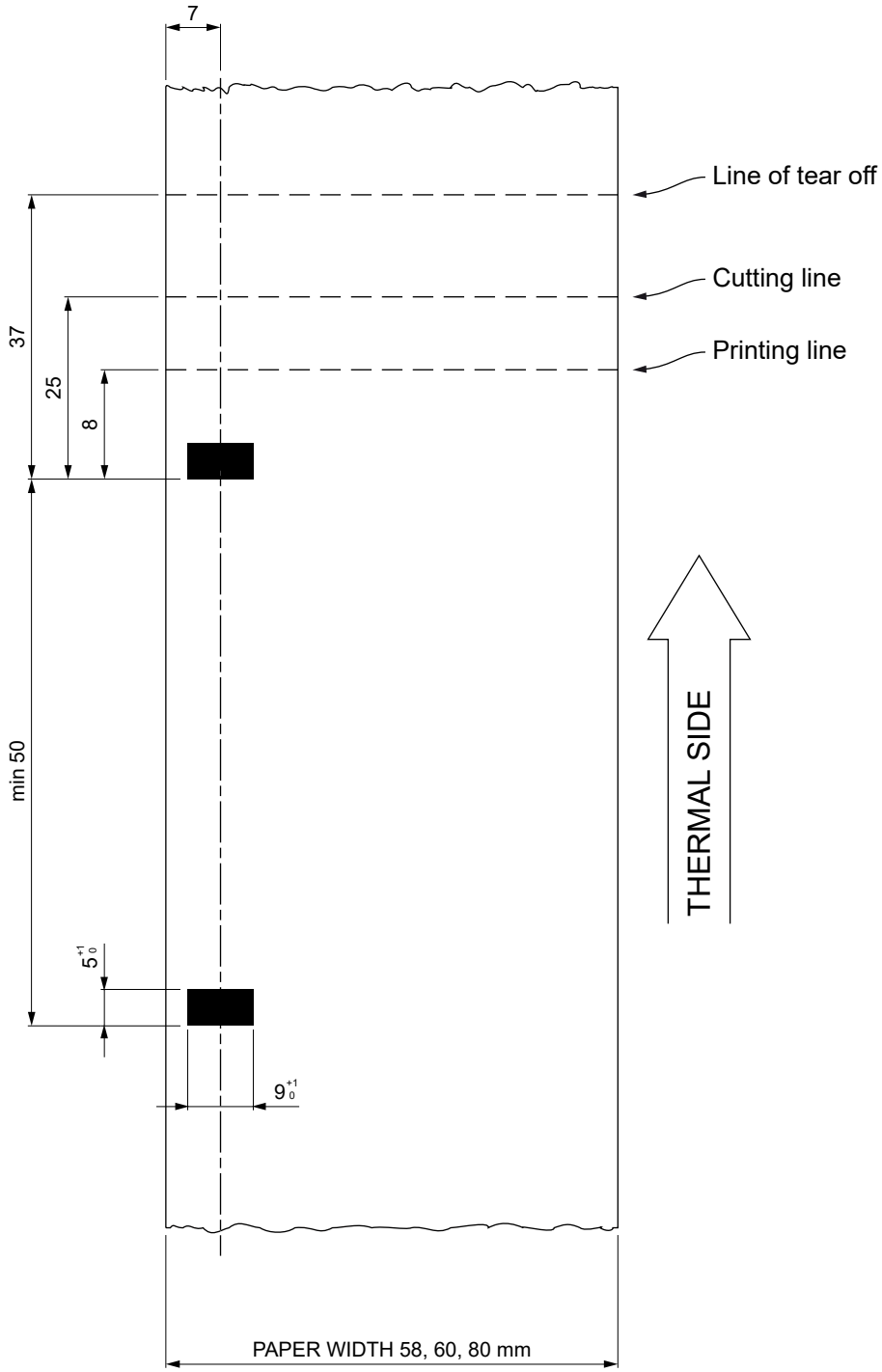




9.5 Paper specification

Paper with black mark on the thermal side

The following image shows the placement of the black mark on the thermal side of the paper.
For more information about the use of paper with black mark see chapter 7.
All the dimensions shown in following figure are in millimetres.



NOTE:
Paper width 58 mm and 60 mm are available only with adapter paper guide provided as accessory (see chapter 11).

9.6 Character sets in CUSTOM/POS emulation

The printer has 3 internal fonts with a width of 11, 15, 20 cpi, which can be associated with one of the coding tables stored on the device.

To know the coding tables actually stored on the device, print the font test (see paragraph 3.5).

The selection of the font and the encoding table is done via command (see the commands manual of the device) or through the Setup procedure by properly setting the parameter “Chars / Inch”, “Code Table” and “Chinese Font” (see paragraph 6.7).

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

<CodeTable>	Character Tables	
0	PC437 - U.S.A., Standard Europe	
1	Katakana	
2	PC850 - Multilingual	
3	PC860 - Portuguese	
4	PC863 - Canadian/French	
5	PC865 - Nordic	
11	PC851 - Greek	on request
12	PC853 - Turkish	on request
13	PC857 - Turkish	
14	PC737 - Greek	
15	ISO8859-7 - Greek	on request
16	WPC1252	
17	PC866 - Cyrillic 2	
18	PC852 - Latin 2	
19	PC858 for Euro symbol at 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>	Character Tables	
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 - Farci	
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 - Kazakhstan	
255	Space page	

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.

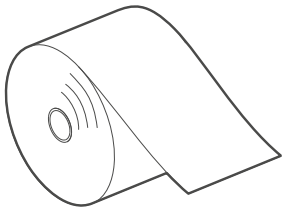
10 CONSUMABLES

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

67300000000406

THERMAL PAPER ROLL

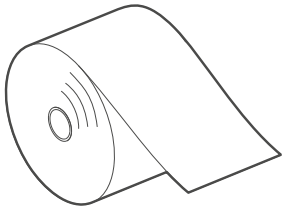
weight = 55 g/m²
width = 80 mm
Ø external = 90 mm
Ø core = 25 mm



67300000000009

THERMAL PAPER ROLL

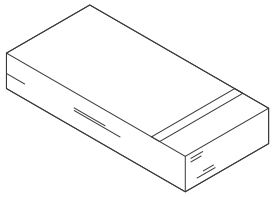
weight = 60 g/m²
width = 80 mm
Ø external = 100 mm
Ø core = 25 mm



67A00000000305

FAN-FOLD

weight = 255 g/m²
dimensions = 155 mm x 65 mm

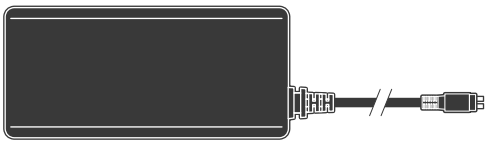


11 ACCESSORIES

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

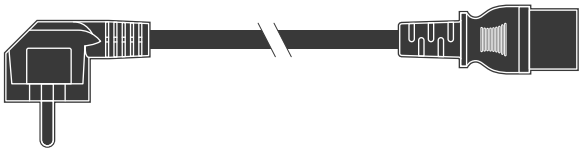
963GE020000071

POWER SUPPLY
(for technical specifications, see paragraph 9.1)



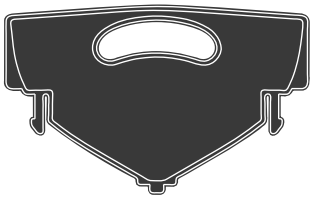
26100000000311

POWER CORD SCHUKO PLUG
length = 2 m
(see paragraph 9.1)



21400000000193

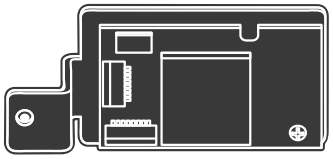
PAPER WIDTH ADAPTER
for 58 mm and 60 mm paper width



K3 HS, K3 HS LF

979HM020000004

KIT Wi-Fi BOARD



12 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 3.4). The firmware release number (SCODE) can be found:

- on the setup report (see paragraph 6.2)
- connecting the device to a PC and starting the “PrinterSet” tool (see paragraph 6.1)
- by consulting the “setup.ini” file (see paragraph 6.3).

Part Number : 7620000004500 Rev. 4.00

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